WATER SYSTEM IMPROVEMENTS ALONG RIMER POND AND HARD SCRABBLE ROADS RICHLAND COUNTY, SOUTH CAROLINA

MAYOR

STEPHEN K. BENJAMIN

CITY COUNCIL

SAM DAVIS TAMEIKA I. DEVINE HOWARD DUVALL, JR. EDWARD McDOWELL, JR. DANIEL J. RICKENMANN **WILL BRENNAN**

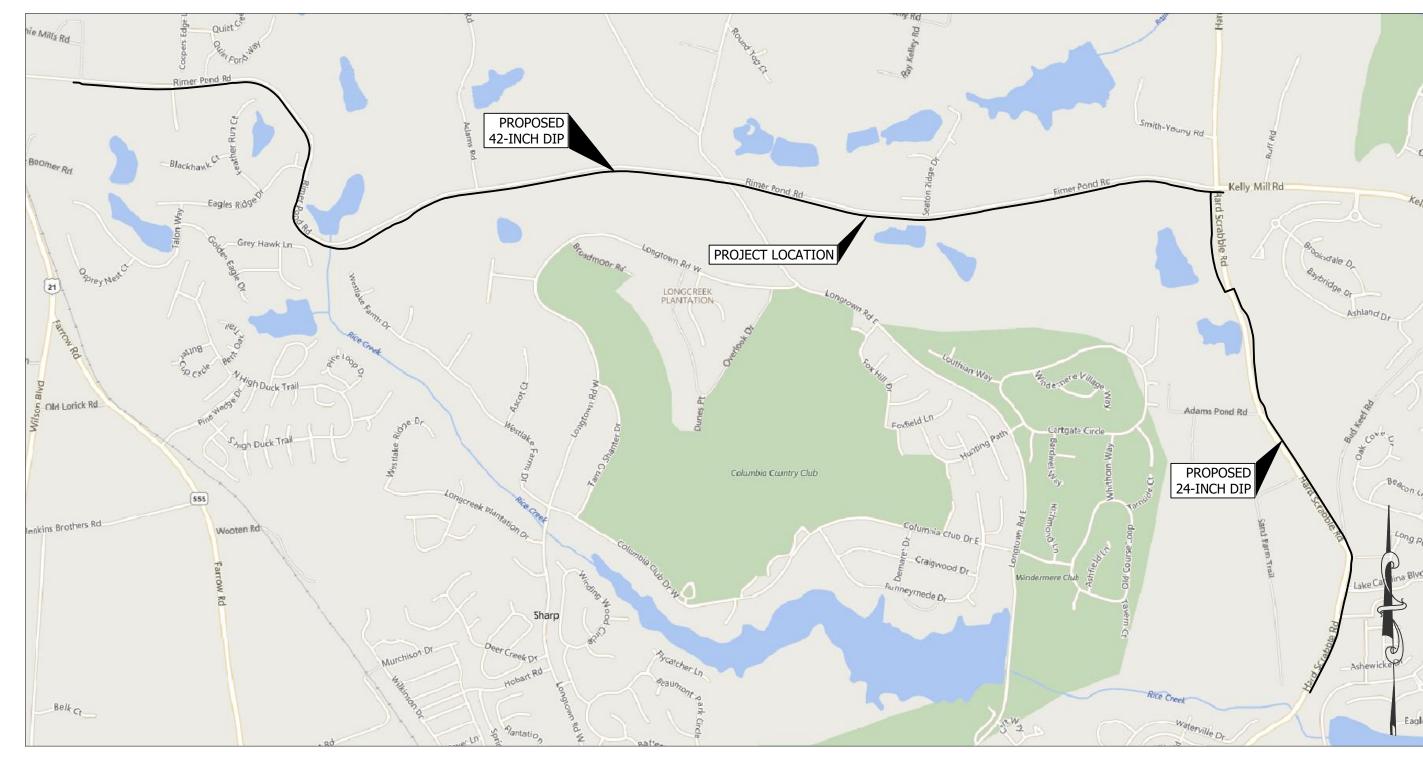
CITY MANAGER

TERESA WILSON

DIRECTOR OF ENGINEERING

DANA R. HIGGINS, P.E.

CITY OF COLUMBIA CIP PROJECT #WM3872 WK DICKSON PROJECT NO: 20190471.00.CA



LOCATION MAP 1"=1,500'

THE CITY OF COLUMBIA

1136 WASHINGTON STREET **COLUMBIA, SOUTH CAROLINA 29201**



NOTICE TO CONTRACTOR

TO CONSTRUCTION, DIGGING, OR EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA(S) OF CONSTRUCTION, WHETHER INDICATED ON THE PLANS OR NOT. CALL "811" OR 1-888-721-7877 A MINIMUM OF 72 HOURS PRIOR TO DIGGING OR EXCAVATING. REPAIRS TO ANY UTILITY DAMAGED RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.







REV RECORD:			REV RE	CORD:)
BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

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SHEET LIST TABLE SHEET SHEET TITLE NUMBER COVER G1 **PROJECT NOTES** G3 42-INCH WM SHEET INDEX 24-INCH WM SHEET INDEX 42-INCH WM PLAN & PROFILE - STA. 0+00 THRU 13+00 42-INCH WM PLAN & PROFILE - STA. 13+00 THRU 27+00 42-INCH WM PLAN & PROFILE - STA. 27+00 THRU 40+50 42-INCH WM PLAN & PROFILE - STA. 40+50 THRU 53+00 42-INCH WM PLAN & PROFILE - STA. 53+00 THRU 66+50 42-INCH WM PLAN & PROFILE - STA. 66+50 THRU 80+00 42-INCH WM PLAN & PROFILE - STA. 80+00 THRU 94+00 42-INCH WM PLAN & PROFILE - STA. 94+00 THRU 108+00 42-INCH WM PLAN & PROFILE - STA. 108+00 THRU 121+50 42-INCH WM PLAN & PROFILE - STA. 121+50 THRU 135+00 42-INCH WM PLAN & PROFILE - STA. 135+00 THRU 148+00 42-INCH WM PLAN & PROFILE - STA. 148+00 THRU 162+00 42-INCH WM PLAN & PROFILE - STA. 162+00 THRU 175+50 42-INCH WM PLAN & PROFILE - STA. 175+50 THRU 189+00 42-INCH WM PLAN & PROFILE - STA. 189+00 THRU 200+00 42-INCH WM PLAN & PROFILE - STA. 200+00 THRU 204+19 24-INCH WM PLAN & PROFILE - STA. 0+00 THRU 13+00 24-INCH WM PLAN & PROFILE - STA. 13+00 THRU 26+00 24-INCH WM PLAN & PROFILE - STA. 26+00 THRU 39+00 24-INCH WM PLAN & PROFILE - STA. 39+00 THRU 52+00 24-INCH WM PLAN & PROFILE - STA. 52+00 THRU 65+00 24-INCH WM PLAN & PROFILE - STA. 65+00 THRU 78+00 24-INCH WM PLAN & PROFILE - STA. 78+00 THRU 86+53 42-INCH WM EROSION CONTROL PLAN - STA. 00+00 THRU 27+00 42-INCH WM EROSION CONTROL PLAN - STA. 27+00 THRU 53+00 42-INCH WM EROSION CONTROL PLAN - STA. 53+00 THRU 80+00 42-INCH WM EROSION CONTROL PLAN - STA. 80+00 THRU 108+00 EC4 42-INCH WM EROSION CONTROL PLAN - STA. 108+00 THRU 135+00 42-INCH WM EROSION CONTROL PLAN - STA. 135+00 THRU 162+00 42-INCH WM EROSION CONTROL PLAN - STA. 162+00 THRU 189+00 42-INCH WM EROSION CONTROL PLAN - STA. 189+00 THRU 204+70 24-INCH WM EROSION CONTROL PLAN - STA.00+00 THRU 26+00 EC10 24-INCH WM EROSION CONTROL PLAN - STA.26+00 THRU 65+00 24-INCH WM EROSION CONTROL PLAN - STA. 65+00 THRU 86+57 **EROSION CONTROL DETAILS** WATER DETAILS 1 WATER DETAILS 2 MISCELLANEOUS DEATAILS **EASEMENT CONDITIONS 1 EASEMENT CONDITIONS 2**

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SYSTEM IMPROVEMENTS ALONG OND AND HARD SCRABBLE ROADS

EMOTING	LEGEND	_	
<u>EXISTING</u> :		<u>NEW</u> :	NEW AIR RELEASE WALVE
(S)	SEWER MANHOLE	(°)	NEW AIR RELEASE VALVE NEW FLUSHING ASSEMBLY (LAYOUT VARIES)
(i)	UTILITY MANHOLE		NEW FIRE HYDRANT ASSEMBLY
ø	UTILITY POLE	N	NEW BUTTERFLY VALVE
	GUY WIRE	₩	NEW SERVICE CONNECTION
\bowtie	WATER VALVE	<u>∪</u> (⊠)	NEW GATE VALVE
$\overline{\bigcirc}$	FIRE HYDRANT		NEW CITY OF COLUMBIA EASEMENT BOUNDA
T	TELE. PED.		NEW SCDOT ROW
G	GAS MARKER		NEW 42-INCH OR 24-INCH WATER MAIN
G	GAS VALVE	******	
FOM	FIBER OPTIC MARKER		NEW RESTRAINED JOINT PIPE
xxxx	FENCE		NEW STEEL CASING
	EXISTING RIGHT-OF-WAY		
<u> </u>	GUARD RAIL		NEW HORIZONTAL DIRECTIONAL DRILLED PIF
· · · · · · · · · · · · · · · · · · ·	TREE LINE	SF SF	TEMPORARY SILT FENCE
TR	ELEC. TRANSFORMER	DSF DSF	TEMPORARY DOUBLE ROW SILT FENCE
×	STREET LIGHT	LOD	LIMITS OF DISTURBANCE
5 ^{44,4} 45 5 ⁴ 5,445	TREE		
\odot	SHRUB		
	ROAD SIGN		
0	IRON PIN FOUND		
•	IRON PIN FOUND		
	GAS LINE		
———F0———F0——	FIBER OPTIC LINE		
——— TV ———— TV ———	TELEVISION LINE		
w	EXISTING WATER LINE		
———ss———	SANITARY SEWER LINE		
	STORM DRAINAGE LINE		
	PROPERTY LINE		
WB WB	WETLAND BUFFER		
	LANDSCAPE LIGHT		
$\langle \overline{W} \rangle$	WATER METER		
	MAILBOX		
	PAPER BOX		
₩ ₩	TV PED. SPRINKLER		
•	CONCRETE MONUMENT FOUND		
	BRICK COLUMN		
W			
DI	WELL DROP INLET		
E	ELECTRIC BOX		
	UTILITY VAULT		
	WETLANDS		
	ASPHALT PAVEMENT		
	GRAVEL		
	CONCRETE PAVEMENT		

SCDHEC EROSION AND SEDIMENT CONTROL NOTES:

- 1. IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.
- CONTRACTOR MAY HAVE TO INSTALL ADDITIONAL SILT FENCE OR BMP AS DEEMED NECESSARY BY CONTRACTOR, RICHLAND COUNTY, OWNER OR ENGINEER.
- 3. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW:
- WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
- WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
- 4. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
- 5. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED. THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
- PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
- 7. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
- 8. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
- 9. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 72-300 ET SEQ. AND SCR100000.
- 10. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
- 11. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
- 12. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
- 13. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
- 14. MINIMIZE TOPSOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
- 15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS, WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE:
- 16. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN
- 17. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
- WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE
- WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS:
- C. FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
- SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
- 17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
- 18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
- 19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.
- 20. STOCKPILE TRENCH SPOILS TO BE PLACED ADJACENT TO DITCH AS SHOWN ON TYPICAL TRENCH EXCAVATION STOCKPILE DETAIL. CONTRACTOR TO BACK FILL TRENCH AFTER THE WATER MAIN IS INSTALLED.

SURVEY NOTES:

- 1. PROPERTY INFORMATION AND BOUNDARY SURVEY PLAT W.K. DICKSON & CO., INC. ORIGINALLY SURVEYED 2012, PARTIALLY UPDATED JANUARY 2020.
- 2. SURVEY SHOWS NATURAL AND MANMADE FEATURES THAT ARE VISIBLE AND APPARENT WITHIN THE LIMITS OF THE SURVEY, INCLUDING BUT NOT LIMITED TO ABOVE GROUND UTILITIES.
- SURVEY DATUM:
- NAVD88 (VERTICAL) NAD83 2012 (HORIZONTAL)
- 4. CONTROL MONUMENT:
 - BM 4 SCDOT
 - NORTHING: 858956.7727 EASTING: 2015643.8261
- ELEV: 435.41'
- 5. CONTRACTOR TO VERIFY LOCATION & ELEVATIONS OF ALL EXISTING UTILITIES & STRUCTURES WITHIN THE PROJECT PATH PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES OR ADDITIONAL CONFLICTING UTILITIES ARE FOUND,
- 6. OTHER UTILITY CROSSINGS MAY EXIST THAT ARE NOT SHOWN ON THIS PLAN. ANY DAMAGE TO EXISTING UNDERGROUND UTILITIES OR UTILITIES ADJACENT TO THE PROJECT PATH INCURRED DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

EROSION CONTROL SEQUENCE OF CONSTRUCTION

- RECEIVE NPDES COVERAGE FROM SCDHEC AND/OR LOCAL MS4.
- CONDUCT ON-SITE PRE-CONSTRUCTION MEETING. 3. NOTIFY SCDHEC EQC REGIONAL EQC OFFICE 48 HOURS PRIOR TO BEGINNING LAND DISTURBANCE ACTIVITIES. MAY ALSO REQUIRE LOCAL REGULATORY NOTIFICATION.
- 4. INSTALL TEMPORARY CONSTRUCTION ENTRANCES BEFORE LAND DISTURBING ACTIVITIES.
- 5. INSTALL TEMPORARY EROSION CONTROLS (SILT FENCE).
- 6. BEGIN PERFORMING SCDHEC SWPPP INSPECTIONS AT BEGINNING OF LAND DISTURBING ACTIVITIES AND CONTINUE UNTIL SITE IS PERMANENTLY STABILIZED.
- 7. CONDUCT THE WATER MAIN PIPE AND STRUCTURE INSTALLATIONS. LIMIT THE AMOUNT OF EXPOSED SOIL BY INITIATING STABILIZATION MEASURES AS CONSTRUCTION PROGRESSES.
- 8. AFTER CONSTRUCTION IS COMPLETE OF WATER MAIN PIPE AND STRUCTURES, BEGIN STABILIZATION BY PREPARING PROPER SEEDBED AND BEGIN PERMANENT GRASSING.
- 9. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER AREA THAT IS DISTURBED DURING STRUCTURE INSTALLATION IS STABILIZED.
- 10. UPON COMPLETION OF THE PROJECT AND STABILIZATION OF THE DISTURBED AREAS, REMOVE ALL REMAINING TEMPORARY EROSION CONTROL MEASURES AND RE-STABILIZE AREA WITH PERMANENT GRASSING WHERE TEMPORARY EROSION CONTROLS WERE REMOVED.
- 11. SUBMIT NOTICE OF TERMINATION (NOT) TO SCDHEC ONCE THE SITE ACHIEVES A 70% UNIFORM STABILIZATION ACROSS THE ENTIRE PROJECT (BY ENGINEER).

14 DAY STABILIZATION CLAUSE

ALL DISTURBED AREAS WHICH ARE TO BE LEFT IDLE FOR A PERIOD OF 14 DAYS OR LONGER ARE TO RECEIVE TEMPORARY VEGETATION OR MULCH.

EROSION CONTROL MAINTENANCE SCHEDULE

ALL SEDIMENT AND EROSION CONTROLS ARE TO BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS. CONTRACTOR TO DOCUMENT WITH SCDHEC APPROVED INSPECTION REPORTS AND LOGGED IN THE PROJECT SWPPP.

SEEDING SCHEDULE:

-(SEE SEEDING SPECIFICATIONS FOR FURTHER DETAIL)

FROM MAY 1 - AUGUST 31 LB. BROWN TOP MILLET 2 LBS. HULLED BERMUDA 25 LBS. 10-10-10 FERTILIZER 75 LBS. LIMESTONE

1 LB. BROWN TOP MILLET 1 LB. HULLED BERMUDA *2 LBS, BAHIA GRASS 25 LBS. 10-10-10 FERTILIZER 75 LBS. LIMESTONE

*3 LBS. BAHIA GRASS

2 LBS. ANNUAL RYE GRASS 0.5 LB. HULLED BERMUDA 1.5 LBS. UNHULLED BERMUDA 25 LBS. 10-10-10 FERTILIZER 75 LBS. LIMESTONE

2 LBS. ANNUAL RYE GRASS 0.5 LB. HULLED BERMUDA 1 LB. UNHULLED BERMUDA 2 LBS. BAHIA GRASS 25 LBS. 10-10-10 FERTILIZER 75 LBS. LIMESTONE

2 LBS. BROWN TOP MILLET 1 LB. ANNUAL RYE GRASS 25 LBS. 10-10-10 FERTILIZER **3 LBS. FESCUE GRASS 25 LBS. 10-10-10 FERTILIZER 75 LBS. LIMESTONE 75 LBS. LIMESTONE

CONTROL GRASS; HOWEVER, IT PRODUCES MANY SEED HEADS WHICH SCATTER TO OTHER AREAS. BAHIA GRASS IS HARD TO MOW, BUT IT DOES NOT REQUIRE THE CARE THAT OTHER GRASSES REQUIRE. AROUND OFFICE BUILDINGS AND WITHIN SUBDIVISIONS. USE 4 TO 6 OUNCES OF CENTIPEDE GRASS IN LIEU OF BAHIA GRASS OR IN COMBINATION WITH BERMUDA GRASS.

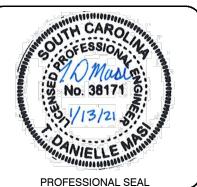
* BAHIA GRASS IS A GOOD EROSION

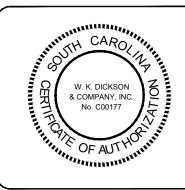
** FOR SOILS WITH CLAY SUBSOIL. DO NOT PLANT IN SANDY SOILS.

DEEP SANDY SOILS 1 LB. UNHULLED BERMUDA 2 LBS. RYE GRASS OR 2 LBS. GRAIN RYE *2 LBS. BAHIA GRASS 25 LBS. 10-10-10 FERTILIZER 75 LBS. LIMESTONE

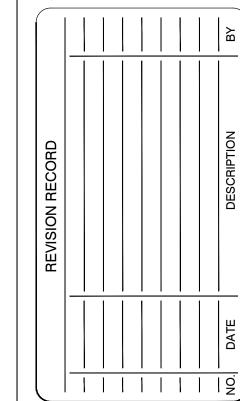
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WWW.WKDICKSON.COM









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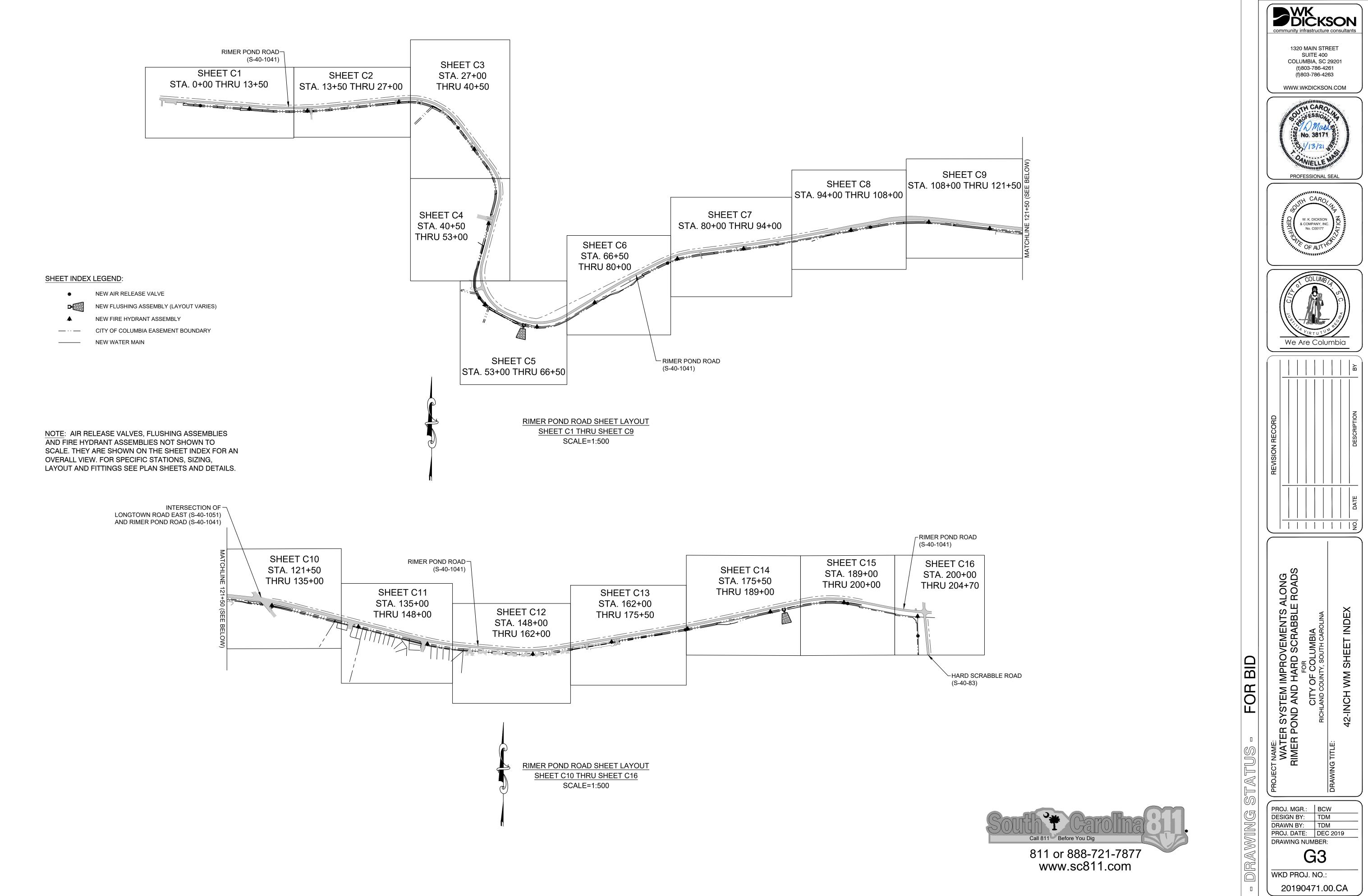
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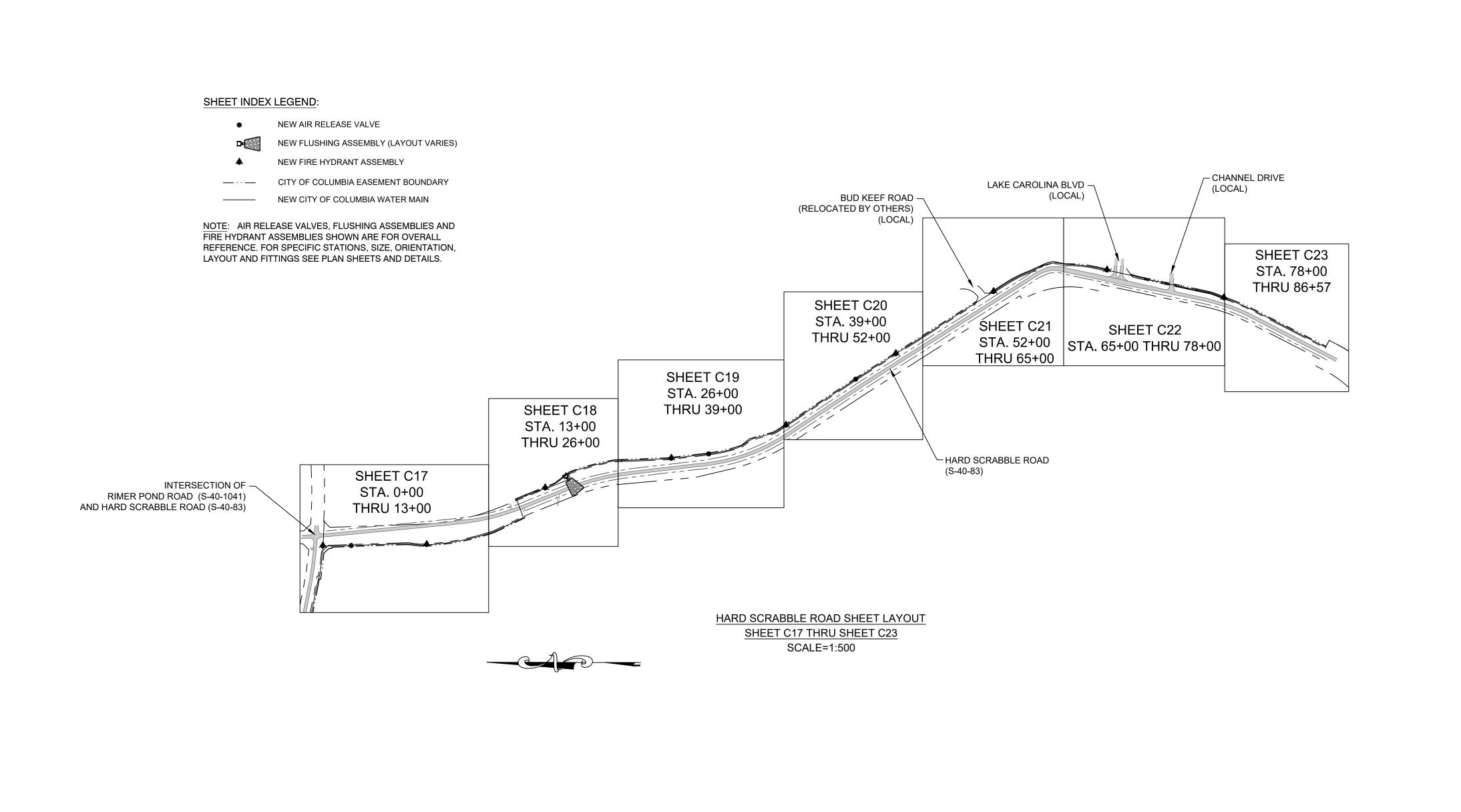
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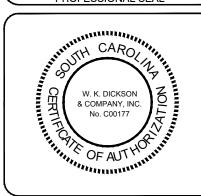


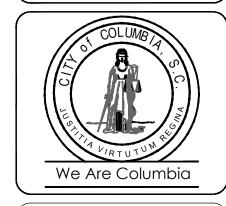


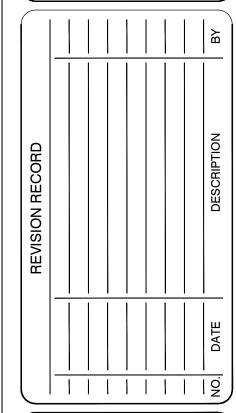
811 or 888-721-7877 www.sc811.com

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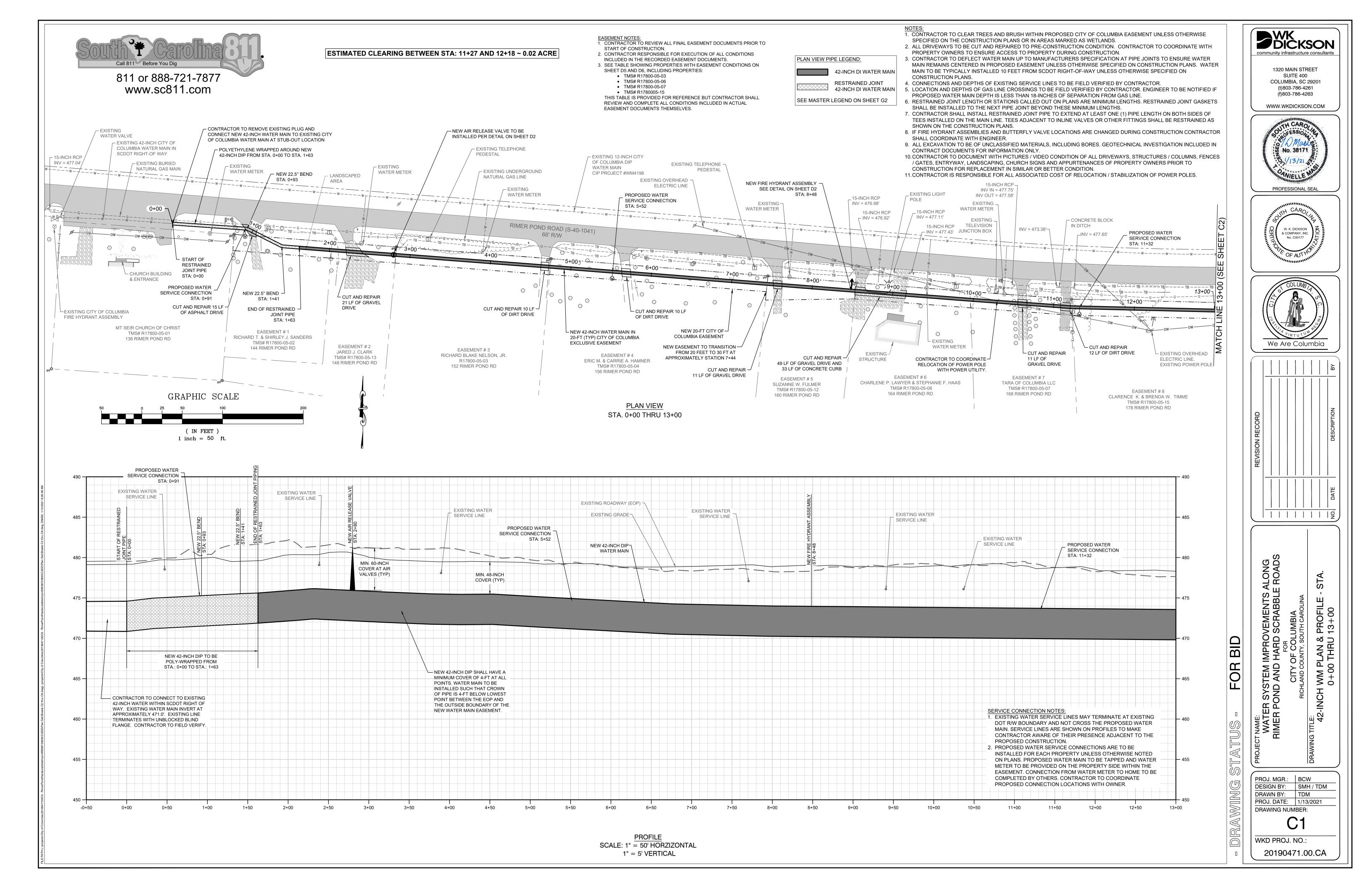


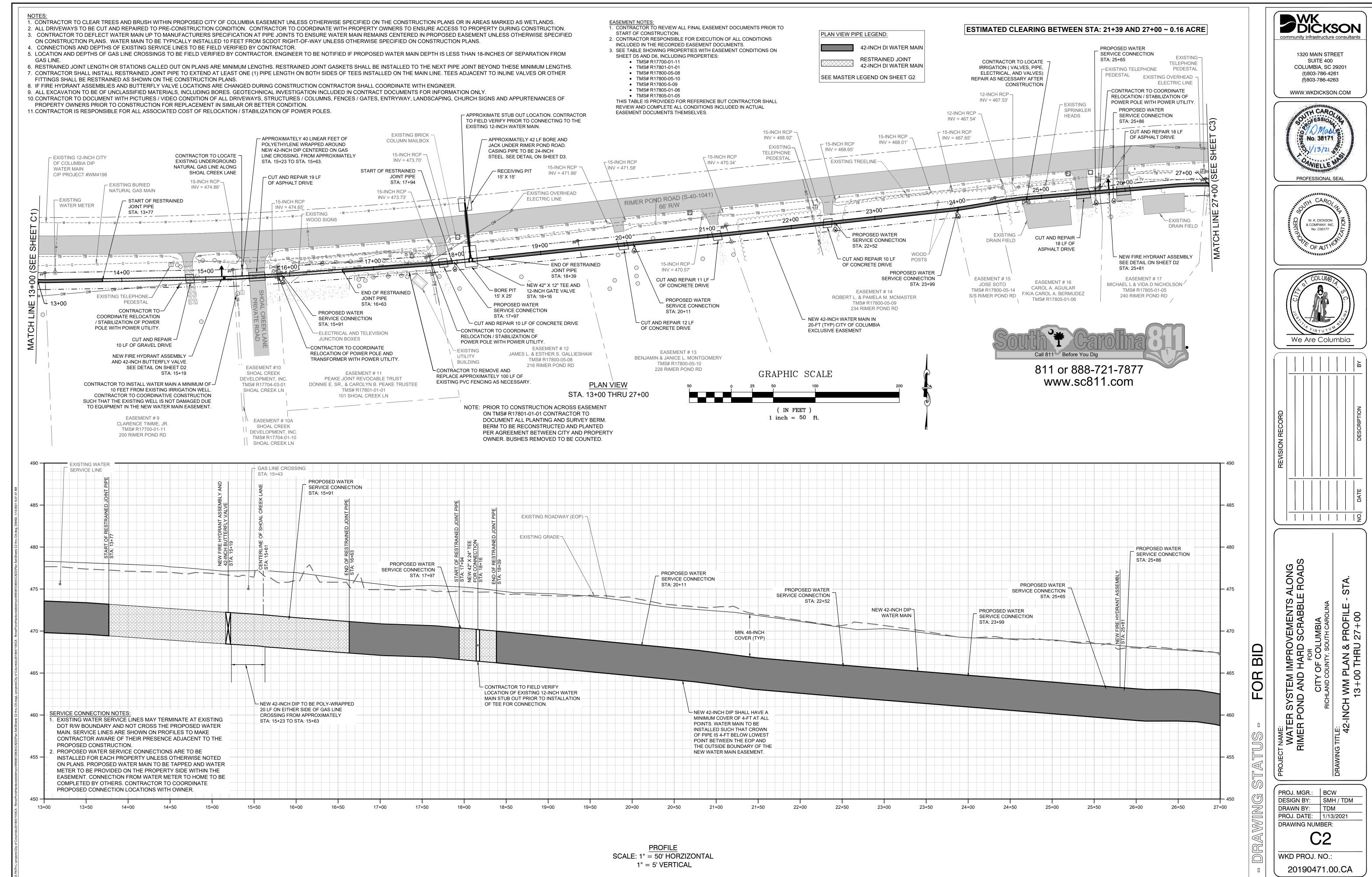
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WATER SYSTEM IMPROVEMENTS ALONG
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FOR
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PICHI AND COUNTY, SOUTH CAROLINA

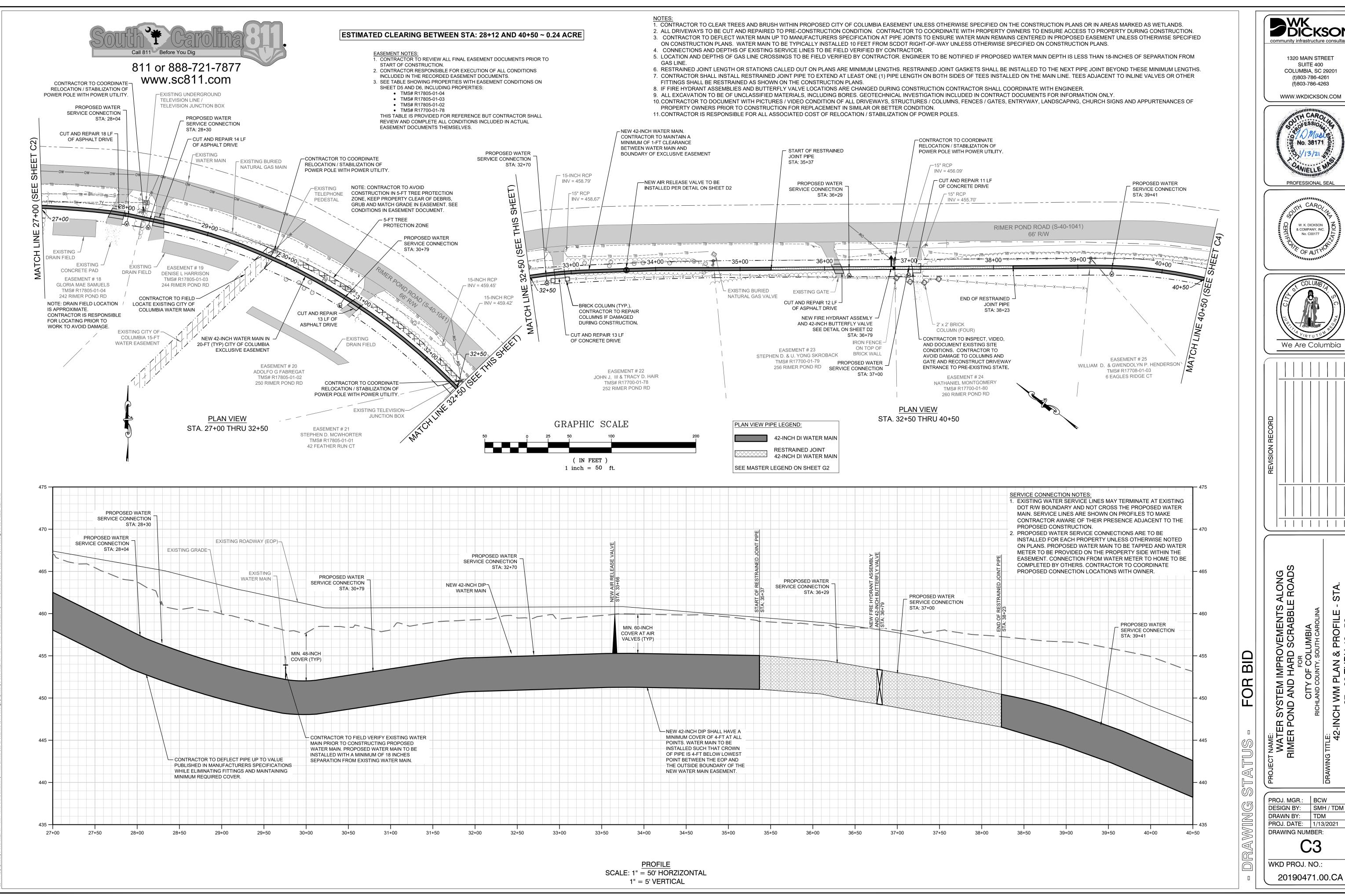
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DRAWN BY: TDM
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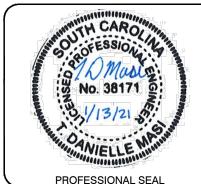


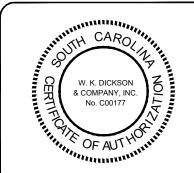




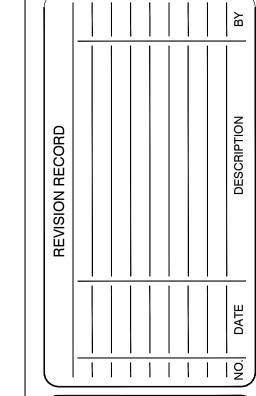
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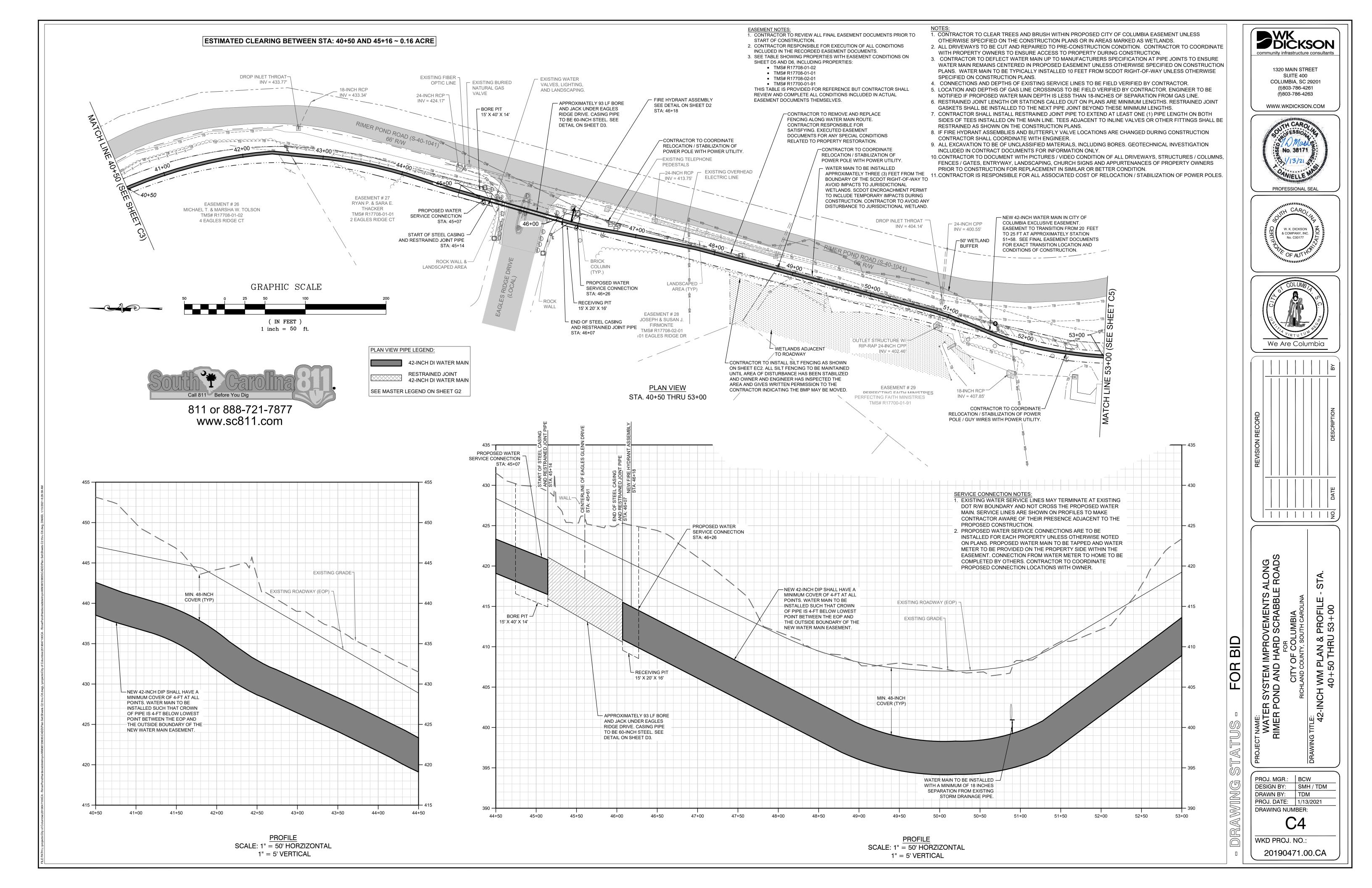


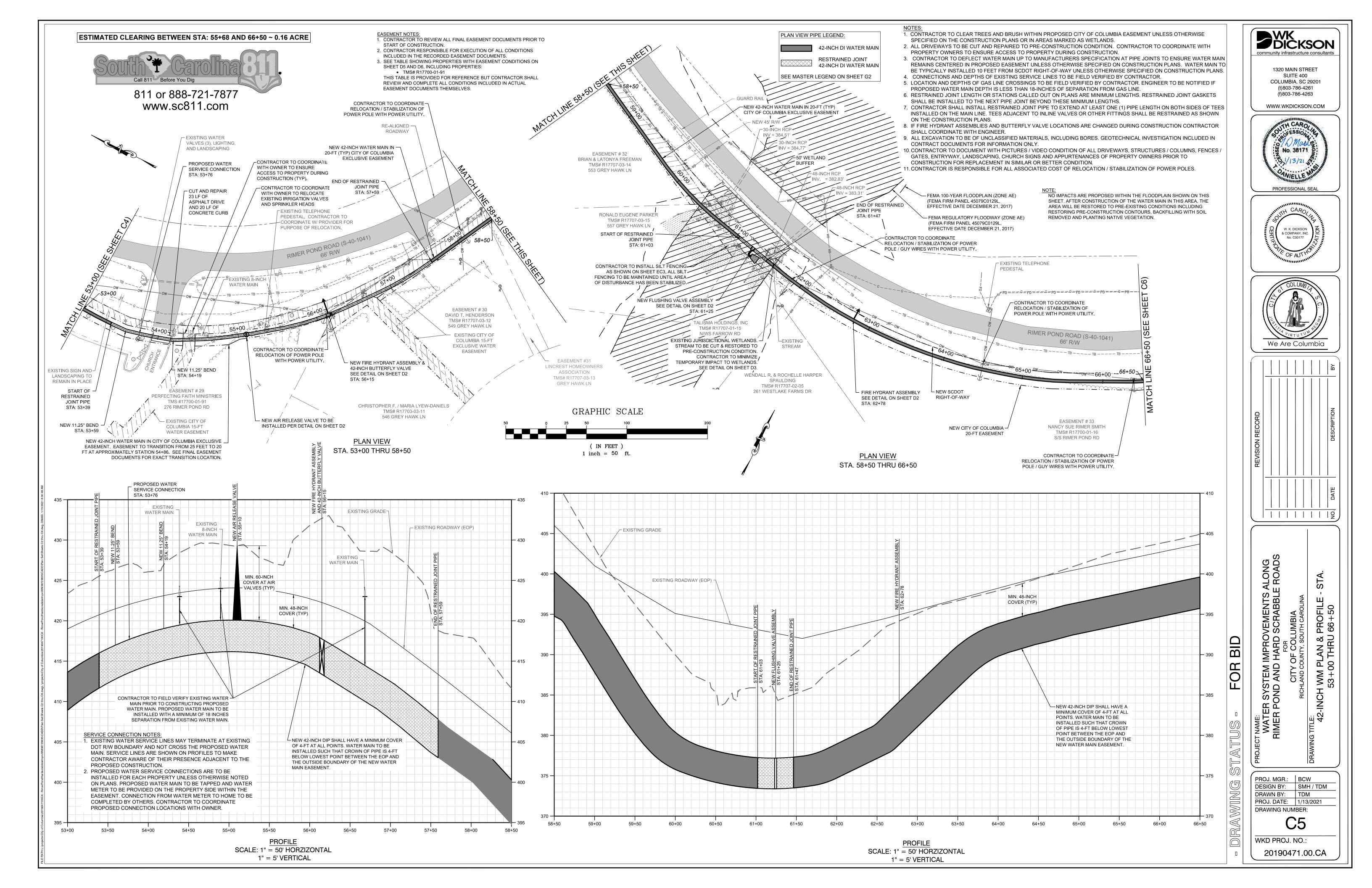


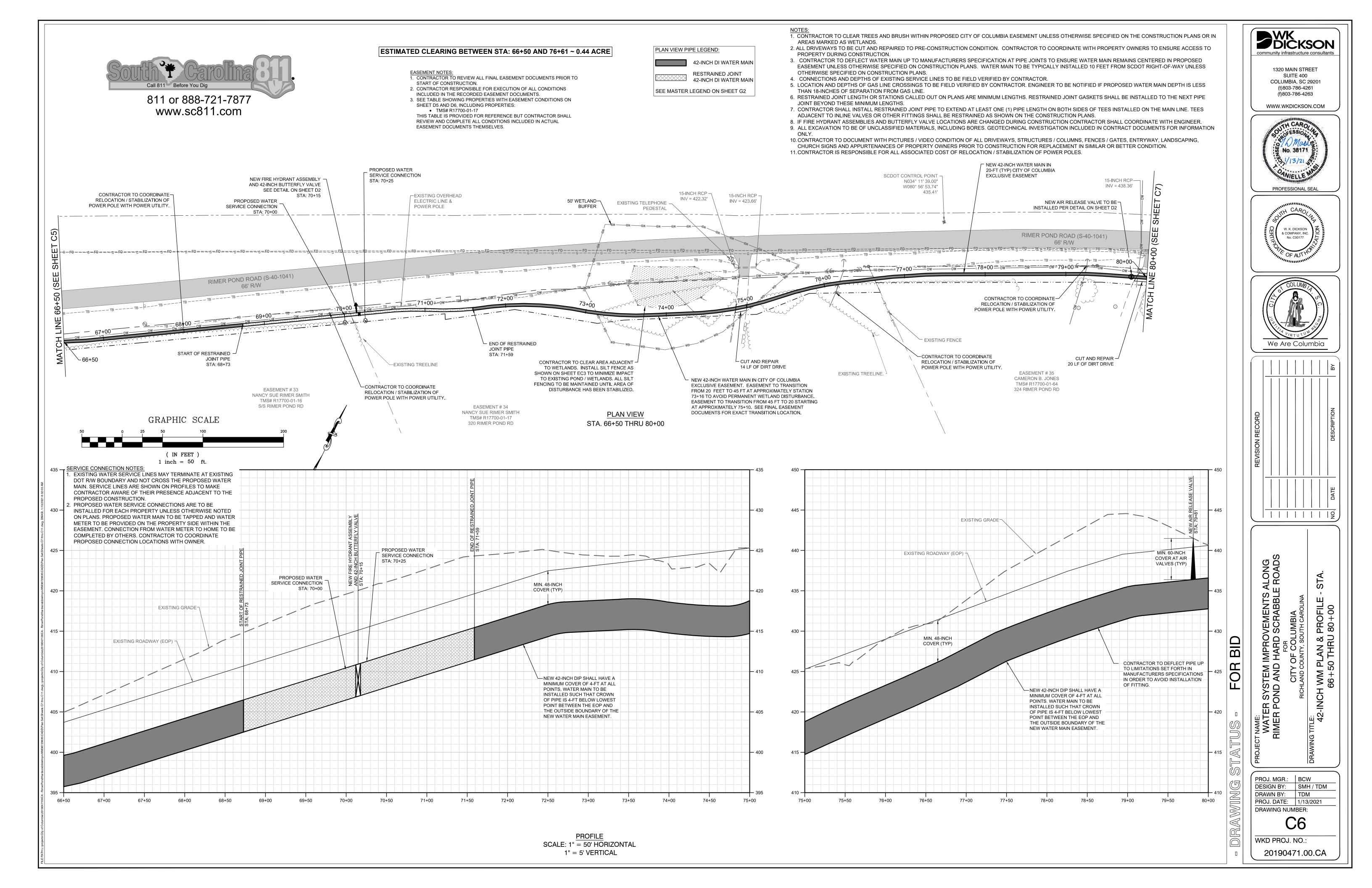


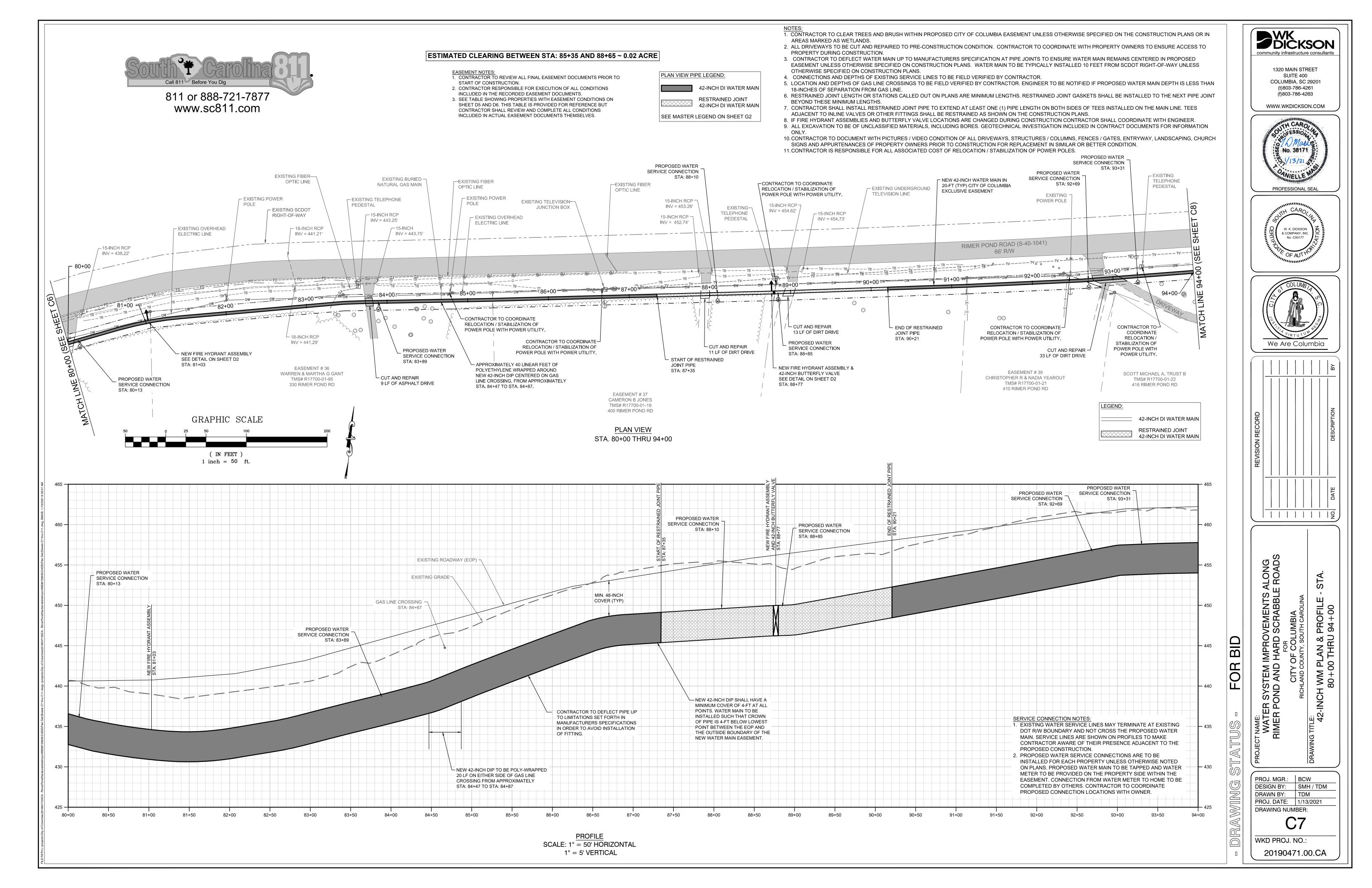


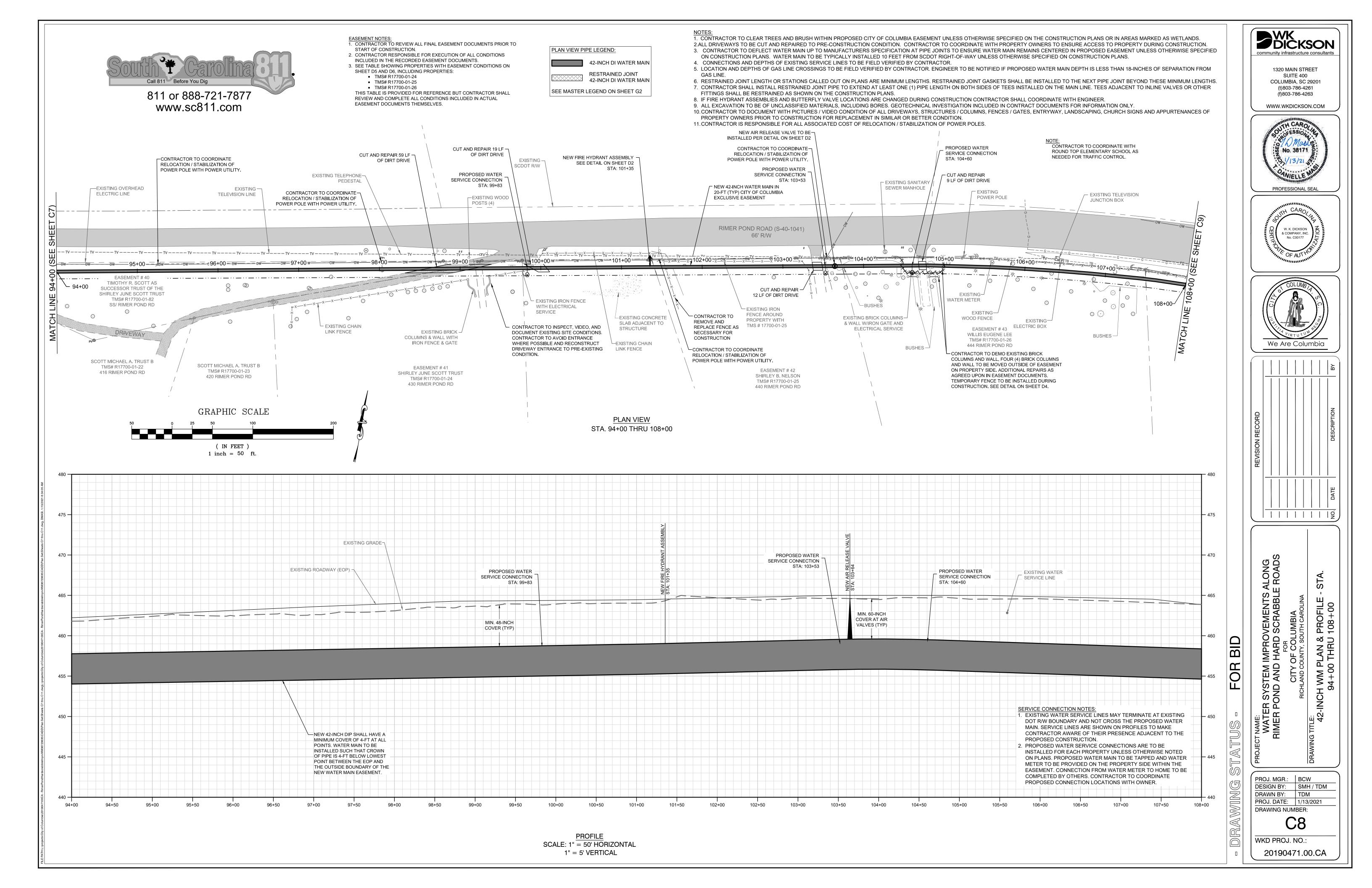
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Call 811 Before You Dig 811 or 888-721-7877 www.sc811.com

NOTE:
CONTRACTOR TO COORDINATE WITH ROUND TOP ELEMENTARY SCHOOL AS NEEDED FOR TRAFFIC CONTROL.

ESTIMATED CLEARING BETWEEN STA: 115+34 AND 118+05 ~ 0.24 ACRE

ASEMENT NOTES:
CONTRACTOR TO REVIEW ALL FINAL EASEMENT DOCUMENTS PRIOR TO

- START OF CONSTRUCTION. 2. CONTRACTOR RESPONSIBLE FOR EXECUTION OF ALL CONDITIONS
- INCLUDED IN THE RECORDED EASEMENT DOCUMENTS. 3. SEE TABLE SHOWING PROPERTIES WITH EASEMENT CONDITIONS ON SHEET D5 AND D6, INCLUDING PROPERTIES:

• TMS# R17700-01-28 TMS# R17700-01-30 THIS TABLE IS PROVIDED FOR REFERENCE BUT CONTRACTOR SHALL REVIEW AND COMPLETE ALL CONDITIONS INCLUDED IN ACTUAL EASEMENT DOCUMENTS THEMSELVES.

PLAN VIEW PIPE LEGEND: 42-INCH DI WATER MAIN RESTRAINED JOINT 42-INCH DI WATER MAIN SEE MASTER LEGEND ON SHEET G2

1. CONTRACTOR TO CLEAR TREES AND BRUSH WITHIN PROPOSED CITY OF COLUMBIA EASEMENT UNLESS OTHERWISE SPECIFIED ON THE CONSTRUCTION PLANS OR IN AREAS MARKED AS WETLANDS.

2. ALL DRIVEWAYS TO BE CUT AND REPAIRED TO PRE-CONSTRUCTION CONDITION. CONTRACTOR TO COORDINATE WITH PROPERTY

OWNERS TO ENSURE ACCESS TO PROPERTY DURING CONSTRUCTION. 3. CONTRACTOR TO DEFLECT WATER MAIN UP TO MANUFACTURERS SPECIFICATION AT PIPE JOINTS TO ENSURE WATER MAIN REMAINS CENTERED IN PROPOSED EASEMENT UNLESS OTHERWISE SPECIFIED ON CONSTRUCTION PLANS. WATER MAIN TO BE TYPICALLY

INSTALLED 10 FEET FROM SCDOT RIGHT-OF-WAY UNLESS OTHERWISE SPECIFIED ON CONSTRUCTION PLANS. 4. CONNECTIONS AND DEPTHS OF EXISTING SERVICE LINES TO BE FIELD VERIFIED BY CONTRACTOR.

5. LOCATION AND DEPTHS OF GAS LINE CROSSINGS TO BE FIELD VERIFIED BY CONTRACTOR. ENGINEER TO BE NOTIFIED IF PROPOSED

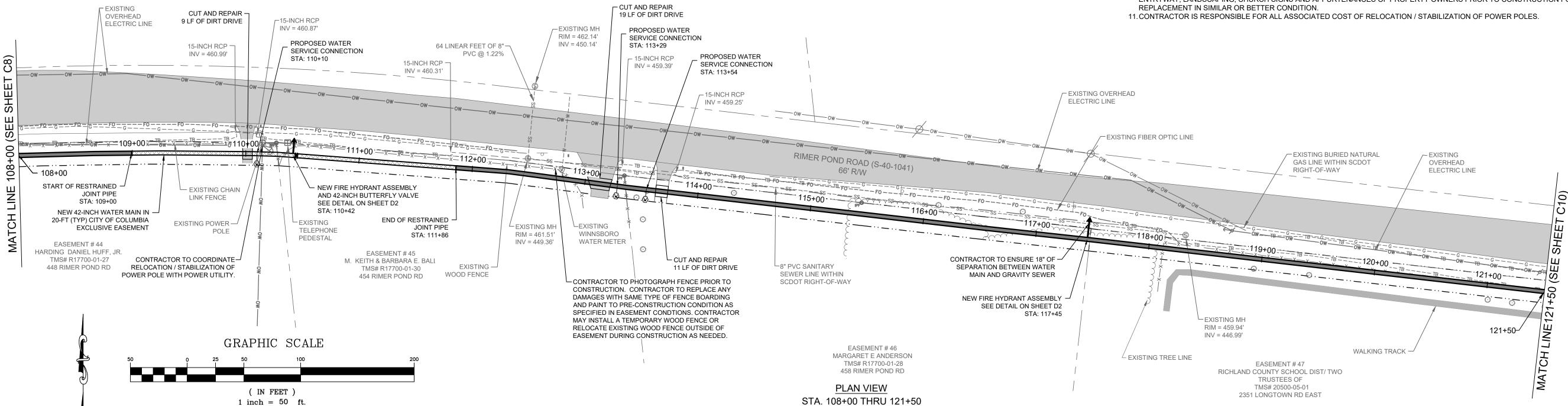
WATER MAIN DEPTH IS LESS THAN 18-INCHES OF SEPARATION FROM GAS LINE. 6. RESTRAINED JOINT LENGTH OR STATIONS CALLED OUT ON PLANS ARE MINIMUM LENGTHS. RESTRAINED JOINT GASKETS SHALL BE INSTALLED TO THE NEXT PIPE JOINT BEYOND THESE MINIMUM LENGTHS.

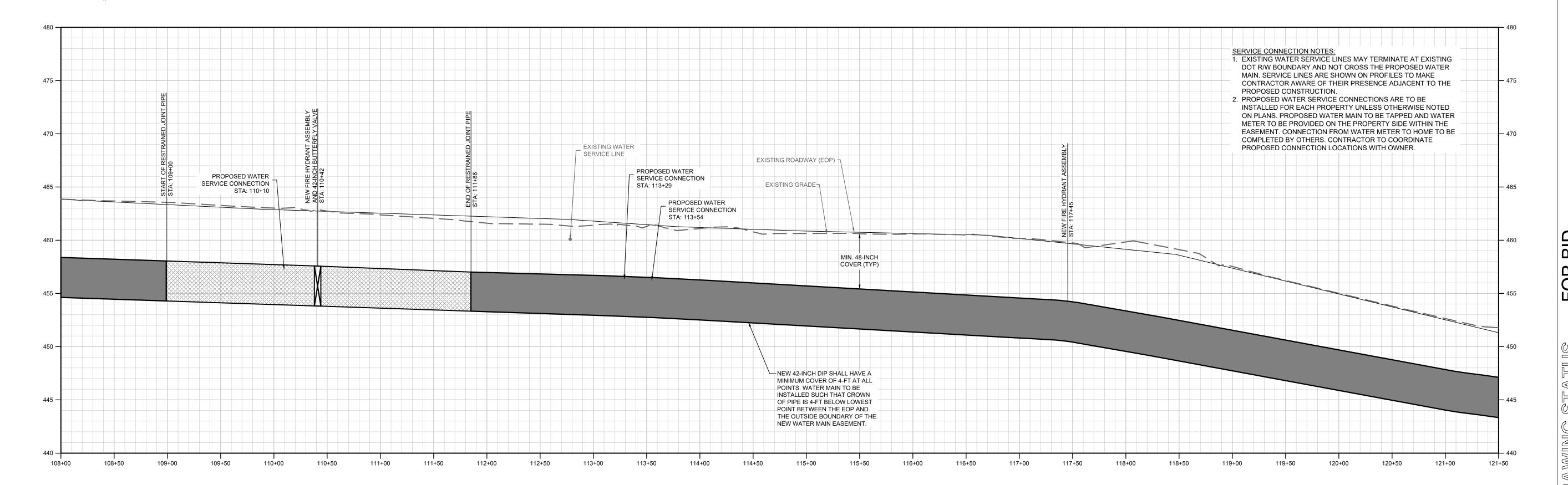
7. CONTRACTOR SHALL INSTALL RESTRAINED JOINT PIPE TO EXTEND AT LEAST ONE (1) PIPE LENGTH ON BOTH SIDES OF TEES INSTALLED ON THE MAIN LINE. TEES ADJACENT TO INLINE VALVES OR OTHER FITTINGS SHALL BE RESTRAINED AS SHOWN ON THE

8. IF FIRE HYDRANT ASSEMBLIES AND BUTTERFLY VALVE LOCATIONS ARE CHANGED DURING CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH ENGINEER.

9. ALL EXCAVATION TO BE OF UNCLASSIFIED MATERIALS, INCLUDING BORES. GEOTECHNICAL INVESTIGATION INCLUDED IN CONTRACT DOCUMENTS FOR INFORMATION ONLY.

10. CONTRACTOR TO DOCUMENT WITH PICTURES / VIDEO CONDITION OF ALL DRIVEWAYS, STRUCTURES / COLUMNS, FENCES / GATES, ENTRYWAY, LANDSCAPING, CHURCH SIGNS AND APPURTENANCES OF PROPERTY OWNERS PRIOR TO CONSTRUCTION FOR





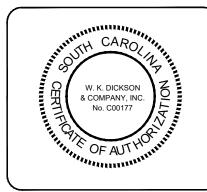
PROFILE

SCALE: 1'' = 50' HORIZONTAL1" = 5' VERTICAL

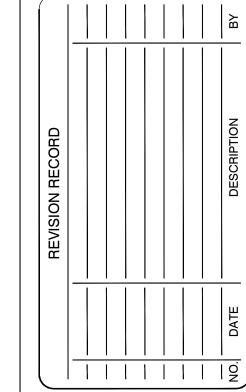
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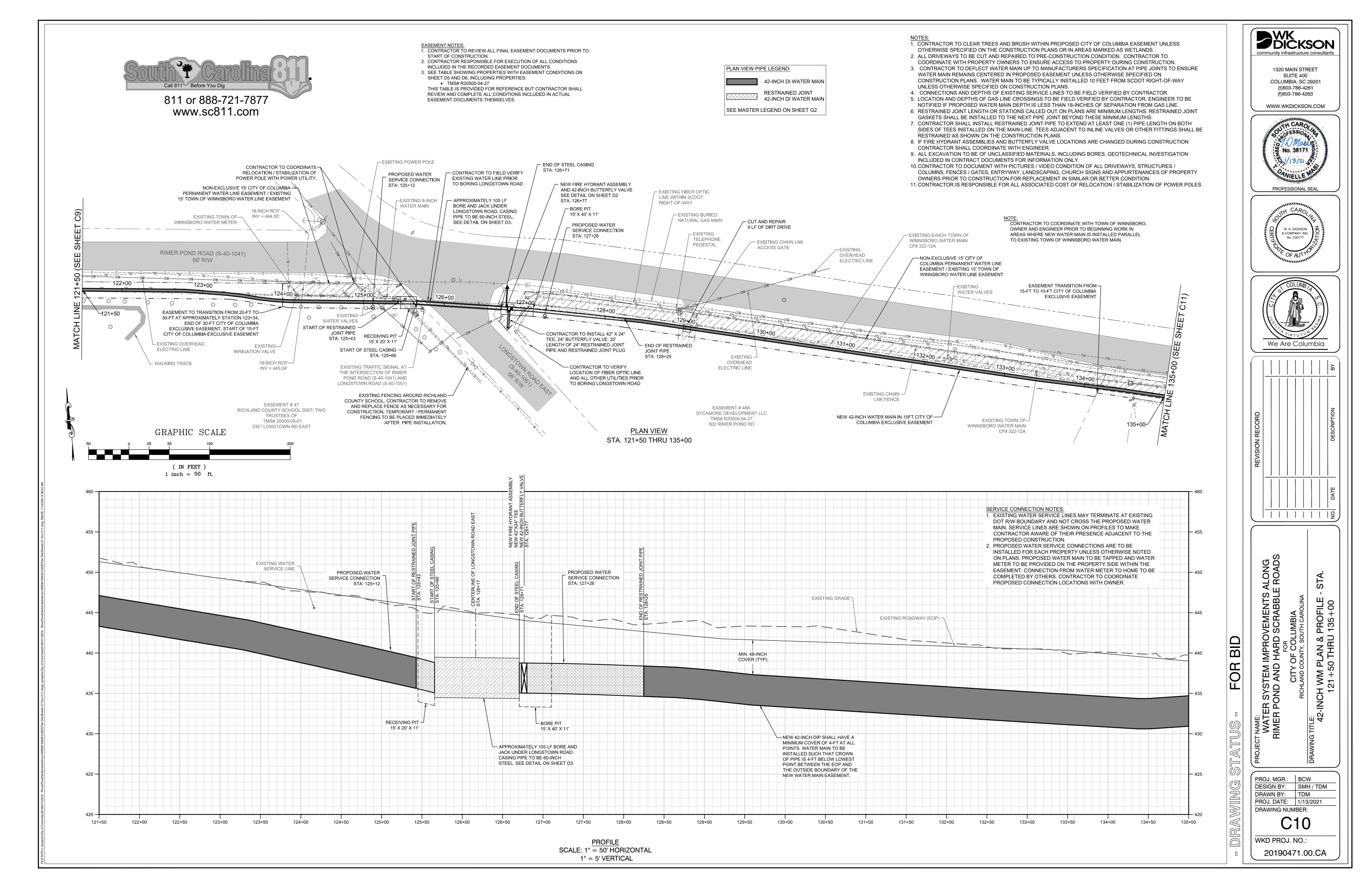
VEMENTS ALONG SCRABBLE ROAD

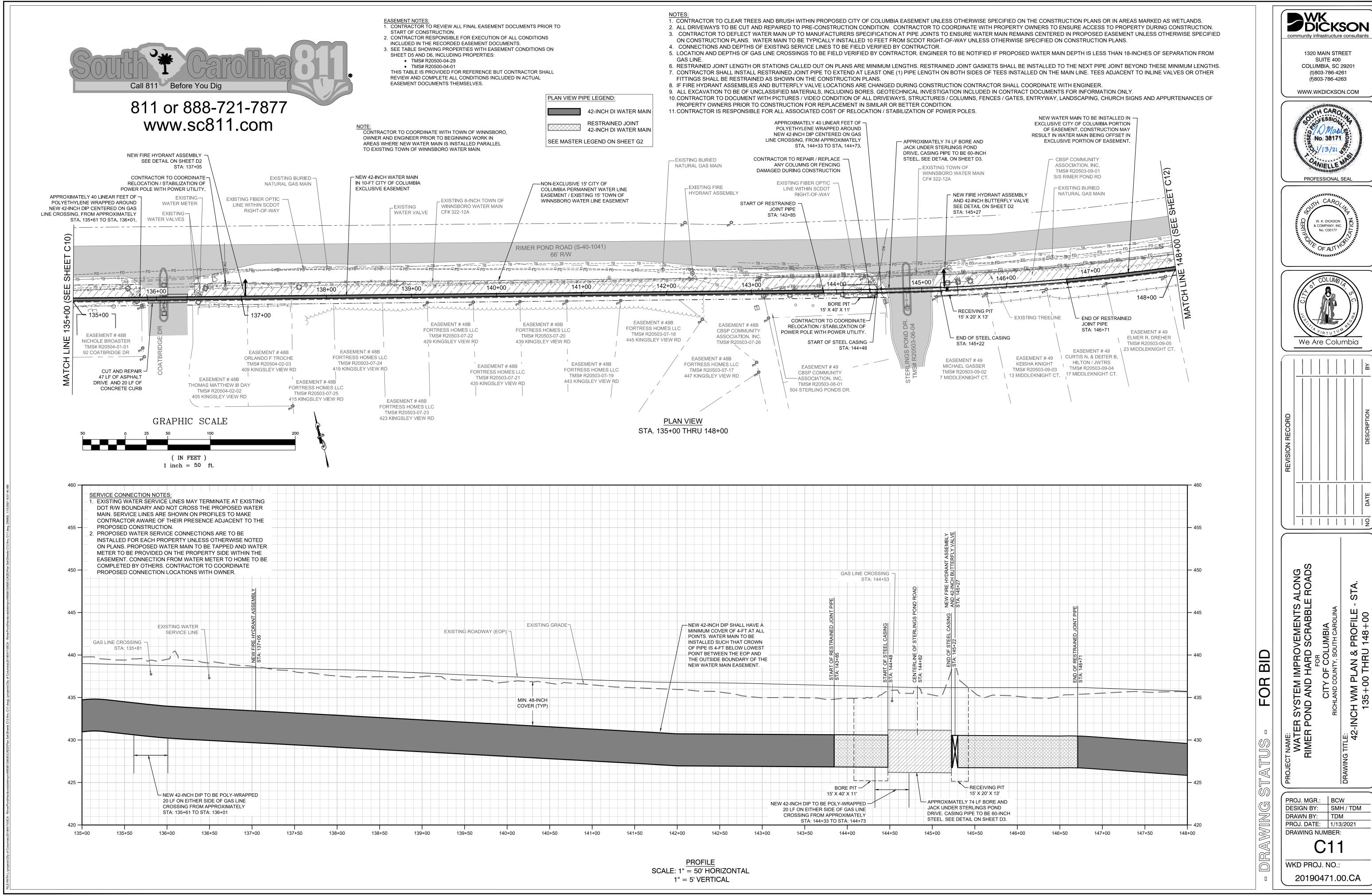
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PROJ. MGR.: BCW DESIGN BY: SMH / TDM DRAWN BY: TDM PROJ. DATE: 1/13/2021

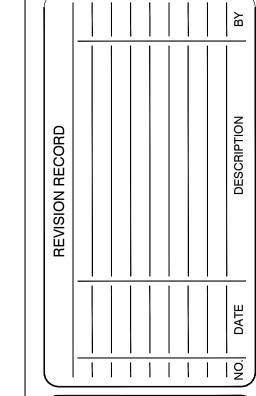
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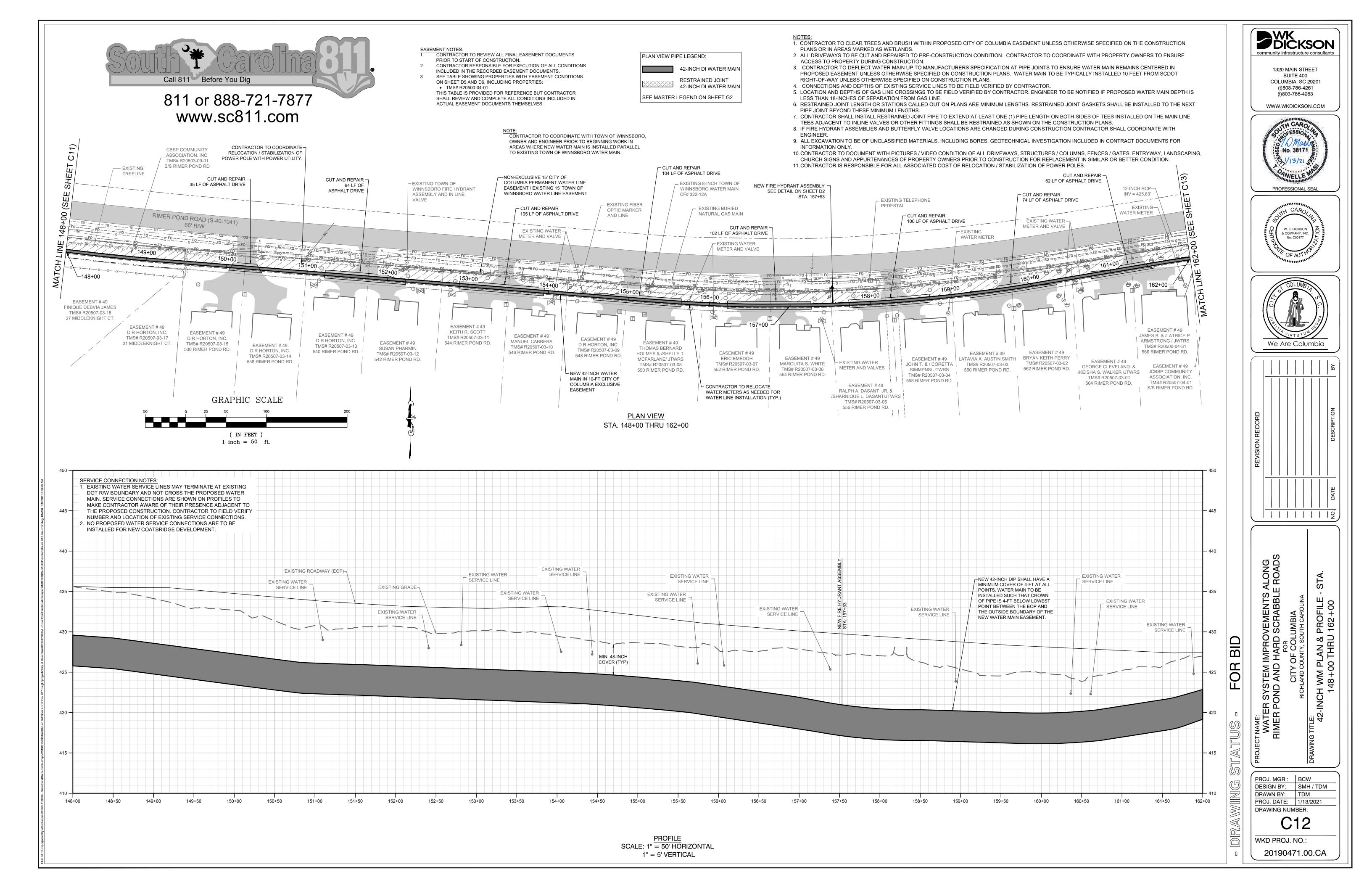
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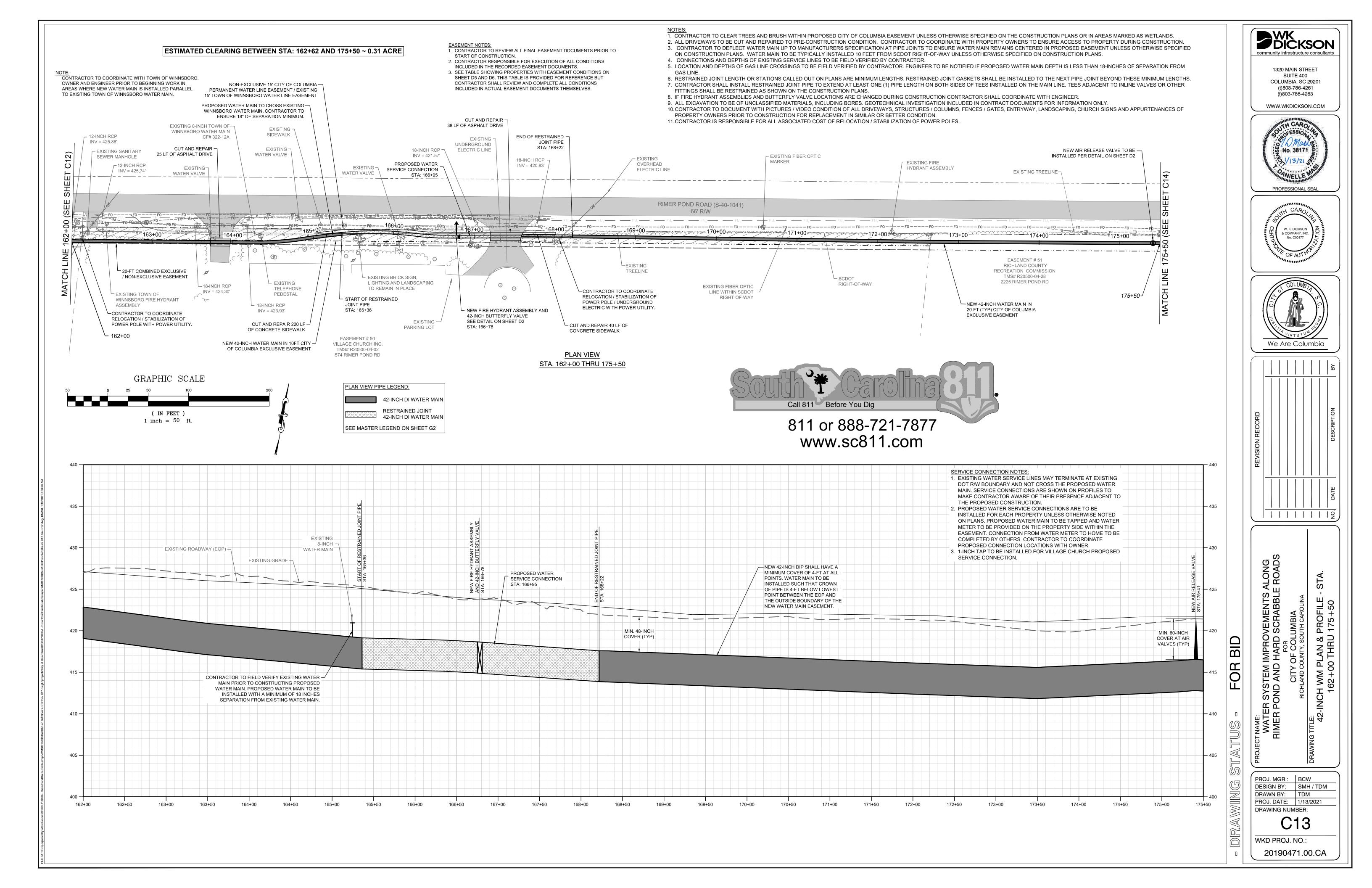


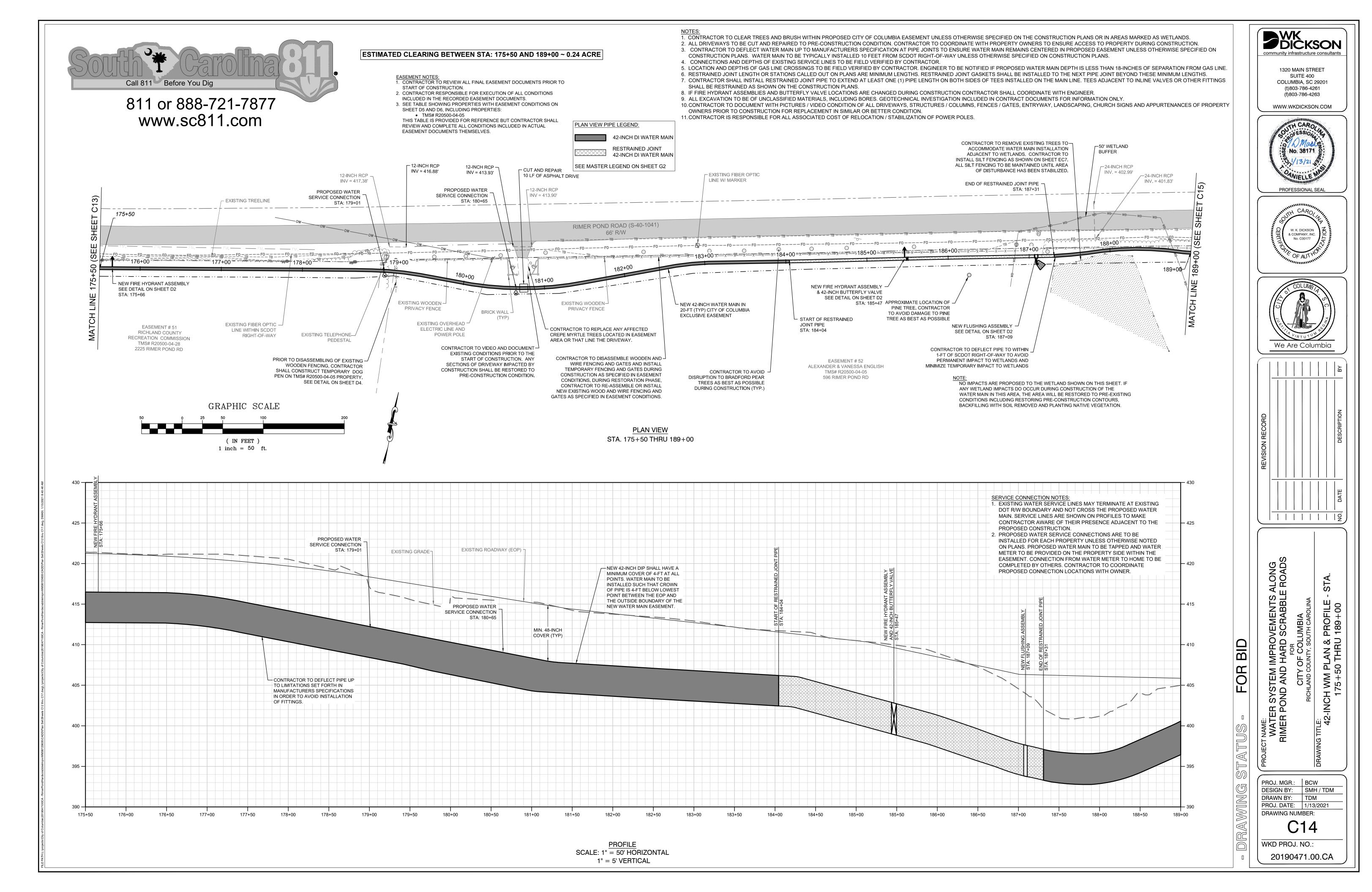


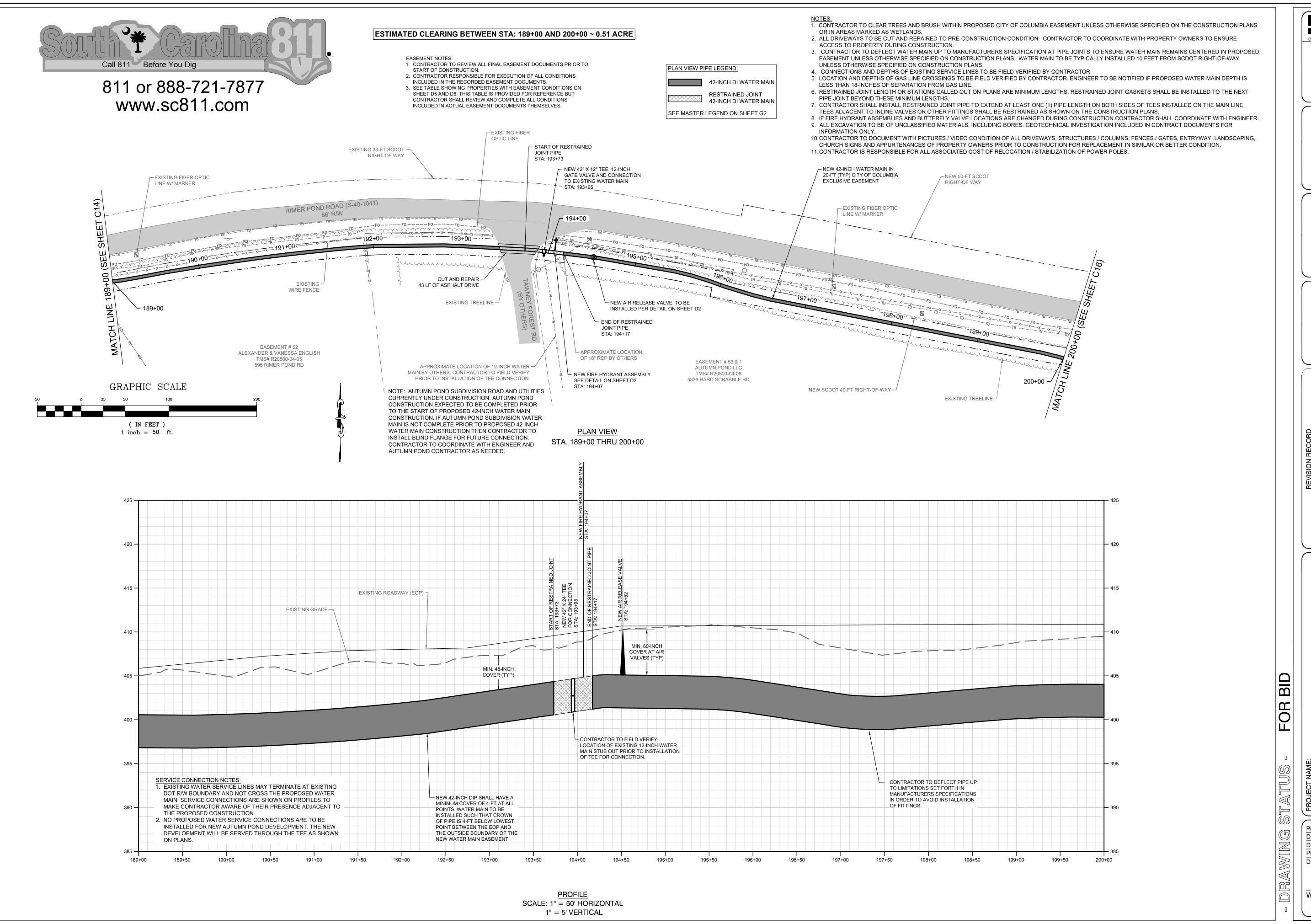








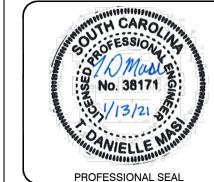




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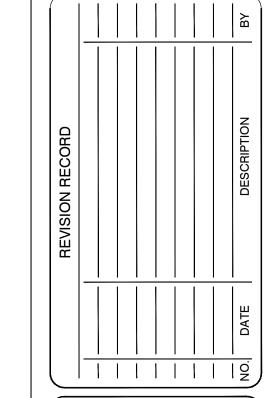
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HARD SCRABBLE ROADS
FOR

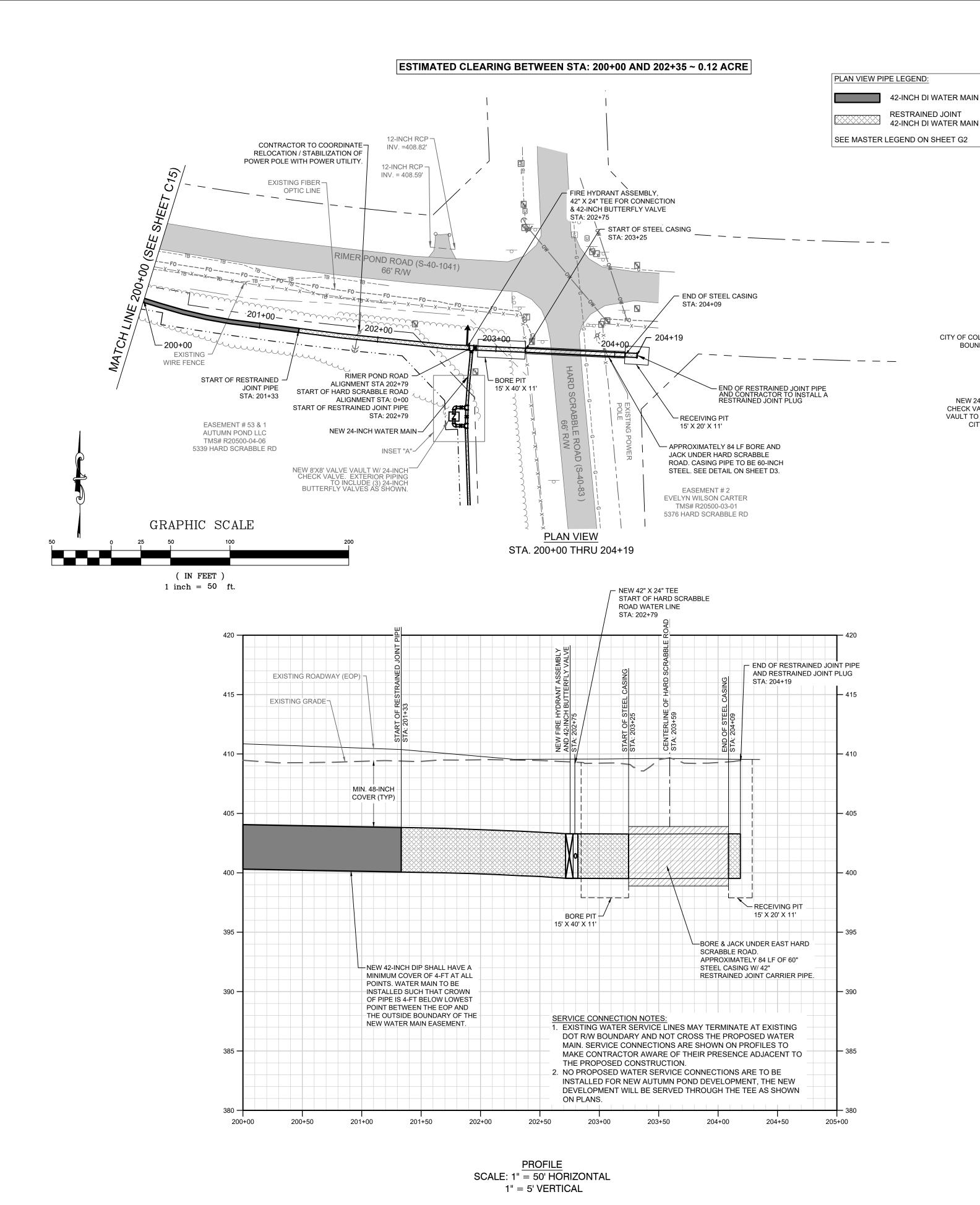
FOR
NTY, SOUTH CAROLINA

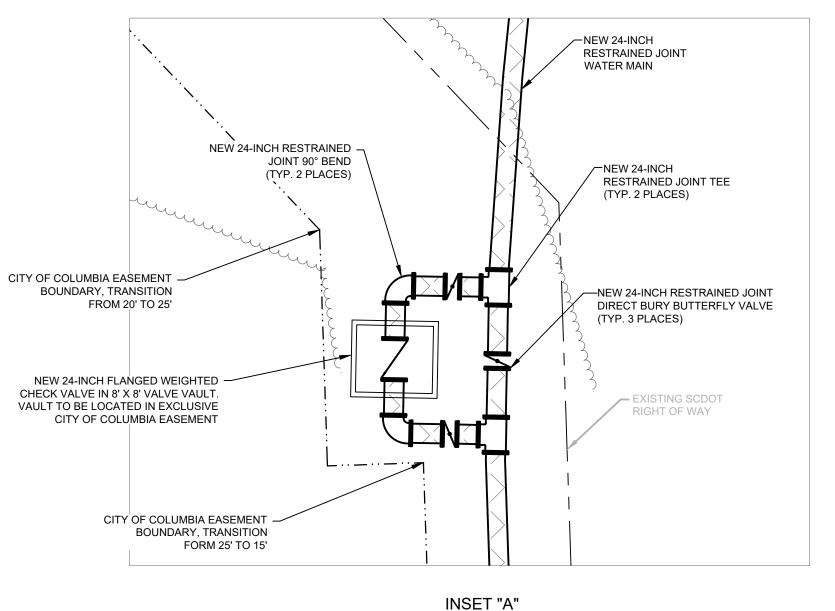
SIMER POND AND HARD SCF
FOR
CITY OF COLUMB
RICHLAND COUNTY, SOUTH CA

PROJ. MGR.: BCW
DESIGN BY: SMH / TDM
DRAWN BY: TDM
PROJ. DATE: 1/13/2021

DRAWING NUMBER:

20190471.00.CA





1. CONTRACTOR TO CLEAR TREES AND BRUSH WITHIN PROPOSED CITY OF COLUMBIA EASEMENT UNLESS

SCALE: 1'=10'

OTHERWISE SPECIFIED ON THE CONSTRUCTION PLANS OR IN AREAS MARKED AS WETLANDS. 2. ALL DRIVEWAYS TO BE CUT AND REPAIRED TO PRE-CONSTRUCTION CONDITION. CONTRACTOR TO COORDINATE

WITH PROPERTY OWNERS TO ENSURE ACCESS TO PROPERTY DURING CONSTRUCTION.

3. CONTRACTOR TO DEFLECT WATER MAIN UP TO MANUFACTURERS SPECIFICATION AT PIPE JOINTS TO ENSURE WATER MAIN REMAINS CENTERED IN PROPOSED EASEMENT UNLESS OTHERWISE SPECIFIED ON CONSTRUCTION PLANS. WATER MAIN TO BE TYPICALLY INSTALLED 10 FEET FROM SCDOT RIGHT-OF-WAY UNLESS OTHERWISE SPECIFIED ON CONSTRUCTION PLANS.

4. CONNECTIONS AND DEPTHS OF EXISTING SERVICE LINES TO BE FIELD VERIFIED BY CONTRACTOR 5. LOCATION AND DEPTHS OF GAS LINE CROSSINGS TO BE FIELD VERIFIED BY CONTRACTOR. ENGINEER TO BE

NOTIFIED IF PROPOSED WATER MAIN DEPTH IS LESS THAN 18-INCHES OF SEPARATION FROM GAS LINE.

6. RESTRAINED JOINT LENGTH OR STATIONS CALLED OUT ON PLANS ARE MINIMUM LENGTHS. RESTRAINED JOINT GASKETS SHALL BE INSTALLED TO THE NEXT PIPE JOINT BEYOND THESE MINIMUM LENGTHS.

7. CONTRACTOR SHALL INSTALL RESTRAINED JOINT PIPE TO EXTEND AT LEAST ONE (1) PIPE LENGTH ON BOTH

SIDES OF TEES INSTALLED ON THE MAIN LINE. TEES ADJACENT TO INLINE VALVES OR OTHER FITTINGS SHALL BE RESTRAINED AS SHOWN ON THE CONSTRUCTION PLANS.

8. IF FIRE HYDRANT ASSEMBLIES AND BUTTERFLY VALVE LOCATIONS ARE CHANGED DURING CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH ENGINEER.

9. ALL EXCAVATION TO BE OF UNCLASSIFIED MATERIALS, INCLUDING BORES. GEOTECHNICAL INVESTIGATION INCLUDED IN CONTRACT DOCUMENTS FOR INFORMATION ONLY.

10. CONTRACTOR TO DOCUMENT WITH PICTURES / VIDEO CONDITION OF ALL DRIVEWAYS, STRUCTURES / COLUMNS, FENCES / GATES, ENTRYWAY, LANDSCAPING, CHURCH SIGNS AND APPURTENANCES OF PROPERTY OWNERS PRIOR TO CONSTRUCTION FOR REPLACEMENT IN SIMILAR OR BETTER CONDITION.

11. CONTRACTOR IS RESPONSIBLE FOR ALL ASSOCIATED COST OF RELOCATION / STABILIZATION OF POWER POLES.

EASEMENT NOTES:
1. CONTRACTOR TO REVIEW ALL FINAL EASEMENT DOCUMENTS PRIOR TO START OF CONSTRUCTION.

2. CONTRACTOR RESPONSIBLE FOR EXECUTION OF ALL CONDITIONS INCLUDED IN THE RECORDED EASEMENT DOCUMENTS.

INCLUDED IN ACTUAL EASEMENT DOCUMENTS THEMSELVES.

3. SEE TABLE SHOWING PROPERTIES WITH EASEMENT CONDITIONS ON SHEET D5 AND D6. THIS TABLE IS PROVIDED FOR REFERENCE BUT CONTRACTOR SHALL REVIEW AND COMPLETE ALL CONDITIONS

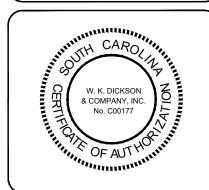


811 or 888-721-7877 www.sc811.com

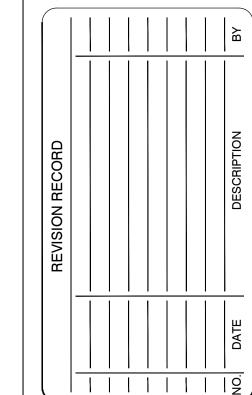
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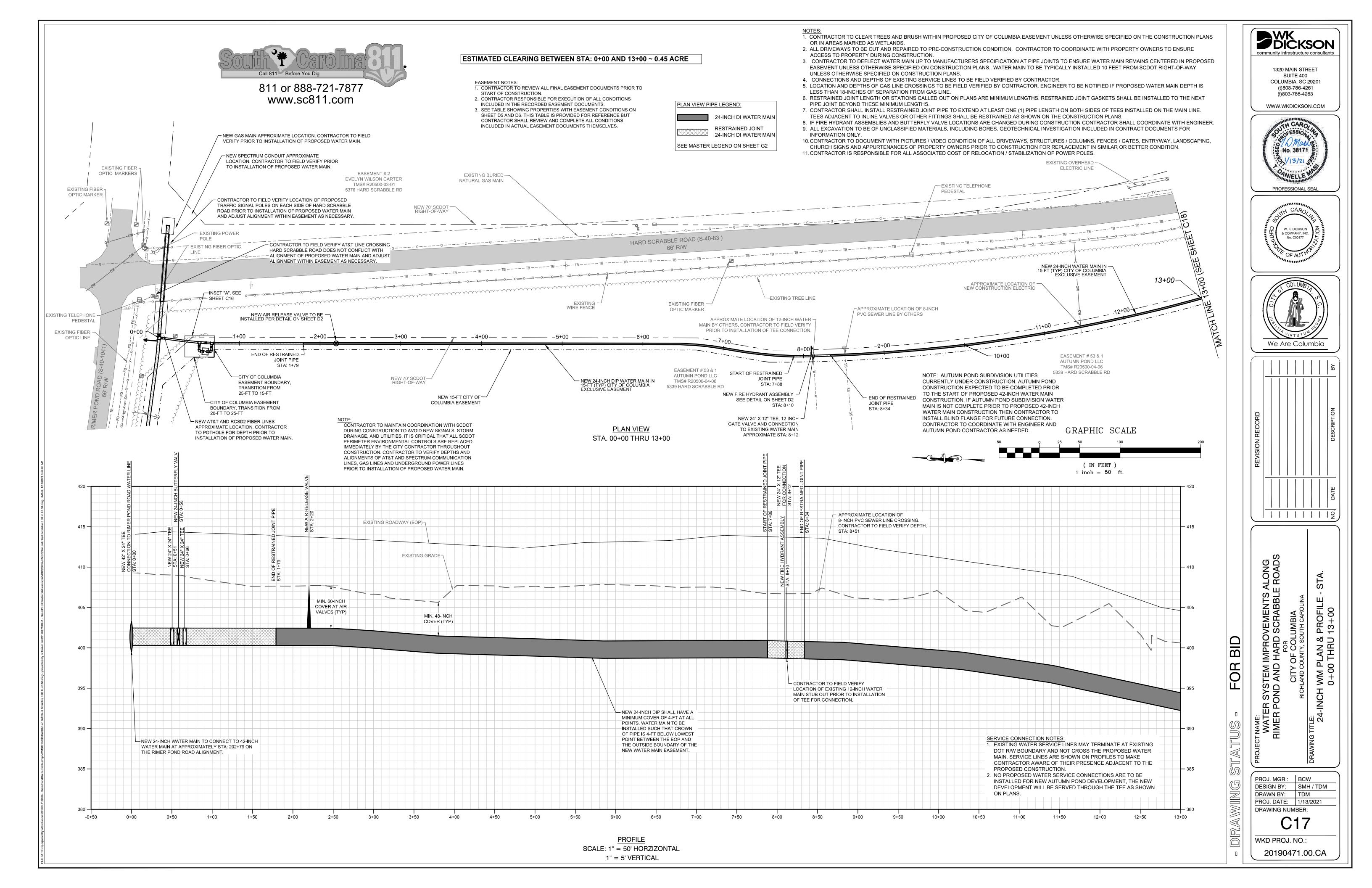
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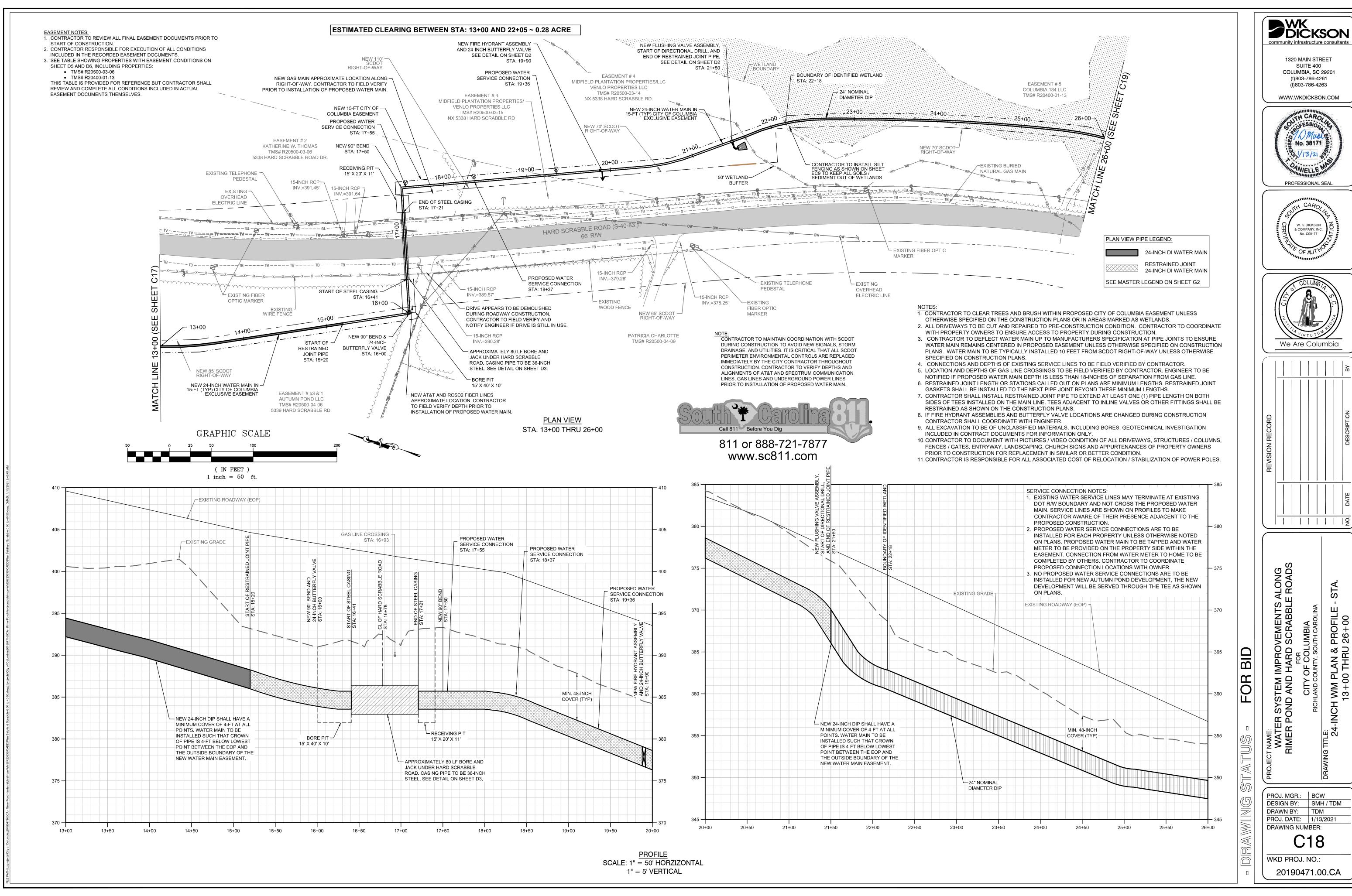
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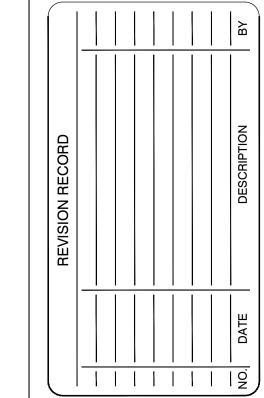
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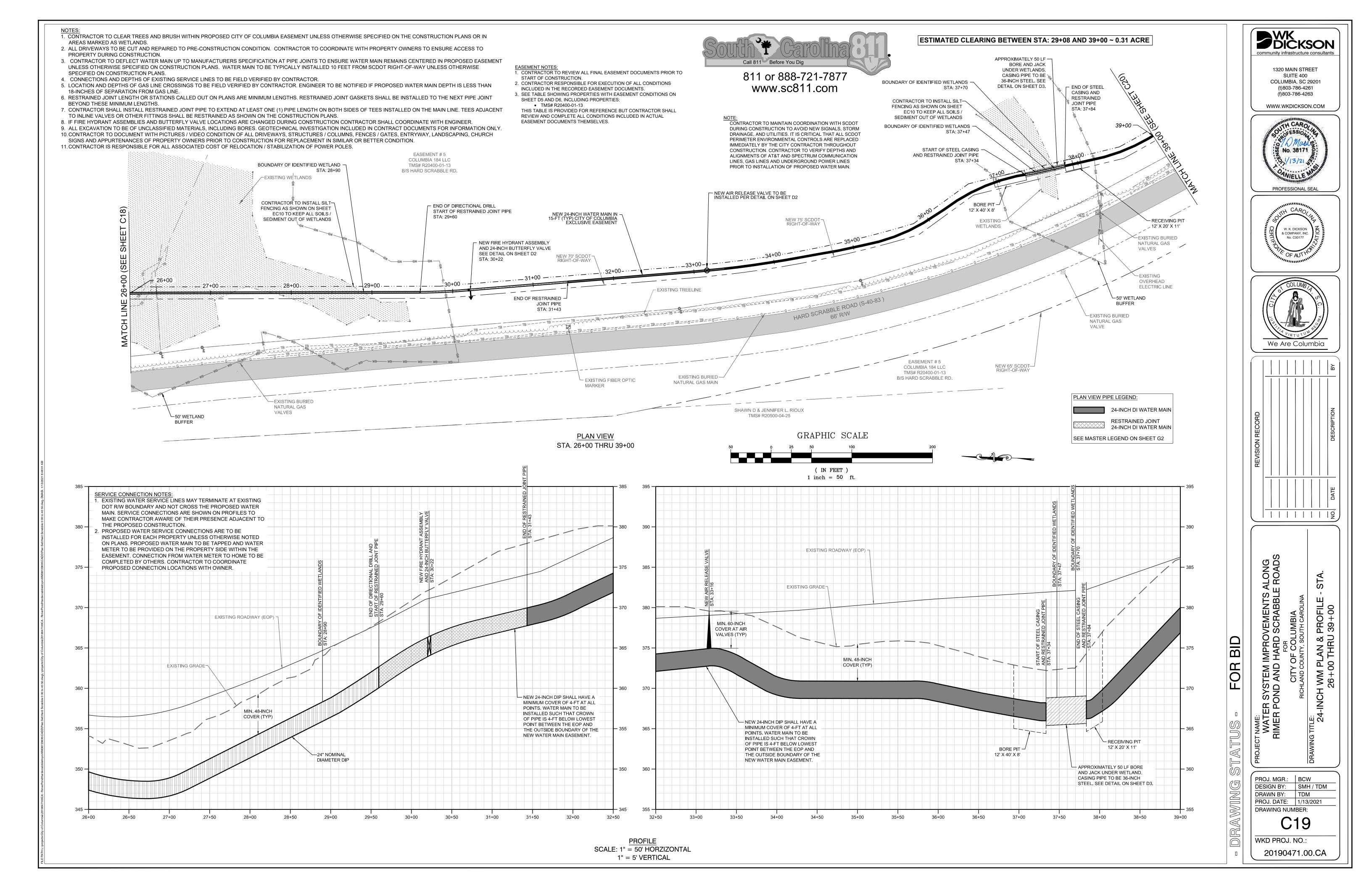
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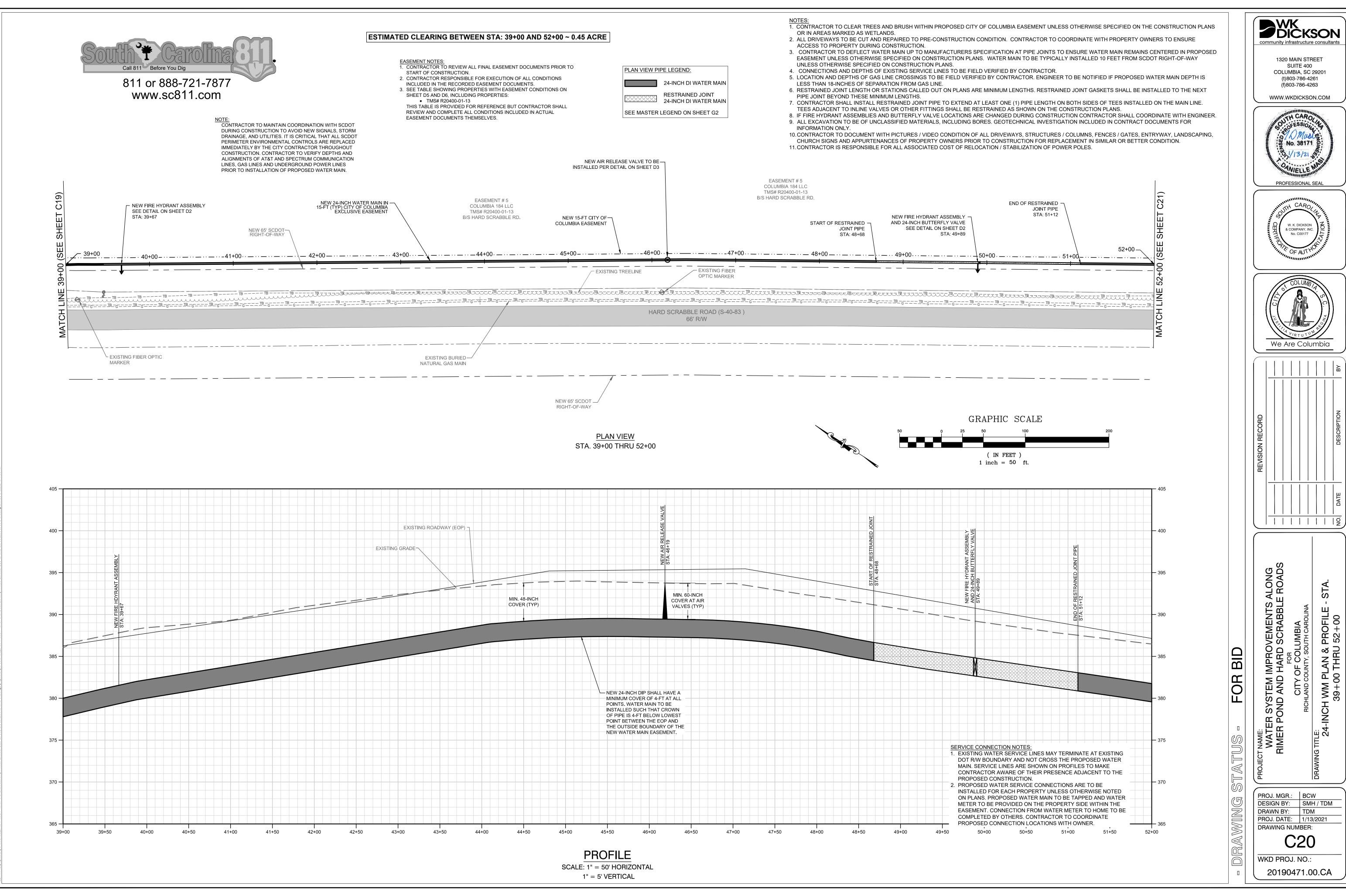


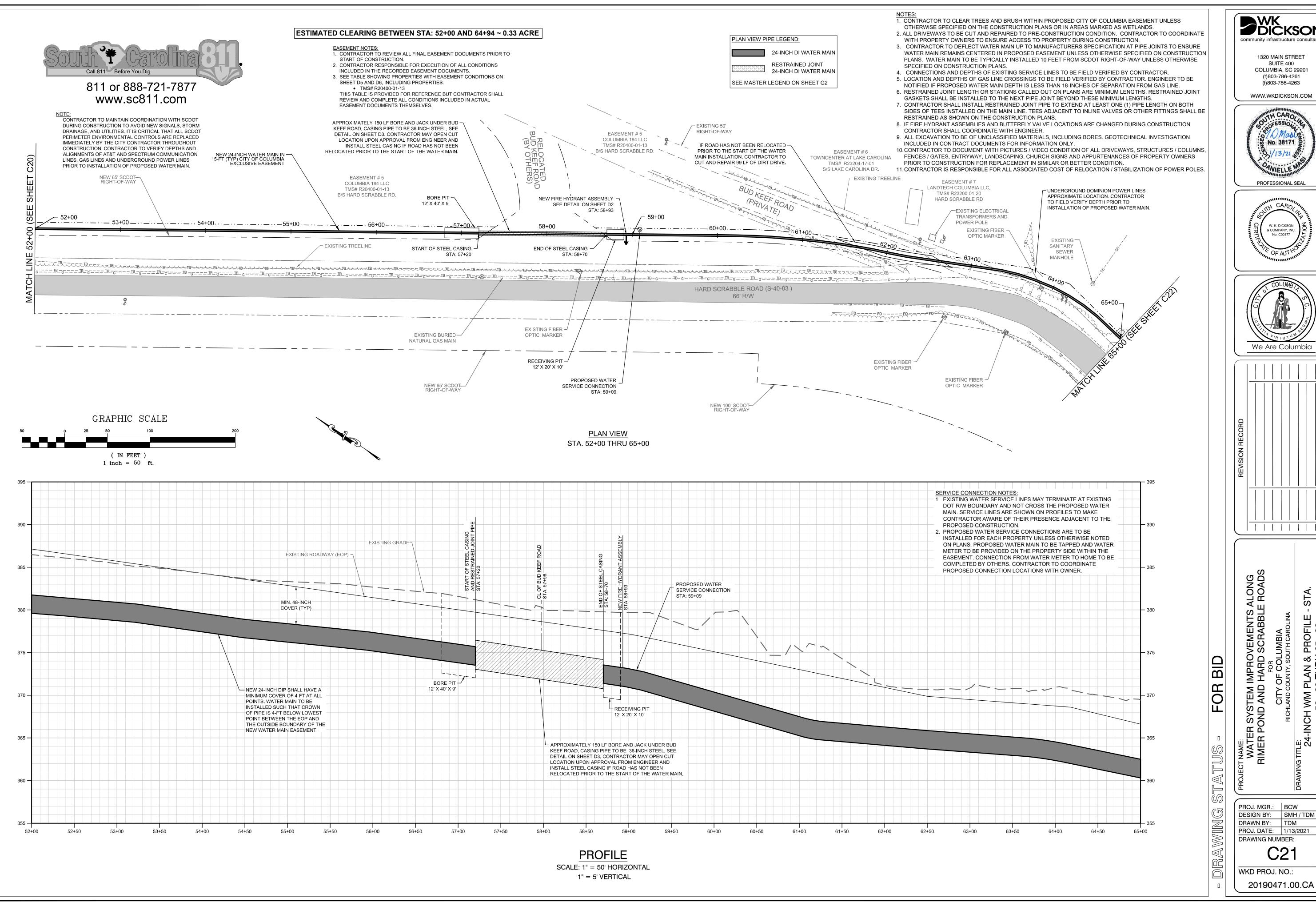






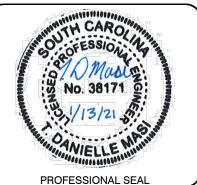


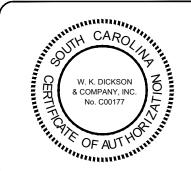




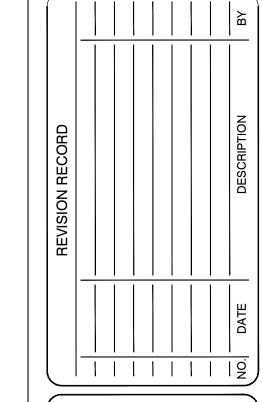
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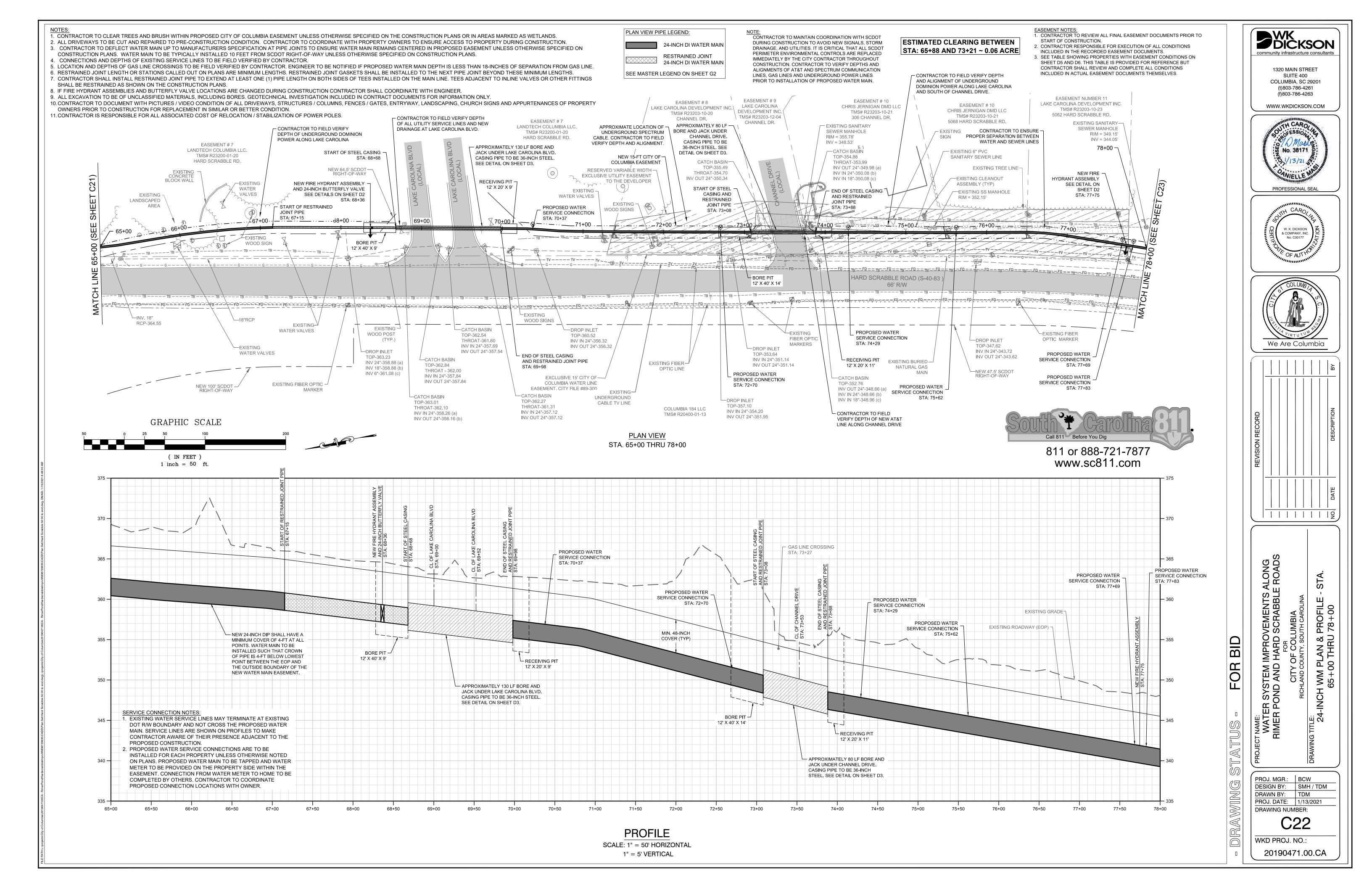


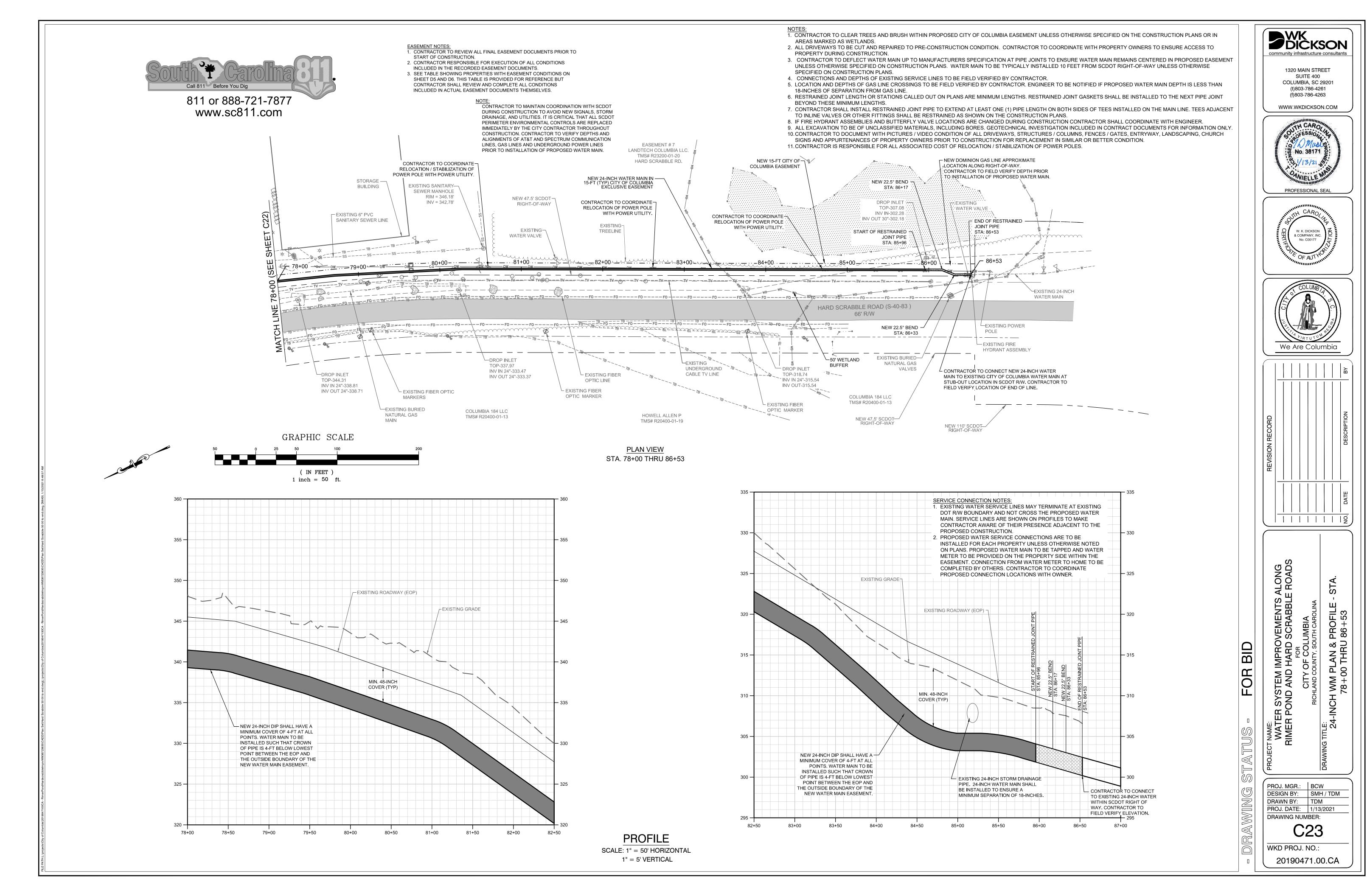


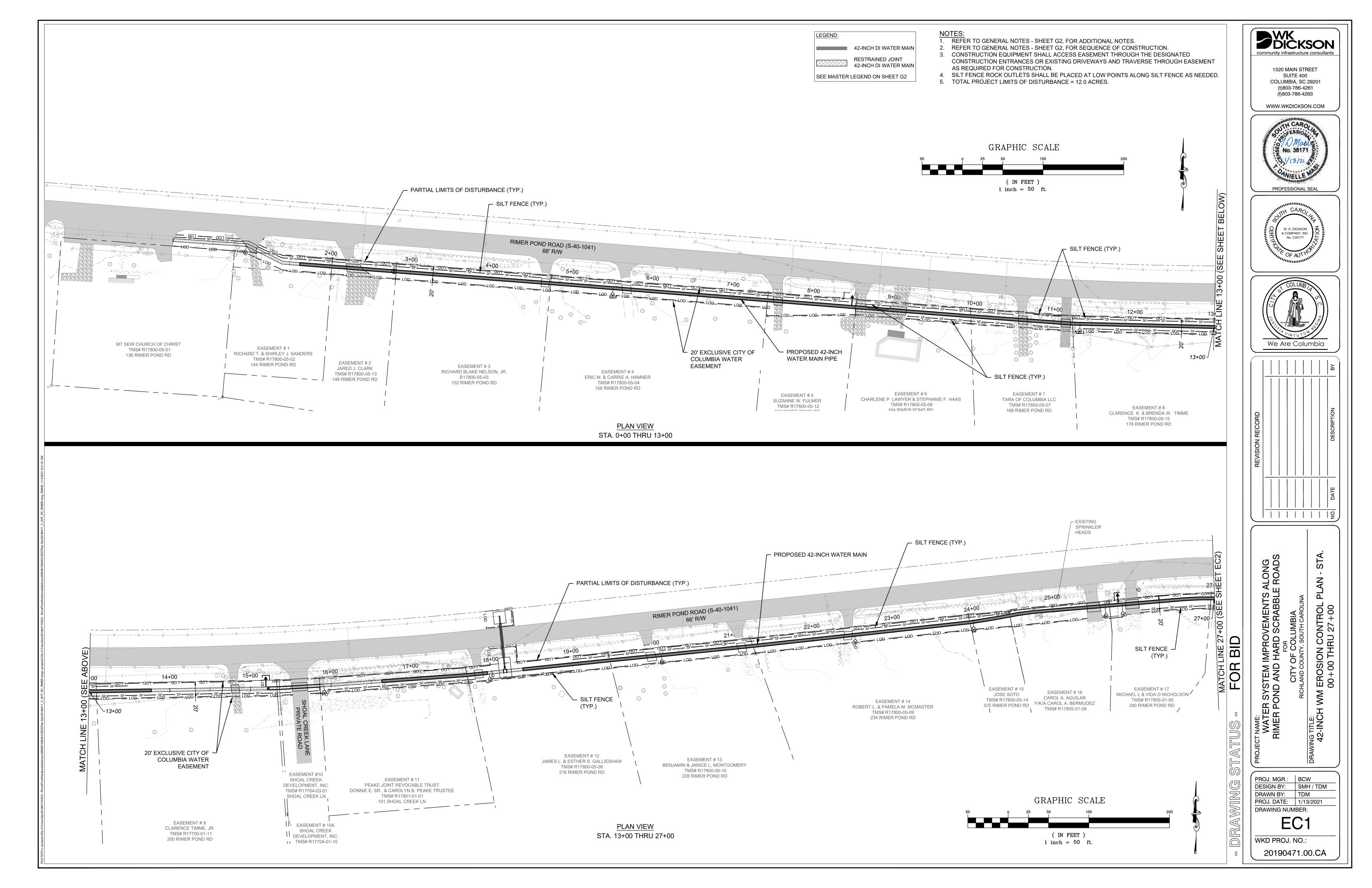
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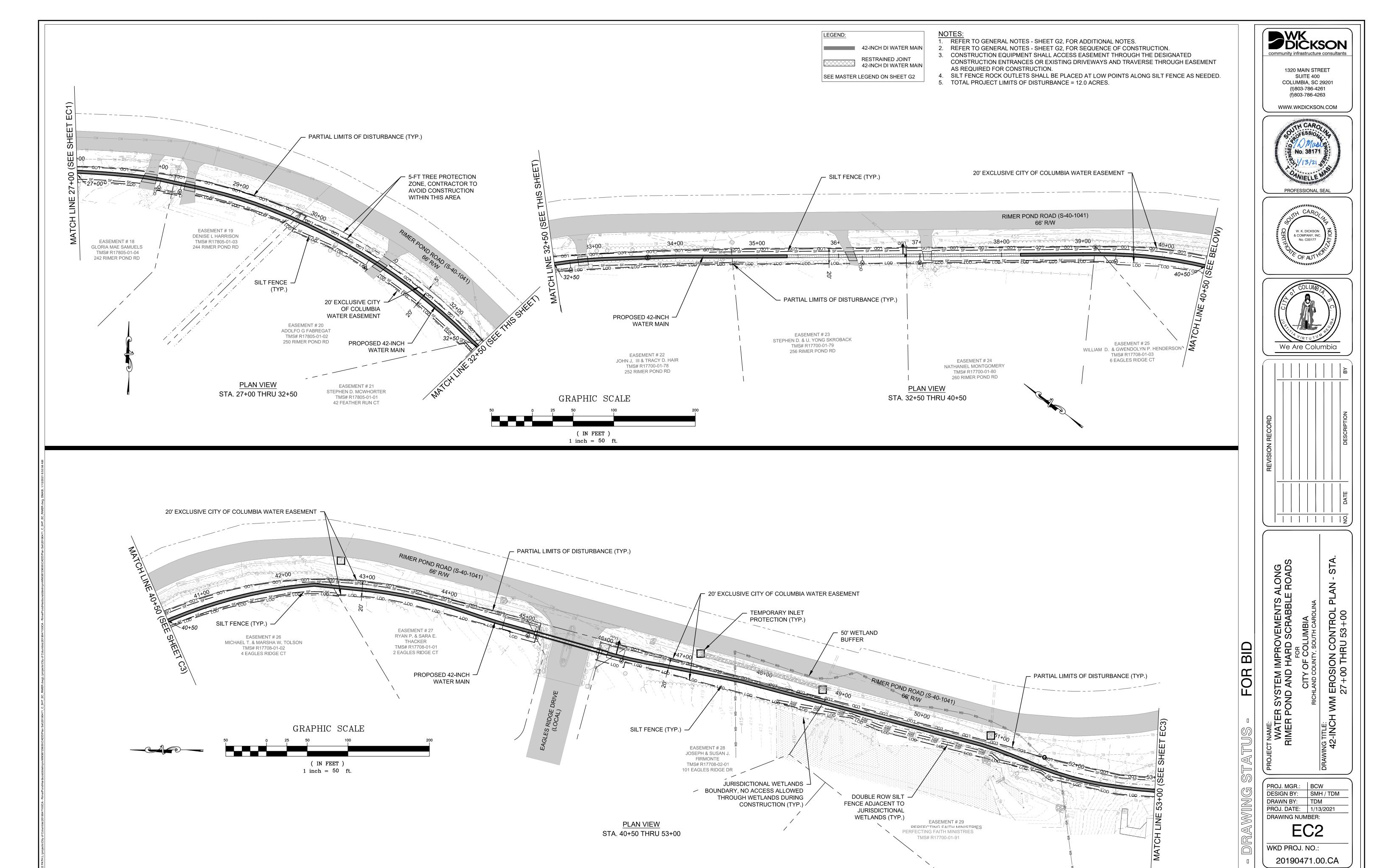
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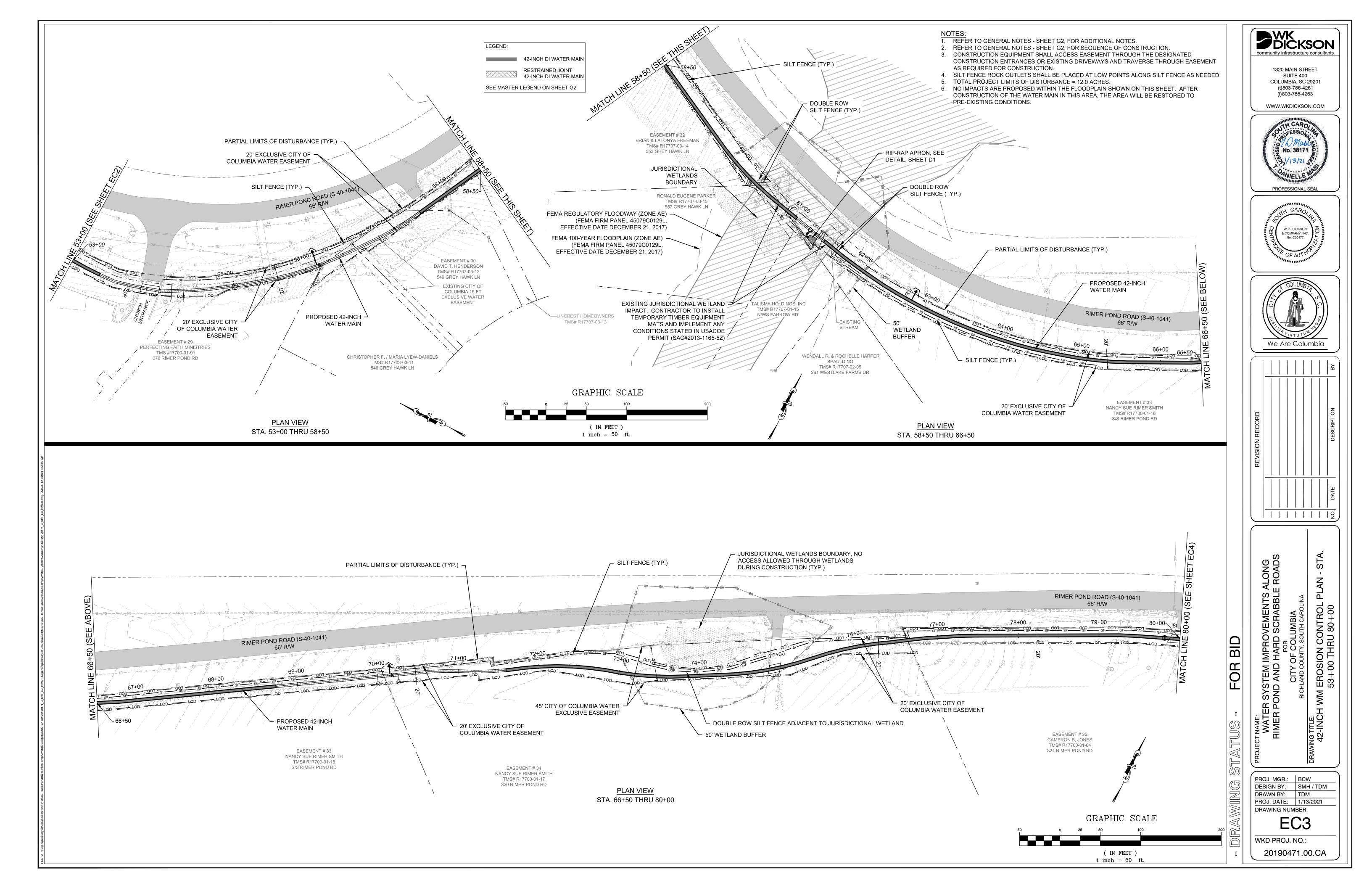
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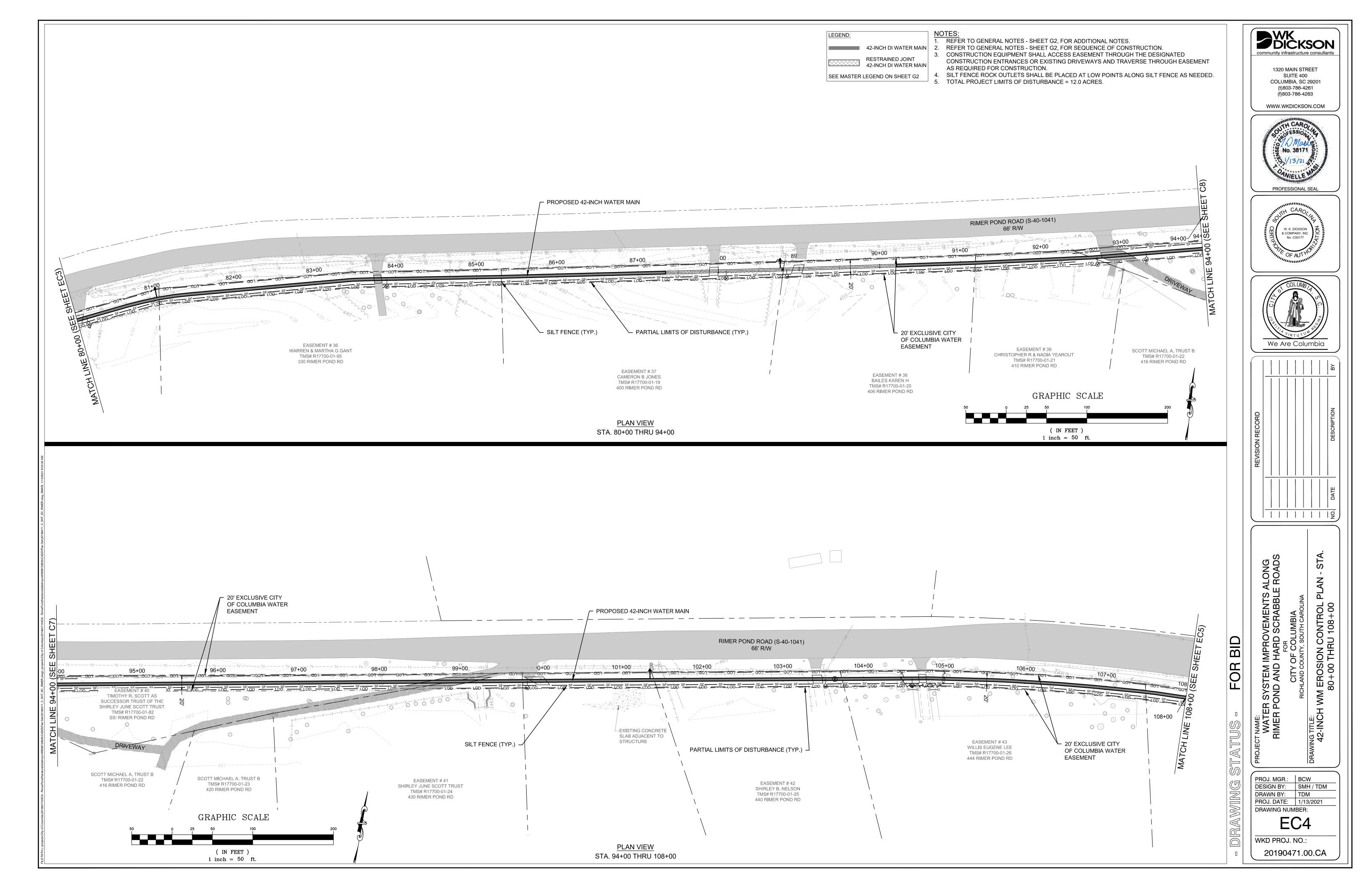


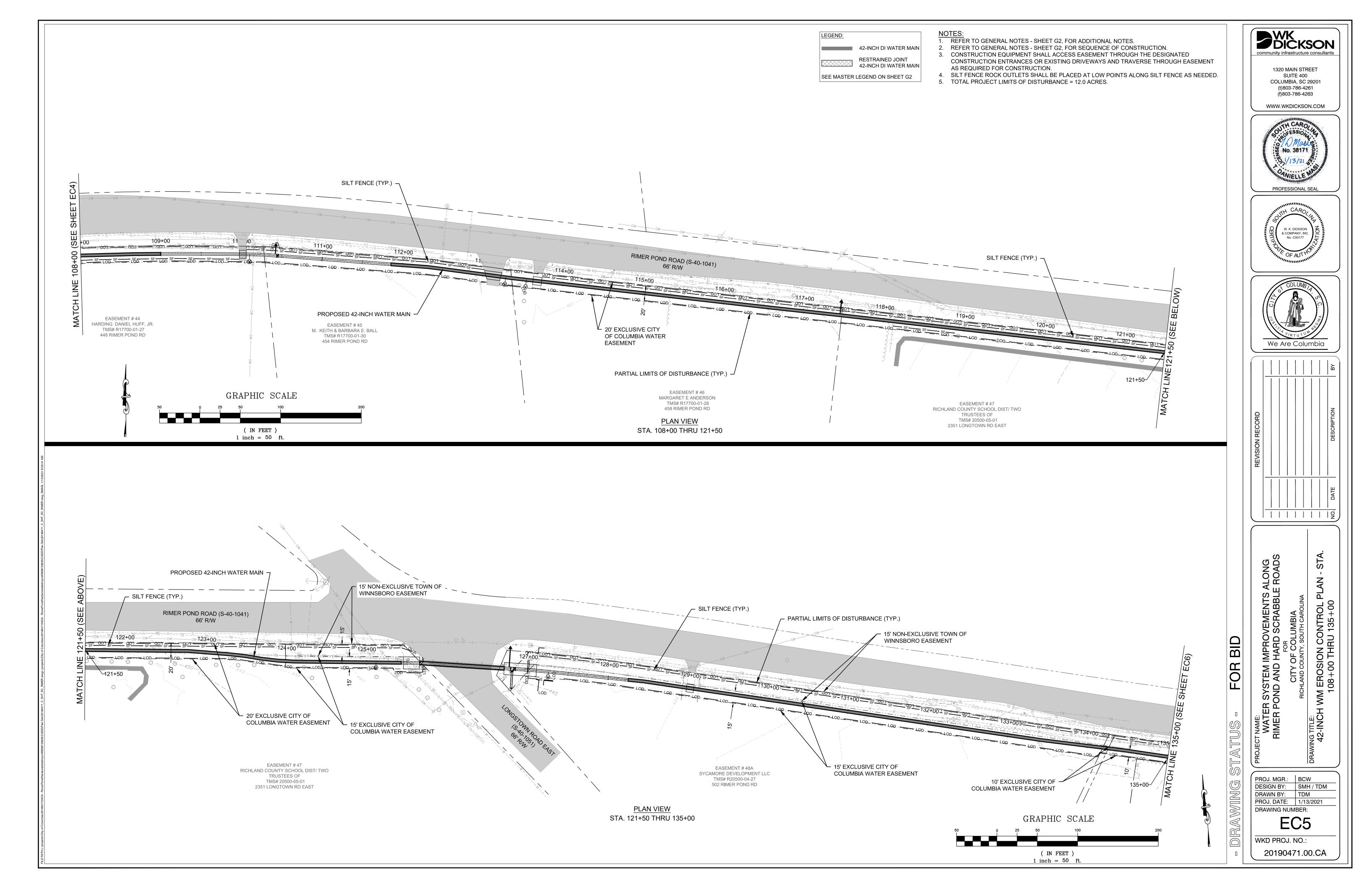


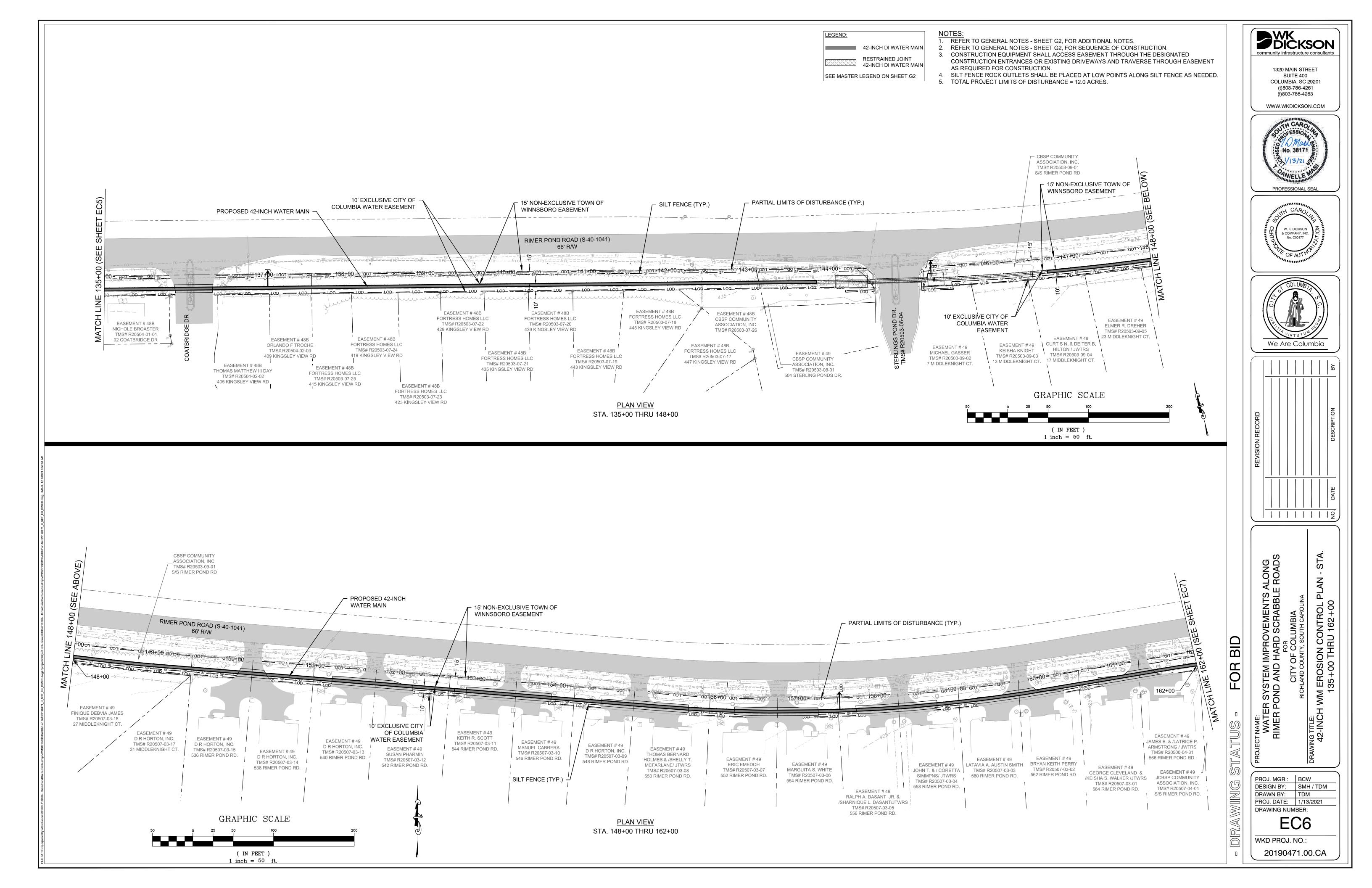


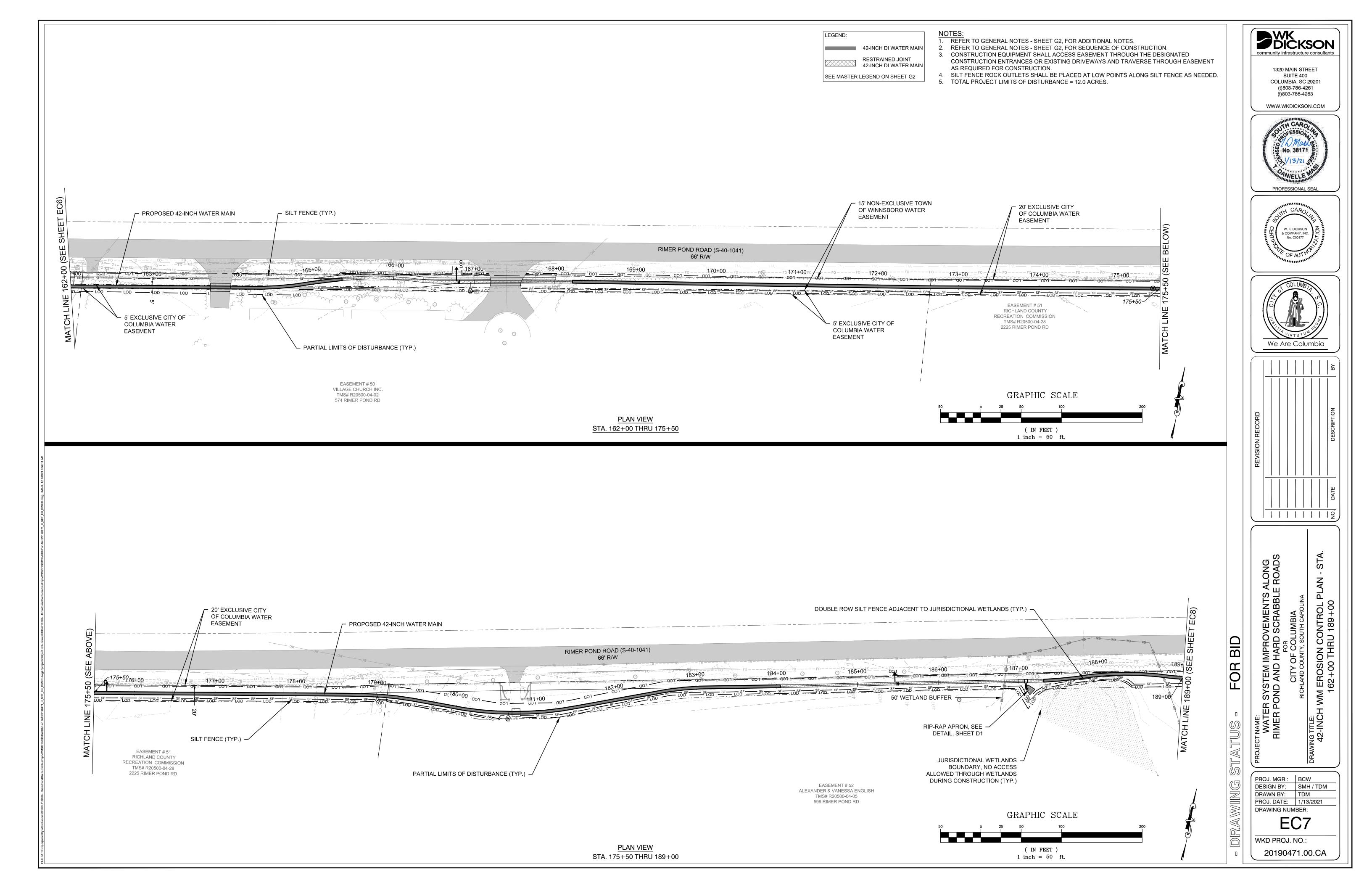


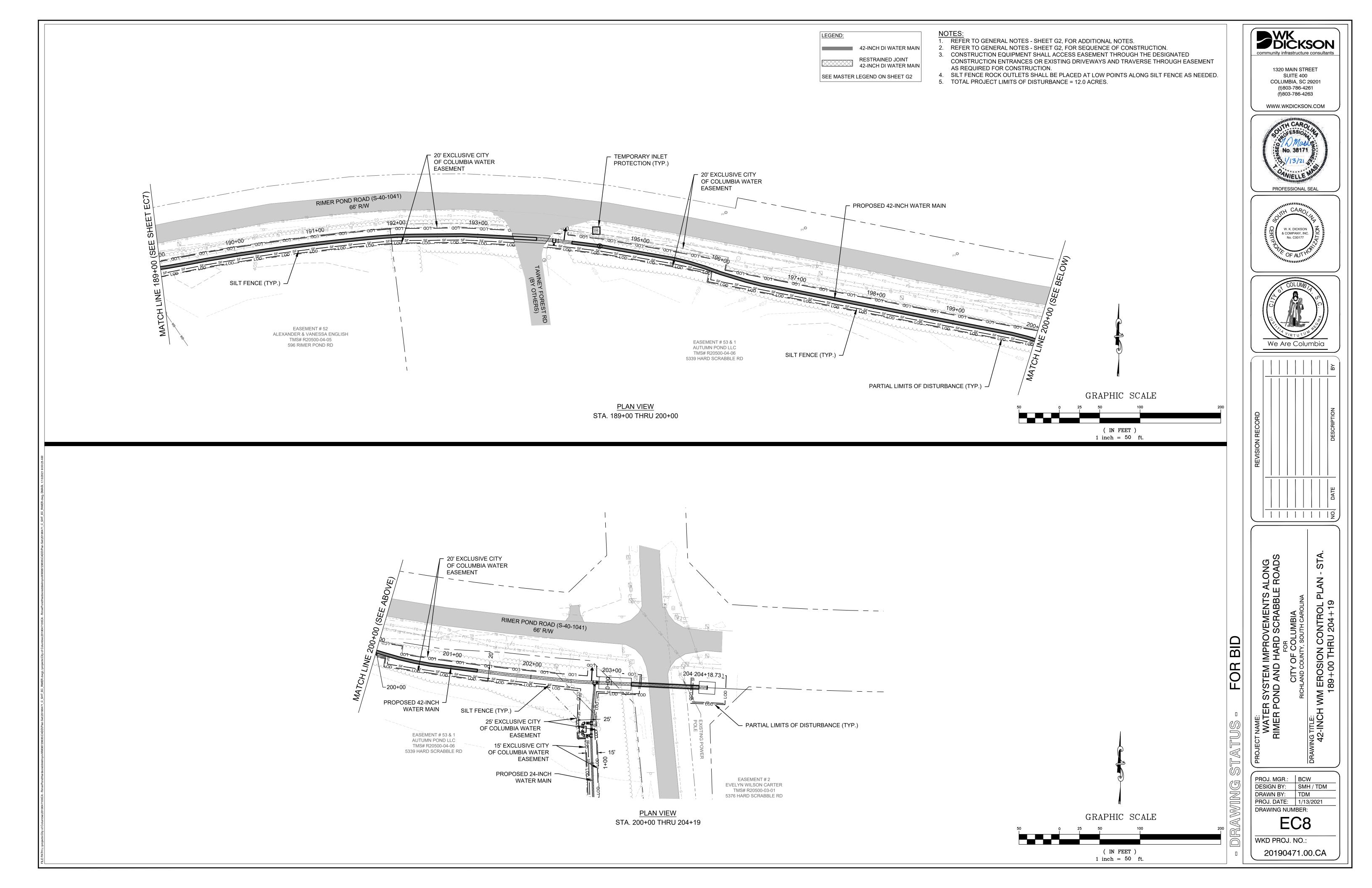


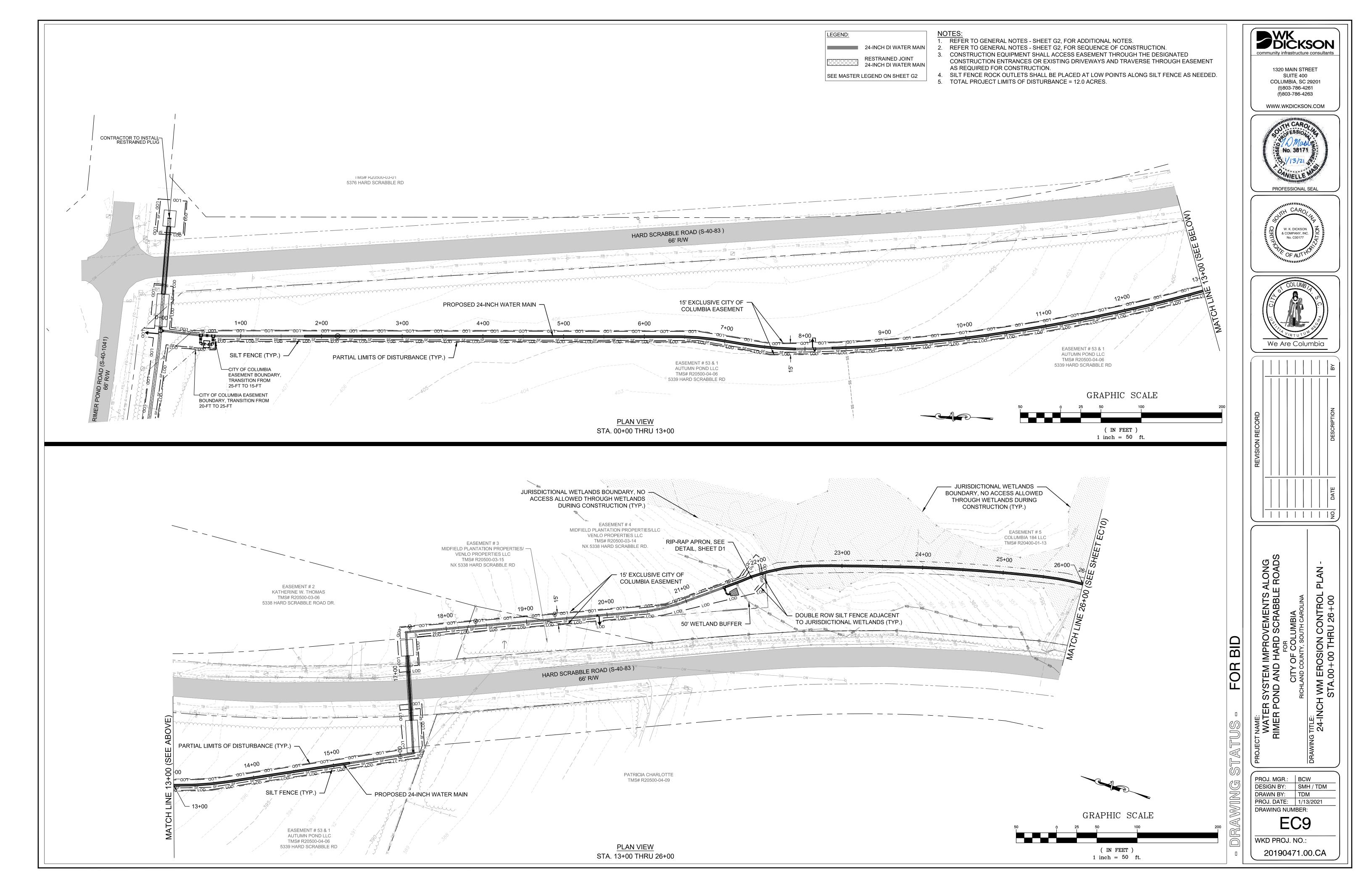


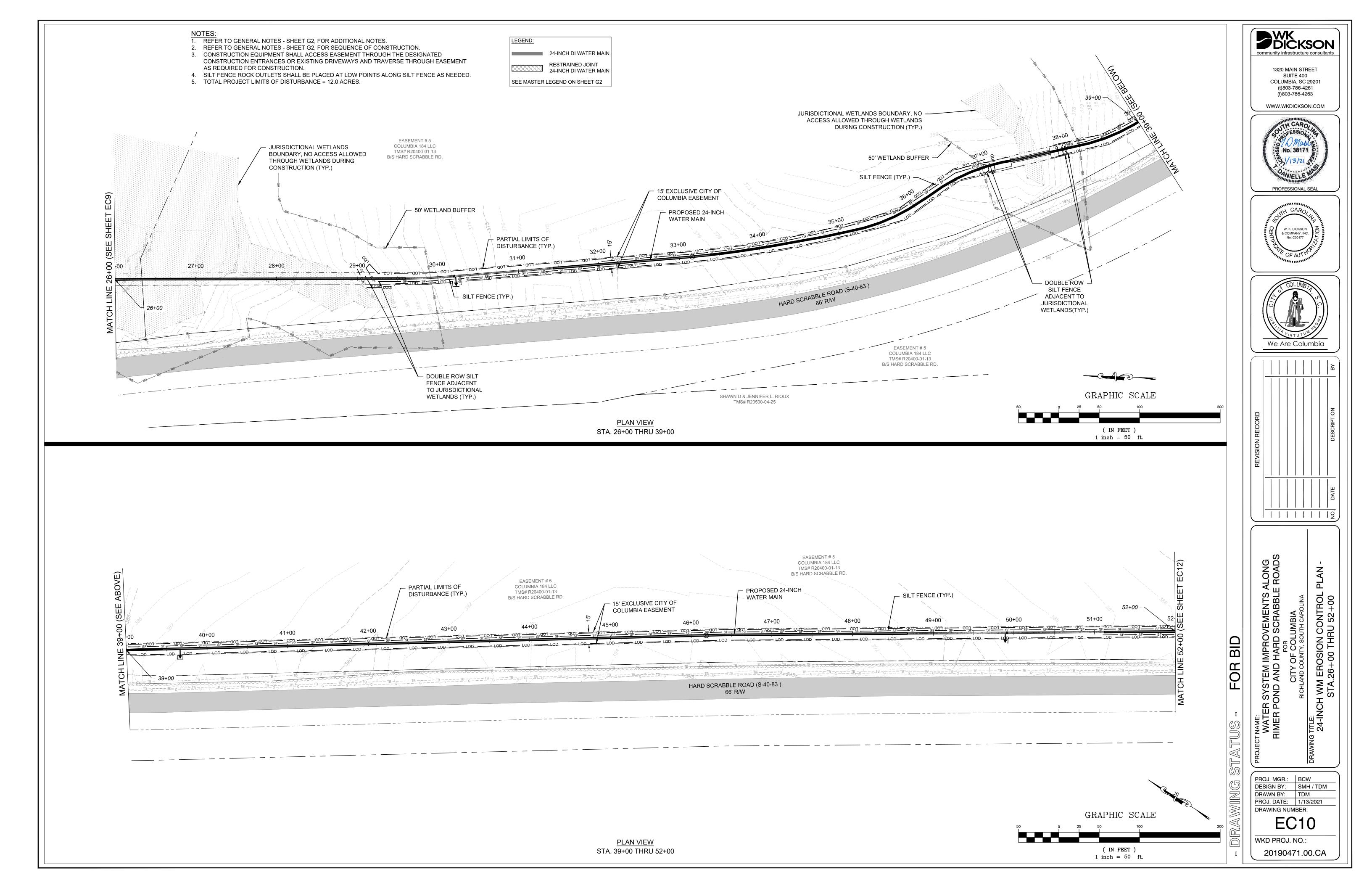


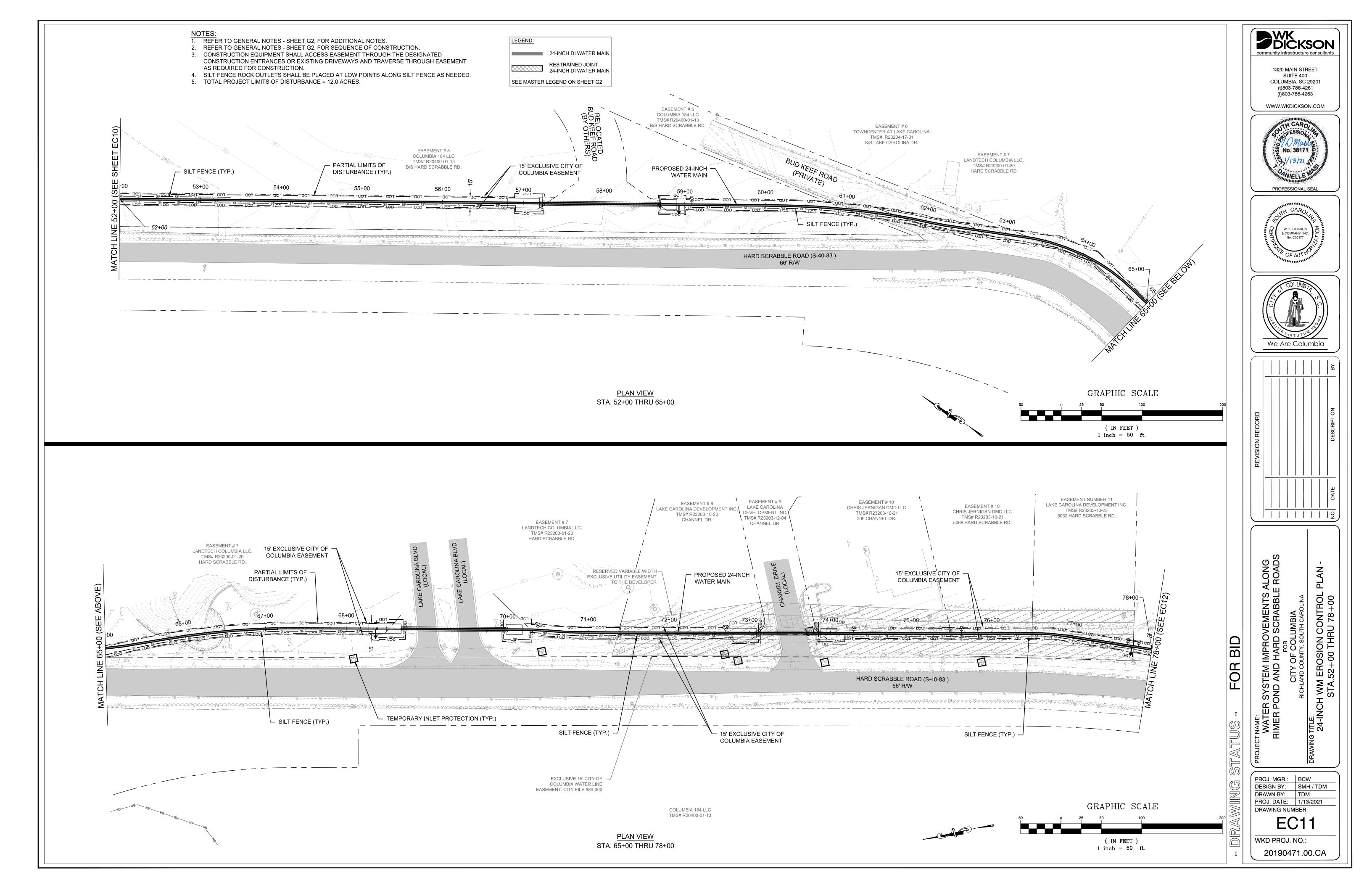


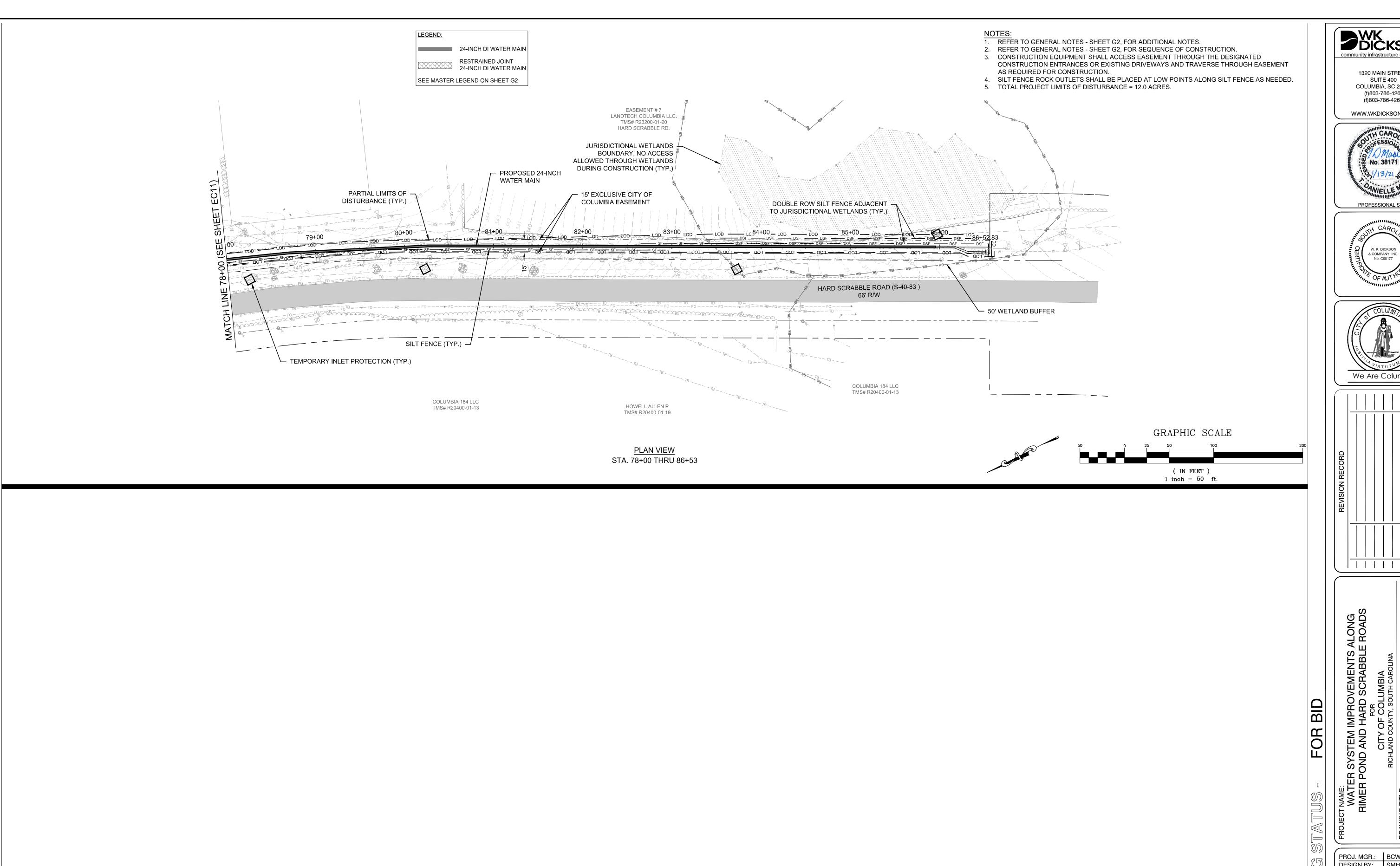








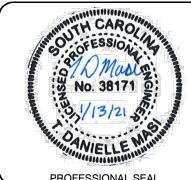


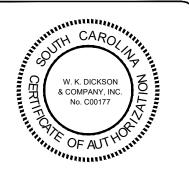


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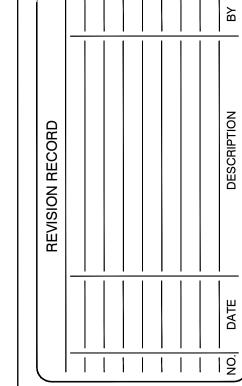
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DRAWING TITLE:
24-INCH WM EROSION CONTROL
78+00 THRU 86+53

PROJ. MGR.: BCW
DESIGN BY: SMH / TDM DRAWN BY: TDM
PROJ. DATE: 1/13/2021

DRAWING NUMBER: EC12

WKD PROJ. NO.:

SILT FENCE - POST REQUIREMENTS

WEIGH 1.25 POUNDS PER FOOT (± 8%)

- 1. SILT FENCE POSTS MUST BE 48-INCH LONG STEEL POSTS THAT MEET, AT A MINIMUM, THE FOLLOWING PHYSICAL CHARACTERISTICS. COMPOSED OF A HIGH STRENGTH STEEL WITH A MINIMUM YIELD STRENGTH OF
- INCLUDE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND A NOMINAL "T" LENGTH OF 1.48-INCHES.
- 2. POSTS SHALL BE EQUIPPED WITH PROJECTIONS TO AID IN FASTENING OF FILTER FABRIC.
- STEEL POSTS MAY NEED TO HAVE A METAL SOIL STABILIZATION PLATE WELDED NEAR THE BOTTOM WHEN INSTALLED ALONG STEEP SLOPES OR INSTALLED IN LOOSE SOILS. THE PLATE SHOULD HAVE A MINIMUM CROSS SECTION OF 17-SQUARE INCHES AND BE COMPOSED OF 15 GAUGE STEEL, AT A MINIMUM. THE METAL SOIL STABILIZATION PLATE SHOULD BE COMPLETELY BURIED.
- 4. INSTALL POSTS TO A MINIMUM OF 24-INCHES. A MINIMUM HEIGHT OF 1- TO 2- INCHES ABOVE THE FABRIC SHALL BE MAINTAINED, AND A MAXIMUM HEIGHT OF 3 FEET SHALL BE MAINTAINED ABOVE THE GROUND.
- 5. POST SPACING SHALL BE AT A MAXIMUM OF 6-FEET ON CENTER.

THE KEY TO FUNCTIONAL SILT FENCE IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

- REGULAR INSPECTIONS OF SILT FENCE SHALL BE CONDUCTED ONCE EVERY CALENDAR WEEK AND, AS RECOMMENDED, WITHIN 24-HOURS AFTER EACH RAINFALL EVEN THAT PRODUCES 1/2-INCH OR MORE OF PRECIPITATION.
- ATTENTION TO SEDIMENT ACCUMULATIONS ALONG THE SILT FENCE IS EXTREMELY IMPORTANT. ACCUMULATED SEDIMENT SHOULD BE CONTINUALLY MONITORED AND REMOVED WHEN NECESSARY.

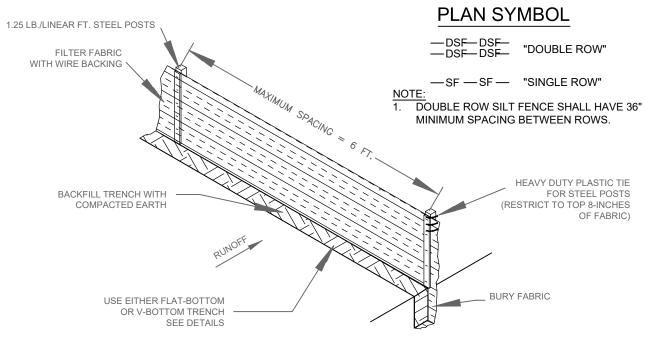
SILT FENCE - INSPECTION & MAINTENANCE

- 4. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/3 THE HEIGHT OF THE SILT
- REMOVED SEDIMENT SHALL BE PLACED IN STOCKPILE STORAGE AREAS OR SPREAD THINLY ACROSS DISTURBED AREA. STABILIZE THE REMOVED SEDIMENT AFTER IT IS RELOCATED.
- 6. CHECK FOR AREAS WHERE STORMWATER RUNOFF HAS ERODED A CHANNEL BENEATH THE SILT FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED DUE TO RUNOFF OVERTOPPING THE SILT FENCE. INSTALL CHECKS/TIE-BACKS AND/OR REINSTALL SILT FENCE. AS NECESSARY
- CHECK FOR TEARS WITHIN THE SILT FENCE, AREAS WHERE SILT FENCE HAS BEGUN TO DECOMPOSE, AND FOR ANY OTHER CIRCUMSTANCE THAT MAY RENDER THE SILT FENCE INEFFECTIVE. REMOVED DAMAGED SILT FENCE AND REINSTALL NEW SILT FENCE
- 8. SILT FENCE SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED AND ONCE IT IS REMOVED, THE RESULTING DISTURBED AREA SHALL BE PERMANENTLY STABILIZED.

SILT FENCE - FABRIC REQUIREMENTS

- 1. SILT FENCE MUST BE COMPOSED OF WOVEN GEOTEXTILE FILTER FABRIC THAT CONSISTS OF THE FOLLOWING REQUIREMENTS: COMPOSED OF FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS, POLYESTERS, OR POLYAMIDES THAT ARE FORMED INTO A NETWORK SUCH THAT THE FILAMENTS OR YARNS RETAIN DIMENSIONAL STABILITY RELATIVE TO EACH OTHER; FREE OF ANY TREATMENT OR COATING WHICH MIGHT ADVERSELY ALTER ITS PHYSICAL PROPERTIES AFTER INSTALLATION: FREE OF ANY DEFECTS OR FLAWS THAT SIGNIFICANTLY AFFECT ITS PHYSICAL AND/OR FILTERING PROPERTIES; AND,
- HAVE A MINIMUM WIDTH OF 36-INCHES. USE ONLY FABRIC APPEARING ON SC DOT'S QUALIFIED PRODUCTS LISTING (QPL). APPROVAL SHEET #34, MEETING THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE SC DOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- 3. 12-INCHES OF THE FABRIC SHOULD BE PLACED WITHIN EXCAVATED TRENCH AND TOED IN WHEN THE TRENCH IS BACKFILLED.
- 4. FILTER FABRIC SHALL BE PURCHASED IN CONTINUOUS ROLLS AND CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS.
- 5. FILTER FABRIC SHALL BE INSTALLED AT A MINIMUM OF 24-INCHES ABOVE THE GROUND.

SILT FENCE INSTALLATION



SILT FENCE - GENERAL NOTES

- 1. DO NOT PLACE SILT FENCE ACROSS CHANNELS OR IN OTHER AREAS SUBJECT TO CONCENTRATED FLOWS. SILT FENCE SHOULD NOT BE USED AS A VELOCITY CONTROL BMP. CONCENTRATED FLOWS ARE ANY FLOWS GREATER THAN 0.5 CFS.
- 2. MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE SILT FENCE SHALL BE 100-FEET.
- 3. MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO THE FENCE LINE) SHALL BE 2:1.
- 4. SILT FENCE JOINTS, WHEN NECESSARY, SHALL BE COMPLETED BY ONE OF THE FOLLOWING OPTIONS: WRAP EACH FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 1-FOOT
- OVERLAP SILT FENCE BY INSTALLING 3-FEET PASSED THE SUPPORT POST TO WHICH THE NEW SILT FENCE ROLL IS ATTACHED. ATTACH OLD ROLL TO NEW ROLL WITH HEAVY-DUTY PLASTIC TIES; OR, OVERLAP ENTIRE WIDTH OF EACH SILT FENCE ROLL FROM ONE SUPPORT POST TO THE NEXT SUPPORT POST.

_TOP OF FENCE

AASHTO #57 STONE

- 5. ATTACH FILTER FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED WITHIN THE TOP
- 6. INSTALL THE SILT FENCE PERPENDICULAR TO THE DIRECTION OF THE STORMWATER FLOW AND PLACE THE SILT FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND
- 7. INSTALL SILT FENCE CHECKS (TIE-BACKS) EVERY 50-100 FEET, DEPENDENT ON SLOPE, ALONG SILT FENCE THAT IS INSTALLED WITH SLOPE AND WHERE CONCENTRATED FLOWS ARE EXPECTED OR ARE DOCUMENTED ALONG THE PROPOSED/INSTALLED SILT FENCE.

EDGES SHALL BE TAPERED OUT TOWARDS ROAD TO PREVENT TRACKING OF MUD ON THE EDGES CULVERT PIPE; AS NEEDED 6-INCH MIN. PLAN SYMBOL AVERAGE STONE DIAMETER OF 2 TO 3-INCHES WITH A 6-INCH MINIMUM DEPTH

UNDERLINING NON-WOVEN GEOTEXTILE FABRIC

NOTES:

- 1. INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN
- NEEDED TO PROVIDE POSITIVE DRAINAGE. 2. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN OR OTHER SEDIMENT TRAPPING STRUCTURE.

WHEN AND WHERE TO USE IT

STABILIZED CONSTRUCTION ENTRANCES SHOULD BE USED AT ALL POINTS WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD.

IMPORTANT CONSIDERATIONS

- IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFFSITE.
- WASHDOWN FACILITIES SHALL BE REQUIRED AS DIRECTED BY SCDHEC AS NEEDED. WASHDOWN AREAS IN GENERAL MUST BE ESTABLISHED WITH CRUSHED GRAVEL AND DRAIN INTO A SEDIMENT TRAP OR
- CONSTRUCTION ENTRANCES SHOULD BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP BY VEHICLES.

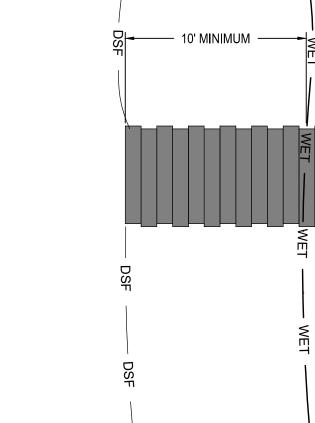
INSTALLATION:

- REMOVE ALL VEGETATION AND ANY OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
- DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM STONES TO A SEDIMENT TRAP OR BASIN. INSTALL A NON-WOVEN GEOTEXTILE FABRIC PRIOR TO PLACING ANY STONE
- INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.
- THE ENTRANCE SHALL CONSIST OF 1-INCH TO 3-INCH D50 STONE PLACED AT A MINIMUM DEPTH OF 6-INCHES. MINIMUM DIMENSIONS OF THE ENTRANCE SHALL BE 24-FEET WIDE BY 100-FEET LONG, AND MAY BE MODIFIED AS NECESSARY TO
- ACCOMMODATE SITE CONSTRAINTS. • THE EDGES OF THE ENTRANCE SHALL BE TAPERED OUT TOWARDS THE ROAD TO PREVENT TRACKING OF MUD AT THE EDGE OF THE ENTRANCE.

INSPECTION AND MAINTENANCE:

- INSPECT ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5
- CHECK FOR MUD AND SEDIMENT BUILDUP AND PAD INTEGRITY.
- MAKE DAILY INSPECTIONS DURING PERIODS OF WET WEATHER. MAINTENANCE IS REQUIRED MORE FREQUENTLY IN WET WEATHER CONDITIONS.
- RESHAPE THE STONE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL WASH OR REPLACE STONES AS NEEDED AND AS DIRECTED BY THE INSPECTOR. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES.
- FREQUENT WASHING WILL EXTEND THE USEFUL LIFE OF STONE. IMMEDIATELY REMOVING MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING.
- FLUSHING SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARGED TO A SEDIMENT TRAP OR BASIN. REPAIR ANY BROKEN PAVEMENT IMMEDIATELY.

TEMPORARY CONSTRUCTION ENTRANCE



FACE ON UPSTREAM SIDE WASHED STONE (#57) TO BE REMOVED AND REPLACED ONCE IT BECOMES CLOGGED WITH SEDIMENT TO BE REMOVED WHEN

ACCUMULATIONS REACH 1/3 HEIGHT OF SILT FENCE. 3. THE KEY TO FUNCTIONAL ROCK OUTLETS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL

SEDIMENT

4. ROCK OUTLETS SHALL BE PLACED AS NOTED ON THE PLANS OR AS REQUIRED AT LOW POINTS ALONG SILT FENCE.

SILT FENCE ROCK OUTLET NOT TO SCALE

ELEVATION - UP-SLOPE FACE

6" MIN. THICKNESS

AASHTO #57 STONE

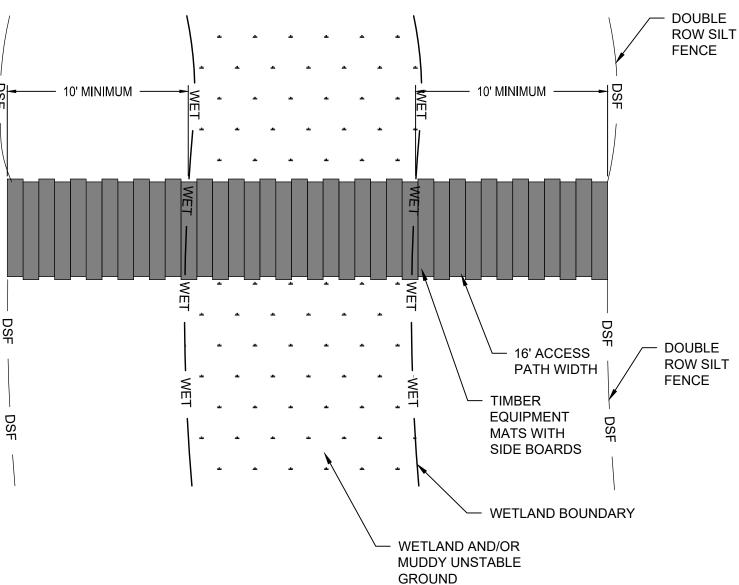
MEDIAN 8" DIA.

RIP-RAP

SECTION A-A

FACE ON UPSTREAM SIDE

3'-0" MIN.

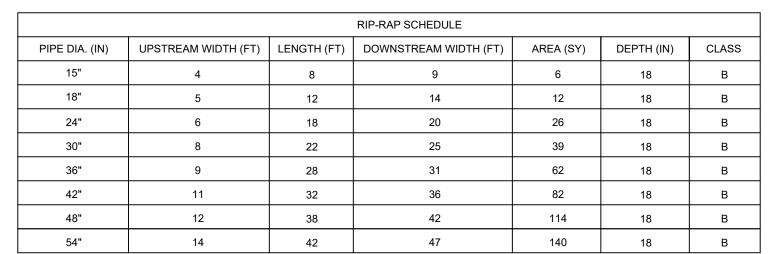


NOTES:

- PLACE TIMBER MATS SO PLANKS ARE PERPENDICULAR TO DIRECTION OF TRAFFIC.
- 2. MAINTAIN REMOVAL OF SEDIMENT BUILDUP AND DEBRIS ALONG MATS ON REGULAR BASIS.
- MATERIALS PLACED IN WETLANDS SHALL BE COMPLETELY REMOVED DURING FINAL CLEANUP. CONTRACTOR SHALL INITIATE THE ESTABLISHMENT OF PERMANENT VEGETATION DURING REMOVAL AND CLEANUP OF MATS.
- 4. TIMBER MATS SHALL EXTEND A MINIMUM OF 10 FT OUTSIDE OF THE DELINEATED WETLAND/WATERBODY BOUNDARIES.
- 5. ALL TIMBER MATS SHALL HAVE SIDE BOARDS TO CONTAIN SEDIMENT AND/OR DEBRIS FROM ENTERING ADJACENT WATERBODIES AND WETLANDS. STRAW BALES MAY BE PLACED ALONG THE EDGE OF THE MATS TO PROTECT ADJACENT AREAS FROM SEDIMENT / DEBRIS.

TEMPORARY TIMBER EQUIPMENT MAT

NOT TO SCALE

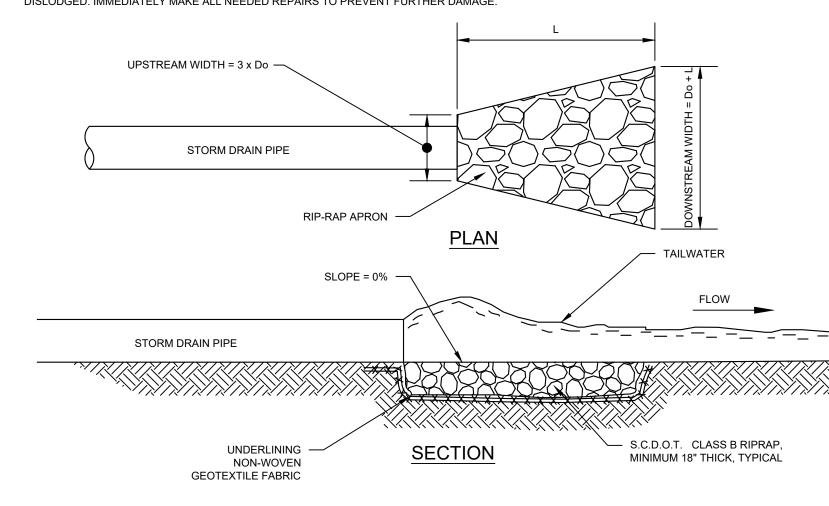


NOTE: RIPRAP APRON SIZING PER SCDHEC BMP MANUAL

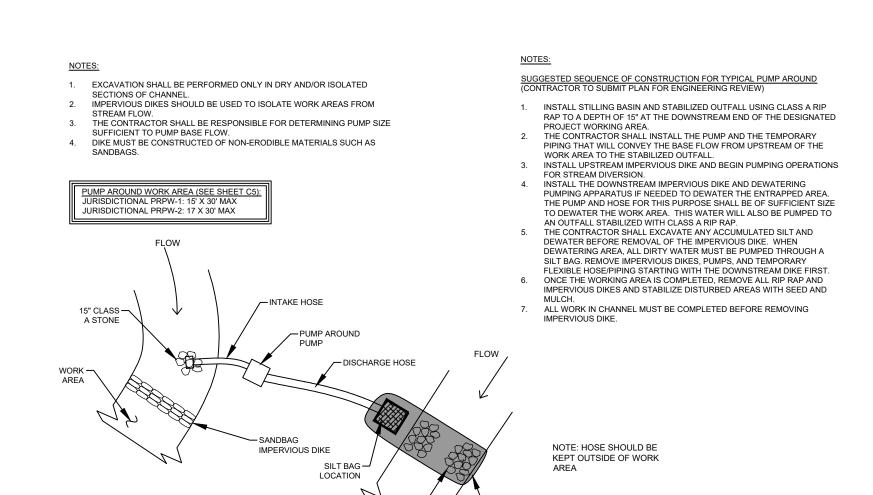
- ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
- 2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
- 3. FILTER CLOTH, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER
- 4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
- 5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
- 6. RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL
- 7. CONSTRUCT THE APRON GRADE AS SHOWN ON PLAN WITH NO OVER FALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
- 8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH.
- 9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

MAINTENANCE

RIPRAP OUTLET STRUCTURES SHALL BE INSPECTED ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



RIP-RAP OUTLET PROTECTION NOT TO SCALE



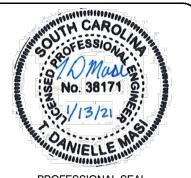
(804.2.11 CLASS 2) STABILIZED OUTFALL 15" DEPTH OF CLASS A STONE 15' TO 20' STABILIZED -OUTFALL CLASS A STONE -8" OF CLASS A (804.2.11 CLASS 2) PUMP AROUND AND DEWATERING DETAIL

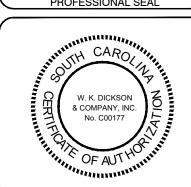
NOT TO SCALE

SILT BAG PROFILE

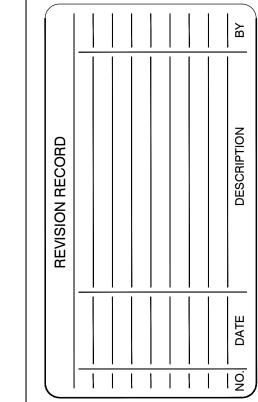
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VEMENTS ALC SCRABBLE RC IMPRO HARD TEM Z Z Z

PROJ. MGR.: BCW DESIGN BY: SMH / TDM DRAWN BY: TDM PROJ. DATE: 1/13/2021 DRAWING NUMBER:

20190471.00.CA

RIMER PON	D ROAD
START STATION	END STATION
0 + 00	1 + 63
15 + 23	15 + 63
84 + 47	84 + 87
135 + 61	136 + 01

DETAILED POLYETHYLENE WRAP SCHEDULE

- NOTES:

 1. POLYETHYLENE WRAP SHALL BE USED WHERE WATER MAIN IS INSTALLED WITHIN 10 FEET OF GAS MAIN. 2. GAS CROSSINGS SHALL HAVE A MINIMUM OF 20 LF OF POLYETHYLENE
- WRAPPED WATER MAIN ON EITHER SIDE OF CROSSING.
- 3. IF A GAS CROSSING OCCURS WHERE THE WATER MAIN IS ENCASED IN STEEL CASING, POLYETHYLENE WRAP IS NOT REQUIRED.

HARD SCRAE	BLE ROAD
START STATION	END STATIC
21 + 75	29 + 39

DETAILED HORIZONTAL DIRECTIONAL DRILLING SCHEDULE

36 + 80 38 + 30

NOTES:

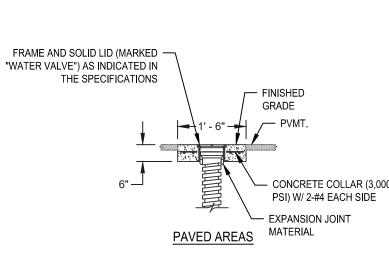
1. PIPE TO BE DEFLECTED UP TO MANUFACTURERS SPECIFICATIONS.

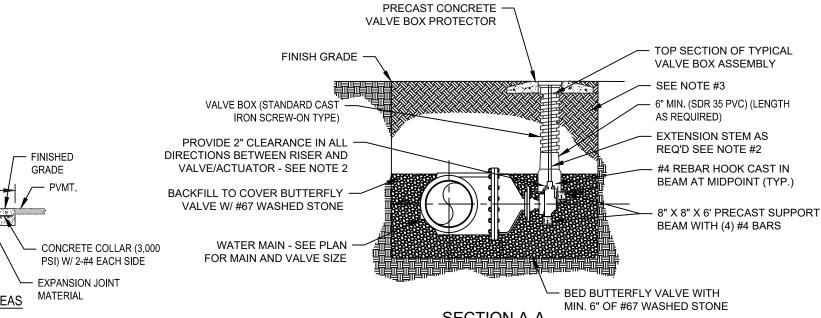
	MINIMUM LINEAR FEET	OF RESTRAINED JOINT	
FITTING TYPE	PIPE ON EACH SIDE OF FITTING		
	24-INCH DI PIPE	42-INCH DI PIPE	
11.25° BEND	20	20	
22.5° BEND	20	20	
45° BEND	20	40	
90° BEND	60	60	
TEE	20	20	
BUTTERFLY VALVE	120	140	

GENERAL RESTRAINED JOINT SCHEDULE

- NOTES:

 1. RESTRAINED LENGTH VALES ARE BASED ON A PRESSURE OF 200 PSI FOR 24-INCH DI PIPE AND 150 PSI FOR 42-INCH DI PIPE, USCS SC SOIL TYPE, 1.5 SAFETY FACTOR AND TYPE 5 BEDDING.
- 2. THE ABOVE LENGTHS ARE MINIMUM LENGTHS. RESTRAINED JOINT GASKETS SHALL BE INSTALLED TO THE NEXT PIPE JOINT BEYOND THESE MINIMUM LENGTHS.
- 3. TEE INDICATES FLUSHING ASSEMBLIES, WATER LINE CONNECTIONS OR ANY OTHER AREA WHERE A TEE IS INSTALLED ON THE MAIN LINE.





UNDISTURBED -

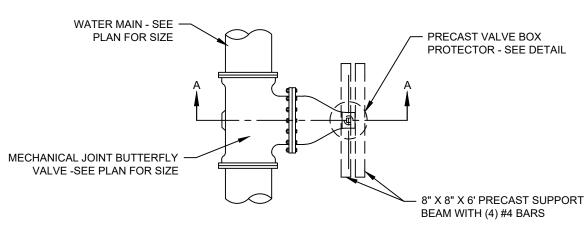
SOIL (TYP.)

18" MIN.-10" DIA. OR LESS 24" MIN.-12" DIA. OR GREATER

SECTION X-X

BENDS & TEES

- DIAMETER OF RISER MAY VARY AS REQUIRED BY VALVE ACTUATOR. WHEN OPERATING NUT DEPTH EXCEEDS 4'-0" BELOW FINISH GRADE, PROVIDE EXTENSION STEM WITH STANDARD 2" SQUARE OPERATING NUT IN TOP SECTION OF VALVE BOX. EXTENSION STEM SHALL BE SIZED AS RECOMMENDED BY THE VALVE MFR.
- BACKFILL COMPACTED TO 95% STANDARD PROCTOR IN LANDSCAPED AREAS AND 98% STANDARD PROCTOR IN ALL OTHER AREAS OF CONSTRUCTION.
- VALVE BOX TO REST ON STONE, NOT ON VALVE.



BUTTERFLY VALVE INSTALLATION DETAIL NOT TO SCALE

10" DIA.

PLAN-TEES

PLAN & ELEVATION

<u>PLUGS</u>

12"Ø & UP

D=ELEVATION

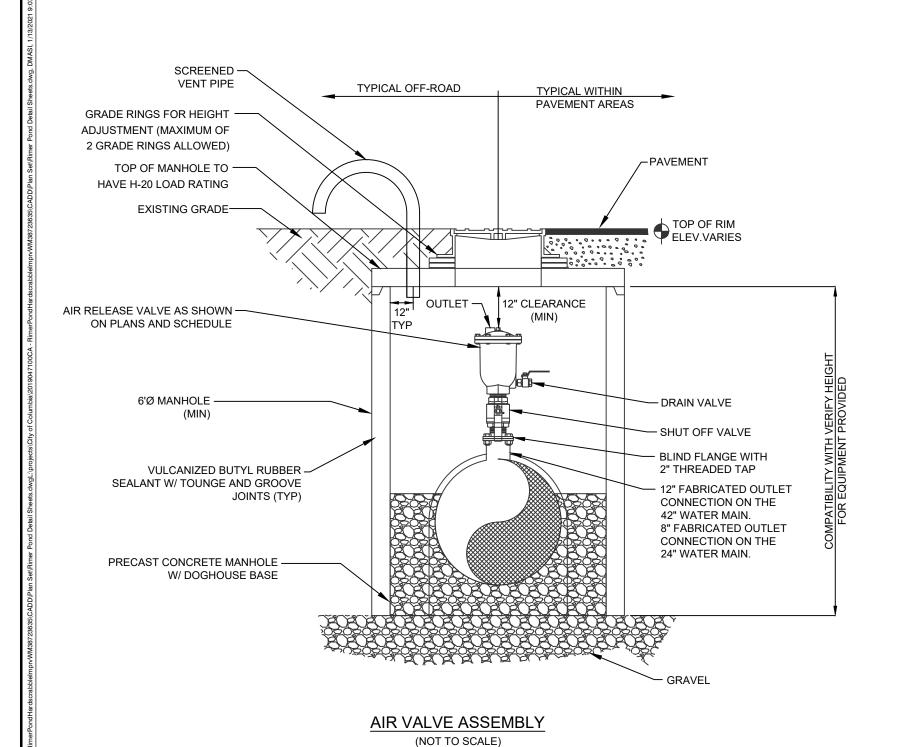
STATION VALVE SIZE / MODEL 2+80 2 IN #45 A IR RELEA SE VALVE 33 + 66 3 IN #45 A IR RELEASE VALVE 55 + 10 4 IN #45 AIR RELEASE VALVE 79 + 81 5 IN #45 AIR RELEASE VALVE 103 + 64 6 IN #45 AIR RELEASE VALVE 175 + 41 7 IN #45 AIR RELEASE VALVE 194 + 52 8 IN #45 A IR RELEASE VALVE

RIMER POND ROAD

HA RD SCRA BBLE ROA D				
	VALVESIZE/MODEL			
2 + 20	2 IN #45 AIR RELEASE VALVE			
33 + 16	2 IN #45 AIR RELEASE VALVE			
46 + 19	2 IN #45 A IR RELEASE VALVE			

AIR VALVE SCHEDULE

1. VAL-MATIIC MODELS SPECIFIED, CONTRACTOR MAY USE ENGINEERED APPROVED EQUAL.

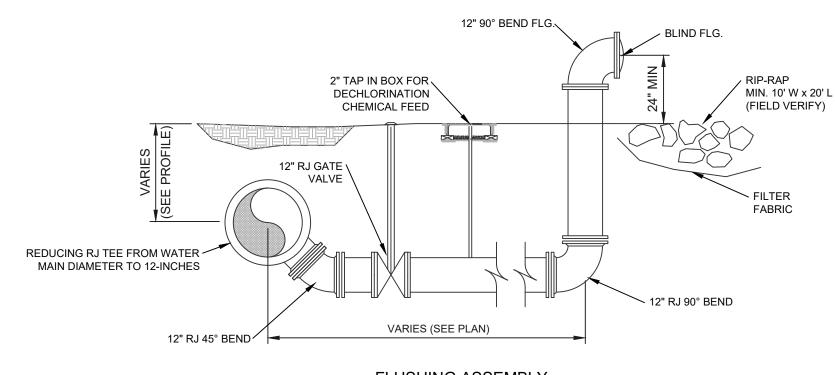


MIN. THRUST BLOCK BEARING AREAS (S.F.) 22 1/2° 11 1/4° PLUGS BEND BEND BEND OR TEES BEND SIZE AxB AxB3.8 2.1 1.1 0.5 2.7 7.9 2.2 4.3 1.1 5.6 13.6 7.4 3.8 1.9 9.6 20.5 11.1 5.7 2.8 14.5 15.7 8.0 29.0 4.0 20.5 35.7 50.4 13.9 7.0 27.3 30.3 109.6 59.6 77.7 15.3 313.7 221.3 86.2 43.4 170.2

2000 PSF SOIL (SAND & GRAVEL WITH CLAY)

CONCRETE THRUST BLOCKING NOT TO SCALE

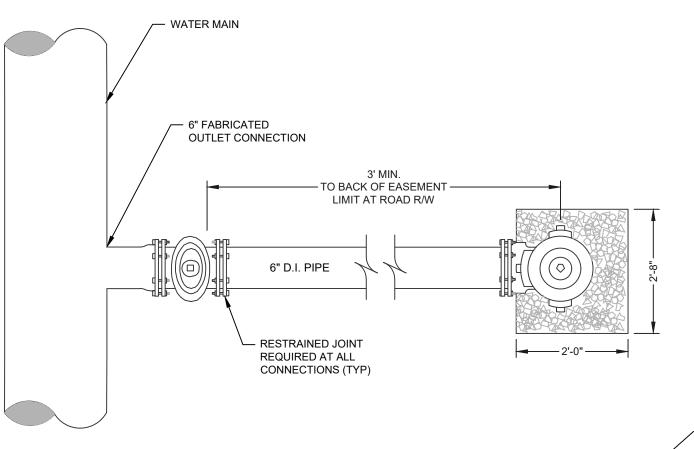
- BASED ON 200 PSI STATIC PRESSURE. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
- THRUST BLOCKS TO BE USED AT ALL LINES OPERATING UNDER PRESSURE. KEEP ALL PIPING JOINTS CLEAR OF CONCRETE THRUST BLOCKS.
- RESTRAIN ALL FITTINGS WITH MECHANICAL JOINT RESTRAINING GLANDS. DIMENSIONS A & B SHALL BE DETERMINED IN THE FIELD AS REQUIRED TO PROVIDE THE GIVEN
- BEARING AREA AND TO MEET FIELD CONDITIONS.

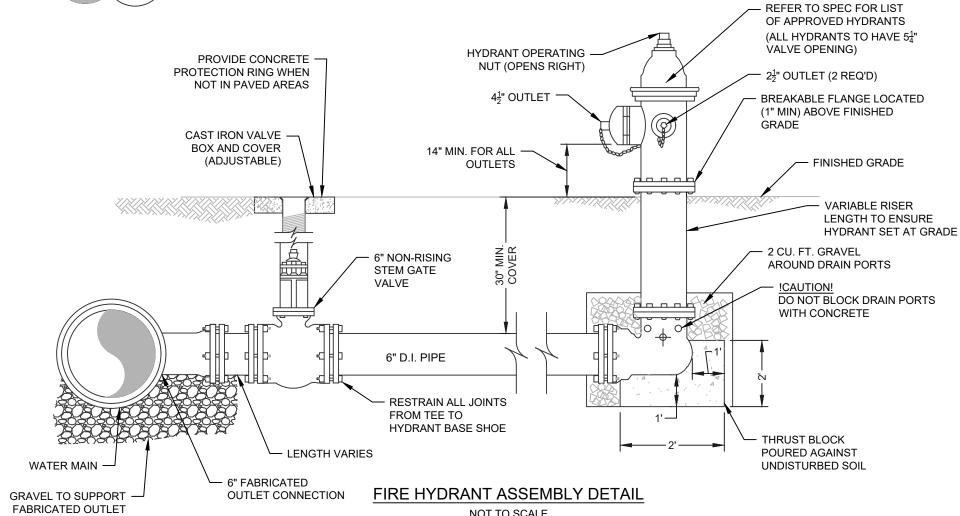


FLUSHING ASSEMBLY

NOTES:

- PROVIDE TEMPORARY RESTRAINED PIPING AND ROUTE TO DRAINAGE BODY. FIELD VERIFY ROUTING, LENGTH REQUIRED, FITTING REQUIRED, ETC. BENDS MAY BE
- USED BETWEEN CHEMICAL FEED AND 90° BEND TO FACILITATE OUTFALL LOCATION. PROVIDE RESTRAINED JOINT PIPE 20' ON EACH SIDE OF MAIN LINE FROM
- INTERSECTION WITH FLUSHING VALVE.
- 3. ALL PIPE SHALL BE RESTRAINED FROM MAIN LINE TO END OF FLUSHING ASSEMBLY.





1. POOR SOIL A-4-A-8, SILTY SOILS, CLAYS, MUCK, AND PEAT (INCLUDING SOILS WITH BEARING CAPACITY OF 2,000 PSF OR LESS) WILL REQUIRE LARGER THRUST BLOCKS OR THE ADDITION OF TWO 3/4" DIA (THREADED ENDS) STEEL RODS AND EYE BOLTS BETWEEN THE TEE AND GATE VALVE AND BETWEEN THE GATE VALVE AND THE HYDRANT. ALL OTHER JOINTS NOT RESTRAINED BY RODS MUST BE MECHANICALLY RESTRAINED.

NOT TO SCALE

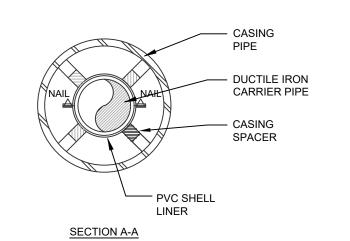
- 2. PRIOR TO PROJECT FINAL INSPECTION, THE HYDRANT AND ALL ABOVE GROUND PIPING SHALL BE OILED, GREASED AND PAINTED.
- PAINT HYDRANT IN ACCORDANCE WITH THE SPECIFICATIONS. 3. FIRE HYDRANTS SHALL BE ORDERED WITH PROPER "BURY DEPTH" TO MEET ACTUAL FIELD CONDITIONS. THE USE OF HYDRANT
- EXTENSIONS SHOULD BE MINIMIZED. 4. BLUE REFLECTIVE MARKERS SHALL BE INSTALLED AS INDICATED IN THE SPECIFICATIONS.
- 5. IN RESIDENTIAL AND COMMERCIAL DEVELOPMENTS, FIRE HYDRANTS SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE STREET RIGHT-OF-WAY, BUT NOT LESS THAN 3' FROM THE BACK OF CURB OR EDGE OF ROADWAY..
- 6. MINIMUM DISTANCE BETWEEN THE VALVE AND THE HYDRANT SHALL BE 3'.
- 7. BENDS MAY BE USED IN HYDRANT LEAD TO FACILITATE HYDRANT LOCATION. 8. FIRE HYDRANT ASSEMBLY INCLUDES TEE.
- 9. GATE VALVE TO OPEN RIGHT.
- 10.FIRE HYDRANT MAIN NOZZLE TO POINT TOWARD ROAD. 10.REFER TO CITY OF COLUMBIA STANDARD FIRE HYDRANT DETAIL FOR ADDITIONAL REQUIREMENTS.
- 11.PROVIDE RESTRAINED JOINT PIPE 20' ON EACH SIDE OF MAIN LINE FROM FIRE HYDRANT CONNECTION POINT.

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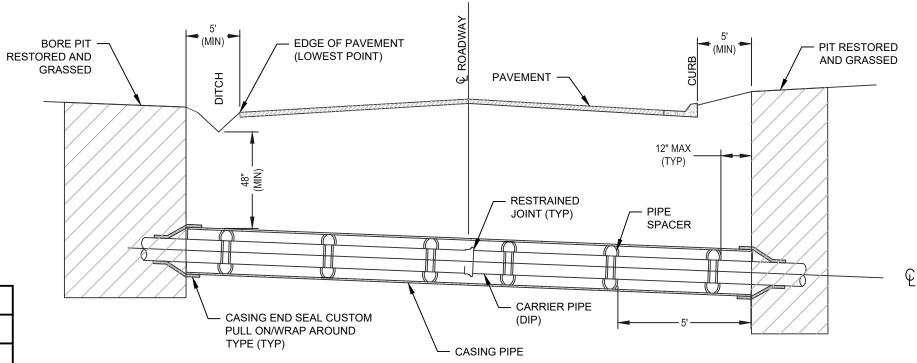
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PROJ. MGR.: BCW DESIGN BY: SMH / TDM DRAWN BY: TDM PROJ. DATE: 1/13/2021 DRAWING NUMBER:

WKD PROJ. NO.:



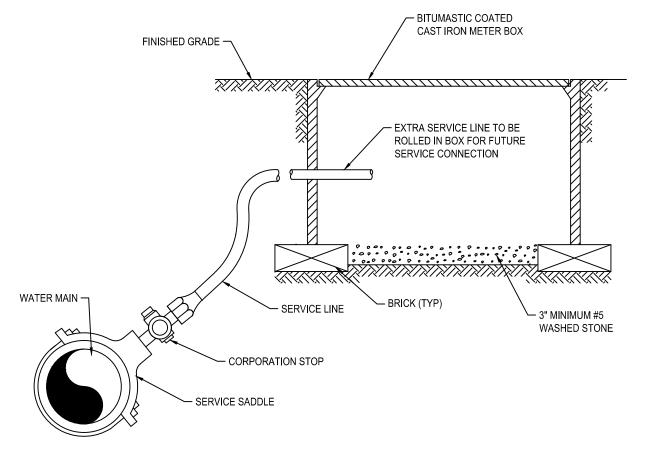
CARRIER PIPE			
PIPE SIZE	CASING O.D.	THICKNESS	
6"	16"	1/4"	
8"	18"	1/4"	
10"	20"	5/16"	
12"	24"	5/16"	
16"	30"	3/8"	
18"	30"	3/8"	
20"	36"	1/2"	
24"	36"	1/2"	
42"	60"	5/8"	

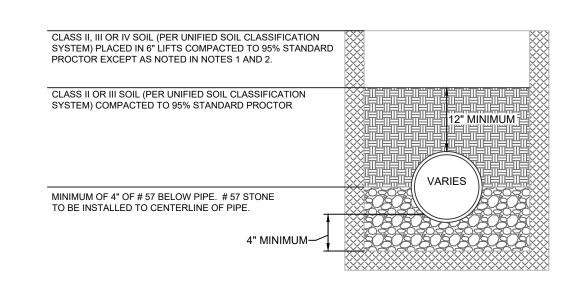


BORE AND JACK AND CASING DETAIL NOT TO SCALE

NOTES:

- 1. STEEL CASING LENGTH SHALL BE IN ACCORDANCE WITH SCDOT "A POLICY FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY OR "RAILROAD SPECIFICATIONS FOR PIPELINE OCCUPANCY" AND THE SPECIFICATIONS.
- 2. CASING PIPE, CARRIER PIPE DIAMETERS AND MINIMUM THICKNESS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS. . USE SPIDER SUPPORTS TO MOVE CARRIER PIPE INTO CASING PIPE. SPACING OF SPIDERS WILL BE DICTATED BY THE LENGTH OF CASING
- PIPE AND NUMBER OF JOINTS OF CARRIER PIPE 4. MINIMUM OF 3 SPACERS PER JOINT OF PIPE.
- 5. SCDOT REQUIRES A MINIMUM OF 48" OF COVER BENEATH ALL SCDOT ROADWAYS.
- 6. USE THICKNESS IN TABLE UNLESS OTHERWISE REQUIRED BY LOCAL AUTHORITY.





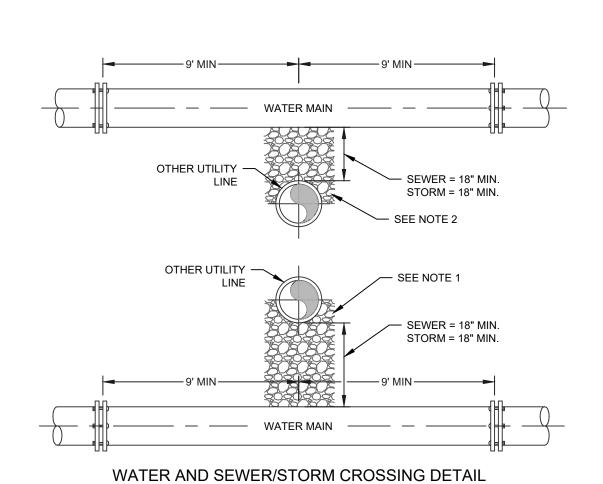
BEDDING DETAIL NOT TO SCALE

BACKFILL TO 98% STANDARD PROCTOR WHERE EXCAVATIONS CUT THROUGH PAVEMENTS.

CURBS, DRIVEWAYS AND SIDEWALKS, AND UNDER OR ADJACENT TOT STRUCTURES.

WATER SERVICE CONNECTION DETAIL NOT TO SCALE

1. METER, CURB STOP, BACKFLOW PREVENTER AND ASSOCIATED APPURTENANCES TO BE INSTALLED BY OTHERS AT A FUTURE TIME.



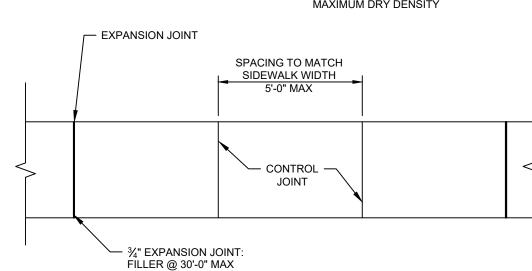
NOTES:

1. WHERE A WATER LINE CROSSES UNDER AN EXISTING UTILITY, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE OTHER EXISTING UTILITY TO PREVENT DAMAGE TO THE WATER MAIN.

NOT TO SCALE

2. IF CLEARANCE OF STORM DRAIN IS LESS THAN 18", USE CONCRETE ENCASEMENT ON DIP, WHICH SHALL HAVE POLYETHYLENE ENCASEMENT PRIOR TO CONCRETE BEING POURED.

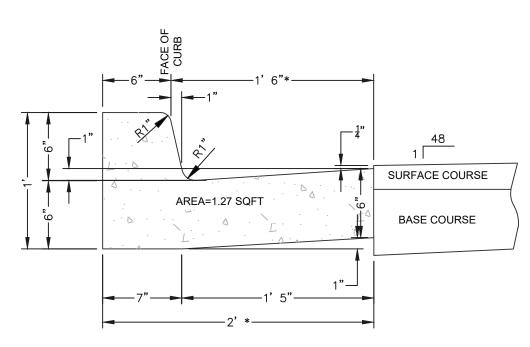
MATCH EXISTING WIDTH 4" MINIMUM -THICKNESS CONCRETE (3,000 PSI) - COMPACTED SUBGRADE 98% STANDARD PROCTOR MAXIMUM DRY DENSITY - EXPANSION JOINT



CONCRETE SIDEWALK REPAIR NOT TO SCALE

NOTE:

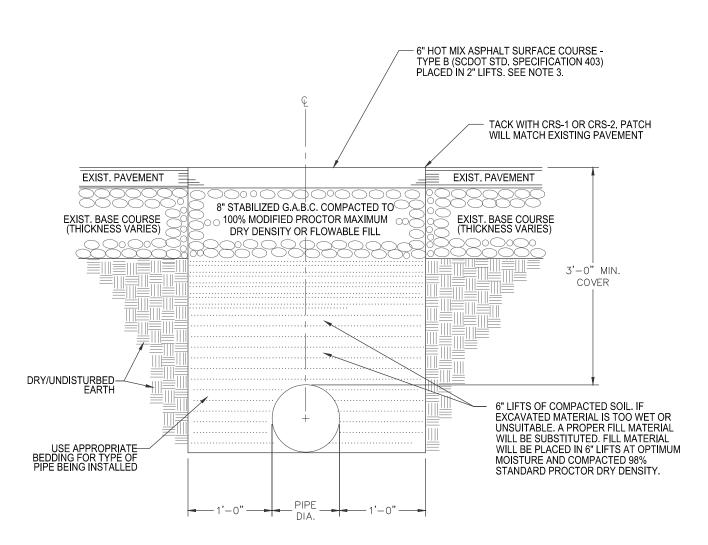
- 1. PROVIDE EXPANSION JOINTS @ INTERSECTIONS OF WALKS AND WHERE WALK ABUTTS OTHER
- STRUCTURES. 2. ALL JOINTS AND EDGES TO BE TOOLED.
- 3. CONTROL JOINTS TO BE TOOLED TO A MINIMUM DEPTH OF 1". 4. USE SUITABLE MATERIAL REMOVED DURING TRENCH EXCAVATION FOR BACKFILL UNLESS DIRECTED OTHERWISE BY ENGINEER.
- 5. ALL O.S.H.A. REQUIREMENTS SHALL BE ADHERED TO FOR TRENCHING OPERATIONS. 6. ALL SIDEWALKS TO BE CUT AND REPAIRED TO PRE-CONSTRUCTION CONDITION.



CONCRETE CURB AND GUTTER (VERTICAL FACE) DETAIL NOT TO SCALE

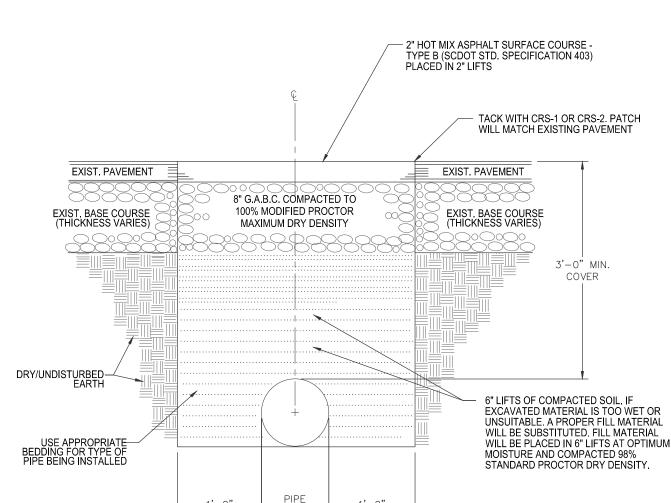
NOTES:

- 1. * 1'-0" FOR ** 1'-6" CURB & GUTTER * 1'-0" FOR ** 2'-0" CURB & GUTTER (SHOWN)
 - * 2'-0" FOR ** 2'-6" CURB & GUTTER * 2'-0" FOR ** 3'-0" CURB & GUTTER
- USE A MINIMUM OF CLASS 2500 CONCRETE
- USE 3' TRANSITION AT END OF RADII ON INTERSECTING STREETS AND WHERE CURB IS 6 FEET OR GREATER FROM MAINLINE TRAVEL LANE.
- USE 10' TRANSITION WHERE CURB IS LESS THAN 6 FEET FROM MAINLINE TRAVEL LANE.



ASPHALT PAVEMENT PATCH NOT TO SCALE

- 1. ALL O.S.H.A. REQUIREMENTS SHALL BE ADHERED TO FOR TRENCHING OPERATIONS. 2. ALL DRIVEWAYS TO BE CUT AND REPAIRED TO PRE-CONSTRUCTION CONDITION. CONTRACTOR TO COORDINATE WITH PROPERTY OWNERS TO ENSURE ACCESS TO
- PROPERTY DURING CONSTRUCTION. 3. CONTRACTOR TO MATCH EXISTING DEPTH OF PAVEMENT.



GRAVEL DRIVEWAY REPAIR

NOT TO SCALE

DIRECTED OTHERWISE BY ENGINEER.

CONSTRUCTION.

1. USE SUITABLE MATERIAL REMOVED DURING TRENCH EXCAVATION FOR BACKFILL UNLESS

2. ALL DRIVEWAYS TO BE CUT AND REPAIRED TO PRE-CONSTRUCTION CONDITION. CONTRACTOR TO

2. ALL O.S.H.A. REQUIREMENTS SHALL BE ADHERED TO FOR TRENCHING OPERATIONS.

COORDINATE WITH PROPERTY OWNERS TO ENSURE ACCESS TO PROPERTY DURING

EXISTING BASE COURSE

8" G.A.B.C. COMPACTED TO

100% MODIFIED PROCTOR

6" LIFTS OF COMPACTED SOIL. IF EXCAVATED

PROPER FILL MATERIAL WILL BE SUBSTITUTED FILL MATERIAL WILL BE PLACED IN 6" LIFTS AT OPTIMUM MOISTURE AND COMPACTED 98% STANDARD PROCTOR DRY DENSITY

MATERIAL IS TOO WET OR UNSUITABLE. A

MAXIMUM DRY DENSITY

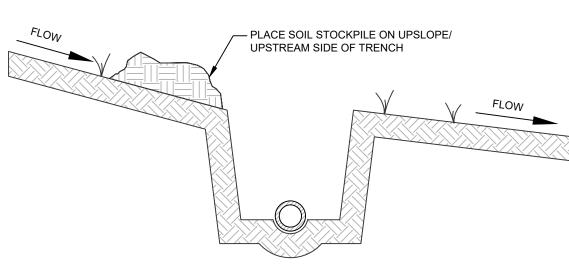
ASPHALT DRIVEWAY REPAIR

PROPERTY DURING CONSTRUCTION.

6" - 4000 PSI -

CONCRETE

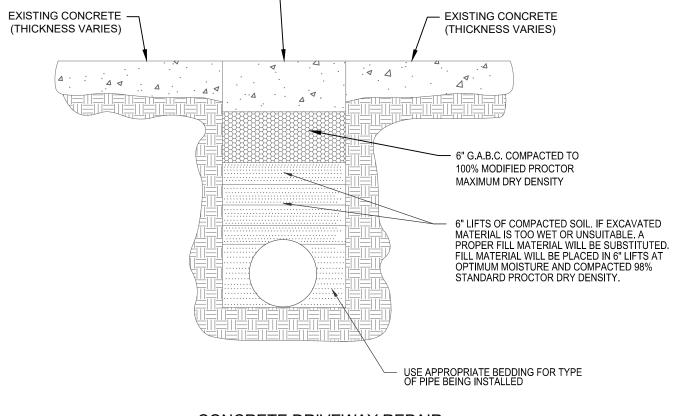
 ALL O.S.H.A. REQUIREMENTS SHALL BE ADHERED TO FOR TRENCHING OPERATIONS.
 ALL DRIVEWAYS TO BE CUT AND REPAIRED TO PRE-CONSTRUCTION CONDITION. CONTRACTOR TO COORDINATE WITH PROPERTY OWNERS TO ENSURE ACCESS TO



TYPICAL TRENCH EXCAVATION STOCKPILE

1. A MINIMUM OF 12" FROM OUTSIDE DIAMETER OF PIPE TO SIDE OF TRENCH MUST BE ALLOWED FOR COMPACTION OF FILL MATERIAL.

- 2. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER THE PIPE IS LAID. 3. UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES AFTER THE PIPE HAS BEEN PLACED. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF
- MECHANICAL TAMPS ONLY. EACH AND EVERY 4. ALL PIPE GRADES SHALL BE AS SHOWN ON APPROVED PLANS OR AS DIRECTED BY ENGINEER.
- MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER PIPE OR USE DUCTILE IRON PIPE.
- ANY OVER EXCAVATION BELOW GRADE SHOWN SHALL BE BACKFILLED W/ NO. 67 STONE REGARDLESS OF TYPE OF BEDDING. LAYER OF BACKFILL SHALL BE PLACED LOOSE AND THOROUGHLY TAMPED INTO PLACE. 7. WHERE ROCKY SOIL CONDITIONS ARE ENCOUNTERED REQUIRING BLASTING TYPE III BEDDING SHALL BE
- USED TO INVERT GRADE REGARDLESS OF PIPE MATERIAL. 8. #12 GAUGE PLASTIC COATED STRANDED COPPER WIRE SHALL BE DUCT TAPED TO ALL INSTALLED WATER MAINS, REGARDLESS OF MATERIAL.
- 9. 3" WIDE NON-METALLIC BLUE TAPE IDENTIFIED AS "BURIED WATER LINE" SHALL BE INSTALLED 12" BELOW FINAL GRADE OVER WATER MAIN.



CONCRETE DRIVEWAY REPAIR

NOT TO SCALE

EXISTING BASE COURSE-

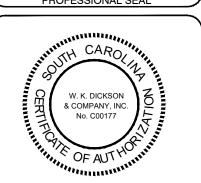
(THICKNESS VARIES)

- 1. USE SUITABLE MATERIAL REMOVED DURING TRENCH EXCAVATION FOR BACKFILL UNLESS
- DIRECTED OTHERWISE BY ENGINEER. 2. ALL O.S.H.A. REQUIREMENTS SHALL BE ADHERED TO FOR TRENCHING OPERATIONS.
- 2. ALL DRIVEWAYS TO BE CUT AND REPAIRED TO PRE-CONSTRUCTION CONDITION. CONTRACTOR TO COORDINATE WITH PROPERTY OWNERS TO ENSURE ACCESS TO PROPERTY DURING.

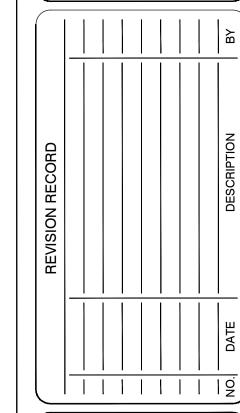
1320 MAIN STREET

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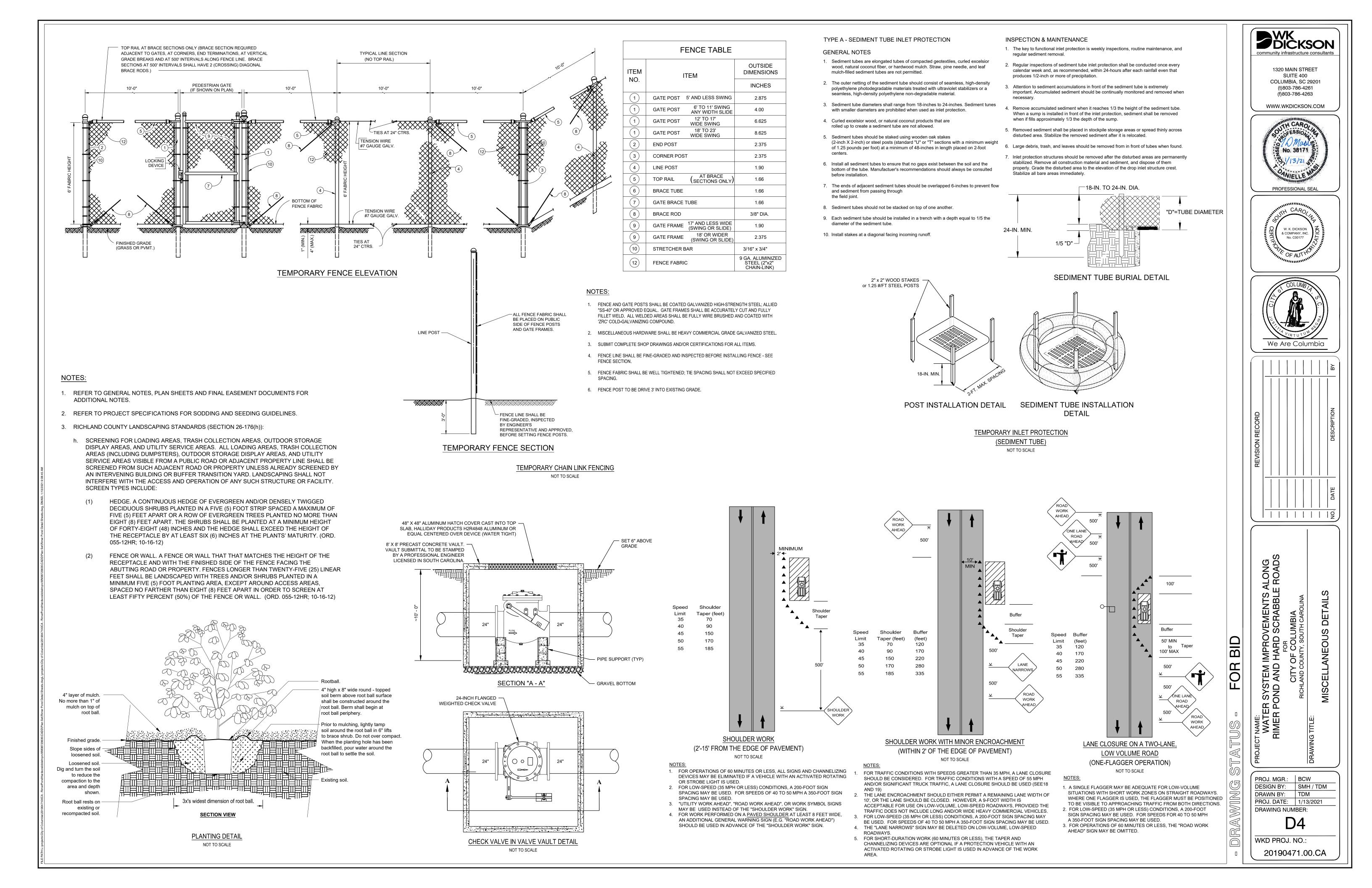
VEMENTS ALON SCRABBLE ROA

IMPRO HARD TEM SYS-

PROJ. MGR.: BCW DESIGN BY: SMH / TDM DRAWN BY: TDM PROJ. DATE: 1/13/2021

DRAWING NUMBER:

WKD PROJ. NO.:



TMS#	Rimer Pond Road Easement Conditions Conditions
Easement #3 Richard Blake Nelson, Jr. R17800-05-03 152 Rimer Pond Rd	As further consideration for this easement, the City of Columbia agrees to provide one 3/4-inch water tap (service to one single family dwelling unit, or equivalent) and a Dual Check Valve for the above- described property without fee. The City does not waive any of the usual rules, regulations, or monthly service charges normally required by the City at the point in time application for this free connection is made. It is understood and agreed that the City will set the water meter and install the Dual Check Valve at the easement line nearest the building to be served and that the property owner will install the necessary service lines from the meter to the point of intended use. It is further understood and agreed that this instrument must be presented at the time application for the free tap is made.
	1. Should any of the property markers be disturbed or removed during the course of construction of the herein-referenced water main, they shall be restored to their original locations upon completion of construction. 2. Should any of the various bushes located in the permanent easement area be removed as a result of the construction work, the City of Columbia agrees to replace said bushes with comparable variety from nursery stock of a
	minimum size of 15 gallons per bush. 3. The City of Columbia is aw are of electric and w ater line crossing the permanent easement area and agrees to restore and/or replace the light pole and w ater spigot located w ithin the drivew ay island of the subject property if
Easement # 6 Charlene P. Law yer & Stephanie F. Haas	damaged or removed during construction of the herein-referenced water main within sixty (60) days of completion of construction on the subject property of the herein-referenced water main project. 4. The City of Columbia further agrees to restore the drivew ay and replace the cement drivew ay curbing if damaged or removed during construction of the herein-referenced water main to its original or better than condition and spread fresh crusher run along the drivew ay area shown on the attached Exhibit "A" within sixty (60) days of completion of construction on the subject property of the herein-referenced water main project.
R17800-05-06 164 Rimer Pond Rd	5. Grantor reserves unto itself, its successors and assigns, successors in title, assignees, invitees, lessees, guests, customers, and anyone to whom Grantor may lease all or a portion of the property over which the aforesaid easement is granted the right of access, and the right to landscape, pave, fence (no masonry or concrete footings), park (no commercial weight vehicles), and otherwise use the easement area in any manner that does not materially and adversely affect the easement granted hereunder.
	6. Additionally, Grantor reserves unto itself, its successors and assigns, successors in title, assignees, invitees, lessees, guests, customers, and anyone to whom Grantor may lease all or a portion of the property over which the aforesaid easement is granted the right to install and maintain other utilities, including but not limited to water, sanitary sewer, electricity, gas, cable television cables, telephone lines, fiber optic lines, and other similar utilities to serve the Grantor's adjoining property, that cross the easement area at approximate right angles and grant easements to the same, provided, however, any such easements shall be subject to this easement to the City of Columbia, and the prior approval of the City of Columbia.
Easement #7 Tara of Columbia, LLC R17800-05-07 168 Rimer Pond Rd	As further consideration for this easement, the City of Columbia agrees to provide one 3/4-inch water tap (service to one single family dwelling unit, or equivalent) and a Dual Check Valve for the above-described property without fee. The City does not waive any of the usual rules, regulations, or monthly service charges normally required by the City at the point in time application for this free connection is made. It is understood and agreed that the City will set the water meter and install the Dual Check Valve at the easement line nearest the building to be served and that the property owner will install the necessary service lines from the meter to the point of intended use. It is further understood and agreed that this instrument must be presented at the time application for the free tap is made. It is further understood and agreed that unless application for this free connection is made within a period of five (5) years from the date of this easement, this provision is null and void and the applicant must pay the prevailing fee for connection to the water main.
Easement #8 Clarence K. & Brenda W. Timme	1. The City of Columbia agrees to set one residential tap on the subject w ater main to be constructed on the subject property without fee. Cost for the meter and dual check valve for the above-described property is the responsibility of the property ow ner and the City does not w aive any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for this connection is made.
R17800-05-15 178 Rimer Pond Rd Easement #9	2. Upon completion of construction the City shall replace all property markers back to their preconstruction original location. 1. During the process of construction of the herein-referenced water main, every effort will be made to save the Cypress tree located within the easement area. The Cypress tree will be subject to a one (1) year warranty and should it die within one (1) year after completion of the construction of the water main, the City of Columbia will remove the tree and all debris from the subject property at its sole expense and coordinate with a local nursery to replace said Cypress tree from nursery stock of a minimum size of 15 gallons and plant it outside of the easement area on the subject property as specified by the Grantor herein.
Mildred S. Athanasoff R17700-01-11 200 Rimer Pond Rd	2. The City of Columbia agrees to set one residential tap on the subject w ater main to be constructed on the subject property w ithout fee. Cost for the meter and dual check valve for the above-described property is the responsibility of the property owner and the City does not waive any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for this connection is made.
Easement #11	3. Upon completion of construction the City shall replace all property markers back to their preconstruction original location. The following improvements if damaged or removed during construction of the referenced project, will be restored to as nearly as practicable to the original condition or any portion of the improvements that are damaged shall be repaired or replaced in the City's sole discretion to the pre-construction condition: 1. The Berm; restored to its original location, width and height.
Donnie E & Carolyn B. Peake R17801-01-01 101 Shoal Creek Ln	 Turf Grass to match existing law n on the subject property. The irrigation System within the easement area. The Subdivision Stone Wall Entrance Sign (if damaged or removed for construction.) Landscape Lighting within the easement area. The White Vinyl Fence to be reinstalled in its original location (if damaged or removed for construction). If the fence is damaged, the City shall replace the damaged sections with comparable fencing. 1-Year Warranty for Leyland Cypress adjacent to the easement along the northern property line of the subject property.
Easement #12 James L. & Esther S. Gallieshaw R17800-05-08	The City of Columbia agrees to set one residential tap on the subject water main to be constructed on the subject property without fee. Cost for the meter and Dual Check Valve for the above- described property is the responsibility of the property owner and the City does not waive any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for this connection is made.
216 Rimer Pond Rd Easement #13 Benjamin & Janice L.	1. The City of Columbia agrees to set one residential tap on the subject water main to be constructed on the subject property without fee. Cost for the meter and Dual Check Valve for the above-described property is the responsibility of the property owner and the City does not waive any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for this connection is made.
Montgomery R17800-05-10 228 Rimer Pond Rd	2. During the process of construction of the herein-referenced water main, every effort will be made to save the Cypress tree located within the easement area. The Cypress tree will be subject to a one-year warranty and should it die within one year after completion of the construction of the water main, the City of Columbia will remove the tree and all debris from the subject property at its sole expense and coordinate with a local nursery to replace said
	Cypress tree from nursery stock of a minimum size of 15 gallons and plant it outside of the easement area on the subject property as specified by the Grantor herein. 1. Your property will be restored as nearly as possible to its original condition. This includes the existing concrete driveway, sprinkler systems, lighting, flag pole, landscaping and any other improvements located within the permanent easement; however, trees will not be replaced within the permanent easement area and shall be removed from the property and replaced with landscaping turf to match the existing law n of the subject property.
Easement #14 Jimmie L. & Peggy Jo Cow ard	2. The City of Columbia agrees to set one residential 3/4" tap on the subject water main to be constructed on the subject property without fee. The cost for the meter and dual check valve for the above-described property is the responsibility of the property owner and the City does not waive any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for this connection is made.
R17800-05-09 238 Rimer Pond Rd	3. Granter shall not be required by the City of Columbia to connect to the City of Columbia water system once it is approved for operation and maintenance.
	4. The easement granted herein is for the explicit purposes outlined herein and no other type of utility can locate within the said water easement without the express written permission of the property owner and the City of Columbia collectively.
Easement #16 Carol A. Bermudez R17805-01-06 238 Rimer Pond Rd	The City of Columbia, its contractor, agents and employees are aw are of the existence of a septic system and/or drain field on the subject property within close proximity to the easement granted herein, and if it is determined that during construction of the herein-referenced water main project, damages occurred to the existing septic system and/or drain field as a result of the water main construction activities, the City of Columbia shall be responsible for the necessary repairs to the septic system and/or drain field.
Easement #17 Vida D. & Michael Nocholson R17805-01-05 240 Rimer Pond Rd	The City of Columbia, its contractor, agents and employees are aw are of the existence of a septic system and/or drain field on the subject property within close proximity to the easement granted herein, and if it is determined that during construction of the herein-referenced water main project, damages occurred to the existing septic system and/or drain field as a result of the water main construction activities, the City of Columbia shall be responsible for the necessary repairs to the septic system and/or drain field.
Easement #18 Gloria Mae Samuels R17805-01-04 242 Rimer Pond Rd	The City of Columbia, its contractor, agents and employees are aw are of the existence of a septic system and/or drain field on the subject property within close proximity to the easement granted herein, and if it is determined that during construction of the herein-referenced water main project, damages occurred to the existing septic system and/or drain field as a result of the water main construction activities, the City of Columbia shall be responsible for the necessary repairs to the septic system and/or drain field.
Easement #19 Denise L. Harrison R17805-01-03 244 Rimer Pond Rd	The City of Columbia, its contractor, agents and employees are aw are of the existence of a septic system and/or drain field on the subject property within close proximity to the easement granted herein, and if it is determined that during construction of the herein-referenced water main project, damages occurred to the existing septic system and/or drain field as a result of the water main construction activities, the City of Columbia shall be responsible for the necessary repairs to the septic system and/or drain field.
Easement #20	1. The herein-described twenty-five (25) feet permanent water easement is specifically granted for construction of the herein-referenced water main within the twenty (20) foot easement area outside of the designated "5' Tree Protection Zone" (within the boundaries of the said 25' permanent easement), which is located along the northeastern property line of the subject property and adjacent to the southwestern right-of-way of Rimer Pond Road.
Adolfo G. Fabregat R17805-01-02 250 Rimer Pond Rd	2. The City, its contractors, agents and assigns shall be responsible to leave the subject property clear of debris and graded to match the existing slope of the property. The City of Columbia agrees to remove all trees, bushes and stumps from the twenty (20) foot portion of said water easement, excluding the "5" tree protection zone" portion of the said water easement.
	3. Additionally, the City shall remove all trees, bushes and stumps from the "5' tree protection zone" for the construction of the herein-referenced water main and hereby agrees that the Grantor shall have the right to plant trees within the portion of the said water easement designated as a "5' Tree Protection Zone" only.
	1. The City of Columbia agrees to set one residential 3/4" tap on the subject water main to be constructed on the subject property without fee. The cost for the meter and dual check valve for the above-described property is the responsibility of the property owner and the City does not waive any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for this connection is made.
	2. The herein-referenced w ater main will be placed southwest of the existing landscaping consisting of Leyland Cypress trees and other various bushes along the northeastern property line of the subject property.
Easement #22	3. All reasonable effort shall be made to minimize impact and disturbance to the existing landscaping during the construction of the herein-referenced water main, should any of the Leyland Cypress, Baeagnus or various bushes located in the easement area be removed as a result of the construction work, the City of Columbia agrees to replace said Leyland Cypress, Baeagnus or various bushes with comparable variety from nursery stock of a minimum siz of 30 gallons per tree or bush. Additionally, the law n/turf shall also be restored.
John J. III & Tracy D. Hair R17700-01-78 252 Rimer Pond Rd	4. Should any of the existing or replaced shrubbery or tree(s) die w ithin one (1) year after the completion date of the construction of the herein-referenced water main on the subject property, the City shall replace said shrubbery or tree(s) with a comparable variety from nursery stock of a minimum size of 30 gallons per tree or bush. This warranty shall also extend to existing landscaping within the permanent easement area.
	5. During construction, it may be necessary to remove the existing brick column(s), electronic gate and cyclone fencing. The City of Columbia agrees to install a temporary fence on the subject property during construction.
	6. Also, the City of Columbia agrees to professionally restore and/or replace the brick column(s), electronic gate and/or cyclone fencing removed or damaged during construction of the herein- referenced water main to a location outside of the permanent water easement along the southwestern boundary of said easement. All reasonable efforts shall be made to restore the fence line its original location regardless of column relocation/replacement.
	7. The City of Columbia, its contractor, agents and employees are aw are of the existence of an irrigation system on the subject property within the water easement granted herein, and if it is determined that during construction of the herein-referenced water main, damages occurred to the existing irrigation system as a result of the water main construction activities, the City of Columbia shall be responsible for the necessary repairs to the irrigation system within one (1) year from the completion date of construction of the water main along the subject property.

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1. THIS TABLE CONTAINS EASEMENT CONDITIONS

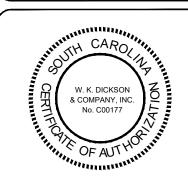
- FROM THE FINAL EASEMENT DOCUMENTS.
- 2. THIS TABLE IS FOR REFERENCE. CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL EASEMENT CONDITIONS IN FINAL EASEMENT DOCUMENTS.

TMS#	Rimer Pond Road Easement Conditions Cont. Conditions
	1. Extensive damage to Grantor's existing mature landscape buffer consisting of 11 Leyland Cypress trees, 12 Wax Myrtles bushes, 11 Crepe Myrtles trees, and other various bushes located within the permanent easement area cannot be avoided nor restored to a practicable original condition; therefore, a temporary chain link fence with privacy slats will be installed along the full length and adjacent to the permanent easement for the duration of construction along the subject property to maintain privacy and secure the premises. Said temporary fence shall remain in place until the new wooden privacy fence is completed.
Michael Tolson	2. The City of Columbia agrees to rebuild the berm along the northeastern property line of the subject property to its current elevation grade above Rimer Pond Road (S-40-1041) and restore the subject property to its existing elevation.
4 Eagles Ridge Ct	3. The City of Columbia, in lieu of replacing the existing landscape within the permanent easement area agrees to install a wooden privacy fence six (6) feet tall along the entire length of the northeastern property line adjacent to Rime Pond Road and follow the grade of the subject property within 60 days of completion of the water main construction along the subject property. Said fence shall be-the sole property of the Grantor herein. The picture of said fence provided to the City of Columbia by the Granter shall be included in the approve construction plans as part of the restoration for the subject property.
	4. Should any trees on the subject property within ten (10) feet of the permanent easement area die as a result of the construction of this project within one (1) year after the completion date of the construction of the herein-referenced water main, the City shall remove said tree at its sole expense
	1. A temporary chain link fence with privacy slats will be installed adjacent to the permanent easement for the duration of construction along the subject property to maintain privacy and secure the premises.
	2. The City of Columbia, its contractors, agents and employees are aw are of the existence of a septic system and/or drain field on the subject property within close proximity to the easement granted herein, and if it is determined that during construction of the herein- referenced water main project, damages occurred to the existing septic system and/or drain filed as a result of the water main construction activities, the City of Columbia shall be responsible for making necessary repairs within thirty (30) days after construction has been completed to the septic system and/or drain field.
R17708-01-01	3. The City of Columbia further agrees, in lieu of replacing the existing landscaping within the permanent easement area, agrees to replace the existing wooden fence with a six (6) feet tall wooden privacy fence, along the southeastern property line of the subject property within 60 days of completion of the water main construction along the subject property.
	4. The City of Columbia, its contractor, agents and employees are aw are of the existence of an irrigation system on the subject property within the easement granted herein, and if it is determined that during construction of the herein referenced water main, damages occurred to the existing irrigation system as a result of the water main construction activities, the City of Columbia shall be responsible for the necessary repairs to the irrigation system within one (1) year from the completion date of construction of the water main along the subject property. 1. Reasonable effort shall be made to minimize impact and disturbance to the existing rock wall and landscaping near the Eagles Glen Subdivision entrance consisting of various bushes located along the permanent water main
	easement area.
Duane A. Sharpe & Donna A. Sharpe	2. The entire permanent easement area southwest of the subdivision entrance rock wall will be cleared of all underbrush and trees, leveled off and seeded for grass upon completion of construction of the herein-referenced water main. Should any of various bushes located in the permanent easement area be removed as a result of the construction work, the City of Columbia agrees to replace said bushes with comparable variety from nursery stock of a minimum size of 15 gallons per bush.
TITLE PAGES RIGGE FOR T	3. Should any of the replaced shrubbery die within one (1) year after the completion date of the construction of the herein-referenced water main, the City shall replace the shrubbery with a comparable variety from nursery stock at the City's sole expense.
	4. Should any of the trees within ten (10) feet of the permanent easement area die within one (1) year after the completion date of the construction of the herein-referenced water main, the City shall remove said tree(s) at the City's sole expense. 1. The construction of the herein-referenced project will not block the driveway nor the overflow parking area during construction.
	2. The City and/or its contractor are specifically restricted from construction activities on Sundays.
	3. The staging of materials or equipment on the subject property will be confined to the area between the two (2) power poles located north of the Church sign/entrance driveway.
	4. Reasonable effort shall be made to minimize impact and disturbance to the existing landscaping consisting of Church sign, oak trees and law n turf located along the permanent water main easement area. The herein-referenced project will be constructed behind (west) of the existing church sign without removal or damage to said sign.
-	5. During the construction of the herein-referenced water main, should any of the trees located in/near the permanent water main easement area be removed as a result of the construction work, the City of Columbia agrees to replace said trees with comparable variety from nursery stock of a minimum size of 15 gallons per tree and shall plant them outside of the easement area on the subject property as specified by the Grantor herein.
	6. The City further agrees to replace any damaged grass (law n/turf) with the same variety of existing grass (law n/turf) with sod.
Easement #34	7. Should any of the relocated/replaced trees and or lawn turf die within one (1) year after the completion date of the construction of the herein-referenced water main on the subject property, the City shall replace the tree(s) and lawn/turf with a comparable variety from nursery stock at the City's sole expense.
	8. The City of Columbia, its contractor, agents and employees are aw are of the existence of an irrigation system, on the subject property within close proximity to the easement granted herein, and if it is determined that during construction of the herein-referenced water main, damages occurred to the existing irrigation system, as a result of the water main construction activities, the City of Columbia shall be responsible for the necessary repairs to the irrigation system within one (1) year from the completion date of construction of the water main along the subject property.
Nancy Sue R Smith	The City will agree to set one standard residential tap for the subject property. It is understood and agreed that the City does not waive the fees for a Dual Check Valve, meter nor any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for water service is made.
	1. The entire easement area will be videoed and/or pictures will be taken of all improvements within the easement area along the subject properties prior to the commencement of construction to ensure that the improvements are restored as nearly as practicable to pre-construction condition.
	2. The fence along the subject property will be re-installed upon completion of the project.
Fasement #41	3. Temporary fencing shall be in place on the subject property during construction.
Michael A. & Shirley J.	4. The City will place metal plates as needed over the existing drivew ays located on the subject property during construction until restoration is completed.
R17700-01-24 416 Rimer Pond Rd	5. Every effort will be made to avoid the brick columns on the subject property, how ever, if the brick columns have to be taken down during construction, the brick columns will be reconstructed with the same or similar brick and materials upon completion of the project. 6. Grantor acknowledges that the electrical gate is not functional. If the gate must be removed along the subject property, the gate will be re-installed upon completion of the project.
	7. The City will agree to set one standard residential tap for the subject property. It is understood and agreed that the City does not waive the fees for a dual check valve, meter nor any of the usual rules, regulations or monthly
	service charges normally required by the City at the point in time application for water service is made.
	8. During construction of the referenced water main, any questions or concerns should be made to the City's Construction Management Division at (803) 545-3372 and the project inspector will address any questions or concerns. 1. The City will video and/or take pictures of the easement area on the subject property prior to construction to ensure that the existing iron fence is reinstalled on the subject property to the pre-construction conditions.
Easement #42 Shirley B. Nelson	2. Access must be available in and out of the driveway at all times w hile construction is being performed on the subject property.
	3. The City will agree to set one standard residential tap for the subject property. It is understood and agreed that the City does not waive the fees for a Dual Check Valve, meter nor any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for water service is made. 1. The four (4) rear brick columns, two (2) rear walls and gate will be reconstructed at a point three (3) feet south of the water easement on the subject property.
	2. All existing shrubbery will be removed and replaced with the same variety from nursery stock.
Willis Fugene Lee	3. Any damage to the existing sprinkler system will be repaired with like materials and shall have a one (1)-year warranty.
444 Rimer Pond Rd	4. The existing fence will be replaced in its same location parallel to Rimer Pond Road.
	5. The centipede sod will be replaced where existing centipede sod is located. 1. Access will be available for ingress and egress to the property at all times while construction is being performed on the subject property.
Easement #44	2. The fence and gate along the subject property will be restored and/or replaced to its original pre-construction condition upon completion of the project.
Dosnie iviarie Huff	3. The City will video and/or take pictures of the easement area on the subject property prior to construction to ensure all conditions are met in a reasonable manner.
R17700-01-27 448 Rimer Pond Rd	4. The City of Columbia will have an inspector for this project who will ensure that the construction is done in accordance with the approved construction plans and the terms and conditions of the easement.
	5. The City will agree to set one standard residential tap for the subject property. It is understood and agreed that the City does not waive the fees for a Dual Check Valve, meter nor any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for water service is made.
	1. The existing white wood fence along the subject property will be re-installed during the restoration phase of construction. The City, through its contractor shall replace with the same type of fence boarding of the existing white wood fence located on the subject property should the fence be damaged or requires total restoration. High quality Benjamin Moore mildew resistant paint, a primer and two coats of paint will be used for painting restoration.
Easement #45 M. Keith & Barbara E. Ball	3···

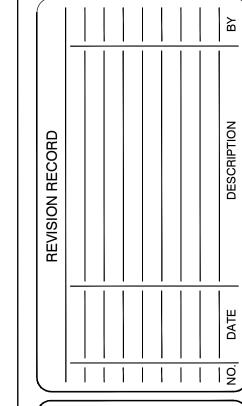
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WATER SYSTEM IMPROVEMENTS ALONG
WATER POND AND HARD SCRABBLE ROADS
FOR
CITY OF COLUMBIA
RICHLAND COUNTY, SOUTH CAROLINA

PROJ. MGR.: BCW DESIGN BY: SMH / TDM
DRAWN BY: TDM

PROJ. DATE: 1/13/2021 DRAWING NUMBER:

WKD PROJ. NO.: 20190471.00.CA

TMS#	Rimer Pond Road Easement Conditions Cont. Conditions
	1. No vehicles or equipment can be left on or in front of the subject property overnight and when work is not being performed.
Easement #46	2. Access must be available in and out of the drivew ay at all times while construction is being performed on the subject property.
Margaret E Anderson R17700-01-28	3. The construction w ork on the subject property must be performed in a reasonable time frame w hile keeping the property ow ner informed if any unforeseen issues arise from the construction process.
458 Rimer Pond Rd	4. If any drainage areas are disturbed adjacent to the subject property, necessary repairs will be made to restore the drainage areas to the pre-construction condition.
	5. The City will video and/or take pictures of the easement area and road right-of-way area in front of the subject property prior to construction to ensure all conditions are met in a reasonable manner.
Easement #48A Sycamore Development, LLC	1. The Granter reserves unto itself, its successors and assigns, successors in title, assignees, invitees, lessees, guests, customers, and anyone to whom Granter may lease all or a portion of the property over which the aforesaid easement is granted the right of access, and the right to landscape, pave, fence (no masonry or concrete footings), park (no commercial weight vehicles), and otherwise use of the easement area in any manner that does not materially and adversely affect the easement granted hereunder.
R20500-04-27 502 Rimer Pond Rd	2. Additionally, Grantor reserves unto itself, its successors and assigns, successors in title, assignees, invitees, lessees, guests, customers, and anyone to whom Grantor may lease all or a portion of the property over which the aforesaid easement is granted the right to install and maintain other utilities, including but not limited to water, sanitary sewer, electricity, gas, cable television cables, telephone lines, fiber optics lines, and other similar utilities to serve the Grantor's adjoining property, that cross the easement area at approximate right angles and grant easements to the same, provided, however, any such easements shall be subject to this easement to the City of Columbia.
Easement #48B Rimer Pond Land	1. The Granter has the right to landscape (ornamental shrubbery only, no trees), pave, fence (no masonry or concrete footings), park (no commercial weight vehicles), and otherwise use the easement area in any manner that does not materially and adversely affect the water main and/or easement granted hereunder.
Investors, LLC R20500-04-29 502 Rimer Pond Rd	2. The Granter shall be able to proceed with the project design and use the allowed vegetation within the easement area that is under the City's current easement encroachment policy as of the date of execution of this document. If the City's encroachment policy should change between the date of execution of this document to the time the Granter has begun construction, the Granter shall have three (3) years from the date of this documents execution to abide by the encroachment policy in place on the day of this documents execution.
Easement #49 William Simons Bradham, Jr. & David Wright Bradham R20500-04-01 532 Rimer Pond Rd	The City will agree to set one standard residential tap for the subject property. It is understood and agreed that the City does not waive the fees for a Dual Check Valve, meter nor any of the usual rules, regulations or monthly service charges normally required by the City at the point in time application for water service is made.
	1. The entire route of the construction project will be videoed prior to commencement of construction to ensure proper restoration of the Grantors property and any improvements on the Grantors property located within the construction project area.
	2. The City of Columbia will have an inspector for this project who will ensure that the construction is done in accordance with the approved construction plans and the terms and conditions of the easement. Should the Grantor encounter any unforeseen issues regarding the construction along the subject property, then the Grantor shall inform the project inspector of the issues for resolution or contact the City of Columbia Construction Management Department at 803-545-3372.
	3a. The City of Columbia, its contractor, agents and employees will remain only within the immediate area of the work being performed during the construction and restoration work on the subject property.
	3b. Temporary fencing will be installed to prohibit unw arranted access to the property during the construction and restoration phases of the project.
	3c. The City of Columbia, its contractor, agents and employees shall not obstruct the Grantors' access to their residence located on the subject property during construction. Should the existing main driveway located along the subject property be impeded due to the water line construction activity; the City of Columbia, its contractor, agents and employees shall provide an alternate temporary access to the residence for the Grantors' use only.
	4. The City, through its Contractor, agrees to disassemble any portions of the existing wooden privacy fence located on the northern boundary of the subject property at the latest reasonable time as the Construction of the new water main is nearing the subject property, while adhering to best engineering practices. Additionally, the City, through its contractor will agree to install temporary privacy fencing of the same height or greater of the existing wooden fence located on the subject property and it is understood that the contractor shall not leave any gaps in the fencing that would impact privacy during this temporary privacy fencing component to the construction process, while adhering to best engineering practices.
	4a. The City, through its Contractor, agrees to re-assemble any portions of the existing wooden privacy fence which are affected during the construction located on the northern boundary of the subject property as soon as reasonably practicable once construction is fully completed along the subject property and during the restoration phase of the project, while adhering to best engineering practices. Additionally, the City, through its contractor agrees to re-assemble the existing wooden privacy fence to its original location along the subject property in a reasonable timeframe and shall not leave any gaps in the fencing that would impact privacy during this re-assembling component to the construction process, while adhering to best engineering practices.
	4b. The City, through its Contractor, agrees to disassemble any portions of the existing wire fence and any gates associated with the existing wire fence that are located within the easement areas on the subject property and affected by the construction project at the latest reasonable time as the construction of the new water main is nearing the subject property, while adhering to best engineering practices. Additionally, the City, through its Contractor, agrees to assemble temporary wire fencing and temporary gates of the same height or greater of the existing wire fence and gates associated with the existing wire fence currently located on the subject property. It is understood that the contractor shall not leave any gaps in the fencing that would impact privacy during this temporary privacy fencing component to the construction process, while adhering to best engineering practices.
	4c. The City, through its Contractor, agrees to re-assemble any portions of the existing wire fence and any gates associated with the existing wire fence that are located on the subject property as soon as reasonably practicable once construction is fully completed along the subject property and during the restoration phase of the project, while adhering to best engineering practices. Additionally, the City, through its Contractor, agrees to re-assemble the existing wire fence to its original location along the subject property in a reasonable timeframe and shall not leave any gaps in the fencing that would impact privacy during this re-assembling component to the construction process, while adhering to best engineering practices.
English R20500-04-05 596 Rimer Pond Rd	4d. Should any portion of the wooden privacy fencing located within the easement and construction areas not be able to be re-assembled due to the current state or the existing state at the time of construction along the subject property, then the contractor shall install new wooden privacy fencing of the closest style, color and stain to match the existing wooden privacy fence for the sections to be removed from the easement and construction areas located on the subject property.
	4e. Any damages to the existing wooden privacy fencing or the existing wire fencing located on the subject property shall be restored to as nearly as practicable to the original condition of the said fencing prior to construction at no cost to the Granter.
	4. Every effort will be made by the City through its contractor, to not disturb the existing Bradford Pear trees located adjacent to the subject property at the right-of-way boundary of Rimer Pond Road.
	5. Trees w hich must be removed in the permanent easement areas along the northeastern portion of the subject property from the termination of the existing w ooden privacy fence to the northeastern property corner of the subject property shall include the removal of the trees and the associated stumps and debris from the subject property.
	6. The existing large Pine tree (20" to 30" in diameter) shall be marked and not damaged or removed during construction of the subject project.
	7. The City, through its Contractor, will replace the any of the existing Crepe Myrtle trees which are located within the easement area and which line the drivew ay along the subject property. Each existing Crepe Myrtle tree affected shall be replaced with new (15) gallon Crepe Myrtle trees in a location outside of existing easement area along the subject property. The Granter shall instruct the Contractor as to the specific locations of the new planted fifteen (15) gallon Crepe Myrtle trees. The new planted Crepe Myrtle trees shall be subject to a one year warranty, subject to the Granter exercising normal care and irrigation of said trees, and should the new fifteen (15) gallon Crepe Myrtle trees die within one year after being planted, the City of Columbia will replace the said Crepe Myrtle tree with a new 15-gallon Crepe Myrtle tree at its sole expense. This condition shall be acknowledged by the Granter that the City must be granted temporary permission for the contractor to work outside of the easement boundaries for tree planting purposes only during the restoration phase of the project.
	8. The City, through its Contractor will agree to construct one sufficient temporary dog pen for purposes of housing Granters' dogs. This temporary fenced dog pen would be placed on the subject property at the direction of the Granter and the Grantor shall grant permission to the Contractor to erect a dog pen outside of the Easement area.
	9. Any portion of outdoor lighting that is disturbed or damaged as a result of the water main construction will be repaired and/or replaced with the same style fixtures, and to the same standard which existed prior to water main construction along the subject property. This condition shall be acknowledged by the Grantor that the City must be granted temporary permission, if necessary, for the contractor to work outside of the easement boundary for outdoor lighting reinstallation purposes. All electrical restoration work shall be done as soon as practicable once the construction has been completed along the subject property.
	10. All sections of the drivew ay that are impacted by the water main construction along the subject property will be restored with the same materials to a condition that is as nearly as practicable or better than the original condition during the restoration phase of the project.
	11. Prior to construction along the subject property, the Contractor is responsible for locating all underground utilities. Should the water line construction impact electrical service or any other utility services to the residence or other structure on the subject property, the contractor shall address the issue immediately and coordinate with the power company and/or other utility provider to restore service to the residence and/or other structure located on the

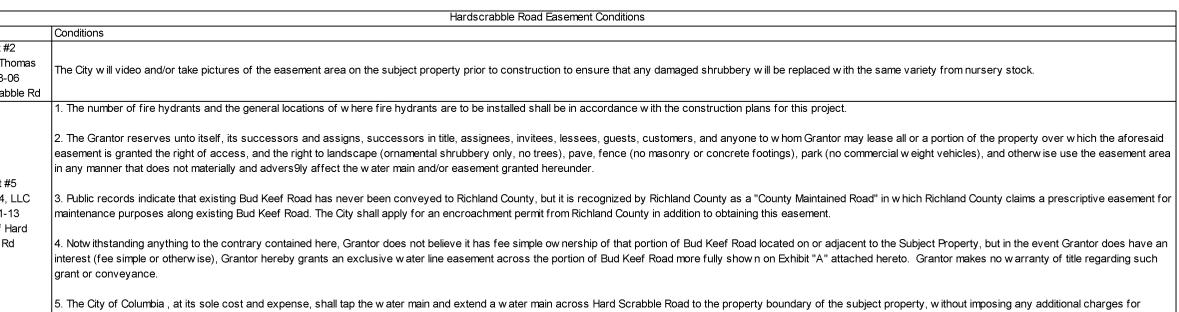
structure on the subject property, the contractor shall address the issue immediately and coordinate with the power company and/or other utility provider to restore service to the residence and/or other structure located on the subject property. Should any unforeseen issues arise concerning services for use of the residence or other structure on the subject property other than during construction activities and for a limited time, the Grantor shall be notified.

- NOTE:

 1. THIS TABLE CONTAINS EASEMENT CONDITIONS

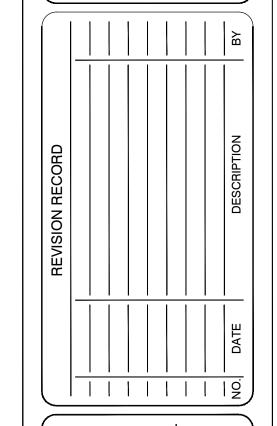
 THIS TABLE CONTAINS EASEMENT DOCUMENTS.
- FROM THE FINAL EASEMENT DOCUMENTS. 2. THIS TABLE IS FOR REFERENCE. CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL EASEMENT CONDITIONS IN FINAL EASEMENT DOCUMENTS.

Hardscrabble Road Easement Conditions	
TMS#	Conditions
Easement #2 Katherine W. Thomas	
R20500-03-06	The City will video and/or take pictures of the easement area on the subject property prior to construction to ensure that any damaged shrubbery will be replaced with the same variety from nursery stock.
5338 Hard Scrabble Rd	
	1. The number of fire hydrants and the general locations of where fire hydrants are to be installed shall be in accordance with the construction plans for this project.
5-0-0-room #5	2. The Grantor reserves unto itself, its successors and assigns, successors in title, assignees, invitees, lessees, guests, customers, and anyone to whom Grantor may lease all or a portion of the property over which the aforesaid easement is granted the right of access, and the right to landscape (ornamental shrubbery only, no trees), pave, fence (no masonry or concrete footings), park (no commercial weight vehicles), and otherwise use the easement area in any manner that does not materially and advers9ly affect the water main and/or easement granted hereunder.
Easement #5 Columbia 184, LLC R20400-01-13 East Side of Hard Scrabble Rd	3. Public records indicate that existing Bud Keef Road has never been conveyed to Richland County, but it is recognized by Richland County as a "County Maintained Road" in which Richland County claims a prescriptive easement for maintenance purposes along existing Bud Keef Road. The City shall apply for an encroachment permit from Richland County in addition to obtaining this easement.
	4. Notw ithstanding anything to the contrary contained here, Grantor does not believe it has fee simple ow nership of that portion of Bud Keef Road located on or adjacent to the Subject Property, but in the event Grantor does have an interest (fee simple or otherwise), Grantor hereby grants an exclusive water line easement across the portion of Bud Keef Road more fully shown on Exhibit "A" attached hereto. Grantor makes no warranty of title regarding such grant or conveyance.
	5. The City of Columbia, at its sole cost and expense, shall tap the water main and extend a water main across Hard Scrabble Road to the property boundary of the subject property, without imposing any additional charges for boring, trenching or other similar activities necessary to extend service to that portion of the subject property currently owned by Grantor lying to the west of Hard Scrabble Road.









PROJ. MGR.: BCW DESIGN BY: SMH / TDM
DRAWN BY: TDM PROJ. DATE: 1/13/2021

DRAWING NUMBER:

WKD PROJ. NO.: