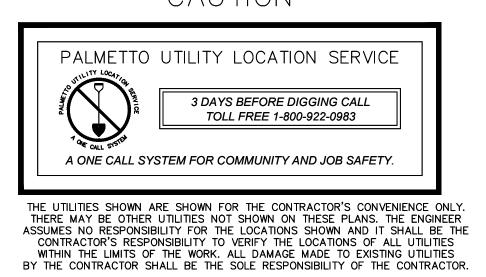


# BIG DAM SWAMP RECYCLE CENTER DESIGN DRAWINGS



# LOCATION MAP

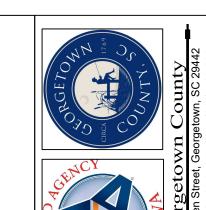
# \*\*\*CAUTION\*\*\*

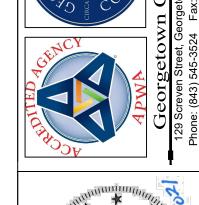


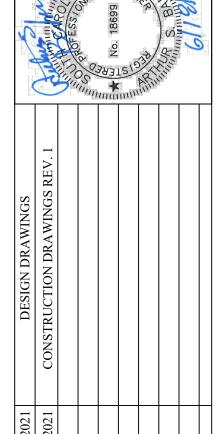


SHEET #			
SHEET #	SHEET TITLE	REV. #	REV. DATE
C-00	COVER SHEET	1	6/18/2021
C-01	GENERAL NOTES	1	6/18/2021
C-02	GENERAL LEGEND	1	6/18/2021
C-03	MASTER PLAN	1	6/18/2021
C-04	PHASE PLAN	1	6/18/2021
C-05	EXISTING CONDITIONS	1	6/18/2021
C-06	SITE PLAN	1	6/18/2021
C-07	WATER AND SEWER UTILITY PLAN	1	6/18/2021
C-08	GRADING AND DRAINAGE PLAN	1	6/18/2021
C-09	RECYCLE CENTER ENTRANCE PLAN AND PROFILE	1	6/18/2021
C-10	RECYCLE CENTER EXIT PLAN AND PROFILE	1	6/18/2021
C-11	SEDIMENT AND EROSION CONTROL PLAN	1	6/18/2021
C-12	SEDIMENT AND EROSION CONTROL DETAILS	1	6/18/2021
C-13	TYPICAL DETAILS	1	6/18/2021
C-14	SCDOT DETAILS	1	6/18/2021
C-15	SCDOT DETAILS	1	6/18/2021
C-16	SCDOT DETAILS	1	6/18/2021
E-01	ELECTRIC UTILITY PLAN (CONCEPT)	1	6/18/2021
S1	WIND & SEISMIC DESIGN DETAILS		5,15,252
F1	FOUNDATION DESIGN DETAILS		
PME1	WIND & SEISMIC DESIGN DETAILS		
PME2	PLUMBING & MECHANICAL PLANS		
PME3	ELECTRICAL PLANS		
A-100	FRONT CONSTRUCTION		
E-100	ELECTRICAL		
M-100	MECHANICAL		
P-100	PLUMBING		
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SHEET 5	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOX EAVE RAFTER)		
SHEET 5A	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOX EAVE RAFTER)		
SHEET 6	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER)		
SHEET 6A	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER)		
SHEET 6B	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)		
SHEET 6C	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)		
SHEET 6C	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)		
SHEET 6C SHEET 7	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)		
SHEET 6C SHEET 7	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER)		
SHEET 6C  SHEET 7  SHEET 7A  SHEET 8	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER)		
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SHEET 6C  SHEET 7  SHEET 7A  SHEET 8  SHEET 8A  SHEET 8B	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130MPH)		
SHEET 6C  SHEET 7  SHEET 7A  SHEET 8  SHEET 8A  SHEET 8B  SHEET 8C  SHEET 9	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130MPH)  BASE RAIL ANCHORAGE OPTIONS		
SHEET 6C  SHEET 7  SHEET 7A  SHEET 8  SHEET 8A  SHEET 8B  SHEET 8C  SHEET 9	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130MPH)  BASE RAIL ANCHORAGE OPTIONS  BASE RAIL ANCHORAGE OPTIONS		
SHEET 6C  SHEET 7  SHEET 7A  SHEET 8  SHEET 8A  SHEET 8C  SHEET 9  SHEET 9A  SHEET 10	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130MPH)  BASE RAIL ANCHORAGE OPTIONS  BASE RAIL ANCHORAGE OPTIONS  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOX EAVE RAFTER)		
SHEET 6C  SHEET 7  SHEET 7A  SHEET 8  SHEET 8A  SHEET 8C  SHEET 9  SHEET 9A  SHEET 10  SHEET 11	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130MPH)  BASE RAIL ANCHORAGE OPTIONS  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOX EAVE RAFTER)  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOX EAVE RAFTER)		
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SHEET 6C  SHEET 7  SHEET 7A  SHEET 8A  SHEET 8B  SHEET 8C  SHEET 9  SHEET 10  SHEET 11  SHEET 12  SHEET 13	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER)  COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  BASE RAIL ANCHORAGE OPTIONS  BASE RAIL ANCHORAGE OPTIONS  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOX EAVE RAFTER)  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOW EAVE RAFTER)  CONNECTION DETAILS  CONNECTION DETAILS		
SHEET 6C  SHEET 7  SHEET 7A  SHEET 8  SHEET 8A  SHEET 8C  SHEET 9  SHEET 10  SHEET 11  SHEET 12  SHEET 13  SHEET 14	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130MPH)  BASE RAIL ANCHORAGE OPTIONS  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOX EAVE RAFTER)  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOW EAVE RAFTER)  CONNECTION DETAILS  CONNECTION DETAILS  LEAN—TO OPTIONS (BOX EAVE RAFTER)		
SHEET 6C  SHEET 7  SHEET 7A  SHEET 8  SHEET 8A  SHEET 8C  SHEET 9  SHEET 10  SHEET 10  SHEET 11  SHEET 12  SHEET 13  SHEET 14  SHEET 14A	COLUMN CONNECTION DETAILS (BOX EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE RAFTER)  TYPICAL RAFTER/COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130 MPH)  COLUMN CONNECTION DETAILS (BOW EAVE RAFTER) (FOR WIND SPEEDS 130MPH)  BASE RAIL ANCHORAGE OPTIONS  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOX EAVE RAFTER)  TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOW EAVE RAFTER)  CONNECTION DETAILS  CONNECTION DETAILS  LEAN—TO OPTIONS (BOX EAVE RAFTER)  LEAN—TO OPTIONS (BOX EAVE RAFTER)		

# GEORGETOWN COUNTY, SOUTH CAROLINA







SCALE: DESIGNED BY: ASB

DRAWN BY: DATE: 06/18/2021

COVER SHEET

SHEET NO:



# PROJECT CONTACTS

GEORGETOWN COUNTY DEPT: PUBLIC SERVICES DIRECTOR CONTACT: RAY C. FUNNYE ADDRESS: 108 SCREVEN STREET GEORGETOWN, SC 29440 Phone: (843) 545-3325 DEPT: STORMWATER ADMINISTRATOR

CONTACT: TRACY D. JONES, P.E.

ADDRESS: 129 SCREVEN STREET GEORGETOWN, SC 29442 PHONE: (843) 545-3524

ENGINEERING AND DEPT: CAPITAL PROJECTS MANAGER

CONTACT: ART BAKER, PE ADDRESS: 1918 CHURCH STREET GEORGETOWN, SC 29440

PHONE: (843) 545-3255

Surveyor NAME: PLS, INC CONTACT: GREG CUNNINGHAM, PLS

UTILITY COMPANIES

NAME: GCWSD CONTACT: TOMMY KENNEDY

ADDRESS: PO BOX 2730 PAWLEYS ISLAND, SC 29585

PHONE: (843) 237-9719 Name: SANTEE ELECTRIC COOP. PHONE: (843) 546-4521

NAME: TIME WARNER CABLE

CONTACT: DAN HELMICK PHONE: (843) 913-7994

NAME: FRONTIER COMMUNICATION

CONTACT: ROBERT HELMS PHONE: (843) 655-7994

## **GENERAL NOTES**

- 1. TOPOGRAPHIC AND BOUNDARY SURVEY BY GTC PUBLIC WORKS, 2226 BROWNS FERRY ROAD, GEORGETOWN SC 29442. (843) 545-3438
- 2. THE CONTRACTOR SHALL VERIFY THE LOCATION AND INVERT ELEVATION OF ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION HAS BEGUN. CALL UTILITY COMPANIES BEFORE EXCAVATION TO LOCATE ALL BURIED CABLES AND UNDERGROUND UTILITIES.
- 3. THE CONTRACTOR SHALL MAKE ALL NECESSARY SITE VISITS AND INSPECTIONS TO FAMII IARIZE HIM/HERSELF WITH THE PROJECT AND MAKE ANY INVESTIGATIONS WHICH ARE APPROPRIATE TO CONFIRM THE SOILS/GEOTECHNICAL INFORMATION, TOPOGRAPHIC INFORMATION, WETLANDS, UTILITIES, ETC. TO BE ABLE TO PREPARE HIS/HER BID FOI CONSTRUCTING THE PROJECT IN ACCORDANCE WITH THE DRAWINGS AND INFORMATION PROVIDED FOR BIDDING. THE CONTRACTOR SHOULD IMMEDIATELY NOTIFY THE ENGINEERS

FOR A REVIEW IF ANY DISCREPANCIES ARE DISCOVERED AT THE SITE OR ON THE DRAWINGS

- 4. ALL REFERENCE TO SPECIFICATIONS FOR HIGHWAY CONSTRUCTION OR MATERIALS ARE MADE FROM SOUTH CAROLINA HIGHWAY DEPARTMENT'S STANDARD SPECIFICATIONS,
- 5. A COMPLETE SET OF APPROVED DRAWINGS MUST BE MAINTAINED ON SITE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.
- BY OWNERS REPRESENTATIVE. 7. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING RFORMANCE OF WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO

6. CONTRACTOR SHALL PROTECT ALL TREES THAT ARE TO REMAIN AS MARKED IN THE FIELD

- INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTORS SAFETY MEASURES, IN, ON, OR NEAR THE CONSTRUCTION SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL BARRICADES, WARNING SIGNS, FLASHING LIGHTS, AND AFFIC CONTROL DEVICES DURING CONSTRUCTION. THE CONTRACTOR IS TO COMPLY WITH ALL OSHA REGULATIONS, REQUIREMENTS, AND SAFETY MEETING REQUIREMENTS.
- 8. THE CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION THAT INTERFERE WITH NEW CONSTRUCTION. REMOVE DEBRIS FROM SITE IN ACCORDANCE WITH LOCAL LAWS. THE CONTRACTOR SHALL PROTECT ALL TREES THAT ARE TO REMAIN.
- 9 WITHIN ALL NOTES THE TERM CONTRACTOR SHALL MEAN THE GENERAL CONTRACTOR AND ANY SUBCONTRACTOR OR VENDOR PERFORMING CONSTRUCTION ON THE SITE
- 10. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF FEDERAL, STATE, COUNTY AND LOCAL MUNICIPALITIES
- 11. GENERAL CONTRACTOR SHALL VERIFY THAT ALL NECESSARY PERMITS FOR CONSTRUCTION HAVE BEEN OBTAINED PRIOR TO THE START OF THE PROJECT. 12. ANY CONSTRUCTION TRAILERS USED ON-SITE BY THE CONTRACTOR (IF NECESSARY) SHALL BE PERMITTED THROUGH LOCAL GOVERNING AGENCY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ACQUIRE ALL NECESSARY PERMITS. CONTRACTOR MAY UTILIZE EXISTING
- STRUCTURE AT TEMPORARY CONSTRUCTION ENTRANCE AND WILL BE RESPONSIBLE FOR ALL NECESSARY PERMITS AND UTILITY CONNECTIONS 13. THE CONTRACTOR SHALL REFERENCE THE GEOTECHNICAL REPORT AVAILABLE FROM THE OWNER AND COMPLY WITH ALL REPORT RECOMMENDATIONS. IF A CONFLICT ARISES BETWEEN
- CIVIL DOCUMENTS AND GEOTECHNICAL REPORT, THE MORE STRINGENT SHALL GOVERN. 14. CONTRACTOR SHALL SCARIFY AND REMOVE ALL EXISTING ASPHALT PAVEMENT WHERE
- 15. THE GRADING CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM HOUSES AT ALL TIMES. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY AREAS THAT MAY NOT DRAIN PROPERLY DURING CONSTRUCTION.
- 16. GRADING CONTRACTOR SHALL INCLUDE IN COST ALL CUT/FILL NECESSARY FOR EARTHWORK BAI ANCE. CONTRACTOR SHALL INCLUDE IN COST ALL WETTING/DRYING OF SOILS
- NECESSARY TO ACHIEVE COMPACTION PER SPECIFICATIONS. 17. THE SEQUENCE OF WORK SHALL CONFORM TO THE EROSION CONTROL NARRATIVE
- 18. SEDIMENT CONTROLS DURING CONSTRUCTION SHALL COMPLY WITH ALL LOCAL AND STATE CODES AND REGULATIONS. AFTER ALL SITEWORK IS COMPLETED AND GRASSING ESTABLISHED, THE GRADING CONTRACTOR SHALL REMOVE ALL SILT FROM THE SITE AND LEGALLY DISPOSE OF ALL SILT OFF-SITE AT NO ADDITIONAL COST TO THE OWNER.
- 19. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE WHEN INSTRUCTIONS FROM REGULATORY AGENCIES ARE RECEIVED AND <u>DO NOT</u> COMPLY WITH INSTRUCTIONS AS DIRECTED BY THE OWNER'S REPRESENTATIVE
- 20. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONSTRUCTION DOCUMENTS AND SHALL AT ONCE REPORT TO THE ENGINEER ANY INCONSISTENCIES OR OMISSIONS DISCOVERED. THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS TO VERIFY THAT ALL LOCATIONS ARE CORRECT PRIOR TO COMMENCING CONSTRUCTION.
- 21. THE CONTRACTOR SHALL NOT PERFORM ANY WORK ON ANY UTILITIES OR IN ANY PUBLIC AINED COPIES OF ALL NECESSARY ENCROACHMEN AND CONSTRUCTION PERMITS.
- 22. THE CONTRACTOR SHALL VERIFY BENCH MARK LOCATION AND ELEVATION WITH SURVEYOR BEFORE BEGINNING CONSTRUCTION.
- 23. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EASEMENTS ON THE SITE BEFORE PROCEEDING WITH CONSTRUCTION. 24. IN THE CASE OF A CONFLICT WITH THE GEORGETOWN COUNTY STANDARD SPECIFICATIONS THE COUNTY SPECS SHALL GOVERN. THE CONTRACTOR IS RESPONSIBLE FOR CLARIFYING
- 25. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR POSTING ALL REQUIRED BONDS THAT
- GENERAL CONTRACTORS ARE ALLOWED TO POST 26. FLOOD PLAINS, FLOODWAYS, NOR WETLANDS SHALL BE DISTURBED AS PART OF THIS
- 27. ANY CONCRETE DRIVEWAY, WALKWAY, OR CURB THAT IS NOT SHOWN, DIRECTED, OR MARKED OUT BY THE ENGINEER TO BE REPLACED, BUT IS REMOVED, MISALIGNED OF DAMAGED AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION SHALL BE REPLACED BY
- THE CONTRACTOR AT NO ADDITIONAL COST TO THE COUNTY 28. SELECTIVE CLEARING AREAS SHALL REMAIN UNDISTURBED UNTIL APPROVED FOR CLEARING BY THE LANDSCAPE ARCHITECT TO ALLOW FOR POSSIBLE PRESERVATION OF EXISTING

STANDARD SPECIFICATIONS AND STANDARD DETAILS SHALL GOVERN ALL LITILITIES WORK

- 29. THESE GENERAL NOTES SHALL APPLY FOR THE ENTIRE PROJECT 30 THE REQUIREMENTS OF GEORGETOWN COUNTY WATER & SEWER DISTRICT (GCW&SD)
- WHERE A CONFLICT EXISTS IN THE REQUIREMENTS OF A REFERENCED MATERIAL OR INSTALLATION
- STANDARD, THE REQUIREMENTS OF GEORGETOWN COUNTY WATER & SEWER DISTRICT
- SHALL PREVAIL. WHERE THE REQUIREMENTS OF A STATE OR LOCAL AGENCY HAVING JURISDICTION
- ARE MORE STRINGENT THOSE REQUIREMENTS SHALL PREVAIL
- 31. NO PORTION OF THE WORK SHALL BE ACCOMPLISHED UNTIL THE APPROPRIATE PERMITS AND APPROVALS FOR THAT WORK HAVE BEEN OBTAINED. THE CONTRACTOR SHALL HAVE COPIES OF PERMITS AND THEY SHALL BE RETAINED AT THE PROJECT SITE AT ALL TIMES FOR INSPECTION BY
- OWNER'S REPRESENTATIVE. 32. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN TO BE MADE
- WITHOUT PRIOR APPROVAL FROM THE ENGINEER 33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND EXISTENCE
- OF ALL UNDERGROUND UTILITIES. LOCATION OF UTILITIES ON THE PLAN, WHETHER FULLY AND CORRECTLY LOCATED OR OMITTED, WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OR LIABILITY FOR DAMAGE TO UTILITIES CAUSED BY HIS CONSTRUCTION FEFORT. THE
- WILL BE RESPONSIBLE FOR CONTACTING LOCAL AGENCIES FOR ASSISTANCE IN LOCATING THEIR UTILITIES. THE CONTRACTOR MUST FULLY COMPLY WITH THE SOUTH CAROLINA UNDERGROUND UTILITIES DAMAGE PREVENTION ACT, GENERAL STATUS 58-35, SECTIONS 20 THROUGH 120.
- 34. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH ALL MATERIAL AND LABOR TO
- THE FACILITY AS SHOWN AND DESCRIBED AND IN CONFORMANCE WITH GEORGETOWN COUNTY SPECIFICATIONS AND REQUIREMENTS. HE SHALL VISIT THE SITE PRIOR TO BIDDING TO
- **EXISTING CONDITIONS**
- 35. A SIGN OR OTHER NOTICE WILL BE POSTED CONSPICUOUSLY NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE INDICATING THE LOCATION OF THE SWPPP. THE COPY OF THE SWPPP IS REQUIRED TO BE KEPT ON-SITE OR LOCALLY AVAILABLE MUST BE MADE AVAILABLE. IN ITS
- TO DHEC OR THE EPA STAFF FOR REVIEW AND COPYING AT THE TIME OF AN ON-SITE INSPECTION!SE 10-10-10 FERTILIZER FOR PERMANENT GRASSING AT 1000 LBS/AC. STRAW MULCH SHALL BE APPLIED AT A RATE OF 2 TONS/ACRES

# SCDHEC STANDARD NOTES

- WITH SYNTHETIC OR VEGETATIVE MATS IN ADDITION TO HYDROSEFDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION, TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE
- STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS
- WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN. GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION
- 3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK, IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION
- PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL FROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING. THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
- ALL FROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND AL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL FROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
- 6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED 7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN
- 8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING NSTRUCTION TO PROTECT WORK AREAS FROM UP SLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.

IN ACCORDANCE WITH S.C REG. 72-300 ET SEQ. AND SCR100000.

- ALL WATERS OF THE STATE (WoS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WoS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WoS.
- 10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
- 11. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
- 12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
- 13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL 14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS, WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT
- MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMP's
- (SEDIMENT BASIN, FILTER BAG, ETC.). 16. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
- WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO PAINT FORM RELEASE OUS CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS
- SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
- AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
- 18. IF EXISTING BMP's NEED TO BE MODIFIED OR IF ADDITIONAL BMP's ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND / OR SC's WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMP's MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
- 19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE

TEMPORARY SEEDING

SPECIES	RATES PER ACRE	PLANTING DATES	REMARKS		
BROWN TOP MILLET	40 LBS.	4/1-7/15	137,000 SEED PER POUND QUICK DENSE COVER		
RYEGRASS (ALONE)	50 LBS.	9/01-11/15	227,000 SEED PER POUND DO NOT USE IN MIXTURES		
WHEAT (ALONE)	180 LBS.	10/01-12/15	15,000 SEEDS PER POUND WINTERHARDY		
OATS (ALONE)	128 LBS.	9/15-11/15	13,000 SEEDS PER POUND USE IN PRODUCTIVE SOILS		

NOTE. USF 10-10-10 FERTILIZER FOR TEMPORARY GRASSING AT 500 LBS/AC, STRAW MULCH SHALL BE APPLIED AT A RATE OF 2 TONS/ACRE.

# PERMANENT SEEDING

PERMANENT SEEDING					
SPECIES	RATES PER ACRE	PLANTING DATES	REMARKS	,	
ANNUAL RYE GRASS	15 LBS.	8/15-2/28	QUICK COVER;		
COMMON BERMUDA GRASS (UNHULLED)	40 LBS.	8/15-2/28	PLANT WITH TALL FESCUE		
TALL FESCUE	80 LBS.	8/15-2/28	MIX WITH PERENNIAL LESPEDEZAS;		
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# **GRASSING NOTES**

- . AREAS TO BE GRASSED SHALL BE DEFINED AS ALL AREAS OF SITE WITHIN THE GRADING LIMITS AND NOT OCCUPIED BY PAVING, CRUSHED STONE SURFACING OR STRUCTURES. GRASSING SHALL INCLUDE FINAL SHAPING, LIMING,
- 2. LIME SHALL BE AGRICULTURAL GRADE, GROUND LIMESTONE. GROUND LIMESTONE SHALL CONTAIN NOT LESS THAN 88% OF CALCIUM CARBONATE CONTENT EQUIVALENT AND SHALL BE SUCH A FINENESS THAT 90% WILL PASS HROUGH A NO. 10 SIEVE AND NOT LESS THAN 50% THROUGH A NO. 50 SIEVE.

FERTILIZING AND SEEDING.

- . FERTILIZER SHALL BE GRADE 10-10-10 COMPLETE FERTILIZER OF UNIFORM COMPOSITION, FREE-FLOWING AND SUITABLE FOR APPLICATION WITH EQUIPMENT, DELIVERED TO SITE IN BAGS LABELED WITH MANUFACTURER'S GUARANTEED ANALYSIS, AND SHALL CONFORM TO ALL STATE AND FEDERAL REGULATIONS. FERTILIZER SHALL BE DISTRIBUTED UNIFORMLY AT A RATE OF 1000LBS. PER ACRE AND SHALL BE INCORPORATED INTO SOIL TO A DEPTH OF AT LEAST 2' BY DISKING AND HARROWING.
- 4. SEEDS SHALL BE MIXTURE AS APPROVED BY THE ENGINEER AND SHALL MEET REQUIREMENTS OF SEED LAWS OF THE STATE AND THE U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER FEDERAL SEED ACT IN EFFECT ON DATE BIDS ARE RECEIVED. SEED SHALL BE DELIVERED IN STANDARD CONTAINERS. SEED WHICH HAS BECOME WET, MOLDY OR DAMAGED IN RANSIT OR STORAGE WILL NOT BE ACCEPTABLE.
- 5. MULCH SHALL CONSIST OF SMALL GRAIN STRAW OF GOOD QUALITY, CLEAN, FREE OF NOXIOUS WEEDS, AND REASONABLY FREE OF OTHER WEEDS. SPREAD MULCH AT A RATE OF 1TON PER ACRE ON SLOPES UP TO 8.0 %
- 6. SPREAD LIME AT A RATE OF 2,000 LBS. PER ACRE 7. SPREAD SEED AT A RATE AS NOTED IN THE TABLES BELOW.
- 3. IMMEDIATELY AFTER FERTILIZING AND SEEDING HAVE BEEN COMPLETED, ENTIRE AREA SHALL BE COMPACTED BY MEANS OF A CULTIPACKER, ROLLER, OR APPROVED FOUIPMENT WEIGHING APPROXIMATELY 90 LBS. PER LINEAR FOOT OF ROLLER. USE OF SPECIFIED MULCH. APPLIED AT A RATE OF 1 - 2 ONS/ACRE (USE THE HIGHER RATE FOR 3 TO 1 SLOPES OR GREATER), WITH ASPHALT EMULSION TYPE SS-1, MS-2, RS-1, OR RS-2, SHALL BE USED TO PROTECT SITE AGAINST FROSION
- AREAS THAT REQUIRE RE-FERTILIZATION AND RE-SEEDING WILL BE DESIGNATED BY THE ENGINEER, WHEN ANY PORTION OF SURFACE BECOMES GULLED OR OTHERWISE DAMAGED FOLLOWING SEEDING, OR SEEDLINGS HAVE BEEN WINTER-KILLED OR OTHERWISE DESTROYED, AFFECTED PORTION SHALL BE REPAIRED TO RE-ESTABLISH CONDITION AND GRADE OF SOIL PRIOR TO SEEDING AND SHALL BE RE-SEEDED AS SPECIFIED ABOVE.
- 10. ALL DISTURBED AREAS ARE TO BE GRASSED IMMEDIATELY AFTER CONSTRUCTION IN THE AREA. AT NO TIME WILL AN AREA BE LEFT BARE FOR MORE THAN 14 DAYS AFTER COMPLETION OF CONSTRUCTION.
- 11. ENSURE THAT THE AREAS SEEDED ARE UNIFORM AND CONFORM TO THE FINISHED GRADE AND CROSS-SECTION SHOWN ON THE PLANS OR AS OTHERWISE DIRECTED BY THE RCE. PERFORM MINOR SHAPING AND EVENING OF UNEVEN AND ROUGH AREAS OUTSIDE THE GRADED SECTION AS DIRECTED BY THE RCE IN ORDER TO PROVIDE FOR MORE EFFECTIVE EROSION CONTROL AND EASE OF SUBSEQUENT MOWING OPERATIONS.
- 12. LOOSEN THE SEEDED (INCLUDING CUT SLOPES) TO A MINIMUM DEPTH OF 3. INCHES BEFORE AGRICULTURAL LIME, FERTILIZER, OR SEED IS APPLIED. CLEAR THE AREAS TO BE SEEDED OF STONES LARGER THAN 2 1/2 INCHES IN ANY DIMENSION, ROOTS AND OTHER DEBRIS.
- 13. PRODUCE A SATISFACTORY STAND OF PERENNIAL VEGETATION WITH A ROOT SYSTEM THAT IS DEVELOPED SUFFICIENTLY TO SURVIVE DRY PERIODS AND WINTER WEATHER, AND IS CAPABLE OF RE-ESTABLISHMENT IN THE SPRING. HE PERENNIAL VEGETATION COVER MUST HAVE A MINIMUM COVERAGE DENSITY OF 70% FOR THE SEEDED AREAS
- 14. HYDROSEED USING 1500 POUNDS PER ACRE OF WOOD, CELLULOSE, OR A WOOD/CELLULOSE MIX HYDROSEEDING MULCH WITH THE MANUFACTURE'S RECOMMENDED RATE OF AN APPROVED TACKING AGENT.
- 15. IN THE CASE OF A CONFLICT WITH THE LANDSCAPE NOTES. THE LANDSCAPE SPECS SHALL GOVERN. THE CONTRACTOR IS RESPONSIBLE FOR CLARIFYING ANY CONFLICTS OR AMBIGUITIES.

# DHEC CONSTRUCTION SEQUENCE

- ITEMS MUST OCCUR IN THE ORDER LISTED; ITEMS CANNOT OCCUR CONCURRENTLY UNLESS RECEIVE NPDES COVERAGE FROM DHEC PRE-CONSTRUCTION MEETING (ON-SITE IF MORE THAN 10 DISTURBED AND NON-LINEAR) NOTIFY DHEC EQC REGIONAL OFFICE OR OCRM OFFICE 48 HOURS PRIOR TO BEGINNING
- LAND-DISTURBING ACTIVITIES INSTALLATION OF CONSTRUCTION ENTRANCE(S) CLEARING & GRUBBING ONLY AS NECESSARY FOR INSTALLATION OF PERIMETER
- CONTROLS INSTALLATION OF PERIMETER CONTROLS (E.G., SILT FENCE)
- CLEARING & GRUBBING ONLY IN AREAS OF BASINS/ TRAPS/ PONDS INSTALLATION OF BASINS/ TRAPS/ PONDS AND INSTALLATION OF DIVERSIONS TO THOSE STRUCTURES (OUTLET STRUCTURES MUST BE COMPLETELY INSTALLED AS SHOWN ON
- THE DETAILS BEFORE PROCEEDING TO NEXT STEP; AREAS DRAINING TO THESE STRUCTURES CANNOT BE DISTURBED UNTIL THE STRUCTURES AND DIVERSIONS TO THE STRUCTURES ARE COMPLETELY INSTALLED) 9. CLEARING & GRUBBING OF SITE OR DEMOLITION (SEDIMENT & EROSION CONTROL MEASURES FOR THESE AREAS MUST ALREADY BE INSTALLED)
- 10. ROUGH GRADING 1. INSTALLATION OF STORM DRAIN SYSTEM AND PLACEMENT OF INLET PROTECTION AS EACH 11. INLET IS INSTALLED 12. FINE GRADING, PAVING, ETC.
- PERMANENT/ FINAL STABILIZATION CLEAN-OUT OF DETENTION BASINS THAT WERE USED AS SEDIMENT CONTROL STRUCTURES AND RE-GRADING OF DETENTION POND BOTTOMS; IF NECESSARY, MODIFICATION OF SEDIMENT BASIN RISER TO CONVERT TO DETENTION BASIN OUTLET
- 15. REMOVAL OF TEMPORARY SEDIMENT & EROSION CONTROL MEASURES AFTER ENTIRE AREA DRAINING TO THE STRUCTURE IS FINALLY STABILIZED (THE DEPARTMENT RECOMMENDS THAT THE PROJECT OWNER/ OPERATOR HAVE THE SWPPP PREPARE OR REGISTRATION EQUIVALENT APPROVE THE REMOVAL OF TEMPORARY STRUCTURES.) SUBMIT NOTICE OF TERMINATION (NOT) TO DHEC AS APPROPRIATE
- NOTE: INCLUDE INDIVIDUAL LOT DEVELOPMENT/ CONSTRUCTION IN THE SEQUENCE IF THE NOTE: INSTALLATION OF SOME PERMANENT WATER QUALITY DEVICES SHOULD OCCUR AFTER THE SITE IS STABILIZED; INCLUDE THIS IN THE SEQUENCE. CLEANOUT OF OTHER WATER QUALITY DEVICES THAT WERE USED DURING CONSTRUCTION SHOULD OCCUR
- AFTER SITE STABILIZATION. NOTE: MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES MUST CONTINUE UNTIL THE SITE IS PERMANENTLY STABILIZED AND THE CONTROLS ARE REMOVED.
- NOTE: IF NPDES COVERAGE IS BEING ISSUED AFTER LAND-DISTURBING ACTIVITIES HAVE ALREADY STARTED (E.G., IN RESPONSE TO A NOTICE TO COMPLY, NOTICE OF VIOLATION, OR ENFORCEMENT ACTION). THEN THE CONSTRUCTION SEQUENCE MUST SPECIFICALLY
- INDICATE THE ITEMS THAT HAVE ALREADY OCCURRED AND THE ITEMS THAT WILL BE OCCURRING AFTER NPDES COVERAGE IS ISSUED. NOTE: IF FLOWS FROM OFFSITE AREAS WILL BE DIVERTED AROUND THE SITE AND THE ON-SITE STRUCTURES ARE NOT DESIGNED TO HANDLE FLOWS FROM THE OFFSITE AREAS. THEN THE DIVERSIONS/ PIPING FOR THE OFFSITE FLOWS MUST BE INSTALLED BEFORE LAND-DISTURBING ACTIVITIES BEGIN ON THE SITE: INCLUDE THIS IN THE SEQUENCE. SEDIMENT AND EROSION CONTROL MEASURES FOR THE DISTURBED AREAS FOR THE
- DIVERSION/ PIPING MUST BE INSTALLED BEFORE THOSE AREAS ARE DISTURBED AND SHOULD BE SHOWN ON THE PLANS NOTE: IF AN EXISTING DETENTION/ SEDIMENT BASIN IS BEING MODIFIED TO HANDLE THE FLOWS FROM THE PROPOSED DEVELOPMENT, THEN IT MUST BE MODIFIED BEFORE LAND-DISTURBING ACTIVITIES BEGIN ON THE SITE. THIS SHOULD BE INCLUDED IN THE

# **DEMOLITION AND CLEARING NOTES**

- THE CONTRACTOR SHALL INCLUDE IN HIS BID, CLEARING AND GRUBBING, THE LANDSCAPE ARCHITECT AND / OR ENGINEER SHALL DESIGNATE WHICH AREAS SHALL BE CLEARED UNDER HIS CONTRACT AND SHALL DESIGNATE TREES TO REMAIN WITHIN THE AREAS TO BE CLEARED
- OWNER'S REPRESENTATIVE, GOVERNING AGENCIES AND UTILITY COMPANIES SHALL BE 72 HOURS PRIOR TO ANY DEMOLITION OPERATIONS.
  - COORDINATE TIMING OF AND RESPONSIBILITY OF DEMOLITION OPERATION INCLUDING ANY REQUIRED INSPECTIONS 4. UTILITIES TO REMAIN IN-PLACE SHALL BE PROTECTED BY THE CONTRACTOR FROM DAMAGE IN

3. CONTRACTOR SHALL COORDINATE WITH GOVERNING AGENCIES AND ALL UTILITY COMPANIES TO

- ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO EXISTING UTILITIES. 5. ANY HISTORICALLY SIGNIFICANT ARTICLES (CORNER STONES, ETC.) FOUND DURING
  - CONSTRUCTION SHALL BE PRESENTED TO THE OWNER FOR CLASSIFICATION, CONTRACTOR STOP WORK IN THE AREA OF THE FIND AND IMMEDIATELY NOTIFY THE OWNER AND GOVERNING AGENCIES FOR DIRECTION. THE OWNER SHALL RETAIN ALL MATERIAL IT CONSIDERS ALL OTHER MATERIAL SHALL BE DISPOSED OF OFF-SITE
  - THE CONTRACTOR SHALL TURN OVER ANY REMOVED PUBLIC UTILITY ITEMS, i.e. WATER METERS, THE UTILITY DEPARTMENT. ALL OTHER MATERIAL SHALL BE DISPOSED OF OFF-SITE IN A LEGAL
  - 7. ALL DEBRIS FROM DEMOLITION OPERATION SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE ITH ALL LOCAL, STATE, AND FEDERAL REGULATION
  - 8. TREES TO BE SAVED SHALL BE PROTECTED FROM CONSTRUCTION DISTURBANCE PER DETAIL. TREES NOT SHOWN TO BE SAVED SHALL BE REMOVED.
  - CONTRACTOR IS TO VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO AND DURING AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ENGINEER.
  - 10. CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO ANY SITE CONSTRUCTION OR DEMOLITION. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, BOTH MAIN AND SERVICE LINES FOR THE FOLLOWING

POTABLE WATER LINES SANITARY SEWER LINES ELECTRIC LINES (OVERHEAD AND UNDERGROUND) GAS LINES TELEPHONE LINES CABLE TELEVISION LINES

STORMWATER CONVEYANCE LINES

FOR DEMOLITION OPERATIONS

**GRADING AND DRAINAGE NOTES** 

- 11. UNLESS SPECIFICALLY NOTED ON THE PLAN TO BE ABANDONED IN PLACE OR PROTECTED, ALI UTILITIES ON SITE (OVERHEAD OR UNDERGROUND) SHALL BE ENTIRELY REMOVED TO THE PROPERTY LINE, OR SERVICE POLE. ENDS OF PIPES BEYOND PROPERTY LINE TO BE ABANDONED SHALL BE PROPERLY CAPPED OR PLUGGED AS REQUIRED BY GOVERNING UTILITY COMPANY
- ACTIVE ELECTRIC POLES MAINTAINED BY SANTEE ELECTRIC SHALL BE COORDINATED WITH ELECTRIC FOR REMOVAL 12. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY TRAFFIC CONTROL MEASURES NECESSARY
- 1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN SOUTH
- CAROLINA DEPARTMENT OF TRANSPORTATION'S (S.C.D.O.T.'S) RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH S.C.D.O.T.'S SPECIFICATIONS AND STANDARDS.
- ALL UNPAYED AREAS IN EXISTING RIGHT-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED. ALL NEWLY CLEARED RIGHT-OF-WAYS SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS OF CONSTRUCTING NEW STREET. TRAFFIC CONTROL ON ALL CITY/COUNTY/STATE RIGHT-OF-WAYS SHALL MEET THE
- REQUIREMENTS OF THE SOUTH CAROLINA MANUAL OF LINIFORM TRAFFIC CONTROL DEVICES (SCDOT) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY 4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL
- REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL LINTIL A GRASS STAND IS WELL ESTABLISHED. 5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SODDED AS INDICATED.

OTHERWISE ALL OTHER AREAS SHALL BE SEEDED AND MULCHED.

- 6. THE CONTRACTOR SHALL GRADE AROUND EXISTING TREES DESIGNATED TO REMAIN AND MAINTAIN A 5' UNDISTURBED AREA FROM AROUND THE DRIP LINE. THE RIGHTS-OF-WAY SHALL BE CLEARED AND GRUBBED BY REMOVING ALL TREES. SHRUBS, STUMPS. ROOTS, MUCK, AND OTHER DELETERIOUS MATERIAL PRIOR TO FILLING. ALL FILL MATERIAL USED ON SITE SHALL BE VOID OF STUMPS, ROOTS, MUCK AND ALL OTHER DELETERIOUS MATERIALS.
- ALL CONCRETE USED ON SITE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3.500 PSI IN 28 DAYS. ALL CONCRETE SIDEWALKS SHALL HAVE CONTROL JOINTS CUT ON 5' CENTERS AND EXPANSION JOINTS PLACED ON 25' CENTERS.
- ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III UNLESS NOTED OTHERWISE, AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS. ALL JOINT SHALL BE SEALED WITH GASKETS CONFORMING TO AASHTO M 198 & WRAPPED WITH FILTER FABRIC. FILTER FABRIC SHALL EXTEND NO LESS THAN 24 INCHES ON EACH SIDE OF THE JOINT 9. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH

THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.

- 10. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
- WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.
- 12. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND BACK FILL WITH TOPSOIL.
- THE CONTRACTOR SHALL INSTALL INLET PROTECTION OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE DESILTED AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.

## STORM DRAINAGE NOTES:

- 1. LOCATIONS AND TOP ELEVATIONS OF INLETS AND STRUCTURES WILL BE DJUSTED IN THE FIELD BY THE CONTRACTOR WHERE NECESSARY AND SHALL BE APPROVED BY THE ENGINEER
- 2. INVERTS SHOWN ON PLAN DRAWING ARE PIPE INVERTS. 3. MAINTENANCE RESPONSIBILITY OF ALL STORM DRAINAGE PIPING AND STRUCTURES SHALL BE AS FOLLOWS: DURING CONSTRUCTION: GENERAL CONTRACTOR

AFTER CONSTRUCTION: OWNER

4. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AS CONSTRUCTED RECORD RAWINGS PREPARED BY A SOUTH CAROLINA REGISTERED LAND SURVEYOR OF THE STORM DRAINAGE SYSTEM, PONDS, DETAILED OUTFALL STRUCTURE DATA WHICH MEET ALL APPLICABLE DHEC/OCRM AND GEORGETOWN COUNT REQUIREMENTS. THE ENGINEER SHALL BE PROVIDED A COPY OF ALL RECORD DRAWINGS FOR REVIEW AND APPROVAL FOR CERTIFICATION TO OBTAIN SCDHEC/OCRM AND GEORGETOWN COUNTY NOTICE OF TERMINATION FOR THE

# SCDOT STANDARD NOTES

- 1. THERE CAN BE NO WORK PERFORMED IN THE SCDOT R/W BEFORE AN ENCROACHMENT PERMIT HAS BEEN ISSUED AND A PRECONSTRUCTION MEETING HAS BEEN HELD. THE PROPERTY OWNER AND CONTRACTOR MUST SCHEDULE AND ATTEND THE PRECONSTRUCTION MEETING
- 2. ANY WORK PERFORMED BEFORE THE PRECONSTRUCTION MEETING WILL HAVE TAKEN PLACE WITHOUT SCDOT KNOWLEDGE, OVERSIGHT, AND CONSENT AND SHALL BE SUBJECT TO REMOVAL BY THE APPLICANT AND/OR AT THE APPLICANT'S EXPENSE.
- 3. ANY REVISIONS TO THIS APPROVED PLAN SET MUST HAVE PRIOR, WRITTEN APPROVAL FROM SCDOT OR ARE SUBJECT TO REMOVAL AT THE APPLICANT'S EXPENSE
- 4. THE CONSTRUCTION ENTRANCE MUST BE ESTABLISHED AT THE LOCATION DESIGNATED IN THIS PLAN SFT AND ACCORDING TO SCDOT TYPICAL 815-505-00. NO ADDITIONAL ENTRANCES OR LOCATIONS OTHER THAN SHOWN IN THIS PLAN SET ARE ALLOWED WITHOUT WRITTEN NOTICE FROM SCDOT. APPROVED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PROPERLY AND SHALL BE MAINTAINED AT ALL TIMES. KEEP ROADWAY PROTECTED AND SWEPT OFF AT ALL TIMES. ANY ADDITIONAL, EXISTING DRIVEWAYS OR CONSTRUCTION ENTRANCES, IF ANY, SHALL BE REMOVED FROM SCDOT RIGHT OF WAY AT NO EXPENSE TO
- 5. NO DEWATERING ACTIVITIES SHALL BE PERFORMED WITHIN SCDOT R/W OR BRING FORTH WATER TO THE SCDOT RIGHT OF WAY BY DIRECT OR INDIRECT METHODS.
- 6. POST DEVELOPMENT STORMWATER FLOWS TO THE SCDOT R/W CANNOT EXCEED PREDEVELOPMENT FLOW RATES AT ANY TIME FOR ANY REASON.
- 7. THE APPLICANT IS SOLELY RESPONSIBLE FOR REPAIRS OF ANY AND ALL DAMAGE TO THE TRAVEL WAY DUE TO ANY WORK ALONG THE FRONTAGE OF THIS SITE, AT NO EXPENSE TO SCDOT AND ALL REPAIRS MUST MEET CURRENT SCDOT STANDARDS.
- 8. ANY DAMAGE TO THE TRAVEL LANE WILL REQUIRE A FULL DEPTH ASPHALT PATCH AND TOTAL ROADWAY (ALL ADJACENT TRAVEL LANES) ASPHALT OVERLAY. PATCHES LARGER THAN A FEW SQUARE FEET OR EXTENDING PAST 1 FOOT INTO THE TRAVEL LANE SHALL REQUIRE AN OVERLAY OF THE ENTIRE WIDTH OF THE EXISTING TRAVEL WAY FOR 50 FEET BEYOND EACH SIDE OF THE FULL DEPTH PATCH. ALL OF THIS WORK WILL BE SOLELY AT THE EXPENSE OF THE APPLICANT AND MUST MEET CURRENT SCDOT STANDARDS.
- 9. BEFORE INSTALLATION OF ANY NEW DRIVEWAY, THE EXISTING TRAVEL EDGE MUST BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM EDGE ALONG THE MOUTH OF THE PROPOSED DRIVEWAY, CARE MUST BE TAKEN TO NOT TO DAMAGE THE EDGE ONCE CUT. ANY DAMAGE TO THE TRAVEL LANE MUST BE REPAIRED AT THE APPLICANT'S EXPENSE
- 10. PAVEMENT SECTION IN THE SCDOT R/W SHALL BE, AT A MINIMUM:
- a. 6 INCHES OF COMPACTED GABO
- b. 4 INCHES OF COMPACTED TYPE B BINDER COURSE HOT MIX ASPHALT c. 2 INCHES OF COMPACTED TYPE B SURFACE COURSE HOT MIX ASPHALT
- SEE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION FOR SURFACE COURSE HOT MIX ASPHALT INSTALLATION TIME AND TEMPERATURE RESTRICTIONS AND THERMO PLASTIC TIME AND TEMPERATURE RESTRICTIONS
- d. 8 INCHES OF COMPACTED GABO e. 4 INCHES OF 4,000 PSI CONCRET
- NO REINFORCEMENT WIRE, REBAR, OR METAL OF ANY KIND IS PERMITTED

a. ALL WHITE MARKINGS SHALL BE 125 MIL MINIMUM THICKNESS

- 11. DRIVEWAY LANES SHALL BE A MINIMUM OF 12 FEET IN WIDTH MEASURED FROM EDGE TO EDGE OF
- 12. DRIVEWAY RADII SHALL BE 30 FEET. (UNLESS NOTED OTHERWISE ON THE SCDOT APPROVED PLANS.)
- 13. PAVEMENT MARKINGS SHALL BE THERMOPLASTIC WITH REFLECTIVE BEADS PER SECTION 627 OF THE SCDOT STANDARD SPECIFICATIONS:
- b. ALL YELLOW MARKINGS SHALL BE 90 MIL MINIMUM THICKNESS 14. ALL PERMANENT SIGNAGE SHALL BE INSTALLED ON BREAKAWAY POSTS PER SCDOT STANDARD

15. DRIVEWAYS SHALL BE CONSTRUCTED TO HAVE A MINIMUM OF A 2 FOOT GRASSED SHOULDER ON

DRAWING 651-110-00 AND SHALL HAVE A 7 VERTICAL FOOT CLEARANCE FROM THE GROUND TO THE

EACH SIDE OF THE DRIVEWAY THROAT.

IS NOT AN APPROVAL TO PROCEED WITH ANY WORK.

OFFSITE LANDSCAPING

MAINTENANCE WORKERS

- 16. DITCH SLOPES SHALL BE NO STEEPER THAN 3H:1V. 17. ALL DRIVEWAY CULVERTS SHALL BE INSTALLED AND SEALED ACCORDING TO SCDOT TYPICAL 714-205-01 DETAIL 4 AND 5 WITH AN AASHTO M 315 RUBBER GASKET SEAL, ON PROPER GRADE TO ALLOW FOR
- POSITIVE STORM WATER FLOW WITHIN THE PIPE AND TO/FROM ADJACENT PIPES/CROSS LINES. 18. ALL CULVERTS INSIDE OF THE SCDOT R/W ARE TO BE INSTALLED WITH BEVELED ENDS PER SCDOT STANDARD DRAWING 719-610-00 AND SEALED PER SCDOT STANDARD DRAWING 714-205-01 AND CANNOT

BE COVERED UNTIL AFTER AN INSPECTION BY THE SCDOT INSPECTOR ASSIGNED TO THE PROJECT AT THE

- REQUIRED SCDOT PRECONSTRUCTION MEETING
- 19. LANE CLOSURES ARE REQUIRED FOR ALL WORK WITHIN ONE FOOT OF THE TRAVEL WAY. SEE SCDOT LOCAL MAINTENANCE WORK RESTRICTIONS FOR ADDITIONAL INFORMATION 20. SHOULDER CLOSURES ARE REQUIRED FOR ALL WORK IN THE SCDOT R/W BEYOND ONE FOOT FROM THE
- 21. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULF ALL REQUIRED INSPECTIONS IN ADVANCE. IF WORK REQUIRING INSPECTION IS PERFORMED WITHOUT PRIOR NOTICE BEING GIVEN TO SCDOT, THAT INSTALLATION SHALL BE SUBJECT TO REMOVAL AT THE APPLICANT'S EXPENSE. SEVERAL MEANS OF CONTACT WILL BE GIVEN AT THE PRECONSTRUCTION MEETING. FAILURE TO OBTAIN CONTACT
- 22. NO VEGETATION INSTALLED ON PRIVATE PROPERTY SHALL BLOCK THE SCDOT SIGHT TRIANGES OR SIGHT DISTANCES FOR MOTORISTS INGRESS OR EGRESSING FROM APPROVED DRIVEWAYS AND OR ROADWAY INTERSECTIONS. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR KEEPING OFFSITE LANDSCAPINGS PROPERLY MAINTAINTED TO IMPROVE ALL SIGHT DISTANCES. THE PROPERTY OWNER SHALL ALSO BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO SIDEWALK, DRIVEWAY OR ROADWAY, UTILITY, DRAINAGE OR OTHER STRUCTURES DAMAGED DUE TO THE INSTALLATION OR EXISTENCE OF
- 23. THE DEPARTMENT SHALL NOT BE RESPONSIBLE FOR DAMAGE TO ANY UTILITY STRUCTURES LOCATED WITHIN THE RIGHT-OF-WAY AS A RESULT OF ROUTINE HIGHWAY MAINTENANCE OPERATIONS. THESE STRUCTURES INCLUDE BUT ARE NOT LIMITED TO ARV, METERS, VALVES, MANHOLES, ALL TYPE OF PEDESTALS AND UTILITY LINES (OVERHEAD AND/OR UNDERGROUND). THE APPLICANT SHOULD USE MECHANICAL MOWERS TO CUT AROUND THESE TYPE STRUCTURES TO INCREASE VISIBILITY FOR HIGHWAY
- 24. APPLICANT IS RESPONSIBLE FOR THE INSTALLATION AND SECURING OF ANY VALVE OR MANHOLE
- 25. THE DEPARTMENT SHALL BE HELD HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS, DAMAGES AND LOSSES ASSOCIATED WITH WORK AS APPROVED UNDER THIS PERMIT APPLICATION. ANY SUCH DAMAGE CLAIMS RECEIVED BY THE DEPARTMENT SHALL BE THE RESPONSIBILITY OF THE APPLICANT TO PROCESS ACCORDINGLY. THE HOLD HARMLESS AGREEMENT SHALL BE FOR THE LIFE OF THE FACILITY, STRUCTURE(S) OR ENCROACHMENT AS IT REMAINS WITHIN PUBLIC RIGHT-OF-WAY.
- 26. APPLICANT IS RESPONSIBLE FOR THE REPAIR OF ANY TRAFFIC SIGNAL LOOPS/WIRES/HEAD/CABINETS IF DAMAGED DUE TO THIS INSTALLATION. ALL WORK SHALL BE APPROVED UNDER THE DIRECTION OF THE SCDOT DISTRICT SIGNAL SHOP AND PERFORMED BY A SCDOT APPROVED SIGNAL CONTRACTOR, AT NO EXPENSE TO THE DEPARTMENT.

# SCDOT STANDARD NOTES (CONT.):

27. IF REQUIRED LINDER THE APPROVED SCHOOL ENCROACHMENT PERMIT A THIRD PARTY TESTER SHALL BE REQUIRED AT THE APPLICANT'S EXPENSE TO PERFORM COMPACTION ANALYSIS AND WITNESS A PASSING PROOF ROLL ON ALL SUB-GRADE, BASE, AND ASPHALT. ONE THIRD PARTY INSPECTOR SHALL TAKE DENSITY READINGS AT RANDOM STATION NUMBERS. A SECOND (2ND) THIRD PARTY INSPECTOR/TESTER SHALL BE AT THE ASPHALT PLANT TESTING THE ASPHALT AT THE TIME THAT SURFACE ASPHALT IS BEING PRODUCED AND PUT DOWN ON THE JOB. ONE CORE SAMPLE (LOCATIONS TO BE DETERMINED) SHALL BE TAKEN AND WEIGHED BY THE THIRD PARTY INSPECTOR. ALL RESULTS TO BE SUBMITTED IN WRITING TO SCDOT FOR REVIEW THE FOLLOWING DAY. WINTER WORK RESTRICTIONS AND HOLIDAY WORK RESTRICTIONS MUST BE

ADHERED TO. SEE PERMIT FOR MORE DETAILS.

- 28. AN INSPECTION DATE SHALL BE SET UP IN ADVANCE FOR WHICH THE INSPECTOR WILL COME OUT AND INSPECT THE SIDEWALK FORMS BEFORE POURING CONCRETE. DO NOT LEAVE MORE THAN A 2" DROP OFF UNATTENDED. NO MORE THAN A 2" DROP OFF OR A 3:1 DITCH SLOPE IS PERMITTED ANYWHERE WITHIN THE RIGHT OF WAY DUE TO THE CONSTRUCTION ASSOCIATED WITH THIS SIDEWALK. THE INSTALLATION OF SIDEWALK SHALL BE FLUSH WITH SHOULDER OR HAVE A DRAINAGE INLET BUILT UNDERNEATH TO ALLOW FOR PROPER STORM WATER FLOW NO WATER SHALL POND IN SHOULDER, ROADWAY, DRIVEWAYS, OR RIGHT OF WAY DUE TO THIS
- 29. ADA MATS (RAISED DETECTABLE WARNING PADS) SHALL BE INSTALLED AS WET INSETS AND AT ROADWAY INTERSECTIONS ONLY.
- 30. NO VALVES OR OTHER APPURTENANCES IN ROADWAY ASPHALT, WITHIN 5 FEET OF EDGE OF PAVEMENT, OR WITHIN DITCH LINE OR SWALE LINE. APPLICANT SHALL INSTALL 8-16 FEET OF NEW, UNDAMAGED RCP ON PROPER GRADE FACING THE PROPER DIRECTION, MATCHING THE DIAMETER OF DRIVEWAY AND/OR CROSS LINE UPSTREAM. BUT NOT EXCEEDING THE PIPE DIAMETER DOWNSTREAM, IF THE ABOVE CANNOT BE AVOIDED. INSTALL RIP RAP AROUND ANY EXPOSED PIPES, COVER AND SOD TO MEET SCDOT MINIMUM STANDARDS. CALL SCDOT
- 31. PROPOSED UTILITY INSTALLATION LOCATED IN SHOULDER AREA SHALL HAVE A MINIMUM COVER OF 42" ACCORDING TO FIGURE 6 OF APPENDIX B. ANY EXPOSED ROOTS TO BE REMOVED OR TRIMMED FLUSH WITH SHOULDER/DITCH

ENCROACHMENT OFFICE FOR INSPECTION OF PIPE BEFORE COVERING.

THE CONTRACTOR SHALL CONSTRUCT THE GRAVITY SEWER LATERAL, GRAVITY SEWER LINES AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS. EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND IN ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THESE PLANS, GEORGETOWN COUNTY WATER & SEWER DISTRICT (GCW&SD) REGULATIONS AND THE SPECIFICATIONS OF THIS JOB. IN THE EVENT THAT THESE SPECIFICATIONS ARE NOT IN

**WATER & SEWER UTILITY NOTES** 

EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY DEVIATIONS FROM THE DESIGN LOCATIONS SHALL BE REPORTED TO THE OWNER OR ENGINEER PRIOR TO CONSTRUCTION. CALL P.U.P.S. 1-800-922-0983 FOR UTILITY LINE LOCATION.

AGREEMENT, THE MOST STRINGENT SPECIFICATION SHALL GOVERN.

VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.

- 3. THE CONTRACTOR SHALL RESTORE ALL VEGETATION IN KIND.
- DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH.
- ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER, RENDERS IT LINEIT FOR USE, SHALL NOT BE USED, ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMÉDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE
- 6 SHOP DRAWINGS FOR ALL MATERIALS AND APPURTENANCES SHALL BE SUBMITTED TO AND APPROVED BY GEORGETOWN COUNTY WATER & SEWER DISTRICT (GCW&SD) AND ATALAYA ENGINEERING. NO WORK IS TO BEGIN UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED, APPROVED AND RETURNED TO THE CONTRACTOR.
- DEPTHS OF THREE (3) TO TWELVE (12) FEET SHALL BE SDR-35, AND DR 18 FOR DEPTHS GREATER THAN TWELVE (12') ÙNLESS OTHERWISE NOTED ON PLANS.

WATER LINES AND FORCE MAIN SHALL BE PVC DR 25, C900 CLASS 100. SANITARY SEWER BETWEEN

A TEN FOOT (10') MINIMUM HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER MAINS

10. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE

ALL WATER MAINS TO HAVE A MINIMUM COVER OF 36" UNLESS OTHERWISE NOTED. ALL WATER

WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING

COMPLETELY BACK FILLED AND COMPACTED IN EIGHT INCH (8") LIFTS IN ACCORDANCE WITH THE

SYSTEM FITTINGS SHALL BE MEGALUG RESTRAINED

PRIOR TO THE PLACEMENT OF BASE COURSE MATERIAL.

HYDRANTS, SERVICES, AND VALVES.

- WHERE WATER AND SEWER MAINS CROSS WITH LESS THAN 18" VERTICAL CLEARANCE, THE SEWER WILL BE 20' OF EITHER DUCTILE IRON PIPE CENTERED ON THE POINT OF CROSSING. WHEN A WATER MAIN PARALLELS A SEWER MAIN, A SEPARATION OF AT LEAST 10' SHOULD BE MAINTAINED WHERE
- THE ENGINEER. WHEN A WATER MAIN PARALLELS A STORM SEWER PIPE, A SEPARATION OF AT LEAST 10' SHOULD BE MAINTAINED WHERE PRACTICAL. CONTRACTOR SHALL REFER TO ARCHITECT'S PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL

WHERE A WATER MAIN IS TO BE INSTALLED BELOW A STORM DRAIN PIPE, A MINIMUM OF 18"

VERTICAL CLEARANCE BETWEEN PIPES SHALL BE MAINTAINED UNLESS OTHERWISE DIRECTED BY

COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE

PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO

- THE LOCATION AND SCHEDULING OF THE TIE-INS/CONNECTIONS TO THEIR FACILITIES. THE SITE WORK CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL UNDERGROUND UTILITIES WITH HIS WORK, ALL UNDERGROUND UTILITIES (WATER, SANITARY SEWER, STORM SEWER ELECTRICAL CONDUIT, IRRIGATION SLEEVES, AND ANY OTHER MISCELLANEOUS). SHALL BE IN PLACE
- 16. ALL AT GRADE UTILITIES ARE TO BE OUT OF THE CURB LINE. ALL ABOVE GROUND UTILITIES SHALL BE LOCATED BEYOND THE R/W LINE. FIRE HYDRANTS CAN BE ON THE

GEORGETOWN COUNTY WATER & SEWER DISTRICT (GCW&SD) PERSONNEL SHALL MAKE PERIODIC

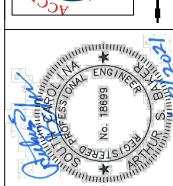
- E VISITS DURING ALL PHASES OF CONSTRUCTION TO ENSURE THAT THE CONTRACTOR IS COMPLYING WITH THE REQUIREMENTS OF GCW&SD. 18. COORDINATE INSPECTIONS WITH THE ENGINEER DURING ALL PHASES OF CONSTRUCTION, INCLUDING EXCAVATION AND BACKFILLING, PIPE LAYING, INSTALLATION OF MANHOLES, FIRE
- EXTEND TRACER WIRE THROUGH VALVE BOXES FOR CONNECTION TO LOCATING EQUIPMENT. THERE SHALL BE A MINIMUM 18" (INCHES) SEPARATION BETWEEN WATER MAINS AND STORM DRAIN

NUMBER 12 TRACER WIRE AND WARNING TAPE SHALL BE REQUIRED FOR ALL PRESSURE MAINS.

PIPES. USE DUCTILE IRON PIPE FOR WATER MAINS WHEN CROSSING UNDER STORM DRAINS. USE CRUSHER RUN STONE BETWEEN STORM DRAINS AND PRESSURE MAINS.







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DESIGN DRAWINGS	CONSTRUCTION DRAWINGS REV. 1							
/20/2021	/18/2021							

N.T.S. SCALE:

DRAWN BY: MPM

DATE:

SHEET NO:

DESIGNED BY: ASB

**GENERAL NOTES** 

06/18/2021

# SITE LAYOUT LEGEND

<del>-</del>		<del>-</del>	
<u>DESCRIPTION</u>	<u>EXISTING</u>	PROPOSED	DESCRIPTION
BUILDING			SANITARY SEWER
ASPHALT PAVEMENT			WATER LINE W/SIZE UNDERGROUND EL
CONCRETE PAVEMENT			CLEANOUT
STONE BASE			FIRE HYDRANT ASS
CONCRETE SIDEWALK			FORCE MAIN W/SIZI
CUT AND PATCH			GAS LINE
CENTERLINE			GATE VALVE & BOX
CURB & GUTTER			HOSE BIBB OVERHEAD WIRE
FENCE ( AS INDICATED )	xxxxx	xxxxxx	FIRE DEPT. CONNE
RIGHT-OF-WAY LINE			SANITARY SEWER
SIGN ( POST MOUNTED )			TAPPING SLEEVE &
TRAFFIC FLOW ARROW	$\hat{\mathbf{T}}$	<b>†</b>	TELEPHONE
TREE TO BE REMOVED			TELEPHONE LINE
			WATER METER

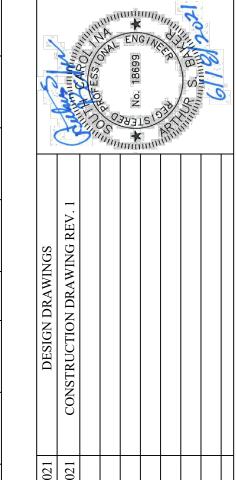
# UTILITIES LEGEND

DESCRIPTION	<u>EXISTING</u>	PROPOSED
SANITARY SEWER  WATER LINE W/SIZE  UNDERGROUND ELECTRIC	—— S —— S — —— W —— W —— ——UGE——UGE——	—— S —— S — —— W —— W — ——UGE——UGE—
CLEANOUT  FIRE HYDRANT ASSEMBLY  FORCE MAIN W/SIZE	——————————————————————————————————————	——————————————————————————————————————
GAS LINE GATE VALVE & BOX	—— G ——	——GAS—GAS− ———
HOSE BIBB  OVERHEAD WIRE  FIRE DEPT. CONNECTION	OE OE	OE OE
SANITARY SEWER  TAPPING SLEEVE & VALVE		
TELEPHONE  TELEPHONE LINE	——————————————————————————————————————	——————————————————————————————————————
WATER METER	(W)	(W)
UTILITY POLE		

# SEDIMENT AND EROSION CONTROL LEGEND

SYMBOL		PRACTICE	DESCRIPTION
(IP)	A	TYPE - A FILTER FABRIC INLET PROTECTION	A TEMPORARY SEDIMENT BARRIER LAID AROUND A STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
(IP)	A	TYPE - A SEDIMENT TUBE INLET PROTECTION	USE SEDIMENT TUBE INLET PROTECTION FILTERS THAT HAVE A MINIMUM HEIGHT OR DIAMETER OF 18-24 INCHES PLACED AROUND THE INLET STRUCTURE STAKED IN PLACE OR DANDY BAGS.
(OP)		OUTLET PROTECTION	RIP RAP CHANNEL / BANK PLACED BELOW DRAINAGE OUTLETS TO REDUCE THE VELOCITY OF FLOW, EROSION, AND STABILIZE GRADES DOWNSTREAM OF OUTLET STRUCTURES.
(CE)		CONSTRUCTION ENTRANCE	A STONE STABILIZED PAD LOCATED AT ANY POINT THAT TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE TO A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK, OR PARKING PLOT WHICH WILL REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE CONSTRUCTION SITE.
SF		SILT FENCE	A TEMPORARY STRUCTURE USED TO SLOW THE VELOCITY OF RUN-OFF, CAUSE SEDIMENT DEPOSITION AT THE STRUCTURE, AND FILTER SEDIMENT FROM RUN-OFF.
(CD)		STONE CHECK DAM	A TEMPORARY STONE BARRIER CONSTRUCTED ACROSS A SWALE, DRAINAGE DITCH, OR AREA OF CONCENTRATED FLOW USED TO REDUCE VELOCITY, FILTER SEDIMENT, AND STABILIZE GRADE.
TS		TEMPORARY DISTURBED AREA STABILIZATION	ESTABLISHING A TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDING ON DISTURBED AREAS.
PS		PERMANENT SEEDING DISTURBED AREA STABILIZATION	ESTABLISHING PERMANENT VEGETATIVE COVER SUCH AS TREES, SHRUBS, VINES, GRASSES, SOD, OR LEGUMES ON DISTURBED AREAS.
CWA		CONCRETE WASHOUT AREA	TEMPORARY ONSITE CONTAINMENT FOR CONCRETE TRUCKS TO WASHOUT PRIOR TO LEAVING THE CONSTRUCTION SITE. THE CONTRACTOR MAY RELOCATE THE WASHOUT AREA PENDING SITE ACTIVITIES. THE SWPPP PERMIT BOX IS TO LOCATED ADJACENT TO WASHOUT AREA.





BIG DAM SWAMP RECYCLE CENTER

SCALE: N.T.S.

DESIGNED BY: ASB

DRAWN BY: MF

DATE: 06/18/2021

GENERAL LEGEND

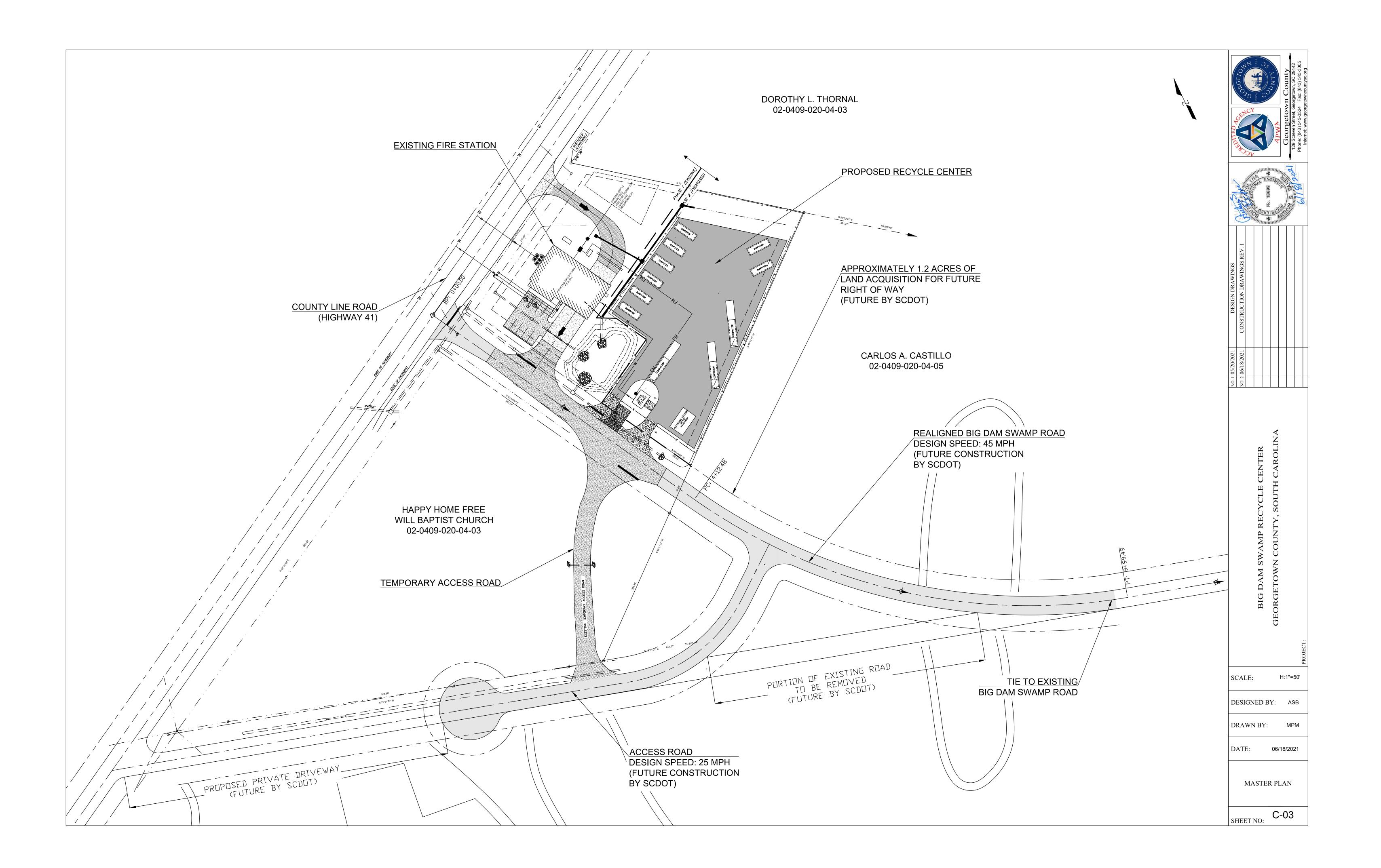
SHEET NO: C-02

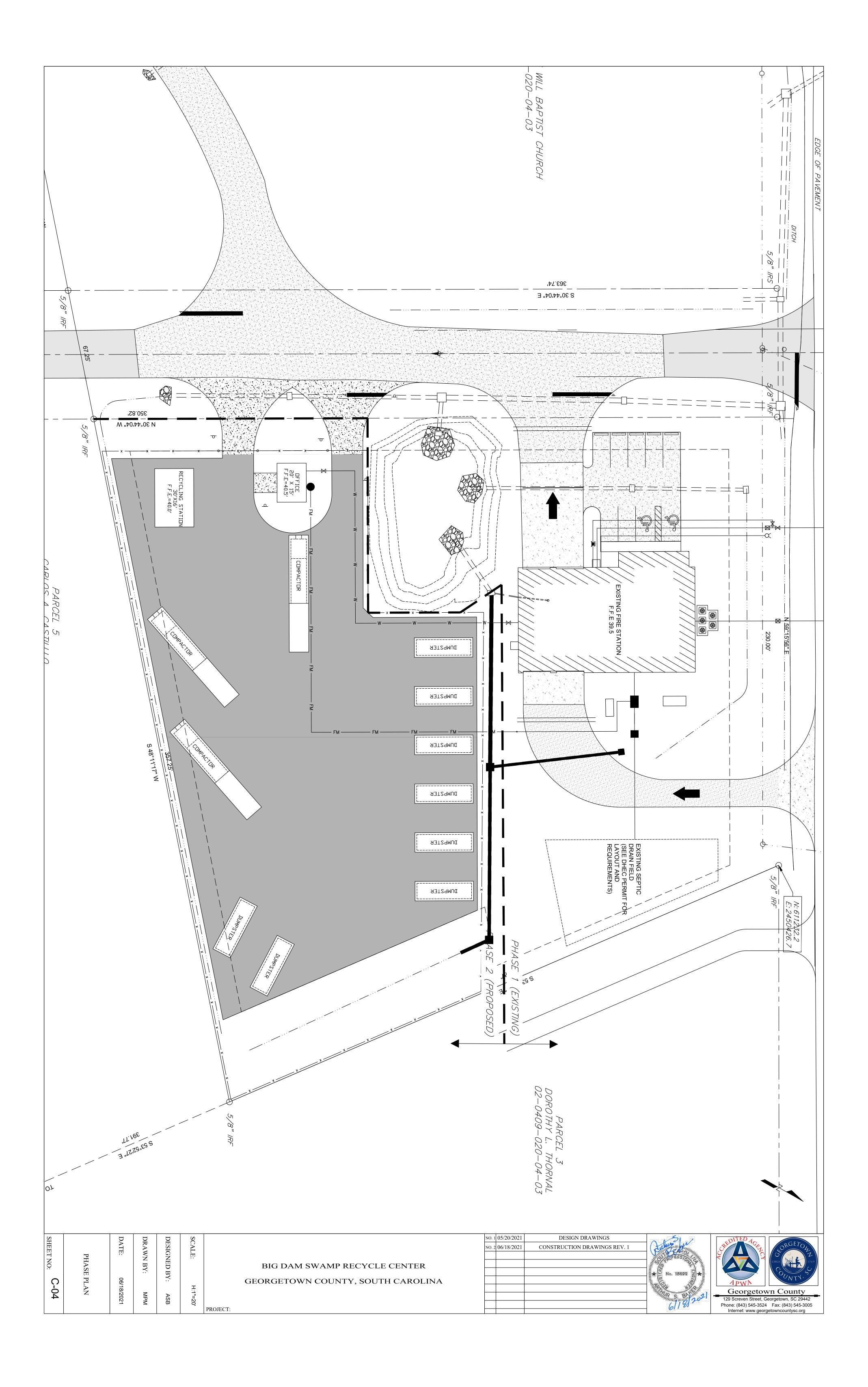
# DRAINAGE LEGEND

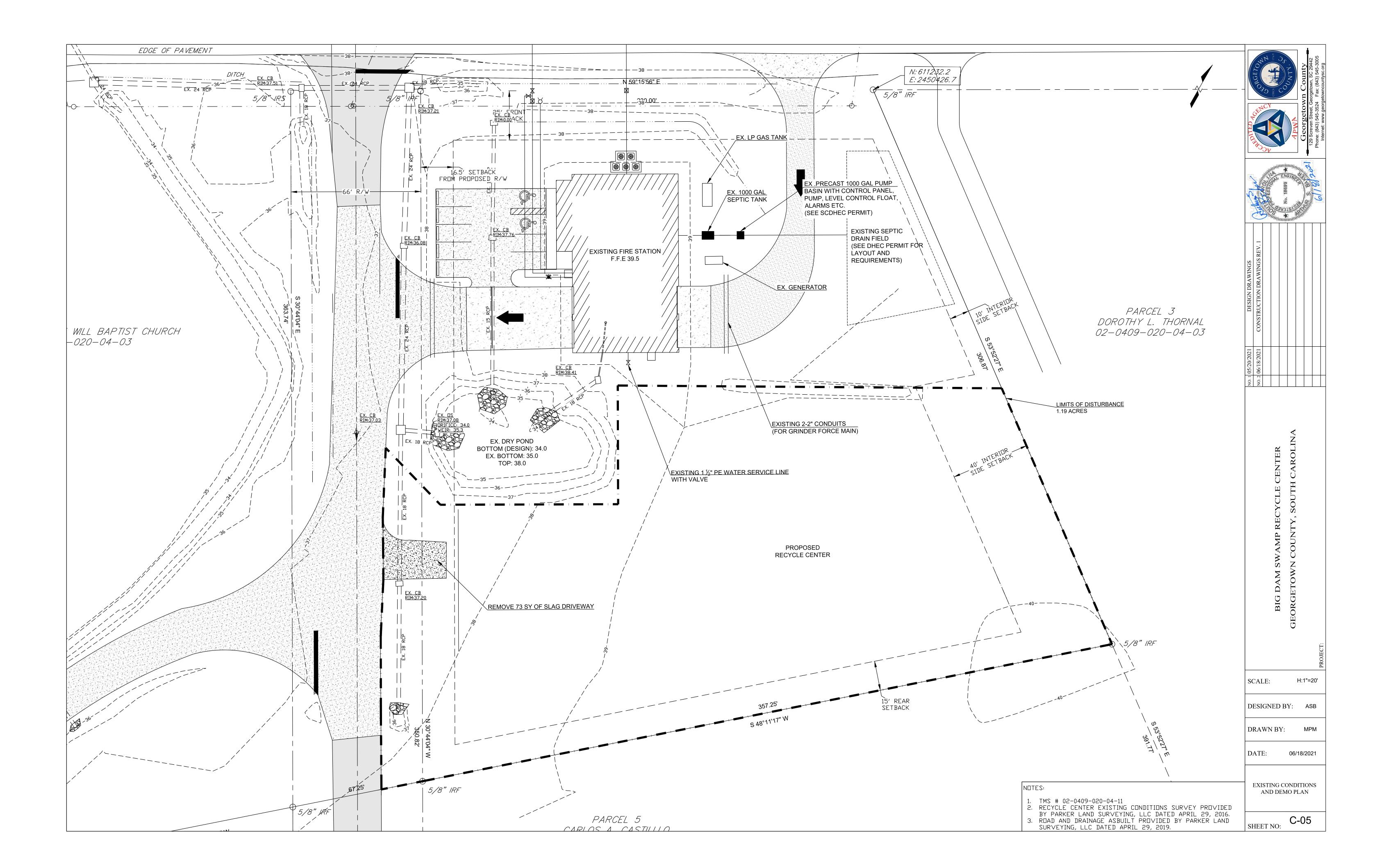
<u>DESCRIPTION</u>	<u>EXISTING</u>	PROPOSED
SPOT ELEVATIONS	28.75	(28.75)
DRAINAGE PIPE		
CATCH BASIN		
FINISHED GRADE		F.G.
DRAINAGE FLOW ARROW	<b>~~&gt;</b>	~~ <b>&gt;</b>
DRAINAGE BASIN DIVIDE		
SOIL BORING LOCATION		
STORM DRAIN JUNCTION BOX		
CURB INLET		
DROP INLET		
CONTOUR LINE	22	22
SWALE		
HEADWALL	$E \equiv \equiv \exists$	

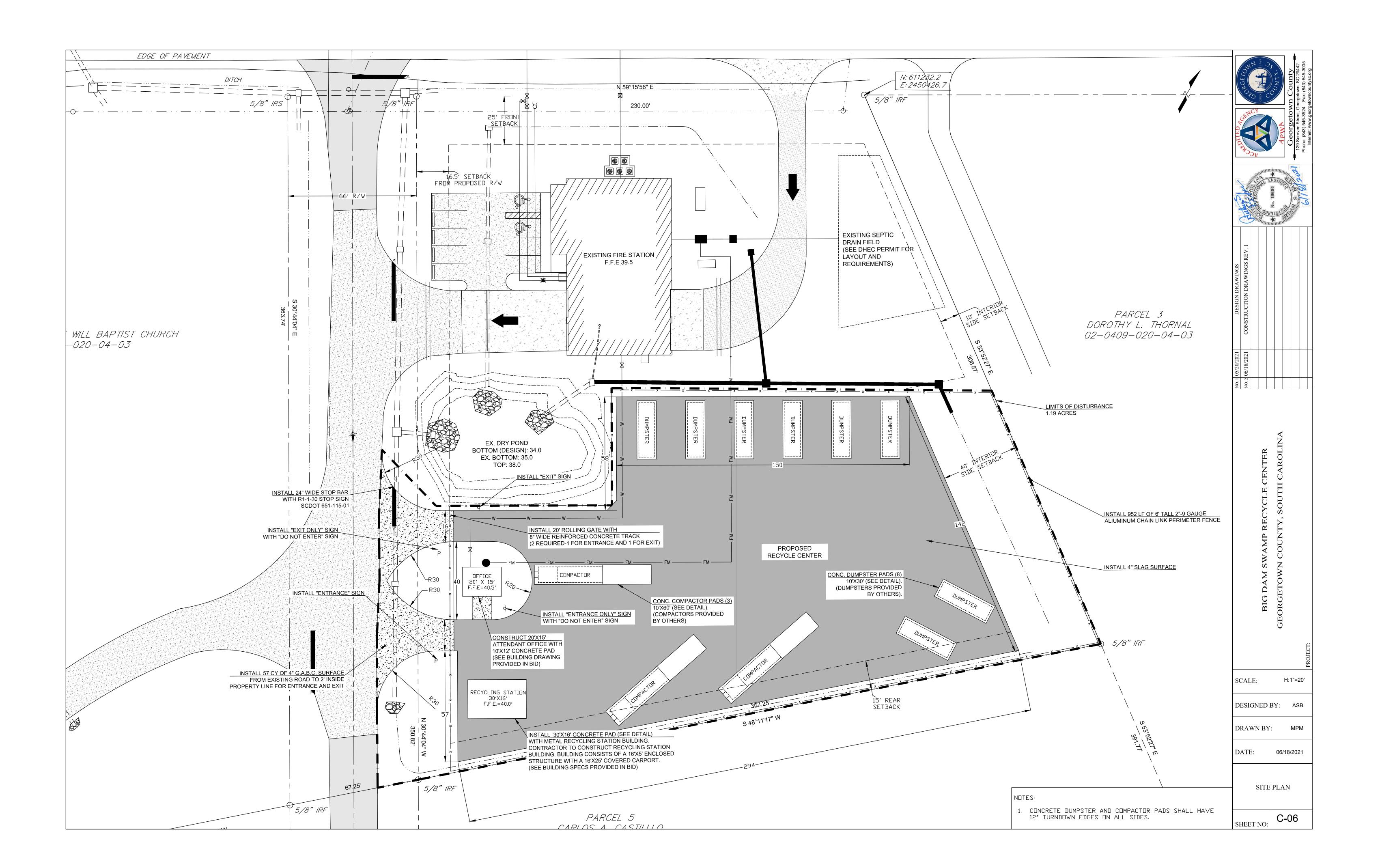
# NOTES:

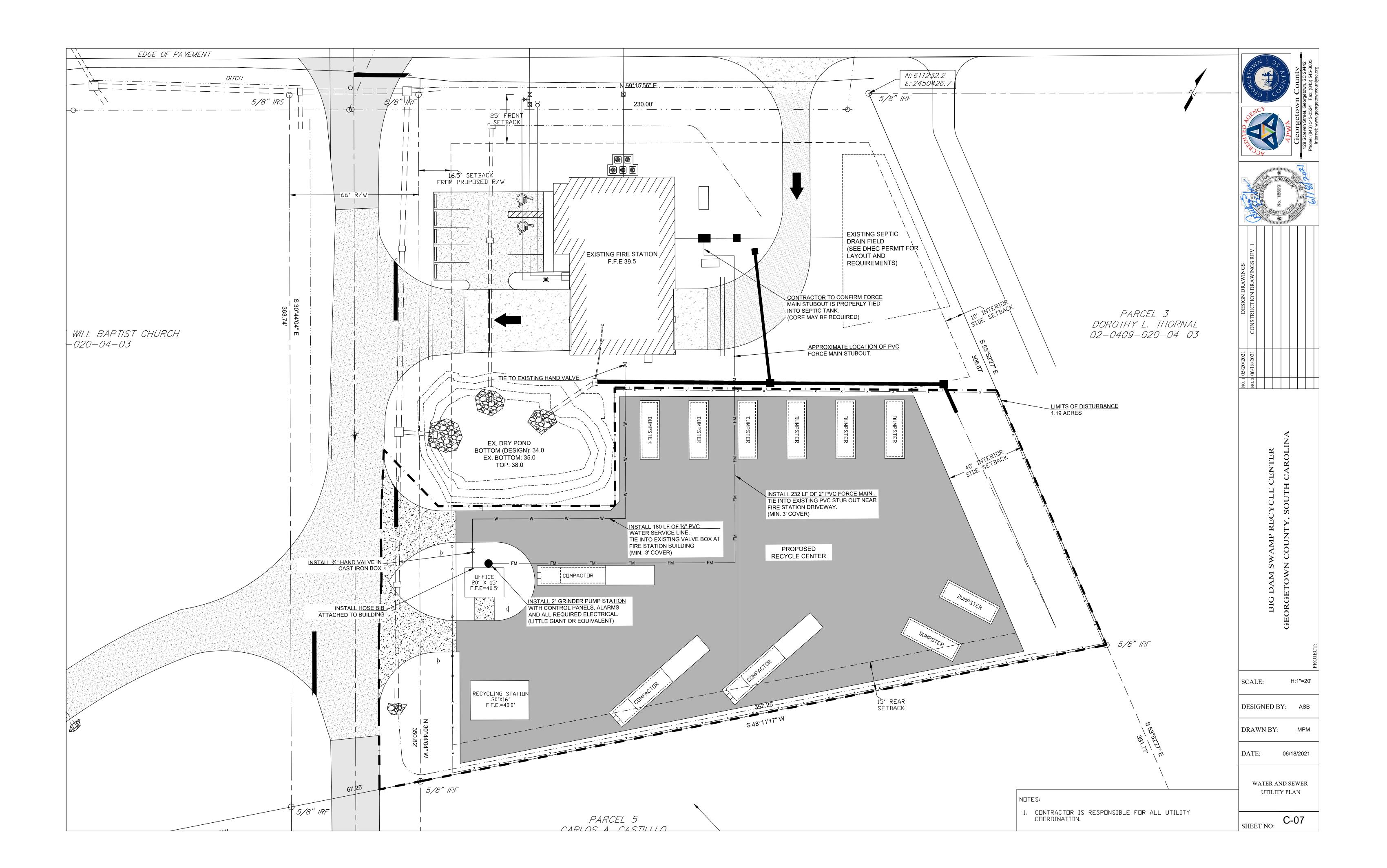
- 1. PIPE LENGTHS SHOWN ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- 2. VERTICAL ELEVATIONS ARE BASED UPON ASSUME DATUM, THE TBM IS LOCATED AT THE EXISTING CATCH BASIN WITH TOP ELEVATION 16.1.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDED THE COUNTY WITH A STORMWATER AS-BUILT RECORD DRAWING SIGNED AND SEALED BY A LICENSED LAND LAND SURVEYOR. THE SURVEY SHOULD SHOW GRADES, CONTOURS, AND DEPTHS FOR ALL STRUCTURES, PONDS AND SHOULD INCLUDE THE ELEVATIONS AND DIMENSIONS OF ALL OUTLET STRUCTURES, INCLUDING BUT NOT LIMITED TO PIPES. ORIFICES, RISERS, WEIRS AND EMERGENCY SPILLWAYS. THE SURVEY SHOULD INCLUDE ALL OF THE STORMWATER IMPROVEMENTS INSTALLED BY THE CONTRACTOR INDICATING THEIR SIZES AND MATERIAL.
- 4. THE CONTRACTOR SHALL FURNISH AND INSTALL THE DROP INLET IN ACCORDANCE WITH SCDOT STANDARD DRAWING NO. 719-105-01, 02 AS SHOWN ON SHEET C-8.

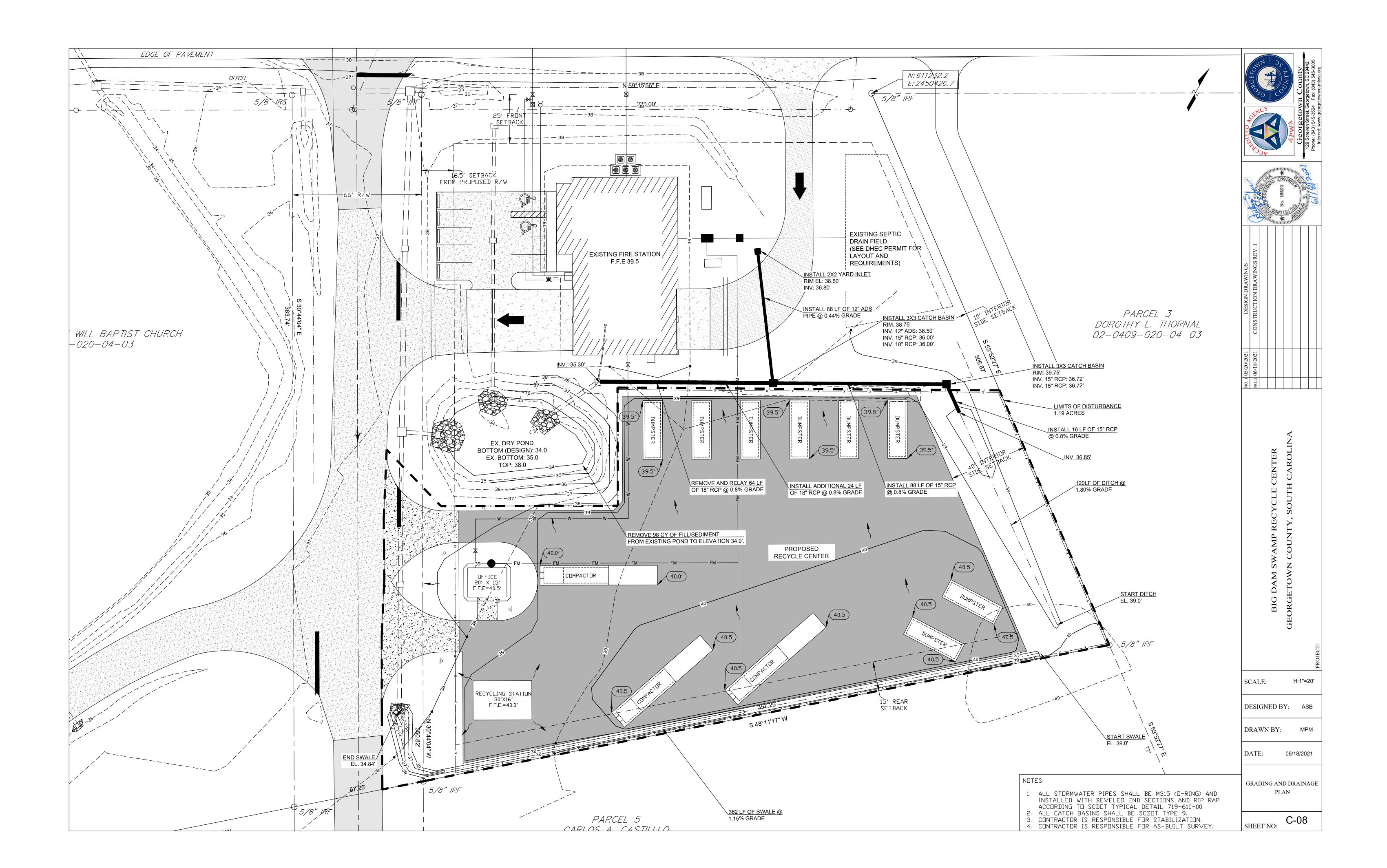


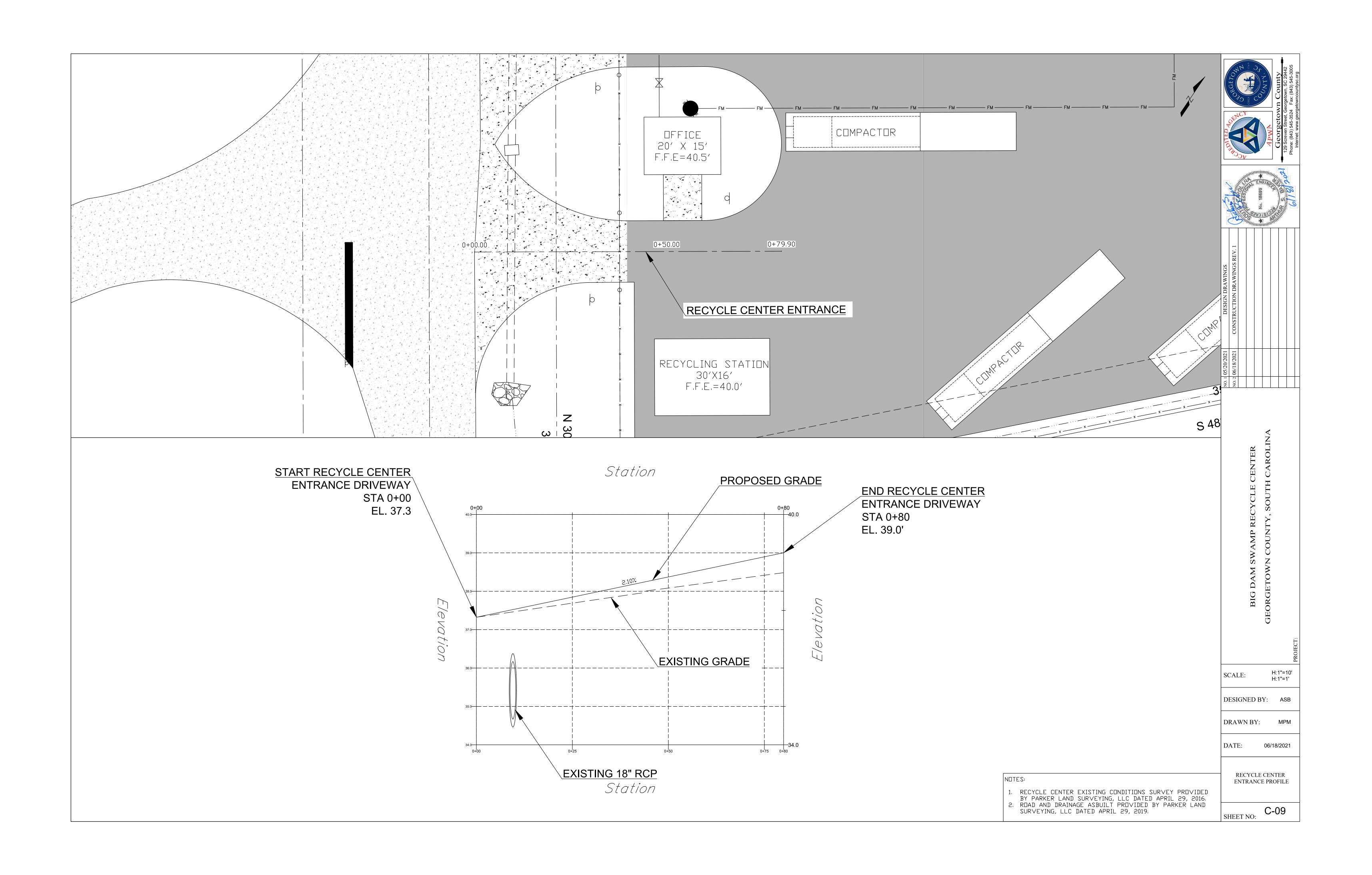


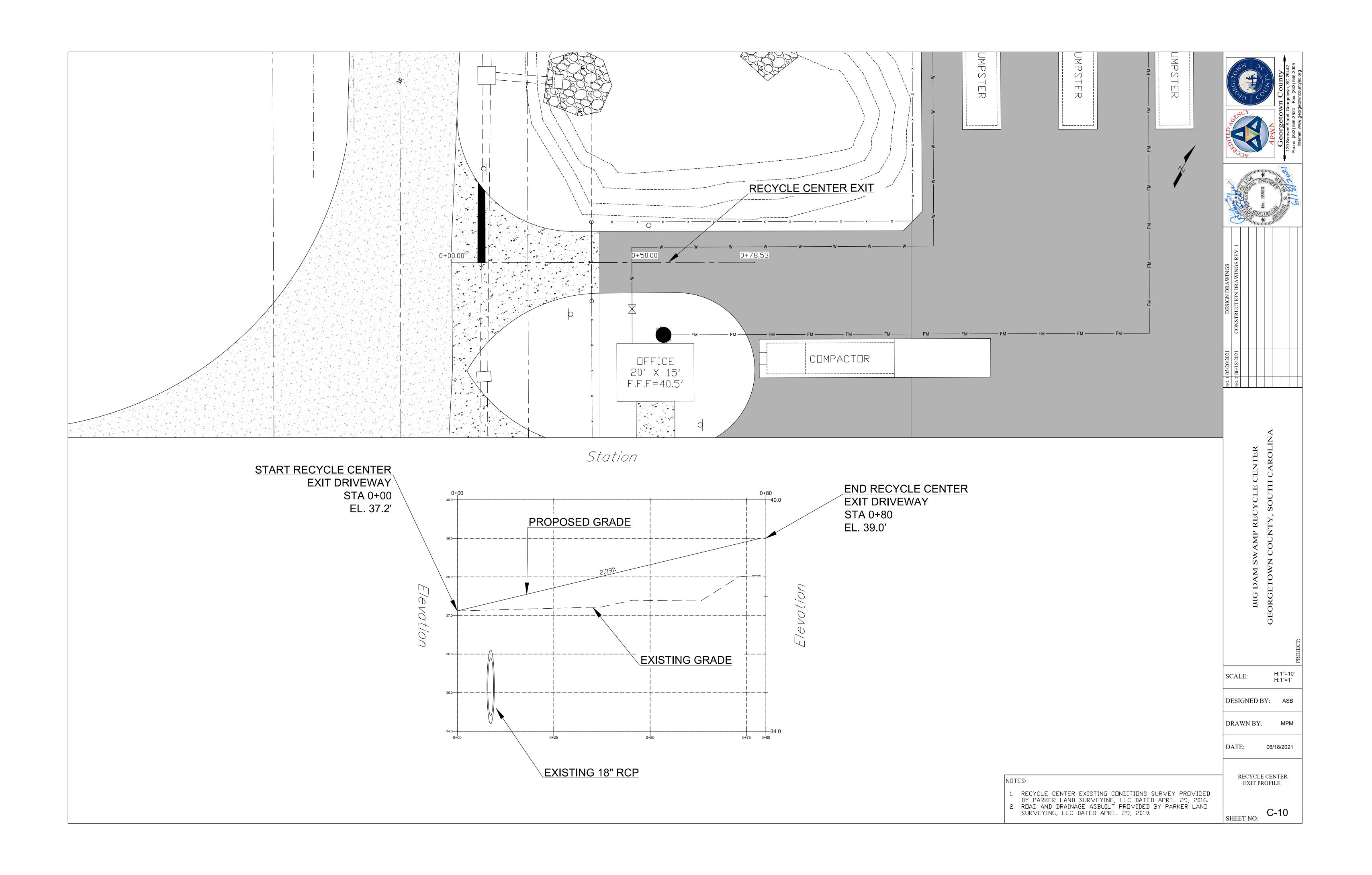


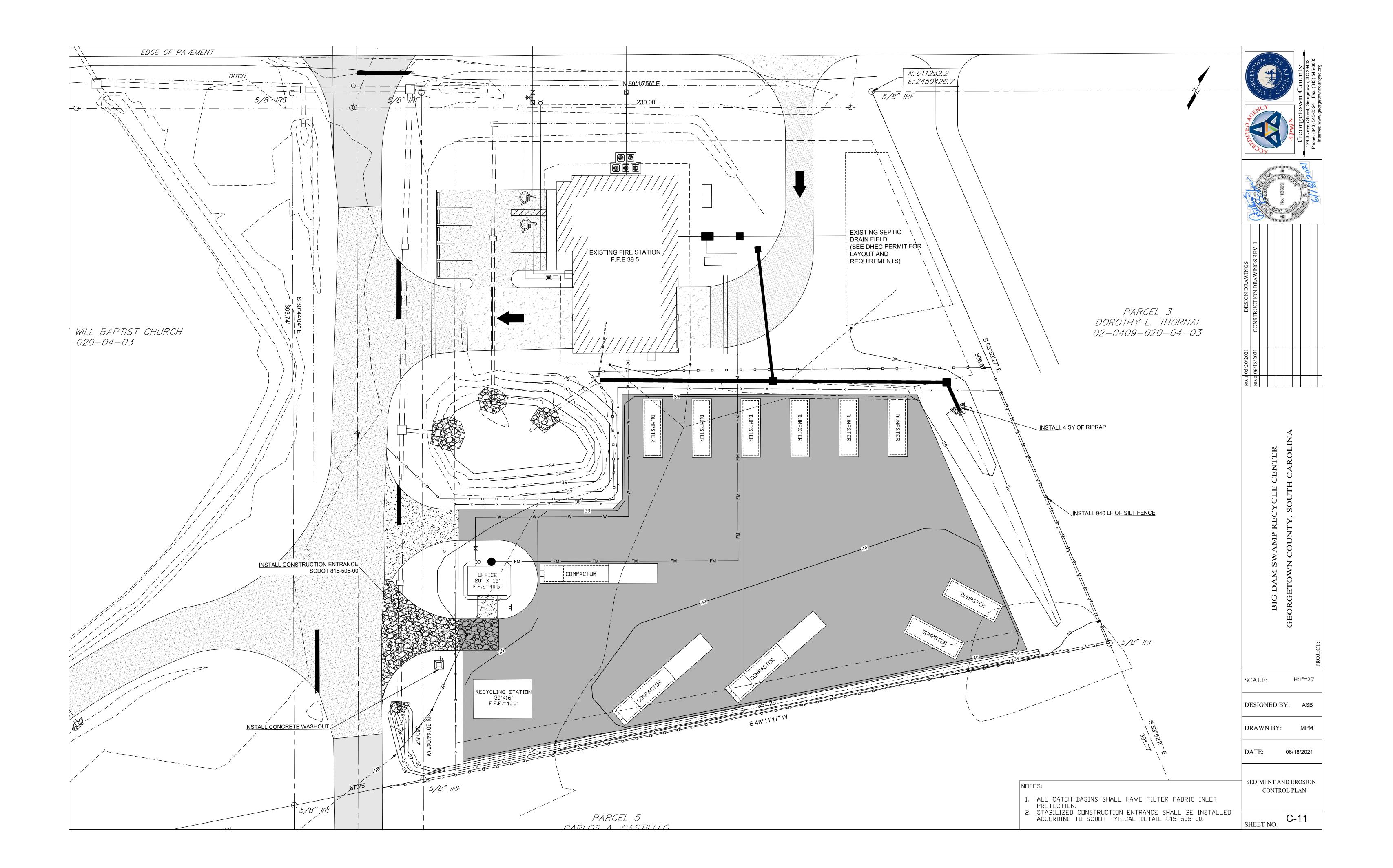


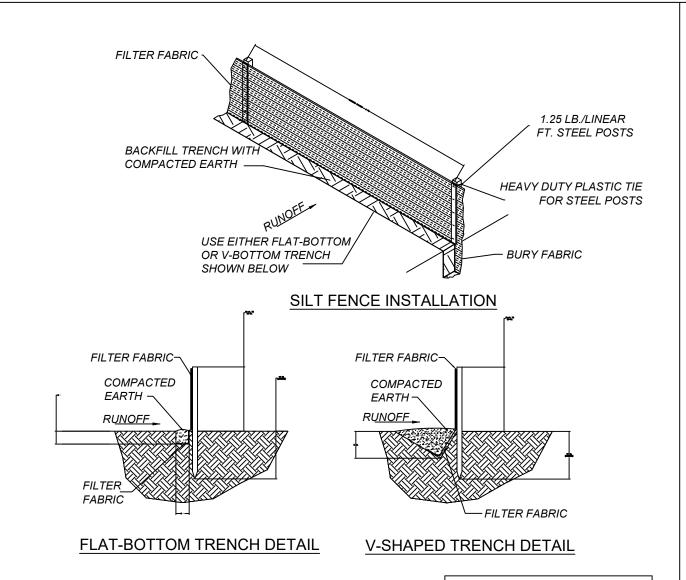












South Carolina Department of Health and Environmental Control STANDARD SILT ARD DRAWING NO. SC-03 Page 1, 2 & 3 of 3

SILT FENCE DETAIL

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

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

USE 48-INCH LONG STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS: COMPOSED OF HIGH STRENGTH STEEL WITH MINIMUM YIELD STRENGTH OF 50,000 PSI. HAVE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND NOMINAL "T" LENGTH OF 1.48—INCHES.

WEIGH 1.25 POUNDS PER FOOT (± 8%). HAVE A SOIL STABILIZATION PLATE WITH A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES ATTACHED TO THE STEEL POSTS PAINTED WITH A WATER BASED BAKED ENAMEL PAINT.

USE STEEL POSTS WITH A MINIMUM LENGTH OF 4-FEET, WEIGHING 1.25 POUNDS PER WHEN HEAVY CLAY SOILS ARE PRESENT ON SITE, STEEL POSTS WILL HAVE A METAL SOIL STABILIZATION PLATE WELDED NEAR THE BOTTOM SUCH THAT WHEN THE POST IS DRIVEN TO THE PROPER DEPTH, THE PLATE WILL BE BELOW THE GROUND LEVEL FOR ADDED STABILITY. THE SOIL PLATES SHOULD HAVE THE FOLLOWING CHARACTERISTICS: BE COMPOSED OF MINIMUM 15 GAUGE STEEL. HAVE A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES.

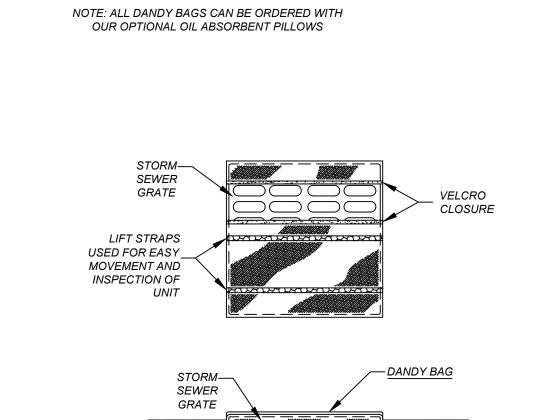
# GEOTEXTILE FILTER FABRIC FILTER FABRIC IS:

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

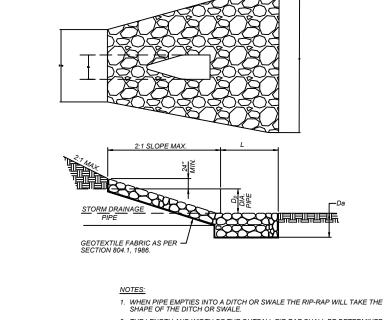
USE ONLY FABRIC APPEARING ON SCDOT APPROVAL SHEET #34 MEETING THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE SCHOOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

EXCAVATE A TRENCH APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP WHEN PLACING FABRIC BY HAND. PLACE 12-INCHES OF GEOTEXTILE FABRIC INTO THE 6-INCH DEEP TRENCH, EXTENDING THE REMAINING 6-INCHES TOWARDS THE UPSLOPE SIDE OF THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACT.BURY 12-INCHES OF FABRIC INTO THE GROUND WHEN PNEUMATICALLY INSTALLING SILT FENCE WITH A SLICING METHOD. PURCHASE FABRIC IN CONTINUOUS ROLLS AND CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, WRAPPED THE FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 6—INCH MINIMUM OVERLAP. INSTALL POSTS TO A MINIMUM DEPTH OF 24-INCHES. INSTALL POSTS A MINIMUM OF 1- TO 2- INCHES ABOVE THE FABRIC, WITH NO MORE THAN 3-FEET OF THE POST ABOVE THE GROUND. SPACE POSTS TO MAXIMUM 6-FEET CENTERS. ATTACH FABRIC TO WOOD POSTS USING STAPLES MADE OF HEAVY-DUTY WIRE AT LEAST 11/2-INCH LONG. SPACED A MAXIMUM OF 6-INCHES APART. STAPLE A 2-INCH WIDE LATHE OVER THE FILTER FABRIC TO SECURELY FASTEN IT TO THE UPSLOPE SIDE OF WOODEN POSTS. ATTACH FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN CALL CASES, TIES SHOULD BE AFFIXED IN NO LESS THAN 4 PLACES. INSTALL THE FABRIC A MINIMUM OF 24-INCHES ABOVE THE GROUND. WHEN NECESSARY, THE HEIGHT OF THE FENCE ABOVE GROUND MAY BE GREATER THAN 24-INCHES. IN TIDAL AREAS, EXTRA SILT FENCE HEIGHT MAY BE REQUIRED. THE POST HEIGHT WILL BE TWICE THE EXPOSED POST HEIGHT. POST SPACING WILLREMAIN THE SAME AND EXTRA HEIGHT FABRIC WILL BE 4-, 5-, OR 6-FEET TALL. LOCATE SILT FENCE CHECKS EVERY 100 FEET MAXIMUM AND AT LOW POINTS. INSTALL THE FENCE PERPENDICULAR TO THE DIRECTION OF FLOW AND PLACE THE FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.

INSPECT EVERY SEVEN CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OR MORE OF PRECIPITATION. CHECK FOR SEDIMENT BUILDUP AND FENCE INTEGRITY. CHECK WHERE RUNOFF HAS ERODED A CHANNEL BENEATH THE FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED BY FENCE OVERTOPPING. IF THE FENCE FABRIC TEARS. BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE SECTION OF FENCE IMMEDIATELY. REMOVE SEDIMENT ACCUMULATED ALONG THE FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED. REMOVE TRAPPED SEDIMENT FROM THE SITE OR STABILIZE IT ON SITE. REMOVE SILT FENCE WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BEST MANAGEMENT PRACTICES (BMPS) ARE NO LONGER NEEDED. PERMANENTLY STABILIZE DISTURBED AREAS RESULTING FROM FENCE REMOVAL



DANDY BAG INLET PROTECTION DETAIL



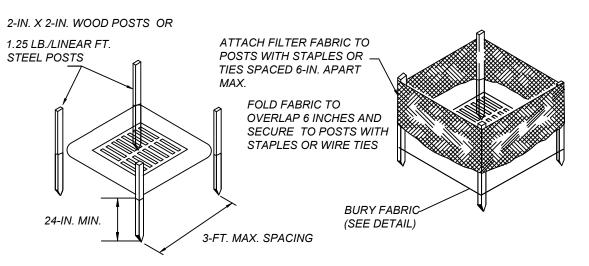
2. THE LENGTH AND WIDTH OF THE OUTFALL RIP RAP SHALL BE DETERMINED FROM THE OUTLET PROTECTION RIP RAP DIMENSIONS TABLE.

# OUTLET PROTECTION DETAIL

LETTERS A MINIMUM OF 5"

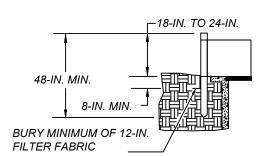
CONCRETE

WASHOUT



POST INSTALLATION DETAIL

FILTER FABRIC INSTALLATION DETAIL



FILTER FABRIC BURIAL DETAIL



INLET PROTECTION

TYPE A - FILTER FABRIC STANDARD DRAWING NO. SC-07 Page 1 & 2 of 2

FILTER FABRIC INLET PROTECTION

# MATERIALS:

USE FILTER FABRIC THAT CONFORMS TO SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION). REFER TO THE SILT FENCE GEOTEXTILE FABRICS APPROVAL SHEET #34.

USE STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS: BE COMPOSED OF HIGH STRENGTH STEEL WITH MINIMUM YIELD STRENGTH OF 50,000 PSI. HAVE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND NOMINAL "T" LENGTH OF 1.48-INCHES. WEIGHT 1.25 POUNDS PER FOOT (± 8%). BE PAINTED WITH A WATER BASED BAKED ENAMEL PAINT.

ATTACH FABRIC TO METAL POSTS WITH HEAVY-DUTY PLASTIC TIES.

### EXCAVATE A TRENCH 6-INCHES WIDE AND 6-INCHES DEEP AROUND THE OUTSIDE PERIMETER OF THE INLET UNLESS THE FABRIC IS PNEUMATICALLY INSTALLED.

EXTEND THE FILTER FABRIC A MINIMUM OF 12-INCHES INTO THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR CRUSHED STONE AND COMPACT OVER THE FILTER FABRIC UNLESS THE FABRIC IS PNEUMATICALLY

USE STEEL POSTS WITH A MINIMUM POST LENGTH OF 60-INCHES CONSISTING OF STANDARD "T" SECTIONS WITH A WEIGHT OF 1.25 POUNDS PER FOOT (±8%). INSTALL THE FILTER FABRIC TO A MINIMUM HEIGHT OF 24-INCHES ABOVE GRADE. SPACE THE STEEL POSTS AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3-FEET APART AND DRIVE THEM INTO THE GROUND A MINIMUM OF 24-INCHES. CUT THE FILTER FABRIC FROM A CONTINUOUS ROLL TO THE LENGTH OF THE PROTECTED AREA TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, WRAP FILTER FABRIC TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST, WITH A MINIMUM 6-INCH OVERLAP.

ATTACH FABRIC TO STEEL POSTS WITH HEAVY-DUTY PLASTIC TIES.

ATTACH AT LEAST FOUR (4) EVENLY SPACED TIES IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN ALL CASES, AFFIX TIES IN NO LESS THAN FOUR (4) PLACES.

INSTALLED.

INSPECTIONS SHOULD BE MADE EVERY 7 CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH STORM THAT PRODUCES 1/2-INCHES OR MORE OF RAIN.IF THE FABRIC BECOMES CLOGGED, IT SHOULD BE REPLACED. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY 1/3 THE HEIGHT OF THE FENCE. TAKE CARE NOT TO DAMAGE OR UNDERCUT FABRIC WHEN REMOVING SEDIMENT.IF A SUMP IS USED, SEDIMENT SHOULD BE REMOVED WHEN IT FILLS APPROXIMATELY 1/3 THE DEPTH OF THE HOLE.MAINTAIN THE POOL AREA, ALWAYS PROVIDING ADEQUATE SEDIMENT STORAGE VOLUME FOR THE NEXT STORM.

STORM DRAIN INLET PROTECTION STRUCTURES SHOULD BE REMOVED ONLY AFTER THE DISTURBED AREAS ARE PERMANENTLY STABILIZED. REMOVE ALL CONSTRUCTION MATERIAL AND SEDIMENT, AND DISPOSE OF THEM PROPERLY. GRADE THE DISTURBED AREA TO THE ELEVATION OF THE DROP INLET STRUCTURE CREST. USE APPROPRIATE PERMANENT STABILIZATION METHODS TO STABILIZE BARE AREAS AROUND THE INLET.

 ACTUAL LAYOUT DETERMINED IN FIELD. 2. INSTALL CONCRETE WASHOUT SIGN (24"X24",

MINIMUM) WITHIN 30' OF THE TEMPORARY

CONCRETE WASHOUT FACILITY. 3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK

OR PERIMETER CONTROL. 4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.

5. THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.

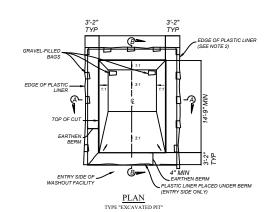
CONCRETE WASHOUT SIGN DETAIL

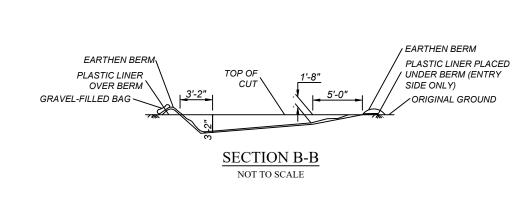
6. SILT FENCE SHALL BE INSTALLED AROUND

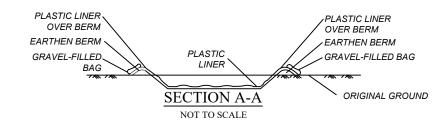
DEPLITED OF CONTROL PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR

> 7. A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

ACCESSING THE WASHOUT.







SCALE: N.T.S.

EXCAVATED PIT CONCRETE WASHOUT DETAIL

## STABILIZED CONSTRUCTION ENTRANCE

WHEN AND WHERE TO USE IT

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

## IMPORTANT CONSIDERATIONS

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

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

REMOVE ALL VEGETATION AND ANY OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM STONES TO A SEDIMENT TRAP OR BASIN. INSTALL A NON-WOVEN GEOTEXTILE FABRIC PRIOR TO PLACING ANY STONE. INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.

THE ENTRANCE SHALL CONSIST OF 1-INCH TO 3-INCH D50 STONE PLACED AT A MINIMUM DEPTH OF 6-INCHES. MINIMUM DIMENSIONS OF THE ENTRANCE SHALL BE 24-FEET WIDE BY 100-FEET LONG, AND MAY BE MODIFIED AS NECESSARY TO ACCOMMODATE SITE CONSTRAINTS. THE EDGES OF THE ENTRANCE SHALL BE TAPERED OUT TOWARDS THE ROAD TO PREVENT TRACKING OF MUD AT THE EDGE OF THE ENTRANCE.

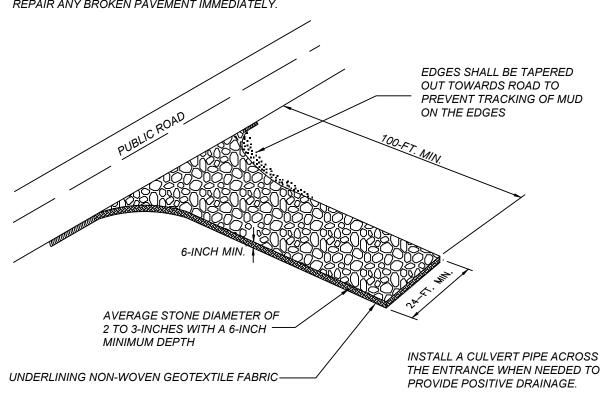
## INSPECTION AND MAINTENANCE:

INSPECT CONSTRUCTION ENTRANCES EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OR MORE OF PRECIPITATION, OR AFTER HEAVY USE. CHECK FOR MUD AND SEDIMENT BUILDUP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING PERIODS OF WET WEATHER. MAINTENANCE IS REQUIRED MORE FREQUENTLY IN WET WEATHER CONDITIONS. RESHAPE THE STONE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.

WASH OR REPLACE STONES AS NEEDED AND AS DIRECTED BY THE INSPECTOR. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES. FREQUENT WASHING WILL EXTEND THE USEFUL LIFE OF STONE.

IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARGED TO A SEDIMENT TRAP OR BASIN.

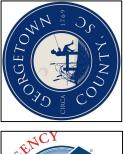
REPAIR ANY BROKEN PAVEMENT IMMEDIATELY.



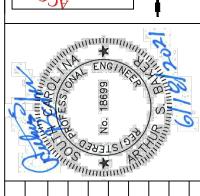
DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN OR OTHER SEDIMENT TRAPPING STRUCTURE.

STABLIZED CONSTRUCTION ENTRANCE

SCALE: N.T.S.







DESIGN DRAWINGS	CONSTRUCTION DRAWINGS REV.				
5/20/2021	5/18/2021				

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N.T.S.

SCALE:

DESIGNED BY: ASB

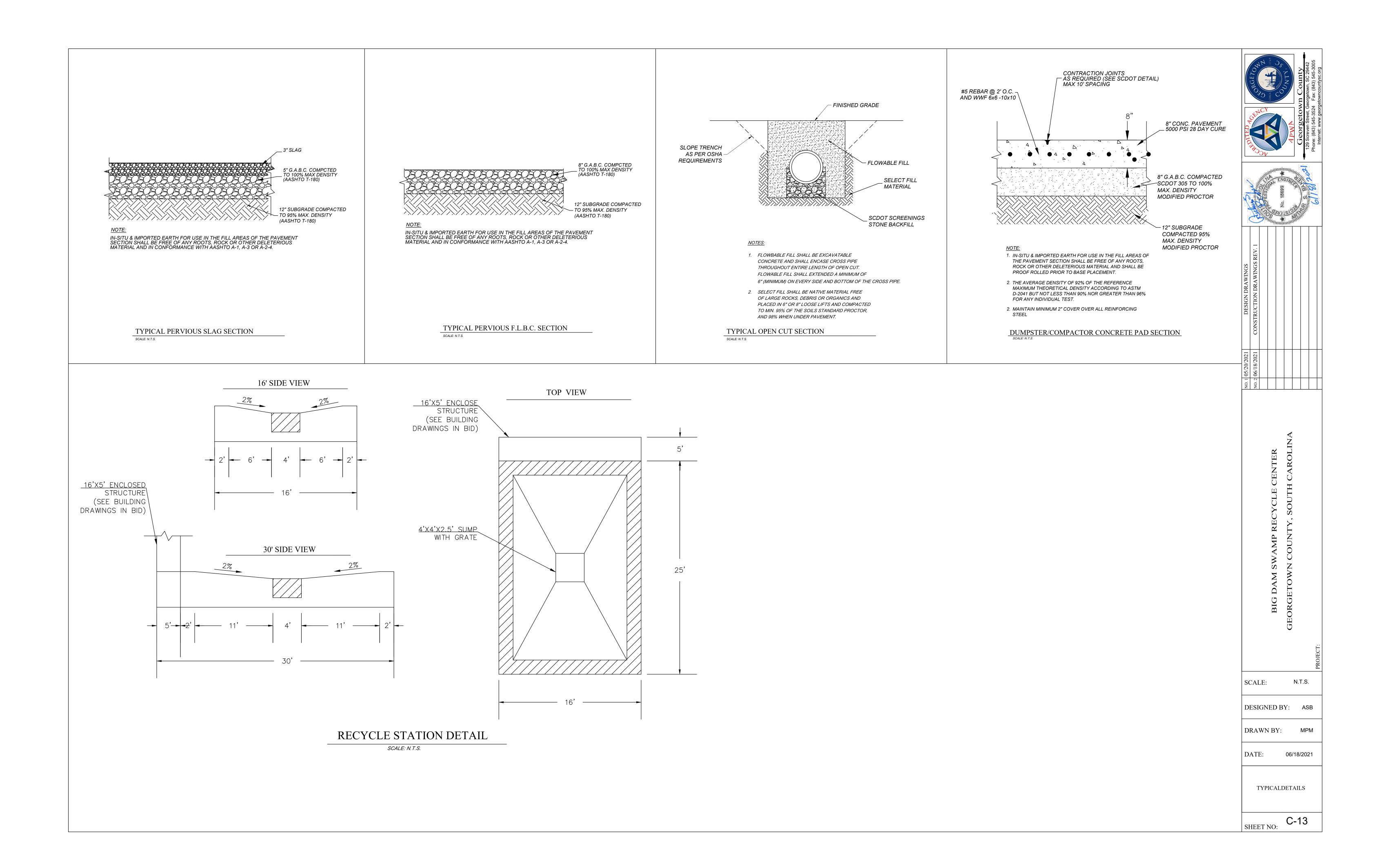
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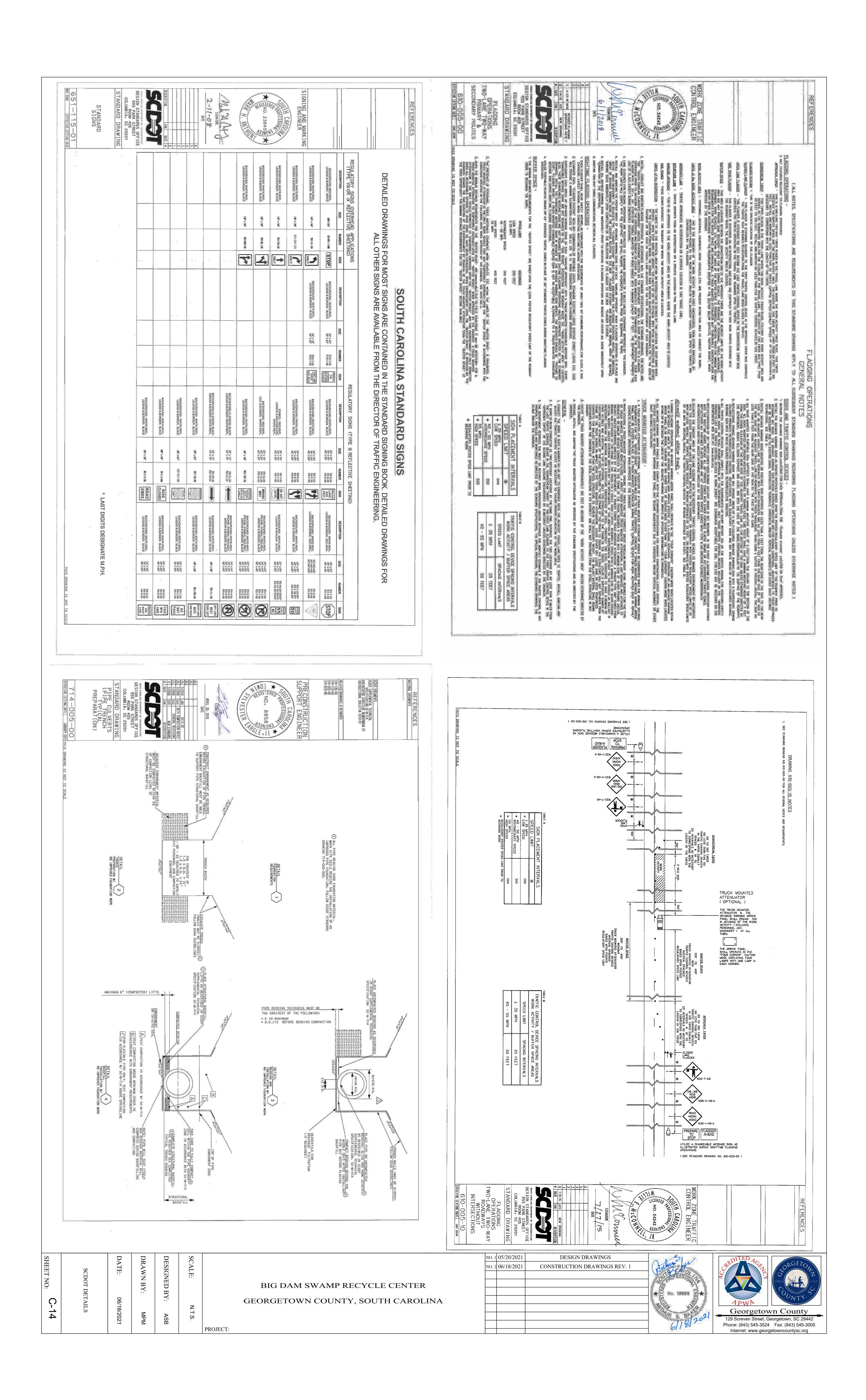
MPM

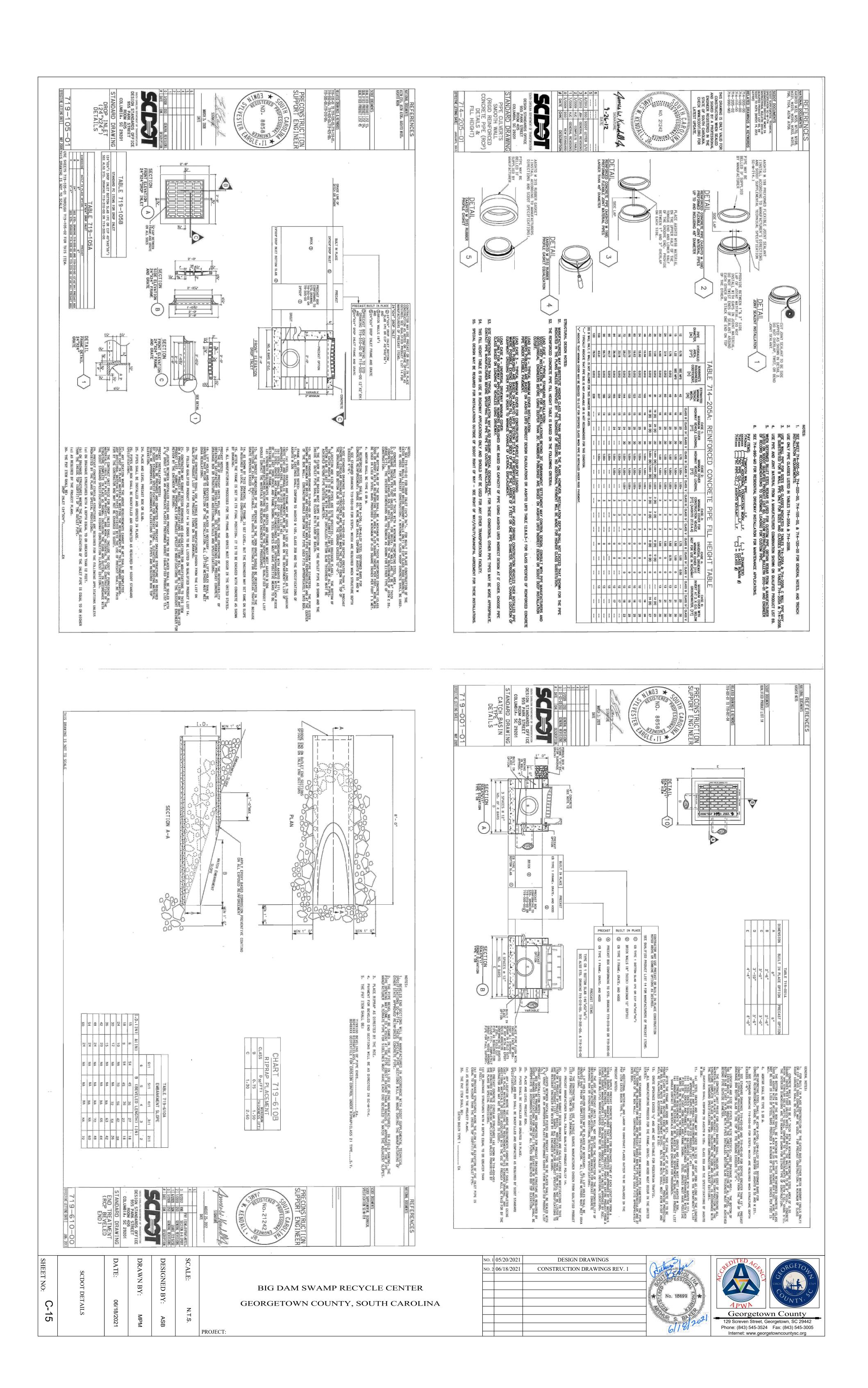
SEDIMENT AND EROSION

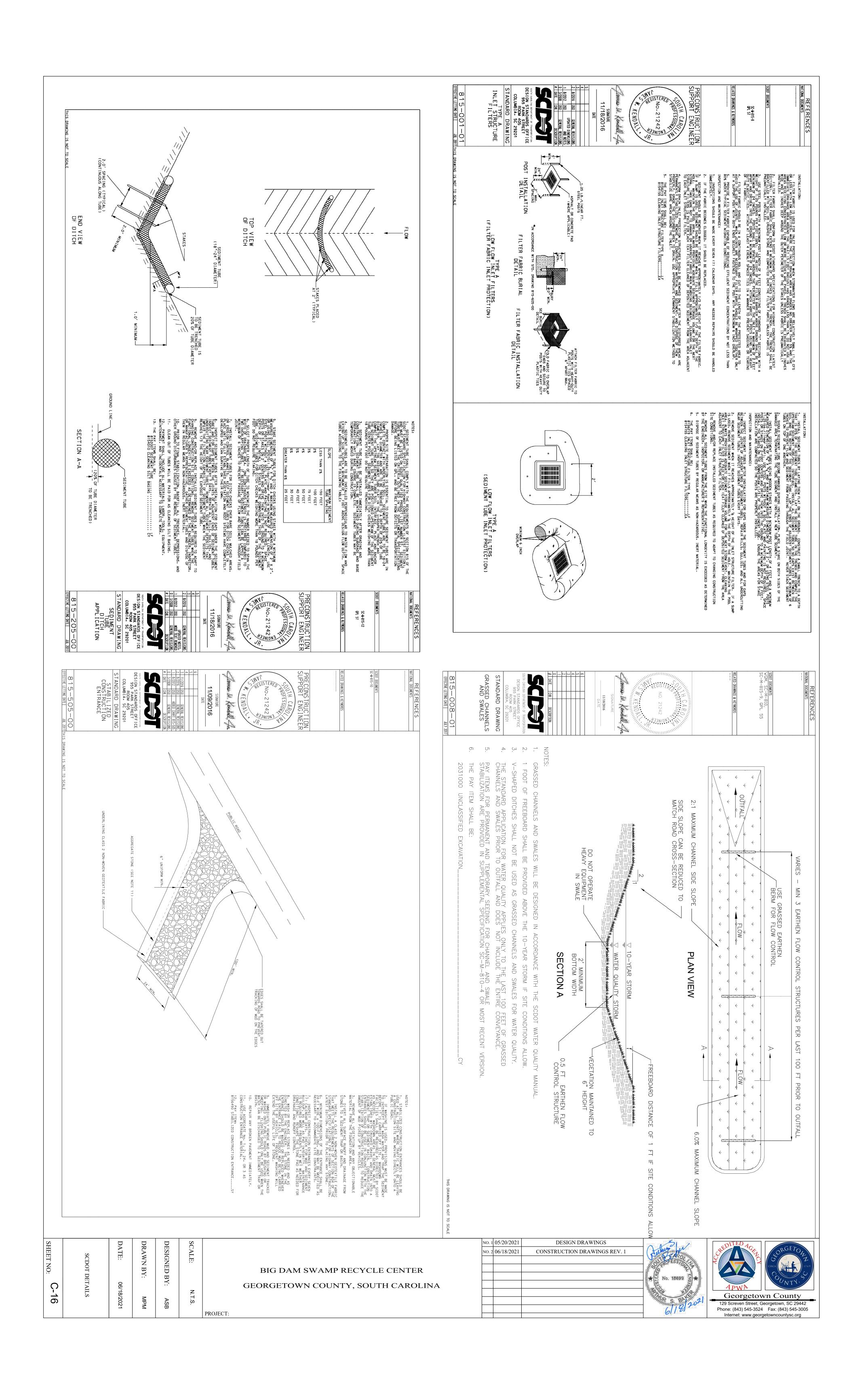
CONTROL DETAILS

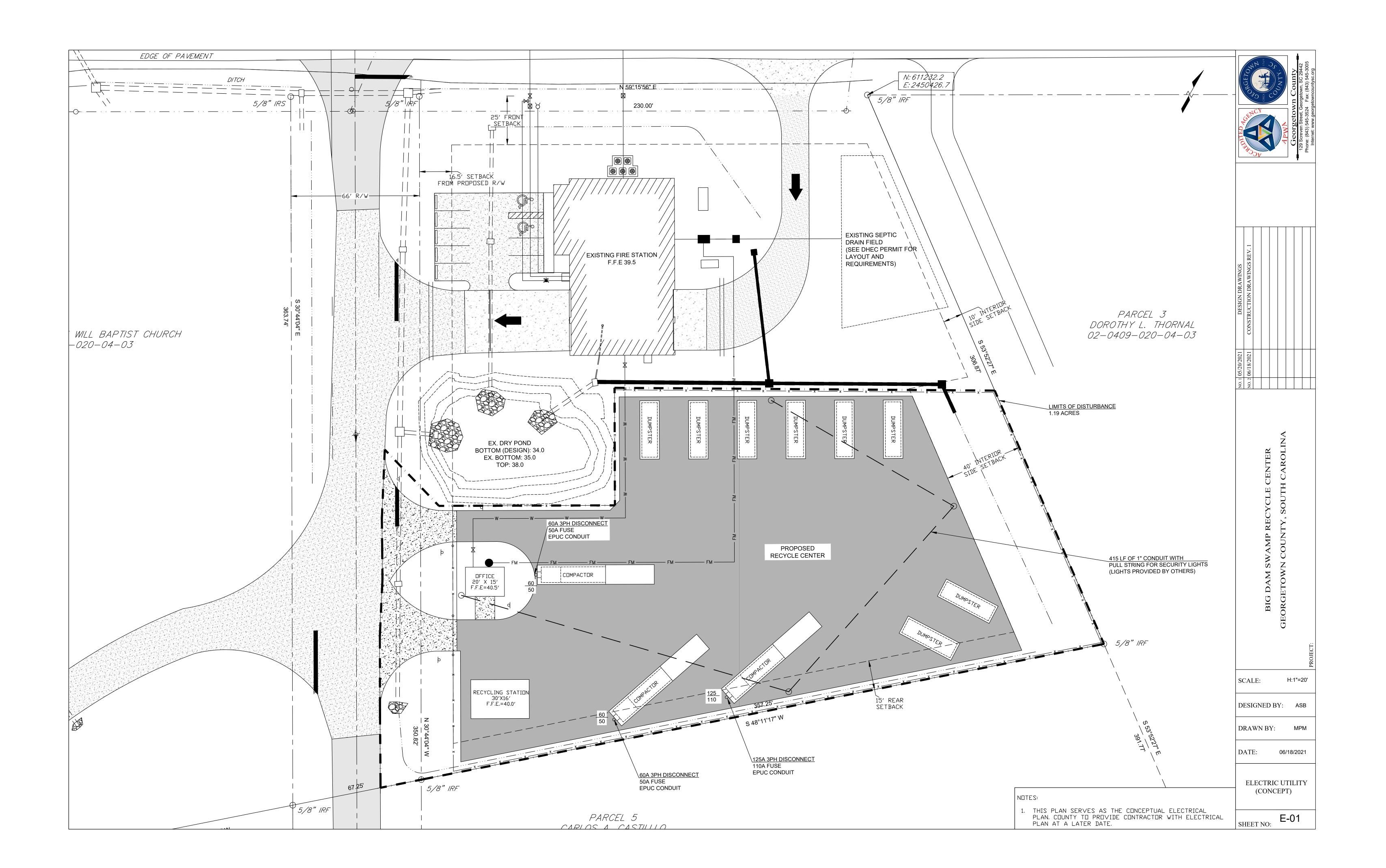
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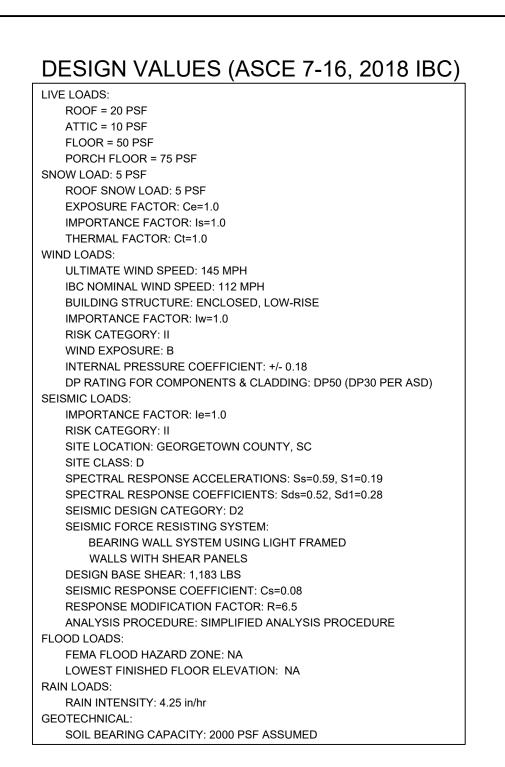


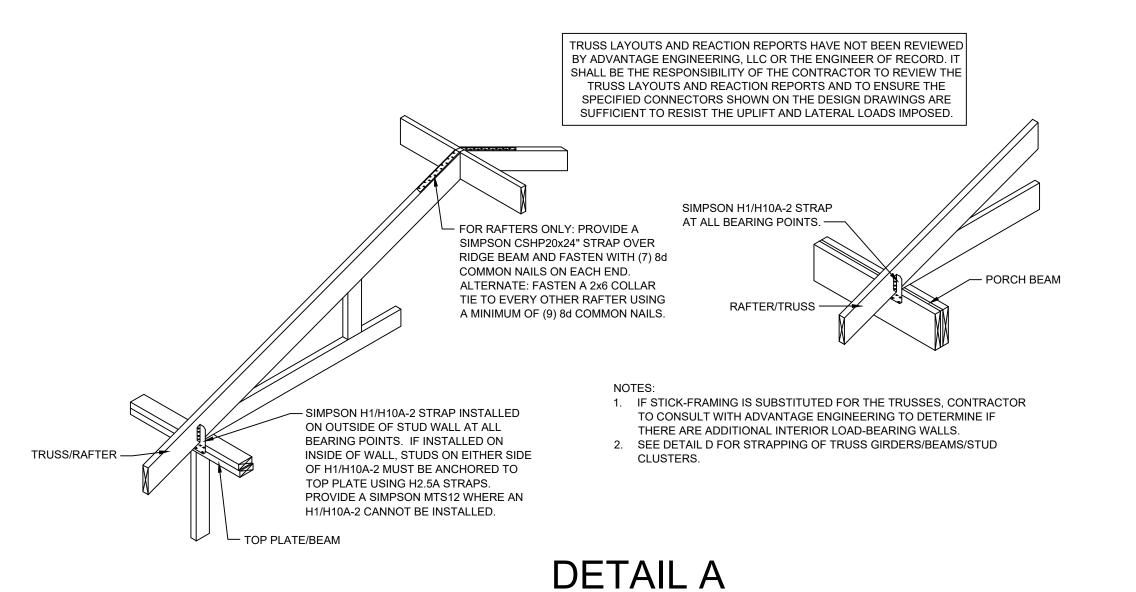




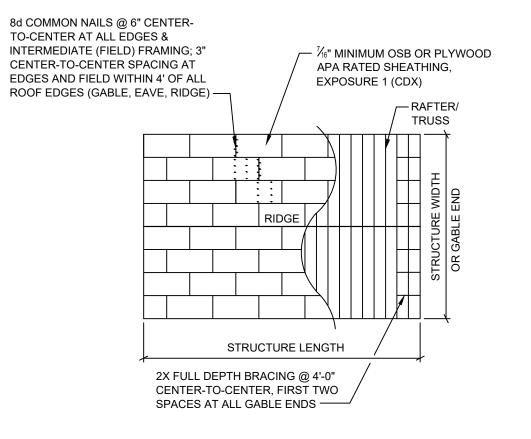


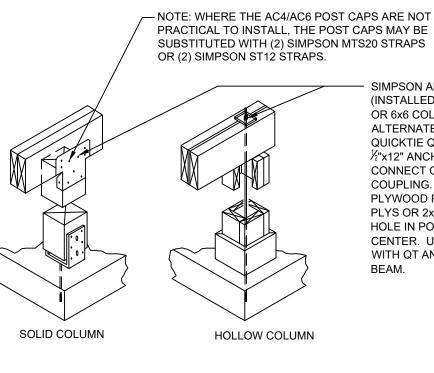






RAFTER/TRUSS CONNECTION





- SIMPSON ABU44Z/66Z AT BOTTOM, AC4/AC6 (INSTALLED IN PAIRS) AT TOP OF SOLID 4x4 OR 6x6 COLUMN.
ALTERNATE FOR HOLLOW COLUMN: QUICKTIE QT CABLE HOLDDOWN. EMBED ½"x12" ANCHOR BOLT IN FOOTING AND CONNECT QT TO ANCHOR BOLT WITH ½" COUPLING. BUILD UP PORCH BEAM WITH ½" PLYWOOD FLITCH BETWEEN EITHER LVL PLYS OR 2x LUMBER MEMBERS. DRILL ¾" HOLE IN PORCH BEAM THROUGH PLYWOOD CENTER. UTILIZE 3"x3" WASHER PROVIDED WITH QT AND ROUND WASHER AT TOP OF BEAM.

DETAIL C
PORCH COLUMN FASTENING

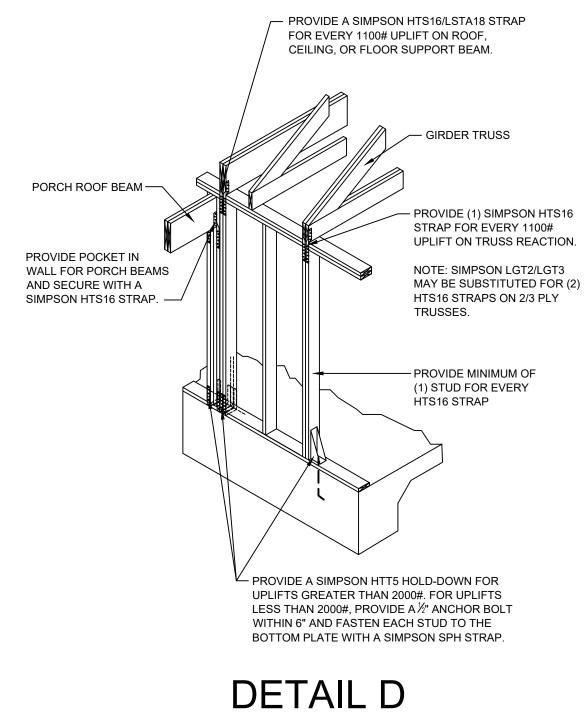
ONE STORY, SLAB FOUNDATION

# DETAIL B ROOF SHEATHING

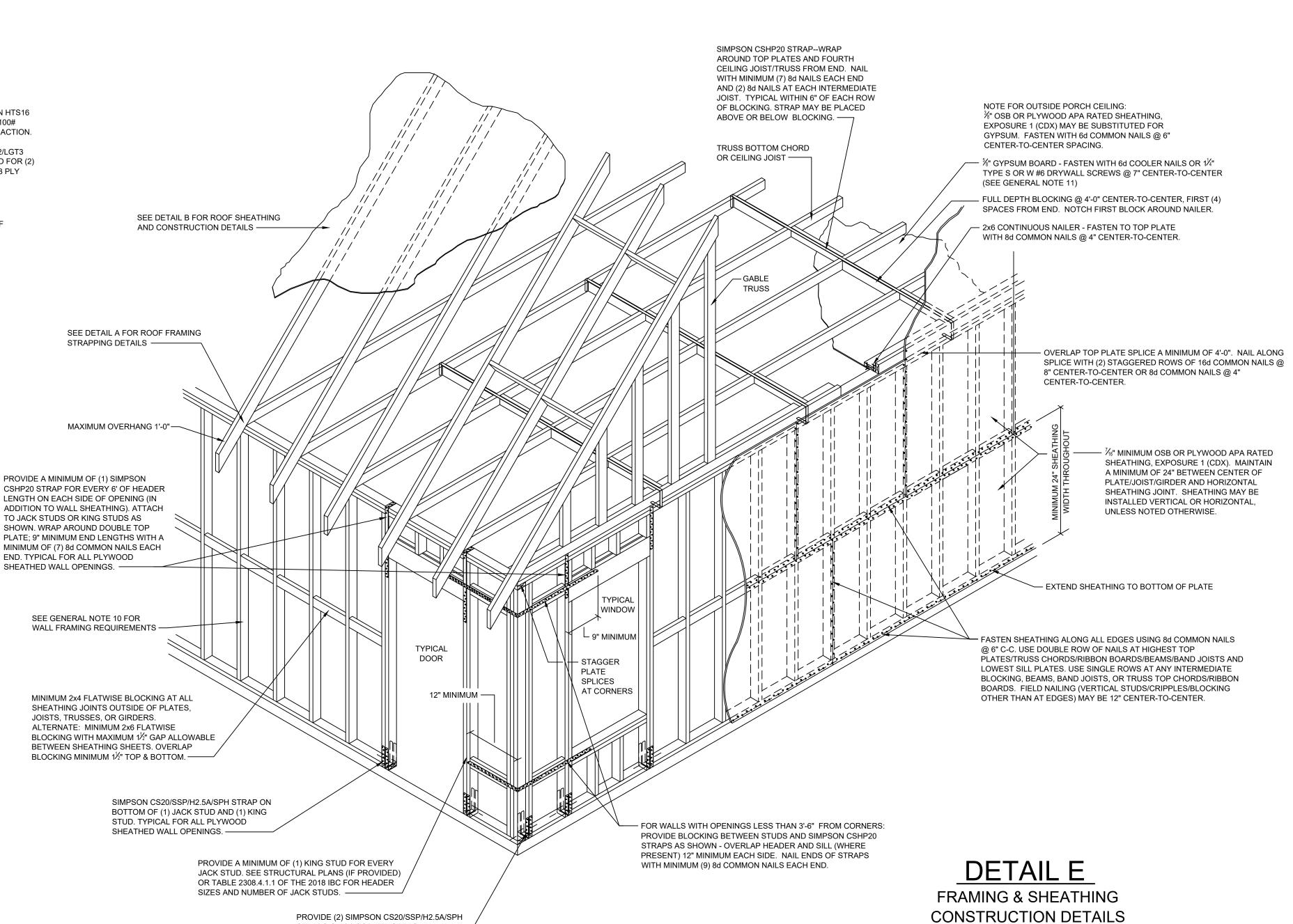
# **GENERAL NOTES**

- 1. ENGINEER'S DESIGN APPLIES TO DRAWINGS AS STAMPED. DESIGNS ARE FOR WIND, SEISMIC, AND FOUNDATION SYSTEMS ONLY AS SHOWN AND ASSUMES THE BUILDING ENVELOPE WILL BE MAINTAINED DURING HURRICANE FORCE WINDS.
- MAINTAINED DURING HURRICANE FORCE WINDS.

  2. ANY ALTERATIONS OR DEVIATIONS FROM THE CONSTRUCTION SPECIFICATIONS CONTAINED WITHIN THESE DESIGN DOCUMENTS SHALL BE THE RESPONSIBILITY OF THE PARTIES INVOLVED AND MAY VOID THE ENGINEERED DESIGN.
- 3. ERECTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS. DISCREPANCIES SHALL BE RESOLVED AS NEEDED WITH ENGINEER BEFORE PROCEEDING.
- 4. ERECTOR SHALL FOLLOW STANDARD CONSTRUCTION PRACTICES DICTATED BY THE 2018
  "INTERNATIONAL BUILDING CODE" (IBC) EXCEPT AS NOTED.
- 5. ALL EXPOSED WOOD (POSTS, BEAMS, ETC.) AND WOOD IN CONTACT WITH CONCRETE OR MASONRY (SILL PLATES) SHALL BE PRESSURE TREATED FOR EXTERIOR USE IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) GUIDELINES. WOOD SHALL BE TREATED FOR ABOVE OR BELOW GROUND USE, WHICHEVER APPLIES.
- ALL LIGHT GAUGE HARDWARE SHALL HAVE A MINIMUM G90 GALVANIZED COATING IN ACCORDANCE WITH ASTM A653 OR SHALL BE POST HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 (CONNECTORS) OR A153 (FASTENERS). HARDWARE IN CONTACT WITH TREATED WOOD SHALL HAVE A MINIMUM G185 COATING, SHALL BE POST HOT-DIP GALVANIZED, OR SHALL BE TYPE 316L STAINLESS STEEL.
- 7. ALL CONNECTORS ARE SHOWN PLACED DIRECTLY ON THE FRAMING IN THE CONSTRUCTION DETAILS. THE CONNECTORS ARE SHOWN IN THIS MANNER FOR CLARITY. CONNECTORS CAN BE PLACED DIRECTLY ON FRAMING BEHIND THE SHEATHING OR ON TOP OF THE SHEATHING. IN EITHER CASE, THE CONNECTORS WOULD STILL BE PLACED TO BE NAILED DIRECTLY INTO FRAMING MEMBERS. ALWAYS FOLLOW THE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION REQUIREMENTS.
- 8. NAILS SPECIFIED SHALL BE COMMON WIRE NAILS OR EQUIVALENT PNEUMATIC NAILS UNLESS NOTED OTHERWISE. FOR EXAMPLE, 10d PNEUMATIC NAILS WITH 0.131" SHANK DIAMETER AND 2.5" OR GREATER LENGTH SHALL BE EQUIVALENT TO 8d COMMON NAILS WITH 0.131" SHANK AND 2.5" LENGTH.
- ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. ANCHOR BOLTS SHALL BE MINIMUM ASTM F1554, GRADE 36; THREADED BOLTS SHALL BE MINIMUM ASTM A325; ALL THREAD ROD SHALL BE MINIMUM ASTM A36.
   FLOOR, CEILING, AND ROOF FRAMING SHALL BE SYP, GRADE 2 OR BETTER, SIZED AND SPACED IN
- ACCORDANCE WITH AFPA AMERICAN WOOD COUNCIL STANDARD PS20 SPAN TABLES OR THE SPAN TABLES CONTAINED IN CHAPTER 23 OF THE 2018 IBC, UNLESS NOTED OTHERWISE. EXTERIOR WALLS SHALL BE FRAMED USING SPF 2x4 STUDS @16" C-C.
- 11. REFER TO GYPSUM ASSOCIATION GA-216-2016, TABLE 1 FOR MAXIMUM FRAMING SPACING OF SINGLE LAYER GYPSUM BOARD WITH VARIOUS TEXTURES. FOR INTERIOR WALLS AND CEILINGS, FASTEN GYPSUM WALLBOARD WITH 6d COOLER NAILS AT 7" CENTER-TO-CENTER ON EDGES AND 7" CENTER-TO-CENTER IN FIELD. 6d COOLER NAILS MAY BE SUBSTITUTED WITH 1.25" TYPE S OR W, #6 DRYWALL SCREWS.
- 12. TRUSSES (WHERE SUPPLIED) SHALL BE DESIGNED BY MANUFACTURER. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH ANSI/TPI 1 "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION." MANUFACTURER TO SUBMIT DESIGN SPECIFICATIONS INDICATING DESIGN WIND SPEED (MIN. 145 MPH, EXPOSURE B, LOW-RISE PER ASCE 7-16), DEAD AND LIVE LOADS, HEIGHT ABOVE GROUND, AND AMOUNT OF UPLIFT AT THE BEARING POINTS. TRUSSES SHALL BE SPACED NO MORE THAN 24" ON CENTER AND SHALL BE DESIGNED FOR AN ENCLOSED/PARTIALLY OPEN BUILDING PER ASCE 7-16. ADJUST CONNECTOR TYPE AND CAPACITY PER MANUFACTURER'S DESIGN IF MORE RESTRICTIVE THAN TRUSS CONNECTOR DETAIL SHOWN. TRUSS LAYOUTS AND REACTION REPORTS HAVE NOT BEEN REVIEWED BY ADVANTAGE ENGINEERING, LLC OR THE ENGINEER OF RECORD. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE TRUSS LAYOUTS AND REACTION REPORTS AND TO ENSURE THAT THE SPECIFIED CONNECTORS SHOWN ON THE DESIGN DRAWINGS ARE SUFFICIENT TO RESIST THE UPLIFT AND LATERAL LOADS IMPOSED. A COPY OF THE REPORTS MAY BE FORWARDED TO ADVANTAGE ENGINEERING FOR REVIEW.
- 13. COMPONENTS & CLADDING SYSTEMS (ROOFING, SHUTTERS, ETC.) SHALL BE RATED FOR 145 MPH IN ACCORDANCE WITH ASCE 7-16. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION. DOORS AND WINDOWS SHALL MEET A MINIMUM DESIGN PRESSURE RATING OF DP50 (DP30 PER ASD) PER ANSI/AAMA/NWWDA 101/I.S.2-97 (UP TO 40' MEAN ROOF HEIGHT). GLAZED OPENINGS SHALL MEET THE REQUIREMENTS OF THE LARGE MISSILE TEST OF ASTM E 1996 AND ASTM E 1886 OR BE PROTECTED BY WOOD STRUCTURAL PANELS IN ACCORDANCE WITH TABLE
- 1609.2 OF THE 2018 IBC.
  14. DESIGN BASED ON PLANS DESIGNED BY GEORGETOWN COUNTY'S FACILITIES SERVICE DEPARTMENT TITLED "GEORGETOWN COUNTY BIG DAM RECYCLE" DATED JULY 11, 2016.



CONNECTION DETAIL FOR A TRUSS GIRDER/BEAM ON A SLAB FOUNDATION



STRAPS ON (2) CORNER STUDS -

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STRUCTURAL, MECHANICAL, PLUMBING & ELECTRICAL ENGINEERING PROBES P.O. Box 1089

WIND & SEISMIC DESIGN DETAILS

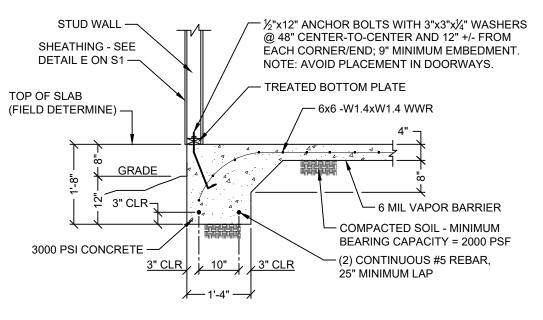
BIG DAM SWAMP RECYCLE CEN
17 BIG DAM SWAMP DRIVE
ANDREWS, SC 29510

DWG BY: JAH
DSN BY: JAH
DATE: 07-08-21
SCALE: NA
REV# DATE
1 XX/XX/XX

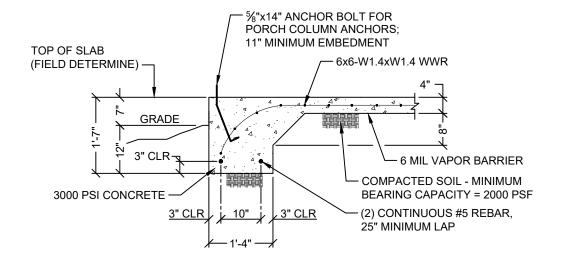
2 XX/XX/XX

SHEET NO.

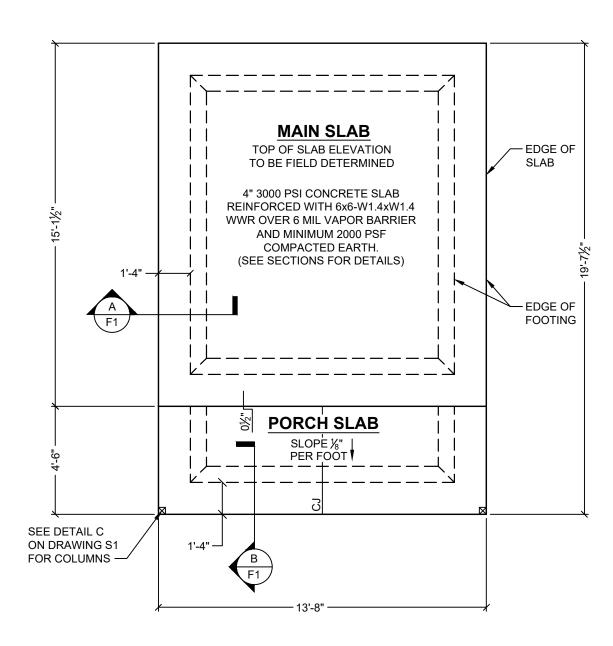
4 XX/XX/XX



# SECTION A



# SECTION B SCALE: ½"= 1'-0"



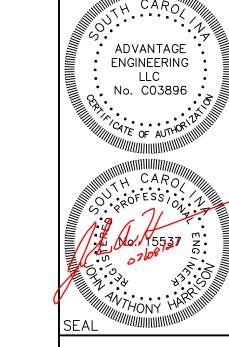
# FOUNDATION PLAN SCALE: ½"= 1'-0"

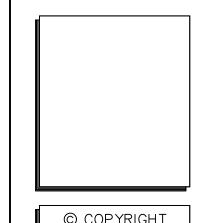
# **FOUNDATION NOTES**

- 1. SOLID SOIL BEARING CAPACITY TO BE 2000 PSF MINIMUM. REMOVE ORGANIC MATERIAL AND POUR FOOTINGS AND SLAB ON COMPACTED NATURAL GROUND. IF SOIL IS SUSPECT OR OTHER THAN NATURAL GROUND, A SOIL ANALYSIS BY A QUALIFIED GEOTECHNICAL ENGINEER IS RECOMMENDED. SUCH ANALYSIS MAY SHOW REASON TO REDESIGN FOLINDATION
- 2. CONCRETE WORK SHALL MEET THE REQUIREMENTS OF ACI 318-19, "BUILDING CODE REQUIREMENTS FOR
- STRUCTURAL CONCRETE." CONCRETE TO HAVE A 3000 PSI MINIMUM COMPRESSIVE STRENGTH.

  3. REBAR SHALL MEET THE REQUIREMENTS OF ASTM A615, GRADE 40 OR 60. REBAR SPLICES SHALL BE TIED AND LAPPED A MINIMUM OF 40 DIAMETERS (E.G. 25" FOR #5 REBAR) UNLESS NOTED OTHERWISE. WELDED WIRE
- REINFORCEMENT (WWR) SHALL MEET THE REQUIREMENTS OF ASTM A82/A185.
- 4. SAW CUT SLAB CONTROL JOINTS ON MAXIMUM 10' GRID EACH WAY FOLLOWING CONCRETE PLACEMENT (UNHEATED AREAS ONLY).
- AREAS ONLY).

  5. PROVIDE WARRANTED TERMITE TREATMENT PER 2018 IBC PRIOR TO CONCRETE PLACEMENT OR TREAT ALL INTERIOR AND EXTERIOR STRUCTURAL WOOD AND SHEATHING A MINIMUM OF 3 FEET UP FROM THE SLAB WITH BORA-CARE. CONSULT BORA-CARE TECHNICAL BULLETIN BC-W1-0202 FOR PROPER MIXING TECHNIQUES AND APPLICATION.





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STRUCTURAL, MECHANICAL, PUMBING, & ELECTRICAL ENGINEERING

282 Whitehall Avenue Phone: (843) 546–1680

Phone: (843) 546–1745

Gentralown, SC 2942

E-mail: Advantandood.com

FOUNDATION DESIGN DETAILS

IG DAM SWAMP RECYCLE CENTER

17 BIG DAM SWAMP DRIVE

ANDREWS, SC 29510

DWG BY: JAH
DSN BY: JAH
DATE: 07-08-21
SCALE: NOTED
REV# DATE
1 XX/XX/XX

2 XX/XX/XX

4 XX/XX/XX

SHEET NO.

**GENERAL** Provide all work, equipment, services, labor, and materials necessary for the Installation of complete and functional waste, vent, and

All plumbing to comply with the 2018 edition of the International Plumbing Code.

PIPING, PIPE FITTINGS, PIPE HANGERS/SUPPORTS, & INSULATION: Domestic water piping above ground shall be seamless copper tubing, ASTM B-88-61, Type L, hard drawn copper, cross-linked polyethylene (PEX) plastic tubing conforming to ASTM F 877, cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe conforming to ASTM F 1281, or chlorinated polyvinyl chloride (CPVC) pipe conforming to ASTM D 2846 and ASTM F 441. All hot water distribution piping shall have a minimum pressure rating of 100 psi at 180F.

Underground piping shall be seamless copper tubing, Type K, conforming to ASTM B-88, PEX plastic tubing conforming to ASTM F

Copper pipe fittings shall be wrought metal soldered joint type conforming to ANSI B16.22. PEX tubing fittings shall be metal insert fittings utilizing a copper crimp ring for SDR9 tubing and conforming to ASTM F 1807. Polyethylene pipe fittings shall conform to

Cast iron fittings shall be cast iron 'no hub' types with stainless steel couplings.

Install piping and related items neatly with routes generally chosen to be parallel and perpendicular to building lines. Horizontal sanitary piping 2½" or less shall be installed with a slope of ½" per linear foot. All waste piping 3" to 6" shall be installed with a slope of

Piping shall be arranged so that all valves, traps, and cleanouts are easily accessed. Ream piping to remove all burrs, fins, and foreign materials. Thoroughly clean all piping before soldering. Use only lead-free 95/5 solder. Seal the spaces around all piping penetrations in an approved manner.

Provide chromium-plated escutcheons with set screws for all exposed water supplies, traps and wall cleanouts.

All water piping shall be continuously insulated with Armaflex II or approved equal with a conductivity rating between 0.24 and 0.28.

Vent pipes shall be flashed and made watertight at the roof.

Install a 12" long air chamber at the top of each cold and hot water riser to prevent air hammer.

Backflow preventers shall be installed on the service, if not already equipped. Size per service. Backflow preventer shall be Watts or

Water heaters shall have an efficiency rating equal to or exceeding ASHRAE 90, revised and so labeled.

Drainage, vent, and branches shall be tested with water or air per local codes and the International Plumbing Code.

All new domestic water piping, fixtures, and faucets shall be flushed clean. Remove and clean all aerators.

All new domestic water pipe shall be sterilized in accordance with the South Carolina Board of Health and AWWA C601-537.

The sterilization solution shall be allowed to remain in the system for a minimum period of 24-hours. During the sterilization period, all valves and outlets shall be opened and closed several times. After sterilization, the solution shall be flushed from the system with clean water until residual chlorine content is not greater than 1.0 parts per million unless otherwise directed. After the system has been flushed, additional samples will be taken and tests made. If the water is found unsafe for human consumption, the sterilization procedure specified herein before, shall be repeated.

Provide all work, equipment, services, labor, and materials necessary for the installation of complete and functional mechanical systems, equipment, and ductwork as described or implied by the design documents.

All HVAC equipment and ducts shall comply with the 2018 edition of the International Mechanical Code.

PIPING, PIPE FITTINGS, PIPE HANGERS/SUPPORTS, & INSULATION: Refrigerant piping shall be Type 'ACR' hard drawn copper conforming to ANSI B-31.5 or ASTM B280 and delivered to the job site in 25, 35, or

Condensate drain piping shall be Type 'L' hard drawn copper conforming to ASTM B-88 or Schedule 40 PVC.

Copper pipe fittings shall be wrought metal solder joint type conforming to ANSI B16.22.

MECHANICAL SPECIFICATIONS

Install piping and related items neatly with routes generally chosen to be parallel and perpendicular to building lines. Piping shall be arranged (and traps installed where necessary) to allow proper return of oil to the compressor.

Ream piping to remove all burrs, fins, and foreign materials. Thoroughly clean all piping before soldering. During soldering, purge piping with nitrogen. Use only silver solder with non-corrosive flux.

Provide P-traps on each condensate drain and connect all piping to equipment so that the trap and evaporator pan can be easily serviced. Maintain access to all valves and equipment.

and metal straps to secure refrigerant lines. For other piping use 10-gauge sheet metal saddles measuring one-half the circumference of the insulation and a minimum of 12 inches long.

Space hangers and supports not to exceed 5'-0". Provide pipe covering protection saddles at all supports for insulated piping. Use clamps

All refrigerant equipment not tested at the factory shall be shut off from the rest of the system and tested. Piping systems shall be tested after installation is complete and before any insulation is applied. All controls and other apparatus that may be damaged by the test pressure shall be removed before the tests are made.

Refrigerant lines shall be tested at 150 PSIG with dry nitrogen. Pressure shall be maintained for 60 minutes without loss of pressure level. Each joint shall be checked for leaks with a soap solution. Testing and repair shall continue until there is no loss of pressure. After satisfactory pressure test, high vacuum pumps (do not use compressor) shall be connected to the system and the system shall be evacuated to a pressure of 0.2 inches of mercury at an ambient system temperature greater than 36% RH, 127F for 12 hours minimum. After this, the vacuum equipment shall be isolated by valve from the system, and the vacuum in the system broken by charging the system with refrigerant.

All piping specialties shall be compatible with the refrigerant used, sized and rated for the system capacities, having soldered connections, and shall be manufactured by Henry, Alco, or Sporlan.

All equipment shall conform to the drawing schedules and notes. Equal products by different manufacturers will be accepted provide the performance and electrical requirements are the same. Provide all appurtenances necessary for the complete and total installation of a system which shall perform satisfactorily under typical weather conditions and situations to be expected.

All compressors shall have five year warranties.

Install all equipment and controls so that the system meets or exceeds the performance characteristics of the equipment manufacturer.

Provide an appropriate thermostat, control wiring, and all sensor/control devices necessary for the proper operation of the equipment. Control wiring materials and methods shall conform to the electrical specifications.

Mechanical and electrical components and systems shall be designed to resist the forces for Seismic Design Category D2 in accordance with Section 13.6 of ASCE 7-16.

Provide all work, equipment, services, labor, and materials necessary to install complete and functional electrical and communication systems as described or implied by the design documents.

designed to resist the forces for Seismic Design Category D2 in accordance with Section 13.6 of ASCE 7-16.

All conduit shall be ½" minimum size and zinc-coated EMT, except in wet, damp, or washdown areas where zinc-coated rigid steel (GRS) or

EMT fittings shall be steel set screw types.

Thoroughly coat all underground metallic conduits with two coats of asphaltum or bitumastic paint. Conduits installed underground on the

circuits and telephone system conduits located below the concrete floor slab on grade or buried on the exterior of the building. All PVC shall be schedule 40 (unless noted otherwise) polyvinyl chloride UL listed for use with 75C conductors. Installation shall comply with all codes, the utility company regulations, and the manufacturer's instructions.

Make all field bends according to the manufacturer's instructions and UL requirements. PVC that has been heated with a torch shall be replaced. PVC shall not penetrate slab on grade for any reason; use GRS conduit for all penetrations.

Provide pull cords in all empty conduits.

All outlet boxes shall be galvanized steel except that cast boxes with gasketed covers shall be required in all interior wet areas and on the exterior of the building. Outlet boxes shall be no less than 4" x 4" x 2" deep and mounted 18" above finished floor or 44" AFF over countertops/desks/etc., unless noted otherwise.

may be #14 AWG solid. All 208/120 VAC conductors shall be color-coded Black, Red, Blue, White, and Green for Phases A, B, C, Neutral, and Ground respectively. Type MC with saddle connectors is permitted.

All conductors and cables shall be installed in conduits and tested for continuity and ground before being energized. All faulty conductors shall

Controls wiring for equipment provided by the another trade shall be provided by the trade furnishing the equipment in strict accordance with these specifications.

Fully coordinate with the other trades to determine the power requirements and connection points for equipment furnished by others. Provide

grounding conductor with every circuit. The conduit system and neutral conductors shall be bonded together only at the service entrance equipment. Grounding at the service entrance shall comply with NEC Article 250.

All wiring devices shall be commercial grade. The color shall be selected by the Architect from the manufacturer's standard colors.

Receptacles shall be NEMA 5-20R types unless otherwise noted.

Provide a single multi-gang box and device plate for all group mounted wiring devices

Wall receptacles shall be grounded. Wall receptacles shall be ground fault interrupter circuits at locations within six feet of a water source, all

be molded case, bolt-on, automatic thermal magnetic type, calibrated for 40C, or ambient compensating. All directories shall be typed and so

Manual motor starters shall be motor sentinel type with properly sized overload heaters and disconnect switch (toggle type) mounted in a NEMA

All lugs, terminals, and enclosures for power equipment (such as transformers, panels, circuit breaker, switches, and starters) shall be rated for

LIGHTING EQUIPMENT:

All light fixtures shall be provided complete with lamps, all necessary accessories, and as described on the drawings. Coordinate all construction details such as proper fixture trim with ceiling construction.

comply with Articles 410-30 and 410-36, as appropriate, of the 2017 NEC.

Emergency lighting and illuminated exit signs shall be provided with an emergency source of power and comply with Section 1011 of the 2018 International Building Code.

COMMUNICATION SYSTEMS:

Provide complete telephone, cable, and network services, as directed by the owner.

Telephone service includes equipment not provided by the phone company and may include service entrance equipment, outlets, terminal boards

required for a complete operating cable service.

Network includes equipment not provided by the network provider, excluding modems, routers, servers, computers, etc., but may include CAT5 cables, outlets, and other items required for a complete operating intranet and internet service.

Furnish and install any miscellaneous supports, fasteners, mounts, hangers, side braces, etc., which may be required to securely anchor and support electrical equipment

NOTE: For branch circuits utilizing #12 AWG CU or #14 AWG CU wiring, it shall be acceptable to use UL rated Armored Cable, Type ACTH, ACTHH, or ACHH. The armored cable shall comply with Article 320 of the NEC and shall have an armor of flexible metal tape and an internal bonding strip of copper or aluminum in intimate contact with the armor for its entire length to serve as an equipment grounding conductor in accordance with Section 250.118 of the NEC.

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ANTAGE IGINEERING

υŻ DETAILS
LE CEN C DESIGN D RECYCL SWAMP DR VS, SC 29510

DSN BY: JAH DATE: 07-08-21 SCALE: NA REV# DATE 1 XX/XX/XX 2 | XX/XX/XX | 3 XX/XX/XX

DWG BY: JAH

SHEET NO.

The contractor shall be responsible for fully understanding the actual field conditions of the project site and the scope of work as expressed by the party to whom the contractor has contracted to perform the work. Therefore, the contractor shall review these documents thoroughly for all conflicts, and for any aspect of the work shown in these documents that is at variance with the contractor's understanding of the work. The contractor shall perform all work necessary to complete the facility owner's intended scope of work for the project.

CONTRACTOR COORDINATION AND PRICING: Visit the site of this project as often as necessary to become thoroughly familiar with all existing field conditions and the full extent of the work to be performed. Verify every aspect of the proposed work as described or implied by these design documents prior to submitting a price for

The contractor's price shall be based upon these design documents. Include a 5% contingency amount for discretionary changes requested

The design intent of the engineer is that the work be performed according to all relevant codes, all referenced standards, and the most current

installation, operation, and function of the work described in these documents, the contractor shall provide it even if not clearly indicated in

instructions; any needed manufacturer, supply house, and vendor assistance; shop drawings, and field installation drawings necessary to

interpretations of the code as stated by the authority having jurisdiction. If anything is necessary for the complete, proper, and safe

The contractor shall be responsible for fully understanding the actual field conditions of the project device, and equipment installation

for by the owner, tenant, architect, engineer, inspector, or contractor trade.

Any pricing presented prior to the contractor's receipt of these design documents shall be immediately revised to show all adjustments to the original price. Any cost incurred prior to obtaining all clarifications to these documents, or to the designer's or owner's intent shall be solely at the contractor's risk.

The engineer has prepared these design documents from what may be inaccurate and incomplete information and has not independently verified all existing field conditions. Take actual field measurements at the job site instead of scaling the drawings.

Where the engineer has not been retained for construction administration services, all discrepancies, conflicts, and interferences shall be brought to the engineer's attention prior to commencing work and incurring cost, or resolved by coordination among all the trades during construction. Inform the engineer of any deviations made from the design documents. All trades shall provide all information about

construction activities and coordination issues to the general contractor. All requests for information (RFI) shall be submitted with copies of relevant portions of the plans and specifications with written, legible comments defining the information desired. Any poorly prepared or inadequately documented RFI shall be rejected. RFIs indicating failed

coordination among trades or a poor understanding of the project scope or design intent shall be rejected at the engineer's discretion.

QUALIFICATIONS AND STANDARDS OF WORKMANSHIP: Perform all work using experienced, skilled craftsmen licensed in their respective trades, and competent to performed the work involved with

International Building Code and these specifications shall be the absolute minimum standard of acceptance.

All work and materials shall comply with applicable state, local, and national codes (including OSHA). Compliance with the latest edition of the

MATERIALS AND METHODS: Provide all cutting and patching necessary to properly install all work. Repair any damage done.

Perform all excavating and backfilling in a safe manner. Protect the stability of all structures (or any part thereof) and any work installed by other trades. Restore all damaged walks, walls, paved areas, or graded areas to their final finish appearance.

Provide only new materials and equipment listed and labeled (for the use intended) by an approved third party laboratory service such as Underwriter's Laboratories Inc.

locations shall have NEMA 3R enclosures as a minimum. Seal all pipe, conduit, wiring, and duct penetrations through fire-rated walls or floors using approved sealing materials and following the details in these documents. Verify the UL fire-rated assembly prior to sealing the penetration to avoid unapproved installations. All non-rated

Fully coordinate with the power, telephone, CATV, gas, and water utilities to provide services to the facility. Provide any necessary concrete pads or underground ducts requested by the utility. The Owner will pay for all service connection, line extension, and impact fees directly to

SUBMITTALS AND TESTING: Submit shop drawings and catalog data in four (4) copies for all electrical light fixtures, equipment, and devices; all HVAC equipment, controls, devices, and insulation; all plumbing fixtures, equipment, devices, and insulation; and all communication equipment and devices not

the authority having jurisdiction that the correct materials and devices were used in the construction, penetration, and sealing of a penetration

Testing shall comply with all local, state, and national codes, and with the requests of the local inspector. The contractor shall bear the full cost for any destructive testing necessary to demonstrate compliance with these drawings and code.

PERMITS. WARRANTY, AND INSPECTIONS: Contractor shall obtain and pay for any and all required permits, inspections, certificates of inspections and approval, and the like and shall deliver such certificates to the owner. The architect and engineer shall be notified of all inspection requests at the same time as the inspection authority.

Provide temporary services as necessary to support all construction activities.

otherwise contained in the design documents. The contractor shall retain installation instructions, manufacturer's packing documents, etc., for all life safety related equipment as evidence to

defective, correct it promptly at no cost to the building owner.

Warrant all materials, equipment, and workmanship shown or implied by these documents to be free of defects for a period of one year, starting from the time of acceptance by the building owner. If within one year after the acceptance date any work or equipment is found to be

Provide appropriately-rated equipment and device enclosures. Equipment and devices installed anywhere outdoors or at indoor washdown

assemblies penetrated shall be draft-stopped with materials common to the construction of the wall, floor, slab, or ceiling. All pipes, conduits, and wiring penetrating block walls or slabs shall be sleeved.

UTILITY AND BUILDING OWNER'S REPRESENTATIVE COORDINATION: Utility regulations shall govern service connections and metering provisions.

the appropriate utility. Coordinate all outages and down-time that will impact building tenants with the authorized representative of the building owner.

for all rated assemblies.

All devices and equipment shall be turned "on" and "off", switched, used, etc., to demonstrate proper installation and satisfactory operation. In particular, HVAC dampers shall be tested after installation and restored to full capability at the conclusion of the testing.

domestic cold and hot water piping systems, fixtures, and equipment as described or implied by the design documents.

PLUMBING SPECIFICATIONS

See additional notes and Plumbing Fixture Schedule on Drawing PME2.

876, or schedule 80 CPVC conforming to ASTM F 441 with approved solvent.

Sanitary waste and vent lines shall be cast iron, ABS, DWV, and/or PVC Schedule 40.

ASTM D 2609. CPVC pipe fittings shall conform to ASTM F 437, ASTM F 438, and ASTM F 439.

 $\frac{1}{8}$ " per linear foot.

Install shut off valves for each plumbing fixture.

FIXTURES AND EQUIPMENT: All plumbing fixtures shall meet or exceed the descriptions on the drawings. See Plumbing Fixture Schedule on Drawing PME2.

Water closets, lavatories, urinals, and sinks shall be by American Standard, Kohler, Moen, Just, or Eljer.

Faucets, hydrants, valves, and other accessories shall be by Briggs, Mansfield, Delta, Kohler, Eljer, Sloan, or Moen.

Water piping shall be hydrostatically tested with potable water for two hours at no less than 100 psi.

STERILIZATION:

All electrical work to be done in accordance with the 2017 edition of the National Electrical Code. Electrical components and systems shall be

CONDUITS:

immediate metallic conduit (IMC) shall be used. See NOTE under "Other Requirements."

Flexible conduit connectors shall be steel compression types.

Secure conduits using manufactured, galvanized straps. Tie wire is not allowed.

**ELECTRICAL SPECIFICATIONS** 

Route all conduit concealed above ceilings, in walls or casework, or below grade. Route all conduits parallel or perpendicular to structural elements and in groups. When installed at the roof or ceiling, groupings shall be single depth and tight against the structure.

exterior of the building shall be buried 2'-0" minimum under roadways and parking areas. Rigid nonmetallic conduit may be used only for the secondary underground service, the underground telephone service conduit, and branch

All PVC components of the PVC conduit system shall be furnished from the same manufacturer and used specifically for their intended purpose.

Conductors shall be copper, THHN/THWN, solid for #10 AWG through #14 AWG, and stranded for all larger sizes. Control circuit conductors

Verify that the electrical characteristics of the circuit(s) are correct prior to energizing the equipment.

electrical power to each piece of equipment based upon the manufacturer's wiring diagrams and unit mounted nameplates. The conduit and neutral conductors of the electrical system and all electrical equipment shall be grounded. Provide an insulated equipment

Switches shall be quiet operating types rated 20A.

All coverplates shall be plastic types.

POWER EQUIPMENT: Load centers shall be dead-front safety type with full height, aluminum bussing, and a nominal 22 inches wide cabinet. All circuit breakers shall

Safety switches shall be general duty, quick-make, quick-break, types of the size and fuse ampacity as denoted on the drawings. Provide ground bus, solid neutral (when circuit has a neutral), Class RK-5 dual element time delay fuses, rejection type fuse holders, and NEMA rated enclosure.

Ceiling mounted or suspended light fixtures shall be supported by a method rate at least five times the support weight. The method shall also

and other items required for a complete operating telephone service.

Cable television includes equipment not provided by the cable company and may include service entrance equipment, outlets, and other items

Coordinate installation of items provided by the telephone, cable, and network providers.

OTHER REQUIREMENTS: Provide fuses for all equipment requiring fuses and lamps for every light fixture.

4 XX/XX/XX

# **GENERAL PLUMBING NOTES**

- WASTE, VENT, AND POTABLE WATER SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS AS SET FORTH IN THE 2018 INTERNATIONAL BUILDING CODE AND THE 2018 INTERNATIONAL PLUMBING CODE.
   PREPLAN ALL WORK PRIOR TO ORDERING, PURCHASING, OR FABRICATING ANY PART OF THE WORK
- DESCRIBED BY THIS DRAWING.

  3. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS WITH EXISTING FIELD CONDITIONS OR THE
- WORK OF OTHER TRADES.

  4. RESOLVE ALL CONFLICTS PRIOR TO INCURRING ANY MATERIAL OR LABOR EXPENSES.
- 5. COMPLY WITH THE MANUFACTURER'S TECHNICAL INSTRUCTIONS WHEN INSTALLING PLUMBING FIXTURES, MATERIALS, AND DEVICES.6. LOCATE FIXTURES AND EQUIPMENT GENERALLY AS SHOWN ON THE PLANS; HOWEVER, COORDINATE
- LOCATIONS WITH ACTUAL FIELD CONDITIONS TO PRESERVE ALL CODE-REQUIRED AND MANUFACTURER-REQUESTED SERVICE CLEARANCES.
- COORDINATE ROUTING OF ALL PIPING WITH BUILDING STRUCTURE AND WITH THE WORK OF OTHER TRADES.
- 8. INSULATE ALL NEW COLD AND HOT WATER PIPING.
- 9. ALL WORK SHALL BE IN COMPLIANCE WITH LOCAL, STATE, AND NATIONAL CODES.10. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- 11. CONTRACTOR SHALL FURNISH AND INSTALL DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR METALS.
- 12. CONTROLO SHALL FURNISH AND INSTALL ESCUTCHEONS AND COVER PLATES AT ALL FINISHED WALL
- 13. PIPING SHALL BE DISINFECTED IN ACCORDANCE WITH STATE AND LOCAL CODE.

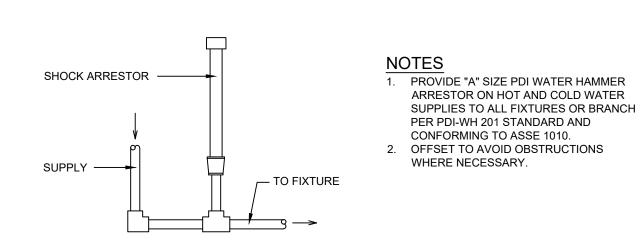
  14. ALL PIPING SHALL BE TESTED FOR LEAKS. IF ANY LEAKS ARE DETECTED THE PIPING SHALL BE
- 14. ALL PIPING SHALL BE TESTED FOR LEAKS. IF ANY LEAKS ARE DETECT
  REPAIRED, RESOLDERED OR REPLACED AND RETESTED.
- 15. ALL SOLDER SHALL BE OF THE LEAD FREE TYPE.
   16. WATER DISTRIBUTION PIPING SHALL BE CROSS-LINKED POLYETHYLENE (PEX) TUBING CONFORMING TO ASTM F 877. ALL HOT WATER DISTRIBUTION PIPING SHALL HAVE A MINIMUM PRESSURE RATING OF 100 PSI
- AT 180 F. UNDERGROUND PIPING LARGER THAN ¾" SHALL BE SCHEDULE 80 CPVC PIPE CONFORMING TO ASTM F-441. CPVC PIPE FITTINGS SHALL CONFORM TO ASTM F 437/ASTM F 438/ASTM F 439.

  17. WASTE AND VENT PIPING SHALL BE POLYVINYL CHLORIDE (PVC) PLASTIC SCHEDULE 40 PIPE (TYPE DWV) CONFORMING TO ASTM D 2665/ASTM D 2949/ASTM F 1488 OR CAST IRON PIPING CONFORMING TO ASTM A
- 74/ASTM A 888. PVC PIPE FITTINGS SHALL CONFORM TO ASTM D 2665/ASTM D 3311/ASTM F 1866. CAST IRON PIPE FITTINGS SHALL CONFORM TO ASME B 16.4/ASME B 16.12/ASTM A 74/ASTM A 888/CISPI 301.

  18. MAIN WASTE PIPING (3") SHALL HAVE A MINIMUM 0.125" PER 12" SLOPE. ALL BRANCHES SHALL HAVE A MINIMUM 0.25" PER 12" SLOPE.
- 19. GENERAL CONTRACTOR TO PROVIDE PRE-MOLDED PIPE SEALS COMPATIBLE WITH ROOFING MATERIALS FOR ALL VENTS THROUGH THE ROOF.
- 20. PIPING SYSTEMS SHALL COMPLY WITH THE PROVISIONS IN SECTION 13.6.7 OF ASCE 7-16.
  21. SEE ADDITIONAL NOTES ON DRAWING PME1.

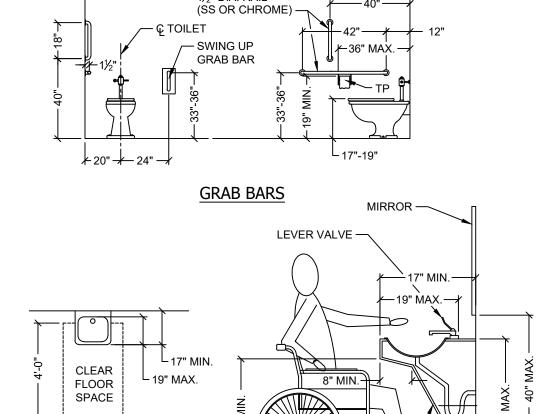
# PLUMBING FIXTURE SCHEDULE

- P-1 HANDICAPPED WATER CLOSET, FLOOR MOUNTED, WATER SAVER TYPE (1.6 GAL/FLUSH), ELONGATED BOWL, OPEN FRONT SEAT, COVER AND SUPPLY;ELJER MODEL# 091-2175 OR EQUAL, WHITE WITH FLUSH ACTUATOR.
- P-2 SINGLE COMPARTMENT SELF RIMMING UNIMOUNT CAST IRON SINK MOUNTED 34" AFF; ELJER MODEL#212-1083 OR EQUAL, WHITE. SUPPLY WITH ELJER MODEL# 35820030 ADA COMPLIANT, POLISHED CHROME FAUCET OR EQUAL.
- P-3 2.5 GALLON ELECTRIC WATER HEATER, 1.2 KW; HOME HEATING PRODUCTS MODEL# HHP2.5, OR EQUAL.



<u></u> 2'-6" —,

# DETAIL A SHOCK ARRESTOR



# HANDICAP RESTROOM DETAILS

# **WASTE & VENT LEGEND**

VASIE	VENI LEGE
	VENT
	WASTE BELOW SLAB
	WASTE BELOW GRADE
1	KEY NOTE NUMBER
VTR	VENT THROUGH ROOF

# NOTES KEYED TO PLANS

- INSTALL SPLASH SHIELD ON GROUND FOR DRAINAGE PIPES FROM WATER HEATER.
- STUB 5 FEET FROM BUILDING. INSTALL BALL VALVE IN C.I. BOX WITH BACKFLOW PREVENTER. CONTINUE TO MAIN POTABLE WATER SUPPLY.
- 1" INCOMING WATER SERVICE FROM FIRE STATION SEE SITE PLAN.

# POTABLE WATER LEGEND

	NEW COLD WATER PIPE
	NEW HOT WATER PIPE
Ф	BALL VALVE
ightharpoons	BACKFLOW PREVENTER
+	HOSE BIBB WITH VACUUM BREAKER A MINIMUM OF 6" ABOVE (IPC 608.15.4)
1	KEY NOTE NUMBER
BG	PIPING BELOW GRADE
IW	PIPING IN WALL

# ½"IW ¾"IW P-2 P-3 P-3 P-3

-¾" HOSE BIBB

CONTINUE TO SEPTIC

SEE SITE PLAN -

TRIPLE "D" GRINDER

SIZED BY OTHERS —

PUMP STATION

TANK AT FIRE STATION -

2" VTR

P-2

-----

**WASTE & VENT PLAN** 

**POTABLE WATER PLAN** 

# **GENERAL MECHANICAL NOTES**

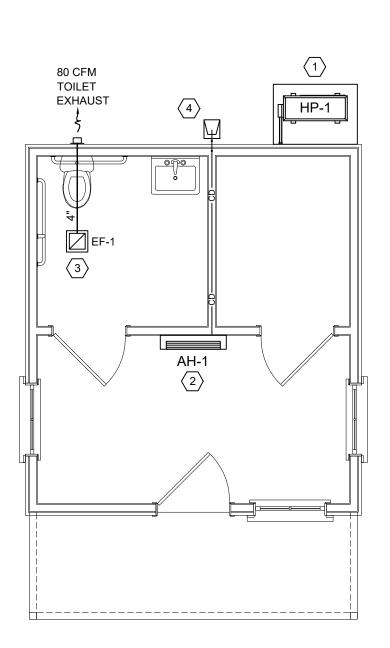
- HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS AS SET FORTH IN THE 2018 INTERNATIONAL BUILDING CODE AND THE 2018 INTERNATIONAL MECHANICAL CODE.
- 2018 INTERNATIONAL MECHANICAL CODE.2. PREPLAN ALL WORK PRIOR TO PURCHASING, ORDERING, OR FABRICATING ANY PART
- OF THE WORK DESCRIBED ON THESE DRAWINGS.

  3. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS WITH EXISTING FIELD CONDITIONS OR THE WORK OF OTHER TRADES.
- RESOLVE ALL CONFLICTS PRIOR TO INCURRING ANY MATERIAL OR LABOR EXPENSES.
   COMPLY WITH THE MANUFACTURER'S TECHNICAL INSTRUCTIONS WHEN INSTALLING MECHANICAL EQUIPMENT, DEVICES, AND OTHER MATERIALS. PROVIDE ALL APPRICAMENTAL DEVICES, AND
- 6. LOCATE EQUIPMENT GENERALLY AS SHOWN ON THE PLANS; HOWEVER, COORDINATE LOCATIONS WITH ACTUAL FIELD CONDITIONS TO PRESERVE ALL CODE-REQUIRED AND
- MANUFACTURER REQUESTED SERVICE CLEARANCES.

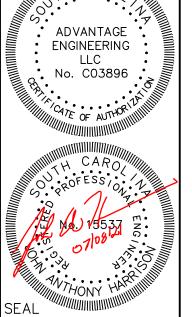
  7. COORDINATE THE ROUTING OF ALL PIPING WITH THE BUILDING STRUCTURE AND WITH THE WORK OF OTHER TRADES.
- 8. SEE SPECIFICATIONS ON DRAWING PME1 FOR ADDITIONAL REQUIREMENTS.
  9. HEATING AND COOLING LOADS BASED UPON A MAXIMUM OCCUPANCY OF 1 PERSON.
  10. MECHANICAL COMPONENTS SHALL BE SECURED TO THE BUILDING STRUCTURE/
- HEATING AND COOLING LOADS BASED UPON A MAXIMUM OCCUPANCY OF 1 PERSON.
   MECHANICAL COMPONENTS SHALL BE SECURED TO THE BUILDING STRUCTURE/ FOUNDATION IN ACCORDANCE WITH SECTION 13.6 OF ASCE 7-16 FOR SEISMIC DESIGN CATEGORY D2. PIPING SYSTEMS SHALL COMPLY WITH THE PROVISIONS IN SECTION 13.6.7 OF ASCE 7-16.

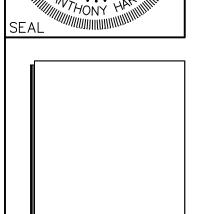
# **NOTES KEYED TO PLAN:**

- CARRIER MODEL# 38MHRBQ09AA3 HEAT PUMP CONDENSER (9,000 BTUH COOLING CAPACITY & 9,800 (47F) / 7,500 (17F) BTUH HEATING CAPACITY)
- CARRIER MODEL# 40MHHQ09---3 HEAT PUMP INDOOR UNIT. MOUNT BELOW CEILING IN ACCORDANCE WITH MANUFACTURER'S CLEARANCES.
- BROAN MODEL 684 CEILING EXHAUST FAN (80 CFM).
  INTERLOCK WITH BATHROOM LIGHTING AND
  PROVIDE WITH A BROAN MODEL# 885AL 4" HOODED
  WALL CAP.
- 4 ½" CONDENSATE DRAIN DOWN TO CONCRETE SPLASH BLOCK AT GRADE.



**MECHANICAL PLAN** 





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262 Whiteholl Avenue Phone: (843) 546 Georgeon, 1089 Fig. 1089 F

PLUMBING & MECHANICAL PLANS

DAM SWAMP RECYCLE CENTE

17 BIG DAM SWAMP DRIVE

ANDREWS, SC 29510

DWG BY: JAH
DSN BY: JAH
DATE: 07-08-21
SCALE: ½" = 1'-0"
REV# DATE
1 XX/XX/XX

3 XX/XX/XX

4 XX/XX/XX

SHEET NO.

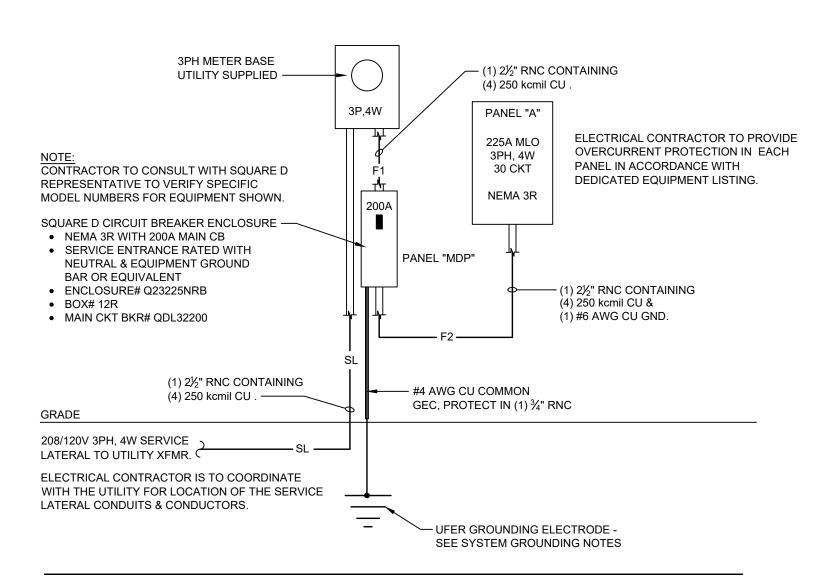
PME

## LOAD CALCULATIONS FOR: BIG DAM SWAMP RECYCLE CENTER 17 BIG DAM SWAMP DRIVE GEORGETOWN COUNTY, SC

SERVICE LOAD (208 SQ FT BUILDING) SERVICE: 208/120v 3PH, 4W						
CONNECTED LOAD	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA			
LIGHTS INTERIOR (Office Building - 3.5 VA/sf x 208 s EXTERIOR SIGN	0.728 0.013 0.000	1.00 1.25 1.25	0.728 0.016 0.000			
RECEPTACLES 1ST 10 KVA REMAINDER HVAC EQUIPMENT MISC EQUIPMENT KITCHEN EQUIPMENT WATER HEATERS LARGEST MOTOR (Compactor #3)	1.440 0.000 1.331 63.775 1.920 0.000 27.348	1.00 .50 1.00 1.00 1.00 1.25 .25	1.440 0.000 1.331 63.775 1.920 0.000 6.837			
TOTAL DEMAND KVA (NEC CALCULATED) 76.047 TOTAL DEMAND AMPS (NEC CALCULATED) 211.34A						
TOTAL NEUTRAL DEMAND KVA (NEC CALCULATED) 69.210 TOTAL NEUTRAL DEMAND AMPS (NEC CALCULATED) 192.34A						

# **POWER RISER DIAGRAM**

# **OUTSIDE WALL**



С	CONDUIT & CABLE SCHEDULE											
	COPPER											
COND.	COND.	TYPE	CAI	BLE/CONDUIT	*							
TAB	SIZE	TYPE	PHASE	NEUTRAL	EGC							
SL	(1)EA 2½"	RNC SCH 40	(3)EA 250kcmil	(1)EA 250kcmil								
F1	1 (1)EA RNC 2½" SCH		(3)EA 250kcmil	(1)EA 250kcmil								
F2	(1)EA 2½"	RNC SCH 40	(3)EA 250kcmil	(1)EA 250kcmil	(1)EA #6 AWG							

## \*NOTE: EACH CONDUIT CONTAINS NUMBER AND SIZE OF CONDUCTORS SPECIFIED IN THE TABLE (I.E., SOME OF THESE CIRCUITS REQUIRE PARALLEL CONDUCTORS FOR HOT AND

1. INSULATION FOR ALL CONDUCTORS TO BE RATED 75C OR GREATER, AND LISTED FOR WET LOCATIONS. 2. PROVIDE LISTED CONNECTORS AND FITTINGS FOR ALL CABLE CONNECTIONS. PREPARE ALL CABLES UTILIZING APPROVED METHODS IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

## **GENERAL ELECTRICAL NOTES**

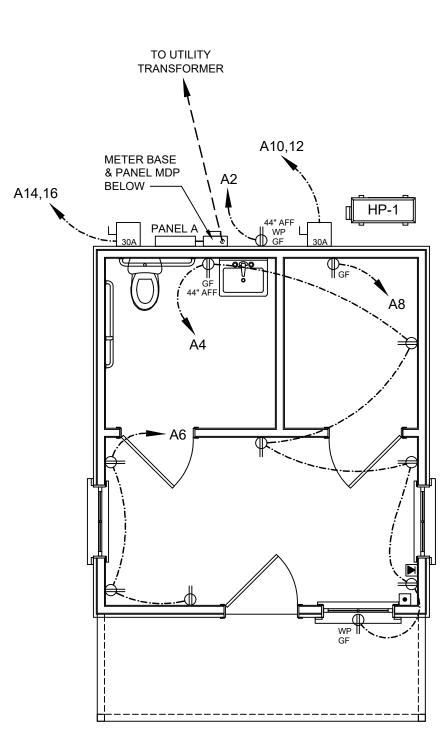
- 1. ALL ELECTRICAL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE 2017 EDITION OF THE NATIONAL
- ELECTRICAL CODE (NEC) AND TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. 2. THE ELECTRICAL CONTRACTOR IS TO COORDINATE WITH ALL OTHER TRADES, THE GENERAL CONTRACTOR, AND THE OWNER FOR THE PROPER PLACEMENT OF ALL ELECTRICAL EQUIPMENT, LIGHTING,
- 3. THE ELECTRICAL CONTRACTOR IS TO VERIFY ALL FIXED APPLIANCE AND EQUIPMENT NAMEPLATE RATINGS TO ASSURE PROPER OVERCURRENT PROTECTION AND CONNECTIONS PER THE 2017 NEC.
- 4. ALL WIRING IS TO BE PULLED ACCORDING TO THE APPLICABLE POWER RISER OR PANEL LEDGER
- 5. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONDUCTOR WIRING TO BE COPPER, 75C RATED OR
- GREATER AND LISTED FOR WET LOCATIONS. 6. INSTALL ALL WIRING IN LISTED RACEWAY OR CABLE SYSTEMS UTILIZING LISTED FITTINGS AND
- CONNECTORS. RACEWAYS AND WIRING SHALL BE RUN CONCEALED IN THE SLAB, WALLS AND CEILING, UNLESS CONDITIONS DICTATE OTHERWISE.
- 7. ALL PENETRATIONS OF WOOD STRUCTURAL MEMBERS BY ELECTRICAL OR COMMUNICATION CABLES SHALL BE SEALED UTILIZING AN APPROVED AND LISTED FIRESTOP.
- 8. SURFACE MOUNTED LIGHT FIXTURES SHALL BE MOUNTED AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

# PANEL "A"

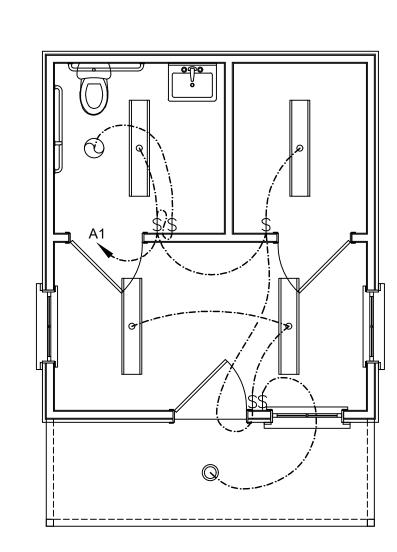
		\(\O\ \.T\(\)	OF. (	200/	100			DUO DATINO O		MOUNTING: SURFACE								
	VOLTAGE: 208/120 PHASE: 3 WIRE: 4							BUS RATING: 22 MCB RATING:	ACS	ENCLOSURE: NEMA 3R								
	MAIN DEVICE: MLO							KAIC RATING: 2	VENDOR: SQUARE D  MODEL NQ430L2C									
	CKT. NO.	BKR. SIZE	СО	NDL	JCT.	COND	CKT. LOAD	SERVICE	SERVICE		COND	CO H	NDU	JCT.	BKR. SIZE	CKT.		
			-			1/11	(KVA)	LIQUEO A DD FAN	DE0EDT40150 DE4D	(KVA)	1/11						┨.	
4	1	15A	14	14	14	1/2"	0.237	LIGHTS & RR FAN	RECEPTACLES - REAR	0.180	1/2"	12	12	12	20A	2	A	
3	3	20A						SPARE	RECEPTACLES - RIGHT	1.080	1/2"	12	12	12	20A	4	В	
	5	20A						SPARE	RECEPTACLES - LEFT	2.100	1/2"	12	12	12	20A	6	С	
4	7	<b> </b> 60A	4	4	10	1"	5.398		WATER HEATER	1.200	1/2"	12	12	12	20A	8	] A	
3	9	60A	4				5.398	COMPACTOR #1 (15 hp) 1	HEAT DI IMD (HD 1)	0.666	1/2"	14	14	14	15A	10	В	
	11	1 <sub>60A</sub>	4				5.398		HEAT PUMP (HP-1)	0.666		14	$\overline{\ }$	$\square$	15A	12	С	
١	13	<b> </b> 60A	4	4	10	1"	5.398		OF MEDILIFI OTATION	1.373	1/2"	10	10	10	30A	14	A	
3	15	60A	4				5.398	COMPACTOR #2 (15 hp) 1	SEWER LIFT STATION	1.373		10			30A	16	В	
;	17	1 <sub>60A</sub>	4				5.398									18	С	
`	19	125A	1/0	1/0	6	1½"	9.116									20	A	
3	21	125A	1/0				9.116	COMPACTOR #3 (30 hp) <sup>2</sup>								22	В	
,	23	1 <sub>125A</sub>	1/0	$\overline{Z}$			9.116									24	c	
١	25															26	] A	
3	27															28	] в	
,	29															30	С	

NO	/IES.
1.	PROVIDE WITH A 3-POLE 60A FUSIBLE DISCONNECT AT COMPACTOR. SUPPLY WITH 60A FUSES.
2	PROVIDE WITH A 3-POLE 125A FUSIBLE DISCONNECT AT COMPACTOR, SUPPLY WITH 110A FUSES

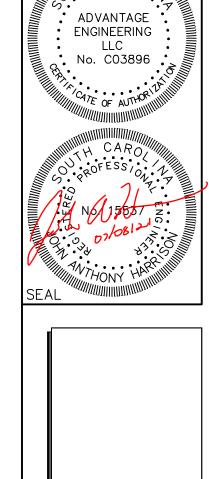
	ELECTRICAL SYMBOL LEGEND
0	RECESSED OUTDOOR CAN LIGHT - LITHONIA WF6 LL LED 27K BN; 12.7W
0	LED WRAPAROUND - LITHONIA LBL4 LP835 (CI-254RJY); 32W
$\bigcirc$	EXHAUST FAN
\$	SINGLE POLE SWITCH; MOUNT 44" AFF, UNO
$\rightarrow$	DUPLEX OUTLET, 120V; MOUNT 18" AFF, UNO, NEMA 5-20R
100A	NON-FUSIBLE DISCONNECT WITH RATING
•	PUSHBUTTON FOR COMPACTOR #1
	TELEPHONE/DATA CAT6 OUTLET
PANEL A	NEMA 3R SURFACE MOUNT CIRCUIT BREAKER PANEL
—··—➤ A4	FEEDER OR BRANCH CIRCUIT TO PANEL WITH CIRCUIT NUMBER
WP	WATERPROOF ENCLOSURE
GF	GROUND FAULT CIRCUIT INTERRUPT

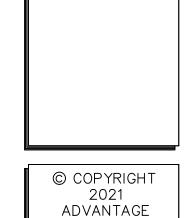


**POWER PLAN** 



LIGHTING PLAN





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DWG BY: JAH DSN BY: JAH DATE: 07-08-21 SCALE:  $\frac{1}{4}$ " = 1'-0" REV# DATE 1 XX/XX/XX 2 | XX/XX/XX | 3 XX/XX/XX

SHEET NO.

4 XX/XX/XX

# SYSTEM GROUNDING NOTES

# UFER GROUNDING ELECTRODE

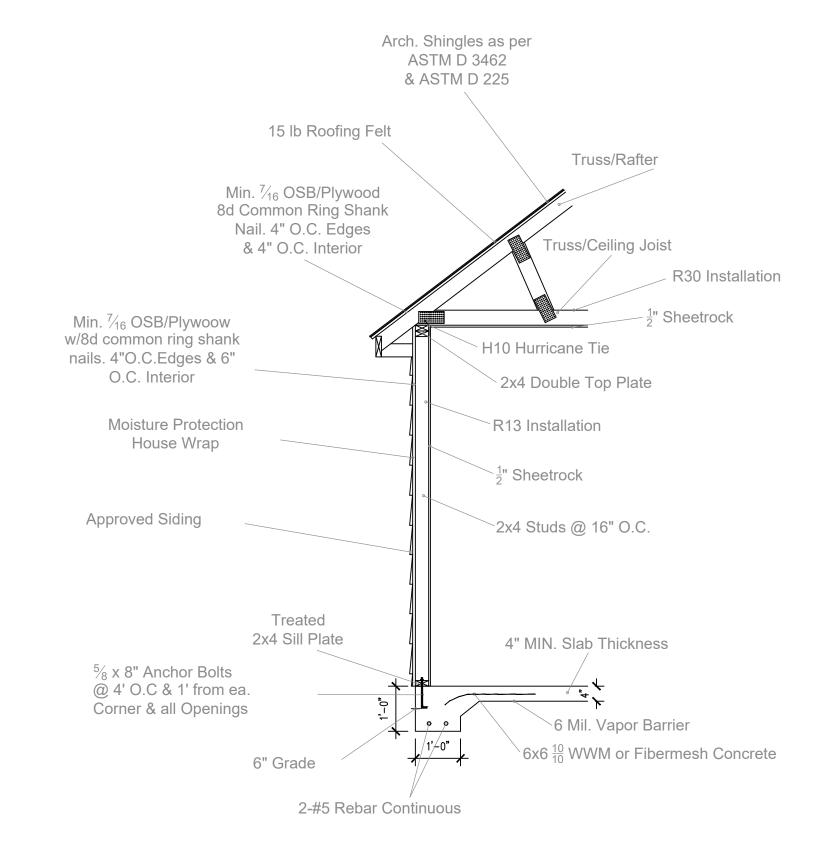
- THE UFER GROUNDING ELECTRODE SHALL CONSIST OF A MINIMUM OF 20 FT OF CONTINUOUS #4 (½") SIZED OR GREATER REBAR LOCATED NEAR THE BOTTOM OF THE BUILDING PERIMETER CONCRETE FOOTING. THE REBAR GROUNDING ELECTRODE MAY CONSIST OF SEVERAL PIECES OF REBAR WHICH HAVE BEEN SPLICED TOGETHER UTILIZING REBAR TIE WIRE TO OBTAIN THE REQUIRED 20 FT LENGTH.
- CONNECT THE UFER GROUNDING ELECTRODE TO THE #4 AWG GROUNDING ELECTRODE CONDUCTOR UTILIZING A GROUNDING CLAMP LISTED FOR ENCASEMENT.
- BRING THE GROUNDING ELECTRODE CONDUCTOR THROUGH THE FOOTING UTILIZING A RNC SLEEVE.
  TERMINATE THE #4 AWG GEC TO THE NEUTRAL BAR OF PANEL "MDP."
- 200A MAIN DISCONNECT PANEL "MDP"

  BOND THE NEUTRAL BAR TO THE BOX UTILIZING A FACTORY SUPPLIED MAIN BONDING JUMPER OR AN
- EQUIVALENT #2 AWG COPPER JUMPER. CONNECT EQUIPMENT GROUNDING BAR TO THE BOX.

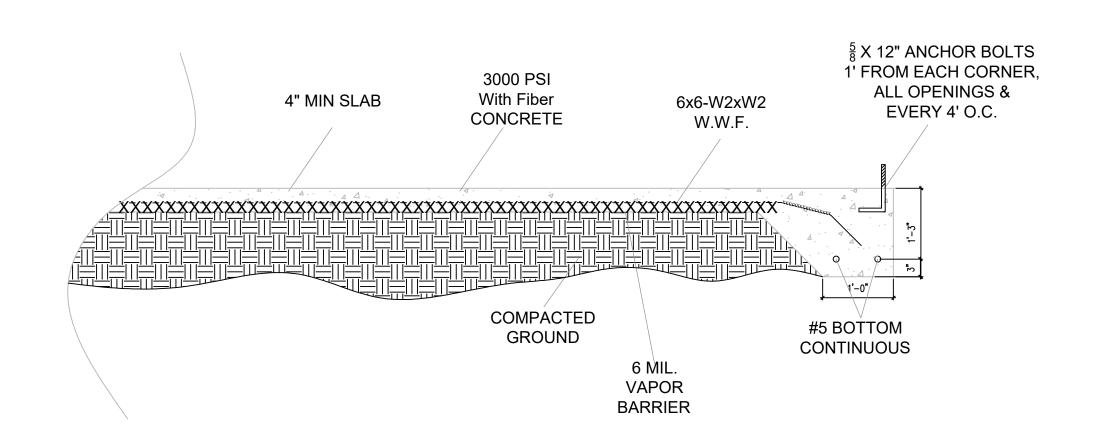
## CONNECT THE EQUIPMENT GROUNDING CONDUCTOR TO THE EQUIPMENT GROUNDING BAR.

- CONNECT NEUTRAL CONDUCTOR TO NEUTRAL BAR. CONNECT EQUIPMENT GROUNDING CONDUCTOR TO EQUIPMENT GROUND BAR.

• NO CONNECTIONS BETWEEN THE NEUTRAL AND EQUIPMENT GROUND ARE PERMITTED.

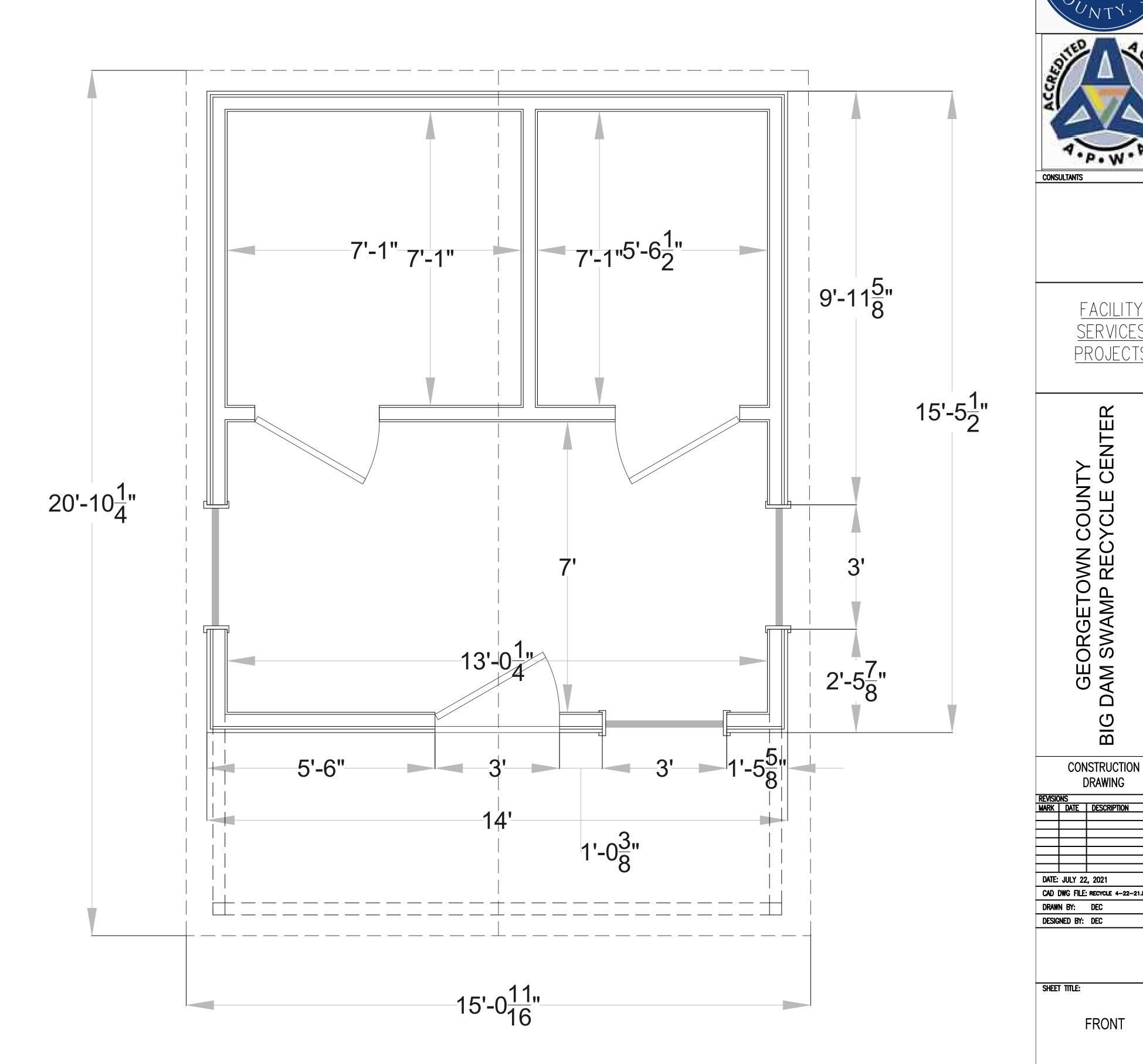


# MONOLITHIC WALL SECTION

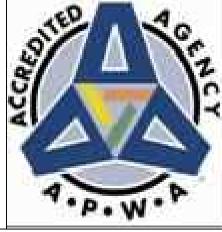


# MONOLITHIC SLAB

All wood framing members and sheathing shall comply with the specifications outlined in the 2018 International Building Code and American Forest & Paper Association's (AF&PA) 2018 Edition of the National Design Specification (NDS) for Wood Construction. Wood framing members for the roof and ceiling shall be minimum #2 Southern Yellow Pine (SYP) and the wall framing shall be minimum stud grade Spruce-Pine-Fir (SPF). See General Note 10 on Advantage Engineering Drawing S1. Sheathing shall be minimum APA rated OSB or plywood, exposure 1.







<u>FACILITY</u> <u>SERVICES</u> PROJECTS

GEORGETOWN COUNTY AM SWAMP RECYCLE CENTE

CONSTRUCTION **DRAWING** 

DATE: JULY 22, 2021 CAD DWG FILE: RECYCLE 4-22-21.DWG DRAWN BY: DEC DESIGNED BY: DEC

SHEET TITLE:

**FRONT** 

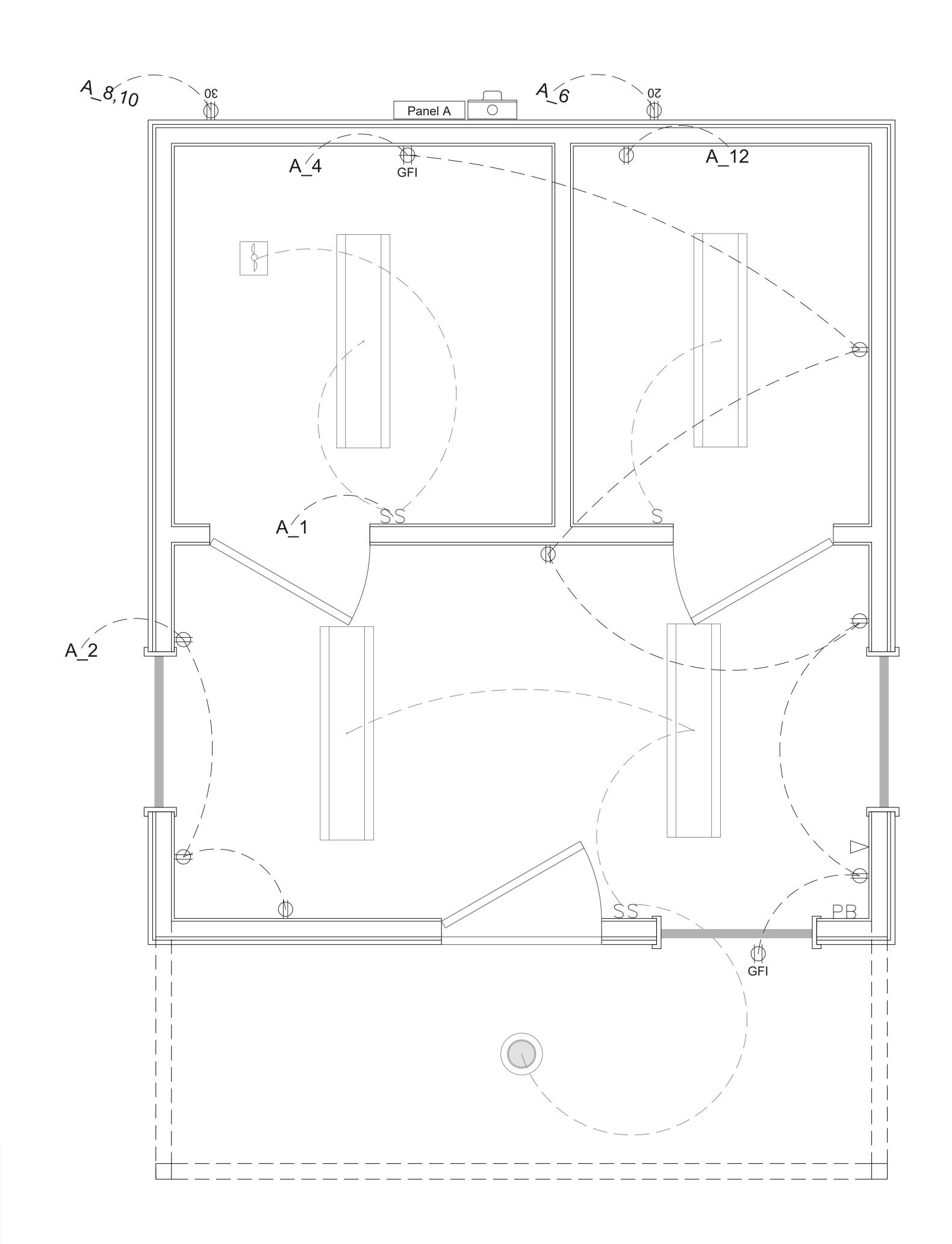
SHEET NO: A-100

		P A	N	Е		L A	
			120-208 volts,	3 Phase, 225	amp	p main breaker, NEMA 3	
1	20		Lights	2	20	Receptacles	
3				4	20	Receptacles	
5				6	20	Mini Split	
7				8	-30	Grinder Pump	
9	60	Cor	npactor #01	10	30	Lift Station	
11				12	20	Water Heater	
13				14			
15	60	Cor	npactor #02	16			
17				18			
19				20			
21	110	Con	npactor #03	22			
23				24			
25				26			
27				28			
29				30			

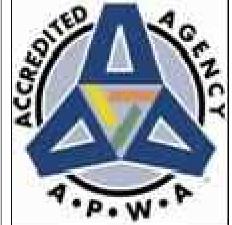
	E L	E C	Т	R	I	С	Α	L	N	0	Т	Е	S
1	S	Switch 4	48" Of	Finisl	hed F	loor (\	White)						
2	Ф	Recepta	acle 18	B" Off F	-inish	ned Flo	oor (W	hite)					
3	⊕ GFI	GFCI Re	ecepta	icle 42	2" Off	Finish	ned Flo	oor (Whi	ite)				
4	$\nabla$	Data/Pl	hone 1	18" Off	f Finis	shed F	loor (\	White)					
5	PB	Push bu	ıttons 1	for Co	mpac	tor #1							
6	Ф	Recepta	acle 18	8" Off F	-inish	ned Flo	oor (W	hite)					
7	∰ 30	30amp 2	208 vc	lt Rec	eptad	cle we	atherp	roof					
8	GFI	GFCI Re	ecepta	icle 18	3" Off	Finish	ned Flo	oor (Whi	ite)				
9													
10													
11													

. 1	G	Н	Т	S		N	0	Т	E	S		
A	I LED	ED surface mounted wrap around fixture										
	Led F	d Recessed Light Fixture										
8	Bath	exhaust f	an (NuT	one EZ80	N 80 cfn	)						
		LED Led F	LED surface m	LED surface mounted to Led Recessed Light Fig.	LED surface mounted wrap arou  Led Recessed Light Fixture	LED surface mounted wrap around fixture  Led Recessed Light Fixture	LED surface mounted wrap around fixture  Led Recessed Light Fixture	LED surface mounted wrap around fixture  Led Recessed Light Fixture	LED surface mounted wrap around fixture  Led Recessed Light Fixture	Led Recessed Light Fixture		

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CONSULTANT

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SERVICES
PROJECTS

GEORGETOWN COUNTY BIG DAM SWAMP RECYCLE CENTER

REVISIONS
MARK DATE DESCRIPTION

CONSTRUCTION DRAWING

DATE: JULY 22, 2021

CAD DWG FILE: RECYCLE 4-22-21.DWG

DRAWN BY: DEC

DESIGNED BY: DEC

SHEET TITLE:

ELECTRICAL

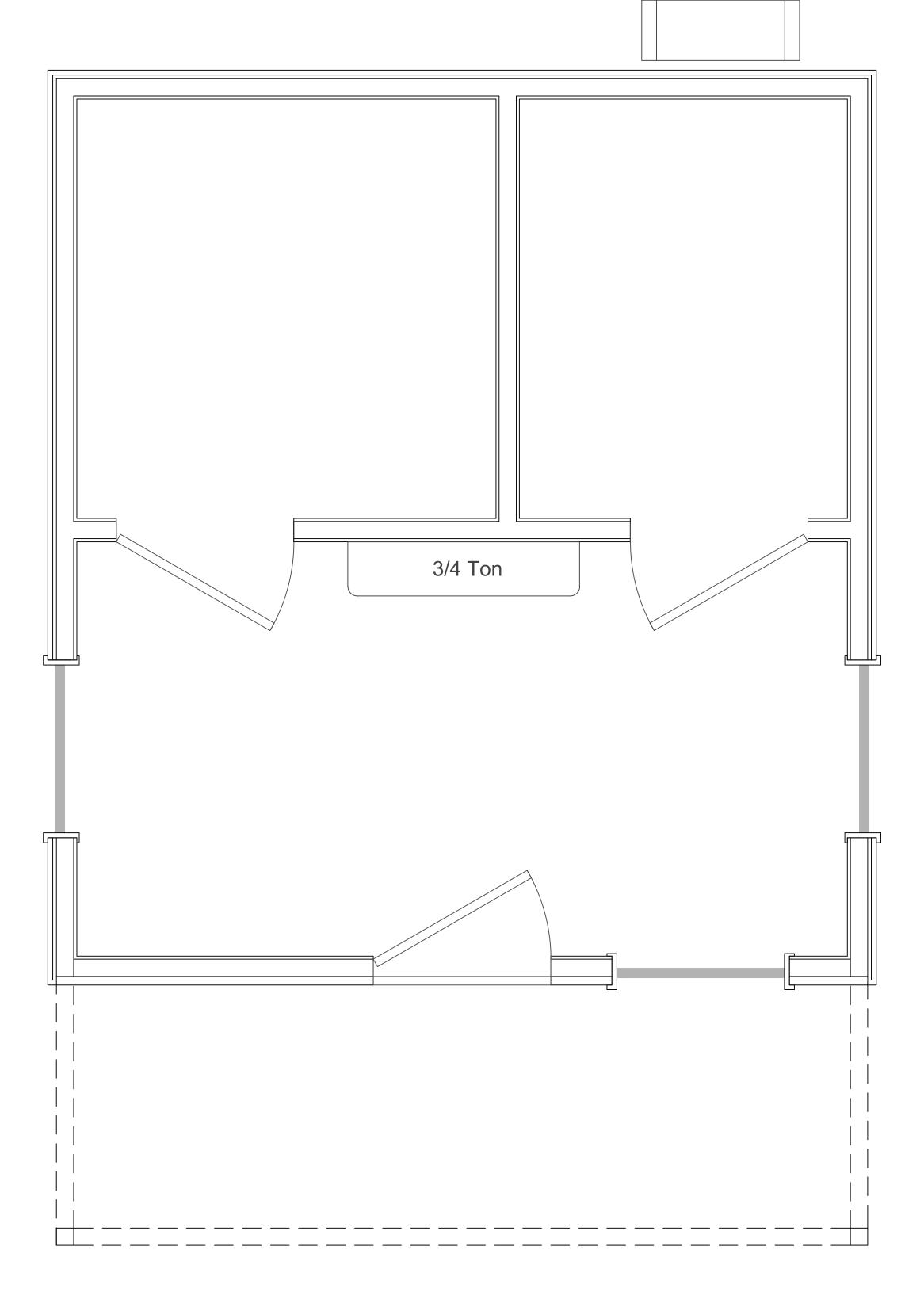
SCALE:

Not to scale

SHEET NO:

E-100

	M	Е	С	Н	А	N	I	С	L	N	0	Т	Е	S
1			900	0 BTU	Heat	Pump	wall n	nounte	d head	. Daikin oı	equiva	lent.		
2			Dra	in insta	all in w	all to d	Irain to	o the o	utside.					
3			Sur	ge Pro	tector	to be i	nstalle	ed on u	ınit.					
4														
5														
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7														
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11														
			1											







CONSULTAN

<u>FACILITY</u> <u>SERVICES</u> PROJECTS

GEORGETOWN COUNTY BIG DAM SWAMP RECYCLE CENTER

CONSTRUCTION DRAWING

REVISIO	<u>ins</u>	
MARK	DATE	DESCRIPTION
DATE:	JULY 22	2, 2021
CAD I	DWG FILE:	RECYCLE 4-22-21.DWG
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DESIG	NED BY:	DEC

SHEET TITLE:

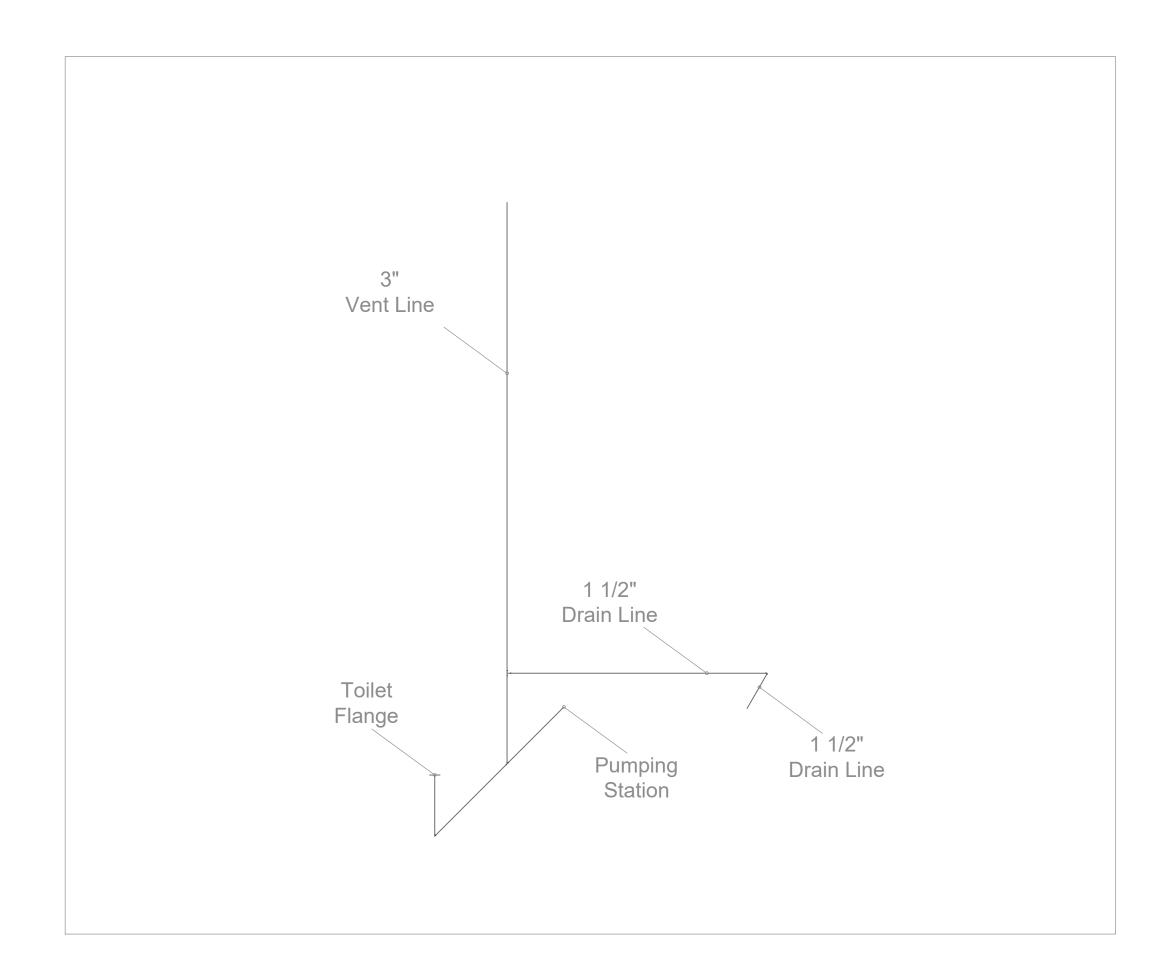
**MECHANICAL** 

SCALE:

Not to scale

SHEET NO: M\_100

All wood framing members and sheathing shall comply with the specifications outlined in the 2018 International Building Code and American Forest & Paper Association's (AF&PA) 2018 Edition of the National Design Specification (NDS) for Wood Construction. Wood framing members for the roof and ceiling shall be minimum #2 Southern Yellow Pine (SYP) and the wall framing shall be minimum stud grade Spruce-Pine-Fir (SPF). See General Note 10 on Advantage Engineering Drawing S1. Sheathing shall be minimum APA rated OSB or plywood, exposure 1.



Grinder Pump Station 1phase,2 HP, 230v Grinder 1" Main from Station Fire Station Compactor Hose Bibb

Triple "D"





CONSULTA

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PROJECTS

GEORGETOWN COUNTY BIG DAM SWAMP RECYCLE CENTER

CONSTRUCTION DRAWING

MARK	DATE	I DECODIDATION
		DESCRIPTION
DATE:	JULY 22	2, 2021
CAD [	OWG FILE:	RECYCLE 4-22-21.DWG
DRAWI	N BY:	DEC
DESIG	NED BY:	DEC

PLUMBING

SCALE:

Not to scale

SHEET NO:

E-100

All wood framing members and sheathing shall comply with the specifications outlined in the 2018 International Building Code and American Forest & Paper Association's (AF&PA) 2018 Edition of the National Design Specification (NDS) for Wood Construction. Wood framing members for the roof and ceiling shall be minimum #2 Southern Yellow Pine (SYP) and the wall framing shall be minimum stud grade Spruce-Pine-Fir (SPF). See General Note 10 on Advantage Engineering Drawing S1. Sheathing shall be minimum APA rated OSB or plywood, exposure 1.



## STRUCTURAL DESIGN

## PARTIALLY ENCLOSED (UTILITY) BUILDING

## MAXIMUM 30'-0" WIDE X 16'- 0" EAVE HEIGHT-BOX EAVE FRAME AND BOW FRAME

2 October 2020 Revision 0 M&A Project No. 20198S

Prepared for:

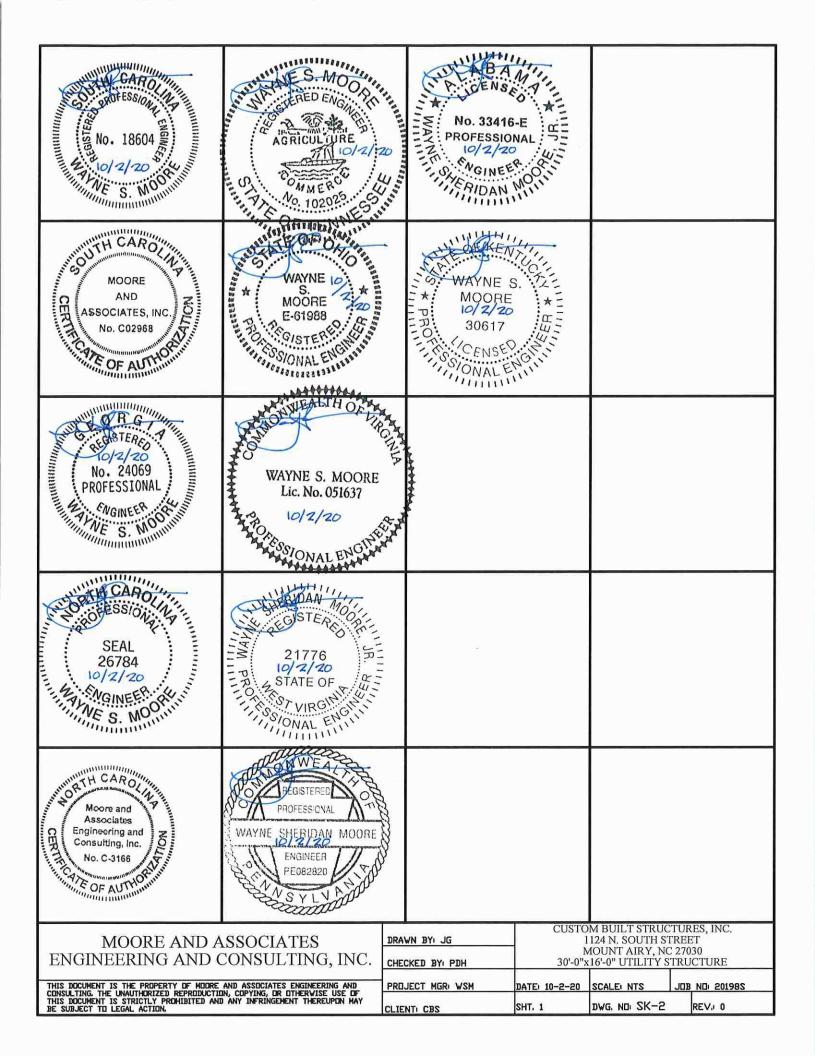
Custom Built Structures, Inc. 1124 N. South Street Mt. Airy, NC 27030

Prepared by:

Moore and Associates Engineering and Consulting, Inc. 1009 East Avenue North Augusta, SC 29841

> 401 S. Main Street, Suite 200 Mt. Airy, NC 27030





# DRAWING INDEX

SHEET 1	PE SEAL COVER SHEET
SHEET 2	DRAWING INDEX
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SHEET 4	TYPICAL SIDE AND END ELEVATIONS
SHEET 5	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOX EAVE RAFTER)
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SHEET 14	LEAN-TO OPTIONS (BOX EAVE RAFTER)
SHEET 14A	LEAN-TO OPTIONS (BOX EAVE RAFTER)
SHEET 15	LEAN-TO OPTIONS (BOW EAVE RAFTER)
SHEET 16	VERTICAL ROOF/SIDING OPTION END AND SIDE ELEVATION AND SECTION (BOX EAVE RAFTER)
SHEET 17	SIDE WALL AND END WALL HEADER OPTIONS

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THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND	PROJECT MGR: WSM	DATE: 10-2-20	SCALE: NTS	28103 IDI 80L				
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE					
MOORE AND ASSOCIATES	DRAWN BY: JG	1	CUSTOM BUILT STRUCTURES, INC. 1124 N. SOUTH STREET					

### INSTALLATION NOTES AND SPECIFICATIONS

- 1. DESIGN IS FOR MAXIMUM 30'-0' WIDE  $\times$  16'-0' EAVE HEIGHT OPEN UTILITY STRUCTURES.
- 2. DESIGN WAS DONE IN ACCORDANCE WITH THE 2018 NORTH CARGLINA BUILDING CODE (NCBC), 2018 INTERNATIONAL BUILDING CODE (IBC), 2015 IBC AND 2012 IBC.
- 3. DESIGN LUADS ARE AS FULLUWS:

A) DEAD LOAD = 1.5 PSF
B) LIVE LOAD = 12 PSF
C) GROUND SNOW LOAD = 45 PSF

= 30 PSF WITH U-CHANNEL PEAK BRACE (W < 24'-0")

NOTE: UNBALANCED SNOW LOAD DUE TO DRIFTING HAS NOT BEEN EVALUATED.

- 4. 3-SECTIND GUST ULTIMATE WIND SPEED (  $V_{ULT}$ )  $\leq$  145 MPH (NOMINAL WIND SPEED  $\leq$  112 MPH).
- 5. MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 5.0 FEET (UNLESS NOTED OTHERWISE).
- 6, ENDWALL COLUMNS (POSTS) AND SIDE WALL COLUMNS ARE EQUIVALENT IN SIZE AND SPACING (UNLESS NOTED OTHERWISE).
- 7. RISK CATEGORY I.
- 8. WIND EXPOSURE CATEGORY B.
- 9. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" × 2 1/2" 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED OTHERWISE), 2 1/4" × 2 1/4" 12 GAUGE TS MAY BE USED AS OPTIONAL FRAMING MEMBERS.
- 10. AVERAGE FASTENER SPACING DN-CENTERS ALONG RAFTERS OR HAT CHANNELS, AND COLUMNS (INTERIOR DR END) = 10 INCHES
- 11. FASTENERS CONSIST OF #12-14x3/4' SELF-DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS.

  SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 16 FEET OR LESS, AND ROOF SLOPES OF 14' (3/12 PITCH) OR LESS SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY, ROOF SLOPES LESS THAN 3/12 REQUIRE USE OF JOINT SEALANT.
- 12. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6° OF EACH COLUMN.
- 13. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR W/ WELDED NUT x 36' LONG AND MAY BE USED IN SUITABLE SOILS. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED.
- 14. WIND FORCES GOVERN OVER SEISMIC FORCES, SEISMIC PARAMETERS ANALYZED ARE

SOIL SITE CLASS = D RISK CATEGORY I

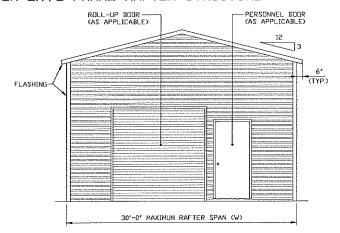
R= 3.25  $I_E= 1.0$   $V= C_5 W$ 

S<sub>B1</sub>= 1.258 g

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 CHECKED BY: PDH	1124 N. SOUTH STREET MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE				
PROJECT MGR: VSM	DATE: 10-2-20 SCALE: NTS JOB NO: 20198				
		DWG. NO SK-2			

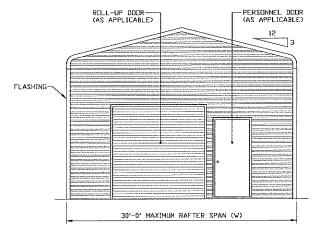
## BOX EAVE FRAME RAFTER STRUCTURE



## TYPICAL END ELEVATION

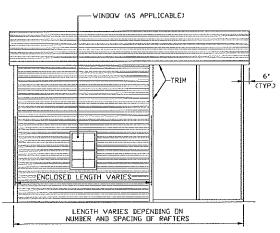
SCALE: NTS

## BOW EAVE FRAME RAFTER STRUCTURE



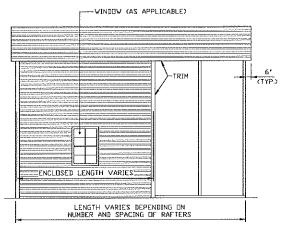
## TYPICAL END ELEVATION

SCALE: NTS



## TYPICAL SIDE ELEVATION

SCALE: NTS



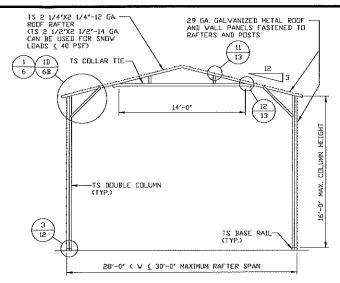
## TYPICAL SIDE ELEVATION

SCALE: NTS

	MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC	ζ.
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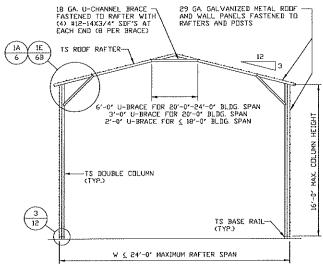
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CURSUL IN	G, INE UNNUINDENE	CD KELKUDOCIJON, (	A THEOTICE MAIN	THE COLUMN
		prohibited and an	1 THE KTHOP WE'VE	I MEREUPLIN MAT
IBE SUBJEC	T TO LEGAL ACTIO	N.		

		CUSTOM BUILT STRUCTURES, INC.						
	DRAWN BY: JG	1	1124 N. SOUTH STREET					
,		MOUNT AIRY, NC 27030						
PRUJECT MGR: WSM  DRAWN BY: JG  CHECKED BY: PDH  30'-0"x  DATE: 10-2-20	16'-0" UTILITY STRUCTURE							
	PROJECT MGR: WSM	DATE: 10-2-20	SCALE: NTS	JOB NO: 201982				
	CLIENT: CBS	SHT. 4	DWG, NO: SK-2	REV. 0				

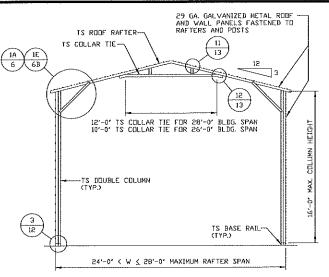


## TYPICAL RAFTER/COLUMN FRAME SECTION

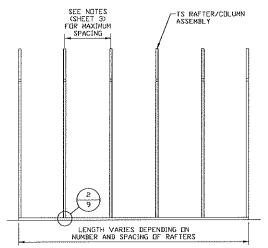
SCALE: NTS



TYPICAL RAFTER/COLUMN FRAME SECTION SCALE: NTS



TYPICAL RAFTER/COLUMN FRAME SECTION SCALE: NTS

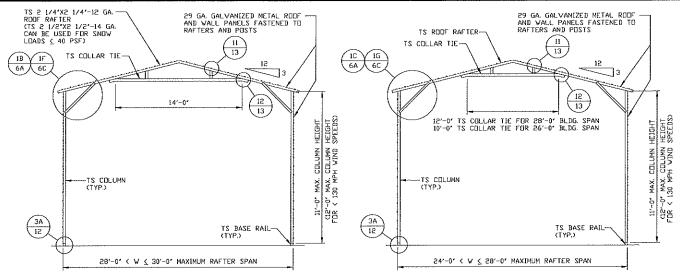


TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION SCALE: NTS

MOORE AND ASSOCIATES	
ENGINEERING AND CONSULTING, INC.	

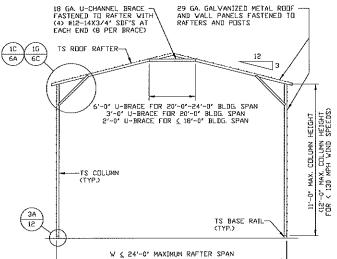
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	IE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF
	IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY
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	CLIENT: CBS	SHT, 5	DWG. NO SK-2	REV₁ 0			
	PROJECT MGR: VSM	DATE: 10-2-20	SCALE: NTS	JUB NO 20198S			
·.	CHECKED BY: PDH	30'-0"x16'-0" UTILITY STRUCTURE					
	DRAWN BYI JG	1124 N. SOUTH STREET MOUNT AIRY, NC 27030					
		CUSTO	CUSTOM BUILT STRUCTURES, INC.				



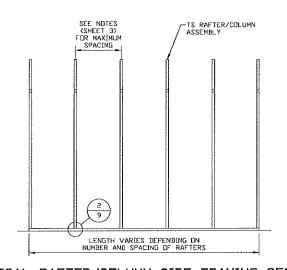
## TYPICAL RAFTER/COLUMN FRAME SECTION

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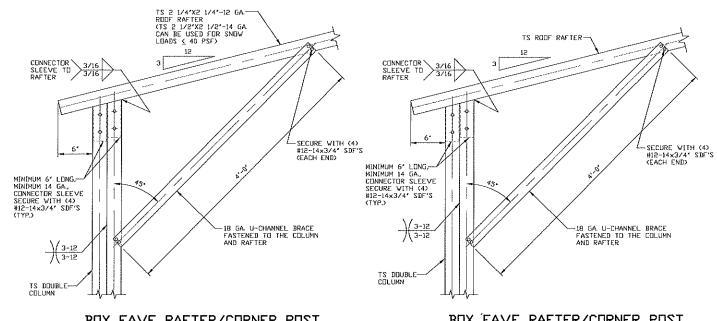
# TYPICAL RAFTER/COLUMN FRAME SECTION SCALE: NTS

# TYPICAL RAFTER/COLUMN FRAME SECTION SCALE: NTS



# TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION SCALE: NTS

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ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE		
MOORE AND ASSOCIATES	DRAWN BYI JG	] 1	M BUILT STRU 1124 N. SOUTH :	STREET



BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL

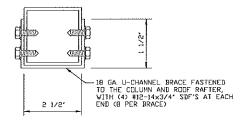
FOR HEIGHTS 11'-0' < TO < 16'-0'

SCALE: NTS

BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL

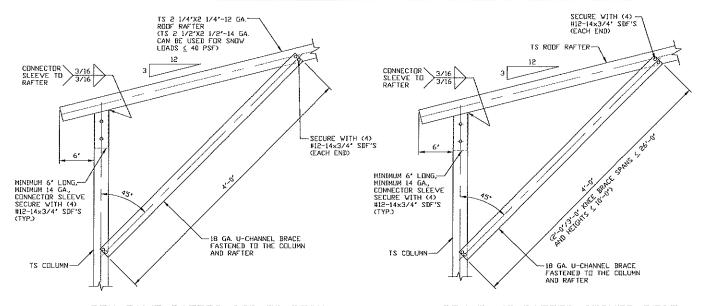
FOR HEIGHTS 11'-0" < TO < 16'-0"

SCALE: NTS



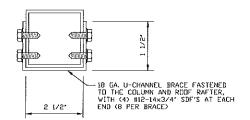
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ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		10UNT AIRY, NO 16'-0" UTILITY S	
MOORE AND ASSOCIATES	DRAWN BYI JG		M BUILT STRUC 124 N. SOUTH S'	



BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS & 11'-0'

BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS & 11'-0'



BRACE SECTION SCALE NTS

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ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE		
MOORE AND ASSOCIATES	BRAWN BY: JG		M BUILT STRUC 124 N. SOUTH ST	

# **FOR WIND SPEEDS ≤ 130 MPH** TS 2 1/4'X2 1/4'-12 GA.-RODF RAFTER (TS 2 1/2'X2 1/2'-14 GA. CAN BE USED FOR SNOW LOADS & 40 PSF) TS ROOF RAFTER CONNECTOR 3/16 SLEEVE TO 3/16 RAFTER CONNECTOR 3/16 SLEEVE TO 3/16 RAFTER 3/16 -SECURE WITH (4) #12-14x3/4' SDF'S (EACH END) -SECURE WITH (4) #12-14x3/4" SDF'S (EACH END) MINIMUM 6' LONG,— MINIMUM 14 GA., CONNECTOR SLEEVE SECURE WITH (4) #12-14×3/4' SDF'S (TYP.) MINIMUM 6' LENG, MINIMUM 14 GA., CONNECTOR SLEEVE SECURE WITH (4) #12-14x3/4' SDF'S (TYP.) 3-12 -18 GA. U~CHANNEL BRACE FASTENED TO THE COLUMN AND RAFTER -18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND RAFTER TS DOUBLE TS DOUBLE COLUMN BOX EAVE RAFTER/CORNER POST BOX EAVE RAFTER/CORNER POST

1E

1D

CONNECTION DETAIL

18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND ROOF RAFTER, WITH (4) #12-14x3/4' SDF'S AT EACH END (8 PER BRACE) 2 1/2\*

FOR HEIGHTS 12'-0" < TO < 16'-0"

BRACE SECTION SCALE: NTS

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 :	CUSTO	M BUILT STRUC	TUR	ES, INC.
DRAWN BY: JG	1	124 N. SOUTH ST	REE	ET
	N	IOUNT AIRY, NO	270	30
CHECKED BY: PDH	30'-0"x	16'-0" UTILITY S'	TRU	CTURE
PROJECT MGR: WSM	DATE: 10-2-20	SCALE: NTS	JUB	ND: 201982
CLIENT: CBS	SHT. 6B	שאמי אםי SK-5		REV.i 0

CONNECTION DETAIL

SCALE: NTS

FOR HEIGHTS 12'-0" < TO < 16'-0"

# FOR WIND SPEEDS ≤ 130 MPH TS 2 1/4'Y2 1/4'-12 GA. ROUT RAFTER (TS 2 1/2'Y2 1/2'-14 GA CAN BE USED FOR SNOW LOADS (4 0 PSF) 12 CONNECTOR SLEEVE TO 3/16 SLEEVE TO 3/16 NINIMUM 6' LONG, MINIMUM 14 GA. CONNECTOR SLEEVE SCENEE WITH (4) RAFTER MINIMUM 14 GA. CONNECTOR SLEEVE SCENEE WITH (4) RIP-14/3/4' SDF'S (TYP.) TS COLUMN TS ROUT RAFTER 12 AND RAFTER TS COLUMN TS ROUT RAFTER 12 SECURE WITH (4) RIP-14/3/4' SDF'S (TYP.) TS COLUMN TS ROUT RAFTER 12 SECURE WITH (4) RIP-14/3/4' SDF'S (TYP.) TS COLUMN TS COLUMN

BOX EAVE RAFTER/CORNER POST

CONNECTION DETAIL

SCALE: NTS

1G

FOR HEIGHTS ≤ 12'-0"

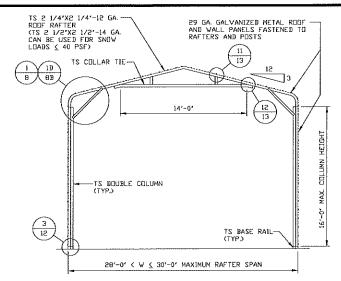
BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL

FOR HEIGHTS \( \frac{12'-0'}{5CALE: NTS} \)

18 GA. U-CHANNEL BRACE FASTENED
TID THE CELLUMN AND RODF RAFTER,
WITH (4) HIZ-14x3/4' SDF'S AT EACH
END (8 PER BRACE)

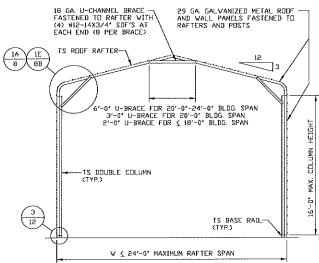
BRACE SECTION SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: JG	CUSTOM BUILT STRUCTURES, INC. 1124 N. SOUTH STREET MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE			ET <sup>*</sup> 30
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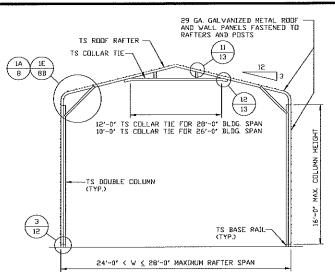


### TYPICAL RAFTER/COLUMN FRAME SECTION

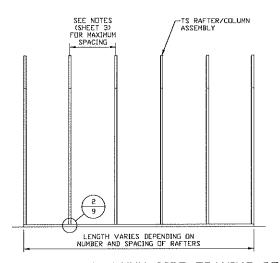
SCALE: NTS



# TYPICAL RAFTER/COLUMN FRAME SECTION SCALE: NTS



# TYPICAL RAFTER/COLUMN FRAME SECTION SCALE: NTS

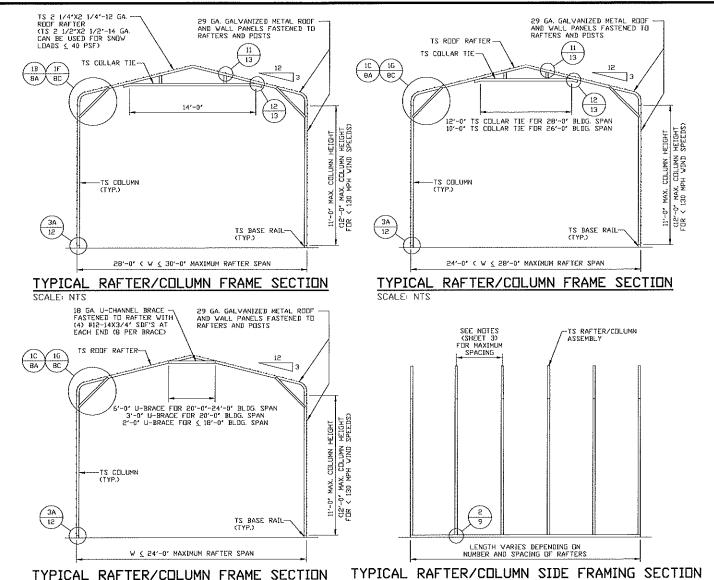


TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION SCALE: NTS

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

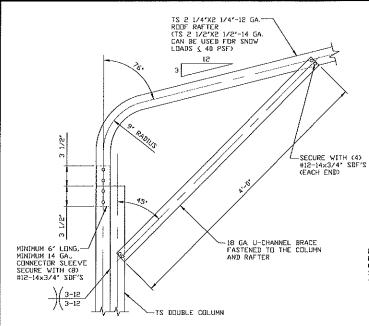
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			DWG, ND: SK-2		REV₁ 0	
	PREJECT MGR: WSM	DATE: 10-2-20	SCALE: NTS	JOB	ND: 20198S	
l ′•	CHECKED BY: PDH		IOUNT AIRY, NC 16'-0" UTILITY S			
	DRAWN BY: JG		M BUILT STRUC 124 N. SOUTH ST			1



**TYPICAL** RAFTER/COLUMN FRAME SECTION SCALE: NTS SCALE: NTS

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ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		MOUNT AIRY, NO 16'-0" UTILITY S	
MOORE AND ASSOCIATES	DRAWN BY: JG		M BUILT STRUC 124 N. SOUTH S	,



BOW EAVE RAFTER/CORNER POST CONNECTION DETAIL

FOR HEIGHTS 11'-0" < TO \( \) 16'-0"

MINIMUM 6' LONG,

MINIMUM 6' LONG,

MINIMUM 14 GA,

CONNECTOR SLEEVE
SECURE WITH (4)

18 GA. U-CHANNEL BRACE
FASTENED TO THE COLUMN

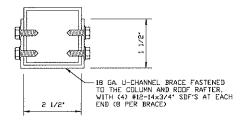
AND RAFTER

TS DOUBLE COLUMN

BOW EAVE RAFTER/CORNER POST CONNECTION DETAIL

FOR HEIGHTS 11'-0" < TO < 16'-0"

SCALE NTS

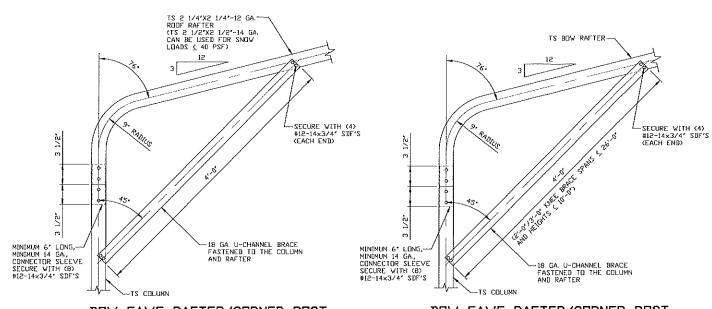


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PROJECT MGR: WSM				
CLIENT: CRS	SHT. 8	DVG. NO SK-2	REV. 0	$\dashv$
	CHECKED BY: PDH PROJECT MGR: WSM	CHECKED BY PDH         30'-0"           PROJECT MGR: WSM         DATE: 10-2-20	CHECKED BY PDH 30'-0"x16'-0" UTILITY S  PROJECT MGR WSM DATE 10-2-20 SCALE NTS	PROJECT MGR: WSM DATE: 10-2-20 SCALE: NTS JOB NO: 20198S

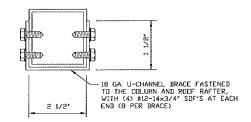


BOW EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS < 11'-0" SCALE: NTS

1C

BOW EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS ≤ 11'-0'

SCALE: NTS



BRACE SECTION SCALE: NTS

1B

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DRAWN BY: JG

CUSTOM BUILT STRUCTURES, INC. 1124 N. SOUTH STREET MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE 20198S IDN 80L SCALE: NTS

ECKED BY: PDH DJECT MGR: WSM DATE: 10-2-20 SHT. 8A DAC NO 2K-5 REV. 0 ENT: CBS

# FOR WIND SPEEDS ≤ 130 MPH TS 2 1/4'X2 1/4'-12 GA. RIGH RAFTER (1S 2 1/2'-14 GA. CAN BE USED FOR SNOW LUADS ( 40 PSF) SECURE WITH (4) B12-14x3/4' SDF'S GEACH END) SECURE WITH (4) B12-14x3/4' SDF'S GEACH END SECURE WITH (4) B12-14x3/4' SDF'S GEACH END SECURE WITH (4) B12-14x3/4' SDF'S GEACH END SECURE WITH (4) B12-14x3/4' SDF'S B12-14x3/4' SDF'S B12-14x3/4' SDF'S

BOW EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS 12'-0" < TO < 16'-0" SCALE: NTS

TS DOUBLE COLUMN

BOW EAVE RAFTER/CORNER POST CONNECTION DETAIL

FOR HEIGHTS 12'-0' < TO < 16'-0'

SCALE: NTS

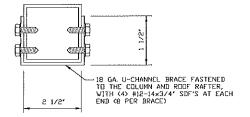
TS DOUBLE COLUMN

3-12

TS BOW RAFTER-

18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND RAFTER

-SECURE WITH (4) #12-14x3/4' SDF'S (EACH END)



BRACE SECTION SCALE: NTS

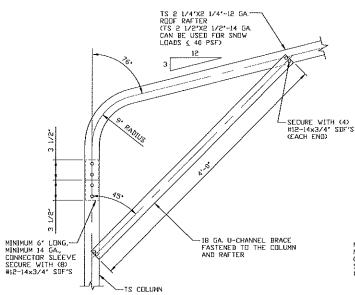
3-12

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PR	DJECT MGR: WSM	DATE: 10-2-20 SCALE: NTS SHT. 88 DWG, ND: SK-2		JDB ND: 201982		

## FOR WIND SPEEDS ≤ 130 MPH



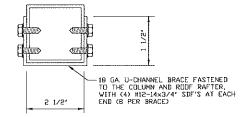
BOW EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS < 12'-0"

1F SCALE: NTS

TS BOW RAFTER -SECURE WITH (4) #12-14×3/4' SDF'S (EACH END) ര MINIMUM 6' LÖNG, —/ MINIMUM 14 GA., CONNECTOR SLEEVE SECURE WITH (8) #12-14x3/4' SDF'S 18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND RAFTER TS COLUMN

BOW EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS < 12'-0" 1G

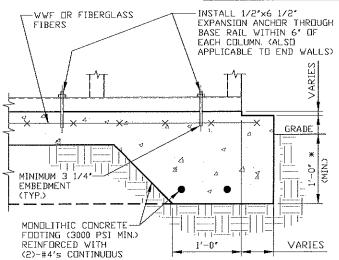
SCALE: NTS



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ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		C 27030 STRUCTURE	
MOORE AND ASSOCIATES	DRAWN BY: JG		M BUILT STRUC 124 N. SOUTH S	

## BASE RAIL ANCHORAGE OPTIONS





### CONCRETE MONOLITHIC SLAB BASE RAIL ANCHURAGE

MINIMUM ANCHOR EDGE DISTANCE IS 4".

\* COORDINATE WITH LOCAL BUILDING CODE AND/ORD REGARDING MINIMUM FROST DEPTH

### GENERAL NOTES

NOTE: CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 1,500 PSF.

CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.

COVER OVER REINFORCING STEEL:

FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING

PARS SHALL BE PER ACI-318:

3' IN FOUNDATIONS WHERE THE CONCRETE IS CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE EARTH OR EXPOSED TO THE EARTH OR WEATHER, AND 1 1/2' ELSEWHERE.

### REINFORCING STEE

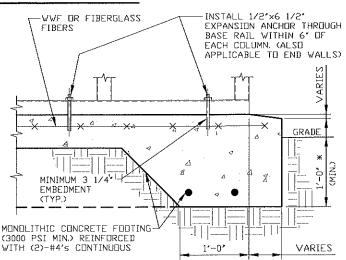
THE TURNDOWN REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFURCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFURCEMENT.

### REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED:

- REINFURCEMENT IS BENT COLD.
- THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
- 3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT

### HELIX ANCHOR NOTES:

- 1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, USE MINIMUM (2) 4' HELICES WITH MINIMUM 30' EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDMENT
- 2, FOR CORAL USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT.
- 3. FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4' HELICES WITH MINIMUM 30 INCH EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDMENT.
- 4. FOR LODSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6' HELICES WITH MINIMUM 50° EMBEDMENT.
- FOR VERY LOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 8' HELICES WITH MINIMUM 60' EMBEDMENT.



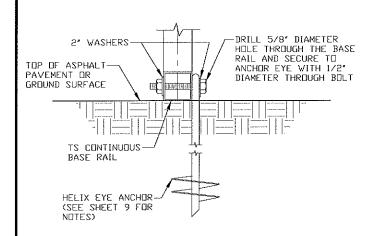
### CONCRETE SLAB BASE RAIL ANCHORAGE

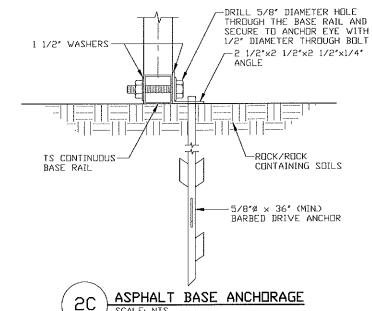
SCALE: NTS MINIMUM ANCHOR EDGE DISTANCE IS 4'.

\* COORDINATE WITH LOCAL BUILDING CODE AND/ORD REGARDING MINIMUM FROST DEPTH

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MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: JG CHECKED BY: PDH	Ň	124 N. SOUTH S' 10UNT AIRY, NO 16'-0" UTILITY S	27030
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### BASE RAIL ANCHORAGE OPTIONS





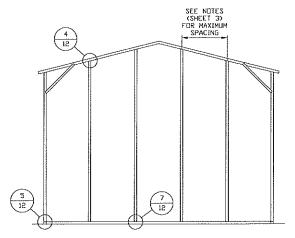
\* COORDINATE WITH LOCAL BUILDING CODE AND/ORD REGARDING MINIMUM FROST DEPTH (LENGTH).

# 2B GROUND BASE HELIX ANCHORAGE

SCALE: NTS
(CAN BE USED FOR ASPHALT)
\* COORDINATE WITH LOCAL BUILDING
CODE AND/ORD REGARDING MINIMUM
FROST DEPTH (LENGTH).

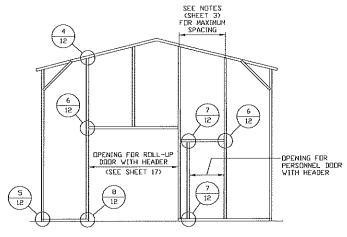
		CUSTO	M BUILT STRU	ICTURES, INC.
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: JG CHECKED BY: PDH	N	124 N. SOUTH 40UNT AIRY, 1 16'-0" UTILITY	NC 27030
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## BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS



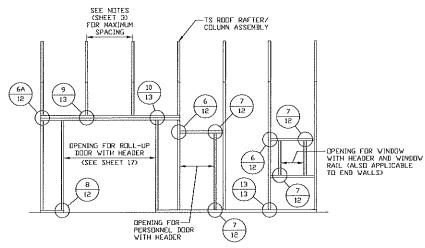
TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS

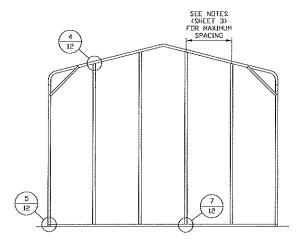


TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: NTS

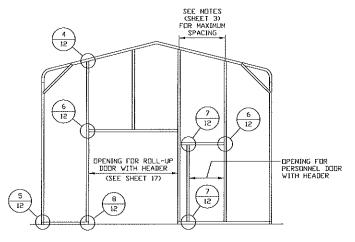
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MOORE AND ASSOCIATES	DRAWN BY: JG	1	M BUILT STRUC 124 N. SOUTH ST	REET

### BOW EAVE RAFTER END WALL AND SIDE WALL OPENINGS



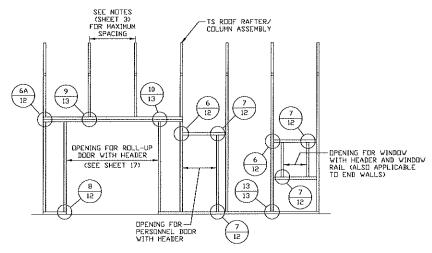
TYPICAL BOW EAVE RAFTER END WALL FRAMING SECTION

SCALEL NTS



TYPICAL BOW EAVE RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS

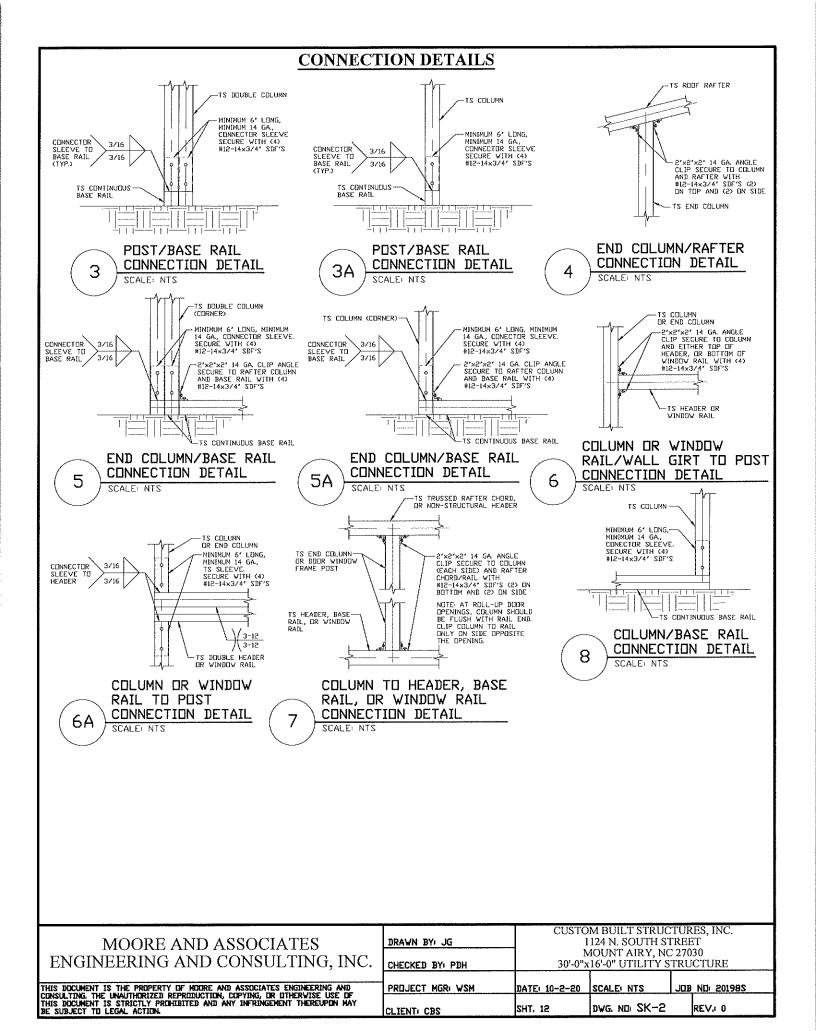


TYPICAL BOW EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

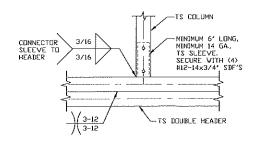
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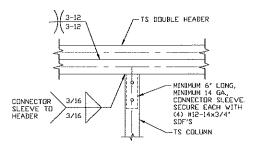
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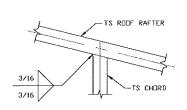
DRAWN BY: JG CHECKED BY: PDH	V	1124 N. SOUTH STRI MOUNT AIRY, NC 2: 30'-0"x16'-0" UTILITY STR			
PROJECT MGR: WSM	DATE: 10-2-20	COALE, MITC	JOB NO: 201985		
PRESECT MOR! WSM	DH I E1 10-E-E0	SCHEEL MIS	2019 MI 501302		



## **CONNECTION DETAILS**





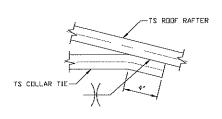


9 COLUMN/DOUBLE HEADER CONNECTION DETAIL

SCALE: NTS

DOUBLE HEADER/COLUMN
CONNECTION DETAIL
SCALE: NTS

RAFTER TO CHORD CONNECTION DETAIL
SCALE: NTS



TS TRUSSED RAFTER CHURD, OR NON-STRUCTURAL HEADER

TS END COLUMN
OR DOOR WINDOV
OR MINIMUM 6' LONG,
MINIMUM 14 GA.,
CONNECTOR SLEEVE.
SECURE EACH WITH
(4) HI2-14×3/4'
SDF'S

TS HEADER, BASE
RAIL, OR WINDOW
RAIL

12 COLLAR TIE CONNECTION DETAIL
SCALE: NTS

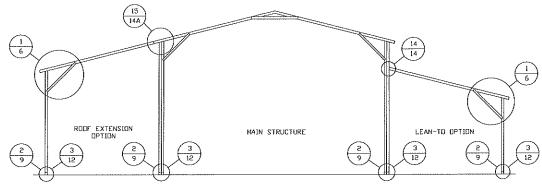
COLUMN TO HEADER OR BASE RAIL CONNECTION DETAIL SCALE NTS

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	CLIENT: CBS	SHT, 13	DVG. NO SK-2		REV,† 0			
	PROJECT MGR: WSM	DATE: 10-2-20	SCALE: NTS	JOB	ND: 20198S			
1	CHECKED BY: PDH	MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE						
	DRAWN BY: JG	CUSTOM BUILT STRUCTURES, INC. 1124 N. SOUTH STREET						

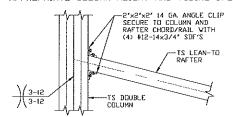
### **BOX EAVE RAFTER LEAN-TO OPTIONS**



## TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

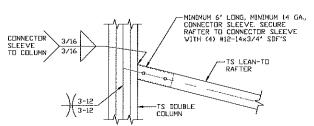
SCALE: NTS

NOTE: KNEE BRACE MUST BE 4'-0' REGARDLESS OF COLUMN HEIGHT.
FOR SHARED COLUMNS REFERENCE RAFTER COLUMN CONNECTION DETAILS FOR
APPROPRIATE COLUMN HEIGHT AND TUBING SPECIFICATIONS.

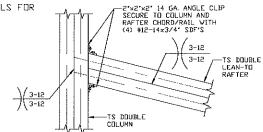


LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 

SCALE: NTS



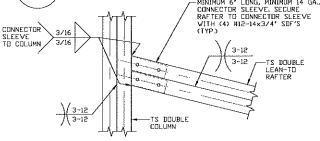
LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS & 12'-0'



LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL FOR
RAFTER SPANS 12'-0" < TO < 16'-0"

SCALE: NTS

MINIMUM 6' LDING, MINIMUM 14 GA.,
CONNECTOR SLEEVE, SECURE
RAFTER TO CONNECTOR SLEEVE
VITH (4) #12-14×3/4' SDF'S
(TYP)



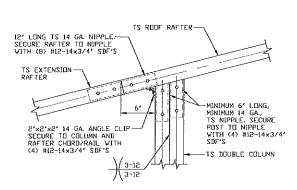
LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 12'-0" < TO < 16'-0"

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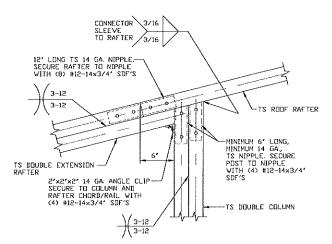
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	MOUNT AIRY, NC 27030					
CHECKED BY: PDH	30'-0"x16'-0" UTILITY STRUCTURE					
 PREJECT MGR: VSM	DATE: 10-2-20	SCALE: NTS	JDB	ND: 20198S		
CLIENT: CBS	SHT. 14	DWG, NO SK-2		REV₁ 0		

## BOX EAVE RAFTER LEAN-TO OPTIONS



SIDE EXTENSION RAFTER/COLUMN
DETAIL FOR SPANS \(\leq 12'-0'\)
SCALE: NTS



SIDE EXTENSION RAFTER/COLUMN
DETAIL FOR SPANS 12'-0" < TO < 16'-0"

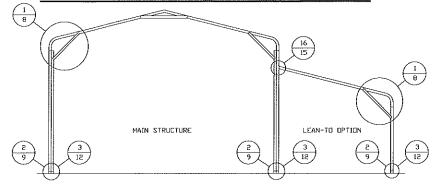
SCALE: NTS

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		270			
CHECKED BY: PDH	30'-0"x16'-0" UTILITY STRUCTURE				
 PROJECT MGR: WSM	DATE: 10-2-20	SCALE: NTS	JOB	ND: 20198S	
CLIENT: CBS	SHT. 14A	DWG, NO SK-2		REV.i 0	

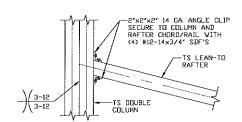
# **BOW EAVE RAFTER LEAN-TO OPTIONS**



### TYPICAL BOW EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION

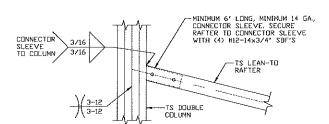
SCALE: NTS

NOTE: KNEE BRACE MUST BE 4'-0' REGARDLESS OF COLUMN HEIGHT.
FOR SHARED COLUMNS REFERENCE RAFTER COLUMN CONNECTION DETAILS FOR
APPROPRIATE COLUMN HEIGHT AND TUBING SPECIFICATIONS.



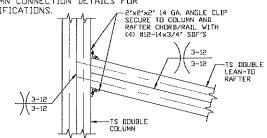
LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS < 12'-0"

16 SCALE: NTS

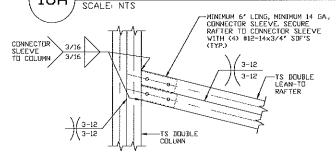


LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS ≤ 12'-0" 16B

SCALE: NTS



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 12'-0" < T□ < 16'-0" 16A



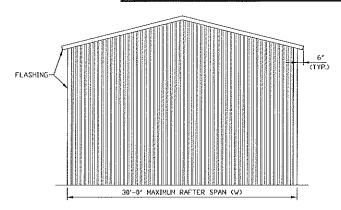
LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 12'-0" < T□ < 16'-0" 16C SCALE: NTS

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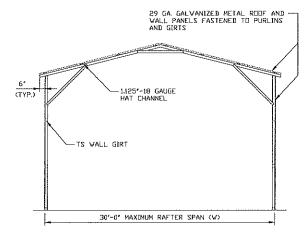
•	CUSTO	M BUILT STRUCT	TURES INC.		
DRAWN BY: JG	1124 N. SOUTH STREET				
CHECKED BY PDH	MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE				
 PROJECT MGRI WSM	DATE: 10-2-20	SCALE: NTS	JDB ND: 20198S		
CLIENT: CBS	SHT, 15	มพ.ศ. พ.ศ. SK−2	REV. 0		

## BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



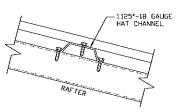
# TYPICAL END ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



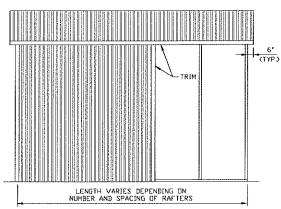
# TYPICAL SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS



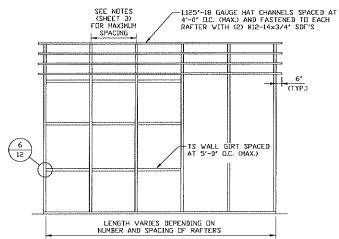
### PANEL ATTACHMENT

(ALTERNATE FOR VERTICAL ROOF PANELS) SCALE: NTS



# TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



# TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING OPTION WITH TS GIRTS

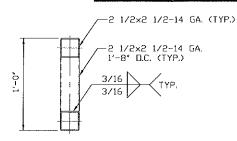
SCALE: NTS

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	MOUNT AIRY, NC 27030			
CHECKED BY: PDH	30'-0"x16'-0" UTILITY STRUCTURE			
 PREJECT MGR: WSM	DATE: 10-2-20	SCALE: NTS	JDB	ND: 20198S
CLIENT: CBS	SHT. 16	DWG. ND: SK-2		REV. 0

## SIDE WALL HEADER OPTIONS



HEADER DETAIL FOR SIDE WALL DOOR OPENINGS 10'-0" < LENGTH \( \) 16'-0"

SCALE: NTS (12'-0" < LENGTHS < 16'-0" FOR SNOW LOADS < 35 PSF)



HEADER DETAIL FOR SIDE WALL DOOR OPENINGS 6'-0' < LENGTH ≤ 10'-0'

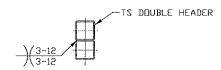
-TS DOUBLE HEADER

SCALE: NTS (6'-0' < LENGTHS ≤ 12'-0' FOR SNOW LOADS ≤ 35 PSF)

HEADER DETAIL FOR SIDE WALL DOOR OPENINGS < 6'-0'

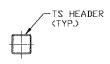
SCALE: NTS

### END WALL HEADER OPTIONS



HEADER DETAIL FOR SIDE WALL DOOR OPENINGS
12'-0" < LENGTH \( \) 16-0"

SCALE: NTS



HEADER DETAIL FOR END WALL DOOR OPENINGS ≤ 12'-0"

SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: JG CHECKED BY: PDH	CUSTOM BUILT STRUCTURES, INC. 1124 N. SOUTH STREET MOUNT AIRY, NC 27030 30'-0"x16'-0" UTILITY STRUCTURE				
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