

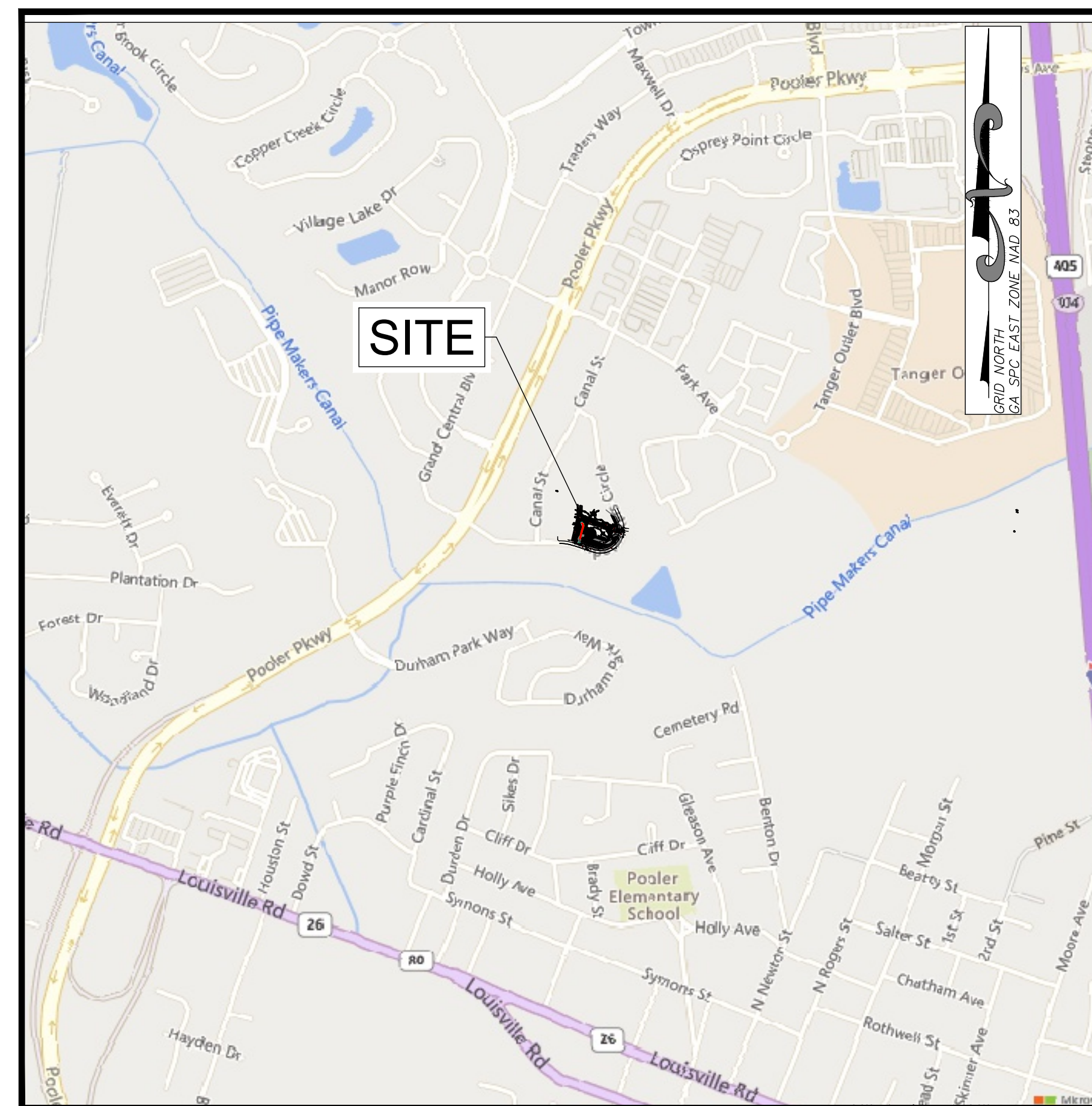
SITE DEVELOPMENT PLANS FOR 129 PIPEMAKERS CIRCLE

POOLER, CHATHAM COUNTY, GEORGIA

Prepared for
COMBAT VETERANS, LLC

PROJECT DATA

OWNER/DEVELOPER:	COMBAT VETERANS, LLC 107 GODLY WAY POOLER, GA 31322
24HR CONTACT:	ALEC METZGER (912) 644-3223
TAX MAP & PARCEL NUMBER:	50017B05077
PARCEL AREA:	1.66 AC
ZONING CLASSIFICATION:	PUD
PROPOSED USE:	COMMERCIAL
IMPERVIOUS AREA:	0.95 AC
DISTURBED AREA:	1.56 AC
TOTAL BUILDING AREA:	21,600 SF
PARKING SPACES REQUIRED:	72
PARKING SPACES PROVIDED:	72



VICINITY MAP

NOT TO SCALE

PROJECT LOCATION:
129 PIPEMAKERS CIRCLE
POOLER, CHATHAM COUNTY, GEORGIA

FEBRUARY 2025

EMC ENGINEERING SERVICES, INC.
ENVIRONMENTAL- MARINE - CIVIL - SURVEY

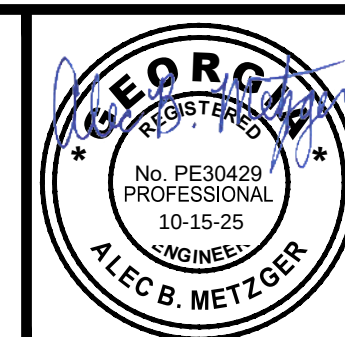
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3	EXISTING CONDITIONS & DEMOLITION PLAN
4	STAKING PLAN
5	UTILITY PLAN
5A	FIRE PROTECTION PLAN
6	PAVING, GRADING & DRAINAGE PLAN
7	STORM DRAINAGE PROFILES
8	ESPC INITIAL PLAN
9	ESPC INTERMEDIATE PLAN
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UTILITY LOCATION DISCLAIMER

THE UTILITIES ARE SHOWN AS PER THE LOCATION OF POLES, MANHOLES, VALVES, PEDESTALS, ETC., EXISTING DRAWINGS AND INFORMATION PROVIDED BY UTILITY PERSONNEL. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.



Know what's below.
Call before you dig.

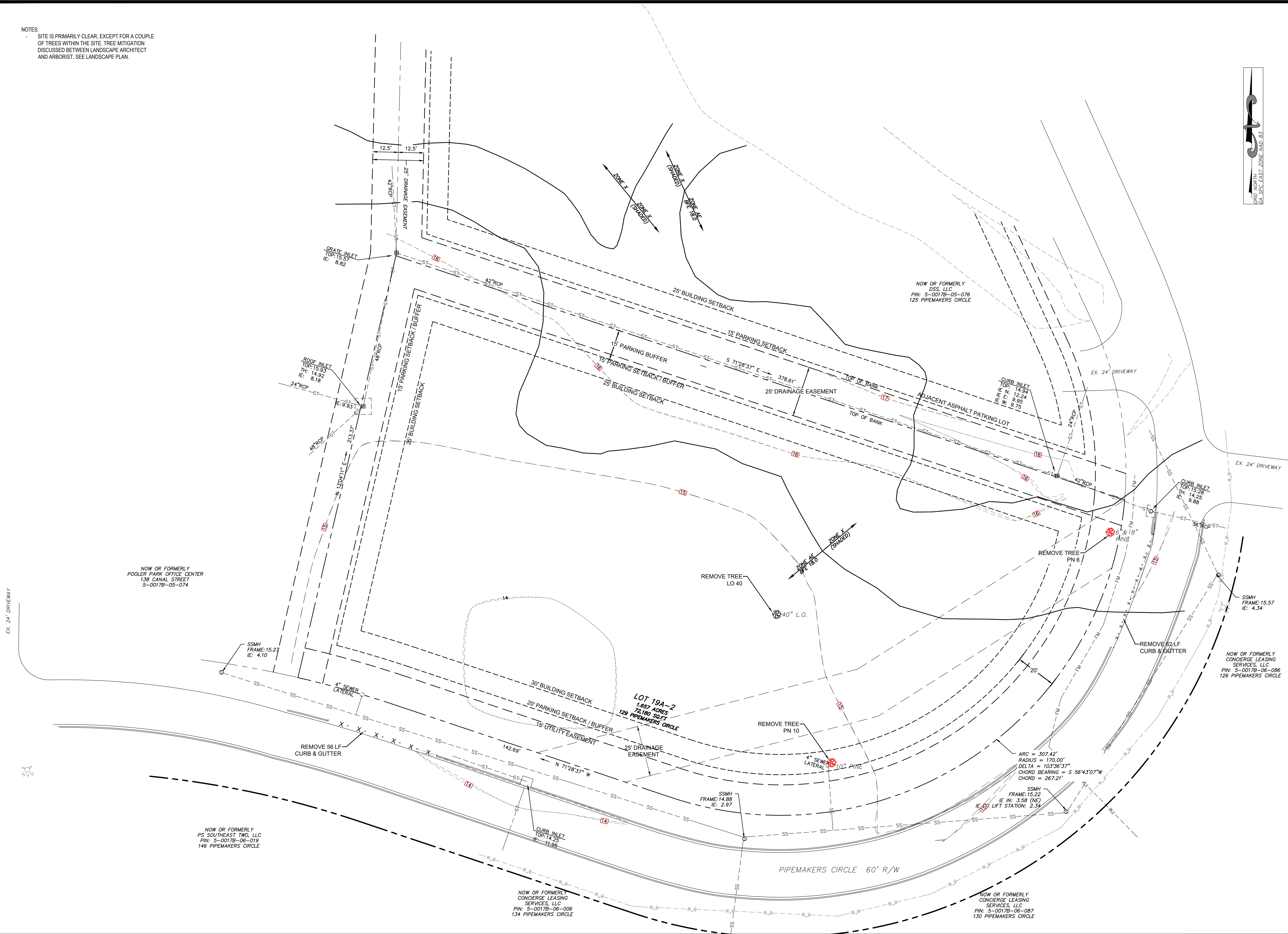


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NOTES:

- SITE IS PRIMARILY CLEAR, EXCEPT FOR A COUPLE OF TREES WITHIN THE SITE. TREE MITIGATION DISCUSSED BETWEEN LANDSCAPE ARCHITECT AND ARBORIST, SEE LANDSCAPE PLAN.



10° 0° 20°
GRAPHIC SCALE: 1" = 20°

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129 PIPEMAKERS CIRCLE
129 PIPEMAKERS CIRCLE
POOLER, CHATHAM COUNTY, GEORGIA
Prepared for:
COMBAT VETERANS, LLC

PROJECT NO.:	24-0056
DRAWN BY:	BMT
DESIGNED BY:	ABM
SURVEYED BY:	XXXX
SURVEY DATE:	AUG 2024
CHECKED BY:	ABM
SCALE:	1" = 20'
DATE:	10/18/2024

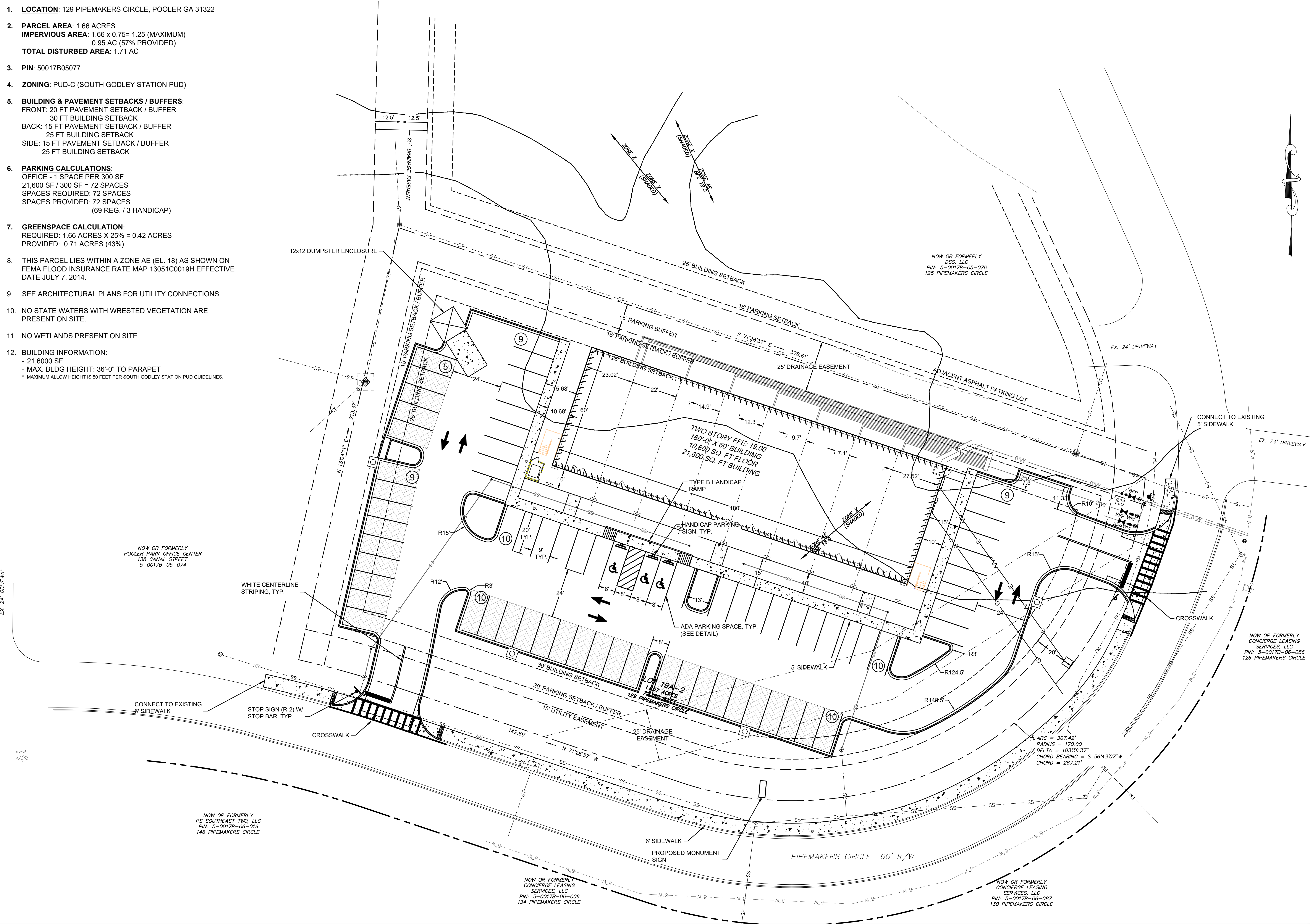
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SITE DATA:

- LOCATION:** 129 PIPEMAKERS CIRCLE, POOLER GA 31322
- PARCEL AREA:** 1.66 ACRES
IMPERVIOUS AREA: 1.66 x 0.75= 1.25 (MAXIMUM)
0.95 AC (57% PROVIDED)
TOTAL DISTURBED AREA: 1.71 AC
- PIN:** 50017B05077
- ZONING:** PUD-C (SOUTH GODLEY STATION PUD)
- BUILDING & PAVEMENT SETBACKS / BUFFERS:**
FRONT: 20 FT PAVEMENT SETBACK / BUFFER
30 FT BUILDING SETBACK
BACK: 15 FT PAVEMENT SETBACK / BUFFER
25 FT BUILDING SETBACK
SIDE: 15 FT PAVEMENT SETBACK / BUFFER
25 FT BUILDING SETBACK
- PARKING CALCULATIONS:**
OFFICE - 1 SPACE PER 300 SF
21,600 SF / 300 SF = 72 SPACES
SPACES REQUIRED: 72 SPACES
SPACES PROVIDED: 72 SPACES
(69 REG. / 3 HANDICAP)
- GREENSPACE CALCULATION:**
REQUIRED: 1.66 ACRES X 25% = 0.42 ACRES
PROVIDED: 0.71 ACRES (43%)
- THIS PARCEL LIES WITHIN A ZONE AE (EL. 18) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP 13051C0019H EFFECTIVE DATE JULY 7, 2014.
- SEE ARCHITECTURAL PLANS FOR UTILITY CONNECTIONS.
- NO STATE WATERS WITH WRESTED VEGETATION ARE PRESENT ON SITE.
- NO WETLANDS PRESENT ON SITE.
- BUILDING INFORMATION:**
- 21,6000 SF
- MAX. BLDG HEIGHT: 36'-0" TO PARAPET
* MAXIMUM ALLOW HEIGHT IS 50 FEET PER SOUTH GODLEY STATION PUD GUIDELINES.



NO.	REVISION DESCRIPTION	DATE

GRAPHIC SCALE: 1" = 20'

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STAKING PLAN

129 PIPEMAKERS CIRCLE
129 PIPEMAKERS CIRCLE
POOLER, CHATHAM COUNTY, GEORGIA

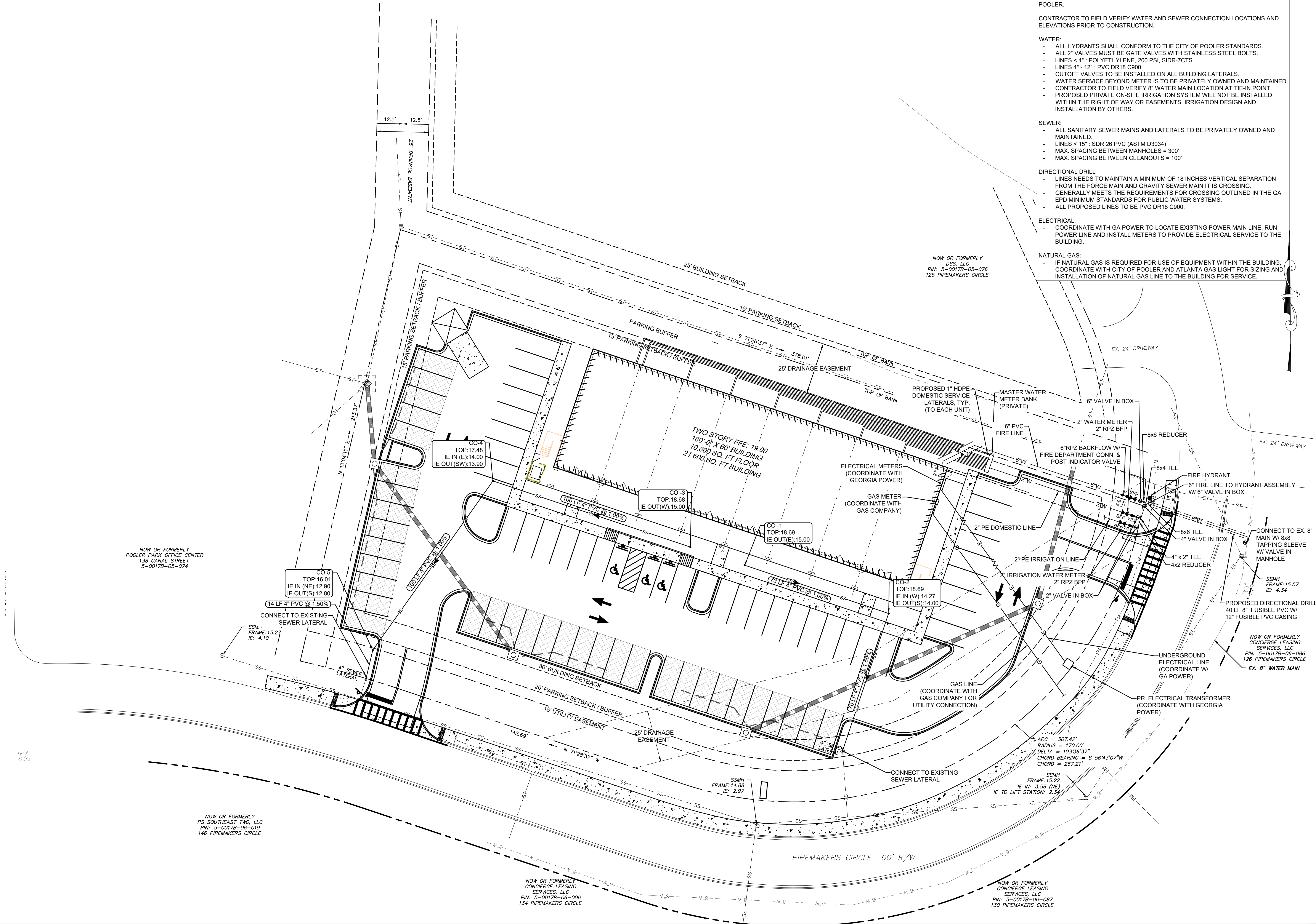
Prepared for:
COMBAT VETERANS, LLC

PROJECT NO.:	24-0056
DRAWN BY:	WCS
DESIGNED BY:	WCS
SURVEYED BY:	BREWER
SURVEY DATE:	11/2024
CHECKED BY:	ABM
SCALE:	1" = 20'
DATE:	2/2025

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OF ##

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CONSTRUCTION NOTES:

EXISTING UTILITY EASEMENTS TO BE OWNED AND MAINTAINED BY THE CITY OF POOLER.

CONTRACTOR TO FIELD VERIFY WATER AND SEWER CONNECTION LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.

WATER:

- ALL HYDRANTS SHALL CONFORM TO THE CITY OF POOLER STANDARDS.
- ALL 2" VALVES MUST BE GATE VALVES WITH STAINLESS STEEL BOLTS.
- LINES < 4" : POLYETHYLENE, 200 PSI, SDR-7CTS.
- LINES 4" - 12" : PVC DR18 C900.
- CUTOFF VALVES TO BE INSTALLED ON ALL BUILDING LATERALS.
- WATER SERVICE BEYOND METER IS TO BE PRIVATELY OWNED AND MAINTAINED.
- CONTRACTOR TO FIELD VERIFY 8" WATER MAIN LOCATION AT TIE-IN POINT.
- PROPOSED PRIVATE ON-SITE IRRIGATION SYSTEM WILL NOT BE INSTALLED WITHIN THE RIGHT OF WAY OR EASEMENTS. IRRIGATION DESIGN AND INSTALLATION BY OTHERS.

SEWER:

- ALL SANITARY SEWER MAINS AND LATERALS TO BE PRIVATELY OWNED AND MAINTAINED.
- LINES < 15" : SDR 26 PVC (ASTM D3034)
- MAX. SPACING BETWEEN MANHOLES = 300'
- MAX. SPACING BETWEEN CLEANOUTS = 100'

DIRECTIONAL DRILL:

- LINES NEEDS TO MAINTAIN A MINIMUM OF 18 INCHES VERTICAL SEPARATION FROM THE FORCE MAIN AND GRAVITY SEWER MAIN IT IS CROSSING.
- GENERALLY MEETS THE REQUIREMENTS FOR CROSSING OUTLINED IN THE GA EPD MINIMUM STANDARDS FOR PUBLIC WATER SYSTEMS.
- ALL PROPOSED LINES TO BE PVC DR18 C900.

ELECTRICAL:

- COORDINATE WITH GA POWER TO LOCATE EXISTING POWER MAIN LINE, RUN POWER LINE AND INSTALL METERS TO PROVIDE ELECTRICAL SERVICE TO THE BUILDING.

NATURAL GAS:

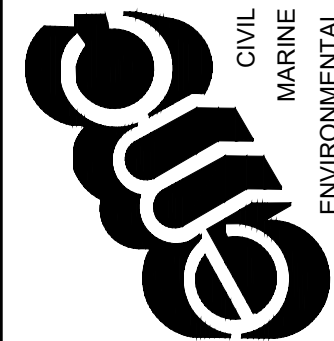
- IF NATURAL GAS IS REQUIRED FOR USE OF EQUIPMENT WITHIN THE BUILDING, COORDINATE WITH CITY OF POOLER AND ATLANTA GAS LIGHT FOR SIZING AND INSTALLATION OF NATURAL GAS LINE TO THE BUILDING FOR SERVICE.

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UTILITY PLAN

129 PIPEMAKERS CIRCLE

129 PIPEMAKERS CIRCLE

POOLER, CHATHAM COUNTY, GEORGIA

Prepared for:

COMBAT VETERANS, LLC

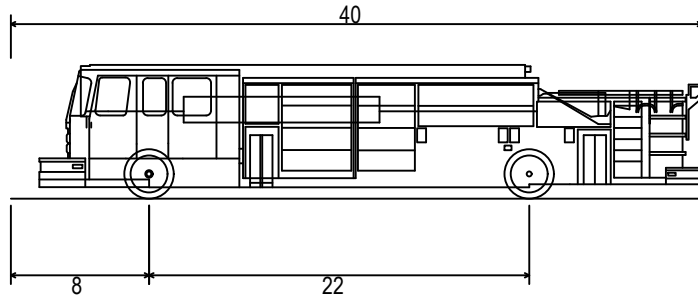
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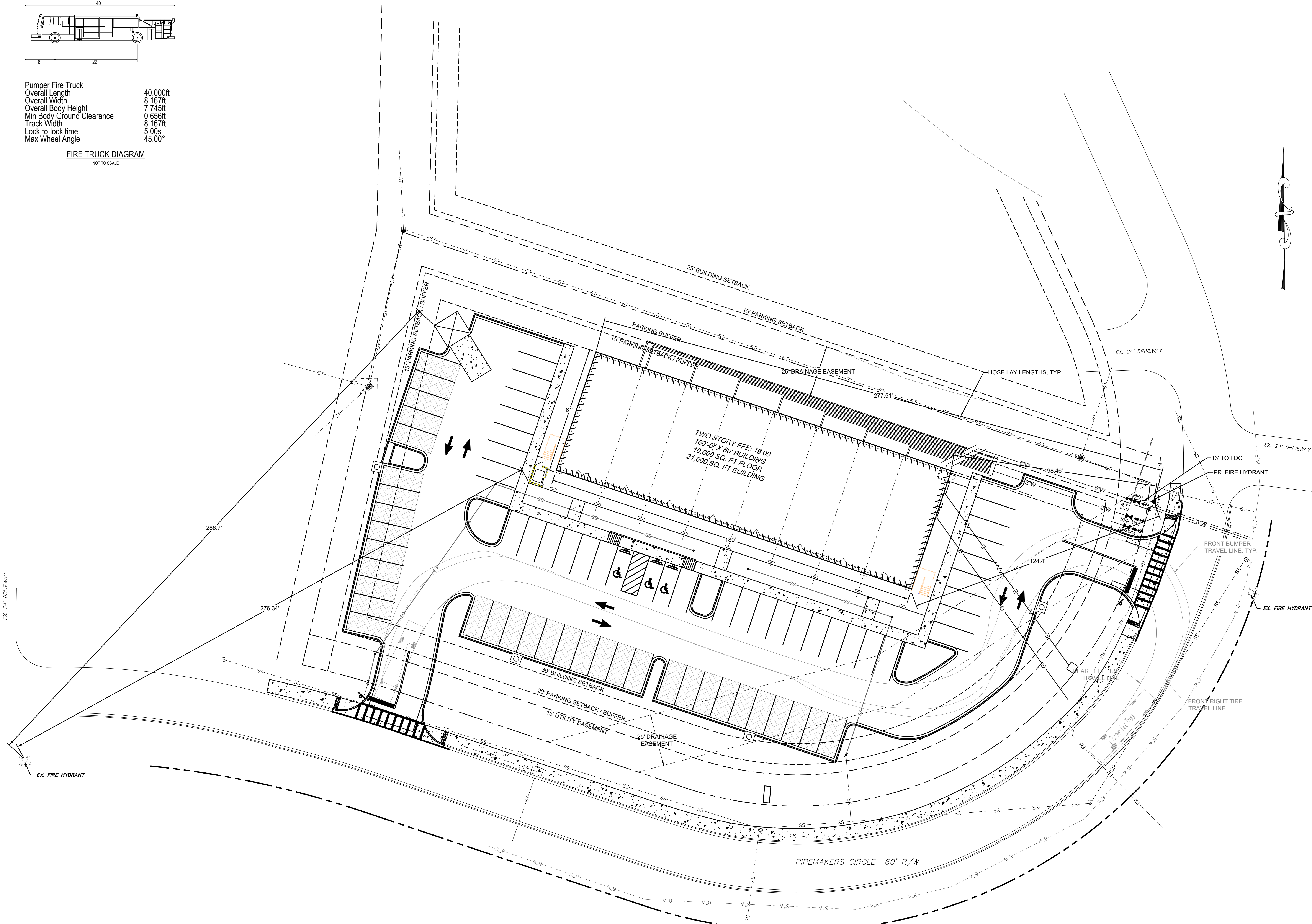
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Pumper Fire Truck
Overall Length 40.000ft
Overall Width 8.167ft
Overall Body Height 7.745ft
Min Body Ground Clearance 0.656ft
Track Width 8.167ft
Lock-to-lock time 5.00s
Max Wheel Angle 45.00°

FIRE TRUCK DIAGRAM
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FIRE PROTECTION PLAN

129 PIPEMAKERS CIRCLE

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POOLER, CHATHAM COUNTY, GEORGIA

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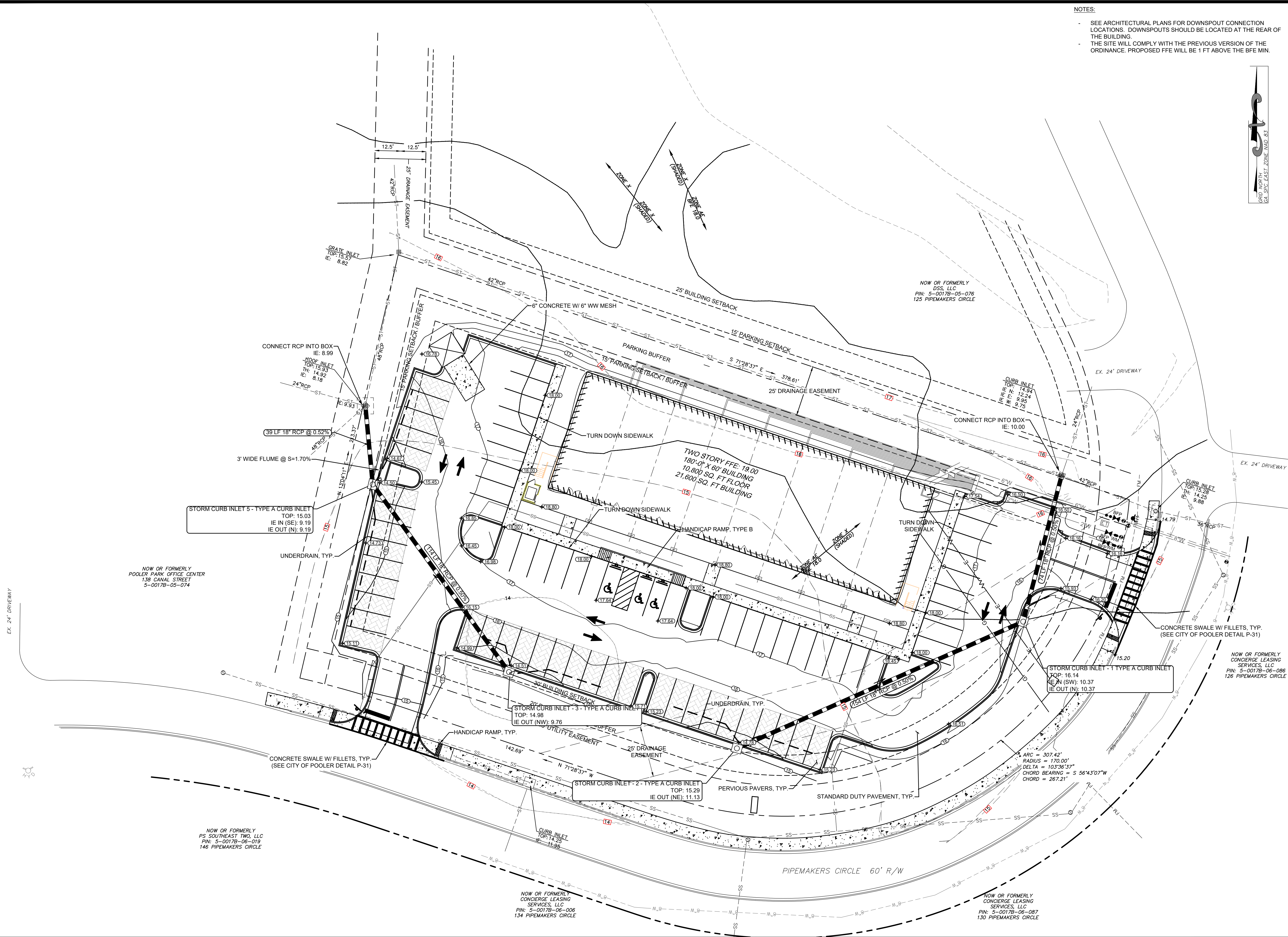
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- NOTES:
- SEE ARCHITECTURAL PLANS FOR DOWNSPOUT CONNECTION LOCATIONS. DOWNSPOUTS SHOULD BE LOCATED AT THE REAR OF THE BUILDING.
 - THE SITE WILL COMPLY WITH THE PREVIOUS VERSION OF THE ORDINANCE. PROPOSED FFE WILL BE 1 FT ABOVE THE BFE MIN.



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GRAPHIC SCALE: 1" = 20'

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PAVING, GRADING & DRAINAGE PLAN

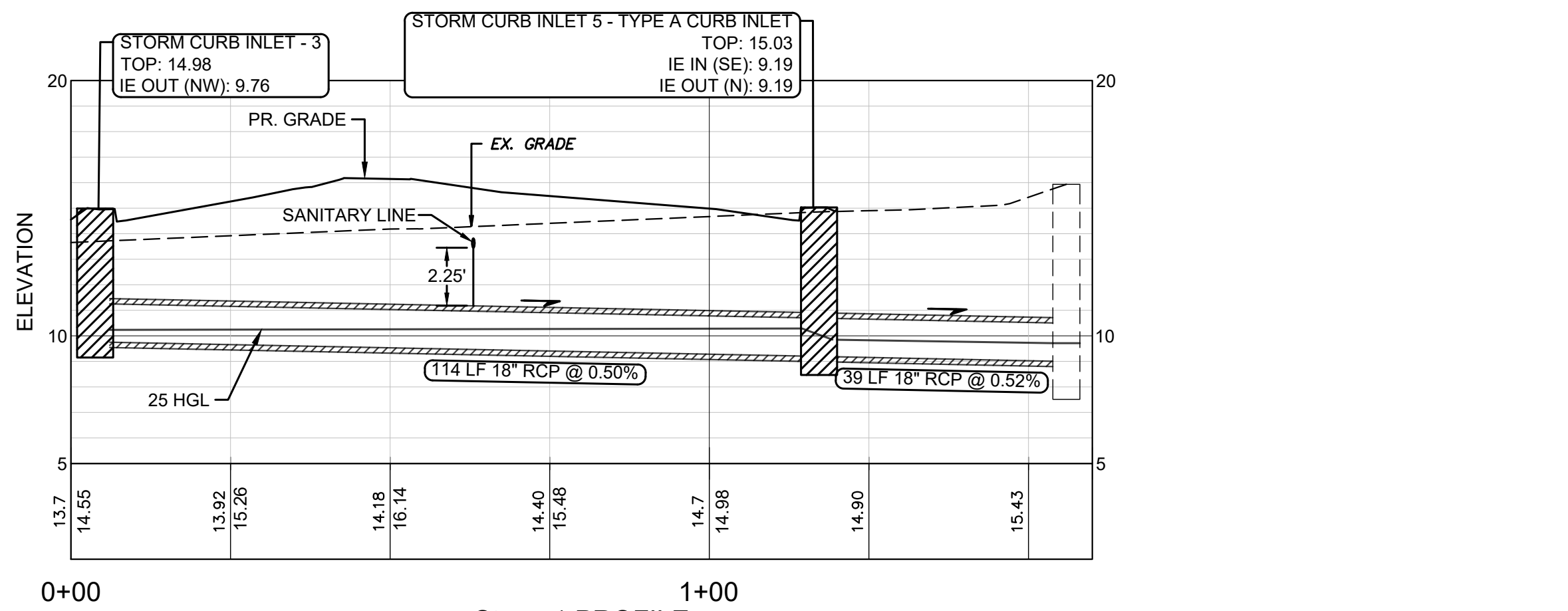
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POOLER, CHATHAM COUNTY, GEORGIA

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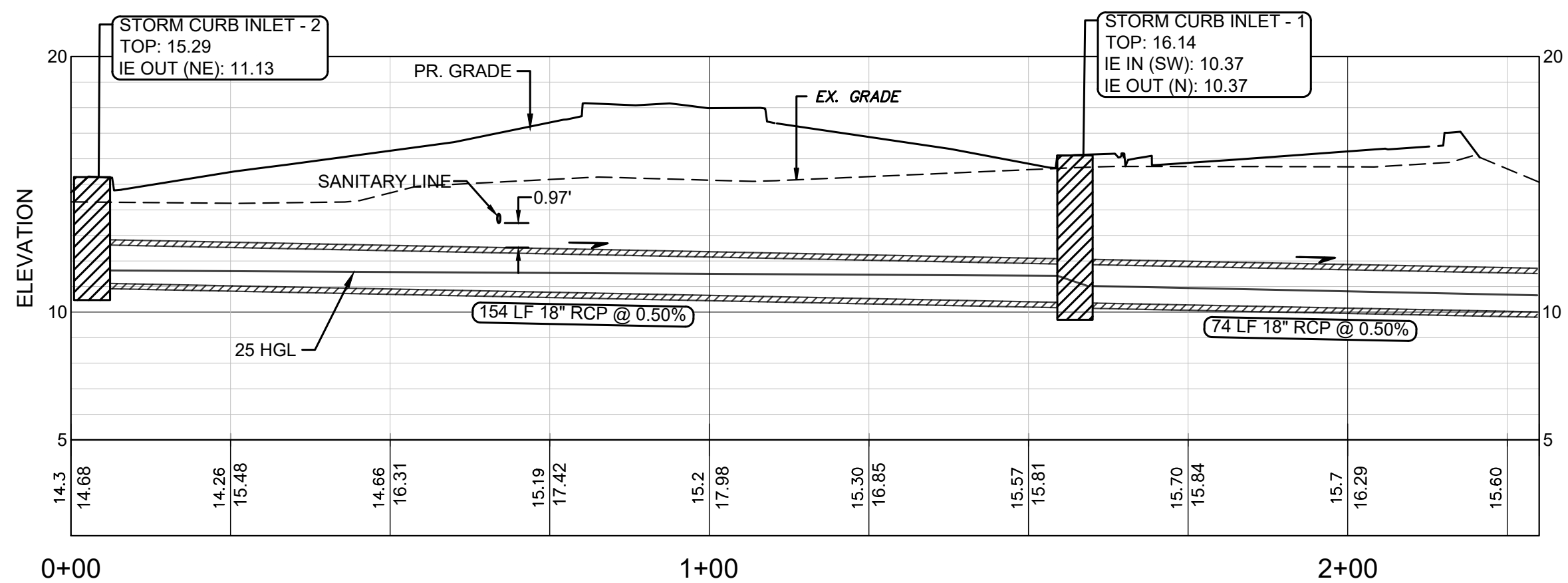
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Storm 1 PROFILE
HORZ SCALE: 1" =20'
VERT SCALE: 1" =5'



Storm 2 PROFILE
HORZ SCALE: 1" =20'
VERT SCALE: 1" =5'

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GRAPHIC SCALE: 1" = 20'



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STORM DRAINAGE PROFILES

129 PIPEMAKERS CIRCLE
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POOLER, CHATHAM COUNTY, GEORGIA

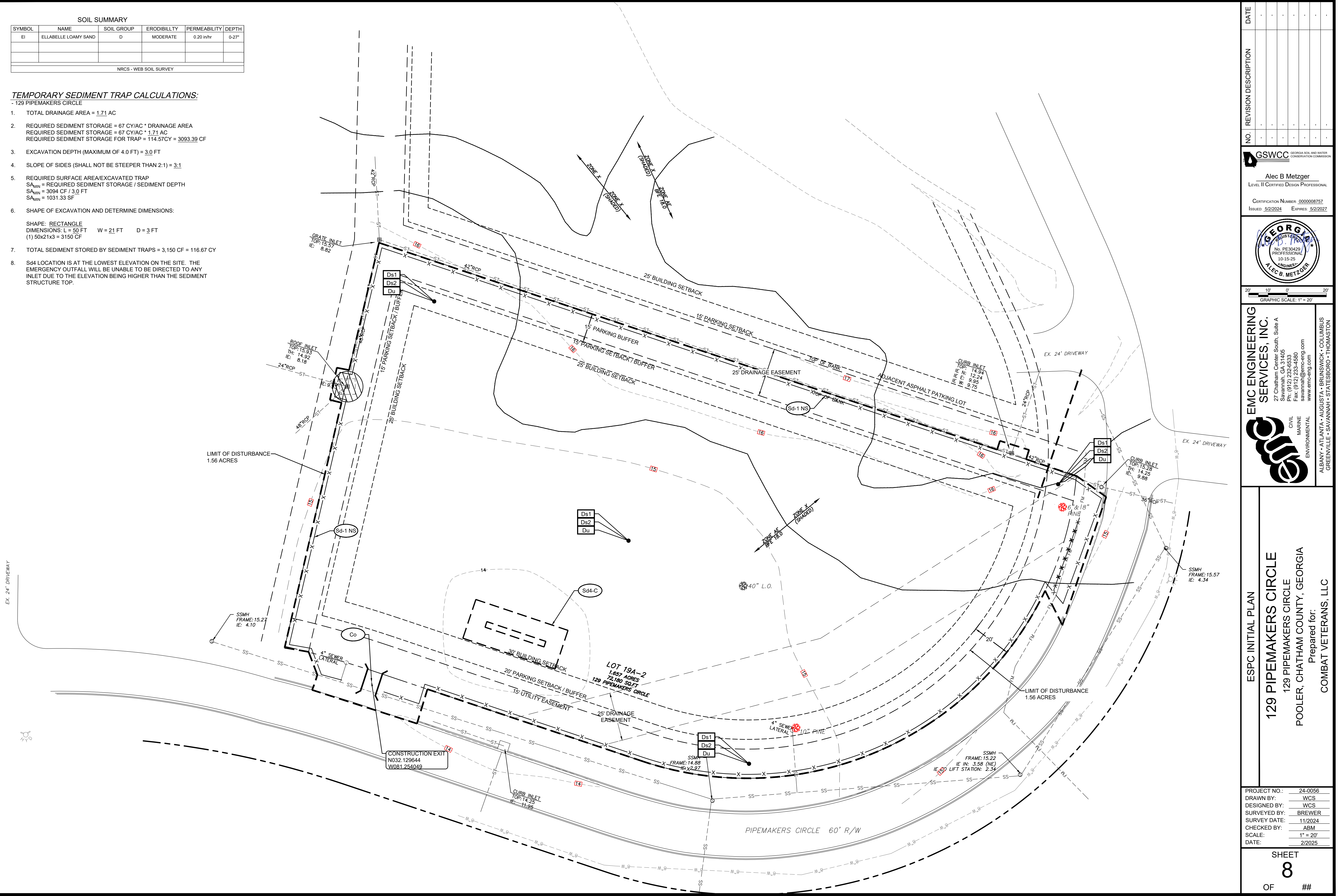
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SOIL SUMMARY					
SYMBOL	NAME	SOIL GROUP	ERODIBILITY	PERMEABILITY	DEPTH
EI	ELLABELLE LOAMY SAND	D	MODERATE	0.20 in/hr	0-27"
NRCS - WEB SOIL SURVEY					

TEMPORARY SEDIMENT TRAP CALCULATIONS:

- 129 PIPEMAKERS CIRCLE
- TOTAL DRAINAGE AREA = 1.71 AC
 - REQUIRED SEDIMENT STORAGE = 67 CY/AC * DRAINAGE AREA
REQUIRED SEDIMENT STORAGE = 67 CY/AC * 1.71 AC
REQUIRED SEDIMENT STORAGE FOR TRAP = 114.57CY = 3093.39 CF
 - EXCAVATION DEPTH (MAXIMUM OF 4.0 FT) = 3.0 FT
 - SLOPE OF SIDES (SHALL NOT BE STEEPER THAN 2:1) = 3:1
 - REQUIRED SURFACE AREA/EXCAVATED TRAP
 $SA_{MIN} = \text{REQUIRED SEDIMENT STORAGE} / \text{SEDIMENT DEPTH}$
 $SA_{MIN} = 3094 \text{ CF} / 3.0 \text{ FT}$
 $SA_{MIN} = 1031.33 \text{ SF}$
 - SHAPE OF EXCAVATION AND DETERMINE DIMENSIONS:
SHAPE: RECTANGLE
DIMENSIONS: L = 50 FT W = 21 FT D = 3 FT
(1) 50x21x3 = 3150 CF
 - TOTAL SEDIMENT STORED BY SEDIMENT TRAPS = 3,150 CF = 116.67 CY
 - Sd4 LOCATION IS AT THE LOWEST ELEVATION ON THE SITE. THE EMERGENCY OUTFALL WILL BE UNABLE TO BE DIRECTED TO ANY INLET DUE TO THE ELEVATION BEING HIGHER THAN THE SEDIMENT STRUCTURE TOP.



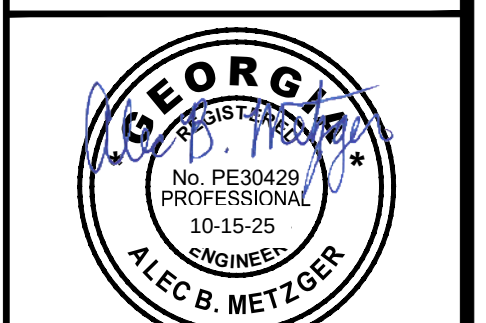
NO.	REVISION DESCRIPTION	DATE



Georgia Soil and Water Conservation Commission

Alec B Metzger
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008757
ISSUED: 5/2/2024 EXPIRES: 5/2/2027



GRAPHIC SCALE: 1" = 20'

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ESPC INITIAL PLAN

129 PIPEMAKERS CIRCLE

129 PIPEMAKERS CIRCLE

POOLER, CHATHAM COUNTY, GEORGIA

Prepared for:
COMBAT VETERANS, LLC

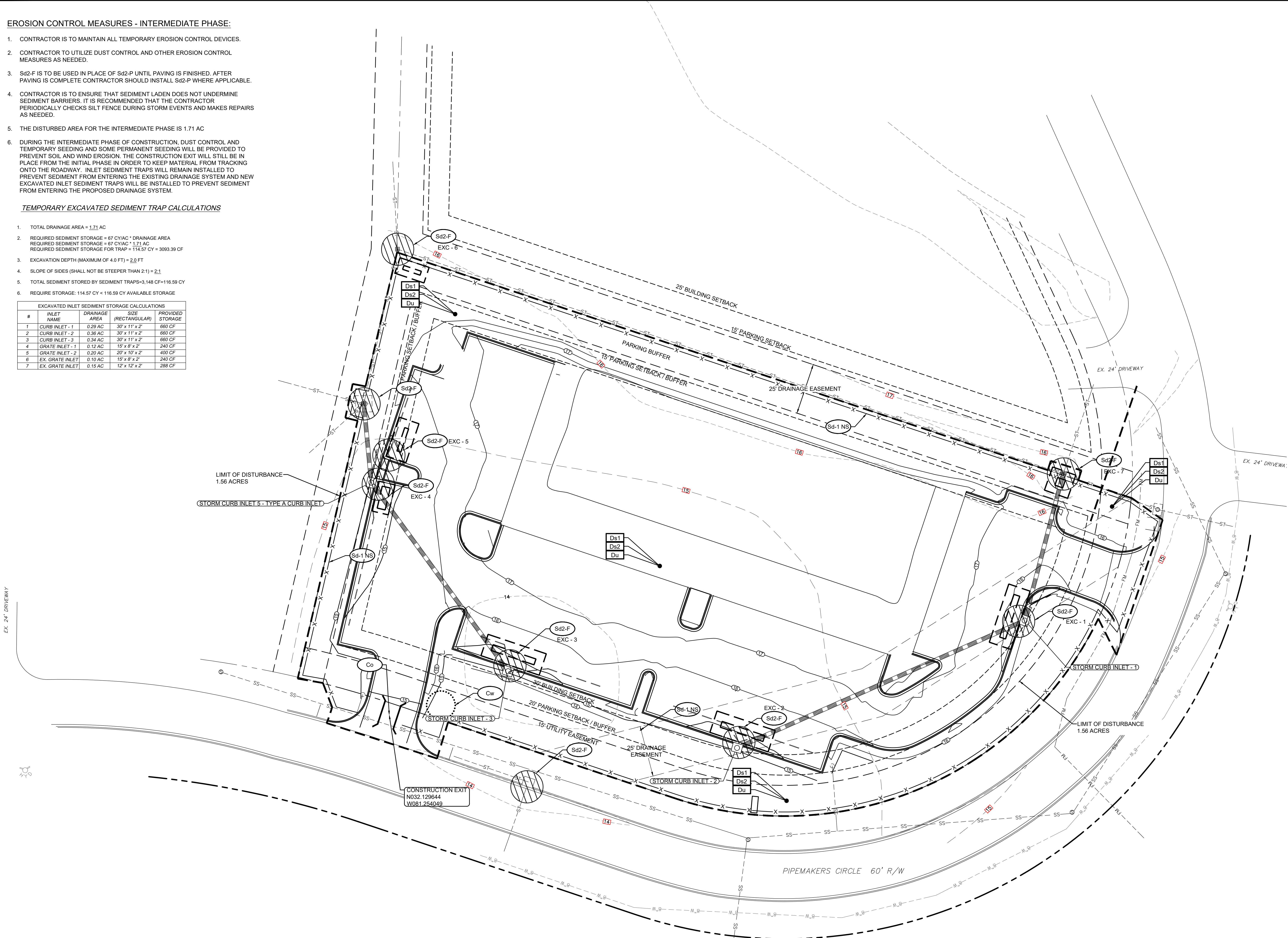
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1. CONTRACTOR IS TO MAINTAIN ALL TEMPORARY EROSION CONTROL DEVICES.
2. CONTRACTOR TO UTILIZE DUST CONTROL AND OTHER EROSION CONTROL MEASURES AS NEEDED.
3. Sd2-F IS TO BE USED IN PLACE OF Sd2-P UNTIL PAVING IS FINISHED. AFTER PAVING IS COMPLETE CONTRACTOR SHOULD INSTALL Sd2-P WHERE APPLICABLE.
4. CONTRACTOR IS TO ENSURE THAT SEDIMENT LADEN DOES NOT UNDERMINE SEDIMENT BARRIERS. IT IS RECOMMENDED THAT THE CONTRACTOR PERIODICALLY CHECKS SILT FENCE DURING STORM EVENTS AND MAKES REPAIRS AS NEEDED.
5. THE DISTURBED AREA FOR THE INTERMEDIATE PHASE IS 1.71 AC
6. DURING THE INTERMEDIATE PHASE OF CONSTRUCTION, DUST CONTROL AND TEMPORARY SEEDING AND SOME PERMANENT SEEDING WILL BE PROVIDED TO PREVENT SOIL AND WIND EROSION. THE CONSTRUCTION EXIT WILL STILL BE IN PLACE FROM THE INITIAL PHASE IN ORDER TO KEEP MATERIAL FROM TRACKING OFF THE ROADWAY. INLET SEDIMENT TRAPS WILL REMAIN INSTALLED TO PREVENT SEDIMENT FROM ENTERING THE EXISTING DRAINAGE SYSTEM AND NEW EXCAVATED INLET SEDIMENT TRAPS WILL BE INSTALLED TO PREVENT SEDIMENT FROM ENTERING THE PROPOSED DRAINAGE SYSTEM.

1. TOTAL DRAINAGE AREA = 1.71 AC
2. REQUIRED SEDIMENT STORAGE = 67 CY/AC * DRAINAGE AREA
REQUIRED SEDIMENT STORAGE = 67 CY/AC * 1.71 AC
REQUIRED SEDIMENT STORAGE FOR TRAP = 114.57 CY = 3093.39 CF
3. EXCAVATION DEPTH (MAXIMUM OF 4.0 FT) = 2.0 FT
4. SLOPE OF SIDES (SHALL NOT BE STEEPER THAN 2:1) = 2:1
5. TOTAL SEDIMENT STORED BY SEDIMENT TRAPS=3,148 CF=116.59 CY
6. REQUIRE STORAGE: 114.57 CY < 116.59 CY AVAILABLE STORAGE

EXCAVATED INLET SEDIMENT STORAGE CALCULATIONS				
#	INLET NAME	DRAINAGE AREA	SIZE (RECTANGULAR)	PROVIDED STORAGE
1	CURB INLET - 1	0.29 AC	30" x 11" x 2'	660 CF
2	CURB INLET - 2	0.36 AC	30" x 11" x 2'	660 CF
3	CURB INLET - 3	0.34 AC	30" x 11" x 2'	660 CF
4	GRATE INLET - 1	0.12 AC	15" x 8" x 2'	240 CF
5	GRATE INLET - 2	0.20 AC	20" x 10" x 2'	400 CF
6	EX. GRATE INLET	0.10 AC	15" x 8" x 2'	240 CF
7	EX. GRATE INLET	0.15 AC	12" x 12" x 2'	288 CF

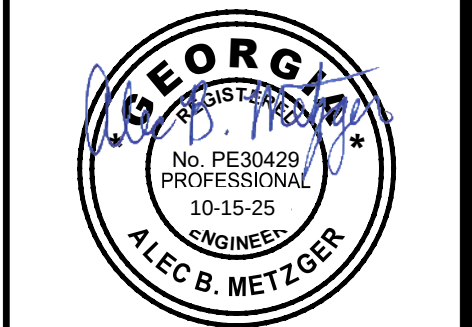


NO.	REVISION DESCRIPTION	DATE
1		1
2		2
3		3
4		4
5		5
6		6
7		7



Alec B Metzger
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008757
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ESPC INTERMEDIATE PLAN

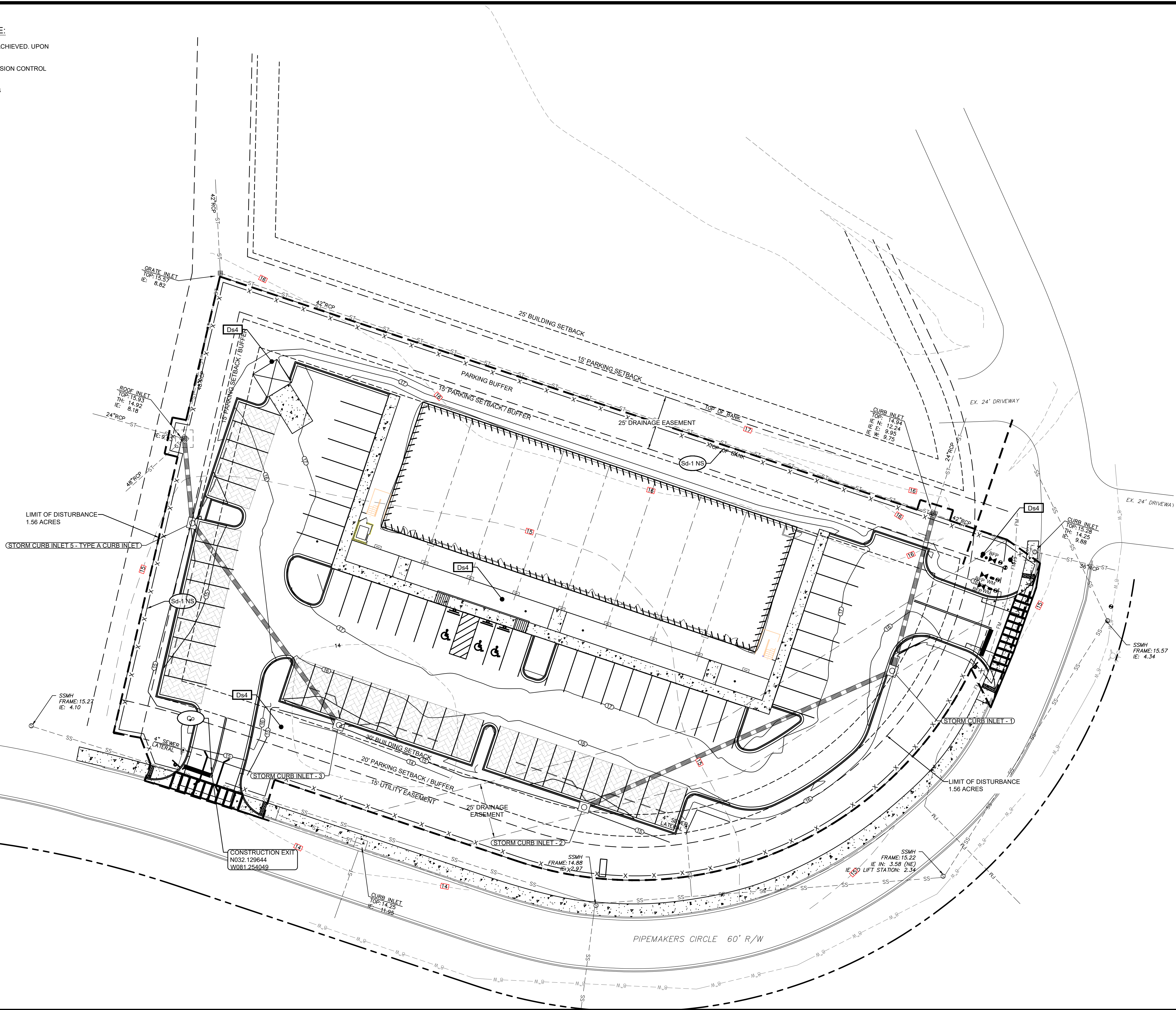
129 PIPEMAKERS CIRCLE
129 PIPEMAKERS CIRCLE
POOLER, CHATHAM COUNTY, GEORGIA 31768
Prepared for:
COMBAT VETERANS, LLC

PROJECT NO.:	24-0056
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SHEET
9
OF ##

EROSION CONTROL MEASURES - FINAL PHASE:

1. BMP's TO REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ACHIEVED. UPON FINAL STABILIZATION, BMP'S ARE TO BE REMOVED.
2. CONTRACTOR TO UTILIZE DUST CONTROL AND OTHER EROSION CONTROL MEASURES AS NEEDED.
3. THE DISTURBED AREA FOR THE FINAL PHASE IS ±0.0 ACRES



NO.	REVISION DESCRIPTION	DATE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Alec B Metzger
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008757
ISSUED: 5/2/2024 EXPIRES: 5/2/2027

Georgia PROFESSIONAL ENGINEER

No. PE30429
PROFESSIONAL
10-15-25
Alec B. Metzger

GRAPHIC SCALE: 1" = 20'

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ESPC FINAL PLAN

129 PIPEMAKERS CIRCLE
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POOLER, CHATHAM COUNTY, GEORGIA

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SHEET 10

OF ##

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12 YES

31. PROVIDE COMPLETE REQUIREMENTS OF SAMPLING FREQUENCY REPORTING OF SAMPLING RESULTS.

SAMPLING FREQUENCY:

- (1) THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.
- (2) HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THE GENERAL PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.
- (3) SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:
- A. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION;
- B. IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES FIRST;
- C. AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPs IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPs ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED.
- D. WHERE WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED, PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE, AND
- E. EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE. .

*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

REPORTING:

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
- A. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
- B. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
- C. THE DATE(S) ANALYSES WERE PERFORMED;
- D. THE TIME(S) ANALYSES WERE INITIATED;
- E. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
- F. REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
- G. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ECT., USED TO DETERMINE THESE RESULTS;
- H. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU"; I. AND CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.
3. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

12 YES

32. PROVIDE COMPLETE DETAILS FOR RETENTION OF RECORDS AS PER PART IV.F OF THE PERMIT.

RETENTION OF RECORDS: THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THE GENERAL PERMIT:

- A. A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
- B. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THE GENERAL PERMIT;
- C. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV. D.4.A. OF THIS PERMIT;
- D. THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THE GENERAL PERMIT;
- E. A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THE GENERAL PERMIT.
- F. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART II.D.2. OF THE GENERAL PERMIT; AND
- G. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.(2). OF THE GENERAL PERMIT.

COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION) OR OTHER REPORTS REQUESTED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. OF THE GENERAL PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

12 YES

33. DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION.

- A. ALL SAMPLING SHALL BE COMPLETED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PAT 136, THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE, EPA 833-B-92-001", AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.
- B. THE UPSTREAM SAMPLE MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY, BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY.
- C. THE DOWNSTREAM SAMPLE MUST BE TAKEN DOWNSTREAM OF CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY, BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY.
- D. IDEALLY THE SAMPLE SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE STORM WATER OUTFALL CHANNEL. CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE OUTFALL STORM WATER CHANNEL.
- E. THE SAMPLING CONTAINER SHOULD BE A LARGE MOUTH, WELL CLEANED, AND RINSED GLASS OF PLASTIC JAR. THE JAR SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLE. IT SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
- F. THE SAMPLE SHOULD BE KEPT FREE FROM FLOATING DEBRIS.

*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

SITE FLOW CHARACTERISTICS AND SAMPLING LOCATION:
STORM WATER RUNOFF SHALL SHEET FLOW ACROSS THE PROPERTY AND BE COLLECTED BY INLETS. STORM WATER COLLECTED BY INLETS WILL THEN BE CONVEYED VIA STORM DRAINAGE PIPING AND DISCHARGED INTO THE DETENTION POND. TURBIDITY SAMPLES SHALL BE TAKEN AT THE DISCHARGE POINT.

12 YES

34. APPENDIX B RATIONALE FOR NTU VALUES AT ALL OUTFALL SAMPLING POINTS WHERE APPLICABLE.*

SAMPLE ANALYSIS: STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT BOTH OUTFALL LOCATIONS. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDUCTION AT EITHER LOCATION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING 75, THE VALUE THAT WAS SELECTED FOR APPENDIX B IN GENERAL PERMIT. THE NTU IS BASED UPON THE DISTURBED ACREAGE FOR EACH BASIN'S RESPECTIVE OUTFALL LOCATION, 6.43 AC AND 3.77 AC, WHICH MAKE UP THE TOTAL PROJECT SITE. THE SURFACE WATER DRAINAGE AREA OF 0.013 AND 0.005-SQUARE MILES FOR DRAINAGE BASINS A AND B RESPECTIVELY, AND THE RECEIVING WATER: AN UNNAMED TRIBUTARY OF CULVERT SWAMP, WHICH SUPPORTS WARM WATER FISHERIES.

9-10 YES

35. DELINEATE ALL SAMPLING LOCATIONS ON ALL PHASES OF THE PLAN, PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED.*

12 YES

36. A DESCRIPTION OF APPROPRIATE CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE INCLUDING: (1) INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs, (2) INTERMEDIATE GRADING AND DRAINAGE BMPs, AND (3) FINAL BMPs. FOR CONSTRUCTION SITES WHERE THERE WILL BE NO MASS GRADING AND THE INITIAL PERIMETER CONTROL BMPs, INTERMEDIATE GRADING AND DRAINAGE BMPs, AND FINAL BMPs ARE THE SAME, THE PLAN MAY COMBINE ALL OF THE BMPs INTO A SINGLE PHASE.*

FOR THE INITIAL PHASE ONLY THE PERIMETER SILT FENCE & CONSTRUCTION EXIT SHALL BE INSTALLED. ONCE CLEARING/GRUBBING & DEMOLITION HAS OCCURRED ROUGH GRADING SHALL BEGIN. FOR THE INTERMEDIATE PHASE INSTALLATION OF THE STORM DRAINAGE SYSTEM AND MASS GRADING SHALL COMMENCE. ALL INLET AND OUTLET PROTECTION FOR THE STORM DRAINAGE SYSTEM SHALL BE INSTALLED. DUST CONTROL, MULCHING, AND TEMP. SEEDING SHALL BE UTILIZED AS NEEDED. THEN BUILDING CONSTRUCTION WILL BEGIN. FOR THE FINAL PHASE ALL PAVING, CURB & GUTTER, AND WALKWAYS SHALL BE INSTALLED. INLET PROTECTION AND PERIMETER SILT FENCING SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ACHIEVED ON THE PROJECT SITE.

8-10 YES

37. GRAPHIC SCALE AND NORTH ARROW.

8-10 YES

38. EXISTING AND PROPOSED CONTOUR LINES WITH CONTOUR LINES DRAWN AT AN INTERVAL IN ACCORDANCE WITH THE FOLLOWING:

Map Scale	Ground Slope	Contour Intervals, ft
1 inch = 100ft or larger scale	Flat 0 - 2% Rolling 2 - 8% Steep 8% +	0.5 or 1 1 or 2 2.5 or 10

N/A NO

39. USE OF ALTERNATIVE BMPs WHOSE PERFORMANCE HAS BEEN DOCUMENTED TO BE EQUIVALENT TO OR SUPERIOR TO CONVENTIONAL BMPs AS CERTIFIED BY A DESIGN PROFESSIONAL (UNLESS DISAPPROVED BY EPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION). PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE DOCUMENT FOUND AT WWW.GASWCC.ORG.

N/A NO

40. USE OF ALTERNATIVE BMP FOR APPLICATION TO THE EQUIVALENT BMP LIST. PLEASE REFER TO APPENDIX A-2 OF THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA 2016 EDITION.

N/A YES

41. DELINEATION OF THE APPLICABLE 25-FOOT OR 50-FOOT UNDISTURBED BUFFERS ADJACENT TO STATE WATERS AND ANY ADDITIONAL BUFFERS REQUIRED BY THE LOCAL ISSUING AUTHORITY. CLEARLY NOTE AND DELINEATE ALL AREAS OF IMPACT.

THIS DOES NOT APPLY TO THIS PROJECT.

42. DELINEATION OF ON-SITE WETLANDS AND ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE. THIS DOES NOT APPLY TO THIS PROJECT.

43. DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE BASINS ON THE PROJECT SITE.

N/A YES

44. PROVIDE HYDROLOGY STUDY AND MAPS OF DRAINAGE BASINS FOR BOTH PRE AND POST-DEVELOPMENT CONDITIONS.

HYDRO REPORT YES

45. AN ESTIMATE OF THE RUNOFF COEFFICIENT OR PEAK DISCHARGE FLOW OF THE SITE PRIOR TO AND AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED. FOR SOLAR FARM PROJECTS, POST-CONSTRUCTION IMPERVIOUS AREA SHALL BE CALCULATED AS 70% OF TOTAL SOLAR PANEL SQUARE FOOTAGE.

N/A YES

46. STORM DRAIN PIPE AND WEIR VELOCITIES WITH APPROPRIATE OUTLET PROTECTION TO ACCOMMODATE DISCHARGES WITHOUT EROSION IDENTIFY/DELINEATE ALL STORM WATER DISCHARGE POINTS.

8 YES

47. SOIL SERIES FOR THE PROJECT SITE AND THEIR DELINEATION.

8-10 YES

48. THE LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION.

9, 12 YES

49. PROVIDE A MINIMUM OF 67 CUBIC YARDS OF SEDIMENT STORAGE PER ACRE DRAINED USING A TEMPORARY SEDIMENT BASIN, RETROFITTED DETENTION POND, AND/OR EXCAVATED INLET SEDIMENT TRAPS FOR EACH COMMON DRAINAGE LOCATION. SEDIMENT STORAGE VOLUME MUST BE IN PLACE PRIOR TO AND DURING ALL LAND DISTURBANCE ACTIVITIES UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED. A WRITTEN JUSTIFICATION EXPLAINING THE DECISION TO USE EQUIVALENT CONTROLS WHEN A SEDIMENT BASIN IS NOT ATTAINABLE MUST BE INCLUDED IN THE PLAN FOR EACH COMMON DRAINAGE LOCATION IN WHICH A SEDIMENT BASIN IS NOT PROVIDED. A WRITTEN JUSTIFICATION AS TO WHY 67 CUBIC YARDS OF STORAGE IS NOT ATTAINABLE MUST ALSO BE GIVEN. WORKSHEETS FROM THE MANUAL MUST BE INCLUDED FOR STRUCTURAL BMPs AND ALL CALCULATIONS USED BY THE DESIGN PROFESSIONAL TO OBTAIN THE REQUIRED SEDIMENT STORAGE WHEN USING EQUIVALENT CONTROLS. WHEN DISCHARGING FROM SEDIMENT BASINS AND IMPOUNDMENTS, PERMITTEES ARE REQUIRED TO UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE, UNLESS INFEASIBLE. IF OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE ARE NOT FEASIBLE, A WRITTEN JUSTIFICATION EXPLAINING THIS DECISION MUST BE INCLUDED IN THE PLAN.

SEDIMENT STORAGE NOTE:

BASIN IS 1.56-ACRES. THE REQUIRED SEDIMENT STORAGE VOLUME FOR THIS ACREAGE IS 104.5 CY. THE SEDIMENT WILL BE TRAPPED BY THE EXCAVATED INLETS. TEMPORARY SEDIMENT TRAPS WILL BE USED FOR SEDIMENT STORAGE DURING THE INITIAL PHASE. ANY BYPASS WILL BE CAPTURED BY THE PERIMETER SILT FENCE. SEE SEDIMENT STORAGE CALCULATIONS BELOW FOR VOLUME REQUIRED < VOLUME PROVIDED.

12 YES

50. LOCATION OF BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH, AND NO LESS STRINGENT THAN, THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. USE UNIFORM CODING SYMBOLS FROM THE MANUAL, CHAPTER 6, WITH LEGEND.

GEORGIA UNIFORM CODING SYSTEM
ESPC STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Co	CONSTRUCTION EXIT			A CRUSHED STONE PAD LOCATED AT THE CONSTRUCTION SITE EXIT TO PROVIDE A PLACE FOR REMOVING MUD FROM TIRES THEREBY PROTECTING PUBLIC STREETS.
CW	CONCRETE WASH AREAS			LOCATION TO BE DETERMINED IN FIELD, USED TO CONTROL WASH DOWN OF CONCRETE TOOLS AND DRUM. TRUCK WASH OUT IS PROHIBITED.
Sd1	SEDIMENT BARRIER			A BARRIER TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT MAY BE SANDBAGS, BALES OF STRAW OR HAY, BRUSH, LOGS AND POLES, OR A SILT FENCE.
Sd2	INLET SEDIMENT TRAP			A TEMPORARY PROTECTIVE DEVICE FORMED AT OR AROUND AN INLET TO A STORM DRAIN TO TRAP SEDIMENT.
Sd4	TEMPORARY SEDIMENT TRAP			A SMALL TEMPORARY POND THAT DRAINS A DISTURBED AREA SO THAT SEDIMENT CAN SETTLE OUT. THE PRINCIPLE FEATURE DISTINGUISHING A TEMPORARY SEDIMENT TRAP FROM A TEMPORARY SEDIMENT BASIN IS THE LACK OF A PIPE OR RISER.

GEORGIA UNIFORM CODING SYSTEM
ESPC VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)			ESTABLISHING TEMPORARY PROTECTION FOR DISTURBED AREAS WHERE SEEDLINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDING COVER.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)			ESTABLISHING A TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS ON DISTURBED AREAS.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)			ESTABLISHING A PERMANENT VEGETATIVE COVER SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON DISTURBED AREAS.
Ds4	DISTURBED AREA STABILIZATION (SODDING)			A PERMANENT VEGETATIVE COVER USING SODS ON HIGHLY ERODABLE OR CRITICALLY ERODED LANDS.
Du	DUST CONTROL ON DISTURBED AREAS			CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITE, ROADWAYS AND SIMILAR SITES.

14 YES

51. PROVIDE DETAILED DRAWINGS FOR ALL STRUCTURAL PRACTICES. SPECIFICATIONS MUST, AT A MINIMUM, MEET THE GUIDELINES SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.

12 YES

52. PROVIDE VEGETATIVE PLAN, NOTING ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES. INCLUDE SPECIES, PLANTING DATES AND SEEDING, FERTILIZER, LIME AND MULCHING RATES. VEGETATIVE PLAN SHALL BE SITE SPECIFIC FOR APPROPRIATE TIME OF YEAR THAT SEEDING WILL TAKE PLACE AND FOR THE APPROPRIATE GEOGRAPHIC REGION OF GEORGIA.

TEMPORARY AND PERMANENT SEEDING SCHEDULE

SEEDING RATES FOR TEMPORARY & PERMANENT COVER						
MONTH	TEMPORARY COVER	RATE PER ACRE		PERMANENT COVER	RATE PER ACRE	
		SEEDED ALONE	ADDED TO MIX		SEEDED ALONE	ADDED TO MIX
JANUARY	RYEGRASS	40 LBS	—	UNHULLED BERMUDA	10 LBS	6 LBS
	RYE	3 BU	0.5 BU	SERICEA LESPEDEZA (1)	75 LBS	—
	ANNUAL LESPEDEZA	40 LBS	10 LBS	UNHULLED BERMUDA	10 LBS	6 LBS
FEBRUARY	RYEGRASS	40 LBS	—	SERICEA LESPEDEZA (1)	75 LBS	—
	RYE	3 BU	0.5 BU			
	WEEPING LOVEGRASS	4 LBS	2 LBS	PENSACOLA BAHIA	60 LBS	30 LBS
MARCH	ANNUAL LESPEDEZA	40 LBS	10 LBS	SERICEA LESPEDEZA (2)	60 LBS	6 LBS
	WEEPING LOVEGRASS	4 LBS	2 LBS	PENSACOLA BAHIA	60 LBS	30 LBS
APRIL	SUDON GRASS	60 LBS	—	WEEPING LOVEGRASS	4 LBS	2 LBS
	BROWN TOP MILLET	40 LBS	10 LBS	HULLED BERMUDA	10 LBS	6 LBS
	WEEPING LOVEGRASS	4 LBS	2 LBS	PENSACOLA BAHIA	60 LBS	30 LBS
MAY	SUDON GRASS	60 LBS	—	WEEPING LOVEGRASS	4 LBS	2 LBS
	BROWN TOP MILLET	40 LBS	10 LBS	HULLED BERMUDA	10 LBS	6 LBS
	PEARL MILLET	50 LBS	—	SERICEA LESPEDEZA (2)	60 LBS	—
JUNE	PEARL MILLET	50 LBS	—	PENSACOLA BAHIA	60 LBS	30 LBS
	SUDON GRASS	60 LBS	—	HULLED BERMUDA	10 LBS	6 LBS
	BROWN TOP MILLET	40 LBS	10 LBS			
JULY	PEARL MILLET	50 LBS	—	PENSACOLA BAHIA	60 LBS	30 LBS
	SUDON GRASS	60 LBS	—			
	BROWN TOP MILLET	40 LBS	10 LBS			
AUGUST	PEARL MILLET	50 LBS	—	PENSACOLA BAHIA	60 LBS	30 LBS
	RYE	3 BU	0.5 BU			
	RYEGRASS	40 LBS	—	SERICEA LESPEDEZA (1)	75 LBS	—
SEPTEMBER	OATS	4 BU	1 BU			
	WHEAT	3 BU	0.5 BU			
	RYEGRASS	40 LBS	—	SERICEA LESPEDEZA (1)	75 LBS	—
OCTOBER	RYEGRASS	40 LBS	—			
	RYE	3 BU	0.5 BU			
	BARLEY	3 BU	0.5 BU			
NOVEMBER	OATS	4 BU	1 BU			
	SAME AS OCTOBER			UNHULLED BERMUDA	10 LBS	6 LBS
	SAME AS OCTOBER			UNHULLED BERMUDA	10 LBS	6 LBS

1. UNSCARIFIED
2. SCARIFIED
3. CENTIPEDE SOD CAN BE USED AS PERMANENT COVER ANYTIME EXCEPT JUNE THRU OCTOBER.
4. LISTED IN THE ORDER OF PREFERENCE.
5. ALL PERMANENT GRASS PLANTINGS SHALL BE MULCHED.

NOTES:

1. FERTILIZING -- APPLY 6-12-12 FERTILIZER AT THE RATE OF 35 POUNDS PER 1,000 SQUARE FEET, RAKING LIGHTLY INTO THE SOIL.
2. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. THE AGRICULTURAL LIME SHALL MEET THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.
3. DRY STAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE AND DRY HAY SHALL BE APPLIED AT A RATE OF 2.5 TONS PER ACRE.
4. WATER IMMEDIATELY AFTER MULCHING.

Table 6.6.3 Fertilizer Requirements for Sod				
Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	Nitrogen Top Dressing Rate (lbs./acre)
cool season grasses	first second maintenance	6-12-12 6-12-12 10-10-10	1500 1000 400	50-100 - 30
warm season grasses	first second maintenance	6-12-12 6-12-12 10-10-10	1500 800 400	50-100 50-100 30

DATE									
REVISION DESCRIPTION									
NO.									

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Alec B Metzger
LEVEL II CERTIFIED DESIGN PROFESSIONAL

CERTIFICATION NUMBER: 0000008757
ISSUED: 5/2/2024 EXPIRES: 5/2/2027



GRAPHIC SCALE: 1" = #####

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CIVIL MARINE ENVIRONMENTAL

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129 PIPEMAKERS CIRCLE
129 PIPEMAKERS CIRCLE
POOLER, CHATHAM COUNTY, GEORGIA

Prepared for:
COMBAT VETERANS, LLC

PROJECT NO.:	24-0056
DRAWN BY:	WCS
DESIGNED BY:	WCS
SURVEYED BY:	BREWER
SURVEY DATE:	11/2024
CHECKED BY:	ABM
SCALE:	1" = #####
DATE:	2/2025

LANDSCAPE NOTES:

1. ALL DISTURBED AREAS NOT COVERED BY STRUCTURES, PAVING, OR LANDSCAPING SHALL BE GRASSED BY BERMUDA SOD/SEED. OWNER WILL DETERMINE EXTENT OF SODDING VS. SEEDING. THE CONTRACTOR WILL UTILIZE EXISTING GRASS WHENEVER POSSIBLE.
2. ALL PLANT BEDS SHALL BE MULCHED WITH 3" OF PINE STRAW.
3. NO TREES SHALL BE PLANTED WITHIN 10 FEET OF ANY UNDERGROUND UTILITY LINE OR STORM DRAIN. LANDSCAPE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES PRIOR TO BEGINNING PLANT INSTALLATION. LANDSCAPE ARCHITECT TO APPROVE ALL REVISIONS TO PLANT LOCATIONS. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY UTILITY LINES DAMAGED DURING PLANTING.
4. SEE DETAILS ON THIS SHEET FOR SHRUB AND TREE INSTALLATION.
5. TOP SOIL SHALL BE ADDED TO WITHIN 1" OF TOP OF CURB / EDGE OF PAVEMENT.
6. AN UNDERGROUND IRRIGATION SYSTEM, IF INSTALLED, SHALL COMPLY WITH ALL THE REQUIREMENTS AND REGULATIONS OF THE CITY AND ALSO COMPLY WITH THE LATEST NATIONAL ELECTRIC CODE RULES FOR ALL ELECTRIC WORKS AND MATERIALS.
7. QUANTITIES ARE SHOWN FOR CONVENIENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR HIS/HER OWN TAKEOFF.
8. ALL PROPOSED TREES SHALL MEET THE SPECIFICATIONS OF AMERICAN ASSOCIATION OF NURSERYMAN STANDARD FOR NURSERY STOCK (ANSI Z60.1) LATEST EDITION.
9. **GUARANTEE:**
THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND PLANT MATERIAL TO BE FREE OF DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE PROJECT. CONTRACTOR SHALL REPLACE ANY PLANT MATERIAL FOUND TO BE DEFECTIVE WITHIN THE PERIOD OF GUARANTEE AT NO COST TO THE OWNER, EXCEPT REPAIRS OR REPLACEMENT NECESSITATED BY DAMAGE BY OTHERS OR DIEBACK DUE TO INSUFFICIENT IRRIGATION/WATERING SCHEDULE.

PLANT SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	REMARKS
TREES						
AB	ACER BARBATUM	SOUTHERN SUGAR MAPLE	2'-2.5' CAL.	AS SHOWN	2	
IAS	ILEX X ATTENUATA 'SAVANNAH'	SAVANNAH HOLLY	2" CAL.	AS SHOWN	4	TREE-FORM
JVB	JUNIPERUS VIRGINIANA 'BRODIE'	BRODIE EASTERN REDCEDAR	2" CAL.	15' O.C.	8	
LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	2'-2.5' CAL.	AS SHOWN	4	
QV	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	6" CAL.	AS SHOWN	4	USED FOR TREE MITIGATION
UAP	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	2'-2.5' CAL.	AS SHOWN	3	
SHRUBS						
CJ	CLEYERA JAPONICA	JAPANESE CLEYERA	7 GAL.	5' O.C.	6	
ICC	ILEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	3 GAL.	3' O.C.	38	
IGS	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKERRY HOLLY	3 GAL.	3' O.C.	40	
IVS	ILEX VOMITORIA 'SCHILLINGS DWARF'	SCHILLINGS DWARF YAUPON HOLLY	3 GAL.	3.5' O.C.	35	
MSG	MISCANTHUS SINENSIS 'GRACILLIMUS'	MAIDEN GRASS	3 GAL.	4' O.C.	6	
PMP	PODOCARPUS MACROPHYLLUS 'PRINGLES'	PRINGLES DWARF YEW PODOCARPUS	3 GAL.	3' O.C.	54	
VS	VIBURNUM SUSPENSUM	SANDANKWA VIBURNUM	5 GAL.	4' O.C.	42	
GROUND COVERS						
HH	HEMEROCALLIS HYBRIDA	EVERGREEN DAYLILY	1 GAL.	2' O.C.	22	RED/YELLOW FLOWER
LMB	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL.	2' O.C.	15	

TREE REQUIREMENT: 15 TREES PER 1 ACRE

TREES REQUIRED: 25 (15 TREES X 1.66 AC)
TREES PROPOSED: 25

LARGE TREES: 11 (44%)
MEDIUM TREES: 10 (40%)
SMALL TREES: 4 (16%)

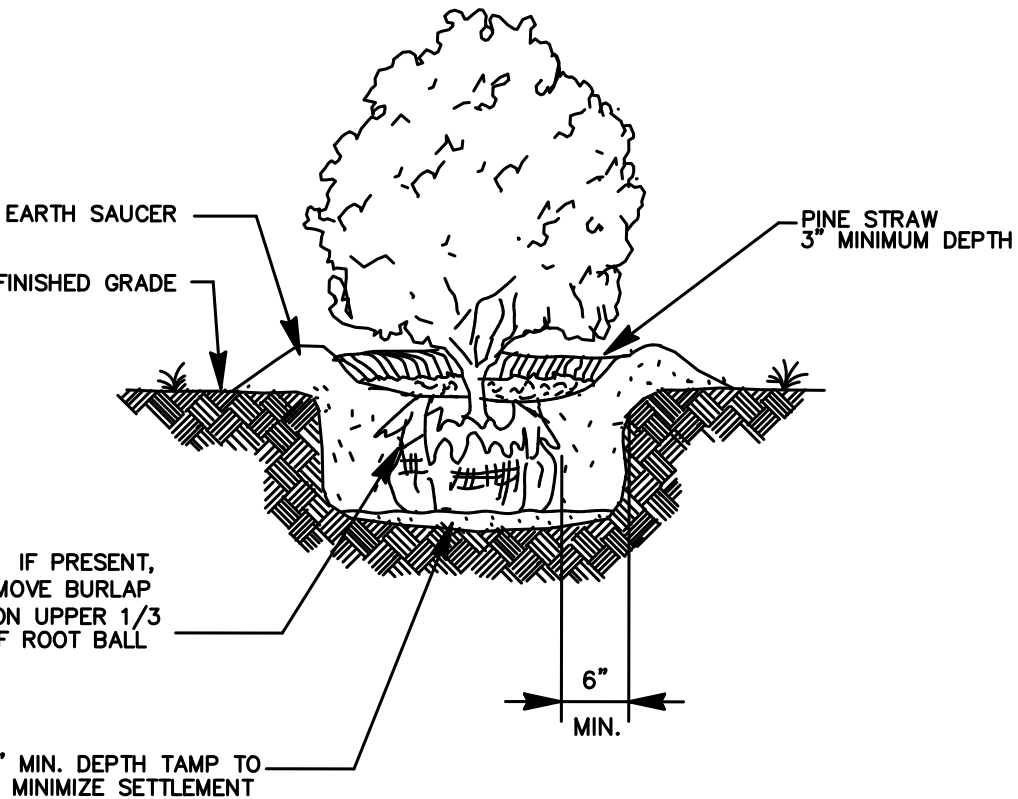
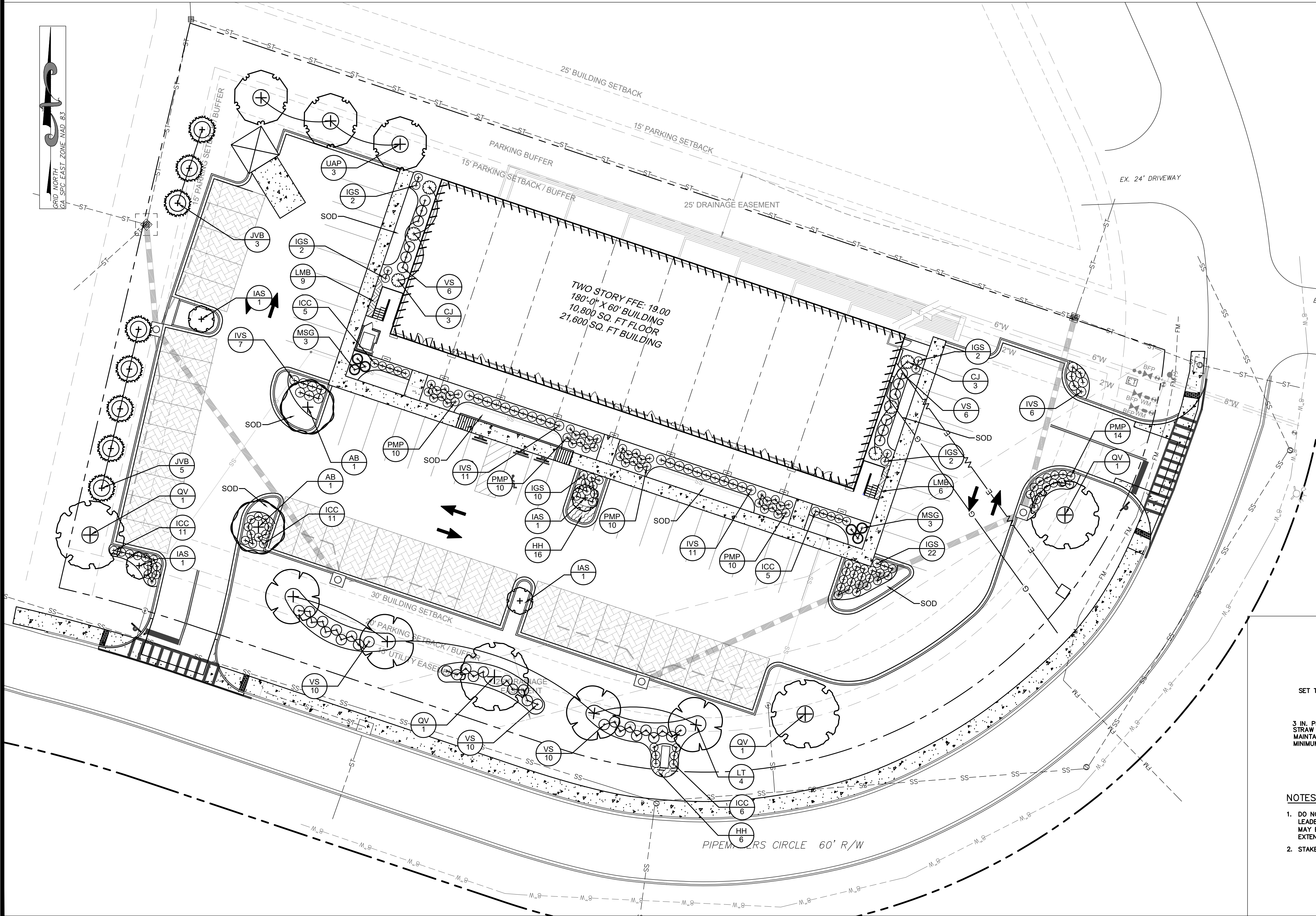
TREE MITIGATION:

MITIGATION REQUIREMENT: INCHES IN DIAMETER REMOVED MUST BE REPLACED WITH THE SAME NUMBER OF INCHES IN DIAMETER USING TREES OF THE SAME SPECIES AS THE TREE REMOVED. REPLACEMENT TREES MUST BE MINIMUM 6" CAL.

40" DBH LIVE OAK TO BE REMOVED = 40" MITIGATION INCHES REQ.

NOTE: A DECREASE IN THE MITIGATION REQUIREMENT BY 50% DUE TO TREE DECAY HAS BEEN PREVIOUSLY AGREED UPON.

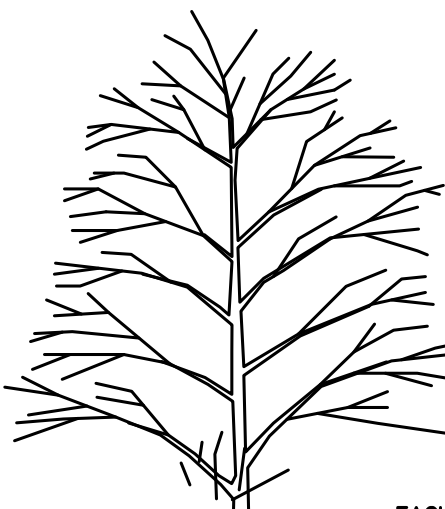
CALIPER INCHES REQUIRED: 20"
CALIPER INCHES PROVIDED: 24"
(4) 6" LIVE OAK TREES



NOTES

1. CLEANLY PRUNE ONLY DAMAGED, DISEASED AND OR WEAK BRANCHES IF NECESSARY.
2. FINISHED GRADE AROUND PLANT TO BE THE SAME AS ORIGINAL GRADE OF PLANT WHEN GROWN.

SHRUB PLANTING
NOT TO SCALE



NOTES

1. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
2. STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT (SEE STAKING DETAILS).

TREE PLANTING
NOT TO SCALE

DATE

REVISION DESCRIPTION

NO.

GEORGIA REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT

20' 10' 0' 20'

GRAPHIC SCALE: 1" = 20'

EMC ENGINEERING SERVICES, INC.

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LANDSCAPE PLAN

129 PIPEMAKERS CIRCLE

129 PIPEMAKERS CIRCLE

POOLER, CHATHAM COUNTY, GEORGIA

Prepared for:

COMBAT VETERANS, LLC

PROJECT NO.:

DRAWN BY:

DESIGNED BY:

SURVEYED BY:

CHECKED BY:

SCALE:

DATE:

24-0056

SRT

SRT

BREWER

11/2024

DWF

1" = 20'

06/2025

SHEET

13

OF

Du DUST CONTROL ON DISTURBED AREAS

MATERIALS:

TEMPORARY METHODS

- MULCHES - SEE Ds1. REFER TO SPECIFICATION TAC-TACKIFIERS FOR THE USE OF SYNTHETIC RESIN TO BIND MULCH MATERIAL.
- VEGETATIVE COVER - SEE Ds2
- SPRAY-ON ADHESIVES - FOR USE ON MINERAL SOILS, NOT MUCK SOILS.
- TILLAGE - DESIGNATED TO ROUGHEN AND BRING CLODS TO THE SOIL SURFACE. BEGIN PLOWING ON WINDWARD SIDE OF SITE. USE CHISEL TYPE PLOWS, SPRING TOOTHED HARROWS, OR SIMILAR PLOWS TO ACHIEVE DESIRED EFFECT. THIS IS AN EMERGENCY MEASURE TO BE USED BEFORE WIND EROSION STARTS.
- IRRIGATION - SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.
- BARRIERS - USED SOLID BOARD FENCE, SNOW FENCE, BURLAP FENCE, CRATE WALLS, BALES OF HAY, OR SIMILAR MATERIAL TO CONTROL AIR CURRENTS AND SOIL BLOWING. PLACE BARRIERS AT RIGHT ANGLES AT INTERVALS OF 15x THEIR HEIGHT TO CONTROL WIND EROSION. CALCIUM CHLORIDE - APPLY AT A RATE TO KEEP THE SURFACE MOIST.

PERMANENT METHODS

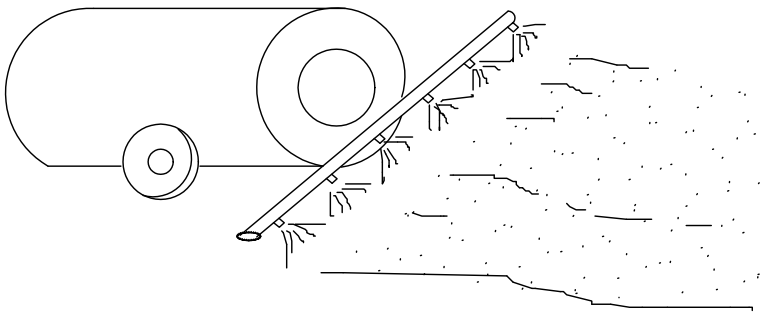
- PERMANENT VEGETATION - SEE Ds3. EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
- TOPSOILING - SEE SPECIFICATION TP - TOPSOILING
- STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL

MAINTENANCE:

- PROHIBIT TRAFFIC ON SURFACE AFTER SPRAYING.
- SUPPLEMENT SURFACE COVERING AS NEEDED.

*CHEMICAL CONTROL

ADHESIVE	WATER DILUTION	TYPE OF NOZZLE	APPLICATION RATE (GAL/AC)
ANIONIC ASPHALT EMULSION	7:1	SPRAY	1,200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN-IN-WATER EMULSION	4:1	FINE SPRAY	300



Ds1 DISTURBED AREA STABILIZATION (MULCHING ONLY)

INSTALLATION:

- APPLY MULCH OR TEMPORARY GRASSING TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE.
- APPLICABLE TO GRADED OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER.
- MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO 6 MONTHS.
- APPLY AT THE APPROPRIATE DEPTH. REFER TO TABLE 1 FOR SPECIFIC MATERIALS.

TABLE 1: MULCHING APPLICATION REQUIREMENTS

MATERIAL	RATE	DEPTH
STRAW OR HAY	2 - 2.5 TONS/ACRE	2" TO 4"
WOOD WASTE, CHIPS, SAWDUST, BARK	-	2" TO 3"
POLYETHYLENE FILM	SECURE WITH SOIL, ANCHORS, WEIGHTS	-
GEOTEXTILES, JUTE MATTING, NETTING, ETC.	SEE MANUFACTURER'S RECOMMENDATIONS	-

SITE PREPARATION:

- GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
- INSTALL NEEDED EROSION CONTROL MEASURES SUCH AS DIKES, BERMS, AND SEDIMENT BARRIERS.
- LOOSEN COMPACTED SOIL TO A MINIMUM DEPTH OF 3".

APPLYING MULCH:

- APPLY DRY STRAW OR HAY AND WOOD CHIPS UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
- APPLY 20-30 LBS OF NITROGEN / ACRE IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION.
- APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

ANCHORING MULCH:

- PRESS STRAW OR HAY INTO THE SOIL WITH A DISK HARROW IMMEDIATELY AFTER APPLICATION. TACKIFIERS MAY BE USED WHEN SPREADING MULCH WITH BLOWER-TYPE EQUIPMENT.
- ANCHOR WOOD WASTE USING THE APPROPRIATE SIZE NETTING.
- TRENCH POLYETHYLENE AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

MAINTENANCE:

- THE APPROPRIATE DEPTH AND 90% COVER SHALL BE MAINTAINED AT ALL TIMES.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

INSTALLATION:

- APPLY MULCH OR TEMPORARY GRASSING TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE.
- APPLICABLE TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN 6 MONTHS.
- COORDINATE WITH PERMANENT MEASURES TO ENSURE ECONOMICAL AND EFFECTIVE STABILIZATION.
- TAKE NOTE OF WHICH SPECIES ARE NOT APPROPRIATE FOR COMPANION CROP PLANTINGS.
- WHEN THE SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, SCARIFY THE SOIL IN ORDER TO PROVIDE A PLACE FOR THE SEED TO LODGE AND GERMINATE.
- APPLY AGRICULTURAL LIME A THE RATE DETERMINED BY SOIL TEST PH. (TYP. 1 TON/ACRE)
- APPLY LIME BEFORE LAND PREPARATION AND INCORPORATE WITH A DISK, RIPPER, OR CHISEL.
- ON STEEP SLOPES, APPLY FERTILIZER HYDRAULICALLY.
- SELECT GRASS OR GRASS-LEGUME MIXTURES BASED ON THE AREA AND SEASON OF THE YEAR.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTI-PACKER-SEEDER, OR HYDRAULIC SEEDER.
- THE APPROPRIATE DEPTH OF PLANTING IS 10x THE SEED DIAMETER.
- APPLY IRRIGATION AT A RATE THAT WILL NOT CAUSE RUNOFF AND EROSION. THOROUGHLY WET THE SOIL TO INSURE GERMINATION OF THE SEED.

MAINTENANCE:

- RE-SEED AREAS WHERE AN ADEQUATE STAND OF TEMPORARY VEGETATION FAILS TO EMERGE.
- IF OPTIMUM CONDITIONS FOR TEMPORARY VEGETATION IS LACKING, MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE.

TABLE 1: SOME TEMPORARY PLANT SPECIES, SEEDING RATES, AND PLANTING DATES

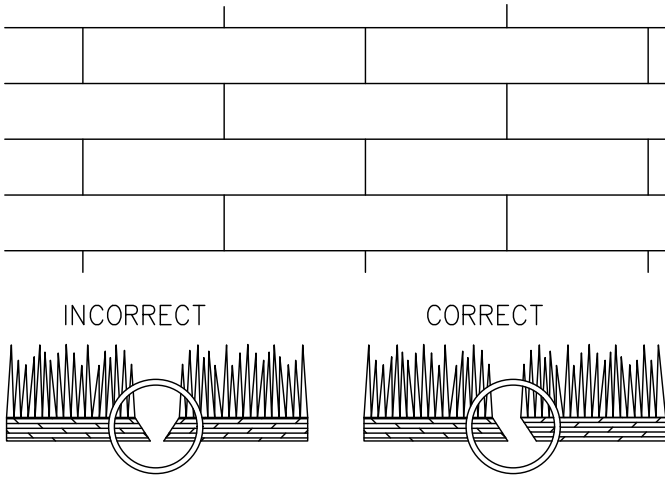
SPECIES	RATE PER 1,000 SQ.	RATE PER ACRE	PLANTING DAYS BY REGION			
			M - L	P	C	
BARLEY ALONE	3.3 LBS	3.0 BU	9/1-10/31	9/15-11/15	10/1-12/31	
BARLEY IN MIXTURES	0.6 LBS	0.5 BU				
LESPEDEZA, ANNUAL	0.9 LBS	40 LBS				
LESPEDEZA IN MIXTURES	0.2 LBS	10 LBS	3/1-3/31	3/1-3/31	2/1-2/28	
LOVEGRASS, WEEPIING	0.1 LBS	4.0 LBS	4/1-5/31	4/1-5/31	3/1-5/31	
LOVEGRASS IN MIXTURES	0.05 LBS	2.0 LBS				
MILLET, BROWNTOP	0.9 LBS	40 LBS				
MILLET IN MIXTURES	0.2 LBS	10 LBS	4/15-6/15	4/15-6/30	4/15-6/30	
MILLET, PEARL	1.1 LBS	50 LBS	5/15-7/15	5/1-7/31	4/15-8/15	
OATS ALONE	2.99 LBS	4.0 BU	9/15-11/15	9/15-11/15	9/15-11/15	
OATS IN MIXTURES	0.7 LBS	1.0 BU				
RYE (GRAIN) ALONE	3.9 LBS	3.0 BU	8/15-10/31	9/15-11/30	10/1-12/31	
RYE IN MIXTURES	0.6 LBS	0.5 BU				
RYEGRASS	0.9 LBS	40 LBS	8/15-11/15	9/1-12/15	9/15-12/31	
SUDANGRASS	1.4 LBS	60 LBS	5/31-7/31	5/31-7/31	4/1-7/31	
TRITICALE ALONE	3.3 LBS	3.0 BU	N/A	N/A	10/15-11/30	
TRITICALE IN MIXTURES	0.6 LBS	0.5 BU				
WHEAT ALONE	4.1 LBS	3.0 BU	9/15-11/30	10/1-12/15	10/15-12/31	
WHEAT IN MIXTURES	0.7 LBS	0.5 BU				

TABLE 2: FERTILIZER REQUIREMENTS FOR TEMPORARY VEGETATION

TYPES OF SPECIES	PLANTING YEAR	FERTILIZER (N-P-K)	RATE (LBS/ACRE)	N TOP DRESSING RATE (LBS/ACRE)
COOL SEASON GRASSES	FIRST	6-12-12	1500	50-100
	SECOND	6-12-12	1000	30
	MAINTENANCE	10-10-10	400	---
COOL SEASON GRASSES & LEGUMES	FIRST	6-12-12	1500	0-50
	SECOND	0-10-10	1000	---
	MAINTENANCE	0-10-10	400	---
TEMPORARY COVER CROPS SEEDDED ALONE	FIRST	10-10-10	500	30
WARM SEASON GRASSES	FIRST	6-12-12	1500	50-100
	SECOND	6-12-12	800	50-100
	MAINTENANCE	10-10-10	400	30

Ds4 SOD MAINTENANCE AND INSTALLATION

SOD LAYOUT AND PREPARATION



LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING: ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

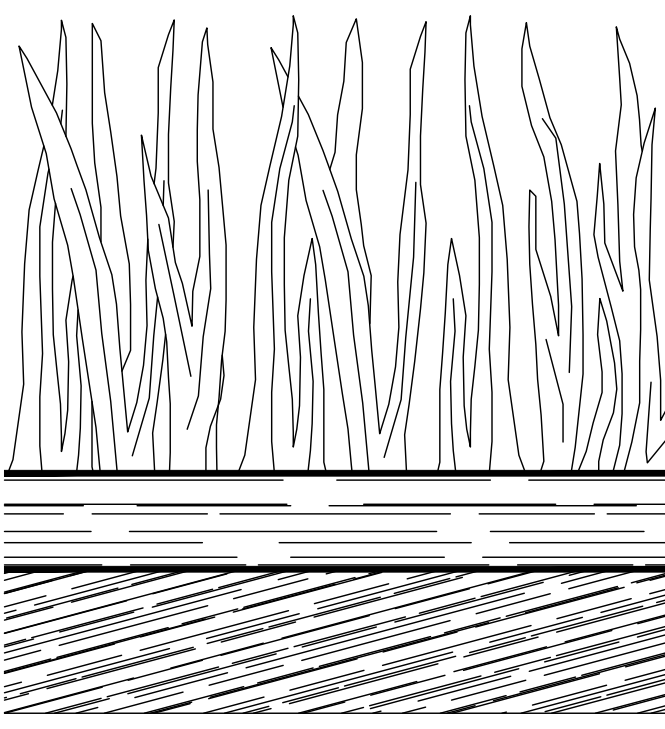
DIRECTIONS FOR INITIAL MAINTENANCE

Step 1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL

Step 2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

Step 3. MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

APPEARANCE OF GOOD SOD



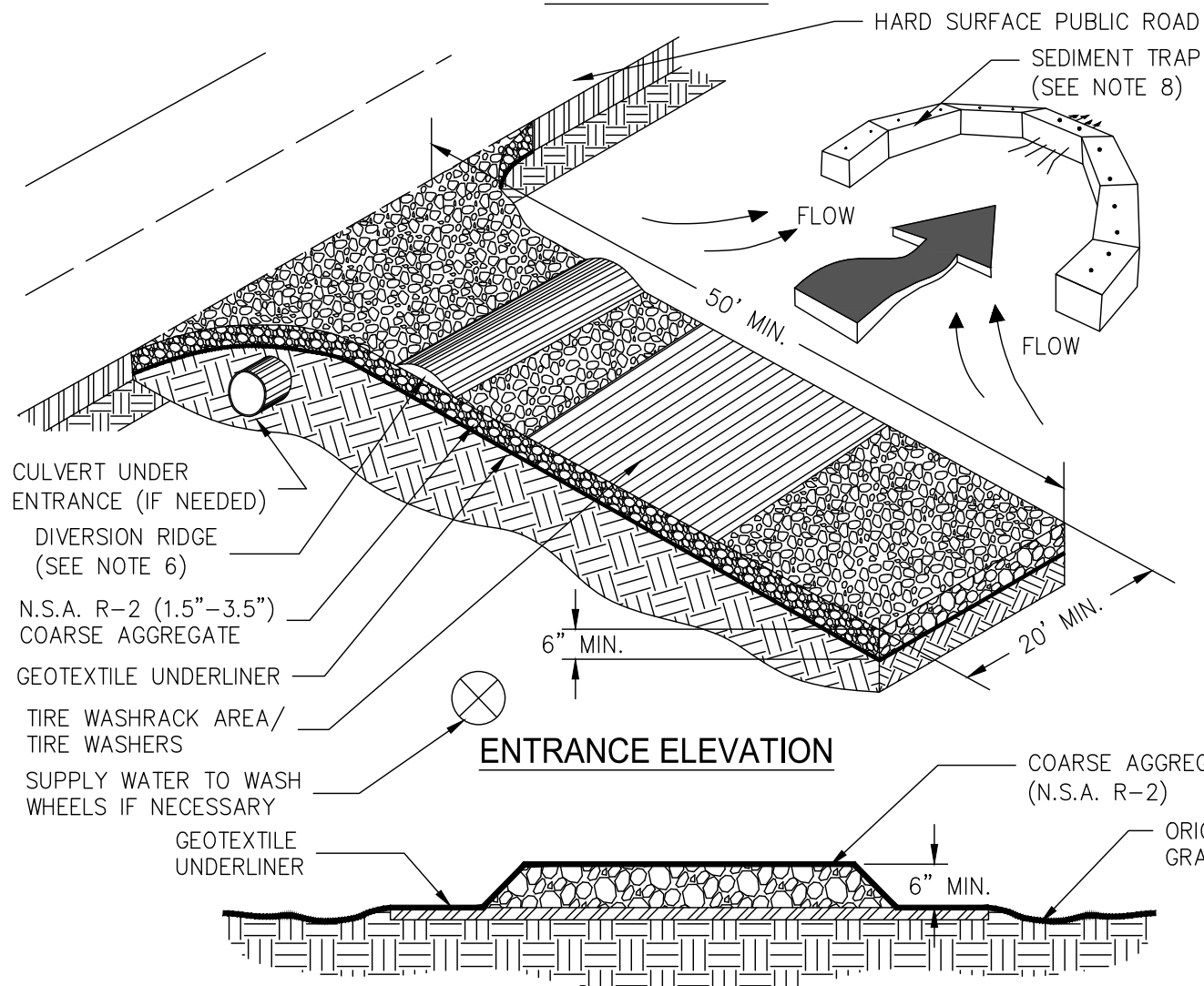
SHOOTS OR GRASS BLADES: GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"-3" CUTTING HEIGHT.

THATCH: GRASS CLIPPINGS AND DEAD LEAVES (UP TO 1/2" THICK).

ROOT ZONE: SOIL AND ROOTS. SHOULD BE 1/2"-3/4" THICK WITH DENSE ROOT MAT FOR STRENGTH.

CRUSHED STONE CONSTRUCTION EXIT

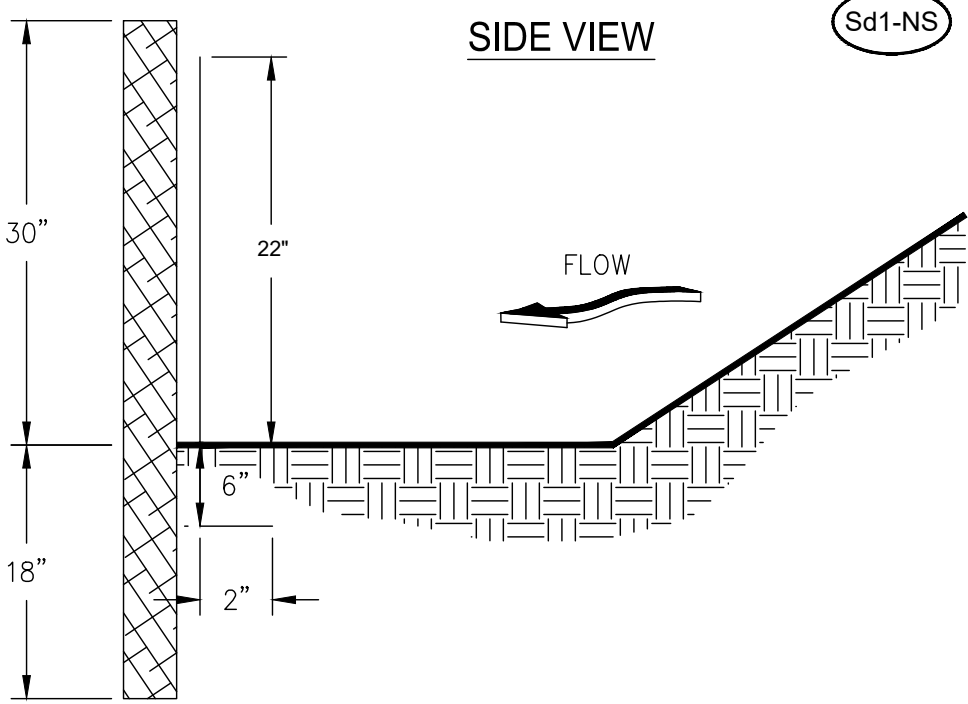
EXIT DIAGRAM



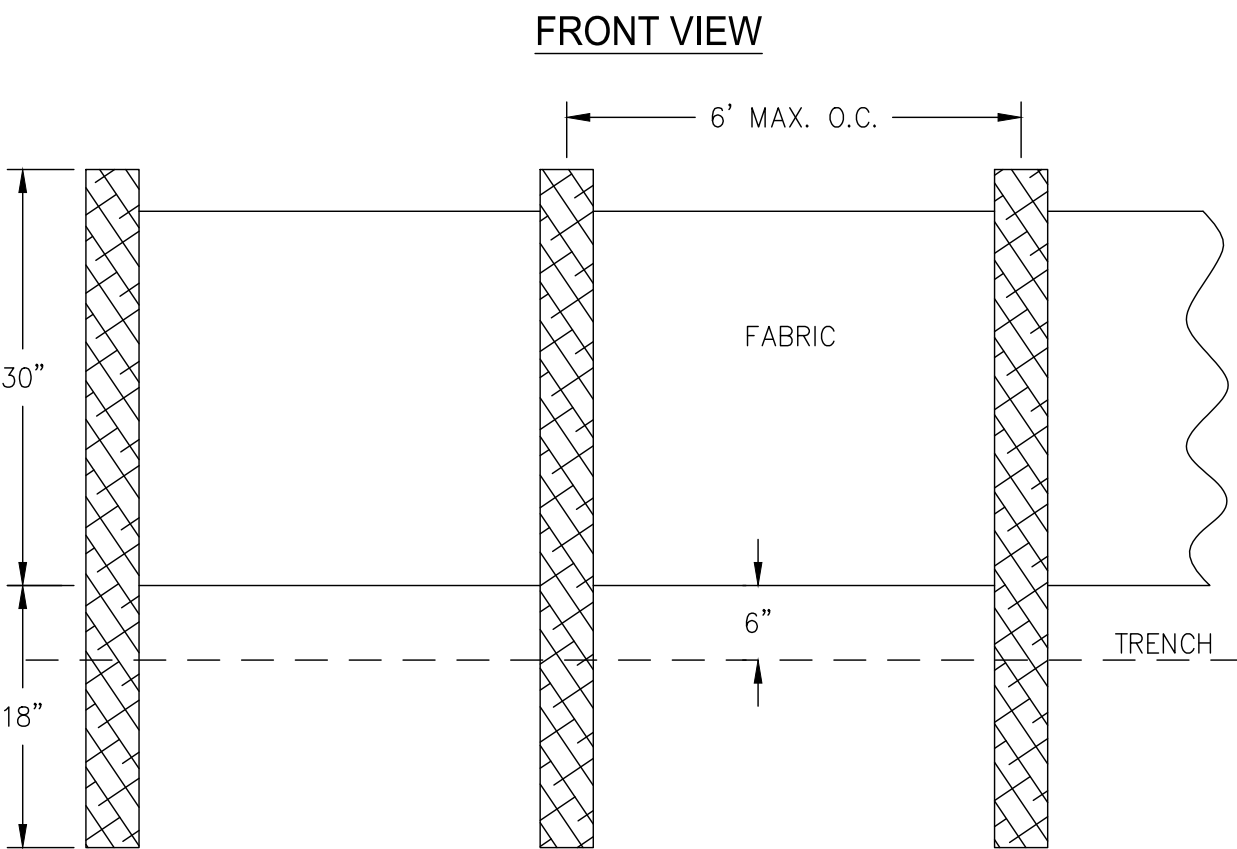
- NOTES:
- AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
 - REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
 - AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
 - GRAVEL PAD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

SILT FENCE - TYPE NON-SENSITIVE

SIDE VIEW



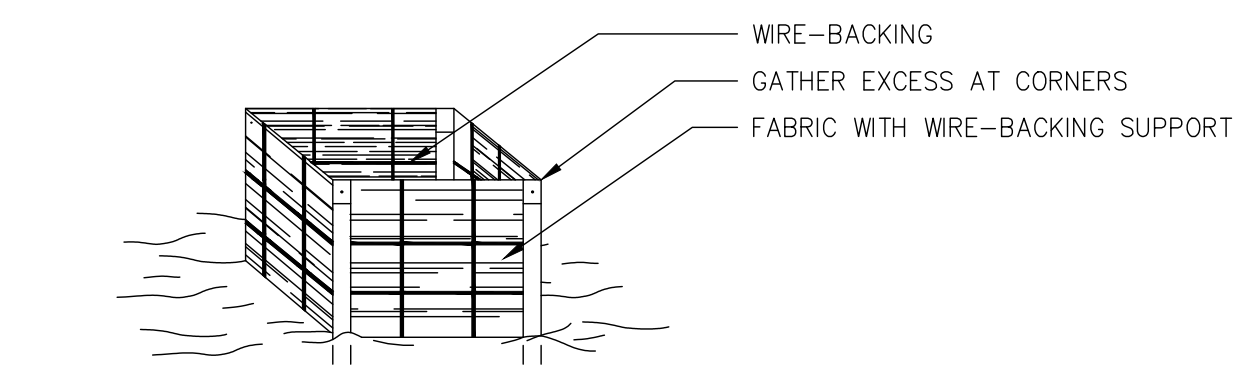
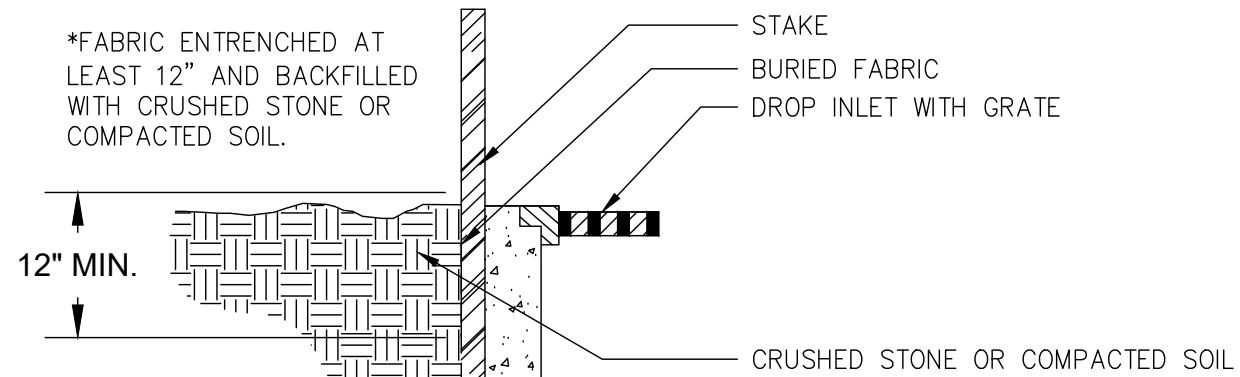
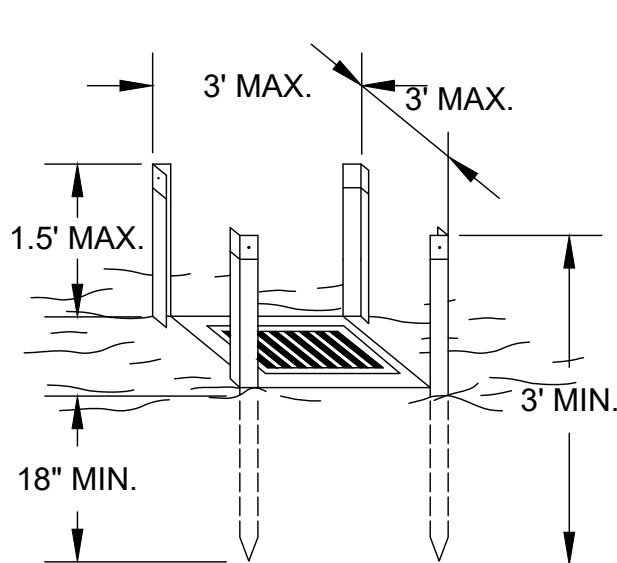
FRONT VIEW



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

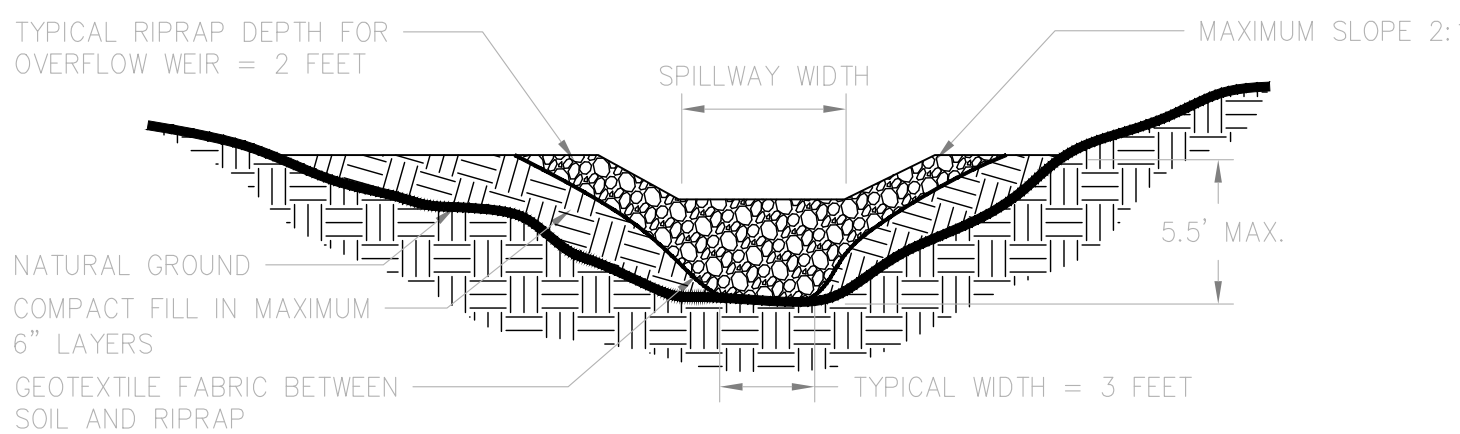
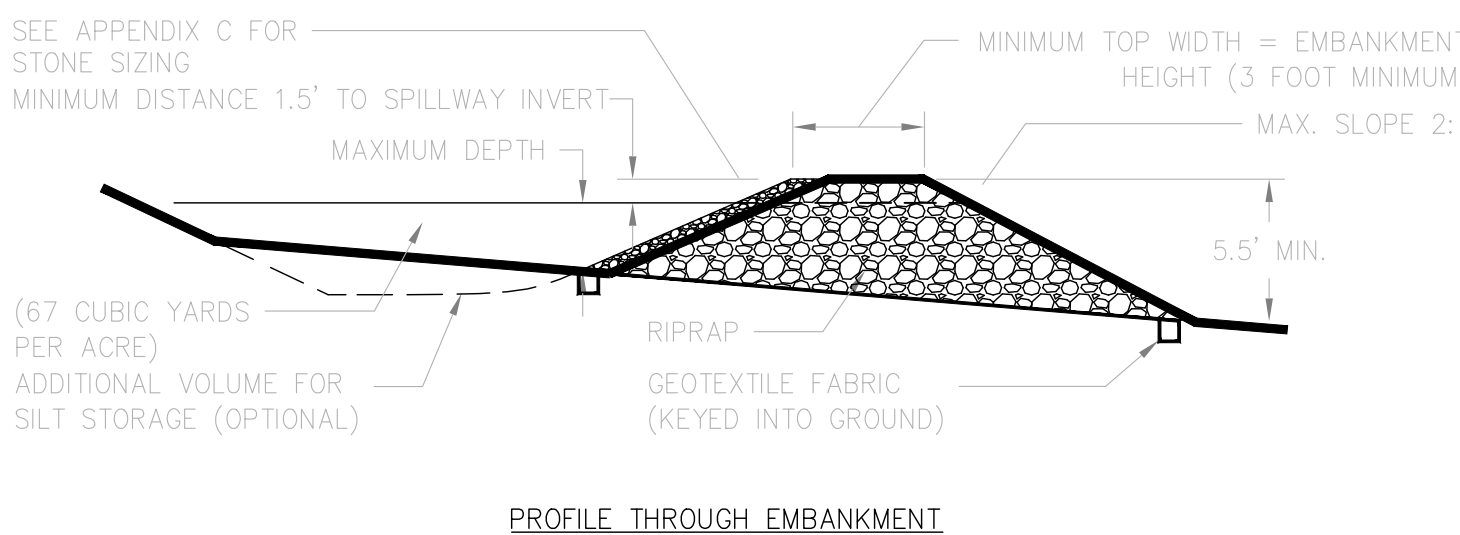
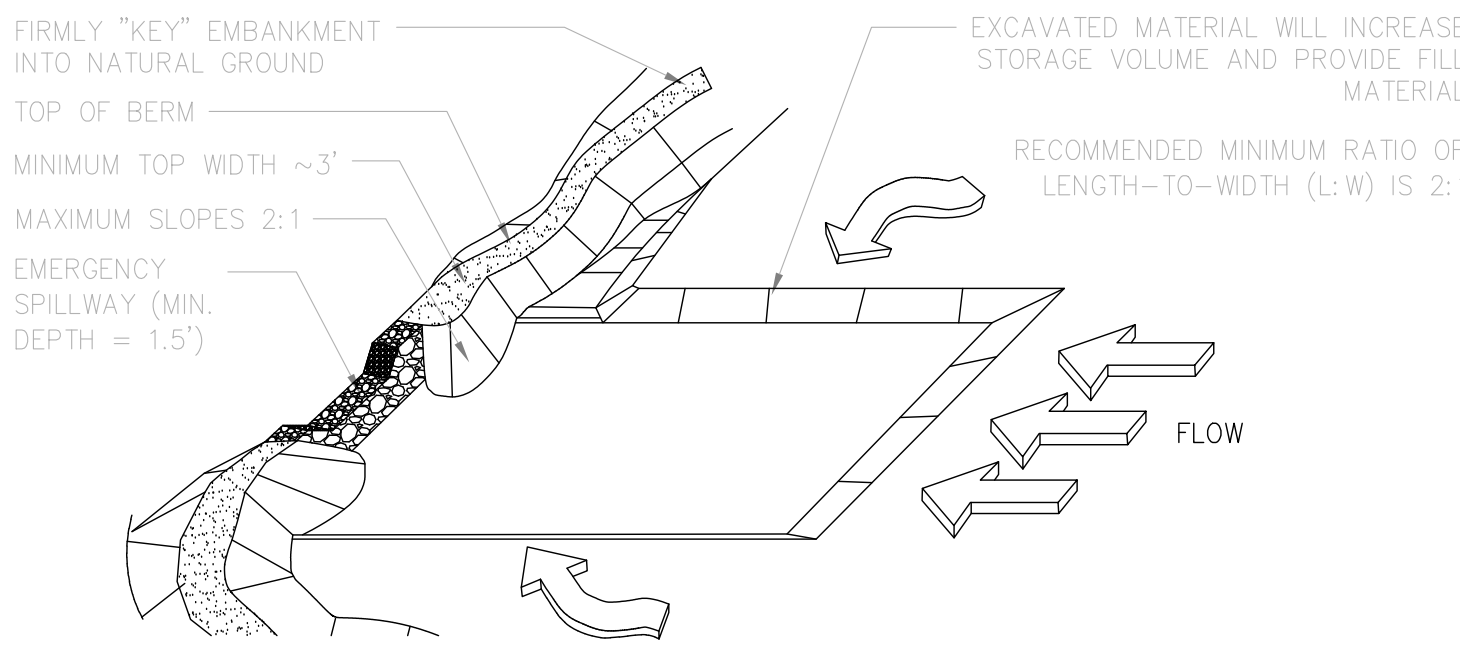
FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

STEEL FRAME AND SILT FENCE INSTALLATION



TEMPORARY SEDIMENT TRAP

COURTESY OF CITY OF KNOXVILLE BMP EROSION AND SEDIMENT ROCK OUTLET



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CONSTRUCTION DETAILS

129 PIPEMAKERS CIRCLE

129 PIPEMAKERS CIRCLE

POOLER, CHATHAM COUNTY, GEORGIA

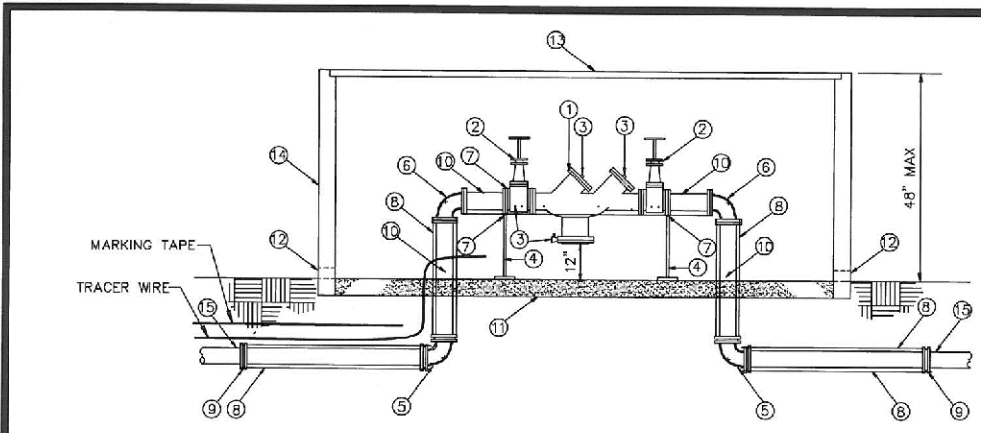
Prepared for:

COMBAT VETERANS, LLC

PROJECT NO.: 24-0056
DRAWN BY: WCS
DESIGNED BY: WCS
SURVEYED BY: BREWER
SURVEY DATE: 11/2024
CHECKED BY: ABM
SCALE: 1" = #####
DATE: 2/2025

SHEET
14

OF ##

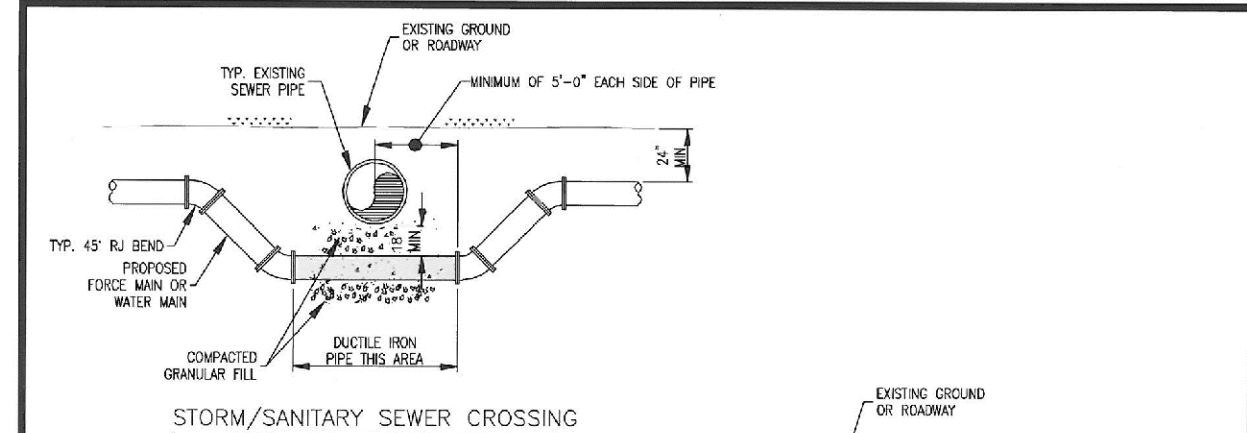


ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	2	0.5 & Y RESISTANT GATE VALVES
3	4	TEST COOKS
4	2	2" GALV. PIPE STAND & BASE BOLTED TO FLANGE
5	2	4" OF BRASS
6	4	FLANGES W/ BRASS
7	2	COMPRESSION FLANGES
8	8	3/4" DIA. GALV. OR CADMIUM ALL THREAD ROD
9	10	3/16" DIA. GALV. OR CADMIUM ALL THREAD ROD
10	10	3/16" DIA. GALV. OR CADMIUM ALL THREAD ROD
11	11	4" DIA. GALV. OR CADMIUM ALL THREAD ROD
12	12	4" DIA. GALV. OR CADMIUM ALL THREAD ROD
13	13	3/8" ALUMINUM FLOOR PLATE
14	14	80#-HARDENED BRASS FLOORED CONSOLE OR PREFABRICATED BOX APPROVED BY CITY
15	15	DUCTILE IRON PIPE

1. FOR FINAL APPROVAL ASSEMBLY MUST BE CENTERED IN ENCLOSURE (IF APPLICABLE). UNDER NO CIRCUMSTANCES WILL ANY CONNECTION BE ALLOWED TO BE MADE TO THE SERVICE METER AND A BACKFLOW PREVENTER USED FOR THE SYSTEM CONTAINMENT. BACKFLOW PREVENTER SHALL ALWAYS BE INSTALLED DOWNSTREAM OF METER.

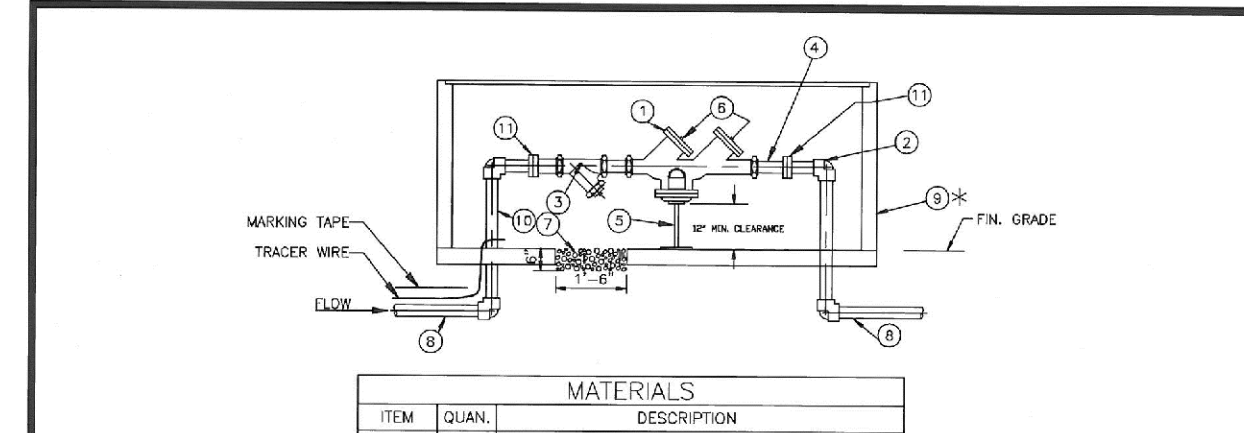
2. IF A PRESSURE MONITOR IS TO BE INSTALLED, ADD A TEST VALVE (FITTING AND NIPPLE) ON SUPPLY SIDE PRIOR TO BACKFLOW PREVENTER. UNDER NO CIRCUMSTANCES SHALL TEST PORTS BE ADAPTED OR UTILIZED FOR THIS OR OTHER APPLICATIONS, OTHER THAN BACKFLOW DEVICE TESTING.

CITY OF POOLER 2011 STANDARD DETAIL	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE - TYPICAL OUTSIDE INSTALLATION DETAIL (3", 4", 6", 8" & 10" SIZES)	DATE: N.T.S. REV: August 2006	W-29
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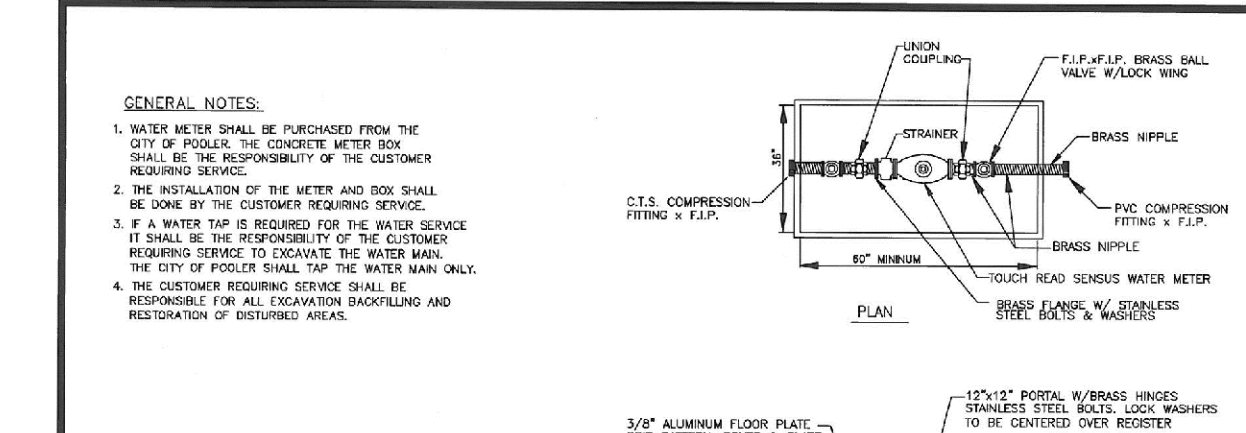
ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	4	BRASS W/ R/FZ DEVICE/DOUBLE CHECK VALVE
3	1	STRAINER W/ R/FZ DEVICE/DOUBLE CHECK VALVE
4	4	BRASS NIPPLE (DOMESTIC MADE)
5	1	PIPE SANDWICH
6	2	BRASS FLANGES INSERTED IN TEST COOKS
7	6	8" GALV. & CORN
8	6	POLYETHYLENE PIPE WITH COMPRESSION FITTINGS
9	4	CITY APPROVED ENCLOSURE WITH HATCH COVER FOR BWP
10	2	CUT BRASS (DOMESTIC MADE)
11	2	UNION

CITY OF POOLER 2011 STANDARD DETAIL	PIPELINE CROSSING DETAIL	DATE: N.T.S. REV: August 2006	W-16
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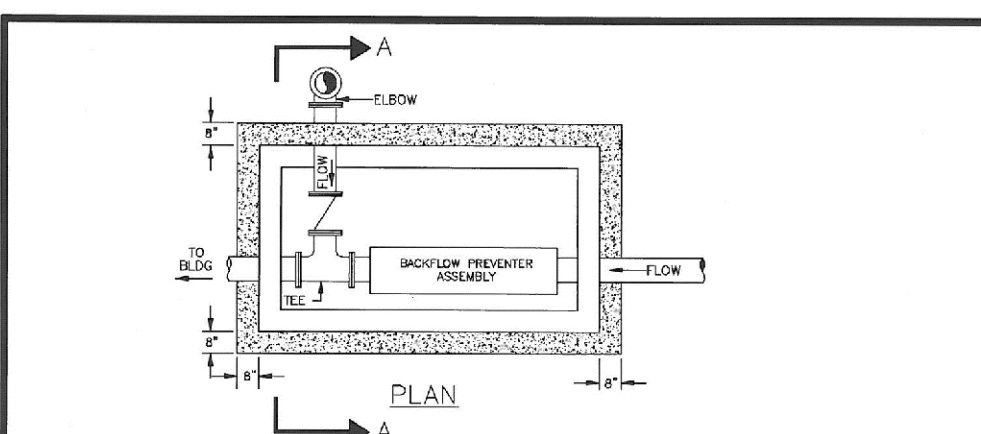
ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	4	BRASS W/ R/FZ DEVICE/DOUBLE CHECK VALVE
3	1	STRAINER W/ R/FZ DEVICE/DOUBLE CHECK VALVE
4	4	BRASS NIPPLE (DOMESTIC MADE)
5	1	PIPE SANDWICH
6	2	BRASS FLANGES INSERTED IN TEST COOKS
7	6	8" GALV. & CORN
8	6	POLYETHYLENE PIPE WITH COMPRESSION FITTINGS
9	4	CITY APPROVED ENCLOSURE WITH HATCH COVER FOR BWP
10	2	CUT BRASS (DOMESTIC MADE)
11	2	UNION

CITY OF POOLER 2011 STANDARD DETAIL	BACKFLOW PREVENTER DETAIL 3/4", 1", 1-1/2", 2"	DATE: N.T.S. REV: January 2011	W-28
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ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	4	BRASS W/ R/FZ DEVICE/DOUBLE CHECK VALVE
3	1	STRAINER W/ R/FZ DEVICE/DOUBLE CHECK VALVE
4	4	BRASS NIPPLE (DOMESTIC MADE)
5	1	PIPE SANDWICH
6	2	BRASS FLANGES INSERTED IN TEST COOKS
7	6	8" GALV. & CORN
8	6	POLYETHYLENE PIPE WITH COMPRESSION FITTINGS
9	4	CITY APPROVED ENCLOSURE WITH HATCH COVER FOR BWP
10	2	CUT BRASS (DOMESTIC MADE)
11	2	UNION

CITY OF POOLER 2011 STANDARD DETAIL	WATER METER INSTALLATION 2" SERVICE PIPE & 1-1/2" & 2" WATER METERS IRRIGATION ONLY	DATE: N.T.S. REV: January 2011	W-22
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ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	4	BRASS W/ R/FZ DEVICE/DOUBLE CHECK VALVE
3	1	STRAINER W/ R/FZ DEVICE/DOUBLE CHECK VALVE
4	4	BRASS NIPPLE (DOMESTIC MADE)
5	1	PIPE SANDWICH
6	2	BRASS FLANGES INSERTED IN TEST COOKS
7	6	8" GALV. & CORN
8	6	POLYETHYLENE PIPE WITH COMPRESSION FITTINGS
9	4	CITY APPROVED ENCLOSURE WITH HATCH COVER FOR BWP
10	2	CUT BRASS (DOMESTIC MADE)
11	2	UNION

1. THE VALVE PIT SHALL BE SIZED TO ACCOMMODATE ALL PROPOSED EQUIPMENT.

2. THERE SHALL BE NO SHUTOFF VALVE IN THE FIRE SERVICE CONNECTION (FOR NFPA 12).

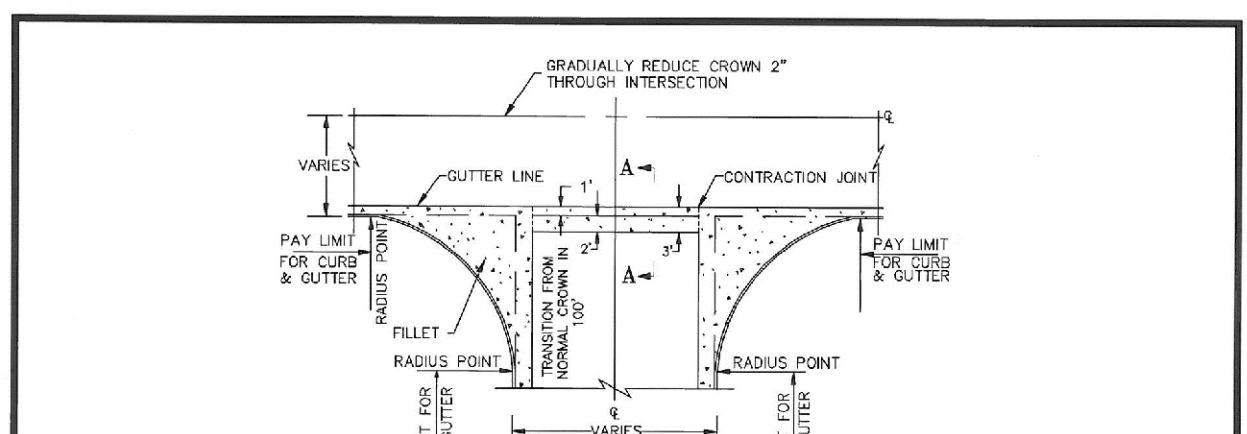
3. ALL FITTINGS SHALL BE FURNISHED.

4. ALL PIPING SHALL BE SIZED OR DUCTILE IRON.

5. SEE SITE PLANS FOR SIZES OF FITTINGS AND FITTINGS. SHOWN CONNECTION TO BE IN ACCORDANCE WITH NFPA 12.

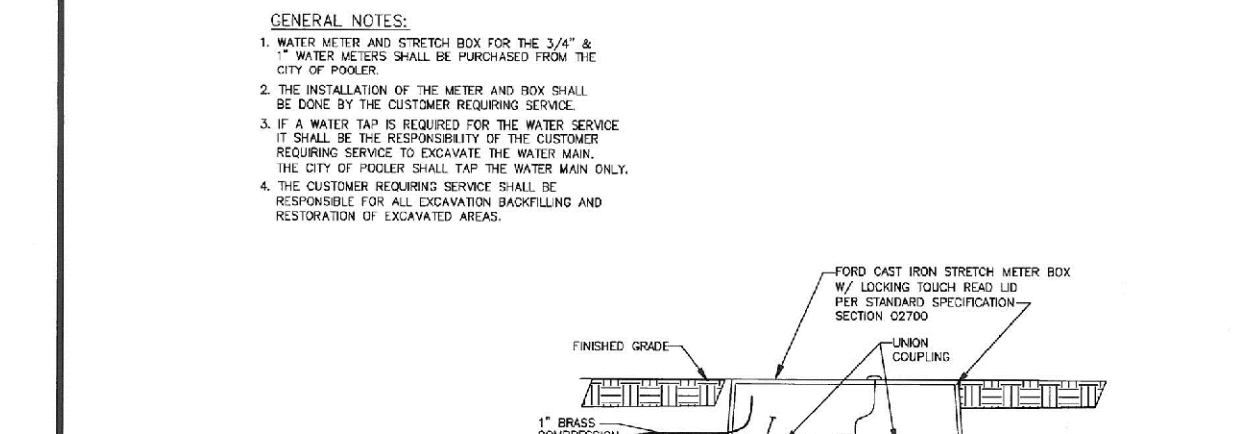
6. PROVIDE DRAINAGE AWAY FROM STRUCTURE.

CITY OF POOLER 2011 STANDARD DETAIL	FIRE SERVICE SYSTEM FOR BUILDINGS	DATE: N.T.S. REV: January 2011	W-36
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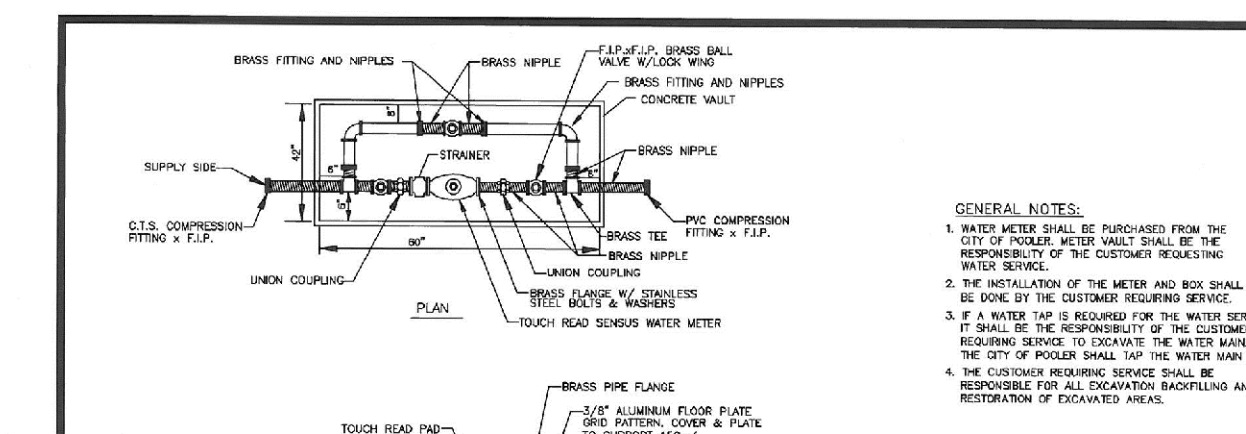
ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	4	BRASS W/ R/FZ DEVICE/DOUBLE CHECK VALVE
3	1	STRAINER W/ R/FZ DEVICE/DOUBLE CHECK VALVE
4	4	BRASS NIPPLE (DOMESTIC MADE)
5	1	PIPE SANDWICH
6	2	BRASS FLANGES INSERTED IN TEST COOKS
7	6	8" GALV. & CORN
8	6	POLYETHYLENE PIPE WITH COMPRESSION FITTINGS
9	4	CITY APPROVED ENCLOSURE WITH HATCH COVER FOR BWP
10	2	CUT BRASS (DOMESTIC MADE)
11	2	UNION

CITY OF POOLER 2011 STANDARD DETAIL	CONCRETE SWALE WITH FILLETS	DATE: N.T.S. REV: August 2006	P-31
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ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	4	BRASS W/ R/FZ DEVICE/DOUBLE CHECK VALVE
3	1	STRAINER W/ R/FZ DEVICE/DOUBLE CHECK VALVE
4	4	BRASS NIPPLE (DOMESTIC MADE)
5	1	PIPE SANDWICH
6	2	BRASS FLANGES INSERTED IN TEST COOKS
7	6	8" GALV. & CORN
8	6	POLYETHYLENE PIPE WITH COMPRESSION FITTINGS
9	4	CITY APPROVED ENCLOSURE WITH HATCH COVER FOR BWP
10	2	CUT BRASS (DOMESTIC MADE)
11	2	UNION

CITY OF POOLER 2011 STANDARD DETAIL	WATER METER INSTALLATION 1" SERVICE PIPE, 3/4" WATER METER & 1" WATER METER DOMESTIC, IRRIGATION & COMMERCIAL USE ONLY	DATE: N.T.S. REV: August 2006	W-21
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ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	4	BRASS W/ R/FZ DEVICE/DOUBLE CHECK VALVE
3	1	STRAINER W/ R/FZ DEVICE/DOUBLE CHECK VALVE
4	4	BRASS NIPPLE (DOMESTIC MADE)
5	1	PIPE SANDWICH
6	2	BRASS FLANGES INSERTED IN TEST COOKS
7	6	8" GALV. & CORN
8	6	POLYETHYLENE PIPE WITH COMPRESSION FITTINGS
9	4	CITY APPROVED ENCLOSURE WITH HATCH COVER FOR BWP
10	2	CUT BRASS (DOMESTIC MADE)
11	2	UNION

CITY OF POOLER 2011 STANDARD DETAIL	WATER METER INSTALLATION 2" SERVICE PIPE & 1-1/2" & 2" WATER METERS DOMESTIC	DATE: N.T.S. REV: August 2006	W-23
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PIPE DIA.	11 1/4"	22 1/2"	45"	90"
4	2	4	8	18
6	3	5	11	25
8	4	7	14	33
10	4	8	16	39
12	5	9	19	45
16	5	9	19	45
20	6	11	23	54
24	8	16	26	62

PIPE DIA.	11 1/4"	22 1/2"	45"	90"
4	3	5	9	20
6	3	6	12	28
8	4	8	16	36
10	5	9	19	43
12	6	11	22	51
16	7	14	28	65
20	8	16	33	79
24	9	19	38	92

NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIAMETERS ARE IN INCHES.

2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

PIPE DIA.	11 1/4"	22 1/2"	45"
4	4	1	8
6	6	1	11
8	8	2	15
10	9	2	18
12	11	2	21
16	10	3	21
20	13	3	25
24	15	4	29

PIPE DIA.	11 1/4"	22 1/2"	45"
4	6	1	12
6	9	2	17
8	11	2	22
10	13	2	26
12	15	3	30
16	19	3	39
20	23	4	47
24	27	4	55

NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES.

2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

TEE	U1	10'	20'
4X4	3	+	16X10
6X4	+	+	16X12
6X6	5	+	16X16
8X4	+	+	20X6
8X6	+	+	20X8
8X8	18	+	20X10
10X4	+	+	20X12
10X6	+	+	20X16
10X8	8	+	20X20
10X10	28	11	24X6
12X4	+	+	24X8
12X6	+	+	24X10
12X8	+	+	24X12
12X10	20	+	24X16
12X12	39	3	24X20
16X6	+	+	24X24
16X8	+	+	24X24

RESTRAINT AT TEE ONLY.

NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.

2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

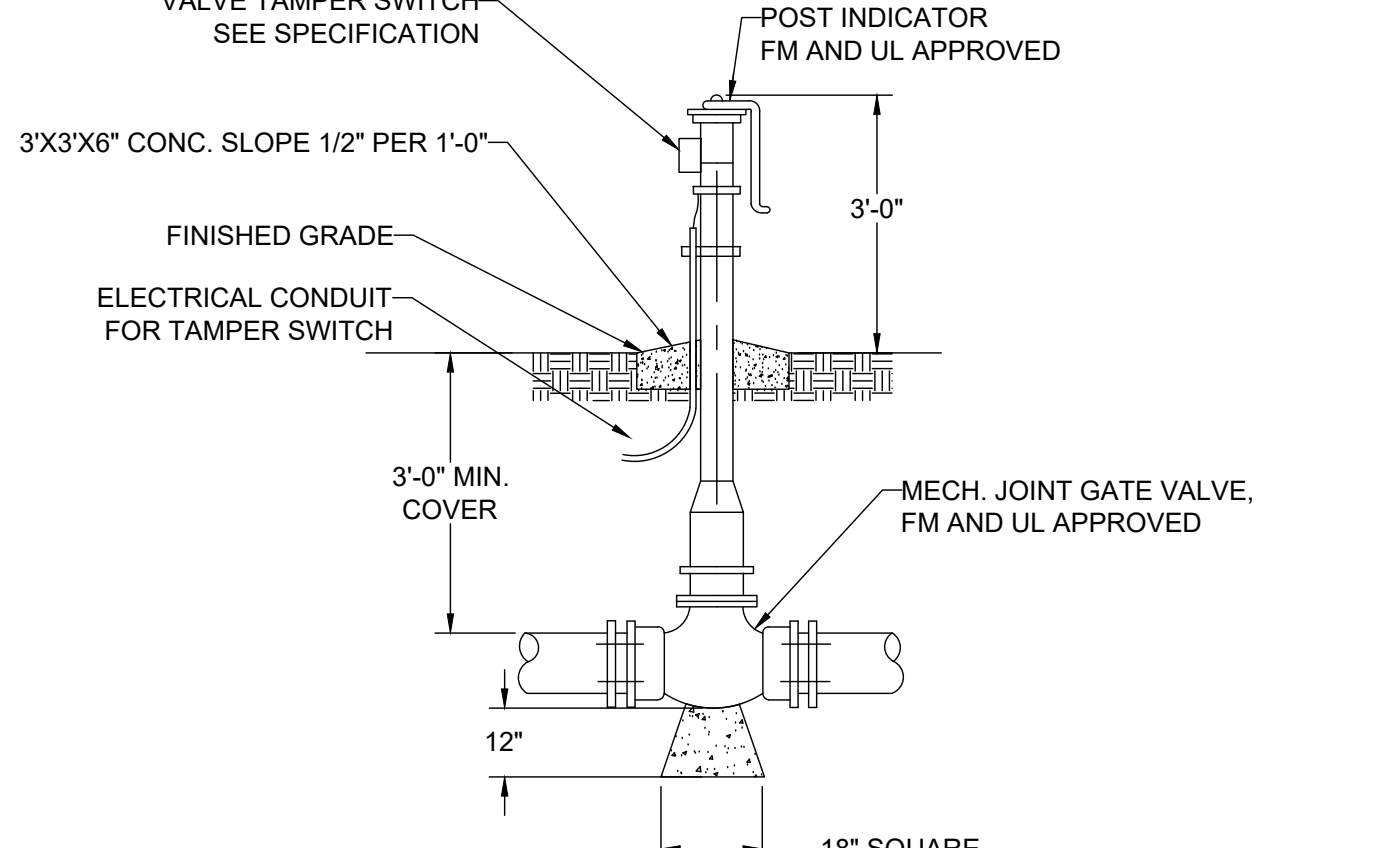
3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.

4. Ur = THE SMALLER OF U1 OR U2.

5. L = MINIMUM RESTRAINT LENGTH ALONG THE BRANCH.

6. WHERE Ur IS LESS THAN 5', RESTRAINT TEE AS A 90°.

7. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.



ITEM	QUAN.	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE/DOUBLE CHECK VALVE
2	4	BRASS W/ R/FZ DEVICE/DOUBLE CHECK VALVE
3	1	STRAINER W/ R/FZ DEVICE/DOUBLE CHECK VALVE
4	4	BRASS NIPPLE (DOMESTIC MADE)
5	1	PIPE SANDWICH
6	2	BRASS FLANGES INSERTED IN TEST COOKS
7	6	8" GALV. & CORN
8	6	POLYETHYLENE PIPE WITH COMPRESSION FITTINGS
9	4	CITY APPROVED ENCLOSURE WITH HATCH COVER FOR BWP
10	2	CUT BRASS (DOMESTIC MADE)
11	2	UNION

CITY OF POOLER 2011 STANDARD DETAIL	POST INDICATOR VALVE NOT TO SCALE	DATE: N.T.S. REV: August 2006	W-25
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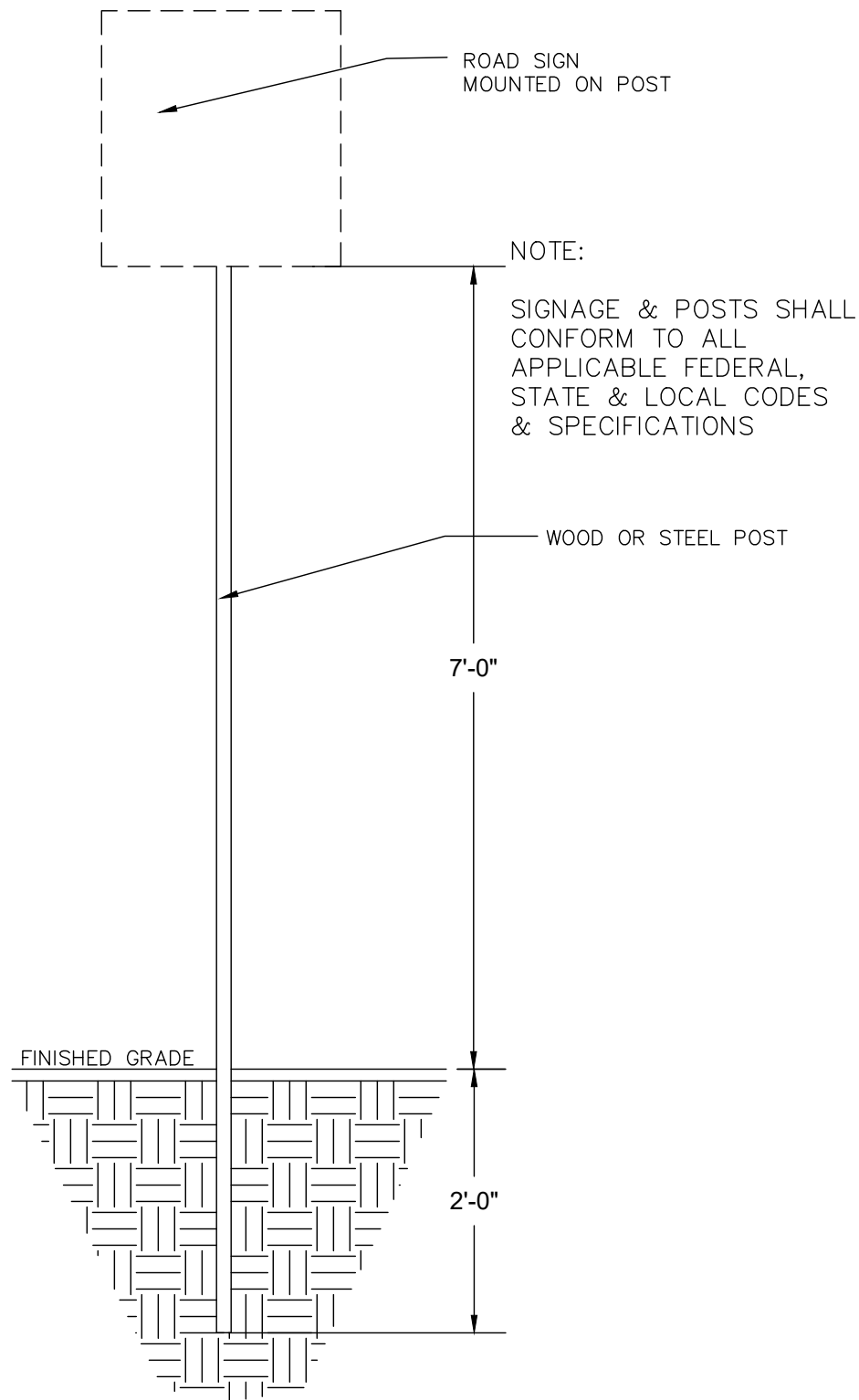
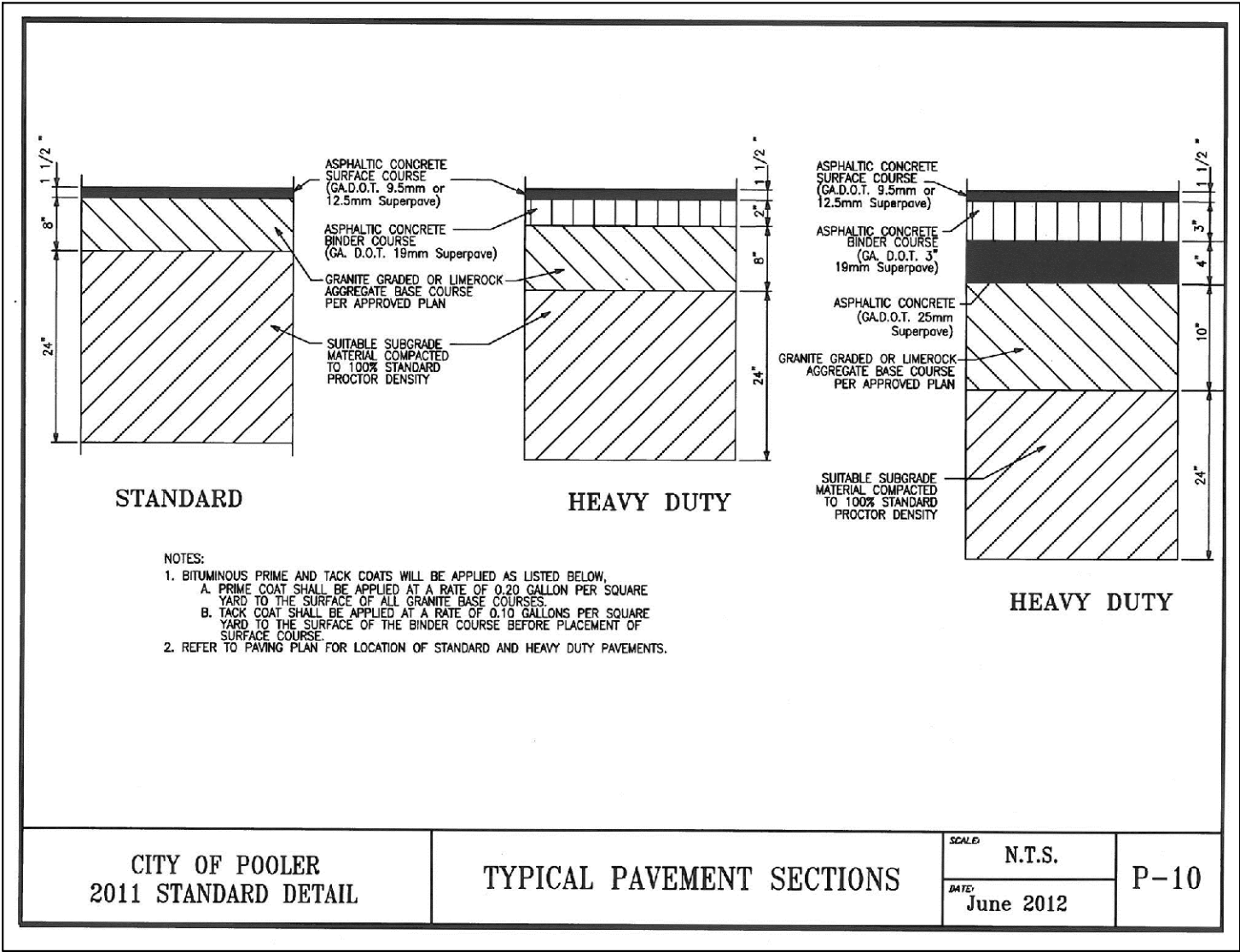
GRAPHIC SCALE: 1" = 10'-0"

EMC ENGINEERING SERVICES, INC.
27 Chatham Center South, Suite A
Savannah, GA 31405
P.O. Box 232, 31405
SAVANNAH, GA 31405
SAVANNAH@EMC-ENG.COM
WWW.EMC-ENG.COM

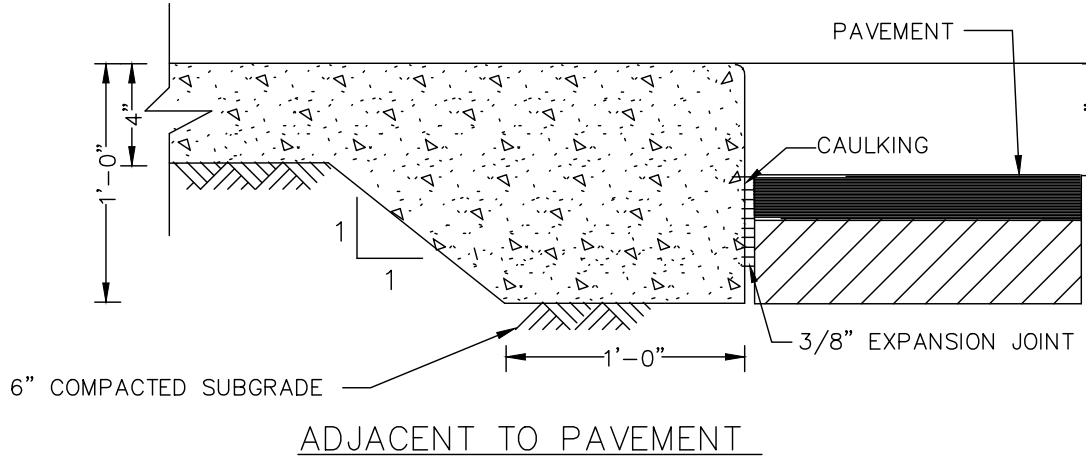
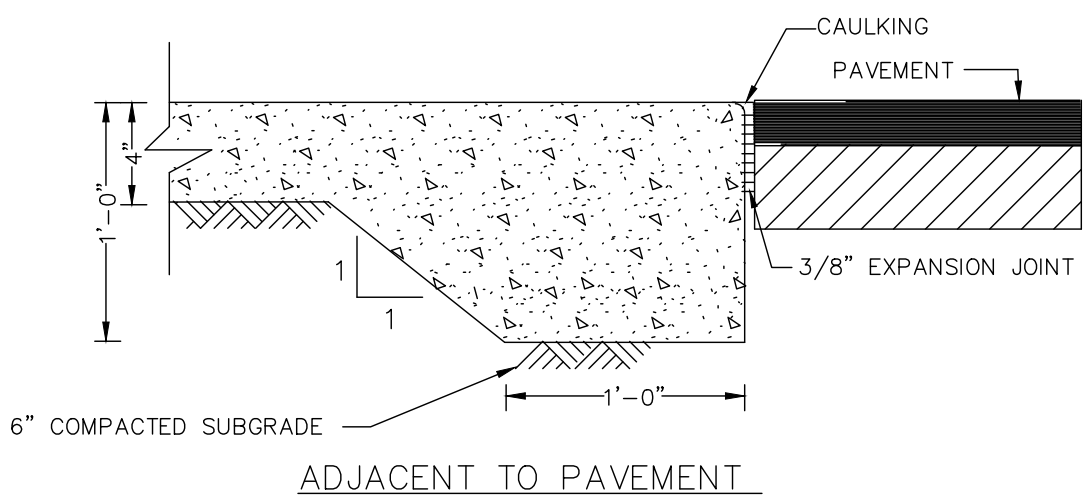
CONSTRUCTION DETAILS
129 PIPEMAKERS CIRCLE
129 PIPEMAKERS CIRCLE
POOLER, CHATHAM COUNTY, GEORGIA
Prepared for:
COMBAT VETERANS, LLC

PROJECT NO.:	24-0056
DRAWN BY:	WCS
DESIGNED BY:	WCS
SURVEYED BY:	BREWER
SURVEY DATE:	11/2024
CHECKED BY:	ABM
SCALE:	1" = 10'-0"
DATE:	2/2025

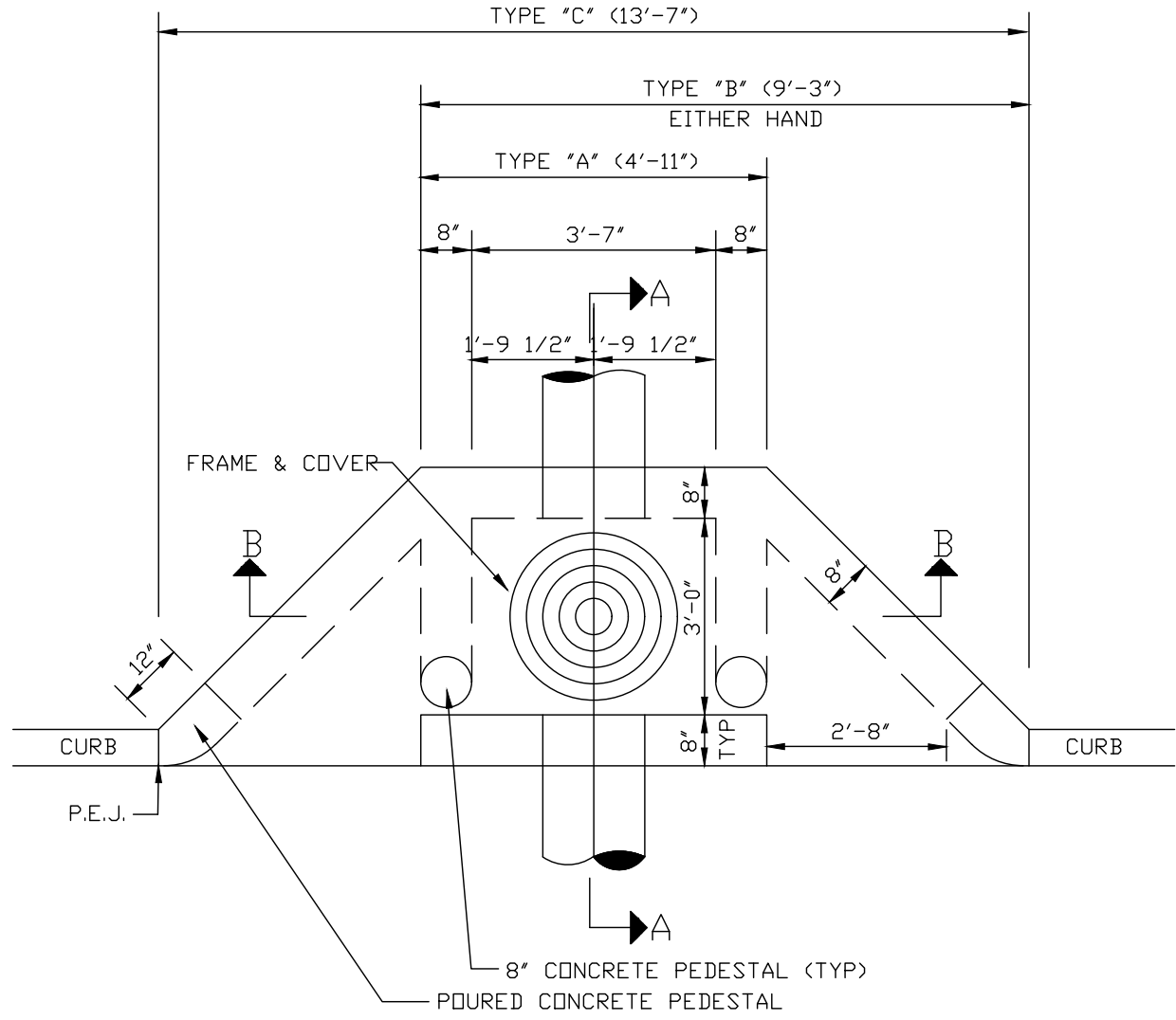
SHEET
17
OF ##



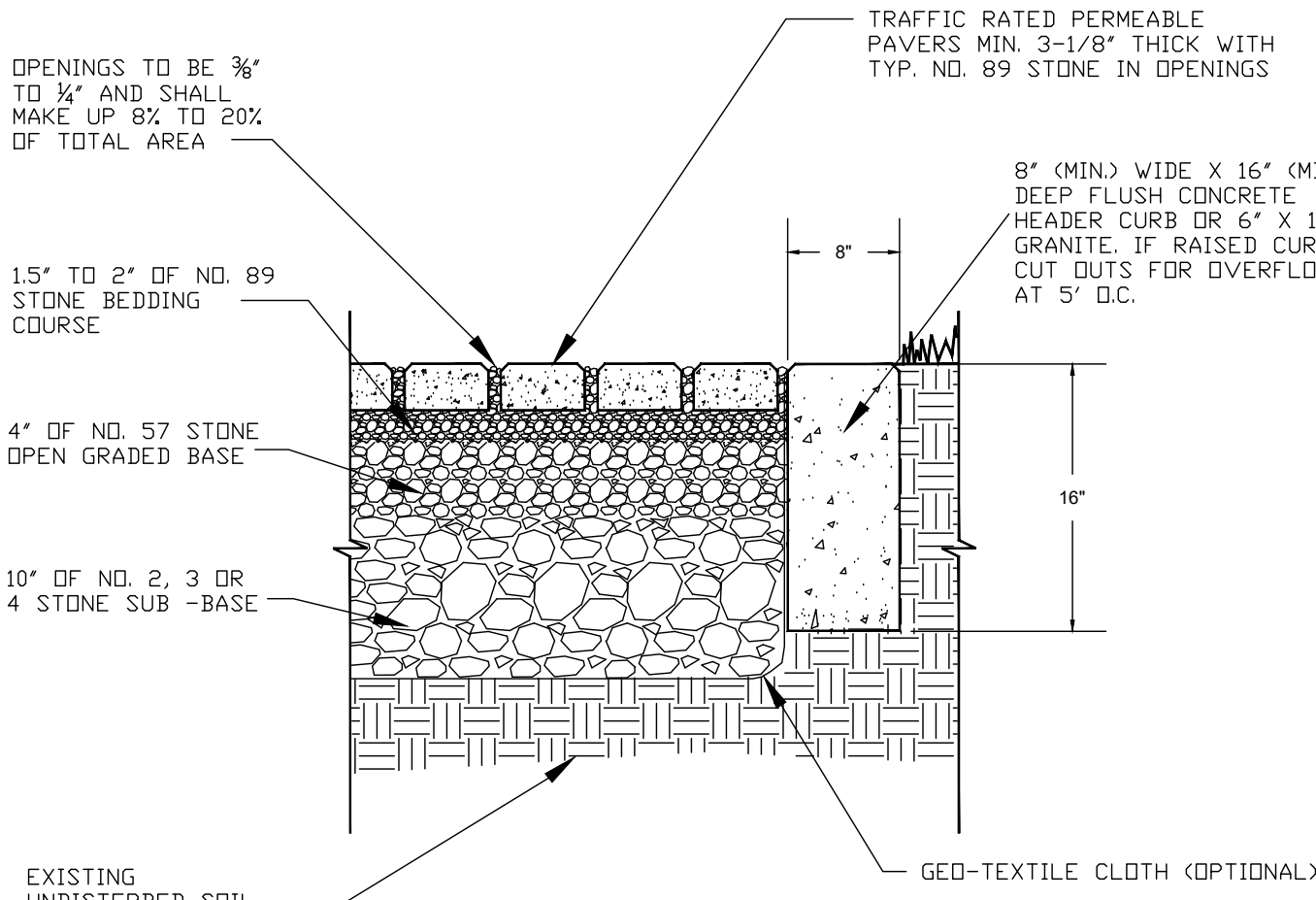
TYPICAL ROAD SIGN INSTALLATION
NOT TO SCALE



TURN DOWN SIDEWALK DETAIL

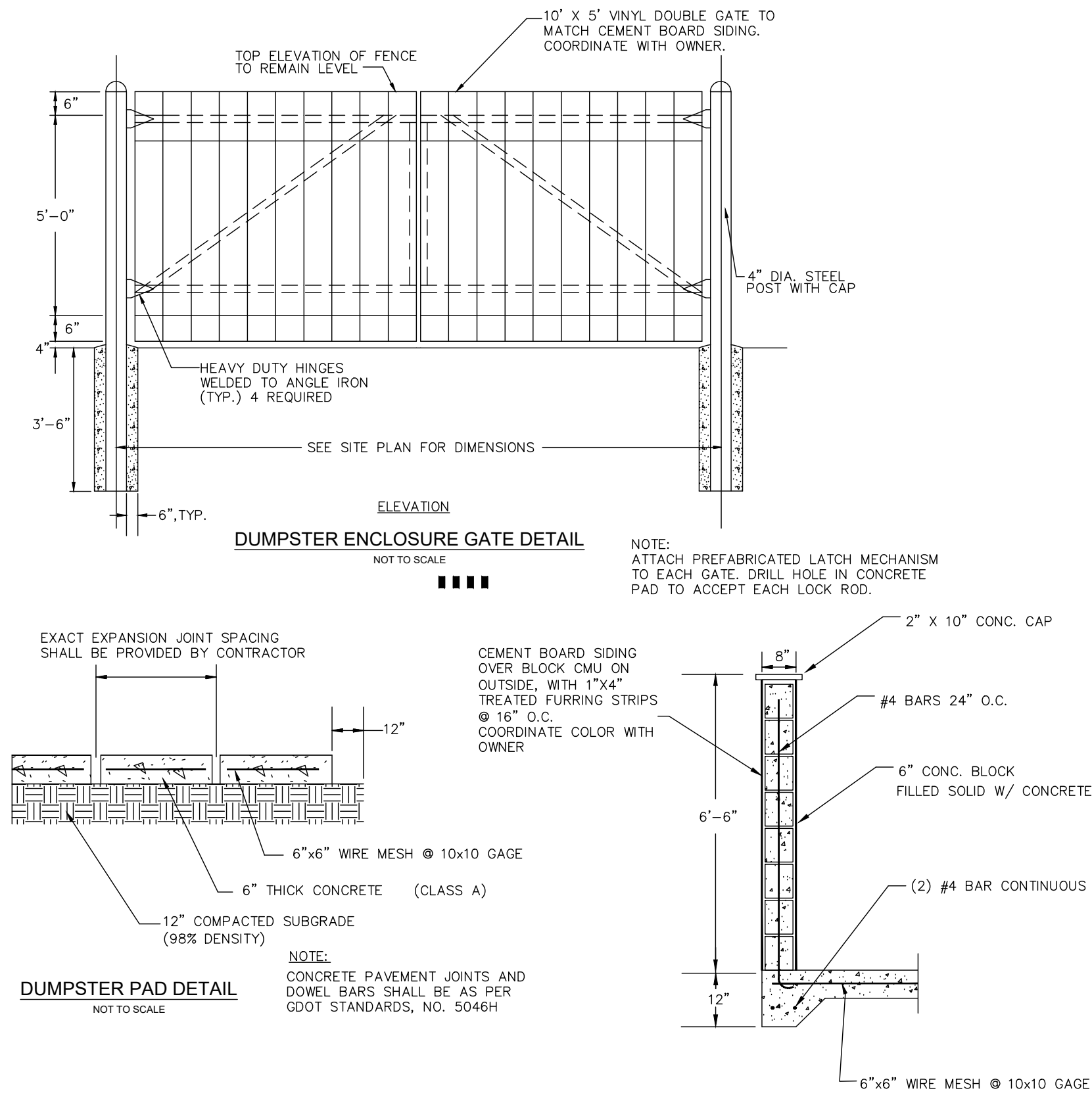


CURB INLET DETAIL
NOT TO SCALE

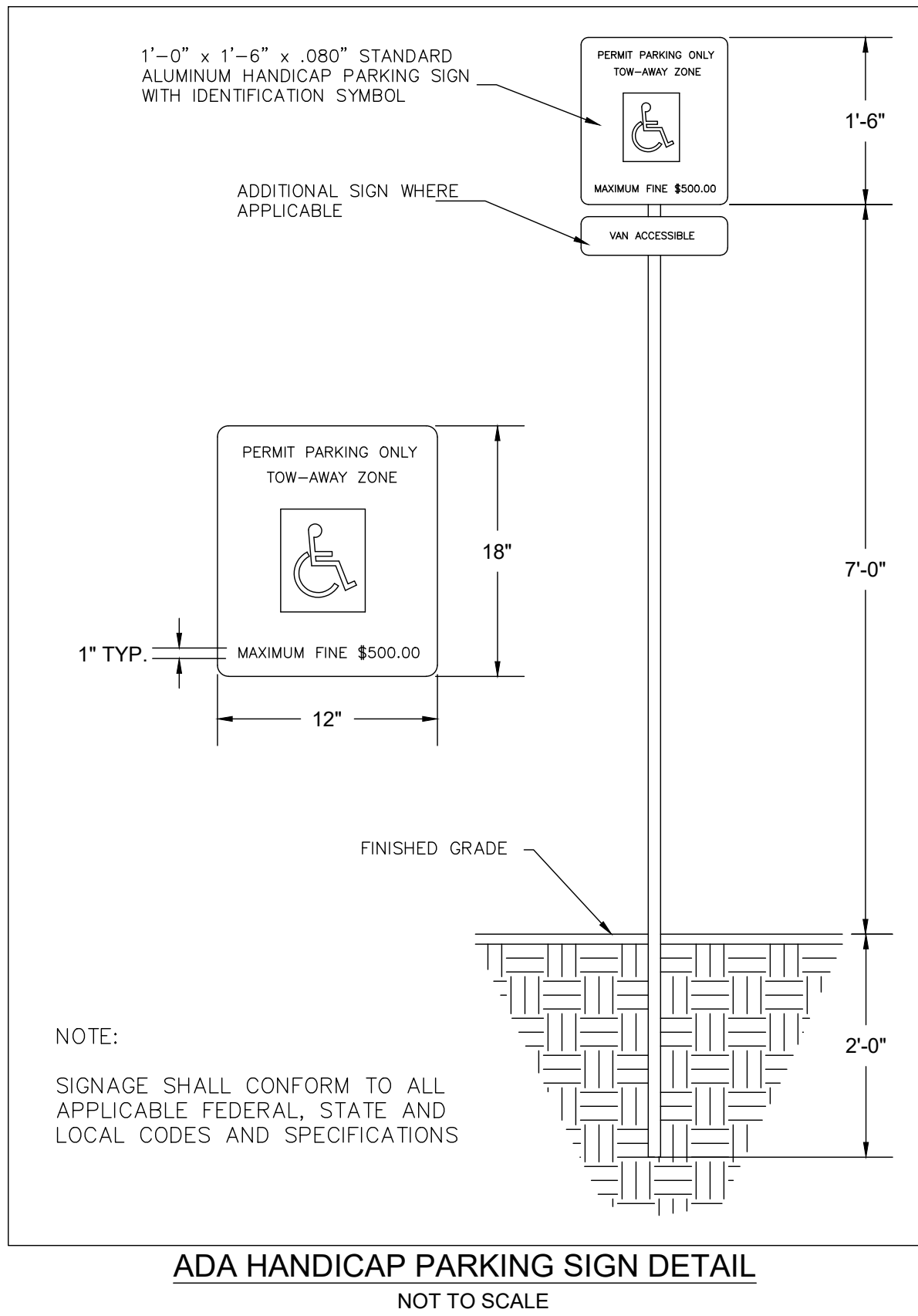


- NOTES:
1. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE CITY OF POOLER DEVELOPMENT GUIDELINES, TECHNICAL SPECIFICATIONS AND STANDARD DETAILS.
 2. CONCRETE HEADER CURB DIMENSIONS MAY DIFFER BASED ON PROJECT SPECIFIC DESIGN REQUIREMENTS.
 3. BASE COMPACTION UNDER CURB TO BE 98% (ASTM D698).
 4. CONTRACTION JOINTS TO BE SAW CUT NO LATER THAN 24 HOURS AFTER THE POUR.

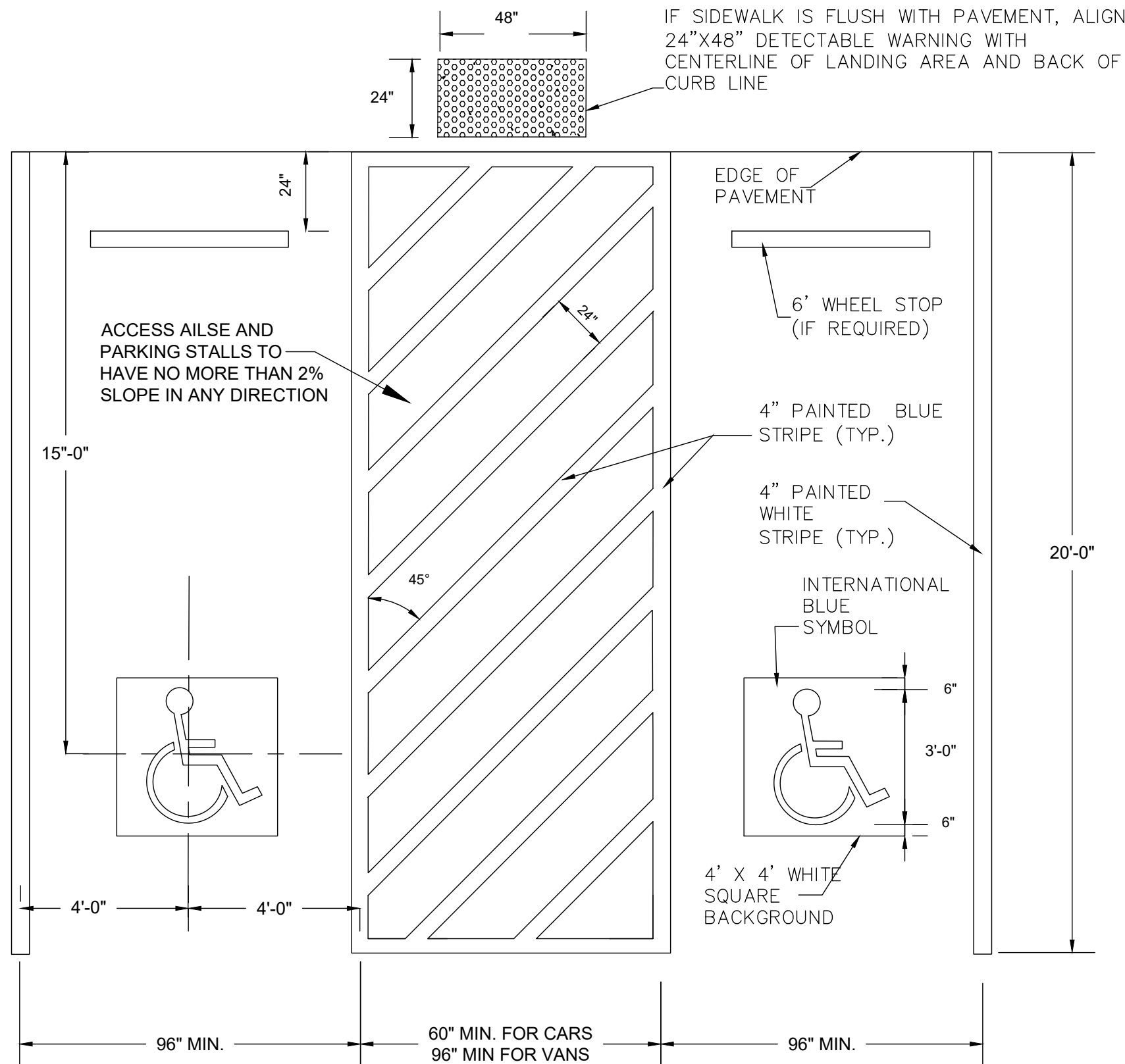
PERMEABLE PAVEMENT DETAIL



DUMPSTER ENCLOSURE WALL SECTION
NOT TO SCALE



ADA HANDICAP PARKING SIGN DETAIL
NOT TO SCALE



ADA PARKING SPACE DETAIL
NOT TO SCALE

DATE									
REVISION DESCRIPTION									
NO.									



GRAPHIC SCALE: 1" = ###

EMC ENGINEERING SERVICES, INC.
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CONSTRUCTION DETAILS

129 PIPEMAKERS CIRCLE
129 PIPEMAKERS CIRCLE
POOLER, CHATHAM COUNTY, GEORGIA

Prepared for:
COMBAT VETERANS, LLC

PROJECT NO.: 24-0056
DRAWN BY: WCS
DESIGNED BY: WCS
SURVEYED BY: BREWER
SURVEY DATE: 11/2024
CHECKED BY: ABM
SCALE: 1" = ###
DATE: 2/2025

SHEET
18
OF ##