# **GA. HWY. 138 BETWEEN HI ROC & WHITE ROAD**

# **ROCKDALE WATER RESOURCES 8 INCH GRAVITY SEWER MAIN EXTENSION**



OWNER/DEVELOPER:

ROCKDALE WATER RESOURCES 958 MILSTEAD AVE. CONYERS, GA. 30012 (770) 278-7432

DESIGN ENGINEER:

ROCKDALE WATER RESOURCES 1329 PORTMAN DRIVE, STE. H CONYERS, GA. 30012 CONTACT: DAVID CERVONE (770) 278–7486

SITE ADDRESS:

SITE: 2245 WHITE ROAD NE. CONYERS, GA. 30012



**LOCATION MAP** 

NTS



		DRAWINGLIST	A	BREVIATIONS
0.1557	DRAWING			BUILDING
	No.	DESCRIPTION	CL	CENTER LINE
GENERAL 1	G-00	TITLE, VICINITY AND LOCATION MAP	DIA	DIAMETER
2	G-01	DRAWING LIST, SYMBOLS & ABBREVIATIONS	DIP	DUCTILE IRON PIPE
3	G-02	GENERAL NOTES	PVC	POLYVINYL CHLORIDE
4	G-03	SITE PLAN	HDPE	HIGH-DENSITY
CIVIL				POLYETHYLENE
5	C-01	PLAN AND PROFILE	DR	DRIVE
6	C-02	PLAN AND PROFILE	ELEV	ELEVATION
7	C-03	PLAN AND PROFILE	EX	EXISTING
8	C-04	PLAN AND PROFILE		EDGE OF PAVEMENT
9	C-05	PLAN AND PROFILE		
10	C-06	PLAN AND PROFILE	FT	FEET
11	C.07	CIVIL DETAILS	FH	FIRE HYDRANT
12	C-08	EROSION CONTROL PLAN	I.D.	INSIDE DIAMETER
13	C-09	EROSION CONTROL PLAN	IP	IRON PIN
14	C-10	EROSION CONTROL PLAN	IPF	IRON PIN FOUND
15	C-11	EROSION CONTROL NOTES		
16	C-12	EROSION CONTROL NOTES	IPS	
17	C-13	EROSION CONTROL NOTES	LAT	LATITUDE
18	C-14	EROSION CONTROL DETAILS	LONG	LONGITUDE
19	C-15	EROSION CONTROL USGS MAP	MIN	MINIMUM
			MJ	MECHANICAL JOINT

NTS NOT TO SCALE

FO FIBER OPTIC

PROPERTY LINE

P/L

LP

RCP

RD

RWR

CB

SWCB

DWCB

JB

DI

ΥI

HW

MH

SSMH

STA

INV

PROP

ROAD

BASIN

HEADWALL

STATION

INVERT

PROPOSED

LIGHT POLE

REINFORCED CONCRETE PIPE

ROCKDALE WATER RESOURCES

R/W ROAD RIGHT OF WAY

CATCH BASIN

SINGLE WING CATCH

DOUBLE WING CATCH BASIN

JUNCTION BOX

DROP INLET

YARD INLET

MANHOLE

SANITARY SEWER MANHOLE

ABBREVIATIONS					
MB	MAIL BOX				
STMH	STORM WATER MANHOLE				
B/C	BACK OF CURB				
FES	FLARED END SECTION				
CMP	CORRUGATED METAL PIPE				
UP	UTILITY/POWER POLE				
TSP	TRAFFIC SIGNAL POLE				

SEWER LEGEND				
ARV	S SEWER-ARV EXISTING			
ARV	S SEWER-ARV PROPOSED			
S	S SEWER-MANHOLE EXISTING			
S	S SEWER-MANHOLE PROPOSED			
$\bowtie$	S SEWER-VALVE EXISTING			
	S SEWER-VALVE PROPOSED			
LS	S SEWER-LIFT STATION EXISTING			
ww	S SEWER-WET WELL EXISTING			
	S SEWER-EXISTING MAIN, SIZE & FLOW			
	S SEWER-PROPOSED MAIN			

WATER LEGEND				
<b>\$</b>	WATER-HYDRANT EXISTING			
	WATER-HYDRANT PROPOSED			
WM	WATER-METER EXISTING			
WM	WATER-METER PROPOSED			
wv X	WATER-VALVE EXISTING			
WV	WATER-VALVE PROPOSED			
	THRUST BLOCKING			
8W 8W	WATER-EXISTING MAIN & SIZE			
	WATER-PROPOSED MAIN & SIZE			

GEN	IERAL LEGEND
	UTILITY POLE
Ø	UTILITY/POWER POLE
-\\\	LIGHT POLE
	GUY WIRE
<b>O</b>	TRAFFIC SIGNAL POLE
	STREET SIGN
	REVISION CLOUD
	SOIL BORE LOCATION
	MAIL BOX EXISTING
810 806 806	CONTOURS-EXISTING
G	GAS MAIN
OE	OVERHEAD POWER
UE	UNDERGROUND POWER
т	UNDER GROUND TELEPHONE
	EXISTING PAVEMENT
	CONSTRUCTION LIMITS

STORM LEGEND					
	STORM WATER-JUNCTION BOX EXISTING				
ST	STORM WATER-MANHOLE EXISTING				
	STORM WATER-SINGLE WING CATCH BASIN EXISTING				
$\overline{\mathbf{a}}$	STORM WATER-DOUBLE WING CATCH BASIN EXISTING				
$\bigcirc$	STORM WATER-CIRCULAR WEIR INLET EXISTING				
	STORM WATER-RECTANGULAR WEIR INLET EXISTING				
	STORM WATER-CIRCULAR GRATED				
	STORM WATER-RECTANGULAR GRATED				
	STORM WATER PIPE-EXISTING MAIN				



### PIPFLINE CONSTRUCTION NOTES:

- 1. PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 2. OPEN TRENCHES IN EXISTING ASPHALT SHALL BE PLATED OVERNIGHT WITH NON SKID STEEL PLATES.
- 3. ALL BACKFILL AND UNDISTURBED EARTH SHALL HAVE A MINIMUM DENSITY OF 90% STANDARD PROCTOR. COMPACTION UNDER ROADWAYS TO BE A MINIMUM OF 98% STANDARD PROCTOR DENSITY. TEST IN ACCORDANCE WITH ASTM D698.
- 4. UNLESS OTHERWISE NOTED, STATION ON PLANS REFERS TO CENTERLINE OF PIPELINE AND IS BASED ON HORIZONTAL DISTANCES.
- VERIFY DIMENSIONS AND CONDITIONS AT THE SITE BEFORE STARTING WORK. CONFLICTS BETWEEN DETAILS OR DIMENSIONS ON THE DRAWINGS SHALL BE REPORTED PROMPTLY TO THE ENGINEER, WHO WILL DETERMINE THE INTENT OF THE DESIGN.
- 6. EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND BASED ON RECORD DRAWINGS. POTHOLE AND SURVEY EXISTING UTILITIES THAT WILL BE AFFECTED BY TRENCHING OR EXCAVATIONS PRIOR TO ORDERING ANY MATERIALS. POTHOLES AND SURVEY DATA SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW. POTHOLE DATA SHALL INCLUDE EXISTING UTILITY HORIZONTAL LOCATION, PIPE ELEVATION, PIPE ANGULAR CONFIGURATION, AND MATERIALS OF CONSTRUCTION. IDENTIFY POTENTIAL CONFLICTS WITH THE NEW PIPE LOCATION. PIPE ALIGNMENT ADJUSTMENTS THAT DO NOT INCREASE OVERALL PIPE OR FITTING QUANTITIES SHALL BE MADE AT NO ADDITIONAL COST TO THE RWR.
- 7. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
- 8. FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION, DIAMETER, AND ORIENTATION AT ALL CONNECTION POINTS AND COORDINATE WITH RWR PRIOR TO CONSTRUCTION. PROVIDE ALL PIPE MATERIALS AND FITTINGS, AS REQUIRED TO MEET EXISTING FIELD CONDITIONS FOR A COMPLETE INSTALLATION.
- 9. REPAIR DAMAGE TO LANDSCAPING, PAVING, UTILITIES, CURBS, GUTTERS, IRRIGATION, STRUCTURES, ETC., CAUSED BY THE WORK.
- 10. PAVEMENT CUTS SHALL BE PERFORMED BY SAW CUTTING OR GRINDING. RECUT PAVEMENT PRIOR TO REPAVING WHERE UNDERMINING HAS OCCURRED 11. REPLACE TRAFFIC STRIPING OR STENCILING THAT IS OBLITERATED BY CONSTRUCTION TO THE SATISFACTION OF RWR.
- 12. MAINTAIN 36" MINIMUM PIPELINE COVER PER RWR UNLESS OTHERWISE SHOWN ON THE PLANS OR UNLESS REDUCED DEPTH IS SPECIFICALLY APPROVED BY THE ENGINEER.
- 13. MAINTAIN A 10'-0" HORIZONTAL DISTANCE BETWEEN WATERLINE AND SANITARY SEWER PIPE LINES. MAINTAIN AN 18" VERTICAL SEPARATION BETWEEN WATERLINE AND SANITARY SEWER PIPE.
- 14. SHOULD ANY PAVEMENT BE DAMAGED AS A RESULT OF THE PROPOSED WORK, IT SHALL BE REPAIRED AND RESURFACED BY CONTRACTOR.
- 15. REMOVAL AND REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 16. TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH PLANS AND SPECIFICATION SECTION 02200.
- 17. HORIZONTAL STATIONING ALONG THE PIPELINE ALIGNMENT IS FOR LEVEL LINE MEASUREMENT AND FOR PAYMENT OF THE PIPELINES. FURNISH AND INSTALL THE ACTUAL PIPE LENGTH TO BE DETERMINED BY THE SLOPE OR CURVE ON WHICH THE PIPE IS INSTALLED.
- 18. ALL TRENCH EXCAVATION SHALL COMPLY WITH THE MOST CURRENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS.
- 19. DELETERIOUS MATERIALS AND EXCAVATED MATERIALS NOT USED IN BACKFILL OR GRADING SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF. 20. CONCRETE TRUCKS SHALL BE CLEANED IN DESIGNATED AREAS WITH WATER PROOF LINING IN COMPLIANCE WITH THE SWPPP AND OTHER PERMITS. ALL WASTE AND MATERIAL SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF.
- 21. ALL PIPES SHALL HAVE A CONSTANT SLOPE BETWEEN INVERT ELEVATIONS UNLESS A FITTING IS SHOWN.
- 22. ANY FENCES, MAILBOXES, OR OTHER PERMANENT STRUCTURES IN THE PATH OF THE PROPOSED SEWER LINE SHALL BE (IF NECESSARY) TEMPORARILY REMOVED PRIOR TO INSTALLATION AND REPLACED IN THE ORIGINAL LOCATION BEFORE GRASSING AND SEEDING. THESE TEMPORARILY REMOVED LINES MUST NOT REMAIN OUT OF SERVICE FOR MORE THAN 12 HOURS. MAILBOXES SHALL BE REPLACED, IF NECESSARY, AT NO ADDITIONAL COST TO THE OWNER.
- 23. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORK, INCLUDING SPOIL PILES, BE PERFORMED WITHIN THE RIGHT-OF-WAY. IN AREAS WHERE THIS CAN NOT BE ACCOMPLISHED, OR WHERE THE SEWER LINE CROSSES PRIVATE PROPERTY, EASEMENT SHOULD BE OBTAINED.
- 24. SPOIL PILES ARE NOT TO BE PLACED ON THE PAVEMENT.
- 25. ALL DISTURBED DRAINAGE DITCHES AND SWALES SHALL BE RECONSTRUCTED TO THEIR ORIGINAL CONDITIONS TO PROVIDE POSITIVE DRAINAGE FOR UPSTREAM RUNOFF THROUGH DISTURBED AREA TO EXISTING DOWNSTREAM ELEMENTS OF THE DRAINAGE SYSTEM.
- 26. CONTRACTOR WILL COMPLY WITH OSHA STANDARDS.
- 27. ALL COSTS FOR INSTALLATION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL PRACTICES ARE TO BE INCLUDED IN THE BID PACKAGE. 28. ANY ROCKDALE COUNTY INFRASTRUCTURE OR PROPERTY DAMAGED DURING, OR AS RESULT OF, CONSTRUCTION OF THIS PROJECT WILL BE REPAIRED OR REPLACED TO THE SATISFACTION OF ROCKDALE COUNTY. [THIS INCLUDES, FOR EXAMPLE (BUT NOT LIMITED TO) PAVING, CURB, CURB/GUTTER, SHOULDERS, DITCHES, STORM DRAINAGE PIPES OR STRUCTURES; SIGNS; WATER DISTRIBUTION LINES OR APPURTENANCES, WATER TREATMENT FACILITIES, FIRE HYDRANTS, VALVES, METERS; WASTEWATER (SANITARY SEWER), COLLECTION LINES OR APPURTENANCES, MANHOLES OR OTHER STRUCTURES, FORCE MAINS, PUMP STATIONS OR APPURTENANCES; LANDSCAPING OR PLANT MATERIALS, INCLUDING MULCH, GRASSING, SHRUBBERY, TREES; STRUCTURES OF ANY NATURE, INCLUDING FENCING.]
- 29. NO WORK WILL BE PERFORMED ON PRIVATE PROPERTY UNLESS AN APPROPRIATE EASEMENT HAS BEEN OBTAINED OR THE ROCKDALE COUNTY BOARD OF COMMISSIONERS HAVE APPROVED A WORK ON PRIVATE PROPERTY FORM.

### GENERAL CONSTRUCTION NOTES:

- 1. WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 2. NOTIFY THE RWR REPRESENTATIVE AND ALL OTHER INTERESTED PARTIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE START OF WORK.
- 3. OBTAIN REQUIRED PERMITS AND NECESSARY DISTRICT BUSINESS LICENSE(S) PRIOR TO BEGINNING CONSTRUCTION.
- 4. TRAFFIC CONTROL COSTS SHALL BE INCLUDED IN THE BID. PROCEDURES SHALL CONFORM TO THE ROCKDALE COUNTY AND GEORGIA DEPARTMENT OF TRANSPORTATION, IF REQUIRED AND IN ACCORDANCE WITH ALL APPLICABLE PERMITS, AND WITH THE SPECIFICATIONS. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED BY CONTRACTOR FOR REVIEW.
- 5. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE HOURS REFERENCED IN THE SPECIFICATIONS AND PERMITS.
- 6. CONTRACTOR SHALL BE RESPONSIBLE, DURING THE CONSTRUCTION PROCESS, FOR THE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S (OR SUBCONTRACTOR'S) EFFORTS DURING THE CONSTRUCTION OF THIS PROJECT.
- 7. ALL PRIVATE AND PUBLIC PROPERTY, WHICH IS OFF-SITE OR IN EASEMENTS ON-SITE, THAT IS AFFECTED BY THIS WORK, SHALL BE RESTORED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN EXISTED BEFORE COMMENCING CONSTRUCTION. COST TO BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION TO BE ALLOWED, UNLESS SPECIFICALLY EXEMPTED BY THE PLANS.
- 8. DURING CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT, OBSERVE, FOLLOW AND IMPLEMENT THE REQUIREMENTS OF THE NPDES AND STORMWATER POLLUTION PREVENTION PROGRAM AND KEEP THE WORK SITE CLEAN FROM RUBBISH AND DEBRIS. ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER AND USING DUST FENCES OR THEIR METHODS AS DIRECTED BY THE RWR'S REPRESENTATIVE THROUGHOUT THE CONSTRUCTION OPERATION.
- 9. KEEP A STRICT RECORD OF ALL CHANGES AND SUBMIT THIS RECORD TO THE RWR. ALSO COORDINATE TRANSFERRING "AS-BUILT" INFORMATION ON THE CONTRACT DRAWINGS AND DELIVER THE CERTIFIED "AS-BUILT" PLANS TO THE DISTRICT BEFORE THE RELEASE FOR FINAL ACCEPTANCE OF THE PROJECT SHALL BE FILED.
- 10. EXERCISE DUE CARE TO AVOID INJURY TO EXISTING IMPROVEMENTS OR FACILITIES, UTILITY FACILITIES, ADJACENT PROPERTY, AND TREES AND SHRUBBERY THAT ARE NOT TO BE REMOVED. ALL DAMAGE CAUSED TO COUNTY & CITY STREETS, INCLUDING HAUL ROUTES, SIDEWALKS, CURBS OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE RWR REPRESENTATIVE.
- 11. DESIGNATE AND KEEP ON THE PROJECT WHILE WORK IS BEING PERFORMED A COMPETENT SUPERINTENDENT WHO SHALL NOT BE REPLACED WITHOUT A WRITTEN NOTICE TO THE RWR'S REPRESENTATIVE. THE SUPERINTENDENT WILL BE THE CONTRACTOR'S REPRESENTATIVE AT THE SITE AND SHALL HAVE AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR. COMMUNICATIONS GIVEN TO THE SUPERINTENDENT SHALL BE AS BINDING AS IF GIVEN TO THE CONTRACTOR. DURING PERIODS WHEN THE WORK IS SUSPENDED, MAKE APPROPRIATE ARRANGEMENTS FOR EMERGENCY WORK WHICH WILL BE REQUIRED.
- 12. WHEN THE WORK ON ANY PORTION OF IT IS SUFFICIENTLY COMPLETE TO BE UTILIZED OR PLACED INTO SERVICE, RWR SHALL HAVE THE RIGHT UPON WRITTEN NOTIFICATION TO THE CONTRACTOR TO UTILIZE SUCH PORTIONS OF THE WORK AND TO PLACE THE OPERABLE PORTIONS INTO SERVICE AND TO OPERATE SAME. UPON SAID NOTICE AND COMMENCEMENT OF UTILIZATION OR OPERATION BY THE RWR, THE CONTRACTOR SHALL BE RELIEVED OF THE DUTY OF MAINTAINING THE PORTIONS SO UTILIZED OR PLACED INTO OPERATION; PROVIDED, HOWEVER, THAT NOTHING IN THIS NOTE SHALL BE CONSTRUED AS RELIEVING THE CONTRACTOR OF THE FULL RESPONSIBILITY FOR COMPLETING THE WORK IN ITS ENTIRETY, FOR MAKING GOOD DEFECTIVE WORK AND MATERIALS, FOR PROTECTING THE WORK FROM DAMAGE, AND FOR BEING RESPONSIBLE FOR DAMAGE.
- 13. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK; AND FULLY COMPLY WITH STATE/FEDERAL AND OTHER LAWS, RULES, REGULATIONS, AND ORDER RELATING TO SAFETY OF WORKERS AND ALL OTHERS. THIS INCLUDES THE ISSUANCE OF PERSONAL PROTECTIVE EQUIPMENT.
- 14. THE WORK AT HIGHTOWER TRAIL ELEMENTARY SHALL BE PERFORMED DURING NON SCHOOL HOURS. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH SCHOOL STAFF AND RWR.

- 15. UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY RWR OR THOSE SHOWN ON RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. TAKE DUE
- 16. TYPICAL DETAILS APPLY WHETHER OR NOT THEY ARE SPECIFICALLY REFERENCED ON INDIVIDUAL PLANS, DETAILS OR SECTIONS.
- RWR REPRESENTATIVE WHO WILL DETERMINE THE INTENT OF THE DRAWINGS.
- 18. SUBSURFACE UTILITY DATA ARE DEPICTED TO LEVEL D AS DEFINED IN ASCE 38-02 UNLESS OTHERWISE INDICATED
- WITHIN REACH AT ALL TIMES DURING ANY WELDING OR TORCH WORK. THIS JOBSITE IS IN AN EXTREMELY HAZARDOUS FIRE AREA. 20. VIDEO RECORD AND DOCUMENT THE EXISTING CONDITION OF THE PROJECT LIMITS AND SUBMIT THE RECORDING AND DOCUMENT TO THE RWR PRIOR TO THE START OF CONSTRUCTION.
- 21. MAKE ARRANGEMENTS FOR EQUIPMENT, MATERIAL STORAGE & YARD SECURITY.
- 22. EQUIPMENT AND MATERIALS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER'S REPRESENTATIVE. CONSTRUCTION AND STORAGE AREAS SHALL BE KEPT NEAT AND CLEAN AT ALL TIMES.
- 23. STAGING AREA SHALL BE FOR CONTRACTOR'S EMPLOYEE PARKING, CONTRACTOR'S TRAILERS AND ON-SITE STORAGE OF MATERIALS FOR THIS PROJECT ONLY.
- 24. PROVIDE TEMPORARY FENCING TO MAINTAIN SECURITY AT ALL TIMES.
- 25. CONDUCT OPERATIONS TO RESULT IN THE LEAST POSSIBLE OBSTRUCTION INCONVENIENCE TO THE PUBLIC, AND HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAT CAN BE PERFORMED PROPERLY WITH DUE REGARD TO THE RIGHTS OF THE PUBLIC OR AS STATED IN THE PERMITS. CONVENIENT ACCESS TO DRIVEWAYS, HOUSES AND BUILDINGS ALONG THE WORK SHALL BE MAINTAINED.

### topographic mapping

THE TOPOGRAPHIC/PLANIMETRIC INFORMATION SHOWN HEREON WAS COMPILED FROM DATA COLLECTED FROM ROCKDALE WATER RESOURCES(RWR) GEOGRAPHIC INFORMATION SYSTEM MAP LAYERS, GPS SURVEY BY RWR, SURVEY BY CORPORATE ENVIRONMENTAL RISK MANAGEMENT, LLC (CERM).

### GRADING NOTES:

- 1. ALL FILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH SPECIFICATIONS.
- 2. PROVIDE PROTECTION AGAINST EROSION AND STORM WATER POLLUTION PER EROSION CONTROL PLANS.
- ELEVATIONS SHOWN IN THE PLAN, THE CONTRACTOR SHALL NOTIFY RWR.
- SHALL BE ROUNDED TO BLEND IN WITH THE NATURAL GROUND CONTOURS.

PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. NOTIFY RWR OF THE UTILITIES CONCERNED BEFORE STARTING WORK.

17. VERIFY DIMENSIONS AND CONDITIONS AT THE SITE BEFORE STARTING WORK. ANY CONFLICT BETWEEN DETAILS OR DIMENSIONS ON THE DRAWINGS SHALL BE REPORTED PROMPTLY TO

19. NO SMOKING IS ALLOWED WITHIN THE JOBSITE OR SITE ACCESS AREAS, A FIRE SPOTTER, FIRE EXTINGUISHER, ADEQUATE WATER SUPPLY AND SHOVELS SHALL BE AVAILABLE AND

3. EXISTING CONTOURS ARE APPROXIMATE AND BASED ON GROUND CONDITIONS SURVEYED PRIOR TO DESIGN. IF THE GRADES AND ELEVATIONS ARE DIFFERENT THAN THE GRADES AND

4. THE SLOPE OF EXCAVATIONS SHALL BE SHAPED AND TRIMMED AS DIRECTED BY THE ENGINEER AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS, AND OTHER WASTE MATERIALS EXPOSED ON THE EXCAVATION OR EMBANKMENT SLOPES WHICH ARE UNABLE TO BE LOOSENED SHALL BE REMOVED AND DISPOSED OF. THE TOE AND TOP OF ALL SLOPES

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CHECKED BY: DAVID CERVON

DATE: 02/22/2022

SHEET

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DRAWING N

**C-0**3

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DRAWING

**C-04** 

SHEET

8

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				EXISTING GRADE						=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U	394° of 8	
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### Section 1: General County Required Notes

- A. ES&PC plan prepared by: David Cervone (RWR) GSWCC Level II Certified Design Professional Certification Number: 0000074205
- B. ES&PC 24-Hour Contact: David Cervone (RWR) GSWCC Level II Certified Design Professional Certification Number: 0000074205 Office (770) 278-7486 Mobile (678) 476-4728
- C. The person ultimately responsible for the installation and maintenance of erosion and sedimentation control practices on this site and who is to be contacted in the event of a Stop Work Order is: David Cervone (RWR) GSWCC Level II Certified Design Professional Certification Number: 0000074205 Office (770) 278-7486 Mobile (678) 476-4728
- D. Plans are reviewed in general. Specific details and calculations may not be checked. The engineer's stamp and signature guarantees the accuracy of the calculations and design. Plan approval does not obligate the county to accept the work, nor does it relieve the developer and/or engineer from compliance with any other county, state or federal ordinances and laws. Plan approval does not relieve the developer from the responsibility for damages to adjacent or downstream property resulting from this development.
- E. Any revisions to the plans after the initial submittal, other than the response to the plan review comments, will be indicated as revisions and submitted with a written explanation of the revisions and the reasons therefore.
- F. Any variations from the permitted plans, changes in design resulting from field conditions, or substitution of construction materials are to be reviewed and approved by the responsible design engineer and Rockdale County Department of Planning & Development .
- G. The owner/Developer and Engineer have reviewed the appropriate local, state and federal regulations regarding development activities adjacent to flood plains, state waters and wetlands and have determined that this development plan satisfies all the applicable standards.
- H. There is established a 25 foot buffer along the banks of all state waters, as measured horizontally from the point where vegetation has been wrested by normal stream flow or wave action. No land disturbing activities shall be conducted within a buffer and a buffer shall remain in its natural, undisturbed, state of vegetation until all land disturbing activities on the construction site are completed. Once the final stabilization of the site is achieved, a buffer may be thinned or trimmed of vegetation as long as a protective vegetative cover remains to protect water quality and aquatic habitat and a natural canopy is left in sufficient quantity to keep shade on the stream bed; provided, however, that any person constructing a single-family residence, when such residence is constructed by or under contract with the owner for his or her own occupancy, may thin or trim vegetation in a buffer at any time as long as protective vegetative cover remains to protect water quality and aquatic habitat and a natural canopy is left in sufficient quantity to keep shade on the stream bed.

Stream bank restoration and stabilization are required in all disturbed state waters buffers. The stream bank canopy is to be restored within the state waters buffers. Geomat and rip rap are to be placed as necessary to prevent erosion within the stream banks

Georgia House Bill 1426

### Section 2: NPDES Notes

Part 1.0 Permit Conditions

- A. A National Pollutant Discharge Elimination System (NPDES) Monitoring Program has been prepared for the project as a requirement of the State of Georgia, Department of Natural Resources, Environmental Protection Division (Georgia EPD) due to more than one (1) acre of land will be disturbed during construction. Because of the area of soil disturbance, erosion and sedimentation control practices and monitoring as set forth by Georgia EPD's General Permit No. GAR 100002 are required for this project and shall be implemented as described herein and in accordance with the Construction Plan and the "Manual for Erosion and Sediment Control in Georgia" (Manual), latest edition, published by the State Soil and Water Conservation Commission.
- B. The following NPDES information has been prepared in general accordance to Georgia EPD's General Permit No. GAR 100002, "Authorization to Discharge Under the National Pollutant Discharge Elimination System, Storm Water Discharges Associated with Construction Activity For Infrastructure Construction Projects", effective 1 July 2016.

### Notice of Intent

The owner (RWR) is the Primary Permittee and shall obtain coverage under Georgia EPD's General Permit No. GAR 100002. No later than 14 days prior to commencing construction, the RWR shall submit a Notice of Intent to the Georgia EPD and to Rockdale County Department of Planning & Development who are the issuing authorities of the Land Disturbance Activity Permit.

### Target NTU and Permit Violation

- A. A maximum increase of 75 nephelometric turbidity units (NTUs) in storm water affected by construction is the Target NTU for the project.
- B. Proper design, installation and maintenance of erosion and sedimentation control practices shall constitute a complete defense to any allegation of noncompliance. A copy of this document and all reporting shall remain at the site of construction or at an easily accessible location for review by the Georgia EPD.
- C. A discharge of storm water runoff from disturbed areas where erosion and sedimentation control practices have not been properly designed, installed or maintained shall constitute a violation of the referenced permit for each day on which such discharge results in the turbidity of construction related storm water being increased more than 75 NTUs. Maintenance of erosion and sedimentation control practices as a result of routine inspections shall not be considered a violation.

### Notice of Termination

The RWR shall terminate coverage under Georgia EPD's General Permit No. GAR 100002 when soil disturbance activities at the site cease, storm water sampling criteria are met, all temporary BMPs have been removed and final stabilization is complete. A Notice of Termination shall be submitted by the RWR to the Georgia EPD and to Rockdale County Department of Planning & Development who are the issuing authorities of the Land Disturbance Activity Permit.

### Part 2.0 ES&PC Plan Certifications and Statements

A. "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 State Soil and Water Conservation Commission as of January 1 of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the storm water outfalls and that the designed system of best management practices meets and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR 100002.

David Cowone David Cervone, P.E. Rockdale Water Resources GSWCC Level II Certified Design Professional Certification Number: 0000074205 Issued: 02/01/2022 Expires: 02/01/2025

B. "I certify under the 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 direct supervision.

David Corrone, P.E. Rockdale Water Resources GSWCC Level II Certified Design Professional Certification Number: 0000074205 Issued: 02/01/2022 Expires: 02/01/2025

C. "The design professional who prepare the ES&PC Plan is to inspect the installation of the initial sediment storage requirements, perimeter control BMPs, and sediment basins in accordance with part IV.A.5 within 7 days after installation."

### Part 3.0 Site Information

### Description and Construction Activity

The project consists of installing 5596 LF of 8 inch PVC sanitary sewer main, which will include 3 Road bores. Starting at Hightower Trail Elementary School crossing the entrance drive with first bore then running north east along drive to the athletics field turning south east running along the athletics field to right of way of highway 138. Head north east along Highway 138 crossing under Hi Roc Road (second bore) continuing north east along the west side of highway 138 to White Rd. Bore under White Road(third bore) ending on the north side of white Road. Total project acreage and disturbed acreage is 4.22 in Roackdale County currently stabilized with grass.

### Storm Water Discharge

. Based on a reconnaissance of the project route, performed on 29 September 2022 surface waters were observed along the proposed route.

B. Peak Runoff Discharges are not estimated for the project because the pipe route is not being developed with impervious surface. Final grades and vegetation will match existing.

### Non-Storm Water <u>Discharge</u>

Non-storm water discharges associated with construction activity at the site shall include the use of potable water to flush clean the interior of the laid pipe. Silt fence and hay pales shall be utilized to prevent soil erosion.

Part 4.0 Storm Water Pollution Controls

### Erosion and Sedimentation

A. Initial Perimeter Control BMPs will consist of installing silt fence prior to and concurrent with construction activities.

- B. Intermediate Grading and Drainage BMPs.
- 1. Where pavement is removed and excavation completed, No. 57 stone will be installed level with adjacent grades.
- 2. Silt fence, hay bales and blankets shall be utilized as intermediate BMPs where applicable.

### C. Final BMPs.

1. All disturbed areas shall be permanently stabilized with paving and vegetation where applicable.

### Storm Water Management

The majority of the site area will be stabilized as existing using temporary and permanent grassing in accordance with the Construction Drawings. Temporary silt fence, installed during construction, shall be left in-place until grassed areas of soil have gone through final stabilization. Final stabilization means that all soil disturbing activities at the site have been completed, and that for unpaved areas not covered by permanent structures, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or as required by the Construction Drawings.

### Other Controls

A. Off-site vehicle tracking of dirt, soils and sediments and the generation of dust shall be minimized or eliminated to the maximum extent practical.

B. Petroleum containers shall be double-walled and placed in locations that produce the least opportunity for accidents. No petroleum products will be intentionally drained onto the ground surface. Free-phase petroleum products accidentally spilled onto the ground surface will be immediately removed using an absorbent material. Absorbent material will subsequently be placed in a sealable container for off site disposal

Rainfall Data At the time soil disturbance begins (after clearing and grubbing is completed for a particular drainage area), the Contractor shall measure and record rainfall once every 24-hour period until a Notice of Termination is submitted to the Georgia EPD.

Part 5.0 Inspections and Maintenance

Commission.

inspected:

Inspection Schedule

occurring.

erosion is occurring;

A. The Contractor shall record results of each inspection on a daily inspection log. Inspection logs shall be maintained on-site until a Notice of Termination has been submitted to the Georgia EPD.

The Contractor shall perform all inspections as indicated in the following schedule using

certified Personnel. Certified Personnel means a person who has successfully completed

an erosion and sediment control short course eligible for continuing education units, or an

equivalent course approved by Georgia EPD and the State Soil and Water Conservation

A. Each day when any construction activity occurs on the site, the following items shall be

1. Areas where petroleum products are stored, used or handled to determine whether

2. Construction site entrance/exit to determine whether off-site tracking of soil is

B. At least once every fourteen (14) calendar days and within 24 hours of 0.5 inches or

1. Disturbed areas that have not undergone final stabilization to determine whether

2. Areas used for storage of materials that are exposed to precipitation that have not

undergone final stabilization to determine whether erosion is occurring; and

3. Erosion control and sedimentation measures identified in Contract Documents to

1. The areas that have undergone final stabilization to determine the evidence or the

2. Erosion control and sedimentation measures identified in Contract Documents to

3. Discharge/outfall locations to determine whether erosion and sedimentation control

spills and leaks have occurred from vehicles and equipment; and

greater rainfall event, the following items shall be inspected:

ensure that they are functioning properly.

potential for erosion and sedimentation;

measures are being effective.

C. Once per month, the following items shall be inspected:

ensure that they are functioning properly; and

- B. Should results of any inspection indicate the need to amend the Erosion Control and Sedimentation Plan, then said actions shall be performed as soon as practical but no later than seven (7) days of that particular inspection.
- C. All records associated with the NPDES Permit shall be retained by the Primary Permittee for a period of (3) years from the date of the Notice of Termination.

### Maintenance

The Contractor shall maintain erosion and sedimentation controls as detailed in the Construction Notes

Part 6.0 Storm Water Sampling

### Sampling Certification

certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for the monitoring of: (a) all perennial and intermittent streams and other water bodies shown on the USGS topographic map and all other field verified perennial and intermittent streams and other water bodies, or (b) where any such specific identified perennial or intermittent stream and other water body is not proposed to be sampled. I have determined in my professional judgment, utilizing the factors required in the General NPDES Permit No. GAR 100002, that the increase in the turbidity of each specific identified sampled receiving water will be representative of the increase in the turbidity of a specific identified un-sampled receiving water."

David Conone David Cervone, P.E. Rockdale Water Resources

### Sampling Locations

- A. A portion of the United States Geological Survey, Milstead, Georgia Quadrangle Topographic Map, photo dated 2020 showing the project site area and surrounding area is shown on Drawing C-15 of the Construction Plan. The nearest surface water body is Un-named stream flows to Yellow River and is located approximately 50 LF. at its closest point to the project route. Sampling locations are depicted on the Construction Drawings.
- B. Storm water samples shall be collected up stream and down stream of the project route and are designated as Sample Point #1,2,3 and 4 as shown on Construction Drawing C-08, C-09 and C-10. The locations are assumed to represent all discharge points along the project route. Said representation is based on similar soil types depicted on Drawing C-12 and topography shown throughout the stationing. Additionally, soil erosion and sedimentation control measures located and depicted on the Construction Drawings are consistent in rationale throughout the stationing. Construction of this project shall not alter existing grades or make significant changes in existing vegetative cover along the route. Because post construction runoff characteristics should not be altered, analysis of the project route using Appendix A of the "Manual for Erosion and Sedimentation Control in Georgia, 2016 Edition, is not warranted.

### Sample Type

A. Storm water grab samples shall be collected by manual or automatic means. Two (2) samples shall be collected from each sample point. Prior to collecting samples, each sample container shall be labeled using a permanent marker and clear taped as follows:

> Project Title: Sample Point: Date: Time:

B. Samples shall be collected, as practical, from the center and in the middle depth of the stream in clean glass or plastic jars (150 ml or larger) and sealed with appropriate lids. Floating debris shall be kept from entering the sample containers

### Sample Frequency

- A. Storm water samples shall be collected within 45 minutes of:
- 1. The accumulation of the minimum amount of rainfall for the qualifying event, if the storm water discharge from a monitored outfall has begun at or prior to the accumulation, or
- 2. The beginning of any storm water discharge from a monitored outfall, if the discharge begins after the accumulation of the minimum amount of rainfall for the gualifying event.
- B. Storm water samples shall be collected for the following rainfall events (Monday thru Friday, 8:00 AM to 5:00 PM and Saturday, 8:00 AM to 5:00 PM when construction is being conducted by the Primary permittee):
- 1. The first rain event that reaches or exceeds 0.5 inch that occurs after all clearing and grubbing operations have been completed in the drainage area of the location selected as the representative sampling location.
- 2. In addition to (1) above, the first rain event that reaches or exceeds 0.5 inch that occurs either 90 days after (1) above or after all mass grading or excavation/backfilling operations have been completed for each phase.
- C. At the time of sampling performed pursuant to B.1 and B.2 above, if erosion control measures are found to be properly designed, installed and maintained, no further turbidity sampling is required for that phase of work.
- D. If erosion control measures in a phase of work are found not to be properly designed, installed and maintained, then turbidity samples shall be collected for that phase of work for the next 0.5 inch rain event and subsequent rain events until erosion control measures are found to be properly designed, installed and maintained.

### Sample Analysis and Records

- A. Each storm water sample shall be analyzed for Nephelometric Turbidity Units (NTUs) using methodologies and procedures established by 40 CFR Part 136; the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" or procedures described in the publication "Standard Methods, Edition 18".
- B. Should samples be transported from the job site for analysis, a chain-of-custody record shall be prepared to accompany the samples to the laboratory. Results of each analyses shall be recorded. The Contractor shall provide the RWR with copies of all documentation pertaining to storm water sampling on a monthly basis.

### Reporting to the Georgia EPD

The RWR shall report storm water monitoring analytical results to the Georgia EPD for only those months when storm water samples are collected. The summary of analytical results shall be submitted to Georgia EPD by the 15th day of each month following a qualifying reporting period via return receipt certified mail. Monthly monitoring reports shall be submitted to the Georgia EPD at the address listed below.

> Mountain District - Atlanta Satellite Georgia Environmental Protection Division 4244 International Parkway, Suite 114 Atlanta, GA 30354-3906

The RWR shall certify each monthly monitoring report as follows:

"I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that certified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

### **Section 3: Erosion and Sedimentation Control Notes**

### Part 1.0 General

- A. A copy of the approved land disturbance plan and permit shall be present on the site whenever work is in progress.
- B. Erosion and Sediment control shall be the Contractor's responsibility for compliance, installation, maintenance, and removal as required by the State of Georgia Manual for Erosion and Sediment Control in Georgia 2016 Edition as published by the Georgia Soil and Water Conservation Commission. The Contractor shall become familiar with these specifications prior to any construction activities. The installation of the required erosion and sediment control measures shall be installed as a first step in construction.
- C. Any amendments/revisions to the ES&PC plan which have significant effect on BMPs with a hydraulic component must be certified by the design professional.
- D. Failure to install, operate and/or maintain all erosion control measures shall be a justification to stop construction on the job site until such measures are corrected in a accordance with the approved plans or as directed by the Engineer.

### Part 2.0 Site Preparation

- A. Prior to commencing land disturbance activity, the limits of land disturbance shall be clearly and accurately demarcated with stakes ribbons, or other appropriate means. The location and extent of all authorized and disturbance activity shall be demarcated for the duration of the construction activity. No land disturbance shall occur outside the approve limits indicated on the approved plans.
- B. Material staging area shall be encompassed with referenced silt fence.

Part 3.0 During Construction

- A. 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.
- B. Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for the effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.
- C. Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding.
- D. 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.
- E. 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.
- F. Waste materials shall not be discharged to waters of the state, except as authorized by a section 404 permit.
- G. The location of some erosion control devices may be altered from that shown on plans as approved by the Inspector.
- H. Mud and silt are strictly prohibited from leaving the site and depositing on the public thoroughfare.
- I. Construction exits shall be maintained in a condition which will prevent tracking or flow of mud onto public right of way. This may require periodic dressing with stone, as conditions demand, and repair and/or clean out of any structures used to trap sediment. All materials spilled, dropped, washed, or tracked from vehicle or site onto public roadway or into storm drain shall be removed immediately.
- J. Control dust using water or other methods as required to prevent dust from being a nuisance to the public and concurrent with on site work.
- K. Disturbed soil shall be stabilized with erosion and sediment control measures each day and prior to any rain event as follows: (A) Disturbed soil shall be returned to final grade, (B) Erosion and Sediment Control devices shall be installed, (C) Graded soil shall be treated with lime and fertilizer, (D) Apply temporary and/or permanent vegetation as required.
- L. Straw mulching shall be used with temporary and permanent vegetation applications and shall be free of weed seeds and spread at a rate of 90 pounds per 1,000 square feet. Where matting and blankets symbols are shown along with temporary seeding and permanent vegetation symbol, matting and blankets shall be installed in place of straw mulching.
- M. The Contractor shall install matting and blankets within all drainage ditches unless noted otherwise
- N. Erosion and sediment control devices shall be inspected by the contractor at the end of each days work and at the end of each and every rain in event. The Contractor shall be responsible for the repair and/or replacement of any failed or inadequately installed sediment control device. The Contractor shall be responsible for all maintenance of erosion and sediment control devices.
- O. The Contractor shall remove accumulated silt when the silt is within 12-inches of the top of the silt fence utilized for erosion control.
- P. All silts and/or sediment removed from the erosion/sediment control devices shall be disposed of onsite in such a manner as to prevent said silts and/or sediments from reentering the control devices and/or exiting the site through the storm drainage systems and/or surface drainage.
- Q. Concrete truck washout location shall be in a temporary truck wash area located at the site entrance. Washout shall be contained within a pit or trench with no material leaving the site or impacting vegetated or non-disturbed areas. Disposal of material shall include the breaking of material into small amounts for trash disposal or removal from site to an appropriate landfill. Washout of the drum at the construction site is prohibited.
- R. Paint and/or other chemicals shall be stored in secured facilities with restricted access to employees only. Cleanup and disposal of this material shall be in accordance with all recognized local and federal requirements. All disposal shall be approved to off-site waste facilities classified to accept that material.
- S. All petroleum products shall be stored and used in an area that provides a secondary containment feature, and shall be located in an area with the least foreseeable impact if a catastrophic event should occur. Emergency contact numbers and procedures for spills shall be available on-site.
- T. Erosion Control measures will be maintained until all disturbed soil within the construction area has been completely stabilized with permanent vegetation and all roads/driveways have been paved.

Part 4.0 Site Completion

- A. Final stabilization means that 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the plan (uniformly covered landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures.
- B. The Contractor shall remove silt fence in areas that have undergone stabilization as determined by RWR Inspector. Contractor shall dispose said silt fence in accordance with local regulations.
- C. The Contractor shall be responsible for repairing and/or maintaining all job site work areas that are being stabilized or have undergone final stabilization until RWR has issued a letter of final acceptance.

![](_page_14_Picture_146.jpeg)

![](_page_14_Figure_147.jpeg)

![](_page_15_Figure_0.jpeg)

300

-Feet 3000 1000 2000 500 Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

## MAP LEGEND

Spoil Area

Stony Spot

Wet Spot

Other

Rails

Local Roads

Very Stony Spot

Special Line Features

Streams and Canals

Interstate Highways

Aerial Photography

US Routes

Major Roads

a

 $\Delta$ 

Water Features

Transportation

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Background

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- F

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- Area of Interest (AOI) Area of Interest (AOI) Soils Soil Map Unit Polygons Soil Map Unit Lines -Soil Map Unit Points Special Point Features Blowout Borrow Pit 38 Clay Spot Closed Depression X Gravel Pit Gravelly Spot Landfill Lava Flow Marsh or swamp Mine or Quarry -0
- Miscellaneous Water 6 Perennial Water 0 Rock Outcrop  $\checkmark$ Saline Spot Sandy Spot
- Severely Eroded Spot
- 8 Sinkhole
- Slide or Slip
- Sodic Spot

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Newton and Rockdale Counties, Georgia Survey Area Data: Version 14, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 22, 2019—May 2, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AnC	Appling-Urban land complex, 2 to 10 percent slopes	0.7	0.3%
AwC	Ashlar-Pacolet-Wedowee complex, 4 to 15 percent slopes	2.7	1.2%
\wE	Ashlar-Pacolet-Wedowee complex, 15 to 25 percent slopes	27.8	11.9%
CCA	Cartecay and Chewacla soils, frequently flooded	0.7	0.3%
CuC	Cecil-Urban land complex, 2 to 10 percent slopes	2.4	1.0%
PaB	Pacolet sandy loam, 2 to 6 percent slopes	19.2	8.2%
PaC	Pacolet sandy loam, 6 to 10 percent slopes	28.9	12.4%
°aD	Pacolet sandy loam, 10 to 15 percent slopes	19.1	8.2%
PaE	Pacolet sandy loam, 15 to 25 percent slopes	9.6	4.1%
PfC2	Pacolet sandy clay loam, 2 to 10 percent slopes, eroded	30.6	13.2%
YfD2	Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded	24.7	10.6%
)gD	Pacolet-Urban land complex, 10 to 25 percent slopes	17.9	7.7%
CA	Toccoa and Congaree soils, frequently flooded	18.4	7.9%
V	Water	0.7	0.3%
VeB	Wedowee sandy loam, 2 to 6 percent slopes	1.1	0.5%
VeC	Wedowee sandy loam, 6 to 10 percent slopes	13.5	5.8%
VeD	Wedowee sandy loam, 10 to 15 percent slopes	14.8	6.3%
otals for Area of Interest		232.8	100.0%

# Map Unit Descriptions

33° 41' 22" N

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

		SWCD:	
oject N	ame: GA.	HWY. 138 GRAVITY SEWER MAIN EXTENSION	Address: 2510 HIGHWAY 138 NE CONYERS, GA. 30012
ty/Cou	nty: CONYE	RS	Date on Plans:
ame & e	email of p	erson filling out checklist: DAVID CERV	/ONE - david.cervone@rockdalecountyga.gov
an 70 #	Included	TO BE SH	OWN ON ES&PC PLAN
16	T/IN Y	1 The applicable Erosion. Sedimentation a	nd Pollution Control Plan Checklist established by the Commission as of January
		of the year in which the land-disturbing a	ctivity was permitted.
		(The completed Checklist must be subm	itted with the ES&PC Plan or the Plan will not be reviewed)
2-19	Y	2 Level II certification number issued by th	e Commission, signature and seal of the certified design professional.
		(Signature, seal and level II number mus	t be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed)
15	Y	3 The name and phone number of the 24-h	nour contact responsible for erosion, sedimentation and pollution controls.
15	Y	4 Provide the name, address, email addres	ss, and phone number of primary permittee.
15	Y	5 Note total and disturbed acreages of the	project or phase under construction.
4	Y	6 Provide the GPS locations of the beginni	ing and end of the Infrastructure project. Give the Latitude and Longitude in
		decimal degrees.	
ALL	Y	7 Initial date of the Plan and the dates of a	ny revisions made to the Plan including the entity who requested the revisions.
15	Y	8 Descriptions of the nature of construction	n activity and existing site conditions.
& 19	Y	9 Provide vicinity map showing site's relati	on to surrounding areas. Include designation of specific phase, if necessary.
19	Y	10 Identify the project receiving waters and	describe all sensitive adjacent areas including streams, lakes, residential areas,
	v	11 Design professionally settilization states	e anoulou.
15	Ť	Plan as stated on Part IV page 21 of the	permit.
15	Y	12 Design professional's certification statem	nent and signature that the permittee's ES&PC Plan provides for an appropriate
		and comprehensive system of BMPs and	d sampling to meet permit requirements as stated on Part IV page 20 of the permi
15	Y	13 Design professional certification stateme	ent and signature that the permittee's ES&PC Plan provides for representative
		sampling as stated on Part IV.D.6.c.(3)	page 37 of the permit as applicable. *
15	Y	14 Clearly note the statement that "The des initial sediment storage requirements, pe in accordance with Part IV.A.5 page 26	ign professional who prepared the ES&PC Plan is to inspect the installation of the rimeter control BMPs, and sediment basins within 7 days after installation." of the permit. *
15	Y	15 Clearly note the statement that "Non-exe	ernot activities shall not be conducted within the 25 or 50-foot undisturbed stream
		buffers as measured from the point of wr from the Jurisdictional Determination Lin	rested vegetation or within 25-feet of the coastal marshland buffer as measured e without first acquiring the necessary variances and permits."
16	Y	16 Provide a description of any buffer encro	achments and indicate whether a buffer variance is required.
15	Y	17 Clearly note the statement that "Amendr	nents/revisions to the ES&PC Plan which have a significant effect on BMPs with a
		hydraulic component must be certified by	y the design professional." *
15	Y	18 Clearly note the statement that "Waste n	naterials shall not be discharged to waters of the State, except as authorized by a

N/A	N/A	39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by GAEPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov.
N/A	N/A.	40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *
12-14	Y	41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
12-14	Y	42 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site.
19	Y	43 Delineation and acreage of contributing drainage basins on the project site.
19	Y	44 Delineate on-site drainage and off-site watersheds using USGS 1" :2000' topographical sheets.
15	Y	45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
12-14	Y	46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
16	Y	47 Soil series for the project site and their delineation.
12-14	Y	48 The limits of disturbance for each phase of construction.
15	Y	49 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the Plan.
12-14	Y	50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
17-18	Y	51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
17	Y	52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

\* If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream, the \* checklist items would be N/A.

Effective January 1, 2022

		BUFFER ENC	ROACHMENT		-
Encroachment Station	25 ft. Buffer (State)	Encroachment Type	Encroachment Activity	Area Disturbed sq. ft.	Erosion Control Phase
30+22-30+61	х	Crossing	Clearing, Grubbing and excavation	113	2&3
30-79-31+32	х	Crossing	Clearing, Grubbing and excavation	436	2&3
ES & DC	NOTES				

Section 404 permit." \*

ES & PC NOTES: 1. INITIAL CONTROLS: INSTALL PERIMETER SILT FENCE WHERE APPLICABLE PRIOR TO CONDUCTING GRADING ACTIVITIES.

- 2. INTERMEDIATE CONTROLS: INSTALL SILT FENCE, CHECK DAMS, MATTS AND BLANKETING, TEMPORARY/PERMANENT SEEDING WITH MULCH AND GRAVEL (PAVEMENT AREAS) EVERY DAY AND
- PRIOR TO ANY RAIN EVENT. 3. FINAL CONTROLS: INSTALL TEMPORARY/PERMANENT SEEDING WITH MULCH EVERY DAY AND PRIOR TO ANY RAIN EVENT. INSTALL PAVEMENT TO MATCH EXISTING PAVEMENT AS

# CONDITIONS PERMIT.

**CONSTRUCTION SCHEDULE** START PROJECT DATE: XX/XX/XXXX

- COMPLETE PROJECT DATE: XX/XX/XXXX
- 1. INSTALL EROSION CONTROL FENCE 2. CLEAR, CRUB AND GRADE SITE.
- 3. INSTALL AND MAINTAIN GRASSING AND MULCH (TEMPORARY VEGETATION)
- 4. CONSTRUCT PUMP STATION, GRAVITY SEWER MAIN,
- FORCED SEWER MAIN AND WATER MAIN. 5. FINE GRADING
- 6. FINAL STABILIZATION (PERMANENT VEGETATION), CLEAN STORM DRAIN SYSTEM. 7. MAINTAIN ALL EROSION AND SEDIMENT CONTROL

### **MEASURES.** APPROXIMATE CONSTRUCTION SCHEDULE

CTIVITY	MC	)1	МО	2	МС	3	МС	4	МО	)5	МС	6	МС	)7	МС	8	МС	19	M1	0	M1	1
1																						
2																						
3																						
4																						
5																			_			
6																						
7																						
										-	-			-	-							

![](_page_15_Picture_45.jpeg)

![](_page_15_Figure_47.jpeg)

### EFINITION

### pplying plant residues or other suitable materials roduced on the site if possible, to the soil surface.

### CONDITIONS

Mulch or temporary grassing shall be applied to all xposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six nonths, but it shall be applied at the appropriate depth, epending on the material used, anchored, and have a ntinuous 90% cover or greater of the soil surface. Maintenance shall be required to maintain appropriate lepth and 90% cover. Temporary vegetation may be mployed instead of mulch if the area will remain ndisturbed for less than six months. If an area will remain ndisturbed for greater than six months, permanent

# egetative techniques shall be employed.

### SPECIFICATIONS

MULCHING WITHOUT SEEDING This standard applies to grades or cleared areas where seedings may not have a suitable growing season to roduce an erosion retardant cover, but can be stabilized with a mulch cover.

### Site Preparation Grade to permit the use of equipment for applying and

arriers.

nchoring mulch. . Install needed erosion control measures as required uch as dikes, diversions, berms, terraces and sediment

### Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials

### elect one of the following materials and apply at the depth

. Dry straw or hay shall be applied at a depth of 2 to 4 nches providing complete soil coverage. One advantage of is material is easy application.

![](_page_16_Picture_13.jpeg)

### DEFINITION

The establishment of temporary vegetative cover with fast growing seedings for Grading and Shaping seasonal protection on disturbed or denuded areas.

### CONDITIONS

Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established.

### SEEDING RATES FOR **TEMPORARY SEEDING**

SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **
Rye	3.9 pounds	3 bu.	9/1-3/1
Ryegrass	0.9 pound	40 lbs.	8/15-4/1
Annual Lespedeza	0.9 pound	40 lbs.	1/15-3/15
Weeping Lovegrass	0.1 pound	4 lbs.	2/15-6/15
Sudangrass	1.4 pounds	60 lbs.	3/1-8/1
Browntop Millet	0.9 pound	40 lbs.	4/1-7/15
Wheat	4.1 pounds	3 bu.	9/15-2/1

variations and conditions.

![](_page_16_Picture_21.jpeg)

DEFINITION

### he planting of perennial vegetation such as trees, shrubs, vines, grasses, or

### legumes on exposed areas for final permanent stabilization. Permanent rennial vegetation shall be used to achieve final stabilization.

### ONDITIONS

ermanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, dams, and other denuded areas.

### SPECIFICATIONS

Grading and Shaping

### and shaping may not be required where hydraulic seeding and ertilizing equipment is to be used. Vertical banks shall be sloped to enable

lant establishment. When conventional seeding and fertilizing are to be done, grade and shape

### where feasible and practical, so that equipment can be used safely and fficiently during seedbed preparation, seeding, mulching and maintenance of

ncentrations of water that will cause excessive soil erosion shall be diverted to a safe outlet. Diversions and other treatment practices shall conform with the propriate standards and specifications.

# Seedbed Preparation

eedbed preparation may not be required where hydraulic seeding and ertilizing equipment is to be used. When conventional seeding is to be used, eedbed preparation will be done as follows:

### roadcast plantings

Tillage at a minimum, shall adequately loosen the soil to a depth of 4 to 6 ches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for he 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

![](_page_16_Picture_40.jpeg)

### 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. Cutback asphalt (slow curing) shall be applied at 1200 gallons per acre (or 1/4 gallon per sq.yd.). 4. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This

### Applying Mulch

material can be salvaged and reused.

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 mechanicalequipment. 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. Cutback asphalt shall be applied uniformly. Care should be taken in areas of pedestrian traffic due to problems of tracking in or damage to shoes, clothing, etc. 4. Apply polyethylene film on exposed areas.

### Anchoring Mulch

1. Straw or hay mulch can be pressed into the soil with a disk harrow with the disk set straight or with a special packer disk. 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 disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately

### after application. Straw or hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion shall be sprayed onto the mulch as it is ejected from the machine. Use

100 gallons of emulsified asphalt and 100 gallons of water per ton of mulch. Tackifers and binders can be substituted for emulsified asphalt. Please refer to specification Tb -Tackifers and Binders. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications. 2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger

than the average size of the wood waste chips. 3. Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

### SPECIFICATIONS

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 handseeding, 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 a rate of one ton per acre. Graded areas require lime application. Soils can be tested to determine if fertilizer is needed. On reasonably fertile soils or soil material, fertilizer is not required. For soils with very low fertility, 500 to 700 pounds of 10-10-10 fertilizer or the equivalent per acre (12-16 lbs./1.000 sq. ft.) shall be applied. Fertilizer should be applied before land preparation and incorporated with a disk, ripper or chisel.

### Seedina

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. Mulching

### Temporary vegetation can in most cases be established without the use of

mulch. 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 nee

4. 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

1. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting. 2. For nursery stock plants, holes shall be large enough to accommodate roots without crowding. 3. 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.

### Planting Hydraulic Seeding

Mix the seed (innoculated 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 cultipacker seeder, drill, rotary seeder, 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 cultipacker 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 at 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

![](_page_16_Picture_74.jpeg)

![](_page_16_Figure_75.jpeg)

# GEORGIA **UNIFORM CODING SYSTEM**

ΓRU	ST		PRACTICES	RAL F	RUCTU	ST	
DI	PRACTICE	CODE	DESCRIPTION	MAP SYMBOL	DETAIL	PRACTICE	ODE
3-3							
	TEMPORARY STREAM CROSSING	Sr	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.	<i>S</i> <sup>C</sup>		CHECKDAM	Cd
	STORMDRAIN OUTLET PROTECTION	St	Improving, constructing or stabilizing an open channel, existing stream, or ditch.	1		CHANNEL STABILIZATION	Ch
	SURFACE ROUGHENING	Su	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.			CONSTRUCTION EXIT	<u>Co</u>
¥.	TURBIDITY CURTAIN	Tc	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on—site vehicle transportation routes.	C.		CONSTRUCTION ROAD STABILIZATION	Cr
	TOPSOILING	Тр	A temporary channel constructed to canvey flow around a construction site while a permanent structure is being constructed.	⇔		STREAM DIVERSION CHANNEL	Dc
	TREE	Tr	An earth channel or dike located above, below or across a slope to divert runoff. This may be a temporary or permanent structure.			DIVERSION	Di
	VEGETATED WATERWAY OR STORMWATER CONVEYANCE	Wt	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.			TEMPORARY DOWNDRAIN STRUCTURE	On1
		_	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.	(ABEL)	T.	PERMANENT DOWNDRAIN STRUCTURE	Dn2
FGI	V		A temporary stone barrier constructed at storm drain inlets and pond outlets.		Ċ	FILTER RING	Fr
	PRACTICE	CODE	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.	<u>S</u>	V	GABION	Ga
4	BUFFER ZONE	Bf	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.	Gr Josephine (MRL)		GRADE STABILIZATION STRUCTURE	Gr
لففغو	COASTAL DUNE STABILIZATION (WITH VEGETATION)	Cs	A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.	Ę		LE VEL SPRE ADER	Lv
4	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)	Ds1	A permanent or temporary stone filter dam installed across small streams or drainageways.	S		ROCK FILTER DAM	Rd
-	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)	Ds2	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.	Re	·	RETAINING WALL	Re
The second	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	Ds3	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.	(MIL)	<b>F</b>	RETRO FITTING	Rt
8	DISTURBED AREA STABILIZATION (SODDING)	Ds4	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.	(NDICATE TIPH)		SEDIMENT BARRIER	Sd1
G	DUST CONTROL ON DISTURBED AREAS	Du	An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.			INLET SEDIMENT TRAP	Sd2
G	FLOCCULANTS AND COAGULANTS	FI-Co	A basin created by exclusion of a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.			TEMPORARY SEDIMENT BASIN	Sd3
	STREAMBANK STABILIZATION (USING PERM VEGETATION)	Sb	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.			TEMPORARY SEDIMENT TRAP	Sd4
1	SLOPE STABILIZATION	Ss	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.	Sk)~+		FLOATING SURFACE SKIMMER	Sk
G	TACKIFIERS AND BINDERS	Tac	Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers	9 		SEEP BERM	Spb

# FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

STRL

- Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-6.1. For fall planting of warm season species, half the fertilizer should be applied at able 6-6.1. Fertilizer Requirements for Soil Surface Application Season Fall Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 Kentucky Tall Fescue MAINTENANCE Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger • Re-sod areas where an adequate stand n slopes steeper than 3:1, sod should be anchored with wooden or than 2"-3" or as specified.

Table 6-6.3. Fer	tilizer Requireme	nts for Sod		
Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	Nitrogen Top Dressing Rate (Ibs./acre)
Cool	First	6-12-12	1500	50-100
Season	Second	6-12-12	1000	-
Grasses	Maintenance	10-10-10	400	30
Warm	First	6-12-12	1500	50-100
Season	Second	6-12-12	800	50-100
Grasses	Maintenance	10-10-10	400	30

The combination of asphalt emulsion and water shall consist of a homogeneous mixture satisfactory for spraying. The mixture shall consist of 100 gallons of grade SS-1h or CSS-1h emulsified asphalt and 100 gallons of water per ton of

Care shall be taken at all times to protect state waters, the public, adjacent property, pavements, curbs, sidewalks, and all other structures from asphalt 1. Dry straw or dry hay of good quality and free of weed seeds can be used. Dry discoloration straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at 2. 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 disks set straight may be used. The disks may be smooth or serrated and should be 20 seeding. It shall be applied at the rate of 500 pounds per acre. Drystraw or dry 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, 3. One thousand pounds of wood cellulose or wood pulp fiber, which includes a leaving much of it in an erect position. Mulch shall not be plowed into the soil. Synthetic tackifiers or binders approved by GDOT shall be applied in 4. Sericea lespedeza hay containing mature seed shall be applied at a rate of conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. Refer to 5. Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding Tb - Tackifiers and Binders. purposes. Other suitable materials in sufficient quantity may be used where 🦷 4. Rye or wheat 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. 5. 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.

applied within 24 hours after an area has been planted. Application rates and Irrigation

### SEEDING RATES FOR PERMANENT SEEDING

SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **
BAHIA	1.4 POUNDS	60 LBS.	1/1-12/31
BERMUDA	0.2 POUND	10 LBS.	2/15-7/1
CENTIPEDE	BLOCK SOD ONLY	BLOCK SOD ONLY	4/1-7/1
LESPEDEZA	1.7 POUNDS	75 LBS.	1/1-12/31
WEEPING LOVE GRASS	0.1 POUND	4 LBS.	2/1-6/15
SWITCH GRASS	0.9 POUND	40 LBS.	3/15-6/1
Unusual site condition	ns may require heavier see	eding rates	
* Seeding dates may	need to be altered to fit ten	nperature variations an	d conditions.

Irrigation shall be applied at a rate that will not cause runoff. fibers shall contain a dye to allow visual metering and aid in uniform application

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 other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface

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

during seeding.

Applying Mulch

DEFINITION

ONDITIONS

surfaces, or gravel type soils.

eated with herbicides or soil sterilants.

planting and the other half in the spring.

Fertilizer Type Fertilizer Rate

(lbs./acre)

1000

(lbs./acre)

10-10-10

tons per acre.

joints and do not stretch sod.

Ds4

the following and apply as indicated:

a rate of 2 1/2 tons per acre.

three tons per acre.

for seeded areas.

Mulching

biodegradable pins or other approved methods

permanent vegetation using sods on highly erodible or critically eroded lands.

his application is appropriate for areas which require immediate vegetative

Bring soil surface to final grade. Clear surface of trash, woody debris, stones

Topsoil properly applied will help guarantee stand. Don't use topsoil recently

Installed sod should be rolled or tamped to provide good contact between sod

rigation should be used to supplement rainfall for a minimum of 2-3 weeks.

Irrigate sod and soil to a depth of 4" immediately after installation.

Sod should not be cut or spread in extremely wet or dry weather.

WITH SODDING

Mulch is required for all permanent vegetation applications. Mulch applied to

2. Wood cellulose mulch or wood pulp fiber shall be used with hydraulic

hay shall be applied (at the rate indicated above) after hydraulic seeding.

tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper.

ornamentals or other ground covers are planted. This is not appropriate

6. When using temporary erosion control blankets or block sod, mulch is not

7. Bituminous treated roving may be applied on planted areas on slopes, in

materials must meet Georgia Department of Transportation specifications.

Wood cellulose and wood pulp fibers shall not contain germination or growth

inhibiting factors. They shall be evenly dispersed when agitated in water. The

ditches or dry waterways to prevent erosion. Bituminous treated roving shall be

seeded areas shall achieve 75% soil cover. Select the mulching material from

Fertilizer Rate

.025

ISTURBED AREA STABILIZATION

Ind clods larger than 1". Apply sod to soil surfaces only and not frozen

overs, drop inlets, grass swales, and waterways with intermittent flow .

ONSTRUCTION SPECIFICATIONS INSTALLATION

Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following 1. Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is ejected from the blower machine or (b) sprayed on the mulch immediately

following mulch application when straw or hay is spread by methods other than special blower equipment.

or thatch. - Sod should be cut to the desired size within ±5%. Torn or uneven pads sho be rejected

MATERIALS

is desirable

 Sod should be cut and installed within 36 hours of digging.
 Avoid planting when subject to frost heave or hot weather if irrigation is not available. - The sod type should be shown on the plans or installed according to Table 6-6.2. See Figure 6-4.1 for your Resource Area.

- Sod selected should be certified. Sod grown in the general area of the projection

- Sod should be machine cut and contain 3/4" ±1/4" of soil, not including sho

Table 6-6.2. Sod Planting Requirements Resource Area Growing Seasor Grass Varieties M-L,P,C Common Bermudagrass P,C P,C Tifway Warm Weathe Tifgreen

	Tiflawn	P,C	
Bahiagrass	Pensacola	P,C	Warm Weath
Centipede	-	P,C	Warm Weath
St. Augustine	Common Bitterblue Raleigh	С	Warm Weath
Zoysia	Emerald Mver	P,C	Warm Weath

• New sod should be mowed sparingly. Grass height should not be cut less Apply one ton of agricultural lime as indicated by soil test or every 4-6 years • Fertilize grasses in accordance with soil tests or Table 6-6.3.

	С	Warm Weather			
	-				
	P,C	Warm Weather	Cd	CHECKDAM	- In
ļ					0
	M-L,P	Cool Weather	(Ch)	CHANNEL	9
				STADIEIZATION	
	of sod is not obtai	ned	$\bigcirc$	CONSTRUCTION	

# ERVATION COMMISSION

RACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
TEMPORARY STREAM CROSSING		ST IVEL	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
STORMDRAIN OUTLET PROTECTION		3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	A paved or short section of riprop channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
SURFACE ROUGHENING		HSUH	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
TURBIDITY CURTAIN		To	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
TOPSOILING		(SHOW STRIPHIC AND ETOPLACE APEAS)	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
TREE PROTECTION	$\odot$	ODNOTE THEE CENTERS)	To protect desirable trees from injury during construction activity.
WATERWAY OR STORMWATER CONVEYANCE		<b>=</b>	Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

# **VEGETATIVE PRACTICES**

PRACTICE	DETAIL	SYMBOL	DESCRIPTION
BUFFER ZONE	<u> </u>	J. BT	Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
COASTAL DUNE STABILIZATION (WITH VEGETATION)	Jan Barriston and States	Cs	Planting vegetation on dunes that are denude artificially constructed, or re—nourished.
DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
DISTURBED AREA TABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
DISTURBED AREA STABILIZATION (SODDING)	<b>82</b> °	Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
FLOCCULANTS AND COAGULANTS		FI-Co	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
STREAMBANK TABILIZATION (USING PERM VECETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.
			GaSWCC (Amended - 2013

![](_page_16_Picture_112.jpeg)

Level II Certified Design Professional CERTIFICATION NUMBER 0000074205 ISSUED: 02/01/2022 Expires: 02/01/2025

SOURCES
ROCKDALE WATER RE
Difficult of the section Center, Inc. Know what's below. Call before you dig.
ATE     DESCRIPTION       /-/-     -       /-/-     -       /-/-     -       /-/-     -       /-/-     -       /-/-     -       /-/-     -       /-/-     -       /-/-     -
REVISION DESCRIPTION No. D
No. DATE /-/ /-/ /-/ /-/ /-/
EROSION CONTROL NOTES
DESIGNED BY: DAVID CERVONE DRAWN BY: WALT BOBO CHECKED BY: DAVID CERVONE DATE: 02/22/2022 FILE NAME: 2245 GA HWY 138 SEWER EXT SHEET DRAWING No.

![](_page_17_Figure_0.jpeg)

![](_page_17_Figure_1.jpeg)

![](_page_17_Figure_2.jpeg)

![](_page_17_Figure_3.jpeg)

![](_page_17_Figure_4.jpeg)

GROWCC GROWERVATION COMMISSION David J Cervone Level II Certified Design Professional

CHECKED BY: DAVID CERVON

DATE: 02/22/2022

SHEET

18

E NAME: 2245 GA HWY 138 SEWER E

DRAWING No

CERTIFICATION NUMBER 0000074205 ISSUED: 02/01/2022 Expires: 02/01/2025

![](_page_18_Figure_0.jpeg)

	BASIN 12				GEORG	CKDALE WATER RESOURCES
						Utilities Protection Center, Inc. Know whats below. Gall before you dig.
		LEG PROJE BASIN BASIN BASIN BASIN BASIN BASIN BASIN BASIN BASIN	END CT SITE (4.09 / 1 2 3 4 5 6 7 8 9 10 10 11	ACRES)	DATE DESCRIPTION No. DATE DES	
	Basin 1 Basin 2 Basin 2 Basin 3 Basin 4 Basin 5 Basin 6 Basin 7 Basin 8 Basin 9 Basin 10 Basin 11 Basin 12	BASIN CARR Area (sq. ft.) 1111,172 7,780 87,273 87,273 558 20,701 20,920 35,693 31,170 27,458 63,192 151,732 7,922	12 BRANCH/YELLO Area (acres) 2.55 0.18 2.00 0.01 0.48 0.48 0.48 0.82 0.72 0.63 1.45 3.48 0.18	W RIVER BASIN Area (sq. ml.) 0.004 0.0003 0.0000 0.0000 0.0008 0.0008 0.0013 0.0011 0.0011 0.0010 0.0012 0.002 0.005 0.0003		EROSION CONTROL USGS MAP
SWCC Geogen Son And Water Canateswation Commettion David J Cervone Certified Design Professional ON NUMBER 0000074205 (01/2022 Expires: 02/01/2025	Carr Branch/Yellow River Basin	<b>505571</b> 841,614,343 <b>GRAPHIC</b> 200 ( IN FE 1 inch =	12.98 19320.81 2 SCALE 400 EET ) 200 ft.	800	DESIGNED E DRAWN BY: CHECKED B DATE: FILE NAME: 2 SHEET 19	3Y: DAVID CERVON WALT BOBO Y: DAVID CERVON 02/22/2022 245 GA HWY 138 SEWER EP DRAWING No. C-15

**C-15**