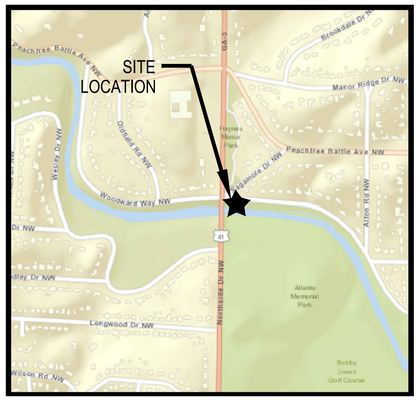
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
OFFICE OF ENGINEERING SERVICES

CITY OF ATLANTA
KEISHA LANCE BOTTOMS
MAYOR

DEPARTMENT OF WATERSHED MANAGEMENT
KISHIA L. POWELL
COMMISSIONER



LOCATION MAP

90% DESIGN PLANS
FOR
WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
FULTON COUNTY
FEBRUARY 2019

WSP USA Inc.
3340 PEACHTREE RD NE
SUITE 2400, TOWER PLACE 100
ATLANTA, GA 30326
TEL: 404-237-2115
FAX: 404-237-3015

24 HOUR CONTACT
ATLANTA WASTEWATER
CALL CENTER
(404) 954-6340

TREE PROTECTION ORDINANCE
PLEASE NOTE THAT THESE PLANS DO REQUIRE THE REMOVAL OF TREES. COMPLIANCE WITH CITY OF ATLANTA TREE PROTECTION ORDINANCE IS REQUIRED. PLEASE CONTACT CITY OF ATLANTA ARBORIST FOR MORE INFORMATION AT (404) 330-6150.

811 Know what's below. Call before you dig.

	REVISIONS	
	DATE	DESCRIPTION
ENGINEER OF RECORD		

SHEET INDEX

SHEET NO.	DWG NO.	SHEET TITLE
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G-001	2	SHEET INDEX
C001	3	PROPOSED CIVIL SITE PLAN
C002	4	DEMOLITION AND STAGING PLAN
C003	5	PROPOSED GRADING PLAN
C004	6	CIVIL PROFILES-1
C005	7	CIVIL PROFILES-2
C006 TO C012	8 TO 14	STANDARD DETAILS
S-01 & S-02	15 & 16	STRUCTURAL GENERAL NOTES
S-03	17	STRUCTURAL SITE LAYOUT PLAN
S-04	18	PUMP STATION STRUCTURAL SLABS
S-05	19	PUMP STATION SECTIONS & DETAILS
S-06 TO S-08	20 TO 22	PUMP STATION STRUCTURAL REINFORCING SECTIONS
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S-10	24	GENERATOR FOUNDATION PLAN
S-11	25	STRUCTURAL PLATFORM SECTIONS SHEET 1 OF 3
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90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
02/15/2019	ISSUE FOR 90% REVIEW

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

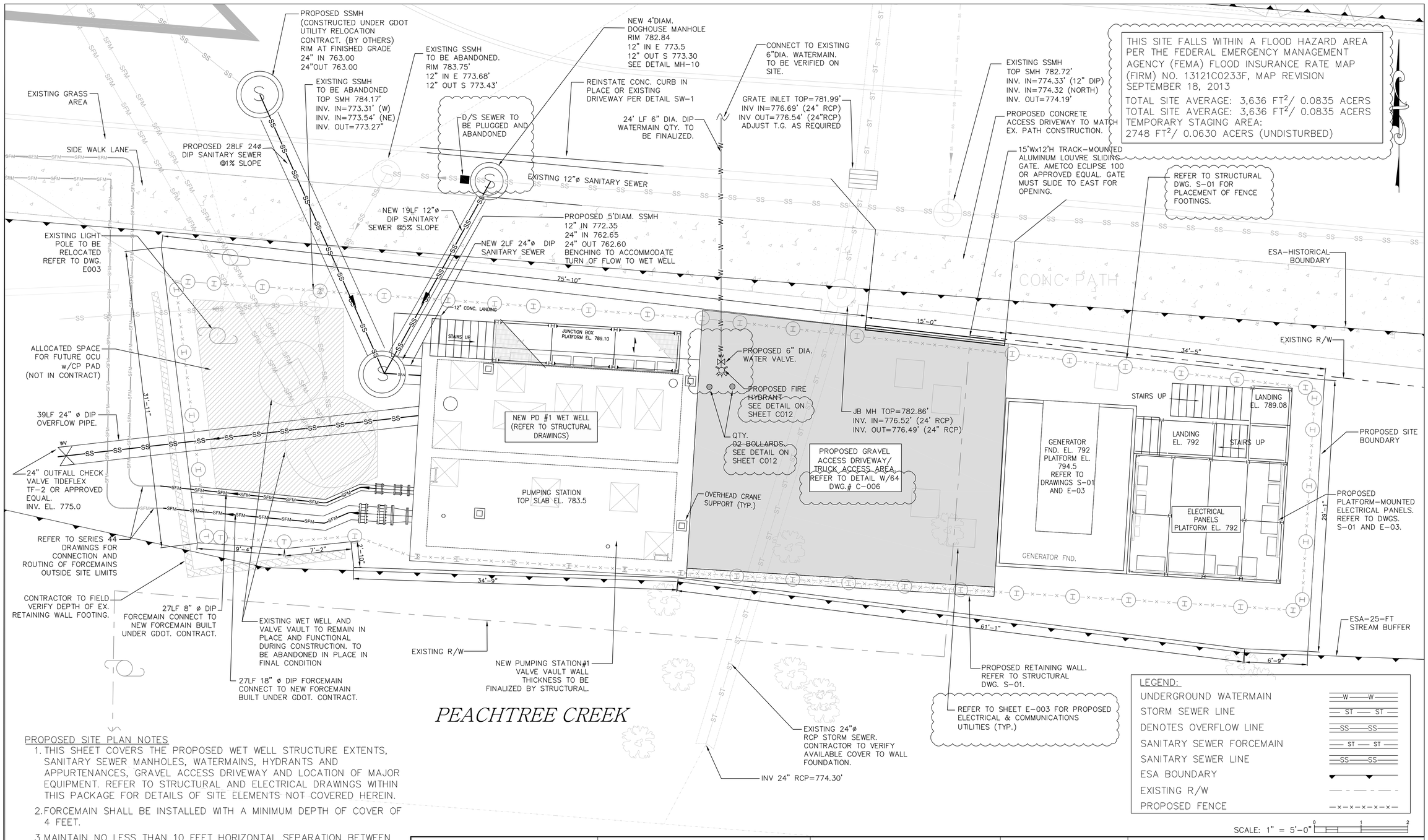
WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
SHEET INDEX

G-001			COUNTY FULTON	SCALE NTS
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DATE 02/20/2019

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. 2 OF 62

J:\185780 - City of Atlanta\5.0 Project Data\5.12 Owner Furnished Data\Task Order 03\WSP#27 SR3 NorthsideDr PeachtreeCr\RevisedDesign_July2_wPS1\PS_1Design\DWGs\Front End DWGs\Sheet Index.dwg



PROPOSED SITE PLAN NOTES

1. THIS SHEET COVERS THE PROPOSED WET WELL STRUCTURE EXTENTS, SANITARY SEWER MANHOLES, WATERMAINS, HYDRANTS AND APPURTENANCES, GRAVEL ACCESS DRIVEWAY AND LOCATION OF MAJOR EQUIPMENT. REFER TO STRUCTURAL AND ELECTRICAL DRAWINGS WITHIN THIS PACKAGE FOR DETAILS OF SITE ELEMENTS NOT COVERED HEREIN.
2. FORCEMAIN SHALL BE INSTALLED WITH A MINIMUM DEPTH OF COVER OF 4 FEET.
3. MAINTAIN NO LESS THAN 10 FEET HORIZONTAL SEPARATION BETWEEN FORCEMAIN AND ANY EXISTING OR PROPOSED WATER UTILITIES. FOLLOW ENCASEMENT REQUIREMENTS FOR ANY EXCEPTIONS WITH EOR APPROVAL.
4. UTILIZE FLOWABLE FILL WHERE FORCEMAIN CROSSES ABOVE OR BENEATH AN EXISTING CONDUIT.
5. ALL EXCAVATION SUPPORT SYSTEMS ARE TO BE SELECTED AND DESIGNED PER APPLICABLE LOCAL CODES AND REGULATIONS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR IN THEIR ENTIRETY.
6. CONTRACTOR SHALL REFER TO GEOTECHNICAL INVESTIGATION REPORT BY MC SQUARED INC FOR GUIDANCE ON ALL SUBSURFACE CONDITIONS ON SITE.

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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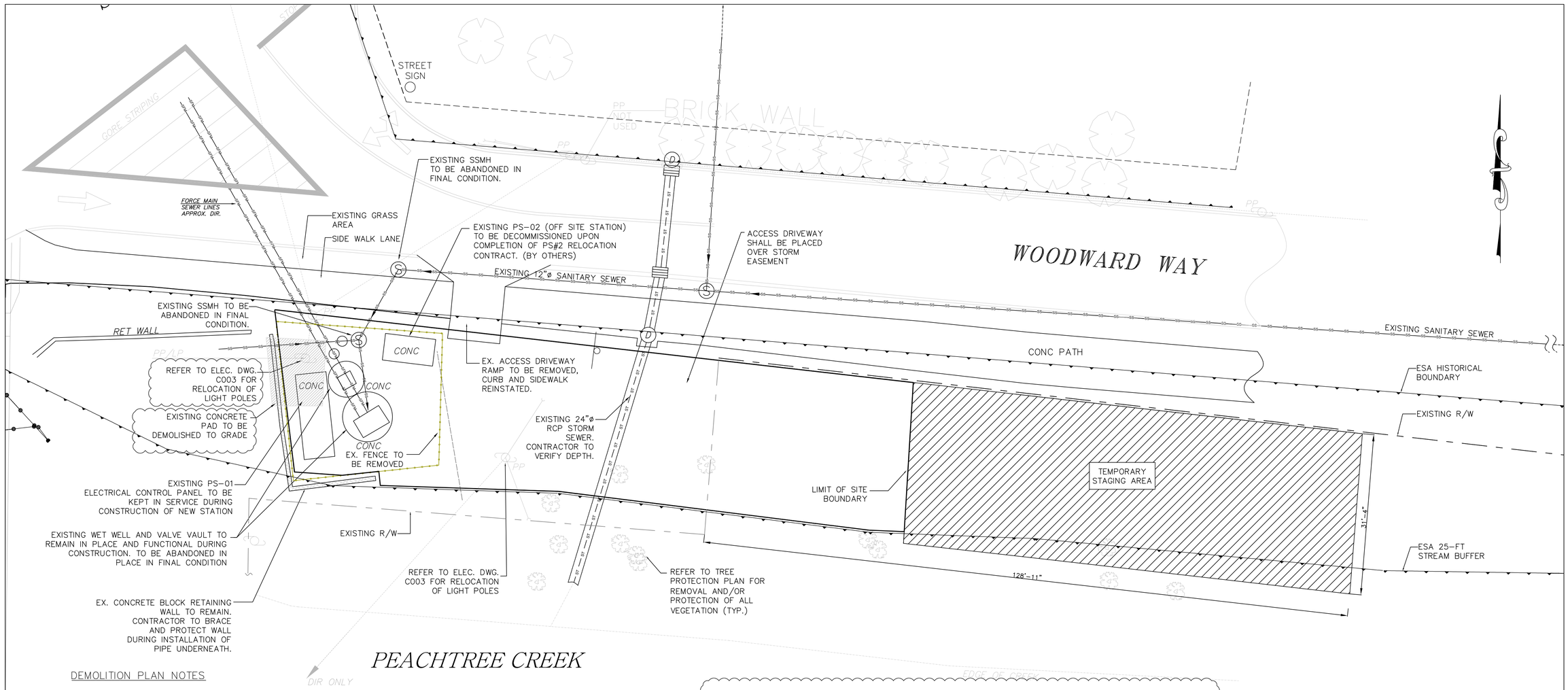
REVISIONS

DATE	DESCRIPTION
9/28/18	30% ISSUE
11/23/18	60% ISSUE
12/10/18	REVISED 60%
2/15/19	90% ISSUE

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PROPOSED CIVIL SITE PLAN

C001			COUNTY FULTON	SCALE 1"=5'
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. 1 OF 12



DEMOLITION PLAN NOTES

1. EXISTING WOODWARD WAY PUMP STATION WET WELL MAY BE USED FOR BYPASS PUMPING PURPOSES AT THE DISCRETION OF THE CONTRACTOR. CONTRACTOR TO SUBMIT COMPLETE BYPASS PUMPING PLAN OUTLINING MEANS AND METHODS OF MAINTAINING CONVEYANCE, PIPE CONFIGURATION & MATERIAL, BYPASS PUMP SETTING, CURVES, AND MODEL NUMBERS, AND OPERATING SEQUENCE. THE BYPASS PUMPING PLAN MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING BYPASS PUMPING CAPACITY OF ALL INFLUENT FLOWS SHOWN ON THIS SHEET. DISCHARGE IS TO BE MAINTAINED TO SANITARY SEWER MANHOLE ON SOUTH SIDE OF PEACHTREE CREEK. INFLUENT FLOWS WILL BE IMPACTED BY THE SEQUENCE OF WORK ASSOCIATED WITH HAYNE'S TRUNK SEWER ON NORTHSIDE DRIVE. REFER TO GDOT CONTRACT CSBRG-0007-00 UTILITY RELOCATION PLANS FOR SR 3 BRIDGE REPLACEMENT OVER PEACHTREE CREEK, SHEET 44-0009 FOR PROPOSED SEQUENCING.
2. CONSTRUCTION OF 24" DIAMETER OVERFLOW PIPING TO FOLLOW DEMOLITION OF EXISTING PS-01 WET WELL.
3. CONTRACTOR TO FURNISH COMPLETE BYPASS PUMPING AND SWITCH OVER PLAN SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF GEORGIA. PLAN SHALL INCLUDE DETAIL SUCH AS PROPOSED PUMP LOCATION, SKID SIZING, PUMP CURVES AND OPERATING POINTS,
4. CONTRACTOR TO FIELD VERIFY DEPTH OF ALL EXISTING SANITARY SEWER MANHOLES.
5. DEMOLISH ALL DECOMMISSIONED STRUCTURES/ SUBSTRUCTURES (EX. WET WELL, VALVE VAULT, CONCRETE PADS) TO 2 FT. BELOW GRADE.
6. THE DEMOLISHED CONCRETE SHALL BE BROKEN INTO SMALL PIECES AND PLACED WITHIN THE DECOMMISSIONED WET WELL.
7. SUFFICIENT DRAIN HOLES SHALL BE CORED IN BOTH WET WELL AND VALVE VAULT.
8. DISPOSAL OF EXCESS TO BE AT OFF-SITE AT LOCATIONS ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE TO DISPOSE ALL SURPLUS MATERIALS INSIDE THE EXISTING TANKS PRIOR TO BACKFILLING WITH NATIVE MATERIALS.
9. REFER TO STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR OTHER DEMOLITION AND REMOVAL NOTES.

LEGEND:

UNDERGROUND WATERMAIN	W W
STORM SEWER LINE	ST ST
DENOTES OVERFLOW LINE	SS SS
SANITARY SEWER FORCEMAIN	SFM SFM
SANITARY SEWER LINE	SS SS
ESA BOUNDARY	
EXISTING R/W	
PROPOSED FENCE	-x-x-x-x-x-

SCALE: 1" = 10'-0" (0, 1, 2)

BYPASS PUMPING FLOW REQUIREMENTS:

SOURCE	DRY DAY FLOW (GPM)	2YR3HR WET WEATHER EVENT (GPM)
CURRENT PS01 LOAD	49	192
HAYNE'S TRUNK DIVERSION	555	4,055
PS-02 PROVISION	8	330
TOTAL BYPASS PUMPING REQUIREMENTS	612	4,577

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CITY OF ATLANTA WATERSHED MANAGEMENT

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2/15/19	90% ISSUE

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
DEMOLITION AND STAGING PLAN

C002			COUNTY FULTON	SCALE 1"=10'
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. 2 OF 12

EXISTING GRASS AREA

SIDE WALK LANE

NEW APPROXIMATE 26'LF OF CONCRETE CURB.

ESA–HISTORICAL BOUNDARY

PROPOSED SITE BOUNDARY

EXISTING R/W

12" CONC. LANDING

783.500
STAIRS UP

JUNCTION BOX
PLATFORM EL. 789.10

782.000

783.000

0.00%

PROPOSED SLAB GRADE
ELV. 783.5

0.00%

2.49%

6.12%

CONC PATH

GENERATOR FND.

783.000

783.500

8.02%

780.200

EXISTING R/W

NEW PUMPING STATION #1
VALVE VAULT WALL
THICKNESS TO BE
FINALIZED BY STRUCTURAL.
(60% SUBMISSION)

ESA–25–FT
STREAM BUFFER

DIR ONLY

LEGEND:

UNDERGROUND WATERMAIN	—W—W—
STORM SEWER LINE	— ST — ST —
DENOTES OVERFLOW LINE	—SS—SS—
SANITARY SEWER FORCEMAIN	—SFM—SFM—
SANITARY SEWER LINE	—SS—SS—
ESA BOUNDARY	
EXISTING R/W	
PROPOSED FENCE	—x—x—x—x—

SCALE: 1" = 5'–0"

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
11/23/18	60% ISSUE
12/10/18	REVISED 60%
2/15/19	90% ISSUE

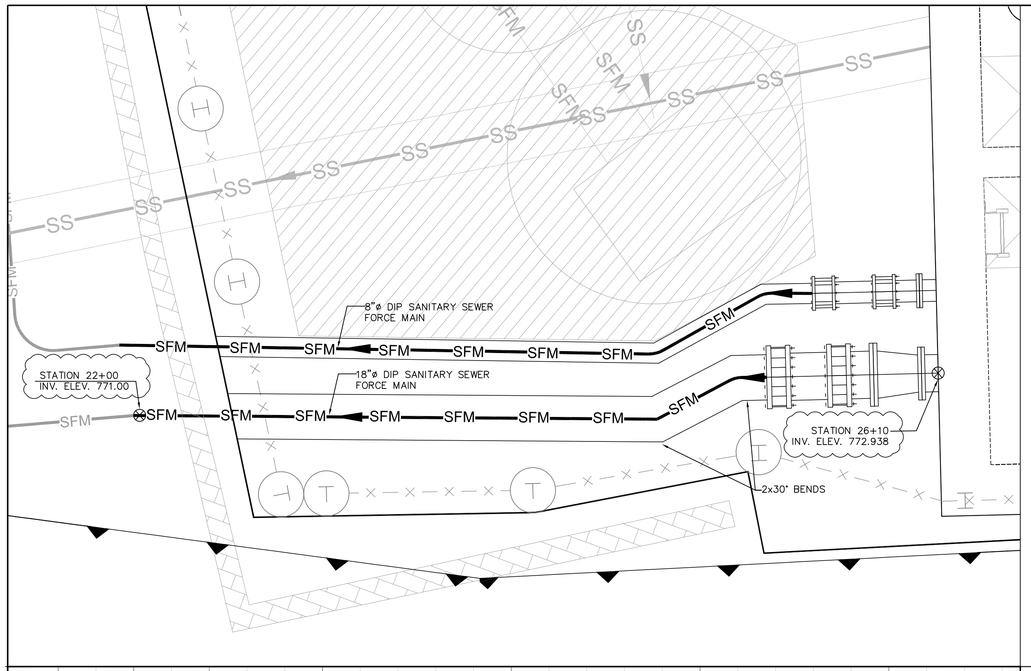
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

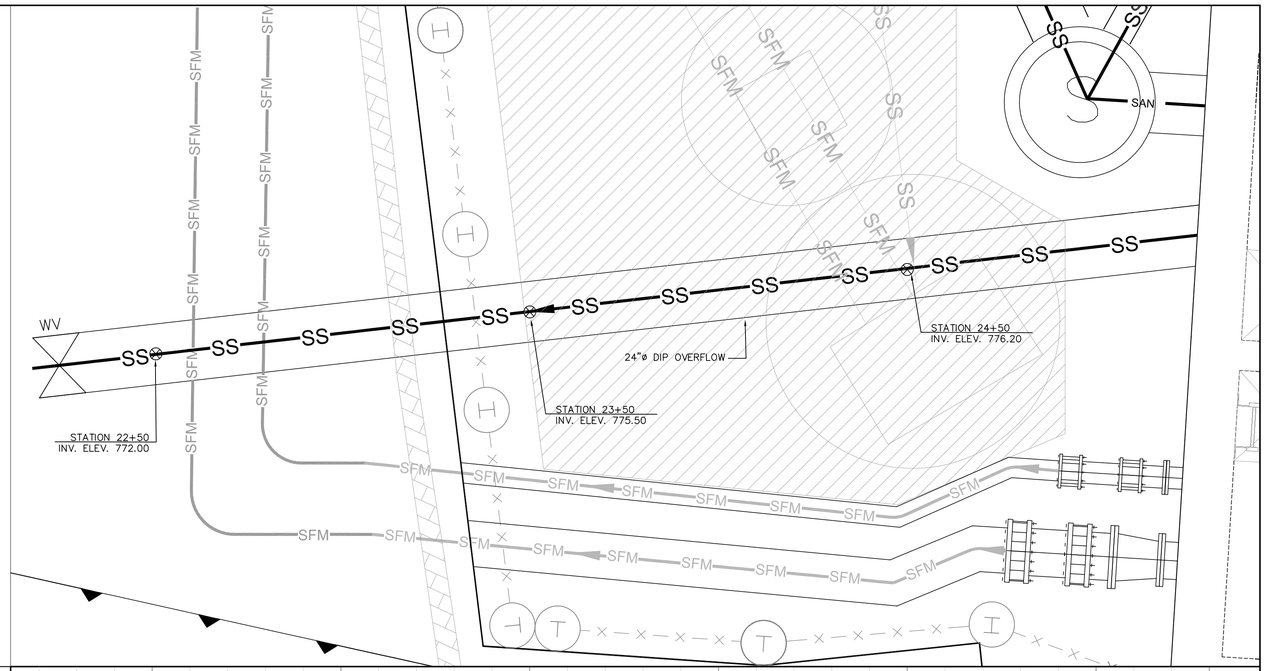
WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PROPOSED GRADING PLAN

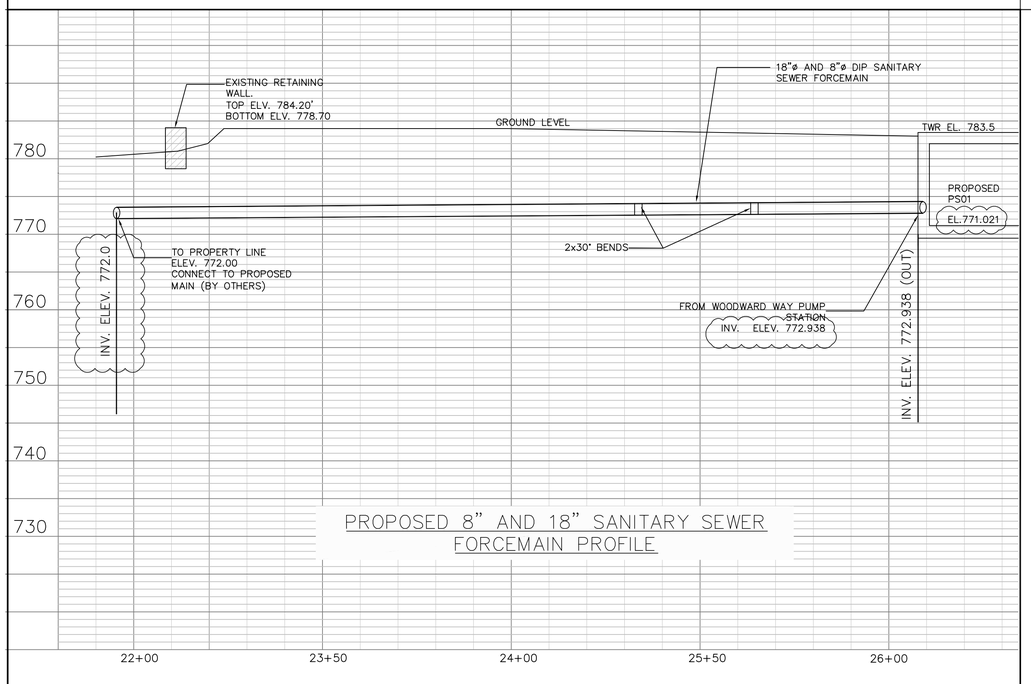
C003			COUNTY FULTON	SCALE 1"=5'
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

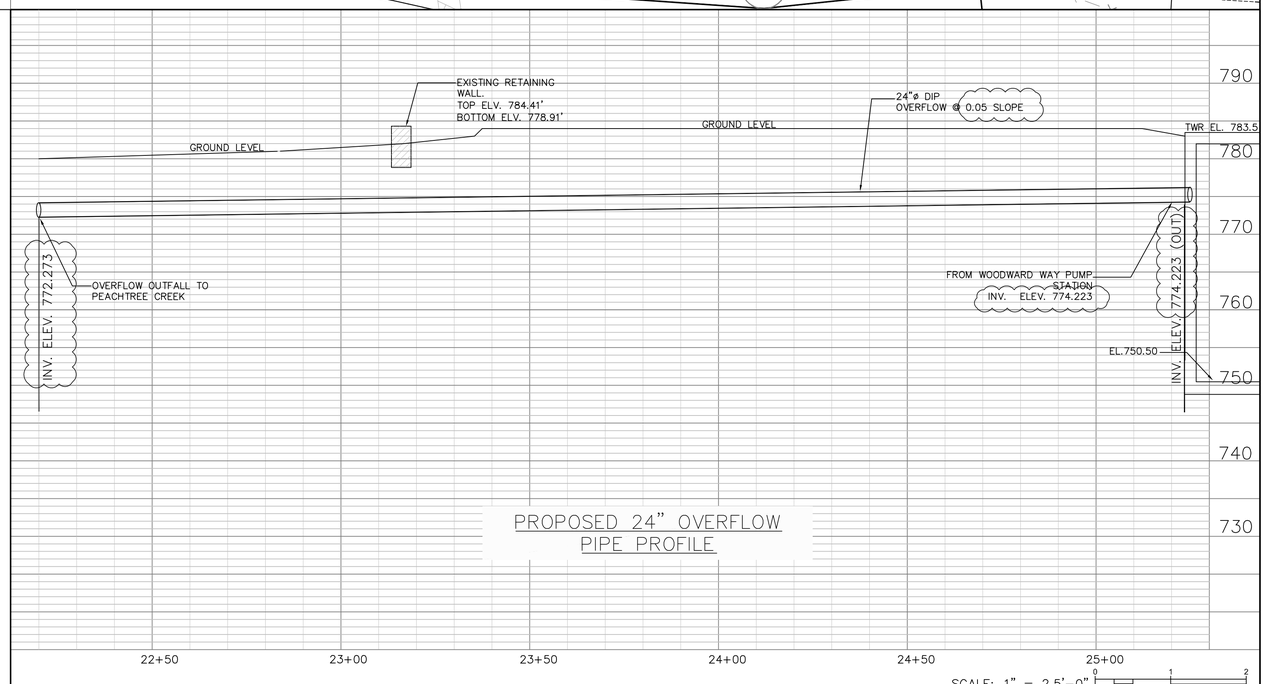
DRAWING NO. 3 OF 12







PROPOSED 8" AND 18" SANITARY SEWER FORCEMAIN PROFILE



PROPOSED 24" OVERFLOW PIPE PROFILE

SCALE: 1" = 2.5'-0"

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

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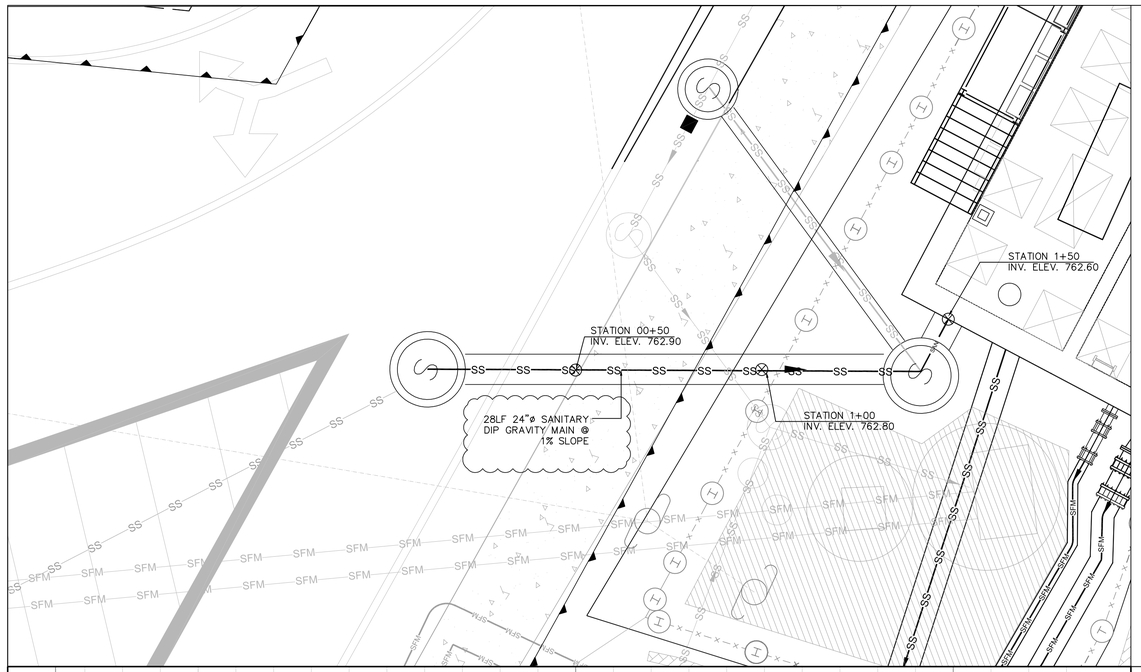
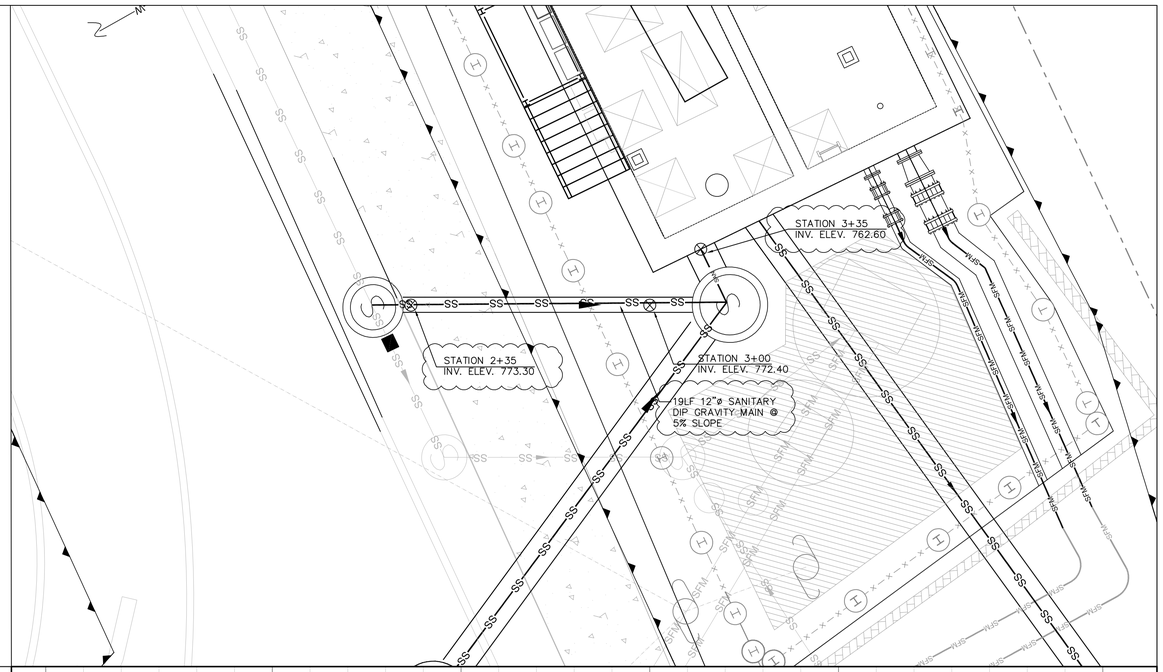
9/28/18	30% ISSUE
11/23/18	60% ISSUE
12/10/18	REVISED 60%
2/15/19	90% ISSUE

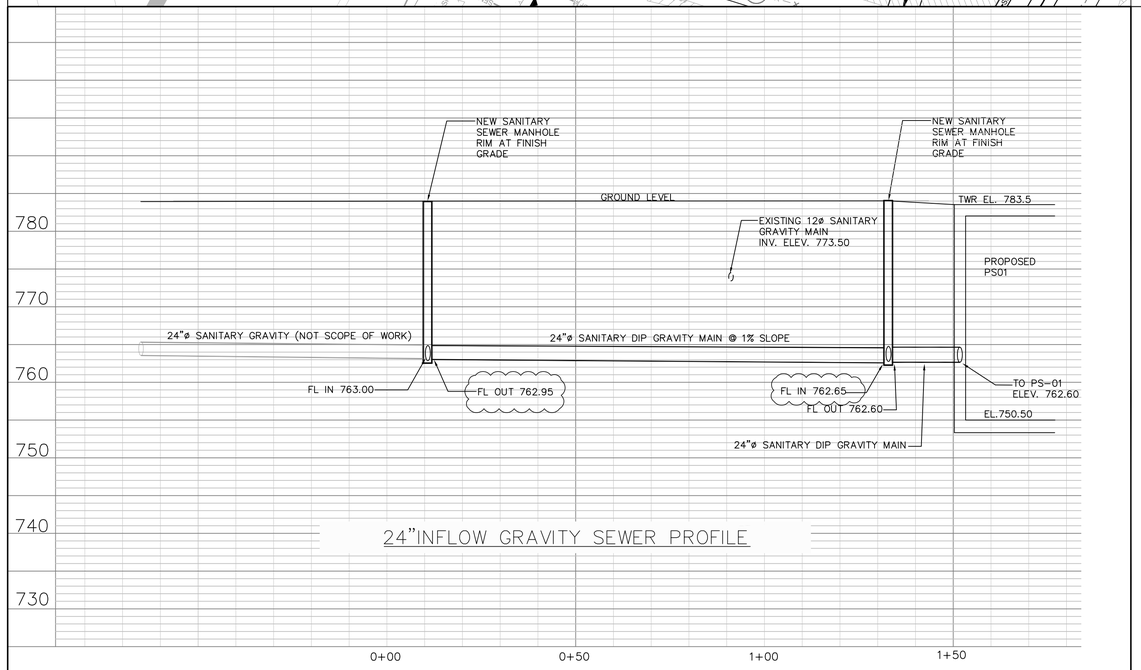
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
CIVIL PROFILES–1

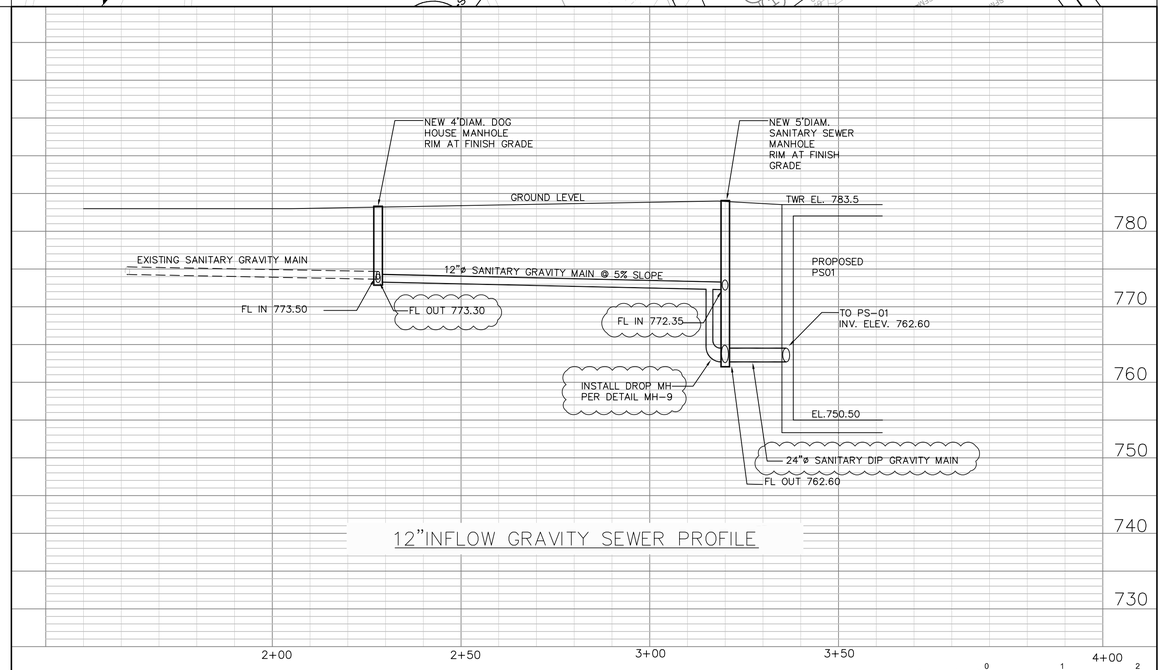
C004			COUNTY FULTON	SCALE HOR: 1"=2.5' VERT: 1"=10'
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. 4 OF 12







24"INFLOW GRAVITY SEWER PROFILE



12"INFLOW GRAVITY SEWER PROFILE

SCALE: 1" = 5'-0"

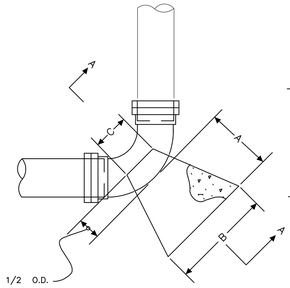
REVISIONS	
DATE	DESCRIPTION
9/28/18	30% ISSUE
11/23/18	60% ISSUE
12/10/18	REVISED 60%
2/15/19	90% ISSUE

90% SUBMITTAL DO NOT
USE FOR CONSTRUCTION

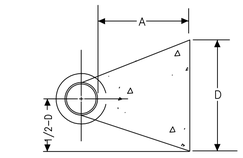
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
CIVIL PROFILES-2

C005			COUNTY FULTON	SCALE HOR: 1"=5' VERT: 1"=10'
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. 5 OF 12



ELEVATION



SECTION A

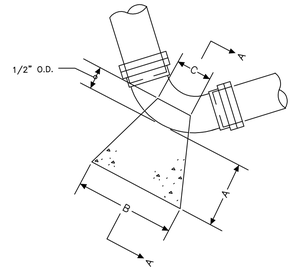
MINIMUM

DIMENSIONS IN FEET FOR CONCRETE BLOCKING

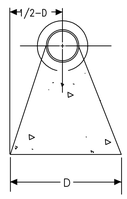
BEND	SIZE	A	B	C	D	VOLUME CUBIC YARD
11¼°	6"	1.0	1.0	7"	1.0	0.03
	8"	1.0	1.25	7"	1.0	0.04
	12"	1.0	2.0	11"	2.0	0.1
	16"	2.0	3.0	15"	2.0	0.3
	20"	2.0	3.0	19"	3.0	0.5
	24"	3.0	4.0	22"	3.0	0.8
22½°	6"	1.0	1.5	7"	1.0	0.04
	8"	1.0	2.0	7"	2.0	0.1
	12"	2.0	3.0	11"	2.0	0.3
	16"	2.0	4.0	15"	3.0	0.6
	20"	3.0	5.0	19"	3.0	0.1
	24"	4.0	6.0	22"	4.0	2.3
45°	6"	1.5	2.0	7"	1.5	0.11
	8"	2.0	3.0	7"	2.0	0.3
	12"	2.0	4.0	11"	3.0	0.7
	16"	3.0	5.0	15"	4.0	1.4
	20"	4.0	6.0	19"	5.0	2.8
	24"	5.0	8.0	22"	6.0	5.0
90°	6"	1.75	2.5	7"	2.0	0.2
	8"	2.0	3.0	7"	3.0	0.4
	12"	4.0	6.0	11"	4.0	2.1
	16"	4.0	7.0	15"	5.0	3.1
	20"	5.0	8.0	19"	7.0	5.3
	24"	6.0	10.0	22"	8.0	10.5
TEES AND PLUGS	6"	1.5	2.0	7"	1.75	0.13
	8"	2.0	3.0	7"	2.0	0.3
	12"	2.0	4.0	11"	4.0	0.8
	16"	3.0	5.0	15"	5.0	1.8
	20"	4.0	7.0	19"	6.0	3.9
	24"	5.0	8.0	22"	7.0	5.5

NOTES:
1. SOIL CONDITIONS SHALL BE VERIFIED BY THE ENGINEER BEFORE THRUST BLOCK DESIGN IS IMPLEMENTED.
2. DIMENSION OF THRUST BLOCK IS BASED ON 2000 POUNDS PER SQUARE FOOT SOIL BEARING PRESSURE AND 250 LBS. PER SQUARE INCH TEST PRESSURE.
3. CONCRETE SHALL BE CLASS B, 3000 P.S.I. HIGH EARLY.

W 35 TYPICAL HORIZONTAL THRUST BLOCK N.T.S.



ELEVATION



SECTION A

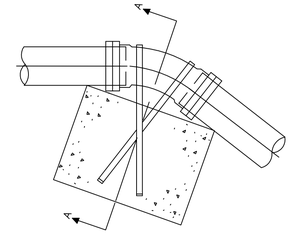
MINIMUM

DIMENSIONS IN FEET FOR CONCRETE BLOCKING

BEND	SIZE	A	B	C	D	VOLUME CUBIC YARD
11¼°	6"	1.0	1.0	7"	1.0	0.03
	8"	1.0	1.25	7"	1.0	0.04
	12"	1.0	2.0	11"	2.0	0.1
	16"	2.0	3.0	15"	2.0	0.3
	20"	2.0	3.0	19"	3.0	0.5
	24"	3.0	4.0	22"	3.0	0.8
22½°	6"	1.0	1.5	7"	1.0	0.04
	8"	1.0	2.0	7"	2.0	0.1
	12"	2.0	3.0	11"	2.0	0.3
	16"	2.0	4.0	15"	3.0	0.6
	20"	3.0	5.0	19"	3.0	1.0
	24"	4.0	6.0	22"	4.0	2.3
45°	6"	1.5	2.0	7"	1.5	0.11
	8"	2.0	3.0	7"	2.0	0.3
	12"	2.0	4.0	11"	3.0	0.7
	16"	3.0	5.0	15"	4.0	1.4
	20"	4.0	6.0	19"	5.0	2.8
	24"	5.0	8.0	22"	6.0	5.0
90°	6"	1.75	2.5	7"	2.0	0.2
	8"	2.0	3.0	7"	3.0	0.4
	12"	4.0	6.0	11"	4.0	2.1
	16"	4.0	7.0	15"	5.0	3.1
	20"	5.0	8.0	19"	7.0	5.3
	24"	6.0	10.0	22"	8.0	10.5
TEES AND PLUGS	6"	1.5	2.0	7"	1.75	0.13
	8"	2.0	3.0	7"	2.0	0.3
	12"	2.0	4.0	11"	4.0	0.5
	16"	3.0	5.0	15"	5.0	1.5
	20"	4.0	7.0	19"	6.0	3.5
	24"	5.0	8.0	22"	7.0	5.5

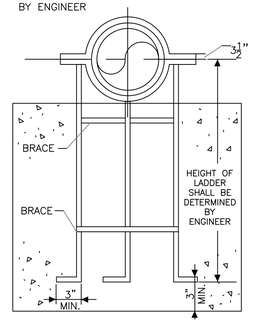
NOTES:
1. ENGINEER SHALL VERIFY SOIL CONDITIONS BEFORE THRUST BLOCK DESIGN IS IMPLEMENTED.
2. DIMENSION OF THRUST BLOCK IS BASED ON 2000 POUNDS PER SQUARE FOOT SOIL BEARING PRESSURE AND 250 LBS. PER SQUARE INCH TEST PRESSURE.
3. CONCRETE SHALL BE CLASS B, 3000 P.S.I. HIGH EARLY.

W 34 TYPICAL DOWNWARD THRUST BLOCK N.T.S.



PROFILE

DIMENSIONS OF DEADMAN SHALL BE DETERMINED BY ENGINEER

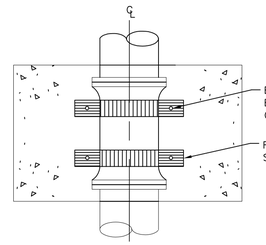


SECTION A

DEADMAN DETAILS

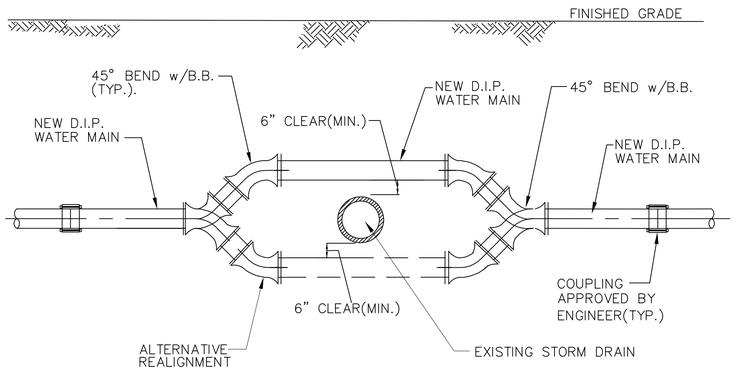
BEND	SIZE	VOLUME CUBIC YARD	NUMBERS OF LADDERS	SIZE OF BOLTS
11¼°	6"	0.3	1	⅝" X 3"
	8"	0.6	1	⅝" X 3"
	10"	1.0	2	¾" X 4"
	12"	1.4	2	¾" X 4"
	16"	2.4	2	(2)¾" X 5"
	20"	3.8	2	(2)¾" X 5"
	24"	5.3	2	(2)¾" X 6"
22½°	6"	0.7	1	⅝" X 3"
	8"	1.2	1	⅝" X 3"
	10"	1.7	2	¾" X 4"
	12"	2.7	2	¾" X 4"
	16"	4.8	2	(2)¾" X 5"
	20"	7.4	2	(2)¾" X 5"
	24"	10.3	2	(2)¾" X 6"
45°	6"	1.2	1	⅝" X 3"
	8"	2.2	1	⅝" X 3"
	10"	3.3	2	¾" X 4"
	12"	4.3	2	¾" X 4"
	16"	8.8	2	(2)¾" X 5"
	20"	13.7	2	(2)¾" X 5"
	24"	19.8	2	(2)¾" X 6"
90°	6"	1.8	1	⅝" X 3"
	8"	3.1	1	⅝" X 3"
	10"	5.3	2	¾" X 4"
	12"	7.0	2	¾" X 4"
	16"	12.4	2	(2)¾" X 5"
	20"	19.4	2	(2)¾" X 5"
	24"	22.0	2	(2)¾" X 6"

NOTES:
1. ENGINEER SHALL VERIFY SOIL CONDITIONS BEFORE THRUST BLOCK DESIGN IS IMPLEMENTED.
2. DESIGN OF THRUST BLOCK IS BASED ON 2000 POUNDS PER SQUARE FOOT SOIL BEARING PRESSURE AND 250 LBS. PER SQUARE INCH TEST PRESSURE.
3. CONCRETE SHALL BE CLASS B, 3000 P.S.I. HIGH EARLY.



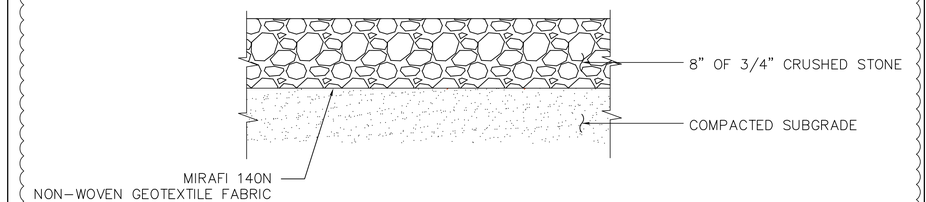
PLAN

W 34A TYPICAL DOWNWARD THRUST DEADMAN N.T.S.



NOTES:
1. CONTRACTOR SHALL CENTER NEW PIPE OVER (OR UNDER) CROSSING PIPE. DIP PIPE SHALL BE A MINIMUM OF 10' LONG AND ONE CONTINUOUS LENGTH OF PIPE.
2. ALL FITTING AND COUPLINGS SHALL BE RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS.
3. ALTERNATIVE REALIGNMENT LOCATION SHALL BE USED IF RELOCATING MAIN ABOVE STORM SEWER RESULT IN LESS THAN FOUR (4) FEET OF COVER.

W 63 WATER MAIN REALIGNMENT DETAIL N.T.S.



W 64 GRAVEL ACCESS DRIVEWAY DETAIL N.T.S.

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
11/23/18	60% ISSUE
12/10/18	REVISED 60%
2/15/19	90% ISSUE

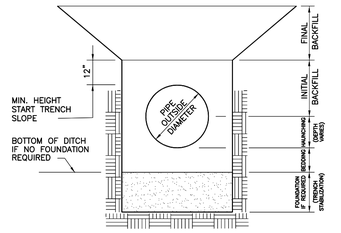
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STANDARD DETAILS

C006			COUNTY FULTON	SCALE N.T.S
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018

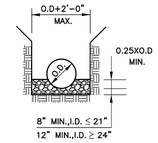
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. 6 OF 12



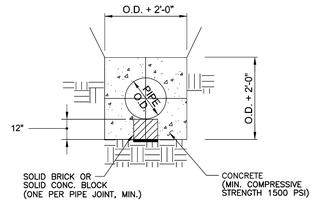
NOTE:
SEE SPECIFICATIONS SECTION 02225 AND DETAILS NO. G-2A & G-2B FOR DIMENSIONS AND MATERIALS.

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	
	SEWER BEDDING AND HAUNCHING	DATE : FEB 2011 SCALE : N.T.S.
		DETAIL NO. G-1



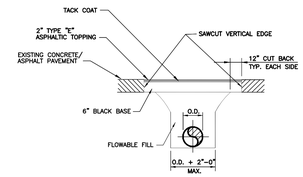
CLASS "C"

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	
	SEWER BEDDING AND HAUNCHING DETAIL NO. G-3	DATE : FEB 2011 SCALE : N.T.S.

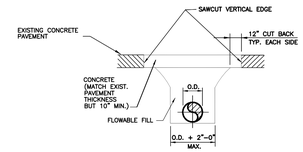


CONCRETE ENCASEMENT
N.T.S.

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	
	CONCRETE ENCASEMENT	DATE : FEB 2011 SCALE : N.T.S.
		DETAIL NO G-4



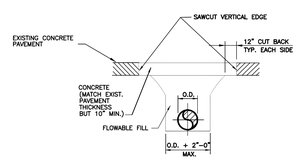
ASPHALT PAVEMENT



CONCRETE PAVEMENT

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	
	TYPE 1 PAVEMENT REPLACEMENT	DATE : FEB 2011 SCALE : N.T.S.
		DETAIL NO G-5

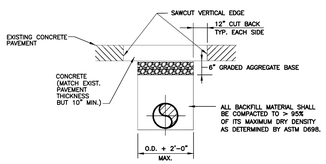
ASPHALT PAVEMENT



CONCRETE PAVEMENT

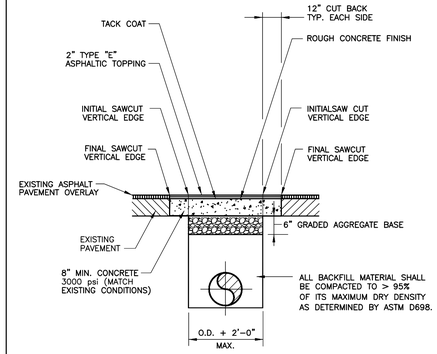
CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	
	TYPE II PAVEMENT REPLACEMENT	DATE : FEB 2011 SCALE : N.T.S.
		DETAIL NO. G-6

ASPHALT PAVEMENT



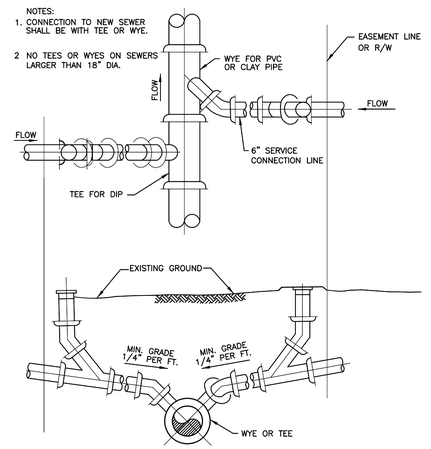
CONCRETE PAVEMENT

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	
	TYPE III PAVEMENT REPLACEMENT	DATE : FEB 2011 SCALE : N.T.S.
		DETAIL NO. G-7



CONCRETE WITH ASPHALT OVERLAY

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	
	TYPE IV PAVEMENT REPLACEMENT	DATE : FEB 2011 SCALE : N.T.S.
		DETAIL NO. G-7A



CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	
	SERVICE CONNECTION ON NEW SEWERS	DATE : FEB 2011 SCALE : N.T.S.
		DETAIL NO. SS-1

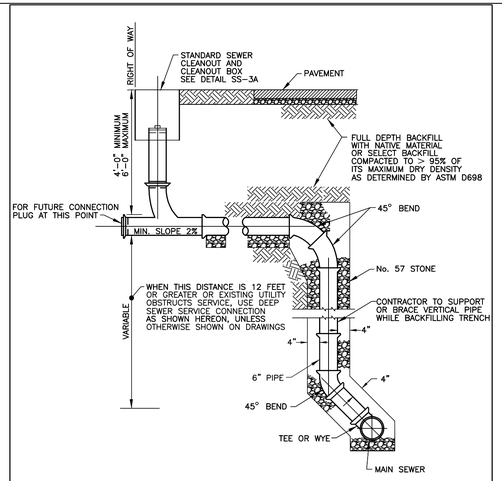
90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS	
DATE	DESCRIPTION
11/23/18	60% ISSUE
12/10/18	REVISED 60%
2/15/19	90% ISSUE

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STANDARD DETAILS

C007			COUNTY FULTON	SCALE N.T.S.
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. 7 OF 12

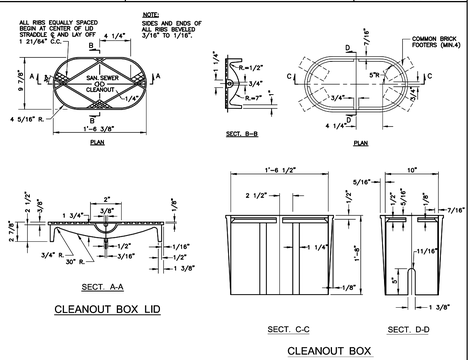


CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

DEEP SEWER CONNECTION

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. SS-1A



CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

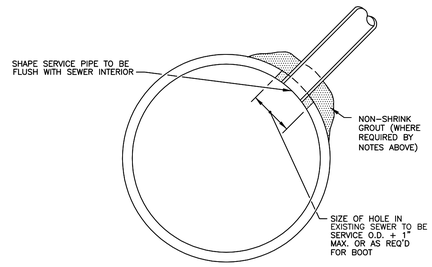
STANDARD DETAILS

SANITARY CLEANOUT BOX

DATE : FEB 2011
SCALE : NONE
DETAIL NO. SS-3A

NOTE:

1. HOLE IN EXISTING SEWER SHALL BE CORED.
2. CONNECT SERVICE TO SEWER WITH:
   - BOOT ON RCP SEWERS.
   - TAPPING SADDLE ON DIP SEWERS.
   - NON-SHRINK GROUT ON BRICK SEWERS.
   - BOOT OR NON-SHRINK GROUT ON PVC SEWERS.
   - MANUFACTURED SADDLE ON PVC PIPE SEWERS.



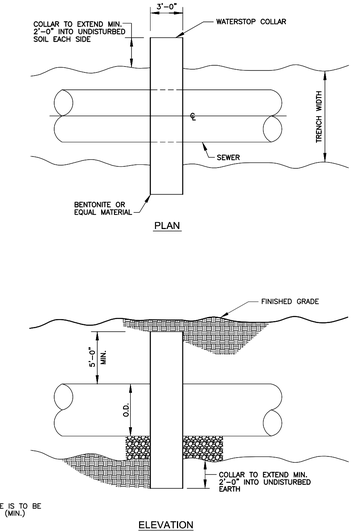
SERVICE CONNECTION -EXISTING SEWERS

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

LATERAL/TRUNK SERVICE CONNECTION

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO SS-2

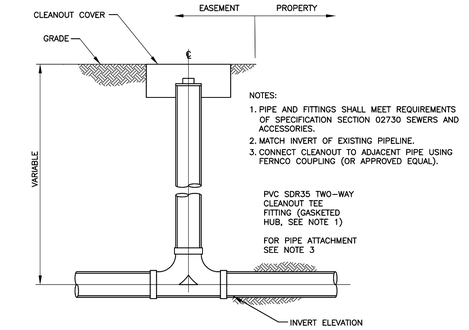


CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

WATERSTOP COLLAR

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. SS-4



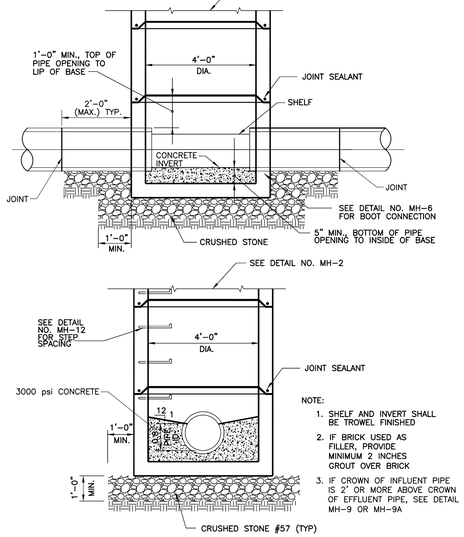
STD.-SANITARY CLEANOUT

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

STANDARD SANITARY CLEANOUT

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. SS-?



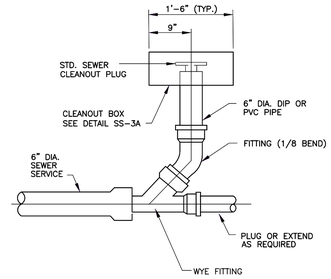
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

MANHOLE BASE

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. MH-1

NOTE:
TOP OF CLEANOUT BOX SHALL BE FLUSH WITH FINAL SURFACE IN SIDEWALKS AND PAVED AREAS.

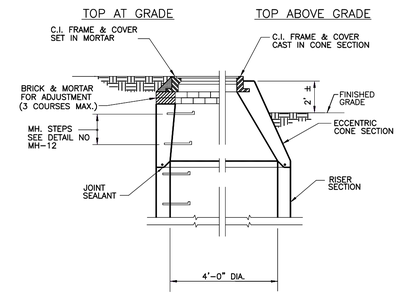


CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

SERVICE CONNECTION CLEANOUT

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. SS-3



MANHOLE
RISER AND CONE

NOTE: FRAME & COVER SHALL BE CAST IN ALL CONE SECTIONS UNLESS FRAME & COVER IS TO BE FLUSH WITH FINAL GRADE

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

MANHOLE RISER AND CONE

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. MH-2

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
11/23/18	60% ISSUE
12/10/18	REVISED 60%
2/15/19	90% ISSUE

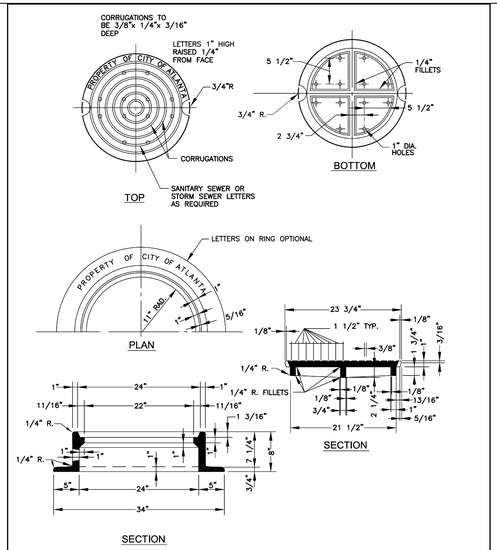
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STANDARD DETAILS

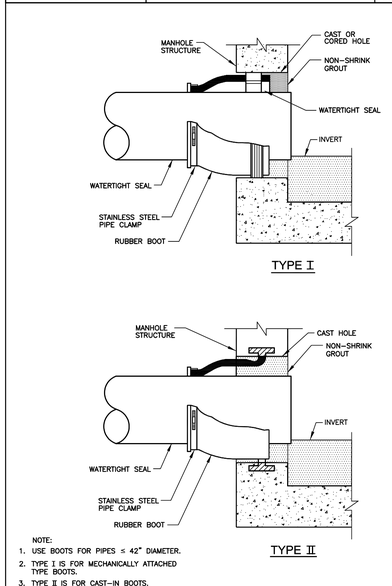
C008			COUNTY FULTON	SCALE N.T.S.
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

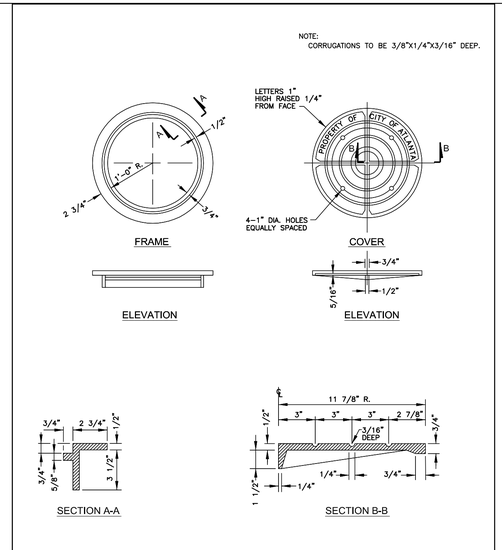
DRAWING NO. 8 OF 12



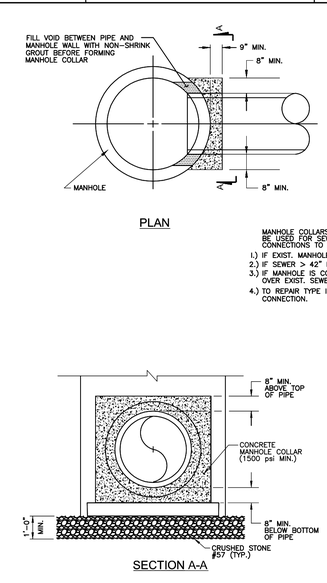
CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	DATE : FEB 2011
	VENTED FRAME AND COVER	SCALE : N.T.S.
		DETAIL NO. MH-3



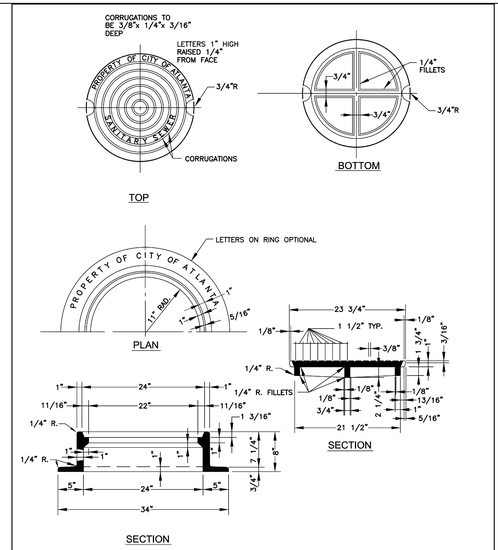
CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	DATE : FEB 2011
	BOOT CONNECTION	SCALE : N.T.S.
		DETAIL NO. MH-6



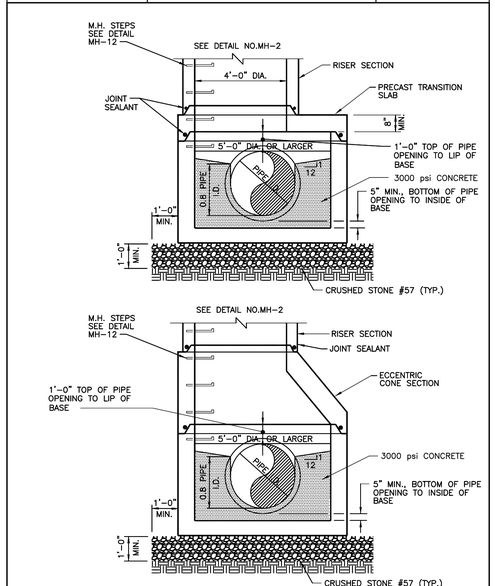
CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	DATE : FEB 2011
	LIGHT CASTING FRAME AND COVER FOR PRECAST SLABS	SCALE : N.T.S.
		DETAIL NO. MH-3A



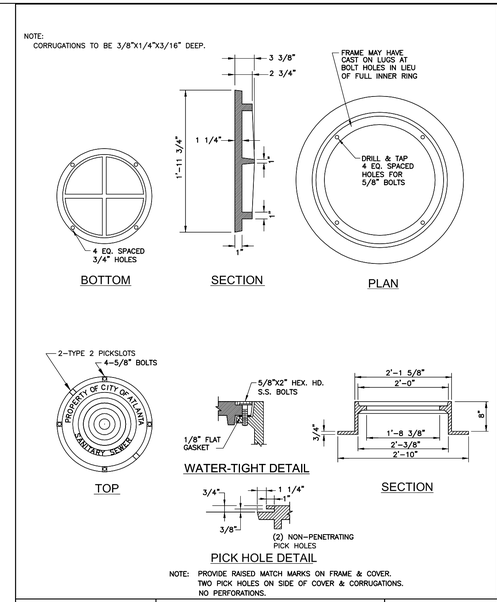
CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	DATE : FEB 2011
	MANHOLE COLLAR	SCALE : N.T.S.
		DETAIL NO. MH-7



CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	DATE : FEB 2011
	SOLID FRAME AND COVER	SCALE : N.T.S.
		DETAIL NO. MH-4

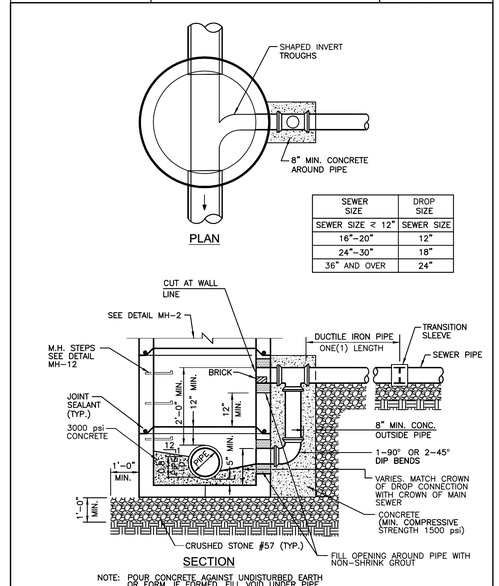


CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	DATE : FEB 2011
	LARGE DIAMETER MANHOLE BASE	SCALE : N.T.S.
		DETAIL NO. MH-8



NOTE: PROVIDE RAISED MATCH MARKS ON FRAME & COVER. TWO PICK HOLES ON SIDE OF COVER & CORRUGATIONS. NO PERFORATIONS.

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	DATE : FEB 2011
	WATERTIGHT FRAME AND COVER	SCALE : N.T.S.
		DETAIL NO. MH-5



NOTE: POUR CONCRETE AGAINST UNDISTURBED EARTH OR FORM. IF FORMED, FILL VOID UNDER PIPE WITH CRUSHED STONE.

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT	STANDARD DETAILS	DATE : FEB 2011
	MANHOLE BASE WITH DROP CONNECTION	SCALE : N.T.S.
		DETAIL NO. MH-9

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS	
DATE	DESCRIPTION
2/15/19	90% ISSUE

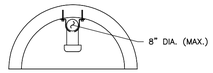
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STANDARD DETAILS

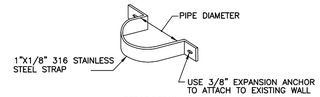
C009			COUNTY FULTON	SCALE N.T.S.
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

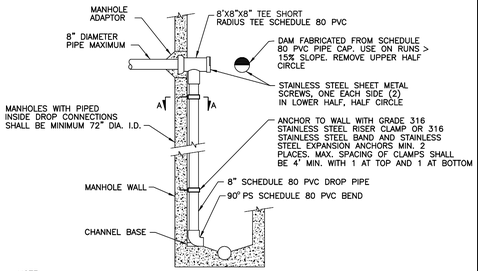
DRAWING NO. 9 OF 12



SECTION A–A
CLAMP DETAIL



STRAP DETAIL



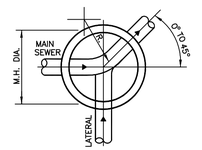
NOTE:
USE ONLY WHEN CONNECTING WITH 8" DIA. SANITARY SEWER

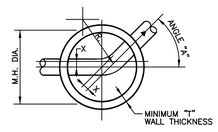
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

PIPED INSIDE DROP CONNECTION FOR MANHOLES

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. MH-9A





STANDARD MANHOLE SCHEDULE OF GOVERNING DIMENSIONS

PIPE SIZE	ANGLE "A"	M.H. DIA.	"T"	"X"
8" TO 15"	0° TO 90°	4'–0"	5"	0"
18" TO 24"	0° TO 60°	4'–0"	5"	0"
18" TO 24"	60° TO 90°	5'–0"	6"	6"
27" TO 30"	0° TO 30°	5'–0"	6"	0"
27" TO 30"	30° TO 60°	5'–0"	6"	6"
27" TO 30"	60° TO 90°	6'–0"	7"	8"
36"	0° TO 90°	6'–0"	7"	0"
42"	0° TO 90°	7'–0"	8"	8"
42"	0° TO 60°	8'–0"	9"	6"
48"	0° TO 45°	8'–0"	9"	6"
48"	60° TO 90°	12'–0"	13"	6"
54"	0° TO 60°	8'–0"	9"	6"
54"	60° TO 90°	12'–0"	13"	6"
60"	0° TO 30°	8'–0"	9"	0"
60"	30° TO 45°	8'–0"	9"	6"
60"	45° TO 60°	10'–0"	11"	6"
60"	60° TO 90°	12'–0"	13"	8"

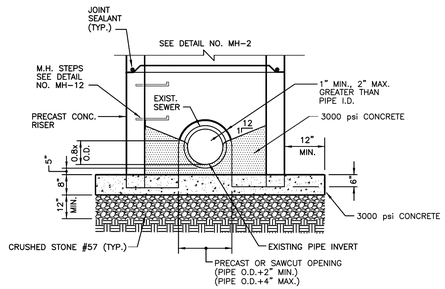
NOTE:
MINIMUM ℄ RADIUS (R) OF M.H. INVERT = 1.5 x PIPE DIAMETER

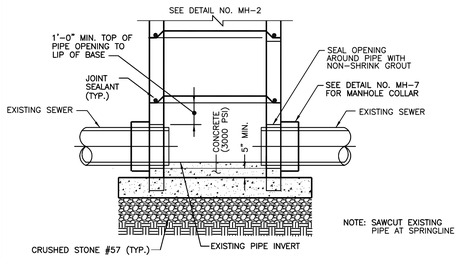
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

MANHOLE PLAN & DIAMETERS

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. MH-13





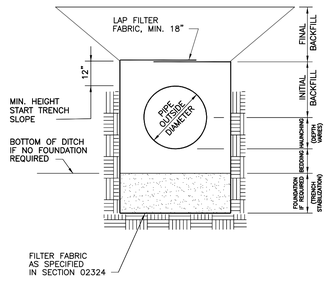
NOTE: SAWCUT EXISTING PIPE AT SPRINGLINE

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

MANHOLE OVER EXISTING SEWER

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. MH-10

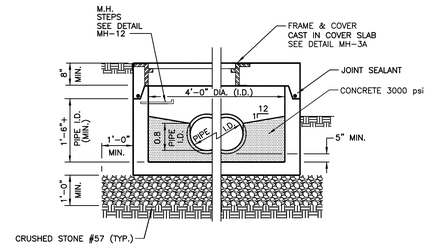


CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

TRENCH FOUNDATION AND STABILIZATION

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. G-1A

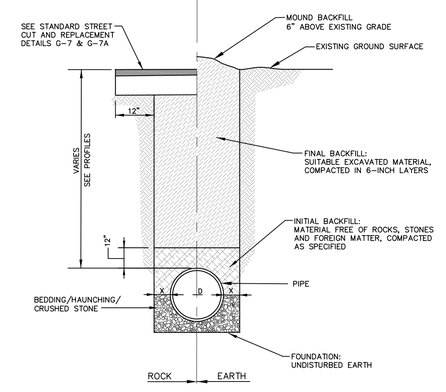


CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

SHALLOW MANHOLE

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. MH-11



X= 8" MIN. WHEN D≤ 21"
X= 12" MIN. WHEN D≥ 24"

NOTES:
1. BEDDING SHALL BE CLASS "B" IN PAVEMENT.
2. BEDDING SHALL BE CLASS "C" OTHERWISE.

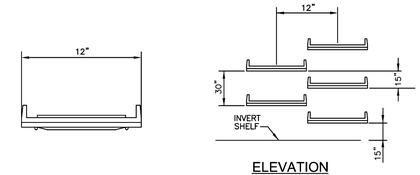
DUCTILE IRON AND REINFORCED CONCRETE SEWER TRENCH SECTION

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

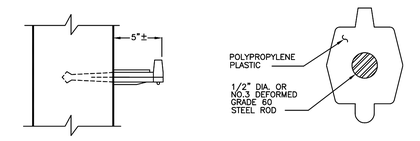
STANDARD DETAILS

SEWER BEDDING AND HAUNCHING

DATE : APR 2011
SCALE : N.T.S.
DETAIL NO. G-2B(R)



ELEVATION



SECTION

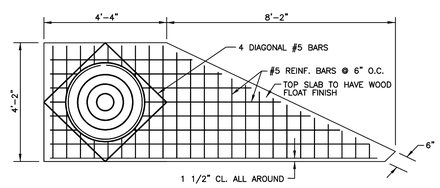
NOTE:
STEPS SHALL BE PLACED INTO WET CONCRETE WALL DURING MANUFACTURE OR MORTARED INTO HOLES AFTER CONCRETE HAS SET

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

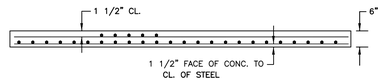
STANDARD DETAILS

MANHOLE STEPS

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO MH-12



PLAN OF TOP SLAB



ELEVATION

NOTE:
SEE CITY OF ATLANTA STANDARD LIGHT CASTING FRAME AND COVER FOR CASTING DETAILS, DETAIL NO. MH–3A

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

TYPE "C" TOP OF SLAB

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. CB-1

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
2/15/19	90% ISSUE

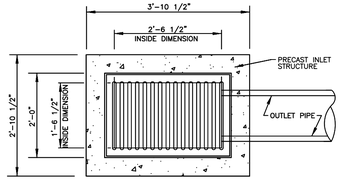
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STANDARD DETAILS

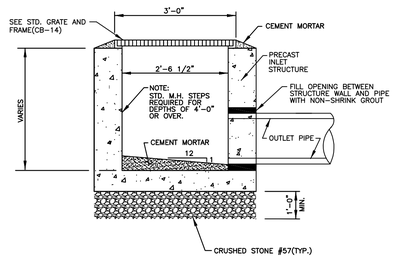
C010			COUNTY FULTON	SCALE N.T.S.
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. 10 OF 12



NOTE:
INLET STRUCTURAL DESIGN SHALL CONFORM TO ACI 318. DESIGN SHALL INCLUDE HS20 TRAFFIC LOADING.

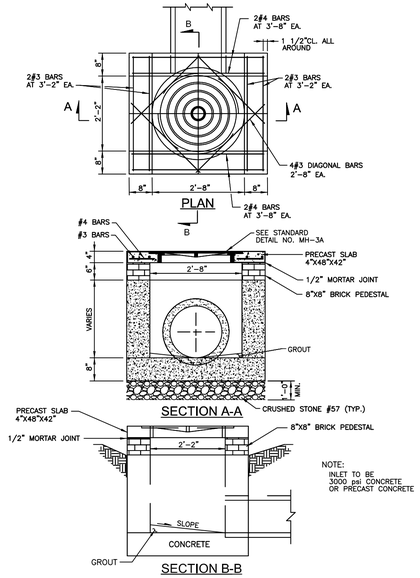


CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

STANDARD DROP INLET

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. CB-3



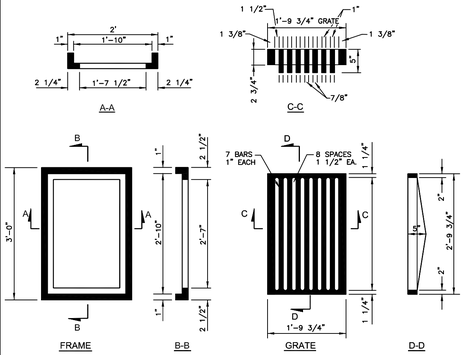
NOTE:
INLET TO BE 3000 psi CONCRETE OR PRECAST CONCRETE

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

STANDARD DROP INLET YARD INLET

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. CB-5

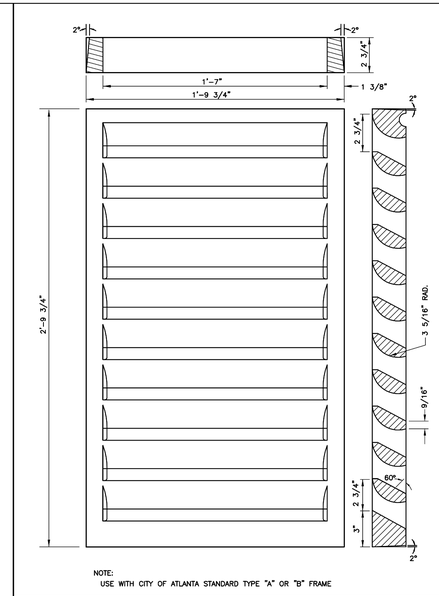


CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

STANDARD GRATE AND FRAME TYPE B

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. CB-6



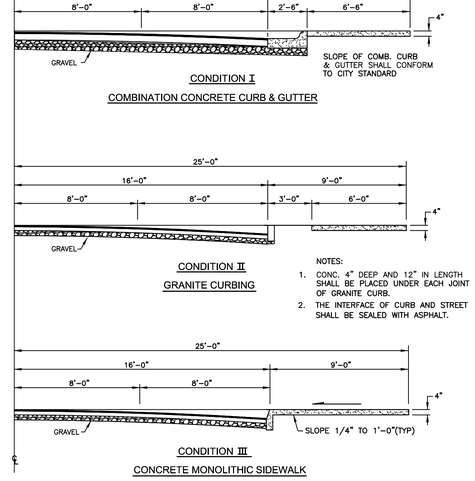
NOTE:
USE WITH CITY OF ATLANTA STANDARD TYPE "A" OR "B" FRAME

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

BIKE SAFETY GRATE

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. CB-7



NOTES:
1. CONC. 4" DEEP AND 12" IN LENGTH SHALL BE PLACED UNDER EACH JOINT OF GRANITE CURB.
2. THE INTERFACE OF CURB AND STREET SHALL BE SEALED WITH ASPHALT.

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

STANDARD STREETS WITH 50' R/W SIDEWALK

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. STR-1

CROWN DATA				
TYPE STREET	STREET WIDTH	PAVING WIDTH	℄ BELOW CURB	QTR-PT BELOW CURB
COND.I	36'-0"	32'-0"	1"	2 1/2"
COND.II	32'-0"	32'-0"	2"	3 1/2"
COND.III	32'-0"	32'-0"	2"	3 1/2"

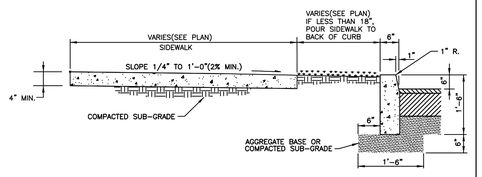
NOTES:
1. REFER TO STANDARD DETAIL STR-1 FOR STREET TYPES.

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

STANDARD STREETS CROWN DATA

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. STR-2



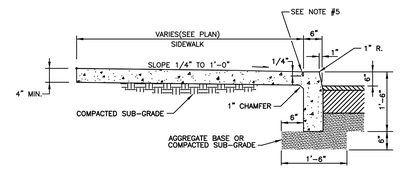
NOTES:
1. SIDEWALK SHALL BE SCRIBED WITH TRANSVERSE CONTROL JOINTS IN SQUARES EQUAL TO SIDEWALK WIDTH BUT NOT TO EXCEED 10 FEET.
2. CONCRETE SHALL BE 3,000 psi MIN. STRENGTH.
3. EXPANSION JOINTS SHALL EXTEND ACROSS THE FULL WIDTH OF THE SIDEWALK. CONTROL JOINTS SHALL BE LOCATED ON EACH SIDE OF A DRIVEWAY AND NOT MORE THAN 100 FEET APART.
4. PREFORMED BITUMINOUS MATERIAL SHALL BE PLACED BETWEEN ALL FIXED OBJECTS AND THE NEW CONCRETE SIDEWALK.

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

STANDARD SIDEWALK AND CONCRETE HEADER CURB

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. SW-1



NOTES:
1. SIDEWALK SHALL BE SCRIBED WITH TRANSVERSE CONTROL JOINTS IN SQUARES EQUAL TO SIDEWALK WIDTH BUT NOT TO EXCEED 10 FEET.
2. CONCRETE SHALL BE 3,000 P.S.I. MIN. STRENGTH.
3. EXPANSION JOINTS SHALL EXTEND ACROSS THE FULL WIDTH OF THE SIDEWALK. CONTROL JOINTS SHALL BE LOCATED ON EACH SIDE OF A DRIVEWAY AND NOT MORE THAN 100 FEET APART.
4. PREFORMED BITUMINOUS MATERIAL SHALL BE PLACED BETWEEN ALL FIXED OBJECTS AND THE NEW CONCRETE SIDEWALK.
5. 1/4" TOOLED JOINT BETWEEN CURB AND SIDEWALK.

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

STANDARD MONOLITHIC SIDEWALK AND CURB

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. SW-2

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS	
DATE	DESCRIPTION
2/15/19	90% ISSUE

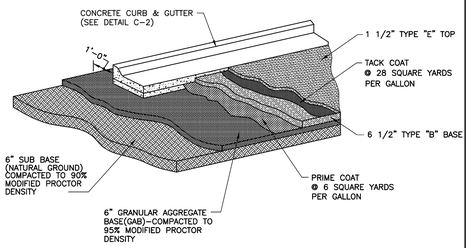
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STANDARD DETAILS

C011			COUNTY FULTON	SCALE N.T.S.
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. 11 OF 12



NOTE:

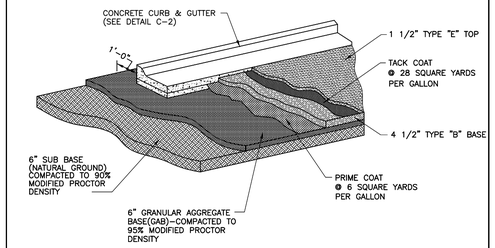
ASPHALTIC PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH GEORGIA DOT SPECIFICATIONS. ASPHALTIC TYPES AND MIXES SHALL BE GEORGIA DOT APPROVED MIX TYPES.

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

COMMERCIAL STREET
PAVEMENT SECTION

DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. PV-1



NOTE:

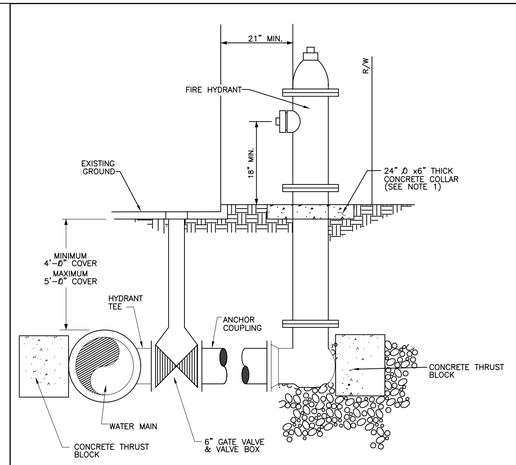
ASPHALTIC PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH GEORGIA DOT SPECIFICATIONS. ASPHALTIC TYPES AND MIXES SHALL BE GEORGIA DOT APPROVED MIX TYPES.

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT

STANDARD DETAILS

RESIDENTIAL STREET
PAVEMENT SECTION

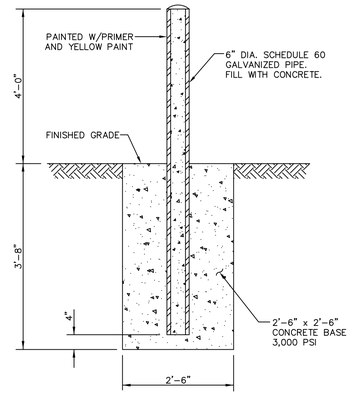
DATE : FEB 2011
SCALE : N.T.S.
DETAIL NO. PV-2



NOTES:

1. CONCRETE COLLAR NOT REQUIRED IF HYDRANT IS SURROUNDED BY CONCRETE SIDEWALK.
2. STONE SHALL BE PLACED A MINIMUM 6" ABOVE DRAIN PORTS, A MINIMUM 18" BELOW DRAIN PORTS, 15" LATERALLY ON EACH SIDE OF SHOE AND 24" FROM BACK OF HYDRANT TOWARD THE MAIN.

W/1 **TYPICAL FIRE HYDRANT**
N.T.S.



W/2 **BOLLARD DETAIL**
N.T.S.

90% SUBMITTAL DO NOT
USE FOR CONSTRUCTION

REVISIONS	
DATE	DESCRIPTION
2/15/19	90% ISSUE

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STANDARD DETAILS

C012			COUNTY FULTON	SCALE N.T.S.
DESIGNED BY AF	DRAWN BY NE	CHECKED BY AF	APPROVED BY AP	DATE 12/10/2018

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. 12 OF 12

BUILDING CODES:
THE DESIGN CODES, STANDARDS, AND REFERENCES LISTED BELOW ARE APPLICABLE TO THE NEW PUMP STATION, CONCRETE FOUNDATIONS AND ELEVATED STEEL PLATFORMS.

- INTERNATIONAL BUILDING CODE (IBC), 2012 EDITION WITH GEORGIA AMENDMENTS 2014, 2015, 2017 AND 2018
- ACI 318–14: BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
- ACI 350–06: CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES AND COMMENTARY
- ACI 350.4R–04: DESIGN CONSIDERATIONS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES
- ACI 350.3–06: SEISMIC DESIGN OF LIQUID CONTAINING STRUCTURES AND COMMENTARY
- ASCE 7–10 MINIMUM DESIGN LOADS FOR BUILDINGS AND STRUCTURES
- ALUMINUM DESIGN MANUAL 2010
- AISC 360–05 SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS
- PCA PUBLICATION, RECTANGULAR CONCRETE TANKS, 1994
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2017 EDITION
- WOODWARD WAY PUMP STATION #1 IMPROVEMENTS – BASIS OF DESIGN REPORT, DATED AUGUST 5, 2018
- RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES, 2004 EDITION

THE PUMP STATION SHALL BE DESIGNED AS A CONCRETE ENVIRONMENTAL STRUCTURE AS DEFINED IN ACI 350.

GENERAL STRUCTURAL NOTES:
1. DESIGN LOADS ARE RESISTED BY THE COMPLETED STRUCTURE ACTING AS A UNIT. THE CONTRACTOR SHALL PROVIDE ENGINEERED TEMPORARY BRACING, SHORING, OR ADDITIONAL SUPPORT DEVICES NECESSARY TO RESIST LOADS IMPOSED ON THE PARTIALLY COMPLETED STRUCTURE THROUGHOUT ALL STAGES CONSTRUCTION. PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL. IDENTIFY ALL TEMPORARY SHORING AND BRACING SYSTEMS REQUIRED FOR DEMOLITION AND CONSTRUCTION SEQUENCE. ALL TEMPORARY SHORING DURING DEMOLITION SHALL BE CAPABLE OF SAFELY SUPPORTING ALL LOADS. TEMPORARY SHORING DESIGN SHALL BE COMPLETED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF GEORGIA.

2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN, IN THE COURSE OF CONSTRUCTION OR DEMOLITION, CONDITIONS ARE UNCOVERED WHICH ARE UNANTICIPATED OR OTHERWISE APPEAR TO PRESENT A DANGEROUS CONDITION.

3. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR THE SAFETY OF ADJACENT STRUCTURES, PROPERTY, AND THE PUBLIC. IN AREAS OF PUBLIC ACCESS, THE PUBLIC WAY SHALL BE PROTECTED FROM CONSTRUCTION AND DEMOLITION WORK AT ALL TIMES.

4. THE INTENT OF THE STRUCTURAL DRAWINGS IS TO SHOW THE MAIN STRUCTURAL FEATURES AND DESIGN FOR THE COMPLETED PROJECT UPON COMPLETION OF ALL PHASES OF CONSTRUCTION. ALL OTHER DETAILS RELATED TO OTHER TRADES ARE SHOWN DIAGRAMMATICALLY ONLY. THE STRUCTRURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH SHOP DRAWINGS AND PROJECT SPECIFICATIONS; AND PLANS FROM MECHANICAL, ELECTRICAL, CIVIL, UTILITY, AND OTHER TRADES.

5. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES FOR SIZE AND LOCATION OF CHAMFERS, SLEEVES, ANCHORS, INSERTS, ADDITIONAL REINFORCING AND OPENINGS REQUIRED.

6. THE CONTRACTOR WILL FURNISH AND INSTALL ALL ANCHOR BOLTS, NUTS, WASHERS, GROUT, CONCRETE PADS AND REINFORCING STEEL REQUIRED FOR THE PROPER INSTALLATION OF ALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURERS' REQUIREMENTS.

7. ALL CONSTRUCTION SHALL BE PERFORMED FROM APPROVED SHOP DRAWINGS.

8. WORK NOT INDICATED ON A PART OF THE DRAWINGS, BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING LOCATIONS, SHALL BE INCLUDED. DETAILS SHOWN ON THE DRAWINGS ARE APPLICABLE TO ALL SIMILAR CONDITIONS.

DESIGN LOADS:
THE STRUCTURES ARE DESIGNED FOR THE FOLLOWING LOADS:

DEAD LOADS – SELF–WEIGHT LOADS AND OTHER SUSTAINED GRAVITY LOADS.

PUMP STATION:
LIVE LOADS – ROOF SLAB UNIFORMLY DISTRIBUTED LOAD OF 250 PSF, CONCENTRATED LOAD FROM A HS20 DESIGN TRUCK.

INTERIOR FLOOR SLABS – LIVE LOAD OF 250 PSF.

PLATFORMS LIVE LOAD – 60 PSF UNIFORM LOAD & 300 LB. CONCENTRATED LOAD

CONTAINED FLUID – FOR FLUID PRESSURES FROM CONTAINED FLUID USE A DENSITY OF 63 PCF.

EXTERIOR LATERAL LOADS SHALL INCLUDE THE EFFECTS OF SOIL, GROUNDWATER, SEISMIC LOADS, AND LIVE LOAD SURCHARGE LOAD (250 PSF).

SEISMIC LOADS – RESPONSE MODIFICATION FACTORS – R REFER TO ACI 350.3–06, TABLE 4.1.1(B).

THE FOLLOWING SEISMIC COEFFICIENT WERE OBTAINED FROM THE ONLINE USGS DESIGN MAPS:
S_1 = 0.091g
S_{DS} = 0.153g
S_{D1} = 0.103g

VALUES ARE BASED ON A SITE SOIL CLASSIFICATION C – VERY DENSE SOIL AND SOFT ROCK.

FOUNDATIONS:
1. REFER TO GEOTECHNICAL ENGINEERING REPORT, NORTHSIDE DRIVE AT PEACHTREE CREEK – NEW PUMP STATION, PREPARED BY MC SQUARED DATED AUGUST 2018

2. SEE SPECIFICATIONS AND GEOTECHNICAL REPORTS FOR REQUIREMENTS FOR EXCAVATION AND PREPARATION OF THE FOUNDATION SUBGRADE, INCLUDING COMPACTION PROCEDURES. REQUIREMENTS CONTAINED IN THE GEOTECHNICAL REPORTS ARE PART OF THE WORK.

3. PUMP STATION MAT FOUNDATION – THE MATERIAL AT THE DEPTH OF THE MAT FOUNDATION IS EXPECTED TO BE VERY DENSE SILTY SAND (LIKELY PARTIALLY WEATHERED ROCK). THIS MATERIAL SHOULD BE OVER–EXCAVATED TO REMOVE ANY SOFT SOILS ENCOUNTERED AND BACKFILLED WITH MECHANICALLY DENSIFIED AND/OR COMPACTED STRUCTURAL FILL. ALLOWABLE SOIL BEARING PRESSURE IS 3,000 PSF.

4. GENERATOR AND ELECTRICAL EQUIPMENT FOUNDATIONS – SHALLOW SPREAD FOOTING FOUNDATIONS SHALL BE USED TO SUPPORT THE GENERATOR AND MISCELLANEOUS ELECTRICAL EQUIPMENT. THE FOOTINGS SHALL BE A MINIMUM OF 1 FOOT BELOW FINISHED GRADE. EXCAVATE THE TOP LAYER OF SANDY SILT (4 TO 6 FEET) AND REPLACE WITH COMPACTED GRADED AGGREGATE BASE WRAPPED IN FILTER FABRIC TO IMPROVE THE SUITABILITY OF THE SHALLOW FOUNDATION. ALLOWABLE SOIIL BEARING PRESSURE IS 1,500 PSF.

5. THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR THE VALIDITY OF THE SUBSURFACE CONDITIONS DESCRIBED ON THE DRAWINGS, SPECIFICATIONS, OR BORING LOGS. DATA ARE INCLUDED ONLY TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION AND REPRESENTS CONDITIONS ONLY TO THESE SPECIFIED LOCATIONS AT THE PARTICULAR TIME THEY WERE MADE.

6. ALL BACKFILL UNDER STRUCTURAL SLABS, MATS, AND OTHER FOUNDATION ELEMENTS SHALL BE COMPACTED IN SPECIFIED LIFTS TO 95 PERCENT OF MAXIMUM DRY DENSITY, UNLESS OTHERWISE INDICATED OR SPECIFIED.

7. SHORE, SHEET AND BRACE EXCAVATIONS AS REQUIRED TO ASSURE COMPLETE SAFETY AGAINST COLLAPSE OF EARTH AND DAMAGE TO ADJACENT PROPERTY INCLUDING BUT NOT LIMITED TO EXISTING STREETS, BUILDING AND UTILITY LINES.

8. NO FOUNDATION ELEMENT, BEAM OR SLAB SHALL BE PLACED ON FROZEN SOIL OR IN WATER.

9. AFTER THE STRUCTURE IS COMPLETE, FINAL BACKFILL SHALL BE TO FINISHED GRADE. THE CONTRACTOR SHALL EXERCISE CARE DURING COMPACTION SO AS NOT TO DAMAGE THE STRUCTURE BELOW.

10. 100 YR FLOOD GROUNDWATER ELEVATION = 789.10
GROUNDWATER ELEVATION = 765.0

EXISTING STRUCTURES:
THE DRAWINGS DEPICT WORK AT EXISTING STRUCTURES. ALL DIMENSIONS AND ALL DEPICTIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS, STARTING FABRICATION, OR STARTING CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING CONDITIONS FROM DAMAGE DUE TO THE CONSTRUCTION ACTIVITY. IN THE EVENT THERE IS DAMAGE DUE TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR.

CONCRETE:
1. COMPRESSIVE STRENGTH (f'c) SHALL BE 5000 PSI MINIMUM AT 28 DAYS PER SPECIFICATION SECTION 03300, FOR CLASS A CONCRETE.

2. CONCRETE QUALITY IN ACCORDANCE WITH THE REQUIREMENTS OF THESE DRAWINGS AND SPECIFICATIONS IS ESSENTIAL TO THE STRUCTURAL PERFORMANCE OF THIS STRUCTURE. CONCRETE THAT IS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS WILL BE REJECTED AND REPLACED AT CONTRACTOR'S EXPENSE.

3. WHEN CONCRETE IS PLACED AGAINST PREVIOUSLY HARDENED CONCRETE, THE INTERFACE SHALL BE CLEAN, FREE OF LAITANCE, AND INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY 1/4 INCH, UNLESS NOTED OTHERWISE.

4. PROVIDE CONCRETE PADS FOR MECHANICAL EQUIPMENT ACCORDING TO THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER. ALWAYS PROVIDE MINIMUM REINFORCEMENT FOR PADS, UNLESS NOTED OTHERWISE. COORDINATE LOCATIONS WITH MECHANICAL DRAWINGS.

5. WHERE SHORING IS REQUIRED, SHORING SHALL REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED 75% OF ITS 28–DAY COMPRESSIVE STRENGTH.

6. ALL CONSTRUCTION AND CONTROL JOINT LOCATIONS MUST BE SHOWN ON SHOP DRAWINGS AND APPROVED BY THE ENGINEER.

7. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4" UNLESS NOTED OTHERWISE.

8. ALL REINFORCING WILL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.

9. CAST–IN–PLACE CONCRETE SHALL COMPLY WITH ACI 350 AND ACI 301.

10. COLD AND HOT WEATHER CONCRETING SHALL COMPLY WITH ACI 305.1.

11. PROVIDE CONTINUOUS WATERSTOP IN ALL EXTERIOR HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS.

12. BACKFILLING AGAINST A WALL SHALL NOT TAKE PLACE. BEFORE THE BASE SLABS AND ROOF ARE PLACED AND CONCRETE REACHES 75% OF ITS 28–DAY COMPRESSIVE STRENGTH.

REINFORCING:
1. ALL REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES. PROVIDE BAR SUPPORTS, SPACERS, AND ACCESSORIES RECOMMENDED IN THE ACI DETAILING MANUAL, PUBLICATION SP–66. ALL REINFORCEMENT DETAILING, LAP SPLICES, AND EMBEDMENTS SHALL CONFORM TO THIS MANUAL. ALL ACCESSORIES, SUCH AS SLAB BOLSTERS AND BEAM AND SLAB CHAIRS IN CONTACT WITH EXPOSED SURFACES, SHALL BE PLASTIC COATED.

2. REINFORCING BARS SHALL CONFORM TO ASTM A615 OR A706 GRADE 60.

3. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM 185 AND SHALL BE SUPPLIED IN FLAT SHEETS ONLY. SPLICES OF WWF SHALL BE AT LEAST 12 INCHES.

4. REINFORCING LAP SPLICES SHALL BE CLASS B TENSION SPLICE PER ACI 318, UNLESS NOTED OTHERWISE.

5. MINIMUM ANCHORAGE, SPLICE REQUIREMENTS FOR REINFORCING BARS, AND TEMPERATURE REINFORCEMENT IN ALL CONCRETE SLABS AND WALLS SHALL BE ACCORDING TO ACI 318, UNLESS OTHERWISE SHOWN ON DRAWINGS.

6. NON–CONTACT LAPS ARE ACCEPTABLE PROVIDED LAPPING BARS ARE SPACED NO MORE THAN 6" APART.

7. WHEN BARS OF DIFFERENT SIZE LAP TO EACH OTHER, THE SPLICE LENGTH FOR THE SMALLER BAR CAN BE USED.

8. MECHANICAL COUPLER CONNECTIONS SHALL CONFORM TO ACI 318 AND DEVELOP IN TENSION AND COMPRESSION AT LEAST 125% OF THE YIELD STRENGTH OF THE BAR.

9. REINFORCING STEEL CLEAR COVER SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

A.	CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH	3"
B.	CONCRETE EXPOSED TO EARTH, WEATHER, WATER, AND WASTEWATER	2"
C.	TIES, SPIRAL STIRRUPS	2"

10. PROVIDE PLASTIC TIPPED BOLSTERS AND CHAIRS AT ALL LOCATIONS WHERE THE CONCRETE SURFACE IN CONTACT WITH THE BOLSTERS OR CHAIRS IS EXPOSED.

11. PRIOR TO PLACING CONCRETE, ALL REINFORCING STEEL SHALL BE FREE OF LOOSE RUST AND SCALE OR ANY FOREIGN MATERIAL.

12. SET AND TIE ALL REINFORCEMENT BEFORE PLACING CONCRETE. SETTING DOWELS AND REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.

13. NO WELDING OF REINFORCING BARS SHALL BE PERMITTED UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION.

STRUCTURAL STEEL:
1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE SPECIFICATIONS FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS OF AMERICAN INSTITUTE OF STEEL CONSTRUCTION (LRFD).

2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

ROLLED SHAPES AND PLATES	ASTM A992 GR 50
HSS SECTIONS	ASTM A500 GR B
ANCHOR BOLTS	ASTM A36 OR A307
HIGH–STRENGTH BOLTS	ASTM A325

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

**90% SUBMITTAL
DO NOT USE FOR
CONSTRUCTION**

REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STRUCTURAL GENERAL NOTES SHEET 1 OF 2

S–01			COUNTY FULTON	SCALE XX
DESIGNED BY WRM	DRAWN BY JLL	CHECKED BY JV	APPROVED BY xx	DATE 2/15/2019

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. x OF x

3. ALL STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO ASTM STANDARD SPECIFICATIONS.

4. ALL EXPOSED STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE HOT–DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.

5. WELDING SHALL BE IN ACCORDANCE WITH AWS D1. WELDING ELECTRODES WILL BE E70XX. WELDERS, TACKERS, AND WELDING OPERATORS MUST BE AWS CERTIFIED.

6. PRIOR TO RELEASE OF STRUCTURAL STEEL FOR FABRICATION, THE CONTRACTOR SHALL PROVIDE A COMPLETE SUBMITTAL (INCLUDING ERECTION PLANS, CONNECTION DETAILS, ENGINEERED/SIGNED/STAMPED CONNECTION CALCULATIONS, AND BEAM AND COLUMN PIECE DETAILS) TO THE ENGINEER FOR REVIEW AND APPROVAL. FABRICATION SHALL NOT PROCEED UNTIL THE ENGINEER HAS REVIEWED AND APPROVED THE COMPLETE SUBMITTAL.

7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY SHORING, GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURAL STEEL FRAME DURING CONSTRUCTION FOR WIND AND OTHER CONSTRUCTION LOADS.

8. THE CONTRACTOR SHALL PROVIDE ALL PLATES, CLIPS, SEAT ANGLES, CONNECTIONS, ETCETERA, AS REQUIRED FOR COMPLETION OF THE STRUCTURE EVEN IF SUCH ITEMS ARE NOT EXPLICITLY CALLED FOR ON THE STRUCTURAL DRAWINGS.

9. ALL CONNECTION DETAILS SHOWN ON THE DRAWINGS ARE SHOWN FOR GENERAL INTENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL STRUCTURAL STEEL CONNECTIONS NOT SHOWN. UNLESS INDICATED ON THE DRAWINGS, ALL SIMPLY SUPPORTED BEAM–TO–COLUMN AND BEAM–TO–BEAM CONNECTIONS SHALL BE DOUBLE ANGLES. CONTRACTOR SHALL DESIGN AND DETAIL ALL CONNECTIONS ACCORDING TO AISC SPECIFICATION REQUIREMENTS (LRFD).

10. BEAM CONNECTIONS SHALL BE DESIGNED FOR THE MAXIMUM UNIFORM LOAD–CARRYING CAPACITY OF THE MEMBER, AS PUBLISHED IN AISC STEEL CONSTRUCTION MANUAL, TABLE 3–6, FOR THE SIZE AND LENGTH OF THE BEAM BEING CONNECTED.

11. ALL MOMENT CONNECTIONS SHOWN AND OR NOTED ON THE DRAWINGS SHALL BE FULL PENETRATION WELDED MOMENT CONNECTIONS, UNLESS NOTED OTHERWISE.

12. ALL COLUMN ENDS SHALL BE MILLED TO BEAR AND ANY MOMENT FRAME COLUMN SPLICES SHALL BE DESIGNED IN ACCORDANCE WITH THE TYPICAL DETAILS.

13. STRUCTURAL BEAM OVER COLUMN CONNECTIONS SHALL HAVE A MINIMUM 3/4" CAP PLATE WITH 4–3/4" DIAMETER HIGH STRENGTH BOLTS UNO.

14. UNLESS NOTED OTHERWISE, PROVIDE MIN. 1/4" END CLOSURE PLATES ON ALL HSS MEMBERS.

ALUMINUM:

1. MISCELLANEOUS ALUMINUM SHAPES AND PLATES SHALL CONFORM TO THE FOLLOWING:

- ALUMINUM FOR STRUCTURAL AND ROLLED SHAPES SHALL BE ALUMINUM ASSOCIATION ALLOY 6061–T6.
- ALUMINUM FOR EXTRUDED SHAPES SHALL BE ALUMINUM ASSOCIATION ALLOY 6063–T6.
- ALUMINUM FOR PIPE SHALL BE ALUMINUM ASSOCIATION ALLOY 6063–T6.
- ALUMINUM FOR CASTINGS SHALL BE ALUMINUM ASSOCIATION ALLOY F–514, OR APPROVED EQUAL.
- ANCHOR BOLTS AND CONNECTION BOLTS FOR ALUMINUM SHALL BE STAINLESS STEEL.

2. ALL CONNECTION DETAILS SHOWN ON THE DRAWINGS ARE SHOWN FOR GENERAL INTENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL STRUCTURAL CONNECTIONS NOT SHOWN. UNLESS INDICATED ON THE DRAWINGS, ALL SIMPLY SUPPORTED BEAM–TO–COLUMN AND BEAM–TO–BEAM CONNECTIONS SHALL BE DOUBLE ANGLES. CONTRACTOR SHALL DESIGN AND DETAIL ALL CONNECTIONS ACCORDING TO ALUMINUM DESIGN MANUAL 2010.

3. BEAM CONNECTIONS SHALL BE DESIGNED FOR THE MAXIMUM UNIFORM LOAD–CARRYING CAPACITY OF THE MEMBER.

4. ALL MOMENT CONNECTIONS SHOWN AND OR NOTED ON THE DRAWINGS SHALL BE FULL PENETRATION WELDED MOMENT CONNECTIONS, UNLESS NOTED OTHERWISE.

5. WHERE ALUMINUM CONTACTS A DISSIMILAR METAL, APPLY A HEAVY BRUSH COAT OF ZINC– CHROMATE PRIMER FOLLOWED BY TWO COATS OF ALUMINUM METAL AND MASONRY PAINT TO DISSIMILAR METAL.

6. WHERE ALUMINUM CONTACTS CONCRETE, APPLY A HEAVY COAT OF APPROVED ALKALI RESISTANT PAINT TO THE CONCRETE.

SPECIAL INSPECTIONS:

1. PROVIDE SPECIAL INSPECTION PER REQUIREMENTS OF INTERNATIONAL BUILDING CODE (IBC) 2012 AND SPECIFICATION REQUIREMENTS. SPECIAL INSPECTIONS SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY.

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE TESTS AND SPECIAL INSPECTIONS AT APPROPRIATE INTERVALS DURING ALL PHASES OF CONSTRUCTION TO FULLY COMPLY WITH 2012 INTERNATIONAL BUILDING CODE (IBC) 2012 AND SPECIFICATION REQUIREMENTS.

⚠1

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

90% SUBMITTAL
DO NOT USE FOR CONSTRUCTION

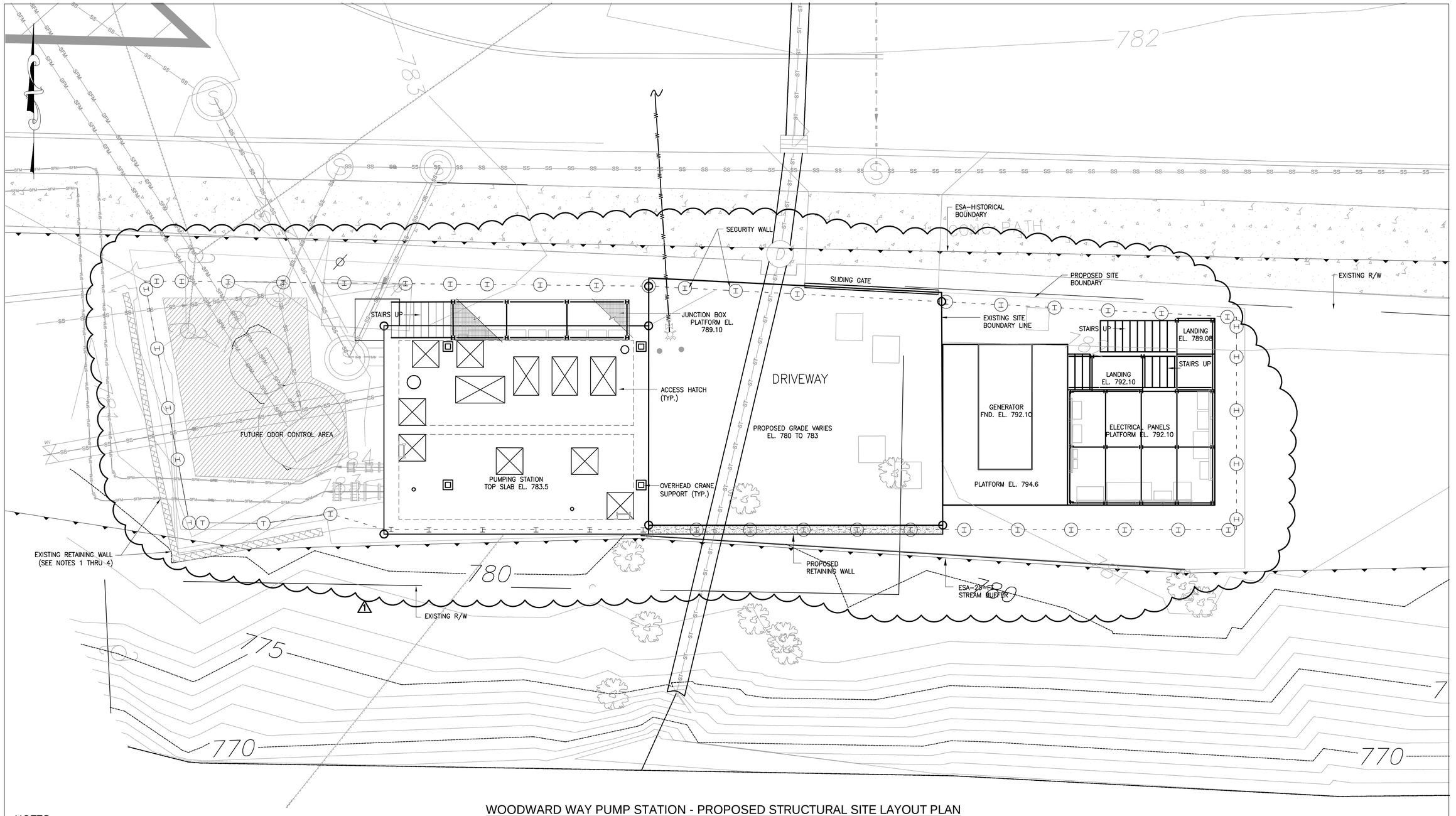
REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
⚠1	NEW SHEET ADDED

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STRUCTURAL GENERAL NOTES SHEET 2 OF 2

S–02			COUNTY FULTON	SCALE XX
DESIGNED BY WRM	DRAWN BY JLL	CHECKED BY JV	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x



NOTES:

1. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING MASONRY BLOCK RETAINING WALL FROM DAMAGE DURING CONSTRUCTION.
2. PROVIDE TEMPORARY SHORING IF THE WALL WILL BE SUBJECTED TO ADDITIONAL LOADING DURING CONSTRUCTION.
3. WALL SHALL BE REPOINTED AND ANY AREAS SHOWING UNDERMINING OF THE FOOTING SHALL BE REPAIRED.
4. CONTRACTOR TO SUBMIT DETAILS ON THE SUPPORT, PROTECTION, DISASSEMBLY, AND REBUILDING OF THE WALL AS NECESSARY TO INSTALL THE FORCE MAINS BELOW THE WALL.

WOODWARD WAY PUMP STATION - PROPOSED STRUCTURAL SITE LAYOUT PLAN

SCALE: 3/16" = 1'–0"

4 0 4 8 12

3/16" = 1'–0"

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	REVISED ROOF SLAB OPENINGS, JUNCTION BASE PLATFORM, AND SECURITY AND RETAINING WALL

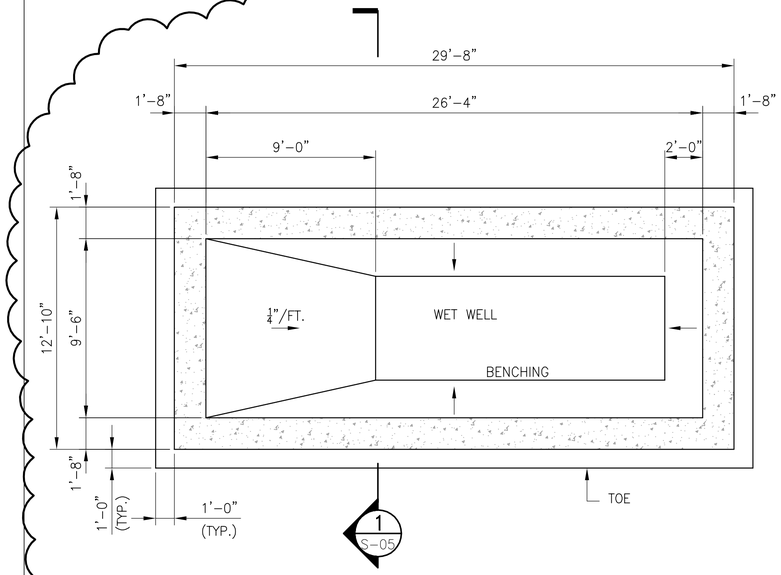
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STRUCTURAL SITE LAYOUT PLAN

S-03			COUNTY FULTON	SCALE XX
DESIGNED BY WRM	DRAWN BY JLL	CHECKED BY JV	APPROVED BY XX	DATE 2/15/2019

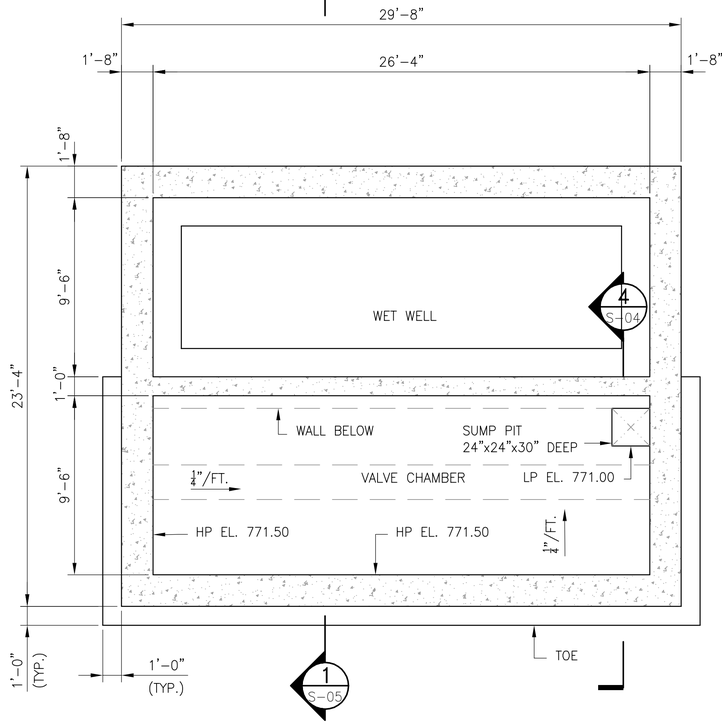
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. X OF X



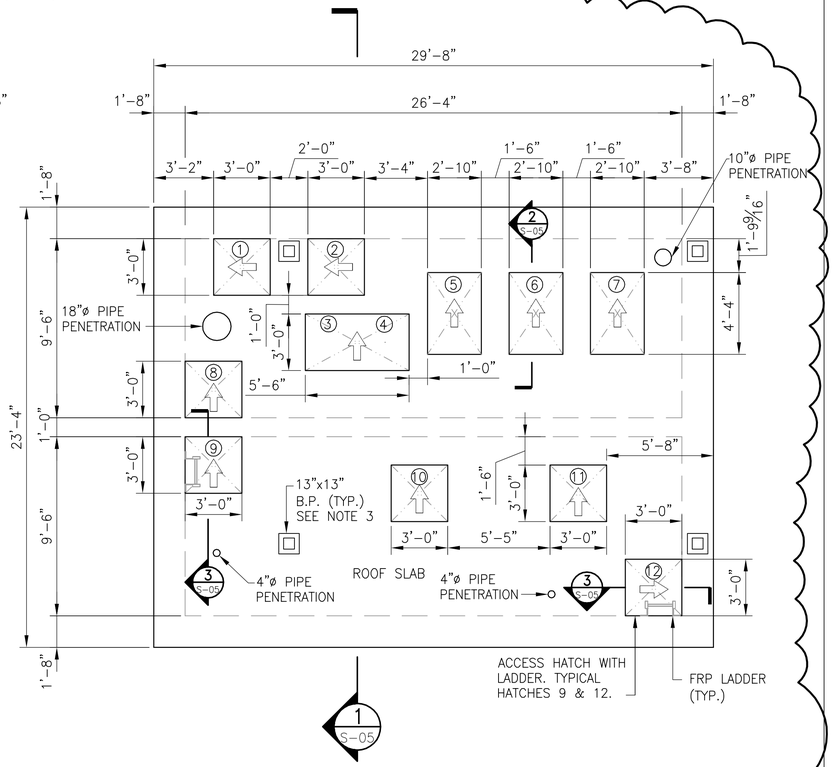
PLAN - WET WELL SLAB EL. 750.50

SCALE: 1/4" = 1'-0"



PLAN - VALVE CHAMBER SLAB EL. 771.50

SCALE: 1/4" = 1'-0"



PLAN - ROOF SLAB EL. 783.50

SCALE: 1/4" = 1'-0"

PRIOR TO THE PUMP ACCESS HATCH FABRICATION AND SUPPLY, COORDINATE THE HATCH CLEAR OPENINGS WITH THE PUMP FOOTPRINT. THE HATCH CLEAR OPENING SIZE SHALL BE ADEQUATE FOR PUMP REMOVAL FROM THE WET WELL AND SHALL ALSO MAINTAIN A MINIMUM OF 3" ADDITIONAL CLEARANCE AT EACH PUMP SIDE. REFER TO AND COORDINATE WITH PROCESS DRAWINGS AND APPROVED PUMP SHOP DRAWINGS.

PUMP STATION STRUCTURAL SLABS

			CLEAR OPENING		CONCRETE OPENING		HINGE SIDE
OPENING	SERVICE	LOCATION	N-S	E-W	N-S	E-W	
1	ACCESS	WET WELL	36"	33"	36"	36"	W
2	ACCESS	WET WELL	36"	33"	36"	36"	W
3 & 4	PUMPS P-01 & P-02	WET WELL	33"	66"	36"	66"	N
5	PUMP P-03	WET WELL	49"	34"	52"	34"	N
6	PUMP P-04	WET WELL	49"	34"	52"	34"	N
7	PUMP P-05	WET WELL	49"	34"	52"	34"	N
8	ACCESS	WET WELL	33"	36"	36"	36"	N
9	ACCESS	VALVE CHAMBER	33"	36"	36"	36"	N
10	VALVES	VALVE CHAMBER	33"	36"	36"	36"	N
11	VALVES	VALVE CHAMBER	33"	36"	36"	36"	N
12	ACCESS	VALVE CHAMBER	36"	33"	36"	36"	E

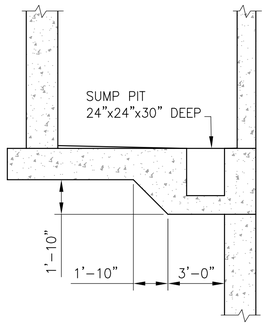
EQUIPMENT & ACCESS HATCH SCHEDULE

NOTES:

1. ALL ROOF OPENINGS AND PIPE PENETRATIONS SHALL BE COORDINATED WITH PROCESSING DRAWINGS.
2. ① NUMBERED LABELS DESIGNATE ACCESS AND EQUIPMENT HATCH OPENINGS. REFER TO PROCESSING DRAWING P-02 FOR ADDITIONAL INFORMATION.
3. B.P. – BASE PLATE FOR OVERHEAD CRANE SUPPORT.
4. OPENING DIMENSIONS DEPICTED ON THE ROOF SLAB PLAN ARE THE CONCRETE OPENINGS IN THE SLAB.
5. NOTE THE OPEN POSITION OF ALL HATCHES IS INDICATED ON THE PLANS AS ⇨. ALL PUMP HATCHES TO OPEN FROM THE SOUTH TO NORTH.
6. ALL HATCHES, WHEN OPENED, SHALL HAVE SAFETY GUARDS AT OPEN SIDES. THE GUARDRAILS SHALL BE REMOVABLE AND BE USED WHEN THE HATCH IS OPEN.
7. ALL HATCHES SHALL BE WATER TIGHT TO PREVENT WATER ENTERING THE WELLS IN THE EVENT OF A FLOOD.
8. CLEAR OPENING IS 3" SHORTER THAN CONCRETE ON SIDE OF HINGES TO ACCOUNT FOR LIFTING MECHANISM IN OPENING POSITION.

4 0 4 8

1/4" = 1'-0"



SECTION 4 / S-04

SCALE: 1/4"=1'-0"

1

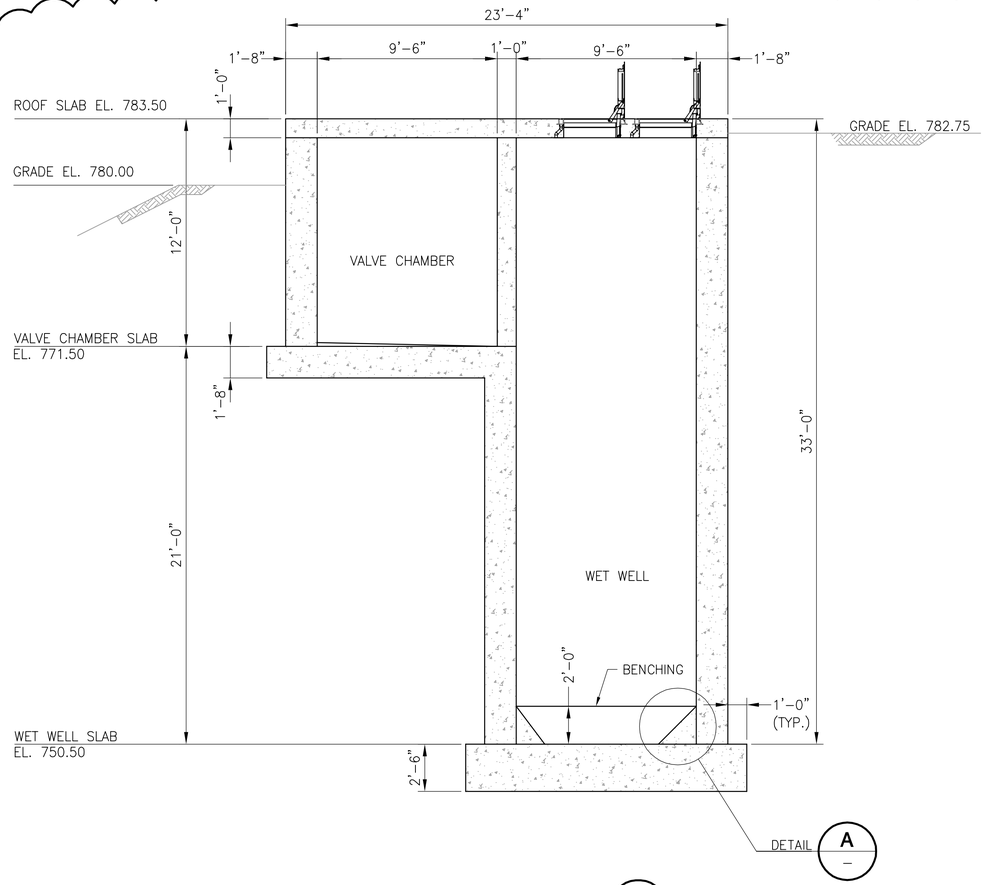
90% SUBMITTAL
DO NOT USE FOR CONSTRUCTION

REVISIONS	
DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

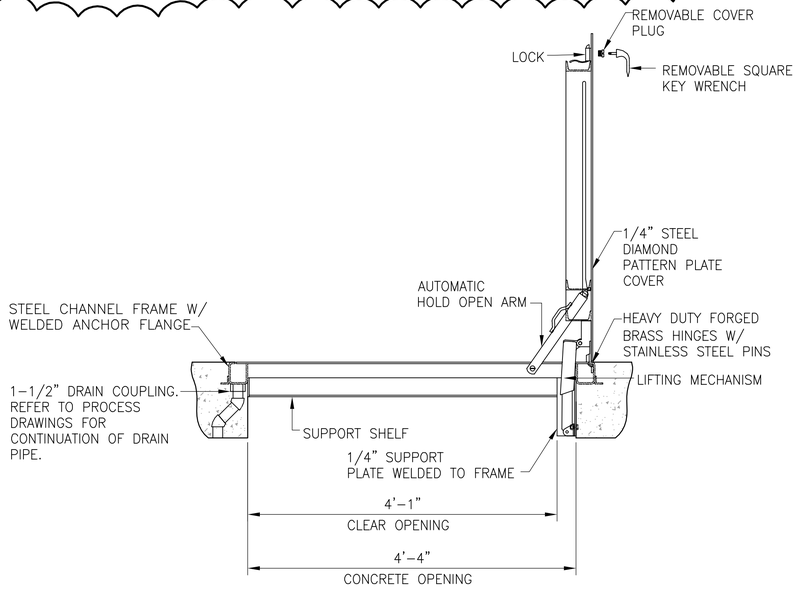
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PUMP STATION STRUCTURAL SLABS

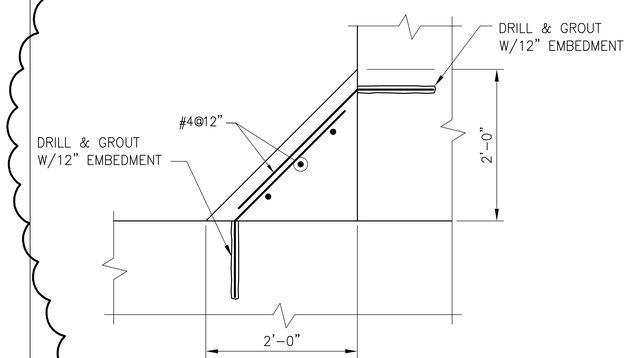
S-04			COUNTY FULTON		SCALE XX
DESIGNED BY JV	DRAWN BY JLL	CHECKED BY WRM	APPROVED BY xx		DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED					DRAWING NO. x OF x



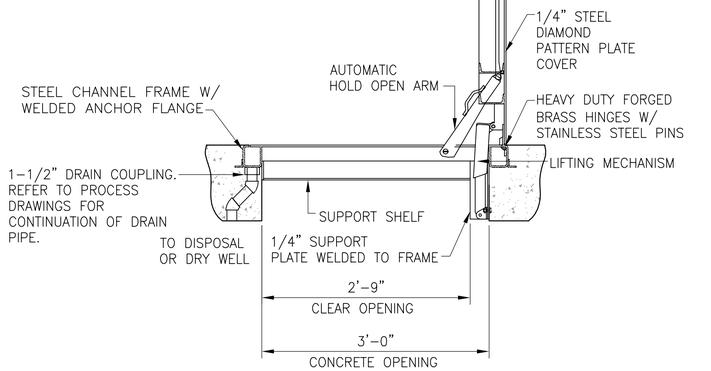
SECTION
SCALE: 1/4"=1'-0"
1
S-04



EQUIPMENT HATCHES 6 - SECTION
(HATCHES 3, 4, 7, 5, 10, & 11 SIMILAR)
SCALE: 1"=1'-0"
2
S-04



BENCHING DETAIL
DETAIL A
SCALE: 1"=1'-0"



ACCESS HATCHES 9 & 12 - SECTION
(HATCHES 1, 2, & 8 SIMILAR)
SCALE: 1"=1'-0"
3
S-04

4 0 4 8
¼" = 1'-0"

90% SUBMITTAL
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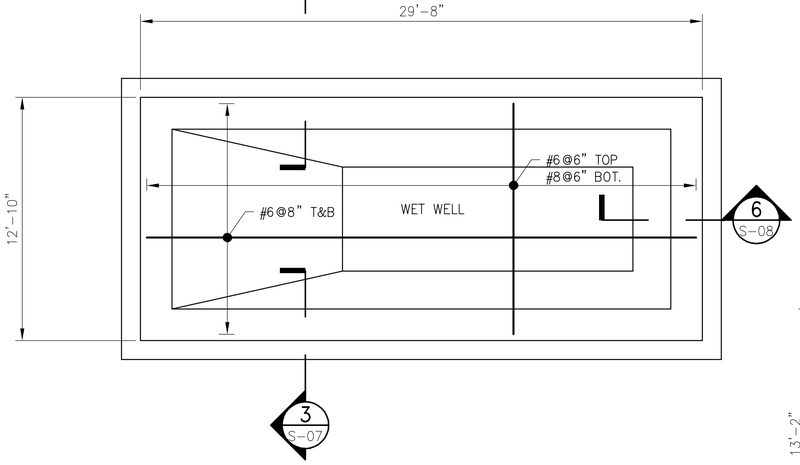
REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

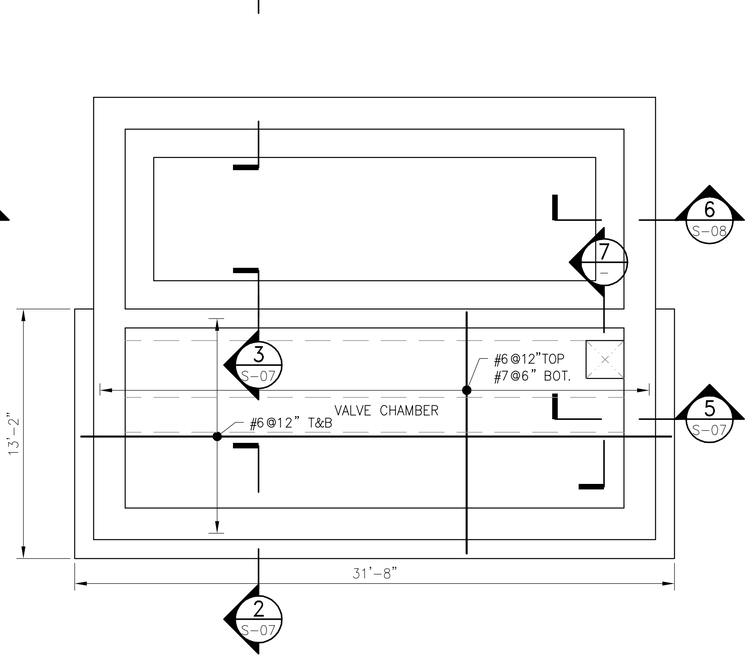
WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PUMP STATION SECTIONS & DETAILS

S-05			COUNTY FULTON	SCALE XX
DESIGNED BY JV	DRAWN BY JLL	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x



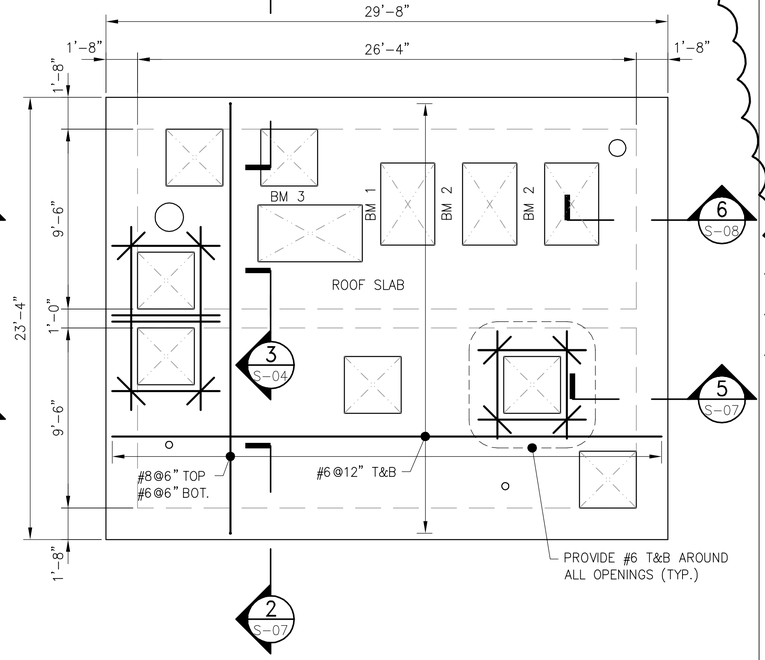
PLAN - WET WELL SLAB EL. 750.50

SCALE: 1/4" = 1'-0"



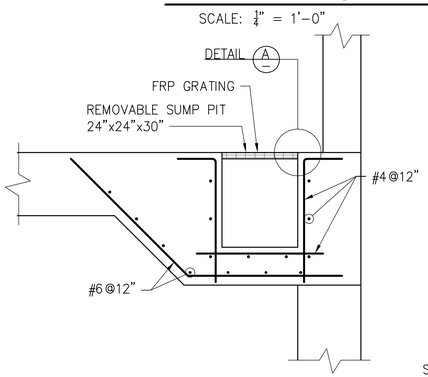
PLAN - VALVE CHAMBER SLAB EL. 771.50

SCALE: 1/4" = 1'-0"



PLAN - ROOF SLAB EL. 783.50

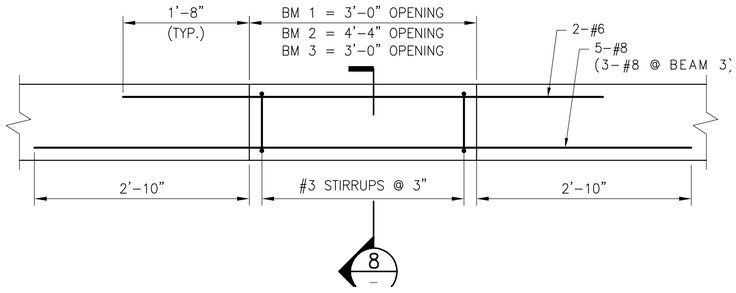
SCALE: 1/4" = 1'-0"



SLAB AND WALL REINFORCEMENT
NOT SHOWN FOR CLARITY.

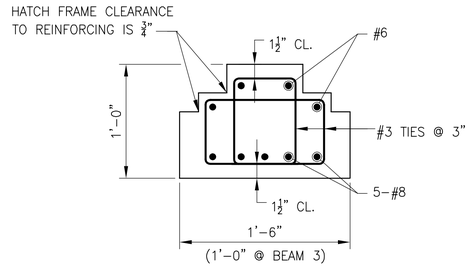
SECTION 7

SCALE: 1/2"=1'-0"



ELEVATION - BEAM 1, 2, AND 3

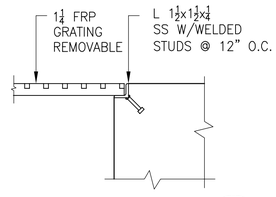
SCALE: 1" = 1'-0"



TYPICAL SECTION - BEAM 1, 2, AND 3

SECTION 8

SCALE: 1-1/2" = 1'-0"



DETAIL A

SCALE: 1 1/2"=1'-0"

4 0 4 8

1/4" = 1'-0"

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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DO NOT USE FOR
CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

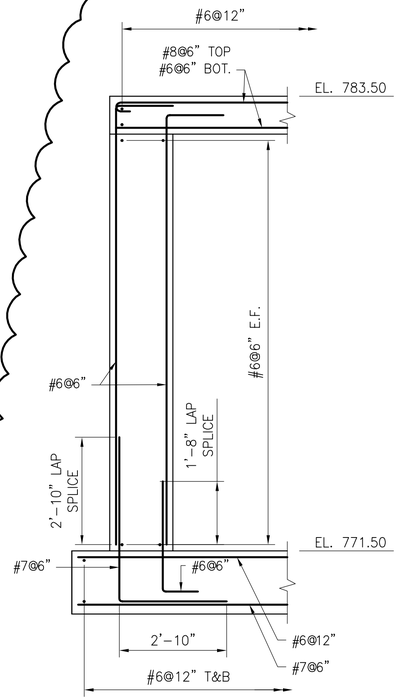
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PUMP STATION STRUCTURAL SLABS REINFORCING

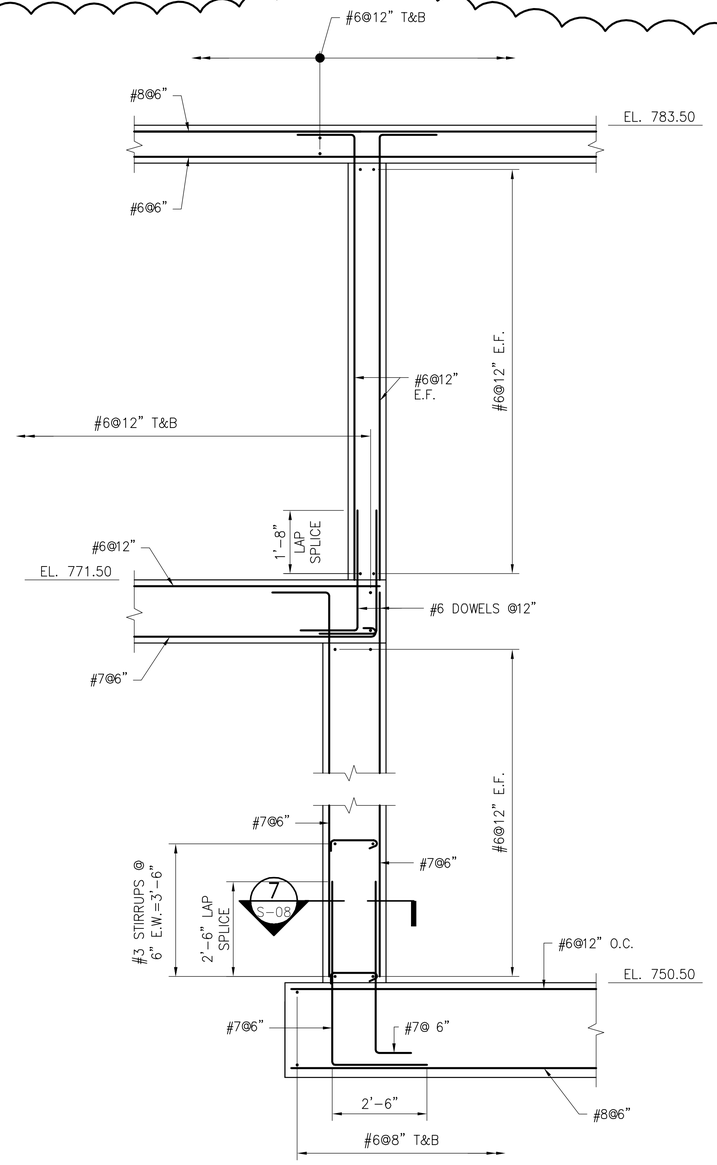
S-06			COUNTY FULTON	SCALE XX
DESIGNED BY JV	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

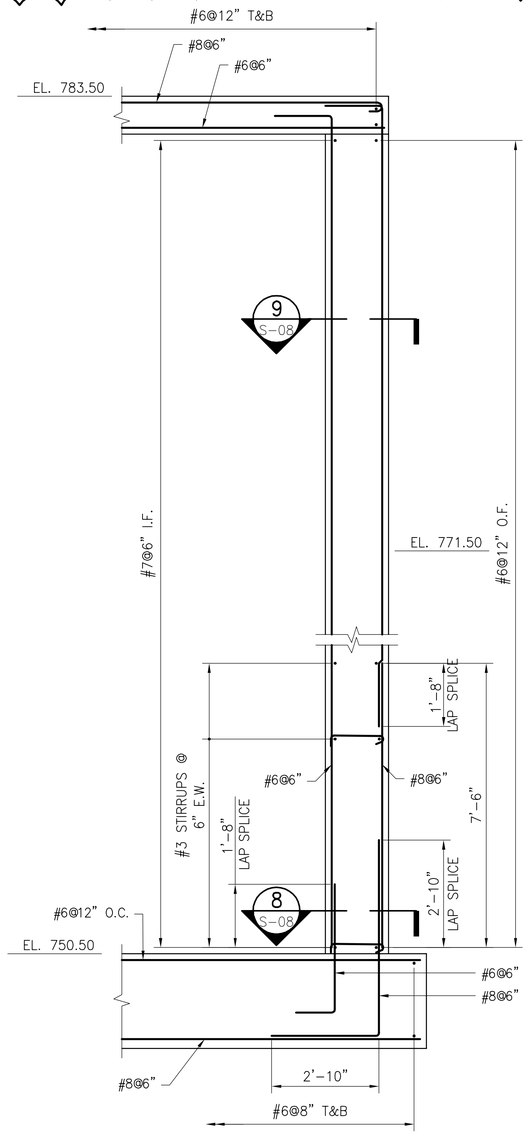
DRAWING NO. x OF x



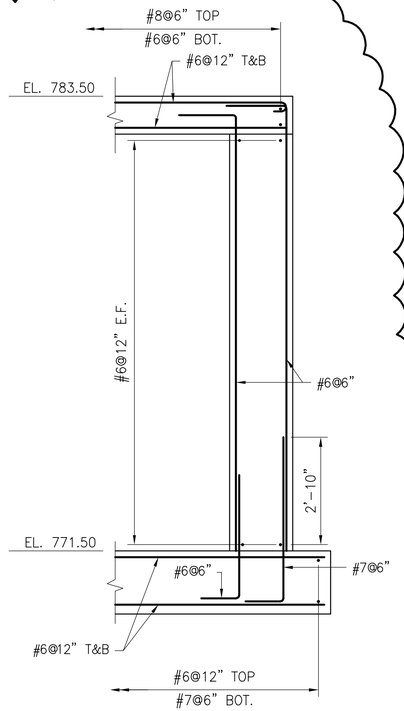
SECTION 2 S-06
SCALE: 1/2"=1'-0"



SECTION 3 S-06
SCALE: 1/2"=1'-0"



SECTION 4 S-06
SCALE: 1/2"=1'-0"



SECTION 5 S-06
SCALE: 1/2"=1'-0"

2 0 2 4
½" = 1'-0"

LEGEND:
O.C. = ON CENTER
T&B = TOP & BOTTOM
I.F. = INSIDE FACE
O.F. = OUTSIDE FACE
E.F. = EACH FACE
E.W. = EACH WAY

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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CONSTRUCTION**

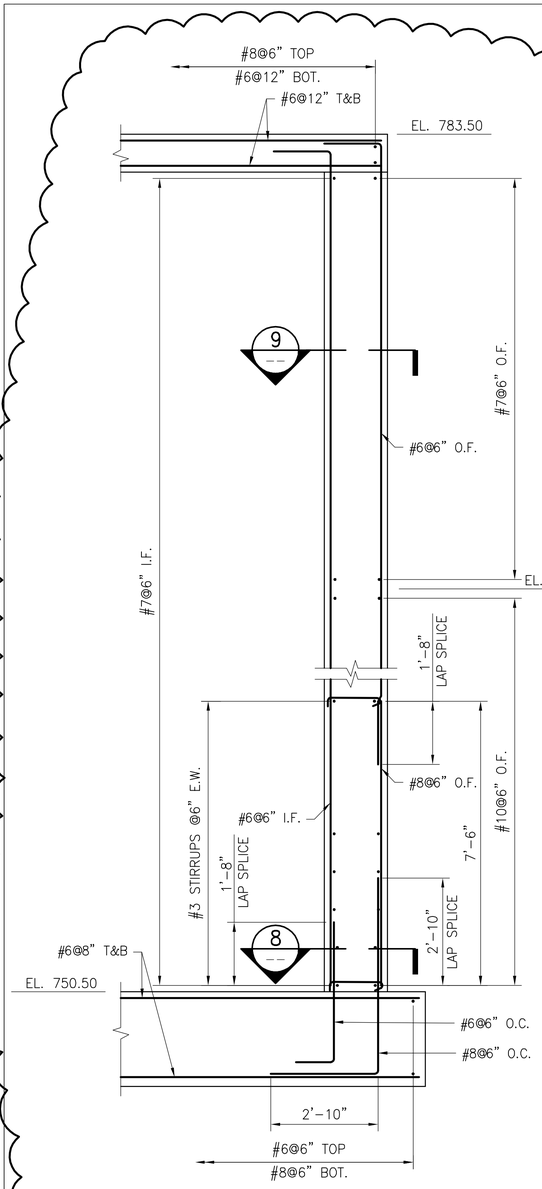
REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

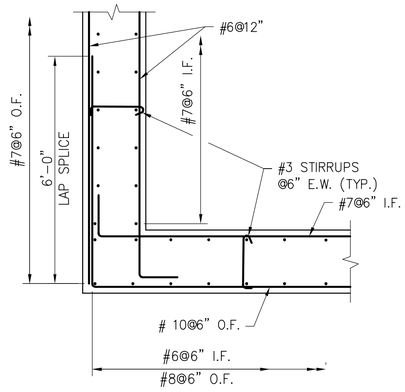
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PUMP STATION STRUCTURAL REINFORCING SECTIONS

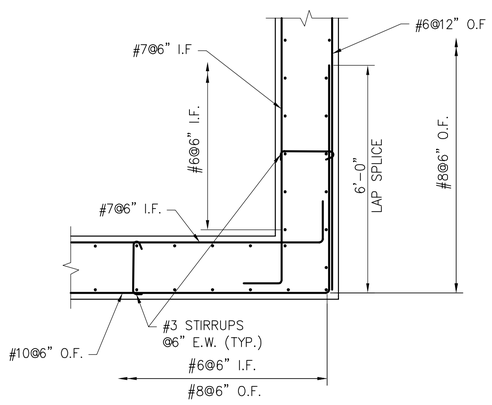
S-07			COUNTY FULTON	SCALE XX
DESIGNED BY JV	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x



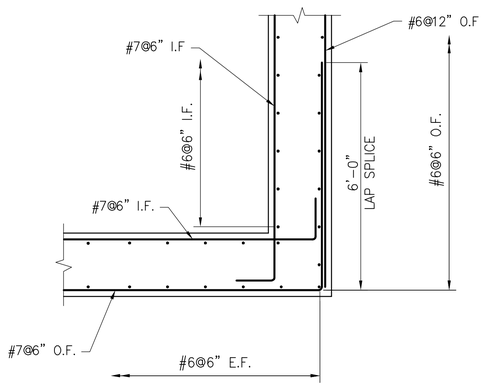
SECTION 6
SCALE: 1/2"=1'-0" S-06



SECTION 7
SCALE: 1/2"=1'-0" S-07



SECTION 8
SCALE: 1/2"=1'-0" S-07



SECTION 9
SCALE: 1/2"=1'-0" S-07

2 0 2 4
½" = 1'-0"

LEGEND:

O.C. = ON CENTER
T&B = TOP & BOTTOM
I.F. = INSIDE FACE
O.F. = OUTSIDE FACE
E.F. = EACH FACE
E.W. = EACH WAY

90% SUBMITTAL
DO NOT USE FOR CONSTRUCTION

REVISIONS	
DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

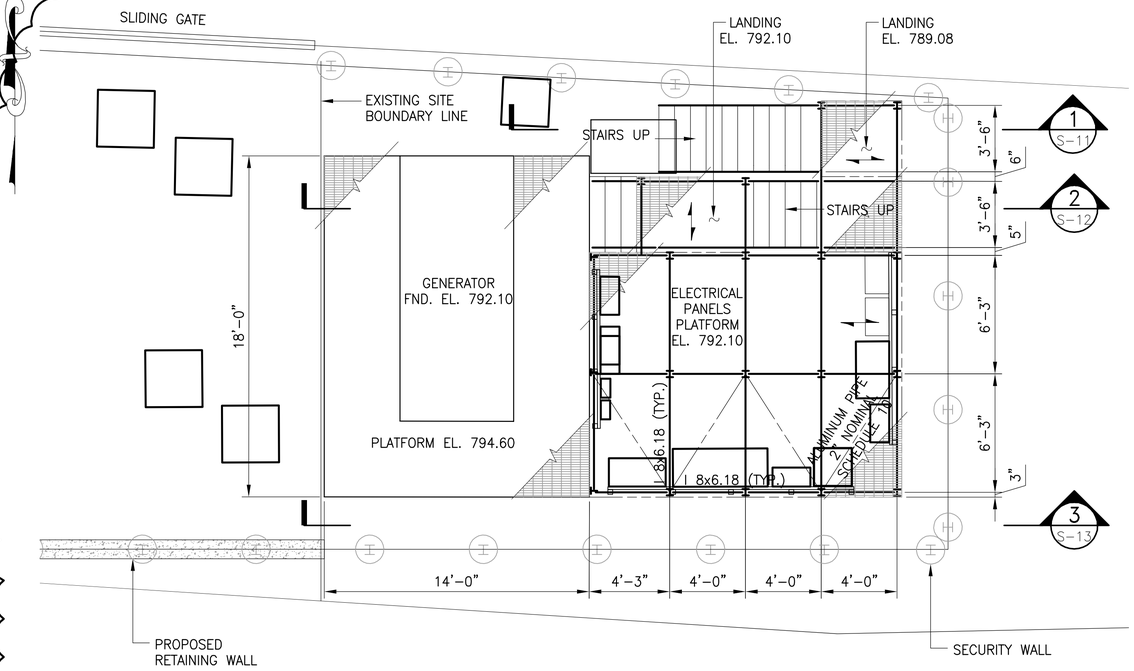
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PUMP STATION STRUCTURAL REINFORCING SECTIONS

S-08			COUNTY FULTON	SCALE XX
DESIGNED BY JV	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019

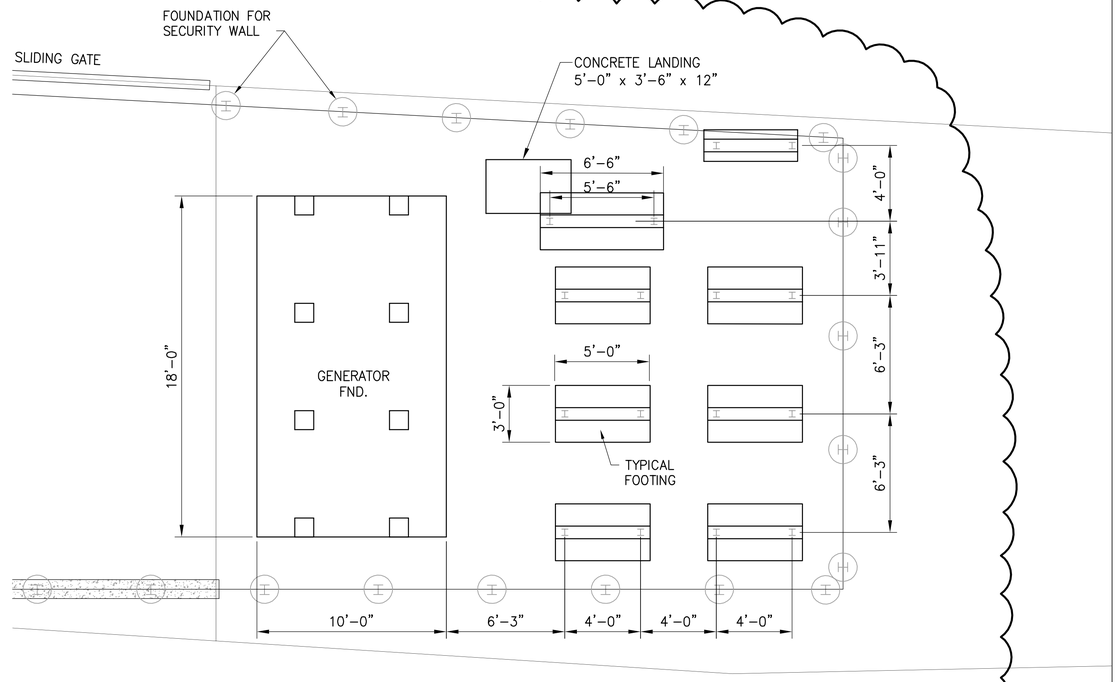
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. x OF x



GENERATOR AND ELECTRICAL PLATFORM LAYOUT PLAN

SCALE: 1/4" = 1'-0"



GENERATOR AND PLATFORM FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

NOTE:

ALL PLATFORM FRAMING, HANDRAIL, GRATING, STAIR STRINGERS AND TREADS SHALL BE ALUMINUM.

LEGEND

= GRATING DIRECTION OF SPAN

4 0 4 8

¼" = 1'-0"

90% SUBMITTAL
DO NOT USE FOR CONSTRUCTION

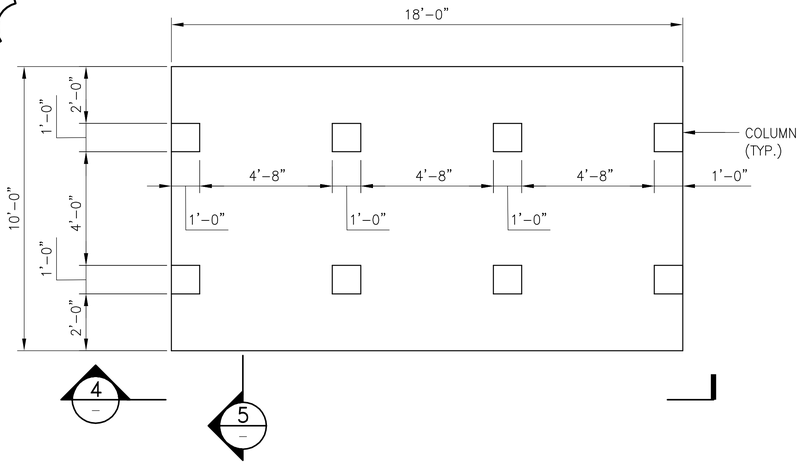
REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	LAYOUT PLAN UPDATED, FOUNDATION PLAN ADDED, NOTES AND LEGEND ADDED.

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

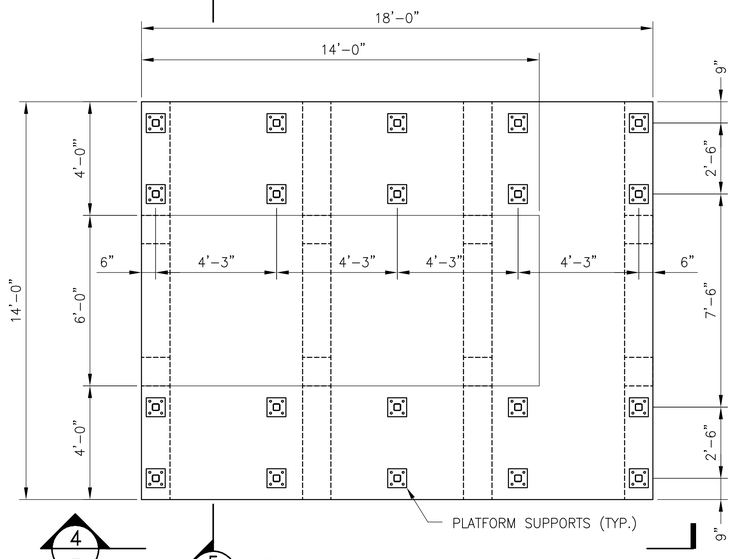
WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
GENERATOR AND ELECTRICAL PANEL PLATFORMS AND FOUNDATION PLANS

S-09			COUNTY FULTON	SCALE XX
DESIGNED BY AC	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x



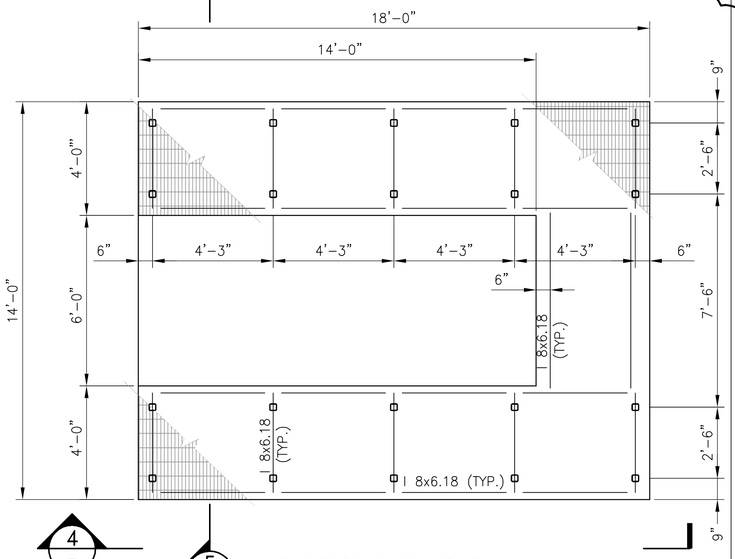
4 5

GENERATOR FOUNDATION PLAN - EL. 779.50
SCALE: 3/8"=1'-0"



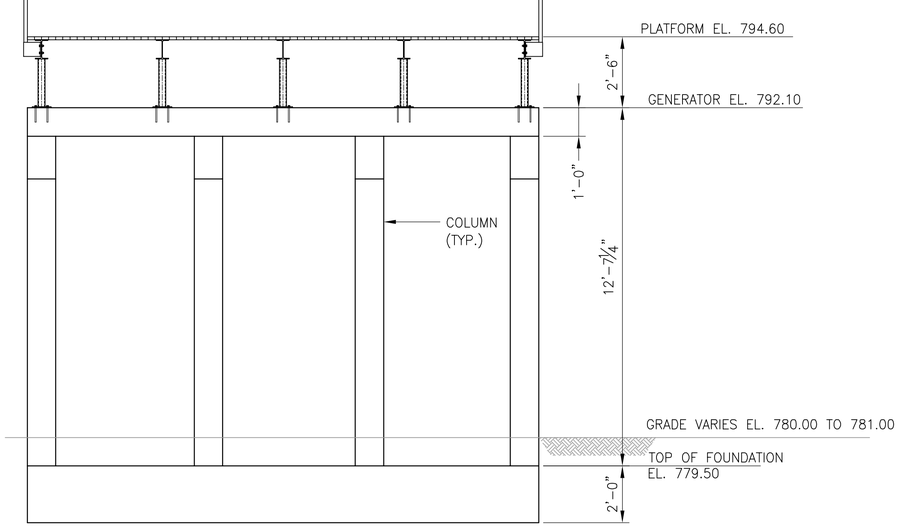
4 5

GENERATOR SLAB - EL. 792.10
SCALE: 3/8"=1'-0"

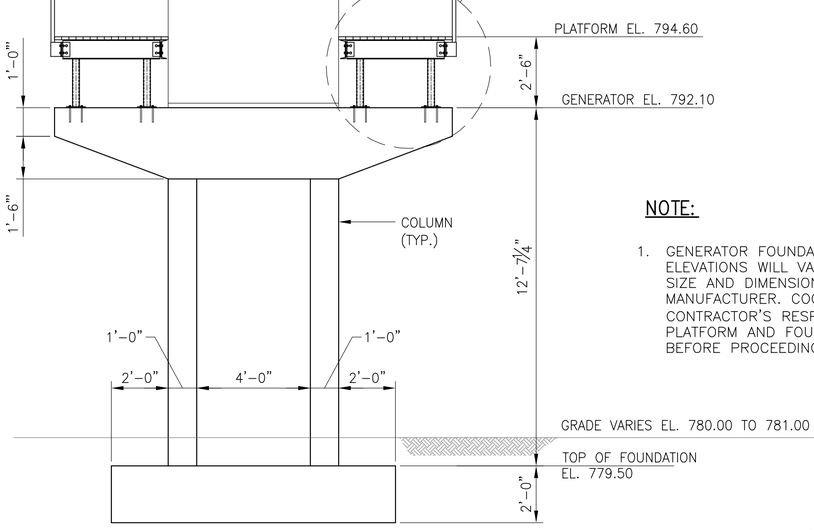


4 5

PLATFORM - EL. 794.60
SCALE: 3/8"=1'-0"



SECTION 4
SCALE: 3/8"=1'-0"



SECTION 5
SCALE: 3/8"=1'-0"

NOTE:

1. GENERATOR FOUNDATION AND PLATFORM LAYOUT, DIMENSIONS AND ELEVATIONS WILL VARY DEPENDING ON THE GENERATOR MANUFACTURER. SIZE AND DIMENSIONS SHALL BE COORDINATED WITH THE EQUIPMENT MANUFACTURER. COORDINATION WITH THE MANUFACTURER IS THE CONTRACTOR'S RESPONSIBILITY. CHANGES TO THE DIMENSIONS FOR THE PLATFORM AND FOUNDATION SHALL BE APPROVED BY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

2 0 2 4 6
3/8" = 1'-0"

wsp

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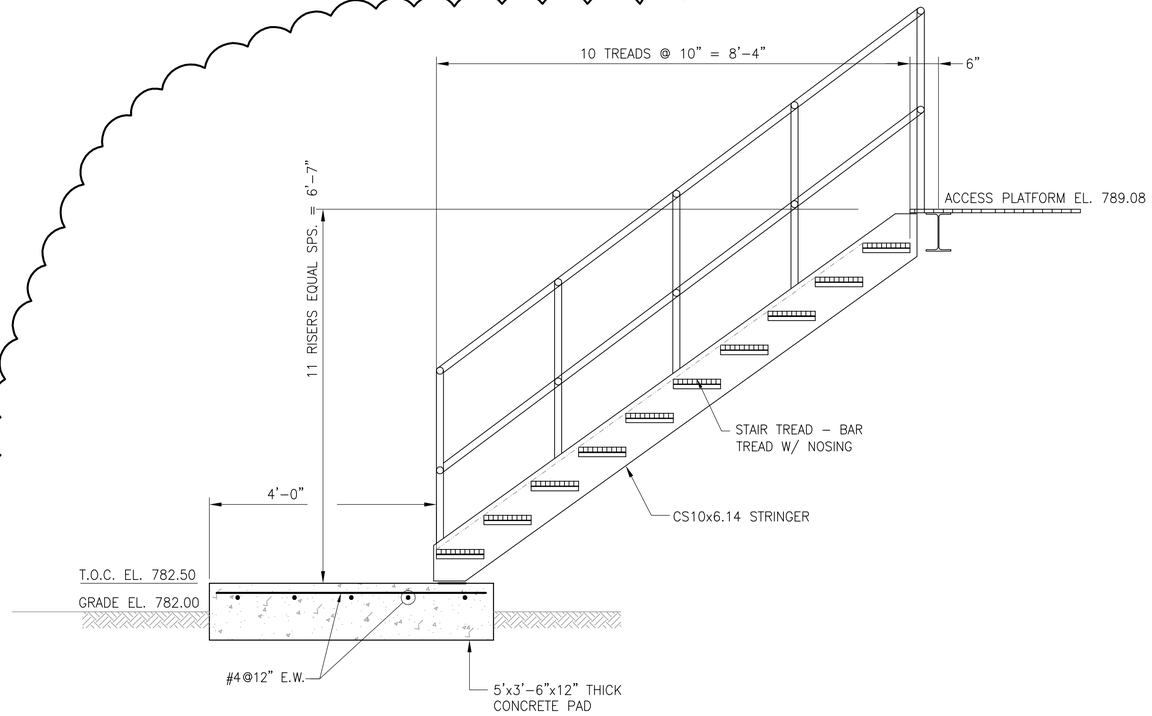
REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	LAYOUT REVISED, SECTIONS ADDED.

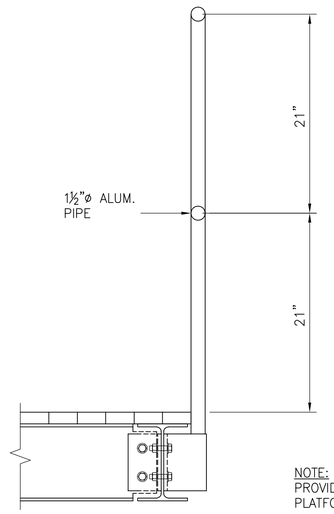
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
GENERATOR FOUNDATION PLAN

S-10			COUNTY FULTON	SCALE XX
DESIGNED BY AC	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x



SECTION 1/S-09
SCALE: 3/4"=1'-0"



NOTE:
PROVIDE HANDRAIL AT ALL OPEN EDGES OF PLATFORM AND ALONG STAIR STRINGERS.

HANDRAIL DETAIL
SCALE: 1-1/2"=1'-0"

1

1 0 1 2 3
¾" = 1'-0"

wsp

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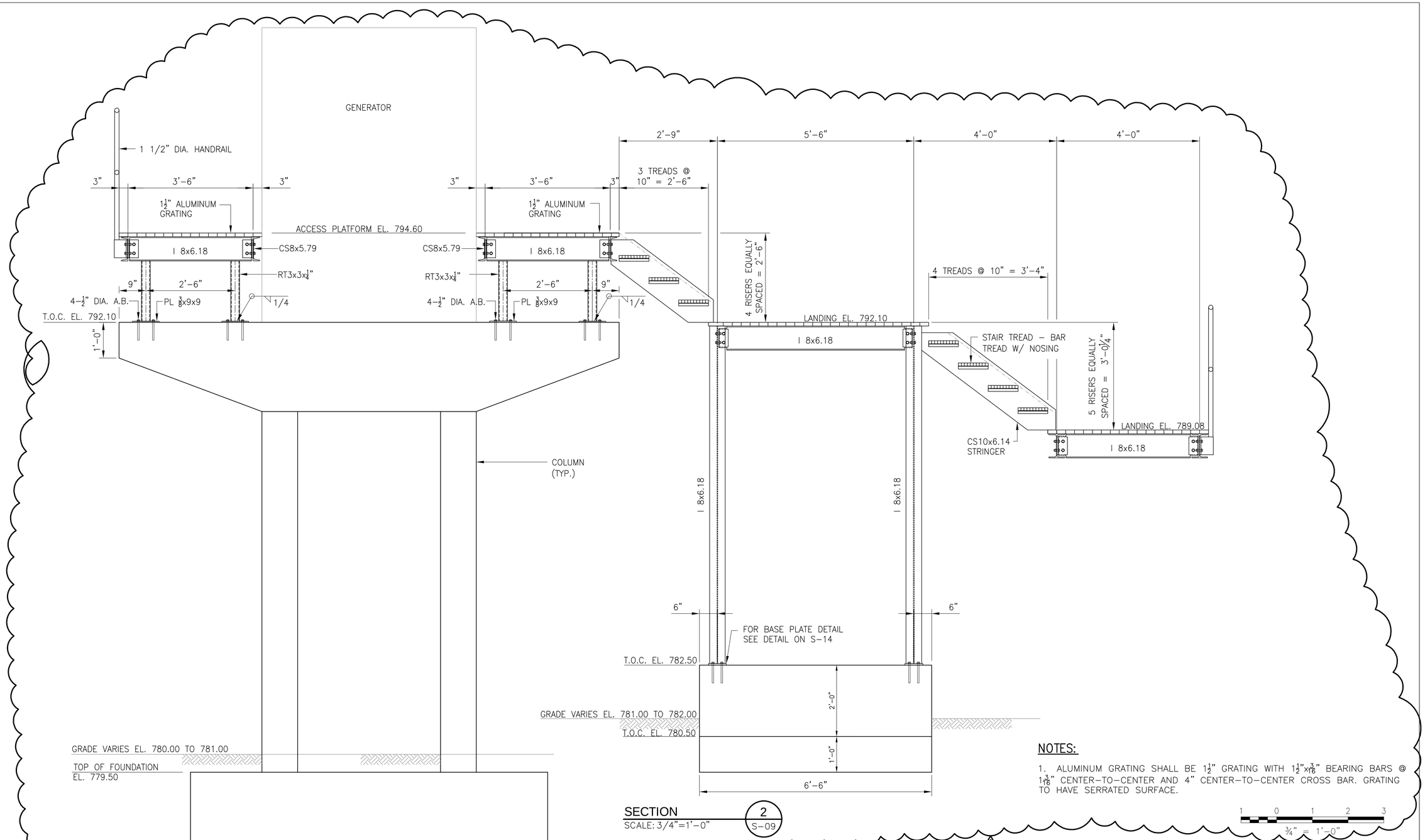
REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STRUCTURAL PLATFORM SECTIONS SHEET 1 OF 3

S-11			COUNTY FULTON	SCALE XX
DESIGNED BY AC	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x



SECTION 2 / S-09
SCALE: 3/4"=1'-0"

NOTES:

1. ALUMINUM GRATING SHALL BE 1½" GRATING WITH 1½"x⅛" BEARING BARS @ 1 3/16" CENTER-TO-CENTER AND 4" CENTER-TO-CENTER CROSS BAR. GRATING TO HAVE SERRATED SURFACE.

1 0 1 2 3
¾" = 1'-0"

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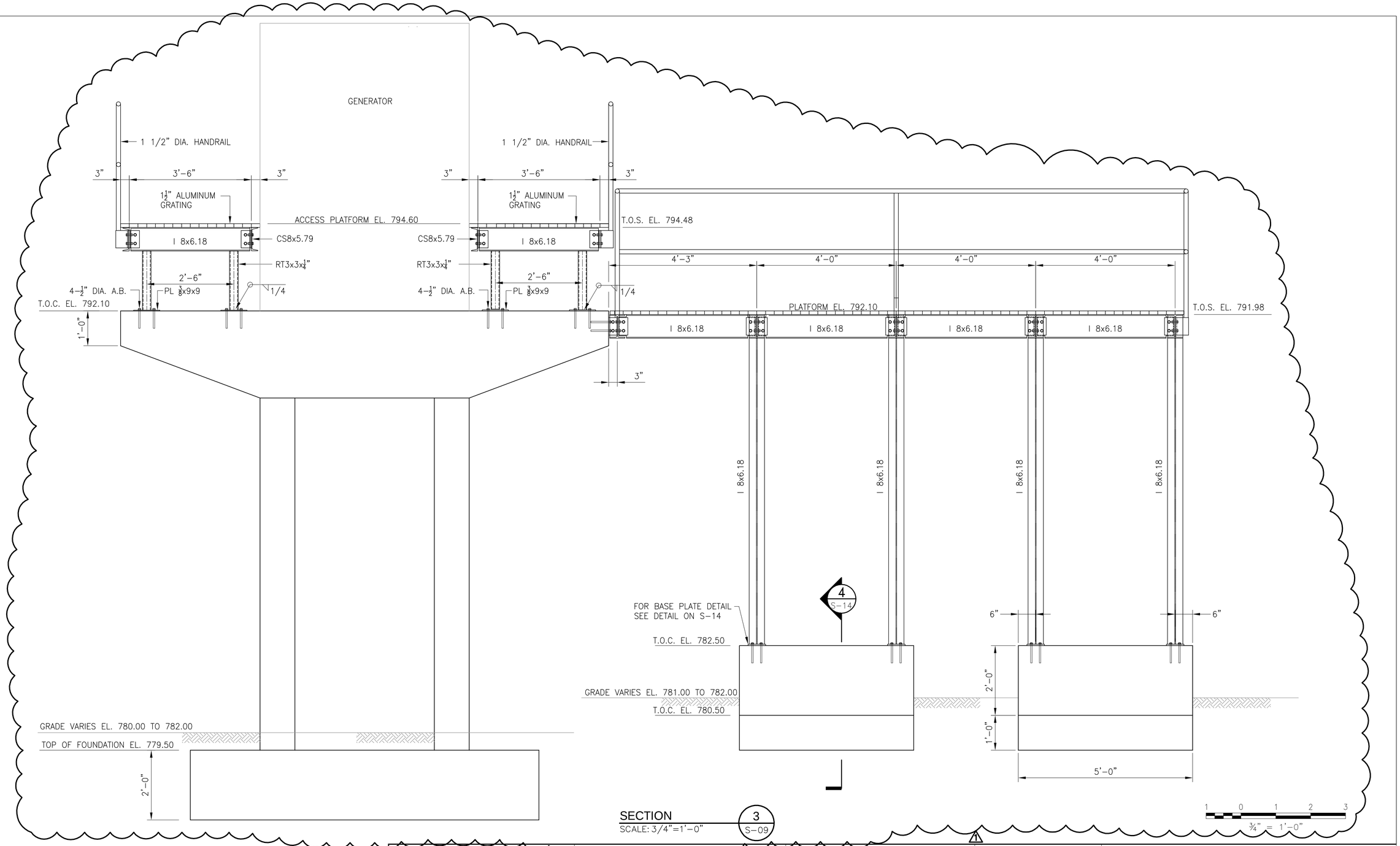
DO NOT USE FOR CONSTRUCTION

REVISIONS	
DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STRUCTURAL PLATFORM SECTIONS SHEET 2 OF 3

S-12			COUNTY FULTON	SCALE XX
DESIGNED BY AC	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x



wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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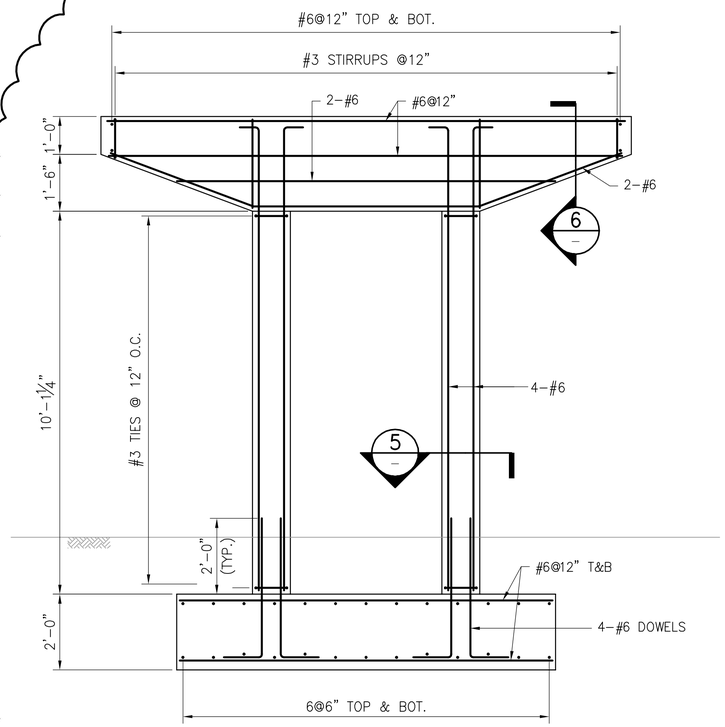
REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

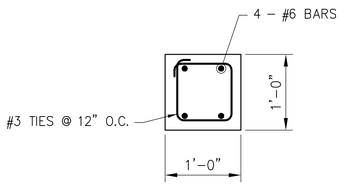
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STRUCTURAL PLATFORM SECTIONS SHEET 3 OF 3

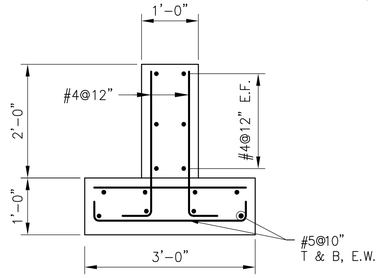
S-13			COUNTY FULTON	SCALE XX
DESIGNED BY AC	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x



PIER DETAIL
SCALE: 1/2"=1'-0"

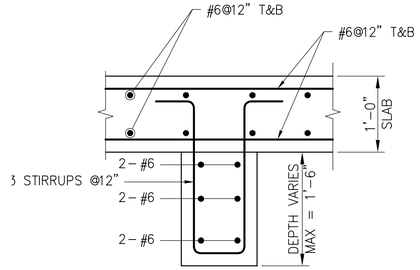


SECTION 5
SCALE: 1"=1'-0"

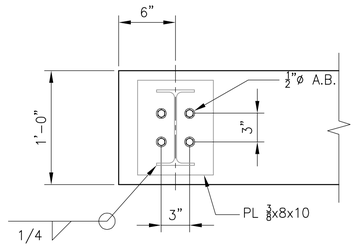


PLATFORM FOOTING

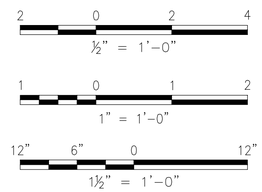
SECTION 4
SCALE: 3/4"=1'-0"
S-13



SECTION 6
SCALE: 1"=1'-0"



BASE PLATE DETAIL
SCALE: 1-1/2"=1'-0"



wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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DO NOT USE FOR CONSTRUCTION

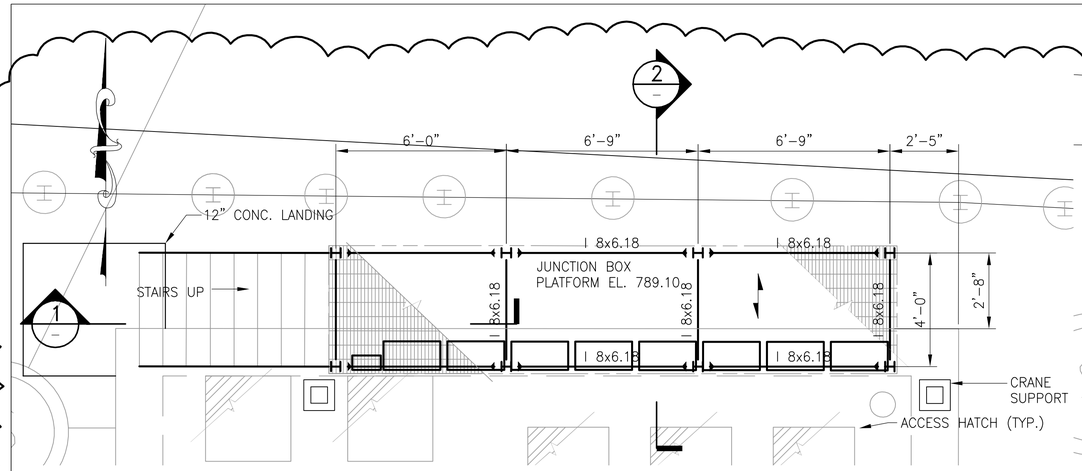
REVISIONS

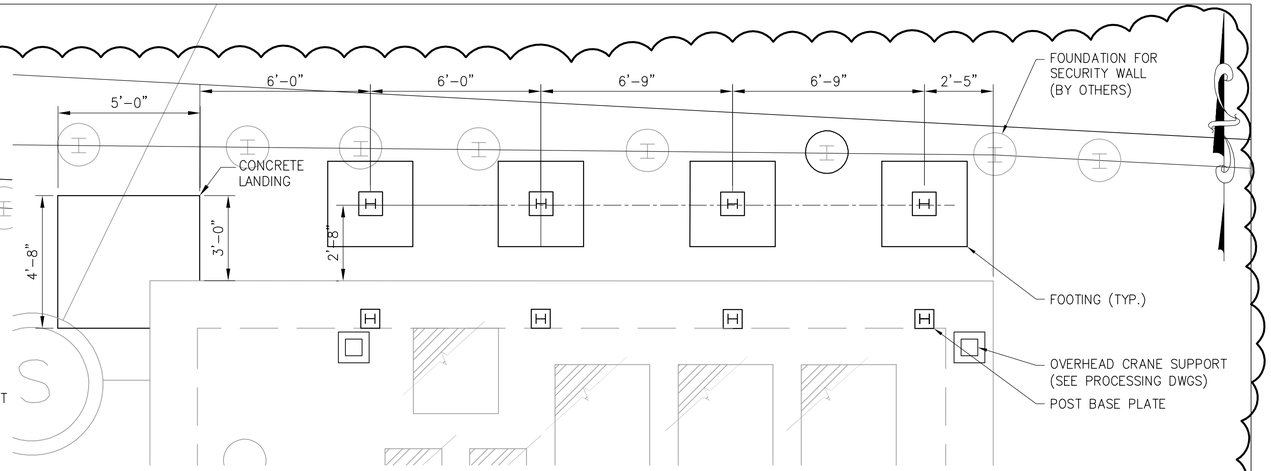
DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	SECTIONS REVISED, DETAILS ADDED.

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
GENERATOR & PLATFORM FOUNDATION REINFORCING DETAILS

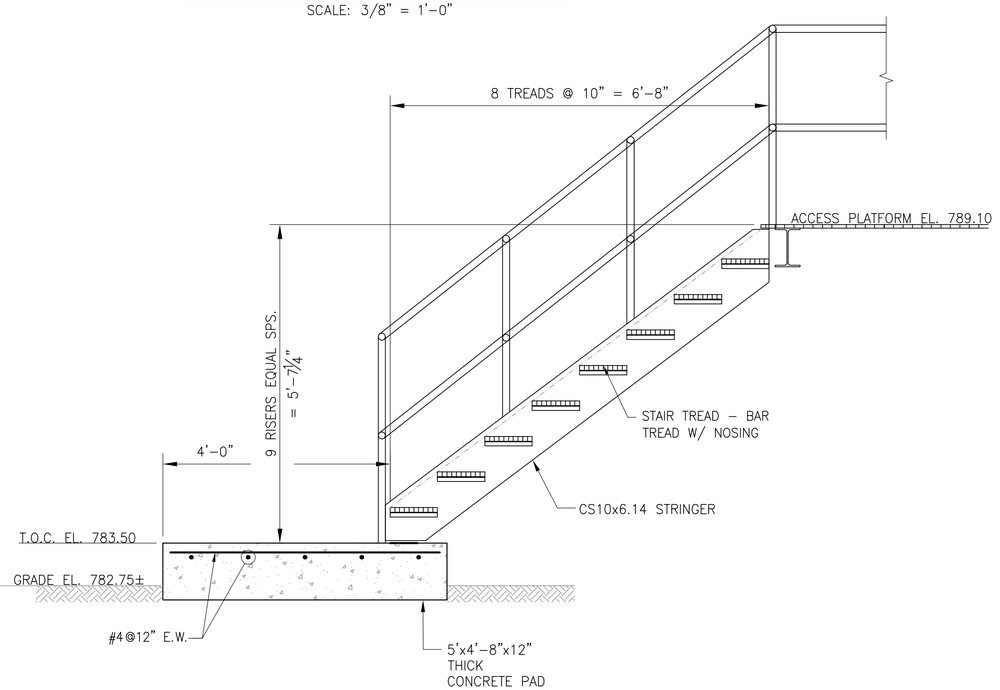
S-14			COUNTY FULTON	SCALE XX
DESIGNED BY JV	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. x OF x





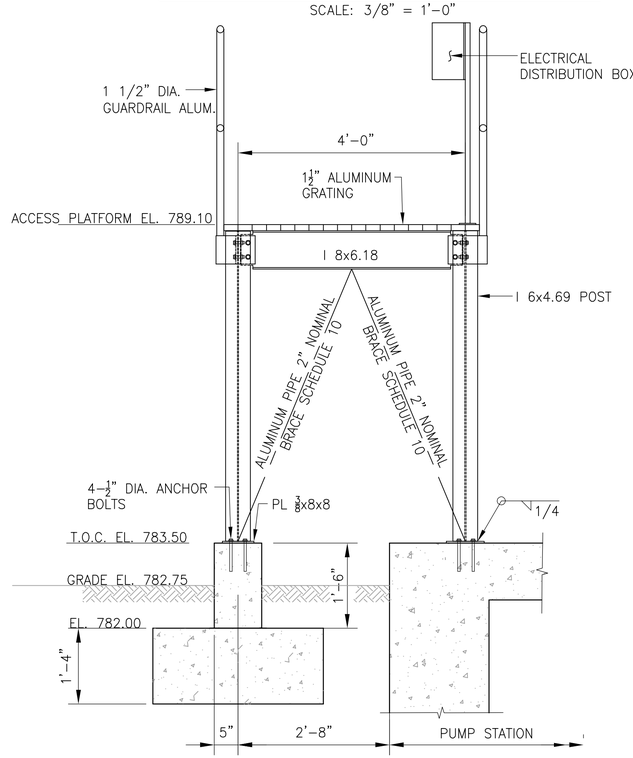
JUNCTION BOX PLATFORM LAYOUT PLAN

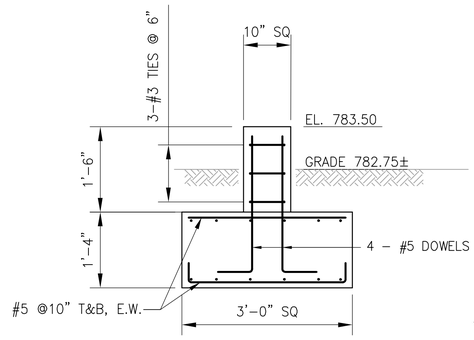
SCALE: 3/8" = 1'-0"



JUNCTION BOX PLATFORM FOUNDATION PLAN

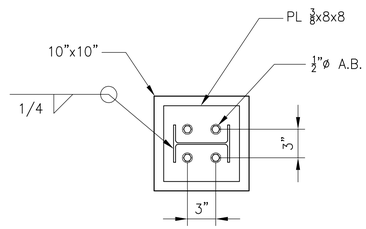
SCALE: 3/8" = 1'-0"





FOOTING DETAIL

SCALE: 3/4" = 1'-0"



POST BASE PLATE DETAIL

SCALE: 1'-1/2" = 1'-0"

SECTION 1

SCALE: 3/4"=1'-0"

SECTION 2

SCALE: 3/4"=1'-0"

NOTE:

ALL PLATFORM FRAMING, HANDRAIL, GRATING, STAIR STRINGERS AND TREADS SHALL BE ALUMINUM.

LEGEND:

= GRATING DIRECTION OF SPAN

= MOMENT CONNECTION

2 0 2 4 6
⅜" = 1'-0"

1 0 1 2 3
¾" = 1'-0"

12" 6" 0 12"
1½" = 1'-0"

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	PLATFORM LAYOUT REVISED, SECTIONS AND DETAILS ADDED.

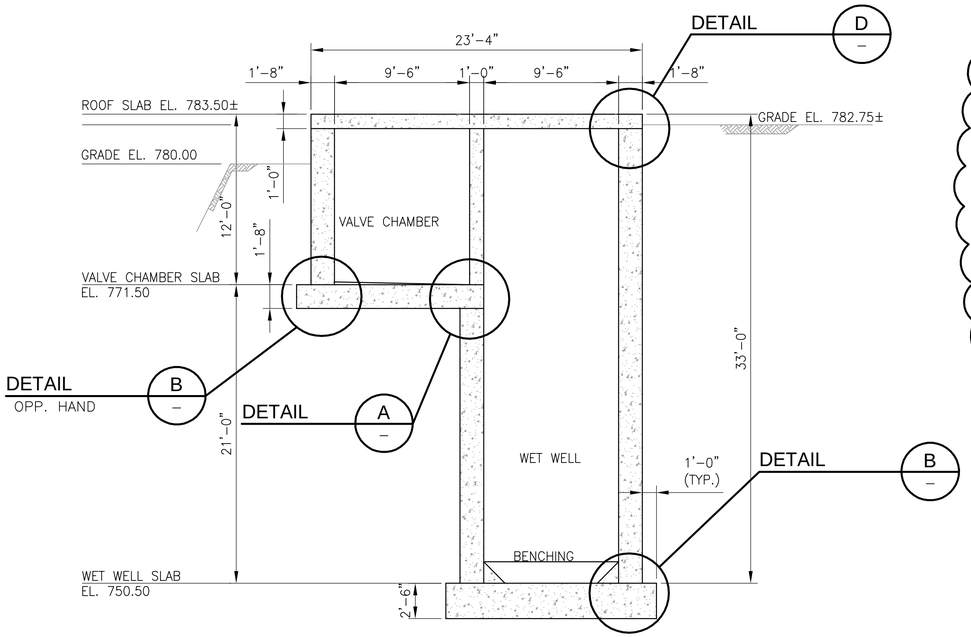
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
JUNCTION BOX PLATFORM

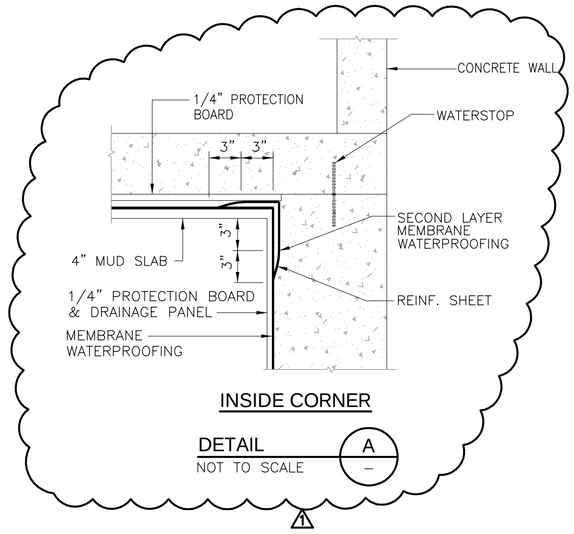
S-15			COUNTY FULTON	SCALE XX
DESIGNED BY AC	DRAWN BY JLM	CHECKED BY WRM	APPROVED BY xx	DATE 2/15/2019

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. x OF x

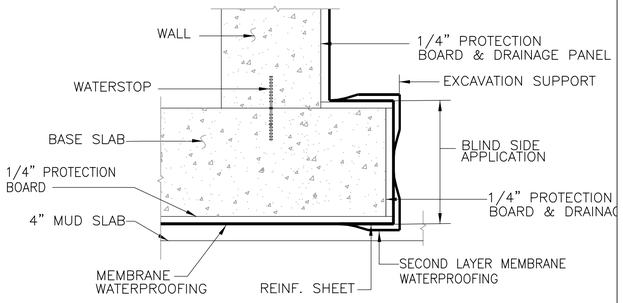


SECTION 1
SCALE: 3/16"=1'-0"



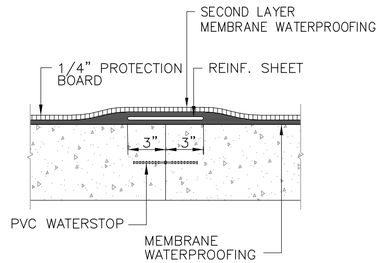
INSIDE CORNER

DETAIL A
NOT TO SCALE



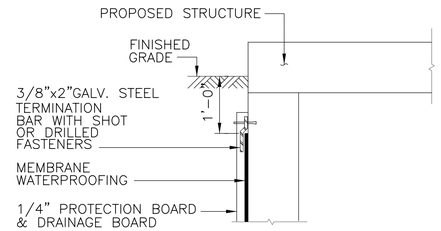
BASE SLAB

DETAIL B
NOT TO SCALE



CONSTRUCTION JOINT

DETAIL C
NOT TO SCALE



TERMINATION BELOW GROUND SURFACE

DETAIL D
NOT TO SCALE

NOTES:

1. PROVIDE MEMBRANE WATERPROOFING IN ACCORDANCE WITH SPECIFICATION SECTION 07141 ON ALL BELOW GRADE CAST-IN-PLACE CONCRETE SURFACES.
2. CONCRETE MUD SLAB TO BE CAST-IN-PLACE CONCRETE WITH 3/8" AGGR. AND 28 DAY COMPRESSIVE STRENGTHOF 2,000 PSI.
3. PROVIDE PVC WATERSTOP IN ALL CONSTRUCTION JOINTS.
4. PROVIDE BLIND SIDE APPLICATION TO UNDERSIDE OF BASE SLAB AND WHERE SLAB EXTENDS TO FACE OF EXCAVATIONS SUPPORT.

1

4 0 4 8 12
3/16" = 1'-0"

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NOTE 4 ADDED, DETAIL A REVISED.

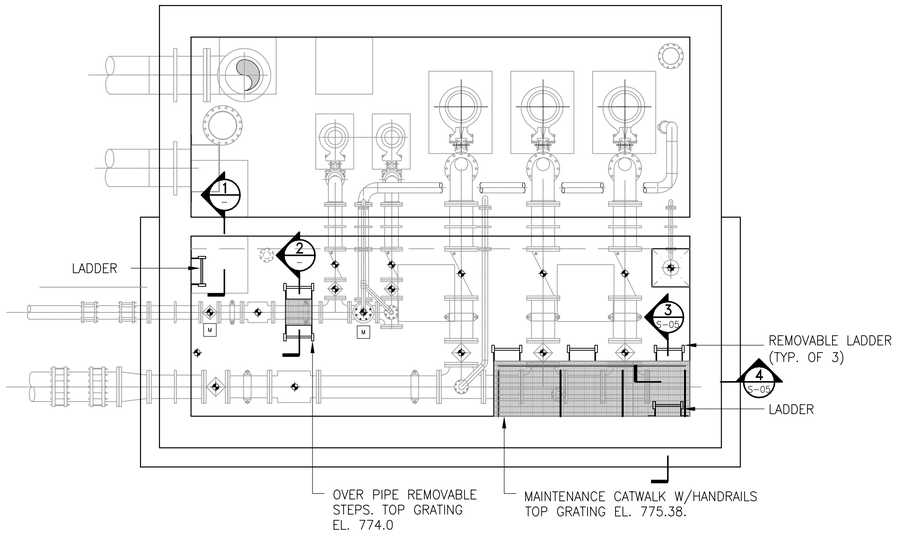
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
WATERPROOFING DETAILS

S-16			COUNTY FULTON	SCALE XX
DESIGNED BY WRM	DRAWN BY JLL	CHECKED BY JV	APPROVED BY xx	DATE 2/15/2019

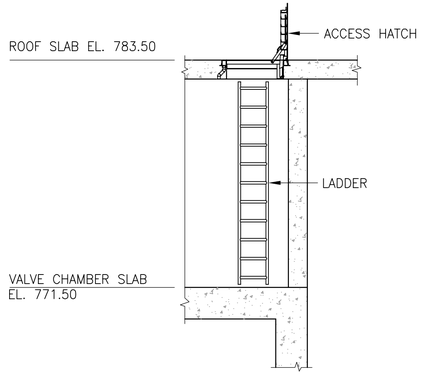
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. x OF x

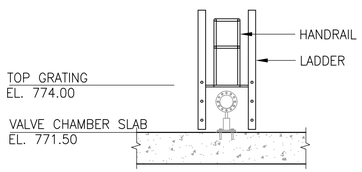


PLAN - PIPING PLATFORM

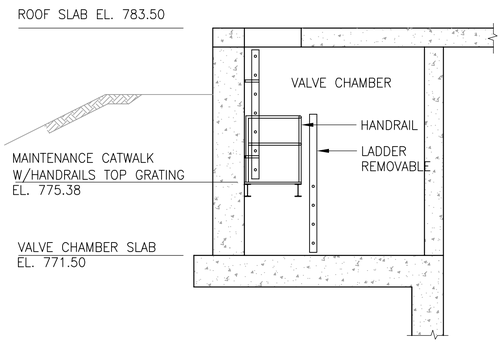
SCALE: ¼" = 1'–0"



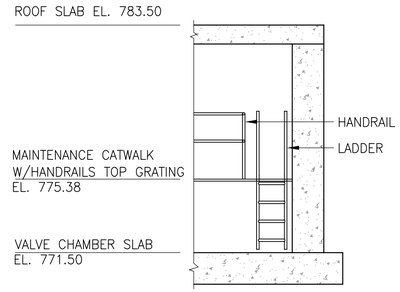
SECTION 1 / SCALE: 1/4"=1'–0"



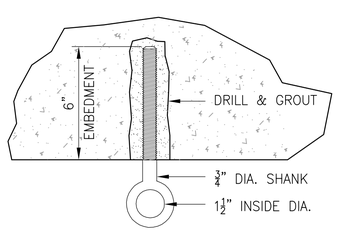
SECTION 2 / SCALE: 1/4"=1'–0"



SECTION 3 / SCALE: 1/4"=1'–0"



SECTION 4 / SCALE: 1/4"=1'–0"



LIFTING EYE BOLT DETAIL

SCALE: 3" = 1'–0"

NOTES:

1. ⊕ INDICATES LOCATION OF LIFTING EYE BOLTS. BOLTS TO BE INSTALLED IN CEILING AND CENTERED OVER PIPING AND VALVES.
2. LIFTING EYE BOLTS SHALL HAVE A CAPACITY OF 2,200#. BOLTS SHALL BE LOAD TESTED IN FIELD AFTER INSTALLATION.
3. GROUT SHALL BE EPOXY ADHESIVE.
4. EYE BOLTS SHALL BE GALVANIZED.
5. REFER TO PROCESSING DRAWINGS, SHEET P–2, FOR ALL PIPING PENETRATIONS.
6. ALL FRAMING, GRATING, LADDERS AND HANDRAILS SHALL BE ALUMINUM.

4 0 4 8
¼" = 1'–0"

6" 3" 0 6"
3" = 1'–0"

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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REVISIONS

DATE	DESCRIPTION
2/15/2019	90% ISSUE
1	NEW SHEET ADDED

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PIPING PLATFORM & ACCESS LADDER DETAILS

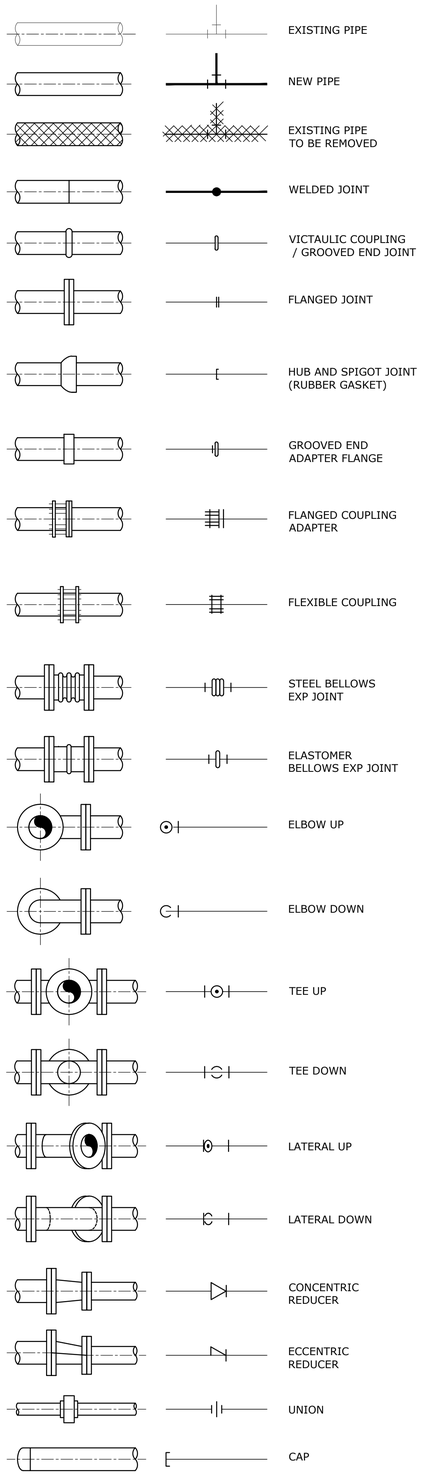
S–17			COUNTY FULTON	SCALE XX
DESIGNED BY WRM	DRAWN BY JLM	CHECKED BY JV	APPROVED BY xx	DATE 2/15/2019

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

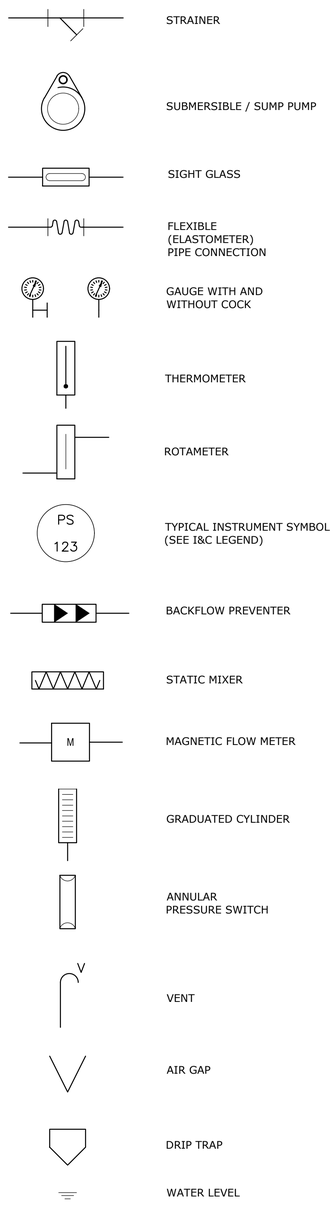
DRAWING NO. x OF x

PIPE AND FITTINGS SYMBOLS

DOUBLE LINE | SINGLE LINE

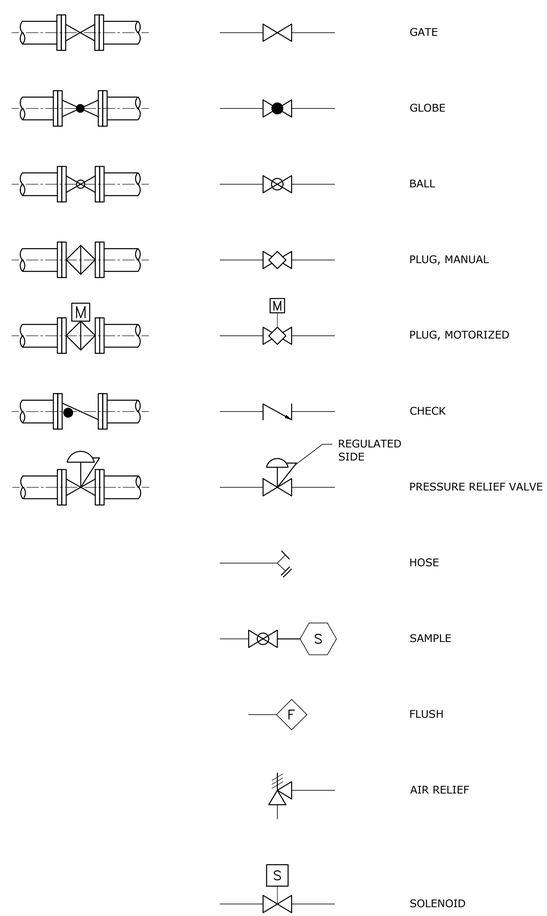


MISCELLANEOUS SYMBOLS



VALVE SYMBOLS

DOUBLE LINE | SINGLE LINE



ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
ARV	AIR RELIEF VALVE
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BOP	BOTTOM OF PIPE ELEVATION
CONC	CONCRETE, CONCENTRIC REDUCER
CS	CARBON STEEL
CL, ℄	CENTER LINE
CLDI	CEMENT LINED DUCTILE IRON
c/w	COMPLETE WITH
DI	DUCTILE IRON
DIA, Ø	DIAMETER
DIV.	DIVISION
DN	DOWN
DWG	DRAWING
ea	EACH
FF	FINISH FLOOR
FM	FORCEMAIN
FRP	FIBRE-REINFORCED PLASTIC
EL	ELEVATION
EXIST	EXISTING
FLEX	FLEXIBLE
H	HEIGHT
HDPE	HIGH DENSITY POLYETHYLENE
ID	INSIDE DIAMETER
INV.	INVERT
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTRE
MH	MANHOLE
MIN	MINIMUM
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OC	ON CENTRE
OCU	ODOUR CONTROL UNIT
OD	OUTSIDE DIAMETER
O/F	OVERFLOW
PE	POLYETHYLENE
PRV	PRESSURE RELIEF VALVE
PS	PUMPING STATION
PVC	POLYVINYL CHLORIDE
PW	POTABLE WATER
QC	QUICK CONNECT
SPS	SANITARY/ SEWAGE PUMPING STATION
SST, S.S.	STAINLESS STEEL
STD	STANDARD DETAIL
STR.	STRUCTURAL
THK	THICK, THICKNESS
TOR	TOP OF ROOF ELEVATION
TYP.	TYPICAL
W/	WITH
WL	WATER LEVEL

NOTES:

1. THIS IS A STANDARD LEGEND, THEREFORE SOME SYMBOLS AND ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT ON THE DRAWINGS.

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9/28/18	ISSUE FOR 30% REVIEW
11/23/18	ISSUE FOR 60% REVIEW
02/15/19	ISSUE FOR 90% REVIEW

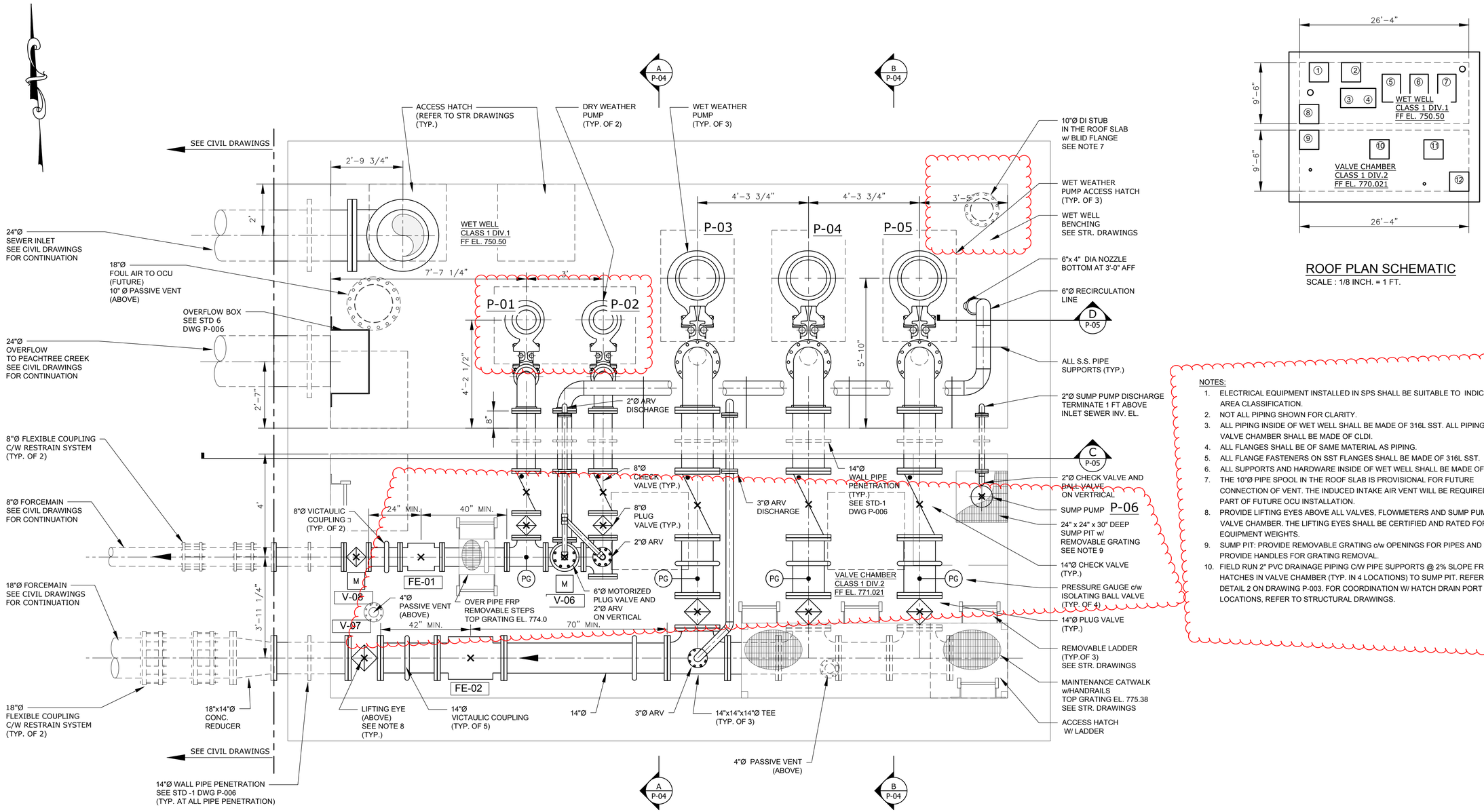
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PROCESS LEGEND AND ABBREVIATIONS

			COUNTY	SCALE
P-001			FULTON	N.T.S.
DESIGNED BY MS	DRAWN BY MS	CHECKED BY ID	APPROVED BY AP	DATE 9/28/2018

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. 1 OF 1



PLAN VIEW

SCALE : 1/2 INCH. = 1 FT.

ROOF PLAN SCHEMATIC

SCALE : 1/8 INCH. = 1 FT.

NOTES:

1. ELECTRICAL EQUIPMENT INSTALLED IN SPS SHALL BE SUITABLE TO INDICATED AREA CLASSIFICATION.
2. NOT ALL PIPING SHOWN FOR CLARITY.
3. ALL PIPING INSIDE OF WET WELL SHALL BE MADE OF 316L SST. ALL PIPING INSIDE VALVE CHAMBER SHALL BE MADE OF CLDI.
4. ALL FLANGES SHALL BE OF SAME MATERIAL AS PIPING.
5. ALL FLANGE FASTENERS ON SST FLANGES SHALL BE MADE OF 316L SST.
6. ALL SUPPORTS AND HARDWARE INSIDE OF WET WELL SHALL BE MADE OF 316L SST.
7. THE 10"Ø PIPE SPOOL IN THE ROOF SLAB IS PROVISIONAL FOR FUTURE CONNECTION OF VENT. THE INDUCED INTAKE AIR VENT WILL BE REQUIRED AS PART OF FUTURE OCU INSTALLATION.
8. PROVIDE LIFTING EYES ABOVE ALL VALVES, FLOWMETERS AND SUMP PUMP IN THE VALVE CHAMBER. THE LIFTING EYES SHALL BE CERTIFIED AND RATED FOR THE EQUIPMENT WEIGHTS.
9. SUMP PIT: PROVIDE REMOVABLE GRATING c/w OPENINGS FOR PIPES AND CABLES. PROVIDE HANDLES FOR GRATING REMOVAL.
10. FIELD RUN 2" PVC DRAINAGE PIPING C/W PIPE SUPPORTS @ 2% SLOPE FROM ROOF HATCHES IN VALVE CHAMBER (TYP. IN 4 LOCATIONS) TO SUMP PIT. REFER TO DETAIL 2 ON DRAWING P-003. FOR COORDINATION W/ HATCH DRAIN PORT LOCATIONS, REFER TO STRUCTURAL DRAWINGS.

1 0 1 2 3 4 5

SCALE: 1/2" = 1'-0"

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REVISIONS

DATE	DESCRIPTION
9/28/18	ISSUE FOR 30% REVIEW
11/23/18	ISSUE FOR 60% REVIEW
12/10/18	REVISED 60% SUBMISSION
02/15/19	ISSUE FOR 90% REVIEW

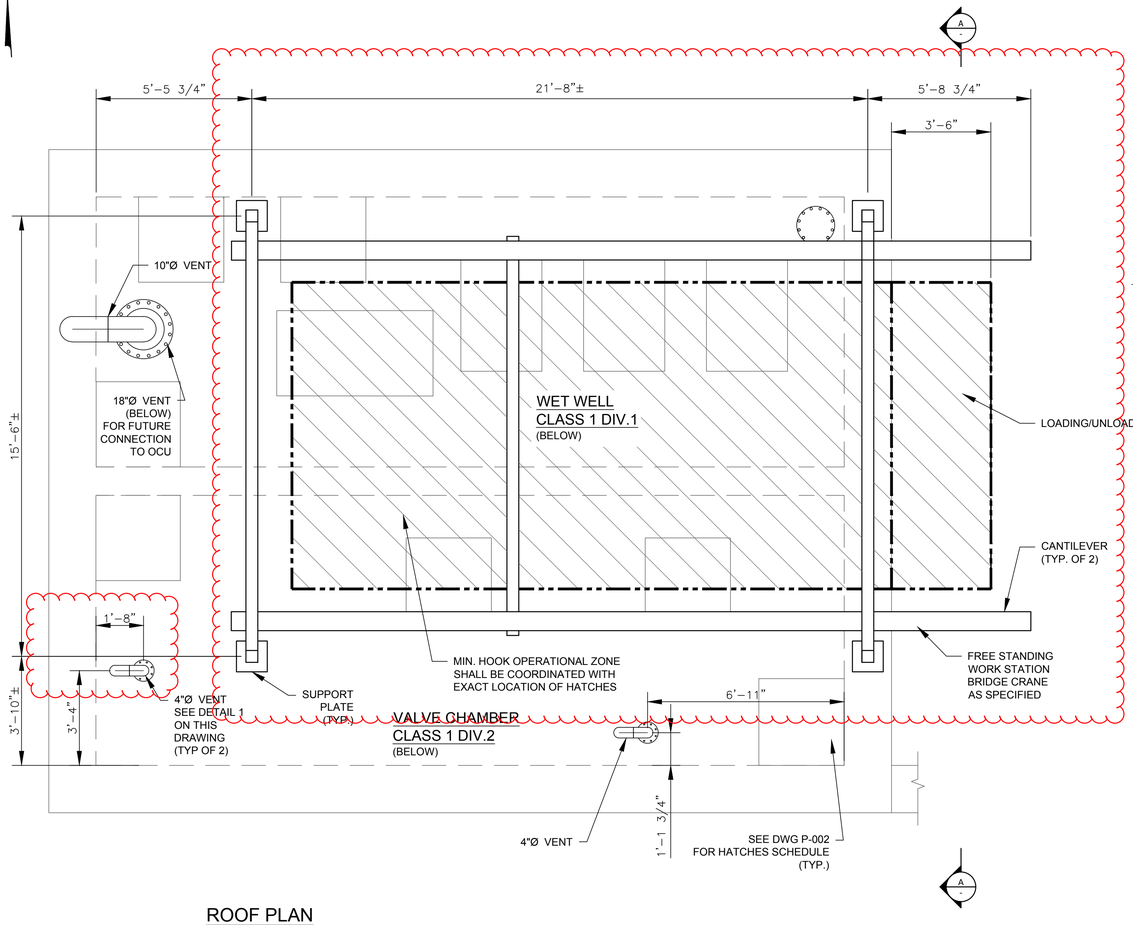
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
PLAN VIEW

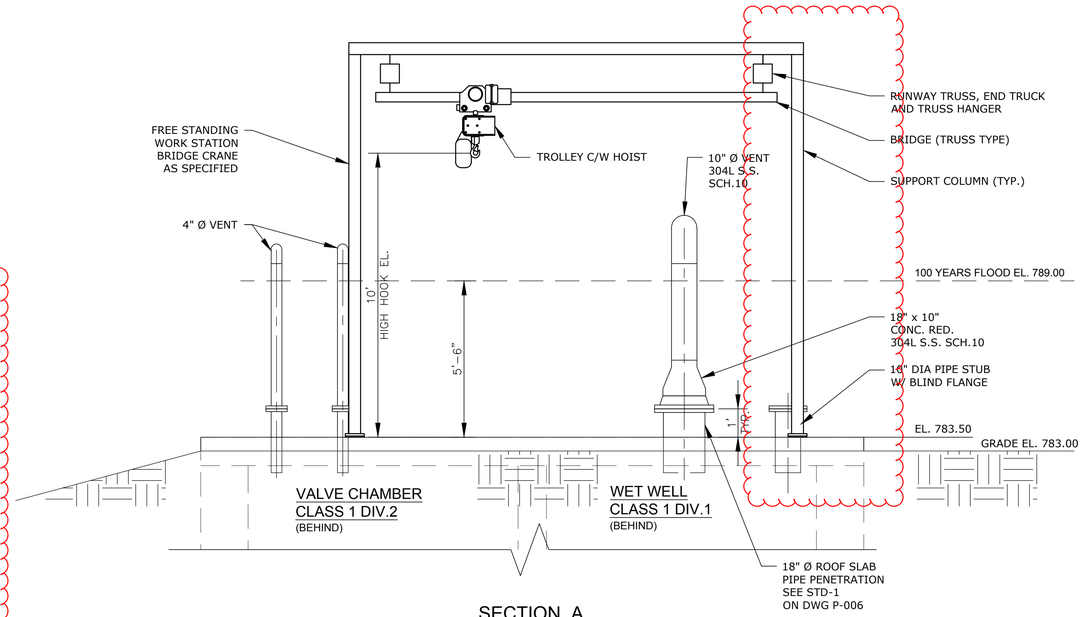
P-002			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY MS	DRAWN BY MS	CHECKED BY ID	APPROVED BY AP	DATE 9/28/2018

DRAWING IS TO BE CONSIDERD PRELIMINARY UNLESS APPROVED

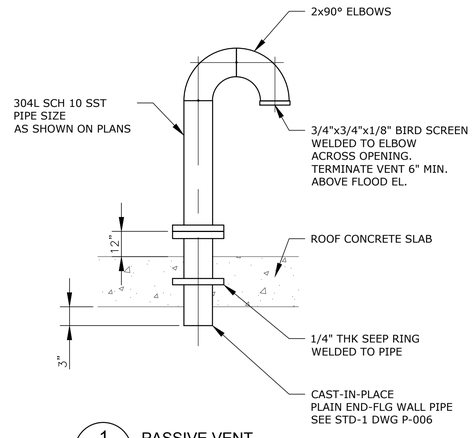
DRAWING NO. 1 OF 1



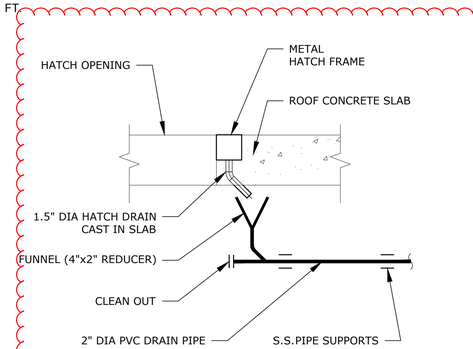
ROOF PLAN
SCALE : 3/8 INCH. = 1 FT.



SECTION A
SCALE : 3/8 INCH. = 1 FT.



1 / - PASSIVE VENT
N.T.S.



NOTES:
1. PROVIDE 2" AIR GAP BETWEEN HATCH DRAIN PIPE AND DRAIN FUNNEL.
2. TERMINATE DRAIN DISCHARGE HEADER BELOW SUMP PIT GRATING.

2 / - ROOF HATCH DRAINAGE
N.T.S.

2 1 0 2 4 6
SCALE: 3/8" = 1'-0"

NOTES:
1. REFER TO DRAWING P-004 AND PUMP APPROVED SHOP DRAWINGS FOR REQUIRED LOW HOOK ELEVATION.
2. HIGH HOOK ELEVATION SHALL BE CONFIRMED WITH THE PUMP AND PUMP LIFTING MECHANISM SHOP DRAWINGS, AND TRUCK LOADING HEIGHT REQUIREMENTS.
3. HOIST, TROLLEY AND BRIDGE OF THE BRIDGE CRANE SHALL BE ALL MOTORIZED (NON-CLASSIFIED AREA).

wsp

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REVISIONS

DATE	DESCRIPTION
9/28/18	ISSUE FOR 30% REVIEW
11/23/18	ISSUE FOR 60% REVIEW
02/15/19	ISSUE FOR 90% REVIEW

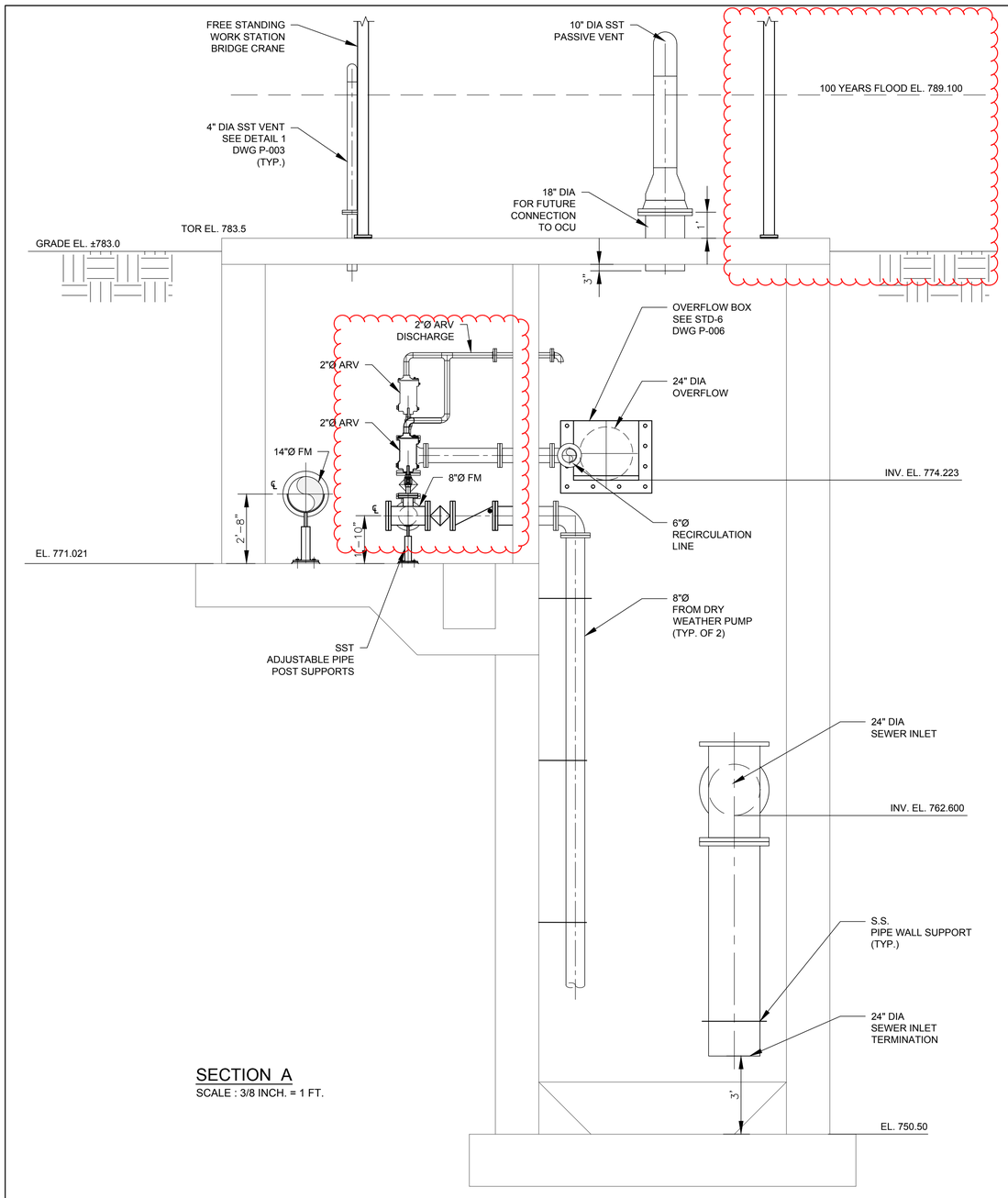
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
ROOF PLAN, DECTION AND DETAIL

			COUNTY	SCALE
P-003			FULTON	AS SHOWN
DESIGNED BY MS	DRAWN BY MS	CHECKED BY ID	APPROVED BY AP	DATE 9/28/2018

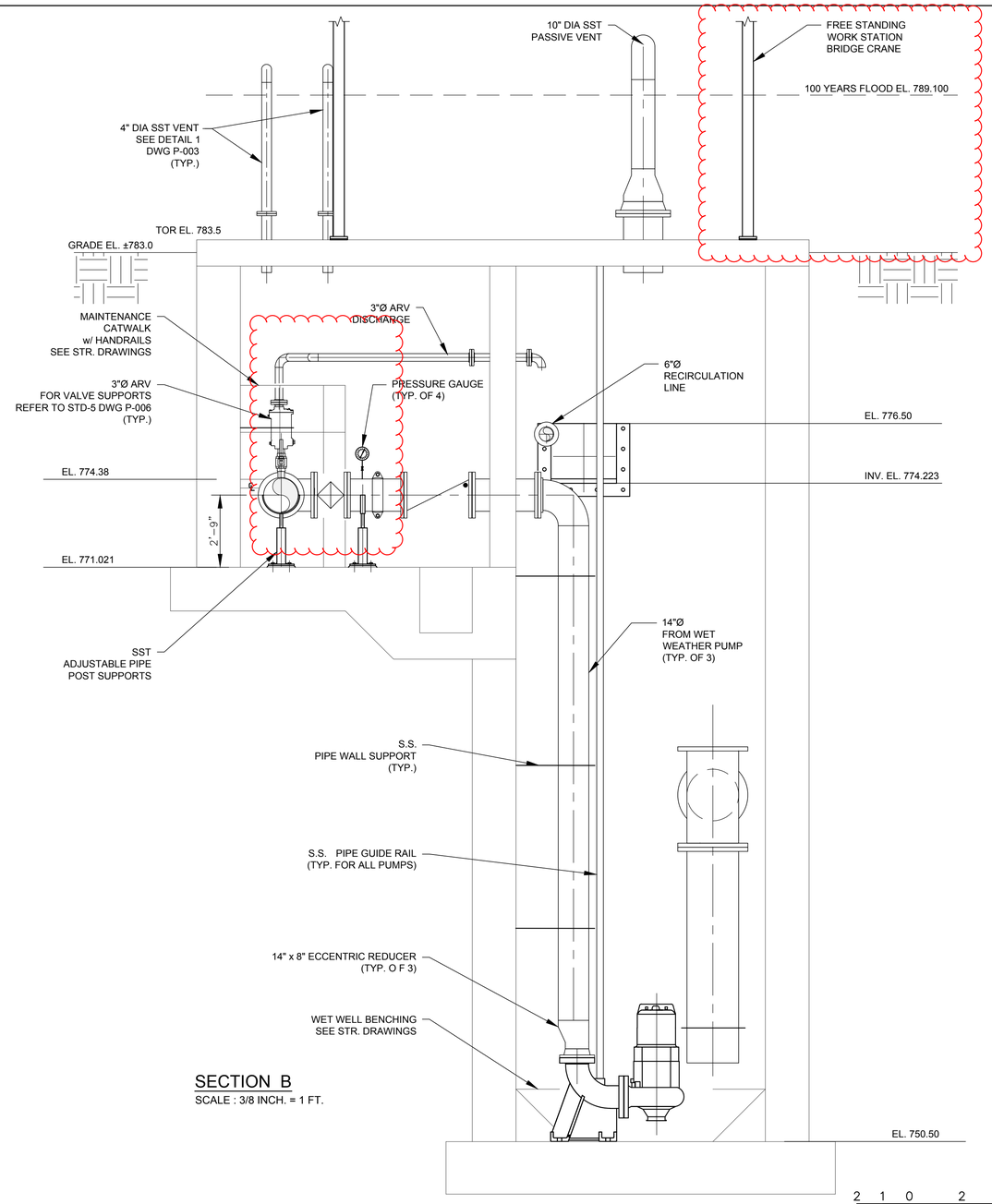
DRAWING IS TO BE CONSIDERD PRELIMINARY UNLESS APPROVED

DRAWING NO. 1 OF 1



SECTION A

SCALE : 3/8 INCH. = 1 FT.



SECTION B

SCALE : 3/8 INCH. = 1 FT.

2 1 0 2 4 6

SCALE: 3/8" = 1'-0"

wsp

CITY OF ATLANTA WATERSHED MANAGEMENT

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REVISIONS

DATE	DESCRIPTION
9/28/18	ISSUE FOR 30% REVIEW
11/23/18	ISSUE FOR 60% REVIEW
12/10/18	REVISED 60% SUBMISSION
02/15/19	ISSUE FOR 90% REVIEW

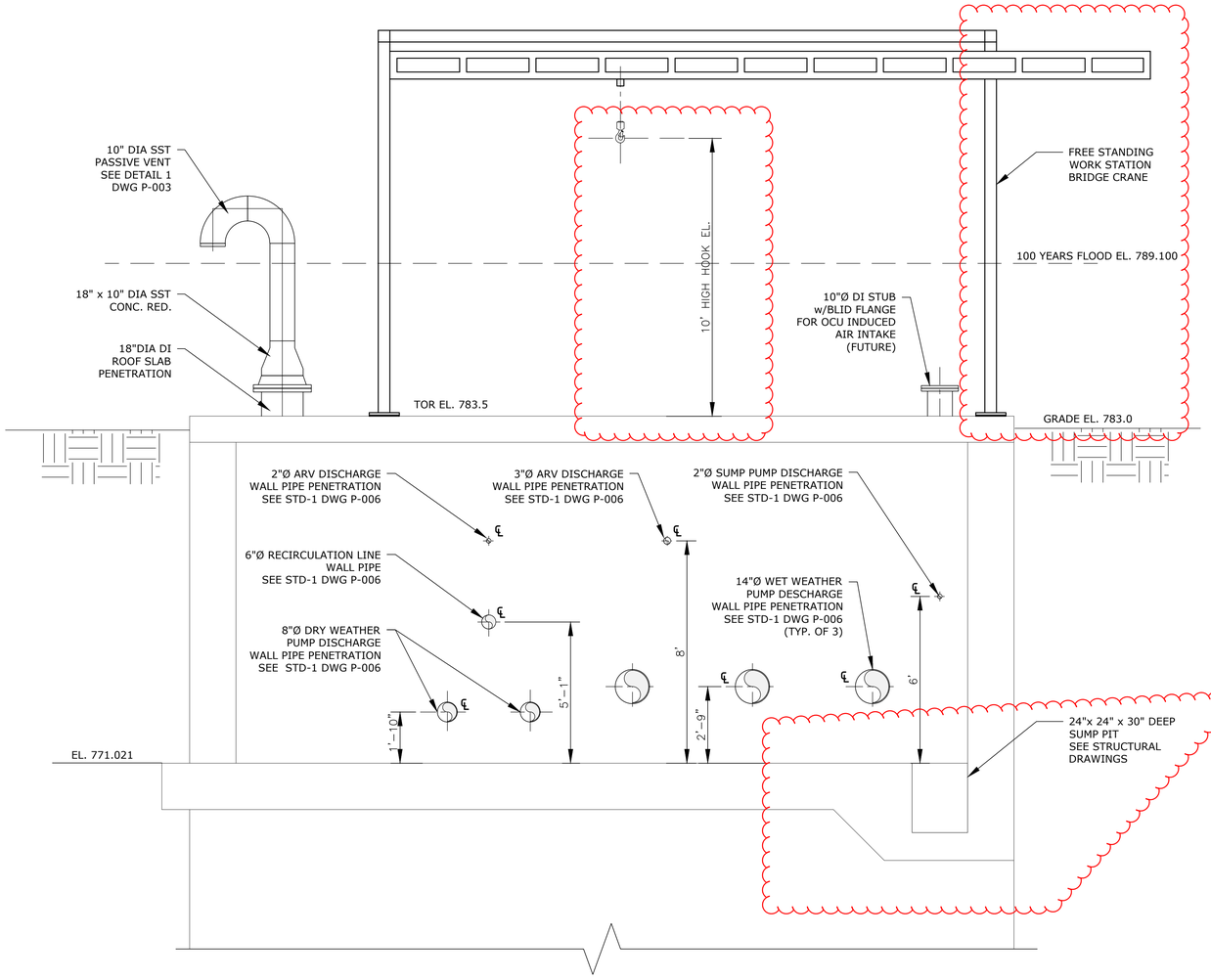
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
SECTIONS

P-004			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY MS	DRAWN BY MS	CHECKED BY ID	APPROVED BY AP	DATE

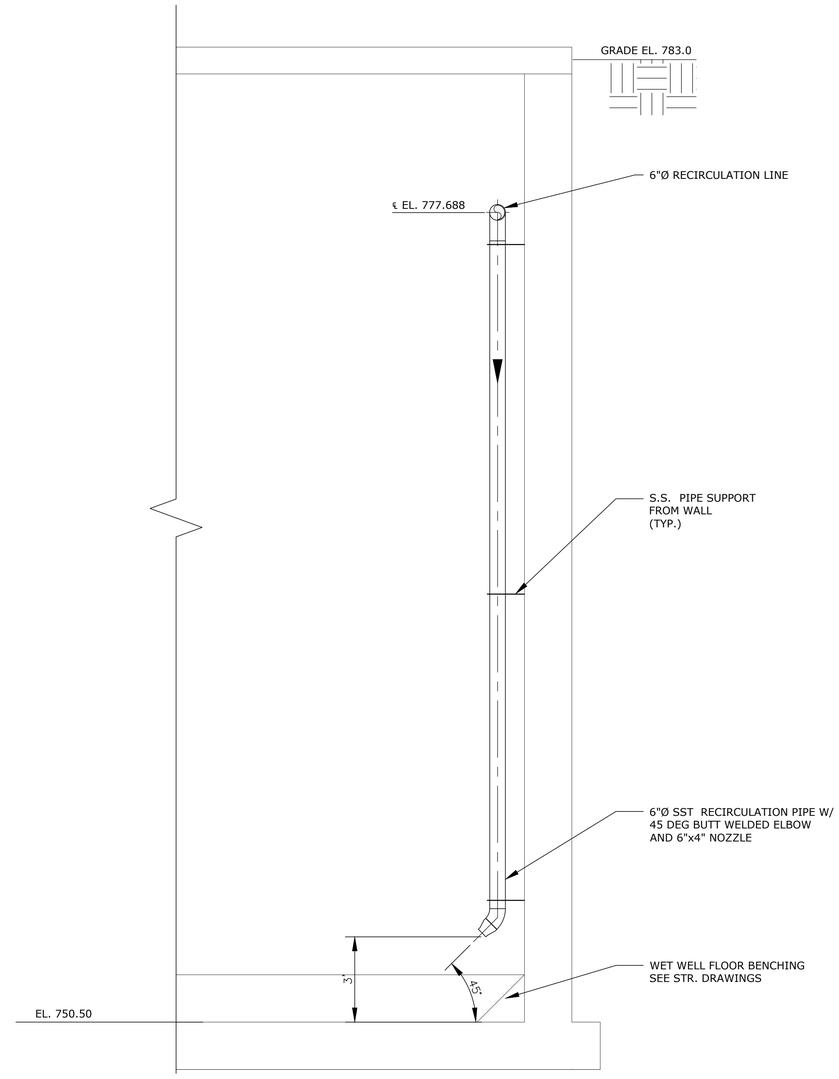
DRAWING IS TO BE CONSIDERD PRELIMINARY UNLESS APPROVED

DRAWING NO. 1 OF 1



SECTION C

SCALE : 3/8 INCH. = 1 FT.



SECTION D

SCALE : 3/8 INCH. = 1 FT.

2 1 0 2 4 6

SCALE: 3/8" = 1'-0"

90% SUBMISSION

DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
9/28/18	ISSUE FOR 30% REVIEW
11/23/18	ISSUE FOR 60% REVIEW
02/15/19	ISSUE FOR 90% REVIEW

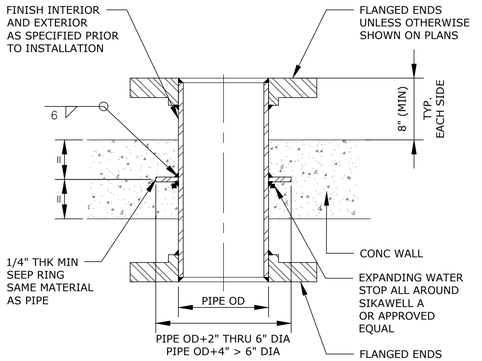
CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
SECTION AND DETAILS

P-005			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY MS	DRAWN BY MS	CHECKED BY ID	APPROVED BY AP	DATE 9/28/2018

DRAWING IS TO BE CONSIDERD PRELIMINARY UNLESS APPROVED

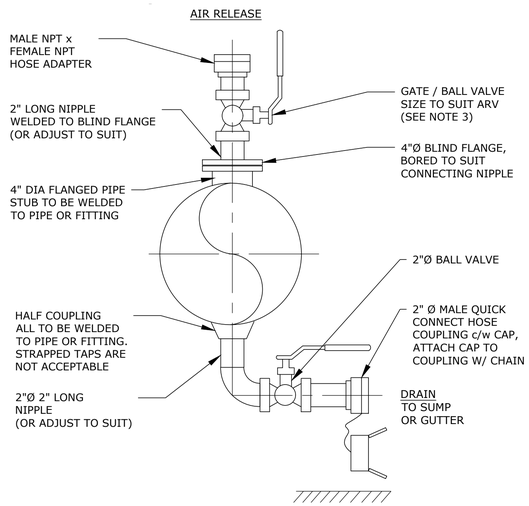
DRAWING NO. 1 OF 1



NOTES:

1. FOR MATERIAL & SIZE SEE PLANS AND SPECIFICATIONS
2. WATER STOP TO BE AT THE WET SIDE
3. NO TRANSVERSE MOVEMENT ALLOWED
4. CONDITIONS:
   - .1 WET TO DRY
   - .2 INTERIOR TO EXTERIOR
5. LIQUID SIDE MUST PASS LEAKAGE TEST TO WHICH STRUCTURE IS SUBJECTED
6. DETAIL APPLIES TO VERTICAL OR HORIZONTAL PENETRATIONS
7. PIPE MUST BE CAST IN PLACE WITHIN THE FORMWORK WITH APPROVAL FROM THE ENGINEER.

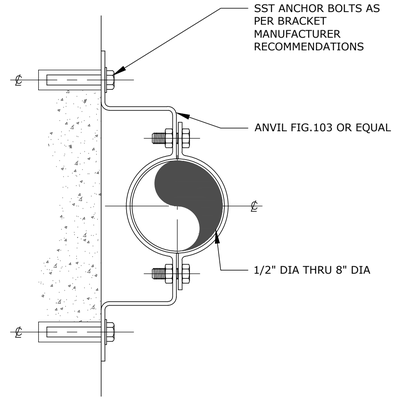
STD 1 — WALL PIPE PENETRATION — N.T.S.



NOTES:

1. ALL MATERIALS AND VALVES TO BE 316L STAINLESS STEEL.
2. REFER TO SPECIFICATION FOR VALVE DETAILS.
3. SIZE OF AIR RELEASE PORT SHALL BE IN LINE WITH THE SIZE OF ARV.

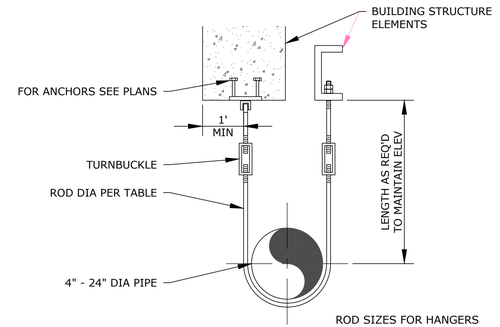
STD 2 — AIR RELEASE AND DRAIN CONNECTION — N.T.S.



NOTES:

1. FOR SPACING AND MAXIMUM LOADING SEE SPECIFICATION AND BRACKET MANUFACTURERS' RECOMMENDATIONS.
2. ALL METAL PARTS TO BE MADE OF 316L SST.
3. PROVIDE VITON CUSHION BETWEEN CLAMP AND PIPE.

STD 3 — WALL SUPPORT PIPE CLAMP — N.T.S.

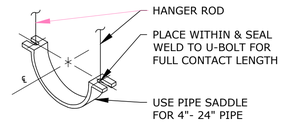


ROD SIZES FOR HANGERS

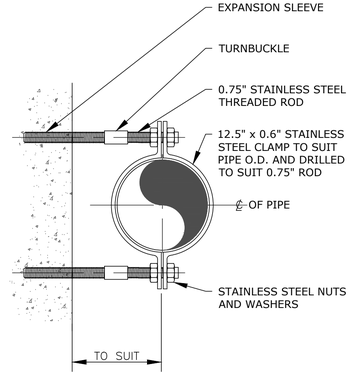
PIPE DIA	ROD DIA
4" - 12"	0.4"
14" - 16"	0.5"
18" - 20"	0.6"
24"	0.75"

NOTES:

1. HANGERS FOR PIPES 4" AND LARGER SHALL BE EQUIPPED WITH 0.25"x4" STEEL PLATE SADDLE.
2. SPACE HANGERS AS SPECIFIED.
3. PROVIDE NITRILE CUSHION BETWEEN SADDLE AND PIPE.
4. ALL METAL PARTS TO BE MADE OF 316L SST.



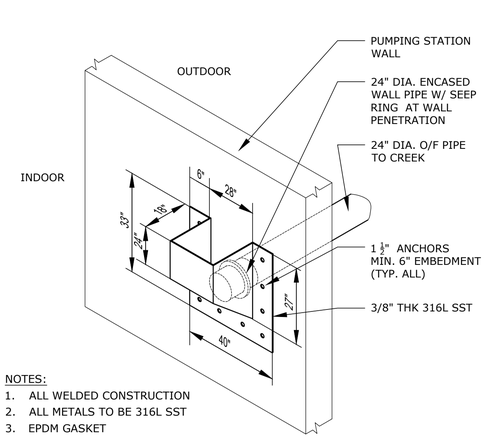
STD 4 — PIPE HUNGER — N.T.S.



NOTE:

1. ALL MATERIALS AND FASTENING SHALL BE MADE OF 316L SST.

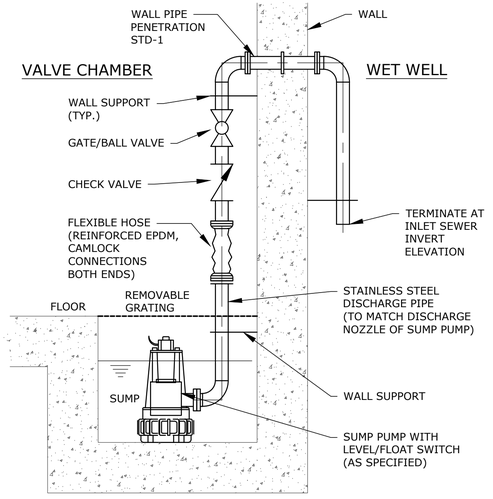
STD 5 — VERTICAL PIPE SUPPORT — N.T.S.



NOTES:

1. ALL WELDED CONSTRUCTION
2. ALL METALS TO BE 316L SST
3. EPDM GASKET

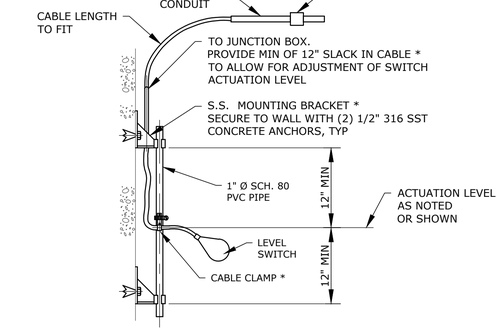
STD 6 — OVERFLOW BOX — N.T.S.



NOTE:

1. FIRST CAMLOCK CONNECTION OF DISCHARGE HOSE SHALL BE 1 FT. ABOVE FLOOR.

STD 7 — SUMP PUMP LAYOUT — N.T.S.



NOTES:

1. COMPONENTS DESIGNATED BY * ARE SUPPLIED BY INSTRUMENT MANUFACTURER.
2. ALL BRACKETS AND BOLTS TO BE 316 STAINLESS STEEL.
3. INSTALL STAINLESS STEEL CABLE STRAIN RELIEVER TO PROTECT CABLE.
4. PIPE NIPPLES SHALL BE SCHEDULE 80, MAXIMUM 1.5" FROM PROCESS PIPE OR PIPE LAGGING.
5. CONDUIT (AND CABLE) ENTRY CONNECTION TO THE INSTRUMENT SHALL BE 3 FT FLEXIBLE, THE BALANCE IN RIGID STEEL CONDUIT.
6. LEVEL SWITCH TO BE PART OF SUMP PUMP SCOPE OF SUPPLY.

STD 8 — LEVEL FLOAT SWITCH FOR SUMP PUMP — N.T.S.

wsp

CITY OF ATLANTA — WATERSHED MANAGEMENT

90% SUBMITTAL

DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
9/28/18	ISSUE FOR 30% REVIEW
11/23/18	ISSUE FOR 60% REVIEW
02/15/19	ISSUE FOR 90% REVIEW

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
STANDARD DETAILS

P–006			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY MS	DRAWN BY MS	CHECKED BY ID	APPROVED BY AP	DATE 9/28/2018
DRAWING IS TO BE CONSIDERD PRELIMINARY UNLESS APPROVED				DRAWING NO. 1 OF 1

LIGHTING:

X DENOTES FIXTURE TYPE (TYP.)
SEE SPECIFICATION 16500 FOR FIXTURE SCHEDULE
# DENOTES CIRCUIT NUMBER (TYP.)

RECTANGULAR FIXTURE

LEFT: CEILING MOUNTED FIXTURE
RIGHT: WALL MOUNTED FIXTURE

EMERGENCY WALL-MOUNTED FIXTURE:
LEFT: STANDARD
RIGHT: REMOTE-HEAD

LEFT: CEILING MOUNTED EXIT SIGN
RIGHT: WALL MOUNTED EXIT SIGN
SHADED PORTION DENOTES SIGN FACE

POLE-MOUNTED FIXTURE

PHOTOCELL

LEFT: CEILING MOUNTED OCCUPANCY SENSOR
RIGHT: WALL MOUNTED OCCUPANCY SENSOR
X DENOTES TYPE

RECEPTACLES:

X DENOTES RECEPTACLE TYPE (TYP.):
GFCI DENOTES GROUND FAULT CIRCUIT INTERRUPT
UPS DENOTES UNINTERRUPTIBLE POWER SUPPLY
WPCR DENOTES WEATHERPROOF CORROSION RESISTANT
# DENOTES CIRCUIT NUMBER (TYP.)

RECEPTACLES:
LEFT: SIMPLEX
MIDDLE: DUPLEX
RIGHT: QUADRUPLEX

MULTI-OUTLET RECEPTACLE:
LEFT: SIMPLEX
RIGHT: DUPLEX

OTHER RECEPTACLES:
LEFT: 240 VOLT
RIGHT: SPECIAL PURPOSE

HVAC AND FIRE ALARM

FIRE ALARM CONTROL PANEL

FIRE ALARM ANNUNCIATOR PANEL

FIRE ALARM PULL STATION

FIRE ALARM INDICATOR:
X DENOTES ALERT TYPE (TYP.):
A DENOTES AUDIBLE
V DENOTES VISIBLE (# DENOTES STROBE INTENSITY)

FIRE ALARM INDICATOR MOUNTED
ABOVE A FIRE ALARM PULL
STATION

DUCT DETECTOR

SMOKE DETECTOR:
X DENOTES TYPE:
Z DENOTES IONIZATION
P DENOTES PHOTOELECTRIC
T DENOTES THERMAL

HEAT DETECTOR

THERMOSTAT

AMBIENT TEMPERATURE TRANSMITTER

SWITCHES

WALL SWITCH:
X DENOTES TYPE:
NO SUBSCRIPT DENOTES SINGLE-POLE SWITCH
3 DENOTES 3-WAY SWITCH
4 DENOTES 4-WAY SWITCH
M DENOTES MANUAL MOTOR STARTER
# DENOTES CIRCUIT NUMBER
WPCR DENOTES WEATHERPROOF CORROSION RESISTANT

COMBINATION MOTOR STARTER

DISCONNECT SWITCH

LOCAL CONTROL STATION

WIRING

CONDUIT HOME RUN

CONDUIT EXPOSED

CONCRETE ENCASED CONDUIT

CONDUIT CONCEALED

FLEXIBLE CONDUIT

CONCRETE ENCASED DUCTBANK

LEFT: CONDUIT RISE (TURN UP)
RIGHT: CONDUIT DROP (TURN DOWN)

ELEMENTARY CONTROL SCHEMATICS

3-POSITION SELECTOR SWITCH:
HOA DENOTES HAND/OFF/AUTO
LOR DENOTES LOCAL/OFF/REMOTE
FOR DENOTES FORWARD/OFF/REVERSE

PUSHBUTTON SWITCHES:
LEFT: N.O.
RIGHT: N.C.
TEXT DENOTES LEGEND PLATE

EMERGENCY STOP MUSHROOM HEAD PUSHBUTTON SWITCH (N.C.); TEXT DENOTES LEGEND PLATE

PUSHBUTTON SWITCH N.C. WITH LOCK-OUT:
TEXT DENOTES LEGEND PLATE

SELECTOR SWITCH:
LEFT: STANDARD
RIGHT: SPRING-RETURN
TEXT DENOTES LEGEND PLATE

SOLID-STATE OVERLOAD RELAY

THERMAL OVERLOAD RELAY

NOTATION LEGEND:
NO/NC: NORMALLY OPEN/CLOSED
RO/RC: RISE-TO-OPEN/CLOSE
FO/FC: FALL-TO-OPEN/CLOSE
TO/TC: TIME-OPEN/CLOSE

CONTACTS:
TEXT DENOTES COIL ID

SWITCHES:
TEXT DENOTES TAG NUMBER

	NO	NC
DISCONNECT SWITCHES		
CONTACTS	X	X
TORQUE SWITCH	–	NS
LIMIT SWITCHES	LS	LS

	NORC	NOFC	NCRO	NCFO
TEMPERATURE SWITCHES/ THERMOSTATS	TS	–	TS	–
PRESSURE SWITCHES	PS	PS	PS	PS
LEVEL SWITCHES	LS	LS	LS	LS
FLOW SWITCHES	FS	FS	FS	FS

	NOTC	NOTO	NCTO	NCTC
TIME DELAY SWITCHES	TD	TD	TD	TD

INDICATOR LIGHT:
LEFT: STANDARD/RIGHT: PUSH-TO-TEST
X DENOTES COLOR

RUN TIME METER

SOLENOID VALVE

MOTOR PROTECTION RELAY

CONTROL POWER TRANSFORMER

MECHANICAL INTERLOCK CONNECTION

MOTOR SPACE HEATER

COIL:
X DENOTES TYPE:
M DENOTES MOTOR STARTER
CR DENOTES CONTROL RELAY
TD DENOTES TIME DELAY RELAY
TR DENOTES TIMER RANGE
TS DENOTES TIMER SETPOINT
PR DENOTES INTERPOSING PILOT RELAY
LC DENOTES LIGHTING CONTACTOR
Y DENOTES REFERENCE LINE NUMBER

EQUIPMENT/DEVICE LOCATION SYMBOLS

LOCATED IN MCC

LOCATED IN STAND-ALONE MOTOR STARTER/CONTROLLER

LOCATED IN FIELD

LOCATED AT PANEL:
X DENOTES PANEL ID:
L DENOTES LOCAL CONTROL STATION

SINGLE-LINE DIAGRAMS

XFMR
kVA
480-120/208V
3P/4W
DRY TRANS
TRANSFORMER

PROTECTIVE RELAY:
NUMBER DENOTES IEEE DEVICE FUNCTION

MOTOR AND TYPICAL ADDITIONAL DEVICES:
TSH: TEMPERATURE SWITCH
MSH: MOTOR SPACE HEATER
CF: COOLING FAN
TE: TEMPERATURE ELEMENT
ME: MOISTURE DETECTOR

INSTRUMENT TAG:
X DENOTES INSTRUMENT TYPE
Y DENOTES INSTRUMENT NUMBER
SEE DRAWING I1 FOR INSTRUMENT ABBREVIATIONS

100A FUSE

FUSED DISCONNECT SWITCH

DISCONNECT SWITCH

FUSED DISCONNECT SWITCH

LOW-VOLTAGE POWER CIRCUIT BREAKER:
LEFT: FIXED-MOUNT
RIGHT: DRAWOUT
E.O. DENOTES ELECTRICALLY OPERATED
LSIG DENOTES INSTALLED TRIP FUNCTIONS:
L DENOTES LONG-TIME
S DENOTES SHORT-TIME
I DENOTES INSTANTANEOUS
G DENOTES GROUND FAULT
Z DENOTES ZONE-SELECTIVE INTERLOCKING
CTR DENOTES BREAKER-SPECIFIC CT AND RATIOS

MEDIUM-VOLTAGE DRAWOUT POWER CIRCUIT BREAKER:
E.O. DENOTES ELECTRICALLY OPERATED
BATT. DENOTES BATTERY BACKUP POWER

LOW-VOLTAGE MOLDED CASE CIRCUIT BREAKER
LEFT: THERMAL-MAGNETIC TRIP UNIT
RIGHT: ELECTRONIC TRIP UNIT

MOTOR CIRCUIT PROTECTOR

GROUND

LIGHTNING ARRESTOR

CT:
NUMBERS DENOTE CT WINDING RATIO AND CT QUANTITY

GFCT:
NUMBERS DENOTE GFCT WINDING RATIO AND GFCT QUANTITY

PT:
NUMBERS DENOTE PT WINDING VOLTAGES AND PT QUANTITY

DRAW-OUT ELEMENT

LEFT: PANELBOARD
RIGHT: COMBINATION POWER UNIT
X DENOTES PANEL ID

SINGLE-LINE DIAGRAMS, CONT'D.

LEFT: RESISTOR
RIGHT: LINE REACTOR:
#% DENOTES IMPEDANCE

CAPACITOR

SHUNT TRIP

SURGE PROTECTIVE DEVICE

KIRK-KEY INTERLOCK

LEFT: FVNR STARTER:
X DENOTES NEMA SIZE
DP DENOTES DEFINITE PURPOSE CONTACTOR
RIGHT: FVR STARTER

LEFT: VFD WITH LINE REACTOR
MIDDLE: VFD WITH HARMONIC FILTER
RIGHT: VFD WITH LINE REACTOR AND FVNR BYPASS
X DENOTES NEMA SIZE

LEFT: RVSS STARTER
RIGHT: RVSS STARTER WITH FVNR BYPASS
X DENOTES NEMA SIZE

VFD WITH RVSS BYPASS

RVAT STARTER:
X DENOTES NEMA SIZE
#% DENOTES TAP SETTING

SINGLE-LINE DIAGRAMS, CONT'D.

GENERATOR

CONTACTOR-STYLE ATS OR MTS

CONTACTOR-STYLE ATS OR MTS WITH OFF POSITION

CONTACTOR-STYLE ATS OR MTS, SERVICE-ENTRANCE RATED

MCCB-STYLE ATS OR MTS

DRAWOUT CB-STYLE ATS OR MTS

MISC PLAN VIEW SYMBOLS

EQUIPMENT CONNECTION

GROUND RODS:
LEFT: BURIED
RIGHT: IN TESTWELL

DUCTBANK SECTION CUT IDENTIFIER:
DBXX DENOTES DUCTBANK ID
EXX DENOTES DRAWING NUMBER
WHERE SECTION CUT IS LOCATED

DUCTBANK TAG:
X DENOTES DUCTBANK ID

CABLE TRAY TAG:
X DENOTES CABLE TRAY ID
Y DENOTES SCHEDULE REFERENCE

INSTRUMENT TAG:
X DENOTES INSTRUMENT TYPE
# DENOTES INSTRUMENT NUMBER
SEE DRAWING I1 FOR INSTRUMENT ABBREVIATIONS

CONDUIT TAGS:
P DENOTES POWER
C DENOTES CONTROL
I DENOTES INSTRUMENTATION
XXXX DENOTES CONDUIT ID
XXX-XXX DENOTES CONDUIT ID

COMMUNICATIONS

TELEPHONE OR NETWORK DROP

PAGER RECEPTACLE

HORN/LIGHT DEVICE

PA UNIT

Hazen
HAZEN AND SAWYER
5775 PEACHTREE DUNWOODY RD
SUITE D-520
ATLANTA, GA 30342

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
02/15/19	ISSUE FOR 90% REVIEW

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
ELECTRICAL LEGEND AND SYMBOLS

E-001			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY VK	DRAWN BY VK	CHECKED BY NL	APPROVED BY	DATE 02/15/2019

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. XX OF XX

ABBREVIATIONS

AE	ANALYSIS ELEMENT
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AIT	ANALYSIS INDICATING TRANSMITTER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AF	AMPERE FRAME
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
BC	BYPASS CONTACTOR
BKR	BREAKER
(L/V)CP	(LOCAL/VENDOR) CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
DB	DUCTBANK
DSW	DISCONNECT SWITCH
EHH	ELECTRIC HAND HOLE
EMH	ELECTRIC MANHOLE
EO	ELECTRICALLY OPERATED
ETM	ELAPSED TIME METER
ETU	ELECTRONIC TRIP UNIT
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FS	FLOW SWITCH
FSL	FLOW SWITCH LOW
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFCT	GROUND FAULT CURRENT TRANSFORMER
GNG	GO-NO GO
GND	GROUND
HOA	HAND-OFF-AUTO
HPU	HYDRAULIC POWER UNIT
IC	INPUT CONTACTOR
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
ISO	INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
JB	JUNCTION BOX
LCS	LOCAL CONTROL STATION
LP	LIGHTING PANEL
LS	LEVEL SWITCH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW-LOW
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH-HIGH
LT	LEVEL TRANSMITTER
MFR	MULTI-FUNCTION RELAY
MH	MANHOLE
MOD	MOTOR OPERATED DAMPER
MOG	MOTOR OPERATED GATE
MOL	MOTOR OPERATED LOUVER
MOV	MOTOR OPERATED VALVE
MPR	MOTOR PROTECTION RELAY
MSC	MANUFACTURER SUPPLIED CABLE
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MWTS	MOTOR WINDING TEMPERATURE SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSN
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	OUTPUT CONTACTOR
OL	OVERLOAD

ABBREVIATIONS, CONT.

PB	PULLBOX
PC	PHOTOCELL
PCC	POINT OF COMMON COUPLING
PE	PRESSURE ELEMENT
PIT	PRESSURE INDICATING TRANSMITTER
PLC	PROGRAMMABLE LOGIC CONTROLLER
PP	POWER PANEL
PST	PHASE SHIFTING TRANSFORMER
PT	POTENTIAL TRANSFORMER
PTT	PUSH TO TEST
RCS	REMOTE CONTROL STATION
RECP	RECEPTACLE
RIO	REMOTE I/O
RM	ROOM
RTD	RESISTANCE THERMAL DEVICE
RTU	REMOTE TELEMETRY UNIT
RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
RVSS	REDUCED VOLTAGE SOLID STATE
SA	SUPPLY AIR
S.E.	SERVICE ENTRANCE
SP. C.	SPARE CONDUIT
SPD	SURGE PROTECTIVE DEVICE
SST	STAINLESS STEEL
TB	TEST BLOCK
TC	TIMED CLOSE
TO	TIMED OPEN
TSH	TWISTED SHIELDED
TX	TRANSFORMER
TYP	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
VFD	VARIABLE FREQUENCY DRIVE
WPCR	WEATHER PROOF CORROSION RESISTANT
WT	WALK THROUGH
XFMR	TRANSFORMER

DUCTBANK SCHEDULE

DUCTBANK	CONDUIT No.	SIZE	DESCRIPTION	FROM	TO	FOR
PDB-1	1	2-1/2"	4-4/0	UTILITY POLE	PHH-1	
	2	2-1/2"	4-4/0	UTILITY POLE	PHH-1	
PDB-2	1	2-1/2"	4-4/0	PHH-1	MAIN CIRCUIT BREAKER MCB-1	
	2	2-1/2"	4-4/0	PHH-1	MAIN CIRCUIT BREAKER MCB-1	
PDB-3	1	1"	3#10, #10 GND	PP-1	PMH-2	FOR PUMP P-01
	2	1"	3#10, #10 GND	PP-1	PMH-2	FOR PUMP P-02
	3	1-1/2"	3#1, #6 GND	PP-1	PMH-2	FOR PUMP P-03
	4	1-1/2"	3#1, #6 GND	PP-1	PMH-2	FOR PUMP P-04
	5	1-1/2"	3#1, #6 GND	PP-1	PMH-2	FOR PUMP P-05
	6	1"	3#10, #10 GND	PP-1	PMH-2	FOR BRIDGE CRANE
	7	1"	2#10, #10 GND	LP-1	PMH-2	FOR SUMP PUMP CP
	8	1"	4#10, #10 GND	LP-1	PMH-2	FOR COMBUST. GAS SENSOR PNL AND AIT-210
	9	1"	4#10, #10 GND	LP-1	PMH-2	FOR SITE LIGHTS AND RECEPTS PS NORTH SIDE
	10	1-1/2"	EMPTY W/ PULL STRING	PP-1	PMH-2	FOR FUTURE ODOR CONTROL SYSTEM
	11	1-1/2"	EMPTY W/ PULL STRING	ELECTRICAL EQUIPMENT PLATFORM	PMH-2	SPARE
CDB-3	1	1"	4-2/C#16TSH	PUMP CONTROL PANEL	CMH-2	FOR P-01, P-02 PUMP PROTECTION
	2	1-1/2"	6-2/C#16TSH	PUMP CONTROL PANEL	CMH-2	FOR P-03, P-04, P-05 PUMP PROTECTION
	3	1"	6#14, #14 GND 2#14	PUMP CONTROL PANEL	CMH-2	CTRL CKTS FOR SUMP PUMP CONTROL PANEL AND COMBUSTABLE GAS SENSOR PANEL
	4	1"	1-2/C#16TSH	PUMP CONTROL PANEL	CMH-2	ANALOG CKT FOR COMBUST GAS SENSOR PANEL
	5	1"	14#14, #14 GND	PUMP CONTROL PANEL	CMH-2	INTRINS. SAFE CKTS OF LS-115A THROUGH -115G
	6	1"	1-2/C#16TSH	PUMP CONTROL PANEL	CMH-2	INTRINS. SAFE CKT OF LE-110
	7	1"	2#14, #14 GND	PUMP CONTROL PANEL	CMH-2	FOR LSH-116
	8	1-1/2"	EMPTY W/ PULL STRING	PUMP CONTROL PANEL	CMH-2	FOR FUTURE ODOR CONTROL SYSTEM
	9	1-1/2"	EMPTY W/ PULL STRING	ELECTRICAL EQUIPMENT PLATFORM	CMH-2	SPARE
PDB-4	1	1"	3#10, #10 GND	PMH-2	TJB-P-1	FOR PUMP P-01
	2	1"	3#10, #10 GND	PMH-2	TJB-P-2	FOR PUMP P-02
	3	1-1/2"	3#1, #6 GND	PMH-2	TJB-P-3	FOR PUMP P-03
	4	1-1/2"	3#1, #6 GND	PMH-2	TJB-P-4	FOR PUMP P-04
	5	1-1/2"	3#1, #6 GND	PMH-2	TJB-P-5	FOR PUMP P-05
	6	1"	3#10, #10 GND	PMH-2	BRIDGE CRANE CONTROL PANEL	VIA DISCONNECT SWITCH
	7	1"	2#10, #10 GND	PMH-2	SUMP PUMP CP	FOR SUMP PUMP CP
	8	1"	4#10, #10GND	PMH-2	JB AT JUNCTION BOX PLATFORM	FOR COMBUST GAS SENSOR PNL AND AIT-210
	9	1"	4#10, #10GND	PMH-2	SITE LIGHTS AND RECEPTS PS NORTH SIDE	
	10	1-1/2"	EMPTY W/ PULL STRING	PMH-2	AREA OF FUTURE ODOR CONTROL SYSTEM (STUB-UP)	FUTURE
	11	1-1/2"	EMPTY W/ PULL STRING	PMH-2	STUB-UP AT JUNCTION BOX PLATFORM	SPARE
CDB-4	1	1"	4-2/C#16TSH	CMH-2	CJB-7	FOR P-01, P-02 VIA TJB-P-1 & TJB-P-2
	2	1-1/2"	6-2/C#16TSH	CMH-2	CJB-8	FOR P-03, P-04, P-05 VIA TJB-P-3, TJB-P-4, TJB-P-5
	3	1"	6#14, #14 GND 2#14	CMH-2	CJB-9	CTRL CKTS FOR SUMP PUMP CONTROL PANEL AND COMBUSTABLE GAS SENSOR PANEL
	4	1"	1-2/C#16TSH	CMH-2	COMBUSTABLE GAS SENSOR PANEL	
	5	1"	14#14, #14 GND	CMH-2	TJB-C6	INTRINSIC. SAFE CKTS OF LS-115A THROUGH -115G
	6	1"	1-2/C#16TSH	CMH-2	TJB-C6	INTRINSIC. SAFE CKT OF LE-110
	7	1"	2#14, #14 GND	CMH-2	TJB-C10	FOR LSH-116
	8	1-1/2"	EMPTY W/ PULL STRING	CMH-2	AREA OF FUTURE ODOR CONTROL SYSTEM (STUB-UP)	FUTURE
	9	1-1/2"	EMPTY W/ PULL STRING	CMH-2	STUB-UP AT JUNCTION BOX PLATFORM	SPARE
PDB-5	1	1"	3#10, #10 GND	PP-1	PMH-3	FOR VALVE V-06
	2	1"	3#10, #10 GND	PP-1	PMH-3	FOR VALVE V-08
	3	1"	4#10, #10 GND	LP-1	PMH-3	FOR SITE LIGHTS AND RECEPTS PS SOUTH SIDE
	4	1-1/2"	EMPTY W/ PULL STRING	STUB-UP NEAR PUMP CONTROL PANEL	PMH-3	SPARE (POWER)
CDB-5	5	1"	12#14, #14GND	PUMP CONTROL PANEL	CMH-3	VALVE V-06 CTRL CIRCUITS
	6	1"	12#14, #14GND	PUMP CONTROL PANEL	CMH-3	VALVE V-08 CTRL CIRCUITS
	7	1-1/2"	MANUFACTURER SUPPLIED CABLE	FIT-131	CMH-3	FOR FE-131
	8	1-1/2"	MANUFACTURER SUPPLIED CABLE	FIT-132	CMH-3	FOR FE-132
	8	1-1/2"	EMPTY W/ PULL STRING	STUB-UP NEAR PUMP CONTROL PANEL	CMH-3	SPARE
PDB-6	1	1"	3#10, #10 GND	PMH-3	VALVE V-06	VIA DISCONNECT SWITCH
	2	1"	3#10, #10 GND	PMH-3	VALVE V-08	VIA DISCONNECT SWITCH
	3	1"	4#10, #10 GND	PMH-3	FOR SITE LIGHTS AND RECEPTS PS SOUTH SIDE	
	4	1-1/2"	EMPTY W/ PULL STRING	PMH-3	CONDUIT STUB-UP NEAR VALVE CHAMBER	SPARE
CDB-6	5	1"	12#14, #14GND	CMH-3	VALVE V-06	
	6	1"	12#14, #14GND	CMH-3	VALVE V-08	
	7	1-1/2"	MANUFACTURER SUPPLIED CABLE	CMH-3	FE-131	
	8	1-1/2"	MANUFACTURER SUPPLIED CABLE	CMH-3	FE-132	
	8	1-1/2"	EMPTY W/ PULL STRING	CMH-3	VALVE CHAMBER (EAST WALL)	SPARE

NOTES:

1. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL UNDERGROUND CONCRETE ENCASED ELECTRICAL CONDUITS SHALL BE PER STANDARD DETAIL 1611801.
2. THE INSTALLATION OF ALL CONCRETE ENCASED ELECTRICAL CONDUITS SHALL COMPLY WITH ACI 318, SECTION 6.3. CONTRACTOR SHALL SUPPLY EXPANSION JOINT FITTINGS AS REQUIRED FOR THERMAL EXPANSION AND DEFLECTION.
3. BOND ALL NEW CONCRETE ENCASED GROUND CONDUCTORS TO EXISTING GROUND CONDUCTORS IN ALL MANHOLES, PULL BOXES, CABLE TRAYS, AND SIMILAR LOCATIONS WHERE APPLICABLE.
4. UNLESS OTHERWISE SPECIFIED OR NOTED, ELECTRICAL PANELS, ENCLOSURES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED 6'-6" (MAX) FROM THE TOP OF THE PANEL TO GRADE.
5. UNLESS OTHERWISE NOTED, ALL LIGHTING SWITCHES, CONTROL SWITCHES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED WITH THEIR CENTERLINE APPROXIMATELY 4'-0" ABOVE GRADE.
6. A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH CIRCUIT (SEPARATE CONDUCTOR IN THE CONDUIT). THE CONDUCTOR SHALL BE TERMINATED AT THE PROPER DEVICE, TERMINAL, OR LUG AT THE POWER SOURCE (MAIN CIRCUIT BREAKER GROUND BUS, POWER PANEL GROUND BUS, ETC.). GROUND CONDUCTOR SIZE SHALL BE PER THE LATEST EDITION OF THE NEC.
7. ELECTRICAL SYSTEMS INSTALLED IN HAZARDOUS LOCATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 5, ART. 500 OF THE LATEST EDITION OF THE NEC. CONTRACTOR SHALL SEAL ALL CONDUITS LEAVING HAZARDOUS AREAS. WALL AND FLOOR OPENINGS SHALL BE SEALED WITH FIREPROOF COMPOUND.
8. ALL EQUIPMENT LOCATED IN HAZARDOUS AREAS SHALL BE SUITABLE FOR THE CLASS, DIVISION, AND GROUP RATING OF THE LOCATION.
9. REFERENCE SECTION 01520 FOR CONSTRUCTION SEQUENCING REQUIREMENTS.
10. CONDUIT HOMERUNS ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL REFER TO CONDUIT AND WIRE SCHEDULES, RISER DIAGRAMS, SINGLE LINE DIAGRAMS, AND OTHER DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS.
11. NOT ALL OF THE REQUIRED JUNCTION AND PULL BOXES ARE SHOWN ON THE PLANS. CONTRACTOR SHALL PROVIDE AND FIELD LOCATE SUCH BOXES AS REQUIRED BY NEC, SITE CONDITIONS, AND SPECIFICATIONS, FOR PROPER PULLS AND BENDS, AT NO ADDITIONAL COST TO THE OWNER. PROVIDE JUNCTION BOX FOR RUNS WITH MORE THAN THREE 90-DEGREE BENDS.

Hazen
HAZEN AND SAWYER
5775 PEACHTREE DUNWOODY RD
SUITE D-520
ATLANTA, GA 30342

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
02/15/19	ISSUE FOR 90% REVIEW

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
ELECTRICAL ABBREVIATIONS, GENERAL NOTES, & DUCTBANK SCHEDULE

E-002			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY VK	DRAWN BY VK	CHECKED BY NL	APPROVED BY	DATE 02/15/2019
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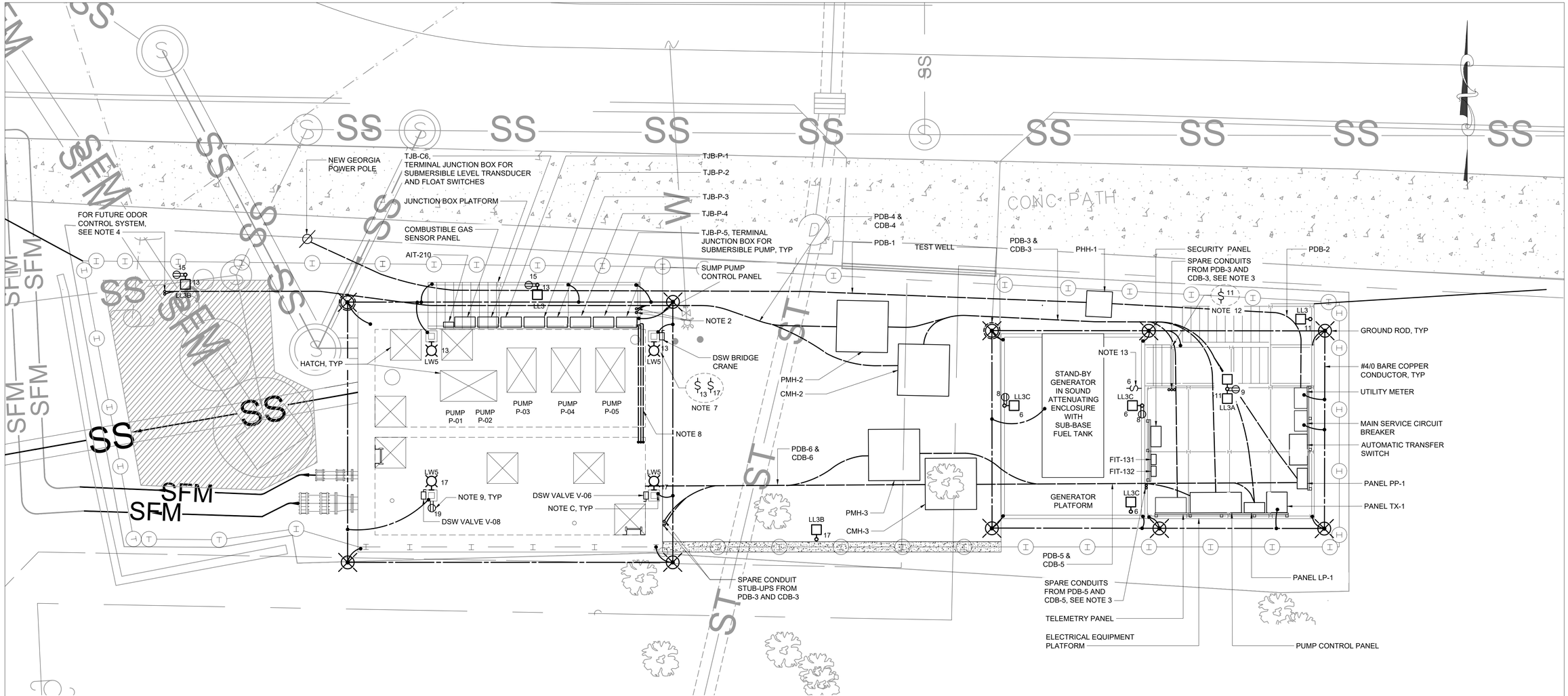

PLAN
1" = 5'-0"

MANHOLE SCHEDULE	
MANHOLE NOs.	MINIMUM INTERIOR DIMENSIONS (FT)
PMH-2, PMH-3 CMH-2, CMH-3	4 x 4 X 4

GROUNDING NOTES:

A. BOND THE FOLLOWING ITEMS TO THE GROUND RING:
- TRANSFORMERS AND THE GROUND BAR OF ELECTRICAL DISTRIBUTION EQUIPMENT, SUCH AS MAIN SERVICE CIRCUIT BREAKER
- REBAR IN CONCRETE FOOTER OR COLUMN
- GROUNDING CONDUCTOR IN CONCRETE ENCASED DUCTBANKS
- STEEL PLATFORMS (AT LEAST ALL FOUR CORNERS)

B. PROVIDE #2 BARE COPPER BONDING CONDUCTORS, UNLESS NOTED OTHERWISE.

NOTES:

1. SEE DRAWINGS E002 FOR DUCTBANK SCHEDULE.
2. STUB-UP SPARE CONDUITS FROM DUCTBANKS PDB-4 AND CDB-4 ON THE TOP OF THE JUNCTION PLATFORM ABOVE 100YEAR FLOOD PLANE.
3. STUB-UP SPARE CONDUITS FROM PDB-3 AND CDB-3, AND ALSO FROM PDB-5 AND CDB-5, RESPECTIVELY ON THE TOP OF ELECTRICAL EQUIPMENT PLATFORM AS SHOWN.
4. EMPTY POWER AND CONTROL CONDUITS FOR A FUTURE ODOR CONTROL SYSTEM SHALL BE STUBBED UP AT THE LOCATION SHOWN ON THIS DRAWING.
5. PROVIDE END-PUGS FOR ALL CONDUIT STUB-UPS PER SPECIFICATIONS.
6. MOUNT LIGHTING FIXTURES TYPE LW5 9-FT ABOVE THE FINISHED GRADE.
7. MOUNT LIGHT SWITCHES BELOW LIGHTING FIXTURE ON THE COLUMN AT 5'-8" ABOVE PUMP STATION TOP SLAB (I.E. ABOVE 100 YEAR FLOOD PLANE).
8. CONDUITS WITH POWER AND CONTROL CIRCUITS FROM FLOAT SWITCHES AND SUMP PUMP IN VAULT CHAMBER TO EQUIPMENT ON JUNCTION BOX PLATFORM SHALL BE ROUTED IN THE PUMP STATION TOP SLAB.
9. ALL RECEPTACLES SHALL BE GFCI TYPE, WEATHER RESISTANT WITH WEATHER PROTECTIVE COVER IN ACCORDANCE WITH SPECIFICATIONS.
10. REFER TO DRAWING E006 FOR AREAS CLASSIFIED AS HAZARDOUS PER NFPA 820.
11. PROVIDE CONDUIT SEAL-OFF FITTINGS ON ALL CONDUITS LEAVING CLASS I, DIVISION 1 AND 2 HAZARDOUS AREAS IN ACCORDANCE WITH THE SPECIFICATIONS AND NEC REQUIREMENTS.
12. MOUNT LIGHTING SWITCH TO THE PLATFORM STRUCTURE AT 5'-8" MINIMUM ABOVE FINISHED GRADE (I.E. ABOVE 100 YEAR FLOOD PLANE).
13. MOUNT LIGHTING SWITCH AT 48" ABOVE GENERATOR PLATFORM.

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1"=5'-0" 5 2.5 0 5'

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WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
ELECTRICAL SITE PLAN

E-003			COUNTY FULTON	SCALE AS SHOWN
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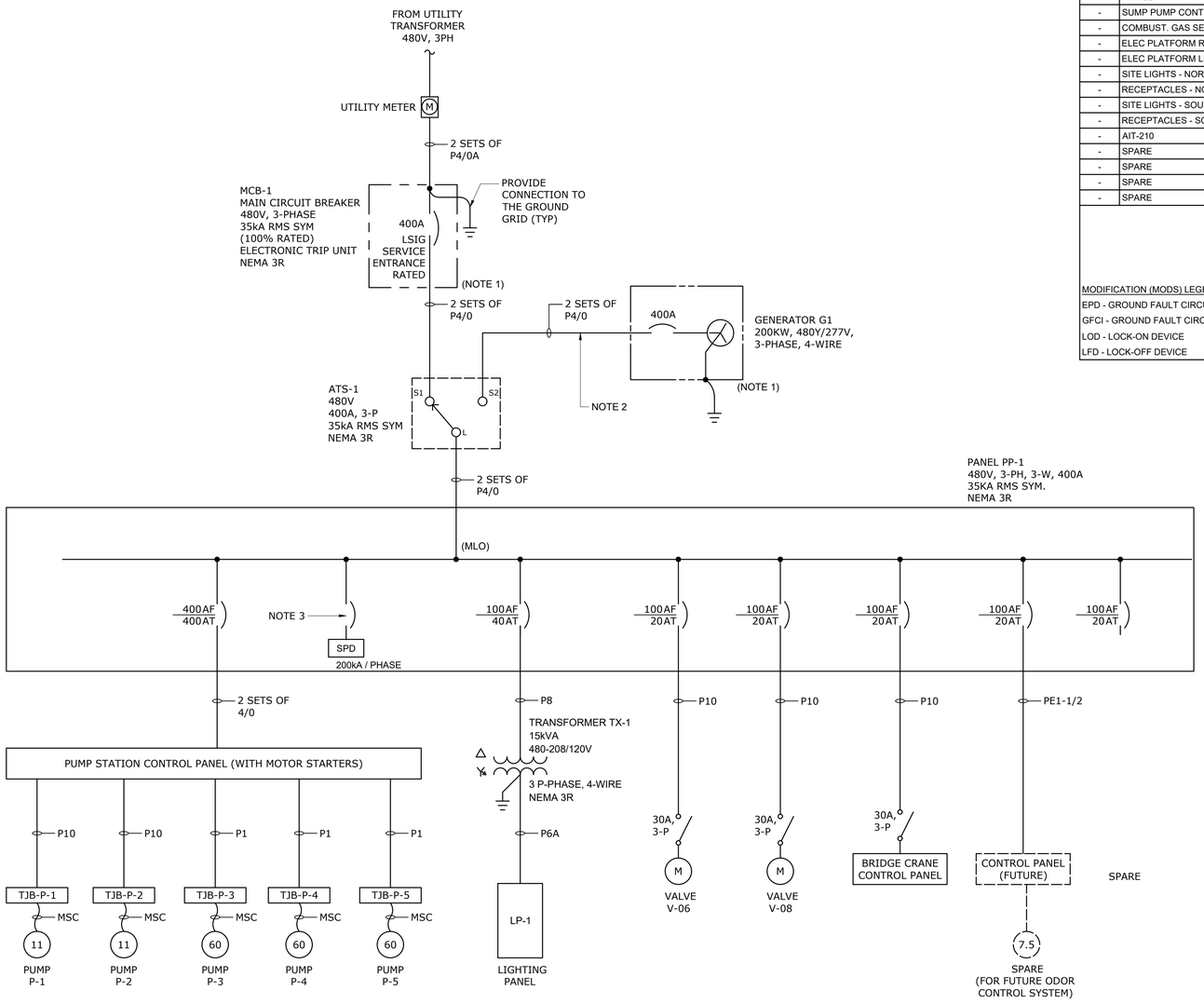

SINGLE LINE DIAGRAM

208/120 VOLTS
3 PHASE, 4 WIRE

LP-1
MAIN BREAKER
50A 3P

TYPE: NEMA 3R
MOUNT: SURFACE

MODS	DESCRIPTION	WIRE	TRIP	POLE	CKT No.	VOLT-AMPERES A	VOLT-AMPERES B	VOLT-AMPERES C
-	FIT-131		20	1	1	200		
-	FIT-132		20	1	3		200	
-	SUMP PUMP CONTROL PANEL		20	1	5			750
-	COMBUST. GAS SENSOR PNL		20	1	7	200		
-	ELEC PLATFORM RECEPTACLES		20	1	9		180	
-	ELEC PLATFORM LIGHTS		20	1	11			330
-	SITE LIGHTS - NORTH		20	1	13	300		
-	RECEPTACLES - NORTH		20	1	15		360	
-	SITE LIGHTS - SOUTH		20	1	17			190
-	RECEPTACLES - SOUTH		20	1	19	180		
-	AIT-210		20	1	21		200	
-	SPARE		20	1	23			-
-	SPARE		20	1	25	-		
-	SPARE		20	1	27		-	
-	SPARE		20	1	29			-
	TOTAL					880	940	1,270
	PHASE TOTAL					3,640	4,240	1,600

VOLT-AMPERES A	VOLT-AMPERES B	VOLT-AMPERES C	CKT No.	POLE	TRIP	WIRE	DESCRIPTION	MODS
1,200			2	1	20		GENERATOR BATTERY CHAGER	-
	-		4	1	20		SPARE	-
		330	6	1	20		LIGHTS GENERATOR PLATFORM	-
360			8	1	20		RECEPTS GENERATOR PLATFORM	-
	1,500		10	1	20		GENERATOR JACKET HEATER	-
		-	12	1	20		SPARE	-
1,200			14	1	20		TELEMETRY PANEL	-
	1,800		16	1	20		SECURITY PANEL	-
		-	18	1	20		SPARE	-
-			20	1	20		SPARE	-
	-		22	1	20		SPARE	-
		-	24	2	20		SPARE	-
-			26					
	-		28	2	20		SPARE	-
		-	30					
2,760	3,300	330	TOTAL					
TOTAL LOAD (VA)								
9,480								
TOTAL LOAD (A)								
26								

MODIFICATION (MODS) LEGEND:
EPD - GROUND FAULT CIRCUIT INTERRUPTER (30mA)
GFCI - GROUND FAULT CIRCUIT INTERRUPTER (5mA)
LOD - LOCK-ON DEVICE
LFD - LOCK-OFF DEVICE

NOTES:
10kA RMS SYMMETRICAL
100kA SPD
(SEE NOTE 4)

NOTES:

1. NEUTRAL WIRE SHALL BE BONDED TO GROUND AT THE MAIN SERVICE BREAKER. NEUTRAL WIRE SHALL BE BONDED TO GROUND AT THE GENERATOR
2. NEUTRAL WIRE SHALL NOT BE RUN TO THE ATS (3-POLE).
3. CIRCUIT BREAKER SIZED BY EQUIPMENT SUPPLIER.
4. PROVIDE [1"C., 2#10, #10GND] FOR ALL CIRCUITS FROM LP-1 UNLESS OTHERWISE NOTED.

CIRCUIT LEGEND:

P4/0A - 2-1/2"C [4#4/0]
P4/0 - 2-1/2"C [3#4/0; #3GND]
P1 - 1-1/2"C [3#1; #6GND]
P6A - 1"C [4#6; #8GND]
P8 - 1"C [3#8; #10GND]
P10 - 1"C [3#10; #10GND]
PE1-1/2 - 1-1/2"C [EMPTY]
L12 - 1"C [2#12; #12GND]
L10 - 1"C [2#10; #10GND]
L10-4 - 1"C [4#10; #10GND]
MSC - 1-1/2"C [MANUFACTURER SUPPLIED CABLE]

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WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
ELECTRICAL SINGLE-LINE DIAGRAM AND PANEL SCHEDULE

E-004			COUNTY FULTON	SCALE AS SHOWN
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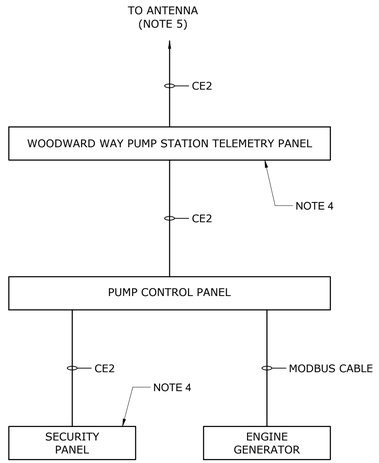
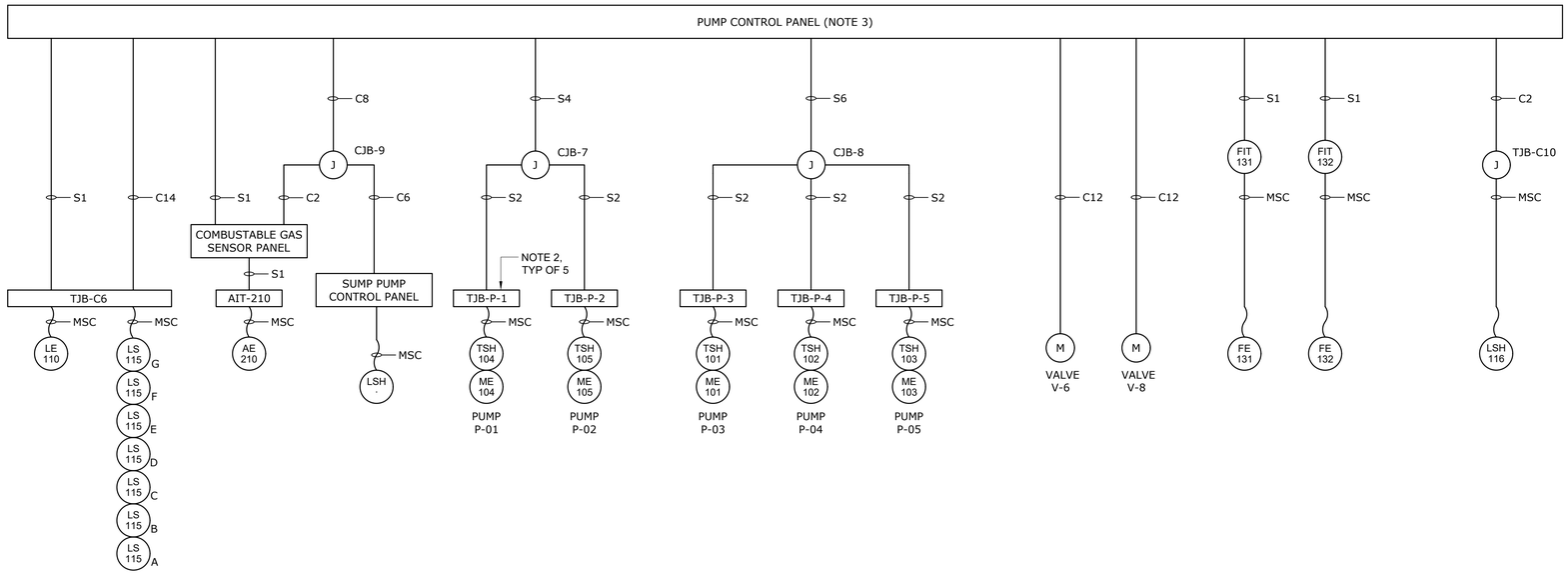


PUMP STATION COMMUNICATION DIAGRAM



PUMP STATION CONTROL BLOCK DIAGRAM

CIRCUIT LEGEND:

C2	-	1"C [2#14; #14GND]
C6	-	1"C [6#14; #14GND]
C8	-	1"C [8#14; #14GND]
C12	-	1"C [12#14; #14GND]
C14	-	1"C [14#14; #14GND]
C18	-	1"C [18#14; #14GND]
C24	-	1"C [24#14; #14GND]
CE2	-	2"C [EMPTY WITH PULL STRING]
S1	-	1"C [1-2/C#16TSH]
S2	-	1"C [2-2/C#16TSH]
S4	-	1"C [4-2/C#16TSH]
S6	-	1"C [6-2/C#16TSH]
MODBUS	-	1"C [MODBUS CABLE]
MSC	-	1-1/2"C [MANUFACTURER SUPPLIED CABLE]

NOTES:

1. SMALL JUNCTION BOXES (CJB-7, 8, 9, AND TJB-C10), TYPICALLY SHOWN ON THE BLOCK DIAGRAM FOR COMBINING CIRCUITS, HAVE NOT BEEN LOCATED. CONTRACTOR SHALL FIELD LOCATE THEM, AS REQUIRED AT THE TOP OF THE JUNCTION BOX PLATFORM .
2. THE SUBMERSIBLE PUMPS ARE FURNISHED WITH A SINGLE MANUFACTURER SUPPLIED CABLE WITH POWER AND CONTROL CONDUCTORS. THE CONTRACTOR SHALL PROVIDE A SINGLE 1-1/2" CONDUIT FOR THIS CABLE, SHOWN BOTH ON DRAWING E004 AND ON THIS DRAWING.
3. MINICAS, THE SUBMERSIBLE MOTOR PROTECTIONS RELAYS SHALL BE MOUNTED IN THE PUMP CONTROL PANEL BY THE CONTROL PANEL SUPPLIER.
4. CONTRACTOR TO PROVIDE MOUNTING SUPPORTS AND INSTALL TELEMETRY PANEL AND SECURITY PANEL, FURNISHED BY OTHERS. SEE SITE PLAN DRAWING E-003 FOR PROPOSED PANEL LOCATIONS. COORDINATE EXACT LOCATION WITH THE OWNER DURING CONSTRUCTION.
5. COORDINATE THE LOCATION OF THE ANTENNA WITH THE OWNER DURING THE CONSTRUCTION.

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ELECTRICAL CONTROL BLOCK DIAGRAM

E-005			COUNTY FULTON	SCALE AS SHOWN
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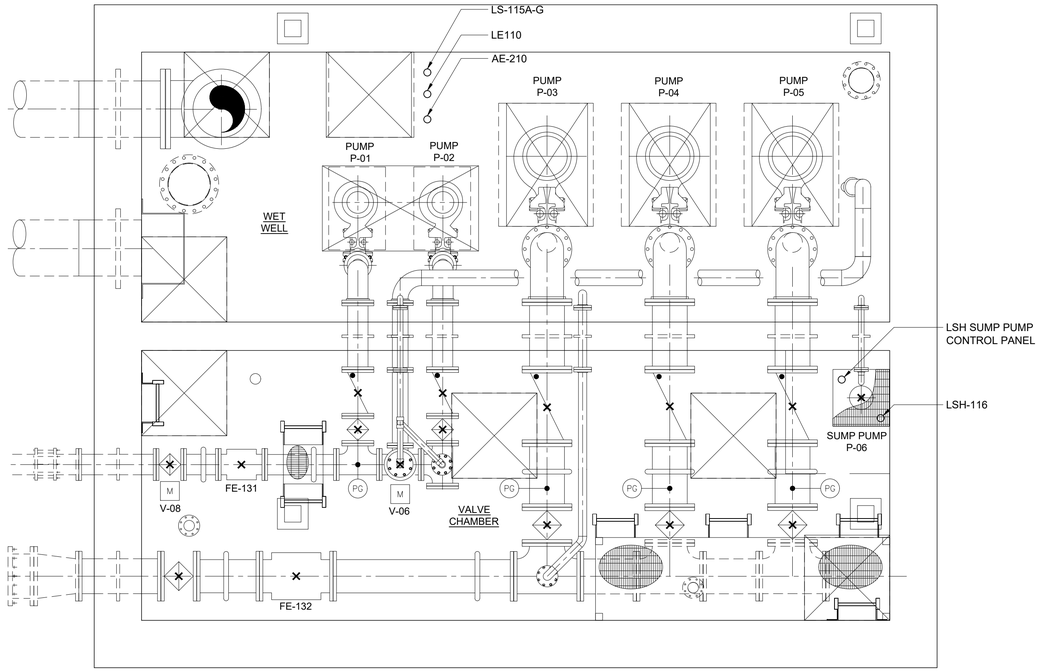
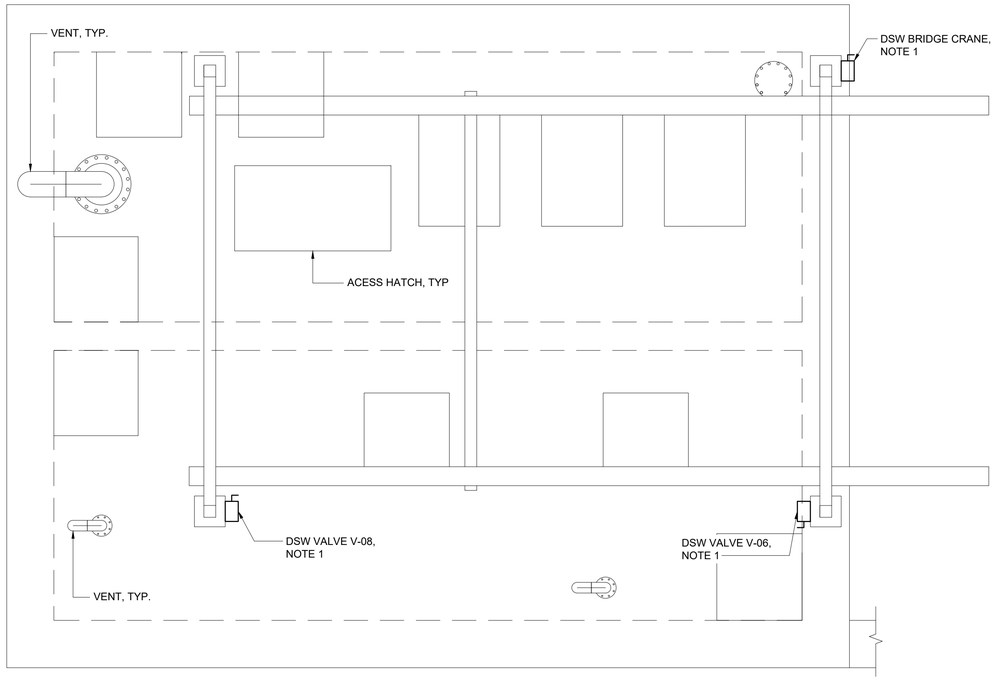
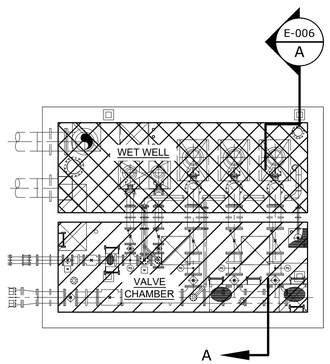


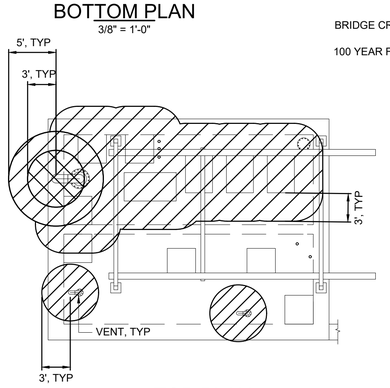
BOTTOM PLAN
3/8" = 1'-0"



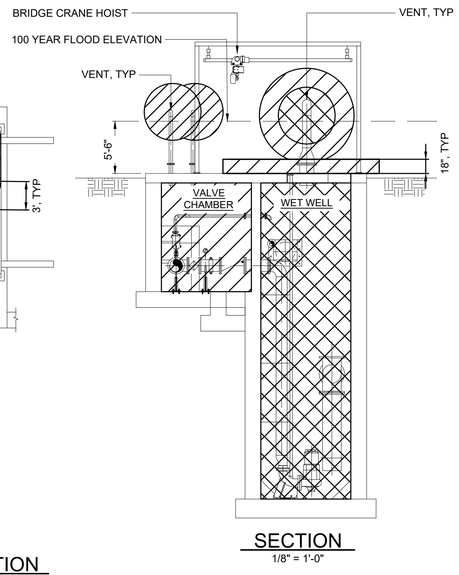
TOP PLAN
3/8" = 1'-0"



BOTTOM PLAN
1/8" = 1'-0"



TOP PLAN
1/8" = 1'-0"



SECTION
1/8" = 1'-0"

LEGEND:

- CLASS I, DIVISION 1, GROUP D
- CLASS I, DIVISION 2, GROUP D

HAZARDOUS AREA CLASSIFICATION

HAZARDOUS AREA CLASSIFICATION:

A. PUMP STATION WET WELL

a. THE ENTIRE SPACE WITHIN THE WET WELL SHALL BE CLASSIFIED CLASS I, DIVISION 1, GROUP D.

b. THE ENVELOPE 18-INCHES ABOVE A HATCH (OPENING) AND EXTENDING 3 FT HORIZONTALLY SHALL BE CLASSIFIED CLASS I, DIVISION 2, GROUP D.

c. THE SPACE WITHIN 3 FEET OF THE OPEN END OF A VENT SHALL BE CONSIDERED CLASS I, DIVISION 1, GROUP D AND THE SPACE BEYOND 3 FEET BUT WITHIN 5 FEET OF THE VENT SHALL BE CLASS I, DIVISION 2, GROUP D.

d. AREA CLASSIFIED PER NFPA 820, 2016 EDITION, TABLE 4.2.2, ROW 16, AND ANNEX A

B. VALVE CHAMBER (VAULT)

a. THE SPACE INSIDE OF THE VALVE CHAMBER SHALL BE CLASSIFIED CLASS I, DIVISION 2, GROUP D PER NFPA-820-2016 EDITION, TABLE 4.2.2, ROW 31, LINE a.

b. THE SPACE WITHIN 3 FEET OF THE OPEN END OF A VENT SHALL BE CONSIDERED CLASS I, DIVISION 2, GROUP D.

ALL EQUIPMENT, ELECTRICAL MATERIALS AND WIRING METHODS IN THE CLASSIFIED AREAS SHALL BE IN ACCORDANCE WITH THE NEC.

NOTES:

1. MOUNT CRANE DISCONNECT SWITCH ON COLUMN ABOVE 100 YEAR FLOOD PLANE (5'-6" ABOVE FINISHED GRADE).

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3/8"=1'-0" 12" 0 1 2 4'

1/8"=1'-0" 8 6 4 2 0 8'

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WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
ELECTRICAL PUMP STATION PLAN

E-006			COUNTY FULTON	SCALE AS SHOWN
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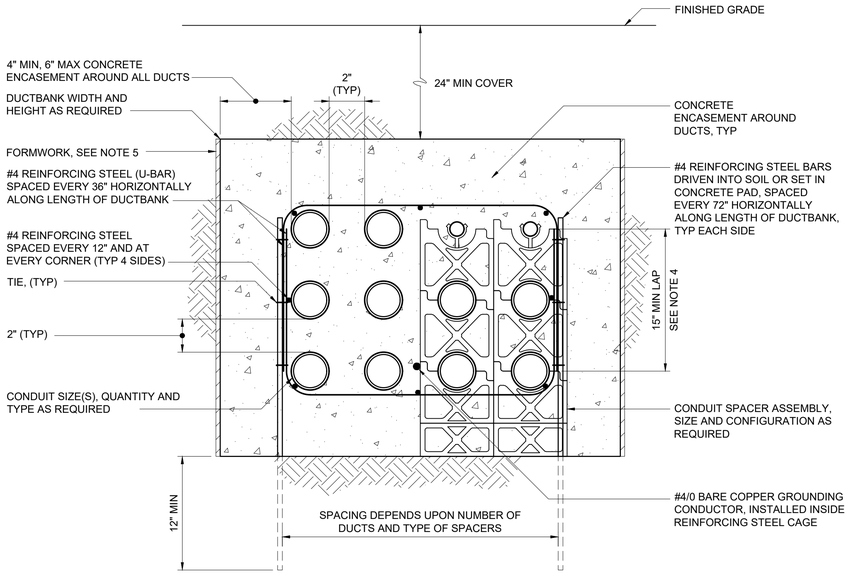


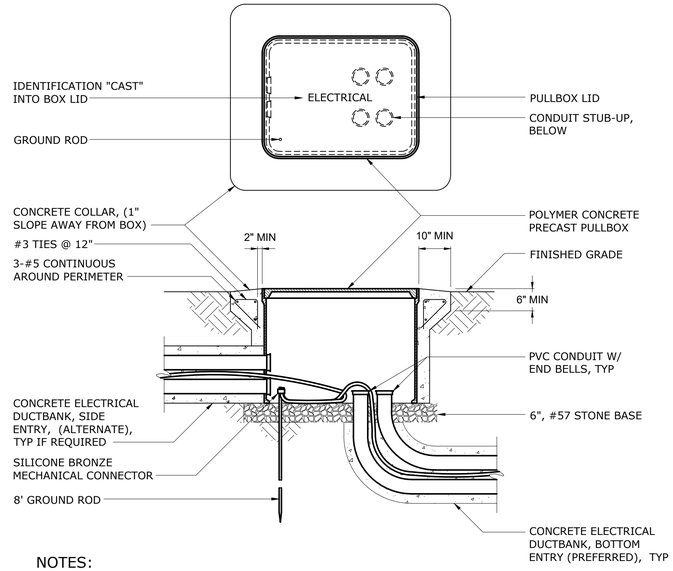
NOTES:

1. CONCRETE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 03300.
2. REINFORCING STEEL AND TIES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 03200. OVERLAP FOR REINFORCING STEEL SPLICES ALONG THE DUCTBANK LENGTH SHALL BE 15", MINIMUM.
3. CONDUIT SPACERS ARE REQUIRED IN ACCORDANCE WITH SPECIFICATION SECTION 16118. HORIZONTAL SPACING OF CONDUIT SPACER ASSEMBLIES ALONG LENGTH OF DUCTBANK SHALL AS SHOWN IN THE TABLE.
4. FOR DUCTBANKS LESS THAN 15" IN HEIGHT, THE LAP SHALL BE THE HEIGHT OF THE DUCTBANK.
5. IN POOR SOIL CONDITIONS, DUCTBANKS SHALL BE FORMED WITH FORMING MATERIALS TO MAINTAIN 4" MINIMUM ENCASEMENT. WHERE SOIL CONDITIONS PERMIT AND THE EXCAVATION IS MAINTAINED FOR A 4" MINIMUM TO 10" MAXIMUM ENCASEMENT, THE FORMWORK CAN BE OMITTED.

MAX SPACING BETWEEN CONDUIT SPACER ASSEMBLIES	
CONDUIT SIZE	SPACING
1"	3 FT
1 1/4-2"	5 FT
2 1/2-3"	6 FT
3 1/2-5"	7 FT
6"	8 FT

TYPICAL DUCTBANK SECTION

1611801

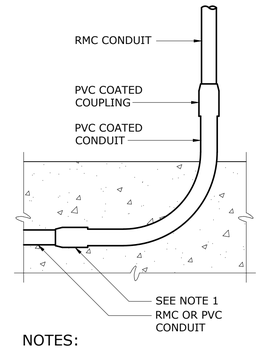


NOTES:

1. FOR SIDE ENTRY, CONDUIT DUCTBANK SHALL ENTER PULLBOX AT LOWEST POINT.
2. GROUND CONDUCTORS WITHIN DUCTBANK SHALL BE BOLTED TOGETHER AND TO GROUND ROD.
3. FOR SIDE ENTRY, CONDUIT SHALL ENTER IN INDIVIDUAL CIRCULAR HOLES APPROPRIATELY SIZED FOR THE CONDUIT. LARGE SINGLE RECTANGULAR OPENINGS FOR MULTIPLE CONDUITS ARE NOT ACCEPTABLE
4. DUCTBANK REINFORCING REBAR SHALL PENETRATE THE SIDEWALLS OF THE BOX NO LONGER THAN 1".

POLYMER CONCRETE ELECTRICAL HANDHOLE DETAIL

1611804



NOTES:

1. FOR ENCASED PVC CONDUIT USE PVC TERMINAL ADAPTER. FOR ENCASED RMC USE PVC COATED COUPLING.

FLOOR STUB-UP FOR CONDUIT

1611102

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ELECTRICAL DETAILS

E-007			COUNTY FULTON	SCALE AS SHOWN
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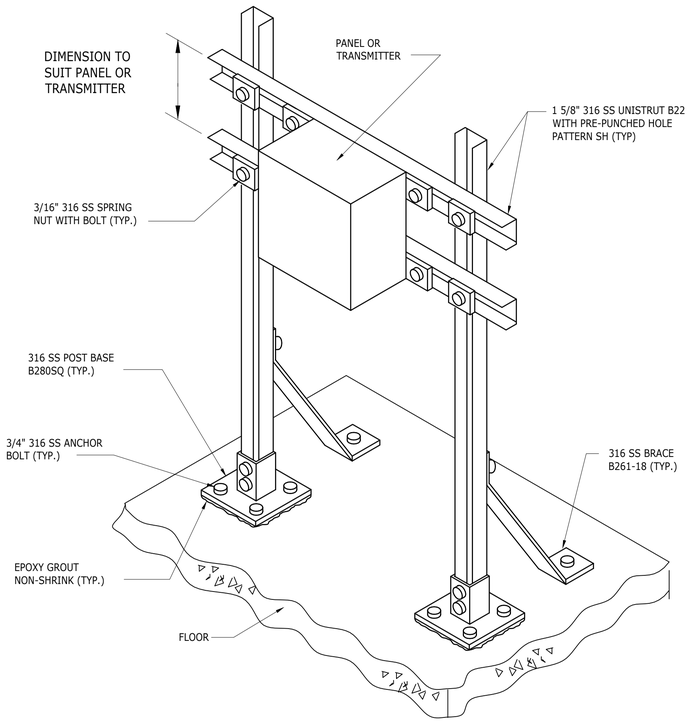
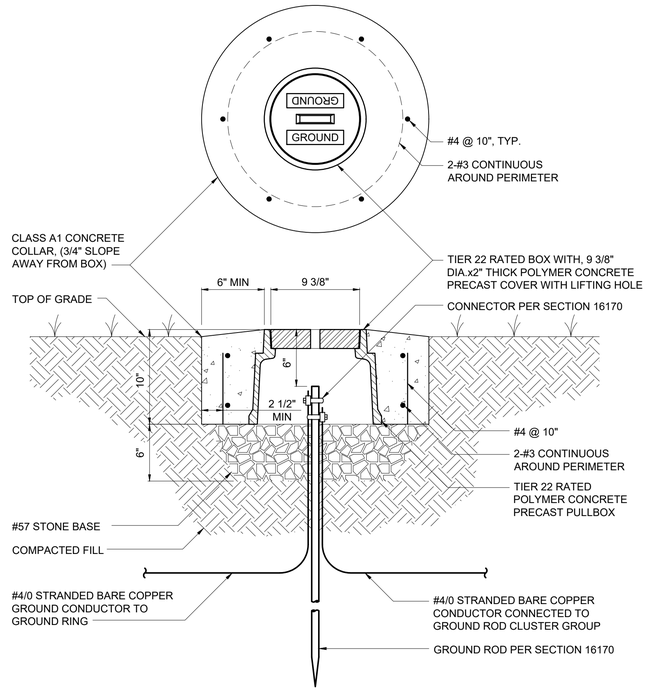


MOUNTING SUPPORT FOR ELECTRICAL PANEL OR TRANSMITTER

1696201R

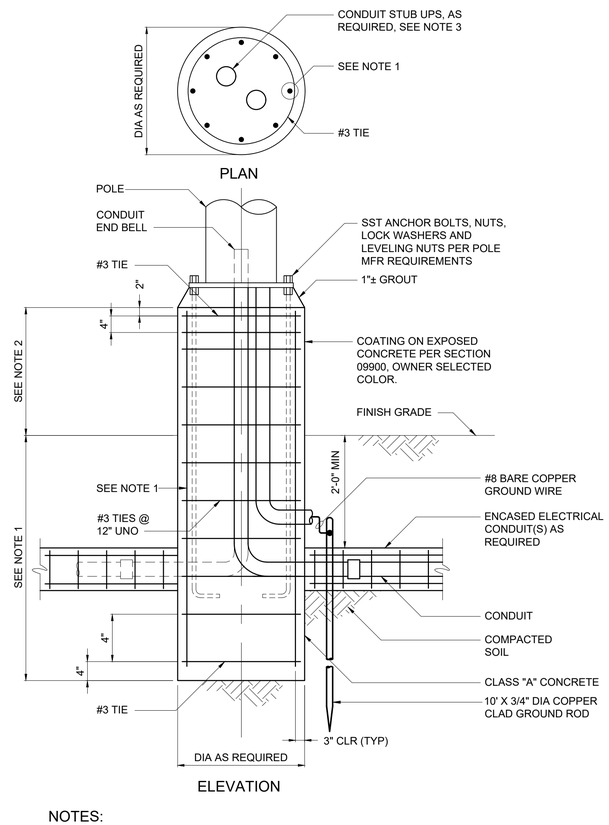


NOTES:

1. PRECAST PULLBOX AND COVER SHALL BE OLDCASTLE PART NUMBER 09101187, OR APPROVED EQUAL.

GROUND ROD TEST WELL INSTALLATION DETAIL

1617001

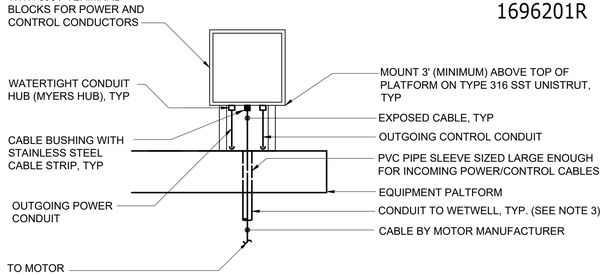


NOTES:

1. DEPTH AND REINFORCEMENT SHALL BE DETERMINED BY POLE MANUFACTURER IN ACCORDANCE WITH SECTION 16500. LOADING SHALL BE IN ACCORDANCE WITH SECTION 16500.
2. PROJECTED HEIGHT ABOVE GRADE SHALL BE 36" FOR POLES NOT OTHERWISE PROTECTED BY A CURB OR BOLLARDS. HEIGHT ABOVE GRADE SHALL BE 6" FOR POLES WHERE PROTECTION IS ALREADY PROVIDED BY CURB OR BOLLARDS. FINAL DETERMINATION OF REQUIRED BASE HEIGHT FOR INDIVIDUAL POLES SHALL BE MADE BY THE ENGINEER.
3. CONTRACTOR SHALL CAREFULLY COORDINATE LOCATION AND QUANTITY OF CONDUITS IN THE BASE SO THAT WHEN POLE IS INSTALLED, IT WILL FIT OVER THE CONDUITS.

CAST-IN-PLACE POLE-MOUNTED LIGHTING FIXTURE BASE (RAISED BASE)

1650002



NOTES:

1. THE CONTRACTOR SHALL COORDINATE THE SIZE AND QUANTITY OF SUBMERSIBLE POWER AND CONTROL CABLE REQUIRED WITH THE SUBMERSIBLE MOTOR MANUFACTURER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CABLE SUPPORTS, CONDUIT, ETC. AS REQUIRED TO SUPPORT AND INSTALL ALL CABLE BY THE MOTOR MANUFACTURER.
2. THE CONTRACTOR SHALL COORDINATE TERMINAL STRIP SIZE WITH THE SUBMERSIBLE MOTOR MANUFACTURER AND THE WIRING REQUIREMENTS INDICATED ON THE DRAWINGS. THE TERMINAL STRIP SHALL CONTAIN AT LEAST 25% SPARE TERMINALS.
3. PROVIDE STAINLESS STEEL HEAVY-DUTY SUPPORT GRIP FOR MOTOR CABLES AND ATTACH TO THE TOP OF WETWELL SLAB AS REQUIRED USING STAINLESS STEEL ANCHOR BOLTS.

SUBMERSIBLE MOTOR CABLE CONNECTION

DETAIL	1
NTS	--

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ELECTRICAL DETAILS

E-008			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY H&S	DRAWN BY H&S	CHECKED BY NL	APPROVED BY	DATE 02/15/2019
DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED				DRAWING NO. XX OF XX

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INSTRUMENT AND FUNCTION SYMBOLS

LOCATION AND ACCESSIBILITY	SHARED DISPLAY/SHARED CONTROL: PRIMARY CHOICE OR BASIC PROCESS CONTROL SYSTEM	SHARED DISPLAY/SHARED CONTROL: ALTERNATE CHOICE OR SAFETY INSTRUMENTED SYSTEM	COMPUTER SYSTEMS AND SOFTWARE	DISCRETE
- LOCATED IN FIELD - NOT PANEL, CABINET, OR CONSOLE MOUNTED - VISIBLE AT FIELD LOCATION - NORMALLY OPERATOR ACCESSIBLE	ABCD 12345	ABCD 12345	ABCD 12345	ABCD 12345
- LOCATED IN OR ON FRONT OF CENTRAL OR MAIN PANEL OR CONSOLE - VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY - NORMALLY OPERATOR ACCESSIBLE AT PANEL FRONT OR CONSOLE	ABCD 12345	ABCD 12345	ABCD 12345	ABCD 12345
- LOCATED IN REAR OF CENTRAL OR MAIN PANEL - LOCATED IN CABINET BEHIND PANEL - NOT VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY - NOT NORMALLY OPERATOR ACCESSIBLE AT PANEL OR CONSOLE	ABCD 12345	ABCD 12345	ABCD 12345	ABCD 12345
- LOCATED IN OR ON FRONT OF SECONDARY OR LOCAL PANEL OR CONSOLE - VISIBLE ON FRONT OF PANEL OR ON VIDEO DISPLAY - NORMALLY OPERATOR ACCESSIBLE AT PANEL FRONT OR CONSOLE	ABCD 12345	ABCD 12345	ABCD 12345	ABCD 12345
- LOCATED IN REAR OF SECONDARY OR LOCAL PANEL - LOCATED IN FIELD CABINET - NOT NORMALLY OPERATOR ACCESSIBLE AT PANEL OR CONSOLE	ABCD 12345	ABCD 12345	ABCD 12345	ABCD 12345

X — SUFFIX (X) TO DIFFERENTIATE BETWEEN INSTRUMENTS AND FUNCTIONS THAT WOULD OTHERWISE HAVE THE SAME IDENTIFICATION.

SINGLE INSTRUMENT OR OTHER COMPONENT HAVING MULTIPLE FUNCTIONS OR SHARING A COMMON HOUSING

* — INSTRUMENT PROVIDED WITH EQUIPMENT OR AS PART OF A PACKAGE SYSTEM

(ZZZ) — DESIGNATIONS OF CONTROL FUNCTIONS (ZZZ) ASSOCIATED WITH INSTRUMENT OR OTHER COMPONENTS.

AHC	-	AUTO/HOLD/CLOSE	OC	-	OPEN/CLOSE
AM	-	AUTO/MANUAL	OSC	-	OPEN/STOP/CLOSED
CALC	-	CALCULATION	POT	-	POTENTIOMETER
DEV	-	DEVIATION	RL	-	RAISE/LOWER
MOA	-	MANUAL/OFF/AUTO	RS	-	RUN/STOP
HOR	-	HAND/OFF/REMOTE	RSL	-	RAISE/STOP/LOWER
LOS	-	LOCKOUT STOP	SD	-	SHUTDOWN
LR	-	LOCAL/REMOTE	SEL	-	SELECT
LSR	-	LOCAL/STOP/REMOTE	SP	-	SET POINT
00	-	ON / OFF	SR	-	START/RESET
			SS	-	STOP/START

* ABCD 12345 — INSTRUMENT WITH COMPUTING OR CONVERTING FUNCTION

* ABCD 12345 — CONTROL SYSTEM COMPUTING FUNCTION

CONVERT

E - VOLTAGE	H - HYDRAULIC
I - CURRENT	O - ELECTROMAGNETIC, SONIC
P - PNEUMATIC	R - RESISTANCE (ELECT.)
A - ANALOG	D - DIGITAL
B - BINARY	

COMPUTE

*	Σ SUMMING	P	PROPORTIONAL	Δ	DIFFERENCE
	− SUBTRACTOR	R	DERIVATIVE	>	HIGH SELECTING
	X MULTIPLYING	Σ/n	AVERAGING	<	LOW SELECTING
	÷ DIVIDING	I:I	RATIO	∫	INTEGRAL
	n√ ROOT EXTRACTION	PID	PID	#	COMPLEX FUNCTION

= 1, 2, 3, etc.
REFER TO NOTE ON SAME SHEET FOR BRIEF DESCRIPTION

1115 / 1113 — BISECTED HEXAGON ADJACENT TO EQUIPMENT ITEM INDICATES THAT THE ELECTRICAL DEVICES (SWITCHES, CONTROL STATIONS, CONTROL PANELS, MCC COMPARTMENTS, WIRING, ETC.) AND SCADA DEVICES (I/O POINTS, HMI OBJECTS, ETC) FOR THE EQUIPMENT ITEM WITH THE LOOP NUMBER IN THE TOP OF THE HEXAGON ARE THE SAME AS THOSE FOR THE EQUIPMENT ITEM WITH THE LOOP NUMBER IN THE BOTTOM OF THE HEXAGON.

* — ELECTRICAL CONTROL INTERLOCK

\# — COMPLEX INTERLOCK
= 1, 2, 3, etc.
REFER TO NOTE ON SAME SHEET FOR BRIEF DESCRIPTION

AND — AND LOGIC

OR — OR LOGIC

ABCD 1234 — PILOT LIGHT

VALVE, GATE, AND ACTUATOR SYMBOLS

- GATE VALVE
- PLUG VALVE
- GLOBE VALVE
- BALL VALVE
- BUTTERFLY VALVE
- BALL CHECK VALVE
- SWING CHECK VALVE
- CHECK VALVE
- 3-WAY VALVE
- 3-WAY BALL VALVE
- DIAPHRAGM VALVE
- PINCH VALVE
- NEEDLE VALVE
- SLUICE GATE
- STOP/SLIDE GATE
- S — SOLENOID ACTUATOR
- P — PNEUMATIC ACTUATOR
- BACKFLOW PREVENTER
- PRESSURE RELIEF VALVE
- VACUUM RELIEF VALVE
- COMBINATION VACUUM AND PRESSURE RELIEF VALVE
- PRESSURE-REDUCING REGULATOR
- BACKPRESSURE REGULATOR
- V — AIR RELEASE VALVE
- M — ROTARY MOTOR
- E/H — ELECTROHYDRAULIC ACTUATOR
- MANUAL ACTUATOR

PUMP AND EQUIPMENT SYMBOLS

- CENTRIFUGAL WET PIT PUMP (OR DRY-PIT SUBMERSIBLE)
- BLOWER (CENTRIFUGAL)
- GEAR PUMP OR BLOWER (POSITIVE DISPLACEMENT)
- CHOPPER PUMP
- PISTON PUMP
- DIAPHRAGM PUMP
- ROTARY LOBE PUMP OR BLOWER (POSITIVE DISPLACEMENT)
- METERING PUMP
- COMPRESSOR
- PROGRESSIVE CAVITY PUMP
- VERTICAL PUMP
- M — INLINE GRINDER
- CENTRIFUGAL PUMP
- SCREW CENTRIFUGAL PUMP
- M — MIXER

MISCELLANEOUS SYMBOLS

- BASKET STRAINER
- QUICK CONNECT
- BLIND FLANGE
- FLEXIBLE HOSE
- CALIBRATION CYLINDER
- STRAINER
- PULSATION DAMPENER
- EXPANSION TANK
- HORN
- HORN/STROBE
- RUPTURE DISK
- V — VENT
- ELECTRIC MOTOR SPACE HEATER
- DIAPHRAGM SEAL
- FULL LINE OR TAPPED RING SEAL
- D — DRAIN
- XXXX-YYYY — EQUIPMENT OR PANEL TAG
- M — MOTOR
- FILTER
- AIR FILTER
- STATIC MIXER
- INJECTOR

IDENTIFICATION LETTERS

	FIRST LETTERS: MEASURED OR INITIATING VARIABLE	FIRST LETTERS: VARIABLE MODIFIER	SUCCEEDING LETTERS: READOUT/ PASSIVE FUNCTION	SUCCEEDING LETTERS: OUTPUT/ ACTIVE FUNCTION	SUCCEEDING LETTERS: FUNCTION MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY			CONTROL	CLOSE
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENCE, DIFFERENTIAL			DEVIATION
E	VOLTAGE (EMF)		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	USER'S CHOICE		GLASS, GAUGE, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE OR HUMIDITY	MOMENTARY			MIDDLE, INTERMEDIATE
N	TORQUE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE, RESTRICTION		OPEN
P	PRESSURE		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R	RADIATION		RECORD		RUN
S	SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL PROBE		
X	UNCLASSIFIED	X-AXIS	ACCESSORY DEVICES, UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE, PRESENCE	Y-AXIS		AUXILIARY DEVICES	
Z	POSITION, DIMENSION	Z-AXIS, SAFETY INSTRUMENTED SYSTEM		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

PRIMARY ELEMENT SYMBOLS

- M — MAGNETIC FLOW METER
- SONIC FLOW METER
- ΔT — THERMAL MASS FLOW METER
- TURBINE OR PROPELLER FLOW METER
- VENTURI FLOW METER
- AVERAGING PITOT TUBE
- FI XXXX — VARIABLE AREA ROTAMETER(R)
- VORTEX FLOW METER
- POSITIVE DISPLACEMENT FLOW METER
- PARSHALL FLUME
- WEIR
- ORIFICE PLATE
- FICV — ROTAMETER WITH INTEGRAL VALVE
- ABCD 1234 XX — XX: RF=ADMITTANCE/CAPACITANCE MAN=MANOMETER
- ULTRASONIC LEVEL SENSOR
- SUBMERSIBLE LEVEL SENSOR
- NON-CONTACT RADAR LEVEL SENSOR
- GUIDED WAVE RADAR LEVEL SENSOR
- FLOAT LEVEL SWITCH
- CAPACITANCE LEVEL SENSOR

ANALYTICAL ABBREVIATIONS

AXX 12345 — ANALYSIS INSTRUMENT

(ZZZ) = ALK - ALKALINITY
CH4 - METHANE
CL2 - CHLORINE
COMB - COMBUSTIBLE GAS
CON - CONDUCTIVITY
DO - DISSOLVED OXYGEN
IR - INFRARED
H2S - HYDROGEN SULFIDE
LEL - LOWER EXPLOSIVE LIMIT
METH - METHANOL VAPOR
NH3 - AMMONIA
NO3 - NITRATE
O2 - OXYGEN
O3 - OZONE
ORP - OXIDATION/REDUCTION POTENTIAL
PETRO - PETROLEUM VAPOR
PH - HYDROGEN ION CONCENTRATION
PO4 - PHOSPHATE
SO2 - SULFUR DIOXIDE
TH - TOTAL HARDNESS
TSS - TOTAL SUSPENDED SOLIDS
TURB - TURBIDITY
UV - ULTRAVIOLET

GENERAL NOTES

1. SYMBOLS AND NOMENCLATURE ARE BASED ON ANSI/ISA-5.1-2009.
2. REFER TO LEGEND SHEETS OF OTHER DISCIPLINES FOR ADDITIONAL SYMBOLS AND ABBREVIATIONS.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAIL ON CONTROL SYSTEM FUNCTIONAL REQUIREMENTS.
4. INSTRUMENTS AND PANELS DENOTED WITH AN ASTERISK (*) OR AS OTHERWISE INDICATED AS BEING "BY VENDOR" ARE PROVIDED BY OTHER DISCIPLINES. REFER TO THE DRAWINGS AND SPECIFICATIONS OF OTHER DISCIPLINES FOR ADDITIONAL DETAIL.
5. POWER SUPPLIES FOR LOOPS OR SYSTEMS SHALL BE FURNISHED BY THE INSTRUMENTATION SUPPLIER TO MEET THE PARTICULAR CHARACTERISTICS (E.G., VOLTAGE AND CURRENT REQUIREMENTS) OF COMPONENTS IN EACH LOOP OR SYSTEM.

LINE SYMBOLS AND LEGEND

- MAJOR PROCESS PIPES OR CHANNELS
- SECONDARY PROCESS OR MECHANICAL CONNECTION
- // — AIR SUPPLY OR SIGNAL
- ELECTRICAL SIGNAL/ COPPER CABLE
- DATA LINK OR INTERNAL SOFTWARE LINK
- FO — FIBER OPTIC CABLE
- C6 — CAT6 ETHERNET CABLE
- PROCESS/SIGNALS NOT CONNECTED (CROSSING)
- PROCESS/SIGNALS CONNECTED
- TAG / DRAWING — OFF-SHEET CONNECTOR
- DISCRETE ELECTRICAL SIGNALS
- DISCRETE DIGITAL SIGNALS
- ANALOG ELECTRICAL SIGNALS
- ANALOG DIGITAL SIGNALS

Hazen
HAZEN AND SAWYER
5775 PEACHTREE DUNWOODY RD
SUITE D-520
ATLANTA, GA 30342

CITY OF ATLANTA WATERSHED MANAGEMENT

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
02/15/19	ISSUE FOR 90% REVIEW

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
INSTRUMENTATION LEGEND AND GENERAL NOTES

I-001			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY VALUE	DRAWN BY VALUE	CHECKED BY VALUE	APPROVED BY	DATE 02/15/2019

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. XX OF XX

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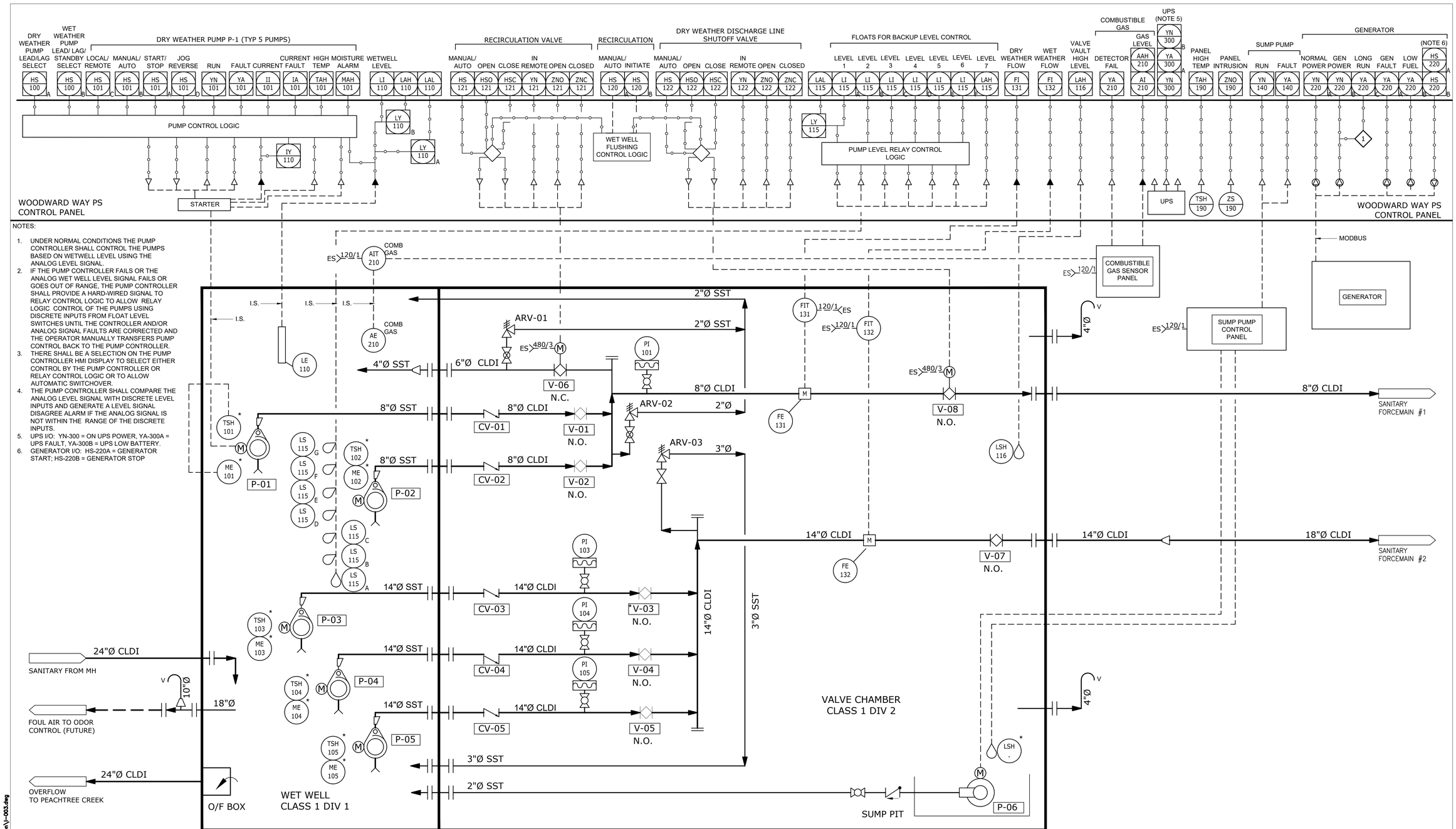

NOTES:

1. UNDER NORMAL CONDITIONS THE PUMP CONTROLLER SHALL CONTROL THE PUMPS BASED ON WETWELL LEVEL USING THE ANALOG LEVEL SIGNAL.
2. IF THE PUMP CONTROLLER FAILS OR THE ANALOG WET WELL LEVEL SIGNAL FAILS OR GOES OUT OF RANGE, THE PUMP CONTROLLER SHALL PROVIDE A HARD-WIRED SIGNAL TO RELAY CONTROL LOGIC TO ALLOW RELAY LOGIC CONTROL OF THE PUMPS USING DISCRETE INPUTS FROM FLOAT LEVEL SWITCHES UNTIL THE CONTROLLER AND/OR ANALOG SIGNAL FAULTS ARE CORRECTED AND THE OPERATOR MANUALLY TRANSFERS PUMP CONTROL BACK TO THE PUMP CONTROLLER.
3. THERE SHALL BE A SELECTION ON THE PUMP CONTROLLER HMI DISPLAY TO SELECT EITHER CONTROL BY THE PUMP CONTROLLER OR RELAY CONTROL LOGIC OR TO ALLOW AUTOMATIC SWITCHOVER.
4. THE PUMP CONTROLLER SHALL COMPARE THE ANALOG LEVEL SIGNAL WITH DISCRETE LEVEL INPUTS AND GENERATE A LEVEL SIGNAL DISAGREE ALARM IF THE ANALOG SIGNAL IS NOT WITHIN THE RANGE OF THE DISCRETE INPUTS.
5. UPS I/O: YN-300 = ON UPS POWER, YA-300A = UPS FAULT, YA-300B = UPS LOW BATTERY.
6. GENERATOR I/O: HS-220A = GENERATOR START; HS-220B = GENERATOR STOP

Hazen
HAZEN AND SAWYER
5775 PEACHTREE DUNWOODY RD
SUITE D-520
ATLANTA, GA 30342

90% SUBMITTAL DO NOT USE FOR CONSTRUCTION

REVISIONS

DATE	DESCRIPTION
02/15/19	ISSUE FOR 90% REVIEW

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
BUREAU OF ENGINEERING SERVICES

WOODWARD WAY PUMP STATION 1 IMPROVEMENTS
INSTRUMENTATION PROCESS AND INSTRUMENTATION DIAGRAM

I-003			COUNTY FULTON	SCALE AS SHOWN
DESIGNED BY R. SHERMAN	DRAWN BY R. SHERMAN	CHECKED BY VALUE	APPROVED BY	DATE 02/15/2019

DRAWING IS TO BE CONSIDERED PRELIMINARY UNLESS APPROVED

DRAWING NO. XX OF XX

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PRIMARY PERMITTEE

JOSEPH CARPENTER
(404)-546-1331
jcarpenter@atlantaga.gov

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
72 MARIETTA STREET NE
Atlanta,Georgia 30303

24 HOUR CONTACT:

Name

Street Address

City.State Zip

Phone Number

Email Address

Contractor shall complete the information in this box.

Notes:
TOTAL PROJECT AREA: 0.18 ACRES

TOTAL AREA OF DISTURBANCE FOR THIS PROJECT: 0.18 ACRES

BEGIN-POINT COORDINATES
Longitude: 84.40738°
Latitude: 33.82054°

END-POINT COORDINATES
Longitude: 84.40686°
Latitude: 33.82054°

"I certify that this Erosion, Sedimentation and Pollution Control Plan has been prepared in accordance with Part IV, of the General NPDES Permit No. GAR100002."

"I certify under penalty of law that this plan was prepared after a site visit to the location described herein by myself or my authorized agent, under my direct supervision."

SIGNATURE: _____

ESPCP GENERAL NOTES

The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land-disturbing activities.

Erosion and sedimentation control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective control, additional erosion and sedimentation control measures shall be implemented to control or treat the sediment source.

PLAN ALTERATIONS

This Erosion, Sedimentation, and Pollution Control Plan (ESPCP) is provided by the City of Atlanta. It addresses the staged construction of the project on the basis of common construction methods and techniques. If the Contractor elects to alter the staged construction from that shown in the plans or utilize construction techniques that render this plan ineffective, the Contractor shall revise the plans in accordance to GDOT Special Provision 161 of the contract.

The Contractor, the Certified Design Professional, and the WECS shall carefully evaluate this plan prior to commencing land-disturbing activities. A major modification or deletion of structural BMP's with a hydraulic component requires a formal revision of the ESPCP and the signature of a GSWCC Level-II Certified Design Professional. Additional BMP's may be added per Special Provision 161-Control of Soil Erosion and Sedimentation.

TEMPORARY MULCHING

EPD General Permit GAR 100002 states that any disturbed area where construction activities have temporarily or permanently ceased shall be stabilized within 14 days of such cessation as soon as practicable with a suitable material listed in GDOT Standard Specification (or GDOT Special Provision) Sections 163, 700, or 711. However in special cases, the Project Engineer may require the contractor to perform stabilization more often than 14 days.

VEGETATION AND PLANTING SCHEDULE

All temporary and permanent vegetative practices including plant species, planting dates, seeding, fertilizing, liming, and mulching for this project can be found in Section 700 of the current edition of the GDOT's Standard Specifications (or special provisions) and other applicable contract documents, or landscaping plans.

SEQUENCE OF MAJOR ACTIVITIES

The Contractor is responsible for developing the construction schedule for the project. The construction schedule for this project shall be submitted after the project is awarded. A copy of the construction schedule shall be maintained at the project site.

The project budget includes sufficient funds for the payment of construction exits. The Contractor is responsible for establishing at least one (1) construction exit per the specifications of the construction exit detail included in this ESPCP. To facilitate project logistics, the Contractor is also responsible for selecting the location(s) of the construction exit(s).

The project is a sanitary sewer pump station improvements project funded by the City of Atlanta. The project is located on the south side of Woodward Way, east of Northside Drive.

The proposed improvements would consist of construction of new pumping equipment and housing, associated electrical and instrumentation equipment, security wall, and general site improvements. General site improvements would include a driveway, lighting, site security, and minor grading and restoration. Proposed improvements will also include construction of a fire hydrant, which will connect to a nearby exiting water main. Proposed improvements will also include construction of 2 new manholes, which will provide the connection to the existing sanitary sewer system and the incoming sanitary flow. As part of the proposed improvements, the existing pump station will be partially demolished and filled. Improvements will also require the removal and replacement of existing nearby trail / sidewalk

Clearing and Initial BMPs Stage: This stage will include installation of perimeter erosion control BMPs. Clearing and grubbing will occur along area where new pump station will be installed, and as well as a construction staging area.

At completion of the clearing & grubbing and upon completing the pump station improvements, the project area will be restored per Landscaping Plan.

The following BMP practices will be utilized in the initial BMP stage: (1) the Contractor shall install "Sdi-S"Type C silt fence and "Sd_x-Bg Inlet Sediment Trap" as noted on the Plan prior to clearing and grubbing operation; (2) double layer of "Sdi-S" Type C silt fence shall be installed adjacent to all stream buffers as directed on the Plan; (3) storm inlet protection (Sd_x-Bg's) shall be installed where necessary according to the Plan; (4) temporary stabilization measures such as mulching (Dsi) and temporary grassing (Ds2) shall be applied; (5) dust control measures (Du) also shall be applied.

Install Additional BMPs as noted in the Intermediate BMPs Stage I: (1) additional storm inlet protection (Sd2's) shall be installed where necessary according to the Plan; (2) temporary stabilization measures shall be continued through this Intermediate BMPs Stage1.

Final Construction and BMPs Stage: This stage will remove all initial and intermediate BMP measures, and install final grass sod and final grassing on all remaining cleared areas.

SOIL SERIES INFORMATION

The following is a summary of the soils that are expected to be found on the project site:

Map Unit Symbol	Map Unit Name	Hydrologic Soil Group	Percent of AOI
CpA	Congaree sandy loam, 0 to 2 percent slopes, occasionally flooded	A	100
Ub	Urban Land	-	0
W	Water	-	0
	Total for Area of Interest (AOI)		100.0

Due to the size and scope of this project and the nature of soil series maps, it is not reasonably practical to delineate the precise locations of the above listed soils on the construction plans. The NRCS soil survey and soil series maps for the project site are also available online at http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

POSTCONSTRUCTION BMP'S FOR STORMWATER MANAGEMENT

All permanent postconstruction BMP's are shown in the construction plans and in the ESPCP plan. The postconstruction BMP's for this project consist of sods between the sidewalk the front of the pump station (DS4); grass seeding on exposed areas for the final permanent stabilization (DS3); The postconstruction BMP's will provide permanent stabilization of the site and prevent abnormal transportation of sediment and pollutants into receiving waters.

SILT FENCE INSTALLATION WITH J HOOKS AND SPURS

Silt fence should never be run continuously. The silt fence should turn back into the fill or slope to create small pockets that trap silt and force stormwater to flow through the silt fence. This technique is called using J hooks (or spurs). The J hooks shall be utilized on all silt fences that are located around the perimeter of the project and along the toe of embankments or slopes. The J hooks shall be spaced in accordance with GDOT Construction Detail D-24C. The maximum J-hook spacing is reached when the top of the J hook is at the same elevation as the bottom of the immediately upgradient J hook. J Hooks shall be paid for as silt fence items per linear foot. All costs and other incidental items are included in cost of installing and maintaining the silt fence.

SITE STABLIZATION AND BMP MAINTENANCE MEASURES

See the GDOT's Standard Specifications (or Special Provisions) 161, 163, 165, 700, 711, and other contract documents for stabilization and maintenance measures.

REVISION DATES			
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GENERAL NOTES
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

CHECKED:		DATE:	/ /	DRAWING No.
BACKCHECKED:		DATE:	/ /	51-0001
CORRECTED:		DATE:	/ /	
VERIFIED:		DATE:	/ /	

7/31/2015 SUXSEW

WASTE DISPOSAL

Where attainable, locate waste collection areas, dumpsters, trash cans and portable toilets at least 50 feet away from streets, gutters, watercourses and storm drains. Secondary containment shall be provided around liquid waste collection areas to minimize the likelihood of contaminated discharges. The Contractor shall comply with applicable state and local waste storage and disposal regulations and obtain all necessary permits. Solid materials, including building materials, shall not be discharged to Waters of the State, unless authorized by a Section 404 Permit.

NONSTORMWATER DISCHARGES

Nonstormwater discharges defined in Part III.A.2 of the NPDES Permit will be identified after construction has commenced. These discharges shall be subject to the same requirements as storm water discharges required by the Georgia Erosion and Sedimentation Control Act, the NPDES Permit, the Clean Water Act, the Manual for Erosion and Sediment Control in Georgia, Department Standards, and other contract documents. The NPDES does not authorize the discharge of soaps or solvents used in vehicle and equipment washing or the discharge of wastewater containing stucco, paint, oils, curing compounds, and other construction materials.

INSPECTIONS - N/A

DEWATERING AND PUMPING ACTIVITIES

Any pumped discharge from an excavation or disturbed area shall be routed through an appropriately sized sediment basin, silt filter bag, or shall be treated equivalently with suitable BMP's. The contractor shall ensure the post BMP treated discharge is sheet flowing. Failure to create sheet flow will obligate the contractor to perform water quality sampling of pumped discharges. The contractor shall prepare sampling plans in accordance with the current GAR100002 NPDES permit by utilizing a Certified Design Professional. No separate payment will be made for water quality sampling of pump discharges.

OTHER CONTROLS

The Contractor shall follow this ESPCP and ensure and demonstrate compliance with all applicable State and/or local regulations for waste disposal, sanitary sewer and septic systems, and petroleum storage.

The Contractor shall control dust from the site in accordance with Section 161 of the current edition of the GDOT's Standard Specifications.

RETENTION OF RECORDS

The City of Atlanta will retain all records related to the implementation of this ESPCP in accordance with Part IV.F of the General Permit GAR100002.

USE OF ALTERNATIVE AND/OR ADDITIONAL BMPS:

No alternative or additional BMPs will be used on this project.

DISCHARGES INTO OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT

N/A. The protected area is less than 1 acre.

READY MIX CHUTE WASH DOWN

The washing of ready-mix concrete drums and dump truck bodies used in the delivery of Portland cement concrete is prohibited on this site.

In accordance with GDOT Standard Specification 107: Legal Regulations and Responsibility to the Public, only the discharge chute utilized in the delivery of Portland cement concrete may be rinsed free of fresh concrete remains. The Contractor shall excavate a pit outside of State water buffers, at least 25 feet from any storm drain and outside of the travelled way, including shoulders, for a wash-down pit. The pit shall be large enough to store all wash-down water without overtopping. Immediately after the wash-down operations are completed and after the wash-down water has soaked into the ground, the pit shall be filled in, and the ground above it shall be graded to match the elevation of the surrounding areas. Alternate wash-down plans must be approved by the Project Engineer.

Wash-down plans describe procedures that prevent wash-down water from entering streams and rivers. Never dispose of wash-down water down a storm drain. Establish a wash-down pit that includes the following: (1) a location away from any storm drain, stream, or river, (2) access to the vehicle being used for wash down, (3) sufficient volume for wash-down water, and (4) permission to use the area for wash down.

On sites where permission or access to excavate a wash-down pit is unavailable, the Contractor may have to wash-down into a sealable 55-gallon drum or other suitable container and then transport the container to a proper disposal site. For additional information, refer to the Georgia Small Business Environmental Assistance Program's "A Guide for Ready Mix Chute/Hopper Wash-down".

STATE-WATER BUFFER IMPACTS

State-water buffers, as defined by O.C.G.A. 12-7-1, are impacted by this project.

Buffer table to be added later.

Non-exempt activities shall not be conducted within the 25- or 50-foot undisturbed stream buffers as measured from the point wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits.

Unless noted otherwise, utility companies will be submitting the required permits/variances in conjunction with the impacts caused by their activities. If utility impacts are covered by the City of Atlanta's stream buffer variance, this shall be noted in the buffer-variance-required column.

* Warm water streams have a 25-foot minimum buffer as measured from the wrested vegetation. Cold Water streams have a 50-foot buffer as measured from the wrested vegetation.
**Locations are approximate, a detailed location of stream buffers and authorized work areas are shown on the individual BMP sheets

ENVIRONMENTAL RESOURCE IMPACT TABLE (ERIT)

Resource Name	Permitted Construction Activity	Special Provision ?	Comments
Perennial Stream, Peachtree Creek, Buffer	1315 square feet / 150 linear feet of non-exempt buffer impacts	?	The Contractor must ensure that no construction related activities or access occur beyond the Orange Barrier Fencing protecting this resource.
Bobby Jones Golf Course	Pump Station Improvement - 0.18 acre of required ROW /	?	?

Permit, Variance, etc.	Additional Information
404 Permit and Variances	?
Buffer Variance Required	In Progress

REVISION DATES

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GENERAL NOTES
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

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7/31/2015 SUXSEW

Georgia Soil and Water Conservation Commission
EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
INFRASTRUCTURE CONSTRUCTION PROJECTS

SWCD: FULTON CO.

Project Name: WOODWARD WAY PUMPSTATION 1 IMPROVEMENTS Address: WOODWARD WAY @ NORTHSIDE DR.

City/County: ATLANTA, FULTON Date on Plans: JANUARY XX, 2019

Name & Email of Person Filling Out Checklist: CASEY CHOI (Casey.Choi@WSP.com)

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
51-0003	Y	1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted. (The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)
51-ALL 54-ALL	Y	2 Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and Level II number must be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed)
51-0001	Y	3 The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.
51-0001	Y	4 Provide the name, address, email address, and phone number of primary permittee.
51-0001		5 Note total and disturbed acreage of the project or phase under construction.
51-0001	Y	6 Provide the GPS locations of the beginning and end of the Infrastructure project. Give the Latitude and Longitude in decimal degrees.
-	Y	7 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
51-0001		8 Description of the nature of construction activity.
-	N/A	9 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
54-ALL	Y	10 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
51-0001	Y	11 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on Part IV page 21 of the permit.
-	N/A	12 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on Part IV page 20 of the permit.*
-	N/A	13 Design professional certification statement and signature that the permittee's ES&PC Plan provides for representative sampling as stated on Part IV.D.6.c.(3) page 37 of permit as applicable.*
-	N/A	14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements, perimeter control BMPs, and sediment basins within 7 days after installation." in accordance with Part IV.A.5. page 26 of the permit.*
-	N/A	15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."
51-0002	Y	16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
-	N/A	17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional."*
51-0002	N/A	18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit."*
51-0001	Y	19 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."
51-0001	Y	20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."
51-0001	Y	21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
-	N/A	22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Biota Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment.*
-	N/A	23 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan.*
51-0002	Y	24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.*
51-0002	Y	25 Provide BMPs for the remediation of all petroleum spills and leaks.
-	N/A	26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.*
-	N/A	27 Description of practices to provide cover for building materials and building products on site.*
-	N/A	28 Description of the practices that will be used to reduce the pollutants in storm water discharges.*

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
51-0001	Y	29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
-	N/A	30 Provide complete requirements of inspections and record keeping by the primary permittee.*
-	N/A	31 Provide complete requirements of sampling frequency and reporting of sampling results.*
-	N/A	32 Provide complete details for retention of records as per Part IV.F. of the permit.*
-	N/A	33 Description of analytical methods to be used to collect and analyze the samples from each location.*
-	N/A	34 Appendix B rationale for NTU values at all outfall sampling points where applicable.*
-	N/A	35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged also provide a summary chart of the justification and analysis for the representative sampling as applicable.*
-	N/A	36 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the plan may combine all of the BMPs into a single phase.*
54-ALL	Y	37 Graphic scale and North arrow.
54-0001A 54-0001C	Y	38 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following: Existing Contours: USGS 1": 2000' Topographical Sheets Proposed Contours: 1" : 400' Centerline Profile
51-0002	N/A	39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.
-	N/A	40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.*
54-ALL	Y	41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
54-ALL	Y	42 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site.
54-0001A	N/A	43 Delineation and acreage of contributing drainage basins on the project site.
-	N/A	44 Delineate on-site drainage and off-site watersheds using USGS 1" :2000' topographical sheets.
-	N/A	45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
-	N/A	46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
51-0001 54-0001A	Y	47 Soil series for the project site and their delineation.
54-ALL	Y	48 The limits of disturbance for each phase of construction.
-	Y	49 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justfication explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasable, a written justification explaining this decision must be included in the plan.
54-ALL	Y	50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
56-ALL	Y	51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
51-0001	Y	52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

*If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream the * checklist items would be N/A.

Effective January 1, 2019

7/31/2015 SUXSEW

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GENERAL NOTES
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

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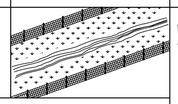
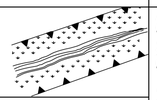
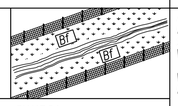
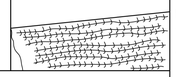
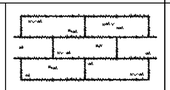
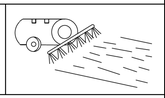
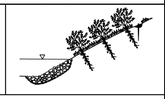
3/2/2017 11:08:40 AM cbaird | GPLOT-V8 gplotborder-V81-PD.tbl | EC-Lisheets 1-71.dgn | GDOT | P.I. No.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
	ORANGE BARRIER FENCE		ORANGE BARRIER FENCE DELINEATES ENVIRONMENTALLY SENSITIVE AREAS WHERE THE CONTRACTOR SHALL NOT CLEAR, GRUB, OR PLACE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN THIS AREA.
		LINE CODE ORANGE BARRIER FENCE	
ESA	ENVIRONMENTALLY SENSITIVE AREA		AN ENVIRONMENTALLY SENSITIVE AREA (ESA) CONTAINS RESOURCES THAT ARE ENVIRONMENTALLY, CULTURALLY, OR HISTORICALLY SENSITIVE. ESAs INCLUDE, BUT ARE NOT LIMITED TO: STATE WATER BUFFERS, HISTORIC SITES, ARCHAEOLOGICAL SITES, AND PROTECTED ANIMAL AND PLANT SPECIES HABITATS. IF WORK IS AUTHORIZED IN THIS AREA, THE WORK MUST BE PERFORMED IN ACCORDANCE WITH SECTION 107 AND ANY OTHER APPLICABLE SPECIAL PROVISIONS AND APPLICABLE PLAN NOTES.
		LINE CODE ESA-25'(OR 50')STREAM BUFFER, ETC.	
Bf	BUFFER ZONE		A STRIP OF UNDISTURBED ORIGINAL VEGETATION, ENHANCED OR RESTORED EXISTING VEGETATION, OR THE RE-ESTABLISHMENT OF VEGETATION SURROUNDING AN AREA OF DISTURBANCE OR BORDERING STREAMS, PONDS, WETLANDS, LAKES, AND COASTAL WATERS. WHEN NECESSARY, BUFFER ZONES ARE TO BE PROTECTED BY ORANGE BARRIER FENCE.
		SYMBOL Bf	
Ds1	MULCH SECTION 163		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING. MULCHING REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND/OR THE PROJECT ENGINEER. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
		SYMBOL Ds1	
Ds2	TEMPORARY GRASSING SECTION 163,700		THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON. IT IS TYPICALLY USED TO CONTROL EROSION IN AREAS LONGER THAN MULCHING IS EXPECTED TO LAST. TEMPORARY GRASSING SHOULD BE USED ON ALL PROJECTS ACCORDING TO THE STANDARD SPECIFICATIONS. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
		SYMBOL Ds2	

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ds3	PERMANENT GRASSING SECTION 700		THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON. PERMANENT VEGETATION SHALL BE USED ON ALL PROJECTS ACCORDING TO THE STANDARD SPECIFICATION. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
		SYMBOL Ds3	
Ds4	SODDING CONSTRUCTION DETAIL D-54 SECTION 700, 890		THE INSTALLATION OF A SPECIES OF GRASS SODDING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SODDING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS, TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS. THE BMP PATTERN FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
		PATTERN Ds4	
Fl-Co	FLOCCULANTS COAGULANTS SECTION 163, 700, 895		FLOCCULANTS AND COAGULANTS ARE USED TO SETTLE SUSPENDED SEDIMENT, HEAVY METALS, AND HYDROCARBONS (TSS) IN SLOW MOVING RUNOFF FROM CONSTRUCTION SITES FOR WATER CLARIFICATION. ANIONIC POLYACRYLAMIDES (PAM) MAY BE USED IN CONJUNCTION WITH BMPs WITHIN CHANNELS UPSTREAM OF A POST-CONSTRUCTION POND, TEMPORARY SEDIMENT BASIN, OR TEMPORARY SEDIMENT TRAP. FLOCCULANTS SHALL NOT BE USED DOWNSTREAM OF AFOREMENTIONED BMPs! FLOCCULANTS/COAGULANTS ARE TO BE SHOWN ON PLANS WITH APPLICABLE BMP IF NEEDED. PAYMENT FOR PAM AS A FLOCCULANT WILL BE INCLUDED IN THE PRICE FOR THE INSTALLATION AND/OR MAINTENANCE OF THE BMP IT IS USED IN CONJUNCTION WITH. NO SEPARATE PAYMENT WILL BE MADE.
		SYMBOL Fl-Co POLYACRYLAMIDE	
Sb	STREAMBANK STABILIZATION SECTION 702		STREAMBANK STABILIZATION IS THE USE OF READILY AVAILABLE NATIVE PLANT MATERIALS TO MAINTAIN AND ENHANCE STREAMBANKS, OR TO PREVENT, OR RESTORE AND REPAIR SMALL STREAMBANK EROSION PROBLEMS. STREAMBANK STABILIZATION AREAS SHOULD BE SHOWN ON THE PLANS WHEN APPLICABLE TO THE PROJECT. REFER TO THE PROJECT'S STREAM AND STREAM BUFFER MITIGATION PLANS FOR PLANT SPECIES, LOCATIONS, AND OTHER PLANTING DETAILS.
		PATTERN Sb	

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

7/31/2015 GPLN

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REVISION DATES: 3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 1 OF 7

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REVISION DATES

EROSION CONTROL LEGEND
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

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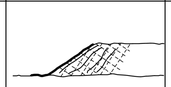
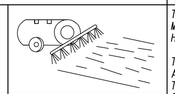
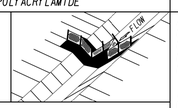
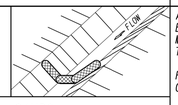
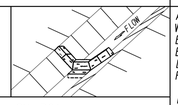
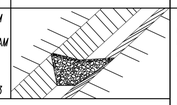
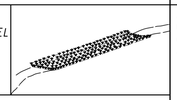
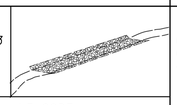
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ss	SLOPE STABILIZATION CONSTRUCTION DETAIL D-35 SECTION 716		SLOPE STABILIZATION (EROSION CONTROL MATTING) IS A PROTECTIVE COVERING USED TO PREVENT EROSION AND ESTABLISH TEMPORARY OR PERMANENT VEGETATION ON STEEP SLOPES, SHORE LINES, OR CHANNELS. SLOPE STABILIZATION MAY BE A ROLLED EROSION CONTROL PRODUCT (RECP) OR A HYDRAULIC EROSION CONTROL PRODUCT (HECP). SLOPE STABILIZATION SHALL BE USED ON ALL CUT OR FILL SLOPES OF 2.5:1 OR STEEPER AND WITHIN 50 FEET OF ALL CROSS DRAINS AND CULVERTS. NOTE: ONLY COCONUT FIBER BLANKET OR WOOD FIBER BLANKET SHALL BE USED AS SLOPE STABILIZATION WITHIN BUFFERED AREAS.
	PATTERN		
Tac	TACKIFIERS SECTION 163, 700, 895		TACKIFIERS HYDRATE IN WATER AND READILY BLEND WITH OTHER SLURRY MATERIALS AND ARE USED TO TIE-DOWN FOR SOIL, COMPOST, SEED, STRAW, HAY OR MULCH. TACKIFIERS REQUIREMENTS, SUCH AS ANIONIC POLYACRYLAMIDES (PAM) ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS. PAM IS TYPICALLY USED BY THE CONTRACTOR FOR TEMPORARY OR PERMANENT GRASSING. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR CRITERIA.
	SYMBOL Tac POLYACRYLAMIDE		
Cd-F	FABRIC CHECK DAM CONSTRUCTION DETAIL D-24D SECTION 171		A CHECK DAM COMPOSED OF SYNTHETIC FIBER FABRIC, WIRE REINFORCED, POST, OVERFLOW WEIR, AND TURF REINFORCEMENT MATTING (TRM) SPLASHPAD PLACED IN DITCHES IN A SPECIAL CONFIGURATION WHICH CONTROLS ENERGY DISSIPATION AND FILTRATION OF STORM WATER. SEE CONSTRUCTION DETAIL D-24D FOR ADDITIONAL INFORMATION AND SPACING REQUIREMENTS. THIS ITEM IS SUITABLE FOR USE IN ROADSIDE DITCHES THAT ARE PART OF INFRASTRUCTURE CONSTRUCTION PROJECTS AND WITHIN THE CLEAR ZONE. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
	SYMBOL Cd-F		
Cd-Fs	COMPOST FILTER SOCK CHECK DAM CONSTRUCTION DETAIL D-52 SECTION 163		A COMPOST FILTER SOCK CHECK DAM IS COMPOSED OF A PHOTODEGRADABLE OR BIODEGRADABLE KNITTED MESH MATERIAL CONTAINING A WEED FREE FILLER MATERIAL DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER. THEY SHALL BE PROPERLY STAKED FOR DITCH APPLICATIONS. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR MATERIAL SPECIFICATIONS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
	SYMBOL Cd-Fs		
Cd-Hb	BALED STRAW CHECK DAM CONSTRUCTION DETAIL D-52 SECTION 163		A BALE STRAW CHECK DAM IS COMPOSED OF BALES PREFERABLY BOUND WITH WIRE OR NYLON INSTEAD OF TWINE. BALES SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING ADJACENT BALES. THE DOWNSTREAM ROW OF BALES SHALL BE PLACED IN A TRENCH TO ALLOW THE TOP OF THE BALE'S LONG, WIDE SIDE TO BE LEVEL WITH THE GROUND AS A NON-ERODIBLE SPLASH PAD. PROPER STAKING IS ALSO REQUIRED FOR DITCH APPLICATIONS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
	SYMBOL Cd-Hb		

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Cd-S	STONE CHECK DAM OR SANDBAG CHECK DAM CONSTRUCTION DETAIL D-56 SECTION 163, 603		STONE CHECK DAMS ARE CONSTRUCTED OF TYPE-3 RIP-RAP WITH GEOTEXTILE UNDERLINER. STONE CHECK DAMS ARE PREFERRED IN ROADWAY DITCHES OUTSIDE THE CLEAR ZONE. CONSIDERATION SHOULD BE GIVEN TO USING OTHER APPROPRIATE CHECK DAMS AND/OR BMPs WITHIN THE CLEAR ZONE. SANDBAG CHECK DAMS ARE RECOMMENDED IN CONCRETE LINED CHANNELS FOR TEMPORARY VELOCITY CONTROL ONLY. ENSURE DISCHARGE POINT IS PROPERLY STABILIZED AND INCLUDE APPROPRIATE BMPs FOR SEDIMENT STORAGE UPSTREAM AND/OR DOWNSTREAM OF CONCRETE LINED CHANNELS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
	SYMBOL Cd-S		
Ch-1	VEGETATED CHANNEL STABILIZATION SECTION 700		A NEW OR EXISTING CHANNEL MAY BE LINED WITH PERMANENT VEGETATION ONLY FOR VELOCITIES UP TO 5.0 fps. THIS MEASURE SHALL BE DESIGNED IN ACCORDANCE WITH THE GDOT CHANNEL LINING DESIGN PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. TYPICALLY NOT SHOWN IN PLANS.
	LINE CODE Ch-1		
Ch-2R1	CHANNEL STABILIZATION RIP-RAP, TYPE 1 CONSTRUCTION DETAIL D-49 SECTION 603		THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 1 RIP-RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP-RAP SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
	LINE CODE Ch-2R1		
Ch-2R3	CHANNEL STABILIZATION RIP-RAP, TYPE 3 CONSTRUCTION DETAIL D-49 SECTION 603		THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 3 RIP-RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP-RAP SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
	LINE CODE Ch-2R3		

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

7/31/2015 GPLN

GDOT | NO SCALE

REVISION DATES
3/2/2017
11/28/2018

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 2 OF 7

CHECKED:	D. EAGLETON	DATE:	01/01/16	DRAWING No.
BACKCHECKED:		DATE:		52-0002
CORRECTED:		DATE:		
VERIFIED:		DATE:		

7/31/2015 GPLN

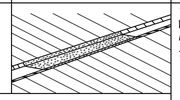
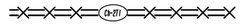
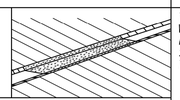
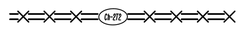
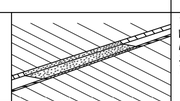
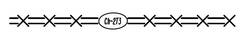
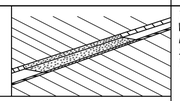
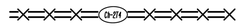
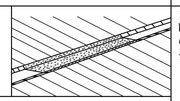
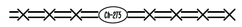
wsp | N.T.S.

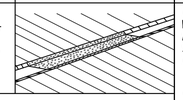
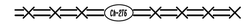
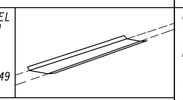
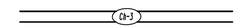
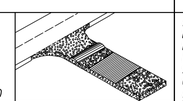
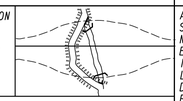
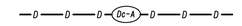
REVISION DATES

EROSION CONTROL LEGEND
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		52-0002
CORRECTED:		DATE:		
VERIFIED:		DATE:		

3/2/2017 11:09:40 AM cbaird | GPLOT-V8 gplotborder-V81-PO.tbl | EC-Lisheets 1-7.dgn | GDOT | P.I. No.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ch-2T1	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	 LINE CODE 	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-2 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH 'Dp' RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. 'Dp' SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T2	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	 LINE CODE 	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-4 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH 'Dp' RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. 'Dp' SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T3	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	 LINE CODE 	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-6 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH 'Dp' RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. 'Dp' SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T4	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	 LINE CODE 	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-8 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH 'Dp' RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. 'Dp' SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T5	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	 LINE CODE 	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-10 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH 'Dp' RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. 'Dp' SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ch-2T6	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	 LINE CODE 	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-12 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH 'Dp' RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. 'Dp' SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-3	CONCRETE CHANNEL STABILIZATION CONSTRUCTION DETAIL D-10, D-49 SECTION 441	 LINE CODE 	CHANNELS ARE LINED WITH CONCRETE FOR VELOCITIES >/= 10 fps. THIS ITEM CONSISTS OF CONSTRUCTING A 4" THICK CONCRETE CHANNEL. THE CONCRETE SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH 'Dp' RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. 'Dp' SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN. RIP-RAP SHOULD BE USED TO DISSIPATE ENERGY DOWNSTREAM OF CONCRETE LINED CHANNELS.
Co	CONSTRUCTION EXIT CONSTRUCTION DETAIL D-41 SECTION 163, 800	 SYMBOL Co	A CONSTRUCTION EXIT IS A STONE STABILIZED PAD THAT REDUCES OR ELIMINATES THE TRANSPORT OF MUD FROM CONSTRUCTION AREAS ONTO PUBLIC ROADS BY EQUIPMENT OR RUNOFF. BEST USED AT ACCESS POINTS, I.e. NEW LOCATION PROJECTS, BORROW PITS, WASTE PITS, ACCESS ROADS, ETC. SHOULD BE MINIMUM 20' WIDE, 50' LONG, 6" THICK, AND REQUIRES A GEOTEXTILE UNDERLINER. ON SITES WHERE THE GRADE TOWARD A PAVED AREA IS GREATER THAN 2%, A FULL WIDTH DIVERSION RIDGE 6" TO 8" HIGH WITH 3:1 SLOPES SHALL BE CONSTRUCTED APPROXIMATELY 15' UPSTREAM OF PAVED AREA. A TIRE WASHING AREA TO REMOVE MUD MAY ALSO BE REQUIRED PRIOR TO ENTRANCE ONTO PUBLIC ROADWAYS. ALL CONSTRUCTION EXIT REQUIREMENTS ARE INCLUDED IN THE PRICE OF THE CONSTRUCTION EXIT.
Dc-A	STREAM DIVERSION CHANNEL GEOTEXTILE, POLYETHYLENE FILM SECTION 163	 LINE CODE 	A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE OR POLYETHYLENE FILM. INSTALL TWO ROWS OF Sdl-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 0 - 2.5 fps. THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

GDOT | NO SCALE

REVISION DATES
3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 3 OF 7

CHECKED:	D. EAGLETON	DATE:	01/01/16	DRAWING No.
BACKCHECKED:		DATE:		52-0003
CORRECTED:		DATE:		
VERIFIED:		DATE:		

7/31/2015 GPLN

wsp | N.T.S.

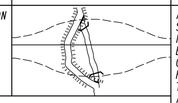
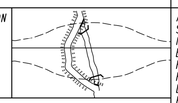
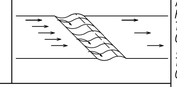
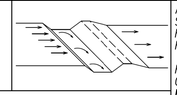
REVISION DATES

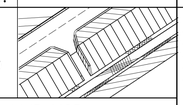
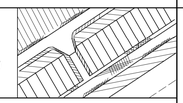
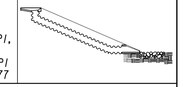
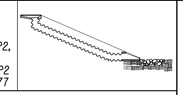
EROSION CONTROL LEGEND
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		52-0003
CORRECTED:		DATE:		
VERIFIED:		DATE:		

7/31/2015 GPLN

3/2/2017 11:10:01 AM cbaird | GPLOT-V8 gplotborder-V81-PO.tbl | EC-Lisheets 1-7.dgn | GDOT | P.I. No.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Dc-B	STREAM DIVERSION CHANNEL GEOTEXTILE ONLY SECTION 163 LINE CODE: D D D Dc-B D D D		A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE ONLY. INSTALL TWO ROWS OF Sdl-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 2.5 - 9.0 fps. THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
Dc-C	STREAM DIVERSION CHANNEL RIP-RAP & GEOTEXTILE SECTION 163 LINE CODE: D D D Dc-C D D D		A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH RIP-RAP AND GEOTEXTILE. INSTALL TWO ROWS OF Sdl-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 9.0 - 13.0 fps. THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
Dl-1	DIVERSION BERM CONSTRUCTION DETAIL D-47 SECTION 205 LINE CODE: Dl-1		A NON-DESIGNED TEMPORARY EARTHEN BERM WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO BE USED AT THE EDGE OF EMBANKMENT DURING THE GRADING OPERATION. THE BERMS ARE ALSO CONSTRUCTED ABOVE, ACROSS OR BELOW A SLOPE TO REDUCE THE LENGTH OF A SLOPE. THEY ARE USED TO INTERCEPT RUNOFF, PREVENTING SLOPE EROSION AND TO DIRECT THE RUNOFF TO A STABLE OUTLET, DOWN DRAINS 'Dnl'OR CATCHMENT AREAS AND ON ALL GRADING PROJECTS.
Dl-2	DIVERSION CHANNEL SECTION 205 LINE CODE: Dl-2		A DESIGNED TEMPORARY OR PERMANENT CHANNEL WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO DIVERT OFFSITE RUNOFF AWAY FROM DISTURBED AREAS WITHIN THE PROJECT AREA. CHANNEL FOR OFFSITE RUNOFF SHALL BE STABILIZED WITH APPROPRIATE CHANNEL STABILIZATION. REFER TO THE LATEST EDITION OF THE 'MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA' FOR DESIGN CRITERIA. A DIVERSION CHANNEL DETAIL MUST ALSO BE PROVIDED IN THE ESPCP. RUNOFF FROM DISTURBED AREAS WITHIN THE PROJECT AREA SHALL NOT BE ALLOWED TO CONVERGE WITH OFFSITE RUNOFF WITHIN THIS DIVERSION.
Dnl	TEMPORARY DOWNDRAIN STRUCTURE FLEXIBLE CONSTRUCTION DETAIL D-19 SECTION 163 LINE CODE: T T T Dnl T T T		A TEMPORARY PIPE SLOPE DRAIN IS A PLASTIC FLEXIBLE PIPE TO CARRY WATER FROM THE WORK AREA TO A LOWER ELEVATION. TEMPORARY SLOPE DRAINS SHOULD BE PLACED AT INTERVALS OF 350 FEET ON 0% - 2% GRADES, 200 FEET ON STEEPER GRADES AND MORE FREQUENTLY AS DICTATED BY FIELD CONDITIONS. THE TYPICAL PIPE SIZE IS A CORRUGATED 10'. THE PIPE WILL BE ANCHORED WITH STAKES AT INTERVALS NOT TO EXCEED 10'. THE OUTLET AREA SHALL BE STABILIZED FOR VELOCITY DISSIPATION AND EROSION CONTROL.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Dn2-A	PERMANENT DOWNDRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL D-9 SECTION 441 LINE CODE: Dn2-A		A CONCRETE FLUME TYPE 'A' IS USED TO DIRECT SURFACE RUNOFF DOWN A ROADWAY SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN ALL DEPRESSED AREAS WHERE WATER WILL FLOW DOWN THE SLOPE. IT IS DESIGNED FOR A 25-YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OTHER CRITERIA).
Dn2-B	PERMANENT DOWNDRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL D-9 SECTION 441 LINE CODE: Dn2-B		A CONCRETE FLUME TYPE 'B' IS USED TO DIRECT SURFACE DITCH RUNOFF DOWN A BACK SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN DEPRESSED AREAS WHERE CONCENTRATED OFFSITE WATER REACHES THE CUT SLOPE. IT IS DESIGNED TO SAFELY CONVEY WATER DOWN THE CUT SLOPE. IT IS DESIGNED FOR A 25-YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
Dn2-1	PERMANENT DOWNDRAIN STRUCTURE GA. STD 9013 TP1, 9017J TP1, DETAIL D-26 TP1 SECTION 576, 577 LINE CODE: Dn2-1		CONCRETE DRAIN INLET WITH METAL PIPE IS USED TO DRAIN CURBS, ON A GRADE, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
Dn2-2	PERMANENT DOWNDRAIN STRUCTURE GA. STD 9013 TP2, 9017J TP2, DETAIL D-26 TP2 SECTION 576, 577 LINE CODE: Dn2-2		CONCRETE DRAIN INLET AND METAL PIPE IS USED TO DRAIN CURB, IN A SAG, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, 'MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA'.

7/31/2015 GPLN

GDOT | NO SCALE

REVISION DATES: 3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 4 OF 7

CHECKED:	D. EAGLETON	DATE:	01/01/16	DRAWING No.
BACKCHECKED:		DATE:		52-0004
CORRECTED:		DATE:		
VERIFIED:		DATE:		

7/31/2015 GPLN

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REVISION DATES

EROSION CONTROL LEGEND
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		52-0004
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VERIFIED:		DATE:		

			CITY OF ATLANTA	PROJECT NO. 0007174

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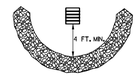
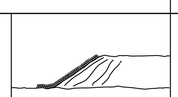
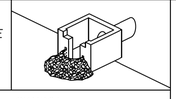
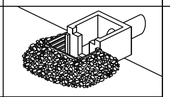
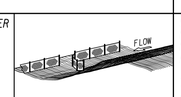
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Fr	FILTER RING CONSTRUCTION DETAIL D-46 SECTION 163		A TEMPORARY STONE BARRIER CONSTRUCTED AT DRAINAGE STRUCTURE INLETS AND POST-CONSTRUCTION POND OUTLETS. IT REDUCES RUNOFF VELOCITY AND HELPS PREVENT SEDIMENT FROM LEAVING SITE PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR ADDITIONAL INFORMATION ON USAGE.
	SYMBOL: Fr		
Rd	ROCK FILTER DAM CONSTRUCTION DETAIL D-43 SECTION 163, 603		ROCK FILTER DAMS ARE CONSTRUCTED OF TYPE 3 STONE RIP-RAP FACED WITH #57 STONE ON THE UPSTREAM SIDE. THEY ARE PLACED ACROSS DRAINAGEWAYS WHICH DRAIN 50 ACRES OR LESS. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING ROCK FILTER DAMS. THE DAM SHOULD NOT BE HIGHER THAN THE CHANNEL BANKS. ROCK FILTER DAMS SHOULD BE USED IN DITCHES PRIOR TO DISCHARGING INTO STREAMS, WETLANDS, OPEN-WATERS, OR OTHER ESAs.
	SYMBOL: Rd		
Rd-B	STONE FILTER BERM CONSTRUCTION DETAIL D-50 SECTION 163, 603		STONE FILTER BERMS ARE CONSTRUCTED SIMILAR TO ROCK FILTER DAMS FOR A LINEAR APPLICATION. THEY ARE CONSTRUCTED OF TYPE-3 STONE RIP-RAP FACED WITH #57 STONE ON THE UPSTREAM SIDE. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING STONE FILTER BERMS. STONE FILTER BERMS ARE IDEAL ALONG THE PERIMETER FOR SHEET FLOW AND/OR SHALLOW CONCENTRATED FLOW TO A COMMON LOW AREA WHERE PERIMETER SILT FENCE ALONE MAY BE INSUFFICIENT. THERE IS NO WELL-DEFINED CHANNEL FOR A STANDARD ROCK FILTER DAM, AND/OR CONSTRUCTING A ROCK OUTLET TEMPORARY SEDIMENT TRAP IS NOT APPLICABLE.
	LINE CODE: Rd-B		
Rp	RIP-RAP SECTION 603		RIP-RAP IS A FLEXIBLE PERMANENT BLANKET FOR PROTECTION OF FILL SLOPES AND BRIDGE END ROLLS. RIP-RAP TYPE-1 SHOULD BE PLACED ON TOP OF A GEOTEXTILE UNDERLINER AT A MINIMUM 24" THICKNESS OR AS INDICATED ON THE PLANS. RIP-RAP MAY ALSO BE USED AT DRAINAGE STRUCTURE OUTLETS WITHIN THE RIGHT-OF-WAY. HOWEVER, APPROPRIATE OUTLET PROTECTION SHOULD BE PROVIDED AT OUTFALLS. REFER TO STORM DRAIN OUTLET PROTECTION FOR ADDITIONAL INFORMATION ON USING RIP-RAP AT OUTFALLS.
	PATTERN: Rp		
Rt-P	RETROFITTING PERFORATED HALF-ROUND PIPE CONSTRUCTION DETAIL D-44 SECTION 163		A PERFORATED HALF-ROUND PIPE WITH STONE FILTER PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER. SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 30 ACRES TOTAL DRAINAGE AREA. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
	SYMBOL: Rt-P		

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Rt-B	RETROFITTING SLOTTED BOARD DAM CONSTRUCTION DETAIL D-45 SECTION 163		A SLOTTED BOARD DAM CONSISTS OF STONE AND/OR FILTER FABRIC AND BOARDS WITH 0.5" - 1.0" SPACING TO SERVE AS A TEMPORARY SEDIMENT FILTER. PERMANENT STORMWATER DETENTION POND OUTLET: -DRAINAGE AREA UP TO 100 ACRES -DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA ROADWAY DRAINAGE STRUCTURE: -OPEN END PIPES, WINGED HEADWALLS, OR CONCRETE WEIR OUTLETS WITH DRAINAGE AREA LESS THAN 30 ACRES REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
	SYMBOL: Rt-B		
Rt-Sg1 Rt-Sg2 Rt-Sg3	RETROFITTING SILT CONTROL GATES CONSTRUCTION DETAIL D-20 SECTION 163		A SILT CONTROL GATE CONSISTS OF BOARDS WITHOUT SPACING AND FILTER FABRIC TO BE USED FOR TEMPORARY SEDIMENT STORAGE ON ROADWAY PROJECTS AT THE INLET OF STRUCTURES WITH A DRAINAGE AREA UP TO 50 ACRES. THE DISTURBED AREA WITHIN THE DRAINAGE AREA SHALL NOT EXCEED 5 ACRES. SILT CONTROL GATES SHOULD NOT BE USED ALONE, BUT WITH ANOTHER BMP DOWNSTREAM PRIOR TO DISCHARGE LEAVING PROJECT AREA. DO NOT USE SILT GATES IN STATE WATERS. Rt-Sg1-TYPE 1: USED ON BOX CULVERTS Rt-Sg2-TYPE 2: USED ON STRAIGHT HEADWALLS Rt-Sg3-TYPE 3: USED ON FLARED END SECTIONS AND TAPERED HEADWALLS
	SYMBOL: Rt-Sg1 Rt-Sg2 Rt-Sg3		
Sdi-NS	SEDIMENT BARRIER (NON-SENSITIVE) SILT FENCE TYPE A CONSTRUCTION DETAIL D-24 SECTION 171		SEDIMENT BARRIERS MINIMIZE AND PREVENT SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE PROJECT AREA BY CAUSING DEPOSITION AND/OR FILTRATION OF SEDIMENT. SILT FENCE USED AS PERIMETER CONTROL SHALL NOT BE INSTALLED ACROSS CONCENTRATED FLOW. TYPE-A SILT FENCE IS TYPICALLY USED IN NON-ENVIRONMENTALLY SENSITIVE AREAS (ESAs) OR IN AREAS WITH FILLS LESS THAN 10'. IT SHOULD BE PLACED A MINIMUM OF 10' FROM CONSTRUCTION LIMITS OR ALONG THE RIGHT-OF-WAY LINE.
	LINE CODE: A—A—A—SDI-NS—A—A—A		
Sdi-S	SEDIMENT BARRIER (SENSITIVE) SILT FENCE TYPE C CONSTRUCTION DETAIL D-24 SECTION 171		SEDIMENT BARRIERS MINIMIZE AND PREVENT SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE PROJECT AREA BY CAUSING DEPOSITION AND/OR FILTRATION OF SEDIMENT. SILT FENCE USED AS PERIMETER CONTROL SHALL NOT BE INSTALLED ACROSS CONCENTRATED FLOW. TYPE-C SILT FENCE IS TYPICALLY USED IN ENVIRONMENTALLY SENSITIVE AREAS (ESAs) OR IN AREAS WITH FILLS 10' AND GREATER. ALL ENVIRONMENTALLY SENSITIVE AREAS (ESAs) SHALL BE PROTECTED WITH A DOUBLE-ROW OF TYPE-C SILT FENCE REGARDLESS OF FILL HEIGHT. A SINGLE-ROW MAY BE USED FOR OTHER APPLICATIONS. IT SHOULD BE PLACED A MINIMUM OF 10' FROM CONSTRUCTION LIMITS OR ALONG THE RIGHT-OF-WAY LINE.
	LINE CODE: C—C—C—SDI-S—C—C—C		

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

7/31/2015 GPLN

GDOT | NO SCALE

REVISION DATES
3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 5 OF 7

CHECKED:	D. EAGLETON	DATE:	01/01/16	DRAWING No.
BACKCHECKED:		DATE:		52-0005
CORRECTED:		DATE:		
VERIFIED:		DATE:		

7/31/2015 GPLN

WSP | N.T.S.

REVISION DATES

EROSION CONTROL LEGEND
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		52-0005
CORRECTED:		DATE:		
VERIFIED:		DATE:		

CITY OF ATLANTA

PROJECT NO. 0007174

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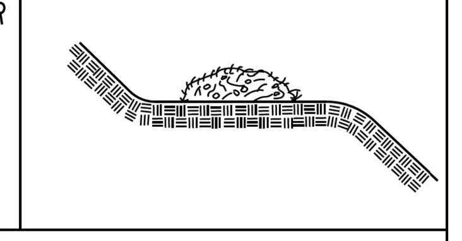
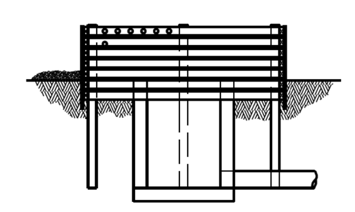
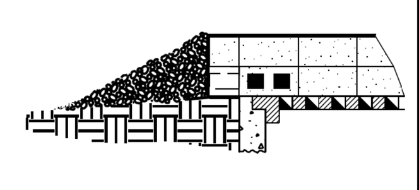
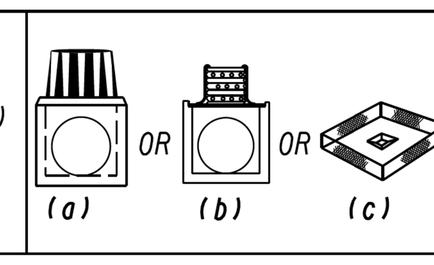
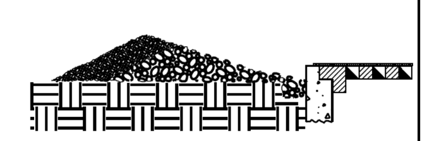
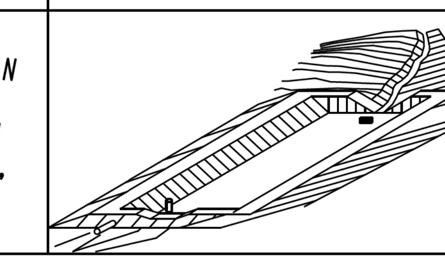
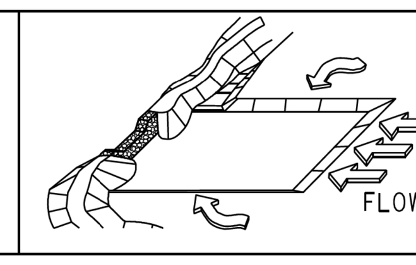
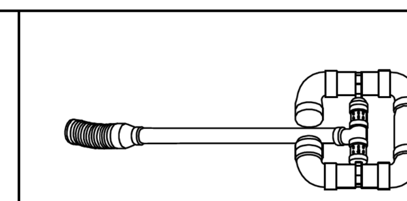
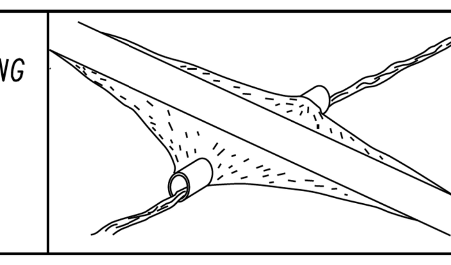
GDOT P.I. No.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Sd1-BB	SEDIMENT BARRIER BRUSH BARRIER CONSTRUCTION DETAIL D-24B SECTION 201	 LINE CODE * * * (Sd1-BB) * * *	THIS ITEM CONSISTS OF INTERMINGLED BRUSH, LOGS, ETC. SO AS NOT TO FORM A SOLID DAM. CONSTRUCTED AT THE TOE OF FILL SLOPES ONLY DURING THE CLEARING AND GRUBBING OPERATION. THE BARRIER SHOULD BE USED AT THE TOE OF FILL SLOPES ON GRADING PROJECTS IN RURAL AREAS WHERE SUFFICIENT RIGHT OF WAY OR EASEMENT IS AVAILABLE (10 FEET OR MORE). THE BARRIER SHOULD RUN ROUGHLY PERPENDICULAR TO THE FLOW OF WATER WHERE THIS DOES NOT CONFLICT WITH RIGHT-OF-WAY OR EASEMENT LIMITS. THEY WILL NOT BE PLACED IN WETLANDS. TYPICALLY NOT SHOWN ON PLANS. PAYMENT FOR THIS ITEM IS INCLUDED IN THE CLEARING AND GRUBBING COST. NO SEPARATE PAYMENT SHALL BE MADE.
Sd2-B	INLET SEDIMENT TRAP (BAFFLE BOX) CONSTRUCTION DETAIL D-42 SECTION 163	 SYMBOL Sd2-B	BAFFLE BOX INLET SEDIMENT TRAP USED FOR INLETS RECEIVING HIGH FLOW RATE AND/OR VELOCITY. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES 7 cfs AND GREATER.
Sd2-Bg	INLET SEDIMENT TRAP (BLOCK & GRAVEL) CONSTRUCTION DETAIL D-42 SECTION 163	 SYMBOL Sd2-Bg	BLOCK AND GRAVEL DROP INLET PROTECTION USED FOR WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. CAN BE USED AT CULVERT INLETS. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES THAT RANGE FROM 5 - 7 cfs.
Sd2-F	INLET SEDIMENT TRAP (FILTER FABRIC) CONSTRUCTION DETAIL D-24C SECTION 163	 SYMBOL Sd2-F	(a) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED FRAME WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (b) A SEDIMENT BARRIER CONSISTING OF A PERFORATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (c) TYPE C SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES < 5%. THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS. RECOMMENDED FOR INLET RECEIVING FLOW RATES THAT RANGE FROM 0 - 4 cfs.
Sd2-G	INLET SEDIMENT TRAP (GRAVEL) CONSTRUCTION DETAIL D42 SECTION 163	 SYMBOL Sd2-G	GRAVEL DROP INLET PROTECTION USED WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED. STONE AND GRAVEL ARE USED TO TRAP SEDIMENT. THE SLOPE TOWARD THE INLET SHALL BE NO MORE THAN 3:1. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES THAT RANGE FROM 3 - 5 cfs.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Sd3	TEMPORARY SEDIMENT BASIN CONSTRUCTION DETAIL D-22A, D-22B SECTION 163	 SYMBOL Sd3	A BASIN CREATED BY EXCAVATING AN AREA, DAMMING CONCENTRATED FLOW, OR A COMBINATION OF BOTH. THE BASIN IS DESIGNED TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DRAINAGE AREA. THE DRAINAGE AREA SHOULD NOT EXCEED 150 ACRES. BASINS TYPICALLY CONSISTS OF A DAM, PRINCIPAL SPILLWAY, AND AN EMERGENCY SPILLWAY. A FLOATING SURFACE SKIMMER SHALL BE REQUIRED AS PART OF THE PRINCIPAL SPILLWAY UNLESS INFEASIBLE. SUFFICIENT RIGHT-OF-WAY OR EASEMENT IS NEEDED FOR BASIN CONSTRUCTION AND MAINTENANCE ACCESS. SEDIMENT BASINS SHALL BE CONSIDERED ON ALL PROJECTS, BUT MAY NOT BE PRACTICAL. BASINS SHOULD BE LOCATED TO MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES AND UTILITIES. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Sd4-C	ROCK OUTLET TEMPORARY SEDIMENT TRAP CONSTRUCTION DETAIL D-53 SECTION 163	 SYMBOL Sd4-C	TEMPORARY POND WITH ROCK OUTLET DESIGNED TO STORE 67 CUBIC YARDS OF SEDIMENT PER DRAINAGE AREA. DRAINAGE AREA SHALL NOT EXCEED 5 ACRES. DISTINGUISHED FROM TEMPORARY SEDIMENT BASIN BY LACK OF PRINCIPAL SPILLWAY. MAXIMUM POND DEPTH FROM BOTTOM OF POND TO EMERGENCY SPILLWAY IS 4 FEET. A TEMPORARY SEDIMENT BASIN SHALL BE EVALUATED PRIOR TO CONSIDERING A TEMPORARY SEDIMENT TRAP. A TEMPORARY SEDIMENT TRAP IS IDEAL FOR SMALL AREAS WITH NO UNUSUAL DRAINAGE FEATURES AND EFFECTIVE AGAINST COARSE SEDIMENT, BUT NOT AGAINST SILT OR CLAY PARTICLES THAT REMAIN SUSPENDED. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Sk	FLOATING SURFACE SKIMMER CONSTRUCTION DETAIL D-22A, D-22B SECTION 163	 SYMBOL Sk	A BUOYANT DEVICE THAT DRAINS WATER FROM THE SURFACE OF A TEMPORARY SEDIMENT BASIN AT A CONTROLLED FLOW RATE. THE INLET/ORIFICE SIZE IS DESIGNED TO DRAIN THE BASIN WITHIN 24 - 48 HOURS. THE SKIMMER INFORMATION SHALL BE PROVIDED IN CONJUNCTION WITH THE SEDIMENT BASIN INFORMATION IN PLANS. IF A SKIMMER IS INFEASIBLE, THE DESIGNER SHALL PROVIDE A WRITTEN JUSTIFICATION IN THE PLANS. SKIMMERS ARE ATTACHED TO A RISER WITHOUT PERFORATIONS AND ACTS AS THE PRIMARY SPILLWAY. THE SKIMMER BMP SYMBOL SHALL BE SHOWN IN CONJUNCTION WITH THE TEMPORARY SEDIMENT BASIN BMP SYMBOL WHEN APPLICABLE. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR ADDITIONAL INFORMATION.
Sr	TEMPORARY STREAM CROSSING SECTION 107	 SYMBOL Sr	A TEMPORARY STRUCTURE INSTALLED ACROSS A FLOWING STREAM OR WATERCOURSE FOR USE BY CONSTRUCTION EQUIPMENT. THIS BMP PROVIDES A MEANS TO CROSS STREAMS OR WATERCOURSES WITHOUT MOVING SEDIMENT INTO STREAMS, DAMAGING THE STREAM BED OR CHANNEL, OR CAUSING FLOODING. THIS BMP SHOULD NOT BE USED ON STREAMS WITH DRAINAGE AREAS GREATER THAN ONE SQUARE MILE, UNLESS SPECIFICALLY DESIGNED TO ACCOMMODATE THE ADDITIONAL DRAINAGE AREA BY THE DESIGN PROFESSIONAL. A CERTIFICATION STATEMENT AND SIGNATURE SHALL ACCOMPANY THE DESIGN. THIS BMP SHALL BE DESIGNED ACCORDING TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". FOR CONTRACTOR'S USE ONLY!

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

GDOT

NO SCALE

REVISION DATES
3/2/2017
11/28/2018

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 6 OF 7

CHECKED: D. EASLETON DATE: 01/01/16
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:
DRAWING No. 52-0006

7/31/2015 GPLN

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N.T.S.

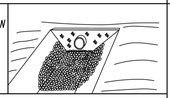
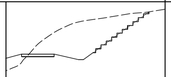
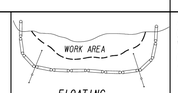
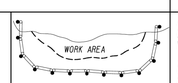
REVISION DATES

EROSION CONTROL LEGEND
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:
DRAWING No. 52-0006

7/31/2015 GPLN

3/2/2017 11:10:58 AM cbeird | GPLOT-V8 gplotborder-V81-PD.tbl | EC-(sheets 1-7).dgn | GDOT | P.I. No.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
St	STORM DRAIN OUTLET PROTECTION GA. STD. 1125 & 2332	 SYMBOL St	A PIPE OR BOX CULVERT OUTLET HEADWALL WITH AN APRON AND DISSIPATOR BLOCKS IS USED TO REDUCE VELOCITY AT THE OUTLET OF A PIPE PRIOR TO ENTERING AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM. IT IS USED ON THE OUTLET OF ALL BOX CULVERTS AND ON 48" AND LARGER PIPES. MAY BE USED ON INLET FOR FLOWING STREAMS. USE ON SMALL PIPES WHEN OUTLET VELOCITY OF THE 25-YEAR STORM IS 12 fps AND GREATER.
St-Rp	STORM DRAIN OUTLET PROTECTION (RIP-RAP) CONSTRUCTION DETAIL D-55 SECTION 603	 PATTERN FLAT AREA St-Rp OR St-Rp WELL-DEFINED CHANNEL	RIP-RAP OUTLET PROTECTION IS USED TO REDUCE VELOCITY AT THE OUTLET OF A PIPE, CHANNEL, OR STRUCTURE PRIOR TO ENTERING AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM. THE MINIMUM DESIGN OF RIP-RAP OUTLET PROTECTION SHALL BE THE 25-YEAR STORM PEAK FLOW, BUT LARGER STORMS ARE RECOMMENDED. TYPE-1 RIP-RAP AT A DEPTH OF 36" AND PLACED ON FILTER FABRIC IS PREFERRED FOR ALL d50 </= 1.2 FEET. TYPE-3 RIP-RAP AT A DEPTH OF 18" AND PLACED ON FILTER FABRIC MAY BE USED FOR d50 </= 0.7 FEET. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR REQUIRED DESIGN DIMENSIONS AND OTHER INFORMATION TO BE INCLUDED IN THE PLANS.
Su	SURFACE ROUGHENING SERRATED SLOPES CONSTRUCTION DETAIL S-7 SECTION 205	 LINE CODE Su	PROVIDING A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS, BY OPERATING A CLEATED DOZER ON THE SLOPE IN A VERTICAL DIRECTION. CREATING SERRATED SLOPES IN THE GRADING PROCESS TO CONSTRUCT BENCHES WILL REDUCE RUNOFF VELOCITY AND INCREASE INFILTRATION OF WATER. IN MOST CASES THIS BMP IS NOT REQUIRED TO BE SHOWN ON THE PLANS, BUT REQUIRED TO BE COMPLETED BY THE CONTRACTOR UNDER ALL PROJECTS. IF SERRATED SLOPES ARE SPECIFIED BY THE SOIL SURVEY, THEN THIS BMP SHALL BE SHOWN ON THE PLANS WHERE SERRATED SLOPES ARE TO BE USED.
Tc-F	TURBIDITY CURTAIN FLOATING CONSTRUCTION DETAIL D-51 SECTION 170	 WORK AREA FLOATING LINE CODE Tc-F	A FLOATING TURBIDITY CURTAIN IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY ALLOWING IT TO DROP OUT OF SUSPENSION AND REMAIN WITHIN THE CONSTRUCTION AREA. IT IS TYPICALLY USED WHERE CONSTRUCTION IS REQUIRED IN A LARGE BODY OF WATER SUCH AS LAKES AND RIVERS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. THIS BMP IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED PERIMETER BMPs. IT MAY ALSO BE REFERRED TO AS A FLOATING BOOM, SILT BARRIER, OR SILT CURTAIN.
Tc-S	TURBIDITY CURTAIN STAKED CONSTRUCTION DETAIL D-51 SECTION 170	 WORK AREA STAKED LINE CODE Tc-S	A STAKED TURBIDITY CURTAIN IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY ALLOWING IT TO DROP OUT OF SUSPENSION AND REMAIN WITHIN THE CONSTRUCTION AREA. IT IS TYPICALLY USED IN SHALLOW INUNDATED AREAS. IT MAY BE USED TO PROTECT A SMALL STREAM BEING REALIGNED OR RESTORED. IN THIS CASE, CURTAIN SHOULD EXTEND TO BOTTOM OF STREAMBED. THE HEIGHT SHOULD BE LIMITED TO 5 FEET UNLESS DIRECTED AND EXTEND 2 FEET ABOVE NORMAL WATER ELEVATION. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. THIS BMP IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED PERIMETER BMPs. IT MAY BE REFERRED TO AS A SILT BARRIER OR SILT CURTAIN.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

7/31/2015 GPLN

GDOT

NO SCALE

REVISION DATES
3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 7 OF 7

CHECKED:	D. EAGLETON	DATE:	01/01/16	DRAWING No.
BACKCHECKED:		DATE:		52-0007
CORRECTED:		DATE:		
VERIFIED:		DATE:		

7/31/2015 GPLN

wsp

N.T.S.

REVISION DATES

EROSION CONTROL LEGEND
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

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BACKCHECKED:		DATE:		52-0007
CORRECTED:		DATE:		
VERIFIED:		DATE:		

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CITY OF ATLANTA

PROJECT NO.
0007174

TOTAL PROJECT AREA = 0.18 AC
TOTAL EXPECTED DISTURBED AREA = 0.18 AC

N

Ub

CaA

Ub

CpA

CpA

W

CpA

NORTHSIDE DRIVE

SAGAMORE DRIVE

WOODWARD WAY

WOODWARD WAY

L. L. 144
L. L. 145

PERENNIAL STREAM #2

EXIST. R/W

ESA-HISTORICAL BOUNDARY

ESA-25-ft STREAM BUFFER

Sd_2-Bg

Co

SdI-C

SdI-B

SdI-TPS

DOUBLE ROW OF TYPE "C" SILT FENCE

STREAM # 1
PEACHTREE CREEK

Ds1 | Ds2 | Du
TYPICAL FOR ALL DISTURBED AREAS

WORK AREA

ORANGE BARRIER FENCE

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS.

wsp

SCALE IN FEET
0 20 40 80

REVISION DATES

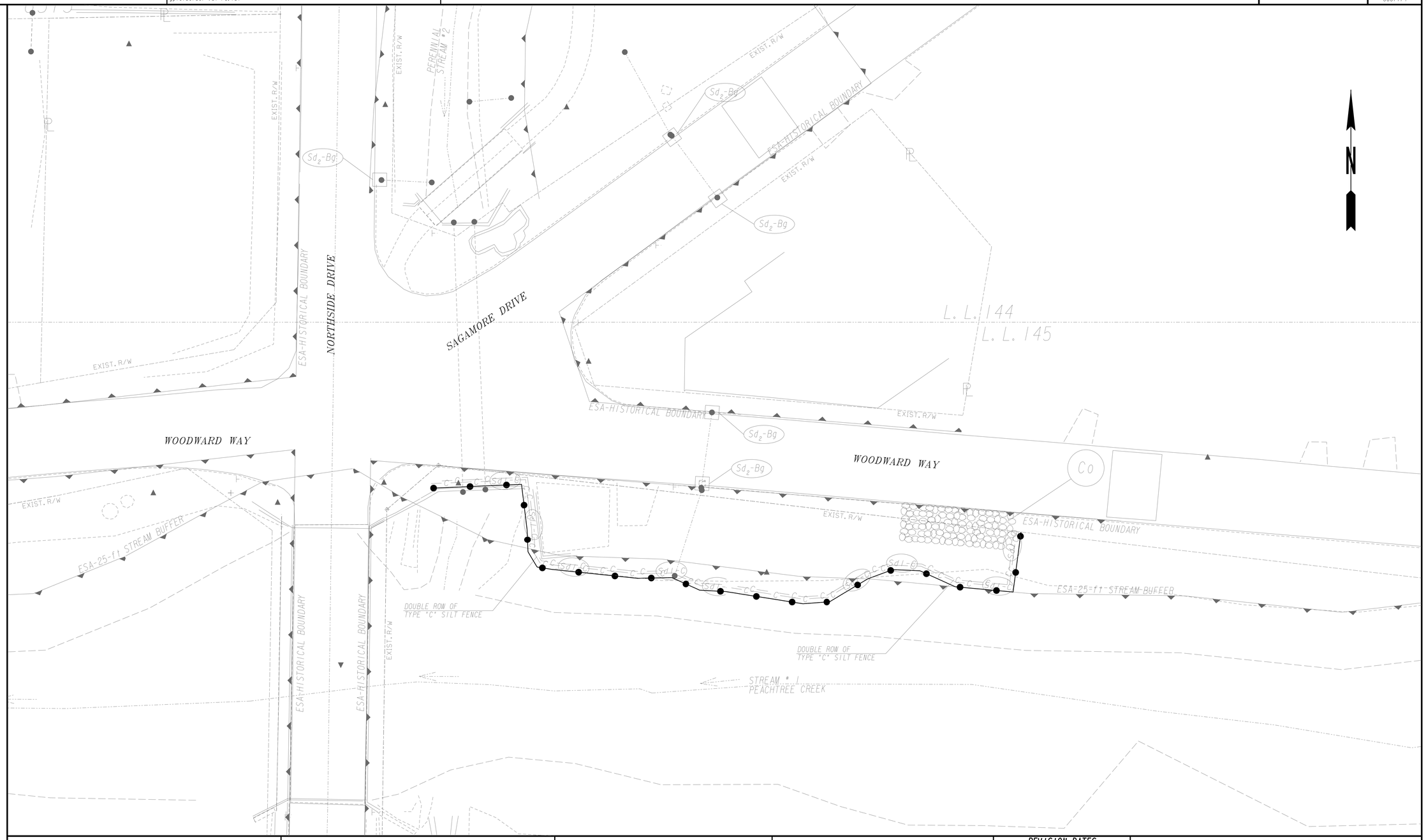
BMP LOCATION DETAILS
CLEARING STAGE-INITIAL BMPs
WOODWARD WAY
PUMP STATION 1 IMPROVEMENTS

		DATE:	
CHECKED:			
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
54-0001A

4/28/2016 GPLN

1/25/2019 10:47:31 AM USER:hightowerds	GPLOT-V8 gplotborder-V81-P0.tbl	J:\185780 - City of Atlanta\5.0 Project Data\5.12 Owner Furnished Data\Task Order 03\RFS#27 SR3 NorthsideDr PeachtreeCr\RevisedDesign_July2_wPSI\PS_1Design\DWGs\EC\DGNs\54-0001B.dgn	CITY OF ATLANTA	PROJECT NO. 0007174



Ds1	Ds2	Du

TYPICAL FOR ALL DISTURBED AREAS

WORK AREA

ORANGE BARRIER FENCE

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS.

wsp

SCALE IN FEET

0 20 40 80

REVISION DATES

BMP LOCATION DETAILS

INTERMEDIATE BMPs

WOODWARD WAY

PUMP STATION 1 IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		54-0001B
CORRECTED:		DATE:		
VERIFIED:		DATE:		

4/28/2016 GPLN

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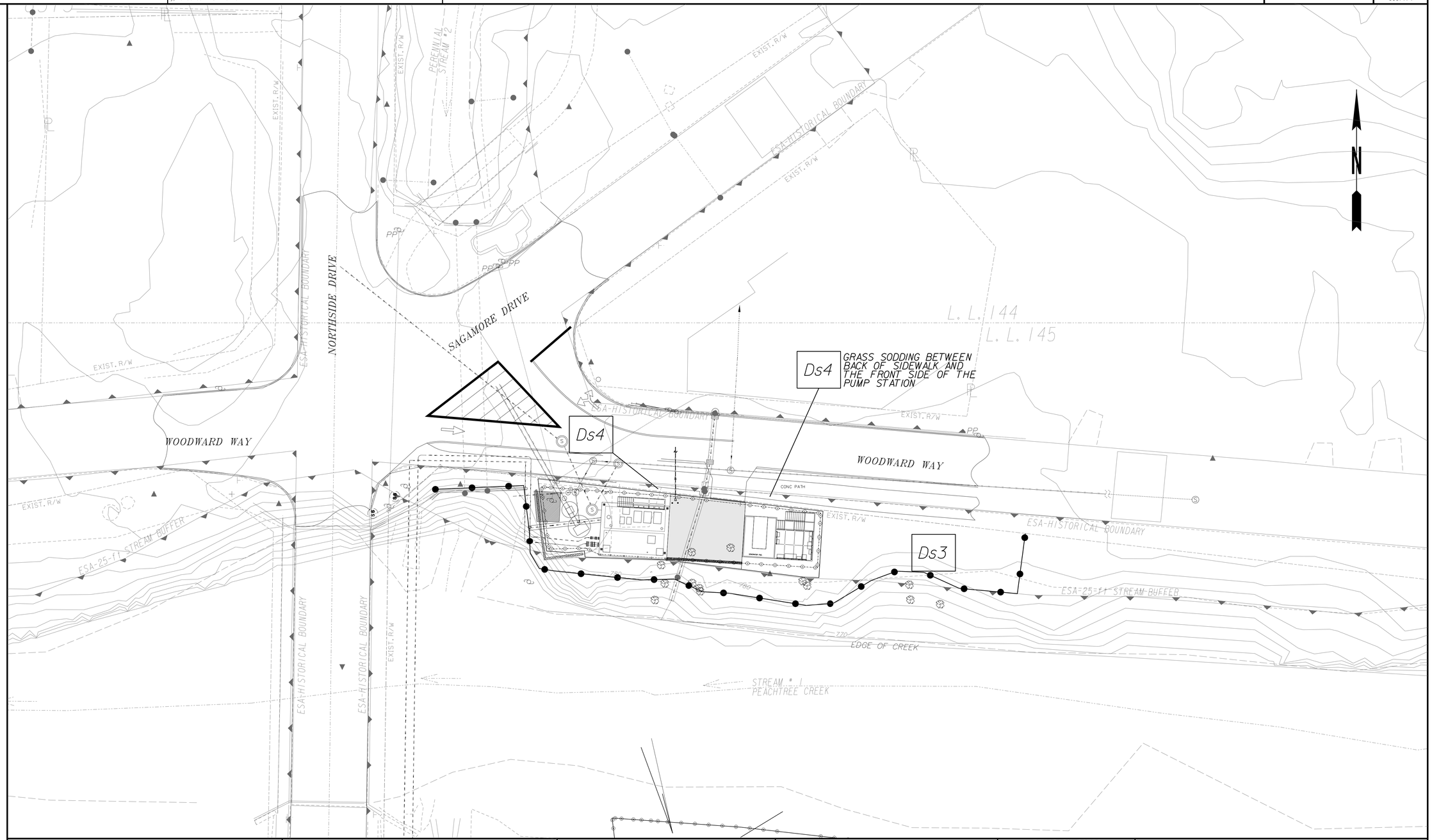


Ds3	Ds4	Du

TYPICAL FOR ALL DISTURBED AREAS

WORK AREA

ORANGE BARRIER FENCE

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS.

wsp

SCALE IN FEET

0 20 40 80

REVISION DATES		

BMP LOCATION DETAILS

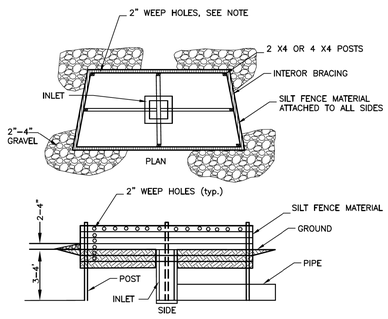
FINAL BMPs

WOODWARD WAY

PUMP STATION 1 IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		54-0001C
CORRECTED:		DATE:		
VERIFIED:		DATE:		

4/28/2016 GPLN



BAFFLE BOX

FOR INLETS RECEIVING RUNOFF WITH A HIGHER VOLUME OR VELOCITY, A BAFFLE BOX INLET SEDIMENT TRAP SHOULD BE USED. AS SHOWN IN FIGURE 6-21.2, THE BAFFLE BOX SHALL BE CONSTRUCTED OF 2" X 4" BOARDS SPACED A MAXIMUM OF 1 INCH APART OR OF PLYWOOD WITH WEEP HOLES 2 INCHES IN DIAMETER. THE WEEP HOLES SHALL BE PLACED APPROXIMATELY 6 INCHES ON CENTER VERTICALLY AND HORIZONTALLY. GRAVEL SHALL BE PLACED OUTSIDE THE BOX, ALL AROUND THE INLET, TO A DEPTH OF 2 TO 4 INCHES. THE ENTIRE BOX IS WRAPPED IN TYPE C FILTER FABRIC THAT SHALL BE ENTRENCHED 12 INCHES AND BACK FILLED.

(Sd2-B) BAFFLE BOX

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta	STANDARD DETAILS	REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S.
	BAFFLE BOX 1 OF 2	DETAIL NO. ER-G_SD003

MAINTENANCE FOR ALL Sd2 APPLICATIONS

ALL TRAPS SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION. SOD INLET PROTECTION SHAL BE MAINTAINED AS SPECIFIED IN DS4- DISTURBED AREA STABLIZATION (WITH SODDING).

SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET, AGAIN.
WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. ALL DISTURBED AREAS AROUND THE INLET SHALL BE APPROPRIATELY STABILIZED.

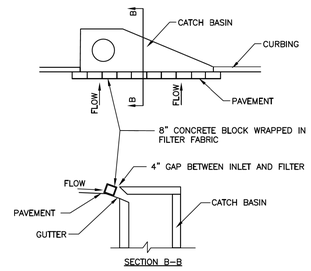
DESIGN CRITERIA FOR ALL Sd2 APPLICATIONS

MANY SEDIMENT FILTERING DEVICES CAN BE DESIGNED TO SERVE AS TEMPORARY SEDIMENT TRAPS. SEDIMENT TRAPS MUST BE SELF-DRAINING UNLESS THEY ARE OTHERWISE PROTECTED IN AN APPROVED FASHION THAT WILL NOT PRESENT A SAFETY HAZARD. THE AREA DRAINING TO THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

IF RUNOFF MAY BYPASS THE PROTECTED INLET, A TEMPORARY DIKE SHOULD BE CONSTRUCTED ON THE DOWN SLOPE SIDE OF THE STRUCTURE. ALSO, A STONE FILTER RING MAY BE USED ON THE UP SLOPE SIDE OF THE INLET TO SLOW RUNOFF AND FILTER LARGER SOIL PARTICLES. REFER TO FR-STONE FILTER RING.

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta	STANDARD DETAILS	REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S.
	BAFFLE BOX 2 OF 2	DETAIL NO. ER-G_SD003



CURB INLET PROTECTION

ONCE PAVEMENT HAS BEEN INSTALLED, A CURB INLET FILTER SHALL BE INSTALLED ON INLETS RECEIVING RUNOFF FROM DISTURBED AREAS. THIS METHOD OF INLET PROTECTION SHALL BE REMOVED IF A SAFETY HAZARD IS CREATED.

ONE METHOD OF CURB INLET PROTECTION USES "FIGS-IN-A-BALNKET", 8-INCH CONCRETE BLOCKS WRAPPED IN FILTER FABRIC. SEE DETAIL ANOTHER METHOD USES GRAVEL BAGS CONSTRUCTED BY WRAPING DOT #57 STONE WIHT FILTER FABRIC, WIRE, PLASTIC MESH, OR EQUIVALENT MATERIAL.
A GAP OF APPROXIMATELY 4 INCHES SHALL BE LEFT BETWEEN THE INLET FILTER AND THE INLET TO ALLOW FOR OVERFLOW AND PREVENT HAZARDOUS PONDING IN THE ROADWAY. PROPER INSTALLATION AND MAINTENANCE ARE CRUCIAL TO AVOID PONDING IN THE ROADWAY, RESULTING IN A HAZARDOUS CONDITION.

(Sd2-P) CURB INLET PROTECTION

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta	STANDARD DETAILS	REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S.
	CURB INLET PROTECTION 1 OF 2	DETAIL NO. ER-G_SD002

MAINTENANCE FOR ALL Sd2 APPLICATIONS

ALL TRAPS SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION. SOD INLET PROTECTION SHAL BE MAINTAINED AS SPECIFIED IN DS4- DISTURBED AREA STABLIZATION (WITH SODDING).

SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET, AGAIN.
WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. ALL DISTURBED AREAS AROUND THE INLET SHALL BE APPROPRIATELY STABILIZED.

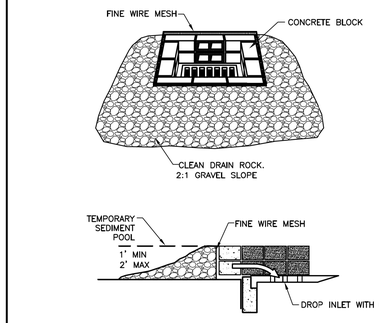
DESIGN CRITERIA FOR ALL Sd2 APPLICATIONS

MANY SEDIMENT FILTERING DEVICES CAN BE DESIGNED TO SERVE AS TEMPORARY SEDIMENT TRAPS. SEDIMENT TRAPS MUST BE SELF-DRAINING UNLESS THEY ARE OTHERWISE PROTECTED IN AN APPROVED FASHION THAT WILL NOT PRESENT A SAFETY HAZARD. THE AREA DRAINING TO THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

IF RUNOFF MAY BYPASS THE PROTECTED INLET, A TEMPORARY DIKE SHOULD BE CONSTRUCTED ON THE DOWN SLOPE SIDE OF THE STRUCTURE. ALSO, A STONE FILTER RING MAY BE USED ON THE UP SLOPE SIDE OF THE INLET TO SLOW RUNOFF AND FILTER LARGER SOIL PARTICLES. REFER TO FR-STONE FILTER RING.

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta	STANDARD DETAILS	REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S.
	CURB INLET PROTECTION 2 OF 2	DETAIL NO. ER-G_SD002



BLOCK AND GRAVEL DROP INLET PROTECTION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. AS SHOWN IN DETAIL ONE BLOCK IS PLACED ON EACH SIDE OF THE STRUCTURE ON ITS SIDE IN THE BOTTOM ROW TO ALLOW POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2 INCHES BELOW THE CREST OF THE STORM DRAIN. THE BOTTOM ROW OF BLOCKS ARE PLACED AGAINST THE EDGE OF THE STORM DRAIN FOR LATER SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. IF NEEDED, LATERAL SUPPORT MAY BE GIVEN TO SUBSEQUENT ROWS BY PLACING 2" X 4" WOOD STUDS THROUGH BLOCK OPENINGS. HARD WARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2 INCH OPENINGS SHALL BE FITTED OVER ALL BLOCK OPENINGS TO HOLD GRAVEL IN PLACE. CLEAN GRAVEL SHOULD BE PLACED 2 INCHES BELOW THE TOP OF THE BLOCKS ON A 2:1 SLOPE OR FLATTER AND SMOOTHED TO AN EVEN GRADE. DOT #57 WASHED STONE IS RECOMMENDED.

(Sd2-Bg) BLOCK AND GRAVEL DROP INLET PROTECTION

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta	STANDARD DETAILS	REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S.
	BLOCK AND GRAVEL DROP INLET PROTECTION 1 OF 2	DETAIL NO. ER-G_SD004

MAINTENANCE FOR ALL Sd2 APPLICATIONS

ALL TRAPS SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION. SOD INLET PROTECTION SHAL BE MAINTAINED AS SPECIFIED IN DS4- DISTURBED AREA STABLIZATION (WITH SODDING).

SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET, AGAIN.
WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. ALL DISTURBED AREAS AROUND THE INLET SHALL BE APPROPRIATELY STABILIZED.

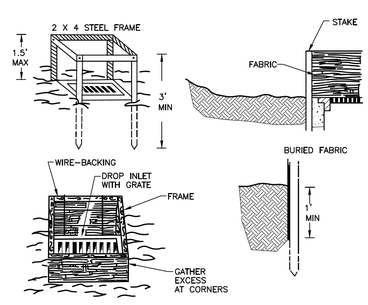
DESIGN CRITERIA FOR ALL Sd2 APPLICATIONS

MANY SEDIMENT FILTERING DEVICES CAN BE DESIGNED TO SERVE AS TEMPORARY SEDIMENT TRAPS. SEDIMENT TRAPS MUST BE SELF-DRAINING UNLESS THEY ARE OTHERWISE PROTECTED IN AN APPROVED FASHION THAT WILL NOT PRESENT A SAFETY HAZARD. THE AREA DRAINING TO THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

IF RUNOFF MAY BYPASS THE PROTECTED INLET, A TEMPORARY DIKE SHOULD BE CONSTRUCTED ON THE DOWN SLOPE SIDE OF THE STRUCTURE. ALSO, A STONE FILTER RING MAY BE USED ON THE UP SLOPE SIDE OF THE INLET TO SLOW RUNOFF AND FILTER LARGER SOIL PARTICLES. REFER TO FR-STONE FILTER RING.

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta	STANDARD DETAILS	REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S.
	BLOCK AND GRAVEL DROP INLET PROTECTION 2 OF 2	DETAIL NO. ER-G_SD004



FILTER FABRIC WITH SUPPORTING FRAME

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) AND SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS. AS SHOWN IN DETAIL, TYPE C SILT FENCE SUPPORTED BY STEEL POSTS SHALL BE USED. THE STAKES SHALL BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART, AND SECURELY DRIVEN IN TO THE GROUND, APPORIMATELY 18 INCHES DEEP. THE FABRIC SHALL BE ENTRENCHED 12 INCHES AND BACKFILLED WITH WITH CRUSHED STONE OR COMPACTED SOIL. FABRIC AND WIRE SHALL BE SECURELY FASTENED TO THE POSTS, AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUN OF 18 INCHES OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS
FABRIC BARRIER AROUND THE INLET.

(Sd2-F) FILTER FABRIC WITH SUPPORTING FRAME

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta	STANDARD DETAILS	REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S.
	FILTER FABRIC WITH SUPPORTING FRAME 1 OF 2	DETAIL NO. ER-G_SD005

MAINTENANCE FOR ALL Sd2 APPLICATIONS

ALL TRAPS SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION. SOD INLET PROTECTION SHAL BE MAINTAINED AS SPECIFIED IN DS4- DISTURBED AREA STABLIZATION (WITH SODDING).

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WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. ALL DISTURBED AREAS AROUND THE INLET SHALL BE APPROPRIATELY STABILIZED.

DESIGN CRITERIA FOR ALL Sd2 APPLICATIONS

MANY SEDIMENT FILTERING DEVICES CAN BE DESIGNED TO SERVE AS TEMPORARY SEDIMENT TRAPS. SEDIMENT TRAPS MUST BE SELF-DRAINING UNLESS THEY ARE OTHERWISE PROTECTED IN AN APPROVED FASHION THAT WILL NOT PRESENT A SAFETY HAZARD. THE AREA DRAINING TO THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

IF RUNOFF MAY BYPASS THE PROTECTED INLET, A TEMPORARY DIKE SHOULD BE CONSTRUCTED ON THE DOWN SLOPE SIDE OF THE STRUCTURE. ALSO, A STONE FILTER RING MAY BE USED ON THE UP SLOPE SIDE OF THE INLET TO SLOW RUNOFF AND FILTER LARGER SOIL PARTICLES. REFER TO FR-STONE FILTER RING.

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta	STANDARD DETAILS	REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S.
	FILTER FABRIC WITH SUPPORTING FRAME 2 OF 2	DETAIL NO. ER-G_SD005

REVISION DATES			
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EROSION CONTROL CONSTRUCTION DETAILS

WOODWARD WAY

PUMP STATION 1 IMPROVEMENTS

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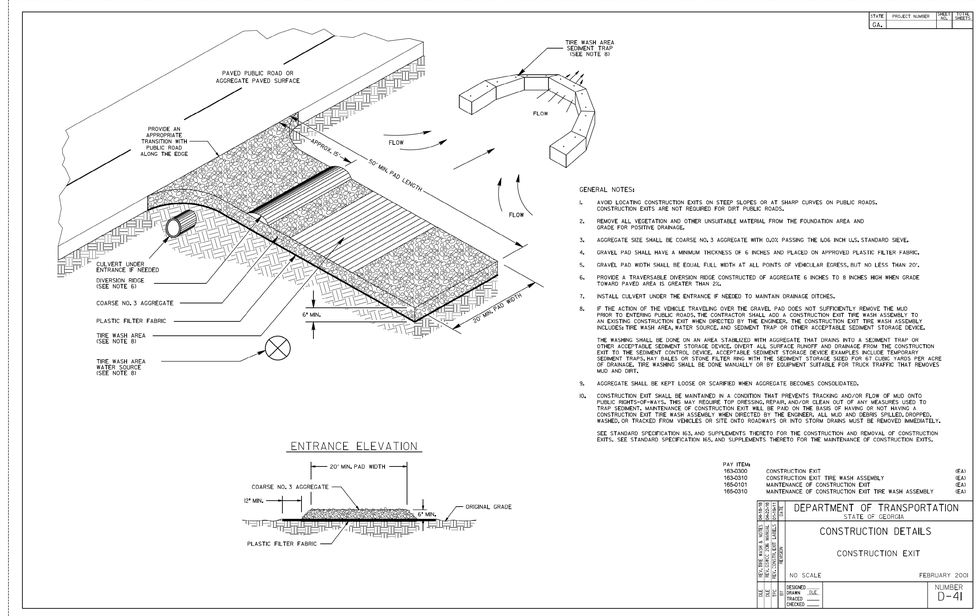
CORRECTED:		DATE:	/ /	56-0001
VERIFIED:		DATE:	/ /	

7/31/2015 SUXSEW



ENTRANCE ELEVATION

GENERAL NOTES:

1. AVOID LOCATING CONSTRUCTION EXITS ON STEEP SLOPES OR AT SHARP CURVES ON PUBLIC ROADS. CONSTRUCTION EXITS ARE NOT REQUIRED FOR DIRT PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA AND GRADE FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE COARSE NO. 3 AGGREGATE WITH 0.00 PASSING THE 4.00 INCH U.S. STANDARD SIEVE.
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES AND PLACED ON APPROVED PLASTIC FILTER FABRIC.
5. GRAVEL PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. PROVIDE A TRAVERSABLE DIVERSION RIDGE CONSTRUCTED OF AGGREGATE 6 INCHES TO 8 INCHES HIGH WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL CULVERT UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. IF THE ACTION OF THE VEHICLE TRAVELING OVER THE GRAVEL PAD DOES NOT SUFFICIENTLY REMOVE THE MUD PRIOR TO ENTERING PUBLIC ROADS, THE CONTRACTOR SHALL ADD A CONSTRUCTION EXIT TIRE WASH ASSEMBLY TO AN EXISTING CONSTRUCTION EXIT WHEN DIRECTED BY THE ENGINEER. THE CONSTRUCTION EXIT TIRE WASH ASSEMBLY INCLUDES TIRE WASH AREA, WATER SOURCE, AND SEDIMENT TRAP OR OTHER ACCEPTABLE SEDIMENT STORAGE DEVICE.

   THE WASHING SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE THAT DRAINS INTO A SEDIMENT TRAP OR OTHER ACCEPTABLE SEDIMENT STORAGE DEVICE, DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE CONSTRUCTION EXIT TO THE SEDIMENT CONTROL DEVICE. ACCEPTABLE SEDIMENT STORAGE DEVICE EXAMPLES INCLUDE TEMPORARY SEDIMENT TRAPS, HAY BALES OR STONE FILTER RING WITH THE SEDIMENT STORAGE SIZED FOR 67 CUBIC YARDS PER ACRE OF DRAINAGE. TIRE WASHING SHALL BE DONE MANUALLY OR BY EQUIPMENT SUITABLE FOR TRUCK TRAFFIC THAT REMOVES MUD AND DIRT.
9. AGGREGATE SHALL BE KEPT LOOSE OR SCARIFIED WHEN AGGREGATE BECOMES CONSOLIDATED.
10. CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR, AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. MAINTENANCE OF CONSTRUCTION EXIT WILL BE PAID ON THE BASIS OF HAVING OR NOT HAVING A CONSTRUCTION EXIT TIRE WASH ASSEMBLY WHEN DIRECTED BY THE ENGINEER. ALL MUD AND DEBRIS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ON SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

   SEE STANDARD SPECIFICATION 163, AND SUPPLEMENTS THERETO FOR THE CONSTRUCTION AND REMOVAL OF CONSTRUCTION EXITS. SEE STANDARD SPECIFICATION 165, AND SUPPLEMENTS THERETO FOR THE MAINTENANCE OF CONSTRUCTION EXITS.

PAY ITEMS		
163-0200	CONSTRUCTION EXIT	(EA)
163-0310	CONSTRUCTION EXIT TIRE WASH ASSEMBLY	(EA)
165-0101	MAINTENANCE OF CONSTRUCTION EXIT	(EA)
165-0310	MAINTENANCE OF CONSTRUCTION EXIT TIRE WASH ASSEMBLY	(EA)

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

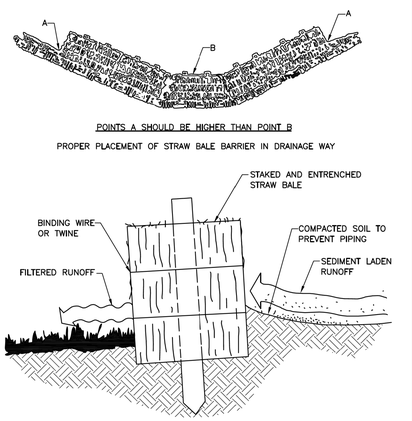
CONSTRUCTION DETAILS

CONSTRUCTION EXIT

NO SCALE — FEBRUARY 2001

DESIGNED / DRAWN / TRACED / CHECKED

NUMBER D-41



POINTS A SHOULD BE HIGHER THAN POINT B

PROPER PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY

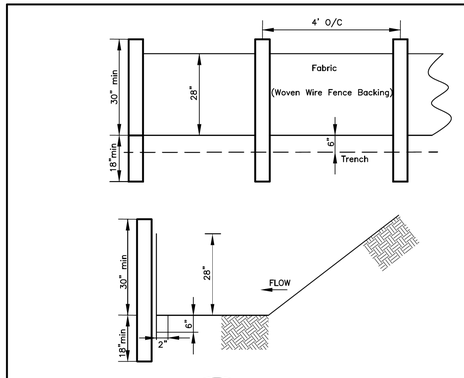
CROSS-SECTION OF A PROPERLY INSTALLED STRAW BALE

NOTE: EMBED HAY BALES A MINIMUM OF 4 INCHES.

(Cd-Hb) HAYBALE CHECK DAMS

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta | STANDARD DETAILS | HAYBALE CHECK DAMS | REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S. | DETAIL NO. ER-G_CD002



(Sd1-C) TYPE C SILT FENCE

SILT FENCE

THE MANUFACTURER SHALL HAVE EITHER AN APPROVED COLOR MARK YARN IN THE FABRIC OR LABEL THE FABRICATED SILT FENCE WITH BOTH THE MANUFACTURER AND FABRIC NAME EVERY 100 FEET.

THE TEMPORARY SILT FENCE SHALL BE INSTALLED ACCORDING TO THIS SPECIFICATION, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. FOR INSTALLATION OF THE FABRIC, SEE DETAIL. POST INSTALLATION SHALL START AT THE CENTER OF THE LOW POINT (IF PPLICABLE) WITH THE REMAINING POSTS SPACED 4 FEET APART FOR TYPE C SILT FENCE. ONLY STEEL POST SHALL BE USED WITH TYPE C SILT FENCE. POSTS SHALL BE 4' IN LENGTH, 1.3 LBS/ FT. ALONG STREAM BUFFERS AND OTHER SENSITIVE AREAS, TWO ROWS OF TYPE C SILT FENCE OR ONE ROW OF TYPE C SILT FENCE BACKED BY HAYBALES SHALL BE USED.

MAINTENANCE FOR ALL Sd2 APPLICATIONS

ALL TRAPS SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION. SOD INLET PROTECTION SHAL BE MAINTAINED AS SPECIFIED IN DS4- DISTURBED AREA STABLIZATION (WITH SODDING).

SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET, AGAIN.
WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. ALL DISTURBED AREAS AROUND THE INLET SHALL BE APPROPRIATELY STABILIZED.

DESIGN CRITERIA FOR ALL Sd2 APPLICATIONS

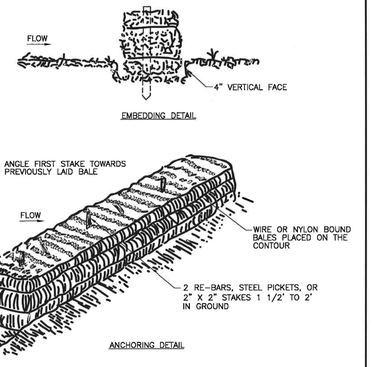
MANY SEDIMENT FILTERING DEVICES CAN BE DESIGNED TO SERVE AS TEMPORARY SEDIMENT TRAPS. SEDIMENT TRAPS MUST BE SELF-DRAINING UNLESS THEY ARE OTHERWISE PROTECTED IN AN APPROVED FASHION THAT WILL NOT PRESENT A SAFETY HAZARD. THE AREA DRAINING TO THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

IF RUNOFF MAY BYPASS THE PROTECTED INLET, A TEMPORARY DIKE SHOULD BE CONSTRUCTED ON THE DOWN SLOPE SIDE OF THE STRUCTURE. ALSO, A STONE FILTER RING MAY BE USED ON THE UP SLOPE SIDE OF THE INLET TO SLOW RUNOFF AND FILTER LARGER SOIL PARTICLES. REFER TO FR-STONE FILTER RING.

MAINTENANCE
SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS). TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta | STANDARD DETAILS | TYPE C SILT FENCE | REV. DATE: SEPT 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S. | DETAIL NO. ER-G_SD001



NOTE:
- ANCHOR AND EMBED INTO SOIL TO PREVENT WASHOUT OR WATER WORKING UNDER BARRIER
- REPAIR OR REPLACEMENT MUST BE MADE PROMPTLY AS NEEDED

(Sd1-Hb) STAKED HAYBALE BARRIERS

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of Atlanta | STANDARD DETAILS | HAY OR STRAW BALES | REV. DATE: OCT. 2011 ORIG. DATE: NOV 2004 SCALE: N.T.S. | DETAIL NO. ER-G_CD002

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EROSION CONTROL CONSTRUCTION DETAILS

WOODWARD WAY

PUMP STATION I IMPROVEMENTS

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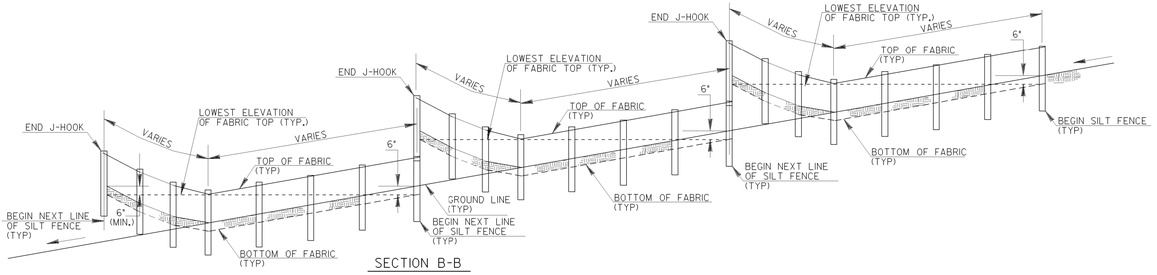
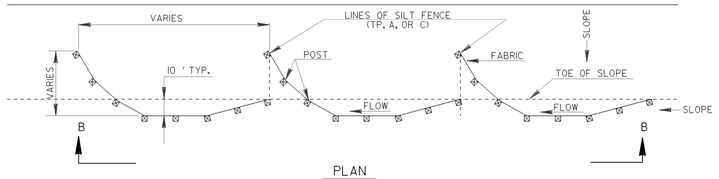
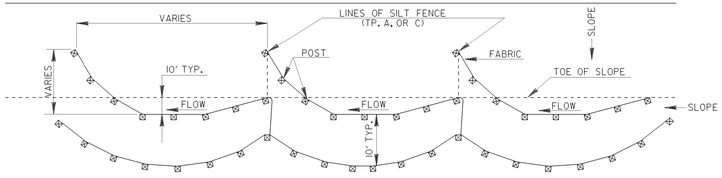


SECTION B-B



PLAN

SINGLE ROW SILT FENCE



PLAN

DOUBLE ROW SILT FENCE

TYPICAL J HOOK SPACING		
SLOPE PERCENT	TYPE OF SILT FENCE	MINIMUM SPACING (FEET)
1% TO 2%	TYPE A	100' ±
2% TO 3%	TYPE A	50' ±
3% TO 4%	TYPE C	50' ±
4% TO 5%	TYPE C	25' ±

NOTE:

1. IF THE GRADE IS BETWEEN 0 TO 1 PERCENT, THE SILT FENCE SHALL BE PLACED ACROSS THE DITCH.
2. TEMPORARY SILT FENCE SHALL NOT BE PLACED WITHIN STATE WATERS.

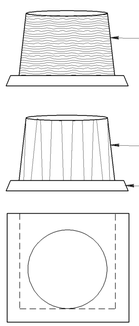
(PLASTIC ALTERNATE)

NOTE:
THE DRAINAGE AREA ENTERING THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

TYPICAL CONSTRUCTION SEQUENCE FOR INLET SEDIMENT TRAP ALTERNATE

1. EXCAVATE APPROXIMATELY 4" TO 6" BELOW THE TOP OF THE INLET STRUCTURE.
2. PLACE THE FRAME ONTO THE INLET STRUCTURE, ENSURING PROPER SEATING OF FRAME TO STRUCTURE.
3. SLIDE THE FILTER OVER THE FRAME.
4. FILL THE FILTER POCKETS WITH SOIL, #57 GRAVEL OR EQUIVALENT. THE FILTER POCKETS SHOULD BE COMPLETELY FILLED TO ENSURE A GOOD SEAL BETWEEN THE GROUND AND INLET STRUCTURE.
5. BACK FILL AROUND THE FRAME AND FILTER ASSEMBLY IS NOT REQUIRED TO COMPLETE INSTALLATION; HOWEVER, BACK FILLING MAY BE NECESSARY TO COMPLETE EXCAVATION REQUIREMENTS FOR THE SITE.

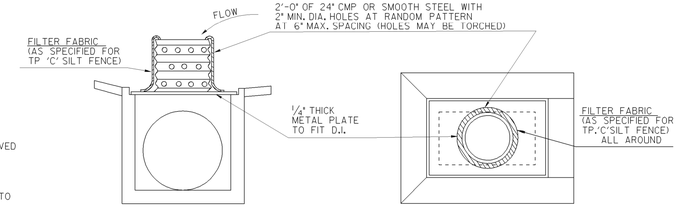
NOTE:
INLET SEDIMENT TRAP ALTERNATE SHALL BE AS APPROVED BY THE GA. D.O.T. OFFICE OF MATERIALS & RESEARCH. DETAILS & SPECIFICATIONS NOT SHOWN ARE PER THE MANUFACTURER'S REQUIREMENTS.



SIDE VIEW

NOTE: WHERE INLET SEDIMENT TRAPS ARE SPECIFIED, EITHER THE PLASTIC ALTERNATE (LEFT) OR THE METAL ALTERNATE (RIGHT) MAY BE USED AS APPROVED BY THE ENGINEER.

(METAL ALTERNATE)



SIDE VIEW

TOP VIEW

NOTE:
INLET SEDIMENT TRAP AND INLET TO BE BUILT CONTINUOUS WITH PIPE

NOTE:
PAYMENT AS INLET SEDIMENT TRAP PER EACH

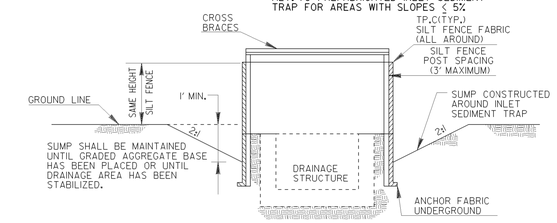
NOTE: SEE SEPARATE DETAILS FOR SILT FENCE AROUND DROP INLETS.

INLET SEDIMENT TRAP - FOR DROP INLETS

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

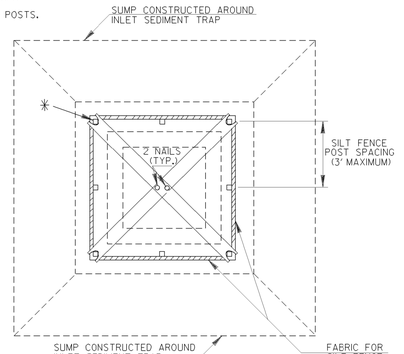
TYPICAL LOCATION AROUND DROP INLETS

ALT. TO PREFABRICATED INLET SEDIMENT TRAP FOR AREAS WITH SLOPES ≤ 5%



ELEVATION

✳ CROSS BRACING REQUIRED WHEN USING "ALTERNATE" TYPE C PRODUCTS WHICH USE WOOD POSTS.



PLAN

CROSS BRACES:

TWO - 2 X 4's WITH ENDS TO FIT POST, PROVIDING STURDY SUPPORT, OR AN APPROVED ALTERNATE

NOTE:
PAYMENT AS INLET SEDIMENT TRAP PER EACH.

NOTE:
SEE SEPARATE SHEET ENTITLED "TEMPORARY SILT FENCE DETAILS" FOR SILT FENCE ERECTION DETAILS.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS
TEMPORARY SILT FENCE
J-HOOK, INLET SEDIMENT TRAPS

NO SCALE JANUARY 2011

NUMBER D-24C (SHEET 3 OF 4)

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EROSION CONTROL CONSTRUCTION DETAILS

WOODWARD WAY

PUMP STATION 1 IMPROVEMENTS

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