



EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES

- 1. THIS PLAN WAS PREPARED AS REQUIRED BY NPDES GENERAL PERMIT NO. 100002. THESE PLAN SHEETS AND ALL REQUIREMENTS OF THE GENERAL PERMIT AS WELL AS LOCAL, STATE AND FEDERAL REGULATIONS OR LAWS APPLY REGARDLESS OF SPECIFIC INCLUSIONS IN THIS PLAN.
2. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING UTILITIES. EXISTING UTILITIES ARE ALL UTILITIES ON THE PROJECT IN AN ORIGINAL, RELOCATED OR NEWLY INSTALLED POSITION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE COST OF REPAIRS TO DAMAGED UNDERGROUND OR OVERHEAD FACILITIES, EVEN IF THE UTILITY IS NOT SHOWN ON THE SITE DEVELOPMENT PLANS. THE CONTRACTOR SHALL CONTACT THE UTILITIES PROTECTION CENTER AT 1-800-282-7411 TO COORDINATE THE MARKING OF EXISTING UTILITY LINES A MAXIMUM OF 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.
3. CONTRACTOR SHALL FLUSH ALL INLETS AND PIPE AT THE COMPLETION OF CONSTRUCTION TO REMOVE SILT AND DEBRIS. THE CLEANING AND FLUSHING OF INLETS AND PIPE (EXISTING AND PROPOSED) SHALL BE CONSIDERED PART OF THE COST FOR PIPE ON THE PROJECT. SCHEDULE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXPOSED AREA AND DURATION OF EXPOSURE. IN SCHEDULING, TAKE INTO ACCOUNT THE SEASON AND THE WEATHER FORECAST.
4. EROSION CONTROL MEASURES ARE THE MINIMUM REQUIRED. THE CONTRACTOR SHALL PROVIDE ADDITIONAL CONTROL MEASURES AS DICTATED BY ACTUAL FIELD CONDITIONS AT THE TIME OF CONSTRUCTION IN ORDER TO PREVENT EROSION AND CONTROL SEDIMENT. THE CONTRACTOR SHALL BE FAMILIAR WITH THE "NARRATIVE DESCRIPTION: LAND DISTURBING ACTIVITIES" REPORT THAT ACCOMPANIES THIS PROJECT, AND HAVE A CLEAR UNDERSTANDING OF THE CONCEPTS, APPLICATIONS, STANDARDS AND SPECIFICATIONS OF THE BEST MANAGEMENT PRACTICES LISTED IN SAID DOCUMENT. EROSION AND SEDIMENT CONTROL MEASURES WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE ENTIRE PROJECT IS TERMINATED OR SUSPENDED FOR AN INDEFINITE LENGTH OF TIME. ALL DISTURBED AREAS SHALL BE PLANTED WITH PERMANENT VEGETATION.
5. THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS, OR IN ANY WAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, IS BASED UPON FIELD INVESTIGATIONS AND IS BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME IS SHOWN AS INFORMATION ONLY, IS NOT GUARANTEED AND DOES NOT BIND THOMAS & HUTTON, OR THE OWNER IN ANY WAY.
6. CONTRACTOR SHALL MAINTAIN SITE ON A DAILY BASIS TO PROVIDE FOR POSITIVE DRAINAGE. CONTRACTOR, AT HIS COST, SHALL GRADE SITE AND PROVIDE NECESSARY TEMPORARY DRAINAGE SWALES TO INSURE STORM WATER DOES NOT POND ON SITE.
7. SITE DRAINAGE SHALL BE ESTABLISHED TO PREVENT ANY PONDED WATER CONDITIONS WITHIN THE CONSTRUCTION AREA AND TO FACILITATE THE RAPID RUN-OFF OF STORM WATER.
8. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
9. ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART III. C. OF THE PERMIT.
10. IF A TMDL IMPLEMENTATION PLAN FOR SEDIMENT HAS BEEN FINALIZED FOR THE IMPAIRED STREAM SEGMENT (IDENTIFIED IN ITEM 11 ABOVE) AT LEAST SIX MONTHS PRIOR TO SUBMITTAL OF NOI, THE ES&PC PLAN MUST ADDRESS ANY SITE-SPECIFIC CONDITIONS OR REQUIREMENTS INCLUDED IN THE TMDL IMPLEMENTATION PLAN.
11. EXCEPT AS REQUIRED TO INSTALL THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL B MPS AS DESCRIBED IN PART IV.D.3., THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL B MPS MUST BE INSTALLED AND IMPLEMENTED PRIOR TO CONDUCTING ANY OTHER CONSTRUCTION ACTIVITIES (E.G., CLEARING, GRUBBING AND GRADING) WITHIN THE CONSTRUCTION SITE OR WHEN APPLICABLE, WITHIN PHASED SUB-PARTS OR SEGMENTS OF THE CONSTRUCTION SITE. FAILURE TO COMPLY SHALL CONSTITUTE A VIOLATION OF THIS PERMIT FOR EACH DAY ON WHICH CONSTRUCTION ACTIVITIES OCCUR. THE DESIGN PROFESSIONAL WHO PREPARED THE PLAN MUST INSPECT THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL B MPS IN ACCORDANCE WITH PART IV.A.5. WITHIN SEVEN (7) DAYS AFTER INSTALLATION.
12. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
13. 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.
14. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
15. THERE WILL BE NO BUFFER ENCROACHMENT AND NO BUFFER VARIANCE IS REQUIRED FOR THIS PROJECT.
16. AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON B MPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

#19
#20
#21
#16
#17
#18

#4 DEVELOPER/OWNER
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ASSISTANT COUNTY MANAGER
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601 NORTH LAUREL STREET
SPRINGFIELD, GA 31329
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#3 24 HOUR CONTACT PERSON RESPONSIBLE FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS
MR. KEITH STRONG
THOMAS & HUTTON
30 PARK OF COMMERCE WAY
SAVANNAH, GA 31405
DAY: 912-721-4103
NIGHT: 912-667-9793

EFFINGHAM COUNTY BOOSTER PUMP STATION
PORT WENTWORTH, GEORGIA
PROJECT #J-28378.0000
DATE: 06/19/2020
TOTAL PROJECT ACREAGE: 0.6±
TOTAL DISTURBED ACREAGE: 0.6±

#5

PROJECT DESCRIPTION - EFFINGHAM COUNTY BOOSTER PUMP STATION
THE PROJECT CONSISTS OF THE CONSTRUCTION OF A PROPOSED BOOSTER PUMP STATION, (2) CONNECTIONS TO THE EXISTING 36-INCH DUCTILE IRON WATER MAIN WITHIN HODGEVILLE ROAD R/W, INSTALLATION OF A 20' ACCESS ROAD AND A CHAIN LINK FENCE ALONG THE EDGE OF PROPERTY.

#8

POST DEVELOPMENT RUNOFF FROM THE SITE WILL BE SLIGHTLY INCREASED FROM PRE-DEVELOPMENT BUT WILL NOT AFFECT NEIGHBORING AREAS. THERE WILL BE SLIGHT INCREASE IN IMPERVIOUS AREAS. THE RUNOFF COEFFICIENT PRIOR TO CONSTRUCTION IS 84 AND AFTER CONSTRUCTION WILL BE APPROXIMATELY 87. SURFACE RUNOFF FROM THE SITE DRAINS INITIALLY INTO SURROUNDING DRAINAGE DITCHES/INLETS, BLACK CREEK, AND ULTIMATELY TO THE SAVANNAH RIVER.

#45

ELEVATIONS ON THE SITE RANGE FROM ±18' TO ±19' (NAVD88 DATUM).

ACCORDING TO THE FLOOD INSURANCE RATE MAP PANEL 13051C4155, EFFECTIVE 8/16/2018, THE PROJECT AREA IS WITHIN FLOOD HAZARD ZONE X.

#47

SOILS WITHIN THE PROJECT AREA CONSISTS OF THE FOLLOWING SERIES BASED ON USGS SOILS SURVEY DATA FOR CHATHAM COUNTY, GA:
• Mn Mascotte Sand

CONSTRUCTION

#29

CONSTRUCTION ACTIVITIES WILL INVOLVE NORMAL CONSTRUCTION ACTIVITIES ASSOCIATED WITH WATER MAIN UTILITY INSTALLATION. IT IS ANTICIPATED THAT CONSTRUCTION ACTIVITIES WILL BEGIN ON OR ABOUT OCTOBER 2020, AND BE COMPLETED ON OR ABOUT OCTOBER 2021. THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.

PROCESSES AND PRINCIPLES OF EROSION, SEDIMENTATION AND POLLUTION

WHEN LAND IS DISTURBED AT A CONSTRUCTION SITE, THE EROSION RATE ACCELERATES DRAMATICALLY. SINCE GROUND COVER ON AN UNDISTURBED SITE PROTECTS THE SURFACE, REMOVAL OF THAT COVER INCREASES THE SITE'S SUSCEPTIBILITY TO EROSION. DISTURBED LAND MAY HAVE AN EROSION RATE 1,000 TIMES GREATER THAN THE PRE-CONSTRUCTION RATE. EVEN THOUGH CONSTRUCTION REQUIRES THAT LAND BE DISTURBED AND BE LEFT BARE FOR PERIODS OF TIME, PROPER PLANNING AND USE OF CONTROL MEASURES CAN REDUCE THE IMPACT OF MAN-INDUCED ACCELERATED EROSION.

EFFECTIVE EROSION, SEDIMENTATION AND POLLUTION CONTROL REQUIRES FIRST THAT THE SOIL SURFACE BE PROTECTED FROM THE EROSIIVE FORCES OF WIND, RAIN, AND RUNOFF, AND SECOND THAT ERODED SOIL CAN BE CAPTURED ON-SITE.

INITIAL DATE: JUNE 19, 2020 #7

EROSION, SEDIMENTATION AND POLLUTION CONTROL PRACTICES

17. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

CONSTRUCTION EXIT - A STONE STABILIZED PAD LOCATED AT ANY POINT WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE TO A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK, OR PARKING AREA, THE PURPOSE OF THE MEASURE IS TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE CONSTRUCTION AREA BY MOTOR VEHICLES OR BY RUNOFF.

SEDIMENT BARRIER - TEMPORARY STRUCTURES TYPICALLY CONSTRUCTED OF SILT FENCE SUPPORTED BY STEEL OR WOOD POSTS. OTHER TYPES OF BARRIERS MAY INCLUDE SANDBAGS, STRAW BALES, BRUSH PILES AND OTHER FILTERING MATERIAL. THE PURPOSE OF THE MEASURE IS TO PREVENT SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE SITE AND ENTERING NATURAL DRAINAGE WAYS OR STORM DRAINAGE SYSTEMS BY SLOWING STORM WATER RUNOFF AND CAUSING THE DEPOSITION AT THE STRUCTURE.

VEGETATIVE MEASURES

TREE PROTECTION - TREE PROTECTION ZONES SHALL BE ESTABLISHED AND MAINTAINED FOR EACH TREE PRESERVED ON THE SITE. THE MINIMUM TREE PROTECTION ZONE, EXCEPT FOR PALM-TYPE TREES, SHALL BE AN AREA CENTERED ON EACH TREE WITH A RADIUS IN FEET EQUIVALENT TO THE TREE DIAMETER IN INCHES MEASURED AT BREAST HEIGHT. PALM-TYPE TREES SHALL HAVE A MINIMUM TREE PROTECTION ZONE DIAMETER EQUAL TO THE DIAMETER OF THE LEAF CROWN. THE MINIMUM TREE PROTECTION DEVICE SHALL BE A FENCE CONSTRUCTED AT, AND AROUND, THE PERIMETER OF THE TREE PROTECTION ZONE AND CONSTRUCTED OF 2"x4"x6'0" POSTS WITH ONE 2"x4"x12'-0" RAIL NAILED TO THE TOP OF EACH ADJACENT POST. THE MINIMUM RAIL HEIGHT SHALL BE FOUR (4) FEET. PREFABRICATED, REUSABLE FENCING MATERIALS MAY BE USED UPON APPROVAL OF THE CITY OF SAVANNAH. TREE PROTECTION SHALL BEGIN AT THE START OF CONSTRUCTION AND AS ENCOUNTERED DURING THE CLEARING PROCESS AND SHALL REMAIN UNTIL FINAL INSPECTION OF THE CLEARING HAS BEEN SUCCESSFULLY COMPLETED. BROKEN OR DISLODGED TREE PROTECTION DEVICES SHALL BE IMMEDIATELY REPAIRED. NO VEHICLES SHALL BE PARKED, OR CONSTRUCTION MATERIAL STORED, OR SUBSTANCES SPILLED OR DISPOSED OF OR PLACED WITHIN THE TREE PROTECTION ZONE AT ANY TIME.

#52

SMALLER TREES SHALL BE REMOVED FIRST TO ALLOW THE LARGER TREES TO BE FELLED WITH MORE CARE. TREES ARE TO BE FELLED IN A DIRECTION AWAY FROM TREES WHICH ARE TO REMAIN. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED SO AS TO PREVENT DAMAGE BY FALLING TREES TO OTHER TREES, FOLIAGE, AND PLANT MATERIAL LEFT STANDING, TO EXISTING STRUCTURES AND INSTALLATIONS, AND TO THOSE UNDER CONSTRUCTION, TO PROPERTY EXISTING OUTSIDE THE AREAS TO BE CLEARED, AND SO AS TO PROVIDE FOR THE SAFETY OF EMPLOYEES AND OTHERS. ALL STUMP HOLES MUST BE FILLED USING CLEAN FILL DIRT, PLACED IN ONE FOOT LIFTS AND ADEQUATELY COMPACTED.

TREES DESIGNATED TO BE LEFT STANDING WITHIN THE CLEARED AREAS SHALL BE TRIMMED OF DEAD BRANCHES 1-1/2" OR MORE IN DIAMETER. LIMBS AND BRANCHES TO BE TRIMMED SHALL BE NEATLY CUT CLOSE TO THE TRUNK OF THE TREE OR MAIN BRANCHES. CUTS OF MORE THAN 1-1/2" IN DIAMETER THUS MADE SHALL BE PAINTED WITH AN APPROVED TREE WOUND PAINT MANUFACTURED FOR THIS SPECIFIC PURPOSE. IN THE CASE OF IMPORTANT LARGE TREES WHERE A SMALL AMOUNT OF CAVITY WORK WOULD PROLONG THE LIFE OF THE TREE, SUCH WORK SHALL BE DONE. THE SERVICES OF A QUALIFIED TREE SURGEON ARE RECOMMENDED FOR THIS PROCEDURE.

ALL CLEARED MATERIAL SHALL BE REMOVED FROM THE SITE OR BURNED. DISPOSAL BY BURNING MAY ONLY BE DONE WHEN APPROVED BY THE CITY OF SAVANNAH. MATERIAL DISPOSED OF BY BURNING SHALL BE BURNED IN A MANNER THAT WILL AVOID ALL HAZARDS, SUCH AS DAMAGE TO EXISTING STRUCTURES, CONSTRUCTION IN PROGRESS, TREES TO BE PRESERVED, AND EXISTING VEGETATION.

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDINGS)- ESTABLISHING TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENuded AREAS. THE PURPOSE OF THE MEASURE IS TO:

- \* REDUCE EROSION, SEDIMENT AND RUNOFF DAMAGES TO DOWNSTREAM RESOURCES
\* IMPROVE WILDLIFE HABITAT
\* IMPROVE AESTHETICS
\* PROTECT SOIL SURFACE FROM EROSION
\* IMPROVE TILTH AND ADD ORGANIC MATTER FOR PERMANENT PLANTINGS

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)- PLANTING PERENNIAL VEGETATION, SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES, ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. THE PURPOSE IS TO STABILIZE THE SOIL, REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM AREAS, AND IMPROVE WILDLIFE HABITAT AND VISUAL RESOURCES.

TEMPORARY AND PERMANENT VEGETATIVE PRACTICE SHALL BE AS FOLLOWS:

Table with columns: SEED SPECIES, APPLICATION/ACRE, PLANTING DATE. Includes rows for (PERMANENT) BERMUDA (HULLED) 10 LBS/AC 3/1 - 9/1 and (TEMPORARY) BERMUDA (UNHULLED) 10 LBS/AC 9/1 - 3/1, and ABRUZZI RYE 50 LBS/AC.

FERTILIZER SHALL BE APPLIED AT A RATE OF 1,500 LBS/AC. LIME SHALL BE APPLIED AT A RATE OF 1,500 LBS/AC. MULCHING SHALL BE SPREAD AT A RATE OF 2.0 TONS/AC. WEEKLY INSPECTION OF THE GRASS COVER SHALL BE PERFORMED TO IDENTIFY AREAS REQUIRING REESTABLISHMENT OF GRASS. DUST CONTROL ON DISTURBED AREAS - CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITE AND HAUL ROUTES. THE PURPOSE OF THE MEASURE IS TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES, WHICH MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE OR SAFETY, OR TO ANIMALS OR PLANT LIFE.

LAND DISTURBING ACTIVITIES PLAN

GENERAL DESIGN PRINCIPLES

FOR AN EROSION, SEDIMENTATION AND POLLUTION CONTROL PROGRAM TO BE EFFECTIVE, IT IS IMPERATIVE THAT PROVISIONS FOR SEDIMENT CONTROL MEASURES BE MADE IN THE PLANNING STAGE. THESE PLANNED MEASURES WHEN CONSCIENTIOUSLY AND EXPEDITIOUSLY APPLIED DURING CONSTRUCTION, WILL RESULT IN ORDERLY DEVELOPMENT WITHOUT ADVERSE ENVIRONMENTAL DEGRADATION. THE FOLLOWING KEY PRINCIPALS SHALL BE UTILIZED, TO THE MAXIMUM EXTENT POSSIBLE, IN ALL PLANNING.

- 1. FIT THE ACTIVITY TO THE TOPOGRAPHY AND SOILS. DETAILED PLANNING SHOULD BE EMPLOYED TO ASSURE THE ROADWAYS, BUILDINGS AND OTHER PERMANENT FEATURES OF THE ACTIVITY CONFORM TO THE NATURAL CHARACTERISTICS OF THE SITE. LARGE GRADED AREAS SHOULD BE LOCATED ON THE MOST LEVEL PORTION OF THE SITE. AREAS SUBJECT TO FLOODING SHOULD BE AVOIDED. AREAS OF STEEP SLOPES, ERODIBLE SOILS, AND SOILS WITH SEVERE LIMITATIONS FOR THE INTENDED USES SHOULD NOT BE UTILIZED WITHOUT OVERCOMING THE LIMITATIONS THROUGH SOUND ENGINEERING PRACTICES. EROSION CONTROL, DEVELOPMENT AND MAINTENANCE COSTS CAN BE MINIMIZED IF A SITE IS SELECTED FOR A SPECIFIC ACTIVITY.
2. THE DISTURBED AREA AND DURATION OF EXPOSURE TO EROSION ELEMENTS SHOULD BE MINIMIZED. CLEARING OF NATURAL VEGETATION SHOULD BE LIMITED TO ONLY THOSE AREAS OF THE SITE TO BE DEVELOPED AT A GIVEN TIME. NATURAL VEGETATION SHOULD BE RETAINED, PROTECTED AND SUPPLEMENTED WITH CONSTRUCTION SCHEDULING EMPLOYED TO LIMIT THE DURATION OF SOIL EXPOSURE.
3. STABILIZE DISTURBED AREAS IMMEDIATELY. PERMANENT STRUCTURES, TEMPORARY OR PERMANENT VEGETATION, AND MULCH, OR A COMBINATION OF THESE MEASURES, SHOULD BE EMPLOYED AS QUICKLY AS POSSIBLE AFTER THE LAND IS DISTURBED. TEMPORARY VEGETATION AND MULCHES CAN BE MOST EFFECTIVE ON AREAS WHERE IT IS NOT PRACTICAL TO ESTABLISH PERMANENT VEGETATION. THESE TEMPORARY MEASURES SHOULD BE EMPLOYED IMMEDIATELY AFTER ROUGH GRADING IS COMPLETED IF A DELAY IS ANTICIPATED ON OBTAINING FINISHED GRADE. THE FINISHED SLOPE OF A CUT OR FILL SHOULD BE STABLE AND EASE OF MAINTENANCE CONSIDERED IN THE DESIGN. STABILIZE ALL ROADWAYS, PARKING AREAS, AND PAVED AREAS WITH THE GRAVEL SUBBASE, TEMPORARY VEGETATION OR MULCH.
4. RETAIN OR ACCOMMODATE RUNOFF. RUNOFF FROM THE DEVELOPMENT SHOULD BE SAFELY CONVEYED TO A STABLE OUTLET USING STORM DRAINS, DIVERSIONS, STABLE WATERWAYS OR SIMILAR CONSERVATION MEASURES. CONSIDERATION SHOULD ALSO BE GIVEN TO THE INSTALLATION OF STORM WATER RETENTION STRUCTURES TO PREVENT FLOODING AND DAMAGE TO DOWNSTREAM FACILITIES RESULTING FROM INCREASED RUNOFF FROM THE SITE. TEMPORARY OR PERMANENT FACILITIES FOR CONVEYANCE OF STORM WATER SHOULD BE DESIGNED TO WITHSTAND THE VELOCITIES OF PROJECTED PEAK DISCHARGES. THESE FACILITIES SHOULD BE IN OPERATION AS SOON AS POSSIBLE AFTER THE START OF CONSTRUCTION.
5. RETAIN SEDIMENT. SEDIMENT BASINS, SEDIMENT BARRIERS AND RELATED STRUCTURES SHOULD BE INSTALLED TO FILTER OR TRAP SEDIMENT ON THE SITE TO BE DISTURBED. THE MOST EFFECTIVE METHOD OF CONTROLLING SEDIMENT, HOWEVER, IS TO CONTROL EROSION AT ITS SOURCE. SEDIMENT RETENTION STRUCTURES SHOULD BE PLANNED TO RETAIN SEDIMENT WHEN EROSION CONTROL METHODS ARE NOT PRACTICAL, ARE INSUFFICIENT, OR IN THE PROCESS OF BEING INSTALLED, OR HAVE FAILED DUE TO SOME UNFORESEEN FACTOR.
6. DO NOT ENCRoACH UPON WATERCOURSES. PERMANENT BUILDINGS SHOULD NOT BE SUBJECT TO FLOODING, SEDIMENT DAMAGE OR EROSION HAZARDS. EARTH FILLS SHOULD NOT BE CONSTRUCTED IN FLOOD-PRONE AREAS SO AS TO ADVERSELY OBSTRUCT WATER FLOWS. WHEN IT IS NECESSARY TO SPAN A FLOOD PRONE AREA OR WATERCOURSE, A BRIDGE OR CULVERT OPENINGS SHOULD BE SIZED TO PERMIT PASSAGE OF PEAK DISCHARGES WITHOUT CAUSING UNDEE RESTRICTIONS IN WATER FLOWS OR WITHOUT CREATING EXCESSIVE DOWNSTREAM VELOCITIES. USES OF FLOOD PRONE AREAS SHOULD BE LIMITED TO ACTIVITIES WHICH WOULD NOT SUFFER EXCESSIVE DAMAGES FROM FLOODING, SCOUR, AND SEDIMENT DAMAGES. TEMPORARY BRIDGES OR CULVERTS SHOULD BE EMPLOYED WHEN CONSTRUCTION EQUIPMENT IS REQUIRED TO CROSS NATURAL OR CONSTRUCTED CHANNELS.

STANDARDS AND SPECIFICATIONS

ALL DESIGNS WILL CONFORM TO AND WORK WILL BE PERFORMED IN ACCORDANCE WITH THE PUBLICATION ENTITLED "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA", ISSUED 2016 AND THE ATTACHED DETAILS.

MAINTENANCE PROGRAM

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 SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE. ALL DRAINAGE SWALES, POCKETS, DEPRESSIONS, FLOW LINES, AND OUTLET DITCHES SHALL DRAIN EFFECTIVELY AT ALL TIMES. SETTLEMENT OR WASHING THAT MAY OCCUR SHALL BE REPAIRED BY THE CONTRACTOR. SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN AN EFFECTIVE BARRIER. MAINTAIN THE CONSTRUCTION EXIT IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH 2-INCH STONE. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS. RESEED AND MULCH AREAS WHERE SEEDLING EMERGENCE IS POOR, OR WHERE EROSION OCCURS. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE. INSPECT ALL MULCHES PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR RILL EROSION, DISLOCATION OR FAILURE. IF WASHOUT OCCURS REPAIR THE SLOPE GRADE, RESEED AND REINSTALL MULCH. INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS ANY EROSION IN AND AROUND THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. FOLLOW THE CONSTRUCTION SEQUENCE THROUGHOUT THE PROJECT DEVELOPMENT. WHEN CHANGES IN CONSTRUCTION ACTIVITIES ARE NEEDED, AMEND THE SEQUENCE SCHEDULE IN ADVANCE TO MAINTAIN MANAGEMENT CONTROL. ORDERLY MODIFICATION ASSURES COORDINATION OF CONSTRUCTION AND EROSION CONTROL PRACTICES TO MINIMIZE EROSION AND SEDIMENTATION PROBLEMS. IF MAJOR CHANGES ARE

NOTE: THERE ARE NO JURISDICTIONAL WETLANDS OR STATE WATERS WITHIN 200 FEET OF THE PROJECT AREA. #10

NOTE: NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS. #15

67 CY SEDIMENT STORAGE PER DISTURBED ACRE REQUIREMENT #49
TOTAL PROJECT ACREAGE = 0.60
TOTAL DISTURBED ACREAGE = 0.60
TOTAL REQUIRED SEDIMENT STORAGE: 0.60 AC. X 67 C.Y./AC. = 40.2 C.Y.

THIS PROJECT WILL UTILIZE SILT FENCE FOR THE SEDIMENT STORAGE REQUIREMENT. A SEDIMENT BASIN IS NOT PRACTICAL FOR THIS PROJECT. THE PROPOSED LAND DISTURBING ACTIVITIES FOR THIS PROJECT IS TO INSTALL AN EFFLUENT MAIN AND WE DO NOT WISH TO DISTURB MORE LAND THAN NECESSARY TO PERFORM THE DESIRED TASK. IN THIS PROJECT WE ARE PROPOSING A DOUBLE ROW SENSITIVE-TYPE SILT FENCE. DOUBLE ROW SENSITIVE-TYPE SILT FENCE WILL BE INSTALLED WHERE CONSTRUCTION ACTIVITIES ARE ADJACENT TO THE SAVANNAH RIVER. IN THE BELOW CALCULATIONS WE ARE ONLY CONSIDERING A DOUBLE ROW SILT FENCE FOR THE SEDIMENT STORAGE REQUIREMENT.

SILT FENCE:
610 LF SILT FENCE
610 x 1.5' (HEIGHT ACCUMULATION) x 4' (HORIZONTAL ACCUMULATION) x 1/2 = 1830 C.F., 1650/27 = 67.8 C.Y.
67.8 CY EXCEEDS THE REQUIRED 40.2 CY OF SEDIMENT STORAGE
NOTE: THE MAXIMUM ALLOWABLE AREA TO CONTRIBUTE TO 100 LF OF SILT FENCE IS 0.25 ACRES.



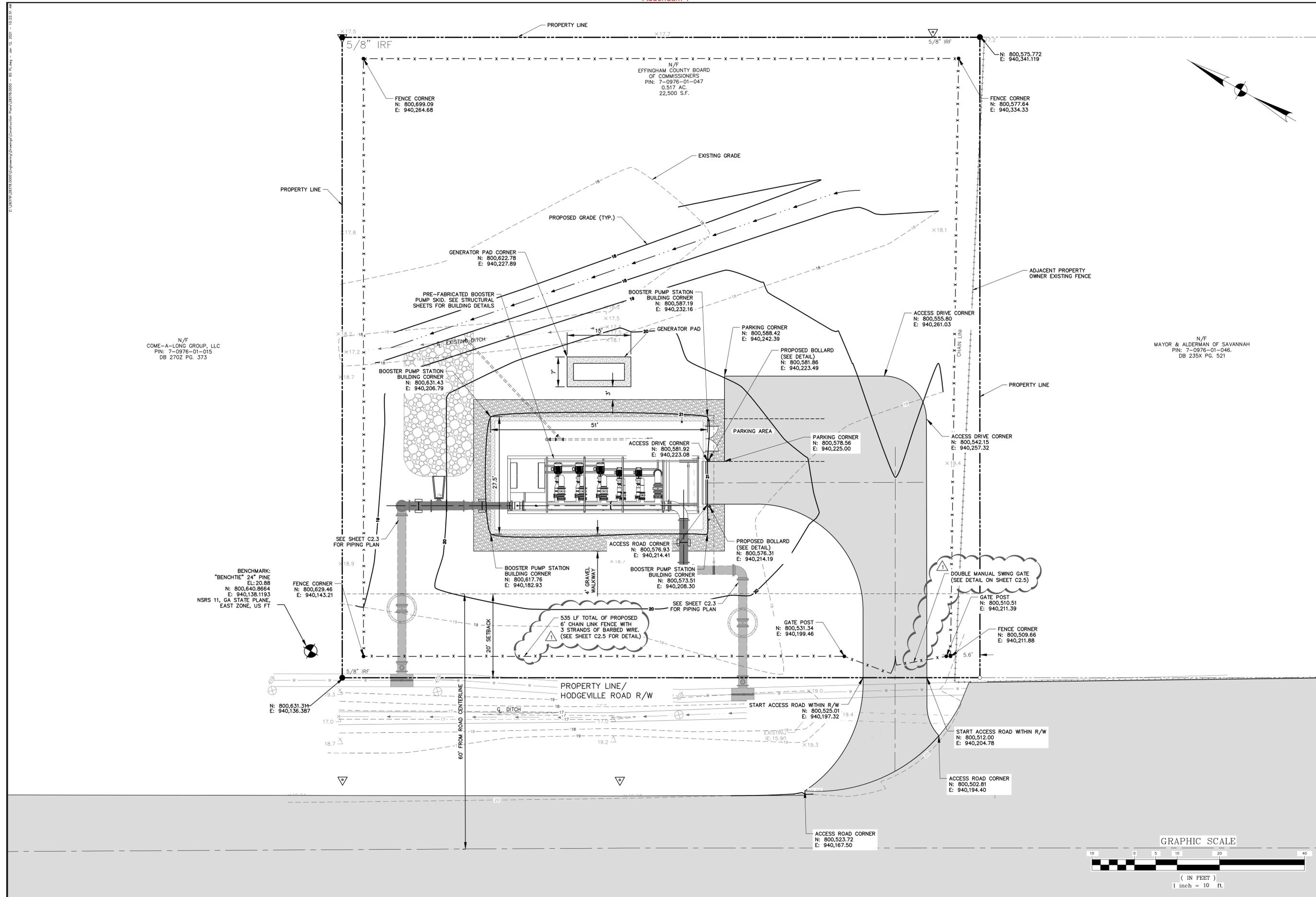
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THOMAS & HUTTON logo and contact information: 50 Park of Commerce Way, Savannah, GA 31405 • 912.234.5300 www.thomasandhutton.com

EFFINGHAM COUNTY BOARD OF COMMISSIONERS logo and project title: EFFINGHAM COUNTY BOOSTER PUMP STATION ES&PC NOTES AND DETAILS

Table with project details: JOB NO: J-28378.0000, DATE: 04/21/2020, DRAWN: EAC, DESIGNED: MCF, REVIEWED: MCF, APPROVED: ACS, SCALE: NONE.

EC1.1



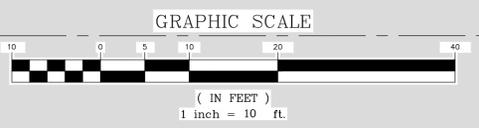
NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM 1		

**THOMAS & HUTTON**  
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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
DESIGNED:	MCF
REVIEWED:	MCF
APPROVED:	ACS
SCALE:	1" = 10'

**C2.1**



N/F  
 COME-A-LONG GROUP, LLC  
 PIN: 7-0976-01-015  
 DB 270Z PG. 373

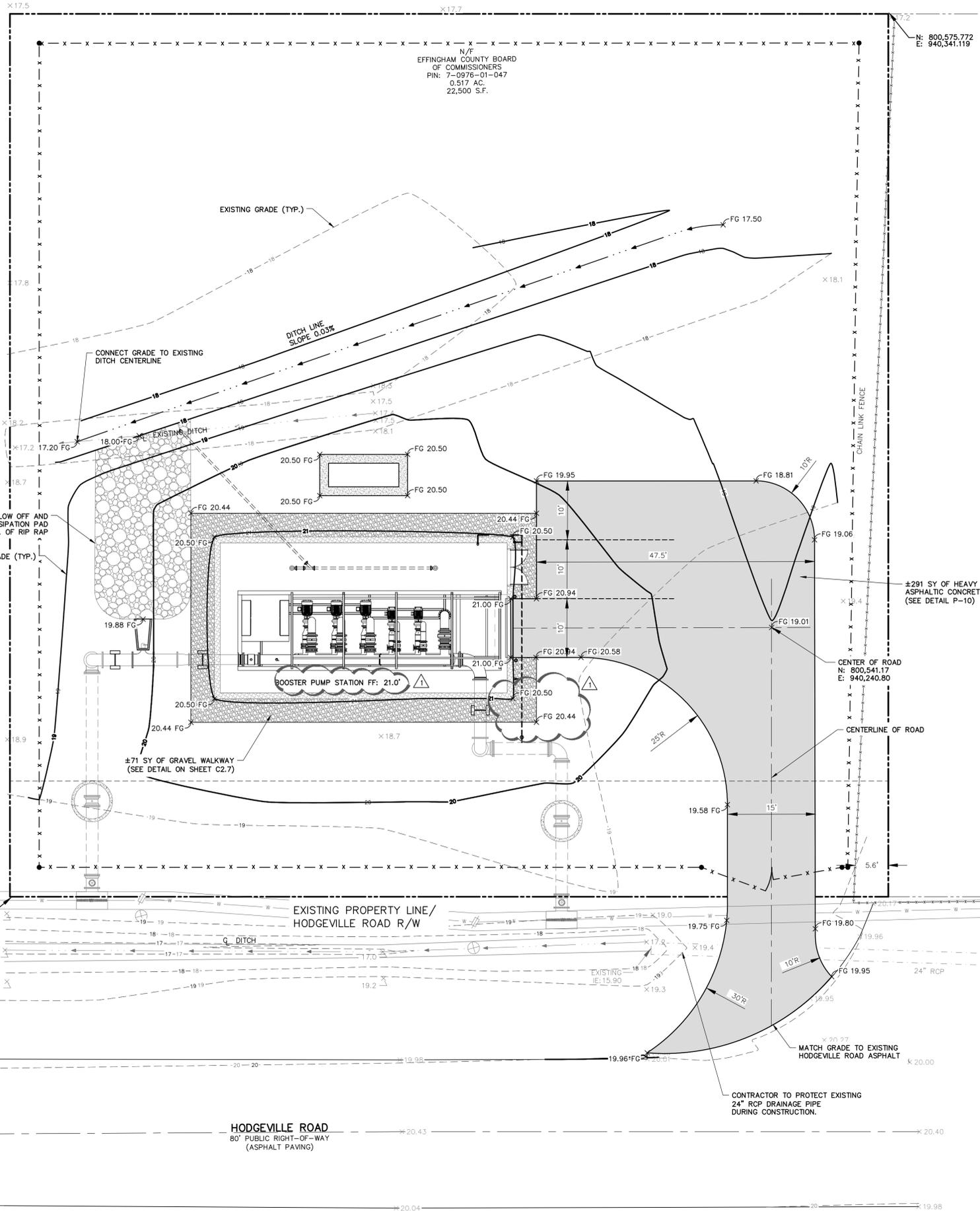
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 "BENCHTIE" 24" PINE  
 EL: 20.88  
 N: 800,640.8664  
 E: 940,138.1193  
 NSRS 11, GA STATE PLANE,  
 EAST ZONE, US FT

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

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N/F  
COME-A-LONG GROUP, LLC  
PIN: 7-0976-01-015  
DB 270Z PG. 373

BENCHMARK:  
"BENCHTIE" 24" PINE  
EL: 20.88  
N: 800,640,8664  
E: 940,138,1193  
NSRS 11, 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

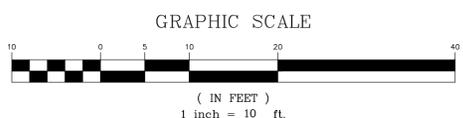
±291 SY OF HEAVY DUTY  
ASPHALTIC CONCRETE PAVEMENT  
(SEE DETAIL P-10)

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
1	REVISED PER ADDENDUM 1		

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 Savannah, GA 31405 • 912.234.5300  
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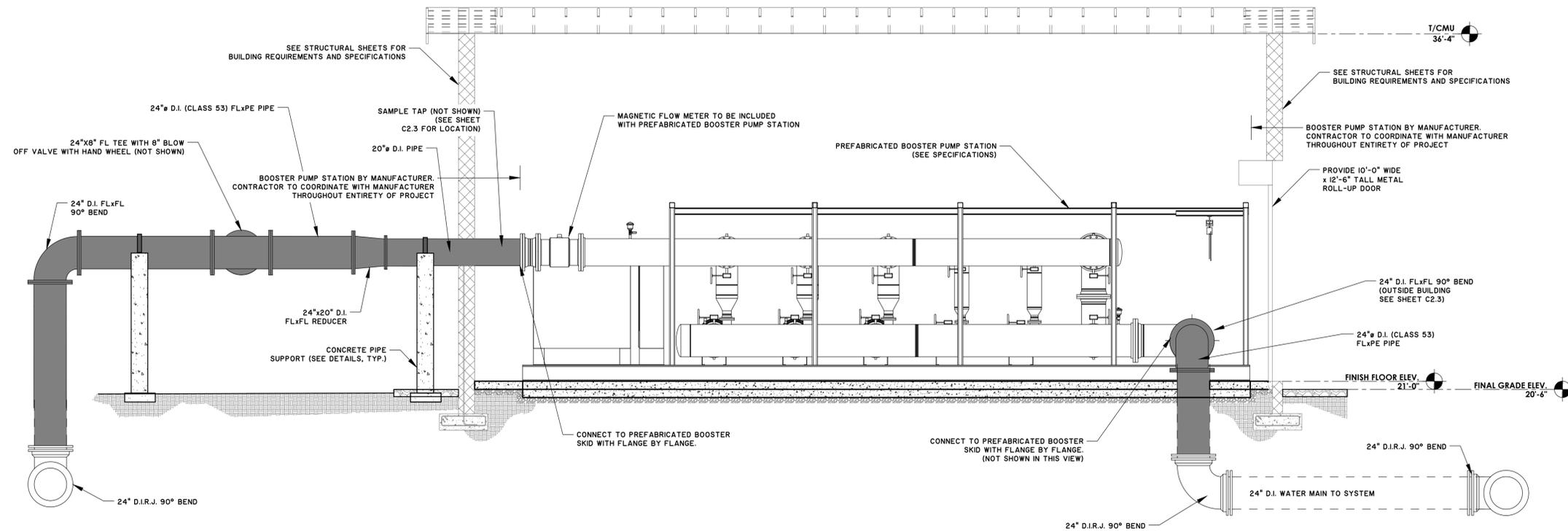
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**BOOSTER PUMP PAVING, GRADING, AND DRAINAGE PLAN**

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

**C2.2**



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**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.	REVISED PER ADDENDUM I	BY	DATE

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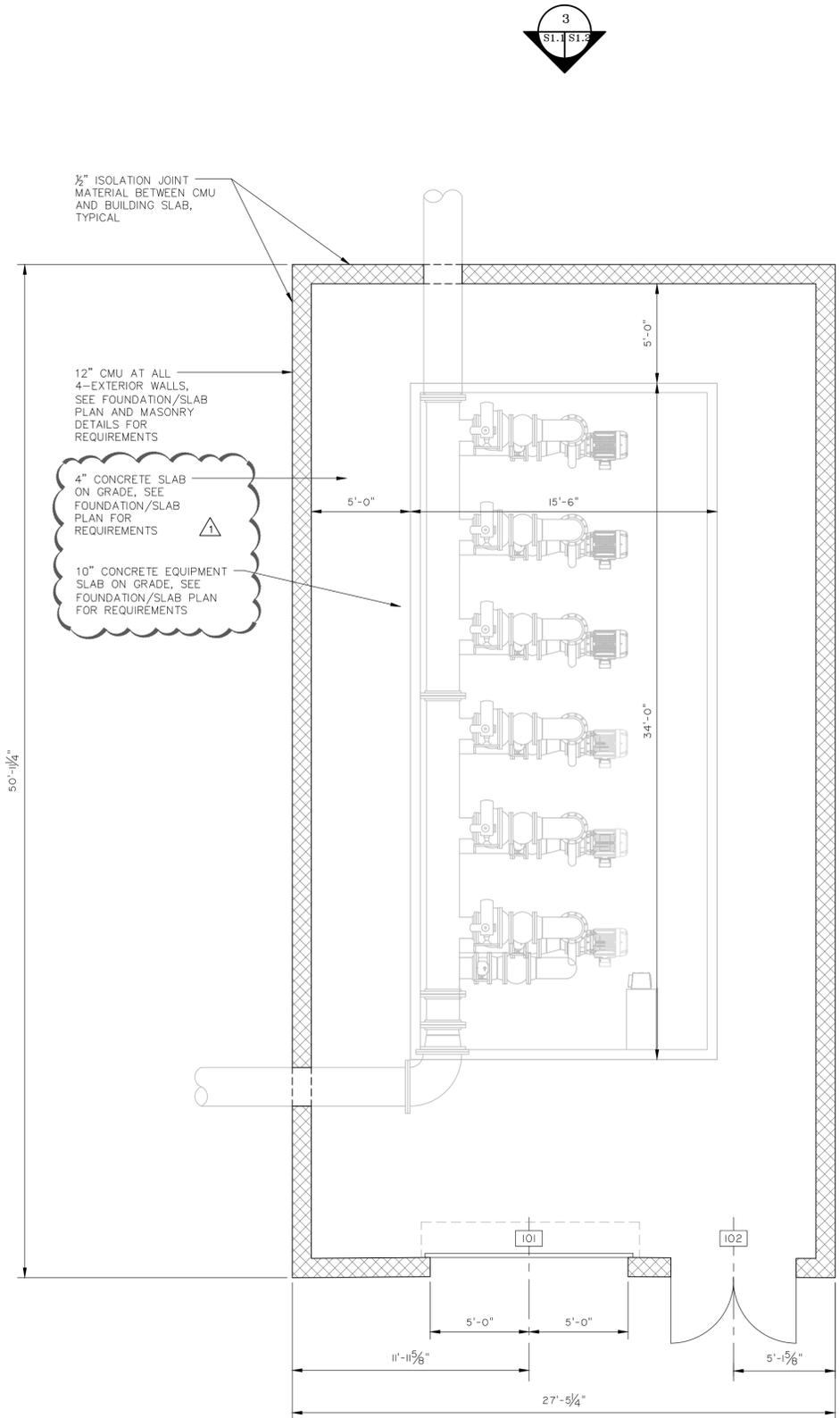
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION**  
**BOOSTER STATION SECTION VIEW**

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

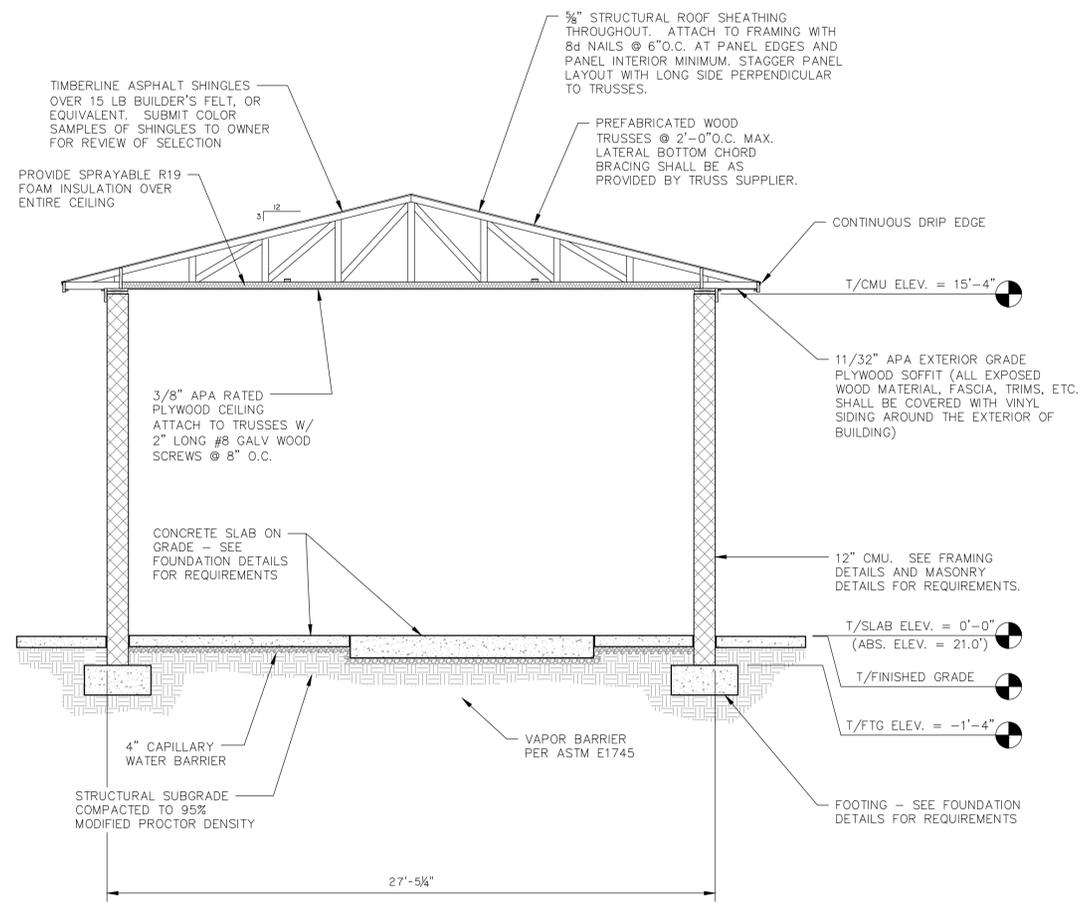
**C2.4**



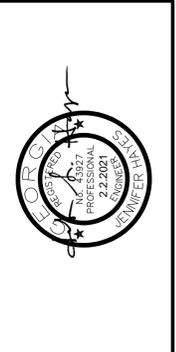
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**1 BOOSTER STATION FLOOR PLAN**  
S1.1 1/4" = 1'-0"



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



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1	REVISED PER	ADDENDUM 1	JEP	3/31/21

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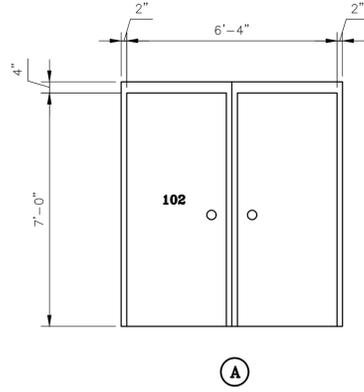
**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
CHATHAM COUNTY, GA  
**EFFINGHAM COUNTY BOOSTER PUMP STATION FLOOR PLAN AND BUILDING SECTION**

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

**S1.1**

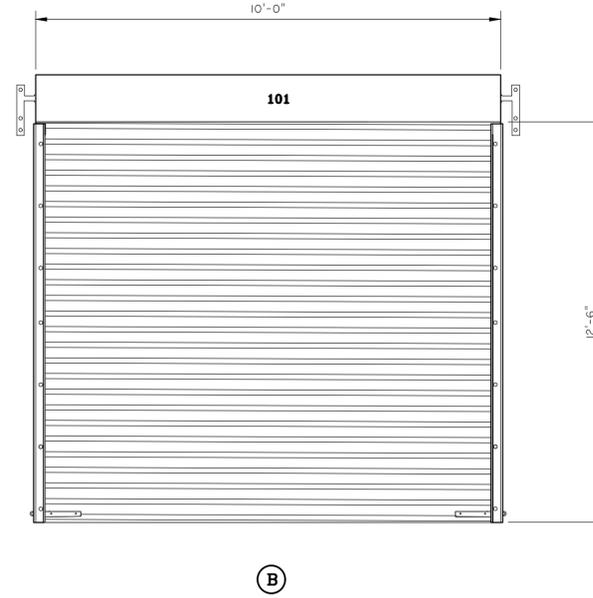
DOOR SCHEDULE								
DOOR NO.	DOOR TYPE	DIMENSIONS			DOOR		FRAME	
		WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	MATERIAL	FINISH
102	A	6'-4"	7'-0"	1-3/4"	FIBERGLASS	PAINT	FIBERGLASS	PAINT
101	B	10'-0"	12'-6"		ALUMINUM	PAINT	ALUMINUM	PAINT

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

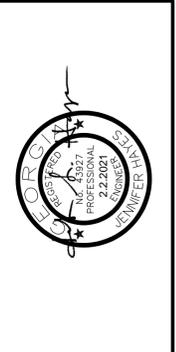


ROOM FINISH SCHEDULE							
ROOM NAME	FLOOR		WALLS		CEILING		CEILING HEIGHT
	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	
PUMP ROOM	CONCRETE	NOTE 1	CMU	NOTE 2	PLYWOOD	NOTE 3 & 4	15'-4"

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



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NO.	REVISED PER	ADDENDUM	REVISIONS	DATE
1	JEP	3/31/21		

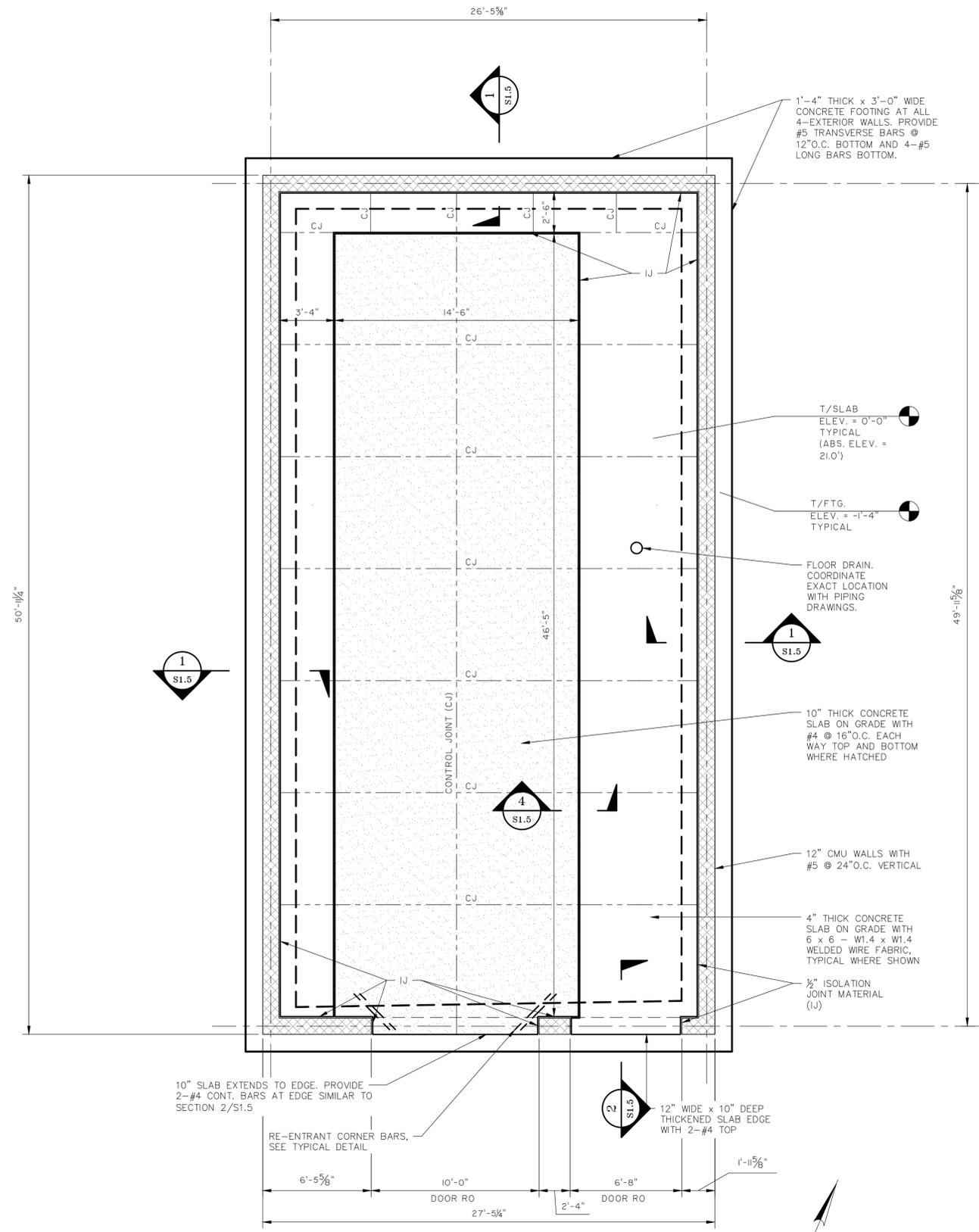
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**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
 CHATHAM COUNTY, GA  
 EFFINGHAM COUNTY BOOSTER PUMP STATION  
**DOOR SCHEDULE**

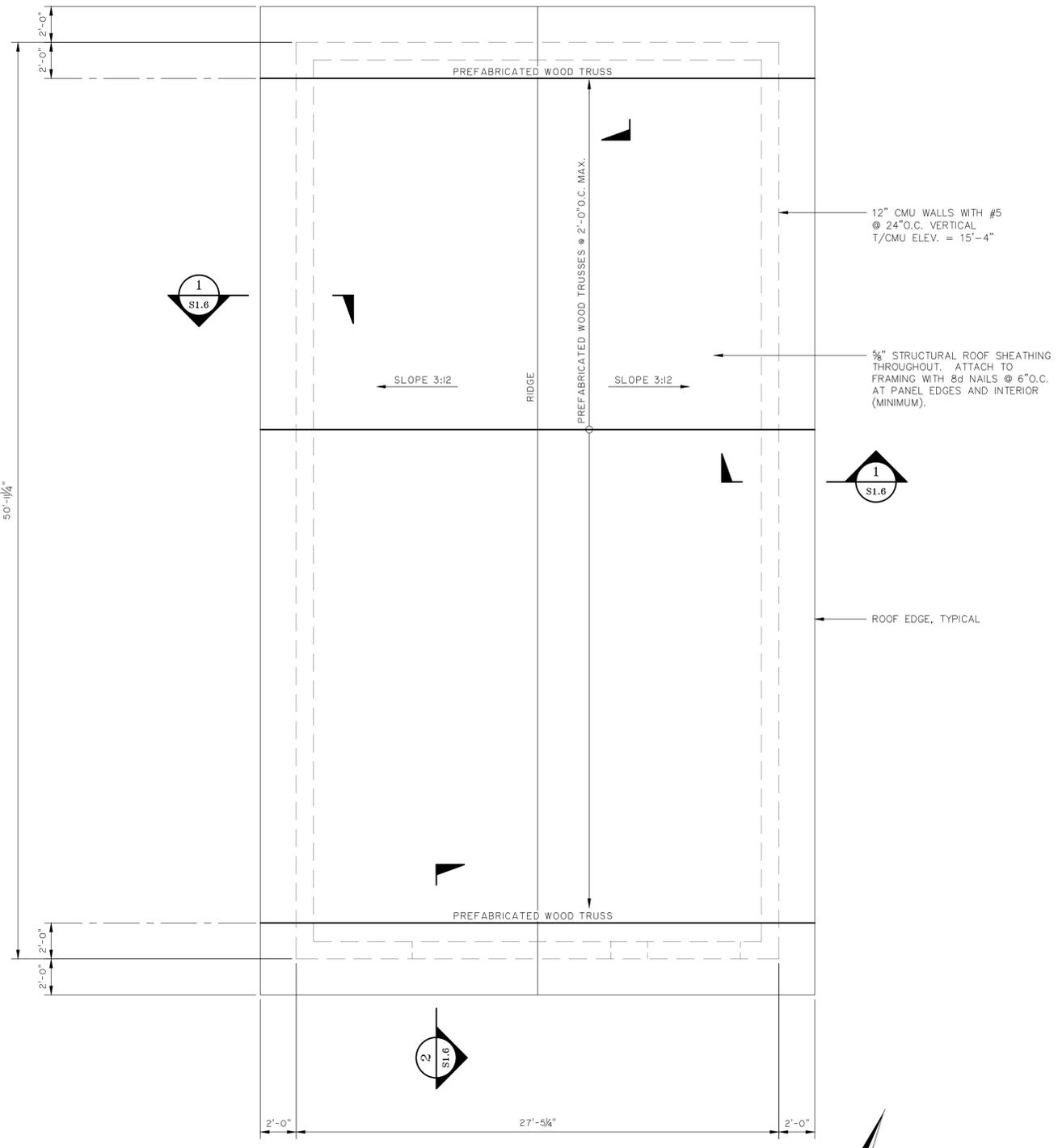
JOB NO: J-28378.0000  
 DATE: 02/02/2021  
 DRAWN: JEP  
 DESIGNED: JEP  
 REVIEWED: JAH  
 APPROVED: JAH  
 SCALE: AS SHOWN

**S1.3**

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1 FOUNDATION/SLAB PLAN  
S1.4 1/4"=1'-0"



2 ROOF FRAMING PLAN  
S1.4 1/4"=1'-0"



NO.	REVISIONS	BY	DATE
1	REVISED PER ADDENDUM 1	JEP	3/31/21

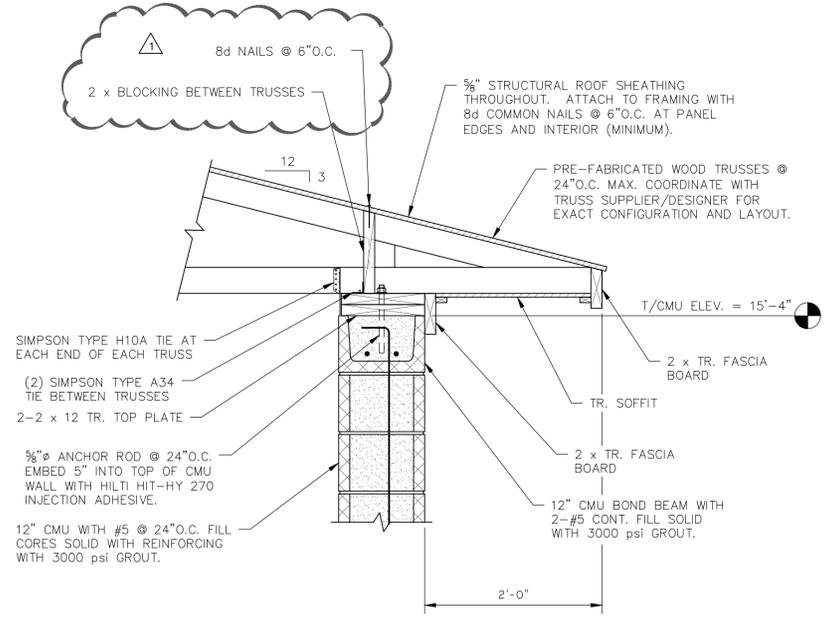
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**EFFINGHAM COUNTY BOARD OF COMMISSIONERS**  
CHATHAM COUNTY, GA  
EFFINGHAM COUNTY BOOSTER PUMP STATION  
FOUNDATION AND ROOF FRAMING PLANS

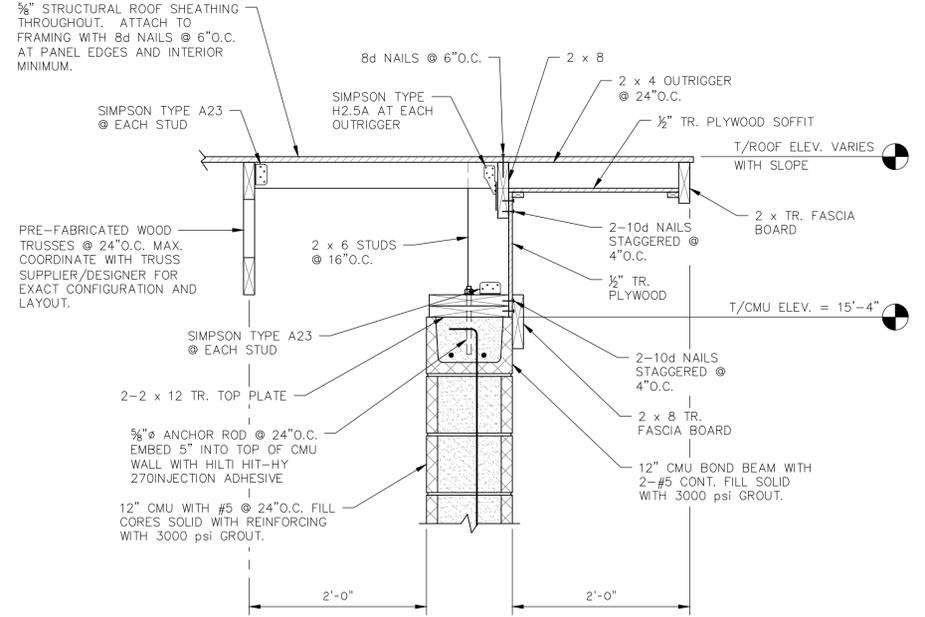
JOB NO:	J-28378.0000
DATE:	02/02/2021
DRAWN:	JEP
DESIGNED:	JEP
REVIEWED:	JAH
APPROVED:	JAH
SCALE:	AS SHOWN

**S1.4**

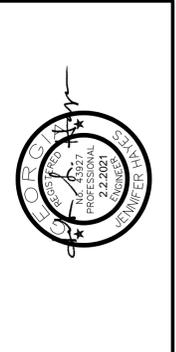
2. JAH/STW/2021/02/0000/0000/0000/0000/0000 - STRUCTURAL - 11.25.21



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



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



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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**