



THIS PROPERTY IS LOCATED IN A 100 YEAR FLOOD HAZARD AREA BASED ON THE FLOOD INSURANCE RATE MAP FOR THIS AREA. THE MAP NUMBER FOR THIS AREA IS 13067C0181H AND THE DATE OF SAID MAP IS 03/04/2013.

REQUIRED ENGINEER'S INSPECTION

AS PER THE GEORGIA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION, NPDES GENERAL PERMITS FOR CONSTRUCTION ACTIVITY GARI00001, GARI00002, & GARI00003; PART IV, A., 7. REQUIRES THE EROSION CONTROL PLAN DESIGN PROFESSIONAL TO SUBMIT THE EROSION CONTROL PLAN TO THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN, EXCEPT WHEN THE PRIMARY PERMITEE HAS REQUESTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATE DESIGN PROFESSIONAL, TO REQUEST THE INSTALLATION OF THE CONTROL MEASURES (BMP'S) WHICH THE DESIGN PROFESSIONAL HAS RECOMMENDED. THE EFFECTIVE DATE OF THIS PERMIT, THE INSPECTION IS TO OCCUR WITHIN SEVEN (7) DAYS AFTER THE PLAN HAS BEEN IMPLEMENTED. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMP'S HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PRIMARY PERMITEE WITHIN SEVEN (7) DAYS AND THE PERMITEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF THE RECEIVED REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED.



24 HOUR CONTACT:
 DWAYNE EBERHART
 TEL: 770-943-8010

PROJECT INFORMATION

POWDER SPRINGS PARK - DOG PARK

ADDRESS: 3899 BROWNSVILLE ROAD
POWDER SPRINGS, GA 30127
LAND LOT 901 OF THE 19TH DISTRICT
COBB COUNTY, GEORGIA



TOTAL AREA: 4.52 ACRES
DISTURBED AREA: 1.1 ACRES

OWNER:

NAME: CITY OF POWDER SPRINGS
ADDRESS: 4484 MARIETTA STREET
POWDER SPRINGS, GA 30127
CONTACT: DWAYNE EBERHART
PHONE: 770-943-8010

SHEET INDEX

SHEET	DRAWING NAME	SHEET NAME	PLAN DATE	LAST REVISED
1	C-000	COVER SHEET	08/29/2025	
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APPROVAL REVIEW STAMPS

POWDER SPRINGS PARK - DOG
PARK
CONSTRUCTION DOCUMENTS
LAND LOT 901
OF THE 19TH DISTRICT
CITY OF POWDER SPRINGS, COBB COUNTY, GEORGIA

NO.	REVISION REFERENCE	DATE

SEAL



GSWCC CERT #14353

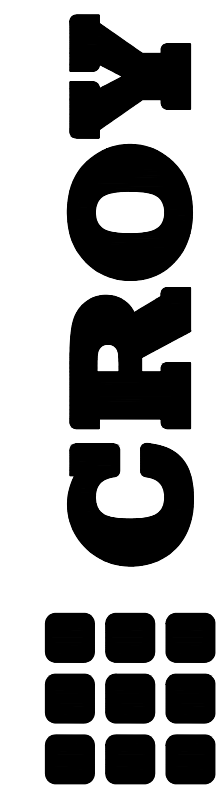
SHEET TITLE
COVER

DRAWN BY LMT	CHECKED BY KAK
SCALE NTS	ISSUE DATE 08/29/2025

PROJECT NUMBER
2503.031

DRAWING NUMBER
C-000

SHEET 1 of 14



200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY MEERING, LLC. NOR ARE THEY TO BE ASSIGNED TO ANY PARTY WITHOUT WRITTEN PERMISSION AND CONSENT.

Plot Scale: 1" = 100' Plot Style: Design.ctb. Plotted By: Luke Torbert on 8/29/2025, 4:14 PM

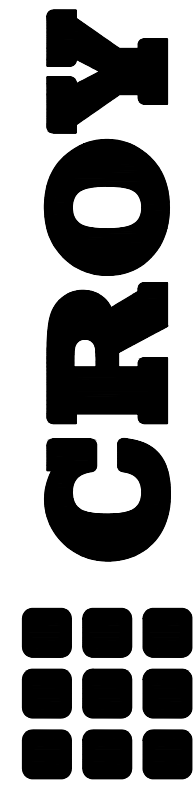
ISSUED FOR CONSTRUCTION

- THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE GEORGIA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS AND DETAILS (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES' SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.
3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.
8. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF GEORGIA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
10. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
11. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
13. CONSTRUCTION EQUIPMENT SHALL BE PARKED IN A LOCATION APPROVED BY THE OWNER.
14. ALL PROPOSED DIMENSIONS ARE TO THE FACE CURB UNLESS OTHERWISE NOTED.
15. THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
16. CONSTRUCTION WASTE MAY NEITHER BE BURNED NOR BURIED AND MUST BE TAKEN TO A STATE APPROVED LANDFILL. STUMPS AND CONSTRUCTION DEBRIS SHALL BE DEPOSITED IN A PROPERLY PERMITTED LANDFILL.
17. ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL AND LOCAL CODES.
18. ALL MATERIALS AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH THE COBB COUNTY STANDARDS AND THE GEORGIA DEPARTMENT OF TRANSPORTATION, AS APPLICABLE.
19. DEVIATION FROM THESE PLANS AND SPECIFICATIONS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ENGINEER MAY CAUSE THE WORK TO BE UNACCEPTABLE.
20. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATIONS AND LIAISON WITH UTILITY COMPANIES IN THE PROCESS OF LOCATING, RELOCATING AND TIE-IN TO PUBLIC UTILITIES. ALSO, CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL INSPECTORS, INCLUDING COUNTY AND CITY INSPECTORS PRIOR TO BEGINNING SITE CONSTRUCTION.
21. THERE MAY BE ADDITIONAL UTILITIES THAN THOSE SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR LOCATIONS SHOWN AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS AND NECESSARY INVERTS OF ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE DEPARTMENT OF THE UTILITY COMPANIES. THE CONTRACTOR IS RESPONSIBLE FOR THE NOTIFICATIONS AND LIAISON WITH UTILITY COMPANIES IN THE PROCESS OF LOCATING, RELOCATING AND TIE-IN TO THE PUBLIC UTILITIES.
22. IF CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE UTILITIES TO ORIGINAL CONDITION AND QUALITY, AS APPROVED BY THE ENGINEER AND REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A MARKED-UP SET OF DESIGN DRAWINGS SHOWING ALL "AS-BUILT" CONDITIONS. THESE "RECORD DRAWINGS" SHALL BE MADE AVAILABLE TO THE DESIGNER AND/OR THE COUNTY INSPECTOR UPON REQUEST. THE MARK-UPS SHALL BE AT THE SITE AT ALL TIMES AND SHALL BE UTILIZED BY THE CONTRACTOR TO DEVELOP FINAL RECORD DRAWINGS.
24. THE CONTRACTOR SHALL TELEPHONE TOLL FREE 1-800-282-7411 A MINIMUM OF 48 HOURS PRIOR TO THE START OF ANY EXCAVATION AS SHOWN AND NOTED ON THE PLANS FOR A UTILITY LOCATION SERVICE.
25. ALL APPROPRIATE SITE WORK SHALL CONFORM TO ADA STANDARDS.
26. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE CONTRACTOR SHALL FURNISH A TRAFFIC CONTROL PLAN TO BE APPROVED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION A MINIMUM OF 72 HOURS PRIOR TO ANY ROAD AND LANE CLOSURES. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL EMERGENCY SERVICES PRIOR TO LANE AND ROAD CLOSINGS.

- ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN COUNTY'S RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR GDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
2. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.
3. TRAFFIC CONTROL ON ALL GDOT, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SODDED UNLESS INDICATED OTHERWISE ON THE PLANS.
6. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON DETAIL SHEETS.
7. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 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.
8. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.
9. THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
11. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.
12. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDS AS SPECIFIED IN THE PLANS. FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDS AND MULCHED AS SHOWN ON THE PLANS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
14. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS.
15. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
16. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.
17. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
18. AREAS TO BE GRADED ARE TO BE STRIPPED, CLEARED AND GRUBBED PRIOR TO COMMENCING GRADING OPERATIONS. TOPSOIL SHALL BE STOCKPILED IN SUCH A MANNER AS TO NOT CONTAMINATE STRUCTURAL FILL.
19. NO SOIL FOUND ON THE SITE OR TRANSPORTED TO THE SITE WHICH IS CONTAMINATED SHALL BE USED FOR FILL, BACKFILL OR LANDSCAPING TOPSOIL.
20. ONCE DESIGNATED AREAS ARE STRIPPED, AT GRADE AREAS AND AREAS THAT ARE TO RECEIVE FILL, BE FILL COVERED WITH A HEAVILY LOADED DUMP TRUCK OR OTHER RUBBER-TIRED CONSTRUCTION EQUIPMENT. ANY MATERIAL THAT DEFLECTS EXCESSIVELY, WHICH CANNOT BE DENSIFIED BY CONTINUED ROLLING SHOULD BE UNDERCUT TO A MORE STABLE SOIL BEFORE PLACING FILL MATERIAL.
21. ALL FILL MATERIAL SHOULD BE PLACED IN THIN, HORIZONTAL LIFTS (MAXIMUM 8-INCH) AND COMPACTED TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698). THE UPPER 12 INCHES OF SOIL BENEATH PAVEMENTS AND SLABS-ON-GRADE SHOULD BE COMPACTED TO AT LEAST 98 PERCENT. IN CONFINED AREAS, SUCH AS UTILITY TRENCHES OR BEHIND RETAINING WALLS, PORTABLE EQUIPMENT AND THINNER FILL LIFTS (3 TO 4 INCHES) MAY BE NECESSARY. FILL MATERIAL USED IN STRUCTURAL AREAS SHOULD HAVE A TARGET MAXIMUM DRY DENSITY OF 95 PCF, OR GREATER. IF LIGHTER WEIGHT FILL MATERIALS ARE USED, A GEOTECHNICAL ENGINEER SHOULD BE CONSULTED.
22. TRENCH CONSTRUCTION FOR STORM DRAINAGE PIPE SHALL BE IN ACCORDANCE WITH STATE HIGHWAY STANDARD 1030D (OR MOST CURRENT).
23. NO STRUCTURES, FENCES OR OTHER OBSTRUCTIONS MAY BE LOCATED WITHIN A DRAINAGE OR ACCESS EASEMENT WITHOUT PRIOR APPROVAL FROM THE APPROPRIATE JURISDICTION.
24. MAXIMUM CUT SLOPES ARE 2 HORIZONTAL TO 1 VERTICAL. CONTINUOUS FILL SLOPES TEN (10) FEET IN HEIGHT OR LESS MAY BE 2 HORIZONTAL TO 1 VERTICAL. ALL CONTINUOUS FILL SLOPES THAT EXCEED TEN (10) FEET IN HEIGHT MUST BE 3 HORIZONTAL TO 1 VERTICAL UNLESS: (a) A MECHANICALLY ENGINEERED STABILIZED SLOPE IS APPROVED BY THE CITY DIRECTOR OF ENGINEERING; OR (b) THE DESIGNED AND CONSTRUCTED SLOPES ARE CERTIFIED BY A REGISTERED ENGINEER EXPERIENCED IN GEOTECHNICAL ENGINEERING AND LICENSED IN THE STATE OF GEORGIA.

25. ALL ASPHALT PAVING AND BASE SHALL BE COMPACTED IN ACCORDANCE WITH THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS CONSTRUCTION OF ROADS AND BRIDGES, LATEST EDITION.
26. ALL CATCH BASINS, DROP INLETS OR OTHER DRAINAGE STRUCTURES SHALL COMPLY WITH THE LATEST STANDARDS APPROVED AND FOMULATED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION IN STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES, LATEST EDITION.
27. ALL REINFORCED CONCRETE PIPE (RCP) JOINTS SHALL BE BELL & SPIGOT TYPES WITH A RUBBER GASKET CONFORMING TO ASTM C-443. THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH AASHTO M-170 AND/OR ASTM C-76. CLASS OF PIPE AND WALL THICKNESS SHALL BE IN ACCORDANCE WITH 1030-D, GEORGIA DEPARTMENT OF TRANSPORTATION, SPECIFICATION, TABLE NO. 1. INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 550 OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS, CONSTRUCTION OF ROADS AND BRIDGES.
28. HIGH DENSITY POLYETHYLENE (HDPE) PIPE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-294 AND AASHTO MP7, TYPES S&D. CONNECTIONS SHALL USE A RUBBER GASKET, WHICH CONFORMS TO AASHTO F477. INSTALLATION SHALL BE IN ACCORDANCE WITH WITH ASTM RECOMMENDED PRACTICE D-2321, AASHTO SECTION 30, OR WITH SECTION 550 OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CONSTRUCTION OF ROADS AND BRIDGES.
29. CORRUGATED STEEL PIPE (CMP) SHALL BE TYPE 2 ALUMINIZED FOR PIPE UNDER FILL AND ARE TO BE FULLY COATED. THE MINIMUM GAUGE FOR TYPE 2 ALUMINIZED PIPE IS 14 (0.075 INCHES) OR PER COUNTY STANDARDS. THE MINIMUM GAUGE FOR NON-ALUMINIZED STEEL PIPE IS 12 (0.109 INCHES) OR PER CITY STANDARDS.
30. ALL ALUMINUM COATED TYPE 2 STEEL PIPE OR ALUMINUM ALLOY PIPE, WHICH WILL CARRY A LIVE STREAM, SHALL HAVE PAVED INVERTS IN ACCORDANCE WITH AASHTO M-190, TYPE C, EXCEPT THAT THE PIPE NEED NOT BE FULLY COATED. INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 550 OF THE GEORGIA DOT STANDARD SPECIFICATIONS, CONSTRUCTION OF ROADS AND BRIDGES.
31. ALL SPOT ELEVATIONS ARE TO THE BOTTOM FACE CURB AND/OR PAVEMENT.
32. SOIL MOISTURE CONTENT SHOULD BE MAINTAINED WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT. WE RECOMMEND THAT THE GRADING CONTRACTOR HAVE EQUIPMENT ON SITE DURING EARTHWORK FOR BOTH DRYING AND WETTING FILL SOILS. MOISTURE CONTROL MAY BE DIFFICULT DURING RAINY WEATHER.

GEORGIA811
www.Georgia811.com 
Contact 811 before you dig.



200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
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Plot Scale: * = #⁴, Drawing Rotation: ##⁶, Plot Style: Design.ctb, Plotted By: Luke Torbert on 8/29/2025, 4:14 PM

POWDER SPRINGS PARK - DOG PARK

CONSTRUCTION DOCUMENTS

LAND LOT(S) 901

CITY OF POWDER SPRINGS, COBB COUNTY, GEORGIA
OF THE 19TH DISTRICT

ISSUED FOR CONSTRUCTION

NO	REVISION REFERENCE	DATE

GSWCC CERT #14353

SHEET TITLE
GENERAL NOTES

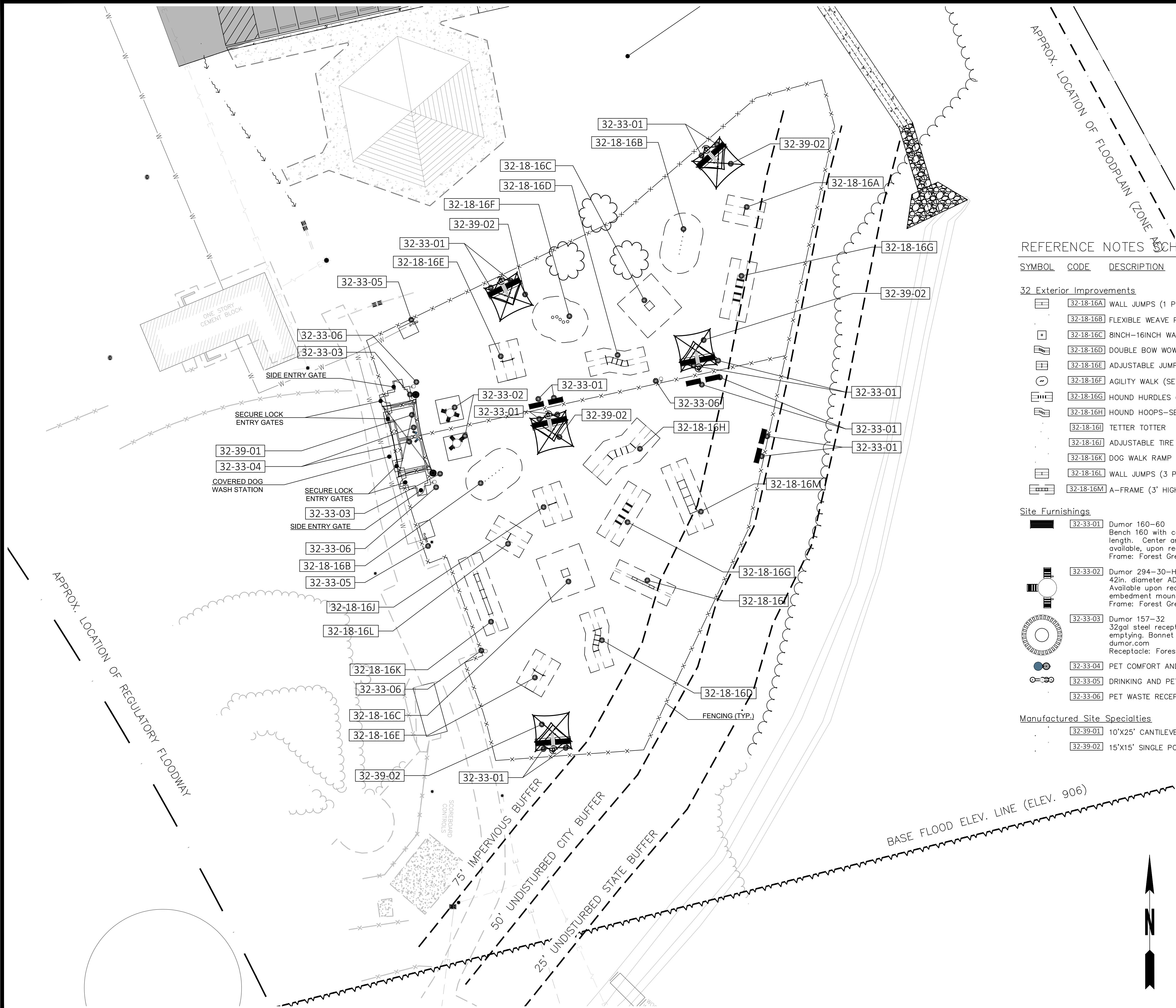
DRAWN BY LMT	CHECKED BY KAK
SCALE NTS	ISSUE DATE 08/29/2025

PROJECT NUMBER
2503.031

DRAWING NUMBER

C-001

SHEET 2 of 14



REFERENCE NOTES SCHEDULE

SYMBOL	CODE	DESCRIPTION	QTY	DETAIL
32 Exterior Improvements				
	32-18-16A	WALL JUMPS (1 PLANK)	1	1/C-601
	32-18-16B	FLEXIBLE WEAVE POLES (SET OF 6)	2	2/C-601
	32-18-16C	8INCH-16INCH WAIT TABLE	2	3/C-601
	32-18-16D	DOUBLE BOW WOW BARREL	2	4/C-601
	32-18-16E	ADJUSTABLE JUMP BAR	2	5/C-601
	32-18-16F	AGILITY WALK (SET OF 5)	1	6/C-601
	32-18-16G	HOUND HURDLES (SET OF 4)	2	1/C-602
	32-18-16H	HOUND HOOPS-SET OF 5	1	2/C-602
	32-18-16I	TETTER TOTTER	1	3/C-602
	32-18-16J	ADJUSTABLE TIRE JUMP	1	4/C-602
	32-18-16K	DOG WALK RAMP	1	5/C-602
	32-18-16L	WALL JUMPS (3 PLANKS)	1	1/C-601
	32-18-16M	A-FRAME (3' HIGH)	1	6/C-602
Site Furnishings				
	32-33-01	Dumor 160-60 Bench 160 with cast iron legs and steel seat. 72in. length. Center armrest option and 96in. length option available, upon request. Frame: Forest Green Gloss	16	
	32-33-02	Dumor 294-30-HS 42in. diameter ADA steel table. 3 steel bar seats. Available upon request: wood or plastic seat materials, embedment mounting, and subfloor mounting. Frame: Forest Green Gloss	2	
	32-33-03	Dumor 157-32 32gal steel receptacle. 10in. opening. Side door emptying. Bonnet and dome cover options found at dumor.com Receptacle: Forest Green Gloss	2	2/C-603
	32-33-04	PET COMFORT AND WASH STATION	2	
	32-33-05	DRINKING AND PET FOUNTAIN	2	
	32-33-06	PET WASTE RECEPTACLE	4	1/C-603
Manufactured Site Specialties				
	32-39-01	10'X25' CANTILEVERED SHADE STRUCTURE	1	
	32-39-02	15'X15' SINGLE POLE SHADE STRUCTURE	5	

24 HOUR CONTACT:
DWAYNE EBERHART
TEL: 770-943-8010

N

SCALE IN FEET

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POWDER SPRINGS PARK - DOG
PARK
CONSTRUCTION DOCUMENTS
LAND LOT(S) 901
OF THE 19TH DISTRICT, ##### SECTION
CITY OF POWDER SPRINGS, COBB COUNTY, GEORGIA

NO.	REVISION	REFERENCE	DATE

SEAL

GSWCC CERT #14353

SHEET TITLE
DOG PARK PLAN

DRAWN BY

CHECKED BY
KAK

SCALE
1"=20'

ISSUE DATE
08/29/2025

PROJECT NUMBER
2503.031

DRAWING NUMBER
C-201

SHEET 5 of 14



TYPE "A"

SECTION A-A

SECTION B-B

PLAN VIEW

DETAILS OF 4\"/>

TYPE "B"

SECTION C-C

SECTION D-D

PLAN VIEW

DETAILS OF 4\"/>

GENERAL NOTES

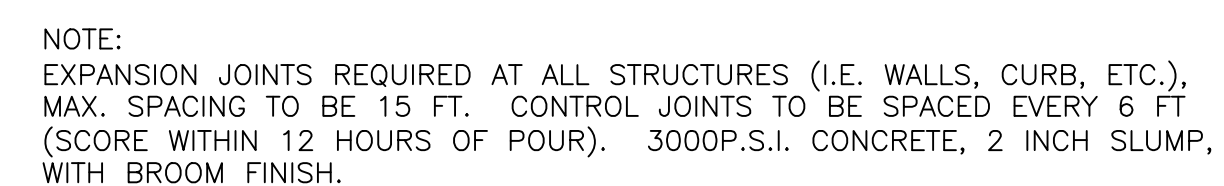
1. SPECIFICATIONS GEORGIA STANDARD, CURRENT EDITION, AND SUPPLEMENTS THEREOF.
2. SIZE AND DIMENSIONS OF TYPE A OR TYPE B FLUMES MAY BE ADJUSTED FOR ANY INDIVIDUAL SITE WHERE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. AT LOCATIONS WHERE AN OUTLET FLOW LINE AND AN INLET STRUCTURE, BAFFLE AND DOWNPIPE ARE JOINED, CONNECT THEM TO THE INLET STRUCTURE.
4. SAND CEMENT BAG RAP SHALL BE OMITTED IN PAVED DITCHES OR WHERE OTHER APPROVED EROSION CONTROL MATERIALS ARE USED.
5. Poured in place concrete shall be class 5 minimum class 4 concrete shall be used for baffles if necessary.
6. BASIS OF PAYMENT:
 CLASS 5 CONCRETE
 BAG REINFORCED STEEL
 SAND CEMENT BAG RAP R/H BAGS & NL OR B/N

NOTES PAVING OPENING
 APPROPRIATE CONSTANT (SEE FORMULA)

	B = 2'-0"	B = 4'-0"
1'-0"	1.54	1.54
2'-0"	2.08	2.08
3'-0"	2.58	2.58
4'-0"	3.04	3.04
5'-0"	3.44	3.44
6'-0"	3.80	3.80
7'-0"	4.12	4.12
8'-0"	4.40	4.40
9'-0"	4.64	4.64
10'-0"	4.84	4.84



1. ALL LATERAL STREET CUTS MUST BE COVERED WITH STEEL PLATES OF SUFFICIENT THICKNESS TO SPAN THE CUT WITHOUT NOTICEABLE DEFLECTION. PLATES TO REMAIN IN PLACE UNTIL THE CONCRETE BASE HAS GAINED SUFFICIENT STRENGTH TO WITHSTAND TRAFFIC LOADS (24 HOUR MINIMUM).
2. ON LONGITUDINAL CUTS EXCEEDING 150 FEET IN LENGTH, THE CONCRETE IN THE TRENCH WILL BE BROUGHT FLUSH WITH THE EXISTING PAVEMENT AND THE ENTIRE WIDTH OF THE ROADWAY RESURFACED WITH A MINIMUM OF 1-1/2" OF TYPE "E" OR "F" ASPHALT TOPPING COURSE.



200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

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Plot Scale: 1" = 100', Drawing Rotation: 0°, Plot Style: Design.ctb, Plotted By: Luke Torbert on 8/29/2025, 4:14 PM

POWDER SPRINGS PARK - DOG PARK

CONSTRUCTION DOCUMENTS

LAND LOT(S) 901
OF THE 19TH DISTRICT
CITY OF POWDER SPRINGS, COBB COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

DATE	DATE	DATE
NO	REVISION REFERENCE	DATE

SEAL



GSWCC CERT #14353

SHEET TITLE
CONSTRUCTION
DETAILS I

DRAWN BY
LMT

CHECKED BY
KAK

SCALE
NTS

ISSUE DATE
08/29/2025

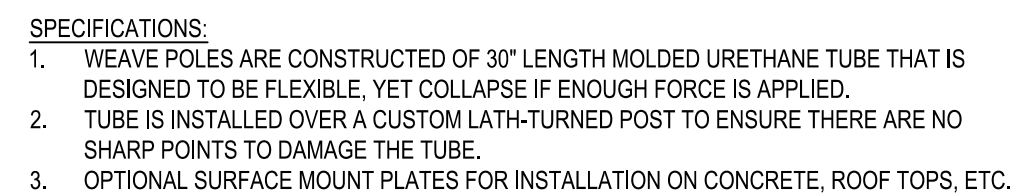
PROJECT NUMBER

2503.031

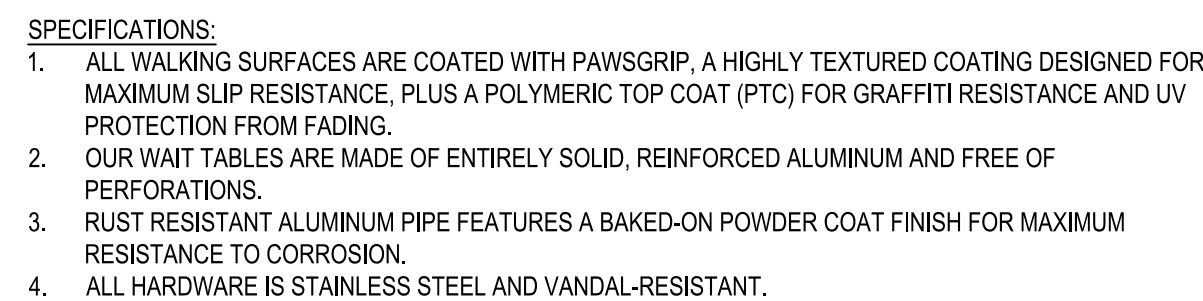
DRAWING NUMBER

C-600

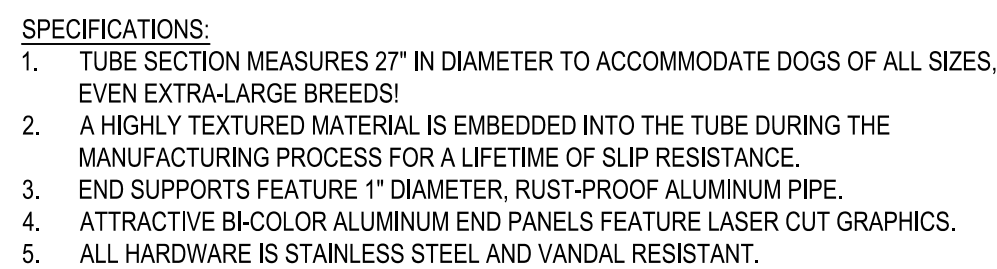
SHEET 7 of 14



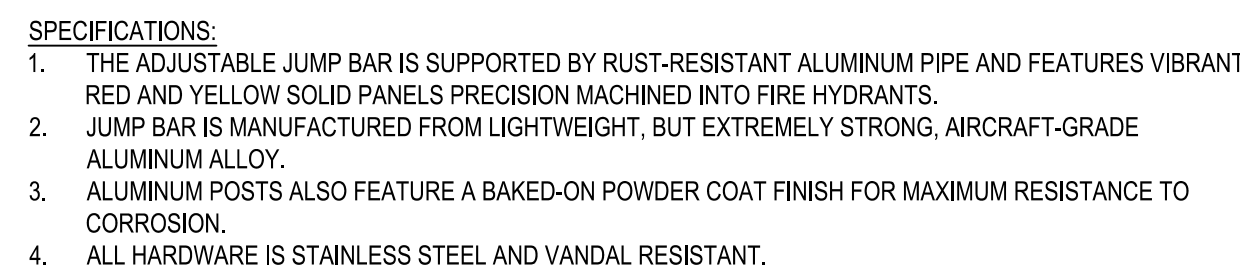
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1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.



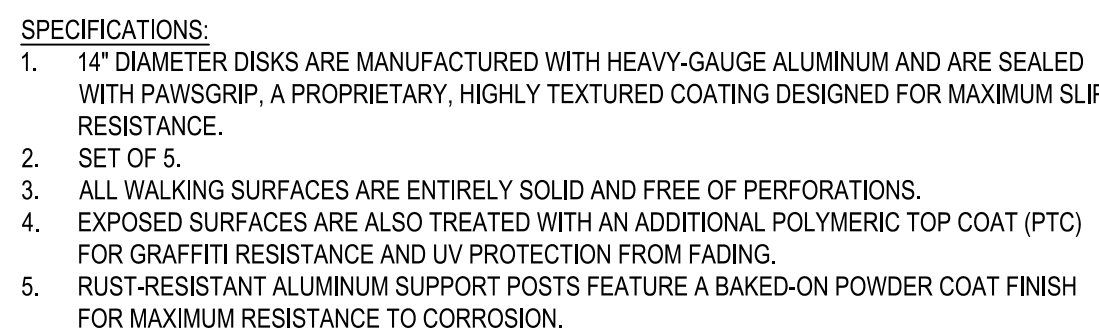
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
2. DO NOT SCALE DRAWING.

$$= 1' - 0'$$


NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.

$$1/2'' = 1'-0''$$
$$3/4" = 1'-0"$$


NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
2. DO NOT SCALE DRAWING...

$$1/2'' = 1'-0''$$


NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.

$$1/2'' = 1'-0''$$
$$1/2'' = 1'-0''$$

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CONSTRUCTION DOCUMENTS

LAND LOT(S) 901
OF THE 19TH DISTRICT
CITY OF POWDER SPRINGS, COBB COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

DATE	DATE	DATE
NO.	REVISION REFERENCE	DATE

SEARCH



GSWCC CERT #14353

SHEET TITLE
CONSTRUCTION
DETAILS II

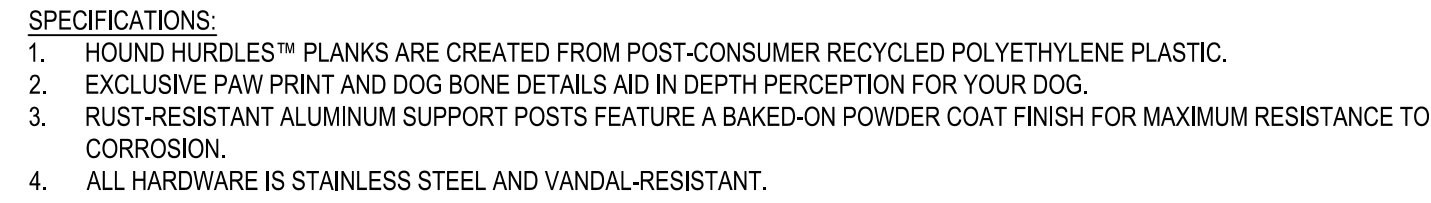
DRAWN BY LMT	CHECKED BY KAK
SCALE NTS	ISSUE DATE 08/29/2025

PROJECT NUMBER
2503.031

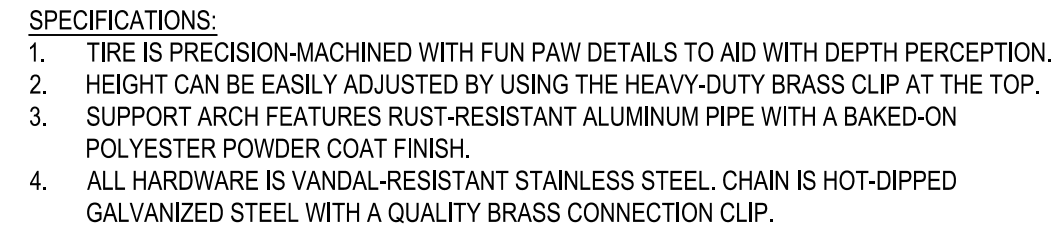
DRAWING NUMBER

C-601

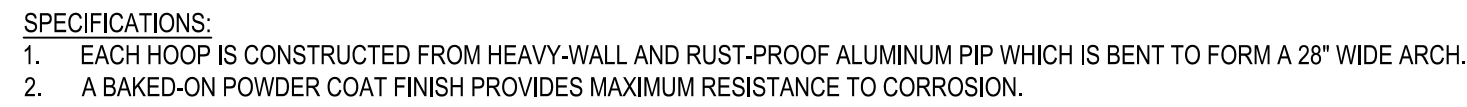
SHEET 8 of 14



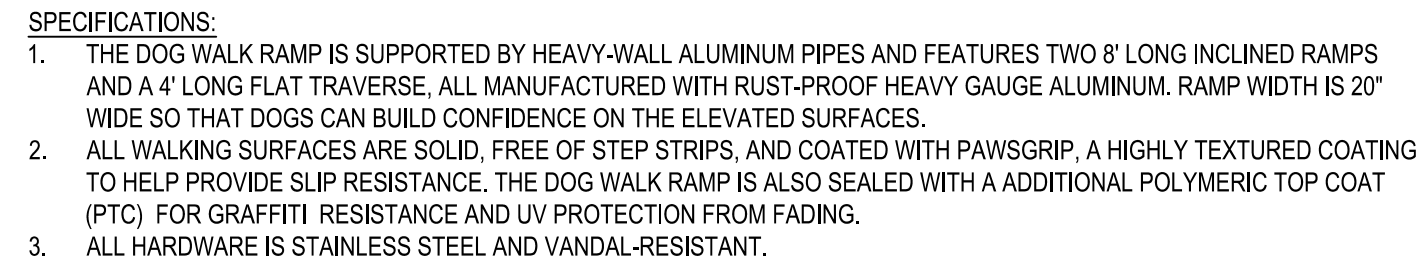
1 HOUND HURDLES
1/2" = 1'-0"



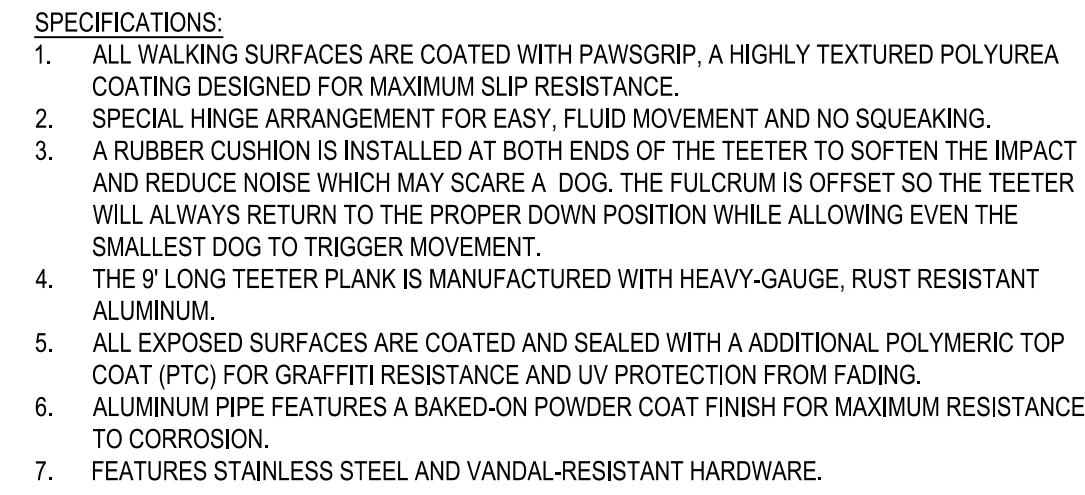
4 ADJUSTABLE TIRE JUMP
1/2" = 1'-0"



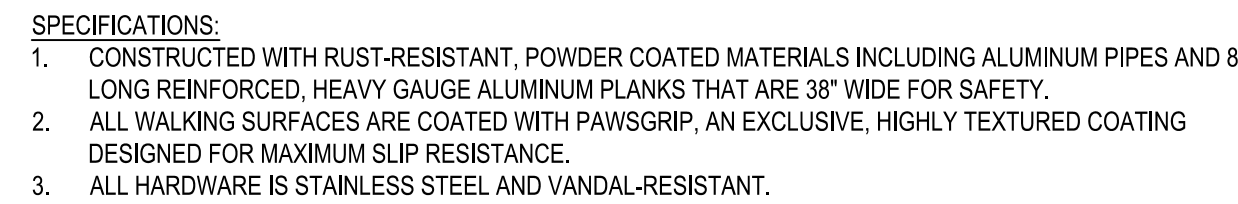
2 HOUND HOOPS
1/2" = 1'-0"



5 DOG WALK RAMP
1/2" = 1'-0"



3 DOG TEETER TOTTER
1/2" = 1'-0"



6 A-FRAME
1/2" = 1'-0"

LAND LOT(S) 901
OF THE 19TH DISTRICT
CITY OF POWDER SPRINGS, COBB COUNTY, GEORGIA

Drawing Location: P:\Marietta\2503 Powder Springs City of - SPLOST 2022\2503.031 Powder Springs Park Phase 2\Engineering\Design\2503.031 Cover Notes Details.dwg

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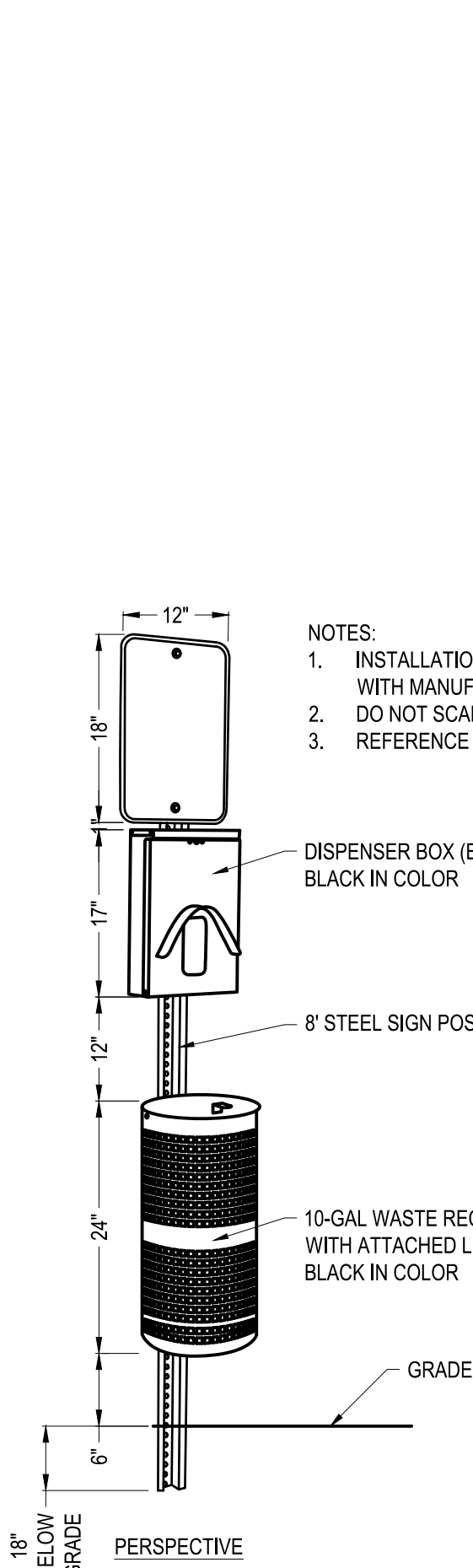
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SCALE NTS	ISSUE DATE 08/29/2025

PROJECT NUMBER
2503.031

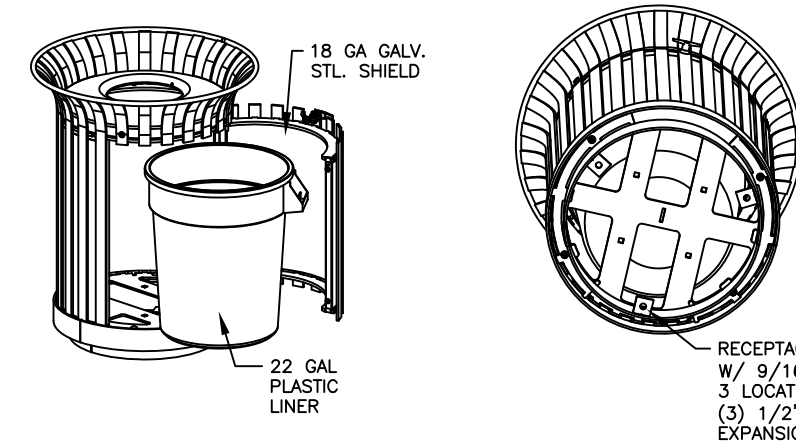
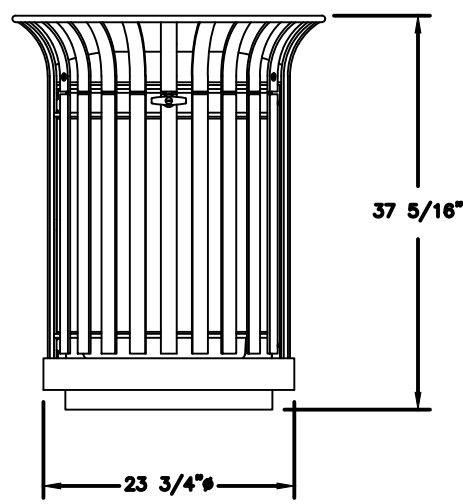
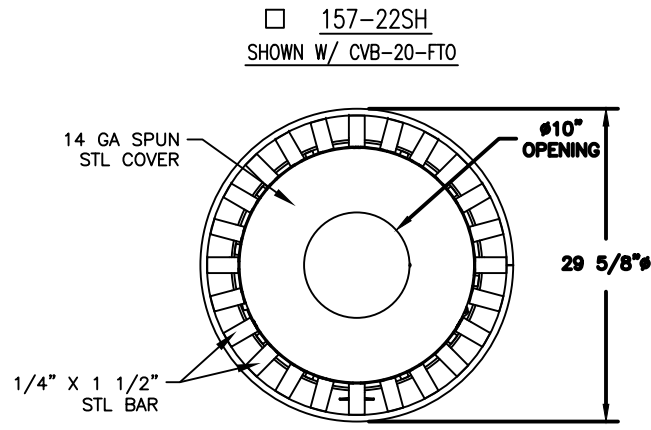
DRAWING NUMBER

C-602

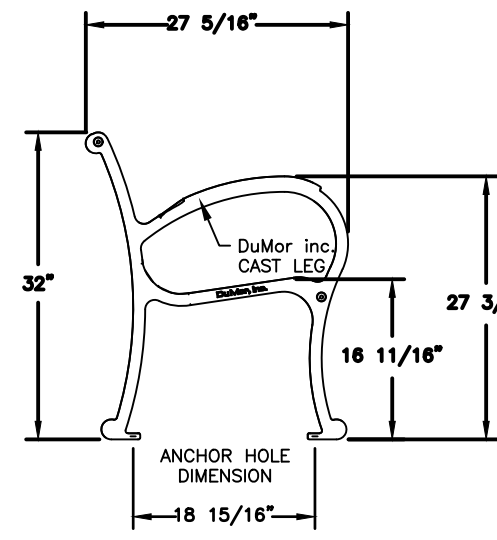
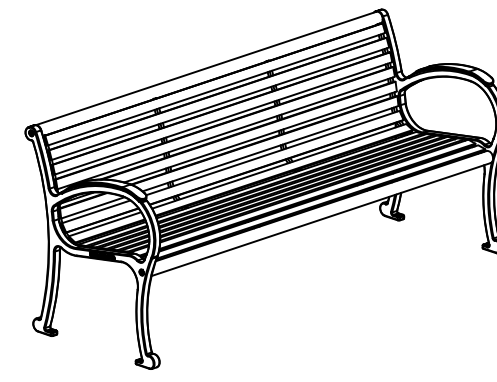
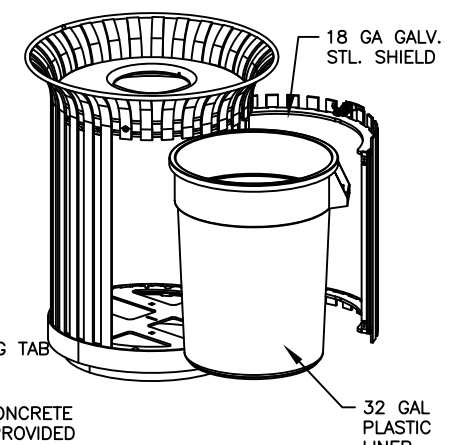
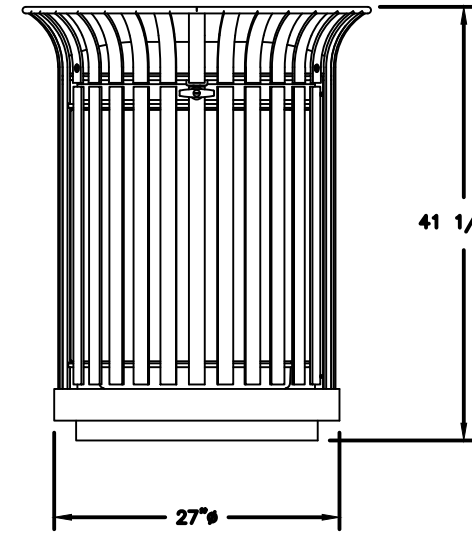
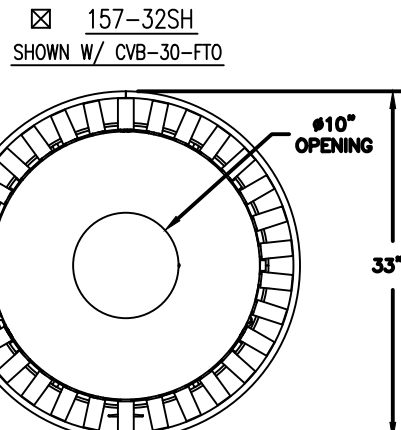
SHEET 9 of 14



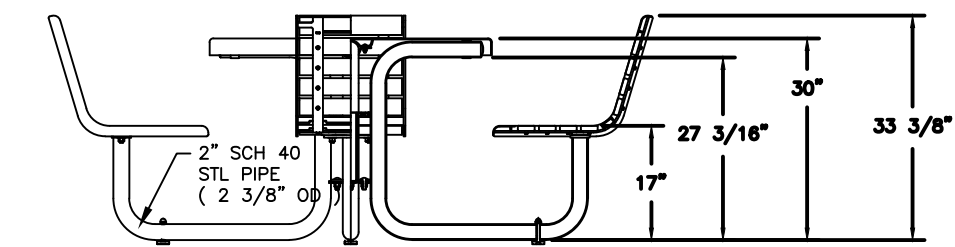
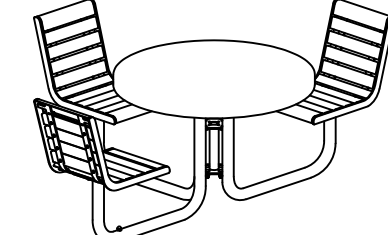
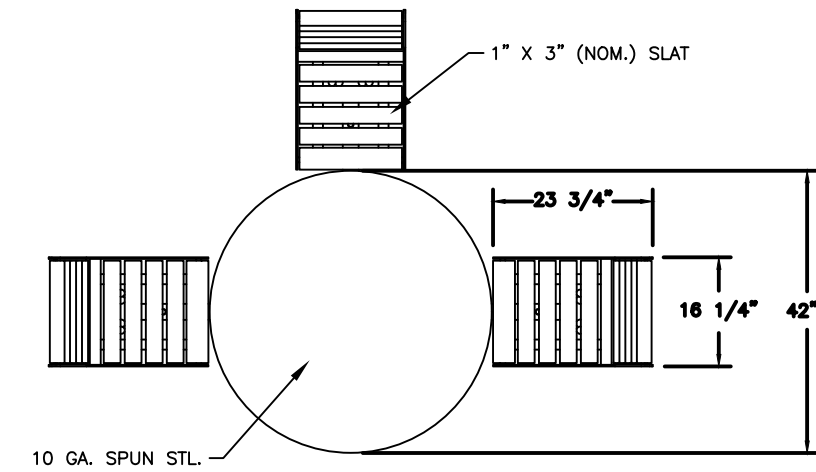
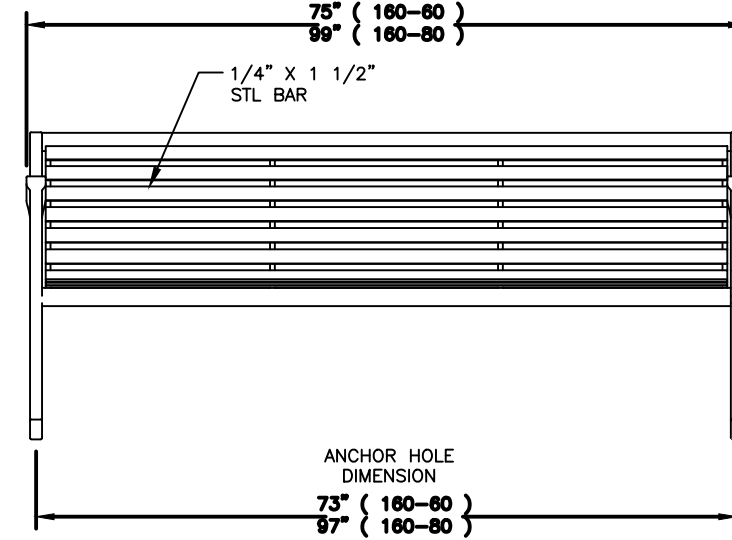
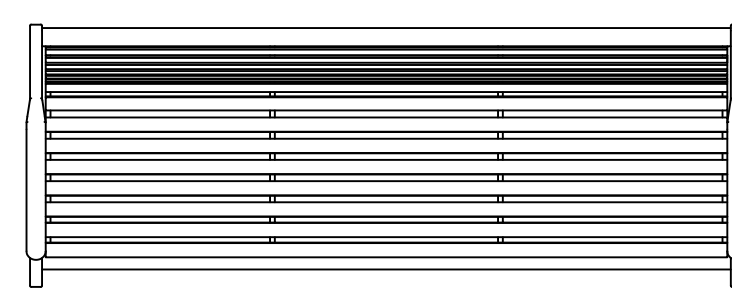
- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWING.
 3. REFERENCE NUMBER 5293-001



- NOTES:
- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
 - 2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
 - 3.) LATCH PROVIDED W/ KEY, USE OF KEY OPTIONAL.
 - 4.) RECYCLING OPTIONS AVAILABLE. SEE DUMOR.COM FOR DETAILS.
 - 5.) NO SHIELD OPTION ALSO AVAILABLE. (157)



- LENGTH OPTIONS
- 6' BENCH
- NOTES:
- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
 - 2.) BENCH IS SHIPPED UNASSEMBLED.
 - 3.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.



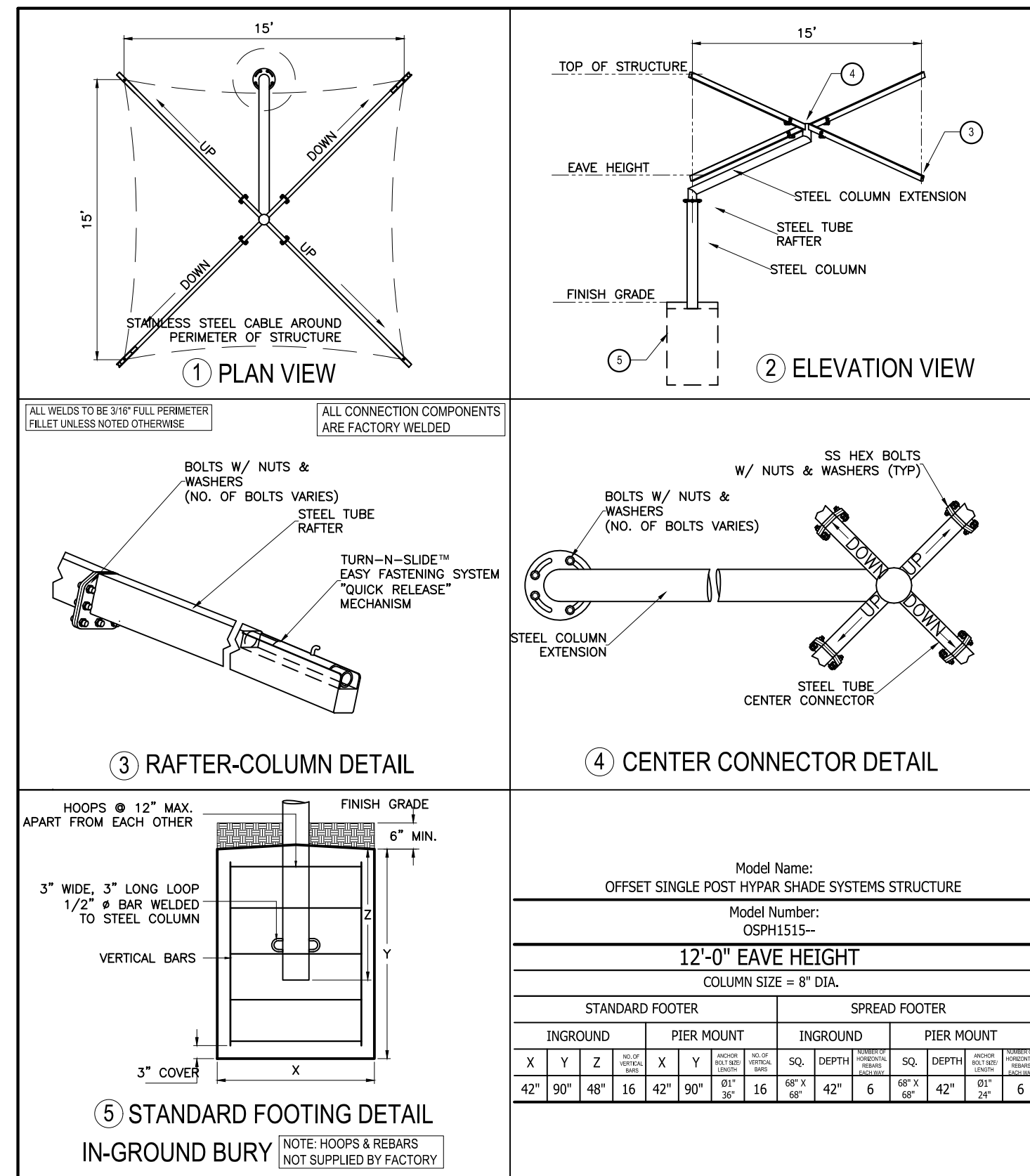
- SEAT OPTIONS
- HORIZONTAL STRAP (HS)
- HORIZONTAL STEEL STRAP
- NOTES:
- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
 - 2.) 1/2" X 2 1/2" NYLON GLIDES AND 1/2" X 5 1/2" EXPANSION ANCHOR BOLTS PROVIDED.

1 PET WASTE STATION
1/2" = 1'-0"

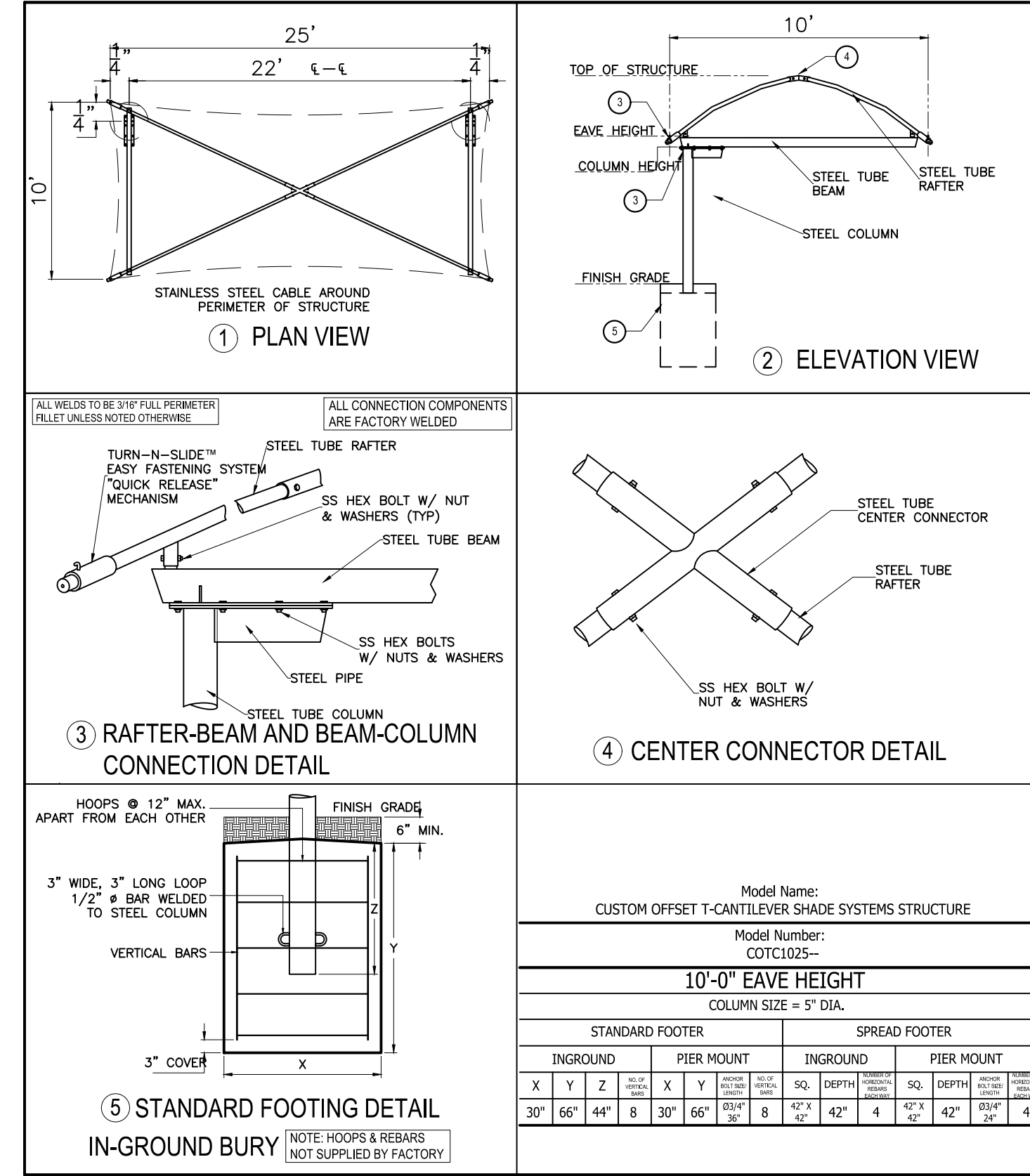
2 DUMOR TRASH RECEPTACLE 157-32
1" = 1'-0"

3 DUMOR BENCH 160 SERIES
1" = 1'-0"

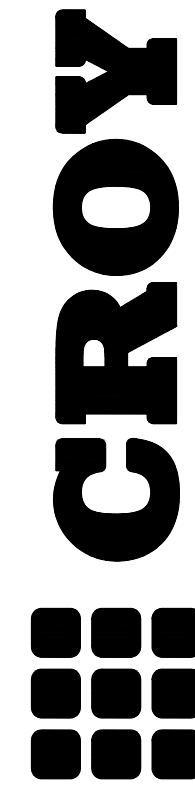
4 DUMOR TABLE 294-30HS
1" = 1'-0"



5 SHADE SYSTEMS - OFFSET SINGLE POST 15'X15'
1/2" = 1'-0"



6 SHADE SYSTEM - OFFSET T- CANTILEVER 10'X25'
1/2" = 1'-0"



200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

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Plot Scale: 1" = 1'-0" Plot Style: Design.ctb Plotted By: Luke Lobert on 8/29/2025, 4:14 PM

POWDER SPRINGS PARK - DOG PARK

CONSTRUCTION DOCUMENTS

LAND LOT(S) 901
OF THE 19TH DISTRICT
CITY OF POWDER SPRINGS, COBB COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION	REFERENCE	DATE



GSWCC CERT #14353

SHEET TITLE
CONSTRUCTION
DETAILS IV

DRAWN BY LMT	CHECKED BY KAK
SCALE NTS	ISSUE DATE 08/29/2025

PROJECT NUMBER
2503.031

DRAWING NUMBER

C-603

SHEET 10 of 14

ES&PCP GENERAL NOTES

1. THE APPLICABLE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN CHECKLIST IS LOCATED ON ER-000.
2. LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE, AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL IS LOCATED ON ER-000.
3. LIMITS OF DISTURBANCE SHALL BE NO GREATER THAN 50 ACRES AT ANY ONE TIME WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE EPO DISTRICT OFFICE. IF EPO APPROVES THE REQUEST TO EXCEED 50 ACRES OR MORE AT ANY ONE TIME, THE PLAN MUST INCLUDE AT LEAST 4 OF THE BMPs LISTED IN APPENDIX 1 OF THIS CHECKLIST.
4. 24 HOUR LOCAL CONTACT INFORMATION (TO BE DETERMINED AT AWARD OF CONTRACT):
NAME: DWAYNE EBERHART
PHONE: 770-943-8010
5. PRIMARY PERMITTEE CONTACT INFORMATION:
NAME: DWAYNE EBERHART
PHONE: 770-943-8010

PRODUCT SPECIFIC PRACTICES

1. TOTAL PARCEL AREA = 4.52 AC.
2. TOTAL DISTURBED AREA = 1.11 AC.
3. THE GPS LOCATION OF THE CONSTRUCTION EXIT FOR THE SITE IS LOCATED ON THE SHEET ER-100.
4. INITIAL DATE OF THE PLAN: SEE REVISION REFERENCE LOCATED ON ER-000 FOR DATES OF ANY REVISIONS MADE TO THE PLAN INCLUDING THE ENTITY WHO REQUESTED THE REVISIONS.

PROJECT NARRATIVE

The nature of the construction activity is, demolition of an existing parking lot and installation of a new parking lot and dog park.

CONSTRUCTION DOCUMENTS

1. THE RECEIVING WATERS FROM THIS CONSTRUCTION PLAN IS A TRIBUTARY TO CROWDER SPRINGS CREEK WHICH HEADWATERS TO SWEETWATER CREEK.

2. "I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION."

SIGNATURE: _____ DATE: 8-29-2025

3. "I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED. THE PLAN SHALL BE DESIGNED TO PREVENT EROSION AND SEDIMENTATION FROM THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

SIGNATURE: _____ DATE: 8-29-2025

4. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERMITTER CONTROL BMP'S WITHIN 7 DAYS AFTER INSTALLATION. IN ACCORDANCE WITH PART IV.A.5 PAGE 25 OF THIS PERMIT.
5. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25- FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
6. THERE ARE NO BUFFER ENCROACHMENTS THEREFORE A BUFFER VARIANCE IS NOT REQUIRED.

7. AMENDMENTS/REVISIONS TO THE ES&PC PLAN, WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

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

9. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

10. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

11. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

12. ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART C. OF THE PERMIT. INCLUDE THE COMPLETED APPENDIX 1 LISTING ALL THE BMPs THAT WILL BE USED FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO THE IMPAIRED STREAM SEGMENT.

13. A TMDL PLAN FOR SEDIMENT DOES NOT APPLY TO THE RECEIVING WATERS.

READY MIX CHUTE WASH-DOWN

THE WASHING OF READY-MIX CONCRETE DRUMS AND DUMP TRUCK BODIES USED IN THE DELIVERY OF PORTLAND CEMENT CONCRETE IS PROHIBITED ON THIS SITE IN ACCORDANCE WITH STANDARD SPECIFICATION 107 - LEAD REGULATIONS AND RESPONSIBILITY TO THE PUBLIC, ONLY THE DISCHARGE "CHUTE" UTILIZED IN PORTLAND CEMENT CONCRETE DELIVERY MAY BE RINSED FREE OF FRESH CONCRETE REMAINS. THE CONTRACTOR SHALL LOCATE A PIT OUTSIDE OF STATE WATER BUFFERS, AT LEAST 25 FEET FROM ANY STORM DRAIN AND OUTSIDE OF THE TRAVEL WAY INCLUDING SHOULDER, FOR A WASH/PIT AREA. THE PIT SHALL BE LARGE ENOUGH TO STORE ALL WASH-DOWN WATER WITHOUT OVERTOPPING THE PIT. IMMEDIATELY AFTER THE WASH-DOWN OPERATIONS ARE COMPLETED AND THE WASH-DOWN WATER HAS SOAKED INTO THE GROUND, THE PIT SHALL BE FILLED IN, AND THE GROUND ABOVE SHALL BE GRaded TO MATCH THE ELEVATION OF THE SURROUNDING AREAS SMOOTHED OUT. ALTERNATE WASH-DOWN PLANS MUST BE APPROVED BY THE PROJECT ENGINEER.

WASH-DOWN PLANS DESCRIBE PROCEDURES THAT PREVENT WASH-DOWN WATER FROM ENTERING STREAMS AND RIVERS. NEVER DISPOSE OF WASH-DOWN WATER DOWN A STORM DRAIN. ESTABLISH A WASH-DOWN WATER PIT LOCATION THAT INCLUDES THE FOLLOWING: (1) THE PIT IS LOCATED AWAY FROM A STORM DRAIN, STREAM OR RIVER, (2) THE PIT IS ACCESSIBLE TO THE VEHICLE BEING USED FOR WASH-DOWN, (3) THE PIT HAS ENOUGH VOLUME FOR WASH-DOWN WATER, AND (4) MAKE SURE YOU HAVE PERMISSION TO USE THE AREA FOR WASH-DOWN. ON SOME SITES, YOU MAY NOT HAVE PERMISSION OR ACCESS TO A LOCATION WHICH ALLOWS FOR A WASH-DOWN PIT. IN THOSE CASES, THE CONTRACTOR MAY HAVE TO WASH-DOWN IN A WHEELBARROW OR OTHER CONTAINER AND CARRY THE CONTAINER FOR TRANSPORT TO A PROPER DISPOSAL SITE. FOR ADDITIONAL INFORMATION, REFER TO THE GEORGIA SMALL BUSINESS ENVIRONMENTAL ASSISTANCE PROGRAM'S "A GUIDE FOR READY MIX CHUTE/HOPPER WASH-DOWN".

SILT FENCE INSTALLATIONS WITH J-HOOKS AND SPIRUS

SILT FENCE SHOULD NEVER RUN CONTINUOUS WITHOUT J-HOOKS OR SPIRUS. THE SILT FENCE SHOULD TURN BACK INTO THE FILL OR SLOPE TO CREATE SMALL POCKETS THAT TRAP SILT AND FORCE STORMWATER TO FLOW THROUGH THE SILT FENCE. THIS TECHNIQUE OR CONFIGURATION IS COMMONLY REFERRED TO AS J-HOOKS OR SPIRUS. THE J-HOOKS OR SPIRUS SHALL BE INSTALLED ON ALL SILT FENCES THAT ARE LOCATED AROUND THE PERIMETER OF THE PROJECT AND ALONG THE TOE OF EMBANKMENTS OR SLOPES. THE J-HOOKS AND SPIRUS SHALL BE SPACED IN ACCORDANCE WITH THE TYPICAL LOCATION DETAILS FOR SILT FENCES. (1) BALED STRAW SPACING FOR J-HOOKS OR SPIRUS SHALL NOT BE LESS THAN 50 FEET EXCEPT AS NOTED. SILT FENCES THAT ARE NEAR THE OUTLET OF CULVERTS, CROSS DRAINS, AND STORM DRAINS SHALL HAVE A MINIMUM OF 5 J-HOOKS OR SPIRUS ON BOTH SIDES OF THE STRUCTURE AT SPACING NOT TO EXCEED 30 FEET. J-HOOKS OR SPIRUS SHALL BE PAID FOR AS SILT FENCE ITEMS PER FOOT. ALL COSTS AND OTHER INCIDENTAL ITEMS ARE INCLUDED IN COST OF INSTALLING AND MAINTAINING THE SILT FENCE.

SPILL CLEANUP AND CONTROL PRACTICES

1. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE AVAILABLE TO SITE PERSONNEL.
2. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS.
3. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
4. SPILL PREVENTION PROCEDURES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
5. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
6. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
7. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
8. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA EPO WILL BE EXCEEDED WITHIN 24 HOURS.
9. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ON-SITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS THE CAPACITY OF GREATER THAN 450 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTROL PLAN AND MEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

THIS CONSTRUCTION PROJECT DISCHARGES INTO, OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT.

POST-CONSTRUCTION BMPs

ALL PERMANENT, POST-CONSTRUCTION BMPs ARE SHOWN IN THE CONSTRUCTION PLANS AND IN THE ES&PC PLAN. THE POST-CONSTRUCTION BMPs FOR THIS PROJECT CONSIST OF SEDIMENT BARRIER, PERMANENT VEGETATION AND RETROFIT. THE POST-CONSTRUCTION BMPs WILL PROVIDE PERMANENT STABILIZATION OF THE SITE AND PREVENT ACCELERATED TRANSPORTATION OF SEDIMENT AND POLLUTANTS INTO RECEIVING WATERS.

OTHER CONTROLS

THE ES&PC PLAN SHALL BE IN COMPLIANCE WITH WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS DURING AND AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

THE CONTRACTOR SHALL CONTROL DUST FROM THE SITE IN ACCORDANCE WITH CURRENT EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS ON THE SITE, PROVIDE COVER (E.G. PLASTIC SHEETING, TEMPORARY ROOFS) TO MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMWATER, OR A SIMILARLY EFFECTIVE MEANS TO REDUCE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS. MINIMIZATION OF EXPOSURE IS NOT REQUIRED IN CASES WHERE EXPOSURE TO PRECIPITATION AND TO STORMWATER WILL NOT RESULT IN A DISCHARGE OF POLLUTANTS, OR WHERE EXPOSURE OF A SPECIFIC MATERIAL OR PRODUCT POSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE).

PRODUCT SPECIFIC PRACTICES

1. PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLES AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATERS, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LAYER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL IS REQUIRED BY LOCAL AND STATE REGULATIONS. PAINT/ENGLISHSOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED INTO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
2. CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASHOUT OR DISCHARGE SURPLUS CONCRETE OR DRILL MASH WATER ON-SITE.
3. FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR ON THE GSWC MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.
4. BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ON-SITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

WASTE DISPOSAL

LOCATE WASTE COLLECTION AREAS AWAY FROM STREETS, OUTLETS, WATERCOURSES AND STORM DRAINS. WASTE COLLECTION AREAS, SUCH AS DUMPSTERS, ARE OFTEN BEST LOCATED NEAR CONSTRUCTION SITE ENTRANCES TO MINIMIZE TRAFFIC ON DISTURBED SLOES. THE PLAN SHOULD INCLUDE SECONDARY CONTAINMENT AROUND LIQUID WASTE COLLECTION AREAS TO FURTHER MINIMIZE THE LIKELIHOOD OF CONTAMINATION DISCHARGES. SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY SECTION 404 PERMIT.

2. THIS ES&PC PLAN EMPLOYS SEVERAL PRACTICES THAT ARE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES. SEVERAL EROSION CONTROL BMPs ARE USED TO REDUCE THE AMOUNT OF SEDIMENT RUNNING OFF SITE, INCLUDING CURB INLET PROTECTION, SEDIMENT BARRIER, AND PERMANENT VEGETATION.

SEQUENCE OF LAND DISTURBANCE ACTIVITIES

START DATE: 2021
START MONTH: 2021

ANTICIPATED CONSTRUCTION ACTIVITY SCHEDULE

CONSTRUCTION ACTIVITY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
INITIAL CONSTRUCTION DIT						
INITIAL SEDIMENT CONTROLS						
MAINTAIN EROSION CONTROL DEVICES						
DEMOLITION						
RETAINING WALL AND BUILDING CONSTRUCTION						
METALL & MAINTAIN TEMPORARY VEGETATION & MULCH						
FINAL LANDSCAPING & STABILIZE DIT						
CLEANUP SITE & REMOVE TEMPORARY BMPs						

INSPECTIONS

1. EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, A CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (a) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND (b) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
2. MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ON NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.
3. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (a) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (b) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (c) STRUCTURAL CONTROL MEASURES, EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN INCLUDING WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE. THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS; (d) AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THE PERMITTEE MUST COMPLY WITH PART IV.D.4.6.(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
4. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THE PERMIT (E.G., UNTIL AT NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS).
5. BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
6. A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATES OF EACH INSPECTION, CONSTRUCTION PHASES (E.G., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.6.(5) OF THE PERMIT SHALL BE MADE TO THE EPO DISTRICT OFFICE AT THE END OF 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 THE SUBMITTAL OF A NOT IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION, WHICHEVER COMES FIRST.

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 STORMWATER 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 THIS 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 GRADING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE 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 THE SUBMITTAL OF A NOT IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE 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

- 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 DATES 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, ETC., USED TO DETERMINE THESE RESULTS;
 - H. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU"; AND
- CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.
- 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 EPO 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 READY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

*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 EPO AT THE ADDRESS SHOWN IN PART I.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, EPO 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 EPO. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.2.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPO 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 DATES 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, ETC., USED TO DETERMINE THESE RESULTS;
 - H. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU"; AND
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 EPO 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 READY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

RETENTION OF RECORDS

1. THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
 - A. A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPO;
 - B. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
 - C. THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
 - D. A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
 - E. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.6. OF THIS PERMIT;
 - F. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART II.D.2. OF THIS PERMIT;
 - G. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.6.(2) OF THIS PERMIT.
2. 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 EPO, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT, SHALL 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 THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPO AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

SAMPLING TYPE

1. ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPO.

1. SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
2. SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
3. LARGE MOUTH, CLEAN AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
4. MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE OBTAINED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
5. SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPO AS SPECIFIED IN PART I.V.E.

SAMPLING POINTS

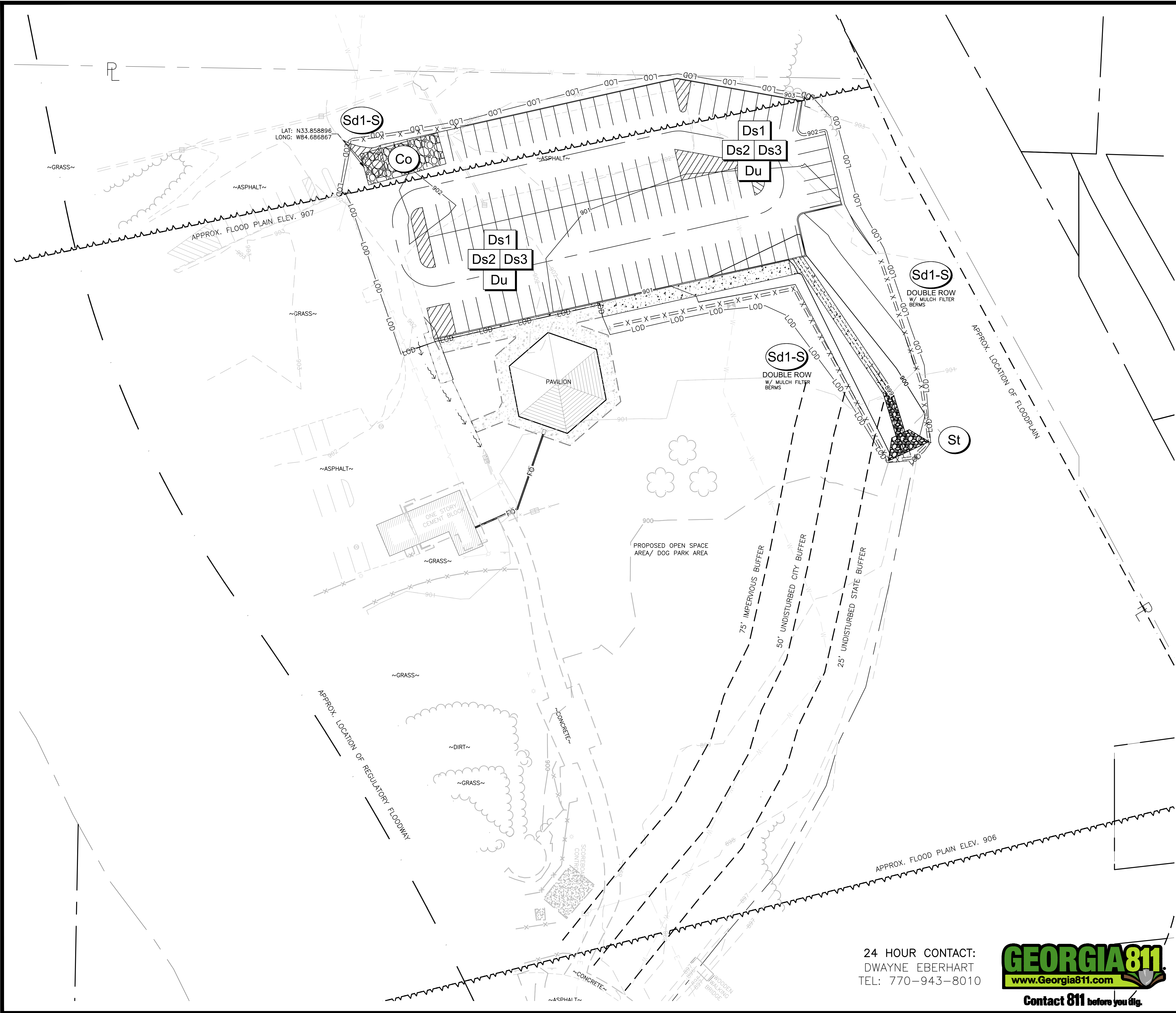
1. FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:
 - A. THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORMWATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.
 - B. THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORMWATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.
 - C. IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM OUTFALL CHANNEL(S).
 - D. CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORMWATER CHANNEL.
 - E. THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
 - F. THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.
 - G. PERMITTEES DO NOT HAVE TO SAMPLE SHEETFLOW THAT FLOWS INTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR LANDSCAPED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPO FOR WASTE DISPOSAL, LOOKS OF THE SURFACE IS UNIFORM COVERED IN PERMANENT VEGETATION WITH COVERAGE OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS, OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION).
 - H. ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS II.D.3. OR II.D.4, WHICHEVER IS APPLICABLE.

OUTFALL SAMPLING

1. MANUAL SAMPLING - GRAB SAMPLES WILL BE TAKEN AT THE APPROPRIATE TIME AS STATED IN PART IV.D.6.D. OF THE PERMIT. SAMPLING WILL OCCUR AT THE DESIGNATED REPRESENTATIVE OUTFALL. THE SAMPLE WILL BE TAKEN IN THE CENTER OF THE OUTFALL CHANNEL. A LARGE MOUTH, CLEAN, GLASS OR PLASTIC JAR/BOTTLE, LABELED WITH PROJECT NUMBER AND LOCATION WILL BE USED TO COLLECT THE SAMPLE. THE SAMPLE CONTAINER WILL BE HELD SUCH THAT THE OPENING FACES UPSTREAM. ONCE THE SAMPLE JAR/BOTTLE IS FULL AND CAPPED, IT WILL BE TRANSPORTED TO THE LOCATION WHERE THE TURBIDITY TESTING WILL BE CONDUCTED. SAMPLES MAY BE ANALYZED AT THE SITE WITH PROPERLY CALIBRATED PORTABLE TURBIDIMETERS. ALL TURBIDITY TESTS WILL BE CONDUCTED IMMEDIATELY BUT IN NO CASE, LATER THAN 48 HOURS AFTER THE TIME THE SAMPLE WAS OBTAINED.
2. AUTOMATIC SAMPLING - GRAB SAMPLES WILL BE TAKEN AT THE APPROPRIATE TIMES AS SPECIFIED IN PART IV.D.6.D. OF THE PERMIT. AUTOMATIC SAMPLING CAN BE ACCOMPLISHED BY USING A SAMPLING DEVICE SIMILAR TO THE ISCO MODEL 3700 OR 6700. THE PROBE FOR THE AUTOMATIC SAMPLER WILL BE PLACED IN THE CENTER OF THE CHANNEL. SAMPLES WILL REMAIN IN THE AUTOMATIC SAMPLER UNTIL THE NEXT BUSINESS DAY, WHEN THEY WILL BE COLLECTED AND TESTED.
3. TESTING - ALL TURBIDITY TESTS SHALL BE DONE IN ACCORDANCE WITH 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPO. TURBIDITY RESULTS WILL BE REPORTED AND REPORTED TO EPO AND THE LIA, IF APPLICABLE, IN ACCORDANCE WITH PART I.V.E. OF THE PERMIT.

RECEIVING WATER SAMPLING

1. MANUAL SAMPLING - SAMPLES WILL BE TAKEN AT THE APPROPRIATE TIME AS STATED IN PART IV.D.5. D. OF THE PERMIT. SAMPLING WILL BEGIN AT THE DESIGNATED REPRESENTATIVE RECEIVING WATER AT THE DOWNSTREAM LOCATION FIRST. THE SAMPLE WILL BE TAKEN AS FAR DOWNSTREAM (WITHIN THE PROJECT LIMITS ON-SITE) OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE POINT, AND UPSTREAM OF ANY ADDITIONAL DISCHARGES NOT ASSOCIATED WITH THE PROJECT. THE SAMPLE WILL BE TAKEN IN THE CENTER OF THE RECEIVING WATER AT A POINT WHERE MIXING OF THE RECEIVING WATERS AND THE PROJECT OUTFALL HAS OCCURRED AND PRODUCED A HOMOGENEOUS SAMPLE. ON RECEIVING WATERS, WHERE ACCESS TO THE CENTER OF THE RECEIVING WATERS IS NOT PRACTICAL, SEVERAL SAMPLES FROM ACROSS THE RECEIVING WATERS WILL BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES WILL BE USED FOR THE UPSTREAM VALUE. A LARGE MOUTH, CLEAN, GLASS OR PLASTIC JAR/BOTTLE, LABELED WITH PROJECT NUMBER AND LOCATION WILL BE USED TO COLLECT THE SAMPLE. THE SAMPLE CONTAINER WILL BE HELD SUCH THAT THE OPENING FACES UPSTREAM. ONCE THE SAMPLE JAR/BOTTLE IS FULL AND CAPPED, IT WILL BE TRANSPORTED TO THE LOCATION WHERE THE TURBIDITY TESTING WILL BE CONDUCTED. SAMPLES MAY BE ANALYZED AT THE SITE WITH PROPERLY CALIBRATED PORTABLE TURBIDIMETERS. ALL TURBIDITY TESTS WILL BE CONDUCTED IMMEDIATELY BUT IN NO CASE, LATER THAN 48 HOURS AFTER THE TIME THE SAMPLE WAS OBTAINED.
2. UPSTREAM SAMPLES WILL BE TAKEN AFTER DOWNSTREAM SAMPLES HAVE BEEN ACQUIRED. THE SAMPLE WILL BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PROJECT (WITHIN THE PROJECT LIMITS ON-SITE). THE SAMPLE WILL BE TAKEN IN THE CENTER OF THE RECEIVING WATER. ON RECEIVING WATERS WHERE ACCESS TO THE CENTER OF THE RECEIVING WATERS IS NOT PRACTICAL, SEVERAL SAMPLES FROM ACROSS THE RECEIVING WATERS WILL BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES WILL BE USED FOR THE UPSTREAM VALUE. A LARGE MOUTH, CLEAN, GLASS OR PLASTIC JAR/BOTTLE, LABELED WITH PROJECT NUMBER AND LOCATION WILL BE USED TO COLLECT THE SAMPLE. THE SAMPLE CONTAINER WILL BE HELD SUCH THAT THE OPENING FACES UPSTREAM. ONCE THE SAMPLE JAR/BOTTLE IS FULL AND CAPPED, IT WILL BE TRANSPORTED TO THE LOCATION WHERE THE TURBIDITY TESTING WILL BE CONDUCTED. SAMPLES MAY BE ANALYZED AT THE SITE WITH PROPERLY CALIBRATED PORTABLE TURBIDIMETERS. ALL TURBIDITY TESTS WILL BE CONDUCTED IMMEDIATELY BUT IN NO CASE, LATER THAN 48 HOURS AFTER THE TIME THE SAMPLE WAS OBTAINED.
3. AUTOMATIC SAMPLING - SAMPLES WILL BE TAKEN AT THE APPROPRIATE TIMES AS SPECIFIED IN PART IV.D.5.D. OF THE PERMIT. AUTOMATIC SAMPLING CAN BE ACCOMPLISHED AT BOTH UPSTREAM AND DOWN



24 HOUR CONTACT:
DWAYNE EBERHART
TEL: 770-943-8010



EROSION CONTROL NOTES

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.

EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE. PRACTICES WILL BE CHECKED DAILY.

NO LAND DISTURBANCE, CONSTRUCTION PROCESSES, OR STORAGE OF EQUIPMENT OR MATERIALS SHALL TAKE PLACE WITHIN A DESIGNATED TREE PROTECTION AREA IN ORDER TO PREVENT DIRECT PHYSICAL ROOT DAMAGE THAT OCCURS DURING SITE CLEARING AND GRADING AND CAN CAUSE TRANSPORT OR FEEDER ROOTS TO BE CUT, TORN, OR REMOVED; INDIRECT ROOT DAMAGE CAUSED FROM GRADE CHANGES; AND TRUNK AND CROWN DAMAGE CAUSED BY DIRECT CONTACT WITH LAND CLEARING MACHINERY OR GALLING OF ADJACENT TREES.

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 FOUND AT www.gaswcc.georgia.gov.

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

EROSION NARRATIVE:

SILT FENCE BMPs ARE TO BE MAINTAINED THROUGHOUT INITIAL AND INTERMEDIATE PHASES AND REMOVED DURING FINAL PHASE. ONCE SILT FENCE IS INSTALLED, GRADING OPERATIONS CAN COMMENCE FOR THE SITE. UTILITIES WILL BE INSTALLED AS SITE GRADING IS UNDERWAY.

DISTURBED AREA STABILIZATION SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE MANUAL. CLEAN OUT ACCUMULATED SILT AND SEDIMENT STORED IN BMPs. IMPLEMENTATION AND MAINTENANCE OF ALL BMPs SHALL BE ACCORDING TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. DETAILS FOR THE PROPOSED BMPs ARE INCLUDED ON SHEETS ER-500.

STRUCTURAL BMP LEGEND

- | | | |
|------------------|--|--|
| Co | | CONSTRUCTION EXIT |
| Sd1-S | | SINGLE ROW OF SILT FENCE WITH LOOSE STRAW IN BETWEEN |
| Sd1-S Double Row | | DOUBLE ROW OF SILT FENCE WITH LOOSE STRAW IN BETWEEN |
| St | | STORM DRAIN OUTLET PROTECTION |

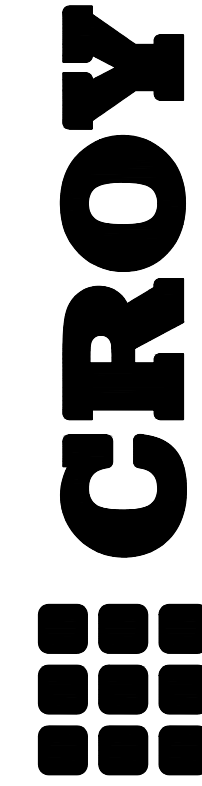
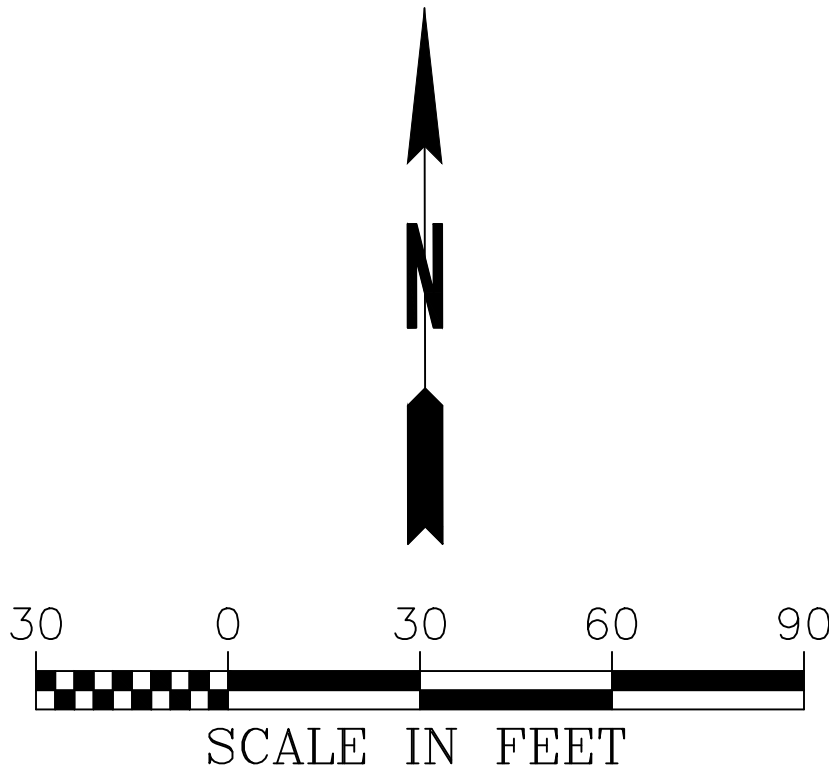
VEGETATIVE BMP LEGEND

- | | |
|-----|--|
| Ds1 | DISTURBED AREA STABILIZATION - MULCHING ONLY |
| Ds2 | DISTURBED AREA STABILIZATION - TEMPORARY SEEDING |
| Ds3 | DISTURBED AREA STABILIZATION - PERMANENT SEEDING |
| Du | DUST CONTROL ON DISTURBED AREAS |

LOD LIMITS OF DISTURBANCE

DISTURBED AREA:

1.1 ACRES



200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0820

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WITHOUT THE WRITTEN PERMISSION OF CROY ENGINEERING, LLC. ANY USE OF THESE PLANS WITHOUT WRITTEN PERMISSION IS PROHIBITED.

POWDER SPRINGS PARK - DOG PARK

CONSTRUCTION DOCUMENTS

LAND LOT(S) 901
OF THE 19TH DISTRICT
CITY OF POWDER SPRINGS, COBB COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

02	CITY COMMENTS	05/08/2022
01	ADD'L UTILITY SERVICE PER ADD. #1	09/22/2021
NO.	REVISION REFERENCE	DATE



GSWCC CERT #14353

SHEET TITLE
EROSION CONTROL
PLAN

DRAWN BY ----	CHECKED BY KAK
SCALE 1"=30'	ISSUE DATE 08/29/2025

PROJECT NUMBER
2503.031
DRAWING NUMBER

ER-100
SHEET 13 of 14

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)
N.T.S.

Seedbed Preparation
Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used (but is strongly recommended for any seeding process, when possible). When conventional seeding is to be used, seedbed preparation will be done as follows:

- Broadcast Plantings**
- Tillage, at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a disk is to be used.
 - Tillage may be done with any suitable equipment.
 - Tillage should be done on the contour where feasible.
 - On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.
- Individual Plants**
- Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.
 - For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
 - Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Inoculants
All legume seed shall be inoculated with appropriate nitrogen-fixing bacteria; the inoculant shall be a pure culture prepared specifically for the seed species and used within the dates on the container.

A mixing medium recommended by the manufacturer shall be used to blend the inoculant in the seed, for conventional seeding, use twice the amount of inoculant recommended by the manufacturer. For hydraulic seeding, four times the amount of inoculant recommended by the manufacturer shall be used.

All inoculated seed shall be protected from the sun and high temperatures and shall be planted the same day inoculated. No inoculated seed shall remain in the hydroseeder longer than one hour.

Planting
Hydraulic Seeding
Mix the seed (inoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Conventional Seeding
Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a culti-packer-seeder, drill, rotary seeder, or other mechanical seeder; or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a culti-packer or other suitable equipment.

No Till Seeding
No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment; the seed must be uniformly distributed and planted at the proper depth.

Individual Plants
Shrubs, vines and sprigs may be planted with appropriate planters or hand tools; pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots.

Nursery stock plants shall be planted at the same depth or slightly deeper than they grew in the nursery. The tips of vines and sprigs must be at or slightly above the ground surface.

Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

Mulching
Mulch is required for all permanent vegetation applications; mulch applied to seeded areas shall achieve 75% to 100% soil cover. When selecting a mulch, design professionals should consider the mulch's functional longevity, vegetation establishment enhancement, and erosion control effectiveness. Select the mulching material from the following and apply as indicated:

- Dry straw or dry hay of good quality and free of weed seeds can be used; dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.
- Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Dry straw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.
- One thousand pounds of wood cellulose or wood pulp fiber, which includes a tackifier, shall be used with hydraulic seeding on slopes 3:1 or steeper.
- Straw or hay mulch containing mature seed shall be applied at a rate of three tons per acre.
- Pine straw or pine bark shall be applied at a thickness of 1 inch for bedding purposes; other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is **NOT** appropriate for seeded areas.
- When using temporary erosion control blankets or block seed, mulch is not required.
- Bituminous treated roofing may be applied on planted areas, slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roofing shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.
- Wood cellulose and wood pulp fibers shall not contain germination or other inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

Applying Mulch
Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting the mulch may be spread by blower-type spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.

Wood cellulose or wood pulp fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchoring Mulch
Anchor straw or hay mulch immediately after application by one of the following methods:

- Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk" or disk harrow with the edges of disks or straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and
- 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.
- Synthetic tackifiers, binders or hydraulic mulch specifically designed to tack straw, shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. All tackifiers, binders or hydraulic mulch specifically designed to tack straw should be verified nontoxic through EPA 2021 testing. Refer to Tackifiers-Tie
- Pine or vitex can be included with fall and winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one-half bushel per acre.
- Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

Bedding Material
Mulch is used as a bedding material to conserve moisture and control weeds in nurseries, ornamental beds, around shrubs, and on bare areas on lawns.

Irrigation
Irrigation will be applied at a rate that will not cause runoff.

Topdressing
Topdressing will be applied on all temporary and permanent (perennial) species planted alone or in mixtures with other species. Recommended rates of application are listed in table 6-5.1.

Second Year and Maintenance Fertilization
Second year fertilizer rates and maintenance fertilizer rates are listed in table 6-5.1.

Lime Maintenance Application
Apply one ton of agricultural lime every 4 to 6 years or as indicated by soil tests. Soil tests can be conducted to determine more accurate requirements, if desired.

Use And Management
Mow Sericea Lespedeza only after frost to ensure that the seeds are mature; mow between November and March.

Bermudagrass, Bahia grass and Tall Fescue may be mowed as desired. Maintain at least 6 inches of top growth under any use and management. Moderate use of top growth is beneficial after establishment.

Exclude traffic until the plants are well established. Because of the quick nesting season, mowing should not take place between May and September.

FERTILIZER REQUIREMENTS

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	NITROGEN TOP DRESSING RATE
1. Cool season grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac.
	Second	6-12-12	1000 lbs./ac.	----
	Maintenance	10-10-10	400 lbs./ac.	30 lbs./ac.
2. Cool season grasses and legumes	First	6-12-12	1500 lbs./ac.	0-50 lbs./ac.
	Second	0-10-10	1000 lbs./ac.	----
	Maintenance	0-10-10	400 lbs./ac.	----
3. Ground covers	First	10-10-10	1300 lbs./ac.	----
	Second	10-10-10	1300 lbs./ac.	----
	Maintenance	10-10-10	1100 lbs./ac.	----
4. Pine seedlings	First	20-10-5	one 21-grm pellet per seedling placed in the closing hole	----
	Second	10-10-10	700 lbs./ac.	----
	Maintenance	10-10-10	700 lbs./ac.	----
5. Shrub Lespedeza	First	0-10-10	700 lbs./ac.	----
	Second	0-10-10	700 lbs./ac.	----
	Maintenance	10-10-10	500 lbs./ac.	30 lbs./ac.
6. Temporary cover crops seeded alone	First	10-10-10	500 lbs./ac.	30 lbs./ac.
	Second	6-12-12	1500 lbs./ac.	50-100 lbs./ac.
	Maintenance	6-12-12	800 lbs./ac.	50-100 lbs./ac.
7. Warm season grasses	First	6-12-12	1500 lbs./ac.	50 lbs./ac.
	Second	0-10-10	1000 lbs./ac.	----
	Maintenance	0-10-10	400 lbs./ac.	----
8. Warm season grasses and legumes	First	6-12-12	1500 lbs./ac.	50 lbs./ac.
	Second	0-10-10	1000 lbs./ac.	----
	Maintenance	0-10-10	400 lbs./ac.	----

PLANT, PLANTING RATES, AND PLANTING DATES FOR PERMANENT COVER

SPECIES	BROADCAST RATES		PLANTING DATES FOR SOUTHERN PIEDMONT REGION												REMARKS
	PER ACRE	PER 1000 SQ. FT.	J	F	M	A	M	J	J	A	S	O	N		
BAHIA, PENNSACOLA (Paspalum notatum) alone or with other perennials	60 lbs. 30 lbs.	1.4 lb. 0.7 lb.	J	F	M	A	M	J	J	A	S	O	N	166,000 seed per pound. Low growing. Sod forming. Slow to establish. Plant with a companion crop. Will spread into bermuda pastures and lawns. Mix with Sericea lespedeza or weeping legumes or	
BAHIA, WILMINGTON (Paspalum notatum) alone or temp cover with other perennials	60 lbs. 30 lbs.	1.4 lb. 0.7 lb.	J	F	M	A	M	J	J	A	S	O	N		
BERMUDA, COMMON (Cynodon dactylon) alone with other perennials	10 lbs. 6 lbs.	0.2 lb. 0.1 lb.	J	F	M	A	M	J	J	A	S	O	N	1,787,000 seed per pound. Quick cover. Low growing and sod forming. Full sun. Good for athletic fields.	
BERMUDA, COMMON (Cynodon dactylon) with temporary cover with other perennials	10 lbs. 6 lbs.	0.2 lb. 0.1 lb.	J	F	M	A	M	J	J	A	S	O	N	Plant with winter annuals.	
BERMUDA SPRIGS (Cynodon dactylon) Coastal, Common, or Tif 44	40 cu. ft.	0.9 cu. ft.	J	F	M	A	M	J	J	A	S	O	N	A cubic foot contains approximately 650 sprigs. A bushel contains 1.25 cubic feet or approximately 800 sprigs.	
CENTPEDE (Eriocaulon spp.)	Block seed only		J	F	M	A	M	J	J	A	S	O	N	Drugs should be used to prevent and in concentrated free areas. Vegetative spread only. Fully established. Do not give new pastures (established or not) to horses and cattle.	
CROWNVEITCH (Crotalaria varia) with winter annuals or cool season grasses	15 lbs.	0.3 lb.	J	F	M	A	M	J	J	A	S	O	N	16,000 seed per pound. Deep rooting. Good for erosion control. Attractive orange, pink, and white flowers. May be used in conjunction with other plants. Mix with perennial legumes or covercrops. Apply topdressing in spring following fall planting. Not for horse or cattle or athletic fields.	
FESCUE, TALL (Festuca arundinacea) alone with other perennials	50 lbs. 30 lbs.	1.1 lb. 0.7 lb.	J	F	M	A	M	J	J	A	S	O	N	227,000 seed per pound. Upright. Deep rooting. Good for erosion control. Attractive orange, pink, and white flowers. May be used in conjunction with other plants. Mix with perennial legumes or covercrops. Apply topdressing in spring following fall planting. Not for horse or cattle or athletic fields.	
LESPEDEZA, SERICA (Lespedeza cuneata) scarified unscarified seed-bearing hay	60 lbs. 75 lbs. 3 tons	1.4 lb. 1.7 lb. 138 lbs.	J	F	M	A	M	J	J	A	S	O	N	160,000 seed per pound. Widely adapted. Low maintenance. Mix with weeping legumes, common bermuda, and tall fescue. Takes 2 to 3 years to become fully established. Excellent on roadbanks. Inoculate seed with Rh. inoculant.	
LESPEDEZA (Lespedeza virginica DC) or (Lespedeza cuneata G. Don) scarified unscarified	60 lbs. 75 lbs.	1.4 lb. 1.7 lb.	J	F	M	A	M	J	J	A	S	O	N	160,000 seed per pound. Widely adapted. Low maintenance. Mix with weeping legumes, common bermuda, and tall fescue. Takes 2 to 3 years to become fully established. Excellent on roadbanks. Inoculate seed with Rh. inoculant.	
LESPEDEZA, SHRUB (Lespedeza bicolor) (Lespedeza thumbergia) plants	3' x 3'		J	F	M	A	M	J	J	A	S	O	N	Provide wildlife food and cover.	
LOVEGRASS, WEEPING (Eragrostis curvula) alone with other perennials	4 lbs. 2 lbs.	0.1 lb. 0.05 lb.	J	F	M	A	M	J	J	A	S	O	N	1,500,000 seed per pound. Quick cover. Drought tolerant. Grows well with Sericea lespedeza on roadbanks.	
PANICGRASS, ATLANTIC COASTAL (Panicum amarum var. amarulum)	20 lbs.	0.5 lb.	J	F	M	A	M	J	J	A	S	O	N	Grows similar to tall fescue. Deep rooting. Good on coastal sand dunes, bottom areas, and gravel pits. Provides winter cover for wildlife. Mix with Sericea lespedeza on roadbanks.	
REEF CANARY GRASS (Phalaris arundinacea) alone with other perennials	50 lbs. 30 lbs.	1.1 lb. 0.7 lb.	J	F	M	A	M	J	J	A	S	O	N	Grows similar to tall fescue.	
SUNFLOWER, 'AZTEC' MAXIMILLIAM (Helianthus maximiliani)	10 lbs.	0.2 lb.	J	F	M	A	M	J	J	A	S	O	N	227,000 seed per pound. Mix with weeping legumes or other low-growing grasses or legumes.	

DURABLE SHRUBS AND GROUND COVERS FOR PERMANENT COVER

Common Name	Scientific Name	Mature Height	Plant Spacing	Comments
Albelaia	Abelia grandiflora	3-4 ft.	5 ft.	Also a prostrate form 2 feet high. Sun, semi-shade. Semi-evergreen.
Carolina Yellow Jessamine	Gelsemium sempervirens	low	3 ft.	Vine. Yellow, trumpet-like flowers. Hardy, one of best vines. Evergreen. Native to Georgia.
Carpet Blue	Ajuga reptans	2-4 in.	3 ft.	Needs good drainage, partial shade. Blue or white flowers. Evergreen.
Beauregard Cotonaster	Cotoneaster dummeri	2-4 in.	5 ft.	White flowers, red fruit. Sun. Evergreen.
Ground Cover Cotonaster	Cotoneaster salicifolius 'Repens'	1-2 ft.	5 ft.	White flowers, red fruit. Sun. Evergreen.
Rock Cotonaster	Cotoneaster horizontalis	1-2 ft.	5 ft.	Semi-evergreen. Sun.
Virginia Creeper	Parthenocissus quinquefolia	low	3 ft.	Red in fall. Vine. Deciduous. Native to Georgia.
Daylily	Hemerocallis spp.	2-3 ft.	2 ft.	Many flower colors. Full sun. Very Hardy. Shade only. Climbs.
English Ivy	Hedera helix	low	3 ft.	Sun, semi-shade.
Compact Holly	Ilex cornuta 'Compacta'	3-4 ft.	5 ft.	Sun, semi-shade.
Chinese Holly	Ilex cornuta 'Rotunda'	3-4 ft.	5 ft.	Very durable. Sun, semi-shade.
Dwarf Burford Holly	Ilex burfordii 'Nana'	5-8 ft.	8 ft.	
Dwarf Yaupon Holly	Ilex vomitoria 'Nana'	3-4 ft.	5 ft.	Very durable, sun, semi-shade.
Requena Holly	Ilex creata 'Requena'	2-3 ft.	5 ft.	Sun, semi-shade.
Andorra Juniper	Juniperus horizontalis 'Plumosa'	2-3 ft.	5 ft.	Excellent for slopes. Sun.
Andorra Juniper	Juniperus horizontalis 'Plumosa compacta'	1-2 ft.	5 ft.	More compact than andorra.
Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	8-10 in.	4 ft.	
Blue Rug Juniper	Juniperus horizontalis 'Willmottii'	4-6 in.	3 ft.	Very low. Sun.
Parsons Juniper	Juniperus davurica 'Equisetum' (Equisetum Parsons)	18-24 in.	5 ft.	One of the best, good winter cover.
Pfitzer Juniper	Juniperus chinensis 'Pfitzeri'	6-8 ft.	6 ft.	Needs room.
Prince of Wales Juniper	Juniperus horizontalis 'Prince of Wales'	8-10 in.	4 ft.	Feathery appearance.
Sargent Juniper	Juniperus chinensis 'Sargentii'	1-2 ft.	5 ft.	Full sun. Needs good drainage. Good winter color.
Shore Juniper	Juniperus conferta	2-3 ft.	5 ft.	Emerald Sea or Blue Pacific cultivars are good.
Liriope	Liriope muscari	8-10 in.	3 ft.	Spreads by runners.
Creeping Liriope	Liriope spicata	10-12 in.	1 ft.	Lilac flowers in spring. Semi-shade.
Big Leaf Periwinkle	Vinca major	12-15 in.	4 ft.	
Vinca minor	Vinca minor	5-6 in.	4 ft.	Lavender-blue flowers in spring. Semi-shade.
Cherokee Rose	Rosa laevigata	2 ft.	5 ft.	Rampant grower. Not for restricted spaces.
Memoria Rose	Rosa weichuriana	2 ft.	5 ft.	Rampant grower.
St. Johnswort	Hypericum calycinum	8-12 in.	3 ft.	Semi-shade.
Anthony Waterer Spirea	Spirea bumalda	3-4 ft.	5 ft.	Sun.
Thunberg Spirea	Spirea thibergii	3-4 ft.	5 ft.	Sun.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)
N.T.S.

SPECIFICATIONS

Grading and Shaping

Excessive water run-off shall be reduced by properly designed and installed erosion control practices such as closed drains, ditches, dikes, diversions, sediment barriers and others. No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hydraulic seeding equipment is to be used.

Seedbed Preparation

When a hydraulic seeder is used, seedbed preparation is not required. When using conventional or hand-seeding, seedbed preparation is not required if the soil material is loose and not sealed by rainfall.

When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be pitted, trenched or otherwise scarified to provide a place for seed to lodge and germinate.

Lime and Fertilizer

Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at determined by soil test for pH. Quick acting lime should be incorporated to modify pH during the germination period. Bio stimulants should also be considered when there is less than 3% organic matter in the soil. Graded areas require lime application. Soils must be tested to determine required amounts of fertilizer and amendments. Fertilizer should be applied before land preparation and incorporated with a disk, ripper, or chisel. On slopes too steep for, or inaccessible to equipment, fertilizer shall be hydraulically applied, preferably in the first pass with seed and some hydraulic mulch, then topped with the remaining required application rate.

Seeding

Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand. See table below.

Mulching

Temporary vegetation can, in most cases, be established without the use of mulch provided there is little to no erosion potential. However, the use of mulch can often accelerate and enhance germination and vegetation establishment. Mulch without seeding should be considered for short term protection. Refer to Ds1 - Disturbed Area Stabilization (With Mulching Only).

Irrigation

During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

PLANT, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CROPS

SPECIES	BROADCAST RATES		PLANTING DATES FOR SOUTHERN PIEDMONT REGION												REMARKS
	PER ACRE	PER 1000 SQ. FT.	J	F	M	A	M	J	J	A	S	O	N	D	
BARLEY (Hordeum vulgare) alone in mixture	144 lbs. 24 lbs.	3.3 lbs. 0.6 lb.	J	F	M	A	M	J	J	A	S	O	N	D	14,000 seed per pound. Winterhardy. Use on productive soils.
LESPEDEZA, ANNUAL (Lespedeza striata) alone in mixture	40 lbs. 10 lbs.	0.9 lb. 0.2 lb.	J	F	M	A	M	J	J	A	S	O	N	D	200,000 seed per pound. May volunteer for several years. Use inoculant EL.
LOVEGRASS, WEEPING (Hordeum vulgare) alone in mixture	4 lbs. 2 lbs.	0.1 lb. 0.05 lb.	J	F	M	A	M	J	J	A	S	O	N	D	1,500,000 seed per pound. May last for several years. Mix with Sericea lespedeza.
MILLET, BROWNTOP (Panicum fasciculatum) alone in mixture	40 lbs. 10 lbs.	0.9 lb. 0.2 lb.	J	F	M	A	M	J	J	A	S	O	N	D	137,000 seed per pound. Quick dense cover. Will provide too much competition in mixtures if seeded at high rates.
MILLET, PEARL (Pennisetum glaucum) alone	50 lbs.	1.1 lb.	J	F	M	A	M	J	J	A	S	O	N	D	88,000 seed per pound. Quick dense cover. May reach 5 feet in height. Not recommended for mixtures.
OATS (Avena sativa) alone in mixture	128 lbs. 32 lbs.	2.9 lbs. 0.7 lb.	J	F	M	A	M	J	J	A	S	O	N	D	13,000 seed per pound. Use on productive soils. Not as winterhardy as rye or barley.
RYE (Secale cereale) alone in mixture	168 lbs. 28 lbs.	3.9 lbs. 0.6 lb.	J	F	M	A	M	J	J	A	S	O	N	D	18,000 seed per pound. Quick cover. Drought tolerant and winterhardy.
RYEGRASS, ANNUAL (Lolium temulentum) alone	40 lbs.	0.9 lb.	J	F	M	A	M	J	J	A	S	O	N	D	227,000 seed per pound. Dense cover. Very competitive and is not to be used in mixtures.
SUDANGRASS (Sorghum Sudanese) alone	60 lbs.	1.4 lb.	J	F	M	A	M	J	J	A	S	O	N	D	55,000 seed per pound. Good on droughty sites. Not recommended for mixtures.
WHEAT (Triticum Aestivum) alone in mixture	180 lbs. 30 lbs.	4.1 lbs. 0.7 lb.	J	F	M	A	M	J	J	A	S	O	N	D	15,000 seed per pound.

SEDIMENT STORAGE TABLE

Outfall ID	Total Drainage Area (acres)	Disturbed Area (acres)	Required Sediment Storage Volume (yd3)	Total Storage Volume Provided (yd3)	Temporary Sediment Basin Sd3 (see calcs on sheet ##-##)		Sediment Barrier Sd1 (see calcs this sheet)		Rock Dam Rd (see details on sheet ##-##)		Retrofitting Rt (see calcs this sheet)		Haybale Check Dam Cd-Hb	
					# of Devices	Total Volume (yd3)	Length (ft)	Total Volume (yd3)	# of Devices	Total Volume (yd3)	# of Devices	Total Volume (yd3)	# of Devices	Total Volume (yd3)
01	1.1	1.1	74	147			389	147						

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)
N.T.S.

SPECIFICATIONS

Mulching Without Seeding
This standard applied to grades or cleared areas where seedlings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation
1. Grade to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials
Select one of the following materials and apply at the depth indicated:
1. Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and reused.

Applying Mulch
When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.
1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical equipment.
2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches.
3. Apply polyethylene film on exposed areas.