

J:\29851\298510000\298510000\CONSTRUCTION PLANS\298510000 - J-29851.0000 - 01/02/2024 - 7:52 AM



NORTHWEST WALTERBORO SEWER IMPROVEMENTS PHASE II- PUMP STATION AND FORCE MAIN

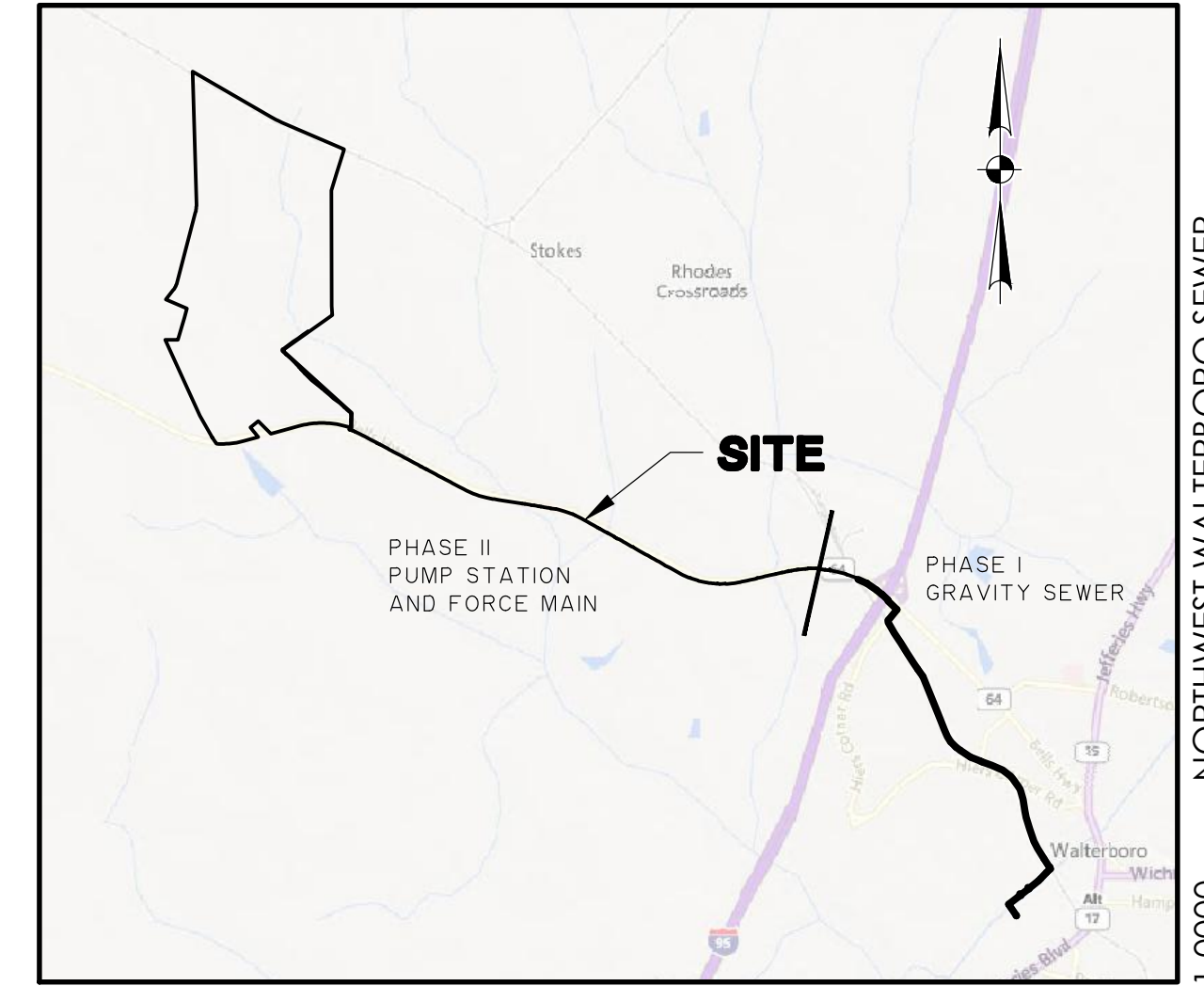
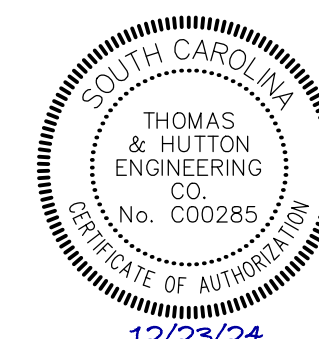
FOR
 COLLETON COUNTY
 PREPARED FOR:
 COLLETON COUNTY
 109 BENSON STREET
 WALTERBORO, SC 29488

TM# MULTIPLE

JANUARY 2, 2024

J-29851.0000

PREPARED BY:



VICINITY MAP
SCALE: 1" = 6000'

NORTHWEST WALTERBORO SEWER IMPROVEMENTS
 J-29851.0000
 01/02/2024

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REVISION HISTORY			
REV. NO.	REVISION	BY	DATE

SUBMITTAL HISTORY	
SUBMITTED TO	DATE



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ABBREVIATIONS

DBL	DOUBLE	FM	FORCE MAIN (SANITARY SEWER)	PC	POINT OF CURVE	TC	TOP OF CURB
BOT	BOTTOM	FP	FINISH PAD	PH	POST HYDRANT	TH	THROAT ELEVATION
CB	CATCH BASIN	FR	FRAME	PT	POINT OF TANGENT	TG	TOP OF GUTTER
CI	CURB INLET	GI	GRATE INLET	PVC	POLYVINYL CHLORIDE	TP	TOP OF PAVEMENT
CO	CLEAN OUT	GV	GATE VALVE	RCP	REINFORCED CONCRETE PIPE	TW	TOP OF WALK
CPP	CORRUGATED PLASTIC PIPE	HDPE	HIGH DENSITY POLYETHYLENE	RC	ROLL CURB INLET	TYP	TYPICAL
DBL	DOUBLE	HI	HOODED INLET	RCP	REINFORCED CONCRETE PIPE	VI	VALLEY INLET
DI	DITCH INLET	INV	INVERT ELEVATION	RI	ROOF INLET	W	WATER
DIP	DUCTILE IRON PIPE	JB	JUNCTION BOX	RJP	RESTRAINED JOINT PIPE	W/	WITH
EL	ELEVATION	LF	LINEAR FEET	R/W	RIGHT-OF-WAY	WV	WATER VALVE
ES	END SECTION	MAX	MAXIMUM	SD	STORM DRAINAGE	YI	YARD INLET
FES	FLARED END SECTION	MIN	MINIMUM	SDMH	STORM DRAINAGE MANHOLE	YI	YARD INLET
FG	FINISH GRADE	MH	MANHOLE	SF	SQUARE FEET		
FH	FIRE HYDRANT	OC	ON CENTER	SS	SANITARY SEWER		

DRAINAGE LEGEND

DESCRIPTION	EXISTING	PROPOSED
PIPE	---	---
DITCH		→
CURB INLET (CI) CATCH BASIN (CB)		
CURB INLET - RIGHT (CI) OR CATCH BASIN - RIGHT (CB)		
CURB INLET - LEFT (CI) OR CATCH BASIN - LEFT (CB)		
CURB INLET - BOTH (CI) OR CATCH BASIN - LEFT (CB)		
CONTROL STRUCTURE (CS)		
DITCH INLET (DI)		
GRATE INLET (GI)		
HOODED INLET (HI)		
JUNCTION BOX (JB)		
MANHOLE (SDMH)		
ROLL CURB INLET (RC)		
ROOF INLET (RI)		
YARD INLET (YI)		
FLARED END SECTION (FES)		

WATER LEGEND

DESCRIPTION	EXISTING	PROPOSED
WATER MAIN	10" W	10" W
SINGLE SERVICE LATERAL	---	---
DOUBLE SERVICE LATERAL		
VALVE AND BOX		
FIRE HYDRANT W/VALVE & BOX		
POST HYDRANT		
REDUCER		
BACKFLOW PREVENTOR		
CROSS		
TEE		
90° BEND - HORIZONTAL		
45° BEND - HORIZONTAL		
22-1/2° BEND - HORIZONTAL		
11-1/4° BEND - HORIZONTAL		
BEND - VERTICAL		
CAP		

SEWER LEGEND

DESCRIPTION	EXISTING	PROPOSED
GRAVITY PIPE	SS	---
SINGLE SERVICE LATERAL	---	---
DOUBLE SERVICE LATERAL		
MANHOLE		
CLEANOUT		
FORCEMAIN	10" FM	10" FM
VALVE AND BOX		
FLUSH HYDRANT		
REDUCER		
BACKFLOW PREVENTOR		
CROSS		
TEE		
90° BEND - HORIZONTAL		
45° BEND - HORIZONTAL		
22-1/2° BEND - HORIZONTAL		
11-1/4° BEND - HORIZONTAL		
BEND - VERTICAL		
PLUG \ CAP		

- CONTRACTOR SHALL COORDINATE TIE-IN OF NEW SEWER FACILITIES TO CITY OF WALTERBORO.
- CONTRACTOR SHALL MAINTAIN MINIMUM COVER OVER THE WATER MAIN PIPE BARREL OF 4'-0" UNLESS OTHERWISE INDICATED. TOP OF PIPE ELEVATIONS ARE SHOWN FOR CASES WHERE FUTURE STORM SEWERS ARE TO BE INSTALLED. IN NO CASE SHALL THE WATER MAIN BE INSTALLED AT A LOWER ELEVATION THAN THAT SHOWN.
- SHOULD PIPE, FITTINGS, AND OTHER MATERIALS BE NEEDED IN ADDITION TO THAT SHOWN ON THE DRAWINGS BECAUSE PIPELINE WAS NOT INSTALLED TO THE ALIGNMENT AND PROFILE SHOWN, THEN THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THOSE NECESSARY MATERIALS AND PROVIDING THE EQUIPMENT AND LABOR TO INSTALL THEM TO MEET THE DESIGN INTENT OF THE WATERMAIN AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER 48 HOURS IN ADVANCE OF ALL REQUIRED TESTS AND INSPECTIONS.
- THE CONTRACTOR WILL NOTIFY THE ENGINEER IF UNSUITABLE MATERIAL IS DISCOVERED PRIOR TO BEGINNING ANY REMOVAL OPERATION.
- ALL FORCE MAINS SHALL BE POLYVINYL CHLORIDE (PVC C900 DR 18) UNLESS OTHERWISE INDICATED.
- ALL GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE (PVC SDR 26) UNLESS OTHERWISE INDICATED.
- SURVEYING AND BOUNDARY INFORMATION BY THOMAS AND HUTTON
- ALL ELEVATIONS SHOWN ARE BASED ON NAVD8S.
- TOPOGRAPHIC SURVEY BY THOMAS AND HUTTON.
- CONTRACTOR IS TO VERIFY ACCURACY OF ANY TEMPORARY BENCHMARKS SHOWN PRIOR TO UTILIZING THEM FOR CONSTRUCTION.
- THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES OTHER THAN THOSE SHOWN ARE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND TAKE STEPS TO PROTECT THE LINE(S) AND ENSURE CONTINUED SERVICE. DAMAGE CAUSED TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR. ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THE CONNECTION POINTS OF NEW UTILITIES TO EXISTING UTILITIES PRIOR TO BEGINNING NEW CONSTRUCTION.
- IF WORK IS SUSPENDED OR DELAYED FOR 14 DAYS, THE CONTRACTOR SHALL TEMPORARILY STABILIZE THE DISTURBED AREA AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL INSTALL ANY BARRICADES PRIOR TO BEGINNING CONSTRUCTION
- ANY DAMAGE TO EXISTING PAVEMENT MUST BE REPAIRED AT CONTRACTORS EXPENSE AND TO THE SATISFACTION OF THE COUNTY ENGINEER AND THE PROJECT ENGINEER.
- ALL RIGHT-OF-WAY AND DRAINAGE EASEMENT CONSTRUCTION SHALL MEET SCOD STANDARD SPECIFICATIONS UNLESS SPECIFIED ELSEWHERE AND APPROVED IN WRITING BY THE COUNTY ENGINEER.
- WHERE FIELD INSPECTIONS ARE REQUIRED BY THE COUNTY, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION A MINIMUM OF 48 HOURS IN ADVANCE TO SCHEDULE SUCH INSPECTIONS.
- A COMPLETE SET OF APPROVED DRAWINGS AND SPECIFICATIONS MUST BE MAINTAINED ON SITE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK. THESE DRAWINGS SHALL BE MADE AVAILABLE UPON REQUEST.
- ANY REVISIONS DURING CONSTRUCTION WHICH ALTER THE ROAD LAYOUT, CONSTRUCTION METHODS, RIGHT-OF-WAY LOCATION OR DRAINAGE MUST BE SUBMITTED AND APPROVED IN WRITING BY THE COUNTY ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS NECESSARY FROM OTHER RESPONSIBLE AGENCIES.
- THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL AND PREVENTION STRUCTURES SHOWN ON THE PLANS. BOTH MUST BE APPROVED BY COLLETON COUNTY PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES.
- CONTRACTOR WILL BE REQUIRED TO ADJUST MANHOLE FRAMES TO MATCH FINAL GRADE AT NO ADDITIONAL COST.
- THE FOLLOWING NOTES ARE SPECIFIED BY THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL - OFFICE OF OCEAN AND COASTAL RESOURCES MANAGEMENT (SCDHEC-OCRM) AND ARE TO BE EXECUTED BY THE CONTRACTOR:
 - ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
 - STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN 14 DAYS.
- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH THE DISTURBANCE OF THE LAND AND SHALL REMAIN FUNCTIONAL UNTIL THE CONTRIBUTING DISTURBED AREAS ARE STABILIZED. SILT BARRIERS WILL BE INSTALLED AS NECESSARY TO PREVENT EXCESSIVE SEDIMENTATION OF DOWNSTREAM AREAS. DEVICES SHALL BE IN ACCORDANCE WITH THE MANUAL OF "EROSION AND SEDIMENT CONTROL PRACTICES FOR DEVELOPING AREAS" BY THE S.C. LAND RESOURCES CONSERVATION COMMISSION.
- CONTRACTOR SHALL GRADE AREAS TO DRAIN FOR POSITIVE FLOW PRIOR TO FINAL APPROVAL.
- ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND "SOUTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BOTH CURRENT EDITIONS.
- ALL AREAS DISTURBED WILL BE GRASSED IMMEDIATELY AFTER THE INSTALLATION. GRASSING SHALL BE IN ACCORDANCE WITH SECTION B10 OF THE SCOD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION CURRENT EDITION. PAYMENT SHALL BE AS SHOWN IN THE BID FORM AND SHALL BE COMPENSATION FOR ALL NECESSARY WORK AND MATERIALS TO COMPLETE THE SEEDING IN ACCORDANCE WITH THESE SPECIFICATIONS. (SEE SPECIFICATIONS BELOW)
- ALL DRAINAGE WILL BE MADE FUNCTIONAL DAILY AS WORK PROGRESSES.
- EACH EXISTING ROAD WILL BE CLEANED UP AND RESTORED DAILY.
- NEW PAVEMENT TO BE FLUSH WITH EDGE OF EXISTING PAVEMENT.
- ALL STORM DRAIN PIPE INVERTS IN AND OUT ARE THE SAME AS THE BOX INVERT UNLESS OTHERWISE NOTED ON THE PLAN SHEETS AND/OR PROFILES.
- ALL SEWER INSTALLATION AND MATERIALS SHALL COMPLY WITH SECTION 30.30.00 OF THE THOMAS AND HUTTON STANDARDS AND SPECIFICATIONS.
- IF ARCHEOLOGICAL MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION WORK SHALL IMMEDIATELY CEASE. THE PROCEDURES COPIED AT 36 CFR 800.13(B) WILL APPLY AND EDA, THE SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICE, AND THE CATAWBA INDIAN NATION SHALL BE CONTACTED IMMEDIATELY. ARCHEOLOGICAL MATERIALS CONSIST OF ANY ITEMS, FIFTY YEARS OR OLDER WHICH WERE MADE OR USED BY MAN. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, STONE PROJECTILE POINTS (ARROWHEADS), CERAMIC SHEDS, BRICKS, WORKED WOOD, BONE AND STONE, METAL AND GLASS OBJECTS, AND HUMAN SKELETAL REMAINS.

OTHER UTILITIES LEGEND

DESCRIPTION	EXISTING
NATURAL GAS	UGG UGG
TELEPHONE	OHT OHT
UNDERGROUND TELEPHONE	UTL UTL
ELECTRICITY	OHP OHP
UNDERGROUND ELECTRICITY	UGP UGP

GENERAL NOTES

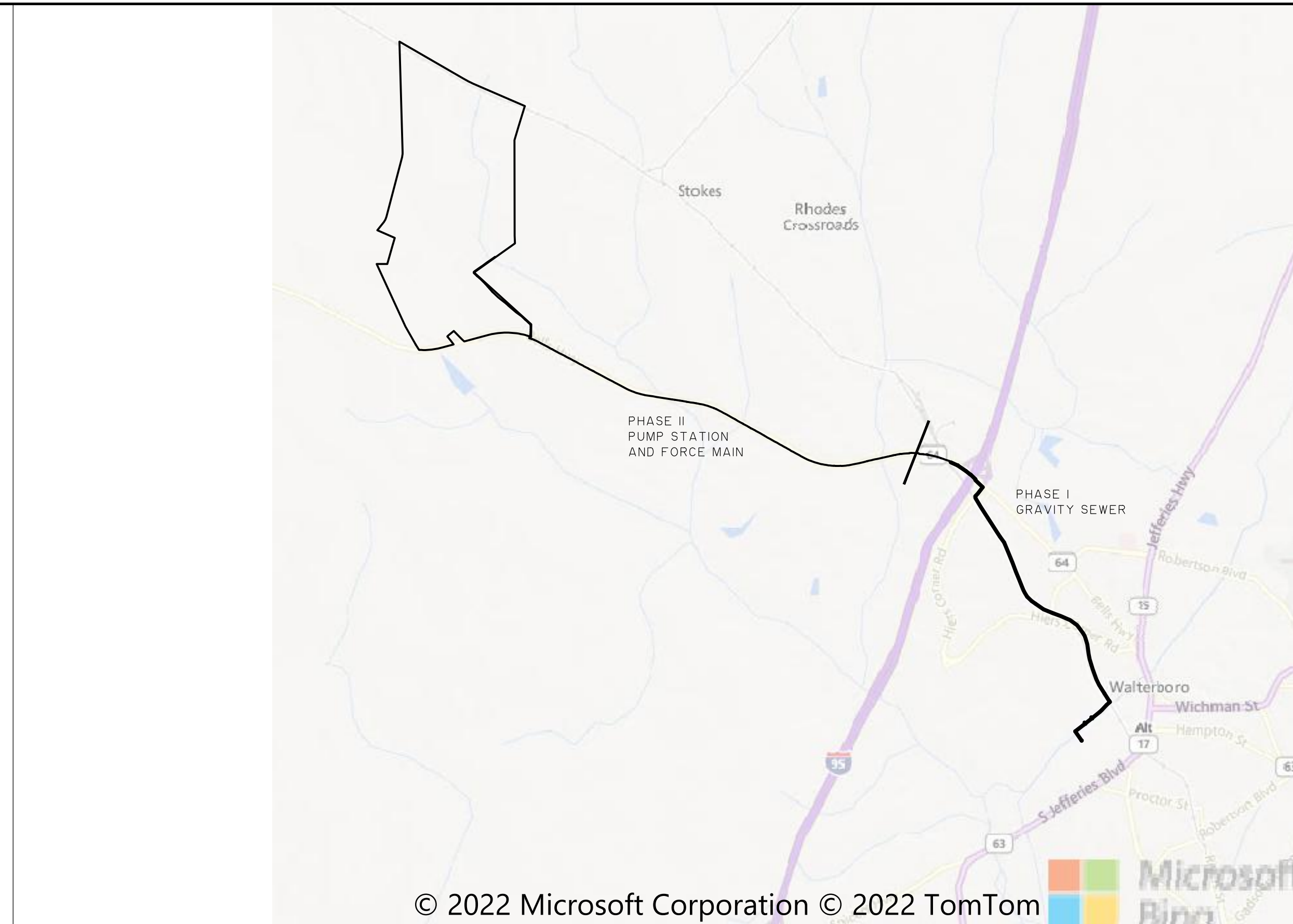
GENERAL INFORMATION

COUNTY COLLETON
 TOWN WALTERBORO
 ZONING INDUSTRIAL

OWNER:
 CITY OF WALTERBORO
 242 HAMPTON STREET
 (843) 782-1015
 ENGINEER:
 THOMAS & HUTTON
 1501 MAIN STREET, SUITE 400
 COLUMBIA, SC 29201
 (803) 451-6789

SURVEYOR:
 THOMAS & HUTTON
 50 PARK OF COMMERCE WAY
 SAVANNAH, GA 31405
 (912) 234-5300

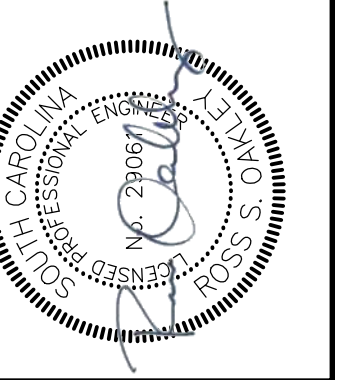
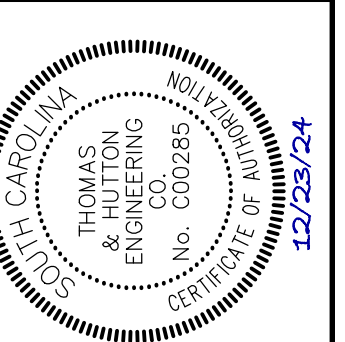
UTILITY:
 CITY OF WALTERBORO
 242 HAMPTON STREET
 (843)782-1015



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SCALE: 1" = 4000'



NO.	REVISIONS	BY	DATE

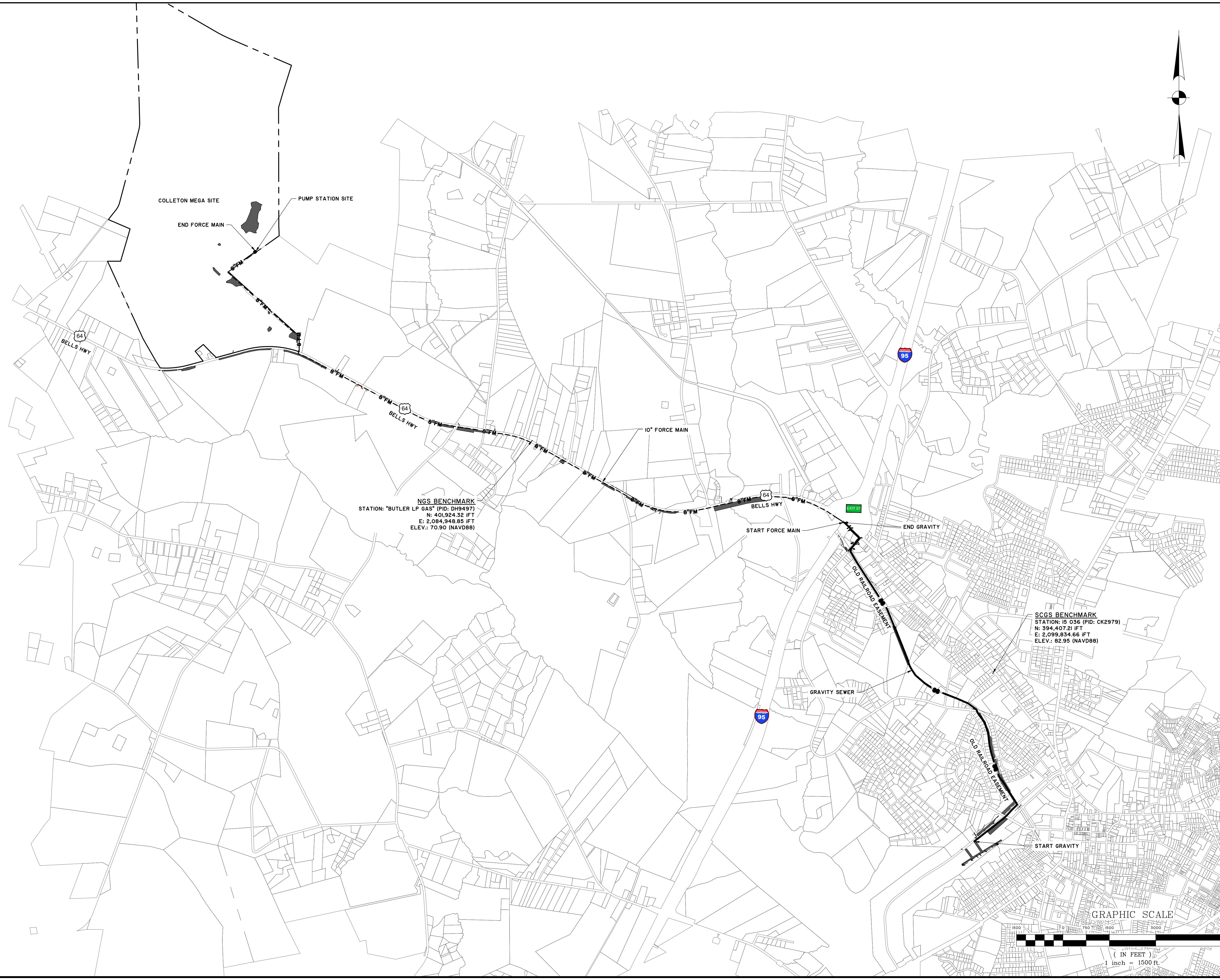
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COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WALTERBORO SEWER IMPROVEMENTS
GENERAL NOTES & INDEX

JOB NO: J-298510000
 DATE: 01/02/2024
 DRAWN: JTB
 DESIGNED: MAL
 REVIEWED: RSO
 APPROVED: RSO
 SCALE: N/A

GN.01

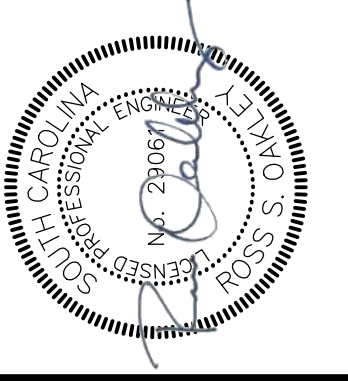
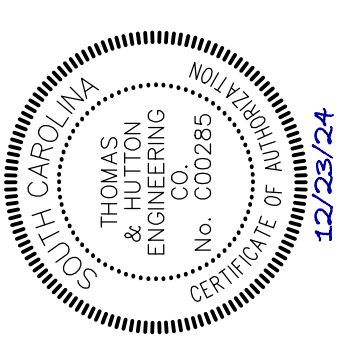
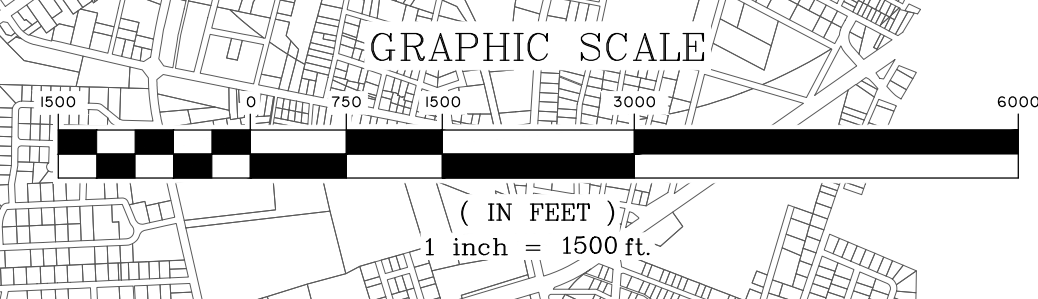
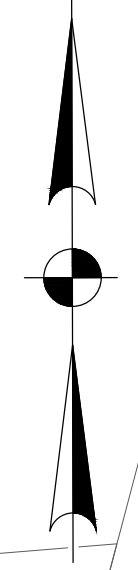
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COLLETON MEGA SITE
PUMP STATION SITE
END FORCE MAIN

NGS BENCHMARK
 STATION: "BUTLER LP GAS" (PID: DH9497)
 N: 401,924.32 FT
 E: 2,084,948.85 FT
 ELEV.: 70.90 (NAVD88)

SCGS BENCHMARK
 STATION: IS 036 (PID: CK2979)
 N: 394,407.21 FT
 E: 2,099,834.66 FT
 ELEV.: 82.95 (NAVD88)



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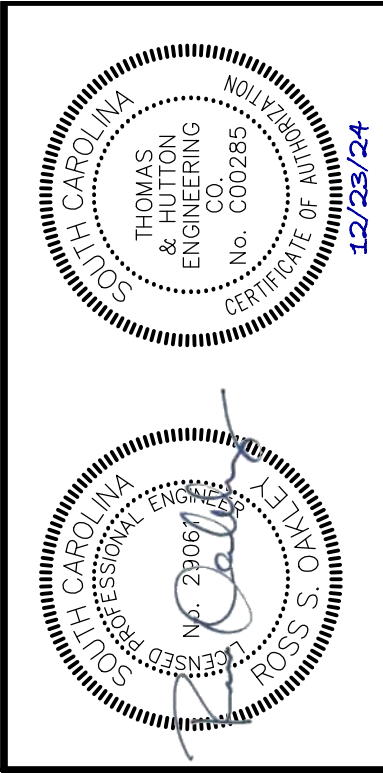
COLLETON COUNTY
 COLLETON COUNTY
NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
OVERALL SITE PLAN

JOB NO: J-298510000
 DATE: 01/02/2024
 DRAWN: JTB
 DESIGNED: MAL
 REVIEWED: RSO
 APPROVED: RSO
 SCALE: 1" = 1500'

C1.0



2:\PROJECTS\2024\02\01\NORTHWEST WALTERBORO SEWER IMPROVEMENTS\CONSTRUCTION\PLAN SHEETS\030 - FORCE MAIN - 01/17/2024 - 8:58 PM



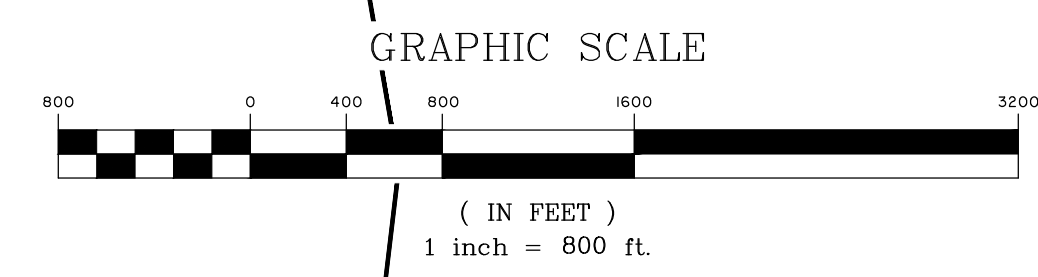
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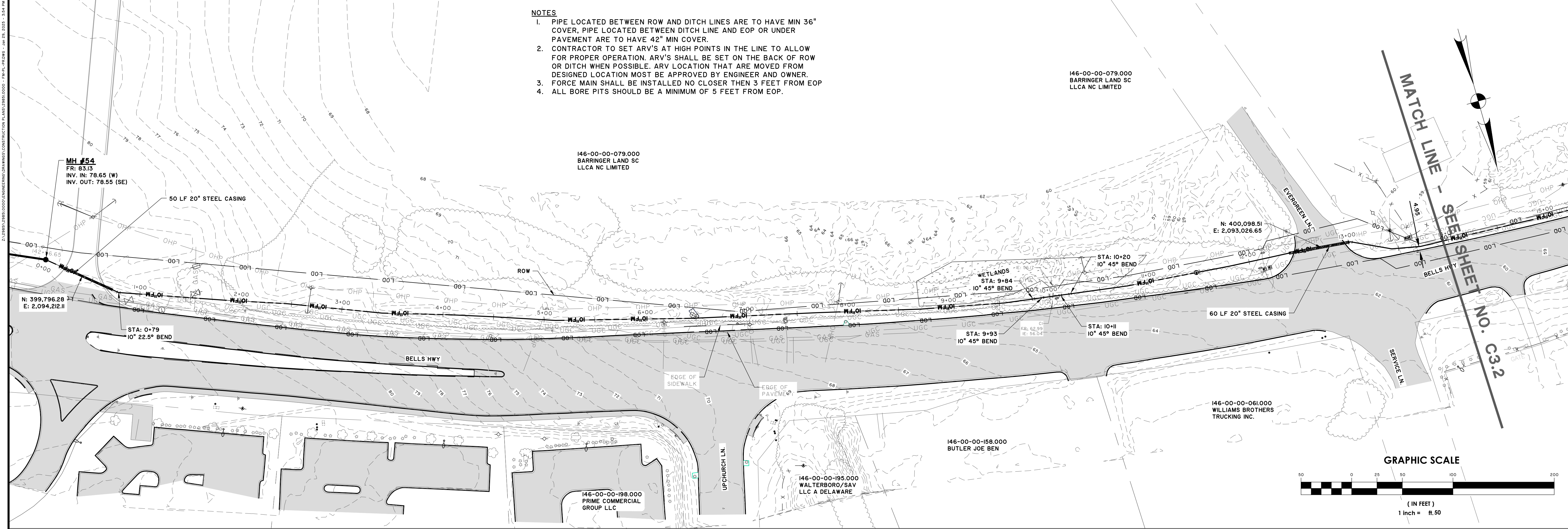
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COLLETON COUNTY
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 NORTHWEST WALTERBORO SEWER IMPROVEMENTS
FORCE MAIN SHEET KEY

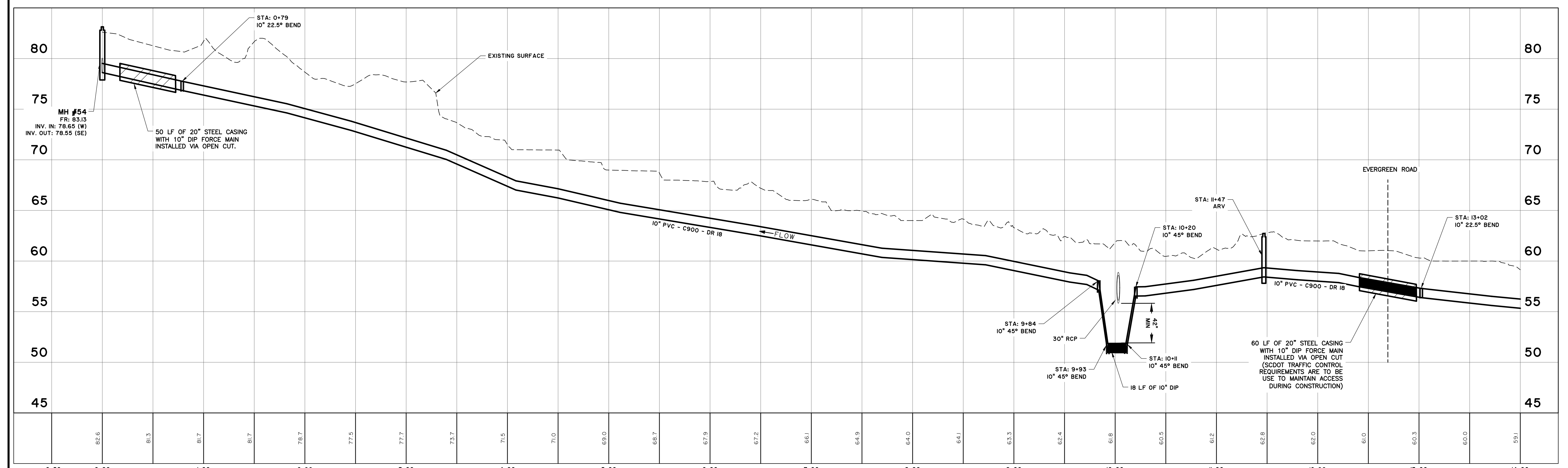
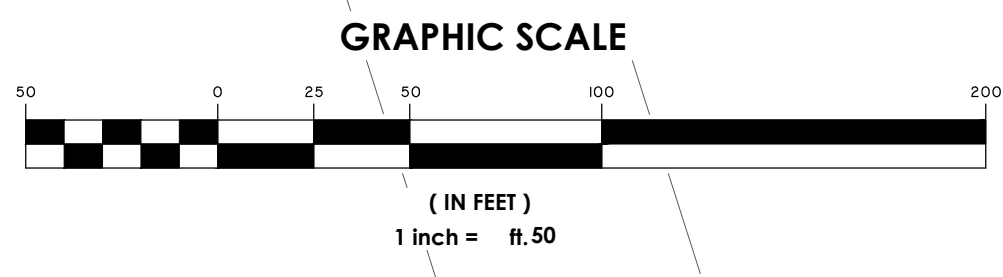
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 DESIGNED: MAL
 REVIEWED: RSO
 APPROVED: RSO
 SCALE: 1" = 800'

C3.0

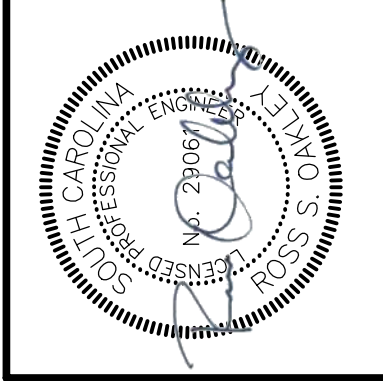
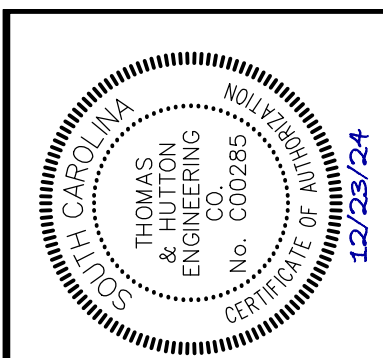




- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
 STATIONS: -0+50 - 14+00
 SCALE: HORZ.: 1" = 50'
 VERT.: 1" = 5'



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COLLETON COUNTY
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 NORTHWEST WALTERBORO SEWER IMPROVEMENTS
 FORCE MAIN PLAN & PROFILE

JOB NO:	J-298510000
DATE:	12/01/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

C3.1

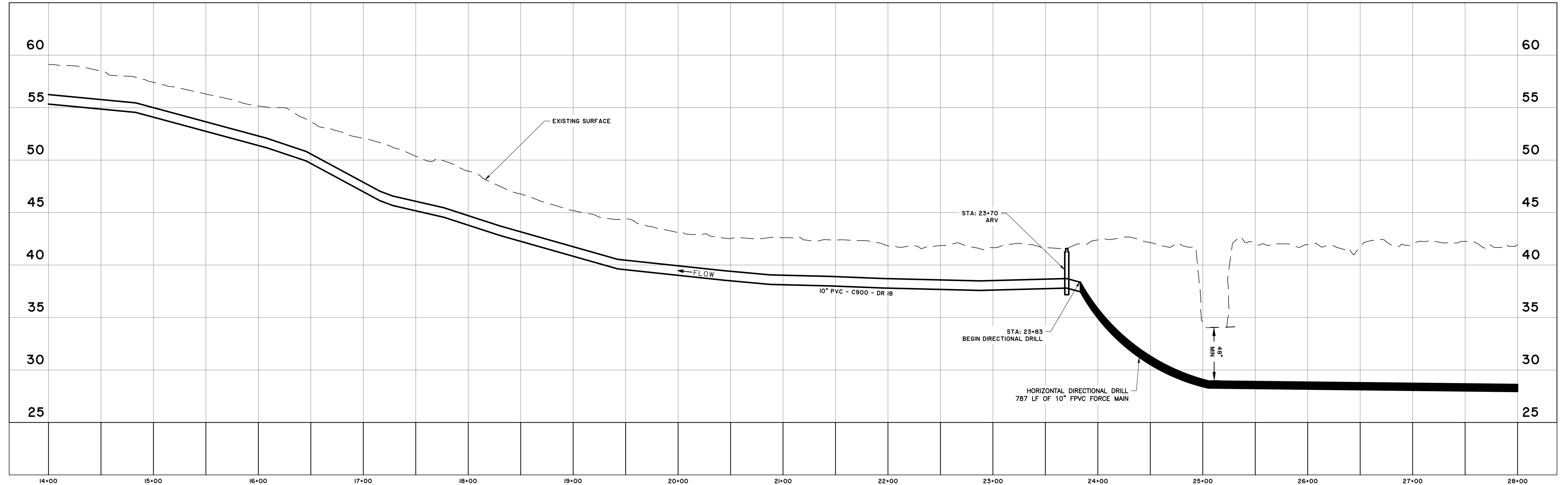
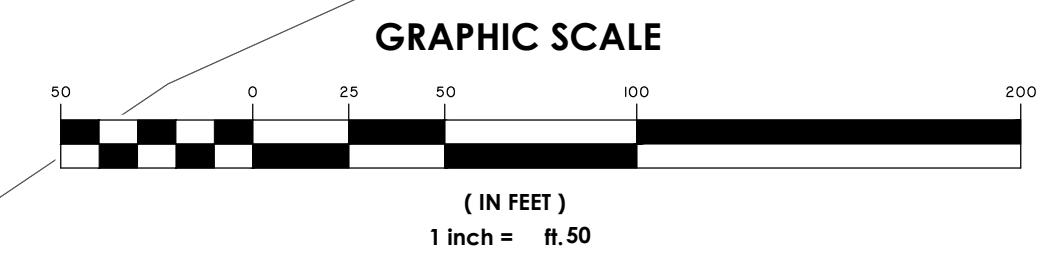
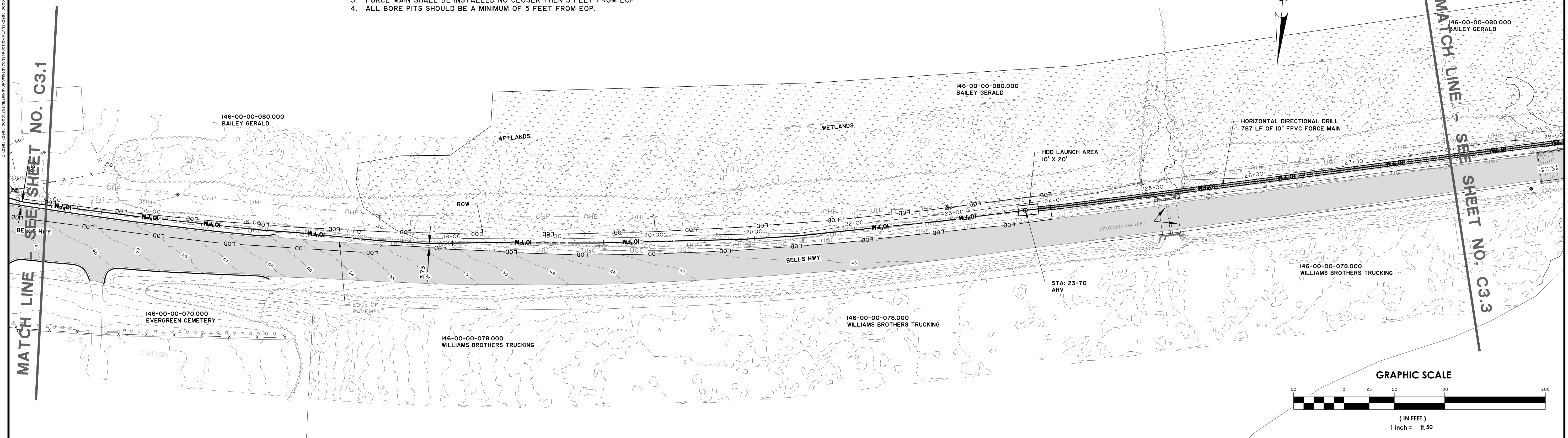
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NOTES

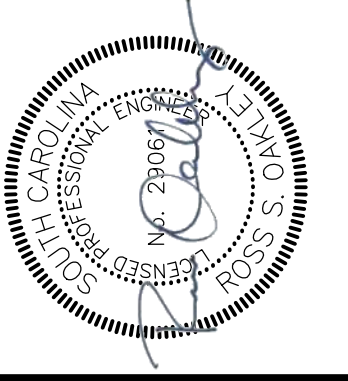
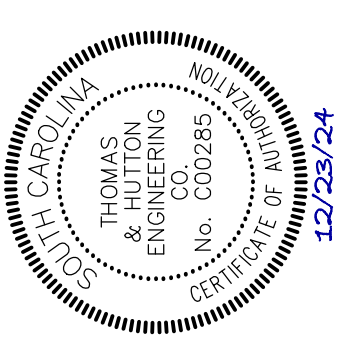
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.

MATCH LINE - SEE SHEET NO. C3.1

MATCH LINE - SEE SHEET NO. C3.3



FORCE MAIN
STATIONS: 14+00 - 28+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



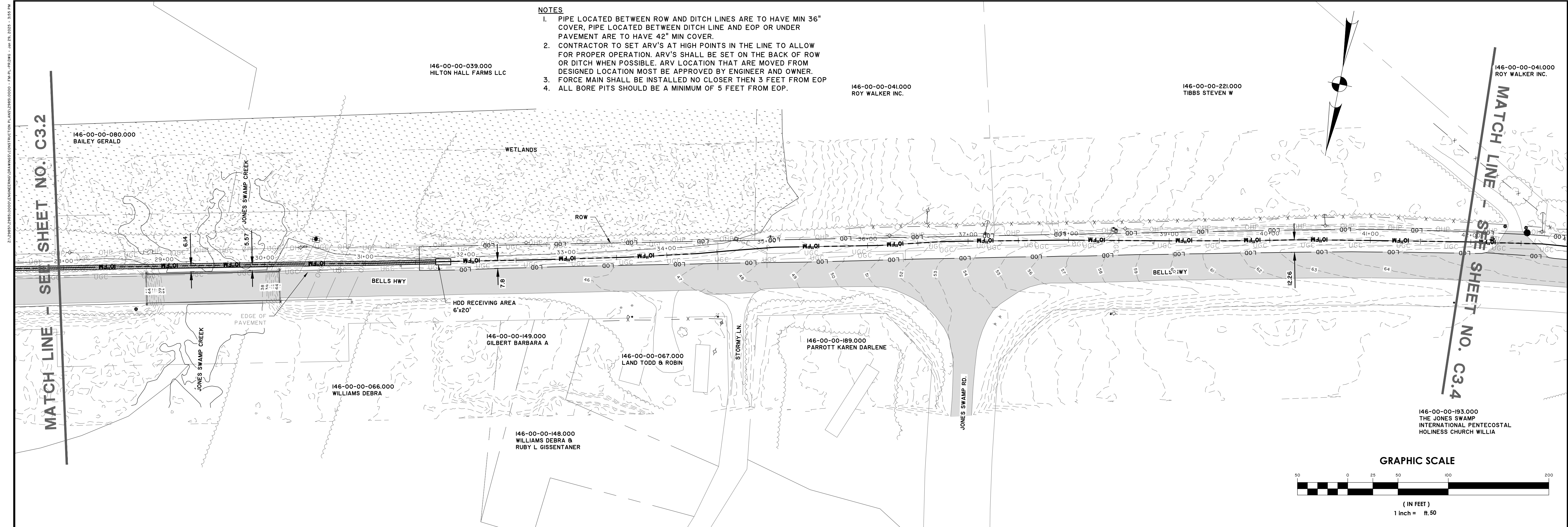
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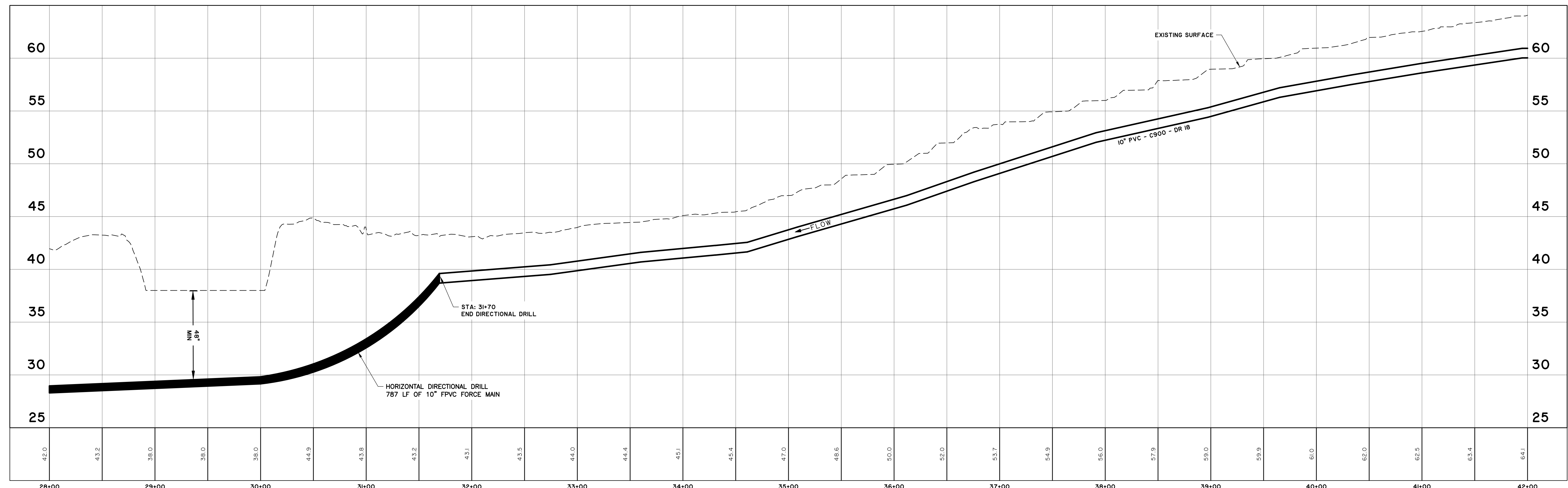
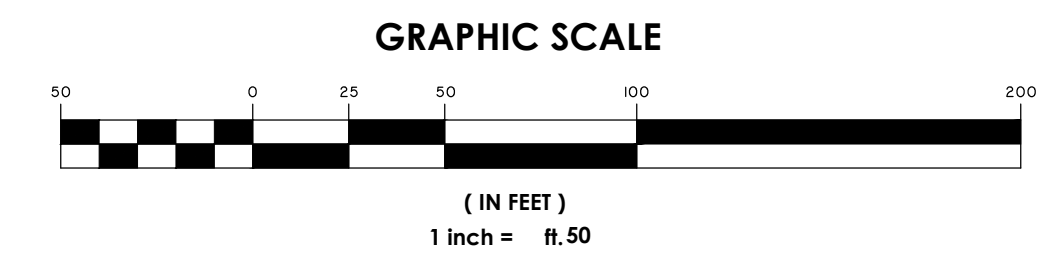
COLLETON COUNTY
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NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
FORCE MAIN PLAN & PROFILE

JOB NO:	J-298510000
DATE:	12/01/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

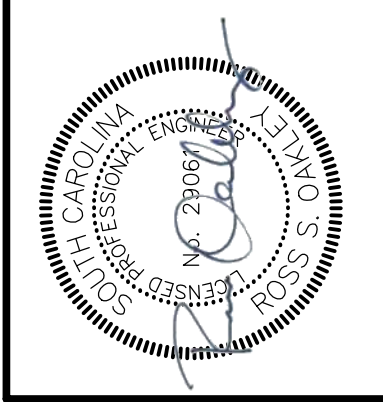
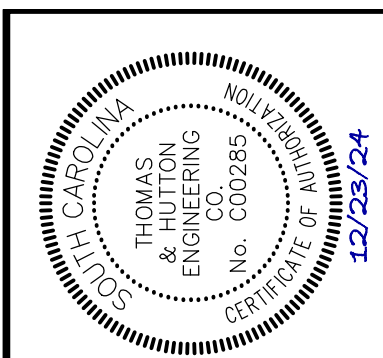
C3.2



- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER. PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MOST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
 STATIONS: 28+00 - 42+00
 SCALE: HORZ.: 1" = 50'
 VERT.: 1" = 5'



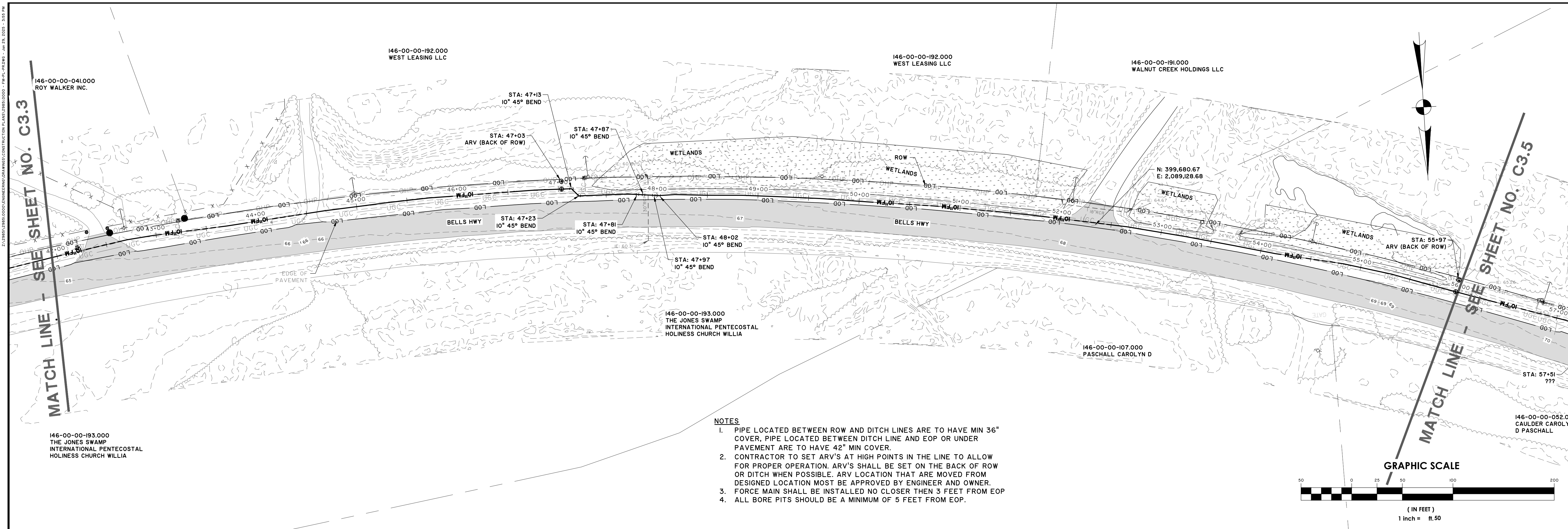
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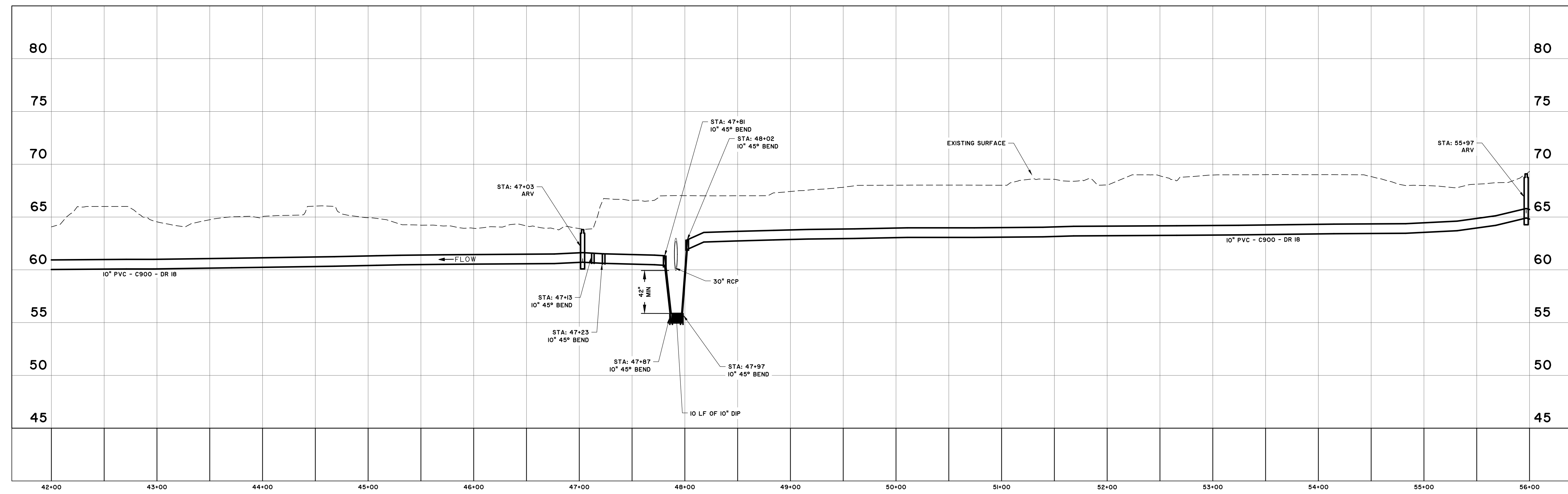
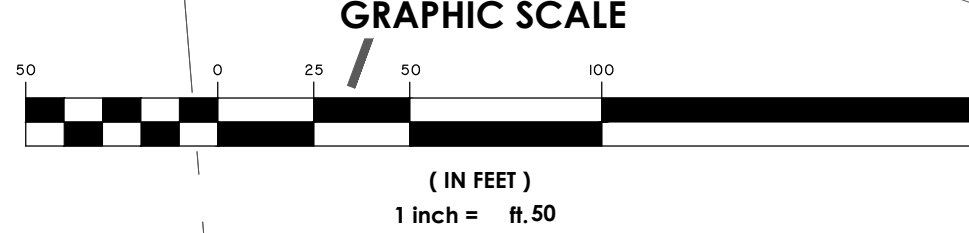
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FORCE MAIN PLAN & PROFILE

JOB NO: J-298510000
 DATE: 12/01/2024
 DRAWN: JTB
 DESIGNED: MAL
 REVIEWED: RSO
 APPROVED: RSO
 SCALE: AS NOTED

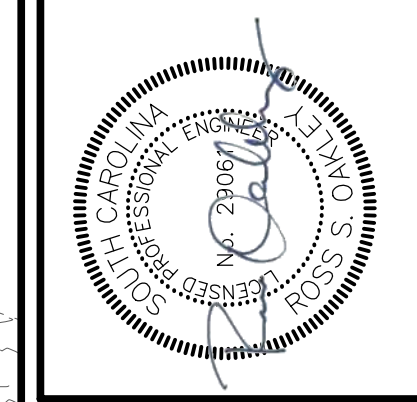
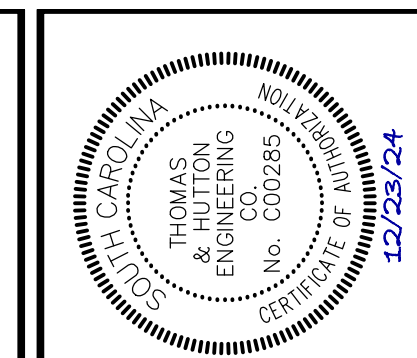
C3.3



- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
STATIONS: 42+00 - 56+00
SCALE: HORIZ.: 1" = 50'
VERT.: 1" = 5'



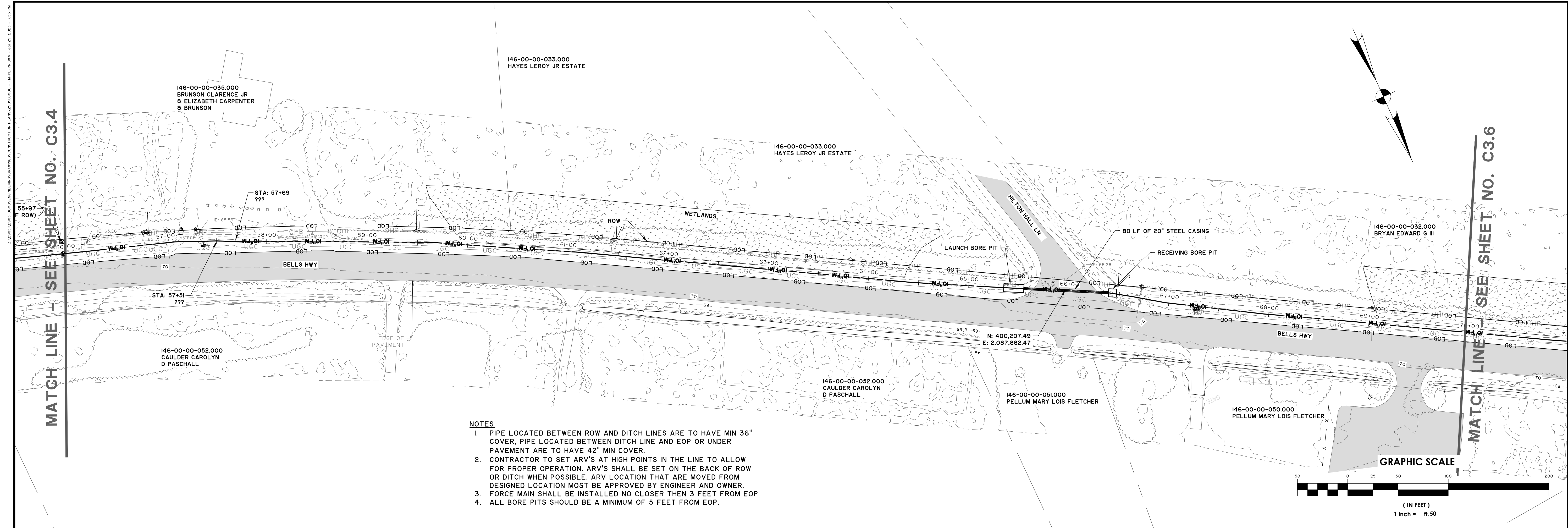
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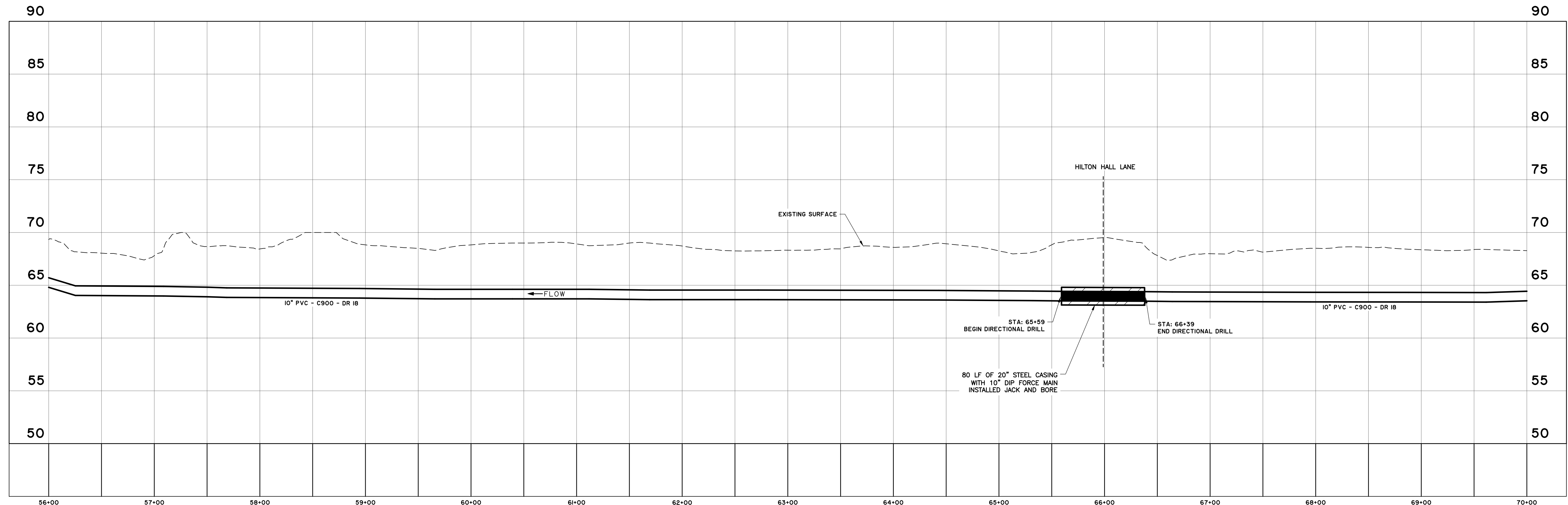
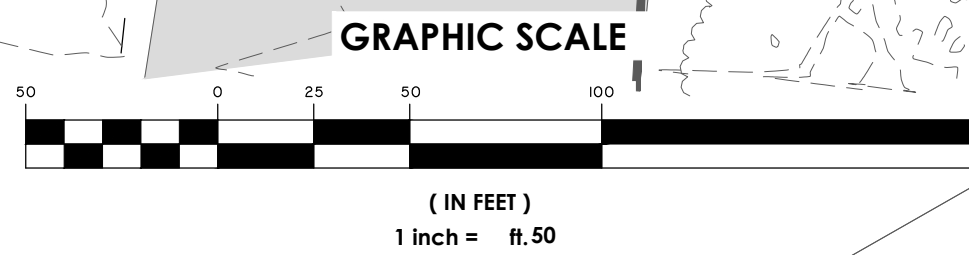
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FORCE MAIN PLAN & PROFILE

JOB NO:	J-298510000
DATE:	12/01/2024
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DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

C3.4



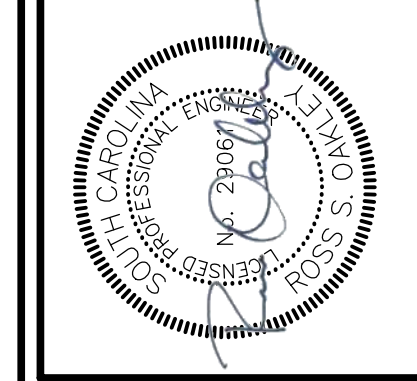
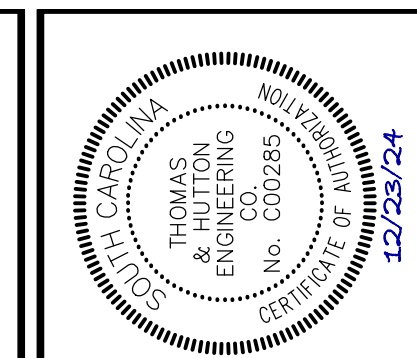
- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
 STATIONS: 56+00 - 70+00
 SCALE: HORIZ: 1" = 50'
 VERT: 1" = 5'

MATCH LINE - SEE SHEET NO. C3.4

MATCH LINE - SEE SHEET NO. C3.6



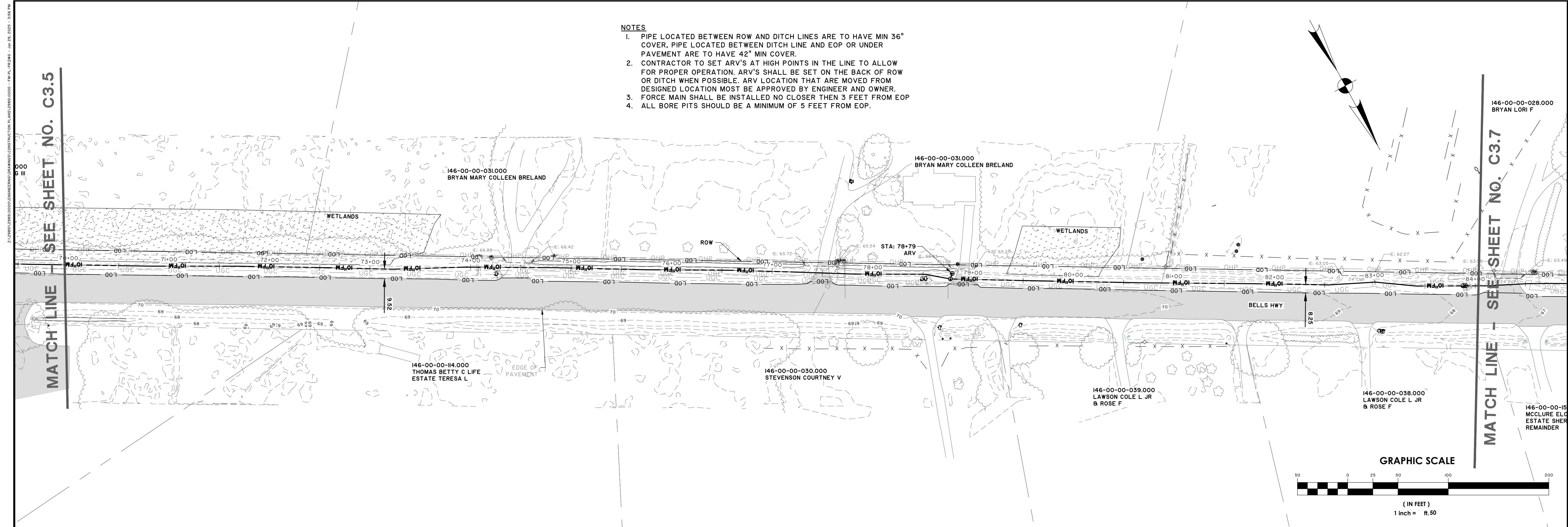
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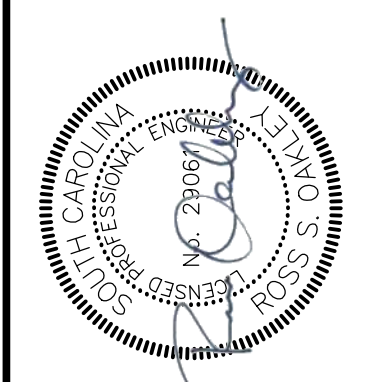
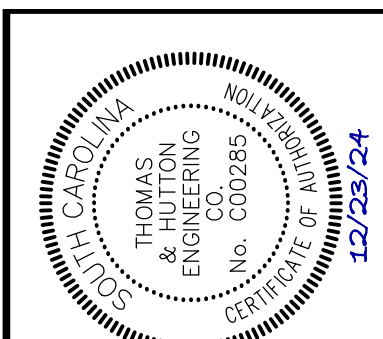
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FORCE MAIN PLAN & PROFILE

JOB NO: J-298510000
 DATE: 12/01/2024
 DRAWN: JTB
 DESIGNED: MAL
 REVIEWED: RSO
 APPROVED: RSO
 SCALE: AS NOTED

C3.5

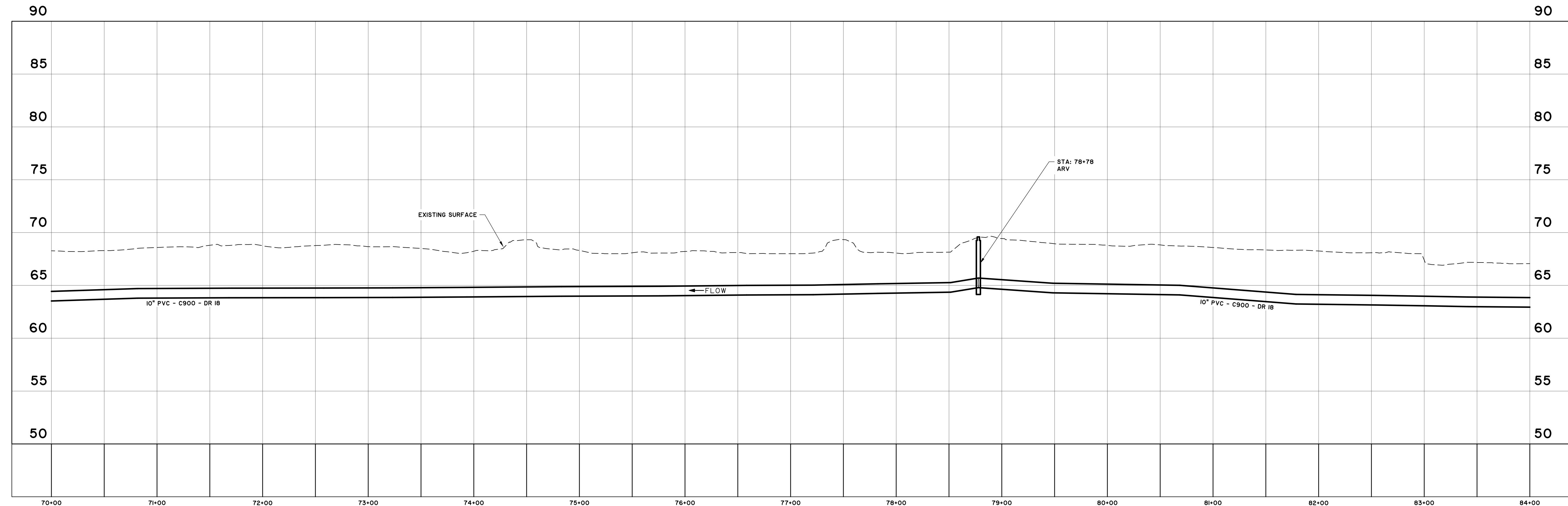


- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



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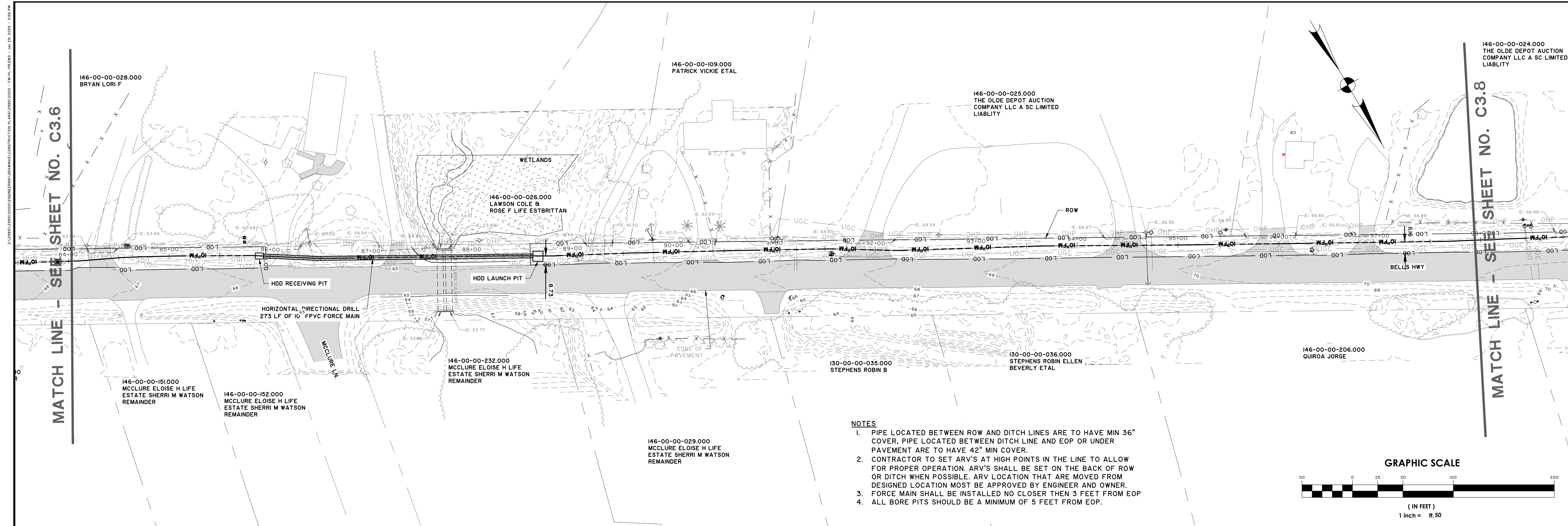


FORCE MAIN
 STATIONS: 70+00 - 84+00
 SCALE: HORZ.: 1" = 50'
 VERT.: 1" = 5'

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DATE:	12/01/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

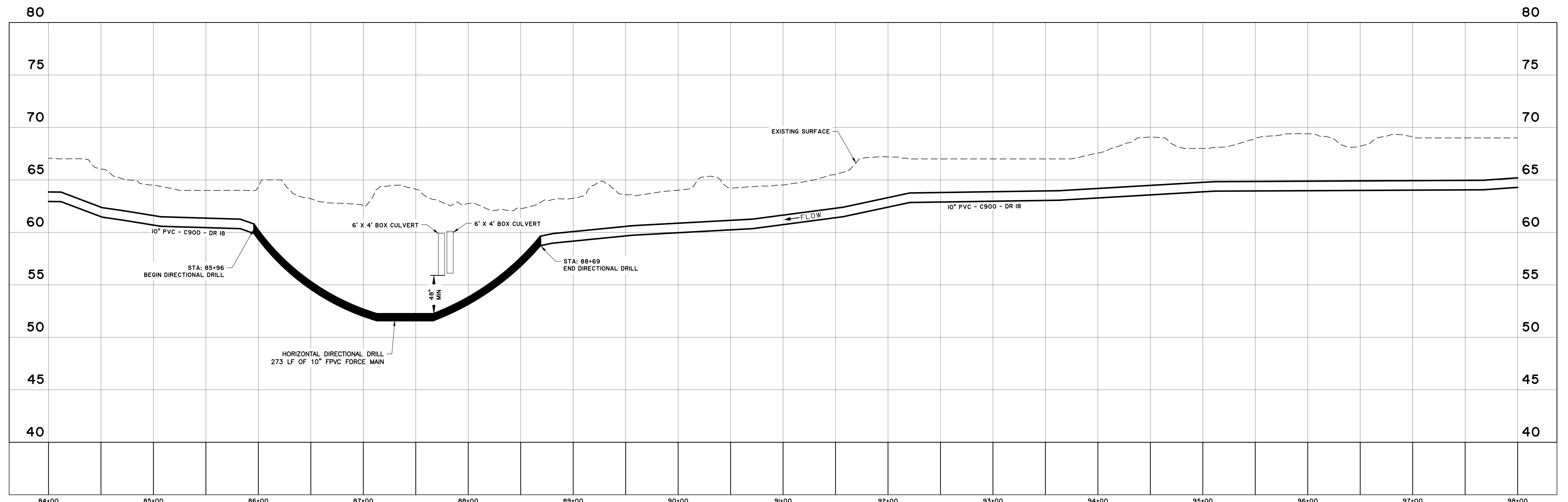
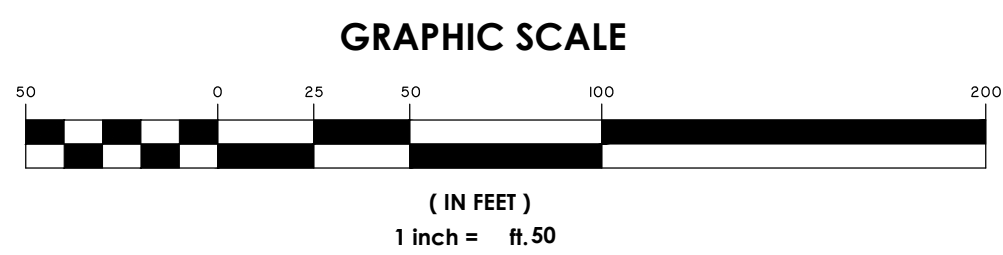
C3.6



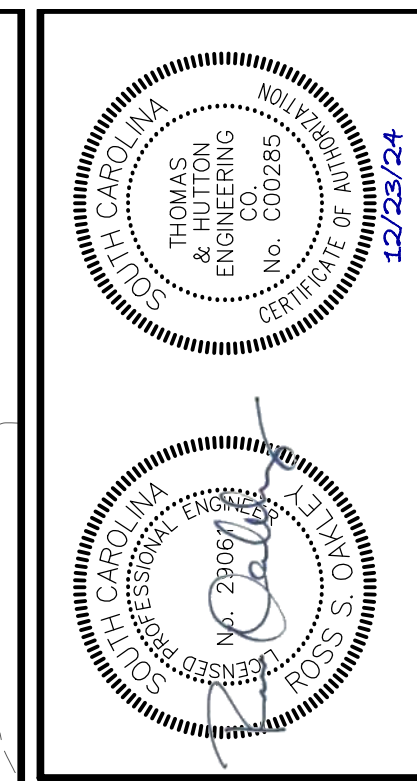
MATCH LINE - SEE SHEET NO. C3.6

MATCH LINE - SEE SHEET NO. C3.8

- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
STATIONS: 84+00 - 98+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



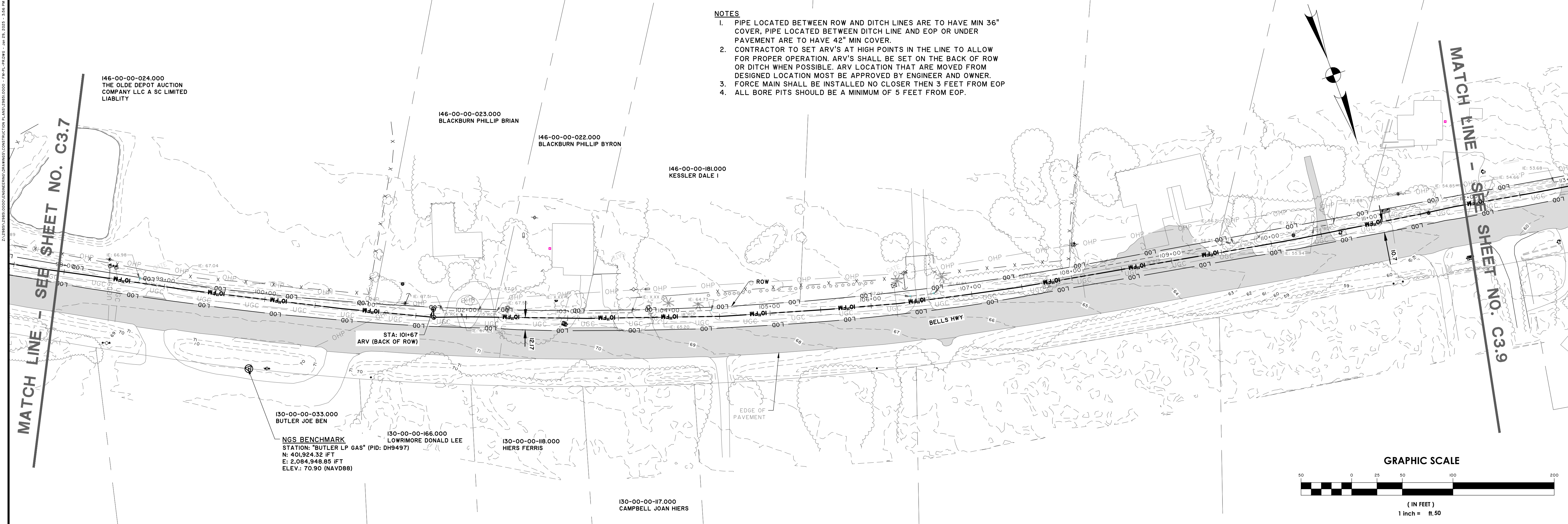
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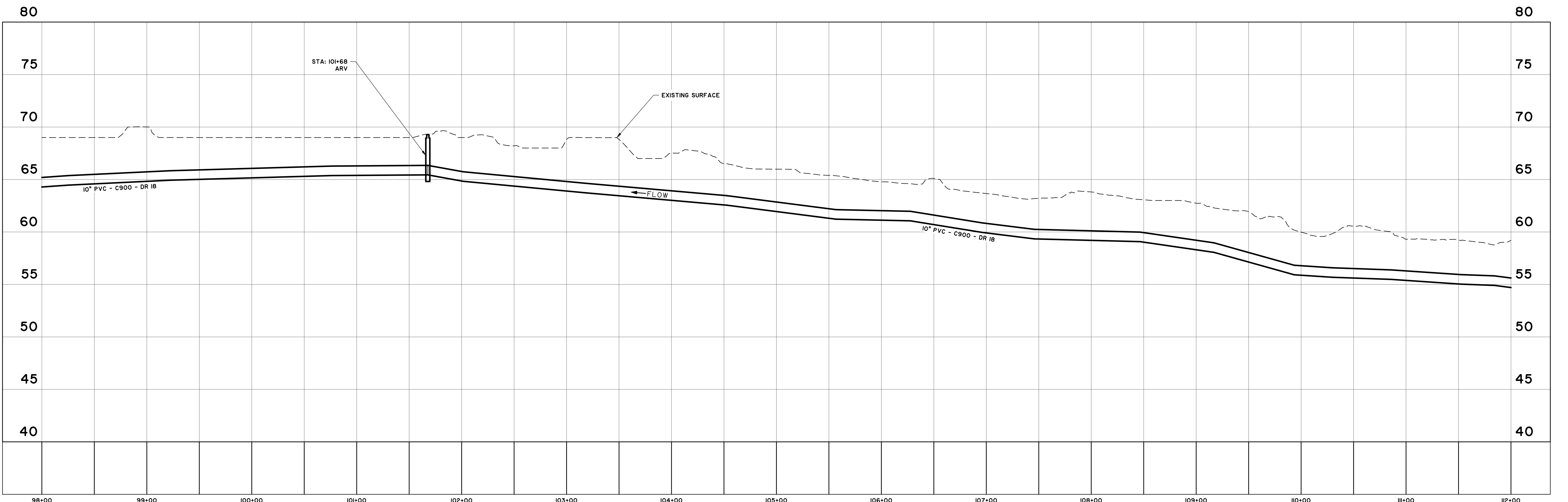
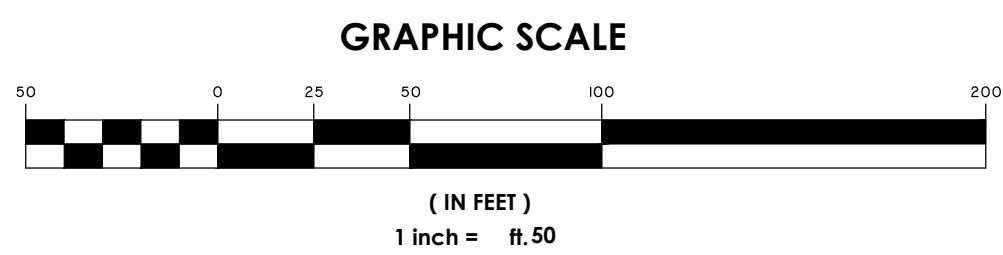
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NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
FORCE MAIN PLAN & PROFILE

JOB NO:	J-298510000
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DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

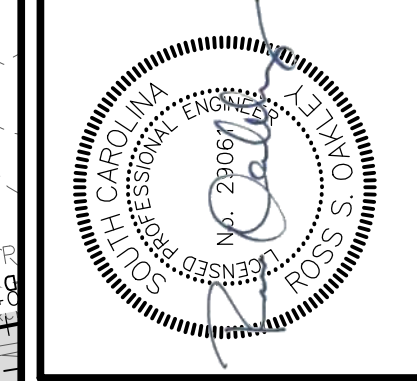
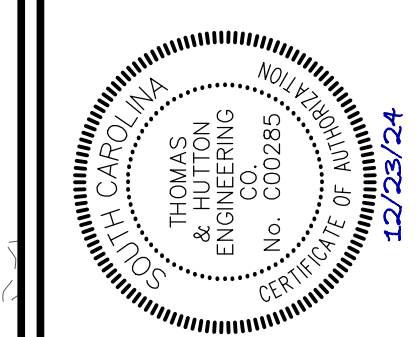
C3.7



- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
STATIONS: 98+00 - 112+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



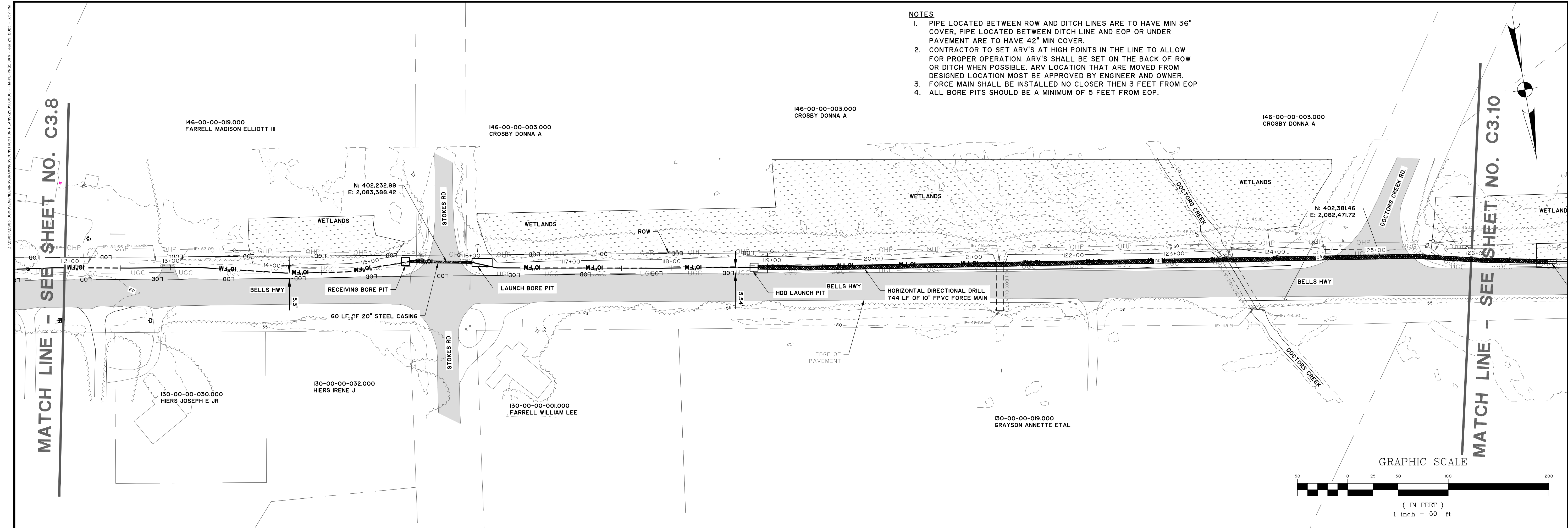
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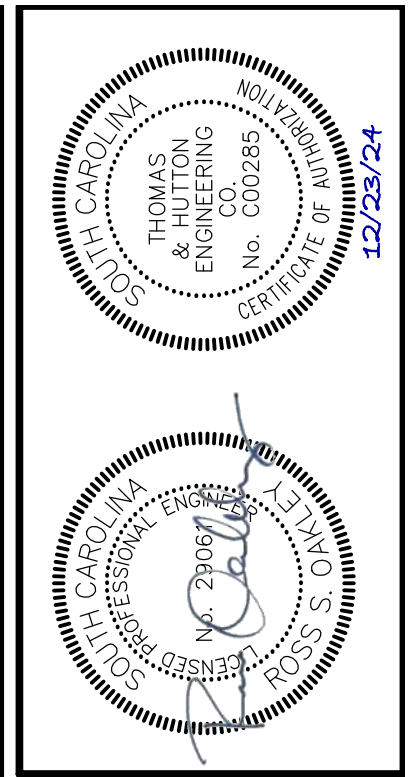
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DATE:	12/01/2024
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DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

C3.8



- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER. PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
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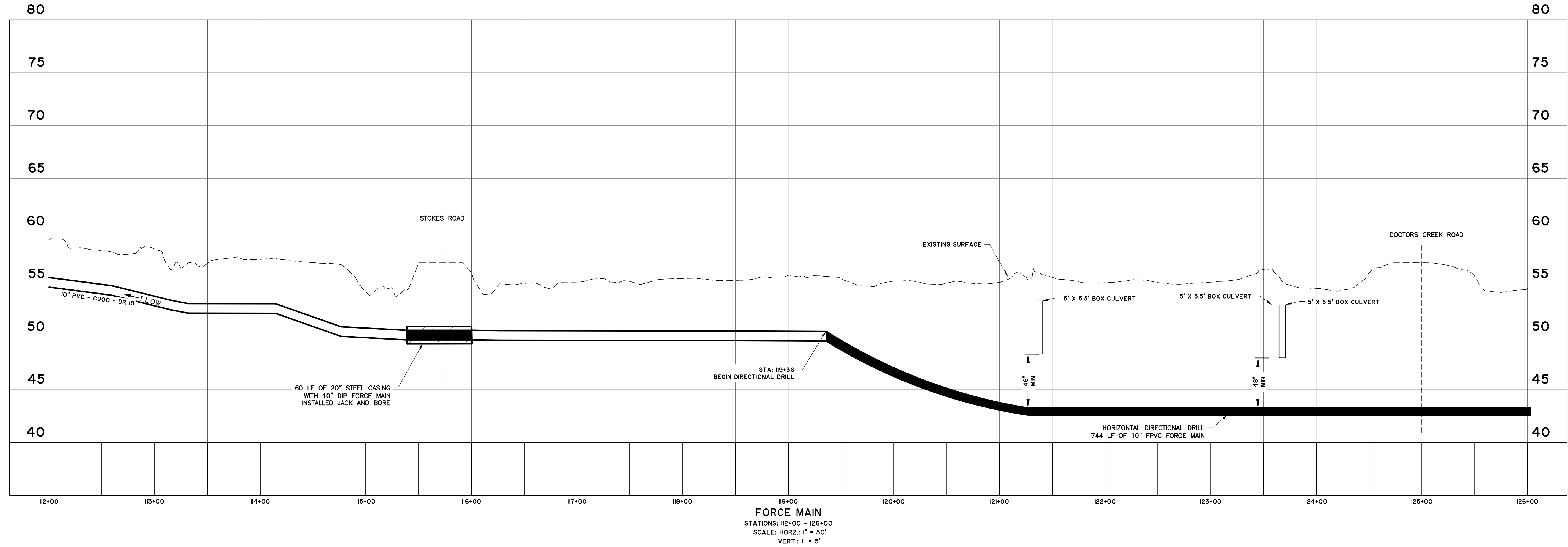


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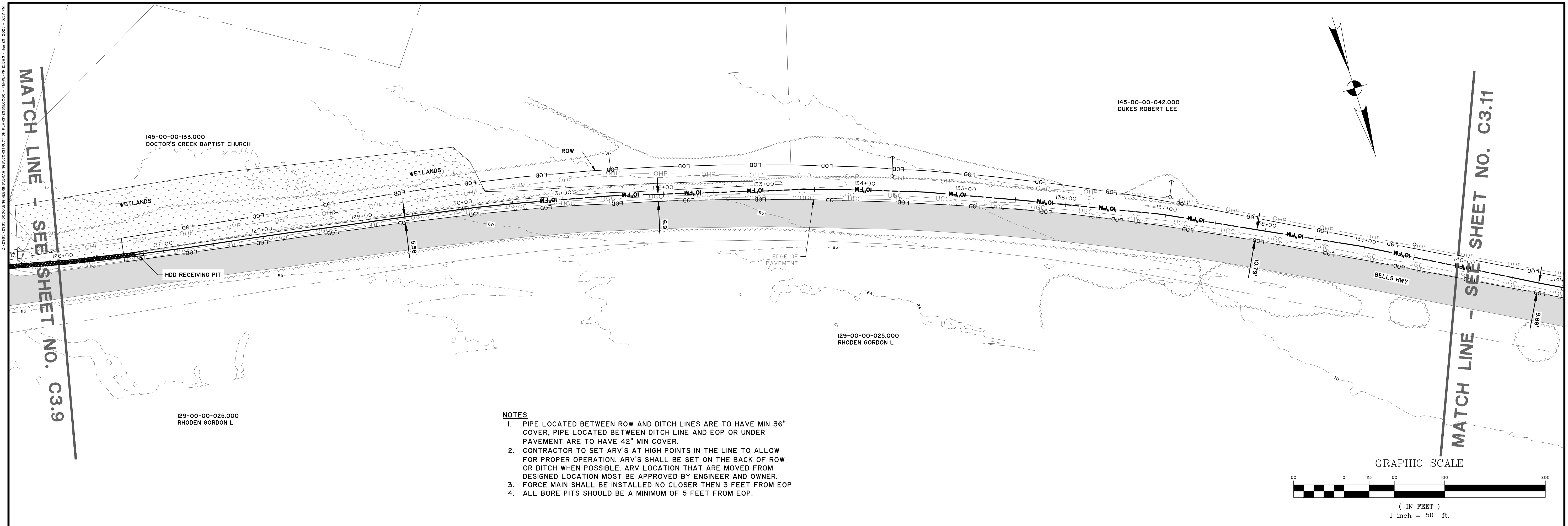
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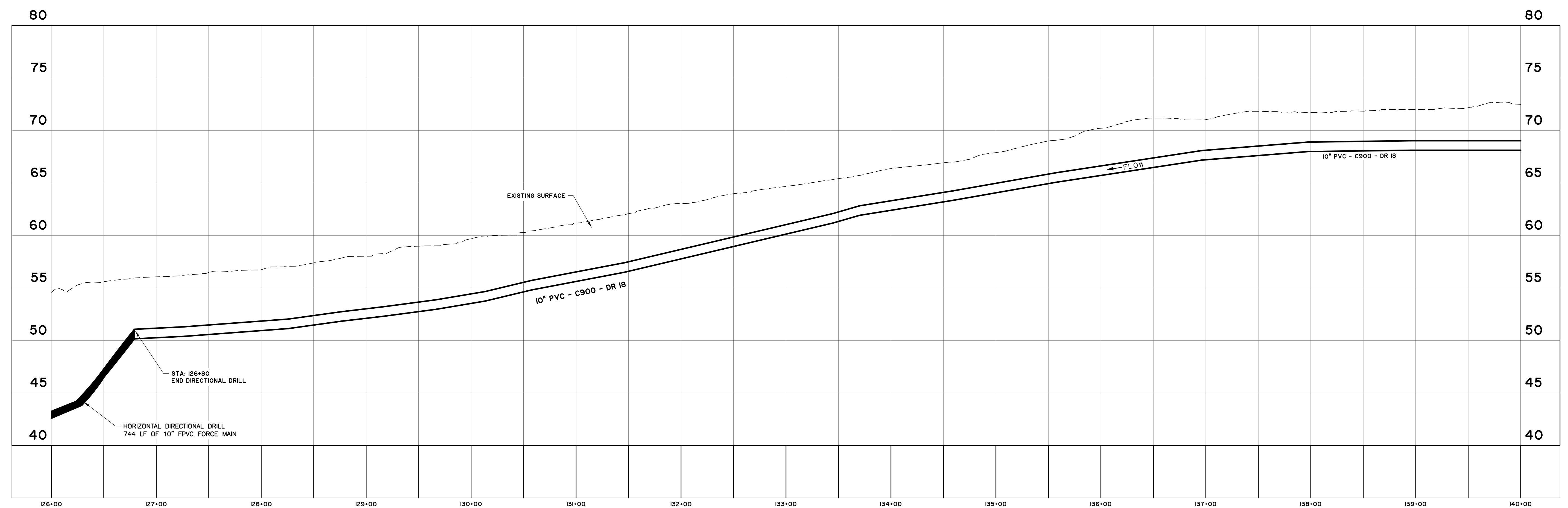
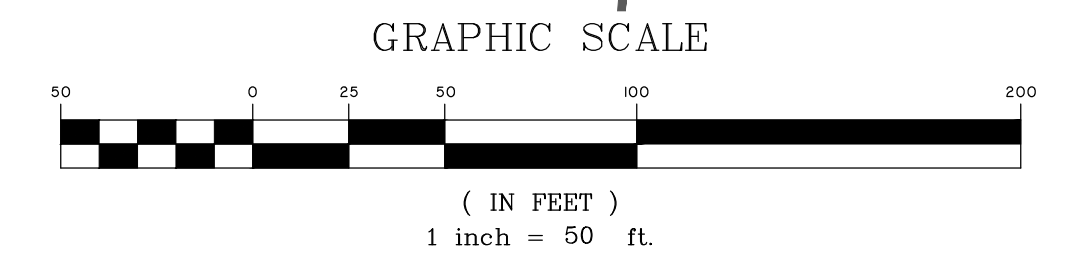
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APPROVED:	RSO
SCALE:	AS NOTED



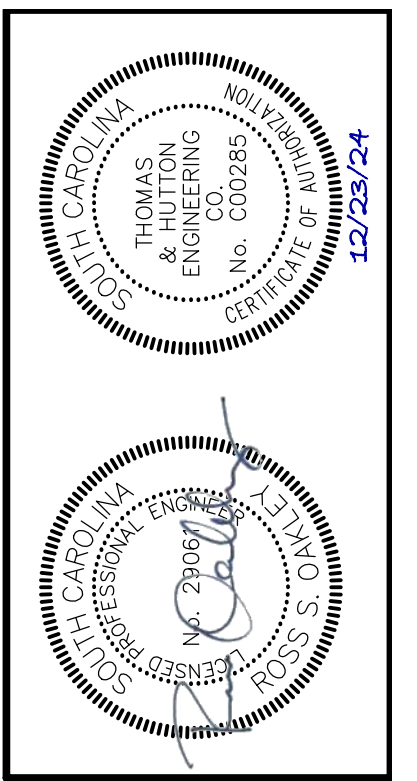
C3.9



- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
 STATIONS: 126+00 - 140+00
 SCALE: HORIZ.: 1" = 50'
 VERT.: 1" = 5'



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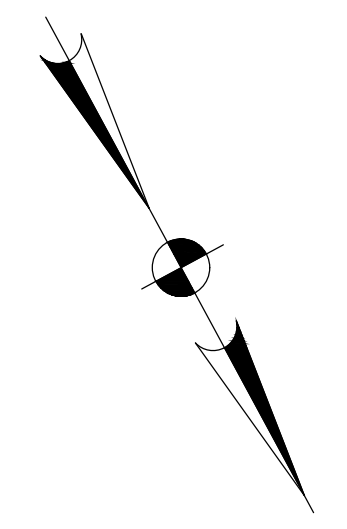
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DATE:	12/01/2024
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APPROVED:	RSO
SCALE:	AS NOTED

C3.10

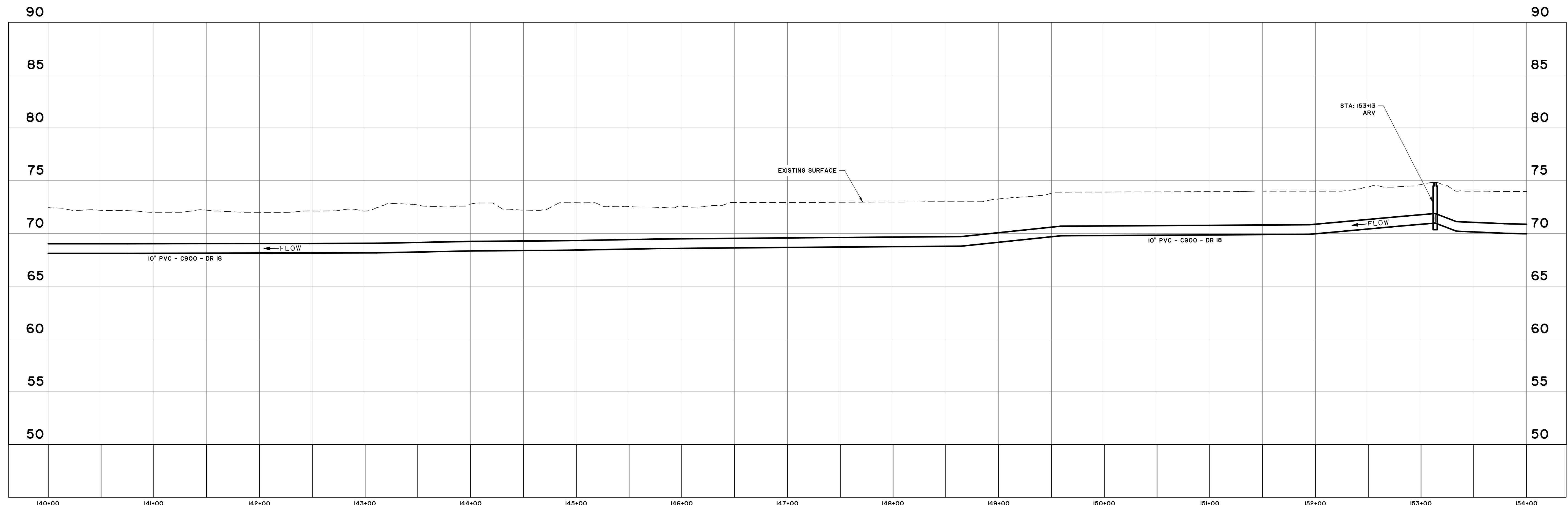
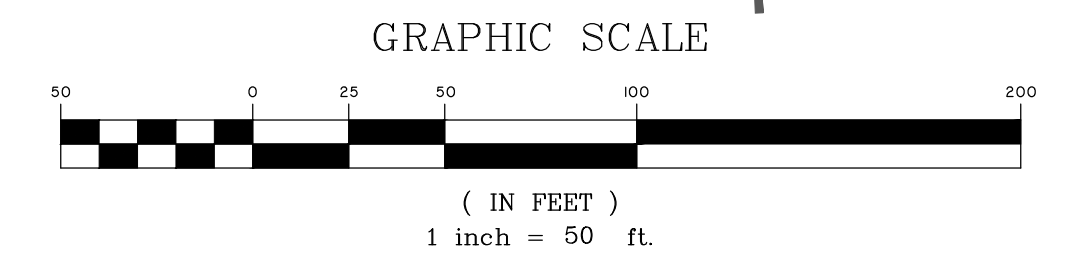
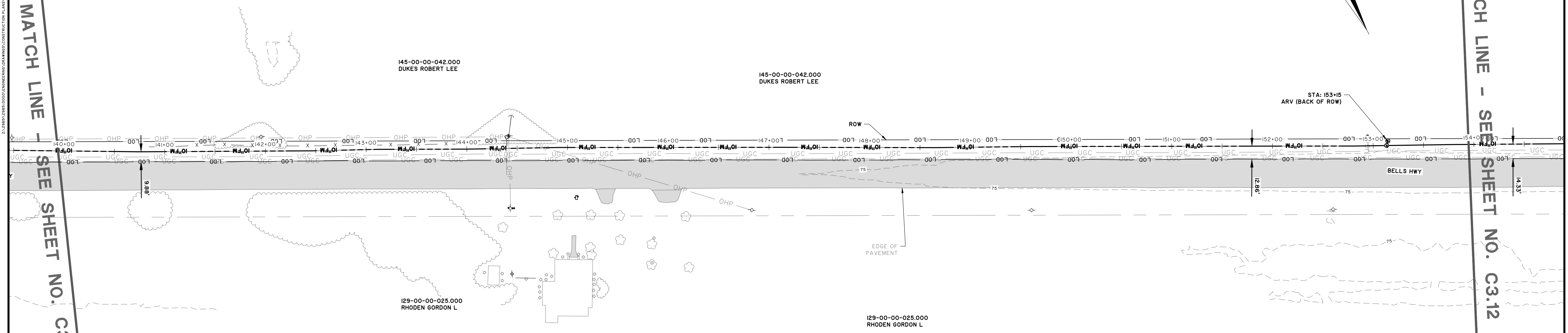
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- NOTES**
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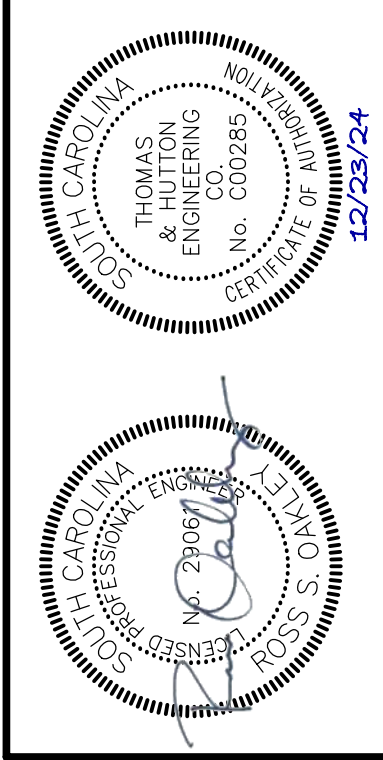


MATCH LINE - SEE SHEET NO. C3.10

MATCH LINE - SEE SHEET NO. C3.12



FORCE MAIN
 STATIONS: 140+00 - 154+00
 SCALE: HORZ.: 1" = 50'
 VERT.: 1" = 5'



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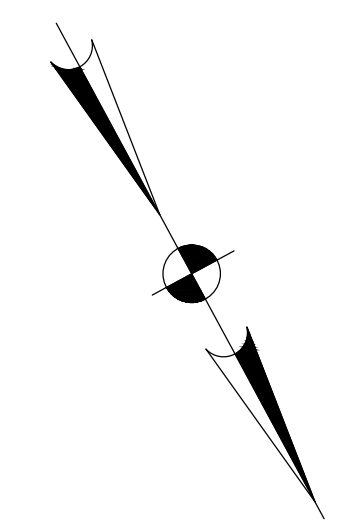
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C3.11

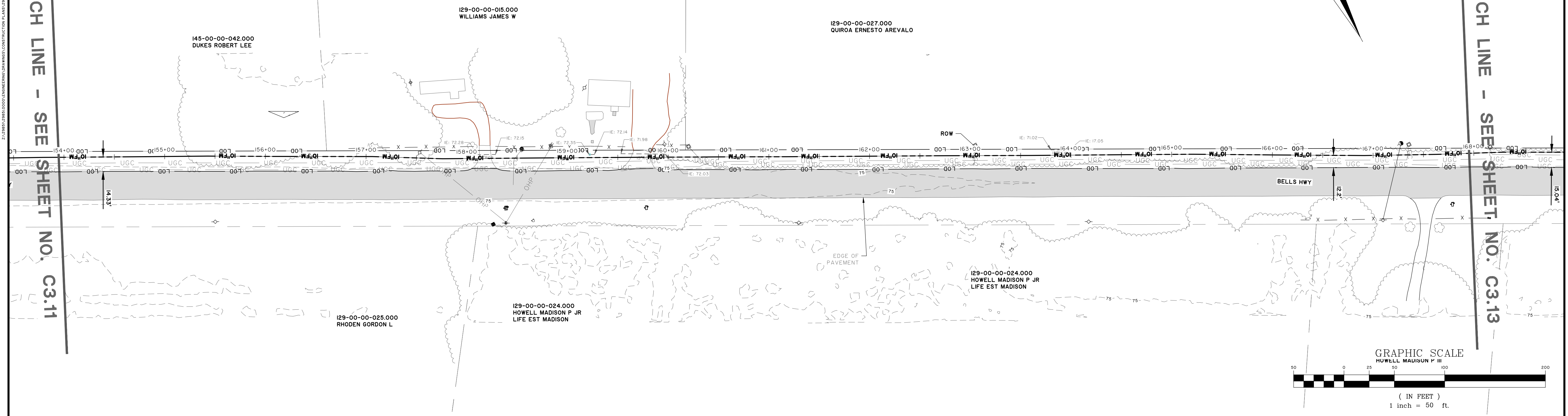
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MATCH LINE - SEE SHEET NO. C3.11

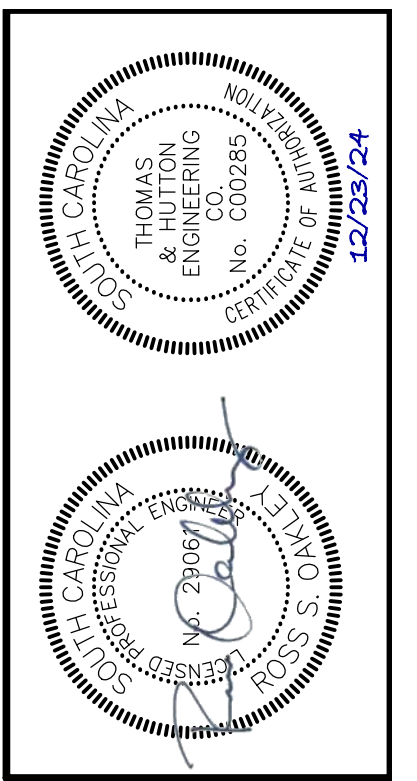
- NOTES**
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 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



MATCH LINE - SEE SHEET NO. C3.13



FORCE MAIN
STATIONS: 154+00 - 168+00
SCALE: HORZ.: 1" = 50'
VERT.: 1" = 5'



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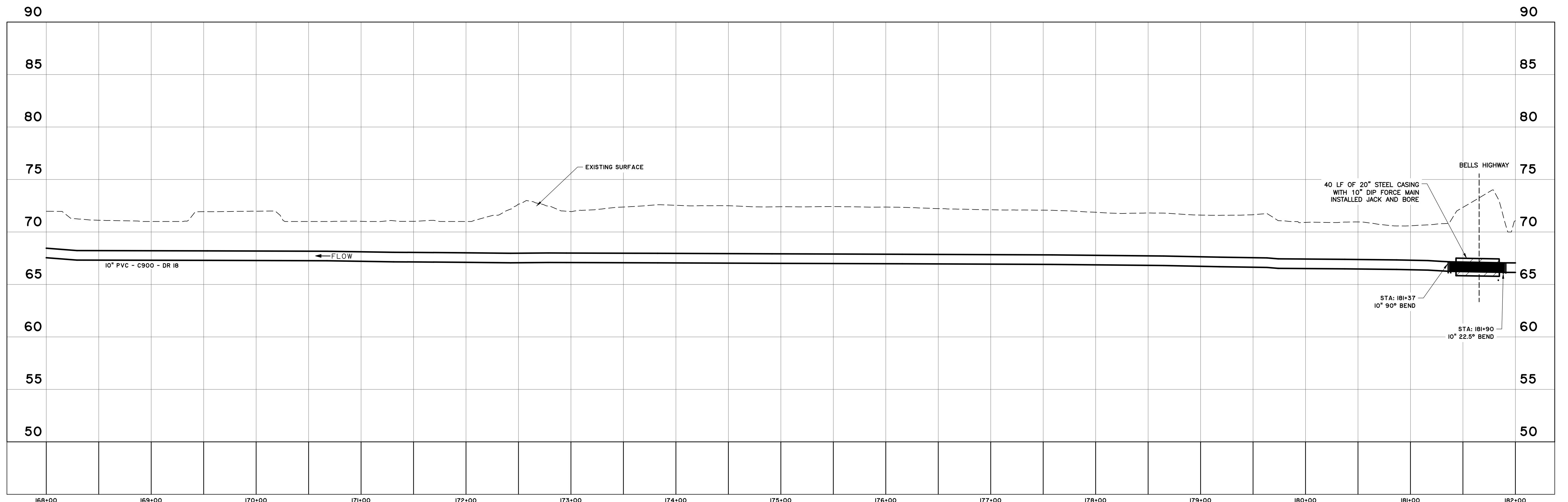
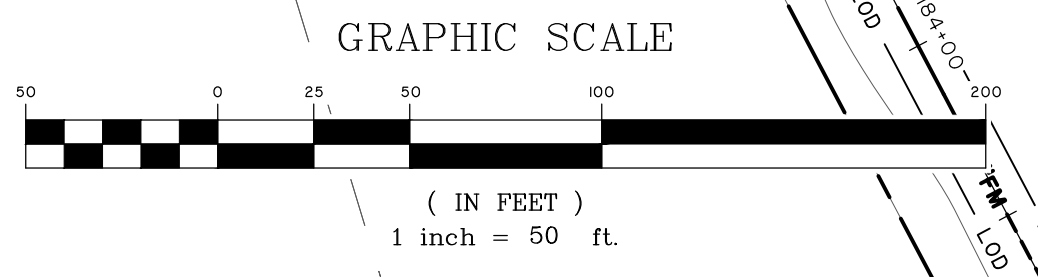
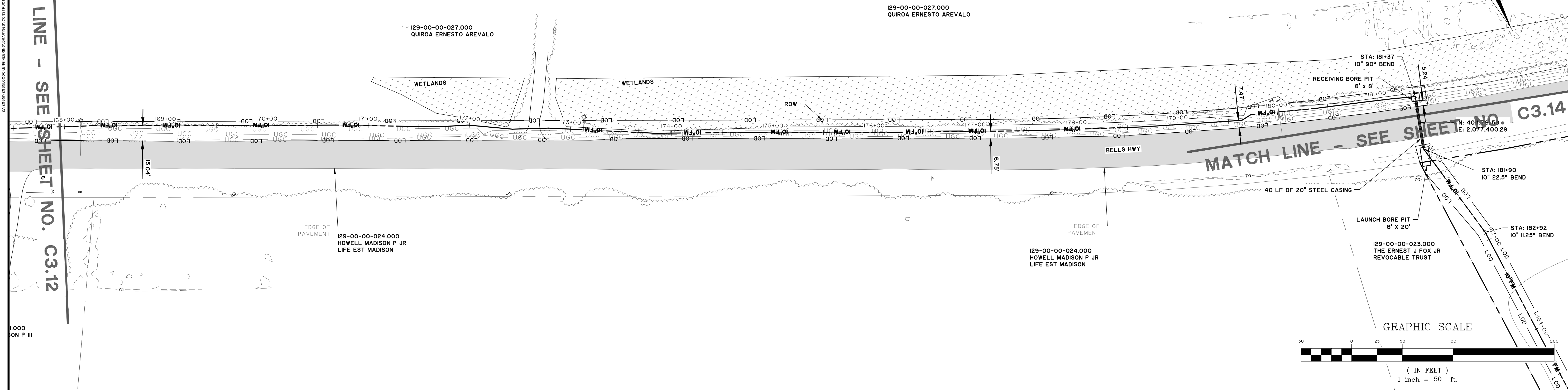
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DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

C3.12

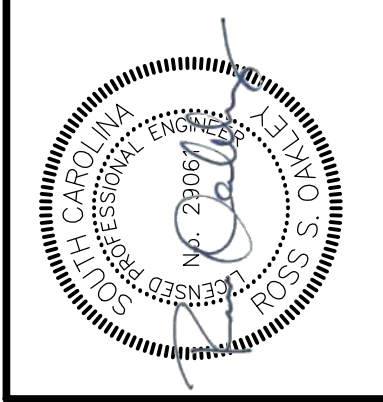
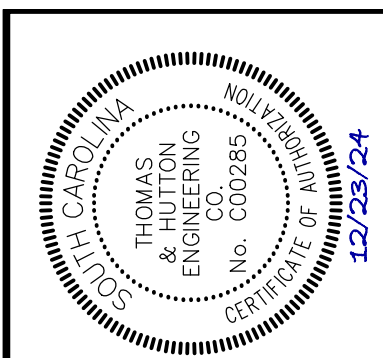
12/23/24 12:23:24
 THOMAS & HUTTON ENGINEERING & SURVEYING
 1501 MAIN STREET, SUITE 400
 COLUMBIA, SC 29201
 TEL: 803.451.6789
 WWW.THOMASANDHUTTON.COM

MATCH LINE - SEE SHEET NO. C3.12

- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
 2. CONTRACTOR TO SET ARV'S AT HIGH POINTS IN THE LINE TO ALLOW FOR PROPER OPERATION. ARV'S SHALL BE SET ON THE BACK OF ROW OR DITCH WHEN POSSIBLE. ARV LOCATION THAT ARE MOVED FROM DESIGNED LOCATION MUST BE APPROVED BY ENGINEER AND OWNER.
 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
 STATIONS: 168+00 - 182+00
 SCALE: HORZ.: 1" = 50'
 VERT.: 1" = 5'



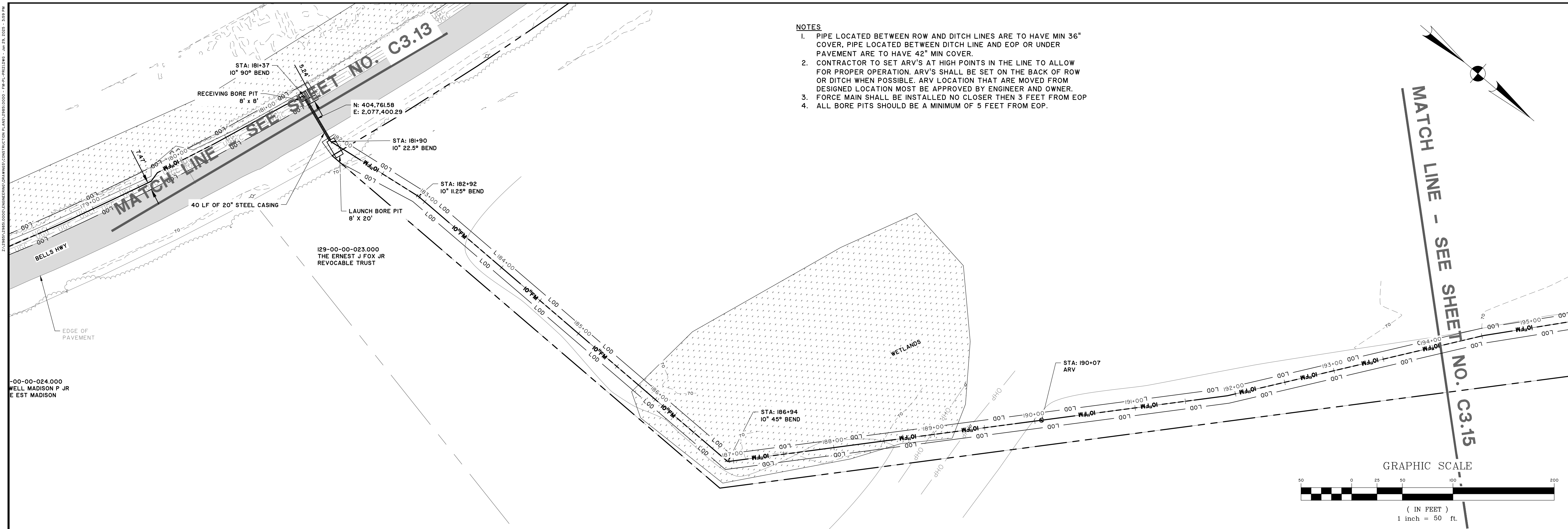
NO.	REVISIONS	BY	DATE

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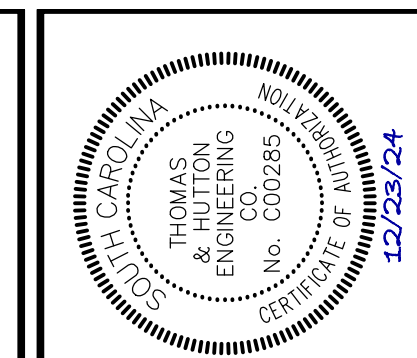
COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
FORCE MAIN PLAN & PROFILE

JOB NO:	J-298510000
DATE:	12/01/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

C3.13

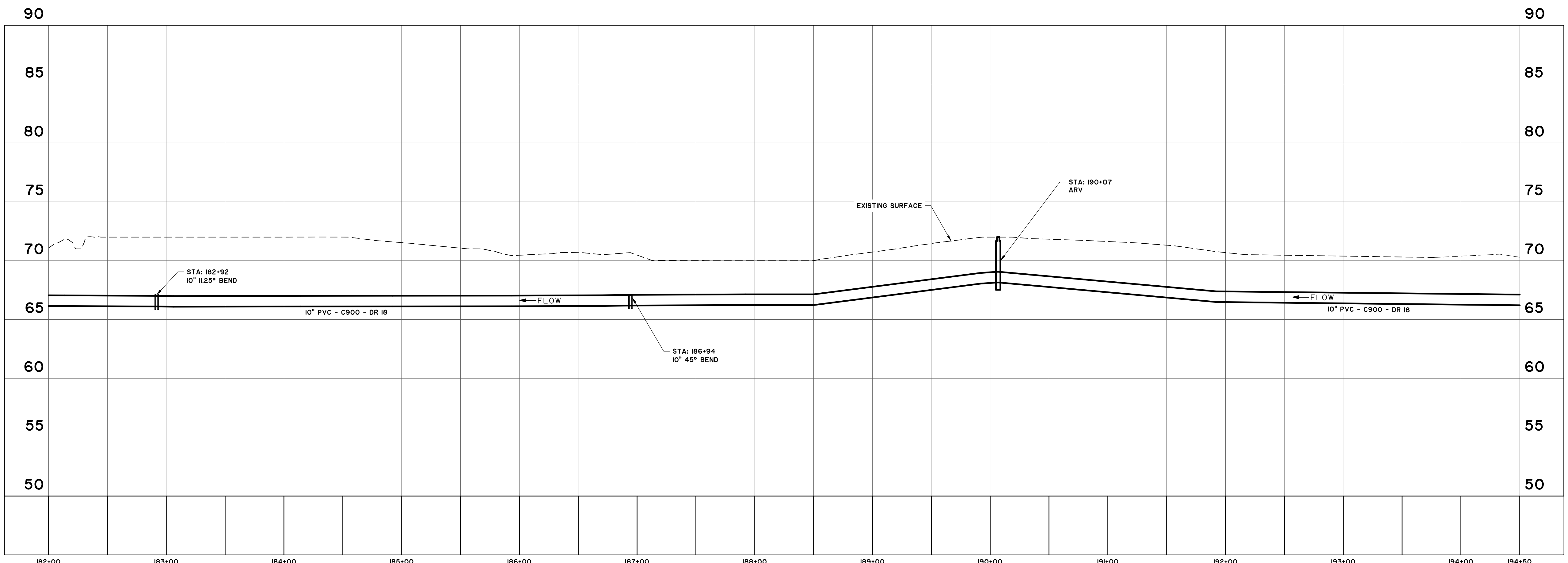


- NOTES**
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 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



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FORCE MAIN
 STATIONS: 182+00 - 194+50
 SCALE: HORZ.: 1" = 50'
 VERT.: 1" = 5'

COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WALTBORO SEWER IMPROVEMENTS
FORCE MAIN PLAN & PROFILE

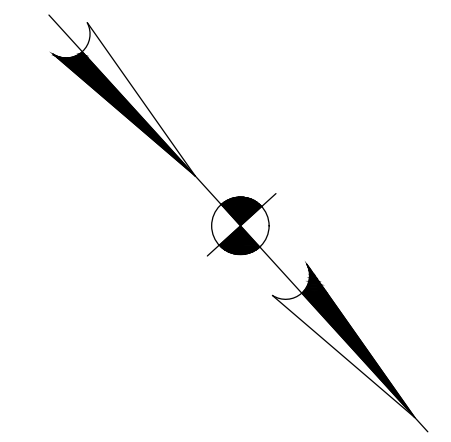
JOB NO:	J-298510000
DATE:	12/01/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	AS NOTED
SCALE:	AS NOTED

C3.14

E:\PROJECTS\1000000000\1000000000\CONSTRUCTION PLANS\1000000000 - MAIN - PHASE 1 - 12/01/2024 - 3:58 PM

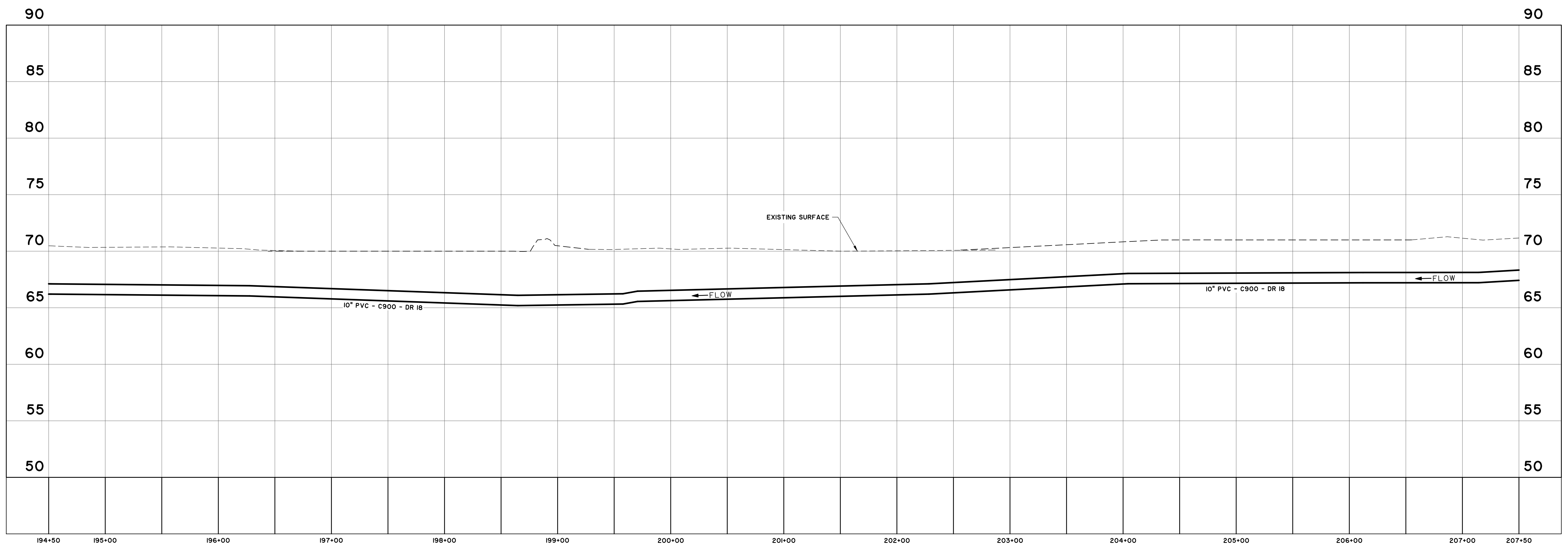
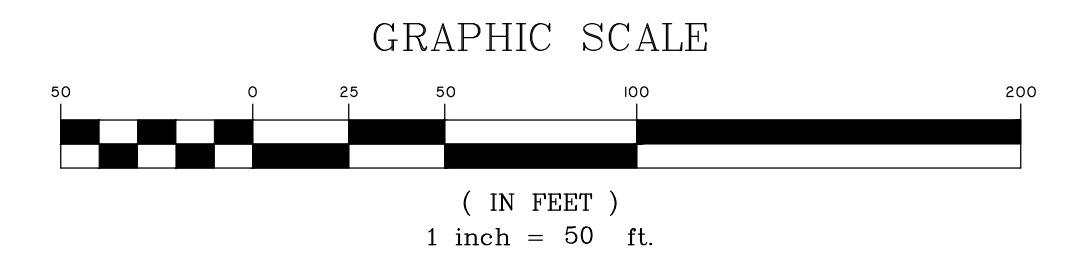
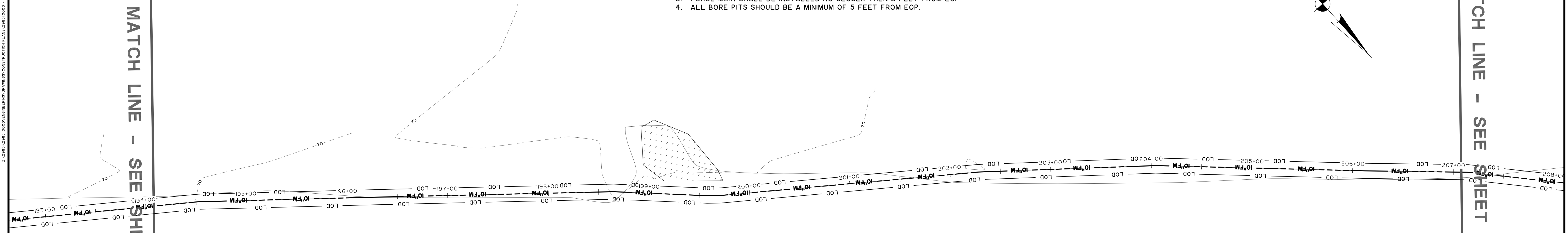
NOTES

1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
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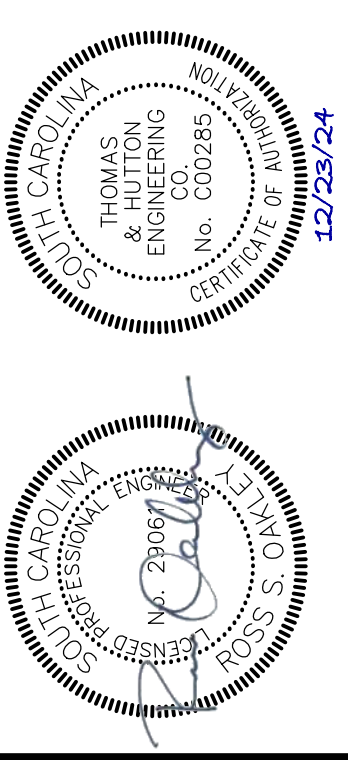


MATCH LINE - SEE SHEET NO. C3.14

MATCH LINE - SEE SHEET NO. C3.16



FORCE MAIN
 STATIONS: 194+50 - 207+50
 SCALE: HORZ.: 1" = 50'
 VERT.: 1" = 5'



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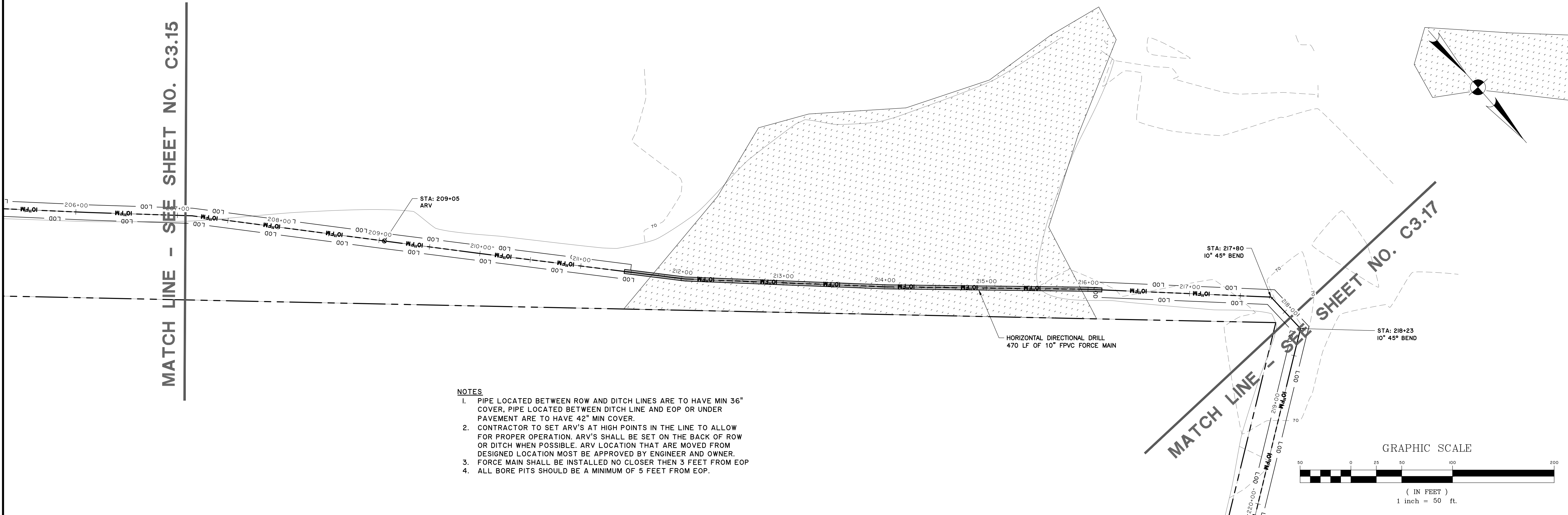
COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
FORCE MAIN PLAN & PROFILE

JOB NO:	J-298510000
DATE:	12/01/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

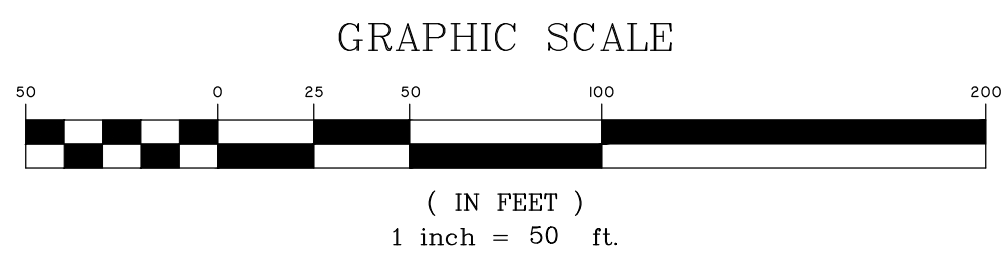
C3.15

E:\19818\19818.DWG (UNLOCKED) (DRAWING) (CONSTRUCTION) (PLAN) (SHEET) (NO. 03.15) (DATE: 12/01/2024) (TIME: 11:54 AM)

MATCH LINE - SEE SHEET NO. C3.15



- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
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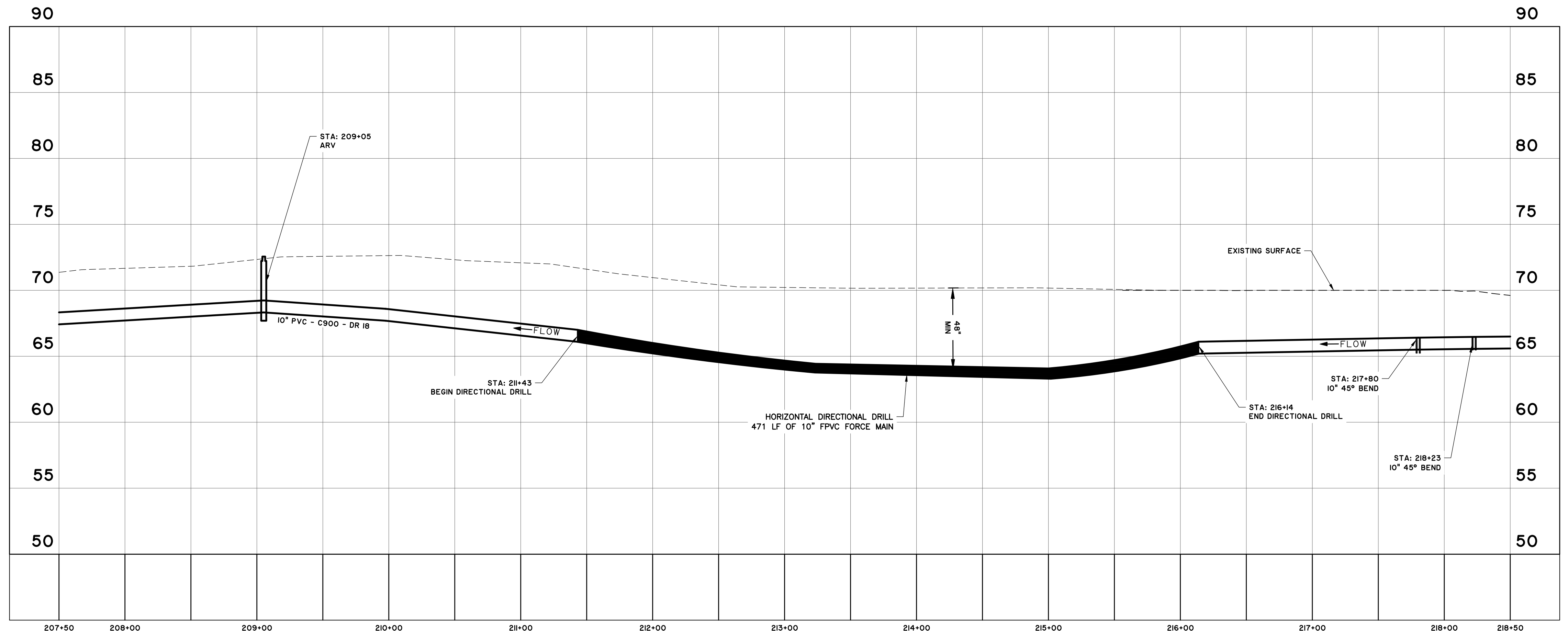


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 ENGINEERING & ARCHITECTURE
 PROFESSIONAL ENGINEER
 STATE OF SOUTH CAROLINA
 No. 21007
 No. C00285
 12/23/24

NO.	REVISIONS	BY	DATE

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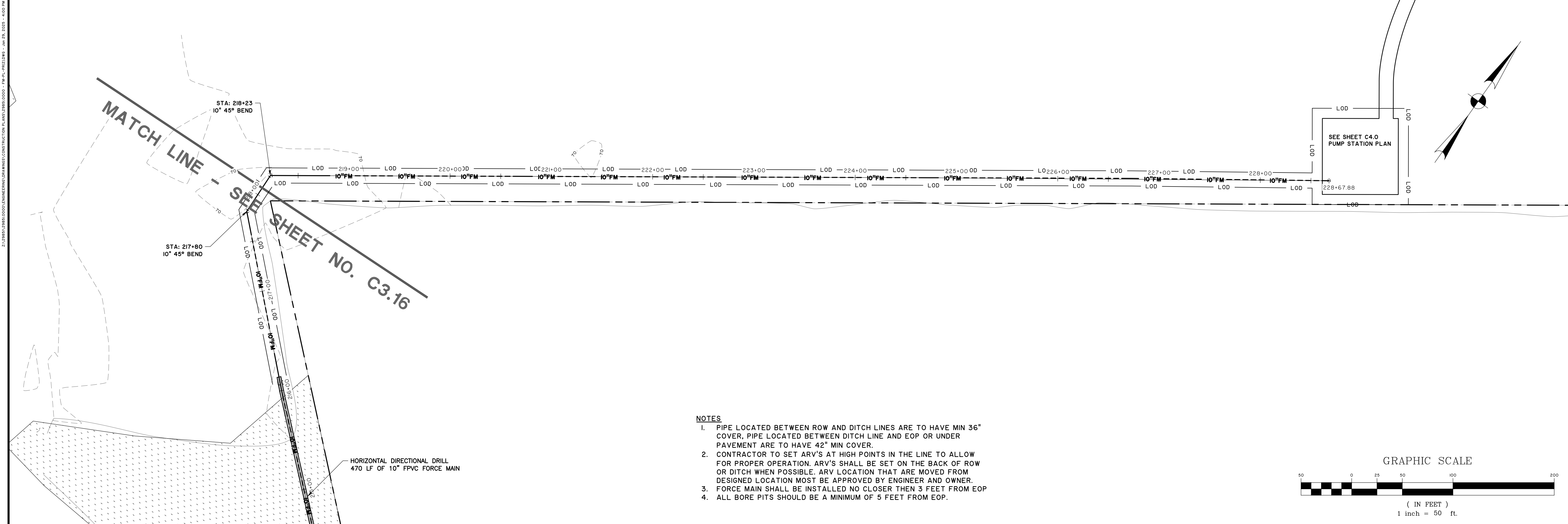
COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
FORCE MAIN PLAN & PROFILE



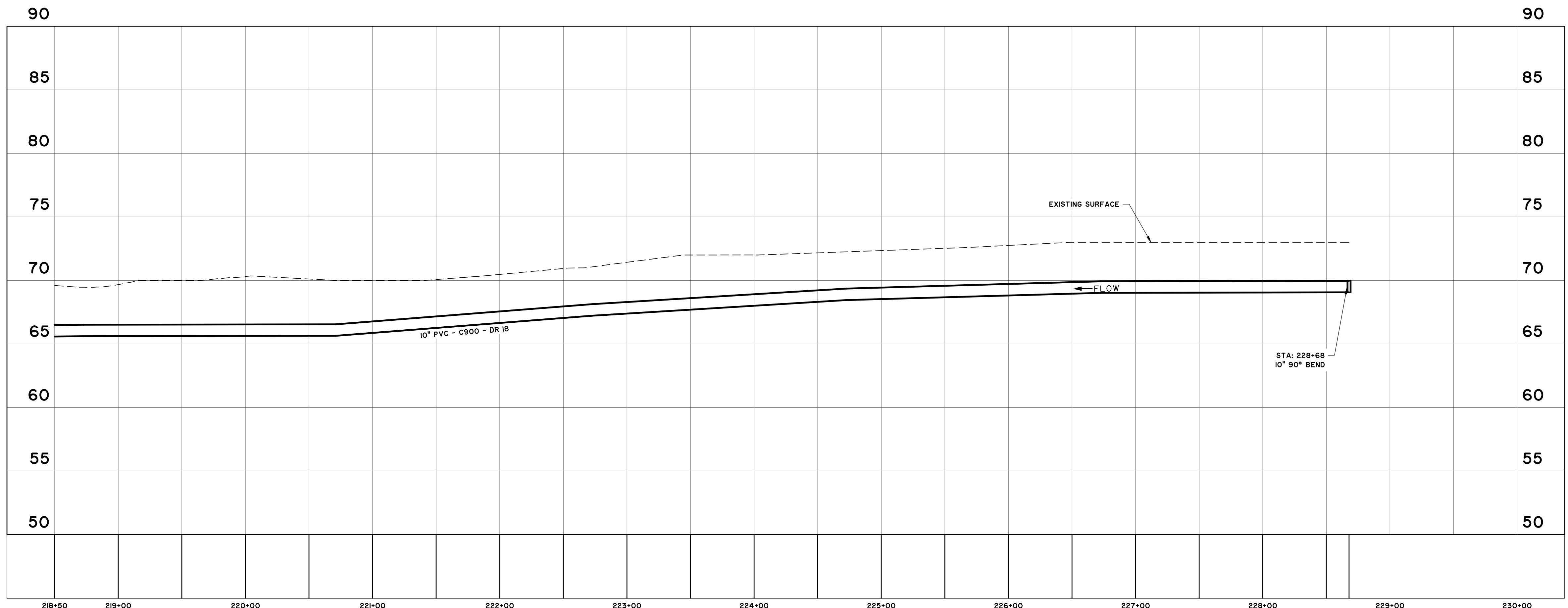
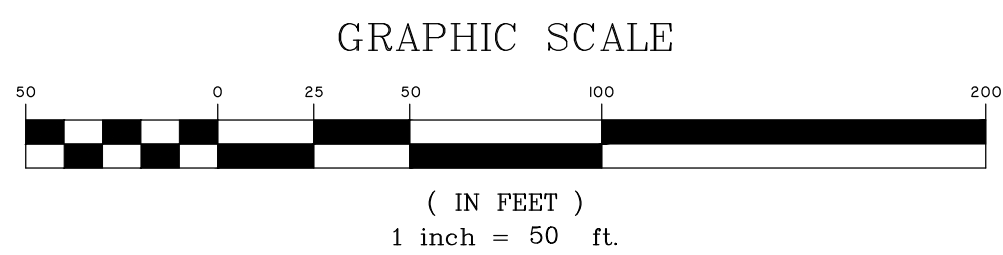
FORCE MAIN
 STATIONS: 207+50 - 218+50
 SCALE: HORIZ.: 1" = 50'
 VERT.: 1" = 5'

JOB NO:	J-298510000
DATE:	12/01/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

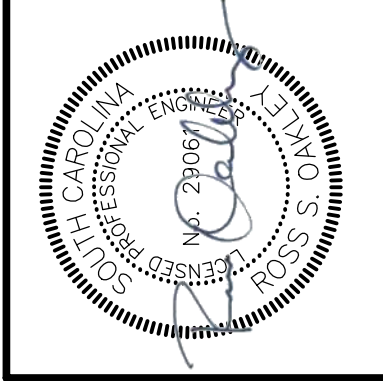
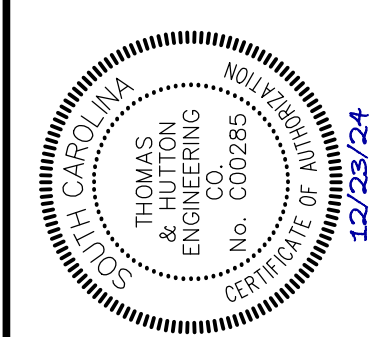
C3.16



- NOTES**
1. PIPE LOCATED BETWEEN ROW AND DITCH LINES ARE TO HAVE MIN 36" COVER, PIPE LOCATED BETWEEN DITCH LINE AND EOP OR UNDER PAVEMENT ARE TO HAVE 42" MIN COVER.
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 3. FORCE MAIN SHALL BE INSTALLED NO CLOSER THEN 3 FEET FROM EOP.
 4. ALL BORE PITS SHOULD BE A MINIMUM OF 5 FEET FROM EOP.



FORCE MAIN
 STATIONS: 218+50 - 230+00
 SCALE: HORZ.: 1" = 50'
 VERT.: 1" = 5'



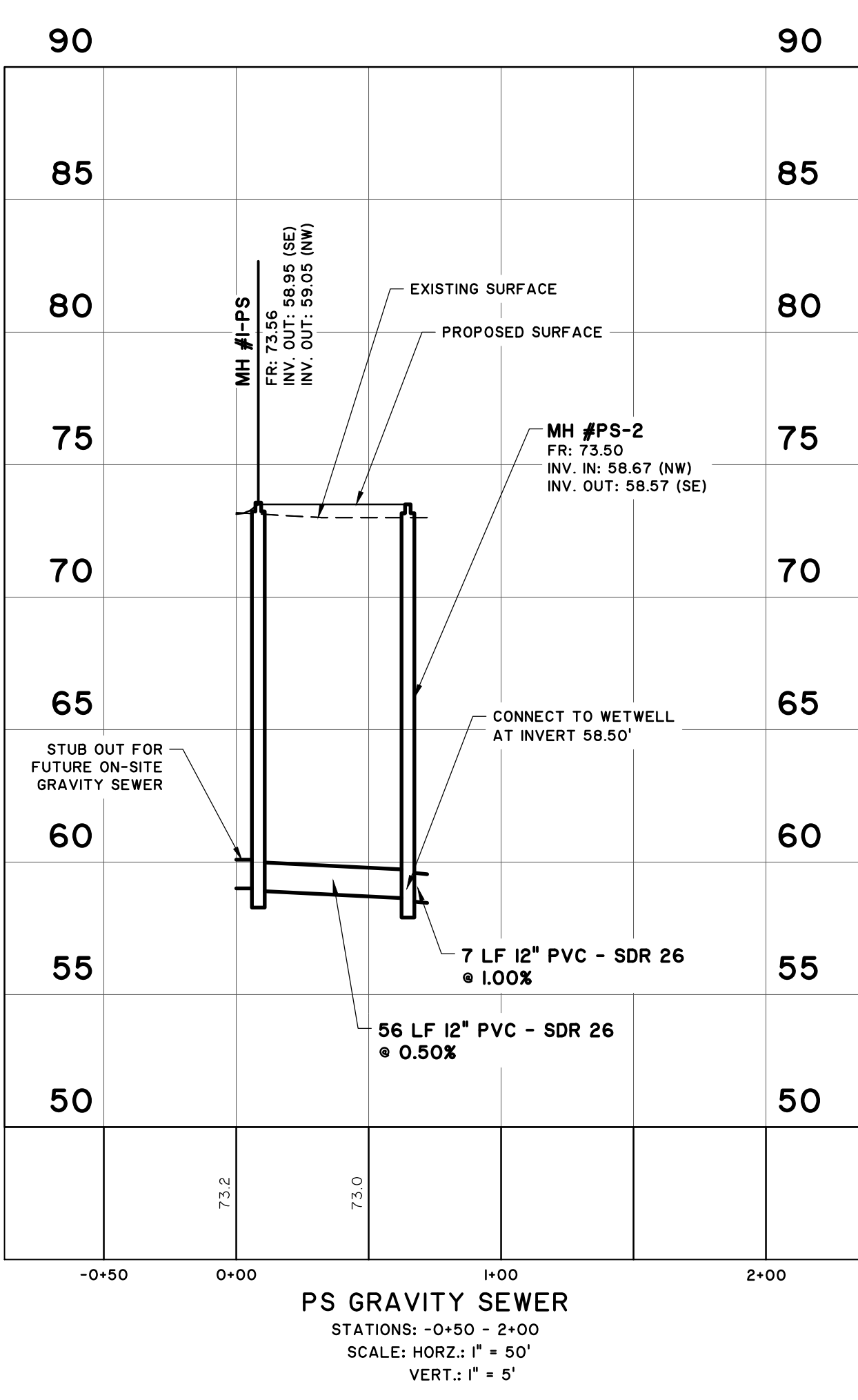
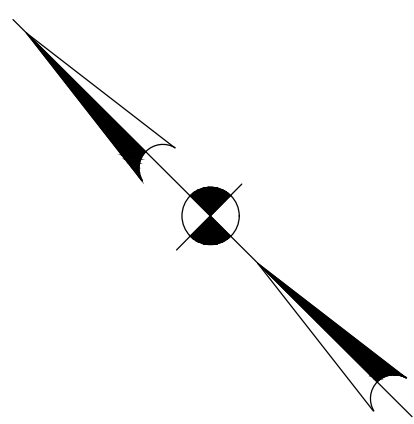
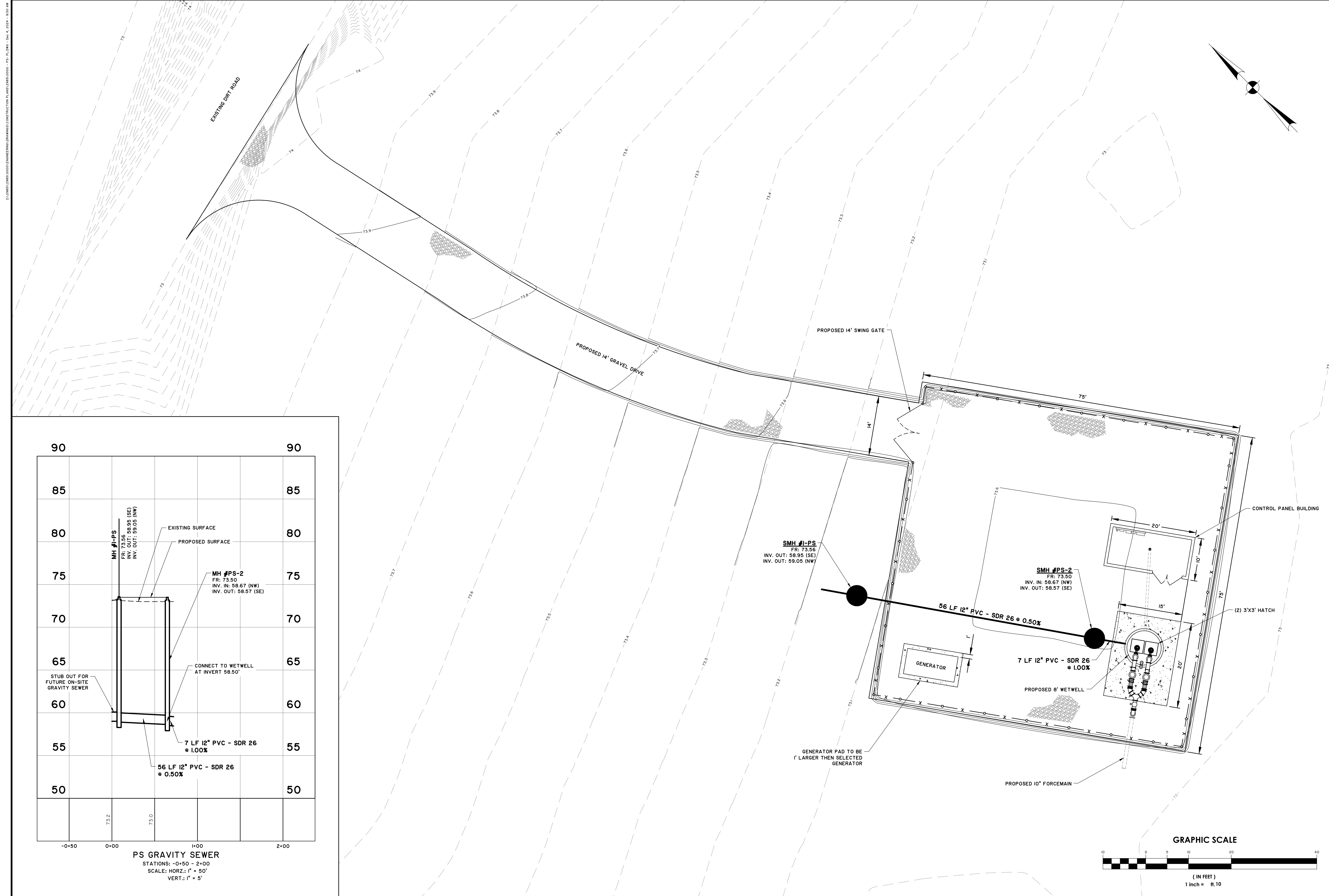
NO.	REVISIONS	BY	DATE

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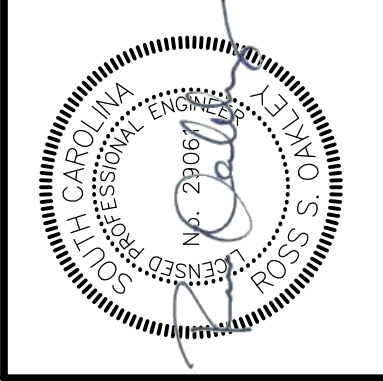
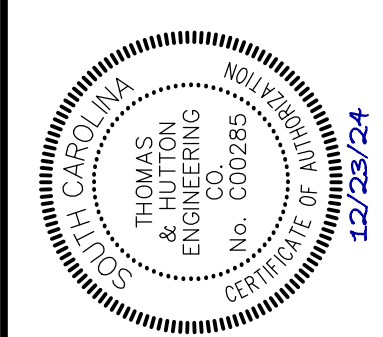
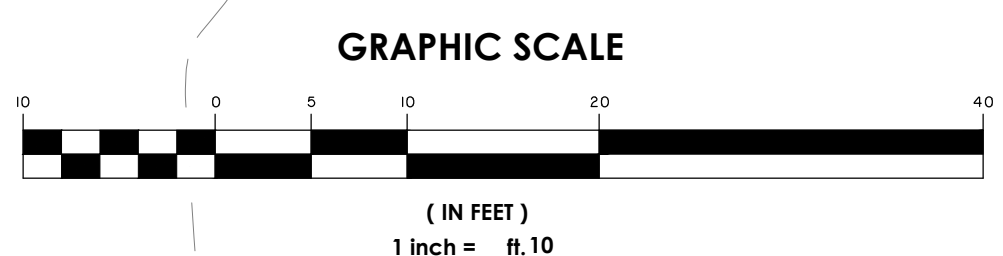
COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
FORCE MAIN PLAN & PROFILE

JOB NO:	J-298510000
DATE:	12/01/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	AS NOTED

C3.17



PS GRAVITY SEWER
 STATIONS: -0+50 - 2+00
 SCALE: HORIZ.: 1" = 50'
 VERT.: 1" = 5'



NO.	REVISIONS	BY	DATE

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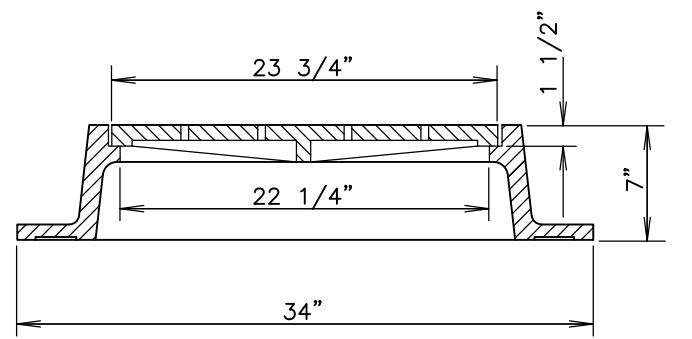
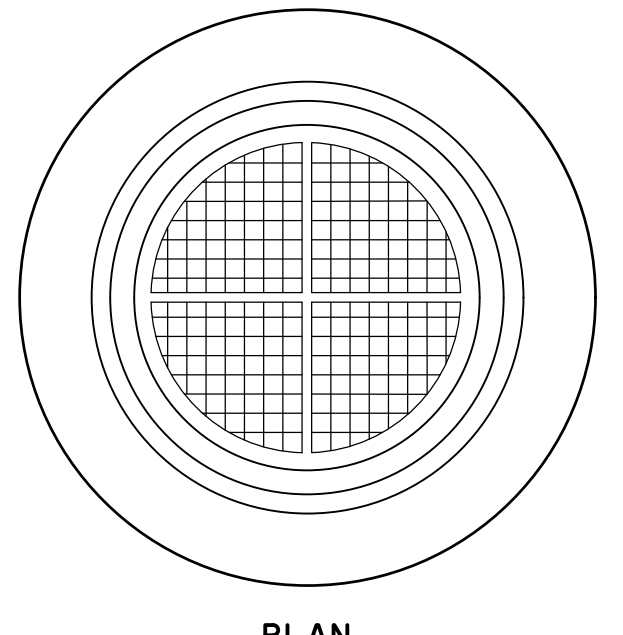
COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WALTERBORO SEWER IMPROVEMENTS
PUMP STATION PLAN

JOB NO: J-298510000
 DATE: 01/02/2024
 DRAWN: JTB
 DESIGNED: MAL
 REVIEWED: RSO
 APPROVED: RSO
 SCALE: 1" = 10'

C4.0

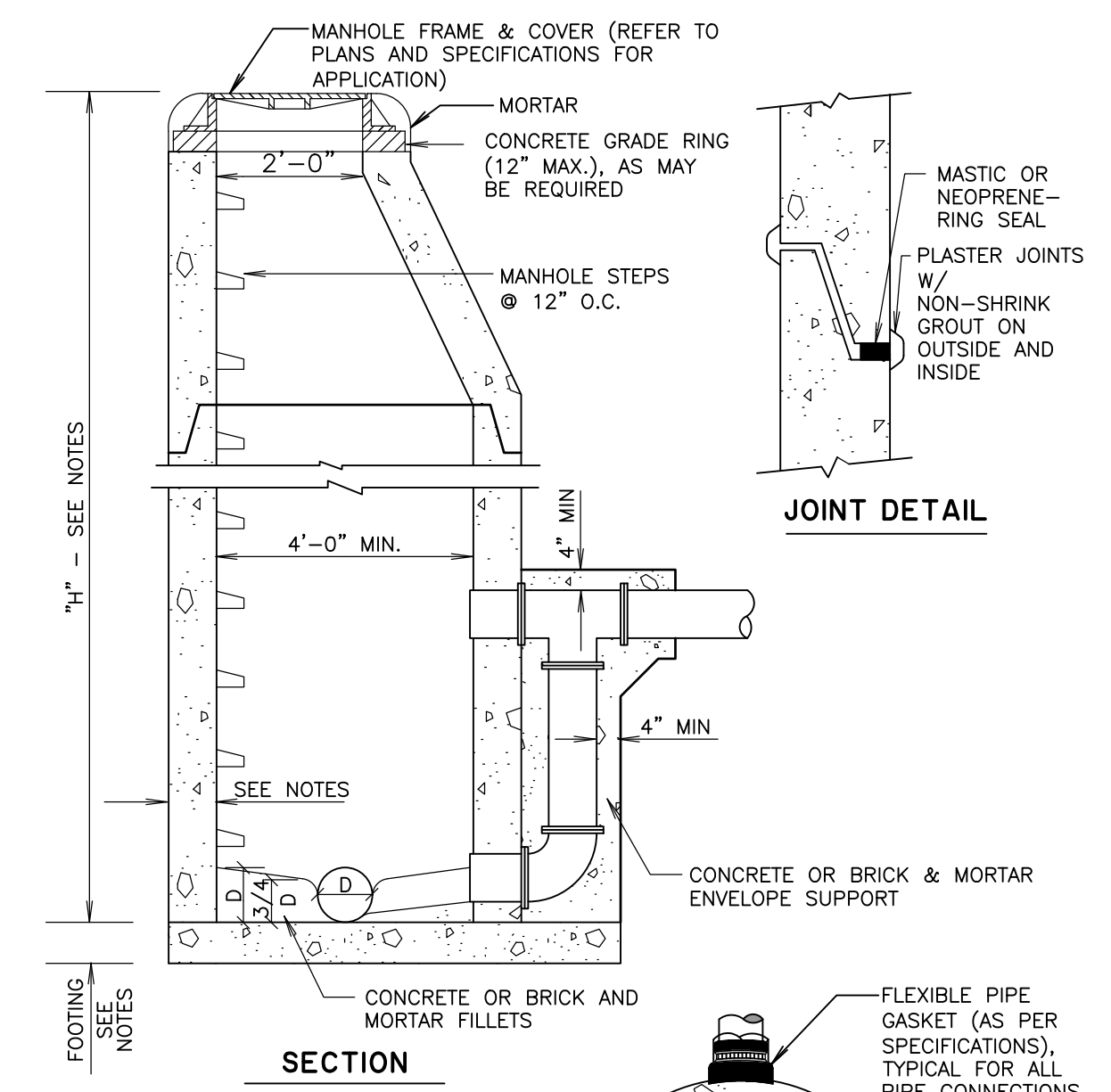
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TYPE "C" LID TO HAVE MACHINED BEARING SURFACES. LID TO BE LETTERED "STORM", "SANITARY" OR "WATER" AS APPROPRIATE. (NONE VENTED)

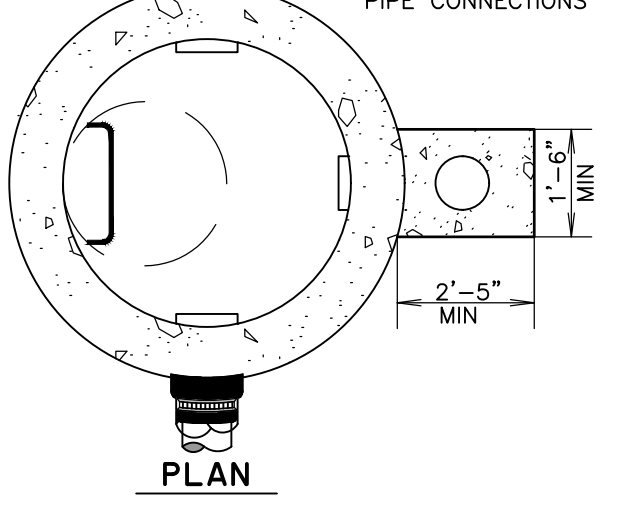


MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE

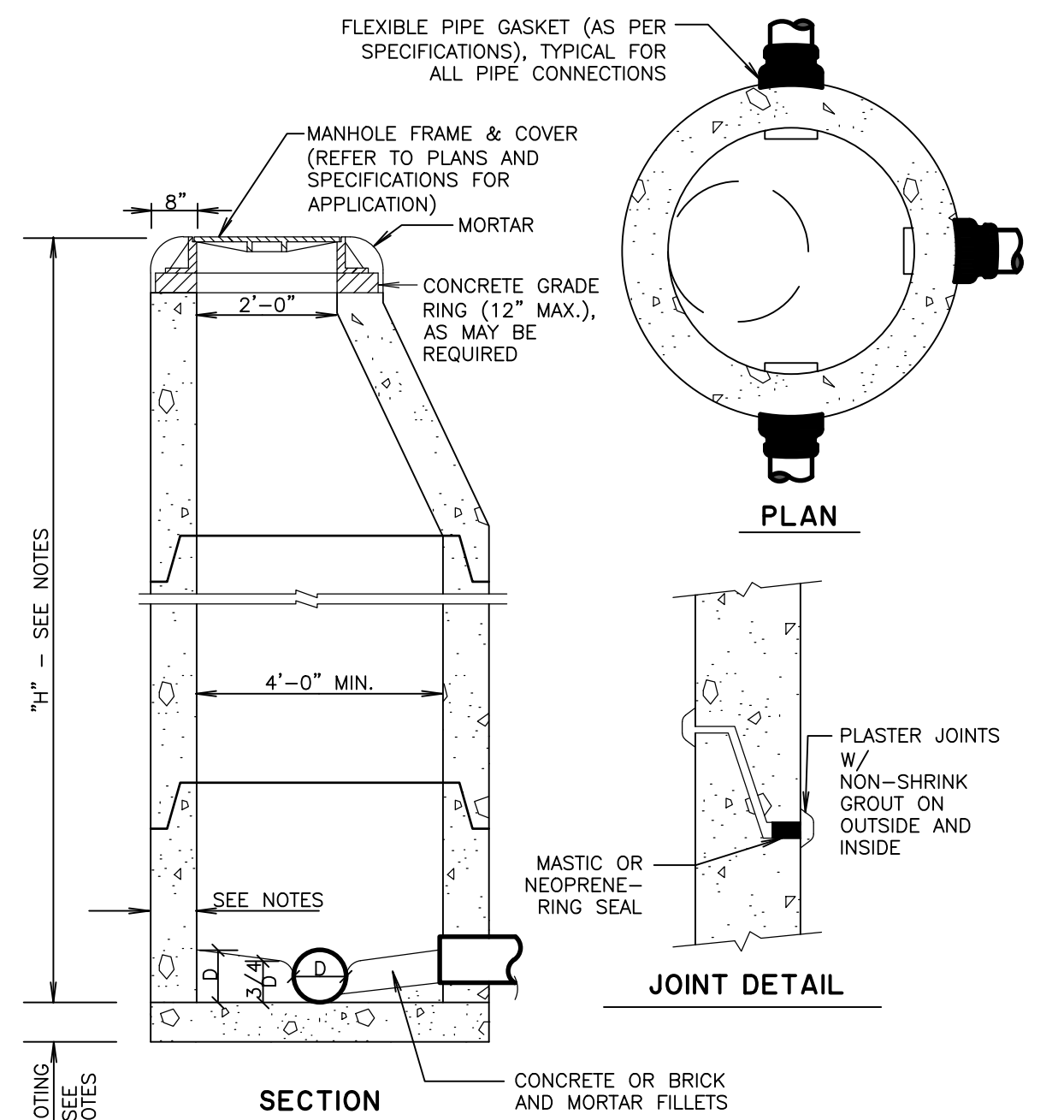


- NOTES:**
1. IN PAVED AREAS MANHOLE FRAMES WILL BE FLUSH WITH FINISHED PAVEMENT GRADE. IN NON-PAVED AREAS MANHOLE FRAMES WILL BE SET 2" ABOVE FINISHED GRADE.
 2. PRECAST REINFORCED CONCRETE MANHOLE TOPS, RISERS, AND BASES SHALL CONFORM TO ASTM C478.
 3. BRICK MANHOLES - WHEN "H" IS LESS THAN 12 FT., FOOTING AND BRICK WALLS SHALL BE 8" THICK. WHEN "H" IS GREATER THAN 12 FT., FOOTING AND BRICK WALLS BELOW 12 FT. SHALL BE 12" THICK. PLASTER WITH 1/2" 1:2 MORTAR ON OUTSIDE.



DROP-TYPE MANHOLE

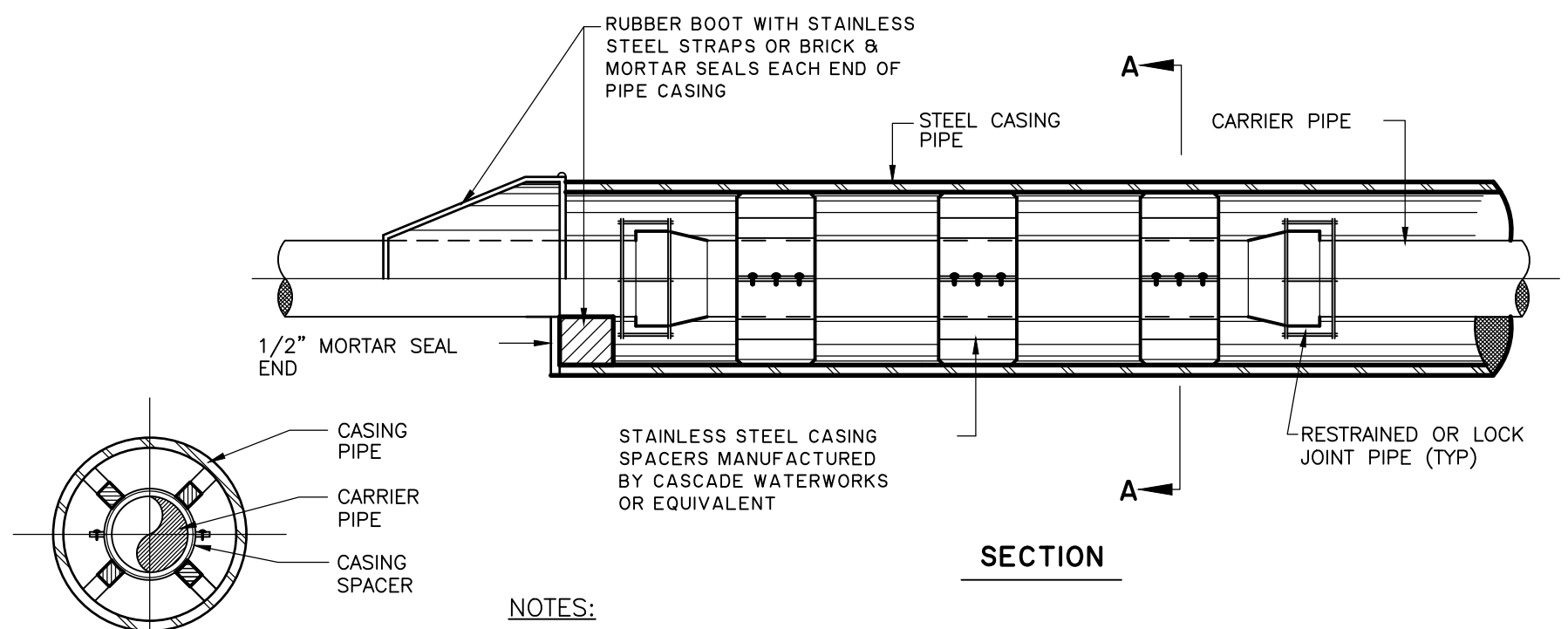
NOT TO SCALE



- NOTES:**
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STANDARD MANHOLE

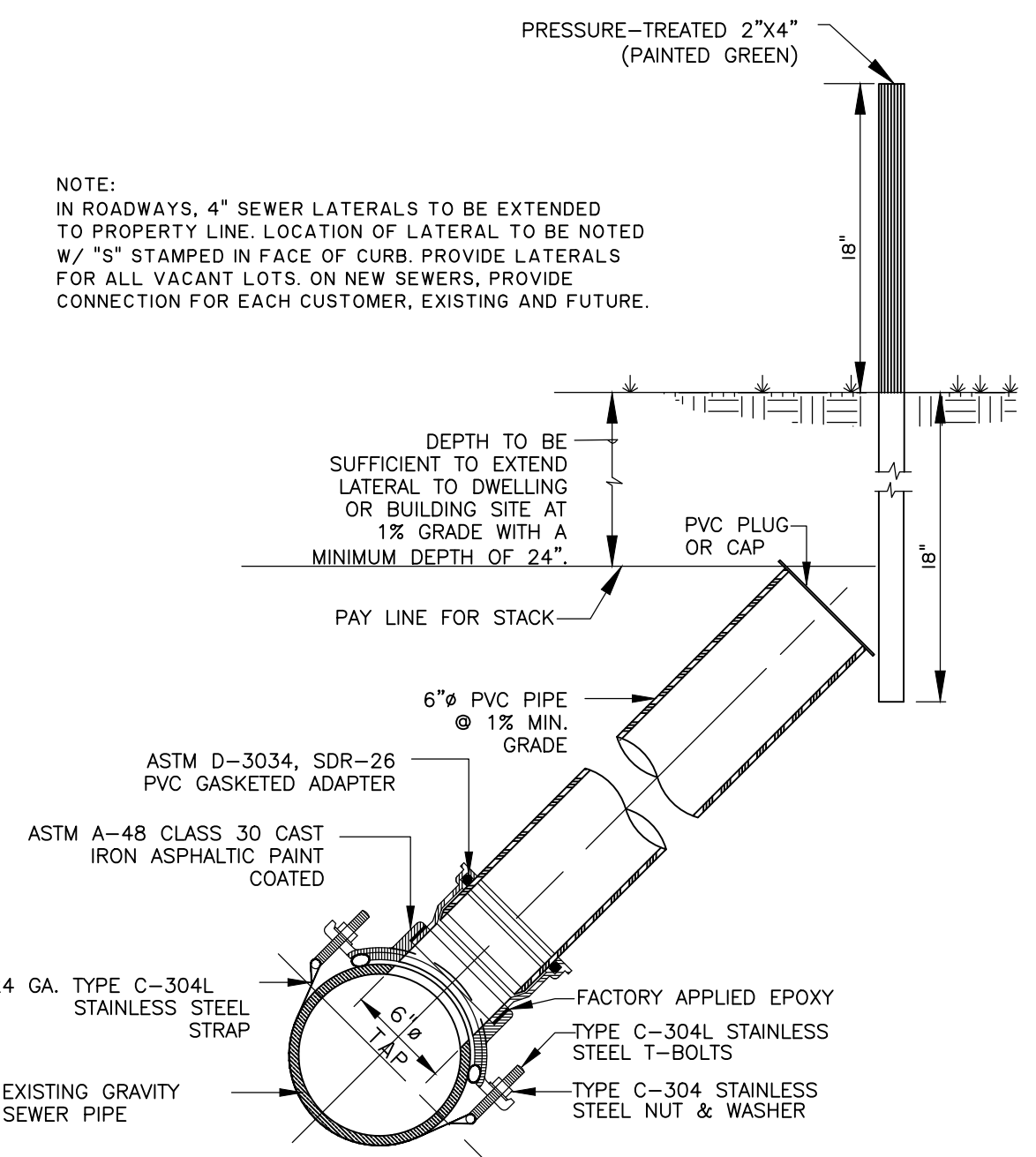
NOT TO SCALE



- NOTES:**
1. CASING SPACERS SHALL BE SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 2. ALL HIGHWAY CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH SC D.O.T. REGULATIONS & PERMIT REQUIREMENTS.
 3. ALL RAILROAD CROSSINGS SHALL BE INSTALLED IN ACCORDANCE TO AMERICAN RAILWAY ENGINEERING ASSOCIATION REGULATIONS, UNDER PART 5, PIPELINES (LATEST EDITION) AND PERMIT REGULATIONS.

CASING PIPE DETAIL

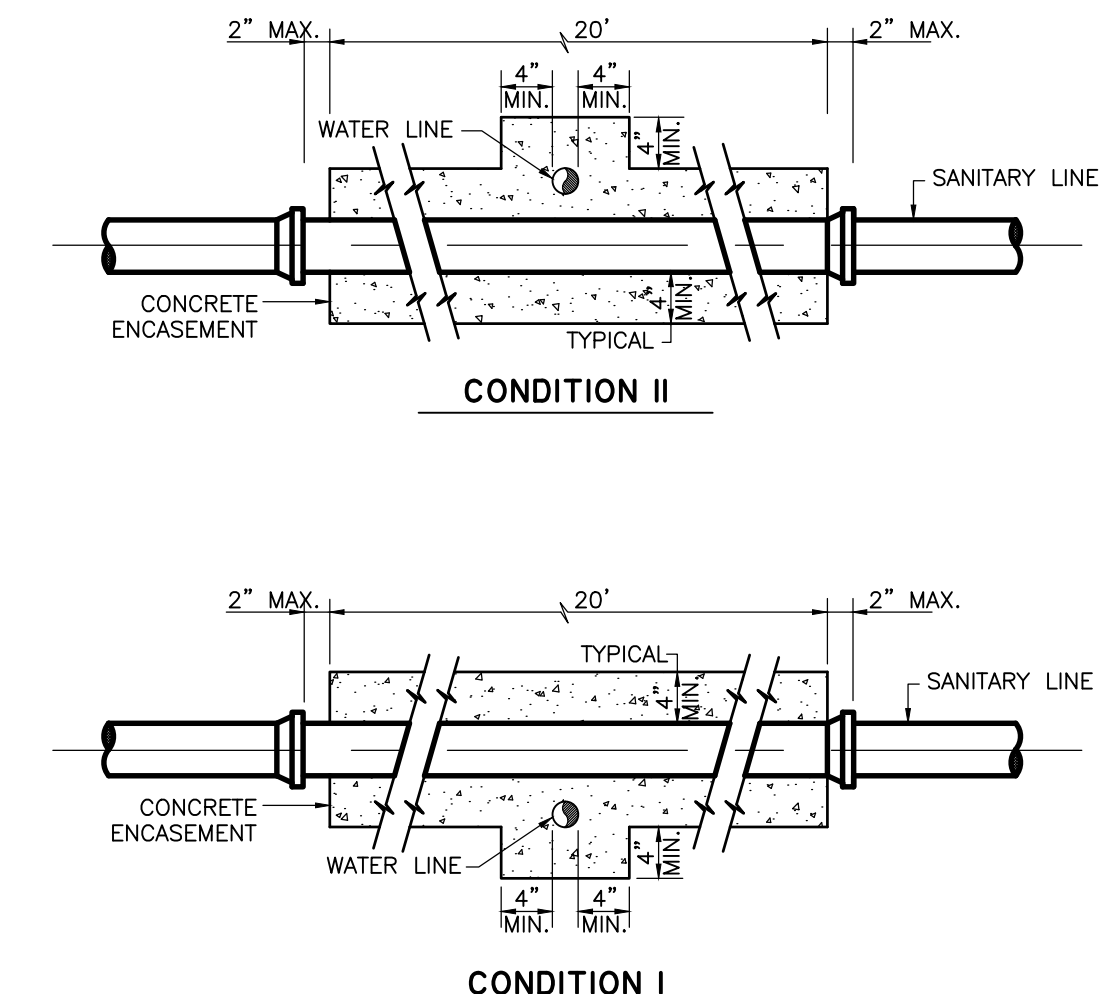
NOT TO SCALE



NOTE:
 IN ROADWAYS, 4" SEWER LATERALS TO BE EXTENDED TO PROPERTY LINE. LOCATION OF LATERAL TO BE NOTED W/ 'S' STAMPED IN FACE OF CURB. PROVIDE LATERALS FOR ALL VACANT LOTS. ON NEW SEWERS, PROVIDE CONNECTION FOR EACH CUSTOMER, EXISTING AND FUTURE.

SANITARY SERVICE CONNECTION DETAIL

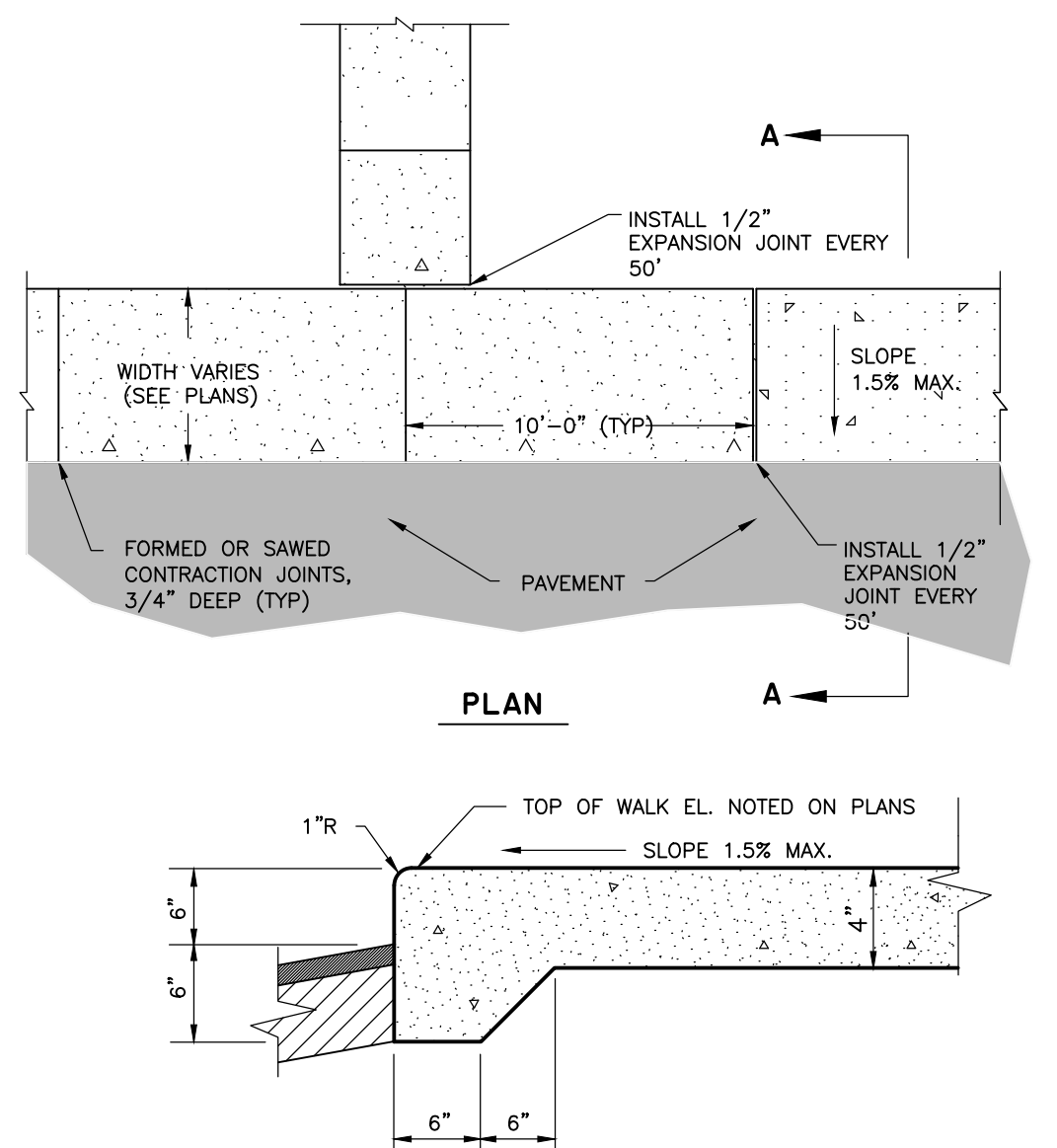
NOT TO SCALE



- NOTES:**
1. CONCRETE ENCASEMENT AS DETAILED ABOVE SHALL BE USED AT ALL SEWER & WATER MAIN CROSSINGS THAT HAVE LESS THAN 18" CLEARANCE BETWEEN THE O.D. OF THE PIPES. WHERE WATER & SEWER MAINS CROSS WITH LESS THAN 18" VERTICAL CLEARANCE, THE SEWER SHALL CONSIST OF 20' OF CONCRETE ENCASED PVC PIPE CENTERED ON THE POINT OF CROSSING.
 2. WHERE WATER LINE CROSSES BELOW SEWER, ENCASEMENT IS MANDATORY, REGARDLESS OF VERTICAL SEPARATION.

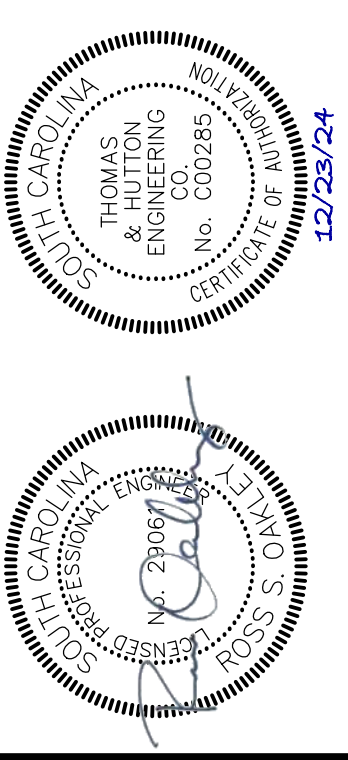
WATER & SEWER CROSSING DETAIL

NOT TO SCALE



SIDEWALK AND WALKWAY REPAIR DETAILS

NOT TO SCALE



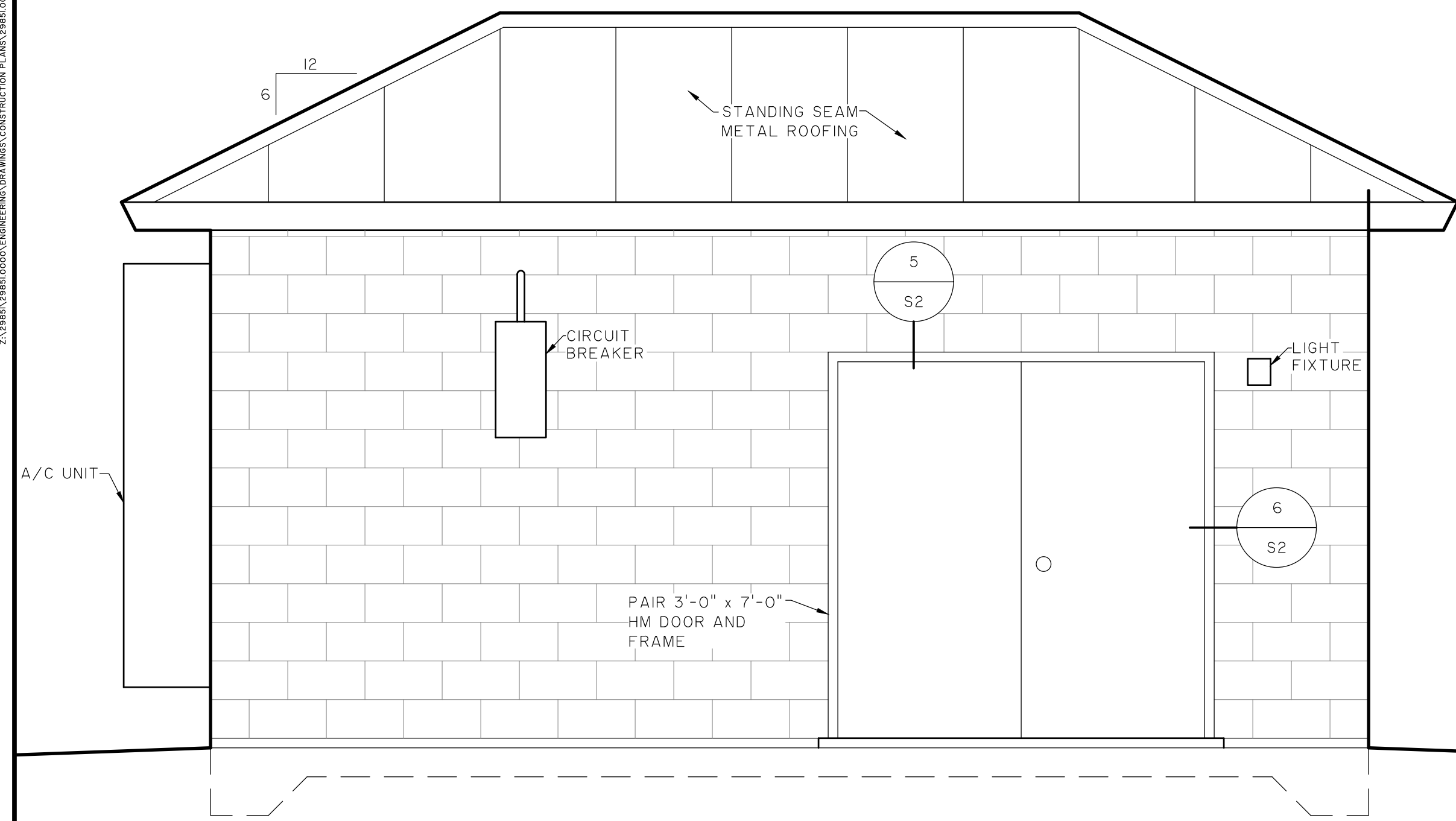
NO.	REVISIONS	BY	DATE

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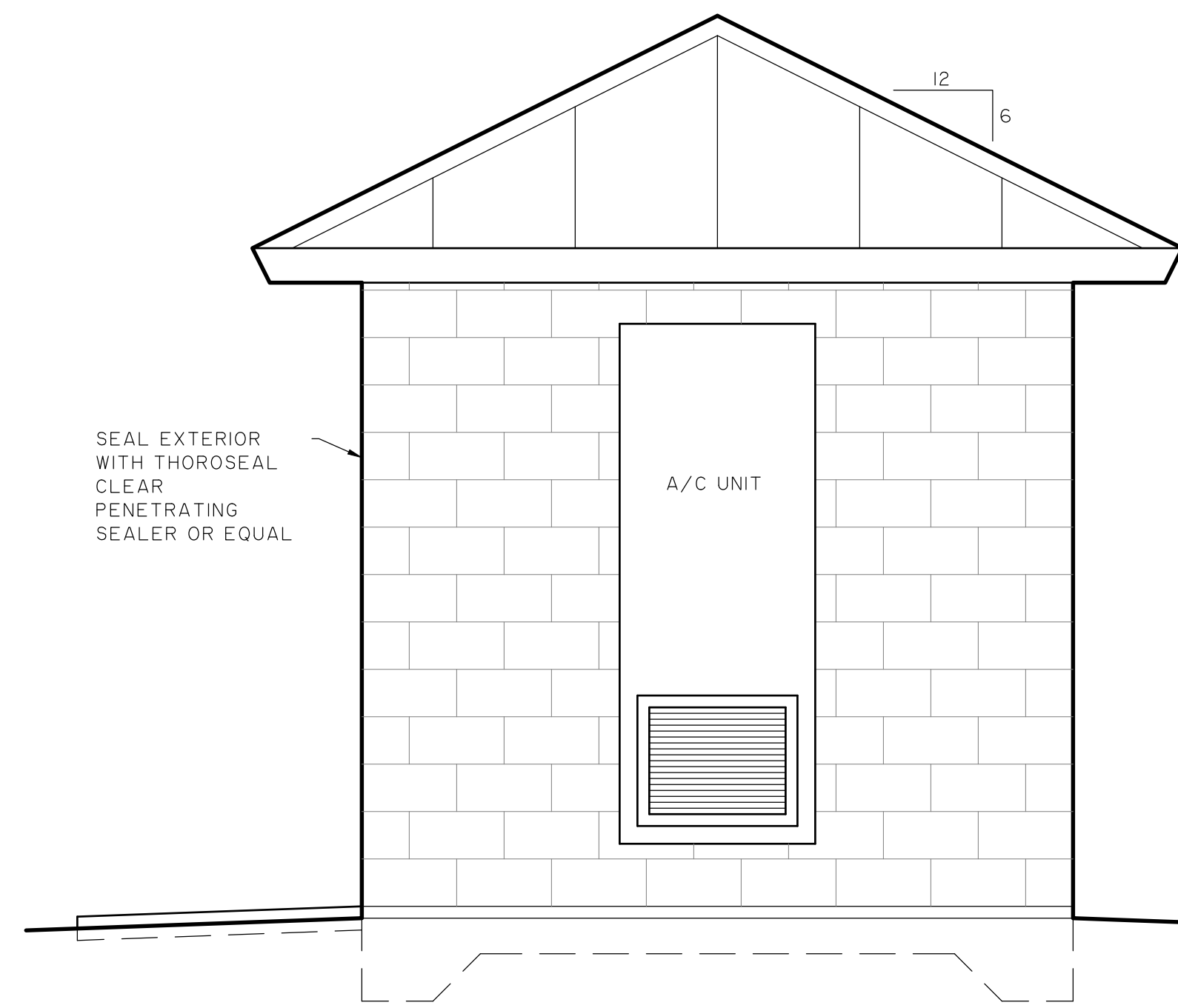
COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 UTILITY DETAILS

JOB NO:	J-298510000
DATE:	01/02/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	N/A

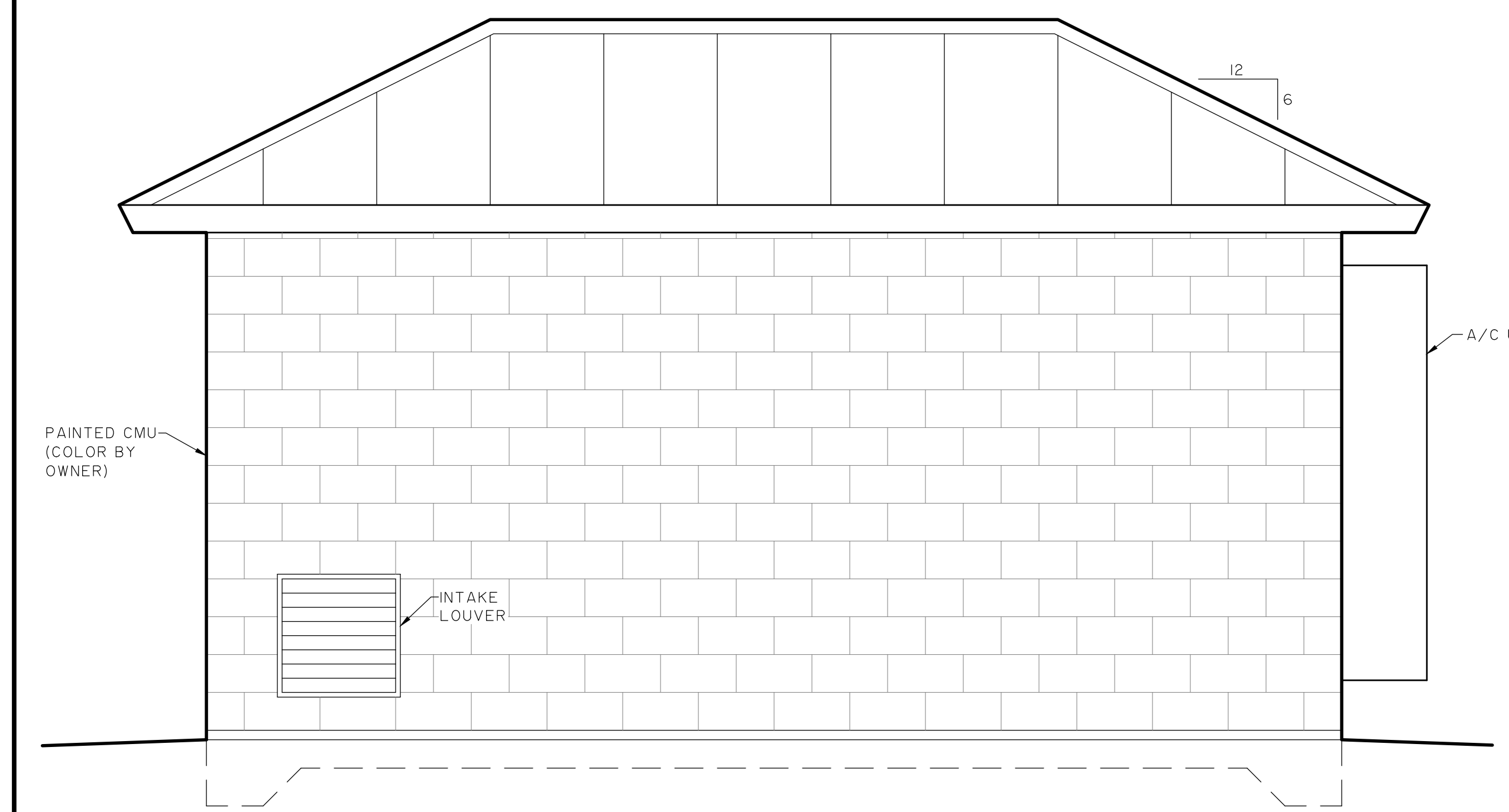
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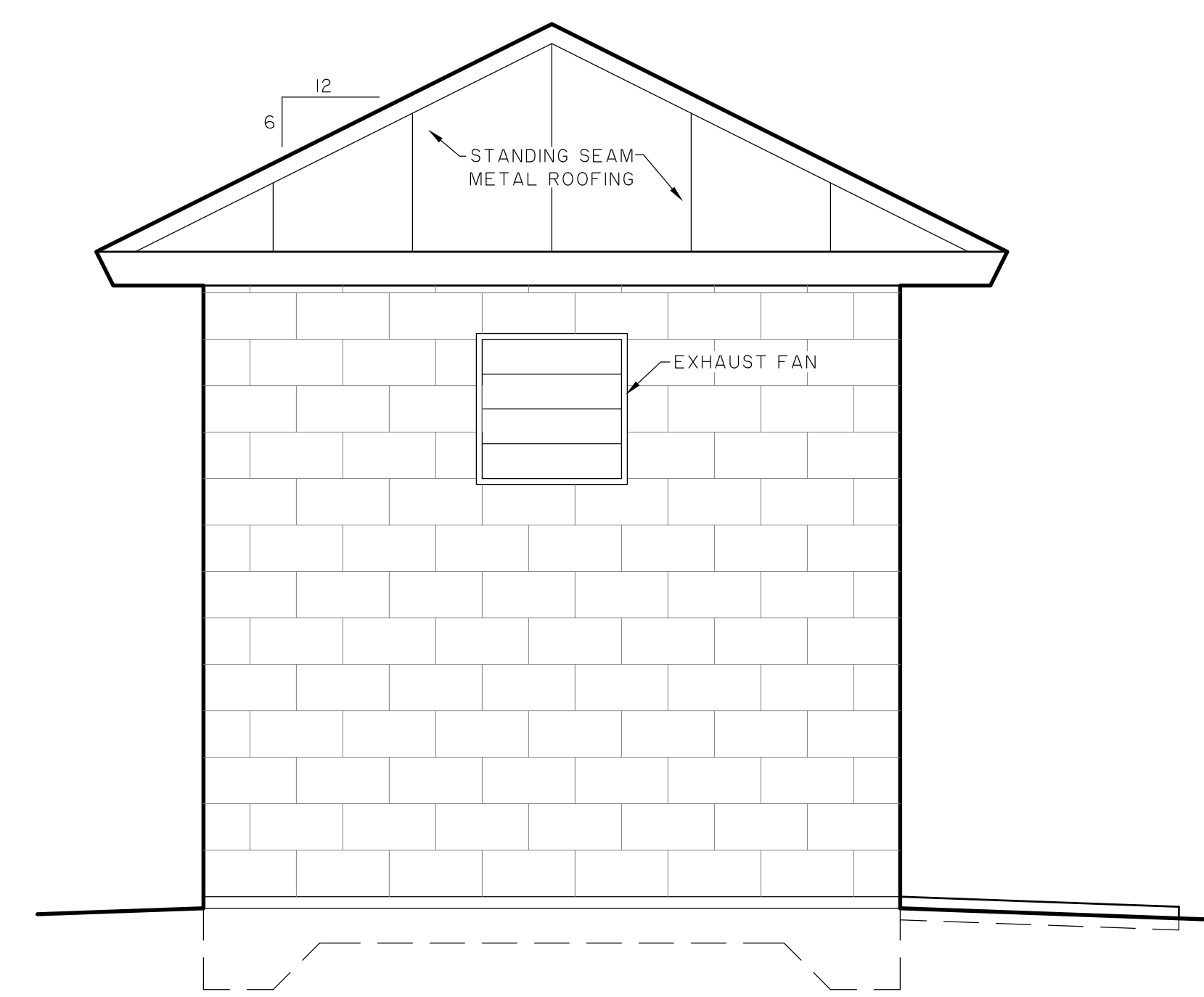
ELEVATION 1
SCALE: 1/2" = 1'-0"
S2



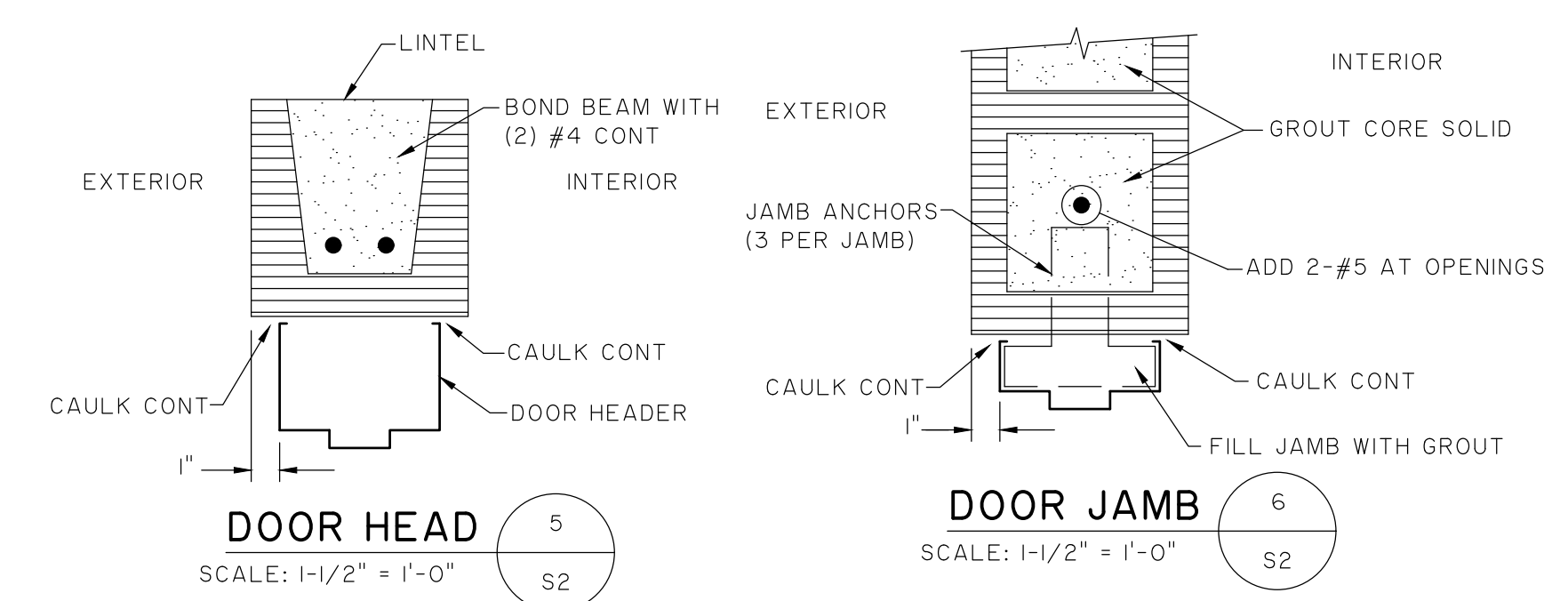
ELEVATION 2
SCALE: 1/2" = 1'-0"
S2



ELEVATION 3
SCALE: 1/2" = 1'-0"
S2

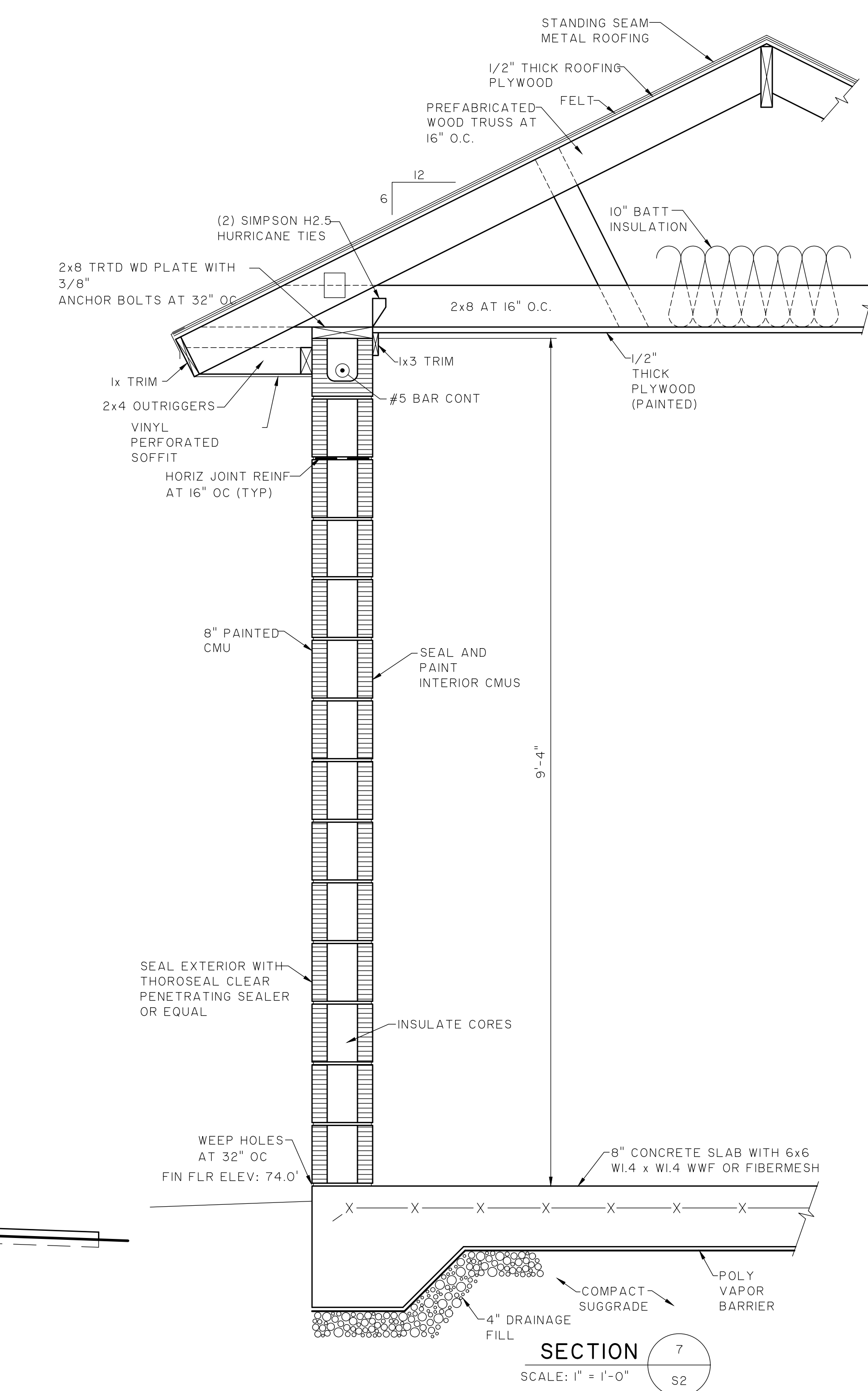


ELEVATION 4
SCALE: 1/2" = 1'-0"
S2

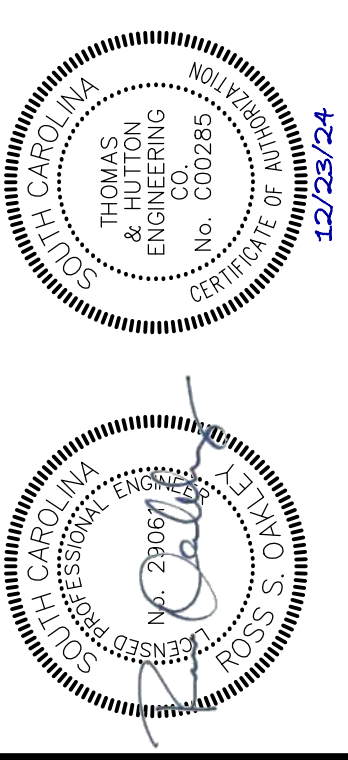


DOOR HEAD
SCALE: 1-1/2" = 1'-0"
S2

DOOR JAMB
SCALE: 1-1/2" = 1'-0"
S2



SECTION 7
SCALE: 1" = 1'-0"
S2



NO.	REVISIONS	BY	DATE

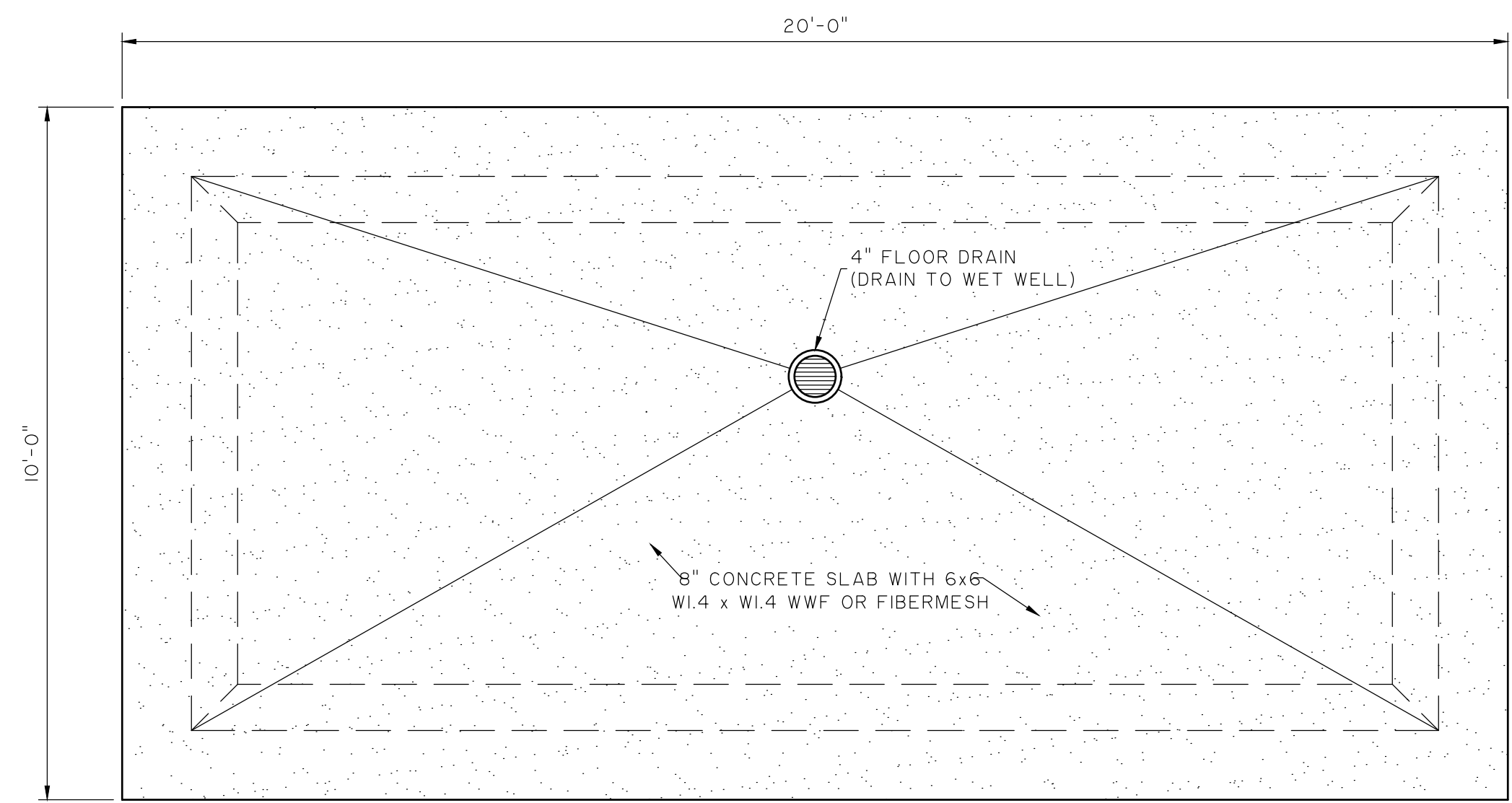
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COLLETON COUNTY
COLLETON COUNTY
NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
PUMP STATION DETAILS

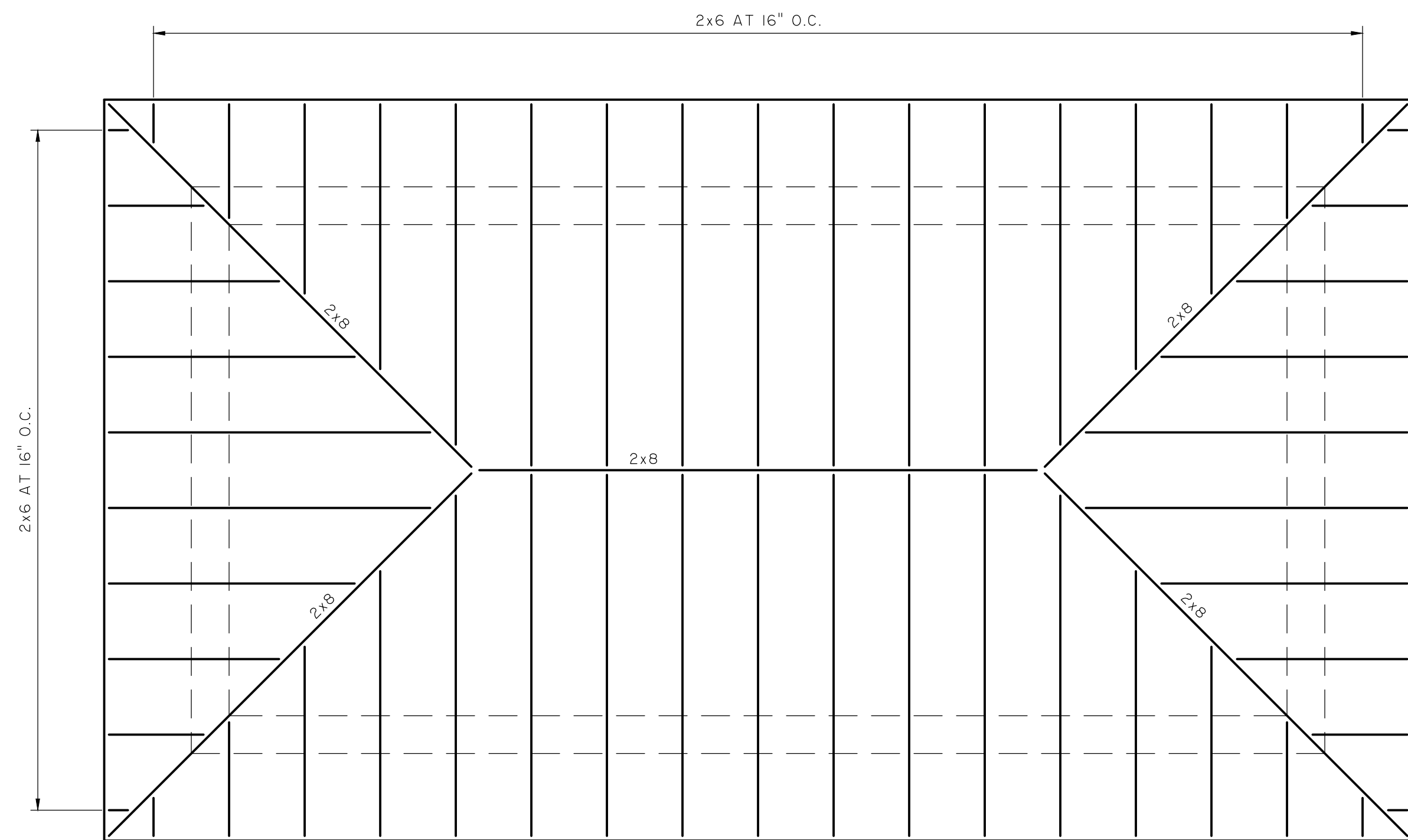
JOB NO: J-298510000
DATE: 01/02/2024
DRAWN: JTB
DESIGNED: MAL
REVIEWED: RSO
APPROVED: RSO
SCALE: AS NOTED

C6.1

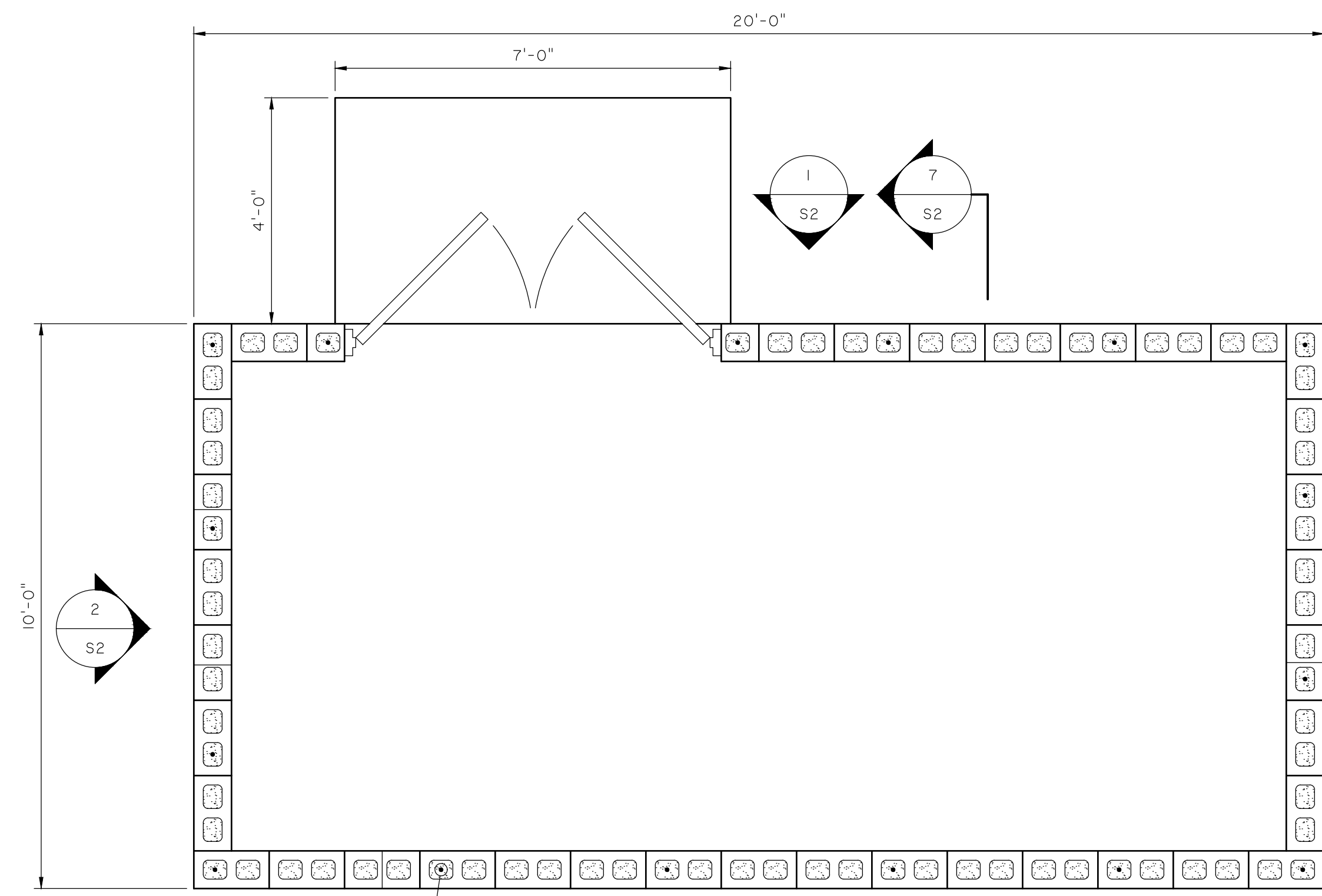
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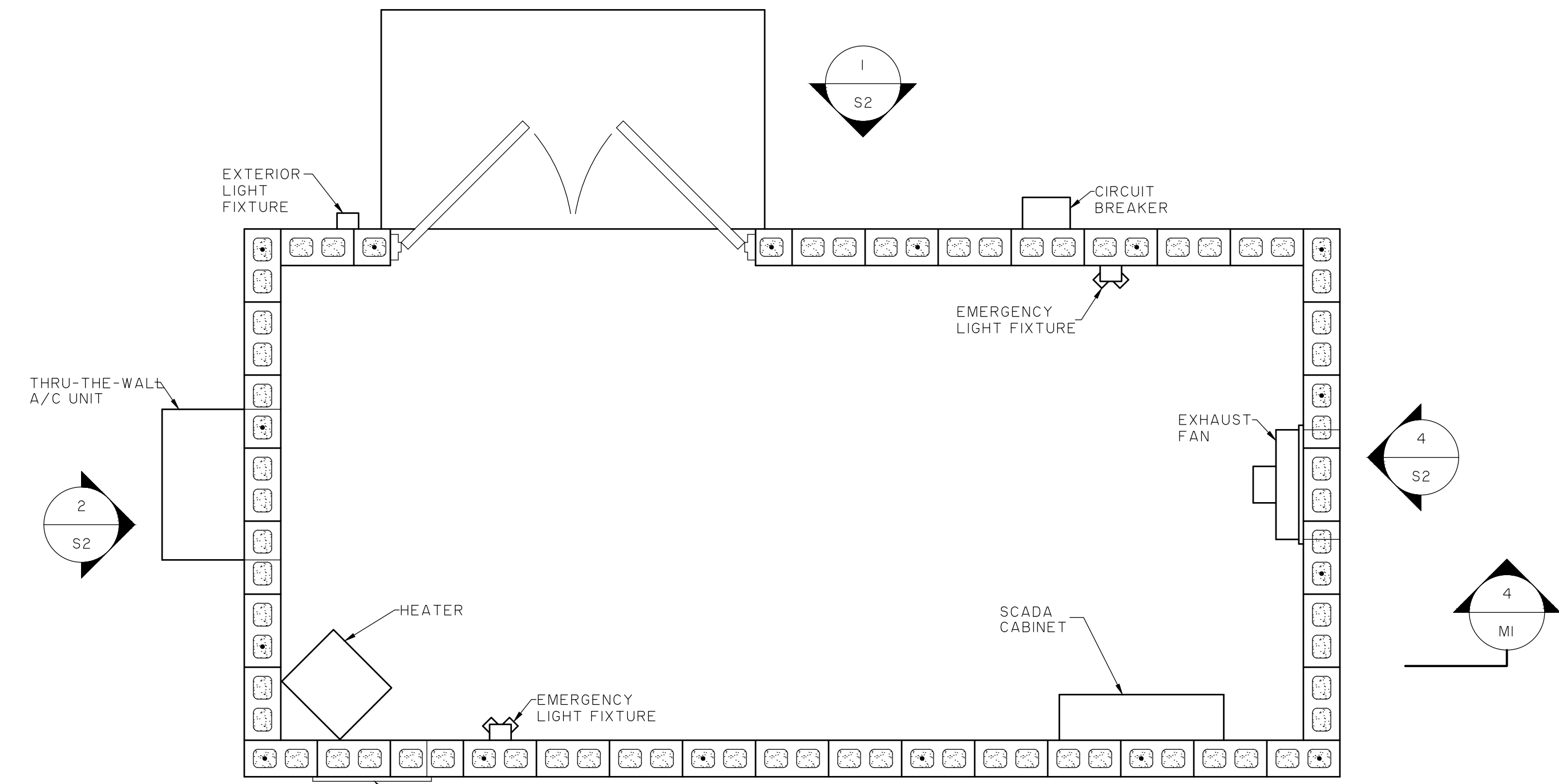
FOUNDATION PLAN (1) SI
SCALE: 1/2" = 1'-0"



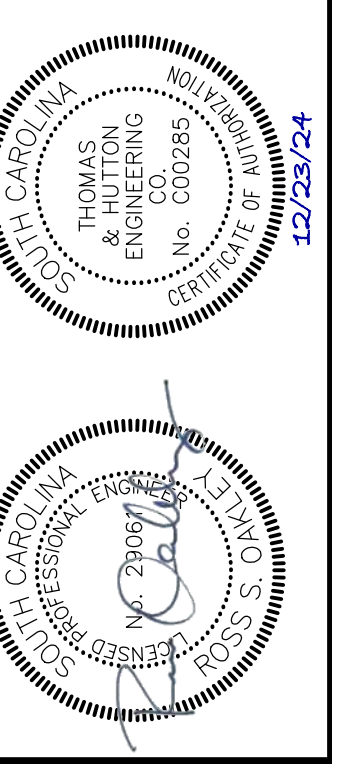
ROOF FRAMING PLAN (2) SI
SCALE: 1/2" = 1'-0"



FLOOR PLAN (3) SI
SCALE: 1/2" = 1'-0"



PUMPING STATION ROOM EQUIPMENT PLAN (3) MI
SCALE: 1/2" = 1'-0"



NO.	REVISIONS	BY	DATE

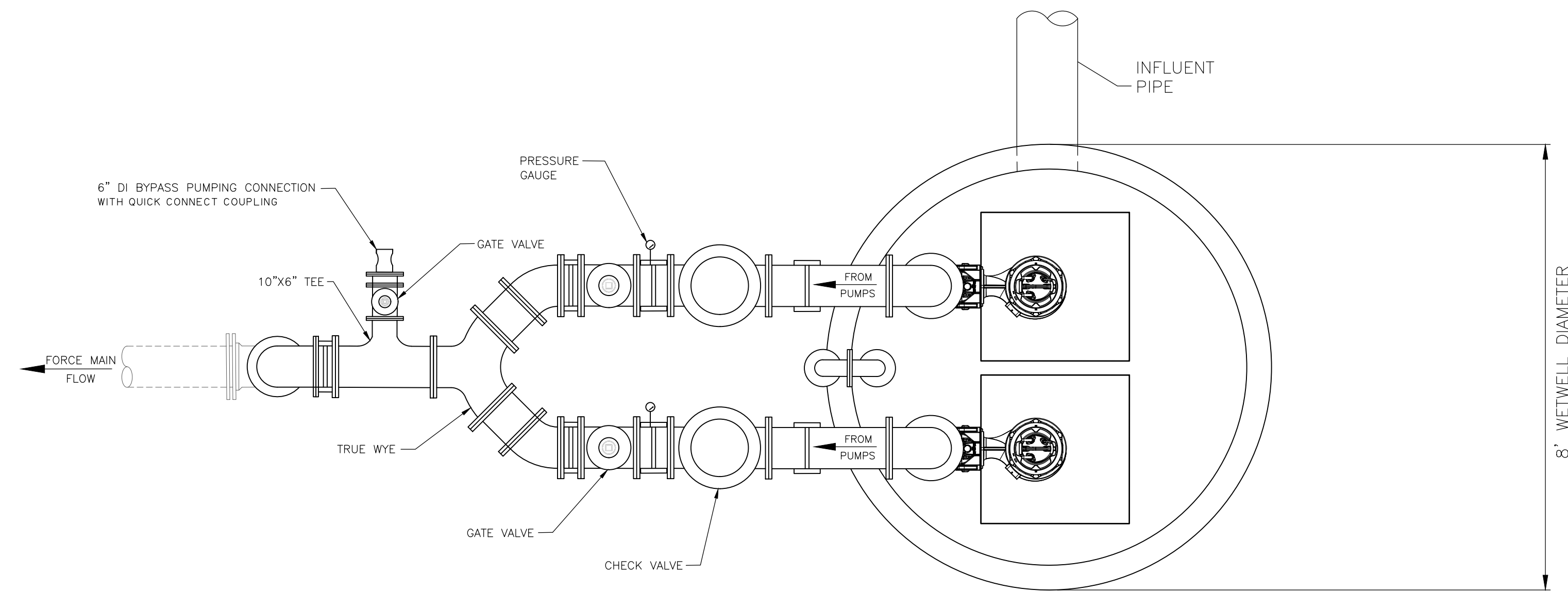
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COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 PUMP STATION DETAILS

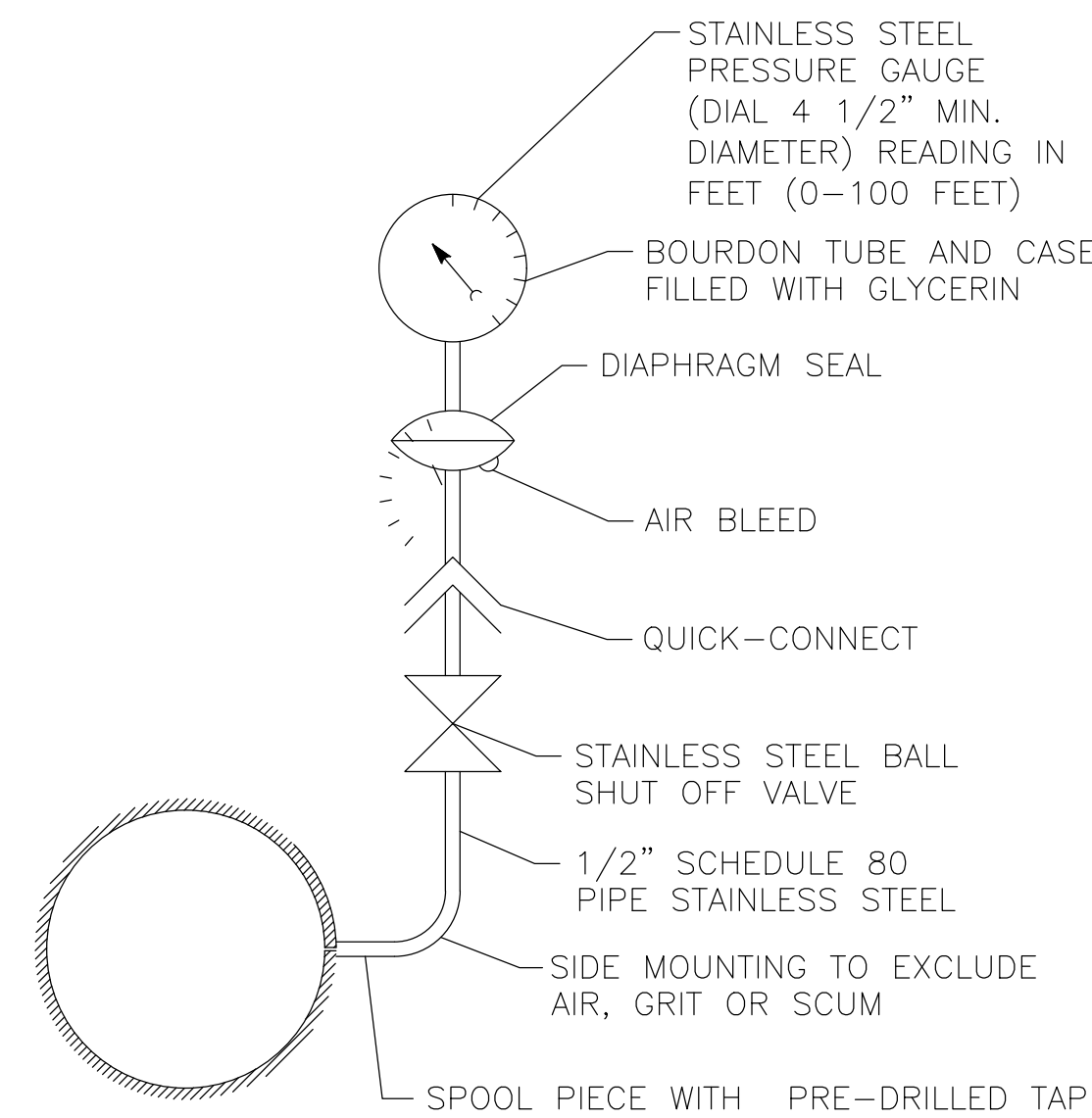
JOB NO:	J-298510000
DATE:	01/02/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

C6.2

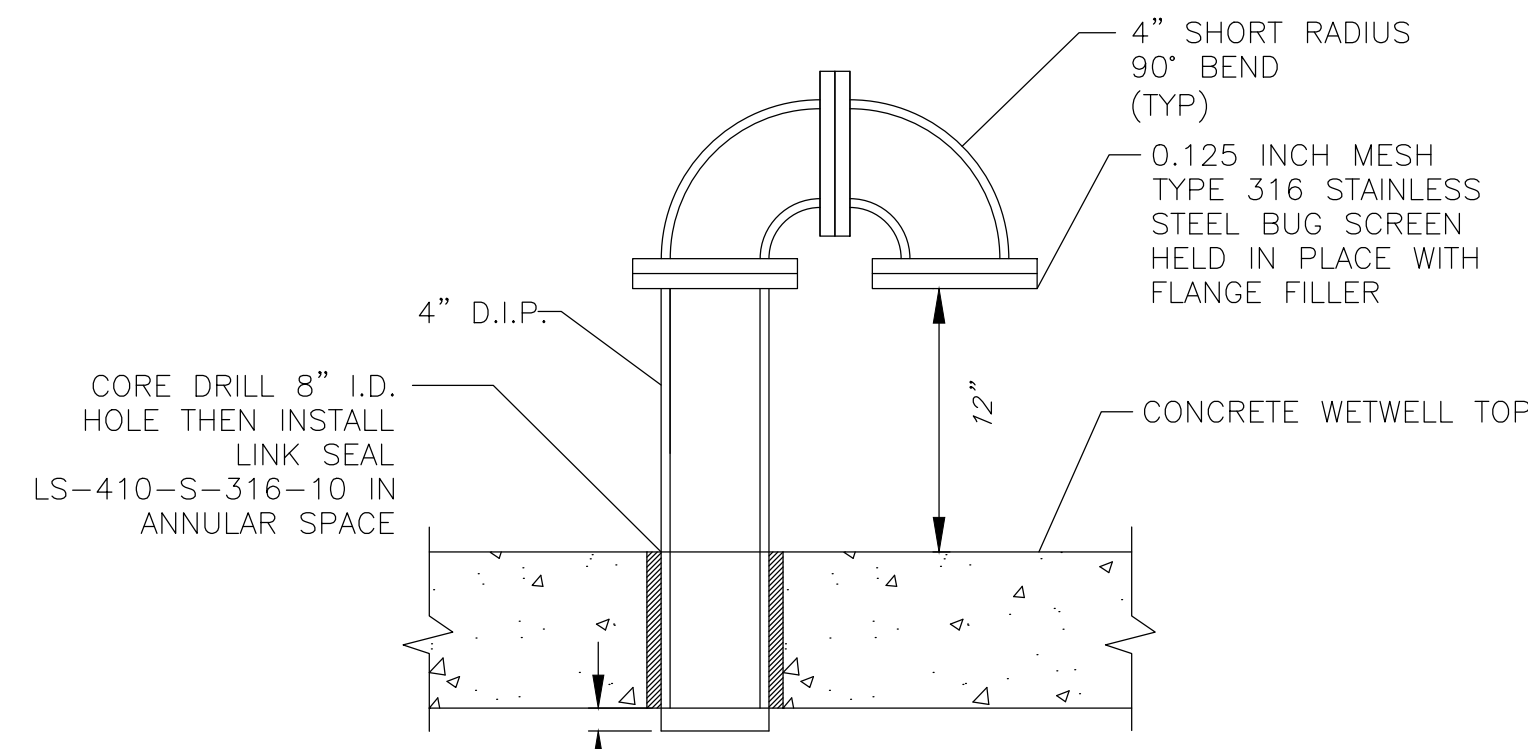
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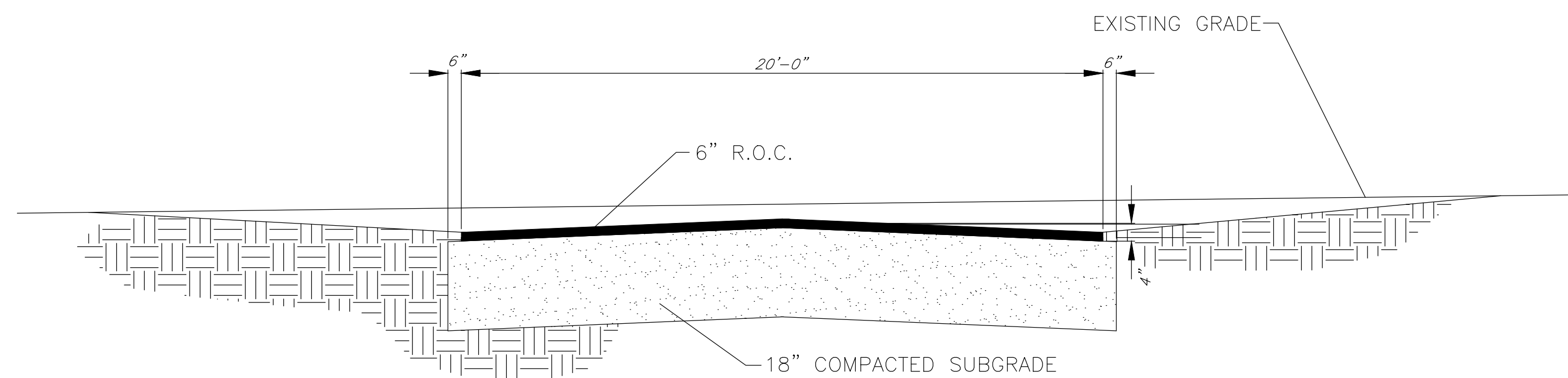
DUPLEX SUBMERSIBLE PUMP STATION PLAN VIEW
NOT TO SCALE



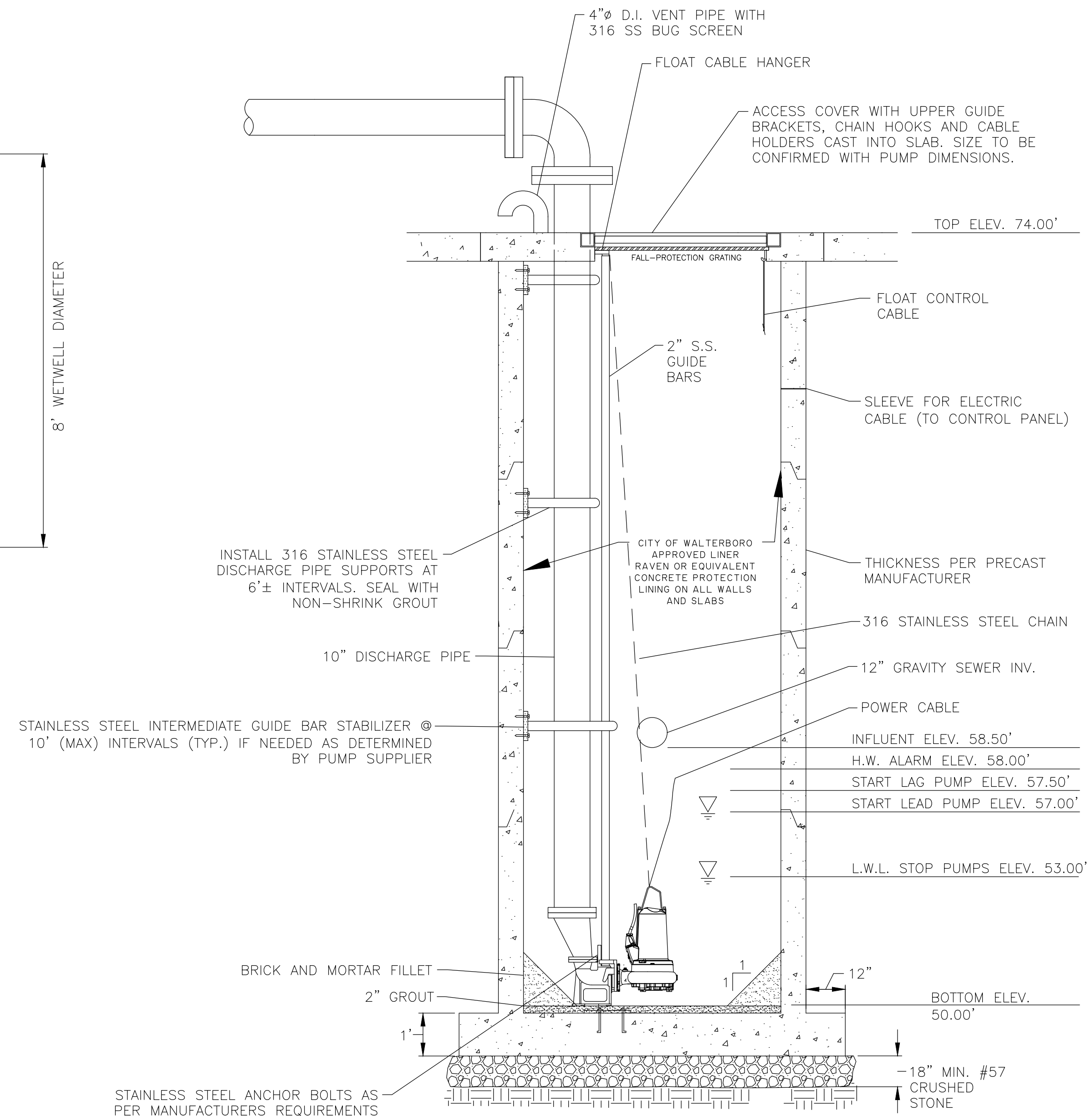
PRESSURE GAUGE DETAIL
NOT TO SCALE



WET WELL VENT PIPE
NOT TO SCALE



PUMP STATION ACCESS ROAD
NOT TO SCALE



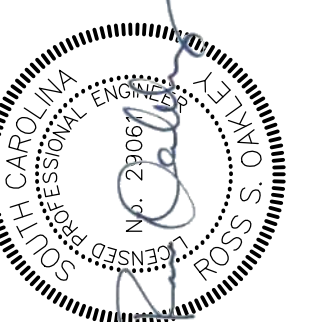
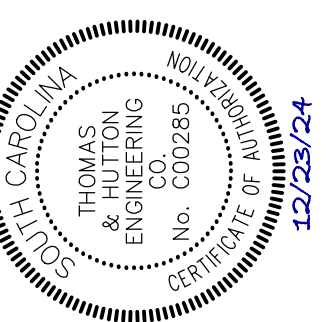
DUPLEX SUBMERSIBLE PUMP STATION SECTION VIEW
NOT TO SCALE

ALUMINUM PLATE WITH PUMP INFORMATION STAMPED IN PLATE TO BE ATTACHED TO INSIDE OF CONTROL PANEL DOOR IN PLAIN VIEW.

	INTERIM	ULTIMATE
PUMP H.P.	33.5	-
CAPACITY GPM (EACH PUMP)	697.7	-
NUMBER OF PUMPS	2	-
TOTAL HEAD (TDH)	101	-
OPERATING RPM	1760	-
IMPELLER NO.	-	-
VOLTS	460	-
STARTING AMPS	315	-
PHASE	3	-
MANUFACTURER	SULZER	-
MODEL NO.	XFP100G CB1	-

NOTE: PROVIDE A SCHEMATIC FOR THE CONTROL PANEL LAMINATED ON BOTH SIDES PLACED IN A POCKET ATTACHED TO THE INSIDE OF THE PANEL DOOR. THE ABOVE PUMP AND MOTOR INFORMATION PLATE SHALL BE PERMANENTLY AFFIXED TO THE INSIDE OF THE PANEL DOOR.

CONTROL PANEL INFORMATION PLATES
NOT TO SCALE



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C6.3

PUMP STATION NOTES:

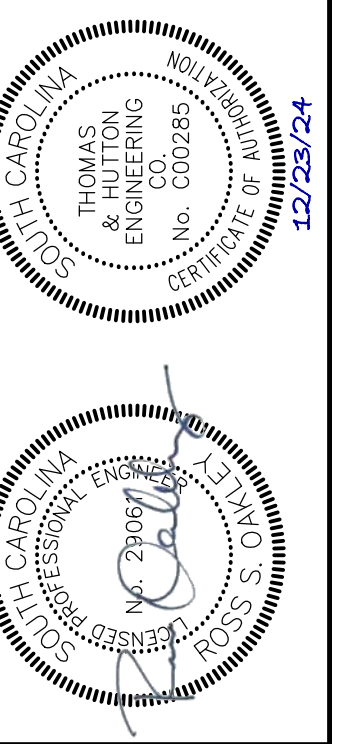
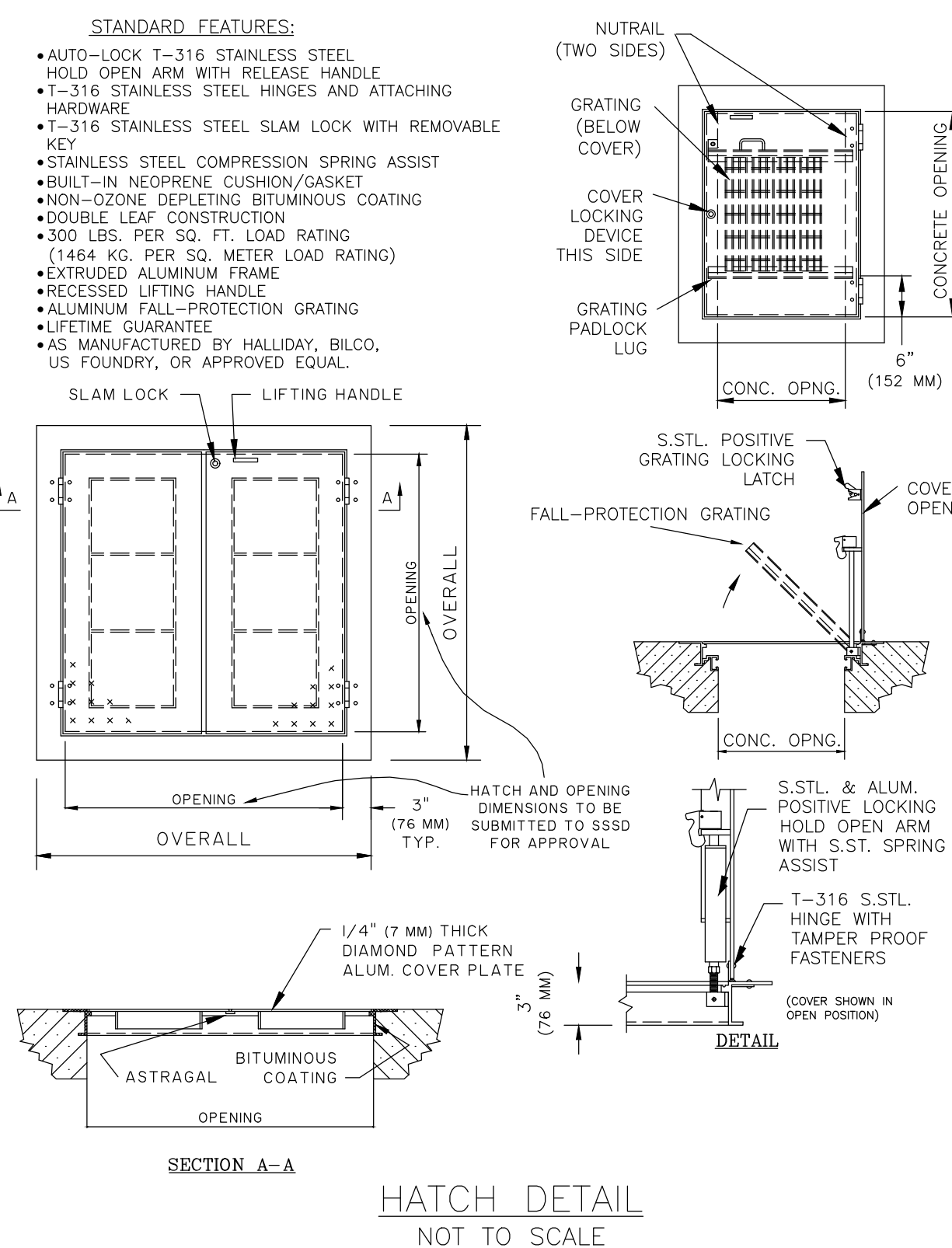
- ALL HINGES, GUIDE RAILS, CHAIN HOLDERS, CHAIN, CABLE, NUTS, BOLTS, WASHERS, OTHER FASTENERS, AND ANY EQUIPMENT THAT MAY ENTER THE WETWELL SHALL BE 316 STAINLESS STEEL.
- ALL ELECTRICAL ENCLOSURES SHALL BE CONSTRUCTED OF 316 STAINLESS STEEL.
- ALL PIPING SHALL BE PRESSURE CLASS 350 DUCTILE IRON PIPE AND ALL FITTINGS SHALL BE CLASS 160 DUCTILE IRON. ALL PIPE AND FITTINGS SHALL CONFORM TO PROTECTO 401 FOR INTERNAL LINING. PIPE AND FITTINGS THAT ARE LOCATED ABOVE GRADE OR ARE INSIDE OF THE WETWELL SHALL BE PAINTED CONFORMING TO NEMEC SPECIFICATIONS. ALL PIPE AND FITTINGS THAT ARE BURIED SHALL HAVE A BITUMASTIC EXTERNAL COATING. SANDBLAST ABOVE-GROUND PIPE TO SSPC-SP6 BEFORE PAINTING.
- EACH DISCHARGE LINE SHALL BE EQUIPPED WITH FITTINGS, PETCOCK AND A FOUR INCH (4") DIAMETER GLYCERIN-FILLED PRESSURE GAUGE. THE GAUGE SHALL HAVE READINGS IN PSI AND THE NORMAL OPERATING PRESSURE FOR THE PUMPS SHALL FALL IN THE MIDDLE OF THE MEASUREMENT RANGE. FITTINGS, PETCOCKS, AND GAUGE SHALL BE EITHER STAINLESS STEEL OR BRASS.
- ALL WETWELL HARDWARE SHALL BE MOUNTED SUCH THAT ANY COMPONENT MAY BE REMOVED.
- ALL EXPOSED CONCRETE WITHIN THE WETWELL SHALL RECEIVE A HYDROGEN SULFIDE INHIBITING COATING, RAVEN 405 OR APPROVED EQUAL.
- THE ELECTRIC METER SHALL BE INSTALLED WITH A FUSED DISCONNECT AND IN SUCH A MANNER THAT THE METER MAY BE READ WITH OUT ENTERING THE FENCED AREA.
- THE CONTROL PANEL SHALL BE FREE STANDING. CONTROL PANEL SHALL BE NEMA 4X.
- A WEATHERPROOF BREAKER PANEL SHALL BE PROVIDED. THE PANEL SHALL HAVE SPACE FOR 6 SINGLE POLE BREAKERS.
- AN EXTERNAL DRY TRANSFORMER SHALL BE PROVIDED FOR 460V STATIONS, TO PROVIDE POWER TO NOTE 9 ABOVE.
- SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR DESCRIPTION OF SITE LIGHTING.
- SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR DESCRIPTION OF SCADA CONTROLS.
- ALL GROUND ROD CONNECTIONS SHALL BE CAD WELDED. ALL GROUND ROD CONNECTIONS ARE TO BE INSPECTED BY LWSC PRIOR TO BURIAL AND SHALL BE BURIED.
- A HIGH WATER AUDIBLE AND VISIBLE ALARM SHALL BE INSTALLED. THE HIGH LEVEL ALARM SHALL BE ACTUATED BY A FLOAT AND HAVE ITS OWN 12VDC BATTERY BACKUP AND CHARGER.
- THE POWER CABLE IS TO BE WIRED NONSTOP FROM THE PUMP MOTOR TO THE MOTOR STARTER WITH NO JUNCTION BOXES OR SPLICES.
- STAINLESS STEEL KELLUMS GRIPS SHALL BE INSTALLED ON POWER CABLES FOR THE PUMPS.
- PUMPS SHALL BE ABS (SULZER) OR APPROVED EQUAL BY CITY OF WALTERBORO.
- PUMPS AND MOTORS SHALL HAVE STAINLESS STEEL CHAIN FOR LIFTING. THE LENGTH OF THE CHAIN SHALL REACH THE TOP OF THE WETWELL PLUS SIX FEET (6'). A COMBINATION OF SS CHAIN AND SS WIRE ROPE MAY BE UTILIZED AS LONG AS THE BOTTOM THREE FEET (3') IS CHAIN.
- ALL METAL STRUCTURES SHALL BE GROUNDED, INCLUDING BUT NOT LIMITED TO THE HOIST, CONTROL PANEL, AND GENERATOR.
- A METAL PLATE SIGN SHALL BE PROVIDED THAT DISPLAYS THE EMERGENCY PHONE NUMBERS AND FACILITY NUMBER. A METAL PLATE SIGN SHALL BE PROVIDED THAT DISPLAYS THE SITE ADDRESS.
- SPRAY HERBICIDE PRIOR TO PLACEMENT OF ROC.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING LOCATION WITH ELECTRIC PROVIDER AND ALL CONDUITS / WIRES NECESSARY FROM TRANSFORMER TO CONTROL PANEL.
- AIR RELEASE VALVES TO BE ARI MODEL #D-025I.
- WHERE IN DUPLICATE OR CONFLICT, INFORMATION PROVIDED IN ELECTRICAL SHEETS AND SPECIFICATIONS SHALL SUPERSEDE INFORMATION PROVIDED ON THIS SHEET.

ELECTRICAL NOTES

- ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR WITH A LOCAL BUSINESS LICENSE.
- ELECTRICAL PERMITS SHALL BE OBTAINED FROM AND FEES PAID TO THE AUTHORITY HAVING JURISDICTION.
- ELECTRICAL CONTROLS SHALL BE MOUNTED ABOVE THE 100 YEAR FLOOD ELEVATION.
- ALL CONDUITS INTO THE CONTROL PANEL MUST BE SEALED.
- ELECTRICAL CONTROLS TO BE LABELED WITH 1" X 3" BLACK PLACARD WITH 1/2" LETTERS FOR LABELING ALL CONTROLS.
- ALL TERMINATIONS SHALL BE WITH LUGS.
- CONTRACTOR IS RESPONSIBLE FOR APPLYING TO REGULATORY AGENCIES AND SERVICE PROVIDER FOR ELECTRICAL SERVICE.
- CONTRACTOR IS RESPONSIBLE TO ESTABLISH AND PROVIDE PERMANENT ELECTRICAL SERVICE TO THE STATION. CONTRACTOR SHALL PAY FOR ELECTRIC SERVICE UNTIL THE STATION IS ACCEPTED FOR OPERATION BY LWSC.
- CONTRACTOR IS RESPONSIBLE TO VERIFY SIZE OF GENERATOR PAD, AND LOCATION OF CONDUIT ENTRANCE PER GENERATOR SUPPLIED. CONTRACTOR SHALL ALSO ENLARGE GENERATOR PAD IF NEEDED TO ENSURE A MIN. OF 18" OF CONCRETE AROUND THE GENERATOR ENCLOSURE.
- MOTOR STARTERS SHALL BE SOFT START. ACROSS THE LINE, SPLIT WINDING, AND OTHER REDUCED VOLTAGE STARTERS ARE NOT ACCEPTABLE.
- AUTOMATIC TRANSFER SWITCH SHALL BE MOUNTED ON THE GENERATOR.
- CONTRACTOR TO PROVIDE ONE 15A, 2P, 480V BREAKER TO FEED EXTERNAL TRANSFORMER.
- WHERE IN DUPLICATE OR CONFLICT, INFORMATION PROVIDED IN ELECTRICAL SHEETS AND SPECIFICATIONS SHALL SUPERSEDE INFORMATION PROVIDED ON THIS SHEET.

GENERAL NOTES:

- CONTRACTOR TO INSTALL LINK SEAL OR EQUIVALENT AT DISCHARGE LINE PENETRATIONS OF TOP SLAB. THE LINK SEAL SHALL BE SUPPLIED WITH 316 STAINLESS STEEL HARDWARE.
- PAIN ALL ALUMINUM SURFACES IN CONTACT W/ CONCRETE WITH ASPHALTIC PAINT (BITUMASTIC).
- CONTRACTOR SHALL SUBMIT COMPACTION TEST RESULTS INSIDE PUMP STATION FENCE AREA AND AT LEAST TEN TEST RESULTS IMMEDIATELY ADJACENT TO CONCRETE SLAB PRIOR TO INSTALLING ROC.
- PROVIDE DUAL 500 WATT METAL HALIDE LIGHT TO ILLUMINATE CONTROL PANEL, WET WELL, AND GENERATOR WITH SWITCH CONTROL (12 FT AFG).
- WHERE IN DUPLICATE OR CONFLICT, INFORMATION PROVIDED IN ELECTRICAL SHEETS AND SPECIFICATIONS SHALL SUPERSEDE INFORMATION PROVIDED ON THIS SHEET.



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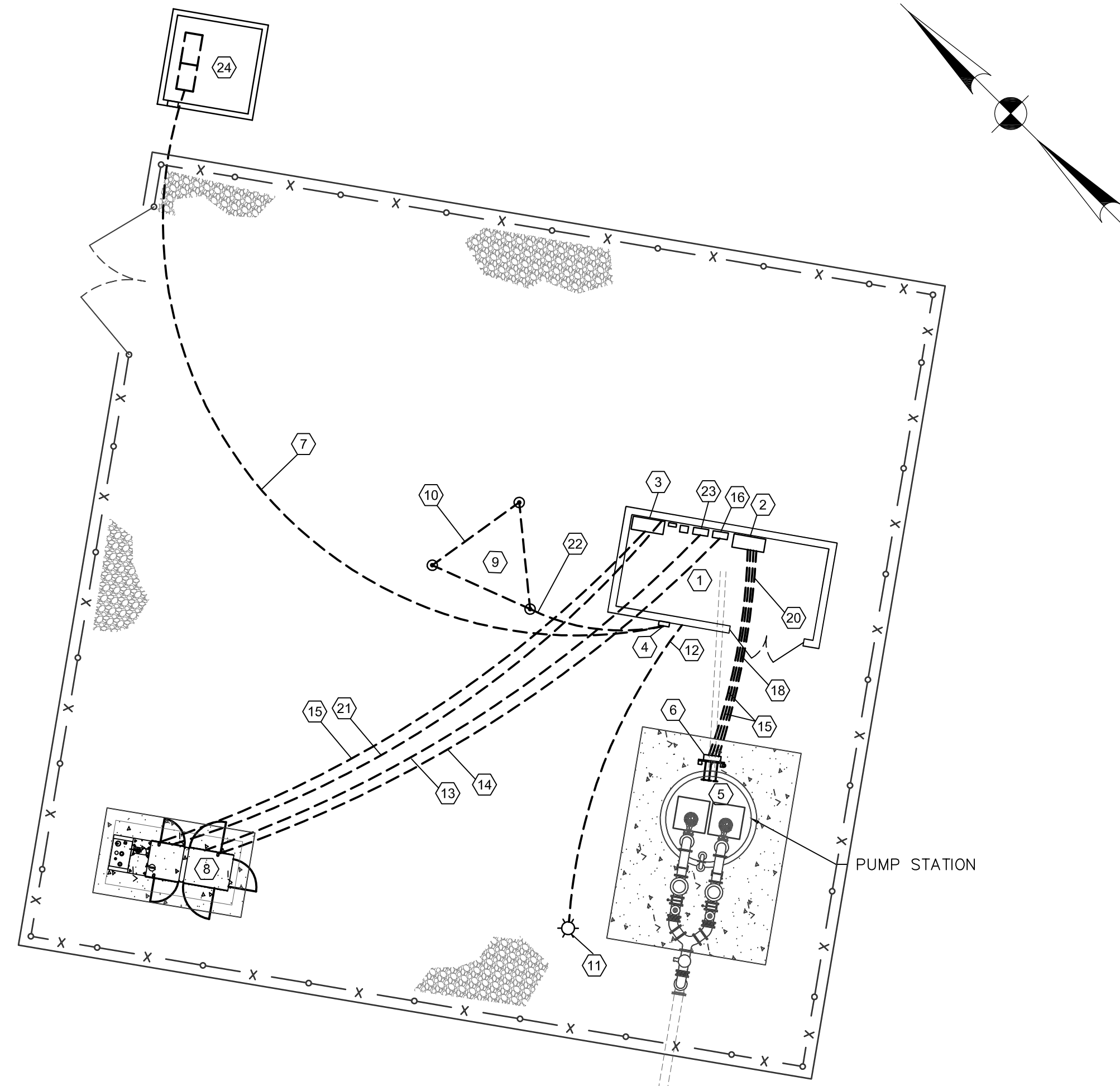
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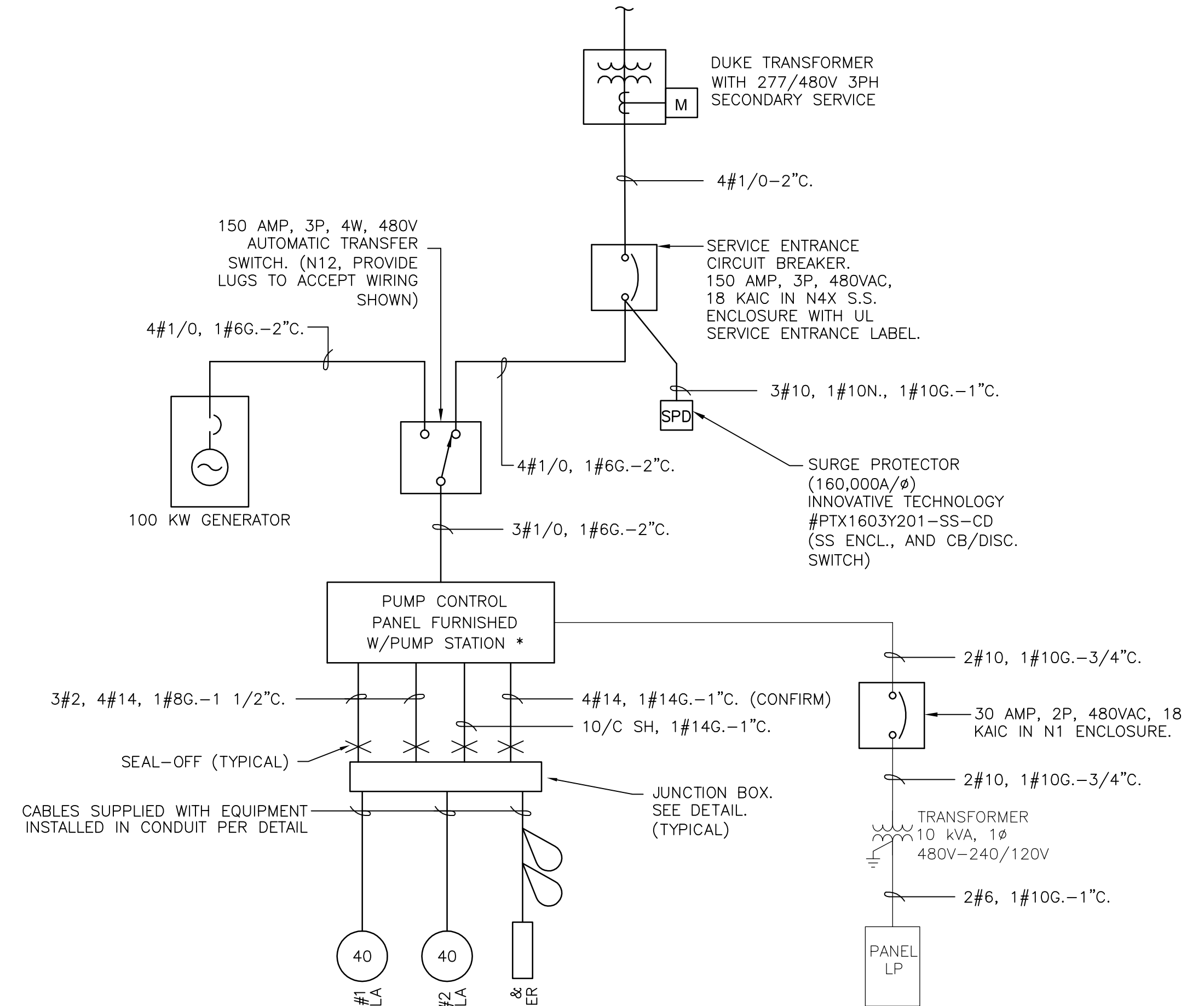
C:\Users\jmh\Documents\PROJECTS\2024\WATER\WATER ELEC SITE PLAN.dwg - Nov 26, 2024 - 11:01 AM



ELECTRICAL SITE PLAN
SCALE: 1"=10'

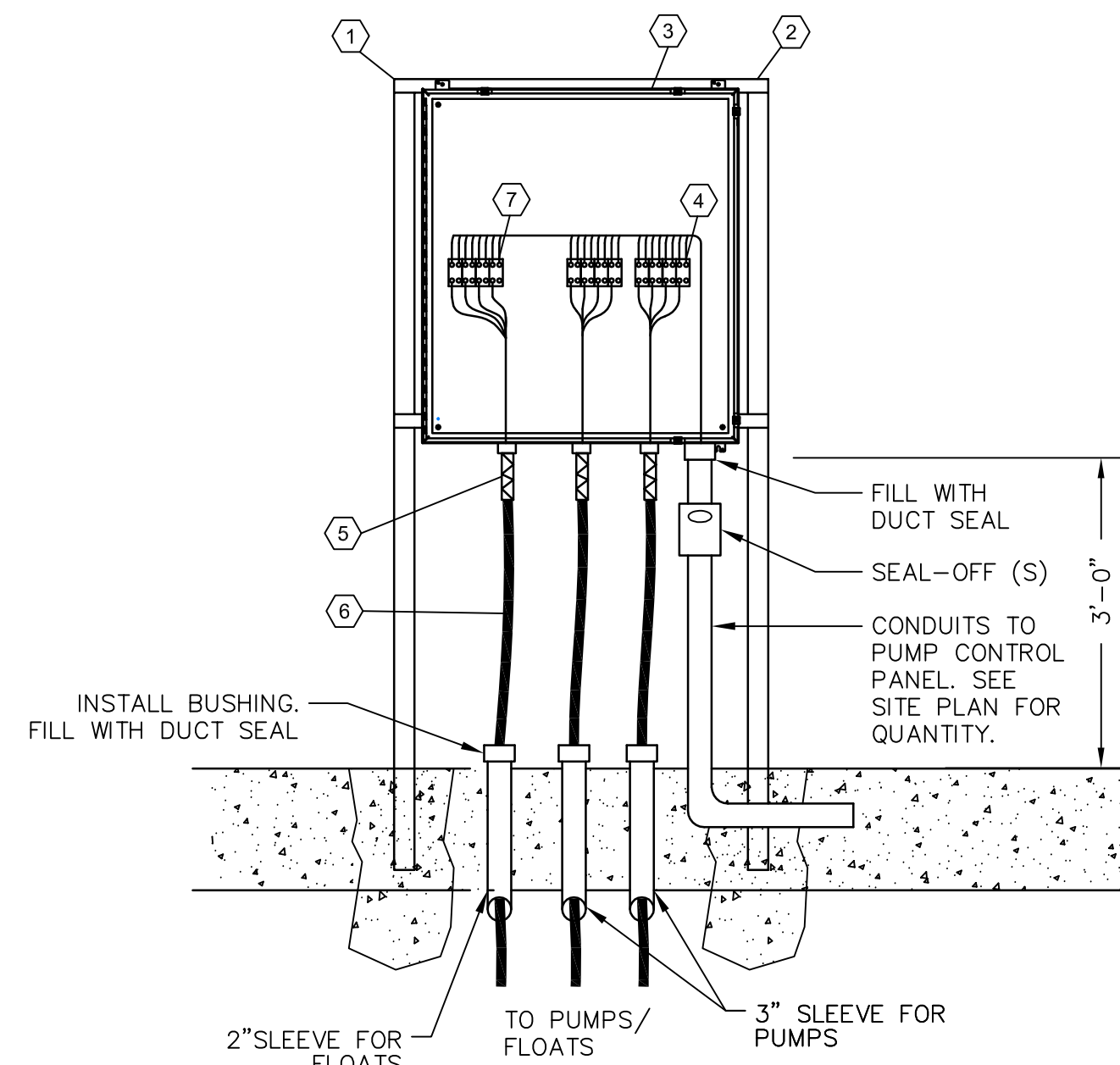
(X) ELECTRICAL SITE PLAN NOTES:

1. ELECTRICAL BUILDING. SEE SH. E1.1.
2. PUMP CONTROL PANEL.
3. AUTOMATIC TRANSFER SWITCH.
4. MAIN CIRCUIT BREAKER.
5. STUB CONDUITS INTO WETWELL AND INSTALL BUSHING.
6. WETWELL JUNCTION BOX. SEE DETAIL SHEET E-2.
7. SECONDARY SERVICE. SEE ONE-LINE DIAGRAM.
8. GENERATOR. CONNECT TO OUTPUT BREAKER, BATTERY CHARGER, BLOCK HEATER AND FOR CONTROL STATUS AND ALARM. VERIFY CONNECTIONS FROM SUPPLIER'S SHOP DRAWINGS. INSTALL ON REINFORCED CONCRETE PAD.
9. GROUNDING ELECTRODE SYSTEM CONSISTING OF THREE 10' X 3/4" COPPERCLAD GROUND RODS SPACED IN A 10' TRIANGLE. BOND TO WATERLINE IN ACCESSIBLE LOCATION. BOND TO GROUNDING ELECTRODE CONDUCTOR WITH EXOTHERMIC WELDS.
10. #2 AWG GROUNDING ELECTRODE CONDUCTOR.
11. LED WIDE AREA FLOOD ON 20' TREATED POLE. CREE #C-FL-A-LCF-6L-4K-FT-DB. PROVIDE MOUNTING BOX AS REQUIRED. COORDINATE LOCATION WITH OWNER.
12. 2#12, 1#12G.-3/4"C.
13. 3#10, 1#10G.-3/4"C. (SHORE POWER. VERIFY REQUIREMENTS)
14. 4#14, 1#14G.-3/4"C. (GENERATOR STATUS, ALARM)
15. 480V WIRING. SEE ONE-LINE DIAGRAM.
16. RTU. SEE RISER DIAGRAM.
17. GENERATOR FOUNDATION. SEE DETAIL.
18. BACKUP FLOAT CONTROLS. SEE ONE-LINE DIAGRAM.
19. PUMP 480V FEEDERS AND MONITORING SENSORS. SEE ONE-LINE DIAGRAM.
20. LEVEL SENSOR WIRING. SEE ONE-LINE DIAGRAM.
21. 4#14, 1#14G.-3/4"C. (GEN. CONTROL FROM ATS)
22. EXTEND GROUNDING ELECTRODE IN 1" SCH. 80 PVC UNTIL BELOW GRADE.
23. PANEL BOARD LP
24. PAD MOUNTED TRANSFORMER. PROVIDE REINFORCED CONCRETE PAD PER DUKE SPECIFICATIONS. COORDINATE LOCATION WITH DUKE ENERGY.



ONE-LINE DIAGRAM
NO SCALE

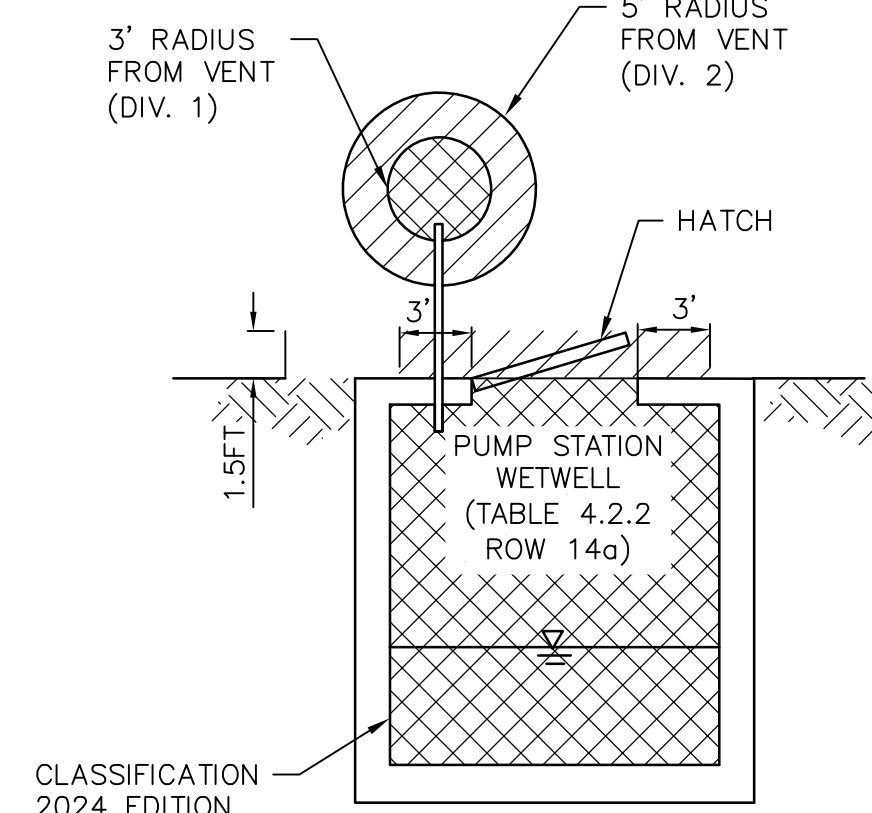
- * PUMP CONTROL PANEL SHALL INCLUDE LINE SIDE LUGS FOR EXTERNAL TRANSFORMER AND PANEL.
- * THE GENERATOR SHALL BE CONNECTED AS A NON-SEPARATELY DERIVED SYSTEM. THE N-G STRAP IN THE GENERATOR SHALL BE REMOVED DURING STARTUP BY THE MFR'S REPRESENTATIVE.)



JUNCTION BOX DETAIL
NO SCALE

(X) JUNCTION BOX DETAIL NOTES:

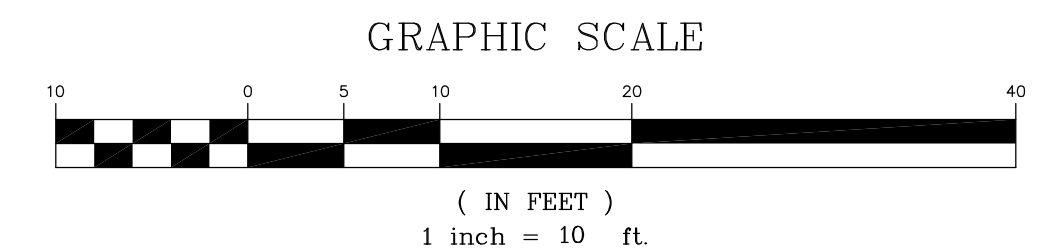
1. 3" X 2" 316 ALUMINUM TUBING. COAT PORTIONS OF RACK IN CONTACT WITH CONCRETE WITH TWO COATS OF BITUMASTIC.
2. 1 1/2" X 1 1/2" STAINLESS STEEL CROSS MEMBERS & SS HARDWARE.
3. PUMP CABLE JUNCTION BOX. 24" X 24" X 8" DEEP NEMA 4X 316 STAINLESS STEEL ENCLOSURE WITH STAINLESS STEEL INNER PANEL.
4. POWER DISTRIBUTION BLOCKS WITH COVERS FOR PUMP CABLES. VERIFY SIZE TO ACCOMMODATE CABLE.
5. STAINLESS STEEL CORD CONNECTOR W/STAINLESS STEEL STRAIN RELIEF GRIP (TYPICAL EACH CABLE). PROVIDE ADDITIONAL GRIPS WHERE MOTOR MONITORING LEADS ARE FURNISHED IN SEPARATE CABLE.
6. CABLE FURNISHED WITH EQUIPMENT. (TYPICAL)
7. TERMINAL BLOCKS FOR FLOATS. PROVIDE 6 SPARE TERMINALS. PROVIDE 6" SEPARATION BETWEEN POWER AND FLOAT CABLES.



AREA CLASSIFICATIONS
NOT TO SCALE

- CLASS 1, DIVISION 1
- CLASS 1, DIVISION 2
- UNCLASSIFIED

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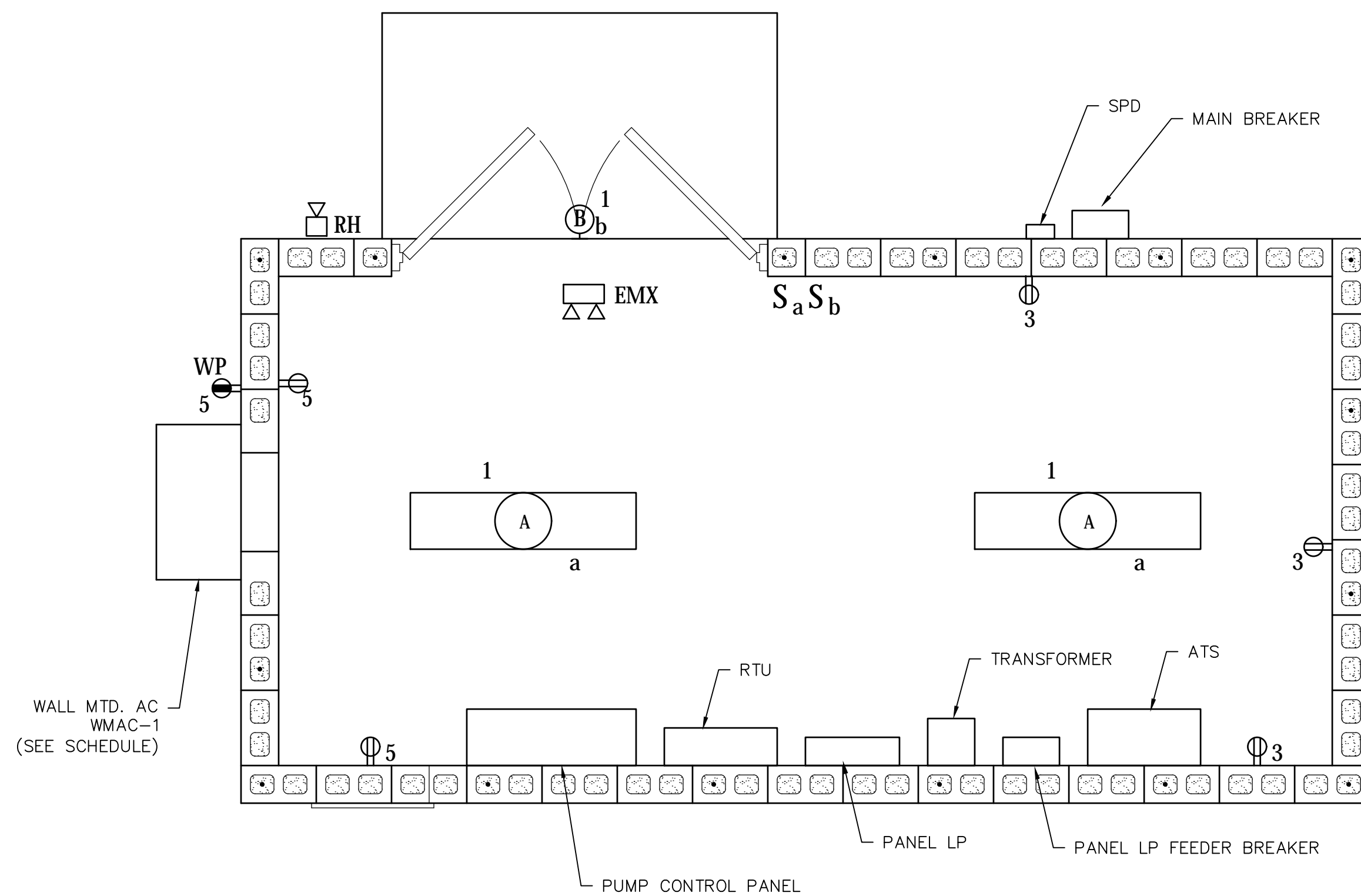
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NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
ELECTRICAL SITE PLAN

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E1.0

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ELECTRICAL BUILDING
1/2"=1'-0"

PANEL SCHEDULE

PHASE		PANELBOARD : "LP"		BUS: COPPER		MAINS: 50 AMP, 2P BREAKER		PHASE	
"L1"	"L2"	"L1"	"L2"	NEMA 1 ENCLOSURE		WINDSONG		"L1"	"L2"
V.A.	V.A.	V.A.	V.A.	10KAIC				V.A.	V.A.
		LOAD		P	BKR	CKT #	BKR	P	LOAD
200		LIGHTS		1	30	1	2	30	2
	540	RECEPTACLES		1	15	3	4		2
540		RECEPTACLES		1	15	5	6	30	2
		SPARE		1	15	7	8		
500		RTU		1	30	9	10	20	1
	100	SITE LIGHT		1	15	11	12	20	1
		SPARE		1	15	13	14	20	1
		SPARE		1	15	15	16	20	1
1240		TOTAL "L1"						TOTAL "L1" 3500	
	640	TOTAL "L2"						TOTAL "L2" 3500	
		TOTAL LOAD =		4140				8880	

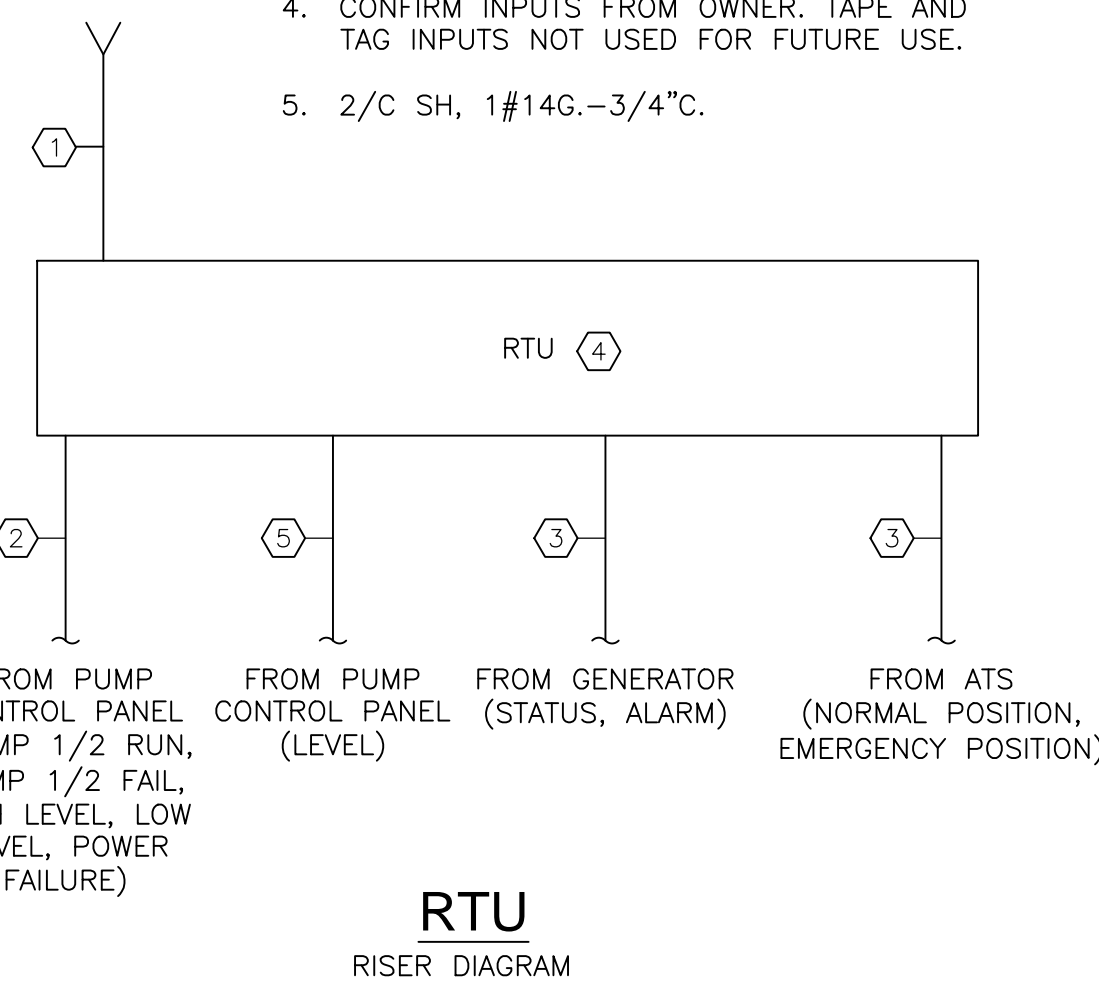
WHERE NOT SCHEDULED OR SHOWN ON THE DRAWINGS, 20 AMP BREAKERS SHALL BE FED BY 2#12, 1#12G.-3/4"C.
WHERE NOT SCHEDULED OR SHOWN ON THE DRAWINGS, 30 AMP BREAKERS SHALL BE FED BY 2#10, 1#10G.-3/4"C.

FIXTURE SCHEDULE

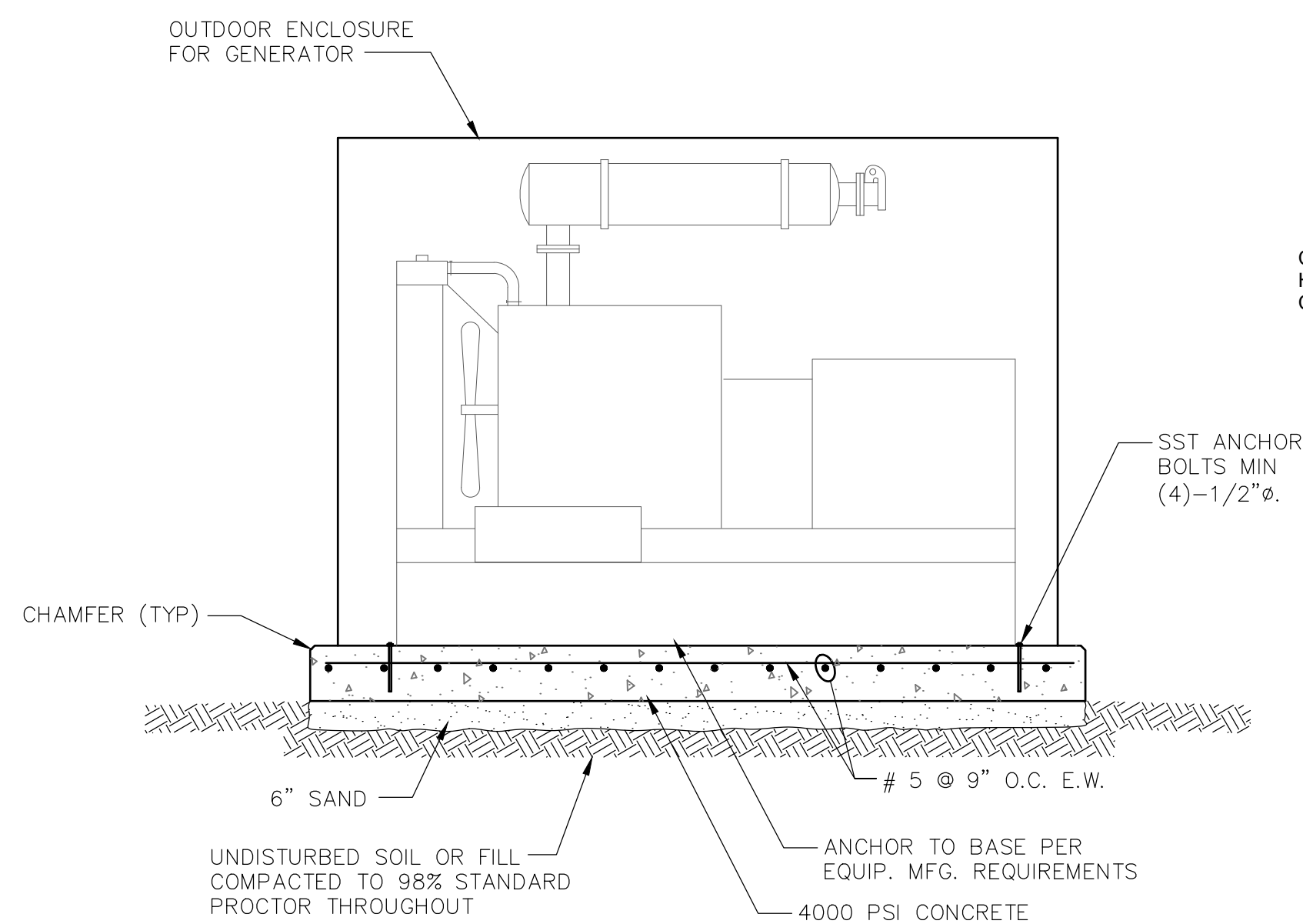
TYPE	DESCRIPTION	MOUNTING	LAMPS		MANUFACTURER *	VOLTAGE	REMARKS
			TYPE	WATTS			
A	4 INDUSTRIAL LED	SURFACE	LED	52	H.E. WILLIAMS #62-4-L64/840-DRV-UNV	120	
B	DIE CAST ALUMINUM HOUSING WALL PACK (WET LOCATION)	WALL	LED	30	JADEMAR #JWP-FC-CPS-80W-PC-BZ-EM14	120	
EMX	EMERGENCY EXIT FIXTURE WITH TWO HEADS	WALL	LED	9	EMERGITLITE ELYN400R-2LED-R	120	TO POWER REMOTE HEAD
RH	EMERGENCY REMOTE HEAD (WEATHERPROOF)	WALL	PAR	5.4	EMERGITLITE EF44D-LED-WP	120	

RTU RISER DIAGRAM NOTES:

- 2#12, 1#12G.(120VAC FROM LP)
- 12#14, 1#14G.-1"C.
- 4#14, 1#14G.-3/4"C.
- CONFIRM INPUTS FROM OWNER. TAPE AND TAG INPUTS NOT USED FOR FUTURE USE.
- 2/C SH, 1#14G.-3/4"C.



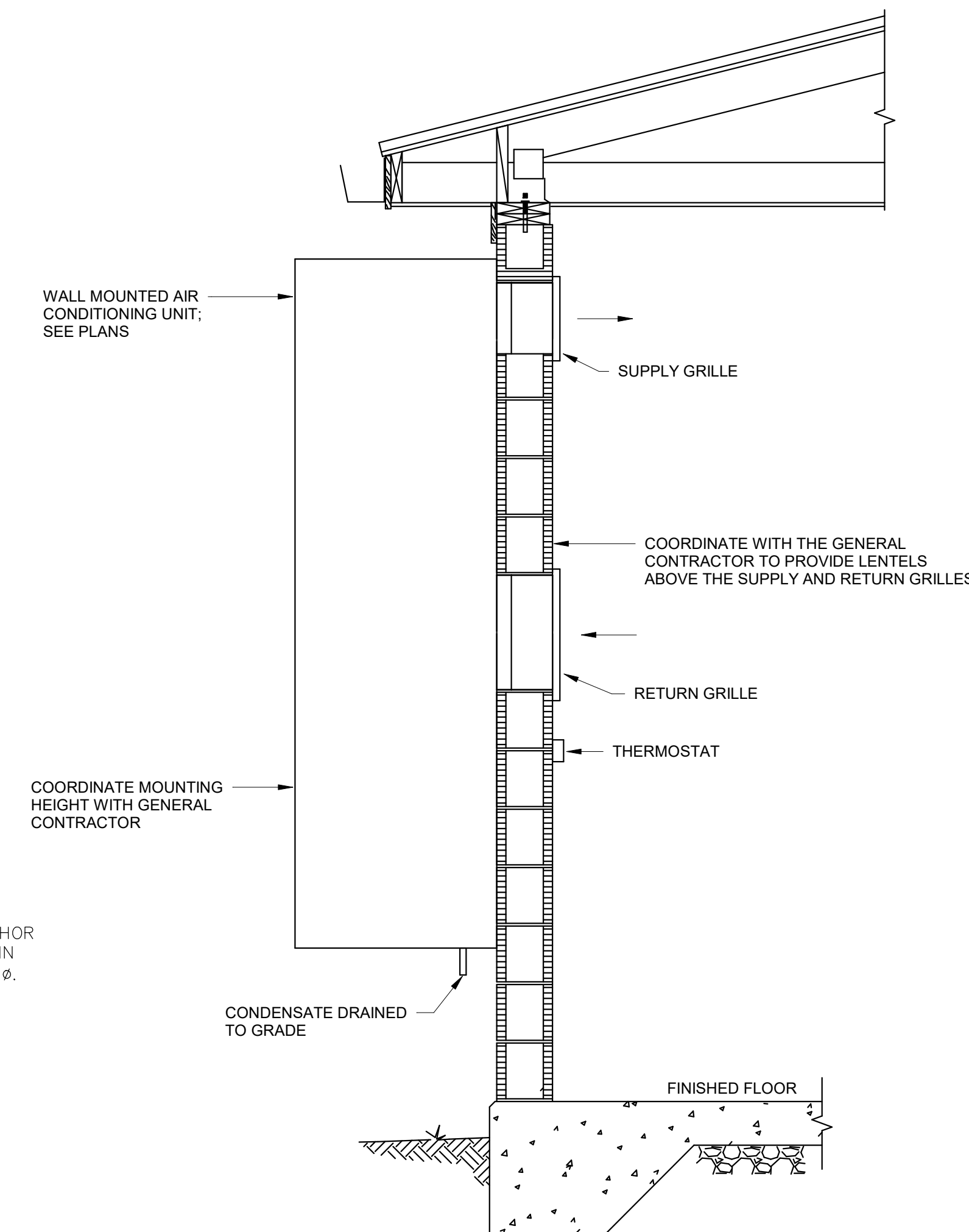
RTU RISER DIAGRAM



GENERATOR FOUNDATION DETAIL
NOT TO SCALE

NOTE: GENERATOR FOUNDATION SHOWN IS MINIMAL. VERIFY WITH GENERATOR MANUFACTURER. UPGRADE AS NECESSARY.

WALL MOUNTED AIR CONDITIONING UNIT DETAIL
NOT TO SCALE



WALL MOUNTED AIR CONDITIONING UNIT SCHEDULE

EQUIPMENT TAG	MANUFACTURER'S MODEL #	SERVES	SUPPLY AIRFLOW	OUTDOOR AIRFLOW	INDOOR FAN MOTOR HP	APPROX WEIGHT (LBS)	TOTAL COOLING @ 80°F/67°F/95°F		ELECTRIC HEATER DATA			SEER/EER	VOLTAGE	REMARKS
							GROSS MBH	SENSIBLE MBH	HEATER KW	OUTPUT MBH	NO. OF STAGES			
WMAC-1	W24AY-C05SPXXXE	ELEC. BLDG.	800	0	1/3	336	23.2	17.7	5.0	15.7	1	11.0 EER		1,2,3,4,5,6,7

SELECTIONS BASED ON: BARD

- INSTALL PER MANUFACTURER'S RECOMMENDED CLEARANCES AND GUIDELINES.
- FURNISH WITH MC4002 CONTROLLER FOR LEAD/LAG OPERATION.
- FURNISH WITH SG-2 & RG-2 GRILLES.
- FURNISH WITH TWO SETS OF 2" DISPOSABLE MERV 8 FILTERS.

- FURNISH WITH LOW AMBIENT COOLING CONTROL.
- PROVIDE WITH STANDARD BEIGE BAKED ENAMEL FINISH.
- PROVIDE WITH ENTHALPY CONTROLLED ECONOMIZER.

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SCALE: 1" = 24"

E1.1

STORMWATER POLLUTION PREVENTION PLAN

EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
SILT FENCE	
CLEARING LIMITS	CL
DIVERSION DIKE	⇒ DD ⇒
DIVERSION BERM	⇒ DB ⇒
TEMPORARY DIVERSION	⇒ TD ⇒
PERMANENT DIVERSION	→ PD →
SUBSURFACE DRAIN	
VEGETATED CHANNEL	
RIP RAP LINED CHANNEL	
ECB OR TRM LINED CHANNEL	
PAVED CHANNEL	PC
TREE PROTECTION	
SURFACE ROUGHENING	
TOP SOILING	
TEMPORARY SEEDING	TS
PERMANENT SEEDING	PS
MULCHING	M

EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
EROSION CONTROL BLANKET OR TURF REINFORCEMENT MAT	
FLEXIBLE GROWTH MATRIX	FGM
BONDED FIBER MATRIX	BFM
SODDING	SO
SLOPED SODDING	
STAKED SOD	
STAKED SOD AROUND INLET	
RIPRAP	
OUTLET PROTECTION - RIP RAP	
OUTLET PROTECTION - ECB OR TRM	
DUST CONTROL	DC
POLYACRYLAMIDE (PAM)	PAM
SEDIMENT BASIN	
SEDIMENT BASIN WITH SKIMMER	
SEDIMENT TRAP	
ROCK SEDIMENT DIKE	
SEDIMENT TUBE	

EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
ROCK CHECK DAM	
POROUS BAFFLES	
STABILIZED CONSTRUCTION ENTRANCE	
CONCRETE WASHOUT	
STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC	
STORM DRAIN INLET PROTECTION - TYPE A SEDIMENT TUBE	
STORM DRAIN INLET PROTECTION - TYPE B HARDWARE FABRIC AND STONE	
STORM DRAIN INLET PROTECTION - TYPE C BLOCK AND GRAVEL	
STORM DRAIN INLET PROTECTION - TYPE D RIGID INLET FILTER	
STORM DRAIN INLET PROTECTION - TYPE E SURFACE COURSE CURB INLET FILTER	
STORM DRAIN INLET PROTECTION - TYPE F INLET TUBE	
STORM DRAIN INLET PROTECTION - TYPE G IMPERVIOUS AREA	
STORM DRAIN INLET PROTECTION - CATCH BASIN INSERT	
PIPE SLOPE DRAINS	
TEMPORARY STREAM CROSSING	
LEVEL SPREADER	

CONSTRUCTION SEQUENCE

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1 OBTAIN COPIES OF ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS.	CONTRACTOR TO HAVE ONSITE AT ALL TIMES DURING CONSTRUCTION.
2 FLAG THE WORK LIMITS AND WETLANDS.	FLAGGING TO HELP IDENTIFY PROJECT BOUNDARIES AND WETLANDS AREAS TO HELP PROVIDE SURFACE WATER PROTECTION AND MINIMIZE WETLAND IMPACTS.
3 HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.	REVIEW SEDIMENT AND EROSION PROTECTION AREAS AND BMPs WITH OWNER AND CONTRACTOR.
4 INSTALL CONSTRUCTION ACCESS AND LAY DOWN AREAS	STABILIZE BARE AREAS IMMEDIATELY AND INSTALL CONSTRUCTION EXITS / ENTRANCES.
5 CONSTRUCT SEDIMENT TRAPS AND BARRIERS - BASIN TRAPS, SEDIMENT FENCES, AND OUTLET PROTECTION.	INSTALL PRINCIPAL BASINS AFTER CONSTRUCTION SITE IS ACCESSED. INSTALL ADDITIONAL TRAPS AND BARRIERS AS NEEDED.
6 ESTABLISH RUNOFF CONTROL - DIVERSIONS, PERIMETER DIKES, WATER BARS, AND OUTLET PROTECTION.	INSTALL KEY PRACTICES AFTER PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING. INSTALL ADDITIONAL RUNOFF-CONTROL MEASURES DURING GRADING.
7 LAND CLEARING AND GRADING-SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION INSTALLED. CLEAR BORROW AND DISPOSAL AREAS ONLY AS NEEDED. INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES. MARK TREES AND BUFFER AREAS FOR PRESERVATION.	BEGIN MAJOR CLEARING AND GRADING AFTER PRINCIPAL SEDIMENT AND KEY RUNOFF-CONTROL MEASURES ARE INSTALLED. CLEAR BORROW AND DISPOSAL AREAS ONLY AS NEEDED. INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES. MARK TREES AND BUFFER AREAS FOR PRESERVATION.
8 RUNOFF CONVEYANCE SYSTEM- INSTALL STORM DRAINS, STABILIZE BANKS, CHANNELS, INSTALL INLET AND OUTLET PROTECTION, SLOPE DRAINS.	WHERE NECESSARY, STABILIZE BANKS AS EARLY AS POSSIBLE. INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF-CONTROL MEASURES. INSTALL REMAINDER OF SYSTEM AFTER GRADING.
9 INSTALL WASTEWATER COLLECTION, WATER DISTRIBUTION, AND STORM DRAINAGE SYSTEMS	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE. WETLAND AREAS TO BE FILLED WITH NATIVE SOIL WHEN POSSIBLE AND SEEDED WITH NATIVE WETLAND MIX.
10 SURFACE STABILIZATION-TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIP RAP.	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE.
11 BUILDING CONSTRUCTION-BUILDINGS UTILITIES, ROADS, ETC.	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES AS WORK TAKES PLACE.
12 LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING, RIP RAP.	LAST CONSTRUCTION PHASE-STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES.

LIST OF ACRONYMS FOR SEDIMENT AND EROSION CONTROL

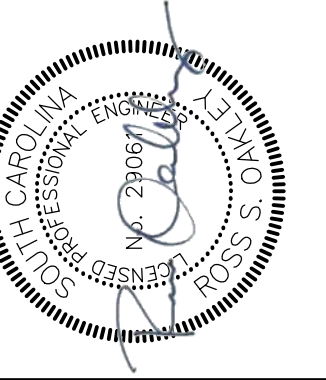
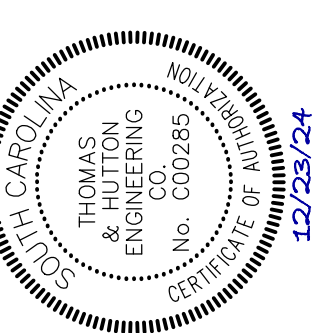
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AMD	ACRYLAMIDE POLYMER
BFM	BONDED FIBER MATRIX
BMP(S)	BEST MANAGEMENT PRACTICE(S)
CFS	CUBIC FEET PER SECOND
CMP	CORRUGATED METAL PIPE
DHEC	DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ECB	EROSION CONTROL BLANKET
EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EPSC	EROSION PREVENTION AND SEDIMENTATION CONTROL
FDA	UNITED STATES FOOD AND DRUG ADMINISTRATION
FGM	FLEXIBLE GROWTH MATRIX
HDPE	HIGH DENSITY POLYETHYLENE
MS4	MUNICIPAL SEPARATE STORM SEWER SYSTEM
MSDS	MATERIAL SAFETY DATA SHEETS
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PAM	POLYACRYLAMIDE OR POLYMER
RCP	REINFORCED CONCRETE PIPE
SCS	SOIL CONSERVATION SERVICE
SWPPP	STORMWATER POLLUTION PREVENTION PROGRAM
TRM	TURF REINFORCEMENT MAT
VFS	VEGETATED FILTER STRIP

TEMPORARY SEEDING - COASTAL

SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	40												
RYE, GRAIN	56												
RYEGRASS	50												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	40												
JAPANESE MILLET	40												
RYE, GRAIN	56												
OATS	75												
RYEGRASS	50												

PERMANENT SEEDING - COASTAL

SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	10												
BAHIAGRASS	40												
BROWNTOP MILLET	10												
BAHIAGRASS	30												
SERICA LESPEDEZA	40												
BROWNTOP MILLET	10												
ATLANTIC COASTAL PANICGRASS	15												
BROWNTOP MILLET	10												
SWITCHGRASS (ALAMO)	8												
LITTLE BLUESTEM	4												
SERICA LESPEDEZA	20												
BROWNTOP MILLET	10												
WEEPING LOVEGRASS	8												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	10												
BAHIAGRASS	40												
RYE, GRAIN	10												
BAHIAGRASS	40												
CLOVER, CRIMSON (ANNUAL)	5												
BROWNTOP MILLET	10												
BAHIAGRASS	30												
SERICA LESPEDEZA	40												
BROWNTOP MILLET	10												
BERMUDA, COMMON	10												
SERICA LESPEDEZA	40												
BROWNTOP MILLET	10												
BERMUDA, COMMON	12												
KOBE LESPEDEZA (ANNUAL)	10												
BROWNTOP MILLET	10												
BAHIAGRASS	20												
BERMUDA, COMMON	6												
SERICA LESPEDEZA	40												
BROWNTOP MILLET	10												
SWITCHGRASS	8												
LITTLE BLUESTEM	PLS												
INDIAGRASS	3												



NO.	REVISIONS	BY	DATE

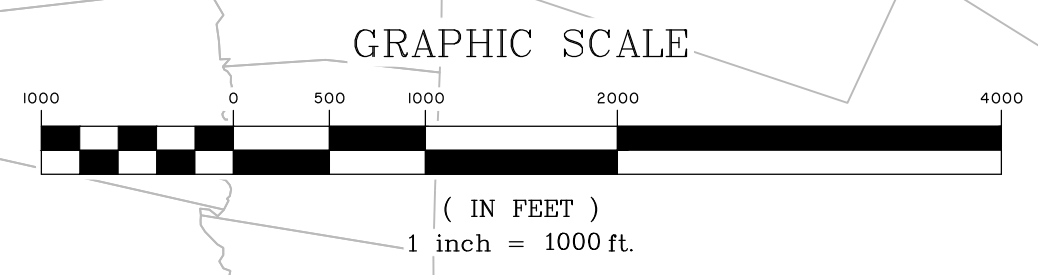
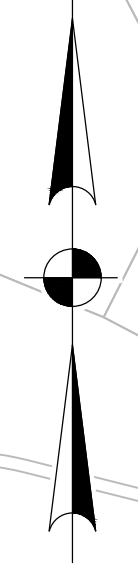
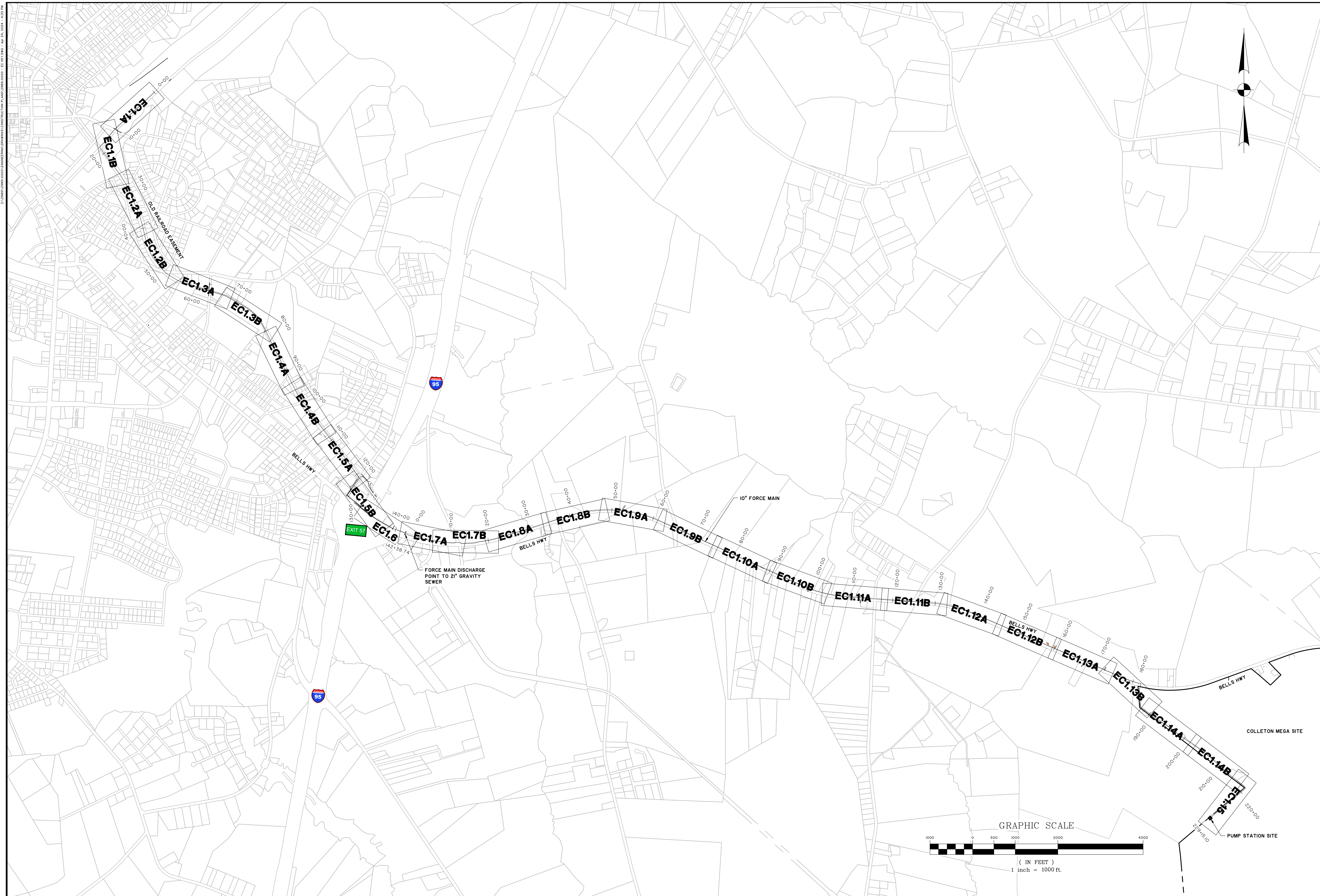
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 ENGINEERING & ARCHITECTURE
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 Columbia, SC 29201 • 803.451.6789
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COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 EROSION CONTROL CHARTS

JOB NO: J-298510000
 DATE: 01/02/2024
 DRAWN: JTB
 DESIGNED: MAL
 REVIEWED: RSO
 APPROVED: RSO
 SCALE: N/A

ECO.2

C:\WORK\2024\COLLETON\EROSION\CONSTRUCTION PLANS\EROSION - EC1.0.DWG - 01/24/2024 - 4:53 PM



THOMAS & HUTTON
ENGINEERING
No. 00285
COLUMBIA, SC

COLLETON COUNTY
REGISTERED PROFESSIONAL ENGINEER
No. 21007
COLUMBIA, SC

12/23/24

NO.	REVISIONS	BY	DATE

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COLLETON COUNTY
COLLETON COUNTY

NORTHWEST WAL TERBORO SEWER IMPROVEMENTS

EROSION CONTROL OVERALL

JOB NO: J-298510000
DATE: 01/02/2024
DRAWN: JTB
DESIGNED: MAL
REVIEWED: RSO
APPROVED: RSO
SCALE: 1" = 1000'

EC1.0

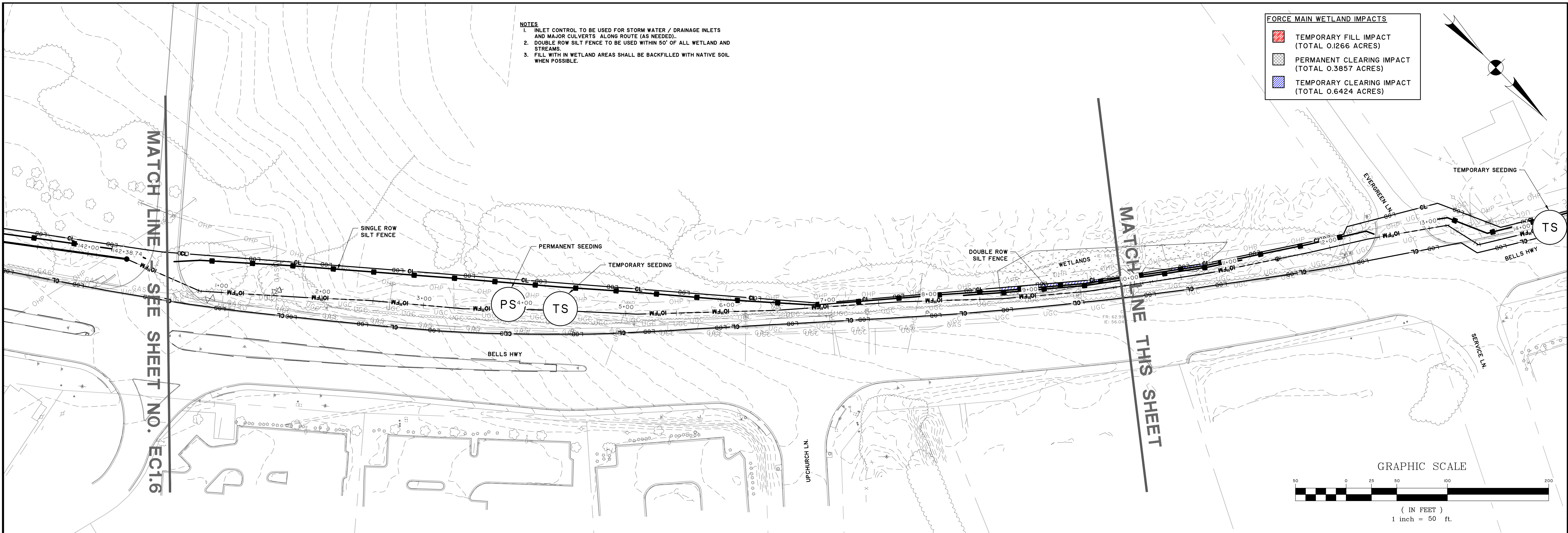
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DRAWN BY: MAL
CHECKED BY: RSO
DATE: 01/02/2024
SCALE: AS NOTED

- NOTES**
1. INLET CONTROL TO BE USED FOR STORM WATER / DRAINAGE INLETS AND MAJOR CULVERTS ALONG ROUTE (AS NEEDED).
 2. DOUBLE ROW SILT FENCE TO BE USED WITHIN 50' OF ALL WETLAND AND STREAMS.
 3. FILL WITH IN WETLAND AREAS SHALL BE BACKFILLED WITH NATIVE SOIL WHEN POSSIBLE.

FORCE MAIN WETLAND IMPACTS

- TEMPORARY FILL IMPACT (TOTAL 0.1266 ACRES)
- PERMANENT CLEARING IMPACT (TOTAL 0.3857 ACRES)
- TEMPORARY CLEARING IMPACT (TOTAL 0.6424 ACRES)

Professional Engineer Seal for Thomas & Hutton, Inc. License No. 002985, State of South Carolina. Date: 12/23/24.



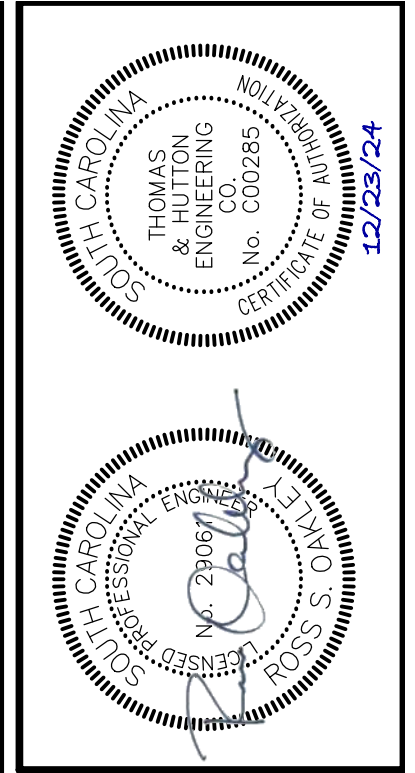
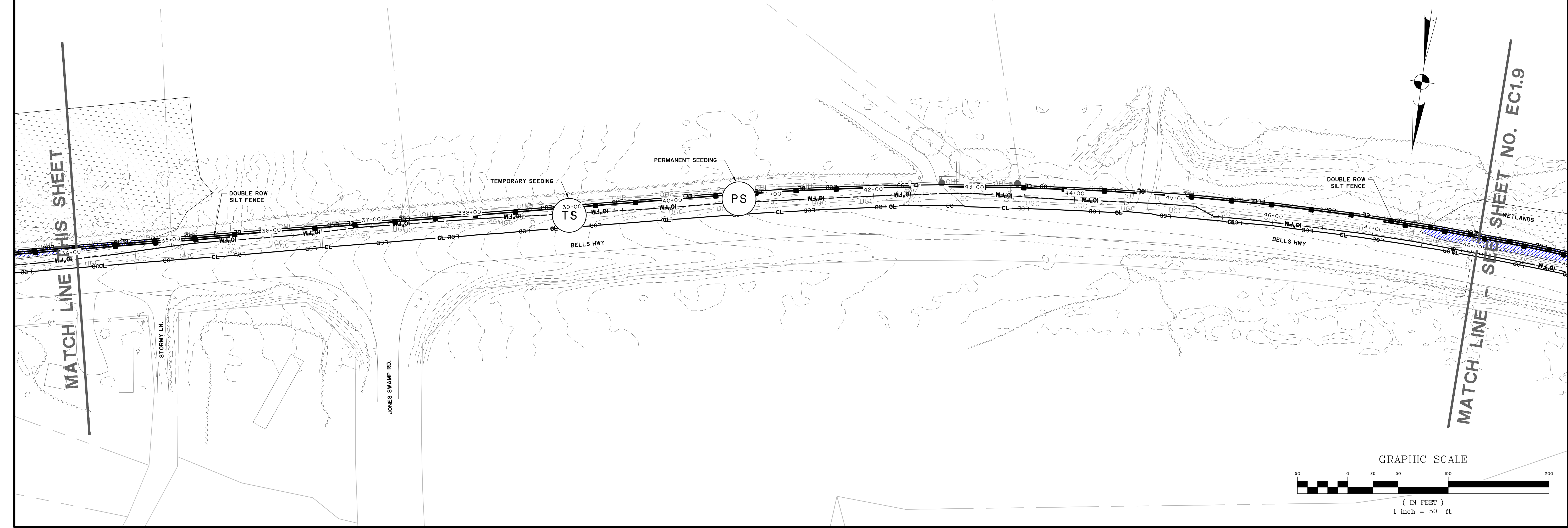
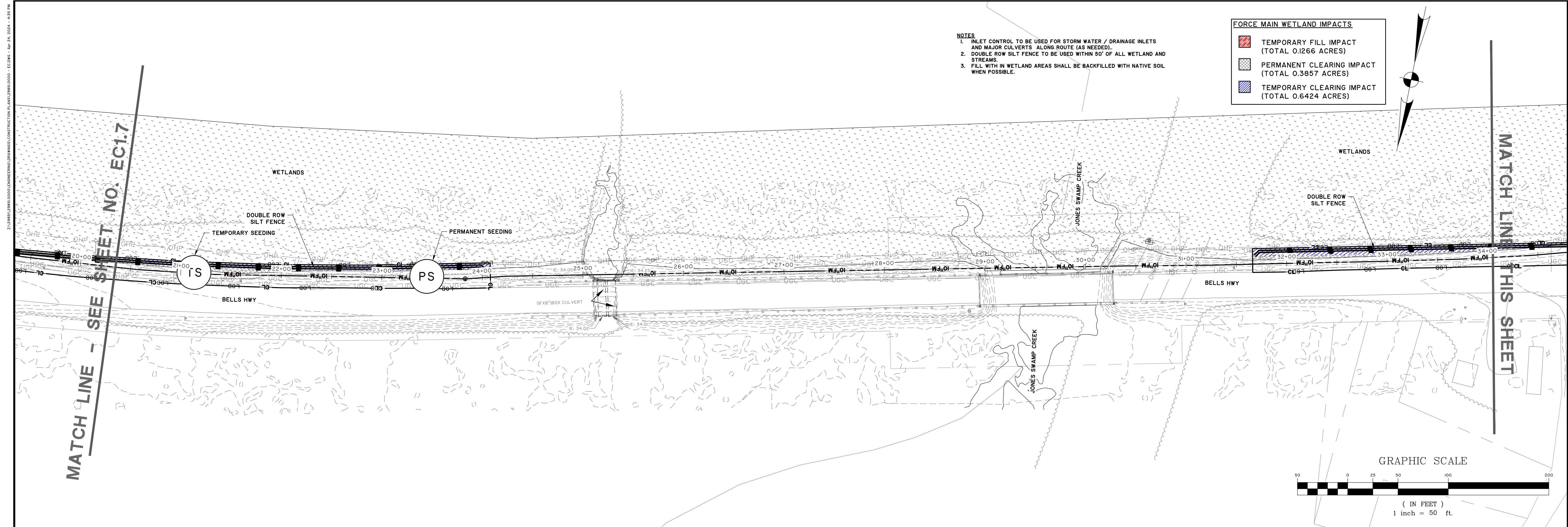
NO.	REVISIONS	BY	DATE

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COLLETON COUNTY
COLLETON COUNTY
NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
EROSION CONTROL PLAN

JOB NO:	J-298510000
DATE:	01/02/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

EC1.7



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COLLETON COUNTY
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NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
EROSION CONTROL PLAN

JOB NO: J-298510000
DATE: 01/02/2024
DRAWN: JTB
DESIGNED: MAL
REVIEWED: RSO
APPROVED: RSO
SCALE: AS NOTED

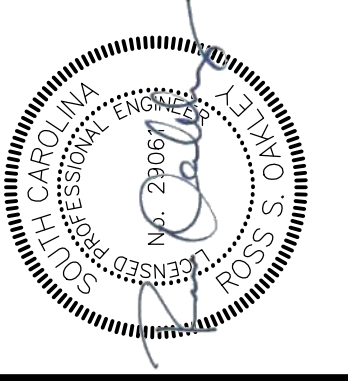
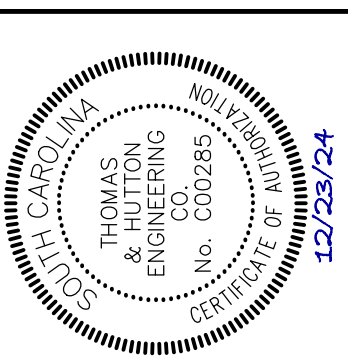
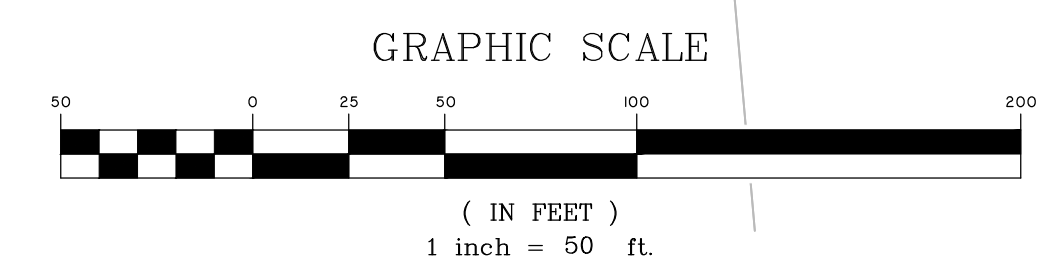
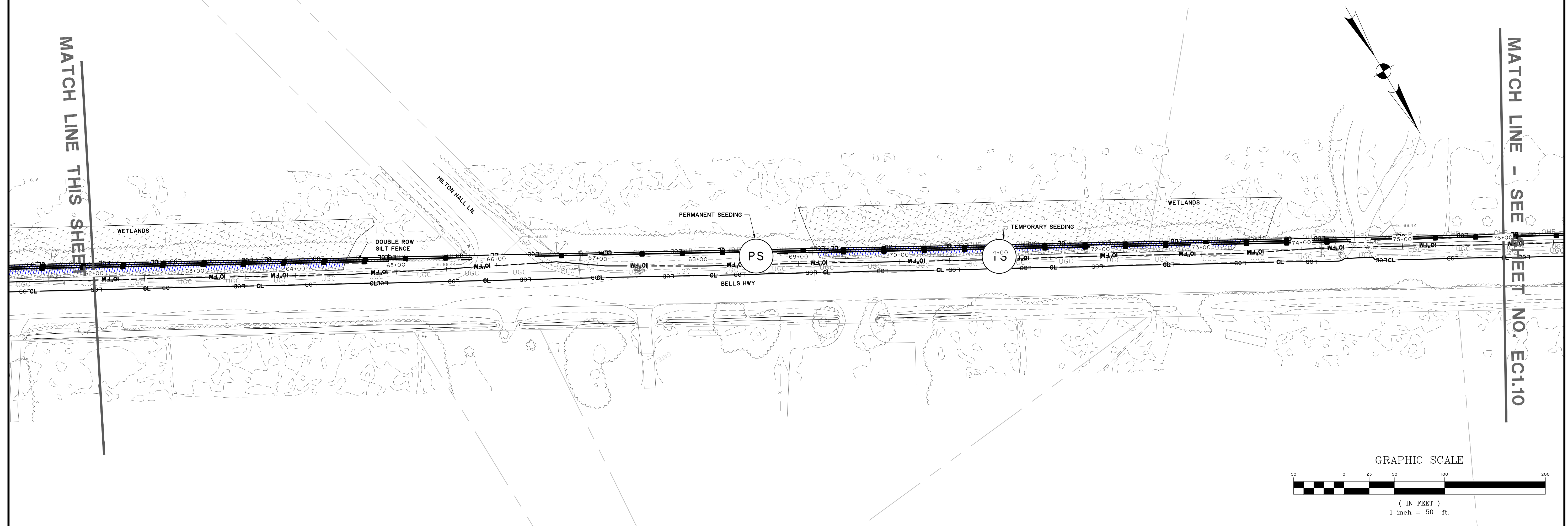
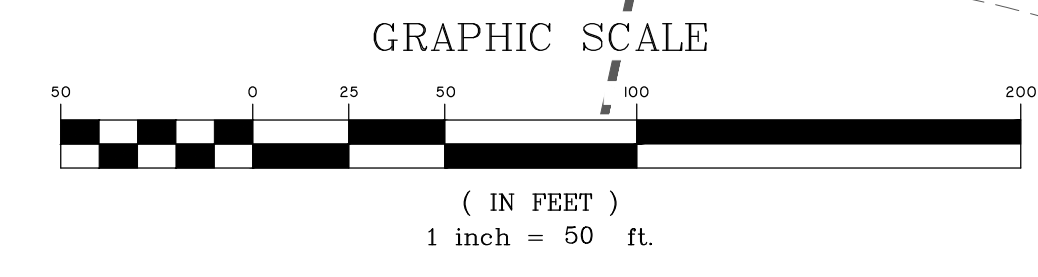
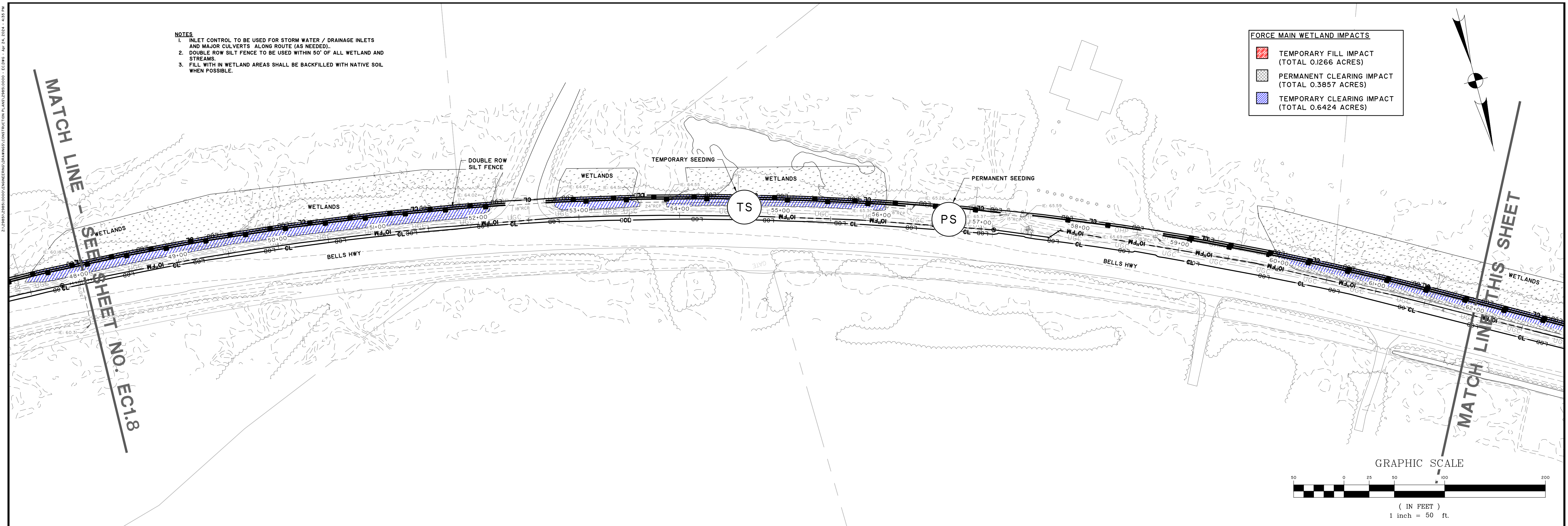
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PLAN VIEW OF PROPOSED SEWER MAINS CONSTRUCTION PLANS (SHEET NO. EC1.9) - DATE: 01/02/2024 - 4:52 PM

- NOTES**
1. INLET CONTROL TO BE USED FOR STORM WATER / DRAINAGE INLETS AND MAJOR CULVERTS ALONG ROUTE (AS NEEDED).
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FORCE MAIN WETLAND IMPACTS

- TEMPORARY FILL IMPACT (TOTAL 0.1266 ACRES)
- PERMANENT CLEARING IMPACT (TOTAL 0.3857 ACRES)
- TEMPORARY CLEARING IMPACT (TOTAL 0.6424 ACRES)



NO.	REVISIONS	BY	DATE

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COLLETON COUNTY
COLLETON COUNTY
NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
EROSION CONTROL PLAN

JOB NO: J-298510000
DATE: 01/02/2024
DRAWN: JTB
DESIGNED: MAL
REVIEWED: RSO
APPROVED: RSO
SCALE: AS NOTED

EC1.9

PLAN: 2024.01.15 10:00 AM

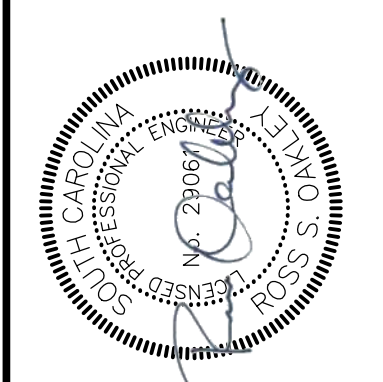
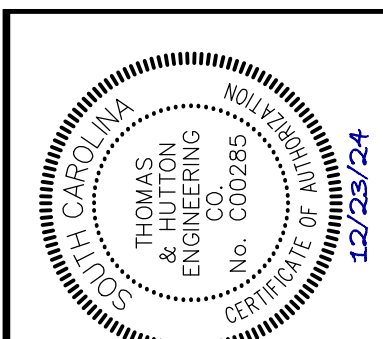
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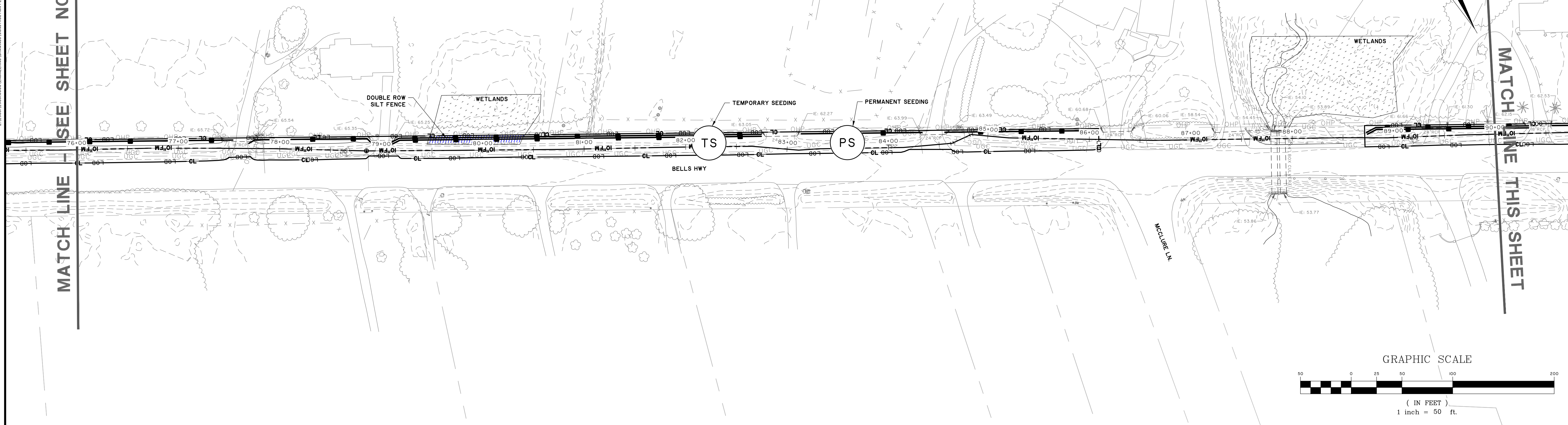
- NOTES
1. INLET CONTROL TO BE USED FOR STORM WATER / DRAINAGE INLETS AND MAJOR CULVERTS ALONG ROUTE (AS NEEDED).
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FORCE MAIN WETLAND IMPACTS

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- PERMANENT CLEARING IMPACT (TOTAL 0.3857 ACRES)
- TEMPORARY CLEARING IMPACT (TOTAL 0.6424 ACRES)



NO.	REVISIONS	BY	DATE



MATCH LINE THIS SHEET



MATCH LINE - SEE SHEET NO. EC1.11

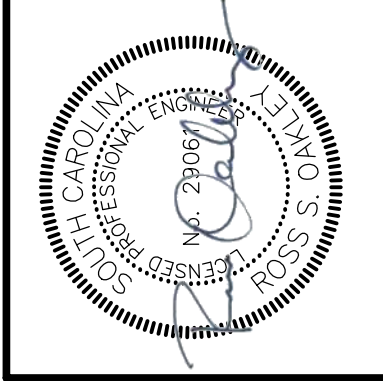
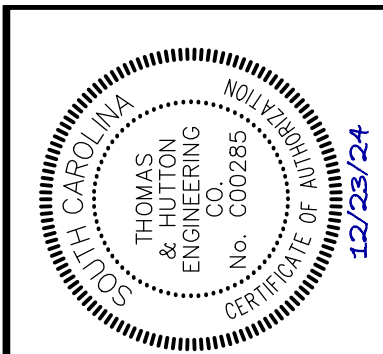
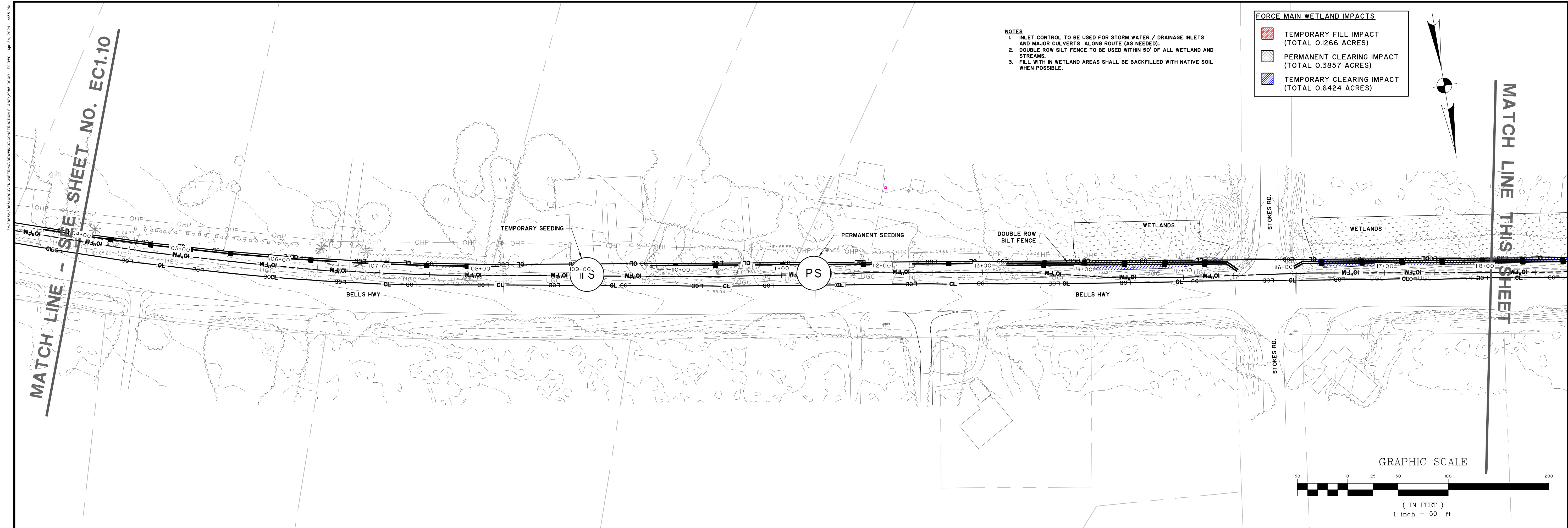
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 N: 401,924.32 IFT
 E: 2,084,948.85 IFT
 ELEV.: 70.90 (NAVD88)

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COLLETON COUNTY
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 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 EROSION CONTROL PLAN

JOB NO:	J-298510000
DATE:	01/02/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

EC1.10



NO.	REVISIONS	BY	DATE

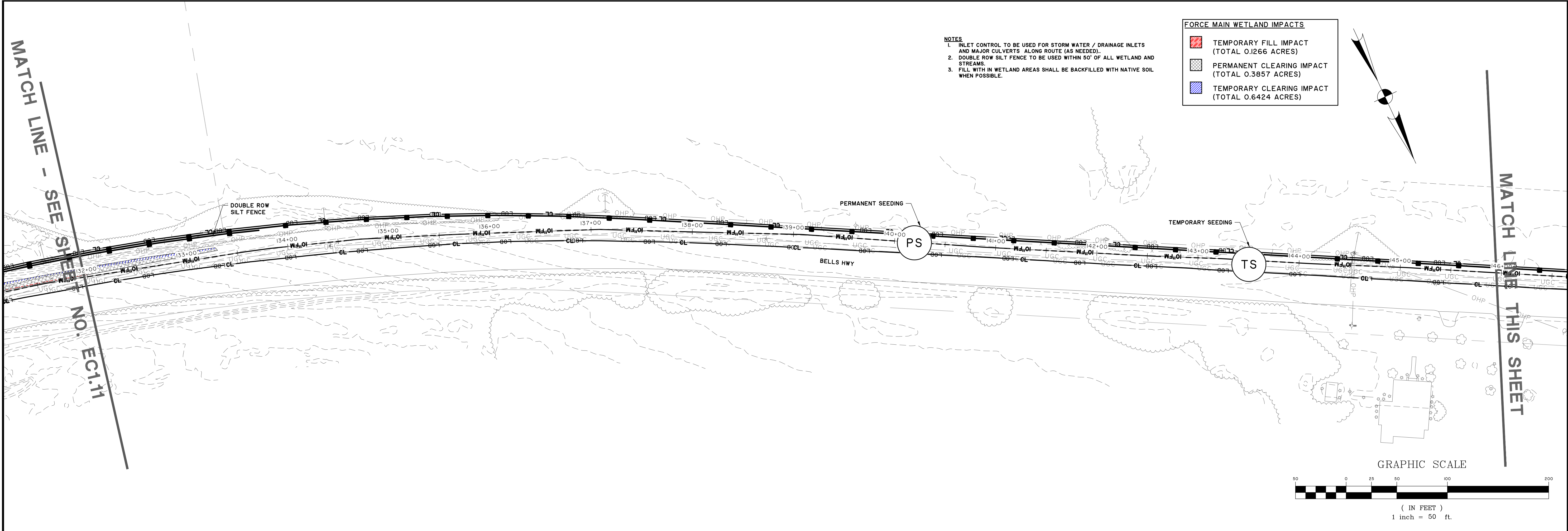
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COLLETON COUNTY
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 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 EROSION CONTROL PLAN

JOB NO: J-298510000
 DATE: 01/02/2024
 DRAWN: JTB
 DESIGNED: MAL
 REVIEWED: RSO
 APPROVED: RSO
 SCALE: AS NOTED

EC1.11

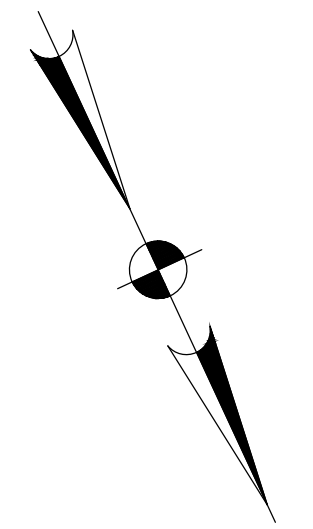
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- NOTES**
1. INLET CONTROL TO BE USED FOR STORM WATER / DRAINAGE INLETS AND MAJOR CULVERTS ALONG ROUTE (AS NEEDED).
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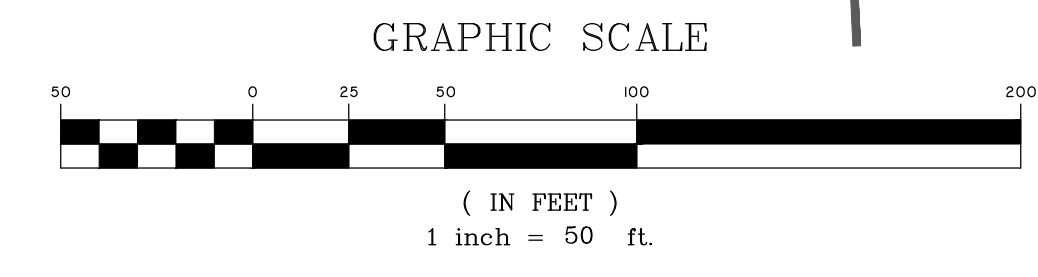
FORCE MAIN WETLAND IMPACTS

- TEMPORARY FILL IMPACT (TOTAL 0.1266 ACRES)
- PERMANENT CLEARING IMPACT (TOTAL 0.3857 ACRES)
- TEMPORARY CLEARING IMPACT (TOTAL 0.6424 ACRES)

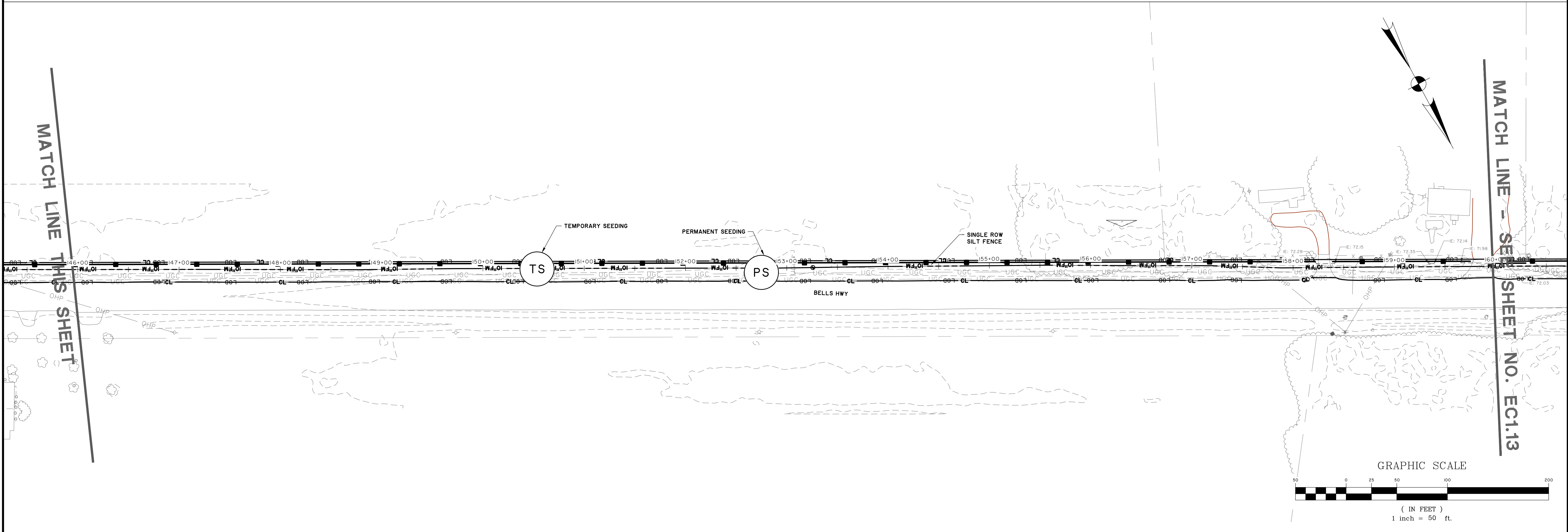


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MATCH LINE - THIS SHEET

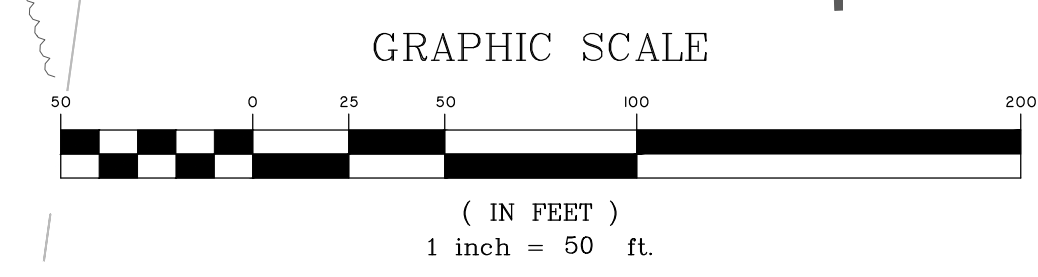


NO.	REVISIONS	BY	DATE



MATCH LINE - THIS SHEET

MATCH LINE - SEE SHEET NO. EC1.13



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COLLETON COUNTY
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 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 EROSION CONTROL PLAN

JOB NO:	J-298510000
DATE:	01/02/2024
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

EC1.12

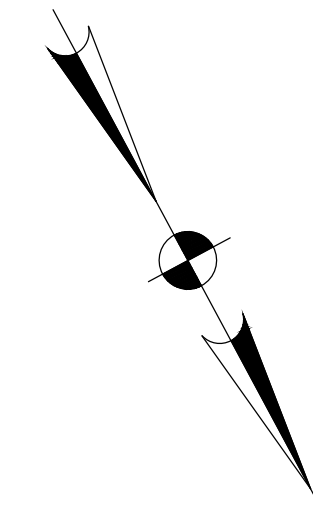
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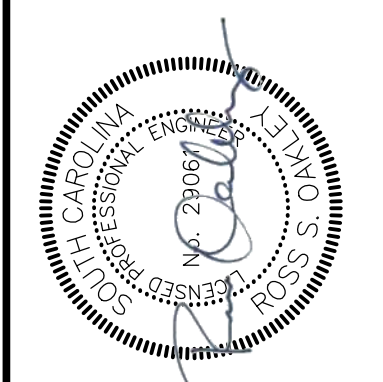
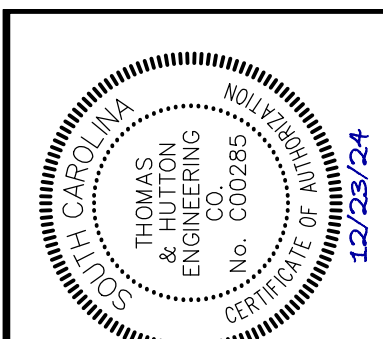
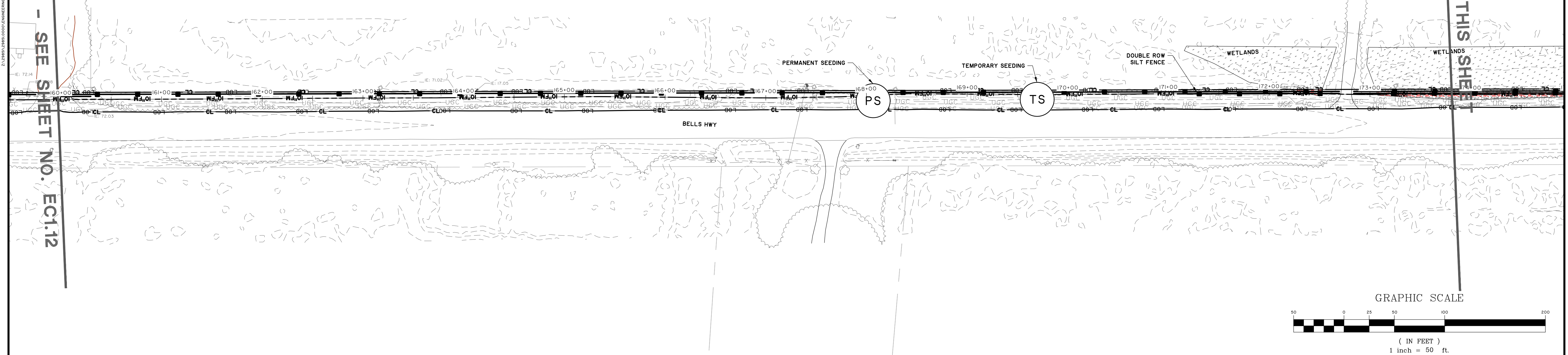
- NOTES**
1. INLET CONTROL TO BE USED FOR STORM WATER / DRAINAGE INLETS AND MAJOR CULVERTS ALONG ROUTE (AS NEEDED).
 2. DOUBLE ROW SILT FENCE TO BE USED WITHIN 50' OF ALL WETLAND AND STREAMS.
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FORCE MAIN WETLAND IMPACTS

- TEMPORARY FILL IMPACT (TOTAL 0.1266 ACRES)
- PERMANENT CLEARING IMPACT (TOTAL 0.3657 ACRES)
- TEMPORARY CLEARING IMPACT (TOTAL 0.6424 ACRES)

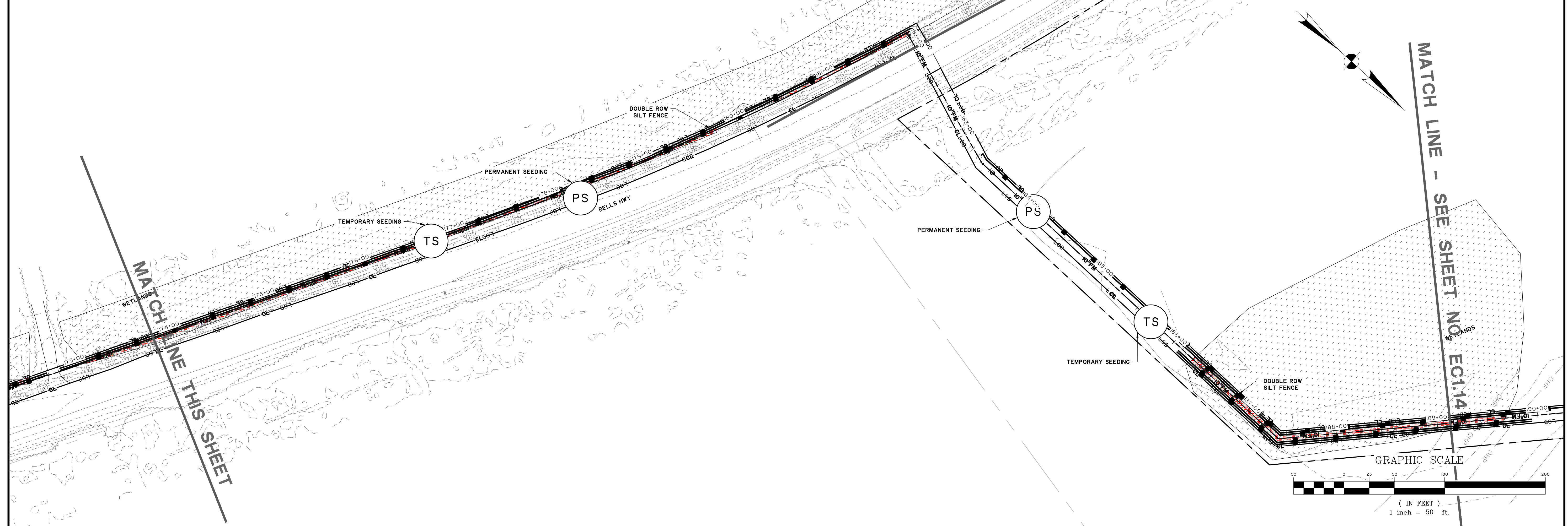


MATCH LINE THIS SHEET



NO.	REVISIONS	BY	DATE

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MATCH LINE THIS SHEET

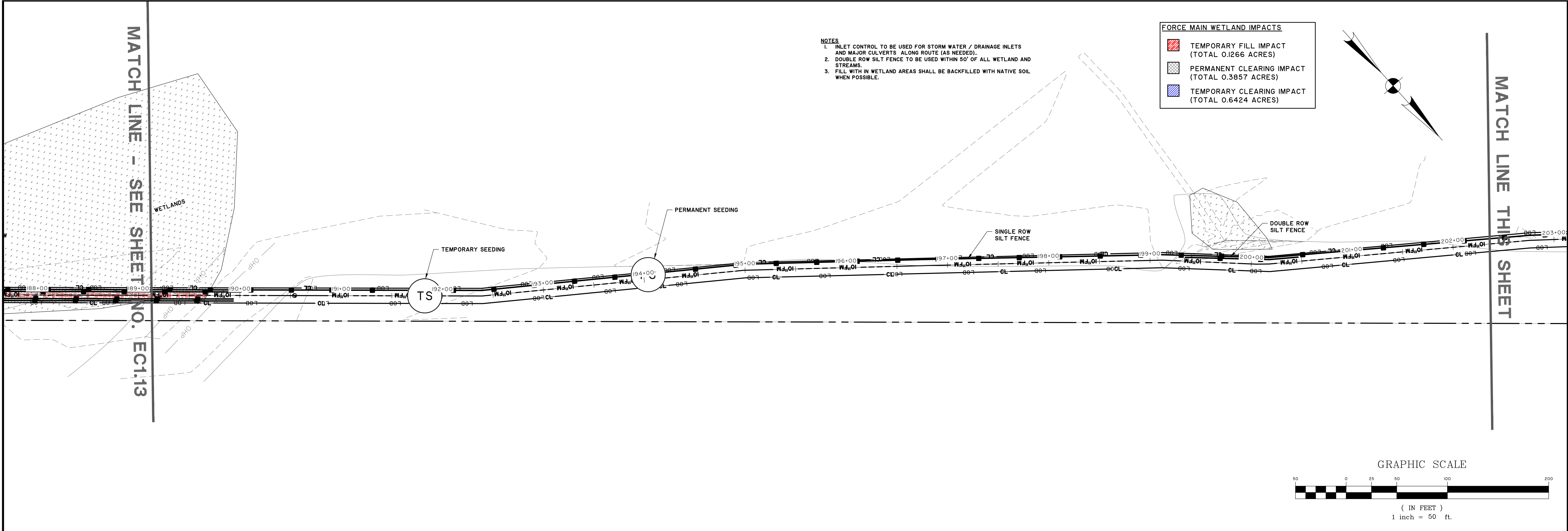
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COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 EROSION CONTROL PLAN

JOB NO:	J-298510000
DATE:	01/02/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

EC1.13

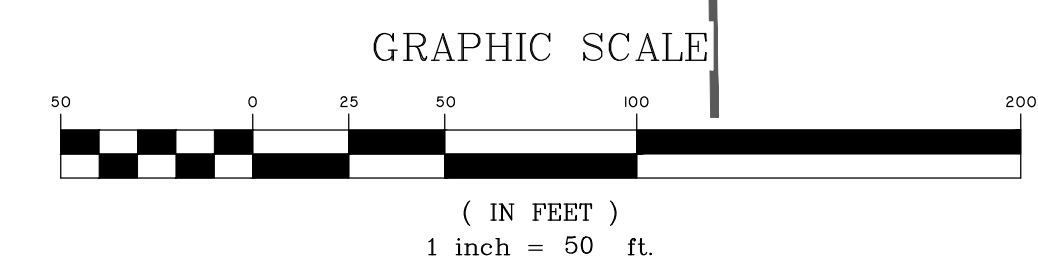
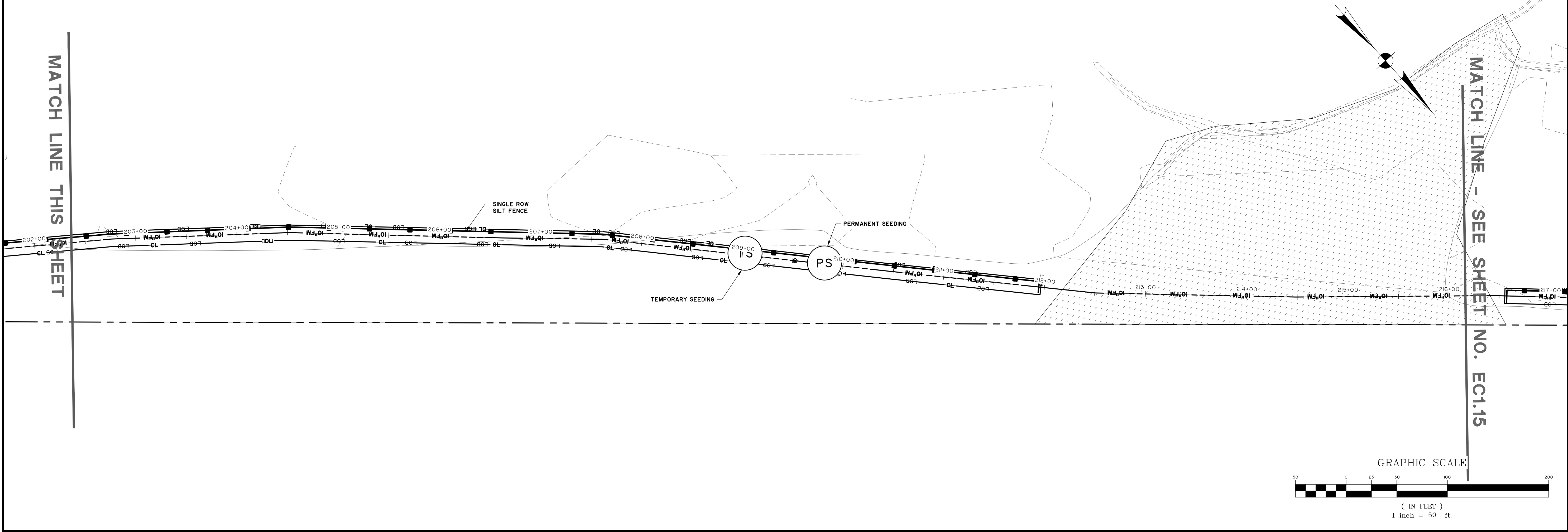
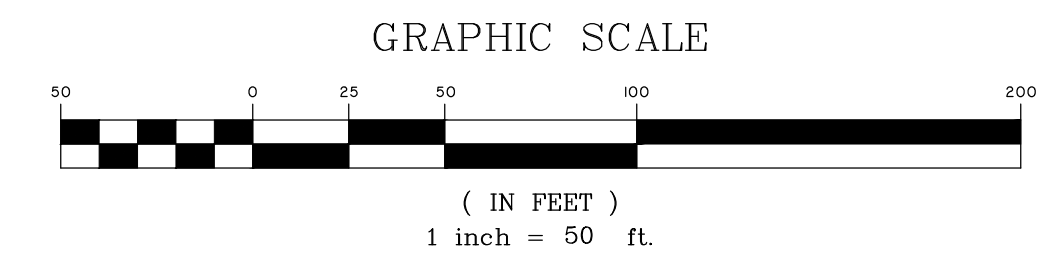
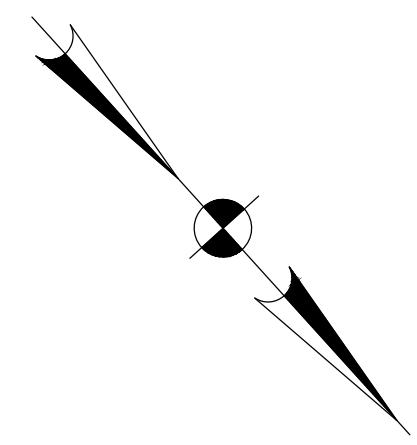
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- NOTES**
1. INLET CONTROL TO BE USED FOR STORM WATER / DRAINAGE INLETS AND MAJOR CULVERTS ALONG ROUTE (AS NEEDED).
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FORCE MAIN WETLAND IMPACTS

- TEMPORARY FILL IMPACT (TOTAL 0.1266 ACRES)
- PERMANENT CLEARING IMPACT (TOTAL 0.3857 ACRES)
- TEMPORARY CLEARING IMPACT (TOTAL 0.6424 ACRES)



PROFESSIONAL ENGINEER
 STATE OF SOUTH CAROLINA
 No. 002285
 CELESTE HUTTON
 12/23/24

NO.	REVISIONS	BY	DATE

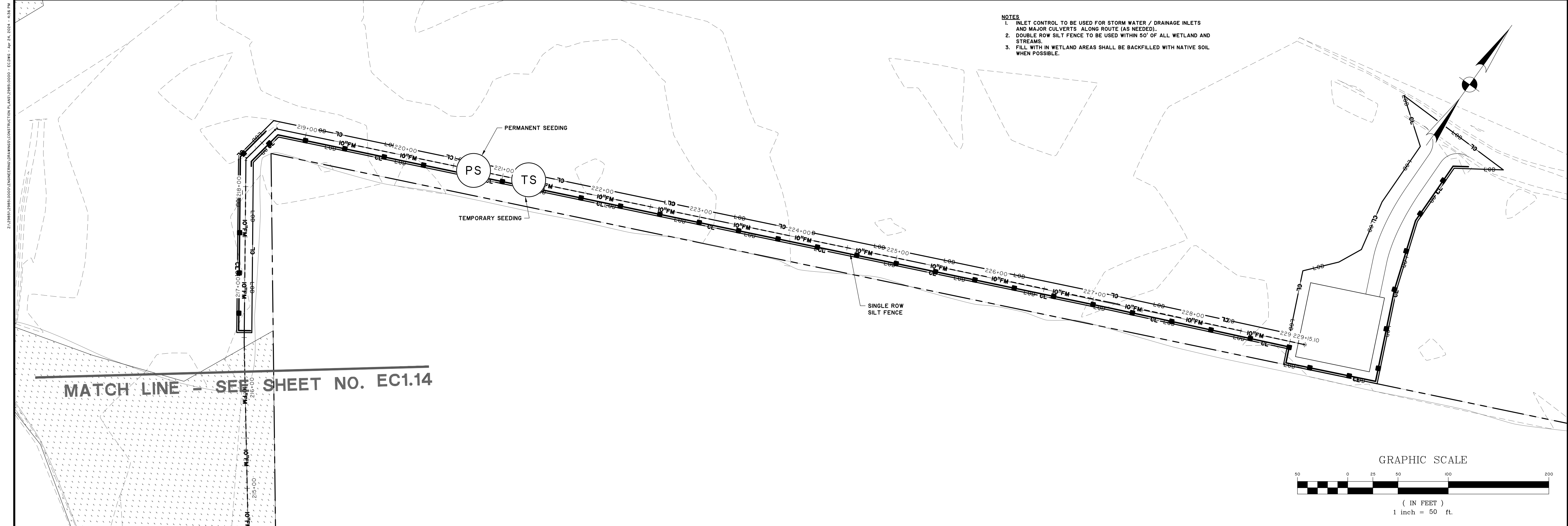
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 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 EROSION CONTROL PLAN

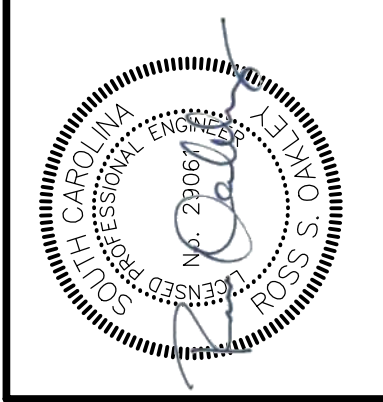
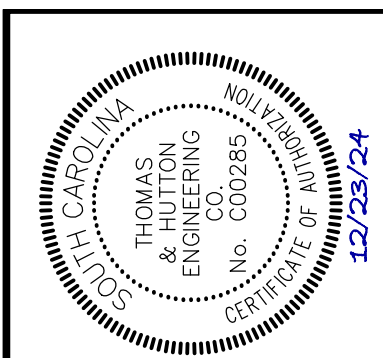
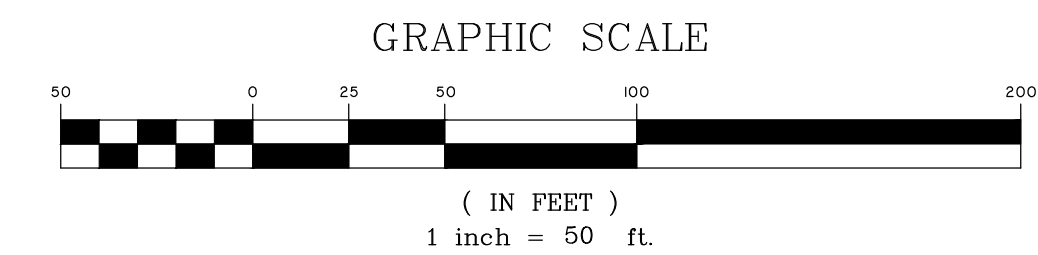
JOB NO:	J-298510000
DATE:	01/02/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	AS NOTED

EC1.14

EX-15811-2024-0000-CONSTRUCTION PLAN-15811-0000 - ECENR - 01/24/2024 - 4:54 PM



- NOTES**
1. INLET CONTROL TO BE USED FOR STORM WATER / DRAINAGE INLETS AND MAJOR CULVERTS ALONG ROUTE (AS NEEDED).
 2. DOUBLE ROW SILT FENCE TO BE USED WITHIN 50' OF ALL WETLAND AND STREAMS.
 3. FILL WITH IN WETLAND AREAS SHALL BE BACKFILLED WITH NATIVE SOIL WHEN POSSIBLE.



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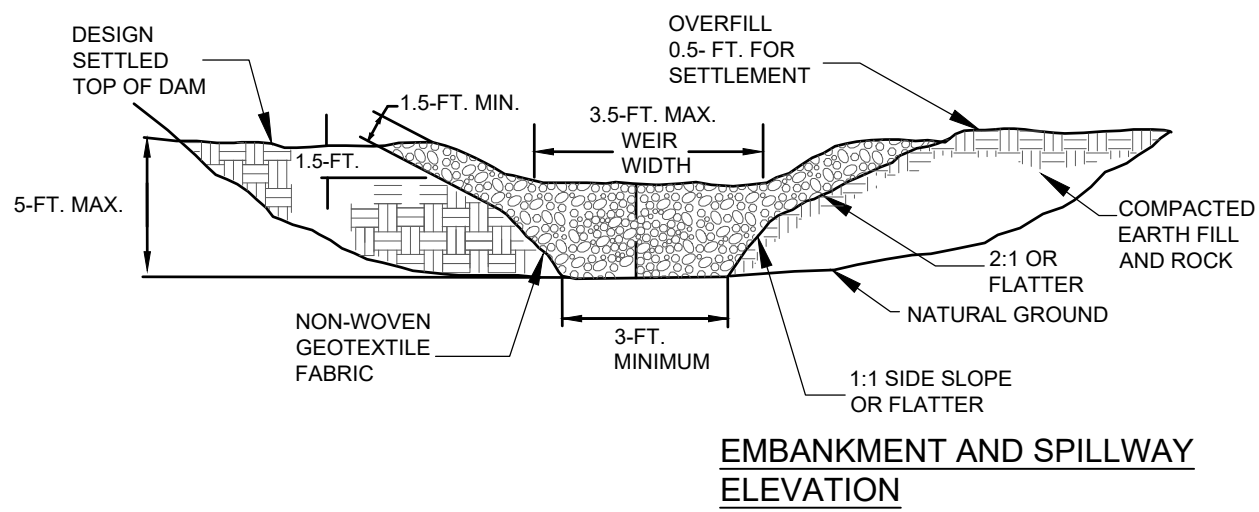
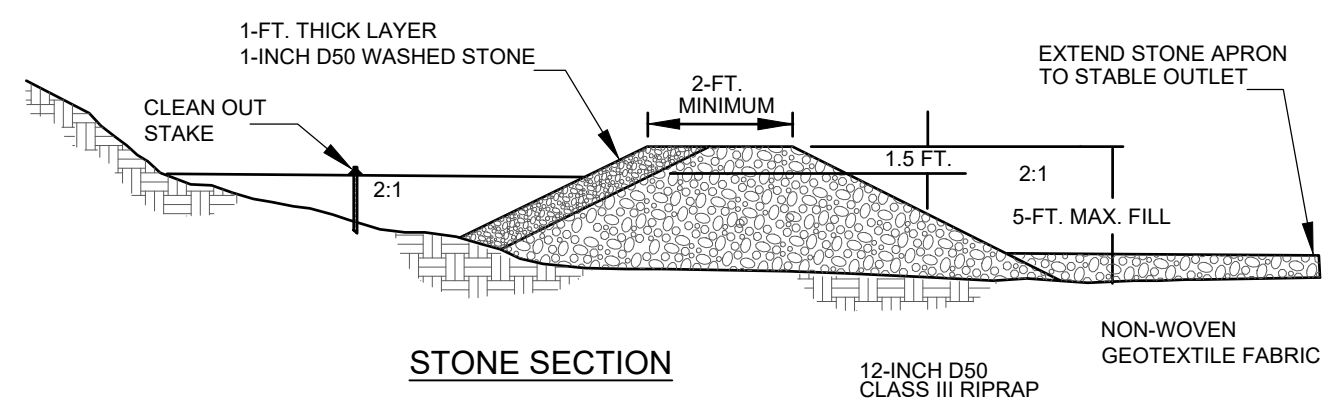
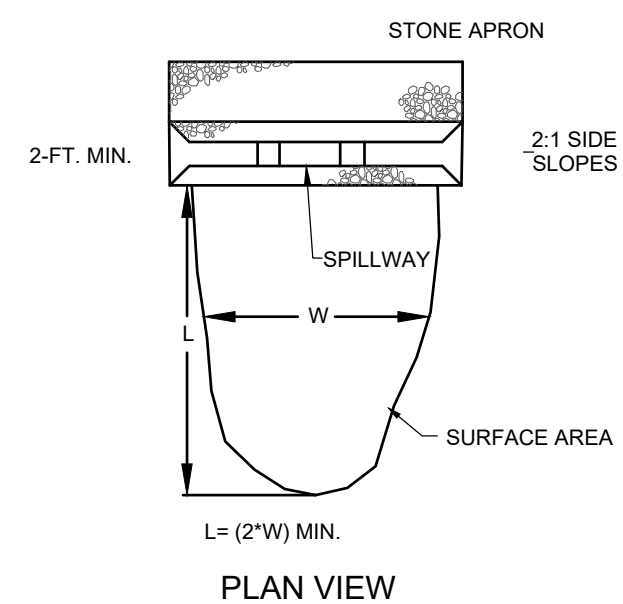
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EC1.15

STORMWATER POLLUTION PREVENTION PLAN

SEDIMENT TRAP DIMENSIONS						
SEDIMENT TRAP	BOTTOM LENGTH (ft)	BOTTOM WIDTH (ft)	TOP LENGTH (ft)	TOP WIDTH (ft)	INSIDE SIDE SLOPES (X:H:V)	DEPTH (ft)
ST-1						

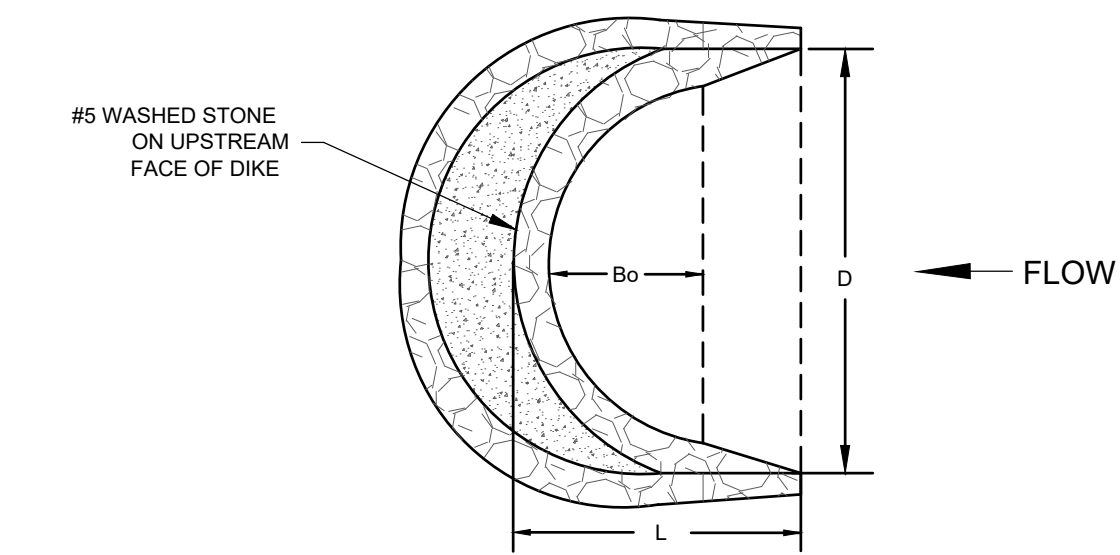
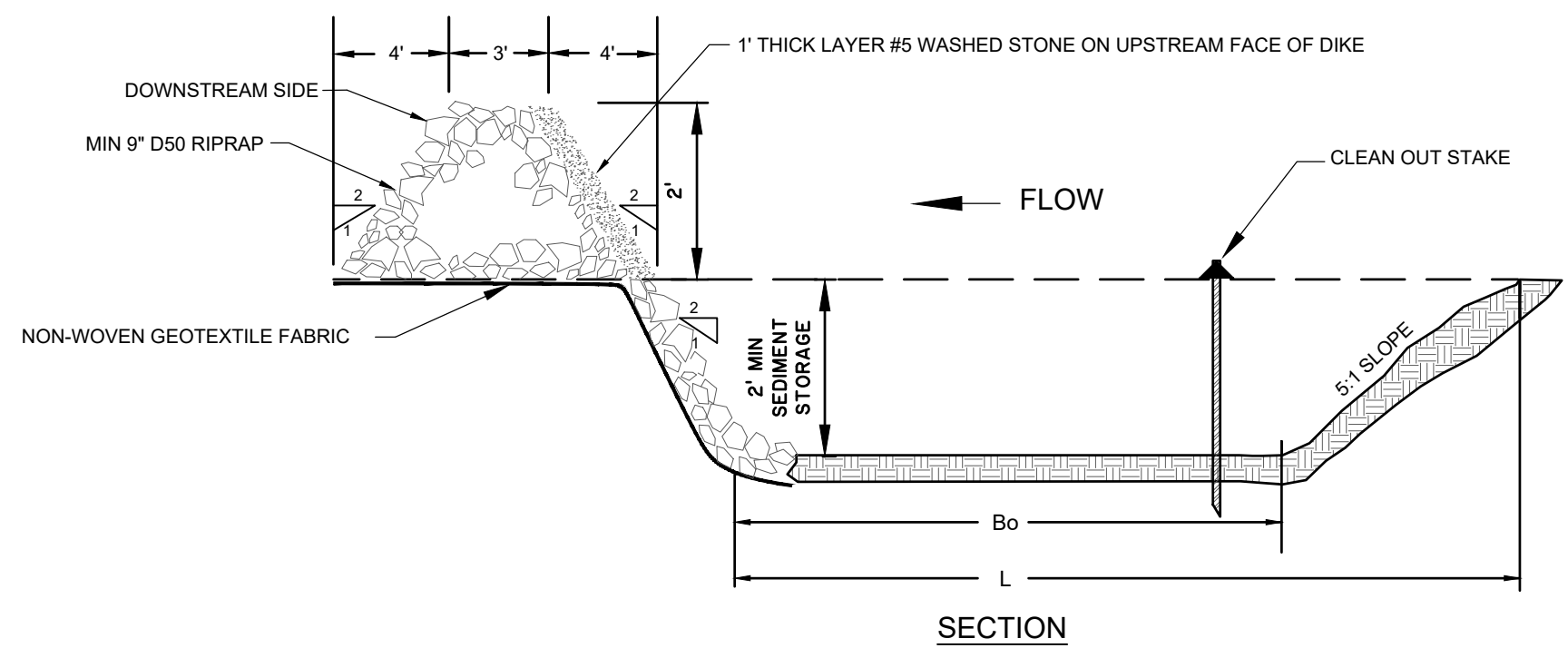
SEDIMENT TRAP ROCK OUTLET						
ROCK OUTLET	HEIGHT (ft)	BOTTOM WIDTH (ft)	INSIDE SIDE SLOPES (X:H:V)	TOP WEIR WIDTH (ft)	BOTTOM RIPRAP FLOW LENGTH (ft)	TOP RIPRAP FLOW LENGTH (ft)
ST-1						



WHEN AND WHERE TO USE IT:
SEDIMENT TRAPS SHOULD NOT BE PLACED IN WATERS OF THE STATE OR USGS BLUE-LINE STREAMS.

INSTALLATION:
ROCK OUTLET STRUCTURE REQUIREMENTS:
THE MAXIMUM SEDIMENT TRAP HEIGHT SHALL BE 5-FEET.
THE MAXIMUM STONE HEIGHT OF THE OUTLET WEIR SHALL BE 3.5-FEET.
THE MINIMUM BOTTOM FLOW WIDTH OF THE STRUCTURE SHALL BE 3-FEET.
THE MINIMUM TOP FLOW LENGTH OF THE STRUCTURE SHALL BE 2-FEET.
THE MAIN BODY OF THE OUTLET STRUCTURE SHALL CONSIST OF 12-INCH D50 CLASS III RIPRAP. THE UPSTREAM FACE OF THE OUTLET STRUCTURE SHALL CONSIST OF A 1-FOOT THICK LAYER OF 1-INCH D50 WASHED STONE. THE MAXIMUM SIDE SLOPE OF THE ROCK STRUCTURE SHALL BE 2:1.
INSTALL A NON-WOVEN GEOTEXTILE FILTER FABRIC BEFORE INSTALLING THE STONE FOR THE OUTLET STRUCTURE. ALLOW THE STONE TO EXTEND DOWNSTREAM PAST THE TOE OF THE EMBANKMENT.
ALL INSIDE SEDIMENT TRAP SLOPES SHOULD BE 3:1 OR FLATTER.
MARK THE SEDIMENT CLEANOUT LEVEL OF TRAP WITH A STAKE IN THE FIELD. SEED AND MULCH ALL DISTURBED AREAS.
INSPECTION AND MAINTENANCE:
CONTRACTOR SHALL PROVIDE CONTINUAL MONITORING, REGULAR MAINTENANCE AND REGULAR SEDIMENT REMOVAL.
REMOVE SEDIMENT WHEN IT REACHES 50% OF STORAGE VOLUME OR REACHES THE TOP OF CLEANOUT STAKE.
ALL TEMPORARY SEDIMENT TRAPS SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER IT IS NO LONGER NEEDED.
TRAPPED SEDIMENT SHOULD BE REMOVED FROM, OR STABILIZED ON SITE.
DISTURBED AREAS RESULTING FROM THE REMOVAL OF THE SEDIMENT TRAP SHOULD BE PERMANENTLY STABILIZED.

TEMPORARY SEDIMENT TRAP
NOT TO SCALE



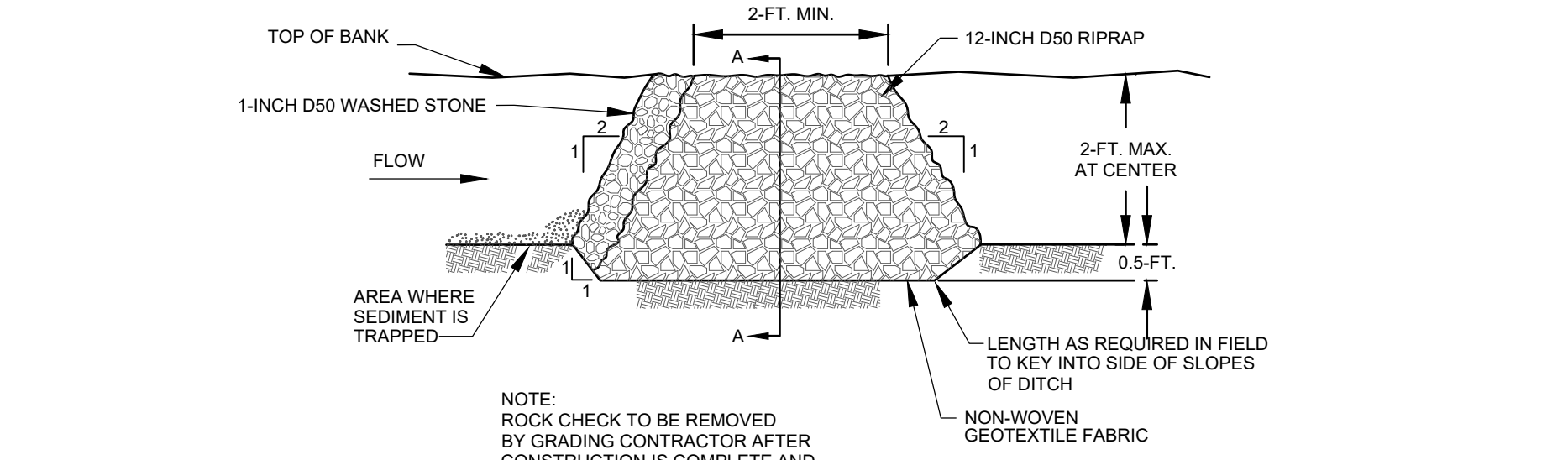
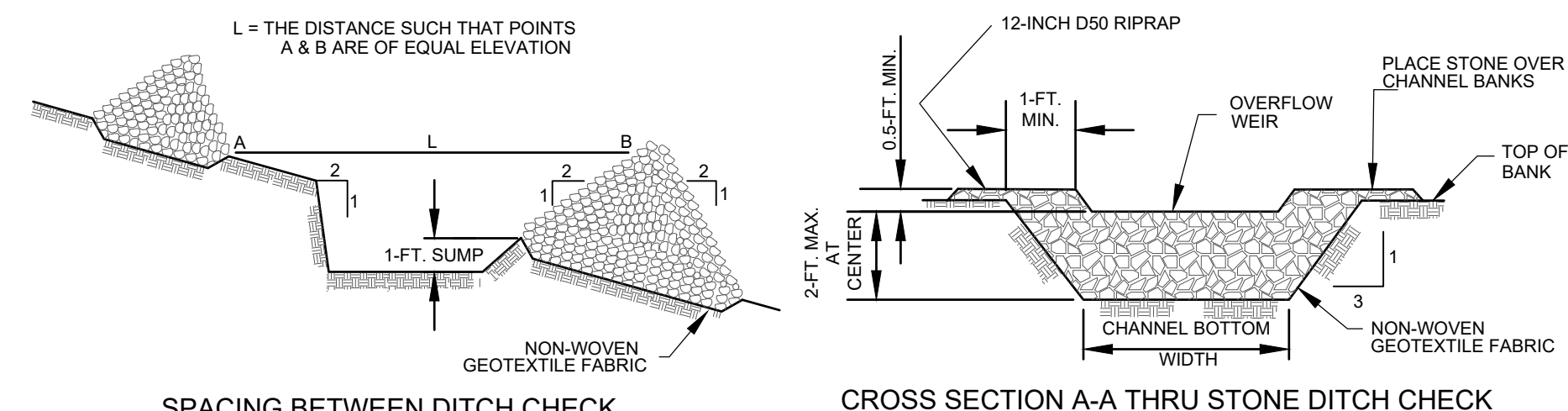
D	L	Bo	PEAK FLOW (CFS)	TOTAL STORAGE VOL. (CU. FT.)	SEDIMENT STORAGE VOLUME (CU. FT.)
15'	17.5'	3.5'	24.1	838	250
20'	20.0'	6.0'	32.1	1263	406
25'	22.5'	8.5'	40.1	1766	601
30'	25.0'	11.0'	48.2	2348	836

WHEN AND WHERE TO USE IT:
ROCK SEDIMENT DIKES ARE MOST EFFECTIVE IN AREAS WHERE SEDIMENT CONTROL IS NEEDED WITH MINIMAL DISTURBANCE. THEY CAN BE USED AS SEDIMENT CONTROL STRUCTURES FOR THE OUTFALLS OF DIVERSION SWALES, DIVERSION DIKES, IN LOW AREAS OR OTHER AREAS WHERE CONCENTRATED SEDIMENT LADEN FLOW IS EXPECTED. ROCK SEDIMENT DIKES SHOULD NOT BE PLACED IN WATERS OF THE STATE OR ANY OTHER STREAMS THAT HAVE A BASE FLOW. MAXIMUM 2-ACRE DRAINAGE AREA TO DIKE.

INSTALLATION:
A NON-WOVEN GEOTEXTILE FABRIC SHALL BE INSTALLED OVER THE SOIL SURFACE WHERE THE ROCK SEDIMENT DIKE IS TO BE PLACED.
THE BODY OF THE ROCK SEDIMENT DIKE SHALL BE COMPOSED OF MINIMUM 9-INCH D50 RIPRAP.
THE UPSTREAM FACE OF THE ROCK SEDIMENT DIKE SHALL BE COMPOSED OF A 1-FOOT THICK LAYER OF 3/4-INCH TO 1-INCH D50 WASHED STONE PLACED AT A SLOPE OF 2H:1V.
ROCK SEDIMENT DIKES SHALL HAVE A MINIMUM TOP FLOW LENGTH OF 3-FEET (2-FOOT FLOW LENGTH THROUGH THE RIPRAP AND 1-FOOT FLOW LENGTH THROUGH THE WASHED STONE).
THE ROCK MUST BE PLACED BY HAND OR MECHANICAL PLACEMENT (NO DUMPING OF ROCK TO FORM THE SEDIMENT DIKE) TO ACHIEVE THE PROPER DIMENSIONS.
A SEDIMENT SUMP SHALL BE LOCATED ON THE UPSTREAM SIDE OF THE STRUCTURE TO PROVIDE SEDIMENT STORAGE. THE UPSTREAM SIDE OF THE SEDIMENT SUMP SHALL HAVE A SLOPE OF 5H:1V TO INHIBIT EROSION OF THE SEDIMENT STORAGE AREA. THE MINIMUM DEPTH OF THE SEDIMENT SUMP SHALL BE 2-FEET. MARK THE SEDIMENT CLEANOUT LEVEL OF THE SEDIMENT DIKE WITH A STAKE IN THE FIELD.
SEED AND MULCH ALL DISTURBED AREAS.

INSPECTION AND MAINTENANCE:
CONTRACTOR SHALL PROVIDE CONTINUAL MONITORING, REGULAR MAINTENANCE AND REGULAR SEDIMENT REMOVAL.
REMOVE SEDIMENT WHEN IT REACHES 50% OF THE SEDIMENT STORAGE VOLUME OR WHEN REACHES THE TOP OF CLEANOUT STAKE. REMOVED SEDIMENT FROM THE SUMP SHOULD BE REMOVED FROM, OR STABILIZED ON SITE.
ALL ROCK SEDIMENT DIKES SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THEY ARE NO LONGER NEEDED. DISTURBED AREAS RESULTING FROM THE REMOVAL OF ROCK SEDIMENT DIKES SHOULD BE PERMANENTLY STABILIZED.

ROCK SEDIMENT DIKES
NOT TO SCALE

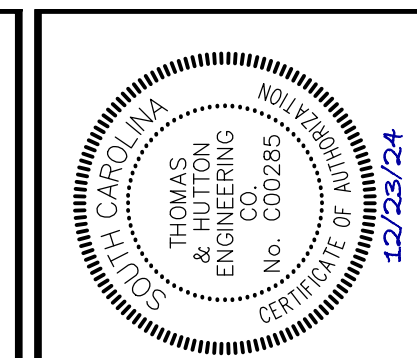


WHEN AND WHERE TO USE IT:
A ROCK DITCH CHECK SHOULD BE INSTALLED IN STEEPLY SLOPED SWALES, OR IN SWALES WHERE ADEQUATE VEGETATION CANNOT BE ESTABLISHED. ROCK DITCH CHECKS SHOULD BE USED ONLY IN SMALL OPEN CHANNELS. ROCK DITCH CHECKS SHOULD NOT BE PLACED IN WATERS OF THE COMMONWEALTH OR USGS BLUE-LINE STREAMS.

INSTALLATION:
A NON-WOVEN GEOTEXTILE FABRIC SHALL BE INSTALLED OVER THE SOIL SURFACE WHERE THE ROCK DITCH CHECK IS TO BE PLACED.
THE BODY OF THE ROCK DITCH CHECK SHALL BE COMPOSED OF 12-INCH D50 RIPRAP.
THE UPSTREAM FACE OF THE ROCK DITCH CHECK MAY BE COMPOSED OF 1-INCH D50 WASHED STONE.
ROCK DITCH CHECKS SHOULD NOT EXCEED A HEIGHT OF 2-FEET AT THE CENTERLINE OF THE CHANNEL.
ROCK DITCH CHECKS SHOULD HAVE A MINIMUM TOP FLOW LENGTH OF 2-FEET.
STONE SHOULD BE PLACED OVER THE CHANNEL BANKS TO PREVENT WATER FROM CUTTING AROUND THE DITCH CHECK.
THE ROCK MUST BE PLACED BY HAND OR MECHANICAL PLACEMENT (NO DUMPING OF ROCK TO FORM DAM) TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO ENSURE THAT THE CENTER OF THE CHECK IS LOWER THAN THE EDGES.
THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM CHECK IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM CHECK.

INSPECTION AND MAINTENANCE:
INSPECT FOR SEDIMENT AND DEBRIS ACCUMULATION. INSPECT DITCH CHECK EDGES FOR EROSION AND REPAIR PROMPTLY AS REQUIRED.
SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 1/3 THE ORIGINAL CHECK HEIGHT.
IN THE CASE OF GRASS-LINED DITCHES AND SWALES, ROCK DITCH CHECKS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE UNLESS THE SLOPE OF THE SWALE IS GREATER THAN 4%.
AFTER CONSTRUCTION IS COMPLETE, ALL STONE SHOULD BE REMOVED BY THE GRADING CONTRACTOR IF VEGETATION WILL BE USED FOR PERMANENT EROSION CONTROL MEASURES.
THE AREA BENEATH THE ROCK DITCH CHECKS SHOULD BE SEEDED AND MULCHED IMMEDIATELY AFTER ROCK CHECK DAM REMOVAL.

ROCK DITCH CHECK
NOT TO SCALE



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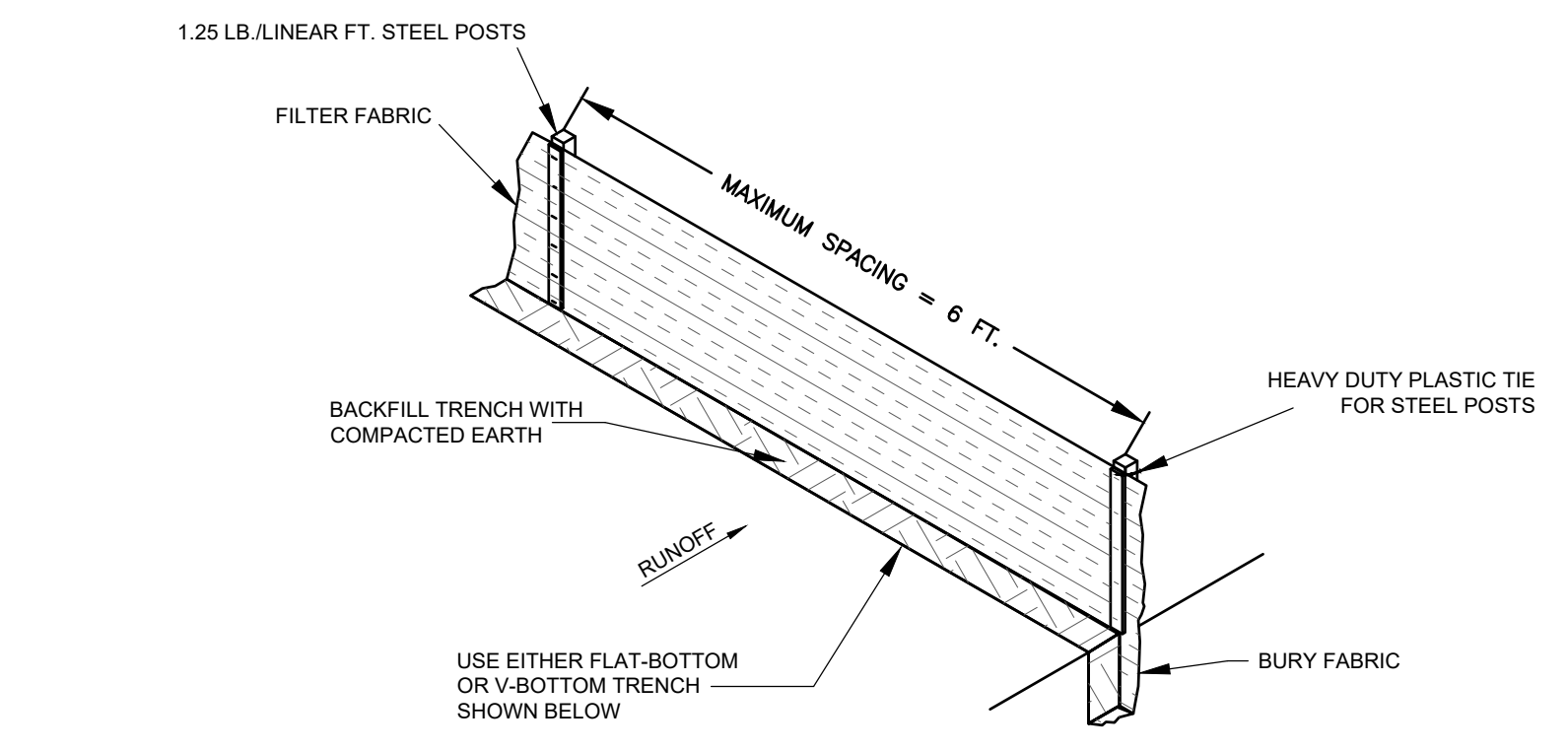
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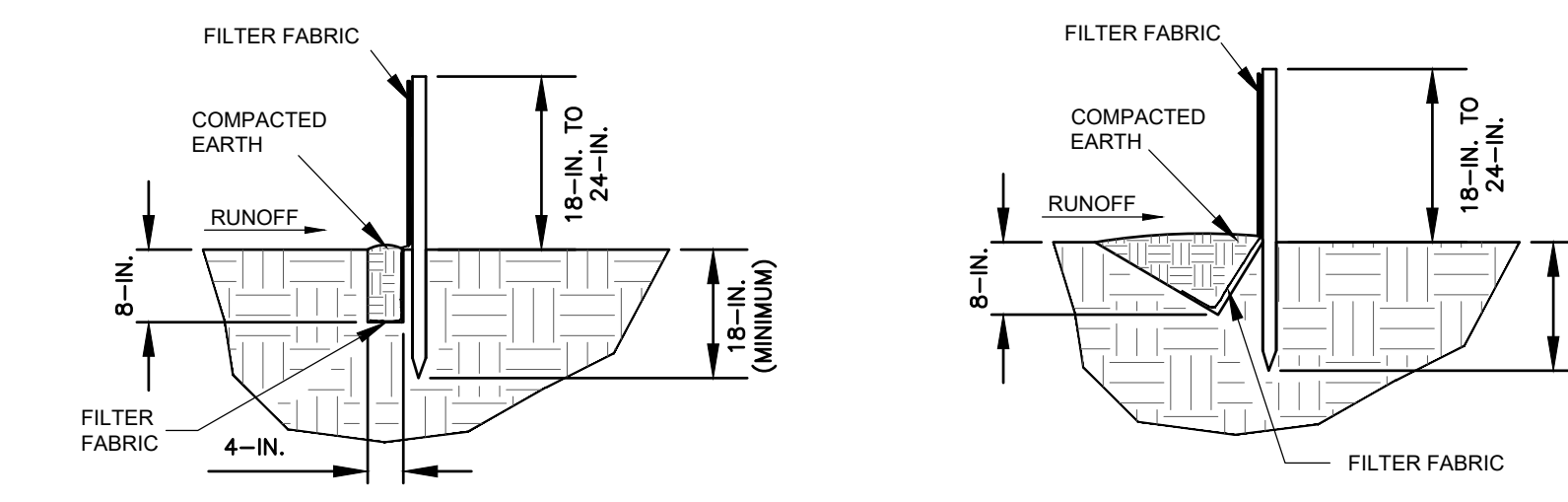
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STORMWATER POLLUTION PREVENTION PLAN

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SILT FENCE INSTALLATION



FLAT-BOTTOM TRENCH DETAIL

V-SHAPED TRENCH DETAIL

WHEN AND WHERE TO USE IT:
SILT FENCE IS APPLICABLE IN AREAS:
WHERE THE MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE FENCE IS 100- FEET.
WHERE THE MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO FENCE LINE) IS 2H:1V.
THAT DO NOT RECEIVE CONCENTRATED FLOWS GREATER THAN 0.5 CFS.

DO NOT PLACE SILT FENCE ACROSS CHANNELS OR USE IT AS A VELOCITY CONTROL BMP.

MATERIALS:
STEEL POSTS
USE 48-INCH LONG STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS:
COMPOSED OF HIGH STRENGTH STEEL WITH MINIMUM YIELD STRENGTH OF 50,000 PSI.
HAVE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND NOMINAL "T" LENGTH OF 1.48-INCHES.
WEIGH 1.25 POUNDS PER FOOT (± 8%).
HAVE A SOIL STABILIZATION PLATE WITH A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES ATTACHED TO THE STEEL POSTS.
PAINTED WITH A WATER BASED BAKED ENAMEL PAINT.

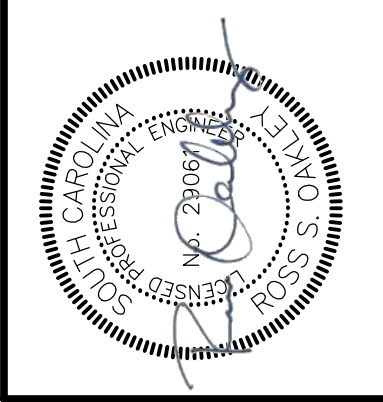
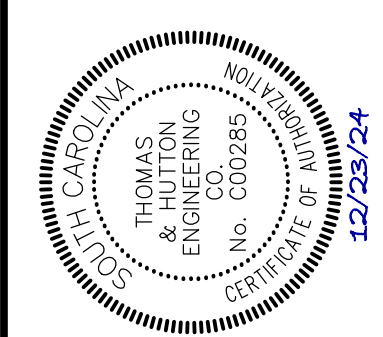
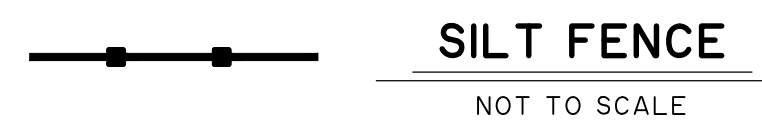
USE STEEL POSTS WITH A MINIMUM LENGTH OF 4- FEET, WEIGHING 1.25 POUNDS PER LINEAR FOOT (± 8%) WITH PROJECTIONS TO AID IN FASTENING THE FABRIC. EXCEPT WHEN HEAVY CLAY SOILS ARE PRESENT ON SITE, STEEL POSTS WILL HAVE A METAL SOIL STABILIZATION PLATE WELDED NEAR THE BOTTOM SUCH THAT WHEN THE POST IS DRIVEN TO THE PROPER DEPTH, THE PLATE WILL BE BELOW THE GROUND LEVEL FOR ADDED STABILITY.
THE SOIL PLATES SHOULD HAVE THE FOLLOWING CHARACTERISTICS:
BE COMPOSED OF MINIMUM 1/2 GAUGE STEEL
HAVE A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES.

GEOTEXTILE FILTER FABRIC:
FILTER FABRIC IS:
COMPOSED OF FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS COMPOSED OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS, POLYESTERS, OR POLYAMIDES.
FORMED INTO A NETWORK SUCH THAT THE FILAMENTS OR YARNS RETAIN DIMENSIONAL STABILITY RELATIVE TO EACH OTHER.
FREE OF ANY TREATMENT OR COATING WHICH MIGHT ADVERSELY ALTER ITS PHYSICAL PROPERTIES AFTER INSTALLATION.
FREE OF DEFECTS OR FLAWS THAT SIGNIFICANTLY AFFECT ITS PHYSICAL AND/OR FILTERING PROPERTIES.
CUT TO A MINIMUM WIDTH OF 36 INCHES.

USE ONLY FABRIC APPEARING ON SCDOT APPROVAL SHEET #34 MEETING THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

INSTALLATION:
EXCAVATE A TRENCH APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP WHEN PLACING FABRIC BY HAND. PLACE 12-INCHES OF GEOTEXTILE FABRIC INTO THE 6-INCH DEEP TRENCH, EXTENDING THE REMAINING 6-INCHES TOWARDS THE UPSLOPE SIDE OF THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACT. BURY 12-INCHES OF FABRIC INTO THE GROUND WHEN PNEUMATICALLY INSTALLING SILT FENCE WITH A SLICING METHOD. PURCHASE FABRIC IN CONTINUOUS ROLLS AND CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, WRAP THE FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST WITH A 6-INCH MINIMUM OVERLAP. INSTALL POSTS TO A MINIMUM DEPTH OF 24-INCHES. INSTALL POSTS A MINIMUM OF 1- TO 2- INCHES ABOVE THE FABRIC, WITH NO MORE THAN 3- FEET OF THE POST ABOVE THE GROUND. SPACE POSTS TO MAXIMUM 6- FEET CENTERS. ATTACH FABRIC TO WOOD POSTS USING STAPLES MADE OF HEAVY-DUTY WIRE AT LEAST 1-1/2-INCH LONG, SPACED A MAXIMUM OF 6-INCHES APART. STAPLE A 2-INCH WIDE LATHE OVER THE FILTER FABRIC TO SECURELY FASTEN IT TO THE UPSLOPE SIDE OF WOODEN POSTS. ATTACH FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN CALL CASES, TIES SHOULD BE AFFIXED IN NO LESS THAN 4 PLACES. INSTALL THE FABRIC A MINIMUM OF 24-INCHES ABOVE THE GROUND. WHEN NECESSARY, THE HEIGHT OF THE FENCE ABOVE GROUND MAY BE GREATER THAN 24-INCHES. IN TIDAL AREAS, EXTRA SILT FENCE HEIGHT MAY BE REQUIRED. THE POST HEIGHT WILL BE TWICE THE EXPOSED POST HEIGHT. POST SPACING WILL REMAIN THE SAME AND EXTRA HEIGHT FABRIC WILL BE 4-, 5-, OR 6- FEET TALL. LOCATE SILT FENCE CHECKS EVERY 100 FEET MAXIMUM AND AT LOW POINTS. INSTALL THE FENCE PERPENDICULAR TO THE DIRECTION OF FLOW AND PLACE THE FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.

INSPECTION AND MAINTENANCE:
CHECK FOR SEDIMENT BUILDUP AND FENCE INTEGRITY. CHECK WHERE RUNOFF HAS ERODED A CHANNEL BENEATH THE FENCE. OR WHERE THE FENCE HAS SAGGED OR COLLAPSED BY FENCE OVERTOPPING. IF THE FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE SECTION OF FENCE IMMEDIATELY. REMOVE SEDIMENT ACCUMULATED ALONG THE FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED. REMOVE TRAPPED SEDIMENT FROM THE SITE OR STABILIZE IT ON SITE. REMOVE SILT FENCE WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BEST MANAGEMENT PRACTICES (BMPs) ARE NO LONGER NEEDED. PERMANENTLY STABILIZE DISTURBED AREAS RESULTING FROM FENCE REMOVAL.



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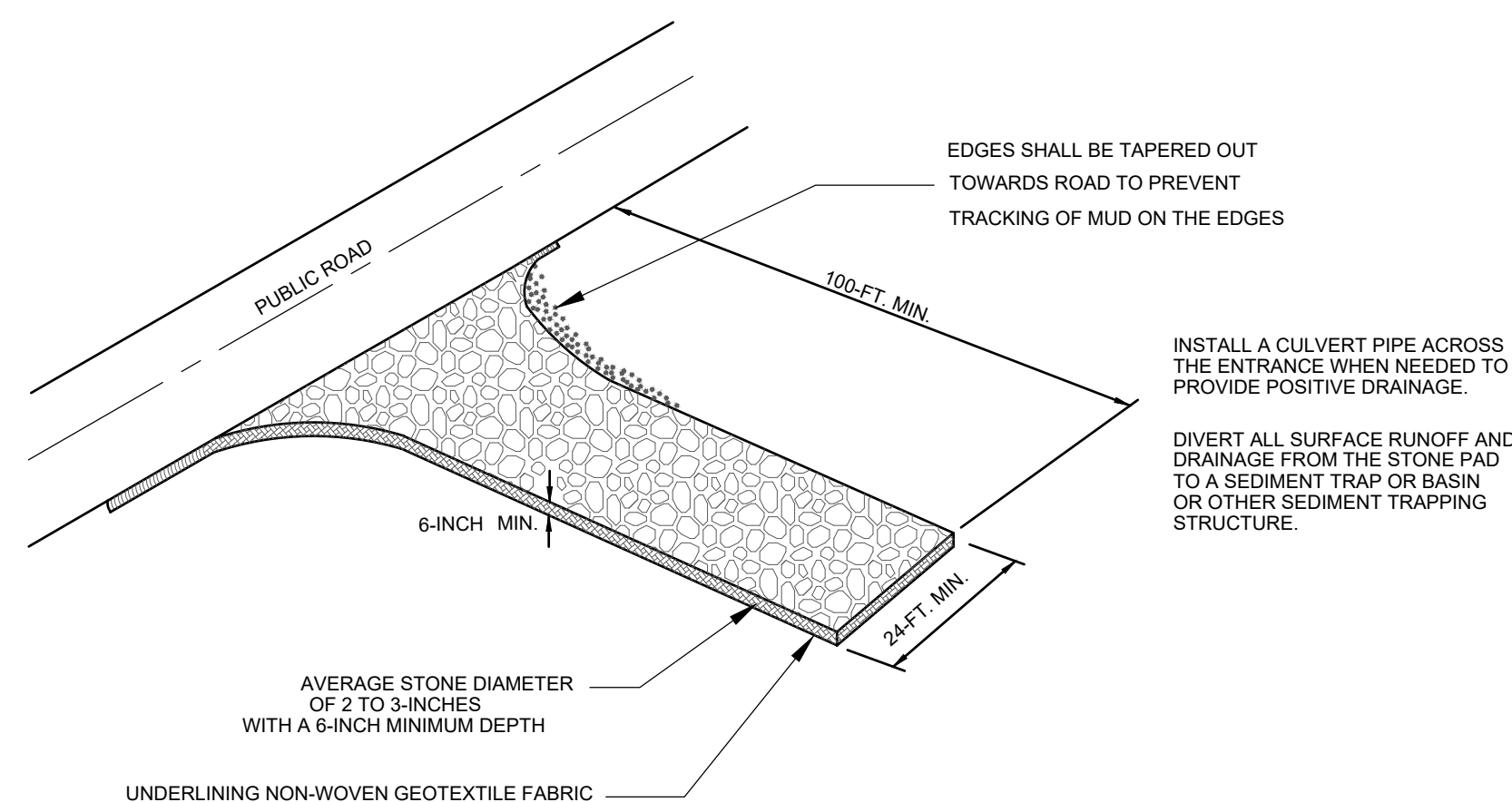
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SCALE:	N/A

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STORMWATER POLLUTION PREVENTION PLAN

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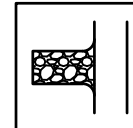
WHEN AND WHERE TO USE IT:
 STABILIZED CONSTRUCTION ENTRANCES SHOULD BE USED AT ALL POINTS WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD.

IMPORTANT CONSIDERATIONS:
 IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFFSITE. WASHDOWN FACILITIES SHALL BE REQUIRED AS DIRECTED BY SCDHEC AS NEEDED. WASHDOWN AREAS IN GENERAL MUST BE ESTABLISHED WITH CRUSHED GRAVEL AND DRAIN INTO A SEDIMENT TRAP OR SEDIMENT BASIN.

CONSTRUCTION ENTRANCES SHOULD BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP BY VEHICLES.

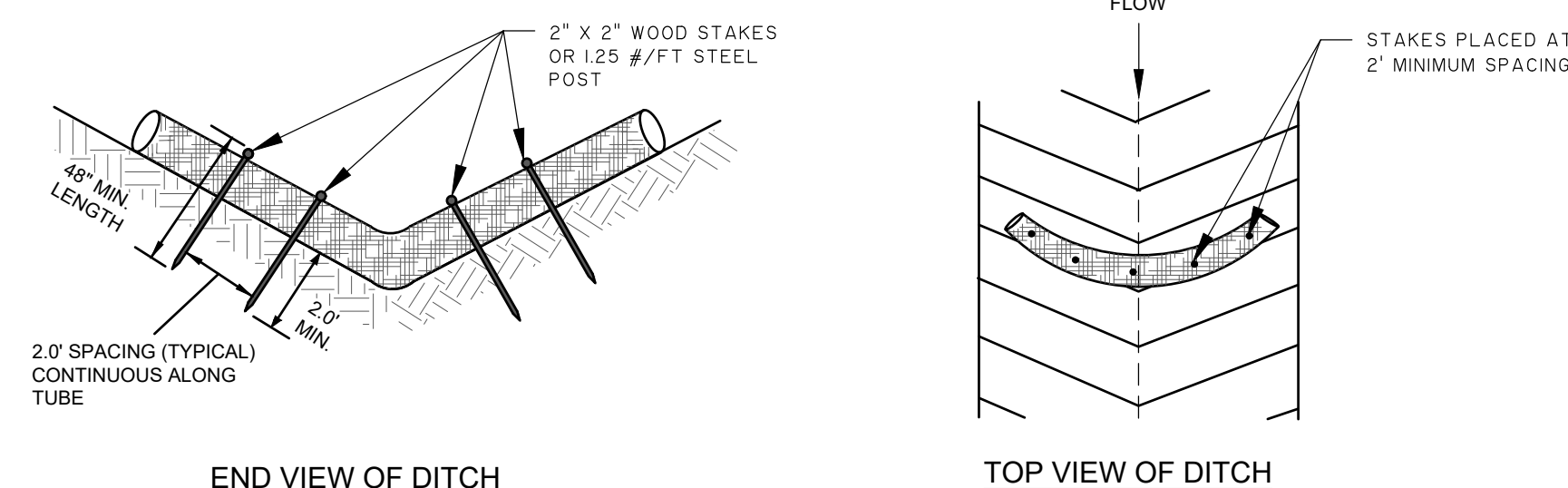
INSTALLATION:
 REMOVE ALL VEGETATION AND ANY OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
 DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM STONES TO A SEDIMENT TRAP OR BASIN.
 INSTALL A NON-WOVEN GEOTEXTILE FABRIC PRIOR TO PLACING ANY STONE.
 INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO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

INSPECTION AND MAINTENANCE:
 CHECK FOR MUD AND SEDIMENT BUILDUP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING PERIODS OF WET WEATHER. MAINTENANCE IS REQUIRED MORE FREQUENTLY IN WET WEATHER CONDITIONS. RESHAPE THE STONE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
 WASH OR REPLACE STONES AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES.
 FREQUENT WASHING WILL EXTEND THE USEFUL LIFE OF STONE.
 IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARGED TO A SEDIMENT TRAP OR BASIN.
 REPAIR ANY BROKEN PAVEMENT IMMEDIATELY.



STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



DESCRIPTION:
 SEDIMENT TUBES ARE ELONGATED TUBES OF COMPACTED GEOTEXTILES, CURLED EXCELSIOR WOOD, NATURAL COCONUT FIBER OR HARDWOOD MULCH. STRAW. PINE NEEDLE AND LEAF MULCH-FILLED SEDIMENT TUBES ARE NOT PERMITTED UNDER THIS SPECIFICATION.

WHEN AND WHERE TO USE IT:
 INSTALL SEDIMENT TUBES ALONG CONTOURS, IN DRAINAGE CONVEYANCE SWALES, AND AROUND INLETS TO HELP REDUCE THE EFFECTS OF SOIL EROSION BY ENERGY DISSIPATION AND RETAIN SEDIMENT.

MATERIALS:
 SEDIMENT TUBES FOR DITCH CHECKS AND TYPE A INLET STRUCTURE FILTERS EXHIBIT THE FOLLOWING PROPERTIES:
 PRODUCED BY A MANUFACTURER EXPERIENCED IN SEDIMENT TUBE MANUFACTURING.
 COMPOSED OF COMPACTED GEOTEXTILES, CURLED EXCELSIOR WOOD, NATURAL COCONUT FIBERS, HARDWOOD MULCH OR A MIX OF THESE MATERIALS ENCLOSED BY A FLEXIBLE NETTING MATERIAL.
 STRAW, STRAW FIBER, STRAW BALES, PINE NEEDLES AND LEAF MULCH ARE NOT ALLOWED UNDER THIS SPECIFICATION.
 UTILIZES OUTER NETTING THAT CONSISTS OF SEAMLESS, HIGH-DENSITY POLYETHYLENE PHOTODEGRADABLE MATERIALS TREATED WITH ULTRAVIOLET STABILIZERS OR A SEAMLESS, HIGH-DENSITY POLYETHYLENE NON-DEGRADABLE MATERIALS. DIAMETER RANGING FROM 18-INCHES TO 24-INCHES.
 CURLED EXCELSIOR WOOD, OR NATURAL COCONUT ROLLED EROSION CONTROL PRODUCTS (RECPS) THAT ARE ROLLED UP TO CREATE A SEDIMENT TUBE ARE NOT ALLOWED UNDER THIS SPECIFICATION.

INSTALLATION:
 INSTALL OVER BARE SOIL, MULCHED AREAS OR EROSION CONTROL BLANKETS.
 BE COMPOSED OF GEOTEXTILES, CURLED EXCELSIOR WOOD, NATURAL COCONUT FIBER OR HARDWOOD MULCH ENCLOSED BY A FLEXIBLE NETTING MATERIAL. STRAW, STRAW FIBER, STRAW BALES, PINE NEEDLES AND LEAF MULCH ARE NOT ALLOWED.

THE MINIMUM DIAMETER SHOULD BE 18 INCHES.
 SEDIMENT TUBES SHOULD BE STAKED USING WOODEN STAKES (2-INCH X 2-INCH) OR STEEL POSTS (STANDARD "U" OR "T" SECTIONS WITH A MINIMUM WEIGHT OF 1.25 POUNDS PER FOOT) A MINIMUM OF 48-INCHES IN LENGTH PLACED ON 2-FOOT CENTERS.

STAKES SHOULD BE INTERTWINED WITH THE OUTER MESH ON THE DOWNSTREAM SIDE AND DRIVEN IN THE GROUND TO A MINIMUM DEPTH OF 1.5 FEET LEAVING LESS THAN 1 FOOT OF STAKE EXPOSED ABOVE THE SEDIMENT TUBE. ALWAYS REFER TO THE MANUFACTURER'S RECOMMENDATIONS FOR THE STAKING DETAIL. INSTALL ALL SEDIMENT TUBES INSURING THAT NO GAPS EXIST BETWEEN THE SOIL AND THE BOTTOM OF THE SEDIMENT TUBE.
 THE ENDS OF ADJACENT SEDIMENT TUBES SHOULD BE LAPPED 6-INCH TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. IN NO SITUATIONS SHOULD SEDIMENT TUBES BE STACKED ON TOP OF ONE ANOTHER.

CONSTRUCT A TRENCH THAT IS 20% OF THE TUBE DIAMETER TO INSTALL THE TUBE IN.
 AVOID DAMAGE TO SEDIMENT TUBES WHILE INSTALLING THEM. IF THE SEDIMENT TUBE BECOMES DAMAGED DURING INSTALLATION, A STAKE SHOULD BE PLACED ON BOTH SIDES OF THE DAMAGED AREA TERMINATING THE TUBE SEGMENT AND A NEW TUBE SEGMENT SHOULD BE INSTALLED.
 SHOULD BE INSTALLED IN SWALES OR DRAINAGE DITCHES PERPENDICULAR TO THE FLOW OF WATER. SEDIMENT TUBES SHOULD CONTINUE UP THE SIDE SLOPES A MINIMUM OF 1 FOOT ABOVE THE DESIGN FLOW DEPTH. SEDIMENT TUBES SHOULD BE SPACED ACCORDING TO THE FOLLOWING TABLE.

SEDIMENT TUBE SPACING	
SLOPE	MAXIMUM SEDIMENT TUBE SPACING
LESS THAN 2%	150- FEET
2%	100- FEET
3%	75- FEET
4%	50- FEET
5%	40- FEET
6%	30- FEET
GREATER THAN 6%	25- FEET

SEDIMENT TUBE LENGTH SELECTED SHOULD MINIMIZE THE NUMBER OF SEDIMENT TUBES NEEDED TO SPAN THE WIDTH OF THE DRAINAGE CONVEYANCE. IF THE DITCH CHECK LENGTH (PERPENDICULAR TO THE WATER FLOW) IS 15 FEET, THEN ONE 15 FOOT SEDIMENT TUBE IS PREFERRED COMPARED TO TWO OVERLAPPING 10 FOOT SEDIMENT TUBES.

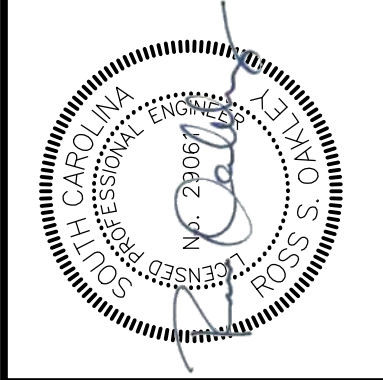
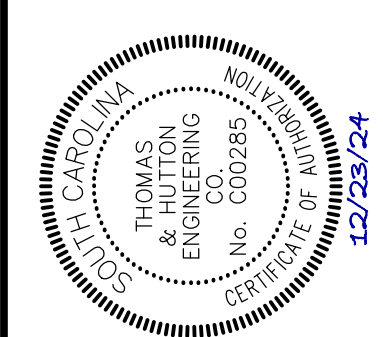
SEDIMENT TUBES FOR DITCH CHECKS SHOULD REMAIN IN PLACE UNTIL FULLY ESTABLISHED VEGETATION AND ROOT SYSTEMS HAVE COMPLETELY DEVELOPED AND CAN SURVIVE ON THEIR OWN.

INSPECTION AND MAINTENANCE:
 LARGE DEBRIS, TRASH, AND LEAVES SHOULD BE REMOVED.
 IF EROSION CAUSES THE EDGES TO FALL TO A HEIGHT EQUAL TO OR BELOW THE HEIGHT OF THE CENTER, REPAIRS SHOULD BE MADE IMMEDIATELY.
 REMOVE ACCUMULATED SEDIMENT FROM THE UPSTREAM SIDE OF THE SEDIMENT TUBE WHEN THE SEDIMENT HAS REACHED A HEIGHT OF APPROXIMATELY ONE-THIRD OF THE EXPOSED HEIGHT OF THE TUBE (MEASURED AT THE CENTER).
 ACCUMULATED SEDIMENT SHOULD BE REMOVED PRIOR TO REMOVING SEDIMENT TUBES.
 SEDIMENT TUBE REMOVAL SHOULD BE COMPLETED ONLY AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN COMPLETELY STABILIZED. PERMANENT VEGETATION SHOULD REPLACE AREAS FROM WHICH GRAVEL, STONE, SEDIMENT TUBES, OR OTHER MATERIALS HAVE BEEN REMOVED.



SEDIMENT TUBES

NOT TO SCALE



NO.	REVISIONS	BY	DATE

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COLLETON COUNTY
 COLLETON COUNTY
 NORTHWEST WAL TERBORO SEWER IMPROVEMENTS
 EROSION CONTROL DETAILS

JOB NO:	J-298510000
DATE:	01/02/2024
DRAWN:	JTB
DESIGNED:	MAL
REVIEWED:	RSO
APPROVED:	RSO
SCALE:	N/A

EC2.3