



# EFFINGHAM COUNTY BOOSTER PUMP STATION

CHATHAM COUNTY, GA

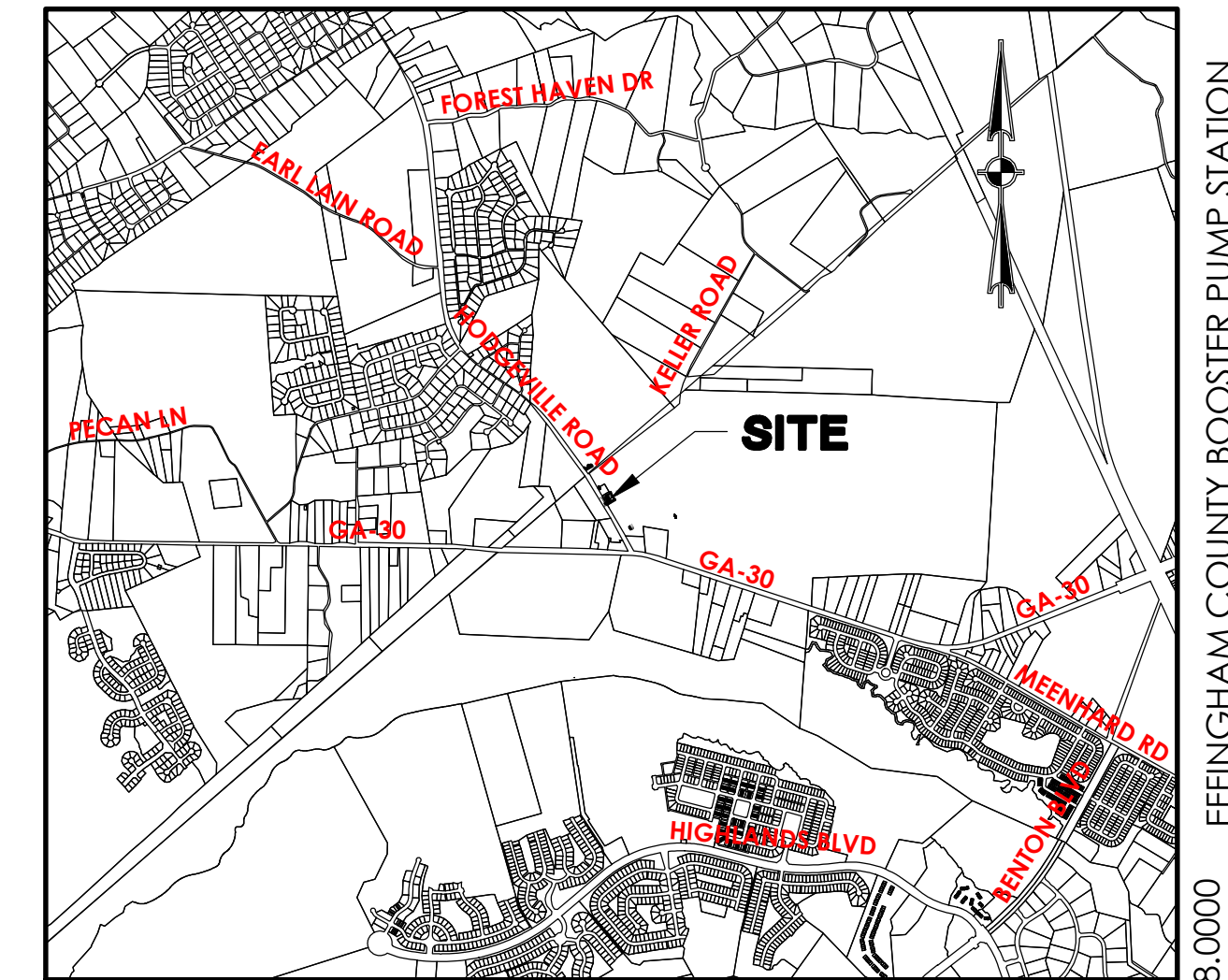
PREPARED FOR:  
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 601 NORTH LAUREL STREET  
 SPRINGFIELD, GA 31329

TM# 7-0976-01-047

FEBRUARY 2021

J-28378.0000

PREPARED BY:



VICINITY MAP  
 SCALE: 1" = 3000'

J-28378.0000 EFFINGHAM COUNTY BOOSTER PUMP STATION 04/21/2020

### Sheet List Table

Sheet Number	Sheet Title
CO.1	COVER SHEET
G0.1	GENERAL NOTES & INDEX
V0.1	SURVEY CONTROL
EC1.1	ES&PC NOTES AND DETAILS
EC1.2	ES&PC NOTES AND DETAILS
EC1.3	ES&PC NOTES AND DETAILS
EC2.1	ES&PC PLANS
C2.1	BOOSTER STATION SITE LAYOUT
C2.2	BOOSTER PUMP PAVING, GRADING, AND DRAINAGE PLAN
C2.3	BOOSTER STATION PIPING PLAN
C2.4	BOOSTER STATION SECTION VIEW
C2.5	BOOSTER STATION DETAILS
C2.6	BOOSTER STATION DETAILS
C2.7	BOOSTER STATION DETAILS
S0.1	GENERAL NOTES & TYPICAL DETAILS
S1.1	FLOOR PLAN & BUILDING SECTION
S1.2	BUILDING ELEVATIONS
S1.3	DOOR SCHEDULE
S1.4	FOUNDATION AND ROOF FRAMING PLANS
S1.5	FOUNDATION & MASONRY DETAILS
S1.6	ROOF FRAMING DETAILS
L1.1	PLANTING PLAN
L2.1	PLANTING DETAILS
L2.2	LANDSCAPING SPECIFICATIONS
E1.1	BOOSTER STATION SITE LAYOUT
E1.2	BUILDING LAYOUT & ONE-LINE DIAGRAM

### REVISION HISTORY

REV. NO.	REVISION	BY	DATE

### SUBMITTAL HISTORY

SUBMITTED TO	DATE



Know what's below.  
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**BID SET - NOT FOR CONSTRUCTION**

### 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)		

### OTHER UTILITIES LEGEND

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

### 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 ---	--- 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		

### GENERAL NOTES

- CONTRACTOR SHALL COORDINATE TIE-IN OF NEW WATER WITH EFFINGHAM COUNTY.
- CONTRACTOR SHALL MAINTAIN MINIMUM COVER OVER THE WATER MAIN PIPE BARREL OF 4'-0" UNLESS OTHERWISE INDICATED. 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 WATER MAIN AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER 72 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 WATER MAINS SHALL BE DUCTILE IRON CL 350 (DIP CL350) UNLESS OTHERWISE INDICATED.
- ALL GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE (PVC SDR35) 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 GOOT STANDARD SPECIFICATIONS UNLESS SPECIFIED OTHERWISE AND APPROVED IN WRITING BY THE COUNTY ENGINEER.
- WHERE FIELD INSPECTIONS ARE REQUIRED BY THE COUNTY, THE CONTRACTOR SHALL NOTIFY THE EFFINGHAM COUNTY BOARD OF COMMISSIONERS (ERIC LARSON, 912-754-4157) A MINIMUM OF 72 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.
- THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL AND PREVENTION STRUCTURES SHOWN ON THE PLANS. BOTH MUST BE APPROVED BY CHATHAM COUNTY PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF UNSUITABLE MATERIAL IS DISCOVERED PRIOR TO BEGINNING ANY REMOVAL OPERATION.
- 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 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. CONTRACTOR SHALL GRADE AREAS TO DRAIN FOR POSITIVE FLOW PRIOR TO FINAL APPROVAL.
- ALL AREAS DISTURBED WILL BE GRASSED IMMEDIATELY AFTER THE INSTALLATION. 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.
- 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 WATER VALVES SHALL COMPLY WITH SECTION 02700 OF THE EFFINGHAM COUNTY STANDARDS AND SPECIFICATIONS.
- THE DESIGN OF THE PAVEMENT AND EARTHWORK MATERIALS, PROCEDURES AND METHODS SPECIFIED ARE BASED ON THE CRITERIA AND RECOMMENDATIONS ESTABLISHED IN THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY TERRACON, DATED JUNE 12, 2020 AND SUBSEQUENT ADDENDUMS.
- CONTRACTOR RESPONSIBLE FOR OBTAINING BUILDING PERMIT AND ANY OTHER NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION.

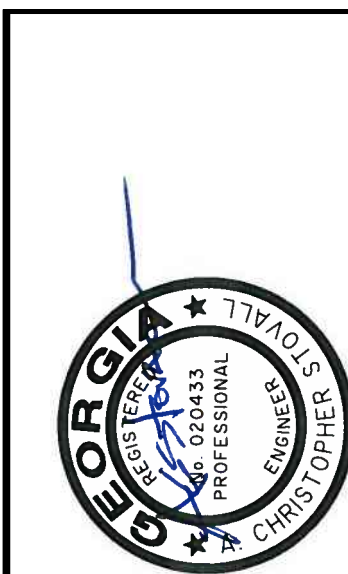
### GENERAL INFORMATION

COUNTY CHATHAM COUNTY OWNER:  
EFFINGHAM COUNTY BOARD OF COMMISSIONERS  
TOWN 601 NORTH LAUREL STREET  
SPRINGFIELD, GA 31329

ZONING RESIDENTIAL - AGRICULTURE  
ENGINEER:  
THOMAS & HUTTON  
50 PARK OF COMMERCE WAY  
SAVANNAH, GA 31405  
(912) 234-5300

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

PREPARED FOR:  
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
601 NORTH LAUREL STREET  
SPRINGFIELD, GA 31329



NO.	REVISIONS	BY	DATE

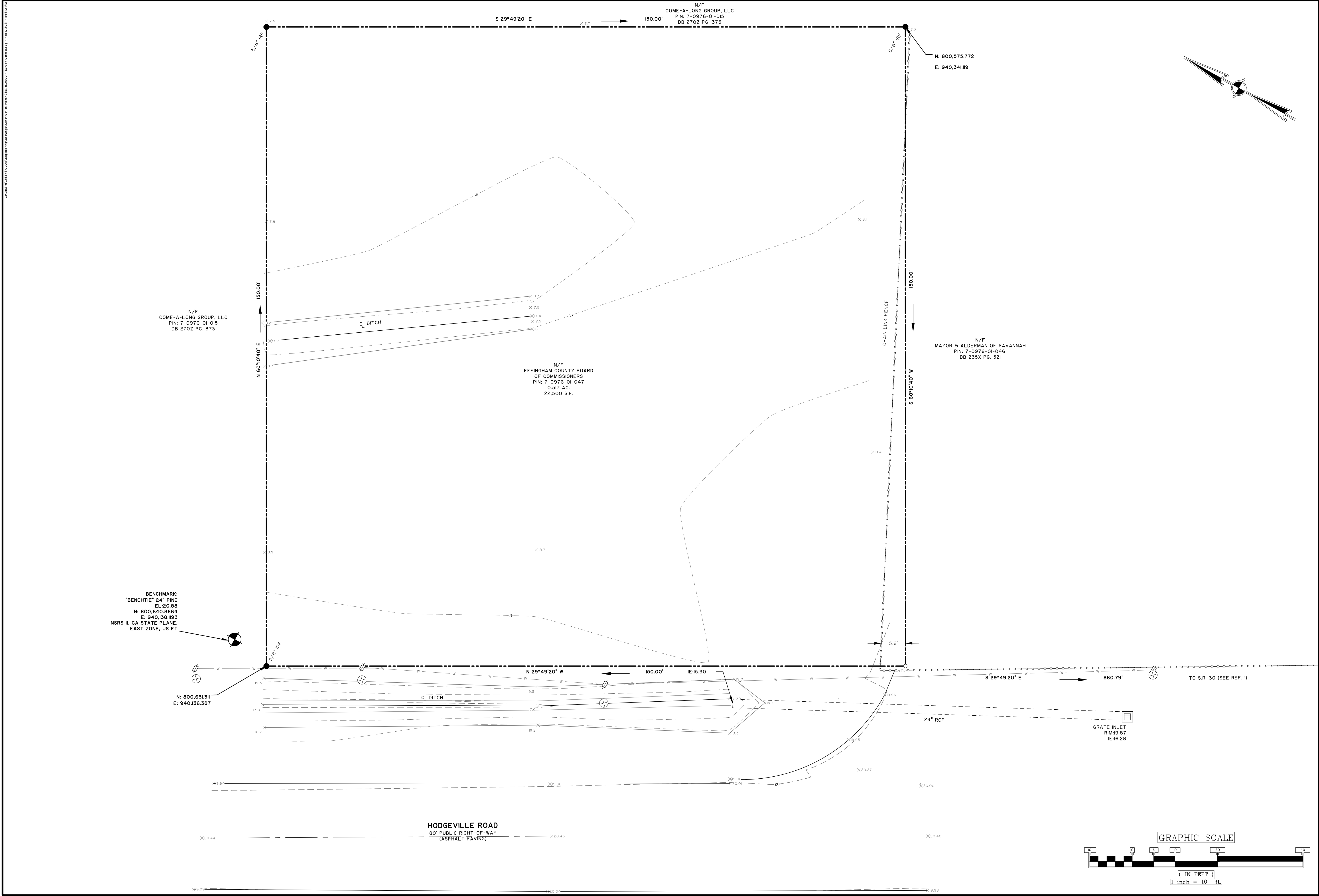
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CHATHAM COUNTY, GA  
EFFINGHAM COUNTY BOOSTER PUMP STATION  
**GENERAL NOTES & INDEX**

JOB NO:	J-28378.0000
DATE:	04/21/2020
DRAWN:	EAC
DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	N/A

**G0.1**

BID SET - NOT FOR CONSTRUCTION



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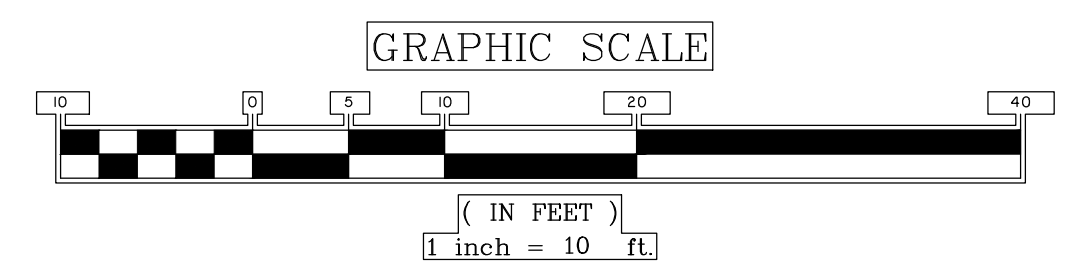
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**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
 EFFINGHAM COUNTY BOOSTER PUMP STATION  
 SURVEY CONTROL

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DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	1" = 10'

**V0.1**



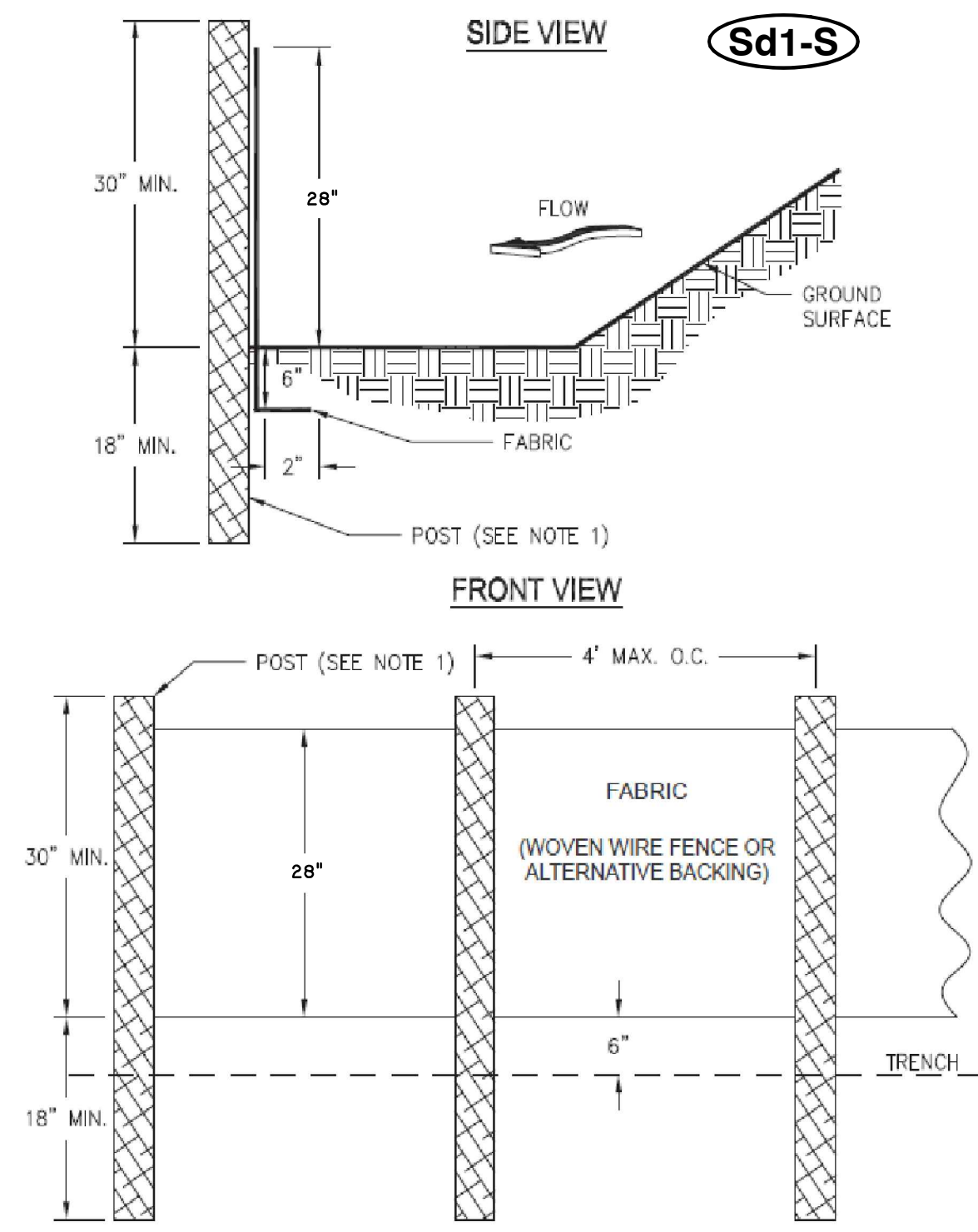




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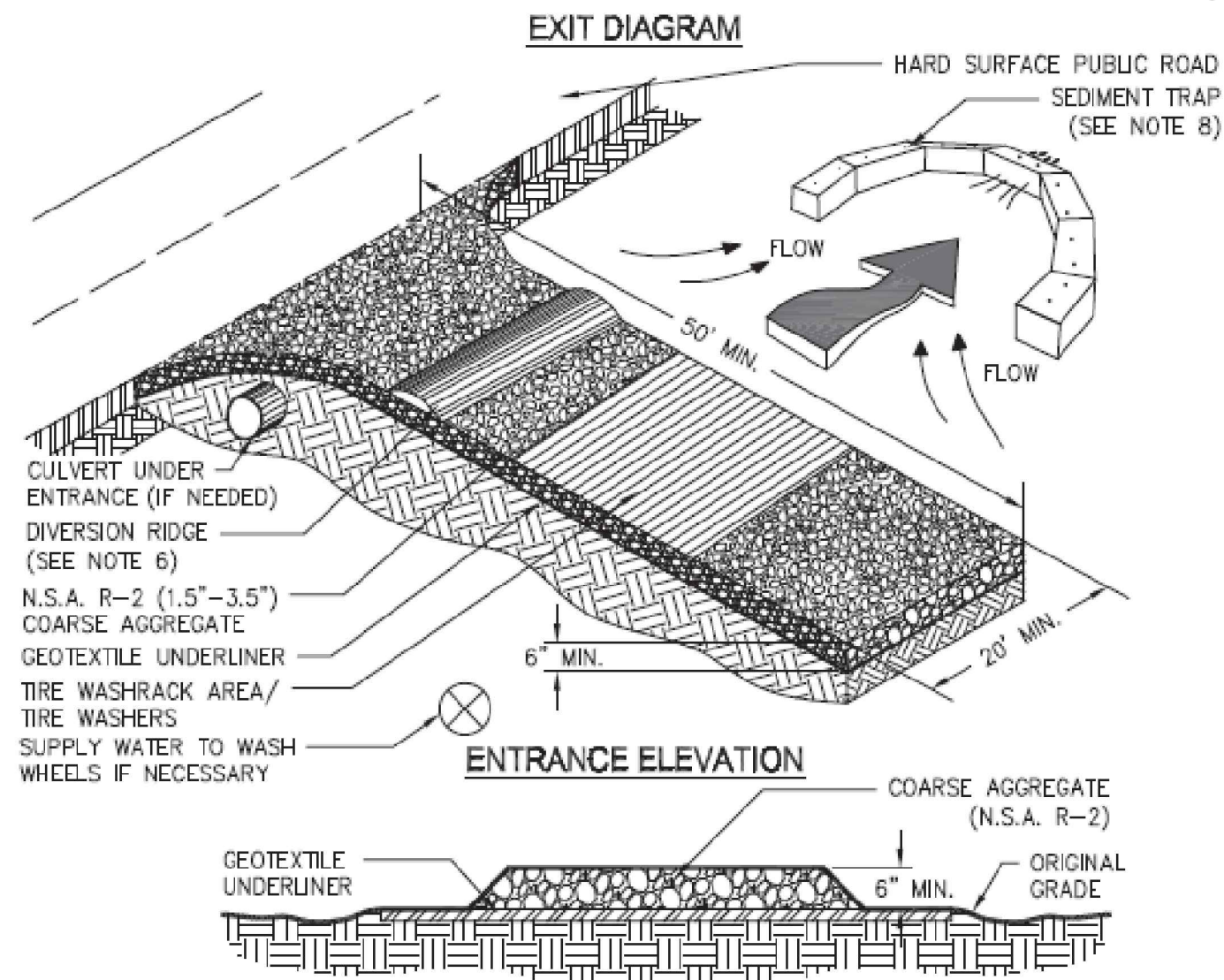
#51

**SILT FENCE - TYPE SENSITIVE**



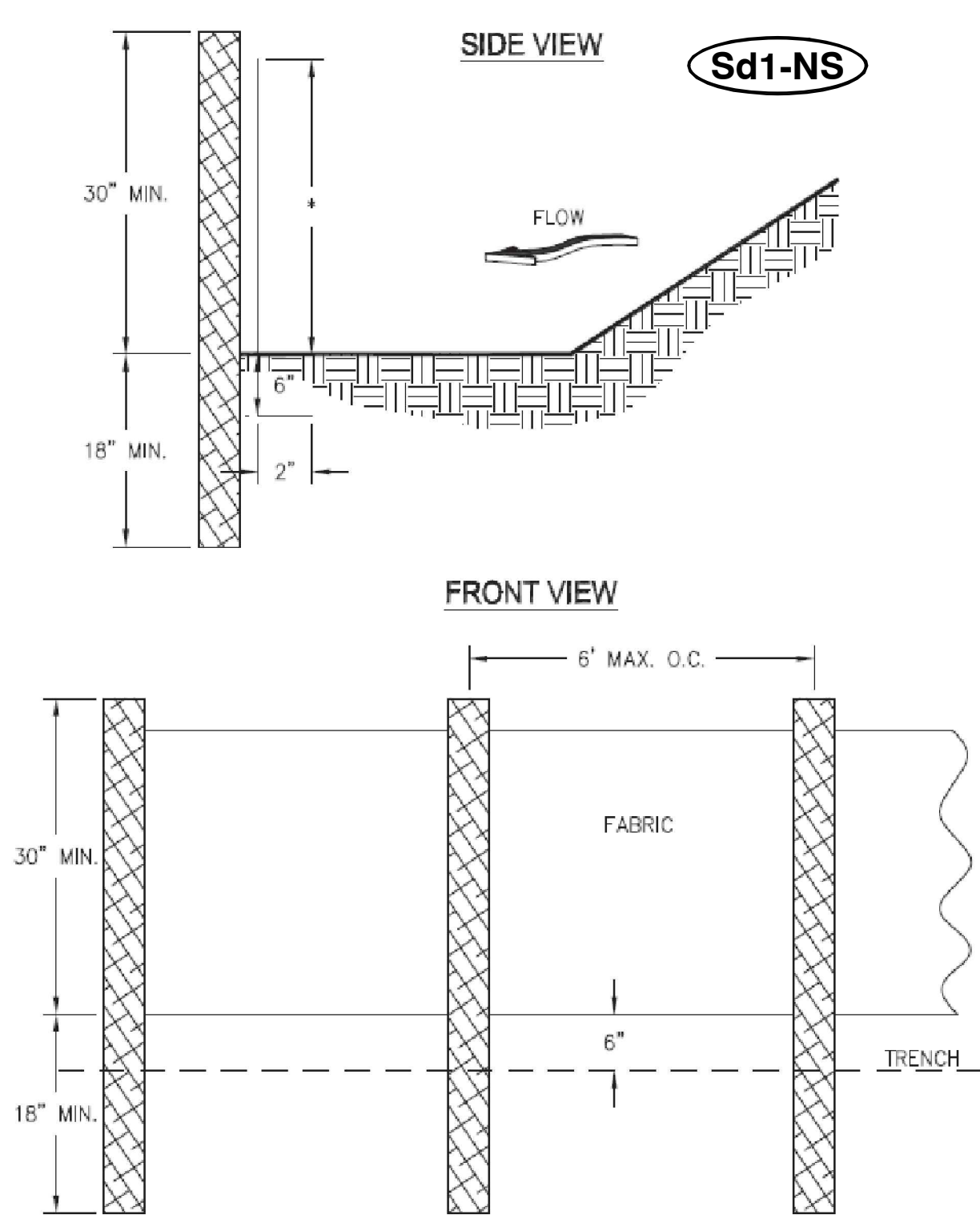
- NOTES:**
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
  2. HEIGHT (\*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

**CRUSHED STONE CONSTRUCTION EXIT**



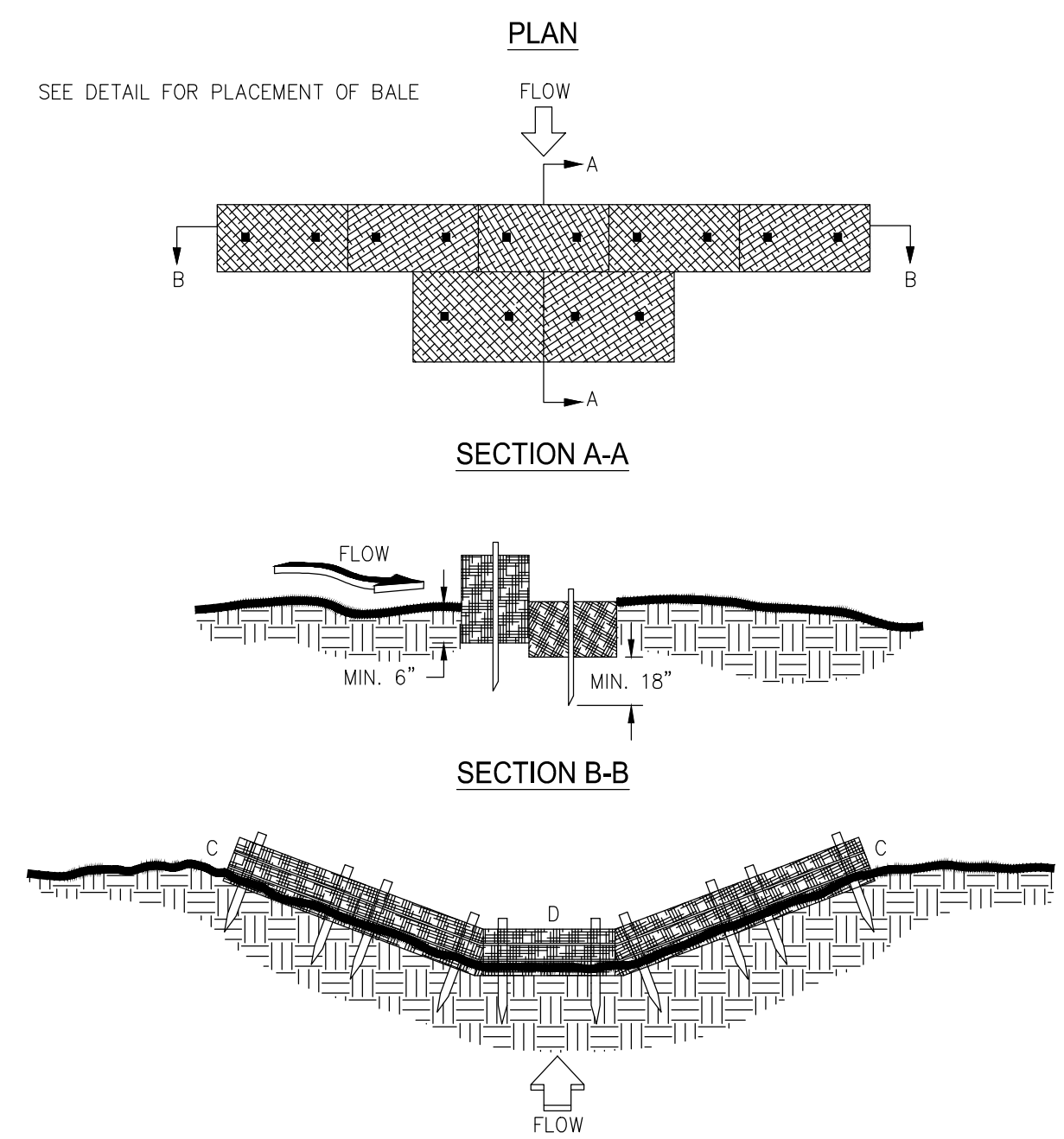
- NOTES:**
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
  2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
  3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
  4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
  5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
  6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
  7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
  8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
  9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
  10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

**SILT FENCE - TYPE NON-SENSITIVE**



- NOTES:**
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
  2. HEIGHT (\*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

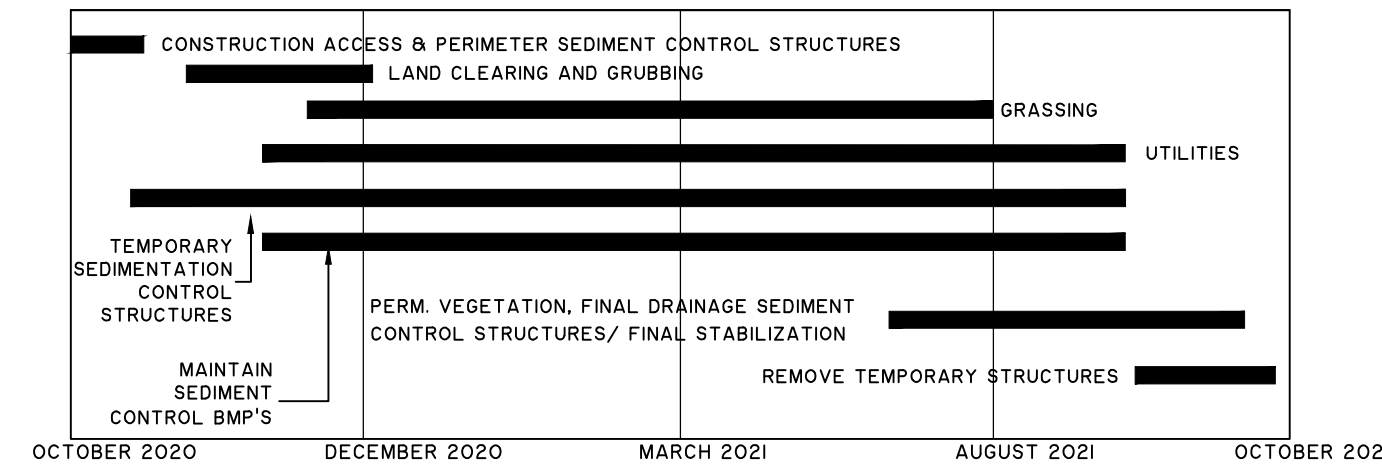
**TYPICAL STRAW BALE CHECK DAM**



- NOTES:**
1. BALES SHOULD BE BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ADJUTING THE ADJACENT BALES.
  2. REMOVE #4 REBAR AFTER STRAW BALES ARE NO LONGER IN PLACE.
  3. POINT C OF SECTION B-B SHOULD ALWAYS BE HIGHER THAN POINT D.

INITIAL DATE: JUNE 19, 2020

#7



#29

**CONSIDERATIONS FOR CONSTRUCTION SCHEDULING**

A SPECIFIED WORK SCHEDULE IS NEEDED TO COORDINATE THE TIMING OF LAND DISTURBING ACTIVITIES WITH THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES. THE PURPOSE OF THE SCHEDULE IS TO REDUCE ON-SITE EROSION AND OFF-SITE SEDIMENTATION BY PERFORMING LAND DISTURBING ACTIVITIES AND INSTALLING EROSION AND SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH A PLANNED SCHEDULE. IN PLANNING CONSTRUCTION WORK, IT MAY BE HELPFUL TO OUTLINE ALL LAND DISTURBING ACTIVITIES NECESSARY TO COMPLETE THE PROPOSED PROJECT. THEN LIST ALL PRACTICES NEEDED TO CONTROL EROSION AND SEDIMENTATION ON THE SITE. THESE TWO LISTS CAN THEN BE COMBINED IN LOGICAL ORDER TO PROVIDE A PRACTICAL AND EFFECTIVE CONSTRUCTION SEQUENCE SCHEDULE THAT BECOMES PART OF THE EROSION AND SEDIMENTATION CONTROL PLAN.

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1. OBTAIN ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS.	
2. FLAG THE WORK LIMITS AND MARK THE TREES AND BUFFER AREAS FOR PROTECTION.	
3. HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.	
4. CONSTRUCTION ACCESS - CONSTRUCTION ENTRANCE, CONSTRUCTION ROUTES, EQUIPMENT PARKING AREAS.	FIRST LAND DISTURBING ACTIVITY -- STABILIZE BARE AREAS IMMEDIATELY WITH GRAVEL AND TEMPORARY VEGETATION AS CONSTRUCTION TAKES PLACE.
5. 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 DURING GRADING.
6. 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. RUNOFF CONVEYANCE SYSTEM- STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS.	WHERE NECESSARY, STABILIZE STREAM BANKS AS EARLY AS POSSIBLE. INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF CONTROL MEASURES. INSTALL REMAINDER OF SYSTEM AFTER GRADING.
8. LAND CLEARING AND GRADING-SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION TRAPS, BARRIERS, DIVERSIONS, DRAINS, SURFACE ROUGHENING.	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.
9. SURFACE STABILIZATION-TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP.	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE.
10. BUILDING CONSTRUCTION- BUILDINGS UTILITIES, PAVING.	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES AS WORK TAKES PLACE.
11. LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING RIPRAP.	LAST CONSTRUCTION PHASE--STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES.



BID SET - NOT FOR CONSTRUCTION

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**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
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 ES&PC NOTES AND DETAILS

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DRAWN:	EAC
DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	1" = 1'

**EC1.3**

**EROSION SEDIMENTATION CONTROL PHASING NOTES**

1. THE FOLLOWING EROSION & SEDIMENTATION CONTROL PLANS ILLUSTRATE THE EROSION AND SEDIMENTATION CONTROL MEASURES TO BE INSTALLED AND MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN REACHED.
2. INITIAL PERIMETER EROSION AND SEDIMENTATION CONTROL MEASURES, INCLUDING SILT FENCING, DITCH CHECKS AND SEDIMENT BARRIERS, SHALL BE INSTALLED AS INDICATED IN THE EROSION AND SEDIMENTATION CONTROL PLAN DURING CLEARING ACTIVITIES.
3. EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING SILT FENCING, DITCH CHECKS, SEDIMENT BARRIERS, TEMPORARY MULCH, AND TEMPORARY SEEDING SHALL BE REINSTALLED AND / OR REPAIRED AS REQUIRED DURING EXCAVATION, BACK FILLING, AND GRADING.
4. EROSION AND SEDIMENTATION CONTROL MEASURES, INCLUDING SILT FENCING, DITCH CHECKS, AND SEDIMENT BARRIERS, SHALL BE REINSTALLED AND / OR REPAIRED AS REQUIRED AND MAINTAINED ALONG WITH APPLICATION OF PERMANENT SEEDING AND MULCH UNTIL FINAL STABILIZATION IS REACHED.

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

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

Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch.

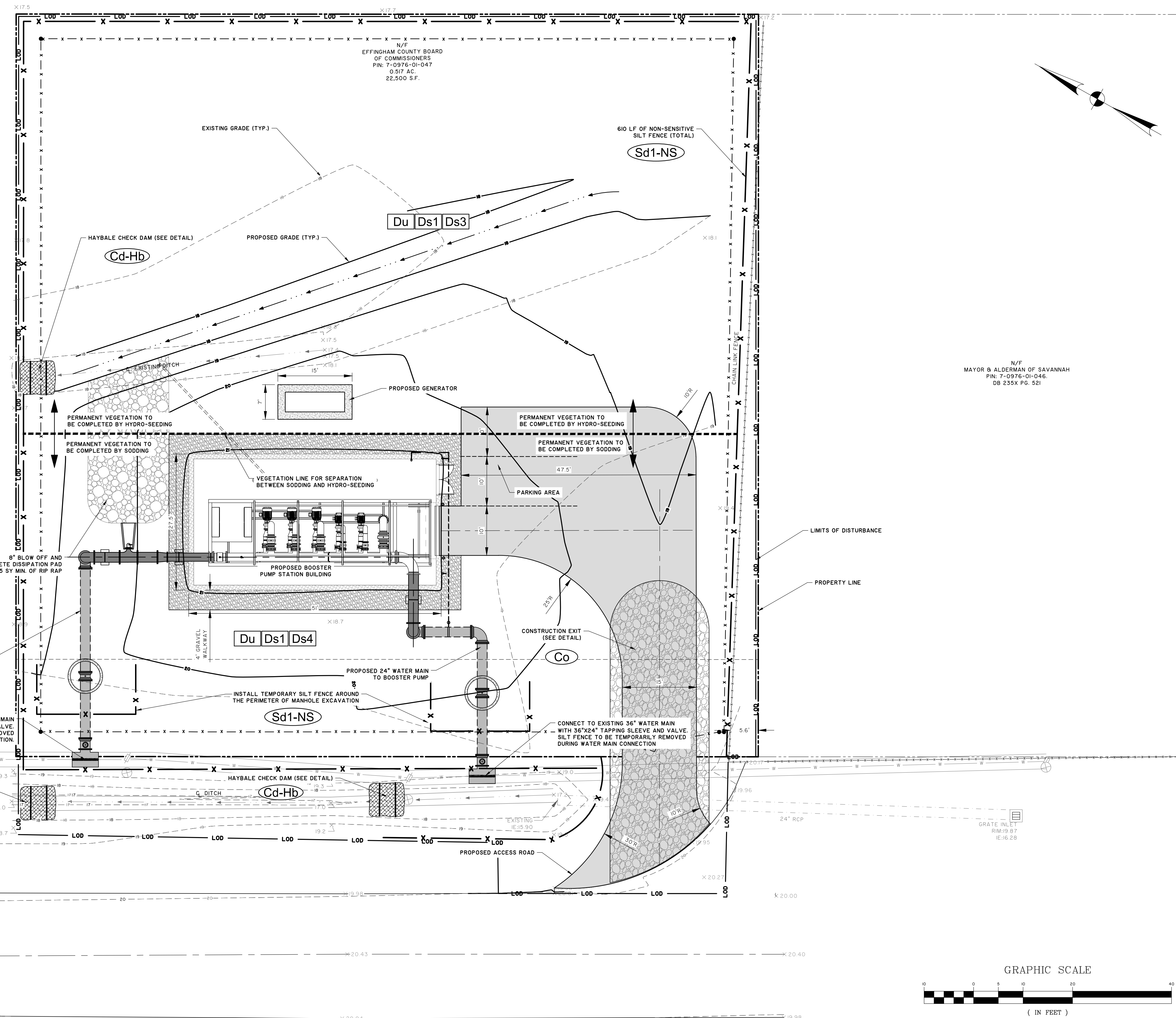
**EROSION CONTROL LEGEND**

DESCRIPTION	PLAN SYMBOL
BUFFER ZONE	Bf
DISTURBED AREA STABILIZATION (MULCHING ONLY)	Ds1
DISTURBED AREA STABILIZATION (PERMANENT VEGETATION)	Ds3
SODDING	Ds4
DUST CONTROL	Du
SILT FENCE - TYPE NS	Sd1-NS
HAYBALE CHECK DAM	Cd-Hb

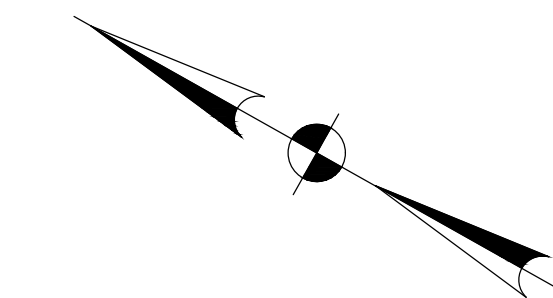
**SOILS**

Mn	MASCOTTE SAND
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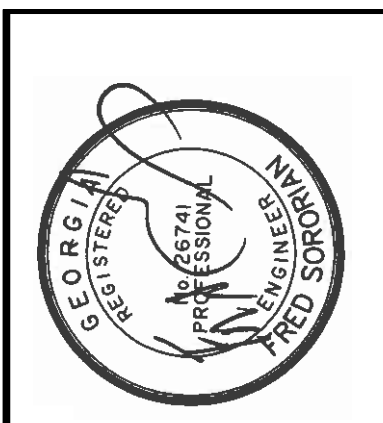
LOD APPROX. LIMITS OF DISTURBANCE  
 X SILT FENCE



N/F  
 EFFINGHAM COUNTY BOARD  
 OF COMMISSIONERS  
 PIN: 7-0976-01-047  
 0.517 AC.  
 22,500 S.F.



N/F  
 MAYOR & ALDERMAN OF SAVANNAH  
 PIN: 7-0976-01-046  
 DB 235X PG. 521



FRED SORORIAN  
 GEORGIA REGISTERED PROFESSIONAL ENGINEER  
 LICENSE NO. 0000012474

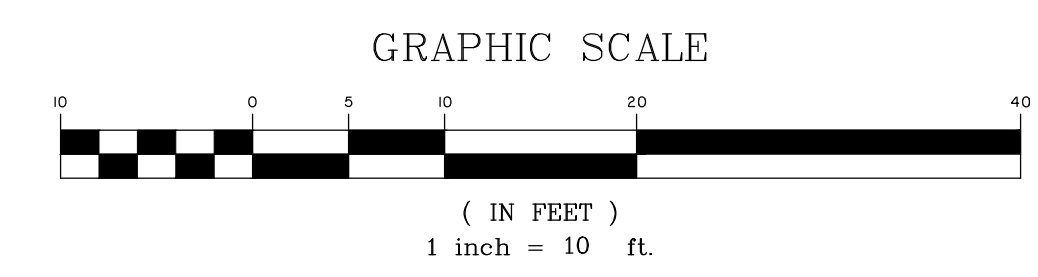
NO.	REVISIONS	BY	DATE

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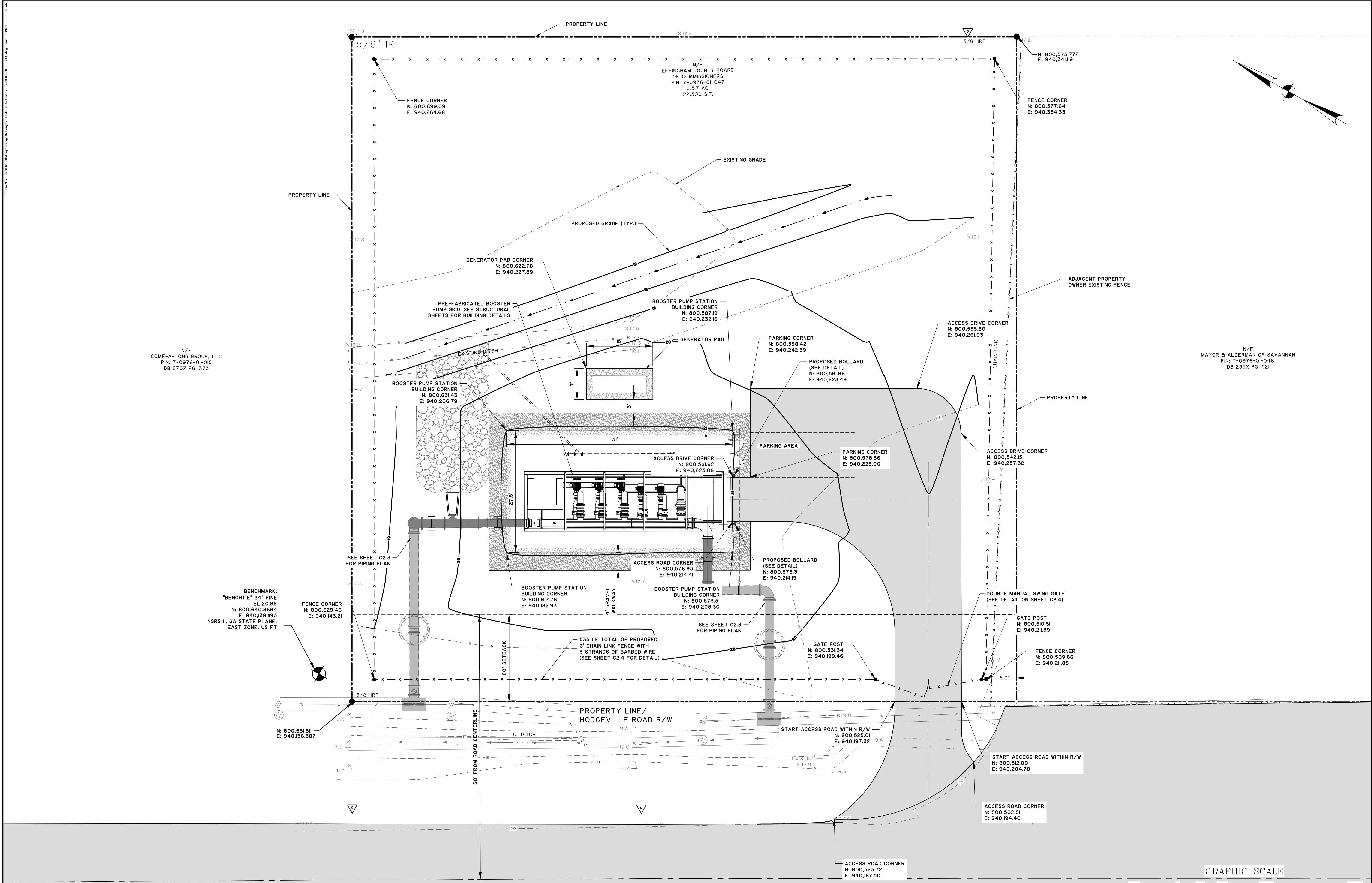
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**ES&PC PLANS**

JOB NO:	J-28378.0000
DATE:	04/21/2020
DRAWN:	EAC
DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	1" = 10'

**EC2.1**



BID SET - NOT FOR CONSTRUCTION



**GEORGIA**  
 PROFESSIONAL ENGINEER  
 No. 020433  
 CHRISTOPHER A. HUTTON

BID SET - NOT FOR CONSTRUCTION

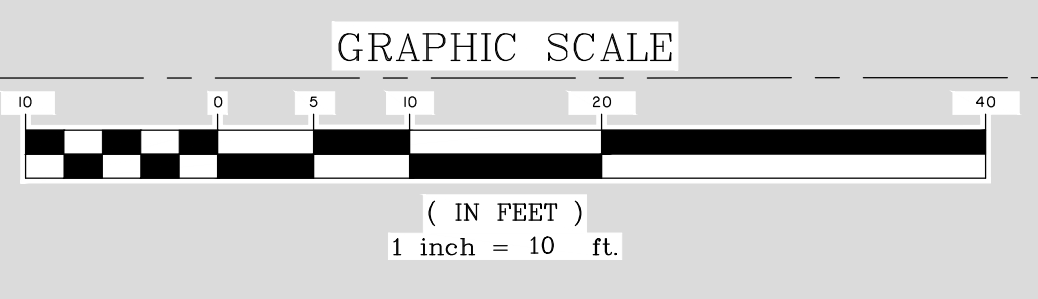
NO.	REVISIONS	BY	DATE

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 Columbia, SC 29201 • 803.451.6789  
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**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**BOOSTER STATION SITE LAYOUT**

JOB NO:	J-28378.0000
DATE:	04/21/2020
DRAWN:	EAC
DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	1" = 10'

**C2.1**



N/F  
 COME-A-LONG GROUP, LLC  
 PIN: 7-0976-01-015  
 DB 2702 PG. 373

N/F  
 COME-A-LONG GROUP, LLC  
 PIN: 7-0976-01-015  
 DB 2702 PG. 373

BENCHMARK:  
 "BENCHTIE" 24" PINE  
 EL. 20.88  
 N: 800,640.8664  
 E: 940,198.1193  
 NSRS II, GA STATE PLANE,  
 EAST ZONE, US FT

N/F  
 MAYOR & ALDERMAN OF SAVANNAH  
 PIN: 7-0976-01-046  
 DB 235X PG. 521

ACCESS ROAD CORNER  
 N: 800,523.72  
 E: 940,167.90

ACCESS ROAD CORNER  
 N: 800,502.81  
 E: 940,194.40

START ACCESS ROAD WITHIN R/W  
 N: 800,512.00  
 E: 940,204.78

START ACCESS ROAD WITHIN R/W  
 N: 800,525.01  
 E: 940,197.32

N: 800,631.31  
 E: 940,136.387

FENCE CORNER  
 N: 800,509.66  
 E: 940,211.88

GATE POST  
 N: 800,531.34  
 E: 940,199.46

BOOSTER PUMP STATION  
 BUILDING CORNER  
 N: 800,573.51  
 E: 940,208.30

BOOSTER PUMP STATION  
 BUILDING CORNER  
 N: 800,617.76  
 E: 940,182.93

ACCESS ROAD CORNER  
 N: 800,576.93  
 E: 940,214.41

PROPOSED BOLLARD  
 (SEE DETAIL)  
 N: 800,576.31  
 E: 940,214.19

ACCESS DRIVE CORNER  
 N: 800,542.15  
 E: 940,257.32

PARKING CORNER  
 N: 800,525.00  
 E: 940,225.00

PARKING CORNER  
 N: 800,588.42  
 E: 940,242.39

BOOSTER PUMP STATION  
 BUILDING CORNER  
 N: 800,587.19  
 E: 940,232.16

GENERATOR PAD CORNER  
 N: 800,622.78  
 E: 940,227.89

BOOSTER PUMP STATION  
 BUILDING CORNER  
 N: 800,631.43  
 E: 940,206.79

FENCE CORNER  
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 E: 940,341.19

FENCE CORNER  
 N: 800,577.64  
 E: 940,334.33

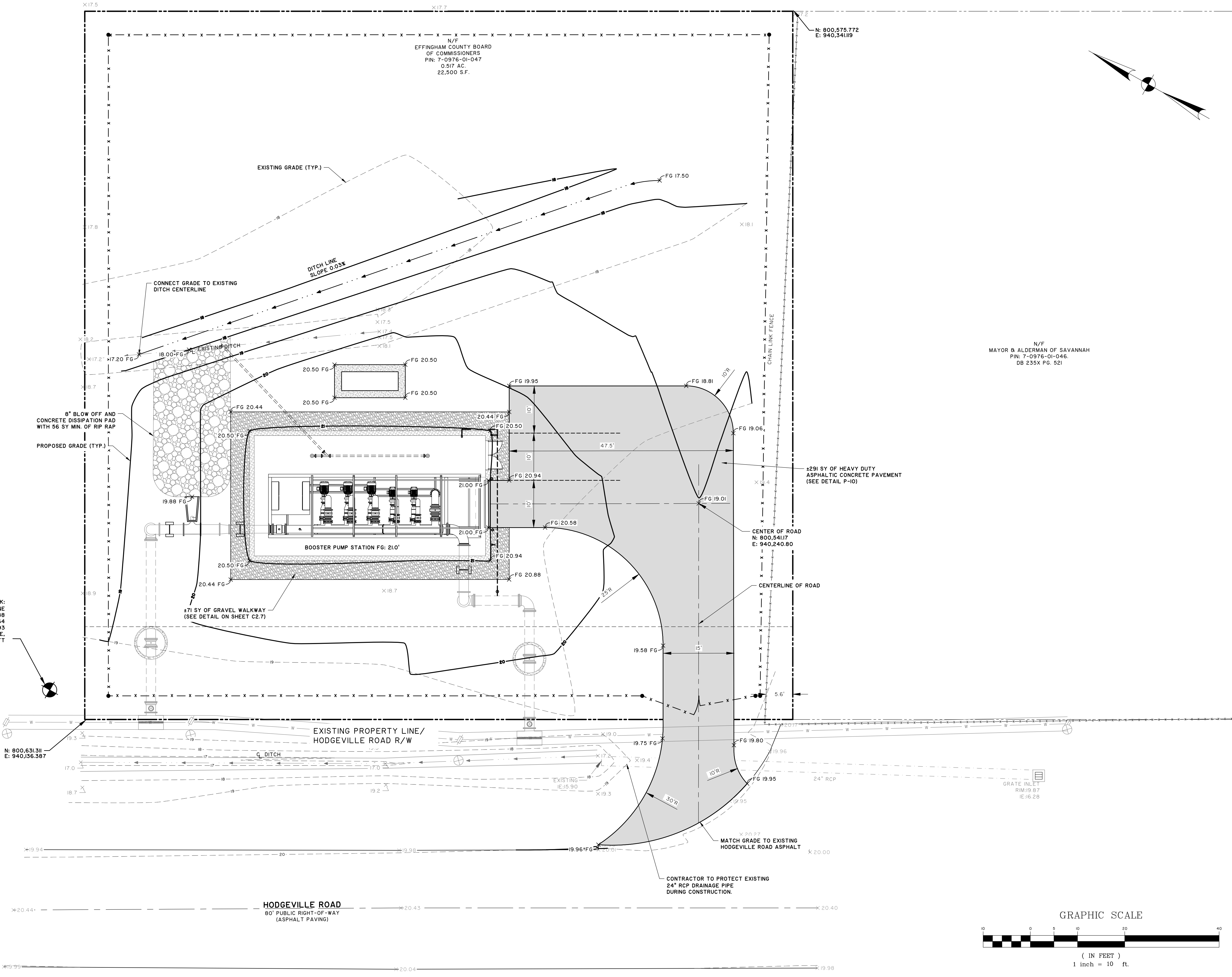
FENCE CORNER  
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 E: 940,264.68



23/2378 (8/18/2020) (Effingham County Board of Commissioners) (23/2378.0000 - P02.dwg) 7:41:12 PM

N/F  
COME-A-LONG GROUP, LLC  
PIN: 7-0976-01-015  
DB 2702 PG. 373

BENCHMARK:  
"BENCHTIE" 24" PINE  
EL: 20.88  
N: 800,640,8654  
E: 940,138,1933  
NSRS II, GA STATE PLANE,  
EAST ZONE, US FT



N/F  
EFFINGHAM COUNTY BOARD  
OF COMMISSIONERS  
PIN: 7-0976-01-047  
0.517 AC.  
22,500 S.F.

N: 800,575,772  
E: 940,341,119

N/F  
MAYOR & ALDERMAN OF SAVANNAH  
PIN: 7-0976-01-046  
DB 235X PG. 521

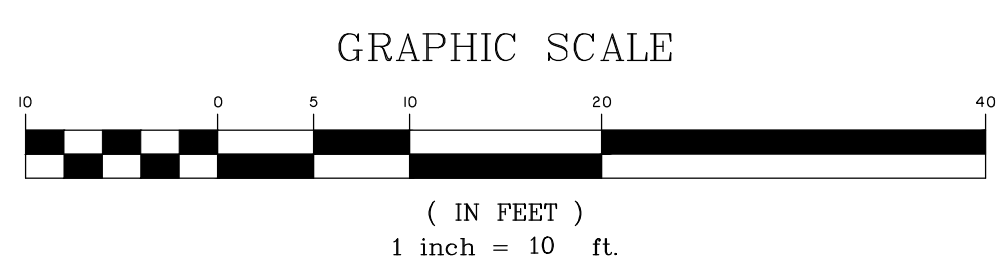
2291 SY OF HEAVY DUTY  
ASPHALTIC CONCRETE PAVEMENT  
(SEE DETAIL P-10)

CENTER OF ROAD  
N: 800,541,17  
E: 940,240,80

CENTERLINE OF ROAD

HODGEVILLE ROAD  
80' PUBLIC RIGHT-OF-WAY  
(ASPHALT PAVING)

CONTRACTOR TO PROTECT EXISTING  
24" RCP DRAINAGE PIPE  
DURING CONSTRUCTION.



NO.	REVISIONS	BY	DATE

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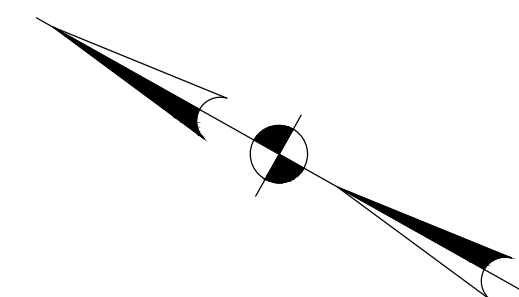
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**BOOSTER PUMP PAVING, GRADING, AND DRAINAGE PLAN**

JOB NO: J-28378.0000  
 DATE: 04/21/2020  
 DRAWN: EAC  
 DESIGNED: MCF  
 REVIEWED: MCF  
 APPROVED: ACS  
 SCALE: 1" = 10'

**C2.2**

BID SET - NOT FOR CONSTRUCTION

2:48378.18378.0000\Engineering\Drawing\28378.0000 - PIP PLAN - 04.21.2020 - 10:58 AM



**LEGEND:**

BELOW GROUND PIPING

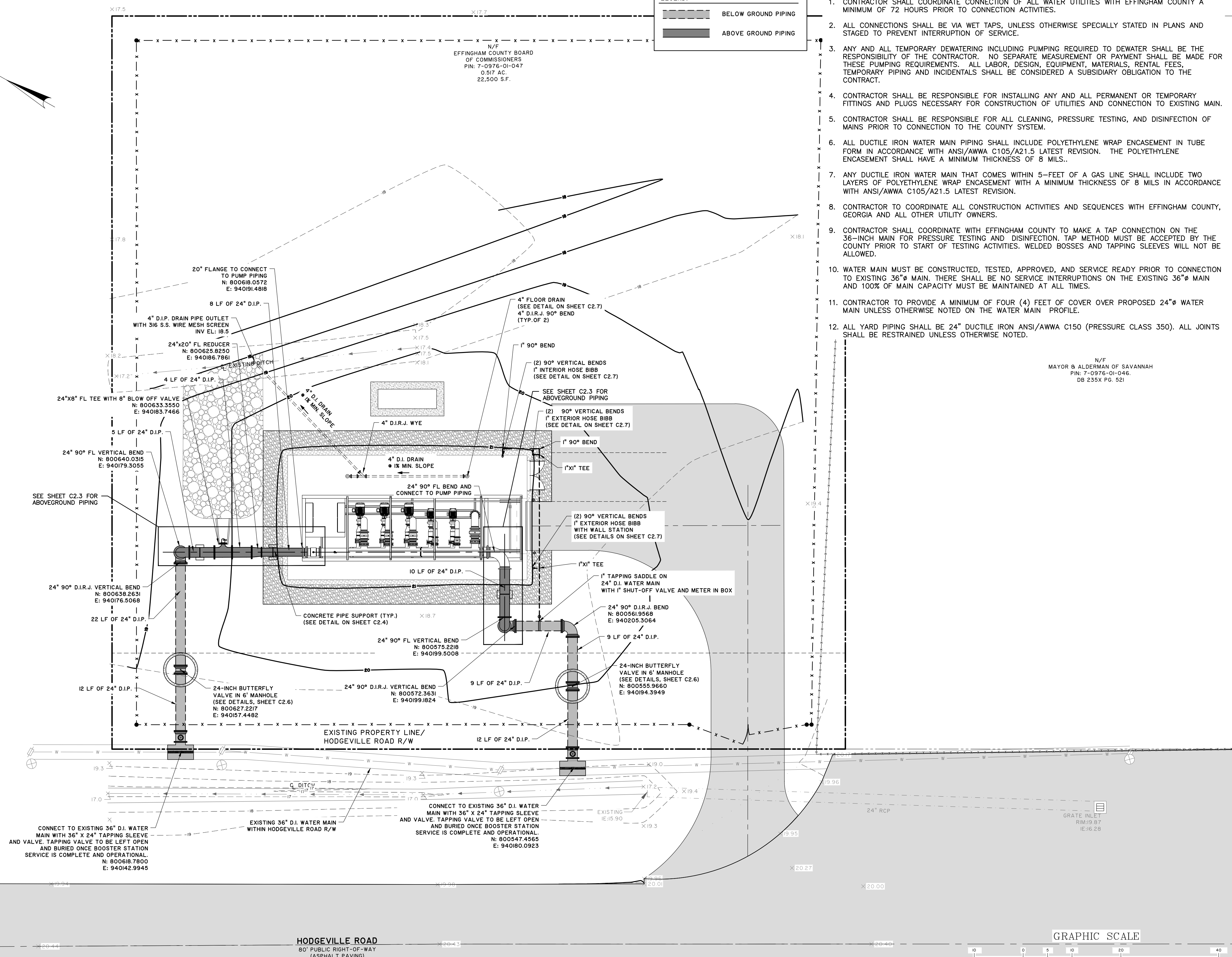
ABOVE GROUND PIPING

**NOTES:**

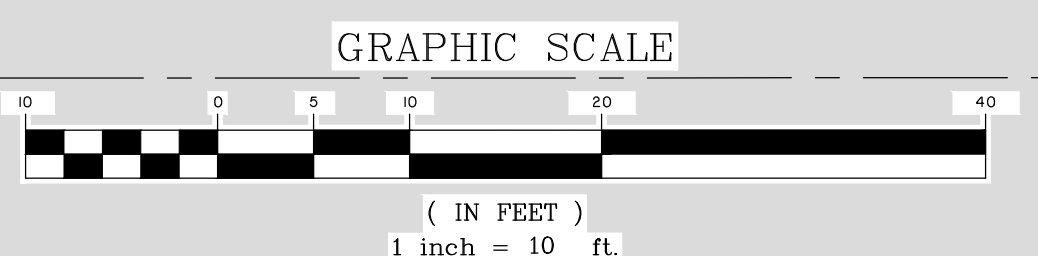
1. CONTRACTOR SHALL COORDINATE CONNECTION OF ALL WATER UTILITIES WITH EFFINGHAM COUNTY A MINIMUM OF 72 HOURS PRIOR TO CONNECTION ACTIVITIES.
2. ALL CONNECTIONS SHALL BE VIA WET TAPS, UNLESS OTHERWISE SPECIALLY STATED IN PLANS AND STAGED TO PREVENT INTERRUPTION OF SERVICE.
3. ANY AND ALL TEMPORARY DEWATERING INCLUDING PUMPING REQUIRED TO DEWATER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THESE PUMPING REQUIREMENTS. ALL LABOR, DESIGN, EQUIPMENT, MATERIALS, RENTAL FEES, TEMPORARY PIPING AND INCIDENTALS SHALL BE CONSIDERED A SUBSIDIARY OBLIGATION TO THE CONTRACT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY AND ALL PERMANENT OR TEMPORARY FITTINGS AND PLUGS NECESSARY FOR CONSTRUCTION OF UTILITIES AND CONNECTION TO EXISTING MAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CLEANING, PRESSURE TESTING, AND DISINFECTION OF MAINS PRIOR TO CONNECTION TO THE COUNTY SYSTEM.
6. ALL DUCTILE IRON WATER MAIN PIPING SHALL INCLUDE POLYETHYLENE WRAP ENCASEMENT IN TUBE FORM IN ACCORDANCE WITH ANSI/AWWA C105/A21.5 LATEST REVISION. THE POLYETHYLENE ENCASEMENT SHALL HAVE A MINIMUM THICKNESS OF 8 MILS..
7. ANY DUCTILE IRON WATER MAIN THAT COMES WITHIN 5- FEET OF A GAS LINE SHALL INCLUDE TWO LAYERS OF POLYETHYLENE WRAP ENCASEMENT WITH A MINIMUM THICKNESS OF 8 MILS IN ACCORDANCE WITH ANSI/AWWA C105/A21.5 LATEST REVISION.
8. CONTRACTOR TO COORDINATE ALL CONSTRUCTION ACTIVITIES AND SEQUENCES WITH EFFINGHAM COUNTY, GEORGIA AND ALL OTHER UTILITY OWNERS.
9. CONTRACTOR SHALL COORDINATE WITH EFFINGHAM COUNTY TO MAKE A TAP CONNECTION ON THE 36-INCH MAIN FOR PRESSURE TESTING AND DISINFECTION. TAP METHOD MUST BE ACCEPTED BY THE COUNTY PRIOR TO START OF TESTING ACTIVITIES. WELDED BOSSES AND TAPPING SLEEVES WILL NOT BE ALLOWED.
10. WATER MAIN MUST BE CONSTRUCTED, TESTED, APPROVED, AND SERVICE READY PRIOR TO CONNECTION TO EXISTING 36" MAIN. THERE SHALL BE NO SERVICE INTERRUPTIONS ON THE EXISTING 36" MAIN AND 100% OF MAIN CAPACITY MUST BE MAINTAINED AT ALL TIMES.
11. CONTRACTOR TO PROVIDE A MINIMUM OF FOUR (4) FEET OF COVER OVER PROPOSED 24" WATER MAIN UNLESS OTHERWISE NOTED ON THE WATER MAIN PROFILE.
12. ALL YARD PIPING SHALL BE 24" DUCTILE IRON ANSI/AWWA C150 (PRESSURE CLASS 350). ALL JOINTS SHALL BE RESTRAINED UNLESS OTHERWISE NOTED.

N/F  
COME-A-LONG GROUP, LLC  
PIN: 7-0976-01-015  
DB 2702 PG. 373

N/F  
MAYOR & ALDERMAN OF SAVANNAH  
PIN: 7-0976-01-046  
DB 235X PG. 521



**HODGEVILLE ROAD**  
80' PUBLIC RIGHT-OF-WAY  
(ASPHALT PAVING)



NO.	REVISIONS	BY	DATE

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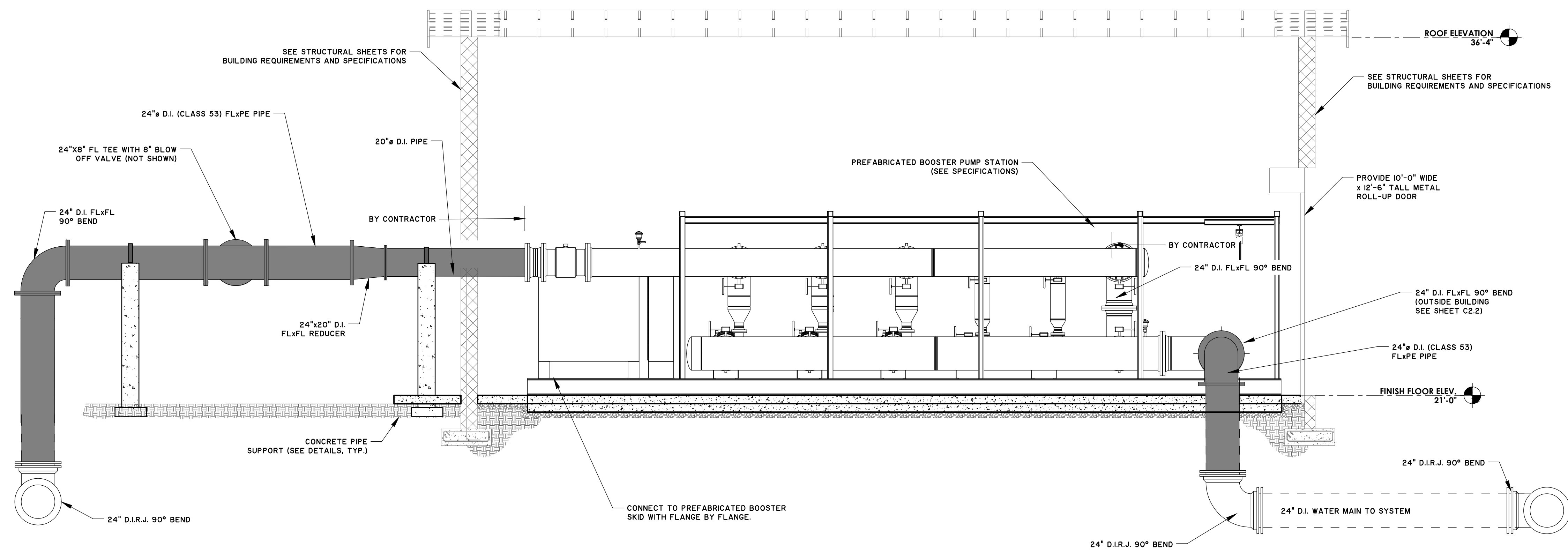
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**BOOSTER STATION PIPING PLAN**

JOB NO:	J-28378.0000
DATE:	04/21/2020
DRAWN:	EAC
DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	1" = 10'

**C2.3**

BID SET - NOT FOR CONSTRUCTION

Z:\18378\18378.0000\CA.dwg - CHATHAM\Engineering\Construction\18378.0000 - 18378.dwg - Job Plt - 04/21/2020 - 10:06:16 AM



**BOOSTER PUMP STATION SECTION VIEW**  
SCALE: 1/4" = 1'-0"

NOTES:  
1. THE SKID MOUNTED BOOSTER STATION SHALL BE PREFABRICATED, PREWIRED, TESTED, AND COMPLETELY ASSEMBLED BY BOOSTER PUMP MANUFACTURER. SEE SPECIFICATIONS.  
2. ALL ABOVE GROUND PIPING SHALL BE FLANGED. BELOW GROUND PIPING SHALL BE METALLIC RESTRAINED JOINT.

NO.	REVISIONS	BY	DATE

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**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**BOOSTER STATION SECTION VIEW**

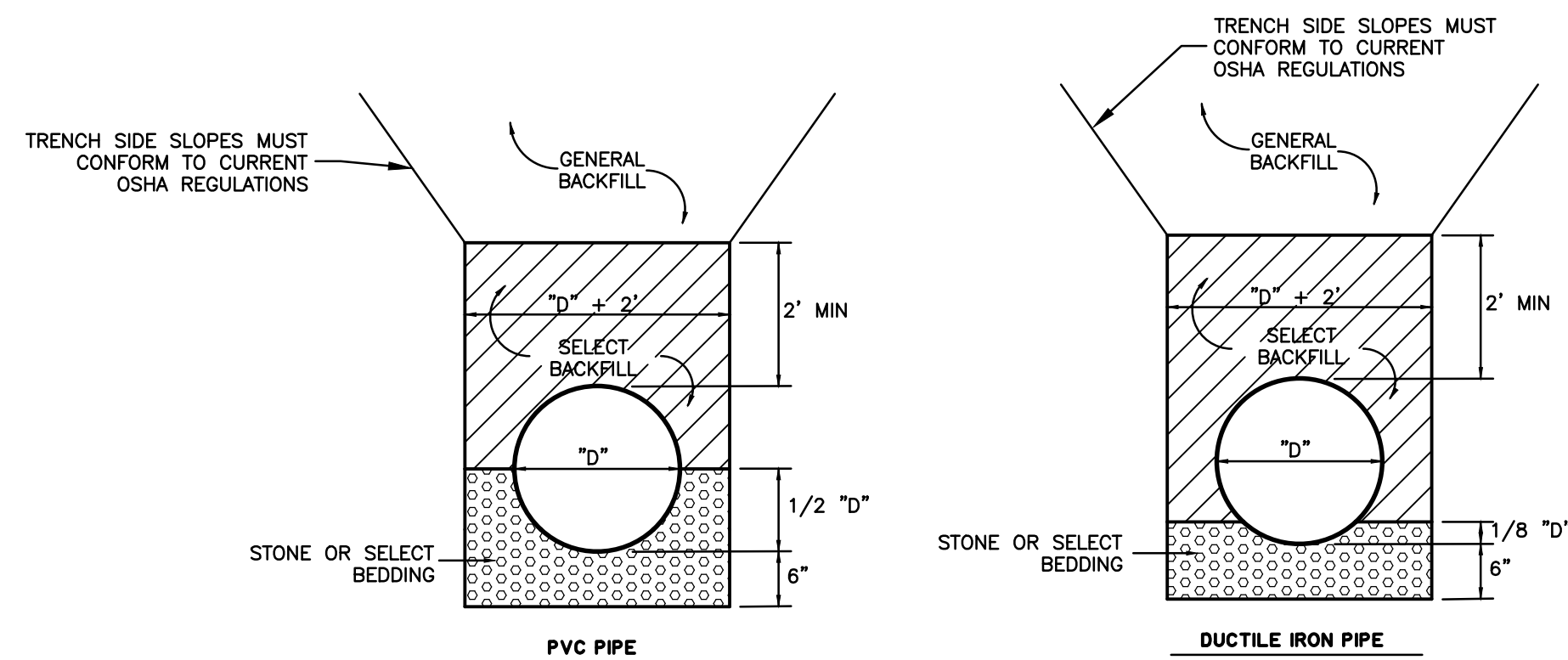
JOB NO:	J-28378.0000
DATE:	04/21/2020
DRAWN:	EAC
DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	1/4" = 1'-0"

**C2.4**

BID SET - NOT FOR CONSTRUCTION



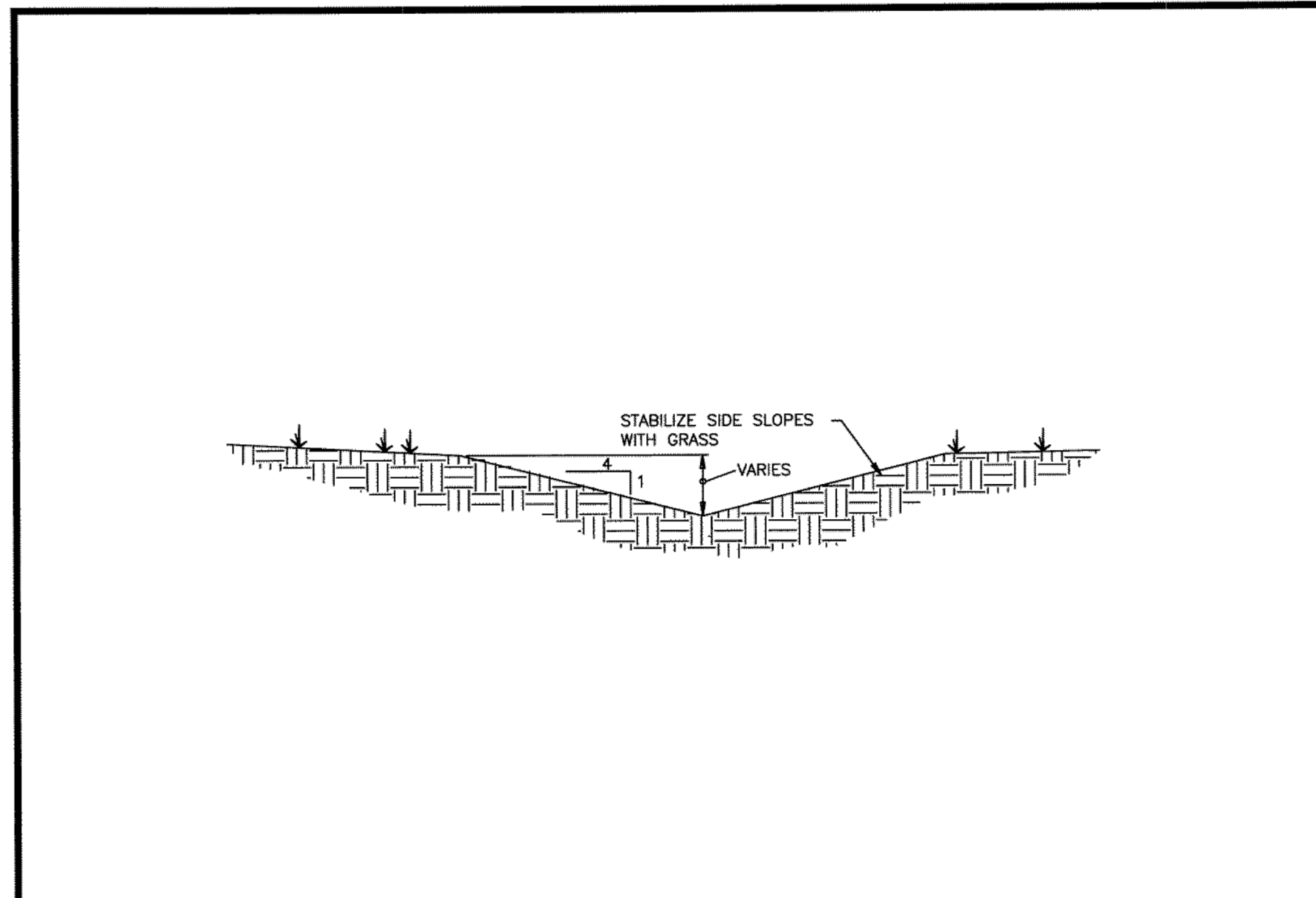
218378.0000.0000.0000 - CHATHAM COUNTY BOARD OF COMMISSIONERS - BID SET - AUG 23, 2020 - 180916.AM



**NOTES:**

- NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THE MINIMUM STONE AND SAND BEDDING AS SHOWN ON THE DETAILS. PAYMENT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR INSTALLING THE PIPING ASSOCIATED WITH THE BEDDING.
- WHERE THE ENGINEER DETERMINES ADDITIONAL UNDERCUTTING AND STONE BACKFILL IS REQUIRED TO PROVIDE A STABLE SUBGRADE, IT SHALL BE PAID FOR AT THE COST OF REMOVING THE ADDITIONAL UNSUITABLE MATERIAL, BEYOND THAT SHOWN ON THE DETAILS, AND FURNISHING AND INSTALLING ADDITIONAL STONE BACKFILL.
- BECAUSE THE AMOUNT OF ADDITIONAL UNDERCUTTING STONE BEDDING REQUIRED IN AREAS OF WEAK AND UNSTABLE SUBGRADES UNKNOWN, THE BID FORM INCLUDES 200 CUBIC YARDS (CY) OF STONE BEDDING, AND 200 CUBIC YARDS OF SAND BACKFILL IN ORDER TO ESTABLISH A UNIT PRICE FOR THESE ITEMS. NO PAYMENT FOR ADDITIONAL STONE OR SAND BACKFILL BEYOND THE QUANTITY SHOWN ON THE DETAILS SHALL BE PAID WITHOUT PRIOR WRITTEN APPROVAL OF LOCATION, QUANTITY, AND OVERALL PRICE BY ENGINEER.
- NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THE EXCAVATION, REMOVAL, AND DISPOSAL OF MATERIAL DEEMED UNSUITABLE FOR GENERAL BACKFILL, AND SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR INSTALLING THE PIPING ASSOCIATED WITH THE BACKFILL OPERATION.

PIPE BEDDING DETAIL



EFFINGHAM COUNTY

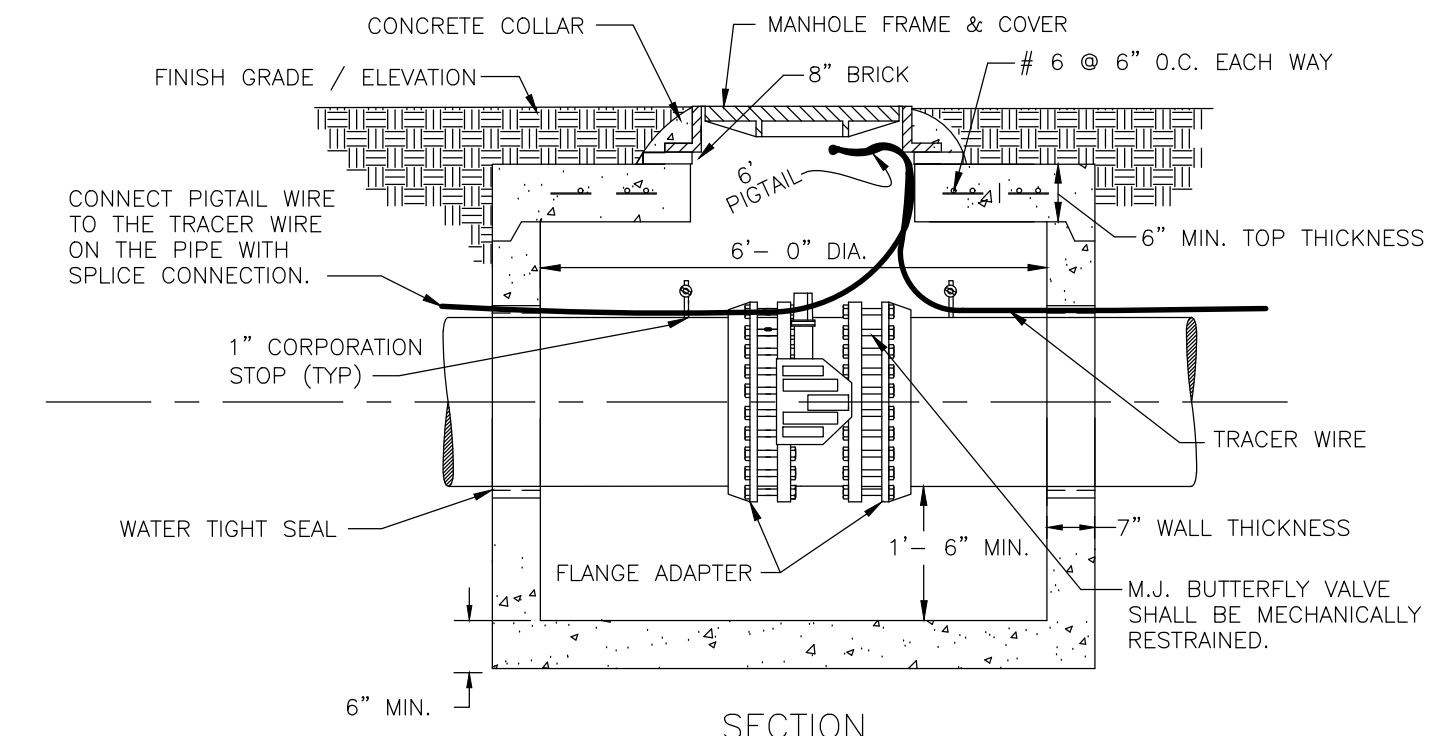
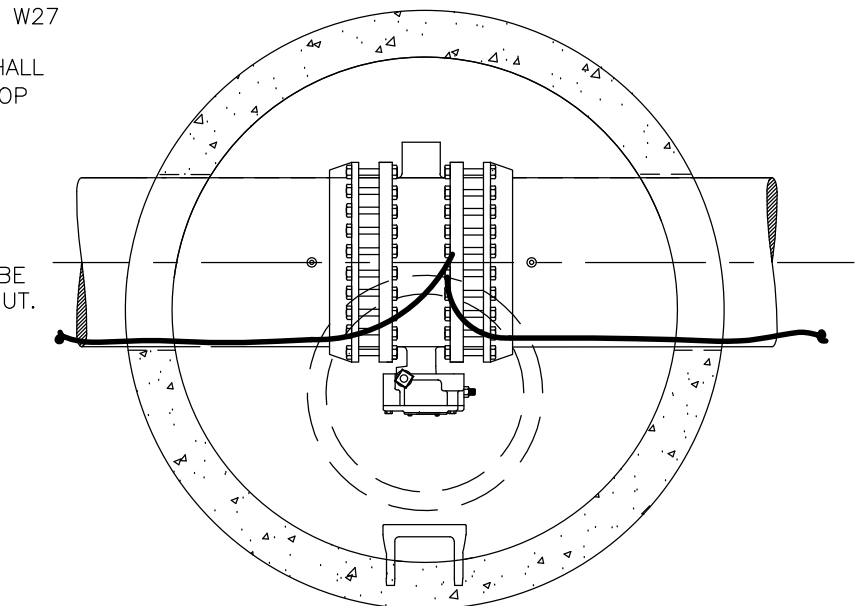
TYPICAL SECTION THROUGH SWALE (4:1)

SCALE: N.T.S.  
DATE: August 2004

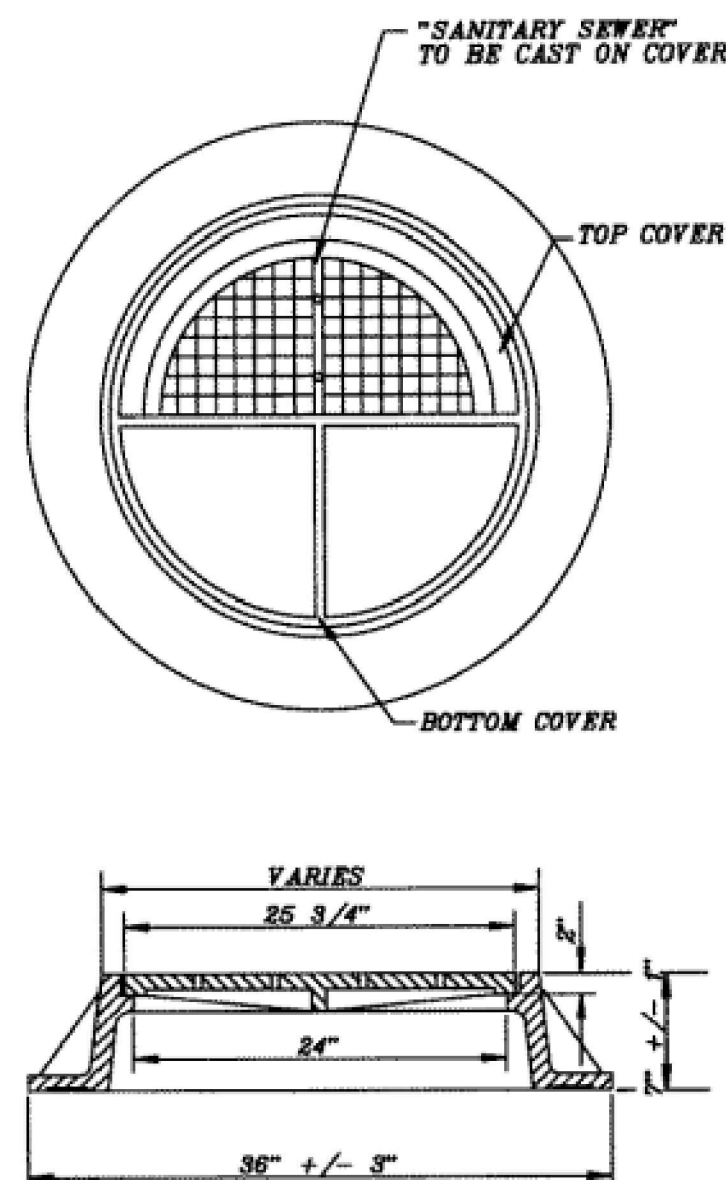
P-25

**NOTES:**

- MANHOLE FRAME AND COVER PER DETAIL W27
- THE BOTTOM OF THE MANHOLE SHALL NOT BE MORE THAN 12" ABOVE THE TOP OF THE MANHOLE STRUCTURE.
- PRECAST CONCENTRIC CONE RISERS MAY BE USED WHERE REQUIRED FOR DEPTH.
- THE MANHOLE FRAME AND COVER MUST BE CENTERED OVER THE VALVE OPERATING NUT.
- POLYPROPYLENE MANHOLE STEPS SHALL BE PROVIDED AT 12" O.C. FOR MANHOLES GREATER THAN 5 FEET DEEP.



VALVE MANHOLE FOR BUTTERFLY VALVES



**NOTES:**

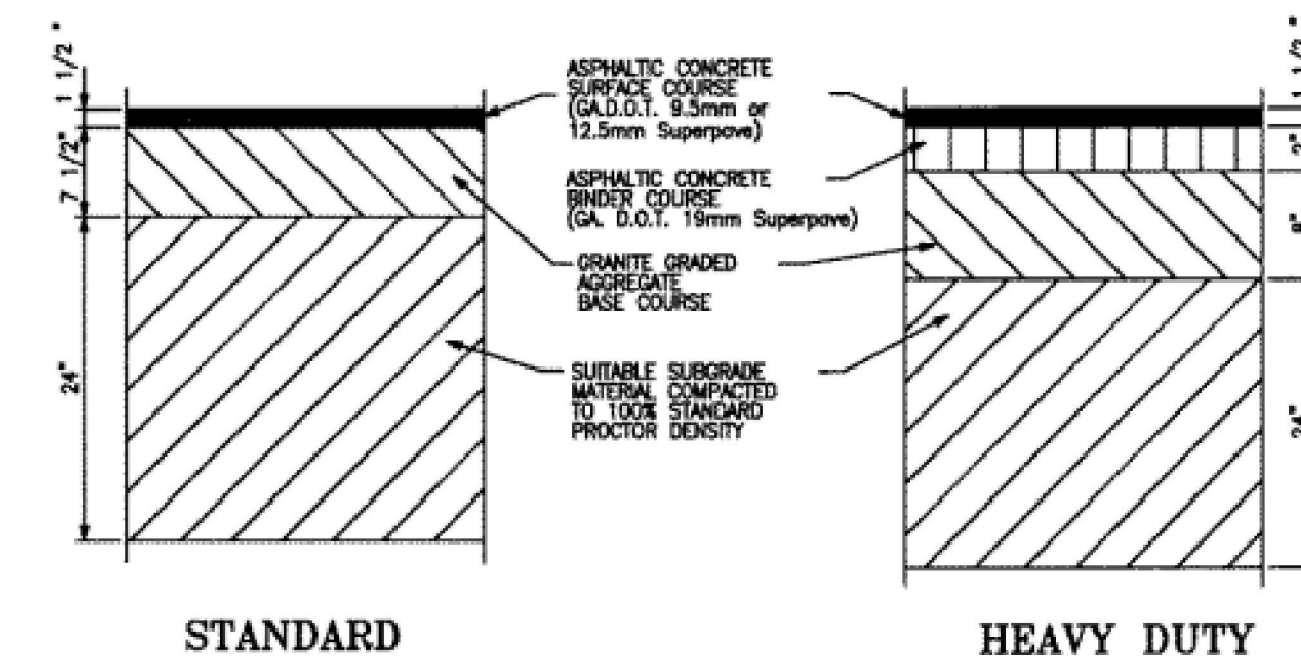
- CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE, DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOTBLASTING OR BY SOME OTHER APPROVED METHOD. CASTING SHALL NOT BE PAINTED.
- MATERIALS USED IN THE MANUFACTURE OF CASTINGS SHOULD CONFORM TO AASHTO M805/ASTM A48, CLASS 35B OR ASTM A48, CLASS 30, FOR GRAY IRON.
- ALL CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER. ROUND FRAMES AND COVERS SHALL BE OF NON-ROCKING DESIGN, OR SHALL HAVE MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING UNDER TRAFFIC. FRAME SHALL BE SUITABLE FOR CAST IRON OR STEEL RISER RING FOR FORWARD ADJUSTMENT OF COVER. CLEAR OPENING SHALL BE 24".
- MANHOLE COVER SHALL BE 25-3/4" IN DIAMETER AND SHALL BE 2-INCHES THICK AT THE BEARING SURFACE.
- CASTINGS SHALL BE PROVIDED WITH THE INSCRIPTION "SANITARY SEWER" CAST INTO THE COVER IN LETTERING AT LEAST 2-INCHES HIGH. MANUFACTURER'S NAME, IF IT APPEARS ON THE COVER, SHALL BE CONFINED TO THE PERIPHERY.
- MANHOLE COVERS AND FRAMES SHALL BE USF 227, OR EQUAL AND SHALL BE THE TYPE SHOWN ON THIS DETAIL.

EFFINGHAM COUNTY

MANHOLE COVER & FRAME DETAIL

SCALE: N.T.S.  
DATE: August 2004

S-3



**NOTES:**

- BITUMINOUS PRIME AND TACK COATS WILL BE APPLIED AS LISTED BELOW.
  - PRIME COAT SHALL BE APPLIED AT A RATE OF 0.25 GALLON PER SQUARE YARD TO THE SURFACE OF ALL GRANITE BASE COURSES.
  - TACK COAT SHALL BE APPLIED AT A RATE OF 0.17 GALLONS PER SQUARE YARD TO THE SURFACE OF THE BINDER COURSE BEFORE PLACEMENT OF SURFACE COURSE.
- REFER TO PAVING PLAN FOR LOCATION OF STANDARD AND HEAVY DUTY PAVEMENTS.

EFFINGHAM COUNTY

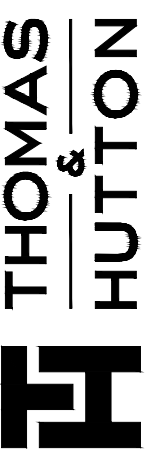
TYPICAL PAVEMENT SECTIONS

SCALE: N.T.S.  
DATE: August 2004

P-10



BID SET - NOT FOR CONSTRUCTION



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Columbia, SC 29201 • 803.451.6789  
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EFFINGHAM COUNTY BOARD OF COMMISSIONERS

CHATHAM COUNTY, GA

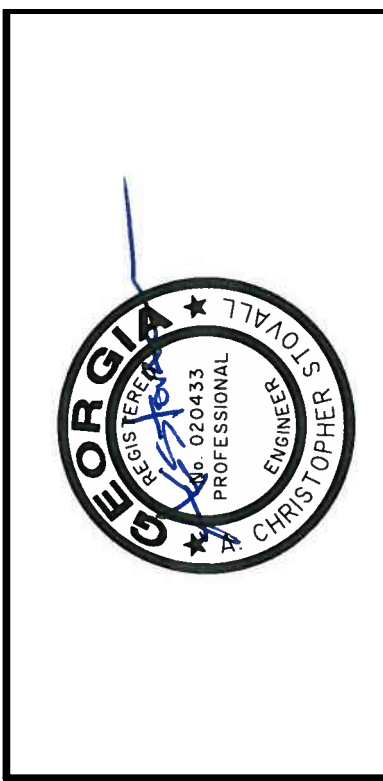
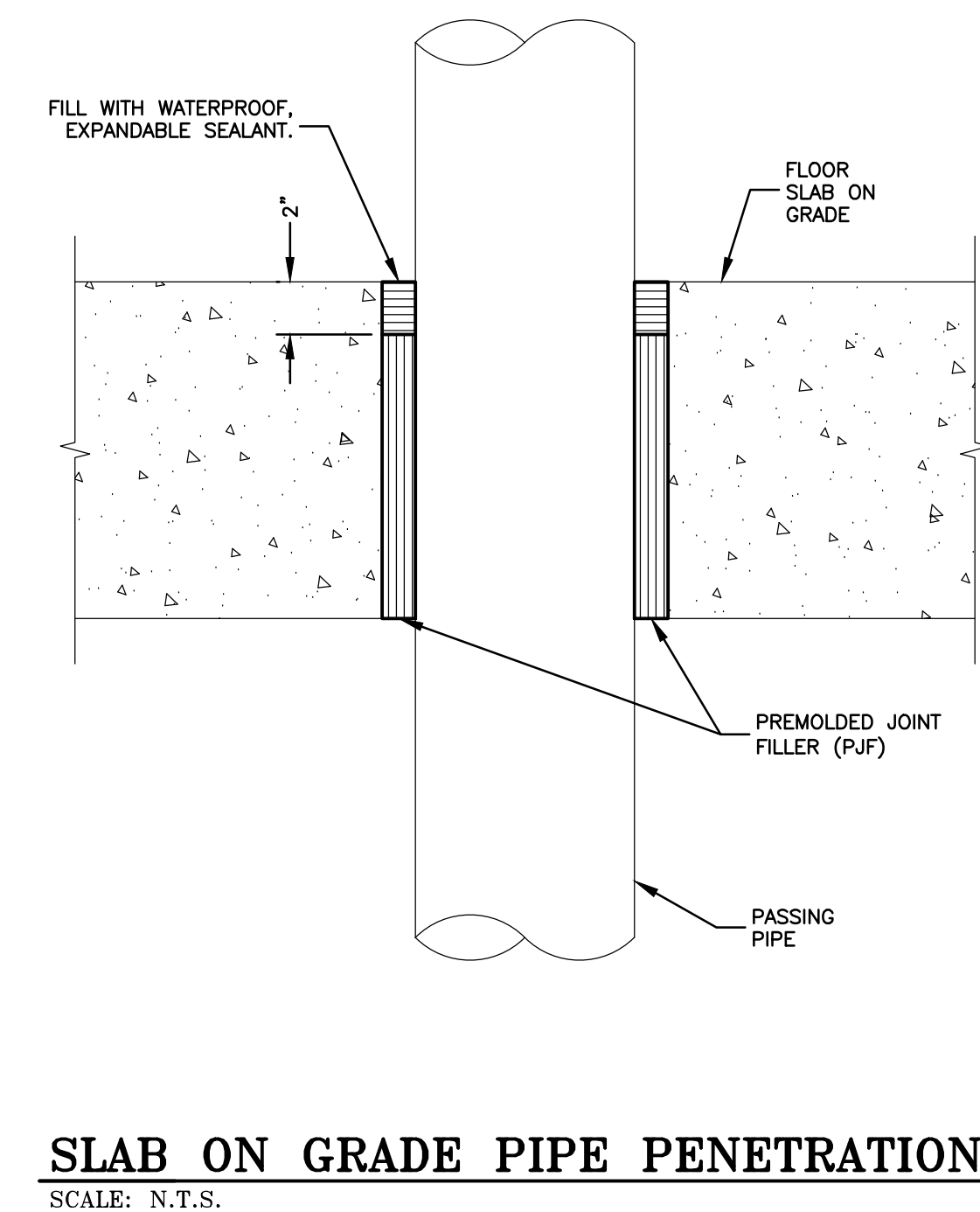
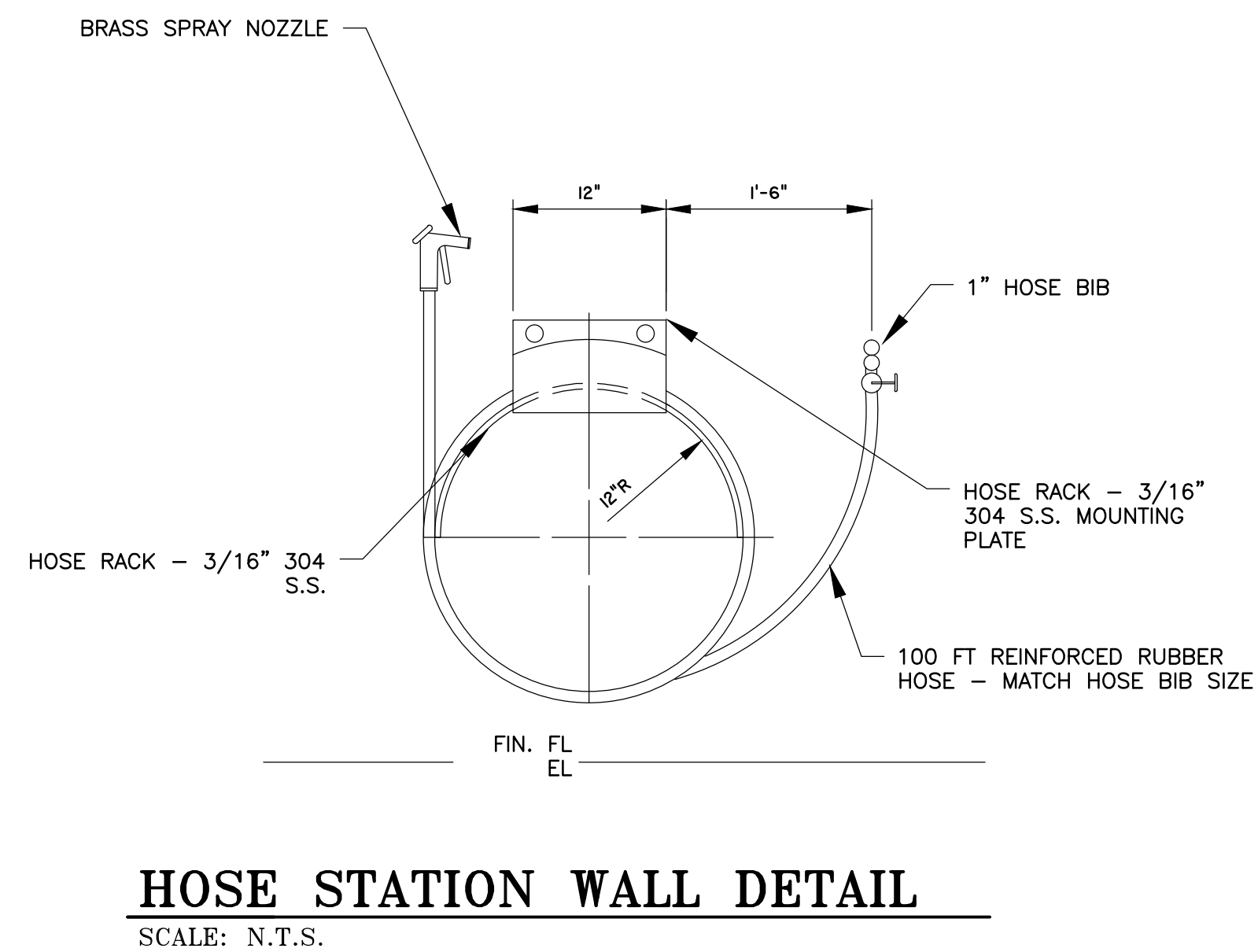
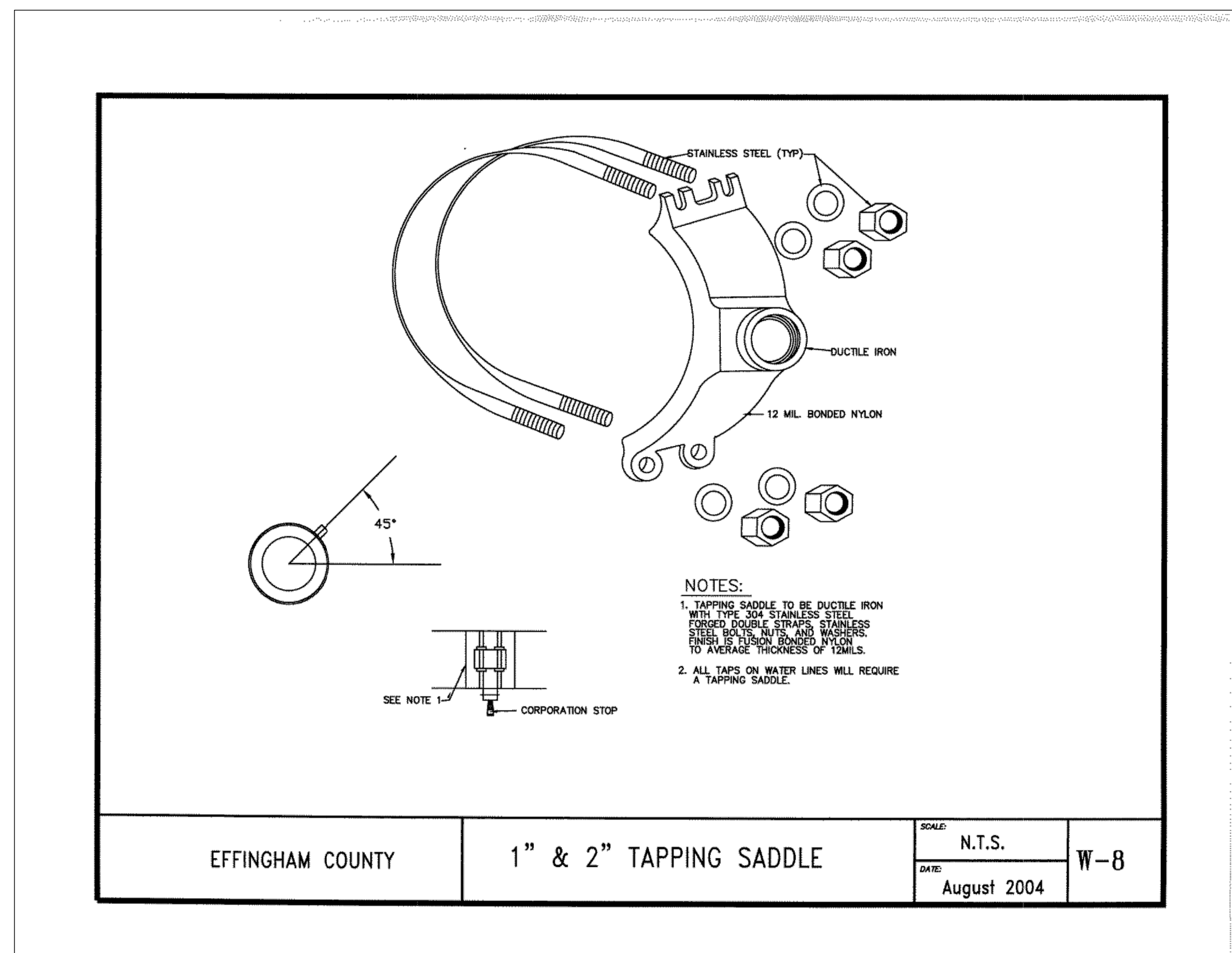
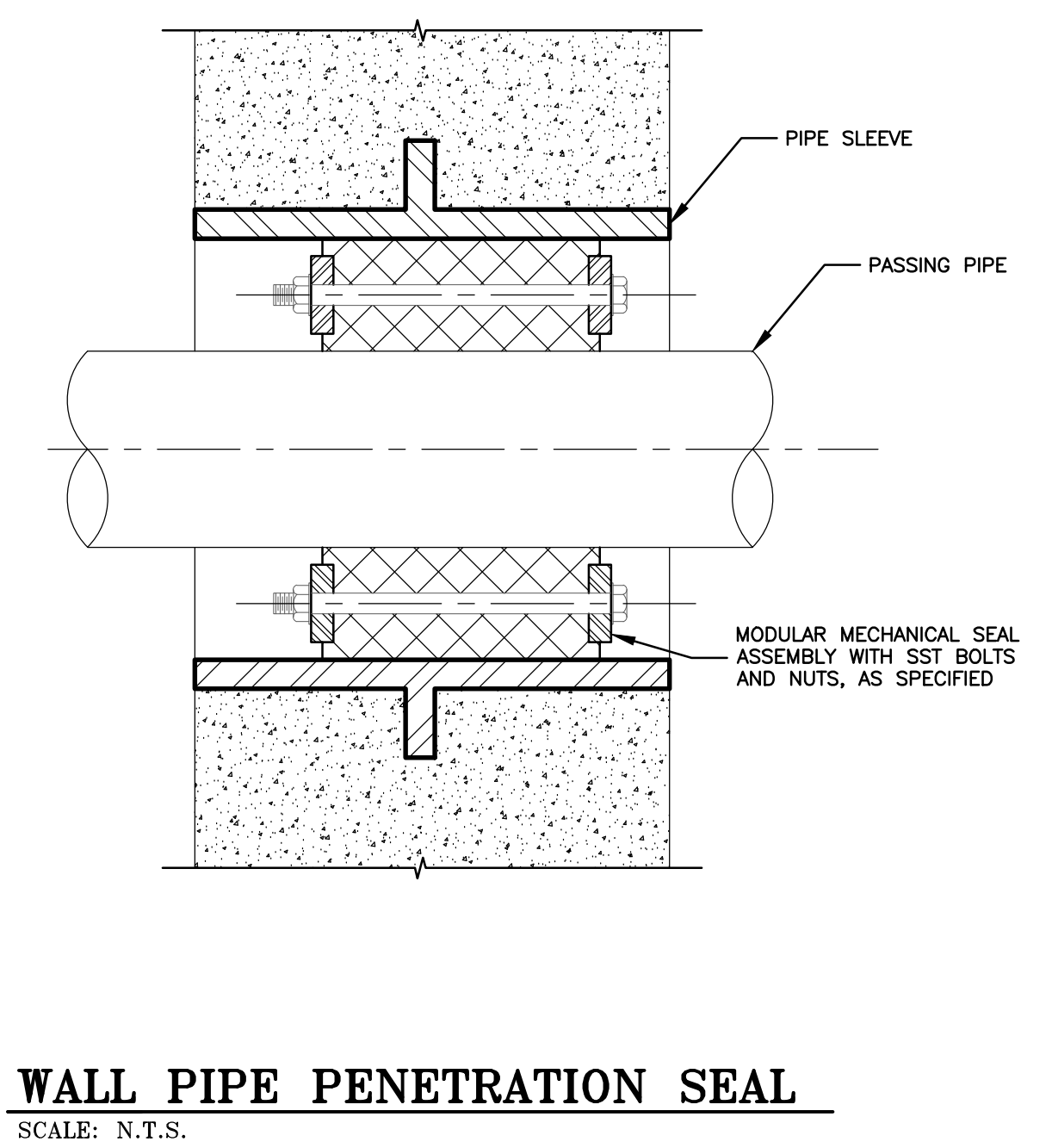
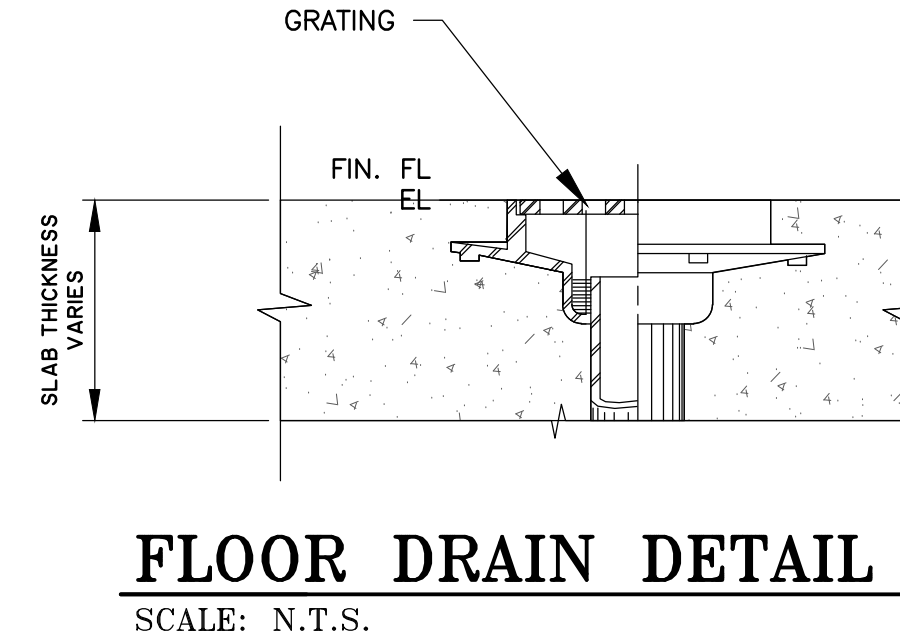
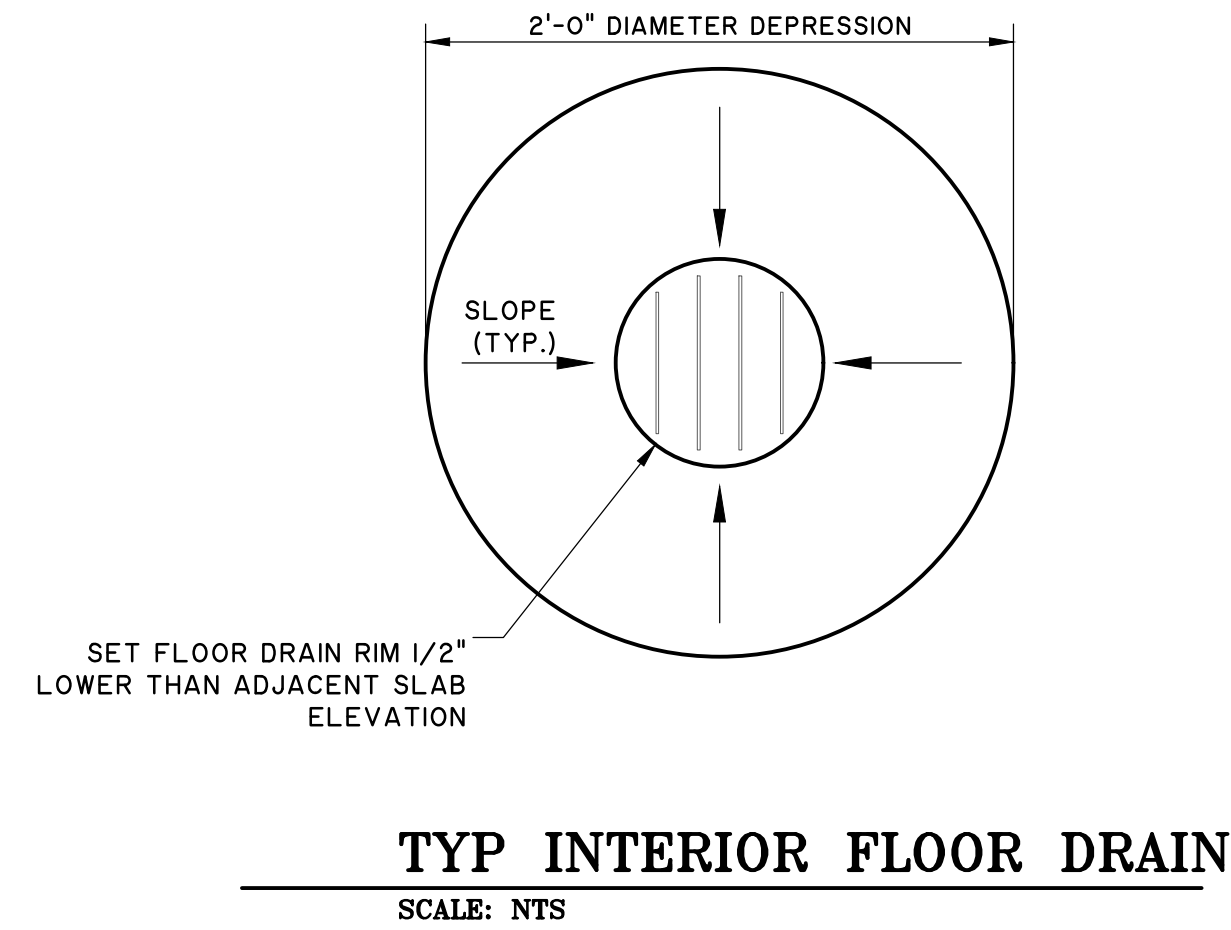
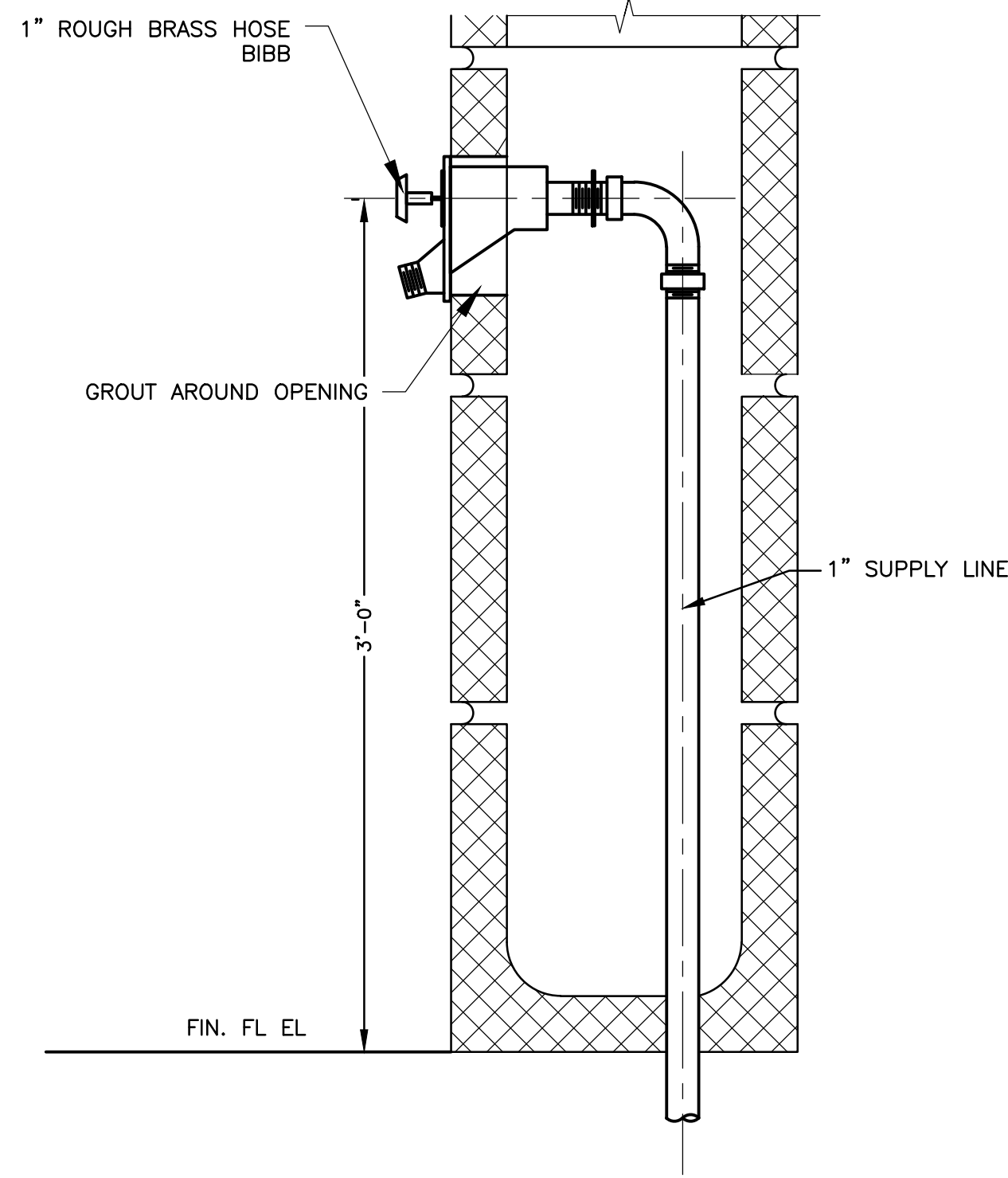
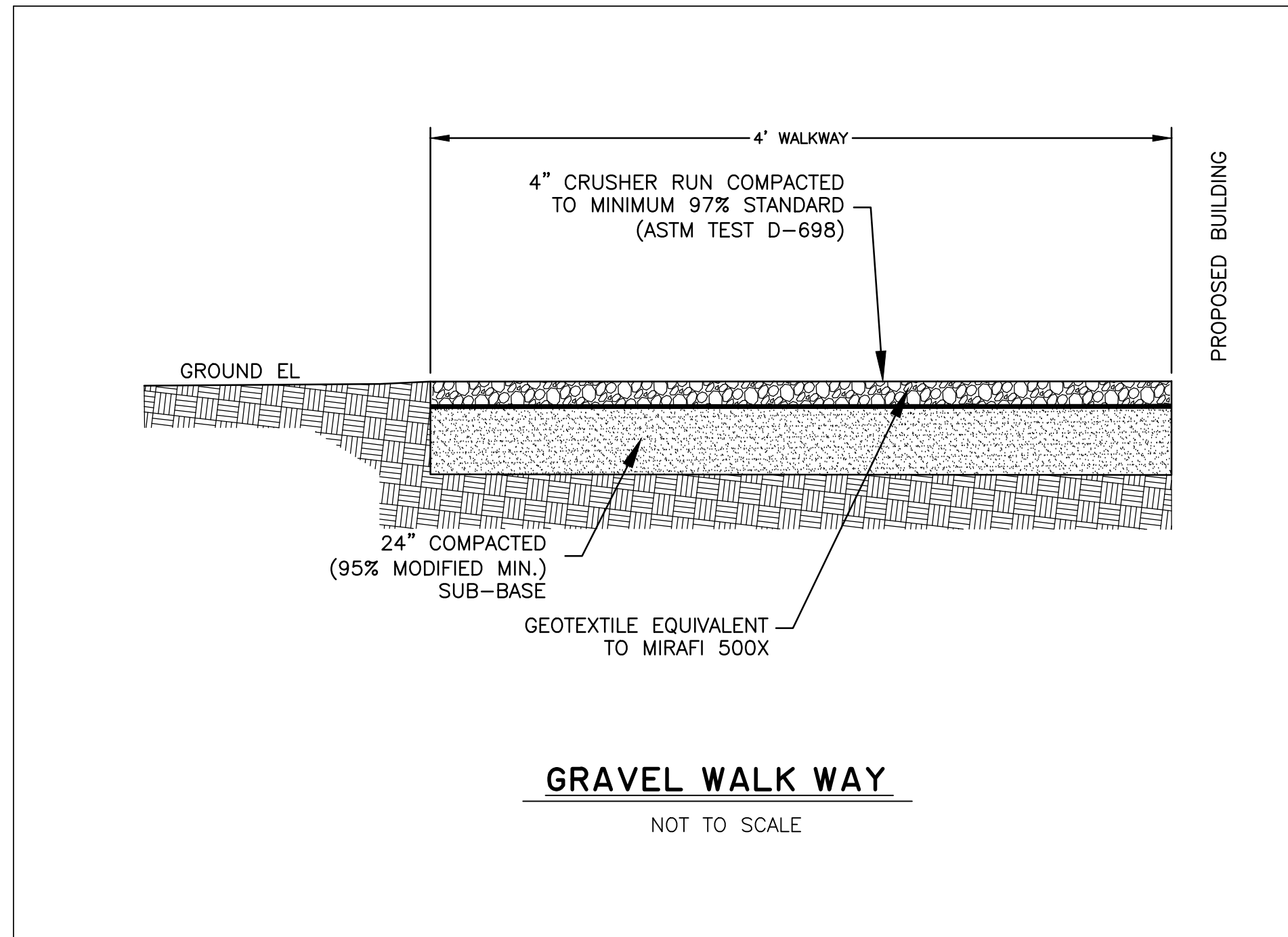
EFFINGHAM COUNTY BOOSTER PUMP STATION

BOOSTER STATION DETAILS

JOB NO: J-28378.0000  
DATE: 04/21/2020  
DRAWN: EAC  
DESIGNED: MCF  
REVIEWED: MCF  
APPROVED: ACS  
SCALE: N.T.S.

**C2.6**

21/03/2020 10:00 AM - C:\Users\mcf\Documents\Projects\2020\21032020\21032020.dwg - 10:00 AM



NO.	REVISIONS	BY	DATE

**THOMAS & HUTTON**  
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Columbia, SC 29201 • 803.451.6789  
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**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**BOOSTER STATION DETAILS**

JOB NO:	J-28378.0000
DATE:	04/21/2020
DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	1" = 79.9728'

**C2.7**

BID SET - NOT FOR CONSTRUCTION

GENERAL NOTES

- 1. THE GENERAL STRUCTURAL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS AND SPECIFICATIONS...
2. CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR...
3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH...
4. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND SIZES OF ALL OPENINGS AND PENETRATIONS...
5. CONTRACTOR SHALL REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO ENGINEER...
6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION.

DESIGN INFORMATION

- 1. STRUCTURAL DESIGN CONFORMS TO THE REQUIREMENTS OF THE IBC 2018 AND ASCE 7-16.
2. DESIGN LOADS AND PARAMETERS ARE AS FOLLOWS:
A. DEAD LOADS: ACTUAL WEIGHT OF MATERIALS AND EQUIPMENT
B. LIVE LOADS: ROOF 20 psf
C. RISK CATEGORY & IMPORTANCE FACTORS: RISK CATEGORY III, SEISMIC IMPORTANCE FACTOR 1.25
D. WIND LOAD: BASIC WIND SPEED (3 SEC GUST) 143 MPH, WIND EXPOSURE CATEGORY B, INTERNAL PRESSURE COEFFICIENT (Gcpi) +/-0.18
E. SEISMIC DESIGN DATA: SPECTRAL RESPONSE COEFFICIENT Sds 0.316 g, SPECTRAL RESPONSE COEFFICIENT Sd1 0.177 g, SITE CLASS D, BASIC STRUCTURAL SYSTEM BEARING WALLS, SEISMIC DESIGN CATEGORY C, SEISMIC RESISTING SYSTEM INTERMEDIATE R/F MASONRY SHEARWALLS, SEISMIC BASE SHEAR ANALYSIS PROCEDURE ELFA
3. COMPONENTS & CLADDING AND MECHANICAL ATTACHMENT LOADS SHALL BE CALCULATED USING ASCE 7-16 AND INCORPORATED BY APPLICABLE TRADES.

EXCAVATION FOR STRUCTURAL ITEMS

- 1. THE CONTRACTOR SHALL PROVIDE ALL WORK NECESSARY TO PROTECT EXISTING STRUCTURES AND UTILITIES...
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BRACING & SUPPORTS NECESSARY FOR EXCAVATION AND CONSTRUCTION AND ALL EXCAVATIONS SHALL COMPLY WITH APPLICABLE OSHA REGULATIONS.

FOUNDATIONS

- 1. FOUNDATION DESIGN IS BASED ON A SUBSURFACE INVESTIGATION BY TERRACON, PROJECT NO. ES205101, DATED JUNE 12, 2020.
2. CONTRACTOR SHALL READ GEOTECHNICAL REPORT AND ADDENDUMS PRIOR TO COMMENCEMENT OF WORK...
3. WHERE APPLICABLE, ALL EXCAVATIONS, COMPACTED FILL, AND SUBGRADES SHALL BE OBSERVED AND TESTED BY A GEOTECHNICAL ENGINEER...
4. WHERE APPLICABLE, COMPACT SOIL MATERIALS TO NOT LESS THAN 98% OF MODIFIED PROCTOR DENSITY...
5. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.

MASONRY

- 1. CONCRETE MASONRY DESIGN AND CONSTRUCTION SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, ACI 530 / ASTM 5 / TMS 402 AND SPECIFICATIONS FOR MASONRY STRUCTURES, ACI 530.1 / ASTM 6 / TMS 602.
2. UNLESS NOTED OTHERWISE, PROVIDE HOLLOW, LIGHTWEIGHT, LOAD BEARING CONCRETE MASONRY UNITS (CMU) CONFORMING TO ASTM C90, TYPE 1, WITH A DENSITY LESS THAN 105 pcf.
3. PROVIDE CONCRETE MASONRY WITH A MINIMUM COMPRESSIVE STRENGTH, fm = 1,900 psi.
4. PROVIDE TYPE "S" MORTAR IN ACCORDANCE WITH ASTM C270 WITH A COMPRESSIVE STRENGTH OF 2,000 psi, UNLESS NOTED OTHERWISE.
5. PROVIDE GROUT FOR REINFORCED MASONRY IN ACCORDANCE WITH ASTM C476 WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 psi UNLESS NOTED OTHERWISE.
6. LAP SPLICES SHALL BE AS SHOWN IN THE TABLE PROVIDED IN THESE NOTES AND SHALL CONFORM TO ACI 530 UNLESS NOTED OTHERWISE IN THE CONSTRUCTION DRAWINGS.

Table with 5 columns: BAR Ø, BAR SIZE, SPLICE/LAP LENGTH, HOOK DEVELOPMENT, HOOK LENGTH. Rows include .500 in. #4, .625 in. #5, .750 in. #6, .875 in. #7.

- 7. PROVIDE 9 GAGE TRUSS OR LADDER TYPE HORIZONTAL JOINT REINFORCEMENT, COMPLYING WITH ASTM A82, AT 16" O.C. VERTICALLY AND ZINC COATED.

- 8. LAY MASONRY UNITS IN RUNNING BOND PATTERN.
9. BOND BEAMS, CMU LINTELS, MASONRY BENEATH STEEL BEAM AND JOIST BEARINGS, AND OTHER STRUCTURAL ELEMENTS SHALL EXTEND UNINTERRUPTED ACROSS CONTROL JOINTS.
10. INSTALL MASONRY WALLS IN 4'-0" MAXIMUM LIFTS.

REINFORCED CONCRETE

- 1. UNLESS NOTED OTHERWISE, ALL CONCRETE WORK, DETAILING, FABRICATION, AND PLACING, INCLUDING MINIMUM COVER REQUIREMENTS OF REINFORCING BARS...
2. ALL CONCRETE SHALL BE NORMAL WEIGHT (N.W.) WITH A MAXIMUM UNIT WEIGHT OF 150 pcf.
3. CONCRETE MIX DESIGNS, IN ACCORDANCE WITH ACI RECOMMENDATIONS, SHALL BE SUBMITTED TO THE ENGINEER AND TESTING AGENCY.
4. USE OF CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS IN CONCRETE IS NOT PERMITTED.
5. THE AIR CONTENT IN ALL CONCRETE EXPOSED TO WEATHER SHALL BE BETWEEN 2% AND 5%.
6. THE TESTING AGENCY SHALL SAMPLE AND TEST EACH 90 CU. YARDS OR FRACTION THEREOF...
7. DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH ACI 318 "DETAILING MANUAL".
8. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, AND SHALL BE GRADE 60 UNLESS OTHERWISE NOTED.
9. LAP SPLICES SHALL BE AS SHOWN IN THE TABLE PROVIDED IN THESE NOTES...
10. REINFORCEMENT SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.
11. WELDING OF REINFORCING STEEL IS NOT PERMITTED.
12. REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE:
A. CONCRETE CAST AGAINST EARTH (NOT FORMED) 3"
B. CONCRETE EXPOSED TO EARTH OR WEATHER #5 & SMALLER 1 1/2"
C. CONCRETE EXPOSED TO EARTH OR WEATHER #6-18 2"
D. CONCRETE NOT EXPOSED TO EARTH OR WEATHER, SLABS & WALLS <=#11 1"
E. CONCRETE NOT EXPOSED TO EARTH OR WEATHER, BEAMS & COLUMNS 1 1/2"
13. CONCRETE SHALL BE DISCHARGED AT THE SITE WITHIN 90 MINUTES AFTER WATER HAS BEEN ADDED...
14. REINFORCEMENT SPLICE/LAP LENGTH, HOOK DEVELOPMENT AND HOOK LENGTH TABLE SHOWN BELOW IS BASED UPON A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4,000 PSI...
15. THE MINIMUM SPLICE/LAP LENGTH IS BASED UPON A 6" CENTER TO CENTER BAR SPACING...
16. ALL LAP SPLICES SHALL BE CLASS B. IF SPLICES ARE INDICATED BETWEEN BARS OF DIFFERENT SIZES, THE SPLICE LENGTH SHALL BE BASED UPON THE SMALLER BAR SIZE.

Table with 5 columns: BAR Ø, BAR SIZE, SPLICE/LAP LENGTH, HOOK DEVELOPMENT, HOOK LENGTH. Rows include .375 in. #3, .500 in. #4, .625 in. #5, .750 in. #6, .875 in. #7.

WOOD CONSTRUCTION

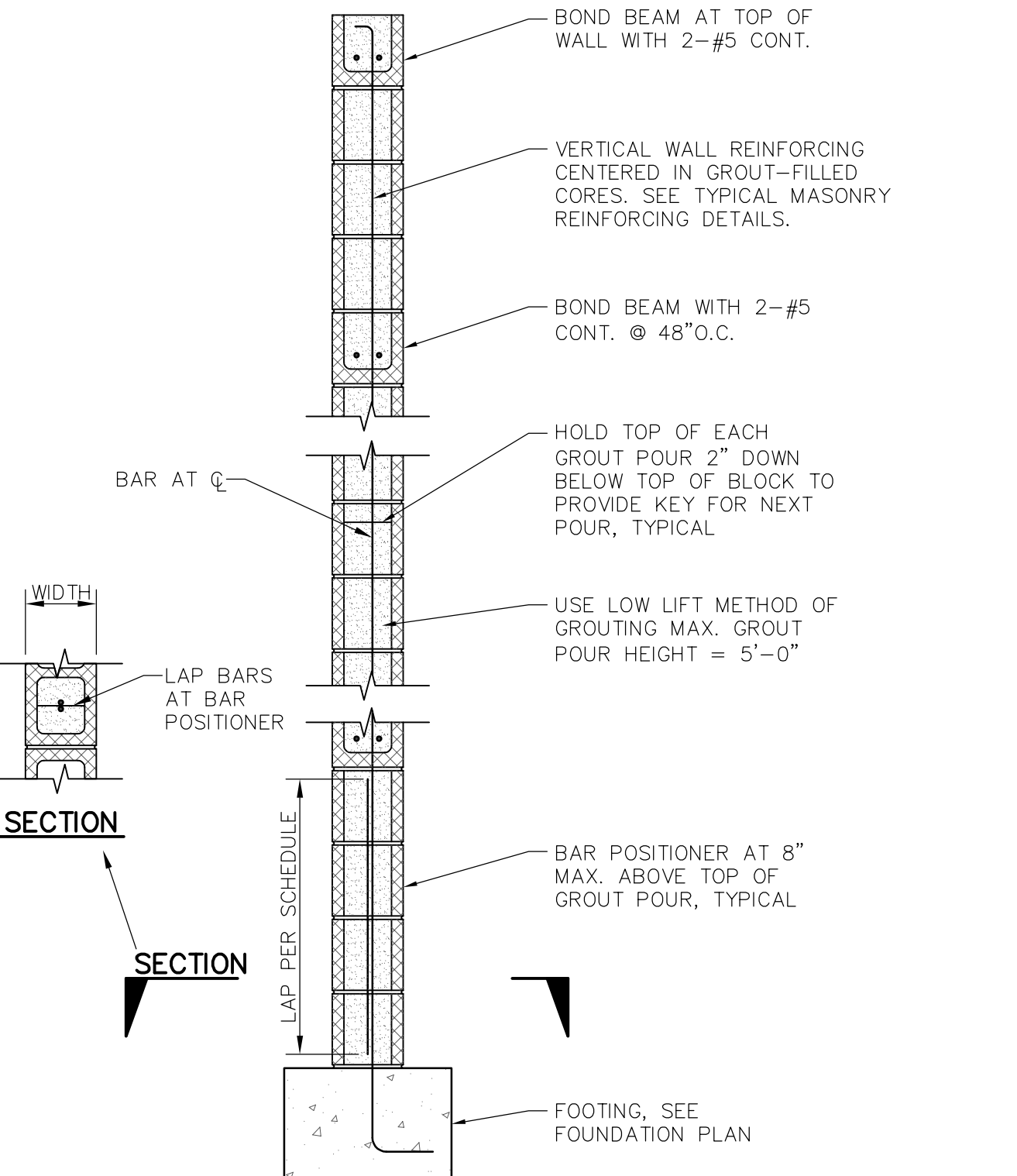
- 1. ALL WOOD SHALL BE SOUTHERN PINE, NO. 2 DENSE GRADE, DRESSED, AND GRADED IN ACCORDANCE WITH SOUTHERN PINE INSPECTION BUREAU'S "GRADING RULES" AND WITH A MOISTURE CONTENT OF 19 PERCENT AT TIME OF DELIVERY...
2. UNLESS NOTED OTHERWISE, ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY AND ALL EXTERIOR LUMBER SHALL BE TREATED WITH ACQ RETENTION LEVEL 0.60.
3. ALL WOOD HARDWARE SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153...
4. ALL PLATE WASHERS SHALL CONFORM WITH ASTM A36.
5. ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554 GR. 36.
6. DRILL ALL HOLES STRAIGHT AND PERPENDICULAR TO THE BEARING SURFACE.
7. COAT END GRAIN OF ALL EXPOSED WOOD MEMBERS WITH PRESERVATIVE.
8. STORE WOOD UNDER COVER, ABOVE GROUND AND KEEP FREE FROM DIRT, GREASE OR

OTHER FOREIGN MATTER. STACK TIMBER IN A MANNER THAT WILL PREVENT LONG TIMBERS FROM SAGGING OR BECOMING CROOKED.

- 9. ROOF SHEATHING SHALL BE 5/8" APA-RATED STRUCTURAL I SHEATHING, 3/4" SPAN RATING, 48"x96" PANELS. ATTACH TO WOOD TRUSSES AS SHOWN ON DRAWINGS.

WOOD TRUSSES

- 1. ALL DESIGN, DETAILING, FABRICATION AND ERECTION OF PREFABRICATED DIMENSIONAL WOOD TRUSSES SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF:
A. TRUSS PLATE INSTITUTE - NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSSES.
B. TRUSS PLATE INSTITUTE - COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING, AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
C. TRUSS PLATE INSTITUTE - RECOMMENDED DESIGN SPECIFICATIONS FOR TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
2. IN ADDITION TO SELF WEIGHT, WOOD TRUSSES SHALL BE DESIGNED FOR THE LOADS SPECIFIED IN THE GENERAL NOTES AS WELL AS AN ADDITIONAL DEAD LOAD OF 10 psf FOR TOP AND BOTTOM CHORDS...
3. SUBMITTALS:
A. CALCULATIONS AND SHOP DRAWINGS SHALL BE STAMPED BY AN ENGINEER LICENSED IN THE STATE OF GEORGIA...
4. ALL WOOD TRUSS LUMBER SHALL BE SOUTHERN PINE, NO. 1 GRADE, DRESSED, AND GRADED IN ACCORDANCE WITH SOUTHERN PINE INSPECTION BUREAU'S "GRADING RULES"...
5. ALL WOOD SHALL BE PRESSURE TREATED AND SHALL COMPLY WITH THE FOLLOWING:
A. ALL WOOD TRUSS LUMBER SHALL BE TREATED WITH ACQ RETENTION LEVEL 0.25 pcf...
6. ALL WOOD SHALL BE FIRE-RETARDANT-TREATED AND SHALL COMPLY WITH THE FOLLOWING:
A. PRODUCTS WITH A FLAME-SPREAD INDEX OF 25 OR LESS WHEN TESTED ACCORDING TO ASTM E84...
7. ALL WOOD TRUSS CONNECTION HARDWARE SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.



TYPICAL CMU WALL SECTION

NOTES:
1. THE END OF EACH HORIZONTAL BAR SHALL BE ANCHORED TO VERTICAL BARS WITH LAP SPLICES AT CORNERS (SEE TYPICAL DETAIL) AND STD. 180° HOOKS AT JAMBS PER ACI.
2. REQUIREMENTS SHOWN IN THIS DETAIL ARE FOR 12" CMU WALLS. BOND BEAMS FOR INTERIOR 8" CMU WALLS SHALL HAVE 2-#4 CONT.

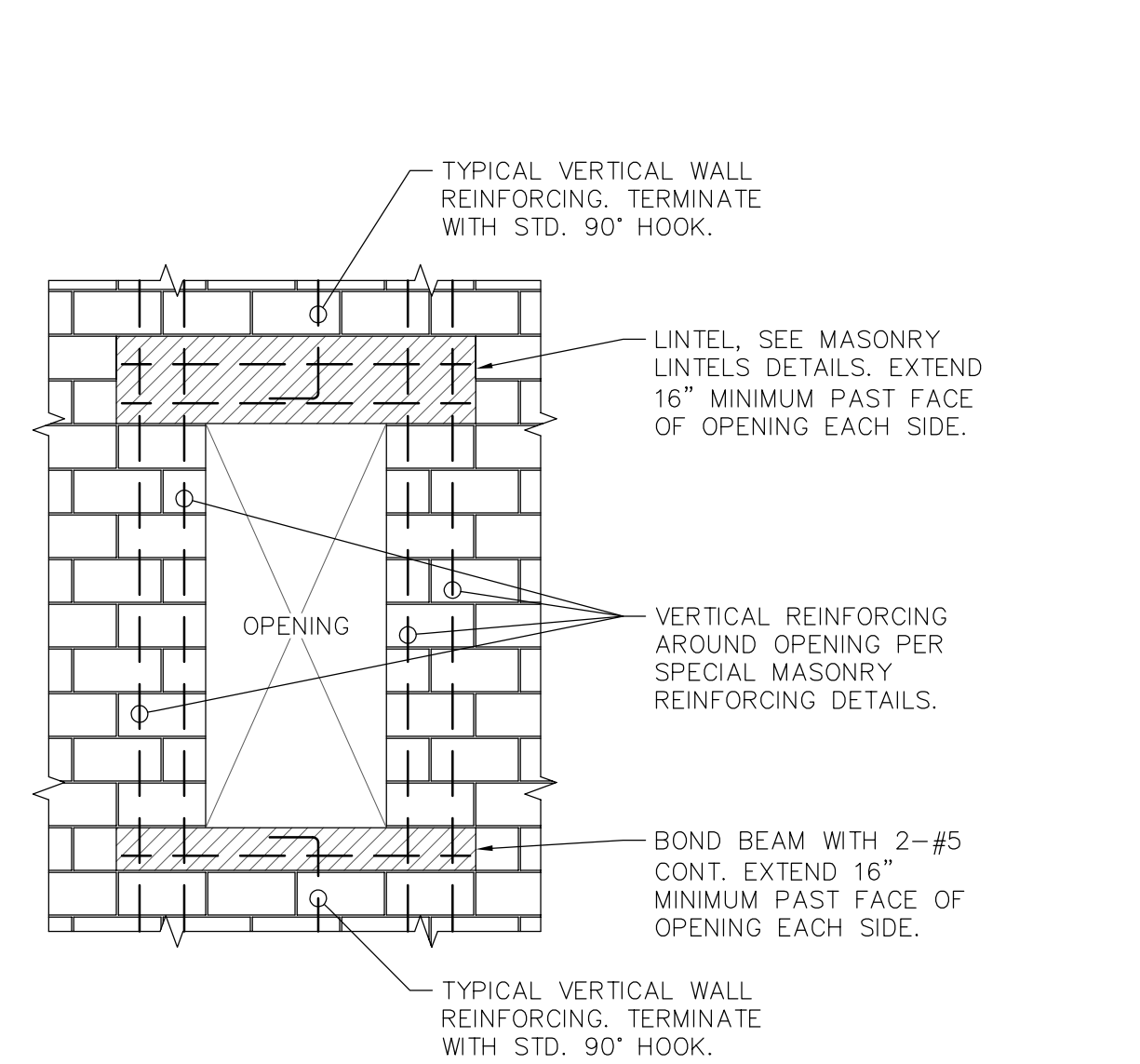
SPECIAL INSPECTIONS

- 1. THE OWNER SHALL EMPLOY SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION AS NOTED HEREIN.
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO DEMONSTRATES COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR THE INSPECTION OF THE ASSIGNED TYPE OF CONSTRUCTION OR OPERATION.
3. SPECIAL INSPECTION PROCEDURES SHALL BE COMPLETED IN ACCORDANCE WITH IBC 2018, CHAPTER 17. AT A MINIMUM, SPECIAL INSPECTIONS SHALL INCLUDE THE ITEMS LISTED BELOW.

STEEL: REINFORCING STEEL OTHER - PERIODIC
CONCRETE: USE OF REQUIRED MIX - PERIODIC, SAMPLING FOR TESTING - CONTINUOUS, PLACEMENT - CONTINUOUS, CURING - PERIODIC, FORMWORK - PERIODIC

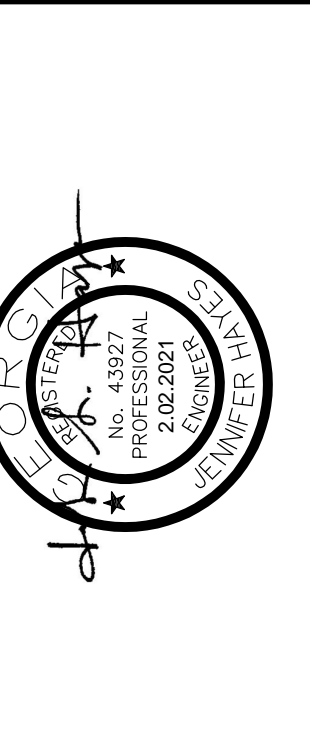
MASONRY: MORTAR & CONSTRUCTION OF MORTAR JOINTS - PERIODIC, LOCATION & PLACEMENT OF R/F, CONNECTORS & ANCHORAGE - CONTINUOUS, SIZE & LOCATION OF STRUCTURAL ELEMENTS - PERIODIC, SIZE, GRADE & TYPE OF REINFORCEMENT - CONTINUOUS, PROTECTION OF UNITS DURING COLD/HOT WEATHER - PERIODIC, PREPARATION OF GROUT SPACE - PERIODIC, GROUT PLACEMENT - CONTINUOUS, PREPARATION OF GROUT & MORTAR SPECIMENS - CONTINUOUS, VERIFICATION OF MASONRY & GROUT PROP PRIOR TO CONST- CONTINUOUS

SOIL: ALL AS NOTED IN TABLE 1705.6
GENERAL: COMPLIANCE WITH REQ'D INSPECTION PROVISIONS OF CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS AND VISUAL STRUCTURAL OBSERVATION OF STRUCTURAL SYSTEM(S) FOR CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF STRUCTURAL SYSTEM(S) - PERIODIC



TYPICAL REINFORCING AROUND MASONRY OPENING

3/4" = 1'-0"



Revisions table with columns: NO., REVISIONS, BY, DATE.

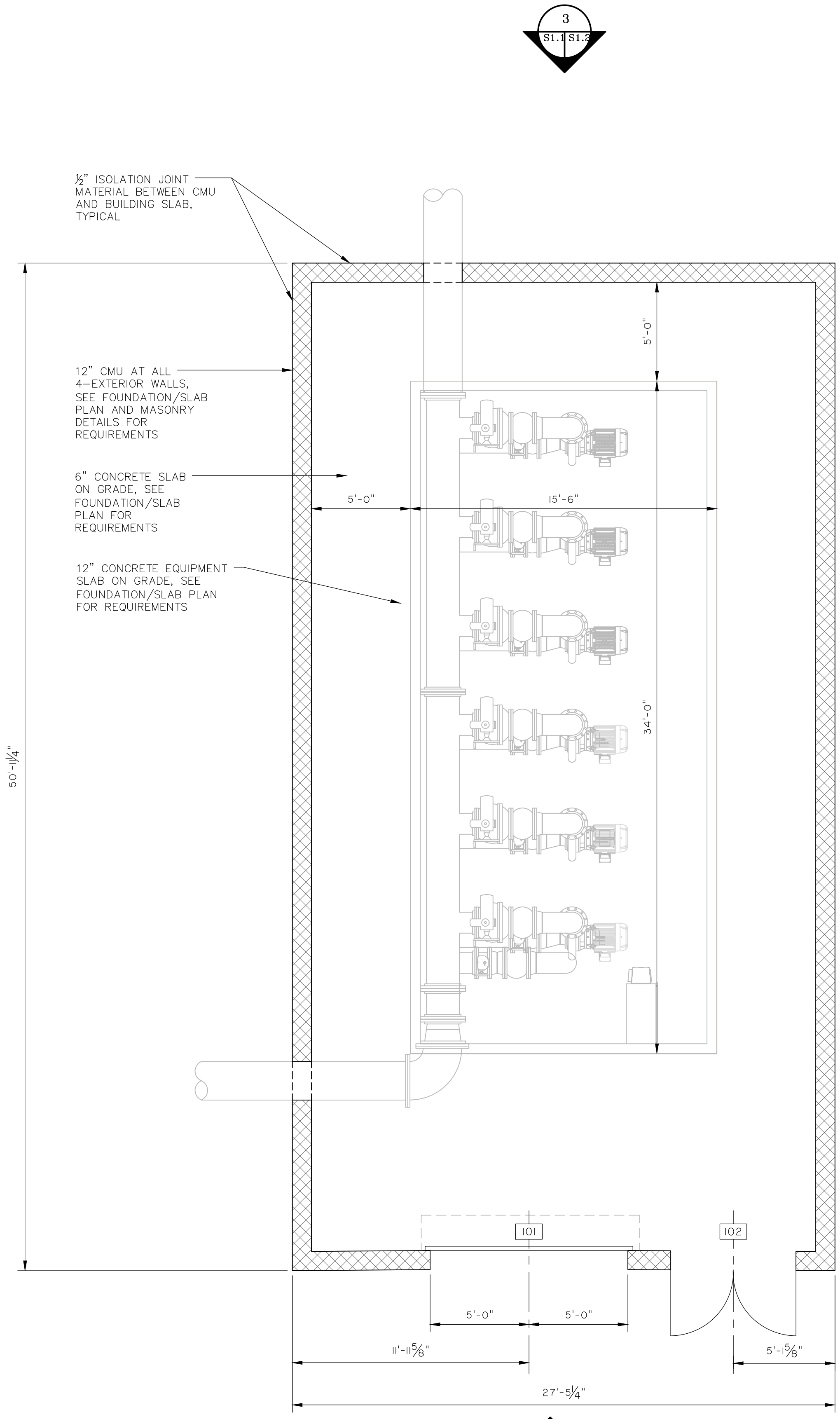
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EFFINGHAM COUNTY BOARD OF COMMISSIONERS CHATHAM COUNTY, GA. EFFINGHAM COUNTY BOOSTER PUMP STATION GENERAL NOTES & TYPICAL DETAILS

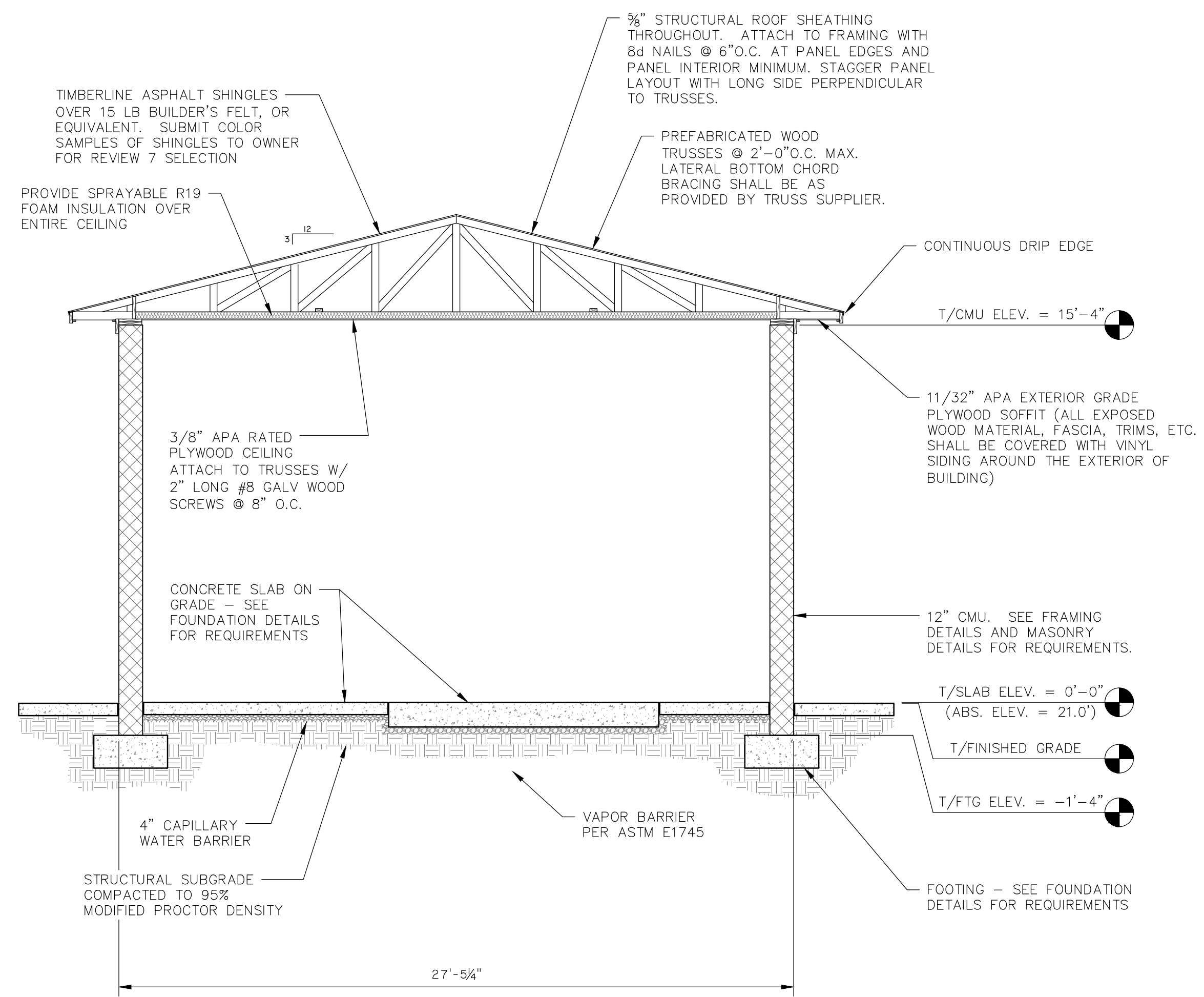
Job Information table: JOB NO: J-28378.0000, DATE: 02/02/2021, DRAWN: JEP, DESIGNED: JEP, REVIEWED: JAH, APPROVED: JAH, SCALE: AS NOTED.

S0.1

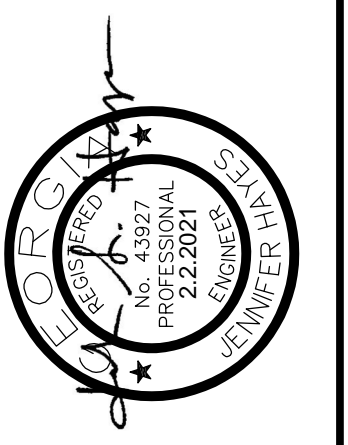
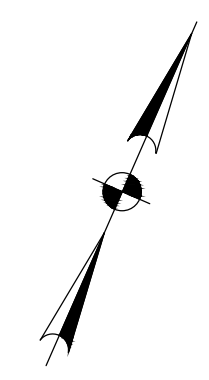
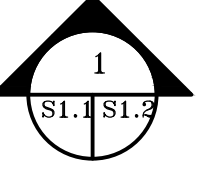
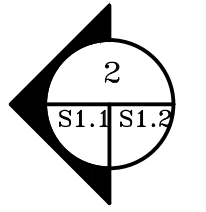
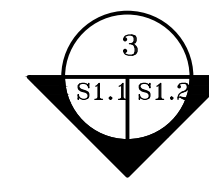
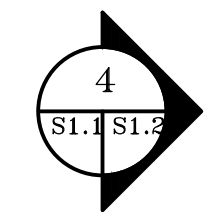
2. JAH/STW/2/21/21/0000/Engineering/Construction/Plan/210718.0000 - STRUCTURAL.dwg - Rev. 2, 2021 - 11.42.17 PM



**1 BOOSTER STATION FLOOR PLAN**  
S1.1 1/4" = 1'-0"



**2 BOOSTER STATION BUILDING SECTION**  
S1.1 1/4" = 1'-0"



NO.	REVISIONS	BY	DATE

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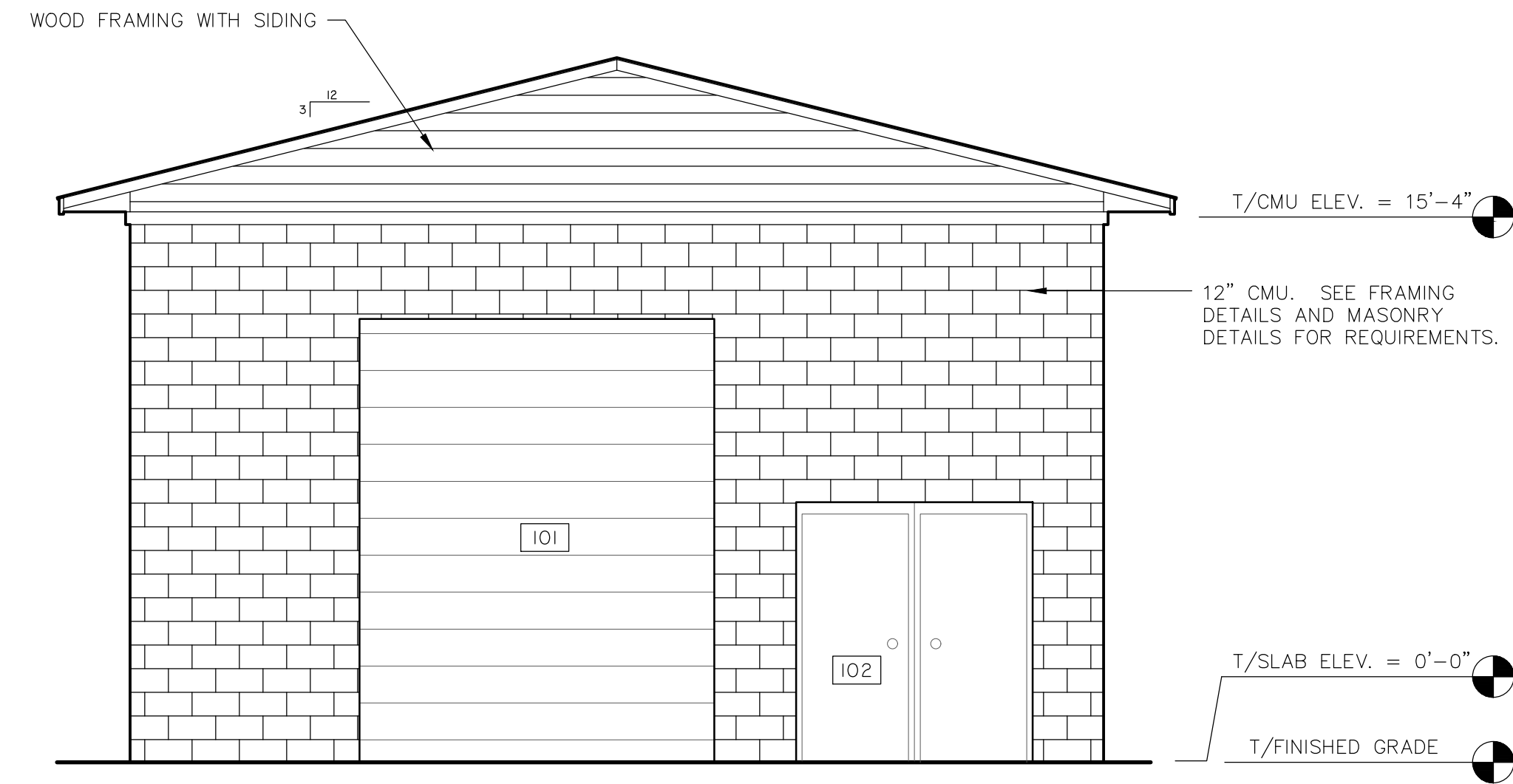
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION FLOOR PLAN AND BUILDING SECTION**

JOB NO: J-28378.0000  
DATE: 02/02/2021  
DRAWN: JEP  
DESIGNED: JEP  
REVIEWED: JAH  
APPROVED: JAH  
SCALE: AS SHOWN

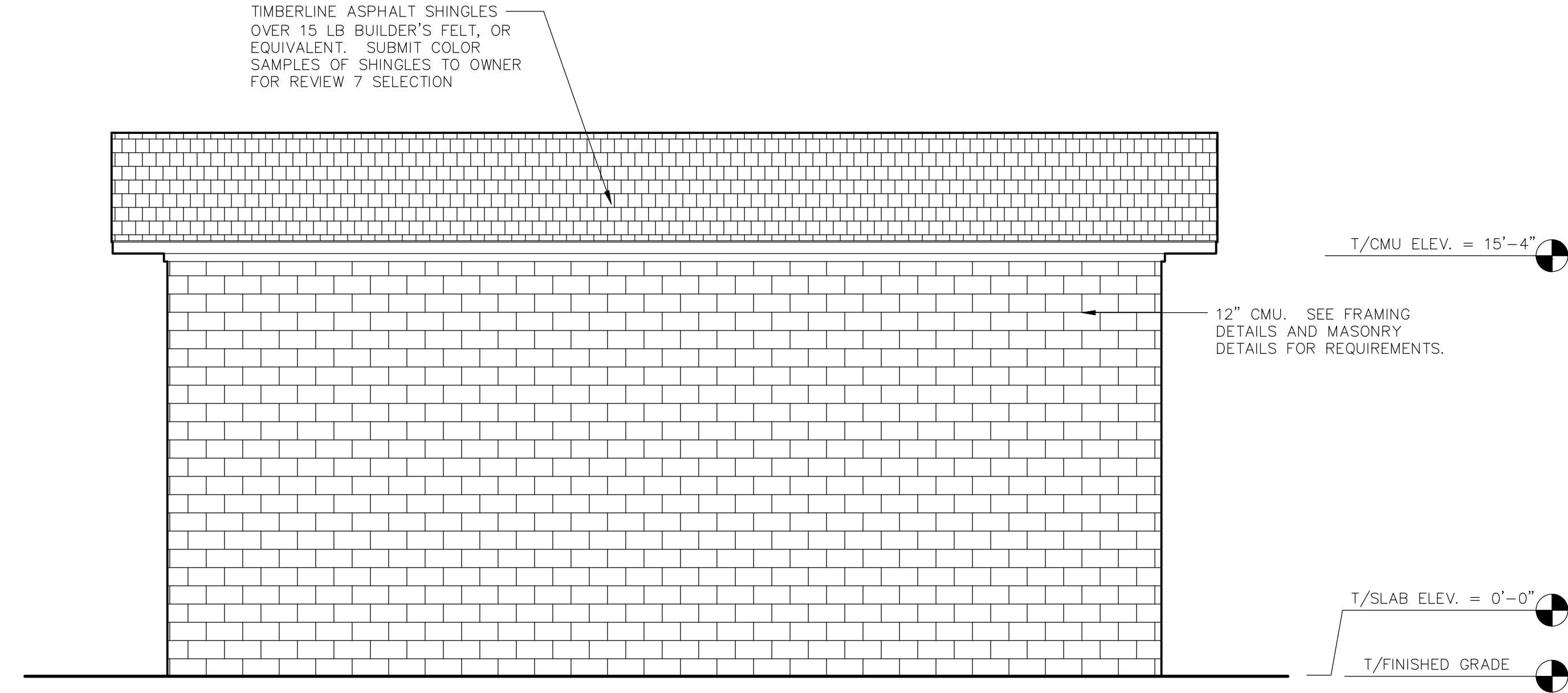
**S1.1**

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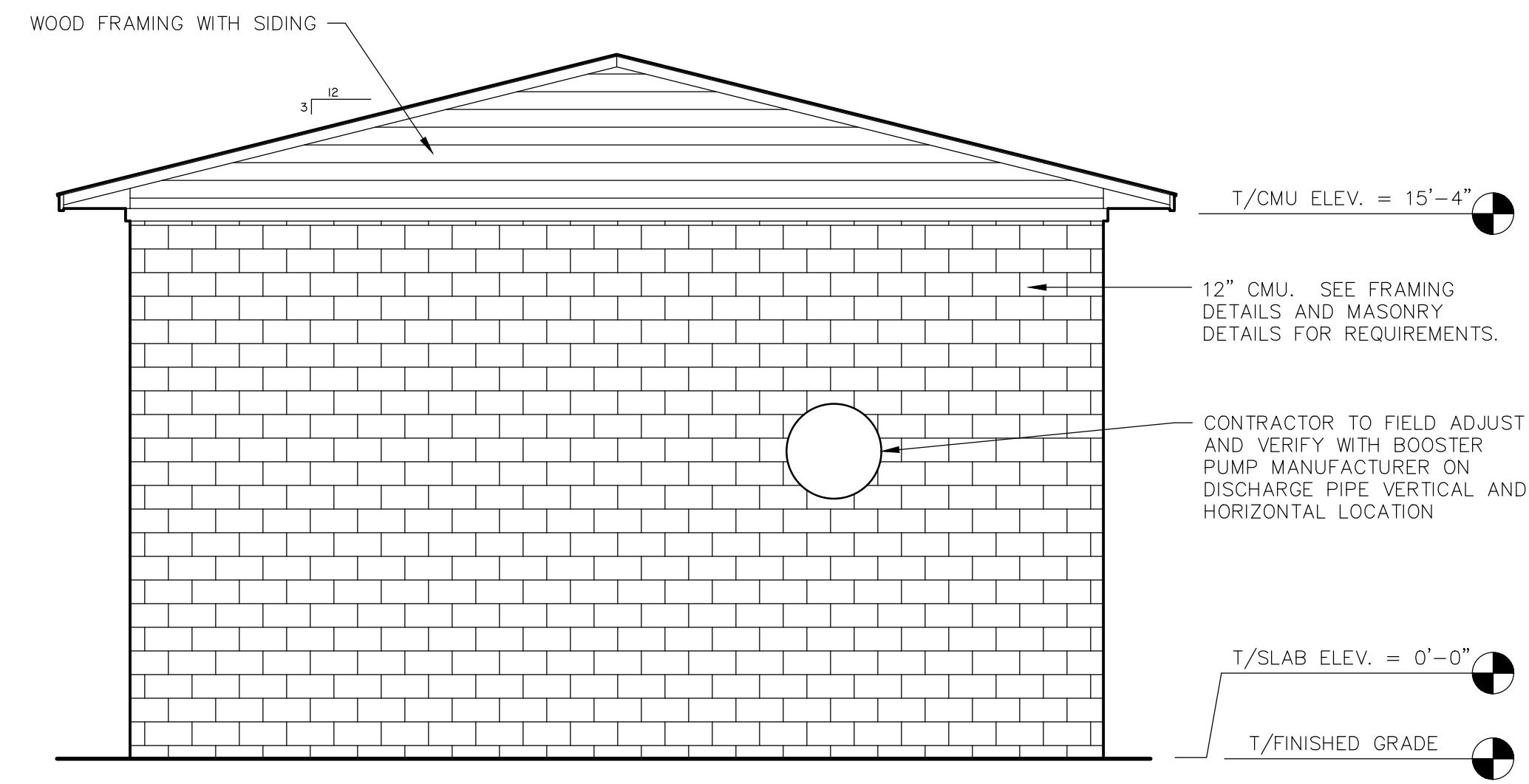




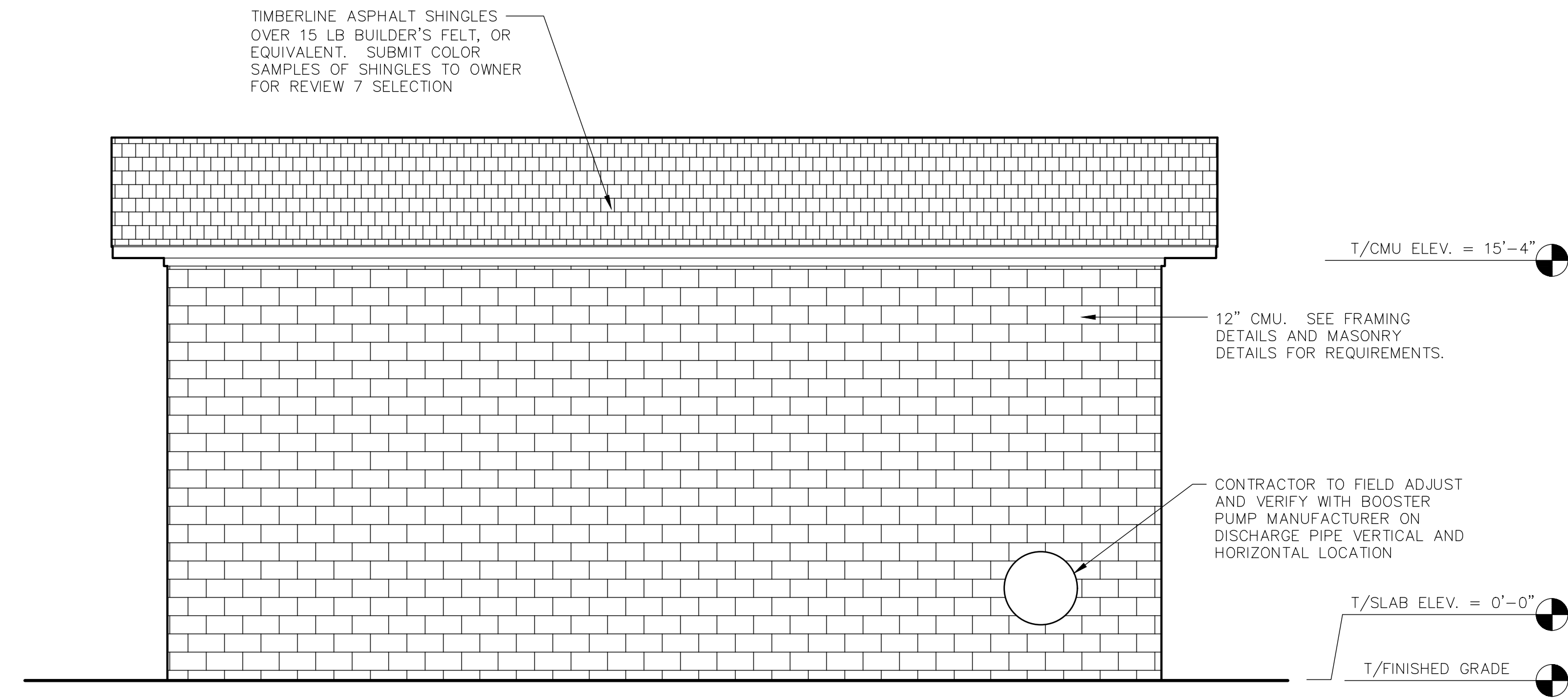
**1 BOOSTER PUMP BUILDING: SOUTH ELEVATION**  
S1.2 1/4" = 1'-0"



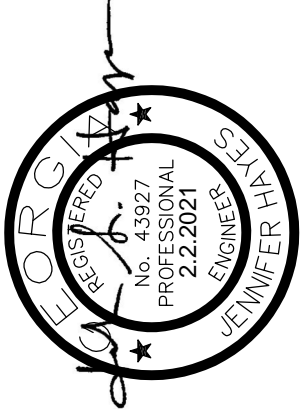
**2 BOOSTER PUMP BUILDING: EAST ELEVATION**  
S1.2 1/4" = 1'-0"



**3 BOOSTER PUMP BUILDING: NORTH ELEVATION**  
S1.2 1/4" = 1'-0"



**4 BOOSTER PUMP BUILDING: WEST ELEVATION**  
S1.2 1/4" = 1'-0"



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CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION BUILDING ELEVATIONS**

JOB NO: J-28378.0000  
DATE: 02/02/2021  
DRAWN: JEP  
DESIGNED: JEP  
REVIEWED: JAH  
APPROVED: JAH  
SCALE: AS SHOWN

**S1.2**

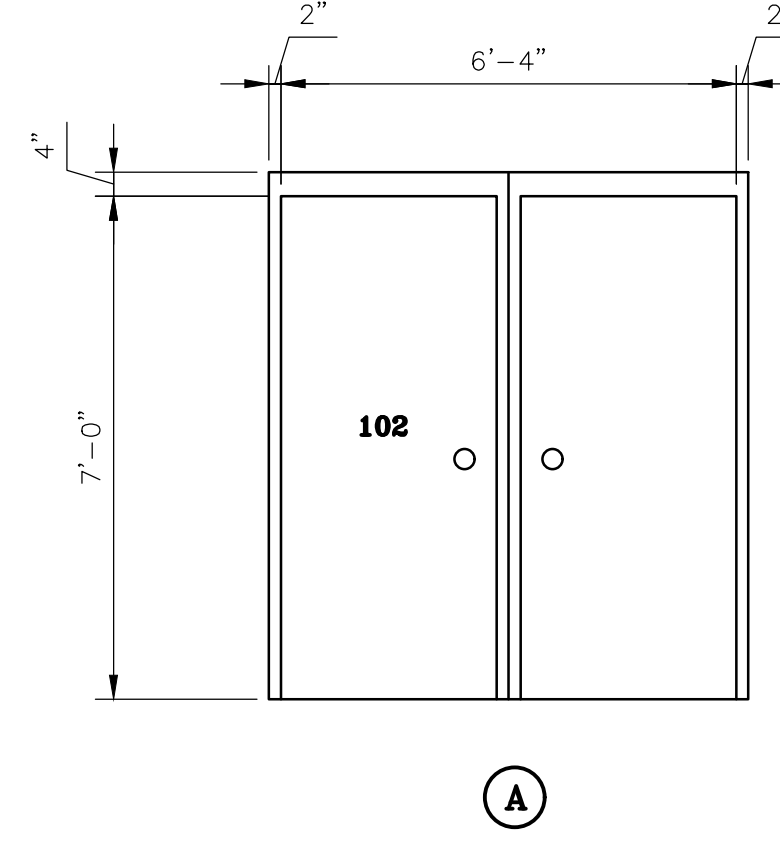
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2. JAH/TH/2021/02/0000/Engineering/Construction/Plan/2021/0000 - STRUCTURAL.dwg - Rev. 2, 2021 - 11.42.17 AM

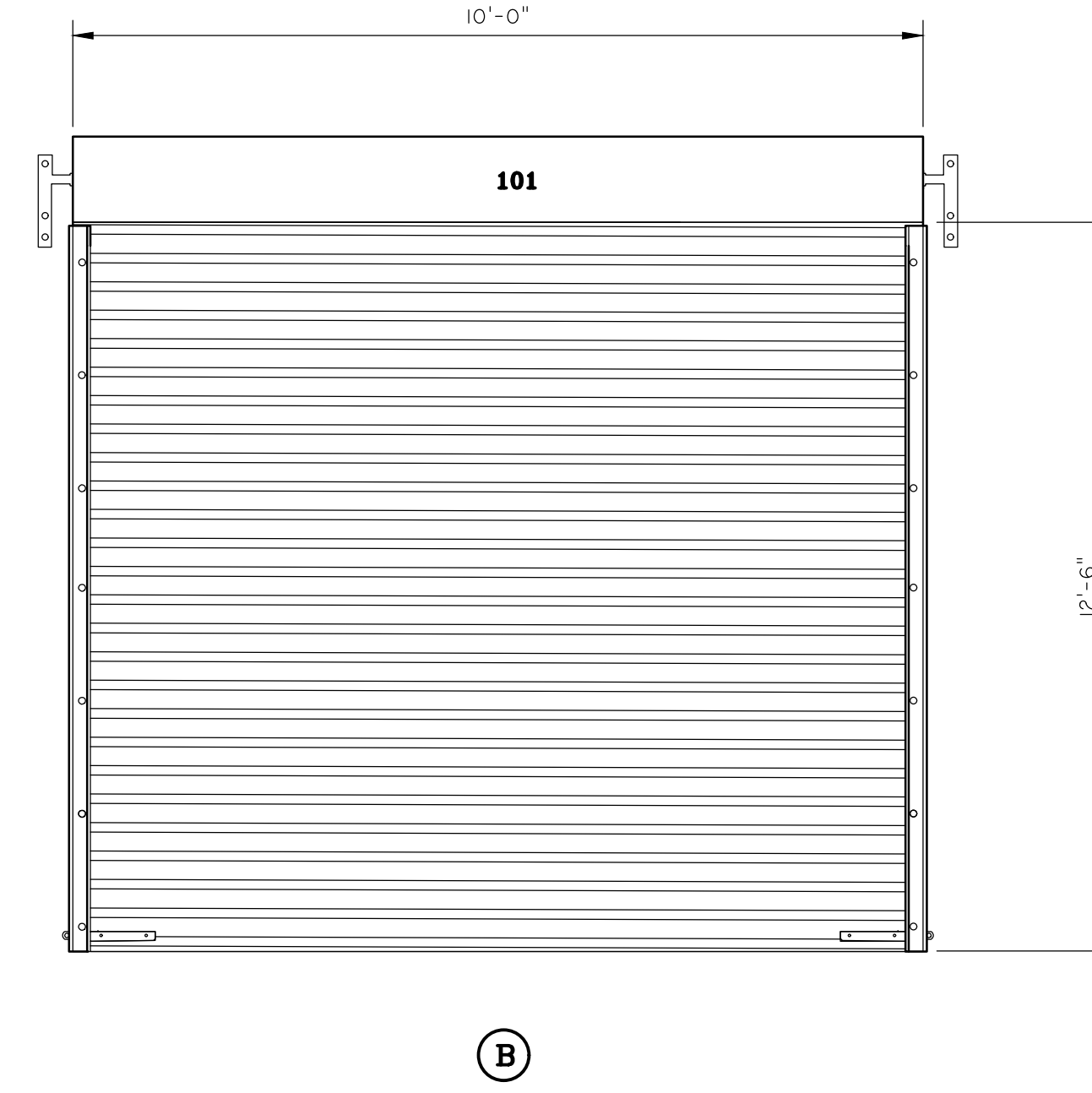
DOOR SCHEDULE								
DOOR NO.	DOOR TYPE	DIMENSIONS			DOOR		FRAME	
		WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	MATERIAL	FINISH
102	A	6'-4"	7'-0"	1-3/4"	FIBERGLASS	PAINT	FIBERGLASS	PAINT
101	B	10'-0"	12'-6"		ALUMINUM	PAINT	ALUMINUM	PAINT

NOTE:  
ALL DOOR HARDWARE INCLUDING CLOSURES, DOOR STOPS, HINGES, ETC. TO BE STAINLESS STEEL.



ROOM FINISH SCHEDULE							
ROOM NAME	FLOOR		WALLS		CEILING		CEILING HEIGHT
	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	
PUMP ROOM	CONCRETE	NOTE 1	CMU	NOTE 2	PLYWOOD	NOTE 3 & 4	10'-0"

- NOTES:  
 1. CONCRETE FLOOR SHALL BE SEALED  
 2. CMU WALLS (INTERIOR AND EXTERIOR) SHALL RECEIVE FILLER COAT AND EXTERIOR PAINT  
 3. PLYWOOD CEILING SHALL RECEIVE PRIMER COAT AND LATEX PAINT  
 4. APPLY SPRAYABLE FOAM INSULATION OVER THE ENTIRE CEILING.  
 5. CONTRACTOR IS RESPONSIBLE FOR OBTAINING BUILDING PERMIT FROM THE LOCAL GOVERNMENT.  
 6. CONTRACTOR TO COORDINATE WITH DOOR MANUFACTURER ON DESIGN AND LOCATION OF ROLL UP DOOR ANCHORAGE.

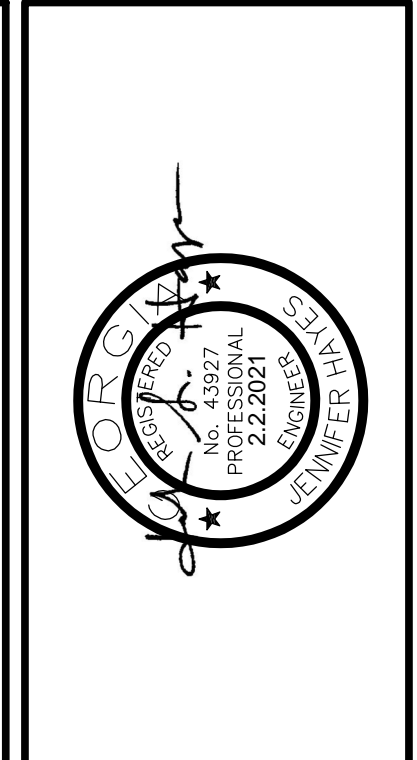


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 REVIEWED: JAH  
 APPROVED: JAH  
 SCALE: AS SHOWN

**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
 EFFINGHAM COUNTY BOOSTER PUMP STATION  
 DOOR SCHEDULE

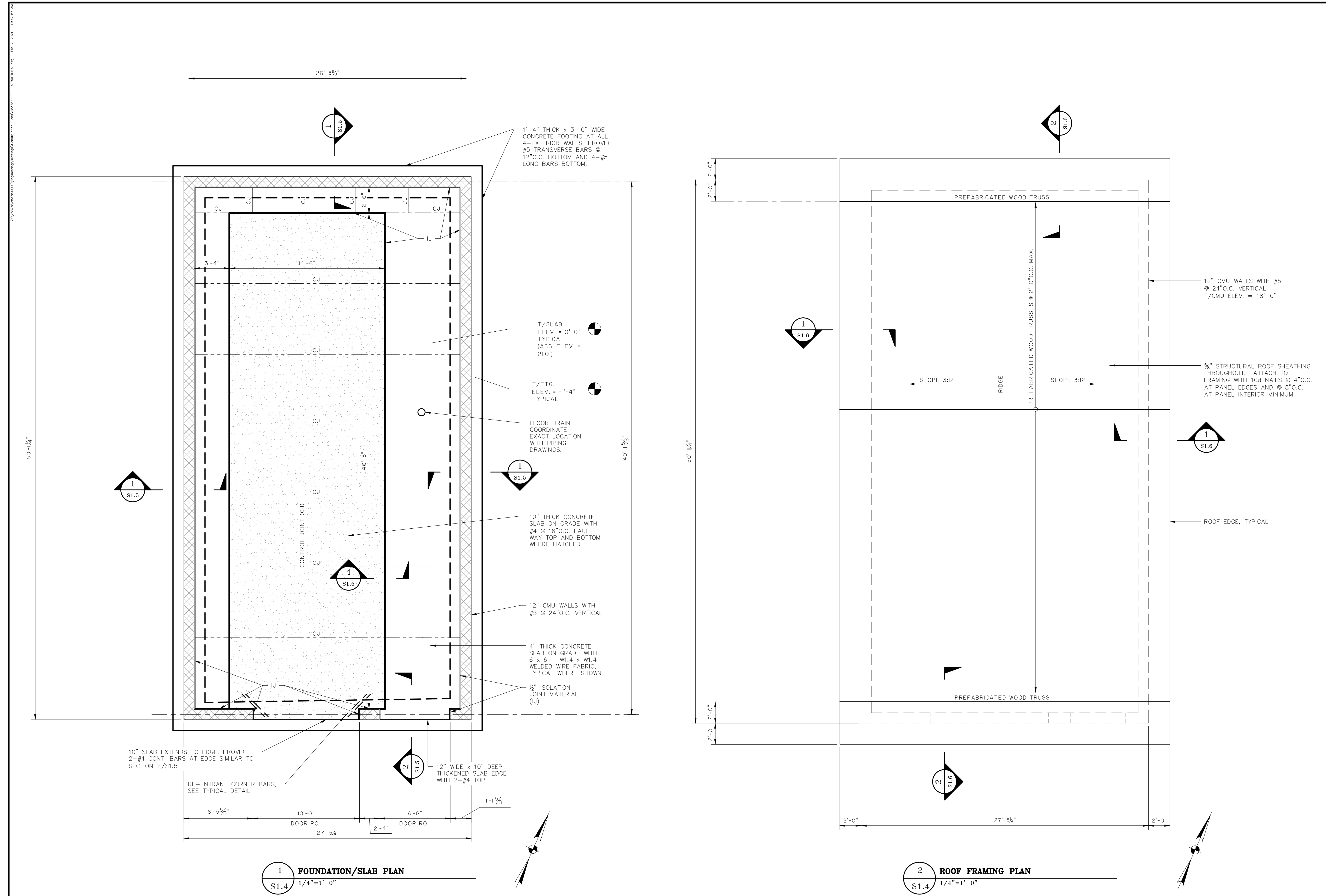
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**S1.3**

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2. (P. 2/21) (S. 2/21) 0000 (S. 2/21) 0000 - STRUCTURAL - 1/1/2021 - 11:42:37 AM

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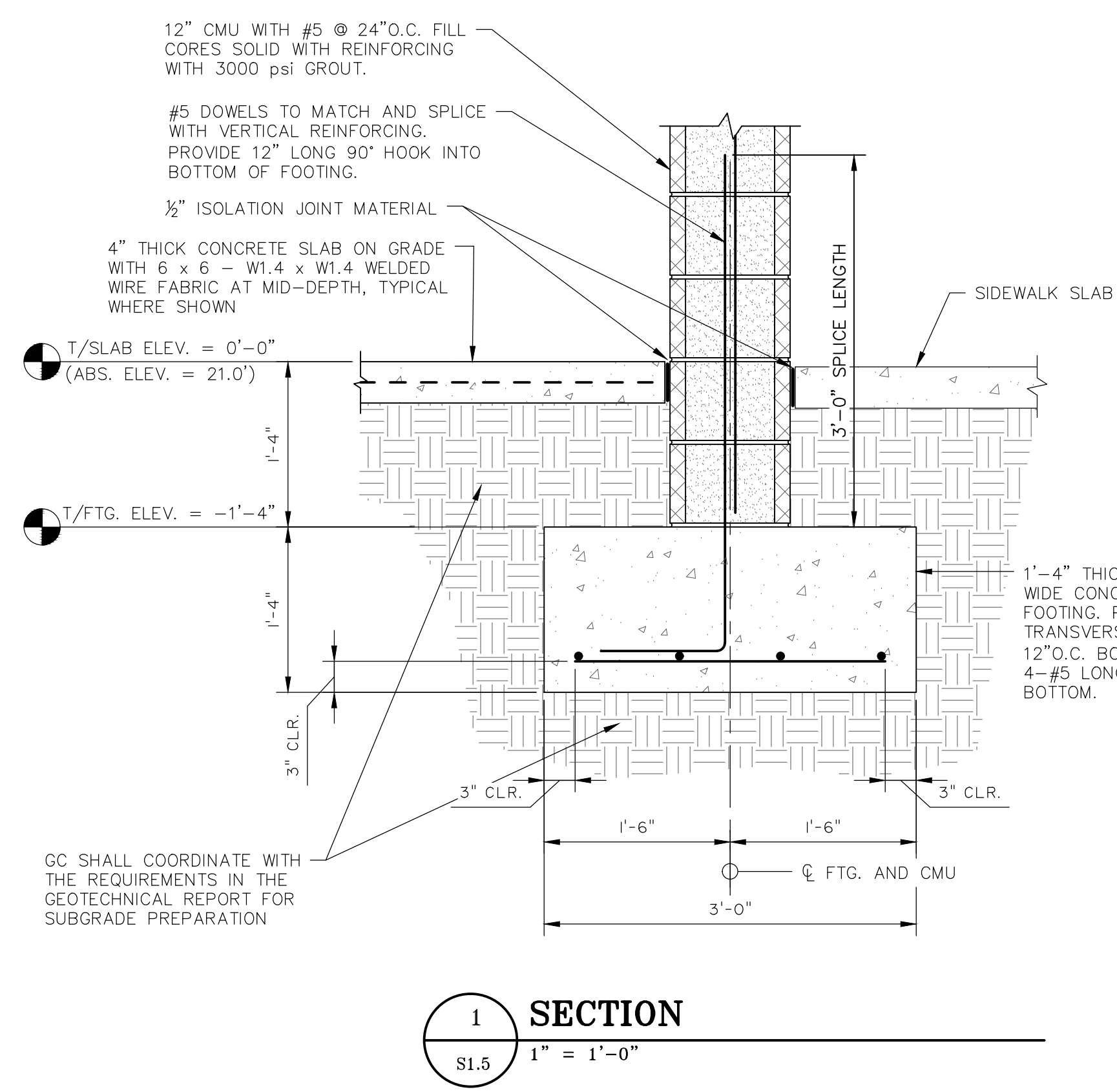
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
 EFFINGHAM COUNTY BOOSTER PUMP STATION  
 FOUNDATION AND ROOF FRAMING PLANS

JOB NO: J-28378.0000  
 DATE: 02/02/2021  
 DRAWN: JEP  
 DESIGNED: JEP  
 REVIEWED: JAH  
 APPROVED: JAH  
 SCALE: AS SHOWN

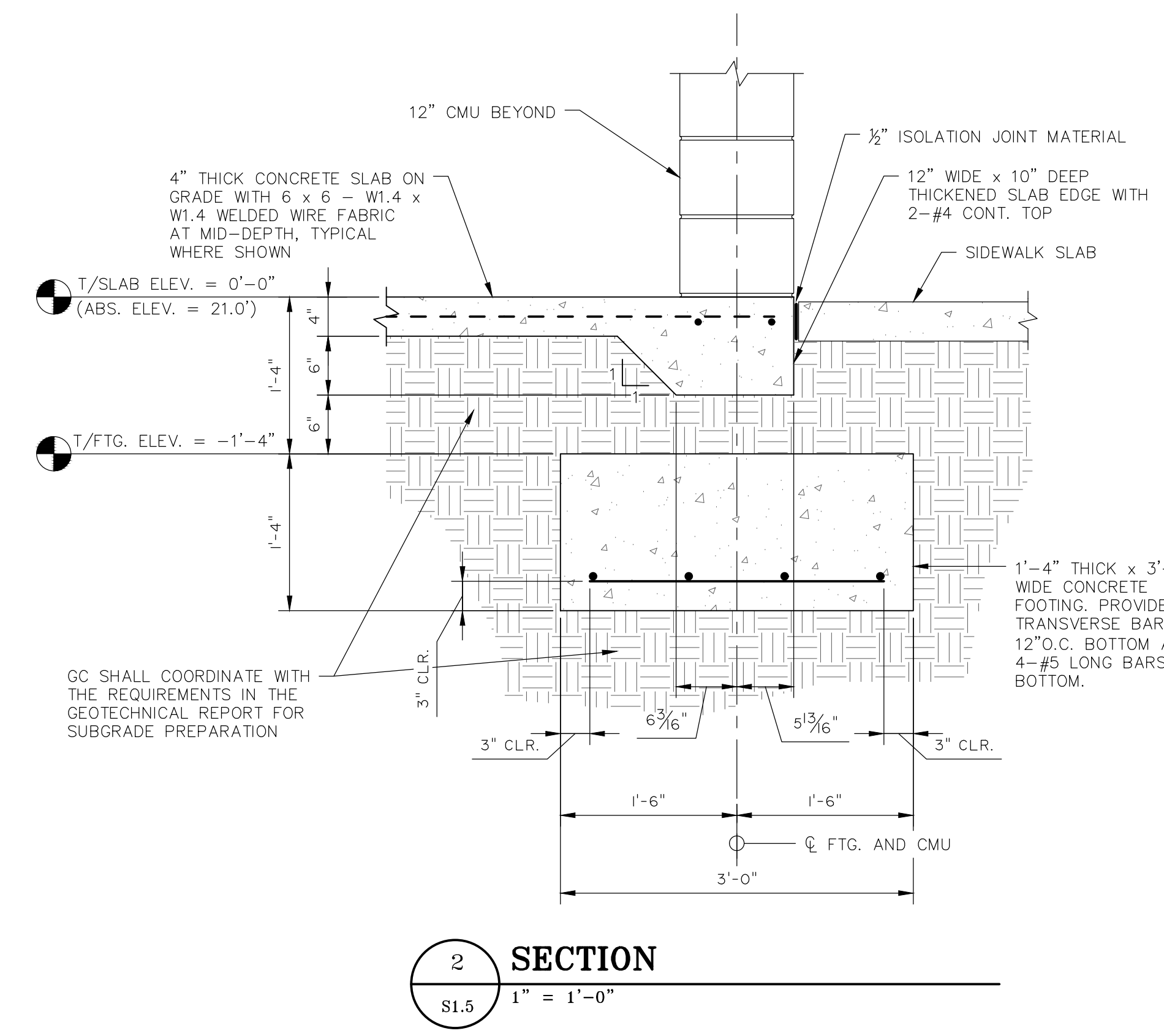
**S1.4**

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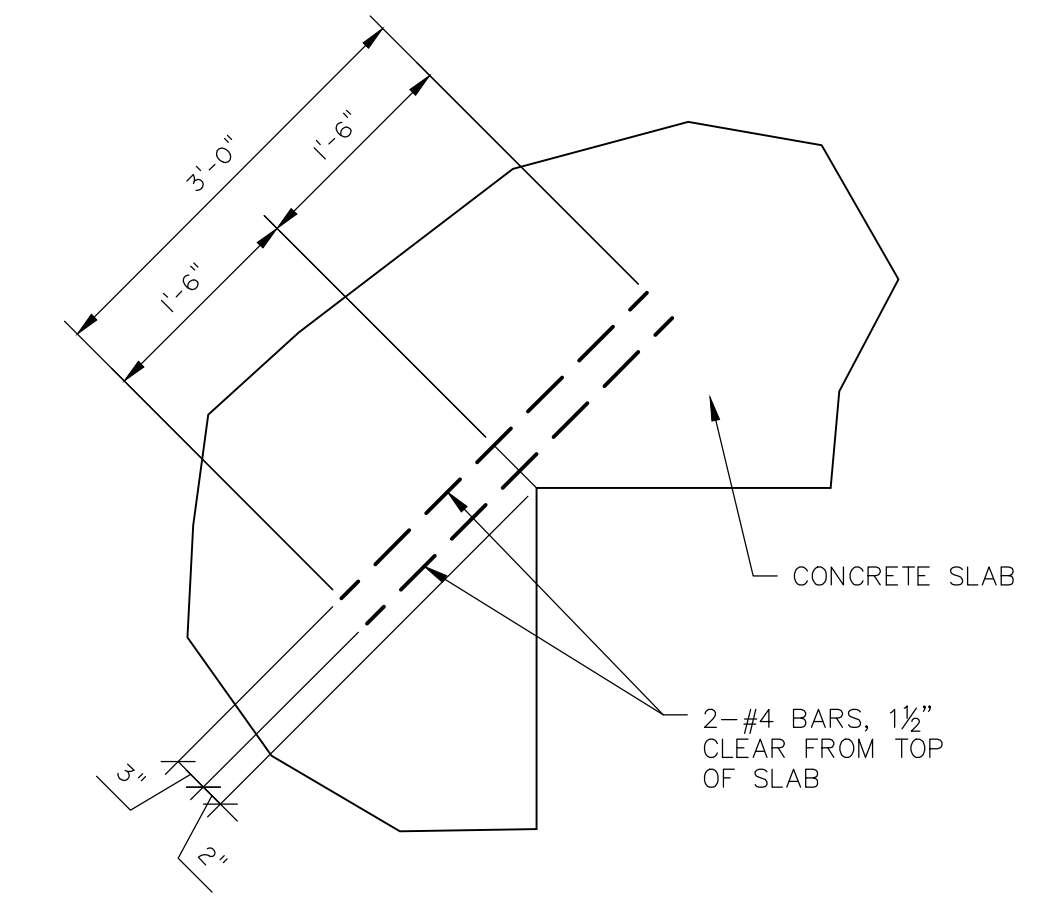
2. JAH/STW/2/21/0000/Engineering/Construction/Plans/210717/0000 - STRUCTURAL.dwg - Rev. 2, 2021 - 11.42.17



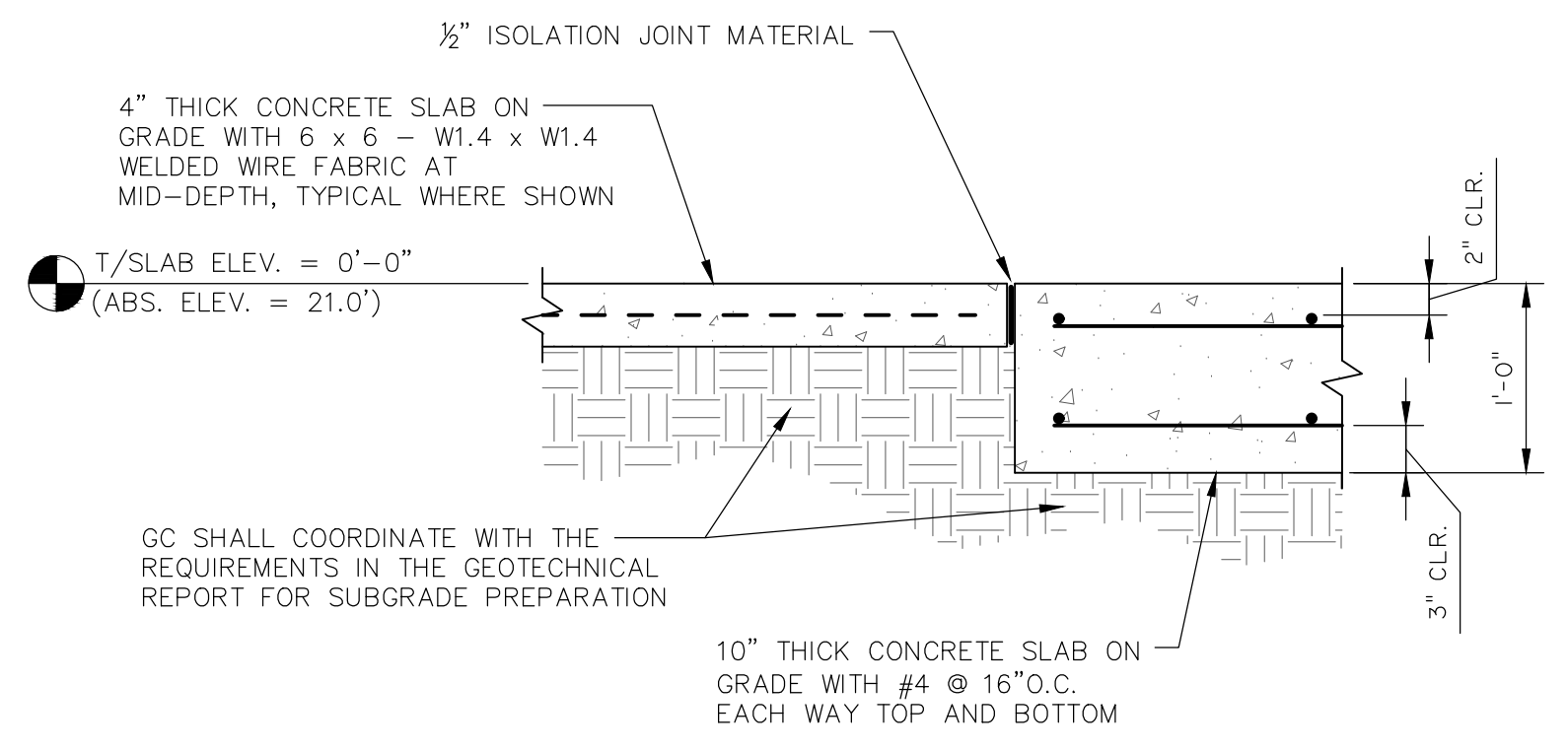
**1 SECTION**  
S1.5 1" = 1'-0"



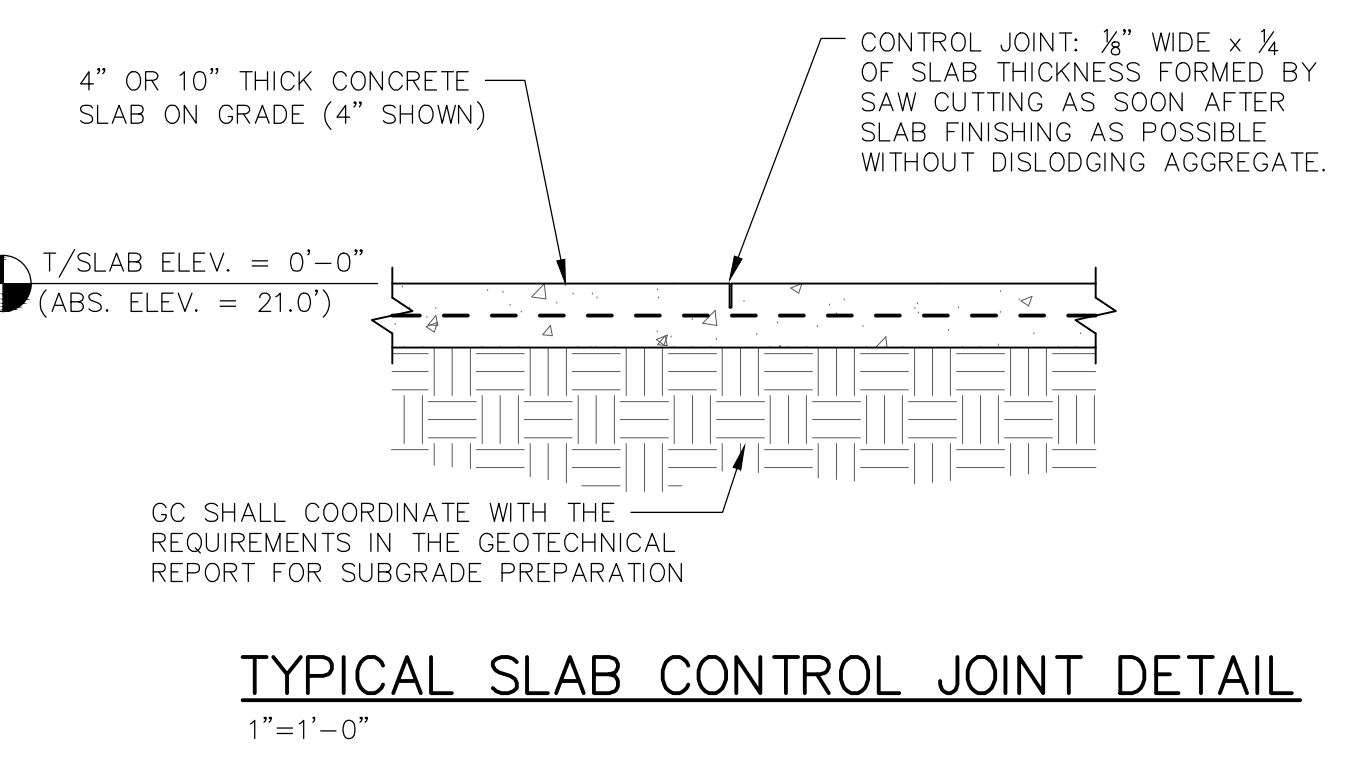
**2 SECTION**  
S1.5 1" = 1'-0"



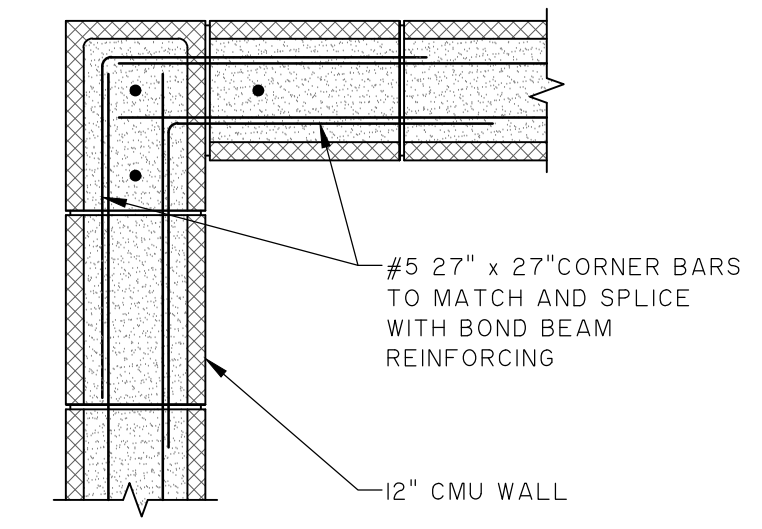
**TYPICAL RE-ENTRANT CORNER BAR DETAIL**  
3/4" = 1'-0"



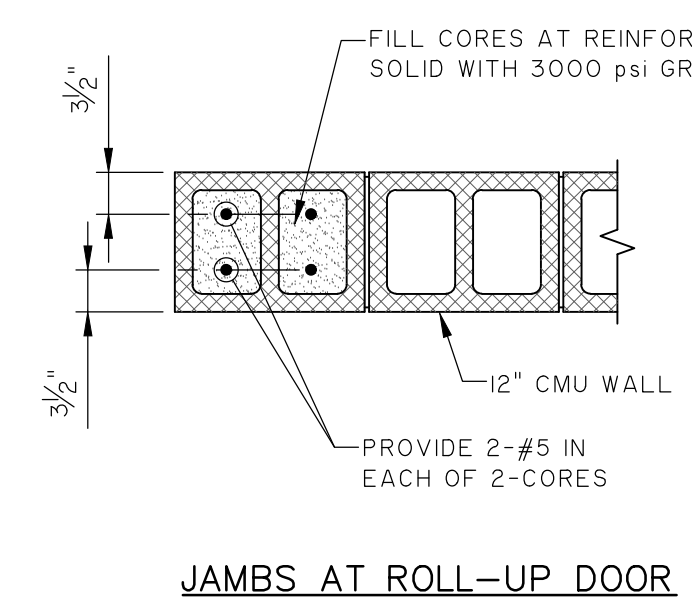
**3 SECTION**  
S1.5 1" = 1'-0"



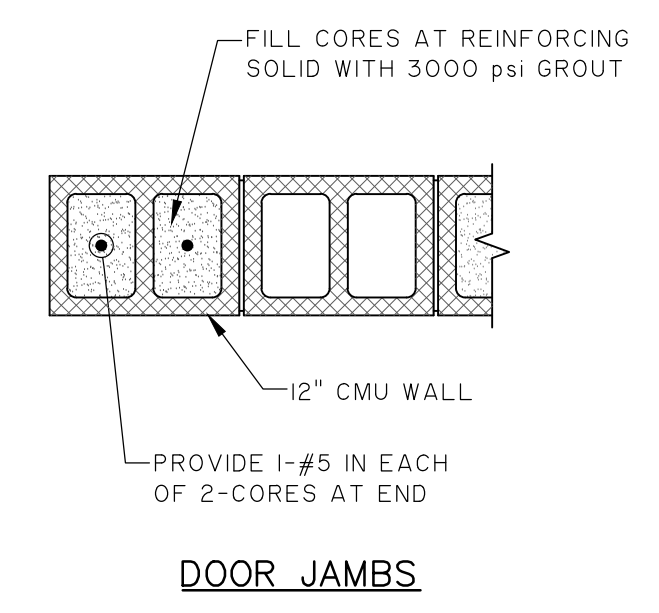
**TYPICAL SLAB CONTROL JOINT DETAIL**  
1" = 1'-0"



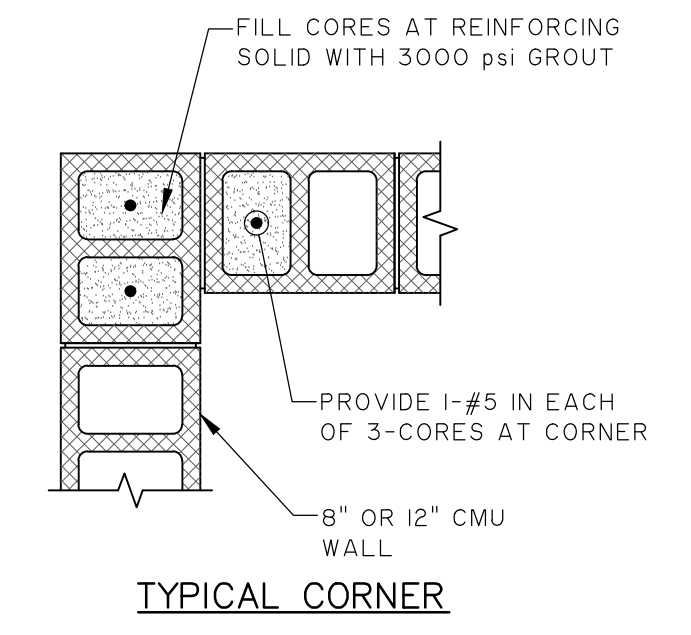
**TYPICAL BOND BEAM REINFORCING AT CORNERS**  
3/4" = 1'-0"



**JAMBS AT ROLL-UP DOOR**

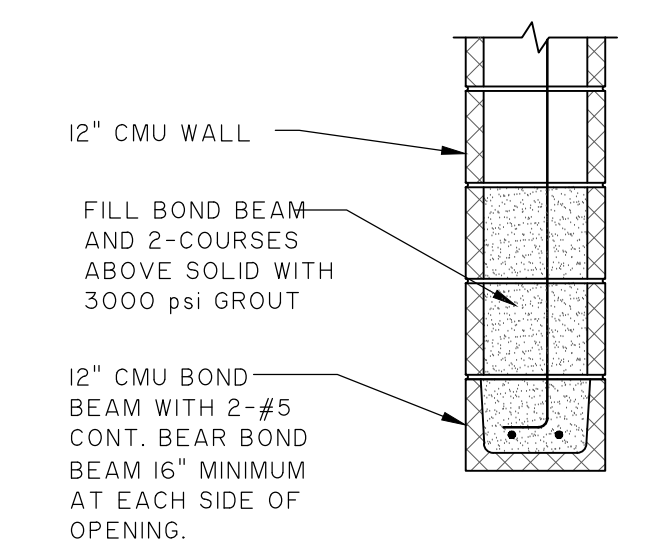


**DOOR JAMBS**

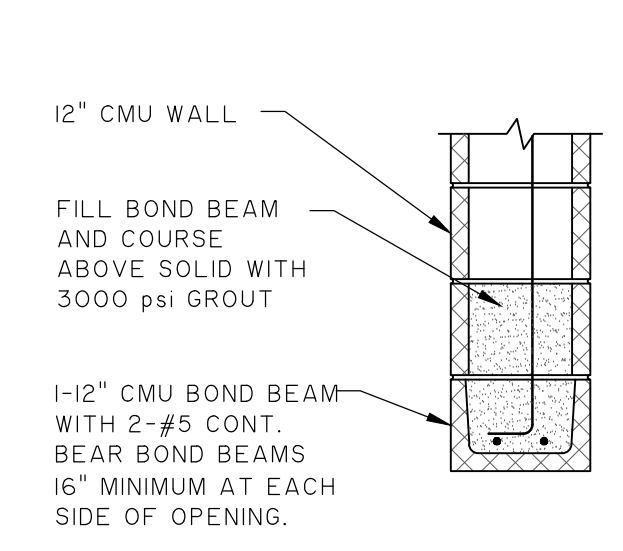


**TYPICAL CORNER**

**SPECIAL MASONRY REINFORCING DETAILS**  
3/4" = 1'-0"

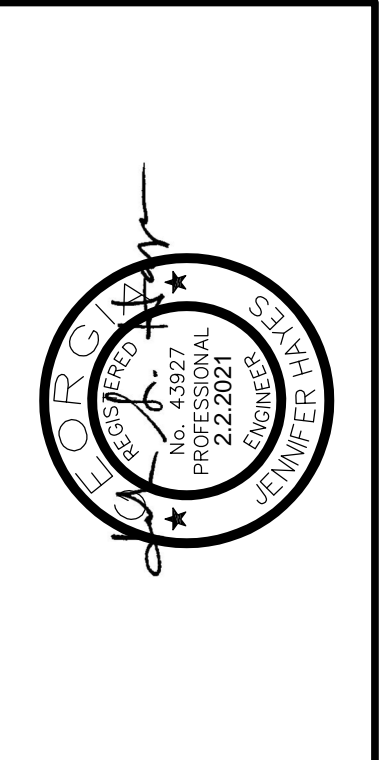


**10'-0" WIDE ROLL-UP DOOR**



**6'-4" WIDE OPENING**

**MASONRY LINTEL DETAILS**  
3/4" = 1'-0"



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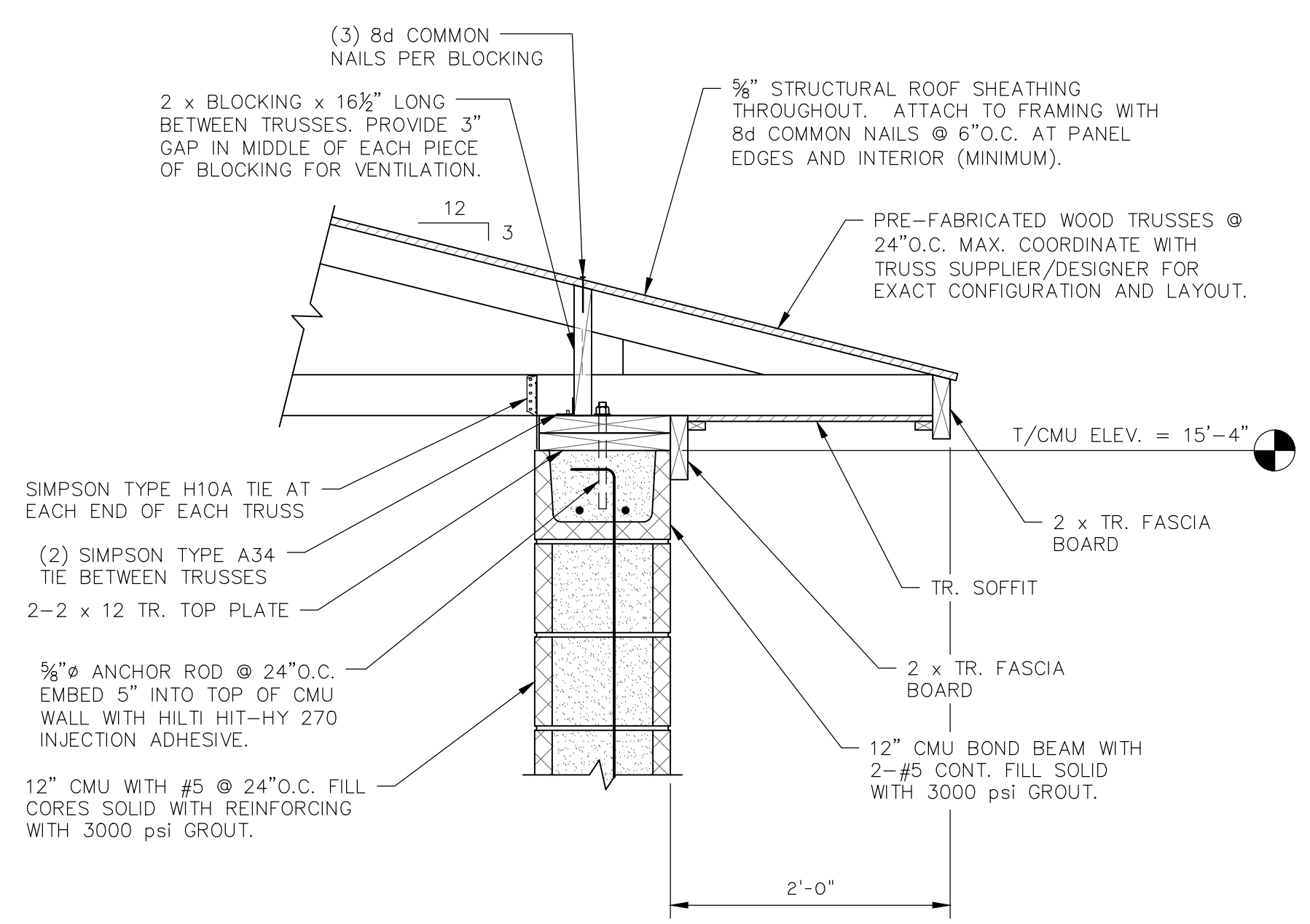
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**FOUNDATION AND MASONRY DETAILS**

JOB NO: J-28378.0000  
 DATE: 02/02/2021  
 DRAWN: JEP  
 DESIGNED: JEP  
 REVIEWED: JAH  
 APPROVED: JAH  
 SCALE: AS SHOWN

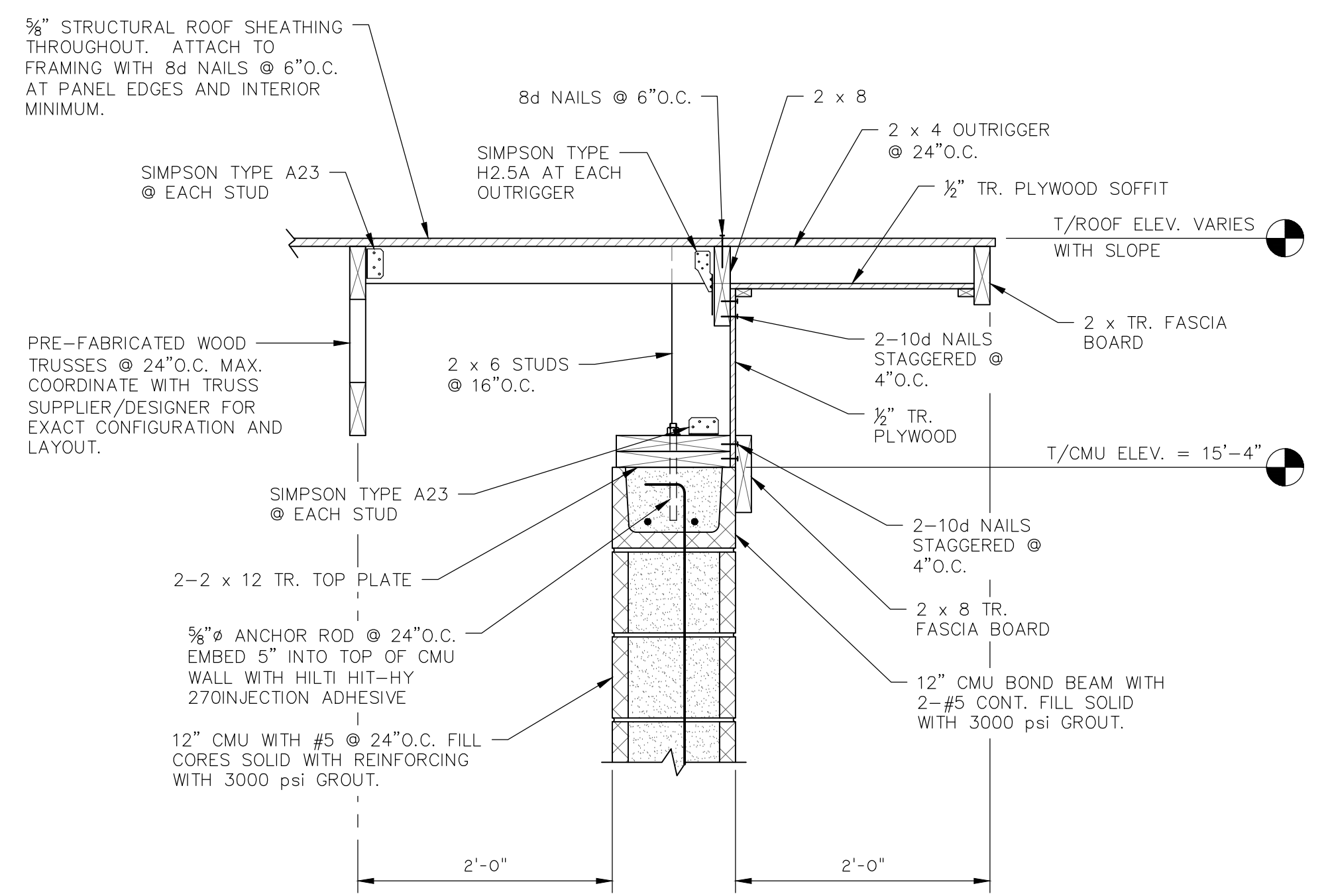
**S1.5**

BID SET - NOT FOR CONSTRUCTION

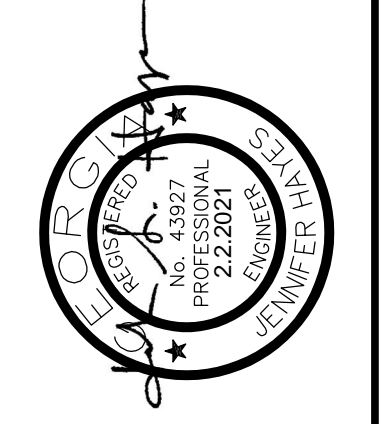
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1 SECTION  
S1.6 1" = 1'-0"



2 SECTION  
S1.6 1" = 1'-0"



NO.	REVISIONS	BY	DATE

**THOMAS & HUTTON**  
682 Johnnie Dodds Boulevard • Suite 100  
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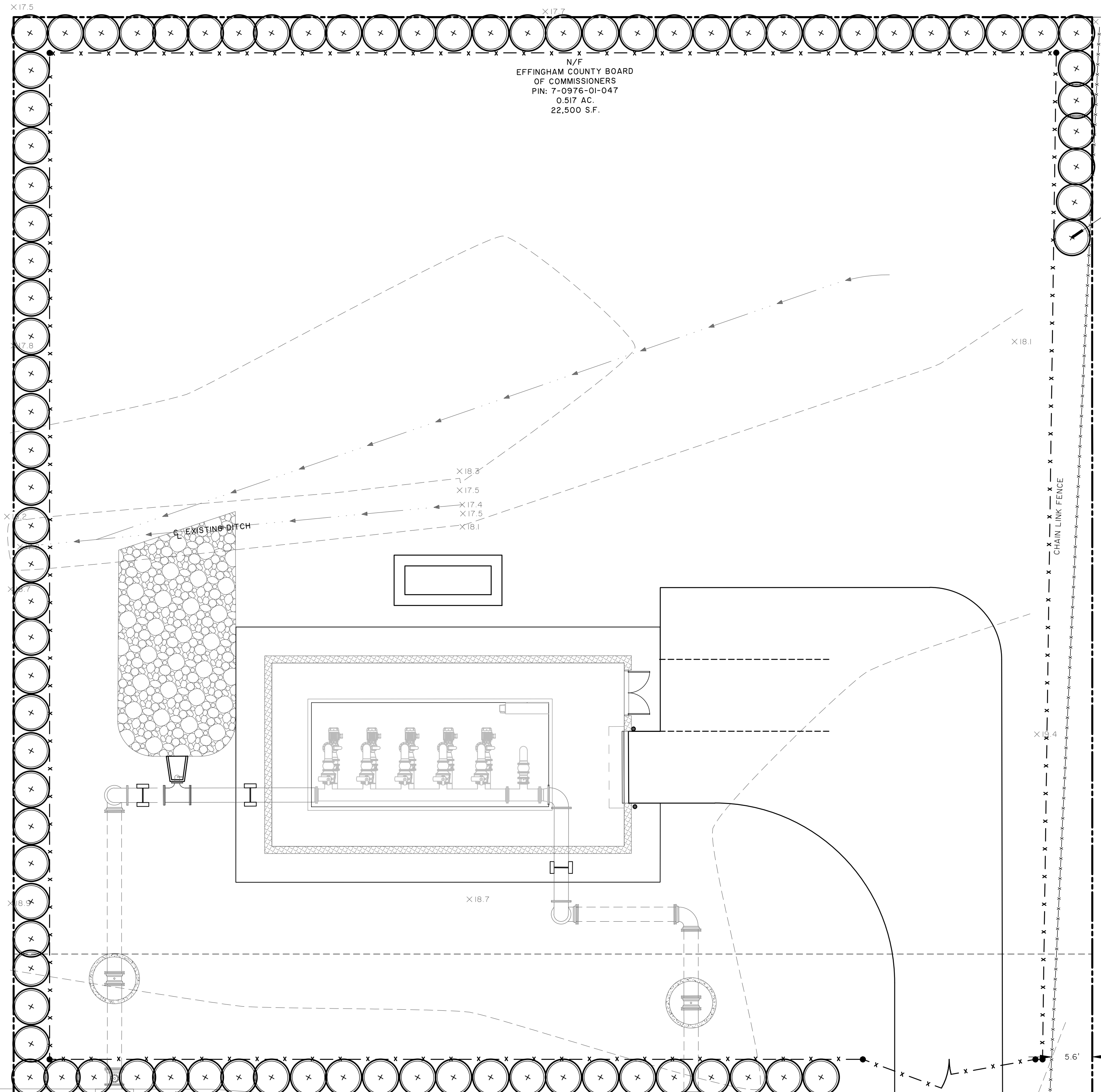
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
CHATHAM COUNTY, GA  
EFFINGHAM COUNTY BOOSTER PUMP STATION  
**ROOF FRAMING DETAILS**

JOB NO: J-28378.0000  
DATE: 02/02/2021  
DRAWN: JEP  
DESIGNED: JEP  
REVIEWED: JAH  
APPROVED: JAH  
SCALE: AS SHOWN

**S1.6**

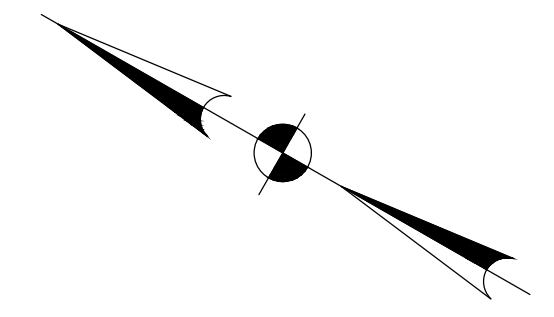
BID SET - NOT FOR CONSTRUCTION

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N/F  
EFFINGHAM COUNTY BOARD  
OF COMMISSIONERS  
PIN: 7-0976-01-047  
0.517 AC.  
22,500 S.F.

N/F  
MAYOR & ALDERMAN OF SAVANNAH  
PIN: 7-0976-01-046.  
08 235X PG. 521



**PLANT SCHEDULE**

QNTY	ABBRV	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE	SPACING	MISCELLANEOUS / REMARKS
86	LIRC	Ligustrum japonicum 'Recurvifolium'	Wax Leaf Ligustrum	CONT. : 3 GAL., 36" X 36"	AS SHOWN	Full



NO.	REVISIONS	BY	DATE

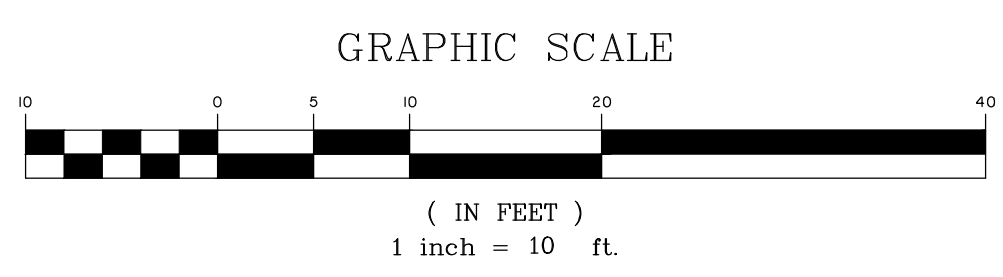
**THOMAS & HUTTON**  
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Savannah, GA 31405 • 912.234.5300  
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**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**PLANTING PLAN**

JOB NO: J-28378.0000  
DATE: 04/21/2020  
DRAWN: CET  
DESIGNED: CET  
REVIEWED: RPT  
APPROVED: RPT  
SCALE: 1" = 10'

**L1.1**

**HODGEVILLE ROAD**  
80' PUBLIC RIGHT-OF-WAY  
(ASPHALT PAVING)



**BID SET - NOT FOR CONSTRUCTION**



Know what's below. Call before you dig.

TRUNK OF PALMS SHALL BE NEARLY UNIFORM IN SIZE OVER ENTIRE HEIGHT AND SHALL BE FREE OF OLD FROND STUBS, FIRE BLACK AND OTHER DAMAGE

5 LAYERS OF BURLAP, 5 - 2"x4"x16" WOODEN BATTENS, CONNECTED WITH 2-3/4" STEEL BANDS, OR APPROVED ALTERNATE

2"x4" WOOD BRACE (3 EA. MIN.) NAIL TO BATTENS & STAKES

3" MINIMUM MULCH

SOIL BERM TO HOLD WATER

AMENDED PLANTING SOIL AS NEEDED PER SOIL ANALYSIS

FINISH GRADE

DEPTH OF ROOTBALL

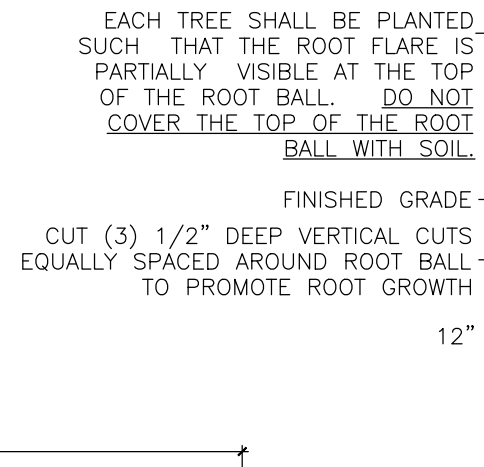
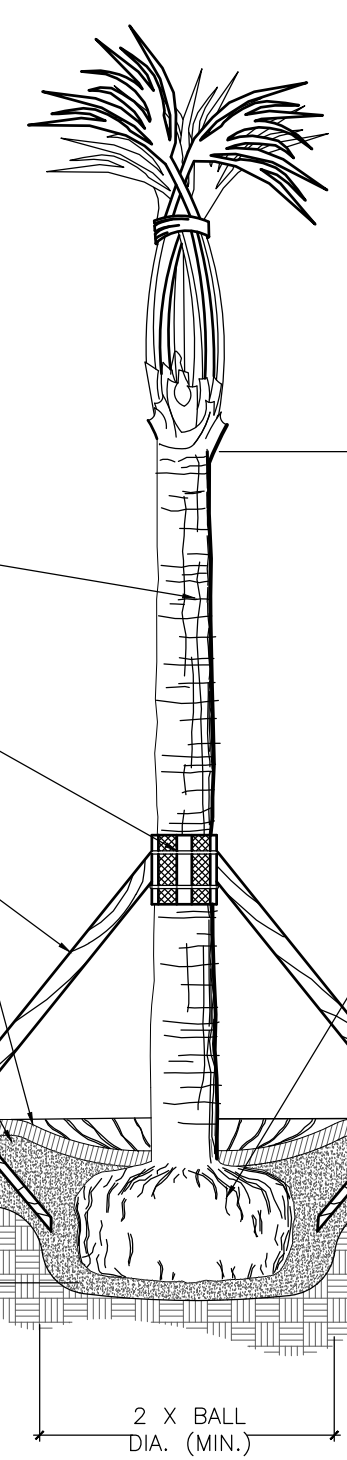
2 X BALL DIA. (MIN.)

NOTES:

- 1) SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.
2) PLANT ROOT BALL FLUSH WITH FINISHED GRADE UNLESS AREA HAS POOR DRAINAGE, IN WHICH CASE PLANT ROOTBALL 2" ABOVE GRADE.
3) SABAL PALMETTOS SHALL BE DEFOLIATED, PROTECT CABBAGE HEAD FROM DAMAGE. ALL OTHER PALM SPECIES MUST HAVE FRONDS TIED W/BIODEGRADABLE STRAP OR TWINE.
4) FINAL TREE STAKING AND PLACEMENT TO BE APPROVED BY OWNER'S REP.
5) CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

PALM TREE PLANTING

NOT TO SCALE

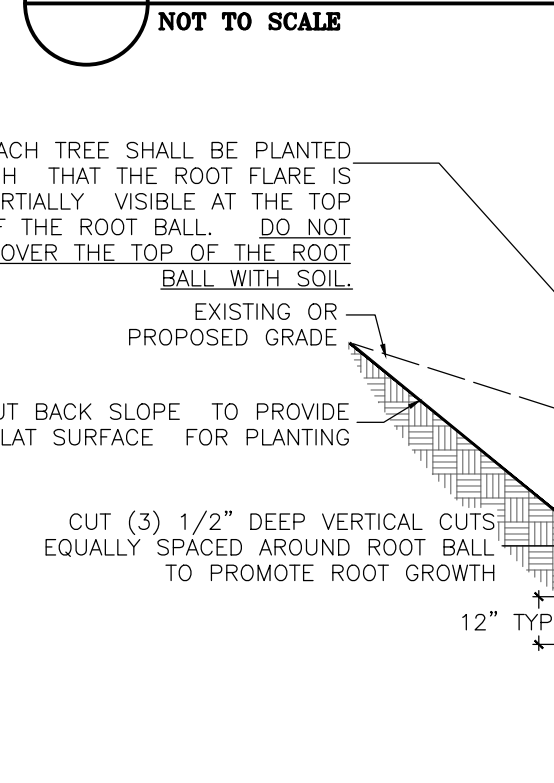


NOTES:

- 1) SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.
2) ONLY GUY TREES WHEN SITE CONDITIONS REQUIRE IT.
3) PLANT ROOT BALL FLUSH WITH FINISHED GRADE UNLESS AREA HAS POOR DRAINAGE, IN WHICH CASE PLANT ROOTBALL 2" ABOVE GRADE.
4) REMOVE ALL BRANCHES THAT ARE DAMAGED, RUBBING, OR CROSSING OTHER BRANCHES. NEVER CUT A CENTRAL LEADER.
6) FINAL TREE STAKING AND PLACEMENT TO BE APPROVED BY OWNER'S REP.
7) CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

TREE PLANTING

NOT TO SCALE

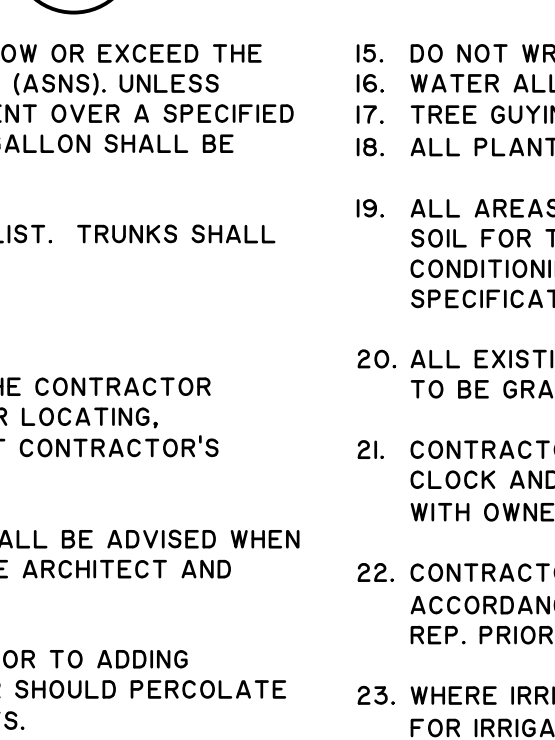


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TREE PLANTING ON A SLOPE

NOT TO SCALE

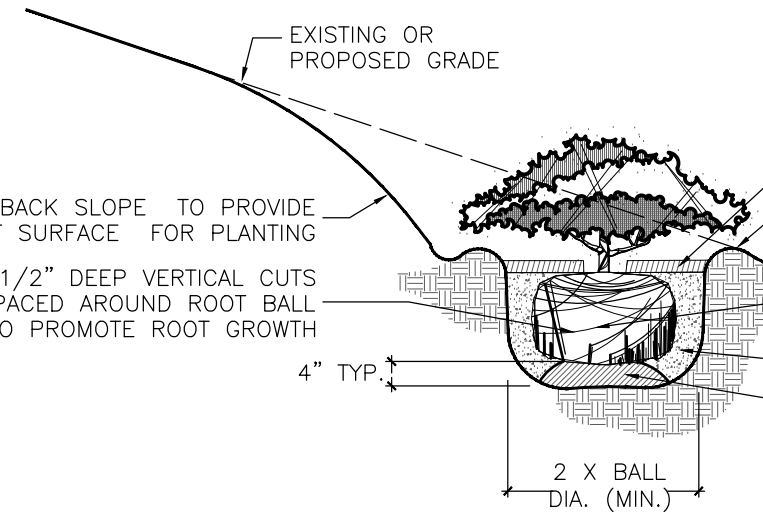


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SHRUB PLANTING ON A SLOPE

NOT TO SCALE

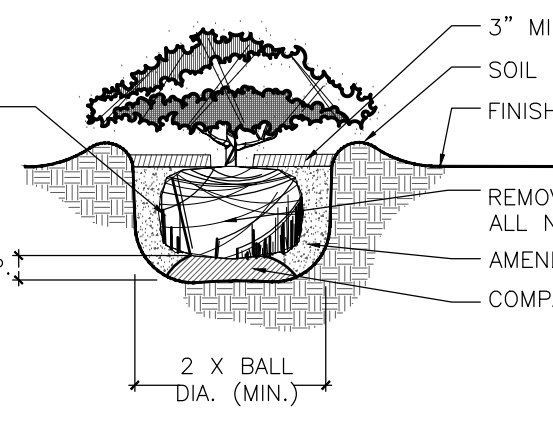


NOTES:

- 1) SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.
2) WHEN GROUNDCOVER AND SHRUBS ARE USED IN MASSES, DO NOT FORM SOIL BERMS ON INDIVIDUAL PLANTS AND ENTIRE PLANTING BED SHALL BE EXCAVATED TO RECEIVE PLANTING SOIL AND PLANT MATERIAL.
3) PLANT ROOT BALL FLUSH WITH FINISHED GRADE UNLESS AREA HAS POOR DRAINAGE, IN WHICH CASE PLANT ROOTBALL 2" ABOVE GRADE. COORDINATE WITH OWNER'S REP. PRIOR TO SETTING ROOTBALL ELEVATIONS.
4) CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

SHRUB PLANTING

NOT TO SCALE

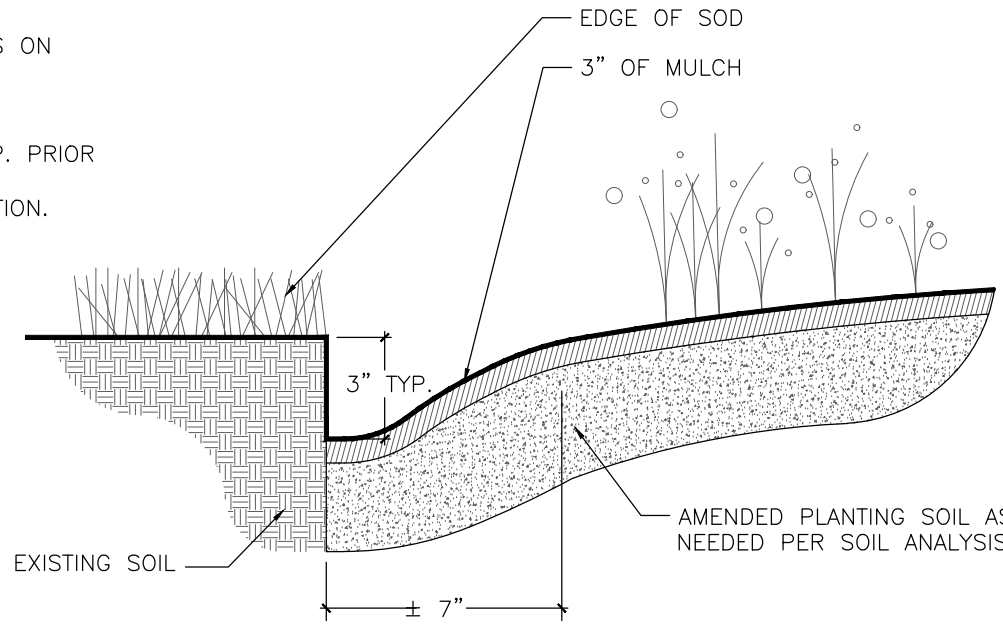


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SHRUB PLANTING

NOT TO SCALE

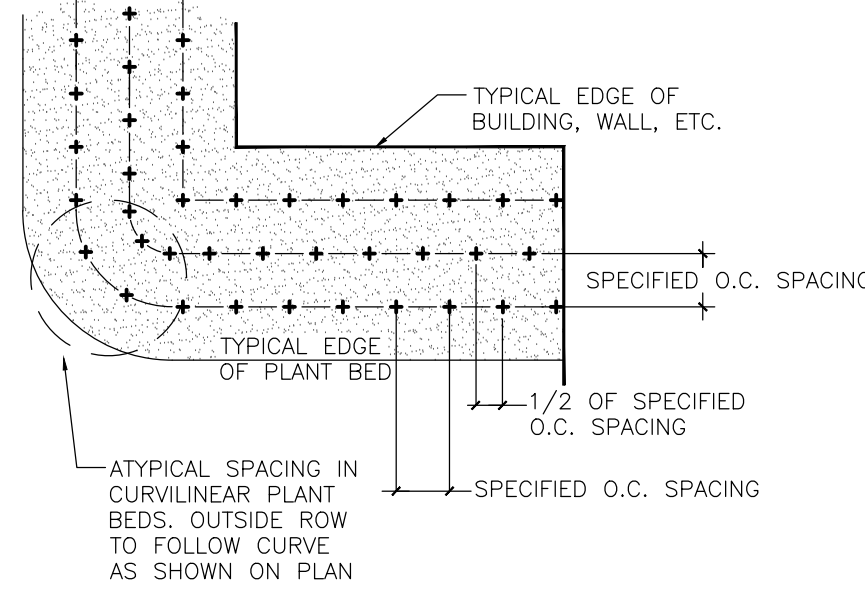


NOTES:

- 1) TRENCH EDGE TO BE LOCATED BETWEEN PLANTING BEDS AND ALL LAWN AREAS.

SOD TO PLANT BED EDGE

NOT TO SCALE



NOTES:

- 1) EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER PLANTING TO A DEPTH OF 12".

PLANT SPACING DETAIL

NOT TO SCALE

GENERAL PLANTING / IRRIGATION NOTES:

- 1. REQUIREMENTS FOR THE MEASUREMENTS, BRANCHING, GRADING, QUALITY, BALLING AND BURLAPPING OF PLANTS IN THE PLANT LIST SHOULD FOLLOW OR EXCEED THE STANDARDS CURRENTLY RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. IN THE AMERICAN STANDARD FOR NURSERY STOCKS (ANS). UNLESS OTHERWISE SPECIFIED, ANY SIZE SPECIFIED SHALL BE CONSIDERED MINIMUM. MINIMUMS FOR HEIGHT, SPREAD, CALIPER, ETC. SHALL TAKE PRECEDENCE OVER A SPECIFIED CONTAINER SIZE. (I.E. - IF 7 GALLON IS REQUIRED, TO PROVIDE A SPECIFIED HEIGHT OR SPREAD THAT IS SPECIFIED AS A 3 GALLON, THEN THE 7 GALLON SHALL BE SHALL BE REQUIRED AND INCLUDED IN THE BASE BID AND SHALL NOT BE CONSIDERED A CHANGE ORDER.)
2. ALL PLANTS SHALL HAVE A WELL FORMED HEAD WITH MINIMUM CALIPER, HEIGHT AND SPREAD OF THE SIDE BRANCHES AS SHOWN ON THE PLANT LIST. TRUNKS SHALL BE UNDAMAGED AND SHAPE SHALL BE TYPICAL OF THE SPECIES.
3. MEASUREMENT OF CONIFER HEIGHT SHALL INCLUDE NOT MORE THAN FIFTY (50) PER CENT OF THIS YEARS' VERTICAL GROWTH (TOP CANDLE).
4. THE LANDSCAPE CONTRACTOR IS HEREBY NOTIFIED OF THE EXISTENCE OF UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE PROJECT AREA. THE CONTRACTOR SHOULD VERIFY THE EXACT LOCATION OF ALL UTILITY LINES PRIOR TO COMMENCEMENT OF DIGGING OPERATIONS. CONTRACTOR RESPONSIBLE FOR LOCATING, PROTECTING, AND REPAIRING ALL DAMAGE TO BUILDINGS, UTILITIES, PAVEMENT, AND CURB & GUTTER. ANY REPAIRS SHALL BE DONE PROMPTLY AT CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR WILL BE RESPONSIBLE FOR STAKING AND LAYOUT OF PLANTINGS ON THIS PROJECT. THE LANDSCAPE ARCHITECT OR OWNER SHALL BE ADVISED WHEN STAKES ARE READY FOR INSPECTION ON VARIOUS PLANTING AREAS. ALL LAYOUT WORK SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO OPENING ANY PLANTING PITS.
6. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO VERIFY THAT EACH EXCAVATED TREE OR SHRUB PIT WILL PERCOLATE (DRAIN) PRIOR TO ADDING TOPSOIL AND INSTALLING TREES OR SHRUBS. THE CONTRACTOR SHALL FILL THE BOTTOM OF HOLES WITH SIX (6) INCHES OF WATER. THIS WATER SHOULD PERCOLATE WITHIN A TWENTY-FOUR (24) HOUR PERIOD. IF WATER DOESN'T PERC, CONTRACTOR SHALL NOTIFY THE OWNER'S REP PRIOR TO INSTALLING PLANTS.
7. SHOULD THE LANDSCAPE CONTRACTOR ENCOUNTER UNSATISFACTORY SURFACE OR SUBSURFACE DRAINAGE CONDITIONS, SOIL DEPTH, LATENT SOILS, HARD PANS, STEAM OR OTHER UTILITY LINES OR OTHER CONDITIONS THAT WILL JEOPARDIZE THE HEALTH AND VIGOR OF THE PLANTS, HE MUST ADVISE THE LANDSCAPE ARCHITECT IN WRITING OF THE CONDITIONS PRIOR TO INSTALLING THE PLANTS. OTHERWISE, THE LANDSCAPE CONTRACTOR WARRANTS THAT THE PLANTING AREAS ARE SUITABLE FOR PROPER GROWTH AND DEVELOPMENT OF THE PLANTS TO BE INSTALLED.
8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING UP THE SITE AT THE COMPLETION OF THE PROJECT AND SHALL MAINTAIN THE SITE IN A REASONABLY NEAT AND CLEAN STATE THROUGHOUT THE INSTALLATION PROCESS. STREETS AND PAVED AREAS SHALL BE CLEANED REGULARLY TO REMOVE CONSTRUCTION MATERIALS AND OTHER DEBRIS RESULTING FROM WORK OF THE PROJECT.
9. REPLACEMENTS OF DEAD OR UNSATISFACTORY MATERIAL SHALL BE MADE AS SPECIFIED IN THE PLANT LIST. THE OWNER OR LANDSCAPE ARCHITECT SHALL INSPECT REPLACED PLANTS WHEN ALL REPLACEMENTS HAVE BEEN MADE. REPLACEMENTS ARE TO BE ALIVE AND IN A HEALTHY CONDITION WHEN THE REPLACEMENTS ARE COMPLETE. REPLACEMENTS ARE NOT SUBJECT TO AN ADDITIONAL GUARANTEE, BUT THE LANDSCAPE CONTRACTOR SHALL CONSULT WITH THE LANDSCAPE ARCHITECT ON REASON FOR PLANT DECLINE/DEATH AND HOW TO AVOID FUTURE INSTANCES.
10. SHOULD THE CONTRACTOR NOT MAKE REPLACEMENTS IN A SATISFACTORY AND TIMELY FASHION IN ACCORD WITH THE PLANTING NOTES, THE OWNER, AFTER PROPER NOTIFICATION TO THE CONTRACTOR MAY UTILIZE THE FUNDS OF THE RETAINAGE TO HAVE THE REPLACEMENTS MADE IN ACCORDANCE WITH THE SPECIFICATIONS BY ANOTHER CONTRACTOR.
II. NO EXCAVATION OR PLANTING PIT SHALL BE LEFT UNATTENDED OVERNIGHT.
12. PLANT MATERIAL QUANTITIES PROVIDED IN THE PLANT LIST ARE FOR REFERENCE ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR THE ACTUAL PLANT MATERIAL COUNTS. DISCREPANCIES BETWEEN QUANTITIES SHOWN ON THE PLANTING PLAN AND THOSE IN THE PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION. IF CLARIFICATION OF DISCREPANCIES FROM THE LANDSCAPE ARCHITECT IS NOT POSSIBLE, THEN QUANTITIES SHOWN ON THE PLANTING PLAN SHALL TAKE PRECEDENCE.
13. REMOVE BURLAP/STRAPPING AND WIRE BASKET FROM TOP 1/3 OF ROOT BALL ON TREES.
14. REMOVE PAPER, PLASTIC OR METAL AROUND ROOT BALLS OF SHRUBS.

- 15. DO NOT WRAP TREES.
16. WATER ALL PLANT MATERIAL IMMEDIATELY AFTER PLANTING.
17. TREE GUYING MATERIAL SHALL BE 'ARBOR-TIE' OR EQUIVALENT.
18. ALL PLANT BEDS TO BE MULCHED WITH 3" DEPTH OF PINE STRAW MULCH.
19. ALL AREAS OF PLANTING, INCLUDING AREAS OF GRASS SEEDING AND SOD, SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AND SHALL BE PROVIDED APPROPRIATE SOIL FOR THE PROPOSED PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL ADJUST PH AND / OR SOIL FERTILITY BY UNIFORMLY INCORPORATING REQUIRED SOIL CONDITIONING MATERIALS AT THE RATE AND DEPTH DETERMINED BY THE ANALYSIS OF THE SOIL TEST (AS REQUIRED IN 3.02 AND 3.13 OF THE LANDSCAPING SPECIFICATIONS). EACH SOIL TEST SHALL BE SPECIFIC TO THE PROPOSED PLANT MATERIAL TO BE INSTALLED IN A GIVEN AREA.
20. ALL EXISTING VEGETATION WITHIN AREAS TO BE PLANTED / SODDED / SEEDED SHALL BE REMOVED PRIOR TO PLANTING / SODDING / SEEDING. ALL AREAS INDICATED TO BE GRASS SEED SHALL BE SEED PER GRASSING SPECIFICATIONS FOR PERMANENT STABILIZATION.
21. CONTRACTOR TO SUPPLY AUTOMATIC IRRIGATION SYSTEMS, COMPLETE AND INSTALLED. SYSTEM TO INCLUDE ALL VALVES, PIPES, HEADS, FITTINGS, RAIN SENSOR, AND CLOCK AND TO PROVIDE 100% COVERAGE OF ALL NEW SODDED AND IMPROVED EXISTING GRASS AREAS, TREES, SHRUBS AND PLANTING BEDS. COORDINATE IRRIGATION WITH OWNER'S REPRESENTATIVE. (CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF PROPOSED IRRIGATION SYSTEM FOR OWNER ACCEPTANCE)
22. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR AUTOMATIC IRRIGATION SYSTEMS. CONTRACTOR SHALL PROVIDE ELECTRIC METER AND SERVICE IN ACCORDANCE WITH STATE AND LOCAL CODES FOR IRRIGATION SYSTEM. LOCATION OF METERS AND CONTROL PANELS FOR IRRIGATION SHALL BE APPROVED BY OWNER'S REP. PRIOR TO INSTALLATION.
23. WHERE IRRIGATION SYSTEM WILL BE INSTALLED WITH ANY WATER SOURCE OTHER THAN DOMESTIC POTABLE WATER, LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR IRRIGATION WATER TESTING. IRRIGATION WATER SHALL BE TESTED FOR LEVELS OF pH, ALKALINITY AND SOLUBLE SALTS. SUBMIT TEST RESULTS TO OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO INSTALLATION OR ORDERING OF IRRIGATION EQUIPMENT, PUMPS OR WELL DIGGING.
24. ALL TREES SHALL BE INSTALLED PER THE REQUIREMENTS OF THE CITY OF MYRTLE BEACH, SOUTH CAROLINA APPLICABLE ORDINANCES.
25. ALL PLANT BEDS TO RECEIVE WEED INHIBITOR OF PREEN OR ACCEPTED ALTERNATE.
26. FOR SUMMERTIME PLANTINGS, CONTRACTOR TO USE EITHER CONTAINERIZED OR PRE-DUG B & B PLANT MATERIAL.
27. AS AN ADD ALTERNATE BID, THE CONTRACTOR SHALL PROVIDE "SOIL MOIST TRANSPLANT" (OR ACCEPTED EQUIVALENT) AT THE APPLICATION RATES SHOWN BELOW FOR ALL NEWLY INSTALLED PLANTINGS.
Container Size/Amount Caliper Size/Amount
1 Gallon/7.5 oz. 1 1/3" o.z.
2 Gallon/1.5 oz. 2 1/8" o.z.
3 Gallon/1.5 oz. 3 1/8" o.z.
5 Gallon/2.0 oz. 4 1/2" o.z.
7 Gallon/3.0 oz. 5 1/8" o.z.
10 Gallon/3.0 oz. 6 1/8" o.z.
15 Gallon/5.0 oz. 7 1/2" o.z.
20 Gallon/7.0 oz. 8 1/4" o.z.
Plant Height/Amount Box Size/Amount
2 1/2" o.z. 16 1/5" o.z.
3 1/2" o.z. 20 1/6" o.z.
4 1/3" o.z. 24 1/9" o.z.
5 1/4" o.z. 30 1/12" o.z.
6 1/5" o.z. 36 1/18" o.z.
7 1/6" o.z. 42 1/27" o.z.
60 1/30" o.z.



Table with columns for REVISIONS, NO., BY, DATE

THOMAS & HUTTON logo and address: 50 Park of Commerce Way, Savannah, GA 31405 • 912.234.5300 www.thomasandhutton.com

EFFINGHAM COUNTY BOARD OF COMMISSIONERS CHATHAM COUNTY, GA. EFFINGHAM COUNTY BOOSTER PUMP STATION PLANTING DETAILS. JOB NO: J-28378.0000 DATE: 04/21/2020 DRAWN: CET DESIGNED: CET REVIEWED: RPT APPROVED: RPT SCALE: AS SHOWN

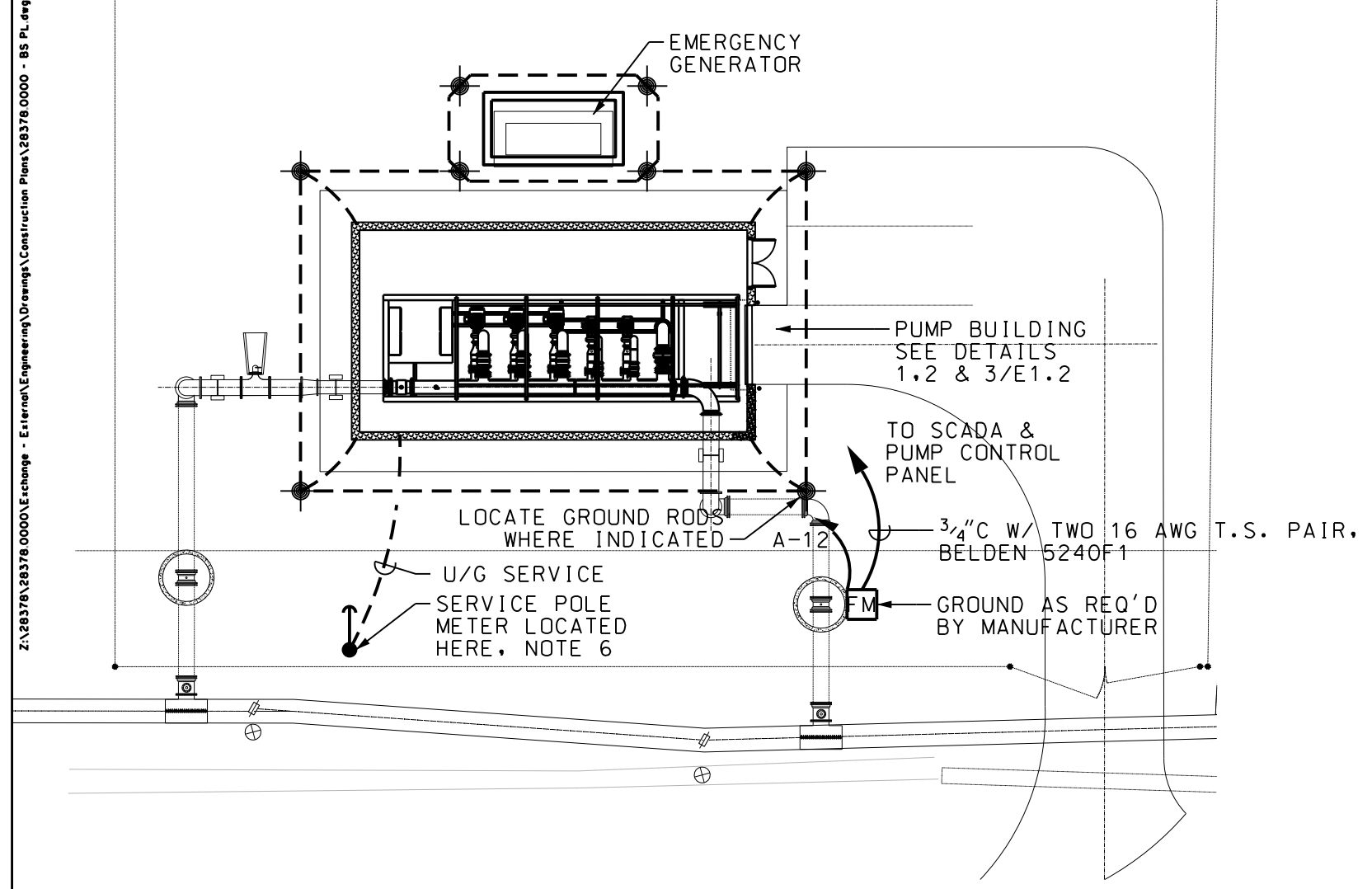
L2.1

BID SET - NOT FOR CONSTRUCTION



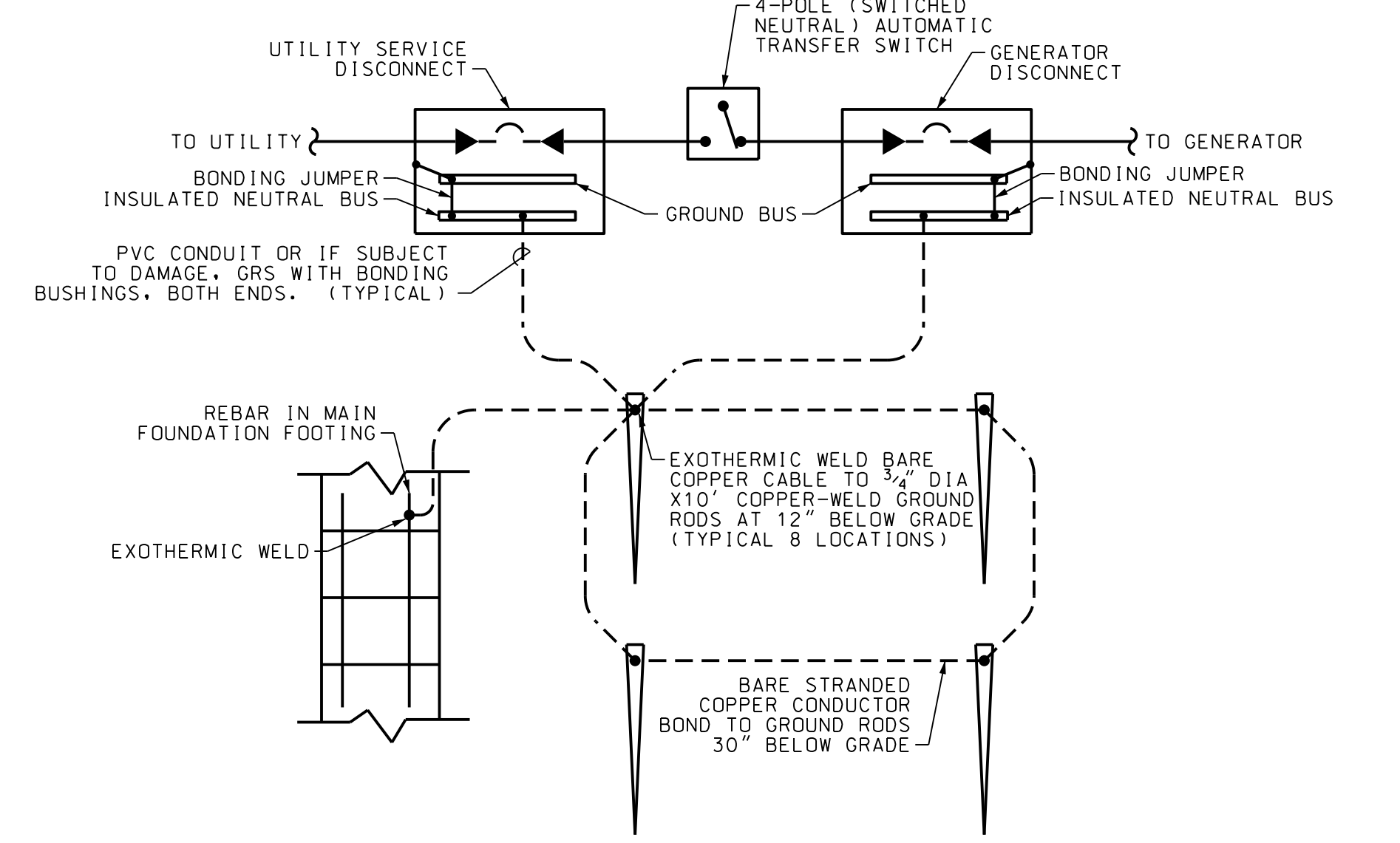


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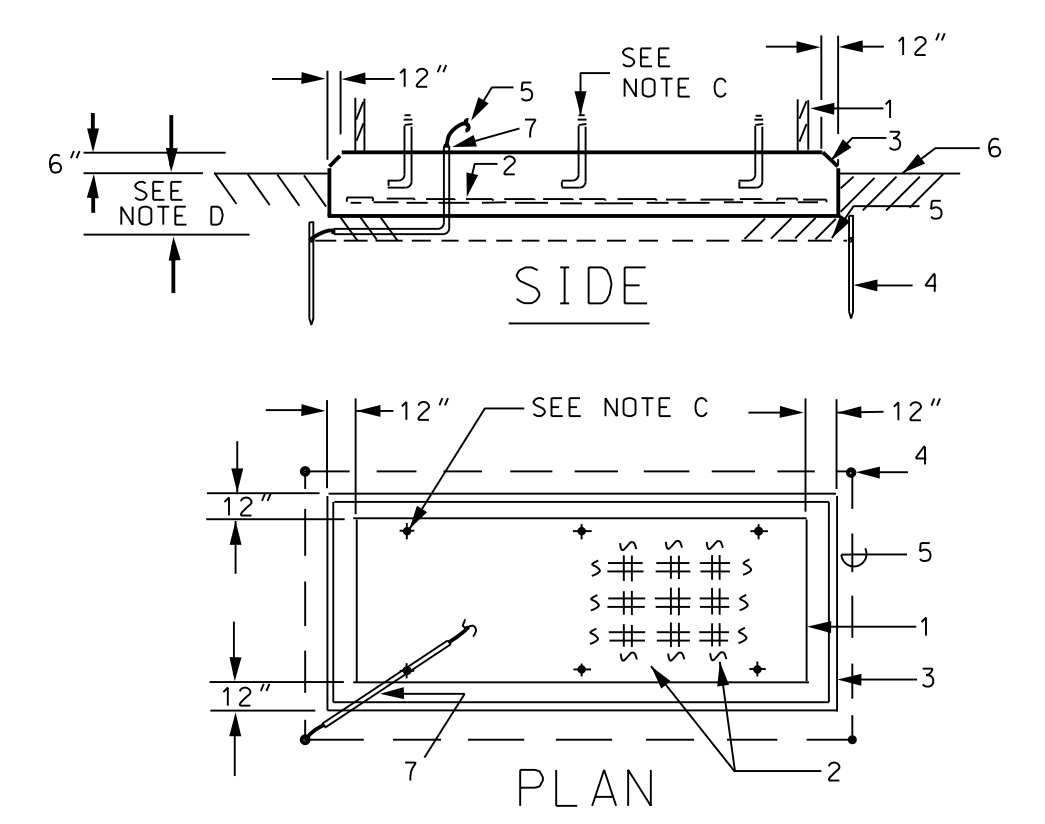


**1 SITE PLAN - ELECTRICAL**  
E1.1 SCALE: 1" = 20'

- LEGEND:**
- CEILING MOUNTED FIXTURE
  - WALL MOUNTED FIXTURE
  - EMERGENCY BATTERY PACK
  - WALL MOUNTED EXIT SIGN
  - SWITCH MTD 48" AFF
  - SERVICE POLE W/ DOWN GUY
  - PHOTOCELL
  - WP WEATHERPROOF: PROVIDE IN-USE TYPE COVER
  - RECEPTACLE MTD 18" AFF
  - RECEPTACLE MTD 48" AFF
  - DISCONNECT SWITCH
  - FLEX CONDUIT
  - EQUIPMENT AS NOTED
  - SURFACE MTD PANELBOARD
  - FM FLOW METER

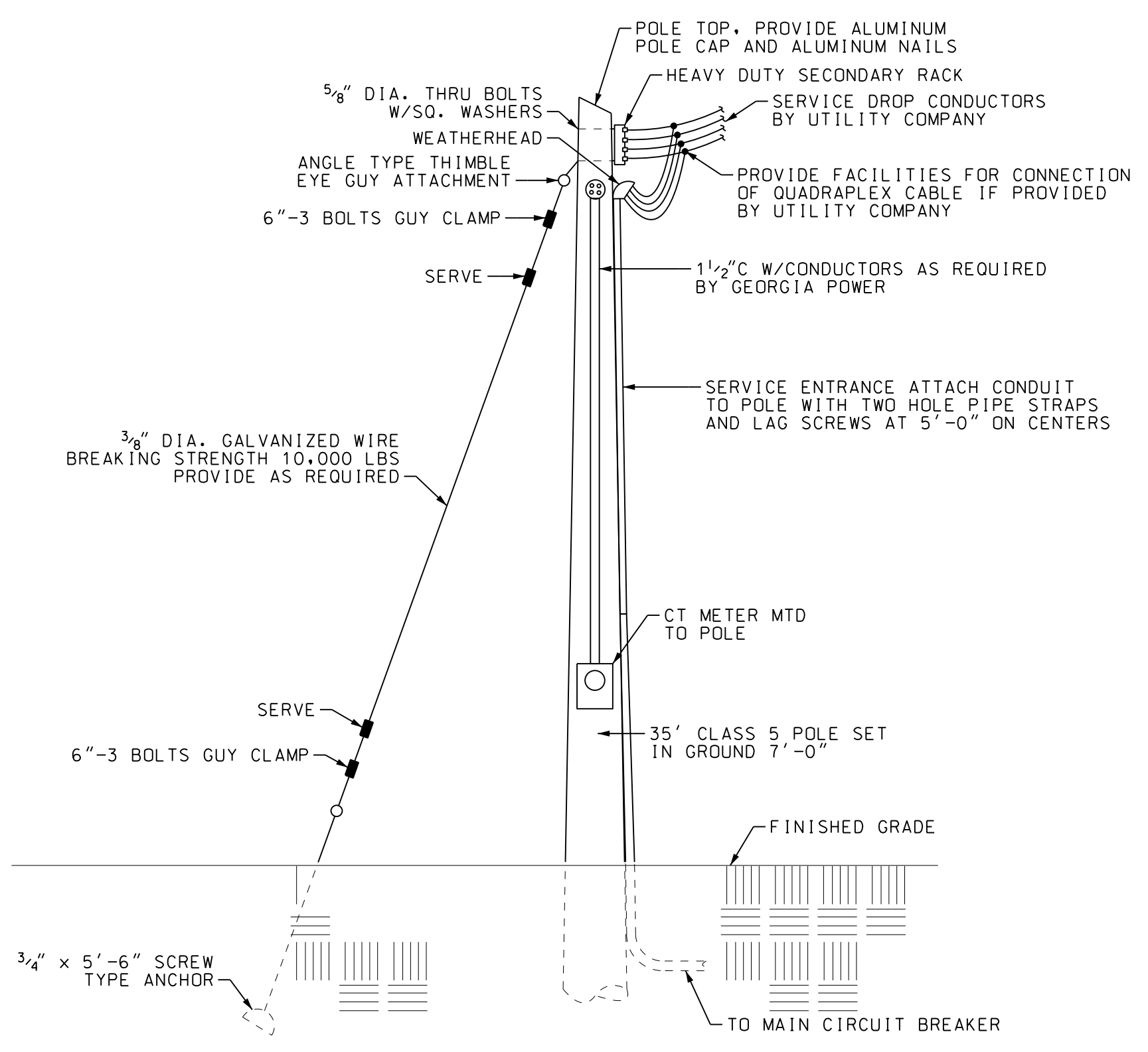


**2 SECONDARY ELECTRICAL GROUNDING**  
E1.1 NOT TO SCALE

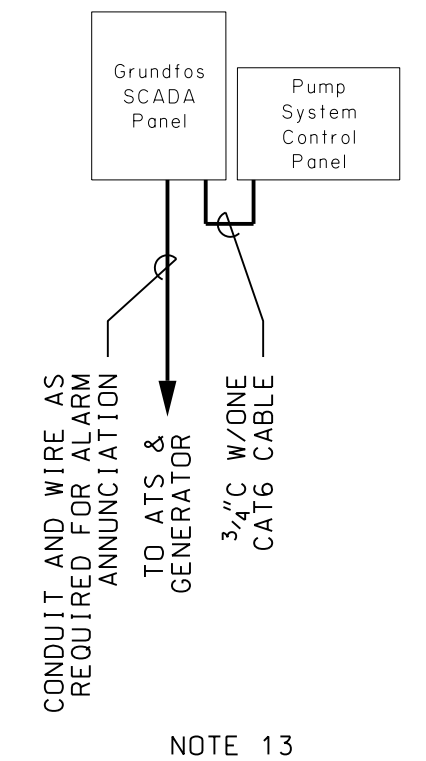


- NOTES:** EMERGENCY GENERATOR SET EXTERIOR FOUNDATION DETAIL
- A. #8 GA. STEEL WIRE MESH, 6" O.C. OR #6 REBAR, 12" O.C., HORIZONTALLY AND VERTICALLY.
  - B. CONNECT TO GENERATOR GROUND CONNECTION LUG. VERIFY STUB UP LOCATION WITH MANUFACTURER'S SHOP DRAWINGS. WATER-PROOF CONDUIT END WITH SEALING COMPOUND.
  - C. ANCHOR BOLTS FURNISHED WITH GENERATOR SET. PROVIDE SIX MINIMUM. TIE TO REINFORCING STEEL.
  - D. DIMENSION SHALL BE 6" (12" OVERALL DEPTH) UP TO & INCLUDING 600 KW, 12" (18" OVERALL DEPTH) LARGER THAN 600 KW.

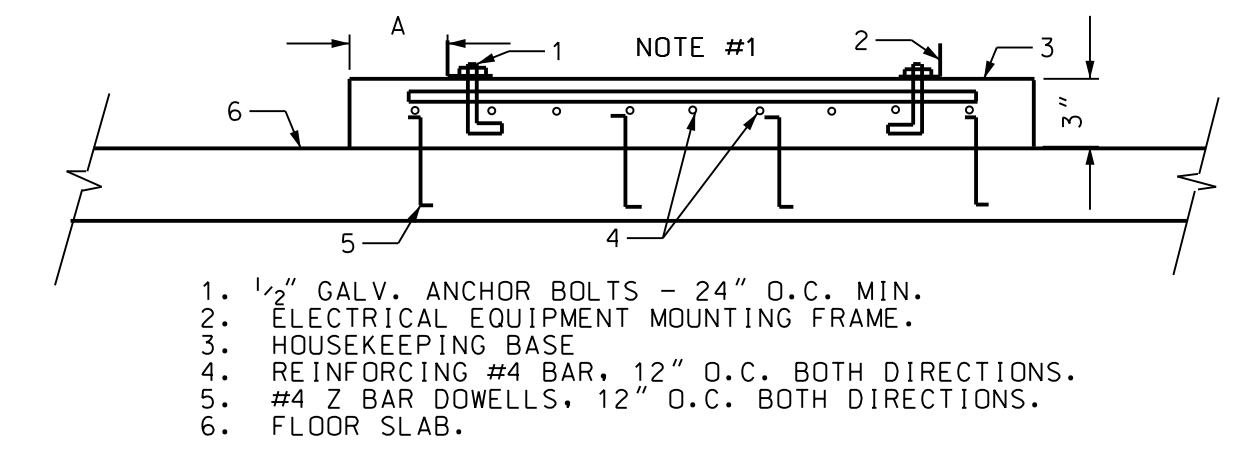
**3 GENERATOR FOUNDATION DETAIL**  
E1.1 NOT TO SCALE



**4 SERVICE POLE**  
E1.1 NOT TO SCALE



**5 SCADA RISER DIAGRAM**  
E1.1 NOT TO SCALE



- NOTES:**
1. DIMENSION 'A' SHALL EXCEED DIMENSIONS OF EQUIPMENT BASE BY NOT LESS THAN THREE INCHES IN ALL DIRECTIONS.
  2. THIS DETAIL SHALL BE APPLICABLE TO FLOOR MOUNTED DRY TYPE TRANSFORMER, FLOOR MOUNTED AUTOMATIC TRANSFER SWITCH COMMUNICATION EQUIPMENT RACKS AND OTHER FLOOR MOUNTED ELECTRICAL EQUIPMENT EXCEEDING 200 LBS IN WEIGHT.

**6 ELECTRICAL EQUIPMENT HOUSEKEEPING BASE**  
E1.1 NOT TO SCALE

- NOTES:**
1. PROVIDE GREEN EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAYS. SEE SPECIFICATIONS.
  2. COORDINATE WORK WITH OTHER TRADES AND SITE CONDITIONS.
  3. WHERE CONDUCTOR SIZE IS SHOWN FOR CIRCUIT, IT SHALL BE MAINTAINED FOR ENTIRE CIRCUIT.
  4. ALL CONDUITS INSTALLED EXPOSED TO ATMOSPHERE SHALL BE RIGID ALUMINUM CONDUIT. ALL CONDUITS INSTALLED BELOW GRADE AND WHERE NOTED SHALL BE SCH.80 PVC. MINIMUM BURIAL DEPTH TO BE 24". PROVIDE DETECTABLE WARNING TAPE 12" BELOW FINISH GRADE, DIRECTLY ABOVE CONDUITS.
  5. SEAL ALL CONDUITS ENTERING PANELS FROM BELOW GRADE WITH DUCT SEAL.
  6. THE EXACT LOCATION OF THE METER AND SERVICE SHALL BE COORDINATED IN THE FIELD WITH THE UTILITY COMPANY AND WITH OTHER WORK ON THE PROJECT SITE. CONTACT MIKE GRESHAM, DISTRIBUTION ENGINEER, GEORGIA POWER, 912-306-2758.
  7. CIRCUIT BREAKER AND SWITCH OPERATING HANDLES SHALL BE A MAXIMUM OF 66" ABOVE FINISHED GRADE. LOCATE METER AND SERVICE BREAKER WHERE INDICATED.
  8. POSITION ELECTRICAL EQUIPMENT FOR BEST ACCESS TO ELECTRICAL EQUIPMENT.
  9. THE SURGE PROTECTION DEVICE (SPD) SHALL BE EXTERNALLY MOUNTED TO THE MAIN DISTRIBUTION PANEL. PROVIDE A CHASE NIPPLE THROUGH THE SIDE OF THE PANEL IMMEDIATELY ADJACENT TO THE BREAKER SERVING THE SPD. WIRE LENGTH FROM THE BREAKER LUGS TO THE SPD SHALL NOT EXCEED 18".
  10. ENCLOSED CIRCUIT BREAKER SHALL BE U.L. APPROVED FOR USE AS SERVICE ENTRANCE EQUIPMENT. FURNISHED WITH INSULATED BONDED NEUTRAL, BONDING JUMPER AND MECHANICAL LUGS FOR ALL CONDUCTORS.
  11. ALL ATTACHMENT HARDWARE SHALL BE STAINLESS STEEL. PROVIDE 304 STAINLESS STEEL 1 1/2" X 1 1/2" CHANNEL, CONDUIT CLAMPS NUTS, BOLTS AND WASHERS.
  12. APPLY TWO COATS OF 3M SCOTCHRAP PIPE PRIMER AND TWO OVERLAPPING LAYERS OF 3M SCOTCHRAP 51 TAPE. APPLY FROM THE BOTTOM OF THE ALUMINUM CONDUIT OR ALUMINUM STRUCTURAL SUPPORT TO 6" ABOVE GRADE. APPLY TWO COATS OF 3M SCOTCHRAP PIPE PRIMER TO THE INTERIOR OF THE VERTICAL FRAME MEMBERS FOR 12" UP FROM THE BOTTOM.
  13. COORDINATE ALL CONTROL WIRING AND INTERLOCKS WITH THE PUMP SYSTEM SUPPLIER AND GOFORTH WILLIAMSON/GRUNDFOS. PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. TEST AND LABEL ALL CONDUCTORS.
  14. THE BASIS OF DESIGN FOR THE STATION INCLUDES THE FOLLOWING SKID MOUNTED EQUIPMENT:  
TWO 60HP JOCKEY PUMPS  
THREE 125HP PUMPS  
TWO CONTROL PANELS WITH VFD'S AND PANEL MOUNTED AC UNITS.  
THE MAXIMUM MOTOR LOAD AT BUILDOUT WILL BE ONE 60HP AND THREE 125HP PUMPS ALL OPERATED ON VARIABLE FREQUENCY DRIVES.



NO.	REVISIONS	BY	DATE

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EFFINGHAM COUNTY  
BOARD OF COMMISSIONERS  
CHATHAM COUNTY, GA  
EFFINGHAM COUNTY BOOSTER PUMP STATION  
BOOSTER STATION SITE LAYOUT

JOB NO:	J-28378-0000
DATE:	12/10/2020
DRAWN:	AL
DESIGNED:	CC
REVIEWED:	PM
APPROVED:	CC
SCALE:	1" = 20'

**E1.1**

BID SET - NOT FOR CONSTRUCTION

# LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	NOTES
A	LED VAPOR PROOF COLOMBIA LIGHTING CVT4-LS40-5800LM	CEILING	
B	LED WALL MTD LUMINAIRE HUBBELL SG1-20-4K7-FT-UNV-DBT	WALL 10'AFF	
ELU	LED EMERGENCY LIGHT COMPASS CU2SD	WALL 10'AFF	
XA	LED EXIT/EMERGENCY FIXTURE COMPASS CCRSD	WALL 8'AFF	

# SCHEDULE OF PANEL 'A'

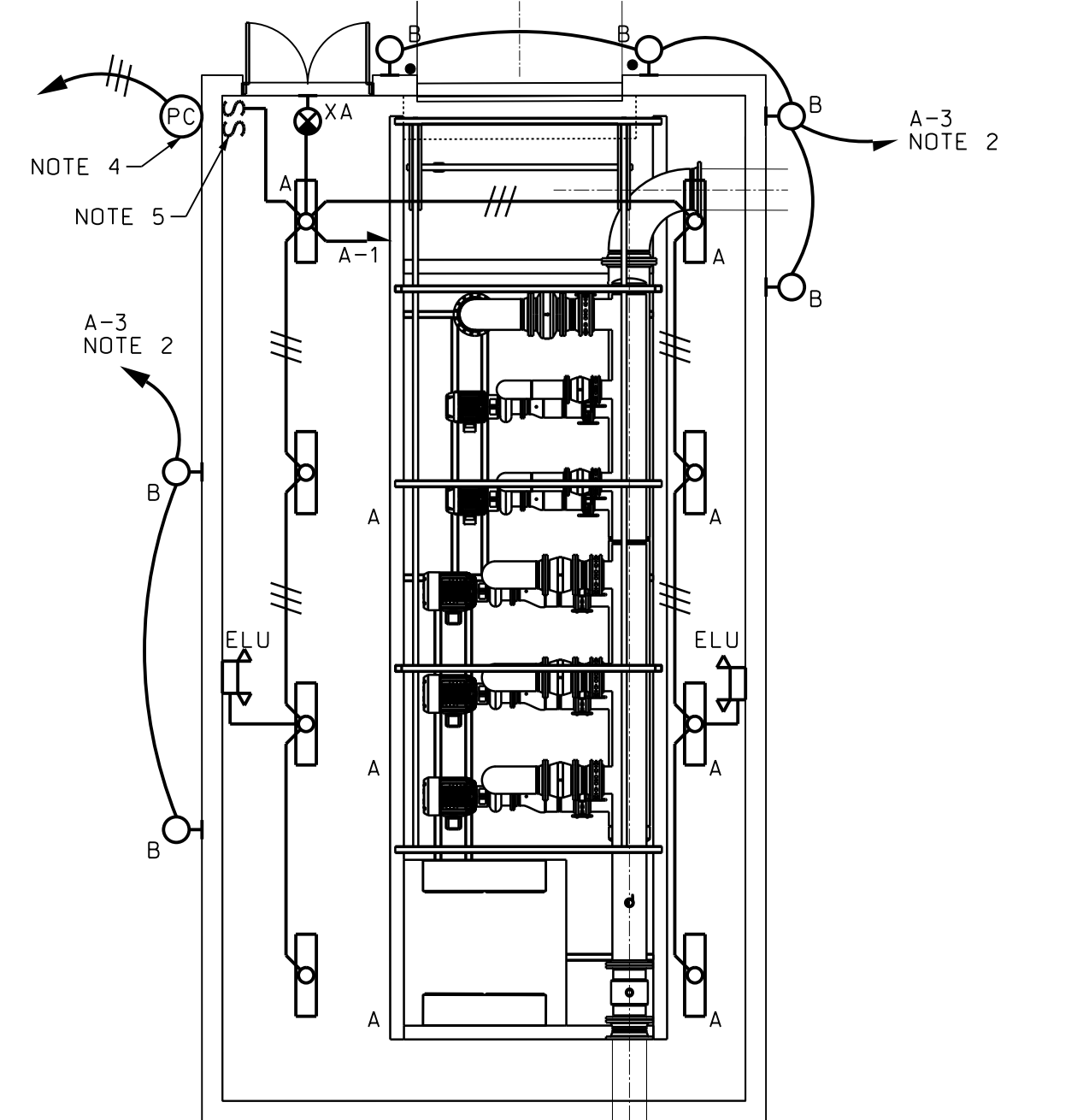
VOLTAGE: 240 / 120		PHASE: 1		WIRE: 3					
BUS AMPS: 100 A		DEVICE AMPS: 50 A		NEMA: 1					
A.I.C RATING: 22,000 A		MOUNTING: SURFACE							
LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD (KVA)	LOCATION DESCRIPTION
INTERIOR LIGHTS	0.4	A	20A/1P	1	A	2	20A/1P	B 1.0	RECEPTACLES
EXTERIOR LIGHTS	0.1	A	20A/1P	3	B	4	20A/1P	H 0.1	CHLORINE ANALYZER
SCADA PANEL	0.1	H	20A/1P	5	A	6	20A/1P	H 0.6	GENERATOR BATTERY CHARGER
ROLL UP DOOR	1.6	H	20A/1P	7	B	8	20A/2P	H 1.5	GENERATOR COOLANT HEATER
SPARE			20A/1P	9	A	10	-	H 1.5	-
SPARE			20A/1P	11	B	12	20A/1P	H 0.1	FLOW METER
SPARE			20A/1P	13	A	14	20A/1P		SPARE
SPARE			20A/1P	15	B	16	20A/1P		SPARE
SPARE			20A/1P	17	A	18	20A/1P		SPARE

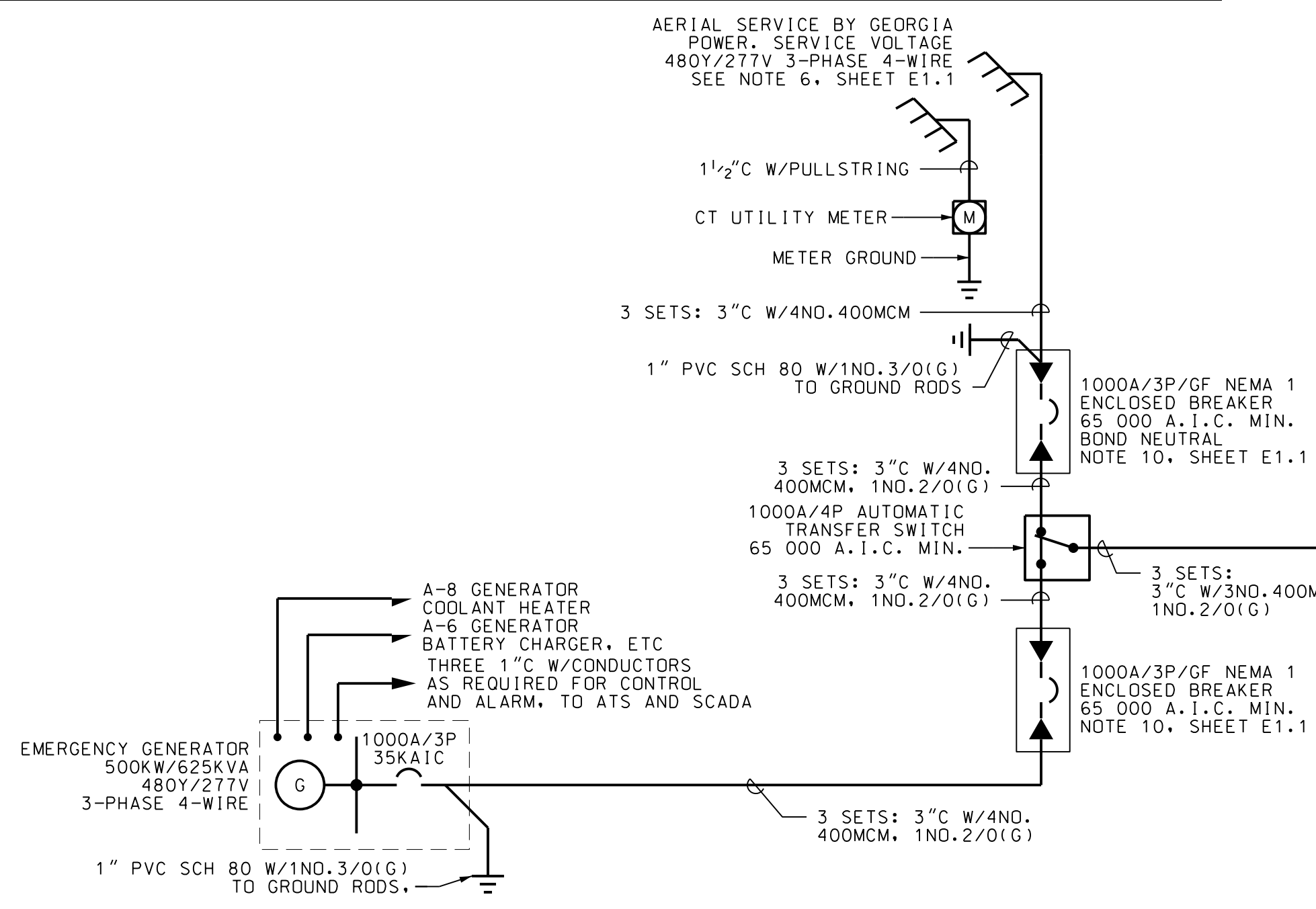
PANEL LOAD ANALYSIS									
Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	0.5	0.6	NEC Article 215.3	E	Heating	0.0	0.0	NEC Article 220.60
B	Receptacles	1.0	1.0	NEC Table 220.44	F	Largest Motor	0.0	0.0	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	0.0	0.0	NEC Article 440.7
D	Air-Conditioning	0.0	0.0	NEC Article 220.60	H	Other Loads	5.5	5.5	
Phase A Connected Load		3.6 KVA		Notes:		TOTAL CONNECTED LOAD		7.0 KVA	29.2 AMPS
Phase B Connected Load		3.4 KVA				TOTAL DEMAND LOAD		7.1 KVA	29.7 AMPS
						MINIMUM SIZING AMPS		11.1 KVA	46.4 AMPS

# LIGHTING AND POWER PLANS NOTES:

- PROVIDE CHLORINE RESIDUAL ANALYZER (HA2-FC1) FROM CHEMTRAC WITH LOCAL DISPLAY AND 4-20ma OUTPUT TO SCADA.
  - TOTAL CHLORINE WITH 0 ppm - 5 ppm SENSOR.
  - INSTALL ON OUTGOING LINE WITH OVERFLOW TO FLOOR DRAIN.
  - OUTPUT TO BE CONNECTED TO SCADA.
  - CONTRACTOR TO CALIBRATE ANALYZER AND SUBMIT DOCUMENTATION TO OWNER.
- EXTEND THROUGH 3-POSITION SWITCH.
- GROUND PUMP SKID FRAME AND FLOW METER TO SERVICE GROUNDING.
- PHOTOCELL, MOUNTED UNDER EAVE. PROVIDE TORK/NSI MODEL 2107. EXTEND TO 3-POSITION SWITCH FOR PHOTO CONTROL.
- FURNISH AND INSTALL A 20A 120/277V SINGLE POLE, MAINTAINED THREE-POSITION SWITCH FOR CONTROL OF EXTERIOR LIGHTS. UP - PHOTO CONTROL, CENTER - OFF, - DOWN - MANUAL ON LABEL SWITCH POSITIONS AND PROVIDE NAMEPLATE FOR SWITCH, HUBBELL HBL 1385.
- EXTEND GENERATOR ALARM AND PRE-ALARM AND GENERATOR RUN SIGNALS TO THE SCADA PANEL.
- EXTEND 1" W/CAT6 CABLE FROM SCADA PANEL TO PUMP CONTROL PANELS.
- EXTEND 3/4" W/4ND-14, 1ND-14(G) FROM ATS TO BOOSTER PUMP CONTROL PANEL. ATS SHALL PROVIDE PRE-TRANSFER SIGNAL AND POST-TRANSFER SIGNAL/DELAY START TO CONTROL PANEL FOR LOAD STEP CONTROL.
- SCADA SYSTEM (CABINET, ANTENNA, RTU, ETC.) SHALL BE FURNISHED BY GOFORTH WILLIAMSON/GRUNDFOS. EQUIPMENT SHALL BE INSTALLED BY THE CONTRACTOR. CONTACT JIMMY EGAN, ACCOUNT MANAGER, 77-467-0303. ALL SCADA WIRING TERMINATIONS AND SYSTEM START-UP BY GOFORTH WILLIAMSON.
- FURNISH AND INSTALL SCADA SYSTEM. PROVIDE WIRING FOR THE FOLLOWING DISCRETE SIGNALS:
  - POWER FAIL - TRANSFER SWITCH
  - GENERATOR RUN - TRANSFER SWITCH
  - GENERATOR FAIL - GENERATOR
  - GENERATOR PRE-ALARM - GENERATOR
  - ETHERNET CONNECTION FROM BOOSTER PANEL TO SCADA PANEL.
  - CHLORINE ANALYZER 4-20ma SIGNAL
  - FLOW METER 4-20ma SIGNAL
- THE CONTRACTOR SHALL PROVIDE A COMPLETE FESTOON CABLE SYSTEM, TO PROVIDE POWER TO THE MOTORIZED TROLLEY/HOIST. THE SYSTEM CONSISTS OF PAINTED STEEL C-RAIL, STAINLESS STEEL CABLE TROLLEYS, FESTOON CABLES (SUNLIGHT RESISTANT/OUTSIDE INSTALLATION RATED). THE C-RAIL SHALL BE MOUNTED TO THE CEILING ADJACENT TO THE HOIST SUPPORT BEAM. INSTALL AND SUPPORT IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. PROVIDE PRODUCTS OF CONDUCTIX/WAMPFLER. NO SUBSTITUTIONS. CONTACT JERRY KOETTING, SOUTHEAST SALES, CONDUCTIX/WAMPFLER (170)330-4608, EXT.574. REF: EFFINGHAM COUNTY BOOSTER PUMP STATION.



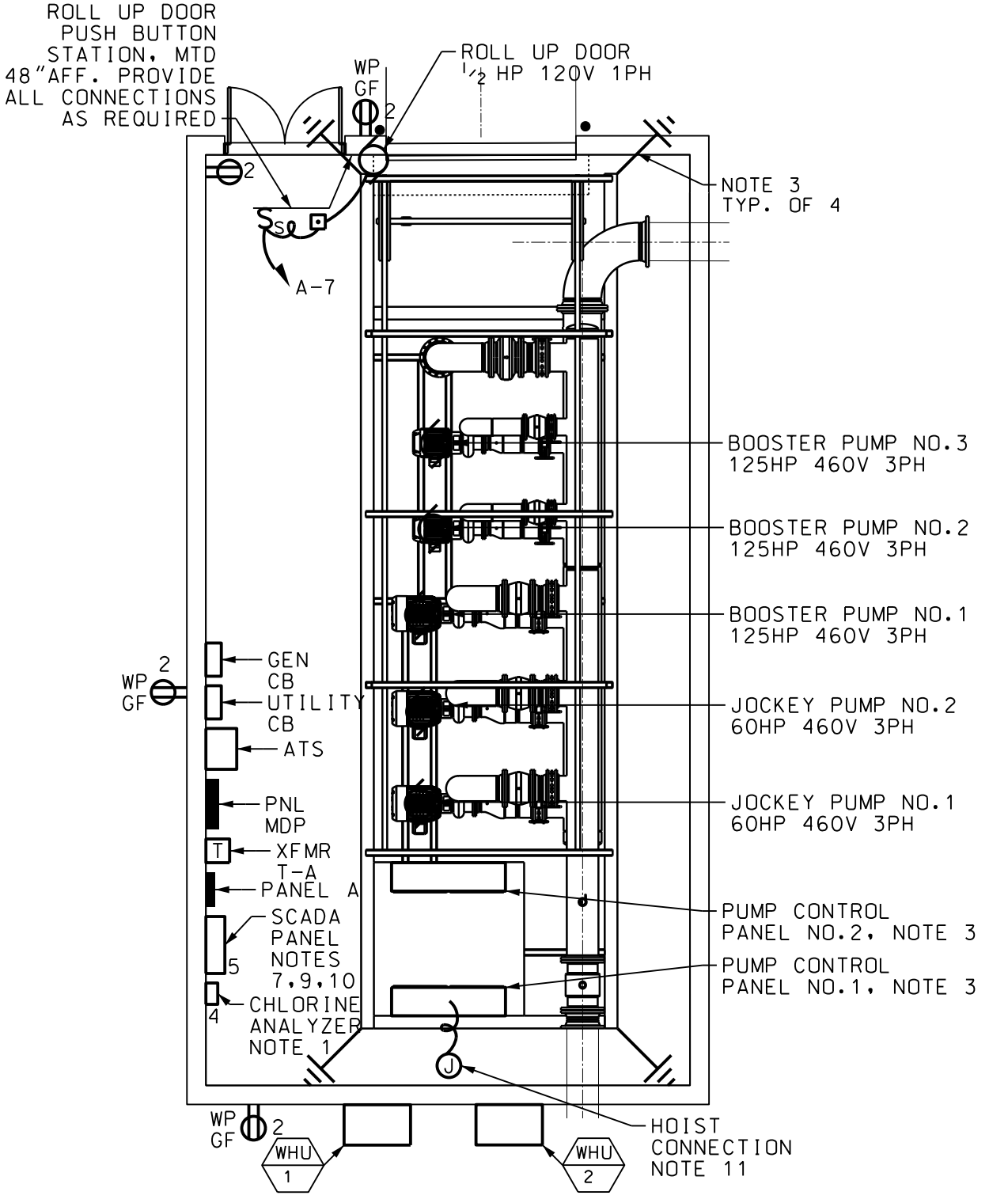
1 FLOOR PLAN - LIGHTING  
E1.2 SCALE: 1/8" = 1'-0"



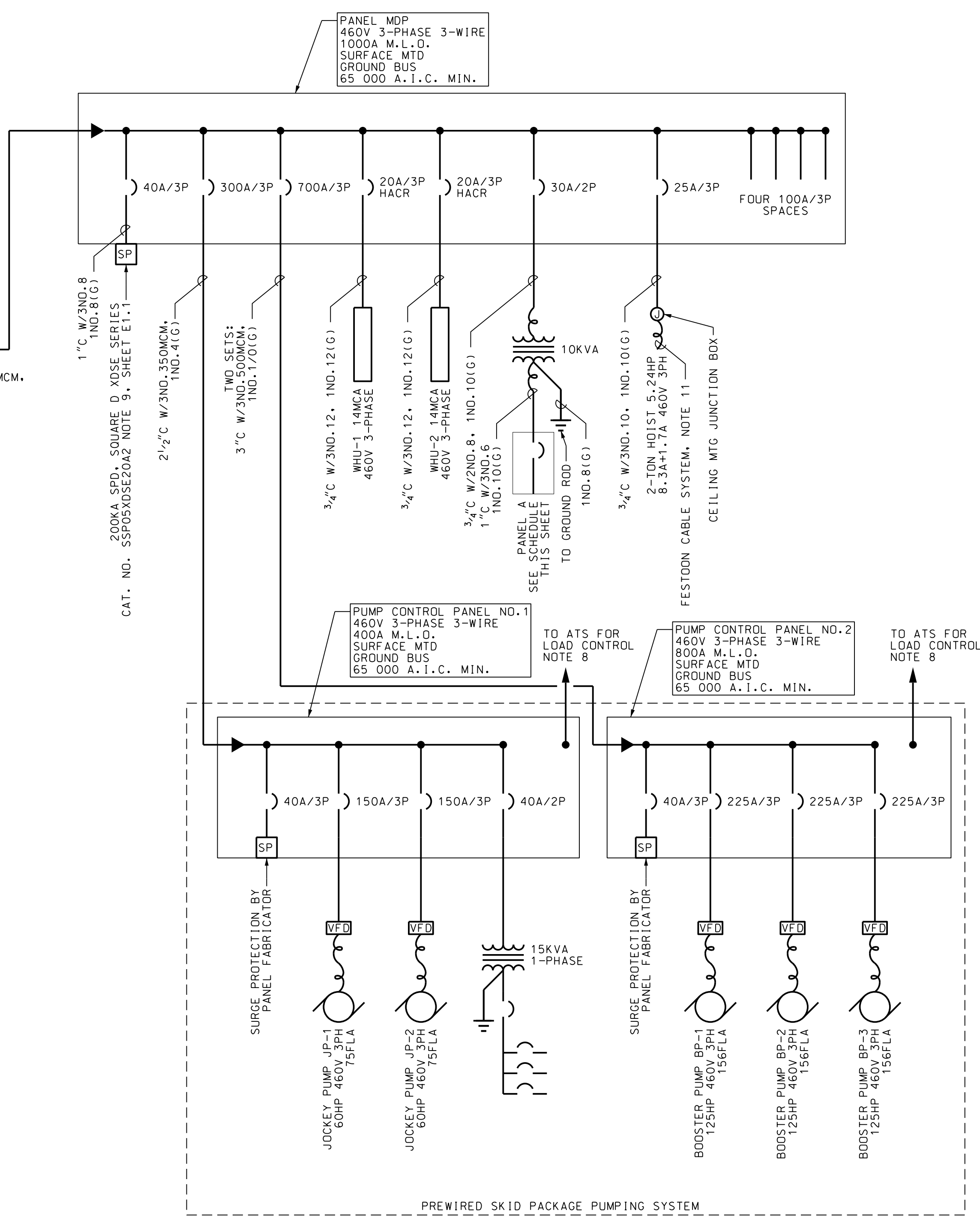
# HVAC PLAN NOTES:

- INSTALL P-TRAP ON CONDENSATE DRAIN LINE. SUPPLY AND INSTALL SPLASH BLOCK ON GROUND. TURN CONDENSATE DRAIN LINE DOWN TO DRIP ON SPLASH BLOCK ON GROUND.
- WALL HUNG UNIT MOUNTED ON WALL. UNIT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES. UNIT SHALL BE PROVIDED WITH FACTORY STANDARD WALL GRILLES, LEAD/LAG CONTROLLER AND 7-DAY PROGRAMMABLE THERMOSTAT. UNIT SHALL BE BARD W60HC-COZ. PROVIDE INTEGRAL MAIN DISCONNECT.
- WALL HUNG UNITS SHALL HAVE THE FOLLOWING SEQUENCE OF OPERATION:
  - UNITS SHALL BE CONTROLLED BY THERMOSTAT MOUNTED IN THE SPACE.
  - THERMOSTAT SHALL BE SET TO MAINTAIN 80°F (ADJ.).
  - UNITS FAN AND COMPRESSOR SHALL CYCLE AS REQUIRED TO MAINTAIN SET POINT IN SPACE.
  - UNITS SHALL OPERATE LEAD-LAG, SWITCHING ROLES EVERY 30 DAYS.

3 FLOOR PLAN - HVAC  
E1.2 SCALE: 1/8" = 1'-0"



2 FLOOR PLAN - POWER  
E1.2 SCALE: 1/8" = 1'-0"



4 ONE LINE DIAGRAM  
E1.2 SCALE: NONE



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EFFINGHAM COUNTY  
 BOARD OF COMMISSIONERS  
 CHATHAM COUNTY, GA

EFFINGHAM COUNTY BOOSTER PUMP STATION  
 BUILDING LAYOUT & ONE-LINE DIAGRAM

JOB NO:	J-28378-0000
DATE:	12/10/2020
DRAWN:	AL
DESIGNED:	CC
REVIEWED:	PM
APPROVED:	CC
SCALE:	1/8" = 10'

E1.2

BID SET - NOT FOR CONSTRUCTION