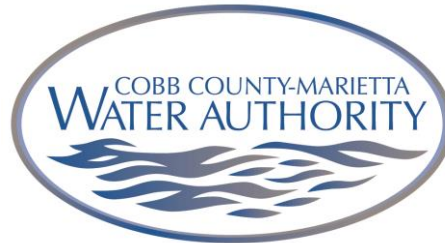


**Construction Documents**

**For**

**Blackjack Mountain  
36-Inch Pipeline Replacement**

**Owner:**



**Cobb County-Marietta Water Authority  
1170 Atlanta Industrial Drive  
Marietta, Georgia 30066**

**Issued for Bid  
April 2020**

**Engineers:**



3/12/20



**Freese and Nichols, Inc.  
360 Interstate North Parkway, Suite 250  
Atlanta, GA 30339  
(404) 334-4310**





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**DIVISION 00**  
**GENERAL PROVISIONS**



**SECTION 00 11 13**  
**ADVERTISEMENT FOR BID**

Sealed Bids will be received by the Cobb County-Marietta Water Authority at 1170 Atlanta Industrial Drive, Marietta, Georgia 30066 until:

11:00 AM, local prevailing time  
on  
Tuesday, April 28<sup>th</sup>, 2020

for the Project known as:

**BLACKJACK MOUNTAIN, 36-INCH WATER MAIN REPLACEMENT**

at which time and place the Bids will be publicly opened and read aloud. Bids received after the designated time will not be considered. The Owner of the project is Cobb County-Marietta Water Authority. The Engineer for the Project is Freese and Nichols, Inc. Bid opening time is subject to extension pursuant to O.C.G.A Section 36-91-20(d).

**Only those contractors that are pre-qualified with the Cobb County-Marietta Water Authority to construct 36" diameter water mains at the time of the first publication of this notice will be allowed to receive plans and specifications and bid this project.**

The approximate extent and character of the Work is generally described as follows:

Installation of approximately 32,500 LF of 36-inch zinc-coated ductile iron pipe (DIP) to replace an existing 30-inch prestressed concrete cylinder pipe.

Bidders shall inform themselves concerning Georgia Laws and comply with same.

A mandatory Pre-Bid Conference will be held for all Bidders at the Cobb County-Marietta Water Authority at 1170 Atlanta Industrial Drive, Marietta, Georgia 30066 on Tuesday, April 14, 2020, at 11:00 AM.

Advertisement and bid phase information for the Project can be found at the following web site:

<http://construction.freese.com>

Contract Documents may be downloaded or viewed free of charge at this web site. It is the downloader's responsibility to determine that a complete set of documents, as defined in the Instructions to Bidders are received. Printed copies of the Contract Documents may be purchased at the website for the cost of printing. The cost for printed Contract Documents is not refunded.

This web site will be updated periodically with addenda, plan holders list, bid tabulations, additional reports or other information relevant to bidding the Project. All questions must be submitted on this site, on or before April 17, 2020. Any questions regarding distribution of

Contract Documents for this project should be directed to Freese and Nichols, Mr. Ryan Ellena, P.E. ([ryan.ellena@freese.com](mailto:ryan.ellena@freese.com)).

By obtaining the Contract Documents, purchaser agrees to have its company name, address, phone and fax numbers published as a plan holder.

The Owner is not obligated to consider a Bidder's proposal, if Bidder is not on record with the Issuing Office as having received a complete set of Bidding Documents from the Issuing Office.

The time allowed for Substantial Completion is 910 consecutive calendar days, and the time allowed for final completion and readiness for final payment is 970 consecutive calendar days from the date of commencement.

Each bid must be submitted on the bid form in the contract documents, in accordance with the Instructions to Bidders. No interlineations, additions or deletions shall be made in the bid form by the Bidder. Each bid must be accompanied by a Bid Bond with good and sufficient surety or sureties approved by the Owner for faithful acceptance of the contract, payable to, in favor of, and for the protection of the Owner in an amount equivalent to five percent (5%) of the total amount payable by the terms of the contract or, in lieu thereof, a certified check, cashier's check, or cash in equal amount. Each Bid must also be accompanied by a notarized non-collusion affidavit for the Bidder. Out-of-state corporations and other entities must submit evidence of authority to conduct business in Georgia as an out-of-state entity.

Each Bidder must be a State of Georgia licensed Utility Contractor at the time of the Bid.

The Owner will in no way be liable for any costs incurred by any Bidder in the preparation of its Bid in response to this Advertisement for Bid.

The successful Bidder will be required to furnish performance and payment bonds with the executed Agreement meeting the requirements of the Contract Documents and executed on the forms attached to the Agreement. The successful Bidder will also be required to furnish an oath pursuant to O.C.G.A. §36-91-21 from every person who procures the Agreement. The terms and time for payment are set forth in the Agreement.

All Bids will remain subject to acceptance for sixty days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to that date.

The Owner reserves the right to reject all Bids, to waive informalities and re-advertise.

Cobb County-Marietta Water Authority  
Glenn M. Page, P.E.  
General Manager

**\*\*END OF SECTION\*\***

**SECTION 00 21 13**  
**INSTRUCTIONS TO BIDDERS**

**1. Defined Terms**

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

Certain additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

1.1. Bidder - one who submits a Bid directly to Owner as distinct from a sub-bidder, who submits a bid to a Bidder.

1.2. Issuing Office - the office named in the Advertisement for Bid from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

1.3. Successful Bidder - the lowest, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

1.4. Owner - Cobb County-Marietta Water Authority (CCWMA), party of the first part to the Contract Agreement, or its authorized and legal representatives.

1.5. Engineer - The individual or entity named as such in the Advertisement for Bids and Agreement.

1.6. Contractor - the party of the second part to the Contract Agreement or the authorized and legal representative of such party.

1.7. Work and Project - shall mean the entire complete construction required to be furnished under the Contract Documents.

1.8. Products - shall mean materials or equipment permanently incorporated into the Project.

1.9. Provide - shall mean to furnish and install.

**2. Copies of Bidding Documents**

2.1. Complete sets of the Bidding Documents may be obtained from the Issuing Office. Bidding Documents are open for inspection to prospective bidders at the Issuing Office for the purpose of review in order to determine if the prospective bidders wish to obtain Bidding Documents.

2.2. Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents, whether obtained from the Owner, Engineer, Issuing Office, or other sources.

2.3. Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

**3. Qualifications of Bidders**

3.1. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract. Bidder must submit completed Bidder's Experience Record with the Bid. Bidder must be pre-qualified with CCMWA for 36-inch pipeline construction at the time of advertisement.

3.2. Owner reserves the right to reject any Bidder who does not satisfy the Owner as to its ability to successfully perform the Work.

3.3. Previous pre-qualification notwithstanding, the Owner reserves the right to require submittal of Contractor's updated financial data, work load, key personnel, etc., and to reject any Bidder who fails to satisfy the Owner as to its ability to successfully perform the Work.

3.4. The Bidder will be required to provide evidence of compliance with the requirements of O.C.G.A. 43-14 and O.C.G.A. 43-41 (Construction Industry Licensing Board Acts and Rules and Regulations) with respect to the requirements of the code. Bidder shall provide copy of the bidder's current registration with the Secretary of State as a corporation or Limited Liability Company; the license required under O.C.G.A. 43-14 and/or O.C.G.A. 43-41 must match the name of the bidder in the current registration with the Secretary of State.

3.5. The Owner may make such investigations as it deems necessary to determine the ability of the Bidder to perform the work and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request, including information on subcontractors that are intended to perform work on the project. By submission of his bid the Bidder acknowledges the right of the Owner to make such investigations, to contact references and utilize this information as a basis of determining award of the contract. The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.

3.6. The Contractor shall perform a minimum of 50 percent of the onsite labor with its own employees.

#### **4. Examination of Contract Documents and Site**

4.1. It is the responsibility of each Bidder before submitting a Bid:

4.1.1. To examine thoroughly the Contract Documents and other related data identified in the Bidding Documents (including "technical data" referred to below);

4.1.2. To visit the site to become familiar with and satisfy Bidder as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work;

4.1.3. To consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;

4.1.4. To study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data; and

4.1.5. To promptly notify Engineer of all conflicts, errors, ambiguities or discrepancies which Bidder has discovered in or between the Contract Documents and such other related documents.

4.2. Reference is made to the Supplementary Conditions for identification of:

4.2.1. Those reports of explorations and tests of subsurface conditions at or contiguous to the site which have been utilized by Engineer in preparation of the Contract Documents. Bidder may rely upon the general accuracy of the "technical data" contained in such reports but not upon other data, interpretations, opinions or information contained in such reports or otherwise relating to the subsurface conditions at the site, nor upon the completeness thereof for the purposes of bidding or construction.

4.2.2. Those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the



site that have been utilized by Engineer in preparation of the Contract Documents. Bidder may rely upon the general accuracy of the "technical data" contained in such drawings but not upon other data, interpretations, opinions or information shown or indicated in such drawings or otherwise relating to such structures, nor upon the completeness thereof for the purposes of bidding or construction.

4.2.3. Copies of such reports and drawings will be made available for review to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph SC-4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

4.3. Information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities or others, and Owner and Engineer do not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

4.4. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Contract Documents due to differing or unanticipated conditions appear in Paragraphs 4.02 and 4.03 of the General Conditions.

4.5. Before submitting a Bid each Bidder will be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface

and Underground Facilities) at or contiguous to the site or otherwise, which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.6. On request, Owner will provide each Bidder access to the site to conduct such examinations, investigations, explorations, tests and studies as each Bidder deems necessary for submission of a Bid. Bidder must fill all drilled or augured holes with a neat cement grout and clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests and studies.

4.7. Reference is made to the Supplementary Conditions for the identification of the general nature of any work that is to be performed at the site by Owner or others (such as utilities and other prime contractors) that relates to the work for which a Bid is to be submitted. On request, Owner will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such work.

4.8. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities and discrepancies that Bidder has discovered in the Contract Documents and the

written resolutions thereof by Engineer is acceptable to Bidder, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

4.9. The provisions of ITB-4.1 through 4.8, inclusive, do not apply to Asbestos, Polychlorinated biphenyls (PCBs), Petroleum, Hazardous Waste or Radioactive Material covered by Paragraph 4.06 of the General Conditions.

## **5. Availability of Lands for Work, etc.**

The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

## **6. Interpretations and Addenda**

6.1. All questions about the meaning or intent of the Bidding Documents are to be directed to Engineer. Every request for such interpretation and all questions must be made in writing and addressed to Freese and Nichols, Inc., Attention: Ryan Ellena, P.E., 360 Interstate North Parkway, Suite 250 Atlanta, GA 30339. In lieu of mail, questions may be made by email to [ryan.ellena@freese.com](mailto:ryan.ellena@freese.com). Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addendum mailed or delivered to all parties recorded by Issuing Office as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Engineer.

6.3. Failure of any Bidder to receive any such addendum or interpretations shall not relieve such bidder from any obligation under his Bid as submitted.

6.4. Failure of any Bidder to acknowledge any such addendum or interpretations shall not relieve such Bidder from any obligation under his Bid as submitted, if Bidder has knowledge of any such addendum, or interpretations. If Bidder has knowledge of any such addendum or interpretation but fails to acknowledge, this will be considered an informality.

## **7. Bid Security**

7.1. Each Bid must be accompanied by a Bid Bond (on the form attached) with good and sufficient surety or sureties approved by the Owner and meeting the requirements of Paragraph 5.01 of the General Conditions, for faithful acceptance of the contract, payable to, in favor of, and for the protection of the Owner in an amount equivalent to five percent (5%) of the total amount payable by the terms of the contract, in lieu thereof, in the form of a certified check, cashier's check, or cash in equal amount. Bidders who submit Bid Security in the form of a certified check, cashier's check, or cash are bound by the "Terms of Bid Bond" as if submitted on the attached "Bid Bond" form.

7.2. The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement, furnished the required contract security and Certifications of Insurance and met the other conditions of the Notice of Award, whereupon the Bid Security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within fifteen days after the Notice of Award, Owner may annul the Notice of Award and Bid Security of that Bidder will be forfeited. The Bid Security of other Bidders whom Owner believes to have a reasonable chance of

receiving the award may be retained by Owner until the earlier of the seventh day after the Effective Date of the Agreement or the sixtieth day after the Bid opening whereupon Bid Security furnished by such Bidders will be returned. Bid Security with Bids which are not competitive will be returned within seven days after the Bid opening, if requested by the respective Bidder. The name of the company on the Certification of Insurance must match current registration with the Secretary of State.

7.3. Failure of Bidder to provide qualification information, if requested, within 10 days of notification of request, shall be grounds for forfeiting of the Bid Security of that Bidder.

## **8. Contract Times**

The number of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the term "Contract Times" is defined in paragraph 1.01. A.14. of the General Conditions) are set forth in the Agreement and incorporated therein by reference in the attached Bid Form.

## **9. Liquidated Damages**

Provisions for liquidated damages are set forth in the Agreement.

## **10. Substitute and "Or Equal" Items**

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or equal" items which have not received approval of the Engineer. The procedure and timing for submission of any substitution by Contractor and consideration by Engineer is set forth in Paragraph 6.05 of the General Conditions.

## **11. Subcontractors, Suppliers and Others**

11.1. The Contractor shall perform a minimum of 50 percent of the onsite labor

with its own employees. If the General Conditions or Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening (or other date as may be specified by General Conditions or Supplementary Conditions) submit to Owner a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person or organization if requested by Owner. Owner or Engineer who after due investigation has reasonable objection to any proposed Subcontractor, Supplier, other person or organization, may before the Notice of Award is given request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit an acceptable substitute, provided that Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution and Owner may consider such price adjustment in evaluating Bids and making the contract award.

11.2. If apparent Successful Bidder declines to make any such substitution, Owner may award the contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any Bidder. Any Subcontractor, Supplier, other person or organization submitted to Owner and Engineer by Bidder and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will

be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06B of the General Conditions.

## **12. Bid Form**

12.1. The Bid Form is included with the Bidding Documents.

12.2. All blanks on the Bid Form must be completed by printing in ink or by typewriter.

12.3. Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature and the signature shall be in blue ink. The name of the bidder must match the current registration with the Secretary of State. Bids submitted with a bidder's name shown as "Doing Business As" without an official corporation name currently registered with the Secretary of State shall not be accepted.

12.4. Bids by partnerships and Limited Liability Companies (LLCs) must be executed in the partnership or LLC name and signed in blue ink by a partner, whose title must appear under the signature and the official address of the partnership or LLC must be shown below the signature. The name of the bidder must match the current registration with the Secretary of State. A seal is not required for partnerships or LLCs. Bids submitted with a bidder's name shown as "Doing Business As" without an official partnership or LLC name currently registered with the Secretary of State shall not be accepted.

12.5. All names must be typed or printed in ink below the signature.

12.6. The Bid shall contain an acknowledgement of receipt of all Addenda

(the numbers of which must be filled in on the Bid Form).

12.7. The address and telephone number for communications regarding the Bid must be shown.

12.8. Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed shall be provided with the Bid Form.

12.9. Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his address, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form. Any bid which is not properly prepared and accompanied by required certifications may be rejected by the Owner.

## **13. Submission of Bids**

Bids shall be submitted at the time and place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of Bidder, and accompanied by the Bid security, Contractor's License Certification, Non-collusion Affidavit of Bidder, Bid Form, Corporate Certificate, and other required documents for a complete, responsive and responsible bid. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

## **14. Modification of Bids**

14.1. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the closing time.

## **15. Opening of Bids**

15.1. Bids will be opened and (unless obviously non-responsive) read aloud publicly at the place where Bids are to be submitted. An abstract of the amounts of the base Bids and major alternates (if any) will be made available to Bidders after the effective date of the Contract.

15.2. The Owner is not obligated to consider a Bidder's proposal, if Bidder is not on record with the Issuing Office as having attended the Pre-Bid Conference and received complete Bidding Documents from the Issuing Office.

15.3. No bid shall be considered unless a proper bid bond or other security authorized in Paragraph 7 of these Instructions to Bidders is submitted.

## **16. Bids to Remain Subject to Acceptance**

All Bids will remain subject to acceptance for sixty days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to that date. Owner shall release any Bid and return the Bid Security if a Bidder requests the withdrawal of its Bid and basis of withdrawal is in accordance with O.C.G.A. § 36-91-52.

## **17. Award of Contract**

17.1. Owner reserves the right to reject all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced or conditional Bids and to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Owner also reserves the right to waive all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder. In

the event a Bid is rejected by Owner or a Bidder is permitted by Owner to withdraw its Bid, Owner reserves the right to preclude such Bidder from resubmitting a Bid at any subsequent re-bidding of the Work. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

17.2. In evaluating Bids, Owner will consider the qualifications of Bidders, whether or not the Bids comply with the prescribed requirements as indicated in the Advertisement for Bid, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award. Conditional Bids will not be accepted.

17.3. Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

17.4. Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

17.5. If the contract is to be awarded, it will be awarded to the responsible and responsive

Bidder submitting the lowest Bid whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.

17.6. If the contract is to be awarded, Owner will give Successful Bidder a Notice of Award within sixty days after the day of the Bid opening.

## **18. Contract Security**

Paragraph 5.01 of the General Conditions and the Supplementary Conditions set forth Owner's requirements as to Performance and Payment Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by the required Performance and Payment Bonds in the form as shown on Exhibits B and C of the Contract Documents.

## **19. Signing of Agreement**

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within fifteen days thereafter Contractor shall sign and deliver the required number of counterparts of the Agreement, Contractor Affidavit and Agreement, Subcontractor Affidavit(s) and Agreement(s), and attached documents to Owner with the required Bonds and Certification of Insurance. Within fifteen days of the Owner's receipt from the Contractor of the following documents in proper form: the required number of executed counterparts of the Agreement, the Bonds, the oath pursuant to O.C.G.A. § 36-91-21(e), the Certification of Insurance, and any other documents required by the Bidding Requirements, Owner shall deliver one fully signed counterpart to the Contractor. Each counterpart is to be accompanied by a complete set of the Drawings with appropriate identification. The name of the company on the Certification of Insurance must match current registration with the Secretary of State.

## **20. Laws and Regulations**

All applicable federal and state laws, municipal ordinances, and rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

## **21. Security and Immigration Act**

21.1 Contractors and Subcontractors who enter into contracts with public employers are required to register and participate in the Federal Work Authorization Program to verify work eligibility information of new employees. Bidders are required to fill out the following forms located in the Bidding Documents attesting to their status under this program and that they will pass on the same requirements to their Subcontractors as required by OCGA 13-10-90 and 13-10-91; GA Department of Labor 300-10-1:

21.1.1 Affidavit Verifying Status for Cobb County-Marietta Water Authority;

21.1.2 Security and Immigration Compliance Act Certification.

21.2 Pursuant to Code of Georgia 13-10-90 et. seq., the Georgia Security and Immigration Compliance Act of 2006, the following forms located in the Bidding Documents shall be completed prior to Award:

21.2.1 Contractor Affidavit and Agreement;

21.2.2 Subcontractor and Sub-subcontractor Affidavit and Agreement.

21.3 Contractor understands and agrees that compliance with the requirements of OCGA 13-10-90, OCGA 13-10-91, and Georgia Department of Labor Rule 300-10-1 are conditions of this Agreement.

21.4 Contractor further agrees that such compliance shall be attested by Contractor and its Subcontractors and Sub-subcontractors by execution of the appropriate Contractor Affidavit and Agreement and Subcontractor Affidavit forms included in the Contract Documents.

## **22. Pre-Bid Conference**

22.1 A mandatory Pre-Bid Conference will be held for all Bidders at 1170 Atlanta Industrial Drive, Marietta, Georgia 30066 on Tuesday, March 31<sup>st</sup>, 2020, at 11:00 AM. Attendance is mandatory for all bidders.

22.2 All bidders submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the bidder's bid. No one individual is permitted to represent more than one bidder at the pre-bid meeting. Any individual that does attempt to represent two or more bidders will be required to select one bidder to which the individual's attendance will be attributed. The bidders not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf. The required attribution of attendance to a single bidder should be addressed during the pre-bid meeting but may occur at any time deemed appropriate by Owner.

22.3 An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a bidder must list on the attendance sheet his or her name and the name of the bidder he or she is representing.

22.4 Additionally, the person attending the pre-bid meeting should include the bidder's e-mail address and phone number on the attendance sheet. It is the bidder's responsibility to locate the attendance sheet and provide the required information. Failure

to complete the attendance sheet as required shall result in disqualification of bidder's bid. All bidders should arrive prior to the starting time for the pre-bid meeting. Bidders who arrive after the starting time but prior to the end of the pre-bid meeting will be permitted to sign in but are charged with knowing all matters discussed during the entirety of the pre-bid meeting.

END OF SECTION





**SECTION 00 31 46  
PERMITS AND EASEMENTS**

1 GENERAL

1.1 GENERAL

The following tables contain information about the status of the permits and easements that are to be obtained by the Owner for this project. Refer to Project Manual appendices for additional information. Reference Appendix D for project easements.

**Permits**

<b>Item No.</b>	<b>Permit or Easement</b>	<b>Status</b>	<b>Expected Approval or Acquisition Date</b>	<b>Notes</b>
1	Cobb County Community Development	Submitted. Final approval will not be given until Contractor's submittal of Stormwater NOI.	Upon contract award and Contractor submittal of NOI to Georgia EPD and Cobb County Community Development.	N/A
2	Cobb County Department of Transportation	Road, lane closure, MOT, utility and other permits to be prepared and submitted by Contractor.	By Contractor.	Road closure permits anticipated for Holt Road, Bentley Lake Road, Old Canton Road, and Barnes Mill Road
3	Georgia Department of Transportation	Utility crossing of Roswell Road – permit application submitted	Upon contract award	N/A
4	US Army Corps of Engineers – Nationwide 404 Permit	Pre-construction notification submitted.	No approval required.	N/A
5	Georgia EPD	Pre-construction notification to be submitted.	No approval required.	N/A
6	City of Marietta Utility Construction Permit	Permit application submitted	Upon contract award	N/A
7	City of Marietta Lane Closure Permit	Road, lane closure, MOT, utility and other permits to be prepared and submitted by Contractor.	By Contractor.	Road closure permits anticipated for Barnes Mill Road and full road closures.
8	Georgia Power Encroachment Permit	Submitted. Waiting on final approval from GA Power.	Acquired. See Appendix C.	



**SECTION 00 41 13  
BID FORM**

PROJECT IDENTIFICATION:

Cobb County-Marietta Water Authority  
Blackjack Mountain 36-Inch Pipeline Replacement

THIS BID IS SUBMITTED TO:

Cobb County-Marietta Water Authority  
1170 Atlanta Industrial Drive  
Marietta, Georgia 30066

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2. Bidder accepts all of the terms and conditions of the Advertisement for Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the day of Bid opening. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds, Certifications of Insurance, and other documents required by the Bidding Requirements within 15 days after the date of Owner's Notice of Award.

3. In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

- (a) Bidder has examined and carefully studied the Bidding Documents and the following Addenda receipt of all of which is hereby acknowledged: (List Addenda by Addendum Number and Date)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- (b) Bidder has visited the site and is familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work, and bidder has not relied upon any oral representations by employees or agents of Owner or Engineer.
- (c) Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- (d) Bidder has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site which have been identified in the Supplementary Conditions as provided in paragraph 4.02.A of the General Conditions. Bidder accepts the determination, if any, set forth in paragraph SC-4.02. A of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which Bidder is entitled to rely as provided in paragraph 4.02 of the

General Conditions. Bidder acknowledges that such reports and drawings are not Contract Documents and may not be complete for Bidder's purposes. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.

- (e) Bidder is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
  - (f) Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
  - (g) Bidder has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
  - (h) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
4. Instructions for unit price bid form: For each Bid item, Bidders shall enter a price for each single unit, then multiply by the estimated quantity shown and enter the total amount in the space indicated in numerals. Also write out in words each Bid Item Unit Price in the space provided. Bidder acknowledges that estimated quantities are not guaranteed, and final payment will be based on actual quantities determined in accordance with the Contract Documents. The Project will be awarded in one contract on the basis of the lowest Total Bid or lowest Alternate Bid if requested in the Bid Form, as determined by Owner to be in Owner's best interest.
5. As defined in Division 01, General Requirements, Bidder shall complete the Work in accordance with the Contract Documents for the following bid prices:

**COBB COUNTY-MARIETTA WATER AUTHORITY  
BLACKJACK MOUNTAIN, 36-INCH PIPELINE REPLACEMENT  
BID PROPOSAL**

ITEM NO.	M&P ITEM	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE BID	EXTENDED AMOUNT
<b>UNIT PRICE ITEMS</b>						
1	2.1	Water Mains 8" DIP, Zinc Coated, PC 350	600	LF	\$	\$
2	2.1	Water Mains 12" DIP, Zinc Coated, PC 350	1,020	LF	\$	\$
3	2.1	Water Mains 30" DIP, Zinc Coated, PC 200	400	LF	\$	\$
4	2.1	Water Mains 36" DIP, Zinc Coated, PC 200	7,300	LF	\$	\$
5	2.1	Water Mains 36" DIP, Zinc Coated, PC 250	25,100	LF	\$	\$
6	2.2	Restrained Joints / Manufacturer's Pipe Gasket 8"	30	EA	\$	\$
7	2.2	Restrained Joints / Manufacturer's Pipe Gasket 12"	60	EA	\$	\$
8	2.2	Restrained Joints / Manufacturer's Pipe Gasket 30"	40	EA	\$	\$
9	2.2	Restrained Joints / Manufacturer's Pipe Restraint 36"	500	EA	\$	\$
10	2.2	MJ Fitting, Retainer Gland 8"	160	EA	\$	\$
11	2.2	MJ Fitting, Retainer Gland 12"	100	EA	\$	\$
12	2.2	MJ Fitting, Retainer Gland 30"	40	EA	\$	\$
13	2.2	MJ Fitting, Retainer Gland 36"	270	EA	\$	\$
14	2.3	Ductile Iron Fittings, Zinc Coated	310,000	LB	\$	\$
15	2.4	48" Steel Casing Pipe - Open Cut	250	LF	\$	\$
16	2.5	48" Steel Casing Pipe - Jack & Bore	200	LF	\$	\$
17	2.6	Casing Spacers	60	EA	\$	\$
18	2.7	Valves 8" Gate Valve, MJ x MJ	30	EA	\$	\$
19	2.7	Valves 12" Gate Valve, MJ x MJ	15	EA	\$	\$
20	2.7	Valves 36" Gate Valve, MJ x MJ	10	EA	\$	\$
21	2.7	Valves 8" Butterfly Valve, MJ x MJ	10	EA	\$	\$
22	2.7	Valves 12" Butterfly Valve, MJ x MJ	3	EA	\$	\$
23	2.8	Pipe Outlets 4" Flanged Radial Welded-on Outlet on 36" DIP	20	EA	\$	\$
24	2.9	Sample Test Connection	28	EA	\$	\$
25	2.10	6" Air & Vacuum Valve (AVV and Isolation Gate Valve)	22	EA	\$	\$
26	2.11	Valve Markers	15	EA	\$	\$
27	2.12	Valve Boxes	15	EA	\$	\$

ITEM NO.	M&P ITEM	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE BID	EXTENDED AMOUNT
28	2.13	Polyethylene Encasement, 8" Double Encasement	600	LF	\$	\$
29	2.13	Polyethylene Encasement, 12" Double Encasement	1,020	LF	\$	\$
30	2.13	Polyethylene Encasement, 30" Double Encasement	500	LF	\$	\$
31	2.13	Polyethylene Encasement, 36" Double Encasement	32,400	LF	\$	\$
32	2.14	Bonded Joints, Two Cables Each	2,190	EA	\$	\$
33	2.15	Cathodic Test Station	51	EA	\$	\$
34	2.16	8" Marietta Water Connection (Segment A STA 49+50)	1	LS	\$	\$
35	2.16	12" CCWS Connection (Segment A STA 54+50)	1	LS	\$	\$
36	2.16	8" CCWS Connection (Segment A STA 92+68)	1	LS	\$	\$
37	2.16	8" CCWS Connection (Segment A STA 142+05)	1	LS	\$	\$
38	2.16	30" CCMWA Connection Segment A STA 244+03)	1	LS	\$	\$
39	2.16	30" CCMWA Connection (Segment B STA 1+00)	1	LS	\$	\$
40	2.16	30" CCMWA Connection (Segment B STA 15+11)	1	LS	\$	\$
41	2.16	30" CCMWA Connection (Segment B STA 22+48)	1	LS	\$	\$
42	2.16	8" Marietta Water Connection (Segment B STA 23+79)	1	LS	\$	\$
43	2.16	30" CCMWA Connection (Segment B STA 82+17)	1	LS	\$	\$
44	2.17	Blackjack GST Control Valve and Vault (Segment B STA 78+75)	1	LS	\$	\$
45	2.18	Barnes Mill Meter Replacement (Segment B STA 1+00)	1	LS	\$	\$
46	2.19	Bonnie Dell Meter Replacement (Segment B STA 23+80)	1	LS	\$	\$
47	2.20	Marker Ball Locator Instrument	2	EA	\$	\$
48	2.21	Marker Ball and Installation on Existing Water Main to be Abandoned	160	EA	\$	\$
49	2.22	Marker Ball and Installation on New Water Main	770	EA	\$	\$
50	2.23	Concrete Manhole Assembly, 4' Diameter (Double MH BOV)	22	EA	\$	\$
51	2.23	Concrete Manhole Assembly, Extra Payment for Sections Exceeding Ten VF, 4' Diameter	11	EA	\$	\$
52	2.23	Concrete Manhole Assembly, 6' Diameter (6" Air & Vacuum Valve and Single MH BOV)	33	EA	\$	\$
53	2.23	Concrete Manhole Assembly, Extra Payment for Sections Exceeding Ten VF, 6' Diameter	21	VF	\$	\$
54	2.23	Concrete Manhole Assembly, 8' Diameter, for Gate Valves and Double BOV	11	EA	\$	\$
55	2.23	Concrete Manhole Assembly, Extra Payment for Sections Exceeding Ten VF, 8' Diameter	19	VF	\$	\$
56	2.24	Flowable Fill Encasement	500	CY	\$	\$
57	2.25	#57 Pipe Bedding and Subgrade Stabilizer Stone	26,000	TON	\$	\$
58	2.26	Miscellaneous Concrete	50	CY	\$	\$

ITEM NO.	M&P ITEM	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE BID	EXTENDED AMOUNT
59	2.27	Miscellaneous Reinforcing Steel	5,000	LB	\$	\$
60	2.28	Tree Save Fence	49,000	LF	\$	\$
61	2.29	Temporary Silt Fence (Sd1-S)	14,000	LF	\$	\$
62	2.29	Temporary Silt Fence (Sd1-Ns)	40,000	LF	\$	\$
63	2.30	Hay Bale Barrier	23	EA	\$	\$
64	2.31	Rip-Rap (12" Thick, Type 1) for Blow-Off Valve Aprons	417	SY	\$	\$
65	2.32	Construction Exit (Co)	30	EA	\$	\$
66	2.33	Straw Mulch Stabilization (Ds1)	180,000	SY	\$	\$
67	2.34	Grassing, Temporary (Ds2)	180,000	SY	\$	\$
68	2.34	Grassing, Permanent (Ds3)	180,000	SY	\$	\$
69	2.35	Erosion Control Matting and Blankets (Sb)	1,000	SY	\$	\$
70	2.36	Inlet Sediment Trap (Sd2)	50	EA	\$	\$
71	2.37	Turbidity Curtain (Tc)	3	EA	\$	\$
72	2.38	NPDES Permit Compliance	1	LS	\$	\$
73	2.39	Remove & Replace Asphalt Golf Cart Path	2,270	SY	\$	\$
74	2.39	Remove & Replace Asphalt Driveways and Parking Lots	5,600	SY	\$	\$
75	2.40	Remove & Replace Gravel Driveways and Parking Lots	160	SY	\$	\$
76	2.40	Installation of BOV Access Gravel Driveways	2,720	SY	\$	\$
77	2.41	Remove & Replace Concrete Sidewalks (4" Thick)	1,300	SY	\$	\$
78	2.42	Remove & Replace Concrete Curb and Gutter	14,000	LF	\$	\$
79	2.43	Paving 1.5 inches of GDOT 9.5 mm Superpave	12,000	SY	\$	\$
80	2.44	Paving Subgrade 12" GDOT GAB	12,260	SY	\$	\$
81	2.44	Paving 8" of 19 mm GDOT Superpave	12,260	SY	\$	\$
82	2.45	Asphalt Pavement Milling (1.5" Depth)	24,600	SY	\$	\$
83	2.46	Paving 1.5 inches of GDOT 12.5 mm Superpave	24,600	SY	\$	\$
84	2.47	Thermoplastic Pavement Marking 6" Skip (2:6) White or Yellow	12,260	LF	\$	\$
85	2.47	Thermoplastic Pavement Marking 6" Solid White or Yellow	12,260	LF	\$	\$
86	2.48	Abandon Existing CCMWA Valve Manhole and Valves	15	EA	\$	\$
87	2.49	Abandon Existing CCMWA Valve Box and Valves	6	EA	\$	\$
88	2.50	Abandon Existing CCMWA Blowoff Valve	2	EA	\$	\$
89	2.51	Grout Fill Abandoned 36" within GA 120 R/W (STA 51+00 to 53+00)	100	CY	\$	\$

ITEM NO.	M&P ITEM	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE BID	EXTENDED AMOUNT
90	2.52	Remove and Dispose of Existing Water Main (PCCP/DIP) and Appurtenances	20,000	LF	\$	\$
91	2.53	Cut and Plug Existing 30" Water Main	52	EA	\$	\$
92	2.54	Remove and Replace Existing Guard Rail	50	LF	\$	\$
93	2.55	Remove and Replace 24" RCP Storm Drain	120	LF	\$	\$
94	2.56	Remove and Replace Catch Basin/Curb Inlet	4	EA	\$	\$
95	2.57	Project Signs	10	EA	\$	\$
96	2.58	Traffic Control	1	LS	\$	\$
97	2.59	Temporary Paving	1	LS	\$	\$
98	2.60	Mobilization	1	LS	\$	\$
<b>UNIT PRICE SUB-TOTAL (ITEMS 1 THROUGH 98)</b>						



ITEM NO.	M&P ITEM	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE BID	EXTENDED AMOUNT
<b>ALLOWANCES</b>						
45	2.1A	Allowance for Force Account Work	1	LS	\$ 2,400,000.00	\$ 2,400,000.00
46	2.2A	Allowance for Materials Testing	1	LS	\$ 200,000.00	\$ 200,000.00
47	2.3A	Allowance for Utility Relocation by Others	1	LS	\$ 200,000.00	\$ 200,000.00
48	2.4A	Allowance for Corrosion Control	1	LS	\$ 100,000.00	\$ 100,000.00
49	2.5A	Allowance for Landscaping	1	LS	\$ 100,000.00	\$ 100,000.00
50	2.6A	Allowance for Traffic Control	1	LS	\$ 100,000.00	\$ 100,000.00
51	2.7A	Allowance for Water Main Disinfection and Dechlorination of Flushing Water	1	LS	\$ 150,000.00	\$ 150,000.00
<b>ALLOWANCE SUB-TOTAL (ITEMS 2.1A THROUGH 2.7A)</b>						<b>\$ 3,250,000.00</b>
<b>TOTAL BASE BID AMOUNT (UNIT PRICE SUB-TOTAL PLUS ALLOWANCE SUB-TOTAL) - Numbered Here (Written in Words Below):</b>						
_____ dollars and _____ cents						

6. Bidder agrees that the Work will be **substantially complete** within **910 consecutive calendar days** after the date when the Contract Times commence to run as provided in paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within **970 consecutive calendar days** after the date when the Contract Times commence to run.

Bidder accepts the provisions of the Agreement as to **Liquidated Damages** in the event of failure to complete the Work within the time(s) specified in the Agreement.

7. The following documents are attached to this Bid Form and are made a condition of this Bid:

(a) **Bid Bond.** The required bid security in the form of bid bond, certified check, cashier's check or cash must be included and attached to the Bid Bond form. Bidders who submit Bid Security in the form of a certified check, cashier's check or cash are bound by the "Terms of Bid Bond".

(b) **Corporate Certificate.**

(c) **Contractor's License Certification.**

(d) **Noncollusion Affidavit of Bidder.**

8. Communications concerning this Bid shall be addressed to:

The address of Bidder indicated below.

BIDDER'S NAME \_\_\_\_\_

Primary Contact Person \_\_\_\_\_

Secondary Contact Person \_\_\_\_\_

Bidder's Street Address \_\_\_\_\_

Bidder's Phone # \_\_\_\_\_

Bidder's Fax # \_\_\_\_\_ (optional)

9. Terms used in this Bid which are defined in the General Conditions or Instructions will have the meanings indicated in the General Conditions or Instructions.

THIS BID SUBMITTED on \_\_\_\_\_, 20\_\_.

If BIDDER is:

An Individual

By \_\_\_\_\_ (SEAL)  
\_\_\_\_\_ (Individual Name)

doing business as: \_\_\_\_\_

Business Address: \_\_\_\_\_  
\_\_\_\_\_

Phone No.: \_\_\_\_\_

A Partnership

By \_\_\_\_\_ (SEAL)  
\_\_\_\_\_ (Firm Name)

\_\_\_\_\_ (General Partner)

Business Address: \_\_\_\_\_

Phone No.: \_\_\_\_\_

A Corporation

By \_\_\_\_\_ (SEAL)  
\_\_\_\_\_ (Corporation Name)

\_\_\_\_\_ (State of Incorporation)

By \_\_\_\_\_ (SEAL)  
\_\_\_\_\_ (Name of person authorized to sign)

\_\_\_\_\_ (Title)

(Corporate Seal)

Attest \_\_\_\_\_

Business address: \_\_\_\_\_  
\_\_\_\_\_

Phone No.: \_\_\_\_\_

Date of Qualification to do business is \_\_\_\_\_

A Joint Venture

By \_\_\_\_\_ (SEAL)  
\_\_\_\_\_ (Name)

\_\_\_\_\_ (Address)

By \_\_\_\_\_ (SEAL)  
\_\_\_\_\_ (Name)

\_\_\_\_\_ (Address)

Phone Number and Address for receipt of official communications

\_\_\_\_\_  
\_\_\_\_\_

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above).

**END OF SECTION**



**SECTION 00 43 13  
BID BOND**

**PENAL SUM FORM**

**BIDDER** *(Name and Address):*

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**SURETY** *Name and Address of Principal Place of Business):*

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**OWNER:**

Cobb County-Marietta Water Authority  
1170 Atlanta Industrial Dr.  
Marietta, Georgia 30066

**BID**

BID DUE DATE: 04/28/2020, 11:00 AM

PROJECT:  
BLACKJACK MOUNTAIN 36-INCH PIPELINE REPLACEMENT

Installation of approximately 32,500 LF of 36-inch zinc-coated ductile iron pipe (DIP) to replace an existing 30-inch pre-stressed concrete cylinder pipe.

**BOND**

BOND NUMBER \_\_\_\_\_

DATE: *(Not later than Bid Due Date):* \_\_\_\_\_

PENAL SUM: **5 PERCENT OF BASE BID**

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the following terms hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

**TERMS OF BID BOND**

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents the executed Agreement required by the Bidding Documents, any performance and

payment bonds, and Certification of Insurance required by the Bidding Documents and Contract Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents, any performance and payment bonds and Certification of Insurance required by the Bidding Documents and Contract Documents, or

3.2 All bids are rejected by Owner, or

3.3 Owner fails to issue a notice of award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue notice of award agreed to in writing by Owner and Bidder, provided that the time for issuing notice of award including extensions shall not in the aggregate exceed 60 days from the Bid Due Date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety, and in no case later than one year after Bid Due Date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notice required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirements of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of the Bond conflicts with any applicable provision of any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "bid" as used herein includes a bid, offer or proposal as applicable.

Witness as to Principal:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
(signature )

By: \_\_\_\_\_(SEAL)  
(signature)

Title: \_\_\_\_\_

Witness as to Surety:

\_\_\_\_\_  
Surety

\_\_\_\_\_  
(signature )

By: \_\_\_\_\_  
Attorney-in-Fact (signature)

\_\_\_\_\_  
Address of Attorney-in-Fact

END OF SECTION





**SECTION 00 45 19**  
**Non-Collusion Affidavit of Bidder**

STATE OF GEORGIA

COUNTY OF COBB

\_\_\_\_\_, being first duly sworn, deposes and says that:

He or she is \_\_\_\_\_ of  
(Owner, Partner, Officer, Representative or Agent)

\_\_\_\_\_, the Bidder that has submitted the attached Bid;

He or she is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

Such Bid is genuine and is not a collusive or sham Bid;

Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this Affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Cobb County-Marietta Water Authority or any person interested in the proposed Contract; and

The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this Affiant.

(Signed) \_\_\_\_\_

(Title) \_\_\_\_\_

Subscribed and Sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Notary Public) (signature) My Commission Expires: \_\_\_\_\_

(SEAL)



**SECTION 00 45 43  
CORPORATE CERTIFICATE**

I, \_\_\_\_\_, certify that I am the Secretary of the Corporation named as Bidder in the foregoing Bid; that \_\_\_\_\_, who signed said Bid on behalf of the Contractor was then \_\_\_\_\_ of said Corporation; that said Bid was duly signed for and on behalf of said Corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said Corporation is organized under the laws of the State of \_\_\_\_\_.

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Corporate  
Secretary:

\_\_\_\_\_

*(name signed)*

\_\_\_\_\_

*(name printed or typed)*

(SEAL)

END OF SECTION



**SECTION 00 45 44**  
**CONTRACTOR LICENSE CERTIFICATION**

Bidder/Contractor's Name: \_\_\_\_\_

Georgia Utility Contractor's License Number: \_\_\_\_\_

Expiration Date of License: \_\_\_\_\_

Georgia General Contractor's License Number: \_\_\_\_\_

Expiration Date of License: \_\_\_\_\_

I certify that the above information is true and correct and that the classification noted is applicable to the Bid for this Project.

BIDDER: \_\_\_\_\_

By: \_\_\_\_\_

*(name signed)*

\_\_\_\_\_  
*(name printed or typed)*

Title: \_\_\_\_\_

Date: \_\_\_\_\_

END OF SECTION



**SECTION 00 45 46**  
**Affidavit Verifying Status**  
**For Cobb County-Marietta Water Authority**  
**Public Benefit Application**

By executing this affidavit under oath, as an applicant for a Cobb County-Marietta Water Authority contract or other public benefit as referenced in O.C.G.A. § 50-36-1, I am stating the following with respect to my application for a Cobb County-Marietta Water Authority contract or other public benefit:

1) \_\_\_\_\_ I am a United States citizen

**OR**

2) \_\_\_\_\_ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.\*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant:

Date:

\_\_\_\_\_

\_\_\_\_\_

Printed Name:

\_\_\_\_\_

\*

\_\_\_\_\_  
Alien Registration Number for non-citizens

SUBSCRIBED AND SWORN BEFORE  
ME ON THIS THE \_\_\_\_\_ DAY OF  
\_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
Notary Public

My Commission Expires:

\_\_\_\_\_

\*Note: O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their alien registration number. Because legal permanent residents are included in the federal definition of "alien", legal permanent residents must also provide their alien registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below.





**SECTION 00 45 47**  
**SECURITY AND IMMIGRATION COMPLIANCE ACT CERTIFICATION**

Pursuant to the Georgia Security and Immigration Compliance Act of 2006, Contractor understands and agrees that compliance with the requirements of OCGA 13-10-91 and Georgia Department of Labor Rule 300-10-1 et. seq. are conditions of Agreement. Contractor further agrees that such compliance shall be attested through execution of Contractor Affidavit and Agreement required by Georgia Department of Labor Rule 300-10-1-.07, or a substantially similar contractor affidavit. Contractor's fully executed affidavit is attached and is incorporated into this Agreement by reference herein.

By initialing in the appropriate line below, Contractor certifies that the following employee number category as identified in OCGA 13-10-91 is applicable to Contractor:

1. \_\_\_\_\_ 500 or more employees;
2. \_\_\_\_\_ 100 or more employees;
3. \_\_\_\_\_ Fewer than 100 employees.

Contractor understands and agrees that, in the event Contractor employs or contracts with Subcontractor in connection with this Agreement, Contractor shall:

1. Secure from each Subcontractor an indication of the employee-number category as identified in OCGA 13-10-91; and
2. Secure from each Subcontractor an attestation of Subcontractor's compliance with OCGA 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02 by causing each Subcontractor to execute the attached Subcontractor Affidavit required by Georgia Department of Labor Rule 300-10-1-.08, or a substantially similar subcontractor affidavit. Contractor further understands and agrees that Contractor shall require the executed Subcontractor Affidavit to become a part of the agreement between Contractor and each Subcontractor. Contractor agrees to maintain records of each Subcontractor attestation required hereunder for inspection by Owner.

\_\_\_\_\_  
BY: Authorized Officer or Agent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title of Authorized Officer or Agent if Contractor

\_\_\_\_\_  
Printed Name of Authorized Officer or Agent

\_\_\_\_\_  
Subscribed and Sworn Before Me on this  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
Notary Public  
My Commission Expires:  
\_\_\_\_\_



**SECTION 00 45 48**  
**Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)**

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of THE COBB COUNTY-MARIETTA WATER AUTHORITY has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Contractor

Blackjack Mountain, 36-Inch Water Main Replacement  
Name of Project

Cobb County-Marietta Water Authority  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, \_\_\_\_, 20\_\_ in \_\_\_\_\_(city), \_\_\_\_\_(state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME  
ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_



**SECTION 00 45 49**  
**Subcontractor Affidavit under O.C.G.A. § 13-10-91(b)(3)**

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with \_\_\_\_\_ on behalf of THE COBB COUNTY-MARIETTA WATER AUTHORITY has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the subcontractor with the information required by O.C.G.A. § 13-10-91(b). Additionally, the undersigned subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the contractor within five business days of receipt. If the undersigned subcontractor receives notice of receipt of an affidavit from any sub-subcontractor that has contracted with a sub-subcontractor to forward, within five business days of receipt, a copy of such notice to the contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Subcontractor

Blackjack Mountain, 36-Inch Water Main Replacement  
Name of Project

Cobb County-Marietta Water Authority  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, \_\_\_\_, 20\_\_ in \_\_\_\_\_(city), \_\_\_\_\_(state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME  
ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_



**SECTION 00 45 50**  
**Sub-subcontractor Affidavit under O.C.G.A. § 13-10-91(b)(4)**

By executing this affidavit, the undersigned sub-subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract for \_\_\_\_\_ (insert name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract) and \_\_\_\_\_ (insert name of contractor) on behalf of THE COBB COUNTY-MARIETTA WATER AUTHORITY has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned sub-subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned sub-subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the sub-subcontractor with the information required by O.C.G.A. § 13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to \_\_\_\_\_ (insert name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Additionally, the undersigned sub-subcontractor will forward notice of the receipt of any affidavit from a sub-subcontractor to \_\_\_\_\_ (insert name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Sub-subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Sub-subcontractor

Blackjack Mountain, 36-Inch Water Main Replacement  
Name of Project

Cobb County-Marietta Water Authority  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, \_\_, 20\_\_ in \_\_\_\_\_ (city), \_\_\_\_\_ (state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_





**SECTION 00 51 50  
NOTICE OF AWARD**

Date: \_\_\_\_\_

TO BIDDER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PROJECT OR CONTRACT NAME: BLACKJACK MOUNTAIN 36-INCH PIPELINE  
REPLACEMENT

OWNER's Contract No. 505-9005-30-19-0000

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You are notified that your Bid dated \_\_\_\_\_ for the above Project  
has been considered. You are the apparent Successful Bidder and have been awarded a Contract for

Blackjack Mountain 36-Inch Pipeline Replacement

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(Indicate total Work, alternates or sections or Work awarded)

The Contract Price of this Contract is: \_\_\_\_\_

Six (6) copies of each of the proposed Contract Documents (except Drawings) accompany this Notice of Award. Six sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within fifteen days of the date of this Notice of Award:

1. Deliver to the Owner six (6) fully executed counterparts of the Contract Documents. Each of the Contract Documents must bear your signature on the Agreement, Payment Bond, Performance Bond, Pre-Construction Oath, Certification of Contractor's Attorney, Contractor Affidavit and Agreement, and required Subcontractor Affidavit and Agreements.
2. Deliver with the executed Contract Documents the Contract security (Bonds) as specified in the Instructions to Bidders and General Conditions (paragraph 5.01).
3. Execute the Performance and Payment Bonds, but DO NOT DATE. Cobb County-Marietta Water Authority will date the bonds with the same date as the Agreement.
4. Deliver with the executed Contract Documents evidence of all insurance which Contractor is required to provide under the Contract Documents.

5. Deliver with the executed Contract Documents the Insurance Certificate Checklist filled out by Contractor's insurance agent.
6. (List other conditions.)

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Failure to comply with these conditions within the time specified will entitle OWNER to consider your Bid in default, to annul this Notice of Award and to declare your Bid security forfeited.

Within ten days after you comply with the above conditions, OWNER will return to you one fully executed counterpart of the Contract Documents.

**COBB COUNTY-MARIETTA WATER AUTHORITY**

By: \_\_\_\_\_  
(AUTHORIZED SIGNATURE)

\_\_\_\_\_  
(TITLE)

Copy to ENGINEER

**SECTION 00 52 00**  
**AGREEMENT BETWEEN OWNER AND CONTRACTOR**

**AGREEMENT** made by and between the **Cobb County-Marietta Water Authority** (hereinafter called Owner) and \_\_\_\_\_ (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

**Article 1. WORK.**

The Project for which the Work under the Contract Documents may be the whole or only a part is identified with the following Project Name:

COBB COUNTY-MARIETTA WATER AUTHORITY  
BLACKJACK MOUNTAIN 36-INCH PIPELINE REPLACEMENT  
PROJECT NO. 505-9005-30-19-0000

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Installation of approximately 32,500 LF of 36-inch zinc-coated ductile iron pipe (DIP) to replace an existing 30-inch prestressed concrete cylinder pipe.

**Article 2. ENGINEER.**

The Project has been designed by Engineering Strategies, Inc. who is hereinafter called Engineer and who is to act as Owner's representative, assume all duties and responsibilities and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

**Article 3. CONTRACT TIMES.**

3.1 The Work will be substantially completed within **910 consecutive calendar days** after the date when the Contract Times commence to run as provided in paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within **970 consecutive calendar days** after the date when the Contract Times commence to run. Construction sequencing constraints and limitations are described in Section 01 31 13, Coordination of Work.

3.2 *Liquidated Damages.* Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. Any delays in completing this work will have significant impacts on the Owner. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty)

Contractor shall pay Owner one thousand five hundred dollars (\$1,500) for each day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by Owner, Contractor shall pay Owner five hundred dollars (\$500) for each day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment.

**Article 4. CONTRACT PRICE.**

Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraphs 4.1, 4.2 and 4.3 below:

4.1 For all Work other than Unit Price Work, an amount equal to the sum of the established Lump Sum item(s) of Work as indicated in the Contractor's Bid. All specific cash allowances are included in the appropriate items of work and have been computed in accordance with paragraph 11.02.A of the General Conditions;

plus

4.2 For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work multiplied by the quantity of the item as indicated in CONTRACTOR's Bid;

plus

4.3 For all additional Work authorized by the Owner to be compensated from the Contingency Allowance(s).

**SUM OF ALL LUMP SUM PRICES, ALL UNIT PRICES AND CONTINGENCY ALLOWANCES:  
(in words) \_\_\_\_\_ DOLLARS.**

*(Total Contract Price to be written in words)*

As provided in paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by ENGINEER as provided in paragraph 9.07 of the General Conditions. Unit prices have been computed as provided in paragraph 11.03.A of the General Conditions.

**Article 5. PAYMENT PROCEDURES.**

Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

5.1. *Progress Payments; Retainage.* Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer, on or about the 25th day of each month during construction as provided in paragraphs 5.1.1 and 5.1.2 below.

5.1.1. All such payments will be measured by values of work completed as provided by the schedule established in paragraph 2.07 of the General Conditions, plus the value of materials and equipment suitably stored, insured, and protected at the construction site, and with the Owner's consent, such materials and equipment suitably stored, insured, and protected off-site at a location approved by the Engineer, less a retainage of ten percent (10%) of each progress payment requested; provided, however, when fifty percent (50%) of the Contract Price, including change orders and other additions to the Contract, is due and the manner of completion of the contract work and its progress is reasonably satisfactory to the Engineer, in the Engineer's sole discretion, the Owner shall withhold no more retainage on additional work completed.

5.1.2 The Contractor shall be entitled to withhold retainage from subcontractors in accordance with this Agreement and Georgia Law. Provided that the value of each subcontractor's work complete and in place equals fifty percent (50%) of his or her subcontract value, including approved change orders and other additions to the subcontract value, and provided that the work of the subcontractor is proceeding satisfactorily and the subcontractor has provided or provides such satisfactory reasonable assurances of continued performance and financial responsibility to complete his or her work including any warranty work as the Contractor in its reasonable discretion may require, including but not limited to a payment and performance bond, then the Contractor shall reduce or discontinue each subcontractor's retainage in the same manner as the Contractor's retainage is reduced or discontinued by the Owner. At the discretion of the Owner, upon recommendation of the Engineer and with consent of the Contractor, the retainage of each subcontractor may be released separately as the subcontractor completes his work. If the Contractor does not give such consent, the Contractor shall promptly give the Owner a written explanation of its reason.

5.1.3. If, after discontinuing the retainage, the Engineer determines that the work is unsatisfactory or has fallen behind schedule, retention shall be resumed at the previous level. If retention is resumed, the Contractor shall be entitled to resume withholding retainage from any affected subcontractors.

## 5.2. *Final Payment.*

5.2.1 At substantial completion of the contract work and as the Engineer determines the work to be reasonably satisfactory, the Owner shall within 60 days after presentation of Application and other appropriate documentation as required by Article 14 of the General Conditions are provided, pay the retainage to the Contractor. If at that time there are any remaining incomplete minor items, an amount equal to 200 percent of the value of each item, as determined by the Engineer, shall be withheld until such item or items are completed. The reduced retainage shall be shared by the Contractor and subcontractors as their interests may appear. The Contractor shall, within ten (10) days from Contractor's receipt of retainage from the Owner, pass through payments to subcontractors and shall reduce each subcontractor's retainage in the same manner as the Contractor's retainage is reduced by the Owner provided that the value of each subcontractor's work complete and in place equals fifty percent (50%) of his subcontract value, including approved change orders and other additions to the subcontract value and provided, further, that the work of the subcontractor is proceeding satisfactorily and the subcontractor has provided or provides such satisfactory reasonable assurances of continued

performance and financial responsibility to complete his work including any warranty work as the Contractor in his reasonable discretion may require, including, but not limited to a payment and performance bond.

5.2.2 If pursuant to paragraph 14.04 of the General Conditions Engineer issues a certificate of Substantial Completion for a part of the Work prior to the Substantial Completion of all of the Work, the Owner shall within 45 days after presentation of Application and other appropriate documentation as required by Article 14 of the General Conditions are provided, pay the retainage for such part of the Work to the Contractor. If at that time there are any remaining incomplete minor items for such part of the Work, an amount equal to 200 percent of the value of each item, as determined by the Engineer, shall be withheld until such item or items are completed. The reduced retainage shall be shared by the Contractor and subcontractors as their interests may appear. The Contractor shall, within ten (10) days from Contractor's receipt of retainage from the Owner, pass through payments to subcontractors and shall reduce each subcontractor's retainage for such part of the Work in the same manner as the Contractor's retainage for such part of the Work is reduced by the Owner provided that the subcontractor has provided or provides such satisfactory reasonable assurances of continued performance and financial responsibility to complete his work including any warranty work as the Contractor in his reasonable discretion may require, including, but not limited to a payment and performance bond.

5.2.3 The subcontractor shall, within ten (10) days from the subcontractor's receipt of retainage from the Contractor, pass through payments to the lower tier subcontractors and shall reduce each lower tier subcontractor's retainage in the same manner as the subcontractor's retainage is reduced by the Contractor, provided that the value of each lower tier subcontractor's work complete and in place equals fifty (50%) percent of his subcontract value, including approved change orders and other additions to the subcontract value and provided, further, that the work of the lower tier subcontractor is proceeding satisfactorily and the lower tier subcontractor has provided or provides such satisfactory reasonable assurances of continued performance and financial responsibility to complete his work including any warranty work as the subcontractor in his reasonable discretion may require, including, but not limited to, a payment and performance bond.

5.2.4 All prior certificates or estimates upon which payments have been made are approximate only, and subject to correction in the final payment.

5.3 In the event of a conflict, O.C.G.A. Sections 13-10-80 through 13-10-83 shall supercede and control any provisions to the contrary in this Article 5.

#### *5.4. Contractor's Agreements with Subcontractors.*

The Contractor hereby covenants and agrees with Owner to obtain written agreements from each subcontractor setting forth payment procedures in accordance with the foregoing provisions of this Section. Nothing contained herein shall preclude the Contractor, prior to making payment to a subcontractor, from requiring the payee to submit satisfactory evidence that all payrolls, material bills, and other indebtedness

connected with the work have been paid.

#### **Article 6. INTEREST.**

6.1 The Current Market Rate will be the rate of interest stipulated in Article 14.02.E of Section 00 72 00, "Standard General Conditions of The Construction Contract" (General Conditions) of this agreement.

6.2 All moneys not paid by Owner to Contractor when due as provided in Article 14 of the General Conditions shall bear interest at the Current Market Rate.

6.3 On contracts relating to installation, extension, improvement, maintenance or repair of any water or sewer facility, retainage shall be invested at the Current Market Rate and any interest earned on the retained amount shall be paid to the Contractor when the project has been completed within the Contract Times and for the Contract Price specified in the Contract, or in any amendments or change orders approved in accord with the terms of the Contract.

#### **Article 7. CONTRACTOR'S REPRESENTATIONS.**

In order to induce Owner to enter into this Agreement Contractor makes the following representations:

7.1. Contractor has examined and carefully studied the Contract Documents (including the Addenda listed in paragraph 8) and the other related data identified in the Bidding Documents including "technical data."

7.2. Contractor has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.

7.3. Contractor is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

7.4. Contractor is aware of the general nature of work to be performed by Owner and others at the site that relates to the Work as indicated in the Contract Documents.

7.5. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.

7.6. Contractor has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

#### **Article 8. CONTRACT DOCUMENTS.**

The Contract Documents which comprise the entire agreement between Owner and Contractor concerning the Work consist of the following:

- 8.1 This Agreement (pages 1 to 8, inclusive).
- 8.2 Advertisement for Bids
- 8.3 Instructions to Bidders
- 8.4 Permits and Easements
- 8.5 Bid Form
- 8.6 Bid Bond
- 8.7 Non-Collusion Affidavit of Bidder
- 8.8 Corporate Certificate
- 8.9 Contractor's License Certification
- 8.10 Affidavit Verifying Status for Cobb County-Marietta Water Authority Public Benefit Application
- 8.11 Security and Immigration Compliance Act Certification
- 8.12 Contractor Affidavit and Agreement
- 8.13 Subcontractor Affidavit and Agreement
- 8.14 Sub-Subcontractor Affidavit and Agreement
- 8.15 Notice of Award
- 8.16 Pre-Construction Oath
- 8.17 Notice to Proceed
- 8.18 Performance Bond
- 8.19 Payment Bond
- 8.20 Certification of Contractor's Attorney
- 8.21 Certification of Owner's Attorney
- 8.22 Insurance Certificate Checklist
- 8.23 Contract Completion Affidavit



- 8.24 General Conditions
- 8.25 Supplementary Conditions
- 8.26 Statement of Bidder's Qualifications (where applicable)
- 8.27 Specifications bearing the name BLACKJACK MOUNTAIN, 36-INCH PIPELINE REPLACEMENT, as listed in table of contents thereof, bound separate from this Agreement.
- 8.28 Drawings consisting of a cover sheet and sheets as listed in the Drawing Index thereof with each sheet bearing the name BLACKJACK MOUNTAIN, 36-INCH PIPELINE REPLACEMENT, bound separate from this Agreement.
- 8.29 Addenda number(s) \_\_\_\_, incorporated herein,
- 8.30 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraphs 3.04.A and 3.04.B of the General Conditions.

The documents listed in paragraphs 8.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.04.A and 3.04.B of the General Conditions.

#### **Article 9. MISCELLANEOUS.**

9.1. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.3. Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

9.4. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding

upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor and Engineer. All portions of the Contract Documents have been signed, initialed or identified by Owner and Contractor or identified by ENGINEER on their behalf.

This Agreement will be effective on \_\_\_\_\_, 20\_\_\_\_ (which is the Effective Date of the Agreement).

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement under seal as of the day and year first above-written.

OWNER:  
Cobb County-Marietta Water Authority

CONTRACTOR:  
\_\_\_\_\_

By: \_\_\_\_\_  
(for Cobb County – Marietta Water Authority)

By \_\_\_\_\_

Title: \_\_\_\_\_  
[SEAL]

Title: \_\_\_\_\_  
[SEAL]

Attest:

Attest:

\_\_\_\_\_  
Assistant Secretary

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Witness

Address for giving notices:

Cobb County-Marietta Water Authority  
1170 Atlanta Industrial Drive  
Marietta, Georgia 30066

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Attach evidence of authority to sign and resolution or other documents authorizing execution of Agreement.)

**SECTION 00 54 14  
PRE-CONSTRUCTION OATH**

**PROJECT NAME:** BLACKJACK MOUNTAIN 36-INCH PIPELINE REPLACEMENT

**CCMWA PROJECT NUMBER:** 505-9005-30-19-0000

**DATE:** \_\_\_\_\_

STATE OF GEORGIA

COUNTY OF COBB

In accordance with O.C.G.A. 36-91-21(e), each of the undersigned persons affiliated with

\_\_\_\_\_  
(Contractor)

being first duly sworn, deposes and says that:

I have not directly violated O.C.G.A. 36-91-21(d), and more specifically, I have not

- prevented or attempted to prevent competition in such bidding or proposals by any means whatever,
- prevented or endeavored to prevent anyone from making a bid or proposal thereof by any means whatever, nor
- caused or induced another to withdraw a bid or proposal for the work.

Each undersigned, to the best of his/her knowledge, affirms that no other officers, agents or other persons acted for or represented the Contractor in the bidding for and procurement of this Contract.

Signature	Printed Name	Title	Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Subscribed and Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_ My Commission Expires: \_\_\_\_\_

(Notary Public)

(SEAL)



**SECTION 00 55 00  
NOTICE TO PROCEED**

Dated: \_\_\_\_\_

TO CONTRACTOR: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

PROJECT NAME: BLACKJACK MOUNTAIN 36-INCH PIPELINE REPLACEMENT

OWNER's Contract No. 505-9005-30-19-0000

\_\_\_\_\_

You are hereby notified that the Contract Times under the above contract will commence to run \_\_\_\_\_  
\_\_\_\_\_. By that date you are to begin performing the Work and your obligations under the Contract Documents. In accordance with Article 3 of the Agreement, the date of Substantial Completion is \_\_\_\_\_ and the date of readiness for final payment is \_\_\_\_\_.

Before you may start any Work at the Site, paragraph 2.01 of the General Conditions provides that you and OWNER must each deliver to the other (with copies to ENGINEER and other identified additional insureds) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must:  
(add other requirements)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

COBB COUNTY-MARIETTA WATER AUTHORITY

By: \_\_\_\_\_  
(AUTHORIZED SIGNATURE)

\_\_\_\_\_  
(TITLE)

Copy to ENGINEER



**SECTION 00 61 14**  
**PERFORMANCE BOND**

**KNOW ALL MEN BY THESE PRESENTS** \_\_\_\_\_ (hereinafter called the "Principal") and \_\_\_\_\_ (hereinafter called the "Surety"), are held and firmly bound unto Cobb County-Marietta Water Authority (hereinafter called the "Owner") and its successors and assigns, in the penal sum of DOLLARS (\$ \_\_\_\_\_), lawful money of the United States of America, for the payment of which the Principal and the Surety bind themselves, their administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the Principal has entered, or is about to enter, into a certain written contract with the Owner, dated \_\_\_\_\_, which is incorporated herein by reference in its entirety (hereinafter called the "Construction Contract"), for the BLACKJACK MOUNTAIN 36-INCH PIPELINE REPLACEMENT, more particularly described in the Construction Contract (hereinafter called the "Project"); and

**NOW, THEREFORE**, the conditions of this obligation are as follows, that if the Principal shall fully and completely perform all the undertakings, covenants, terms, conditions, warranties, and guarantees contained in the Construction Contract, including all modifications, amendments, changes, deletions, additions, and alterations thereto that may hereafter be made, then this obligation shall be void; otherwise it shall remain in full force and effect.

Whenever the Principal shall be, and declared by the Owners to be, in default under the Construction Contract, the Surety shall promptly remedy the default as follows:

- 1) Complete the Construction Contract in accordance with its terms and conditions; or
- 2) Obtain a bid or bids for completing the Construction Contract in accordance with its terms and conditions, and upon determination by the Surety and the Owners of the lowest responsible qualified bidder, arrange for a contract between such bidder and Owners and make available as the work progresses (even though there should be a default or succession of defaults under the Construction Contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the penal sum set forth in the first paragraph hereof, as may be adjusted, and the Surety shall make available and pay to the Owners the funds required by this Paragraph prior to the payment of the Owners of the balance of the contract price, or any portion thereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by the Owner to the Contractor under the Construction Contract, and any amendments thereto, less the amount paid by the Owner to the Contractor; or, at the option of the Owner;
- 3) Allow Owner to complete the work and reimburse the Owner for all reasonable costs incurred in completing the work.

In addition to performing as required in the above paragraphs, the Surety shall indemnify and hold harmless the Owner from any and all losses, liability and damages, claims, judgments, liens, costs and fees of every description, which the Owner may incur, sustain or suffer by reason of the failure or default on the part of the Principal in the performance of any or all of the terms, provisions, and

requirements of the Construction Contract, including any and all amendments and modifications thereto, or incurred by the Owner in making good any such failure of performance on the part of the Principal.

The Surety shall commence performance of its obligations and undertakings under this Bond promptly and without delay, after written notice from the Owner to the Surety.

The Surety hereby waives notice of any and all modifications, omissions, additions, changes, alterations, extensions of time, changes in payment terms, and any other amendments in or about the Construction Contract, and agrees that the obligations undertaken by this Bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, alterations, extensions of time, change in payment terms, and amendments.

The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment to the Construction Contract, so as to bind the Principal and the Surety to the full and faithful performance of the Construction Contract as so amended or modified, and so as to increase the penal sum to the adjusted contract price of the Construction Contract.

No right of action shall accrue on this Bond to or for the use of any person, entity or corporation other than the Owner and any other obligee named herein, or their executors, administrators, successors or assigns.

This bond is given pursuant to and in accordance with the provisions of O.C.G.A. Section 36-91-1 *et.seq.* and all the provisions of the law referring to this character of Bond as set forth in said Sections or as may be hereinafter enacted, and these are hereby made a part hereof to the same extent as if set out herein in full.

{ THIS SPACE LEFT BLANK INTENTIONALLY }



**IN WITNESS WHEREOF** the undersigned have caused this instrument to be executed and their respective corporate seals to be affixed by their duly authorized representatives this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Principal

By: \_\_\_\_\_  
Its: \_\_\_\_\_

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Typed name of witness

\_\_\_\_\_  
Typed address of witness

\_\_\_\_\_  
\_\_\_\_\_  
(Surety)

By: \_\_\_\_\_  
Its: Attorney-in-Fact

\_\_\_\_\_  
Typed name of Attorney-in-Fact

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Type name of witness

\_\_\_\_\_  
Type address of witness

\_\_\_\_\_  
(Address of Surety's Home Office)

Note: Date of Bond must not be prior to date of contract.



**SECTION 00 61 15  
PAYMENT BOND**

**KNOW ALL MEN BY THESE PRESENTS** that \_\_\_\_\_  
(hereinafter called the "Principal") and \_\_\_\_\_  
\_\_\_\_\_ (hereinafter called the "Surety"), are held and firmly bound unto Cobb County-Marietta  
Water Authority (hereinafter called the "Owner"), its successors and assigns as obligee, in the penal sum  
of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_),  
lawful money of the United States of America, for the payment of which the Principal and the Surety bind  
themselves, their administrators, executors, successors and assigns, jointly and severally, firmly by these  
presents.

**WHEREAS**, the Principal has entered, or is about to enter, into a certain written contract with the  
Owner, dated \_\_\_\_\_, which is incorporated herein by reference in its entirety (hereinafter  
called the "Construction Contract"), for the construction of a project known as BLACKJACK  
MOUNTAIN 36-INCH PIPELINE REPLACEMENT as more particularly described in the Construction  
Contract (hereinafter called the "Project");

**NOW, THEREFORE**, the condition of this obligation is such that if the Principal shall promptly  
make payment to all persons working on or supplying labor or materials under the Construction Contract,  
and any amendments thereto, with regard to labor or materials furnished and used in the Project, and with  
regard to labor or materials furnished, but not so used, then this obligation shall be void; but otherwise it  
shall remain in full force and effect.

1. A "Claimant" shall be defined herein as any subcontractor, person, party, partnership,  
corporation or other entity furnishing labor, services or materials used, or reasonably required  
for use, in the performance of the Construction Contract, without regard to whether such  
labor, services or materials were sold, leased or rented, and without regard to whether such  
Claimant is or is not in privity of contract with the Principal or any subcontractor performing  
work on the Project, including, but not limited to, the following labor, services, or materials:  
water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly  
applicable to the Construction Contract.
2. In the event a Claimant files a lien against the property of the Owner, and the Principal fails  
or refuses to satisfy or remove it promptly, the Surety shall satisfy or remove the lien  
promptly upon written notice from the Owner, either by bond or as otherwise provided in the  
Construction Contract.
3. The Surety hereby waives notice of any and all modifications, omissions, additions, changes,  
alterations, extensions of time, changes in payment terms, and any other amendments in or  
about the Construction Contract and agrees that the obligations undertaken by this Bond shall  
not be impaired in any manner by reason of any such modifications, omissions, additions,  
changes, alterations, extensions of time, changes in payment terms, and amendments.
4. The Surety hereby agrees that this Bond shall be deemed amended automatically and  
immediately, without formal or separate amendments hereto, upon any amendment or  
modification to the Construction Contract, so as to bind the Principal and Surety, jointly and  
severally, to the full payment of any Claimant under the Construction Contract, as amended  
or modified, provided only that the Surety shall not be liable for more than the penal sum of  
the Bond, as specified in the first paragraph hereof.

5. This Bond is made for the use and benefit of all persons, firms, and corporations who or which may furnish any materials or perform any labor for or on account of the construction to be performed or supplied under the Construction Contract, and any amendments thereto, and they and each of them may directly sue the Principal and the Surety hereon.
6. No action may be maintained on this Bond after one (1) year from the date the last services, labor, or materials were provided under the Construction Contract by the Claimant prosecuting said action.
7. This bond is given pursuant to and in accordance with the provisions of O.C.G.A. Section 36-91-1 *et.seq.* and all the provisions of the law referring to this character of Bond as set forth in said Sections or as may be hereinafter enacted, and these are hereby made a part hereof to the same extent as if set out herein in full.

{THIS SPACE LEFT BLANK INTENTIONALLY}

**IN WITNESS WHEREOF**, the Principal and the Surety have hereunto affixed their corporate seals and caused this obligation to be signed by their duly authorized representatives this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_. (Date of Bond must not be prior to date of contract.)

\_\_\_\_\_  
Name of Contractor as Principal

\_\_\_\_\_  
Name of Surety

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed name and title)

\_\_\_\_\_  
(Typed name) Attorney-in-Fact

\_\_\_\_\_  
Witness to Principal (Signature)

\_\_\_\_\_  
(Typed address of Surety's home office)

\_\_\_\_\_  
(Typed name and address of witness)

\_\_\_\_\_  
Witness to Surety (signature)

\_\_\_\_\_  
(Typed name and address of witness)



**SECTION 00 62 14  
CERTIFICATION OF CONTRACTOR'S ATTORNEY**

The undersigned Contractor hereby certifies one of the following:

\_\_\_\_\_ (initial) Prior to execution and delivery of the contract contained herein, the attorney has examined the attached contract, any applicable performance and payment bonds and the manner of execution thereof, as well as all other documents attached hereto and is of the opinion that upon the execution and delivery of these documents, same will constitute a valid and legally binding obligation of the undersigned contractor in accordance with the terms, conditions and provisions thereof.

\_\_\_\_\_  
Typed Name of Attorney

\_\_\_\_\_  
Signature of Attorney

Date: \_\_\_\_\_

\_\_\_\_\_ (initial) The undersigned contractor has an attorney but has not obtained any legal opinion regarding the execution and delivery of these documents.

\_\_\_\_\_ (initial) The undersigned contractor does not have an attorney and has elected not to engage an attorney regarding the execution and delivery of this contract and attached documents.

**CONTRACTOR**

Name of Contractor: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

[SEAL]





**SECTION 00 62 15  
CERTIFICATION OF OWNER'S ATTORNEY**

The duly authorized and acting legal representatives of the OWNER do hereby certify as follows:

Prior to execution and delivery thereof by OWNER, I have examined the attached contract and any applicable performance and payment bonds and the manner of execution thereof, and I am of the opinion that upon the correction of any matters noted hereon, the foregoing contract will be ready for execution and upon execution and delivery will constitute a valid and legally binding obligation of OWNER in accordance with the terms, conditions, and provisions thereof.

Attorney For:  
Cobb County - Marietta Water Authority:

By:  
(Signature)

\_\_\_\_\_  
(Typed name)

Date:\_\_\_\_\_





If Claims-Made is continuity date at least the start date of the project? Yes No  
 Is the care, custody, control exclusion for property other than Contractor's property deleted? Yes No

Excess/Umbrella Liability:

Effective Date: \_\_\_\_\_ Expiration Date: \_\_\_\_\_  
 Are Effective Dates Current?  
 Insurance Carrier: \_\_\_\_\_ A.M. Best Rating: (A- or better)\_\_\_\_\_

Are the following policy limits provided:  
 \$5,000,000 Aggregate Yes No  
 \$5,000,000 Each Occurrence Yes No

Does the excess/umbrella liability policy provide additional limits above the following:  
 General Liability Yes No  
 Automobile Liability Yes No  
 Employers Liability Yes No

Is Contractual Liability coverage included at full policy limits? Yes No  
 Coverage stipulated for Products/Completed Operations? Yes No  
 Occurrence Form or Claims Made Form? \_\_\_\_\_  
 If Claims-Made is continuity date at least the start date of the project? Yes No

Property/Builder's Risk-Installation Floater:

Effective Date: \_\_\_\_\_ Expiration Date: \_\_\_\_\_  
 Are Effective Dates Current?  
 Insurance Carrier: \_\_\_\_\_ A.M. Best Rating: (A- or better)\_\_\_\_\_

Are policy limits provided at least equal to the value of the project? Yes No  
 Is a replacement cost valuation provided? Yes No  
 Is coverage provided for "all-risk" or special perils? Yes No  
 Is coverage provided for personal property in transit? Yes No  
 Is coverage provided for damage to property and "soft costs"? Yes No  
 Is boiler and machinery coverage provided? Yes No  
 Is coverage provided for testing and start-up? Yes No

General Requirements:

Are the Owners and Engineer included as additional insured? Yes No  
 Is the certificate issued to Cobb County-Marietta Water Authority? Yes No  
 Does the cancellation clause provide at least 30 day notice? Yes No  
 Is a waiver of subrogation rights included? Yes No  
 Is the Insurance Company's name listed on the certificate? Yes No  
 Does the certificate list the policy numbers next to each coverage? Yes No

Note: Continuous coverage is required for products and completed operations for a minimum of two years following completion of the job. The contractor must furnish an updated certificate of insurance for a period of two years following the completion of the job. Therefore, new certificates which show continuous general liability (including products and completed operations) or "tail liability" for claims-

made policies (where the policy is not renewed/maintained) must be submitted to Cobb County-Marietta Water Authority on an annual basis for the two years following completion of the job.

Specific Requirements:

1) Insurance certificate must include the following affirmative statement: "Coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty (30) days prior written notice has been given to Owner and to each other additional insured to whom a certificate of insurance has been issued." Language stating that the Insurance Company is not responsible if the notice is not sent is not acceptable.

2) Insurance certificate must also show the following:

Owner name:	Cobb County-Marietta Water Authority
Address:	1170 Atlanta Industrial Drive Marietta, Georgia 30066



**SECTION 00 65 19  
CONTRACT COMPLETION AFFIDAVIT**

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

(1) I, \_\_\_\_\_, being duly sworn do hereby affirm that I am duly authorized to make this affidavit on behalf of \_\_\_\_\_ (hereinafter called "Contractor") as \_\_\_\_\_ of Contractor in connection with the contract dated \_\_\_\_\_, between Cobb County-Marietta Water Authority (hereinafter called "Owner") and Contractor, for construction of BLACKJACK MOUNTAIN 36-INCH PIPELINE REPLACEMENT (hereinafter called the "Project").

(2) I affirm under oath that all work has been completed in accordance with contract provisions, and all laborers, sub-contractors and material supplier have been paid in full, and there are no suits or liens outstanding in connection with said contract or the Project.

(3) I affirm under oath that the agreed price for all of the labor, services and materials to be furnished for the Project is \$\_\_\_\_\_, and that \$\_\_\_\_\_ has been previously paid by Owner as progress payments for the Project.

(4) I affirm under oath that the balance of \$\_\_\_\_\_ on said total contract price of \$\_\_\_\_\_ is simultaneously being paid to Contractor as a final disbursement on the Project. I hereby acknowledge receipt of the same on behalf of Contractor, and I hereby acknowledge that this affidavit is made under the provisions of Official Code of Georgia Annotated Section 44-14-316.2 for the purpose of inducing Owner to pay said balance to Contractor.

(5) I affirm under oath that all of the agreed price or reasonable value of the labor, services or materials for the Project has now been paid by Owner.

\_\_\_\_\_  
(Signature of Affiant)

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My commission expires \_\_\_\_\_





# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



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**STANDARD GENERAL CONDITIONS OF THE  
CONSTRUCTION CONTRACT**

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
  3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
  9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
  10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
  11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 01 of the Specifications. The General Requirements are applicable to all Sections of the Specifications and to the entire Work.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.



- 25.1 *Liquidated Damages* – amounts shall be as stipulated in the Agreement. Liquidated damages shall apply to the Contract Times for the Project. Liquidated Damages shall be both additive and cumulative. Liquidated Damages shall end upon Substantial Completion, Completion of the Work associated with each Milestone Date, and upon final completion of the Work.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents to provide the following: (i) the Owner full time, uninterrupted, continuous operation of the work; and (ii) all required functional, performance, and operational or startup testing has been successfully demonstrated for all components, devices, equipment, and systems to the satisfaction of the Engineer in accordance with the requirements of the Specifications; and (iii) all required inspections and other work necessary for the Engineer to certify "substantially complete" have been completed. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof. See General Conditions Paragraph 14.04 for additional provisions.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements

containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.02 *Terminology*

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

### B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed,” “as required” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and the information in the Contract Documents and compliance with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

### C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - a. does not conform to the Contract Documents; or
  - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## **ARTICLE 2 – PRELIMINARY MATTERS**

### *2.01 Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed Agreements to Owner, Contractor shall also deliver to Owner such Bonds and Certifications of Insurance as Contractor may be required to furnish in accordance with Article 5.
- B. Contract, Performance Bond and Payment Bond shall not be dated prior to submittal to the Owner so that all three can be filled in by the Owner with the same date.
- C. Certified copy of Power of Attorney for Performance Bond and Payment Bond must be dated prior to submittal to the Owner with a date which is within the previous fifteen days.

- D. Performance Bond, Payment Bond and Certified Copy of Power of Attorney must have corporate seal of surety.
- E. Signature of attorney-in-fact for surety company on Performance Bond and Payment Bond must be one of persons authorized to sign on certified copy of Power of Attorney.
- F. The copy of Contract Documents to be kept by the Owner must have original signed certificate version of the certified Power of Attorney. Other copies may have copies of the certificate.
- G. If Contractor is a corporation, Contract, Performance Bond and Payment Bond must have corporate seal of Contractor affixed, must show title of person signing on behalf of Contractor and must be attested by Secretary or Assistant Secretary.
- H. The Payment Bond and the Performance Bond must be on Owner's forms, included herein.
- I. Surety company must be shown on the current Department of the Treasury Circular 570, Surety Companies Acceptable on Federal Bonds, with an underwriting limitation greater than the amount of the Contract.

#### 2.02 *Copies of Documents*

- A. Owner will furnish to Contractor up to four printed or hard copies of the Contract Documents and one counterpart of the executed Contract Agreement. Additional copies will be furnished upon request at the cost of reproduction.
- B. Owner may also, if requested by Contractor, furnish Contractor with electronic copies of the Drawings and other Contract Documents. Contractor agrees it will only use the same for performing the Work and will not disseminate the same except to its subcontractors where necessary to perform the Work. Contractor shall obtain written acceptance of any subcontractor to these limitations before disseminating the same to such subcontractor. Electronic copies of the Contract Documents will be provided as a convenience to the Contractor. The Owner and Engineer assume no liability and shall be held harmless for any discrepancies between the hard copy and electronic copy of the Contract Documents.

(See Supplementary Conditions 2.02.B.1)

#### 2.03 *Commencement of Contract Times; Notice to Proceed*

- A. Contract Times will commence to run on the date established in the Notice to Proceed. A Notice to Proceed may be given at any time within 60 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the one-hundred and twentieth day after the Owner receives copies of the Agreement properly executed by the Contractor and the Bonds, evidence of proper insurance and other materials required by the Notice of Award.

#### 2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

#### 2.05 *Before Starting Construction*

- A. Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
- B. *Preliminary Schedules:* Within 10 days after the Commencement of the Contract Time (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
  - 2. a preliminary Schedule of Submittals which indicates each required Submittal and the dates for submitting, time for reviewing and processing each Submittal (periodic Submittals may be listed by a common monthly date); and
  - 3. a preliminary Schedule of Values for all of the Work in a format acceptable to the Engineer and in accordance with the requirements specified in the General Requirements.

#### 2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

#### 2.07 *Initial Acceptance of Schedules*

- A. Within ten days after the preconstruction conference a conference attended by Contractor, Owner, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and

resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer as being the Contractor's schedule for the orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor. The Progress Schedule may subsequently be adjusted in accordance with Paragraph 6.04 and applicable provisions of the General Requirements.
2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals. The Schedule of Submittals may subsequently be adjusted in accordance with Paragraph 6.04 and applicable provisions of the General Requirements.
3. Contractor's Schedule of Values will be acceptable to the Engineer as to form and substance if it is provided in accordance with the requirements specified in the General Requirements..

## 2.08 *Licensing*

Before any work at the site is started which is governed by the Construction Industry Licensing Board of Georgia (O.C.G.A. Section 43-14-1 et seq and Section 43-41 et seq), or its rules or regulations, Contractor shall inform himself of those rules and regulations, and qualifications for licensure, and if requested shall deliver proof of compliance to the Owner and Engineer.

## **ARTICLE 3 – CONTRACT DOCUMENTS; INTENT, AMENDING, REUSE**

### 3.01 *Intent*

- A. The individual components of the Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.
- D. Where the word "similar" occurs in the Contract Document, it shall have a general meaning and not be interpreted as being identical, and all details shall be worked out in relation to their location and their connection with other parts of the Work.
- E. Each and every clause or other provision required by law to be inserted in these Contract Documents shall be deemed to be inserted herein, and they shall be read and enforced as though

it were included herein, and if through mistake or otherwise, any such provision is not inserted, or if not correctly inserted, then upon the application of either party, the Contract Documents shall forthwith be amended to make such insertion.

- F. “Imperative” or “Command” type language is used in the Contract Documents. This command language refers to and is directed to the Contractor.
- G. Emphasis, such as italics or quotes, has been used throughout the Contract Documents. Use of emphasis shall not change the meaning of the term emphasized.

### 3.02 *Reference Standards*

#### A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

### 3.03 *Reporting and Resolving Discrepancies*

#### A. *Reporting Discrepancies:*

1. *Contractor’s Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor’s Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation , (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by



Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

**B. *Resolving Discrepancies:***

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
  - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
  - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).
2. In resolving inconsistencies within the Contract Documents, precedence shall be given in the following descending order:
  - a. Change Orders.
  - b. Work Change Directives.
  - c. Field Orders.
  - d. Engineer's written interpretations and clarifications.
  - e. Notice to Proceed.
  - f. Addenda.
  - g. Contract Agreement.
  - h. Supplementary Conditions.
  - i. General Conditions.
  - j. Specifications.
  - k. Drawings:
    - i. Figure dimensions on Drawings shall take precedence over scaled dimensions.

- ii. Detailed drawings shall take precedence over general drawings.
- iii. In case of discrepancy between small-scale detail and large-scale detail, the large-scale detail shall govern. On any of the Drawings where a portion of the Work is drawn out and the remainder is shown in outline, the portion drawn out shall apply also to all other like portions of the Work.

1. Bidding Requirements.

3. In cases where products or quantities are omitted from the Specifications, the description and quantities on the Drawings shall govern.

### 3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
  1. A Field Order;
  2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
  3. Engineer's written interpretation or clarification.

### 3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
  1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
  2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

### 3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of

text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

#### **ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

##### *4.01 Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.
- D. The Owner has begun to obtain all lands, rights-of-way and easements as indicated in the Contract Documents however, delays obtaining such lands may occur. If the Owner is unable to obtain lands as indicated in the Contract Documents, the Owner will notify the Contractor of those lands which are not yet acquired and those areas where lands are available. Contractor shall begin the Work upon such land and rights-of-way as Owner has acquired.

##### *4.02 Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by the Engineer in preparing the Contract Documents; and
  2. those drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been utilized by the Engineer in preparing the Contract Documents.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
  2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

[See Supplementary Conditions 4.02.C, 4.02.D and 4.02.E]

#### 4.03 *Differing Subsurface or Physical Conditions*

- A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:
1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
  2. is of such a nature as to require a change in the Contract Documents; or
  3. differs materially from that shown or indicated in the Contract Documents; or
  4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments*:

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
  - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
  - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
  - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
  - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
  - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

#### 4.04 *Underground Facilities*

A. *Shown or Indicated*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site are based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
  - a. reviewing and checking all such information and data;
  - b. locating all Underground Facilities shown or indicated in the Contract Documents;
  - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
  - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

**B. *Not Shown or Indicated:***

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

- C.** The dimensions and descriptions given on the Drawings for adjacent work by others, if any, (including any existing facilities or utilities previously constructed for Owner) are based on the design drawings and not as-built drawings. Prior to commencing the Work, the Contractor shall verify all as-built conditions and information whenever existing facilities or utilities may impact the Work. Failure of Contractor to so verify all as-built conditions prior to commencing the Work shall bar Contractor from later seeking additional compensation for conflicts with existing facilities or utilities.

- D. Prior to the construction or installation of any proposed facility or pipeline, the Contractor shall expose all existing utilities true to their vertical and horizontal location, within the vicinity of the Work. In order to avoid conflicts between existing and proposed facilities or utilities, the Contractor shall either relocate the existing or proposed utility on a temporary or permanent basis, or shall take whatever means necessary to protect the existing facilities or utilities during the installation of proposed utilities, as approved by the Engineer. No additional payment will be made for the relocation of existing utilities or for any work associated with the protection of existing facilities or utilities.

#### 4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Engineer. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.
- B. Engineer may check the lines, elevations, and reference marks set by Contractor, and Contractor shall correct any errors disclosed by such check. Such a check shall not be considered as approval of Contractor's work and shall not relieve Contractor of the responsibility for accurate construction of the entire Work.
- C. The Contractor shall review the Contract Documents and the Project site to determine the presence and location of any property or rights-of-way monuments or markers, and to assess the possibility of disruption to these monuments or markers. It will be the Contractor's responsibility to flag, erect guard posts, or provide offset references for the protection or the re-monumentation of these property or rights-of-way monuments or markers. In the event these monuments or markers are covered over or disturbed, it will be the Contractor's responsibility to employ a surveyor licensed in the state of Georgia to re-establish those monuments or markers of property or rights-of-way, which were present prior to Work on the Project.
- D. It shall be the Contractor's responsibility to verify all reference points shown on the Contract Documents prior to beginning Work on the site. This verification shall be conducted by professionally qualified personnel in a manner which will verify the accuracy of the information shown in the Contract Documents. On projects which involve the connection to, or additions to existing structures, the elevations of these existing structures shall also be verified. Any findings which differ from those shown on the Contract Documents shall be submitted in writing to the Engineer for resolution.
- E. Additional surveys necessary for the construction staking shall be performed by the Contractor, the cost of which shall be incorporated into the appropriate items of Work. On projects in which payment is classified by depth of cut, the construction staking shall be performed in a manner that will allow for the determination of cut classification. During construction of the project, the Contractor shall keep a daily log and record of the location of all underground pipes, all structures, and any deviation from the Drawings. The Contractor shall keep and furnish this

daily log and record in a manner which will allow the Engineer to incorporate these items into the Contract Documents.

#### 4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
  2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under



which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may issue a Work Change Directive or Change Order as appropriate. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## **ARTICLE 5 – BONDS AND INSURANCE**

### **5.01 *Performance, Payment, and Other Bonds***

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment is made by the Owner or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.

- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers [See Supplementary Conditions SC-5.02]*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as provided below:
  - 1. Surety shall be in good standing with Georgia's Insurance Commissioner's Office.
  - 2. Surety and Insurers must have an A.M. Best Financial Strength Rating and a Financial Size Category as stated in the insurance requirements specified elsewhere in these Contract Documents.
  - 3. The surety shall have an underwriting limitation in Circular 570 in excess of the Contract Price.

5.03 *Certificates of Insurance [See Supplementary Conditions SC-5.03]*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain, if any.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance [See Supplementary Conditions SC-5.04]*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
  2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
  3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
  4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
    - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
    - b. by any other person for any other reason;
  5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
  6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
  2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
  4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
  5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
  6. include completed operations coverage:
    - a. Such insurance shall remain in effect for two years after final payment.
    - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.
- C. The limits of liability for the insurance required by paragraph 5.04.B.2 of the General Conditions shall provide coverage specified in the Supplementary Conditions or greater where required by Laws and Regulations.
- D. Any renewal of a policy shall have an original retroactive date no later than the date of the Contract.

#### 5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

#### 5.06 *Property Insurance [See Supplementary Conditions SC-5.06]*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain property insurance as required in the Supplementary Conditions.

#### 5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 by Contractor will protect Owner, Contractor, Subcontractors, and Engineer, and all other

individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Contractor as trustee or otherwise payable under any policy so issued.

#### 5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner shall adjust and settle the loss with the insurers.

#### 5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If Owner has any objection to the coverage afforded by or other provision of the insurance required to be purchased and maintained by Contractor in accordance with this Article 5 on the basis of its not complying with the Contract Documents, Owner will notify Contractor in writing thereof within ten days of the date of delivery of such certificate to Owner in accordance with Paragraph 2.01. Contractor shall provide such additional information in respect of insurance provided by Contractor as Owner may reasonably request.

#### 5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

## ARTICLE 6 –CONTRACTOR’S RESPONSIBILITIES

### 6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, provide quality control, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. Contractor shall also designate, in writing, a representative, hereinafter referred to as Project Manager, assigned to the Project on a full-time basis during execution of the Work who shall have the authority to act on behalf of Contractor, including executing the orders or directions of the Engineer without delay. This Superintendent and/or Project Manager shall have full authority to promptly supply products, tools, plant equipment, and labor as may be required to diligently prosecute the Work. All communications given to or received from the Superintendent and/or the Project Manager shall be binding on Contractor.
- C. If at any time during the Project the Superintendent or Project Manager leaves the Project site while Work is in progress, Engineer shall be notified and provided with the name of Contractor’s representative having responsible charge.
- D. Contractor shall also designate the person responsible for Contractor’s quality control while Work is in progress. Engineer shall be notified in writing prior to any change in quality control representative assignment.
- E. Prior to the Commencement of the Contract Times, Contractor shall furnish to the Owner and Engineer the names, resumes, 24-hour contact information and other relevant information associated with the Project Manager and the Superintendent that are to be assigned to this project. The Project Manager and Superintendent must be acceptable to the Owner and Engineer.

### 6.02 *Labor; Working Hours [See Supplementary Conditions SC-6.02]*

- A. Contractor shall provide competent, skilled, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site. Contractor shall, upon demand from the Engineer, immediately remove any manager, superintendent, foreman or workman whom the Engineer or Owner may consider incompetent or undesirable.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the

performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

- C. Regular working hours may be Monday through Friday, excluding holidays, occurring between the hours of 7:00 AM and 7:00 PM, unless restricted otherwise. Contractor shall establish a 40-hour work week with regular scheduled work times, e.g., four 10-hour days or five 8-hour days, within the hours and days allowed above. Approval for specific work outside regular scheduled work times shall be requested no less than 48 hours prior to the requested work period. Contractor shall request approval of changes in regular scheduled work times no less than one week prior to the desired change. Occasional unscheduled overtime on weekdays may be permitted provided reasonable notice is given to Engineer.
- D. Contractor shall pay all extra costs incurred by the Owner associated with work, outside of regular working hours, including additional support services, inspection services, testing services, utilities or other applicable costs. The cost associated with the Owner's inspection overtime will be the amounts as provided in the Supplementary Conditions per hour per individual, depending upon individuals assigned to the Project, the type of work being inspected, and the date of the invoice; i.e., allowing for salary escalation. Contractor will not be responsible for extra costs associated with inspection overtime for work in excess of 50 hours per week when such overtime work is explicitly required by the Contract Documents.
- E. Except in the case of emergencies or other unusual circumstances, no work shall be permitted on the project on Sunday.
- F. The Engineer will determine to what extent extraordinary onsite personnel work is required during Contractor's overtime work or working hours outside regular scheduled work hours.

#### 6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, quality control, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All products (material and equipment) provided on this Project shall be new and unused and provided by the Contractor unless specified otherwise, shall be products currently manufactured by the manufacturer, i.e., products shall not be discontinued or out-of-date products nor shall they be of the last production run of the product. Contractor shall incorporate the previous sentence in any contract or agreement between Contractor and subcontractor or supplier supplying products provided on this Project. All special warranties and guarantees required by the Contract Documents shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.
- D. Without limiting the responsibility or liability of the Contractor pursuant to this agreement, all warranties given by manufacturers on materials or equipment incorporated in the work are hereby assigned by the Contractor to the Owner. Such assignment shall be effective upon completion of Contractor's warranty period. If requested, the Contractor shall execute formal assignments of said manufacturer's warranties to the Owner. All such warranties shall be directly enforceable by the Owner. Such assignment shall in no way affect the Contractor's responsibilities and duties during the warranty period.

#### 6.04 *Progress Schedule*

- A. The Contractor shall proceed with the Work at a rate of progress which will ensure completion within the Contract Time. It is expressly understood and agreed by and between the Contractor and the Owner, that the Contract Times for the Work described herein are reasonable times, taking into consideration the average climatic and economic conditions, and other factors prevailing in the locality of the Work.
- B. Contractor shall provide all resources, labor, materials, equipment, services, etc. necessary to adhere to the Progress Schedule established in accordance with Paragraph 2.07 and the General Requirements as it may be adjusted from time to time as provided below.
  - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07 and the General Requirements) an updated Progress Schedule and an updated Schedule of Submittals with each partial payment request, but no less than monthly. Contractor's failure to provide acceptable updated Progress Schedule and Schedule of Submittals will delay processing of the pay request until receipt of the acceptable updated Progress Schedule and/or an updated Schedule of Submittals. Such updates and adjustments shall comply with any provisions of the General Requirements applicable thereto.
  - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.
  - 3. Number of anticipated days associated weather conditions, as defined in the General Requirements, shall be included on the critical path of Project Schedule.
- C. If the Progress Schedule reflects a completion date prior to the completion date established by the Agreement, this shall afford no basis to claim for delay should Contractor not complete the Work prior to the projected completion date. Instead, all "float" between the completion date in Contractor's schedule and the completion date established in the Agreement shall belong to and is exclusively available to the Owner. Should a change order be executed with a revised completion date, the Progress Schedule shall be revised to reflect the new completion date.
- D. Project Coordination Meetings: The Contractor shall participate in Project Coordination Meetings to be held on the site monthly, or more often if conditions warrant, to establish the



current state of completion and revise the schedule as necessary. The Project Coordination Meeting will be conducted by the Owner and/or the Engineer.

- E. The Contractor shall implement the detailed schedule of activities to the fullest extent possible between Project Coordination Meetings.
- F. The Contractor shall prepare its daily report by 10:00 a.m. of the day following the report date. This daily report will contain, as a minimum, the weather conditions; number of workers by craft, including supervision and management personnel on site; active and inactive equipment on site; work accomplished by schedule activity item; problems; and visitors to the jobsite.
- G. If a current activity or series of activities on the overall project schedule is behind schedule and if the late status is not due to an excusable delay for which a time extension would be forthcoming, the Contractor shall attempt to reschedule the activity to be consistent with the overall Project Schedule so as not to delay any of the Contract milestones. The Contractor agrees that:
  - 1. The Contractor shall attempt to expedite the activity completion so as to have it agree with the overall progress schedule. Such measures as the Contractor may choose shall be made explicit during the Project Coordination Meeting.
  - 2. If, within two weeks of identification of such behind-schedule activity, the Contractor is not successful in restoring the activity to an on schedule status, the Contractor shall:
    - a. Carry out the activity with the scheduled crew on an overtime basis until the activity is complete or back on schedule.
    - b. Increase the crew size or add shifts so the activity can be completed as scheduled.
    - c. Commit to overtime or increased crew sizes for subsequent activities, or some combination of the above as deemed suitable by the Engineer.
  - 3. These actions shall be taken at no increase in the Contract Price.
- H. The Contractor shall maintain a current copy of all construction schedules on prominent display in the Contractor's field office at the Project site.
- I. The Contractor shall cooperate with the Owner and Engineer in all aspects of the Project scheduling system. Failure to implement the Project scheduling system or to provide specified schedules, diagrams and reports, or to implement actions to re-establish progress consistent with the overall progress schedule may be causes for withholding of payment.

#### 6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or

material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *“Or-Equal” Items:* If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
  - a. in the exercise of reasonable judgment Engineer determines that:
    - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
    - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
    - 3) it has a proven record of performance and availability of responsive service.
  - b. Contractor certifies that, if approved and incorporated into the Work:
    - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
    - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
2. *Substitute Items:*
  - a. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
  - b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
  - c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
  - d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
    - 1) shall certify that the proposed substitute item will:

- a) perform adequately the functions and achieve the results called for by the general design,
  - b) be similar in substance to that specified, and
  - c) be suited to the same use as that specified;
- 2) will state:
- a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
  - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
  - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
- a) all variations of the proposed substitute item from that specified, and
  - b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

#### 6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Acceptance of any Subcontractor, other person or organization by Owner shall not constitute a waiver of any right of Owner to reject defective Work. Contractor shall not be required to employ any Subcontractor, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection. If more than twenty-five percent of the work (as measured by dollar value and not including specialty work that is customarily subcontracted) is to be performed by one or more subcontractors then Contractor is obligated to notify Owner in writing of this intent with the submission of the Bid and to provide such supplemental information within five days of the bid as outlined under section 11 of INSTRUCTIONS TO BIDDERS.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
  - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- H. Owner or Engineer may furnish to any Subcontractor, Supplier or other person or organization, to the extent practicable, information about amounts paid on their behalf to Contractor in accordance with Contractor's Applications for Payment.
- I. Specialty Subcontractors: Contractor shall utilize the services of Specialty Subcontractors on those parts of the Work which is declared as specialty work in Specifications and which, under normal contracting practices, is best performed by Specialty Subcontractors, as required by the Engineer in Engineer's sole discretion, at no additional cost to the Owner. If Contractor desires to self-perform specialty work, Contractor shall submit a request to the Owner, accompanied by evidence that Contractor's own organization has successfully performed the type of work in question, is presently competent to perform the type of work, and the performance of the work by Specialty Subcontractors will result in materially increased costs or inordinate delays.
- J. The Contractor shall perform a minimum of 50 percent of the onsite labor with its own employees.
- K. All pipe installation must be performed by the general contractor or subcontractor that has been prequalified by the Cobb County-Marietta Water Authority for the installation of 48" ductile iron pipe.

#### 6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its

use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents

#### 6.08 *Permits [See Supplementary Conditions SC-6.08]*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

- D. The Contractor shall keep fully informed of all laws, ordinances and regulations of the federal, state, county, city and municipal governments or authorities in any manner affecting those engaged or employed in the Work or the materials used in the Work or in any way affecting the conduct of the Work and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same.

1. Security and Immigration Act: Contractor and its Subcontractors shall register and comply with OCGA 13-10-90 et. seq. and Georgia Department of Labor Chapter 300-10-1.

- E. Contractor shall perform those duties as they relate to O.C.G.A. Section 36-91-92, including filing the Notice of Commencement. Contractor shall provide Owner and Engineer with proof of having performed these duties before any progress payments or final payment shall be considered due and payable to the Contractor.
- F. Where professional engineering and/or architectural services are required in connection with any of the components required by the Contract, all Bidders and component suppliers must make certain that there is full compliance with all applicable laws of the State of Georgia and any other state governing professional engineering and/or architecture. The Owner and Engineer do not warrant that any entity listed as an acceptable manufacturer is or will be in compliance with such laws.
- G. Any fines levied against the Owner for failure of Contractor to properly maintain required NPDES erosion and sediment control measures or any other related requirements will be deducted as set-offs from payments due Contractor.

#### 6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

#### 6.11 *Use of Site and Other Areas*

##### A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
  - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
  - D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

#### 6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings shall be delivered to Engineer for Owner. See General Requirements for additional requirements.

#### 6.13 *Safety and Protection [See Supplementary Conditions SC-6.13]*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all precautions for the safety of, and shall provide the protection to prevent pollution of or damage, injury or loss to:
  1. all persons on the Site or who may be affected by the Work;



2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
  - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
  - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
  - E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
  - F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
  - G. The property, improvements or facilities at the Site shall be replaced or restored to a condition as good as when Contractor entered upon the Site. In case of failure on the part of Contractor to restore such property, or make good such damages or injury, the Owner may, after 48 hours written notice, or sooner in the case of an emergency, proceed to repair, rebuild, or otherwise restore such property, improvements or facilities as may be deemed necessary. The cost thereof will be deducted from any monies due or which may become due Contractor under this Contract.

#### 6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted or adjusted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the Specifications.
- b. Data shown on the Shop Drawings shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

*C. Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:
  - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
  - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each Shop Drawing and Sample submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

*D. Engineer's Review:*

1. Engineer will return as incomplete or will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval or disapproval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval or disapproval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of

each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

F. *Excessive Submittal Resubmission:* Engineer will record time required by Contractor for excessive submittal review occasioned by Contractor's resubmission, in excess of two resubmissions of any required submittal, caused by unverified, unchecked or unreviewed, incomplete, inaccurate or erroneous, or nonconforming submittals. Upon receipt of Engineer's accounting of time and costs, Contractor will reimburse Owner for the charges of Engineer's review for excessive resubmissions through set-offs from the recommended Owner payments to Contractor as established in Paragraph 14.02.D. of these General Conditions.

G. In the event that Contractor provided a submittal for a previously approved item, whether such is as a substitution or in addition to the previously approved item, Contractor shall reimburse Owner for Engineer's charges for such time as may be required to perform all reviews of the substitute item, unless the change is specifically requested by the Owner.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;
2. recommendation by Engineer or payment by Owner of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

#### 6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity. If through the negligent act or omission on the part of Contractor, any other contractor or any subcontractor shall suffer loss or damage on the Work, Contractor shall settle with such other Contractor or Subcontractor by agreement or arbitration if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against Owner and/or Engineer on account of any damage alleged to have been sustained, Owner shall notify Contractor, who shall indemnify and save harmless Owner and Engineer against any such claims.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the

Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

- C. The indemnification obligations of Contractor shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
  - 1. the negligent preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  - 2. negligently giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.
- D. Contractor, Subcontractors, Suppliers and others on the Project, or their sureties, shall maintain no direct action against the Engineer, their officers, employees, affiliated corporations, consultants, and subcontractors, for any claim arising out of, in connection with, or resulting from the engineering services performed. Only the Owner will be the beneficiary of any undertaking by the Engineer.

#### 6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract

Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## **ARTICLE 7 – OTHER WORK AT THE SITE**

### *7.01 Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
  - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
  - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

### *7.02 Coordination*

- A. If Owner contracts with others for the performance of other work on the Site, the following will be set forth in Supplementary Conditions:
  - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and
  3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination with other contractors.
- C. If Owner contracts with others for the performance of other work on the Site, the Contractor shall attend and participate in coordination meetings with the other on-site contractors.

### 7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

### 7.04 *Claims Between Contractors*

- A. Should Contractor cause damage to the work or property of any separate contractor at the Site, or should any claim arising out of Contractor's performance of the work at the Site be made by any separate contractor against Contractor, Owner, Engineer, or any other person, Contractor shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by mediation, arbitration, or at law.
- B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold Owner, Engineer, and the officers, directors, employees, agents, and other consultants of each and any of them harmless from and against all claims, costs, losses and damages, (including, but not limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) arising directly, indirectly or consequentially out of or resulting from any action, legal or equitable, brought by any separate contractor against Owner, Engineer, or the officers, directors, employees, agents, and other consultants of each and any of them to the extent based on a claim arising out of Contractor's performance of the Work. Should a separate contractor cause damage to the Work or property of Contractor or should the performance of work by any separate contractor at the Site give rise to any other claim, Contractor shall not institute any action, legal or equitable, against Owner, Engineer, or the officers, directors, employees, agents, and other consultants of each and any of them or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any mediator or arbitrator which seeks to impose liability on or to recover damages from Owner, Engineer, or the officers, directors, employees, agents, or other consultants of each and any of them on account of any such damage or claim.



- C. If Contractor is delayed at any time in performing or furnishing Work by any act or neglect of a separate contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times attributable hereto, Contractor may make a claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be Contractor's exclusive remedy with respect to Owner, and/or Engineer and the officers, directors, employees, agents, or other consultants of each and any of them for any delay, disruption, interference or hindrance caused by any separate contractor. This Paragraph does not prevent recovery from Owner and Engineer for activities that are their respective responsibilities.

## **ARTICLE 8 – OWNER'S RESPONSIBILITIES**

### **8.01 *Communications to Contractor***

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### **8.02 *Replacement of Engineer***

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer whose status under the Contract Documents shall be that of the former Engineer.

### **8.03 *Furnish Data***

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### **8.04 *Pay When Due***

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### **8.05 *Lands and Easements; Reports and Tests***

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

### **8.06 *Insurance***

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### **8.07 *Change Orders***

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

**ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits

and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

#### 9.03 *Project Representative [See Supplementary Conditions SC-9.03]*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

#### 9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will have authority to determine the actual quantities and classifications of Unit Price Work performed by Contractor. If Engineer exercises such authority, Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

#### 9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents, except that Owner shall determine whether bonds, certificates of insurance and release of liens comply with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

#### 9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

### **ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

#### 10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

1. Owner may, in anticipation of possibly ordering an addition, deletion or revision to the Work, request Contractor to prepare a proposal of cost and times to perform Owner's contemplated changes in the Work. Contractor's written proposal shall be transmitted to the Engineer promptly, but not later than fourteen days after Contractor's receipt of Owner's written request and shall remain a firm offer for a period not less than sixty days after receipt by Engineer.
  2. Contractor is not authorized to proceed on an Owner contemplated change in the Work prior to Contractor's receipt of a Change Order (or Work Change Directive) incorporating such change into the Work.
  3. Owner's request for proposal or Contractor's failure to submit such proposal within the required time period will not justify a claim for an adjustment in Contract Price or Contract Times (or Milestones).
  4. The Owner shall not be liable to the Contractor for any costs associated with the preparation of proposal associated with the Owner's contemplated changes in the Work.
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

#### 10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

#### 10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
  2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
  3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of

executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

B. In signing a Change Order, the Owner and Contractor acknowledge and agree that:

1. The stipulated compensation (Contract Price or Contract Time, or both) set forth in the Change Order includes payment for:
  - a. the Cost of the Work covered by the Change Order,
  - b. Contractor's fee for overhead and profit,
  - c. interruption of Progress Schedules,
  - d. delay and impact, including cumulative impact, on other work under the Contract Documents, and
  - e. extended home office and jobsite overhead;
2. the Change Order constitutes full mutual accord and satisfaction for the change to the Work;
3. No reservation of rights to pursue subsequent claims on the Change Order will be made by either party; and
4. No subsequent claim or amendment of the Contract Documents will arise out of or as a result of the Change Order.

#### 10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

#### 10.05 *Claims and Disputes*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 14 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with written supporting data shall be delivered to the Engineer and the other party to the Contract within 21 days (and monthly thereafter for continuing events) after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
  2. approve the Claim; or
  3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

## **ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### 11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those



prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
  - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by

Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

1. Full rental cost for rented, leased, and/or owned equipment shall not exceed the rates listed in the Rental Rate Blue Book published by Equipment Watch, a unit of Primedia, Inc., as adjusted to the regional area of the Project. The most recent published edition in effect at the commencement of the actual equipment use shall be used.
2. Rates shall apply to equipment in good working condition. Equipment not in good condition, or larger than required, may be rejected by Engineer or accepted at reduced rates.
3. Equipment in Use: Actual equipment use time documented by the Engineer shall be the basis that the equipment was on and utilized at the Project site. In addition to the leasing rate above, equipment operational costs shall be paid at the estimated operating cost, payment category (and the table below), and associated rate set forth in the Blue Book if not already included in the lease rate.

The hours of operation shall be based upon actual equipment usage to the nearest full hour, as recorded by the Engineer.

Actual Usage	Blue Book Payment Category
Less than 8 hours	Hourly Rate
8 or more hours but less than 7 days	Daily Rate
7 or more days but less than 30 days	Weekly Rate
30 days or more	Monthly Rate

4. Equipment when idle (Standby): Idle or standby equipment is equipment on-site or in transit to and from the Work site and necessary to perform the Work under the modification but not in actual use. Idle equipment time, as documented by the Engineer, shall be paid at the leasing rate determined in 11.01.A.5.c., excluding operational costs.
5. Where a breakdown occurs on any piece of equipment, payment shall cease for that equipment and any other equipment idled by the breakdown. If any part of the Work is shutdown by the Owner, standby time will be paid during non-operating hours if diversion of equipment to other Work is not practicable. Engineer reserves the right to cease standby time payment when an extended shutdown is anticipated.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to any of the Work that has been completed and accepted by the Owner, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D.), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee. If, however, any such loss or damage to the Work that has been accepted by Owner requires reconstruction and Contractor is placed in charge thereof, Contractor shall be paid for services, a fee proportionate to that stated in Paragraph 12.01.c.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
  5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

## 11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
1. Contractor agrees that:
    - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
    - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance:*
1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

### 11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
  - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
  - 2. there is no corresponding adjustment with respect to any other item of Work; and
  - 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## **ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

### 12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
  - 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
  - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a lump sum value fixed by the Owner or by unit price values fixed by the Owner (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and where the methods under Paragraph 12.01.B.2. are not selected by the Owner, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee*: The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or
2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
  - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
  - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent based on subcontractor's actual Cost of the Work;
  - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor; except the maximum total allowable cost to Owner shall be the Cost of the Work plus a maximum collective aggregate fee for Contractor and all tiered Subcontractors of 26.8 percent.
  - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
  - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
  - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

## 12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

### 12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, quarantine restrictions, strikes, freight embargoes, acts of war (declared or not declared), or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

## **ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

### 13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

### 13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

### 13.03 *Tests and Inspections*

- A. Contractor is responsible for the initial and subsequent inspections of Contractor's Work to ensure that the Work conforms to the requirements of the Contract Documents. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests. Contractor shall establish an inspection program and a testing plan acceptable to the Engineer and shall maintain complete inspection and testing records available to Engineer.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all non-contractor inspections, tests, or approvals required by the Contract Documents except:
1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
  2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
  3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.



G. Tests required by Contract Documents to be performed by Contractor and that require test certificates to be submitted to Owner or Engineer for acceptance shall be made by an independent testing laboratory or agency licensed or certified in accordance with Laws and Regulations and applicable state and local statutes. In the event state license or certification is not required testing laboratories or agencies shall meet the following applicable requirements:

1. "Recommended Requirements for Independent Laboratory Qualification", published by the American Council of Independent Laboratories.
2. Basic requirements of ASTM E329, "Standard of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction" as applicable.
3. Calibrate testing equipment at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards or accepted values of natural physical constants.

#### 13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner

to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

- B. If Owner stops Work under Paragraph 13.05.A. Contractor shall not be entitled to an extension of Contract Times or increase in Contract Price.

#### 13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- C. Contractor shall promptly segregate and remove rejected products from the Site.
- D. If rejected products or Work is not removed within 48 hours, the Engineer will have the right and authority to stop the Work immediately and will have the right to arrange for the removal of said rejected products or Work at the cost and expense of the Contractor.

#### 13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. repair such defective land or areas; or
  - 2. correct such defective Work; or
  - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the

defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.
- F. Repetitive malfunction of an equipment or product item shall be cause for replacement and an extension of the correction period to a date one year following acceptable replacement. A repetitive malfunction shall be defined as the third failure of an equipment or product item following original acceptance.

#### 13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

#### 13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time as defined by the Engineer after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other

provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.

- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

## **ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**

### *14.01 Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A and as modified will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

### *14.02 Progress Payments*

#### *A. Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied

by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
  - a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work, or
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
  
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
  - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
  - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

*C. Payment Becomes Due:*

1. Forty-five days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

*D. Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
  - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

- b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
  - c. there are other items entitling Owner to a set-off against the amount recommended; or
  - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.
4. Items entitling Owner to retain set-offs from the amount recommended, include but are not limited to:
  - a. Owner compensation to Engineer because of the following Contractor-caused events:
    - (1) Delays necessitating a time extension for the performance of Engineer's services;
    - (2) Witnessing retesting of corrected or replaced defective Work;
    - (3) Return visits to manufacturing facilities to witness factory testing or retesting;
    - (4) Submittal reviews in excess of three reviews by Engineer for substantially the same Submittal;
    - (5) Evaluation of proposed substitutes and in making changes to Contract Documents occasioned thereby;
    - (6) Hours worked by Contractor, in excess of normal work hours as defined by Article 6.02 of the General Conditions, necessitating Engineer to work overtime;
    - (7) Return visits to the Project by Engineer for Commissioning Activities not performed on the initial visit;

- b. Fines levied against the Owner for Contractor's performance of NPDES Erosion and Sedimentation Control Measures or other permit violations.
- c. The cost of repair, rebuilding or restoration of property improvements or facilities by the Owner as outlined in Paragraph 6.13.
- d. Liability for liquidated damages incurred by Contractor as set forth in the Agreement.

E. *Prompt Payment Clause*

1. Owner and Contractor agree that all partial payments and final payments shall be subject to the Georgia Prompt Pay Act, as originally enacted and amended, and as set forth in O.C.G.A. 13-11-1 through 13-11-11, except as provided below to the extent authorized by law.
2. Interest Rate: For purposes of computing interest on late payments, the rate of interest shall be the applicable monthly interest rate for the "Georgia Fund 1" investment pool managed by the State of Georgia Office of Treasury and Fiscal Services.
3. Payment Periods:
  - a. When Contractor has performed in accordance with the provisions of these Contract Documents, the Owner shall pay Contractor within 45 days of receipt by the Owner or the Owner's representative of any properly completed Application for Payment, based upon work completed or service provided pursuant to the terms of these Contract Documents.
  - b. When a subcontractor has performed in accordance with the provisions of its subcontract and the subcontract conditions precedent to payment have been satisfied, Contractor shall pay to that subcontractor and each subcontractor shall pay to its subcontractor, within ten days of receipt by Contractor or subcontractor of each periodic or final payment, the full amount received for such subcontractors work and materials based on work completed or service provided under the subcontract, less retainage expressed as a percentage, but such retainage shall not exceed that retainage being held by the Owner, provided that the subcontractor has provided or provides such satisfactory reasonable assurances of continued performance and financial responsibility to complete its work as contractor in its reasonable discretion may require, including but not limited to a payment and performance bond.
4. Interest on Late Payment: Except otherwise provided in these Contract Documents and/or in O.C.G.A. 13-11-5, if a periodic or final payment to Contractor is delayed by more than the time allotted in Paragraph 14.02.E.3b, or if a periodic or final payment to a subcontractor is delayed more than ten days after receipt of periodic or final payment by Contractor or Subcontractor, the Owner, Contractor, or subcontractor, as the case may be, shall pay interest to its Contractor, or subcontractor beginning on the day following the due dates as provided



in Paragraph 14.02.E.3b, at the rate of interest as provided herein. Interest shall be computed per month or a pro-rata fraction thereof on the unpaid balance. There shall be no compounded interest. No interest is due unless the person or entity being charged interest received "Notice" as provided in Paragraph 14.02.E.5. Acceptance or progress payments or final payment shall release all claims for interest on said payments.

5. Notice of Late Payment and Request of Interest: Any person or entity asserting entitlement to interest on any periodic or final payment pursuant to the provisions of this Prompt Payment Clause shall provide "notice" to the person or entity being charged interest of the charging party's claim to interest on late payment. "Notice" shall be in writing, served by U.S. Certified Mail – Return Receipt Requested at the time the properly completed Application for Payment is received by the Owner or Owner's representative, and shall set forth the following:
  - a. A short and concise statement that interest is due pursuant to the provisions of the Georgia Prompt Pay Act and this Prompt Payment Clause;
  - b. The principal amount of the periodic or final payment which is allegedly due to the charging party; and
  - c. The first day and date upon which the charging party alleges that said interest will begin to accrue, pursuant to the provisions of the Georgia Prompt Pay Act and this Prompt Payment Clause.
6. These "Notice" provisions are of the essence; therefore, failure to comply with any requirement as set forth in the Prompt Payment Clause precludes the right to interest on any alleged late payment to which said "Notice" would otherwise apply.
7. Integration with the Georgia Prompt Pay Act: Unless otherwise provided in these Contract Documents, the parties hereto agree that these provisions of this Prompt Payment Clause supersede and control all provisions of the Georgia Prompt Pay Act (O.C.G.A. 13-11-1 through 13-11-11 (1994)), as originally enacted and as amended, and that any dispute arising between the parties hereto as to whether or not the provisions of this contract or the Georgia Prompt Pay Act control will be resolved in favor of these Contract Documents and its terms.

#### 14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.
- B. No materials or supplies for the Work shall be purchased by Contractor or subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. Contractor warrants that Contractor has good title to all

materials and supplies used by Contractor in the Work, free from all liens, claims or encumbrances.

- C. Contractor shall indemnify and save Owner harmless from all claims growing out of the lawful demands for payment by subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this Contract. Contractor shall, at Owner's request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If Contractor fails to do so, then Owner may, after having served written notice on the said Contractor either pay unpaid bills, of which Owner has written notice, direct, or withhold from Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to Contractor shall be resumed, in accordance with the terms of this Contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon Owner to either Contractor or to Contractor's Surety. In paying any unpaid bills of Contractor, Owner shall be deemed the agent of Contractor and any payment so made by Owner shall be considered as payment made under the Contract by Owner to Contractor and Owner shall not be liable to Contractor for any such payment made in good faith.

#### 14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion. Specific items of Work that must be completed prior to the Engineer's issuance of a certificate of Substantial Completion include, but are not limited to, the following:
1. Correction of all deficient Work items listed by all state, local, and other regulatory agencies or departments.
  2. All submittals must be received and approved by the Engineer, including but not necessarily limited to, the following:
    - a. Record documents.
    - b. Factory test reports, where required.
    - c. Equipment and structure test reports.
    - d. Manufacturer's Certificate of Proper Installation.
    - e. Operating and maintenance information, instructions, manuals, documents, drawings, diagrams, and records.
    - f. Spare parts lists.
  3. All additional warranty or insurance coverage requirements have been provided.

4. All manufacturer/vendor-provided operator training is complete and documented.
  5. All occupancy permits required by local building code officials.
  6. Other items of Work specified elsewhere as being prerequisite for Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

#### 14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 14.07 *Final Payment*

##### A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments. Under no circumstances will Contractor's application for final payment be accepted by the Engineer until all Work required by the Contract Documents has been completed.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
  - b. consent of the surety to final payment;

- c. a list of all Claims against Owner that Contractor believes are unsettled; and
  - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
  - e. The Contractor's signed and sealed final change order to close the Contract; and
  - f. Any other data reasonably required by the Owner and/or Engineer, including execution of Affidavit of Contractor, establishing payment or satisfaction of all obligations, including releases, waivers of liens, and documents of satisfaction of debts.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

*B. Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying all documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. Thereupon Engineer will give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment. If the Application for Payment and accompanying documentation are appropriate as to form and substance, Owner will in accordance with the applicable State or local General Law, pay Contractor the amount recommended by Engineer.

*C. Payment Becomes Due:*

1. Sixty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment

(for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
  2. a waiver of all Claims by Contractor against Owner.

### **ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**

#### 15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

#### 15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
  2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
  3. Contractor's repeated disregard of the authority of Engineer;
  4. Contractor's violation in any substantial way of any provisions of the Contract Documents;

5. If Contractor abandons the Work, or sublets this Contract or any part thereof, without the previous written consent of Owner, or if the Contract or any claim thereunder shall be assigned by Contractor otherwise than as herein specified;
  6. Contractor is adjudged bankrupt or insolvent;
  7. Contractor makes a general assignment for the benefit of creditors;
  8. A trustee or receiver is appointed for Contractor or for any of Contractor's property;
  9. Contractor files a petition to take advantage of any debtor's relief act, or to reorganize under the bankruptcy or applicable laws;
  10. Contractor repeatedly fails to supply sufficient skilled workmen, materials or equipment;
  11. Contractor fails to make satisfactory progress toward timely completion of the work; or
  12. Contractor repeatedly fails to make prompt payments to subcontractors or material suppliers for labor, materials or equipment.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor, unless Contractor otherwise cures the deficiency in accordance with Paragraph 15.02.D.:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
  2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
  3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its

failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.
- G. Any termination by Owner pursuant to Paragraph 15.02 may result in the disqualification of Contractor for bidding on future contracts of Owner.

#### 15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate or discontinue, in whole or in part, the Contract. In such case, Contractor shall be paid for (without duplication of any items):
  - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination;
  - 2. direct expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work;
  - 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others;
  - 4. reasonable expenses directly attributable to termination; and
  - 5. ten percent overhead and profit for those costs agreed to in Paragraphs 15.03.A.1 through 15.03.A.4 above.
- B. Contractor shall submit within 30 calendar days after receipt of notice of termination a written statement setting forth its proposal for an adjustment to the Contract Price to include only the incurred costs described in this clause. Owner shall review, analyze, and verify such proposal and negotiate an equitable amount and the Contract may be modified accordingly.
- C. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

#### 15.04 *Contractor May Stop Work or Terminate*



- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 45 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

## **ARTICLE 16 – DISPUTE RESOLUTION**

## **ARTICLE 17 – MISCELLANEOUS**

### *17.01 Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
  - 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
  - 2. delivered at or sent by registered or certified mail, postage prepaid, or by facsimile transmission and followed by written confirmation, to the last business address known to the giver of the notice.
- B. All notices required of Contractor shall be performed in writing to the appropriate entity.
- C. Electronic mail and messages will not be recognized as a written notice.
- D. If the Contractor does not immediately notify the Owner in writing of the belief that a field order, additional work by other contractors or the Owner, or subsurface, latent, or unusual unknown conditions entitles the Contractor to a Change Order, no consideration for time or money will be given the Contractor.

### *17.02 Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

### 17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

### 17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

### 17.05 *Controlling Law*

- A. Each and every provision of this Agreement shall be construed in accordance with and governed by Georgia law. The parties acknowledge that this Contract is executed in Cobb County, Georgia and that the Contract is to be performed in Cobb County, Georgia. Each party hereby consents to the Cobb County Superior Court's sole jurisdiction over any dispute which arises as a result of the execution or performance of this Agreement, and each party hereby waives any and all objections to venue in the Cobb County Superior Court.

### 17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

### 17.07 *Addresses*

- A. Both the address given in the Bid form upon which this Agreement is founded, and Contractor's office at or near the site of the Work are hereby designated as places to either of which notices, letters, and other communications to Contractor shall be certified, mailed, or delivered. The delivering at the above named place, or depositing in a postpaid wrapper directed to the first-named place, in any post office box regularly maintained by the post office department, of any notice, letter or other communication to Contractor shall be deemed sufficient service thereof upon date of such delivery or mailing. The first-named address may be changed at any time by an instrument in writing, executed by Contractor, and delivered to and acknowledged by the Owner and Engineer. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon Contractor personally.

### 17.08 *Forms and Record*

- A. The form of all Submittals, notices, change orders and other documents permitted or required to be used or transmitted under the Contract Documents shall be determined by the Engineer.

- B. Contractor shall maintain throughout the term of the Contract, complete and accurate records of all Contractor's costs which relate to the work performed, including the extra work, under the terms of the Contract. The Owner, or its authorized representative, shall have the right at any reasonable time to examine and audit the original records.
- C. Records to be maintained and retained by Contractor shall include, but not be limited to:
1. Payroll records accounting for total time distribution of Contractor's employees working full or part time on the work;
  2. Cancelled payroll checks or signed receipts for payroll payments in cash;
  3. Invoices for purchases, receiving and issuing documents, and all other unit inventory records for Contractor's stores, stock, or capital items;
  4. Paid invoices and cancelled checks for materials purchase, subcontractors, and any other third parties' charges;
  5. Original estimate and change order estimate files and detailed worksheets;
  6. All project-related correspondence; and
  7. Subcontractor and supplier change order files (including detailed documentation covering negotiated settlements).
- D. Owner shall also have the right to audit: any other supporting evidence necessary to substantiate charges related to this agreement (both direct and indirect costs, including overhead allocations as they may apply to costs associated with this agreement); and any records necessary to permit evaluation and verification of Contractor compliance with contract requirements and compliance with provisions for pricing change orders, payments, or claims submitted by Contractor or any payees thereof. Contractor shall also be required to include the right to audit provision in the contracts (including those of a lump-sum nature) of all subcontractors, insurance agents, or any other business entity providing goods and services.

#### 17.09 *Assignment*

- A. Contractor shall not assign the whole or any part of this Contract or any monies due or to become due hereunder without written consent of the Owner. In case Contractor assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to Contractor shall be subject to prior liens of all persons, firms and corporations for services rendered or materials supplied for the performance of the Work called for under this Contract.

END OF SECTION



**SECTION 00 73 00**  
**SUPPLEMENTARY CONDITIONS**

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2007 Edition, with CCMWA Modifications 01-13-2010). All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

The provisions in this Section of the Specifications shall govern in the event of any conflict between this Section and the General Conditions.

SC-2.02.B.1      Add the following new paragraph immediately after 2.02.B of the General Conditions

1.    To receive electronic copies of the Contract Documents, Contractor shall complete and provide to Engineer an Electronic Media Release Form.

SC-4.02            *Subsurface and Physical Conditions*

SC-4.02.C        Add the following new paragraph immediately after 4.02.B:

4.02.C    In preparation of Drawings or Specifications, Engineer or Related Entities relied on the following reports or explorations and tests of subsurface conditions at the Site:

4.02.C.1    Report dated 12/27/2019, prepared by United Consulting, Inc., entitled

4.02.C.2    Report dated 01/31/2020, prepared by Southern Cathodic Protection entitled

4.02.D.    In preparation of Drawings and Specifications, Engineer or Related Entities relied upon the following drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the Site:

4.02.D.1 Existing Pipeline Route Maps (Aerial and Google Streets) (previously provided in RFQ)

4.02.D.2 Blackjack Mountain Supply Water Main Replacement Route Study - Engineering Strategies, Inc. (2016)

4.02.D.3 Blackjack Mountain Survey – TerraMark (2013) (KMZ, AutoCAD, JPG, and PDF Files)

4.02.D.4 Water Supply Lines (Original) – Merit & Welker Engineers (1953) (CCMWA 9-1)

4.02.D.5 Relocation of 30” Water Main at I-75 – Hensley-Schmidt, Inc. (1967) (CCMWA 9-2)

4.02.D.6 30” Main Relocation – GPC Easement Near Holt Rd. – Welker & Associates, Inc. (1967)

4.02.D.7 Blackjack Mountain Supply Line (As-Built Survey) – Welker & Associates, Inc. (1987) (CCMWA 9-1R)

4.02.D.8 Barnes Mill Road 30” Meter Abandonment – Welker & Associates, Inc. (1993) (CCMWA 9-9)

4.02.D.9 Barnes Mill Road at I-75 30” Water Main Relocation – Parsons/Northwest Express Roadbuilders (2015)

4.02.D.10 Southwest Connector 54” Water Main East Cobb Phase – Arcadis, Inc. (2015) (Construction Drawing; Not As-Built)

4.02.D.11 Highway 41 Water Main (Phase II) – Welker & Associates, Inc. (1989) (CCMWA 16-2)

4.02.D.12 Highway 41 Water Main (Phase III) – Welker & Associates, Inc. (2002) (CCMWA 16-7)

4.02.D.13 Cobb County Water System: Maps of Sewer Facilities in Cobb County; Maps of Water Facilities in Cobb County; Cobb County GIS

4.02.D.14 Marietta Board of Lights and Water: Maps of Water Facilities

4.02.D.15 Cobb County-Marietta Water Authority GIS (KMZ and Shapefiles)

4.02.E. Copies of reports itemized in SC 4.02.C that are not included with Bidding Documents may be examined at the office of the Engineer during regular business hours. These reports are not part of the Contract Documents, but the “technical data” contained therein are incorporated therein by reference. Contractor is not entitled to rely upon other information and data utilized by Engineer and Related Entities in the preparation of Drawings and Specifications.

SC-5.02            *Licensed Sureties and Insurers*

SC-5.02.B            Add a new paragraph immediately after Paragraph 5.02.A of the General Conditions which is to read as follows:

- B. All Sureties and Insurers must have an A.M. Best Financial Strength Rating of A- or higher, with a Financial Size Category of X or higher.

SC-5.03            *Certificates of Insurance*

SC-5.03            The following shall be added as 5.03.F thru N, following 5.03.E:

- F. Notwithstanding provisions of O.C.G.A., Section 33-23-44, insurance certificate must include the following affirmative statement: "Coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty (30) days prior written notice has been given to Owner and to each other additional insured to whom a certificate of insurance has been issued."
- G. Insurance certificate must show proper name and address of Cobb County-Marietta Water Authority: 1170 Atlanta Industrial Drive, Marietta, Georgia 30066 and show Owner, Engineer, and Engineer's Consultants as additional insureds.
- H. Insurance certificate must show coverage applies for contractual liability for Contractor's indemnity obligations under Paragraphs 6.07, 6.11 and 6.20 of the General Conditions.
- I. In addition to the requirement for the policy limits specified under S.C. 5.04, A.3 – A.5, the applicable insurance certificate must show that the entire aggregate policy limits for general liability coverage will apply specifically for the Project.
- J. Each insurance certificate for coverage other than Worker's Compensation Insurance must show that a waiver of rights of recovery against any of the insureds or the additional insureds is in effect.
- K. Certificate for Contractor's liability insurance must show coverage of claims for damages because of bodily injury, sickness or death of any person or property damage resulting from the ownership, maintenance or use of mobile equipment.
- L. Certificate for Worker's Compensation Insurance must show coverage includes executive officers and Contractor's leased employees, temporary staff and part-time employees.
- M. Owner may waive specific insurance coverages set forth in SC-5.04 where contractor provides equivalent insurance coverage by way of a different combination of policies.
- N. Each insurance certificate must show coverage is underwritten with an insurance carrier which has A.M. Best ratings as stipulated in Paragraph SC-5.02-B.

SC-5.04            *Contractor's Liability Insurance*

The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide the following coverages for not less than the following limits or greater where required by Laws and Regulations:

5.04.A.1 and 5.04.A.2 For coverage as required by General Conditions 5.04.A.1 and 5.04.A.2 (Worker's Compensation):

- |                          |                 |
|--------------------------|-----------------|
| (1) State                | Statutory Limit |
| (2) Federal              | Statutory Limit |
| (3) Employer's Liability | \$ 1,000,000    |

5.04.A.3 – A.5 For coverage as required by General Conditions 5.04.A.3, 5.04.A.4 and 5.04.A.5 (General Liability) which shall also include broad form property damage liability, loss of use of

tangible property, and loss of use of property that has not been damaged but has been rendered useless nonetheless, completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of CONTRACTOR other than Contractor's work or equipment:

(1) Aggregate	\$ 2,000,000
(2) Each Occurrence	\$ 1,000,000
(3) Products and completed operations, aggregate	\$ 2,000,000
(4) Personal and advertising injury	\$ 1,000,000
(5) Fire Damage/Legal Liability	\$ 100,000
(6) Medical Expense Limit any one person	\$ 5,000
(7) Property damage liability insurance will provide explosion, collapse and underground coverages where applicable.	
(8) Excess/Umbrella Liability:	
General Aggregate	\$ 5,000,000
Each Occurrence	\$ 5,000,000

The aggregate policy limits for general liability coverage must be designated to the Project. The excess/umbrella policy must provide additional coverage for policy limits in excess of the general liability (including products and completed operations), automobile liability, contractual liability and employer's liability. Mobile equipment coverage described in S.C. 5.03.G must be included.

5.04.A.6 Automobile Liability:

- (1) Combined Single Limit (Bodily Injury and Property Damage): \$ 1,000,000
- Coverage must be provided for all owned/leased, hired and non-owned vehicles.

5.04.B.3. *Contractual Liability Insurance:*

The Contractual Liability coverage required by paragraph 5.04.B.3 of the General Conditions shall provide coverage for not less than the following amounts:

(1) General Aggregate	\$ 2,000,000
(2) Each Occurrence (Bodily Injury and Property Damage)	\$ 2,000,000

The aggregate policy limits for Contractual Liability must be designated to the Project. As indicated in S.C. 5.04.A.3 – A.5, the excess/umbrella policy must provide additional coverage in excess of these amounts.

SC-5.04.E After Paragraph D. add Paragraph 5.04.E:

- E. Additional Insureds: The Owner, Engineer, and Engineer's Consultant shall be covered as Additional Insured under any and all Insurance required by this Contract, and such insurance shall be primary with respect to the Additional Named Insured. Confirmation of this shall appear on the Accord Certificate of Insurance, and on any and all applicable Insurance policies. However, this requirement does not apply to Workers' Compensation or Professional Liability Insurance. Copies of endorsements showing that the Owner and



each additional insured identified herein have been added to the policies as an additional insured shall be attached to each of the certificates.

SC-5.06 *Property Insurance*

Delete Paragraph 5.06 of the General Conditions in its entirety and insert the following in its place:

5.06.A. Contractor shall purchase and maintain property insurance upon the Work at the site in the amount of the full replacement cost thereof except for flood perils which shall have a \$1,000,000 limit (subject to such deductible amounts as may be provided in these Supplemental Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, Engineer, Engineer's Consultants and any other person or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
2. be written on a Builder's Risk or Installation Floater "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework and Work in transit and shall insure real and personal property against at least the following perils: fire, lightning, extended coverage, theft, vandalism and malicious mischief, explosives and blasting, wind, flood, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions;
3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects, permits, loss and damage to the Work, temporary building and scaffoldings, false work, work in transit, and materials and supplies, fixtures, machinery and equipment);
4. cover materials and equipment in transit for incorporation in the Work or stored at the site or at any other location prior to being incorporated in the Work, provided that such materials and equipment have been recommended by Engineer; and be maintained in effect until final agreed to in writing by Owner, Contractor, and Engineer with thirty days' written notice to each other additional insured to whom a certificate of insurance has been issued;
5. allow for partial utilization of the Work by Owner;
6. include testing and startup;
7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued;

8. contain the following provisions: (1) coverage for property in transit and (2) coverage for building damage as required by ordinance and law including demolition, debris removal and increased cost of construction; and
9. property insurance furnished under this contract shall have deductibles no greater than \$25,000 for all perils.

5.06.B. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions or approved by Owner. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

The policies of insurance required to be purchased and maintained by Contractor in accordance this paragraph 5.06 shall comply with the requirements of GC 5.04.B.5.

SC-6.02            *Labor; Working Hours*

SC-6.02            Add the following subparagraph 6.02.D.1:

1. The rate of \$135.00/hour will apply for the overtime work performed on behalf of the Owner.

SC-6.08            *Permits*

SC-6.08.B           Add the following subparagraph 6.08.B

- B. The Owner will submit Contract Drawings and Specifications to Cobb County Community Development.

SC-6.13            *Safety and Protection*

SC-6.13            Following Paragraph 6.13.G, add the following:

H. Contractor's Plan for Safety Precautions and Programs

1. Before any Work at the site is started, Contractor shall have prepared Contractor's written plan for Project-specific safety precautions and programs, complete with respect to procedures and actions that the Contractor intends Contractor and all others as provided in Paragraphs 6.13.A.1 and 13.02.A, to follow in order for Contractor and all others to comply with all applicable Laws and Regulations. Contractor's plan for safety precautions and programs shall have been approved and endorsed by Contractor's designated safety representative required in Paragraph 6.14.A.
2. Contractor shall revise Contractor's plan for safety precautions and programs at appropriate times to reflect changes in construction conditions, the Work, Contractor's means, methods, techniques, sequences and procedures of construction, and the requirements of paragraph 13.02.A. Contractor shall disseminate the original plan and revisions to all others indicated in Paragraphs 6.13.A and 13.02.A.

3. Contractor's plan for safety precautions and programs will not require more stringent safety requirements, training or other qualifications for all others, including those specified in Paragraph 13.02.A and their employees, than Contractor sets forth for comparable activity and responsibility of Contractor, Subcontractors, and Suppliers and their respective employees.

SC-9.03            *Project Representative*

SC-9.03            Add the following new paragraphs immediately after Paragraph 9.03.A:

- B. The Resident Project Representative (RPR) will be Engineer's or Engineer's Consultant's employee or agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall be only through or with the full knowledge and approval of Contractor. The RPR shall:
  1. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.
  2. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
  3. *Liaison:*
    - a. Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, assist in providing information regarding the intent of the Contract Documents.
    - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
    - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
  4. *Interpretation of Contract Documents:* Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
  5. *Modifications:* Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
  6. *Review of Work and Rejection of Defective Work:*
    - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.

- b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

7. *Inspections, Tests, and System Startups:*

- a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

8. *Records:*

- a. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- b. Maintain records for use in preparing Project documentation.
- c. Obtain GPS locations along center line of pipe at every joint of pipe, at fittings and other important locations. Contractor shall assist RPR in holding the GPS rover unit rod on top of the pipe as needed, wait for the GPS unit to obtain an accurate reading (for a reasonable time but not to exceed 15 minutes) and return the equipment to the RPR before safety shoring is removed.

9. *Reports:*

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Hazardous Environmental Condition.

- 10. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

11. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.
  12. *Completion:*
    - a. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
    - b. Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
    - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.
- C. Contractor is hereby advised by Engineer that the RPR is not authorized to:
1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including “or-equal” items).
  2. Exceed limitations of Engineer’s authority as set forth in the Contract Documents.
  3. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor’s superintendent.
  4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor’s work unless such advice or directions are specifically required by the Contract Documents.
  5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
  6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
  7. Authorize Owner to occupy the Project in whole or in part.

END OF SECTION



**DIVISION 01**  
**GENERAL REQUIREMENTS**





**SECTION 01 11 00  
SUMMARY OF WORK**

**1 GENERAL**

**1.1 DESCRIPTION**

- A. The work described by these specifications is located in eastern Cobb County, Georgia. The purpose of the project is to replace an existing 30" prestressed concrete cylinder pipe (PCCP) with approximately 32,500 LF of 36" zinc-coated ductile iron pipe (DIP). The project begins at the intersection of Lower Roswell Road and Indian Hills Parkway and is planned to run west on an existing 60-foot cross-country permanent easement for approximately 24,000 linear feet to the intersection of Barnes Mill Road and Bentley Lake Road. The project includes a feed from this intersection to the Blackjack Mountain Tank Site, approximately 1,500 linear feet northeast on Barnes Mill Road. The project also continues southwest along Barnes Mill Road for approximately 8,000 linear feet to its termination point near the intersection of US Highway 41/SR 3/Cobb Parkway and Barnes Mill Road with a tie-in to CCMWA's existing 30-inch DIP water main.

**2 PRODUCTS**

**2.1 SUMMARY OF WORK**

- A. The work to be performed consists of furnishing all labor, equipment and materials required to construct the water main and appurtenances as shown in the contract drawings and specified herein.

**2.2 MAJOR ITEMS OF CONSTRUCTION**

- A. Preparation of traffic control plan for approval by Cobb County and City of Marietta DOT's local construction office and inspector. Owner to obtain a utility permit from CCDOT and City of Marietta for installation of the main once contractor is under contract and submits traffic control plan. Contractor to apply for and obtain required road closure permits for CCDOT and City of Marietta owned road crossings.
- B. Clearing and grubbing of the full permanent easement.
- C. Installation of approximately 32,500 LF of 36" and 30" zinc-coated, double poly-wrapped, double bonded-joint, DIP water main by removal of an existing 30" PCCP water main and installing in the existing trench or generally parallel to the existing 30" PCCP main.
- D. Installation of combination air and vacuum valves, blowoff valves, and other appurtenances, where shown in the drawings.
- E. Removal and disposal of existing 30" PCCP as required for installation of the proposed 36" and 30" DIP. Only 30" PCCP designated to be abandoned in the drawings shall be left in place.
- F. Stream crossings (crossing Sope Creek at three separate locations)

- G. Connections to existing DIP water mains where shown in the Drawings.
- H. Installation of 36" gate valves with two test stations each, unless otherwise specified.
- I. Installation of 3M marker balls along the proposed water main.
- J. Paving and striping of travel lanes turn lanes and acceleration/deceleration lanes, as necessary or required.
- K. Installation of 3M marker balls on the existing 30" water main where removed from service and left in place.
- L. Abandonment of the existing 30" water main including outlets to Cobb County and City of Marietta, line valves, blowoff valves, and other appurtenances as shown in the plans.
- M. Replacement, removal or abandonment of water meters to the City of Marietta and CCWS where indicated.

### 3 EXECUTION

#### 3.1 GENERAL

- A. Coordinate, furnish and install the proposed water main and appurtenances as shown in the contract documents.
- B. Constraints on Construction Scheduling
  - 1. Lane closures will be permitted during the typical hours, 9 AM to 4 PM, Monday through Friday. Special consideration may be given depending on specific circumstances to extend these hours during the weekday or to weekend days. Adequate justification is required for each variance request and should not be expected for the duration of the project.
  - 2. No road or intersection closures will be permitted along Cobb County Major Thoroughfare Plan roadways (classified as Arterial or Collector), except for the locations described below. Where referenced, Summer 2021 and Summer 2022 dates are specifically 6/1/2021 – 7/31/2021 and 5/31/2022 – 7/31/2022, respectively:
    - a. Barnes Mill Rd, from Merritt Rd to east project limits (east of Bentley Lake Rd): restricted to Summer dates; detour route includes Wallace Rd, N Marietta Pkwy, Roswell Rd; detour sign plan must be developed in accordance with MUTCD requirements and is subject to review/approval by Cobb DOT and GDOT; CCDOT road closure permit must be submitted no later than 3 weeks before proposed road closure is to begin, with additional time recommended for GDOT review of sign plan.
    - b. Old Canton Rd, south of Clearbrook Dr: restricted to weekend closure between 7 PM Friday and 6 AM Monday, within Summer dates; detour route includes Lower Roswell Rd, Johnson Ferry Rd, Roswell Rd; detour

sign plan must be developed in accordance with MUTCD requirements and is subject to review/approval by Cobb DOT and GDOT; CCDOT road closure permit must be submitted no later than 3 weeks before proposed road closure is to begin, with additional time recommended for GDOT review of sign plan.

- c. Holt Rd, south of Montclair Park Ln: restricted to weekend closure between 7PM Friday and 6 AM Monday, within Summer dates; detour route includes Lower Roswell Rd, Johnson Ferry Rd, Roswell Rd; detour sign plan must be developed in accordance with MUTCD requirements and is subject to review/approval by Cobb DOT, which may also include coordination with Cobb County School District (CCSD) / Wheeler High School; CCDOT road closure permit must be submitted no later than 3 weeks before proposed road closure is to begin, with advanced notification of proposed date(s) for CCSD coordination provided no later than 2 months before submittal.
  - d. Ridgewater Dr, north of Indian Hills Dr: restricted to Summer dates; detour route is Indian Hills Dr, Pinehurst Ln, Lower Roswell Rd, Indian Hills Pkwy, Clubland Dr; detour sign plan must be developed in accordance with MUTCD requirements and is subject to review/approval by Cobb DOT; CCDOT road closure permit must be submitted no later than 3 weeks before proposed road closure is to begin
  - e. Clubland Dr, north of Clubwood Trl: restricted to Summer dates; detour route is Indian Hills Pkwy; detour sign plan must be developed in accordance with MUTCD requirements and is subject to review/approval by Cobb DOT; CCDOT road closure permit must be submitted no later than 3 weeks before proposed road closure is to begin
- 4. Road closures are permitted along non-Thoroughfare Plan roadways (classified as Local), with appropriate detour sign plan (in accordance with MUTCD for low-volume roadways) and road closure permit submitted no later than 3 weeks before proposed road closure is to begin.
  - 5. For all road closures, coordination with affected property owners is required before and throughout closure to provide uninterrupted access to and from affected properties. In particular, this is required daily along Barnes Mill Rd as the location of the closure changes.
  - 6. Construction from STA 162+00 to STA 185+75 and from to STA 211+35 to STA 238+00 must take place between the months of January and February per the easement agreement between CCMWA and Indian Hills Country Club, Inc. (See copy of easement agreement in Appendix D - Easements)
  - 6. Contractor shall plan and sequence the work to accommodate these requirements and include any additional cost as part of the bid.

**\*\*END OF SECTION\*\***



**SECTION 01 21 16  
ALLOWANCES**

**1 GENERAL**

**1.1 DESCRIPTION**

- A. The Contractor shall include in his bid the allowances listed in the bid proposal. These allowances shall cover work, manufactured equipment or services that will be provided either by the Contractor or by others who may be selected by the Owner. All work performed under allowances shall be subject to Owner approval and under special terms described herein. The contractor shall coordinate and cause the work covered by these allowances to be performed. In accordance with the Contract General Conditions Paragraph 11.02 Allowances, the Contractor's costs including markup and profit are included in the Contract Price and no additional payment will be made for these costs. The final amount of any allowance item listed in the bid proposal shall be adjusted accordingly by change order to reflect actual cost.

**2 SCHEDULE OF ALLOWANCES**

**2.1 ALLOWANCE FOR FORCE ACCOUNT WORK**

- A. The purpose for this allowance is to reimburse the Contractor for force account work as directed by the Owner. Payment under this allowance shall be full compensation for all tools, labor, equipment, materials, traffic control, and any incidentals necessary for the work directed. The Contractor shall coordinate such work with the water main installation. In order to be eligible for payment under this item, the Contractor must submit a written proposal to the Owner for approval before any work begins. Reimbursement to the Contractor will be paid at the actual cost.

**2.2 ALLOWANCE FOR MATERIALS TESTING**

- A. The purpose for this allowance is to reimburse the Contractor for the services of a testing laboratory to perform required testing of materials on this project. The Contractor must submit a written proposal to the Owner for approval stating the geotechnical or materials testing firm's qualifications before any work begins. In order to be eligible for payment, tests must (a) be ordered by the Engineer, (b) show that the material met specifications, and (c) be performed by an approved testing laboratory. Laboratory fees will be paid by the Contractor. Reimbursement to the Contractor will be made at the actual cost of eligible tests. Test reports will be provided to Engineer and Owner.

**2.3 ALLOWANCE FOR UTILITY RELOCATION BY OTHERS**

- A. The purpose for this allowance is to reimburse the Contractor for the work of relocating or adjusting or replacing any required utility as necessary to complete the construction of the proposed water main. In order to be eligible for payment under this item, the Contractor must submit a written proposal to the Engineer for approval for the required relocation or adjustments of the existing utilities before work begins in these areas. Reimbursement to the Contractor will be paid at the actual cost.

**2.4 ALLOWANCE FOR CORROSION CONTROL**

- A. The purpose for this allowance is to reimburse the Contractor for the services of a firm specializing in design of corrosion control for pipelines and for the confirmation of pipeline joint continuity and Cathodic Protection baseline survey. Payment under this allowance shall be full compensation for all tools, labor, equipment, materials, and any incidentals. The

Contractor shall coordinate all work with the water main installation. In order to be eligible for payment under this item, the Contractor must submit a written proposal to the Owner for approval before any work begins. Reimbursement to the Contractor will be paid at the actual cost. Cathodic test stations and bonded joints will be paid under the bid items included in the Bid Proposal.

## 2.5 ALLOWANCE FOR LANDSCAPING

- A. The purpose for this allowance is to reimburse the Contractor for the services of a contracting firm specializing in landscape and driveway restoration and to pay for the materials required for such work. This work includes private driveways with inserted stone/brick pavers or textured concrete. Locations of these driveways will be noted in the plan documents. This work does not include the landscape restoration work inside private property easements. Payment under this allowance shall be full compensation for all tools, labor, equipment, materials, traffic control, and any incidentals necessary for the restoration as required. The Contractor shall coordinate such work with the water main installation such that the restoration work is performed immediately after the water main installation. In order to be eligible for payment under this item, the Contractor must submit a written proposal to the Owner for approval before any work begins. Reimbursement to the Contractor will be paid at the actual cost. Grassing and sodding will be paid under the bid items included in the Bid Proposal.

## 2.6 ALLOWANCE FOR TRAFFIC CONTROL

- A. This allowance shall be used to reimburse the Contractor for the use of police officers to control traffic if required by Cobb County DOT, City of Marietta, or Georgia DOT. This allowance will **not** be used to reimburse Contractor for routine traffic control required for completion of the work including, but not limited to safety barriers, variable message boards, arrow boards, closure notification signs, closure planning, closure permitting, detour design, traffic signal men, flaggers, and other items required to maintain safety on the project site as indicated in section 01 35 13.1.10, Work Zone Traffic Control. In order to be eligible for payment under this item, the Contractor must submit a written proposal to the Owner for approval before any work begins. Reimbursement to the Contractor will be paid at the actual cost.

## 2.7 ALLOWANCE FOR WATER MAIN DISINFECTION AND DECHLORINATION OF FLUSHING WATER

- A. The purpose for this allowance is to reimburse the Contractor for the services of a firm specializing in disinfection and dechlorination of water mains and in the development of disinfection/dechlorination plans necessary to comply with the requirements of the AWWA C651. Payment under this allowance shall be full compensation for all tools, labor, equipment, materials, and any incidentals used during disinfection of the water main and dechlorination of chlorinated water. The Contractor shall coordinate all work with the water main installation. This allowance will **not** be used to reimburse Contractor for cleaning the water main or maintaining a clean water main or for pressure testing the pipe. The Contractor will be responsible for the installation and removal of sample points as required by AWWA C651 on the water main. In order to be eligible for payment under this item, the Contractor must submit a written proposal to the Owner for approval before any work. Reimbursement to the Contractor will be paid at the actual cost or for Contractor's own forces.

**\*\*END OF SECTION\*\***

**SECTION 01 22 00  
MEASUREMENT AND PAYMENT**

**1 GENERAL**

**1.1 GENERAL**

- A. No quantities shall be measured for payment except items listed in the proposal, unless the Owner has approved "extra" work in accordance with the contract documents and has so advised the Contractor before the work was actually performed.
- B. Any and all other material, labor, etc., furnished and required shall be considered as incidental to the items to be measured and shall be included in the unit price bid for water main.
- C. The unit or lump sum prices bid for the various items shall be full compensation for furnishing all materials, tools, equipment, labor and incidentals necessary and/or required to complete the work as shown on the Drawings and called for in the specifications.
- D. The quantities to be paid for shall be determined by actual measurement of the amounts placed. The Engineer shall make all measurements and the contractor shall make certain all work has been measured before concealing; otherwise, he may be required to uncover or make accessible any work so concealed in order to receive payment for such items.

**2 PAY ITEMS**

**2.1 WATER MAINS**

- A. Measurement of the pipe in place will be along the main axis of the pipeline. No deduction in the length of pipe will be made for space occupied by valves, specials, and fittings.
- B. The unit price bid for pipe shall include all materials, labor and incidentals necessary for the completion of the pipeline, including rock excavation, as called for under SECTION 33 11 13, WATER MAIN CONSTRUCTION, except as specifically called for in other pay items herein. Where in roadways, geogrid soil reinforcement as specified in Section 33 11 13 shall be included in the pipe price. Geogrid shall be installed as depicted by the thick black line on Detail 105 and 114 on Sheet D-2 between the compacted soil backfill and the GAB.
- C. The unit price bid for water line shall include and cover all clearing and grubbing on the entire pipeline right-of-way or easement and the disposal of excess materials and all debris, and in dressing and finishing after the line is installed. There will be no additional payment where extra depth is incurred due to valve

locations, tie-ins, restrained joint requirements, conflicts with other utilities, or other field conditions.

- D. The Contractor shall be responsible for the reuse of acceptable in-place soils material including the drying or wetting to obtain suitable moisture content for compaction during backfill operations under Pay Item 2.1.
- E. Pipe will be paid for at the unit price bid for various sizes and types.

## 2.2 RESTRAINED JOINTS / RETAINER GLANDS

- A. Special restrained joints will be counted in place and paid for at the unit price bid per each type and size listed in bid proposal. A restrained joint shall be defined as the separated or loose portion of materials that are installed separately from pipe, fittings, or valves. Portions of restraint that are permanently attached to pipe, fittings, or valves and/or are an integral part of the system, do not qualify for additional payment. The restraint system shall be counted only once and shall be a complete system for each joint that is to be restrained.
- B. In the case of straight pipe, the payment for each restrained joint will be paid separate from the unit price per foot of pipe. In the case of ductile iron fittings, the payment for restrained joints will be paid separately from the payment for fittings. In the case of valves, the payment for each restrained joint will be paid separate from the unit price bid for each valve.

## 2.3 DUCTILE IRON FITTINGS

- A. Measurement of all diameter fittings shall be measured in place and payment made for approved fitting installation per pound of all diameter fittings installed. The unit price bid for fittings shall include all materials, labor and incidentals necessary for the complete installation of each fitting as called for in these specifications. Weight of iron fittings for payment purposes shall be determined by the AWWA C153 weight for the lightest weight fitting as appropriate for service intended not including joint accessories.
- B. Fittings that will be counted for payment under this item will include: (a) main-line fittings that are labeled on the Drawings, (b) plugs that are shown on stub-outs and on temporary ends for future connections, and (c) fittings on blow-off piping. Fittings installed for the Contractor's convenience or negligence will not be counted for payment.
- C. Additional fittings called for in the bid proposal and not shown on the drawings shall be installed as directed by the Engineer or Owner.
- D. All straight pipe of any length shall be defined as pipe rather than fittings, unless it is listed on the bid proposal as a special pay item.



## 2.4 OPEN CUT STEEL CASING PIPE

- A. Measurement for this pay item shall be by the linear foot of casing pipe installed as measured in plan view complete, in place for the diameter indicated.
- B. Unit price bid shall include all materials, tools, labor, equipment, and incidentals necessary for open cut installation to include casing pipe, casing spacers, water main stabilization/restraint inside the casing to prevent movement and floatation, bulkheads, and incidentals necessary for the complete installation of each steel casing as called for in these specifications. Carrier pipe will be paid for under bid item for Water Mains.

## 2.5 JACK & BORE STEEL CASING PIPE

- A. Measurement for this pay item shall be by the linear foot of casing pipe installed as measured in plan view complete, in place for the diameter indicated.
- B. Unit price bid shall include all materials, tools, labor, equipment and incidentals necessary for jack-and-bore installation to include bore pit excavation and shoring, spoils removal, casing pipe, casing spacer, water main stabilization/restraint inside the casing to prevent movement and flotation, bulkheads, and incidentals necessary for the complete installation of each steel casing as called for in these specifications. Carrier pipe will be paid for under bid item for Water Mains.

## 2.6 CASING SPACERS IN STEEL CASING

- A. Measurement of each casing spacer shall be measured in place and payment made for each approved casing spacer installation. The unit price bid for casing spacer shall include all materials, labor and incidentals necessary for the complete installation of each casing spacer as called for in these specifications.
- B. Casing spacers used in steel casing will be paid for at the unit price per each size as listed in the proposal.

## 2.7 VALVES

- A. Measurement of each valve shall be measured in place and payment made for approved valve installation per each valve installed. The unit price bid for valves shall include all materials, labor and incidentals necessary for the complete installation of each valve as called for in these specifications.
- B. Unit price shall include all excavation, furnishing and installing of the valves and valve extensions as required, operator and all necessary incidentals to complete the work. Access manholes, test connections, or valve boxes shall be paid for under a separate bid item.

## 2.8 PIPE OUTLETS

- A. Measurement of each welded outlet shall be measured in place and payment made for approved welded outlet installation per each welded outlet installed. The unit price bid for welded outlets shall include all materials, labor and incidentals necessary for the complete installation of each welded outlet as called for in these specifications.
- B. Unit price for outlets shall include additional cost for parent pipe wall thickness increase necessary for welding and shall be based on a twenty-foot length of parent pipe. No extra payment for increased parent pipe wall thickness under this item or other bid items shall be paid.
- C. Restrained gaskets, such as Flex Ring, Fast-Grip, or Field Lok, shall be paid under the separate bid item for those gaskets when used on push-on welded outlets.

## 2.9 SAMPLE TEST CONNECTION

- A. Measurement of each sample test station shall be measured in place and payment made for approved test station installation per each installed. The unit price bid for sample test station shall include all materials, labor and incidentals necessary for the complete installation of each sample test station at the inline valve locations as called for in these specifications and as shown in contract drawings. Payment will include the cost of the flanged gate valve with handwheel, blind flange, corporation stop, curb stop, Type K copper tubing in the size shown, copper, brass and iron fittings, as specified, and copper piping supports.
- B. There are two sample test stations or ports for most mainline valve locations. In locations with three valves, the interior ports may be omitted on one or more valves. The test stations are depicted on the drawings as black circles on either side of each isolation valve.

## 2.10 AIR & VACUUM VALVE

- A. Measurement of each air and vacuum valve shall be measured in place and payment made for approved air and vacuum valve per each installed. The unit price bid for air and vacuum valves shall include all materials, labor and incidentals necessary for the complete installation of each air and vacuum valve and associated flanged gate valve as called for in these specifications. Access manholes for valves shall be paid for under a separate bid item. The 36" tee, plug, and/or blind flange required for connection of the water main to the isolation gate valve will be paid for under the Ductile Iron Fittings pay item.

## 2.11 VALVE MARKERS

- A. Valve Markers will be counted in place and paid for at the unit price bid for each. Unit price shall include all items necessary for the installation of the valve marker.

## 2.12 VALVE BOXES

- A. Valve boxes will be counted in place and paid for at the unit price bid for each. Unit price shall include all excavation and installation of the box, concrete collar around the box and all necessary incidentals to complete the work. Extension stems will be paid under the bid item for the valve.

## 2.13 POLYETHYLENE ENCASEMENT

- A. Polyethylene encasement will be measured in place along the length of pipe and paid for at the unit price bid per linear foot for double wrap encasement (8-mil white V-Bio and additional black 8-mil tubing) as listed in the bid proposal. Payment will be for the double wrap encasement and proper taping of all pipes as required by Specification Section 33 11 13.

## 2.14 BONDED JOINTS

- A. Measurement for the bonding of joints shall be for each pipe joint bonded with two bonding cables.
- B. Continuity testing instrument for testing of pipe joint bonds shall be incidental to the cost of bonded joints.

## 2.15 CATHODIC TEST STATION

- A. Measurement for the cathodic test stations shall be for each station installed and shall include all 4 wires, terminal board, crimp on connections, and COTT. In addition, measurement in manholes and vaults shall include the wall mounting adapter required to mount the test stations inside the structure.

## 2.16 CONNECTIONS TO EXISTING MAINS

- A. Payment for this item will be at the unit price bid listed in the bid proposal. Payment shall be full compensation for traffic control, locating, cutting-in and connecting to the existing water main and removal of existing piping as necessary to complete the connection. Pipe, sleeves and fittings used to make this connection will be paid for under the Ductile Iron Pipe and Ductile Iron Fittings pay items. Concrete thrust blocking and any thrust collars will be paid for under Miscellaneous Concrete and Miscellaneous Reinforcing Steel pay items.

B. Connections include:

Connection Type	Station	Size	Segment	Serves
To Marietta Water	49+50	8"	A	Marietta
To CCWS	54+50	12"	A	CCWS
To CCWS	92+68	8"	A	CCWS
To CCWS	142+05	8"	A	CCWS
To Existing Main	244+03	30"	A	CCMWA
To Existing Main	1+00	30"	B	CCMWA
To Existing Main	15+11	30"	B	CCMWA
To Existing Main	22+48	30"	B	CCMWA
To Marietta Water	23+79	8"	B	Marietta
To Existing Tank	82+17	30"	B	CCMWA

2.17 EXISTING BLACKJACK TANK CONTROL VALVE VAULT

- A. Payment for the piping and ground storage tank control valve in the existing vault at Station 78+75 on Segment B will be at the unit price bid listed in the bid proposal. Payment shall include concrete vault top slab and access hatch removal and replacement, ductile iron pipe length, size, fittings, valves, actuator, test ports as listed in the drawings and electrical conduit.
- B. Contractor shall coordinate with Beck Electric Actuators on salvaging and shipping the Beck actuator on the existing butterfly back to Beck for inspection and refurbishment. The new 30" butterfly valve to be installed in the tank vault shall be procured by Beck actuators and assembled with new bracketry at the Beck factory before the valve is shipped back to the job site for installation.

2.18 BARNES MILL METER REPLACEMENT

- A. Payment for the Barnes Mill meter replacement at Station 1+00 on Segment B will be at the unit price bid listed in the bid proposal. Payment shall include ductile iron pipe length, size, fittings, valves, test ports and meters as listed on the drawings, electrical conduit, pertinent wiring, concrete vault top slab removal and replacement, vault access hatch, miscellaneous pipe and pipe materials shall be included with this bid item.

2.19 BONNIE DELL METER REPLACEMENT

- A. Payment for the Bonnie Dell meter replacement at Station 23+80 on Segment B will be at the unit price bid listed in the bid proposal. Payment shall include ductile iron pipe length, size, fittings, valves, test ports and meters as listed on the drawings, electrical conduit, pertinent wiring, concrete vault top slab removal and replacement, vault access hatch, miscellaneous pipe and pipe materials shall be included with this bid item.

2.20 MARKER BALL LOCATOR INSTRUMENT

- A. Payment for this item will be made at the unit price bid for this work and shall be full payment for extra work required for furnishing the number of instruments shown as specified in Section 33 11 13. Marker balls will be paid for separately.

2.21 MARKER BALL INSTALLATION ON EXISTING WATER MAIN TO BE ABANDONED

- A. Contractor shall install marker balls on existing water main to be abandoned in place at an approximate spacing of 100 feet. The marker balls are to be installed after the existing main is located and before the locating crew and traffic control personnel leave each site. The marker ball installation will be paid for at the unit price bid per each installation. The price shall be compensation for all labor, tools, equipment, and materials necessary to complete the installation as shown on the Drawings. The Contractor is responsible for installation of vertical PVC pipe to the top of the existing pipe, installation of backfill after pipe location has been surveyed, furnishing and installation of marker balls with appropriate information, capping of pipe, and backfilling and paving as necessary.
- B. This unit price bid includes the cost of the marker balls to be installed.

2.22 MARKER BALL AND INSTALLATION ON NEW WATER MAIN

- A. The marker ball installation will be paid for at the unit price bid per each installation. The price shall be compensation for all labor, tools, equipment, and materials necessary to complete the installation as shown on the Drawings. The Contractor is responsible for installation of vertical PVC pipe at the time of construction, maintaining pipe during construction, installation of backfill after pipe location has been surveyed, furnishing and installation of marker balls with appropriate information, capping of pipe, and backfilling.
- B. This unit price bid includes the cost of the marker balls to be installed.

## 2.23 CONCRETE MANHOLE ASSEMBLY

- A. Measurement of each concrete manhole assembly shall be measured in place and payment made for approved concrete manhole assembly installation per each installed. The unit price bid for concrete manhole assembly shall include all materials, labor and incidentals necessary for the complete installation of each concrete manhole assembly as called for in these specifications.
- B. Unit price for each concrete manhole assembly shall include up to ten vertical feet of complete manhole assembly, as measured from the outside bottom of the pipe to the top of the manhole. A complete manhole assembly at a minimum shall consist of base foundation preparation and materials, a manhole base, riser sections of the diameter called for on the contract drawings, grade rings, manhole ring, and manhole cover. Manhole rings shall be poured in the top slab unless they are in pavement or sidewalks. The manhole assembly shall provide a means of egress via embedded ladder rungs or other as shown on the Drawings. No extra payment for grade ring adjusters for final grade shall be paid.
- C. Unit price for each vertical foot in excess of ten vertical feet shall be measured and paid per vertical foot installed of the manhole riser section installed.

## 2.24 FLOWABLE FILL ENCASEMENT

- A. Flowable fill encasement will be measured in place along the length of pipe and paid for at the unit price bid per linear foot for encasement as listed in the bid proposal. Payment will be for the flowable fill encasement of pipes as required by Specification Section 33 11 13.

## 2.25 SUBGRADE STABILIZER STONE

- A. Measurement for payment for subgrade stabilizer stone will be made by the ton.
- B. Weight for payment will be taken from dray tickets for stone actually placed in accordance with the following limitations:
  - 1. Stone used for stabilizing trench bottom in wet areas will be paid for.
  - 2. Stone used for Type 4 and 5 bedding conditions will be paid for.
  - 3. Stone and GAB used for constructing temporary and permanent driveways will be paid for.
  - 4. Stone used for construction haul roads will not be measured for payment, nor will that which is placed contrary to contract requirements.
  - 5. GAB for paving paid separately under Paving.

## 2.26 MISCELLANEOUS CONCRETE

- A. Miscellaneous concrete will be measured in place and paid for at the unit price bid per cubic yard. Concrete for thrust blocks and anchors will be paid for as Miscellaneous Concrete. Reinforcing steel, where required, will be paid for separately as outlined.

## 2.27 MISCELLANEOUS REINFORCING STEEL

- A. The unit price shall include all costs associated with the furnishing and installing reinforcing steel of the sizes required for a concrete structure. The amount of reinforcing steel will be measured in place and paid for at the unit price bid per ton. Only work shown on the drawings or directed by the Engineer will be paid for.

## 2.28 TREE SAVE FENCE

- A. Temporary tree save fence shall be paid for at the unit price bid per linear foot and will be measured in place. The quantity shall be field measured and only the quantity installed at the engineer's approval will be measured for payment. The unit price bid shall be full compensation for all material, labor, tools and equipment necessary to install, maintain and remove the tree save fence as specified in the contract documents. Tree save fence will be placed each side of easement limits for entire project and be tied to existing fencing where required to close gaps between private property fencing and construction work area. Tree save fence will only be measured for payment once.

## 2.29 TEMPORARY SILT FENCE (Sd1-S and Sd1-NS)

- A. Temporary silt fence shall be paid for at the unit price bid per linear foot and will be measured in place. The quantity shall be field measured and only the quantity installed at the engineer's approval will be measured for payment. The unit price bid shall be full compensation for all material, labor, tools and equipment necessary to install, maintain, and remove the temporary silt fence as specified in the contract documents. Silt fence will only be measured for payment once.

## 2.30 HAY BALE BARRIER

- A. Hay bale barriers will be measured in place and paid for at the unit price bid per each. Each straw bale shall be a minimum of 14 in. wide, 18 in. in height, 36 in. in length and should have a minimum mass of 50 lbs. The straw bale should be composed entirely of vegetative matter, except for the binding material. Payment shall be full compensation for all labor tools, equipment, materials and any incidentals necessary to install, maintain and remove hay bale barriers. No payment will be made for hay bale barriers placed without the approval of the Engineer.

### 2.31 RIP-RAP

- A. Rip-rap will be measured in place and paid for at the unit price bid per square yard. Placement of rip-rap will be as shown on the Drawings. Unit price bid shall be full compensation for all labor, materials and equipment required to furnish and install required rip-rap and geotextile filter fabric. Stone smaller than Rip-rap size will be paid under the Subgrade Stabilizer Stone bid item.

### 2.32 CONSTRUCTION EXIT (Co)

- A. Construction exits will be counted in place and paid for at the unit price bid for each. The unit price bid shall be full compensation for all material, labor, tools and equipment necessary to install, maintain and remove all construction exits as specified in the contract documents. Only exit locations approved by Engineer will be counted for payment.

### 2.33 STRAW MULCH STABILIZATION (Ds1)

- A. Straw mulch stabilization shall be paid for at the unit price bid per square yard and will be measured in place. Measurement shall be along the centerline of the pipeline multiplied by the average width of the area mulched. The unit price bid shall be full compensation for all material, labor, tools and equipment necessary to install the straw mulch stabilization as specified in the contract documents.

### 2.34 GRASSING (Ds2/Ds3)

- A. Grassing shall be paid for at the unit price bid per square yard of grassing. Contractor shall be responsible for replacing all grass destroyed during installation of water main. Grassing area measured for payment will be limited to a strip not to exceed 60 feet wide measured along the length of the water main. Where grassing is required in areas adjacent to any residential or commercial lawn, the type of grass to be planted and grown shall match the type of grass growing on the adjacent lawn, unless otherwise shown on the Drawings. No modification shall be made in the unit price.

### 2.35 EROSION CONTROL MAT (SLOPES)

- A. Payment for erosion mat will be made at the unit price bid per square yard. The unit price bid shall be full compensation for all tools, labor, equipment, materials, protection of erosion mat against weather, and any incidentals necessary for the installation of the erosion mat as required. No payment will be made for erosion control mat placed without the approval of the Engineer.



2.36 INLET SEDIMENT TRAP (Sd2)

- A. Inlet sediment traps will be counted in place and paid for at the unit price bid for each. Payment shall be full compensation for all labor, tools, equipment, materials and any incidentals necessary to install, maintain and remove sediment traps. No payment will be made for sediment traps placed without the approval of the Engineer.

2.37 TURBIDITY CURTAIN (Tc)

- A. Turbidity curtain will be counted in place and paid for at the unit price bid for each. Payment shall be full compensation for all labor, tools, equipment, materials and any incidentals necessary to install, maintain and remove outlet protection. No payment will be made for outlet protection placed without the approval of the Engineer.

2.38 NPDES PERMIT COMPLIANCE

- A. Payment for compliance with NPDES permit requirements shall be made under a lump sum bid. The lump sum bid shall be full compensation for compliance with NPDES requirements as described in Specification Section 31 25 00 including the employment of an Environmental Professional for specified services. Fees charged for the Land Disturbance Activity Permit and Notice of Intent by the Georgia Environmental Protection Division (EPD) and Cobb County will be reimbursed to the Contractor under the Allowance for Force Account Work.

2.39 REMOVE & REPLACE ASPHALT DRIVEWAYS, GOLF CART PATHS AND PARKING LOTS

- A. Measurement shall be the length of the pavement replaced, measured along the centerline of the pipe multiplied by the trench width. The unit of measurement shall be the square yard.
- B. Asphalt driveways, golf cart paths and parking lots replaced will be measured in place and paid for at the unit price bid per square yard. Asphalt driveway, golf cart paths or parking lot surfaces damaged or removed due to contractor error or negligence will not be paid for. The unit price bid shall be full compensation for the asphalt, tack, GAB, and all materials, labor, tools and equipment required to complete the replacement as shown on drawings. Maintenance of the driveway and parking lot during construction until replacement shall be included in unit price. No compensation will be allowed for the removal of existing asphalt driveways and parking lots.

2.40 REMOVE AND REPLACE GRAVEL DRIVEWAYS AND PARKING LOTS

- A. Gravel driveways will be measured in place and the unit of measurement shall be the square yard.
- B. Gravel driveways will be measured in place and payment will be made at the contract unit price bid per square yard. The unit price will be full compensation for smoothing the driveway bed and leveling an 8" thick layer of graded aggregate base. Maintenance of the driveway during construction shall be included in the unit price for this item.

2.41 REMOVE & REPLACE CONCRETE SIDEWALKS

- A. Sidewalks removed and replaced, as necessary for pipe installation, shall be measured in place and shall be paid for at the unit price bid per square yard. Concrete sidewalks shall be replaced with a minimum thickness of 4" and of a matching width, unless directed otherwise by the Engineer. The unit price bid shall include the cost of saw cutting, removal, and disposal of the existing sidewalk.

2.42 REMOVE & REPLACE CONCRETE CURB AND GUTTER

- A. Curb or curb and gutter completed in place and accepted shall be measured in linear feet along the face of the curb.
- B. Each type of curb and curb and gutter removed and replaced shall be paid for at the contract unit price bid per linear foot. Payment is full compensation for removal of existing curb or curb and gutter, furnishing of materials, preparing subgrade or pavement surface, installing, and maintaining curb or curb and gutter installed.

2.43 ASPHALT PAVEMENT 1.5-INCHES OF GDOT 9.5 MM SUPERPAVE

- A. Measurement shall be the length of the pavement replaced within the City of Marietta limits (Barnes Mill Road from STA 1+00 to approximate STA 44+00), measured along the centerline of the pipe multiplied by the full road width unless otherwise directed by the Owner. Payment will include application of Bitumen Tack Coat at a rate of 0.04-0.06 Gallons per Square Yard and furnishing and installation of 9.5 mm Superpave. The unit of measurement shall be the square yard.
- B. Roadways replaced will be measured in place and paid for at the unit price bid per square yard. Asphalt road surfaces damaged or removed due to contractor error or negligence will not be paid for. The unit price bid shall be full compensation for the asphaltic concrete, tack, and all materials, labor, tools and equipment required to complete the replacement as shown on drawings. Maintenance of the roadway surface during construction shall be included in this unit price.

2.44 PAVING (12 INCHES GAB, 8-INCHES 19 MM GDOT SUPERPAVE)

- A. Measurement shall be the length of the pavement replaced, measured along the centerline of the pipe multiplied by the trench width plus two feet, per the asphalt pavement replacement detail. Payment will include application of Bitumen Tack Coat at a rate of 0.04-0.06 Gallons per Square Yard and furnishing and installation of 19 mm Superpave. The unit of measurement shall be the square yard.
- B. Roadways replaced will be measured in place and paid for at the unit price bid per square yard. Asphalt road surfaces damaged or removed due to contractor error or negligence will not be paid for. The unit price bid shall be full compensation for the asphalt, concrete, tack, GAB, and all materials, labor, tools and equipment required to complete the replacement as shown on drawings. Maintenance of the roadway surface during construction until replacement shall be included in this unit price.
- C. Payment for milling and asphalt overtopping will be made under a separate bid item.

2.45 ASPHALT PAVEMENT MILLING

- A. Measurement shall be the length and width of the pavement milled to a depth of 1.5 inches. Payment will include removal and disposal of original materials. The unit of measurement shall be the square yard to include temporary asphalt patch and existing road (generally two travel lanes in width).

2.46 ASPHALT PAVEMENT 1.5-INCHES OF GDOT 12.5 MM SUPERPAVE

- A. Measurement shall be the length of the pavement replaced within Cobb County jurisdictional limits, measured along the centerline of the pipe multiplied by the full road width unless otherwise directed by the Owner. Payment will include application of Bitumen Tack Coat at a rate of 0.04-0.06 Gallons per Square Yard and furnishing and installation of 12.5 mm Superpave. The unit of measurement shall be the square yard.
- B. Roadways replaced will be measured in place and paid for at the unit price bid per square yard. Asphalt road surfaces damaged or removed due to contractor error or negligence will not be paid for. The unit price bid shall be full compensation for the asphaltic concrete, tack, and all materials, labor, tools and equipment required to complete the replacement as shown on drawings. Maintenance of the roadway surface during construction shall be included in this unit price.

2.47 PAVEMENT MARKING

- A. Pavement marking shall be measured in place and paid by the unit shown on the Bid Proposal. Pavement marking shall be in accordance with GDOT latest specifications for thermoplastic markings.

2.48 ABANDON EXISTING CCMWA VALVE MANHOLE AND VALVES

- A. The existing mains owned by CCMWA that will be abandoned also contain several line or air valves that will require removal of the upper section of the manhole, filling in of the manhole with stone or concrete, backfill and surface restoration. Valve to be abandoned in place (in the closed position).
- B. Payment for this item will be made at the unit price bid listed in the proposal and shall be full compensation for all tools, materials, equipment, and labor necessary to locate utilities, provide traffic control (if in the pavement), saw cut existing pavement (if in the pavement), excavate around the manhole, remove the upper manhole section, fill the manhole with stone (if not in pavement) or concrete (if in pavement), backfill and restore the surface, and installation of marker balls at each location. Unit price bid shall be for each location.
- C. Any fittings needed will be paid for under the Ductile Iron Fittings bid item, pavement replacement will be paid for under the applicable bid item, stone used will be paid for under the Subgrade Stabilizer Stone bid item and concrete used will be paid under the Miscellaneous Concrete bid item.
- D. Contractor shall install marker balls on existing valves to be abandoned. The marker balls are to be installed after the existing valve is located and before the locating crew and traffic control personnel leave each site. The marker ball installation will be paid for at the unit price bid per each installation. The price shall be compensation for all labor, tools, equipment, and materials necessary to complete the installation as shown on the Drawings. The Contractor is responsible for installation of vertical PVC pipe to the top of the existing valve, installation of backfill after valve location has been surveyed, furnishing and installation of marker balls with appropriate information, capping of pipe, and backfilling and paving as necessary.

2.49 ABANDON EXISTING CCMWA VALVE BOX AND VALVE

- A. The existing CCMWA main to be abandoned in place includes several line or air valves that will require removal of the upper section of the valve box, filling in of the valve box with concrete, backfill and surface restoration. Valve to be abandoned in place (in the closed position).

- B. Payment for this item will be made at the unit price bid listed in the proposal and shall be full compensation for all tools, materials, equipment, and labor necessary to locate utilities, provide traffic control (if in the pavement), saw cut existing pavement (if in the pavement), excavate around the valve box, remove the valve box, fill the void with stone (if not in pavement) or concrete (if in pavement), backfill and restore the surface. Unit price bid shall be for each location.
- C. Any fittings needed will be paid for under the Ductile Iron Fittings bid item, pavement replacement will be paid for under the applicable bid item, stone used will be paid for under the Subgrade Stabilizer Stone bid item and concrete used will be paid under the Miscellaneous Concrete bid item.
- D. Contractor shall install marker balls on existing valves to be abandoned. The marker balls are to be installed after the existing valve is located and before the locating crew and traffic control personnel leave each site. The marker ball installation will be paid for at the unit price bid per each installation. The price shall be compensation for all labor, tools, equipment, and materials necessary to complete the installation as shown on the Drawings. The Contractor is responsible for installation of vertical PVC pipe to the top of the existing valve, installation of backfill after valve location has been surveyed, furnishing and installation of marker balls with appropriate information, capping of pipe, and backfilling and paving as necessary.

2.50 ABANDON EXISTING CCMWA BLOWOFF VALVE

- A. The existing CCMWA main to be abandoned in place includes several blowoff valves that will need to be cut below ground and plugged. The only visible components of the blowoff valves are usually the valve box for the valve and a plugged discharge elbow on the riser. The work involves cutting the valve box and blowoff riser at least 24 inches below ground and filling the box and riser with concrete below ground.
- B. Payment for this item will be made at the unit price bid listed in the proposal and shall be full compensation for all tools, materials, equipment, and labor necessary to locate utilities, excavate, cut and plug the existing valve box and riser, and restore the surface. Unit price bid shall be for each location.
- C. Any fittings needed will be paid for under separate bid item for Ductile Iron Fittings, any pavement replacement will be paid for under the applicable bid item and any stone used will be paid for under the Subgrade Stabilizer Stone bid item.
- D. Contractor shall install marker balls on existing blowoff valves to be abandoned. The marker balls are to be installed after the existing blowoff valve is located and before the locating crew and traffic control personnel leave each site. The marker ball installation will be paid for at the unit price bid per each installation. The

price shall be compensation for all labor, tools, equipment, and materials necessary to complete the installation as shown on the Drawings. The Contractor is responsible for installation of vertical PVC pipe to the top of the existing blowoff valve, installation of backfill after blowoff valve location has been surveyed, furnishing and installation of marker balls with appropriate information, capping of pipe, and backfilling and paving as necessary.

#### 2.51 FLOWABLE FILL EXISTING LINE WITHIN GDOT ROW

- A. Payment for this item will be made at the unit price bid listed in the proposal and shall be full compensation for all tools, materials, equipment, and labor necessary to completely fill existing pipe that remains within GDOT's right-of-way (inside and outside paved lanes) with low strength flowable fill per Section 600 of GDOT's specifications. This item includes all necessary materials for fill and vent ports. The Engineer must approve calculation of the amount of material to be placed prior to placement. Payment shall be based on cubic yardage of each pipe size listed.

#### 2.52 REMOVE AND DISPOSE OF EXISTING WATER MAIN

- A. The unit price bid for pipe shall include all material, labor and incidentals necessary for the complete removal and suitable, offsite disposal of the PCCP/DIP pipe, manholes, and appurtenances for sections of pipe indicated to be removed (same ditch relay). Existing 30" PCCP water main will be removed as shown on the Drawings and generally when it is within 6-feet of the centerline of the proposed DIP water main. The unit price bid for removal and disposal of PCCP shall include all excavation, backfilling and the disposal of all debris, after the line is removed. There will be no additional payment where extra depth is incurred due to valve locations, conflicts with other utilities, or other field conditions. Contractor shall not crush PCCP to remove concrete mortar for burial. Fully intact PCCP should be removed and disposed of.

#### 2.53 CUT AND PLUG EXISTING 30" WATER MAIN

- A. Water mains cut and plugged with mortared brick shall be paid at the unit price bid for each. The unit price bid shall be full compensation for all labor, materials, tools, and equipment necessary to complete the procedure. This item shall also apply to any bulkhead and grout/vent piping used to plug existing main segments that will be abandoned under pavement. For pipes other than PCCP, if a purchased plug is used instead of mortared brick, the plug will be paid under the Ductile Iron Fittings pay item. If concrete is used to plug the ends of PCCP to be abandoned, such concrete will be paid under the Miscellaneous Concrete pay item, however, this will apply only for the concrete necessary to plug the main. Grout or flowable fill shall be paid under the Flowable Fill pay item.

2.54 REMOVE AND REPLACE GUARD RAIL

- A. Payment for this item will be made at the unit price bid listed in the proposal and shall be full compensation for all tools, materials, equipment, and labor necessary to remove and replace the existing guard rail near the Barnes Mill Road and Merritt Road Intersection near Station 43+25 on Segment B, if needed for installation of the water main. No payment will be made for guardrail removal/replacement without the approval of the Engineer.

2.55 REMOVE AND REPLACE CONCRETE PIPE STORM DRAIN

- A. Removal and Replacement of existing corrugated metal storm drain pipes where required for water main installation (and approved in writing by the Owner) will be measured in place after replacement and paid for at the unit price bid in linear feet for each size listed in the bid proposal. Payment will include removal and disposal of original materials and installation of new corrugated metal storm drain pipes of the same type and size as the pipe removed. No payment will be made for storm drain removal/replacement without the approval of the Engineer.

2.56 REMOVE AND REPLACE CATCH BASIN/CURB INLET

- A. Removal and Replacement of existing storm catch basin where required for water main installation (and approved in writing by the Owner) will be measured in place after replacement and paid for at the unit price bid individually. Payment will include removal and disposal of original materials and installation of new catch basins of the same type and size as the catch basin removed. No payment will be made for catch basin/curb inlet removal/replacement without the approval of the Engineer.

2.57 PROJECT SIGNS

The unit price shall include all materials, labor and incidentals necessary for the Contractor to furnish and install project signs at the unit price bid for each made of 4' x 8' sheet metal, painted with white background and blue letters and containing the name and contact information of the Contractor, Owner, and Engineer (including logos).

2.58 TRAFFIC CONTROL

- A. The unit price shall include all materials, labor and incidentals necessary for the Contractor to prepare a traffic control plan, road or lane closure permits as required, and obtain approval from GDOT, City of Marietta DOT, and Cobb County DOT and provide personnel and equipment to implement the approved plan, including traffic barriers, message boards, and all signs. The Allowance for Traffic Control shall only be used to reimburse the Contractor for the use of police officers to control traffic, if required by CCDOT or City of Marietta.

2.59 TEMPORARY PAVING

A. The lump sum price bid shall include all materials, labor and incidentals necessary for the Contractor to provide temporary pavement as required for compliance with permits issued by Cobb County and City of Marietta DOT. Contractor shall coordinate with Cobb County and City of Marietta DOT, provide specifications and details as required for permitting, and provide temporary pavement and striping meeting Cobb County DOT and the City of Marietta DOT approval. Temporary pavement method selected shall be coordinated with final pavement required. Several options were presented to Cobb County DOT during the design phase and may be acceptable for use on this project:

Method No.	Description	Maximum Length (LF)
1	Steel Plate	300
2	8" GAB	1,000
3	6" GAB + 2" Rolled Asphalt Milling	1,000
4	6" GAB + 2" 19mm Superpave	2,000
5	8" 19 mm Superpave	2,000

2.60 MOBILIZATION

A. The amount bid for mobilization shall not exceed four percent (4%) of the total contract bid price. The amount bid shall include furnishing the required Insurance, Bonds, Schedule of Values, Construction Schedule, and Shop Drawings for materials used during the first thirty (30) days of construction. The amount bid shall be payable to the Contractor on the first application for payment following approval of these documents.

\*\*END OF SECTION\*\*



**SECTION 01 29 00**  
**APPLICATIONS FOR PAYMENT**

**1 GENERAL**

- 1.1 Submit applications for Payment to the Engineer in accordance with the schedule established by General Conditions of the Contract and the Agreement between Owner and Contractor.
- 1.2 Related Requirements in other parts of the Project Manual:
  - A. Lump Sum and Unit Prices: Agreement between Owner and Contractor.
  - B. Progress payments, retainages and final payment: General Conditions of the Contract.
- 1.3 Related Requirements specified in other Sections:
  - A. Contract Closeout: Section 01 77 00.

**2 FORMAT AND DATA REQUIRED**

- 2.1 Submit applications on the form approved by Engineer, with itemized data typed in proper format.
- 2.2 Contractor shall submit Cash Flow Projections with each application for payment, in Microsoft Excel format. The projection shall show estimated billing from the time the pay application is submitted through project completion.

**3 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS**

- 3.1 When the Owner or the Engineer requires substantiating data, Contractor shall submit suitable information, with a cover letter identifying:
  - A. Project.
  - B. Application number and date.
  - C. Detailed list of enclosures or attachments.
  - D. For stored products:
    - 1. Item number and identification as shown on application.
    - 2. Description of specific material.
  - E. Dry tickets for materials paid by ticket.
  - F. Copy of Contractor's field notes showing as-built information of the water main.

- G. Submit one copy of data and cover letter for each copy of application.
- 3.2 Submit application for payment to the Engineer at the times stipulated in the Agreement. Contractor may submit pay application digitally via pdf format with signature.
- A. When the Engineer finds the application properly completed and correct, he will transmit a certificate for payment to Owner, with a copy to Contractor.

**\*\*END OF SECTION\*\***

**SECTION 01 31 13  
COORDINATION OF WORK**

**1 GENERAL**

**1.1 GENERAL**

- A. Management of the project shall be through the use of a logical method of construction planning, scheduling, and cost value documentation as further described in Section 01 32 16, CONSTRUCTION SCHEDULES, of these Specifications.
- B. Contractor should be aware that the Cobb County-Marietta Water Authority (Water Authority or CCMWA) is a water wholesaler that provides water to the Cobb County Water System (CCWS) and Marietta Board of Lights and Water (Marietta Water) which actually bills customers for the use of water. CCMWA is governed by a Board of Directors that is independent of CCWS, which is an agency of Cobb County and is therefore governed by the Cobb County Board of Commissioners.

**1.2 EXISTING UTILITIES**

- A. The existing 30” water main within the existing CCMWA easement may be taken out of service for construction of the proposed 36” DIP main in sections. It may become necessary to put the main in service if an emergency occurs. Should this happen, the Contractor will cooperate and coordinate with the Water Authority to put the existing main in service as soon as practicable and will require the Contractor to work 24 hours a day until the existing main (including any new main installed) is operational.
- B. The Contractor shall coordinate his work with the Owner so that the construction will not restrain or hinder the operation of the existing CCWS, City of Marietta, or CCMWA facilities. If, at any time, any portion of these facilities are out of service, the Contractor must obtain approval from the owner as to the date, time and length of time that portion of the facilities will be out of service.
- C. Connections to the existing facilities or alteration of existing facilities will be made at times when the piping is not in use or at times, established by the Owner, when the use of the piping can be conveniently interrupted for the period of time needed to make the connection or alteration.
- D. After having coordinated his work with the Owner, the Contractor shall notify the Engineer of the time, time limits and methods of each connection or alteration and have the approval of the Engineer before any work is undertaken on the connections or alterations.

**1.3 OTHER UTILITIES**

- A. Information regarding underground utilities included in the Contract Drawings is not guaranteed as to accuracy or completeness. Prior to beginning work, the Contractor shall request a field location through the Utilities Protection Center and any utility owners thought to have facilities in the area. The Contractor shall promptly compare

these field-marked locations with the project plans and then notify the Engineer of any anticipated problems or need for contract changes. It is the Contractor's responsibility to excavate for the purpose of determining exact elevations or locations at utility crossings and other critical locations well in advance of the work under this contract.

#### 1.4 CONSTRAINTS ON CONSTRUCTION SCHEDULING

- A. Refer to 01 11 00, Summary of Work.
- B. Contractor shall coordinate with the Owner to obtain road, lane closure, MOT, utility and other Cobb County DOT and City of Marietta permits. Cobb County permitting to be completed via the Cobb Electronic Plan (ePlan) Review System.
- C. For work within GDOT, CCDOT, or City of Marietta ROW, Contractor shall not close any lane to traffic between 6 AM to 9 AM and 4:00 PM to 6 PM.
- D. For All CCDOT road crossings and closures, a full road closure permit will need to be obtained by the Contractor from CCDOT. The contact person for CCDOT is:

Ana C. Fraundorf, Engineer II – Traffic Operations  
770-528-1676  
[Ana.Fraundorf@cobbcounty.org](mailto:Ana.Fraundorf@cobbcounty.org).

Kelly Patrick, P.E., PTOE  
770-528-1636  
[Kelly.Patrick@CobbCounty.org](mailto:Kelly.Patrick@CobbCounty.org)

For all City of Marietta road crossings and closures, a road closure permit will need to be obtained by the contractor from the City of Marietta. The contractor can reach out to the City contact below or apply for a road closure directly online by going to the link: <http://www.marietta.gov/1133/road-closure-request>. City of Marietta Transportation Contact is:

Marc Simmons, P.E. – Transportation  
Engineer  
(770) 792-3958  
[msimmons@mariettaga.gov](mailto:msimmons@mariettaga.gov)

For all CCDOT and City of Marietta road crossings and closures, Contractor shall coordinate alternative routes with Cobb County School District, Marietta City Schools, and the United States Postal Service.

- E. Scheduling construction from STA 162+00 to STA 185+75 and from to STA 211+35 to STA 238+00 shall be coordinated with CCMWA and Indian Hills Country Club, Inc. (See copy of easement agreement in Appendix D - Easements)

- F. Contractor will adjust final phasing plan to be in accordance with CCMWA's ability to shutdown sections of the existing 30-inch PCCP main.

**\*\*END OF SECTION\*\***



**SECTION 01 32 16**  
**CONSTRUCTION SCHEDULES**

1 GENERAL

1.1 GENERAL

- A. Promptly after award of the contract, the Contractor shall prepare and submit to the Engineer estimated construction progress schedules for the Work, with sub-schedules of related activities which are essential to its progress.
- B. Submit revised progress schedules as necessary.

2 PRODUCT

2.1 FORM OF SCHEDULES

- A. As determined by the Contractor and acceptable to the Engineer.

2.2 CONTENT OF SCHEDULES

- A. Construction Progress Schedule:
  - 1. Show the complete sequence of construction by activity.
  - 2. Show the dates for the beginning, and completion of, each major element of construction.
- B. Products Delivery Schedule Dates.
- C. Provide sub-schedules to define critical portions of prime schedules.

2.3 PROGRESS REVISIONS

- A. Indicate progress of each activity to date of submission.
- B. Show changes occurring since previous submission of schedules:
  - 1. Major changes in scope.
  - 2. Activities modified since previous submission.
  - 3. Revised projections of progress and completion.
  - 4. Other identifiable changes.
- C. Provide a narrative report as needed to define:
  - 1. Problem areas, anticipated delays, and the impact on the schedule.
  - 2. Corrective action recommended, and its effect.

### 3 EXECUTION

#### 3.1 SUBMISSIONS

- A. Submit initial schedules within 15 days after award of Contract.
  - 1. The Engineer will review schedules and return review copy within 15 days after receipt.
  - 2. If required, resubmit within 7 days after return of review copy.
- B. Submit revised progress schedules with each application for payment.
- C. Submit one reproducible transparency and one opaque reproduction.

#### 3.2 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
  - 1. Job site file.
  - 2. Subcontractors.
  - 3. Other concerned parties.
- B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedules.

**\*\*END OF SECTION\*\***



**SECTION 01 32 23  
FIELD ENGINEERING**

**1 GENERAL**

**1.1 GENERAL**

- A. The Contractor shall provide, at no additional cost to the owner, field engineering services required for the construction of the proposed water main.
  - 1. Survey work required in execution of the Project.
  - 2. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.
- B. Prior to construction or site work the Engineer will identify existing control points indicated on the drawings, as needed.
- C. Contractor shall be responsible for laying out the work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Engineer. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.
- D. Contractor shall review the Contract Documents and the project site to determine the presence and location of any property or rights-of-way monuments or markers, and to assess the possibility of disruption to these monuments or markers. It will be the Contractor's responsibility to flag, erect guard posts, or provide offset references for the protection or the re-monumentation of these property or rights-of-way monuments or markers. In the event these monuments or markers are covered over or disturbed, it will be the Contractor's responsibility to employ a surveyor licensed in the state of Georgia to re-establish those markers of property or rights-of-way, which were present prior to work on the project.

**2 PRODUCTS**

**2.1 SURVEY REFERENCE POINTS**

- A. Existing basic horizontal and vertical control points for the project are those designated on drawings. At the beginning of the project, Contractor shall stake or mark the centerline of the proposed pipeline every 100 feet.
- B. The contractor shall locate and protect control points prior to starting any clearing, grubbing or construction, and preserve all permanent reference points during construction. The Contractor shall provide, at his expense, any temporary staking, including necessary off-set staking to preserve the control points.

1. Make no changes or relocation without prior written notice to Engineer.
2. Report to Engineer when any reference point is lost or destroyed or requires relocation due to changes in the scope of the project.
3. Require a surveyor to replace project control points which may be lost or destroyed. Establish replacements based on original survey control.

## 2.2 PROJECT SURVEY REQUIREMENTS

- A. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means.
- B. Construction Staking
- C. Stakes for pipeline alignment.
- D. Invert elevations.
- E. From time to time, verify layouts by the same methods.

## 3 EXECUTION

### 3.1 RECORDS

- A. Maintain a complete, accurate log of all control and survey work as it progresses.

### 3.2 SUBMITTALS

- A. On request of the Engineer, submit documentation to verify accuracy of field engineering work.

**\*\*END OF SECTION\*\***

**SECTION 01 33 00**  
**SUBMITTAL PROCEDURES**

1 GENERAL

1.1 GENERAL

- A. Submit shop drawings, product data and samples required by the Contract Documents.
- B. Designate in the construction schedule, or in a separate coordinated schedule, the dates for submission and the dates that reviewed shop drawings, product data and samples will be needed.

1.2 SHOP DRAWINGS

- A. Shop drawings shall be submitted in a clear and thorough manner to the Engineer. Copies returned to the Contractor will be marked as follows:
  - 1. "No Exceptions Noted" - Indicates the drawings have been reviewed for conformance with the contract documents and no exceptions have been taken. Proceed with the work.
  - 2. "Make Corrections Noted" - Indicates the drawings have been reviewed for conformance with the contract documents and work may proceed in accordance with all comments. Resubmittal will not be required.
  - 3. "Revise and Resubmit" - Indicates the drawings have been reviewed for conformance with the contract documents, and work may not proceed. After items to which exceptions have been taken are corrected, Contractor shall again submit copies for review.
  - 4. "Rejected" - Indicates the drawings have been reviewed for conformance with the contract documents and are too incomplete or in an unacceptable condition for review. A notation will be made on the shop drawings as to the exceptions taken. Drawings shall be revised and resubmitted for review before proceeding with the work.
  - 5. "Submit Specified Item" - Indicates that one or more items in the submittal were missing or incomplete. Work may commence on any items to which no exceptions were taken; missing or incomplete items must be submitted as noted.
- B. Details shall be identified by reference to sheet and detail, schedule or room numbers shown on Contract Drawings.

### 1.3 PRODUCT DATA

#### A. Preparation

1. Clearly mark each copy to identify pertinent products or models.
2. Show performance characteristics and capacities.
3. Show dimensions and clearances required.
4. Show wiring or piping diagrams and controls.

#### B. Manufacturer's standard schematic drawings and diagrams:

1. Modify drawings and diagrams to delete information which is not applicable to the work.
2. Supplement standard information to provide information specifically applicable to the work.

### 1.4 SAMPLES

#### A. Office samples shall be of sufficient size and quantity to clearly illustrate:

1. Functional characteristics of the product, with integrally related parts and attachment devices.
2. Full range of color, texture and pattern.

### 1.5 CONTRACTOR RESPONSIBILITIES

#### A. Review shop drawings, product data and samples prior to submission.

#### B. Determine and verify:

1. Field measurements.
2. Field construction criteria.
3. Catalog numbers and similar data.
4. Conformance with specifications.

#### C. Coordinate each submittal with requirements of the work and of the contract documents.

#### D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the contract documents.

#### E. Begin no fabrication or work which requires submittals until return of submittals with Engineer approval.

### 1.6 SUBMISSION REQUIREMENTS

- #### A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the work or in the work of any other contractor. Shop Drawings shall be submitted in a folder for each set of drawings. The folder

shall contain one drawing for each item submitted. The folder shall be labeled with the full project name. All submittals shall be indexed.

- B. Number of submittals required:
  - 1. Shop drawings: Provide submittal via PDF format through FNIManager which will be retained by the Engineer and distributed to Owner.
  - 2. Product data: Provide submittal via PDF format through FNIManager which will be retained by the Engineer and distributed to Owner.
  - 3. Samples: Submit the number stated in each specification section.
- C. Submittals shall contain:
  - 1. The date of submission and the dates of any previous submissions.
  - 2. The project title and number.
  - 3. Contract identification.
  - 4. The names of:
    - a. Contractor.
    - b. Supplier.
    - c. Manufacturer.
  - 5. Identification of the product, with the specification section number.
  - 6. Field dimensions, clearly identified as such.
  - 7. Relation to adjacent or critical features of the work or materials.
  - 8. Applicable standards, such as ASTM or Federal Specifications numbers.
  - 9. Identification of deviations from contract documents.
  - 10. Identification of revisions on resubmittals.
  - 11. An 8 in. x 3 in. blank space for Contractor and Engineer stamps.
  - 12. Contractor's stamp, initialed or signed, certifying his review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and of Contract Documents.

#### 1.7 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by the Engineer and resubmit until approved.
- B. Shop Drawings and Product Data:
  - 1. Revise initial drawings or data and resubmit as specified for the initial submittal.

2. Indicate any changes which have been made other than those requested by the Engineer.
- C. Samples: Submit new samples as required for initial submittal.

**\*\*END OF SECTION\*\***

**SECTION 01 35 13**  
**SPECIAL PROJECT PROCEDURES**

**1 GENERAL**

**1.1. PROJECT MANAGEMENT**

- A. The Contractor shall schedule and coordinate all work by his forces and subcontractors and others involved to maintain the accepted progress schedule. The Contractor's duties also include the planning of work, including traffic control, the scheduling or ordering and delivery of materials, and checking and control of all work under this contract. Construction schedules shall be submitted to the Engineer for review prior to the start of any work. Schedules shall be verified or updated as necessary.
- B. The Contractor shall be responsible for complete supervision and control of his subcontractors as though they were his own forces. Notice to the Contractor shall be considered notice to all affected subcontractors.
- C. The Contractor shall appoint a qualified representative to act as the "Project Coordinator, Project Manager or Project Superintendent" who shall be responsible for coordinating all work and providing liaison with the Engineer and the Owner. This person shall be responsible for all duties described above and in all matters represent the Contractor regarding this project in the absence of a Corporate Officer or Principal of the firm. This person will be on the Project site for the duration of the project.
- D. The Contractor shall employ only competent and skilled personnel on the work. At all times when the work is in progress, the Contractor shall have a competent Superintendent or Foreman present with authority to receive orders, execute the work and to promptly supply materials, tools, plant equipment and labor as may be required. The person must be fluent and literate in the English language. Should the Engineer or Owner so demand, the Contractor shall immediately remove any Superintendent, Foreman or worker whom the Engineer considers incompetent, undesirable, or both.

**1.2 CREW SUPERVISION**

- A. The contractor's laborers, pipelayer(s) and equipment operator(s) must be supervised by a non-operator certified foreman and/or non-operator certified superintendent experienced in installation of 36" ductile iron pressure water main. The foreman's and superintendent's résumé, including OSHA certification status, must be submitted to the Engineer and Owner for review prior to award of the contract.

**1.3 WORK HOURS**

- A. Except in the case of an emergency or other unusual circumstance, no work shall be performed on the project outside of Owner-approved work hours. Except in an emergency, the Contractor must obtain approval of the Owner before scheduling additional work hours.

- B. There shall be no traffic lane closures during weekdays between the hours of 6 AM to 9 AM and 4 PM to 6 PM. Exception to this requirement will only be made with the approval of the Cobb County DOT. Refer to Section 01 11 00, Summary of Work for additional information.

#### 1.4 CLOSING VALVES

- A. Except in an emergency, the Contractor shall not close or open valves on any water main without first gaining approval from the Owner of the water main.

#### 1.5 TRENCH SAFETY ORDINANCE

- A. Cobb County has enacted a local ordinance which requires strict adherence to OSHA regulations Subpart P, Part 1926 pertaining to trenching and excavation. All bidders are advised to be familiar with both the OSHA regulations and the local ordinance before bidding this project.

#### 1.6 ACCESS TO ADJACENT PROPERTY

- A. The Contractor shall be responsible for ensuring vehicular access, including access to school bus stops and routes, public bus stops, businesses, residences, and mailboxes adjacent to the pipeline route. If site conditions allow, the contractor will construct a temporary gravel driveway for access; in this case, gravel will be paid for at the unit price bid, but site grading will not be considered for separate payment.
- B. The Contractor will not be permitted to deny access to any property along the route. If two drives are available, only one drive may be closed at a time. If one drive is available, the drive can only be closed one half at a time while access is maintained on the other half. The work on a drive must be completed within one day's time. The drive must be repaved within 10 working days of disturbance due to construction.

#### 1.7 OWNER FURNISHED MATERIALS

- A. There are no Owner-furnished materials on this project. Contractor shall supply all materials.

#### 1.8 TIE-INS

- A. All tie-ins to the CCMWA, CCWS, and City of Marietta existing water mains shall be performed in a timely and efficient manner in order to minimize down-time to the system. If necessary, the Water Authority may require two crews working simultaneously at each end of the relocation section during the tie-in operations to minimize the system down-time.

#### 1.9 EROSION CONTROL

- A. It is the Contractor's responsibility to furnish, install and maintain any and all erosion control devices and silt fencing as may be required by any County, State or Federal agency that may have jurisdiction over the area in which work is being performed in the execution of this contract. In the event there are conflicting requirements, the most stringent regulations shall apply. It will be the



responsibility of the Contractor to remove all erosion control devices and silt fencing upon completion of the work at such time that a suitable ground cover has been established and final stabilization has been reached. See Section 31 25 00 for further details on erosion control methods.

#### 1.10 WORK ZONE TRAFFIC CONTROL

- A. The Contractor shall provide, erect and maintain all necessary barricades, message boards, suitable and sufficient warning lights, danger signals, and signs, provide sufficient number of watchmen, and take all necessary precautions for the protection of the work and the safety of the public. Contractor shall comply with all local and state ordinances concerning traffic control. No road closings will be allowed without prior approval of the local governing authority.
- B. All personnel involved in traffic control and doing any flagging must have received training and a certificate upon completion of the training from a GDOT approved training program. All costs for providing certified flaggers will be borne by the Contractor. Failure to provide certified flaggers as required above shall be reason for suspending work regarding the flagger(s) until a certified flagger can be provided. Flagging personnel shall be equipped with radio communication.
- C. It is the Contractor's responsibility to submit and obtain approval for traffic control from the appropriate governing authority. Contractor shall prepare a Traffic Control Plan and shall be solely responsible for all planning, permitting and implementation of all traffic control measures and procedures. Owner and Engineer assume no liability for traffic control.
- D. The Contractor shall have on-site a Certified Traffic Control Supervisor. The Certified Traffic Control Supervisor shall have completed Temporary Traffic Control Design and Supervision instruction by the National Safety Council or equivalent training. Proof of such training will be provided. The Certified Traffic Control Supervisor shall be on-site during all times traffic is interrupted by construction activities; during normal work times and during emergencies outside normal work times. The Certified Traffic Control Supervisor shall have the authority to direct necessary work activities to maintain a safety work environment for the public and for the workers.

#### 1.11 CREEK CROSSING

- A. Upon award of the project, the Contractor shall submit, to the Engineer and Owner, his detailed plans for any creek crossing within the scope of this project. These plans will also be reviewed by the Cobb County Community Development Department for erosion control methods. The Contractor will be responsible for furnishing and incorporating any additional erosion control methods required by the Cobb County Community Development Department.

#### 1.12 PIPE CLOSURES

- A. Pipe closures shall be made in straight sections of pipe using a solid long body restrained mechanical joint sleeve. Installation shall include a filler/spacer ring to

compensate for the final lap joint. Fit shall be as tight as practical. Closure shall be at least one pipe length away from an adapter. Closing with no spacer ring or by "bucking" pipe sections together with no sleeve will not be allowed.

#### 1.13 ACCEPTANCE AND FINAL PAYMENT

- A. When the project provided for under this contract has been completed by the Contractor, and all parts of the work have been approved by the Engineer according to the contract, the Engineer shall, within ten (10) days unless otherwise provided, make final inspection and advise the Contractor to prepare a final estimate, showing the value of work as soon as the necessary measurements and computations can be made.
- B. Contractor and Owner acknowledge that all progress certificates or estimates upon which payments shall have been made, will have been based on approximations only, and will be subject to correction in the final payment. Contractor shall prepare the final estimate and submit the same for payment within ninety (90) days of notification of final acceptance of the project by the Engineer.
- C. If Contractor fails to submit a final estimate and bill within said ninety (90) day period, the Contractor will be deemed to have conclusively waived, relinquished and forfeited any amounts remaining due under this contract, and the Owner may defund the project and re-appropriate said funds with no further liability under this contract or otherwise to Contractor. The amount of the final estimate, less any sums that may have been deducted or retained under the provisions of this contract, will be paid to the Contractor within sixty (60) days after approval by the Engineer, provided that the Contractor has properly maintained and operated the project as specified under the attached specifications, and provided that he has furnished to the Owner a sworn affidavit to the effect that all bills are paid and no suits are pending in connection with the work performed or labor and material furnished under this contract.

#### 1.14 MATERIALS STORAGE

- A. Material storage shall be restricted to the limits of disturbed area as designated on the Drawings and coordinated with the Work to minimize disruption to traffic and maintain public safety. Storage of materials is subject to approval by the Owner, Cobb County DOT, and City of Marietta. Contractor may, at their option, secure other locations for storage of materials, staging, or other use. Any such agreements shall be the sole responsibility of the Contractor. Copies shall be provided to the Owner as part of the project record.

#### 1.15 PIPE STORAGE

- A. Pipe storage is subject to approval by the Cobb County Department of Transportation or City of Marietta in areas adjacent to County roads and by the Georgia Department of Transportation. Contractor shall obtain all necessary permits.

1.16 TEST REQUIREMENTS

- A. The Contractor is responsible for providing temporary pipe restraint necessary to restrain the water main during hydrostatic test. The hydrostatic test pressure is as specified in Section 33 11 13 of these specifications. Water mains shall be tested independently of any existing water main prior to connection.

1.17 ROADWAY MAINTENANCE

- A. The Contractor shall maintain the surface of the roadway in a suitable condition for the safe traverse by traffic. The Contractor shall install asphalt base material when the extent of temporary gravel travel surface following the pipe installation exceeds 500 linear feet.

1.18 DISPOSAL OF MATERIALS

- A. The Owner reserves the right to retain ownership of existing materials; ductile iron pipe, valves, and fittings. The Contractor shall make Owner-designated materials available for recovery by the Owner. All other materials shall become the responsibility of the Contractor for disposal.

1.19 LANDSCAPING RESTORATION

- A. Where the pipeline is in the existing easement, CCMWA is compensating property owners for their own landscaping re-installation. The Contractor is not responsible for re-installation of landscaping, only permanent grassing. Contractor will be responsible for coordinating with owners on construction schedule, so that property owners are aware of when construction has been completed within their property extents.

\*\*\*END OF SECTION\*\*\*



**SECTION 01 35 25  
CONFINED SPACE ENTRY**

**1 GENERAL**

**1.1 GENERAL**

- A. Whenever it is necessary for the Engineer to enter a confined space to perform inspection or other functions necessary to the project, the Contractor shall provide two trained personnel to assist and equipment appropriate to the type of confined space to be entered.

**2 PRODUCTS**

**2.1 EQUIPMENT**

- A. The Contractor shall follow all the requirements provide stipulated in 29 CFR 1910.146 and shall provide all equipment necessary to perform confined space entry in accordance with 29 CFR 1910.146. Equipment shall include but not be limited to the following:

1. Tripod, Hoist and Harness
2. Gas Monitor
3. Two Way Radios
4. Cellular Telephone

**2.2 PERSONNEL**

- A. The Contractor shall provide two personnel trained in confined space entry (to the level of attendant) to assist the engineer with confined space entry.

**2.3 TRAINING**

- A. If the equipment provided by the contractor is different from equipment the engineer is accustomed to, then the contractor shall provide training in the use of that equipment. The contractor, however, is not responsible for providing confined space entry training to engineer.

**3 EXECUTION**

**3.1 GENERAL**

- A. The Contractor will be provided with a list of the Owner's and Engineer's personnel that are trained in confined space entry as entrants or attendants. Persons not trained in confined space entry will not be allowed entry.
- B. The Contractor shall be responsible for providing, filling out, and filing confined space entry permits.

**\*\*END OF SECTION\*\***



**SECTION 01 35 55**  
**JOB SITE SECURITY**

1 GENERAL

1.1 BARRICADES, LIGHTS AND WATCHMEN

- A. The Contractor shall furnish and erect such barricades, fences, message boards, lights, and danger signals, shall provide such watchmen, and shall provide such other precautionary measures for the protection of persons or property and of the work as are necessary. Barricades shall be painted in a color that will be visible at night. From sunset to sunrise, the Contractor shall furnish and maintain at least one light at each barricade and sufficient numbers of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The Contractor shall furnish watchmen in sufficient numbers to protect the work if determined to be necessary by the Owner.
- B. The Contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights, and watchmen to protect it and whenever evidence is found of such damage, the Contractor shall immediately remove the damaged portion and replace it at his cost and expense. The Contractor's responsibility for the maintenance of barricades, signs, lights, and for providing watchmen shall not cease until the project shall have been accepted by the Owner.

1.2 PROJECT SITE SECURITY

- A. The Owner will not be responsible for security of the Contractor's equipment, materials, and other items on the Project site.

\*\* END OF SECTION \*\*





**SECTION 01 41 00  
REGULATORY REQUIREMENTS**

1 GENERAL

1.1 GENERAL

- A. The Contractor shall, without additional expense to the Owner, be responsible for obtaining any necessary licenses, permits and complying with any and all applicable Federal, State and Municipal laws, codes and regulations in connection with the prosecution of the work included in this contract.

1.2 SAFETY AND HEALTH

- A. The Contractor shall take proper safety and health precautions to protect the Work, the workers, the public, and the property of others.

1.3 NPDES PERMIT

- A. The Contractor shall be required to become the primary permittee under the General Permit GAR100002 “Storm Water Discharges Associated with Construction Activity.” The Contractor shall be responsible for the filing of the Notice of Intent (NOI) and the Notice of Termination (NOT) for this project in accordance with the regulations and requirements of the Georgia Environmental Protection Division (GA EPD). Prior to the commencement of any land disturbance activities, a copy of the “NOI” must be received by the Engineer, Owner, and the GA EPD. Prior to any final payment, a copy of the “NOT” must be received by the Engineer, the Owner, and the GA EPD.

1.4 DEFINITIONS:

- A. Design Professional: The term Design Professional shall mean a professional licensed by the State of Georgia in the field of: engineering, architecture, landscape architecture, forestry, geology, or land surveying and is a Certified Professional in Erosion and Sediment Control.

2 PRODUCTS (NOT USED)

3 EXECUTION

3.1 GENERAL REQUIREMENTS

- A. The Contractor shall be required to become the primary permittee under the General Permit GAR100002 “Storm Water Discharges Associated with Construction Activity.”

3.2 FILING REQUIREMENTS

- A. The Contractor shall be responsible for the filing of the Notice of Intent (NOI) and the Notice of Termination (NOT) for this project in accordance with the regulations and requirements of the Georgia Environmental Protection Division (GA EPD). Prior to the commencement of any land disturbance activities, a copy of the “NOI”

must be received by the Engineer, Owner, and the GA EPD. Prior to any final payment, a copy of the “NOT” must be received by the Engineer, the Owner, and the GA EPD.

### 3.3 EMPLOYMENT OF DESIGN PROFESSIONAL

- A. The Contractor shall employ the services of a Design Professional for erosion and sediment control. The Contractor shall submit to the Owner and Engineer the qualifications of the Design Professional for review. The Design Professional or an individual under the direct supervision of the Design Professional shall perform the following duties:
- B. To perform inspection and site monitoring as required by the General Permit GAR100002 “Storm Water Discharges Associated with Construction Activity”. Within 24 hours of any inspection or site monitoring, electronic copies of any report shall be submitted to the Engineer and the Owner. Within 7 days of any inspection or site monitoring, written reports shall be submitted to the Engineer and the Owner. Copies of all reports will be maintained on the project site by the Contractor.

### 3.4 DUTIES OF CONTRACTOR

- A. The Contractor as a minimum shall perform the following duties:
  - 1. Maintain the Erosion, Sedimentation and Pollution Control Plans and the Comprehensive Monitoring Plan on the project site.
  - 2. Install and maintain the erosion and sedimentation control devices and practice best management practices to comply with the requirements and intent of the Erosion, Sedimentation and Pollution Control Plans and the Comprehensive Monitoring Plan.

**\*\*END OF SECTION\*\***

**SECTION 01 45 29**  
**TESTING LABORATORY SERVICES**

**1 GENERAL**

**1.1 GENERAL**

- A. Materials furnished for all construction shall be subject to test at all times by the Engineer, and any samples or specimens selected for test shall be furnished at no cost. The cost of all such tests shall be borne by the Owner. All tests shall be made by a recognized testing laboratory, acceptable to the Engineer. The following minimum testing will be required:
1. Soils compaction control.
  2. Disinfection.
  3. Cement.
  4. Fine Aggregate.
  5. Coarse Aggregate.
  6. Concrete.
  7. Reinforcing Steel.
  8. Brick.
  9. Ductile Iron Pipe.
  10. Joint Materials.
  11. Asphaltic Concrete.

**2 PRODUCT**

**2.1 REQUIREMENTS**

- A. Meet "Recommended Requirements for Independent Laboratory Qualification", published by American Council of Independent Laboratories.
- B. Meet basic requirements of ASTM E 329, "Standards of Recommended Practice for Inspection and Testing Agencies for concrete and steel as used in construction."
- C. Be authorized to operate in the State in which the Project is located.
- D. Be on the Georgia DOT list of prequalified consultants for the Soils, Foundation & Materials Testing Category before any testing is required.

**2.2 LABORATORY DUTIES**

- A. Promptly submit written report of each test and inspection: One copy each to the Engineer, Owner, Contractor, and one copy to Record Documents file. Each report shall include:

1. Date issued.
2. Project title and number.
3. Testing laboratory name, address and telephone number.
4. Name and signature of laboratory inspector.
5. Date and time of sampling or inspection.
6. Record of temperature and weather conditions.
7. Date of test.
8. Identification of product and specification section.
9. Location of sample or test in the project.
10. Type of inspection or test.
11. Results of tests and compliance with contract documents.
12. Interpretation of test as required by the Engineer or the Owner.
13. Perform additional tests as required by the Engineer or the Owner.

### 2.3 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
  1. Release, revoke, alter or enlarge on requirements of Contract Documents.
  2. Approve or accept any portion of the work.
  3. Perform any duties of the contractor.

## 3 EXECUTION

### 3.1 GENERAL

- A. Cooperate with laboratory personnel to provide access to work.
- B. Secure and deliver to the laboratory adequate quantities of representative samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other materials mixes which require control by the testing laboratory.
- D. Furnish copies of products test reports as required.
- E. Furnish incidental labor and facilities:
  1. To provide access to work to be tested.
  2. To obtain and handle samples at the project site or at the source of the product to be tested.
  3. To facilitate inspections and tests.
  4. For storage and curing of test samples.

- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
- G. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence.
- H. Employ and pay for the services of a separate, equally qualified independent testing laboratory to perform additional inspections, sampling and testing required:
  - 1. For the Contractor's convenience.
  - 2. When initial tests indicate work does not comply with Contract Documents.

\*\*END OF SECTION\*\*



**SECTION 01 51 00  
TEMPORARY UTILITIES**

**1 GENERAL**

**1.1 DESCRIPTION**

- A. Furnish, install and maintain temporary utilities required for construction, remove on completion of work.

**1.2 REQUIREMENTS OF REGULATORY AGENCIES**

- A. Comply with National Electric Code.
- B. Comply with Federal, State and local codes and regulations and with utility company requirements.

**2 PRODUCTS**

**2.1 MATERIALS, GENERAL**

- A. Materials may be new or used but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

**2.2 TEMPORARY ELECTRICITY AND LIGHTING**

- A. Arrange with utility company, provide service required for power and lighting, and pay all costs for service and for power used.
- B. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.

**2.3 TEMPORARY HEAT AND VENTILATION**

- A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate progress of the work, to meet specified minimum conditions for the installation of materials, and to protect materials and finishes from damage due to temperature or humidity.
- B. Provide adequate forced ventilation for enclosed areas for curing of installed materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.
- C. Portable heaters shall be standard approved units complete with controls.
- D. Pay all costs of installation, maintenance, operation and removal, and for fuel consumed.

**2.4 TEMPORARY WATER**

- A. Arrange to provide metered water for construction purposes; for filling and initial flushing, CCMWA provides water one time at no charge after which Contractor shall pay for additional water used. Contractor shall pay all costs for installation, maintenance and removal, and service charges for water used after the first time.

- B. Water service must have a backflow preventer sized for the line installed. Backflow preventer must be a "reduced pressure zone" type (Watts Series 009QT) or an alternate approved by the local water authority.

## 2.5 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities in compliance with laws and regulations.
- B. Service, clean and maintain facilities and enclosures.

## 3 EXECUTION

### 3.1 GENERAL

- A. Maintain and operate systems to assure continuous service.
- B. Modify and extend system as work progress requires.

### 3.2 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.

**\*\*END OF SECTION\*\***



**SECTION 01 56 17**  
**DUST CONTROL AND PROPERTY PROTECTION**

**1 GENERAL**

**1.1 DUST CONTROL**

- A. Limit blowing dust caused by construction operations by applying water or employing other appropriate means or methods to maintain dust control, subject to the approval of the Owner.

**1.2 PROTECTION OF ADJACENT PROPERTY**

- A. The bidders shall visit the site and note the buildings, landscaping, roads, parking areas and other facilities near the work site that may be damaged by their operations. The Contractor shall make adequate provision to fully protect the surrounding area and will be held fully responsible for all damages resulting from his operations.

\*\* END OF SECTION \*\*



**SECTION 01 77 00  
CONTRACT CLOSEOUT**

**1 GENERAL**

**1.1 GENERAL**

- A. Comply with requirements stated in conditions of the contract and in specifications for administrative procedures in closing out the work.
- B. Related requirements in other parts of the contract documents.
  - 1. Fiscal provisions, legal submittals and additional administrative requirements: Conditions of the Contract.
- C. Related requirements specified in other sections:
  - 1. N/A.

**1.2 SUBSTANTIAL COMPLETION**

- A. When contractor considers the work is substantially complete, he shall submit to Engineer:
  - 1. A written notice that the work, or designated portion thereof, is substantially complete.
  - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, the Engineer will make a construction review to determine the status of completion.
- C. Should Engineer determine that the work is not substantially complete:
  - 1. Engineer will promptly notify the contractor in writing giving the reasons therefore.
  - 2. Contractor shall remedy the deficiencies in the work, and send a second written notice of substantial completion to the Engineer.
  - 3. Engineer will again review the work for completion status.
- D. When the Engineer finds that the work is substantially complete, he will:
  - 1. Prepare and deliver to Owner a tentative certificate of Substantial Completion with a tentative list of items to be completed or corrected before final payment.
  - 2. After consideration of any objections made by the Owner as provided in conditions of the contract, and when Engineer considers the work substantially complete, he will execute and deliver to the Owner and the Contractor a definitive Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

### 1.3 FINAL CONSTRUCTION REVIEW

- A. When Contractor considers the work is complete, he shall submit written certification that:
  - 1. Contract documents have been reviewed.
  - 2. Work has been reviewed for substantial compliance with contract documents.
  - 3. Work has been completed generally in accordance with contract documents.
  - 4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
  - 5. Work is completed and ready for final construction review.
- B. Engineer will perform a review to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should Engineer consider that the work is incomplete or defective:
  - 1. Engineer will promptly notify the Contractor in writing, listing the incomplete or defective work.
  - 2. Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to Engineer that the work is complete.
  - 3. Engineer will again review the work.
- D. When the Engineer finds that the work is acceptable under the contract documents, he shall request the contractor to make closeout submittals.

### 1.4 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

- A. Operating and maintenance data, instructions to Owner's personnel:
- B. Evidence of Payment and Release of Liens: To requirements of General and Supplementary Conditions.

### 1.5 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:
  - 1. The original Contract Sum.
  - 2. Additions and deductions resulting from:
    - a. Previous change orders.
    - b. Allowances.

**\*\*END OF SECTION\*\***

**DIVISION 02**  
**EXISTING CONDITIONS**



**SECTION 02 27 10  
STREAM CROSSINGS**

**1 GENERAL**

**1.1 DESCRIPTION**

- A. Contractor shall construct pipelines across streams in a manner that will
  1. minimize erosion and siltation during construction;
  2. restore the streambed, stream banks and buffer areas to their original grade and profile;
  3. produce a stable, erosion-free and maintenance-free condition for both the stream area and the pipeline.
- B. The work at stream crossings shall be scheduled, to the extent practicable, during periods of low stream flow. After the work commences, it shall be pursued in a continuous manner from day to day in order to minimize the duration of the work.

**1.2 CLEARING OF TREES AND OTHER VEGETATION**

- A. Clearing for all stream crossings shall be minimized and shall be limited to no more than a 40-foot width through the stream buffer area unless otherwise approved.

**1.3 CONSTRUCTION PROCEDURE**

- A. Typical Procedure: Contractor shall construct a cofferdam or temporary dam of crushed stone covered with plastic tarps. The cofferdam shall extend from the stream bank to a point beyond the centerline of the stream. Alternately, a bypass within the stream may be built by constructing the cofferdam completely across the stream and installing culverts between the dams over the trench. The pipeline shall then be installed in a trench excavated below the stream bed within the dammed area. All excavated material shall be removed to an offsite disposal area, and not allowed to contaminate the stream. A uniform bedding of No. 57 stone shall be placed on the trench bottom before placing the pipe in the trench. The entire trench shall be backfilled with no. 57 stone unless otherwise shown on plans. The trench shall be deep enough to ensure at least four feet of cover between the top of the pipe and the normal stream bed profile. All streambed and bank restoration within the cofferdam area shall be completed prior to removal of the dams.
- B. Alternate Procedure: Contractor may, after obtaining Engineer's approval, utilize a construction procedure other than the typical procedure outlined above. If Contractor proposes an alternate procedure, then a full and detailed submittal of the proposed procedure shall be submitted in writing, with appropriate drawings, well in advance of the scheduled work. No work shall commence under any alternate procedure until after obtaining Engineer's written approval of Contractor's proposed plan.
- C. Pumping in the cofferdam area shall be carried out as needed to maintain a workable pipe trench. Pumped water containing sediment shall not be returned directly to the stream but shall be pumped to a temporary sediment pond or filter system for removal of sediment before water is returned to the stream.

#### 1.4 STREAMBANK RESTORATION

- A. Excavated areas. Stream bank stabilization shall include backfilling and grading of excavated areas and covering with rip-rap to produce a finished grade that matches the original grade and blends in with adjacent stream banks. Backfill shall be compacted dry material. Filter fabric of an approved type shall be placed over the compacted material, followed by a thick layer of rip-rap as shown on the plans.
- B. Non-excavated areas. Disturbed areas outside of the excavated area shall, unless otherwise directed by Engineer, be restored by re-vegetating with grass. Temporary erosion protection blankets shall be placed on sloped areas to minimize erosion.

#### 1.5 BUFFER AND WETLAND RESTORATION

- A. The top 24 inches of soil material within stream buffer zones and any wetlands adjacent to the stream shall be temporarily stored and shall be placed back after construction so that the original surface soil type is restored in these buffer and wetland areas. Grading within these areas shall be accomplished so that surface contours after construction are restored to the original contours, unless otherwise approved.
- B. At the stream bank and at the limits of wetlands, stone bedding in the pipe trench shall be interrupted with a two-foot thick plug of clayey soil placed and compacted completely around the pipe for the full trench depth to serve as an anti-seep collar to prevent unnatural drainage of buffers and wetlands.

#### 1.6 CLEANING OF PIPELINE

- A. Immediately after each stream crossing and before pipe installation proceeds more than 50 feet beyond the limits of the stream crossing, Contractor must clean the pipe of all mud, sand, gravel, etc. Cleaning of the pipe using high-pressure water jets or other means will be required as necessary to accomplish thorough cleaning. Contractor shall verify that cleaning has been accomplished by inspecting the interior of the pipe for the full length of the crossing plus at least 50 additional feet each side. Inspection of the pipe will be performed in presence of the Engineer.

**\*\*END OF SECTION\*\***



**SECTION 02 32 13**  
**SUBSURFACE CONDITIONS**

1 GENERAL

1.1 GENERAL

The following soils investigation report has been prepared for the site:  
Geotechnical Exploration CCMWA Blackjack 36" Water Main Replacement, Cobb  
County, Georgia, Project No.: FRENI-19-GA-03852-01, United Consulting

2 PRODUCTS

2.1 REPORT

The soils investigation report is included as Appendix A to these specifications.

\*\*END OF SECTION\*\*



**DIVISION 31  
EARTHWORK**



**SECTION 31 11 00  
SITE PREPARATION**

**1 GENERAL**

**1.1 DEFINITIONS**

- A. The terms "Clearing" and "Grubbing" used in these specifications will be as defined in the Georgia Department of Transportation Specifications, Latest Edition, Section 201.1.01.

**1.2 WORK INCLUDED**

- A. Furnish all labor, equipment and materials as required to prepare the construction site for the required work as shown on the drawings or as specified herein. Site preparation required for this project includes, but is not necessarily limited to:
1. Observation of clearing limits - clearing at construction sites shall be limited to the disturbed area as shown on the Drawings, generally following the right-of-way and temporary or permanent easements.
  2. Contractor shall be extremely careful while working in the GDOT, CCDOT and Marietta DOT right-of-way areas and observe strict safety procedures and practices. There is limited Ingress/ Egress access to these areas, and careful, prudent practices shall be observed at all times.

**1.3 QUALITY ASSURANCE**

- A. The Contractor, in conducting the work required on this project, is to cause no damage to property, soils or vegetation outside the limits of construction defined in this and other sections of these Specifications, as shown on the Drawings, or required by the Engineer. Any damage to property soil or vegetation outside the limits of construction shall be repaired immediately, by the Contractor, as defined herein at no additional cost to the Owner.

**2 PRODUCTS (Not Used)**

**3 EXECUTION**

**3.1 WORKMANSHIP**

- A. Clear and grub all trees, shrubs, and ground vegetation from the site as necessary to install the proposed water main. These cleared materials shall be removed from the site or burned in accordance with Georgia DOT Specifications and local laws. Pits for burning must be approved by the Engineer.
- B. Those areas that are cleared beyond specified limits shall be restored to their original state at the expense of the Contractor. Trees damaged during construction shall be replaced by the Contractor; or at the Engineer's discretion, trees that are damaged during construction may have any wounds dressed and coated with an approved pruning paint.

### 3.2 ENVIRONMENTAL PROTECTION

- A. Defined in Section 31 25 00.
- B. During construction the Contractor shall provide preventive measures as may be required by governing laws or ordinances to prevent siltation and soil erosion.

**\*\*END OF SECTION\*\***

**SECTION 31 23 19**  
**CONSTRUCTION DEWATERING**

**1 GENERAL**

**1.1 SCOPE**

- A. The Contractor shall be responsible for controlling groundwater in a manner that will preserve the strength of the bedding soils, will not cause instability of the excavation slopes, will not result in damage to existing structures and will not allow ground water or siltation to enter the water main while under construction.
- B. Where permeable soils are encountered at subgrade elevations, the Contractor shall maintain the groundwater level a minimum of 3-feet below the bottom of the trench.
- C. Open pumping from sumps and ditches, if it results in boils, loss of fines, softening of the ground, or instability of slopes, will not be permitted.
- D. The Contractor shall submit for the Engineer's approval a construction dewatering plan. The plan shall indicate the method of dewatering to be used, the location of any wells or pumps, and where pumped groundwater is to be discharged. No excavation will be allowed without an approved dewatering plan.

**2 PRODUCTS**

**2.1 EQUIPMENT**

- A. Equipment used for dewatering is optional to the Contractor.
- B. Mechanical equipment used shall be in good working order and suitable for use under the anticipated conditions.
- C. Wells and well points, if used, shall be installed with suitable screens and filters so that continuous pumping of fines does not occur.

**3 EXECUTION**

**3.1 GENERAL**

- A. The Contractor shall maintain and operate his dewatering equipment until the water main is installed in areas where ground water is present.
- B. No compensation for removal of unstable material below the subgrade shall be allowed if, in the opinion of the Engineer, modified dewatering techniques would solve the problem and result in a suitable subgrade.
- C. Dewatering discharge shall be accessible for collection of samples by the Engineer or testing company.

- D. Water shall be disposed of in accordance with applicable US Environmental Protection Agency, US Army Corps of Engineers, Georgia Environmental Protection Division standards and permits, and County and City ordinances.

**\*\*END OF SECTION\*\***



**SECTION 31 25 00**  
**EROSION AND SEDIMENT CONTROL**

**1 GENERAL**

**1.1 SCOPE OF WORK**

- A. This section includes requirements for the provision, maintenance, and subsequent removal of temporary and/or permanent erosion and sediment controls as shown on the plans or as required Local, State or Federal regulations.
- B. The temporary erosion and sediment controls contained herein shall be coordinated with the permanent erosion controls, to assure economical, effective, and continuous erosion and sediment control during construction within acceptable limits. Acceptable limits are as established by the Georgia Erosion and Sedimentation Control Act of 1975, as amended, Section 402 of the Federal Clean Water Act, and applicable codes, ordinances, rules, regulations, and laws of local and municipal authorities having jurisdiction.
- C. Land disturbance activities shall not commence until the Land Disturbance Activity Permit and Notice of Intent, if applicable, have been properly issued.
- D. This section includes the design of project specific devices and practices to meet requirements of the related work and references listed below in conjunction with the Contractor's own means, methods, and techniques, schedules and sequences of work, and actual conditions encountered. Design shall be performed by professionals experienced and familiar with storm water and drainage characteristics as well as the requirements of references listed below.

**1.2 RELATED WORK**

- A. Erosion and Sediment Control Plan
- B. Section 32 92 00 – Grassing and Mulching

**1.3 REFERENCES**

- A. Cobb County Soil Erosion and Sedimentation Control Ordinance.
- B. Cobb County Comprehensive Stormwater Management and Stormwater Quality Ordinance.
- C. Manual for Erosion and Sediment Control in Georgia, as published by the Georgia Soil and Water Conservation Commission (current edition).
- D. Federal Clean Water Act.
- E. Georgia Erosion and Sedimentation Act of 1975, as amended.

**1.4 QUALITY ASSURANCE**

- A. The Contractor shall provide at least one representative involved in the project's land disturbing activities that has successfully completed the erosion and sediment control education and certification program as administered by the Georgia Soil and Water

Conservation Commission; this “certified person” must have completed as a minimum, the Level 1A (Fundamentals) course. A “certified person” must be present onsite at all times when work is being performed. Failure to maintain a certified person onsite at all times may result in a stop work order or other appropriate enforcement action.

## 1.5 SUBMITTALS

- A. Certification credentials of all persons that have completed the Georgia Soil and Water Conservation Commission’s erosion and sediment control education and certification program and that will be involved in the project shall be provided to the Owner prior to the start of any land disturbing activities.

## 2 PRACTICES AND PRODUCTS

### 2.1 GENERAL

- A. The following paragraphs generally describe the erosion and sediment control practices and products typically employed on a utility construction project. The detailed requirements for these, as well as for other measures which may be needed to achieve effective erosion control, shall be as specified in the Standards and Specifications for General Land Disturbing Activities of the Manual for Erosion and Sediment Control in Georgia.
- B. The paragraph titles and alpha-numeric codes refer to specific structural and vegetative type practices included in the aforementioned Standards. All practices are considered as temporary erosion and sediment control features, except the channel stabilization, gabions and grassing/sodding, trees, shrubs, and groundcovers, which are considered as permanent measures.

### 2.2 STRUCTURAL PRACTICES

#### A. CONSTRUCTION EXIT - Co

1. A construction exit consists of a stone-stabilized pad with a geotextile underliner located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk, or parking area.
2. Construction exits are used to reduce or eliminate transport of mud from the construction area.
3. Construction exits shall consist of graded 1.5- to 3.5-inch stone meeting National Stone Association Grade R-2. The geotextile underliner shall be a non-woven fabric equal to No. C-45NW as manufactured by Contech Construction Products, Inc. or equal.

#### B. CHANNEL STABILIZATION (RIP-RAP) - Ch

1. Channel stabilization consists of structures to stabilize an open channel for water conveyance. Such stabilization is typically applied in these locations where the channel banks and bed have been disturbed by excavation for a pipeline crossing.

2. Channels will be stabilized using a rock rip-rap lining. The lining shall consist of filter bedding stone and graded rip-rap stone. Sizes of stone shall be as classified by either the National Stone Association (N.S.A.) or the Department of Transportation (D.O.T.). Rip-rap stone shall be equal to Georgia Department of Transportation Type 1 or Type 3. Filter bedding stone shall be graded stone not exceeding 6-inches in diameter. An appropriate geotextile fabric may be substituted for filter stone.

#### C. CHECK DAMS - Cd

1. Check dams are barriers composed of stone or hay bales placed across a natural or constructed drainage-way to prevent erosion in areas of concentrated flows.
2. Stone check dams shall not be utilized where the drainage area exceeds five acres. Hay bale check dams should not be used where drainage areas exceed 2 acres. Check dams shall not be installed in live streams.
3. Stone check dams should be constructed of graded size 2- to 10-inch stone.

#### D. SEDIMENT BARRIER

##### 1. STAKED HAYBALES - Sd1

- a. Hay bale barriers are placed in a single row on natural ground where the most likely erodible areas are located to restrain sediment particles carried by sheet flow.

##### 2. SILT FENCE - Sd1-S and Sd1-Ns

- a. Silt fences are temporary measures to retain suspended silt particles carried by sheet flow.
- b. Silt fence consists of silt fabric, as specified in the Georgia Department of Transportation list #36, wood or steel posts, and wire or nail fasteners.
- c. Type Sd1-S silt fence is a woven 36-inch wide filter fabric with wire reinforcement. Sediment barriers being used as Type S for sensitive areas shall have a support spacing of no greater than 4 feet on center, with each driven into the ground 18 inches.

#### E. INLET SEDIMENT TRAP - Sd2

1. Inlet sediment traps are temporarily protective devices formed around a storm drain inlet to trap sediment.
2. Inlet sediment traps are used to prevent sediment from leaving a site or from entering storm drain systems prior to permanent stabilization of the disturbed area.

#### F. ROCK FILTER DAM - Rd

1. Rock filter dams are installed across small non-actively flowing drainage-ways and are applicable for projects that involve grading activity directly in those drainage-ways.
2. Rock filter dams consist of rip rap faced with smaller rock on the upstream side

for additional filtering affect.

#### G. TURBIDITY CURTAIN - Tc

1. Turbidity Curtain is installed to minimize turbidity and silt migration from work occurring within the water or as a supplement to perimeter control BMPs at the water's edge.
2. Silt or turbidity is confined to the area within the boundary created by the installation, such that suspended particles drop out of the water column over time. The turbidity curtain shall not be used as sediment storage.

### 2.3 VEGETATIVE PRACTICES

#### A. GENERAL

1. Disturbed areas shall be stabilized as construction progresses. For water mains installed within easements, the construction corridor shall not exceed 1,000 linear feet without stabilization. All other projects shall not exceed 300 linear feet without stabilization

#### B. DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) - Ds1

1. This practice is applicable where disturbed areas, temporarily idle, have not been established to final grade and/or where permanent vegetative cover is delayed for a period not to exceed 6 months.
2. Mulch materials shall consist of dry straw or hay, wood chips, erosion control matting or netting, or polyethylene film. The mulch should be uniform, spread over the designated area from 2 to 4 inches thick.
3. Any and all disturbed areas that have not yet reached final grade shall be stabilized with mulch or temporary grassing within fourteen (14) calendar days of disturbance.

#### C. DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING) - Ds2

1. Temporary seeding is a measure consisting of seeding and mulching to reduce erosion. All disturbed areas shall be seeded when and where necessary to reduce erosion.
2. This practice is applicable where disturbed areas, temporarily idle, have not been established to final grade and/or where permanent vegetative cover is delayed for up to 6 months.
3. Temporary seeding consists of a grass or grass-legume mixture suitable to the area and season of the year.

#### D. DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) - Ds3

1. See Section 32 92 00 – Grassing and Mulching

#### E. DISTURBED AREA STABILIZATION (WITH SODDING) - Ds4

1. See Section 32 92 00 – Grassing and Mulching

#### F. EROSION CONTROL MATTING AND BLANKETS - Sb

1. This practice is a protective covering (blanket) or soil stabilization mat used to stabilize disturbed areas until permanent vegetation on steep slopes, channels, or shorelines can be established.
2. Concentrated flow areas, all slopes steeper than 1:1 and with a height of ten feet or greater, and cuts and fills within stream buffers, shall be stabilized with the appropriate erosion control matting or blankets.
3. All blanket and matting materials shall be PYRAMAT High Performance Turf Reinforcement Mat produced by LANDLOK, Permanent Turf Reinforcement Mat produced by Vmax3, or approved equivalent material and manufacturer.

#### G. JOINT PLANTING STABILIZATION (rip-rap and willow stakes)

1. Joint planting is a system that installs live willow stakes between rip-rap (type 3) placed previously along the stream bank. It is installed to increase the effectiveness of the rock system by forming a living root matt in the base upon which rock has been placed and improve the environmental function and aesthetics of the rock bank. The rock shall be principally placed by hand or gentle mechanical dumping. Willow stake density of installation shall be 3 to 5 cuttings per square yard. Cuttings shall be 2-inch diameter and 3.5 feet in length. The cutting shall be freshly cut and alive. Two thirds (2/3) of live stake shall be in the ground below the previously placed rock. Use only native species willow stakes.

### 3 EXECUTION

#### 3.1 GENERAL

- A. At the Preconstruction Conference, the Contractor shall submit a schedule for accomplishment of the temporary erosion control work for specific conditions to be encountered on the project.
- B. The Contractor shall install all erosion and sediment control devices as required by actual field conditions, as shown on the plans, or as directed by the Owner or by any agency having jurisdiction in the locale of the project.
- C. The erosion and sediment control devices shall be installed by the Contractor before land disturbing activities begin.
- D. The Owner has the authority to direct the Contractor to provide immediate, additional temporary erosion control measures to prevent contamination of adjacent waterways and drainage ways. Additional erosion control measures may be used to correct conditions that develop during construction that were not foreseen during the design stage or that are needed prior to installation of the permanent erosion control features.
- E. The Owner may limit the area of excavation in progress based on the Contractor's capability and progress in keeping the finish grading, mulching, and seeding current, in accordance with the accepted schedule. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures, such as mulching or

temporary seeding, shall be taken immediately to the extent feasible and justified.

- F. The Contractor shall incorporate all permanent erosion control features (grassing and sodding) into the project at the earliest practicable time.

### 3.2 INSTALLATION

- A. Erosion control measures shall be designed by professionals familiar with storm water/drainage characteristics, installed, and maintained in accordance with the "Manual for Erosion and Sediment Control in Georgia" published by the Georgia Soil and Water Conservation Commission.

### 3.3 INSPECTION

- A. Upon completion of installation, the Owner or local government authority shall inspect the erosion and sediment control devices for proper installation, flaws, defects, or other damage. The Contractor shall repair or replace the unacceptable portions as directed by the Owner or local government authority.
- B. All erosion and sediment control devices shall be inspected by the Contractor at least weekly and after each rainfall occurrence.

### 3.4 MAINTENANCE

- A. The Contractor shall maintain the erosion and sediment control devices until the project is completed and all disturbed areas are stabilized. Maintenance of the devices shall include: removal and disposal of silt accumulation; replacement of damaged or deteriorated devices; other repairs; and the installation of additional devices should those devices installed prove to be inadequate at no additional cost to the Owner.
- B. Silt shall be cleaned out once it has accumulated to 1/2 the height of the device or when 1/2 of the available sediment storage capacity has been attained.

### 3.5 REMOVAL

- A. Temporary erosion and sediment devices shall remain in place until such time as a satisfactory stand of grass has been established, unless the Owner or local government authority directs earlier removal. Damaged or otherwise unusable devices shall be removed from the site and disposed of properly.
- B. After erosion and sediment device removal, the Contractor shall dress out any disturbed areas in the vicinity of the removed device and grass according to these specifications.

**\*\*END OF SECTION\*\***

**SECTION 31 37 00**  
**RIP-RAP**

**1 GENERAL**

**1.1 DESCRIPTION**

- A. The work of this section consists of furnishing and hand placing stone rip-rap for embankment and stream bed protection.

**1.2 SUBMITTALS**

- A. As specified in Section 01 33 00.
- B. Submit Manufacturer's installation instructions for geotextile fabric.

**2 PRODUCTS**

**2.1 GEOTEXTILE FABRIC**

- A. Fabric shall be permeable synthetic material, having the following properties:
1. Grab tensile strength, shall be 200 pounds minimum, tested by ASTM D1682-64.
  2. Grab elongation shall be 15-50% as tested by ASTM D1682-64.
  3. Burst strength shall be 500 lbs. as tested ASTM D751-79.
  4. No. C-45NW as manufactured by Contech Construction Products, Inc. or equal.

**2.2 FILTER STONE**

- A. Filter stone shall be crushed stone consisting of sound, durable particles of rock in the gradation specified. Stone shall be Georgia D.O.T. Standard Specification, Section 800, size #57.

**2.3 RIP-RAP**

- A. Rip-rap shall be well-graded angular quarry stones, sound and hard, resistant to water and weathering. Rock shall be Georgia D.O.T. Standard Specification, Section 805 Type 3. Maximum size shall be 1.0 cubic foot. At least 35% of the mass shall be comprised of pieces which weigh 15 pounds or more.

**3 EXECUTION**

**3.1 EXCAVATION**

- A. Excavate foundation as shown and as specified in Section 603.3 of the Georgia D.O.T. Standard Specifications, Latest Edition. Obtain Engineer's approval of foundation before placing geotextile fabric or rip-rap. Repair or replace fabric

that has been damaged due to stone placement. Re-lay fabric that becomes displaced during stone placement.

### 3.2 GEOTEXTILE FABRIC

- A. Place on smooth, uniform slope, loosely enough to conform to minor surface irregularities. Follow manufacturer's recommendations for making laps and for fastening and securing

### 3.3 HAND-LAID RIPRAP

- A. Place largest rocks at bottom of slope. Arrange by hand to interlock and form a substantial bond. Rip-rap shall be reasonably uniform and free from bulges, humps, or cavities. Use spalls to fill voids.

**\*\*END OF SECTION\*\***



**DIVISION 32**  
**EXTERIOR IMPROVEMENTS**



**SECTION 32 12 16**  
**ASPHALT CONCRETE PAVING**

**1 GENERAL**

**1.1 WORK INCLUDED**

- A. All labor equipment and materials required to furnish and install asphalt concrete paving for roadways and parking areas as shown on the Drawings.

**1.2 RELATED WORK**

- A. Testing Laboratory Services: Section 01 45 29.

**1.3 PAVING CONTRACTOR REQUIREMENTS**

- A. A GDOT prequalified General Contractor shall provide all the work described under this specification.
- B. The name of the Paving Contractor shall be submitted to the Owner at least ten (10) business days prior to any construction within any roadway.

**2 PRODUCTS**

**2.1 GRADED AGGREGATE BASE COURSE**

Section 815, GDOT Standard Specifications, latest edition.

**2.2 CITY OF MARIETTA CONCRETE CAP**

8" Class A high early concrete.

**2.3 BITUMINOUS PRIME COAT**

Section 821, GDOT Standard Specifications, latest edition. Viscosity grade MC-70.

**2.4 SUPERPAVE ASPHALTIC CONCRETE MIXTURES**

Section 828, GDOT specifications, latest edition. 19 mm Superpave, 12.5 mm Superpave, and 9 mm Superpave.

**2.5 ASPHALTIC CONCRETE BINDER COURSE**

Section 828, GDOT Specifications, latest edition.

**2.6 BITUMINOUS TACK COAT**

Section 822, GDOT Standard Specifications, latest edition. Grade SS-1 or SS-1h.

**2.7 ASPHALTIC CONCRETE SURFACE COURSE**

Section 828, GDOT Standard Specifications, latest edition, 12.5mm.

**2.8 PAINT TRAFFIC STRIPING**

Section 652, GDOT Standard Specifications, latest edition.

**2.9 THERMOPLASTIC TRAFFIC STRIPE**

Section 653, GDOT Standard Specifications, latest edition.

### 3 EXECUTION

- 3.1 Construct graded aggregate base course in accordance with Section 310, GDOT Standard Specifications, latest edition.
- 3.2 Apply bituminous prime coat in accordance with Section 412, GDOT Standard Specifications, latest edition.
- 3.3 Construct asphaltic concrete binder course in accordance with Section 400, GDOT Standard Specifications, latest edition.
- 3.4 Apply bituminous tack coat in accordance with Section 413, GDOT Standard Specifications, latest edition.
- 3.5 Construct asphaltic concrete surface course in accordance with Section 400, GDOT Standard Specifications, latest edition.
- 3.6 Apply traffic striping course in accordance with Section 652, GDOT Standard Specifications, latest edition or Section 653, GDOT Standard Specifications, latest edition as appropriate.
- 3.7 Omit all references to measurement and payment in the GDOT Specifications.
- 3.8 Final pavement will be subject to Cobb County DOT or City of Marietta acceptance for smoothness and trafficability.

**\*\*END OF SECTION\*\***

**SECTION 32 92 00  
GRASSING AND MULCHING**

**1 GENERAL**

**1.1 GENERAL**

- A. This work shall consist of ground preparation, furnishing and planting, seeding, fertilizing, sodding and mulching of all disturbed areas.
- B. Areas to be grassed or permanently mulched.
- C. Any areas which were grassed prior to the start of construction shall be grassed after completion. These areas include but are not limited to pipeline trenches, fill and topsoil storage areas and structure excavation.

**1.2 JOB CONDITIONS**

Schedule work to comply with Section 31 25 00, Erosion and Sedimentation Control.

**2 PRODUCTS**

**2.1 SEED**

The seed shall be an approved mixture for the required type of grass and time of planting.

**2.2 FERTILIZER**

Commercial grade.

**2.3 AGRICULTURAL LIME**

GDOT Section 882.2.

**2.4 MULCH**

GDOT Section 893.2.

**3 EXECUTION**

**3.1 STAND OF GRASS REQUIRED**

It is the intent of this specification that the Contractor is obliged to deliver a satisfactory stand of perennial grass before final payment will be made. If it is necessary to repeat any or all of the work, including plowing, fertilizing, watering and seeding, the Contractor shall nevertheless repeat these operations as a part of this contract until a satisfactory stand is obtained. For the purpose of seeding, a satisfactory stand of grass is herein defined as a full cover, over the areas to be seeded, with grass that is alive and growing, leaving no bare spots larger than one square foot. Bare spots shall be scattered, and the total bare areas should not comprise more than 1/100 of any given area.

3.2 LIMING AND GROUND PREPARATION

After the area to be seeded has been brought to finished grade, lime, if it is required, shall be uniformly distributed at a rate of 1 to 2 tons per acre over the seeding area, depending on soil test, with a mechanical spreader. The ground shall be prepared by plowing, disking and harrowing to a depth of at least 4 inches until these areas are friable, well pulverized and the lime is uniformly mixed with the soil. All irregularities in the surface shall be smoothed out. All roots and stones larger than 3 inches to any dimension, and all other foreign material detrimental to final grading, proper bonding or the proper growth of the planting, shall be removed.

3.3 FIRST APPLICATION OF FERTILIZER

Commercial fertilizer grades 4-12-12, 6-12-12 or 5-10-15 shall then be distributed uniformly at the rate of 1,500 pounds per acre and shall be uniformly mixed with the soil to a depth of at least 4 inches by disking, harrowing or by other methods acceptable to the Engineer. Fertilizer shall not be applied when the wind makes it difficult to get satisfactory distribution.

3.4 SEEDING

The seed shall be a mixture as shown in the table below, and shall be applied at the rates shown in the table:

APPLICATION		
<u>Season</u>	<u>Kinds of Seed</u>	<u>Pounds Per Acre</u>
Jan. 1-May 15	Unhulled Common Bermuda	45
	Kentucky 31 Fescue	150
May 16-Sept. 1	Hulled Common Bermuda	75
Sept. 2-Dec. 31	Unhulled Common Bermuda	45
	Kentucky 31 Fescue	150

The seed shall be uniformly sown by approved mechanical power drawn drills or, in small areas, by mechanical hand seeders. The seeds shall be covered and compacted to a depth of 1/8 to 1/2 inch by means of a cultipacker and an empty traffic roller or another roller weighing less than 3 tons. Broadcast seeding shall not be done when the wind makes it difficult to get satisfactory distribution.

3.5 MOISTURE

Seed shall not be sown unless the soil has the optimum moisture content or more through a depth of at least 4 inches, nor shall it be sown when there is frost in the ground. The Engineer has the authority to postpone seeding at any time when weather and moisture conditions are not favorable.

### 3.6 MULCH

All areas to be seeded (except those to be sprigged and over-seeded) shall be uniformly mulched in a continuous blanket immediately after seeding using the quantities per acre listed below for each type of mulching material.

Straw, Hay, Forest Litter, Hulls	1.5 tons
Stalks	2 tons
Manure	4 tons
Peat or Mulch	135 C.Y.

The rate of application will correspond to a depth of at least one inch and not more than one and one half inches, according to the texture and moisture content of the mulch material. It is intended that mulch shall allow some sunlight to penetrate and air to circulate, at the same time shading the ground, reducing erosion and conserving soil moisture. The contractor shall take steps necessary to prevent loss of mulch or bunching of mulch as caused by the wind.

### 3.7 WATERING

After the seeds have been sown, the soil will be maintained in a moist state until seed germination has occurred. After germination, if there is not enough moisture in the soil to insure adequate plant growth, water shall be applied until an adequate moisture content has been reached. Water shall not be applied when there is danger of freezing.

### 3.8 MAINTENANCE

The Contractor will be required to do all maintenance necessary to keep all seeded areas in a satisfactory condition until the work is finally accepted. This includes mowing, repairing washes that occur, and additional seed, fertilizer and water if they are needed. Mowing will be required at most four weeks apart during growing season.

### 3.9 STAND OF GRASS

If, after a suitable growth period, a satisfactory stand of grass is not evident, the unsatisfactory areas shall be reseeded, including any additional ground preparation and fertilizing necessary, using the type of seed specified.

### 3.10 SEEDING SCHEDULE

The Contractor shall grass disturbed areas as construction progresses. Not more than 1,000 feet of line shall be left un-grassed at any time.

**\*\*END OF SECTION\*\***





**DIVISION 33**  
**UTILITIES**



**SECTION 33 05 16.13**  
**PRECAST CONCRETE STRUCTURES**

1 GENERAL

1.1 DESCRIPTION

- A. Section Includes: Requirements for providing precast concrete structures, manholes, wet wells, vaults, and other miscellaneous structures or members.

1.2 REFERENCE STANDARDS

- A. All work hereinafter shall comply with current and applicable portions of the following:
1. American Concrete Institute (ACI) Publications.
  2. American Society for Testing and Materials (ASTM) Publications.
  3. American Welding Society (AWS) Publications.
  4. ACI 318, Building Code Requirements for Reinforced Concrete.
  5. Precast/Prestressed Concrete Institute (PCI).

1.3 QUALITY ASSURANCE

- A. Acceptable Manufacturers and Erectors shall have had a minimum of 5 years of experience in precast structural concrete work of the quality and scope required on this project. The producer shall have an established written quality assurance program in effective operation at their plant attested to be a current enrollment of the plant in the PCI "Certification Program for Quality Control" or a Quality Control Program acceptable to the Engineer. The written Quality Control Program will be furnished to the Engineer upon request.
- B. Design
1. Structural members have been indicated on the drawings by general size and depth. The structural analysis and design of these items as well as lifting devices for all precast concrete members shall be performed by the manufacturer of the precast materials and subject to review of Engineer.
  2. Design shall be in accordance with ACI 318, latest edition, and under the supervision of a Professional Engineer registered in the state where the project is located.
  3. Design loads shall consist of dead load, live load, impact load, and loads due to water table and any other loads which may be imposed upon the structure. Unless noted otherwise, live loads shall be for HS-20 per AASHTO standard specifications for highway bridges and design wheel loads shall be 16 kips. The live load shall be that which produces the maximum shear and bending moments on the structure.

4. Before shipment, all concrete members shall be inspected to determine that materials and workmanship conform to the requirements of these specifications and the manufacturer/vendor quality control program.
- C. Allowable Tolerances
1. Dimensions and cambers shall be within the tolerances as described in PCI MNL-116, Division V, Section 5.
  2. Deflection: Deflection under design live load shall not exceed calculated deflection by more than 10 percent.
- D. Sampling and Testing
1. General
    - a. Samples and tests required below and other tests are to be made by and at the Contractor's expense. The tests shall be performed by an independent commercial testing laboratory or by the manufacturer's lab subject to review by the Engineer. Compressive strength tests for initial prestress may be performed in the manufacturer's plant laboratory. Certified copies of test reports shall be furnished as required in this Specification, and shall include all test data and results.
  2. Concrete Testing
    - a. During the progress of the work, plastic concrete, as delivered to the casting site, shall be sampled and tested for slump, air content and compressive strength in accordance with ACI 381, Part 2, Chapter 3, and Part 3, Chapter 4. No fewer than 6 cylinders shall be made during each concreting cycle. Not more than 1 test in 10 shall fall below the specified strength.
  3. Slump Tests
    - a. Slump tests shall be in accordance with ASTM C 143.
  4. Failure to Meet Strength Requirements
    - a. If compressive strength tests fail to meet the above requirements, the Engineer may require load tests to be made in accordance with ACI 318. Units failing to meet requirements of the load tests shall not be used. Load tests shall be performed at the expense of the Contractor.

#### 1.4 SUBMITTALS

- A. Shop Drawings
1. Furnish complete details of design, manufacture, fabrication, installation and erection in accordance with the contract conditions. Location of all inserts and openings shall be shown.

- B. Design computations shall be submitted with shop drawings for review prior to manufacture of any units and shall bear the seal of the Professional Engineer who performed or approved the design and is registered in the state where the project is located. All design loads shall be clearly shown.
- C. Each precast concrete unit shall be properly identified by a specific mark, to appear both on the shop drawings and on the manufactured unit. These identifying marks are to be clearly visible to facilitate proper erection and installation.
- D. All connections, bearings, and anchorage details shall be shown on the shop drawings. The precast concrete manufacturer, subject to review of Engineer, will be permitted to modify any details shown on the drawings provided such modifications will be equally or more efficient and more consistent with the latest recommended practices of the Precast/Prestressed Concrete Institute, and at no additional cost to the Owner. All cast-in connection components shall be designed with positive anchorage which shall be accomplished by having the anchors attached to or around reinforcing steel wherever possible.
- E. Design loads, used in design of the precast concrete section, shall be indicated on the shop drawings.
- F. Certificates of Conformance
  - 1. Before delivery of materials and equipment, four (4) notarized certificates attesting that materials and equipment meet the requirements specified shall be submitted to the Engineer for review.

## 1.5 DELIVERY, STORAGE AND HANDLING

- A. Delivery
  - 1. Precast structures and members shall be inspected upon delivery to the erection site and stored in a manner that will prevent staining and damage.
  - 2. Substantially damaged, cracked, or broken units which are deemed unsuitable for the intended use shall be rejected and removed from the site at no cost to the Owner.
  - 3. The Engineer's decision will be final in determining unsuitable units.
- B. Handling
  - 1. Precast concrete members shall be lifted and supported during transportation only at the lifting and/or support points shown on the Shop Drawings. Only lifting devices embedded in these sections by the manufacturer shall be used, unless specific authorization to use other lifting points is received in writing from the manufacturer.
  - 2. Proper equipment shall be used to transport the precast concrete sections to the job site. Trucks and trailers with sufficient capacity to handle the heaviest sections specified, without overloading the access routes, must be

used. Units damaged due to racking or twisting will be rejected whether damaged on site and route or at the plant.

3. Proper access on the job site shall be provided by the contractor to permit transportation units to proceed under their own power to a location accessible to erection units.

C. Storage

1. Store precast structures or members off the ground on wooden blocking, pallets, or other appropriate means away from brush, and in areas accessible for inspection.

D. Repair or Replacement

1. Repair damage or defects if Engineer deems repairable and at his direction.
2. Remove and replace at no cost to the Owner if Engineer deems damage or defects are not repairable by Contractor.

## 2 PRODUCTS

### 2.1 MATERIALS

- A. Reinforced Concrete Materials: As modified herein, except that slump requirement shall not apply to manholes.
- B. Precast Concrete Manholes: ASTM C478 except:
  1. Compressive Design Strength of Concrete
    - a. Minimum 5,000 psi using Type II cement.
    - b. Minimum compression cylinder test of 4,000 psi at time of shipment.
  2. Configurations: Follow Drawings and Standard Details.
  3. Joints: ASTM C443.
  4. Appurtenances.
    - a. Steps: Manufacturer standard details.
    - b. Bolt inserts: Follow Standard Details.
      - 1) Embed one of following a minimum of 3 inches, to accommodate  $\frac{3}{4}$ -inch diameter bolts.
        - a) Heckmann Building Products Corporation, No. 444 Star Threaded Inserts.
        - b) Pennsylvania Insert Corporation, the Liberator.
        - c) Atlantic Concrete Products Co., Bolt Slot Insert System.
        - d) Strut Service Company inserts.

5. Manhole Identification: Clearly marked on inside near top where applicable.
  - a. ASTM Specification designation.
  - b. Manhole setting number (bases only) and Owner project number.
  - c. Date of manufacture.
  - d. Production control number for tracking manufacture phases of item and name or trademark of manufacturer.
  - e. Lined manholes: Stenciled with waterproof paint or ink markings as noted herein that cannot be easily removed from lining or epoxy coated surfaces.
6. Precast Manhole Sections
  - a. Approved Manufacturers:
    - 1) Tindall
    - 2) Oldcastle
    - 3) Or approved equal
7. Precast Concrete Grade Rings: ASTM C478, except:
  - a. Compressive Design Strength of Concrete: Minimum 5,000 psi using Type II cement.
  - b. Configurations: Follow Standard Details.
  - c. Rings: Drilled with holes 1½- to 2-inch diameter to accommodate frame anchor bolts.
    - 1) Grade rings with cracks or fractures passing through height of ring and any continuous crack extending for length of 3 inches or more will be rejected.
    - 2) Rings with damaged edges which will prevent making satisfactory joint in the opinion of the Engineer will be rejected.
    - 3) Planes of ring surfaces: Within limits of plus or minus ¼ inch of horizontal and vertical, except for sloped adjusting grade ring to be within ¼ inch of Standard Detail.
  - d. Approved manufacturers:
    - 1) Atlantic Concrete Products Company
    - 2) Americast
    - 3) Contractors Precast Corporation
    - 4) Hanson Concrete Products
    - 5) Dal-Col Products, Inc.

- 6) Prism Precast Products, Inc.
  - 7) Frederick Precast Concrete, Inc.
  - 8) Or approved equal
8. Miscellaneous Materials
    - a. Granular Bedding: ASTM C33 coarse aggregate size number 4.
    - b. Weep holes: Service weight cast iron covered with non-erodible filter on earth side.
  9. Manhole Ring and Cover
    - a. Manhole covers shall be of cast iron or ductile iron. The ring and cover shall provide a 30-inch diameter access opening. The cover shall have two pickbars; each pickbar shall be 1-inch diameter and made from stainless steel. The ring cover shall be East Jordan B-30 Frame with 1810B4 Cover, or approved equal. The word "WATER" shall be cast on the cover in letters approximately two (2) inches high. All manhole covers shall be vented with twenty-four (24) one (1) inch diameter holes, six in each quadrant.
    - b. All rings not located in paved areas shall be cast-in the "flat top".
    - c. These castings are manufactured to withstand highway traffic loads, exceeding AASHTO H-20/HS-20 specifications (wheel loads of 16,000 pounds with a tire contact area of 8" x 20").
    - d. Grey Iron castings shall conform to the requirements of AASHTO M 105 Class 35 B or ASTM A 48 Class 35 B, unless otherwise specified.

C. Precast Concrete Vaults: ASTM C858 except:

1. Compressive Design Strength of Concrete
  - a. Minimum 5,000 psi using Type II cement.
  - b. Minimum compression cylinder test of 4,000 psi at time of shipment.
  - c. Mix proportion: ACI 318
2. Configurations: Follow Drawings and Standard Details.
3. Joints: ASTM C443.
4. Appurtenances.
  - a. Ladders
    - 1) Ladders shall be of aluminum construction. Rung diameter shall be 1-inch minimum, with 12 inches between rungs, and 18 inches between side bars. Ladders shall exceed the requirements of CAL/OSHA and ANSI standards.



- 2) Material for ladders shall be high strength 6061-T6 aluminum alloy.
- 3) Appropriate Bilco, or approved equal, ladder-up safety post for each ladder installation shall be provided.
- b. Vault Access Doors
  - 1) Vault access doors shall be fabricated aluminum, 4 feet wide by 4 feet long, unless otherwise specified by the Engineer. Access doors shall mount flush with the surrounding area.
  - 2) Access doors shall be equipped with heavy brass hinges, stainless steel pins, compression spring operators, an automatic hold-open arm with release handle and a locking device, to receive a padlock.
  - 3) All vaults located within roadways shall be H-20 rated traffic doors. Vaults in other locations shall have parkway doors, unless otherwise specified by the Engineer.
  - 4) Access doors shall be Type JD-AL as manufactured by the Bilco Company, New Haven, Connecticut, or approved equal.
5. Vault Identification: Clearly marked on inside of each precast vault section.
  - a. ASTM Specification designation.
  - b. Structure size.
  - c. Date of manufacture.
  - d. Project station location and Owner project number.
  - e. Name or trademark of manufacturer.
  - f. Mark slabs on top and bottom surfaces.
6. Precast Vault Sections
  - a. Approved Manufacturers:
    - 1) Tindall
    - 2) Oldcastle
    - 3) Or approved equal
7. Sumps
  - a. Vault floor shall contain an 18-inch-diameter hole for installation of a 24-inch-deep sealed sump with a removable expanded metal safety grate. The vault floor shall be constructed such that there is a positive slope to the sump. A minimum 6-inch drain shall be provided where applicable or as directed by the Engineer.
  - b. Sump pump shall be Zoeller Model #M53, or approved equal.

## 2.2 SOURCE QUALITY CONTROL

- A. Test Equipment: Instruments, gages, and other testing and measuring equipment of proper range, type, and accuracy to verify conformance with specification requirements.
  - 1. Ensure equipment is calibrated and certified at annual intervals.
  - 2. Calibrate against measurement standards with known relationship to existing national standards.
  - 3. Calibrate and certify gages on equipment to which they belong, and keep them on equipment following certification.
  - 4. Do not use instruments, gages, testing, and measuring equipment found to be out of calibration or adjustment until applicable requirements have been met.
  - 5. Calibration by agency regularly engaged in this type of activity.
- B. Precast Manhole Testing
  - 1. Joint and Barrel Testing: ASTM C443.
  - 2. Plant vacuum testing: ASTM C1244.
- C. Acceptance Procedure for Concrete Strength of Precast Manhole Sections: Procedure applies to acceptance and approval of precast manhole bases, riser, and cone sections, flat top slabs, and grade rings.
  - 1. Concrete Design Mix Approval: Based on submittal specified above herein.
    - a. The Owner will issue approval for up to 3 years, provided design mix materials and sources are not changed and in-plant concrete testing of manhole sections continues to be accepted without rejection of more than 2 days' production in a row.
      - 1) Every 3 years thereafter, and under failure conditions stated above resubmit concrete design mix for approval.
      - 2) Production from mixes other than those approved will be rejected.
    - b. Compressive strength test: ACI 301 and ACI 318.
- D. Vaults and Other Precast Concrete Structures
  - 1. Determination of concrete compressive strength: from compressive tests made on concrete cylinders.
  - 2. Unless otherwise specified, retain independent testing facility approved by Engineer for molding, capping, and testing concrete cylinders following appropriate ASTM requirements or, at Engineer's option, make cylinders and use own equipment to test.

- a. Furnish test results to Engineer.
  - b. Engineer may require core samples of finished product.
  - c. When requested by Engineer, furnish compressive test specimens for testing in addition to requirements above, and continue to monitor quality of concrete.
3. Notify Engineer at least 10 working days prior to pouring any structure.
  4. The Owner may perform random or full inspections of manufacture of boxes, vaults, and precast structures to inspect:
    - a. Steel placement and size.
    - b. Overall fabrication.
    - c. Workmanship.
    - d. Other general or specific aspects of production and specification compliance.

### 3 EXECUTION

#### 3.1 EARTHWORK

- A. The Contractor shall prepare an excavation large enough to accommodate the structure and permit grouting of openings and backfilling operations.
- B. The bottom of the structure shall be placed on 6 inches of compacted, crushed rock subbase, and graded level to the elevation as shown on the plans.
- C. Vault excavations shall be backfilled with imported granular material to a minimum relative density of 95 percent standard proctor method as determined by ASTM D-698.

#### 3.2 INSTALLATION

- A. Openings or “knockouts” in precast concrete vaults shall be located as shown on the drawings and shall be sized sufficiently to permit passage of the largest dimension of pipe and/or flange.
- B. Upon completion of installation, all voids or openings in the vault walls around pipes shall be filled with 3,000 psi non-shrink grout.
- C. After the structure and all appurtenances are in place and approved, backfill shall be placed to the original ground line or to the limits designated on the plans.
- D. All joints between precast concrete vault sections shall be made watertight. The plastic joint sealing compound shall be installed according to the manufacturer’s recommendations to provide a watertight joint which remains impermeable throughout the design life of the structure.
- E. Access doors shall be built up such that the hatch is flush with the surrounding surface unless otherwise specified on the drawings or by the Engineer. The

Contractor is responsible for placing the cover at the proper elevation where paving is to be installed and shall make all necessary adjustments so that the cover meets these requirements.

### 3.3 FIELD QUALITY ASSURANCE

- A. Perform field testing of precast concrete structures required under other sections of these specifications.

\*\*\* END OF SECTION \*\*\*

**SECTION 33 11 13**  
**WATER MAIN CONSTRUCTION**

**1 GENERAL**

**1.1 SCOPE OF WORK**

- A. The work includes furnishing all material, labor, tools, equipment, skills, and incidentals necessary to construct expansions of the Cobb County-Marietta Water Authority's supply system in Cobb County, Georgia.

**1.2 ORDER OF WORK**

- A. The Engineer will designate the starting point, or points, for construction and the order in which the work shall be constructed, completed, and placed into operation.

**1.3 SINGLE SOURCE OF PIPE AND FITTINGS**

- A. A single pipe and a single fitting manufacturer will be responsible for providing all 6" through 36" pipe, and 6" through 36" fittings on this project. These manufacturers will be responsible for the quality of all materials and shall provide a one-year warranty for all materials supplied for this project. Pipe and fittings shall bear the stamp, label or other designation from the single source manufacturer. "Double-Stamping" shall be permitted with an accompanying letter of warranty from a single source manufacturer providing full warranty for any fittings supplied for the project.

**1.4 SUBMITTALS**

- A. The Contractor shall submit for review a pipe laying schedule and pipe laying drawings for the project. Both the schedule and drawings shall be provided by the pipe manufacturer. Both the schedule and drawing shall include all pipe, fittings, and valves to be installed for this project.

**2 PRODUCTS**

**2.1 GENERAL**

- A. The Contractor shall furnish all materials and incidental items (whether or not they are specifically described herein) necessary to complete all work called for under the contract, except for any items that are specifically listed in these contract documents as being furnished by the Owner.

**2.2 PIPE FOR WATER MAINS**

- A. Pipe for water mains shall be ductile iron (DIP) designed and manufactured in accordance with the latest revision of ANSI/AWWA C151/A21.51. Each pipe shall be subjected to a hydrostatic test pressure of at least 500 psi at the time and place of manufacture. Pipe wall thickness shall be sufficient to meet the above

conditions, and in accordance with the Pressure Class listed in the Bid Proposal or shown on the contract drawings.

- B. The Pressure Class or nominal thickness, net weight without lining, and casting period shall be clearly marked on each length of pipe. Additionally, the manufacturer's mark, country where cast, year in which the pipe was produced and the letters "DI" or "Ductile" shall be cast or stamped on each length of pipe.
- C. Ductile Iron Pipe shall have an outside asphaltic coating in accordance with the latest revision of ANSI A21.51-81. The exterior of ductile iron pipe shall be coated with a layer of arc-sprayed or hand applied zinc. The mass of the zinc applied shall be 200 grams per square meter of pipe surface area. A finishing layer topcoat shall be applied to the zinc. The mean dry film thickness of the finishing layer shall not be less than 3 mils with a local minimum not less than 2 mils. All pipe shall be zinc-coated at the pipe manufacturer's facility. The Ductile Iron Pipe shall also have an inside cement lining and asphaltic seal coat in accordance with the latest revision of ANSI/AWWA C104/A21.4.
- D. Owner has found that pipe manufactured by American Cast Iron Pipe Company, US Pipe, and McWane Ductile meets the requirement of this specification. Therefore, pipe shall be as manufactured by the above named manufacturers. No substitution is permitted.
- E. Pipe joints shall be as the type specified on the project plans. Restrained Joint Pipe shall be:
  - 1. For 20" and larger DIP water main, restrained by Flex-Ring joints, TR Flex joints or approved equal. Field Flex-Ring, or similar device by other pipe manufacturers approved in this section of the specifications, which is a boltless and glandless way of restraining field connections and does not require a factory weldment, is acceptable for cut sections of pipe only.
  - 2. For DIP water main smaller than 20", restrained by Fast-Grip gaskets inserted in Push-On Joints or approved equal.
  - 3. For all mechanical joints, restrained according to Section 2.9 of this specification titled "Mechanical Joint Restraint Devices."
  - 4. Standard "Push-On" type joints shall be in accordance with the latest revision of ANSI/AWWA C111/A21.11 and furnished complete with gaskets.
- F. Inspection and written certification that the pipe meets all applicable specifications will be required in accordance with section 51-4 of ANSI A21.51-81. A written transcript of foundry acceptance tests must be furnished in accordance with section 51-14 of ANSI A21.51-81. These documents must be forwarded to the engineer prior to shipping of pipe.
- G. Fittings shall be ductile iron. Fittings shall have a coating consisting of Themec Series 94H20 Hydro-Zinc primer and Themec Series 22 Epoxoline Finish Coat Polyamine Epoxy. Both primer and finish coat shall be ANSI/NSF Std. 61 Certified. Zinc shall be arc-sprayed, or hand applied. The coating system as

applied shall have a zinc level of at least 200 grams per square meter of surface area. Fittings shall have a standard asphaltic coating on the exterior. Fittings shall also have a cement-mortar lining and asphaltic seal coat on the interior in accordance with ANSI/AWWA C104/A21.4, latest revision. Fittings shall have the word “zinc” stenciled on the exterior. Fittings without the word “zinc” on the exterior shall be removed from the site.

- H. Fittings and accessories shall be furnished with Mechanical Type Joints in accordance with ANSI/AWWA C111/A21.11 or ANSI/AWWA C153/A21.53, latest revision.
- I. Owner has found that fittings and restraint devices manufactured by American Cast Iron Pipe Company, Metalfit Incorporated, Sigma Corporation, SIP Industries or Star Pipe Products, meet the requirements of this specification. Therefore, fittings and restraint devices shall be as manufactured by the above named manufacturers. Fittings should come from a single manufacturer unless otherwise allowed by the Owner or Engineer. No substitution is permitted.
- J. Outlets shall be of the type shown on plans and shall be furnished by the pipe manufacturer.

### 2.3 POLYETHYLENE ENCASEMENT

- A. Polyethylene tubing shall be manufactured of virgin polyethylene material conforming to the requirements specified in AWWA C105 and shall consist of two distinct tubes.
- B. The first tubing touching the pipe shall be 8-mil, white in color, consisting of three layers of co-extruded linear low density polyethylene (LLDPE) film that are fused into one. The inside surface shall be infused with a blend of an anti-microbial biocide to mitigate microbiologically influenced corrosion (“MIC”) and a volatile corrosion inhibitor (“VCI”) to control galvanic corrosion. The tubing shall be V-Bio as developed by the Ductile Iron Pipe Research Association (DIPRA), or approved equal.
- C. The second tubing, installed on top of the V-Bio, shall be 8-mil polyethylene tubing (LLD) for water mains and shall be black in color.
- D. Tape for polyethylene tubing shall be as provided by the manufacturers for this specific purpose.

### 2.4 BUTTERFLY VALVES

- A. Valves shall Pressure Class 250B, designed, manufactured, and tested in accordance with AWWA C504, latest revision, and include design features for additional working pressure. Valves shall be rated and tested for absolute zero

leakage shut-off. The closed seat shall be tested to 250 psi and the valve body shall be tested to 500 psi. Certification of test may be required by Owner.

- B. Valve body shall be ductile iron per ASTM A536 Grade 65-45-12. Flanged end valves shall be faced and drilled per ANSI B16.1, Class 250, or as specified by Owner. All castings must be manufactured in the U.S. Mechanical joint ends shall be per ANSI A21.11 and include MJ accessories. If the manufacturer includes a stainless-steel seat ring retained in the valve body, it must do so without the use of clamping devices, adjustment segments, or other hardware being in the waterway.
- C. Valve disc shall be ductile iron per ASTM A536 Grade 65-45-12. All castings must be manufactured in the U.S. The resilient seat shall be located either on the valve disc or in the valve body. Replacement or repair of valve resilient seat in the field shall be possible without valve disassembly.
- D. The disc shall be connected to the offset stainless-steel shaft by locked taper wedge keys and stainless-steel retaining nuts on the back side of the disc, or by a similar method. Taper keys shall be heat treated 416 Stainless Steel for added strength. Valve shaft shall be per ASTM A564 type 630/1100-1150. Minimum diameter shall conform to Table 3 of AWWA C504, latest revision.
- E. Shaft shall have nylon sleeve or woven teflon fiberglass backed sleeve for bearing surfaces. Bearings shall be self-lubricating.
- F. Manual actuators shall be manufactured and assembled to the valve by the valve manufacturer. These shall be direct mounted to the valve or be located on top of an extended bonnet as required. Actuator shall be designed with field adjustable stops and be capable of holding disc stationary in any position under full rated pressure. Stop-limiting devices must withstand 450 ft. lbs. of input torque without failure. Actuators shall be sized based on 250 psi pressure differential and 16 ft./sec. flow velocity unless stipulated otherwise. Manufacturer shall provide certification of having produced valves in this pressure class for minimum of 5 years. Valves shall open when turned to the left.
- G. All surfaces of the valve interior shall be clean, dry and free from grease before painting. The valve interior and exterior, except for disc edge, rubber seats and finished portions shall be evenly coated with an NSF61 approved 2-part liquid epoxy. Minimum dry film thickness shall be 8 mils.
- H. Field service is critical to Owner. Therefore, all pre-approved manufacturers shall show a history of supplying field service within 24 hours of being notified of a problem.
- I. Owner has found that butterfly valves manufactured by Val-Matic, Pratt/Mueller, and M&H Valve Company meet the requirement of this specification. Therefore,



butterfly valves shall be as manufactured by the above-named manufacturers. No substitution is permitted.

## 2.5 GATE VALVES

- A. Valves 4” to 36” diameter shall be of the Resilient Wedge Gate Valve type design. All gate valves shall be rated for 250 psig cold water working pressure, with zero leakage. The rating shall be indelibly marked on the casting. The valves shall comply fully, in all applicable sizes, with the latest edition of ANSI/AWWA C-515, as well as all requirements detailed herein. The manufacturer shall provide drawings and/or an affidavit detailing compliance with all applicable standards and specifications. All valves shall be of the same manufacturer and shall clearly bear the manufacturer’s name and valve size.
- B. Valve body, bonnet and resilient wedge shall be cast, machined, assembled and tested in the United States. Manufacturer must furnish certification that it meets this requirement.
- C. All ferrous components of the valve shall be constructed of ductile iron. All valves shall be cast with the words “DI” or “Ductile Iron”. The wrench nut shall be constructed of ductile iron, shall have four flats at the stem connection to insure even transfer of torque to the stem.
- D. The wedge shall be ductile iron. It shall be fully encapsulated with EPDM rubber, symmetrical in design, and shall seat equally well with flow in either direction. In sizes 4” to 36”, the wedge shall incorporate the use of guides encapsulated with an engineered plastic. The valve body guide track shall be of shallow rectangular trough-style design. The wedge-to-stem design on 4” to 36” valves shall employ the use of an independent stem nut.
- E. All body to body bolting material shall be Type 304 SS, develop the physical strength characteristics of ASTM A307 and shall have the dimensional requirements of AWWA C-515 and ANSI 18.2.1. All body to bonnet bolting shall be of the same size and length. All bolts shall have square or hexagonal heads.
- F. All stem diameters and the prescribed number of turns to open shall be as detailed in the applicable portions of Table 4, of AWWA C-515. The stem O-rings above the thrust collar shall be replaceable with the valve fully open and while subjected to full working pressure. Valve shall be equipped with thrust washers above and below the thrust collar to reduce the operating torque of the valve. All valves shall open when turned to the left.
- G. All internal and external surfaces of the valve shall be coated prior to assembly, with epoxy. All valve body gaskets shall be of a pressure energized O-ring design.
- H. All valves 14” and larger shall be equipped with lifting lugs or eyebolts for lifting. All valves 16” and larger shall be equipped with spur gearing for vertical

installation to reduce operating torque. Valves shall be installed in the vertical position.

- I. Gate valves that are to be installed on ductile iron pipe shall have Mechanical Joint (MJ) ends which must be restrained on each end with restraining glands. Valves used to isolate air and vacuum valves and installed in a manhole shall be flanged. Flange dimensions are to be per B16.1, Class 125 and ANSI/AWWA C110/A21.10. All flange thickness shall be per ANSI/AWWA C110/A21.10.
- J. Resilient Wedge Gate Valves shall be American Flow Control Series 2500, Mueller Series 2360 or 2361, M&H Series 7000 or approved equal.
- K. American Flow Control Flex-Ring valves with the use of Field Flex-Ring Gaskets will be accepted as an alternative.

## 2.6 VALVE BOXES

- A. Valve boxes shall be used on isolation valves 12" and smaller and shall be cast-iron with cast iron covers. The barrel shall be multiple-piece, screw type, having 5-1/4-inch shaft. Covers shall have "WATER" cast into the top. Valves which have operating nut at depths greater than 5 feet or valves specifically designated by the drawings shall be composed of a valve box and extension stem. All moving parts of the extension stem shall be enclosed in the valve box housing to prevent contact with the soil. Valve box and extension assembly shall be adjustable to accommodate variable trench depths. A debris cap or seal shall be integral to the assembly to prevent debris, silt, etc. from entering the barrel of the valve box.
- B. The stem assembly shall be of a telescoping design that allows for variable adjustment length. The material shall be galvanized square steel tubing. The stem assembly shall have a built-in device that prevents the stem assembly from disengaging at its fully extended length. The extension stem must be capable of surviving a torque test to 1000 ft-lb without failure. Where the valve and extension stem are located in a manhole, wall support brackets shall be provided at a vertical spacing as recommended by the manufacturer and shall be suitable for installation in a circular manhole.
- C. The valve box shall be as manufactured by Tyler Union, Pentek, or pre-approved equal. The extension stem shall be as manufactured by Trumbull Industries, or pre-approved equal.

## 2.7 VALVE MARKER

- A. One concrete valve marker shall be furnished and set at each line valve that uses a valve box. The marker shall be made of 3000 psi concrete and shall be four (4) feet long and 4" on each side, with #4 reinforcing bars as shown on the detail.
- B. The markers shall be set an even number of feet between the center line of the valve and the center line of the aluminum disc in the top of the marker, and the distance in feet between the valve and marker shall be stamped in the marker at the time of setting.

## 2.8 AIR AND VACUUM RELEASE VALVES

- A. Air release and vacuum break valve shall be of the compact single chamber design with solid cylindrical HDPE control floats housed in a tubular stainless steel body with epoxy powder coated cast iron or steel ends secured by stainless steel tie rods. The valve shall have an integral orifice mechanism, which shall operate automatically to limit transient pressure rise induced by closure to twice the valve rated working pressure. The intake orifice shall be equal to the nominal size of the valve. The flat face of the control float seating against an EPDM “O” ring housed in a dovetail groove circumferentially surrounding the orifice shall effect large orifice sealing. The seating and unseating of a small orifice nozzle on a natural rubber seal affixed into a control float shall control discharge of the pressurized air. The nozzle shall have a flat seating land surrounding the orifice so that damage to the rubber seat is prevented. All components shall be easily replaced. Connection to valve inlet shall be as shown on the plans. The valve shall be Vent-O-Mat series RBX (Vent-O-Mat US, Phone 410-850-4404) or Vent Tech WTR Series C (International Valve, Phone 630-466-0300). No substitution is permitted.

## 2.9 MECHANICAL JOINT RESTRAINT DEVICES (MEGALUGS)

- A. Restraint devices for nominal pipe sizes 3 inch through 36 inch shall consist of multiple gripping wedges incorporated into a follower gland meeting the applicable requirements of ANSI/AWWA C110/A21.10. The devices shall have a working pressure rating of 350 psi for 3-16 inch and 250 psi for 18-36 inch. Ratings are for water pressure and must include a minimum safety factor of 2 to 1 in all sizes. Gland body, wedges and wedge actuating components shall be cast from grade 65-45-12 ductile iron material in accordance with ASTM A536. Ductile iron gripping wedges shall be heat treated within a range of 370 to 470 BHN. Three (3) test bars shall be incrementally poured per production shift as per Underwriter’s Laboratory (U.L.) specifications and ASTM A536. Testing for tensile, yield and elongation shall be done in accordance with ASTM E8. Chemical and nodularity tests shall be performed as recommended by the Ductile Iron Society, on a per ladle basis.
- B. Restraint devices shall be listed by Underwriters Laboratories (3” through 24” inch size) and approved by Factory Mutual (3” through 12” inch size).
- C. Owner has found that restraint devices manufactured by EBBA Iron Sales, Inc., Sigma Corporation, SIP Industries and Star Pipe Products meet the requirements of this specification. Therefore, restraint devices shall be as manufactured by the above named manufacturers. No substitution is permitted.

## 2.10 STEEL CASING

- A. Casing pipe, for boring and jacking, open cut installation or micro-tunneling, shall be steel pipe conforming to ASTM Designation A-139, Grade B, electric fusion longitudinally welded steel pipe. The pipe shall have a minimum tensile strength

of 35,000 psi. The exterior and interior of the pipe shall have a coal tar epoxy coating. Casing size and wall thickness shall be as shown on plans.

#### 2.11 CASING SPACERS

- A. Casing spacers shall be as manufactured by Cascade Waterworks Manufacturing Company or approved equal. Spacers for 36" D.I.P. carrier pipe shall be CCS-3680- 12" width/C48 RES with 6 Runners. All insulators shall have a stainless steel shell. Insulators shall be located within 2' of each end of the casing and spaced no more than 10' apart within the casing. The positioning of the casing insulators shall be centered.

#### 2.12 SUBGRADE STABILIZER

- A. Subgrade stabilizer shall consist of crushed stone meeting size and gradation requirements for Georgia DOT, Section 800, Size #57.

#### 2.13 CONCRETE

- A. Concrete for blocking, replacing curb and gutter, replacing sidewalks and miscellaneous concrete shall have a minimum compressive strength of 3,000 psi at 28 days with air entrainment.

#### 2.14 CONCRETE AND GROUT

- A. A mix design, showing amounts of each ingredient for each type mix, shall be submitted for approval.

#### 2.15 SAND FOR BACKFILL

- A. Sand for backfilling over water mains, when required, shall be coarse, well-graded sand relatively free from dirt and other foreign matter. Sand shall be approved by Engineer.

#### 2.16 BRICK

- A. All brick shall be best grade. All hard burned common, acceptable to the Engineer and giving a ringing sound when struck and presenting a regular and smooth face, shall be used. When submerged in water for 24 hours, brick shall not absorb more than 10% of its weight in water.
- B. Bricks shall be culled when delivered on the site and all imperfect brick shall be immediately removed from the work. All salmon, soft or arch brick or brick made of alluvial soil will be rejected. All brick used in the work shall be of uniform size.

#### 2.17 BITUMINOUS PAVEMENT REPLACED

- A. Pavement shall be replaced in accordance with the details shown on the drawings and as set out under "Removing and Replaced Pavement - Bituminous Paving" under section for construction methods. All bituminous materials and workmanship shall conform to the latest standard specifications of the Georgia Department of Transportation for the type called for in these specifications.

## 2.18 FLOWABLE FILL

- A. Controlled low-strength flowable fill (100 psi maximum) shall comply with GDOT Specification Section 600. A concrete mix design shall be submitted to the Engineer for approval prior to use. The flowable fill shall consist of Portland cement, fine aggregate, air-entraining admixtures, and water proportioned to provide low strength, self-leveling backfill material.
- B. Flowable fill shall encase the newly installed water main as shown on the plans.

## 2.19 LOCATOR BALLS AND LOCATOR INSTRUMENT

- A. Locator balls shall be 3M Series EMS iD Ball Markers for water. The model number shall be 1423-XR/iD.
- B. Contractor shall furnish two locator instruments, which shall be programmable, 3M Dynatel Pipe/Cable/iD Locator 2550-iD/U12 with carrying bag and rechargeable battery.

## 2.20 BORROW MATERIAL

- A. Borrow material may be either:
  - 1. Material hauled from borrow areas outside the project area.
  - 2. Suitable material that is excavated from the pipe trench and is unsuitable for immediate use as backfill due to moisture content.
- B. The Contractor shall identify the source of borrow material, have performed the geotechnical testing of the material to determine its suitability as a backfill material, transport the material to the project, and place the material to the specified soil density. The Contractor may choose to stockpile suitable material from the pipe trench that is too wet for immediate use as backfill material. The Contractor shall identify a procedure for drying the material to the optimum moisture content; either through air drying or the addition of lime. This procedure is subject the review of the Engineer and acceptance by the Engineer. The Contractor shall transport the material to the project, and place the material to the specified soil density. Final determination of the suitability of the material is the responsibility of the Engineer.

## 2.21 GEOGRID SOIL REINFORCEMENT

- A. Geogrid soil reinforcement shall be Tensar TriAx 140 `Geogrid soil reinforcement or approved equal.

## 2.22 TEST STATION APPURTENANCES

- A. Each test station shall consist of one 4" flanged welded-on-outlet, one 4" flanged gate valve with handwheel, one blind flange with threaded tap (coated for corrosion protection) for a 2" corporation stop, 2" curb stop, 2" copper tubing, and one brass hose connection, 2 1/2" NSFT with attached cap and chain. All components shall be rated for a minimum working pressure of 250 psi. The

copper tubing must be supported to prevent placing a cantilever weight or force on the welded on outlet and associated components.

#### 2.23 FLEXIBLE (TRANSITION) COUPLINGS

- A. Flexible couplings for pipe 12" and smaller shall be Catalog No. 441 as manufactured by Smith-Blair or approved equal.

#### 2.24 PIPE CONNECTION COUPLINGS

- A. Pipe connections between new pipe and existing pipe shall be made with Dresser Style 90 long steel couplings for pipe sizes 2" and below; for pipe sizes above 2", Mechanical Joint solid sleeves (long style) shall be used. Spacer rings must be used at all solid sleeve locations. A spacer ring is defined as a short section of pipe cut to fit into the gap between the two plain ends of pipe at the sleeve location.
- B. For pipes 30" in diameter and larger, the maximum length of the gap inside long style MJ solid sleeves where the space ring will be located shall be 7 inches; therefore, the maximum length of the spacer ring shall be 7 inches. The maximum gap between the spacer ring and each adjoining pipe shall be one-half inch.

#### 2.25 COPPER PIPE FOR SERVICES

- A. Pipe for test stations shall be copper service pipe, Type K, soft temper, seamless copper tubing, conforming to ASTM B-88 and AWWA 7S-CR and may be used in 20-foot straight lengths or 60/100-foot coils. Flared joints shall be used. Copper pipe shall be rated for a minimum working pressure of 250 psi and shall withstand the test pressure for this project.

#### 2.26 CORPORATION STOPS AND VALVES

- A. The stop or valve assembly shall be made of heavy brass components constructed of 85-5-5-5 ASTM B62 brass for strength and durability and shall be rated for a working pressure of 300 psi. The valve shall be operated with a tee head and shall open when turned counter-clockwise. The valve seat seal shall be stainless steel reinforced to ensure a reliable seal under full flow and pressure. The stop or valve shall be Mueller 300 Ball Type Corporation Valve, or approved equal.

#### 2.27 WELDED-ON OUTLETS

- A. Welded-on outlets shall be fabricated from centrifugally cast ductile iron pipe, manufactured and tested in accordance with ANSI/AWWA C151/A21.51. The outlets shall be fabricated at the manufacturer's facilities and shall not be fabricated or modified in the field.
- B. Welded-on outlets shall be produced using qualified procedures and welders as per guidelines contained in ANSI/American Welding Society (AWS) D11.2, Guide for Welding Iron Castings.
- C. Welded-on outlets, including radial outlets and tangential outlets, shall have a minimum safety factor of 2.0 based on the rated working pressure rating.

- D. Proof of design testing for the Ductile Iron to Ductile Iron welding process shall, at a minimum, include a four-point bending test which places the weld bead in tension. The test sample shall be comprised of a beveled and butt welded coupon from which test strips are taken. These test strips of the welded Ductile Iron coupon shall be cut such that the weld bead is perpendicular to the longitudinal axis of the test strip. The test strip shall be fashioned such that the weld bead is located at the mid-point of a Talbot Strip test apparatus. The test strip shall demonstrate a minimum observed engineering stress of 80 ksi at failure. Additionally, this testing shall demonstrate a failure through the Ductile Iron pipe wall and not along a path defined by the heat affected zone of the weld. This testing shall be conducted in a manner similar to the Talbot Strip test method described in ANSI/AWWA C106/A21.6.
- E. After the outlets are welded together and prior to finishing, the assembly shall be subjected to a 15 psi air test for leakage. Any outlet failing this test shall be scrapped. No rework is allowed. Upon completion of this test, the outlet shall be stamped to indicate it was successfully tested. Copies of all test reports shall be available for the owner upon request.
- F. The minimum Ductile Iron pipe thickness for fabrication of welded outlet pipe shall be Special Thickness Class 53.

## 2.28 PVC PIPING

- A. As-built/Locator pipe shall be 6" Polyvinyl Chloride (PVC) designed and manufactured in accordance with ASTM D-1785. Pipe shall be Schedule 80 under pavement and Schedule 40 outside pavement.

## 2.29 EROSION CONTROL MATS

- A. Erosion control mats for slopes and waterways shall comply with the requirements stated on the Contract Drawings.
- B. Turf reinforcement mat for slopes and water ways shall withstand a maximum velocity of 10 ft/s in an un-vegetative state, and 20 ft/s in a vegetative state. The mat shall be designed to be installed on a 1:1 or greater slope. The turf reinforcement mats shall be PYRAMAT High Performance Turf Reinforcement Mat produced by LANDLOK, Permanent Turf Reinforcement Mat produced by Vmax3, or approved equivalent material and manufacturer.

## 2.30 PIPE FOR GRAVITY SEWER

- A. Pipe for gravity sewer shall be ductile iron (DIP) designed and manufactured in accordance with the latest revision of AWWA/ANSI C150/A21.50. Pipe wall thickness shall be in accordance with requirements of Pressure Class 350.
- B. Ductile Iron Pipe shall have an outside asphaltic coating in accordance with the latest revision of ANSI A21.51.

- C. Pipe interior shall be Protecto 401 ceramic epoxy lined with a minimum thickness of 40 mils and sealed with an approved exterior bituminous seal coat in accordance with ANSI A21.51.
- D. Pipe Joints shall be Standard "Push-On" in accordance with the latest revision of ANSI/AWWA C111/A21.11 and furnished complete with gaskets.

#### 2.31 BONDING OF PIPE JOINTS, CATHODIC TEST STATIONS AND CATHODIC CONNECTIONS.

- A. Contractor shall bond all pipe joints on this project with 2-cables per joint following the procedures and materials shown on the Contract Drawings. Some joints will not be bonded to provide isolation, as directed by the Engineer.
- B. Cathodic test stations shall be as shown on the plans.
- C. The cathodic connection to the Colonial Gas Pipeline shall be as shown on the plans.
- D. Coating system M-1 shall be DENSO or Trenton, with primer coat Denso Paste or Wax Tape Primer and finish coat Densyl Tape or #1 Wax Tape.

#### 2.32 FLOW METERS.

- A. Flow meters provided shall be Master Meter Octave Ultrasonic flow meters with ductile iron casing conforming to AWWA standards listed in ASTM A536/ASTM A126. Casing shall be fusion-bonded epoxy coating conforming to AWWA C-550.
- B. The register box shall be made of engineering plastic with the manufacturer's serial number inside the lid which shall be permanently programmed in the register. Meter register shall be rated for NEMA 6P/IP68 conditions. The meter register shall be programmed to read in US Gallons.
- C. The meter shall have 4 optional signal outputs: Analog 4-20mA, digital pulse output, Modbus, or encoder input. Owner shall choose one of the four basic output choices with dependent options on the Digital pulse option.

### 3 EXECUTION

#### 3.1 CLEARING AND GRUBBING

- A. Where necessary, the construction zone will be cleared to allow trenching and pipe laying operations. Clearing will be restricted to easement limits shown on plans, plus areas within the highway right-of-way. The cleared area shall be left free of stumps, limbs, rocks and other debris. Cleared areas in forested zones will be left in a condition suitable for bush-hog cutting; areas adjacent to lawns shall be left suitable for lawn mower cutting and at least in as good a condition as the adjoining property. Trees, brush, stumps and other debris from clearing and grubbing shall be disposed of in accordance with local ordinances (which place restrictions on burning); burial within the right-of-way or easement will not be permitted.



- B. The Contractor is responsible for restoring any property (shrubs, signs, sidewalks, paving, trees, structures, etc.) that is damaged by his operations. It is understood that any item which is not specifically listed as a pay item but which exists at the time the project is bid is included in the overall bid price.

### 3.2 FENCES

- A. The Contractor shall take down fences on or crossing right-of-way for such periods of time only as are necessary to prosecute the work of clearing, grubbing, trenching, pipe laying and backfilling. Gaps made in fences shall be closed in substantial manner at night and during any suspension of work, and, upon completion of the pipe line, fences shall be restored to as good condition as before disturbed. No charges shall be made by the Contractor for any expense incurred in taking down or restoring fences, except where listed in the bid proposal.

### 3.3 PROTECTION OF TREES

- A. The Contractor shall carefully protect all trees adjacent to the work outside the easement limits. He shall not permit excavating machinery or trucks to scrape the bark or tear the limbs from the trees, nor connect ropes or guy cables to them.

### 3.4 INTERFERENCE WITH EXISTING STRUCTURES

- A. All existing pipes, drains, or other structures on, above, or below ground shall be carefully supported and protected from injury, and if injured, they shall be restored in a satisfactory manner by and at the expense of the Contractor.

### 3.5 INFORMATION CONCERNING CONDITIONS

- A. The accuracy of information furnished by the Engineer and/or the plans and specifications as to underground and surface structures, foundation conditions, character of soil, position and quantity of ground and subsoil water, etc., is not guaranteed by the Owner. Bidders must satisfy themselves by personal examination and by such other means as they desire with respect to actual conditions in the nature of the ground and subsoil water and in regard to the locations of existing underground or surface structures. Unforeseen conditions shall not constitute a claim for increased compensation under the terms of the contract, nor constitute a basis for the cancellation thereof.

### 3.6 CLEAN UP

- A. The Contractor shall remove all unused material, excess rock and earth, and all other debris from the construction site as closely behind the work as practical. All trenches shall be backfilled and tamped before the end of each day's work.
- B. If at any time during the course of the work, the cleanup, grassing and/or pavement replacement falls too far behind the pipe laying (at the discretion of the Engineer) the Contractor shall be required to close down pipe laying operations until the cleanup, grassing and/or pavement replacement is caught up to the work in progress.

### 3.7 TRENCH EXCAVATION

- A. Water lines shall have a minimum cover of 72" unless otherwise specified or shown on the drawings. The depth of cover shall be a minimum of 72" below drainage ditches paralleling existing roads or easements. Contractor shall follow the profile shown on the drawings, adjusted as necessary for unknown conflicts encountered during construction but must always provide a uniform slope up to air valves or down to blow-off valves without any intermediate high or low spots between these valves. All changes in grade shall be made gradually.
- B. In laying pipe across water courses, railroad crossings, or depressions of any kind, the minimum depth herein specified shall be maintained at the bottom of the depression.
- C. Where necessary, the line shall be lowered at valves so that the top of the valve stem is approximately one foot below the finished grade. The trench shall be deepened to provide a gradual approach to all low points of the line, and no additional payment shall be allowed for extra excavation involved.
- D. All trenches shall be of sufficient width to provide ample working space on each side of the pipe to allow making perfect joints and to allow taping of polyethylene encasement around the entire periphery of the pipe and bells at all joints.
- E. Pipe trenches shall be straight and true to grade and in the location shown on the plans. The bottom of trenches shall be dressed to facilitate laying conditions called for on the construction plans so that the pipe has an even bearing on bedding material throughout the entire length of the pipe barrel.
- F. Bedding shall be granular material and be 1/8 the nominal pipe diameter or 4" minimum under the pipe barrel. 36" DIP shall be supported by a minimum of 6" of bedding material. Crushed concrete or similar recycled material is not acceptable for use as bedding material. An earth dam shall be installed at 200-ft intervals to keep water from flowing easily through the gravel bedding.
- G. All excavation material shall be so placed so as not to interfere with public travel on the streets and highways along which the lines are laid. All excess excavated material shall be disposed of without extra cost to the Owner.

### 3.8 ROCK EXCAVATION

- A. All excavation is considered unclassified. There will be no additional payment for rock excavation. Unclassified excavation is defined as the excavation of all materials encountered, including rock materials, regardless of their nature or the manner in which they are removed.

### 3.9 LAYING PIPE

- A. All pipe, before being placed in trench, shall be examined, and any pipe showing defects shall be rejected. The inside of the pipe shall be clean and free of trash and dirt, and if necessary a swab or brush shall be used to clean the pipe before lowering it into the trench.

- B. All pipe shall be laid straight, true to line and grade. For all laying conditions, bell and coupling holes shall be dug to allow the pipe to have continuous bearing with bedding throughout the entire length of the barrel between bell or coupling holes. No shimming or blocking up of the pipe will be allowed.
- C. In making ductile iron joints, the outside of the spigot end of the pipe and the inside of the bell shall be thoroughly cleaned and the gasket inspected to see that it is properly placed. Lubricant shall be applied to the spigot end of the pipe and it shall be inserted into the bell of the adjoining pipe to the "Stop Mark" shown on the pipe. Joint deflection shall be checked by Contractor for compliance with the pipe manufacturer's recommended limits.
- D. All openings in the pipeline shall be closed with watertight plugs when pipe laying is stopped at the close of the day's work or for other reasons, such as rest breaks or meal periods. Trench dewatering methods (gravel bedding with pumps, etc.) must be used where necessary to maintain a dry ditch during pipe laying operations.
- E. As pipe is installed, each joint shall be air tested for leakage using a dual bladder system allowing for the testing of deflected (up to 5%) DI pipe. The dual bladders shall seal the pipe joint on both sides of the joint permitting the pressuring of the joint up to a minimum of 5 psi for 5 seconds. If the joint fails to maintain the air pressure within 1 psi, the pipe shall be re-installed and re-tested. Regardless of the success or failure of the low pressure joint test, Contractor remains responsible for the installation and for the required leakage testing specified in this section. Equipment shall be similar to equipment produced by Petersen Products Co. or Lansas Products.

### 3.10 BACKFILLING

- A. After the pipe has been installed and all joints have been made, the trench shall be backfilled as described on the Detail Sheets of the construction plans.
- B. Bedding shall be granular material and be 1/8 the nominal pipe diameter or 4" minimum under the pipe barrel, whichever is larger. 36" DIP shall be supported by a minimum of 6" of bedding material. Crushed concrete or similar recycled material is not acceptable for use as bedding material.
- C. Bedding will be Type 5 for water mains constructed in pavement, and Type 4 in all other areas.
- D. For the remaining backfill to the top of the trench, suitable material excavated from the site may be used, as determined by the Engineer, and compacted as shown in the Trench Details shown in the plans.
- E. Suitable material shall be clean and free of rock larger than 2" at its largest dimension, organics, cinders, stumps, limbs, frozen earth or mud, debris or waste and other unsuitable materials.

- F. Should the material excavated from the trench be saturated, the saturated material may be used as backfill, provided it is allowed to dry properly and it is capable of meeting the specified compaction requirements.
- G. In rock excavation, the backfill shall not contain over 50% broken stone, and the maximum sized stone placed in the trench shall not have a weight exceeding 25 pounds. Excess rock and fragments of rock weighing more than 25 pounds shall be loaded and hauled to disposal as directed by the Engineer. If it is necessary, in order to comply with the above specifications, selected backfill shall be borrowed and hauled to the trenches in rock excavation, at no additional cost to the Owner. Under no circumstances shall bottom of pipe rest against rock or unyielding material. Minimum bedding of 6" carefully compacted backfill shall separate bottom of pipe from rock or unyielding material.
- H. Tamping shall be done with mechanical tamps in such a manner as to meet compaction requirements without moving or damaging the pipe. Compaction shall be done with either pneumatic hand tamps, hydro-tamps or other approved methods.
- I. Compaction tests will be run as directed by Engineer to ensure that the above specifications are being met.

### 3.11 POLYETHYLENE ENCASEMENT

- A. Polyethylene encasement shall be **Double Wrapped** with 8-mil V-Bio white polyethylene encasement as the first and inside layer and with 8-mil (LLD) black polyethylene encasement in the second and outside layer. It shall be installed in accordance with AWWA C105 (ANSI A21.5-82) "Alternate Method A" (**Double Wrapped**).
- B. Cut polyethylene tube to a length approximately 2 ft. longer than that of the pipe section. Slip the tube around the pipe, centering it to provide a 1-ft. overlap on each adjacent pipe section, and bunching it accordion fashion lengthwise until it clears the pipe ends.
- C. Lower the pipe into the trench and make up the pipe joint with the preceding section of pipe. A shallow bell hole must be made at joints to facilitate installation of the polyethylene tube.
- D. After assembling the pipe joint, make the overlap of the polyethylene tube. Pull the bunched polyethylene from the preceding length of pipe, slip it over the end of the new length of pipe, and secure it in place. Then slip the end of the polyethylene from the new pipe section over the end of the first wrap until it overlaps the joint at the end of the preceding length of pipe. Secure the overlap in place. Take up the slack width to make a snug, but not tight fit along the barrel of the pipe, securing the fold at quarter points.
- E. Repair any rips, punctures, or other damage to the polyethylene with manufacturer's adhesive tape or with a short length of polyethylene tube cut open, wrapped around the pipe, and secured in place. Proceed with installation of the next section of pipe in the same manner. If a second layer of polyethylene

encasement is called on the plans, it shall be installed in the same manner as the first. The white or first layer shall not be visible anywhere along the pipe.

- F. Cover bends, reducers, offsets, and other pipe-shaped appurtenances with polyethylene in the same manner as the pipe.
- G. When valves, tees, crosses, and other odd-shaped pieces cannot be wrapped practically in a tube, wrap with a flat sheet or split length of polyethylene tube by passing the sheet under the appurtenance and bringing it up and around the body. Make seams by bringing the edges together, folding over twice, and taping down. Handle width and overlaps at joints as described above. Tape polyethylene securely in place at valve-stem and other penetrations.
- H. Provide openings for branches, service taps, blow-offs, air valves, and similar appurtenances by making an X-shaped cut in the polyethylene and temporarily folding back the film. After the appurtenance is installed, tape the slack securely to the appurtenance and repair the cut, as well as any other damaged areas in the polyethylene, with tape.
- I. Install polyethylene tubes on the carrier pipe (inside casings but not between the casing spacers and the pipe) by an X-shaped cut in the polyethylene and temporarily folding back the film. After the casing spacer is installed, tape the slack securely over and around the casing spacer appurtenances and repair the cut, as well as any other damaged areas in the polyethylene, with tape.

### 3.12 THRUST RESTRAINT

#### A. GENERAL

At changes in direction of the main and at other points shown on the drawings or directed by the Engineer, thrust forces in the line shall be absorbed by restrained joints, concrete blocking, or reinforced concrete collars, or a combination thereof.

#### B. RESTRAINED JOINTS

Where restrained joints are called for on the drawings, they shall be of the type specified in these specifications, and assembly shall be in accordance with manufacturer recommendations. Torque wrenches shall be used to verify that all bolts and nuts are tightened to manufacturer's recommendations.

#### C. CONCRETE BLOCKING

The Engineer shall be notified by the Contractor before blocking is placed. Blocking will be of the dimensions called for on the drawings and will be placed against a vertical surface of undisturbed soil that has been cleared of all loose material.

#### D. REINFORCED CONCRETE COLLARS

Reinforced concrete collars shall be cast in place as shown on the drawings and as specified in ACI 318-83.

### 3.13 LEAKAGE TEST

#### A. PRESSURIZATION

After the pipe has been installed, all new pipe shall be flushed and then subjected to a hydrostatic pressure test. Each valved section of pipe shall be slowly filled with water, and a the test pressure indicated in the Contract Drawings, and corrected to the elevation of the test gauge, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the owner. Valves shall not be operated in either the opening or closing direction at differential pressures above the rated pressure. It is good practice to allow the system to stabilize at the test pressure before conducting the leakage test.

If the Contractor intends to perform hydrostatic testing against existing valves that are in service, the Contractor must obtain permission from the Owner. Prior to testing, the Contractor shall disinfect the pipeline in accordance with the requirements of Paragraph 3.14. If, after repairs are made to the pipeline to correct leakage test deficiencies, the Engineer deems that the sanitation of the pipeline has been compromised, the Contractor shall disinfect the pipeline at the Contractor's expense.

#### B. AIR REMOVAL

Before applying the specified test pressure, air shall be expelled completely from the pipe, valves, and hydrants. If permanent air vents are not located at all high point, the contractor shall install corporation cocks at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied. At the conclusion of the pressure test, the corporation cocks shall be removed and plugged or left in place at the discretion of the owner.

#### C. LEAKAGE DEFINED

Leakage shall be defined as the quantity of water that must be supplied into the newly installed pipe or any valved section thereof to maintain the specified test pressure after the pipe has been filled with water and the air has been expelled. Leakage shall not be measured by a drop in pressure in a test section.

Leakage shall be defined as the total quantity of water that must be pumped into the pipe during the test period to maintain pressure within 5 psi of the specified test pressure for the test duration including water required to return pipe to test pressure at the end of the test. Leakage shall be the total cumulative amount measured on a water meter.

#### D. ALLOWABLE LEAKAGE

The allowable leakage rate will be in accordance with AWWA C600 and determined by the following formula:

$$L = (S \times D \times P^{1/2}) / 148,000$$

Where:

L = testing allowance (makeup water) in gallons per hour;

S = length of pipe tested, in feet;

D = nominal pipe diameter, in inches;

P = average test pressure during the test, in pounds per square inch.

For example, at an average pressure of 250 psi during the test, the leakage allowance is 3.85 gallons per hour for 1,000 feet of 36" pipe.

Any segment where leakage exceeds the allowable rate shall not be accepted; the leakage shall be located, repaired and re-tested until it meets the specified allowance.

E. TEST RESTRICTIONS

1. The hydrostatic test shall be of at least 2-hour duration. Test Pressure shall not vary by more than  $\pm 5$  psi for the duration of the test; this may require periodic pumping.
2. Valves shall not be operated in either direction at differential pressure exceeding the rated valve working pressure. Use of a test pressure greater than the rated valve pressure can result in trapped test pressure between the gate of a double-disc gate valve. For tests at these pressures, the test setup should include provision, independent of the valve, to reduce the line pressure to the rated valve pressure on completion of the test. The valve can then be opened enough to equalize the trapped pressure with the line pressure, or fully opened if desired.
3. Test pressure shall not exceed the rated pressure of the valves when the pressure boundary of the test section includes closed, resilient-seated gate valves or butterfly valves.

3.14 DISINFECTION

- A. After leakage testing and all necessary repairs have been made, the lines shall be flushed clean. Note that for a 36-inch pipe, a flow of 11,000 gallons per minute (15.8 million gallons per day) is required to reach a cleaning velocity of 3.5 feet per second. Because it is not feasible to provide this flow to completely flush the main, during installation of the pipe, Contractor must clean the pipe of all mud, sand, gravel, etc. as the pipe is installed. Cleaning of the pipe using high-pressure water jets or other means will be required as necessary to accomplish thorough cleaning. Contractor shall verify that cleaning has been accomplished by inspecting the interior of the pipe for the full length. Inspection of the pipe will be performed in the presence of the Engineer. After flushing the main, it will then be disinfected in strict accordance with AWWA Standard for Disinfecting Water Mains, C651- latest edition, subject to the following special conditions:

- B. The method of disinfection shall be either the Continuous-Feed Method or the Slug Method. The Tablet Method is not acceptable.
- C. The form of chlorine shall be a one percent solution made from sodium hypochlorite and pumped and metered into the pipeline. Water must be flowing during the feeding operation and the injection point must be located so that the flow of water will disperse the chlorine throughout the pipeline.
- D. Unless otherwise approved by the Owner, Contractor shall dechlorinate the highly-chlorinated water being flushed from the pipeline.
- E. The Owner shall be responsible for bacteriological sampling and testing water from the disinfected pipeline.
- F. Before any flushing or disinfection work is begun, the Contractor shall outline his planned procedures for these tasks and obtain approval of the Owner.
- G. The Contractor is responsible for the installation and removal of sample points as required by AWWA C651 on the water main.

3.15 DECHLORINATION

- A. After the disinfection process has been completed, the heavily chlorinated water shall be flushed from the main until chlorine measurements show that the concentration in the water leaving the main is no higher than that generally prevailing in the distribution system or is acceptable for domestic use. The area where the chlorinated water is to be discharged shall be inspected. If there is any possibility that the chlorinated discharge will cause damage to the environment, then a ascorbic acid shall be applied to the water to be wasted to neutralize thoroughly the chlorine residual remaining in the water.
- B. The chlorine residual of the water being disposed may be neutralized by treating the water with ascorbic acid. Minimum dosage requirements are listed in the table below. Additional dosage for the complete neutralization of chlorine residual is the responsibility of the Contractor.

Chlorine	Ascorbic Acid
1 Lb	2.5 Lb

3.16 CONNECTION TO EXISTING WATER MAINS

- A. At beginning of construction, the Contractor shall make exploratory excavation at each location where connections to existing pipes are shown for the purpose of determining the exact location, elevation and type of fittings required to make the connections. Where it is necessary to disrupt service on existing lines, the Contractor shall first obtain permission from the Owner and schedule his work accordingly.
- B. Where existing pipe is to be abandoned, the Contractor shall plug the opening by pouring concrete or brick and mortar in an around the opening as needed to completely seal the opening.



### 3.17 SETTING VALVES

- A. Valves shall be placed where shown on the plans or directed by the Engineer. Valves shall be set plumb, and shall have cast iron valve boxes and/or manholes as called for on the plans. The valve boxes shall be placed directly over the valve and set plumb, the top of the box being brought to the surface of the ground. After the boxes are in place, earth shall be filled in the trench and thoroughly tamped around the box, and after all settlement has taken place, each valve box shall have a concrete collar as shown on the plans.

### 3.18 VALVE STEM EXTENSION

- A. Valve stem extensions shall be furnished and installed for all buried gate valves and shall be 12" below grade for valves with valve boxes and 18" below the flat top of the valve vaults.

### 3.19 AIR AND VACUUM ASSEMBLIES

- A. Air and vacuum relief valve assemblies shall be constructed strictly in accordance with the details shown on the plans.

### 3.20 INSTALLATION OF SOLID SLEEVES

- A. Spacer rings must be used with all solid sleeves and no exceptions will be allowed. When connecting to existing water lines, one full length joint of pipe must be installed between solid sleeves and adapter pieces.

### 3.21 OUTLETS

- A. Where flanged outlets are shown on the plans, they shall be installed as recommended by the manufacturer. When attaching a valve to the outlet, the valve and tapping machine, when used, shall be supported to relieve stress on the outlet fixture. The hole in the ductile iron pipe may be cut by a mechanical tapping machine.
- B. For welded-on outlets, in areas where the parent pipe is a restrained joint pipe and joined in the run to other restrained joints on both sides, it is important to fully extend the restrained joints (such as US Pipe's TR FLEX or American Flex-Ring) so that unwanted line extension does not over-deflect any joints attached to the welded-on outlet.

### 3.22 MEGALUG (WEDGE ACTION RESTRAINT GLAND)

- A. Contractor shall follow the manufacturer's instructions for installation of each Megalug.
- B. When installing the Megalug gland, clean the inside of the pipe bell and lubricate both the Megalug gasket and the spigot end of the pipe. Place the gland on the plain end with the lip extension toward the plain end, followed by the gasket. Insert the pipe into the pipe bell and press the gasket firmly and evenly into place. Keep the joint straight during assembly. Push the gland toward the pipe bell and center it around the pipe with the gland lip against the gasket. Install bolts and

hand tighten nuts. Make any required deflection after joint assembly and before the bolts are tightened. Tighten the bolts to the manufacturer's recommendation for the gland size. Contractor shall utilize a torque wrench to tighten the gland bolts and the t-bolts. At least one torque wrench shall be on the work site at all times. Tighten the twist-off bolts per manufacturer's recommendations. Should removal of this application be necessary, this must be done in accordance with manufacturer's recommendation.

- C. If restrained joints are installed above ground prior to installation in the underground trench, all connections shall be checked again after the pipe has been installed in the trench and the bolts checked for the correct torque. Polyethylene encasement shall be installed such that it does not interfere in this process.

### 3.23 SPECIALS AND FITTINGS

- A. Specials and fittings shall be properly braced to insure that they will not be blown off or broken loose under the greatest possible working pressure. Where it is necessary to use concrete to block vertical bends, etc., the concrete will be paid for extra, at the unit price bid per cubic yard for miscellaneous concrete.

### 3.24 HIGHWAY AND RAILROAD CROSSINGS

- A. Where the lines cross railroads and/or highways under the jurisdiction of the State Highway Department, or railroad, the Owner will obtain written permission from the controlling authority before any work can be done within the right-of-way. After the Owner notifies the Contractor that the permit or permits have been obtained, the Contractor shall coordinate his activities and construction procedure with the proper authority of the Railroad or the Highway Department and shall conform with the requirements thereof. The Contractor will be required to furnish a release from the said controlling authority before final acceptance of the work. The Contractor will be responsible for all damage and injuries to persons and property inflicted or caused by said work.

### 3.25 PLACING OF STEEL CASING PIPE

- A. Steel Casing pipe shall be installed by the "Jack and Bore" procedure, the "Open-Cut" method or by microtunneling. Steel casing pipe shall be installed at the specific locations called for on the plan sheets and the installation method shall be by the "Jack and Bore" or microtunneling procedure unless specifically stated to be installed by the "Open-Cut" method.
- B. The "Jack and Bore" installation procedure shall be by the dry-bore method. The hole is to be mechanically bored and cased through the soil by a cutting head on a continuous auger mounted inside the casing pipe. The installation of the casing and boring of the hole shall be done simultaneously by jacking. Lengths of pipe are to be continuously welded the full circumference of the pipe diameter to the preceding section installed. Excavation material will be removed and placed at the top of the working pit. Backfill materials and methods of backfilling and tamping shall be as required under BACKFILLING.

- C. The "Open-Cut" method consists simply of excavating the trench along the pipeline route and placing the steel casing in the trench. Special care shall be taken not to damage any existing utilities as the sections of casing are maneuvered into the open trench. Lengths of pipe are to be continuously welded the full circumference of the pipe diameter to the adjacent sections. Backfill materials and methods of backfilling and tamping shall be as required under BACKFILLING.
- D. Casing spacers shall be used while installing the water main inside the casing. Spacers shall be located within 2' of each end of the casing and spaced no more than 10' apart within the casing. After the water main is installed in the casing, a check shall be made to ensure that the carrier pipe is not touching the casing at any point. The ends of the casing pipe shall be sealed with a three course mortared brick wall, one course of which shall be erected inside the casing.
- E. Construction techniques required to provide access for casing shall be such as to ensure the safety of the work. Final dimensions of access pits selected by Contractor shall conform as with minimum dimensions required to permit the installation of the work. The contractor shall be required to properly support all excavations and to prevent all movement of the soil, pavement, utilities or structures outside of the excavation. All pits shall conform to applicable Local Safety Standards, OSHA Standards, trenching and shoring standards. Provide surface drainage during the period of construction to protect the work.
- F. Casing will be installed in accordance with the line and grade shown on contract drawings.
- G. The contractor is totally responsible for the performance of the equipment and methods selected for this phase. Each pipe section shall be jack forward as the excavation progresses in such a way to provide complete and adequate ground support at all times. Lubrication shall be applied to the external surface of the pipe to reduce skin friction. A jacking frame shall be positioned to develop a uniform distribution of ramming forces around the periphery of the pipe. The Contractor is responsible for monitoring ground movements associated with the work and making suitable changes in the construction methods to control ground movements and prevent damage or detrimental movement to the work and adjacent structures and pavements. A lubrication system shall be provided that injects an approved lubricant on the inside and outside of the pipe to lower the friction developed on the sides of the pipe during jacking. The overcut on the pipe shall not exceed 1 inch. The annular space created by the overcut shall be filled with a lubricant that has been proved suitable for the particular soil conditions.
- H. Welds shall be complete around the casing joints and smooth to permit the passage of carrier spacers. The line and grade shall not vary within the overall casing. The installation shall permit the continuous installation of the carrier pipe with spacers.

- I. The Contractor shall be paid for this work under unit price bid per linear foot of steel casing pipe used and for miscellaneous concrete used.

### 3.26 BORE PITS

- A. Bore pits for cased bores and uncased bores shall be constructed so as to avoid conflicts with the existing utilities and remain in the limits of the construction area. The contractor shall take necessary precautions in order to insure the pit meets the latest requirements under the Cobb County Trench Safety Ordinance and O.S.H.A. requirements imposed on such work.

### 3.27 REMOVE & DISPOSE OF EXISTING APPURTENANCES

- A. Where called for on the plans, all existing above ground appurtenances shall be removed and disposed of by the contractor. The area where these appurtenances are removed shall be regraded and grassed or repaved to match the existing landscaping or pavement.

### 3.28 REMOVE & DISPOSE OF EXISTING WATER MAIN

- A. Where called for on the plans, existing water main shall be removed and disposed of by the Contractor. The Contractor will be responsible for proper disposal of the existing water main off site.

### 3.29 REMOVING AND REPLACING PAVEMENT

#### A. GENERAL

Removing and replacing pavement bituminous or concrete shall consist of removing the type of pavement and base encountered and replacing same as shown on the detailed drawings. Pavement shall be removed only as necessary to install water main.

#### B. SUBGRADE

The trench shall be backfilled in layers not more than 6" thick and shall be thoroughly compacted with mechanical tamps. No base course shall be placed on loose earth or dusty material.

#### C. BITUMINOUS PAVEMENT

Bituminous pavement shall be replaced with base and topping as shown on drawings. Edges of cut pavement shall be neatly squared off. Extreme care shall be executed to assure that the squared edges of existing pavement will not be broken or disturbed during rolling of the asphalt topping.

### 3.30 REMOVE & REPLACE CONCRETE CURB AND GUTTER

- A. The Contractor shall remove only that curbing which would otherwise be damaged in the prosecution of his work within the limits of the pavement removal.
- B. After the Contractor has completed his pipe laying and backfilling operations, the concrete curb and gutter shall be constructed monolithically on a prepared

compacted subgrade, in conformity with the lines, grades and cross-section of the existing curbing and in accordance with these specifications.

- C. Concrete materials, placement and protection shall be in accordance with ACI 318 specifications.
- D. The forms, except the divider plates or templates between each ten (10) foot section, may be of wood or metal. The divider plates or templates shall be of metal. Forms shall be of approved sections and shall have a flat surface on top. Forms shall present a smooth surface, sufficiently thick and braced to withstand the weight of the concrete without bulging or becoming displaced. Special care shall be exercised to keep metal forms free from rust, grease or other foreign matter which would discolor the concrete. Metal templates or dividing plates shall be of sufficient thickness and of such design as to hold the forms rigidly in place and to produce a smooth vertical joint after the plates are removed. They shall be of the full dimensions shown on the plans for curb, gutter or combinations of curb and gutter.
- E. Concrete curb and gutter shall be constructed in sections having uniform lengths of ten (10) feet. The length of these sections may be reduced where necessary for closures, but no section less than six (6) feet will be permitted. These sections shall be separated by sheet steel templates set perpendicular to the face and top of the curbing. These templates shall be one-eighth ( $1/8$ ) of an inch in thickness of the widths of the gutter and not less than two (2) inches longer than the depth of each respective type. The templates shall be set carefully during the placing of concrete and allowed to remain in place wherever possible until the concrete has set sufficiently to hold its shape, but shall be removed while the forms are still in place. The vertical face and top of the curb shall be floated smooth and the edge of the face shall be rounded to a radius of three-quarters ( $3/4$ ) of an inch while the concrete is still soft. The forms on the face of the gutter and curb shall be removed as soon as possible and at the surface of the curb floated with a wooden float to a smooth and even surface finish.
- F. Immediately after the removal of the forms, the ends of the transverse joints at the edge shall be carefully opened for the entire depth of the cross section. Expansion joints shall be formed of premolded joint filler of the specified thickness, and shall be placed in line with the expansion joints in the adjoining pavement or gutter and at other locations designated on the plans. All joint filler shall be cut to full depth, width and length of construction. Any expansion joint material protruding after the concrete is finished shall be trimmed as directed. Where curb and gutter is constructed upon a street without paving, the distance between expansion joints shall not exceed forty (40) feet.
- G. After the concrete has set sufficiently, the space behind the curb shall be refilled to the required elevation with material which shall be compacted by tamping until firm and solid.

- H. Where concrete curb and gutter is to be located along the edge of existing pavement, the following procedure shall apply. A uniform alignment shall be established by string line. A cut line will be marked along the pavement to give a uniform cut width of 24 inches, and the pavement will be sawed and then removed to a depth of six inches. The cut edge will be used for the front form of the curb and gutter except in locations where the edge of pavement deviates from face of curb by six inches or more in which case a front form will be used. The space will later be filled with concrete to a depth of two inches below the surface and finished with a two-inch thick layer of asphalt.
- I. In cases where new replaced curb is joined to old curb, the old curb shall be squared off to provide a straight construction joint.

### 3.31 REMOVE & REPLACE CONCRETE SIDEWALK

- A. Debris from sidewalks removed shall be collected and hauled away and disposed of by the Contractor in an approved disposal area. Sidewalks shall be replaced with Portland Cement Concrete of not less than 3,000 psi compressive strength at 28 days of age. Sidewalks shall be replaced to the original width and thickness or a minimum of 6" thick. The sidewalks shall have a broom finish. All instructions in Placing of Concrete in these specifications shall be adhered to.

### 3.32 REMOVE & REPLACE CULVERTS (ALL SIZES & TYPES)

- A. When culverts are encountered during the construction of the pipeline, the said culvert shall be removed and then replaced upon installation of the pipeline. If the culvert, in the opinion of the engineer, is damaged beyond use the contractor shall be responsible for replacing new culvert pipe to match the existing pipe.

### 3.33 REPLACING GRAVEL DRIVEWAYS

- A. Gravel driveways will be replaced at locations shown on the plans. Gravel shall be graded aggregate base and shall be placed 6" layers, 12" deep.

### 3.34 REPAIR OF SEPTIC TANK DRAIN FIELDS

- A. If the contractor encounters an existing septic tank drain field during installation of the proposed water main, he shall immediately notify the Cobb County Health Department and acquire a permit to repair the drain line in accordance with Health Department regulations. A new drain field line will be installed as necessary a minimum of ten feet away from the proposed water main.

### 3.35 CONNECTION TO EXISTING WATER MAINS, 12" AND SMALLER

- A. At beginning of construction, the Contractor shall make exploratory excavation at each location where connections to existing pipes are shown for the purpose of determining the exact location, elevation and type of fittings required to make the connections. Where it is necessary to disrupt service on existing lines, the Contractor shall first obtain permission from the Owner and schedule his work accordingly.

3.36 PIPE LOCATION

- A. The Contractor shall install 6” PVC pipe from the top of the water main to above grade at specific locations and maintain the pipe for the duration of the construction. The pipe shall be maintained clear of debris. During the survey for recording location of the pipe, the pipe shall be cut to a point below grade, backfilled with granular material and a locator ball installed as shown on plans.

3.37 VIBRATION MONITORING

- A. At no additional cost to the Owner, the Contractor is responsible for providing vibration monitoring during construction on an as-needed basis while working in the vicinity of existing private property structures (homes, buildings, pools, decks, etc.) within and in close proximity to the existing CCMWA easement. Vibration producing activities include, but are not limited to, blasting, pile driving, vibratory compaction, pavement breaking, jack and boring operations, rock-hammering, or operation of heavy construction equipment. The Contractor shall modify normal construction activities close to existing private property structures so as to preclude damage to these structures and undue annoyance to occupants. The contractor shall be responsible for all damages caused by his activities.
- B. Where vibration monitoring is determined necessary, the Contractor shall take initial readings with monitoring instrumentation to establish a baseline and provide to the Engineer and Owner. The Contractor shall monitor vibration activities based on a frequency provided by the Manufacturer of, or Sub-Contractor utilizing the monitoring equipment.
- C. For all readings performed by the Contractor, the Contractor shall submit to the Engineer and Owner all monitoring data. This data shall include, but is not limited to the following:
  - A copy of the data sheets containing a cumulative history of readings, including weather conditions, temperature and proximity of the excavation to the monitor instrument location itself, at the time of each reading
  - A copy of the plot measured values versus time, including a time history of construction activity likely to influence such readings.

3.38 RECORD INFORMATION

- A. The Contractor shall record on the manufacturer’s pipe laying drawings the top of bell elevation for the each joint of pipe installed in the format shown in the following table. Such drawings shall be submitted to the Engineer at the same time as the Contractor’s monthly pay request is submitted.

Point #	Station #	Top of Pipe Elev.	Description

\*\*END OF SECTION\*\*





**APPENDIX A**  
**GEOTECHNICAL REPORT**





UNITED  
CONSULTING

# REPORT

**For Freese and Nichols,  
Inc.**

Geotechnical Exploration  
CCMWA Blackjack 36" Water Main  
Replacement  
Cobb County, Georgia

Project No.: FREN1-19-GA-03852-01  
December 27, 2019





December 27, 2019

Mr. Ryan Ellena, P.E.  
**Freese and Nichols, Inc.**  
125 Townpark Drive  
Suite 300  
Kennesaw, Georgia 30144

Via Email: [Ryan.Ellena@freese.com](mailto:Ryan.Ellena@freese.com)

RE: Report of Geotechnical Exploration  
**CCMWA Blackjack 36" Water Main Replacement**  
Cobb County, Georgia  
Project No.: FRENI-19-GA-03852-01

Dear Mr. Ellena:

United Consulting is pleased to submit this report of our Geotechnical Exploration for the above-referenced project. The work was completed in general accordance with our Master Sub-Consultant Agreement executed on March 3, 2019, revised (Rev.1) Proposal No. P2018.1966 dated October 2019 and Sub-Consultant Authorization dated October 24, 2019.

We appreciate the opportunity to assist you with this project and look forward to our continued participation. Please contact us if you have any questions or if we can be of further assistance.

Sincerely,

UNITED CONSULTING

**Rafael I. Ospina, P.E.**  
Consultant Geotechnical Engineer



**Chris L. Roberds, P.G.**  
Senior Executive Vice President

KAR/IO/CLR/nj

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## 1.0 EXECUTIVE SUMMARY

United Consulting has completed a Geotechnical Exploration for the CCMWA Blackjack 36-inch Water Main Replacement Project in Marietta, East Cobb County, Georgia. Please refer to the text of the report for a more detailed discussion of the items summarized below.

The Geotechnical Exploration Program included a total of 65 SPT Borings and eight (8) Hand Auger Borings with Dynamic Cone Penetration (DCP) Testing, for a total of 73 soil borings completed for the project, as well as laboratory testing consisting of soil classification tests (grain size, hydrometer, and Atterberg Limits), natural moisture contents, soil and water corrosion series tests, and rock core unconfined compressive strength tests.

Hand auger borings were completed at locations where dozer clearing and/or drill rig access was not possible. The borings were generally spaced at 300 to 500 feet apart. In areas where rock/auger refusal was encountered, borings were located at a closer spacing.

*Fill* - Fourteen (14) of the borings had no fill, while eighteen (18) borings encountered fill ranging up to 3.5 feet. Twelve (12) borings encountered approximately 3.5 to 5 feet of fill soils, nineteen (19) borings encountered approximately between 5 to 8.5 feet of fill soils, eight (8) encountered approximately between 8.5 to 15 feet of fill while two (2) borings encountered fill between 15 and 21 feet of fill. The fill soil consisted of very loose to very dense Sand with varying amounts of silt, clay, mica, and rock and gravel fragments as well as soft to very stiff Silts with varying amounts of sand, clay, roots, and gravel. The Standard Penetration Test resistance (N-values) in the fill Sands ranged from 2 blows per foot (bpf) to 47 bpf, those in the fill Silt ranged from 4 bpf to 17 bpf.

*Residual Soils* - Typical residual soils of the Piedmont Physiographic Province of Georgia were encountered from the ground surface in 14 boring and beneath the fill in the rest of the SPT borings. The residual soils generally consisted of very loose to dense Sand with varying amounts of silt, clay, rock fragments and mica; or very soft to stiff Clay with varying amounts of silt, sand and mica. SPT N-values within the residual Sand soils ranged from 2 to 48 blows per foot (bpf), and those within the residual Clay soils ranged from 2 to 9 bpf.

*Partially Weathered Rock (PWR)* – PWR was encountered in B-3, and B-15 starting at depths ranging from 12.5 feet to 18.5 feet. PWR is a term for residuum that can be penetrated with a soil drilling auger but has N-values in excess of 100 bpf. The PWR encountered was classified as very dense Sand with varying amounts of rock fragments, clay, silt, and mica.

*Auger Refusal (AR)* – Auger refusal in SPT borings was encountered in borings B-7, B-8, B-13, B-65, B-68 and B-69 at depths ranging from 6 to 16 feet. Auger refusal is the depth that the boring cannot be advanced with a soil drilling auger. Auger refusal within residual soils generally represents a seam of dense PWR, boulders, or top of massive bedrock.

*Rock Coring* - Bedrock was cored in borings B-7 and B-8 at depths starting approximately at 13 and 16 feet below ground surface. The rock encountered consisted of metamorphic biotitic gneiss of varying continuity, competency and hardness, with seams of schist and quartzite.

*Groundwater* – Groundwater was encountered in 15 borings at depths ranging from 6 to 13 feet below ground surface at the time of drilling. Boreholes were backfilled immediately after completion of drilling so groundwater levels may vary from those observed during drilling. Groundwater levels should also be anticipated to fluctuate with the change of seasons, during periods of very low or high precipitation, or due change in floodplain or watershed upstream of the site.



## 2.0 PROJECT INFORMATION

We understand that the project consists of Water Main replacement of approximately 32,000 linear feet of 36-inch Ductile Iron Pipe (DIP) water main in eastern Cobb County for the Cobb County-Marietta Water Authority (CCMWA).

Considering the alignment as going from east to west, the project starts in the east approximately at the northern quadrant of the intersection of Indian Hills Pkwy NE & Lower Roswell Road and runs westward across private properties, existing utility easements and public roads including the SR-120 (Roswell Rd) to the intersection of Barnes Mill Road and Bentley Lake Road at the western portion of the project. At this intersection, the project branches into two directions.

The first branch continues in a southwest direction along Barnes Mill road to the termination point at the intersection of US Highway 41/SR-3/Cobb Parkway and Barnes Mill Road, with a tie –in to CCMWA's existing 48-inch DIP water Main.

The second branch from the aforementioned intersection is a feed to the Blackjack Mountain Tank Site, approximately 1500 linear feet northwest on Barnes Mill Road.

The project will include the construction of:

- Approximately 32,000 linear feet of 36-inch DIP Water Main;
- Numerous trenchless crossings for creeks and roads
- Launching and receiving pits
- Tie-in to existing 48-inch DIP water main
- Numerous manholes, water-main appurtenances and accoutrements

### 3.0 PURPOSE

The purpose of this Geotechnical Exploration was to assess the general type and condition of the subsurface materials at the Project Site and to provide recommendations regarding the design and construction of the water main, grading, earthwork, quality control and other geotechnical related issues, deemed pertinent to this project.

## 4.0 SCOPE

The scope of our geotechnical exploration included the following items:

1. Boring layout and clearing underground utilities;
2. Preparation of Traffic Control Plans and Traffic Control;
3. A visual reconnaissance of the site from a geotechnical standpoint;
4. Drilling sixty-five (65) Standard Penetration Test (SPT) borings, and eight (8) hand auger borings to assess the quality and consistency of the subsurface soils;
5. Visual evaluation of the soil samples obtained during our field testing program for further identification and classification;
6. Performing laboratory testing consisting of eighteen (18) natural moisture content tests, eighteen (18) grain size analysis with hydrometer, eighteen (18) Atterberg Limits on representative soil samples as well as eighteen (18) soil corrosivity tests and six (6) water sample corrosion tests, and two rock core unconfined compressive strength (UCS) tests on samples at proposed locations;
7. Analyzing the existing soil conditions with respect to the proposed construction; and
8. Preparing this report to document the results of our field-testing program, engineering analysis, and to provide our findings and general recommendations.

## 5.0 ALIGNMENT REVIEW

A foot and an automobile reconnaissance of the Project area were conducted as part of this exploration.

The project is generally in a developed areas along the entire route with a mix of single family homes, medium rise residential buildings in the western portion along Barnes Mill Dr, and Bentley Lake Rd. Between the SR-120/Roswell Rd and the eastern terminus at the intersection of Indian Hills Pkwy & Lower Roswell Rd; the project alignment crosses a mix of single family residences, several small creeks, some thickly wooded areas, privately fenced off areas, an existing utility easement as well as a large private golf course.

Numerous underground utilities such as gas, water, sewer lines, and telephone cables were observed along the route from beginning to end.

We anticipate that the proposed Water Main lines will be constructed as open trench excavation for the majority of the alignment except for trenchless crossings which may be Jack and Bore (J&B) and/or Horizontal Directional Drilling (HDD) Crossings at the following crossings locations:

- Merritt Rd/Wallace Rd, approx. Sta. 41+75 (Borings B-7 and B-8)
- SR-120/Roswell Rd, approx. Sta. 52+30 (Boring B-27)
- Holt Rd, approx. Sta. 93+50(Borings B-38 and B-38)
- Old Canton Rd, approx. Sta. 142+25 (Boring B-46)
- Ridgewater Dr., approx. Sta. 193+50 (Boring B-57)

## 6.0 SUBSURFACE CONDITIONS

The geotechnical exploration consisted of sixty-five SPT (65) borings, and eight (8) hand auger borings located along the proposed sewer alignment for a total of 73 borings. Hand auger borings were completed at locations where dozer clearing and/or drill rig access was not possible. The borings were generally spaced at 300 to 500 feet apart. In areas where rock/auger refusal was encountered, borings were located at a closer spacing.

Initially, borings B-1 thru B-6, B-8 thru B-11, B-13 thru B-16, B-18, B-19, B-27, B-28, B42 thru B45, B-47 thru B-49, B-57 and B-60 encountered a surficial layer of asphalt and GAB, and the remaining borings encountered a surficial layer of grass and topsoil.

*Fill* - Fourteen (14) of the borings had no fill, while eighteen (18) borings encountered fill ranging up to 3.5 feet. Twelve (12) borings encountered approximately 3.5 to 5 feet of fill soils, nineteen (19) borings encountered approximately between 5 to 8.5 feet of fill soils, eight (8) encountered approximately between 8.5 to 15 feet of fill while two (2) borings encountered fill between 15 and 21 feet of fill. The fill soil consisted of very loose to very dense Sand with varying amounts of silt, clay, mica, and rock and gravel fragments as well as soft to very stiff Silts with varying amounts of sand, clay, roots, and gravel. The Standard Penetration Test resistance (N-values) in the fill Sands ranged from 2 blows per foot (bpf) to 47 bpf, those in the fill Silt ranged from 4 bpf to 17 bpf.

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*Partially Weathered Rock (PWR)* – PWR was encountered in B-3, and B-15 starting at depths ranging from 12.5 feet to 18.5 feet. PWR is a term for residuum that can be penetrated with a soil drilling auger but has N-values in excess of 100 bpf. The PWR encountered was classified as very dense Sand with varying amounts of rock fragments, clay, silt, and mica.

*Auger Refusal (AR)* – Auger refusal in SPT borings was encountered in borings B-7, B-8, B-13, B-65, B-68 and B-69 at depths ranging from 6 to 16 feet. Auger refusal is the depth that the boring cannot be advanced with a soil drilling auger. Auger refusal within residual soils generally represents a seam of dense PWR, boulders, or top of massive bedrock.

*Rock Coring* - Bedrock was cored in borings B-7 and B-8 at depths starting approximately at 13 and 16 feet below ground surface. The rock encountered consisted of metamorphic biotitic gneiss of varying continuity, competency and hardness, with seams of schist and quartzite.

*Groundwater* – Groundwater was encountered in 15 borings at depths ranging from 6 to 13 feet below ground surface at the time of drilling. Boreholes were backfilled immediately after completion of drilling so groundwater levels may vary from those observed during drilling. Groundwater levels should also be

anticipated to fluctuate with the change of seasons, during periods of very low or high precipitation, or due change in floodplain or watershed upstream of the site

All the borings were backfilled with soil cuttings except for borings drilled in paved areas, in which case, the boreholes were backfilled with drill cuttings three to four feet below the pavement and then the hole completed with a hole plug and *Sakrete*, and then the surface hole patched with at least 4 inches (or existing asphalt thickness) of cold asphalt patch.

A list of the borings along with their associated station numbers, boring termination depths, depth to PWR, auger refusal (if encountered), and depths to groundwater, is presented in the following table.

**Table 1: Summary of Subsurface Conditions**

Boring No.	Station No.	Elevation	Fill Depth (ft.)	Depth to PWR (ft.)	Depth to Groundwater (ft.)	Depth to Refusal (ft.)	Termination Depth (ft.)
B-1	3+30	1096	8.5	NE	NE	NE	12
B-2	8+15	1092	8.5	NE	NE	NE	12
B-3	13+00	1078	5	18.5	NE	NE	21
B-4	26+95	1052	4	8.5	NE	NE	14
B-5	31+70	1042	4	NE	NE	NE	12
B-6	37+30	1020	4	NE	NE	NE	12
B-7	41+75	986	8.5	13	NE	13	28 <sup>RCD</sup>
B-8	44+75	1000	8.5	16	NE	16	40 <sup>RCD</sup>
B-9	48+75	1036	8.5	NE	NE	NE	12
B-10	53+35	1062	8.5	NE	NE	NE	12
B-11	58+60	1072	12	NE	NE	NE	12
B-12	63+95	1084	12	NE	NE	NE	12
B-13	71+20	1144	8	NE	NE	8	8
B-14	77+95	1221	9	NE	NE	NE	12
B-15	81+35	1236	0	3.5	NE	NE	14
B-16	2+12	1098.5	4	NE	NE	NE	18
B-17	7+00	1042	3.5	NE	NE	NE	12
B-18	12+00	1015	8	NE	8	NE	12
B-19	17+20	1040	7	NE	NE	NE	12
B-20	22+50	1068	12	NE	NE	NE	12
B-21	27+85	1021	0	NE	NE	NE	18
B-22	31+20	1000	21	NE	14	NE	21
B-23	37+20	972	12	NE	7	NE	12
B-24	42+10	1031	3.5	NE	NE	NE	15
B-25	45+10	1036	3	NE	NE	NE	17

Boring No.	Station No.	Elevation	Fill Depth (ft.)	Depth to PWR (ft.)	Depth to Groundwater (ft.)	Depth to Refusal (ft.)	Termination Depth (ft.)
B-26	49+45	1056	0	NE	NE	NE	27
B-27	52+30	1043	19	NE	NE	NE	42
B-28	54+55	1012	8.5	NE	14	NE	17
B-29	57+55	1008	4	NE	NE	NE	12
HA-30	62+55	1050	4	NE	NE	6.5	6.5
HA-31	67+40	1005	4	NE	NE	6	6
B-32	71+00	1030	0	NE	NE	NE	12
B-33	74+90	1006	3.5	NE	NE	NE	12
B-34	77+80	1001	3.5	NE	NE	NE	14
B-35	83+60	1010	0	NE	NE	NE	17
B-36	89+15	984	8	NE	NE	NE	12
B-37	93+00	1001	0	NE	NE	NE	12
B-38	93+90	992	8	NE	NE	NE	12
B-39	97+78	979	3	NE	NE	NE	12
B-40	102+75	982	0	NE	13	NE	14
B-41	107+62	954	0	NE	7	NE	12
B-42	112+45	985	8	NE	NE	NE	16
HA-43	117+70	936	0	NE	NE	6	6
B-44	126+45	986	0	NE	NE	NE	15
HA-44A	130+88	973	7	NE	NE	7	7
B-45	134+70	974	3	NE	NE	NE	16
HA-45A	138+35	975	4	NE	NE	7	7
B-46	142+25	984	3.5	NE	NE	NE	15
B-47	145+80	980	8.5	NE	NE	NE	15
HA-47A	150+00	951	4	NE	NE	6	6
HA-48	154+80	927	6	NE	NE	8	8
B-49	159+70	931	0	NE	NE	NE	12
B-50	163+90	908	13.5	NE	8	NE	24
B-51	167+15	907	0	NE	11	NE	23
B-52	170+55	906	13.5	NE	8	NE	15
B-53	174+95	907	15	NE	7	NE	15
B-54	180+20	910	3.5	NE	NE	NE	18
B-55	184+45	905	0	NE	6	NE	12
B-56	188+20	920	3.5	NE	NE	NE	12
B-57	193+50	934	3.5	NE	NE	NE	16

Boring No.	Station No.	Elevation	Fill Depth (ft.)	Depth to PWR (ft.)	Depth to Groundwater (ft.)	Depth to Refusal (ft.)	Termination Depth (ft.)
HA-58	197+05	938	4	NE	NE	8	8
B-59	202+45	987	8.5	NE	NE	NE	12
B-60	208+60	959	3.5	NE	NE	NE	12
B-61	211+65	937	5	NE	NE	NE	12
B-62	214+65	929	8	NE	7	NE	18
B-63	218+65	909	7.5	NE	12	NE	18
B-64	222+45	941	3.5	NE	NE	NE	12
B-65	226+75	976	3.5	NE	NE	6	6
B-66	229+80	987	3	NE	NE	NE	18
B-66A	232+75	962	0	NE	12	NE	14
B-67	235+30	976	3.5	NE	9	NE	14
B-68	240+95	1023.5	3.5	NE	NE	7	7
B-69	243+85	1044	3.5	NE	NE	7	7
NE – Not Encountered HA – Hand Auger Borings RCD– Rock Cored Depth							

For a more detailed description of the subsurface conditions encountered, please refer to the boring logs in The Appendix.



## 7.0 LABORATORY TESTING PROGRAM

Soils laboratory testing for this project included twenty-one (21) natural moisture content tests, eighteen (18) grain size analysis with hydrometer, eighteen (18) Atterberg Limits, and eighteen (18) soil corrosion series tests. The results of the moisture content tests are shown on the boring logs next to the respective samples tested. The natural moisture content of the samples tested ranged from 10.6% to 34.7%. A narrative description of the laboratory tests is included in The Appendix.

Eighteen (18) soil corrosion series tests and six (6) water corrosion tests on stream samples were conducted for this project and the results of these tests are tabulated below in Tables 2 and 3, respectively.

**Table 2: Soil Corrosivity Test Results**

Boring	Depth (ft.)	pH (S.U.)	Resistivity (ohm-cm)
B-8	13.5-15	5.84	14,000
B-13	8.5-10	7.33	76,000
B-14	8.5-10	7.71	17,000
B-17	8.5-10	4.23	66,000
B-21	13.5 – 15	5.00	200,000
B-22	18.5 – 20	4.75	41,000
B-26	8.5 – 10	4.82	74,000
B-33	8.5 – 10	4.50	27,000
B-38	8.5-10	4.84	150,000
B-41	8.5 – 10	5.27	26,000
B-45	13.5 – 15	4.97	68,000
B-47	13.5 – 15	5.12	95,000
B-47A	6	5.11	45,000
B-53	8.5-10	5.10	20,000
B-56	8.5-10	4.93	107,000
B-61	8.5-10	5.74	26,000
B-66	13.5 – 15	4.70	37,000
B-67	13.5-15	5.91	36,000

**Table 3: Water Corrosion Test Results**

Boring	Chloride (mg/L)	Sulphate (mg/L)	pH (S.U.)	Resistivity (ohm-cm)
HA-31 (Stream Sample)	10.7	7.68	6.72	10400
HA-43 (Stream Sample)	30.8	3.74	7.05	5280
B-36 (Stream Sample)	8.01	4.91	7.41	10400
B-50 (Stream Sample)	9.99	4.44	7.03	7800
B-55 (Stream Sample)	16.89	28.74	7.00	9790
B-63 (Stream Sample)	11.9	4.26	7.21	7340

Unconfined compressive strength tests were performed on rock core samples from rock core collected in borings B-7 and B-8, the results are summarized in Table 4 below and included in the lab test results in the Appendix.

**Table 4: Unconfined Compression Test of Rock Results**

Boring	Run No	Depth (ft)	Unconfined Compressive Strength (psi)
B-7	3	23 - 23.5	12433.2
B-8	5	40.5 - 41	10483.8

## 8.0 DISCUSSION AND RECOMMENDATIONS

The following recommendations are based on our understanding of the proposed construction, the data obtained in the soil test borings, a site reconnaissance, and our experience with subsurface conditions similar to those encountered at the project site.

We recommend that United Consulting be provided with updated documents early in the preparation of final construction drawings to determine if our recommendations are still valid or should be re-evaluated and revised.

### 8.1 Trench Excavation

Based on our boring data, Partially Weathered Rock (PWR) was encountered in borings B-3, and B-15 starting at depths ranging from 12.5 feet to 18.5 feet. Auger refusal was encountered in borings B-7, B-8, B-65, B-68, and B-69 at depths ranging from 6 feet to 16 feet. Some difficult excavation conditions (blasting for trench/utility excavations) associated with PWR or rock will be encountered at the following locations:

**Table 5: PWR and Rock Locations**

Boring Number	Station	Depth to PWR (ft.)	Depth to Refusal (ft.)	Depth at Termination (ft.)
B-3	13+00	18.5	NE	21
B-7	41+75	NE	13	28 (Rock Core)
B-8	44+75	NE	16	40 (Rock Core)
B-15	81+35	12.5	NE	14
B-65	226+75	NE	6	6
B-68	240+95	NE	7	7
B-69	243+85	NE	7	7
NE – Not Encountered				

Hand auger refusal was encountered in hand auger borings HA-30, HA-31, HA-43, HA-44A, HA-45A, HA-47A, HA-48 and HA-58 at depths ranging from 6 to 8 feet below ground surface. Hand auger refusal may represent dense to very dense soils, PWR and/or rock.

It is also important to note that depths to PWR and rock can vary over short horizontal distances in the Piedmont geologic area, and PWR and rock could be encountered during construction at shallower depths between and outside the boring locations for this study.

PWR typically requires loosening by ripping with large dozers pulling single tooth rippers in mass excavation. The use of specialized excavation equipment (such as ram-hoes, jackhammers, or possibly

blasting) is typically required for PWR excavation in confined (trench) excavations. Relatively sound, massive, rock typically requires blasting for removal in mass or trench excavation.

Excavation techniques will vary based on the weathering of the materials, fracturing and jointing in the rock, and the overall stratigraphy of the feature. Actual field conditions usually display a gradual weathering progression with poorly defined and uneven boundaries between layers of different materials. We recommend that the following definitions for rock in earthwork excavation be included in bid documents:

1. **General Excavation:** Any material occupying an original volume of more than 1 cubic yard which cannot be excavated with a single-tooth ripper drawn by a crawler tractor having a minimum draw bar pull rating of not less than 80,000 lbs. usable pull (Caterpillar D-8 or larger).
2. **Trench Excavation:** Any material occupying an original volume of more than 1/2 cubic yard which cannot be excavated with a backhoe having a bucket curling force rated at not less than 40,000 lbs., using a rock bucket and rock teeth (John Deere 790 or larger).

Removal of rock by blasting can be very expensive. The costs of excavation vary with the type of material encountered and the quantities to be excavated. Hence, control of quantities is important. You may consider independent recording of the blasting contractors air track drilling in order to have independent verification of quantities. We will be happy to assist as requested by you with this undertaking.

## 8.2 Caving Considerations

All excavations should be conducted in accordance with the Occupational Safety and Health Administration (OSHA) guidelines. Flattening of the excavation sidewalls and/or the use of bracing may be needed to maintain stability during construction.

## 8.3 Groundwater Considerations

Groundwater was encountered at the time of drilling in 18 borings at depths ranging from 3 to 28 feet at the time of drilling and the borings were backfilled upon completion of drilling. As such the depth to stabilized groundwater may vary to those observed at the time of drilling.

Shallower groundwater should be expected near existing stream crossings and some control of groundwater during construction is expected in that area. It is possible that perched water levels could develop at shallower depths above partially weathered rock or rock at the site.

The contractor should be prepared for dewatering, and groundwater should be lowered to depths of at least 3 feet below excavation depths throughout construction.

Management of groundwater during construction can likely be accomplished using perimeter and interior interconnected trenches gravity drained to appropriate outfalls. Where gravity drainage may not be possible, collected water would need to be routed to sumps and pumped for discharge. Considering the groundwater levels are likely indicative of perched water, permanent control of groundwater may not be

needed. However, the need for localized or more comprehensive permanent control of groundwater will need to be further evaluated based on conditions at the time of construction.

#### 8.4 Temporary Shoring

Care should be exercised during construction within or adjacent to the existing roads. For shallow open-excavation, we recommend temporary appropriate shoring to maintain stability of slope, underground utilities, and roadways. For deep excavations, construction of excavation bracing may be required to maintain stability of the road. For an excavation bracing system design, we recommend a constant earth pressure equal to  $0.80K_a\gamma H$ , where  $K_a$  is the co-efficient of active earth pressure,  $\gamma$  is the unit weight of in-situ soil, and  $H$  is the depth of the excavation. Based on our experience with similar soils and field data, we recommend the following Table 6 summarizing the ultimate equivalent fluid pressures to be used in preliminary design for in-situ soils for temporary excavation bracing design.

**Table 6: Summary of Ultimate Equivalent Fluid Pressures (Excavation Bracing)**

Pressure Conditions	Co-efficient of Earth Pressures	Ultimate Equivalent Fluid Pressure
Active ( $K_a$ )	0.35	38 psf/ft.
At-rest ( $K_o$ )	0.53	58 psf/ft.
Passive ( $K_p$ )	2.8	308 psf/ft.

We note that considerable horizontal deflections are required to mobilize the passive pressure; therefore, the designer should consider a safety factor of at least 2 to the stated ultimate passive earth pressure in design.

These ultimate equivalent fluid pressures were calculated by the Rankine method using an estimated in-situ soil unit weight of 110 pcf, an average in-situ angle of internal friction of 28 degrees, and zero effective cohesion. The long-term cohesion strength parameter has not been utilized in the determination of the earth pressures. Generally, for this soil type, most of the long-term cohesive strength is lost as a result of exposure and disturbance during excavation. We can design reinforced earth retaining walls, sheet pile walls or excavation bracing, if needed.

#### 8.5 Earthwork

The onsite soils, if free of organic and other deleterious materials, should generally be suitable for reuse as engineered fill with proper moisture control. Partially weathered rock (PWR) can be used as engineered fill if it breaks up sufficiently to meet gradation requirements. PWR can also be mixed with soil to meet gradation requirements.

Due to the presence of high silt contents, some of the onsite soil may be sensitive to moisture variation. During rainy seasons, these soils will be difficult to dry. As a practical consideration during extended periods of wet weather, wet onsite soils may need to be discarded and replaced with drier soils. These soils should be placed within a narrow range of their optimum moisture content (typically within about 3 percent of optimum moisture) to achieve proper compaction. Typical restrictions on suitable fill are no

organics, plasticity index less than 25, and maximum particle size of four inches, with not more than 30 percent greater than 3/4-inch. These restrictions should also be applied to imported borrow soils if needed.

Positive drainage should be maintained at all times to prevent saturation of exposed soils in case of sudden rains. Rolling the surface of disturbed soils will also improve runoff and reduce the soil moisture and construction delays. The degree of soil stability problems will also be dependent upon the precautions taken by the contractor to help protect the soils from saturation during construction.

Moisture-density determinations should be performed for each soil type used, to provide data necessary for quality assurance testing. Soil moisture contents at the time of compaction should be adjusted so that they are within moisture content limits that will allow the required compaction to be obtained.

### **8.6 Slopes**

All slopes should be protected from erosion during construction and provided with appropriate permanent vegetation or other cover after construction. Slopes should be protected from concentrated run-off flow by means of berms and drainage ditches to direct runoff around slopes or through concrete channels. Appropriate vegetative cover should consist of fast growing grasses that will rapidly create a dense root mat over the entire slope. Landscaping consisting of isolated shrubs and pine straw will not provide adequate slope protection.

All temporary slopes and open excavations should be performed in accordance with applicable OSHA guidelines for trench safety.

### **8.7 Retaining Walls**

The following retaining wall recommendations pertain to cast-in-place building and site retaining walls and are not intended for modular block or MSE walls. If modular block or MSE walls are planned on the site, United Consulting should be notified because additional evaluation will be required to provide recommendations specific to the planned wall types and locations.

The design of retaining walls must include the determination of the lateral pressure that will act on the wall. The lateral earth pressure is a function of the soil properties, surcharge loads behind the wall, and amount of deformation that the wall can undergo. This deformation is basically dependent upon the relative rigidity of the wall system.

The active earth pressure condition develops when the wall moves away from the soil over a sufficient distance, such as for a freestanding cantilever wall. The at-rest condition exists when there is no lateral strain on the soil, such as walls, which are rigidly restrained like a basement or sub-foundation wall. The passive condition occurs when the wall moves into the soil.

The following equivalent fluid pressures are recommended for three earth pressure conditions.

**Table 6 - Lateral Earth Pressures**

Earth Pressure Condition	Earth Pressure Coefficient	Recommended Equivalent Fluid Pressure
Active	$K_A = 0.33$	40 psf/foot
At-Rest	$K_O = 0.50$	60 psf/foot
Passive	$K_P = 3.00$	360 psf/foot

We note that considerable horizontal deflections are required to mobilize the passive pressure; therefore, the designer should consider a safety factor of 2 to the stated ultimate passive earth pressure in design.

The recommended equivalent fluid pressures are based on an assumed soil density of 120 pcf, an internal friction angle of 30 degrees and cohesion of zero. A coefficient of friction of 0.36 for sliding may be used for retaining wall design.

The parameters listed above are based on a level properly compacted backfill, no friction at the wall-soil interface, and no surcharge effects. For design of retaining walls, which could be inundated, the buoyant unit weight of the inundated soil should be used to determine the lateral earth pressure. The hydrostatic pressure based on the maximum ponding elevation should be utilized in the analysis.

Heavy compaction equipment should not be used to compact backfill within 5 feet laterally behind any retaining wall unless the wall is designed for the increased pressure or temporarily braced. Therefore, light compaction equipment may be required in this zone. Retaining wall backfill should be compacted to 95 percent of the Standard Proctor maximum dry density. A permanent drainage system such as a footing drain, or a fabric drain such as Enka drain, Mira drain, etc., is recommended for any retaining walls which are more than 5 feet in height.

The retaining walls should be designed by a professional engineer familiar with retaining wall design and registered in Georgia. Global stability should be determined, and the designer should consider sloping backfill, surcharges and other factors affecting wall loadings.

### 8.8 Fill Placement

Moisture-density determinations should be performed for each soil type used to provide data necessary for quality assurance testing. The natural moisture content at the time of compaction should be within moisture content limits, which will allow the required compaction to be obtained. This is generally within three percentage points of the optimum moisture. The contractor should be prepared to increase or decrease soil water content as needed to achieve the required degrees of compaction.

The fill should be placed in thin lifts (not to exceed 8-inch loose thickness) and compacted. We recommend the fill be compacted to at least 98 percent of Standard Proctor (ASTM D 698) maximum dry density within top two feet and at least 95 percent of Standard Proctor maximum dry density elsewhere on the site. For trench backfill, walk-behind type compaction equipment is typically use for compaction, so we recommend placing fill in thin lifts not to exceed 4 inches, specially within roadways and pavement areas.

A Geotechnical Engineer on a full-time basis should observe grading operations. In-place density tests taken by that individual will assess the degree of compaction being obtained. The frequency of the testing should be determined by the Geotechnical Engineer.





## 9.0 LIMITATIONS

This report is for the exclusive use of **Freese and Nichols, Inc.** and the designers of the project described herein, and may only be applied to this specific project. Our conclusions and recommendations have been prepared using generally accepted standards of Geotechnical Engineering practice in the State of Georgia. No other warranty is expressed or implied. Our firm is not responsible for conclusions, opinions or recommendations of others.

The right to rely upon this report and the data within may not be assigned without UNITED CONSULTING'S written permission.

The scope of this evaluation was limited to an evaluation of the load-carrying capabilities and stability of the subsoils. Oil, hazardous waste, radioactivity, irritants, pollutants, molds, or other dangerous substance and conditions were not the subject of this study. Their presence and/or absence are not implied or suggested by this report, and should not be inferred.

Our conclusions and recommendations are based upon design information furnished to us, data obtained from the previously described exploration and testing program and our past experience. They do not reflect variations in subsurface conditions that may exist intermediate of our borings, and in unexplored areas of the site. Should such variations become apparent during construction, it will be necessary to re-evaluate our conclusions and recommendations based upon "on-site" observations of the conditions.

If the design or location of the project is changed, the recommendations contained herein must be considered invalid, unless our firm reviews the changes and our recommendations are either verified or modified in writing. When design is complete, we should be given the opportunity to review the foundation plan, grading plan, and applicable portions of the specifications to confirm that they are consistent with the intent of our recommendations.

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Source: Google earth 2019



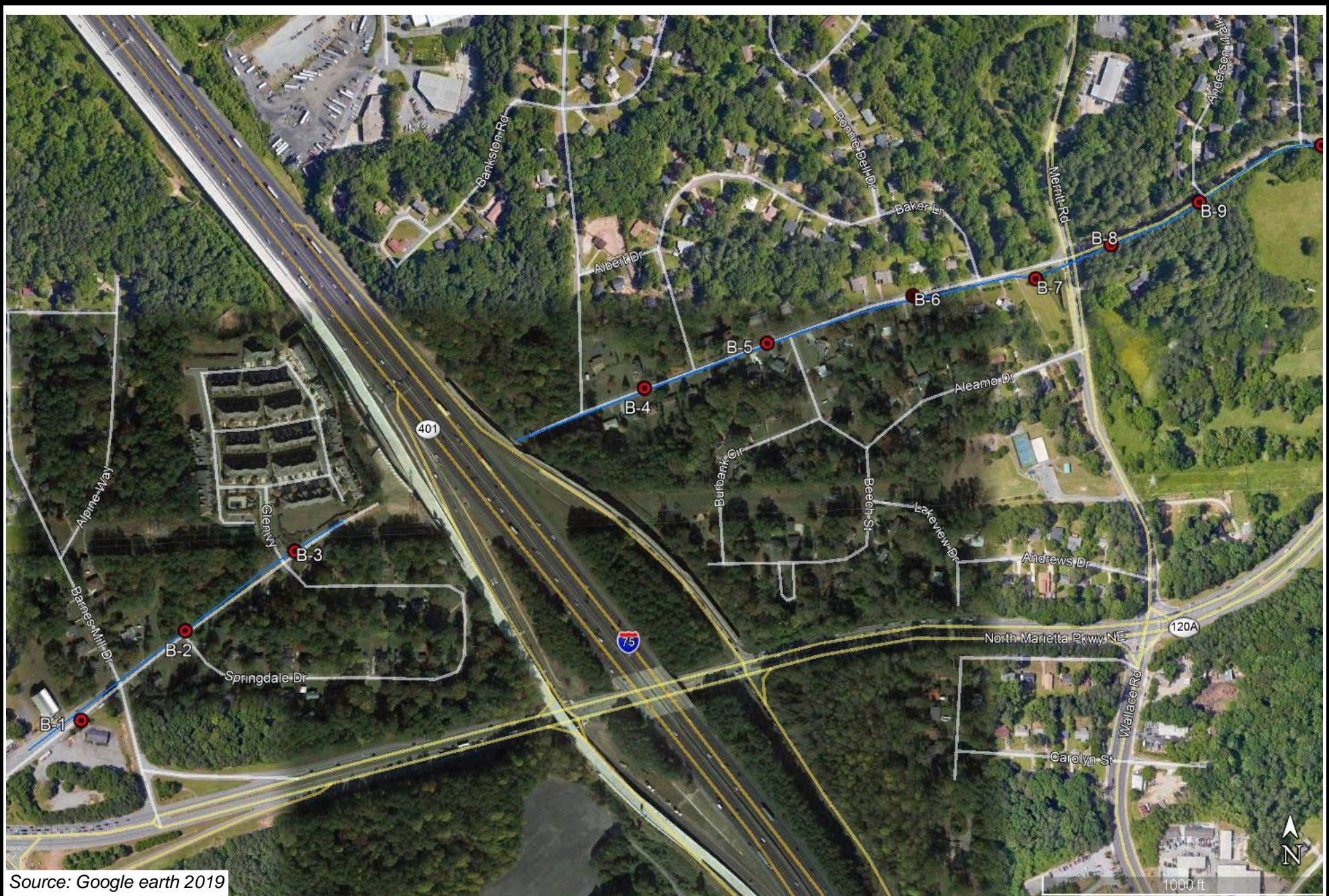
Scale:	NTS
Prepared:	Kole A
Checked:	RIO
Project No.:	FRENI-19-GA-03852-01

Notes:

Client:	Freese and Nichols, Inc
Site:	CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia
Title:	Site Location Plan

**FIG. 1**





Source: Google earth 2019



Scale:	NTS
Prepared:	Kole A
Checked:	RIO
Project No.:	FRENI-19-GA-03852-01

Notes:

Client:	Freese and Nichols, Inc
Site:	CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia
Title:	Boring Location Plan

**FIG. 2**  
**Page 1**





Source: Google earth 2019



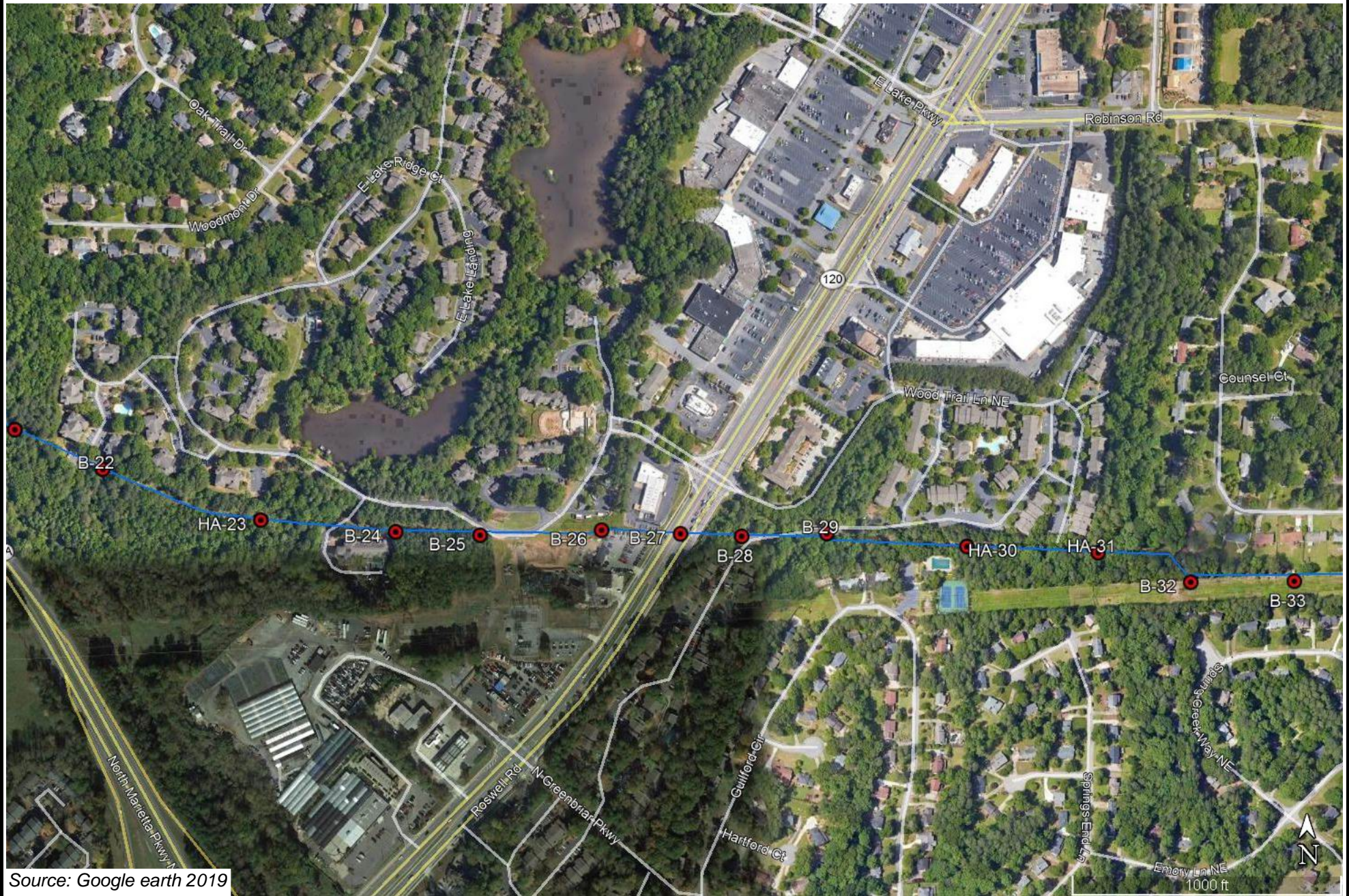
Scale:	NTS
Prepared:	Kole A
Checked:	RIO
Project No.:	FRENI-19-GA-03852-01

Notes:

Client:	Freese and Nichols, Inc
Site:	CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia
Title:	Boring Location Plan

**FIG. 2**  
**Page 2**





Source: Google earth 2019



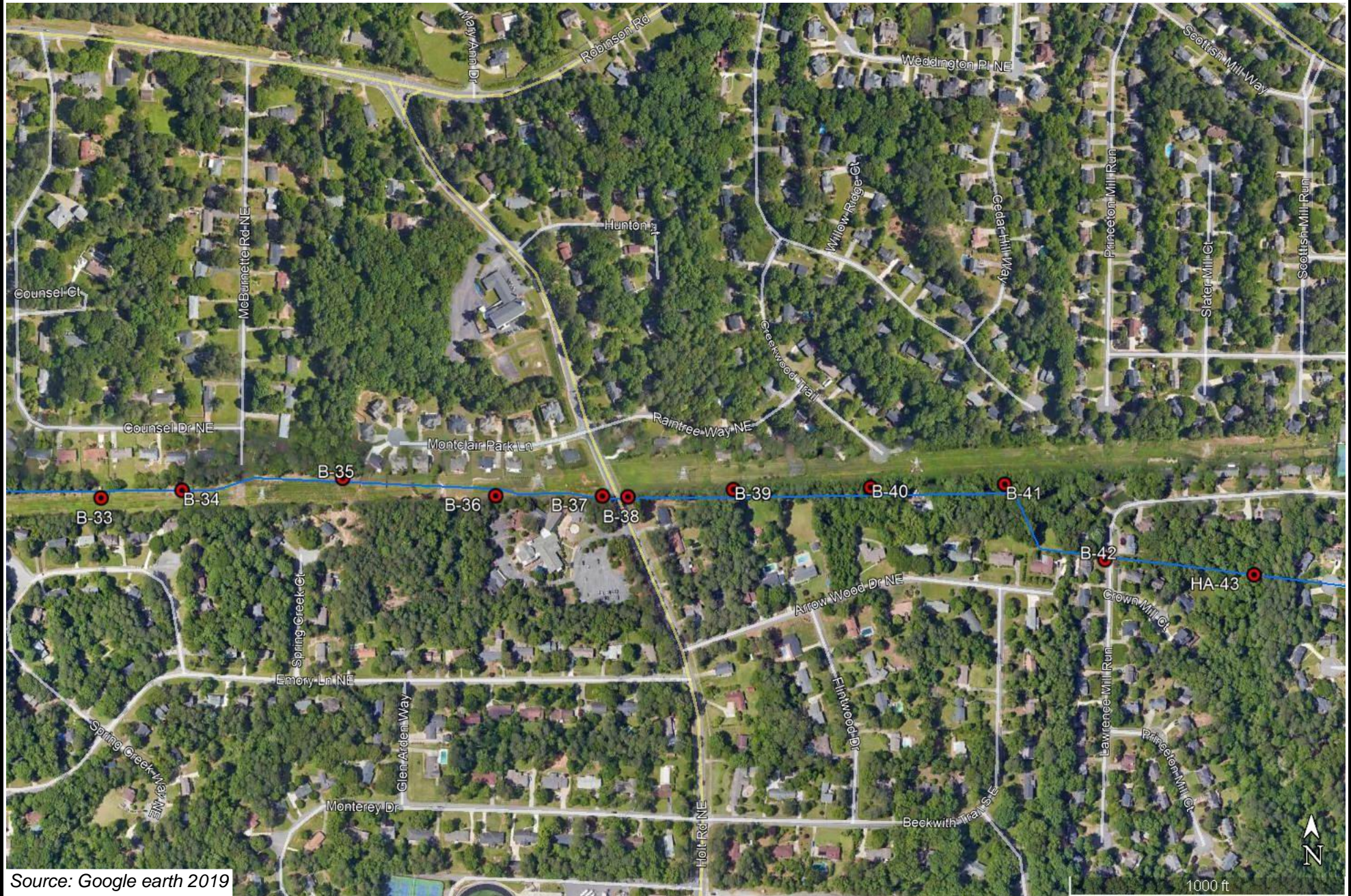
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Prepared:	Kole A
Checked:	RIO
Project No.:	FRENI-19-GA-03852-01

Notes:

Client:	Freese and Nichols, Inc
Site:	CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia
Title:	Boring Location Plan

**FIG. 2**  
**Page 3**





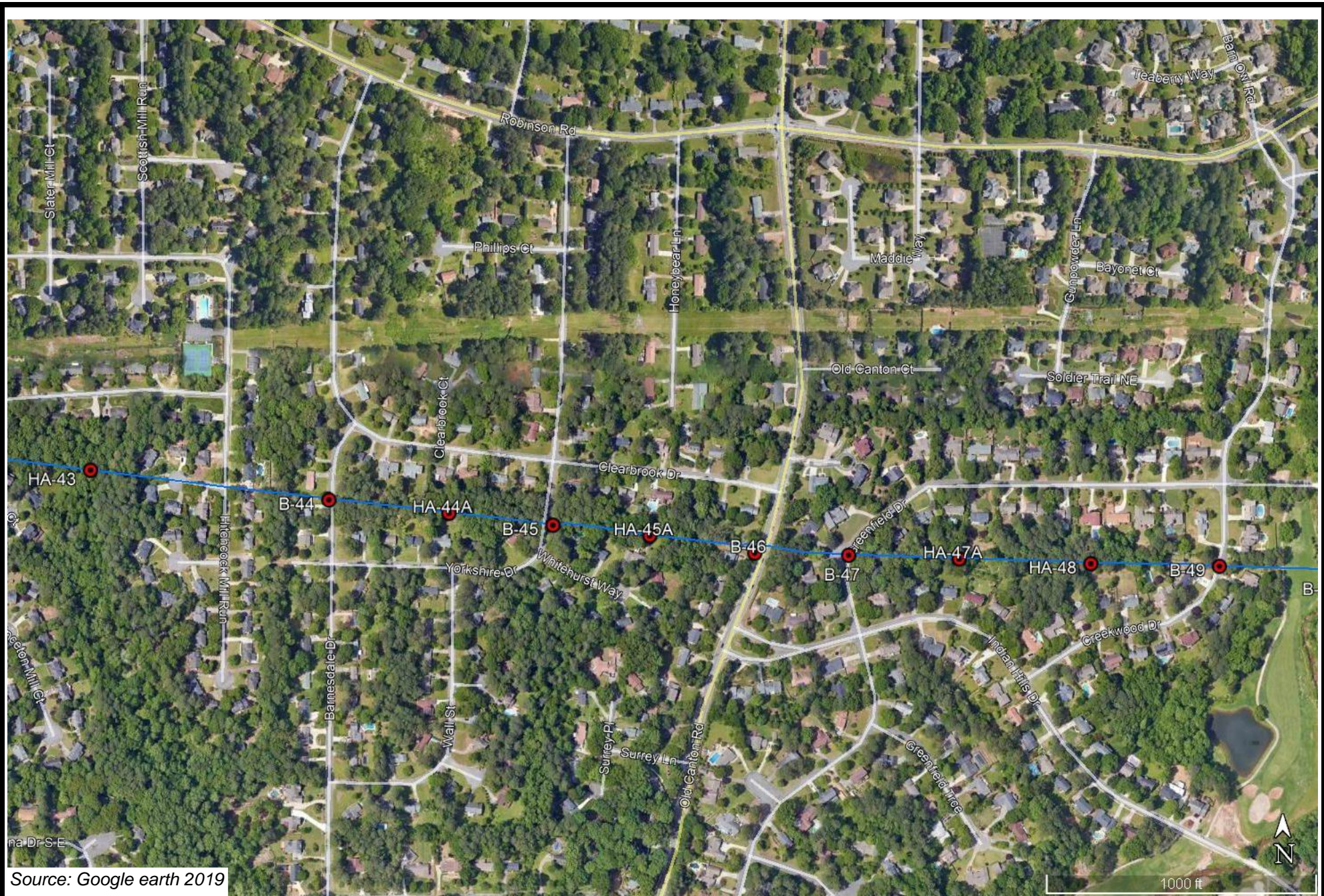
Scale:	NTS
Prepared:	Kole A
Checked:	RIO
Project No.:	FRENI-19-GA-03852-01

Notes:

Client:	Freese and Nichols, Inc
Site:	CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia
Title:	Boring Location Plan

**FIG. 2**  
**Page 4**





Source: Google earth 2019



Scale:	NTS
Prepared:	Kole A
Checked:	RIO
Project No.:	FRENI-19-GA-03852-01

Notes:

Client:	Freese and Nichols, Inc
Site:	CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia
Title:	Boring Location Plan

**FIG. 2**  
**Page 5**





Source: Google earth 2019



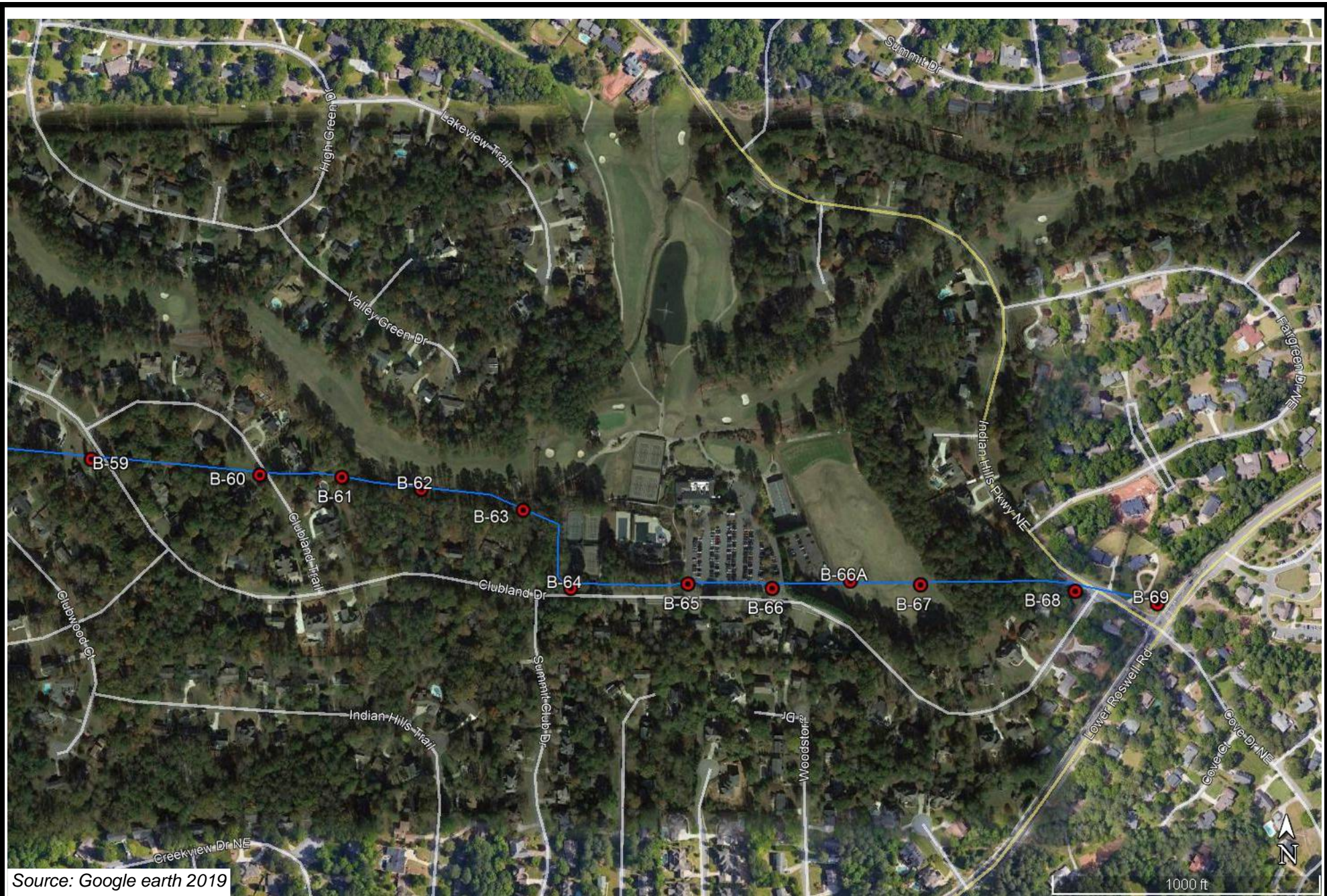
Scale:	NTS
Prepared:	Kole A
Checked:	RIO
Project No.:	FRENI-19-GA-03852-01

Notes:

Client:	Freese and Nichols, Inc
Site:	CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia
Title:	Boring Location Plan

**FIG. 2**  
**Page 6**





Scale:	NTS
Prepared:	Kole A
Checked:	RIO
Project No.:	FRENI-19-GA-03852-01

Notes:

Client:	Freese and Nichols, Inc
Site:	CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia
Title:	Boring Location Plan

**FIG. 2**  
**Page 7**



## **APPENDIX**

**General Notes /Narrative of Drilling Operations**  
**Exploration Procedures**  
**Laboratory Procedures**  
**SPT/HA Boring Logs (74)**  
**Rock Core Photographs (5)**  
**Lab Summary Sheet (1)**  
**Liquid and Plastic Test Report (2)**  
**Moisture Content Sheet (1)**  
**Grain Size Distribution Curves (18)**  
**Soil Corrosion Series (1)**  
**Rock Core Unconfined Compressive Strength (1)**  
**Water Corrosion Series (14)**

## GENERAL NOTES

The soil classifications noted on the Boring Logs are visual classifications unless otherwise noted. Minor constituents of a soil sample are termed as follows:

Trace	0 - 10%
Some	11 - 35%
Suffix "y" or "ey"	36 - 49%

### LEGEND



Split Spoon Sample obtained during Standard Penetration Testing



Relatively Undisturbed Shelby Tube Sample



Groundwater Level at Time of Boring Completion



Groundwater Level at 24 hours (or as noted) after Termination of Boring

w Natural Moisture Content

LL Liquid Limit

PL Plastic Limit Atterberg Limits

PI Plasticity Index

PF Percent Fines (Percent Passing #200 Sieve)

$\gamma_d$  Dry Unit Weight (Pounds per Cubic Foot or PCF)

$\gamma_m$  Moist or In-Situ Unit Weight (PCF)

$\gamma_{sat}$  Saturated Unit Weight (PCF)

## BORING LOG DATA NARRATIVE OF DRILLING OPERATION

The test borings were made by mechanically advancing helical hollow stem augers into the ground. Samples were collected at regular intervals in each of the borings following established procedures for performing the Standard Penetration Test in accordance with ASTM Specification D 1586. Soil samples were obtained with a standard 1.4" I.D. x 2.0" O.D. split barrel sampler. The sampler is first seated 6" to penetrate any loose cuttings and then driven an additional foot with the blows required of a 140-pound hammer freely falling a distance of 30 inches. The number of blows required to drive the sampler the final foot is designated the "standard penetration resistance." The driving resistance, known as the "N" value, can be correlated with the relative density of granular soils and the consistency of cohesive deposits.

The following table describes soil consistency and relative densities based on standard penetration resistance values (N) determined by the Standard Penetration Test (SPT).

	<u>"N"</u>	<u>Consistency</u>
Clay and Silt	0-2	Very Soft
	3-4	Soft
	5-8	Firm
	9-15	Stiff
	16-30	Very Stiff
	Over 31	Hard
	<u>"N"</u>	<u>Relative Density</u>
Sand	0-4	Very Loose
	5-10	Loose
	11-19	Firm
	20-29	Medium Dense
	30-49	Dense
	50+	Very Dense

## EXPLORATION PROCEDURES

### **Standard Penetration Test (SPT) borings**

Sixty-five (65) SPT borings and eight (8) Hand Auger Borings with Dynamic Cone Penetration (DCP) testing were performed at the approximate locations indicated on the attached Boring Location Plan (Figure 2). The SPT borings were performed in general accordance with ASTM D 1586. Hand Auger Dynamic Cone Penetration testing (DCP) borings were performed in general accordance with ASTM Special Technical Publication No. 399. Soil samples obtained during testing were visually evaluated by the Project Engineer and classified according to the visual-manual procedure described in ASTM D 2488. A narrative of field operations is included in The Appendix.

The test locations in the field were determined by the Project Engineer by the use of a handheld GPS unit and/or measuring distances from existing site features. The test locations should, therefore, be considered approximate. Boring ground surface elevations were estimated from water main alignment profile sheets provided by the Client/Civil Designer. Therefore, ground surface elevations should be considered approximate.

## LABORATORY PROCEDURES

### Grain Size (Sieve) Analysis with or without Hydrometer

Grain Size Analysis tests were performed to determine the particle size distribution of selected samples tested. The grain size distribution of soils coarser than a number 200 sieve was determined by passing the samples through a standard set of nested sieves. Materials finer than the number 200 sieves were suspended in water and the grain size distribution computed from the time rate of settlement of the different size particles. Air-dried soil passed through a #200 sieve. 50 grams of that must soak in s/c agent for a minimum of 8 hours. Soil is then put in graduated cylinder with a hydrometer. Readings are taken at specified times. A graph is drawn from data. These tests were similar to those described by ASTM D 421 and D 422. The results are included in The Appendix.

### Liquid and Plastic Limits (Atterberg Limits)

Liquid Limit and Plastic Limit tests aid in the classification of the soils and provide an indication of the soil behavior with moisture change. The Plasticity Index is bracketed by the Liquid Limit (LL) and the Plastic Limit (PL). The Liquid Limit is the moisture content at which the soil will flow as a heavy viscous fluid and is the upper limit of the plastic range, as determined in accordance with ASTM D 4318. The Plastic Limit is the moisture content at which the soil begins to lose its plasticity, as determined in accordance with ASTM D 4318. The Plasticity Index is the difference between the Liquid Limit and Plastic Limit. The Liquidity Index is the ratio of the difference between the in-place moisture and the plastic limit to the Plasticity Limit. The data obtained are in The Appendix.

### Moisture Content

The moisture content was determined for selected soil samples obtained in the split spoon sampler. A representative portion of each sample was weighed and then placed in an oven and dried at 110 degrees Centigrade for at least 15 to 16 hours. After removal from the oven, the soil was again weighed. The weight of the moisture lost during drying thus was determined. From this data, the moisture content of the sample was then calculated as the weight of moisture divided by dry weight of the soil, expressed as a percentage. This test was conducted according to ASTM D 2216. The moisture content results are indicated on the attached boring logs.

Moisture content is a useful index of a soil's compressibility. If the soil is to be used as fill, the moisture content may be compared to the range of water content for which proper compaction may be achieved.



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-1  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
		7 1/2 inches of Asphalt	0						Auto hammer with Energy Transfer Ratio= 94%	
	1095	Sand- some silt, trace-mica; brown-red; loose (fill)(SM)		1		7-5-5	10	6		
		Some clay, loose								
	1090		5	2		2-3-3	6	8		
	1085	Clay- sandy, firm, red-brown (Residual)(CH)	10	3		3-4-4	8	8	20.4	LL=52 , PL=29
	1080	Boring terminated at 12 feet	15							No groundwater encountered at the time of drilling
	1075		20							
	1070		25							
	1065		30							
	1060		35							
	1055		40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-2  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		5 inches of top soil	0						Auto hammer with Energy Transfer Ratio= 94%
	1090	Sand-silty; trace-clay and mica; red-brown, loose (fill) (SM)		1		2-2-3	5	10	
		- some-mica, loose	5	2		4-4-5	9	12	
	1085								
		Sand-silty; firm, brown (Residual) (SM)	10	3		4-6-7	13	10	
	1080								
		Boring terminated at 12 feet							No groundwater encountered at the time of drilling
			15						
	1075								
			20						
	1070								
			25						
	1065								
			30						
	1060								
			35						
	1055								
			40						

Bottom of pipe





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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-3  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		2 inches asphalt and 5 inches of gab	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-silty, trace-clay, some-organics and rock fragments; dense ; brown red (fill)(SM)		1		6-12-25	37	14	
	1075								
			5						
		Sand-some mica and silt, medium dense; brown red; (Residual)(SM)		2		6-13-15	28	8	
	1070								LL= NV, PL= NP
		-trace mica; red-brown; dense, some rock fragments							
			10	3		9-18-21	39	8	
	1065								
		-some silt; very dense							
			15	4		12-26-40	66	10	No groundwater encountered at the time of boring
	1060								
		Partially Weathered Rock (PWR) Sampled as:							
		Sand- some silt, trace clay, very dense, red-brown (SM)	20	5		21-50/4		10	
	1055	Boring terminated at 21 feet						9.2	
			25						
	1050								
			30						
	1045								
			35						
	1040								
			40						

Bottom of pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-4  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		7 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
	1050	Sand-silty, trace-mica, some clay; loose;red-brown (fill)(SM)		1		4-5-5	10	6	
	1045	Sand- silty,trace-mica; loose ; red-brown (Residual) (SM)	5	2		4-4-5	9	10	LL= NV, PL= NP  No groundwater encountered at the time of drilling LL= Liquid Limit PL= Plastic Limit PI= Plasticity Index
	1040	Partially Weathered Rock (PWR) Sampled As; Sand- silty; very dense; tan black- (SM)	10	3		16-50/4	50/4	6	
	1035	Sand- some silt, trace clay, very dense; light-gray (Residual)(SM) Boring terminated at 14 feet	15	4		20-24-32	56	10	5.8
			20						
	1030								
			25						
	1025								
			30						
	1020								
			35						
	1015								
			40						

Bottom of pipe



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-5  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		4 1/2 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
	1040	Sand-silty, trace clay and some rocks fragments; loose, red brown (fill) (SM)		1		6-3-3	6	2	
	1035	Sand-silty, trac -mica; stiff; red brown (Residual) (SM)	5	2		4-4-5	9	10	No groundwater encountered at the time of drilling
		-some-mica; stiff							
	1030		10	3		4-3-6	9	13	
		Boring terminated at 12 feet							
			15						
	1025								
			20						
	1020								
			25						
	1015								
			30						
	1010								
			35						
	1005								
			40						

Bottom of pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-6  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
	1020	5 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%	
		Silt-sandy, trace-clay and mica; stiff; red-brown, (fill) (ML)		1		4-4-6	10	12		
	1015	Silt -some mica; firm; red-brown (residual)(ML)	5	2		5-8-9	17	14	29.7	No groundwater encountered at the time of drilling
	1010	Sand- some silt; tan-grey, dense	10	3		10-21-18	39	12		
		Boring terminated at 12 feet								
	1005		15							
	1000		20							
	995		25							
	990		30							
	985		35							
	980		40							

Bottom of pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-7  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019&11/21  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 with ETR=94% LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		Top soil	0						Auto hammer with Energy Transfer Ratio= 94%
	985	Sand- some silt and clay; loose; brown-red (fill)(SM)		1		3-3-3	6	10	
		-trace-mica, firm							No groundwater encountered at the time of drilling
	980		5	2		2-5-8	13	8	
		Gravel-sandy, trace silt and clay; very dense; dark-grey (Residual) (GP-GM)							LL= NV, PL= NP Hitting rock at 6 feet took offset Hitting rock at 11 feet
	975		10	3		12-26-47	73	14	
		Auger refusal at 13 feet/Rock coring start Hard to very hard light gray, broken, incompetent biotitic Gneiss with quartzite seams							Coring Run 1 RQD=30% REC=35%
	970		15					18 21	
		Incompetent and fragmented intermediate lens and soils washed out under pressurized water during coring							Coring Run 2 RQD=0% REC=0%
	965		20					0 0	
		Hard to very hard light gray, solid, fairly continous biotitic Gneiss with quartzite seams							Coring Run 3 UCS = 12,433.2 psi @ 23' - 23.5'
	960		25					51 51	
		CORING TERMINATED AT 28 FEET							LL= Liquid Limit PL= Plastic PI= Plasticity Index
	955		30						
	950		35						
	945		40						

Bottom of pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-8  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 12/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	1000	2 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
		Sandy-silt, trace-mica; loose; tan-grey (fill) (SM)		1	█	3-5-5	10	10	
		-rock fragments; loose							
	995		5	2	█	3-3-4	7	8	
									No groundwater encountered at the time of drilling
	990	Sand-trace mica and clay, loose; tan-grey (residual)(SM)	10	3	█	3-3-5	8	10	
	985	-rock fragments, trace-organics, medium dense	15	4	█	6-12-16	28	8	
									Coring Run 1
	980	Refusal at 16 feet. Rock coring start Soft, gray-brown, weathered-seamy, incompetent schist mixed with pockets of soil	20				REC=54% RQD=0%		
									Coring Run 2
	975	Hard to very hard gray solid fairly continous biotitic gneis	25				REC=97% RQD=73%		
		- continous							Coring Run 3
	970		30				REC=100% RQD=98%		
		- competent							Coring Run 4
	965		35						Coring Run 5
		- incompetent					RQD=16% REC=26%		
	960		40						UCS = 10,483.8 psi @ 40.5' - 41"
		CORING TERMINATED AT 41 FEET	41						

Bottom of Pipe - Upper

Bottom of pipe - Lower



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-9  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		3 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
	1035	Sand-some silt, trace- clay and mica; loose; brown red (fill) (SM)		1		4-4-5	9	6	
		-some-mic, firm	5	2		4-6-7	13	10	
	1030								No groundwater encountered at the time of drilling
		Sand-trace clay; loose; brown red (residual) (SM)	10	3		4-4-4	8	10	
	1025								
		Boring terminated at 12 feet							
			15						
	1020								
			20						
	1015								
			25						
	1010								
			30						
	1005								
			35						
	1000								
			40						
	995								

Bottom of pipe



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-10  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		4 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
	1060	Sand- some silt, trace-clay; firm brown-red; (fill)(SM)		1		3-4-7	11	1	
		-some-mica and clay; loose	5	2		4-4-6	10	6	
	1055								No groundwater encountered at the time of drilling
		Sand-some mica and trace clay; firm; brown-red (residual) (SM)	10	3		4-6-6	12	10	
	1050	Boring terminated at 12 feet							
			15						
	1045								
			20						
	1040								
			25						
	1035								
			30						
	1030								
			35						
	1025								
			40						

Bottom of pipe





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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-11  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		3 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
	1070	Silt-sandy, trace-clay and organics, rock fragments; very stiff; brown (fill) (ML)		1		4-7-10	17	8	
		-trace-mica; stiff	5	2		3-6-7	13	12	
	1065								No groundwater encountered at the time of drilling
		-some-mica; trace-clay; firm	10	3		4-4-3	7	12	
	1060								
		Boring terminated at 12 feet							
			15						
	1055								
			20						
	1050								
			25						
	1045								
			30						
	1040								
			35						
	1035								
			40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-12  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	1085	Top soil	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand- trace silt and organics, loose, brown-red (fill) (SM)		1		2-2-3	5	2	
	1080	Sand-some silt, trace clay; medium dense; tan-grey (residual)(SM)	5	2		6-12-17	29	4	LL= NV, PL= NP  No groundwater encountered at the time of drilling  LL= Liquid Limit PL= Plastic Limit PI= Plasticity Index
	1075	-trace-mica, grey, firm (SM)	10	3		6-9-10	19	14	9.1
		Boring terminated at 12 feet							
	1070		15						
	1065		20						
	1060		25						
	1055		30						
	1050		35						
	1045		40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-13  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	1145	4 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-silty, trace-mica; firm; brown (fill) (SM)		1		5-7-8	15	4	
	1140	-red-brown, firm	5	2		3-5-8	13	10	No groundwater encountered at the time of drilling
	1135	Auger refusal at 8 feet	10						Hard drill at 7 feet
	1130		15						
	1125		20						
	1120		25						
	1115		30						
	1110		35						
	1105		40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-14  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		4 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
	1220	Sand-some silt and trace-mica; medium dense ;pink red (fill) (SM)		1		10-12-15	27	8	
		-trace-cla; firm		2		5-6-12	18	6	
	1215								No groundwater encountered at the time of drilling
	1210	Sand-some silt,medium-dense,red, residual (SM)	10	3		7-10-15	25	9	
		Boring terminated at 12 feet							
			15						
	1205								
			20						
	1200								
			25						
	1195								
			30						
	1190								
			35						
	1185								
			40						
	1180								

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC.

BORING NO.: B-15

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

DATE: 11/14/2019

JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
		6 inches of top soil	0						Auto hammer with Energy Transfer Ratio= 94%	
	1235	Sand-silty, trace-clay and mic; very dense; pink-red (residual) (SM)		1		27-25-32	47	10		
	1230	Partially Weathered Rock (PWR) Sampled As: Sand-silty, trace organics; very dense, gray (SM)	5	2		50/3	50/3	8	No groundwater encountered at the time of drilling	
	1225	Sand-some silt, trace clay; very dense; orange tan (residual) (SM)	10	3		5-12-38	50	12	3.8	LL= NV, PL= NP Hard drill at 8 feet took offset
	1220	Partially Weathered Rock (PWR) Sampled As: Sand-silty, trace organics, very dense, gray Boring terminated at 14 feet	15	4		50/1	50/1	2		LL= Liquid Limit PL= Plastic Limit PI= Plasticity Index
	1215		20							
	1210		25							
	1205		30							
	1200		35							
	1195		40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-16  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
		ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%	
		Sandy-silt, trace clay, mica and organics; firm; red-brown (Fill)(SM)		1		5-7-9	16	10		
	1095	Sand-some silt and clay ; firm; light-red brown (Residual) (SM)	5	2		7-7-7	14	8		
	1090	- medium dense; pink-red	10	3		8-11-10	21	14		
	1085	- some mica and silt (SM)	15	4		8-11-11	22	12	21.2	LL= 64, PL= 48
	1080	BORING TERMINATED AT 18 FEET.	20						No groundwater encountered at time of drilling.	
	1075		25							
	1070		30							
	1065		35							
	1060		40							

Bottom of Pipe



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# BORING LOG

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-17  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/18/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	1040	Sand-silty, trace asphalt, trace organics; loose, brown (Fill) (SM)		1		3-5-4	9	2	
	1035	Sand- trace clay, silt and mica; firm; brown-red (Residual) (SM)	5	2		6-7-8	15	10	No groundwater encountered at time of drilling.
	1030	- trace silt and mica; loose; yellow-brown	10	3		4-3-4	7	10	
	1025	BORING TERMINATED AT 12 FEET.	15						
	1020		20						
	1015		25						
	1010		30						
	1005		35						
			40						

Bottom of Pipe







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# BORING LOG

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-19  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/18/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	1040	ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%
		Sandy-silt, trace clay, some mica; firm; (Fill)(SM)		1		5-6-10	16	8	
		- firm; red-brown							
	1035		5	2		5-6-8	14	10	
	1030	Sand-silty; firm; red-brown (Residual)(SM)	10	3		10-7-8	15	6	
		BORING TERMINATED AT 12 FEET.							No groundwater encountered at time of drilling.
	1025		15						
	1020		20						
	1015		25						
	1010		30						
	1005		35						
	1000		40						

Bottom of Pipe



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# BORING LOG

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-20  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/13/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%	
		Sand-trace clay and mica; very loose; brown-tan (Fill)(SM)		1		1-1-2	3	8		
	1065	- organics, glass pieces; very loose; dark brown	5	2		1-2-2	4	6		32.7
	1060	- some clay, trace mica; loose	10	3		2-2-3	5	16		
	1055	BORING TERMINATED AT 12 FEET.							No groundwater encountered at time of drilling.	
			15							
	1050									
			20							
	1045									
			25							
	1040									
			30							
	1035									
			35							
	1030									
			40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-21  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/13/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	1020	Sand-silty, trace clay; firm; red-brown (Residual) (SM)		1		4-6-6	12	8	
		- trace silt; firm; tan-gray	5	2		3-5-6	11	6	
	1015	- organics, roots, some mica;; firm	10	3		3-5-5	10	10	
	1010	- dense	15	4		8-12-27	39	10	No groundwater encountered at time of drilling.
	1005								
		BORING TERMINATED AT 18 FEET.	20						
	1000								
			25						
	995								
			30						
	990								
			35						
	985								
			40						
	980								

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-22  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/13/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	1000	TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-trace clay, silt and organics; loose; red-brown (Fill) (SM)		1		2-3-2	5	8	
		- some clay							
	995		5	2		3-4-4	8	16	
		- blue							
	990		10	3		4-4-5	9	18	
		- trace mica; very loose							Groundwater encountered at 14 feet at time of drilling.
	985		15	4		2-1-2	3	18	
		Sand- some silt, trace clay and gravel ; loose; red-brown (SM)							LL= NV, PL= NP
	980		20	5		7-5-3	8	16	
		BORING TERMINATED AT 21 FEET.							
	975		25						
	970		30						
	965		35						
	960		40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-23  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/13/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	970	Sand-silt, trace clay, some mica; loose; tan-brown (Fill)(SM)		1		1-2-3	5	6	
		- trace mic; loose	5	2		4-3-3	6	16	
	965								Groundwater encountered at 7 feet at time of drilling.
		- brown; loose		3		3-2-3	5	5	
	960		10						
		BORING TERMINATED AT 12 FEET.							
			15						
	955								
			20						
	950								
			25						
	945								
			30						
	940								
			35						
	935								
			40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-24  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	1030	Sand-silty, trace mica; firm; brown-gray (Fill)(SM)		1		8-9-9	18	8	
		Sand-some mica, trace clay and silt; medium dense (Residual)(SM)	5	2		9-9-11	20	6	17.9
	1025								
		- some silt; tan-gray							
	1020		10	3		9-11-13	24	10	
		- trace mica, rock fragments; very dense	15	4		11-24-27	51	11	
	1015	BORING TERMINATED AT 15 FEET.							No groundwater encountered at time of drilling.
			20						
	1010								
			25						
	1005								
			30						
	1000								
			35						
	995								
			40						
	990								

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-25  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	1035	Sand-some silt and mica, trace clay and roots; me(SM)dium dense; red-brown (Fill)		1		6-9-15	24	10	
	1030	Sand-some silt and mica; firm; red-brown (Residual)(SM)	5	2		7-7-10	17	6	No groundwater encountered at time of drilling.
	1025	- trace clay, silt, rock fragments and organics; firm	10	3		3-5-6	11	6	
	1020	- tan-blue; firm	15	4		5-6-8	14	4	No groundwater encountered at time of drilling.
		BORING TERMINATED AT 17 FEET.							
			20						
	1015								
			25						
	1010								
			30						
	1005								
			35						
	1000								
			40						
	995								

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-26  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	1055	Sandy-silt, trace clay, some mica; loose; broen-red (Residual)(SM)		1		3-3-4	7	12	
		- firm							
			5	2		5-7-8	15	14	
	1050								
		- some mica							
			10	3		6-7-9	16	6	
	1045								
		- trace silt and clay; medium dense							
			15	4		9-10-13	23	12	
	1040								
		- some silt							
			20	5		5-8-17	25	10	
	1035								
		- trace silt; firm; white-gray							
			25	6		7-7-10	17	8	
	1030								
		BORING TERMINATED AT 27 FEET.							No grounwater encountered at time of drilling.
			30						
	1025								
			35						
	1020								
			40						
	1015								

Bottom of Pipe





**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-27  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/18/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
		ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%	
		Sand-some silt, trace clay, some mica; firm; brown-red (Fill)(SM)		1		13-7-5	12	8		
	1040	- very loose								
			5	2		2-1-1	2	13		
	1035	- rock fragments								
			10	3		4-6-4	10	10		
	1030	- very loose								
			15	4		2-2-2	4	10		
	1025	Sand-some silt and clay; medium dense; light-red brown (Residual)(SM)								
			20	5		17-8-12	20	10		
	1020	- firm; pink-red (SM)							LL= NV, PL= NP	
			25	6		7-8-7	15	9		19.5
	1015	- some silt and mica								
			30	7		7-9-10	19	16		
	1010									
			35	8		6-8-9	17	18		
	1005	- loose								
			40	9		6-4-5	9	16		

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-27  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/18/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	1000	BORING TERMINATED AT 42 FEET.							No groundwater encountered at time of drilling.
			45						
	995								
			50						
	990								
			55						
	985								
			60						
	980								
			65						
	975								
			70						
	970								
			75						
	965								
			80						
	960								



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-28  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%
	1010	Silt-sandy, trace mica, some clay; stiff; red-brown (Fill) (ML)		1		3-5-7	12	8	
		Sand-silty; loose; brown		2		3-4-4	8	10	
	1005		5						
		Clay-sandy, trace silt and mica; firm tan-gray (Residual)(ML)		3		4-4-5	9	10	
	1000		10						
		- stiff		4		4-4-7	11	12	Groundwater encountered at 14 feet at time of drilling.
			15						
	995	BORING TERMINATED AT 17 FEET.							
			20						
	990								
			25						
	985								
			30						
	980								
			35						
	975								
			40						

Proposed Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-29  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/18/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%	
		Sand-some silt and mica, trace clay; loose; (Fill)(SM)		1		3-3-6	9	10		
	1005	Sand-some silt and mica; loose; tan-brown (Residual)(SM)	5	2		5-5-5	10	18		20.8
	1000			3		3-3-4	7	10		
		BORING TERMINATED AT 12 FEET.							No groundwater encountered at time of drilling.	
	995		15							
	990		20							
	985		25							
	980		30							
	975		35							
	970		40							

Bottom of Pipe



# LOG OF BORING

## HAND AUGER

CONTRACTED WITH: FREESE & NICHOLS, INC.

BORING NO.: HA-30

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

JOB NO.: FRENI19GA0385201

DATE: 11/25/2019

ELEV.	DESCRIPTION	DEPTH in FEET	PENETROMETER TESTS			NOTES
			NO.	Sample Type	BLOWS PER 2" 1.75"	
	TOPSOIL	0				
1048	Sand-some silt, trace clay and mica, trace organics,dense, brown (fill) (SM)		1	█	24	10
		4				
1044	Sand-some clay, brown-red (residual) dense (SM) -trace-clay, very dense		2	█	22	22
			3	█	24	35
	HAND AUGER REFUSAL AT 6.5 FEET					Hard to auger after 6.5 feet
		8				
Bottom of Pipe 1040						
		12				
1036						
		16				
1032						
		20				
1028						
		24				
1024						
		28				
1020						
		32				



# LOG OF BORING

## HAND AUGER

CONTRACTED WITH: FREESE & NICHOLS, INC.

BORING NO.: HA-31

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

JOB NO.: FRENI19GA0385201

DATE: 11/25/2019

ELEV.	DESCRIPTION	DEPTH in FEET	PENETROMETER TESTS			NOTES
			NO.	Sample Type	BLOWS PER 2" 1.75"	
1004	Top soil	0				Hitting rock took offset
	Sand-some-silt and mica, trace-clay, dense, brown-red (fill) (SM)		1	█	24	
1000		Sand-trace silt and clay ,loose, brown (residual) (SM)	4			
			2	█	4	3
996	Sand, trace-mica, some-silt, dense HAND AUGER REFUSAL AT 6 FEET		3	█	25	21
		8				
992		12				
		16				
988	Bottom of Pipe					
		20				
984		24				
		28				
980						
		32				
976						
972						



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-32  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
	1030	TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%	
		Sand-sone silt, trace clay; firm; brown (Residual) (SM)		1		5-6-9	15	10		
		- some mica(SM)		2		6-6-7	13	10		
	1025		5						LL= NV, PL= NP	
		- dense (SM)		3		8-23-25	48	8		6.3
	1020		10							
		BORING TERMINATED AT 12 FEET.							No groundwater encountered at time of drilling.	
	1015		15							
	1010		20							
	1005		25							
	1000		30							
	995		35							
	990		40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-33  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	1005	Silt-sandy, trace mica and organics, some clay; stiff; brown-red (Fill)(ML)		1		4-5-5	10	8	
	1000	Silt- sandy, trace mica, some clay; firm ; brown red (Residual)(ML)	5	2		3-3-4	7	10	No groundwater encountered at time of drilling.
	995	- some silt and mica; stiff	10	3		3-5-5	10	12	
									No groundwater encountered at time of drilling.
		BORING TERMINATED AT 12 FEET.							
			15						
	990								
			20						
	985								
			25						
	980								
			30						
	975								
			35						
	970								
			40						
	965								

Bottom of Pipe





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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-34  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%	
	1000	Sand-silty, some clay and mica, trace organics; loose; brown-red (Fill)(SM)		1		4-4-4	8	14		
		Sand-silty some clay and mica; loose; brown-red (Residual)(SM)	5	2		4-4-5	9	10	27.8	No groundwater encountered at time of drilling.
	995									
		- trace organics; loose; yellow-orange		3		3-3-4	7	14		
	990		10							
		- some mica; tan-brown		4		4-4-6	10	14	No groundwater encountered at time of drilling.	
	985	BORING TERMINATED AT 14 FEET.	15							
			20							
	980									
			25							
	975		30							
	970		35							
	965		40							
	960									

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-35  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	1010	TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-silty, some mica, trace clay; firm; brown-tan (Residual) (SM)		1		6-8-10	18	12	
		- some mica; firm; yellow-brown							
	1005		5	2		6-7-10	17	10	
		- loose; brown-red							
	1000		10	3		4-4-5	9	16	No groundwater encountered at time of drilling.
		- trace sand and mica							
	995		15	4		3-4-5	9	12	
		BORING TERMINATED AT 17 FEET.							
	990		20						
	985		25						
	980		30						
	975		35						
	970		40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-36  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	985	TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-silty, trace clay and organics; very loose; brown-red (Fill)(SM)		1		2-2-2	4	8	
		- trace silt; loose							
	980		5	2		3-4-4	8	12	16.7
	975	Sand- some silt; firm ; brown- red (Residual) (SM)	10	3		3-5-6	11	14	
	970	BORING TERMINATED AT 12 FEET.	15						No groundwater encountered at time of drilling.
	965		20						
	960		25						
	955		30						
	950		35						
	945		40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-37  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/21/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		Top soil	0						Auto hammer with Energy Transfer Ratio= 94%
	1000	Sand- some silt and clay; firm red-brown (residual)(SM)		1		5-5-8	13	12	
		- some silt and mica, firm	5	2		6-6-8	14	10	
	995								LL=54, PL=40
		Sand- some silt and clay; firm; red brown (SM)	10	3		4-7-10	17	8	
	990								No groundwater encountered at the time of drilling
		BORING TERMINATED AT 12 FEET							
			15						
	985								
			20						
	980								
			25						
	975								
			30						
	970								
			35						
	965								
			40						
	960								

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-38  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	990	Sand-silty, trace clay and organics; loose; brown (Fill)(SM)		1		2-2-3	5	8	
		- glass pieces;							
			5	2		3-4-5	9	10	
	985								
		Sand-silty, trace clay; loose; yellow-brown (Residual)(SM)	10	3		3-3-4	7	12	
	980								No groundwater encountered at time of drilling.
		BORING TERMINATED AT 12 FEET.							
			15						
	975								
			20						
	970								
			25						
	965								
			30						
	960								
			35						
	955								
			40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-39  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
	980	Top soil	0						Auto hammer with Energy Transfer Ratio= 94%	
		Sand-some clay, trace-silt, brown; loose (fill) (SC)		1		2-2-2	4	10		
	975	Sand-clayey, trace-sand and mica, tan-brown, loose (Residual) (SC)	5	2		2-2-3	5	14	13.2	No groundwater encountered at the time of drilling
	970	-some-mica, tan-grey, loose	10	3		3-3-4	7	12		
	965	BORING TERMINATED AT 12 FEET	15							
	960		20							
	955		25							
	950		30							
	945		35							
	940		40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-40  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	980	Sand-silty, some mica, trace clay and organics; loose; brown-black (Residual)(SM)		1		2-2-3	5	12	
		- tan-gray	5	2		4-3-4	7	10	
	975	- some mica, trace silt							
	970		10	3		2-3-3	6	14	Groundwater encountered at 13 feet at time of drilling.
		BORING TERMINATED AT 14 FEET	15	4		2-3-4	7	16	
	965								
			20						
	960								
			25						
	955								
			30						
	950								
			35						
	945								
			40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-41  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	955	TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-silty, trace mica and clay; very loose; brown-tan (Residual)(SM)		1		1-1-1	2	8	
	950	- some mica, trace rock fragments; very loose	5	2		2-1-2	3	6	34.7
	945	- loose; brown-red	10	3		2-2-3	5	10	
	940	BORING TERMINATED AT 12 FEET.	15						
	935		20						
	930		25						
	925		30						
	920		35						
	915		40						

Bottom of Pipe

Groundwater encountered at 7 feet at time of drilling.





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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-42  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
	985	ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%	
		Silt-sandy, some clay, trace mica and organics; loose; brown (fill) (ML)		1		3-3-3	6	9		
		- trace mica; loose; brown-red								
	980		5	2		3-4-5	9	10		
									LL= Liquid Limit PL= Plastic Limit	
	975	Sand- some silt and clay; loose; brown-red (Residual) (SM)	10	3		3-4-4	8	14		25.2
		- silty, trace clay								
	970		15	4		4-4-4	8	16		
		BORING TERMINATED AT 16 FEET.							No groundwater encountered at time of drilling.	
	965		20							
	960		25							
	955		30							
	950		35							
	945		40							

Bottom of Pipe



# LOG OF BORING

## HAND AUGER

CONTRACTED WITH: FREESE & NICHOLS, INC.

BORING NO.: HA-43

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

JOB NO.: FRENI19GA0385201

DATE: 11/25/2019

ELEV.	DESCRIPTION	DEPTH in FEET	PENETROMETER TESTS			NOTES	
			NO.	Sample Type	BLOWS PER 2" 1.75"		
936	Top soil	0				Moisture = 14.9%	
	Sand-some clay, trace silt, medium dense yellow-brown (residual) (SC)		2	█	12		14
		4					
932	-some-silt, trace-clay, dense		3	█	26		21
	-some-clay, trace-mica, very dense HAND AUGER REFUSAL AT 6 FEET		4	█	32		24
928		8					
Bottom of Pipe 924		12					
920		16					
916		20					
912		24					
908		28					
904		32					



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-44  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%
	985	Sand-some silt and mica, trace clay; loose; brown-red (Residual)(SM)		1		4-5-5	10	12	
		- trace silt; loose	5	2		4-4-4	8	10	
	980	- trace mica; firm; tan-gray	10	3		4-5-7	12	14	
	975	- white-gray	15	4		5-7-8	15	12	No groundwater encountered at time of drilling.
	970	BORING TERMINATED AT 15 FEET.							
			20						
	965								
			25						
	960								
			30						
	955								
			35						
	950								
			40						
	945								

Bottom of Pipe



# LOG OF BORING

## HAND AUGER

CONTRACTED WITH: FREESE & NICHOLS, INC.

BORING NO.: HA-44(A)

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

JOB NO.: FRENI19GA0385201

DATE: 11/25/2019

ELEV.	DESCRIPTION	DEPTH in FEET	PENETROMETER TESTS			NOTES
			NO.	Sample Type	BLOWS PER 2" 1.75"	
	Top soil	0				
972						
	Sand-some clay, trace-silt and organics; loose ;brown-red (fill) (SC)		1	█	5    4	
		4				
	-some silt,trace-mica, medium dense		2	█	14    14	
968						
	Silt- sandy-clayey and mica, dense; red- brown (MH)		3	█	24    23	LL=55, PL=37
	-some-clay, trace-silt , very dense		4	█	41    42	Hard to auger LL= Liquid Limit PL= Plastic Limit PI= Plasticity Index
964	HAND AUGER REFUSAL AT 7 FEET	8				
		12				
960						
		16				
956						
		20				
952						
		24				
948						
		28				
944						
		32				
940						

Bottom of  
Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-45  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
	975	ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%	
		Sand-some silt and clay, trace mica; firm; red-brown (Fill)(SM)		1		5-6-10	16	13		
	970	Sand- some silt, clay and mica, trace organics; firm; red-brown (Residual)(SM)	5	2		6-6-8	14	10		29.9
	965	- some silt	10	3		6-7-10	17	10		
	960	- loose	15	4		4-4-5	9	12		
		BORING TERMINATED AT 16 FEET.							No groundwater encountered at time of drilling.	
	955		20							
	950		25							
	945		30							
	940		35							
	935		40							

Bottom of Pipe



# LOG OF BORING

## HAND AUGER

CONTRACTED WITH: FREESE & NICHOLS, INC.

BORING NO.: HA-45(A)

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

JOB NO.: FRENI19GA0385201

DATE: 11/26/2019

ELEV.	DESCRIPTION	DEPTH in FEET	PENETROMETER TESTS			NOTES	
			NO.	Sample Type	BLOWS PER 2" 1.75"		
976	Top soil	0					
972	Sand-some-silt and clay, trace-mica; FIRM; brown (fill) (SC)	1	1	█	5	6	
		4					
	Sand-some clay and silt;firm, brown (Residual)(SC)	2	2	█	7	10	
	-some-silt and clay, trace-mica, dense	3	3	█	21	18	Hard to auger
968	-some-mica, very dense	4	4	█	29	26	
	HAND AUGER REFUSAL AT 7 FEET	8					
964		12					
960		16					
956		20					
952		24					
948		28					
944		32					

Bottom of  
Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-46  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/21/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
	985	Top soil	0						Auto hammer with Energy Transfer Ratio= 94%	
		Sand-silty, trace-clay and organics; loose, brown-red(fill)(SM)		1		3-4-5	9	6		
	980	Sand-some clay and mica, trace-organics; loose; yellow-brown (residual)(SC)	5	2		4-4-6	10	10		18.9
	975	-some-silt, brown-red, loose	10	3		3-3-6	9	14		
	970	-trace-mica, firm	15	4		3-5-6	11	16	No groundwater encountered at the time of drilling	
		BORING TERMINATED AT 15 FEET								
	965		20							
	960		25							
	955		30							
	950		35							
	945		40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-47  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	980	ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-some silt, trace mica and clay; firm; brown-red (Fill)(SM)		1		3-5-6	11	12	
		- some clay							
	975		5	2		4-6-7	13	8	
		Sand- some silt and mica; loose; brown-red (Residual) (SM)							No groundwater encountered at time of drilling.
	970		10	3		4-4-5	9	10	
		- some silt; medium dense							
	965		15	4		6-9-12	21	4	
		BORING TERMINATED AT 15 FEET.							
	960		20						
	955		25						
	950		30						
	945		35						
	940		40						

Bottom of Pipe





# LOG OF BORING

## HAND AUGER

CONTRACTED WITH: FREESE & NICHOLS, INC.

BORING NO.: HA-47(A)

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

JOB NO.: FRENI19GA0385201

DATE: 11/26/2019

ELEV.	DESCRIPTION	DEPTH in FEET	PENETROMETER TESTS			NOTES
			NO.	Sample Type	BLOWS PER 2" 1.75"	
952	Top soil	0				
948	Sand-some silt and clay, trace-organics; firm; brown (fill) (SC)	1	1	█	8	9
		4				
944	Sand- trace mica, medium brown-red (Residual(SM))	2	2	█	12	10
		3	3	█	24	21
944	Silt- clayey, some sand, trace gravel, orange-brown (MH) HAND AUGER REFUSAL AT 6 FEET	8				
		8				
940		12				
936		16				
932		20				
928		24				
924		28				
920		32				

LL=61, PL=34  
 LL= Liquid Limit  
 PL= Plastic Limit  
 PI= Plasticity Index

Bottom of  
Pipe



# LOG OF BORING

## HAND AUGER

CONTRACTED WITH: FREESE & NICHOLS, INC.

BORING NO.: HA-48

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

JOB NO.: FRENI19GA0385201

DATE: 11/26/2019

ELEV.	DESCRIPTION	DEPTH in FEET	PENETROMETER TESTS			NOTES
			NO.	Sample Type	BLOWS PER 2" 1.75"	
928	Top soil	0				Hitting rock took offset
	Sand- trace-silt and clay, some-organics; firm; tan-brown (fill) (SM)		1	█	8 8	
924		4				
	-trace-silt, brown-red, dense		2	█	24 21	
	Sand- some-mica, trace-clay;very dense; red-brown (Residual)(SM)		3	█	33 31	
920		8				
	-some-silt and mica, trace-clay, orange- brown, very dense		4	█	48 43	
	HAND AUGER REFUSAL AT 8 FEET					
		12				
		16				
		20				
		24				
		28				
		32				
896						

Bottom of  
Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-49  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/19/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		ASPHALT	0						Auto hammer with Energy Transfer Ratio= 94%
	930	Sandy-trace silt, mica and rock fragments; firm; tan-brown (Residual)(SM)		1		4-5-6	11	12	
		- loose	5	2		3-3-3	6	12	
	925								No groundwater encountered at time of drilling.
		- trace silt; firm; tan-gray		3		5-6-9	15	12	
	920		10						
		BORING TERMINATED AT 12 FEET.							
			15						
	915								
			20						
	910								
			25						
	905								
			30						
	900								
			35						
	895								
			40						
	890								

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-50  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES						NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	W	
			0							Auto hammer with Energy Transfer Ratio= 94% Hand Auger to 4 feet.
		Sand-silty, some clay, trace organics; brown (Hand Auger)(SM)		1						
	905	- some mica; loose; tan-brown (Fill)								
			5	2		2-3-5	8	12	20.9	
	900	- very loose								
			10	3		1-1-2	3	5		
										Groundwater encountered at 8 feet at time of drilling.
	895	Sand- silty, some clay, trace rock fragments; loose; tan-gray (Residual)(SM)		4		3-3-4	7	7		
		- medium dense								
	890		20	5		7-11-18	29	12		
	885	- gray								
		BORING TERMINATED AT 24 FEET.	25	6		9-11-15	26	14		
	880									
			30							
	875									
			35							
	870									
			40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-51  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
			0						Auto hammer with Energy Transfer Ratio= 94%
	905	Sand-trace silt and mica; firm; brown (Residual)(SM)		1		3-4-7	11	14	
		- trace silt; very loose; brown-red	5	2		2-2-2	4	18	
	900								
		Clay-some silt, trace mica; very soft; tan-gray (CH)	10	3		1-1-0	1	18	
	895								Groundwater encountered at 11 at time of drilling.
		Sand-trace clay and silt; loose; brown (SM)	15	4		2-3-4	7	12	
	890								
		- medium dense; brown-red	20	5		11-12-15	27	14	
	885								
		BORING TERMINATED AT 23 FEET.	25						
	880								
			30						
	875								
			35						
	870								
			40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-52  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	905	Sand-some silt, trace mica; loose; brown-red (Fill)(SM)	0						Auto hammer with Energy Transfer Ratio= 94%
				1		2-3-4	7	12	
		- some silt							
			5	2		2-3-4	7	15	
	900								Groundwater encountered at 8 feet at time of drilling. LL= NV, PL= NP
		Sand- trace clay and silt; very loose; tan (SP-SM)							
			10	3		2-2-2	4	12	
	895								Bottom of Pipe
		Sand-some silt, trace mica; loose; brown-red (Residual) (SM)							
			15	4		2-3-4	7	10	
		BORING TERMINATED AT 15 FEET.							
	890								
			20						
	885								
			25						
	880								
			30						
	875								
			35						
	870								
			40						
	865								



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-53  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
			0						Auto hammer with Energy Transfer Ratio= 94%
	905	Sand-some silt, trace mica; loose; brown (Fill)(SM)		1		4-3-3	6	10	
		- trace silt; brown-red	5	2		2-3-4	7	14	
	900								
			▽						Groundwater encountered at 7 feet at time of drilling.
		Clay-some sand, trace silt; loose; blue (CH)	10	3		2-3-3	6	18	
	895								
		Sand-some silt, trace organics; loose(SM)	15	4		4-4-5	9	12	
	890	BORING TERMINATED AT 15 FEET.							
			20						
	885								
			25						
	880								
			30						
	875								
			35						
	870								
			40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-54  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
	910	Sand-some mica, trace clay and silt; loose; brown (Fill)(SM)	0						Auto hammer with Energy Transfer Ratio= 94%	
			1		4-5-5	10	2			
		Sand- some silt and mica; loose; brown-red (Residual)(SM)						25.8		
	905		5		3-4-5	9	4			
		- some mica; brown								
	900		10		3-4-5	9	10			
		- silty, some mica; firm; tan- brown								
	895		15		5-6-6	12	16			
		BORING TERMINATED AT 18 FEET.								No groundwater encountered at time of drilling.
	890		20							
	885		25							
	880		30							
	875		35							
	870	40								

Bottom of Pipe





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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-55  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	905	TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand- some clay and sand,trace organics; very loose; brown (Residual)(SM)		1		2-2-2	4	12	
		- trace mica		2		1-1-2	3	10	
	900		5						Groundwater encountered at 6 feet at time of drilling
		-some clay; very loose; blue		3		1-2-3	5	16	
	895		10						
		BORING TERMINATED AT 12 FEET.							
	890		15						
	885		20						
	880		25						
	875		30						
	870		35						
	865		40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-56  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
	920	Sand-some silt, organics and clay, trace mica; brown-red (Fill)(SM)	0						Auto hammer with Energy Transfer Ratio 94% Hand Auger	
			1							
	915	Sand- some clay, trace silt and organics ; loose; brown-red (Residual)(SM)	5	2		2-3-3	6	4		
			- loose							
	910		10	3		4-4-6	10	10	No groundwater encountered at time of drilling.	
		BORING TERMINATED AT 12 FEET.								
	905			15						
	900			20						
	895			25						
	890			30						
	885		35							
	880		40							

Bottom  
of  
Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-57  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/22/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES						NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	W	
	935	3 inches of asphalt	0							Auto hammer with Energy Transfer Ratio= 94% Hand auger to 3 feet
		Sand, some-mica, trace-silt, brown-red(fill) (SM)		1						
	930	Sand- trace silt and mica, yellow-brown, loose (residual) (SM)	5	2		4-4-5	9	8		LL=Nv, PL=NP No groundwater encountered at the time of drilling  LL=Liquid Limit PL=Plastic Limit PI=Plasticity Index
	925	-trace silt, some rock fragments, yellow-white, medium dense	10	3		9-12-13	25	8		
	920	Sand- some silt, trace clay; firm; light tan (SM)	15	4		5-7-5	12	10	11.1	
	915	BORING TERMINATED AT 16 FEET	20							
	910		25							
	905		30							
	900		35							
	895		40							

Bottom of Pipe= 925



# LOG OF BORING

## HAND AUGER

CONTRACTED WITH: FREESE & NICHOLS, INC.

BORING NO.: HA-58

PROJECT NAME: BLACKJACK SEWER REPLACEMENT

JOB NO.: FRENI19GA0385201

DATE: 12/03/2019

ELEV.	DESCRIPTION	DEPTH in FEET	PENETROMETER TESTS			NOTES
			NO.	Sample Type	BLOWS PER 2" 1.75"	
	Top soil	0				
936	Sand- trace-silt and clay, trace-organics; medium-dense tan brown; (fill)(SM)		1	█	9	16
		4				
	Sand-some silt; dense; red-brown (Residual)(SM)		2	█	19	23
932						
	-some-silt, trace-clay, dense		3	█	18	22
		8				
	-trace-mica, very dense HAND AUGER REFUSAL AT 8 FEET		4	█	25	29
928						
		12				
924						
		16				
920						
		20				
916						
		24				
912						
		28				
908						
		32				

Bottom of  
Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-59  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/21/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
		Top soil	0							Auto hammer with Energy Transfer Ratio= 94% Hand auger to 3 feet
	985	Silt-some sand and clay, trace mica and organics, red brown (fill)(ML)		1						
		Sand- some-silt, trace-mica and organics, trace-rock fragments; loose(fill)(SM)	5	2		3-3-6	9	6	27	No groundwater encountered at the time of drilling
	980									
		Sand-some silt and mica; firm orange-red (Residual)(SM)	10	3		5-5-6	11	12		
	975									
		-firm	15	4		8-8-9	17	1		No groundwater encountered at the time of drilling
	970									
		BORING TERMINATED AT 18 FEET	20							
	965									
			25							
	960									
			30							
	955									
			35							
	950									
			40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-60  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/22/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 ETR=94% LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	960	3 inches of asphalt	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand- some silt and mica, trace clay; loose; brown-red (fill) (SM)		1		5-4-5	9	8	
	955	Sand-trace silt and mica; firm; brown-red (Residual)(SM))	5	2		6-5-7	12	3	No groundwater encountered at the time of drilling
	950	-orange-red, loose	10	3		4-4-5	9	10	
		BORING TERMINATED AT 12 FEET							
	945		15						
	940		20						
	935		25						
	930		30						
	925		35						
	920		40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-61  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/21/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		Top soil	0						Auto hammer with Energy Transfer Ratio= 94%
	935	Sand-some silt and clay, loose; brown (fill) (SM)		1					Hand auger to 3 feet
			5						
	930	Sand- trace silt; loose tan-brown; loose (Residual)(SM)		2		2-3-3	6	4	
		Sand-some silt, trace gravel and clay; loose brown (SM)		3		4-4-4	8	12	31.1
			10						
	925	BORING TERMINATED AT 12 FEET							LL= NV, PL= NP No groundwater encountered at the time of drilling
			15						
	920								
			20						
	915								
			25						
	910								
			30						
	905								
			35						
	900								
			40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-62  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	930		0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-some silt, trace mica; loose; red-brown (Fill) (SM)		1		2-3-4	7	12	
		- some clay and silt; firm							
	925		5	2		5-6-8	14	10	
									Groundwater encountered at 7 feet at time of drilling.
	920	Sand-some silt and clay, trace mica; firm; tan-brown(Residual) (SM)	10	3		5-7-9	16	12	
		- some mica; loose							
	915		15	4		3-5-5	10	10	
	910	BORING TERMINATED AT 18 FEET.	20						
	905		25						
	900		30						
	895		35						
	890		40						

Bottom of Pipe





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**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-63  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	910		0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-silty, trace clay and organics, some mica; loose; tan-brown (Fill) (SM)		1		2-2-3	5	14	
		- some silt							
	905		5	2		3-3-2	5	12	
	900	Clay-some silt; tan-gray; firm ; tan-brown(Residual)(CH)	10	3		3-3-3	6	6	
	895	- some silt, trace mica; firm; tan-gray	15	4		4-6-7	13	7	Groundwater encountered at 12 feet at time of drilling.
	890	BORING TERMINATED AT 18 FEET.	20						
	885		25						
	880		30						
	875		35						
	870		40						

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-64  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	940	Sand silty, trace mica (Fill) (SM)	0	1					Auto hammer with Energy Transfer Ratio= 94%  Hand auger
	935	Sand-some silt and mica; firm; tan-gray (Residual)(SM)	5	2		7-7-8	15	10	
	930	- trace mica and clay; medium dense	10	3		10-11-18	29	8	
		BORING TERMINATED AT 12 FEET.							No groundwater encountered at time of drilling. Refusal at 12 feet, took offset.
			15						
	925								
			20						
	920								
			25						
	915								
			30						
	910								
			35						
	905								
			40						
	900								

Bottom of Pipe



**UNITED CONSULTING**  
 625 HOLCOMB BRIDGE ROAD  
 NORCROSS, GEORGIA 30071  
 (770)209-0029, FAX (770)582-2800

**BORING LOG**

CONTRACTED WITH: FREESE & NICHOLS, INC. BORING NO.: B-65  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES						NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	W	
		ASPHALT	0							Auto hammer with Energy Transfer Ratio= 94%  Took offset after 3.5 feet hitting hard base
	975	Sand-some silt; brown (Fill)(SM)		1						
		Sand-some silt, trace mica; loose (Residual) (SM)	5	2		3-3-4	7	8	17.4	
	970	AUGER REFUSAL AT 6 FEET.								
			10							
	965									
			15							
	960									
			20							
	955									
			25							
	950									
			30							
	945									
			35							
	940									
			40							
	935									

Bottom  
of  
Pipe



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 (770)209-0029, FAX (770)582-2800

## BORING LOG

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-66  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES	
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.		W
			0							Auto hammer with Energy Transfer Ratio= 94%  (Hand Auger)
	985	Sand-silty, some clay (Fill) (SM)		1						
		Sand- some clay and silt; loose; tan-brown (Residual) (SC)	5	2		3-4-5	9	14		
	980									
		- trace silt; loose								
			10	3		3-5-5	10	10		
	975									
		- trace mica; medium dense								
			15	4		15-13-12	25	18		
	970									
		BORING TERMINATED AT 18 FEET.	20							No groundwater encountered at time of drilling.
	965									
			25							
	960									
			30							
	955									
			35							
	950									
			40							

Bottom of Pipe



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**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-66A  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
			0						Auto hammer with Energy Transfer Ratio= 94%
	960	Partially weathered rock sampled as Sand-silty, trace mica; very dense; brown (SM) (Residual)		1		5-50/0	50/0	6	
		Sand- trace clay; very dense; tan-gray (Residual) (SM)	5	2		17-18-35	53	8	LL= NV, PL= NP
	955								
		-silty, trace mica; firm(SM)							
			10	3		7-7-10	17	10	13.9
	950								Groundwater encountered at 12 feet at time of drilling.
		- trace silt; dense							
		BORING TERMINATED AT 14 FEET.	15	4		9-21-24	45	8	
	945								
			20						
	940								
			25						
	935								
			30						
	930								
			35						
	925								
			40						

Bottom of Pipe



**UNITED CONSULTING**  
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 (770)209-0029, FAX (770)582-2800

**BORING LOG**

CONTRACTED WITH: FRESE & NICHOLS, INC. BORING NO.: B-67  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 11/20/19  
 JOB NO.: FRENI19GA0385201 DRILLER: JOHN RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		TOPSOIL	0						Auto hammer with Energy Transfer Ratio= 94%
	975	Sand, trace silt and mica; firm; brown-red (Fill)(SM)		1		4-5-6	11	14	
		Sand- trace silt; loose; tan-brown (Residual)(SM)	5	2		4-4-6	10	10	
	970								Groundwater encountered at 9 feet at time of drilling.
		- some mica							
			▽ 10	3		3-3-4	7	12	
	965								
		BORING TERMINATED AT 14 FEET.	15	4		3-3-5	8	8	
	960								
			20						
	955								
			25						
	950								
			30						
	945								
			35						
	940								
			40						
	935								

Bottom of Pipe



**UNITED CONSULTING**  
 625 HOLCOMB BRIDGE ROAD  
 NORCROSS, GEORGIA 30071  
 (770)209-0029, FAX (770)582-2800

**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-68  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 12/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
		2 inch of Top soil	0						Auto hammer with Energy Transfer Ratio= 94% Hand auger to 3 feet
		Sand-some silt, trace mica, some organics;brown (Fill)(SM)		1					
	1020	sand-some-silt, trace-mica and organics; loose; brown, (Residual)(SM)	5	2		3-5-5	10	14	No groundwater encountered at the time of boring
		AUGER REFUSAL AT 7 FEET							
	1015		10						
	1010		15						
	1005		20						
	1000		25						
	995		30						
	990		35						
	985		40						

Bottom of Pipe



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 NORCROSS, GEORGIA 30071  
 (770)209-0029, FAX (770)582-2800

**BORING LOG**

CONTRACTED WITH: FREES & NICHOLS, INC. BORING NO.: B-69  
 PROJECT NAME: BLACKJACK SEWER REPLACEMENT DATE: 12/14/2019  
 JOB NO.: FRENI19GA0385201 DRILLER: John RIG: D-50 LOGGED BY: SC

USCS	ELEV.	DESCRIPTION	DEPTH in FEET	SAMPLES					NOTES
				NO.	TYPE	BLOWS/6"	N VALUE	RECOV.	
	1045	2 inch of Top soil	0						Auto hammer with Energy Transfer Ratio= 94%
		Sand-some-silt, trace-mica, brown, some-organics, loose (Fill)		1		3-3-4	7	10	
	1040	Sand-some-silt and mica, trace-organics and asphalt, brown-red, loose (Residual)	5	2		3-4-5	9	12	No grounwater encountered at the time of drilling
		AUGER REFUSAL AT 7 FEET							
	1035		10						
	1030		15						
	1025		20						
	1020		25						
	1015		30						
	1010		35						
	1005		40						

Bottom of Pipe



**Rock Core Photographs FREN1-19-GA-03852-1**

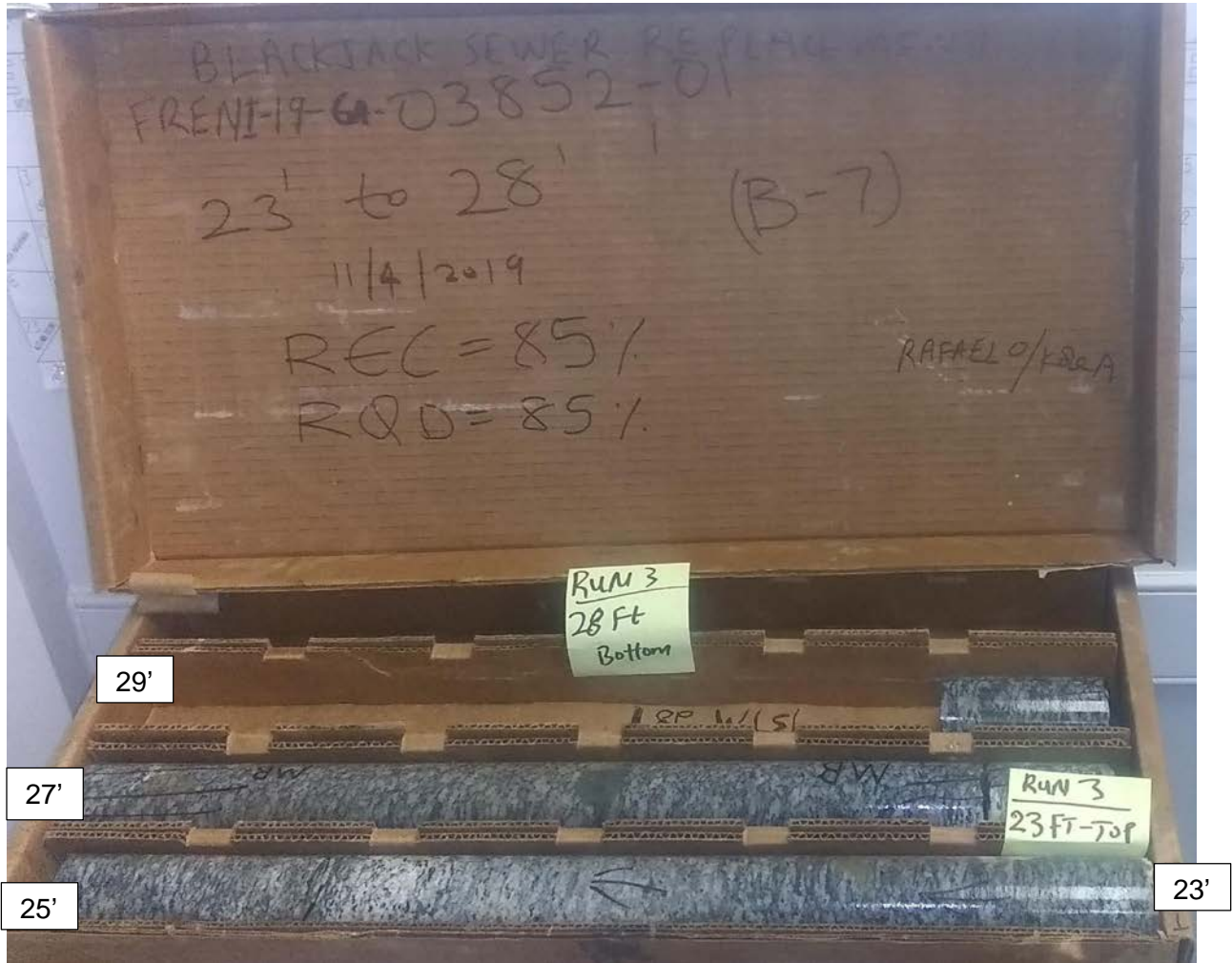
CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia



**Boring B-7**  
Run#1 13-18 ft - Rec =35% & RQD=30%  
Run#2 18-23 ft, Rec =0% & RQD=0%

**Rock Core Photographs FREN1-19-GA-03852-1**

CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia

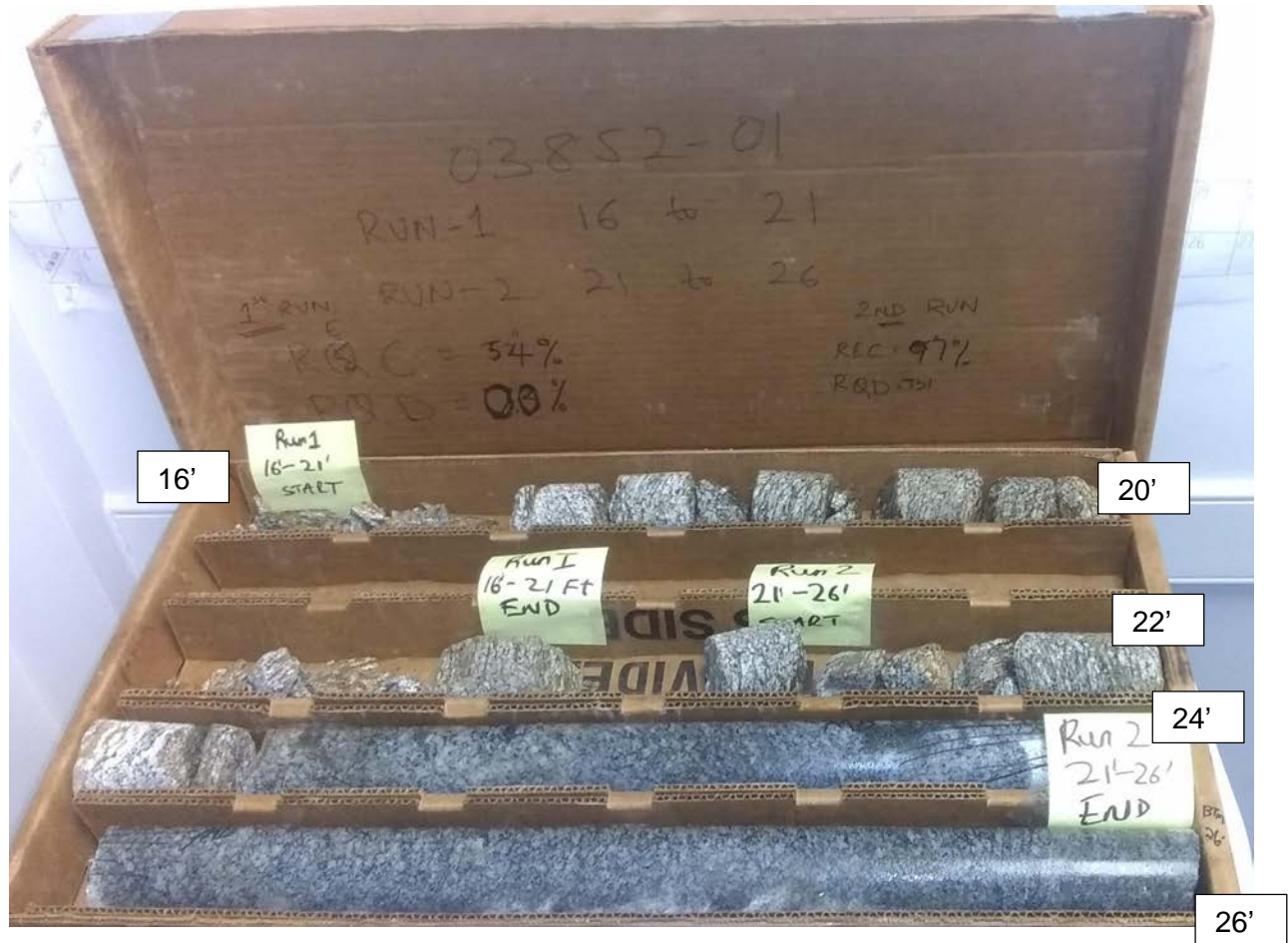


**Boring B-7**

Run#3 23-28 ft - Rec =85% & RQD=85%

**Rock Core Photographs FREN1-19-GA-03852-1**

CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia



**Boring B-8**  
Run#1 16-21 ft - Rec =54% & RQD=0%  
Run#2 21-26ft, Rec =97% & RQD=73%

**Rock Core Photographs FRENI-19-GA-03852-1**

CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia



**Boring B-8**

Run#3 26-31ft - Rec =100% & RQD=98%

Run#4 31-36ft, Rec =44% RQD=43%,



**Rock Core Photographs FREN1-19-GA-03852-1**

CCMWA Blackjack 36" Water Main Replacement Cobb County, Georgia



**Boring B-8**

Run#5 36-41 ft - Rec =26% & RQD=16%

**CCMWA Blackjack 36 inch Watermain Replacement  
SUMMARY OF SOIL DATA**

Sample Identification		Sample Type	Sample Depth	Soil Classification	AsR'cd Moisture %	Atterberg Limits				Grain Size Distribution			Compaction		Gs	Organic Content %	Unit Weight		Per meability (cm/sec)	Additional Tests Conducted (See Notes)	
Borehole Number	Sample ID					L.L.	P.L.	P.I.	L.I.	% Finer No. 4 Sieve	% Finer No. 200 Sieve	% Finer .005 mm	Maximum Dry Density (lb/cuft)	Optimum Moisture %			Moisture %	Dry (lb/cuft)			
B-1	3	Bag	8.5-10	CH	20.4	52	29	23	-0.37	100.0	54.8	-	-	-	-	-	-	-	-	-	
B-2	2	Bag	3.5-5	(SM)	10.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-3	5	Bag	18.5-20	SM	9.2	-	-	-	-	100.0	20.5	-	-	-	-	-	-	-	-	-	-
B-4	4	Bag	13.5-15	SM	5.8	NV	NP	NP	-	100.0	18.8	-	-	-	-	-	-	-	-	-	-
B-6	2	Bag	3.5-5	(ML)	29.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-7	3	Bag	8.5-10	GP-GM	5.6	NV	NP	NP	-	54.2	11.9	-	-	-	-	-	-	-	-	-	-
B-8	4	Bag	13.5-15	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-10	2	Bag	3.5-5	(SM)	23.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-12	3	Bag	8.5-10	SM	25.5	NV	NP	NP	-	100.0	24	-	-	-	-	-	-	-	-	-	-
B-13	2	Bag	3.5-5	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-14	2	Bag	3.5-5	(SM)	10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-14	3	Bag	8.5-10	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-15	3	Bag	8.5-10	SM	19.9	NV	NP	NP	-	100.0	18.2	-	-	-	-	-	-	-	-	-	-
B-16	4	Bag	13.5-15	SM	21.2	64	48	16	-1.68	100.0	49.2	-	-	-	-	-	-	-	-	-	-
B-17	3	Bag	8.5-10	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-18	2	Bag	3.5-5	(SM)	24.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-20	2	Bag	3.5-5	(SM)	32.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-21	4	Bag	13.5-15	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-22	5	Bag	18.5-20	SM	30.6	NV	NP	NP	-	95.4	32	-	-	-	-	-	-	-	-	-	P, R

**ABBREVIATIONS:** LIQUID LIMIT (LL)  
 PLASTIC LIMIT (PL)  
 PLASTICITY INDEX (PI)  
 LIQUIDITY INDEX (LI)  
 SPECIFIC GRAVITY (Gs)  
 MOISTURE (Mc)  
 NP - NO PLASTICITY  
 NV - NO VALUE

**NOTES:** T = TRIAXIAL TEST  
 U = UNCONFINED COMPRESSION TEST  
 C = CONSOLIDATION TEST  
 DS= DIRECT SHEAR TEST  
 O = ORGANIC CONTENT  
 P = pH  
 R = Resistivity  
 Vc = Volume/shrinkage change

**CCMWA Blackjack 36 inch Watermain Replacement  
SUMMARY OF SOIL DATA**

Sample Identification		Sample Type	Sample Depth	Soil Classification	As R'cd Moisture %	Atterberg Limits				Grain Size Distribution			Compaction		Gs	Organic Content %	Unit Weight		Per meability (cm/sec)	Additional Tests Conducted (See Notes)
Borehole Number	Sample ID					L.L.	P.L.	P.I.	L.I.	% Finer No. 4 Sieve	% Finer No. 200 Sieve	% Finer .005 mm	Maximum Dry Density (lb/cuft)	Optimum Moisture %			Moisture %	Dry (lb/cuft)		
B-26	3	Bag	8.5-10	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-27	6	Bag	23.5-25	SM	22.1	NV	NP	NP	-	100.0	42.4	-	-	-	-	-	-	-	-	-
B-29	2	Bag	3.5-5	(SM)	20.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA-31	2	Bag	4.5-5	(SM)	20.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-32	3	Bag	8.5-10	SM	6.3	NV	NP	NP	-	100.0	17.0	-	-	-	-	-	-	-	-	-
B-33	3	Bag	8.5-10	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-34	2	Bag	3.5-5	(SM)	27.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-36	2	Bag	3.5-5	(SM)	16.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-37	3	Bag	8.5-10	SM	13.6	54	40	14	-1.89	100.0	46.1	-	-	-	-	-	-	-	-	-
B-39	2	Bag	3.5-5	(SC)	13.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-38	3	Bag	8.5-10	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-41	2	Bag	3.5-5	(SM)	34.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-41	3	Bag	8.5-10	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-42	3	Bag	8.5-10	SM	25.2	51	41	10	-1.58	100.0	36.6	-	-	-	-	-	-	-	-	-
HA-43	3	Bag	4.5-5	(SM)	14.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA-44A	3	Bag	6	MH	23.1	55	37	18	-0.77	100.0	58.4	-	-	-	-	-	-	-	-	-
B-45	2	Bag	3.5-5	(SM)	29.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-45	4	Bag	13.5-15	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R

**ABBREVIATIONS:** LIQUID LIMIT (LL)  
 PLASTIC LIMIT (PL)  
 PLASTICITY INDEX (PI)  
 LIQUIDITY INDEX (LI)  
 SPECIFIC GRAVITY (Gs)  
 MOISTURE (Mc)  
 NP - NO PLASTICITY  
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**NOTES:** T = TRIAXIAL TEST  
 U = UNCONFINED COMPRESSION TEST  
 C = CONSOLIDATION TEST  
 DS = DIRECT SHEAR TEST  
 O = ORGANIC CONTENT  
 P = pH  
 R = Resistivity  
 Vc = Volume/shrinkage change

**CCMWA Blackjack 36 inch Watermain Replacement  
SUMMARY OF SOIL DATA**

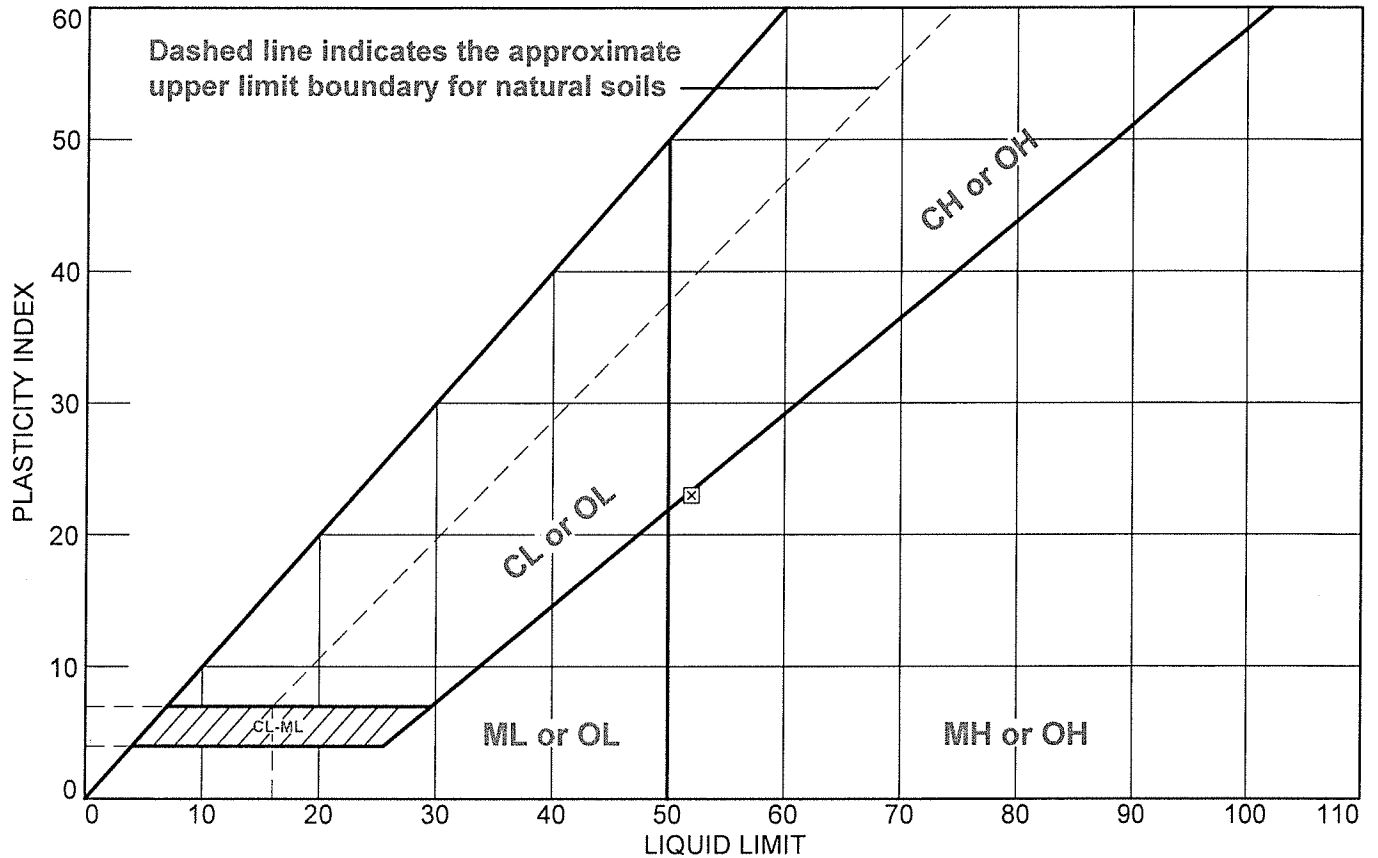
Sample Identification		Sample Type	Sample Depth	Soil Classification	AsR'cd Moisture %	Atterberg Limits				Grain Size Distribution			Compaction		Gs	Organic Content %	Unit Weight		Per meability (cm/sec)	Additional Tests Conducted (See Notes)
Borehole Number	Sample ID					L.L.	P.L.	P.I.	L.I.	% Finer No. 4 Sieve	% Finer No. 200 Sieve	% Finer .005 mm	Maximum Dry Density (lb/cuft)	Optimum Moisture %			Moisture %	Dry (lb/cuft)		
B-47	4	Bag	13.5-15	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
HA-47A	3	Bag	6	MH	24.3	61	34	27	-0.36	90.8	56.6	-	-	-	-	-	-	-	-	P, R
B-50	2	Bag	3.5-5	(SM)	20.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-52	3	Bag	8.5-10	SP-SM	30.4	NV	NP	NP	-	100.0	9.4	-	-	-	-	-	-	-	-	-
B-53	3	Bag	8.5-10	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-54	2	Bag	3.5-5	(SM)	25.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-56	3	Bag	8.5-10	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-57	4	Bag	13.5-15	SM	11.1	NV	NP	NP	-	100.0	31.2	-	-	-	-	-	-	-	-	-
B-59	2	Bag	3.5-5	(SM)	27.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-61	3	Bag	8.5-10	SM	36.0	NV	NP	NP	-	92.7	23.2	-	-	-	-	-	-	-	-	P, R
B-63	2	Bag	3.5-5	(SM)	23.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-65	2	Bag	3.5-5	(SM)	17.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-66	4	Bag	13.5-15	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R
B-66A	5	Bag	18.5-20	SM	35.2	NV	NP	NP	-	100-	18.6	-	-	-	-	-	-	-	-	-
B-67	4	Bag	13.5-15	(SM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P, R

**ABBREVIATIONS:** LIQUID LIMIT (LL)  
 PLASTIC LIMIT (PL)  
 PLASTICITY INDEX (PI)  
 LIQUIDITY INDEX (LI)  
 SPECIFIC GRAVITY (Gs)  
 MOISTURE (Mc)  
 NP - NO PLASTICITY  
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**NOTES:** T = TRIAXIAL TEST  
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 C = CONSOLIDATION TEST  
 DS= DIRECT SHEAR TEST  
 O = ORGANIC CONTENT  
 P = pH  
 R = Resistivity  
 Vc = Volume/shrinkage change



# LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA									
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LIQUIDITY INDEX	USCS
●		B-15	8.5-10 ft	3.8	NP	NV	NP		SM
■		B-12	8.5-10 ft	9.1	NP	NV	NP		SM
▲		B-66A	8.5-10 ft	13.9	NP	NV	NP		SM
◆		B-7	8.5-10 ft	5.6	NP	NV	NP		GP-GM
▼		B-57	13.5-15 ft	11.1	NP	NV	NP		SM
*		B-32	8.5-10 ft	6.3	NP	NV	NP		SM
⊕		B-61	8.5-10 ft	31.1	NP	NV	NP		SM
⊞		B-22	18.5-20 ft	30.6	NP	NV	NP		SM
⊗		B-27	23.5-25 ft	19.5	NP	NV	NP		SM
⊠		B-1	8.5-10 ft	20.4	29	52	23	-0.4	CH

**United Consulting**

**Norcross, Georgia**

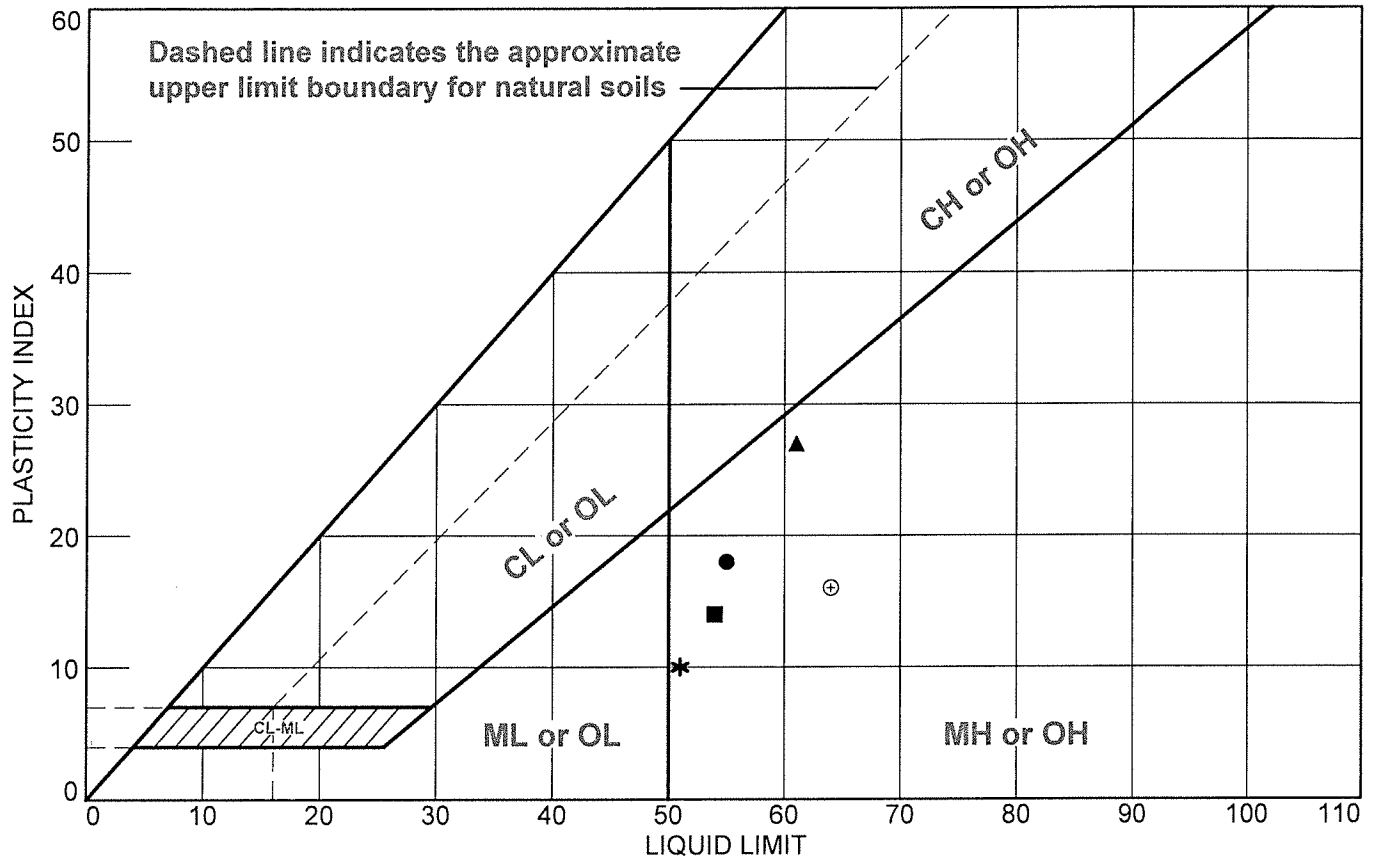
**Client:** Freese And Nichols, Inc.

**Project:** Blackjack Sewer Replacement

**Project No.:** FREN19GA0385201

**Figure**

# LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA									
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LIQUIDITY INDEX	USCS
●		HA44A	6 ft	23.1	37	55	18	-0.8	MH
■		B-37	8.5-10 ft	13.6	40	54	14	-1.9	SM
▲		HA47A	6 ft	24.3	34	61	27	-0.4	MH
◆		B-3	18.5-20 ft	9.2	NP	NV	NP		SM
▼		B-52	8.5-10 ft	30.4	NP	NV	NP		SP-SM
*		B-42	8.5-10 ft	25.2	41	51	10	-1.6	SM
⊕		B-16	13.5-15 ft	21.2	48	64	16	-1.7	SM
⊞		B-4	13.5-15 ft	5.8	NP	NV	NP		SM

**United Consulting**

**Norcross, Georgia**

**Client:** Freese And Nichols, Inc.

**Project:** Blackjack Sewer Replacement

**Project No.:** FREN19GA0385201

**Figure**

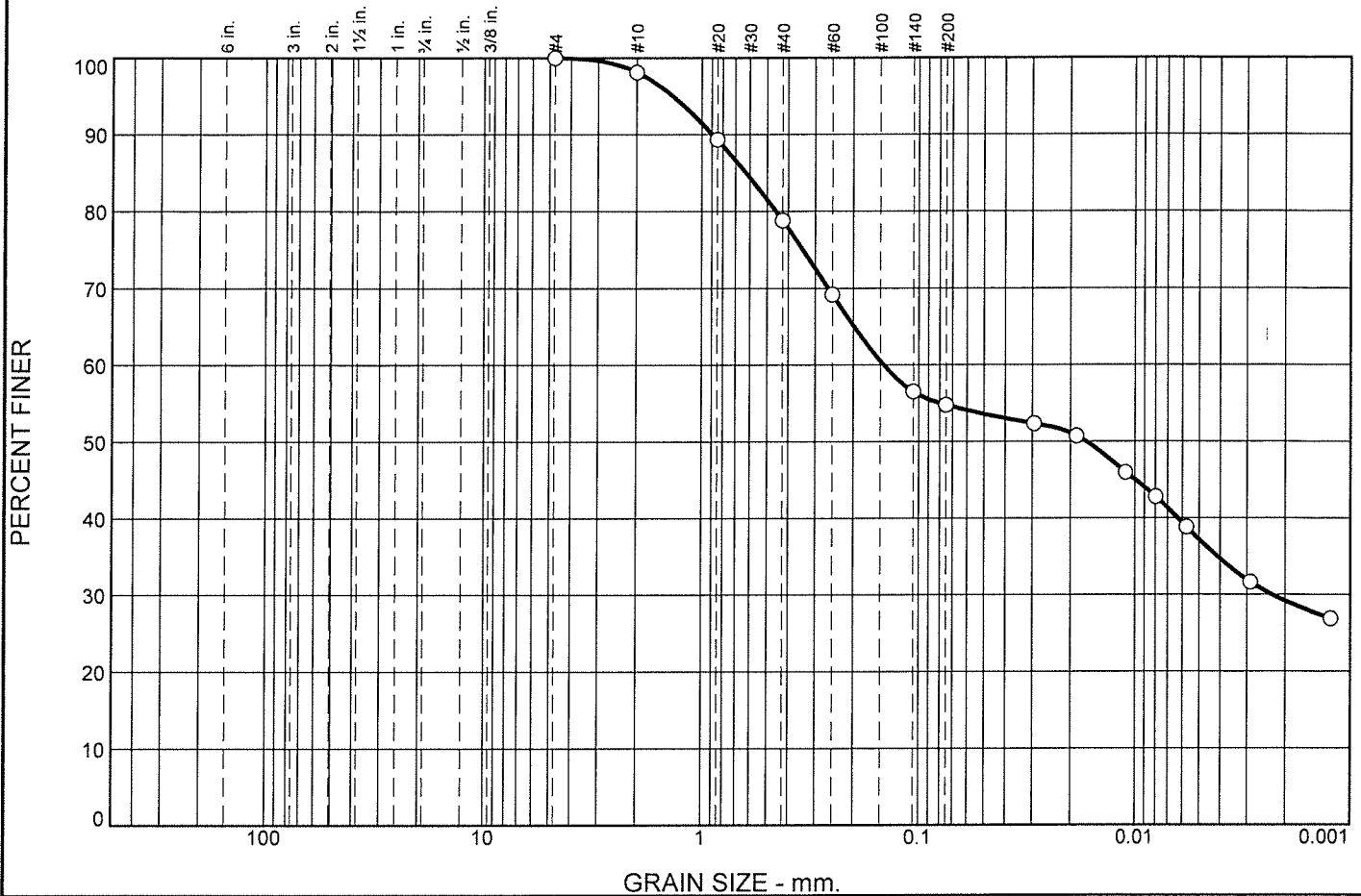
**Moisture Content**  
**ASTM D 2216 / AASHTO T-265 / UC SOP L4**  
**DATA SHEET**

**Project #:** FRENI19GA0385201  
**Project Name:** BlackJack Sewer Replacement  
**Received Date:** 12/2/2019

**Tested By:** HB  
**Date Tested:** 12/2/2019  
**Reviewed by:** MS  
**Revised date:** 12/17/2019

<b>BORING NO.</b>	<b>DEPTH (ft.)</b>	<b>Tare Weight (g)</b>	<b>Wet Sample and Tare (g)</b>	<b>Dry Sample and Tare (g)</b>	<b>Moisture Content (%)</b>
B-18	3.5-5'	22.79	100.46	85.28	<b>24.3</b>
B-29	3.5-5'	32.85	86.81	77.52	<b>20.8</b>
B-59	3.5-5'	27.12	71.32	61.92	<b>27.0</b>
B-39	3.5-5'	32.78	85.32	79.18	<b>13.2</b>
B-6	3.5-5'	32.73	67.60	59.62	<b>29.7</b>
B-24	3.5-5'	22.77	76.28	68.15	<b>17.9</b>
B-2	3.5-5'	22.27	107.30	99.05	<b>10.7</b>
B-14	3.5-5'	22.54	102.65	94.96	<b>10.6</b>
B-10	3.5-5'	22.58	132.90	112.01	<b>23.4</b>
B-65	3.5-5'	32.84	110.45	98.93	<b>17.4</b>
B-50	3.5-5'	33.12	148.27	128.34	<b>20.9</b>
HA-31	3.5-5'	33.11	155.59	134.91	<b>20.3</b>
B-45	3.5-5'	32.76	138.82	114.42	<b>29.9</b>
B-54	3.5-5'	33.03	80.45	70.71	<b>25.8</b>
B-41	3.5-5'	22.72	102.63	82.06	<b>34.7</b>
B-46	3.5-5'	22.82	105.70	92.53	<b>18.9</b>
B-20	3.5-5'	22.48	90.10	73.44	<b>32.7</b>
B-34	3.5-5'	32.95	113.82	96.21	<b>27.8</b>
B-36	3.5-5'	33.16	123.43	110.53	<b>16.7</b>
B-63	3.5-5'	33.11	136.83	117.24	<b>23.3</b>
HA-43	4.5-5	33.07	106.67	97.14	<b>14.9</b>

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	45.2	17.6	37.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	98.1		
#20	89.3		
#40	78.8		
#60	69.2		
#140	56.5		
#200	54.8		

**Material Description**

Clay-sandy, some silt, red brown

**Atterberg Limits**

PL= 29      LL= 52      PI= 23

**Coefficients**

D<sub>90</sub>= 0.8947      D<sub>85</sub>= 0.6263      D<sub>60</sub>= 0.1450  
D<sub>50</sub>= 0.0169      D<sub>30</sub>= 0.0023      D<sub>15</sub>=  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= CH              AASHTO= A-7-6(10)

**Remarks**

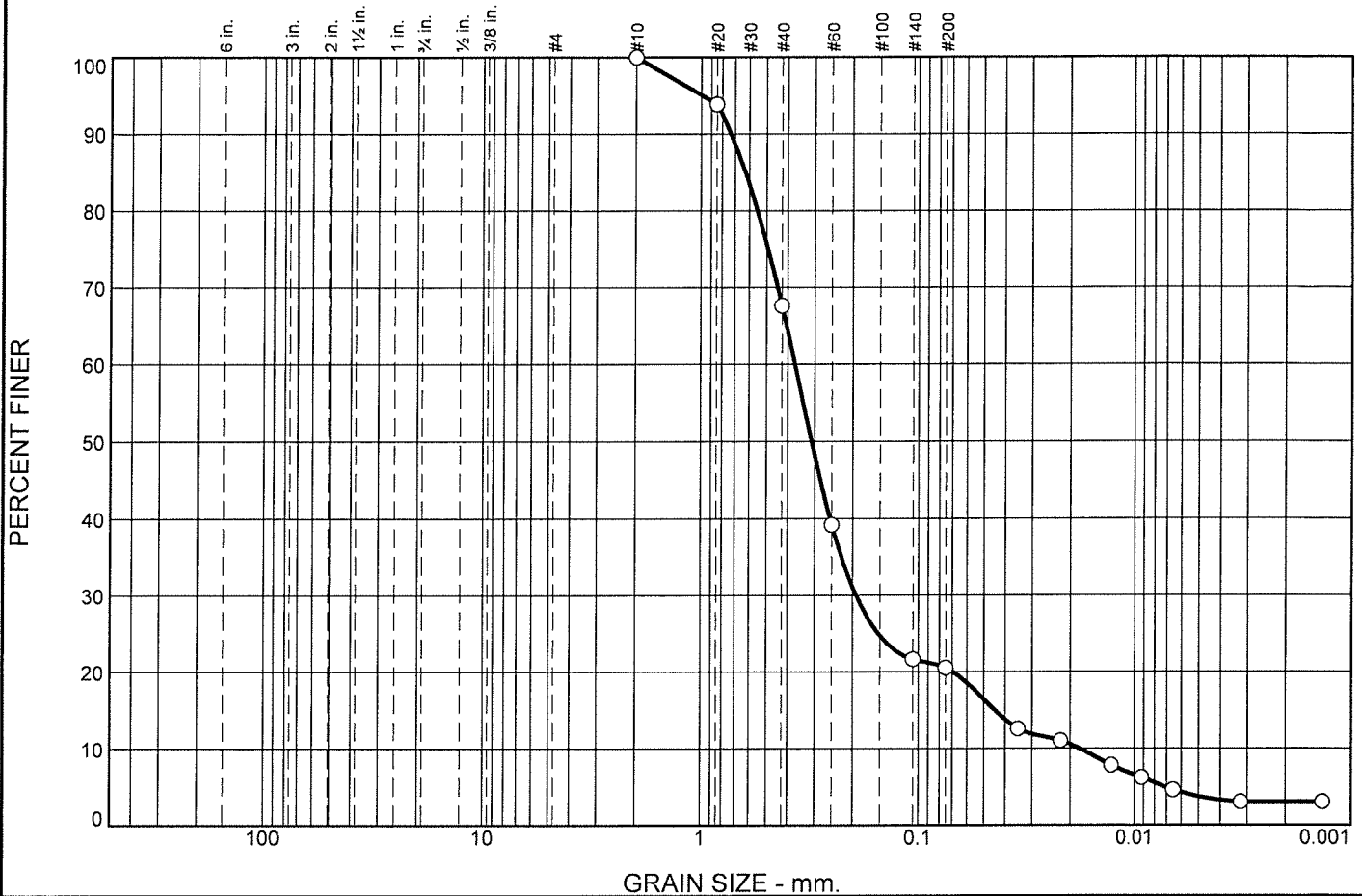
\* (no specification provided)

Sample Number: B-1      Depth: 8.5-10 ft

Date: 12/17/2019

<p style="text-align: center;"><b>United Consulting</b></p> <p style="text-align: center;"><b>Norcross, Georgia</b></p>	<p><b>Client:</b> Freese And Nichols, Inc.</p> <p><b>Project:</b> Blackjack Sewer Replacement</p> <p><b>Project No:</b> FRENI19GA0385201</p> <p style="text-align: right;"><b>Figure</b></p>
---	--

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	79.5	16.8	3.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	93.9		
#40	67.6		
#60	39.2		
#140	21.6		
#200	20.5		

**Material Description**

Sand, some silt, trace clay, red brown

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D <sub>90</sub> = 0.7296	D <sub>85</sub> = 0.6263	D <sub>60</sub> = 0.3700
D <sub>50</sub> = 0.3097	D <sub>30</sub> = 0.1931	D <sub>15</sub> = 0.0446
D <sub>10</sub> = 0.0182	C <sub>u</sub> = 20.29	C <sub>c</sub> = 5.53

**Classification**

USCS= SM      AASHTO= A-2-4(0)

**Remarks**

\* (no specification provided)

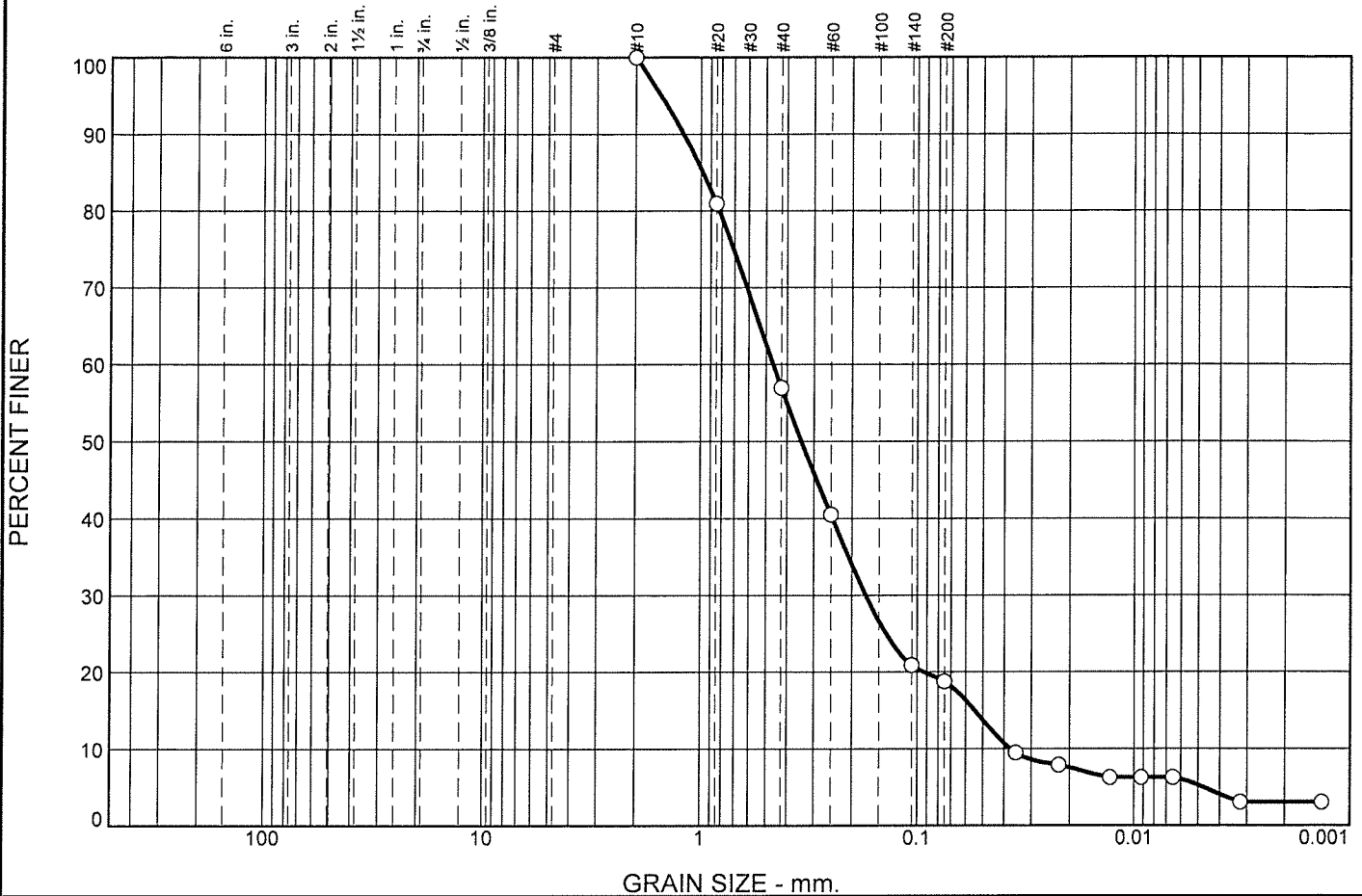
Location: SA-5      Sample Number: B-3      Depth: 18.5-20 ft      Date: 12/17/2019

United Consulting

Norcross, Georgia

Client: Freese And Nichols, Inc.  
 Project: Blackjack Sewer Replacement  
 Project No: FREN19GA0385201      Figure

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	81.2	13.5	5.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	81.0		
#40	57.0		
#60	40.5		
#140	20.9		
#200	18.8		

**Material Description**

Sand, some silt, trace clay, light gray

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 1.2029      D<sub>85</sub>= 0.9799      D<sub>60</sub>= 0.4639  
D<sub>50</sub>= 0.3429      D<sub>30</sub>= 0.1726      D<sub>15</sub>= 0.0545  
D<sub>10</sub>= 0.0374      C<sub>u</sub>= 12.39      C<sub>c</sub>= 1.71

**Classification**

USCS= SM      AASHTO= A-2-4(0)

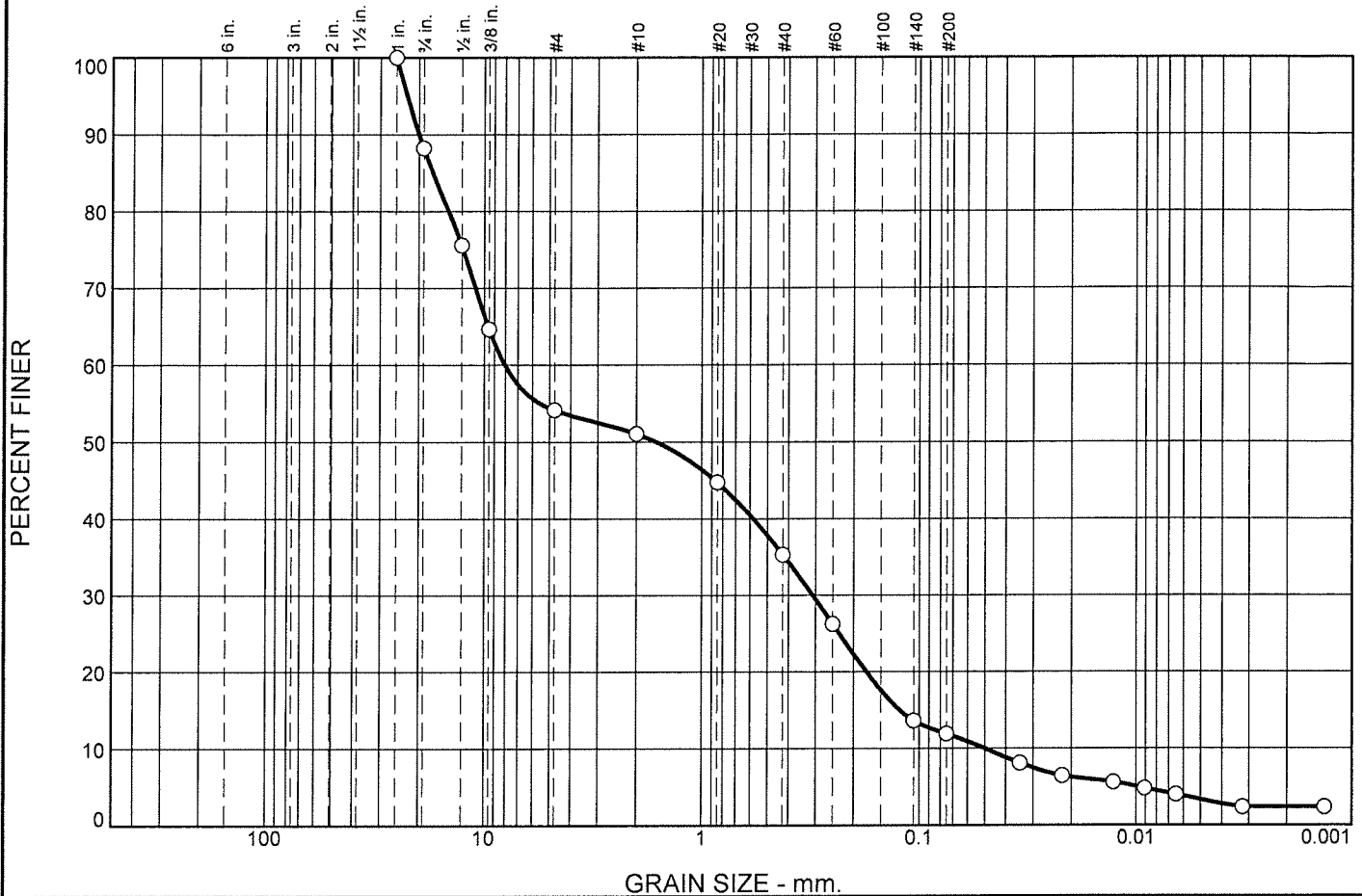
**Remarks**

\* (no specification provided)

Location: SA-4      Sample Number: B-4      Depth: 13.5-15 ft      Date: 12/10/2019

<p style="text-align: center; font-weight: bold; font-size: 1.2em;">United Consulting</p> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">Norcross, Georgia</p>	<p>Client: Freese And Nichols, Inc.</p> <p>Project: Blackjack Sewer Replacement</p> <p>Project No: FREN19GA0385201</p> <p style="text-align: right;">Figure</p>
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# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	45.8	42.3	8.6	3.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
0.75	88.2		
0.5	75.6		
0.375	64.7		
#4	54.2		
#10	51.1		
#20	44.7		
#40	35.3		
#60	26.3		
#140	13.6		
#200	11.9		

**Material Description**

Gravel-sandy, trace silt and clay, dark gray

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 19.9896      D<sub>85</sub>= 17.2434      D<sub>60</sub>= 8.0487  
D<sub>50</sub>= 1.6146      D<sub>30</sub>= 0.3089      D<sub>15</sub>= 0.1224  
D<sub>10</sub>= 0.0503      C<sub>u</sub>= 160.03      C<sub>c</sub>= 0.24

**Classification**

USCS= GP-GM      AASHTO= A-1-b

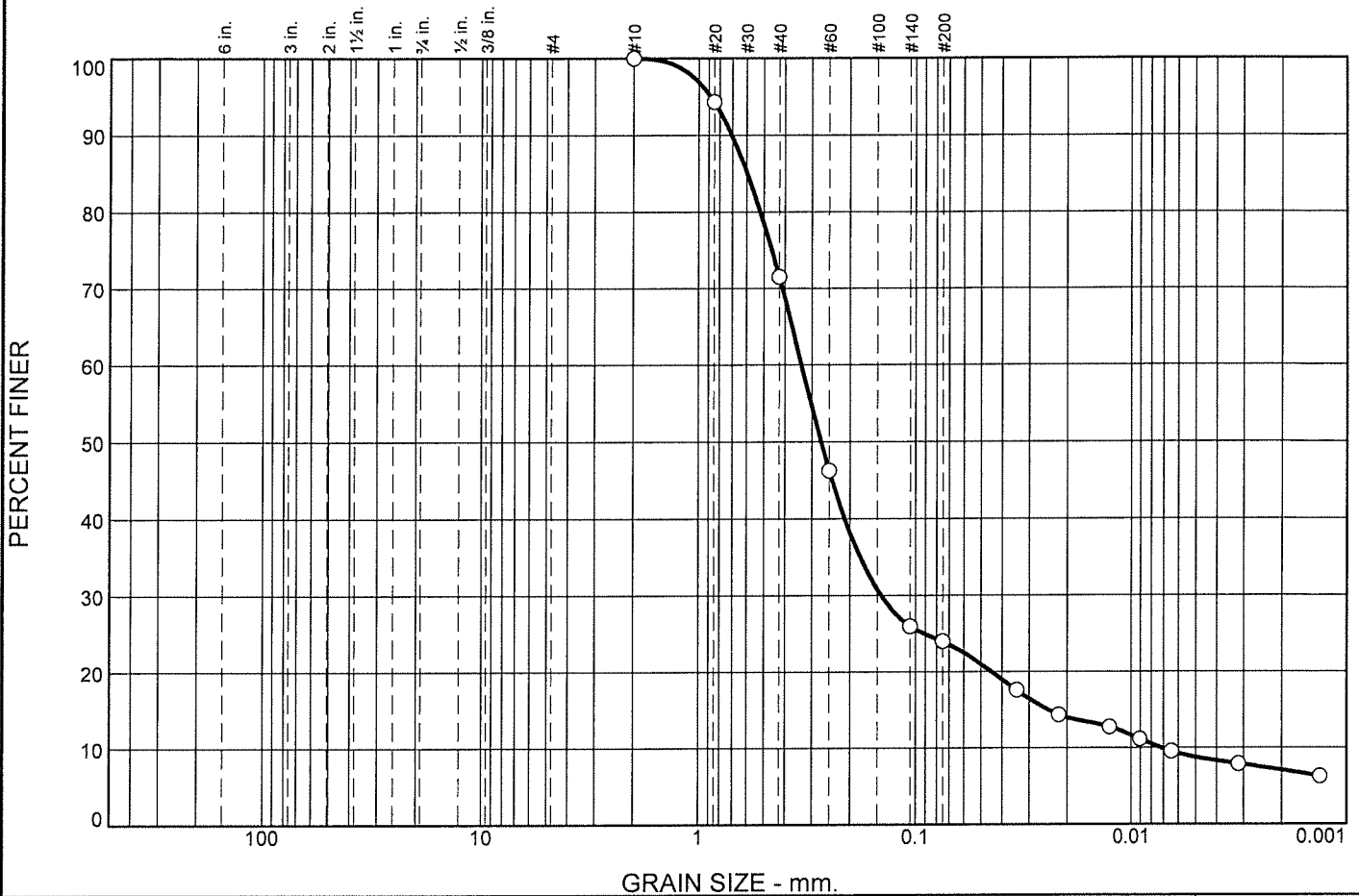
**Remarks**

\* (no specification provided)

Location: SA-3      Sample Number: B-7      Depth: 8.5-10 ft      Date: 12/10/2019

<p style="text-align: center; font-weight: bold; font-size: 1.2em;">United Consulting</p> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">Norcross, Georgia</p>	<p>Client: Freese And Nichols, Inc.</p> <p>Project: Blackjack Sewer Replacement</p> <p>Project No: FRENI19GA0385201</p> <p style="text-align: right;">Figure</p>
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# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	76.0	15.3	8.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	94.3		
#40	71.5		
#60	46.3		
#140	26.0		
#200	24.0		

**Material Description**

Sand, some silt, trace clay, yellow tan

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 0.7036      D<sub>85</sub>= 0.5963      D<sub>60</sub>= 0.3350  
D<sub>50</sub>= 0.2722      D<sub>30</sub>= 0.1439      D<sub>15</sub>= 0.0246  
D<sub>10</sub>= 0.0072      C<sub>u</sub>= 46.49      C<sub>c</sub>= 8.58

**Classification**

USCS= SM      AASHTO= A-2-4(0)

**Remarks**

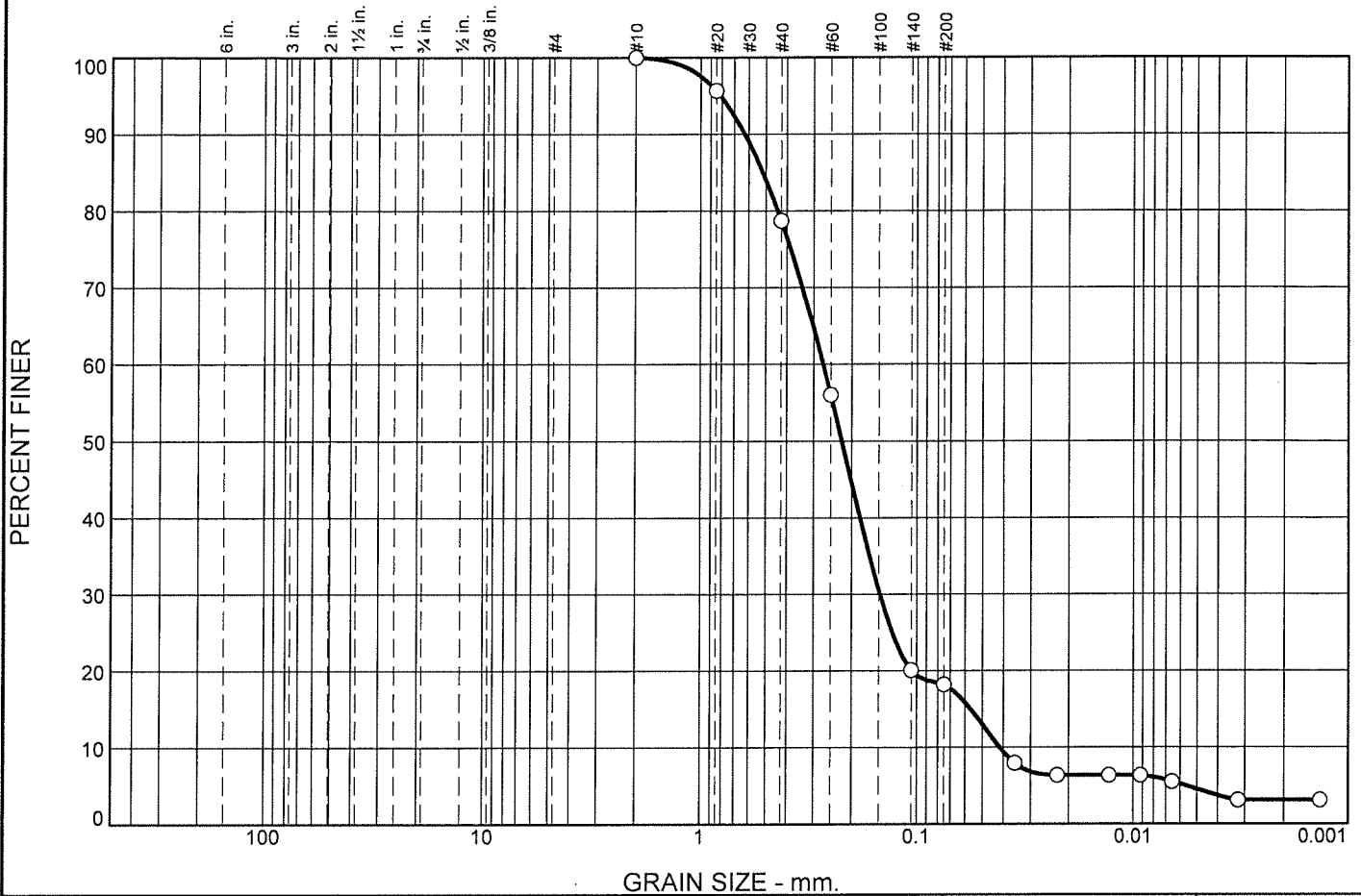
\* (no specification provided)

Location: SA-3      Sample Number: B-12      Depth: 8.5-10 ft      Date: 12/10/2019

<p style="text-align: center; font-weight: bold; font-size: 1.2em;">United Consulting</p> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">Norcross, Georgia</p>	<p>Client: Freese And Nichols, Inc.</p> <p>Project: Blackjack Sewer Replacement</p> <p>Project No: FRENI19GA0385201</p> <p style="text-align: right;">Figure</p>
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# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	81.8	13.7	4.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	95.6		
#40	78.7		
#60	56.0		
#140	20.1		
#200	18.2		

\* (no specification provided)

**Material Description**

Sand, some silt, trace clay, light orange tan

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 0.6261      D<sub>85</sub>= 0.5169      D<sub>60</sub>= 0.2712  
D<sub>50</sub>= 0.2222      D<sub>30</sub>= 0.1479      D<sub>15</sub>= 0.0566  
D<sub>10</sub>= 0.0417      C<sub>u</sub>= 6.50      C<sub>c</sub>= 1.93

**Classification**

USCS= SM      AASHTO= A-2-4(0)

**Remarks**

Location: SA-3      Sample Number: B-15      Depth: 8.5-10 ft      Date: 12/10/2019

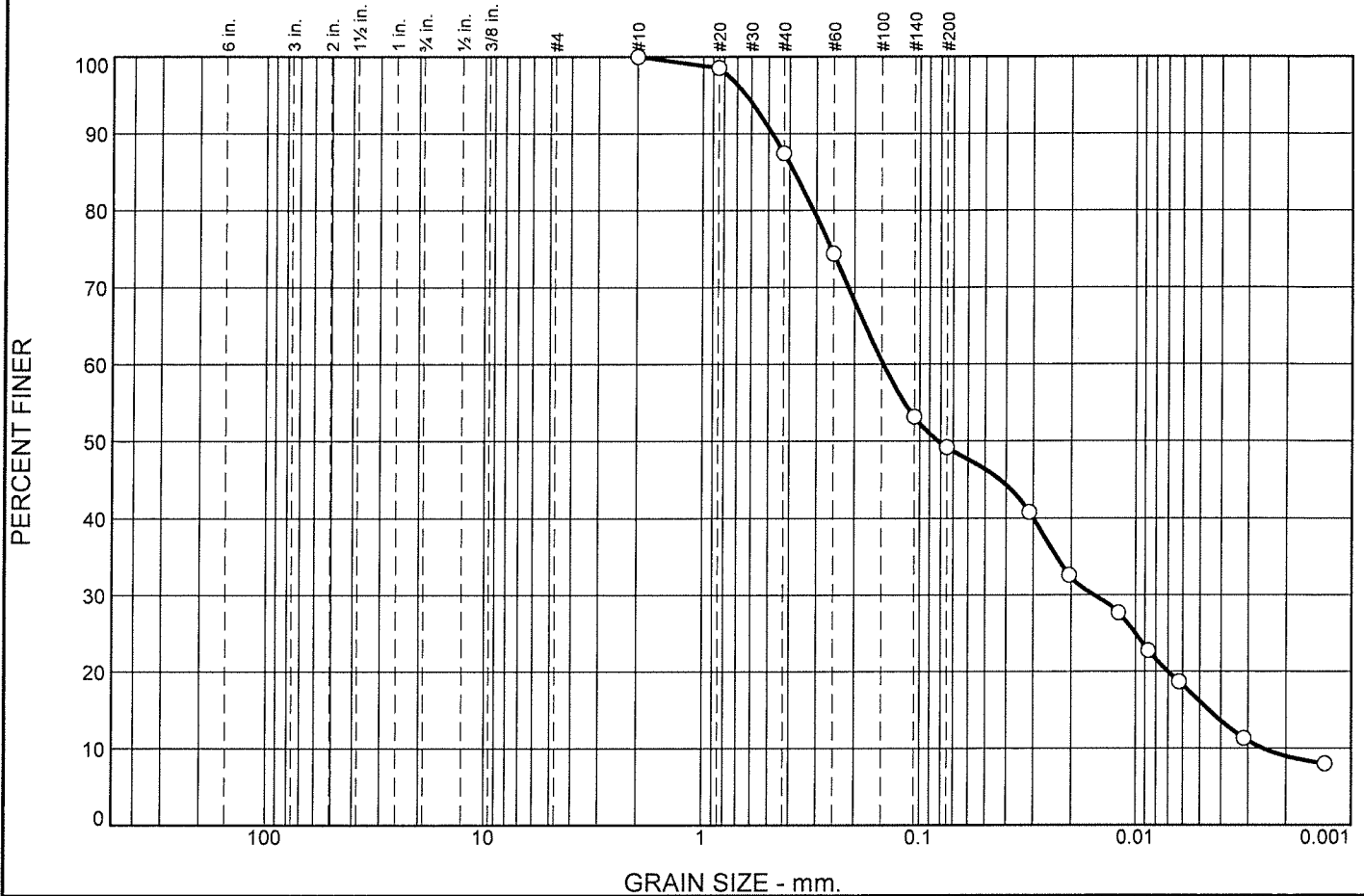
United Consulting

Norcross, Georgia

Client: Freese And Nichols, Inc.  
Project: Blackjack Sewer Replacement

Project No: FREN19GA0385201      Figure

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	50.8	33.1	16.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	98.5		
#40	87.4		
#60	74.4		
#140	53.2		
#200	49.2		

**Material Description**

Sand, some silt and clay, light red brown

**Atterberg Limits**

PL= 48      LL= 64      PI= 16

**Coefficients**

D <sub>90</sub> = 0.4806	D <sub>85</sub> = 0.3812	D <sub>60</sub> = 0.1471
D <sub>50</sub> = 0.0822	D <sub>30</sub> = 0.0158	D <sub>15</sub> = 0.0046
D <sub>10</sub> = 0.0026	C <sub>u</sub> = 57.22	C <sub>c</sub> = 0.66

**Classification**

USCS= SM      AASHTO= A-7-5(7)

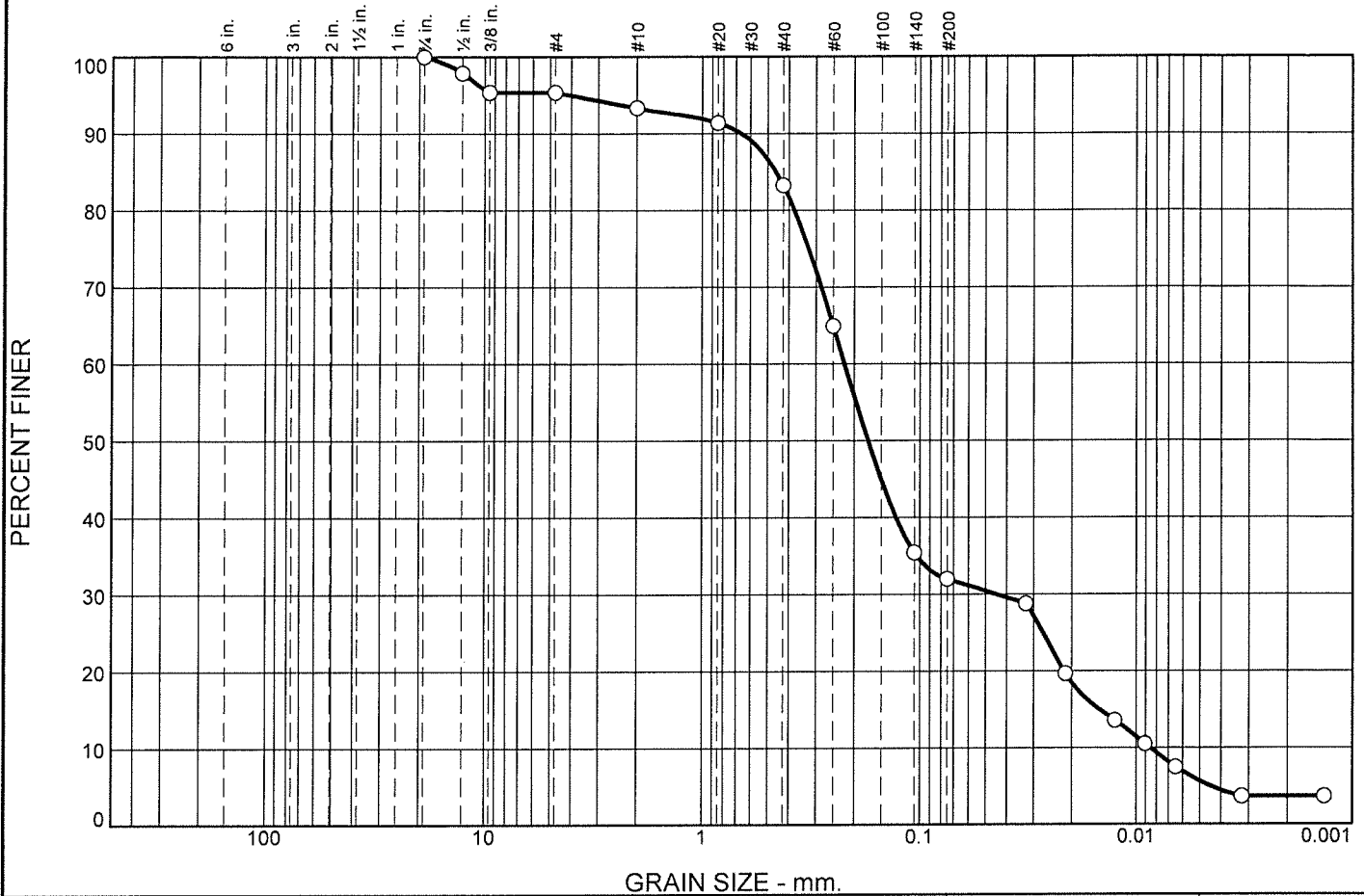
**Remarks**

\* (no specification provided)

Location: SA-4      Sample Number: B-16      Depth: 13.5-15 ft      Date: 12/10/2019

<p style="text-align: center; font-weight: bold; font-size: 1.2em;">United Consulting</p> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">Norcross, Georgia</p>	<p>Client: Freese And Nichols, Inc.</p> <p>Project: Blackjack Sewer Replacement</p> <p>Project No: FRENI19GA0385201</p> <p style="text-align: right;">Figure</p>
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# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	4.6	63.4	26.4	5.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75	100.0		
0.5	97.9		
0.375	95.4		
#4	95.4		
#10	93.4		
#20	91.4		
#40	83.3		
#60	64.9		
#140	35.4		
#200	32.0		

**Material Description**

Sand, some silt, trace clay and gravel, red brown

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 0.6589      D<sub>85</sub>= 0.4585      D<sub>60</sub>= 0.2217  
D<sub>50</sub>= 0.1726      D<sub>30</sub>= 0.0444      D<sub>15</sub>= 0.0150  
D<sub>10</sub>= 0.0086      C<sub>u</sub>= 25.86      C<sub>c</sub>= 1.04

**Classification**

USCS= SM      AASHTO= A-2-4(0)

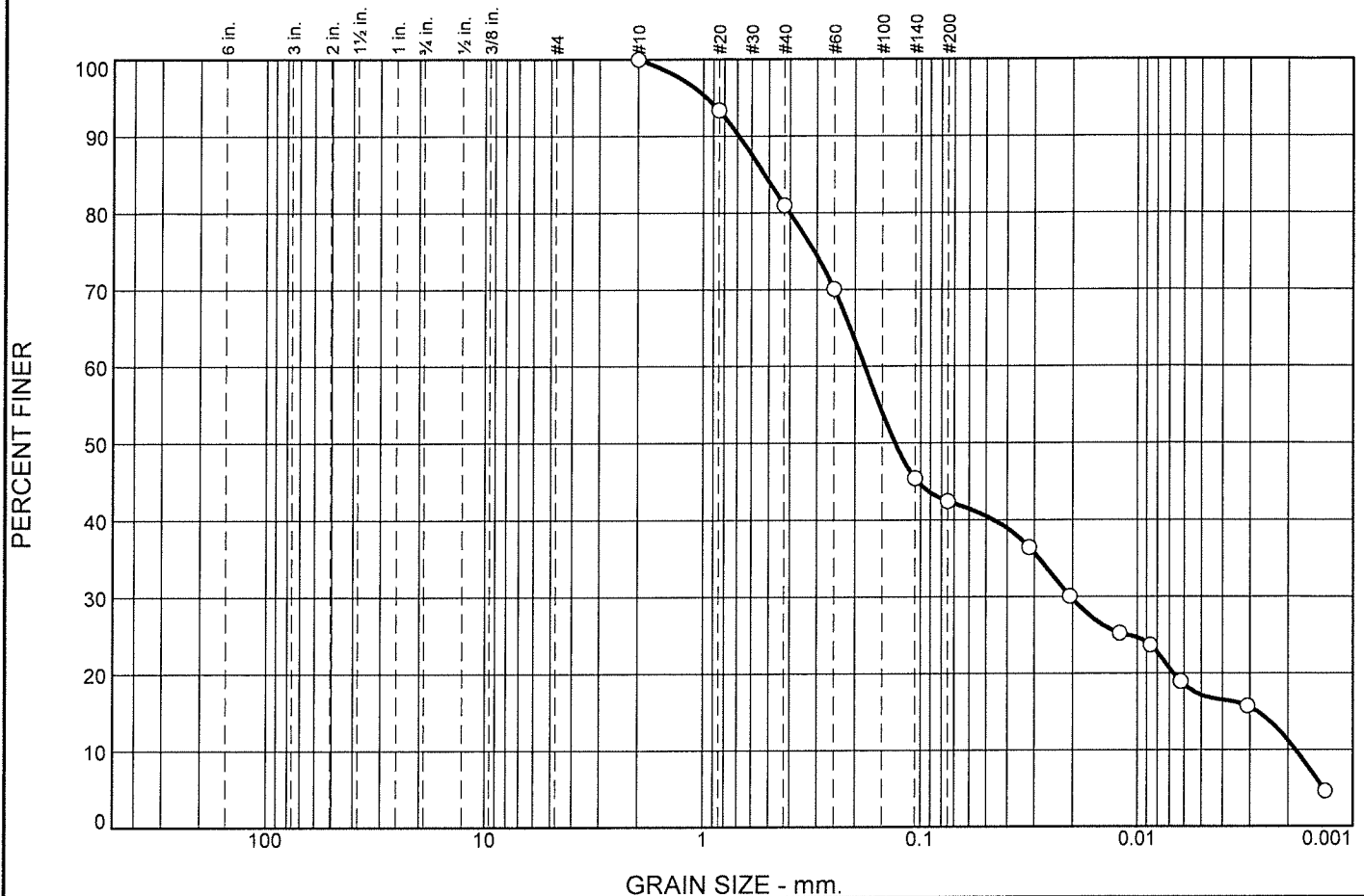
**Remarks**

\* (no specification provided)

Location: SA-5      Sample Number: B-22      Depth: 18.5-20 ft      Date: 12/10/2019

<b>United Consulting</b>  <b>Norcross, Georgia</b>	<b>Client:</b> Freese And Nichols, Inc. <b>Project:</b> Blackjack Sewer Replacement  <b>Project No:</b> FRENI19GA0385201 <b>Figure</b>
--	---

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	57.6	25.2	17.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	93.4		
#40	81.0		
#60	70.1		
#140	45.4		
#200	42.4		

**Material Description**

Sand, some silt and clay, light red brown

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D <sub>90</sub> = 0.6868	D <sub>85</sub> = 0.5244	D <sub>60</sub> = 0.1807
D <sub>50</sub> = 0.1309	D <sub>30</sub> = 0.0205	D <sub>15</sub> = 0.0028
D <sub>10</sub> = 0.0018	C <sub>u</sub> = 97.84	C <sub>c</sub> = 1.26

**Classification**

USCS= SM      AASHTO= A-4(0)

**Remarks**

\* (no specification provided)

Sample Number: B-27

Depth: 23.5-25 ft

Date: 12/10/2019

**United Consulting**

**Norcross, Georgia**

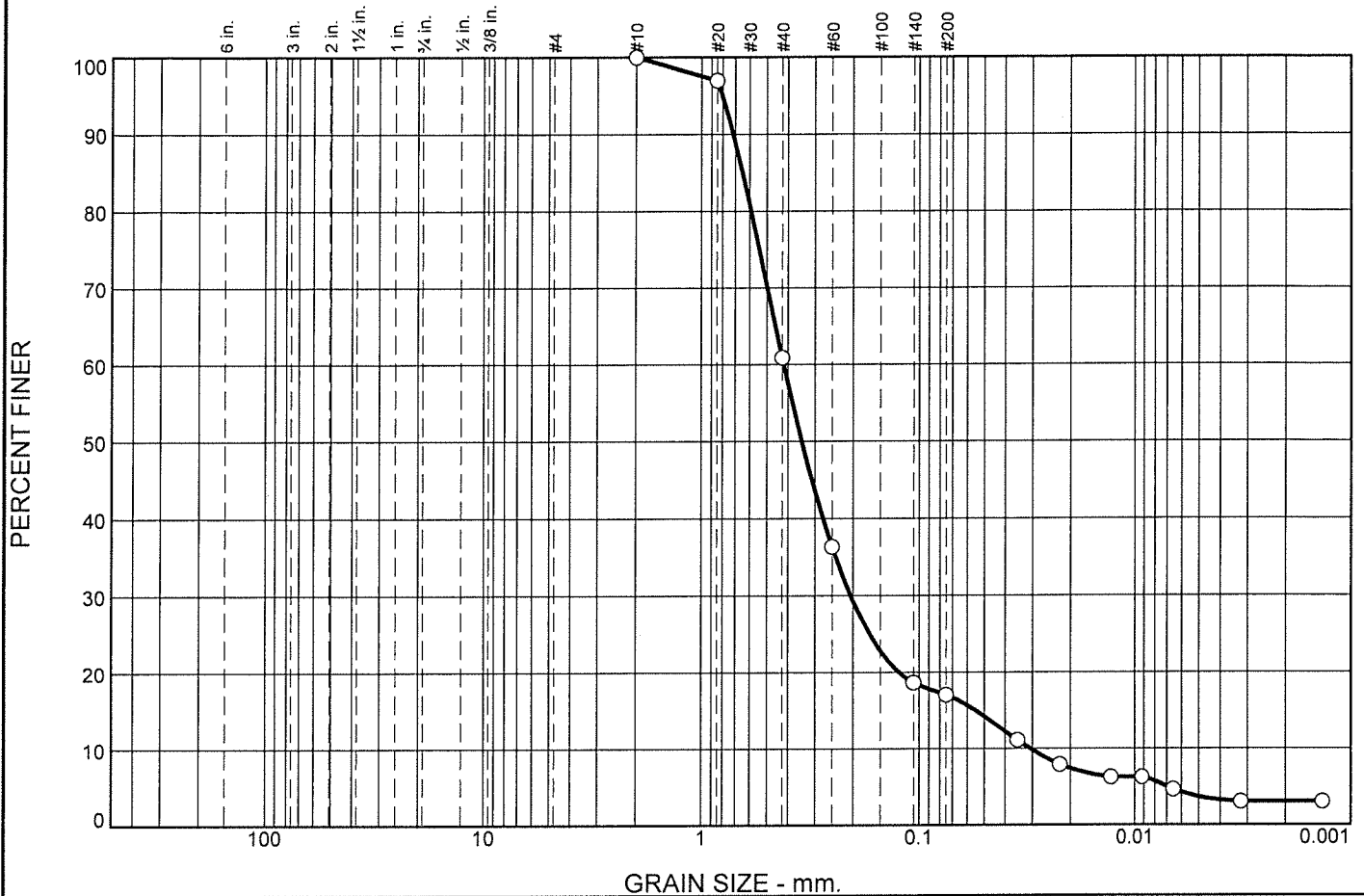
Client: Freese And Nichols, Inc.

Project: Blackjack Sewer Replacement

Project No: FREN19GA0385201

Figure

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt
0.0	0.0	83.0	13.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	97.0		
#40	60.9		
#60	36.3		
#140	18.7		
#200	17.0		

**Material Description**

Sand, some silt, trace clay, brown

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 0.7149      D<sub>85</sub>= 0.6472      D<sub>60</sub>= 0.4183  
 D<sub>50</sub>= 0.3451      D<sub>30</sub>= 0.2053      D<sub>15</sub>= 0.0550  
 D<sub>10</sub>= 0.0307      C<sub>u</sub>= 13.64      C<sub>c</sub>= 3.29

**Classification**

USCS= SM      AASHTO= A-2-4(0)

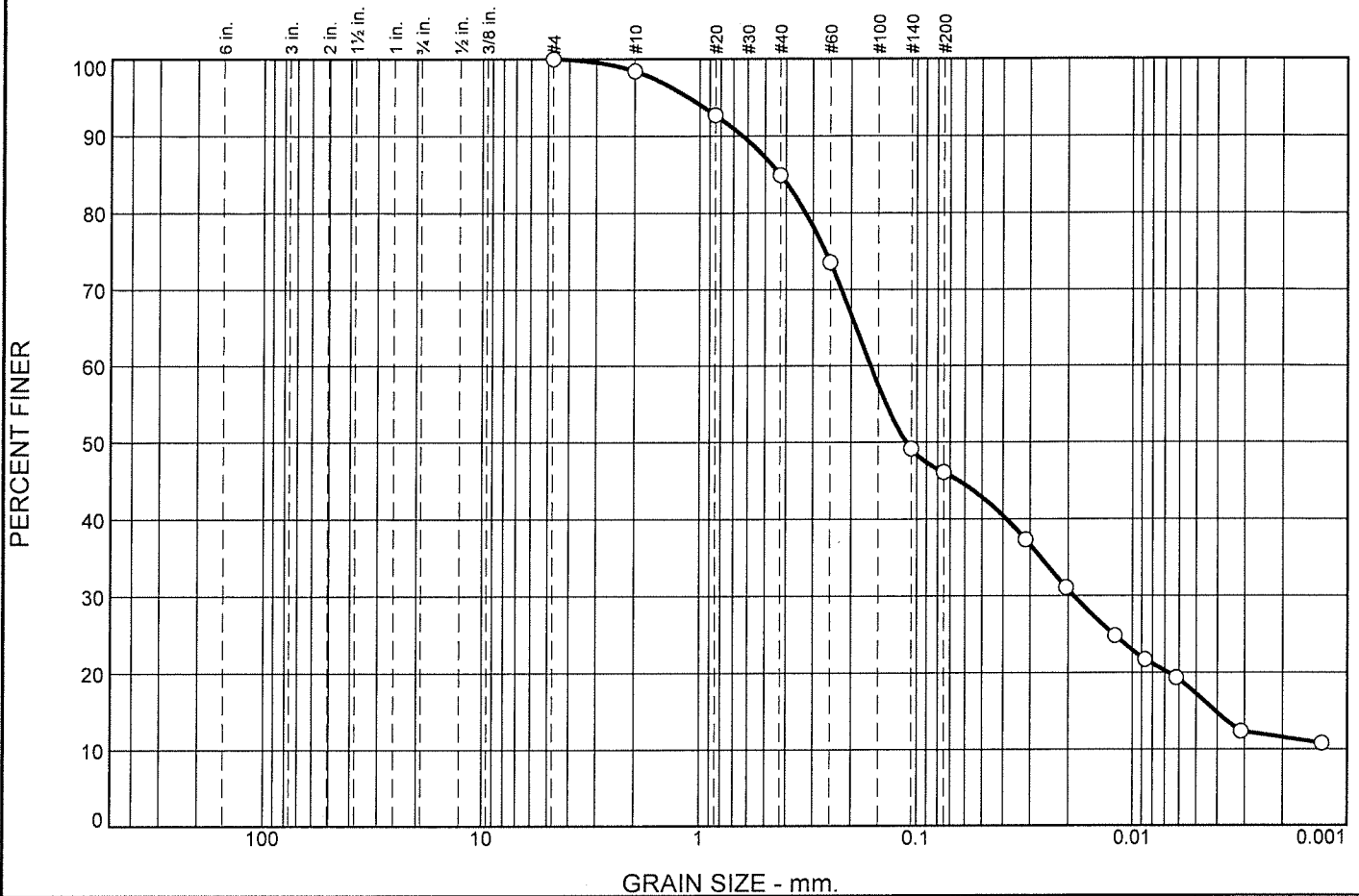
**Remarks**

\* (no specification provided)

Location: SA-3      Sample Number: B-32      Depth: 8.5-10 ft      Date: 12/10/2019

<p style="text-align: center; font-weight: bold; font-size: 1.2em;">United Consulting</p> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">Norcross, Georgia</p>	<p>Client: Freese And Nichols, Inc.</p> <p>Project: Blackjack Sewer Replacement</p> <p>Project No: FRENI19GA0385201</p> <p style="text-align: right;">Figure</p>
---	--

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	53.9	28.8	17.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	98.4		
#20	92.7		
#40	84.9		
#60	73.6		
#140	49.2		
#200	46.1		

**Material Description**

Sand, some silt and clay, red brown

**Atterberg Limits**

PL= 40      LL= 54      PI= 14

**Coefficients**

D<sub>90</sub>= 0.6337      D<sub>85</sub>= 0.4267      D<sub>60</sub>= 0.1630  
D<sub>50</sub>= 0.1114      D<sub>30</sub>= 0.0189      D<sub>15</sub>= 0.0041  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= SM      AASHTO= A-7-5(4)

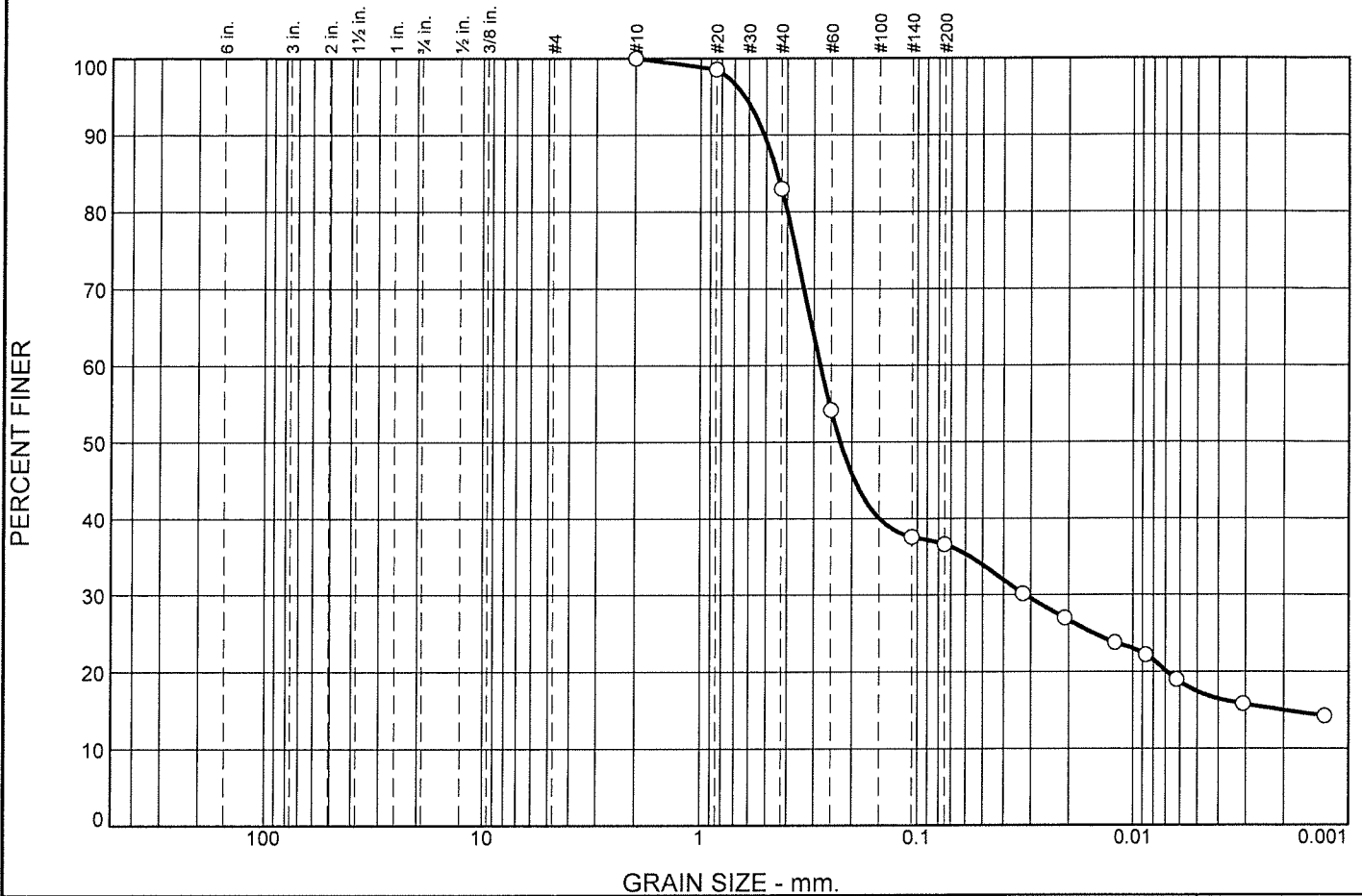
**Remarks**

\* (no specification provided)

Location: SA-3      Sample Number: B-37      Depth: 8.5-10 ft      Date: 12/10/2019

<p style="text-align: center; font-size: 1.2em;"><b>United Consulting</b></p> <p style="text-align: center; font-size: 1.2em;"><b>Norcross, Georgia</b></p>	<p>Client: Freese And Nichols, Inc.  Project: Blackjack Sewer Replacement</p> <p>Project No: FRENI19GA0385201      Figure</p>
---	---

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	63.4	19.2	17.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	98.5		
#40	83.0		
#60	54.2		
#140	37.6		
#200	36.6		

**Material Description**

Sand, some silt and clay, red brown

**Atterberg Limits**

PL= 41      LL= 51      PI= 10

**Coefficients**

D<sub>90</sub>= 0.5105      D<sub>85</sub>= 0.4446      D<sub>60</sub>= 0.2802  
 D<sub>50</sub>= 0.2266      D<sub>30</sub>= 0.0319      D<sub>15</sub>= 0.0020  
 D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= SM      AASHTO= A-5(1)

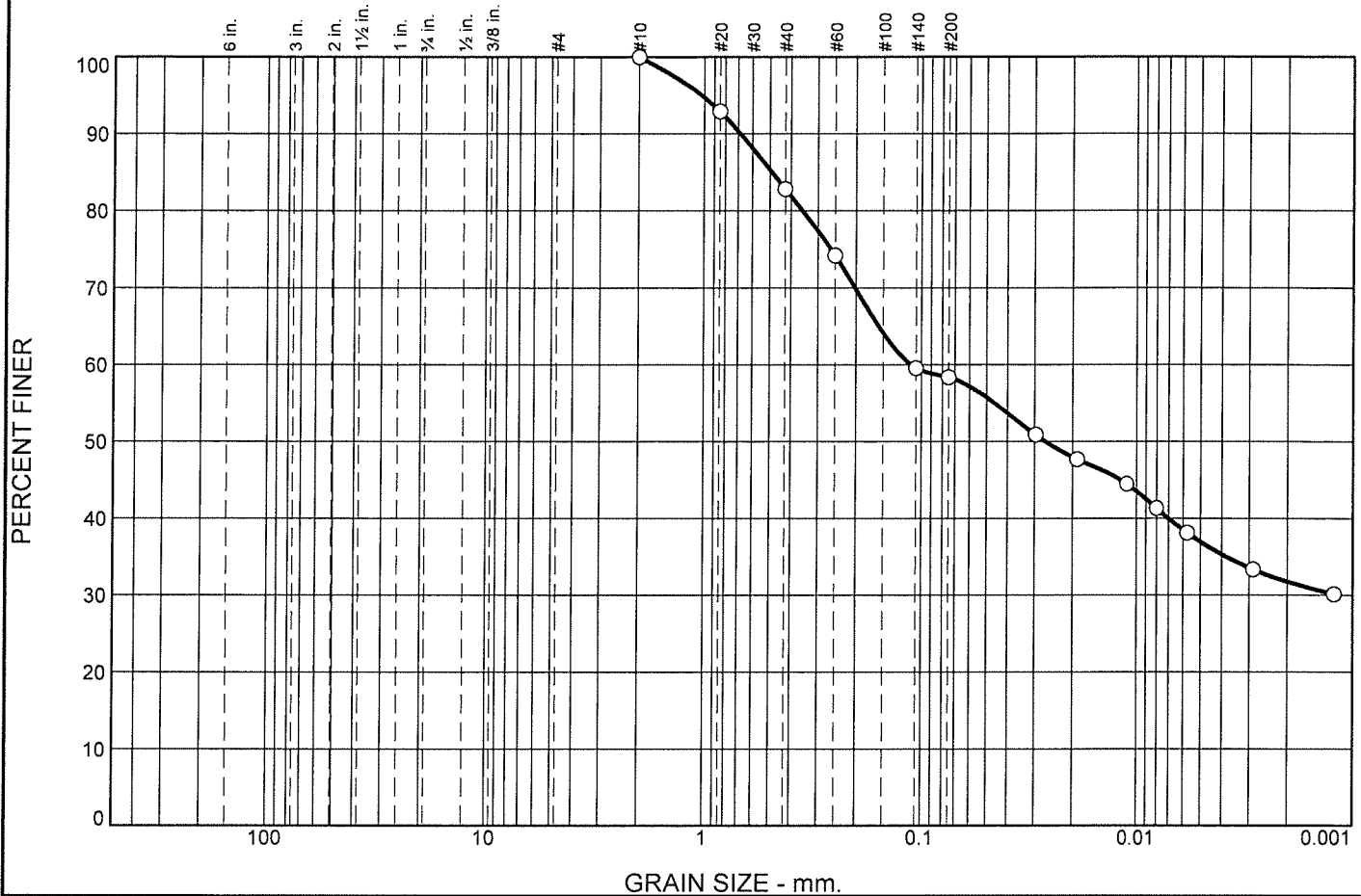
**Remarks**

\* (no specification provided)

**Location:** SA-3      **Sample Number:** B-42      **Depth:** 8.5-10 ft      **Date:** 12/17/2019

<p style="text-align: center; font-size: 1.2em;"><b>United Consulting</b></p> <p style="text-align: center; font-size: 1.2em;"><b>Norcross, Georgia</b></p>	<p><b>Client:</b> Freese And Nichols, Inc.</p> <p><b>Project:</b> Blackjack Sewer Replacement</p> <p><b>Project No:</b> FREN19GA0385201</p> <p style="text-align: right;"><b>Figure</b></p>
---	---

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	41.6	21.5	36.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	92.9		
#40	82.8		
#60	74.2		
#140	59.6		
#200	58.4		

**Material Description**

Silt-sandy-clayey, red brown

**Atterberg Limits**

PL= 37      LL= 55      PI= 18

**Coefficients**

D<sub>90</sub>= 0.6820      D<sub>85</sub>= 0.4901      D<sub>60</sub>= 0.1114  
D<sub>50</sub>= 0.0268      D<sub>30</sub>=                      D<sub>15</sub>=  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**

USCS= MH                      AASHTO= A-7-5(10)

**Remarks**

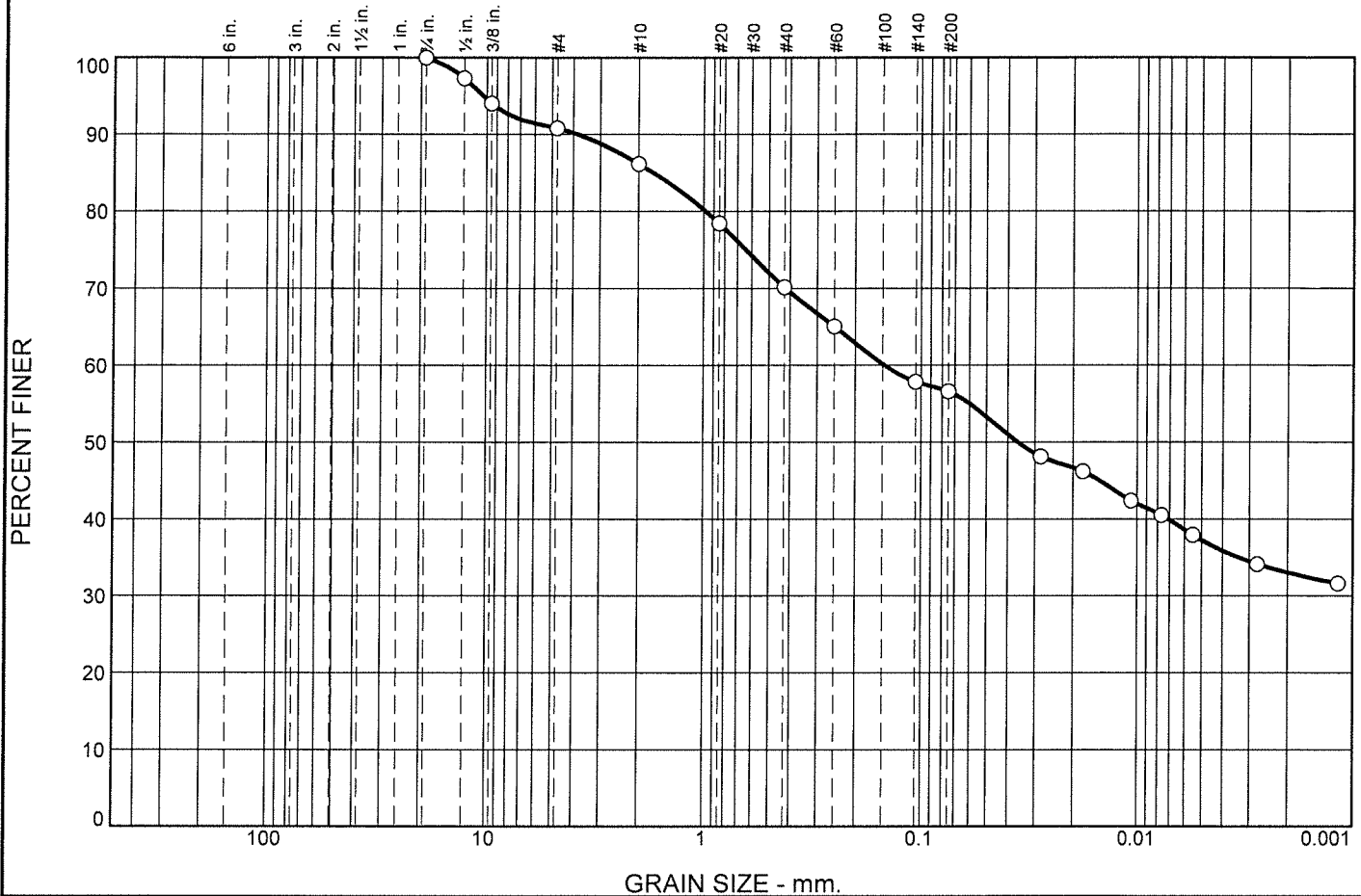
\* (no specification provided)

Location: SA-3      Sample Number: HA44A      Depth: 6 ft      Date: 12/10/2019

<p style="text-align: center; font-weight: bold; font-size: 1.2em;">United Consulting</p> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">Norcross, Georgia</p>	<p>Client: Freese And Nichols, Inc.</p> <p>Project: Blackjack Sewer Replacement</p> <p>Project No: FRENI19GA0385201</p> <p style="text-align: right;">Figure</p>
---	--



# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	9.2	34.2	19.3	37.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75	100.0		
0.5	97.3		
0.375	94.0		
#4	90.8		
#10	86.2		
#20	78.4		
#40	70.1		
#60	65.1		
#140	57.9		
#200	56.6		

**Material Description**

Silt-clayey, some sand, trace gravel, orange brown

**Atterberg Limits**

PL= 34      LL= 61      PI= 27

**Coefficients**

D<sub>90</sub>= 3.8191      D<sub>85</sub>= 1.7082      D<sub>60</sub>= 0.1471  
 D<sub>50</sub>= 0.0360      D<sub>30</sub>=              D<sub>15</sub>=                
 D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=             

**Classification**

USCS= MH      AASHTO= A-7-5(14)

**Remarks**

\* (no specification provided)

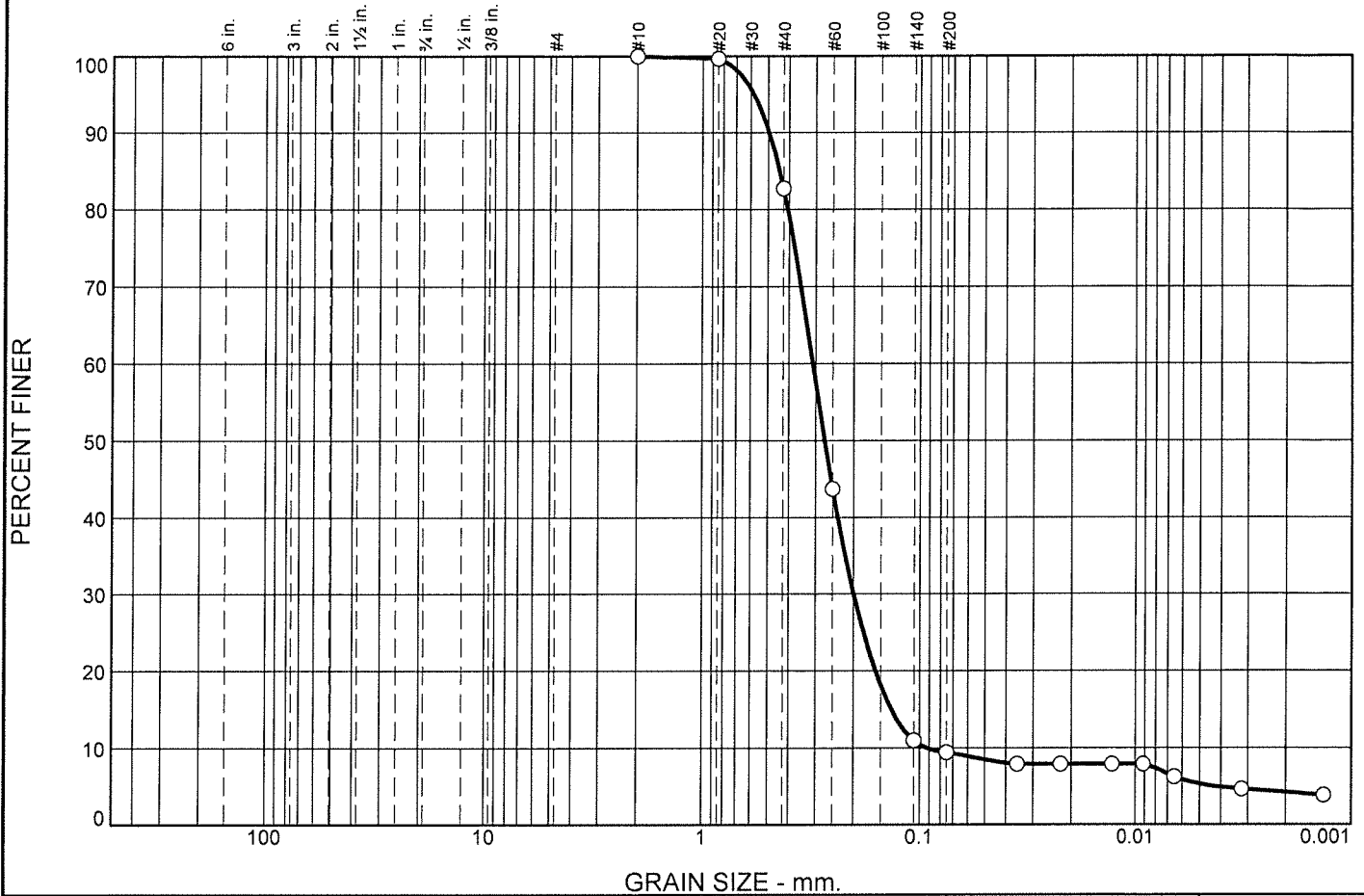
Location: SA-3      Sample Number: HA47A      Depth: 6 ft      Date: 12/10/2019

United Consulting

Norcross, Georgia

Client: Freese And Nichols, Inc.  
 Project: Blackjack Sewer Replacement  
 Project No: FRENI19GA0385201      Figure

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	90.6	4.1	5.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.7		
#40	82.7		
#60	43.7		
#140	11.0		
#200	9.4		

**Material Description**

Sand, trace clay and silt, tan

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 0.4947      D<sub>85</sub>= 0.4430      D<sub>60</sub>= 0.3095  
D<sub>50</sub>= 0.2724      D<sub>30</sub>= 0.1997      D<sub>15</sub>= 0.1340  
D<sub>10</sub>= 0.0927      C<sub>u</sub>= 3.34      C<sub>c</sub>= 1.39

**Classification**

USCS= SP-SM      AASHTO= A-3

**Remarks**

\* (no specification provided)

Location: SA-3      Sample Number: B-52      Depth: 8.5-10 ft      Date: 12/10/2019

**United Consulting**

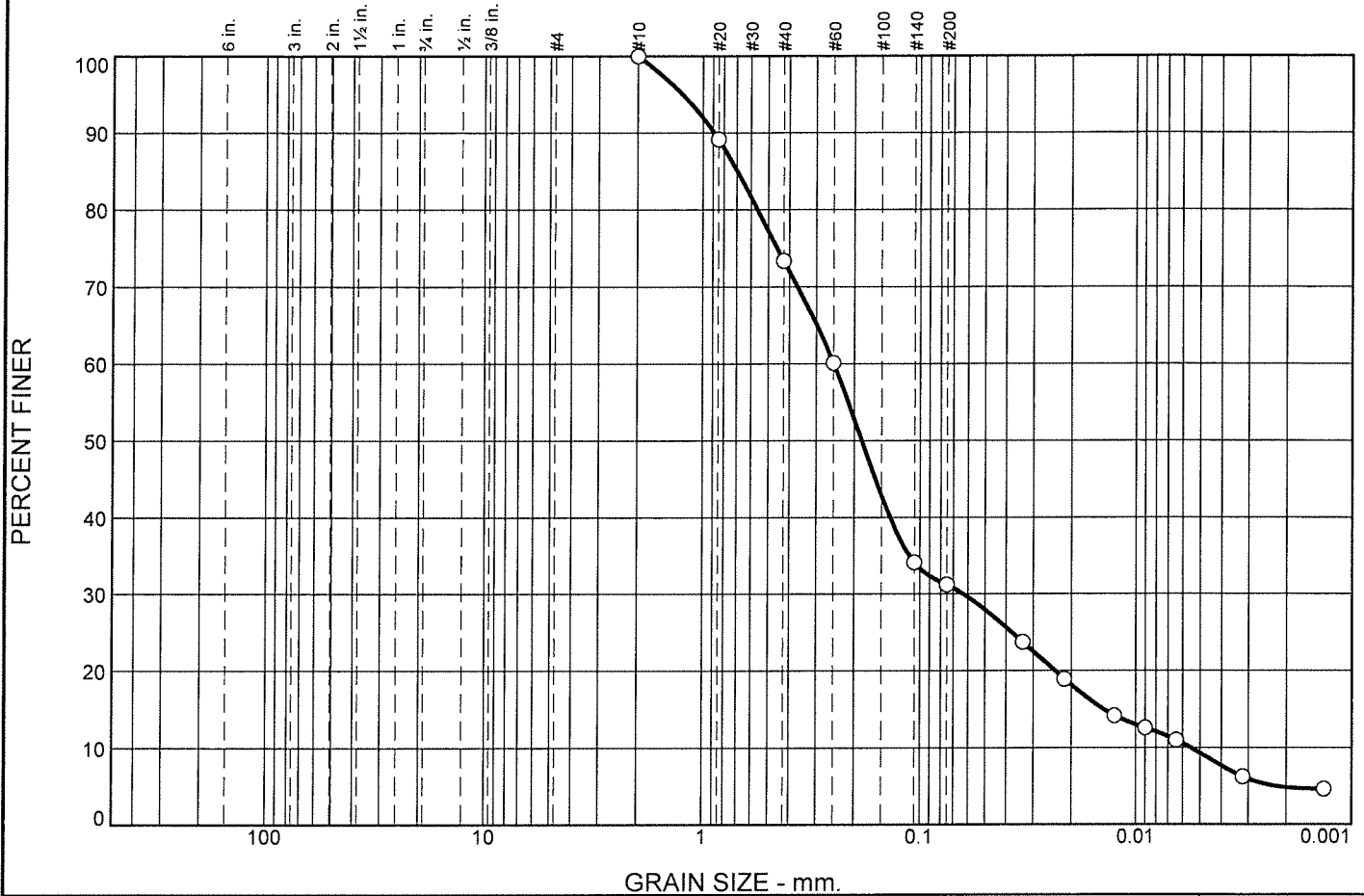
**Norcross, Georgia**

Client: Freese And Nichols, Inc.  
Project: Blackjack Sewer Replacement

Project No: FRENI19GA0385201

Figure

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	68.8	21.9	9.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	89.2		
#40	73.3		
#60	60.1		
#140	34.1		
#200	31.2		

**Material Description**

Sand, some silt, trace clay, light tan

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 0.8890      D<sub>85</sub>= 0.6950      D<sub>60</sub>= 0.2488  
 D<sub>50</sub>= 0.1849      D<sub>30</sub>= 0.0629      D<sub>15</sub>= 0.0143  
 D<sub>10</sub>= 0.0055      C<sub>u</sub>= 45.16      C<sub>c</sub>= 2.89

**Classification**

USCS= SM      AASHTO= A-2-4(0)

**Remarks**

\* (no specification provided)

Sample Number: B-57

Depth: 13.5-15 ft

Date: 12/10/2019

**United Consulting**

**Norcross, Georgia**

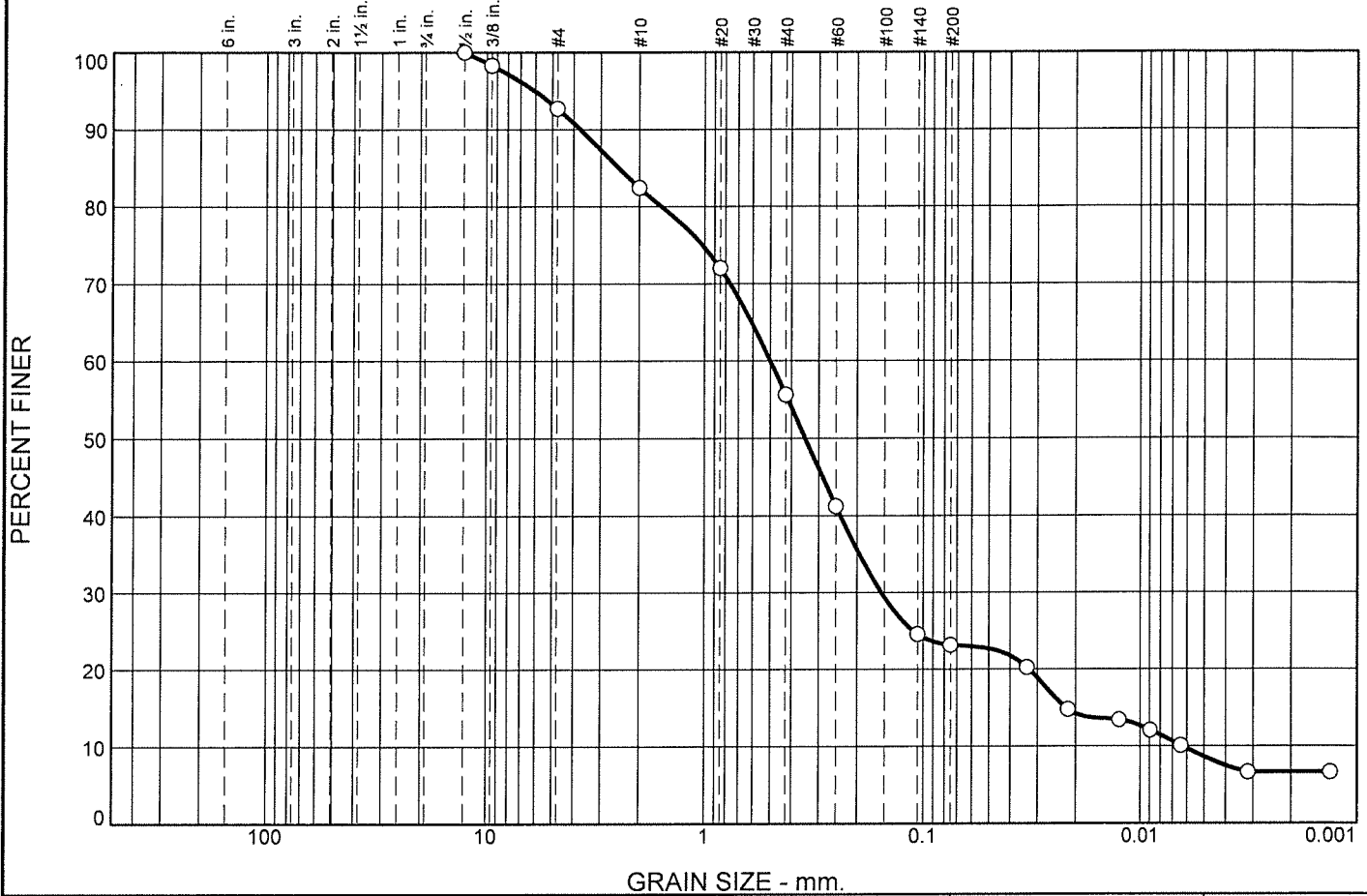
Client: Freese And Nichols, Inc.

Project: Blackjack Sewer Replacement

Project No: FRENI19GA0385201

Figure

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	7.3	69.5	14.6	8.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.5	100.0		
0.375	98.3		
#4	92.7		
#10	82.4		
#20	72.0		
#40	55.7		
#60	41.2		
#140	24.6		
#200	23.2		

**Material Description**

Sand, some silt, trace gravel and clay, brown

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 3.7340      D<sub>85</sub>= 2.4904      D<sub>60</sub>= 0.4998  
D<sub>50</sub>= 0.3457      D<sub>30</sub>= 0.1550      D<sub>15</sub>= 0.0222  
D<sub>10</sub>= 0.0063      C<sub>u</sub>= 78.90      C<sub>c</sub>= 7.59

**Classification**

USCS= SM      AASHTO= A-2-4(0)

**Remarks**

\* (no specification provided)

Location: SA-3  
Sample Number: B-61

Depth: 8.5-10 ft

Date: 12/10/2019

**United Consulting**

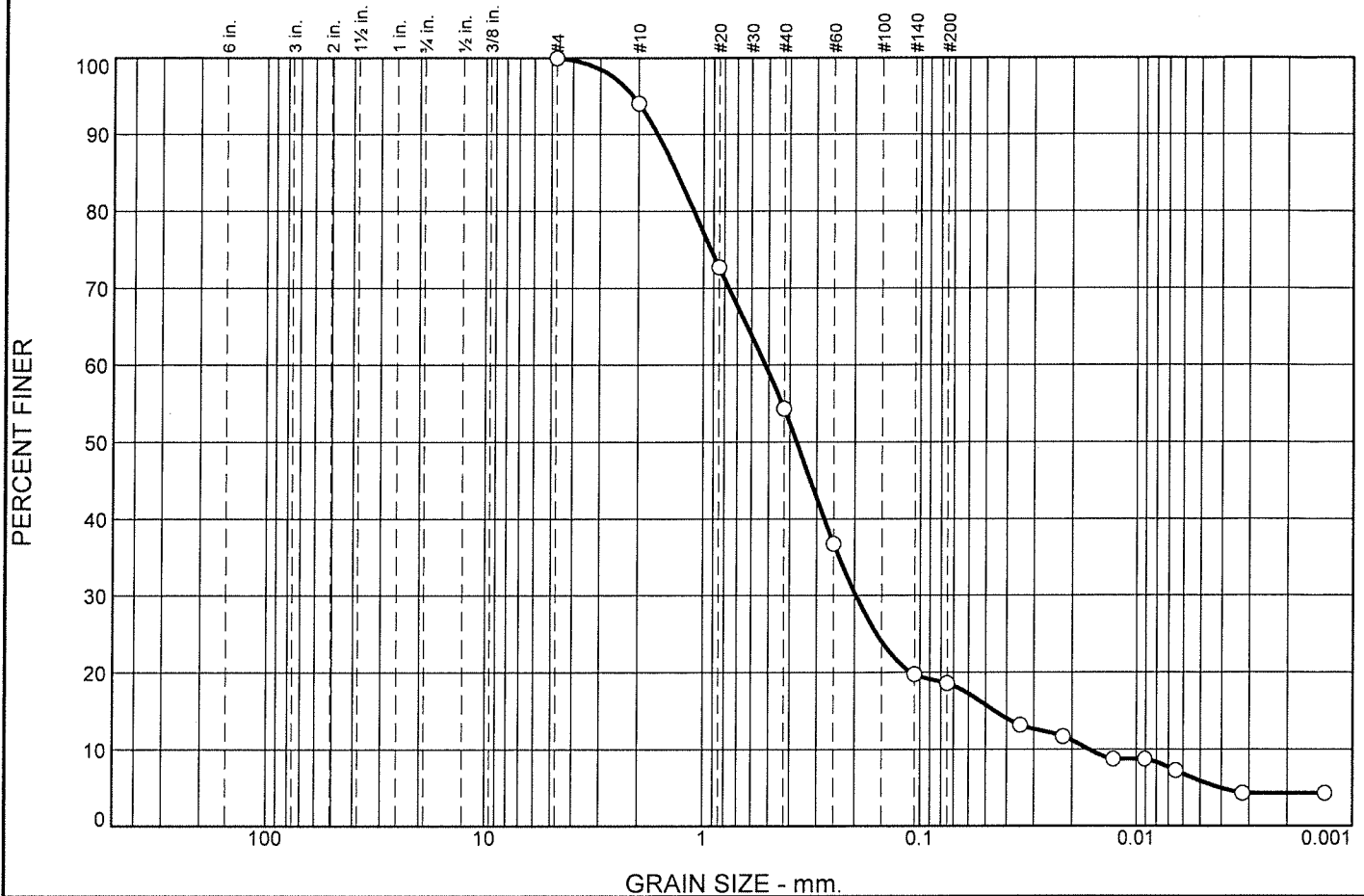
**Norcross, Georgia**

Client: Freese And Nichols, Inc.  
Project: Blackjack Sewer Replacement

Project No: FREN19GA0385201

Figure

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0.0	0.0	81.4	12.7	5.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	94.0		
#20	72.7		
#40	54.3		
#60	36.8		
#140	19.8		
#200	18.6		

**Material Description**

Sand, some silt, trace clay, yellow tan

**Atterberg Limits**

PL= NP      LL= NV      PI= NP

**Coefficients**

D<sub>90</sub>= 1.6325      D<sub>85</sub>= 1.3328      D<sub>60</sub>= 0.5181  
D<sub>50</sub>= 0.3717      D<sub>30</sub>= 0.1972      D<sub>15</sub>= 0.0455  
D<sub>10</sub>= 0.0168      C<sub>u</sub>= 30.78      C<sub>c</sub>= 4.46

**Classification**

USCS= SM      AASHTO= A-2-4(0)

**Remarks**

\* (no specification provided)

Location: SA-3      Sample Number: B-66A      Depth: 8.5-10 ft      Date: 12/10/2019

**United Consulting**

**Norcross, Georgia**

Client: Freese And Nichols, Inc.  
Project: Blackjack Sewer Replacement

Project No: FRENI19GA0385201

Figure

## Corrosivity Series

**ASTM G51, G57 / AASHTO T289, T288 / UC SOP L6, L40**

PROJECT: BlackJack Sewer Replacement  
 PROJECT No.: FRENI19GA0385201  
 TESTING DATE: 12/16/2019

	<b>Sample ID</b>	<b>Soil pH s.u.</b>	<b>Soil Resistivity (<math>\Omega</math>-cm)</b>
1	B-41@8.5-10'	5.27	26,000
2	B-56@8.5-10'	4.93	107,000
3	B-67@13.5-15'	5.91	36,000
4	B-26@8.5-10'	4.82	74,000
5	B-47@13.5-15'	5.12	95,000
6	B-45@13.5-15'	4.97	68,000
7	B-38@8.5-10'	4.84	150,000
8	B-13@3.5-5'	7.33	76,000
9	B-53@8.5-10'	5.10	20,000
#	B-17@8.5-10'	4.23	66,000
#	B-33@8.5-10'	4.50	27,000
#	B-66@13.5-15'	4.70	37,000
#	B-21@13.5-15'	5.00	200,000
#	B-8@13.5-15'	5.84	14,000
#	B-61@8.5-10'	5.74	26,000
	B-22@18.5-20'	4.75	41,000
	HA-47A@6'	5.11	45,000
#	B-14@8.5-10'	7.71	17,000





# ANALYTICAL ENVIRONMENTAL SERVICES, INC.

December 12, 2019

Mahvand Saleki  
United Consulting Group Inc.

625 Holcomb Bridge Rd  
Norcross GA 30071

RE: Blackjack 36" Water Main Replacement

Dear Mahvand Saleki:

Order No: 1912173

Analytical Environmental Services, Inc. received 6 samples on December 3, 2019 1:50 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/19-06/30/20.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/20 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/21.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Ioana Pacurar  
Project Manager



**SAMPLE CHAIN-OF-CUSTODY RECORD**

1912173

**UNITED CONSULTING**  
 625 Holcomb Bridge  
 NORCROSS, GEORGIA 30071  
 (770) 209-0029 FAX (770) 582-2895  
[www.unitedconsulting.com](http://www.unitedconsulting.com)

PROJECT NAME: <b>Blackjack 36" Water Main Replacement</b>				Project#: <b>FRENI19GA0385201</b>		ANALYSES (indicate target list)															
TAT or DUE DATE: <b>12/10/2019</b>		CONTACT: <b>Mahvand Saleki</b> <b>msaleki@unitedconsulting.com</b>		PROJECT MANAGER: <b>Rafael Ospina</b>				<b>pH</b>	<b>Resistivity</b>	<b>Chloride</b>	<b>Sulfate</b>										
PHONE#: <b>(770)582-2843</b>		RECEIVING LAB: <b>AES</b>		PO#:																	
SAMPLE NUMBER	SAMPLE DESCRIPTION	Date Shipped	Sample Matrix	Preservative	# / Size of Cont.																
HA-31	Water	12/3/2019		ICE	8 Oz.	X	X	X	X												
HA-43	Water	12/3/2019		ICE	8 Oz.	X	X	X	X												
B-36	Water	12/3/2019		ICE	8 Oz.	X	X	X	X												
B-50	Water	12/3/2019		ICE	8 Oz.	X	X	X	X												
B-55	Water	12/3/2019		ICE	8 Oz.	X	X	X	X												
B-63	Water	12/3/2019		ICE	8 Oz.	X	X	X	X												
SAMPLES RELINQUISHED BY: <b>PHUC VO</b>		DATE/TIME <b>12/03/19</b> <b>1:50 PM</b>		SAMPLES ACCEPTED BY: <i>And Gens</i>		DATE/TIME <b>12/3/19</b> <b>150</b>		COMMENTS: <b>STD</b>													

**Client:** United Consulting Group Inc.  
**Project:** Blackjack 36" Water Main Replacement  
**Lab ID:** 1912173

**Case Narrative**

Sample Receiving Non-conformance:

Sample information on the Chain of Custody did not match that on the sample bottle labels. The Chain of Custody did not contain a collection date and time, this information was taken from the container labels.

pH Analysis by Method E150.1/SM4500 H+ B:

Samples for pH analysis by Method E150.1/SM4500 H+ B were received and analyzed outside holding time requirement of "immediate or 15 minutes."

**Analytical Environmental Services, Inc**

**Date:** 12-Dec-19

<b>Client:</b> United Consulting Group Inc.	<b>Client Sample ID:</b> HA-31
<b>Project Name:</b> Blackjack 36" Water Main Replacement	<b>Collection Date:</b> 11/25/2019
<b>Lab ID:</b> 1912173-001	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Resistivity SW9050A</b>								
Resistivity (@100% Moisture Saturation)	10400	0		ohms-cm	R413359	1	12/09/2019 13:30	CS
<b>Inorganic Anions by IC E300.0</b>								
Chloride	10.7	1.00		mg/L	R413581	1	12/04/2019 11:39	AS
Sulfate	7.68	1.00		mg/L	R413581	1	12/04/2019 11:39	AS
<b>Hydrogen Ion (pH) by SM4500 H+ B</b>								
pH	6.72	0.0100	H	pH Units	R413142	1	12/05/2019 09:09	CS

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 12-Dec-19

<b>Client:</b> United Consulting Group Inc.	<b>Client Sample ID:</b> HA-43
<b>Project Name:</b> Blackjack 36" Water Main Replacement	<b>Collection Date:</b> 11/25/2019
<b>Lab ID:</b> 1912173-002	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Resistivity SW9050A</b>								
Resistivity (@100% Moisture Saturation)	5280	0		ohms-cm	R413359	1	12/09/2019 13:30	CS
<b>Inorganic Anions by IC E300.0</b>								
Chloride	30.8	5.00		mg/L	R413581	5	12/04/2019 13:50	AS
Sulfate	3.74	1.00		mg/L	R413581	1	12/04/2019 11:55	AS
<b>Hydrogen Ion (pH) by SM4500 H+ B</b>								
pH	7.05	0.0100	H	pH Units	R413142	1	12/05/2019 09:10	CS

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 12-Dec-19

<b>Client:</b> United Consulting Group Inc.	<b>Client Sample ID:</b> B-36
<b>Project Name:</b> Blackjack 36" Water Main Replacement	<b>Collection Date:</b> 11/21/2019
<b>Lab ID:</b> 1912173-003	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Resistivity SW9050A</b>								
Resistivity (@100% Moisture Saturation)	10400	0		ohms-cm	R413359	1	12/09/2019 13:30	CS
<b>Inorganic Anions by IC E300.0</b>								
Chloride	8.01	1.00		mg/L	R413581	1	12/04/2019 12:11	AS
Sulfate	4.91	1.00		mg/L	R413581	1	12/04/2019 12:11	AS
<b>Hydrogen Ion (pH) by SM4500 H+ B</b>								
pH	7.41	0.0100	H	pH Units	R413142	1	12/05/2019 09:12	CS

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 12-Dec-19

<b>Client:</b> United Consulting Group Inc.	<b>Client Sample ID:</b> B-50
<b>Project Name:</b> Blackjack 36" Water Main Replacement	<b>Collection Date:</b> 11/20/2019
<b>Lab ID:</b> 1912173-004	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Resistivity SW9050A</b>								
Resistivity (@100% Moisture Saturation)	7800	0		ohms-cm	R413359	1	12/09/2019 13:30	CS
<b>Inorganic Anions by IC E300.0</b>								
Chloride	9.99	1.00		mg/L	R413581	1	12/04/2019 12:27	AS
Sulfate	4.44	1.00		mg/L	R413581	1	12/04/2019 12:27	AS
<b>Hydrogen Ion (pH) by SM4500 H+ B</b>								
pH	7.03	0.0100	H	pH Units	R413142	1	12/05/2019 09:14	CS

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 12-Dec-19

<b>Client:</b> United Consulting Group Inc.	<b>Client Sample ID:</b> B-55
<b>Project Name:</b> Blackjack 36" Water Main Replacement	<b>Collection Date:</b> 11/20/2019
<b>Lab ID:</b> 1912173-005	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Resistivity SW9050A</b>								
Resistivity (@100% Moisture Saturation)	9790	0		ohms-cm	R413359	1	12/09/2019 13:30	CS
<b>Inorganic Anions by IC E300.0</b>								
Chloride	7.53	1.00		mg/L	R413581	1	12/04/2019 12:43	AS
Sulfate	3.09	1.00		mg/L	R413581	1	12/04/2019 12:43	AS
<b>Hydrogen Ion (pH) by SM4500 H+ B</b>								
pH	7.00	0.0100	H	pH Units	R413142	1	12/05/2019 09:17	CS

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 12-Dec-19

<b>Client:</b> United Consulting Group Inc.	<b>Client Sample ID:</b> B-63
<b>Project Name:</b> Blackjack 36" Water Main Replacement	<b>Collection Date:</b> 11/20/2019
<b>Lab ID:</b> 1912173-006	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Resistivity SW9050A</b>								
Resistivity (@100% Moisture Saturation)	7340	0		ohms-cm	R413359	1	12/09/2019 13:30	CS
<b>Inorganic Anions by IC E300.0</b>								
Chloride	11.9	1.00		mg/L	R413581	1	12/04/2019 12:59	AS
Sulfate	4.26	1.00		mg/L	R413581	1	12/04/2019 12:59	AS
<b>Hydrogen Ion (pH) by SM4500 H+ B</b>								
pH	7.21	0.0100	H	pH Units	R413142	1	12/05/2019 09:18	CS

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



### SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: \_\_\_\_\_

AES Work Order Number: \_\_\_\_\_

2. Carrier: FedEx  UPS  USPS  Client  Courier  Other \_\_\_\_\_

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?				damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?					
5. Custody seals intact on shipping container?					
6. Temperature blanks present?					
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]				Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?					
9. Chain of Custody signed, dated, and timed when relinquished and received?					
10. Sampler name and/or signature on COC?					
11. Were all samples received within holding time?					
12. TAT marked on the COC?				If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature \_\_\_\_\_ °C    Cooler 2 Temperature \_\_\_\_\_ °C    Cooler 3 Temperature \_\_\_\_\_ °C    Cooler 4 Temperature \_\_\_\_\_ °C  
 Cooler 5 Temperature \_\_\_\_\_ °C    Cooler 6 Temperature \_\_\_\_\_ °C    Cooler 7 Temperature \_\_\_\_\_ °C    Cooler 8 Temperature \_\_\_\_\_ °C

15. Comments: \_\_\_\_\_

I certify that I have completed sections 1-15 (dated initials). \_\_\_\_\_

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?					
17. Custody seals present on sample containers?					
18. Custody seals intact on sample containers?					
19. Do sample container labels match the COC?				incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?					
21. Were all of the samples listed on the COC received?				samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?					
23. Did we receive sufficient sample volume for indicated analyses?					
24. Were samples received in appropriate containers?					
25. Were VOA samples received without headspace (< 1/4" bubble)?					
26. Were trip blanks submitted?				listed on COC <input type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: \_\_\_\_\_

I certify that I have completed sections 16-27 (dated initials). \_\_\_\_\_

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *					
29. Containers meet preservation guidelines?					
30. Was pH adjusted at Sample Receipt?					

I certify that I have completed sections 28-30 (dated initials). \_\_\_\_\_

**Client:** United Consulting Group Inc.  
**Project Name:** Blackjack 36" Water Main Replacement  
**Lab Order:** 1912173

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1912173-001A	HA-31	11/25/2019 12:00:00AM	Aqueous	Inorganic Anions by IC			12/04/2019
1912173-001A	HA-31	11/25/2019 12:00:00AM	Aqueous	Resistivity			12/09/2019
1912173-001A	HA-31	11/25/2019 12:00:00AM	Aqueous	Hydrogen Ion (pH) by SM4500 H+ B			12/05/2019
1912173-002A	HA-43	11/25/2019 12:00:00AM	Aqueous	Inorganic Anions by IC			12/04/2019
1912173-002A	HA-43	11/25/2019 12:00:00AM	Aqueous	Resistivity			12/09/2019
1912173-002A	HA-43	11/25/2019 12:00:00AM	Aqueous	Hydrogen Ion (pH) by SM4500 H+ B			12/05/2019
1912173-003A	B-36	11/21/2019 12:00:00AM	Aqueous	Inorganic Anions by IC			12/04/2019
1912173-003A	B-36	11/21/2019 12:00:00AM	Aqueous	Resistivity			12/09/2019
1912173-003A	B-36	11/21/2019 12:00:00AM	Aqueous	Hydrogen Ion (pH) by SM4500 H+ B			12/05/2019
1912173-004A	B-50	11/20/2019 12:00:00AM	Aqueous	Inorganic Anions by IC			12/04/2019
1912173-004A	B-50	11/20/2019 12:00:00AM	Aqueous	Resistivity			12/09/2019
1912173-004A	B-50	11/20/2019 12:00:00AM	Aqueous	Hydrogen Ion (pH) by SM4500 H+ B			12/05/2019
1912173-005A	B-55	11/20/2019 12:00:00AM	Aqueous	Inorganic Anions by IC			12/04/2019
1912173-005A	B-55	11/20/2019 12:00:00AM	Aqueous	Resistivity			12/09/2019
1912173-005A	B-55	11/20/2019 12:00:00AM	Aqueous	Hydrogen Ion (pH) by SM4500 H+ B			12/05/2019
1912173-006A	B-63	11/20/2019 12:00:00AM	Aqueous	Inorganic Anions by IC			12/04/2019
1912173-006A	B-63	11/20/2019 12:00:00AM	Aqueous	Resistivity			12/09/2019
1912173-006A	B-63	11/20/2019 12:00:00AM	Aqueous	Hydrogen Ion (pH) by SM4500 H+ B			12/05/2019

**Client:** United Consulting Group Inc.  
**Project Name:** Blackjack 36" Water Main Replacement  
**Workorder:** 1912173

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R413142**

Sample ID: <b>LCS-413142</b>	Client ID:	Units: <b>pH Units</b>	Prep Date:	Run No: <b>413142</b>							
SampleType: <b>LCS</b>	TestCode: <b>Hydrogen Ion (pH) by SM4500 H+ B</b>	BatchID: <b>R413142</b>	Analysis Date: <b>12/05/2019</b>	Seq No: <b>9311859</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

pH 7.030 0.0100 7.000 100 90 110

Sample ID: <b>1912106-001BDUP</b>	Client ID:	Units: <b>pH Units</b>	Prep Date:	Run No: <b>413142</b>							
SampleType: <b>DUP</b>	TestCode: <b>Hydrogen Ion (pH) by SM4500 H+ B</b>	BatchID: <b>R413142</b>	Analysis Date: <b>12/05/2019</b>	Seq No: <b>9311861</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

pH 7.360 0.0100 7.330 0.408 20 H

Sample ID: <b>1912296-001ADUP</b>	Client ID:	Units: <b>pH Units</b>	Prep Date:	Run No: <b>413142</b>							
SampleType: <b>DUP</b>	TestCode: <b>Hydrogen Ion (pH) by SM4500 H+ B</b>	BatchID: <b>R413142</b>	Analysis Date: <b>12/05/2019</b>	Seq No: <b>9311881</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

pH 8.070 0.0100 8.060 0.124 20 H

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** United Consulting Group Inc.  
**Project Name:** Blackjack 36" Water Main Replacement  
**Workorder:** 1912173

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R413359**

Sample ID: <b>LCS-R413359</b>	Client ID:	Units: <b>ohms-cm</b>	Prep Date:	Run No: <b>413359</b>							
SampleType: <b>LCS</b>	TestCode: <b>Resistivity SW9050A</b>	BatchID: <b>R413359</b>	Analysis Date: <b>12/09/2019</b>	Seq No: <b>9317442</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Resistivity (@100% Moisture Saturatic 9980                      0                      10000                      99.8                      90                      110

Sample ID: <b>1912173-001ADUP</b>	Client ID: <b>HA-31</b>	Units: <b>ohms-cm</b>	Prep Date:	Run No: <b>413359</b>							
SampleType: <b>DUP</b>	TestCode: <b>Resistivity SW9050A</b>	BatchID: <b>R413359</b>	Analysis Date: <b>12/09/2019</b>	Seq No: <b>9317449</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Resistivity (@100% Moisture Saturatic 10450                      0                      10450                      0                      20

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** United Consulting Group Inc.  
**Project Name:** Blackjack 36" Water Main Replacement  
**Workorder:** 1912173

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R413581**

Sample ID: <b>MB-R413581</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>413581</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R413581</b>	Analysis Date: <b>12/04/2019</b>	Seq No: <b>9322579</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride BRL 1.00  
 Sulfate BRL 1.00

Sample ID: <b>LCS-R413581</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>413581</b>							
SampleType: <b>LCS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R413581</b>	Analysis Date: <b>12/04/2019</b>	Seq No: <b>9322577</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.86 1.00 10.00 109 90 110  
 Sulfate 23.83 1.00 25.00 95.3 90 110

Sample ID: <b>1912173-005AMS</b>	Client ID: <b>B-55</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>413590</b>							
SampleType: <b>MS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R413581</b>	Analysis Date: <b>12/11/2019</b>	Seq No: <b>9322782</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 16.75 1.00 10.00 7.531 92.2 90 110  
 Sulfate 28.76 1.00 25.00 3.091 103 90 110

Sample ID: <b>1912173-005AMSD</b>	Client ID: <b>B-55</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>413590</b>							
SampleType: <b>MSD</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R413581</b>	Analysis Date: <b>12/11/2019</b>	Seq No: <b>9322783</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 16.89 1.00 10.00 7.531 93.5 90 110 16.75 0.781 20  
 Sulfate 28.74 1.00 25.00 3.091 103 90 110 28.76 0.075 20

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

# Important Information about This

# Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

## Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply this report for any purpose or project except the one originally contemplated.*

## Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an

assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by:* the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

## Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

## A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

## A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Constructors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time* to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help

others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Environmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold-prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical-engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

### **Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance**

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your GBC-Member geotechnical engineer for more information.



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**APPENDIX B**  
**CATHODIC PROTECTION REPORT**



Josh Starling  
Freese and Nichols, Inc.  
360 Interstate North Parkway, Suite 250  
Atlanta, Georgia 30339

January 31, 2020

**Reference: *Field and Laboratory Review of Route of Blackjack Mountain 36 inch Water Pipe Replacement, Cobb County Georgia for CCMWA***

Dear Mr. Starling,

On January 8, 2020 the Southern Cathodic Protection Company (SCPC) conducted field inspections and data gathering on the proposed route of the new Blackjack Mountain 36-inch water pipeline replacement project. The purpose of the survey was to identify any corrosion related issues that would warrant additional corrosion control for the protection of the new pipeline in East Cobb County Georgia.

## **PROCEDURES**

The United Consulting Geotechnical Report and the plan alignment sheets were inspected for any observable AC and/or DC interference issues. The route was examined and a field visit was conducted to observe the route and search for any issues that would be a cause for concern regarding foreign pipelines, AC transmission lines, and/or any construction impediments. Soil resistivity measurements were taken at various locations along the route to determine if corrosive soil would be an issue with the proposed pipeline route. Soil samples were also taken at three locations, at five (5) foot depth, for additional chemical analysis as well. Photographs were taken at several locations along the route to document the field observations and are included in an attached photo log. The findings were all compared to the Ductile Iron Pipe Research Association (DIPRA) Design Decision Model (DDM) for determining the level of corrosion control that would be warranted for this proposed water pipeline route. The Design Decision Model takes gathered information and by assigning scores for each category, determines the level of corrosion protection that would be warranted for the designed pipeline using multiple factors.

## **RESULTS**

Likelihood scores:

Soil resistivity measurements were taken at the following locations on site and results were similar to the measurements taken from the United Consulting soil samples.

**SCPC – continued**

Near B1	Barnes Mill Road at Barnes Mill Drive	38,300 ohm cm
Near B 21	East Lake Parkway	200,000 + ohm cm
Near B 29	Sope Creek Ridge	42,130 ohm cm
Near B 34	McBurnette Road	45,960 ohm cm
Near B 49	Creekwood Drive	53,620 ohm cm

Soil samples were collected at the following locations and were laboratory tested. These soil resistivity results were also similar to measurements taken from the United Consulting soil samples.

East Lake Parkway	85,000 ohm cm
Sope Creek Ridge	59,000 ohm cm
McBurnette Road	29,000 ohm cm

All soil resistivity measurements indicate low soil corrosivity and would score a 0 on the DIPRA Design Decision Model.

Tests were conducted on the collected soil samples and the chloride levels were undetectable and would score a 0 on the DIPRA DDM.

The moisture content on the soils was considered moist to dry. Some areas along the proposed route were under creeks and streams, so we scored the moisture content as moist, which would score a 2.5 on the Model.

The proposed pipeline will be below several streams along the proposed route, so a score of 5 was indicated for the ground water influence section.

The pH was not tested, so the worst case score of 4 was applied.

The sulfide Ion test indicated undetectable, so a score of 0 was applied.

The REDOX potential was measured at over +100 mV at all locations tested, so a score of 0 was indicated.

No Bi-Metallic connections were indicated on the proposed plans, so this was scored a 0.

The Likelihood DDM score was 11.5 out of 60.

### Consequence Scores:

The proposed pipeline is a 36 inch Ductile Iron pipe and was scored an 8 on the pipe service category.

The proposed pipeline route contains various underground and aboveground utilities. No major natural gas or hazardous liquid transmission pipelines were identified along the route and no foreign cathodic protection rectifiers or groundbeds were identified that might cause an interference problem. The Atlanta Gas Light Company was consulted and they have no impressed current cathodic protection systems near the proposed route; although, multiple small diameter distribution pipelines, protected by galvanic protection systems, will be crossed. Due to the localized protection inherent in galvanic cathodic protection, these systems are not expected to cause any interference issues. The proposed pipeline route travels parallel to a Georgia Power high voltage power line. The area of interest is from station 70+00 to 109+00. This area will require monitoring during construction to determine if induced AC current causes an unsafe condition to develop on the new pipeline. Pipeline AC potentials of 15 Volts or greater are considered hazardous and must be mitigated.

The field visit identified the area as a moderate location (per the DIPRA Decision Design Model), with typical business/residential areas with subdivisions and apartment buildings along the route. Some right of way limitations should be expected. A well landscaped golf course also lies along the proposed route. For these reasons a DDM location score of 8 was applied.

The alignment sheets were reviewed and the average depth of cover is in the 10 to 20 foot depth range, so a DDM depth of cover score of 3 was applied.

Information regarding the alternate water supply was not available, so the worst case score of 3 was applied.

The Consequence DDM score was 22 out of 50.

The Likelihood score of 11.5 and the Consequence score of 22 was plotted on the DDM Two-Dimensional Matrix and indicated a recommendation of zone 1.

### **RECOMMENDATIONS**

It was noted on the alignment sheets that the design has called for 36 inch zinc coated ductile iron pipe with double polyethylene encasement. Our study finds no need for additional cathodic protection to be added to the original design.

During construction, it is recommended that periodic AC voltage measurements should be taken and recorded. If the AC voltage levels are found to exceed 15 volts AC, a

*SCPC – continued*

grounding system with grounding rods and attaching cables should be employed at various location along the construction route to mitigate the excessive AC current buildup on the new pipeline that could pose a shock hazard prior to completion.

We trust you find our field report to be complete and satisfactory. If you have any questions, or require additional information, please contact me at your earliest convenience. We look forward to working with you and your staff in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Semasky", written in a cursive style.

Michael Semasky  
Project Manager



**Photo 01: ROW** – Barnsmill Road @ Beech Street AGL test station (galvanic system).



**Photo 02: ROW** – East Lake Parkway – Watermark Apartments





**Photo 03: ROW** – Sope Creek Ridge – Falls at Sope Creek Apartments



**Photo 04: ROW** – McBurnette Road – Power line ROW





**Photo 5: ROW – McBurnette Road – Power line ROW**



**Photo 6: ROW – Creekwood Drive – Existing Water Pipeline**

FIGURE 1

## DDM<sup>®</sup> Two-Dimensional Matrix

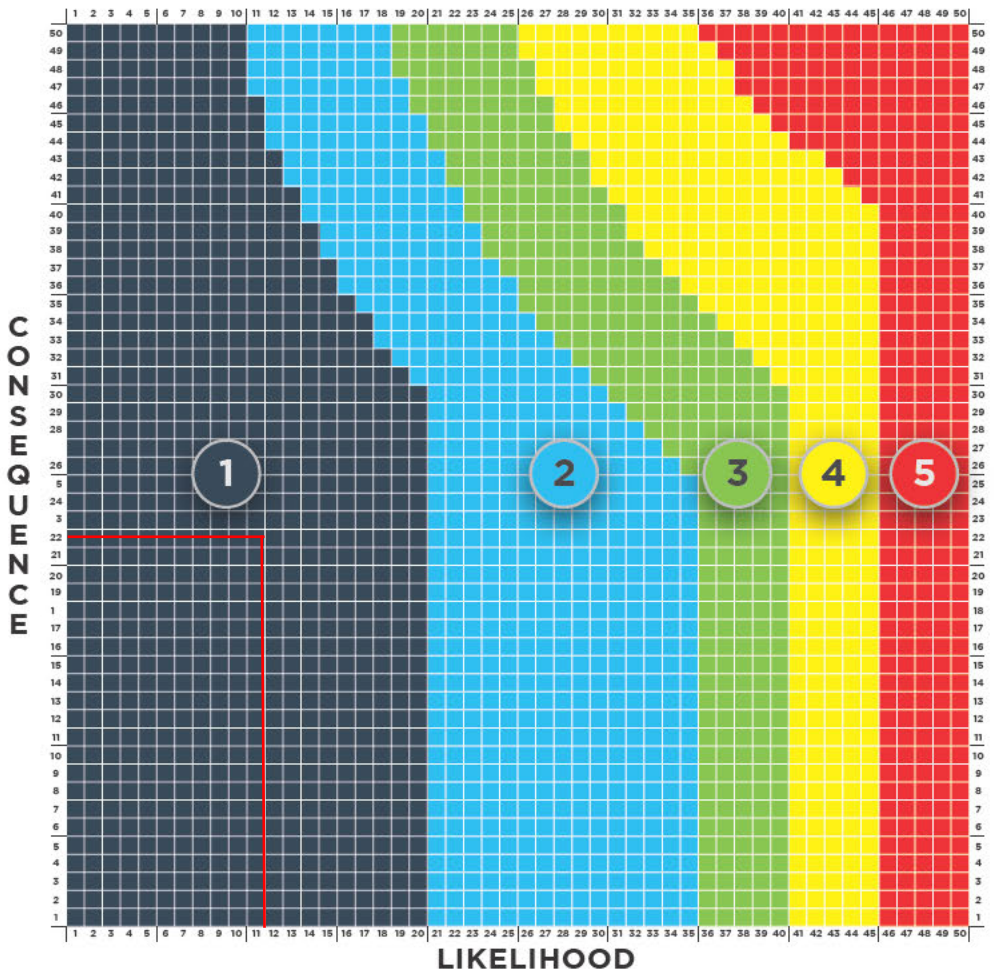


TABLE 1

### Design Decision Model (DDM<sup>®</sup>)

Recommendations	
<b>1</b>	As manufactured with shop coat
<b>2</b>	V-Bio <sup>®</sup> Enhanced Polyethylene Encasement
<b>3</b>	V-Bio <sup>®</sup> Enhanced Polyethylene Encasement, or V-Bio <sup>®</sup> Enhanced Polyethylene Encasement with Joint Bonds
<b>4</b>	V-Bio <sup>®</sup> Enhanced Polyethylene Encasement with Metallized Zinc Coating, or V-Bio <sup>®</sup> Enhanced Polyethylene Encasement with Life Extension Cathodic Protection
<b>5</b>	V-Bio <sup>®</sup> Enhanced Polyethylene Encasement with Metallized Zinc Coating, or V-Bio <sup>®</sup> Enhanced Polyethylene Encasement with Cathodic Protection

\* Recommendations in Zones 4 and 5 recognize a practical difference between distribution and transmission mains. Distribution mains are generally smaller sized pipes, with the final classification to be defined by the pipeline owner. Cathodic protection should be considered where external corrosion is a significant risk or where pipe repairs/replacements would be cost prohibitive.

**TABLE 2**

**Likelihood Score Sheet**

LIKELIHOOD FACTOR		POINTS	MAXIMUM POSSIBLE POINTS
RESISTIVITY	< 500 ohm-cm	30	<b>30</b>
	≥ 500 - 1000 ohm-cm	25	
	> 1000 - 1500 ohm-cm	22	
	> 1500 - 2000 ohm-cm	19	
	> 2000 - 3000 ohm-cm	10	
	> 3000 - 5000 ohm-cm	5	
	> 5000 ohm-cm	0	
CHLORIDES	> 100 ppm = positive	8	<b>8</b>
	50 - 100 ppm = trace	3	
	< 50 ppm = negative	0	
MOISTURE CONTENT	> 15% = Wet	5	<b>5</b>
	5 - 15% = Moist	2.5	
	< 5% = Dry	0	
GROUND WATER INFLUENCE	Pipe below the water table at any time	5	<b>5</b>
pH	pH 0 - 4	4	<b>4</b>
	pH > 4 - 6	1	
	pH 6 - 8, with sulfides and low or negative redox	4	
	pH > 6	0	
SULFIDE IONS	positive (≥1 ppm)	4	<b>4</b>
	trace (> 0 and < 1 ppm)	1.5	
	negative ( 0 ppm)	0	
REDOX POTENTIAL	= negative	2	<b>2</b>
	= positive 0 - 100 mv	1	
	= positive > 100 mv	0	
BI-METALLIC CONSIDERATIONS	Connected to noble metals (e.g. copper) - yes	2	<b>2</b>
	Connected to noble metals (e.g. copper) - no	0	
<b>TOTAL POSSIBLE POINTS</b>			<b>60</b>
Known Corrosive Environments	Cinders, Mine Waste, Peat Bog, Landfill, Fly Ash, Coal		<b>21</b>

\* Soils with Known Corrosive Environments shall be assigned 21 points or the total of points for Likelihood Factors, whichever is greater.

**TABLE 3****Consequence Score Sheet**

CONSEQUENCE FACTOR		POINTS	MAXIMUM POSSIBLE POINTS
PIPE SERVICE	3" to 24"	0	<b>22</b>
	30" to 36"	8	
	42" to 48"	12	
	54" to 64"	22	
LOCATION: Construction-Repair Considerations	Routine (Fair to good access, minimal traffic/other utility consideration, etc.)	0	<b>20</b>
	Moderate (Typical business/ residential areas, some right of way limitations, etc.)	8	
	Difficult (Subaqueous crossings, downtown metropolitan business areas, multiple utilities congestion, swamps, etc.)	20	
DEPTH OF COVER CONSIDERATIONS	0 to 10 feet depth	0	<b>5</b>
	> 10 to 20 feet depth	3	
	> 20 feet depth	5	
ALTERNATE WATER SUPPLY	Alternate supply available - no	3	<b>3</b>
	Alternate supply available - yes	0	
<b>TOTAL POSSIBLE POINTS</b>			<b>50</b>

**APPENDIX C**  
**PERMITS**



**GEORGIA POWER COMPANY ENCROACHMENT AGREEMENT**





## GOVERNMENTAL ENCROACHMENT AGREEMENT FOR EASEMENT

ENCROACHMENT ID # E142078

SUBJECT: **NORTH MARIETTA - PARKAIRE 230Kv TRANSMISSION LINE RIGHT-OF-WAY**  
**NORTH MARIETTA - PARKAIRE 230Kv TRANSMISSION LINE RIGHT-OF-WAY**

The GEORGIA POWER COMPANY, hereinafter called the "Power Company," hereby consents for **COBB COUNTY MARIETTA WATER AUTHORITY**, hereinafter called the "Undersigned," to use an area within the Power Company's subject electric transmission line right(s)-of-way described as follows:

Said right(s)-of-way being **One Hundred (100) feet in width** and extending in part through Land Lot(s) **1058, 1059, 1102, 16th District/GMD**, of **Cobb County, Georgia**, on which the Power Company has constructed and now maintains and operates said electric transmission line(s) by virtue of certain easements heretofore acquired by the Power Company. The said right(s)-of-way is shown on plat attached hereto and made a part hereof as **Exhibit A**.

The use of the area by the Undersigned within said right(s)-of-way, pursuant to this consent, shall be limited to the construction, operation and maintenance of **thirty-six inch (36") Blackjack Mountain Pipeline replacement. Pipe to be buried a minimum of forty-eight (48") inches below existing grade** at the location and to the extent as shown on said attached plat. It is specifically understood that no buildings or other obstructions of any type will be permitted within or on subject transmission line right(s)-of-way.

The plans and specifications as submitted by the Undersigned meet the Power Company's approval provided the Undersigned conforms to the following terms and conditions:

1. The Undersigned agrees to obtain all necessary rights from the owners of the lands crossed by the Power Company's right(s)-of-way.
2. The Undersigned agrees to use said area within the Power Company's right(s)-of-way in such a manner as will not interfere with the Power Company's activities and facilities as now, or hereafter, exist thereon (hereinafter Power Company's "activities" and "facilities").
3. The Undersigned agrees that the use of Power Company's right(s)-of-way as herein provided shall in no way affect the validity of the Power Company's easement(s) and shall in no way modify or restrict the use or rights of the Power Company, its successors or assigns, in and to the area to be used. The Undersigned acknowledges the Power Company's right and title to said easement(s) and the priority of the Power Company's right of use and hereby agrees not to resist or assail said priority.
4. The use of said area within said right(s)-of-way by the Undersigned shall be at the sole risk and expense of the Undersigned, and the Power Company is specifically relieved of any responsibility for damage to the facilities and property of the Undersigned resulting or occurring from the use of said right(s)-of-way by the Power Company as provided herein. The Undersigned covenants not to sue Power Company in that instance.
5. The Undersigned hereby agrees and covenants not to use and will prohibit agents, employees and contractors of Undersigned from using any tools, equipment or machinery within ten (10) feet of the Power Company's overhead conductors. The Undersigned agrees to comply with Official Code of Georgia, Section 46-3-30 et seq., (HIGH-VOLTAGE SAFETY ACT) and any and all Rules and Regulations of the State of Georgia promulgated in connection therewith, all as now enacted or as hereinafter amended; and further agrees to notify any contractor(s) that may be employed by the Undersigned to perform any of the work referred to in this Agreement of the existence of said code sections and regulations by requiring said work to be performed in compliance with said code sections and regulations by including same as a requirement in its request for bids and including said requirements in any contract let as a result of said bid. The Undersigned further agrees and covenants to warn all persons whom the Undersigned knows or should reasonably anticipate for any reason may resort to the vicinity of such conductors of the fact that such conductors are (a) electrical conductors, (b) energized, (c) uninsulated and (d) dangerous.
6. Notwithstanding anything to the contrary contained herein, the Undersigned agrees to reimburse the Power Company for all cost and expense for any damage to the Power Company's facilities resulting from the use by the Undersigned of said area within said right(s)-of-way. Also, the Undersigned agrees that if in the opinion of the Power Company, it becomes necessary, as a result of the exercise of the permission herein granted, to relocate, rearrange, change or raise any of the Power Company's facilities, to promptly reimburse the Power Company for all cost and expense involved in such relocation, rearrangement or raising of said facilities.
7. The Undersigned agrees to notify or have the Undersigned's contractor notify the Power Company's Representative in **Marietta, Georgia**, Phone: **404-387-0529**, [cfolsom@southernco.com](mailto:cfolsom@southernco.com), at least three (3) business days prior to actual construction on the Power Company's right(s)-of-way.
8. The Undersigned agrees, to the extent it may lawfully do so, to indemnify and save harmless and defend the Power Company from the payment of any sum or sums of money to any persons whomsoever (including third persons, subcontractors, the Undersigned, the Power Company and agents and employees of them) on account of claims or suits growing out of injuries to persons (including death) or damage to property (including



property of the Power Company) in any way attributable to or arising out of the use of the right(s)-of-way, by the Undersigned as herein provided, including (but without limiting the generality of the foregoing) all liens, garnishments, attachments, claims, suits, judgments, costs, attorney's fees, cost of investigation and of defense, and excepting only those situations where the personal injury or property damage claimed have been caused by reason of the sole negligence on the part of the Power Company, its agents or employees.

9. The Undersigned hereby agrees to incorporate in any and all of its contracts and/or agreements, for any work or construction done on or to said described right(s)-of-way, with any and all third persons, contractors, or subcontractors, a provision requiring said third parties, contractors or subcontractors to indemnify and defend Power Company, its agents and employees as provided for above from payment of any sum or sums of money by reason of claims or suits resulting from injuries (including death) to any person or damage to any property which is in any manner attributable to or resulting from the construction, use or maintenance of the Undersigned's facilities, projects or programs conducted on Power Company's right(s)-of-way herein described, and excepting only those situations where the personal injury or property damage claimed have been caused by reason of the sole negligence on the part of the Power Company, its agents or employees.

10. The Undersigned further agrees to carry, if performing work or construction, and to require that any such third party, contractor or subcontractor doing or providing any such work or construction on said right(s)-of-way carry liability insurance which shall specifically cover such contractually assumed liability. A certificate of such insurance issued by the appropriate insurance company shall be furnished to the Power Company upon request, said amount of insurance to be not less than \$2,000,000 per occurrence for bodily injury and property damage which arise out of or result from the Undersigned's operations under this agreement. The Power Company shall be named as an additional insured on this liability insurance coverage.

11. The Power Company has the right to remove all trees and brush from the limits of the right(s)-of-way. However, Power Company will permit some planting of shrubbery and *low growing trees* provided these plants do not interfere with the access to and operation of Power Company's facilities and are planted at a distance greater than twenty-five (25) feet from any structure or attachment thereto. A *planted low growing tree* is defined as a tree which grows no more than 15 feet in height at maturity.

12. The Undersigned agrees that all construction activity shall be conducted at a distance greater than twenty-five feet (25') from any structure or attachment thereto.

13. This Agreement shall inure to the benefit of and be binding upon the parties, their heirs, successors and/or assigns.

The Undersigned hereby accepts the foregoing consent, and has by Resolution of the Commissioners, or by other legal and proper authorization, duly adopted (a copy of which will be furnished to Power Company on request), authorized the execution and acceptance of this Agreement subject to the terms and conditions set forth above and in the event the Undersigned fails to perform as herein provided and shall not have executed and returned this Agreement on or before the **1st of April, 2020**, this Agreement shall become void and no use of the Power Company's right(s)-of-way as herein provided for shall be made.

IN WITNESS WHEREOF, this Agreement has been duly executed, this the 2<sup>nd</sup> day of February, 2020.



UNDERSIGNED

BY: [Signature]  
NAME: GLENN M. PAGE  
TITLE: GENERAL MANAGER

WITNESS: [Signature]  
NOTARY PUBLIC: [Signature]

The Power Company has by its duly authorized agent executed this Agreement, this the \_\_\_ day of \_\_\_\_\_, 20\_\_.

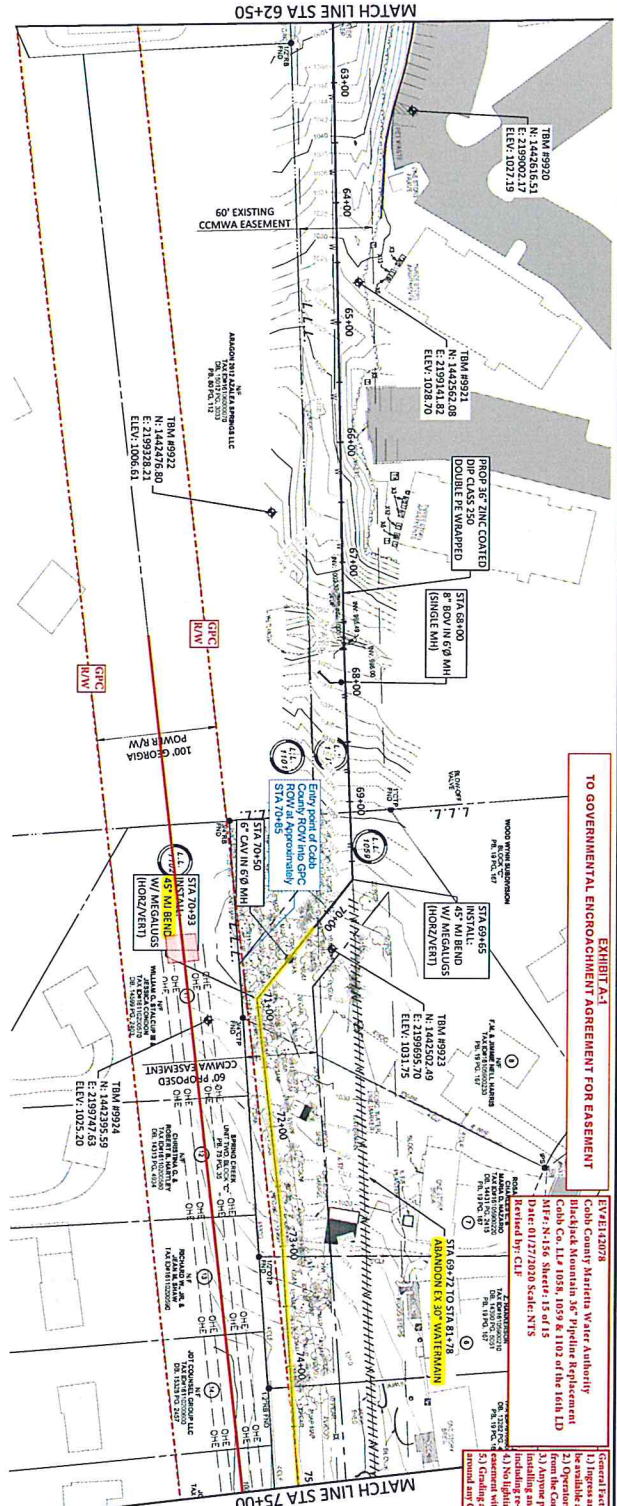
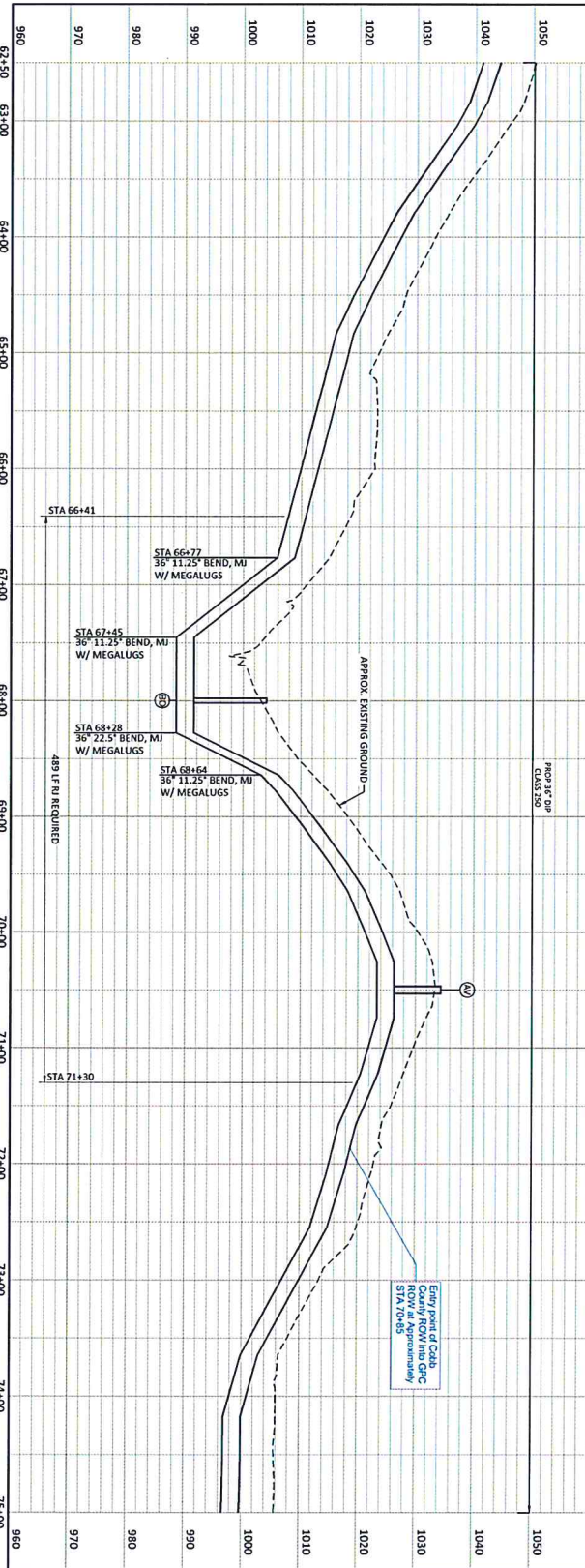
GEORGIA POWER COMPANY

WITNESS: \_\_\_\_\_  
NOTARY PUBLIC: \_\_\_\_\_

BY: \_\_\_\_\_  
NAME: Michael Crider  
TITLE: Area Transmission Maintenance Supervisor



9/16/2019 1:44 PM CV-LNA-PP-SHTS01.dwg



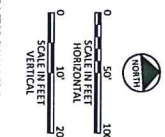
**TO GOVERNMENTAL ENCROACHMENT AGREEMENT FOR EASEMENT**

**EXHIBIT A-1**

EXHIBIT B-078  
 36\"/>

EXHIBIT C-008  
 36\"/>

- NOTES:**
1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
  2. MAIN TO BE RENOVATED AND REPLACED WITH PROPOSED 36\"/>



PLAN NO.	CBR18759
DATE	09/20/19
DESIGNED	RCE
DRAWN	EFW
REVISD	
CHECKED	JCS
FILE NAME	CV-LNA-PP-SHTS01.dwg

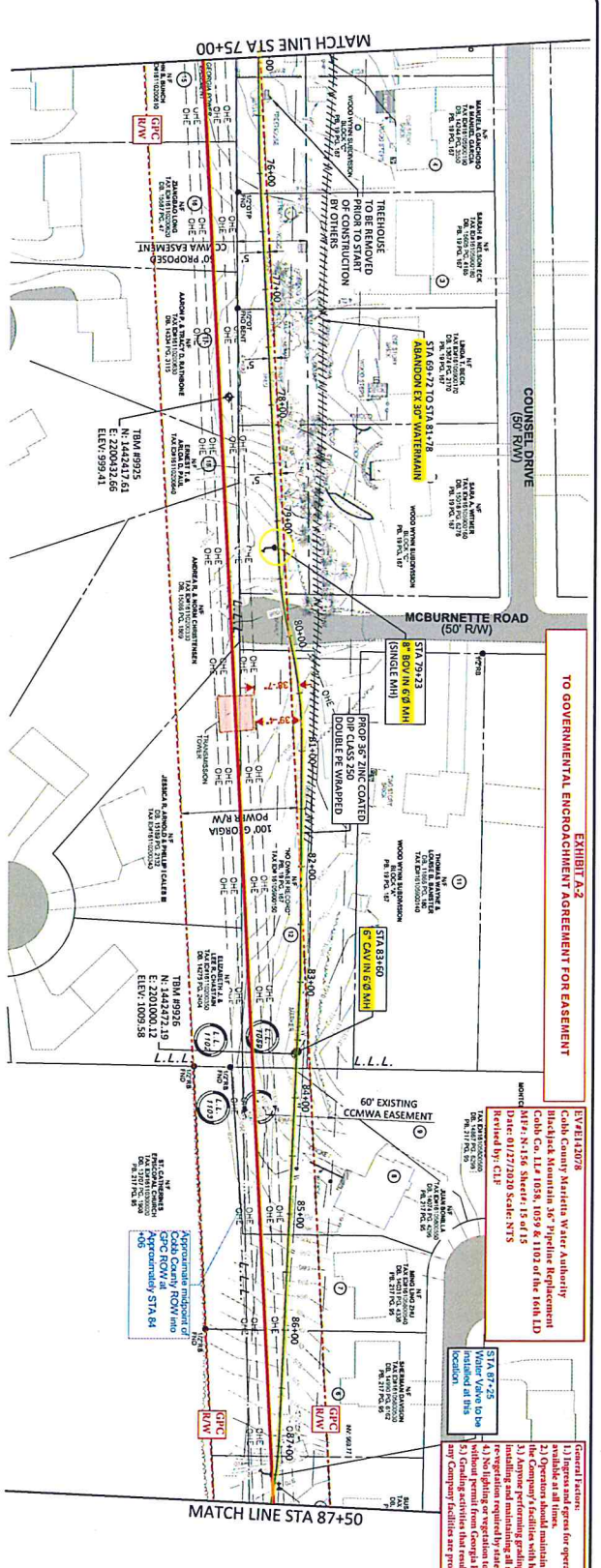
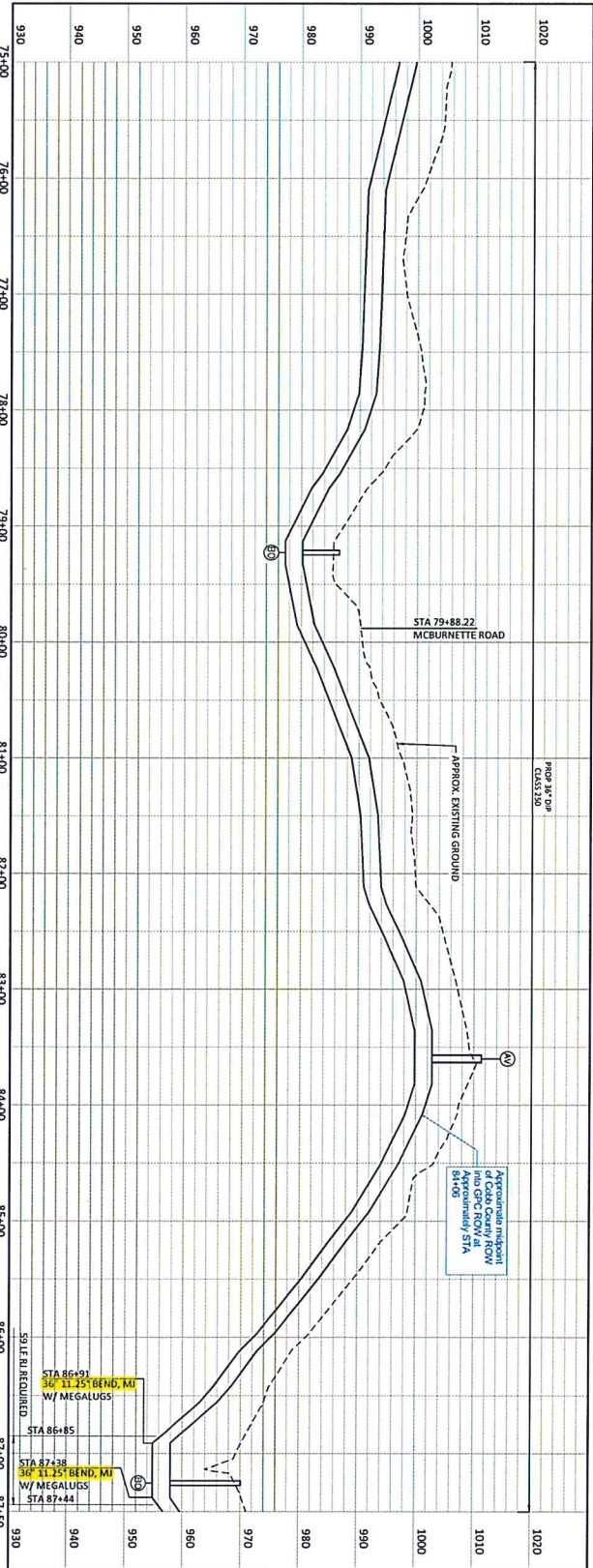
**COBB COUNTY-MARIETTA WATER AUTHORITY**  
**BLACKJACK MOUNTAIN**  
**36-INCH PIPELINE REPLACEMENT**  
 CIVIL  
**LOWER ROSWELL TO BARNES MILL RD**  
**SEGMENT A - STA 62+50 TO STA 75+00**

**FREESE NICHOLS**  
 350 Interstate North Parkway,  
 Suite 250  
 Atlanta, GA 30339  
 Phone = (404) 334-4310  
 Web = www.freese.com

**NOT FOR CONSTRUCTION**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERNAL REVIEW ONLY. THE AUTHORITY OF FRANK CHRISTOPHER LUNA GEORGIA HAS EXPIRED ON DATE 09/20/2019. IT IS NOT TO BE USED FOR CONSTRUCTION, RECORD OR PERMIT PURPOSES.



PROJECT: 9/26/2019 1:59 PM DATE: 9/26/2019 DRAWING: N:\WFD\Drawings\CV-LNA-PP-SHTS01.dwg



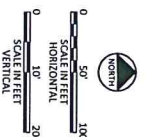
**EXHIBIT A2  
 TO GOVERNMENTAL ENCROACHMENT AGREEMENT FOR EASEMENT**

ELEV: 12/07/08  
 Cobb County Marietta Water Authority  
 1100 County Marietta Water Authority  
 Marietta, GA 30067  
 Project: N-156, Sheet: 15 of 15  
 Date: 01/27/2020 Scale: NTS  
 Revised by: CLP

STA 87+25  
 Water Valve to be  
 included at this  
 location.

- General Provisions:**
- 1) Operator's responsibilities for operating and maintenance purposes should be available at all times.
  - 2) Operator should maintain a minimum clearance of ten (10) feet from the Company's facilities with heavy equipment.
  - 3) The Company shall be responsible for installing and maintaining all instrumentation and emission control including re-generation required by state and local regulation.
  - 4) No lighting or operation shall be installed within Georgia Power easement area.
  - 5) Grading activities that result in standing water or create erosion around any Company facilities are prohibited.

- NOTES:**
1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
  2. MAIN TO BE REMOVED AND REPLACED WITH PROPOSED 36" DIP UNLESS OTHERWISE DESCRIBED IN PLANS.



NO.	ISSUE	DATE	BY	DATE

SHEET: C-7  
 FILE NAME: CV-LNA-PP-SHTS01.dwg  
 DATE: 09/20/19  
 DESIGNED: RCE  
 DRAWN: BWF  
 CHECKED: JCS  
 REVISION:

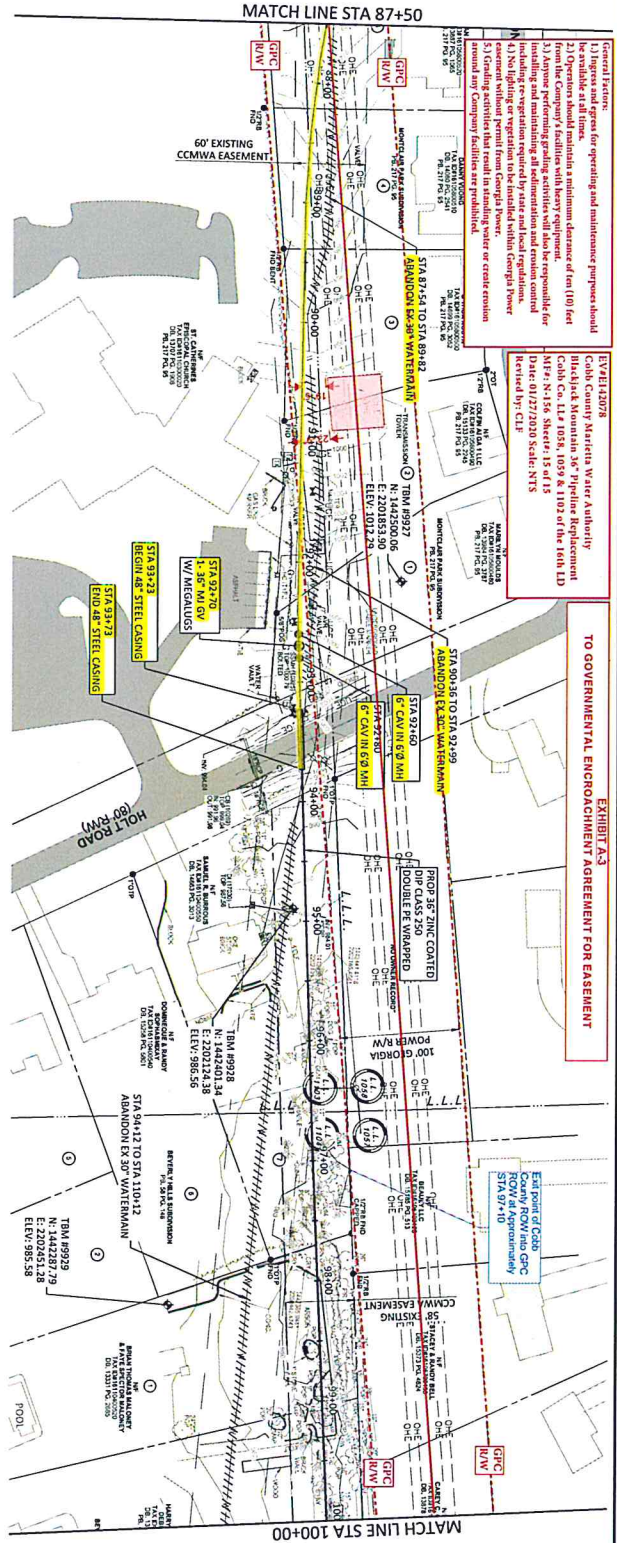
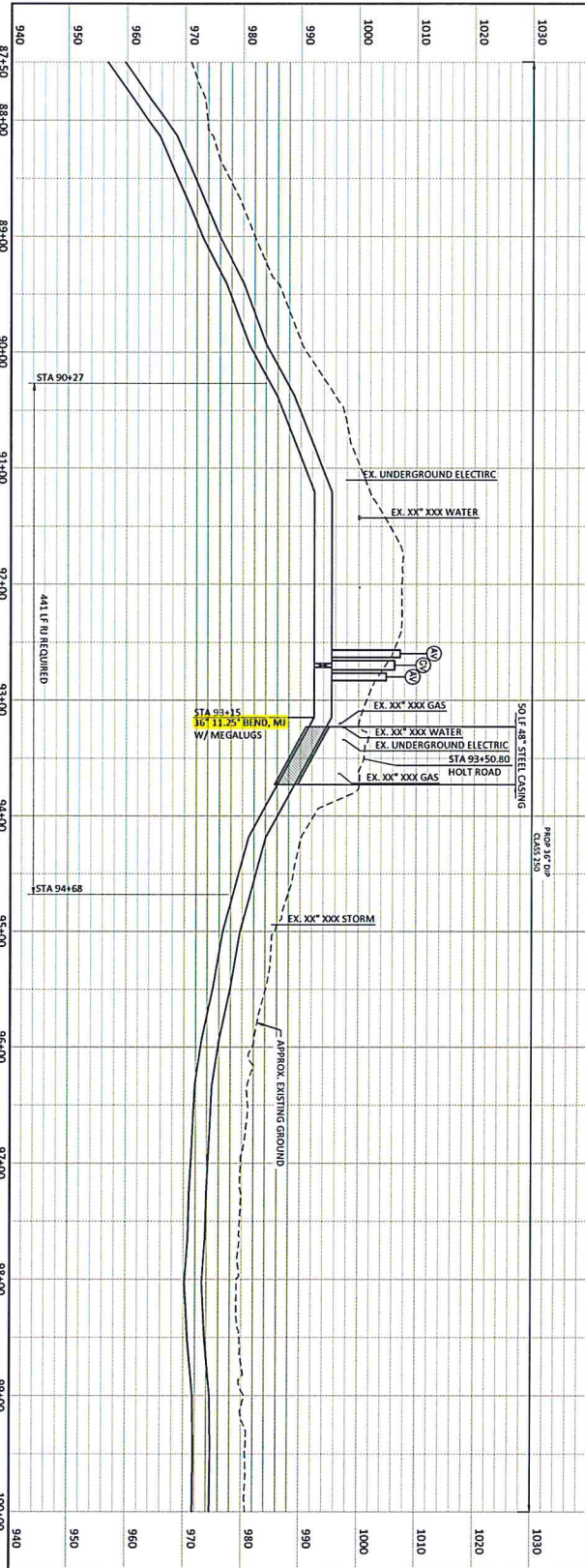
**COBB COUNTY-MARIETTA WATER AUTHORITY**  
**BLACKJACK MOUNTAIN**  
**36-INCH PIPELINE REPLACEMENT**  
 CIVIL  
**LOWER ROSWELL TO BARNES MILL RD**  
**SEGMENT A - STA 75+00 TO STA 87+50**

**FREESE INCORPORATED**  
 350 Interstate North Parkway,  
 Suite 250  
 Marietta, GA 30067  
 Phone - (404) 334-4310  
 Web - www.freese.com

**NOT FOR CONSTRUCTION**  
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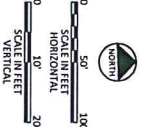
Plot Date: 9/26/2019 3:02 PM Plot By: D280



General Notes:  
 1) Ingress and egress for operating and maintenance purposes shall be available at all times.  
 2) Operator shall maintain a minimum clearance of ten (10) feet from all existing and proposed structures.  
 3) Anyone performing galling activities will also be responsible for handling and maintaining all sedimentation and erosion control devices.  
 4) All activities shall be performed in accordance with Georgia Power's assessment without permit from Georgia Power.  
 5) Cracking activities that result in standing water or create erosion (except any Company facilities) are prohibited.

EXHIBIT A-3  
 TO GOVERNMENTAL ENCROACHMENT AGREEMENT FOR EASEMENT  
 PROJECT: 36\"/>

NOTES:  
 1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.  
 2. PANELS XXX-XXX CONTRACTOR TO REPAIR TO LIKE OR BETTER CONDITION IF DAMAGED.  
 3. MAIN TO BE REMOVED AND REPLACED WITH PROPOSED 36\"/>



NO.	ISSUE	BY	DATE	REVISION

VERIFY SCALE: Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

COBB COUNTY-MARIETTA WATER AUTHORITY  
**BLACKJACK MOUNTAIN**  
**36-INCH PIPELINE REPLACEMENT**  
 CIVIL  
**LOWER ROSWELL TO BARNES MILL RD**  
**SEGMENT A - STA 87+50 TO STA 100+00**

**FREESE NICHOLS**  
 350 Interstate North Parkway,  
 Suite 250  
 Atlanta, GA 30339  
 Phone - (404) 334-4310  
 Web - www.freese.com

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# Rhino Marking Systems, Inc.

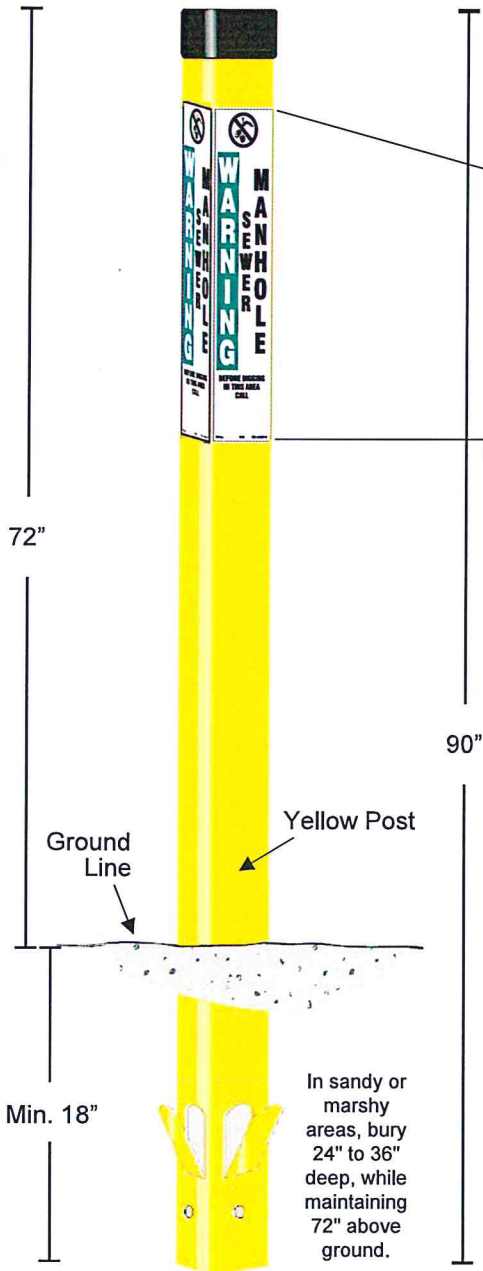
ALL MATERIALS SHALL BE USED AS LISTED, OR EQUIVALENT APPROVED BY GEORGIA POWER

**Parts:**

- Rhino # TVP90YB - 90" Yellow TriView PLUS™ with Black Cap (using Flex PLUS rod insert) and TriGrip™ anchor system
- GD-5325R-K Decal (printed on reflective stock and factory applied to post)

**NOTES:**

1. Marker posts shall be installed in accordance with this Exhibit MP-1 and per the manufacturer's specifications.
2. Posts shall be color coded and labeled to match the type of facility they are marking (Blue = Water, Green = Sewer, Purple = Reclaimed Water, etc.), except that posts marking manholes shall be yellow, with the decal lettering color coded to match the service of the facility to which the manhole is related. Posts shall include the name and contact information for the owner / operator of the utility facility.
3. Markers shall be placed at the following locations: every 500 feet above the center line of buried facilities, at all points of inflection, at the entrance onto and exit from the right-of-way, on each side of road crossings and stream crossings and at all manholes. If the marker post at a manhole is not readily visible from traffic areas or could be obscured by vegetation, a secondary marker post shall be placed between the traffic area and the manhole.



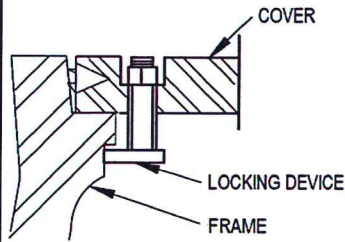
- Sewer Manhole in black
- White background sharply contrasts with black and green warning message to ensure maximum visibility
- Warning in green (APWA) color for sewer manhole
- Optional: insert 811 logo here
- Emergency contact number
- Owner name / logo

Min. 18"  
In sandy or marshy areas, bury 24" to 36" deep, while maintaining 72" above ground.



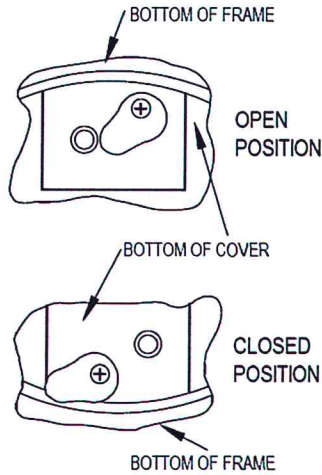
## HIGH VISIBILITY MARKER POST DETAILS AND SPECIFICATIONS

Drawn by: B. Kitchel  
Date: 10.26.2018  
**Exhibit MP-1**



TYPICAL LOCKING DEVICE

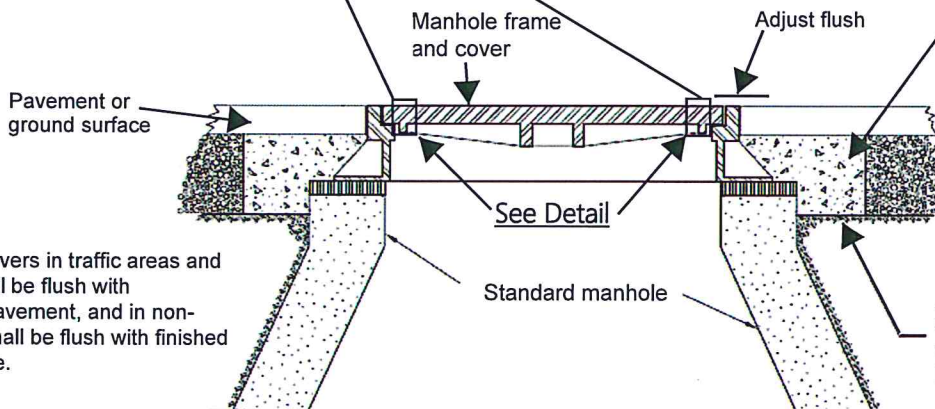
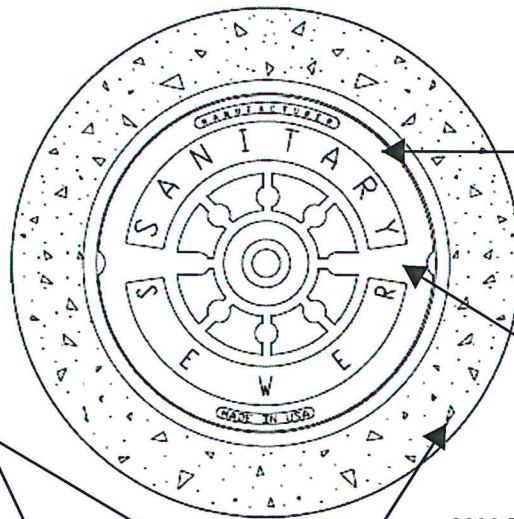
**DETAIL**



**NOTES:**

1. Manholes and covers shall conform to the standards shown on and be installed in accordance with this Exhibit MH-1.
2. Manholes shall be designed and constructed to prevent vandalism and tampering and to withstand possible impact from heavy construction and maintenance equipment, including without limitation mowing and bush hog type equipment.
3. The cover design, including proposed locking mechanism, shall be submitted to and approved by Georgia Power in advance.
4. Rings shall be anchored to the concrete cone using a minimum of four (4) stainless steel concrete bolts of sufficient length to properly pass through any grade rings.
5. Where circumstances dictate in non-paved areas, the manhole cover shall be installed in a concrete pad at least six inches thick and five feet square or five feet in diameter, flush to the ground surface and of sufficient load-bearing capacity to support vehicular traffic.

Manholes shall have a locking type cover or be secured with tamper-resistant bolts.



Collars and covers in traffic areas and sidewalks shall be flush with surrounding pavement, and in non-traffic areas shall be flush with finished ground surface.



**MANHOLE DETAIL AND COVER SPECIFICATIONS**

Drawn by: B. Kitchel

Date: 10.26.2018

**Exhibit MH-1**



## ATTACHMENT NO. 2

### EXHIBIT NOTES FOR UTILITY ENCROACHMENTS

The following language is to be included on the exhibit for all line encroachments:

- The location and dimensions of the encroachments permitted by this Agreement are strictly limited to that which is shown on this Exhibit. No alterations or changes to the location or dimensions of the encroachments, or additions to the encroachments, may be made without the prior written approval of Georgia Power. In the event of a violation of any of the terms and conditions of this Agreement, Georgia Power may demand removal of the facilities from the right-of-way and Undersigned shall remove the facilities within the time specified by Georgia Power. If Undersigned fails to do so, Georgia Power may remove the facilities at Undersigned's expense.
- All underground facilities shall be installed at a depth and/or strength to withstand the passage of heavy construction and maintenance vehicles and equipment (HS-20 loading).
- All line locations and associated line facilities shall be clearly marked with marker posts in accordance with Exhibit MP-1.
- All underground lines shall be clearly marked with sensors to determine exact location of underground facilities and depths.
- As-built drawings shall be submitted to Georgia Power promptly upon installation of the facilities, together with GIS location data for the facilities.

Add the following language to the encroachment exhibit as applicable for the specific type of encroachment:

#### Permitted manholes:

- Manholes shall conform to the standards shown on and be installed in accordance with Exhibit MH-1 and shall be clearly marked with marker posts in accordance with Exhibit MP-1.
- Georgia Power is not responsible for any damage to manhole covers caused by its use of the right-of-way, and in the event of damage to a manhole and/or cover, Undersigned shall immediately repair such damage.

#### Other conditions:

- Adequate measures shall be installed to protect underground facilities from induced voltage within the right-of-way.
- All construction equipment used on the right-of-way must be less than fifteen (15) feet in height.



**CITY OF MARIETTA LAND DISTURBANCE PERMIT**





DEPARTMENT OF PUBLIC WORKS  
Engineering/Inspections Division  
205 Lawrence Street, 2nd floor  
Marietta, Georgia 30060

Phone: 770-794-5659

Fax: 770-794-5585

[www.mariettaga.gov](http://www.mariettaga.gov)

## LAND-DISTURBING ACTIVITY PERMIT

<b>PERMIT NUMBER :</b>	LDP-20-02-000953	<b>ISSUED DATE :</b>	2/18/2020
<b>PROJECT NAME :</b>	Blackjack Mountain 36-Inch Pipeline Replacement		
<b>PROJECT ADDRESS :</b>	862 BARNES MILL RD TEMP, MARIETTA Georgia 30062		
<b>PERMITTEE NAME :</b>	Cobb County Marietta Water Authority		
<b>24-HOUR ES&amp;PC CONTACT :</b>	Jacob Wilson 770-514-5291		

In accordance with the provisions of ARTICLE 7-8-12 Soil Erosion, Sedimentation and Pollution Control (ES&PC), of the City of Marietta Code of Ordinances, as amended, this permit is issued for the land-disturbing activity as recorded hereon and presented on the approved ES&PC Plan which is hereby made a part of this permit.

This permit is subject to modification or revocation on a finding of non-compliance with any of the provisions of said Code of Ordinances or any of the Rules promulgated pursuant thereto; or with any representation made in the application or the statements and supporting data entered therein or attached thereto.

This permit is effective from the date issued until completion of the aforementioned land-disturbing activity and is contingent upon the permittee complying with the conditions as indicated on the approved ES&PC Plan.

**IF LAND-DISTURBING ACTIVITY DOES NOT COMMENCE WITHIN SIX MONTHS OF THIS PERMIT'S ISSUE DATE, THIS PERMIT WILL EXPIRE, AND THE PROJECT MAY AGAIN BE SUBJECT TO THE FULL PLAN REVIEW AND PERMITTING PROCESS.**

**MARIETTA ES&PC CONTACT: TIM DIXON, FIELD ENGINEER, 770-794-5653  
TDIXON@MARIETTA.GOV**



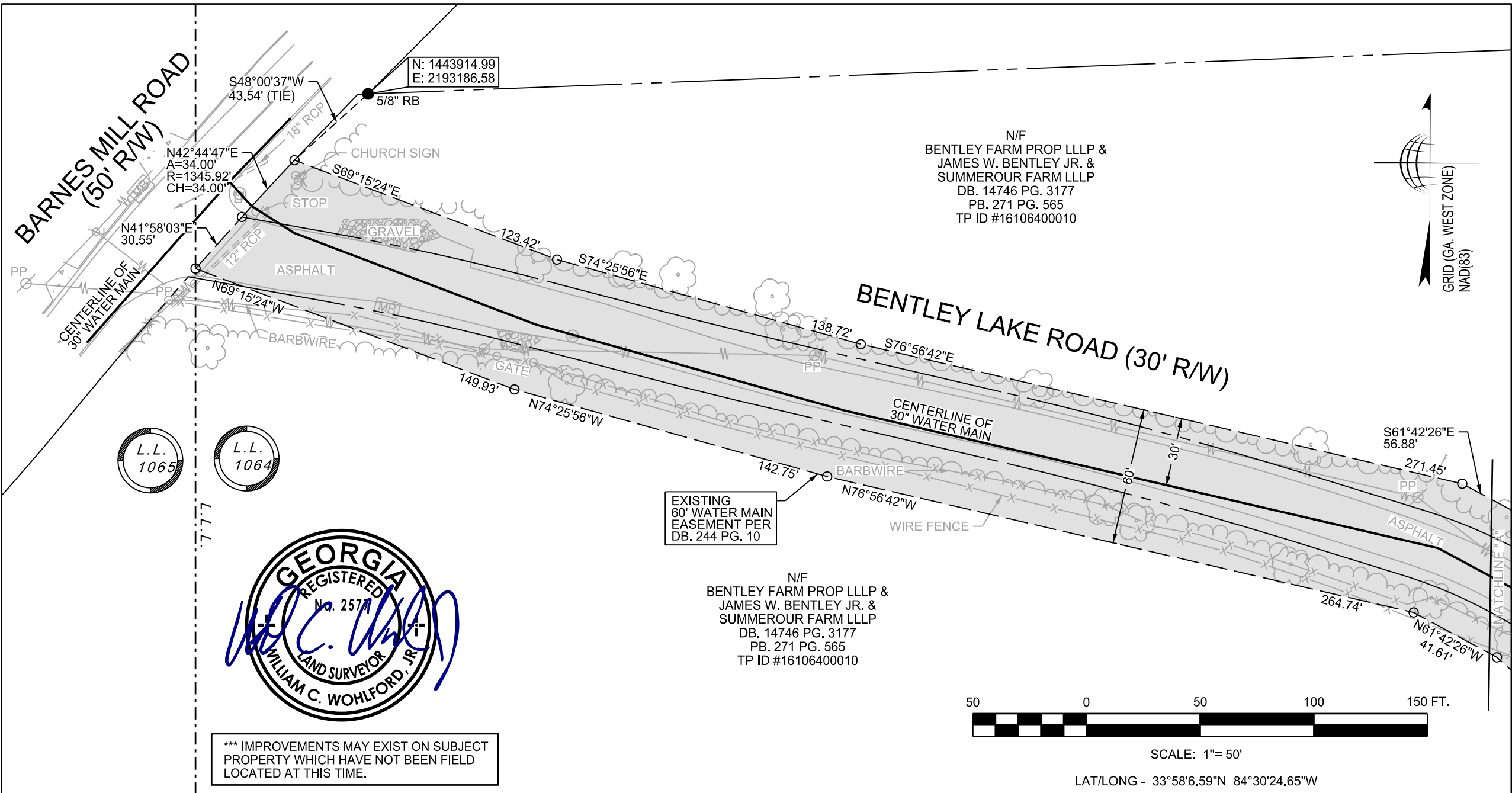
**APPENDIX D  
EASEMENTS**



## **EXISTING EASEMENT PLATS**







N: 1443914.99  
 E: 2193186.58

S48°00'37"W  
 43.54' (TIE)

N42°44'47"E  
 A=34.00'  
 R=1345.92'  
 CH=34.00'

N41°58'03"E  
 30.55'

N69°15'24"W

149.93'

N74°25'56"W

142.75'

N76°56'42"W

138.72'

S76°56'42"E

123.42'

S74°25'56"E

S61°42'26"E  
 56.88'

271.45'

264.74'

N61°42'26"W  
 41.61'

L.L.  
 1065

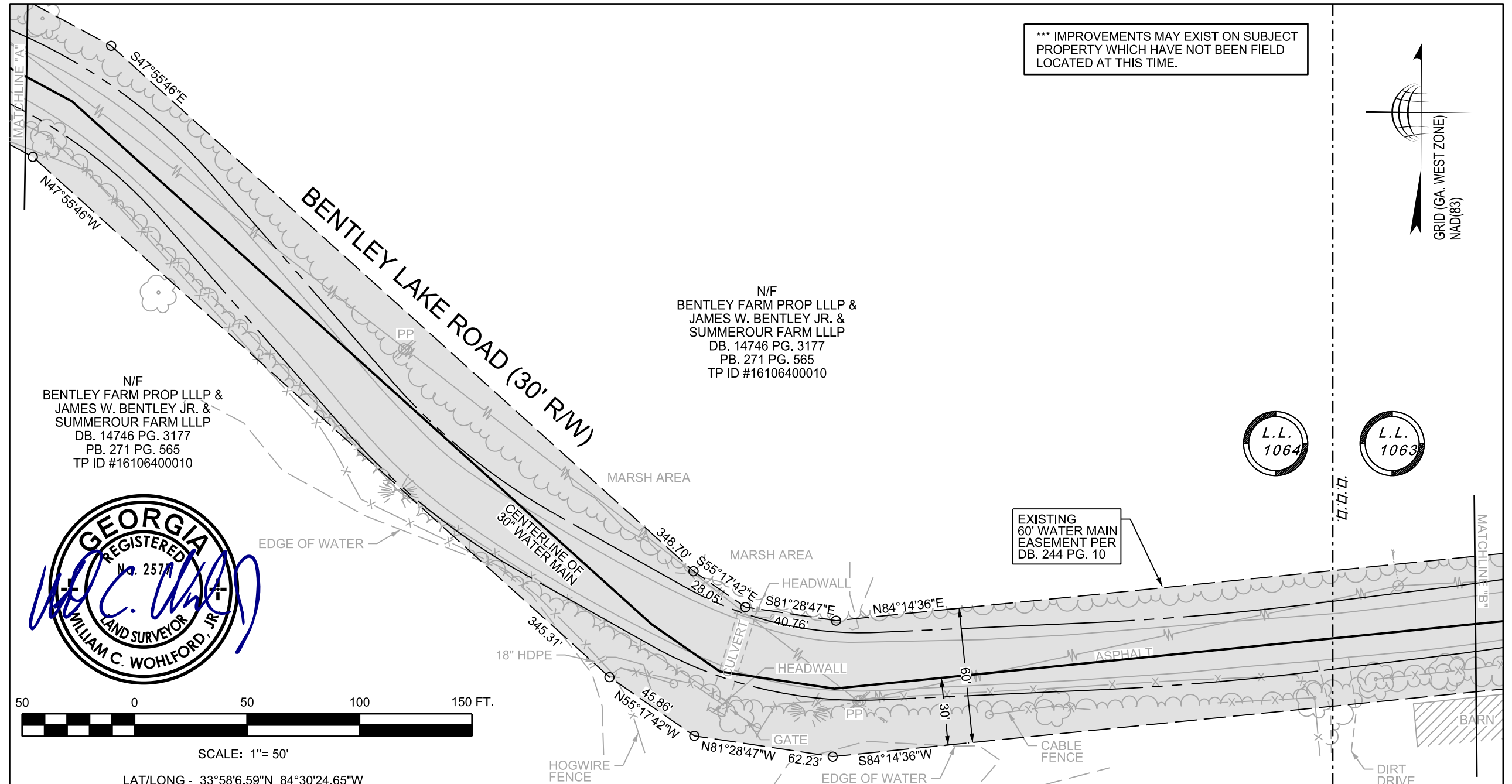
L.L.  
 1064



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

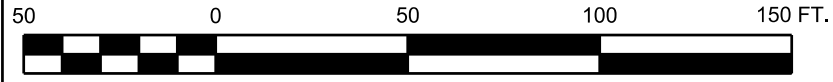
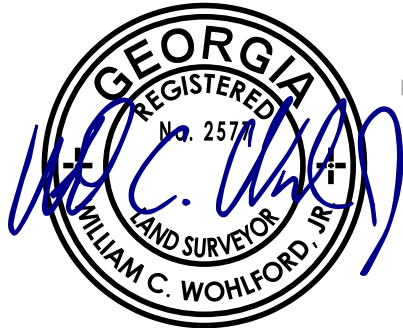
149,935 SQ. FT./ 3.4421 AC. EASEMENT	LOCATED IN LAND LOTS 1063, 1064 & 1065 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
2,512 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/4	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 1.1	BENTLEY FARM PROP LLLP & JAMES W. BENTLEY JR. & SUMMEROUR FARM LLLP COBB COUNTY	TerraMark Professional Land Surveying

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.




N/F  
BENTLEY FARM PROP LLLP &  
JAMES W. BENTLEY JR. &  
SUMMEROUR FARM LLLP  
DB. 14746 PG. 3177  
PB. 271 PG. 565  
TP ID #16106400010

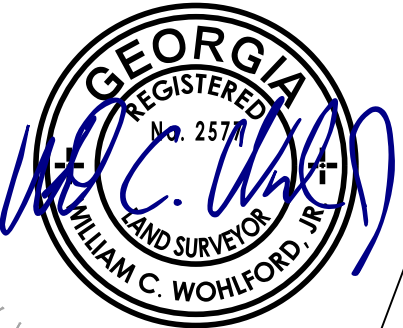
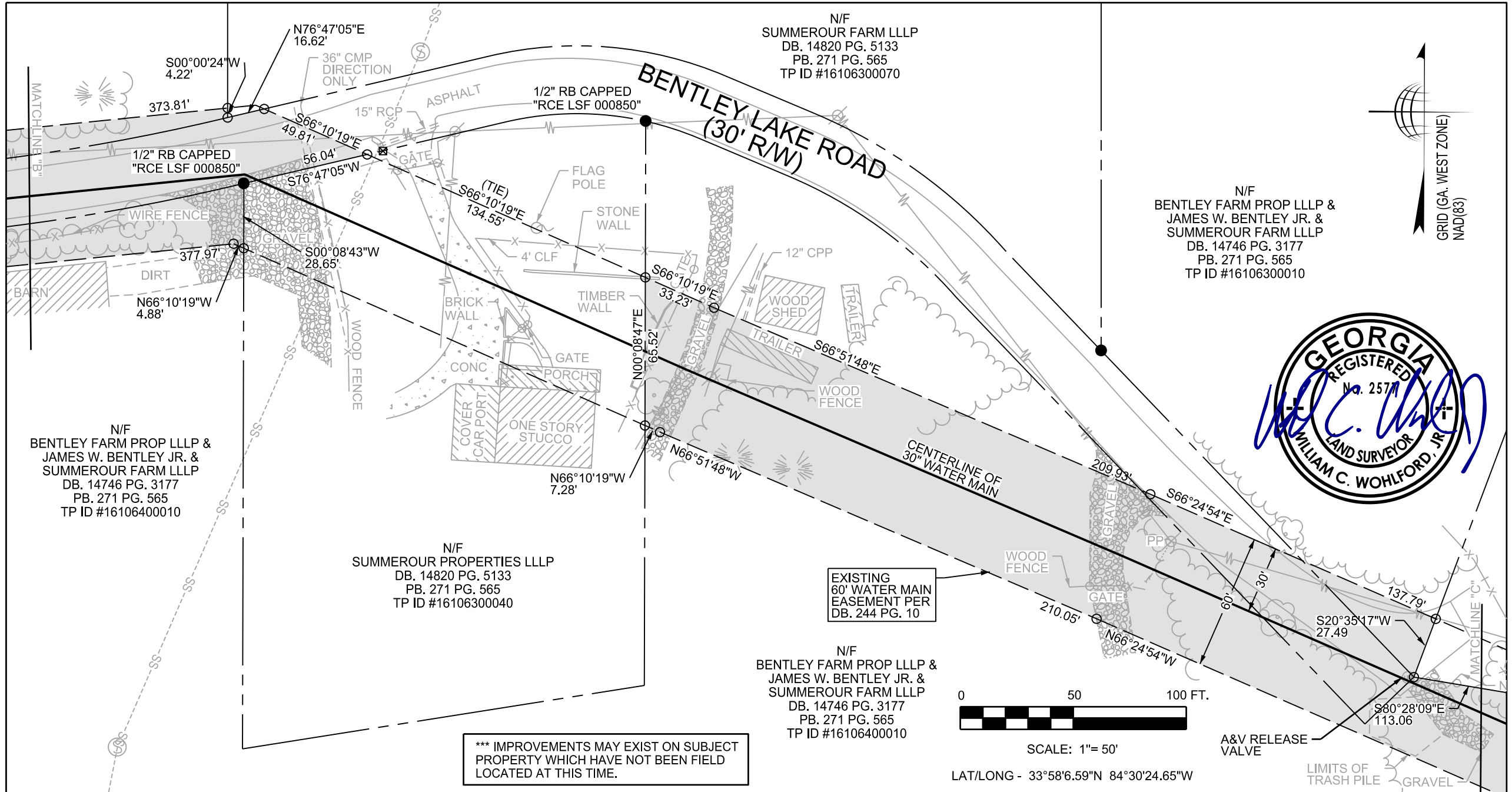
N/F  
BENTLEY FARM PROP LLLP &  
JAMES W. BENTLEY JR. &  
SUMMEROUR FARM LLLP  
DB. 14746 PG. 3177  
PB. 271 PG. 565  
TP ID #16106400010



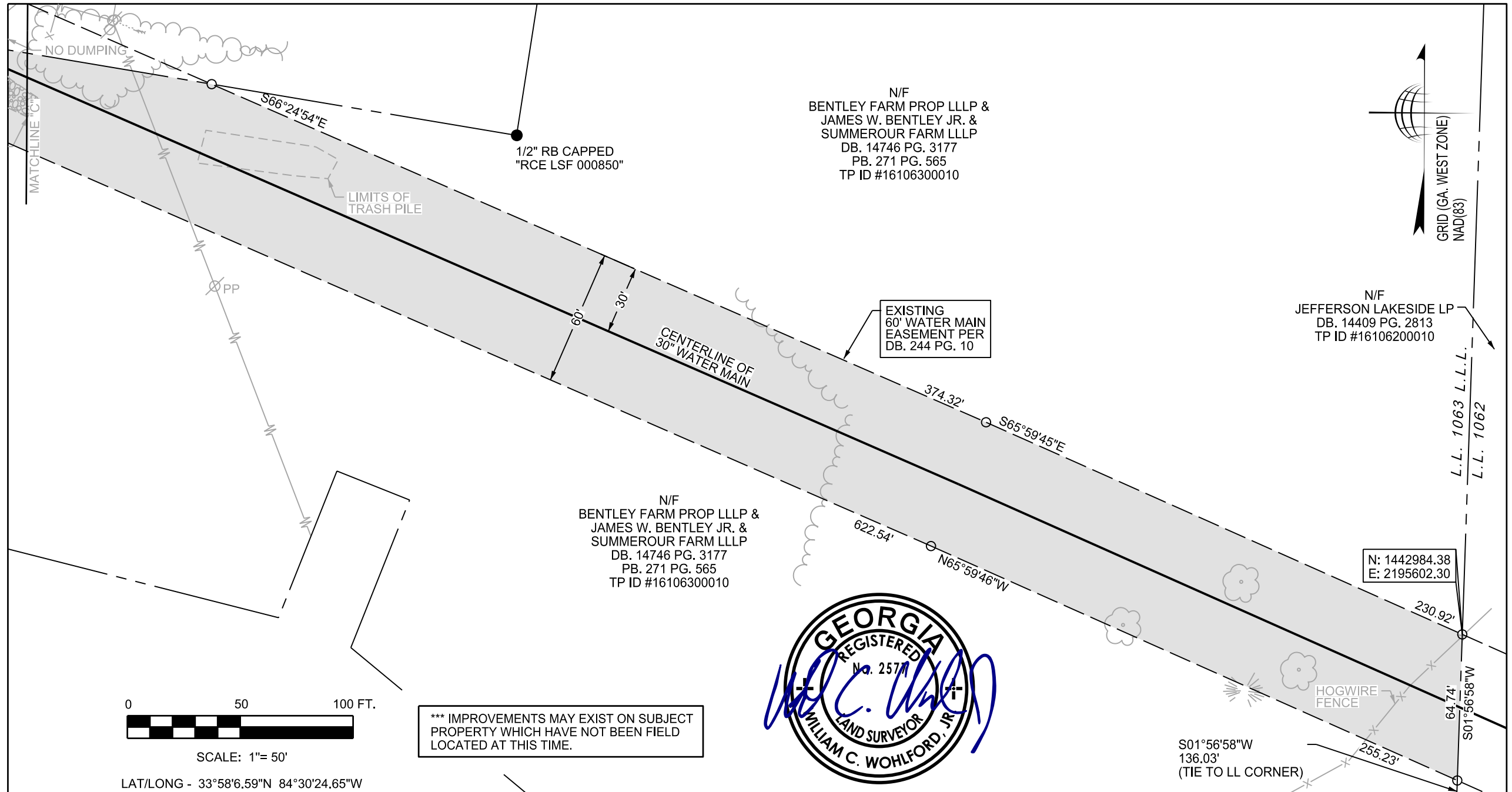
SCALE: 1" = 50'

LAT/LONG - 33°58'6.59"N 84°30'24.65"W

149,935 SQ. FT./ 3.4421 AC. EASEMENT	LOCATED IN LAND LOTS 1063, 1064 & 1065 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF: BENTLEY FARM PROP LLLP & JAMES W. BENTLEY JR. & SUMMEROUR FARM LLLP	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
2,512 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 2/4	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 1.2	COBB COUNTY	

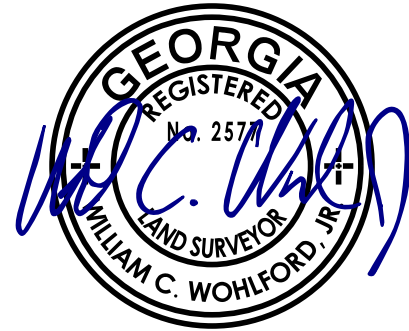


149,935 SQ. FT./ 3.4421 AC. EASEMENT	LOCATED IN LAND LOTS 1063, 1064 & 1065 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
2,512 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 3/4	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 1.3	BENTLEY FARM PROP LLLP & JAMES W. BENTLEY JR. & SUMMEROUR FARM LLLP COBB COUNTY	TerraMark Professional Land Surveying



149,935 SQ. FT./ 3.4421 AC. EASEMENT	LOCATED IN LAND LOTS 1063,1064 & 1065 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
2,512 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 4/4	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 1.4	BENTLEY FARM PROP LLLP & JAMES W. BENTLEY JR. & SUMMEROUR FARM LLLP COBB COUNTY	TerraMark Professional Land Surveying





N/F  
BENTLEY FARM PROP LLLP &  
JAMES W. BENTLEY JR. &  
SUMMEROUR FARM LLLP  
DB. 14746 PG. 3177  
PB. 271 PG. 565  
TP ID #16106400010

L.L.  
1064

L.L.  
1063

EXISTING  
60' WATER MAIN  
EASEMENT PER  
DB. 244 PG. 10

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.

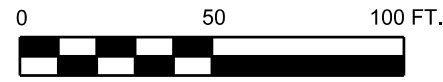
N/F  
SUMMEROUR FARM LLLP  
DB. 14820 PG. 5133  
PB. 271 PG. 565  
TP ID #16106300070



N/F  
BENTLEY FARM PROP LLLP &  
JAMES W. BENTLEY JR. &  
SUMMEROUR FARM LLLP  
DB. 14746 PG. 3177  
PB. 271 PG. 565  
TP ID #16106400010

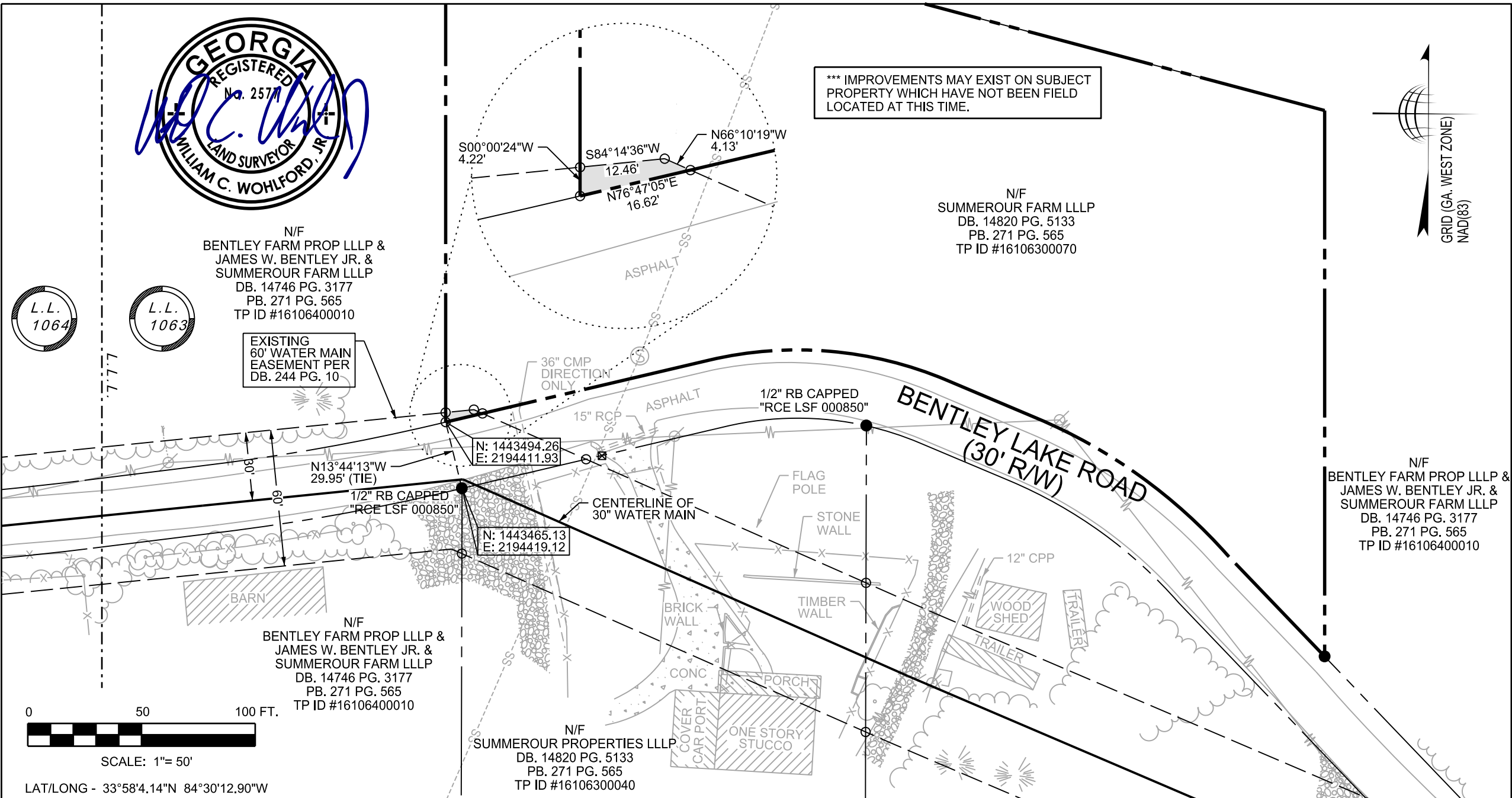
N/F  
BENTLEY FARM PROP LLLP &  
JAMES W. BENTLEY JR. &  
SUMMEROUR FARM LLLP  
DB. 14746 PG. 3177  
PB. 271 PG. 565  
TP ID #16106400010

N/F  
SUMMEROUR PROPERTIES LLLP  
DB. 14820 PG. 5133  
PB. 271 PG. 565  
TP ID #16106300040

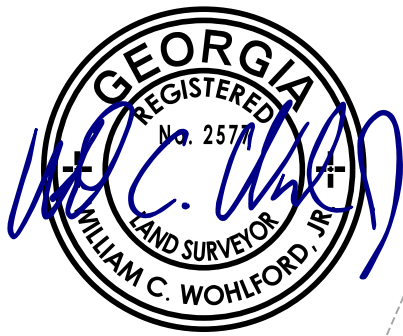
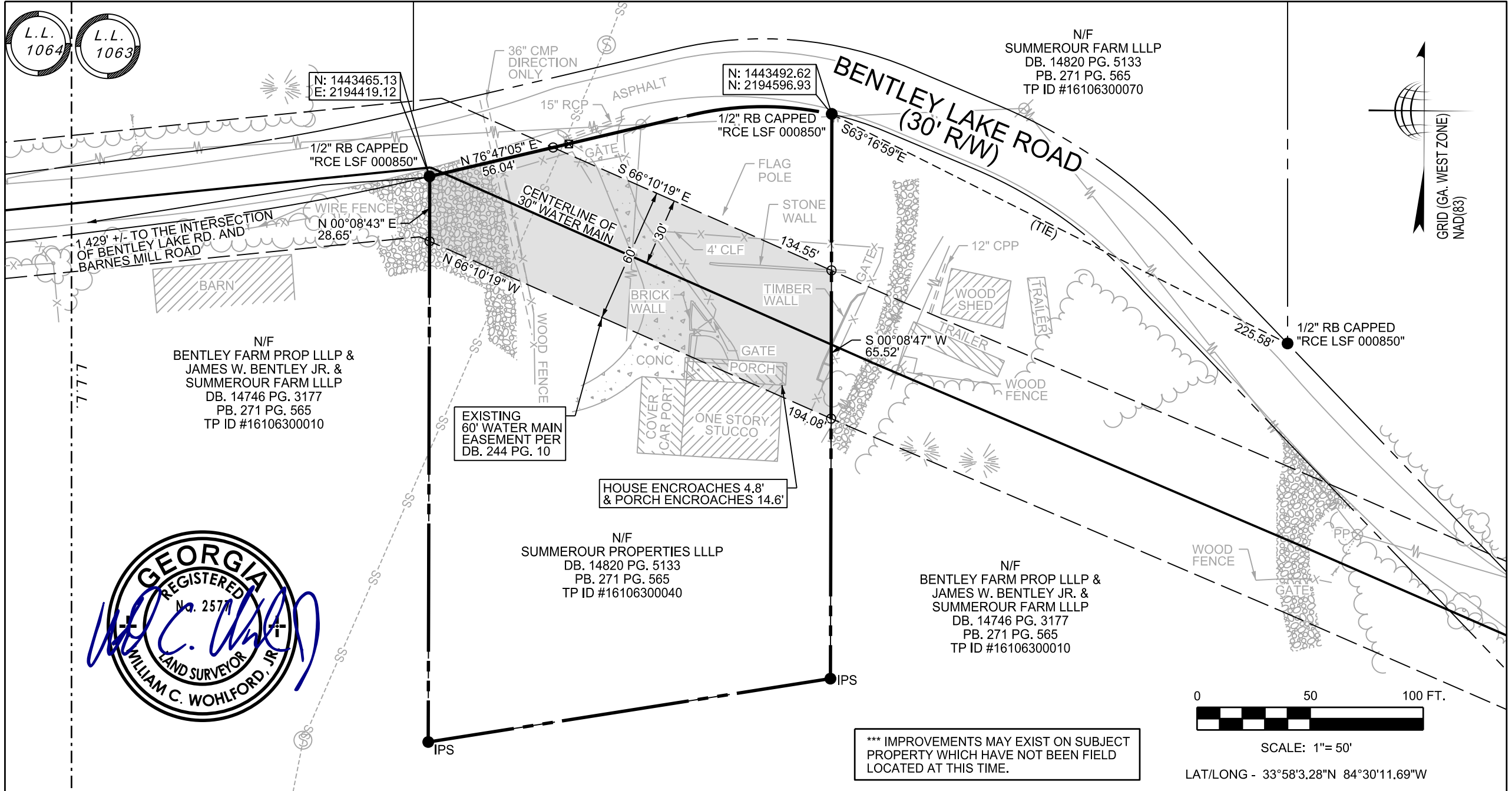


SCALE: 1"= 50'

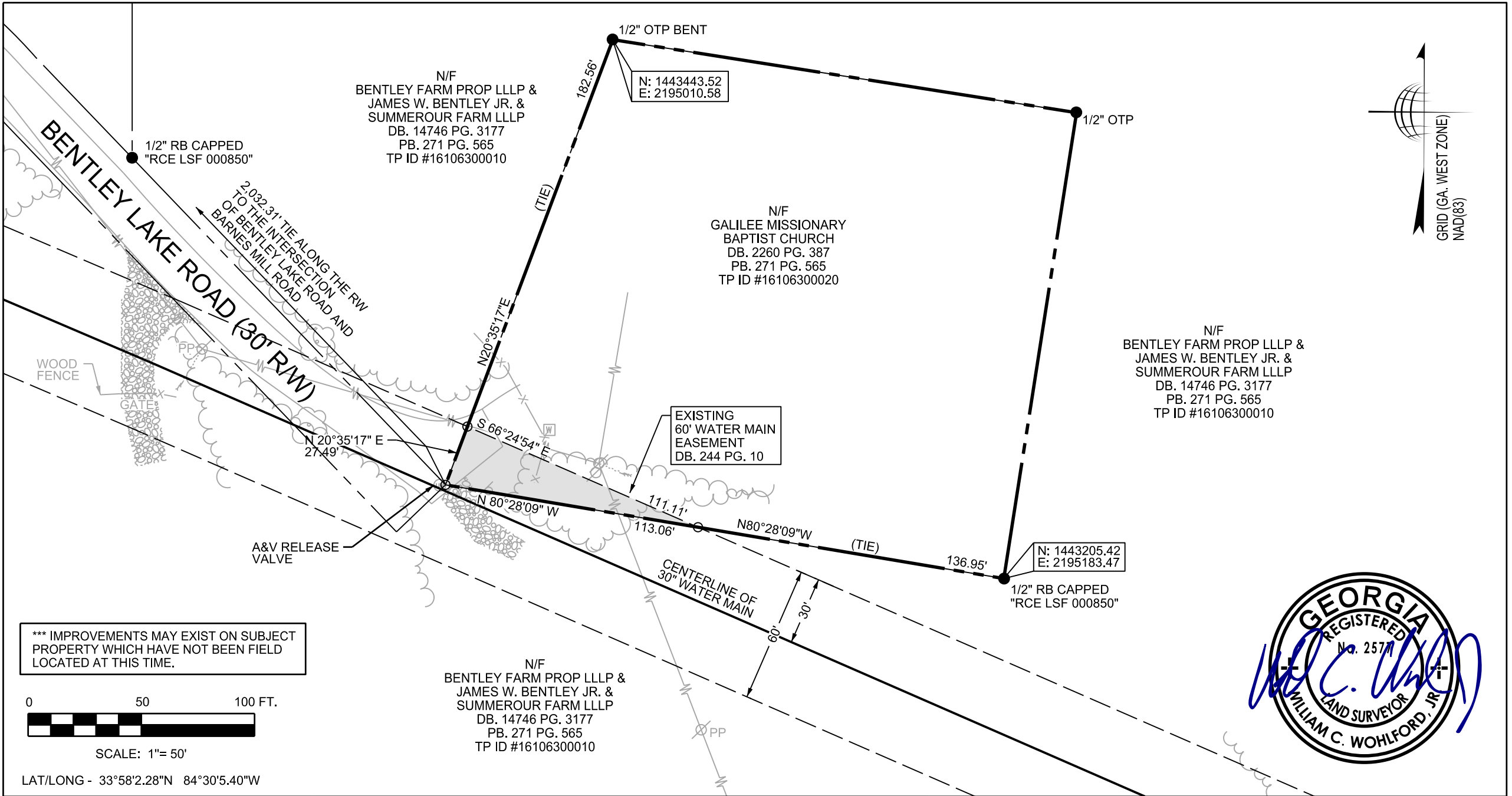
LAT/LONG - 33°58'4.14"N 84°30'12.90"W



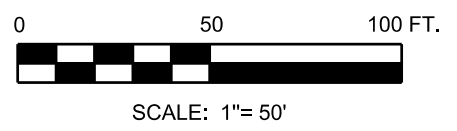
47 SQ. FT./ 0.0011 AC. EASEMENT	LOCATED IN LAND LOT 1063 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 3	THROUGH THE PROPERTY OF: SUMMEROUR FARM LLLP	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
16 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1		COBB COUNTY	TerraMark Professional Land Surveying



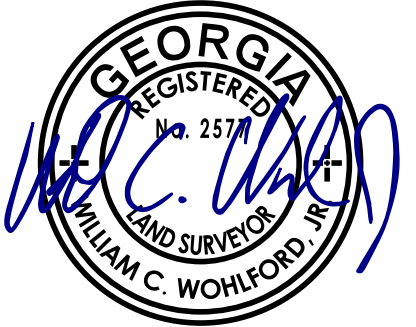
10,640 SQ. FT./ 0.2443 AC. EASEMENT	LOCATED IN LAND LOT 1063 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 5	THROUGH THE PROPERTY OF:  SUMMEROUR PROPERTIES LLLP	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
187 L.F. 60' WIDE EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY	COBB COUNTY	Professional Land Surveying




\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

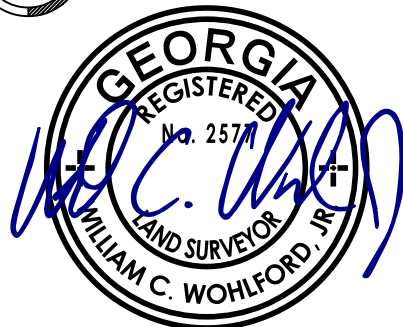
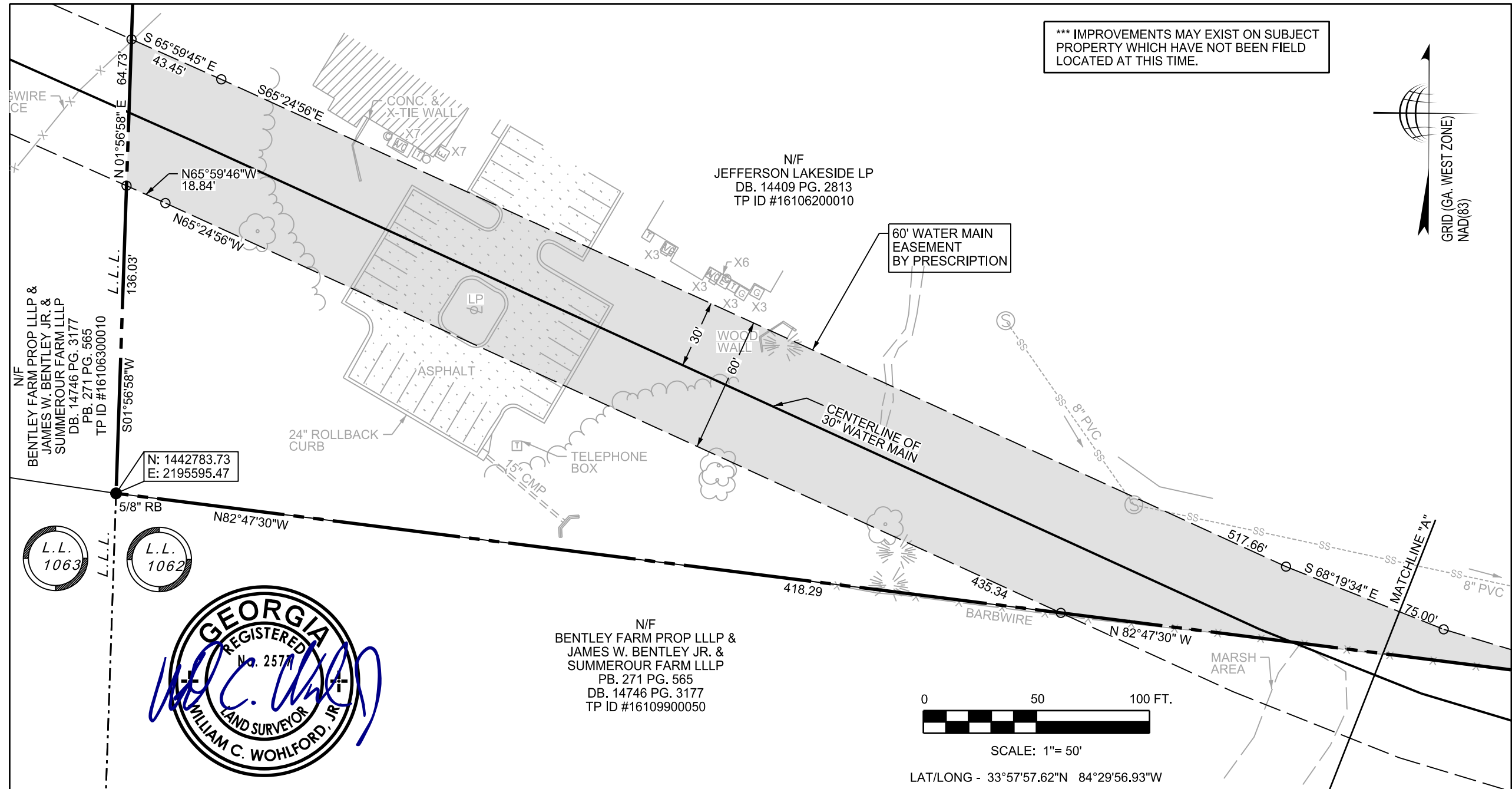
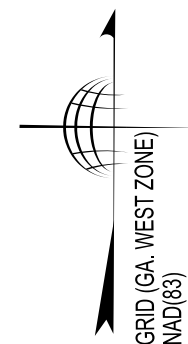


LAT/LONG - 33°58'2.28"N 84°30'5.40"W



1,525 SQ. FT./ 0.035 AC. EASEMENT	LOCATED IN LAND LOT 1063 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF: <b>GALILEE MISSIONARY BAPTIST CHURCH</b>	 TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
111 L.F. 60' WIDE EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	<b>COBB COUNTY-MARIETTA WATER AUTHORITY</b> C.C.M.W.A. NO. 6	<b>COBB COUNTY</b>	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



N/F  
 BENTLEY FARM PROP LLLP &  
 JAMES W. BENTLEY JR. &  
 SUMMEROUR FARM LLLP  
 PB. 271 PG. 565  
 DB. 14746 PG. 3177  
 TP ID #16109900050


N/F  
 JEFFERSON LAKESIDE LP  
 DB. 14409 PG. 2813  
 TP ID #16106200010

N/F  
 BENTLEY FARM PROP LLLP &  
 JAMES W. BENTLEY JR. &  
 SUMMEROUR FARM LLLP  
 DB. 14746 PG. 3177  
 PB. 271 PG. 565  
 TP ID #16106300010

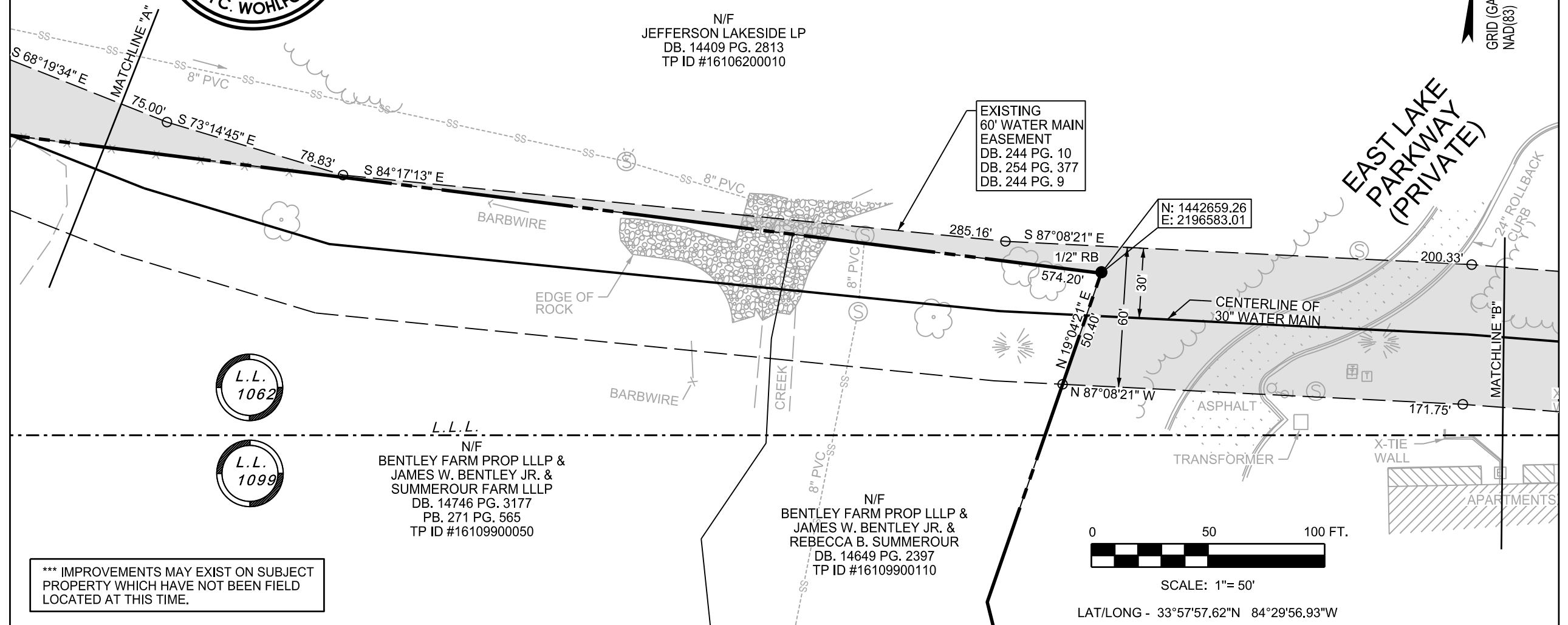
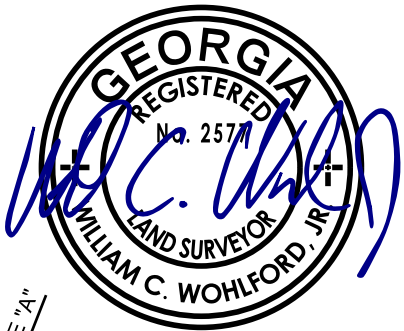
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 E: 2195595.47



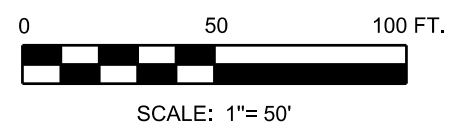
LAT/LONG - 33°57'57.62"N 84°29'56.93"W

103,577 SQ. FT./ 2.3778 AC. EASEMENT	LOCATED IN LAND LOTS 1061 & 1062 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  COBB COUNTY-MARIETTA WATER AUTHORITY	THROUGH THE PROPERTY OF:  JEFFERSON LAKESIDE LP	 <p>TerraMark Land Surveying, Inc.          1396 Bells Ferry Road          Marietta, Georgia 30066          www.TerraMark.com          (P) (770) 421-1927</p>
2,149 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/4	C.C.M.W.A. NO. 7.1	COBB COUNTY	





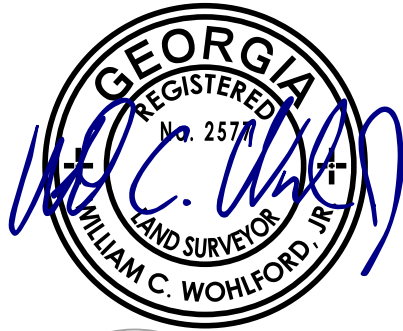
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



LAT/LONG - 33°57'57.62"N 84°29'56.93"W

103,577 SQ. FT./ 2.3778 AC. EASEMENT	LOCATED IN LAND LOTS 1061 & 1062 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com
2,149 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 2/4	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 7.2	JEFFERSON LAKESIDE LP  COBB COUNTY	<b>TerraMark</b> Professional Land Surveying (P) (770) 421-1927

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



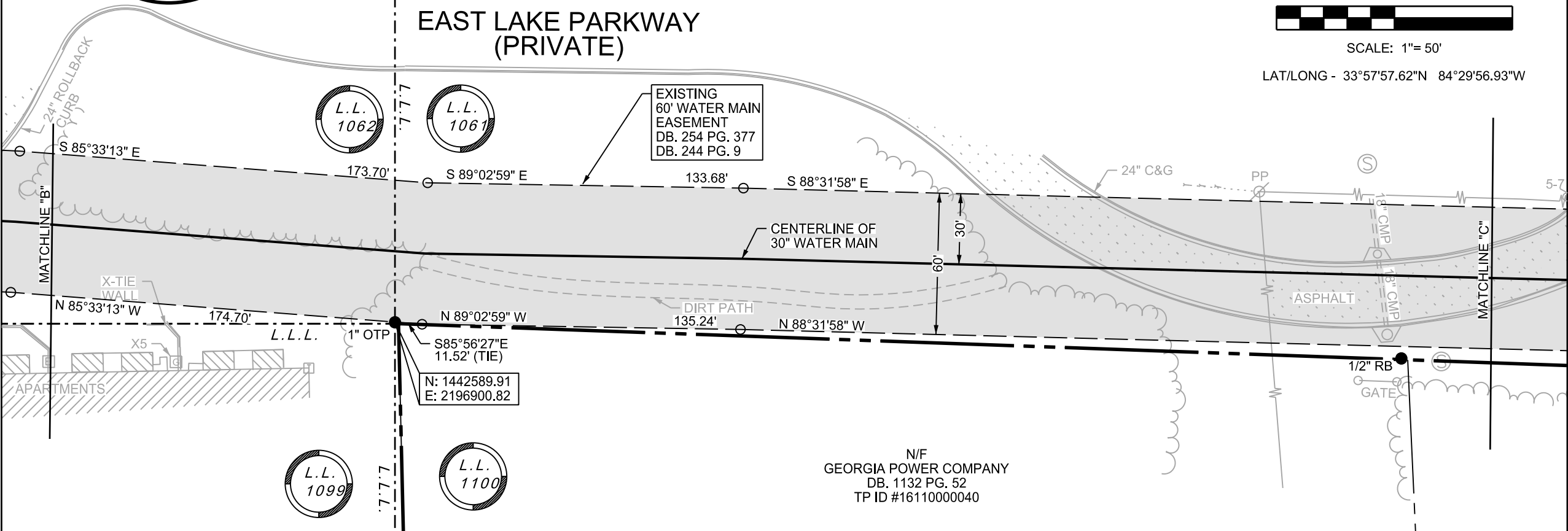
N/F  
JEFFERSON LAKESIDE LP  
DB. 14409 PG. 2813  
TP ID #16106200010




SCALE: 1"= 50'

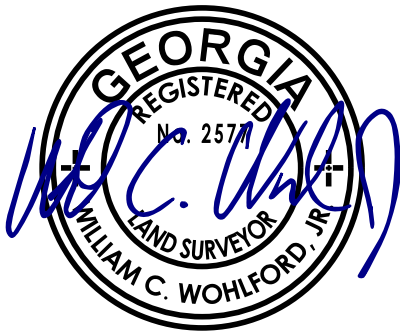
LAT/LONG - 33°57'57.62"N 84°29'56.93"W

### EAST LAKE PARKWAY (PRIVATE)

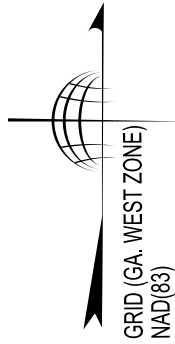


N/F  
GEORGIA POWER COMPANY  
DB. 1132 PG. 52  
TP ID #16110000040

103,577 SQ. FT./ 2.3778 AC. EASEMENT	LOCATED IN LAND LOTS 1061 & 1062 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 7.3	THROUGH THE PROPERTY OF: JEFFERSON LAKESIDE LP	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
2,149 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 3/4		COBB COUNTY	



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

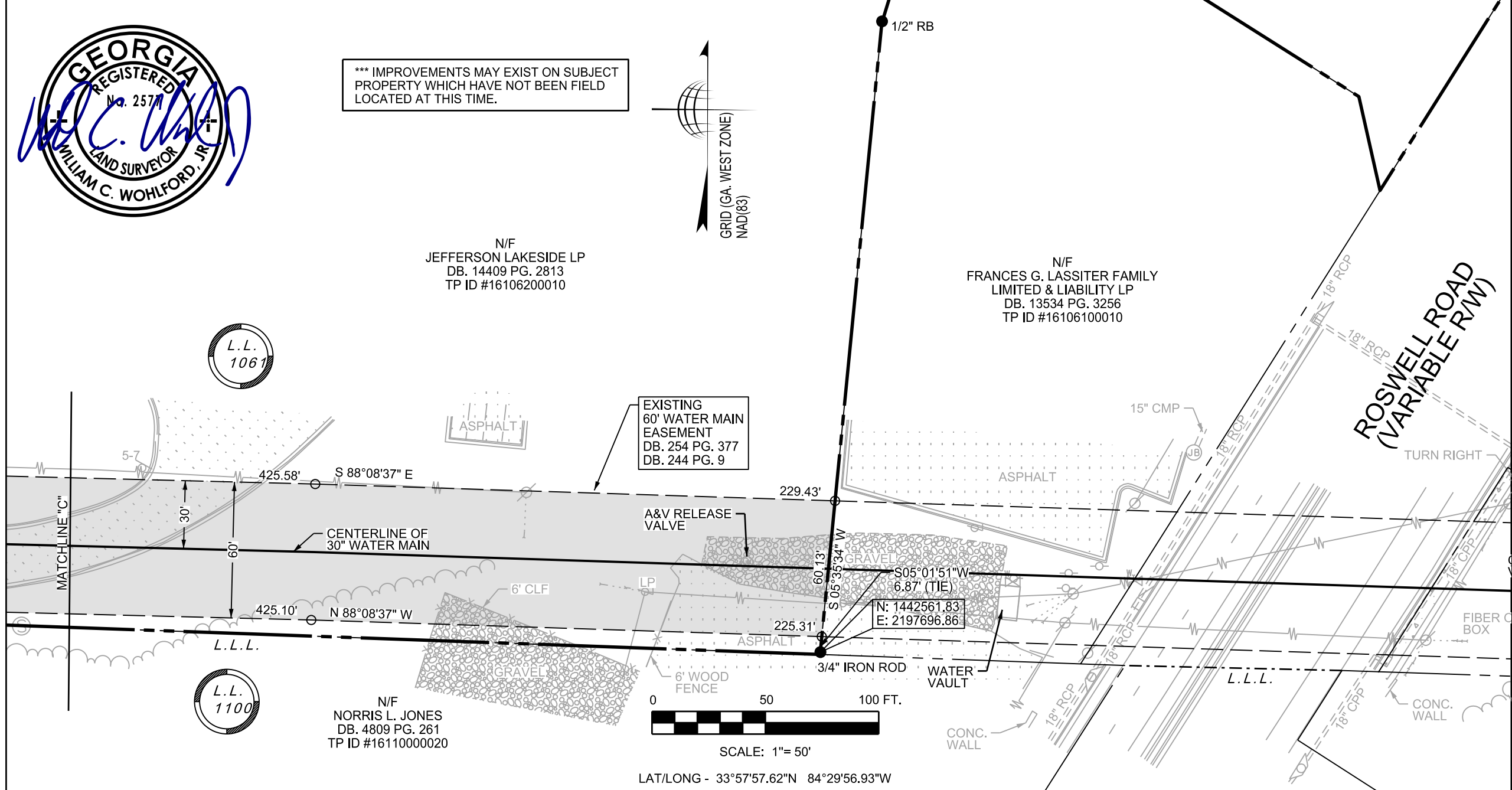


N/F  
JEFFERSON LAKESIDE LP  
DB. 14409 PG. 2813  
TP ID #16106200010

N/F  
FRANCES G. LASSITER FAMILY  
LIMITED & LIABILITY LP  
DB. 13534 PG. 3256  
TP ID #16106100010

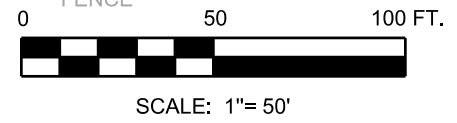
L.L.  
1061

L.L.  
1100




EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 254 PG. 377  
DB. 244 PG. 9

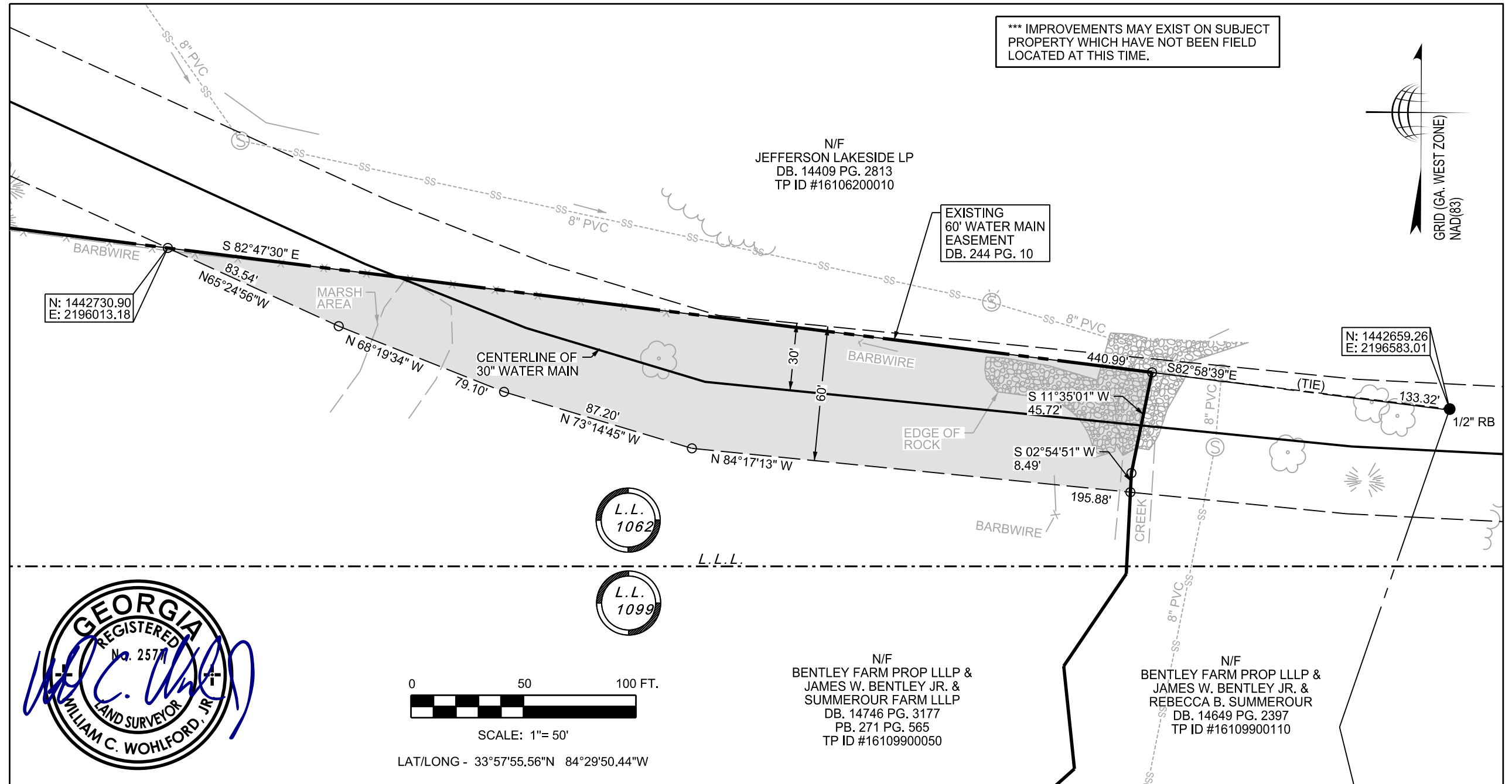
N: 1442561.83  
E: 2197696.86



LAT/LONG - 33°57'57.62"N 84°29'56.93"W

103,577 SQ. FT./ 2.3778 AC. EASEMENT	LOCATED IN LAND LOTS 1061 & 1062 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
2,149 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 4/4	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 7.4	JEFFERSON LAKESIDE LP  COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

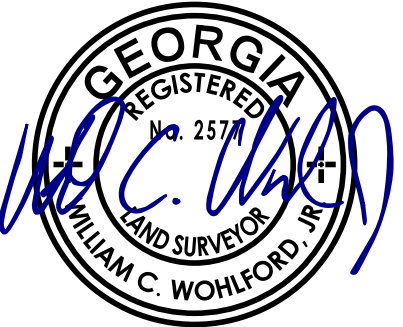


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E: 2196583.01

L.L.  
1062

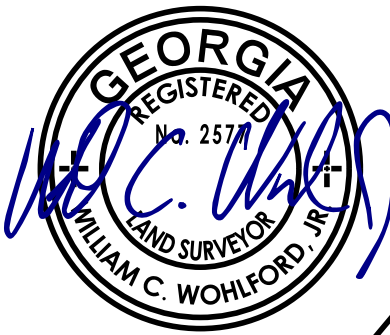
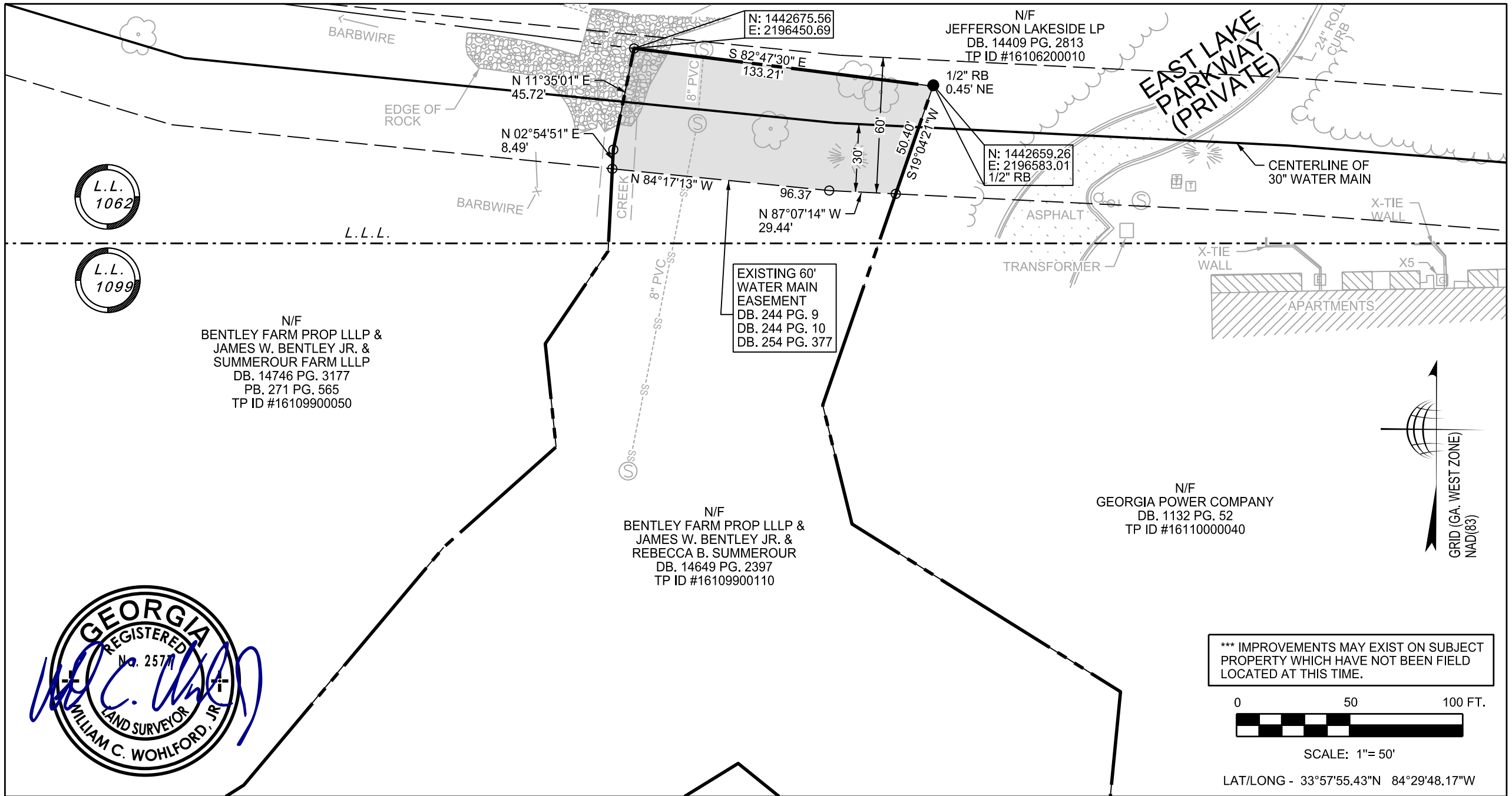
L.L.  
1099



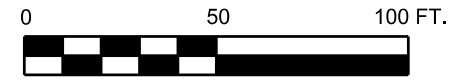
SCALE: 1" = 50'

LAT/LONG - 33°57'55.56"N 84°29'50.44"W

19,262 SQ. FT./ 0.4422 AC. EASEMENT	LOCATED IN LAND LOT 1062 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF: BENTLEY FARM PROP LLLP & JAMES W. BENTLEY JR. & SUMMEROUR FARM LLLP	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
339 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 8	COBB COUNTY	Professional Land Surveying



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1"= 50'

LAT/LONG - 33°57'55.43"N 84°29'48.17"W

6,775 SQ. FT./ 0.1555 AC. EASEMENT
131 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN LAND LOT 1062 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1
--

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:  
 COBB COUNTY-MARIETTA  
 WATER AUTHORITY  
 C.C.M.W.A. NO. 9

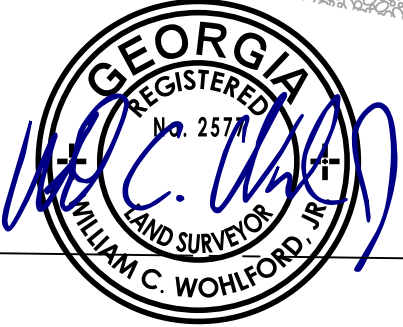
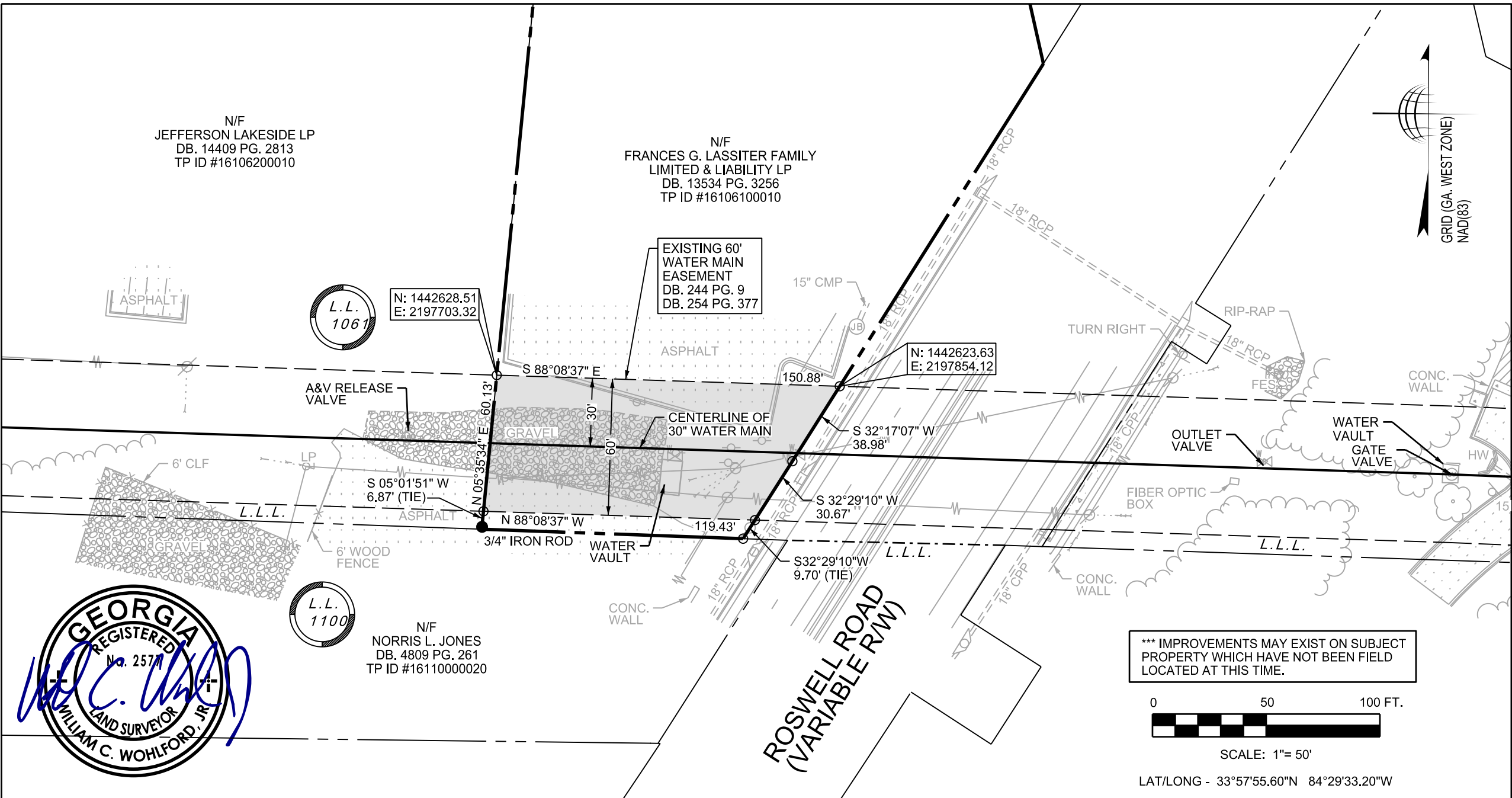
THROUGH THE PROPERTY OF:  
 BENTLEY FARM PROP LLLP &  
 JAMES W. BENTLEY JR. &  
 REBECCA B. SUMMEROUR  
 COBB COUNTY

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927



N/F  
JEFFERSON LAKESIDE LP  
DB. 14409 PG. 2813  
TP ID #16106200010

N/F  
FRANCES G. LASSITER FAMILY  
LIMITED & LIABILITY LP  
DB. 13534 PG. 3256  
TP ID #16106100010




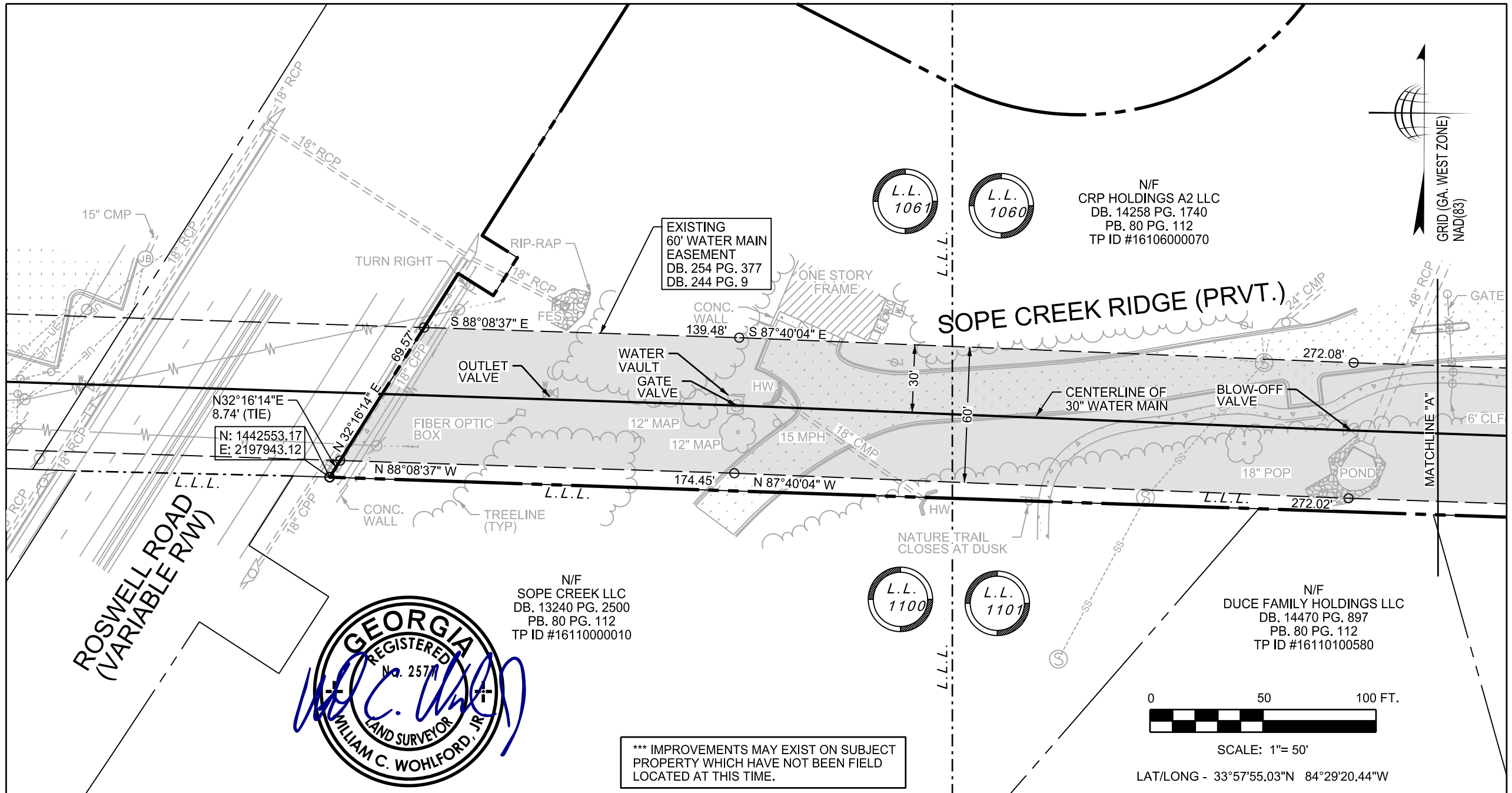
N/F  
NORRIS L. JONES  
DB. 4809 PG. 261  
TP ID #16110000020


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



LAT/LONG - 33°57'55.60"N 84°29'33.20"W

8,112 SQ. FT./ 0.1862 AC. EASEMENT	LOCATED IN LAND LOT 1061 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
135 L.F. 60' WIDE EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 12	FRANCES G. LASSITER FAMILY LIMITED & LIABILITY LP COBB COUNTY	



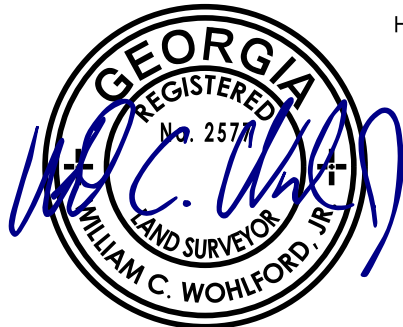
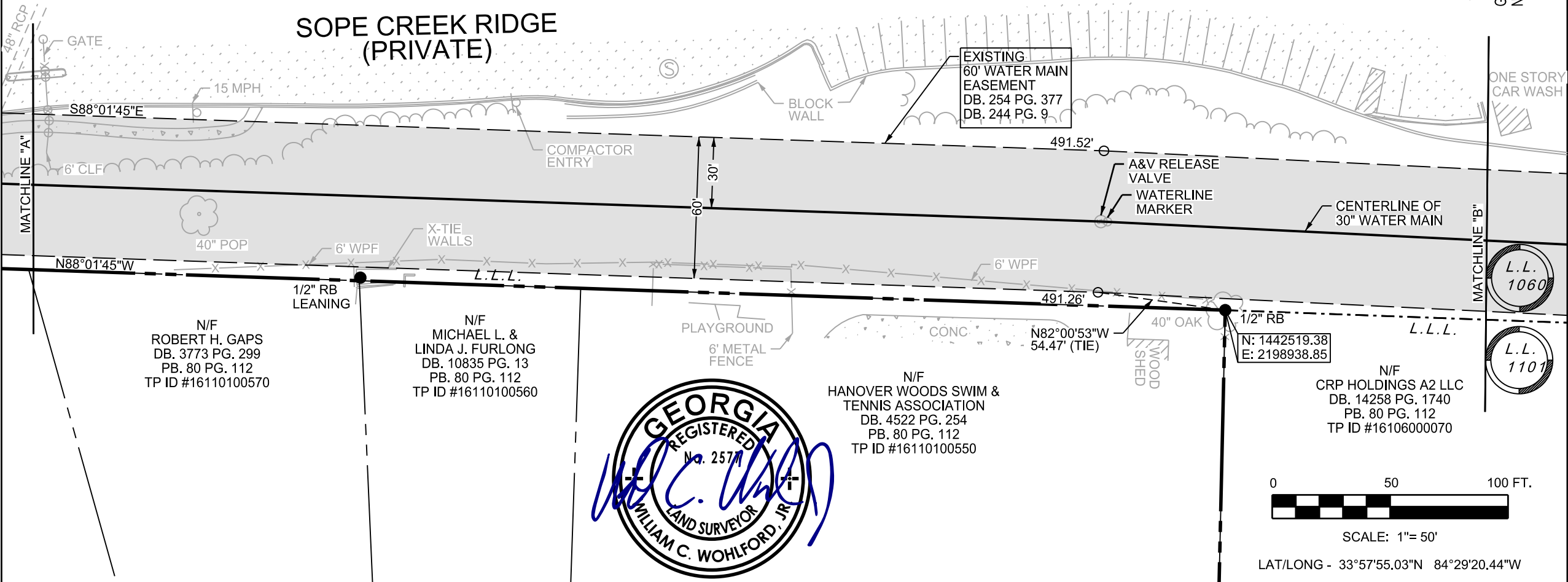
7,033 SQ. FT./ 0.1615 AC. EASEMENT	LOCATED IN LAND LOTS 1060 & 1061 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <b>TerraMark</b> <i>Professional Land Surveying</i> TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
1,617 L.F. 60' WIDE EASEMENT	DATE: 4/15/2013 SHEET NO. 1/3	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 13.1	CRP HOLDINGS A2 LLC  COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.


N/F  
CRP HOLDINGS A2 LLC  
DB. 14258 PG. 1740  
PB. 80 PG. 112  
TP ID #16106000070



**SOPE CREEK RIDGE  
(PRIVATE)**



SCALE: 1"= 50'  
LAT/LONG - 33°57'55.03"N 84°29'20.44"W

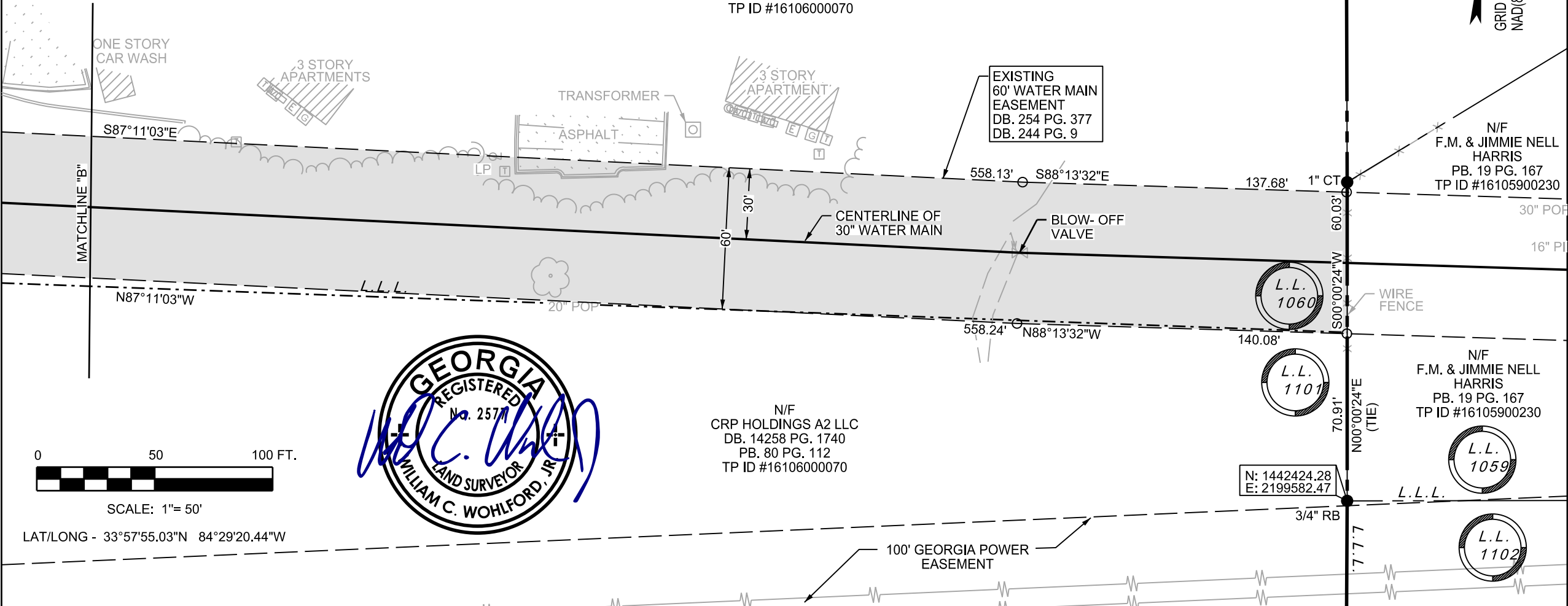
7,033 SQ. FT./ 0.1615 AC. EASEMENT	LOCATED IN LAND LOTS 1060 & 1061 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
1,617 L.F. 60' WIDE EASEMENT	DATE: 4/15/2013 SHEET NO. 2/3	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 13.2	CRP HOLDINGS A2 LLC  COBB COUNTY	



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



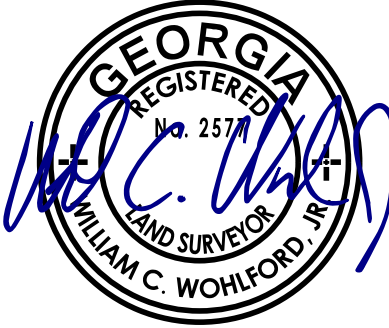
N/F  
CRP HOLDINGS A2 LLC  
DB. 14258 PG. 1740  
PB. 80 PG. 112  
TP ID #16106000070




N/F  
F.M. & JIMMIE NELL  
HARRIS  
PB. 19 PG. 167  
TP ID #16105900230

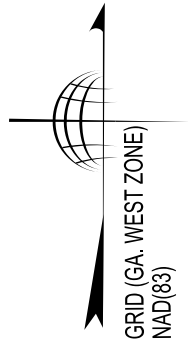
N/F  
F.M. & JIMMIE NELL  
HARRIS  
PB. 19 PG. 167  
TP ID #16105900230

N/F  
CRP HOLDINGS A2 LLC  
DB. 14258 PG. 1740  
PB. 80 PG. 112  
TP ID #16106000070

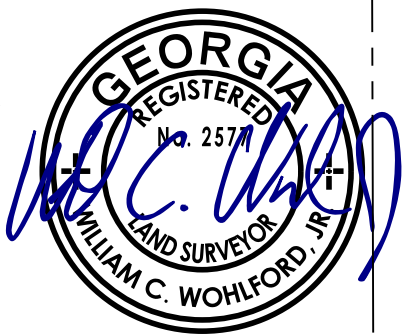


LAT/LONG - 33°57'55.03"N 84°29'20.44"W

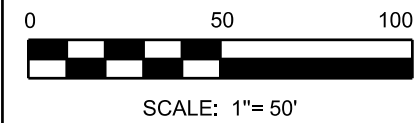
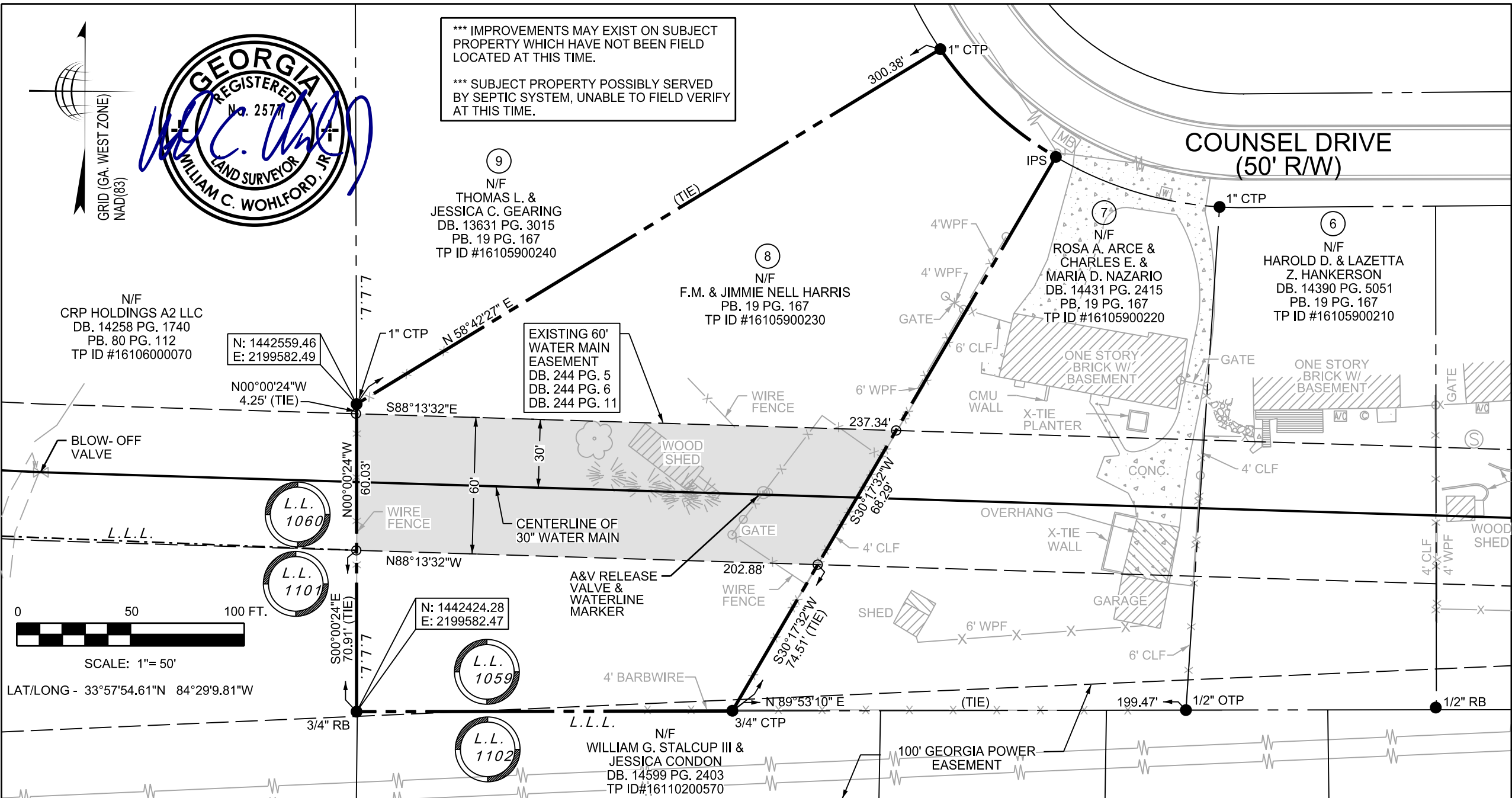
7,033 SQ. FT./ 0.1615 AC. EASEMENT	LOCATED IN LAND LOTS 1060 & 1061 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
1,617 L.F. 60' WIDE EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 13.3	CRP HOLDINGS A2 LLC  COBB COUNTY	




GRID (GA. WEST ZONE)  
NAD(83)



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.  
\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

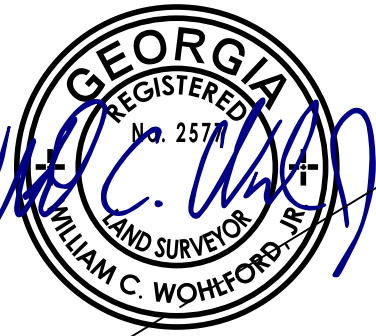


LAT/LONG - 33°57'54.61\"N 84°29'9.81\"W

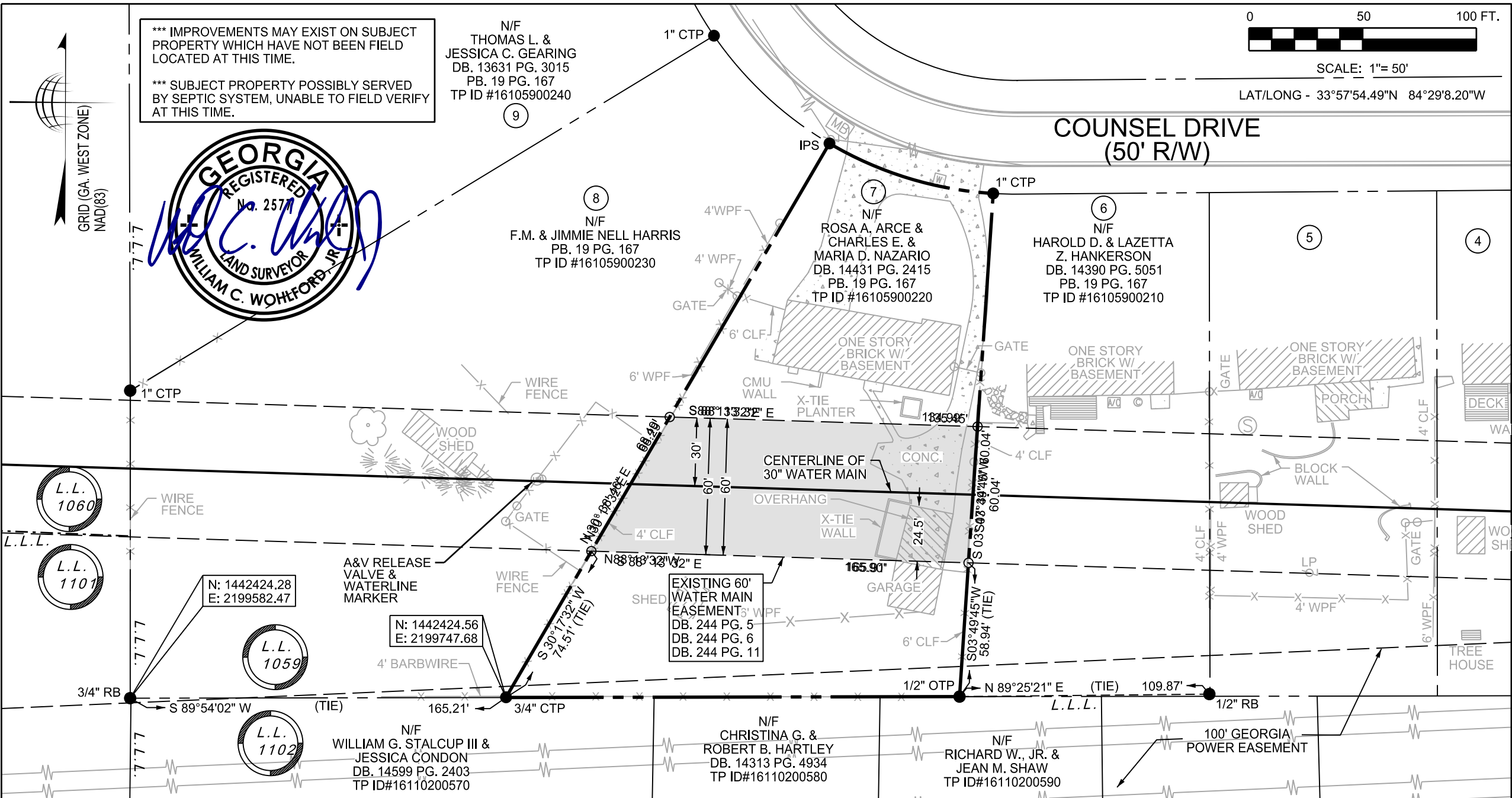
<p>13,207 SQ. FT./ 0.3032 AC. EASEMENT</p> <p>220 L.F. VARIABLE WIDTH EASEMENT</p>	<p>LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1</p>	<p>SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 19</p>	<p>THROUGH THE PROPERTY OF: F.M. &amp; JIMMIE NELL HARRIS COBB COUNTY</p>	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
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\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.  
 \*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

N/F  
 THOMAS L. &  
 JESSICA C. GEARING  
 DB. 13631 PG. 3015  
 PB. 19 PG. 167  
 TP ID #16105900240



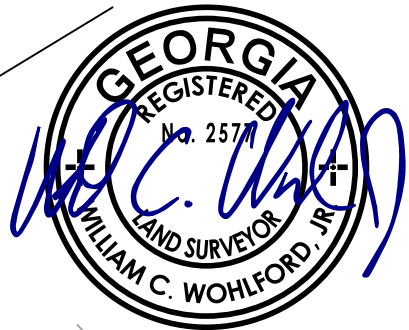
**COUNSEL DRIVE  
 (50' R/W)**



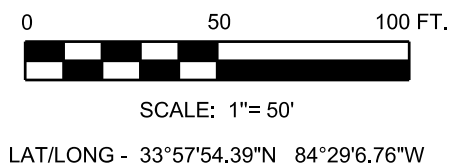
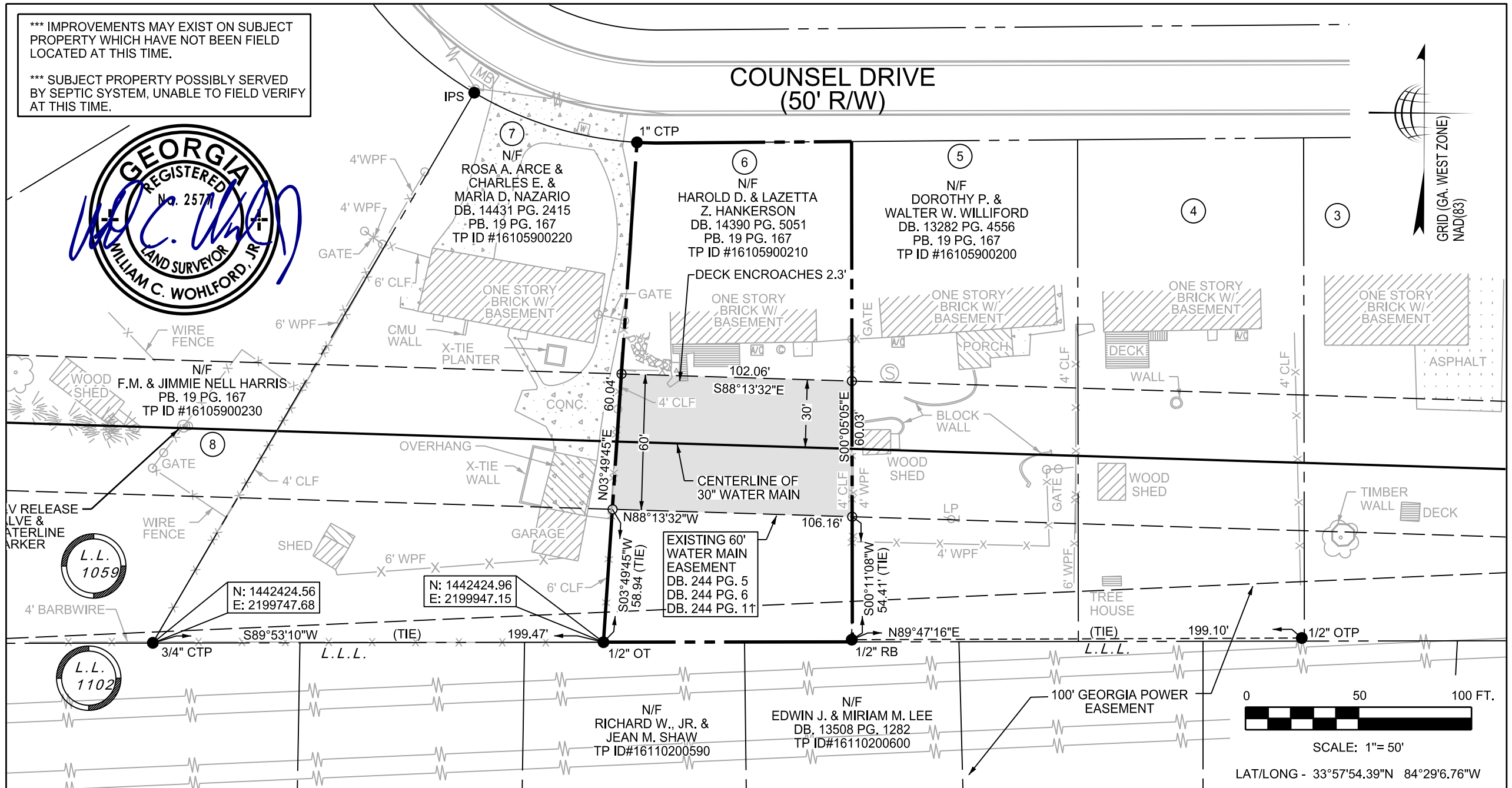
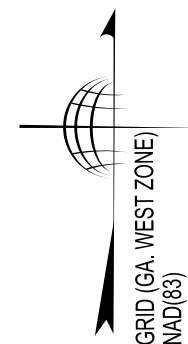
9,041 SQ. FT./ 0.2076 AC. EASEMENT	LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: <b>COBB COUNTY-MARIETTA WATER AUTHORITY</b> C.C.M.W.A. NO. 20	THROUGH THE PROPERTY OF: <b>ROSA A. ARCE, CHARLES E. &amp; MARIA D. NAZARIO</b> COBB COUNTY	<p>TerraMark Land Surveying, Inc.        1396 Bells Ferry Road        Marietta, Georgia 30066        www.TerraMark.com        (P) (770) 421-1927</p>
151 L.F. 60' WIDE EASEMENT				

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.



# COUNSEL DRIVE (50' R/W)



6,246 SQ. FT./ 0.1434 AC. EASEMENT  
104 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
COBB COUNTY-MARIETTA WATER AUTHORITY  
C.C.M.W.A. NO. 21

THROUGH THE PROPERTY OF:  
HAROLD D. & LAZETTA Z. HANKERSON  
COBB COUNTY

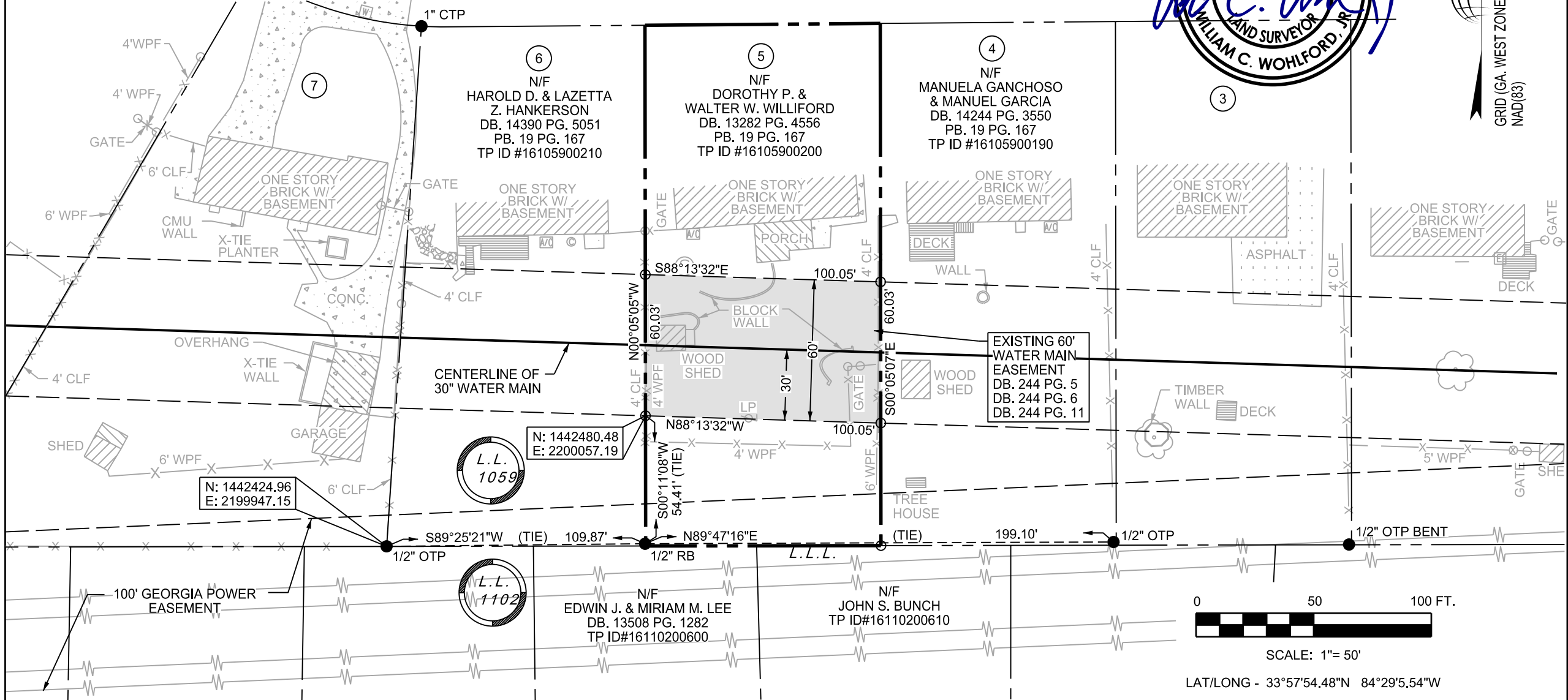
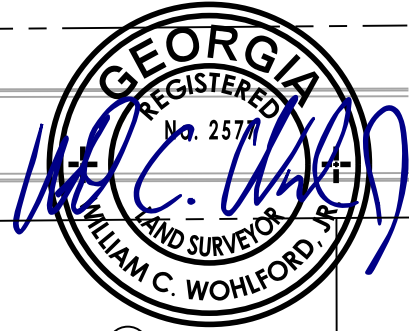
TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.


\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

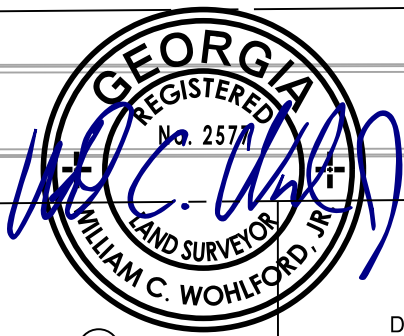
# COUNSEL DRIVE (50' R/W)



SCALE: 1"= 50'

LAT/LONG - 33°57'54.48"N 84°29'5.54"W

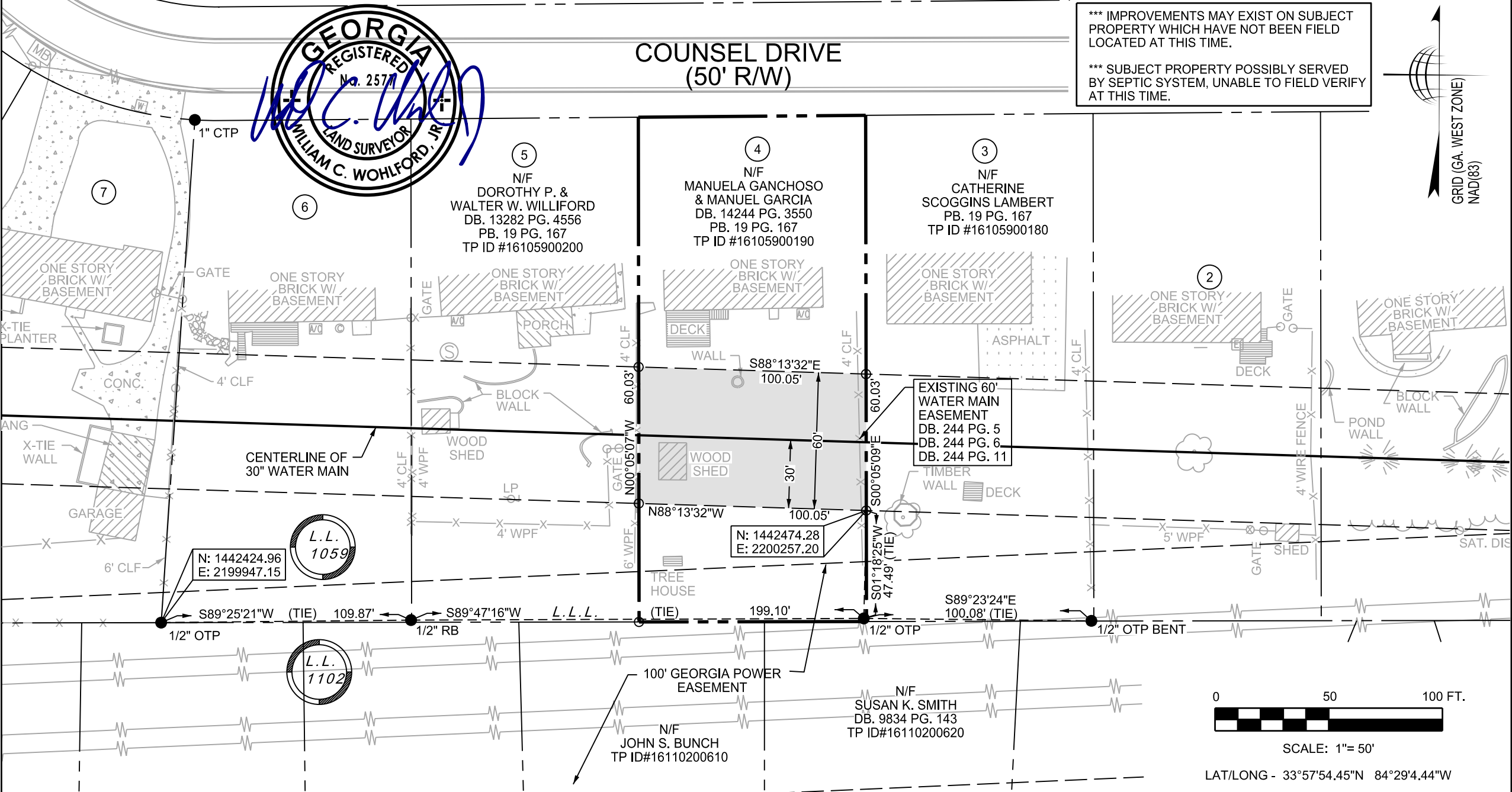
6,003 SQ. FT./ 0.1378 AC. EASEMENT	LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 22	THROUGH THE PROPERTY OF: DOROTHY P. & WALTER W. WILLIFORD COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
100 L.F. VARIABLE WIDTH EASEMENT				



**COUNSEL DRIVE  
(50' R/W)**

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

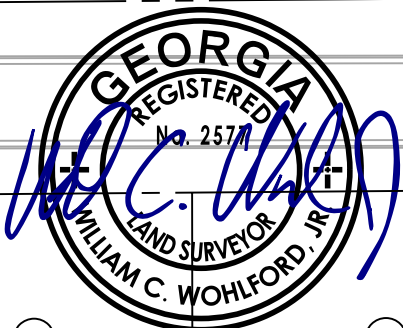
\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.



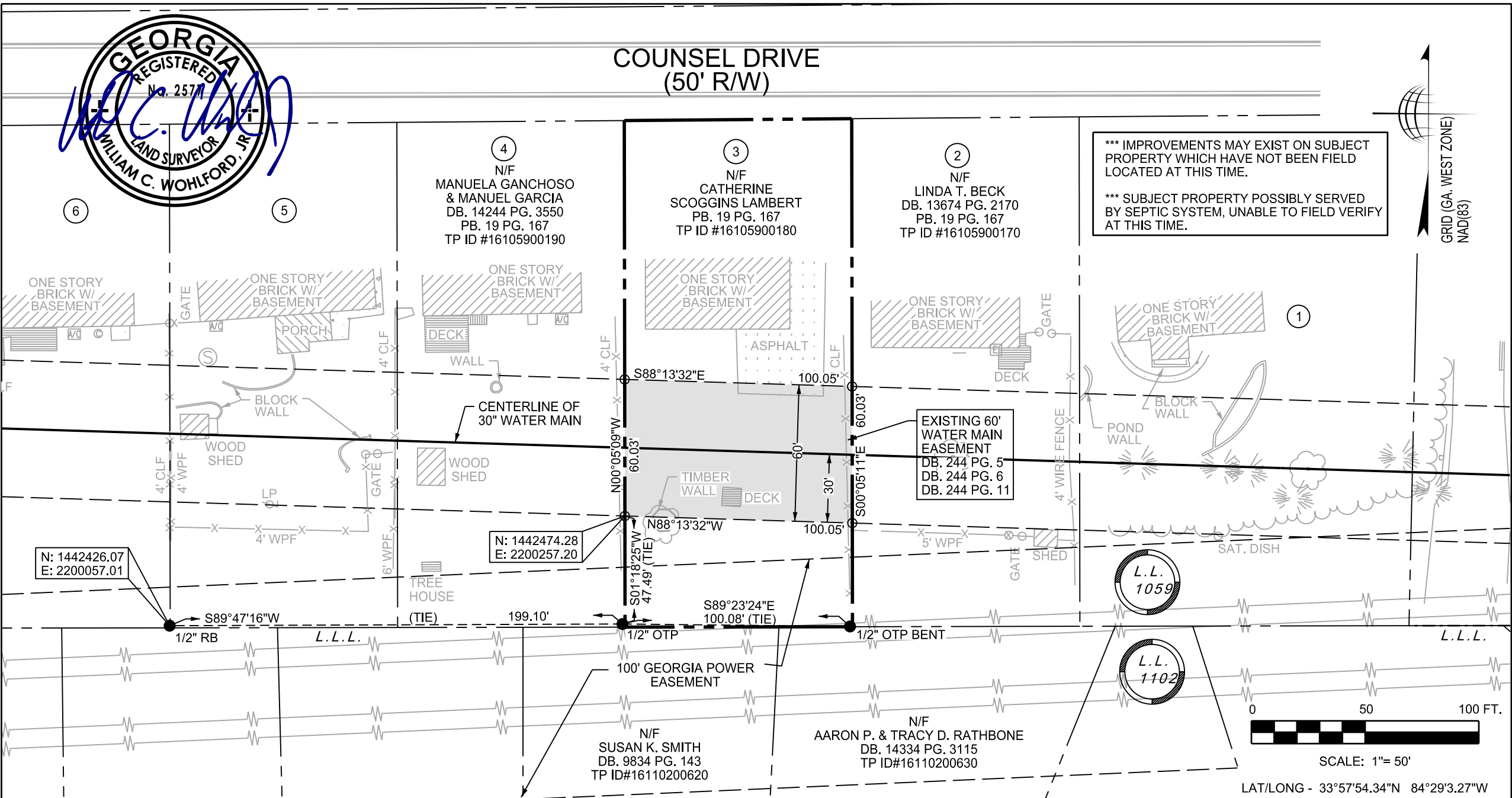
SCALE: 1"= 50'

LAT/LONG - 33°57'54.45"N 84°29'4.44"W

6,003 SQ. FT./ 0.1378 AC. EASEMENT	LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 23	THROUGH THE PROPERTY OF: MANUELA GANCHOSO & MANUEL GARCIA COBB COUNTY	<p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
100 L.F. VARIABLE WIDTH EASEMENT				



COUNSEL DRIVE  
(50' R/W)



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

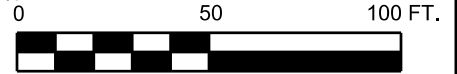
\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

N: 1442426.07  
E: 2200057.01

N: 1442474.28  
E: 2200257.20

L.L.  
1059

L.L.  
1102



SCALE: 1" = 50'

LAT/LONG - 33°57'54.34"N 84°29'3.27"W

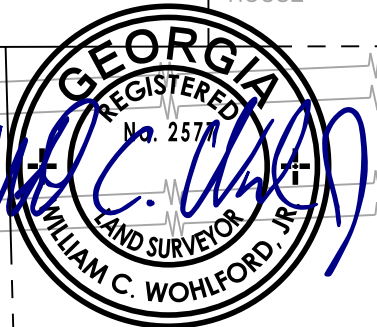
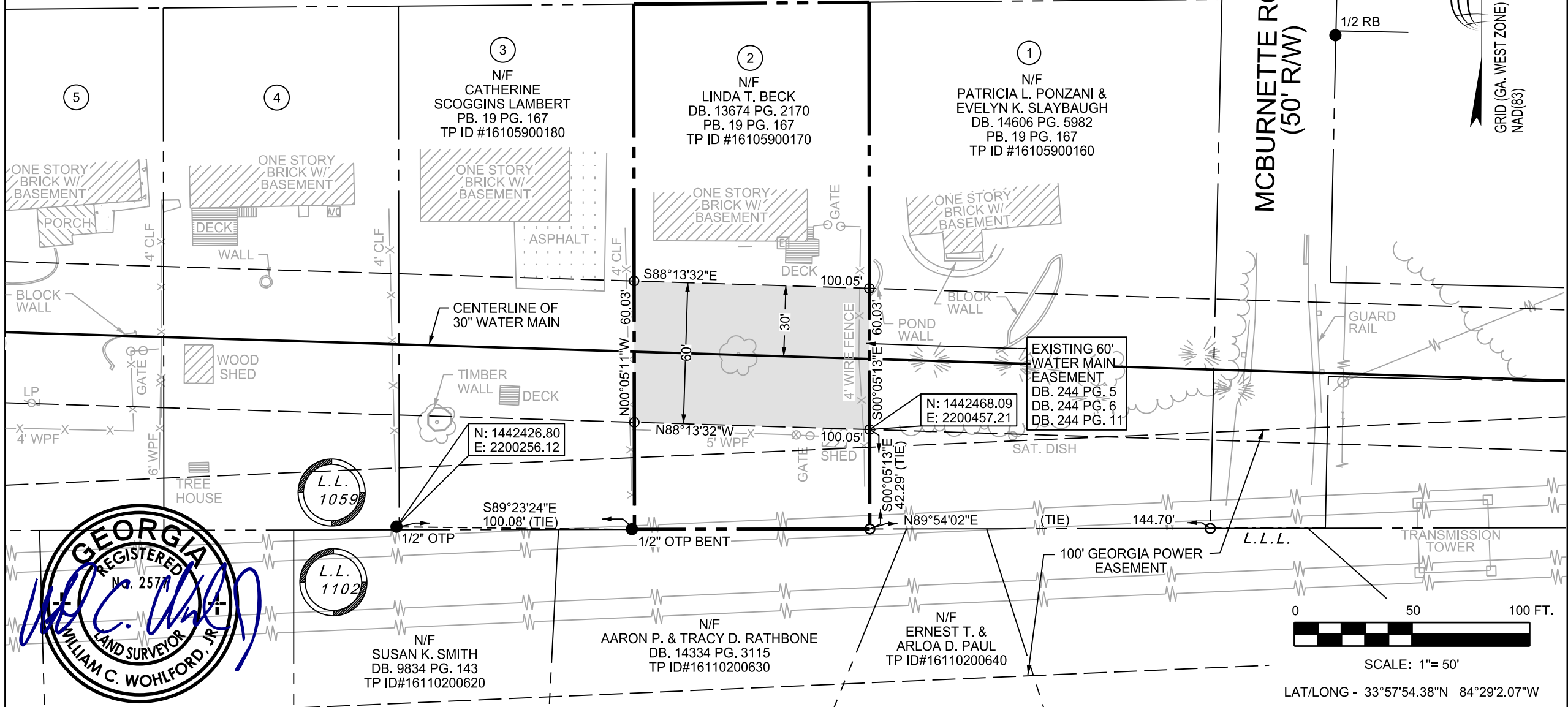
6,003 SQ. FT./ 0.1378 AC. EASEMENT	LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
100 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 24	CATHERINE SCOGGINS LAMBERT COBB COUNTY	TerraMark Professional Land Surveying

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

# COUNSEL DRIVE (50' R/W)

# MCBURNETTE ROAD (50' R/W)



L.L.  
1059

L.L.  
1102

6,003 SQ. FT./ 0.1378 AC. EASEMENT  
100 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
COBB COUNTY-MARIETTA WATER AUTHORITY  
C.C.M.W.A. NO. 25

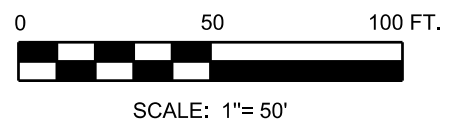
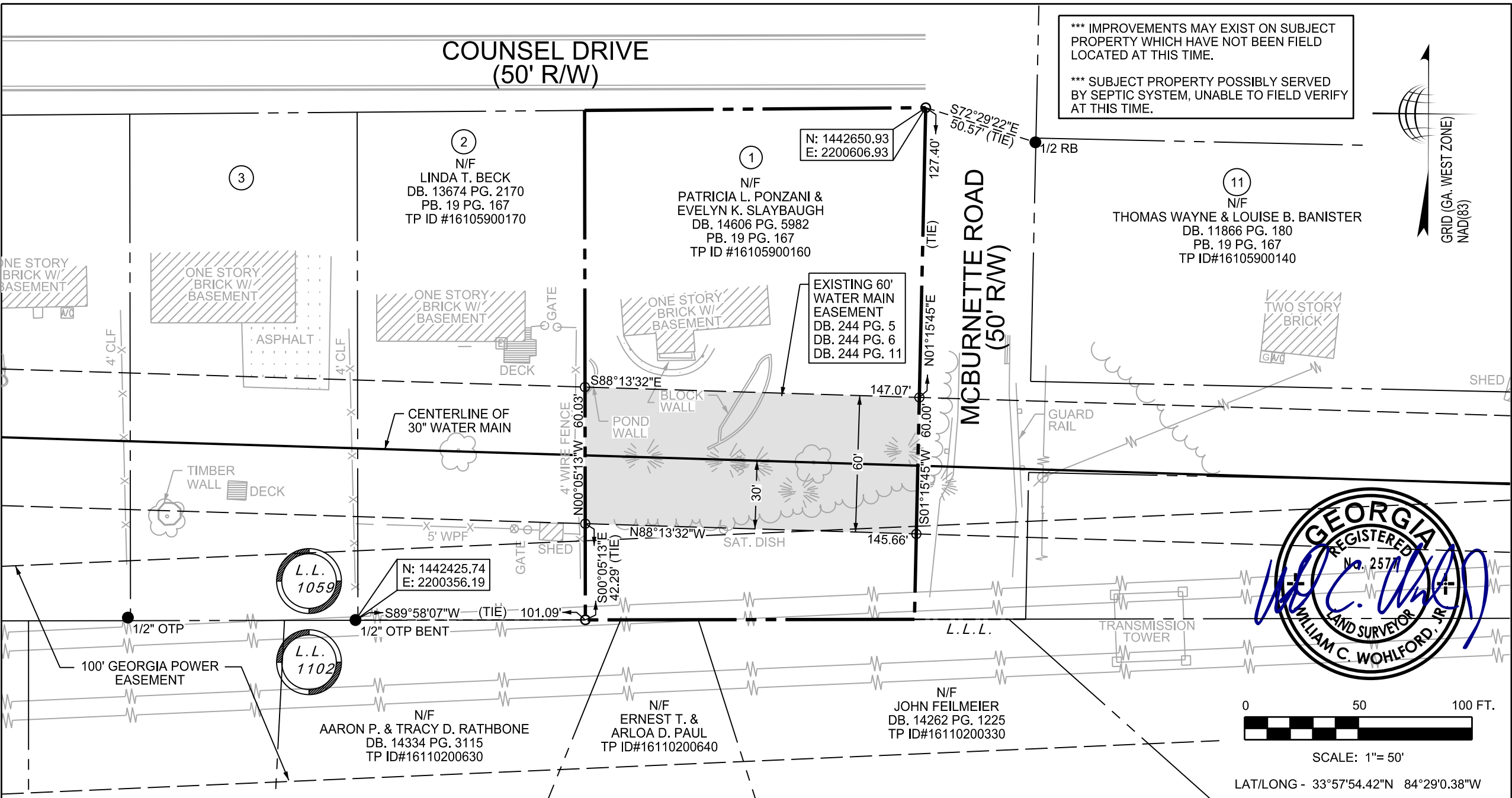
THROUGH THE PROPERTY OF:  
LINDA T. BECK  
COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927




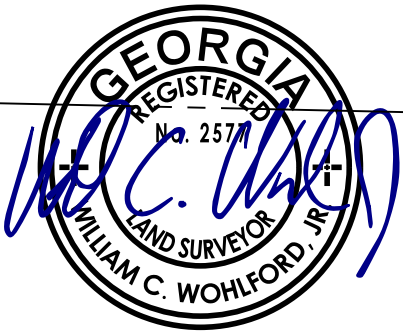
**COUNSEL DRIVE  
(50' R/W)**

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.  
\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

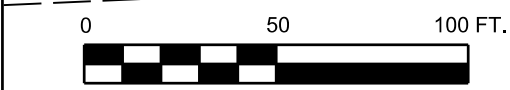
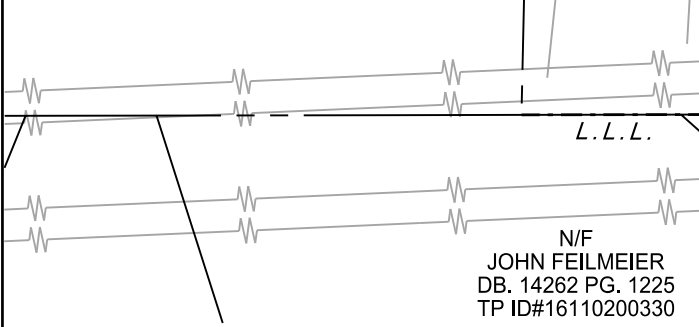
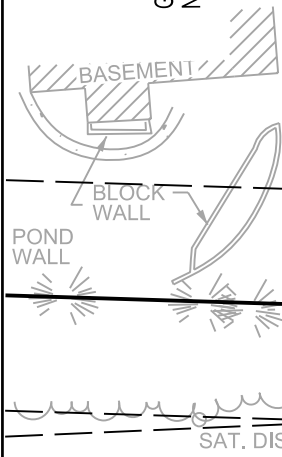
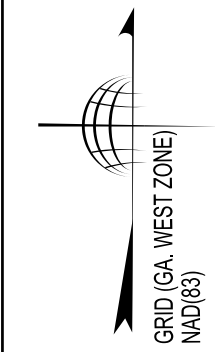


LAT/LONG - 33°57'54.42"N 84°29'0.38"W

8,782 SQ. FT./ 0.2016 AC. EASEMENT	LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 26	THROUGH THE PROPERTY OF: PATRICIA L. PONZANI & EVELYN K. SLAYBAUGH COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
146 L.F. VARIABLE WIDTH EASEMENT				




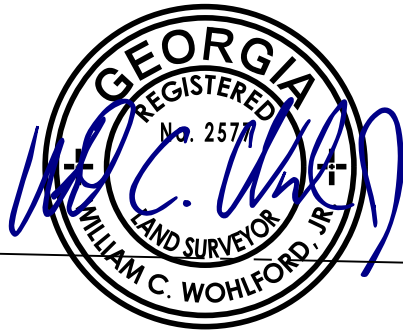
MCBURNETTE ROAD  
(50' R/W)



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

LAT/LONG - 33°57'53.91"N 84°28'56.96"W

10,970 SQ. FT./ 0.2518 AC. EASEMENT	LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
361 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 27	NO RECORD OWNER COBB COUNTY	



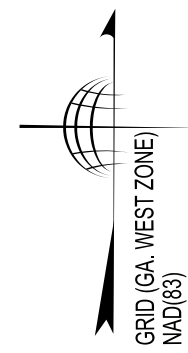
N/F  
 THOMAS WAYNE & LOUISE B. BANISTER  
 DB. 11866 PG. 180  
 WOOD WYNN SUB  
 PB. 19 PG. 167  
 TP ID#16105900140

9  
 N/F  
 BRIDGET N. OBANDE  
 DB. 14867 PG. 6298  
 PB. 217 PG. 95  
 TP ID #16105800560

8  
 N/F  
 JUAN BONILLA  
 DB. 14074 PG. 4296  
 PB. 217 PG. 95  
 TP ID #16105800550

MONTCLAIR PARK LANE  
 (50' R/W)

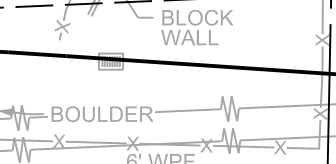
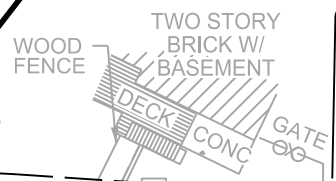
\*\*\* IMPROVEMENTS MAY EXIST  
 ON SUBJECT PROPERTY WHICH  
 HAVE NOT BEEN FIELD LOCATED  
 AT THIS TIME.



EXISTING 60'  
 WATER MAIN  
 EASEMENT  
 DB. 244 PG. 7  
 DB. 244 PG. 11



PROPOSED ROAD  
 (NOT OPENED)



100' GEORGIA POWER  
 EASEMENT

L.L. 1059  
 N: 1442470.45  
 E: 2201012.33

L.L. 1058

L.L. 1102  
 S01°44'33"W  
 10.60' (TIE)

L.L. 1103  
 S01°47'13"W  
 31.10' (TIE)

N: 1442385.08  
 E: 2201010.08



SCALE: 1"= 50'

LAT/LONG - 33°57'54.38"N 84°28'54.47"W

538 SQ. FT./ 0.0124 AC. EASEMENT

6 L.F. VARIABLE WIDTH EASEMENT

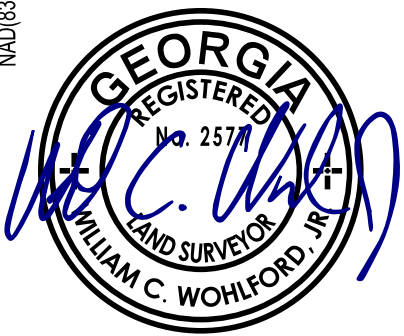
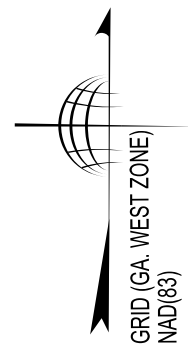
LOCATED IN MONTCLAIR PARK  
 SUBDIVISION (PB. 217 PG. 95)  
 LAND LOT 1058  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA  
 DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:  
 COBB COUNTY-MARIETTA  
 WATER AUTHORITY  
 C.C.M.W.A. NO. 28

THROUGH THE PROPERTY OF:  
 BRIDGET N. OBANDE  
 COBB COUNTY

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



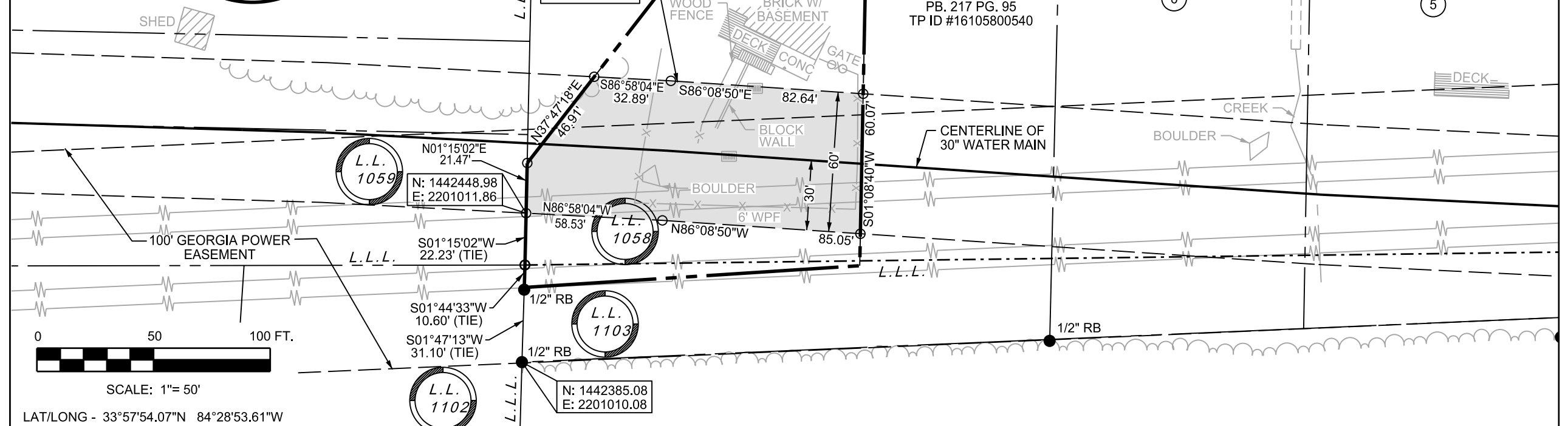
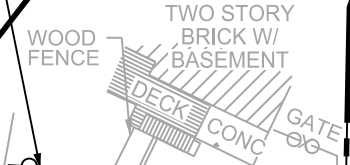
9  
N/F  
BRIDGET N. OBANDE  
DB. 14867 PG. 6298  
PB. 217 PG. 95  
TP ID #16105800560

8  
N/F  
JUAN BONILLA  
DB. 14074 PG. 4296  
PB. 217 PG. 95  
TP ID #16105800550

7  
N/F  
MING LING ZHU  
DB. 14031 PG. 4336  
PB. 217 PG. 95  
TP ID #16105800540

MONTCLAIR PARK LANE  
(50' R/W)

EXISTING 60'  
WATER MAIN  
EASEMENT  
DB. 244 PG. 7  
DB. 244 PG. 11



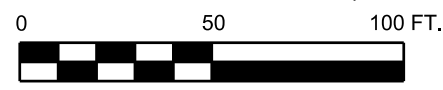
L.L. 1059  
N01°15'02"E  
21.47'  
N: 1442448.98  
E: 2201011.86

L.L. 1058  
N86°58'04"W  
58.53'  
N86°08'50"W

L.L. 1103  
S01°44'33"W  
10.60' (TIE)


L.L. 1102  
S01°47'13"W  
31.10' (TIE)

N: 1442385.08  
E: 2201010.08

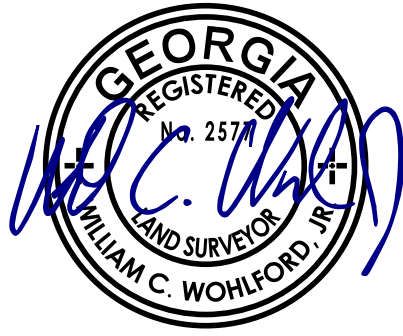


SCALE: 1"= 50'

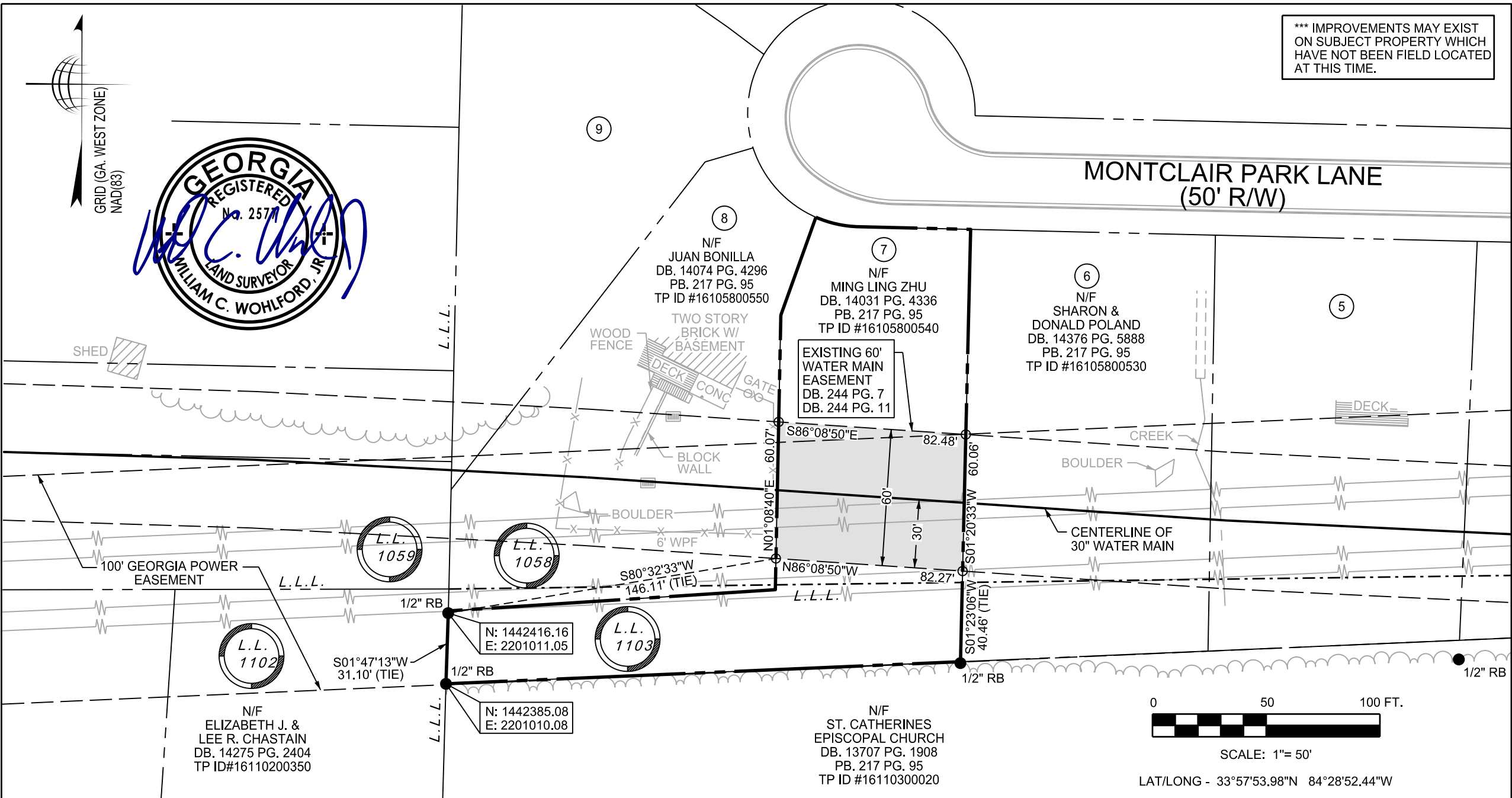
LAT/LONG - 33°57'54.07"N 84°28'53.61"W

8,073 SQ. FT./ 0.1853 AC. EASEMENT	LOCATED IN MONTCLAIR PARK SUBDIVISION (PB. 217 PG. 95) LAND LOT 1058	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
137 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 29	JUAN BONILLA COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.




MONTCLAIR PARK LANE  
(50' R/W)



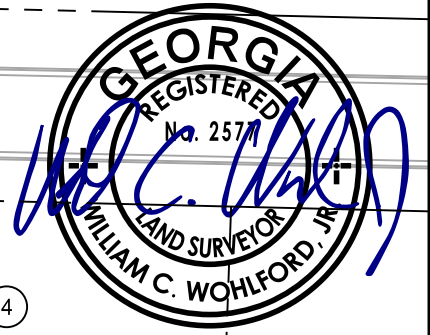
SCALE: 1"= 50'

LAT/LONG - 33°57'53.98"N 84°28'52.44"W

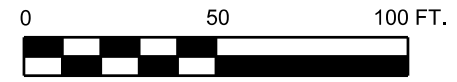
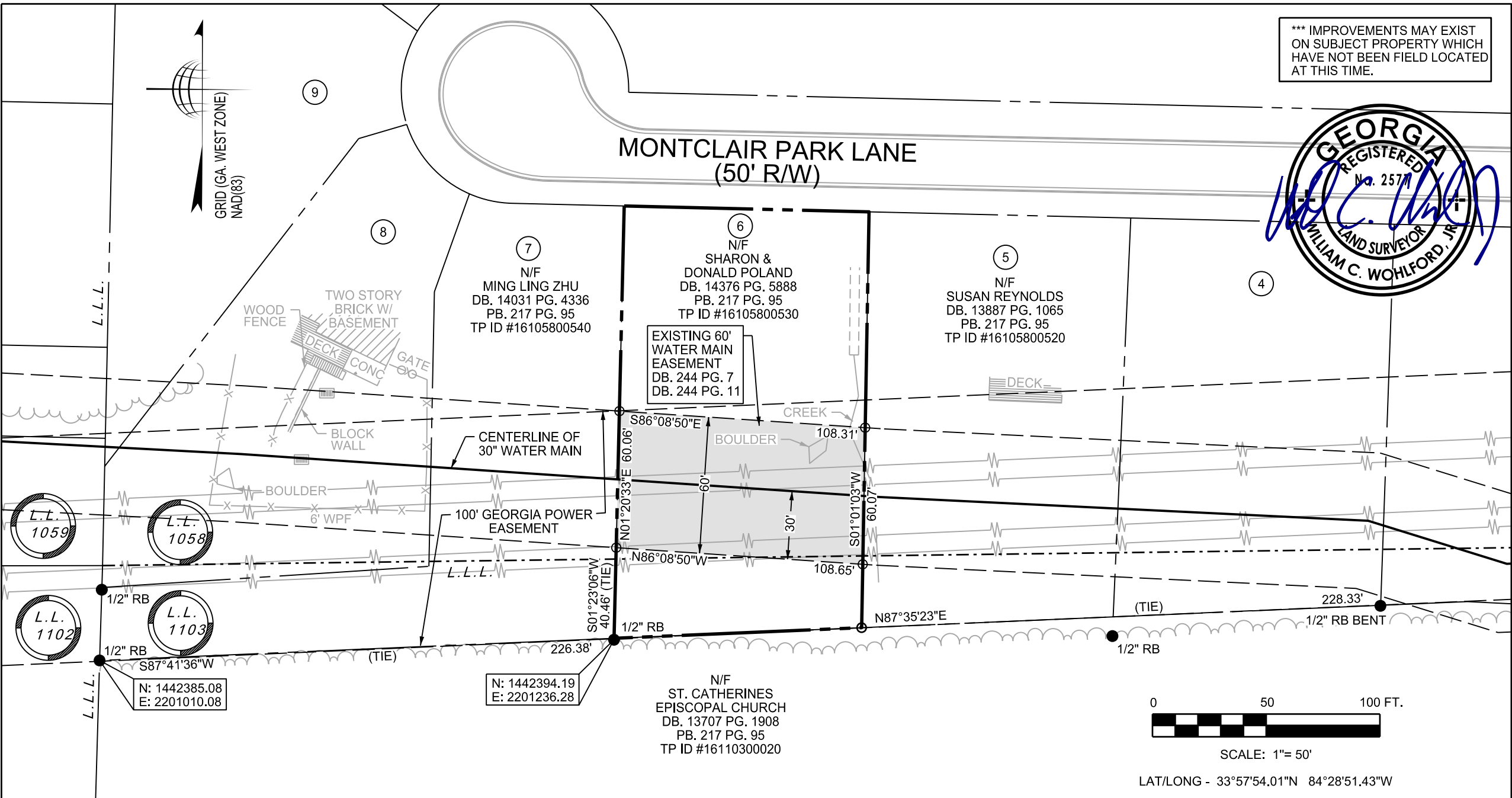
4,943 SQ. FT./ 0.1135 AC. EASEMENT	LOCATED IN MONTCLAIR PARK SUBDIVISION (PB. 217 PG. 95) LAND LOT 1058	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
82 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 30	MING LING ZHU COBB COUNTY	



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



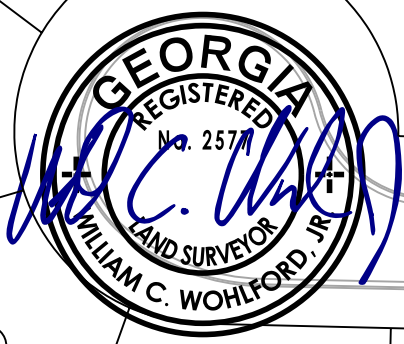
**MONTCLAIR PARK LANE  
(50' R/W)**



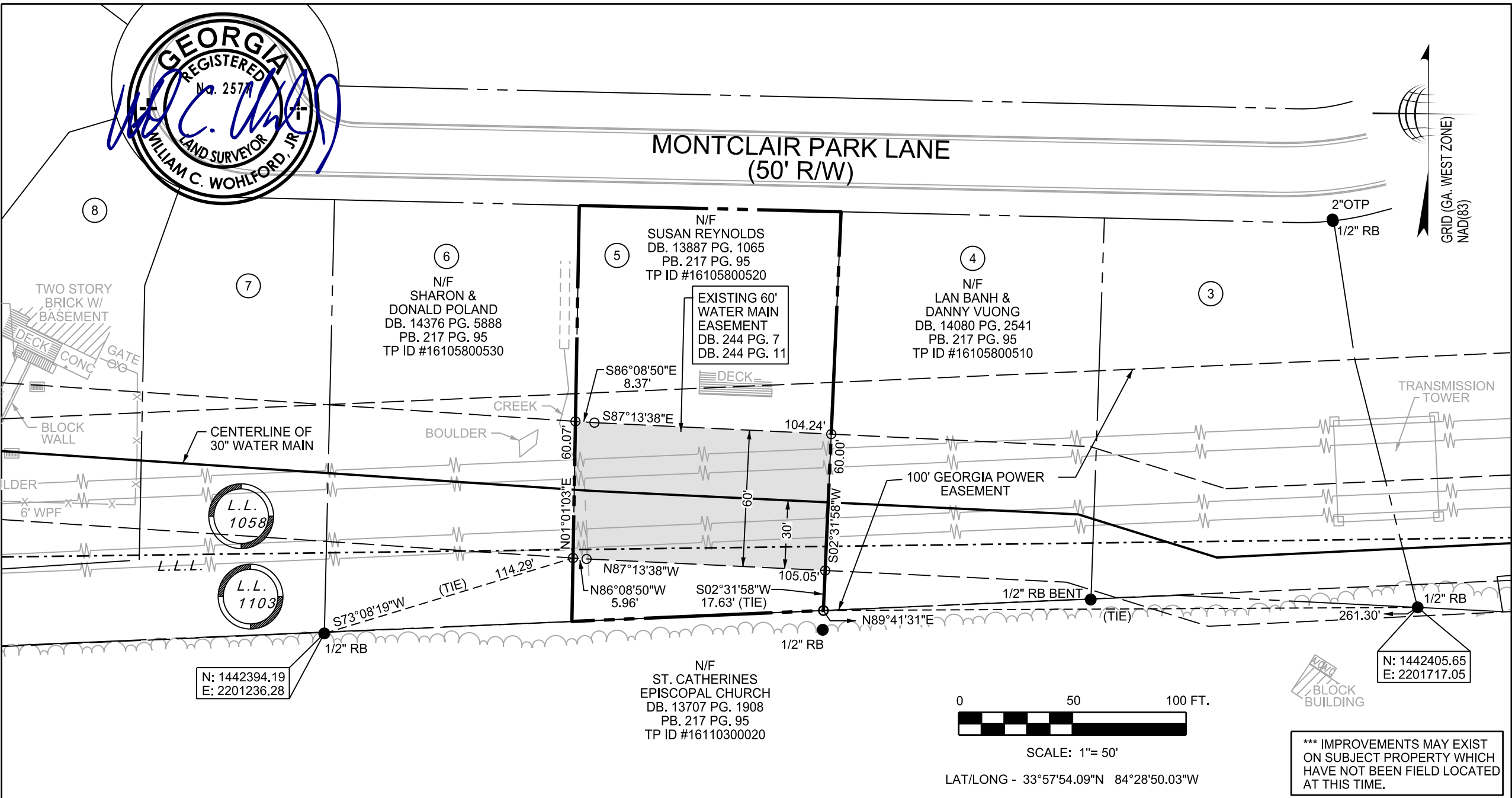
SCALE: 1" = 50'


LAT/LONG - 33°57'54.01"N 84°28'51.43"W

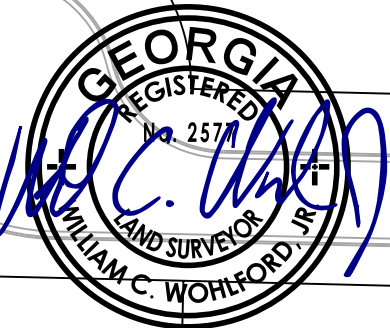
6,509 SQ. FT./ 0.1494 AC. EASEMENT	LOCATED IN MONTCLAIR PARK SUBDIVISION (PB. 217 PG. 95) LAND LOTS 1058 & 1103 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 31	THROUGH THE PROPERTY OF: SHARON & DONALD POLAND COBB COUNTY	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
108 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1			



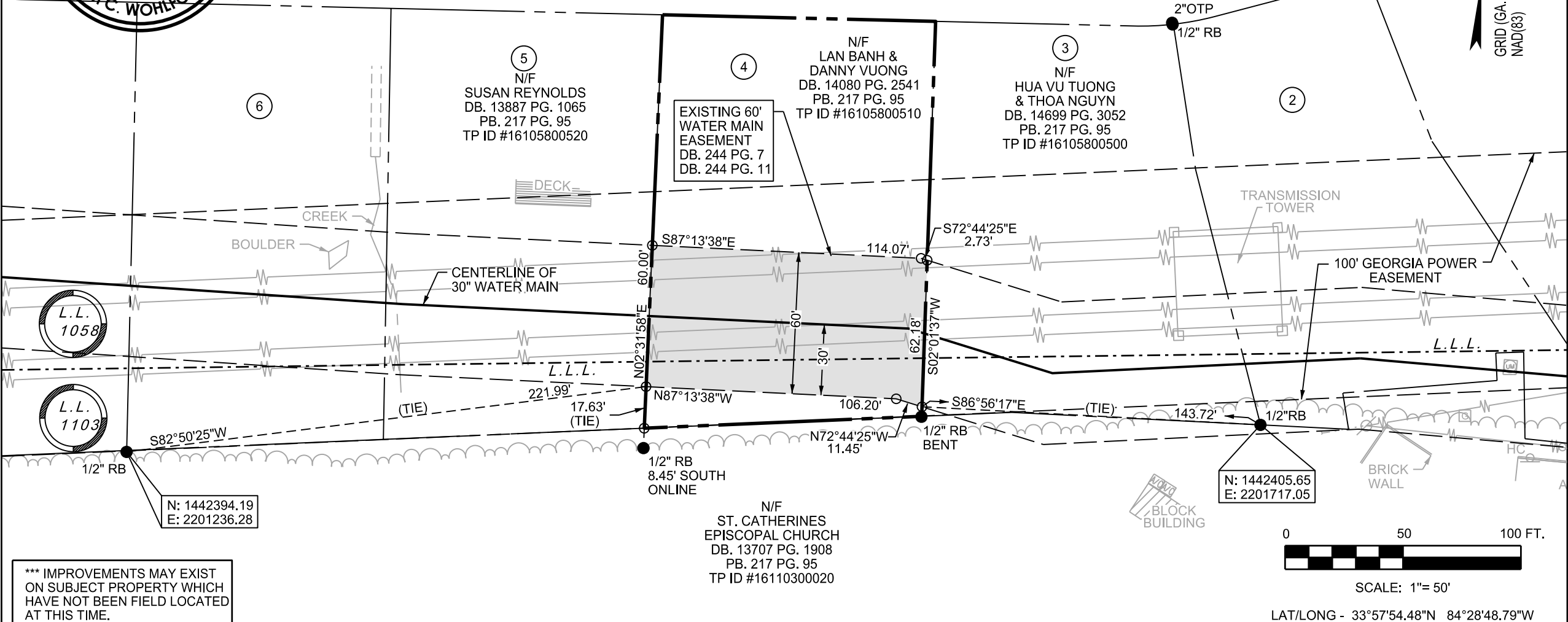
MONTCLAIR PARK LANE  
(50' R/W)



6,709 SQ. FT./ 0.1540 AC. EASEMENT	LOCATED IN MONTCLAIR PARK SUBDIVISION (PB. 217 PG. 95) LAND LOTS 1058 & 1103 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 32	THROUGH THE PROPERTY OF: SUSAN REYNOLDS COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
112 L.F. VARIABLE WIDTH EASEMENT	<p>*** IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.</p>			



**MONTCLAIR PARK LANE  
(50' R/W)**




\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

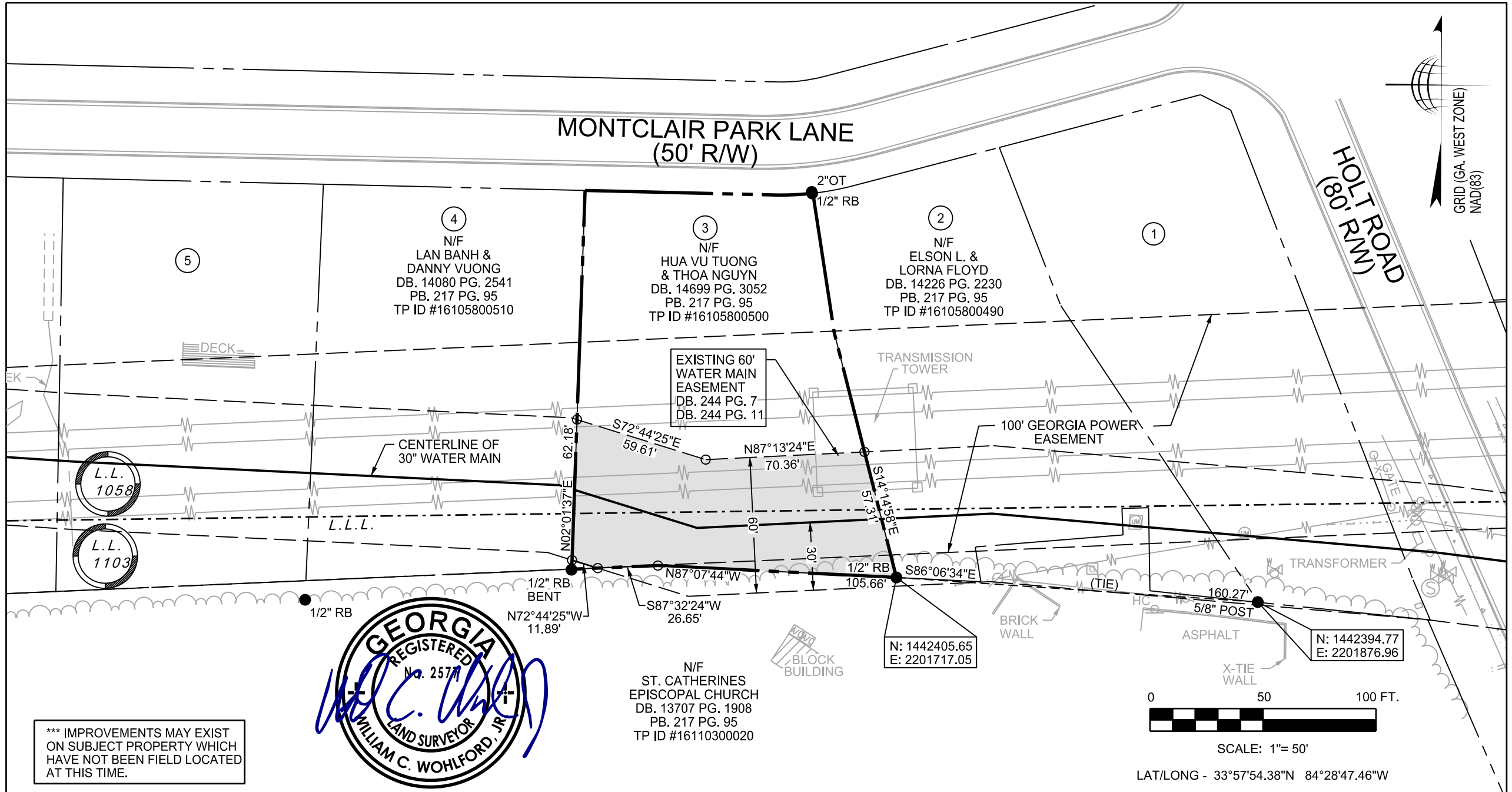


SCALE: 1"= 50'

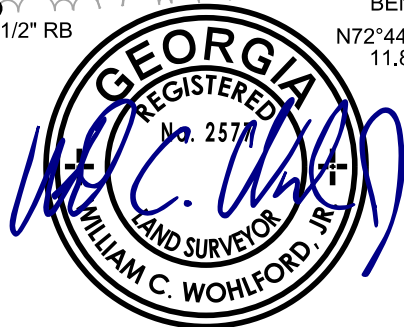
LAT/LONG - 33°57'54.48"N 84°28'48.79"W

7,033 SQ. FT./ 0.1615 AC. EASEMENT	LOCATED IN MONTCLAIR PARK SUBDIVISION (PB. 217 PG. 95) LAND LOTS 1058 & 1103 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
117 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 33	LAN BANH & DANNY VUONG COBB COUNTY	






\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



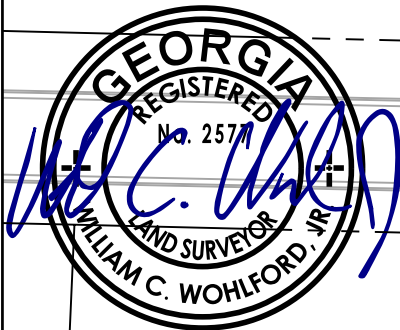
N/F  
ST. CATHERINES  
EPISCOPAL CHURCH  
DB. 13707 PG. 1908  
PB. 217 PG. 95  
TP ID #16110300020



SCALE: 1"= 50'  
LAT/LONG - 33°57'54.38"N 84°28'47.46"W

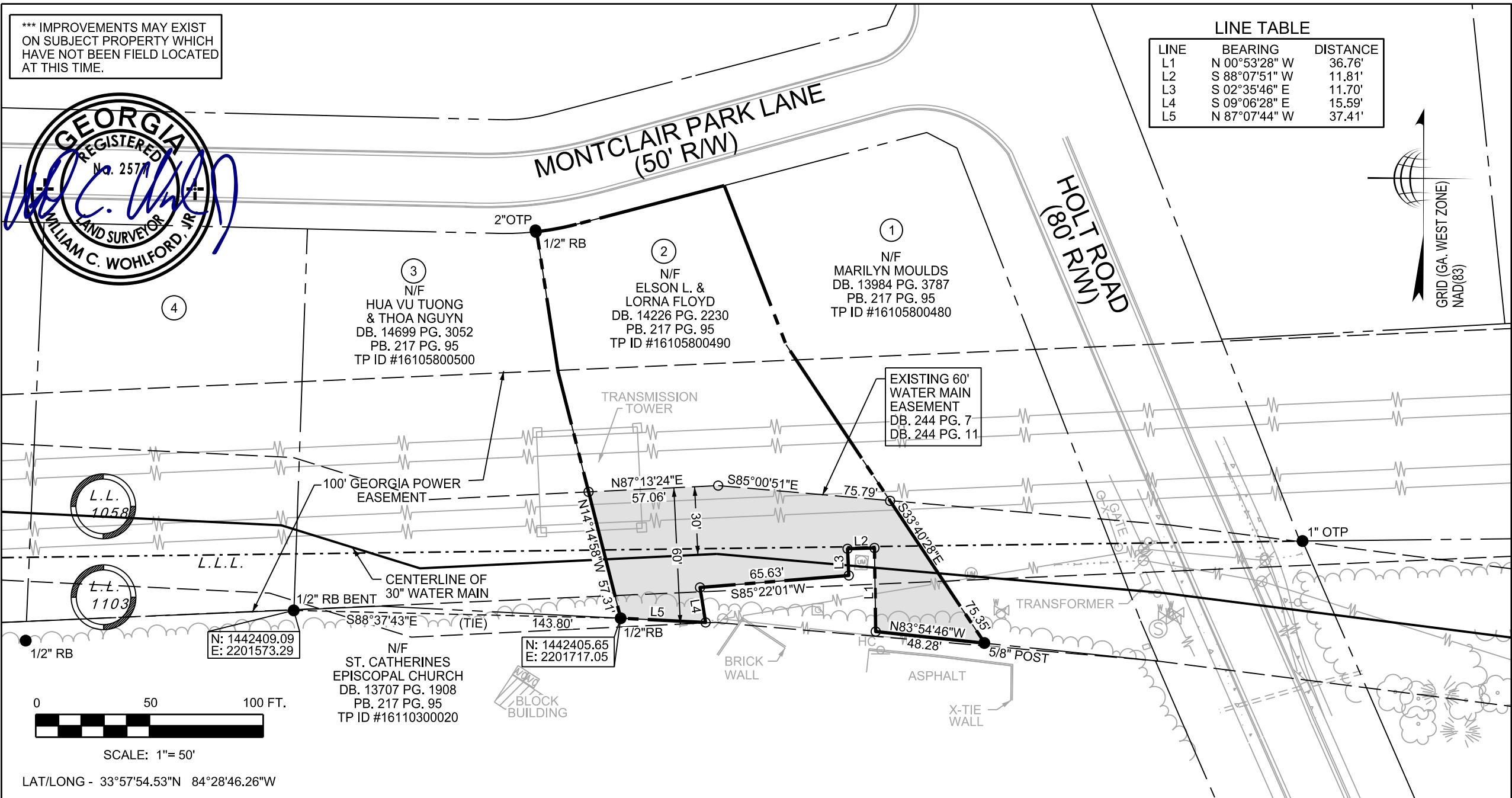
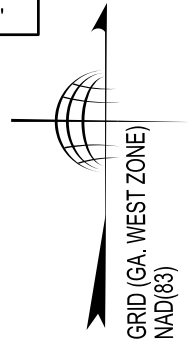
7,261 SQ. FT./ 0.1667 AC. EASEMENT	LOCATED IN MONTCLAIR PARK SUBDIVISION (PB. 217 PG. 95) LAND LOTS 1058 & 1103 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 34	THROUGH THE PROPERTY OF: HUA VU TUONG & THOA NGUYN COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
139 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1			

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.




LINE TABLE

LINE	BEARING	DISTANCE
L1	N 00°53'28" W	36.76'
L2	S 88°07'51" W	11.81'
L3	S 02°35'46" E	11.70'
L4	S 09°06'28" E	15.59'
L5	N 87°07'44" W	37.41'

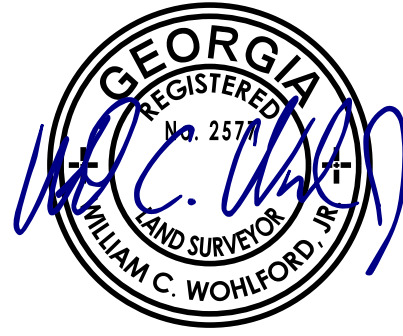


SCALE: 1"= 50'

LAT/LONG - 33°57'54.53"N 84°28'46.26"W

6,897 SQ. FT./ 0.1583 AC. EASEMENT	LOCATED IN MONTCLAIR PARK SUBDIVISION (PB. 217 PG. 95) LAND LOTS 1058 & 1103 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
147 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 35	ELSON L. & LORNA FLOYD COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATION AT THIS TIME.

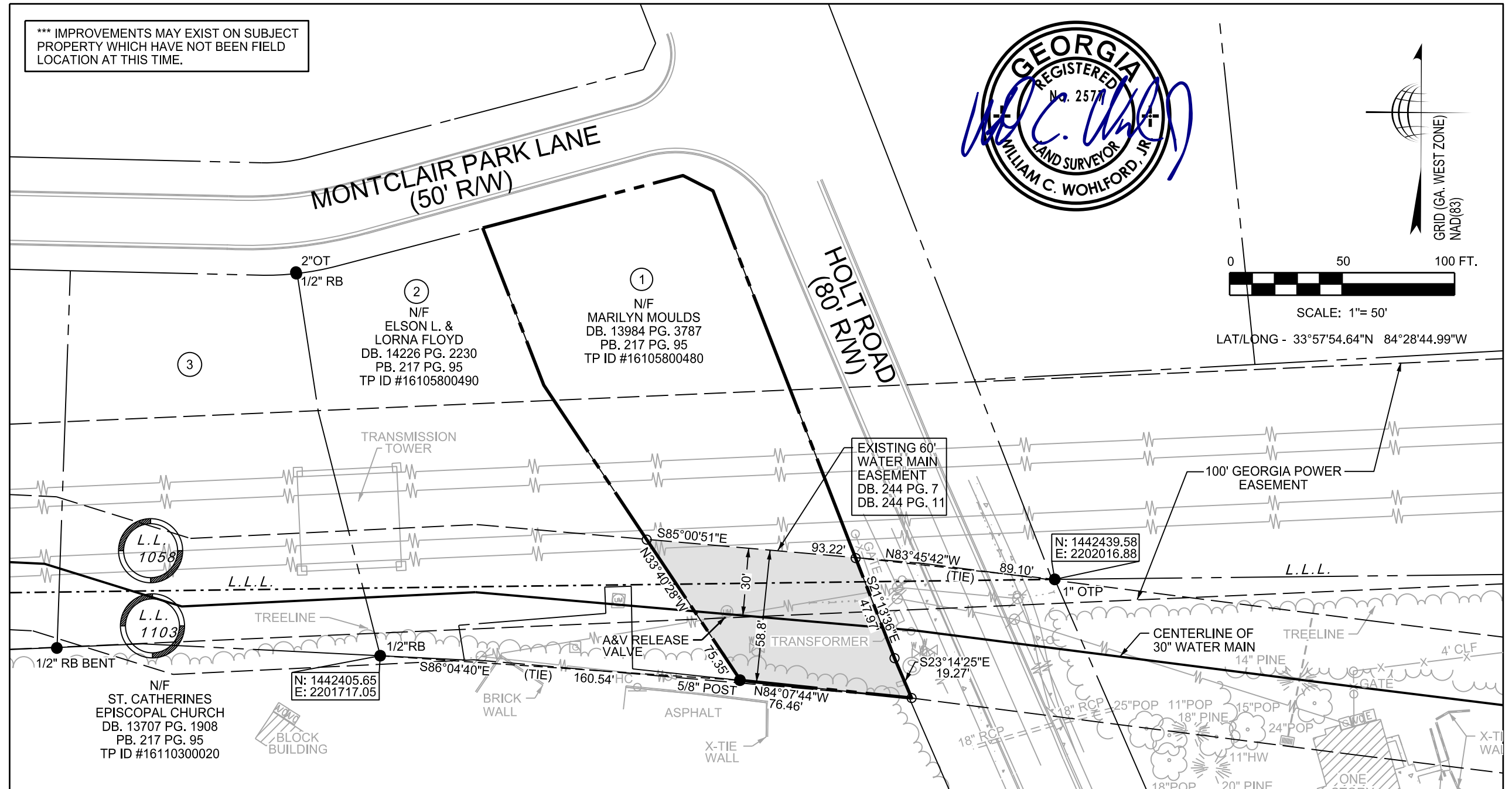


SCALE: 1"= 50'

LAT/LONG - 33°57'54.64"N 84°28'44.99"W

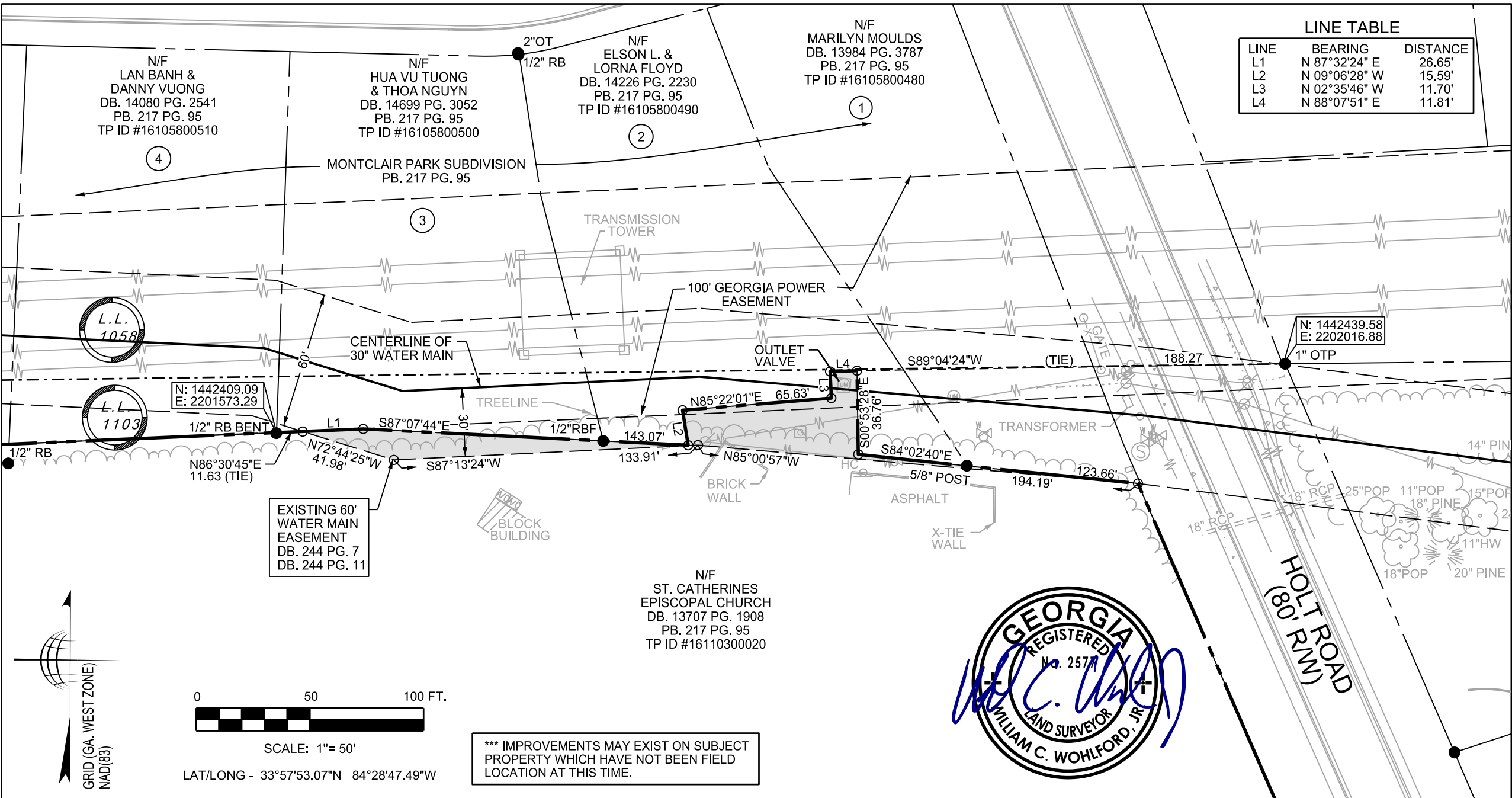
**MONTCLAIR PARK LANE  
(50' R/W)**

**HOLT ROAD  
(80' R/W)**



5,002 SQ. FT./ 0.1148 AC. EASEMENT	LOCATED IN MONTCLAIR PARK SUBDIVISION (PB. 217 PG. 95) LAND LOTS 1058 & 1103 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: <b>COBB COUNTY-MARIETTA WATER AUTHORITY</b>	THROUGH THE PROPERTY OF: <b>MARILYN MOULDS</b>	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
83 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	C.C.M.W.A. NO. 36	COBB COUNTY	

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 87°32'24" E	26.65'
L2	N 09°06'28" W	15.59'
L3	N 02°35'46" W	11.70'
L4	N 88°07'51" E	11.81'

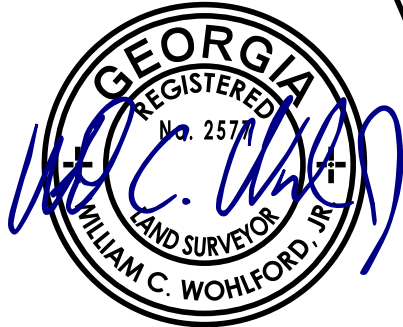


N: 1442409.09  
E: 2201573.29

N: 1442439.58  
E: 2202016.88

EXISTING 60' WATER MAIN EASEMENT  
DB. 244 PG. 7  
DB. 244 PG. 11

N/F ST. CATHERINES EPISCOPAL CHURCH  
DB. 13707 PG. 1908  
PB. 217 PG. 95  
TP ID #16110300020



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATION AT THIS TIME.

0 50 100 FT.  
SCALE: 1"= 50'  
LAT/LONG - 33°57'53.07"N 84°28'47.49"W

3,005 SQ. FT./ .069 AC. EASEMENT  
246 L.F. VARIABLE WIDTH EASEMENT

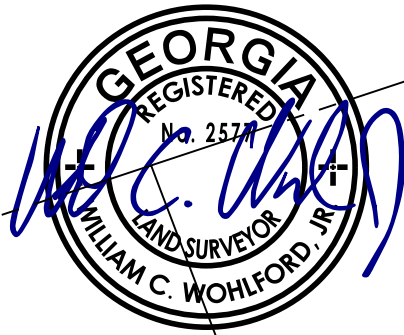
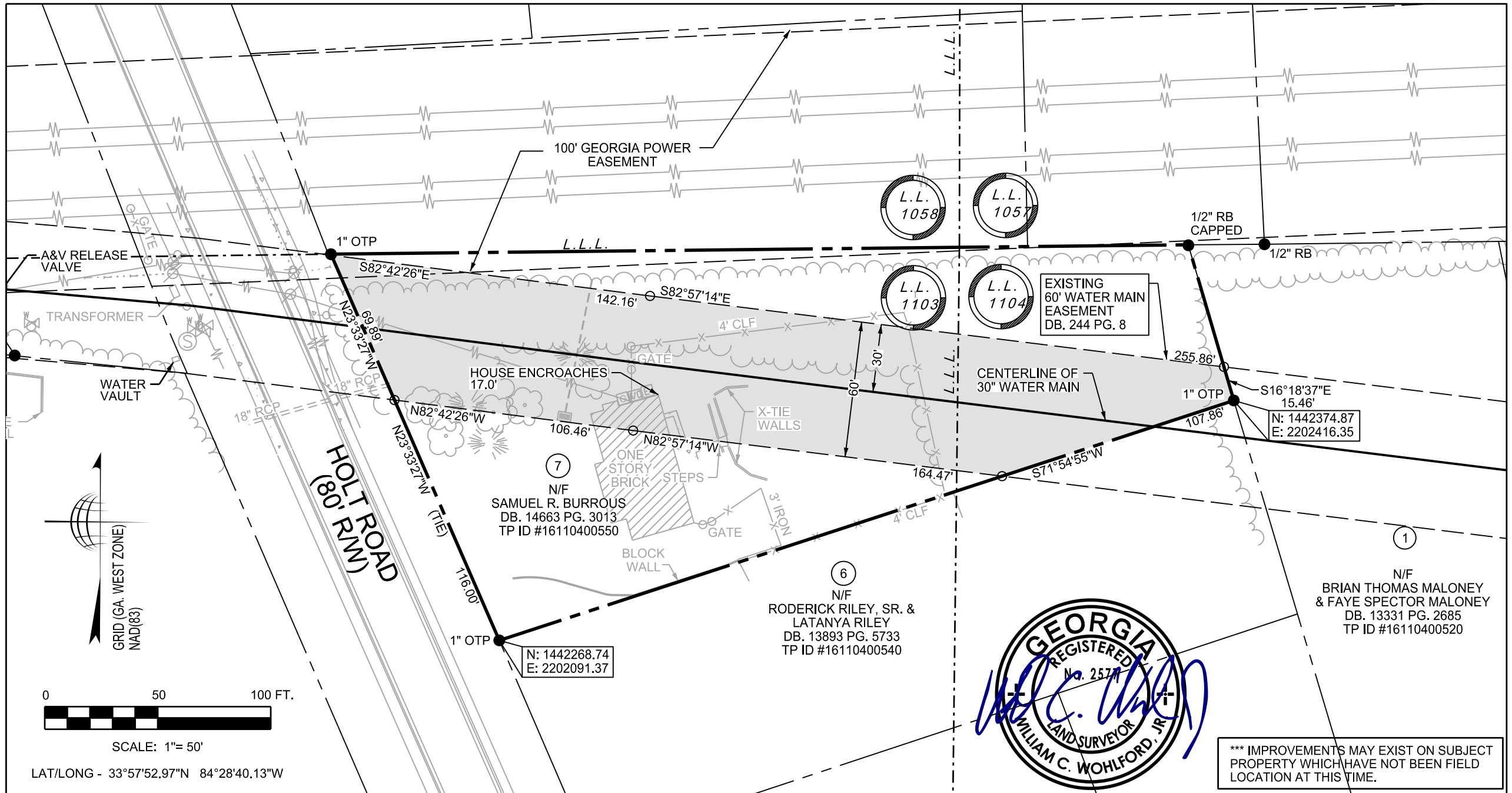
LOCATED IN LAND LOT 1103  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 37

THROUGH THE PROPERTY OF:  
ST. CATHERINES  
EPISCOPAL CHURCH  
COBB COUNTY

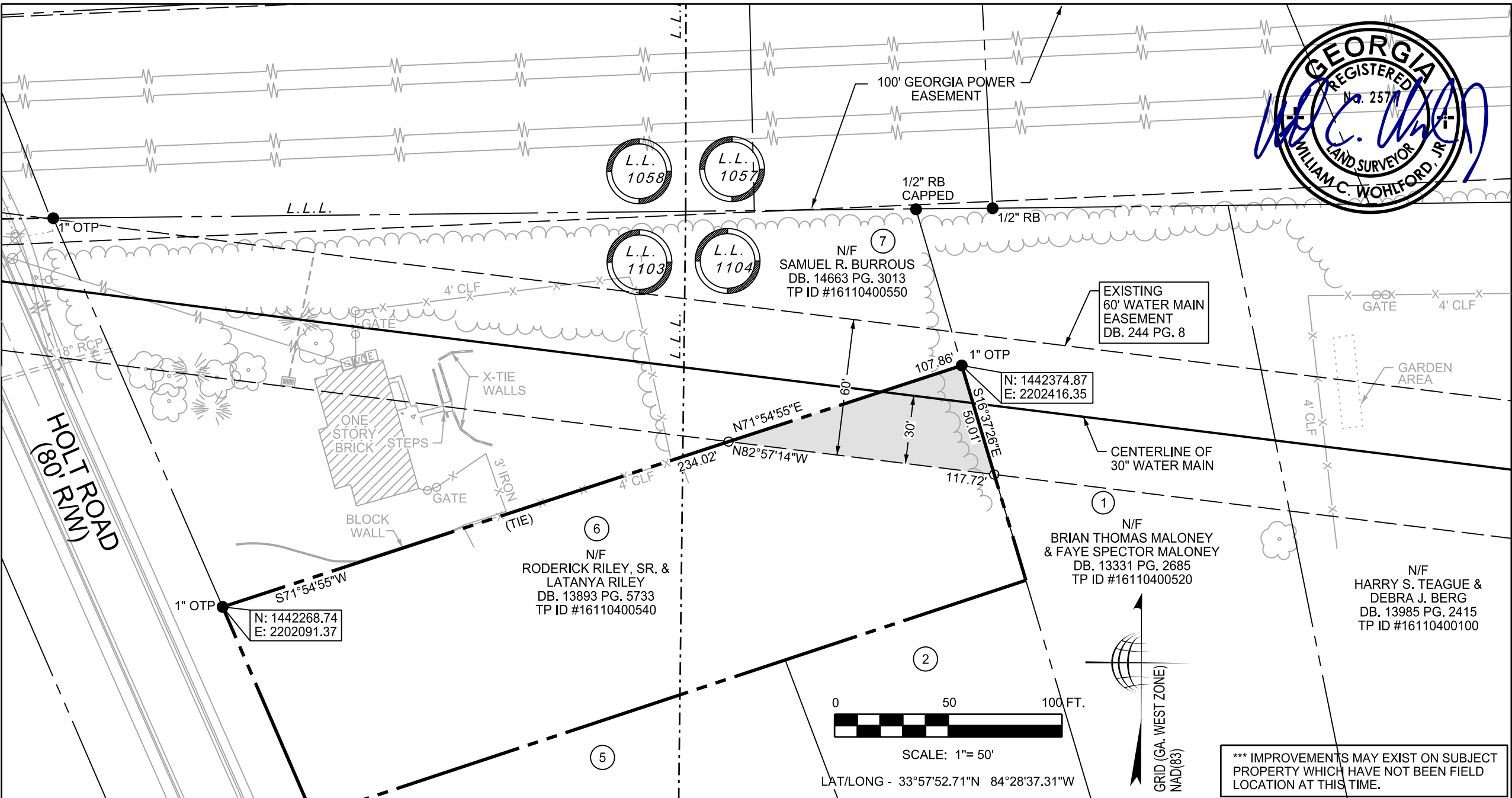
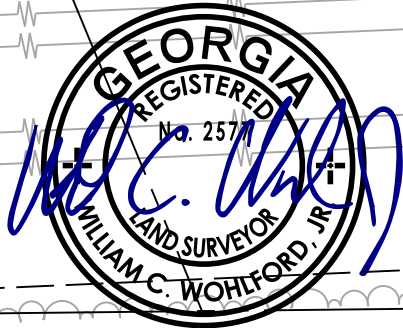
TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927





\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATION AT THIS TIME.

20,902 SQ. FT./ 0.4789 AC. EASEMENT	LOCATED IN BEVERLY HILLS SUBDIVISION (PB. 58 PG. 148) LAND LOT 1104	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
352 L.F. 60' WIDE EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 38	SAMUEL R. BURROUS COBB COUNTY	TerraMark Professional Land Surveying



2,696 SQ. FT./ 0.0619 AC. EASEMENT

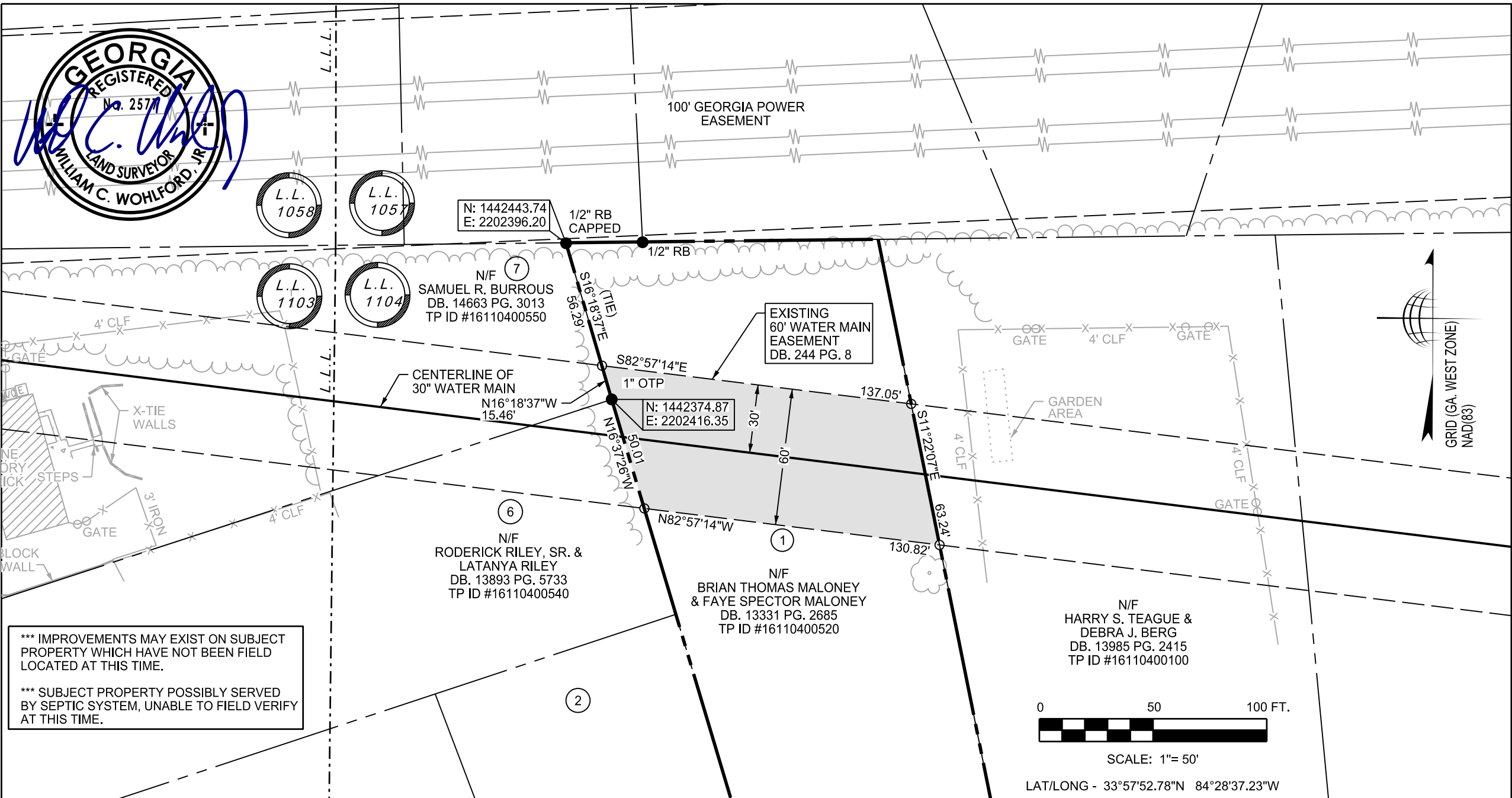
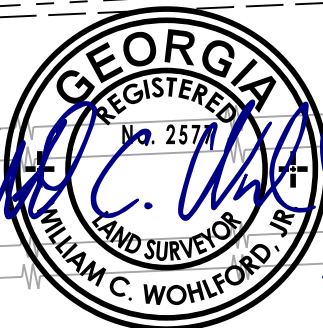
40 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN BEVERLY HILLS SUBDIVISION (PB. 58 PG. 148) LAND LOT 1104  
16TH DISTRICT, 2ND SECTION COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
COBB COUNTY-MARIETTA WATER AUTHORITY  
C.C.M.W.A. NO. 39


THROUGH THE PROPERTY OF:  
RODERICK RILEY, SR. & LATANYA RILEY  
COBB COUNTY

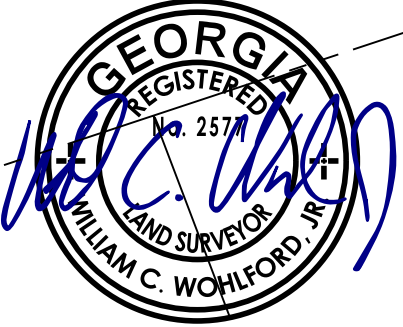
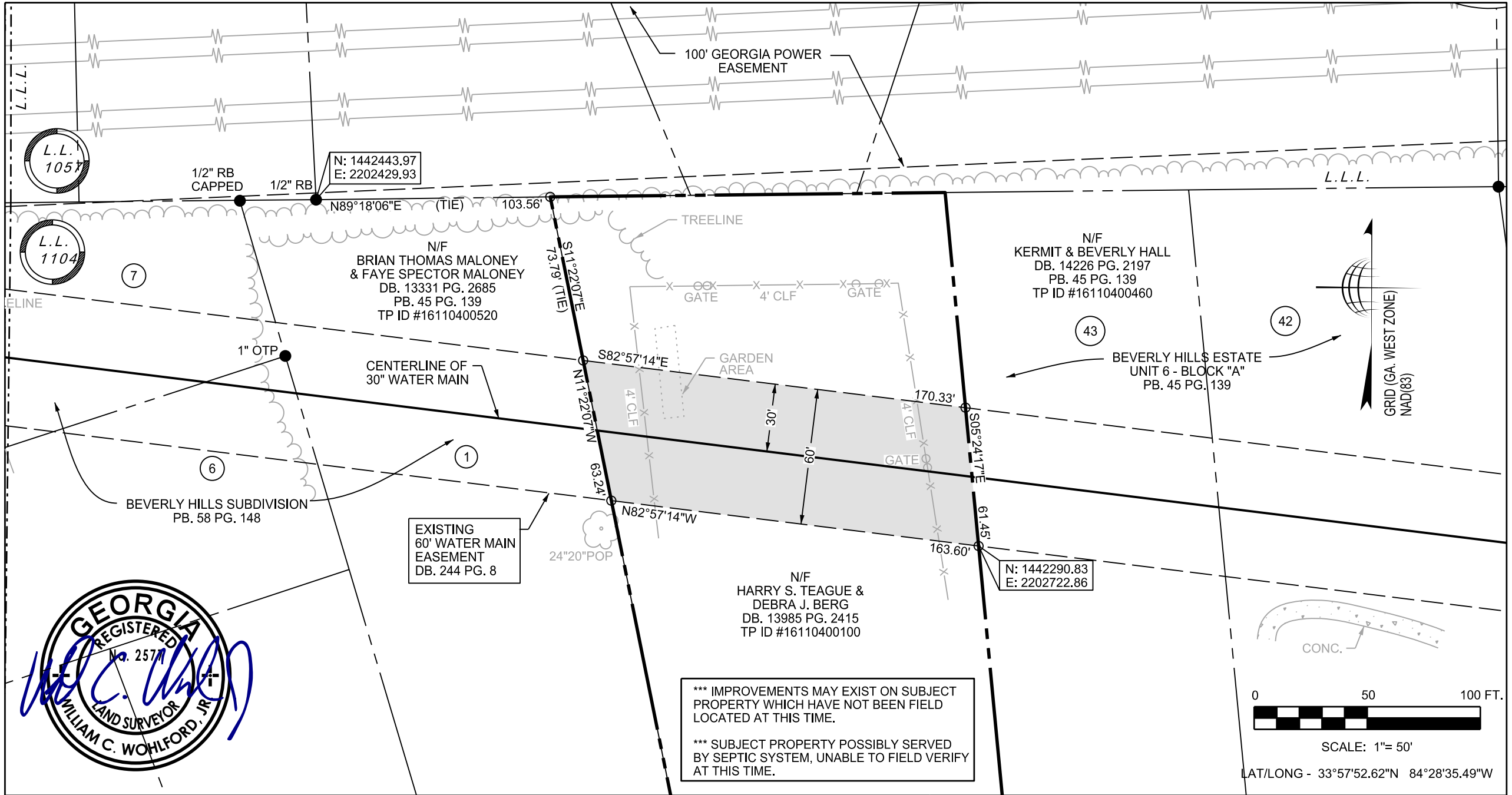
TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

8,038 SQ. FT./ 0.1845 AC. EASEMENT	LOCATED IN BEVERLY HILLS SUBDIVISION (PB. 58 PG. 148) LAND LOT 1104	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
134 L.F. 60' WIDE EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 40	BRIAN THOMAS MALONEY & FAYE SPECTOR MALONEY COBB COUNTY	



10,018 SQ. FT./ 0.23 AC. EASEMENT

165 L.F. 60' WIDE EASEMENT

LOCATED IN LAND LOT 1104  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA

DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:

COBB COUNTY-MARIETTA  
WATER AUTHORITY

C.C.M.W.A. NO. 41

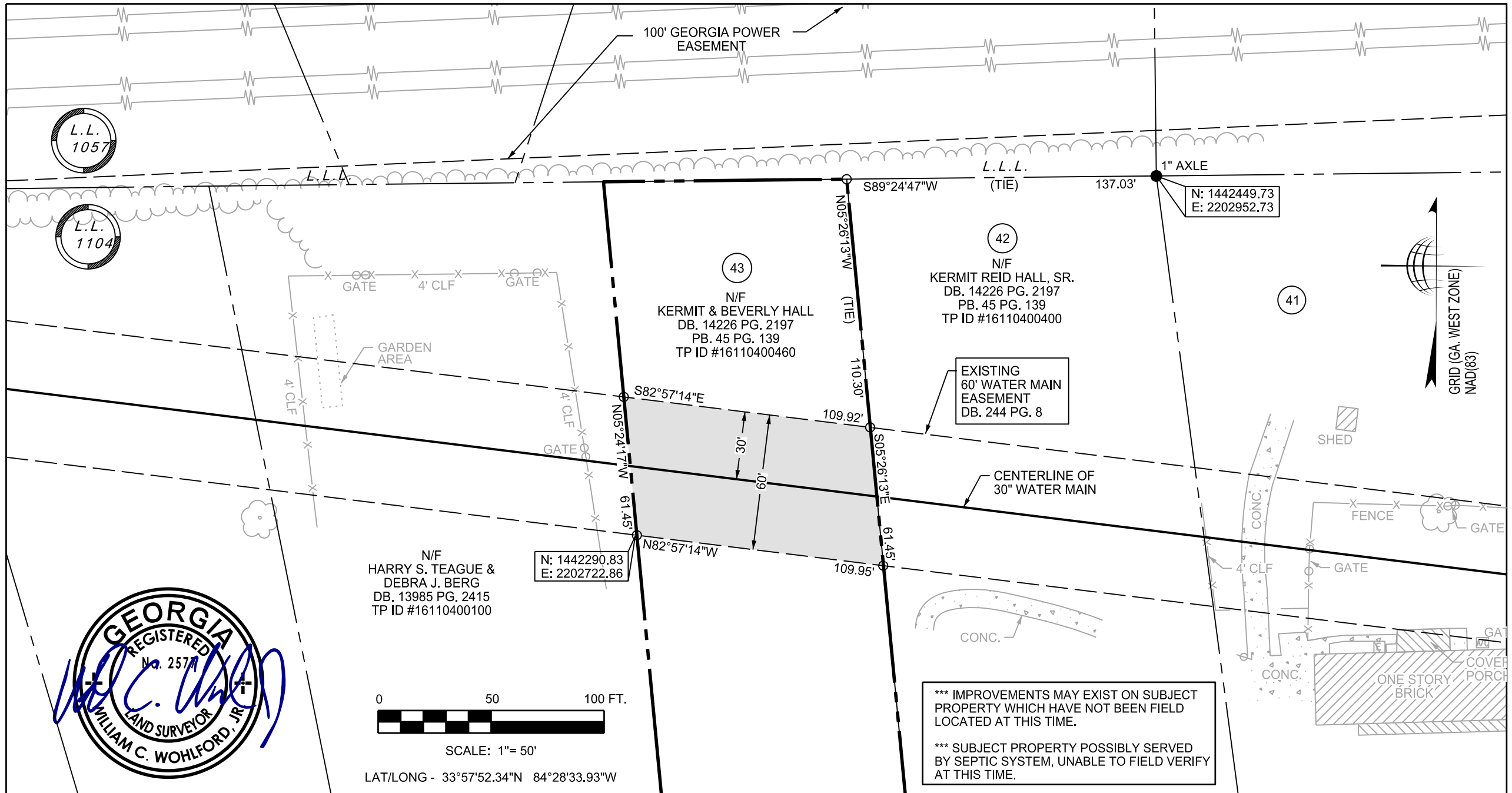
THROUGH THE PROPERTY OF:

HARRY S. TEAGUE &  
DEBRA J. BERG

COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927





L.L.  
1057

L.L.  
1104

100' GEORGIA POWER EASEMENT

L.L.L.  
(TIE) 137.03'

1" AXLE

N: 1442449.73  
E: 2202952.73

43

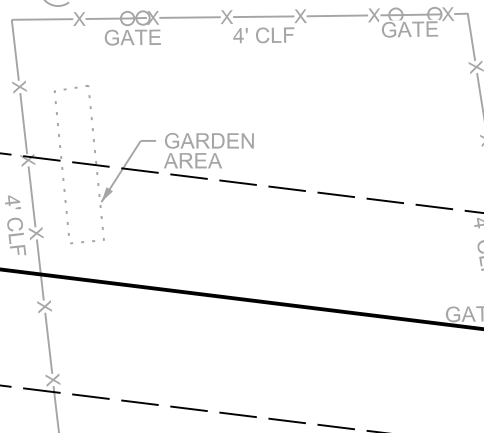
N/F  
KERMIT & BEVERLY HALL  
DB. 14226 PG. 2197  
PB. 45 PG. 139  
TP ID #16110400460

42

N/F  
KERMIT REID HALL, SR.  
DB. 14226 PG. 2197  
PB. 45 PG. 139  
TP ID #16110400400

41

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 8

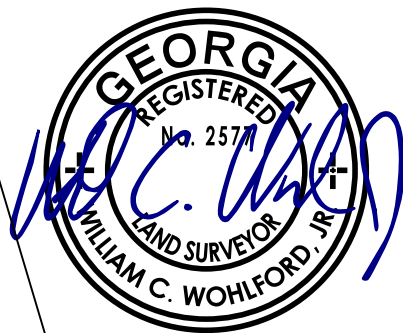


N/F  
HARRY S. TEAGUE &  
DEBRA J. BERG  
DB. 13985 PG. 2415  
TP ID #16110400100

N: 1442290.83  
E: 2202722.86

CENTERLINE OF  
30" WATER MAIN

SHED




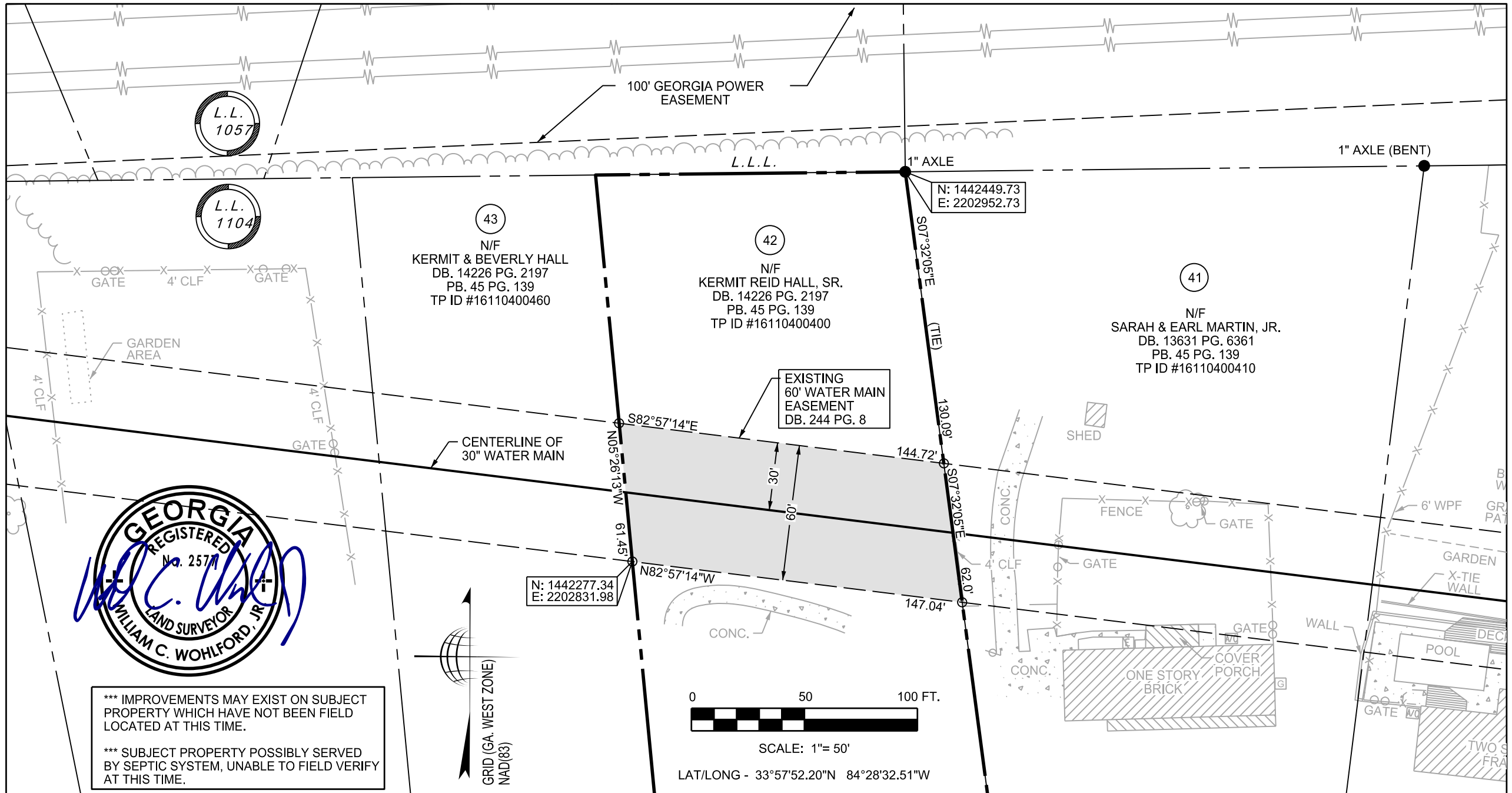
SCALE: 1"= 50'


LAT/LONG - 33°57'52.34"N 84°28'33.93"W

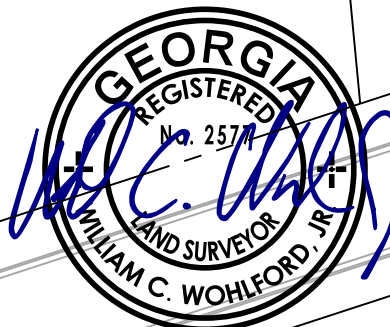
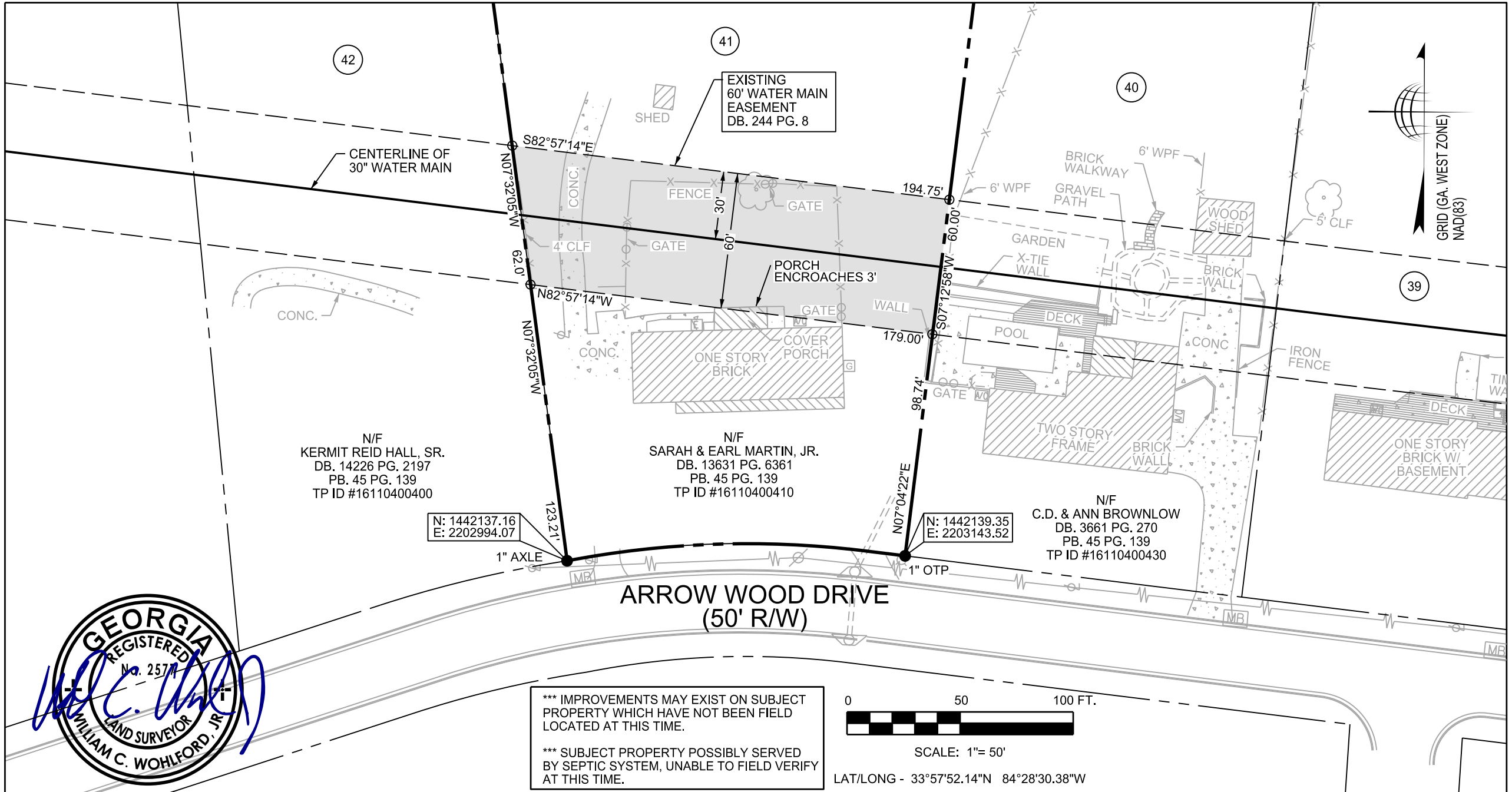
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

6,596 SQ. FT./ 0.1514 AC. EASEMENT	LOCATED IN BEVERLY HILLS ESTATE UNIT 6 - BLOCK "A" (PB. 45 PG. 139) LAND LOT 1104	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
109 L.F. 60' WIDE EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 42	KERMIT & BEVERLY HALL  COBB COUNTY	

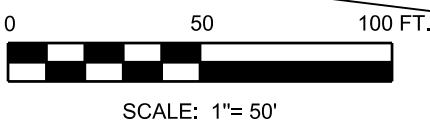


8,753 SQ. FT./ 0.2009 AC. EASEMENT	LOCATED IN BEVERLY HILLS ESTATE UNIT 6 - BLOCK "A" (PB. 45 PG. 139) LAND LOT 1104	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
147 L.F. WIDE EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 43	KERMIT REID HALL, SR.  COBB COUNTY	




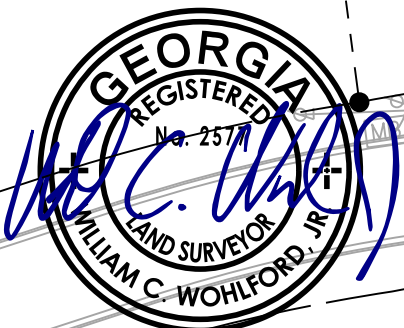
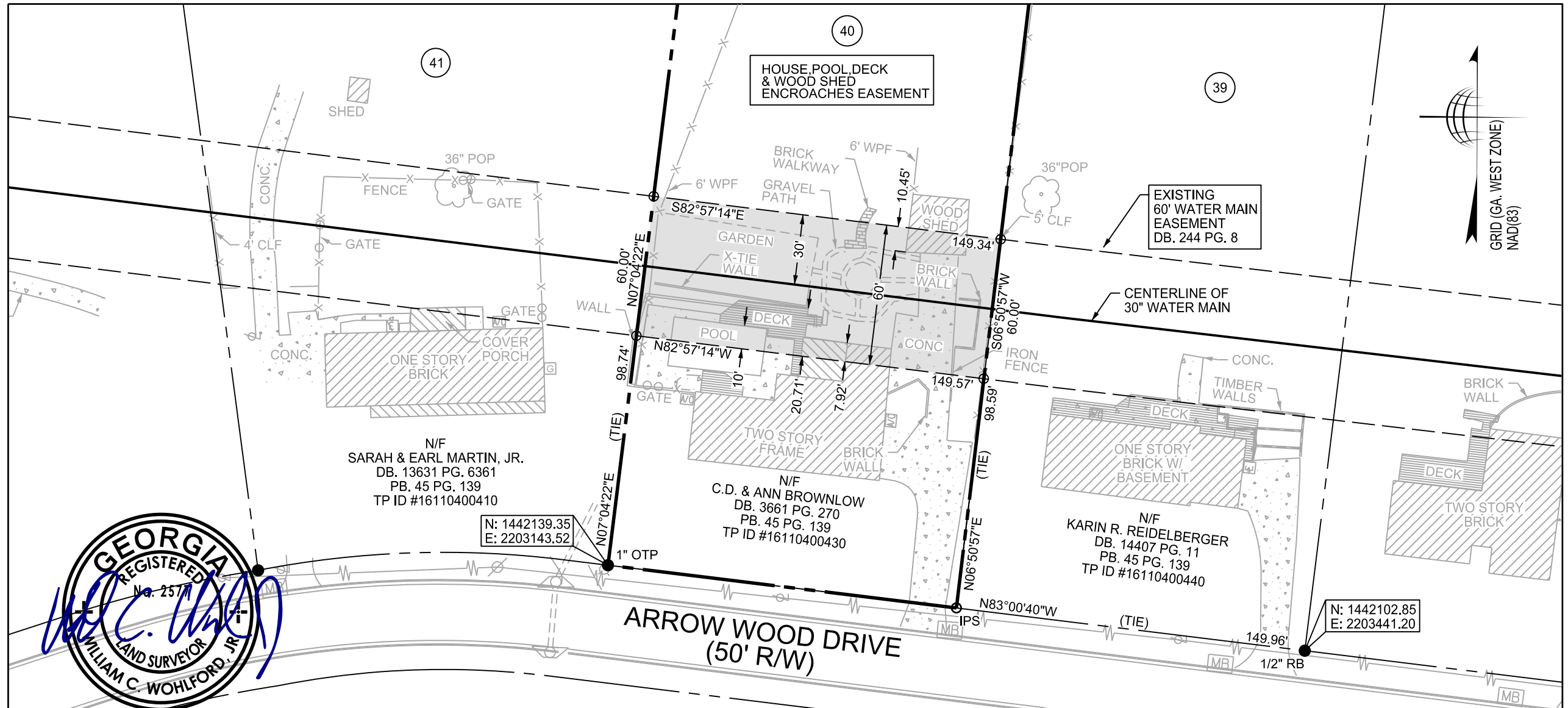
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.



LAT/LONG - 33°57'52.14"N 84°28'30.38"W

11,213 SQ. FT./ 0.2574 AC. EASEMENT	LOCATED IN BEVERLY HILLS ESTATE UNIT 6 - BLOCK "A" (PB. 45 PG. 139) LAND LOT 1104	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
186 L.F. 60' WIDE EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 44	SARAH & EARL MARTIN, JR.  COBB COUNTY	



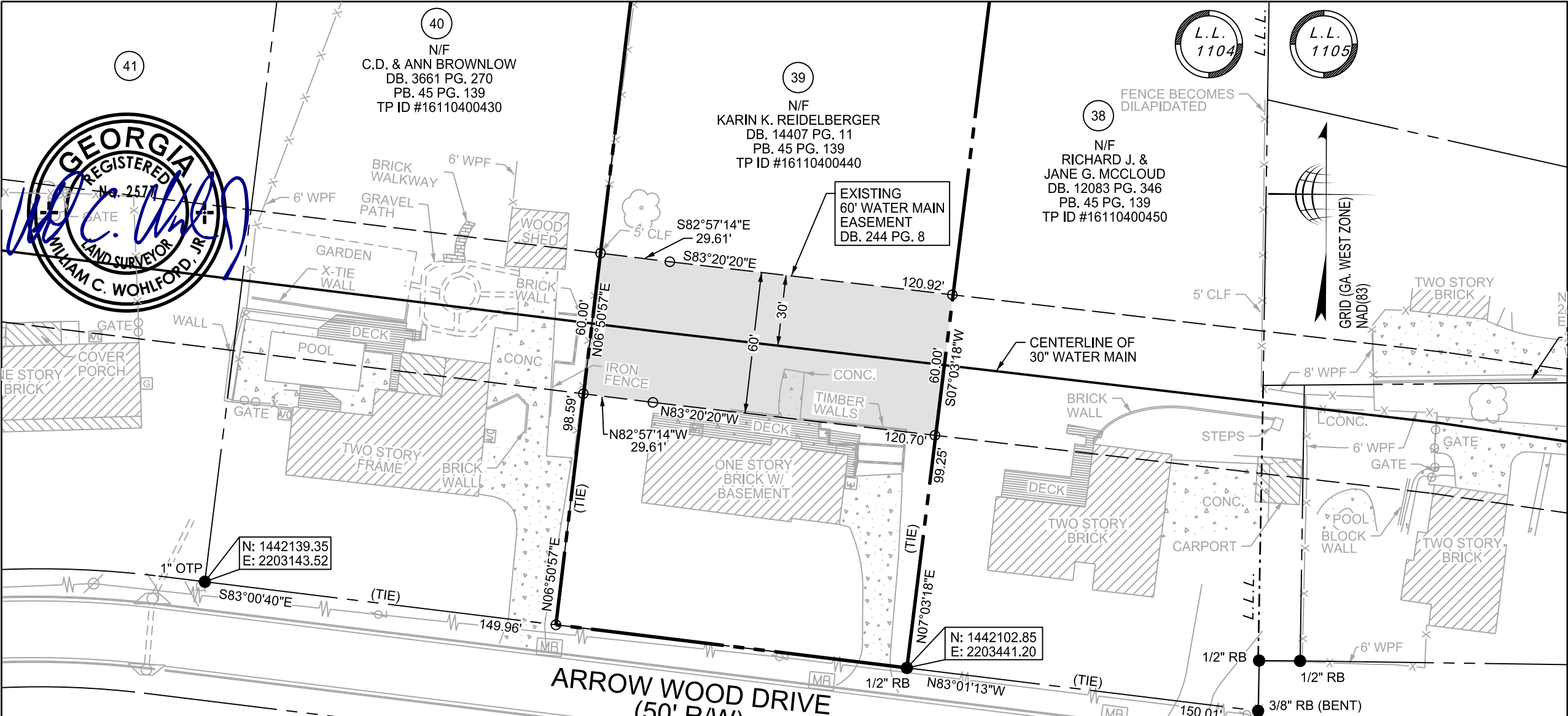
SCALE: 1"= 50'

LAT/LONG - 33°57'51.85"N 84°28'28.47"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.  
 \*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

8,967 SQ. FT./ 0.2059 AC. EASEMENT	LOCATED IN BEVERLY HILLS ESTATE UNIT 6 - BLOCK "A" (PB. 45 PG. 139), LAND LOT 1104	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	<p>TerraMark Land Surveying, Inc.        1396 Bells Ferry Road        Marietta, Georgia 30066        www.TerraMark.com        (P) (770) 421-1927</p>
149 L.F. 60' WIDE EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 45	C.D. & ANN BROWNLOW COBB COUNTY	





0 50 100 FT.  
 SCALE: 1"= 50'  
 LAT/LONG - 33°57'51.71"N 84°28'26.68"W

9,025 SQ. FT./ 0.2072 AC. EASEMENT  
 150 L.F. 60' WIDE EASEMENT

LOCATED IN BEVERLY HILLS ESTATE  
 UNIT 6 - BLOCK "A" (PB. 45 PG. 139)  
 LAND LOT 1104  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA  
 DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:  
 COBB COUNTY-MARIETTA  
 WATER AUTHORITY  
 C.C.M.W.A. NO. 46

THROUGH THE PROPERTY OF:  
 KARIN K. REIDELBERGER  
 COBB COUNTY

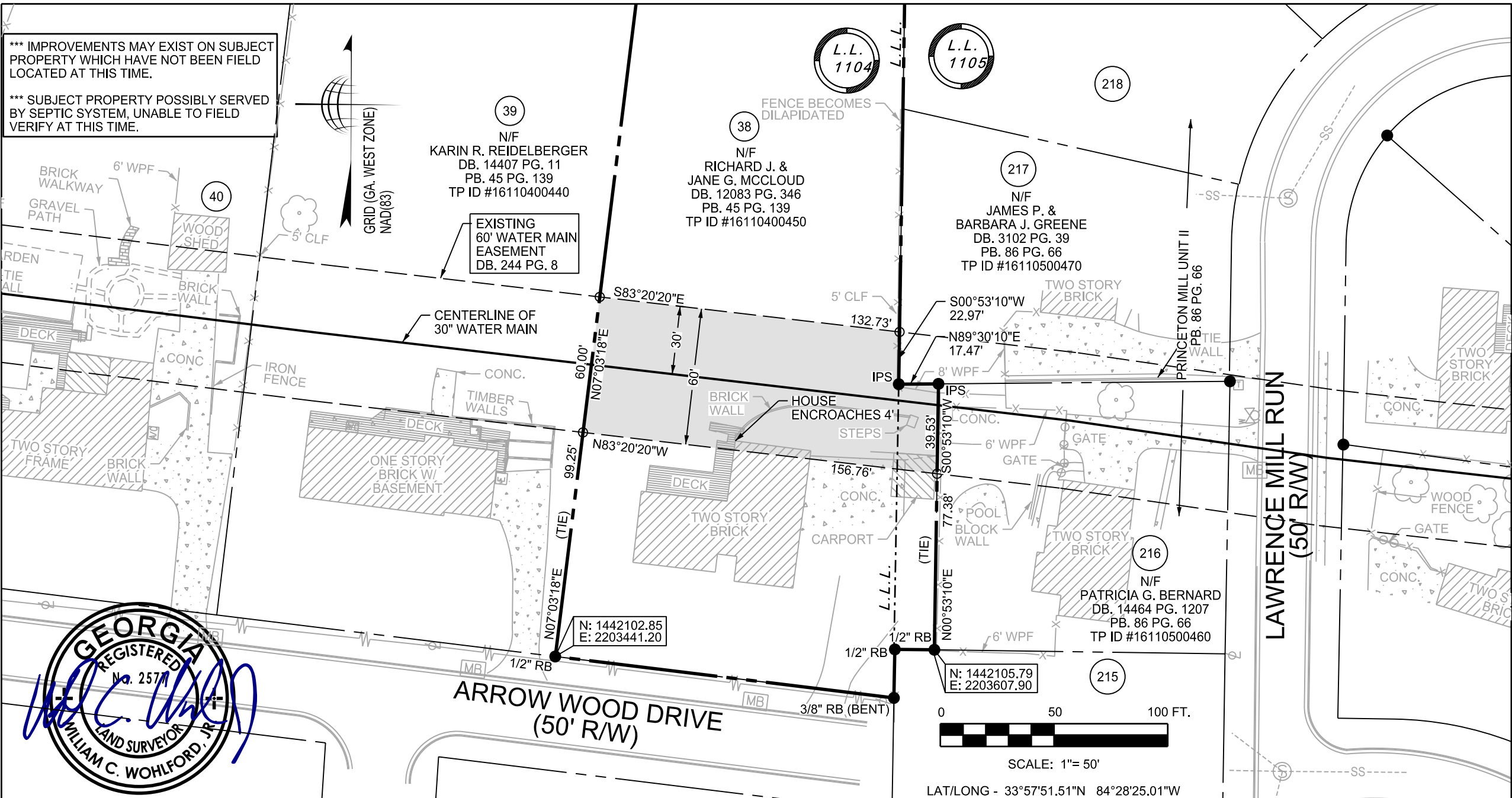
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.  
 \*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

**TerraMark**  
 Professional Land Surveying

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

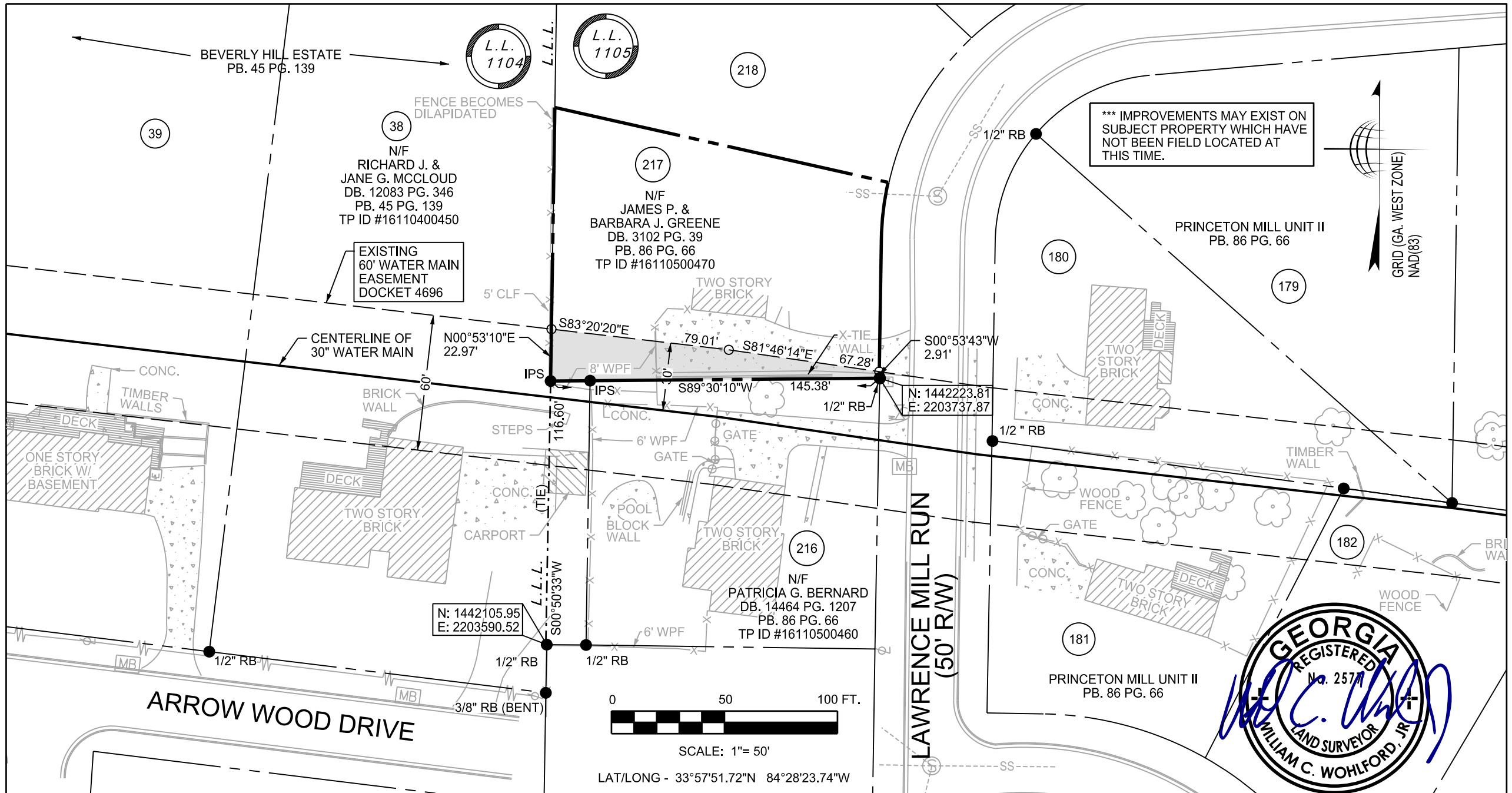
\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.



SCALE: 1" = 50'

LAT/LONG - 33°57'51.51"N 84°28'25.01"W

8,830 SQ. FT./ 0.2027 AC. EASEMENT	LOCATED IN BEVERLY HILLS ESTATE UNIT 6 - BLOCK "A" (PB. 45 PG. 139) LAND LOTS 1104 & 1105 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY	THROUGH THE PROPERTY OF: RICHARD J. & JANE G. MC CLOUD	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
157 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	C.C.M.W.A. NO. 47	COBB COUNTY	Professional Land Surveying



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

EXISTING 60' WATER MAIN EASEMENT DOCKET 4696


CENTERLINE OF 30" WATER MAIN

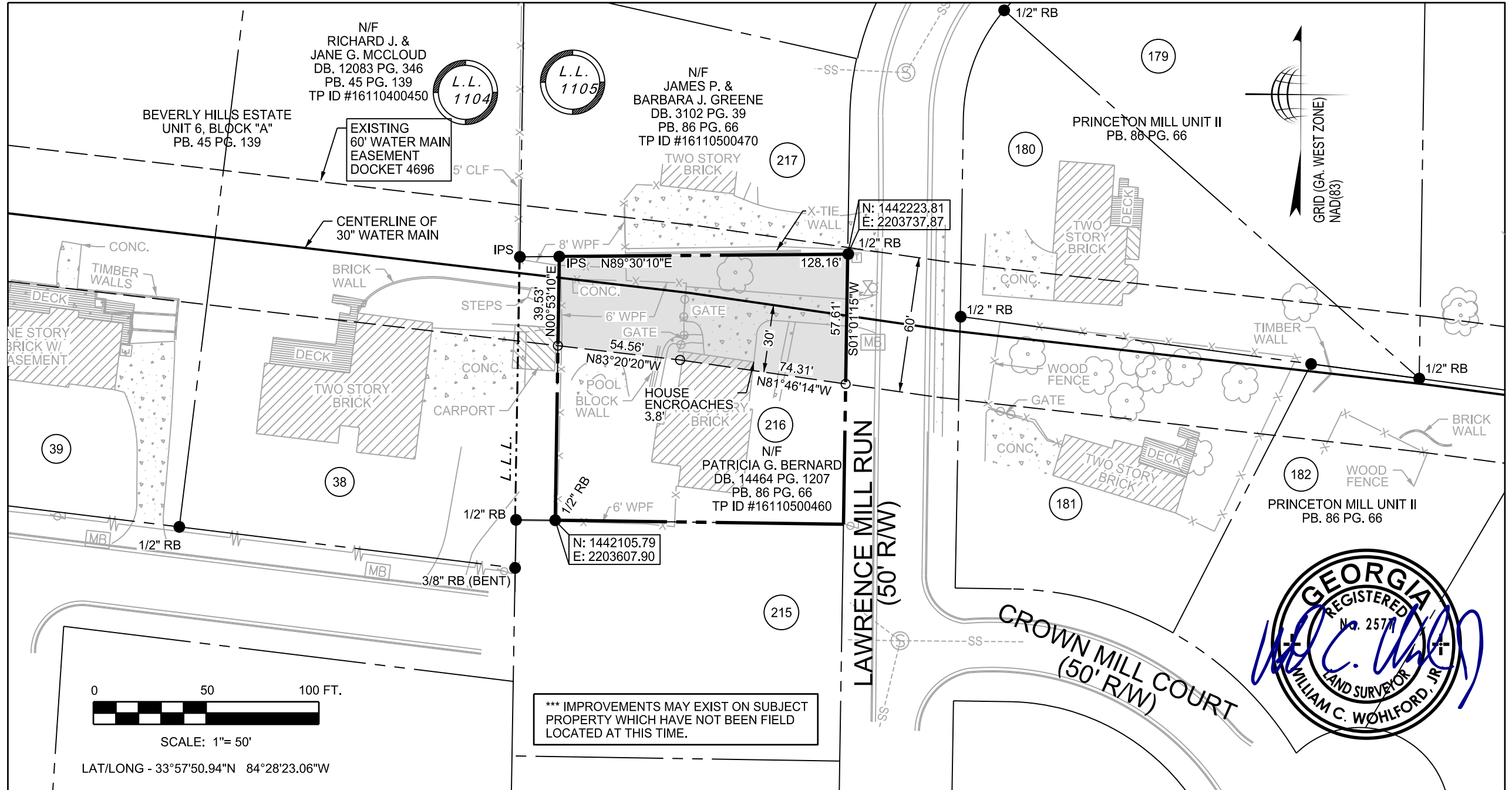
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E: 2203590.52

N: 1442223.81  
E: 2203737.87



LAT/LONG - 33°57'51.72"N 84°28'23.74"W

1,953 SQ. FT./ 0.0448 AC. EASEMENT	LOCATED IN PRINCETON MILL UNIT II (PB. 86 PG. 66) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
146 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 48	JAMES P. & BARBARA J. GREENE COBB COUNTY	



N/F  
RICHARD J. &  
JANE G. MCCLOUD  
DB. 12083 PG. 346  
PB. 45 PG. 139  
TP ID #16110400450

L.L.  
1104

EXISTING  
60' WATER MAIN  
EASEMENT  
DOCKET 4696

CENTERLINE OF  
30" WATER MAIN

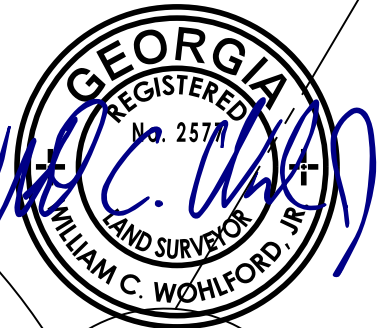
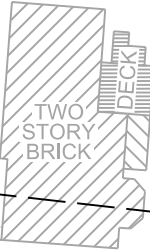
N/F  
JAMES P. &  
BARBARA J. GREENE  
DB. 3102 PG. 39  
PB. 86 PG. 66  
TP ID #16110500470

L.L.  
1105

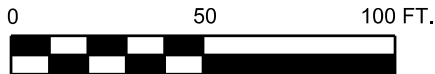
TWO STORY  
BRICK

PRINCETON MILL UNIT II  
PB. 86 PG. 66

180



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.

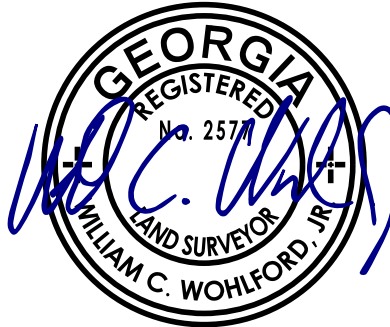
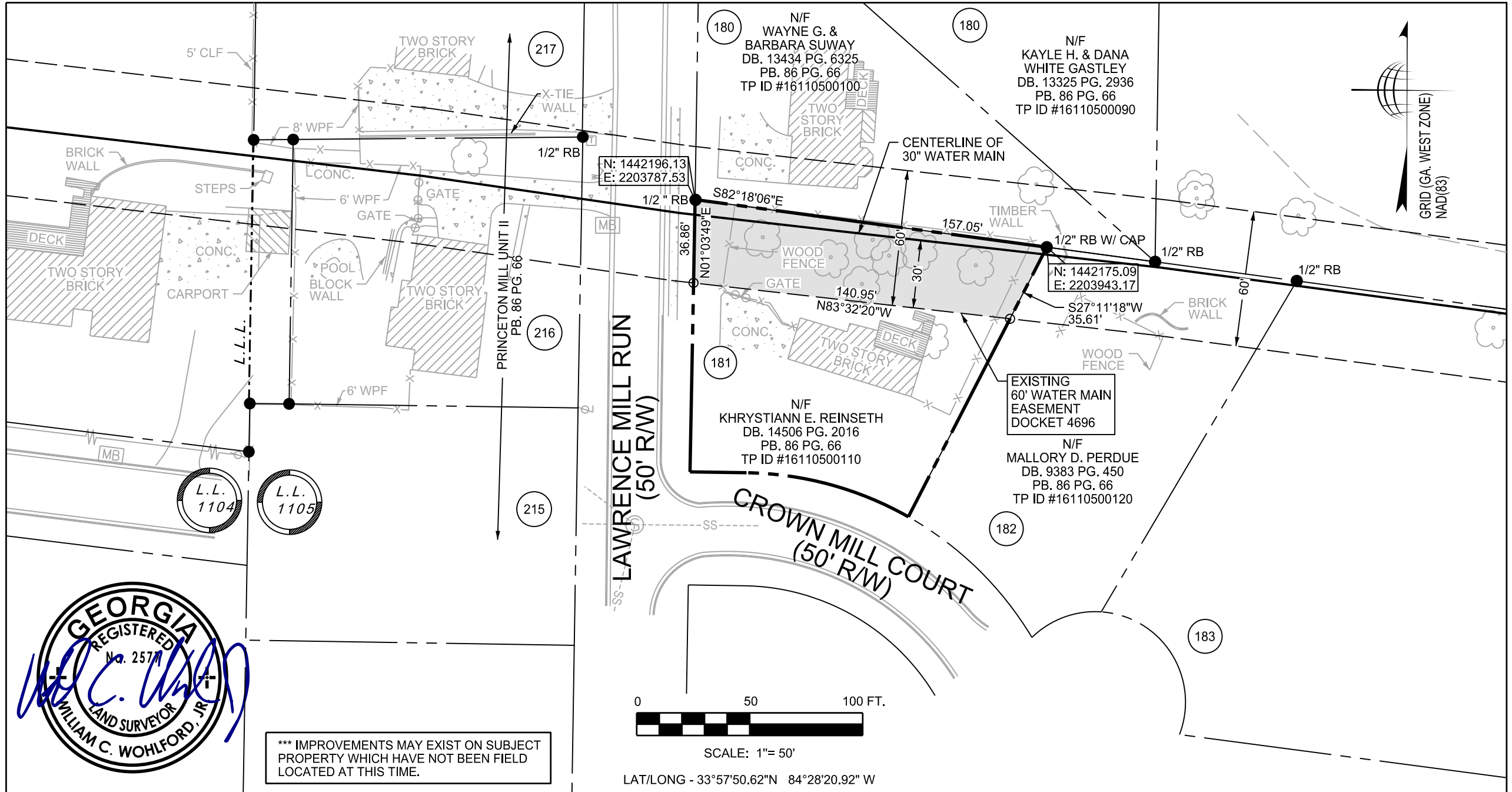


SCALE: 1"= 50'

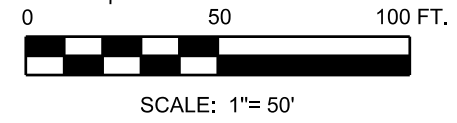
LAT/LONG - 33°57'50.94"N 84°28'23.06"W

6,164 SQ. FT./ 0.1415 AC. EASEMENT	LOCATED IN PRINCETON MILL UNIT II (PB. 86 PG. 66) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
130 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 49	PATRICIA G. BERNARD  COBB COUNTY	






\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

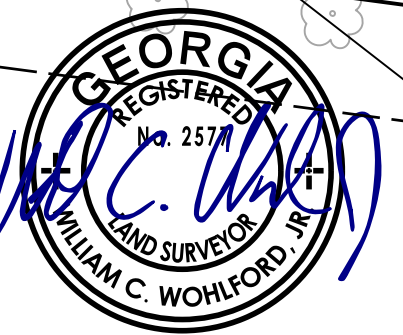
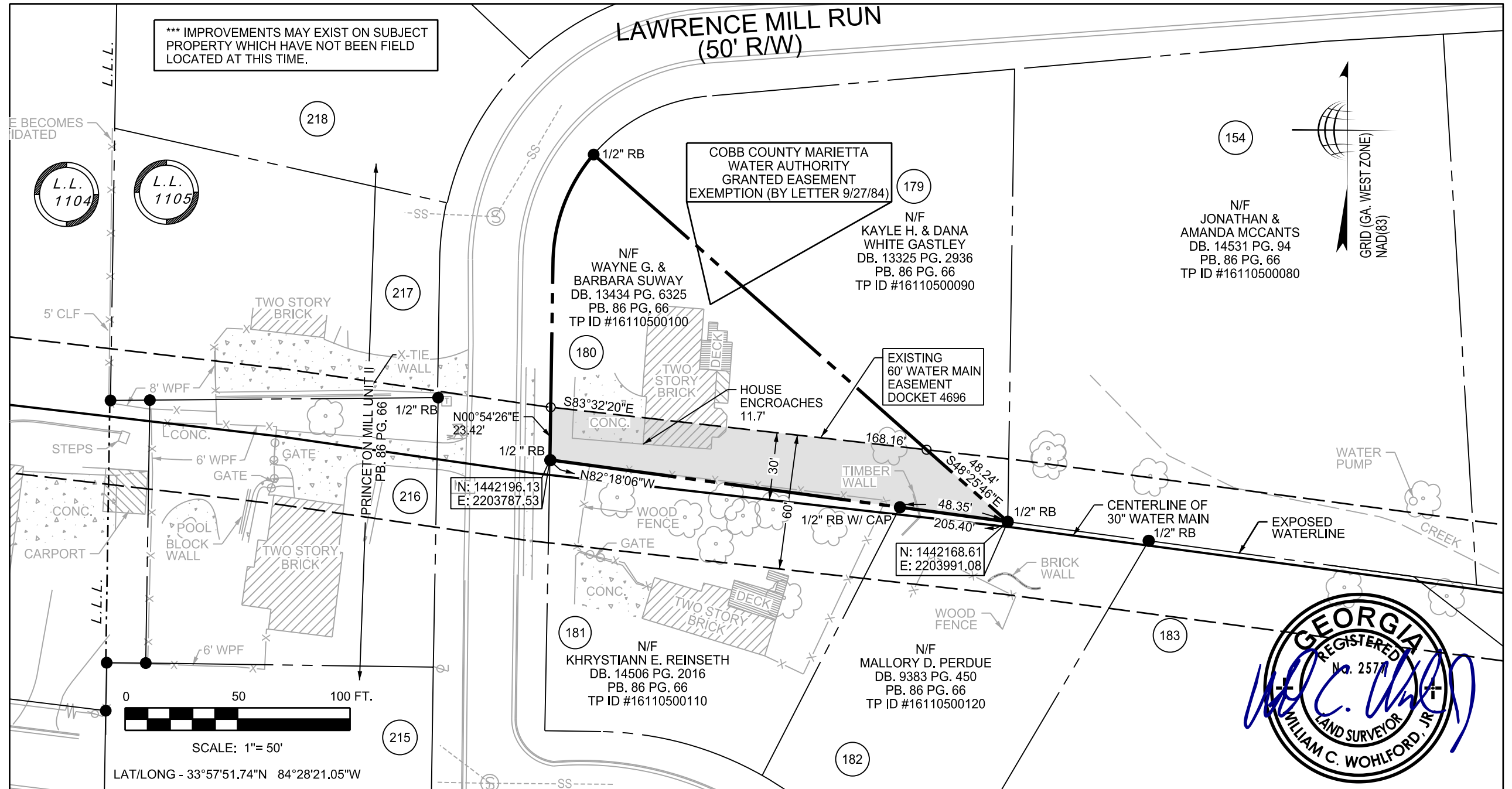


LAT/LONG - 33°57'50.62"N 84°28'20.92" W

5,222 SQ. FT./ 0.1199 AC. EASEMENT	LOCATED IN PRINCETON MILL UNIT II (PB. 86 PG. 66) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
160 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 50	KHRYSIANN E. REINSETH COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

# LAWRENCE MILL RUN (50' R/W)



4,721 SQ. FT./ 0.1084 AC. EASEMENT	LOCATED IN PRINCETON MILL UNIT II (PB. 86 PG. 66) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
150 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 51	WAYNE G. & BARBARA SUWAY COBB COUNTY	TerraMark Professional Land Surveying

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

0 50 100 FT.



SCALE: 1"= 50'

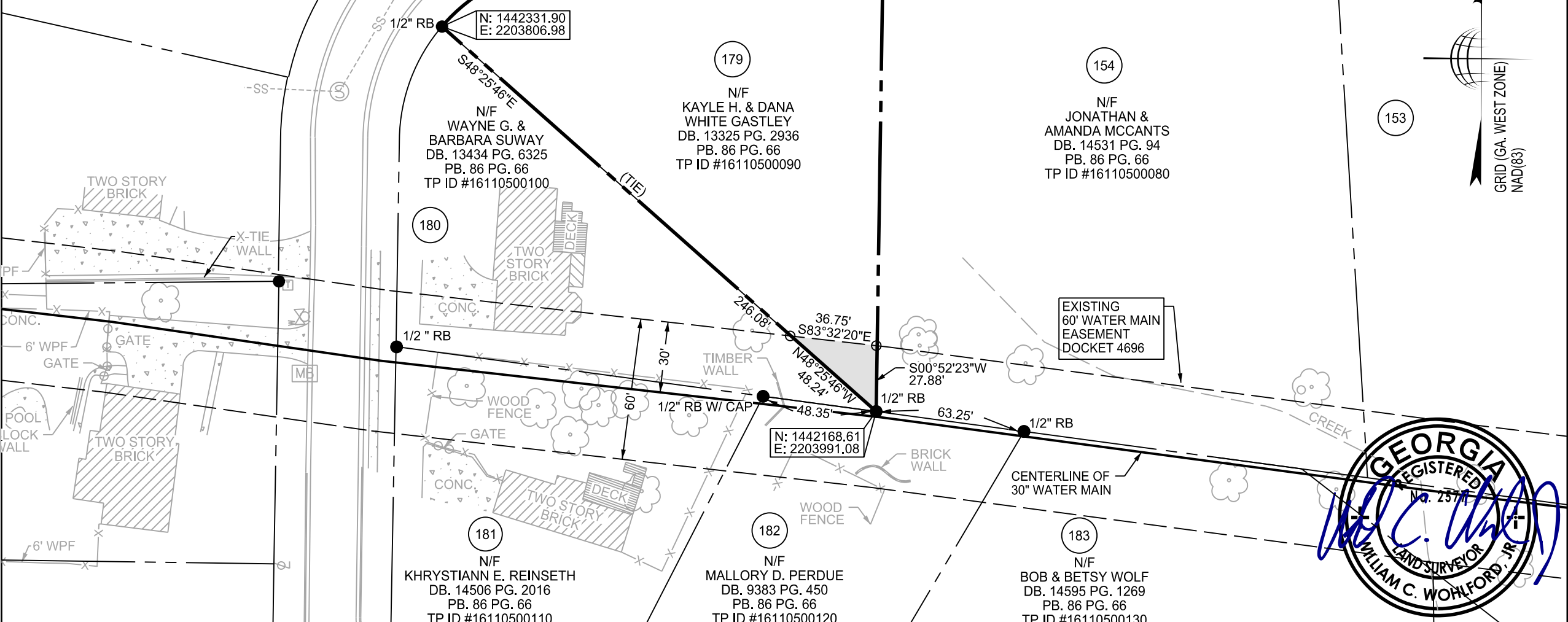
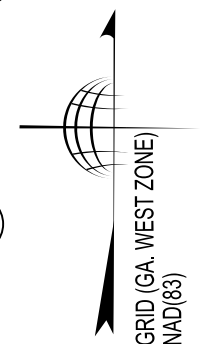
LAT/LONG - 33°57'52.36"N 84°28'20.28"W

LAWRENCE MILL RUN  
(50' R/W)

L.L.  
1056

L.L.  
1105

153



EXISTING  
60' WATER MAIN  
EASEMENT  
DOCKET 4696



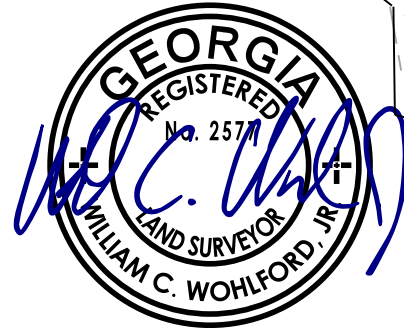
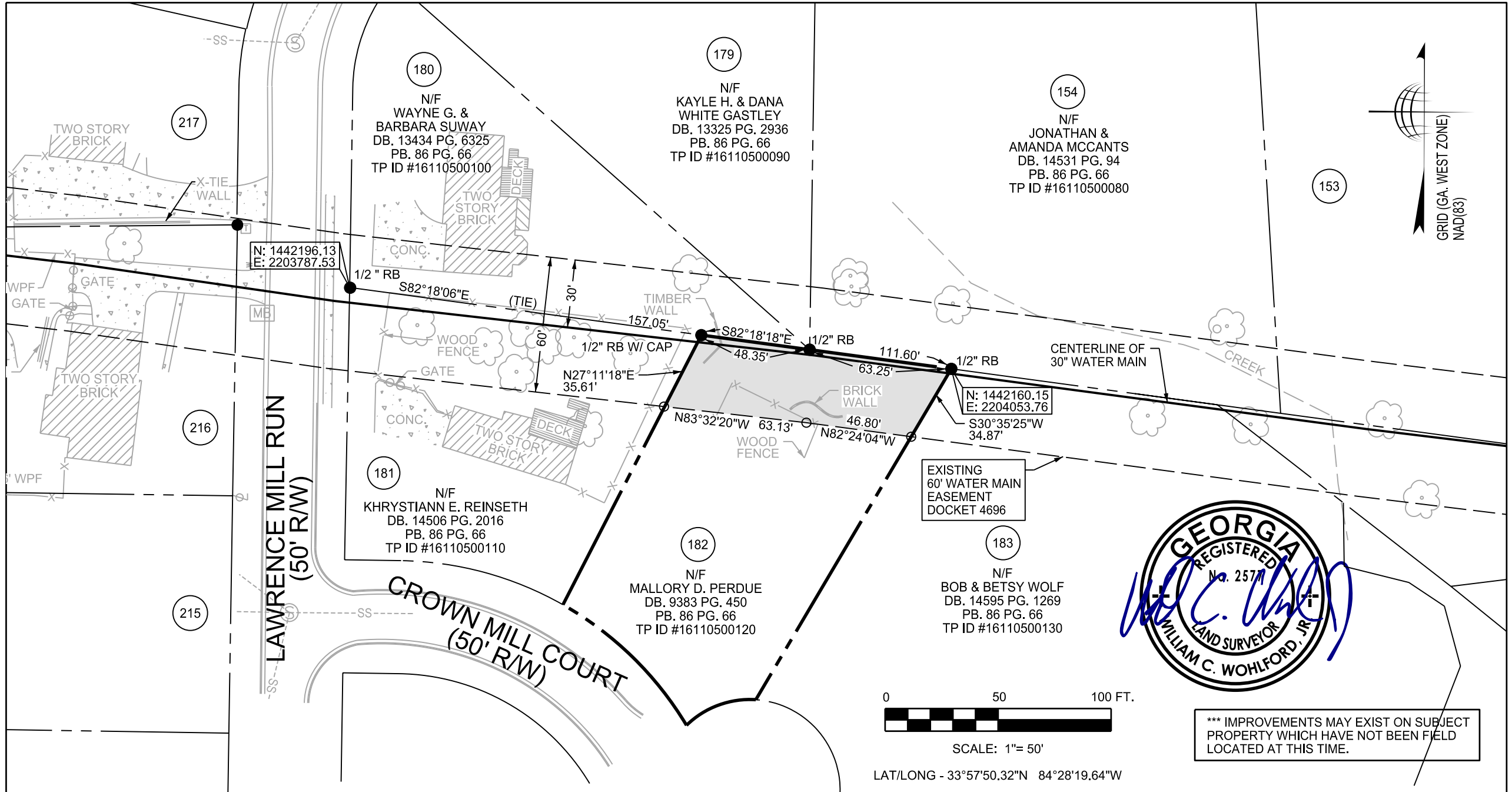
510 SQ. FT./ 0.0117 AC. EASEMENT  
36 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN  
PRINCETON MILL UNIT II (PB. 86 PG. 66)  
LAND LOT 1105  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 52

THROUGH THE PROPERTY OF:  
KAYLE H. & DANA  
WHITE GASTLEY  
COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



SCALE: 1"= 50'

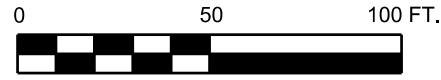
LAT/LONG - 33°57'50.32"N 84°28'19.64"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

3,599 SQ. FT./ .0826 AC. EASEMENT	LOCATED IN PRINCETON MILL UNIT II (PB. 86 PG. 66) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
111 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 53	MALLORY D. PERDUE  COBB COUNTY	TerraMark Professional Land Surveying

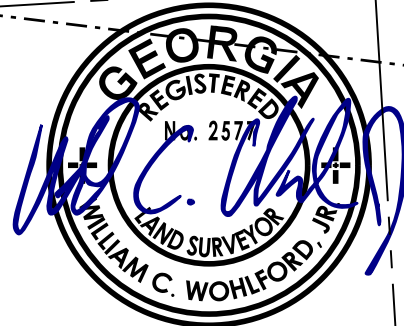


**LAWRENCE MILL RUN  
(50' R/W)**



SCALE: 1"= 50'

LAT/LONG - 33°57'52.13"N 84°28'18.17"W



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

N: 1442331.90  
E: 2203806.98

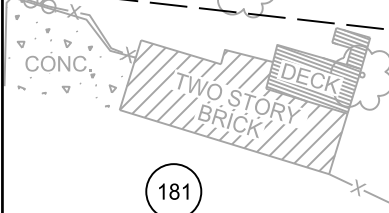
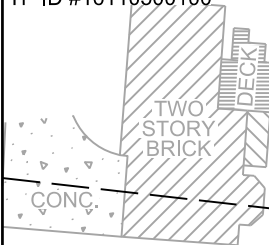
N/F  
WAYNE G. &  
BARBARA SUWAY  
DB. 13434 PG. 6325  
PB. 86 PG. 66  
TP ID #16110500100

N/F  
KAYLE H. & DANA  
WHITE GASTLEY  
DB. 13325 PG. 2936  
PB. 86 PG. 66  
TP ID #16110500090

N/F  
JONATHAN &  
AMANDA MCCANTS  
DB. 14531 PG. 94  
PB. 86 PG. 66  
TP ID #16110500080

N/F  
JUDITH K. &  
ROBERT V. HERRICK  
DB. 3211 PG. 470  
PB. 86 PG. 66  
TP ID #16110500070

N/F  
GENE W. & VONNIE M.  
ONEAL  
PB. 86 PG. 66  
TP ID #16110500060



EXISTING  
60' WATER MAIN  
EASEMENT  
DOCKET 4696

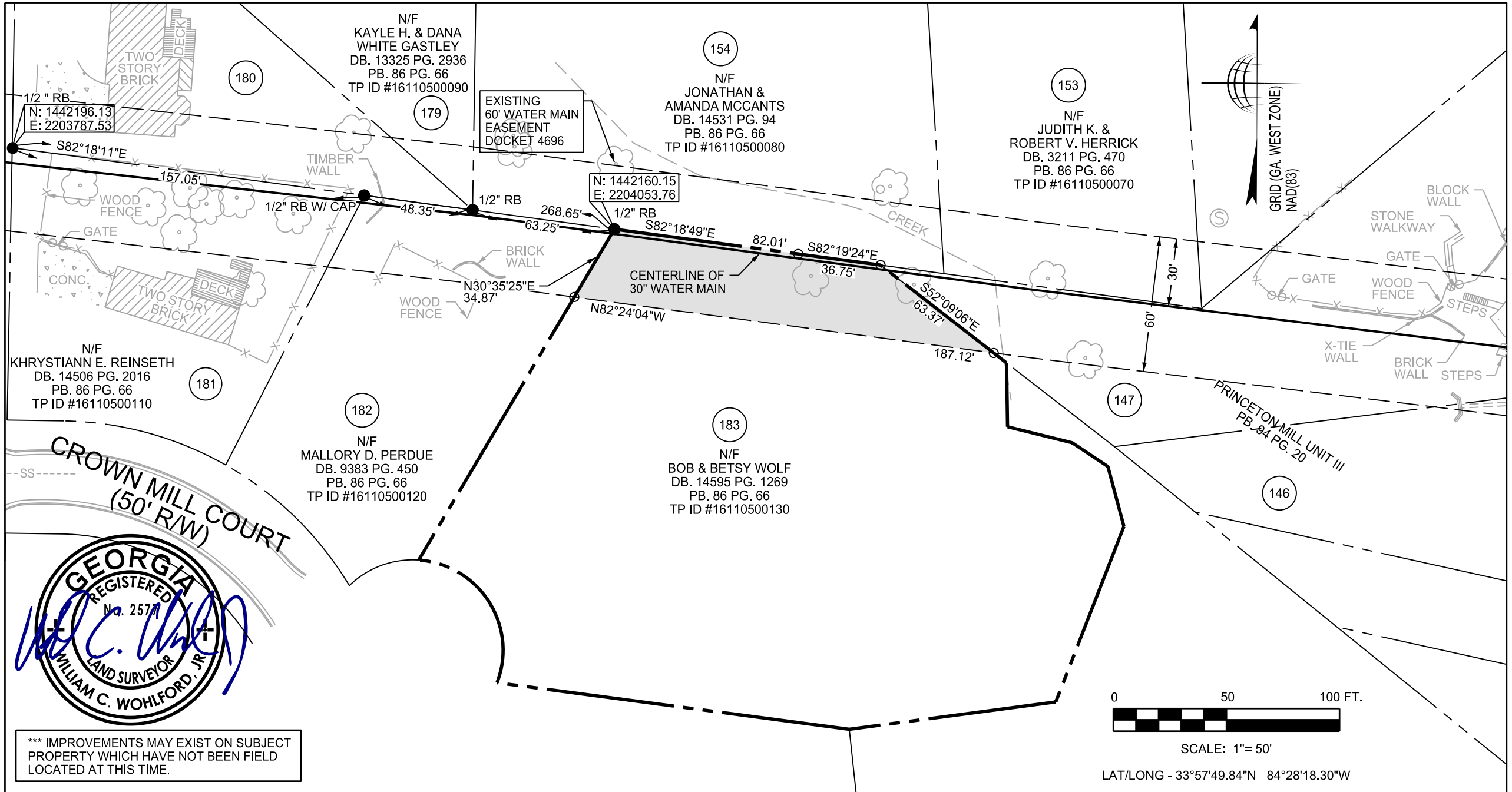
N: 1442168.61  
E: 2203991.08

N/F  
MALLORY D. PERDUE  
DB. 9383 PG. 450  
PB. 86 PG. 66  
TP ID #16110500120

N/F  
BOB & BETSY WOLF  
DB. 14595 PG. 1269  
PB. 86 PG. 66  
TP ID #16110500130

N/F  
DAWSON A. &  
TERRI P. HENDERSON  
DB. 5702 PG. 41  
PB. 94 PG. 20  
TP ID #16110500770

5,846 SQ. FT./ 0.1342 AC. EASEMENT	LOCATED IN PRINCETON MILL UNIT II (PB. 86 PG. 66) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
210 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 54	JONATHAN & AMANDA MCCANTS COBB COUNTY	<b>TerraMark</b> Professional Land Surveying



4,894 SQ. FT./ 0.1123 AC. EASEMENT

123 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN  
 PRINCETON MILL UNIT II (PB. 86 PG. 66)  
 LAND LOT 1105  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA  
 DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:  
 COBB COUNTY-MARIETTA  
 WATER AUTHORITY  
 C.C.M.W.A. NO. 55

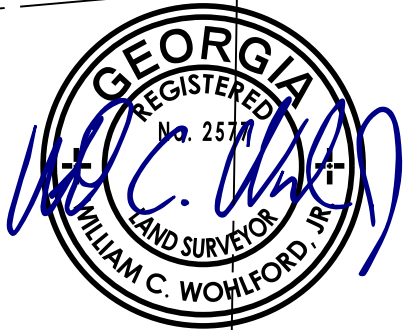
THROUGH THE PROPERTY OF:  
 BOB AND BETSY WOLF  
 COBB COUNTY

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

LAWRENCE MILL RUN  
(50' R/W)

L.L.L.

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



L.L.  
1056

L.L.  
1105

154

N/F  
JONATHAN &  
AMANDA MCCANTS  
DB. 14531 PG. 94  
PB. 86 PG. 66  
TP ID #16110500080

153

N/F  
JUDITH K. &  
ROBERT V. HERRICK  
DB. 3211 PG. 470  
PB. 86 PG. 66  
TP ID #16110500070

152

N/F  
GENE W. & VONNIE M.  
ONEAL  
PB. 86 PG. 66  
TP ID #16110500060

151

179

148

147

N/F  
DAWSON A. &  
TERRI P. HENDERSON  
DB. 5702 PG. 41  
PB. 94 PG. 20  
TP ID #16110500770



N: 1442160.15  
E: 2204053.76

1/2" RB

1/2" RB

CENTERLINE OF  
30" WATER MAIN

CREEK

S82°24'04"E  
43.74'

S83°03'30"E

71.04'

S03°27'10"E  
29.66'

S82°18'49"E  
(TIE)

N03°27'07"W  
28.65'

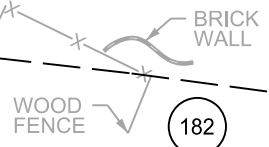
147.04'

N82°18'49"W

114.97'

N82°28'35"W

1/2" RB



182

N/F  
BOB & BETSY WOLF  
DB. 14595 PG. 1269  
PB. 86 PG. 66  
TP ID #16110500130

183

0 50 100 FT.



SCALE: 1" = 50'

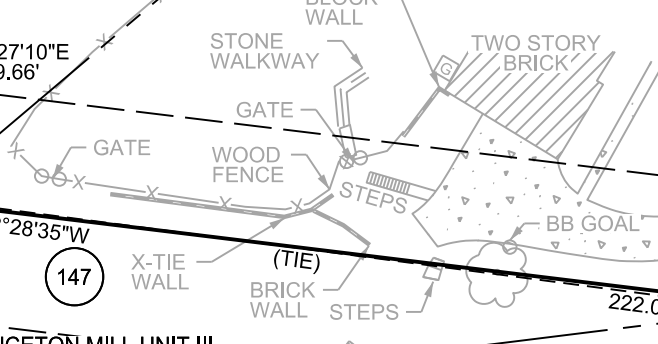
LAT/LONG - 33°57'52.59"N 84°28'16.17"W

EXISTING  
60' WATER MAIN  
EASEMENT  
DOCKET 4696

N/F  
MARK PAUL MEREDITH  
DB. 3543 PG. 210  
PB. 86 PG. 66  
TP ID #16110500760

PRINCETON MILL UNIT III  
PB. 94 PG. 20

147



N: 1442096.04  
E: 2204533.48

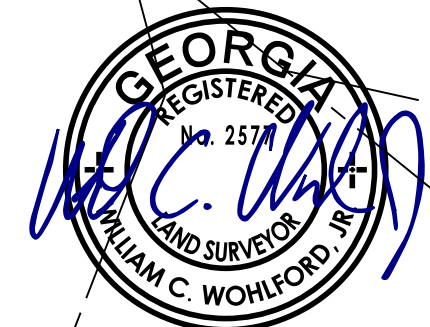
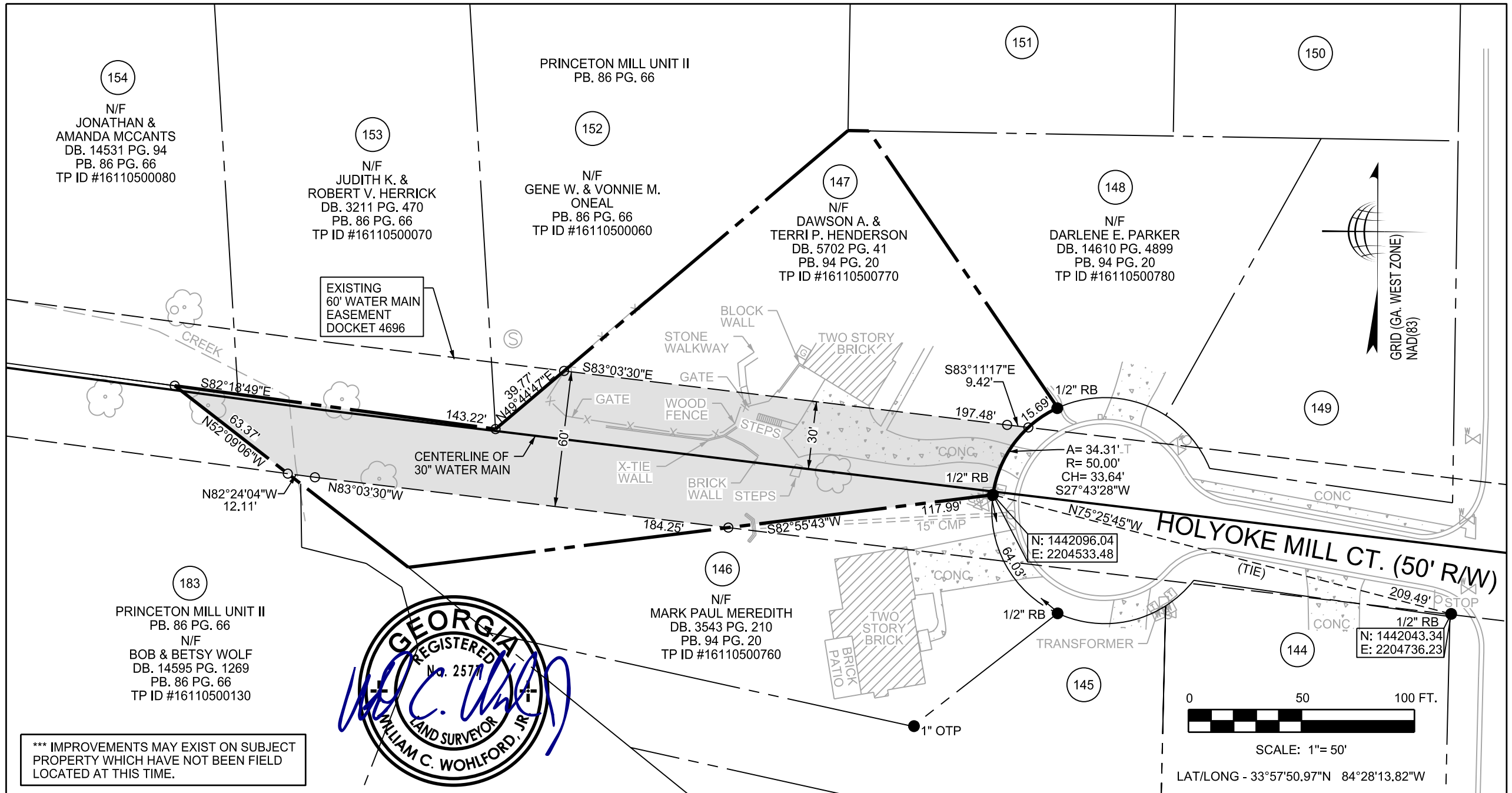
222.00'

1/2" RB

15" CMP

HOLYOKE MILL COURT

3,271 SQ. FT./ 0.0751 AC. EASEMENT	LOCATED IN PRINCETON MILL UNIT II (PB. 86 PG. 66) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
115 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 56	JUDITH K. & ROBERT V. HERRICK COBB COUNTY	<b>TerraMark</b> Professional Land Surveying



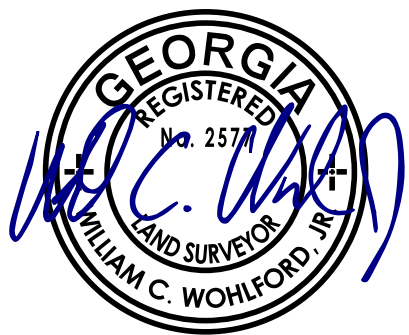
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

15,066 SQ. FT./ 0.3459 AC. EASEMENT	LOCATED IN PRICETON MILL UNIT III (PB. 94 PG. 20) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
362 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 57	DAWSON A. & TERRI P. HENDERSON COBB COUNTY	TerraMark Professional Land Surveying



LAWRENCE MILL RUN  
(50' R/W)

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



153  
N/F  
JUDITH K. &  
ROBERT V. HERRICK  
DB. 3211 PG. 470  
PB. 86 PG. 66  
TP ID #16110500070

152  
N/F  
GENE W. & VONNIE M.  
ONEAL  
PB. 86 PG. 66  
TP ID #16110500060

154  
N/F  
JONATHAN &  
AMANDA MCCANTS  
DB. 14531 PG. 94  
PB. 86 PG. 66  
TP ID #16110500080

147  
N/F  
DAWSON A. &  
TERRI P. HENDERSON  
DB. 5702 PG. 41  
PB. 86 PG. 66  
TP ID #16110500770

148  
N/F  
DARLENE E. PARKER  
DB. 14610 PG. 4899  
PB. 86 PG. 66  
TP ID #16110500780  
PRINCETON MILL UNIT III  
PB. 94 PG. 20

EXISTING  
60" WATER MAIN  
EASEMENT  
DOCKET 4696

N: 1442160.15  
E: 2204053.76

CENTERLINE OF  
30" WATER MAIN  
(TIE)

S82°18'49"E

147.04'

30'  
60'

N03°27'10"W  
29.66'

S83°03'30"E  
32.37'

S49°44'47"W  
39.77'

N82°28'35"W

1/2" RB

N: 1442096.04  
E: 2204533.48

222.00'



SCALE: 1"= 50'

183

LAT/LONG - 33°57'50.82"N 84°28'15.53"W

472 SQ. FT./ 0.0108 AC. EASEMENT

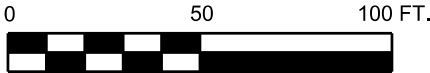
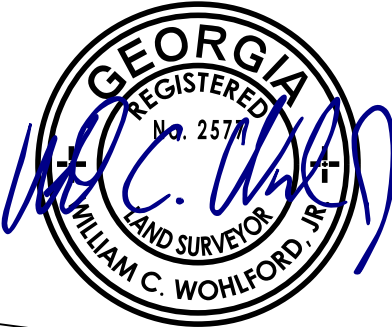
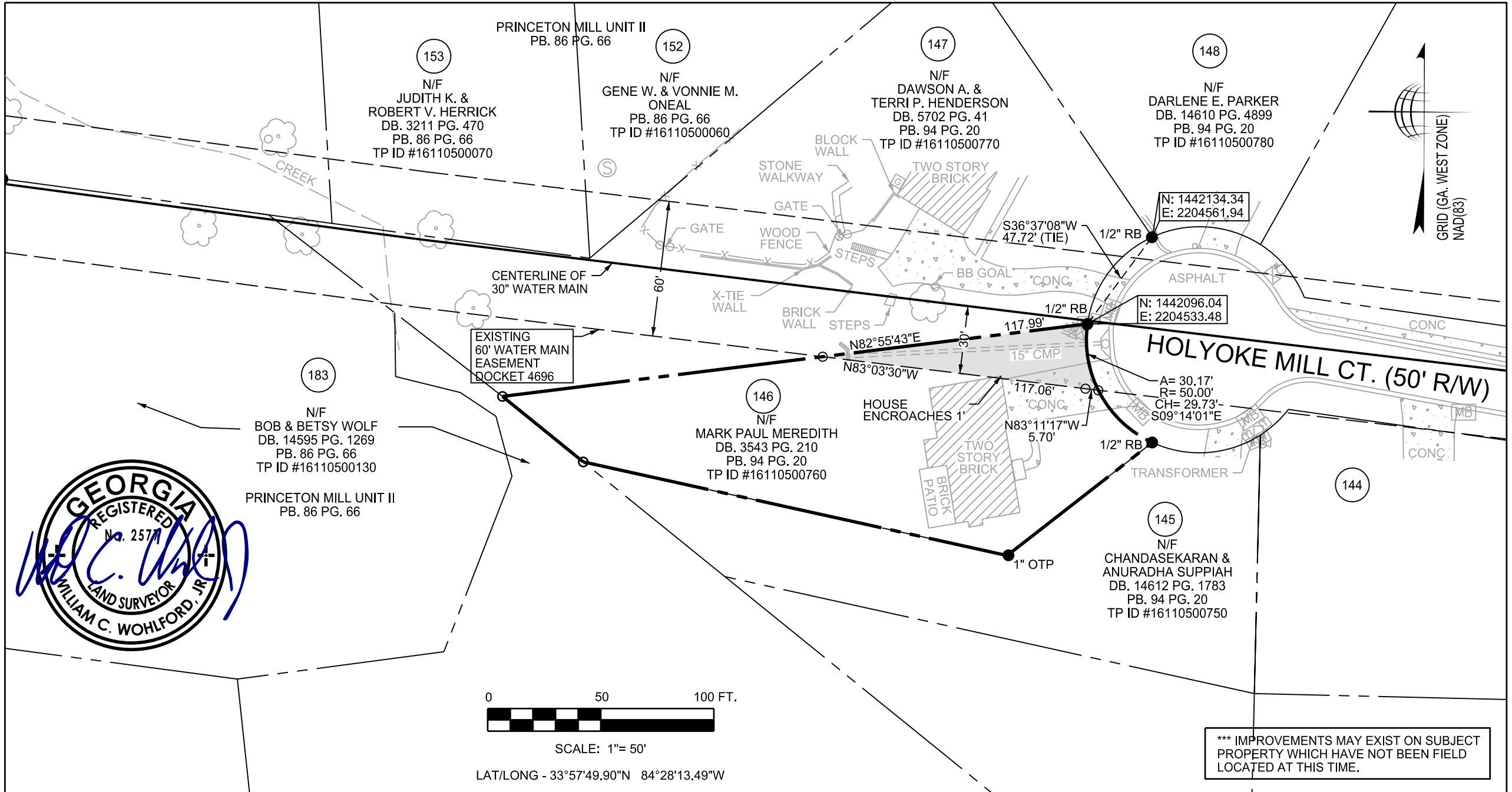
LOCATED IN  
PRINCETON MILL UNIT II (PB. 86 PG. 66)  
LAND LOT 1105  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 58

THROUGH THE PROPERTY OF:  
GENE W. & VONNIE M.  
ONEAL  
COBB COUNTY


32 L.F. VARIABLE WIDTH EASEMENT

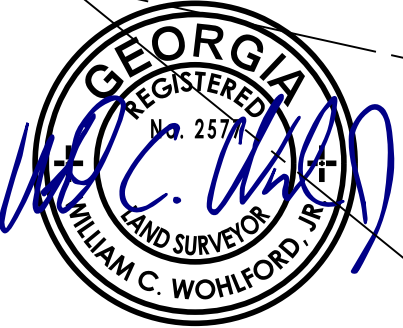
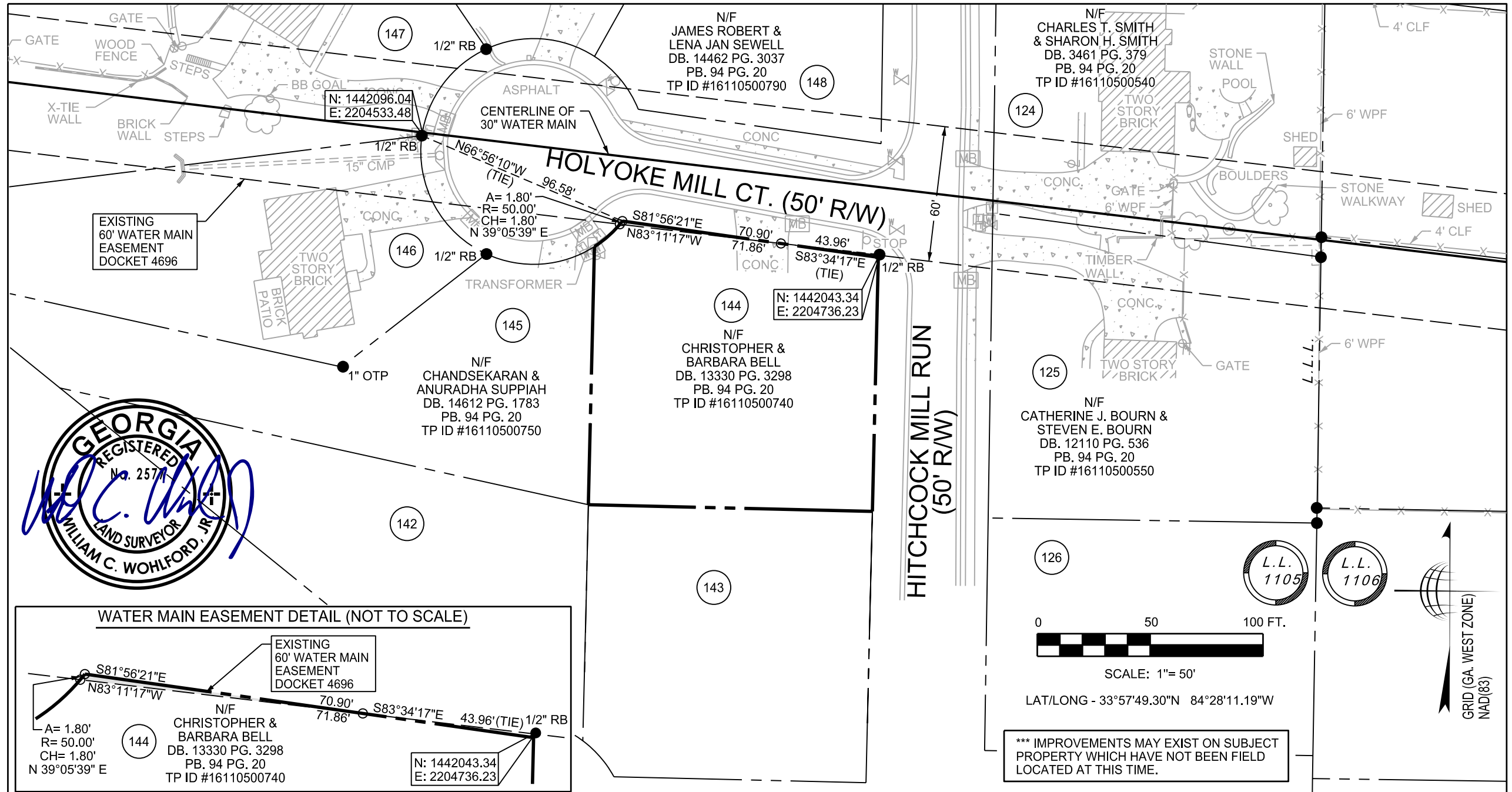
TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



LAT/LONG - 33°57'49.90"N 84°28'13.49"W

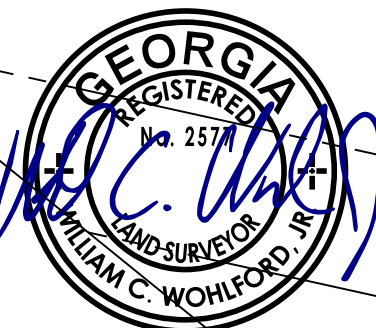
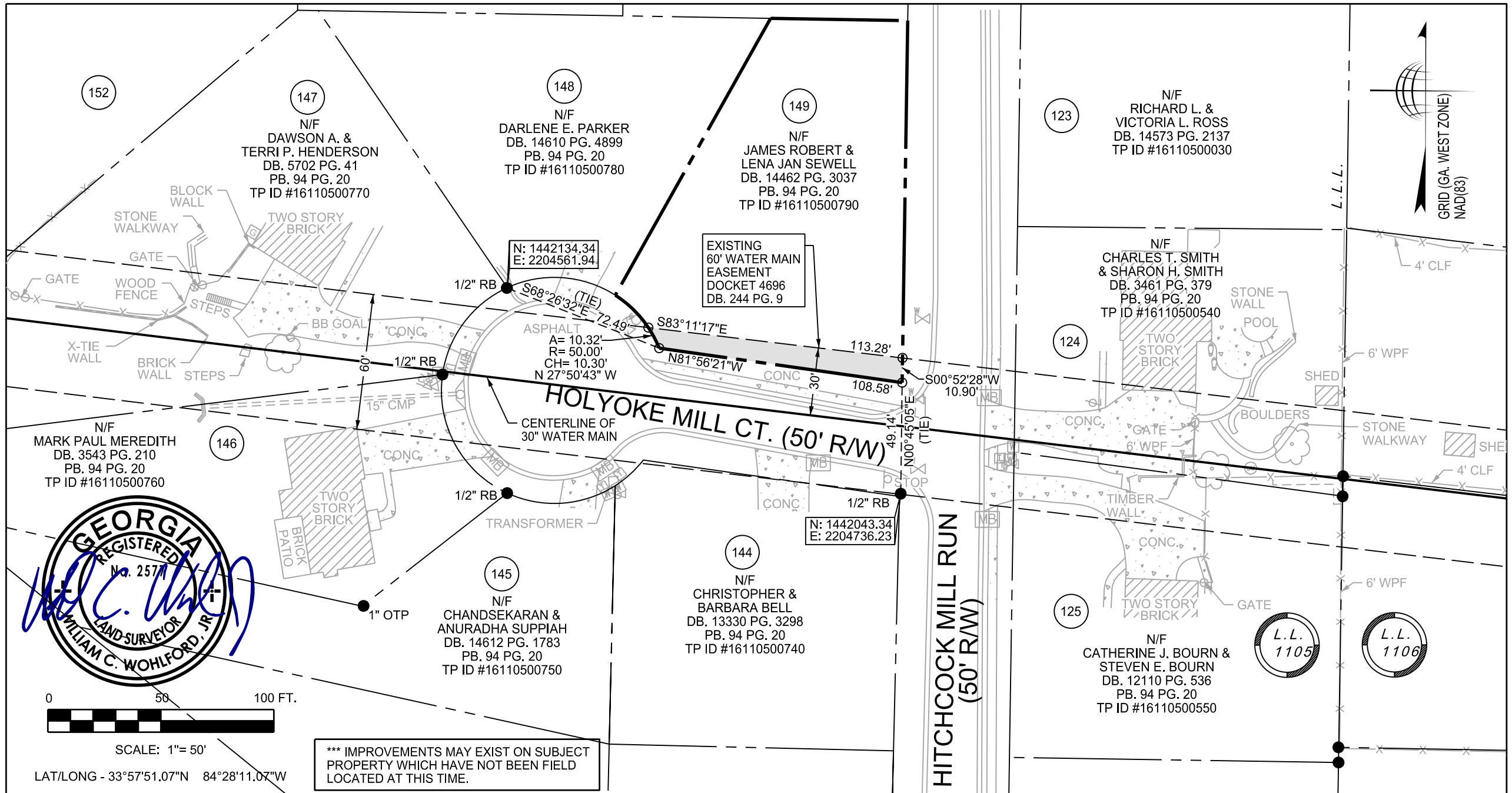
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

1,708 SQ. FT./ 0.0392 AC. EASEMENT	LOCATED IN PRINCETON MILL UNIT III (PB. 94 PG. 20) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
121 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 59	MARK PAUL MEREDITH  COBB COUNTY	




\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

56 SQ. FT./ 0.0013 AC. EASEMENT	LOCATED IN PRICETON MILL UNIT III (PB. 94 PG. 20) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
71 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 61	CHRISTOPHER & BARBARA BELL COBB COUNTY	

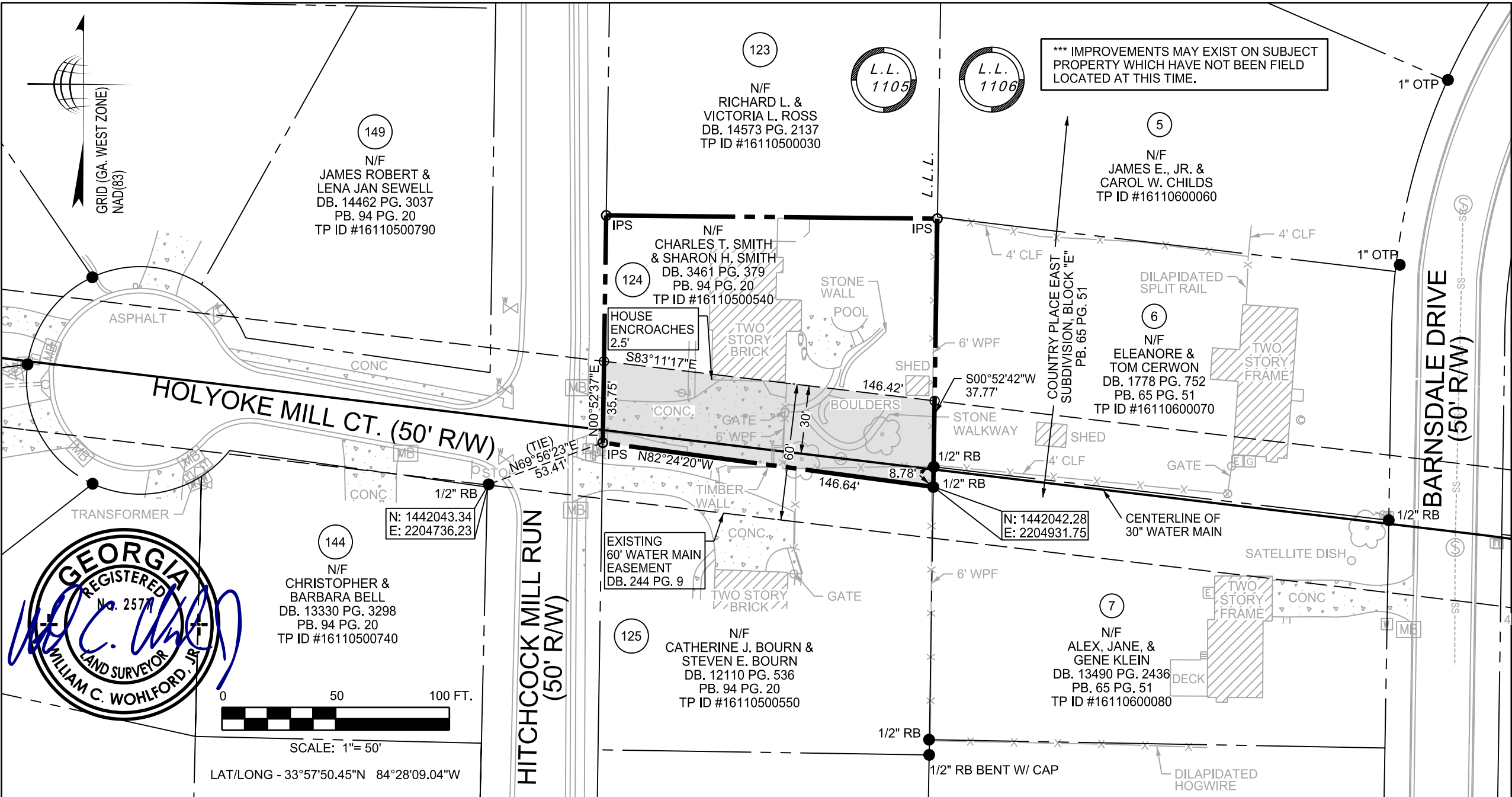



0 50 100 FT.  
 SCALE: 1"= 50'  
 LAT/LONG - 33°57'51.07"N 84°28'11.07"W

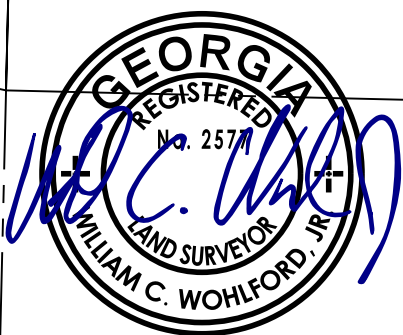
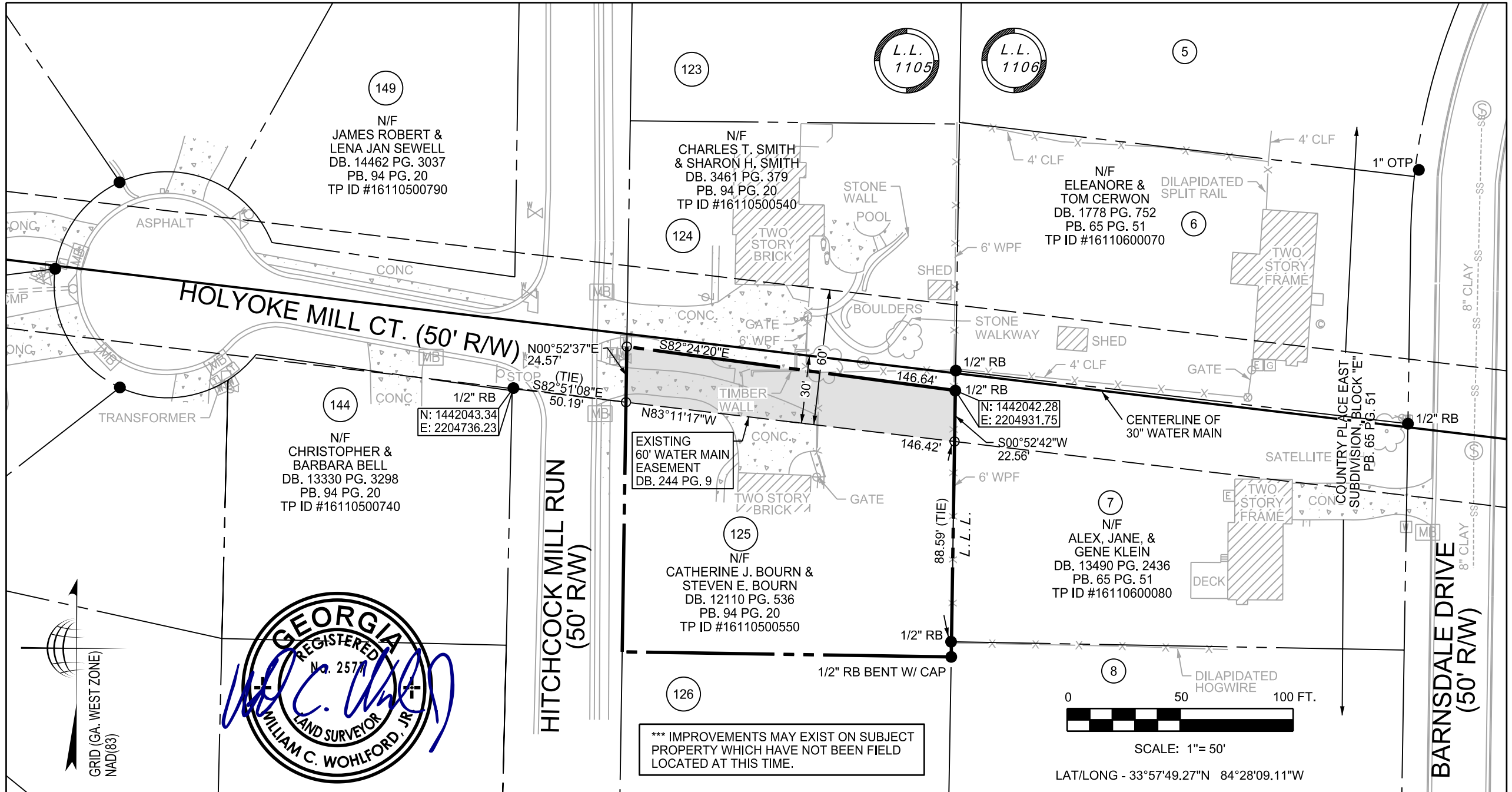
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.


1,065 SQ. FT./ 0.0245 AC. EASEMENT	LOCATED IN PRICETON MILL UNIT III (PB. 94 PG. 20) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
109 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 62	JAMES ROBERT & LENA JAN SEWELL COBB COUNTY	

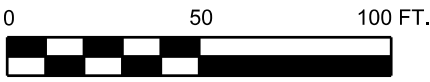
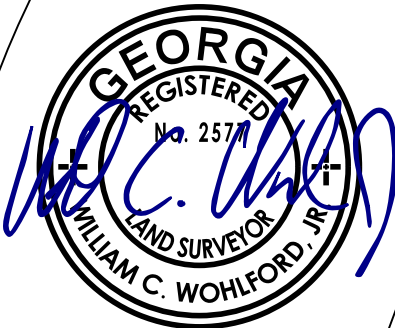
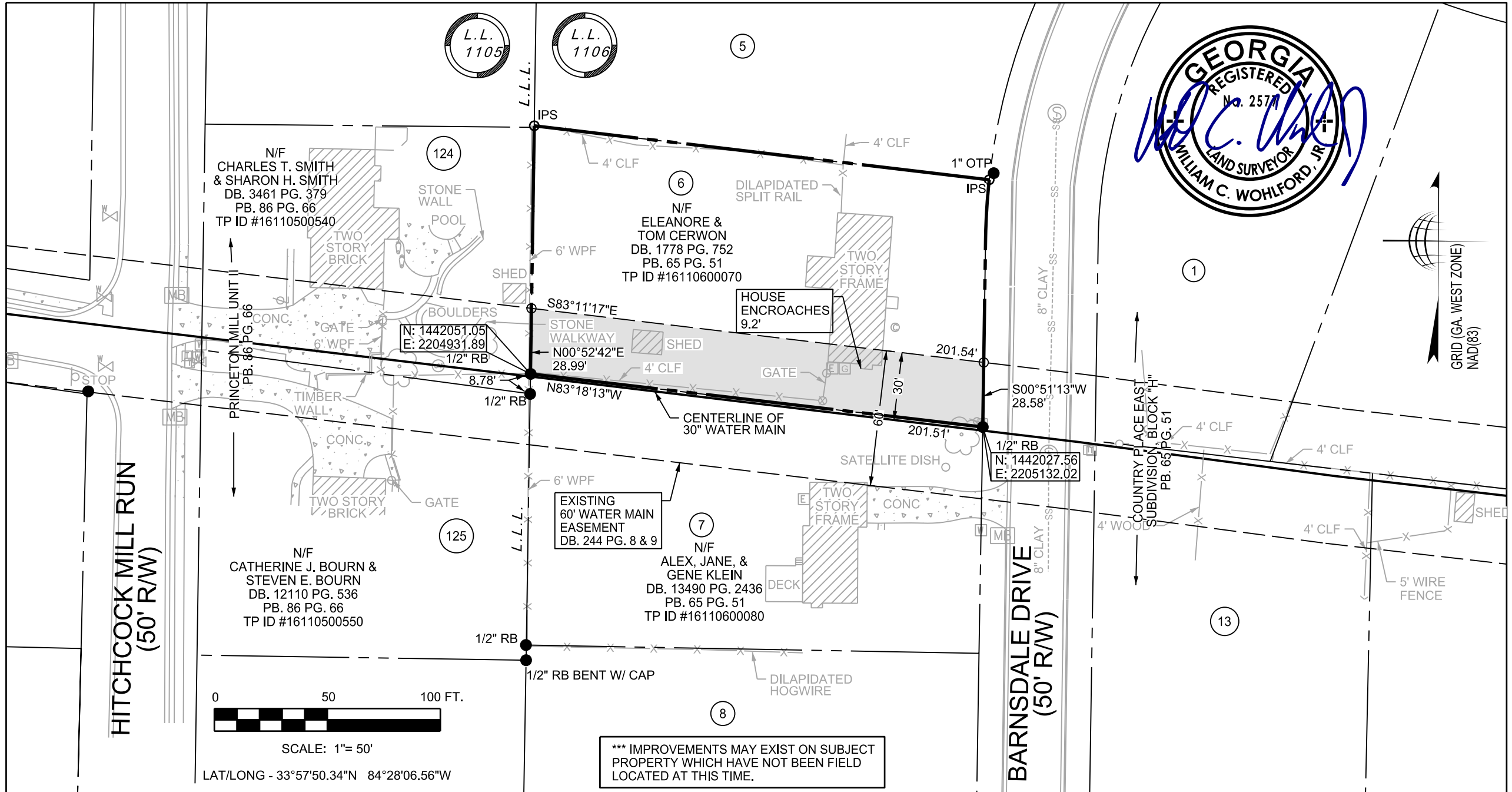




5,354 SQ. FT./ 0.1229 AC. EASEMENT	LOCATED IN PRICETON MILL UNIT III (PB. 94 PG. 20) LAND LOT 1105	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
146 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 63	CHARLES T. SMITH & SHARON H. SMITH COBB COUNTY	



<p>3,432 SQ. FT./ 0.0788 AC. EASEMENT</p> <p>146 L.F. VARIABLE WIDTH EASEMENT</p>	<p>LOCATED IN PRICETON MILL UNIT III (PB. 94 PG. 20) LAND LOT 1105 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1</p>	<p>SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 64</p>	<p>THROUGH THE PROPERTY OF: CATHERINE J. BOURN &amp; STEVEN E. BOURN COBB COUNTY</p>	<p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p> 
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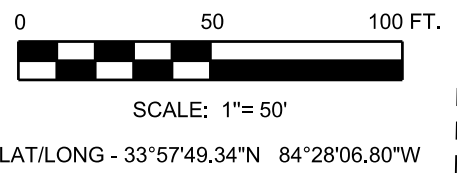
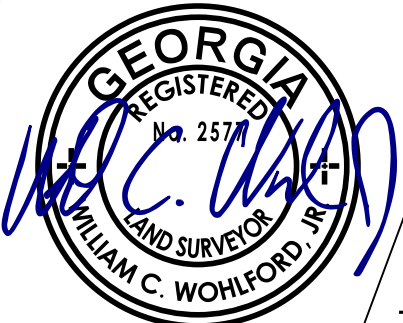
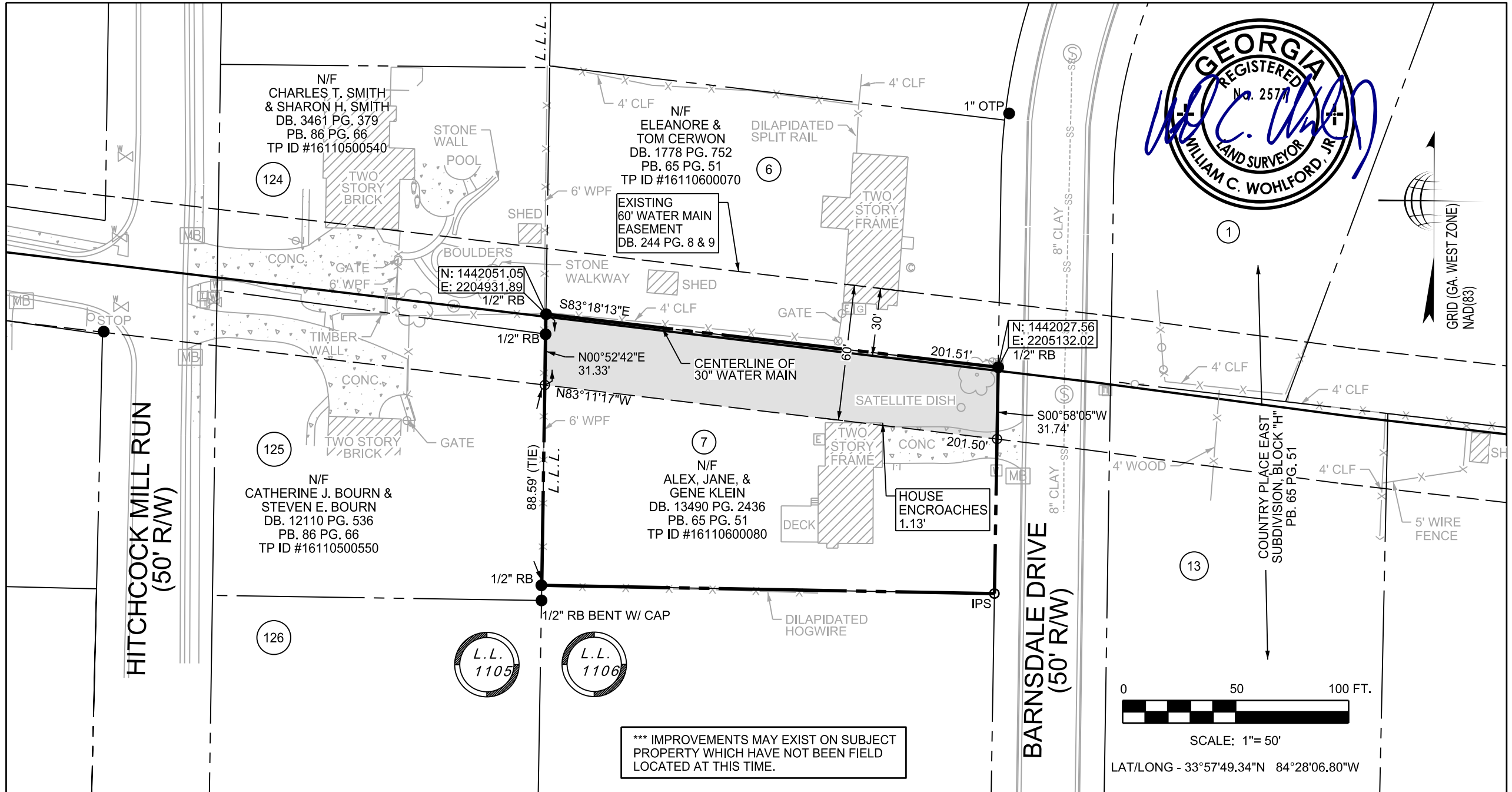


SCALE: 1"= 50'


LAT/LONG - 33°57'50.34"N 84°28'06.56"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

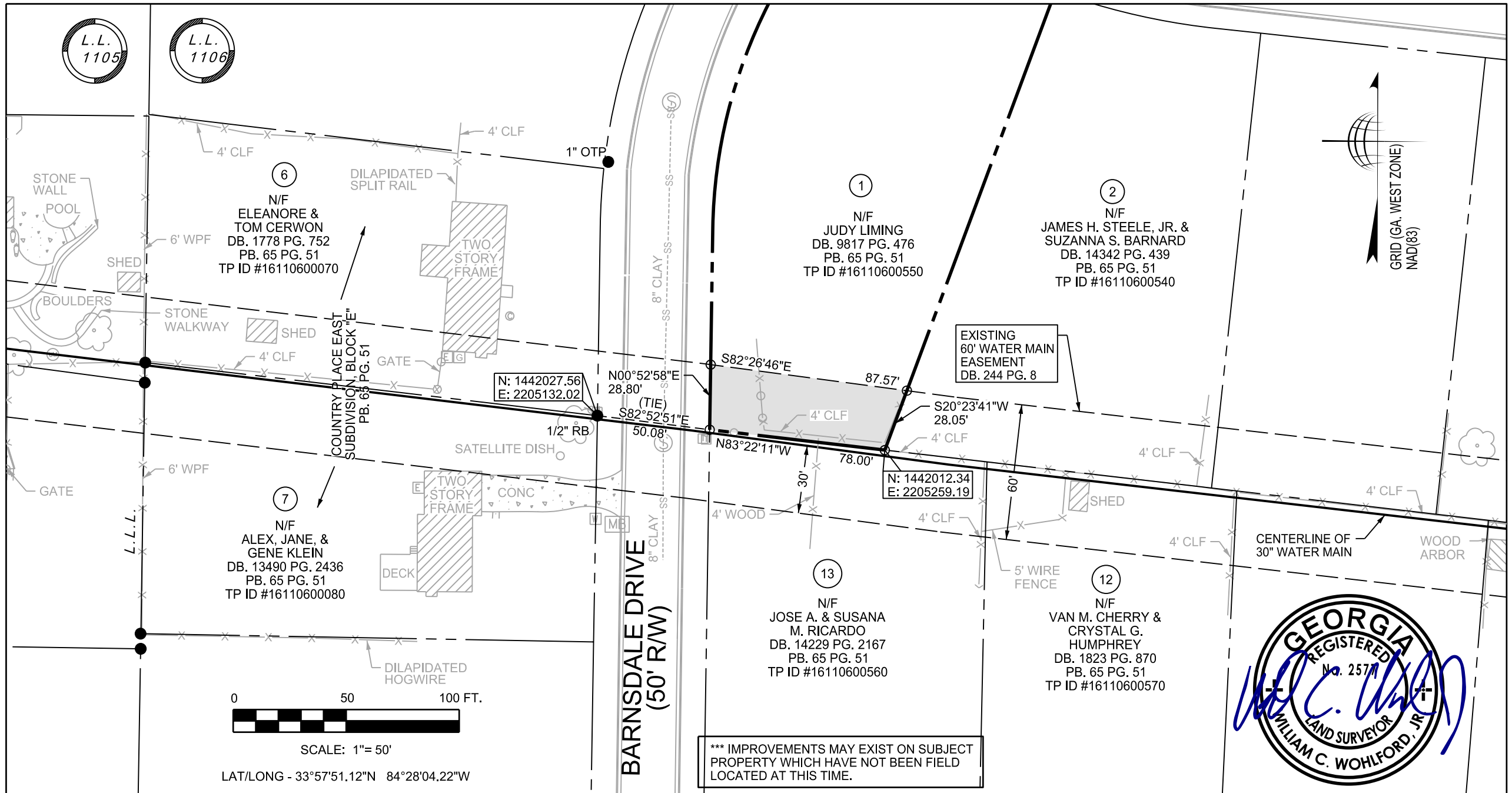
5,770 SQ. FT./ 0.1325 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "E" (PB. 65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
201 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 65	ELEANORE & TOM CERWON COBB COUNTY	TerraMark Professional Land Surveying



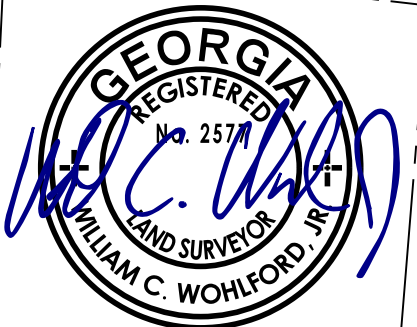
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

6,322 SQ. FT./ 0.1451 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "E" (PB. 65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
201 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 66	ALEX, JANE, & GENE KLEIN COBB COUNTY	

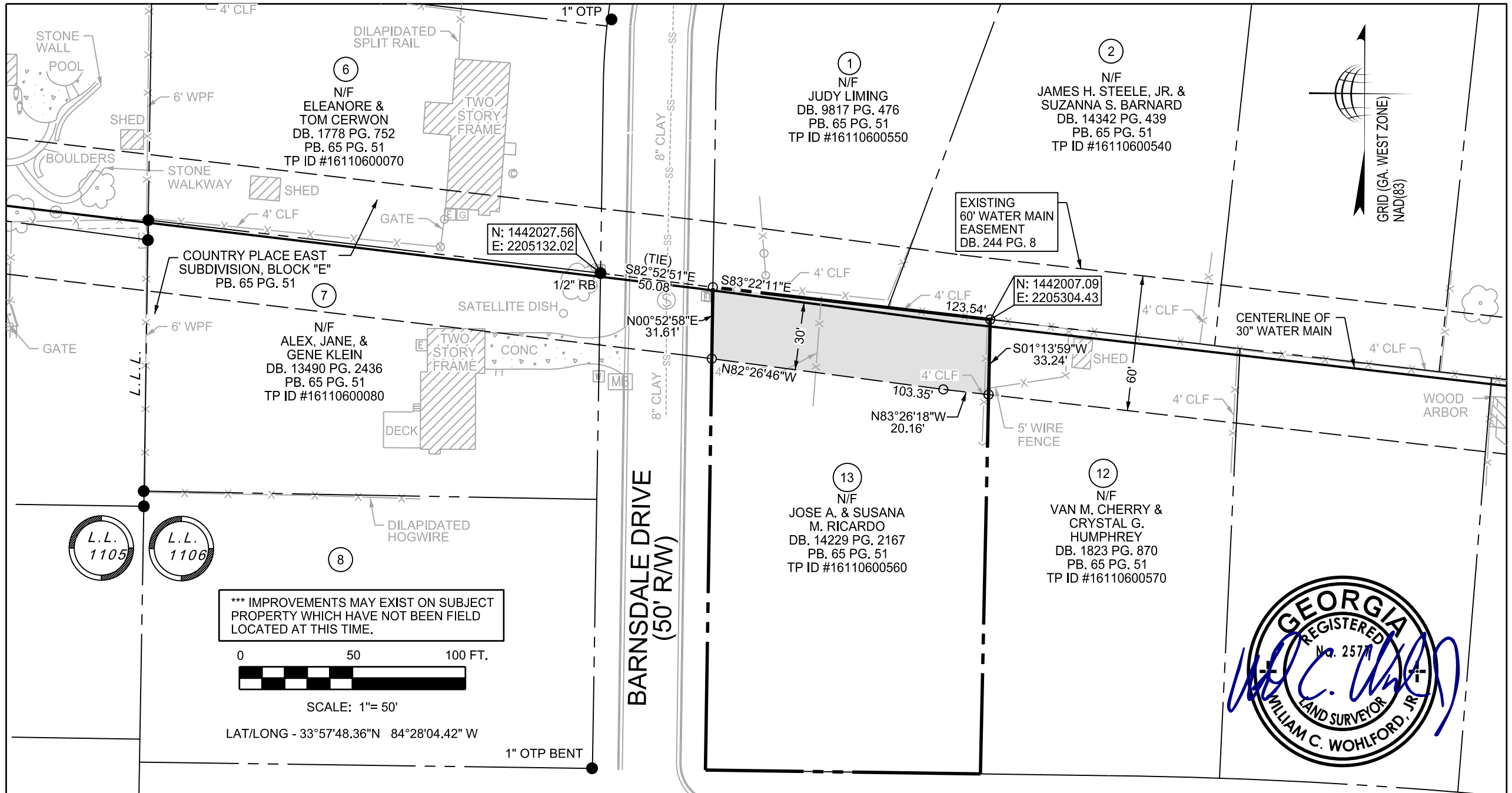




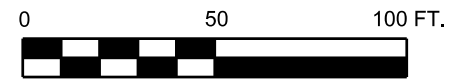
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



2,315 SQ. FT./ 0.0531 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB. 65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
78 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 67	JUDY LIMING COBB COUNTY	TerraMark Professional Land Surveying




\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



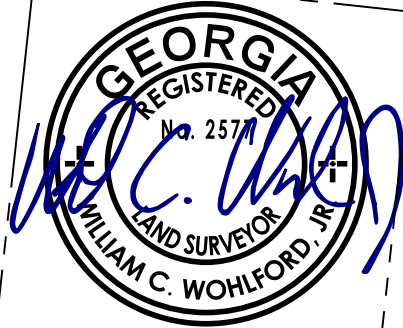
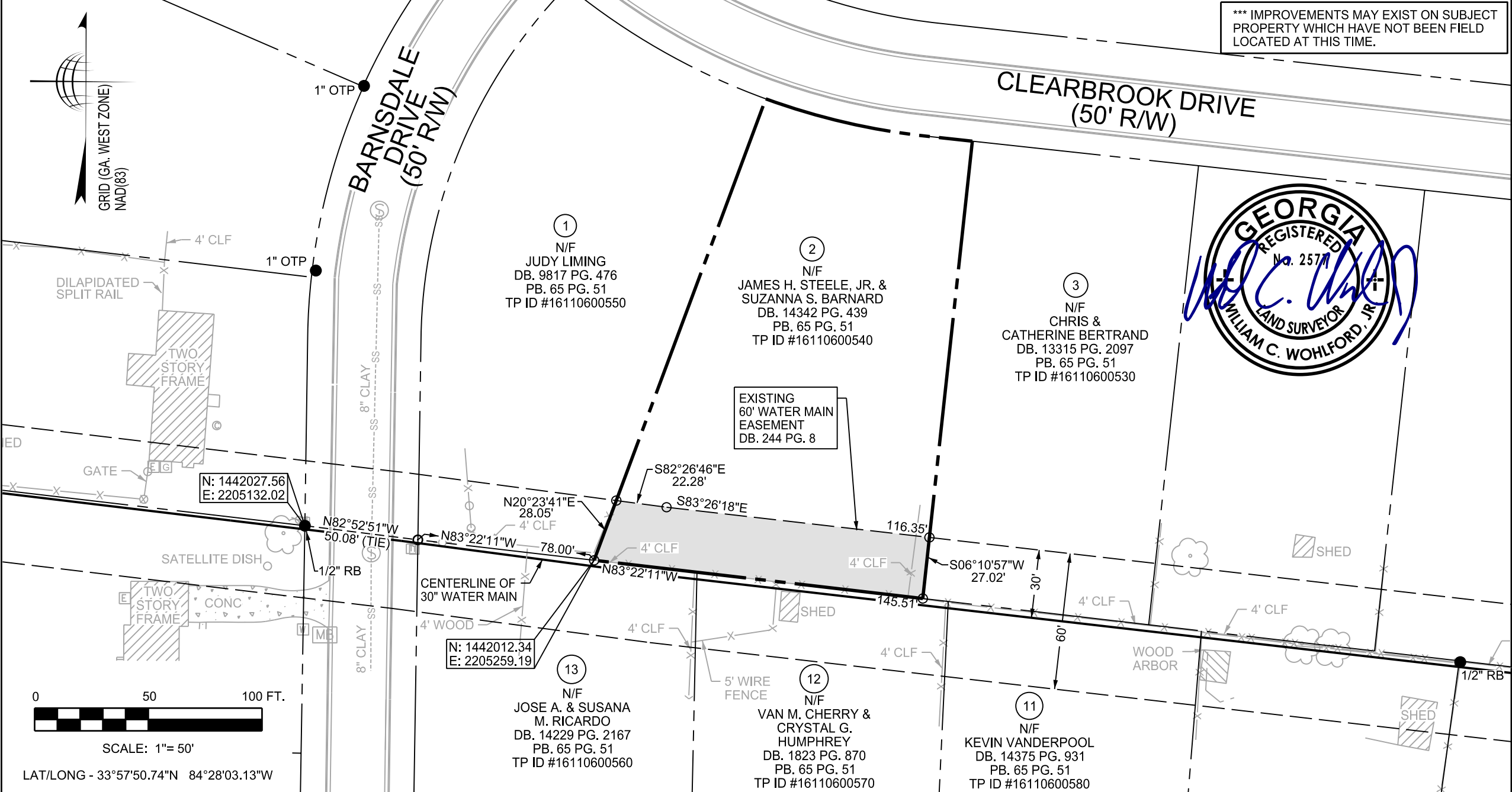
SCALE: 1"= 50'

LAT/LONG - 33°57'48.36"N 84°28'04.42" W

1" OTP BENT

4,002 SQ. FT./ 0.0919 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB. 65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
124 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 68	JOSE A. & SUSANA M. RICARDO COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



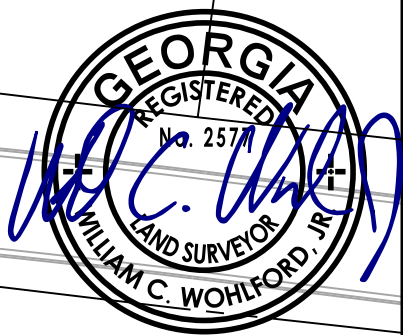
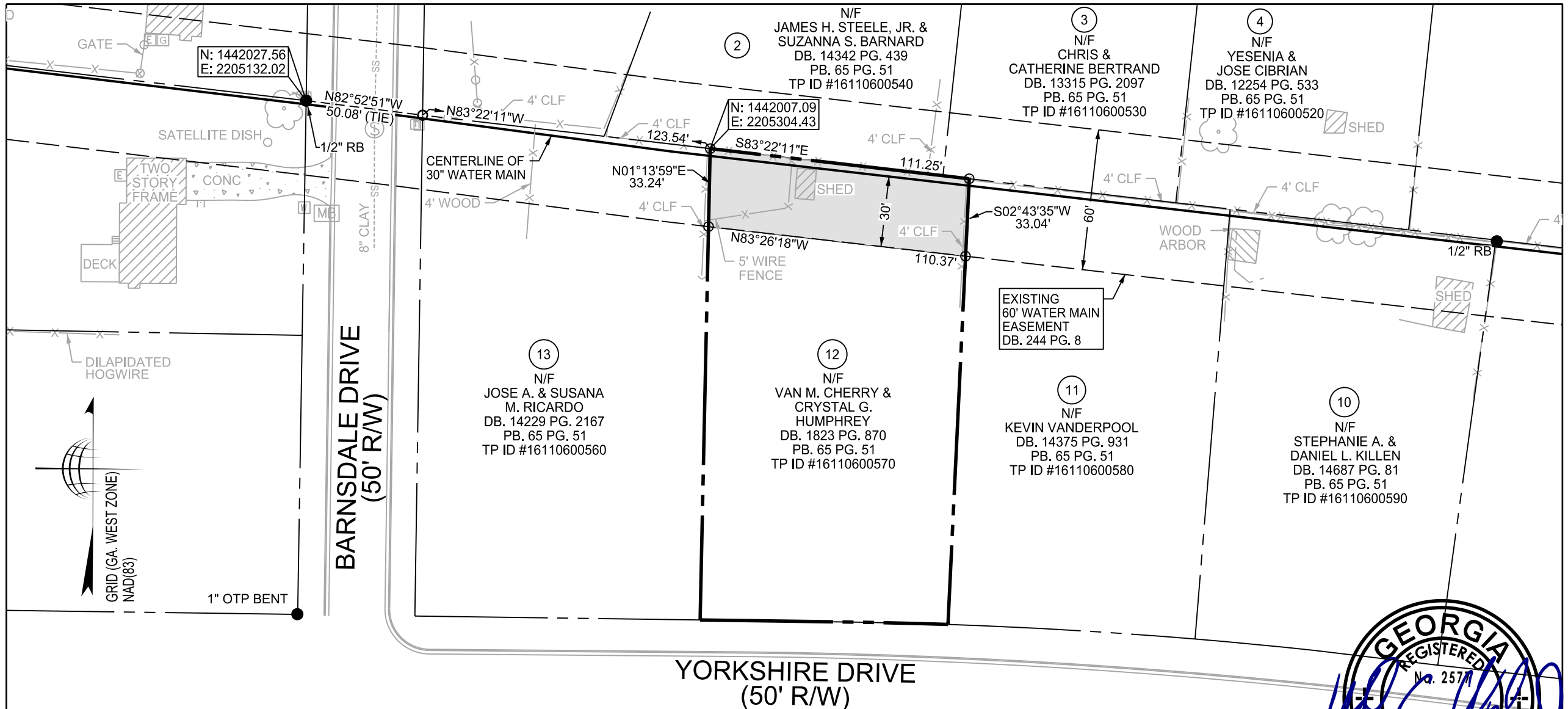
3,832 SQ. FT./ 0.0880 AC. EASEMENT  
 146 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106  
 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA  
 DATE: 4/15/2013 SHEET NO. 1/1

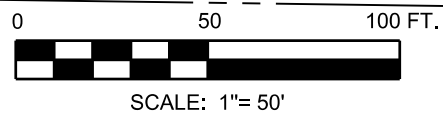
SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
 COBB COUNTY-MARIETTA WATER AUTHORITY  
 C.C.M.W.A. NO. 69

THROUGH THE PROPERTY OF:  
 JAMES H. STEELE, JR. & SUZANNA S. BARNARD  
 COBB COUNTY

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



LAT/LONG - 33°57'48.36"N 84°28'03.15"W

3,660 SQ. FT./ 0.0840 AC. EASEMENT
111 L.F. VARIABLE WIDTH EASEMENT

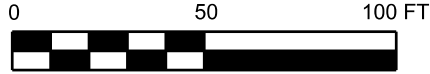
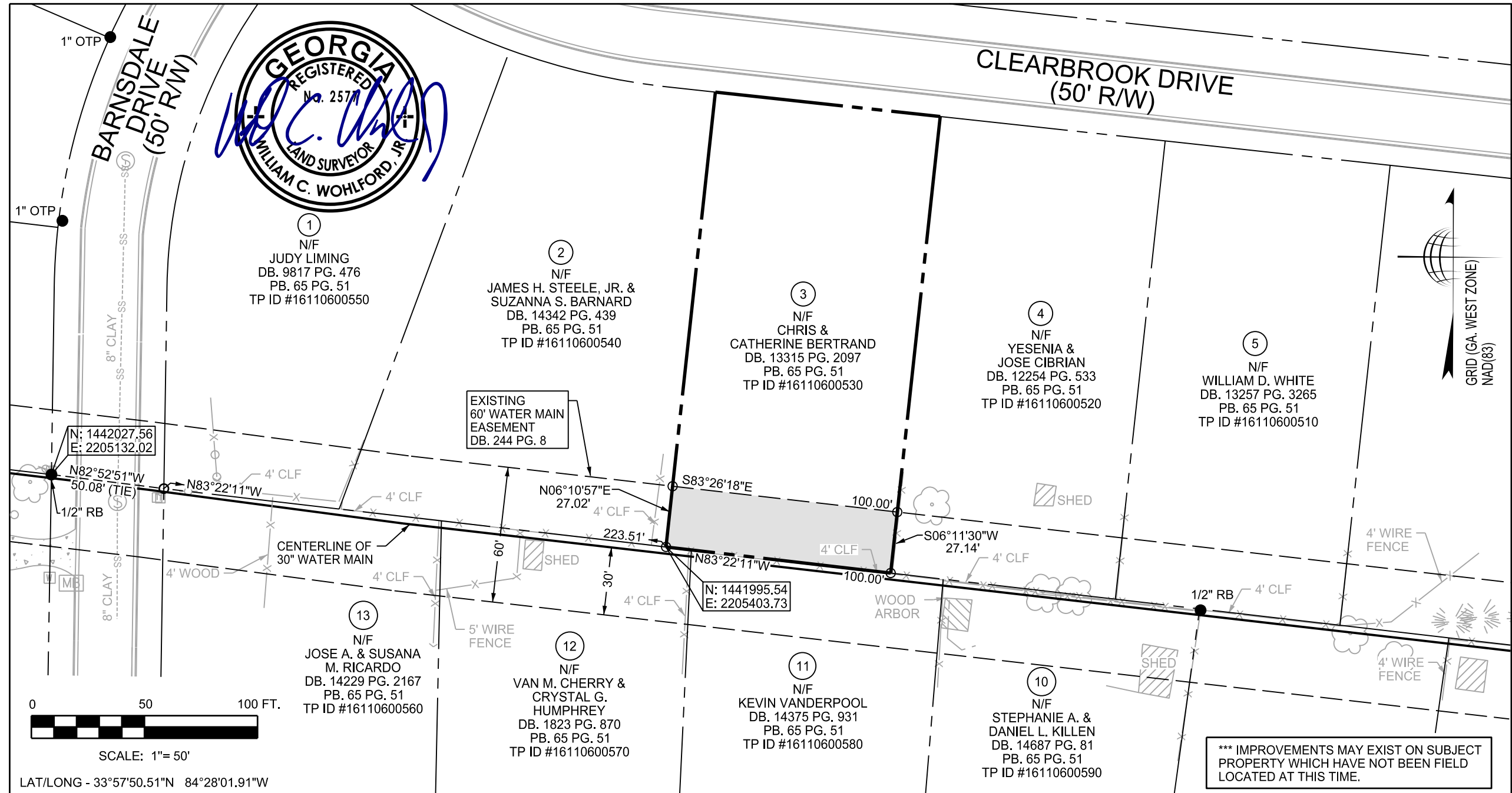
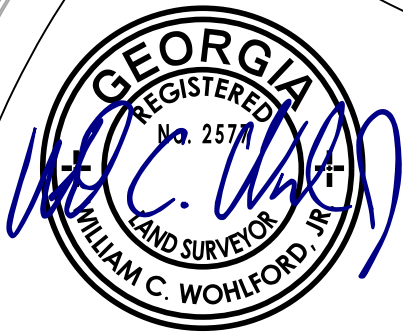
LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LOCATED IN LAND LOT 1106 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
COBB COUNTY-MARIETTA WATER AUTHORITY  
C.C.M.W.A. NO. 70

THROUGH THE PROPERTY OF:  
VAN M. CHERRY & CRYSTAL G. HUMPHREY  
COBB COUNTY

**TerraMark**  
Professional Land Surveying

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



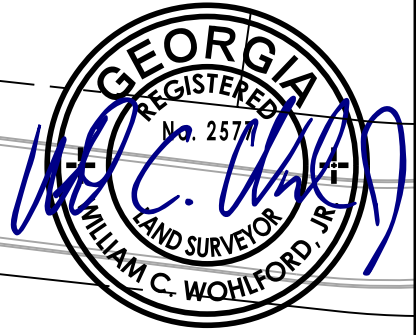
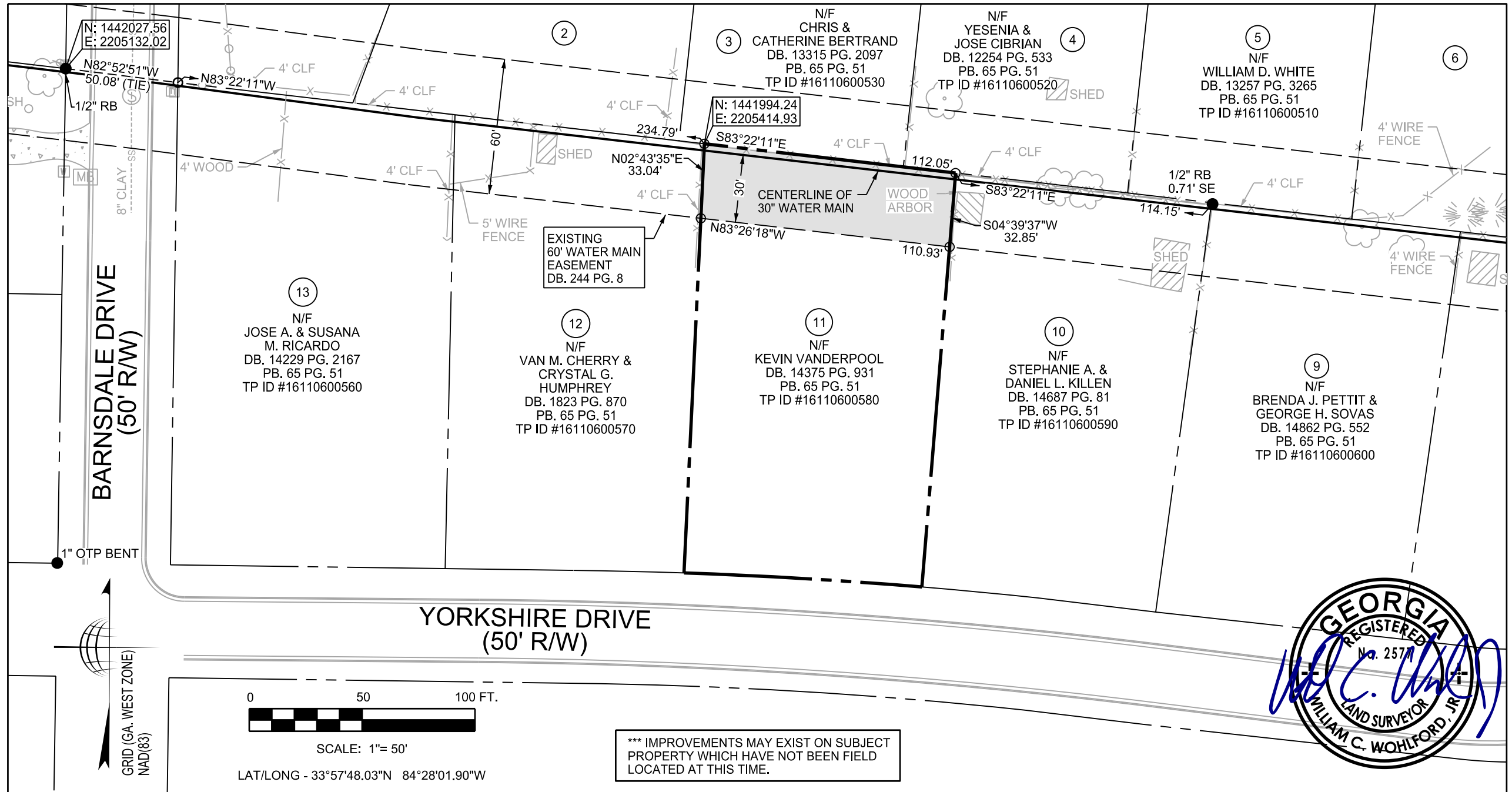
SCALE: 1" = 50'

LAT/LONG - 33°57'50.51"N 84°28'01.91"W


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

2,708 SQ. FT./ 0.0622 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
100 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 71	CHRIS & CATHERINE BERTRAND COBB COUNTY	TerraMark Professional Land Surveying

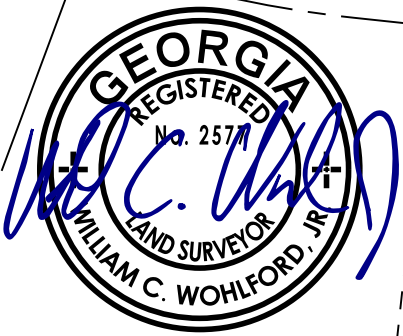




\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

3,668 SQ. FT./ 0.0842 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
112 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 72	KEVIN VANDERPOOL COBB COUNTY	 Professional Land Surveying

GRID (GA. WEST ZONE)  
NAD(83)



CLEARBROOK DRIVE  
(50' R/W)

②  
N/F  
JAMES H. STEELE, JR. &  
SUZANNA S. BARNARD  
DB. 14342 PG. 439  
PB. 65 PG. 51  
TP ID #16110600540

③  
N/F  
CHRIS &  
CATHERINE BERTRAND  
DB. 13315 PG. 2097  
PB. 65 PG. 51  
TP ID #16110600530

④  
N/F  
YESENIA &  
JOSE CIBRIAN  
DB. 12254 PG. 533  
PB. 65 PG. 51  
TP ID #16110600520

⑤  
N/F  
WILLIAM D. WHITE  
DB. 13257 PG. 3265  
PB. 65 PG. 51  
TP ID #16110600510

⑥  
N/F  
JULIO HUGO  
PENZA RUSO  
DB. 14775 PG. 5815  
PB. 65 PG. 51  
TP ID #16110600500

⑦  
N/F  
RONNIE E. &  
CAROL A. BOYD  
DB. 5982 PG. 212  
PB. 65 PG. 51  
TP ID #16110600490

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 8

N: 1442010.98  
E: 2205505.99

N: 1441999.55  
E: 2205605.34

N06°11'30"E  
27.14'

S83°26'18"E  
100.00'

S06°12'04"W  
27.26'

N83°22'11"W  
100.00'

S83°22'11"E  
37.48' (TIE)

1/2" RB  
FND.  
0.71' SE

CENTERLINE OF  
30" WATER MAIN

WOOD  
ARBOR

⑫  
N/F  
VAN M. CHERRY &  
CRYSTAL G.  
HUMPHREY  
DB. 1823 PG. 870  
PB. 65 PG. 51  
TP ID #16110600570

⑪  
N/F  
KEVIN VANDERPOOL  
DB. 14375 PG. 931  
PB. 65 PG. 51  
TP ID #16110600580

⑩  
N/F  
STEPHANIE A. &  
DANIEL L. KILLEN  
DB. 14687 PG. 81  
PB. 65 PG. 51  
TP ID #16110600590

⑨  
N/F  
BRENDA J. PETTIT &  
GEORGE H. SOVAS  
DB. 14862 PG. 552  
PB. 65 PG. 51  
TP ID #16110600600


⑧  
N/F  
SOPHY T. RIOS &  
MARVIN R. RIOS-BANEGAS  
DB. 14564 PG. 2176  
PB. 65 PG. 51  
TP ID #16110600610

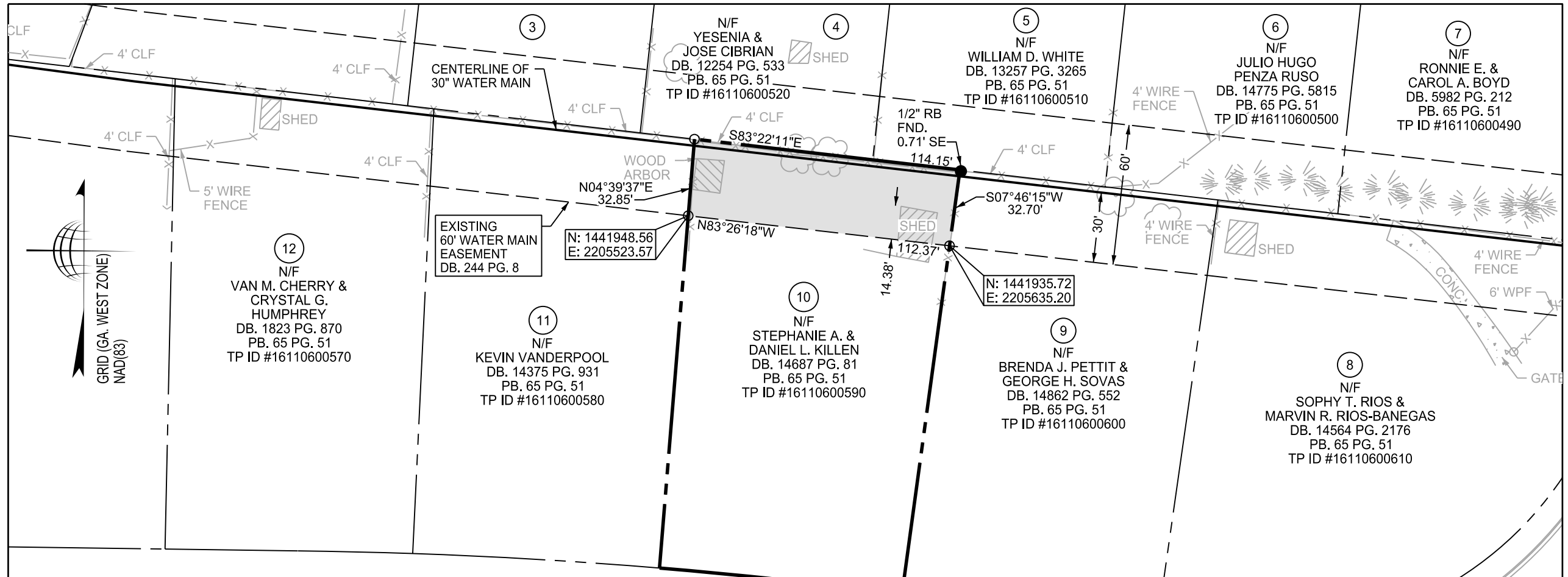


SCALE: 1"= 50'

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.

LAT/LONG - 33°57'50.52"N 84°28'00.67"W

2,720 SQ. FT./ 0.0624 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
100 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 73	YESENIA & JOSE CIBRIAN COBB COUNTY	



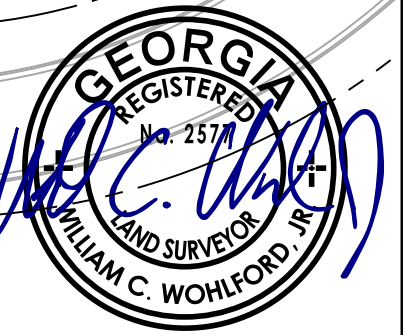
YORKSHIRE DRIVE  
(50' R/W)



SCALE: 1"= 50'

LAT/LONG - 33°57'47.89"N 84°28'00.68"W

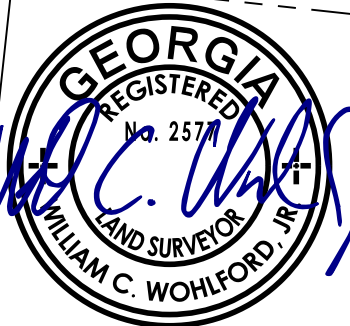
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



3,711 SQ. FT./ 0.0852 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
114 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 74	STEPHANIE A. & DANIEL L. KILLEN COBB COUNTY	TerraMark Professional Land Surveying



**CLEARBROOK DRIVE  
(50' R/W)**



N: 1442140.05  
E: 2205947.62

3  
N/F  
CHRIS &  
CATHERINE BERTRAND  
DB. 13315 PG. 2097  
PB. 65 PG. 51  
TP ID #16110600530

4  
N/F  
YESENIA &  
JOSE CIBRIAN  
DB. 12254 PG. 533  
PB. 65 PG. 51  
TP ID #16110600520

5  
N/F  
WILLIAM D. WHITE  
DB. 13257 PG. 3265  
PB. 65 PG. 51  
TP ID #16110600510

6  
N/F  
JULIO HUGO  
PENZA RUSO  
DB. 14775 PG. 5815  
PB. 65 PG. 51  
TP ID #16110600500

7  
N/F  
RONNIE E. &  
CAROL A. BOYD  
DB. 5982 PG. 212  
PB. 65 PG. 51  
TP ID #16110600490

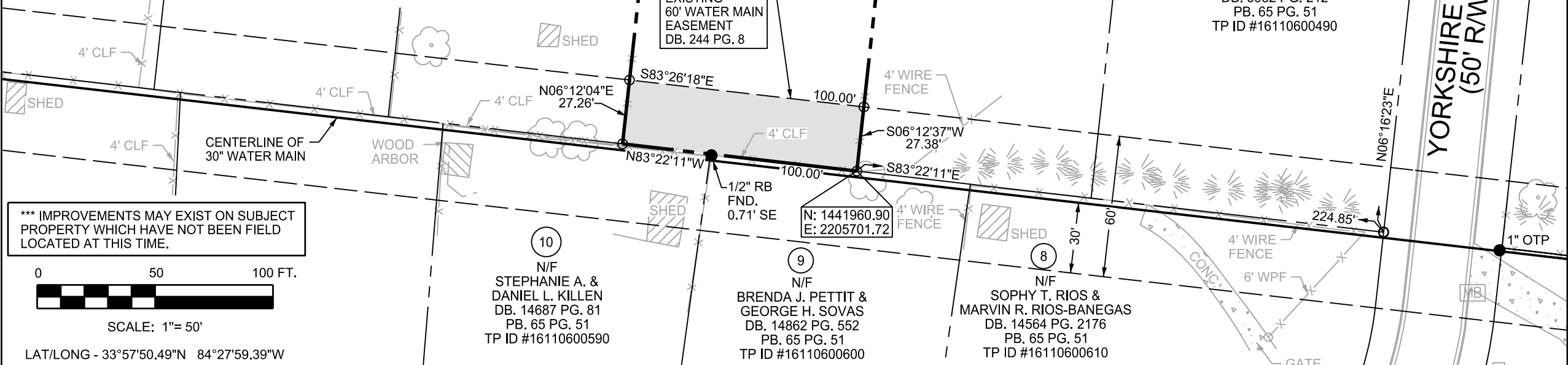
10  
N/F  
STEPHANIE A. &  
DANIEL L. KILLEN  
DB. 14687 PG. 81  
PB. 65 PG. 51  
TP ID #16110600590

9  
N/F  
BRENDA J. PETTIT &  
GEORGE H. SOVAS  
DB. 14862 PG. 552  
PB. 65 PG. 51  
TP ID #16110600600

8  
N/F  
SOPHY T. RIOS &  
MARVIN R. RIOS-BANEGAS  
DB. 14564 PG. 2176  
PB. 65 PG. 51  
TP ID #16110600610

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 8

N: 1441960.90  
E: 2205701.72



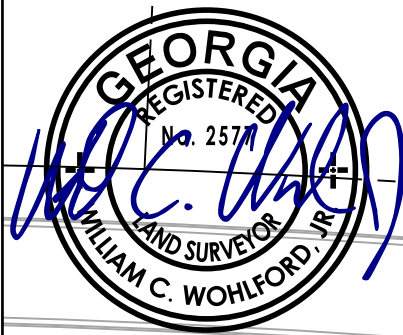
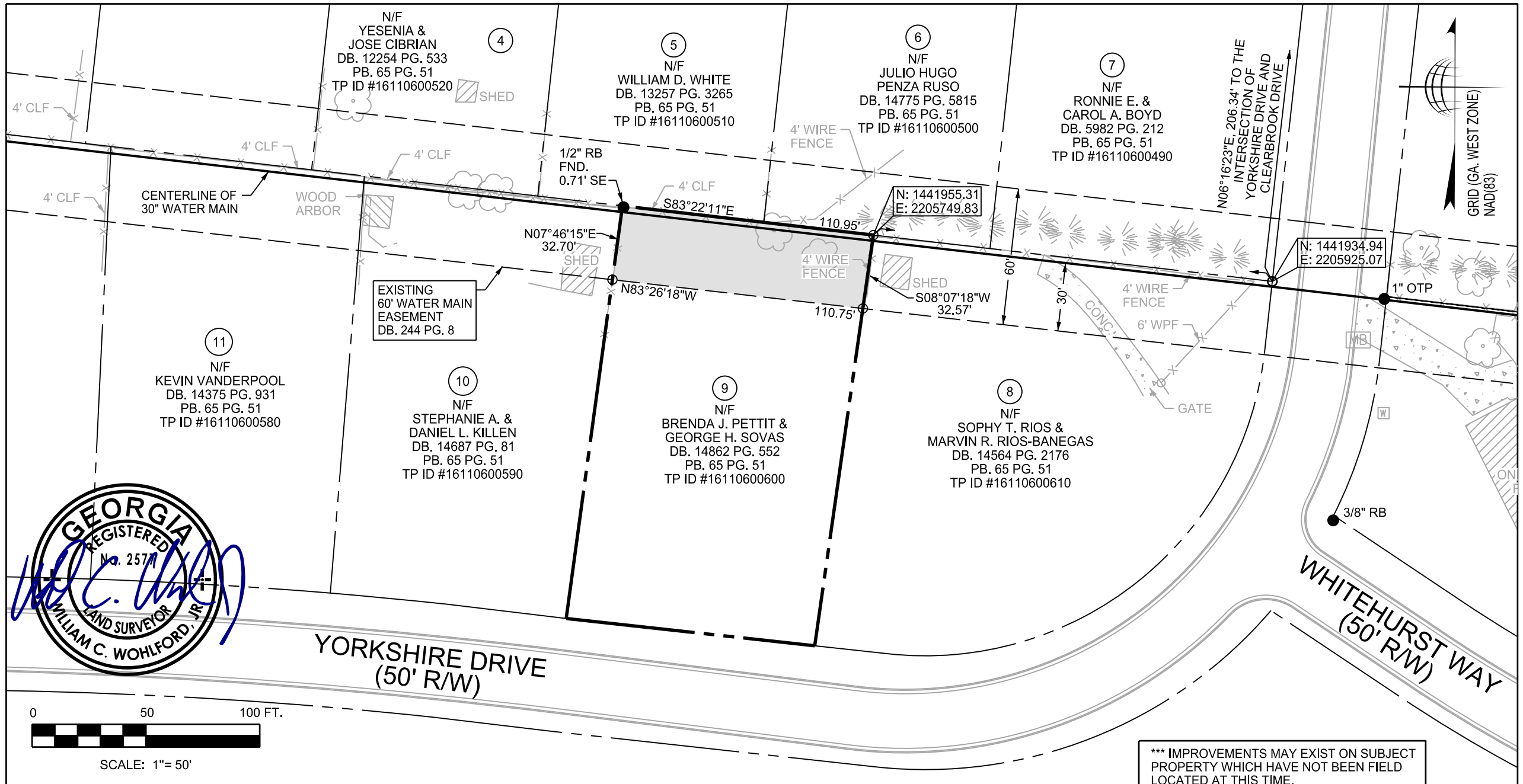
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1"= 50'

LAT/LONG - 33°57'50.49"N 84°27'59.39"W


2,732 SQ. FT./ 0.0627 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
100 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 75	WILLIAM D. WHITE  COBB COUNTY	



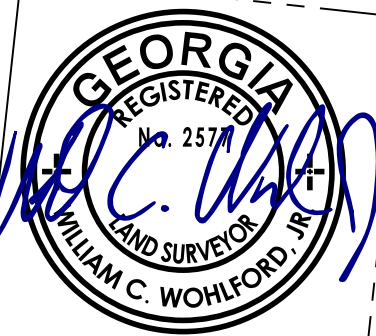
SCALE: 1"= 50'

LAT/LONG - 33°57'47.95"N 84°27'59.39"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

3,617 SQ. FT./ 0.0830 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
111 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 76	BRENDA J. PETTIT & GEORGE H. SOVAS COBB COUNTY	

GRID (GA. WEST ZONE)  
NAD(83)



4  
N/F  
YESENIA &  
JOSE CIBRIAN  
DB. 12254 PG. 533  
PB. 65 PG. 51  
TP ID #16110600520

5  
N/F  
WILLIAM D. WHITE  
DB. 13257 PG. 3265  
PB. 65 PG. 51  
TP ID #16110600510

6  
N/F  
JULIO HUGO  
PENZA RUSO  
DB. 14775 PG. 5815  
PB. 65 PG. 51  
TP ID #16110600500

7  
N/F  
RONNIE E. &  
CAROL A. BOYD  
DB. 5982 PG. 212  
PB. 65 PG. 51  
TP ID #16110600490

COUNTRY PLACE EAST  
SUBDIVISION, BLOCK "B"  
PB. 65 PG. 51

35  
N/F  
MARY JEAN WRIGHT  
DB. 14244 PG. 1307  
PB. 65 PG. 51  
TP ID #16110600460

10  
N/F  
STEPHANIE A. &  
DANIEL L. KILLEN  
DB. 14687 PG. 81  
PB. 65 PG. 51  
TP ID #16110600590

9  
N/F  
BRENDA J. PETTIT &  
GEORGE H. SOVAS  
DB. 14862 PG. 552  
PB. 65 PG. 51  
TP ID #16110600600

8  
N/F  
SOPHY T. RIOS &  
MARVIN R. RIOS-BANEGAS  
DB. 14564 PG. 2176  
PB. 65 PG. 51  
TP ID #16110600610

N: 1441949.36  
E: 2205801.05

N: 1442140.05  
E: 2205947.62

CLEARBROOK DRIVE  
(50' R/W)

YORKSHIRE DRIVE  
(50' R/W)

4' CLF

4' CLF

CENTERLINE OF  
30" WATER MAIN

4' WIRE  
FENCE

EXISTING  
60" WATER MAIN  
EASEMENT  
DB. 244 PG. 8

WOOD  
ARBOR

1/2" RB  
FND.  
0.71' SE

4' WIRE  
FENCE

SHED

N: 1441949.36  
E: 2205801.05

4' WIRE  
FENCE

6' WPF

GATE

1" OTP

4' CLF

8' WPF

POOL

POOL  
HOUSE

3' WIRE  
FENCE

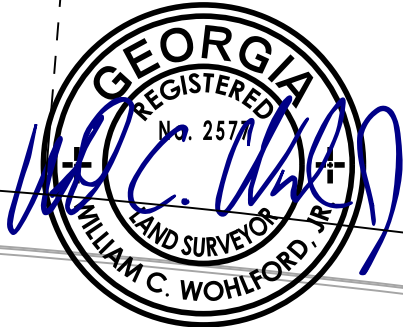
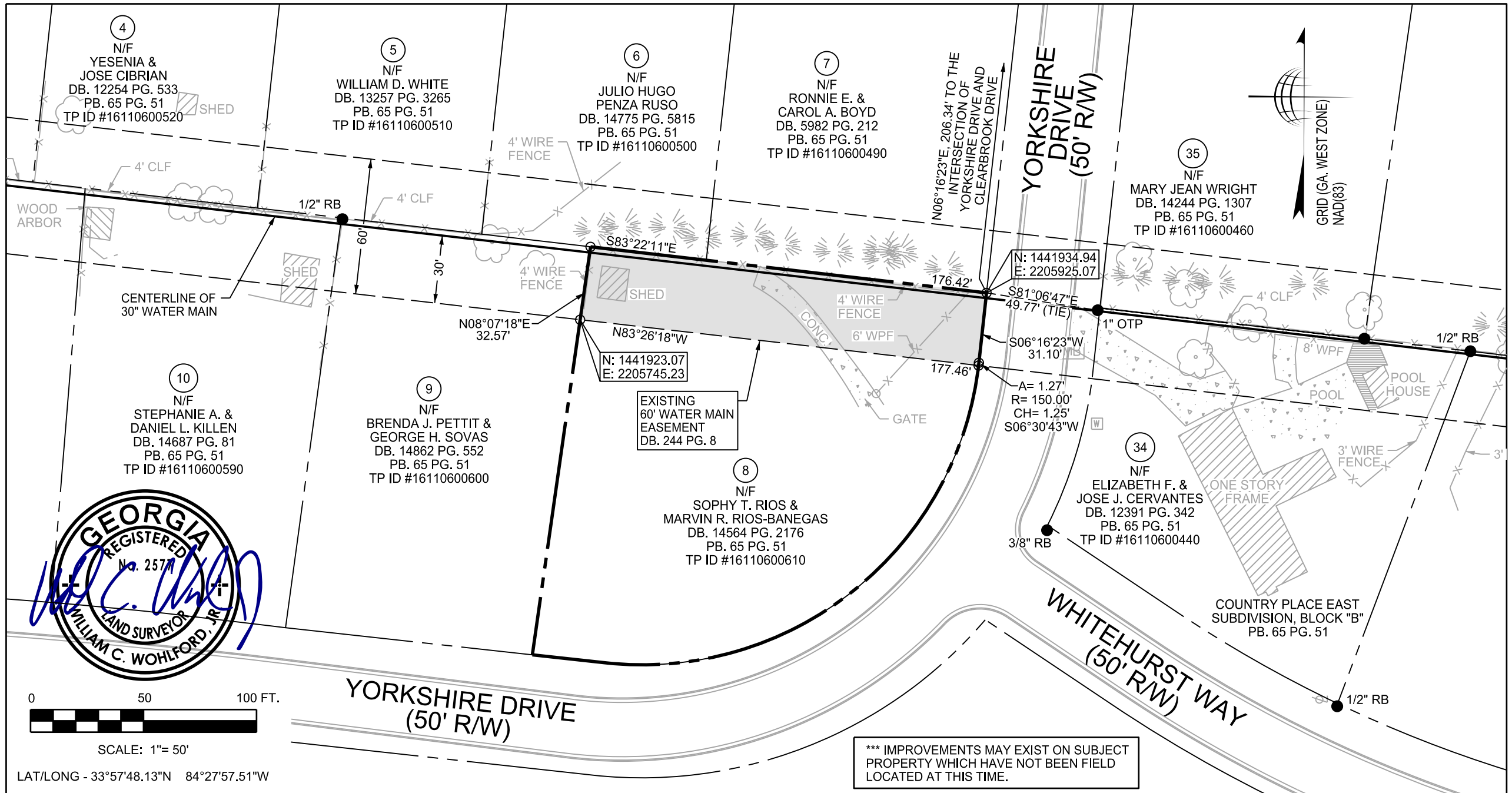


SCALE: 1"= 50'

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.

LAT/LONG - 33°57'50.34"N 84°27'58.25"W


2,744 SQ. FT./ 0.0630 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
100 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 77	JULIO HUGO PENZA RUSO COBB COUNTY	



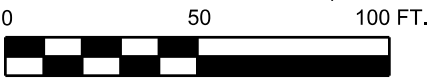
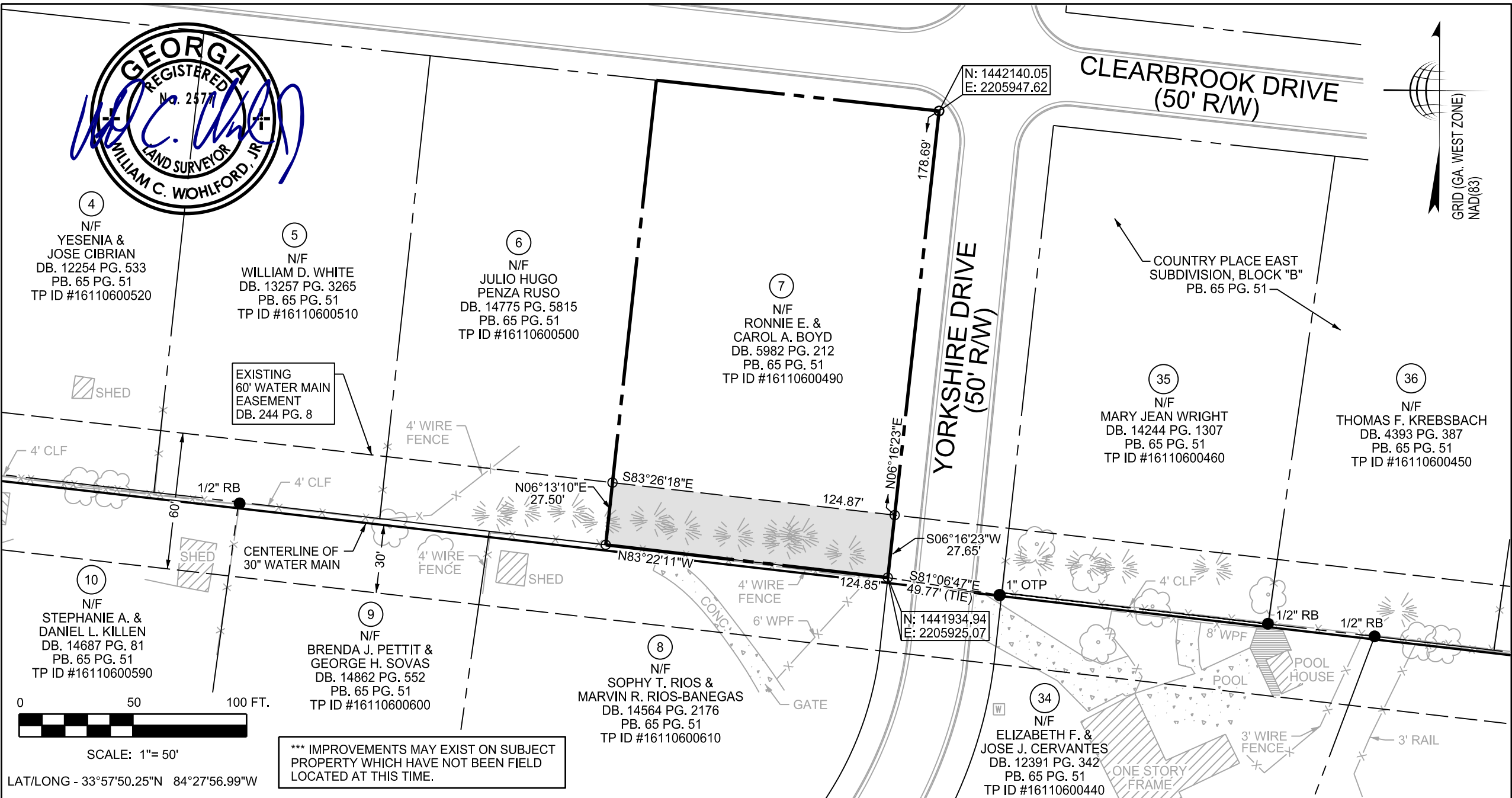
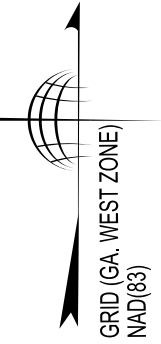
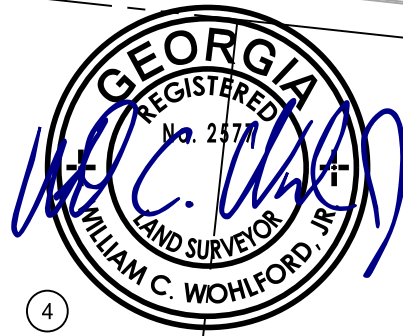
SCALE: 1"= 50'

LAT/LONG - 33°57'48.13"N 84°27'57.51"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

5,742 SQ. FT./ 0.1318 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
177 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 78	SOPHY T. RIOS & MARVIN R. RIOS-BANEGAS COBB COUNTY	






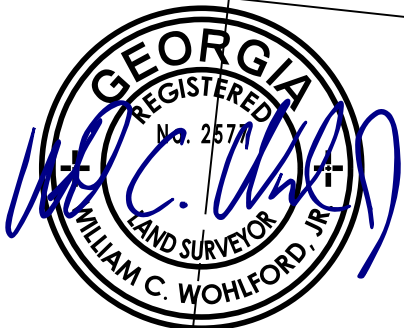
SCALE: 1"= 50'

LAT/LONG - 33°57'50.25"N 84°27'56.99"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

3,443 SQ. FT./ 0.0790 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "H" (PB.65 PG. 51) LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
125 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 79	RONNIE E. & CAROL A. BOYD COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



CLEARBROOK DRIVE  
(50' R/W)

YORKSHIRE DRIVE  
(50' R/W)

COUNTRY PLACE EAST  
SUBDIVISION, BLOCK "H"  
PB. 65 PG. 51

COUNTRY PLACE EAST  
SUBDIVISION, BLOCK "B"  
PB. 65 PG. 51

GRID (GA. WEST ZONE)  
NAD(83)

7  
N/F  
RONNIE E. &  
CAROL A. BOYD  
DB. 5982 PG. 212  
PB. 65 PG. 51  
TP ID #16110600490

35  
N/F  
MARY JEAN WRIGHT  
DB. 14244 PG. 1307  
PB. 65 PG. 51  
TP ID #16110600460

36  
N/F  
THOMAS F. KREBSBACH  
DB. 4393 PG. 387  
PB. 65 PG. 51  
TP ID #16110600450

37  
N/F  
LARA L. DELA CRUZ  
DB. 14614 PG. 4259  
PB. 65 PG. 51  
TP ID #16110700140

38  
N/F  
JAMES &  
DOROTHY MARASCO  
DB. 2041 PG. 568  
PB. 65 PG. 51  
TP ID #16110700150

N: 1441956.61  
E: 2205978.36

N: 1442133.70  
E: 2205997.92

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 8



CENTERLINE OF  
30" WATER MAIN



SCALE: 1" = 50'

LAT/LONG - 33°57'50.01"N 84°27'54.94"W

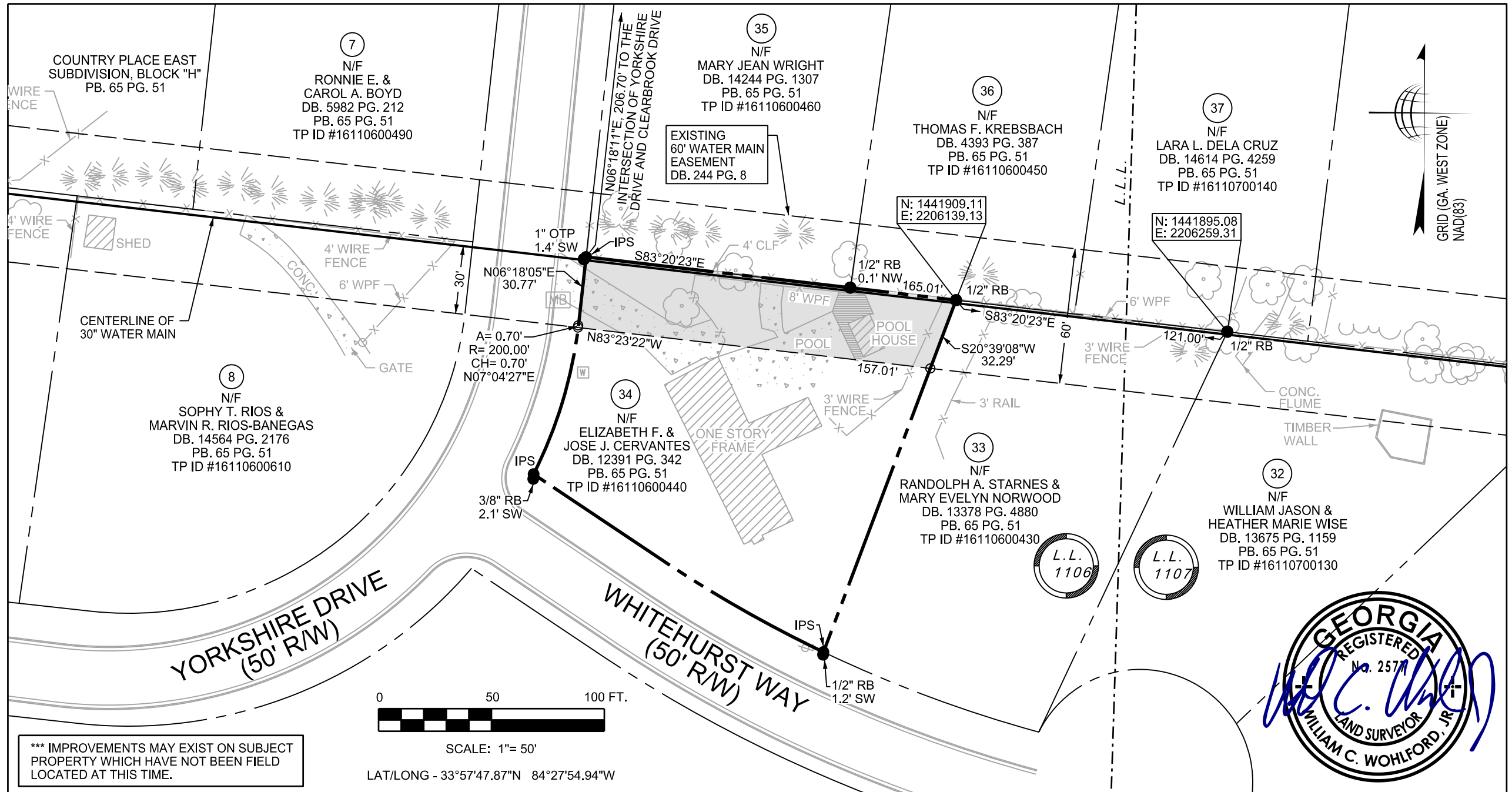
3,382 SQ. FT./ 0.0776 AC. EASEMENT  
119 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN COUNTRY PLACE EAST  
SUBDIVISION, BLOCK "B" PB. 65 PG. 51  
LAND LOT 1106  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 80

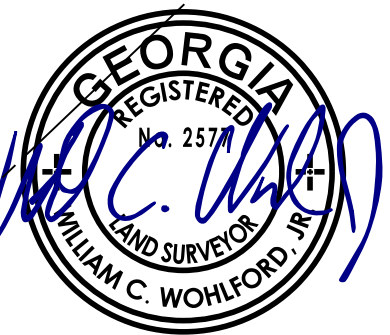
THROUGH THE PROPERTY OF:  
MARY JEAN WRIGHT  
COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



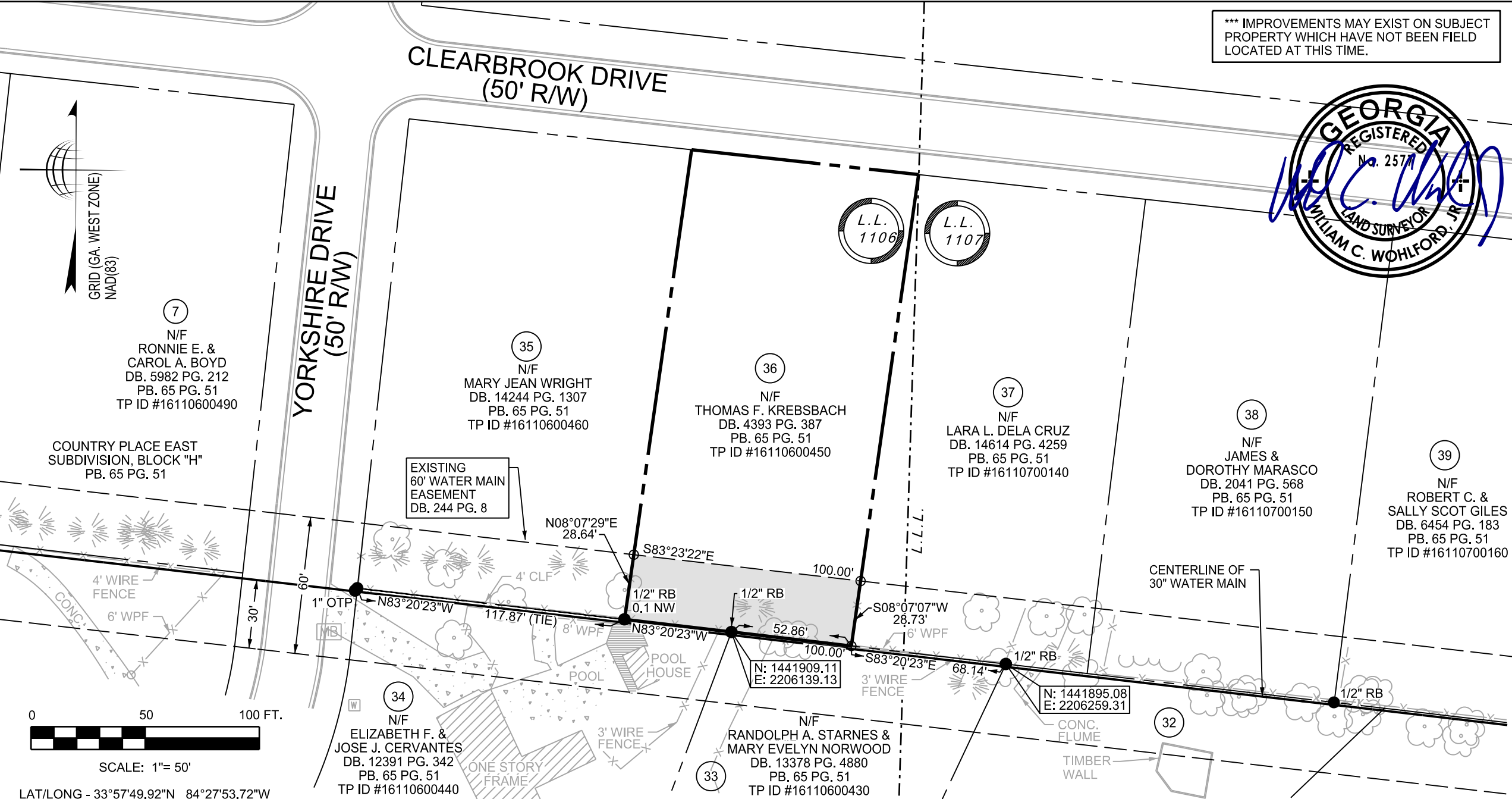
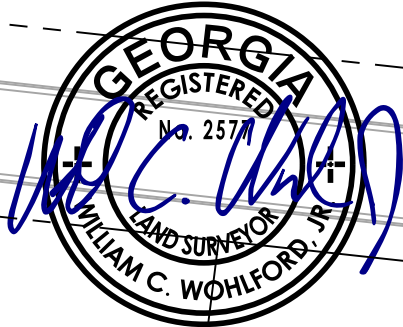
LAT/LONG - 33°57'47.87"N 84°27'54.94"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



5,055 SQ. FT./ 0.1161 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOT 1106	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
165 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 81	ELIZABETH F. & JOSE J. CERVANTES COBB COUNTY	TerraMark Professional Land Surveying

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



2,868 SQ. FT./ 0.0658 AC. EASEMENT  
 100 L.F. VARIABLE WIDTH EASEMENT

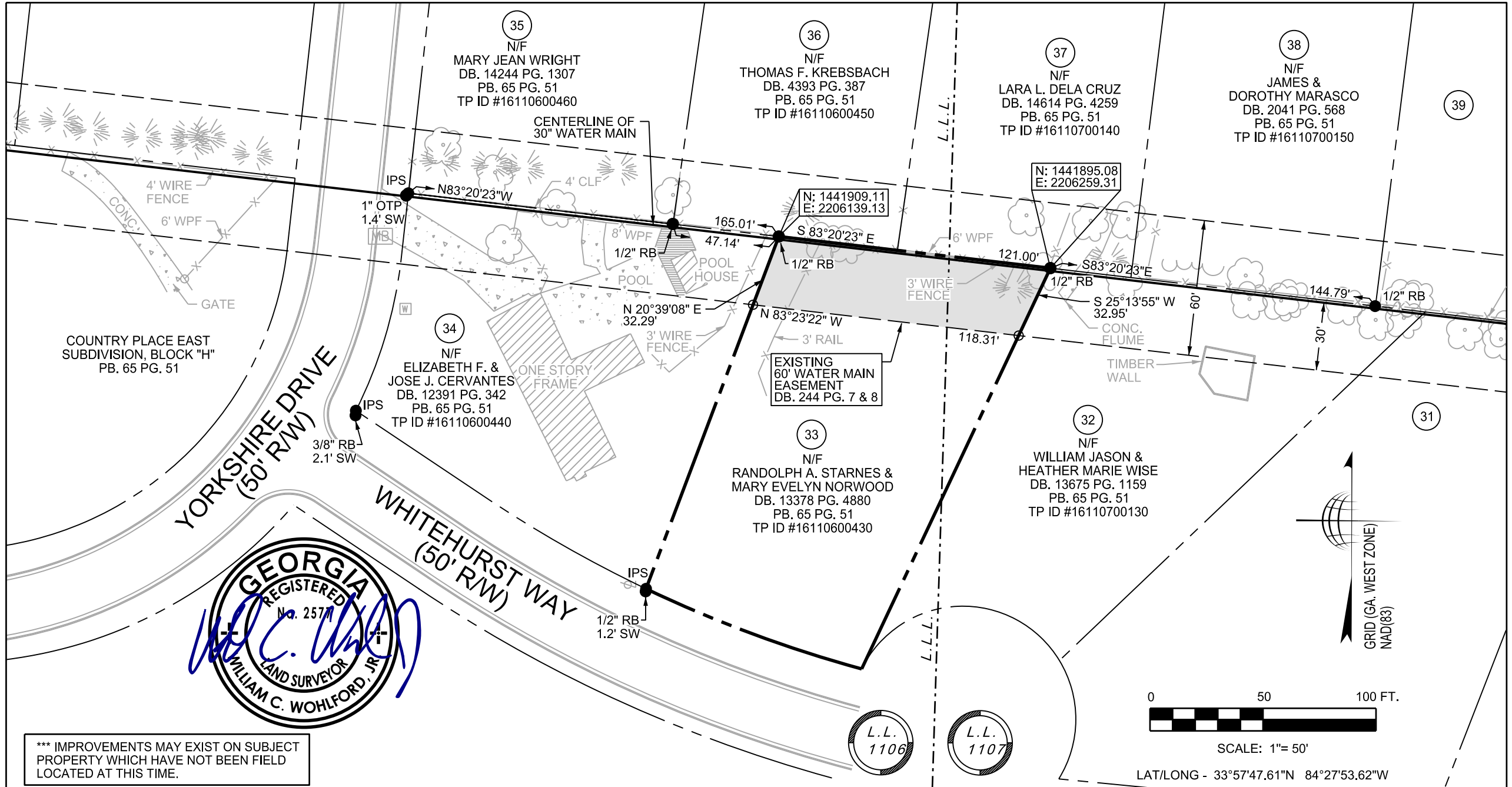
LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOT 1106  
 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA  
 DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
 COBB COUNTY-MARIETTA WATER AUTHORITY  
 C.C.M.W.A. NO. 82

THROUGH THE PROPERTY OF:  
 THOMAS F. KREBSBACH  
 COBB COUNTY


TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927



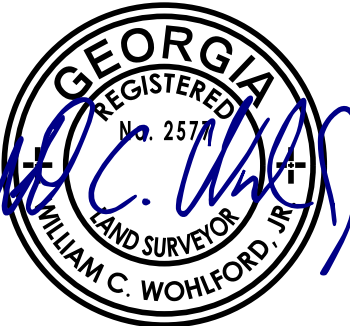


**GEORGIA**  
REGISTERED  
No. 2577  
*William C. Wohlford, Jr.*  
LAND SURVEYOR  
**WILLIAM C. WOHLFORD, JR.**

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

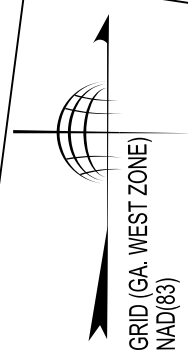
3,742 SQ. FT./ 0.0859 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOTS 1106 & 1107 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 83	THROUGH THE PROPERTY OF: RANDOLPH A. STARNES & MARY EVELYN NORWOOD COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
121 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1			

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



CLEARBROOK DRIVE  
(50' R/W)

YORKSHIRE DRIVE  
(50' R/W)



35  
N/F  
MARY JEAN WRIGHT  
DB. 14244 PG. 1307  
PB. 65 PG. 51  
TP ID #16110600460

36  
N/F  
THOMAS F. KREBSBACH  
DB. 4393 PG. 387  
PB. 65 PG. 51  
TP ID #16110600450

37  
N/F  
LARA L. DELA CRUZ  
DB. 14614 PG. 4259  
PB. 65 PG. 51  
TP ID #16110700140

38  
N/F  
JAMES &  
DOROTHY MARASCO  
DB. 2041 PG. 568  
PB. 65 PG. 51  
TP ID #16110700150

39  
N/F  
ROBERT C. &  
SALLY SCOT GILES  
DB. 6454 PG. 183  
PB. 65 PG. 51  
TP ID #16110700160

33  
N/F  
RANDOLPH A. STARNES &  
MARY EVELYN NORWOOD  
DB. 13378 PG. 4880  
PB. 65 PG. 51  
TP ID #16110600430

32  
N/F  
WILLIAM JASON &  
HEATHER MARIE WISE  
DB. 13675 PG. 1159  
PB. 65 PG. 51  
TP ID #16110700130


EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 7 & 8

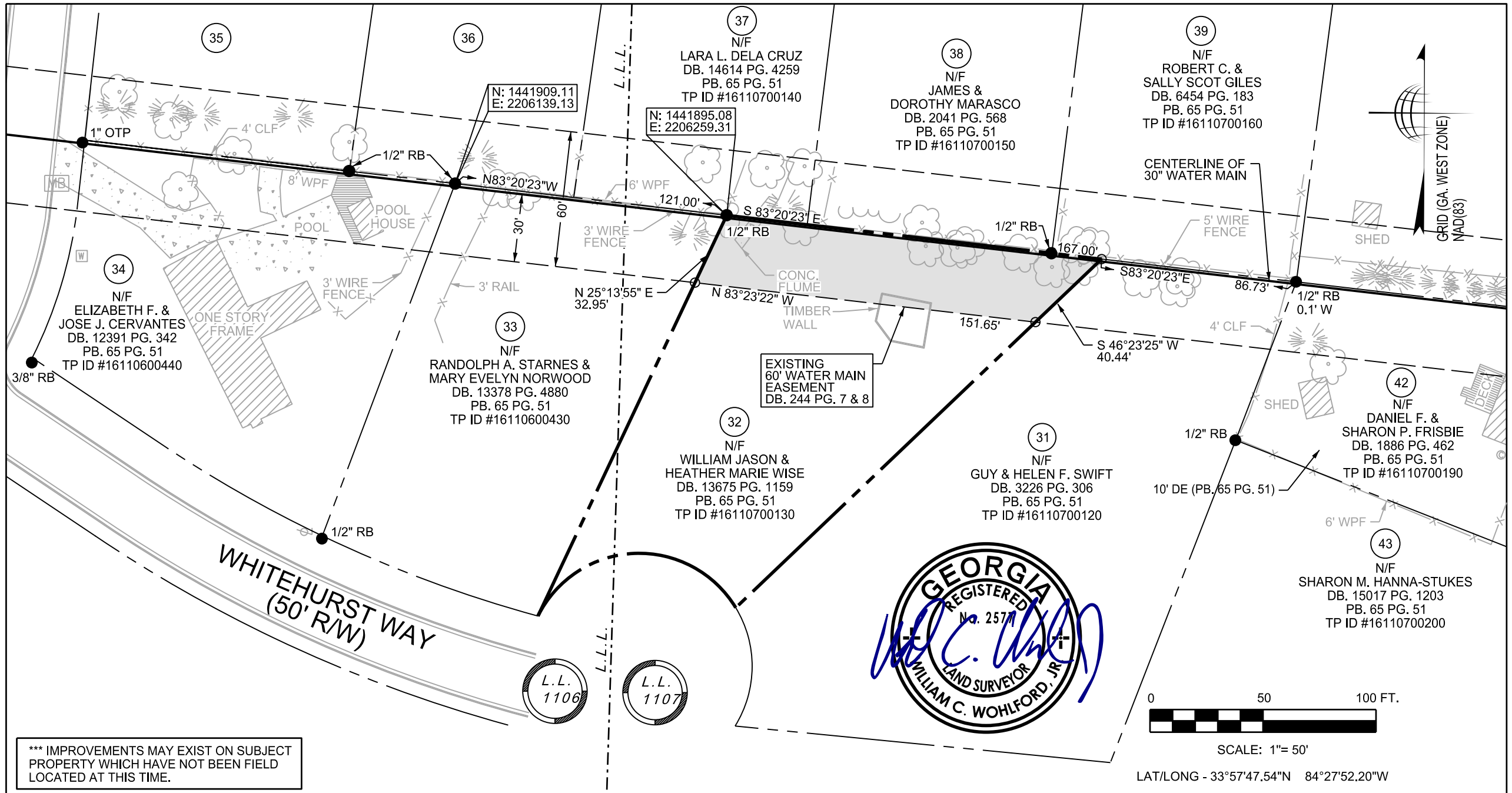
CENTERLINE OF  
30" WATER MAIN




SCALE: 1"= 50'

LAT/LONG - 33°57'49.24"N 84°27'52.54"W

2,983 SQ. FT./ 0.0685 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOTS 1106 & 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
103 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 84	LARA L. DELA CRUZ COBB COUNTY	

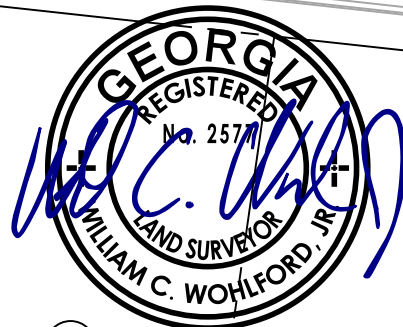


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

4,965 SQ. FT./ 0.1140 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOTS 1106 & 1107 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
160 L.F. VARIABLE WIDTH EASEMENT	COBB COUNTY-MARIETTA WATER AUTHORITY DATE: 4/15/2013 SHEET NO. 1/1	WILLIAM C. WOHLFORD, JR. C.C.M.W.A. NO. 85	WILLIAM JASON & HEATHER MARIE WISE COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

**CLEARBROOK DRIVE  
(50' R/W)**



L.L.  
1106

L.L.  
1107

35  
36  
N/F  
THOMAS F. KREBSBACH  
DB. 4393 PG. 387  
PB. 65 PG. 51  
TP ID #16110600450

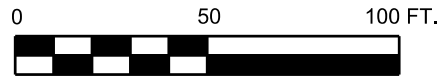
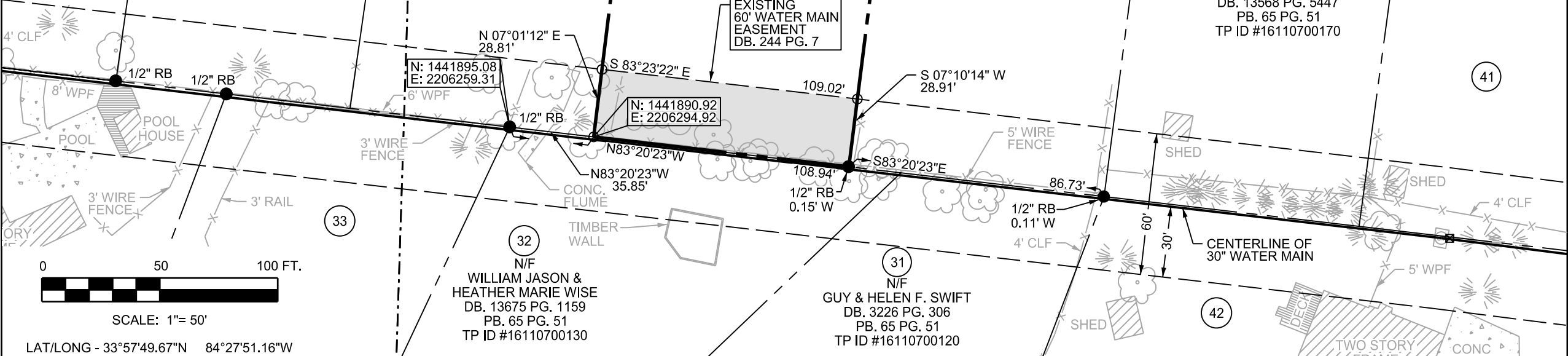
37  
N/F  
LARA L. DELA CRUZ  
DB. 14614 PG. 4259  
PB. 65 PG. 51  
TP ID #16110700140

38  
N/F  
JAMES &  
DOROTHY MARASCO  
DB. 2041 PG. 568  
PB. 65 PG. 51  
TP ID #16110700150

39  
N/F  
ROBERT C. &  
SALLY SCOT GILES  
DB. 6454 PG. 183  
PB. 65 PG. 51  
TP ID #16110700160

40  
N/F  
ROBIN D. &  
ELIZABETH A. GAINSFORD  
DB. 13568 PG. 5447  
PB. 65 PG. 51  
TP ID #16110700170

41



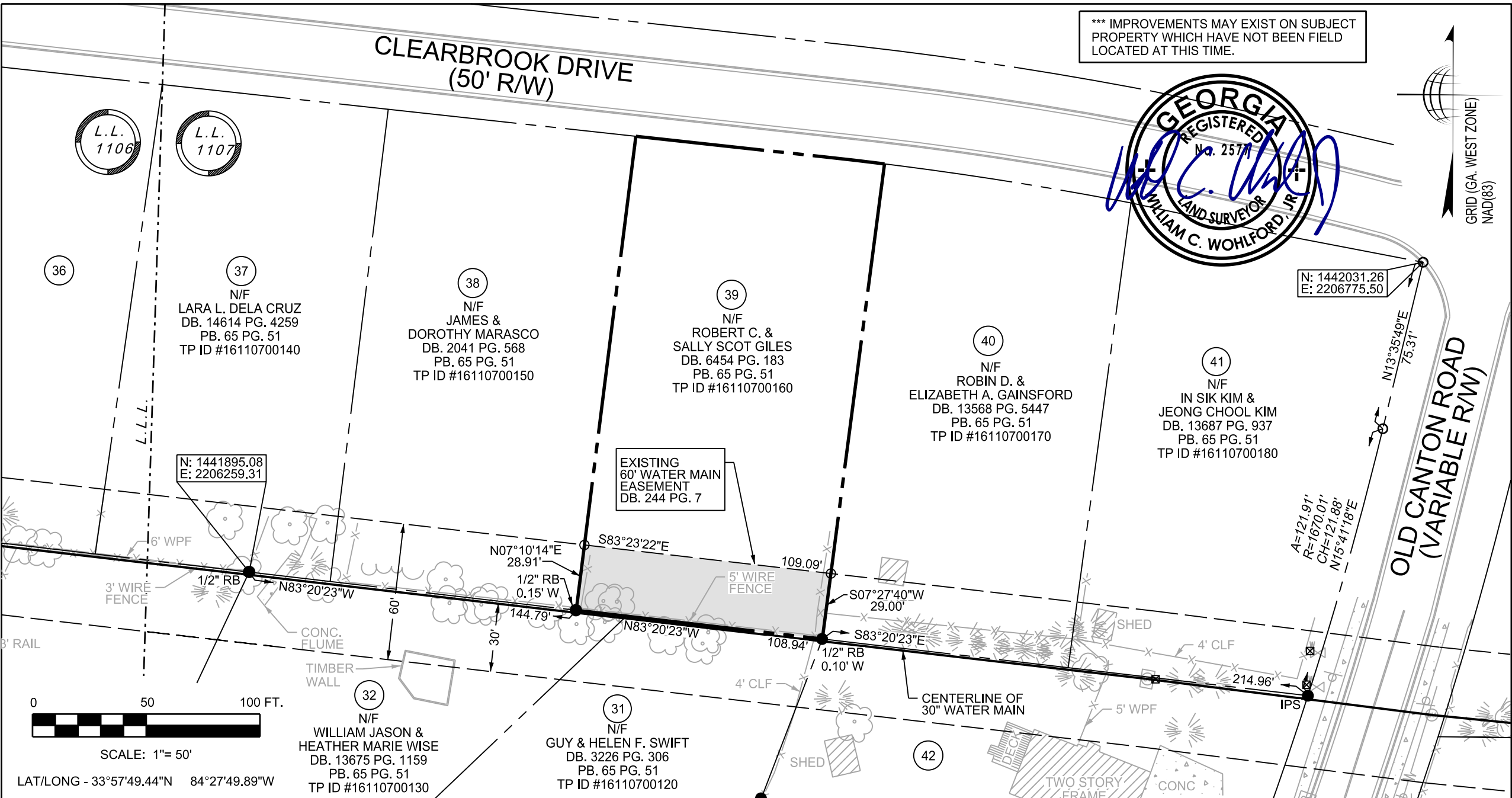
SCALE: 1" = 50'

LAT/LONG - 33°57'49.67"N 84°27'51.16"W

3,145 SQ. FT./ 0.0722 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
109 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 86	JAMES & DOROTHY MARASCO COBB COUNTY	Professional Land Surveying



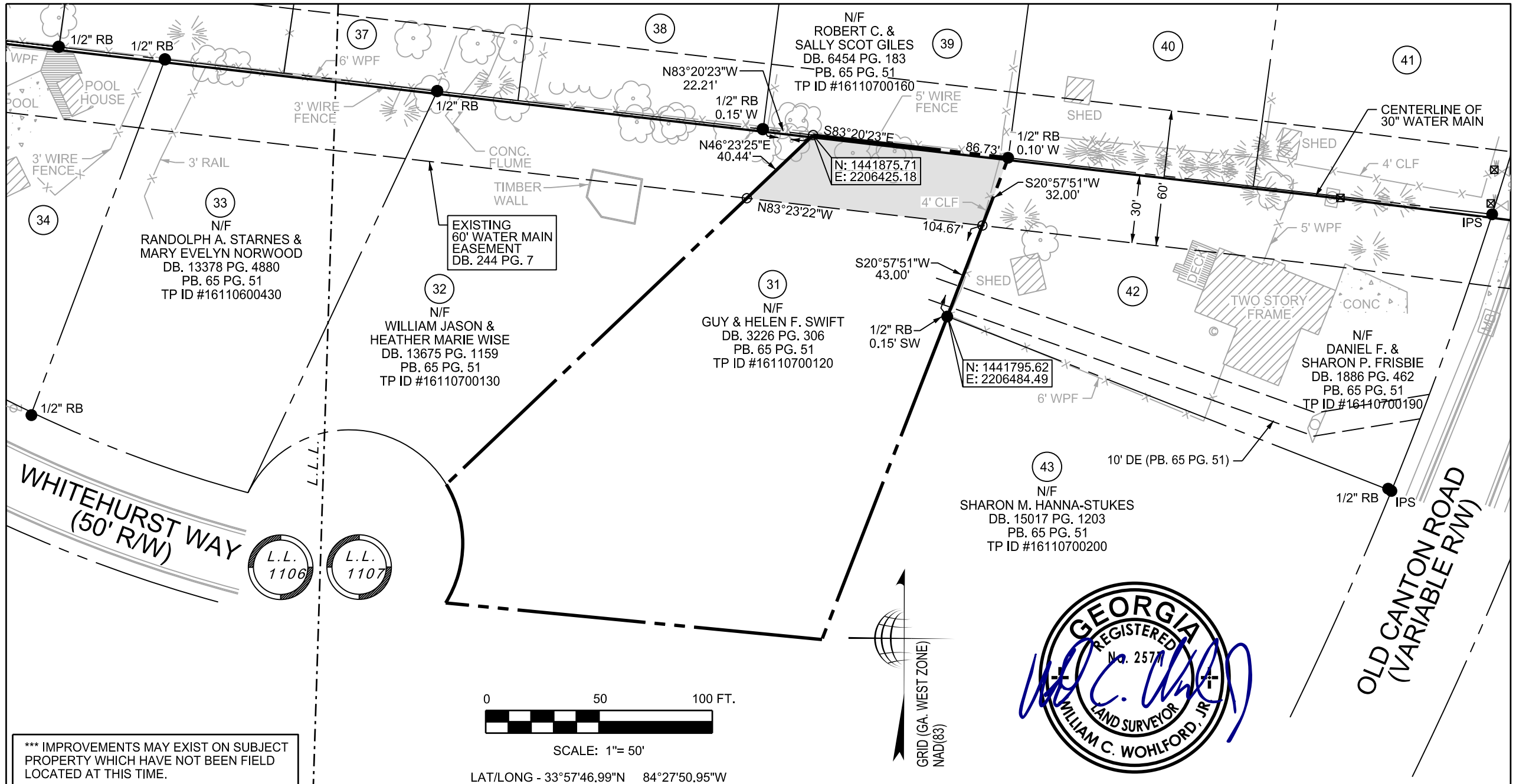
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1"= 50'

LAT/LONG - 33°57'49.44"N 84°27'49.89"W

<p>3,156 SQ. FT./ 0.0725 AC. EASEMENT</p>	<p>LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOT 1107</p>	<p>SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:</p>	<p>THROUGH THE PROPERTY OF:</p>	<p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
<p>109 L.F. VARIABLE WIDTH EASEMENT</p>	<p>16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1</p>	<p>COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 87</p>	<p>ROBERT C. &amp; SALLY SCOT GILES COBB COUNTY</p>	



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

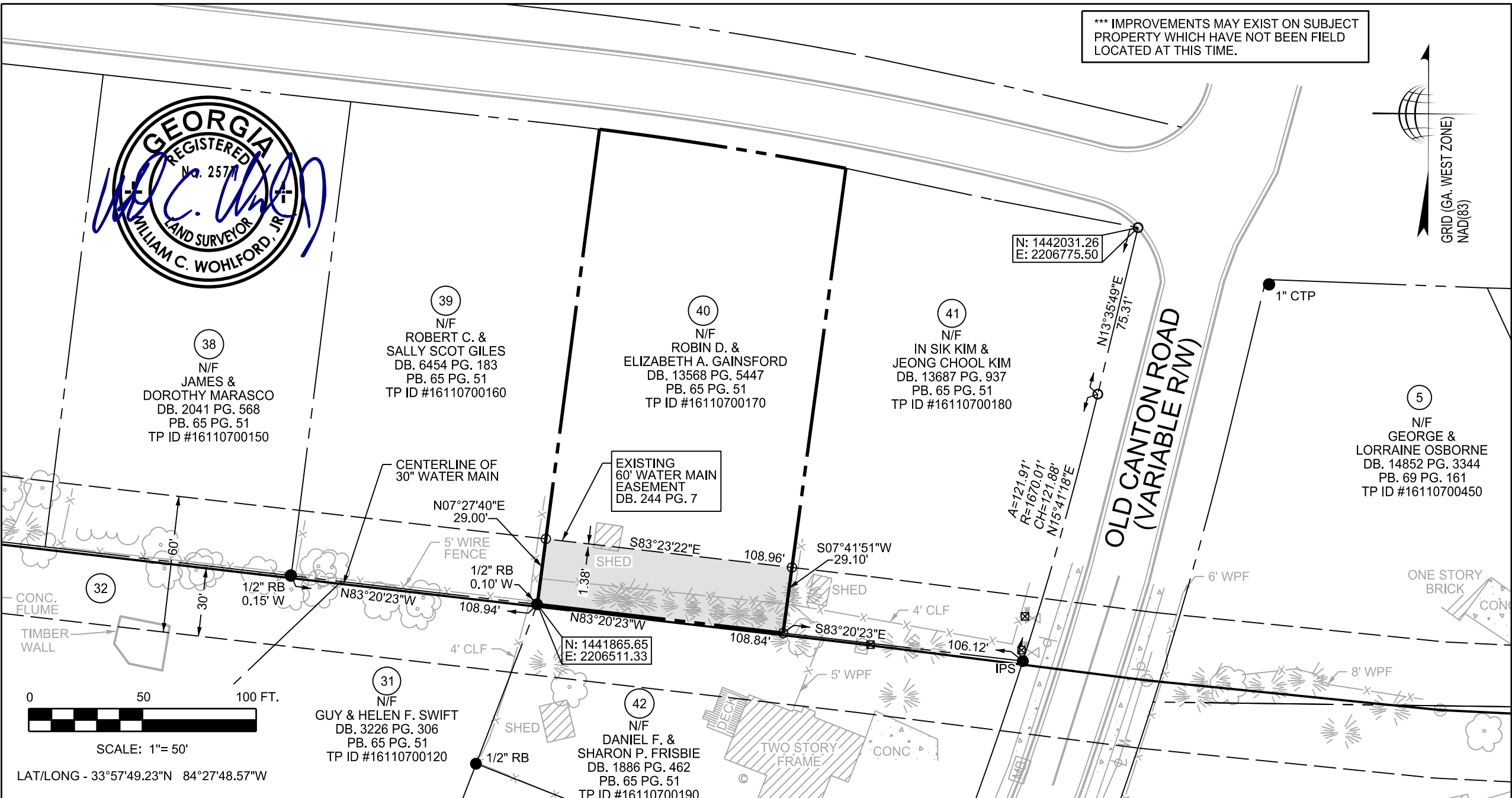
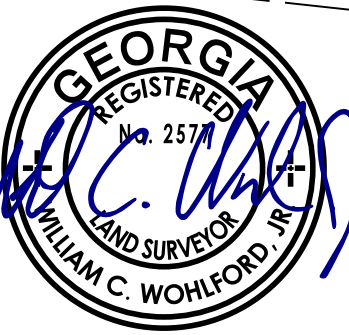


SCALE: 1"= 50'

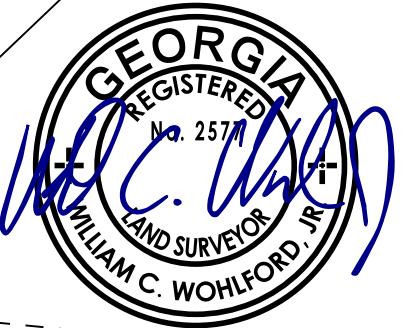
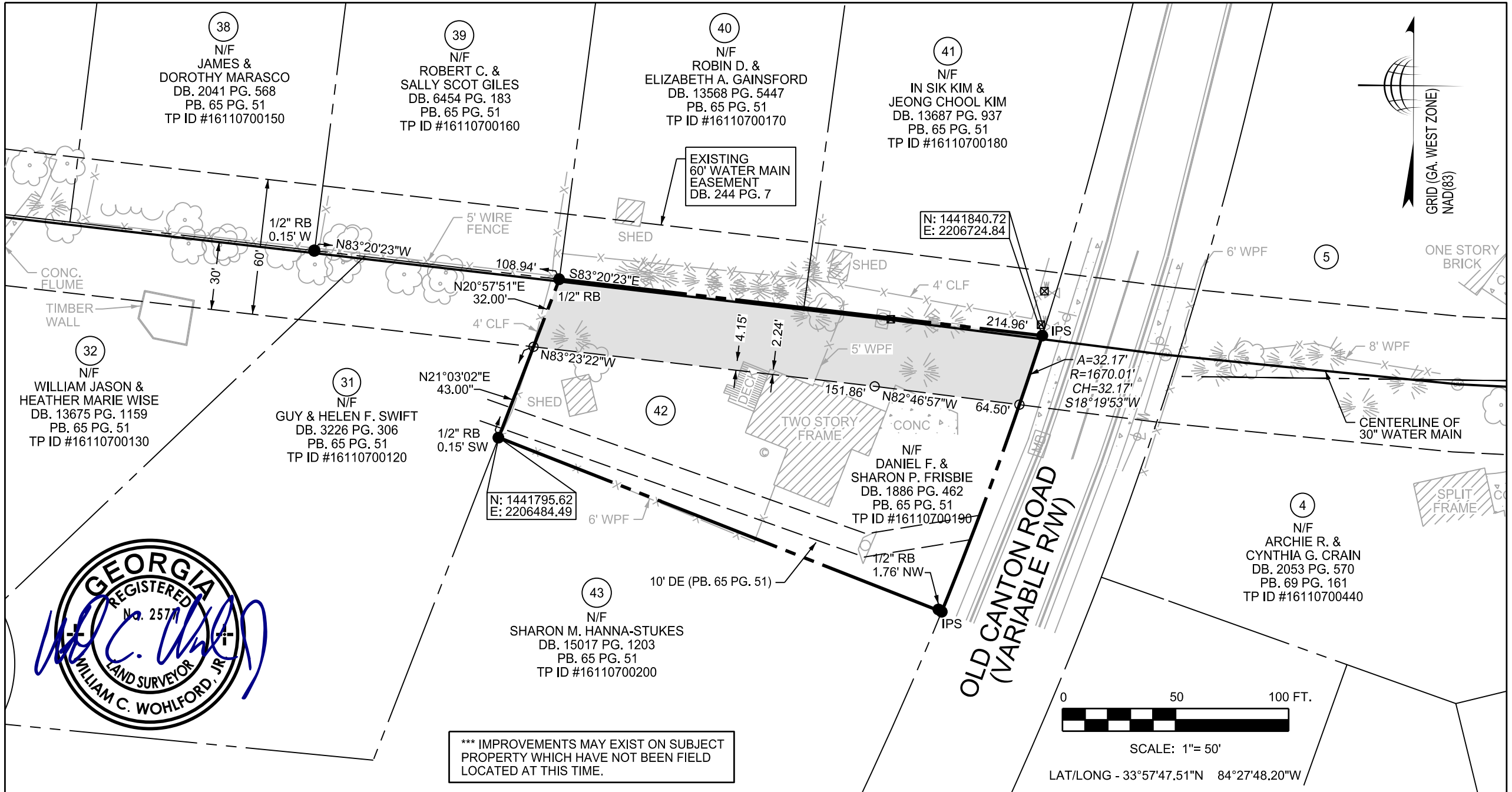
LAT/LONG - 33°57'46.99"N 84°27'50.95"W

2,971 SQ. FT./ 0.0682 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
95 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 88	GUY & HELEN F. SWIFT  COBB COUNTY	TerraMark Professional Land Surveying

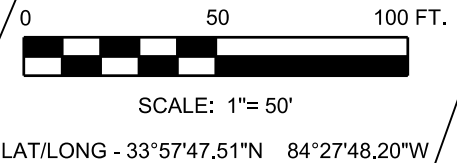
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



3,163 SQ. FT./ 0.0726 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
109 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 89	ROBIN D. & ELIZABETH A. GAINSFORD COBB COUNTY	TerraMark Professional Land Surveying

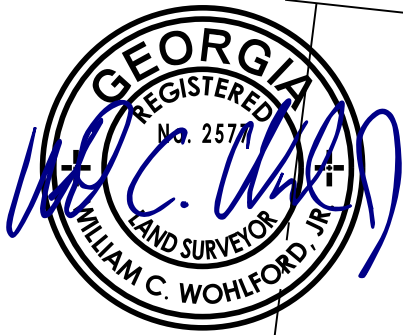


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

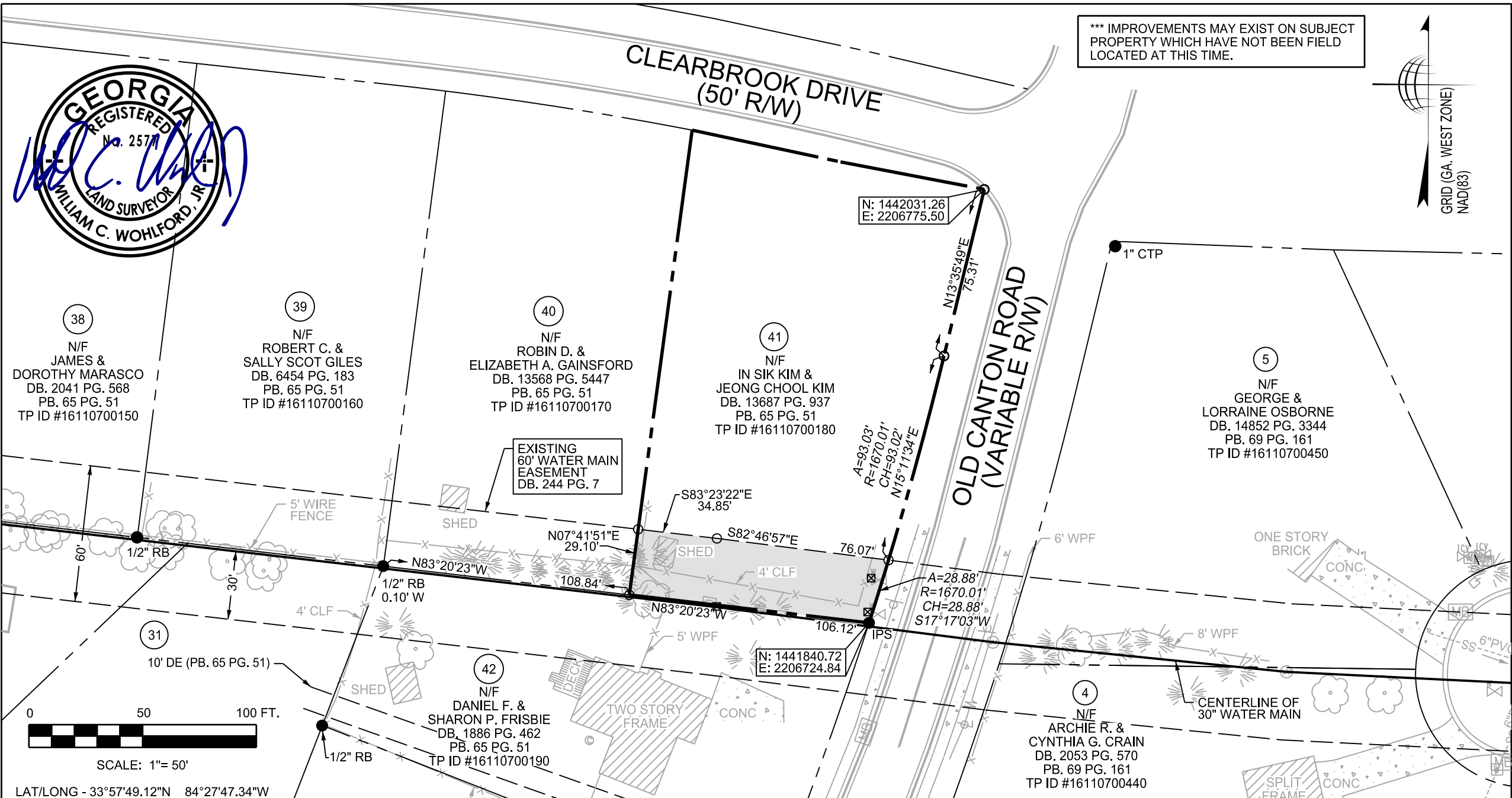


6,689 SQ. FT./ 0.1536 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
215 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 90	DANIEL F. & SHARON P. FRISBIE COBB COUNTY	TerraMark Professional Land Surveying





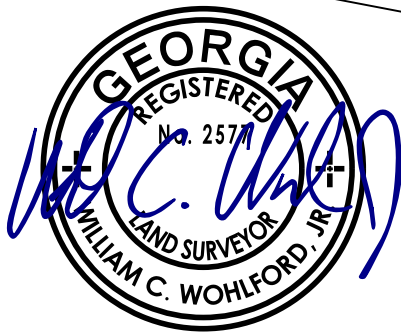
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



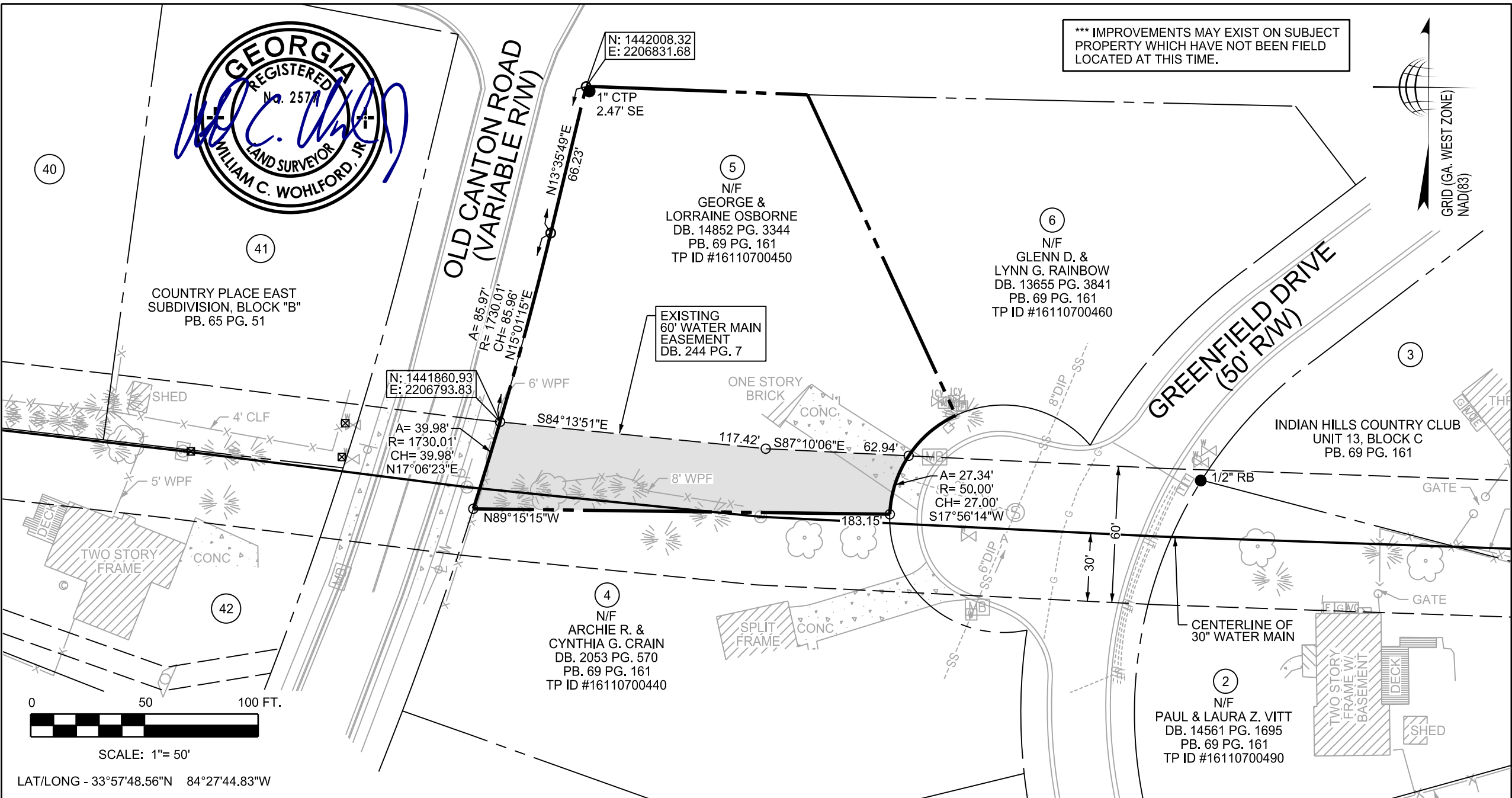
SCALE: 1" = 50'

LAT/LONG - 33°57'49.12"N 84°27'47.34"W

3,135 SQ. FT./ 0.0720 AC. EASEMENT	LOCATED IN COUNTRY PLACE EAST SUBDIVISION, BLOCK "B" PB. 65 PG. 51 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
109 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 91	IN SIK KIM & JEONG CHOO KIM COBB COUNTY	TerraMark Professional Land Surveying




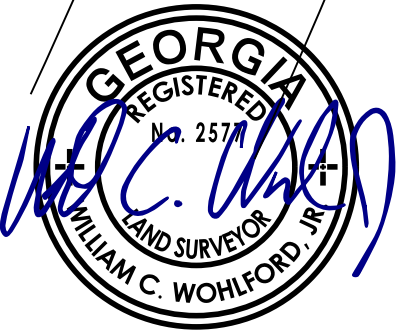
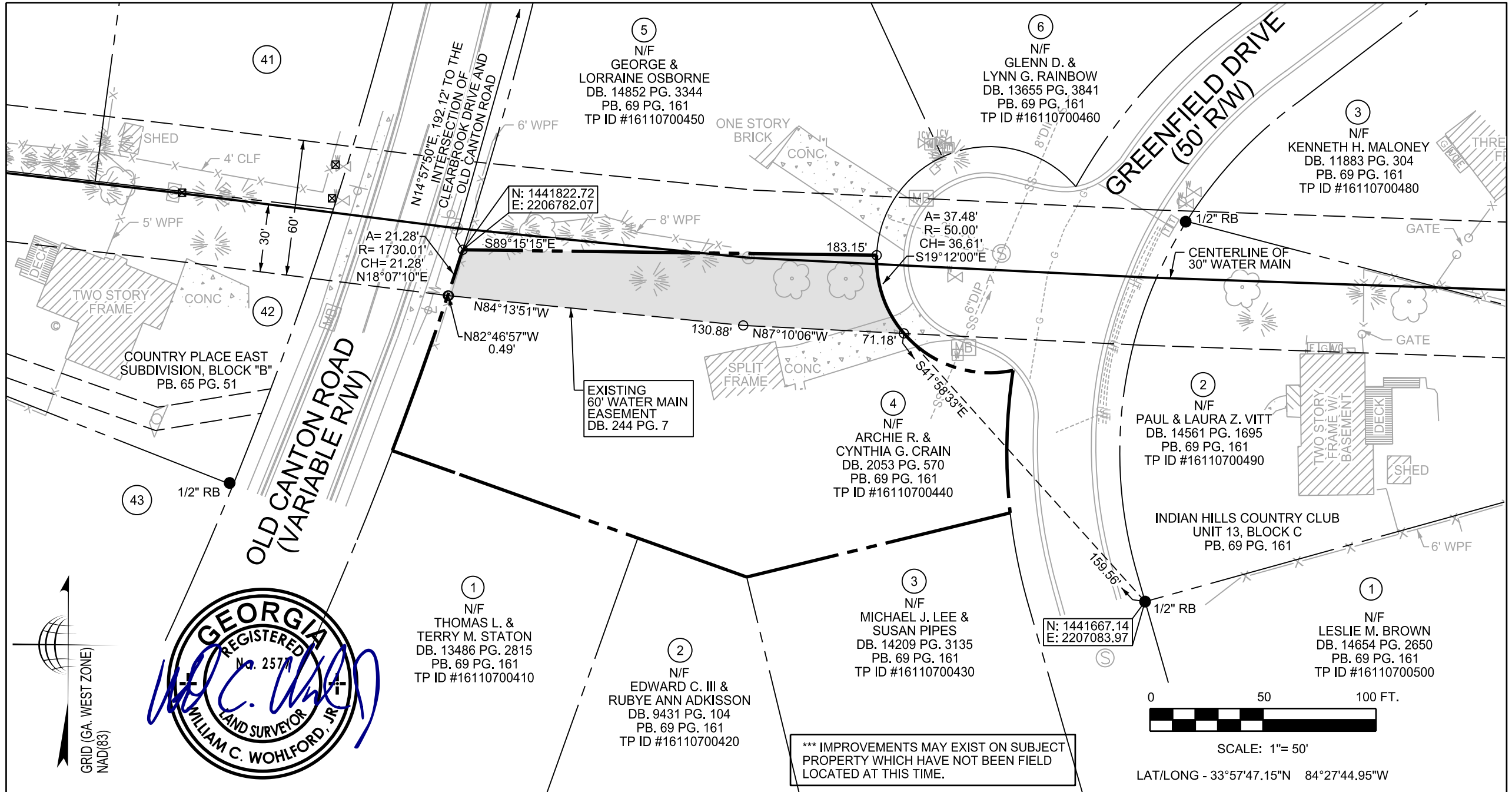
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



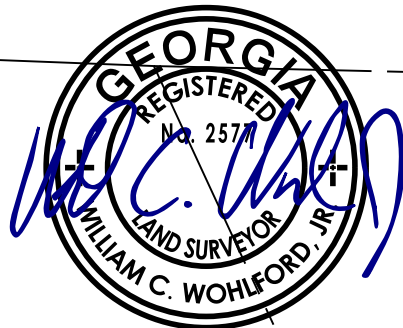
SCALE: 1"= 50'

LAT/LONG - 33°57'48.56"N 84°27'44.83"W

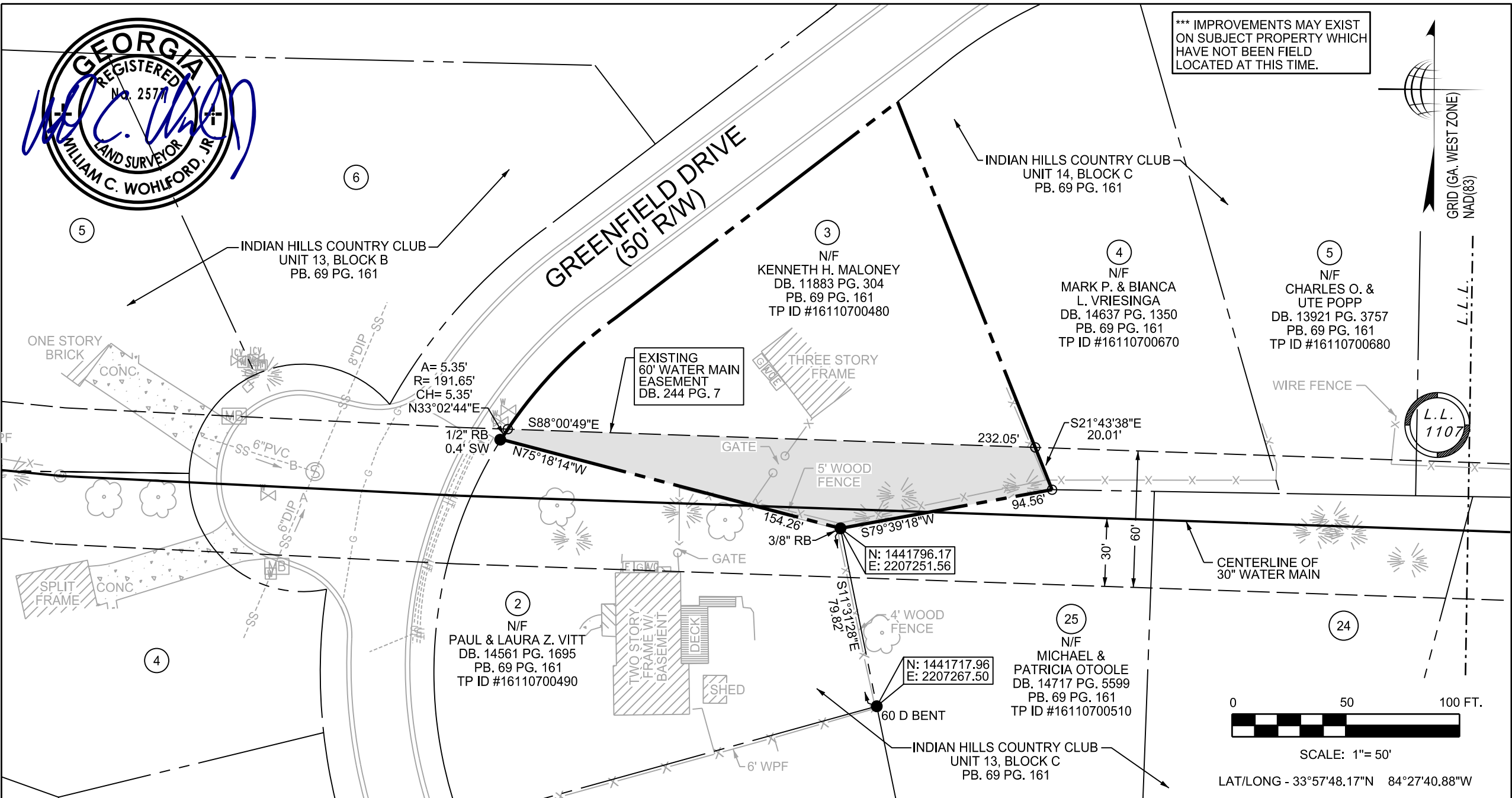
5,663 SQ. FT./ 0.1300 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 13, BLOCK "B" PB. 69 PG. 161 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
179 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 92	GEORGE & LORRAINE OSBORNE COBB COUNTY	




5,402 SQ. FT./ 0.1240 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 13, BLOCK "B" PB. 69 PG. 161 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
189 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 93	ARCHIE R. & CYNTHIA G. CRAIN COBB COUNTY	TerraMark Professional Land Surveying



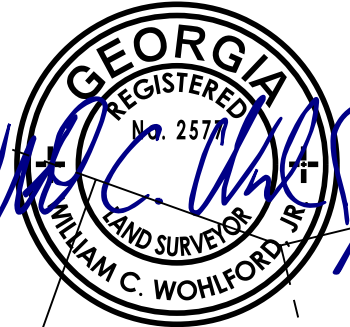
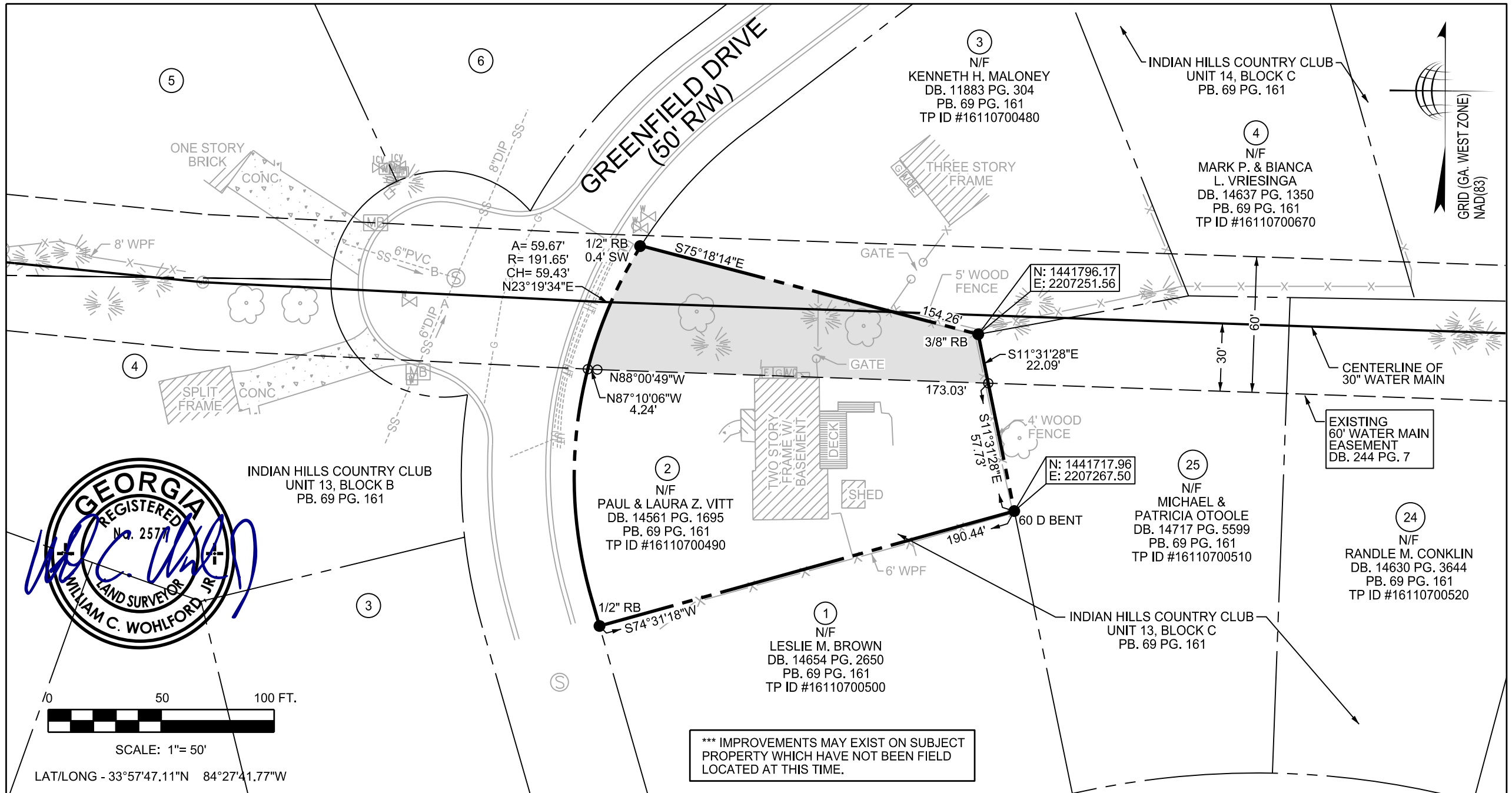
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1"= 50'  
LAT/LONG - 33°57'48.17"N 84°27'40.88"W


5,788 SQ. FT./ 0.1329 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 13, BLOCK "C" PB. 69 PG. 161 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
242 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 94	KENNETH H. MALONEY COBB COUNTY	

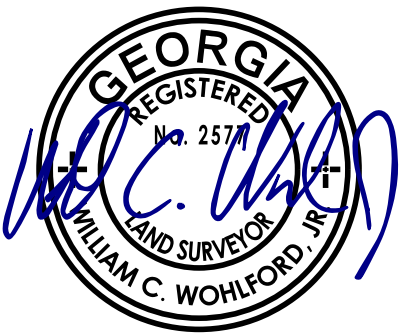
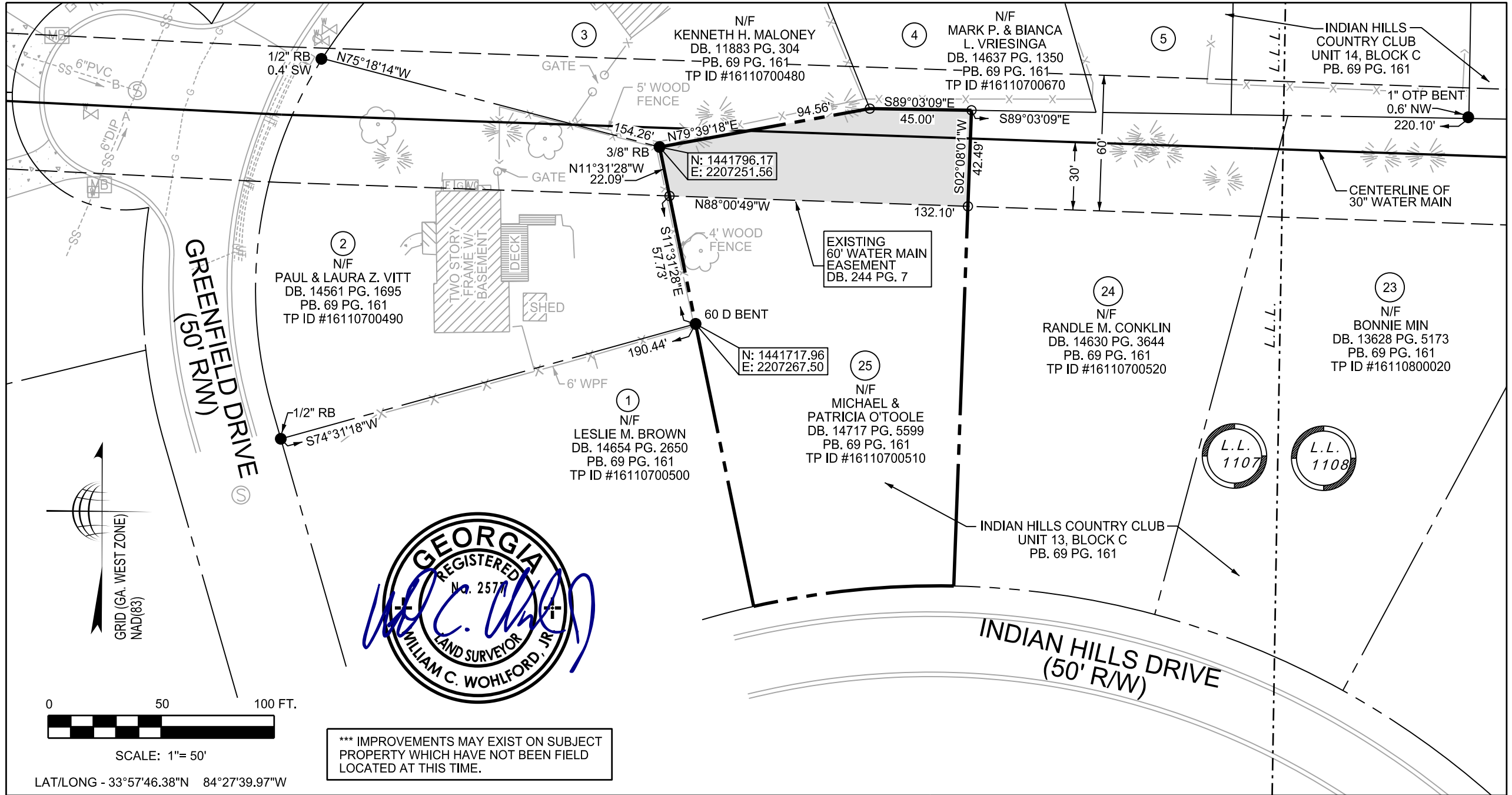




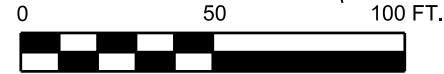
0 50 100 FT.  
 SCALE: 1"= 50'  
 LAT/LONG - 33°57'47.11"N 84°27'41.77"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.


6,533 SQ. FT./ 0.1500 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 13, BLOCK "C" PB. 69 PG. 161 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc.        1396 Bells Ferry Road        Marietta, Georgia 30066        www.TerraMark.com        (P) (770) 421-1927</p>
167 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 95	PAUL & LAURA Z. VITT COBB COUNTY	

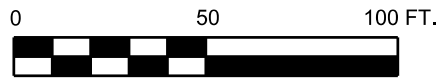


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



LAT/LONG - 33°57'46.38"N 84°27'39.97"W

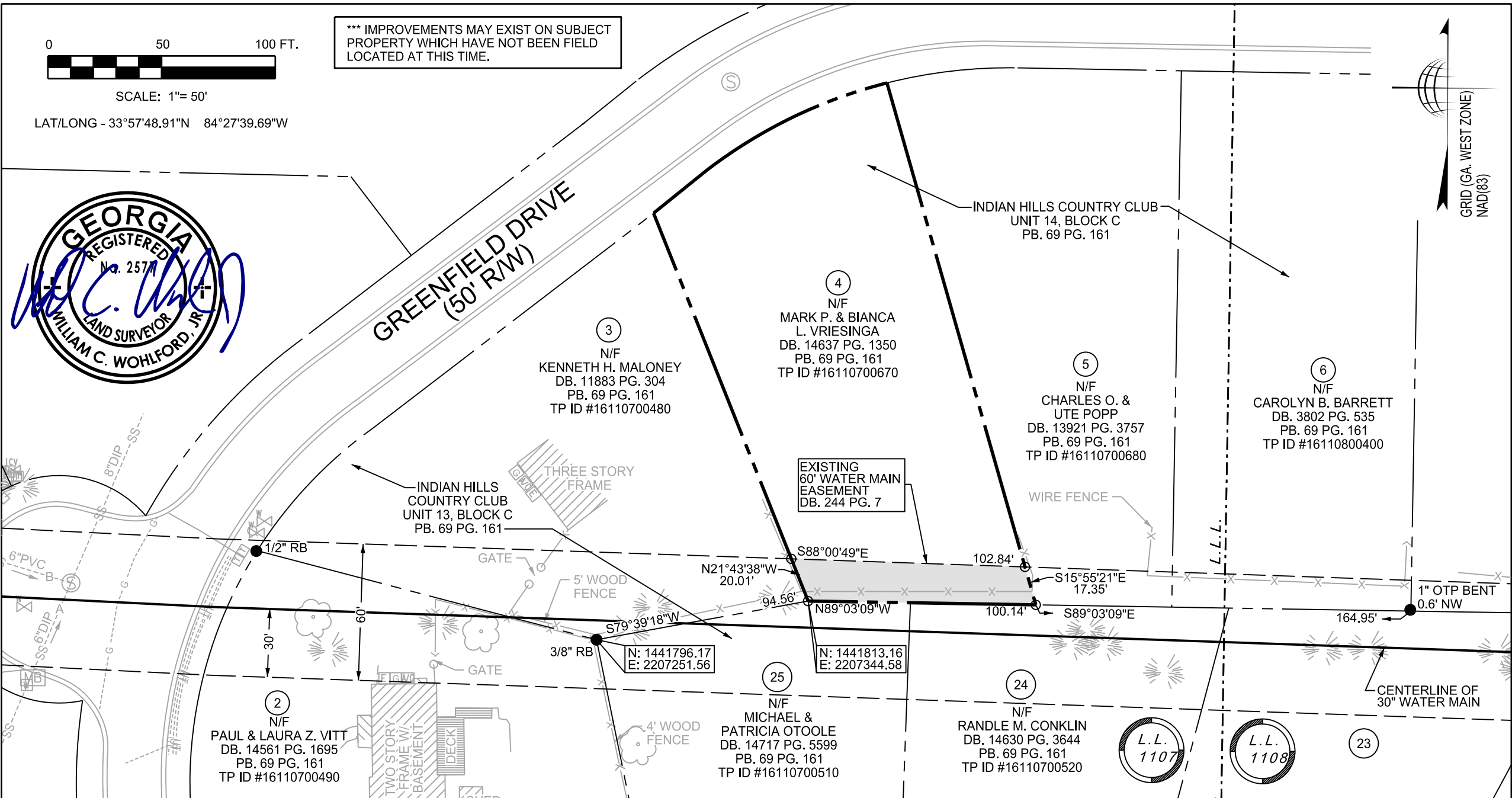
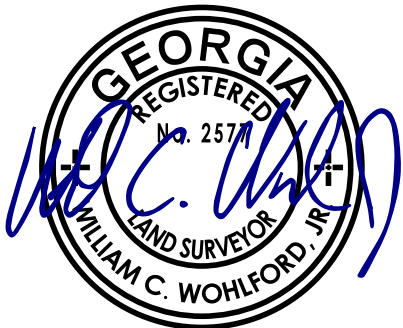
4,753 SQ. FT./ 0.1091 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 13, BLOCK "C" PB. 69 PG. 161 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
135 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 96	MICHAEL & PATRICIA O'TOOLE COBB COUNTY	



SCALE: 1"= 50'

LAT/LONG - 33°57'48.91"N 84°27'39.69"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



1,774 SQ. FT./ 0.0407 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1107	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	<p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
102 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 97	MARK P. & BIANCA L. VRIESINGA COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



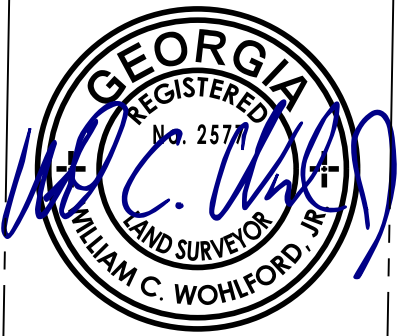
SCALE: 1"= 50'

LAT/LONG - 33°57'49.17"N 84°27'38.26"W

L.L.  
1107

L.L.  
1108

GREENFIELD DRIVE  
(50' R/W)



3  
N/F  
KENNETH H. MALONEY  
DB. 11883 PG. 304  
PB. 69 PG. 161  
TP ID #16110700480

4  
N/F  
MARK P. & BIANCA  
L. VRIESINGA  
DB. 14637 PG. 1350  
PB. 69 PG. 161  
TP ID #16110700670

5  
N/F  
CHARLES O. &  
UTE POPP  
DB. 13921 PG. 3757  
PB. 69 PG. 161  
TP ID #16110700680

6  
N/F  
CAROLYN B. BARRETT  
DB. 3802 PG. 535  
PB. 69 PG. 161  
TP ID #16110800400

7  
N/F  
ANNA M. GILL  
DB. 14117 PG. 4901  
PB. 69 PG. 161  
TP ID #16110800410

8  
N/F  
TRACE A. RADLER  
DB. 13385 PG. 4842  
PB. 69 PG. 161  
TP ID #16110800420

THREE STORY  
FRAME

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 7

WIRE FENCE

WIRE FENCE

GATE

5' WOOD  
FENCE

S88°00'49"E 64.81'

3/8" RB

N: 1441796.17  
E: 2207251.56

N15°55'21"W 17.35'

N89°03'09"W 100.14'

N89°03'09"W 59.74'

S01°01'59"W 15.43'

S89°03'09"E 105.21'

1" OTP BENT  
0.61' NW

1" OTP

N: 1441811.50  
E: 2207444.71

24  
N/F  
RANDLE M. CONKLIN  
DB. 14630 PG. 3644  
PB. 69 PG. 161  
TP ID #16110700520

CENTERLINE OF  
30" WATER MAIN

30'

60'

996 SQ. FT./ 0.0229 AC. EASEMENT

63 L.F. VARIABLE WIDTH EASEMENT

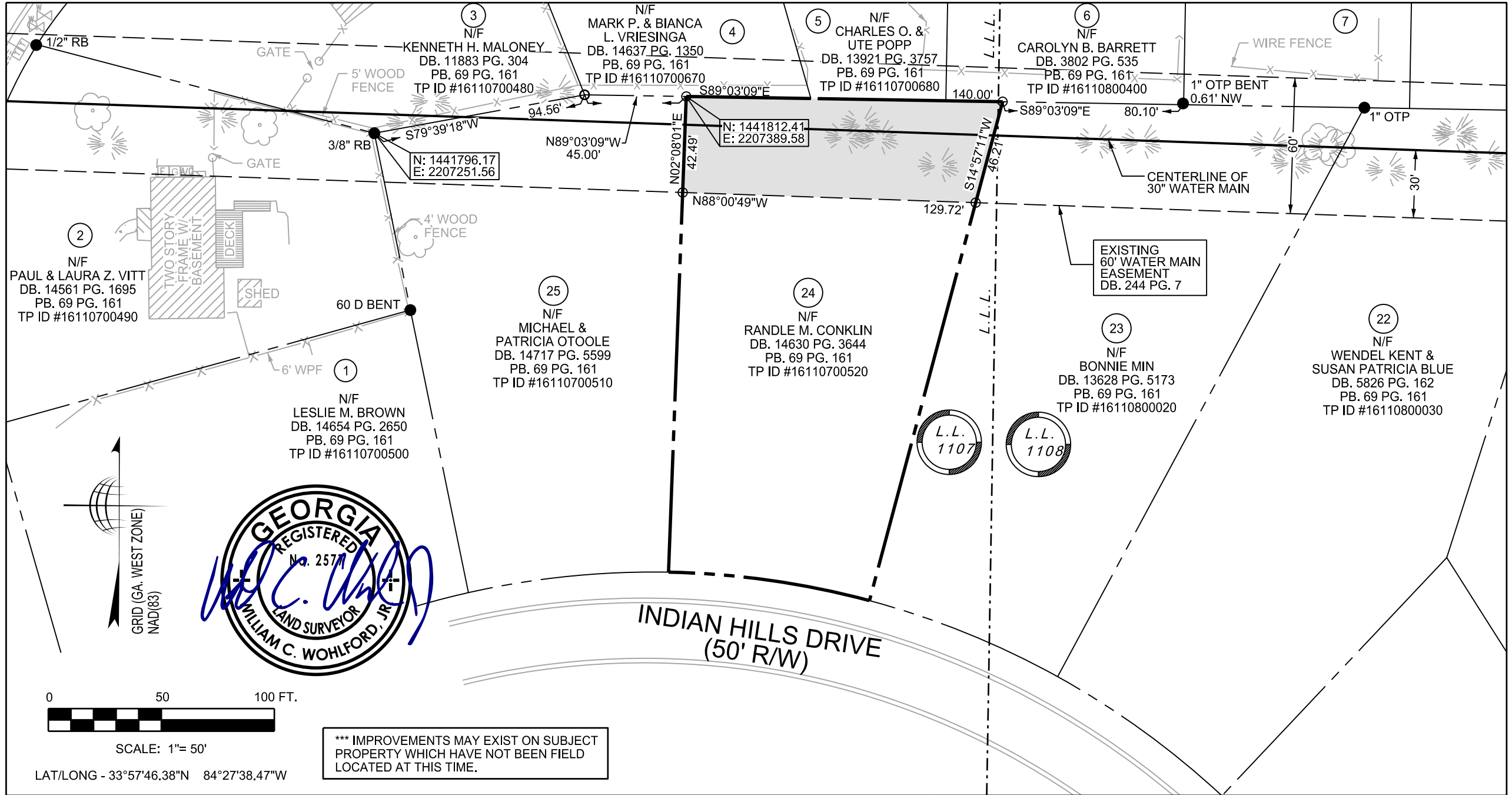
LOCATED IN INDIAN HILLS COUNTRY CLUB  
UNIT 14, BLOCK "C" PB. 69 PG. 161  
LAND LOT 1107  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1


SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 98

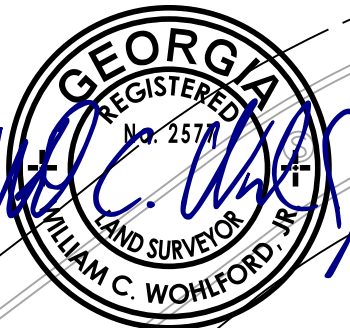
THROUGH THE PROPERTY OF:  
CHARLES O. &  
UTE POPP  
COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



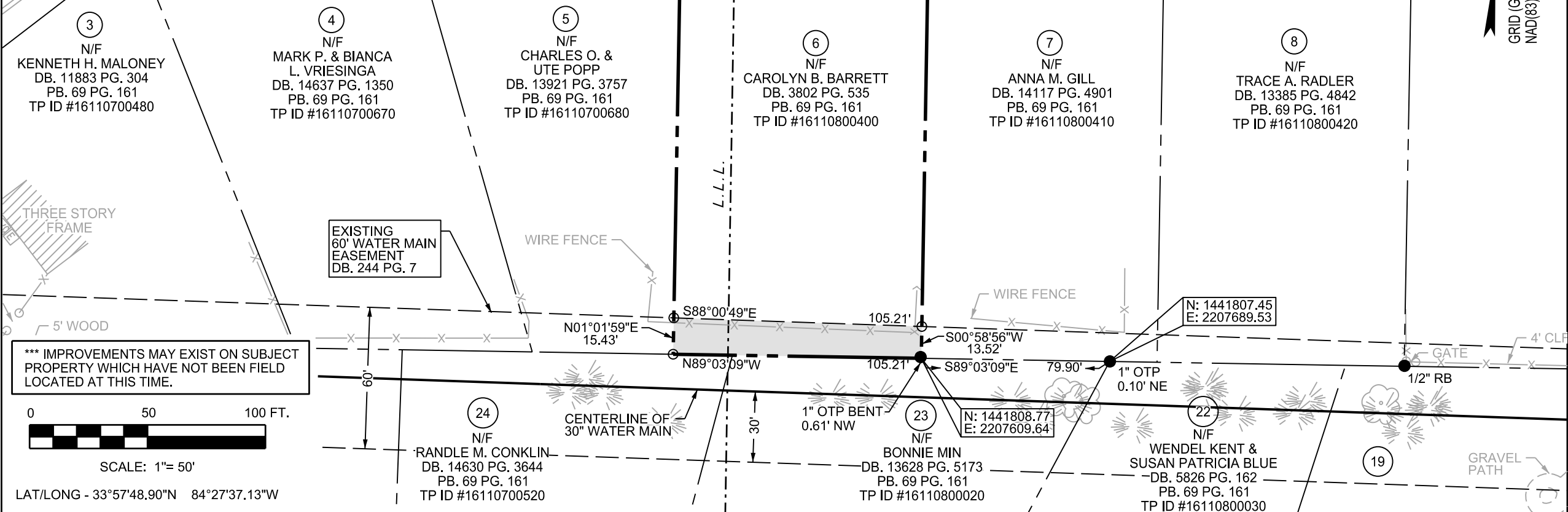


5,895 SQ. FT./ 0.1353 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 13, BLOCK "C" PB. 69 PG. 161 LAND LOTS 1107 & 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
135 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 99	RANDLE M. CONKLIN COBB COUNTY	



**GREENFIELD DRIVE  
(50' R/W)**

L.L. 1107      L.L. 1108




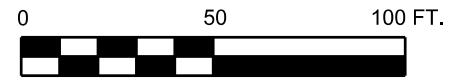
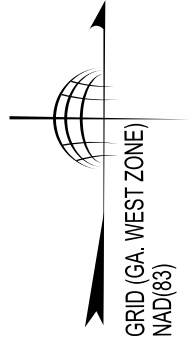
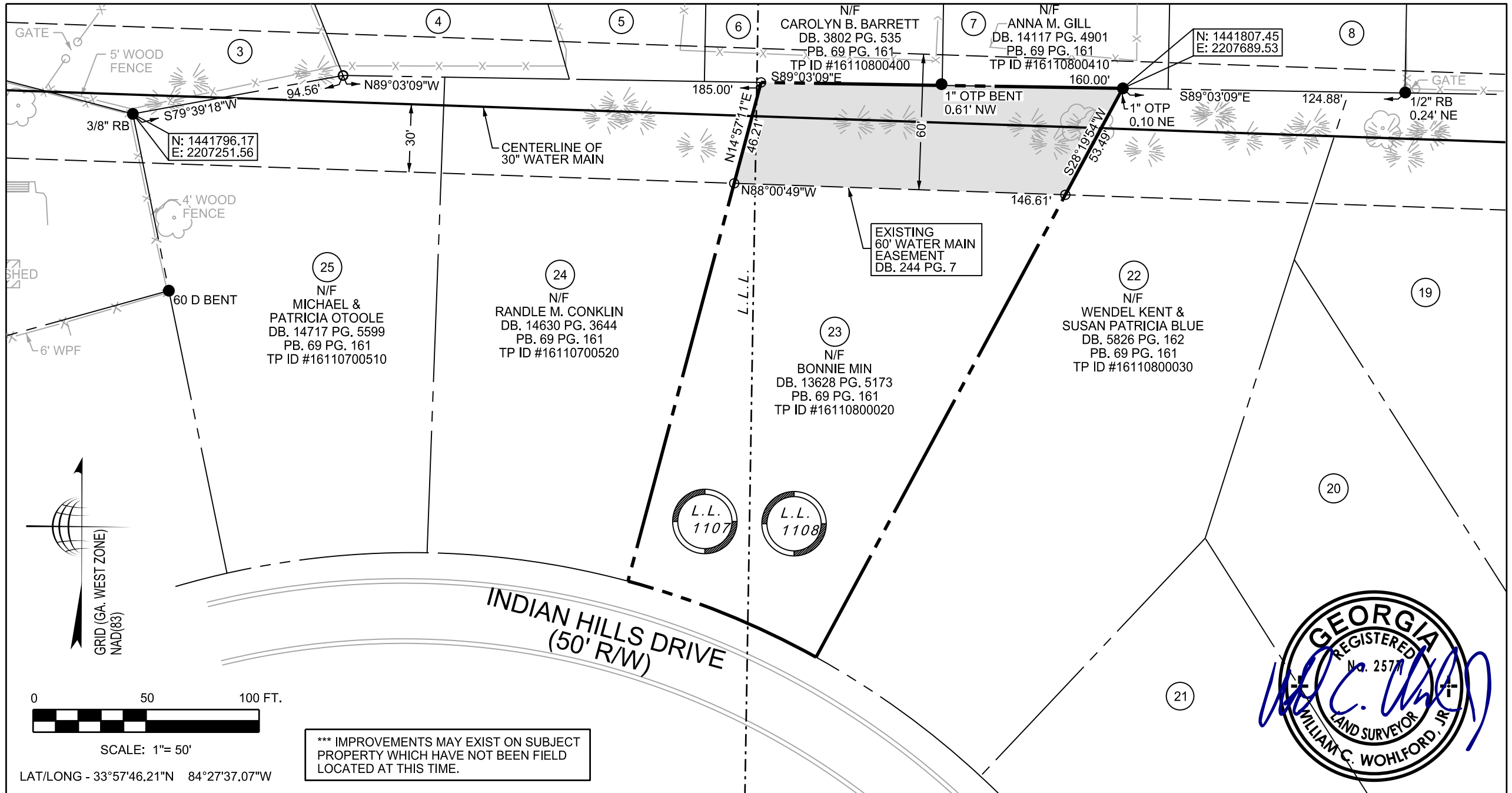
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1" = 50'

LAT/LONG - 33°57'48.90"N 84°27'37.13"W

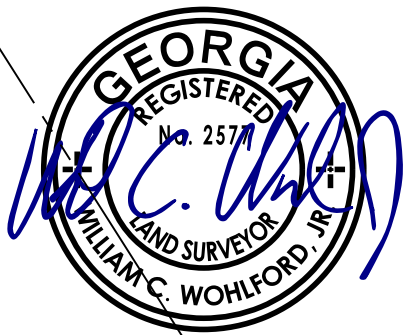
1,523 SQ. FT./ 0.0350 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOTS 1107 & 1108 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
105 L.F. VARIABLE WIDTH EASEMENT	COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 100	CAROLYN B. BARRETT COBB COUNTY	



SCALE: 1"= 50'

LAT/LONG - 33°57'46.21"N 84°27'37.07"W

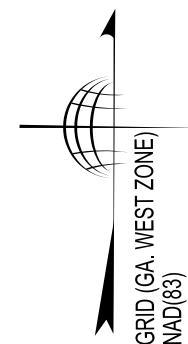
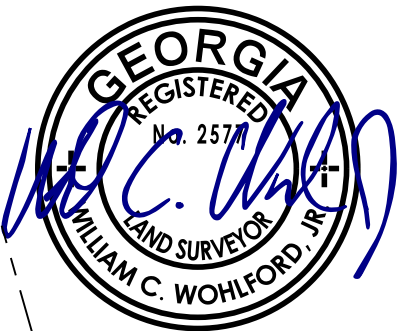
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



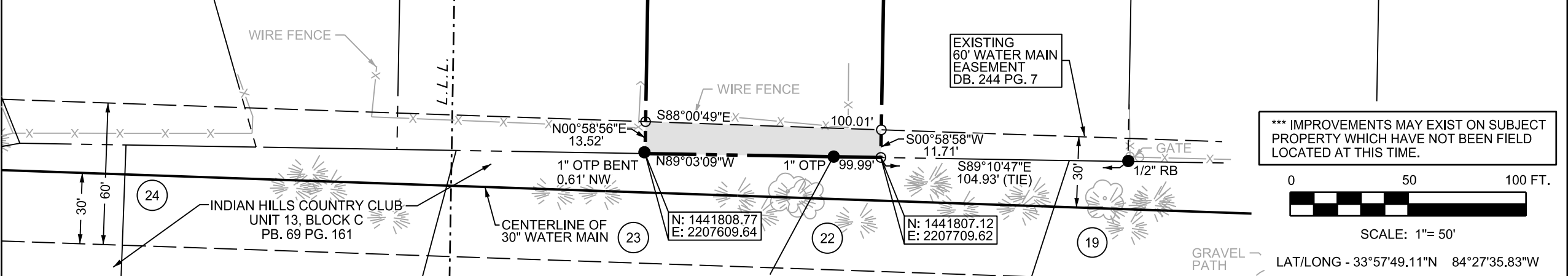
7,101 SQ. FT./ 0.1630 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 13, BLOCK "C" PB. 69 PG. 161 LAND LOTS 1107 & 1108 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
153 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 101	BONNIE MIN COBB COUNTY	Professional Land Surveying

L.L. 1107      L.L. 1108

**GREENFIELD DRIVE  
(50' R/W)**



- 4 N/F MARK P. & BIANCA L. VRIESINGA DB. 14637 PG. 1350 PB. 69 PG. 161 TP ID #16110700670
- 5 N/F CHARLES O. & UTE POPP DB. 13921 PG. 3757 PB. 69 PG. 161 TP ID #16110700680
- 6 N/F CAROLYN B. BARRETT DB. 3802 PG. 535 PB. 69 PG. 161 TP ID #16110800400
- 7 N/F ANNA M. GILL DB. 14117 PG. 4901 PB. 69 PG. 161 TP ID #16110800410
- 8 N/F TRACE A. RADLER DB. 13385 PG. 4842 PB. 69 PG. 161 TP ID #16110800420
- 9 N/F JODI ALLIS & TODD D. PODHAISKY DB. 11750 PG. 79 PB. 69 PG. 161 TP ID #16110800430
- 10 N/F ALOK R. & NALINI KATARIA DB. 14664 PG. 391 PB. 69 PG. 161 TP ID #16110800440



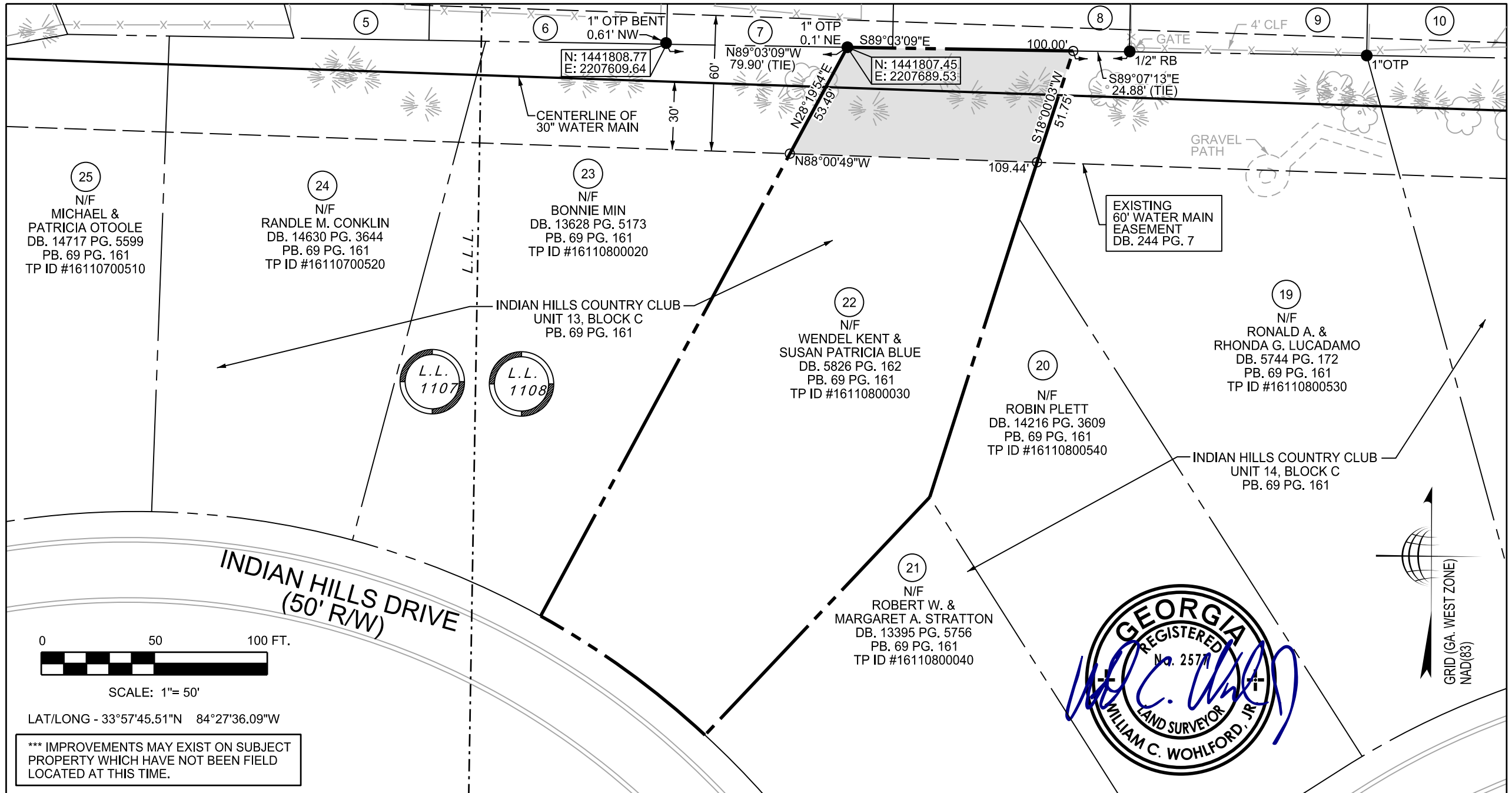
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1" = 50'

LAT/LONG - 33°57'49.11"N 84°27'35.83"W

1,261 SQ. FT./ 0.0290 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 102	THROUGH THE PROPERTY OF:  ANNA M. GILL  COBB COUNTY	 TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
100 L.F. VARIABLE WIDTH EASEMENT				



LAT/LONG - 33°57'45.51"N 84°27'36.09"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

5,097 SQ. FT./ 0.1170 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 13, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
104 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 103	WENDEL KENT & SUSAN PATRICIA BLUE COBB COUNTY	TerraMark Professional Land Surveying



L.L. 1107 L.L. 1108

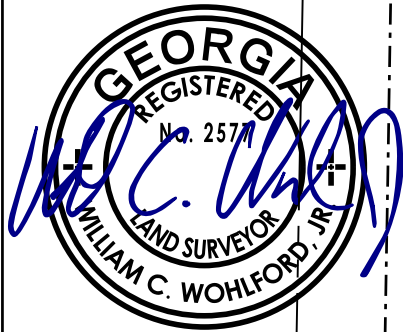
# GREENFIELD DRIVE (50' R/W)



SCALE: 1"= 50'

LAT/LONG - 33°57'49.10"N 84°27'34.52"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



5  
N/F  
CHARLES O. &  
UTE POPP  
DB. 13921 PG. 3757  
PB. 69 PG. 161  
TP ID #16110700680

6  
N/F  
CAROLYN B. BARRETT  
DB. 3802 PG. 535  
PB. 69 PG. 161  
TP ID #16110800400

7  
N/F  
ANNA M. GILL  
DB. 14117 PG. 4901  
PB. 69 PG. 161  
TP ID #16110800410

8  
N/F  
TRACE A. RADLER  
DB. 13385 PG. 4842  
PB. 69 PG. 161  
TP ID #16110800420

9  
N/F  
JODI ALLIS &  
TODD D. PODHAISKY  
DB. 11750 PG. 79  
PB. 69 PG. 161  
TP ID #16110800430

10  
N/F  
ALOK R. &  
NALINI KATARIA  
DB. 14664 PG. 391  
PB. 69 PG. 161  
TP ID #16110800440

11  
N/F  
N.G. & ANITA  
JOHANSSON  
DB. 7087 PG. 356  
PB. 69 PG. 161  
TP ID #16110800450

WIRE FENCE

L.L.

WIRE FENCE

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 7

N00°58'58"E  
11.71'

S88°00'49"E

104.82'

S01°01'59"W  
9.78'

4' CLF

4' CLF

1" OTP  
0.1' NE

GATE

(TIE)

S89°07'13"E

105.01'

1" OTP

1" OTP BENT

N89°03'09"W

79.91'

N89°07'13"W  
24.88'

N89°03'09"W  
20.09' (TIE)

1/2" RB  
0.24' NE

N: 1441805.41  
E: 2207814.40

GRAVEL  
PATH

N: 1441803.80  
E: 2207919.39

CENTERLINE OF  
30" WATER MAIN

24

30'

60'

23

INDIAN HILLS COUNTRY CLUB  
UNIT 13, BLOCK C  
PB. 69 PG. 161

22

19

INDIAN HILLS COUNTRY CLUB  
UNIT 14, BLOCK C  
PB. 69 PG. 161

18

1,127 SQ. FT./ 0.0259 AC. EASEMENT

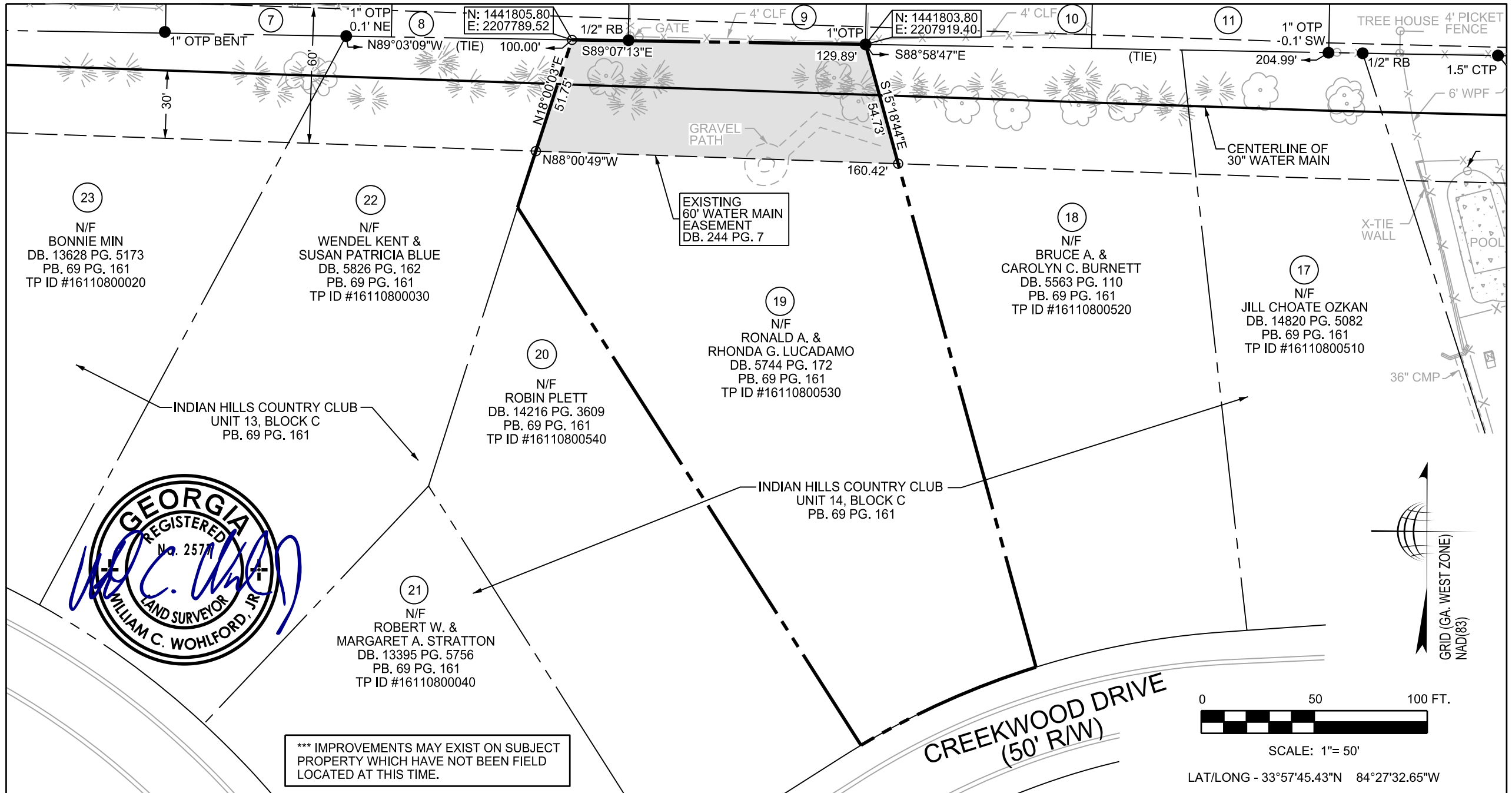
105 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN INDIAN HILLS COUNTRY CLUB  
UNIT 14, BLOCK "C" PB. 69 PG. 161  
LAND LOT 1108  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 104

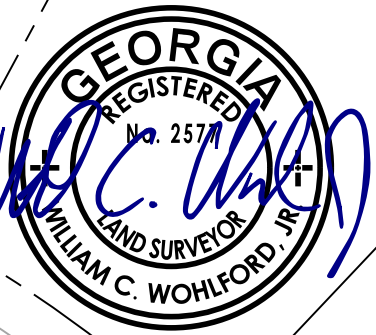
THROUGH THE PROPERTY OF:  
**TRACE A. RADLER**  
COBB COUNTY


TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 7

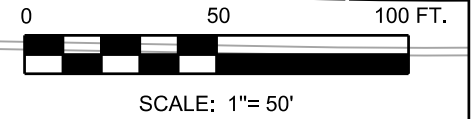
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.



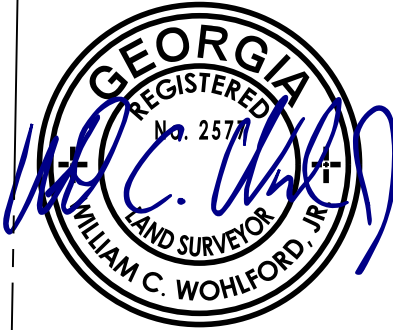
7,403 SQ. FT./ 0.1700 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
144 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 105	RONALD A. & RHONDA G. LUCADAMO COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

# GREENFIELD DRIVE (50' R/W)



LAT/LONG - 33°57'48.83"N 84°27'33.23"W



6

7

N/F  
ANNA M. GILL  
DB. 14117 PG. 4901  
PB. 69 PG. 161  
TP ID #16110800410

8

N/F  
TRACE A. RADLER  
DB. 13385 PG. 4842  
PB. 69 PG. 161  
TP ID #16110800420

9

N/F  
JODI ALLIS &  
TODD D. PODHAISKY  
DB. 11750 PG. 79  
PB. 69 PG. 161  
TP ID #16110800430

10

N/F  
ALOK R. &  
NALINI KATARIA  
DB. 14664 PG. 391  
PB. 69 PG. 161  
TP ID #16110800440

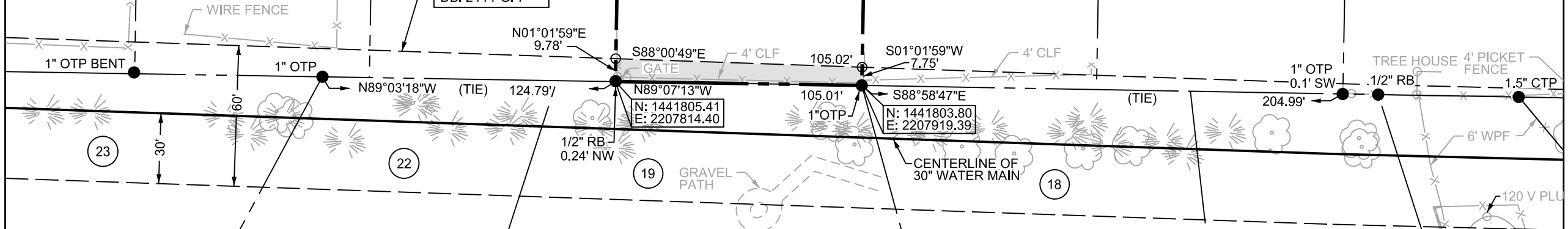
11

N/F  
N.G. & ANITA JOHANSSON  
DB. 7087 PG. 356  
PB. 69 PG. 161  
TP ID #16110800450

12

N/F  
RICHARD E. GRUBB  
DB. 14297 PG. 4628  
PB. 69 PG. 161  
TP ID #16110800460

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 7



920 SQ. FT./ 0.0211 AC. EASEMENT  
105 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN INDIAN HILLS COUNTRY CLUB  
UNIT 14, BLOCK "C" PB. 69 PG. 161  
LAND LOT 1108  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 106

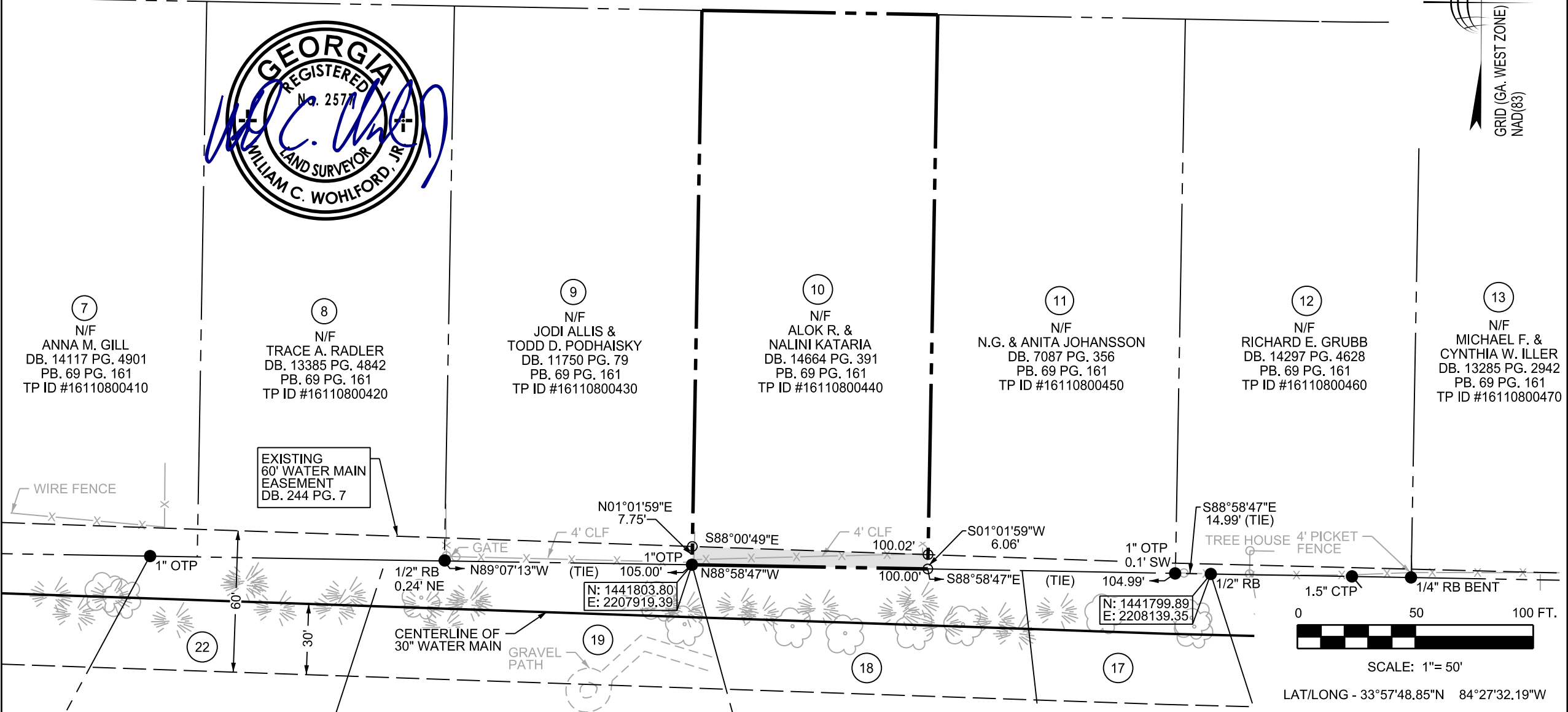
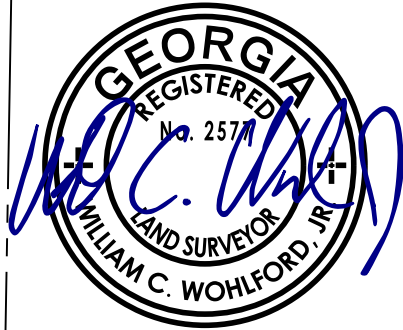
THROUGH THE PROPERTY OF:  
JODI ALLIS &  
TODD D. PODHAISKY  
COBB COUNTY


TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927

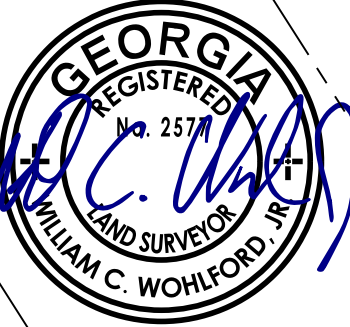
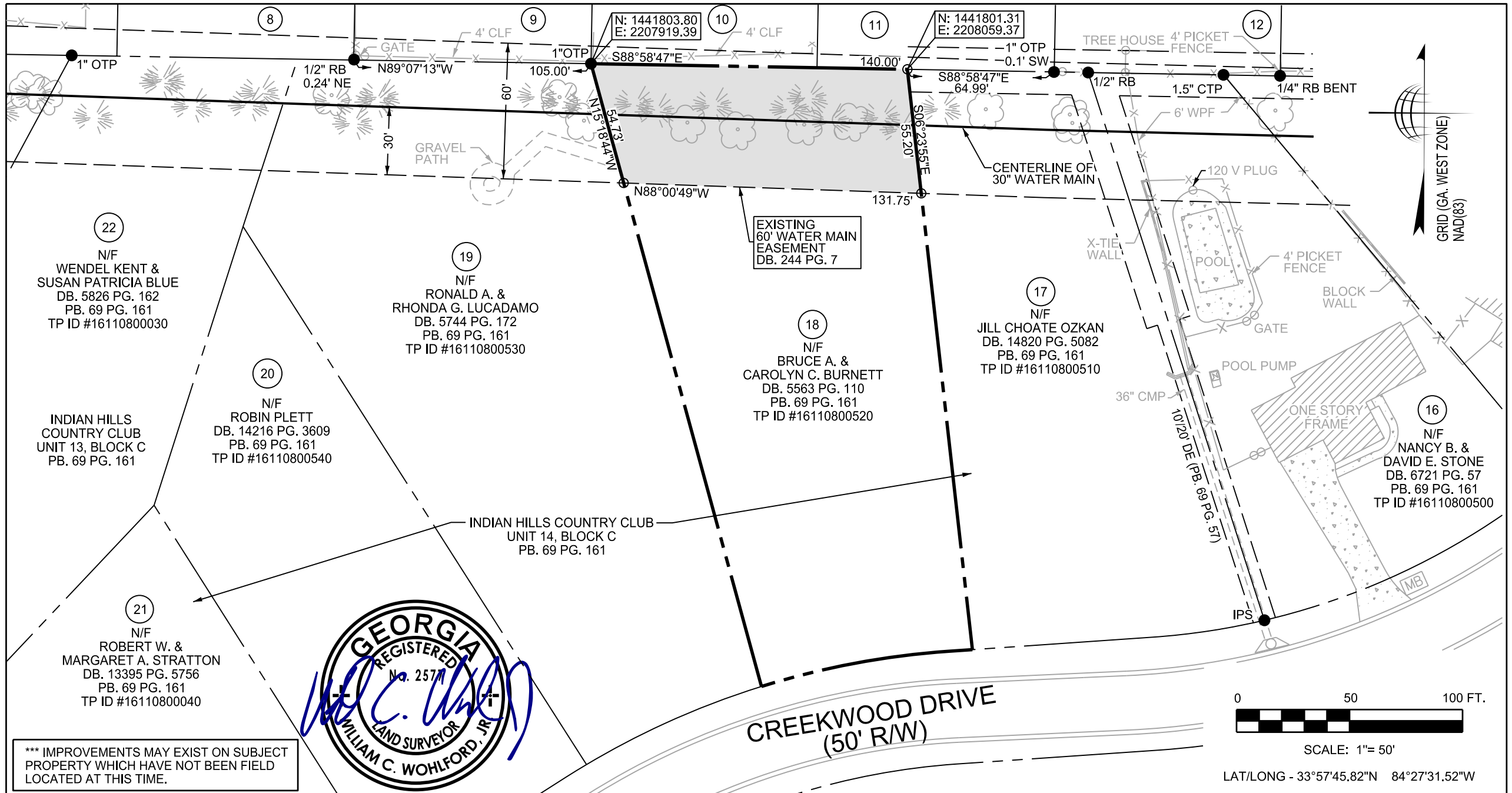


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

# GREENFIELD DRIVE (50' R/W)



690 SQ. FT./ 0.0158 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
100 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 107	ALOK R. & NALINI KATARIA COBB COUNTY	



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



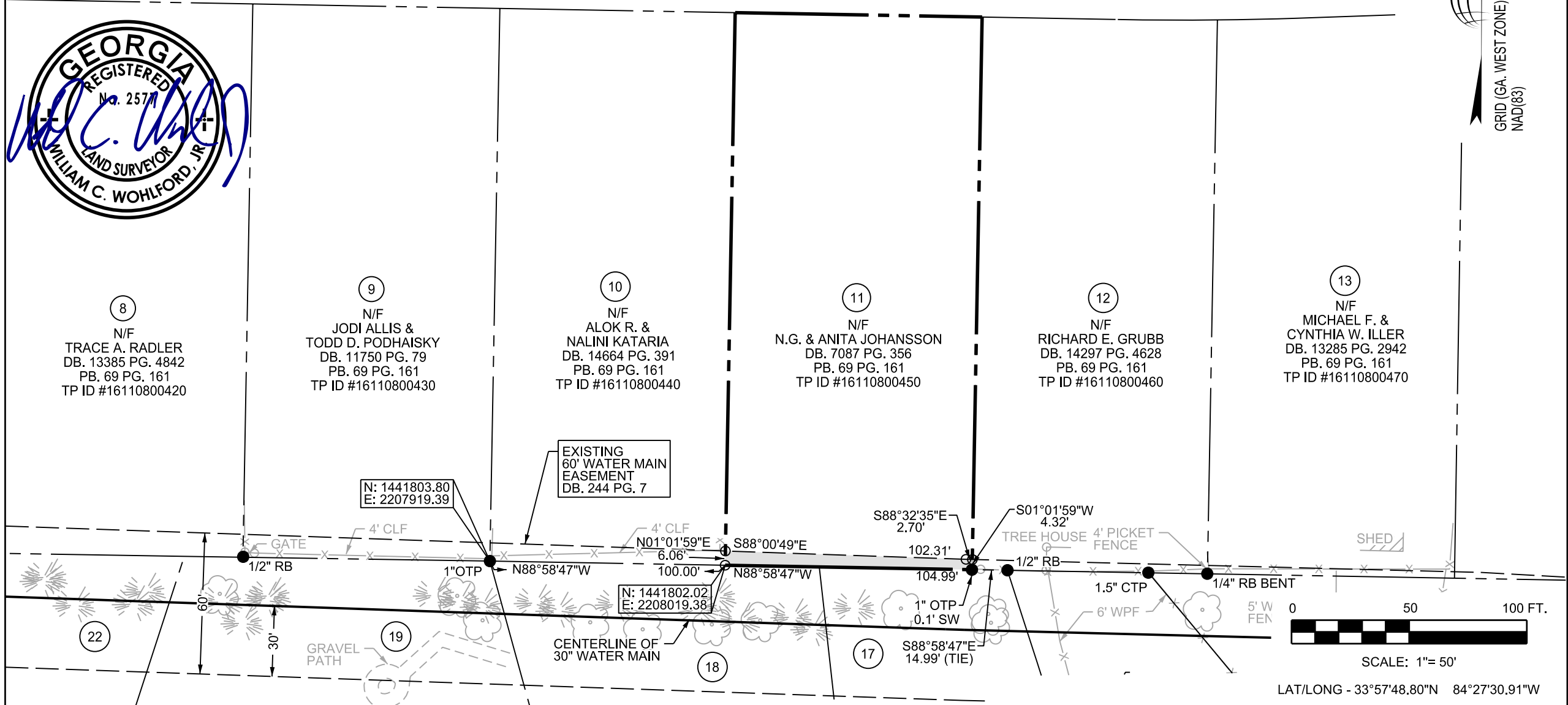
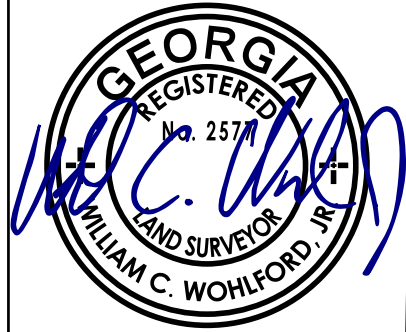
SCALE: 1"= 50'

LAT/LONG - 33°57'45.82"N 84°27'31.52"W

7,274 SQ. FT./ 0.1670 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
136 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 108	BRUCE A. & CAROLYN C. BURNETT COBB COUNTY	TerraMark Professional Land Surveying

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

# GREENFIELD DRIVE (50' R/W)



8  
N/F  
TRACE A. RADLER  
DB. 13385 PG. 4842  
PB. 69 PG. 161  
TP ID #16110800420

9  
N/F  
JODI ALLIS &  
TODD D. PODHAISKY  
DB. 11750 PG. 79  
PB. 69 PG. 161  
TP ID #16110800430

10  
N/F  
ALOK R. &  
NALINI KATARIA  
DB. 14664 PG. 391  
PB. 69 PG. 161  
TP ID #16110800440

11  
N/F  
N.G. & ANITA JOHANSSON  
DB. 7087 PG. 356  
PB. 69 PG. 161  
TP ID #16110800450


12  
N/F  
RICHARD E. GRUBB  
DB. 14297 PG. 4628  
PB. 69 PG. 161  
TP ID #16110800460

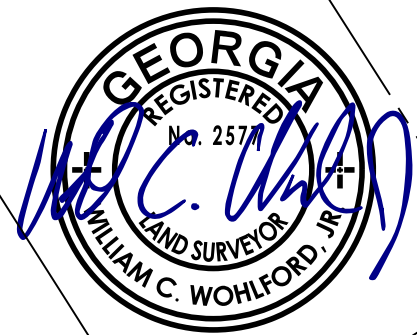
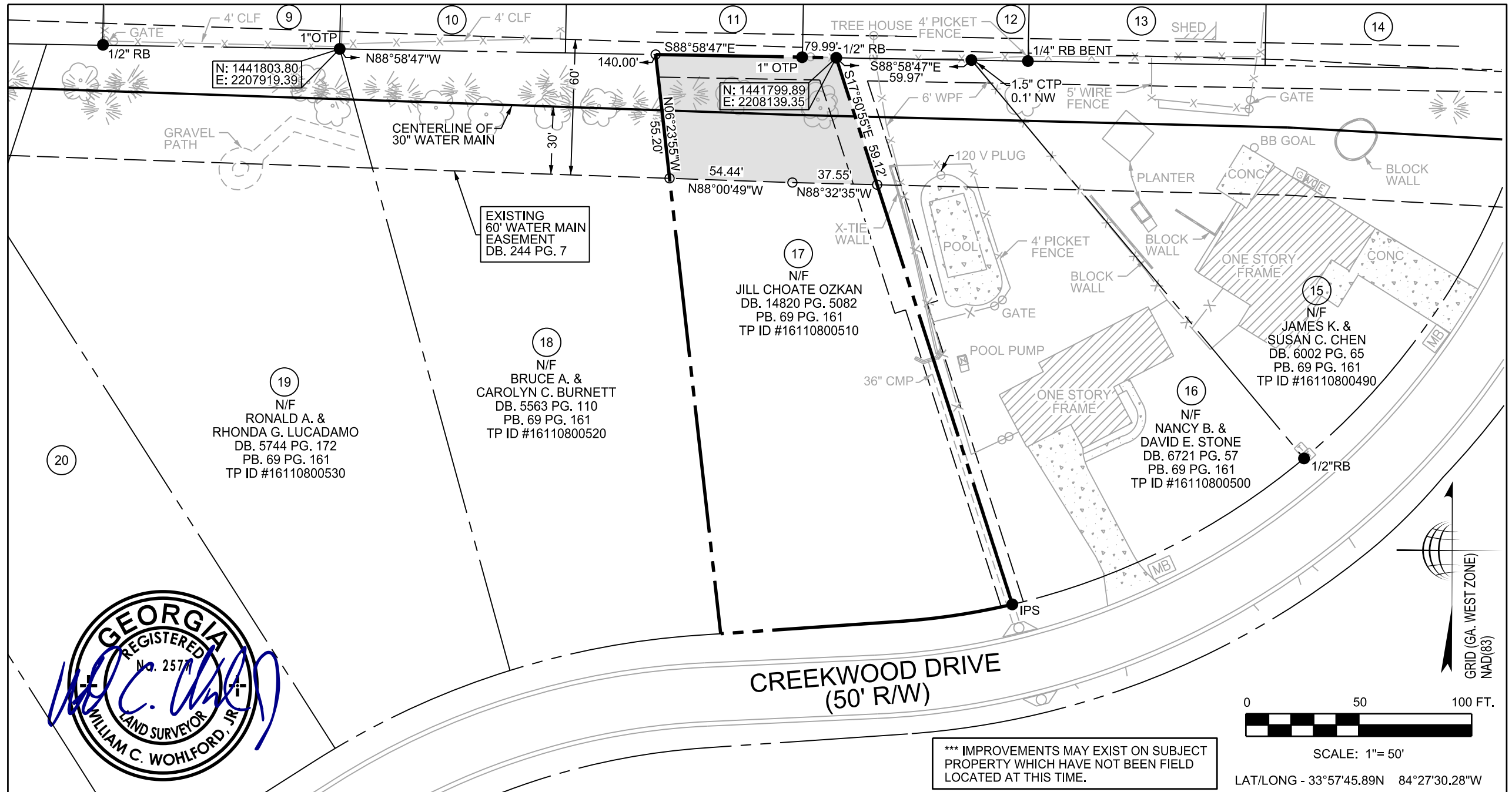
13  
N/F  
MICHAEL F. &  
CYNTHIA W. ILLER  
DB. 13285 PG. 2942  
PB. 69 PG. 161  
TP ID #16110800470

N: 1441803.80  
E: 2207919.39

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 7


N: 1441802.02  
E: 2208019.38

544 SQ. FT./ 0.0125 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
105 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 109	N.G. & ANITA JOHANSSON  COBB COUNTY	



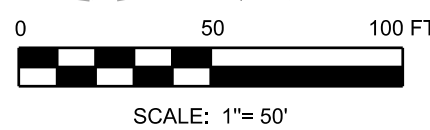
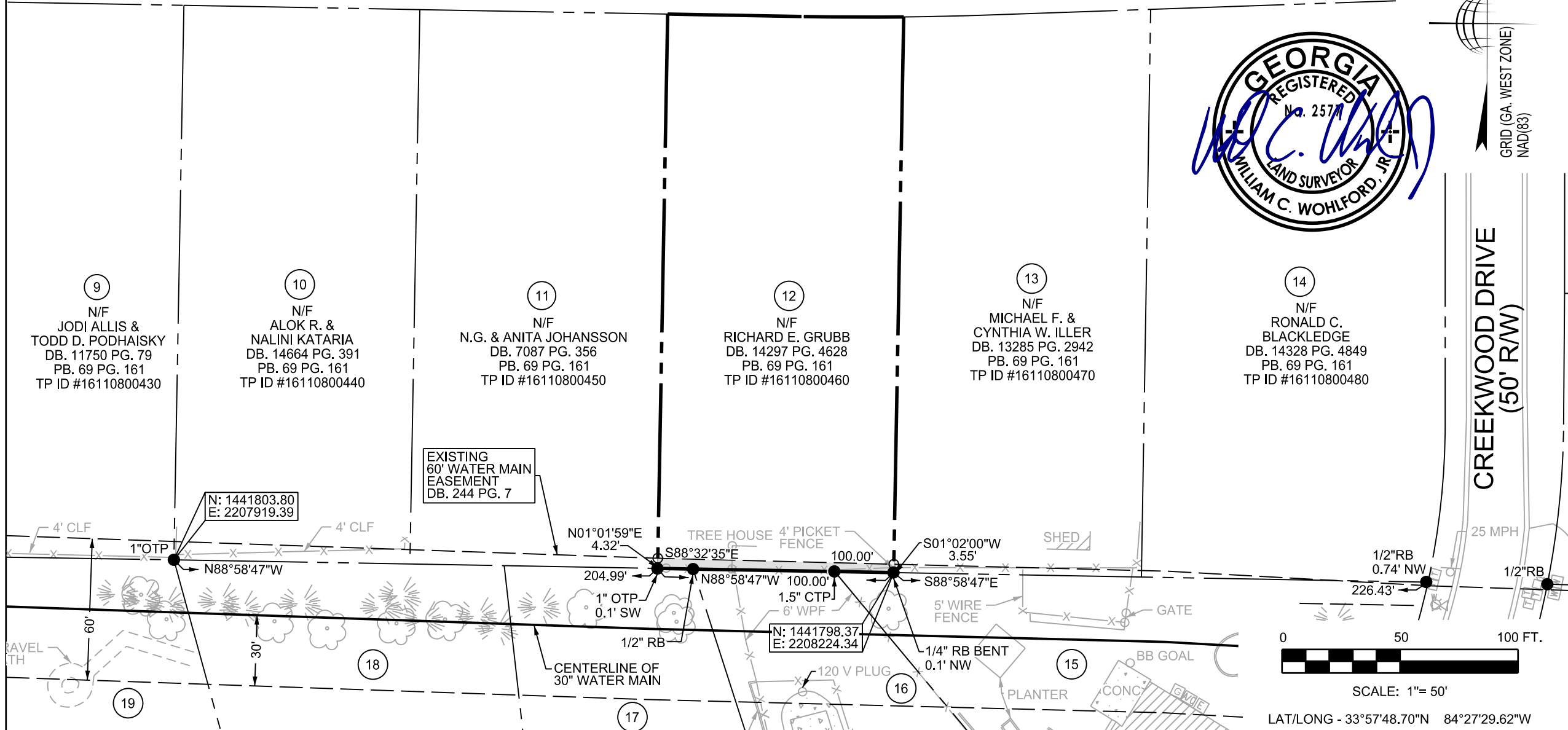
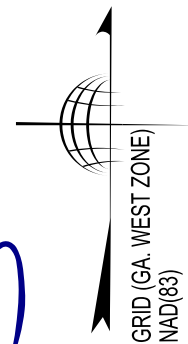
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

SCALE: 1" = 50'  
 LAT/LONG - 33°57'45.89N 84°27'30.28"W

4,760 SQ. FT./ 0.1093 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc.          1396 Bells Ferry Road          Marietta, Georgia 30066          www.TerraMark.com          (P) (770) 421-1927</p>
86 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 110	JILL CHOATE OZKAN COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

# GREENFIELD DRIVE (50' R/W)



LAT/LONG - 33°57'48.70"N 84°27'29.62"W

394 SQ. FT./ 0.0090 AC. EASEMENT  
100 L.F. VARIABLE WIDTH EASEMENT

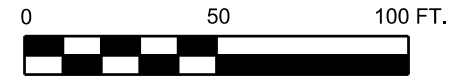
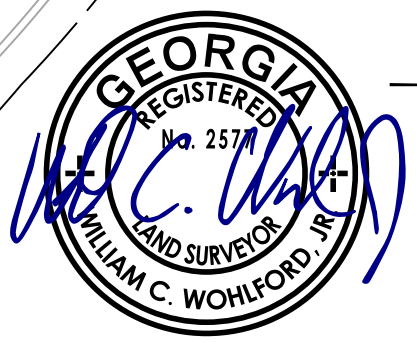
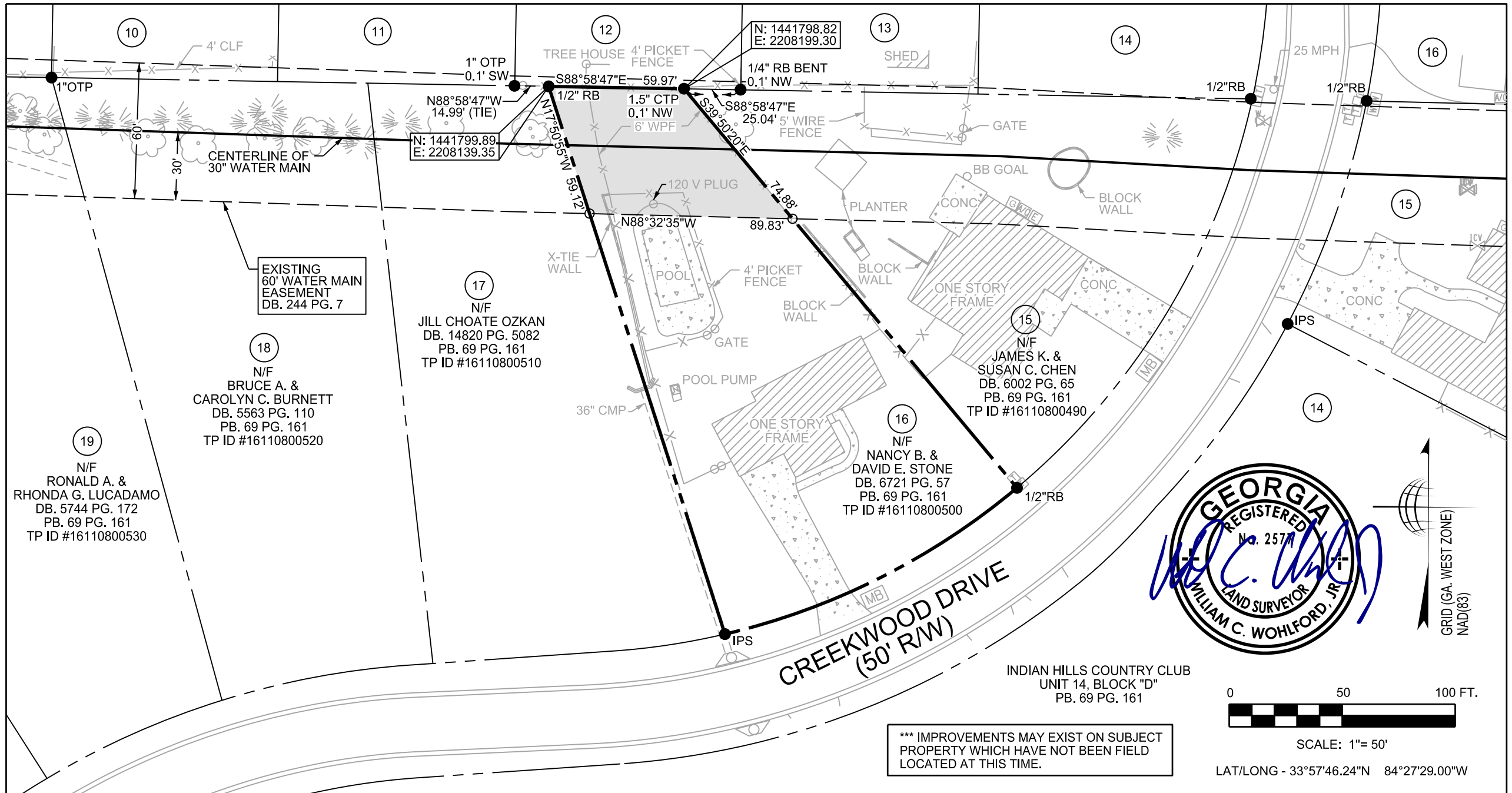
LOCATED IN INDIAN HILLS COUNTRY CLUB  
UNIT 14, BLOCK "C" PB. 69 PG. 161  
LAND LOT 1108  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 111

THROUGH THE PROPERTY OF:  
RICHARD E. GRUBB  
COBB COUNTY


TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927





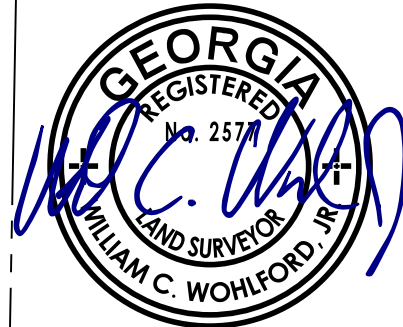
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

LAT/LONG - 33°57'46.24"N 84°27'29.00"W

4,204 SQ. FT./ 0.0965 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
74 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 112	NANCY B. & DAVID E. STONE COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

# GREENFIELD DRIVE (50' R/W)



10  
N/F  
ALOK R. &  
NALINI KATARIA  
DB. 14664 PG. 391  
PB. 69 PG. 161  
TP ID #16110800440

11  
N/F  
N.G. & ANITA JOHANSSON  
DB. 7087 PG. 356  
PB. 69 PG. 161  
TP ID #16110800450

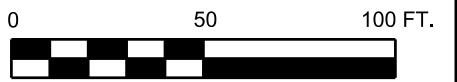
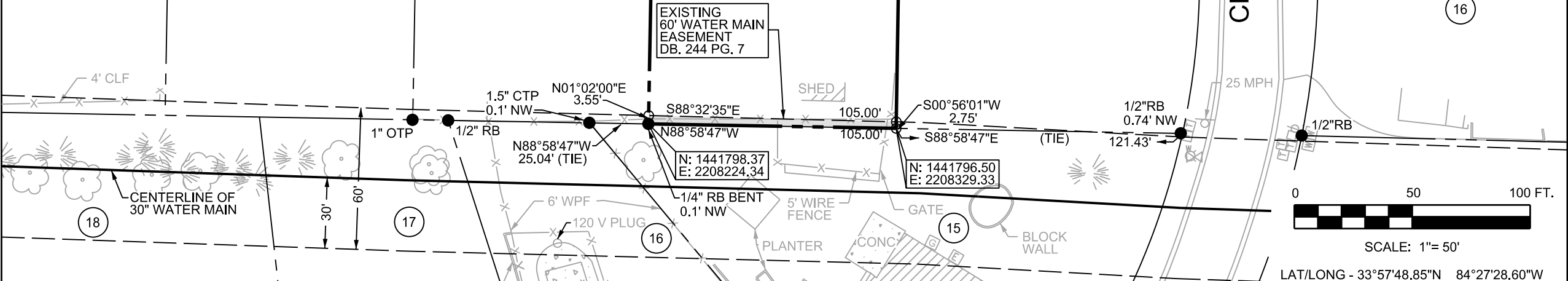
12  
N/F  
RICHARD E. GRUBB  
DB. 14297 PG. 4628  
PB. 69 PG. 161  
TP ID #16110800460

13  
N/F  
MICHAEL F. &  
CYNTHIA W. ILLER  
DB. 13285 PG. 2942  
PB. 69 PG. 161  
TP ID #16110800470

14  
N/F  
RONALD C.  
BLACKLEDGE  
DB. 14328 PG. 4849  
PB. 69 PG. 161  
TP ID #16110800480

INDIAN HILLS COUNTRY CLUB  
UNIT 14, BLOCK "D"  
PB. 69 PG. 161


16

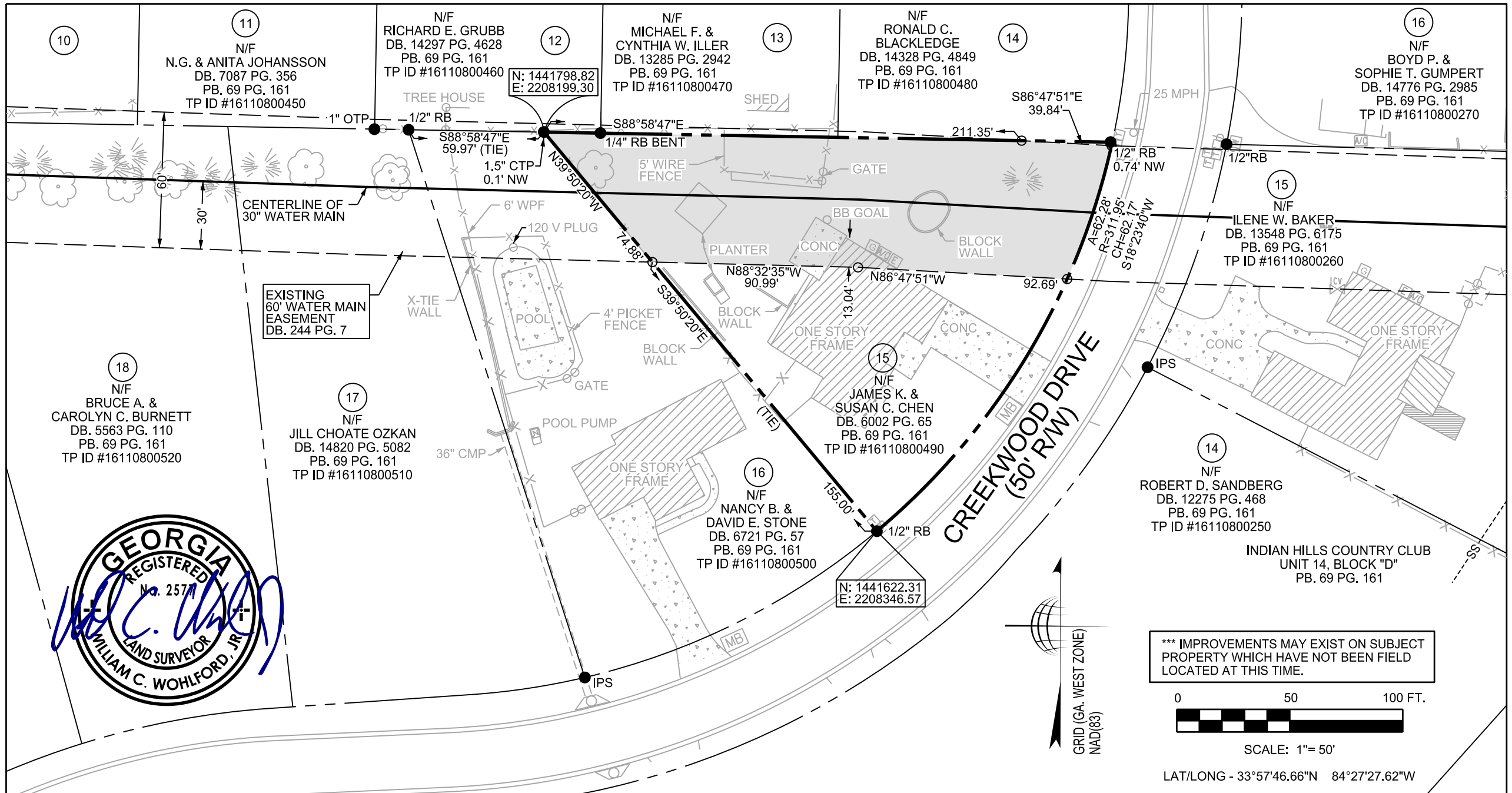


SCALE: 1" = 50'

LAT/LONG - 33°57'48.85"N 84°27'28.60"W



331 SQ. FT./ 0.0076 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
105 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 113	MICHAEL F. & CYNTHIA W. ILLER COBB COUNTY	



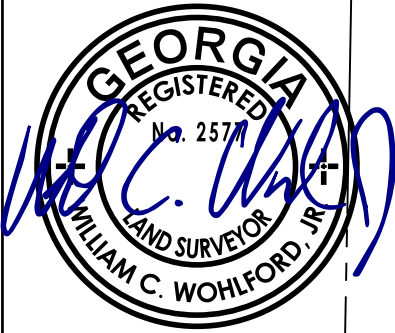
12,657 SQ. FT./ 0.2906 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
222 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 114	JAMES K. & SUSAN C. CHEN COBB COUNTY	TerraMark Professional Land Surveying



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

# GREENFIELD DRIVE (50' R/W)

N: 1442041.30  
E: 2208458.07



11  
N/F  
N.G. & ANITA JOHANSSON  
DB. 7087 PG. 356  
PB. 69 PG. 161  
TP ID #16110800450

12  
N/F  
RICHARD E. GRUBB  
DB. 14297 PG. 4628  
PB. 69 PG. 161  
TP ID #16110800460

13  
N/F  
MICHAEL F. &  
CYNTHIA W. ILLER  
DB. 13285 PG. 2942  
PB. 69 PG. 161  
TP ID #16110800470

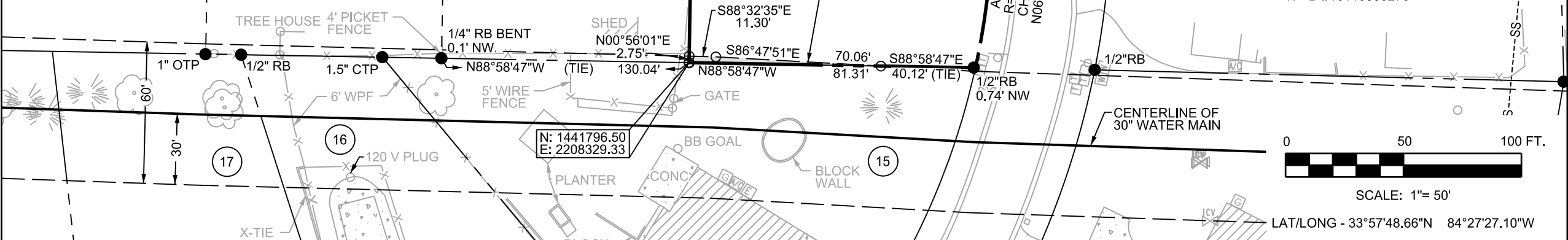
14  
N/F  
RONALD C.  
BLACKLEDGE  
DB. 14328 PG. 4849  
PB. 69 PG. 161  
TP ID #16110800480

17  
N/F  
BRUCE D. &  
JEANNE ANN ABBOTT  
DB. 13693 PG. 1869  
PB. 69 PG. 161  
TP ID #16110800280

INDIAN HILLS COUNTRY CLUB  
UNIT 14, BLOCK "D"  
PB. 69 PG. 161


16  
N/F  
BOYD P. &  
SOPHIE T. GUMPERT  
DB. 14776 PG. 2985  
PB. 69 PG. 161  
TP ID #16110800270

EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 7

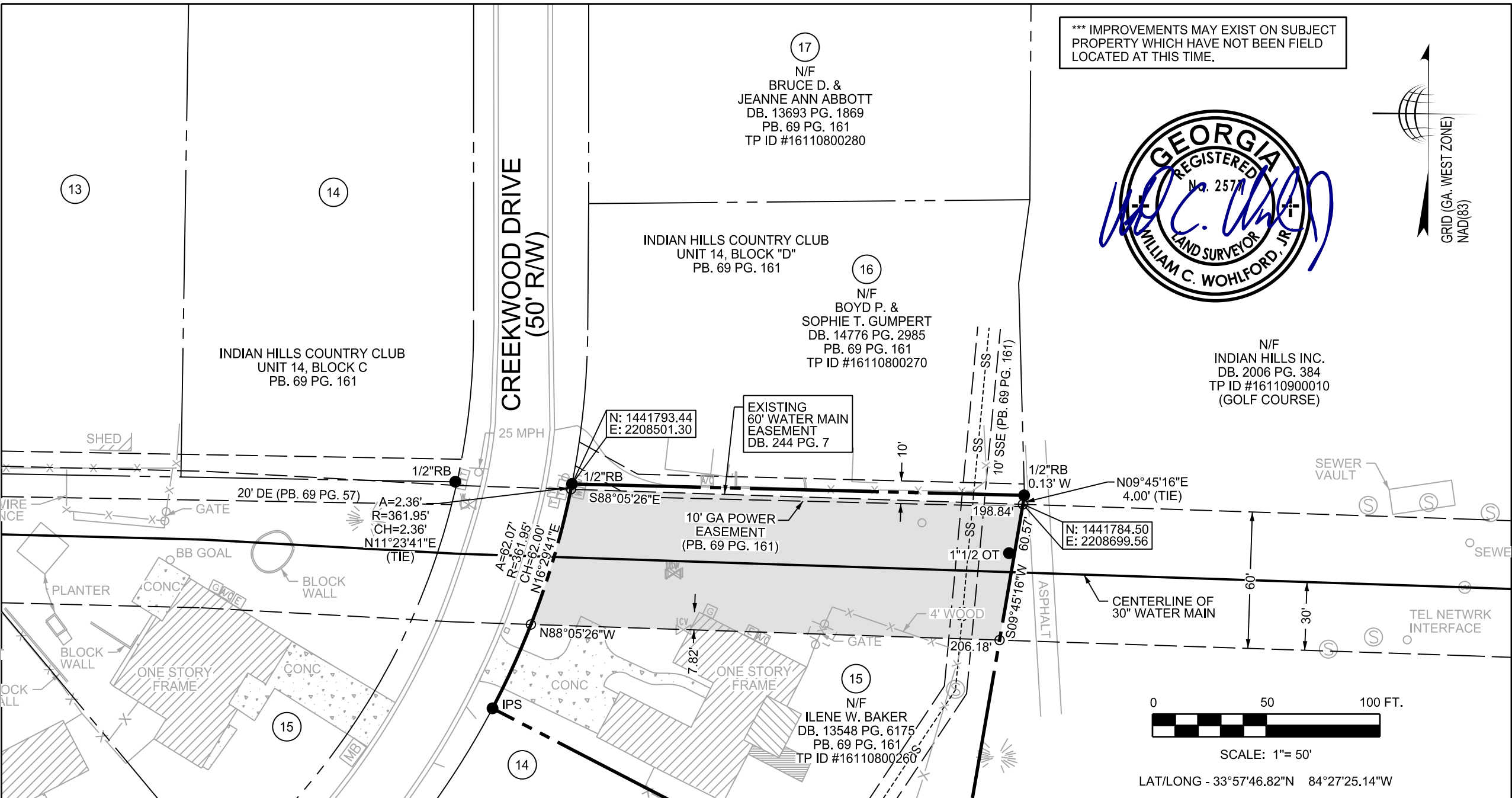
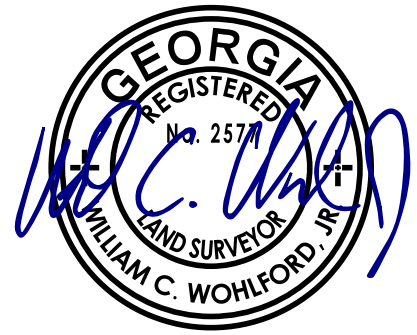


SCALE: 1"= 50'

LAT/LONG - 33°57'48.66"N 84°27'27.10"W


124 SQ. FT./ 0.0028 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "C" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
81 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 115	RONALD C. BLACKLEDGE COBB COUNTY	 TerraMark Professional Land Surveying

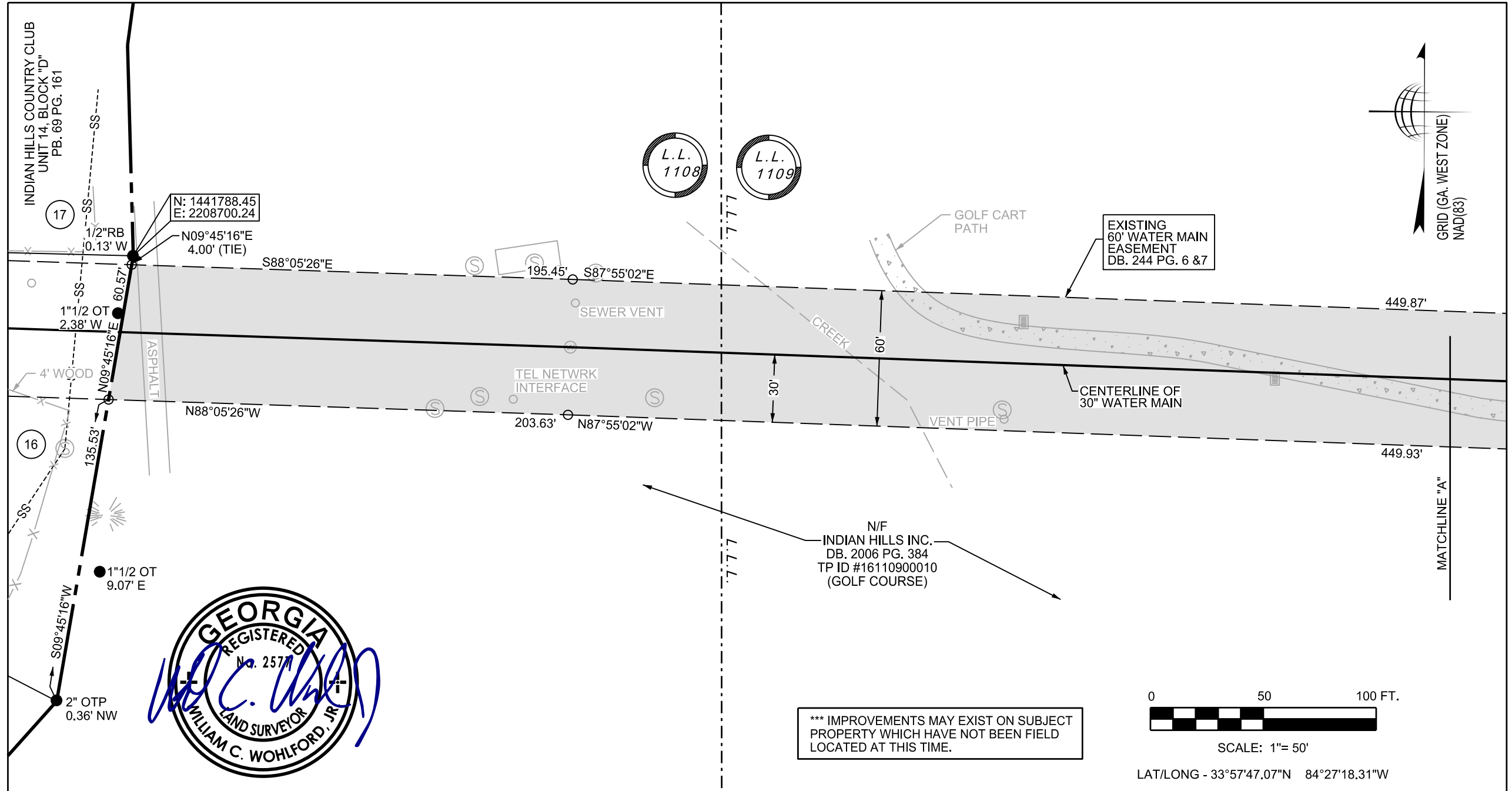
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1"= 50'

LAT/LONG - 33°57'46.82"N 84°27'25.14"W

12,206 SQ. FT./ 0.2802 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 14, BLOCK "D" PB. 69 PG. 161 LAND LOT 1108	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
201 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 117	ILENE W. BAKER  COBB COUNTY	 Professional Land Surveying



142,194 SQ. FT./ 3.2643 AC. EASEMENT
2,369 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN LAND LOTS 1108, 1109 & 1110  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA

DATE: 4/15/2013 SHEET NO. 1/4

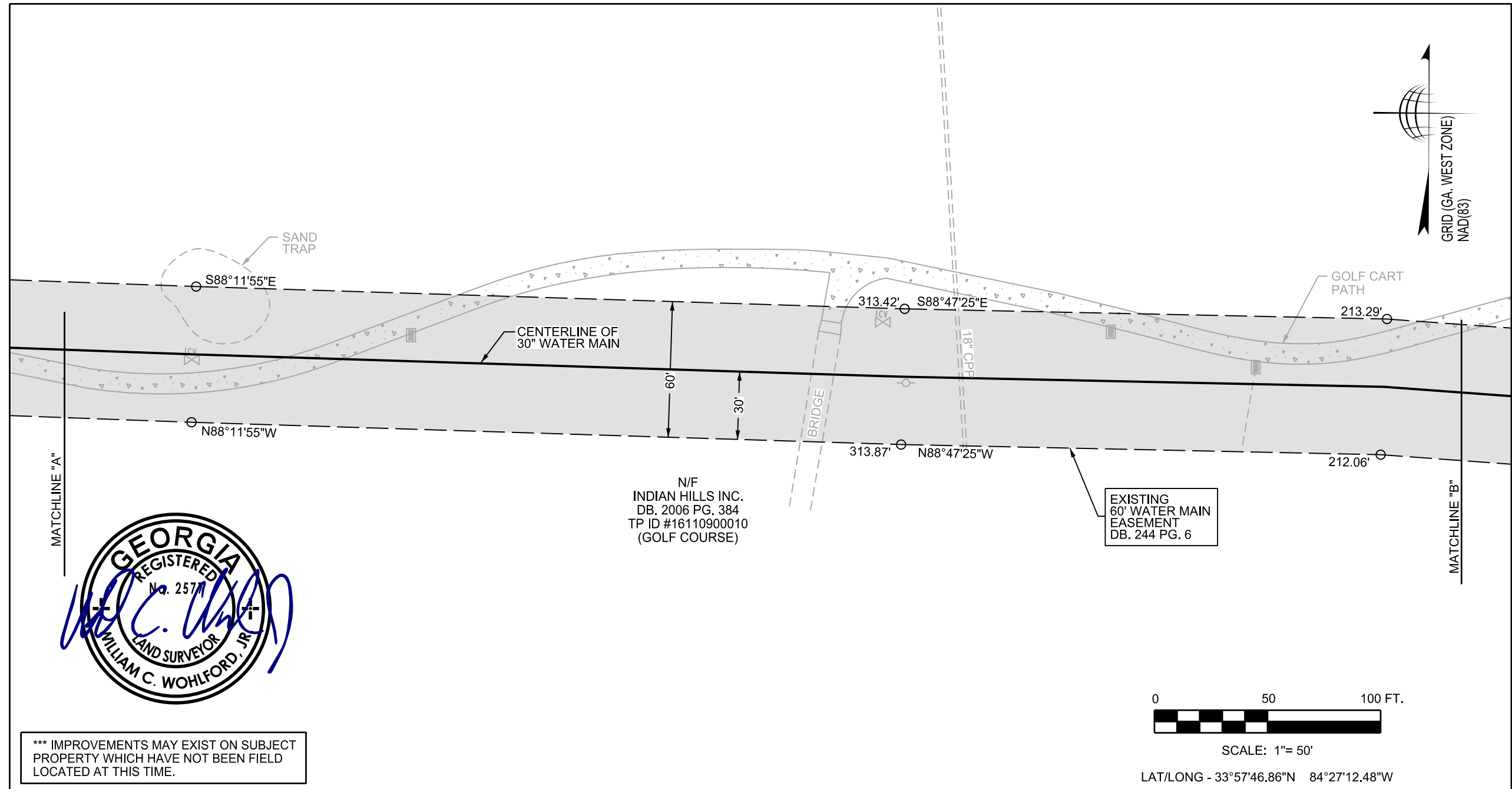
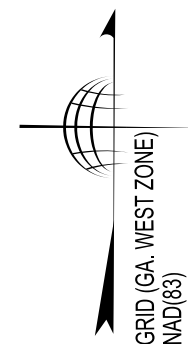
SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:

COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 118.1

THROUGH THE PROPERTY OF:

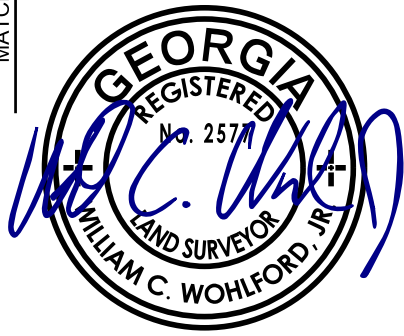
INDIAN HILLS INC.  
COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



MATCHLINE "A"

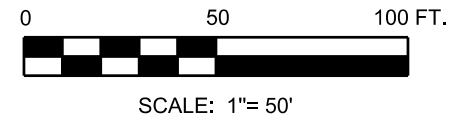
MATCHLINE "B"




N/F  
INDIAN HILLS INC.  
DB. 2006 PG. 384  
TP ID #16110900010  
(GOLF COURSE)

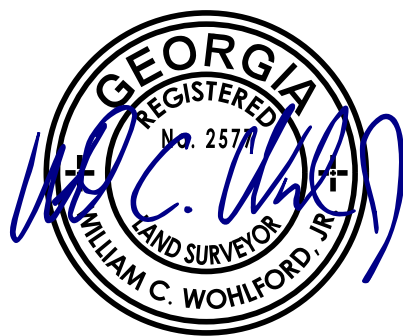
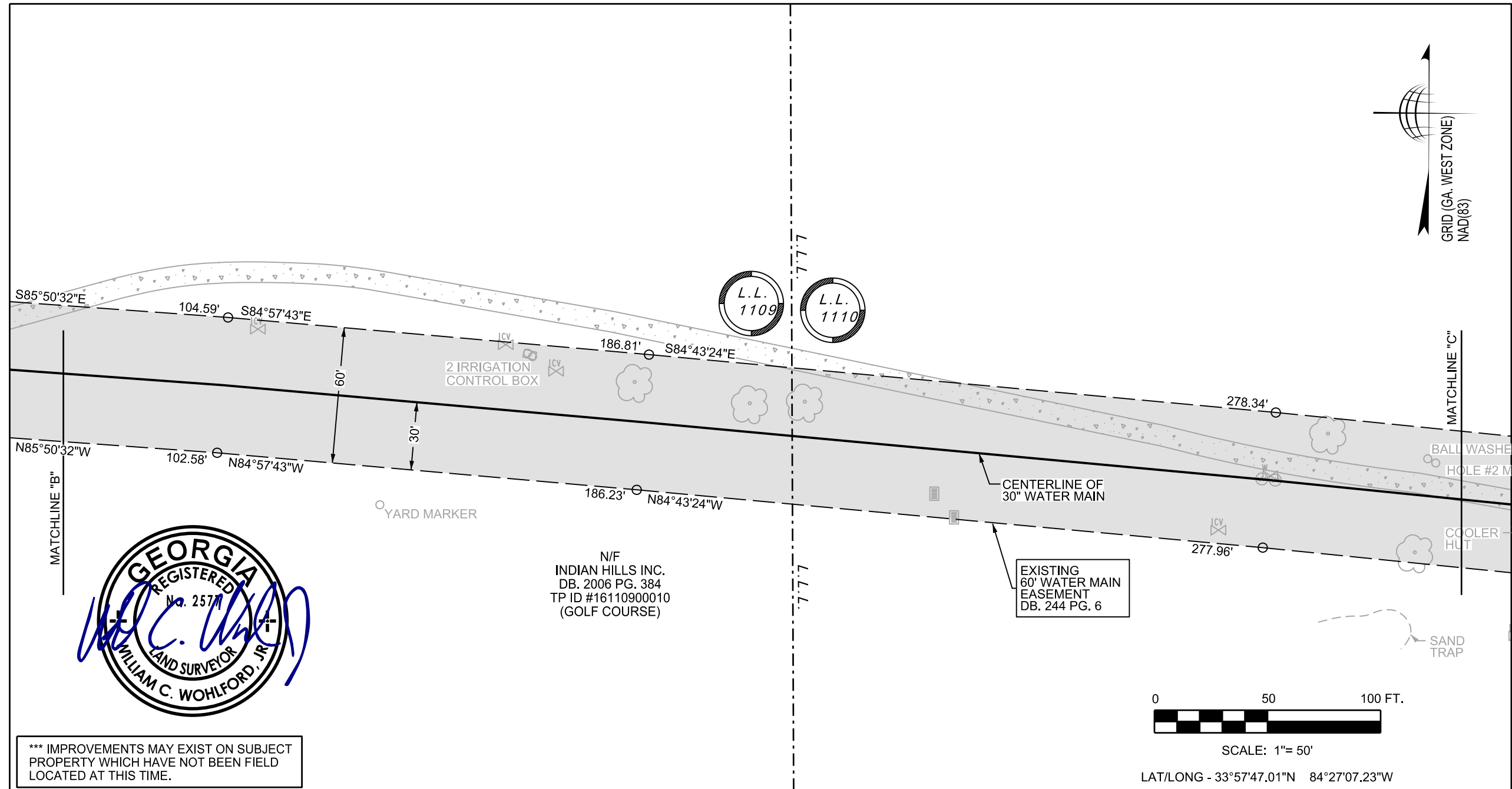
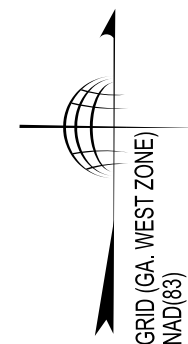
EXISTING  
60' WATER MAIN  
EASEMENT  
DB. 244 PG. 6

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



LAT/LONG - 33°57'46.86"N 84°27'12.48"W

142,194 SQ. FT./ 3.2643 AC. EASEMENT	LOCATED IN LAND LOTS 1108, 1109 & 1110 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p><i>TerraMark Land Surveying, Inc.</i> 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
2,369 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 2/4	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 118.2	INDIAN HILLS INC.  COBB COUNTY	



N/F  
 INDIAN HILLS INC.  
 DB. 2006 PG. 384  
 TP ID #16110900010  
 (GOLF COURSE)

EXISTING  
 60' WATER MAIN  
 EASEMENT  
 DB. 244 PG. 6

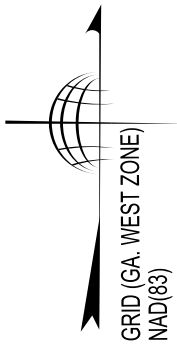


SCALE: 1"= 50'

LAT/LONG - 33°57'47.01"N 84°27'07.23"W

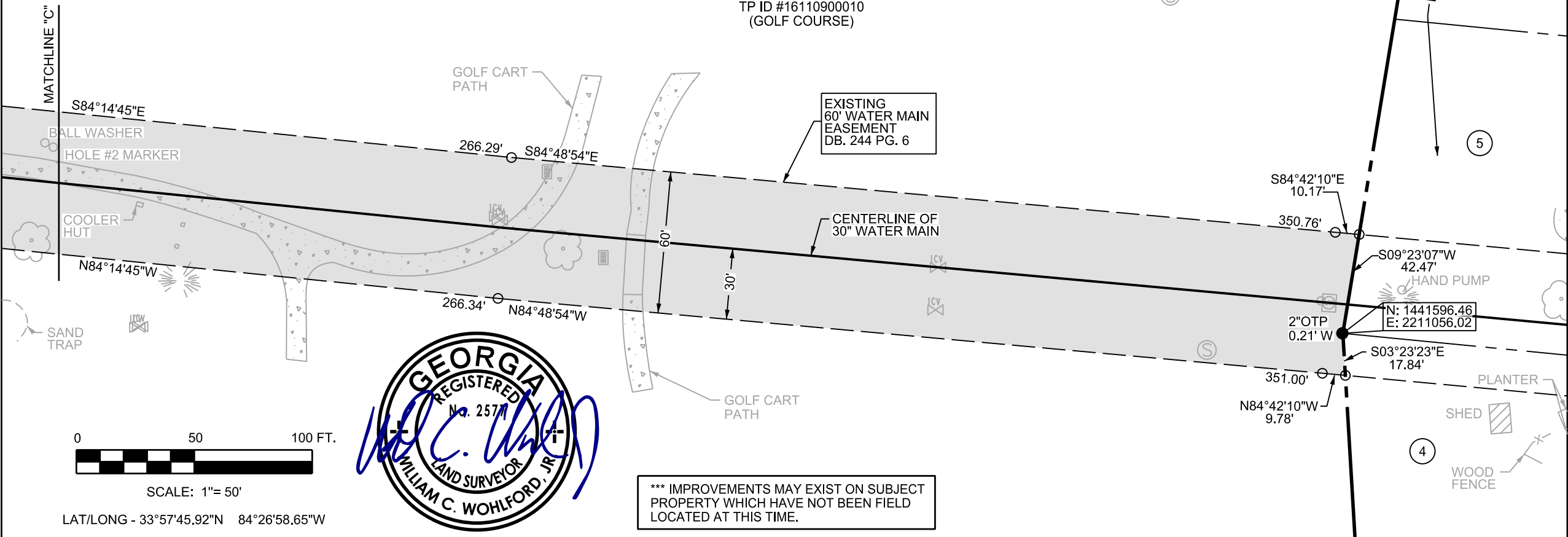
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

142,194 SQ. FT./ 3.2643 AC. EASEMENT	LOCATED IN LAND LOTS 1108,1109 & 1110 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  COBB COUNTY-MARIETTA WATER AUTHORITY	THROUGH THE PROPERTY OF:  INDIAN HILLS INC.	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com
2,369 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 3/4	C.C.M.W.A. NO. 118.3	COBB COUNTY	Professional Land Surveying (P) (770) 421-1927



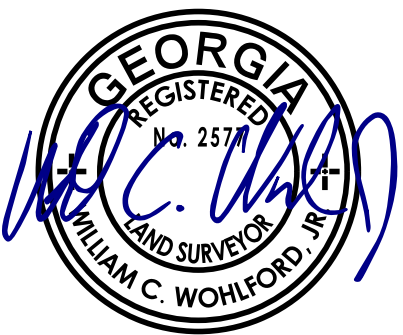
N/F  
 INDIAN HILLS INC.  
 DB. 2006 PG. 384  
 TP ID #16110900010  
 (GOLF COURSE)

INDIAN HILLS COUNTRY CLUB  
 UNIT 12, BLOCK "F",  
 PB. 63 PG. 195




SCALE: 1" = 50'

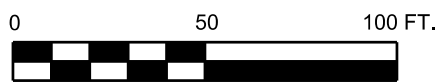
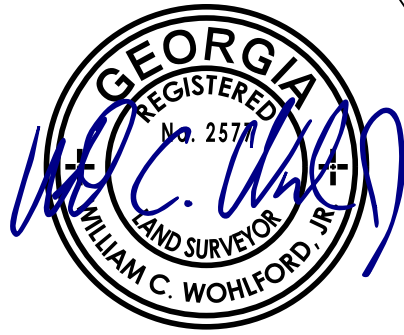
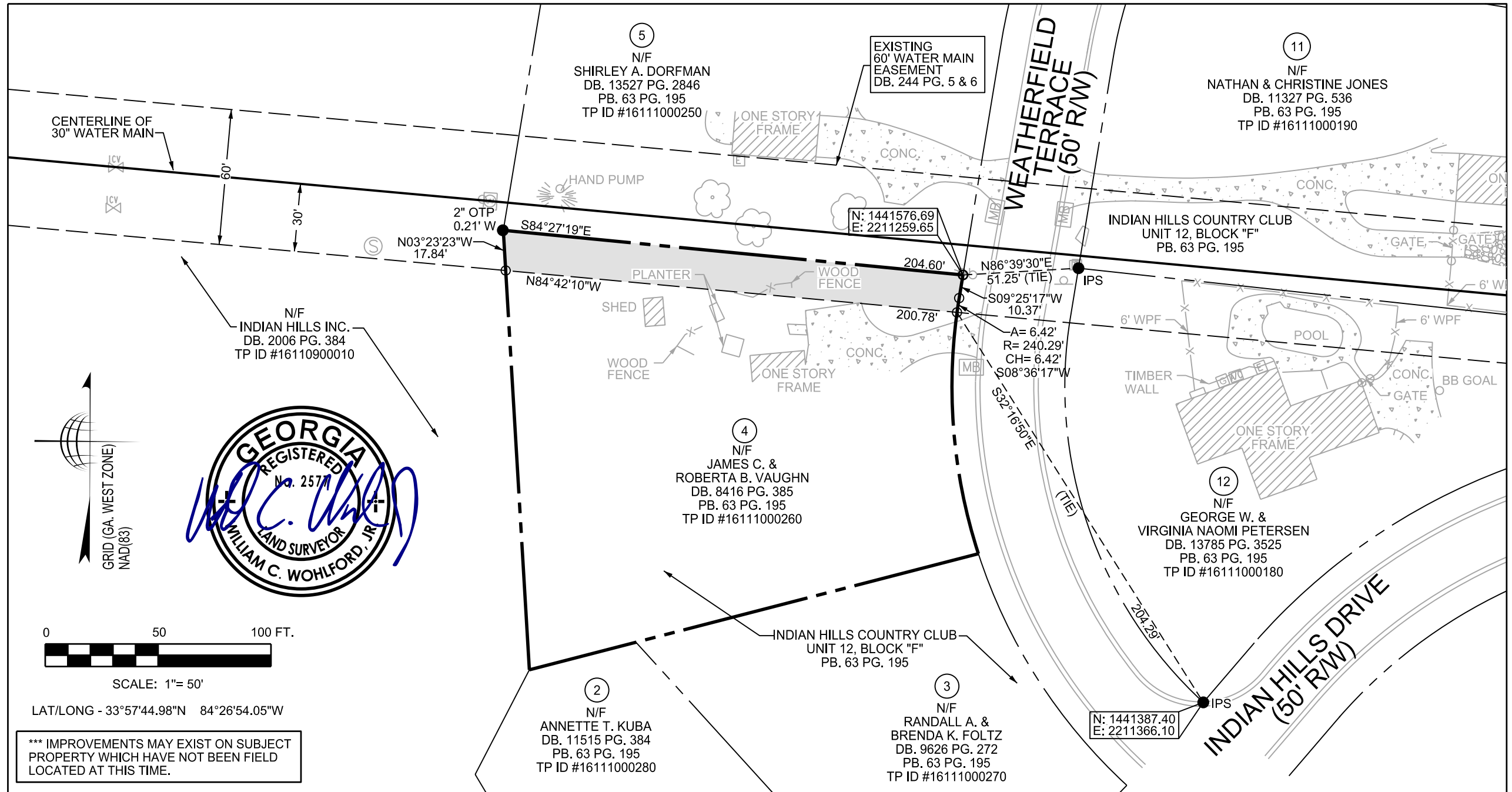
LAT/LONG - 33°57'45.92"N 84°26'58.65"W



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

142,194 SQ. FT./ 3.2643 AC. EASEMENT	LOCATED IN LAND LOTS 1108, 1109 & 1110 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  COBB COUNTY-MARIETTA WATER AUTHORITY	THROUGH THE PROPERTY OF:  INDIAN HILLS INC.	 <p>TerraMark Land Surveying, Inc.        1396 Bells Ferry Road        Marietta, Georgia 30066        www.TerraMark.com        (P) (770) 421-1927</p>
2,369 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 4/4	C.C.M.W.A. NO. 118.4	COBB COUNTY	




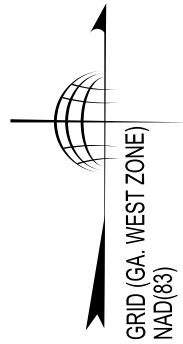


SCALE: 1"= 50'

LAT/LONG - 33°57'44.98"N 84°26'54.05"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

3,484 SQ. FT./ 0.0800 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 12, BLOCK "F" PB. 63 PG. 195 LAND LOT 1110	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
203 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 119	JAMES C. & ROBERTA B. VAUGHN COBB COUNTY	



N/F  
INDIAN HILLS INC.  
DB. 2006 PG. 384  
TP ID #16110900010

INDIAN HILLS  
COUNTRY CLUB  
UNIT 12, BLOCK "F"  
PB. 63 PG. 195

⑥  
N/F  
JAMES L. VENABLE  
DB. 10890 PG. 247  
PB. 63 PG. 195  
TP ID #16111000240

⑩  
N/F  
CHARLES C. &  
TERRY S. MIZELL  
DB. 14575 PG. 607  
PB. 63 PG. 195  
TP ID #16111000200

EXISTING  
60" WATER MAIN  
EASEMENT  
DB. 244 PG. 5 & 6

⑤  
N/F  
SHIRLEY A. DORFMAN  
DB. 13527 PG. 2846  
PB. 63 PG. 195  
TP ID #16111000250

⑪  
N/F  
NATHAN & CHRISTINE JONES  
DB. 11327 PG. 536  
PB. 63 PG. 195  
TP ID #16111000190

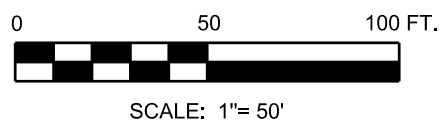
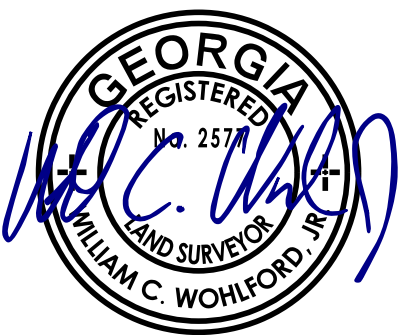
INDIAN HILLS COUNTRY CLUB  
UNIT 12, BLOCK "F"  
PB. 63 PG. 195

N: 1441596.46  
E: 2211056.02

N: 1441579.68  
E: 2211310.82


④  
N/F  
JAMES C. &  
ROBERTA B. VAUGHN  
DB. 8416 PG. 385  
PB. 63 PG. 195  
TP ID #16111000260

⑫  
N/F  
GEORGE W. &  
VIRGINIA NAOMI PETERSEN  
DB. 13785 PG. 3525  
PB. 63 PG. 195  
TP ID #16111000180

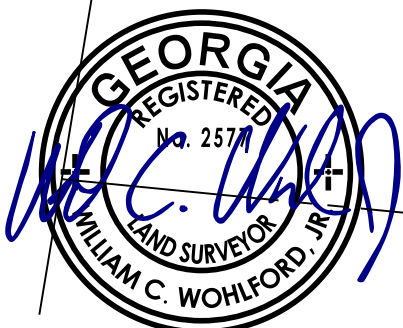


LAT/LONG - 33°57'46.32"N 84°26'54.10"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.

8,762 SQ. FT./ 0.2011 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 12, BLOCK "F" PB. 63 PG. 195 LAND LOT 1110	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
205 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 120	SHIRLEY A. DORFMAN  COBB COUNTY	





6  
N/F  
JAMES L. VENABLE  
DB. 10890 PG. 247  
PB. 63 PG. 195  
TP ID #16111000240

5  
N/F  
SHIRLEY A. DORFMAN  
DB. 13527 PG. 2846  
PB. 63 PG. 195  
TP ID #16111000250

10  
N/F  
CHARLES C. &  
TERRY S. MIZELL  
DB. 14575 PG. 607  
PB. 63 PG. 195  
TP ID #16111000200

11  
N/F  
NATHAN & CHRISTINE JONES  
DB. 11327 PG. 536  
PB. 63 PG. 195  
TP ID #16111000190

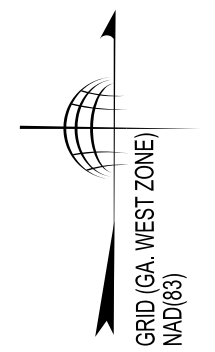
89  
N/F  
HENRY M. &  
BETTIE L. HOLLEY  
DB. 2391 PG. 15  
PB. 50 PG. 75  
TP ID #16111000200

4  
N/F  
JAMES C. &  
ROBERTA B. VAUGHN  
DB. 8416 PG. 385  
PB. 63 PG. 195  
TP ID #16111000260

12  
N/F  
GEORGE W. &  
VIRGINIA NAOMI PETERSEN  
DB. 13785 PG. 3525  
PB. 63 PG. 195  
TP ID #16111000180

WEATHERFIELD TERRACE  
(50' R/W)

INDIAN HILLS DRIVE  
(50' R/W)



CENTERLINE OF  
30" WATER MAIN

HAND PUMP

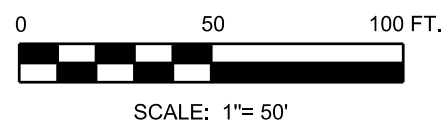
PLANTER

SHED

WOOD FENCE


WOOD FENCE

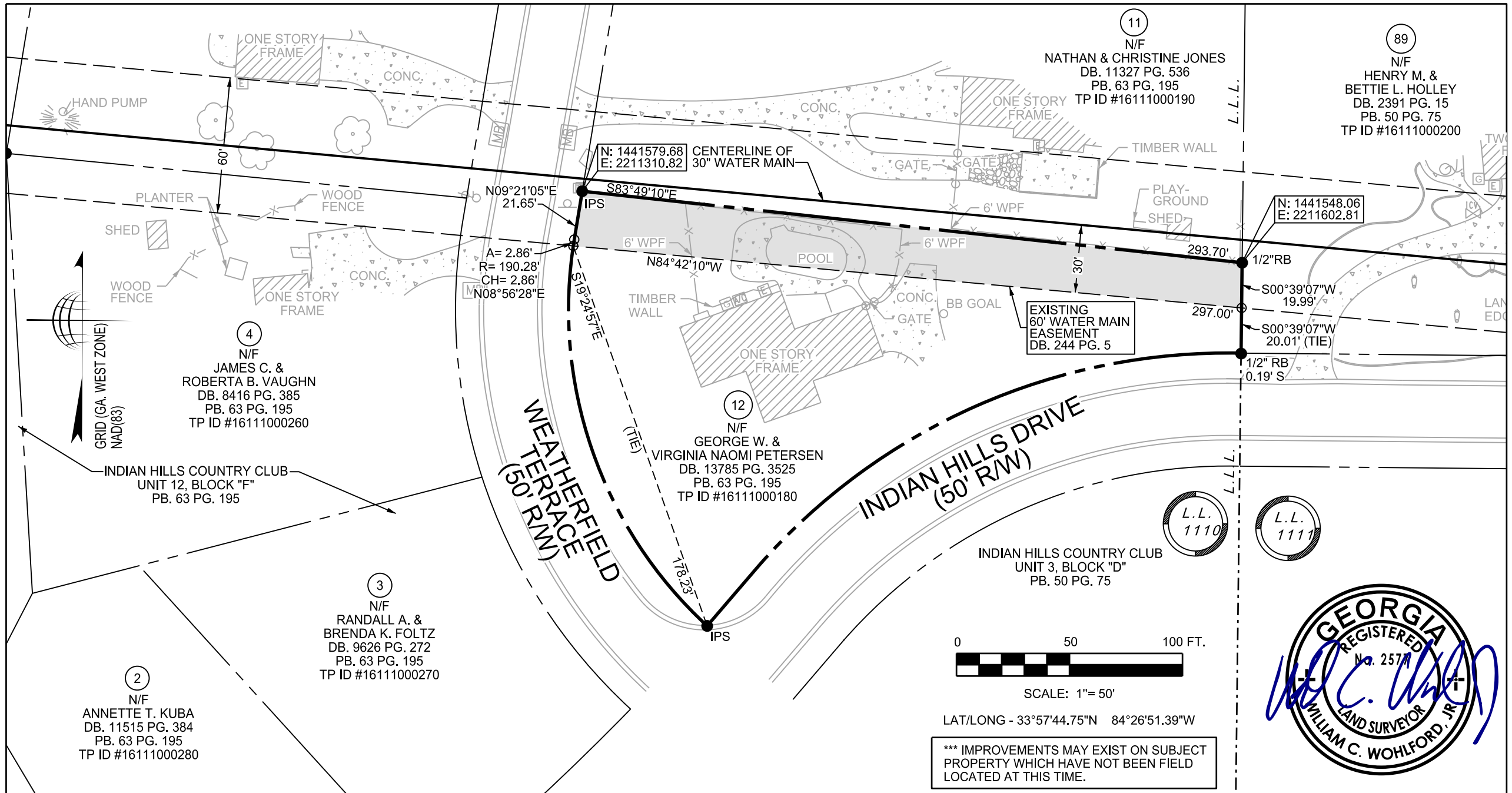
WOOD FENCE



LAT/LONG - 33°57'46.10"N 84°26'50.21"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.

10,995 SQ. FT./ 0.2524 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 12, BLOCK "F" PB. 63 PG. 195 LAND LOT 1110	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
290 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 121	NATHAN & CHRISTINE JONES  COBB COUNTY	



6,553 SQ. FT./ 0.1504 AC. EASEMENT

295 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN INDIAN HILLS COUNTRY CLUB  
 UNIT 12, BLOCK "F" PB. 63 PG. 195  
 LAND LOT 1110  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA  
 DATE: 4/15/2013 SHEET NO. 1/1

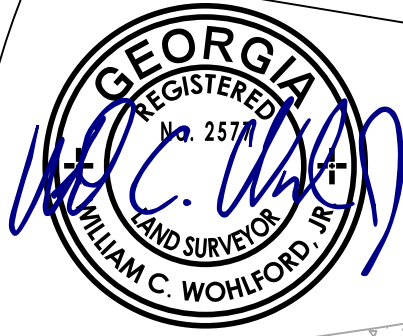
SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:  
 COBB COUNTY-MARIETTA  
 WATER AUTHORITY  
 C.C.M.W.A. NO. 122

THROUGH THE PROPERTY OF:  
 GEORGE W. &  
 VIRGINIA NAOMI PETERSEN  
 COBB COUNTY

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

**TerraMark**  
 Professional Land Surveying

**GEORGIA REGISTERED LAND SURVEYOR**  
 No. 2577  
 WILLIAM C. WOHLFORD, JR.



10  
N/F  
CHARLES C. &  
TERRY S. MIZELL  
DB. 14575 PG. 607  
PB. 63 PG. 195  
TP ID #16111000200

11  
N/F  
NATHAN & CHRISTINE JONES  
DB. 11327 PG. 536  
PB. 63 PG. 195  
TP ID #16111000190

INDIAN HILLS COUNTRY CLUB  
UNIT 12, BLOCK "F"  
PB. 63 PG. 195

INDIAN HILLS COUNTRY CLUB  
UNIT 3, BLOCK "D"  
PB. 50 PG. 75

89  
N/F  
HENRY M. &  
BETTIE L. HOLLEY  
DB. 2391 PG. 15  
PB. 50 PG. 75  
TP ID #16111000200

27  
N/F  
DONALD G. & BETTE L. CALLAHAN &  
CANDYCE L. DAVIDSON  
DB. 13769 PG. 2690  
PB. 50 PG. 75  
TP ID #16111000530

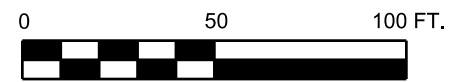
12  
N/F  
GEORGE W. &  
VIRGINIA NAOMI PETERSEN  
DB. 13785 PG. 3525  
PB. 63 PG. 195  
TP ID #16111000180

26  
N/F  
DENISE L. BRIGNET  
DB. 13990 PG. 3836  
PB. 50 PG. 75  
TP ID #16111000520

INDIAN HILLS DRIVE  
(50' R/W)

RIDGEWATER  
DRIVE  
(50' R/W)

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.



SCALE: 1"= 50'

LAT/LONG - 33°57'45.66"N 84°26'47.65"W

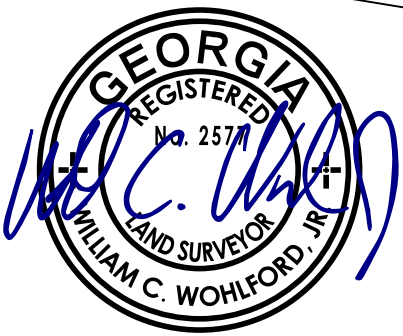
12,067 SQ. FT./ 0.2770 AC. EASEMENT  
201 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN INDIAN HILLS COUNTRY CLUB  
UNIT 3, BLOCK "D" PB. 50 PG. 75  
LAND LOT 1111  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 123

THROUGH THE PROPERTY OF:  
HENRY M. &  
BETTIE L. HOLLEY  
COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



90  
N/F  
THOMAS W. KELLY &  
HAYLEY HARDIN  
DB. 14578 PG. 2341  
PB. 50 PG. 75  
TP ID #16111100190

89  
N/F  
HENRY M. &  
BETTIE L. HOLLEY  
DB. 2391 PG. 15  
PB. 50 PG. 75  
TP ID #16111000200

27  
N/F  
DONALD G. & BETTE L. CALLAHAN &  
CANDYCE L. DAVIDSON  
DB. 13769 PG. 2690  
PB. 50 PG. 75  
TP ID #16111000530

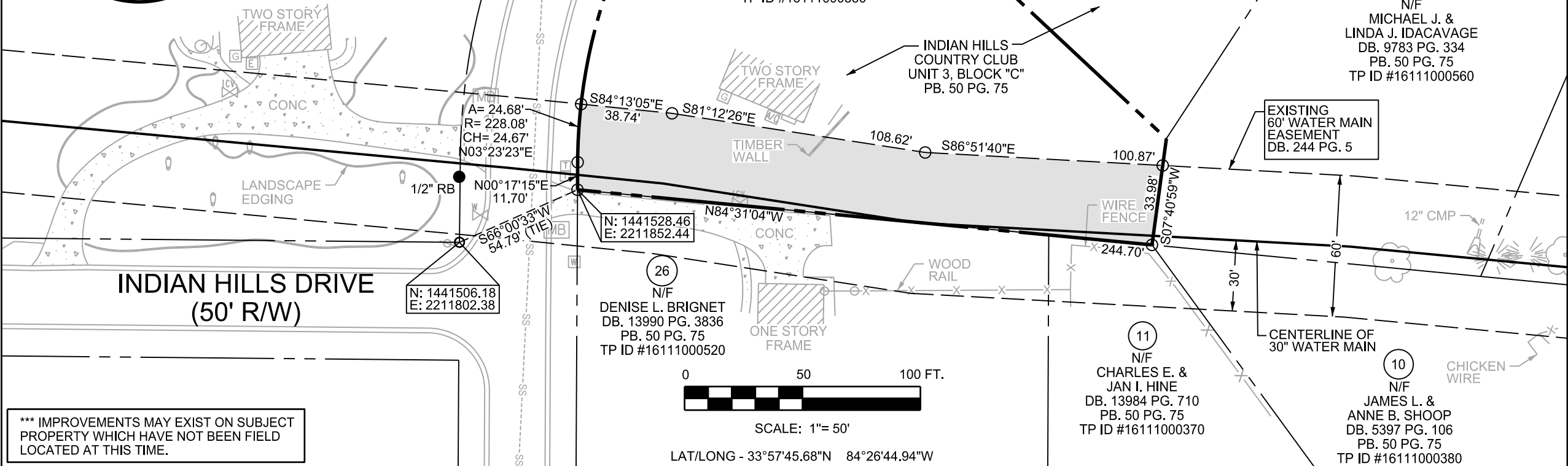
28  
N/F  
JACK W. &  
LUCILLE M. GEORGE  
PB. 50 PG. 75  
TP ID #16111100540

29  
N/F  
ROBYN ULMAN  
DB. 13406 PG. 4828  
PB. 50 PG. 75  
TP ID #16111100550

30  
N/F  
MICHAEL J. &  
LINDA J. IDACAVAGE  
DB. 9783 PG. 334  
PB. 50 PG. 75  
TP ID #16111000560

RIDGEWATER DRIVE  
(50' R/W)

INDIAN HILLS DRIVE  
(50' R/W)



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

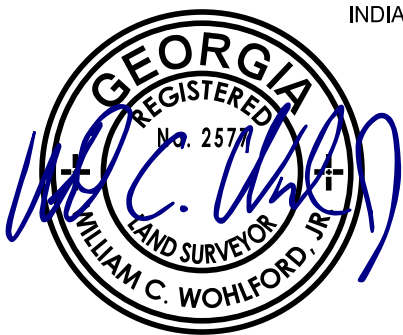
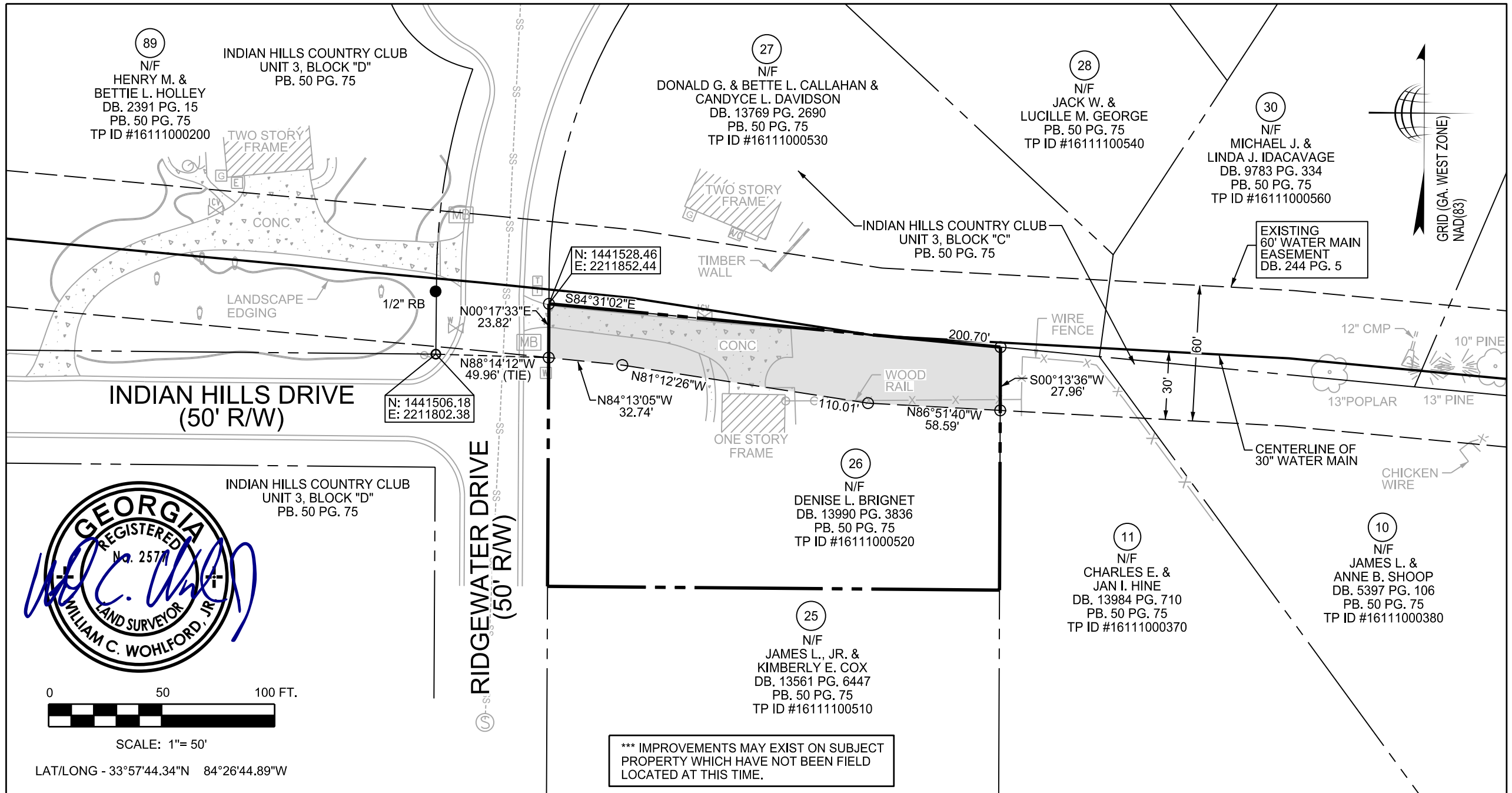


SCALE: 1" = 50'

LAT/LONG - 33°57'45.68"N 84°26'44.94"W

8,147 SQ. FT./ 0.1870 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
247 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 124	DONALD G. & BETTE L. CALLAHAN & CANDYCE L. DAVIDSON COBB COUNTY	<b>TerraMark</b> Professional Land Surveying




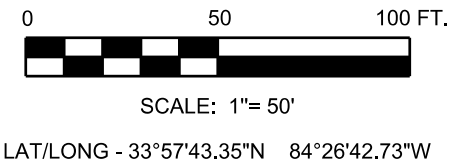
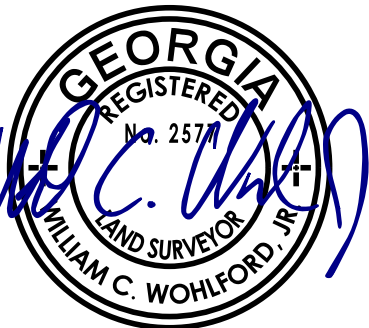
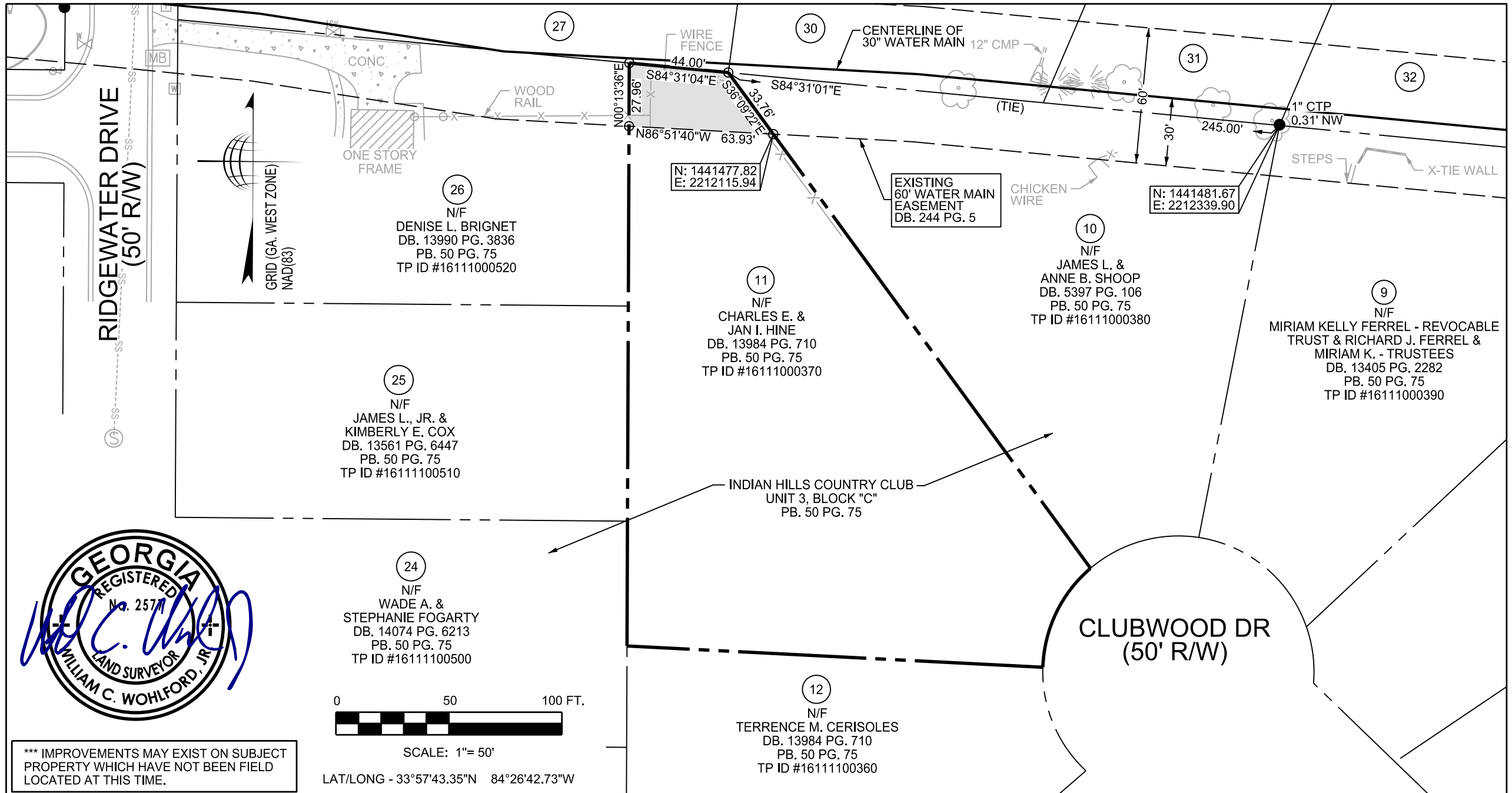


0 50 100 FT.  
 SCALE: 1"= 50'

LAT/LONG - 33°57'44.34"N 84°26'44.89"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

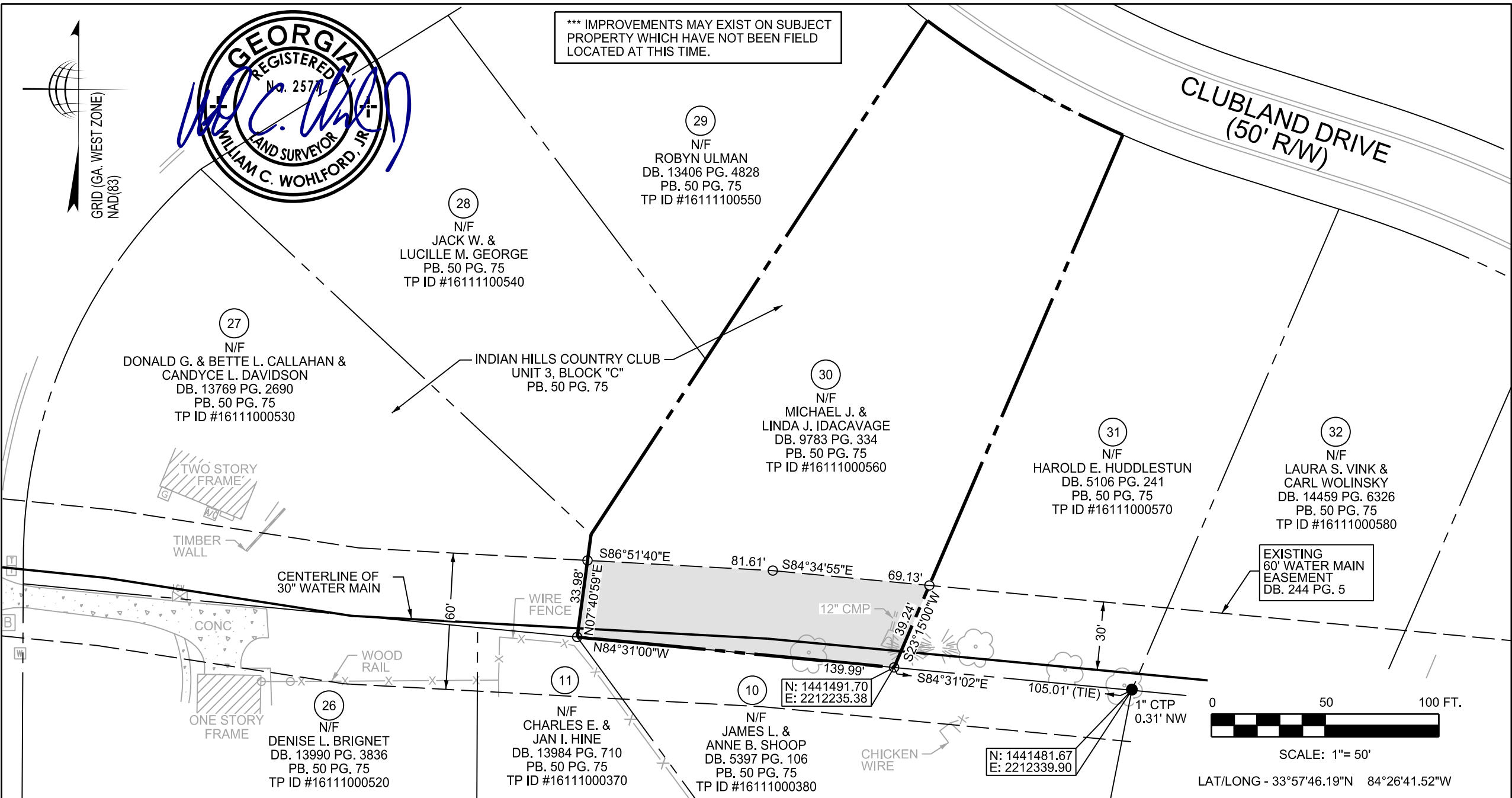
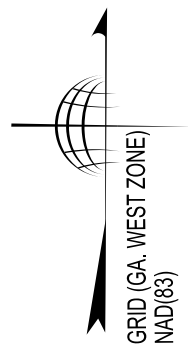
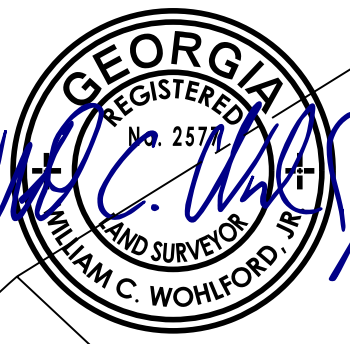
5,441 SQ. FT./ 0.1249 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc.        1396 Bells Ferry Road        Marietta, Georgia 30066        www.TerraMark.com        (P) (770) 421-1927</p>
201 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 125	DENISE L. BRIGNET COBB COUNTY	



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

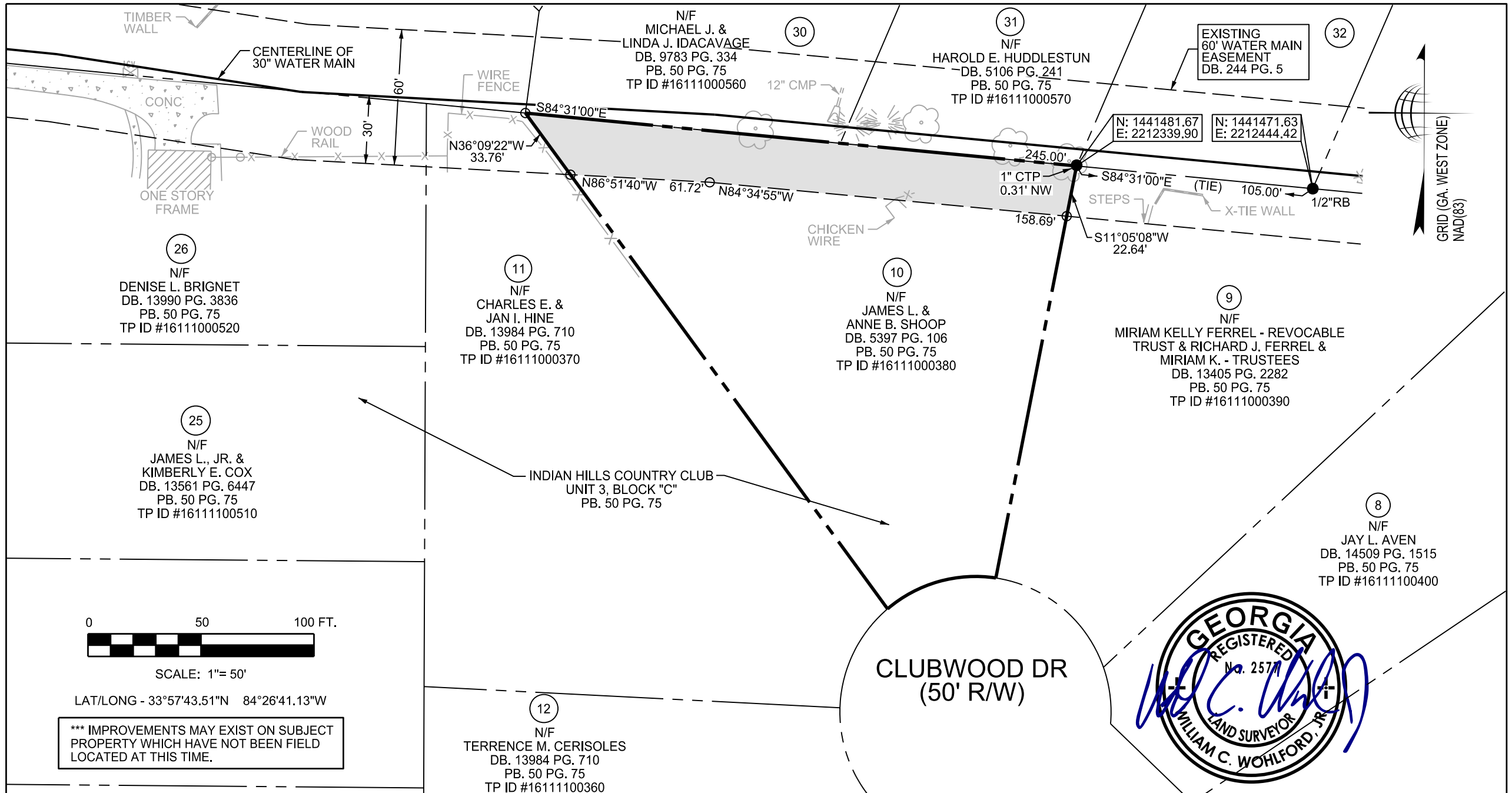
1,448 SQ. FT./ 0.0332 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
53 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 126	CHARLES E. & JAN I. HINE COBB COUNTY	TerraMark Professional Land Surveying

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1"= 50'  
LAT/LONG - 33°57'46.19"N 84°26'41.52"W

5,284 SQ. FT./ 0.1213 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
146 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 127	MICHAEL J. & LINDA J. IDACAVAGE COBB COUNTY	TerraMark Professional Land Surveying



SCALE: 1"= 50'

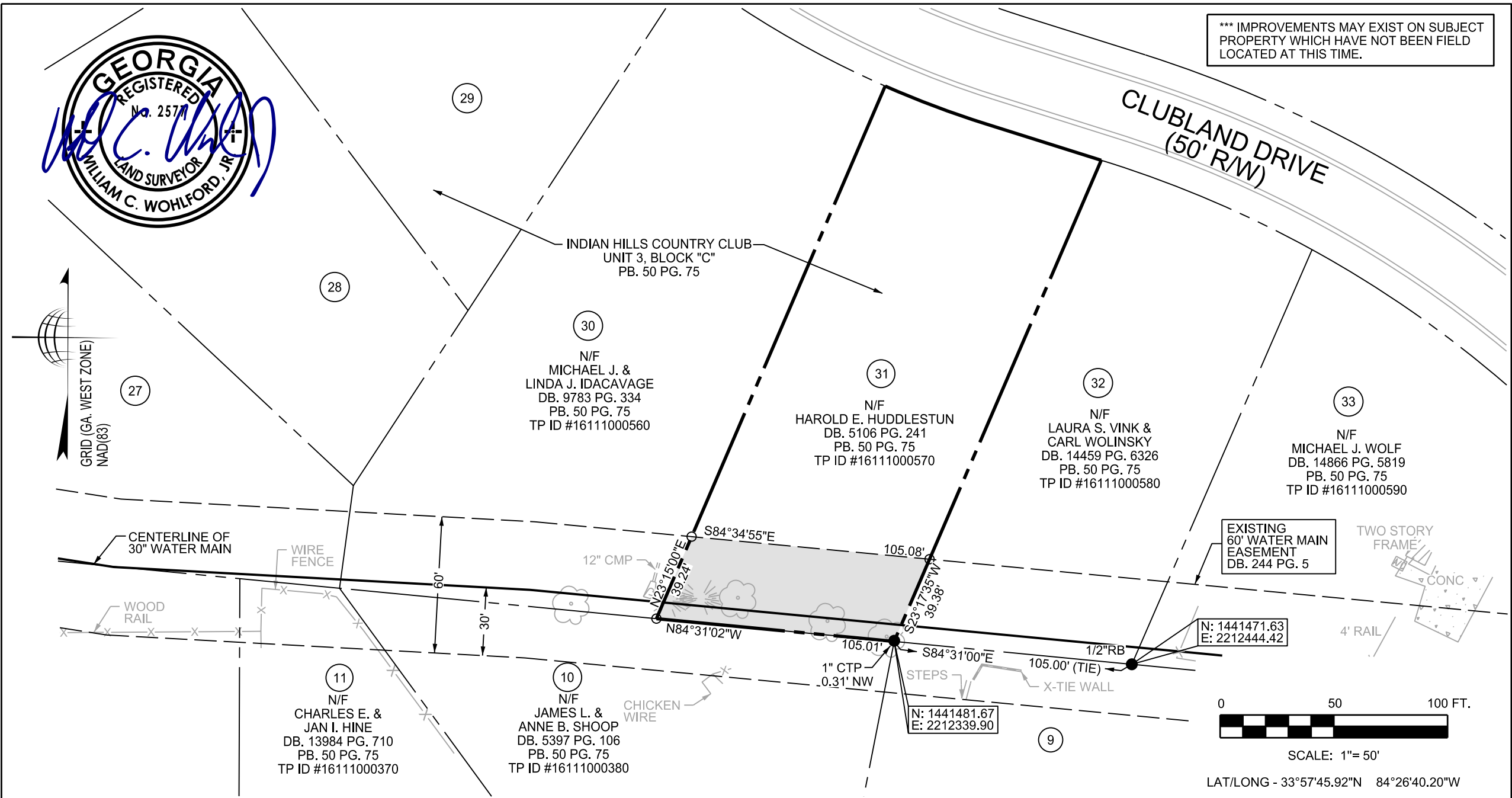
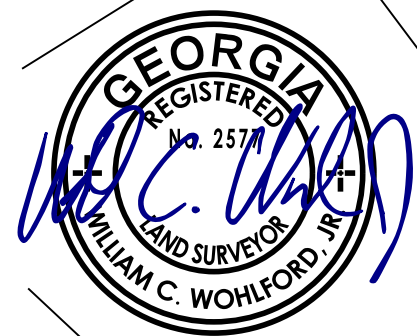
LAT/LONG - 33°57'43.51"N 84°26'41.13"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

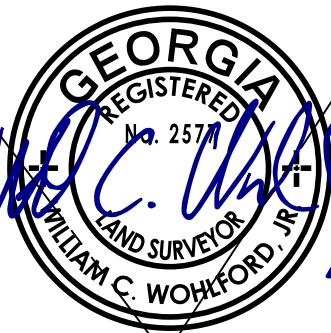
5,375 SQ. FT./ 0.1234 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
234 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 128	JAMES L. & ANNE B. SHOOP COBB COUNTY	TerraMark Professional Land Surveying



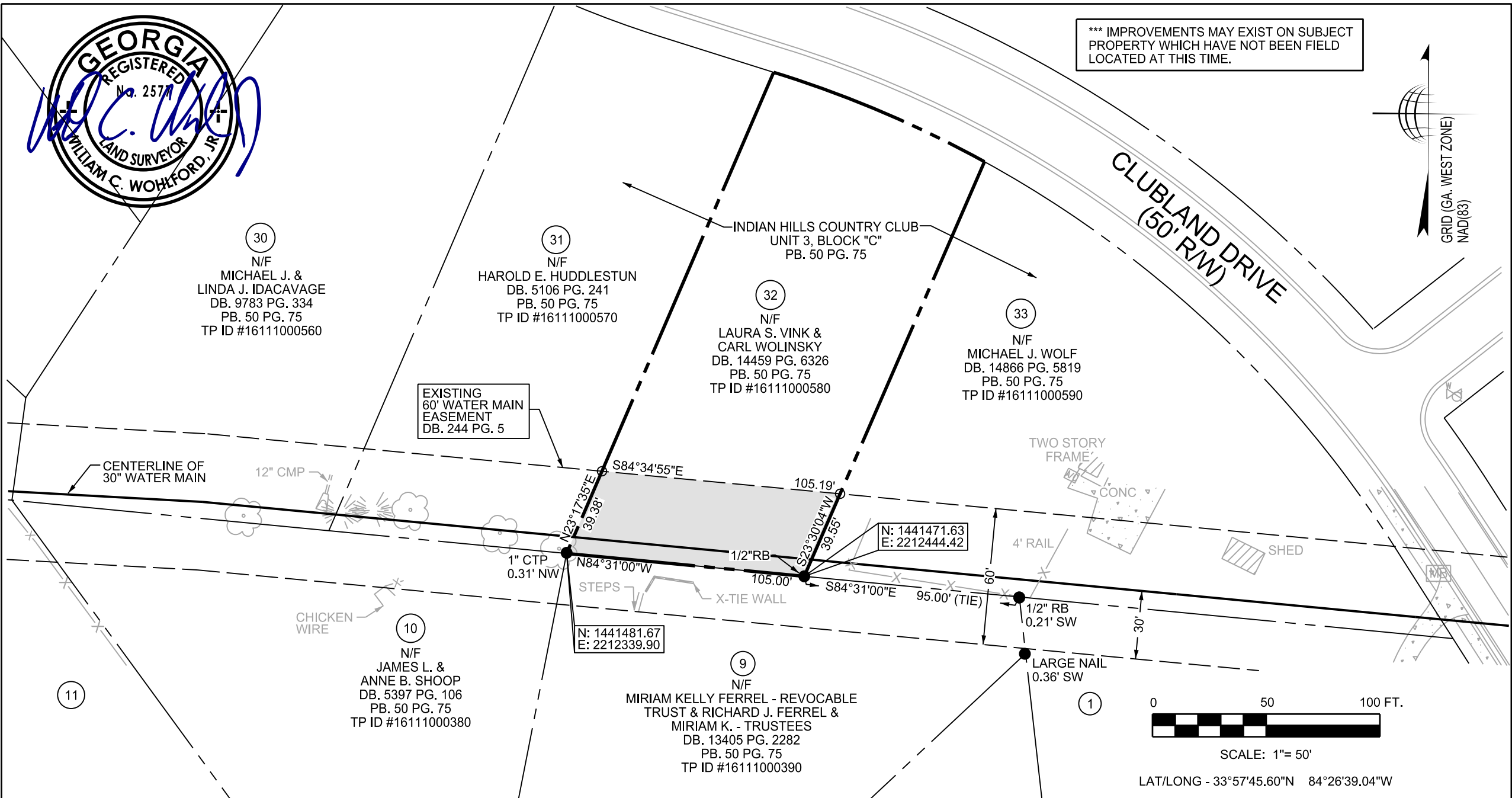
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



3,931 SQ. FT./ 0.0902 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	<p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
104 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 129	HAROLD E. HUDDLESTUN COBB COUNTY	

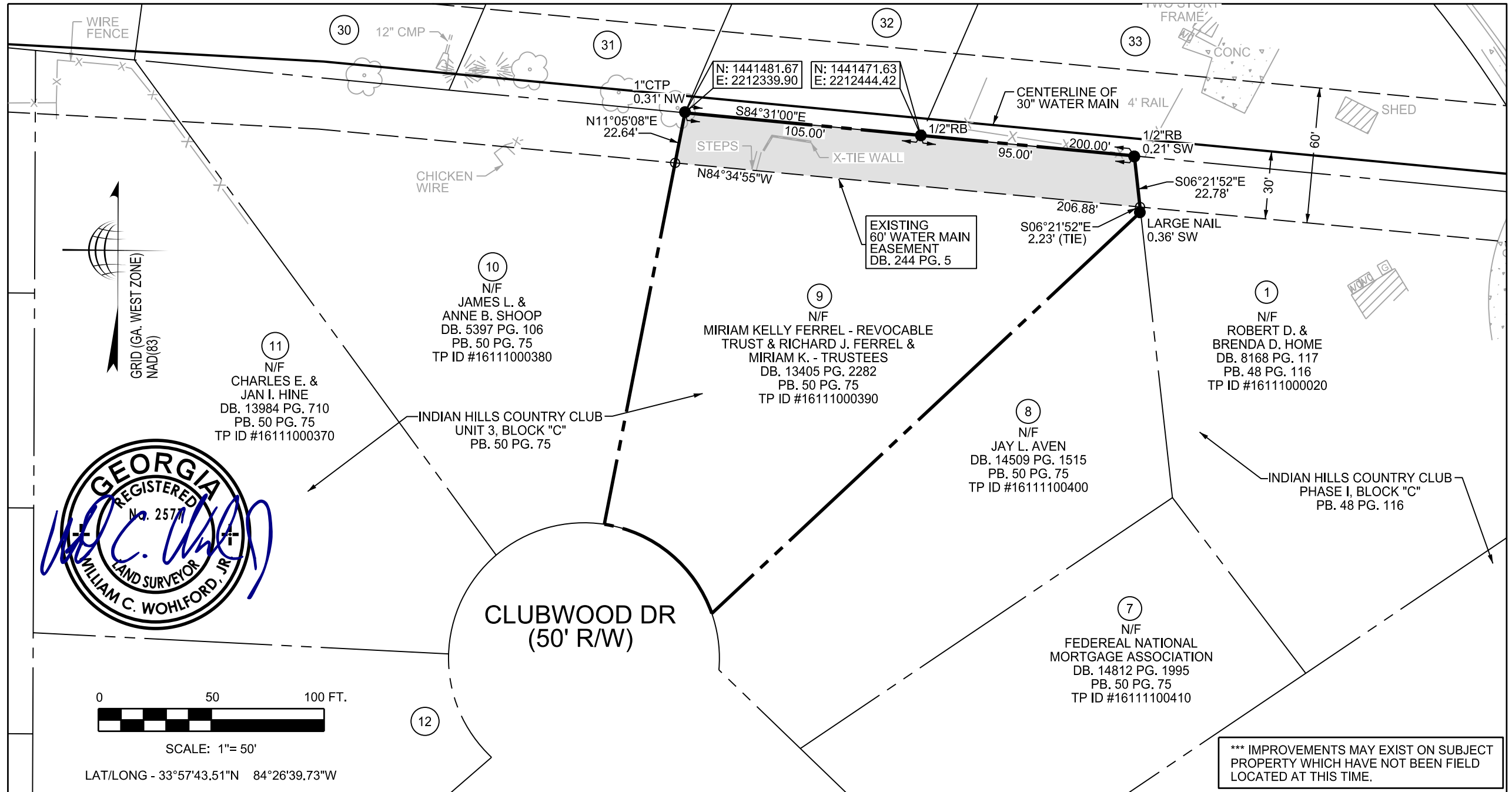


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.




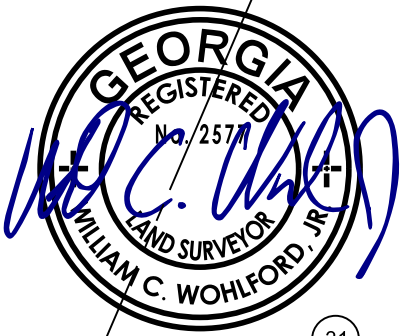
SCALE: 1"= 50'  
LAT/LONG - 33°57'45.60"N 84°26'39.04"W

3,946 SQ. FT./ 0.0906 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
105 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 130	LAURA S. VINK & CARL WOLINSKY COBB COUNTY	TerraMark Professional Land Surveying

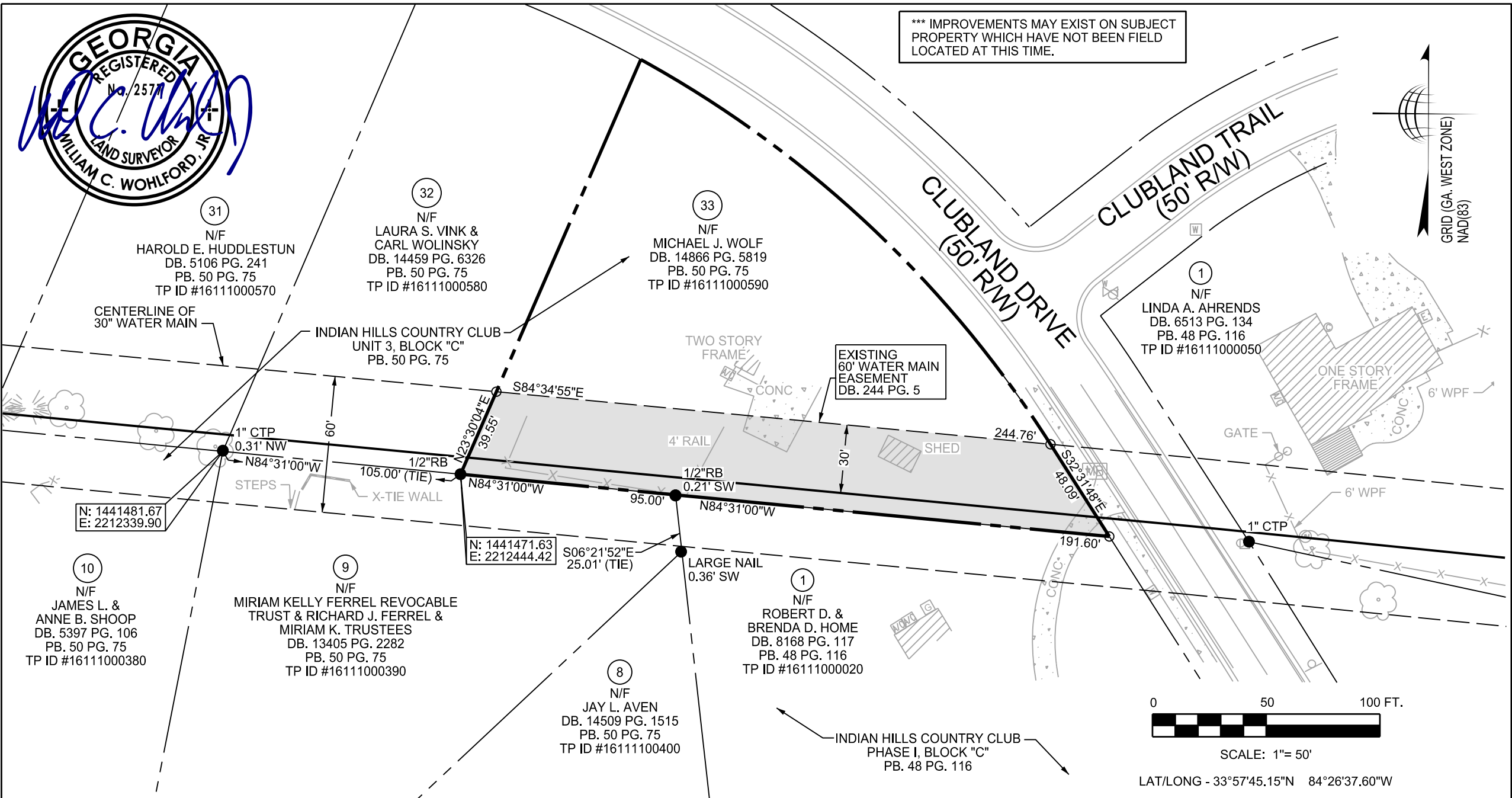


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

4,560 SQ. FT./ 0.1047 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
203 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 131	MIRIAM KELLY FERREL - REVOCABLE TRUST & RICHARD J. FERREL & MIRIAM K. - TRUSTEES COBB COUNTY	



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.




N: 1441481.67  
E: 2212339.90

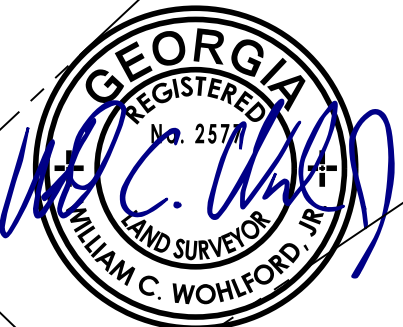
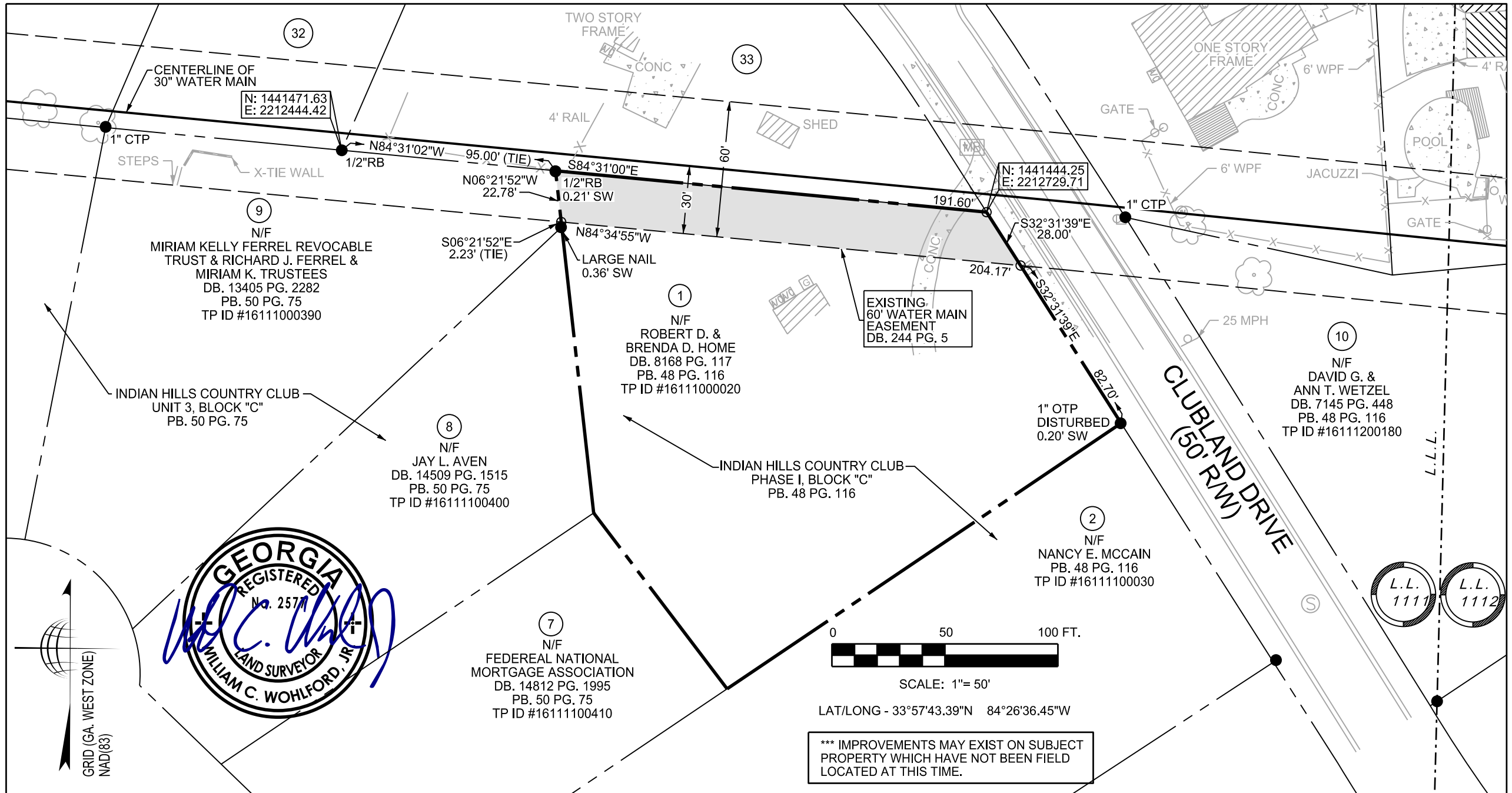
N: 1441471.63  
E: 2212444.42




SCALE: 1"= 50'  
LAT/LONG - 33°57'45.15"N 84°26'37.60"W

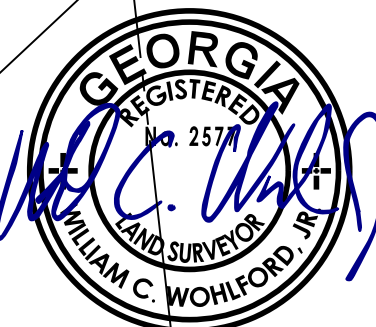
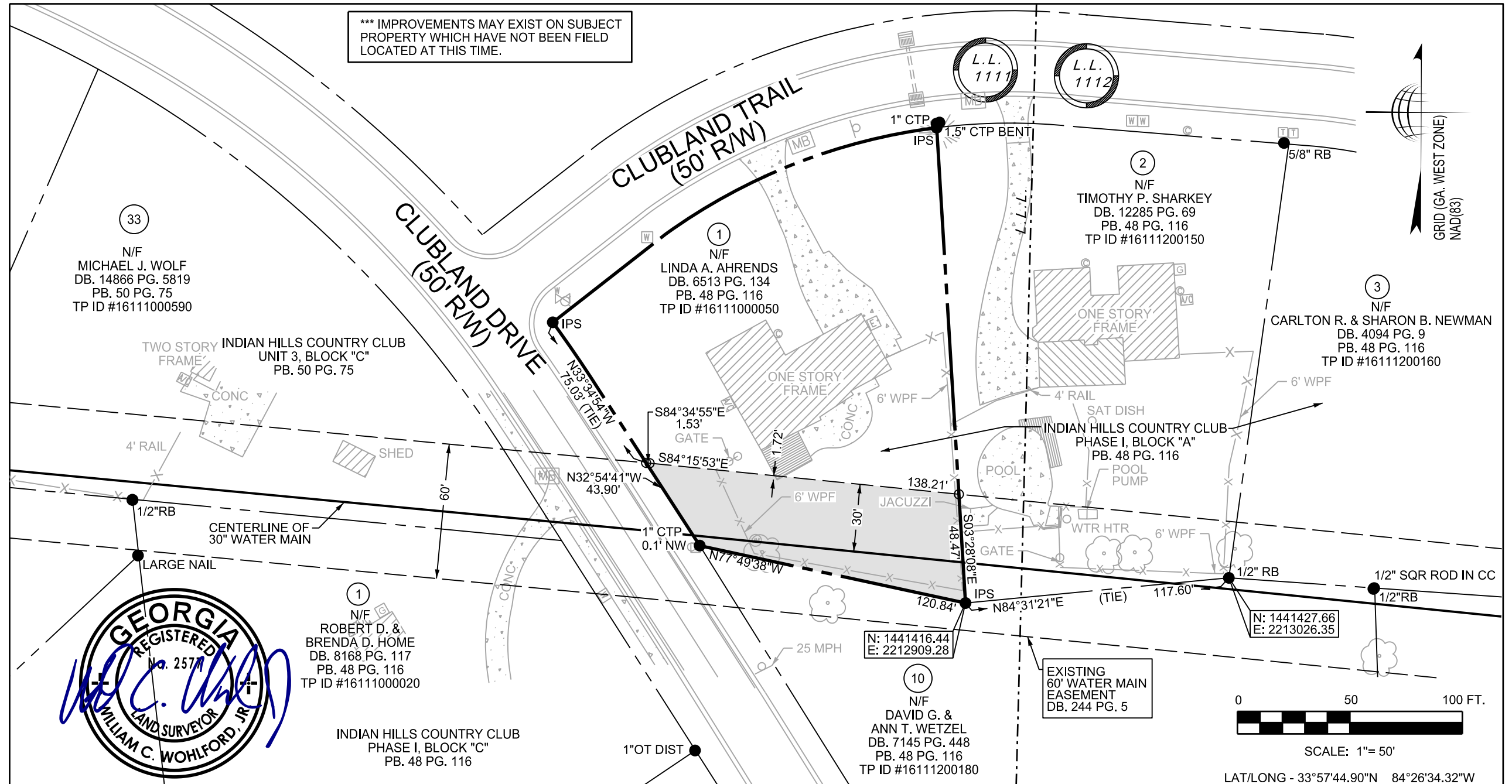
10,031 SQ. FT./ 0.2303 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB UNIT 3, BLOCK "C" PB. 50 PG. 75 LAND LOT 1111 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: <b>COBB COUNTY-MARIETTA WATER AUTHORITY</b> C.C.M.W.A. NO. 132	THROUGH THE PROPERTY OF: <b>MICHAEL J. WOLF</b> COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
259 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1			






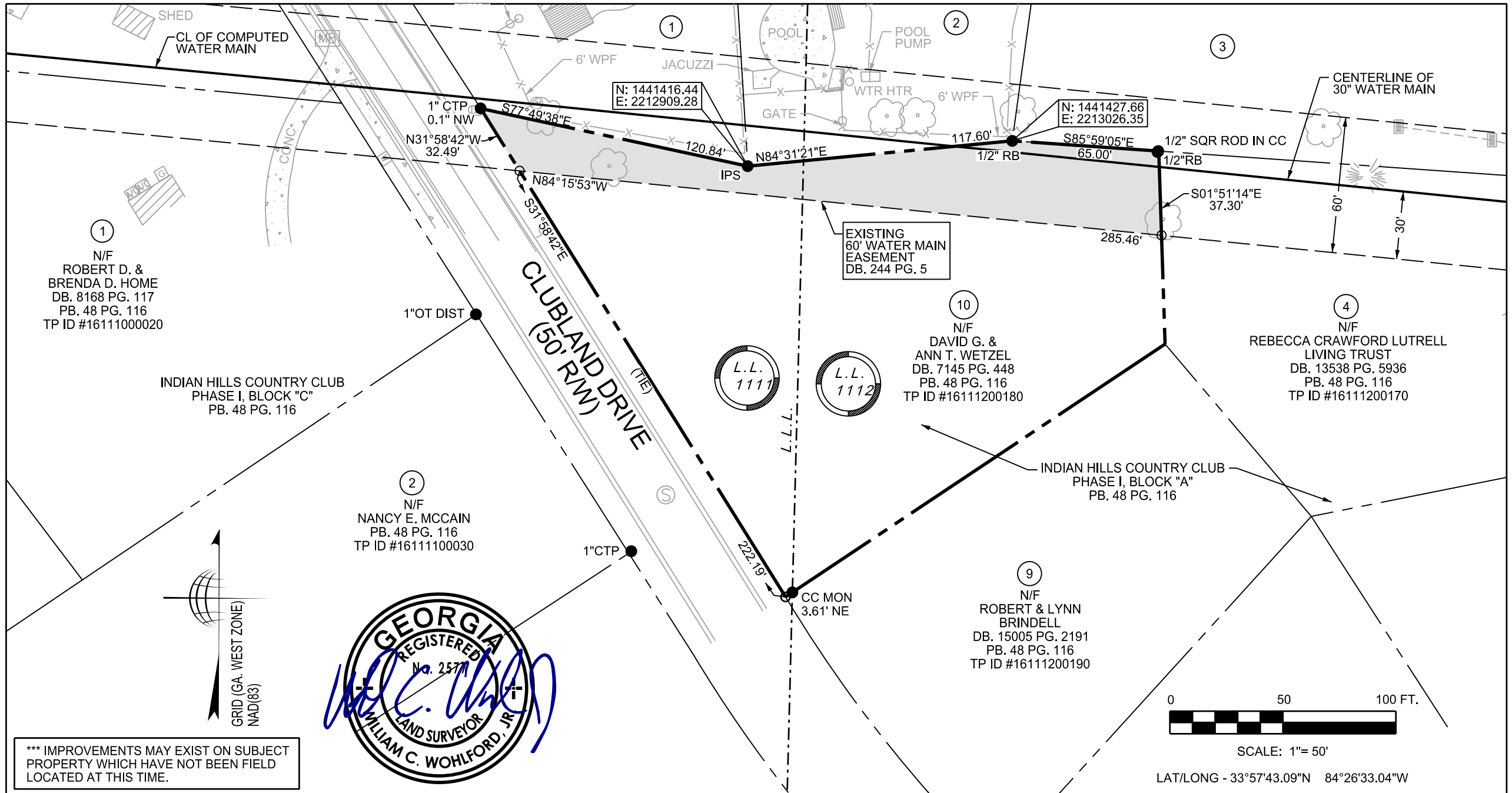
4,390 SQ. FT./ 0.1008 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "C" PB. 48 PG. 116 LAND LOT 1111	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
197 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 133	ROBERT D. & BRENDA D. HOME COBB COUNTY	

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



LAT/LONG - 33°57'44.90"N 84°26'34.32"W

5,216 SQ. FT./ 0.1197 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "A" PB. 48 PG. 116 LAND LOT 1111 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 134	THROUGH THE PROPERTY OF:  LINDA A. AHREND'S  COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
133 L.F. VARIABLE WIDTH EASEMENT				



1  
N/F  
ROBERT D. &  
BRENDA D. HOME  
DB. 8168 PG. 117  
PB. 48 PG. 116  
TP ID #1611100020

INDIAN HILLS COUNTRY CLUB  
PHASE I, BLOCK "C"  
PB. 48 PG. 116

2  
N/F  
NANCY E. MCCAIN  
PB. 48 PG. 116  
TP ID #16111100030

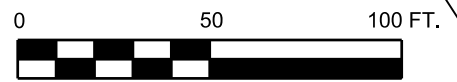
10  
N/F  
DAVID G. &  
ANN T. WETZEL  
DB. 7145 PG. 448  
PB. 48 PG. 116  
TP ID #16111200180

4  
N/F  
REBECCA CRAWFORD LUTRELL  
LIVING TRUST  
DB. 13538 PG. 5936  
PB. 48 PG. 116  
TP ID #16111200170


9  
N/F  
ROBERT & LYNN  
BRINDELL  
DB. 15005 PG. 2191  
PB. 48 PG. 116  
TP ID #16111200190

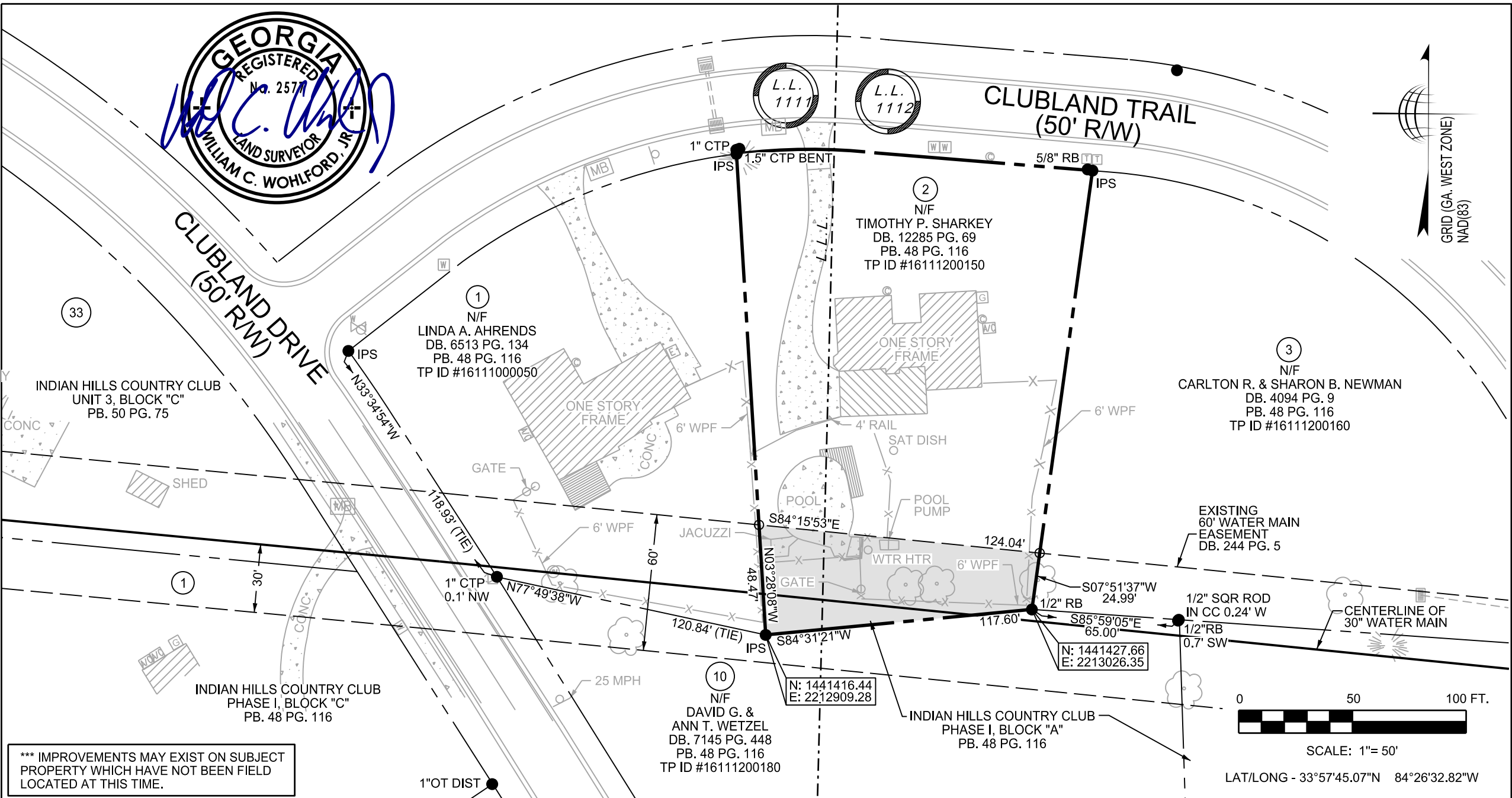
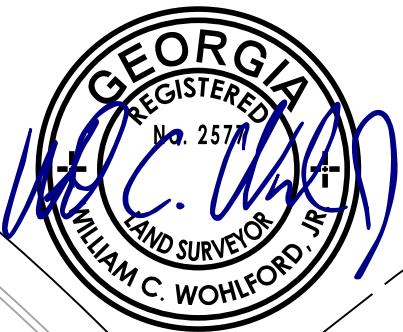


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.




LAT/LONG - 33°57'43.09"N 84°26'33.04"W

7,168 SQ. FT./ 0.1646 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "A" PB. 48 PG. 116 LAND LOTS 1111 & 1112 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 135	THROUGH THE PROPERTY OF:  DAVID G. & ANN T. WETZEL COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
293 L.F. VARIABLE WIDTH EASEMENT				

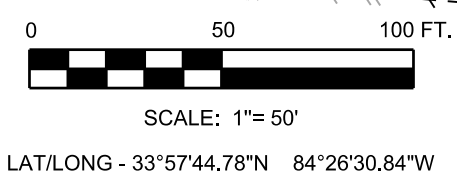
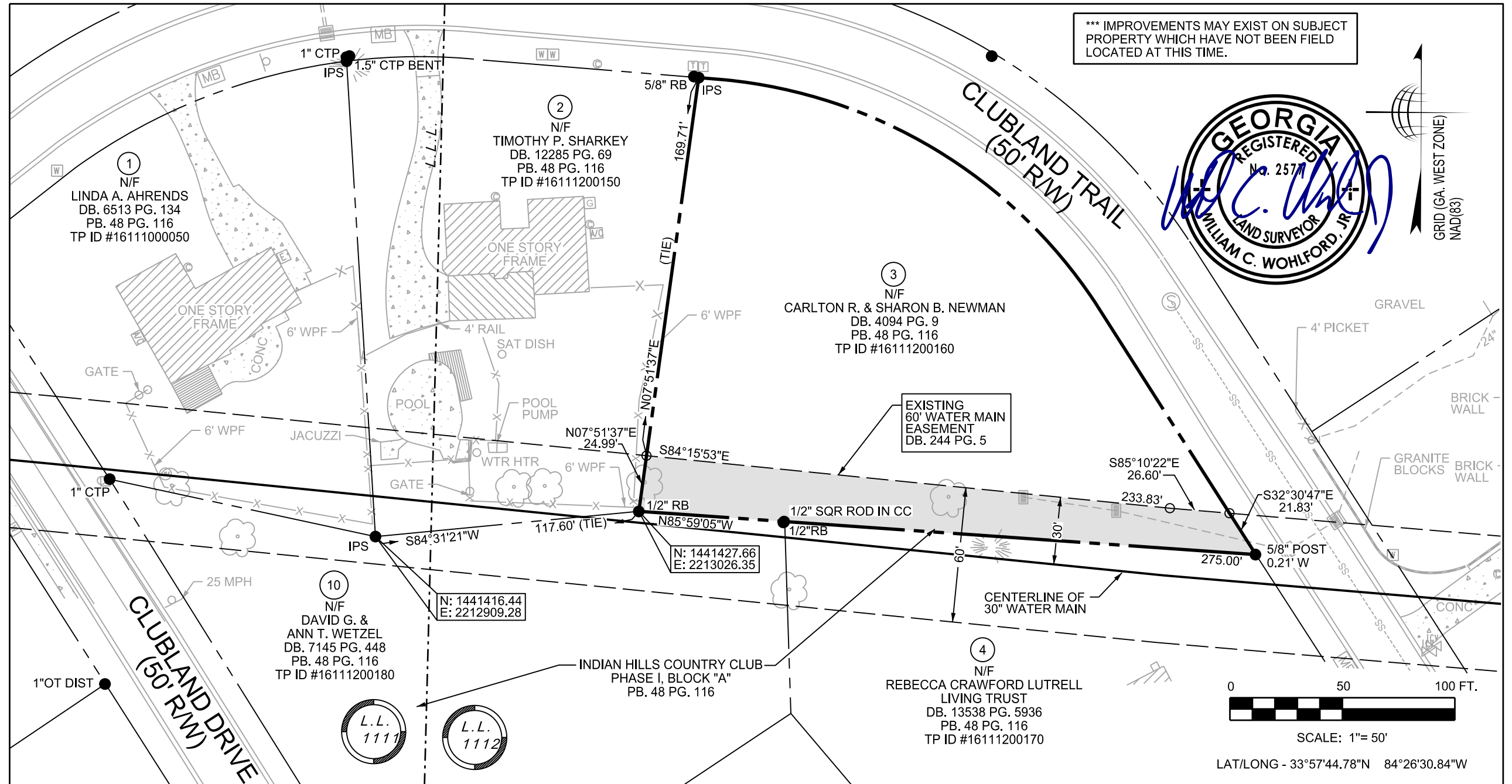
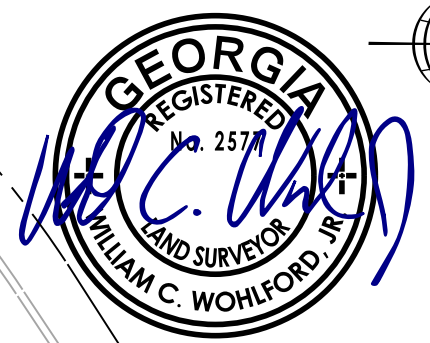


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

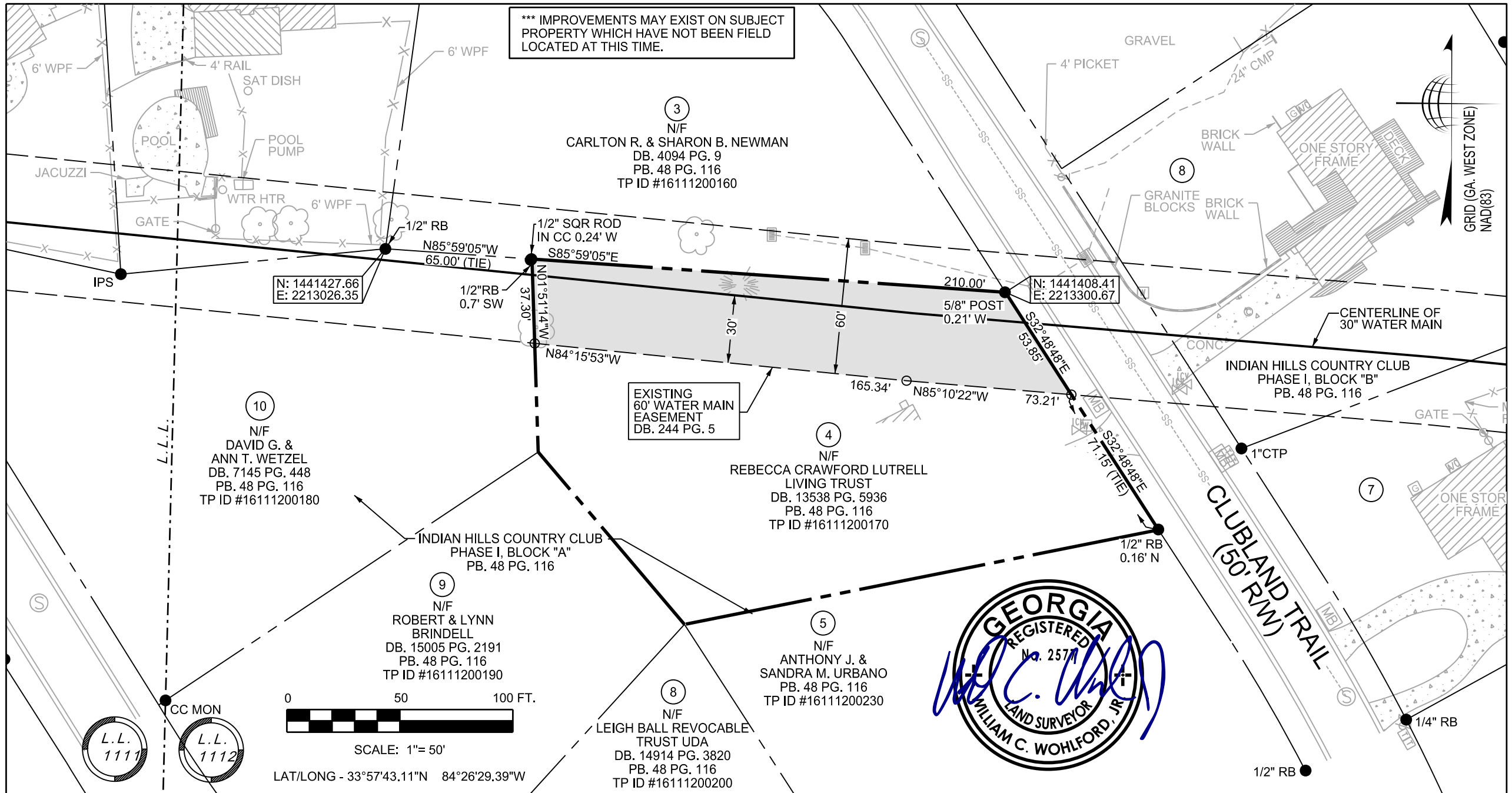
4,398 SQ. FT./ 0.1010 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "A" PB. 48 PG. 116 LAND LOTS 1111 & 1112	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
121 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 136	TIMOTHY P. SHARKEY COBB COUNTY	



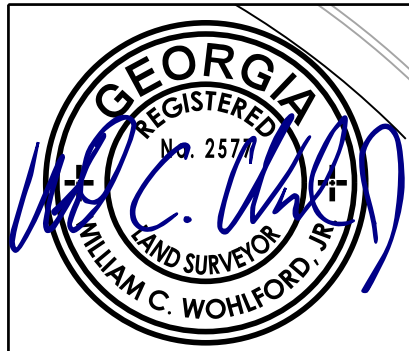
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



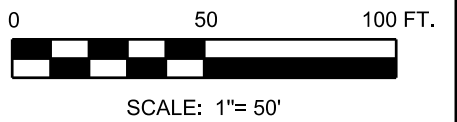
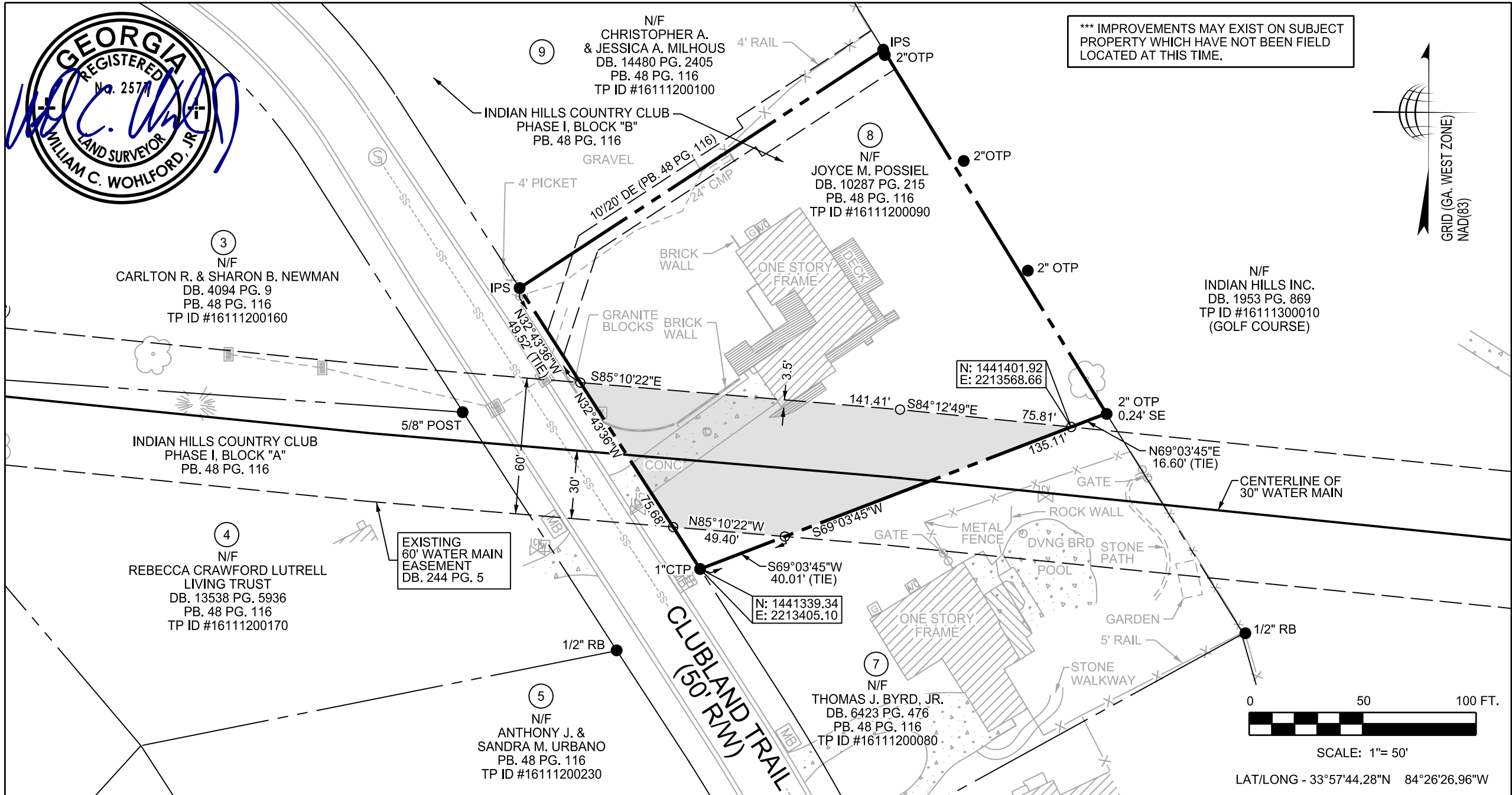
5,615 SQ. FT./ 0.1289 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "A" PB. 48 PG. 116 LAND LOT 1112	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
267 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 137	CARLTON R. & SHARON B. NEWMAN COBB COUNTY	<b>TerraMark</b> Professional Land Surveying




9,035 SQ. FT./ 0.2074 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "A" PB. 48 PG. 116 LAND LOT 1112	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF: REBECCA CRAWFORD LUTRELL LIVING TRUST	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
225 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 138	COBB COUNTY	TerraMark Professional Land Surveying

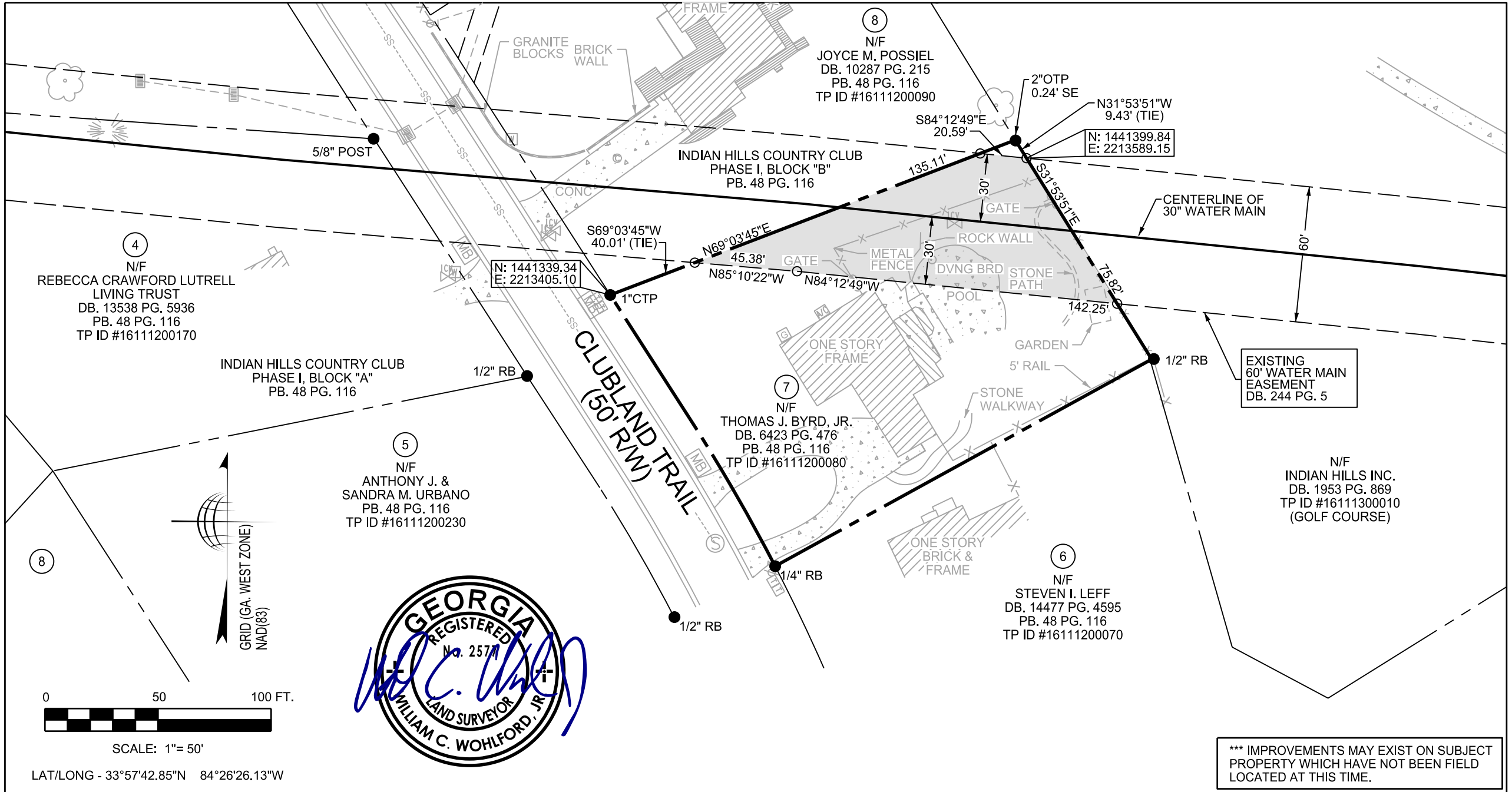


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



LAT/LONG - 33°57'44.28"N 84°26'26.96"W

8,027 SQ. FT./ 0.1843 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "B" PB. 48 PG. 116 LAND LOT 1112	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
134 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 139	JOYCE M. POSSIEL COBB COUNTY	



6,218 SQ. FT./ 0.1427 AC. EASEMENT

103 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN INDIAN HILLS COUNTRY CLUB  
PHASE I, BLOCK "B" PB. 48 PG. 116  
LAND LOT 1112  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 4/15/2013 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO. 140

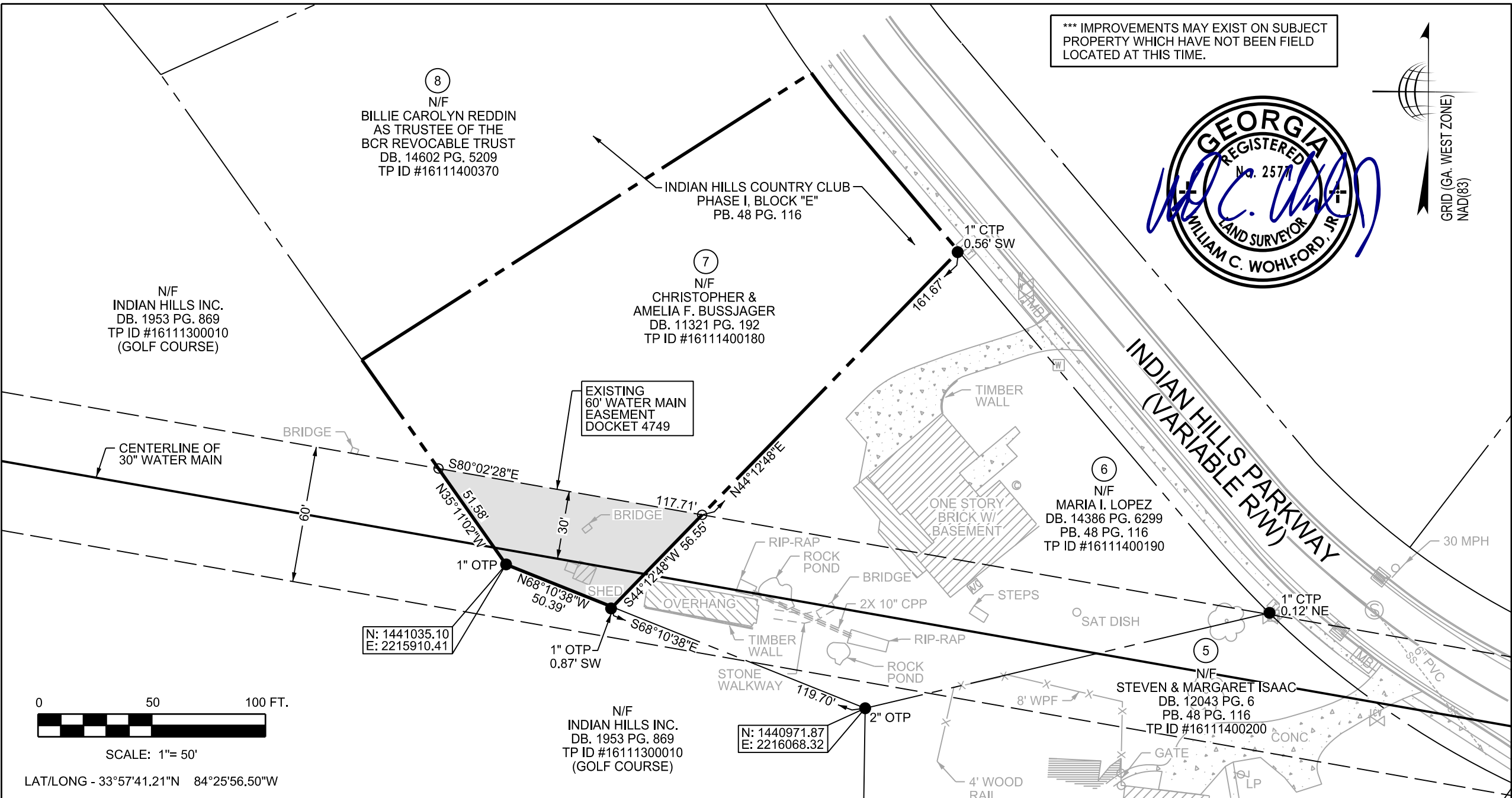
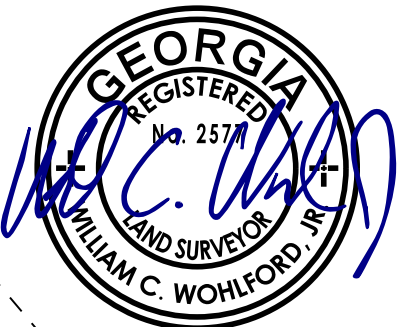
THROUGH THE PROPERTY OF:  
THOMAS J. BYRD, JR.  
COBB COUNTY

**TerraMark**  
Professional Land Surveying

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

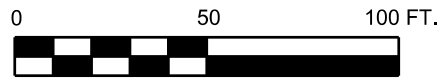
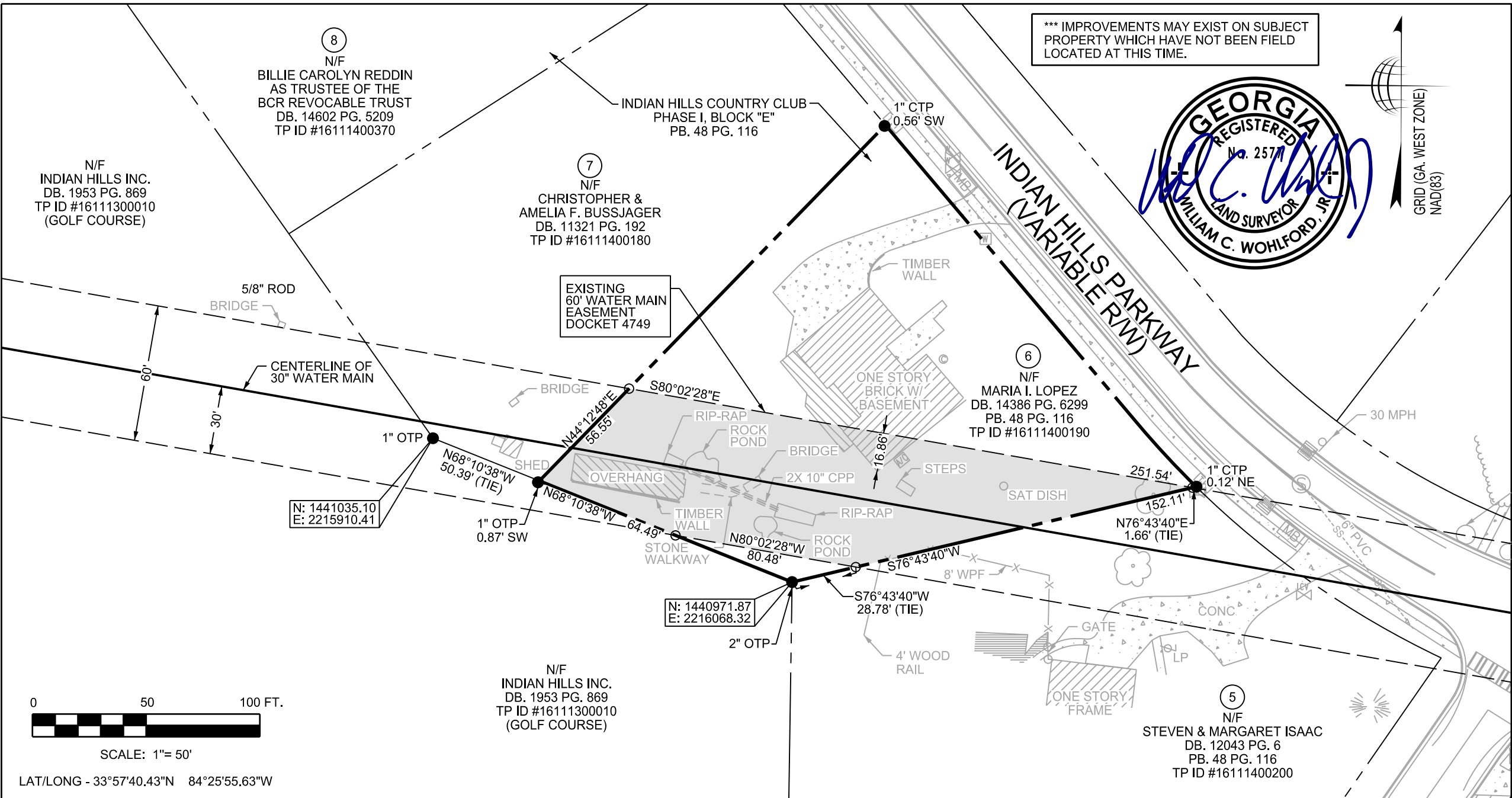
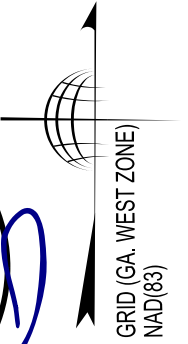
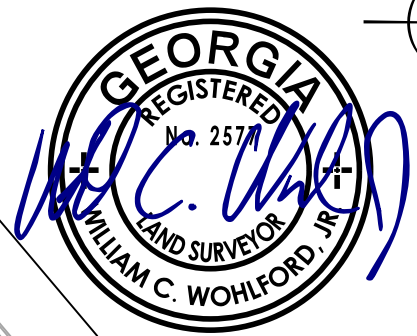


SCALE: 1"= 50'

LAT/LONG - 33°57'41.21"N 84°25'56.50"W

3,459 SQ. FT./ 0.0794 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "E" PB. 48 PG. 116 LAND LOT 1114	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
67 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 142	CHRISTOPHER & AMELIA F. BUSSJAGER COBB COUNTY	TerraMark Professional Land Surveying

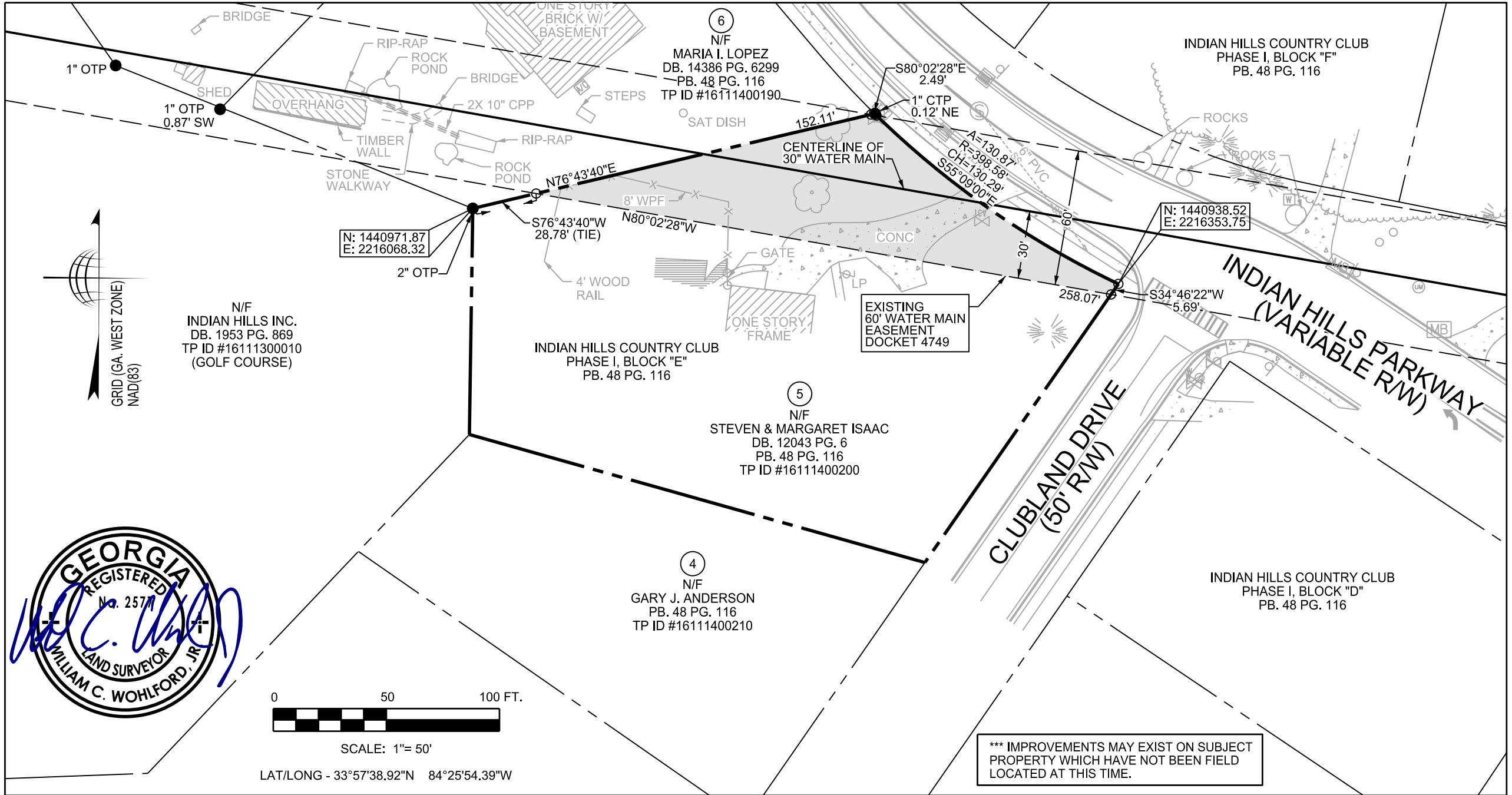
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.



SCALE: 1" = 50'

LAT/LONG - 33°57'40.43"N 84°25'55.63"W

11,646 SQ. FT./ 0.2674 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "E" PB. 48 PG. 116 LAND LOT 1114	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
202 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 143	MARIA I. LOPEZ COBB COUNTY	

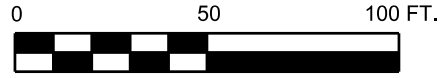
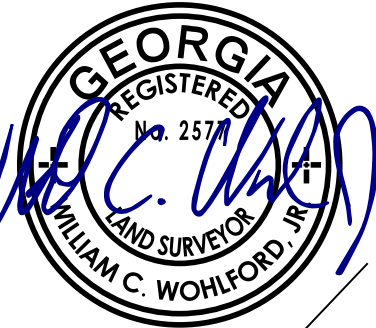


GRID (GA. WEST ZONE)  
NAD(83)

N/F  
INDIAN HILLS INC.  
DB. 1953 PG. 869  
TP ID #16111300010  
(GOLF COURSE)

N: 1440971.87  
E: 2216068.32


N: 1440938.52  
E: 2216353.75

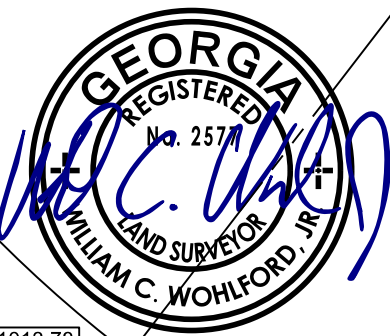


SCALE: 1"= 50'

LAT/LONG - 33°57'38.92"N 84°25'54.39"W

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

7,721 SQ. FT./ 0.1772 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "E" PB. 48 PG. 116 LAND LOT 1114	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
125 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 144	STEVEN & MARGARET ISAAC  COBB COUNTY	



②  
N/F  
GERARD J. KEELEY  
PB. 48 PG. 116  
TP ID #16111400260

INDIAN HILLS COUNTRY CLUB  
PHASE I, BLOCK "F"  
PB. 48 PG. 116

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT  
PROPERTY WHICH HAVE NOT BEEN FIELD  
LOCATED AT THIS TIME.

⑤  
N/F  
HARIAPL SINGH  
DB. 14321 PG. 207  
PB. 48 PG. 116  
TP ID #16111400290

①  
N/F  
DAVID F. GAMBLE  
DB. 13050 PG. 72  
PB. 48 PG. 116  
TP ID #16111400270

N: 1441013.78  
E: 2216245.99

N: 1440957.11  
E: 2216564.93

EXISTING  
60' WATER MAIN  
EASEMENT  
DOCKET 4749

1" CTP  
0.12' NE  
N79°55'30"W

323.94'  
S80°02'28"E

105.05'

A=62.04'  
R=202.68'  
CH=61.80'  
N66°54'19"W

N58°07'44"W  
32.79'

S38°45'57"W  
29.99'

INDIAN HILLS COUNTRY CLUB  
PHASE I, BLOCK "E"  
PB. 48 PG. 116

CLUBLAND DRIVE  
(50' RW)

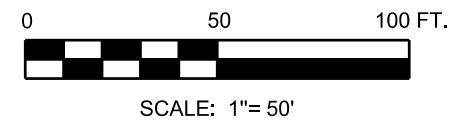
INDIAN HILLS COUNTRY CLUB  
PHASE I, BLOCK "D"  
PB. 48 PG. 116

INDIAN HILLS PARKWAY  
(VARIABLE RW)

LOWER ROSWELL ROAD  
(70' RW)

CENTERLINE OF  
30" WATER MAIN

KINGS COVE  
SECTION I, UNIT I, BLOCK "B"  
PB. 49 PG. 126

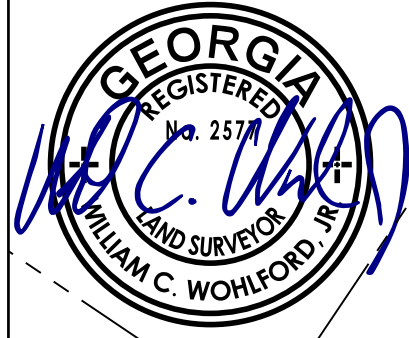
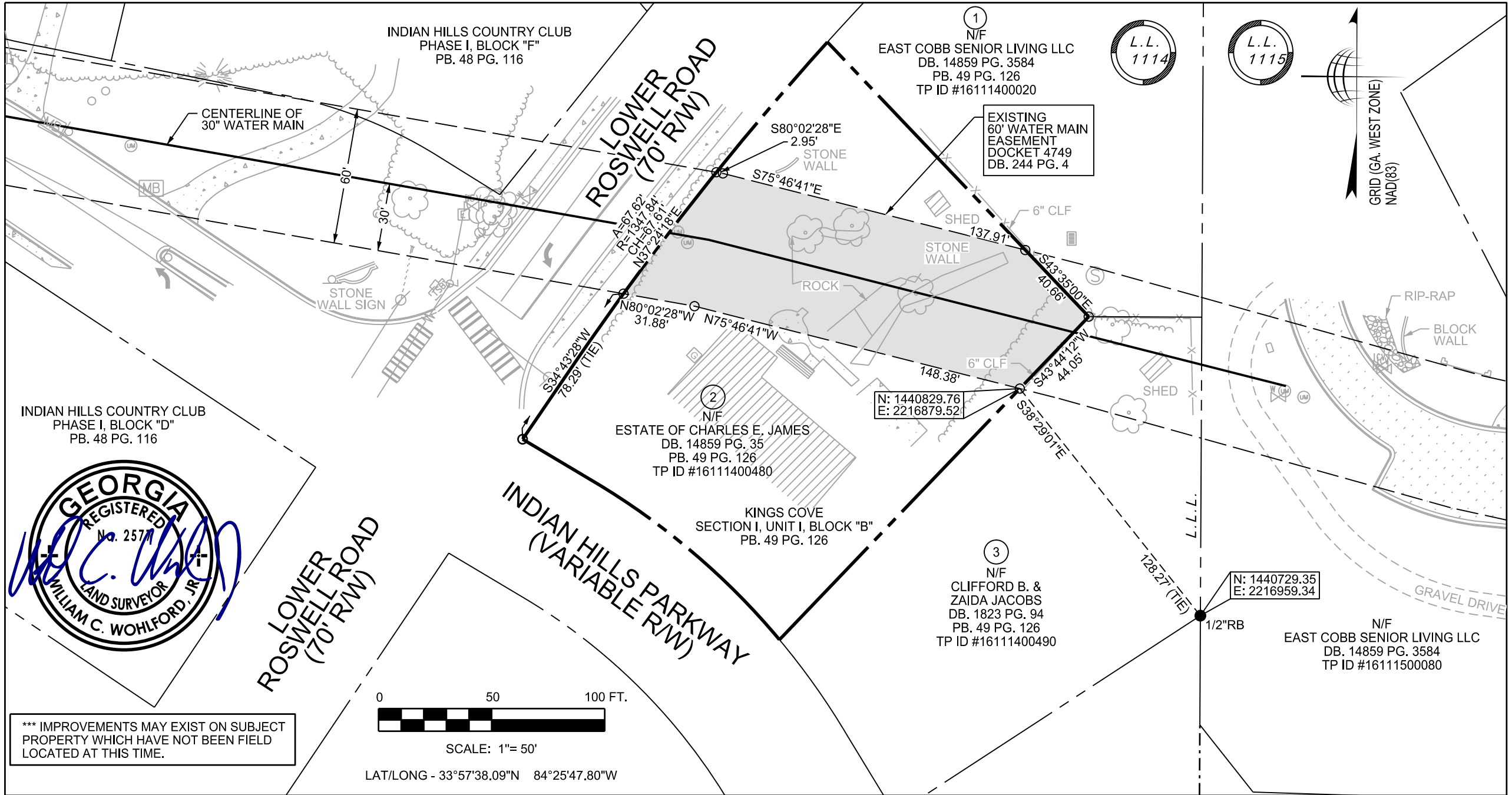


LAT/LONG - 33°57'40.18"N 84°25'50.09"W



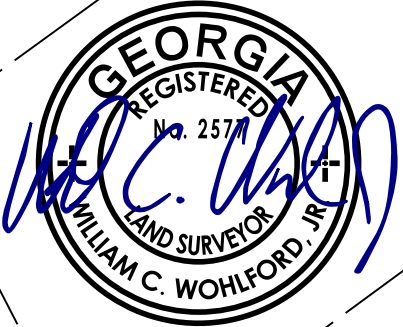
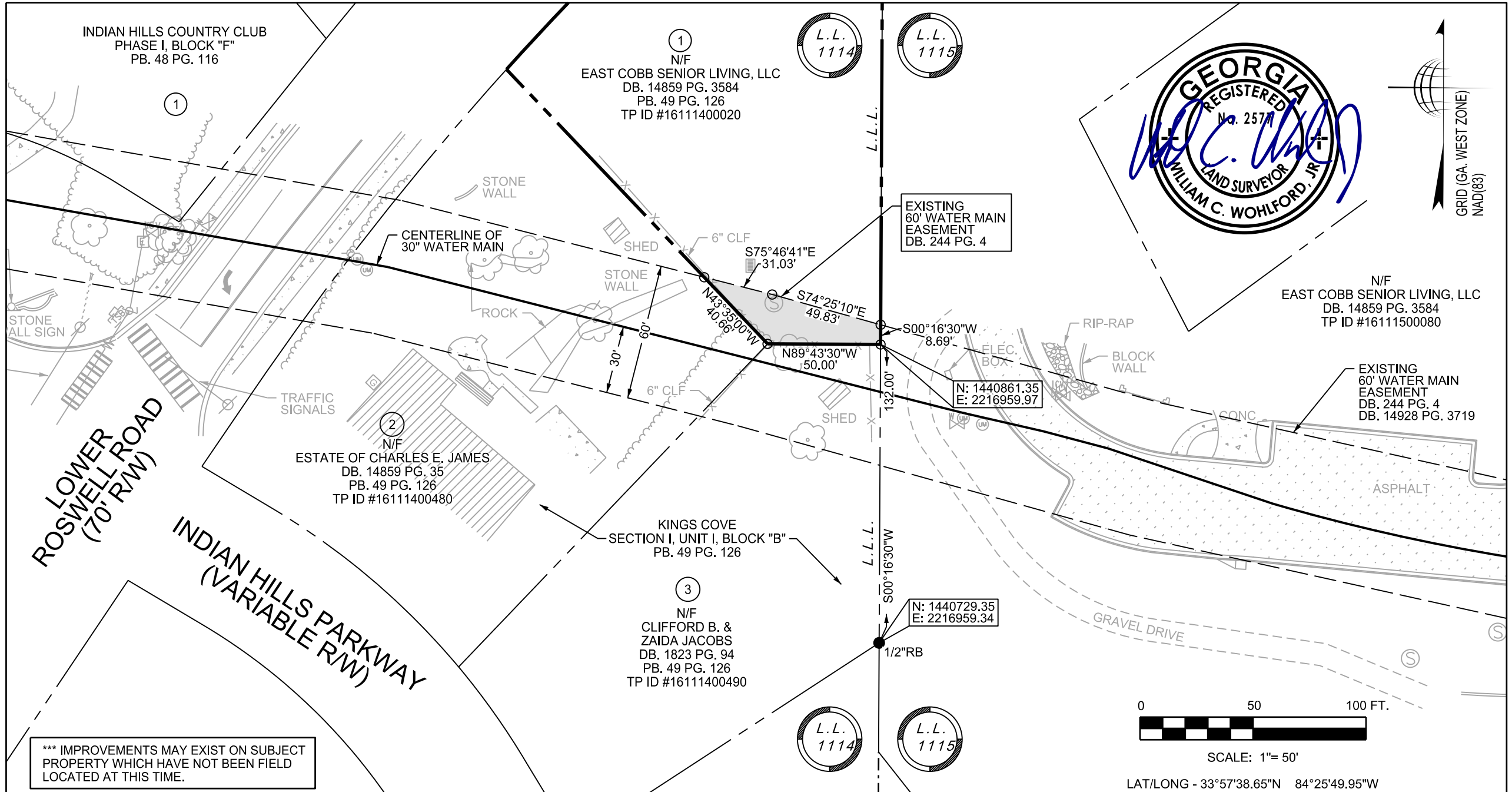
1,128 SQ. FT./ 0.0259 AC. EASEMENT	LOCATED IN INDIAN HILLS COUNTRY CLUB PHASE I, BLOCK "F" PB. 48 PG. 116 LAND LOT 1114	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com
100 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 145	DAVID F. GAMBLE COBB COUNTY	<b>TerraMark</b> Professional Land Surveying (P) (770) 421-1927





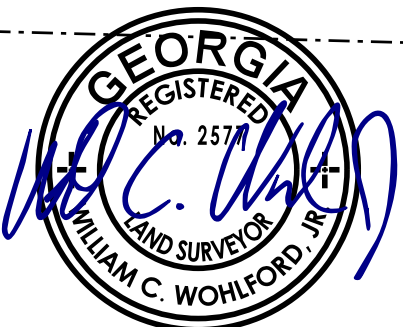
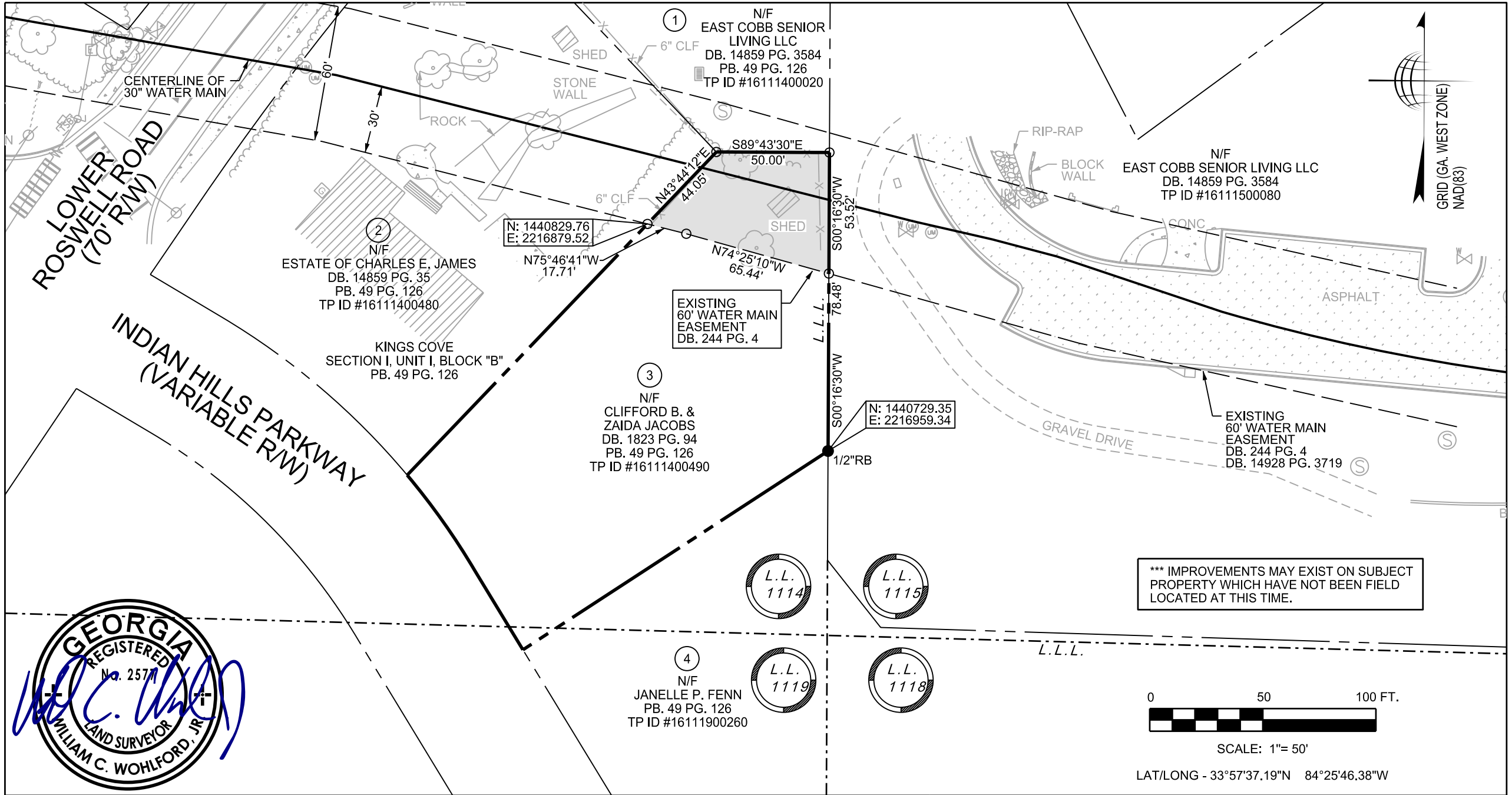
\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

10,547 SQ. FT./ 0.2421 AC. EASEMENT	LOCATED IN KINGS COVE SECTION I, UNIT I, BLOCK "B" PB. 49 PG. 126 LAND LOT 1114	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
184 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 146	ESTATE OF CHARLES E. JAMES COBB COUNTY	TerraMark Professional Land Surveying




\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

1,091 SQ. FT./ 0.0250 AC. EASEMENT	LOCATED IN KINGS COVE SECTION I, UNIT I, BLOCK "B" PB. 49 PG. 126 LAND LOT 1114	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
83 L.F. VARIABLE WIDTH EASEMENT	16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 147	EAST COBB SENIOR LIVING, LLC COBB COUNTY	TerraMark Professional Land Surveying



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

2,935 SQ. FT./ 0.0674 AC. EASEMENT	LOCATED IN KINGS COVE SECTION I, UNIT I, BLOCK "B" PB. 49 PG. 126 LAND LOTS 1114 & 1119 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF:	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
65 L.F. VARIABLE WIDTH EASEMENT	DATE: 4/15/2013 SHEET NO. 1/1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 148	CLIFFORD B. & ZAIDA JACOBS COBB COUNTY	



**ORIGINAL EASEMENT DOCUMENTS**



DEED RECORD 244/10

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Six Hundred Twelve & 50/100ths dollars (\$ 612.50 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Bentley Place located in Land Lot No. 1062 1062 District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 27 + 81 which is the boundary line between the lands of Harris Robinson and the undersigned part, and continuing to Station 31 + 79, which is the boundary line between lands of the undersigned and H. Robinson. The easement covered by this instrument is 80 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 398 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 14 day of June, 1952

Signed, sealed and delivered in the presence of: J. W. BENTLEY (L.S.) McDONALD LAWRENCE (L.S.)

HERBERT C. McCOLLUM (Seal Attached) Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 18, 1952 at 3 P. M. and recorded June 27, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Eighty Seven & 50/100ths dollars (\$ 87.50 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the J. W. Bentley Place located in Land Lot No. 1063, 1064 1064 District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 44 + 63.3, which is the boundary line between the lands of Barnes Mill Road R/W and the undersigned part, and continuing to Station 22 + 50, which is the boundary line between lands of the undersigned and Harris Robinson. The easement covered by this instrument is 80-feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 273.3 linear feet. \*Equality: Sta (-) 44 + 63.3 = Sta 0 + 00

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 14th day of June, 1952

Signed, sealed and delivered in the presence of: J. W. BENTLEY (L.S.) McDONALD LAWRENCE (L.S.)

HERBERT C. McCOLLUM (Seal Attached) Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 18, 1952 at 3 P. M. and recorded June 27, 1952 John T. LeCroy, Clerk



DEED RECORD 244/10

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Six Hundred Twelve & 50/100ths dollars (\$ 612.50 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Bentley Place located in Land Lot No. 1062 1062 District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 27 + 81 which is the boundary line between the lands of Harris Robinson and the undersigned part, and continuing to Station 31 + 79, which is the boundary line between lands of the undersigned and H. Robinson. The easement covered by this instrument is 80 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 398 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 14 day of June, 1952

Signed, sealed and delivered in the presence of: McDONALD LAWRENCE J. W. BENTLEY (L.S.)

HERBERT C. McCOLLUM (Seal Attached) Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 18, 1952 at 3 P. M. and recorded June 27, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Eighty Seven & 50/100ths dollars (\$ 87.50 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the J. W. Bentley Place located in Land Lot No. 1063, 1064 1064 District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 44 + 63.3, which is the boundary line between the lands of Barnes Mill Road R/W and the undersigned part, and continuing to Station 22 + 50, which is the boundary line between lands of the undersigned and Harris Robinson. The easement covered by this instrument is 80-feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 273.3 linear feet. \*Equality: Sta (-) 4463.3 = Sta 0400

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 14th day of June, 1952

Signed, sealed and delivered in the presence of: McDONALD LAWRENCE J. W. BENTLEY (L.S.)

HERBERT C. McCOLLUM (Seal Attached) Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 18, 1952 at 3 P. M. and recorded June 27, 1952 John T. LeCroy, Clerk



EAST ATLANTA BANK : FOR ORIGINAL DEED SEE BOOK 262 PAGE 13  
 TO : STATE OF GEORGIA ap #9746  
 FEDERAL NATIONAL MORTGAGE ASSOCIATION : COUNTY OF DEKALB

For value received, EAST ATLANTA BANK has this day transferred, sold, assigned, conveyed, and set over to the FEDERAL NATIONAL MORTGAGE ASSOCIATION as assignee, its successors, representatives and assigns, all its rights, title and interest in the within Loan Deed and the real estate therein described and the debt secured thereby.

The said assignor specifically transfers sell, conveys and assigns to the above assignee, its successors, representatives and assigns, all the rights, power, option and privileges conferred on it under and by virtue of the terms of the within Loan Deed and the note secured thereby.

The assignor herein has this day sold and assigned to the assignee, herein, the note secured by this deed, without recourse to the assignor, and this transfer is made to secure the assignee, its successors, representatives and assigns, in the payment of said note.

IN WITNESS WHEREOF, the assignor has hereunto set its hand and corporate seal this 8th day of December, 1952.

ATTEST: EAST ATLANTA BANK (SEAL)  
 HUGH C. ROWLAND BY: M. A. THOMPSON  
 Vice President PRESIDENT

Signed, sealed and delivered in the presence of: (Corporate Seal Attached)

ELIZABETH ALLEN  
 CHARLOTTE HAMPTON (Seal Attached)  
 Notary Public, Fulton County, Georgia  
 My Commission expires September 14, 1955

Filed for record December 8, 1952 at 5 P.M., and recorded December 9, 1952.

HARRIS ROBINSON : JOHN T. LECROY, CLERK

TO : STATE OF GEORGIA  
 COBB COUNTY-MARIETTA WATER AUTHORITY : COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of One & no/100 dollars (\$1.00), to the undersigned owner (s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell(s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1951 Acts of the Georgia General Assembly, (Georgia Laws 1951 page 497), its successors and assigns, a right-of-way and easement for the purpose of construction, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Robinson Place located in Land Lot No. 1051-1062, 10607 16th District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water System, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 31/79, which is the boundary line between the lands of J. W. Bentley and the undersigned part, and continuing to Station 52/90, which is the boundary line between lands of the undersigned and Mantie C. McBurnett. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately Three Thousand one hundred eleven (3,111) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of

damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release (s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 7th day of March, 1952.

Signed, sealed and delivered in the presence of: LA RUE ROGERS HARRIS ROBINSON (L.S.)

H. H. POSKY Notary Public, Fulton County, Georgia My Commission expires Aug. 9, 1953

Filed for record December 8, 1952 at 2:30 P.M., and recorded December 10, 1952.

----- JOHN T. LECROY, CLERK ----- 5d

J. HOLLIS GARRETT : STATE OF GEORGIA TO : COBB ACME LUMBER COMPANY : COUNTY

MATERIALS MEN LIEN:

Acme Lumber Company, a partnership composed of G.H. McMillan and F.J. Keinel, doing business at Acworth, Georgia, Cobb County, claim a lien on the real Estate and improvements, the property of J. Hollis Garrett, Acworth, Georgia for \$14.11, for materials furnished to said Garrett, consisting of composition brick siding for the improvement to property of the said Garrett, situated and described as follows:

A two room house located on a one acre tract, more or less in land lot number 48 of the 20th. District and 2nd. Section of Cobb County. Said tract bounded on the West by a road that crosses the rail road (N C & St. L.) in front of the Chas. Hunter home place, North by the Hickory Grove road, East by property of Dillard Garrett and South by the right of way of W and A. Railroad.

This material furnished within three months previous to the filing of this lien. This the 8th day of December 1952.

Acme Lumber Company, A Partnership: Composed of G.H. McMillan and F.J. Keinel.

Sworn and witnessed by, CHAS. H. McMILLAN My com. expires 10/27/55

By: G.H. McMILLAN A PARTNER

Filed for record December 10, 1952 at 12 AM and recorded December 10, 1952.

----- JOHN T. LECROY, CLERK ----- 5j

COBB EXCHANGE BANK : FOR ORIGINAL DEED SEE BOOK 262 PAGE 29 TO : STATE OF GEORGIA: COUNTY OF COBB THE BROOKLYN SAVINGS BANK :

For value received, COBB EXCHANGE BANK, has this day transferred, sold, assigned, conveyed and set out to THE BROOKLYN SAVINGS BANK, as Assignee, its successors, representatives and assigns, all its right, title and interest in and to a loan deed executed by W. D. Hathcock to Cobb Exchange Bank, dated December 12th 1952 in the principal sum of \$8,000.00 and filed for record in the office of the Clerk of Superior Court, Cobb County, Georgia, on Dec. 12, 1952 at 5:00 P.M., and recorded in Deed Book 262 Page 29, of Records aforesaid.

The Assignor herein specifically transfers, sells conveys, and assigns to the above Assignee, its successors, representatives and assigns, all the right, power, option and privileged conferred on it under and by virtue of the terms of the within loan deed and the note secured thereby.

The Assignor herein has this day sold and assigned to the Assignee herein the note secured by this deed, without recourse on the Assignor, and this transfer is made to secure the Assignee, its successors, representatives and assigns, in the payment of said note.

In Witness Whereof, the Assignor has hereunto set his hand and corporate seal this 12th day of Dec., 1952.

MRS. EDWARD GOFF Witness BEHRE POSS (Seal Attached) Notary Public, Cobb County, Georgia

COBB EXCHANGE BANK BY: ROSSER N. LITTLE Pres. BY: PHYLLIS C. TYSON ASST. CASHIER (Corporate Seal Attached)

Filed for record December 12, 1952 at 5 P.M., and recorded December 13, 1952.

# DEED RECORD 244/9

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of One Hundred

dollars (\$ 100.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Russell Place located in Land Lot No. 1105, 1105 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 113 + 58, which is the boundary line between the lands of H. T. Barnett and the undersigned party, and continuing to Station 116 + 77, which is the boundary line between

lands of the undersigned and L. C. Wylie. The easement covered by this instrument is 30 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 319 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantor.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 9 day of April, 19 52

Signed, sealed and delivered in the presence of: N. A. RUSSELL (L. S.)

MCDONALD LAWRENCE (L. S.)  
HERBERT C. McCOLLUM (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga.  
My Commission Expires June 25, 1955  
Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

**New York**  
STATE OF ~~GEORGIA~~ COUNTY OF ~~COBB~~ **New York**

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Six Hundred

dollars (\$ 600.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state, and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Hatcher Place located in Land Lot No. 72, 72 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 43 x 50, which is the boundary line between the lands of Mrs. Evelyn Hatcher and the undersigned party, and continuing to Station 50 x 20, which is the boundary line between

lands of the undersigned and Hughes Spalding. The easement covered by this instrument is 30 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately six hundred seventy (670) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantor.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 13th day of June, 19 52

Signed, sealed and delivered in the presence of: THURSTON HATCHER, JR. (L. S.)  
Thurston Hatcher, Jr.

GEORGE LICHTENBERGER (L. S.)  
GEORGE F. DAHLKE (L. S.)  
GEORGE F. DAHLKE (Seal Attached) (L. S.)

Notary Public, ~~Cobb County, Ga.~~ **State of New York** Clerk & Register Term expires March 30, 1954  
Filed for record June 16, 1952 at 11 A. M. and recorded June 25, 1952 John T. LeCroy, Clerk

DEED RECORD 244 //

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Eight Hundred Forty Four 20/100 dollars (\$ 844.20), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1931 Acts of the Georgia General Assembly, (Georgia Laws 1931 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the McBurnett Place located in Land Lot No. 1059, 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 62 + 70, which is the boundary line between the lands of Harris Robinson and the undersigned part, and continuing to Station 76 + 97, which is the boundary line between

lands of the undersigned and S.L. Hunton. The easement covered by this instrument is 90 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately (1407) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

This undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned have hereunto set her hand and affixed her seal, this 24 day of June, 1952.

Signed, sealed and delivered in the presence of: MAMIE C. MCBURNETT (L.S.)

MCDONALD LAWRENCE (L.S.)

HERBERT C. MCCOLLUM (Seal attached) (L.S.)  
Notary Public, Cobb County, Ga.  
My Commission expires June 25, 1955

Filed for record June 25, 1952 at 10 A.M. and recorded July 14, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Four Hundred one & 85/100 dollars (\$401.85), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1931 Acts of the Georgia General Assembly, (Georgia Laws 1931 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Barfield Place located in Land Lot No. 1103, 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 76 + 97, which is the boundary line between the lands of McBurnett and the undersigned part, and continuing to Station 85 + 90, which is the boundary line between

lands of the undersigned and Barfield. The easement covered by this instrument is 200 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately (893) linear feet, average 45' wide.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

This undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 12 day of August, 1952.

Signed, sealed and delivered in the presence of: J. W. BARFIELD (L.S.)

MCDONALD LAWRENCE (L.S.)

HERBERT C. MCCOLLUM (Seal Attached) (L.S.)  
Notary Public, Cobb County, Ga.  
My Commission expires June 25, 1955

Filed for record September 18, 1952 at 11 A.M. and recorded September 20, 1952 John T. LeCroy, Clerk

DEED RECORD 244/6

STATE OF GEORGIA, COUNTY OF COBB FULTON

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Nine Hundred Ninety One & no/100 dollars (\$ 991.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1861 Acts of the Georgia General Assembly, (Georgia Laws 1861 page 487), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Wight-Lewis Place located in Land Lot No. 1109-1110 Leth District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 154.93, which is the boundary line between the lands of Harold Robinson and the undersigned parcel, and continuing to Station 179.71, which is the boundary line between lands of the undersigned and L. P. Cobb. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 247.8 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned have hereunto set their hand(s) and affixed their seal(s) this 22 day of March, 1952.

Signed, sealed and delivered in the presence of: THOMAS M. LEWIS, MRS. E. S. LEWIS (L.S.), MRS. SARAH LEWIS WIGHT (L.S.), WARD WIGHT, JR. (Seal Attached) Notary Public, Cobb County, Georgia. My Commission Expires Nov. 6, 1954.

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Eight Hundred Forty Four & 20/100 dollars (\$ 844.20 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1861 Acts of the Georgia General Assembly, (Georgia Laws 1861 page 487), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the McBurnett Place located in Land Lot No. 1059 Leth District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 62.90 which is the boundary line between the lands of Harris Robinson and the undersigned parcel, and continuing to Station 76.97, which is the boundary line between lands of the undersigned and S. L. Hunton. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 14.07 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal this 26 day of May, 1952.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE, J. G. McBurnett (L.S.), HERBERT C. MCCOLLUM (Seal Attached) Notary Public, Cobb County, Georgia. My Commission Expires June 25, 1955.

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk



DEED RECORD 244 / 5

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Four Hundred & 44 dollars (\$ 444.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1881 Acts of the Georgia General Assembly, (Georgia Laws 1881 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Lindsey Place located in Land Lot No. 8 & 9 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 65462, which is the boundary line between the lands of Hugh Spaulding and the undersigned party, and continuing to Station 70406, which is the boundary line between lands of the undersigned and Cobb County-Marietta Water Authority. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately Four Hundred Forty-four (444) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted. The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 31 day of May, 1952.

Signed, sealed and delivered in the presence of:

ELDON R. LINDSEY (L. S.)

MCDONALD LAWRENCE (L. S.)

HERBERT C. MCCOLLUM (Seal Attached)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A.M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of TWO THOUSAND & NO/100 dollars (\$ 2000.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1881 Acts of the Georgia General Assembly, (Georgia Laws 1881 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Cobb Place located in Land Lot No. 1111-1112 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 17947, which is the boundary line between the lands of Elizabeth M. Lewis and the undersigned party, and continuing to Station 22478, which is the boundary line between lands of the undersigned and E. D. Bishop. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 4507 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted. The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 8 day of May, 1952.

Signed, sealed and delivered in the presence of:

LAWRENCE P. COBB (L. S.)

MCDONALD LAWRENCE (L. S.)

HERBERT C. MCCOLLUM (Seal Attached)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A.M. and recorded June 18, 1952 John T. LeCroy, Clerk

# DEED RECORD 244 //

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Eight Hundred Forty Four 20/100 dollars (\$ 844.20 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1931 Acts of the Georgia General Assembly, (Georgia Laws 1931 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the McBurnett Place located in Land Lot No. 1059, 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 62 + 70, which is the boundary line between the lands of Harris Robinson and the undersigned part, and continuing to Station 76 + 97, which is the boundary line between

lands of the undersigned and S.L. Hunton. The easement covered by this instrument is 90 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately (1407) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

This undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned have hereunto set her hand and affixed her seal, this 24 day of June, 1952.

Signed, sealed and delivered in the presence of: MAMIE C. MCBURNETT (L. S.)

MCDONALD LAWRENCE (L. S.)

HERBERT C. MCCOLLUM (Seal attached) (L. S.)  
 Notary Public, Cobb County, Ga.  
 My Commission expires June 25, 1955

Filed for record June 25, 1952 at 10 A.M. and recorded July 14, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Four Hundred one & 85/100 dollars (\$401.85 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1931 Acts of the Georgia General Assembly, (Georgia Laws 1931 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Barfield Place located in Land Lot No. 1103, 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 76 + 97, which is the boundary line between the lands of McBurnett and the undersigned part, and continuing to Station 85 + 90, which is the boundary line between

lands of the undersigned and Barfield. The easement covered by this instrument is 200 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately (893) linear feet, average 45' wide.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

This undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned have hereunto set his hand and affixed his seal, this 12 day of August, 1952.

Signed, sealed and delivered in the presence of: J. W. BARFIELD (L. S.)

MCDONALD LAWRENCE (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) (L. S.)  
 Notary Public, Cobb County, Ga.  
 My Commission expires June 25, 1955

Filed for record September 18, 1952 at 11 A.M. and recorded September 20, 1952 John T. LeCroy, Clerk

DEED RECORD 244 /7

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Five Hundred & 35 - 80/100 dollars (\$ 535 - / 80 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Hunton Place located in Land Lot No. 1088-10th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 76 + 97, which is the boundary line between the lands of Memle C. McBurnett and the undersigned part, and continuing to Station 85 + 90, which is the boundary line between lands of the undersigned and J. C. Johnson. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 893 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 26 day of May, 1952.

Signed, sealed and delivered in the presence of: H. L. BARFIELD S. L. HUNTON (L. S.)

HERBERT C. McCOLLUM (Seal Attached) Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955. Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of One Thousand & No/100 dollars (\$ 1000.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Robinson Place located in Land Lot 1107-1108-10th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 129 + 90 which is the boundary line between the lands of L. C. Wylie and the undersigned part, and continuing to Station 154 + 93, which is the boundary line between lands of the undersigned and Sarah Lewis Wight. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 2503 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 20 day of March, 1952.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE H. W. ROBINSON (L. S.)

HERBERT C. McCOLLUM (Seal Attached) Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955. Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk



DEED RECORD 244/8

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Two Hundred Seventy Five dollars (\$ 275/00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged,

the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Wylie Place located in Land Lot No. 1106 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 116 / 77, which is the boundary line between the lands of N. A. Russell and the undersigned part 2, and continuing to Station 129 / 90, which is the boundary line between lands of the undersigned and Herold Robinson. The easement covered by this instrument is 80 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 2313 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 19th day of March, 1952.

Signed, sealed and delivered in the presence of:

MCDONALD LAWRENCE

H. L. WYLIE GDN. (L. S.)

L. C. WYLIE (L. S.)

HERBERT C. McCOLLUM (Seal Attached)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of One Thousand Thirty-eight dollars (\$ 1038.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged,

the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Barfield Place located in Land Lot No. 1103-1104 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 85 x 90 which is the boundary line between the lands of S. L. Hunton and the undersigned part X, and continuing to Station 103 x 25, which is the boundary line between lands of the undersigned and H. T. Barnett. The easement covered by this instrument is 80 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 2735 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 26 day of May, 1952.

Signed, sealed and delivered in the presence of:

MCDONALD LAWRENCE

J. W. BARFIELD (L. S.)

HERBERT C. McCOLLUM (Seal Attached)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

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Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 103+25, which is the boundary line between the lands now or formerly owned by Joseph C. Johnson, and H. T. Barnett, and continuing to Station 113+58, which is the boundary line between said H. T. Barnett and Norman A. Russell. The easement sought to be condemned is 60 feet wide, the center line of which shall be the center line of the pipe line hereafter installed by the Cobb County-Marietta Water Authority over, upon, through, under or across said lands. The easement begins and ends where the said location ends and leaves the property of H. T. Barnett and totals approximately 1,033 linear feet.

3.

Said pipe line is to be buried below plow depth and the owner of said property is to retain the fee and said owner is entitled to make any use of the property which is not inconsistent with its use for the purpose for which it is hereby condemned.

4.

Said property sought to be condemned is more particularly described on a plat prepared by Merritt & Welker, Engineers, under date of August, 1951, a copy of which is on file in the Office of the Cobb County-Marietta Water Authority, Courthouse, Marietta, Georgia.

5.

Said property is to be used for the purpose of building and constructing thereon a pipe line in connection with the water system which has been laid out as shown on plans and blue prints on file in the Office of said Authority, and is to be a part of the water supply system extending from the Chattahoochee River to all parts of Cobb County, Georgia, to furnish water for the general use of the public and for public convenience and necessity.

6.

Petitioner has made a bona fide effort to purchase said property and has offered to pay the fair market value thereof to the Owner. Petitioner has adopted a resolution declaring the acquisition of the real property sought to be condemned as necessary for the purposes herein stated.

7.

Petitioner is informed and believes that the owner of said property is H. T. Barnett, an incompetent, whose guardian is Mrs. Emma Lee Barnett, she having been duly appointed and qualified as guardian through the Court of Ordinary, Cobb County, Georgia.

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GEORGIA, COBB COUNTY

TO THE SUPERIOR COURT OF SAID COUNTY:

Now comes COBB COUNTY-MARIETTA WATER AUTHORITY, a political subdivision of the State of Georgia, and a public corporation thereof, of Cobb County, Georgia, acting in its own behalf, as Plaintiff and Condemnor, and in the exercise of its powers of eminent domain, brings this action for condemnation and alleges:

1.

That the COBB COUNTY-MARIETTA WATER AUTHORITY was organized by an Act of the General Assembly of the State of Georgia known as the Cobb County-Marietta Authority Act passed at the 1951 Session of the Georgia General Assembly, said act being recorded in said 1951 Acts at page 497, et seq., which said act provides that said authority may acquire property, easements or franchises by condemnation in accordance with the provisions of any and all existing laws applicable to the condemnation of property for public use, and use the same so long as its corporate existence shall continue, and to accept and pay for any property so condemned under said Act from the funds provided under the authority of said Act.

2.

This petition in rem is brought by the Cobb County-Marietta Water Authority to acquire by condemnation a right-of-way easement across property hereinafter described, said right-of-way easement to be for the purpose of entering upon said property, constructing, maintaining, operating, altering, repairing, removing, changing the size of and replacing pipe for the transportation of water, together with the right to enter upon said property and to lay, construct, maintain operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned; and together with the right to all necessary drainage in the construction and maintenance of said pipe line over the said property hereinafter described and on the land adjacent thereto. Said property is described as follows:

All that tract or parcel of land lying and being in original Land Lot No. 1105 of the 16th District and 2nd Section of Cobb County, Georgia, and being a portion of the property conveyed to H. T. Barnett by deed recorded in Deed Book 147 page 41, Cobb County Records, and being that portion of said property which lies within the easement lines as shown on plat of the Cobb County-Marietta Water System, which plans are on file in the Office of the Cobb County-Marietta Water

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IN THE SUPERIOR COURT OF  
COBB COUNTY, GEORGIA

COBB COUNTY-MARIETTA WATER  
AUTHORITY

DOCKET NO. 4696

VS.

R/W across Land Lot 1105,  
16th District, 2nd Section,  
Cobb County, Georgia, and  
Mrs. Emma Lee Barnett as  
Guardian of H. T. Barnett,  
incompetent.

IN REM

JUDGMENT OF COURT

It appearing to the Court that:

Assessors duly appointed and qualified have made an award and  
finding in the above stated case;

All provisions of law as to service and notice on all parties  
interested in the property described in the petition have been compli  
with, pursuant to orders and directions of the Court consistent with  
justice and due process of laws:

It is decreed, ordered and adjudged that all the property descri  
in the petition in said right-of-way, to-wit:

All that tract or parcel of land lying and being in original Land Lot  
No. 1105 of the 16th District and 2nd Section of Cobb County, Georgia  
and being a portion of the property conveyed to H. T. Barnett by deed  
recorded in Deed Book 147 page 41, Cobb County Records, and being the  
portion of said property which lies within the easement lines as show  
on plat of the Cobb County-Marietta Water System, which plans are on  
file in the Office of the Cobb County-Marietta Water Authority, Marie  
Georgia, and which plans are hereby referred to and made a part hereo  
Said easement begins at Station 103/28, which is the boundary line be  
tween the lands now or formerly owned by Joseph C. Johnson, and H. T.  
Barnett, and continuing to Station 113/58, which is the boundary line  
between said H. T. Barnett and Norman A. Russell. The easement soug  
to be condemned is 60 feet wide, the center line of which shall be the  
center line of the pipe line hereafter installed by the Cobb County-  
Marietta Water Authority over, upon, through, under or across said  
lands. The easement begins and ends where the said location ends and  
leaves the property of H. T. Barnett and totals approximately 1,033  
linear feet.

be, and the same is hereby condemned for right-of-way purposes as set  
out in said petition; and upon the payment of the sum of \_\_\_\_\_

Six Hundred Two & no/100 - Dollars,

the plaintiff, Cobb County-Marietta Water Authority, and its successor  
in office, are hereby vested with full and complete title to said righ  
of-way as described in the petition.

Let this order be filed as part of the record in this case.  
This 11 day of July, 1952.

*Howell Book*  
JUDGE, SUPERIOR COURT, E. H. C.

MINUTES, KK PAGE 20\*

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demmed for right-of-way, ~~to wit:~~ *as above described*

The said Cobb County-Marietta Water Authority shall pay to Emma Lee Barnett, as Guardian of H. T. Barnett, the owner, the sum of \_\_\_\_\_

*Six Hundred Two & no/100* — Dollars.

We further find consequential damage to the property of \_\_\_\_\_

\_\_\_\_\_ not taken, to amount of \_\_\_\_\_

~~\_\_\_\_\_~~ Dollars and that the said Cobb County-Marietta Water Authority shall pay said Mrs. Emma Lee Barnett, as Guardian of

H. T. Barnett the difference between such damage and such benefits,

if any, in addition to the award fixing the value of the lands so taken.

This the 2nd day of July, 1952.

\_\_\_\_\_  
*Award*

\_\_\_\_\_  
*E. H. H. H.*

\_\_\_\_\_  
*Dorsey Hicks*

Assessors

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GEORGIA, COBB COUNTY

We, the assessors appointed as provided by law in re:  
Cobb County-Marietta Water Authority vs. R/W across Land Lot  
1105, 16th District, 2nd Section, Cobb County, Georgia, and Mrs.  
Emma Lee Barnett as Guardian of H. T. Barnett, incompetent, do  
solemnly swear to do equal and exact justice between the parties  
according to law.

Sworn to and subscribed before  
me this 2nd day of July, 1952.

Georgia Lee Smith  
Notary Public, Cobb County, Ga.

Ernest D. Hall  
Dorsey Hicks  
Reward

COBB COUNTY-MARIETTA WATER  
AUTHORITY

Docket No. \_\_\_\_\_

VS.

IN REM

R/W across Land Lot 1105,  
16th District, 2nd Section,  
Cobb County, Georgia, and  
Mrs. Emma Lee Barnett as  
Guardian of H. T. Barnett,  
incompetent

Upon the application of the Cobb County-Marietta Water Authority  
to condemn the right-of-way on lands owned by H. T. Barnett, to-wit:

All that tract or parcel of land lying and being in original Land Lot  
No. 1105 of the 16th District and 2nd Section of Cobb County, Georgia,  
and being a portion of the property conveyed to H. T. Barnett by deed  
recorded in Deed Book 147 page 41, Cobb County Records, and being that  
portion of said property which lies within the easement lines as shown  
on plat of the Cobb County-Marietta Water System, which plans are on  
file in the Office of the Cobb County-Marietta Water Authority, Marietta  
Georgia, and which plans are hereby referred to and made a part hereof.  
Said easement begins at Station 103/25, which is the boundary line be-  
tween the lands now or formerly owned by Joseph C. Johnson, and H. T.  
Barnett, and continuing to Station 113/58, which is the boundary line  
between said H. T. Barnett and Norman A. Russell. The easement sought  
to be condemned is 60 feet wide, the center line of which shall be the  
center line of the pipe line hereafter installed by the Cobb County-  
Marietta Water Authority over, upon, through, under or across said land.  
The easement begins and ends where the said location ends and leaves the  
property of H. T. Barnett and totals approximately 1,033 linear feet.

Notice was duly served by the Sheriff of Cobb County upon H. T.  
Barnett, owner through his guardian, Mrs. Emma Lee Barnett.

The applicant appointed A. P. Jones, as assessor, the owner ap-  
pointed Reward as assessor, and they appoint  
Dorsey Hicks as assessor.

Now, we after being duly sworn, viewing said premises and hearing  
evidence find and award that for taking the property sought to be con-

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IN THE SUPERIOR COURT  
OF COBB COUNTY, GEORGIA

COBB COUNTY-MARIETTA  
WATER AUTHORITY

: DOCKET NO. 4696  
: IN REM

VS.

R/W across Land Lot  
1105, 16th District,  
2nd Section, Cobb County,  
Georgia, and Mrs. Emma  
Lee Barnett as Guardian  
of H. T. Barnett, incompetent

ORDER OF THE COURT

It appearing to the court, by the return of the Sheriff on the original petition, H. T. Barnett, owner of Right-of-way across Land Lot 1105, 16th District, 2nd Section, Cobb County, Georgia, described in the original petition for condemnation filed in the above stated cause, thru his guardian, Mrs. Emma Lee Barnett, has been served with a copy of said petition and the previous order of this court thereon:

It is ordered by the court that said service be and the same is hereby approved.

It further appearing unto the court that the Condemnor has selected, as its assessor, E. J. Hobbs, and that the condemnee has selected as their assessor, R. J. Ward, and that said selected assessors have selected Dorsey Duke, as the third assessor; it is ordered by the court that the selection of said assessors is hereby approved and they are authorized to proceed with the assessment of the value of the right-of-sought to be condemned and made and file their findings thereon, as provided by law.

Done and ordered at Marietta, Georgia, on this 27 day of

June, 1952.

Howell Boothe  
JUDGE, SUPERIOR COURT, C. R. C.

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GEORGIA, COBB COUNTY

I, Mrs. Emma Lee Barnett, as Guardian of H. T. Barnett,  
incompetent, hereby name R. J. Ward  
as my assessor in the within petition for condemnation.  
This 28 day of June, 1952.

Mrs. Emma Lee Barnett  
As Guardian of H. T. Barnett,  
incompetent.

We, the undersigned assessors for the Cobb County-Marietta  
Water Authority and Mrs. Emma Lee Barnett as Guardian of H. T.  
Barnett, incompetent, do hereby name Harvey Hiker  
of said county as third assessor.  
This 20 day of July, 1952.

Howard  
E. H. Hiker



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GEORGIA, COBB COUNTY

I, JOHN T. DORSEY, Ordinary of said County, do acknowledge service of the foregoing petition and order.

And I, John T. Dorsey, do hereby certify that a copy of the foregoing citation has been posted before the Courthouse door in Cobb County, Georgia, more than five (5) days prior to the 27 day of June, 1952, the date set for a hearing.

WITNESS my official signature, this 12 day of June, 1952.

John T. Dorsey  
ORDINARY

GEORGIA, COBB COUNTY

I, J. E. BERRY, Tax Collector of said County, do acknowledge due and timely service of the foregoing petition and order.

WITNESS my official signature this 12 day of June, 1952.

James E. Berry  
TAX COLLECTOR

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ORDER

The foregoing petition read and considered, it is ordered that the same be filed.

It is further ordered that all persons owning or claiming any right, title, interest, claim or demand, all lienors, tenants, lessees or any other persons at interest, in and to the land and/or right-of-way easement described in the foregoing petition, appear before me in the Superior Court Room at Chambers, in Marietta, Georgia, on the 27 day of June, 1952, at the hour of 10 o'clock in the A.M., and then and there make known their objections, if any, their rights, title and claims, and the value thereof, and at the same time make known the assessor selected, who shall then and there be sworn and enter upon his duties.

It is further ordered that a copy of the foregoing petition and of this order be served at least five (5) days before the date of said hearing, upon all persons residing in Georgia, named or indicated in said petition as having any rights or any interest in said land, as follows:

(1) By personal service upon each of such persons who is sui juris and in the State of Georgia or a resident thereof, and by service upon the Tax Collector of said County, the Ordinary of said County and the person in possession of said land.

(2) By posting a copy of the attached citation before the Courthouse door in Cobb County, Georgia, five (5) days prior to the date fixed for said hearing and by publishing the same in the official newspaper in said County one time five (5) days before the said hearing.

(3) By personal service upon each resident minor and upon the Guardian or other legal representative of any person who is a minor or under other disability imposed by law.

This 10 day of June, 1952.

  
JUDGE, SUPERIOR COURT, E. R. C.

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decree and adjudge the absolute title to said right-of-way described  
in the foregoing petition, free of liens and encumbrances, vested  
in Petitioner, so long as its corporate existence shall continue.

*William Cheney Hicks & Edwards*  
WILLINGHAM, CHENEY, HICKS & EDWARDS

Attorneys for Petitioner

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8.

The County of Cobb and State of Georgia may have some claim against said lands on account of unpaid State and County taxes.

9.

The said owner generally and all lienors and any other person known and unknown claiming any right, title, power, interest, ownership, equity, claim or demand in and to said land and all occupants, tenants, lessees, licensees and all holders, owners and users of ways and easements in, across and over said land, are made parties defendant to this action to the end that they may come into Court and make claim to such interest or ownership or other right as they may have in the same and to the proceeds arising therefrom.

10.

Because the Petitioner believes that there may be taxes due on said land, and that the title of the apparent owner is incomplete, and that there may be persons unknown and non-resident who may have some claim or demand thereon, and for other reasons, Petitioner brings this action in the Superior Court of Cobb County, Georgia, as by statute in such cases made and provided.

11.

*E. L. Hobbie*

Petitioner names as its Assessor, *E. L. Hobbie*, Cobb County, Ga.

WHEREFORE, Petitioner prays that the defendants named herein and all persons known and unknown, who may claim or have an interest in said right-of-way sought to be condemned, be required to appear at a time and place to be named by the Court, to make known their objections if any they have, their rights, ownership and interest in said land and/or right-of-way, and claims as to the value of same and to name an assessor. Petitioner further prays that notice be given to the Tax Collector of Cobb County, and that notice be published once in the Marietta Daily Journal; that notice be given the Ordinary of Cobb County Georgia, who shall represent and act for any unknown owners and for any minors who may have any title, interest, claim or demand in and against said land and/or right-of-way; that the assessors named according to law be ordered to make an award as by statute provided, and that upon payment of such award into the registry of the Court, the Court

DEED RECORD 244/9

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of One Hundred

dollars (\$ 100.00 ) to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1951 Acts of the Georgia General Assembly, (Georgia Laws 1951 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Russell Place located in Land Lot No. 1105 15th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 113 + 58, which is the boundary line between the lands of H. T. Barnett and the undersigned party, and continuing to Station 116 + 77, which is the boundary line between

lands of the undersigned and L. C. Wylie

The easement covered by this instrument is 15'00" feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 319' linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantor.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 9 day of April, 19 52

Signed, sealed and delivered in the presence of: N. A. RUSSELL (L. S.)

MCDONALD LAWRENCE (L. S.)

HERBERT C. McCOLLUM (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga.  
My Commission Expires June 25, 1955  
Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

New York  
STATE OF ~~GEORGIA~~ COUNTY OF ~~COBB~~ New York

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Six Hundred

dollars (\$ 600.00 ) to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1951 Acts of the Georgia General Assembly, (Georgia Laws 1951 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state, and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Hatcher Place located in Land Lot No. 72 15th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 43 x 50, which is the boundary line between the lands of Mrs. Evelyn Hatcher and the undersigned party, and continuing to Station 50 x 20, which is the boundary line between

lands of the undersigned and Hughes Spalding

The easement covered by this instrument is 12'00" feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately six hundred seventy (670') linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantor.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 13th day of June, 19 52

Signed, sealed and delivered in the presence of: THURSTON HATCHER, JR. (L. S.)  
Thurston Hatcher, Jr.

GEORGE F. DAHLKE (Seal Attached) (L. S.)  
GEORGE F. DAHLKE  
Notary Public, State of New York No. 66-5904100  
Qualified in Westchester County, Dept. Filed with N.Y. Co. Clerk & Register Term expires March 30, 1954

Filed for record June 16, 1952 at 11 A. M. and recorded June 25, 1952 John T. LeCroy, Clerk

DEED RECORD 244/8

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Two Hundred Seventy Five dollars (\$ 275/00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged,

the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Wylie Place located in Land Lot No. 1106 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 116 / 77, which is the boundary line between the lands of N. A. Russell and the undersigned part 2, and continuing to Station 129 / 90, which is the boundary line between lands of the undersigned and Herold Robinson. The easement covered by this instrument is 80 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 2313 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 19th day of March, 1952.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE H. L. WYLIE GDN. (L. S.)

HERBERT C. McCOLLUM (Seal Attached) L. C. WYLIE (L. S.)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of One Thousand Thirty-eight dollars (\$ 1038.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged,

the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Barfield Place located in Land Lot No. 1103-1104 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 85 x 90 which is the boundary line between the lands of S. L. Hunton and the undersigned part X, and continuing to Station 103 x 25, which is the boundary line between lands of the undersigned and H. T. Barnett. The easement covered by this instrument is 80 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 2735 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 26 day of May, 1952.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE J. W. BARFIELD (L. S.)

HERBERT C. McCOLLUM (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

DEED RECORD 244 /7

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Five Hundred & 35 - 80/100 dollars (\$ 535 / 80 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Hunton Place located in Land Lot No. 1088 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 76 + 97, which is the boundary line between the lands of Memle C. McBurnett and the undersigned part, and continuing to Station 85 + 90, which is the boundary line between lands of the undersigned and J. C. Johnson. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 893 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned ha. S hereto set. his hand and affixed his seal, this 26 day of May, 1952.

Signed, sealed and delivered in the presence of: H. L. BARFIELD S. L. HUNTON (L. S.)

HERBERT C. McCOLLUM (Seal Attached) Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955. Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of One Thousand & No/100 dollars (\$ 1000.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Robinson Place located in Land Lot 1107-1108 10th District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 129 + 90 which is the boundary line between the lands of L. C. Wylie and the undersigned part, and continuing to Station 154 + 93, which is the boundary line between lands of the undersigned and Sarah Lewis Wight. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 2503 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned ha. S hereto set. his hand and affixed his seal, this 20 day of March, 19 52.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE H. W. ROBINSON (L. S.)

HERBERT C. McCOLLUM (Seal Attached) Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955. Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk



# DEED RECORD 244/6

STATE OF GEORGIA, COUNTY OF COBB FULTON

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Nine Hundred Ninety One & no/100 dollars (\$ 991.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1861 Acts of the Georgia General Assembly, (Georgia Laws 1861 page 487), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Wight-Lewis Place located in Land Lot No. 1109-1110 1109 District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 154.93, which is the boundary line between the lands of Harold Robinson and the undersigned part L, and continuing to Station 179.71, which is the boundary line between lands of the undersigned and L. P. Cobb. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 2178 ( 434 ) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned have hereunto set their hand(s) and affixed their seal(s) this 22 day of March, 1952.

Signed, sealed and delivered in the presence of:

THOMAS M. LEWIS \_\_\_\_\_ MRS. E. S. LEWIS (L. S.)  
 \_\_\_\_\_ MRS. SARAH LEWIS WIGHT (L. S.)

WARD WIGHT, JR. (Seal Attached)  
 Notary Public, ~~COBB COUNTY~~ Ga. Notary Public, Fulton County, Georgia  
 My Commission Expires Nov. 6, 1954.  
 Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Eight Hundred Forty Four & 20/100 dollars (\$ 844/20 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1861 Acts of the Georgia General Assembly, (Georgia Laws 1861 page 487), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the McBurnett Place located in Land Lot No. 1059 1059 District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 62.90 which is the boundary line between the lands of Harris Robinson and the undersigned part 3, and continuing to Station 76.97, which is the boundary line between lands of the undersigned and S. L. Hunton. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 1407 ( 1407 ) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed his seal, this 26 day of May, 1952.

Signed, sealed and delivered in the presence of:

MCDONALD LAWRENCE \_\_\_\_\_ J. G. McBurnett (L. S.)  
 \_\_\_\_\_ (L. S.)

HERBERT C. MCCOLLUM (Seal Attached)  
 Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955  
 Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk



# DEED RECORD 244 / 5

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Four Hundred & 44 dollars (\$ 444.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1881 Acts of the Georgia General Assembly, (Georgia Laws 1881 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Lindsey Place located in Land Lot No. 8 & 9 180 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 65462, which is the boundary line between the lands of Hugh Spaulding and the undersigned part Y, and continuing to Station 70406, which is the boundary line between lands of the undersigned and Cobb County-Marietta Water Authority. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately Four Hundred Forty-four (444) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned do hereby set his hand and affixed his seal, this 31 day of May, 1952.

Signed, sealed and delivered in the presence of: ELDON R. LINDSEY (L. S.)  
MCDONALD LAWRENCE (L. S.)

HERBERT C. MCCOLLUM (Seal Attached)  
Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955  
Filed for record June 10, 1952 at 11:30 A.M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of TWO THOUSAND & NO/100 dollars (\$ 2000.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1881 Acts of the Georgia General Assembly, (Georgia Laws 1881 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Cobb Place located in Land Lot No. 1111 1112 180 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 279471, which is the boundary line between the lands of Elizabeth M. Lewis and the undersigned part X, and continuing to Station 224478, which is the boundary line between lands of the undersigned and E. D. Bishop. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 4507 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantor.

IN WITNESS WHEREOF, the undersigned do hereby set his hand and affixed his seal, this 31 day of May, 1952.

Signed, sealed and delivered in the presence of: LAWRENCE P. COBB (L. S.)  
MCDONALD LAWRENCE (L. S.)

HERBERT C. MCCOLLUM (Seal Attached)  
Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955  
Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

100

demned for right-of-way, to-wit:

*as above described*

The said Cobb County-Marietta Water Authority shall pay to Estate of E. D. Bishop, deceased, the owner, the sum of \_\_\_\_\_

*Eight Hundred Seventy one + 50/100* Dollars.

We further find consequential damage to the property of \_\_\_\_\_

*none* not taken, to amount of \_\_\_\_\_

*none* Dollars and that the said Cobb County-Marietta Water Authority shall pay said Estate of E. D. Bishop, deceased, the difference between such damage and such benefits, if any, in addition to the award fixing the value of the lands so taken.

This the *26* day of *July*, 1952.

*A. Jones*  
*J. L. Berry*  
*[Signature]*

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GEORGIA, COBB COUNTY

We, the assessors appointed as provided by law in re:  
Cobb County-Marietta Water Authority vs. R/W across Land Lot  
1114, 16th District, Cobb County, Georgia, and Estate of E. D.  
Bishop, do solemnly swear to do equal and exact justice between  
the parties according to law.

Sworn to and subscribed before  
me this 25 day of July, 1952.

W. W. [Signature]  
Notary Public, Cobb County, Ga.

[Signature]  
[Signature]  
[Signature]

COBB COUNTY-MARIETTA WATER  
AUTHORITY

Docket No. \_\_\_\_\_

VS.

IN REM

R/W across Land Lot 1114,  
16th District, Cobb County,  
Georgia, and Estate of E. D.  
Bishop, deceased.

Upon the application of the Cobb County-Marietta Water Authority  
to condemn the right-of-way on lands owned by Estate of E. D. Bishop,  
deceased, to-wit:

All that portion of land known as the E. D. Bishop Place located in  
Land Lot No. 1114, 16th District, Cobb County, Georgia, which lies  
within the easement lines as shown on the plans for the Cobb County-  
Marietta Water System, which plans are on file in the Office of the  
Cobb County-Marietta Water Authority, Marietta, Georgia, and which  
plans are hereby referred to and made a part hereof. Said easement  
begins at Station 224/78, which is the boundary line between the  
lands of L. P. Cobb and E. D. Bishop property and continuing to Station  
236/40, which is the center line of South Roswell Road. The easement  
covered by this description is 69 feet wide, the center line of which  
shall be the center line of the first pipeline hereafter installed by  
Cobb County-Marietta Water Authority over, upon, through, under or  
across said lands. This easement begins and ends where the said lo-  
cation enters and leaves the property of the said E. D. Bishop and is  
bounded by E. D. Bishop property lines as already established, and  
totals approximately 1,182 linear feet.

Notice was duly served by the Sheriff of Cobb County upon the heirs  
of said E. D. Bishop, deceased and the administrator of said estate.

The applicant appointed A. P. Jones, as assessor, the owner ap-  
pointed T. L. Terry as assessor, and they appointed  
R. J. Ward as assessor.

Now, we after being duly sworn, viewing said premises and hearing  
evidence find and award that for taking the property sought to be con-

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IN THE SUPERIOR COURT  
OF COBB COUNTY, GEORGIA

COBB COUNTY-MARIETTA WATER AUTHORITY : DOCKET NO. \_\_\_\_\_  
VS. : IN REM

R/W across Land Lot 1114, 16th District, Cobb County, Georgia, and Estate of E. D. Bishop, deceased.

ORDER OF THE COURT

It appearing to the court, by the return of the Sheriff on the original petition, Estate of E. D. Bishop, deceased, owner of Right-of-way across Land Lot 1114, 16th District, Cobb County, Georgia, described in the original petition for condemnation filed in the above stated cause, and said estate's heirs and administrator have been served with a copy of said petition and the previous order of this court thereon:

It is ordered by the court that said service be and the same is hereby approved.

It further appearing unto the court that the Condemnor has selected, as its assessor, A. P. Jones, and that the condemnee has selected as its assessor, T. L. Terry, and that said selected assessors have selected R. J. Ward, as the third assessor; it is ordered by the court that the selection of said assessors is hereby approved and they are authorized to proceed with the assessment of the value of the right-of-way sought to be condemned and made and file their findings thereon, as provided by law.

Done and ordered at Marietta, Georgia, on this 11 day of July, 1952.

Harold Brooke  
JUDGE, SUPERIOR COURT, E. H. C.

99

GEORGIA, COBB COUNTY

WE, the heirs at law of Estate of E. D. Bishop, deceased, and  
Claud M. Hicks as administrator of Estate of E. D. Bishop, deceased,  
hereby name T. L. Terry as our assessor in  
the within petition for condemnation.

This 23 day of July, 1952.

C. C. Bishop  
Margaret (widow) Wilbur  
Shadrach Hicks  
As Administrator of Estate of E. D.  
Bishop, deceased.

We, the undersigned assessors for the Cobb County-Marietta  
Water Authority and Estate of E. D. Bishop, deceased, do hereby  
name R. J. Ward of said county as  
third assessor.

This twth day of July, 1952.

A. P. Jones  
J. L. Lury

99

GEORGIA, COBB COUNTY

I, JOHN T. DORSEY, Ordinary of said County, do acknowledge service of the foregoing petition and order.

And I, John T. Dorsey, do hereby certify that a copy of the foregoing citation has been posted before the Courthouse door in Cobb County, Georgia, more than five (5) days prior to the 11 day of July, 1952, the date set for a hearing.

WITNESS my official signature, this 30 day of June, 1952.

*John T. Dorsey*  
ORDINARY

GEORGIA, COBB COUNTY

I, J. E. BERRY, Tax Collector of said County, do acknowledge due and timely service of the foregoing petition and order.

WITNESS my official signature this 1 day of July, 1952.

*James E. Berry*  
TAX COLLECTOR

*Due and legal service acknowledged.*

*June 27, 1952.*

*County Administrator & ex admn.  
Earl S. D. Bishop.*

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O R D E R

The foregoing petition read and considered, it is ordered that the same be filed.

It is further ordered that all persons owning or claiming any right, title, interest, claim or demand, all lienors, tenants, lessees or any other persons at interest, in and to the land and/or right-of-way easement described in the foregoing petition, appear before me in the Superior Court Room at Chambers, in Marietta, Georgia, on the 11 day of July, 1952, at the hour of 10 o'clock in the A. M., and then and there make known their objections, if any, their rights, title and claims and the value thereof, and at the same time make known the assessor selected, who shall then and there be sworn and enter upon his duties.

It is further ordered that a copy of the foregoing petition and of this order be served at least five (5) days before the date of said hearing, upon all persons residing in Georgia, named or indicated in said petition as having any rights or any interest in said land, as follows:

(1) By personal service upon each of such persons who is sui juris and in the State of Georgia or a resident thereof, and by service upon the Tax Collector of said County, the Ordinary of said County and the person in possession of said land.

(2) By posting a copy of the attached citation before the Courthouse door in Cobb County, Georgia five (5) days prior to the date fixed for said hearing and by publishing the same in the official newspaper in said County one time five (5) days before the said hearing.

(3) By personal service upon each resident minor and upon the Guardian or other legal representative of any person who is a minor or under other disability imposed by law.

This 17 day of June, 1952.

*Howell Brooks*  
JUDGE, SUPERIOR COURT, E. R.

Georgia, who shall represent and act for any unknown owners and for any minors who may have any title, interest, claim or demand in and against said land and/or right-of-way; that the assessors named according to law be ordered to make an award as by statute provided, and that upon payment of such award into the registry of the Court, the Court decree and adjudge the absolute title to said right-of-way described in the foregoing petition, free of liens and encumbrances, vested in Petitioner, so long as its corporate existence shall continue.

*William, Cheney, Nick + Edwards*  
WILLINGHAM, CHENEY, NICKS & EDWARDS

Attorneys for Petitioner



Barney Bishop, deceased, addresses unknown; (4) Heirs at law of Annie Bishop, deceased, namely Mrs. Todd Webb. That the administrator of said estate is Claud M. Hicke, Marietta, Georgia, who was duly appointed and qualified by the Court of Ordinary, Cobb County, Georgia.

8.

The County of Cobb and State of Georgia may have some claim against said lands on account of unpaid State and County taxes.

9.

The said owner generally and all lienors and any other person known and unknown claiming any right, title, power, interest, ownership, equity, claim or demand in and to said land and all occupants, tenants, lessees, licensees and all holders, owners and users of ways and easements in, across and over said land, are made parties defendant to this action to the end that they may come into Court and make claim to such interest or ownership or other right as they may have in the same and to the proceeds arising therefrom.

10.

Because the Petitioner believes that there may be taxes due on said land, and that the title of the apparent owner is incomplete, and that there may be persons unknown and non-resident who may have some claim or demand thereon, and for other reasons, Petitioner brings this action in the Superior Court of Cobb County, Georgia, as by statute in such cases made and provided.

11.

Petitioner names as its assessor, A. P. Jones, Cobb County, Ga.

WHEREFORE, Petitioner prays that the defendants named herein and all persons known and unknown, who may claim or have an interest in said right-of-way sought to be condemned, be required to appear at a time and place to be named by the Court, to make known their objections, if any they have, their rights, ownership and interest in said land and/or right-of-way, and claims as to the value of same and to name an assessor. Petitioner further prays that notice be given to the Tax Collector of Cobb County, and that notice be published once in the Marietta Daily Journal; that notice be given the Ordinary of Cobb County,

plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 224/78, which is the boundary line between the lands of L. P. Cobb and E. D. Bishop property, and continuing to Station 236/40, which is the center line of South Roswell Road. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Cobb County-Marietta Water Authority over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by E. D. Bishop property lines as already established, and totals approximately 1,162 linear feet.

## 3.

Said pipe line is to be buried below plow depth and the owner of said property is to retain the fee and said owner is entitled to make any use of the property which is not inconsistent with its use for the purpose for which it is hereby condemned.

## 4.

Said property sought to be condemned is more particularly described on a plat prepared by Merritt & Welker, Engineers, under date of August, 1951, a copy of which is on file in the Office of the Cobb County-Marietta Water Authority, Courthouse, Marietta, Georgia.

## 5.

Said property is to be used for the purpose of building and constructing thereon a pipe line in connection with the water system which has been laid out as shown on plans and blue prints on file in the Office of said Authority, and is to be a part of the water supply system extending from the Chattahoochee River to all parts of Cobb County, Georgia, to furnish water for the general use of the public and for public convenience and necessity.

## 6.

Petitioner has made a bona fide effort to purchase said property and has offered to pay the fair market value thereof to the Owners. Petitioner has adopted a resolution declaring the acquisition of the real property sought to be condemned as necessary for the purposes herein stated.

## 7.

Petitioner is informed and believes that the owner of said property is the Estate of E. D. Bishop, deceased, whose heirs at law are (1) Clarence Bishop, whose address is R. P. D., Roswell Road, Marietta, Georgia; (2) Glenn Bishop, address unknown; (3) Heirs at law of

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Case No. 14, 1957

GEORGIA, COBB COUNTY

TO THE SUPERIOR COURT OF SAID COUNTY:

Now comes COBB COUNTY-MARIETTA WATER AUTHORITY, a political subdivision of the State of Georgia, and a public corporation thereof, of Cobb County, Georgia, acting in its own behalf, as Plaintiff and Condemnor, and in the exercise of its powers of eminent domain, brings this action for condemnation and alleges:

1.

That the COBB COUNTY-MARIETTA WATER AUTHORITY was organized by an Act of the General Assembly of the State of Georgia known as the Cobb County-Marietta Authority Act passed at the 1951 Session of the Georgia General Assembly, said act being recorded in said 1951 Acts at page 497, et seq., which said act provides that said authority may acquire property, easements or franchises by condemnation in accordance with the provisions of any and all existing laws applicable to the condemnation of property for public use, and use the same so long as its corporate existence shall continue, and to accept and pay for any property so condemned under said Act from the funds provided under the authority of said Act.

2.

This petition in rem is brought by the Cobb County Marietta-Water Authority to acquire by condemnation a right-of-way easement across property hereinafter described, said right-of-way easement to be for the purpose of entering upon said property, constructing, maintaining, operating, altering, repairing, removing, changing the size of and replacing pipe for the transportation of water, together with the right to enter upon said property and to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned; and together with the right to all necessary drainage in the construction and maintenance of said pipe line over the said property hereinafter described and on the land adjacent thereto. Said property and/or-right-of-way is described as follows:

All that portion of land known as the E. D. Bishop Place located in Land Lot No. 1114, 16th District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water System, which

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IN THE SUPERIOR COURT OF  
COBB COUNTY, GEORGIA

COBB COUNTY-MARIETTA WATER  
AUTHORITY

DOCKET NO. 4749

VS.

IN REM

R/W across Land Lot 1114,  
16th District, Cobb County,  
Georgia, and Estate of E.  
D. Bishop, deceased.

JUDGMENT OF COURT

It appearing to the Court that:

Assessors duly appointed and qualified have made an award  
and finding in the above stated case;

All provisions of law as to service and notice on all parties  
interested in the property described in the petition have been complied  
with, pursuant to orders and directions of the Court consistent with  
justice and due process of laws:

It is decree, ordered and adjudged that all the property described  
in the petition in said right-of-way, to-wit:

All that portion of land known as the E. D. Bishop Place located in  
Land Lot No. 1114, 16th District, Cobb County, Georgia, which lies  
within the easement lines as shown on the plans for the Cobb County-  
Marietta Water System, which plans are on file in the Office of the  
Cobb County-Marietta Water Authority, Marietta, Georgia, and which  
plans are hereby referred to and made a part hereof. Said easement  
begins at Station 224/78, which is the boundary line between the  
lands of L. P. Cobb and E. D. Bishop property and continuing to Station  
236/40, which is the center line of South Roswell Road. The easement  
covered by this description is 60 feet wide, the center line of which  
shall be the center line of the first pipeline hereafter installed by  
Cobb County-Marietta Water Authority over, upon, through, under or  
across said lands. This easement begins and ends where the said lo-  
cation enters and leaves the property of the said E. D. Bishop and is  
bounded by E. D. Bishop property lines as already established, and  
totals approximately ~~1,162~~ linear feet.

be, and the same is hereby condemned for right-of-way purposes as set  
out in said petition; and upon the payment of the sum of \_\_\_\_\_

Eight Hundred Seventy one & 50/100 Dollars,

the plaintiff, Cobb County-Marietta Water Authority, and its successors  
in office, are hereby vested with full and complete title to said right-  
of-way as described in the petition.

Let this order be filed as part of the record in this case.

This 31<sup>st</sup> day of July, 1952.

*Harold B. Cook*  
JUDGE, SUPERIOR COURT, E. R. C.

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STATE OF GEORGIA  
COUNTY OF COBB

COBB COUNTY MARIETTA WATER AUTHORITY

Versus

Complaint

CLAUD M. HICKS ADMINISTRATOR OF ESTATE OF E.D. BISHOP, DECEASED  
CLARENCE BISHOP, GLENN BISHOP, HEIRS AT LAW OF ANNIE BISHOP  
DECEASED, MRS MARY TODD WEBB AND HEIRS AT LAW OF BARNEY BISHOP,  
he Sheriff or His Deputy of said County, Greeting: DECEASED.

The DefendantS... herein CLAUD M. HICKS ADMINISTRATOR OF ESTATE OF E.D. BISHOP  
DECEASED, CLARENCE BISHOP, GLENN BISHOP, HEIRS AT LAW OF ANNIE BISHOP  
DECEASED & MRS MARY TODD WEBB AND HEIRS AT LAW OF BARNEY BISHOP, DECEASED.

are hereby required, personally or by attorney, to be and appear at the Superior Court,  
to be held in and for said County within 30 days from the date of service of the within pe-  
n, upon each Defendant, as shown by entry of serving officer set forth below, then  
there to answer in writing the Plaintiff's complaint, as in default thereof said court  
proceed, as to justice shall appertain.

Witness, the Honorable HOWELL BROOKE, Judge of said Court, this

30th day of JUNE 1952

*J. L. Terry Deputy*  
Clerk Cobb Superior Court

GEORGIA, COBB COUNTY

I, J. S. Williams, DEPUTY CLERK, COBB SUPERIOR COURT  
do hereby certify that the above and foregoing is true, correct and complete copy of the  
Judgement entered July 31, 1952 in Case No. 4749 as appears of  
record in Writs Book XX Page 97 Cobb County records.

Witness my hand and the official seal of this office this the 22nd day of July  
1952

  
Deputy Clerk Superior Court, Cobb County

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IN THE SUPERIOR COURT OF  
COBB COUNTY, GEORGIA

COBB COUNTY-MARIETTA WATER AUTHORITY : DOCKET NO. \_\_\_\_\_  
vs. : IN RE:  
R/W across Land Lot 1114,  
16th District, Cobb County,  
Georgia, and Estate of E.  
D. Bishop, deceased.

JUDGMENT OF COURT

It appearing to the Court that:

Assessors duly appointed and qualified have made an award and finding in the above stated case;

All provisions of law as to service and notice on all parties interested in the property described in the petition have been complied with, pursuant to orders and directions of the Court consistent with justice and due process of laws:

It is decreed, ordered and adjudged that all the property described in the petition in said right-of-way, to-wit:

All that portion of land known as the E. D. Bishop Place located in Land Lot No. 1114, 16th District, Cobb County, Georgia, which lies within the easement lines as shown on the plans for the Cobb County-Marietta Water System, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 224/78, which is the boundary line between the lands of L. P. Cobb and E. D. Bishop property and continuing to Station 236/40, which is the center line of South Roswell Road. The easement covered by this description is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Cobb County-Marietta Water Authority over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the said E. D. Bishop and is bounded by E. D. Bishop property lines as already established, and totals approximately 1,162 linear feet.

be, and the same is hereby condemned for right-of-way purposes as set out in said petition; and upon the payment of the sum of \_\_\_\_\_ Eight Hundred Seventy one & 50/100 Dollars, the plaintiff, Cobb County-Marietta Water Authority, and its successors in office, are hereby vested with full and complete title to said right-of-way as described in the petition.

Let this order be filed as part of the record in this case.

This 31<sup>st</sup> day of July, 1952.

  
JUDGE, SUPERIOR COURT, C. O. C.



100

IN THE SUPERIOR COURT OF  
COBB COUNTY, GEORGIA

COBB COUNTY-MARIETTA WATER  
AUTHORITY : DOCKET NO. \_\_\_\_\_

VS. : IN REM

R/W across Land Lot 1114,  
16th District, Cobb County,  
Georgia, and Estate of E.  
D. Bishop, deceased.

JUDGMENT OF COURT

It appearing to the Court that:

Assessors duly appointed and qualified have made an award  
and finding in the above stated case;

All provisions of law as to service and notice on all parties  
interested in the property described in the petition have been complied  
with, pursuant to orders and directions of the Court consistent with  
justice and due process of laws:


It is decree, ordered and adjudged that all the property described  
in the petition in said right-of-way, to-wit:

All that portion of land known as the E. D. Bishop Place located in  
Land Lot No. 1114, 16th District, Cobb County, Georgia, which lies  
within the easement lines as shown on the plans for the Cobb County-  
Marietta Water System, which plans are on file in the Office of the  
Cobb County-Marietta Water Authority, Marietta, Georgia, and which  
plans are hereby referred to and made a part hereof. Said easement  
begins at Station 224/78, which is the boundary line between the  
lands of L. P. Cobb and E. D. Bishop property and continuing to Station  
236/40, which is the center line of South Roswell Road. The easement  
covered by this description is 60 feet wide, the center line of which  
shall be the center line of the first pipeline hereafter installed by  
Cobb County-Marietta Water Authority over, upon, through, under or  
across said lands. This easement begins and ends where the said lo-  
cation enters and leaves the property of the said E. D. Bishop and is  
bounded by E. D. Bishop property lines as already established, and  
totals approximately 1,162 linear feet.

be, and the same is hereby condemned for right-of-way purposes as set  
out in said petition; and upon the payment of the sum of \_\_\_\_\_  
Eight Hundred Seventy one & 50/100 Dollars,  
the plaintiff, Cobb County-Marietta Water Authority, and its successors  
in office, are hereby vested with full and complete title to said right-  
of-way as described in the petition.

Let this order be filed as part of the record in this case.

This 31<sup>st</sup> day of July, 1952.

  
JUDGE, SUPERIOR COURT, R. R. C.



DEED RECORD 244/4

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Fifty & No/100

dollars (\$ 50.00), to the undersigned owner(s) paid by Cobb County-Marletta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1963 Acts of the Georgia General Assembly, (Georgia Laws 1963 page 487), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Mitchell Place located in Land Lot No. 1114 1334 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marletta Water system, which plans are on file in the Office of the Cobb County-Marletta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 236410, which is the boundary line between the lands of E. D. Bishop and the undersigned part 2, and continuing to Station 239424, which is the boundary line between

lands of the undersigned and L. B. Dickerson. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately

284 linear feet.

Said Cobb County-Marletta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marletta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marletta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marletta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 5 day of April, 1952.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE MARVIN A. MITCHELL (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) (L. S.)  
Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Six Hundred

dollars (\$ 600.00), to the undersigned owner(s) paid by Cobb County-Marletta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1963 Acts of the Georgia General Assembly, (Georgia Laws 1963 page 487), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Dickerson Place located in Land Lot No. 1115 1334 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marletta Water system, which plans are on file in the Office of the Cobb County-Marletta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 239424, which is the boundary line between the lands of M. A. Mitchell and the undersigned part 3, and continuing to Station 245472, which is the boundary line between

lands of the undersigned and IRISH POWERS. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately

648 linear feet.

Said Cobb County-Marletta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marletta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marletta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marletta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set her hand and affixed her seal, this 24 day of May, 1952.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE MRS. L. B. DICKERSON (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) (L. S.)  
Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

DEED RECORD 244/4

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Fifty & No/100 - dollars (\$ 50.00 ), to the undersigned owner(s) paid by Cobb County-Marletta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1963 Acts of the Georgia General Assembly, (Georgia Laws 1963 page 487), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Mitchell Place located in Land Lot No. 1114 - District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marletta Water system, which plans are on file in the Office of the Cobb County-Marletta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 236410, which is the boundary line between the lands of E. D. Bishop and the undersigned part 2, and continuing to Station 23924, which is the boundary line between

lands of the undersigned and L. B. DICKERSON. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 284 linear feet.

Said Cobb County-Marletta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration. TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marletta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marletta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marletta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 5 day of April, 1952.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE MARVIN A. MITCHELL (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955 Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Six Hundred dollars (\$ 600.00 ), to the undersigned owner(s) paid by Cobb County-Marletta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1963 Acts of the Georgia General Assembly, (Georgia Laws 1963 page 487), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Dickerson Place located in Land Lot No. 1115 - District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marletta Water system, which plans are on file in the Office of the Cobb County-Marletta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 23924, which is the boundary line between the lands of M. A. Mitchell and the undersigned part 2, and continuing to Station 24572, which is the boundary line between

lands of the undersigned and IRISH POWERS. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 648 linear feet.

Said Cobb County-Marletta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration. TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marletta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marletta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marletta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set her hand and affixed her seal, this 24 day of May, 1952.

Signed, sealed and delivered in the presence of: MCDONALD LAWRENCE MRS. L. B. DICKERSON (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955 Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

# DEED RECORD 244/3

STATE OF GEORGIA, COUNTY OF COBB  
 KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Two Hundred Ten & No/100 dollars (\$ 210.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Hugh Power Place located in Land Lot No. 1115, District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 245472, which is the boundary line between the lands of L. B. Dickerson and the undersigned part Y, and continuing to Station 247478, which is the boundary line between lands of the undersigned and C. A. Power. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 335 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s) for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 28 day of May, 1952.

Signed, sealed and delivered in the presence of

MCDONALD LAWRENCE \_\_\_\_\_ HUGH POWER (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) \_\_\_\_\_ (L. S.)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955.

Filed for record June 10, 1952 at 11:30 A.M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB  
 KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Fifty & No/100 dollars (\$ 50.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Mitchell Place located in Land Lot No. 1116, District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 252442, which is the boundary line between the lands of C. A. Power and the undersigned part Y, and continuing to Station 255457, which is the boundary line between lands of the undersigned and W. W. Merritt. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 335 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s) for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 5 day of April, 1952.

Signed, sealed and delivered in the presence of

MCDONALD LAWRENCE \_\_\_\_\_ MARVIN A. MITCHELL (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) \_\_\_\_\_ (L. S.)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955.

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

DEED RECORD 244 1/2

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Three Hundred Fifteen dollars (\$ 315.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 407), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Loudermilk Place located in Land Lot No. 1116, District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 252 x 42, which is the boundary line between the lands of

C. A. Power and the undersigned party and continuing to Station 255 x 57, which is the boundary line between

lands of the undersigned and C. H. Sanders. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately Three Hundred Fifteen (315) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim of damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 29 day of May, 1952.

Signed, sealed and delivered in the presence of:

MCDONALD LAWRENCE

L. P. LOUDERMILK (L. S.)

MRS. L. P. LOUDERMILK (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga. Notary Public, Fulton County, Georgia My Commission Expires Feb 10, 1953

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Four Hundred Sixty Four & No/100 dollars (\$ 464.00 ), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 407), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the C. A. Power Place located in Land Lot No. 1115, District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 247478, which is the boundary line between the lands of

Hugh Power and the undersigned party, and continuing to Station 252442, which is the boundary line between

lands of the undersigned and A. P. Loudermilk. The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 822.22 ( 464 ) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim of damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 28 day of May, 1952.

Signed, sealed and delivered in the presence of:

MCDONALD LAWRENCE

C. A. POWER (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

DEED RECORD 244 1/2

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Three Hundred Fifteen dollars (\$ 315.00), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 407), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Loudermilk Place located in Land Lot No. 1116, 1328 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 252 x 42, which is the boundary line between the lands of

C. A. Power and the undersigned party and continuing to Station 255 x 57, which is the boundary line between

lands of the undersigned and C. H. Sanders  
The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately Three Hundred Fifteen (315) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim of damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 29 day of May, 19 52.

Signed, sealed and delivered in the presence of:

MCDONALD LAWRENCE

L. P. LOUDERMILK (L. S.)

MRS. L. P. LOUDERMILK (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga. Notary Public Fulton County, Georgia  
My Commission Expires Feb 10, 1953

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB

KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Four Hundred Sixty Four & No/100 dollars (\$ 464.00), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1961 Acts of the Georgia General Assembly, (Georgia Laws 1961 page 407), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the C. A. Power Place located in Land Lot No. 1115, 1328 District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 247478, which is the boundary line between the lands of

Hugh Power and the undersigned party, and continuing to Station 252442, which is the boundary line between

lands of the undersigned and A. P. Loudermilk  
The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 82222 (464) linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim of damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 28 day of May, 19 52.

Signed, sealed and delivered in the presence of:

MCDONALD LAWRENCE

C. A. POWER (L. S.)

HERBERT C. MCCOLLUM (Seal Attached) (L. S.)

Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk



# DEED RECORD 244/3

STATE OF GEORGIA, COUNTY OF COBB  
 KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Two Hundred Ten & No/100 dollars (\$ 210.00), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Hugh Power Place located in Land Lot No. 1115, Cobb District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 245472, which is the boundary line between the lands of L. B. Dickerson and the undersigned part Y, and continuing to Station 247478, which is the boundary line between lands of the undersigned and C. A. Power.  
 The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 335 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 28 day of May, 1952.

Signed, sealed and delivered in the presence of: HUGH POWER (L. S.)

MCDONALD LAWRENCE (L. S.)

HERBERT C. McCOLLUM (Seal Attached)  
 Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955.

Filed for record June 10, 1952 at 11:30 A.M. and recorded June 18, 1952 John T. LeCroy, Clerk

STATE OF GEORGIA, COUNTY OF COBB  
 KNOW ALL MEN BY THESE PRESENTS: That, for and in consideration of the sum of Fifty & No/100 dollars (\$ 50.00), to the undersigned owner(s) paid by Cobb County-Marietta Water Authority, receipt of which is hereby acknowledged, the undersigned hereby grant(s) bargain(s), sell (s), convey(s) and warrant(s) to COBB COUNTY-MARIETTA WATER AUTHORITY, a public corporation created under the 1981 Acts of the Georgia General Assembly, (Georgia Laws 1981 page 497), its successors and assigns, a right-of-way and easement for the purpose of constructing, maintaining, operating, altering, repairing, removing, changing the size of, and replacing pipe for the transportation of water, the Grantee to have the right to select the route under, upon, over and through the land situated in said state and county more particularly described as follows:

All that portion of land belonging to the undersigned known as the Mitchell Place located in Land Lot No. 1116, Cobb District, Cobb County, Georgia, which lies within the easement lines as shown on the the plans for the Cobb County-Marietta Water system, which plans are on file in the Office of the Cobb County-Marietta Water Authority, Marietta, Georgia, and which plans are hereby referred to and made a part hereof. Said easement begins at Station 252442, which is the boundary line between the lands of C. A. Power and the undersigned part Y, and continuing to Station 255457, which is the boundary line between lands of the undersigned and W. W. Merritt.  
 The easement covered by this instrument is 60 feet wide, the center line of which shall be the center line of the first pipeline hereafter installed by Grantee over, upon, through, under or across said lands. This easement begins and ends where the said location enters and leaves the property of the undersigned, and is bounded by his (her, their, its) property lines as already established, as above indicated, and total approximately 335 linear feet.

Said Cobb County-Marietta Water Authority is also given right of ingress and egress to and from said right-of-way, and also the right to lay, construct, maintain, operate, alter, repair, remove and replace at any time additional lines of pipe adjacent to and parallel with the line above mentioned without any additional consideration.

TO HAVE AND TO HOLD the said easement to the COBB COUNTY-MARIETTA WATER AUTHORITY, its successors and assigns, forever. The undersigned Grantor(s), his (her, their, its) heirs, successors or assigns reserve the right to have the use of and enjoy the said premises except as the same may be necessary for the purposes herein granted.

The covenants and agreements contained in this right-of-way easement shall run with the land and shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors or assigns of the parties hereto.

The undersigned covenant(s) to and with Grantee, its successors and assigns that the undersigned is (are) the owner(s) of the above described land and have the right, title and capacity to convey the right-of-way and easement hereby granted to Cobb County-Marietta Water Authority.

The Grantee, by acceptance hereof, agrees to bury the pipelines so that they will not interfere with the cultivation of the land, and the undersigned further grant(s), for the same consideration, the right to all necessary drainage in the construction and maintenance of said improvement over the said property covered in this easement, and on the land adjacent thereto, and also release(s) said Cobb County-Marietta Water Authority for any claims of damage arising on account of construction of back water, changes of courses of streams, or in any other manner, and the consideration herein named also includes all damages to crops, fences, timber and any other damages that may arise in the future from laying the original or any additional pipelines, maintaining, operating or removing such pipelines, and Grantor(s) hereby forever waive(s) and release(s) said Cobb County-Marietta Water Authority from any claim or damage irrespective of how or in what manner the same might arise on account of the laying, maintaining and operating or removing such pipelines.

It is understood and acknowledged by the undersigned that the person securing this grant is without authority to make any agreement in regard to the subject matter hereof, which is not expressed herein, and that no such agreement will be binding on the Grantee.

IN WITNESS WHEREOF, the undersigned hereunto set his hand and affixed his seal, this 5 day of April, 1952.

Signed, sealed and delivered in the presence of: MARVIN A. MITCHELL (L. S.)

MCDONALD LAWRENCE (L. S.)

HERBERT C. McCOLLUM (Seal Attached)  
 Notary Public, Cobb County, Ga. My Commission Expires June 25, 1955.

Filed for record June 10, 1952 at 11:30 A. M. and recorded June 18, 1952 John T. LeCroy, Clerk

## **EASEMENT SWAP PLATS AND DOCUMENTS**

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **WILLIAM ANDREW CARTER, JR., AS TRUSTEE** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being two (2) strips or parcels of land running in, through, over and across the property now or formerly owned by William Andrew Carter, Jr., as Trustee, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 15212, Page 3946, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1063, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the first strip or parcel of land, at a ½ inch rebar with cap found on the Southern Right of Way Line of Bentley Lake Road (a 30 feet wide right of way), said point also being at the northeast corner of the property now or formerly owned by Summerour Properties, LLLP, as described in a deed recorded among the aforesaid Land Records in Deed Book 14661, Page 3821, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,443,492.61; East: 2,194,596.93; thence, leaving the said Point of Beginning and running with the said line of Bentley Lake Road

1. 24.68 feet along the arc of a curve deflecting to the right and having a radius of 138.50 feet and a chord bearing and distance of South 72° 14' 11" East, 24.65 feet; thence,
2. South 67° 07' 49" East, 43.27 feet; thence,
3. 92.18 feet along the arc of a curve deflecting to the right and having a radius of 203.15 feet and a chord bearing and distance of South 54° 07' 15" East, 91.40 feet; thence,
4. South 43° 46' 57" East, 118.12 feet to a point of intersection with the northerly line of an existing water main easement as described in Deed Book 244, Page 10; thence, leaving the said line of Bentley Lake Road and running with the said northerly line of the said easement
5. North 66° 51' 48" West, 42.98 feet; thence, leaving the aforesaid line of the easement and running
6. North 44° 40' 16" West, 105.51 feet; thence,
7. North 58° 14' 02" West, 57.76 feet; thence,
8. North 66° 02' 36" West, 55.23 feet; thence,
9. North 84° 02' 00" West, 5.92 feet; thence,



10. North 00° 08' 47" East, 17.81 feet to the Point of Beginning, containing 4,506 square feet or 0.1034 of an acre of land, more or less.

**AND ALSO:**

Beginning for the same of the second strip or parcel of land, at a ½ inch rebar with cap found on the Northern Right of Way Line of Bentley Lake Road (a 30 feet wide right of way), said point also being at the southeast corner of the property now or formerly owned by Summerour Farm, LLLP, as described in a deed recorded among the aforesaid Land Records in Deed Book 14820, Page 5133, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,443,391.20; East: 2,194,798.42; thence, leaving the said Point of Beginning and the said line of Bentley Lake Road and running

1. North 00° 00' 24" East, 18.32 feet; thence,
2. South 44° 40' 16" East, 131.10 feet; thence,
3. South 51° 56' 24" East, 70.97 feet to a point of intersection with the northerly line of an existing water main easement as described in Deed Book 244, Page 10; thence, running with the said easement
4. North 66° 24' 54" West, 64.41 feet; to a point on the aforesaid northerly line of Bentley Lake Road; thence, running with the said line of Bentley Lake Road
5. North 43° 46' 57" West, 128.66 feet to the Point of Beginning, containing 2,362 square feet or 0.0542 of an acre of land, more or less.

**The permanent easement(s) granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 10, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by William Andrew Carter, Jr., as Trustee, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 15212, Page 3946, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1063, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch rebar with cap found on the Southern Right of Way Line of Bentley Lake Road (a 30 feet wide right of way), said point also being at the northeast corner of the property now or formerly owned by Summerour Properties, LLLP, as described in a deed recorded among the aforesaid Land Records in Deed Book 14661, Page 3821, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,443,492.61; East: 2,194,596.93; thence, leaving the said Point of Beginning and running, South 00° 08' 47" West, 69.04 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 10; thence, leaving said Point of Beginning and running with the said north line of the existing easement

1. South 66° 10' 19" East, 33.23 feet, thence,
2. South 66° 51' 48" East, 162.44 feet; thence, leaving the said north line of the easement and running
3. South 44° 40' 16" East, 105.36 feet; thence,
4. South 51° 56' 24" East, 82.40 feet to a point being on the south line of the aforesaid existing water main easement; thence, running with the said south line of the existing easement
5. North 66° 24' 54" West, 129.93 feet; thence,
6. North 66° 51' 48" West, 210.05 feet; thence,

7. North 66° 10' 19" West, 7.28 feet; thence, running
8. North 00° 08' 47" East, 65.52 feet to the Point of Beginning, containing 15,715 square feet or 0.3608 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

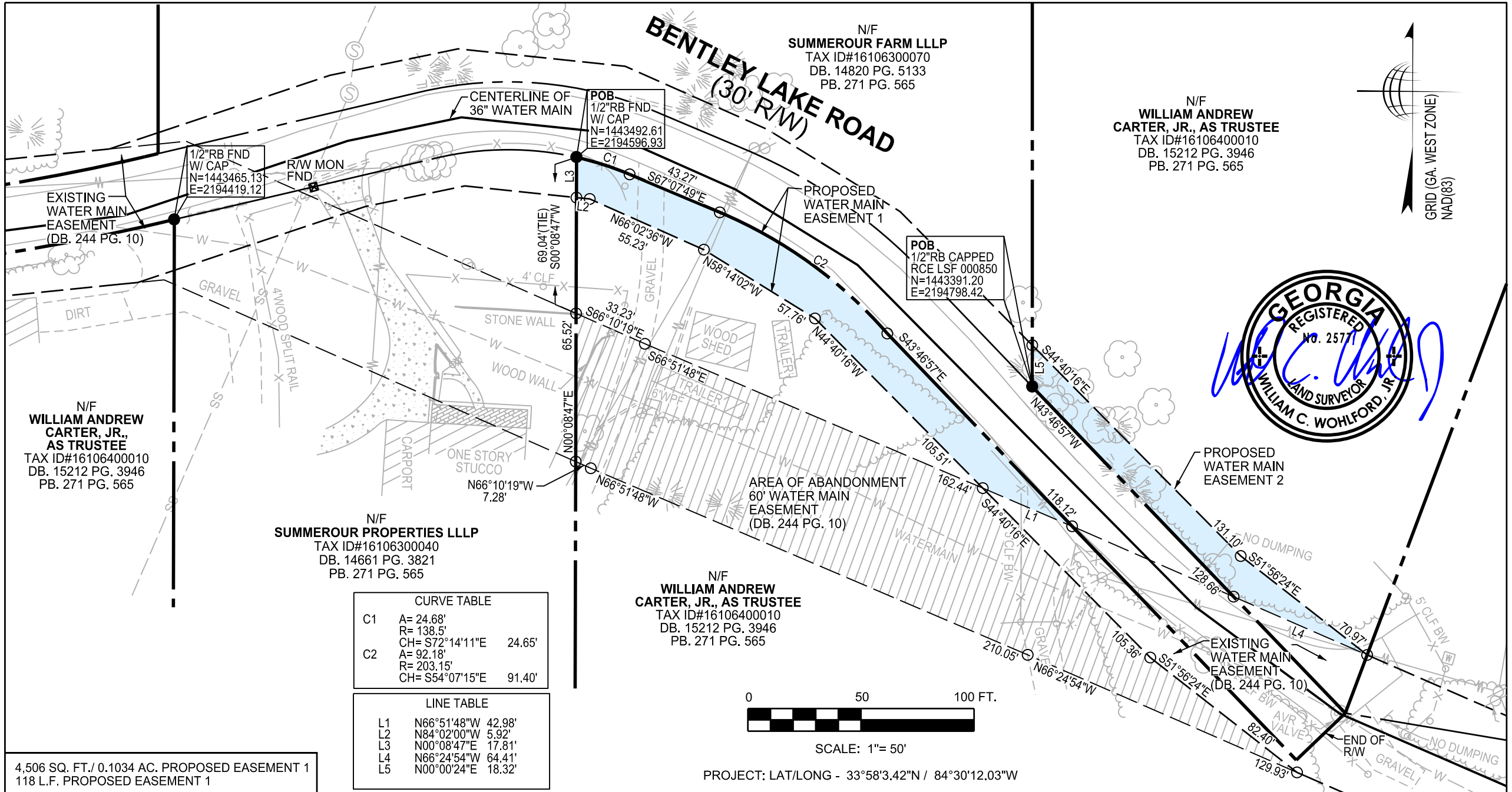
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



N/F  
**WILLIAM ANDREW  
 CARTER, JR.,  
 AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565

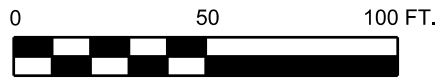
N/F  
**SUMMEROUR PROPERTIES LLLP**  
 TAX ID#16106300040  
 DB. 14661 PG. 3821  
 PB. 271 PG. 565

N/F  
**WILLIAM ANDREW  
 CARTER, JR., AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565

N/F  
**WILLIAM ANDREW  
 CARTER, JR., AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565

CURVE TABLE	
C1	A= 24.68' R= 138.5' CH= S72°14'11"E 24.65'
C2	A= 92.18' R= 203.15' CH= S54°07'15"E 91.40'

LINE TABLE	
L1	N66°51'48"W 42.98'
L2	N84°02'00"W 5.92'
L3	N00°08'47"E 17.81'
L4	N66°24'54"W 64.41'
L5	N00°00'24"E 18.32'



PROJECT: LAT/LONG - 33°58'3.42"N / 84°30'12.03"W

4,506 SQ. FT./ 0.1034 AC. PROPOSED EASEMENT 1  
 118 L.F. PROPOSED EASEMENT 1

2,362 SQ. FT./ 0.0542 AC. PROPOSED EASEMENT 2  
 169 L.F. PROPOSED EASEMENT 2

15,715 SQ. FT./ 0.3608 AC. ABANDONED EASEMENT

LOCATED IN LAND LOT 1063  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA

DATE: 8/14/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:  
**COBB COUNTY-MARIETTA  
 WATER AUTHORITY**  
 C.C.M.W.A. NO. 1 REVISED

THROUGH THE PROPERTY OF:  
**WILLIAM ANDREW CARTER, JR.,  
 AS TRUSTEE**  
 COBB COUNTY  
 TAX PARCEL # 16106400010



TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

## EASEMENT INSTRUMENT

### STATE OF GEORGIA COUNTY OF COBB

This **Grant of Easement** made this \_\_\_\_ day of \_\_\_\_\_, 2019 from **SUMMERHOUR FARM, LLLP** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

#### Permanent Easement Grant

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Summerour Farm, LLLP, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14820, Page 5133, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1063, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch capped rebar found on the Northern Right of Way Line of Bentley Lake Road (a 30 feet wide right of way), said point also being at the southeast corner of the property now or formerly owned by Summerour Farm, LLLP, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,443,391.20; East: 2,194,798.42, thence, leaving the said Point of Beginning and running with the said line of Bentley Lake Road

1. North 43° 46' 57" West, 61.33 feet; thence,
2. 104.40 feet along the arc of a curve deflecting to the left and having a radius of 233.14 feet and a chord bearing and distance of North 54° 16' 39" West, 103.53 feet; thence,
3. North 67° 07' 49" West, 43.27 feet; thence,
4. 106.12 feet along the arc of a curve deflecting to the left and having a radius of 168.51 feet and a chord bearing and distance of North 85° 10' 22" West, 104.37 feet; thence,
5. South 76° 47' 05" West, 102.67 feet to a point of intersection with the northerly line of an existing water main easement as described in Deed Book 244, Page 10; thence, leaving the said line of Bentley Lake Road and running with the said northerly line of the said easement
6. North 66° 10' 19" West, 4.13 feet; thence,
7. South 84° 14' 36" West, 12.46 feet; thence, leaving the aforesaid line of the easement and running
8. North 00° 00' 24" East, 5.04 feet; thence,
9. North 71° 31' 53" East, 80.11 feet; thence,
10. North 78° 19' 07" East, 57.85 feet; thence,
11. South 84° 02' 00" East, 74.27 feet; thence,
12. South 66° 02' 36" East, 68.83 feet; thence,
13. South 58° 14' 02" East, 68.99 feet; thence,

14. South 44° 40' 16" East, 83.10 feet; thence,
15. South 00° 00' 24" West, 18.32 feet to the Point of Beginning, containing 5,428 square feet or 0.1246 of an acre of land, more or less.

**The permanent easement(s) granted hereunder shall be perpetual.**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

James C. Scott, Jr., Chair

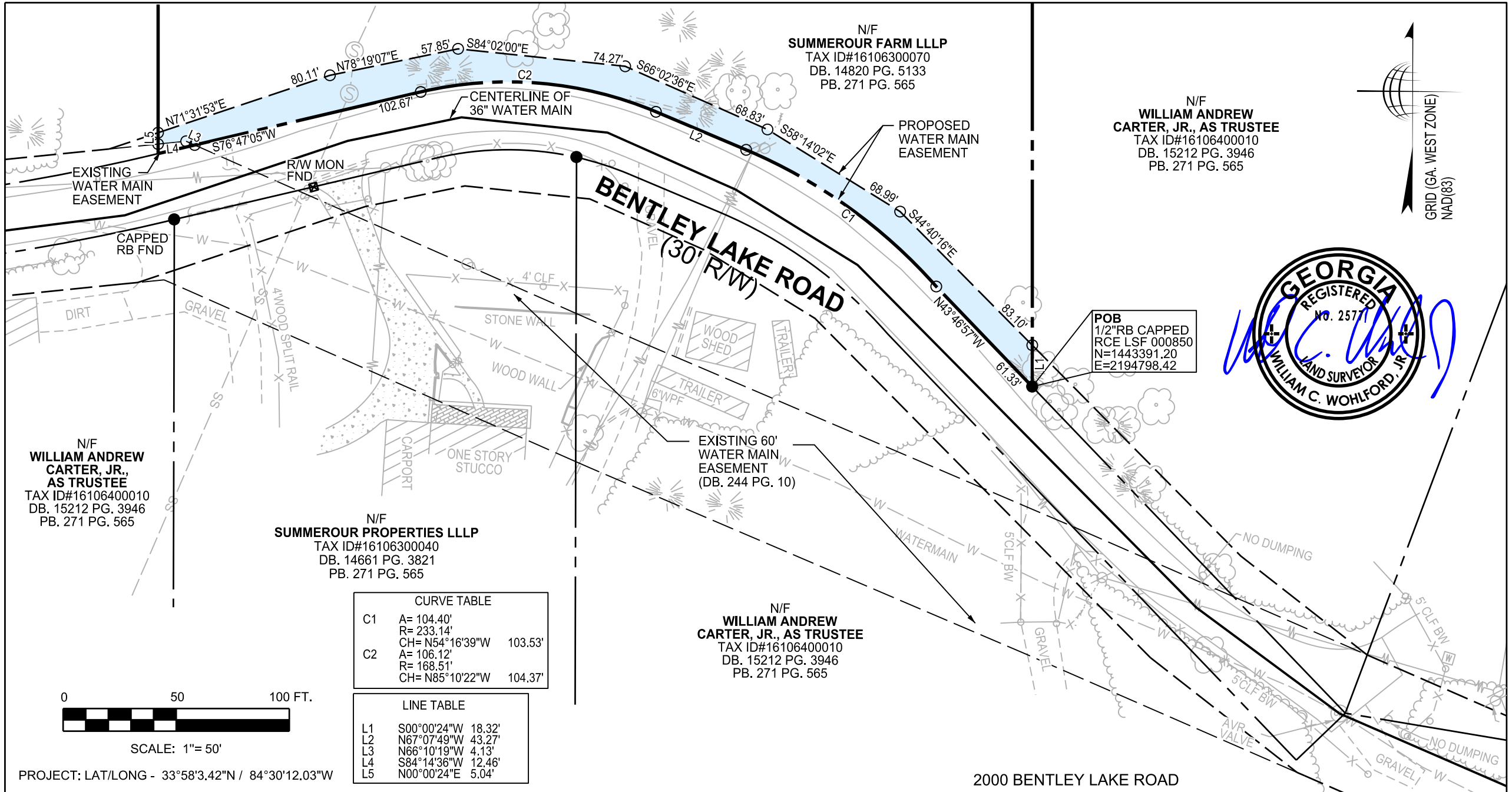
BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_



**EXHIBIT "A"**  
**EASEMENT PLAT**



N/F  
**SUMMEROUR FARM LLLP**  
 TAX ID#16106300070  
 DB. 14820 PG. 5133  
 PB. 271 PG. 565

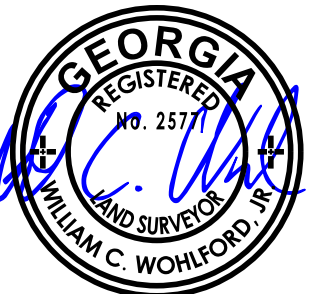
N/F  
**WILLIAM ANDREW  
 CARTER, JR., AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565

N/F  
**WILLIAM ANDREW  
 CARTER, JR.,  
 AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565

N/F  
**SUMMEROUR PROPERTIES LLLP**  
 TAX ID#16106300040  
 DB. 14661 PG. 3821  
 PB. 271 PG. 565

N/F  
**WILLIAM ANDREW  
 CARTER, JR., AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565

**POB**  
 1/2"RB CAPPED  
 RCE LSF 000850  
 N=1443391.20  
 E=2194798.42




CURVE TABLE	
C1	A= 104.40' R= 233.14' CH= N54°16'39"W 103.53'
C2	A= 106.12' R= 168.51' CH= N85°10'22"W 104.37'

LINE TABLE	
L1	S00°00'24"W 18.32'
L2	N67°07'49"W 43.27'
L3	N66°10'19"W 4.13'
L4	S84°14'36"W 12.46'
L5	N00°00'24"E 5.04'



SCALE: 1"= 50'

PROJECT: LAT/LONG - 33°58'3.42"N / 84°30'12.03"W

5,428 SQ. FT./ 0.1246 AC. PROPOSED EASEMENT	LOCATED IN LAND LOT 1063 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF: <b>SUMMEROUR FARM LLLP</b>	 TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
433 L.F. PROPOSED EASEMENT	DATE: 8/14/2019 SHEET NO. 1	<b>COBB COUNTY-MARIETTA          WATER AUTHORITY</b> C.C.M.W.A. NO. 3 REVISED	COBB COUNTY TAX PARCEL # 16106300070	

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **SUMMEROUR PROPERTIES, LLLP** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Summerour Properties, LLLP, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14661, Page 3821, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1063, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch rebar with cap found on the Southern Right of Way Line of Bentley Lake Road (a 30 feet wide right of way), said point also being at the northeast corner of the property now or formerly owned by Summerour Properties, LLLP, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,443,492.61; East: 2,194,596.93; thence, leaving the said Point of Beginning and the said line of Bentley Lake Road and running

1. South 00° 08' 47" West, 17.81 feet; thence,
2. North 84° 02' 00" West, 49.57 feet; thence,
3. South 78° 19' 07" West, 44.97 feet; thence,
4. South 71° 31' 53" West, 8.31 feet to a point of intersection with the northerly line of an existing water main easement as described in Deed Book 244, Page 10; thence, running with the said line of the easement
5. North 66° 10' 19" West, 24.03 feet to a point on the aforesaid line of Bentley Lake Road; thence, running with the said line of Bentley Lake Road
6. North 76° 47' 05" East, 62.91 feet; thence,
7. 62.54 feet along the arc of a curve deflecting to the right and having a radius of 138.50 feet and a chord bearing and distance of North 89° 43' 19" East, 62.01 feet to the Point of Beginning, containing 1,798 square feet or 0.0413 of an acre of land, more or less.

**The permanent easement(s) granted hereunder shall be perpetual.**

## **TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 10, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

### **Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Summerour Properties, LLLP, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14661, Page 3821, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1063, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch rebar with cap found on the Southern Right of Way Line of Bentley Lake Road (a 30 feet wide right of way), said point also being at the northeast corner of the property now or formerly owned by Summerour Properties, LLLP, as described in a deed recorded among the aforesaid Land Records in Deed Book 14661, Page 3821, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,443,492.61; East: 2,194,596.93; thence, leaving the said Point of Beginning and running, South 00° 08' 47" West, 69.04 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 10; thence, leaving said Point of Beginning and running

1. South 00° 08' 47" West, 65.52 feet to a point being on the south line of the aforesaid existing water main easement; thence, running with the said south line of the existing easement
2. North 66° 10' 19" West, 194.08 feet; thence, leaving the aforesaid south line of the existing easement and running
3. North 00° 08' 43" East, 6.17 feet; thence,
4. North 71° 31' 53" East, 80.76 feet to a point on the aforesaid north line of the existing easement; thence, running with the said north line of the existing easement
5. South 66° 10' 19" East, 110.51 feet to the Point of Beginning, containing 9,374 square feet or 0.2152 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be

covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

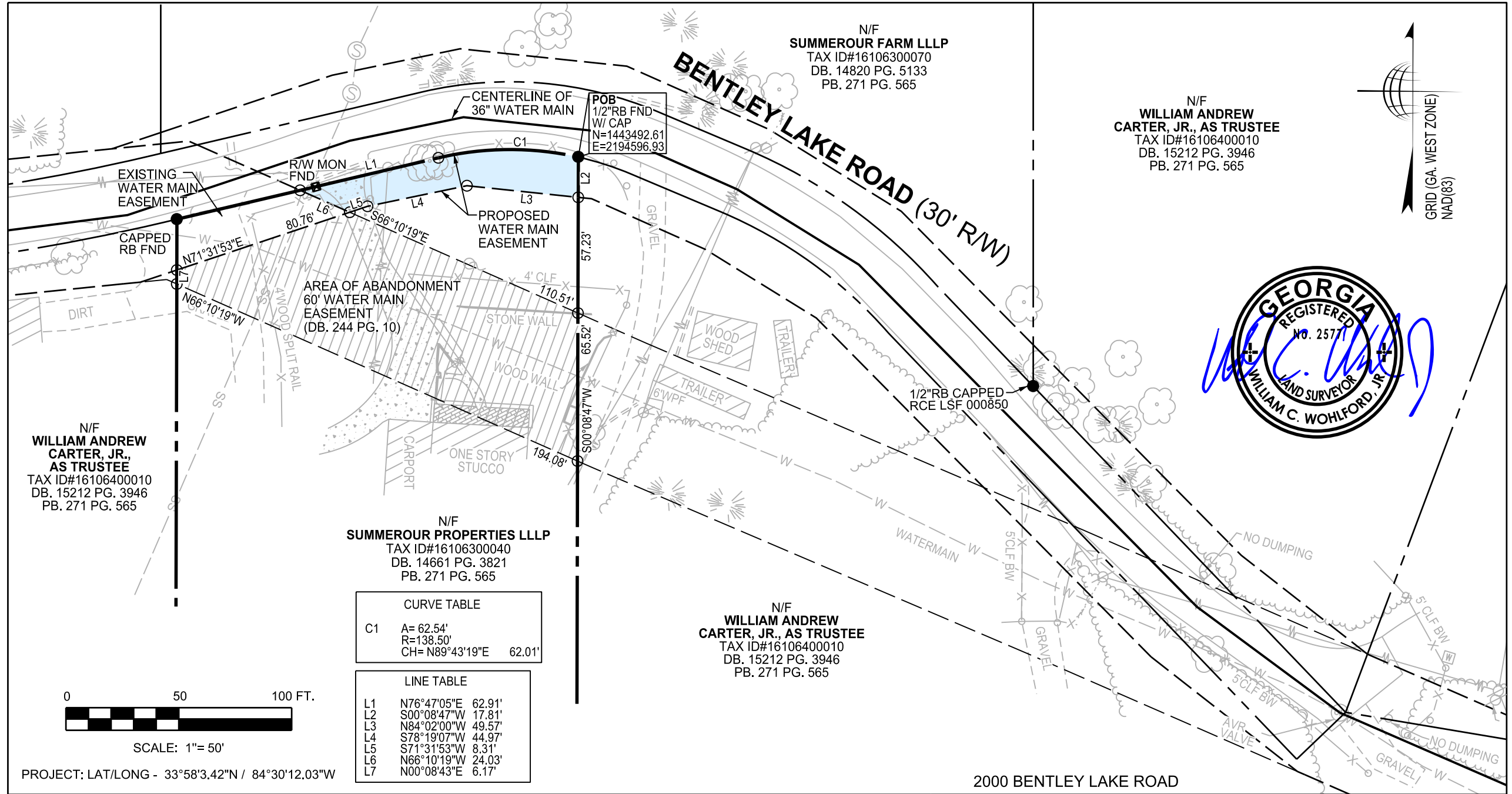
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



N/F  
**SUMMEROUR FARM LLLP**  
 TAX ID#16106300070  
 DB. 14820 PG. 5133  
 PB. 271 PG. 565

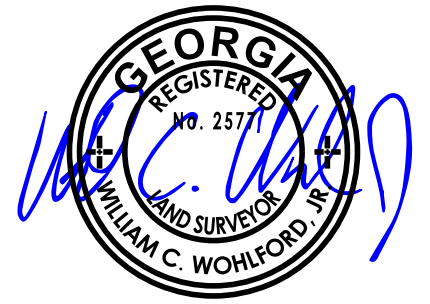
N/F  
**WILLIAM ANDREW  
 CARTER, JR., AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565



N/F  
**WILLIAM ANDREW  
 CARTER, JR.,  
 AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565

N/F  
**SUMMEROUR PROPERTIES LLLP**  
 TAX ID#16106300040  
 DB. 14661 PG. 3821  
 PB. 271 PG. 565

N/F  
**WILLIAM ANDREW  
 CARTER, JR., AS TRUSTEE**  
 TAX ID#16106400010  
 DB. 15212 PG. 3946  
 PB. 271 PG. 565



CURVE TABLE	
C1	A= 62.54' R=138.50' CH= N89°43'19"E 62.01'

LINE TABLE	
L1	N76°47'05"E 62.91'
L2	S00°08'47"W 17.81'
L3	N84°02'00"W 49.57'
L4	S78°19'07"W 44.97'
L5	S71°31'53"W 8.31'
L6	N66°10'19"W 24.03'
L7	N00°08'43"E 6.17'



SCALE: 1"= 50'

PROJECT: LAT/LONG - 33°58'3.42"N / 84°30'12.03"W

1,798 SQ. FT./ 0.0413 AC. PROPOSED EASEMENT 9,374 SQ. FT./ 0.2152 AC. ABANDONED EASEMENT	LOCATED IN LAND LOT 1063 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 5 REVISED	THROUGH THE PROPERTY OF: <b>SUMMEROUR PROPERTIES LLLP</b>  COBB COUNTY	TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
113 L.F. PROPOSED EASEMENT	DATE: 8/14/2019 SHEET NO. 1		TAX PARCEL # 16106300040	<b>TerraMark</b> Professional Land Surveying



**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **FRANK M. HARRIS & JIMMIE NELL HARRIS** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Frank M. Harris and Jimmie Nell Harris, as shown as Lot 8 on a plat of subdivision entitled "Wood-Wynn Subdivision, Section No. 2, Block C" and recorded among the Land Records of Cobb County, Georgia in Plat Book 20, Page 100, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ¾ inch crimped top pipe found at the southeast corner of Lot 8 of the aforesaid subdivision, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,424.67; East: 2,199,747.75; thence, leaving the said Point of Beginning and running with the south line of said Lot 8

1. South 89° 53' 52" West, 44.79 feet; thence, running
2. North 47° 30' 40" West, 102.69 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said south line of the existing easement
3. South 88° 13' 32" East, 91.98 feet; thence, leaving the aforesaid line of the existing easement and running
4. South 47° 30' 40" East, 9.58 feet; thence,
5. North 89° 53' 52" East, 56.60 feet; thence,
6. South 30° 17' 32" West, 69.56 feet to the Point of Beginning, containing 6,410 square feet or 0.1471 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11, and as

more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Frank M. Harris and Jimmie Nell Harris, as shown as Lot 8 on a plat of subdivision entitled "Wood-Wynn Subdivision, Section No. 2, Block C" and recorded among the Land Records of Cobb County, Georgia in Plat Book 20, Page 100, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ¾ inch crimped top pipe found at the southeast corner of Lot 8 of the aforesaid subdivision, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,424.67; East: 2,199,747.75; thence, leaving the said point and running with the southeast line of said Lot 8, North 30° 17' 32" East, 74.56 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, leaving the said Point of Beginning and running

1. North 89° 13' 32" West, 66.22 feet; thence,
2. North 47° 30' 40" West, 91.98 feet to a point on the north line of the aforesaid existing water main easement; thence, running with the said north line of the existing easement
3. South 88° 13' 32" East, 168.54 feet; thence,
4. South 30° 17' 32" West, 68.29 feet to the Point of Beginning, containing 7,043 square feet or 0.1617 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any

portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**Grantee**

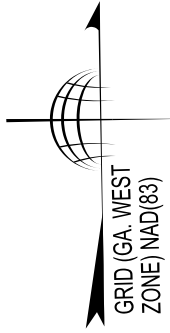
BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)  
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

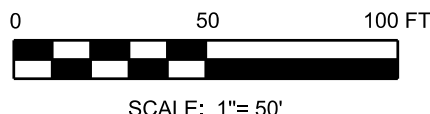
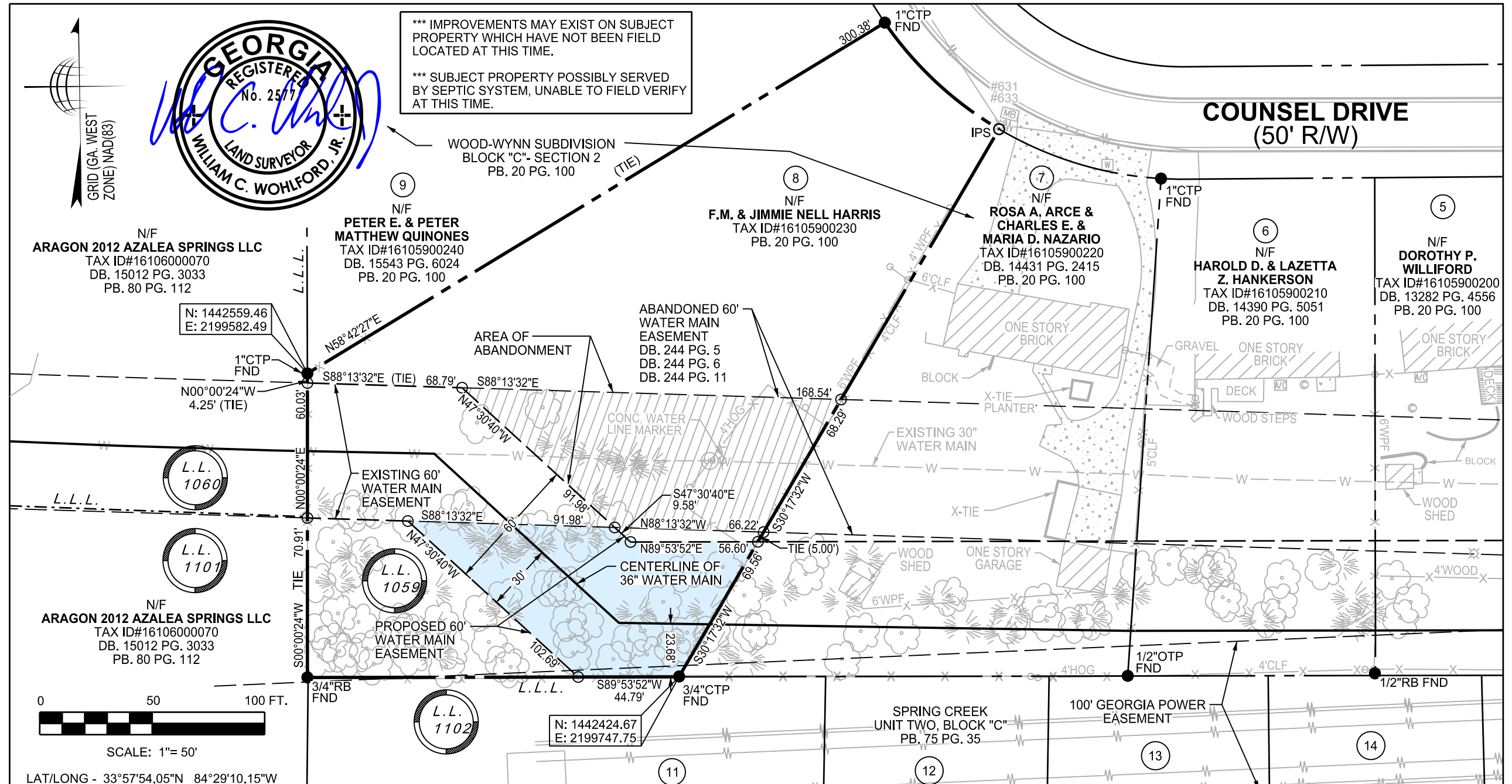
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.



LAT/LONG - 33°57'54.05\"N 84°29'10.15\"W

<p>6,410 SQ. FT./ 0.1471 AC. PROPOSED EASEMENT 7,043 SQ. FT./ 0.1617 AC. ABANDONED EASEMENT</p>	<p>LOCATED IN WOOD WYNN SUBDIVISION (PB. 20 PG. 100) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 06/05/2019 SHEET NO. 1/1</p>	<p>SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: <b>COBB COUNTY-MARIETTA WATER AUTHORITY</b> C.C.M.W.A. NO. 19 REVISED</p>	<p>THROUGH THE PROPERTY OF: <b>F.M. &amp; JIMMIE NELL HARRIS</b> (633 COUNSEL DRIVE) COBB COUNTY</p>	<p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com <b>TerraMark</b> Professional Land Surveying (P) (770) 421-1927</p>
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**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **ROSA A. ARCE, CHARLES E. & MARIA D. NAZARIO** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Rosa A. Arce, Charles E. & Maria D. Nazario, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14431, Page 2415, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch open top pipe found at the southeast corner of Lot 7 of a subdivision entitled "Wood-Wynn Subdivision, Section No. 2, Block C", and recorded among the aforesaid Land Records in Plat Book 20 Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,424.88; East: 2,199,947.15; thence, leaving the said Point of Beginning and running with the south line of said Lot 7

1. South 89° 53' 52" West, 199.49 feet to a ¾ inch crimped top pipe found; thence, running
2. North 30° 17' 32" East, 69.56 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said south line of the existing easement
3. North 89° 53' 32" East, 134.23 feet; thence,
4. South 88° 13' 32" East, 34.13 feet; thence, leaving the aforesaid line of the existing easement and running with the east line of aforesaid Lot 7
5. South 03° 49' 45" West, 59.02 feet to the Point of Beginning, containing 11,018 square feet or 0.2530 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11, and as

more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Rosa A. Arce, Charles E. & Maria D. Nazario, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14431, Page 2415, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch open top pipe found at the southeast corner of Lot 7 of a subdivision entitled "Wood-Wynn Subdivision, Section No. 2, Block C", and recorded among the aforesaid Land Records in Plat Book 20, Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,424.88; East: 2,199,947.15; thence, leaving the said point and running with the east line of said Lot 7, North 03° 49' 45" East, 60.14 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving the said Point of Beginning and running

1. South 89° 53' 52" West, 34.19 feet; thence,
2. North 88° 13' 32" West, 131.77 feet; thence,
3. North 30° 17' 32" East, 68.29 feet to a point on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said north line of the existing easement
4. South 88° 13' 32" East, 135.45 feet; thence,
5. South 03° 49' 45" West, 58.92 feet to the Point of Beginning, containing 9,021 square feet or 0.2071 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)

James C. Scott, Jr., Chair

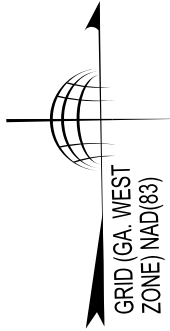
BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_



**EXHIBIT "A"**  
**EASEMENT PLAT**



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

N/F  
**ARAGON 2012 AZALEA SPRINGS LLC**  
 TAX ID#16106000070  
 DB. 15012 PG. 3033  
 PB. 80 PG. 112

9  
 N/F  
**PETER E. & PETER MATTHEW QUINONES**  
 TAX ID#16105900240  
 DB. 15543 PG. 6024  
 PB. 20 PG. 100

8  
 N/F  
**F.M. & JIMMIE NELL HARRIS**  
 TAX ID#16105900230  
 PB. 20 PG. 100

7  
 N/F  
**ROSA A. ARCE & CHARLES E. & MARIA D. NAZARIO**  
 TAX ID#16105900220  
 DB. 14431 PG. 2415  
 PB. 20 PG. 100

6  
 N/F  
**HAROLD D. & LAZETTA Z. HANKERSON**  
 TAX ID#16105900210  
 DB. 14390 PG. 5051  
 PB. 20 PG. 100

5  
 N/F  
**DOROTHY P. WILLIFORD**  
 TAX ID#16105900200  
 DB. 13282 PG. 4556  
 PB. 20 PG. 100

N/F  
**ARAGON 2012 AZALEA SPRINGS LLC**  
 TAX ID#16106000070  
 DB. 15012 PG. 3033  
 PB. 80 PG. 112

0 50 100 FT.  
 SCALE: 1"= 50'  
 LAT/LONG - 33°57'53.83"N 84°29'8.48"W

L.L. 1060  
 L.L. 1101  
 L.L. 1059  
 L.L. 1102

11,018 SQ. FT./ 0.2530 AC. PROPOSED EASEMENT  
 9,021 SQ. FT./ 0.2071 AC. ABANDONED EASEMENT  
 187 L.F. PROPOSED EASEMENT

LOCATED IN WOOD WYNN SUBDIVISION (PB. 20 PG. 100)  
 LAND LOT 1059  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA  
 DATE: 06/05/2019 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
**COBB COUNTY-MARIETTA WATER AUTHORITY**  
 C.C.M.W.A. NO. 20 REVISED

THROUGH THE PROPERTY OF:  
**ROSA A. ARCE, CHARLES E. & MARIA D. NAZARIO**  
 (631 COUNSEL DRIVE)  
 COBB COUNTY

**TerraMark** Professional Land Surveying  
 TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **HAROLD D. & LAZETTA Z. HANKERSON** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Harold D. & Lazetta Z. Hankerson, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14390, Page 5051, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch open top pipe found at the southwest corner of Lot 6 of a subdivision entitled "Wood-Wynn Subdivision, Section No. 2, Block C", and recorded among the aforesaid Land Records in Plat Book 20 Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,424.88; East: 2,199,947.15; thence, leaving the said Point of Beginning and running with the west line of said Lot 6

1. North 03° 49' 45" East, 59.02 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said south line of the existing easement
2. South 88° 13' 32" East, 106.16 feet; thence, leaving the aforesaid line of the existing easement and running with the east line of aforesaid Lot 6
3. South 00° 05' 05" East, 55.41 feet to a ½ inch rebar found on the south line of aforesaid Lot 6; thence, running with the said line of Lot 6
4. South 89° 53' 52" West, 110.13 feet to the Point of Beginning, containing 6,182 square feet or 0.1419 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11, and as more particularly described in the plat attached hereto, shown as "AREA OF

ABANDONMENT” on Exhibit “A”. Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Harold D. & Lazetta Z. Hankerson, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14390, Page 5051, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch open top pipe found at the southwest corner of Lot 6 of a subdivision entitled “Wood-Wynn Subdivision, Section No. 2, Block C”, and recorded among the aforesaid Land Records in Plat Book 20, Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,424.88; East: 2,199,947.15; thence, leaving the said point and running with the west line of said Lot 6, North 03° 49' 45" East, 60.14 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving the said Point of Beginning and running

1. North 03° 49' 45" East, 58.92 feet to a point on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said north line of the existing easement
2. South 88° 13' 32" East, 102.06 feet; thence,
3. South 00° 05' 05" East, 55.54 feet; thence,
4. South 89° 53' 52" West, 106.02 feet to the Point of Beginning, containing 5,944 square feet or 0.1364 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within “AREA OF ABANDONMENT”.**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor’s assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee’s water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction

and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

N/F  
**ARAGON 2012 AZALEA SPRINGS LLC**  
 TAX ID#1610600070  
 DB. 15012 PG. 3033  
 PB. 80 PG. 112

N/F  
**PETER E. & PETER MATTHEW QUINONES**  
 TAX ID#16105900240  
 DB. 15543 PG. 6024  
 PB. 20 PG. 100

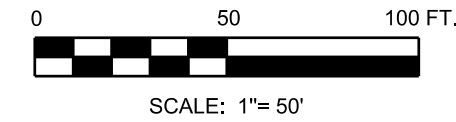
N/F  
**F.M. & JIMMIE NELL HARRIS**  
 TAX ID#16105900230  
 PB. 20 PG. 100

N/F  
**ROSA A. ARCE & CHARLES E. & MARIA D. NAZARIO**  
 TAX ID#16105900220  
 DB. 14431 PG. 2415  
 PB. 20 PG. 100

N/F  
**HAROLD D. & LAZETTA Z. HANKERSON**  
 TAX ID#16105900210  
 DB. 14390 PG. 5051  
 PB. 20 PG. 100

N/F  
**DOROTHY P. WILLIFORD**  
 TAX ID#16105900200  
 DB. 13282 PG. 4556  
 PB. 20 PG. 100

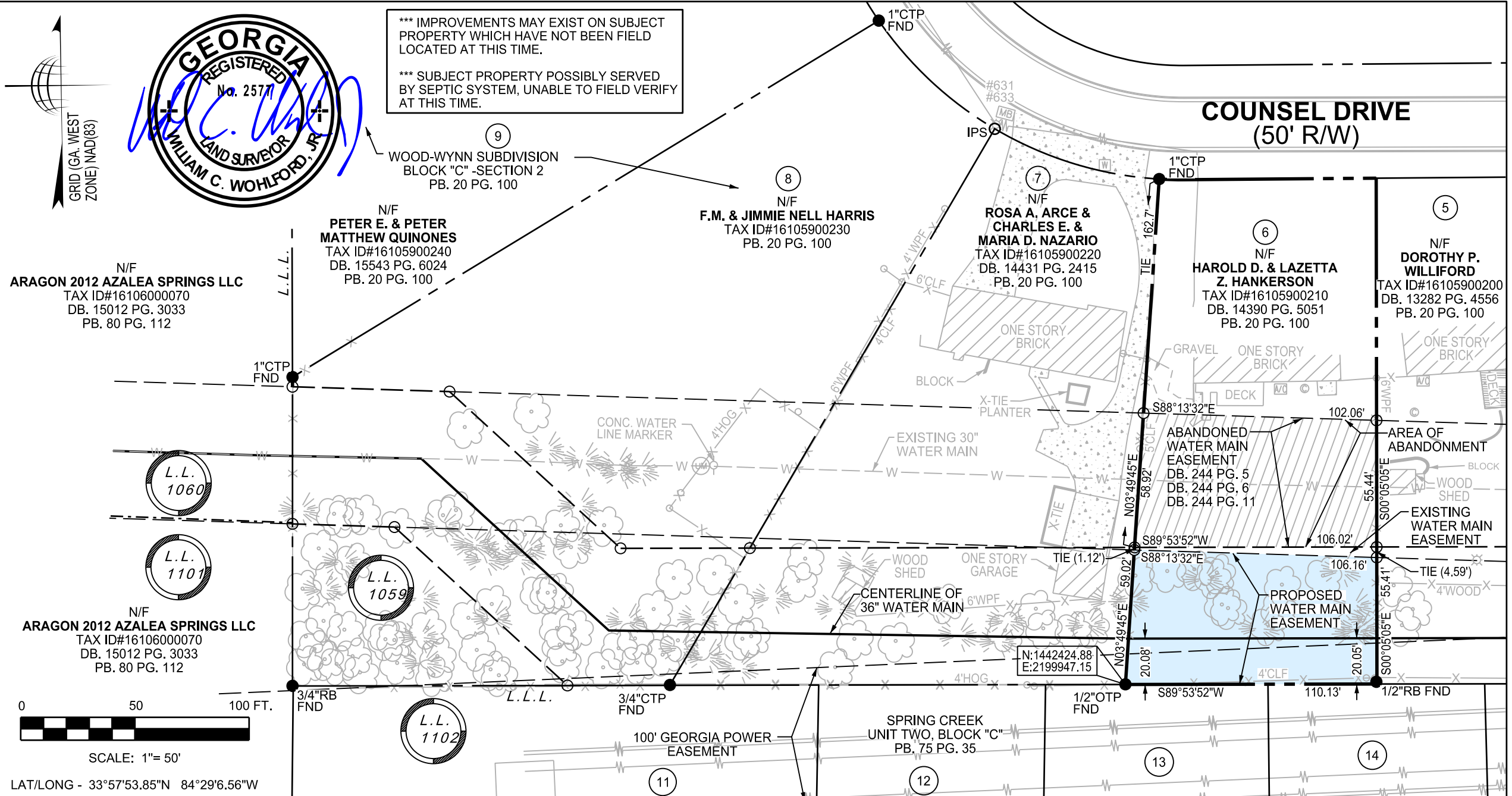
N/F  
**ARAGON 2012 AZALEA SPRINGS LLC**  
 TAX ID#1610600070  
 DB. 15012 PG. 3033  
 PB. 80 PG. 112



LAT/LONG - 33°57'53.85"N 84°29'6.56"W

WOOD-WYNN SUBDIVISION  
 BLOCK "C" - SECTION 2  
 PB. 20 PG. 100

**COUNSEL DRIVE**  
 (50' R/W)



6,182 SQ. FT./ 0.1419 AC. PROPOSED EASEMENT  
 5,944 SQ. FT./ 0.1364 AC. ABANDONED EASEMENT

109 L.F. EASEMENT

LOCATED IN WOOD WYNN SUBDIVISION (PB. 20 PG. 100)  
 LAND LOT 1059  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA  
 DATE: 06/05/2019 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
**COBB COUNTY-MARIETTA WATER AUTHORITY**  
 C.C.M.W.A. NO. 21 REVISED

THROUGH THE PROPERTY OF:  
**HAROLD D. & LAZETTA Z. HANKERSON**  
 (629 COUNSEL DRIVE)  
 COBB COUNTY

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **DOROTHY P. WILLIFORD** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Dorothy P. Williford, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 13282, Page 4556, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a point being at the southeast corner of Lot 5 of a subdivision entitled "Wood-Wynn Subdivision, Section No. 2, Block C", and recorded among the aforesaid Land Records in Plat Book 20 Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.25; East: 2,200,157.27; thence, leaving the said Point of Beginning and running with the south line of said Lot 5

1. South 89° 53' 52" West, 100.00 feet to a ½ inch rebar found; thence, running
2. North 00° 05' 05" West, 55.41 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said south line of the existing easement
3. South 88° 13' 32" East, 100.05 feet; thence, leaving the aforesaid line of the existing easement and running with the east line of aforesaid Lot 5
4. South 00° 05' 07" East, 52.13 feet to the Point of Beginning, containing 5,377 square feet or 0.1234 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11, and as more particularly described in the plat attached hereto, shown as "AREA OF



ABANDONMENT” on Exhibit “A”. Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Dorothy P. Williford, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 13282, Page 4556, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a point being at the southeast corner of Lot 5 of a subdivision entitled “Wood-Wynn Subdivision, Section No. 2, Block C”, and recorded among the aforesaid Land Records in Plat Book 20, Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.25; East: 2,200,157.27; thence, leaving the said point and running with the east line of said Lot 5, North 00° 05' 07" West, 60.00 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving the said Point of Beginning and running

1. South 89° 53' 52" West, 100.00 feet; thence,
2. North 00° 05' 05" West, 55.44 feet to a point on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said north line of the existing easement
3. South 88° 13' 32" East, 100.05 feet; thence,
4. South 00° 05' 07" East, 52.16 feet to the Point of Beginning, containing 5,380 square feet or 0.1235 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within “AREA OF ABANDONMENT”.**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor’s assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee’s water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction

and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)  
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

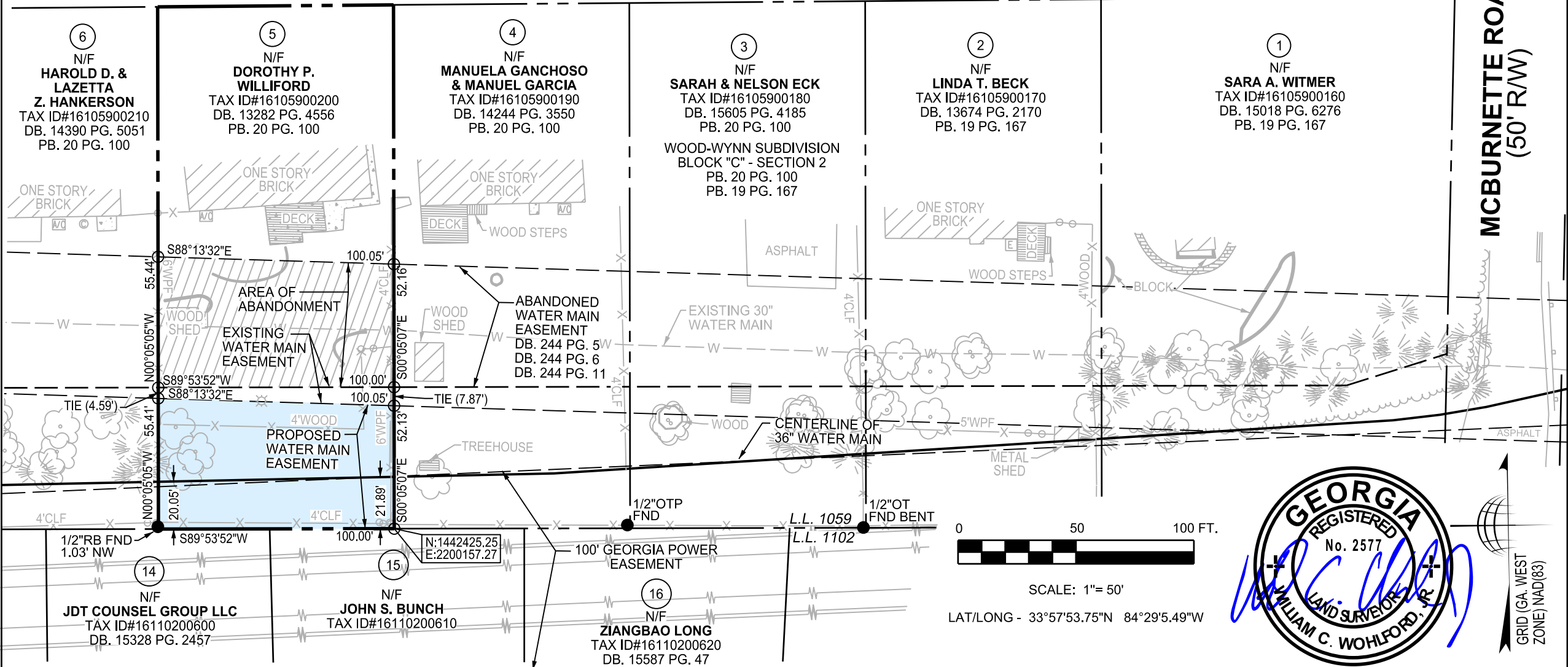
**EXHIBIT "A"**  
**EASEMENT PLAT**

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

## COUNSEL DRIVE (50' R/W)

**MCBURNETTE ROAD  
(50' R/W)**



SCALE: 1" = 50'

LAT/LONG - 33°57'53.75"N 84°29'5.49"W

5,377 SQ. FT./ 0.1234 AC. PROPOSED EASEMENT  
5,380 SQ. FT./ 0.1235 AC. ABANDONED EASEMENT  
  
100 L.F. EASEMENT

LOCATED IN WOOD WYNN SUBDIVISION (PB. 20 PG. 100)  
LAND LOT 1059  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 06/05/2019 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
**COBB COUNTY-MARIETTA WATER AUTHORITY**  
C.C.M.W.A. NO. 22 REVISED

THROUGH THE PROPERTY OF:  
**DOROTHY P. WILLIFORD**  
(627 COUNSEL DRIVE)  
  
COBB COUNTY

**TerraMark**  
Professional Land Surveying  
TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **MANUELA GANCHOSO & MANUEL GARCIA** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Manuela Ganchoso & Manuel Garcia, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14244, Page 3550, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a point being at the southwest corner of Lot 4 of a subdivision entitled "Wood-Wynn Subdivision, Section No. 2, Block C", and recorded among the aforesaid Land Records in Plat Book 20 Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.25; East: 2,200,157.27; thence, leaving the said Point of Beginning and running with the west line of said Lot 4

1. North 00° 05' 07" West, 52.13 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said south line of the existing easement
2. South 88° 13' 32" East, 100.05 feet; thence, leaving the aforesaid line of the existing easement and running with the east line of aforesaid Lot 4
3. South 00° 05' 09" East, 48.85 feet to a point on the south line of aforesaid Lot 4; thence, running with the said line of Lot 4
4. South 89° 53' 52" West, 100.00 feet to the Point of Beginning, containing 5,049 square feet or 0.1159 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11, and as more particularly described in the plat attached hereto, shown as "AREA OF

ABANDONMENT” on Exhibit “A”. Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Manuela Ganchoso & Manuel Garcia, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14244, Page 3550, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a point being at the southwest corner of Lot 4 of a subdivision entitled “Wood-Wynn Subdivision, Section No. 2, Block C”, and recorded among the aforesaid Land Records in Plat Book 20, Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.25; East: 2,200,157.27; thence, leaving the said point and running with the west line of said Lot 4, North 00° 05' 07" West, 60.00 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving the said Point of Beginning and running

1. North 00° 05' 07" West, 52.16 feet to a point on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said north line of the existing easement
2. South 88° 13' 32" East, 100.05 feet; thence,
3. South 00° 05' 09" East, 48.88 feet; thence,
4. South 89° 53' 52" West, 100.00 feet to the Point of Beginning, containing 5,052 square feet or 0.1160 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within “AREA OF ABANDONMENT”.**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor’s assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee’s water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction

and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)

James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**

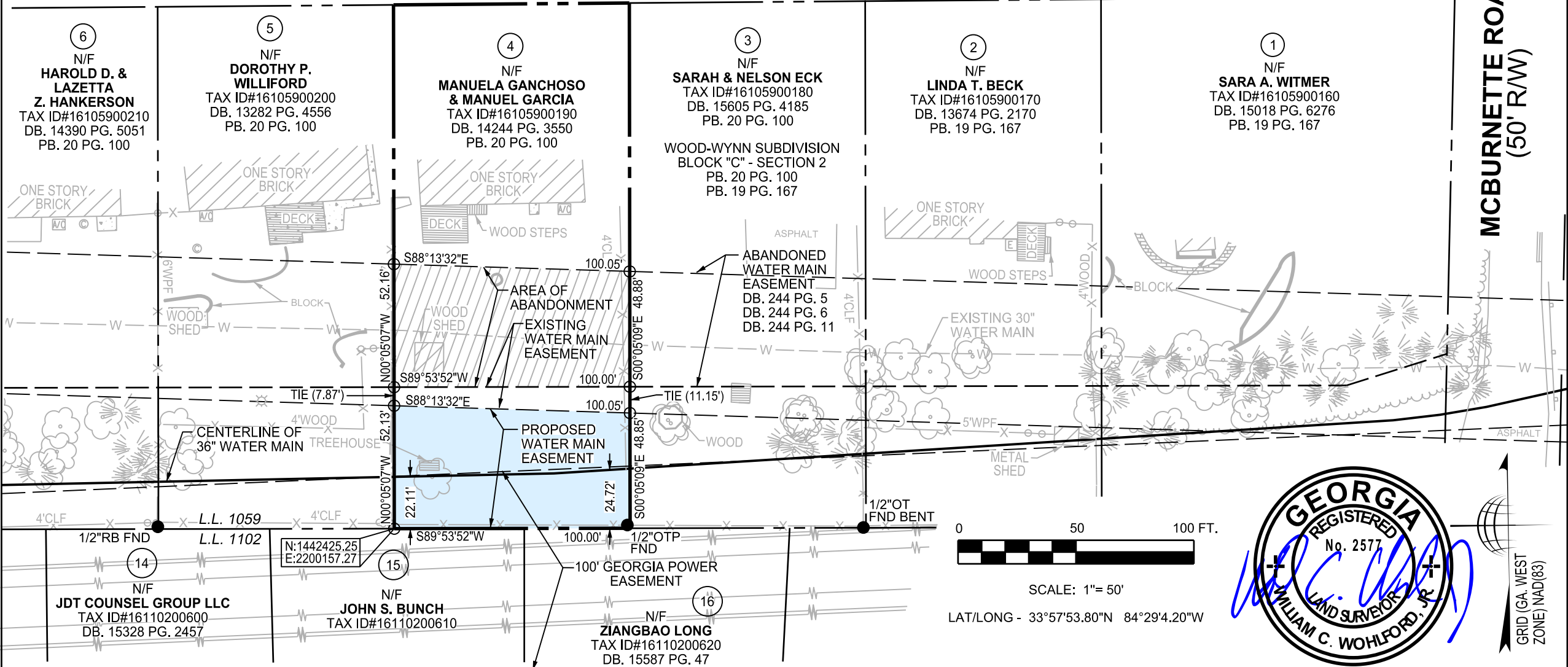


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

# COUNSEL DRIVE (50' R/W)

MCBURNETTE ROAD  
(50' R/W)




SCALE: 1" = 50'

LAT/LONG - 33°57'53.80"N 84°29'4.20"W



GRID (GA. WEST ZONE) NAD(83)

5,049 SQ. FT./ 0.1159 AC. PROPOSED EASEMENT 5,052 SQ. FT./ 0.1160 AC. ABANDONED EASEMENT	LOCATED IN WOOD WYNN SUBDIVISION (PB. 20 PG. 100) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 06/05/2019 SHEET NO. 1/1	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 23 REVISED	THROUGH THE PROPERTY OF: <b>MANUELA GANCHOSO &amp; MANUEL GARCIA</b> (625 COUNSEL DRIVE) COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
100 L.F. EASEMENT				

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **SARAH & NELSON ECK** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Sarah & Nelson Eck, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 15605, Page 4185, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch open top pipe found (bent) at the southeast corner of Lot 3 of a subdivision entitled "Wood-Wynn Subdivision, Section No. 2, Block C", and recorded among the aforesaid Land Records in Plat Book 20 Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.61; East: 2,200,357.27; thence, leaving the said Point of Beginning and running with the south line of said Lot 2

1. South 89° 53' 52" West, 100.00 feet; thence, running
2. North 00° 05' 09" West, 48.85 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said south line of the existing easement
3. South 88° 13' 32" East, 100.05 feet; thence, leaving the aforesaid line of the existing easement and running with the east line of aforesaid Lot 3
4. South 00° 05' 11" East, 45.58 feet to the Point of Beginning, containing 4,721 square feet or 0.1084 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11, and as more particularly described in the plat attached hereto, shown as "AREA OF

ABANDONMENT” on Exhibit “A”. Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Sarah & Nelson Eck, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 15605, Page 4185, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch open top pipe found (bent) at the southeast corner of Lot 3 of a subdivision entitled “Wood-Wynn Subdivision, Section No. 2, Block C”, and recorded among the aforesaid Land Records in Plat Book 20, Page 100, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.61; East: 2,200,357.27; thence, leaving the said point and running with the east line of said Lot 3, North 00° 05' 11" West, 60.00 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving the said Point of Beginning and running

1. South 89° 53' 52" West, 100.00 feet; thence,
2. North 00° 05' 09" West, 48.88 feet to a point on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said north line of the existing easement
3. South 88° 13' 32" East, 100.05 feet; thence,
4. South 00° 05' 11" East, 45.61 feet to the Point of Beginning, containing 4,724 square feet or 0.1085 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within “AREA OF ABANDONMENT”.**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor’s assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee’s water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction

and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)

James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

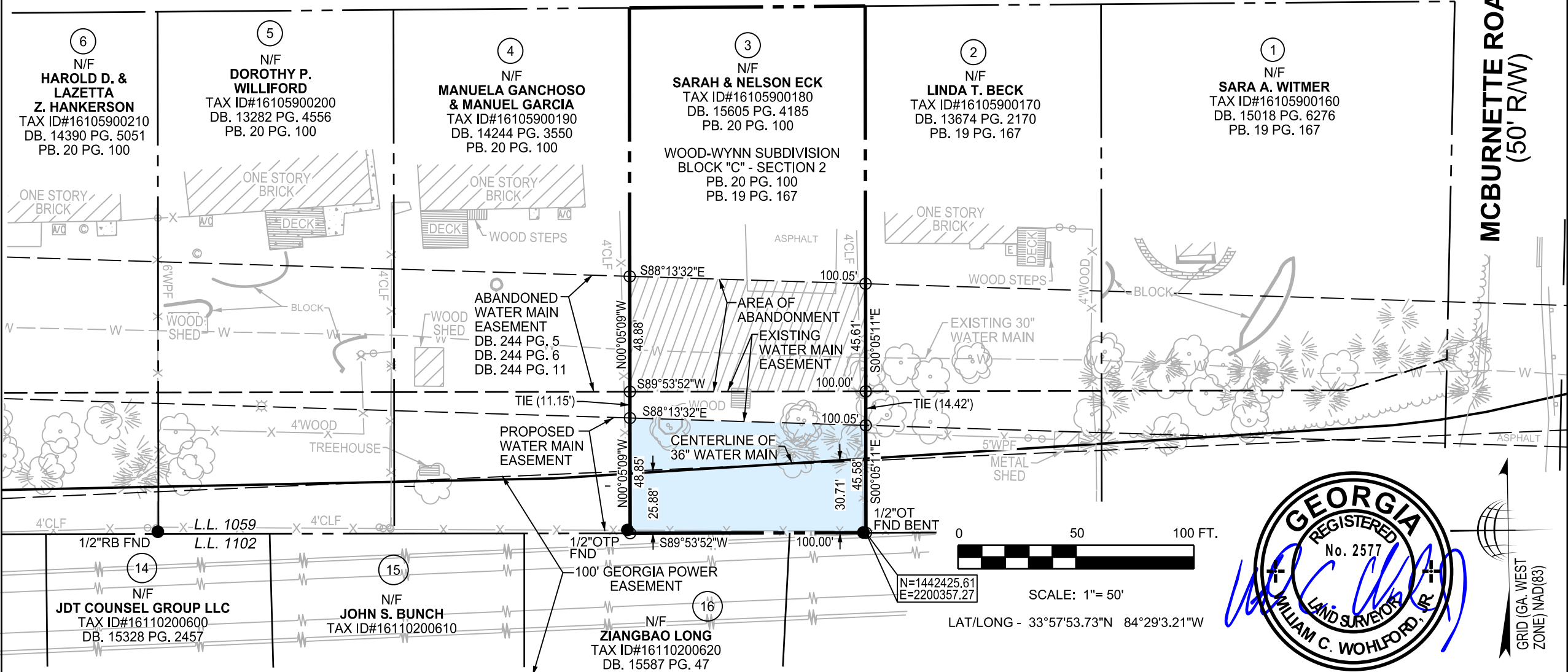
**EXHIBIT "A"**  
**EASEMENT PLAT**

\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

## COUNSEL DRIVE (50' R/W)

MCBURNETTE ROAD  
(50' R/W)



SCALE: 1" = 50'

LAT/LONG - 33°57'53.73"N 84°29'3.21"W



GRID (GA. WEST ZONE) NAD(83)

4,721 SQ. FT./ 0.1084 AC. PROPOSED EASEMENT  
4,724 SQ. FT./ 0.1085 AC. ABANDONED EASEMENT

100 L.F. EASEMENT

LOCATED IN WOOD WYNN SUBDIVISION (PB. 20 PG. 100)  
LAND LOT 1059  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 06/05/2019 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
COBB COUNTY-MARIETTA WATER AUTHORITY  
C.C.M.W.A. NO. 24 REVISED

THROUGH THE PROPERTY OF:  
**SARAH & NELSON ECK**  
(623 COUNSEL DRIVE)  
COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **LINDA T. BECK** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Linda T. Beck, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 13674, Page 2170, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at the southeast corner of Lot 2 of a subdivision entitled "Wood-Wynn Subdivision", and recorded among the aforesaid Land Records in Plat Book 19, Page 167, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.79; East: 2,200,457.27; thence, leaving the said Point of Beginning and running with the south line of said Lot 2

1. South 89° 53' 52" West, 100.00 feet to a ½ inch open top pipe found (bent) at the southwest corner of aforesaid Lot 2; thence,
2. North 00° 05' 11" West, 45.58 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said south line of the existing easement
3. South 88° 13' 32" East, 100.05 feet; thence, leaving the aforesaid line of the existing easement and running
4. South 00° 05' 13" East, 42.30 feet to the Point of Beginning, containing 4,394 square feet or 0.1009 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11, and as more particularly described in the plat attached hereto, shown as "AREA OF

ABANDONMENT” on Exhibit “A”. Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Linda T. Beck, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 13674, Page 2170, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at the southeast corner of Lot 2 of a subdivision entitled “Wood-Wynn Subdivision”, and recorded among the aforesaid Land Records in Plat Book 19, Page 167, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.79; East: 2,200,457.27; thence, leaving the said point and running with the east line of said Lot 2, North 00° 05' 13" West, 60.00 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving said Point of Beginning and running

1. South 89° 53' 52" West, 100.00 feet; thence,
2. North 00° 05' 11" West, 45.61 feet; thence,
3. South 88° 13' 32" East, 100.05 feet; thence,
4. South 00° 05' 13" East, 42.33 feet to the Point of Beginning, containing 4,397 square feet or 0.1009 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within “AREA OF ABANDONMENT”.**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor’s assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee’s water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12” or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be



constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY:

\_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY:

\_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

James C. Scott, Jr., Chair

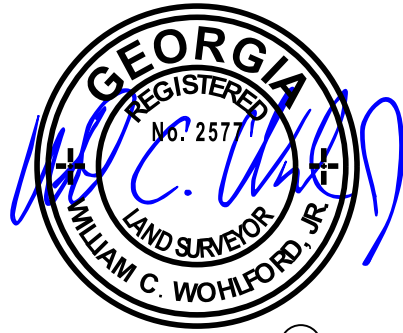
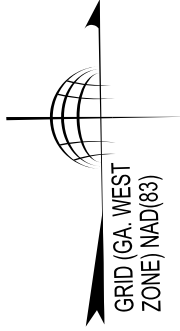
BY:

\_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**

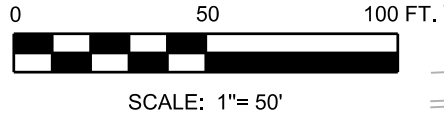
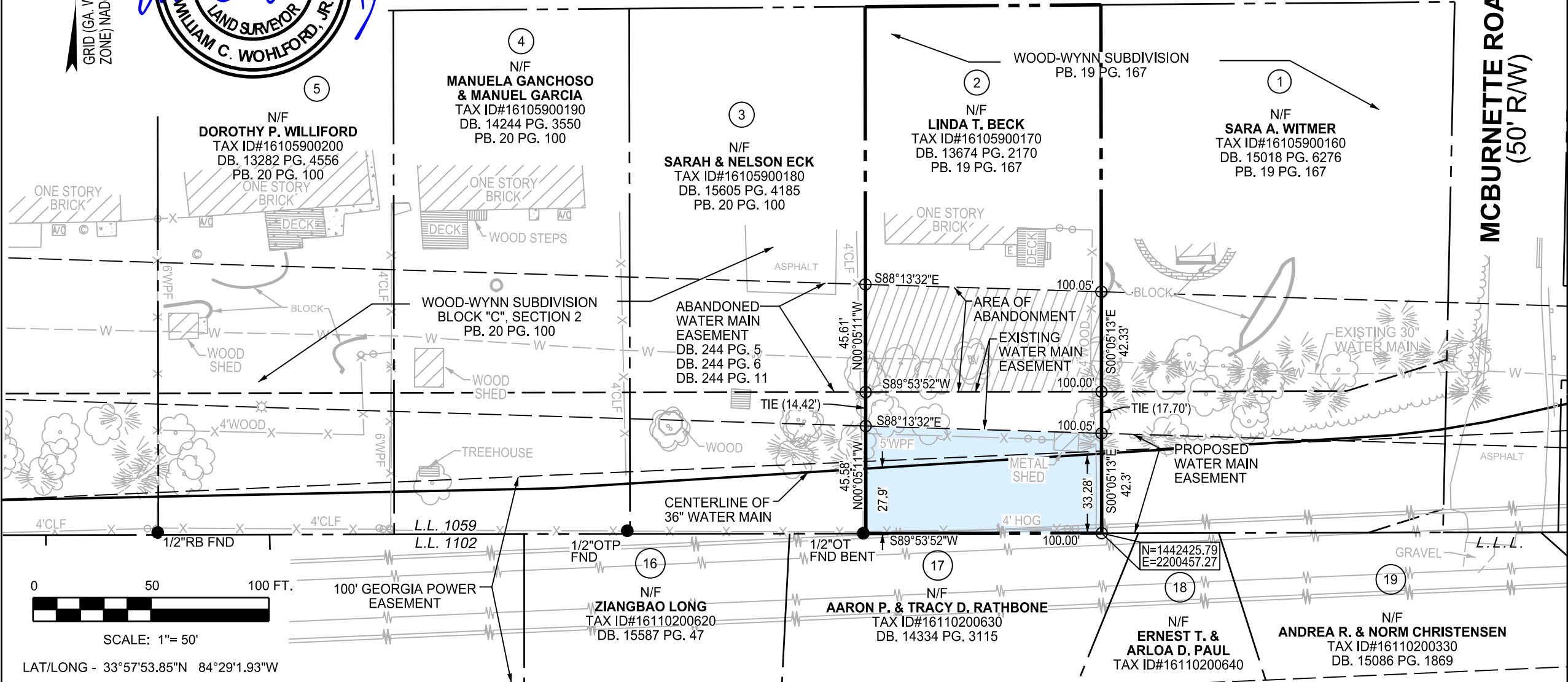


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.


\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

**COUNSEL DRIVE**  
(50' R/W)

**MCBURNETTE ROAD**  
(50' R/W)



LAT/LONG - 33°57'53.85\"N 84°29'1.93\"W

<p>4,394 SQ. FT./ 0.1009 AC. PROPOSED EASEMENT 4,397 SQ. FT./ 0.1009 AC. ABANDONED EASEMENT</p>	<p>LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167) LAND LOT 1059 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 06/05/2019 SHEET NO. 1/1</p>	<p>SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO. 25 REVISED</p>	<p>THROUGH THE PROPERTY OF: <b>LINDA T. BECK</b> (621 COUNSEL DRIVE) COBB COUNTY</p>	<p> TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
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**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **SARA A. WITMER** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Sara A. Witmer, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 15018, Page 6276, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a point being at the southwest corner of Lot 1 of a subdivision entitled "Wood-Wynn Subdivision", and recorded among the aforesaid Land Records in Plat Book 19 Page 167, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.79; East: 2,200,457.27; thence, leaving the said Point of Beginning and running with the west line of said Lot 1

1. North 00° 05' 13" West, 42.30 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said south line of the existing easement
2. South 88° 13' 32" East, 145.66 feet to a point on the west right of way line of McBurnette Road (50 feet wide right of way); thence, leaving the aforesaid line of the existing easement and running with the west line of McBurnette Road
3. South 01° 15' 45" West, 27.55 feet; thence, leaving the aforesaid line of McBurnette Road and running
4. South 72° 32' 41" West, 33.48 feet to a point on the south line of aforesaid Lot 1; thence, running with the said line of Lot 1
5. South 89° 53' 52" West, 112.98 feet to the Point of Beginning, containing 5,636 square feet or 0.1294 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Sara A. Witmer, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 15018, Page 6276, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1059, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a point being at the southwest corner of Lot 1 of a subdivision entitled "Wood-Wynn Subdivision", and recorded among the aforesaid Land Records in Plat Book 19, Page 167, said point also being on the common line between Land Lots 1059 and 1102 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,425.79; East: 2,200,457.27; thence, leaving the said point and running with the west line of said Lot 1, North 00° 05' 13" West, 60.00 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving the said Point of Beginning and running

1. North 00° 05' 13" West, 42.33 feet to a point on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Pages 5, 6 & 11; thence, running with the said north line of the existing easement
2. South 88° 13' 32" East, 147.07 feet to a point on the west right of way line of McBrunette Road (50 feet wide right of way); thence, leaving the aforesaid line of the existing easement and running with the west line of McBurnette Road
3. South 01° 15' 45" West, 24.20 feet; thence, leaving the aforesaid line of McBurnette Rod and running
4. South 72° 32' 41" West, 44.65 feet; thence,
5. South 89° 53' 52" West, 103.81 feet to the Point of Beginning, containing 5,570 square feet or 0.1279 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of

trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

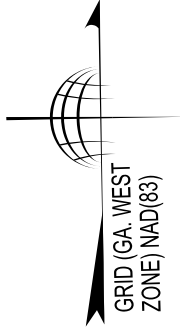
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**

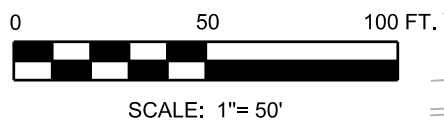
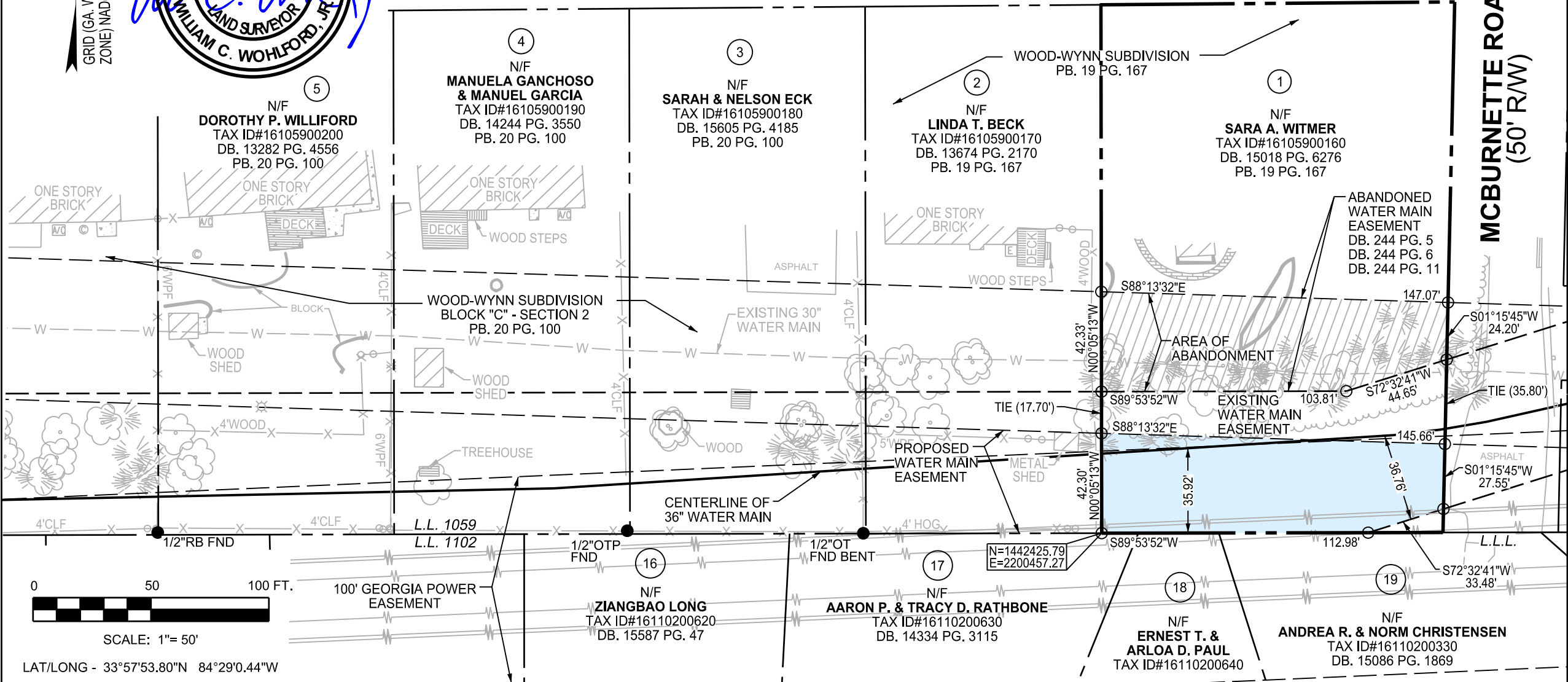


\*\*\* IMPROVEMENTS MAY EXIST ON SUBJECT PROPERTY WHICH HAVE NOT BEEN FIELD LOCATED AT THIS TIME.

\*\*\* SUBJECT PROPERTY POSSIBLY SERVED BY SEPTIC SYSTEM, UNABLE TO FIELD VERIFY AT THIS TIME.

**COUNSEL DRIVE**  
(50' R/W)

**MCBURNETTE ROAD**  
(50' R/W)



LAT/LONG - 33°57'53.80"N 84°29'0.44"W

5,636 SQ. FT./ 0.1294 AC. PROPOSED EASEMENT  
5,570 SQ. FT./ 0.1279 AC. ABANDONED EASEMENT

149 L.F. EASEMENT

LOCATED IN WOOD WYNN SUBDIVISION (PB. 19 PG. 167)  
LAND LOT 1059  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 06/05/2019 SHEET NO. 1/1

SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:  
COBB COUNTY-MARIETTA WATER AUTHORITY  
C.C.M.W.A. NO. 26 REVISED

THROUGH THE PROPERTY OF:  
**SARA A. WITMER**  
(619 COUNSEL DRIVE)  
COBB COUNTY

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **SAMUEL R. BURROUS** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Samuel R. Burrous, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14663, Page 3013, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lots 1103 & 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch capped rebar found at the northeast corner of Lot 7 of a subdivision entitled "Beverly Hills Subdivision", and recorded among the aforesaid Land Records in Plat Book 58, Page 148, said point also being on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,443.52; East: 2,202,396.26; thence, leaving the said Point of Beginning and running with the east line of said Lot 7

1. South 16° 18' 37" East, 56.29 feet to a point on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, running with the said line of the existing easement
2. North 82° 57' 14" West, 86.71 feet; thence,
3. North 73° 49' 53" West, 126.17 feet; thence,
4. North 82° 57' 14" West, 46.14 feet to a point on the north line of aforesaid Lot 7; thence, running with the said north line
5. North 89° 22' 23" East, 237.22 feet to the Point of Beginning, containing 6,834 square feet or 0.1569 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more

particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

#### **Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Samuel R. Burrous, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14663, Page 3013, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lots 1103 & 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch capped rebar found at the northeast corner of Lot 7 of a subdivision entitled "Beverly Hills Subdivision", and recorded among the aforesaid Land Records in Plat Book 58, Page 148, said point also being on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,443.52; East: 2,202,396.26; thence, leaving the said point and running with the east line of said Lot 7, South 16° 18' 37" East, 62.39 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving said Point of Beginning and running

1. South 16° 18' 37" East, 9.37 feet to a 1 inch open top pipe found at the southeast corner of aforesaid Lot 7; thence,
2. South 71° 54' 55" West, 107.86 feet to a point being on the south line of the aforesaid existing water main easement; thence, running with the said south line of the existing easement
3. North 73° 49' 53" West, 126.16 feet; thence,
4. North 82° 57' 14" West, 37.36 feet; thence, leaving the aforesaid south line of the existing water main easement
5. North 89° 23' 14" East, 258.16 feet to the Point of Beginning, containing 5,476 square feet or 0.1257 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)

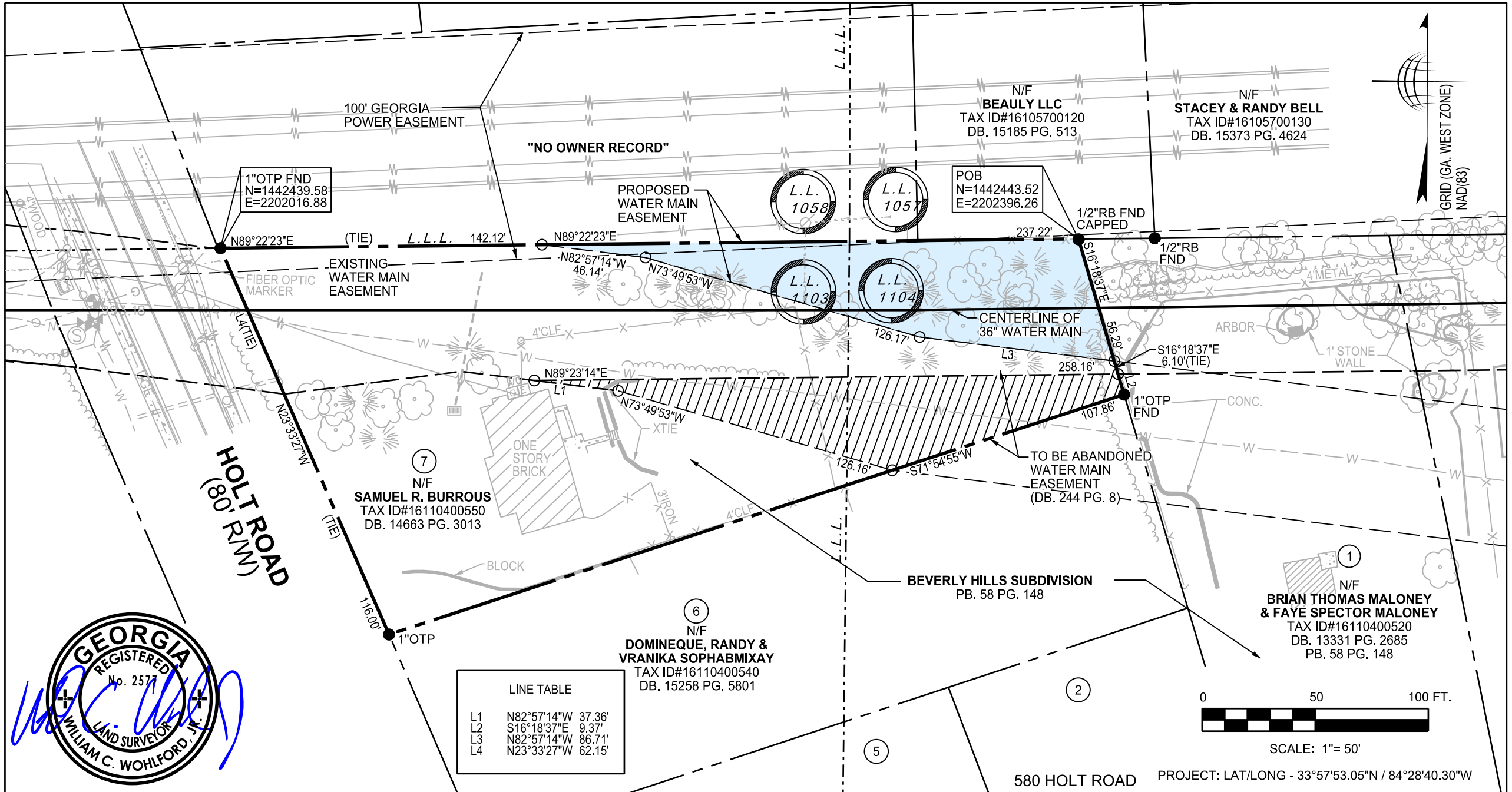
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



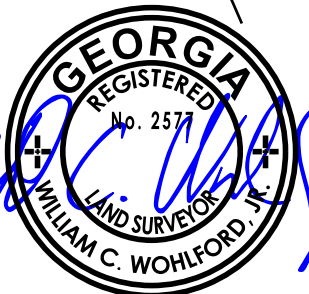
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E=2202016.88


POB  
N=1442443.52  
E=2202396.26

LINE TABLE	
L1	N82°57'14"W 37.36'
L2	S16°18'37"E 9.37'
L3	N82°57'14"W 86.71'
L4	N23°33'27"W 62.15'



SCALE: 1"= 50'



6,834 SQ. FT./ 0.1569 AC. PROPOSED EASEMENT 5,476 SQ. FT./ 0.1257 AC. ABANDONED EASEMENT	LOCATED IN LAND LOT 1103 AND 1104 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY	THROUGH THE PROPERTY OF: <b>SAMUEL R. BURROUS</b> COBB COUNTY	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
376 L.F. VARIABLE WIDTH EASEMENT	DATE: 8/14/2019 SHEET NO. 1	C.C.M.W.A. NO 38 REVISED	TAX PARCEL # 16110400550	

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **BRIAN THOMAS MALONEY & FAYE SPECTOR MALONEY** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Brian Thomas Maloney & Faye Spector Maloney, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 13331, Page 2685, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch capped rebar found at the northwest corner of Lot 1 of a subdivision entitled "Beverly Hills Subdivision", and recorded among the aforesaid Land Records in Plat Book 58, Page 148, said point also being on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,443.52; East: 2,202,396.26; thence, leaving the said Point of Beginning and running with the north line of said Lot 1

1. North 89° 35' 34" East, 33.73 feet to a ½ inch rebar found; thence,
2. North 89° 18' 06" East, 103.56 feet to a point at the northeast corner of aforesaid Lot 1; thence, running with the east line of said Lot 1
3. South 11° 22' 07" East, 61.07 feet; thence, leaving the said east line of Lot 1 and running
4. South 89° 22' 23" West, 11.31 feet; thence,
5. South 89° 18' 06" West, 78.34 feet to a point being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, running with the said line of the existing easement
6. North 82° 57' 14" West, 44.21 feet to a point on the west line of aforesaid Lot 1; thence, running with the said west line of Lot 1
7. North 16° 18' 37" West, 56.29 feet to the Point of Beginning, containing 7,948 square feet or 0.1825 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

## **TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

### **Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Brian Thomas Maloney & Faye Spector Maloney, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 13331, Page 2685, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at the northwest corner of Lot 1 of a subdivision entitled "Beverly Hills Subdivision", and recorded among the aforesaid Land Records in Plat Book 58, Page 148, said point also being on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,443.52; East: 2,202,396.26; thence, leaving the said point and running with the west line of said Lot 1, South 16° 18' 37" East, 62.39 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving said Point of Beginning and running

1. North 89° 35' 34" East, 16.79 feet; thence,
2. North 89° 18' 06" East, 25.37 feet to a point being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, running with the said line of the existing easement
3. South 82° 57' 14" East, 92.84 feet to a point on the east line of aforesaid Lot 1; thence, running with the said east line of Lot 1
4. South 11° 22' 07" East, 63.24 feet; thence, leaving the aforesaid east line of Lot 1 and running with the south line of the aforesaid existing water main easement
5. North 82° 57' 14" West, 130.82 feet to a point on the west line of aforesaid Lot 1; thence, running with the said west line of Lot 1
6. North 16° 37' 26" West, 50.01 feet to a ½ inch open top pipe found; thence,
7. North 16° 18' 37" West, 9.37 feet to the Point of Beginning, containing 7,913 square feet or 0.1817 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be

covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

James C. Scott, Jr., Chair

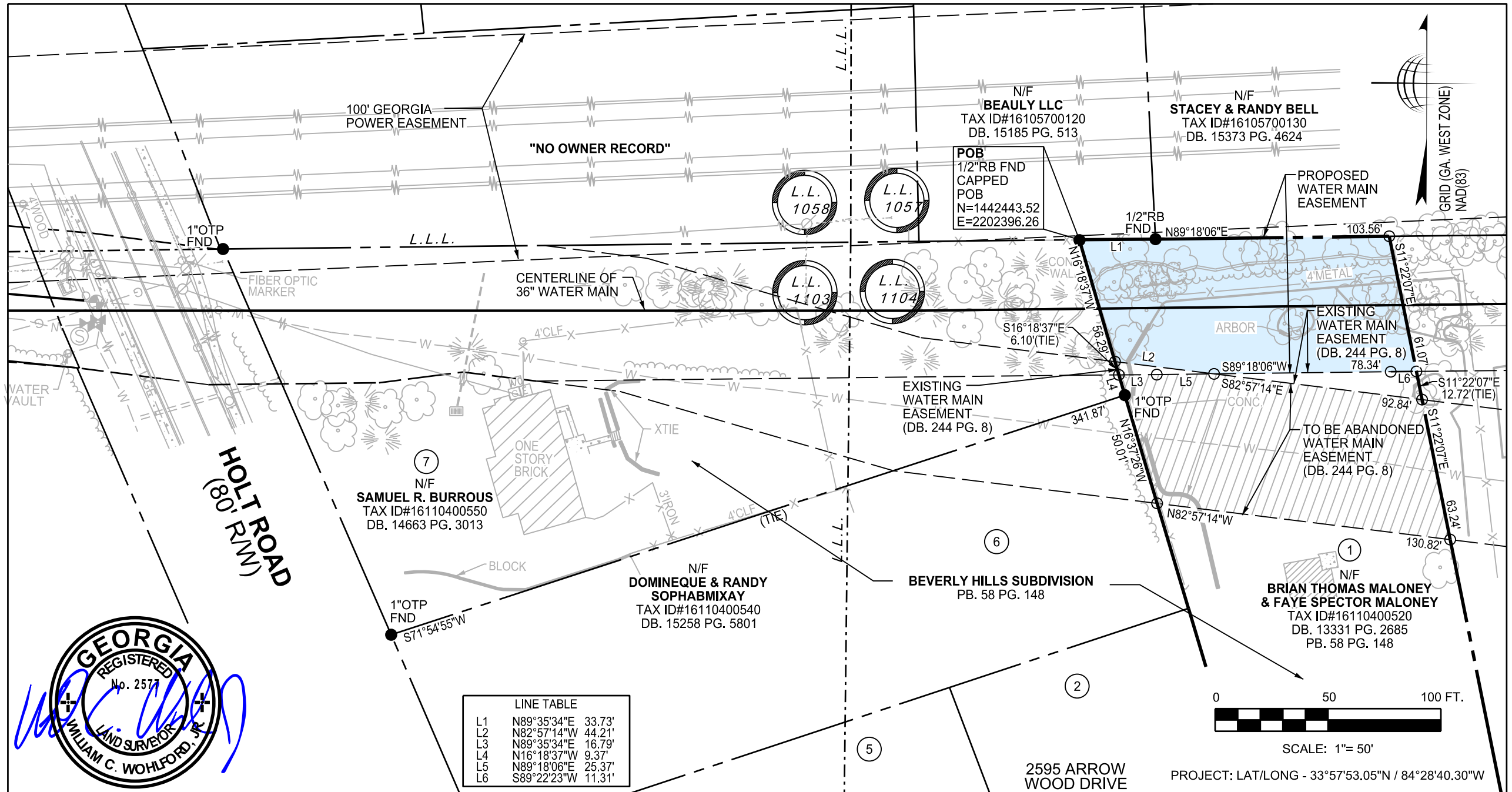
BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

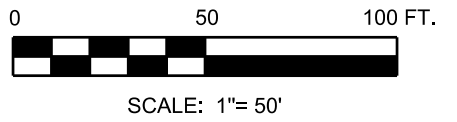
Title: \_\_\_\_\_



**EXHIBIT "A"**  
**EASEMENT PLAT**



LINE TABLE	
L1	N89°35'34"E 33.73'
L2	N82°57'14"W 44.21'
L3	N89°35'34"E 16.79'
L4	N16°18'37"W 9.37'
L5	N89°18'06"E 25.37'
L6	S89°22'23"W 11.31'



7,948 SQ. FT./ 0.1825 AC. PROPOSED EASEMENT  
 7,913 SQ. FT./ 0.1817 AC. ABANDONED EASEMENT

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134 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN LAND LOT 1104  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA

---

DATE: 6/11/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:

**COBB COUNTY-MARIETTA  
 WATER AUTHORITY**

C.C.M.W.A. NO 40 REVISED

THROUGH THE PROPERTY OF:  
**BRIAN THOMAS MALONEY  
 & FAYE SPECTOR MALONEY**  
 COBB COUNTY

---

TAX PARCEL # 16110400520

*TerraMark Land Surveying, Inc.*  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **HARRY S. TEAGUE & DEBRA J. BERG** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Harry S. Teague & Debra J. Berg, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 13985, Page 2415, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a point being at the northeast corner of the property described in the aforesaid deed, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,447.15; East: 2,202,708.07; thence, leaving the said Point of Beginning and running

1. South 05° 24' 17" East, 60.21 feet; thence, running across the aforesaid Harry S. Teague property
2. South 89° 22' 23" West, 168.23 feet; thence,
3. North 11° 22' 07" West, 61.07 feet to a point on the aforesaid common line between Land Lots 1057 and 1104 of the aforesaid District; thence, running with the said common line
4. North 89° 22' 23" East, 174.60 feet to the Point of Beginning, containing 10,285 square feet or 0.2361 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

### **Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Harry S. Teague & Debra J. Berg, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 13985, Page 2415, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a point being at the northeast corner of the property described in the aforesaid deed, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,447.15; East: 2,202,708.07; thence, leaving the said point and running, South 05° 24' 17" East, 95.57 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving said Point of Beginning and continuing with the previous line

1. South 05° 24' 17" East, 61.45 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, running with the said south line of the existing easement
2. North 82° 57' 14" West, 163.60 feet; thence,
3. North 11° 22' 07" West, 63.24 feet to a point being on the north line of the aforesaid existing water main easement; thence, running with the said north line of the existing easement
4. South 82° 57' 14" East, 170.33 feet to the Point of Beginning, containing 10,018 square feet or 0.2300 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction

excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY:

\_\_\_\_\_ (SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY:

\_\_\_\_\_ (SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)

James C. Scott, Jr., Chair

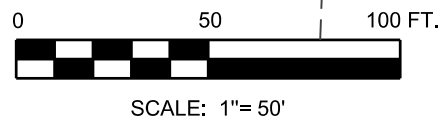
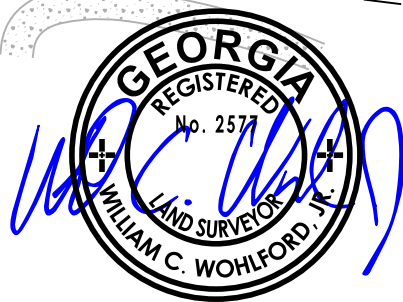
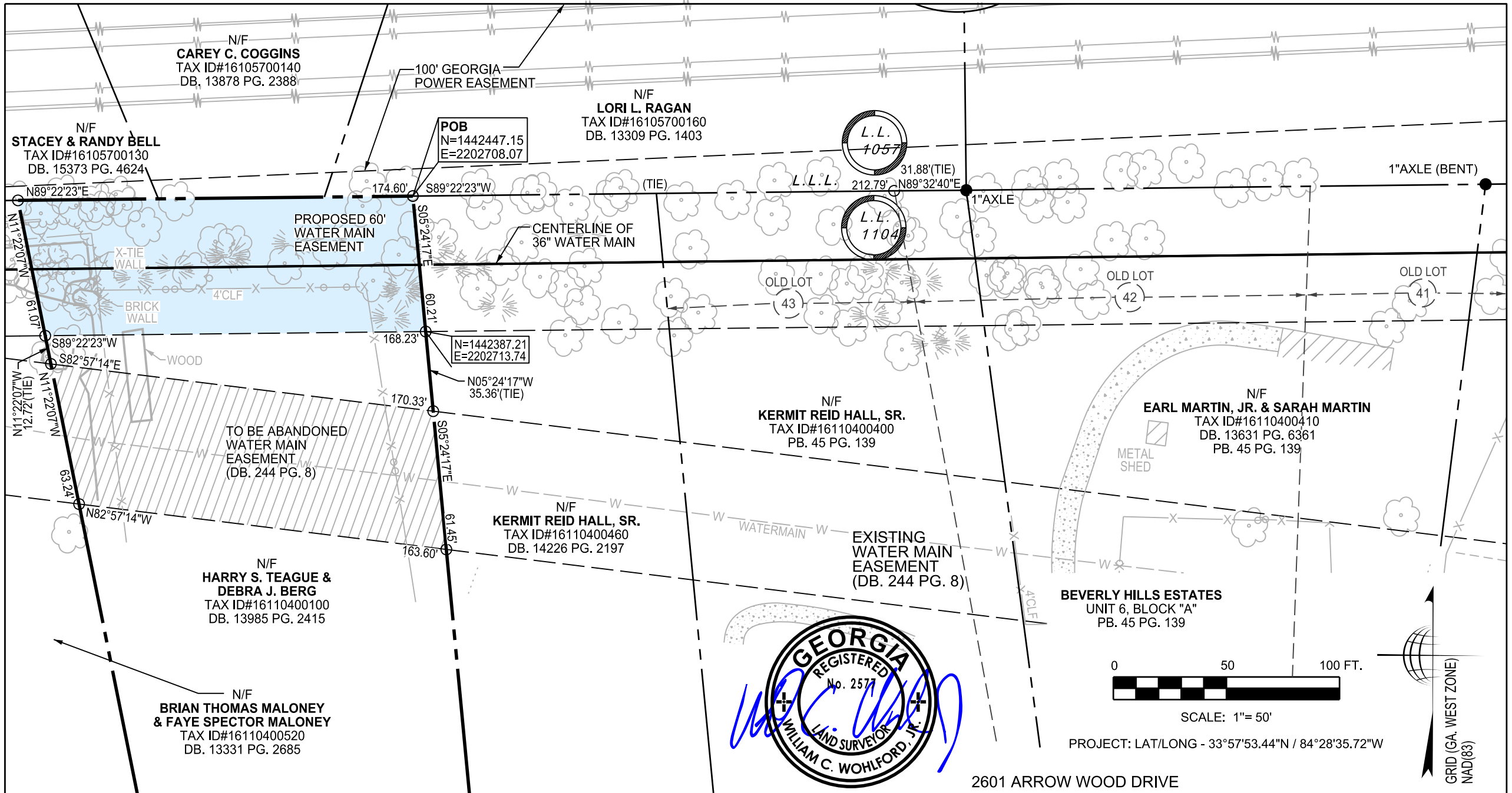
BY:

\_\_\_\_\_ (SEAL)

Name: \_\_\_\_\_


Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



PROJECT: LAT/LONG - 33°57'53.44"N / 84°28'35.72"W

2601 ARROW WOOD DRIVE

10,285 SQ. FT. / 0.2361 AC. PROPOSED EASEMENT 10,018 SQ. FT. / 0.2300 AC. ABANDONED EASEMENT	LOCATED IN LAND LOT 1104 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO 41 REVISED	THROUGH THE PROPERTY OF: HARRY S. TEAGUE & DEBRA J. BERG COBB COUNTY TAX PARCEL # 16110400100	 TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927
171 L.F. 60' WIDE EASEMENT	DATE: 6/12/2019 SHEET NO. 1			

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_ day of \_\_\_\_\_, 2019 from **KERMIT REID HALL, SR.** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Kermit Reid Hall, Sr., as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14226, Page 2197, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a point being at the northeast corner of the property described in the aforesaid deed, said point also being at the northwest corner of Lot 43 of a subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the aforesaid Land Records in Plat Book 45, Page 139, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,448.33; East: 2,202,815.71; thence, leaving the said Point of Beginning and running with the west line of said Lot 43

1. South 05° 26' 13" East, 60.21 feet; thence, running across the aforesaid Kermit Reid Hall, Sr. property
2. South 89° 22' 23" West, 107.68 feet; thence,
3. North 05° 24' 17" West, 60.21 feet to a point on the aforesaid common line between Land Lots 1057 and 1104 of the aforesaid District; thence, running with the said common line
4. North 89° 22' 23" East, 107.64 feet to the Point of Beginning, containing 6,460 square feet or 0.1483 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more particularly described in the plat attached hereto, shown as "AREA OF



ABANDONMENT” on Exhibit “A”. Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Kermit Reid Hall, Sr., as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14226, Page 2197, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a point being at the northeast corner of the property described in the aforesaid deed, said point also being at the northwest corner of Lot 43 of a subdivision entitled “Beverly Hills Estates, Unit 6, Block A”, and recorded among the aforesaid Land Records in Plat Book 45, Page 139, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,448.33; East: 2,202,815.71; thence, leaving the said point and running with the west line of said Lot 43, South 05° 26' 13" East, 111.33 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving said Point of Beginning and continuing with the said west line of Lot 43

1. South 05° 26' 13" East, 61.45 feet to a point being on the south line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, running with the said south line of the existing easement
2. North 82° 57' 14" West, 109.95 feet; thence,
3. North 05° 27' 17" West, 61.45 feet to a point being on the north line of the aforesaid existing water main easement; thence, running with the said north line of the existing easement
4. South 82° 57' 14" East, 109.92 feet to the Point of Beginning, containing 6,596 square feet or 0.1514 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within “AREA OF ABANDONMENT”.**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor’s assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee’s water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)

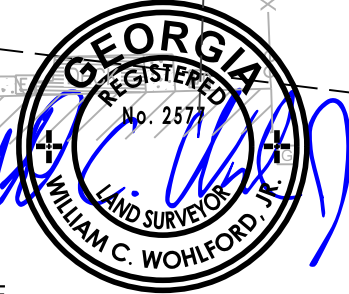
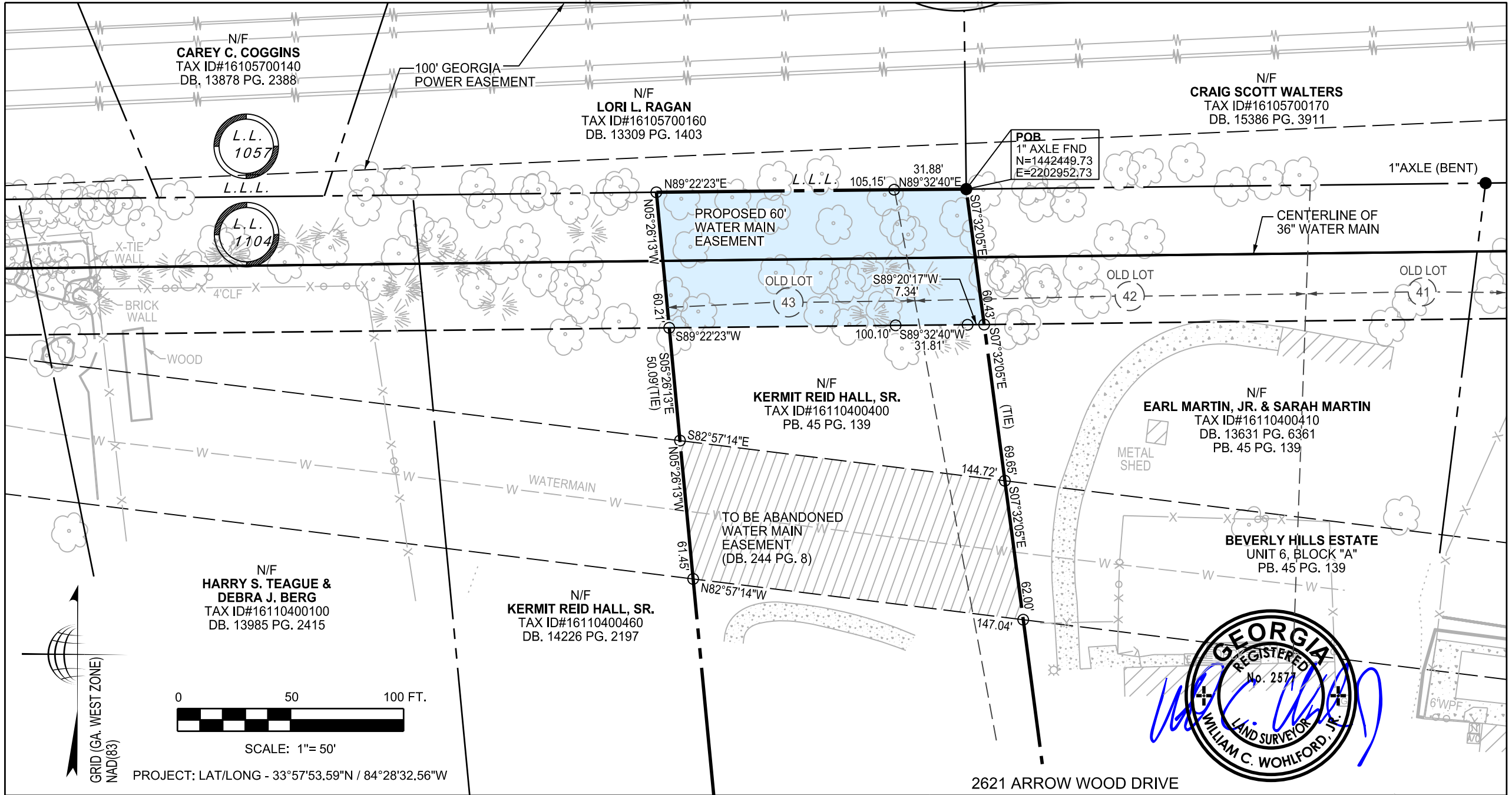
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



8,288 SQ. FT./ 0.1903 AC. PROPOSED EASEMENT  
8,753 SQ. FT./ 0.2009 AC. ABANDONED EASEMENT

---

138 L.F. 60' WIDE EASEMENT

LOCATED IN LAND LOT 1104  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA

DATE: 6/12/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:

COBB COUNTY-MARIETTA  
WATER AUTHORITY

C.C.M.W.A. NO 43 REVISED

THROUGH THE PROPERTY OF:  
KERMIT REID HALL, SR.

COBB COUNTY

TAX PARCEL # 16110400400

**TerraMark**  
Professional Land Surveying

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **KERMIT REID HALL, SR.** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Kermit Reid Hall, Sr., and being part of Lots 42 & 43 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a 1 inch axle found at the northeast corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,449.73; East: 2,202,952.73; thence, leaving the said Point of Beginning and running

1. South 07° 32' 05" East, 60.43 feet; thence, running across the aforesaid Kermit Reid Hall, Sr. property
2. South 89° 20' 17" West, 7.34 feet; thence,
3. South 89° 32' 40" West, 31.81 feet; thence,
4. South 89° 22' 23" West, 100.10 feet; thence,
5. North 05° 26' 13" West, 60.21 feet to a point on the aforesaid common line between Land Lots 1057 and 1104 of the aforesaid District; thence, running with the said common line
6. North 89° 22' 23" East, 105.15 feet; thence,
7. North 89° 32' 40" East, 31.88 feet to the Point of Beginning, containing 8,288 square feet or 0.1903 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more particularly described in the plat attached hereto, shown as "AREA OF

ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Kermit Reid Hall, Sr., and being part of Lots 42 & 43 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a 1 inch axle found at the northeast corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,449.73; East: 2,202,952.73; thence, leaving the said axle and running, South 07° 32' 05" East, 130.08 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, leaving said Point of Beginning and running

1. South 07° 32' 05" East, 62.00 feet to a point being on the south line of the aforesaid existing water main easement, thence, running with the said south line of the existing easement
2. North 82° 57' 14" West, 147.04 feet; thence,
3. North 05° 26' 13" West, 61.45 feet to a point being on the aforesaid north line of the existing water main easement; thence, running with the said north line of the existing easement
4. South 82° 57' 14" East, 144.72 feet to the Point of Beginning, containing 8,753 square feet or 0.2009 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any

portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

James C. Scott, Jr., Chair

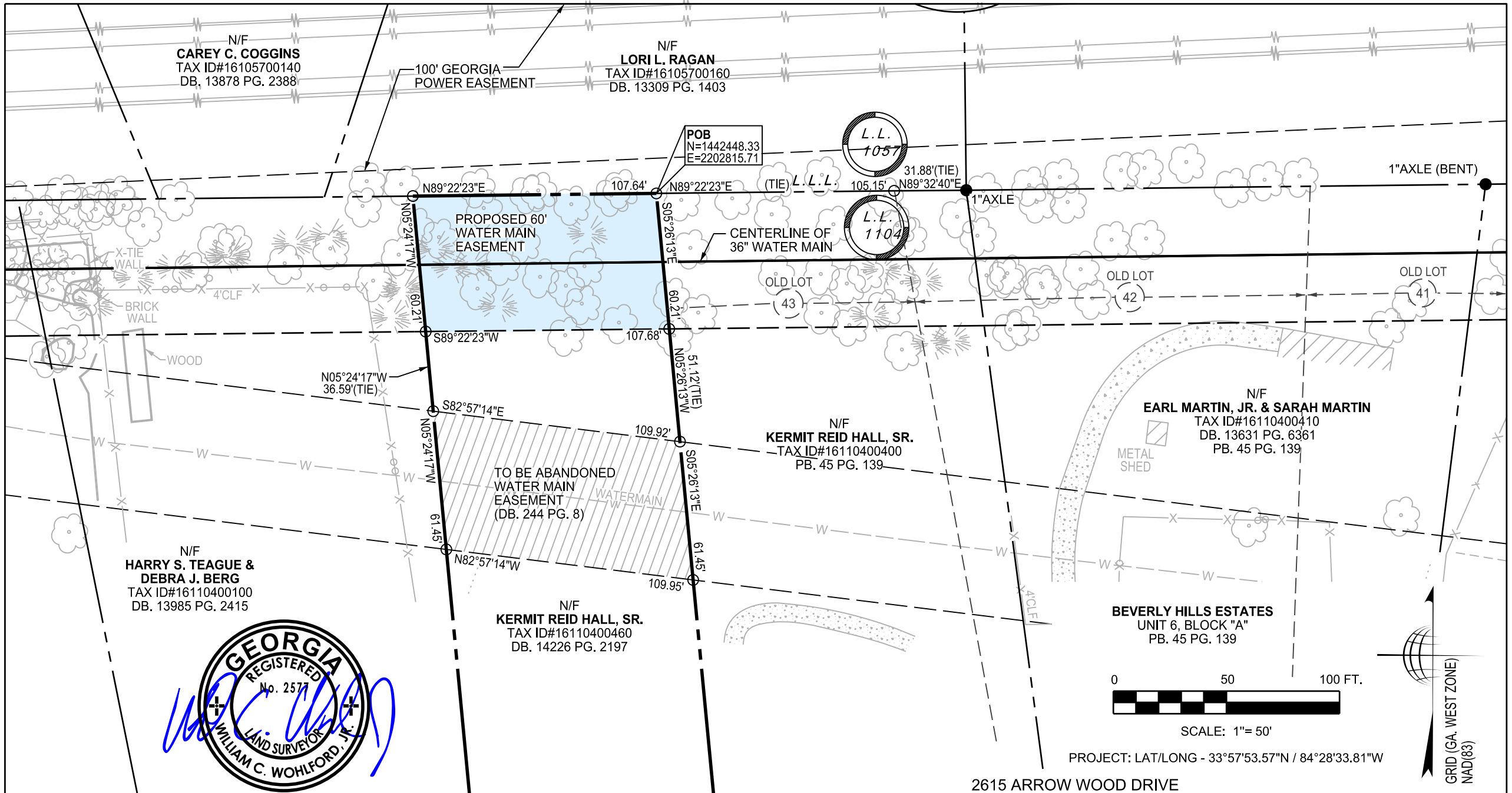
BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**





6,460 SQ. FT./ 0.1483 AC. PROPOSED EASEMENT  
6,596 SQ. FT./ 0.1514 AC. ABANDONED EASEMENT

108 L.F. 60' WIDE EASEMENT

LOCATED IN LAND LOT 1104  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA

DATE: 6/12/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:

COBB COUNTY-MARIETTA  
WATER AUTHORITY

C.C.M.W.A. NO 42 REVISED

THROUGH THE PROPERTY OF:  
**KERMIT REID HALL, SR.**

COBB COUNTY

TAX PARCEL # 16110400460

**TerraMark**  
Professional Land Surveying

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **EARL MARTIN, JR. & SARAH MARTIN** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Earl Martin, Jr. & Sarah Martin, and being part of Lots 41 & 42 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a 1 inch axle found at the northwest corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,449.73; East: 2,202,952.73; thence, leaving the said Point of Beginning and running with the said common Land Lot line

1. North 89° 20' 17" East, 229.64 feet to a 1 inch axle found (bent); thence, leaving the aforesaid common Land Lot line and running
2. South 07° 04' 22" West, 60.55 feet; thence,
3. South 89° 20' 17" West, 214.26 feet; thence,
4. North 07° 32' 05" West, 60.43 feet to the Point of Beginning, containing 13,316 square feet or 0.3057 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

### **Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Earl Martin, Jr. & Sarah Martin, and being part of Lots 41 & 42 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a 1 inch axle found at the northwest corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,449.73; East: 2,202,952.73; thence, leaving the said axle and running, South 07° 32' 05" East, 130.08 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, leaving said Point of Beginning and running with the said north line of the existing easement

1. South 82° 57' 14" East, 194.75 feet, thence, running
2. South 07° 04' 22" West, 60.00 feet to a point being on the south line of the aforesaid existing water main easement; thence, running with the said south line of the existing easement
3. North 82° 57' 14" West, 179.11 feet; thence, running
4. North 07° 32' 05" West, 62.00 feet to the Point of Beginning, containing 11,216 square feet or 0.2575 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction

excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY:

\_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY:

\_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

James C. Scott, Jr., Chair

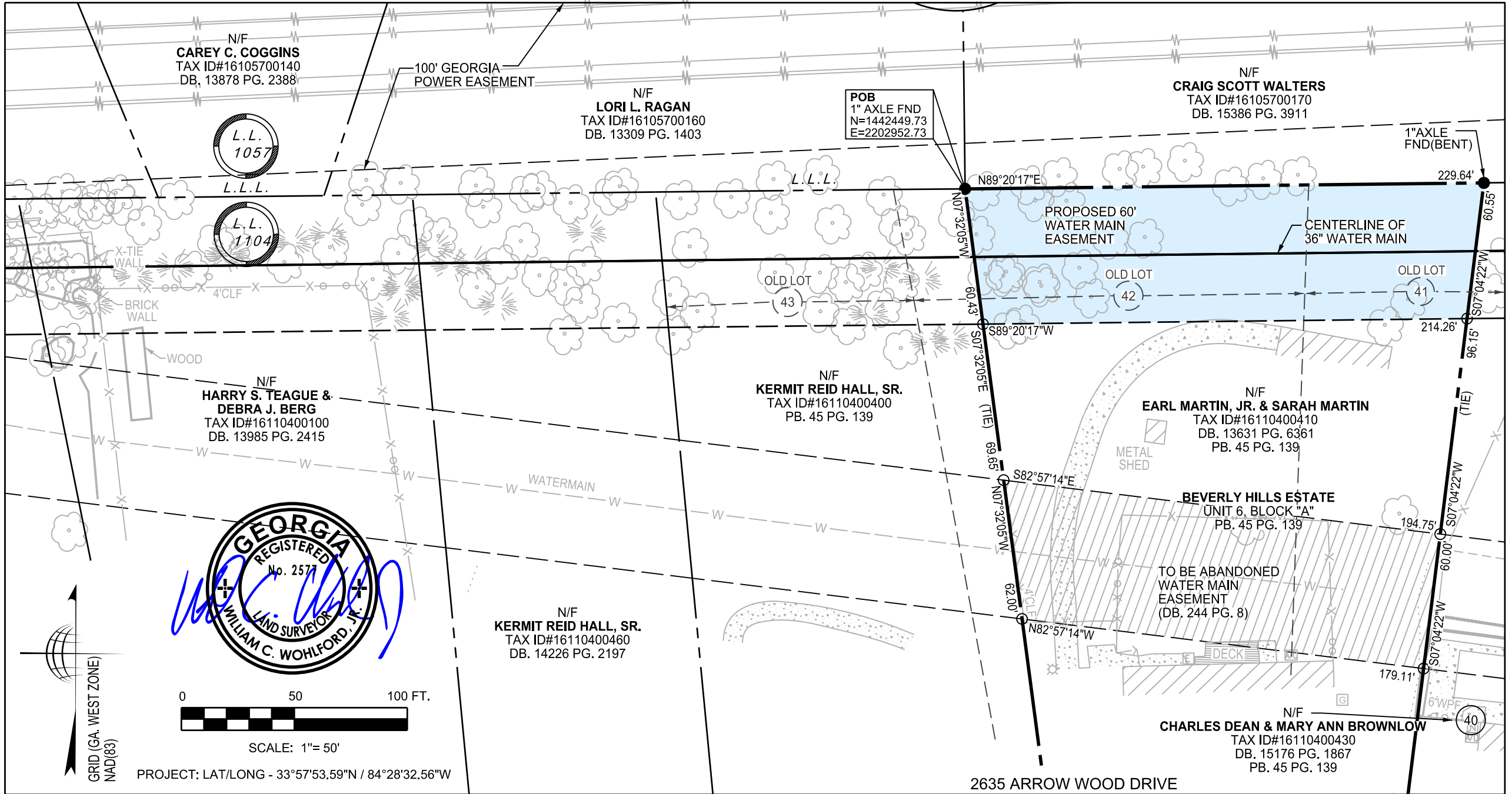
BY:

\_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



13,316 SQ. FT. / 0.3057 AC. PROPOSED EASEMENT  
11,216 SQ. FT. / 0.2575 AC. ABANDONED EASEMENT

222 L.F. 60' WIDE EASEMENT

LOCATED IN LAND LOT 1104  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA

DATE: 6/12/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:

COBB COUNTY-MARIETTA  
WATER AUTHORITY

C.C.M.W.A. NO 44 REVISED

THROUGH THE PROPERTY OF:

EARL MARTIN, JR. & SARAH MARTIN

COBB COUNTY

TAX PARCEL # 16110400410

**TerraMark**  
Professional Land Surveying

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **CHARLES DEAN, SR. & MARY ANN BROWNLOW** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Charles Dean, Sr. & Mary Ann Brownlow, and being part of Lots 40 & 41 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch capped rebar found at the northeast corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,454.02; East: 2,203,332.35; thence, leaving the said Point of Beginning and running

1. South 06° 50' 57" West, 60.51 feet; thence, running across the aforesaid Charles Dean Brownlow, Sr. property
2. South 89° 22' 31" West, 142.09 feet; thence,
3. South 89° 20' 17" West, 8.15 feet; thence,
4. North 07° 04' 22" East, 60.55 feet to a 1 inch axle found (bent) on the aforesaid common line between Land Lots 1057 and 1104 of the aforesaid District; thence, running with the said common line
5. North 89° 22' 31" East, 150.00 feet to the Point of Beginning, containing 9,007 square feet or 0.2068 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more particularly described in the plat attached hereto, shown as "AREA OF

ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Charles Dean, Sr. & Mary Ann Brownlow, and being part of Lots 40 & 41 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch capped rebar found at the northeast corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,454.02; East: 2,203,332.35; thence, leaving the said rebar and running, South 06° 50' 57" West, 176.72 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, leaving said Point of Beginning and running

1. South 06° 50' 57" West, 60.00 feet to a point being on the south line of the aforesaid existing water main easement, thence, running with the said south line of the existing easement
2. North 82° 57' 14" West, 149.57 feet; thence,
3. North 07° 04' 22" East, 60.00 feet to a point being on the aforesaid north line of the existing water main easement; thence, running with the said north line of the existing easement
4. South 82° 57' 14" East, 149.34 feet to the Point of Beginning, containing 8,967 square feet or 0.2059 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any



portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

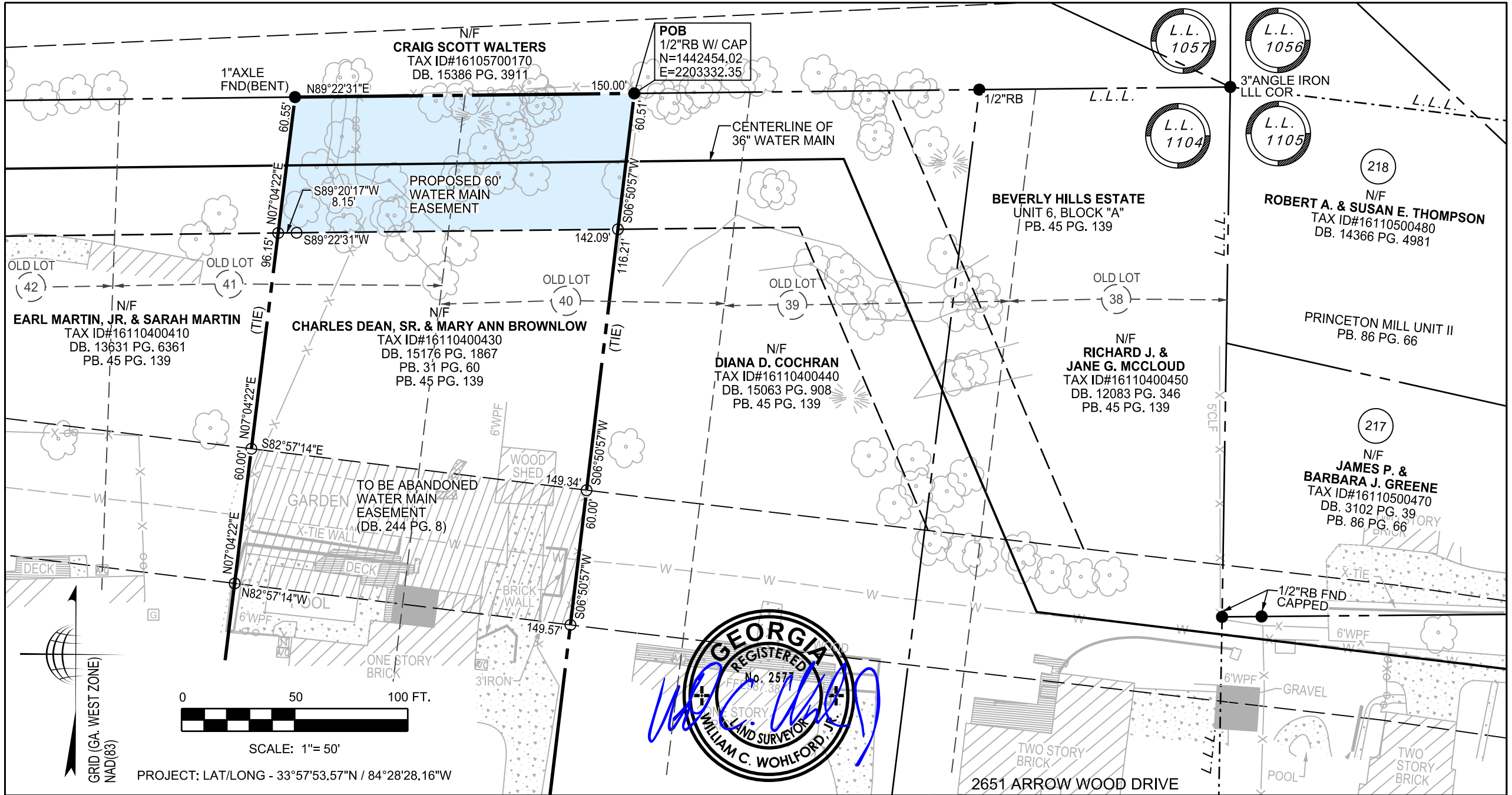
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



9,007 SQ. FT./ 0.2068 AC. PROPOSED EASEMENT  
 8,967 SQ. FT./ 0.2059 AC. ABANDONED EASEMENT

---

150 L.F. 60' WIDE EASEMENT

LOCATED IN LAND LOT 1104  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA

---

DATE: 6/12/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:

COBB COUNTY-MARIETTA  
 WATER AUTHORITY

C.C.M.W.A. NO 45 REVISED

THROUGH THE PROPERTY OF:  
 CHARLES DEAN, SR. &  
 MARY ANN BROWNLOW  
 COBB COUNTY

---

TAX PARCEL # 16110400430

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

**TerraMark**  
 Professional Land Surveying

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **DIANA D. COCHRAN** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Diana D. Cochran, and being part of Lots 39 & 40 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a ½ inch capped rebar found at the northwest corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,454.02; East: 2,203,332.35; thence, leaving the said Point of Beginning and running with the said common Land Lot line

1. North 89° 22' 31" East, 112.37 feet; thence, leaving the aforesaid common Land Lot line and running across the Diana D. Cochran property
2. South 23° 03' 03" East, 79.33 feet; thence,
3. South 07° 03' 18" West, 119.62 feet; thence,
4. North 23° 03' 03" West, 142.67 feet; thence,
5. South 89° 22' 31" West, 80.10 feet; thence,
6. North 06° 50' 57" East, 60.51 feet to the Point of Beginning, containing 12,434 square feet or 0.2854 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more

particularly described as follows:

### **Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Diana D. Cochran, and being part of Lots 39 & 40 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch capped rebar found at the northwest corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,454.02; East: 2,203,332.35; thence, leaving the said rebar and running, South 06° 50' 57" West, 176.72 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, leaving said Point of Beginning and running with the said north line of the existing easement

1. South 82° 57' 14" East, 29.61 feet, thence,
2. South 83° 20' 20" East, 120.92 feet, thence, running
3. South 07° 03' 18" West, 60.00 feet to a point being on the south line of the aforesaid existing water main easement; thence, running with the said south line of the existing easement
4. North 83° 20' 20" West, 120.70 feet; thence,
5. North 82° 57' 14" West, 29.61 feet; thence, running
6. North 06° 50' 57" East, 60.00 feet to the Point of Beginning, containing 9,025 square feet or 0.2072 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**Grantee**

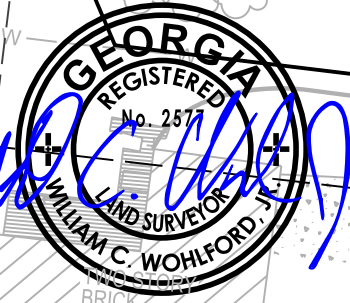
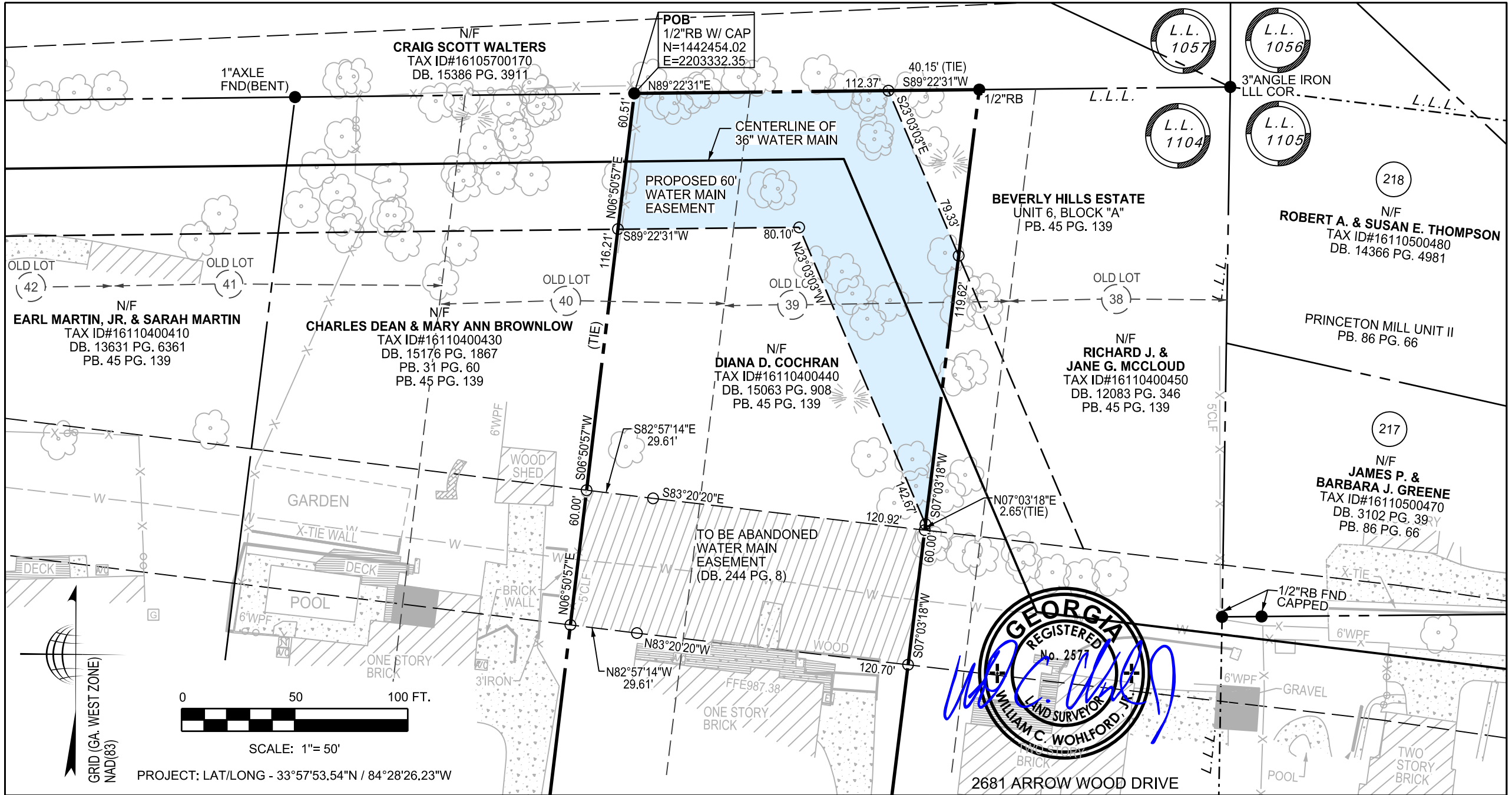
BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)  
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



12,434 SQ. FT./ 0.2854 AC. PROPOSED EASEMENT  
 9,025 SQ. FT./ 0.2072 AC. ABANDONED EASEMENT

207 L.F. 60' WIDE EASEMENT

LOCATED IN LAND LOT 1104  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA

DATE: 6/12/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:

COBB COUNTY-MARIETTA  
 WATER AUTHORITY

C.C.M.W.A. NO 46 REVISED

THROUGH THE PROPERTY OF:

DIANA D. COCHRAN

COBB COUNTY

TAX PARCEL # 16110400440

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

**TerraMark**  
 Professional Land Surveying



**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **RICHARD J. & JANE G. MCCLOUD** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Richard J. & Jane G. McCloud, and being part of Lots 38 & 39 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch capped rebar found at the northwest corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,455.68; East: 2,203,484.87; thence, leaving the said rebar and running, South 07° 03' 18" West, 74.00 feet to the True Point of Beginning of the herein described strip or parcel of land, thence, running across the Richard J. McCloud property

1. South 23° 03' 03" East, 140.77 feet to a point being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, leaving said Point of Beginning and running with the said easement
2. North 83° 20' 20" West, 69.08 feet; thence, running
3. North 23° 03' 03" West, 3.05 feet; thence,
4. North 07° 03' 18" East, 119.62 feet to the Point of Beginning, containing 4,315 square feet or 0.0991 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8, and as more particularly described in the plat attached hereto, shown as "AREA OF

ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:

**Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Richard J. & Jane G. McCloud, and being part of Lots 38 & 39 as shown on a plat of subdivision entitled "Beverly Hills Estates, Unit 6, Block A", and recorded among the Land Records of Cobb County, Georgia in Plat Book 45, Page 139, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1104, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch capped rebar found at the northeast corner of the aforesaid property, said point being further located on the common line between Land Lots 1057 and 1104 of the aforesaid District, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,442,455.68; East: 2,203,484.87; thence, leaving the said rebar and running, South 07° 03' 18" West, 195.31 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the north line of an existing water main easement as recorded among the aforesaid Land Records in Deed Book 244, Page 8; thence, leaving said Point of Beginning and running with the said easement line

1. South 83° 20' 20" East, 1.53 feet; thence running
2. South 23° 03' 03" East, 69.08 feet to a point being on the south line of the aforesaid existing water main easement, thence, running with the said south line of the existing easement
3. North 83° 20' 20" West, 36.18 feet; thence,
4. North 07° 03' 18" East, 60.00 feet to the Point of Beginning, containing 1,131 square feet or 0.0260 of an acre of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction

and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)

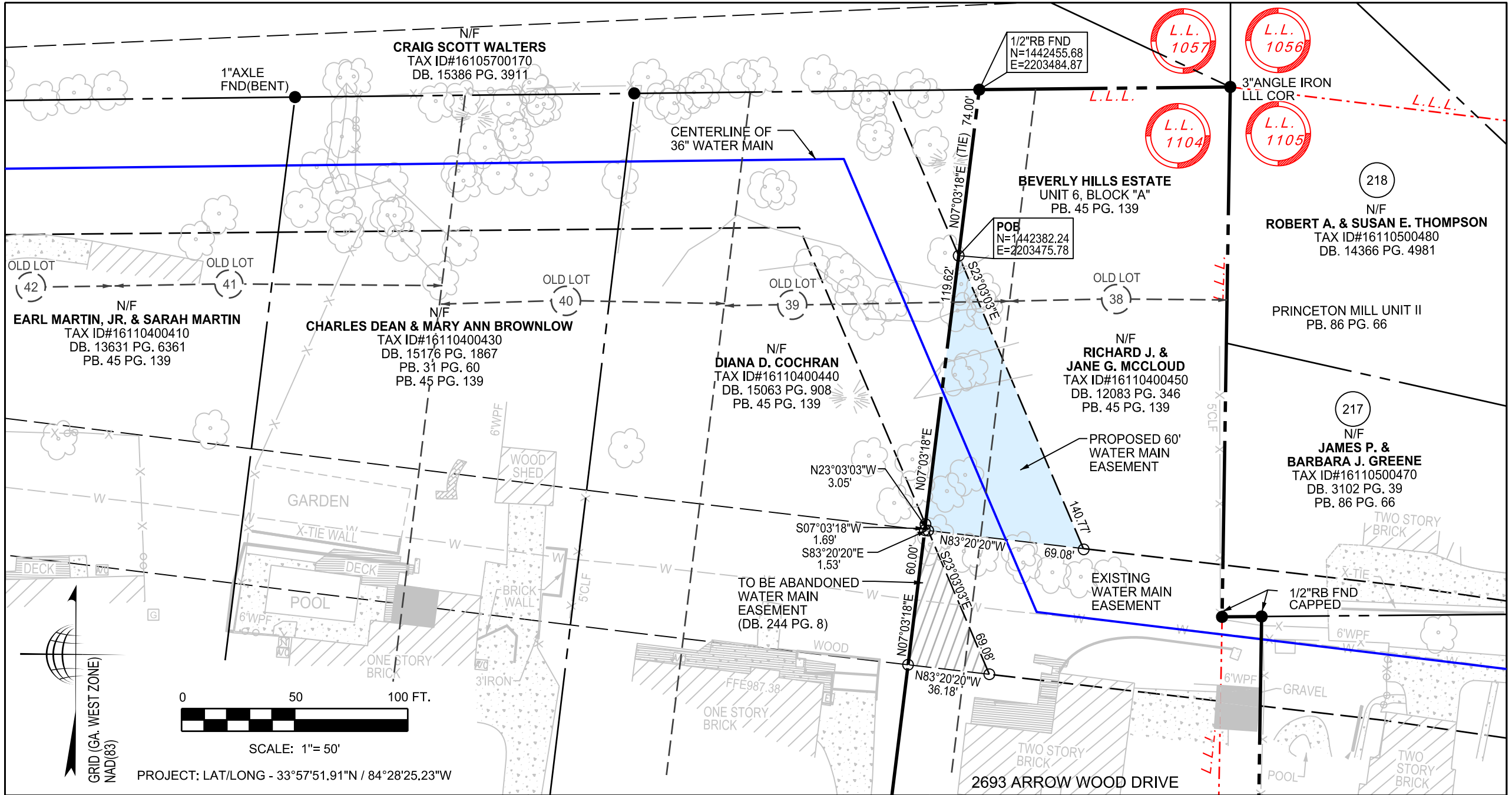
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



GRID (GA. WEST ZONE)  
NAD(83)



SCALE: 1"= 50'

PROJECT: LAT/LONG - 33°57'51.91"N / 84°28'25.23"W

4,314 SQ. FT./ 0.0990 AC. PROPOSED EASEMENT  
1,131 SQ. FT./ 0.0260 AC. ABANDONED EASEMENT  
207 L.F. 60' WIDE EASEMENT

LOCATED IN LAND LOT 1104 AND 1105  
16TH DISTRICT, 2ND SECTION  
COBB COUNTY, GA  
DATE: 6/12/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
AS REQUIRED BY:  
COBB COUNTY-MARIETTA  
WATER AUTHORITY  
C.C.M.W.A. NO 47 REVISED

THROUGH THE PROPERTY OF:  
RICHARD J. &  
JANE G. MC CLOUD  
COBB COUNTY  
TAX PARCEL # 16110400450

TerraMark Land Surveying, Inc.  
1396 Bells Ferry Road  
Marietta, Georgia 30066  
www.TerraMark.com  
(P) (770) 421-1927



**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This Grant of Easement and Release of Existing Easement made this \_ day of \_\_\_\_\_, 2020 by and between **INDIAN HILLS COUNTRY CLUB, INC.**, a Georgia corporation (hereinafter collectively called "Grantor"), as Party, and **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of TEN DOLLARS AND NO/100 (\$10.00) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described below as the "Permanent Easement Area."

WITNESSETH, that Grantee, in consideration of the granting of the Permanent Easement by Grantor, and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof are hereby acknowledged, has remised, released, conveyed and forever quitclaimed, and by these presents does remise, release, convey and quitclaim unto Grantee all of its right, title and interest in a portion of its "Existing Easement" (as defined below) over the property of Grantor that is more particularly described below as the "Area of Abandonment."

**GRANT BY GRANTOR OF PERMANENT EASEMENT:**

A permanent easement grant (the "Permanent Easement") for the purpose of the BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT, as more particularly described in the plat attached hereto as Exhibit "A". The area encumbered by such Permanent Easement (the "Permanent Easement Area") being more particularly described as follows:

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Indian Hills Country Club, Inc., as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 1953, Page 869, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1109, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch rebar found at the southeast corner of Lot 16 of a subdivision entitled "Indian Hills Country Club, Unit Fourteen, Block D", and recorded among the aforesaid Land Records in Plat Book 69, Page 161, said point also being the northeast corner of Lot 15 of the said subdivision, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,441,788.45; East: 2,208,700.24; thence, leaving the said point and running with the east line of said Lot 15, South 09° 45' 16" West, 4.00 feet to a point being on the north line of an existing water main easement as described in a deeds recorded among the aforesaid Land Records in Deed Book 244, Page 6 and 7; thence, running with the said north line of the existing easement, South 88° 05' 26" East, 195.45 feet; thence, South 87° 55' 02" East, 449.89 feet; thence, South 88° 11' 55" East, 45.88 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving said Point of Beginning and the said line of the existing easement and running

1. North 70° 05' 05" East, 77.05 feet; thence,
2. North 76° 39' 40" East, 78.59 feet; thence,
3. South 88° 28' 51" East, 105.02 feet; thence,



4. South 77° 39' 09" East, 85.75 feet; thence,
5. South 75° 13' 39" East, 88.94 feet; thence,
6. South 75° 32' 02" East, 28.87 feet; thence,
7. South 77° 47' 59" East, 29.71 feet to a point on the aforesaid north line of the existing easement; thence, running with the said line of the existing easement
8. North 88° 47' 25" West, 213.29 feet; thence,
9. North 88° 11' 55" West, 267.53 feet to the Point of Beginning, containing 14,933 square feet or 0.3428 of an acre of land, more or less.

**The Permanent Easement granted hereunder shall be perpetual.**

**RELEASE BY GRANTEE OF EXISTING EASEMENT IN AREA OF ABANDONMENT:**

**In exchange for the grant of the Permanent Easement described above, and for other good and valuable consideration, Grantee hereby agrees to release, and hereby releases and quitclaims all of its right, title and interest in and to a portion of the Existing Easement held by Grantee and the area encumbered thereby within the Area of Abandonment, with such release and quitclaim to be effective as of the "Release Effective Date" (as defined below**

A portion of the Existing Easement as recorded among the aforesaid Land Records in Deed Book 244, Page 6&7, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". The Area of Abandonment is more particularly described as follows:

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Indian Hills Country Club, Inc., as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 1953, Page 869, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1109, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a ½ inch rebar found at the southeast corner of Lot 16 of a subdivision entitled "Indian Hills Country Club, Unit Fourteen, Block D", and recorded among the aforesaid Land Records in Plat Book 69, Page 161, said point also being the northeast corner of Lot 15 of the said subdivision, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,441,788.45; East: 2,208,700.24; thence, leaving the said point and running with the east line of said Lot 15, South 09° 45' 16" West, 4.00 feet to a point being on the north line of an existing water main easement as described in a deeds recorded among the aforesaid Land Records in Deed Book 244, Page 6 and 7; thence, running with the said north line of the existing easement, South 88° 05' 26" East, 195.45 feet; thence, South 87° 55' 02" East, 449.89 feet; thence, South 88° 11' 55" East, 45.88 feet; thence leaving the said line of the existing easement and running, South 01° 35' 55" West, 60.00 feet to the True Point of Beginning of the herein described strip or parcel of land, said point also being on the south line of the aforesaid existing water main easement; thence, leaving said Point of Beginning and running

1. North 70° 05' 05" East, 76.82 feet; thence,
2. North 76° 39' 40" East, 78.59 feet; thence,
3. South 88° 28' 51" East, 105.02 feet; thence,
4. South 77° 39' 09" East, 85.75 feet; thence,
5. South 75° 36' 47" East, 59.11 feet; thence,
6. South 74° 59' 25" East, 58.70 feet; thence,
7. South 77° 36' 30" East, 28.78 feet to a point on the aforesaid south line of the existing easement; thence, running with the said south line of the existing easement
8. North 88° 47' 25" West, 212.06 feet; thence,
9. North 88° 11' 55" West, 267.63 feet to the Point of Beginning, containing 14,918 square feet or 0.3425 of an acre of land, more or less.

The release of the Existing Easement in the Area of Abandonment shall automatically become effective without further action on behalf of Grantee one (1)



year after completion of water main replacement construction and abandonment of facilities within the Area of Abandonment, but not later than December 31, 2024 (the "Release Effective Date").

The Permanent Easement covered by this instrument is for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said Permanent Easement and right-of-way in any wise appertaining to or belonging. All such water pipelines and any additional lines of pipe adjacent to the lines mentioned, as well as all related valves and attachments shall be located only within the Permanent Easement Area (and the area covered by the Existing Easement after the release and quitclaim of the Area of Abandonment). Grantee shall also have the right to maintain said permanent easement and to strip the Permanent Easement Area clear of undergrowth and brush and trees, but not grass, sidewalks, cart paths, or landscaping, in the event that Grantor or Grantor's assigns fail to do so.

#### **COVENANTS OF GRANTOR:**

Except as expressly set forth herein, Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described Permanent Easement Area unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of undergrowth, brush, and, except as expressly set forth herein, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein. Grantor is hereby expressly allowed to install and maintain driveways, parking areas, the poles and netting that protect the street and parking lots from golf balls on the driving range, and cart paths within the Permanent Easement Area, provided they do not unreasonably interfere with Grantee's rights hereunder or otherwise violate this agreement.

#### **COVENANTS OF GRANTEE:**

Grantee understands that the construction and installation of the water mains in the Permanent Easement Area will interfere with the use and operation of the golf and country club (the "Club") operated by Grantor on the property encumbered by the Permanent Easement Area. To minimize such interference, Grantee has agreed that all work to be performed in the Permanent Easement Area shall be performed and completed during November 2020 through February 2021 or November 2021 through February 2022, except for the replanting of any trees, landscaping, grass and other vegetation, which replanting shall be done during the seasons or seasons that are best for the types of materials being replanted, with such seasons to be determined in consultation with Grantor. During all construction on the property of Grantor, Grantee will use its best efforts to not interrupt any utilities serving the Club.

Prior to commencing any construction within the Permanent Easement Area, Grantee and its contractor shall meet with representatives of Grantor on site to discuss and document all improvements, including cart paths, irrigation systems,



the grass, landscaping and other items that will be or may be impacted by the construction and agree on how such items will be repaired or replaced after construction is completed with a detailed schedule and scope of work for such repair and replacement. Grantee shall cause its contractor to replace all improvements to be replaced promptly after completion of construction at the sole cost and expense of Grantee. All pre-existing sod, grass, landscaping and other vegetation shall be replaced with sod, grass, landscaping and other vegetation of like kind and quality by Grantor or a landscaping company selected by Grantor. The cost of replacing the pre-existing sod, grass and landscaping shall be paid to Grantor by Grantee in an amount equal to the lower of two (2) bids obtained by Grantor from reputable landscaping companies experienced in such types of work. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes. Grantee acknowledges that Grantor operates a golf course and country club (the "Club") on the property encumbered by the Permanent Easement Area and agrees that the types of grass, landscaping and vegetation are important to the operation and aesthetics of the Club. In recognition thereof, Grantee agrees that it will reimburse Grantor for the cost to replace the grass, landscaping and other vegetation with plant material of the same type and quality as that damaged or removed unless otherwise approved in writing by Grantor. All such repair and replacement shall be done in a good and workman like manner, in accordance with the schedule and scope of work previously agreed with Grantor, and shall be completed without any lien being filed against the property of Grantor. These covenants and agreements of Grantee shall be covenants running with the land and shall be binding on Grantee, its successors, and assigns.

Notwithstanding anything contained in this document, Grantor understands and agrees that trees shall not be installed, planted, maintained, or allowed to remain in any easement area. Driveways, parking lots, and cart paths and other paths are all allowed in the Permanent Easement Area provided that any grading does not alter the depth of the water main by two (2) feet.

Except as expressly set forth herein, delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said Permanent Easement Area and Area of Abandonment, and rights, estates and privileges over, in, through and to the above-described land unto the said Grantor and Grantee (as the case may be), their successors and assigns forever. Grantor does hereby covenant with Grantee that Grantor is lawfully seized and possessed of the Permanent Easement Area above described, that Grantor has a good and lawful right to convey the Permanent Easement Area, that, except as noted in the Consent of Lender attached hereto, the Permanent Easement Area is free from all encumbrances and that Grantor will forever warrant and defend the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns. Grantee does hereby covenant with Grantor that Grantee is lawfully seized and possessed of the Existing Easement above described, and that Grantee has a good and lawful right to release and quitclaim the Area of Abandonment to Grantor, that the Area of Abandonment is free from all encumbrances.

IN WITNESS WHEREOF, Grantor and Grantee have hereunto set (his, her, its, their) hand(s) and affixed their seals the day and year first above written.

**[SIGNATURES BEGIN ON NEXT PAGE]**

|

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

Grantor

INDIAN HILLS COUNTRY CLUB,  
INC., a Georgia corporation

BY:

\_\_\_\_\_(SEAL)

Name: Stephen M. Rhoden

Title: President

**[SIGNATURES CONTINUE ON NEXT PAGE]**

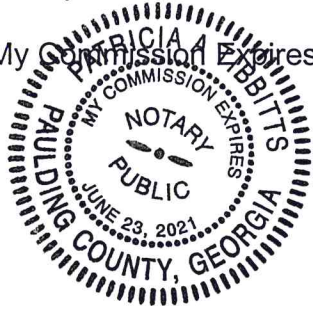
Signed, sealed and delivered in the presence of:

Eric Cole

Witness  
John A. [Signature]

Notary Public

My Commission Expires: \_\_\_\_\_



**Grantee**

Cobb County-Marietta Water Authority

By: [Signature] (SEAL)

~~James C. Scott, Jr., Chair~~  
T. DANIEL BUTERS, VICE-CHAIR

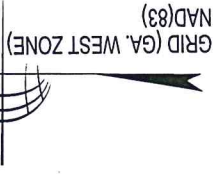
BY: [Signature] (SEAL)

Charlie N. Crowder, Secretary



**EXHIBIT "A"**  
**EASEMENT PLAT**





N/F  
**INDIAN HILLS COUNTRY CLUB, INC.**  
 TAX ID#16110900010  
 DB. 1953 PG. 869

16

N/F  
**BOYD P. & SOPHIE T. GUMP**  
 TAX ID#16110800270  
 DB. 14776 PG. 2985  
 PB. 69 PG. 161

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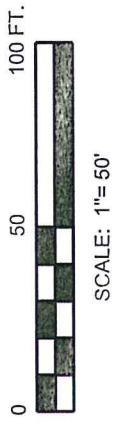
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60.00 (TIE)  
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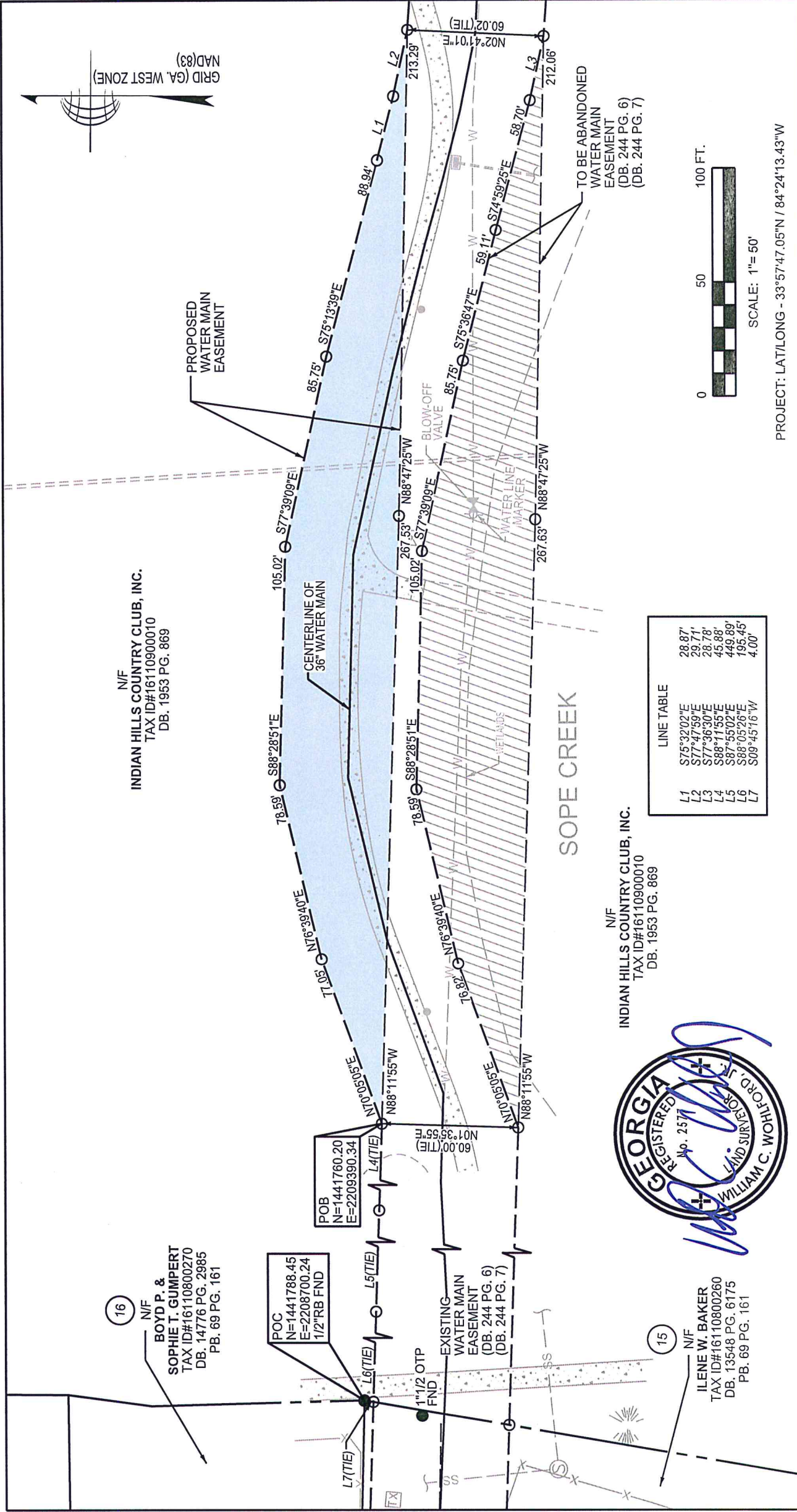


N/F  
**INDIAN HILLS COUNTRY CLUB, INC.**  
 TAX ID#16110900010  
 DB. 1953 PG. 869

LINE TABLE	
L1	S75°32'02"E 28.87'
L2	S77°47'59"E 29.71'
L3	S77°36'30"E 28.78'
L4	S88°11'55"E 45.88'
L5	S87°55'02"E 449.89'
L6	S88°05'26"E 195.45'
L7	S09°45'16"W 4.00'



PROJECT: LAT/LONG - 33°57'47.05"N / 84°24'13.43"W



14,933 SQ. FT./ 0.3428 AC. PROPOSED EASEMENT  
 14,918 SQ. FT./ 0.3425 AC. ABANDONED EASEMENT  
 270 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN LAND LOT 1109  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA  
 DATE: 08/14/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:  
**COBB COUNTY-MARIETA  
 WATER AUTHORITY**  
 C.C.M.W.A. NO. 118 REVISED

THROUGH THE PROPERTY OF:  
**INDIAN HILLS COUNTRY CLUB, INC**  
 COBB COUNTY  
 TAX PARCEL # 16110900010

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
**TerraMark**  
 Professional Land Surveying (P) (770) 421-1927



**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This Grant of Easement and Release of Existing Easement made this \_\_\_ day of \_\_\_\_\_, 2020 by and between **INDIAN HILLS COUNTRY CLUB, INC.**, a Georgia corporation (hereinafter called "Grantor"), as Party of the First Part, and **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor for the sum of TEN DOLLARS AND NO/100 (\$10.00) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof are hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor more particularly described below as the "Permanent Easement Area."

WITNESSETH, that Grantee, in consideration of the granting of the Permanent Easement by Grantor, and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof are hereby acknowledged, has remised, released, conveyed and forever quitclaimed, and by these presents does remise, release, convey and quitclaim unto Grantee all of its right, title and interest in a portion of its "Existing Easement" (as defined below) over the property of Grantor that is more particularly described below as the "Area of Abandonment."

**GRANT BY GRANTOR OF PERMANENT EASEMENT:**

A permanent easement grant (the "Permanent Easement") for the purpose of the BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT, as more particularly described in the plat attached hereto as Exhibit "A". The area encumbered by such Permanent Easement (the "Permanent Easement Area") being more particularly described as follows:

Being a strip or parcel of land running in, through, over and across the property now owned by Grantor, as such property owned by Grantor is described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 1953, Page 869 and further shown as the "Permanent Easement Area" on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto as Exhibit "A", said strip or parcel lying and being in Land Lots 1112, 1113 & 1114, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the legal description of the strip or parcel of land, at a 2 inch open top pipe found at the southernmost corner of Lot 6 of a subdivision entitled "Indian Hills Country Club, Phase I, Block E", and recorded among the aforesaid Land Records in Plat Book 48, Page 116, said point also being the northwest corner of Lot 5 of the said subdivision, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,440,971.87; East: 2,216,068.32; thence, leaving the said Point of Beginning and running with the west line of said Lot 5,

1. South 00° 52' 10" West, 15.03 feet; thence, running
2. South 89° 13' 28" West, 759.50 feet; thence,



3. North 89° 03' 00" West, 75.86 feet to a point on the North Right of Way Line of Clubland Drive (a 60 feet wide right of way) as shown on the aforesaid subdivision plat; thence, running with the said line of Clubland Drive
4. 34.90 feet along the arc of a curve deflecting to the left and having a radius of 551.57 feet and a chord bearing and distance of North 87° 18' 45" West, 34.89 feet; thence,
5. North 89° 07' 30" West, 761.00 feet; thence, leaving the aforesaid line of Clubland Drive and running
6. North 44° 03' 00" West, 103.85 feet; thence,
7. North 00° 57' 00" East, 154.05 feet; thence,
8. North 66° 37' 37" West, 218.89 feet to a point on the south line of an existing water main easement recorded among the aforesaid Land Records in Deed Book 244, Page 5; thence, running with the said line of the existing easement
9. South 83° 35' 36" East, 192.28 feet; thence,
10. South 85° 31' 37" East, 12.02 feet; thence, leaving the aforesaid line of the existing easement and running
11. South 66° 37' 37" East, 63.76 feet; thence,
12. South 00° 57' 00" West, 197.64 feet; thence,
13. South 44° 03' 00" East, 49.49 feet; thence,
14. South 89° 02' 26" East, 355.86 feet; thence,
15. North 72° 22' 20" East, 78.43 feet; thence,
16. South 89° 03' 00" East, 417.86 feet; thence,
17. North 89° 13' 28" East, 582.74 feet; thence,
18. South 80° 02' 28" East, 127.55 feet; thence,
19. South 68° 10' 38" East, 55.21 feet to the Point of Beginning, containing 105,768 square feet or 2.4481 Acres of land, more or less.

**The Permanent Easement granted hereunder shall be perpetual.**

**RELEASE BY GRANTEE OF EXISTING EASEMENT IN AREA OF ABANDONMENT:**

**In exchange for the grant of the Permanent Easement described above, and for other good and valuable consideration, Grantee hereby agrees to release, and hereby releases and quitclaims all of its right, title and interest in and to a portion of the Existing Easement held by Grantee and the area encumbered thereby within the Area of Abandonment, with such release and quitclaim to be effective as of the "Release Effective Date" (as defined below**

A portion of the Existing Easement, as recorded among the aforesaid Land Records in Deed Book 244, Page 5, and as more particularly described in the plat attached hereto as Exhibit "A" and shown thereon as "AREA OF ABANDONMENT." The Area of Abandonment is more particularly described as follows:

Being a strip or parcel of land running in, through, over and across the property now owned by Grantor, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 1953, Page 869, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lots 1112, 1113 & 1114, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a 2 inch open top pipe found at the southernmost corner of Lot 6 of a subdivision entitled "Indian Hills Country Club, Phase I, Block E", and recorded among the aforesaid Land Records in Plat Book 48, Page 116, said point also being the northwest corner of Lot 5 of the said subdivision, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,440,971.87; East: 2,216,068.32; thence, leaving the said Point of Beginning and running with the southwest line of said Lot 6, North 68° 10' 38" West, 55.21 feet; thence, leaving Lot 6 and running with the south line of the aforesaid water main easement, North 80° 02' 28" West, 127.55 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving the said Point of Beginning and continuing with the said south line of the Existing Easement

1. North 80° 02' 28" West, 1,092.65 feet; thence,



2. North 81° 05' 41" West, 205.15 feet; thence,
3. North 85° 31' 37" West, 243.77 feet; thence, running
4. North 66° 37' 37" West, 204.23 feet to a point on the north line of the aforesaid existing water main easement; thence, running with the said north line
5. South 83° 35' 36" East, 182.32 feet; thence,
6. South 85° 31' 37" East, 257.10 feet; thence,
7. South 81° 05' 41" East, 208.03 feet; thence,
8. South 80° 02' 28" East, 1,071.77 feet to a point on the southwest line of Lot 7 of the aforesaid subdivision; thence, running with the lines of Lot 7
9. South 35° 11' 02" East, 51.58 feet to a 1 inch open top pipe found; thence,
10. South 68° 10' 38" East, 50.39 feet to a 1 inch open top pipe found; thence, running with the southwest line of Lot 6
11. South 68° 10' 38" East, 2.66 feet; thence, leaving the line of Lot 6 and running
12. South 89° 13' 28" West, 68.24 feet to the Point of Beginning, containing 99,193 square feet or 2.2772 Acres of land, more or less.

The release of the Existing Easement in the Area of Abandonment shall automatically become effective without further action on behalf of Grantee one (1) year after completion of water main replacement construction and abandonment of facilities within the Area of Abandonment, but not later than December 31, 2024 (the "Release Effective Date").

The Permanent Easement covered by this instrument is for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said Permanent Easement and right-of-way in any wise appertaining to or belonging. All such water pipelines and any additional lines of pipe adjacent to the lines mentioned, as well as all related valves and attachments shall be located only within the Permanent Easement Area (and the area covered by the Existing Easement after the release and quitclaim of the Area of Abandonment). Grantee shall also have the right to maintain said permanent easement and to strip the Permanent Easement Area clear of undergrowth and brush and trees, but not grass, sidewalks, cart paths, or landscaping, in the event that Grantor or Grantor's assigns fail to do so.

**COVENANTS OF GRANTOR:**

Except as expressly set forth herein, Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described Permanent Easement Area unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of undergrowth, brush, and, except as expressly set forth herein, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein. Grantor is hereby expressly allowed to install and maintain driveways, parking areas, the poles and netting that protect the street and parking lots from golf balls on the driving range, and cart paths within the Permanent Easement Area, provided they do not unreasonably interfere with Grantee's rights hereunder or otherwise violate this agreement.

**COVENANTS OF GRANTEE:**

Grantee understands that the construction and installation of the water mains in the Permanent Easement Area will interfere with the use and operation



of the golf and country club (the "Club") operated by Grantor on the property encumbered by the Permanent Easement Area. To minimize such interference, Grantee has agreed that all work to be performed in the Permanent Easement Area shall be performed and completed during November 2020 through February 2021 or November 2021 through February 2022, except for the replanting of any trees, landscaping, grass and other vegetation, which replanting shall be done during the seasons or seasons that are best for the types of materials being replanted, with such seasons to be determined in consultation with Grantor. The construction of the sections of the water mains that cross the current entrances to the parking lot of Grantor located off of Clubland Drive will be scheduled and completed in a manner that will maintain safe and secure pedestrian and vehicular ingress and egress to such parking area through at least one of the current access points at all times. When commenced, the construction within the portion of the Permanent Easement Area that crosses the Driving Range will be completed within thirty (30) days after such construction commences in order to minimize the time when use of the Driving Range will be impacted. During all construction on the property of Grantor, Grantee will use its best efforts to not interrupt any utilities serving the Club. As soon as possible after the completion of the construction within the portion of the Permanent Easement Area that crosses the Driving Range, but in any event within thirty (30) days after the completion of the construction within the portion of the Permanent Easement Area that crosses the Driving Range, Grantee shall cause its contractor to reinstall the poles supporting the netting and the nets that protect the street and the parking area from golf balls, at the sole cost and expense of Grantee, in as nearly the same positions that such poles and netting existed prior to such construction as possible.

Prior to commencing any construction within the Permanent Easement Area, Grantee and its contractor shall meet with representatives of Grantor on site to discuss and document all improvements, including parking areas, sidewalks, curbs, cart paths, irrigation systems, the poles supporting the netting and the nets that protect the street and the parking area from golf balls on the Driving Range, the grass, landscaping and other items that will be or may be impacted by the construction and agree on how such items will be repaired or replaced after construction is completed with a detailed schedule and scope of work for such repair and replacement. Grantee shall cause its contractor to replace all improvements to be replaced promptly after completion of construction at the sole cost and expense of Grantee. All pre-existing sod, grass, landscaping and other vegetation shall be replaced with sod, grass, landscaping and other vegetation of like kind and quality by Grantor or a landscaping company selected by Grantor. The cost of replacing the pre-existing sod, grass and landscaping shall be paid to Grantor by Grantee in an amount equal to the lower of two (2) bids obtained by Grantor from reputable landscaping companies experienced in such types of work. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes, or for use of the Driving Range as a typical driving range. Grantee acknowledges that Grantor operates a golf course and country club (the "Club") on the property encumbered by the Permanent Easement Area and agrees that the types of grass, landscaping and vegetation are important to the operation and aesthetics of the Club. In recognition thereof, Grantee agrees that it will reimburse Grantor for the cost to replace the grass, landscaping and other vegetation with plant material of the same type and quality as that damaged or removed unless otherwise approved in writing by Grantor. All such repair and replacement shall be done in a good and workman like manner, in accordance with the schedule and scope of work previously agreed with Grantor, and shall be completed without any lien being filed against the property of Grantor. These covenants and agreements of Grantee shall be covenants running with the land and shall be binding on Grantee, its successors, and assigns.



Notwithstanding anything contained in this document, Grantor understands and agrees that trees shall not be installed, planted, maintained, or allowed to remain in any easement area. Driveways, parking lots, poles and netting for the Driving Range, and cart paths and other paths are all allowed in the Permanent Easement Area provided that any grading does not alter the depth of the water main by two (2) feet.

Except as expressly set forth herein, delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said Permanent Easement Area and Area of Abandonment, and rights, estates and privileges over, in, through and to the above-described land unto the said Grantor and Grantee (as the case may be), their successors and assigns forever. Grantor does hereby covenant with Grantee that Grantor is lawfully seized and possessed of the Permanent Easement Area above described, that Grantor has a good and lawful right to convey the Permanent Easement Area, that, except as noted in the Consent of Lender attached hereto, the Permanent Easement Area is free from all encumbrances and that Grantor will forever warrant and defend the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns. Grantee does hereby covenant with Grantor that Grantee is lawfully seized and possessed of the Existing Easement above described, and that Grantee has a good and lawful right to release and quitclaim the Area of Abandonment to Grantor, that the Area of Abandonment is free from all encumbrances.

IN WITNESS WHEREOF, Grantor and Grantee have hereunto set their hands and affixed their seals the day and year first above written.

**[SIGNATURES BEGIN ON NEXT PAGE]**

**Grantor**

**INDIAN HILLS COUNTRY CLUB,  
INC.,** a Georgia corporation

BY:

\_\_\_\_\_(SEAL)

Name: Stephen M. Rhoden

Title: President

Signed, sealed and delivered in the  
presence of:

\_\_\_\_\_  
Witness


\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

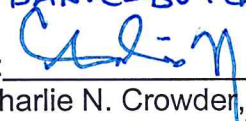
**[SIGNATURES CONTINUE ON NEXT PAGE]**

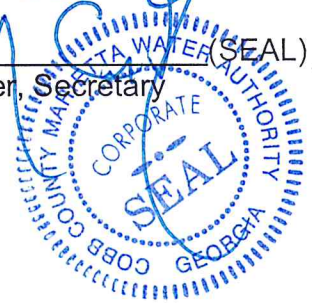
**Grantee**

COBB COUNTY-MARIETTA WATER  
AUTHORITY

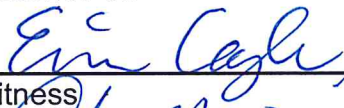
By:  (SEAL)

~~James C. Scott, Jr., Chair~~  
T. DANIEL BUYERS, VICE CHAIR

Attest:  (SEAL)  
Charlie N. Crowder, Secretary



Signed, sealed and delivered in the  
presence of:

  
Witness

  
Notary Public

My Commission Expires \_\_\_\_\_



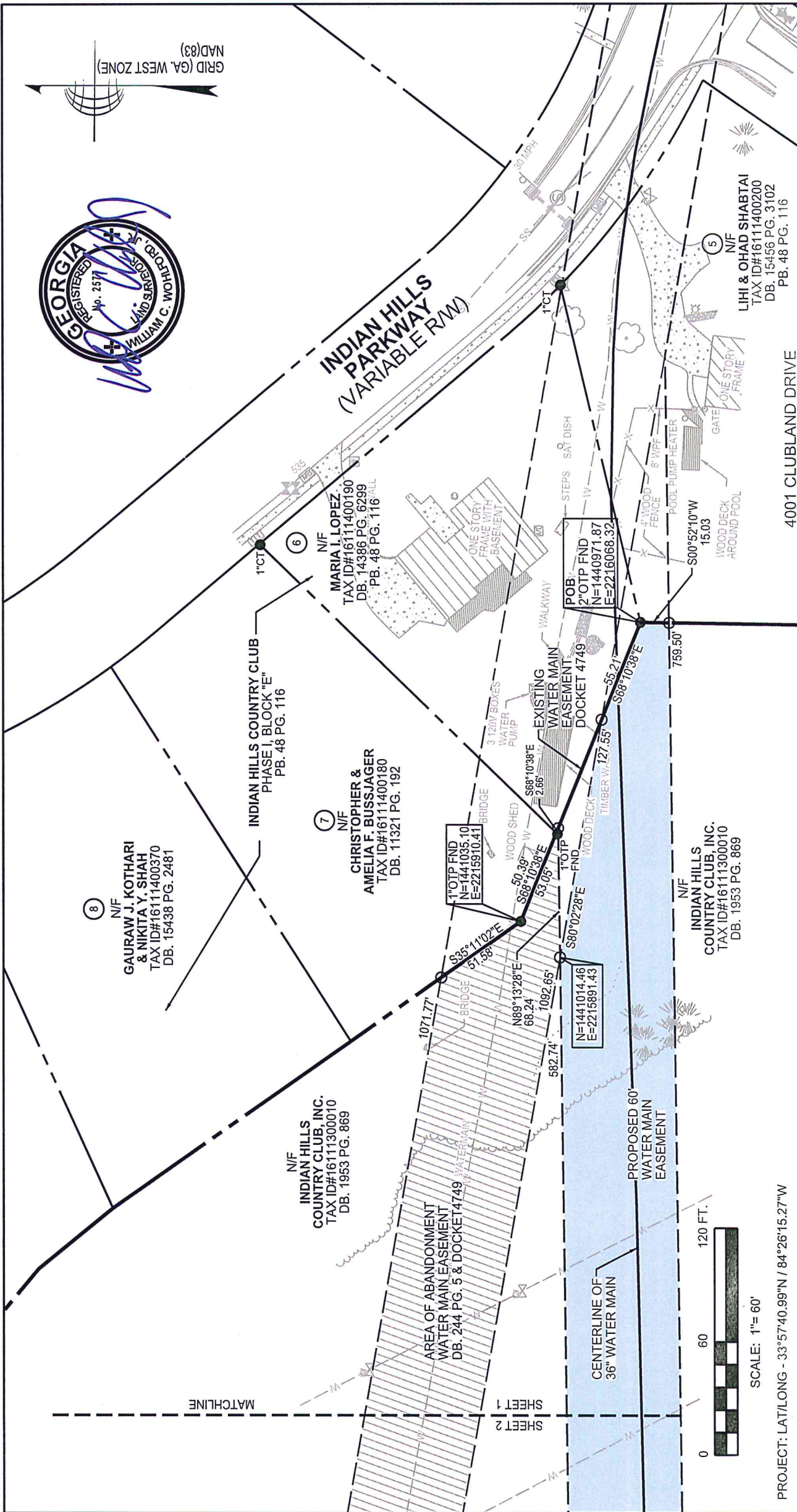
**EXHIBIT "A"  
EASEMENT PLAT**

**Easement Plat consists of three (3) pages that follow this page.**





GRID (GA. WEST ZONE)  
NAD(83)



8 N/F  
GAURAW J. KOTHARI  
& NIKITA Y. SHAH  
TAX ID#1611400370  
DB. 15438 PG. 2481

INDIAN HILLS COUNTRY CLUB  
PHASE I, BLOCK "E"  
PB. 48 PG. 116

7 N/F  
CHRISTOPHER &  
AMELIA F. BUSSJAGER  
TAX ID#1611400180  
DB. 11321 PG. 192

N/F  
INDIAN HILLS  
COUNTRY CLUB, INC.  
TAX ID#1611300010  
DB. 1953 PG. 869

N/F  
MARIA I. LOPEZ  
TAX ID#1611400190  
DB. 14386 PG. 6299  
PB. 48 PG. 116

N/F  
INDIAN HILLS  
COUNTRY CLUB, INC.  
TAX ID#1611300010  
DB. 1953 PG. 869

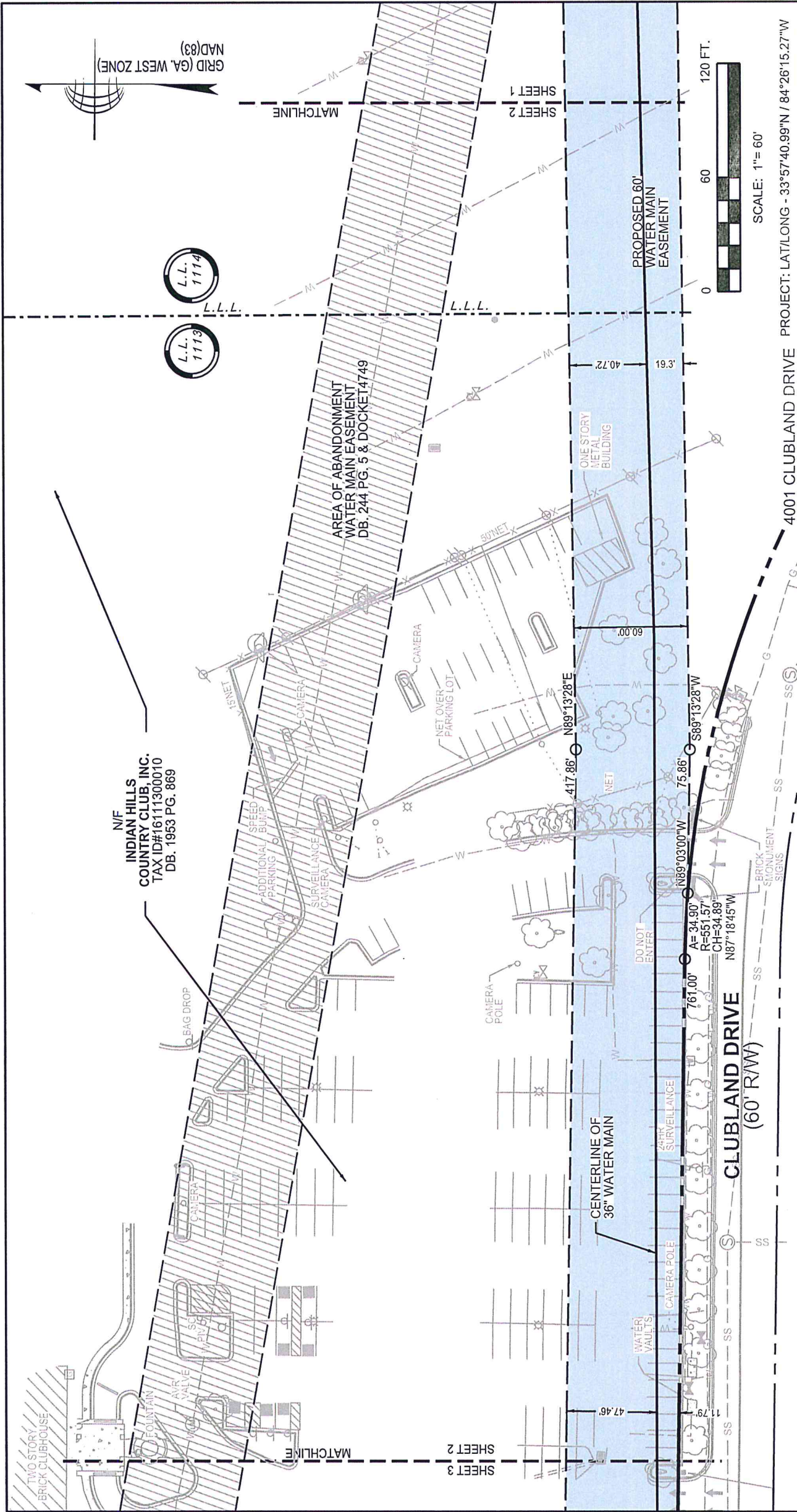
5 N/F  
LIHI & OHAD SHABTAI  
TAX ID#1611400200  
DB. 15456 PG. 3102  
PB. 48 PG. 116

PROJECT: LAT/LONG - 33°57'40.99"N / 84°26'15.27"W



<p>105,768 SQ. FT./2.4481 AC. PROPOSED EASEMENT 99,193 SQ. FT./2.2772 AC. ABANDONED EASEMENT 1993 L.F. VARIABLE WIDTH EASEMENT</p>	<p>LOCATED IN LAND LOT 1112, 1113 AND 1114 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 8/14/2019 SHEET NO. 1 OF 3</p>	<p>SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO 141 REVISED</p>	<p>THROUGH THE PROPERTY OF: INDIAN HILLS COUNTRY CLUB, INC. COBB COUNTY TAX PARCEL # 16111300010</p>	<p>Terramark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.Terramark.com (P) (770) 421-1927</p> <p><b>Terramark</b> Professional Land Surveying</p>
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N/F  
**INDIAN HILLS  
 COUNTRY CLUB, INC.**  
 TAX ID#16111300010  
 DB. 1953 PG. 869

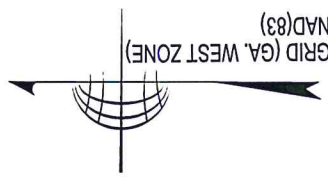
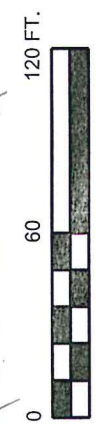
**AREA OF ABANDONMENT  
 WATER MAIN EASEMENT  
 DB. 244 PG. 5 & DOCKET 4749**

**PROPOSED 60'  
 WATER MAIN  
 EASEMENT**

**CENTERLINE OF  
 36" WATER MAIN**

**CLUBLAND DRIVE  
 (60' R/W)**

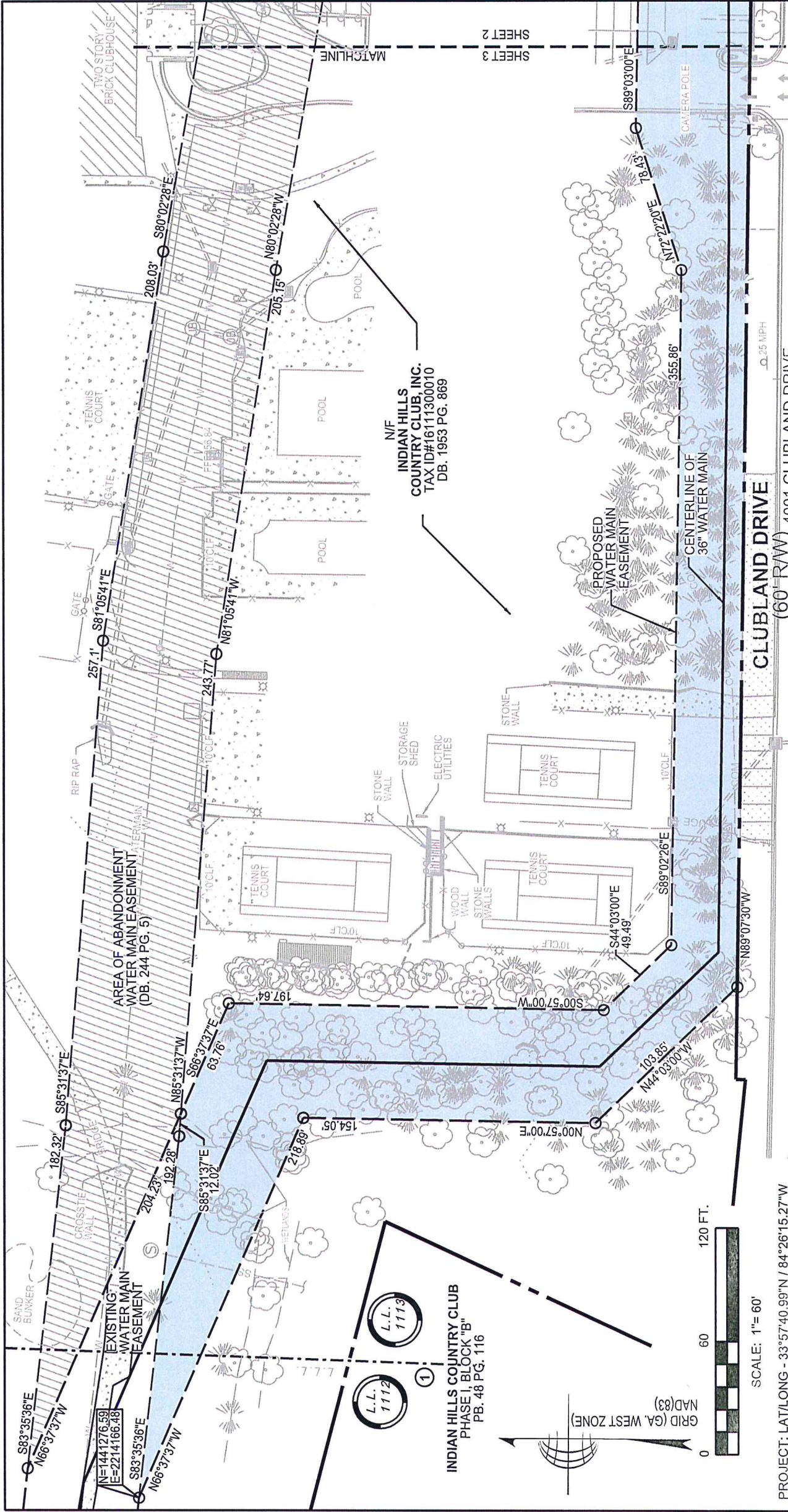
PROJECT: LAT/LONG - 33°57'40.99"N / 84°26'15.27"W  
 SCALE: 1"= 60'



L.L. 1113  
 L.L. 1114

105,768 SQ. FT./2.4481 AC. PROPOSED EASEMENT 99,193 SQ. FT./2.2772 AC. ABANDONED EASEMENT 1993 L.F. VARIABLE WIDTH EASEMENT	LOCATED IN LAND LOT 1112, 1113 AND 1114 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA DATE: 8/14/2019 SHEET NO. 2 OF 3	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY: COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO 141 REVISED	THROUGH THE PROPERTY OF: INDIAN HILLS COUNTRY CLUB, INC. COBB COUNTY TAX PARCEL # 16111300010	TerraMark Land Surveying, Inc. 1396 Balls Ferry Road Marietta, Georgia 30066 www.TerraMark.com Professional Land Surveying (P) (770) 421-1927
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N/F  
**INDIAN HILLS  
 COUNTRY CLUB, INC.**  
 TAX ID#1611300010  
 DB. 1953 PG. 869

SCALE: 1" = 60'

0 60 120 FT.

PROJECT: LAT/LONG - 33°57'40.99"N / 84°26'15.27"W

105,768 SQ. FT./ 2.4481 AC. PROPOSED EASEMENT  
 99,193 SQ. FT./ 2.2772 AC. ABANDONED EASEMENT

LOCATED IN LAND LOT 1112, 1113 AND 1114  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:  
 COBB COUNTY-MARIETTA  
 WATER AUTHORITY

THROUGH THE PROPERTY OF:  
 INDIAN HILLS  
 COUNTRY CLUB, INC.  
 COBB COUNTY

TAX PARCEL # 1611300010

DATE: 8/14/2019 SHEET NO. 3 OF 3

1993 L.F. VARIABLE WIDTH EASEMENT

PATH: S:\SURVEY\2019\19-046\CGN\BLACKJACK\_EASMENT PLATS.DGN

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

SHEET 2  
 SHEET 3

MATCHLINE

TWO STORY  
 BRICK CLUBHOUSE

AREA OF ABANDONMENT  
 WATER MAIN EASEMENT  
 (DB. 244 PG. 5)

EXISTING  
 WATER MAIN  
 EASEMENT

PROPOSED  
 WATER MAIN  
 EASEMENT

CENTERLINE OF  
 36" WATER MAIN

CLUBLAND DRIVE  
 (60' R/W)

4001 CLUBLAND DRIVE

0.25 MPH

GRID (83)  
 NAD(83)  
 (GA, WEST ZONE)

INDIAN HILLS COUNTRY CLUB  
 PHASE I, BLOCK "B"  
 PB. 48 PG. 116

L.L. 1112  
 L.L. 1113

**EASEMENT INSTRUMENT  
AND  
EXCHANGE OF PROPERTY**

**STATE OF GEORGIA  
COUNTY OF COBB**

This **Grant of Easement and Release of Existing Easement** made this \_\_\_ day of \_\_\_\_\_, 2019 from **MARIA I. LOPEZ** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

**Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Maria I. Lopez, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14386, Page 3299, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1114, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a 2 inch open top pipe found at the southern most corner of Lot 6 of a subdivision entitled "Indian Hills Country Club, Phase I, Block E", and recorded among the aforesaid Land Records in Plat Book 48, Page 116, said point also being the northwest corner of Lot 5 of the said subdivision, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,440,971.87; East: 2,216,068.32; thence, leaving the said Point of Beginning and running with the southwest line of said Lot 6,

1. North 68° 10' 38" West, 55.21 feet to a point on the south line of an existing water main easement recorded among the aforesaid Land Records in Docket 4749; thence, running with the said line of the existing easement
2. South 80° 02' 28" East, 80.48 feet to a point on the southeast line of aforesaid Lot 6; thence, running with the said line of Lot 6
3. South 76° 43' 40" West, 28.78 feet to the Point of Beginning, containing 456 square feet or 0.0105 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

**TOGETHER WITH:**

A release of a portion of an existing water main easement as recorded among the aforesaid Land Records in Docket 4749, and as more particularly described in the plat attached hereto, shown as "AREA OF ABANDONMENT" on Exhibit "A". Said area of easement(s) release being more particularly described as follows:



### **Release of Existing Easement**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Maria I. Lopez, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 14386, Page 3299, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1114, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

To find the Point of Beginning of the strip or parcel of land, commence at a 2 inch open top pipe found at the southern most corner of Lot 6 of a subdivision entitled "Indian Hills Country Club, Phase I, Block E", and recorded among the aforesaid Land Records in Plat Book 48, Page 116, said point also being the northwest corner of Lot 5 of the said subdivision, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,440,971.87; East: 2,216,068.32; thence, leaving the said Point of Beginning and running with the southwest line of said Lot 6, North 68° 10' 38" West, 117.03 feet to the True Point of Beginning of the herein described strip or parcel of land; thence, leaving the said Point of Beginning and continuing with the said line of Lot 6

1. North 68° 10' 38" West, 2.66 feet to a 1 inch open top pipe found; thence, running with the northwest line of Lot 6
2. North 44° 12' 48" East, 56.55 feet to a point on the north line of the aforesaid existing water main easement; thence, running with the said north line
3. South 80° 02' 28" East, 220.22 feet; thence, leaving the aforesaid north line of the existing water main easement and running
4. South 89° 13' 28" West, 253.88 feet to the Point of Beginning, containing 5,277 square feet or 0.1211 Acres of land, more or less.

**The release of easement shall occur one year after completion of water main replacement construction and abandonment of facilities within "AREA OF ABANDONMENT".**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be

constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.

Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_

Witness

\_\_\_\_\_

Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_ (SEAL)

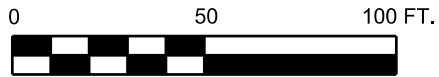
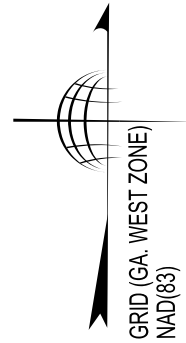
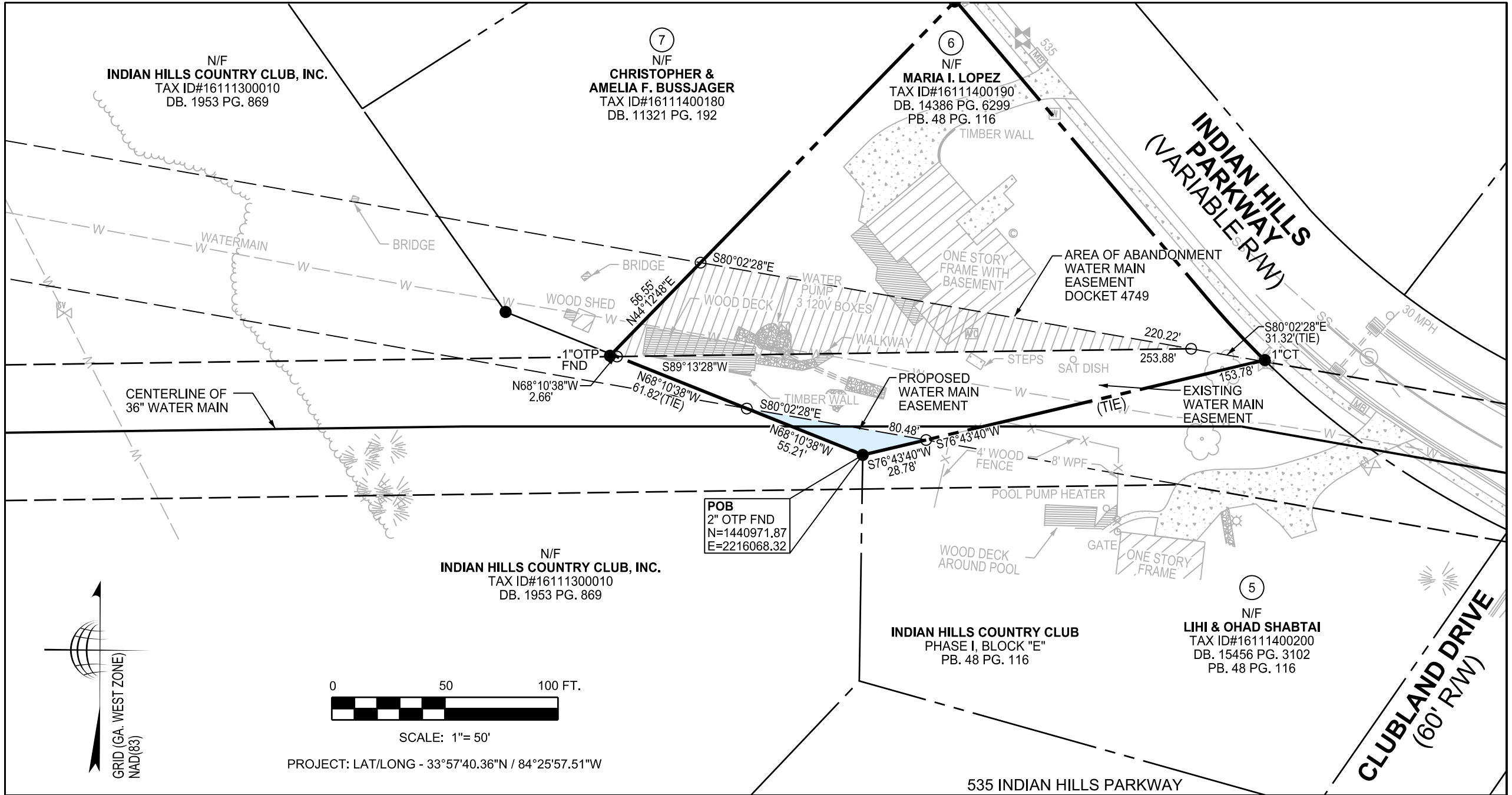
James C. Scott, Jr., Chair

BY: \_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**  
**EASEMENT PLAT**



PROJECT: LAT/LONG - 33°57'40.36"N / 84°25'57.51"W

456 SQ. FT./ 0.0105 AC. PROPOSED EASEMENT  
 5,277 SQ. FT./ 0.1211 AC. ABANDONED EASEMENT

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25 L.F. VARIABLE WIDTH EASEMENT

LOCATED IN LAND LOT 1114  
 16TH DISTRICT, 2ND SECTION  
 COBB COUNTY, GA

---

DATE: 8/14/2019 SHEET NO. 1

SKETCH OF WATER MAIN EASEMENT  
 AS REQUIRED BY:

COBB COUNTY-MARIETTA  
 WATER AUTHORITY

C.C.M.W.A. NO 143 REVISED

THROUGH THE PROPERTY OF:

MARIA I. LOPEZ

COBB COUNTY

TAX PARCEL # 16111400190

**TerraMark**  
 Professional Land Surveying

TerraMark Land Surveying, Inc.  
 1396 Bells Ferry Road  
 Marietta, Georgia 30066  
 www.TerraMark.com  
 (P) (770) 421-1927

## EASEMENT INSTRUMENT

### STATE OF GEORGIA COUNTY OF COBB

This **Grant of Easement** made this \_\_\_\_ day of \_\_\_\_\_, 2019 from **LIHI & OHAD SHABTAI** (hereinafter collectively called "Grantor(s)"), as Party or Parties of the First Part whether one or more, to **COBB COUNTY - MARIETTA WATER AUTHORITY**, as Party of the Second Part (hereinafter called "Grantee").

WITNESSETH, that Grantor(s) for the sum of \_\_\_\_\_ (\$\_\_\_\_\_) Dollars and Other Valuable Considerations, in hand paid, at and before the sealing and delivery of these presents, the receipt and sufficiency whereof is hereby acknowledged, have (has) granted, bargained, sold and conveyed, and by these presents do(es) grant, bargain, sell and convey unto Grantee an easement and right-of-way over, through, across and under the property of Grantor(s) more particularly described as follows:

A permanent easement grant for the purpose of the **BLACKJACK MOUNTAIN – 36-INCH WATER MAIN REPLACEMENT**, as more particularly described in the plat attached hereto as Exhibit "A". Said easement(s) being more particularly described as follows:

#### **Permanent Easement Grant**

Being a strip or parcel of land running in, through, over and across the property now or formerly owned by Lihl & Ohad Shabtai, as described in a deed recorded among the Land Records of Cobb County, Georgia in Deed Book 15456, Page 3102, and further shown on an Easement Sketch prepared by TerraMark Land Surveying, Inc. and attached hereto, said strip or parcel lying and being in Land Lot 1114, 16<sup>th</sup> District, 2<sup>nd</sup> Section of Cobb County, Georgia and being more particularly described as follows:

Beginning for the same of the strip or parcel of land, at a 2 inch open top pipe found at the southern most corner of Lot 6 of a subdivision entitled "Indian Hills Country Club, Phase I, Block E", and recorded among the aforesaid Land Records in Plat Book 48, Page 116, said point also being the northwest corner of Lot 5 of the said subdivision, and said point being at State Plane Coordinate (Georgia West Zone) of North: 1,440,971.87; East: 2,216,068.32; thence, leaving the said Point of Beginning and running with the northerly line of said Lot 5,

1. North 76° 43' 40" East, 28.78 feet to a point on the south line of an existing water main easement recorded among the aforesaid Land Records in Docket 4749; thence, running with the said line of the existing easement
2. South 80° 02' 28" East, 114.10 feet; thence, leaving the said line of the existing easement and running
3. South 89° 13' 23" West, 140.63 feet to a point on the west line of aforesaid Lot 5; thence, running with said west line
4. North 00° 52' 10" East, 15.03 feet to the Point of Beginning, containing 1,704 square feet or 0.0391 of an acre of land, more or less.

**The permanent easement granted hereunder shall be perpetual.**

The permanent easement(s) covered by this instrument are for the purpose of operating water pipelines with related valves and other attachments, together with the right to go upon said land to install said water pipelines and related valves and attachments, and any additional lines of pipe adjacent to and parallel with the lines mentioned together with related valves and attachments and to inspect, maintain and repair the same as may from time to time be necessary or expedient and whenever the Grantee may see fit, with all rights, members and appurtenances to said easement and right-of-way in any wise appertaining to or

belonging. Grantee shall also have the right to maintain said permanent easement and to strip clear of trees, undergrowth, and brush in the event that Grantor or Grantor's assigns fail to do so.

Grantor covenants and agrees that Grantor will not impound water or construct buildings, structures, engineering works or other obstructions of any type whatsoever on the above-described permanent easement strip unless authorized to do so in writing by Grantee. Grantor agrees to leave Grantee's water line(s) undisturbed as to location and depth. These covenants and agreements shall be covenants running with the land and shall be binding on Grantor, his heirs, successors, and assigns. After a water line has been installed, Grantee shall not be liable for damage caused on the easement by keeping said easement clear of trees, undergrowth, brush, buildings, structures, engineering work and obstructions in the exercise of its rights granted herein.

After any construction by Grantee, Grantee shall re-seed with grass any portions of said right-of-way strip covered with vegetation prior to such construction and will replace any preexisting improvements damaged during construction excepting trees and deep rooted vegetation. Except for a flush pipe having a diameter of 12" or less at any low point, any markers and any ground manholes and manhole covers, any water pipeline(s), valves and related attachments to be constructed by Grantee across any portion of the above-described right-of-way strip shall, at the time of construction thereof, be installed to such depth as will not interfere with Grantor's subsequent use of said property for normal parking or landscaping purposes.

Delay of Grantee in the use or exercise of any right or easement hereby granted, or in laying or installing of water pipeline(s) in or along said right-of-way, shall not result in loss limitation, or abandonment of any of the right, title, interest, easement or estate hereby granted. The rights herein granted are divisible and assignable in part or in whole. The terms, covenants, and provisions of the right-of-way easement shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto.

TO HAVE AND TO HOLD the said rights and right-of-way, easement, estate and privileges over, in, through and to the above-described land unto the said Grantee, its successors and assigns forever. Grantor(s) do(es) hereby covenant(s) with Grantee that Grantor(s) (are, is) lawfully seized and possessed of the real estate above described, that Grantor(s) (has) (have) a good and lawful right to convey it, or any part thereof, that it is free from all encumbrances and that Grantor(s) will forever warrant(s) and defend(s) the title thereto against the lawful claims of all persons whomsoever unto said Grantee, its successors and assigns.

IN WITNESS WHEREOF, Grantor(s) (has) (have) hereunto set (his, her, its, their) hand(s) and affixed (his, her, its, their) seals) the day and year first above written.



Acceptance and agreement of conditions placed herein.

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantor**

BY:

\_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BY:

\_\_\_\_\_(SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signed, sealed and delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Grantee**

BY: Cobb County-Marietta Water Authority

\_\_\_\_\_(SEAL)

James C. Scott, Jr., Chair

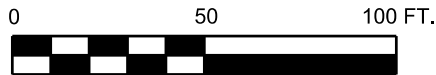
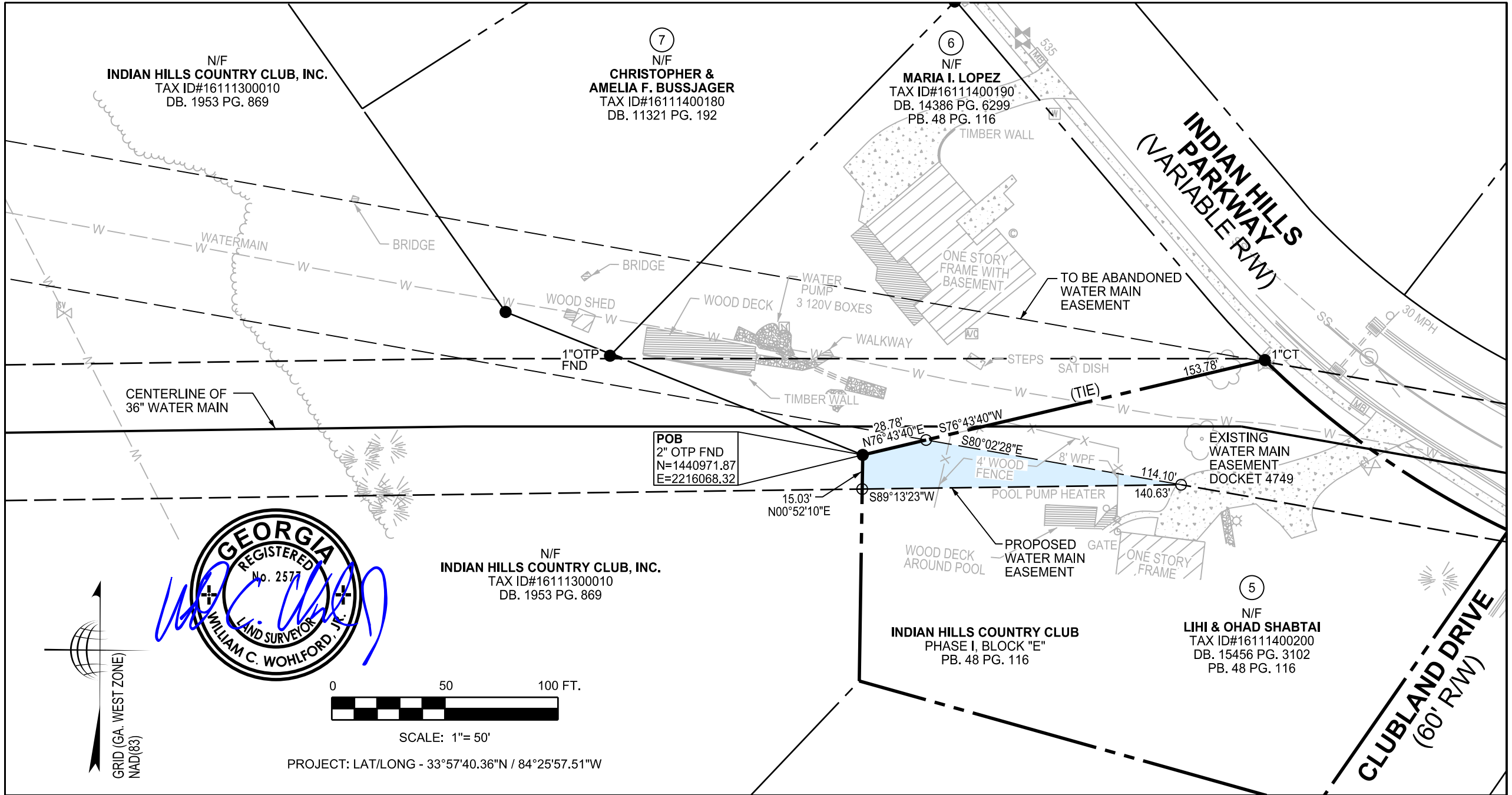
BY:

\_\_\_\_\_(SEAL)


Name: \_\_\_\_\_

Title: \_\_\_\_\_

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**EASEMENT PLAT**



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1,704 SQ. FT./ 0.0391 AC. PROPOSED EASEMENT	LOCATED IN LAND LOT 1114 16TH DISTRICT, 2ND SECTION COBB COUNTY, GA	SKETCH OF WATER MAIN EASEMENT AS REQUIRED BY:	THROUGH THE PROPERTY OF: <b>LIHI &amp; OHAD SHABTAI</b>	 <p>TerraMark Land Surveying, Inc. 1396 Bells Ferry Road Marietta, Georgia 30066 www.TerraMark.com (P) (770) 421-1927</p>
110 L.F. VARIABLE WIDTH EASEMENT	DATE: 8/14/2019 SHEET NO. 1	COBB COUNTY-MARIETTA WATER AUTHORITY C.C.M.W.A. NO 144 REVISED	COBB COUNTY TAX PARCEL # 16111400200	