BUS PARKING IMPROVEMENTS FOR THE JONES COUNTY TRANSPORTATION OFFICE

FOR

JONES COUNTY BOARD OF EDUCATION

JONES COUNTY, GEORGIA

AUGUST 2021

I&A PROJECT No.: 1162-004-01



JONES COUNTY BOARD OF EDUCATION

PREPARED FOR

JONES COUNTY BOARD OF EDUCATION

CHARLES LUNDY
JOE EVANS

SUPERINTENDENT
DIRECTOR OF MAINTENANCE

DRAWING INDEX

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I&A PROJECT #: 1162-004-01

- B) LOCAL COUNTY ORDINANCES IF APPLICABLE.
- C) NPDES PERMIT IF APPLICABLE.
- D) GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF TRANSPORTATION SYSTEMS CURRENT EDITION.
- E) GDOT STANDARD DETAIL WEB SITE: http://mydocs.dot.ga.gov/info/gdotpubs/ConstructionStandardsAndDetails/Forms/AllItems.aspx
- 3. NO FILL SHALL BE PLACED ON EXISTING GROUND UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL AND OTHER DELETERIOUS MATERIAL
- 4. MAXIMUM CUT AND FILL SLOPE = 3:1 UNLESS OTHERWISE NOTED ON PLANS.

STANDARDS AND OTHER LOCAL, STATE, AND FEDERAL REGULATIONS

2. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS.

- 5. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION, ESPECIALLY DURING STORM CONDITIONS. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING OPERATIONS.
- 6. FINISH GRADE SHALL BE SLOPED AWAY FROM ALL WING OR HEAD WALLS AT NOT LESS THAN 1/2" PER FOOT FOR A MINIMUM OF 3'.
- 7. ALL CUT AND FILL SLOPES SHALL BE PLANTED WITH GRASS OR GROUND COVER TO PROTECT THE SLOPE FROM EROSION AND INSTABILITY.
- 8. THE CONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION AGENCY 72 HOURS PRIOR TO THE START OF WORK. THE UTILITY PROTECTION AGENCY'S PHONE NUMBER IS 1-800-282-7411. (GEORGIA 811)
- 9. EXCAVATIONS:
- A) AFTER STRIPING & STOCKPILING TOPSOIL, EXCAVATIONS SHALL BE DEFINED AS UNCLASSIFIED EXCAVATION. NOTIFY OWNERS REPRESENTATIVE IF ROCK IS ENCOUNTERED IN EXCAVATION PROCESS.
- B) SUITABLE EXCAVATION MATERIAL SHALL BE TRANSPORTED TO AND PLACED IN FILL AREAS WITHIN THE LIMITS OF THE WORK.
- C) UNSUITABLE MATERIAL, ENCOUNTERED IN AREAS TO SUPPORT MAINTENANCE EQUIPMENT LOADS SHALL BE EXCAVATED 2 FEET BELOW FINAL GRADE AND REPLACE WITH SUITABLE MATERIAL FROM SITE OR
- D) UNSUITABLE AND SURPLUS EXCAVATION MATERIAL NOT REQUIRED FOR FILL SHALL BE DISPOSED OF AS DIRECTED BY OWNER'S REPRESENTATIVE. DO NOT PLACE MATERIALS IN WETLANDS.
- E) PROPER DRAINAGE, INCLUDING SEDIMENT AND EROSION CONTROL, SHALL BE MAINTAINED AT ALL TIMES. METHODS SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
- F) UNSUITABLE MATERIALS AS STATED HEREIN SHALL BE HIGHLY PLASTIC CLAY SOILS, OF THE CH AND MH DESIGNATION, BORDERLINE SOILS OF THE SC-OH DESCRIPTION, AND ORGANIC SOILS OF THE OL AND OH DESCRIPTION BASED ON THE UNIFIED SOILS CLASSIFICATION SYSTEM. FURTHER, AND SOILS FOR THE TOP TWO FEET OF ROADWAY SUBGRADE SHALL HAVE NO MORE THAN 15% PASSING THE #200 SIEVE.
- 14. FILL PLACEMENT
- A) FILL SHALL BE REASONABLY FREE FROM ROOTS, ORGANIC MATERIAL, TRASH AND STONES HAVING DIMENSIONS GREATER THAN 4 INCHES.
- B) FILL SHALL BE PLACED IN SUCCESSIVE HORIZONTAL LAYERS 6 INCHES TO 12 INCHES IN LOOSE DEPTH FOR THE FULL WIDTH OF THE CROSS-SECTION AND COMPACTED.
- C) FILL IN NON-ROADWAY AREAS SHALL BE COMPACTED TO 90% OF THE MAXIMUM LABORATORY DENSITY
- AT OPTIMUM MOISTURE CONTENT (ASTM D 1557 MODIFIED PROCTOR) D) FILL AROUND HEADWALLS/WINGWALLS, STRUCTURAL FILL IN ROADWAY OR EQUIPMENT SUPPORT AREAS
- SHALL BE COMPACTED TO 95% OF THE MAXIMUM LABORATORY DENSITY AT OPTIMUM MOISTURE CONTENT (ASTM D 1557)
- E) BORROW MATERIAL SHALL CONSIST OF SAND OR SAND-CLAY SOILS CAPABLE OF BEING READILY SHAPED AND COMPACTED TO THE REQUIRED DENSITIES, AND SHALL BE FREE OF ROOTS, TRASH AND OTHER DELETERIOUS MATERIAL.
- F) ALL SOILS USED FOR STRUCTURAL FILLS SHALL HAVE A PI (PLASTIC INDEX) OF LESS THAN 10, AND A LL (LIQUID LIMIT) OF LESS THAN 30. FILL SOILS SHALL BE DRIED TO APPROPRIATE MOISTURE CONTENTS PRIOR TO COMPACTION.
- G) ADDITIONALLY, FILL SOILS USED FOR THE TOP 2 FEET OF FILL BENEATH ROADWAYS SHALL HAVE NO MORE THAN 15% PASSING THE #200 SIEVE.
- CONTRACTOR SHALL FURNISH ALL BORROW MATERIAL
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE BEAR ALL EXPENSES IN DEVELOPING BORROW SOURCES INCLUDING SECURING NECESSARY PERMITS, DRYING THE MATERIAL, HAUL ROADS, CLEARING, GRUBBING, AND EXCAVATING THE PITS, HAUL ROADS, PLACING, RESTORATION OF PITS AND HAUL ROADS TO A CONDITION SATISFACTORY TO PROPERTY OWNERS AND IN COMPLIANCE WITH APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS.
- J) CONTRACTOR SHALL STRIP ALL TOPSOIL AND STOCKPILE ON SITE AT A LOCATION DETERMINED BY THE OWNER'S AT THE CONTRACTOR'S EXPENSE.
- K) TOPSOIL SHALL BE PLACED TO A DEPTH OF 4" IF AVAILABLE OVER ALL DISTURBED AREAS.
- 15. STORM CULVERT(S)
- A. PIPE TRENCH CONSTRUCTION, BEDDING & BACKFILLING FOR STORM CULVERTS SHALL BE GOVERNED BY GEORGIA DOT STANDARD DETAIL 1030D (3 SHEET SET - SEPT. 2001) FOR ROUND & ARCH/ELIPTICAL
- B. ALL PIPE CULVERTS UNDER ROADWAYS SHALL BE REINFORCED CONCRETE PIPE (RCP) UNLESS NOTED
- C. BOX CULVERT PIPE OR CULVERTS SHALL BE EITHER CAST-IN-PLACE OR PRECAST UNITS IN ACCORDANCE WITH THE APPLICABLE GDOT STANDARD DETAIL. PRECAST BOX UNITS SHALL BE PROVIDED & INSTALLED IN ACCORDANCE WITH GDOT STANDARD DETAIL 2530P.
- D. CULVERT HEADWALLS, PARAPETS AND WINGWALLS SHALL BE PROVIDED & INSTALLED IN ACCORDANCE WITH THE APPLICABLE GDOT STANDARD DETAIL.
- 16. ALL TRACK OUT DUST, MUD OR DIRT MUST BE REMOVED FROM PUBLIC STREETS OR ROADWAYS.
- 17. ALL STORM DRAINAGE PIPES SHALL BE LAID ON SMOOTH, CONTINUOUS GRADES WITH NO VISIBLE BENDS AT THE JOINTS.
- 18. ALL PIPE LENGTHS AND DISTANCES BETWEEN STRUCTURES ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE ALONG A HORIZONTAL PLANE.



Know what's DOLOW. Gall before you dig.

GENERAL NOTES:

AGENCY PRIOR TO THE CLOSING.

POLK

DOUGLAS _

- CONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION AGENCY 72 HOURS PRIOR TO THE START OF WORK. THE UTILITY PROTECTION AGENCY'S PHONE NUMBER IS 1-800-282-7411.(GEORGIA 811)
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION.

AND REPRESENTATIVE FROM THE APPROPRIATE UTILITY COMPANY.

- EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY DEVIATIONS FROM THE DESIGN LOCATION SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION. DAMAGE TO EXISTING UTILITY LINES RESULTING FROM THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 4. IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE UTILITIES TO THEIR ORIGINAL CONDITION AND QUALITY, AS APPROVED BY THE ENGINEER
- WHEN CONSTRUCTION INVOLVES THE REMOVAL OF FENCES, POLES, SIDEWALKS, DRIVEWAY, TEMPORARY OR FIXED STRUCTURES, THE CONTRACTOR, AT HIS EXPENSE, SHALL PROVIDE FOR TEMPORARY SERVICE OF CONTAINMENT TO THE AFFECTED PROPERTY AND SHALL REPLACE SUCH ITEMS WITH SIMILAR OR BETTER MATERIALS AS SOON AS PRACTICAL OR AS DIRECTED BY OWNER'S REPRESENTATIVE FOLLOWING PIPE INSTALLATION.
- PEDESTRIAN AND LOCAL VEHICULAR TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. SAFETY DEVICES AND FLAGMEN SHALL BE PROVIDED BY THE CONTRACTOR AT HIS EXPENSE. WRITTEN PERMISSION TO CLOSE THE CONSTRUCTION AREA TO TRAFFIC MUST BE OBTAINED FROM THE APPROPRIATE GOVERNMENT
- 7. ALL CROSS DRAINS AND DRIVEWAY CULVERTS MUST REMAIN OPEN AT ALL TIMES. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO DRAINS AND CULVERTS.
- 8. ALL EROSION AND SEDIMENTATION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ADDITIONAL MEASURES SHALL BE DIRECTED BY THE OWNER'S DESIGNATED REPRESENTATIVE.
- 9. ALL CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS EXPENSE.
- 10. ALL CONSTRUCTION WILL BE ON COUNTY OWNED RIGHT-OF-WAY OR EASEMENTS. ALL DEBRIS CLEARED SHALL BE HAULED OFF SITE AND DISPOSED OF WITHIN 3 CALENDAR DAYS.
- 11. SOIL AND EROSION CONTROL MEASURES SHALL BE INSTALLED BEFORE CONSTRUCTION BEGINS.
- 12. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER REPRESENTATIVES HARMLESS FROM ANY AND ALL LIABILITY, REAL AND/OR ALLEGED, IN CONJUNCTION WITH THE PERFORMANCE OF THIS PROJECT.
- 13. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING STRUCTURES AND UTILITIES DURING CONSTRUCTION.

MADISON

GREENE TALIAFERRO

WHEELER

ECHOLS

↑ BEN HILL

TURNER

COLQUITT

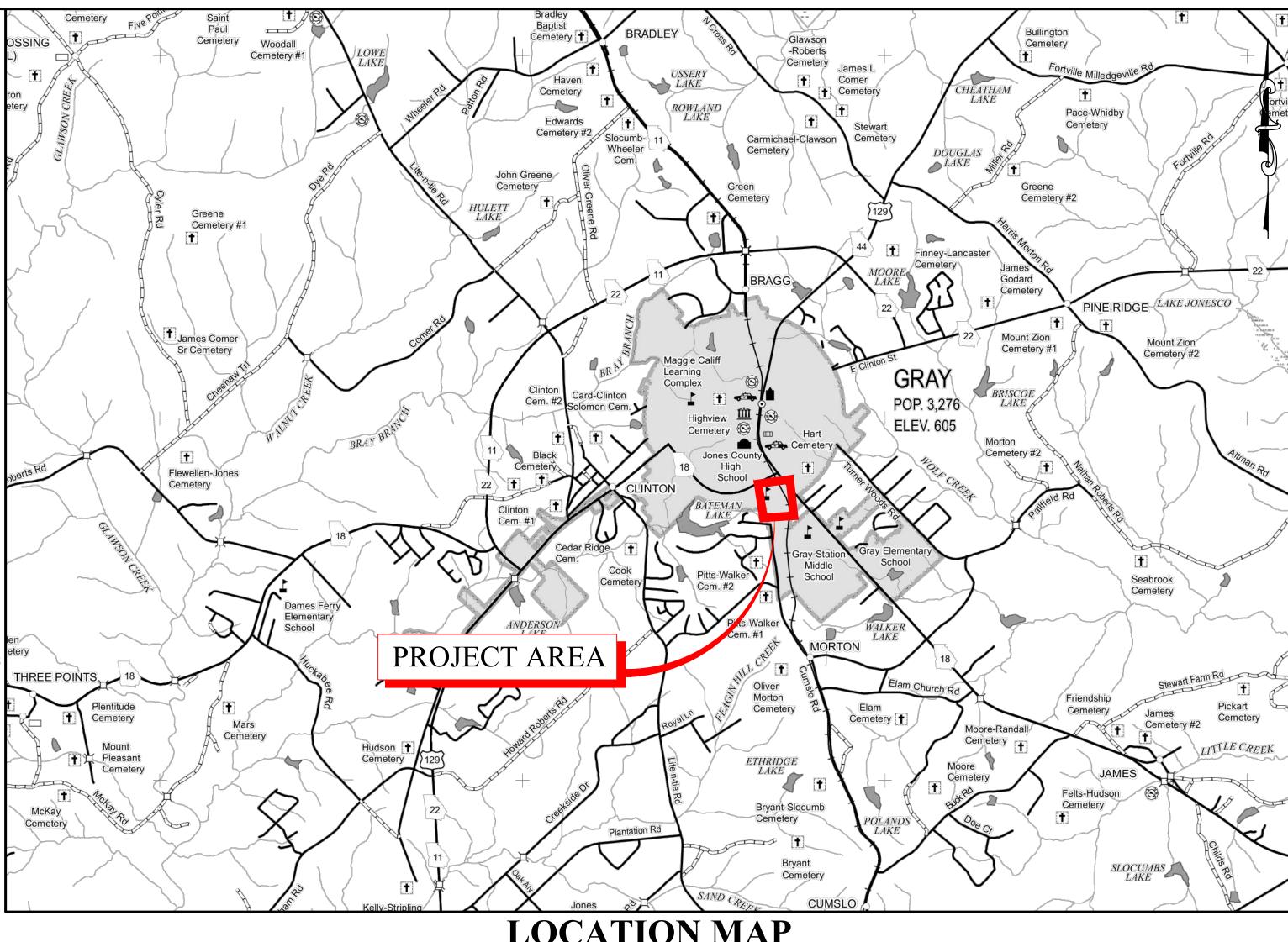
SCREVEN

/ CANDLER

PIERCE

CHARLTON

14. HORIZONTAL DATUM - NAD 1983 (GA STATE PLANE COORDINATES, WEST ZONE) VERTICAL DATUM - NAVD 1988



LOCATION MAP

SCALE: N.T.S.

FENCE

LEGEND

CONTOUR LINE SANITARY SEWER LIN OVERHEAD POWER LINE SANITARY SEWER MANHOLE STORM DRAIN MANHOLE FIRE HYDRANT WATER VALVE UTILITY POLE W/GUY WATER METER

PROPOSED ()----)

NOTICE: THE ENGINEER DOES NOT WARRANT, GUARANTEE NOR ASSUME

RESPONSIBILITY FOR THE PRECISION OR ACCURACY OF THE CONTOURS, SOIL TYPES AND THEIR DELINEATION, PROPERTY LINES RIGHTS-OF-WAYS, PROPERTY OWNERS AND EXISTING UTILITIES SHOWN OR REPRESENTED ON THIS PLAN. THE INFORMATION CONTAINED HEREIN IS COMPILED FROM VARIOUS SOURCES AND IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR AND SHALL ALWAYS BE FIELD VERIFIED IF THE NEED ARISES.

CITY OF GRAY WATER DEPT. CHEYENNE MORGAN MOBILE: (478) 508-4571 OFFICE: (478) 986-2201

24 HOUR CONTACT MAINTENANCE DIRECTOR

JOE EVANS
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PRIMARY PERMITTEE JOE EVANS
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GENERAL NOTES & LEGEND

BUS PARKING IMPROVEMENTS FOR JONES COUNTY TRANSPORTATION OFFICE

FOR THE

JONES COUNTY, GA

CAD BY: JONES COUNTY BOARD OF EDUCATION CHECKED BY:

PROJ. #: 1162-004-01 SHEET #: DSGN BY: AUGUST 2021 SHT. 1 OF 9

DESCRIPTION OF REVISION



INGRAM & ASSOCIATES Consulting Engineers, LLC

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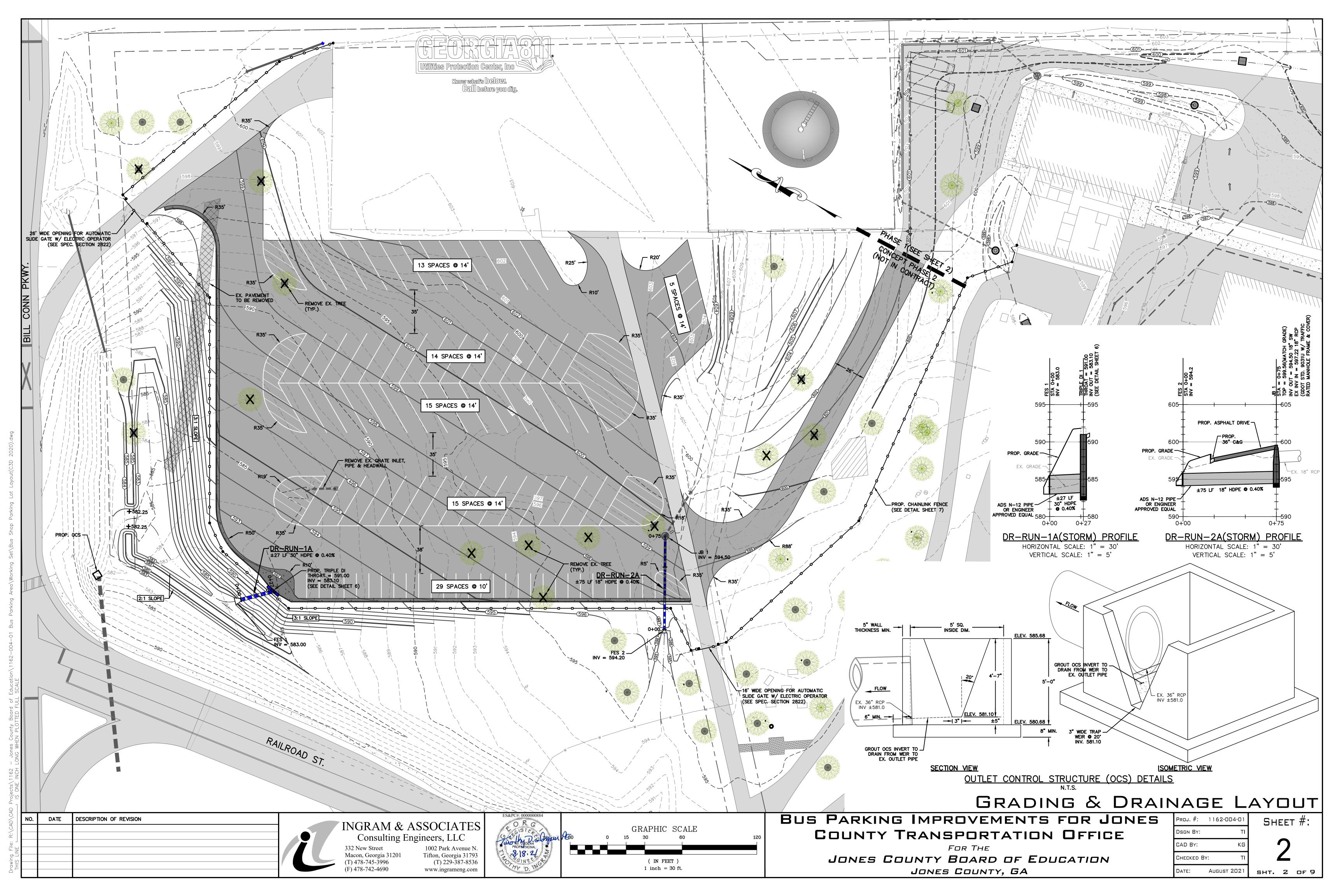


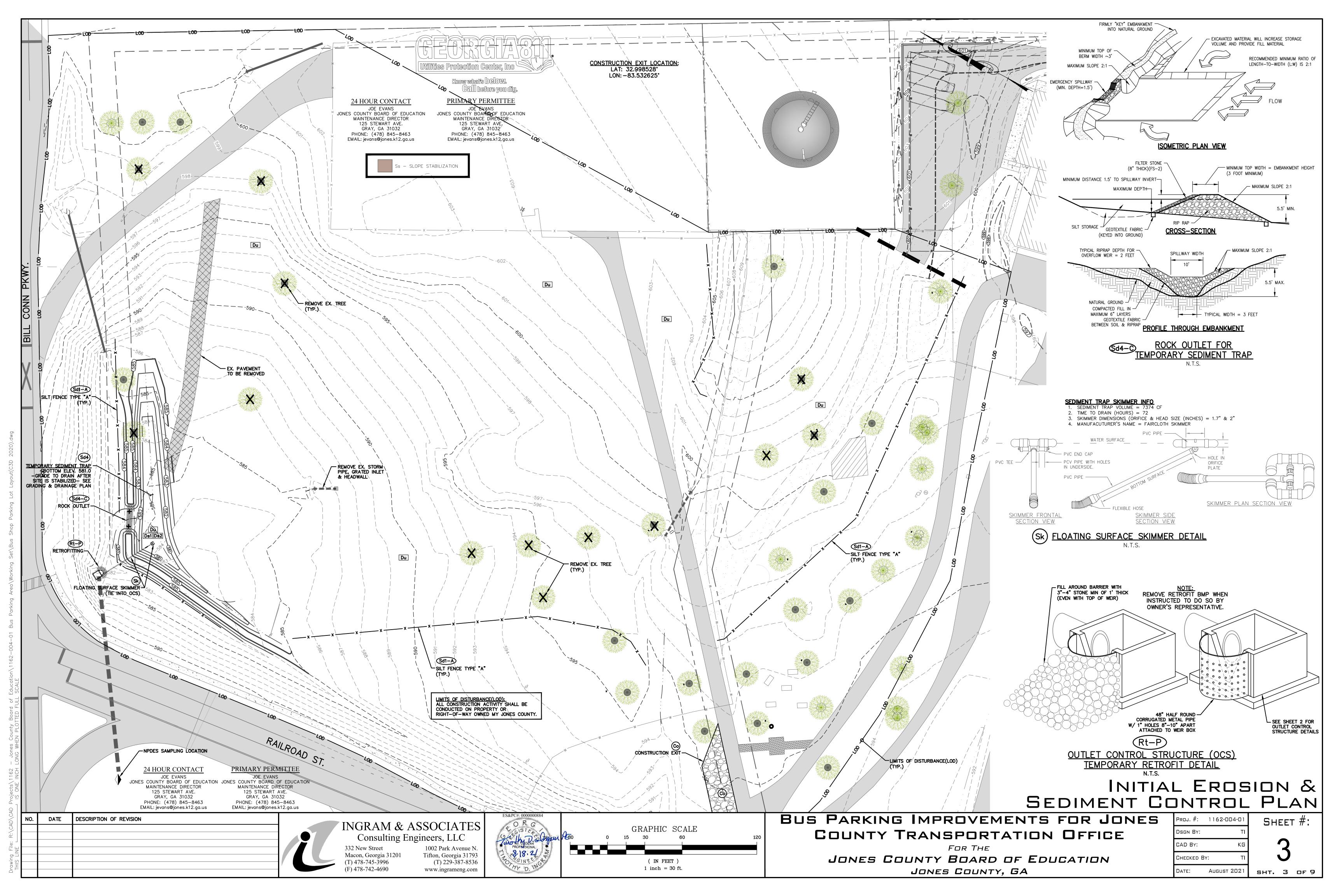
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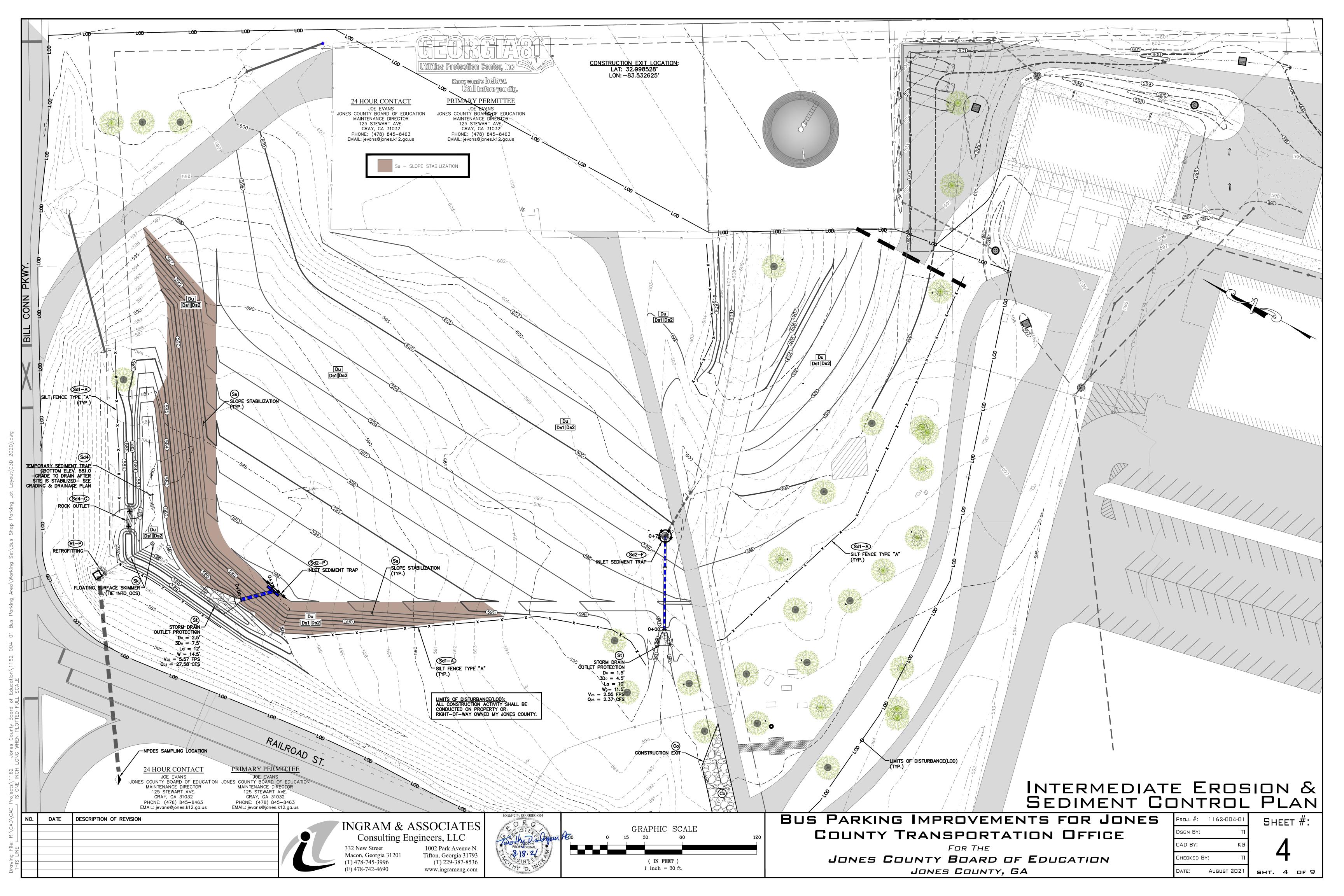
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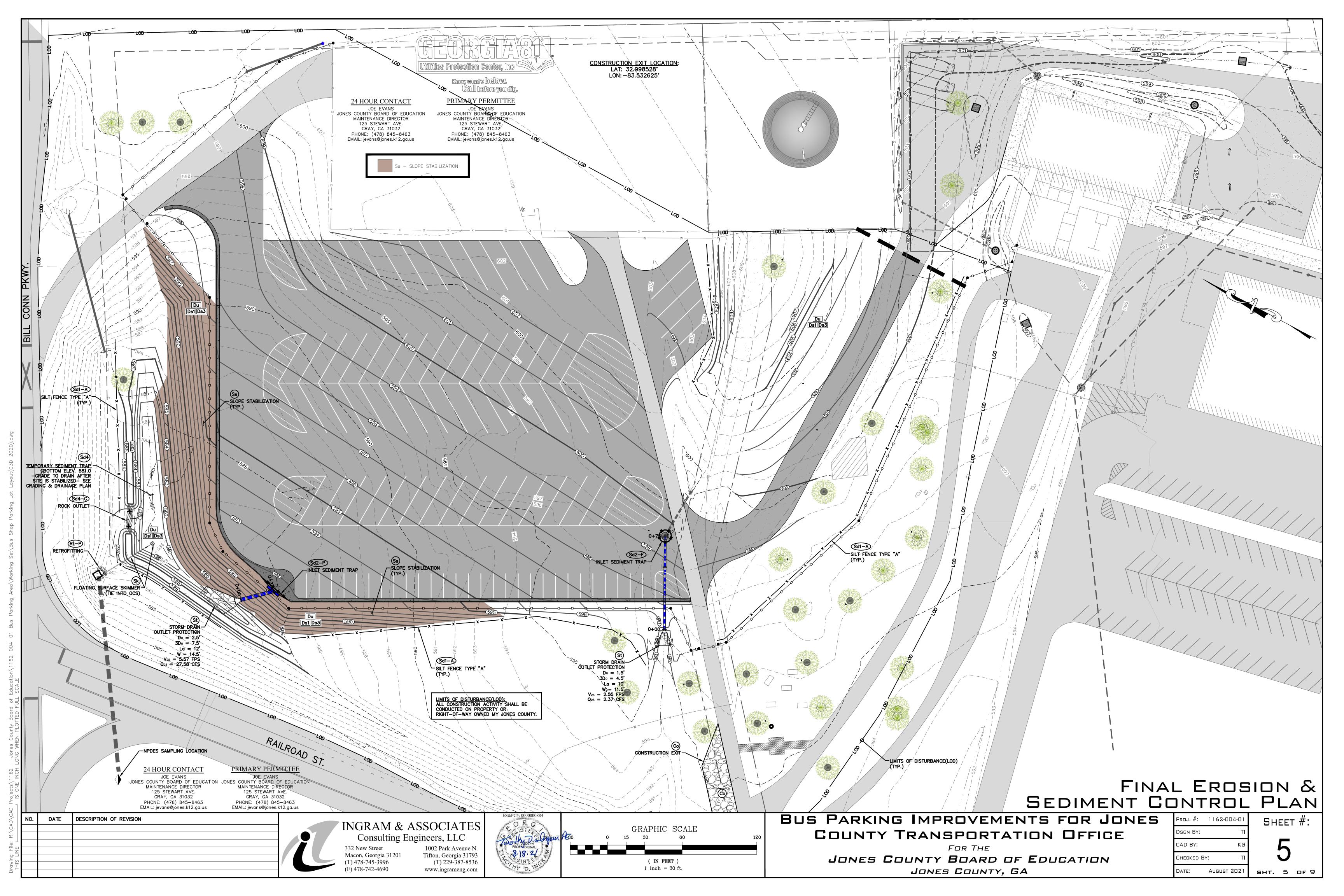
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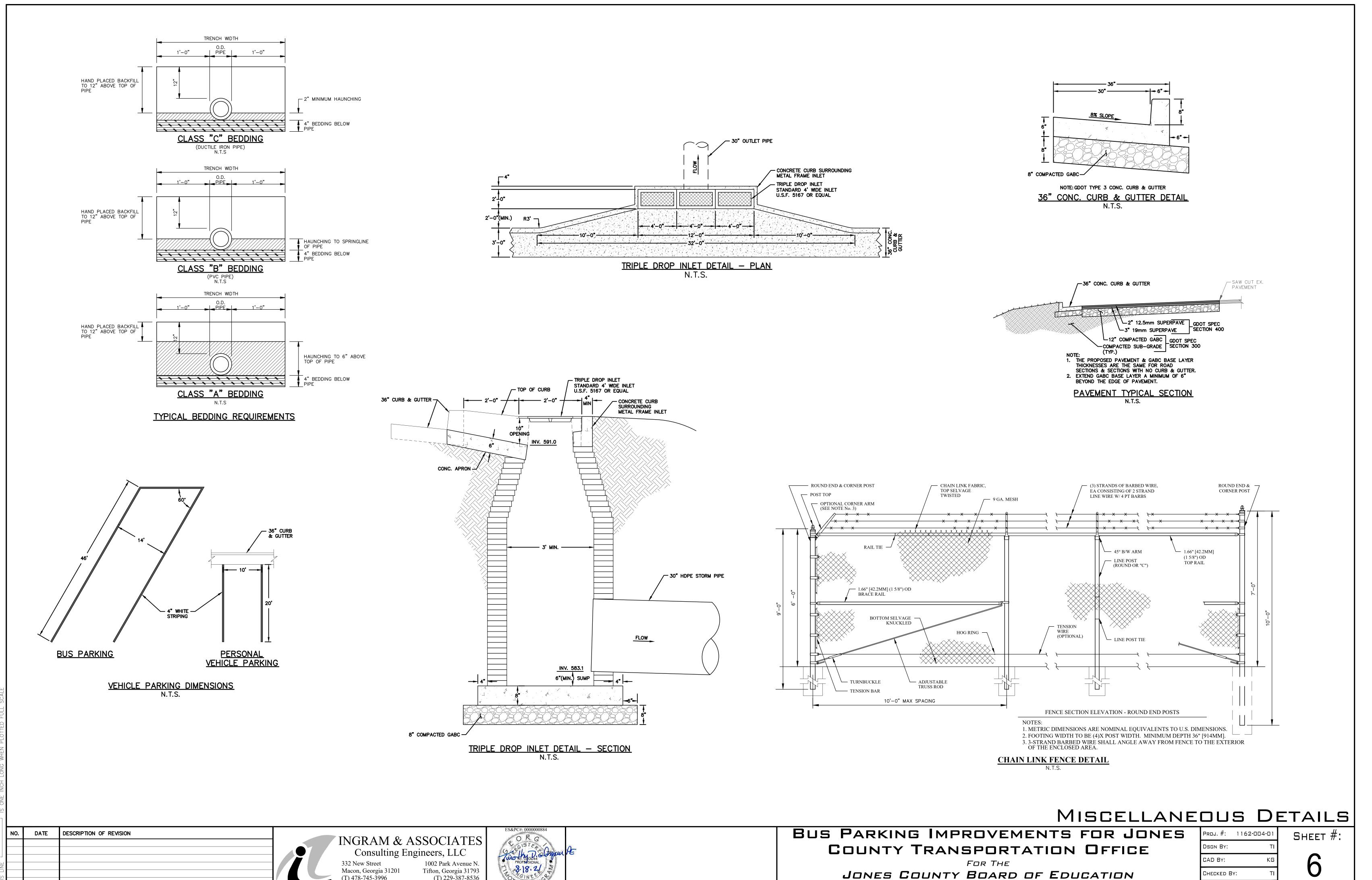
BAKER











JONES COUNTY, GA

SHT. 6 OF 9

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DATE

a. Permittee requirements (1). Each day when any type of construction activity has taken place at a primary permittee's site, 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 off-site sediment tracking. These inspections must be conducted until a Notice of Termination is

(2). Measure rainfall once every 24 hours except any non-working Saturday, non-working Sunday and non-working Federal holiday until a Notice of Termination is submitted. 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

(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 applicable to the primary permittee's site 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 water(s). For 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.a.(4). These inspections must be

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is received by EPD) 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

(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 (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 day following each inspection.

(6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., 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.a.(5) of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents the inspection report shall contain a certification that the best management practices are in compliance with

the Erosion, Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2 of this permit. Maintenance:

The plan shall include a description of procedures to ensure the timely maintenance of vegetation, erosion and sediment control measures and other protective measures identified in the site plan.

Sampling Requirements:

This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit. This paragraph shall not apply to any land disturbance associated with the construction of single-family homes which are not part of a subdivision or planned common development unless five (5) acres or more will be disturbed. The following procedures constitute EPD's guidelines for sampling turbidity. a. Sampling Requirements shall include the following:

(1) A USGS topographic map, a topographic map or a drawing (referred to as a topographic map) that is a scale equal to or more detailed than a 1:24000 map showing the location of the site or the stand alone construction; (a) the location of all perennial and intermittent streams and other water bodies as shown on a USGS topographic map, and all other perennial and intermittent streams and other water bodies located during mandatory field verification, into which the storm water is discharged and (b) the receiving water and/or outfall sampling locations. When the permittee has chosen to use a USGS topographic map and the receiving water(s) is not shown on the USGS topographic map, the location of the receiving water(s) must be hand-drawn on the USGS topographic map from where the storm water(s) enters the receiving water(s) to the point where the receiving water(s) combines with the first blue line stream shown on the USGS topographic map;

(2). A written narrative of site specific analytical methods used to collect, handle and analyze the samples including quality control/quality assurance procedures. This narrative must include precise sampling methodology for each sampling location; (3). When the permittee has determined that some or all outfalls will be sampled, a rationale must be included on the Plan for the NTU limit(s) selected from Appendix B. This rationale must include the size of the construction site, the calculation of the size of the surface water drainage area, and the type of receiving water(s) (i.e., trout stream or supporting warm water fisheries); and (4). Any additional information EPD determines necessary to be part of the Plan. EPD will provide written notice to the permittee

b. Sample Type. 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 EPD.

(1). Sample containers should be labeled prior to collecting the samples. (2). Samples should be well mixed before transferring to a secondary container.

of the information necessary and the time line for submittal.

(3). Large mouth, well cleaned 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 analyzed 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 EPD as specified in Part IV.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 storm

water discharge from the permitted activity (i.e., the discharge farthest upstream at the site) but downstream of any other storm water discharges 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 storm water discharge from the permitted activity (i.e., the discharge farthest downstream at the site) but upstream of any other storm water 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

(c). Ideally the samples should be taken from the horizontal and vertical center of the receiving water(s) or the storm water outfall channel(s) (d). Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall storm water 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 onto undisturbed natural areas or areas stabilized by the project. For

purposes of this section, stabilized shall mean, for unpaved 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 EPD for waste disposal, 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 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 crop 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 III.D.3. or III.D.4.., whichever is applicable.

Sampling Frequency. (1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any storm water discharge to a monitored receiving water and/or from a monitored outfall location within in 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 storm water discharge that occurs during normal business hours as defined in this permit after all clearing and

selected as the sampling location; (b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented Property Rights: within two (2) business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are properly designed, installed and maintained;

(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), Severability: the permittee, in accordance with Part IV.D.4.a.(6), must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a),

(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b). Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above. *Note that the permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain

event that reaches or exceeds 0.5 inch and allows for sampling at any time of the day or week.

DESCRIPTION OF REVISION

Non-storm water discharges:

Except for flows from fire fighting activities, sources of non-storm water listed in Part III.A.2. of this permit that are combined with storm water discharges associated with construction activity must be identified in the Plan. The Plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

1. The applicable permittees are required to submit the sampling results to the EPD at the address shown in Part II.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any storm water discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed in accordance with Part V.G.2. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.

2. All sampling reports shall include the following information:

a. The rainfall amount, date, exact place and time of sampling or measurements; b. The name(s) of the certified personnel who performed the sampling and measurements;

c. The date(s) analyses were performed; d. The time(s) analyses were initiated;

e. The name(s) of the certified personnel who performed the analyses; f. References and written procedures, when available, for the analytical techniques or methods used;

g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine

h. Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU;" and i. Certification statement that sampling was conducted as per the Plan.

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from mmencement of construction until such time as a NOT is submitted in accordance with Part VI. If an electronic submittal is provided by EPD then the written correspondence may be submitted electronically; if required, a paper copy must also be submitted by return receipt certified mail or similar service.

Retention of Records:

1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:

a. A copy of all Notices of Intent submitted to EPD; 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.a. of this permit; f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and g. Daily rainfall information collected in accordance with Part IV.D.4.a.(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 EPD, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the NOT is submitted in accordance with Part VI. of this permit. These records must be maintained at the permittee's primary place of business or at a designated alternative location once the construction activity has ceased at the permitted site. This period may be extended by request of the EPD at any time upon written notification to the permittee.

Duty to Comply:

1. Each permittee must comply with all applicable conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. §§12-5-20, et seq.) and is grounds for enforcement action; for permit termination; or for denial of a permit renewal application. Failure of a primary permittee to comply with any applicable term or condition of this permit shall not relieve any other primary permittee from compliance with their applicable terms and conditions of this permit. 2. Each permittee must document in their records any and all known violations of this permit at his/her site within seven (7) days of his/her knowledge of the violation. A summary of these violations must be submitted to EPD by the permittee at the addresses

shown in Part II.C. within fourteen (14) days of his/her discovery of the violation. 3. Penalties for violations of permit conditions. The Federal Clean Water Act and the Georgia Water Quality Control Act (O.C.G.A. §§12-5-20, et seq.) provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Acts, any permit condition or limitation established pursuant to the Acts, or negligently or intentionally failing or refusing to comply

Continuation of Expired General Permit:

with any final or emergency order of the Director.

This permit expires on the date shown on the cover page of this permit. However, an expired general permit continues in force and effect until a new general permit is issued, final and effective.

Need to Halt or Reduce Activity Not a Defense:

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Duty to Mitigate:

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

Duty to Provide Information:

The permittee shall furnish to the Director; a State or local agency approving soil erosion and sedimentation control plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with construction activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the local government operating the municipal separate storm sewer system, any information which is requested to determine compliance with this permit. In the case of information submitted to the EPD such information shall be considered public information and available under the Georgia Open

Other Information:

When the permittee becomes aware that he failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report required to be submitted to the EPD, the permittee shall promptly submit such facts or information.

Signatory Requirements:

All Notices of Intent, Notice of Terminations, inspection reports, sampling reports or other reports requested by the EPD shall be signed as follows:

1. All Notices of Intent and Notices of Termination shall be signed as follows: a. For a corporation: by a responsible corporate officer. For the purpose of this permit, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the

manager in accordance with corporate procedures; b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or c. For a municipality, State, Federal, or other public facility: by either a principal executive officer or ranking elected official; and d. Changes to authorization. If an authorization under Part II.B. is no longer accurate, a change of information NOI satisfying the requirements of Part II.B. must be submitted to the EPD prior to or together with any inspection reports, sampling reports, or other

reports requested by the EPD to be signed by a person described above or by a duly authorized representative of that person. 2. All inspection reports, sampling reports, or other reports requested by the EPD shall be signed by a person described above or by

a duly authorized representative of that person. A person is a duly authorized representative only if: a. The authorization is made in writing by a person(s) described above and submitted to the EPD; b. The authorization specifies either an individual or a position having responsibility for specified operation(s) of the regulated

facility or activity, such as the position of manager, Operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may be either a named individual or any individual occupying a named position); and c. Certification. Reports delineated in Part V.G.2. shall be signed by the permittee or duly authorized representative and shall make the following certification: "I certify under penalty of law that this report 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. grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location Oil and Hazardous Substance Liability:

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the Georgia Hazardous Waste Management Act, O.C.G.A. § 12-8-60, et seq. or under Chapter 14 of Title 12 of the Official Code of Georgia Annotated; nor is the Operator relieved from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or Section 106 of Comprehensive Environmental Response Compensation And Liability Act.

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not

Other Applicable Environmental Regulations and Laws:

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act. Nothing in this permit, unless explicitly stated, exempts the permittee from compliance with other applicable local, state and federal ordinances, rules, regulations, and laws. Furthermore, it is not a defense to compliance with this permit that a local government authority has approved the permittee's Erosion, Sedimentation and Pollution Control Plan or failed to take enforcement action against the permittee for violations of the Erosion, Sedimentation and Pollution Control Plan, or other provisions of this permit. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or

Proper Operation and Maintenance:

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the required plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

Inspection and Entry:

The permittee shall allow the Director or an authorized representative of EPA, EPD or to designated officials of the local government reviewing soil erosion and sediment control plans, grading plans, or storm water management plans; or, in the case of construction site which discharges through a municipal separate storm sewer system, an authorized representative of the municipal operator of the separate storm sewer system receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit; and

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and 3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).

Permit Actions:

This permit may be revoked and reissued, or terminated for cause including but not limited to changes in the law or regulations. The filing of a request by the permittee for termination of the permit, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

Product Specific Practices:

Washout of the drum at the construction site is prohibited.

Petroleum Based Products - Containers for products such as fuels, lubricants and tars will be inspected daily for leaks and spills. This includes on-site vehicle and machinery daily inspections and regular preventative maintenance of such equipment. Equipment maintenance areas will be located away from state water, natural drains and storm water drainage inlets. In addition, temporary fueling tanks shall have a secondary containment liner 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 as required by

Paints/Finishes/Solvents - All products will be stored in tightly sealed original containers when not in use. Excess product will not be discharged to 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.

Concrete Truck washing - Utilize BMP's for concrete wash down of tools, concrete mixer chutes, hoppers and rear of vehicles.

Fertilizer/Herbicides - These products will be applied at rates that do not exceed the manufacturer's specifications or above the guidelines set forth in the crop establishment or in the GSWCC Manual for Erosion and Sediment Control in Georgia. Any storage of these materials will be under roof in sealed containers.

Building materials - No building or construction materials will be buried or disposed of onsite. All such material will be disposed of in proper waste disposal procedures.

NO WASTE WILL BE DISPOSED OF INTO STORM WATER INLETS OR WATERS OF THE STATE.

Waste Materials - All waste materials will be collected and stored in a securely lidded metal dumpster. The dumpster will meet all solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of once per week or more often if necessary and trash will be hauled as required by local regulations. No construction waste will be buried onsite. All personnel will be instructed on proper procedures for waste disposal. A notice stating these practices will be posted at the jobsite and the Contractor will be responsible for seeing that these procedures

Hazardous Wastes - All hazardous waste materials will be disposed of in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. The job site superintendent, who will also be responsible for seeing that these practices are followed, will instruct site personnel in these practices. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the ESPCP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques. The contractor will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this ESPCP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with stormwater discharges. If such contact occurs, the stormwater discharge will be contained on site until appropriate measures in compliance with sate and federal regulations are taken to dispose of such contaminated stormwater. It shall be the responsibility of the job site superintendent to properly train all personnel in the use of the SPCC plan.

Sanitary Wastes - A minimum of one portable sanitary unit will be provided for every ten (10) workers on the site. All sanitary waste will be collected from the portable units a minimum of one time per week by a license portable facility provider in compete compliance with local and state regulations. All sanitary waste units will be located in one area where the likelihood of the unit contributing to storm water discharge is negligible. Additional containment BMP's must be implemented, such as gravel bags or specially designed plastic skid containers around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified on the Erosion Control Plan Grading Phase, Sheet C-4b. by the contractor once the locations have been determined. Sanitary Sewer will be provided by Municipal Authority/Septic System at the completion of

Spill Cleanup and Control Practices

Local, State and manufacturer's recommend methods for spill cleanup will be clearly posted and procedures will be made available to site personnel. Material and equipment necessary for spill cleanup will be kept in the material storage areas. Typical materials and equipment includes, but is not limited to: - greater than 560 gallons brooms, dustpans, mops, rags, gloves, goggles, cat litter, sand, sawdust and properly labeled plastic and metal waste containers.

- Spill prevention practices and procedures will be reviewed after a spill and adjusted as necessary to prevent - All spills will be cleaned up immediately upon discovery. All spills will be reported as required by local, State and Federal regulations

- 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. - For spills of an unknown amount, the Nation Response Center (NRC) will be contacted within 24 hours at - For Spills greater than 25 gallons and no surface water impacts, the Georgia EPD will be contacted within

- For Spills less than 25 gallons and no surface water impacts, 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 onsite (this includes capacities of equipment) or if any one piece of equipment has a capa.

The Contractor will need a Spill Prevention Containment and Countermeasures Plan prepared by that licensed

Building Material & Building Products

For building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present 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 designed to minimize 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).

APPENDIX B Nephelometric Turbidity Unit (NTU) TABLES Warm Water (Supporting Warm Water Fisheries)

Surface Water Drainage Area (square miles)

		0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+	
	1.00-10	75	150	200	400	750	750	750	750	
	10.01-25	50	100	100	200	300	500	750	750	
Site Size (acres)	25.01-50	50	50	100	100	200	300	750	750	
	50.01-100	50	50	50	100	100	150	300	300	
	100.01+	50	50	50	50	50	100	200	100	

Storm water samples are to be analyzed in accordance with methodology and test procedures established by 40 CFR Part 136 and the guidance document titled "NPDES Storm Water Sampling Guidance Document. EPA 833-B-92-001."

Storm water is to be sampled for nephelometric turbidity units (NTU) at the outfall location. A discharge of storm water runoff from disturbed areas where best management practices have not been properly designed, installed, and maintained shall constitute a separate violation for each day on which such condition results in the turbidity of the discharge exceeding 75, the value that was selected from Appendix B in Permit No. GAR 10000 1. The NTU is based upon the disturbed acreage of 3.8 acres for the project site, the surface water drainage area of <5 square miles, and receiving water which supports warm water fisheries.

EROSION CONTROL NOTES/STATEMENTS:

"EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR

"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."

"MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. IF AN AREA REMAINS UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED.

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.

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

THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S WITHIN SEVEN (7) DAYS AFTER INSTALLATION AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE

BMPS ARE REQUIRED FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS.

SILT FENCE, STORM DRAIN OUTLET PROTECTION, SILT FENCE, INLET SEDIMENT TRAPS, TEMPORARY SEDIMENT TRAP RETROFIT & A CONSTRUCTION EXIT WILL BE USED TO DETER POLLUTANTS DURING CONSTRUCTION. AFTER CONSTRUCTION THE SITE WILL BE GRASSED AND STORMWATER SEDIMENT AND

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

ALL WETLANDS ON SITE AND STATE WATERS WITHIN 200' OF THIS SITE HAVE BEEN DELINEATED.

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

CONSTRUCTION ACTIVITY DESCRIPTION:

THE CONSTRUCTION ACTIVITY INCLUDES GRADING, INSTALLING STORM DRAINAGE STRUCTURES AND PAVING.

THE PROJECT'S STORM WATERS ARE INITIALLY RECEIVED BY A BONNER CREEK TRIBUTARY. FROM THERE THE WATERS DRAIN TO WALNUT CREEK. SECONDARY PERMITTEES ARE UNKNOWN AT THIS TIME BUT IT IS THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE APPLICABLE PORTIONS OF

ES&PC PLANS TO ANY SECONDARY PERMITTEE PRIOR TO THEIR CONSTRUCTION COMMENCEMENT. THE NATURE OF THE CONSTRUCTION ACTIVITY WOULD BE CATEGORIZED AS SITE DEVELOPMENT FOR A SCHOOL BUS PARKING AREA.

DURING THE INITIAL PHASE OF CONSTRUCTION A CONSTRUCTION EXIT, TEMPORARY SEDIMENT TRAP, RETROFIT FOR OCS, SILT FENCE WILL BE PLACED AROUND THE PERIMETER AS NECESSARY TO CONTROL THE ESCAPE OF SEDIMENT. DURING THE INTERMEDIATE AND FINAL PHASE, SILT FENCE, STORM DRAIN OUTLET PROTECTION, SILT FENCE, INLET SEDIMENT TRAPS, TEMPORARY SEDIMENT TRAP RETROFIT & A CONSTRUCTION EXIT WILL BE USED TO CONTROL THE ESCAPE OF SEDIMENT

ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITH THE SAME WATERSHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART III. C. OF THE

THE USE OF NO (TYPE OF BMP) ALTERNATIVE BMPs HAVE BEEN REVIEWED AND HAS BEEN DETERMINED TO BE ALLOWABLE ONLY FOR THIS ES&PC PLAN. THIS REVIEW WAS SITE SPECIFIC BASED ON THE DOCUMENTATION SUBMITTED AND CERTIFIED BY THE DESIGN PROFESSIONAL AND REQUIRED BY THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION AND THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION.

A BUFFER VARIANCE IS NOT REQUIRED.

PREDEVELOPED CN=74 AND POST DEVELOPED CN=80

SECONDARY PERMITTEES:

THIS MASTER LIST TO BE COMPLETED, SIGNED, AND KEPT IN THE ON SITE CONSTRUCTION TRAILER. "SUB-CONTRACTOR" MEANS AN ENTITY EMPLOYED OR RETAINED BY THE PERMITTEE TO CONDUCT ANY TYPE OF CONSTRUCTION ACTIVITY (AS DEFINED IN THIS PERMIT) AT AN CONSTRUCTION SITE. SUB-CONTRACTORS MUST COMPLETE THE APPROPRIATE CERTIFICATION COURSE APPROVED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-19. SUB-CONTRACTORS ARE NOT PERMITTEES UNLESS THEY MEET THE DEFINITION OF EITHER A PRIMARY, SECONDARY OR TERTIARY PERMITTEE.

SECONDARY PERMITTEES SIGN WHEN RECEIVING PLANS. ALL SECONDARY PERMITTEES MUST SUBMIT SECONDARY NOI AT LEAST 14 DAYS PRIOR TO BEGINNING CONSTRUCTION ACTIVITY. NAME: COMPANY: ADDRESS: GSWCC LEVEL 1A CERTIFICATION **SIGNATURE** PHONE: COMPANY: ADDRESS:

GSWCC LEVEL 1A CERTIFICATION SIGNATURE DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION NOTE: THE DESIGN PROFESSIONAL WHO PREPARED THE NITIAL SEDIMENT STORAGE REQUIREMENTS, PERIMETER CONTROL BMPs AND SEDIMENT BASINS IN ACCORDANCE I CERTIFY THE SITE IS IN COMPLIANCE WITH THE ES&PC PLAN ON THE DATE INSPECTED WITH PART IV.A.5. WITHIN 7 DAYS AFTER INSTALLATION. GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION # INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN

THESE DISCREPANCIES MUST BE ADDRESSED IMMEDIATELY AND A RE-INSPECTION SCHEDULED. WORK SHALL NOT PROCEED ON THE SITE UNTIL DESIGN PROFESSIONAL CERTIFICATION IS OBTAINED.

(1) 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 LAND DISTURBING ACTIVITY WAS PERMITTED. THE PLAN PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS. THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001.

(2) I CERTIFY LINDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATION DESCRIBED HERE-IN BY MYSELF OR MY AUTHORIZED

SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

(3) I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE QUALIFIED 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

SILT STORAGE CALCULATION:

STORAGE REQUIRED: $3.8 \text{ AC } \times 67 \text{ CY/AC} = 255 \text{ CY}$ STORAGE ACHIEVED: SILT FENCE - 1044 LF 0.11 CY/FT = 115 CY TEMP. SEDIMENT TRAP = 273 CY 115 CY + 273 CY = 388 CY TOTAL

> 24 HOUR CONTACT JOE EVANS JONES COUNTY BOARD OF EDUCATION MAINTENANCE DIRECTOR 125 STEWART AVE. GRAY, GA 31032 PHONE: (478) 845-8463

PRIMARY PERMITTEE

JOE EVANS JONES COUNTY BOARD OF EDUCATION MAINTENANCE DIRECTOR 125 STEWART AVE. GRAY, GA 31032 PHONE: (478) 845-8463 EMAIL: jevans@jones.k12.ga.us

EROSION CONTROL NOTES & DETAILS

FOR THE JONES COUNTY BOARD OF EDUCATION

BUS PARKING IMPROVEMENTS FOR JONES

PROJ. #: 1162-004-01 DSGN BY: CAD BY: CHECKED BY: AUGUST 2021

SHEET #: SHT. 7 OF 9

INGRAM & ASSOCIATES Consulting Engineers, LLC

332 New Street Macon, Georgia 31201 (T) 478-745-3996 (F) 478-742-4690

1002 Park Avenue N Tifton, Georgia 31793 (T) 229-387-8536 www.ingrameng.com



COUNTY TRANSPORTATION OFFICE

JONES COUNTY, GA

388 CY > **255** CY

To protect the soil surface from erosion To improve wildlife habitat To improve desthetics

To improve tilth, infiltration and aeration as well as organic matter or permanent plantings.

REQUIREMENT FOR REGULATORY COMPLIANCE Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six nonths. If an area is expected to be undisturbed for longer than six months, permanent perennial vegetation shall be used. If optimum planting conditions for temporary grassing is lacking, mulch can be used as a singular erosion control device for up to six months but it shall be applied at eht appropriate depth, anchored, and have a continuos 90% cover or greater or the soil surface. Refer to specification Ds1 -Disturbed Area Stabilization (With Temporary Seeding).

Temporary vegetative measures should be coordinated with permanent neasures to assure economical and effective stabilization. Most types o temporary vegetation are ideal to use as companion crops until the permanent vegetation is established. Note: Some species of temporary vegetation are not appropriate for companion crop plantings because of their potential to out-compete the desired species (e.g. annual ryegrass). Contact NRCS or the local SWCD for more information.

SPECIFICATIONS Grading and Shaping

Excessive water run-off shall be reduced by properly designed and nstalled erosion control practices such as closed drains, ditches, dikes, liversions, 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 Preperation 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 owtherwise scarified to provide a place for seed to lodge and germinate.

ime and Fertilizer Agriculture lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate of one ton per acre. Graded areas require me application. Soils can be tested to determine if fertilizer is needed n reasonably fertile soils or soil material, fertilizer is not required. Fo

soils with very low fertility. 500 to 700 pounds of 10-10-10 fertilizer o the equivalent per acre (12—16 lbs./1000 sq.ft.) shall be applied. Fertilizer should be applied before land preparation and incorporated with a disk, ripper or chisel. Select a grass or grass-leaume mixture suitable to the grea 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.

Temporary vegetation can, in most cases, be established without the use of mulch. Mulch without seeding should be considered for short

Sd2

(Sd4)

FINISH GRADE —

CODE PRACTICE

CONSTRUCTION

RETRO

FITTING

SEDIMENT

BARRIER

SEDIMENT

TRAP

TEMPORARY

SEDIMENT

TRAP

FLOATING

SURFACE

SKIMMER

STORMDRAIN

OUTLET

PROTECTION

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 tha will insure germination of the seed. Subsequently applications should be

STRUCTURAL PRACTICES

SYMBOL

term protection. Refer to Ds1 - Disturbed Area Stabilization (With Mulching Only

Ds3 Disturbed Area Stabilization (With Permanent Vegetation)

To protect the soil surface from erosion - To reduce damage from sediment and runoff to downstream areas To improve wildlife habitat and visual resources

REQUIREMENT FOR REGULATORY **COMPLIANCE**

This practice shall be applied immediately to rough graded areas that will be undisturbed for longer than six months. This practice or sodding shall be applied immediately to all areas at final grade. Final Stabilization means that all soil disturbing activities at the site have been completed, and that for unpaved areas and areas not covered by permanent structures, at least 70% of the soil surface is uniformly covered in permanent vegetation or equivalent permanent stabilization measures (such as the use or rip-rap, gabions, pemanent mulches or geotextiles) have been employed. Pemanent vegetation shall consist of: planted trees, shrubs, perennial vines; a crop of perennial vegetation appropriate for the region, such that within the growing season a 70% coverage by perennial vegetation shall ve achieved. Final stabilization applies to each phase of construction. For linear construction projects on land used for agricultural or silvicultural use. Until this standard is satisfied and permanent control measures and facilities are operational, interim stabilization measures and temporary erosion and sedimentation control measures shall not

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

PLANNING CONSIDERATIONS

Use conventional planting methods wher possible. . When mixed plantings are done during marginal planting periods, companic crops shall be used 3. No—till planting is effective when planting is done following a summer or winter annual cover crop. Sericea lespedeza planted no—till inot stands of rye is an excelent procedure. 4. Block sod provides immediate cover. It is especially effective in controlling erosion adjacent ot concrete flumes and other structures. Refer to Specification Ds4 - Disturbed Area Stabilization (With Sodding). 5. Irrigation should be used when the soil is dry or when summer plantings

are done. 6. Low maintenance plants, as well as natives, should be used to ensure long-lasting erosion control. '. Mowing should not be performed during the quail nesting season (May to 8. Wildlife plantings should be included in critical area plantings.

DESCRIPTION

construction site exit to provide a place for

removing mud from tires thereby protecting

A device or structure placed in front of a

permanent stormwater detention pond outlet

structure to serve as a temporary sediment

A barrier to prevent sediment from leavina

the construction site. It may be sandbags,

An impounding area created by excavating

excavated area will be filled and stabilized on

disturbed area so that sediment can settle

temporary sediment trap from a temporary

sediment basin is the lack of a pipe or rise

A buoyant device that releases/drains water

A paved or short section of riprap channel

preventing erosion from the concentrated

at the outlet of a storm drain system

out. The principle feature distinguishing a

around a storm drain drop inlet. The

ompletion of construction activities.

(sk) from the surface of sediment ponds, traps,

basins at a controlled rate of flow.

A small temporary pond that drains a

bales of straw or hay, brush, logs and poles,

IA crushed stone pad located at the

public streets.

gravel, or a silt fence.

Commercially available plants beneficial to wildlife species include the following

Mast Bearing Trees Beech, Black Cherry, Blackgum, Chestnut, Chinkapin, Hackberry, Hickory, Honey Locust, Native Oak, Persimmon, Sawtooth Oak and Sweetgum. All trees that produce nuts or fruits are favored by many game species Hickory provides nuts used mainly by squirrels and bear.

Shrubs and Small Trees Bayberry Ricolor Lespedeza, Crabapple, Dogwood, Huckleberry or Native Blueberry, Mountain Laurel, Native Holly, Red Cedar, Red Mulberry, Sumac Wax Myrtle, Wild Plum and Blackberry. Plant in patches without tall trees to develop stable shrub communities. All produce fruits used by many kinds of wildlifed, except for lespedeza which produces seeds used by quail and songbirds.

Grasses, Legumes, Vines and Temporary Cover Bahiagrass, Bermudagrass, Grass-Legume mixtures, Partridge Pea. Annual Plant Selection Lespedeza, Orchardgrass (for mountains), Browntop Millet (for temporary cover), and Native grapes. Provides herbaceous cover in clearings for a game bird brood—rearing habitat. Appropriate leaumes such as vetches, clovers, and lespedezas may

CONSTRUCTION SPECIFICATIONS

be mixed with grass, but they may die out after a few years.

Grading and shaping may not be required where hydraulic seeding and fertilizing equipment is to be used. Vertical backs shall be sloped to nable plant 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 efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation. Concetrations of water that will cause excessive soil erosion shall be diverted to a sage outlet. Diversions and other treatment practices shall conform with the appropriate standards and specifications.

Lime and Fertilizer Rates and Analysis Agricultural lime is required at the rate of one to two tons per acre unless soil tests indicate otherwise. Graded areas require lime application If lime is applied within six months of planting permanent perennial vegetation, additional lime is not required. Agricultural lime shall be within the specifications of the Georgia Department of Agriculture. Lime spread by conventional equipment shall be "ground limestone. Ground limestone is calcitic or dolomitic limestone ground so that 90 percent of the material will pass through a 10-mesh sieve, not less than

percent will pass through a 100-mesh sieve. Agricultural lime spread by hydraulic seeding equipment shall be "finely ground limestone." Finely ground limestone is calcitic or dolomitic limestone ground so that 98 percent of the material will pass through a 20—mesh sieve and not less than 70 percent will pass through a 100-mesh sieve. It is desirable to use dolomitic limestone in the Sand Hills. Southern Coastal Planin and Atlantic Coast Flatwoods MLRAs. (see Figure 6-4.1) Agricultural lime is generally not required where only trees are planted. Initial fertilization, nitrogen, topdressing, and maintenence fertilizer requirements for each species or combination of species are listed in Table || (PLS = %germination x %purity)

50 percent will pass through a 50—mesh sieve and not less than 25

Lime and Fertilizer Application When hydraulic seeding equipment is used, the initial fertilizer shall be

mixed with seed, innoculant (if needed), and wood cellulose or wood pulp fiber mulch and applied in a slurry. The innoculant, if needed, shall be mixed with the seed prior to being placed into the hydraulic seeder. The slurry mixture will be agitated during application to keep the ingredients thoroughtly mixed. The mixture will be spread uniformly over the area within one hour after being placed in the hydroseeder. Finely ground limestone will be mixed with water and applied immediately

after mulching is completed or in combination with the top dressing.

applied uniformly in one of the following ways:

THE WAY

CODE PRACTICE

DISTURBED AREA

STABILIZATION (WITH

DISTURBED AREA

STABILIZATION (WIT

TEMP SEEDING)

DISTURBED AREA

STABILIZATION (WITH

PERM SEEDING)

DUST CONTROL ON

DISTURBED AREAS

SLOPE STABILIZATION

Du

Ss

MULCHING ONLY

When conventional planting is to be done, lime and fertilizer shall be

VEGETATIVE PRACTICES

SYMBOL

you need. If the seeding rate is 10 pounds PLS and the bulk seed is 56% PLS, the bulk seeding rate is:

PLS = 70% germination x 80% purity

ommon Bermuda Seed

pure live seed.

done as follows:

DESCRIPTION

disturbed areas where seedlings may not have

suitable growing season to produce an

Establishing a temporary vegetative cover

Establishing a permanent vegetative cover

such as trees, shrubs, vines, grasses, or

Controlling surface and air movement of

A protective covering used to prevent erosic

vegetation on steep slopes, shore lines, or

dust on construction site, roadways and

and establish temporary or permanent

CONSTRUCTION EXIT

with fast growing seedings on disturbed

Establishing temporary protection for

erosion retarding cover.

legumes on disturbed areas.

70% germination, 80% purity

 $\frac{10 \text{ lbs. PLS/acre}}{56\% \text{ PLS}} = 17.9 \text{ lbs/acre}$

he percent of PLS helps you determine the amount of see

Seedbed preperation may not be required where hydraulic seeding and fertilizing equipment is to be used. When conventional seeding is to be used, seedbed preperation will be

You would need to plant 17.9 lbs/acre to provide 10 lbs/acre of

Apply before land preparation so that it will be mixed with . Tillage at a minimum, shall adequately loosen the soil to a soil during seedbed preparation depth of 4 to 6 inches; alleviate compaction; incorporate lim 2. Mix with the soil used to fill the holes, distribute in furrows . Broadcast after steep surfaces are scarified, pitted or

Conservation Service before they are used.

inations are 1) Weeping Lovegrass with Sericea

period. A common mixture is Brown Top Millet with Common

empanion crop species and seeding rates because annual crops

Bermuda in mid-summer. Care should be taken in selecting

will compete with perennial species for water, nutrients, and

prevent the establishment of perennial species.

Ryegrass shall not be used in any seeding mixtures

containing perennial species due to its ability to

out-compete desired species chosen for permanent

growing space. A high seeding rate of the companion crop may

The term "pure live seed" is used to express the quality of seed

and is not shown on the label. Pure live seed, PLS, is expressed

Information on percent germination and purity can be found on

seed tags. PLS is determined by multiplying the percent of pure

as a percentage of the seeds that are pure and will germinate

espedeza (scarified) and 2) Tall Fescue with Sericea

and desires of the land user.

spedeza (unscarified).

Fescue, and Weeping Lovegrass.

an fertilizer; smooth and firm the soil; allow for the anchoring of straw or hay mulch if a disk is to be used. Fillage may be done with any suitable equipme 4. A fertilizer pellet shall be placed at root depth in the closing Tillage should be done on the contour where feasible hole beside each pine tree seeding. 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 Refer to Tables 6-4.1, 6-5.2, 6-5.3 and 6-5.4 for approved inches apart in which seed may lodge and germinate. Hydraulic species. Species not listed shall be approved by the State

seeding may also be used. Resource Conservationist of the Natural Resources Individual Plants Plants shall be selected on the basis of species characteristics 1. Where individual plants are to be set, the soil shall be site and soil conditions, planned use and maintenance of the prepared by excavating holes, opening furrows, or dibble area; time of year of planting method of planting; and the needs Some perennial species are easily established and can be

2. For nursery stock plants, holes shall be large enough to ecommodate roots without crowding. planted alone. Examples of these are Common Bermuda, Tall 3. Where pine seedlings are to be planted, subsoul under the row 36 inches deep on the contour four to six months prior to Other perennials, such as Bahia Grass and Sericea Lesnedeza planting. Subsoiling should be done when the soil is dry, are slow to become established and should be planted with preferably in August or September. nother perennial species. The additional species will provide quick cover and ample soil protection until the target perennial cies become established. For example, Common seeding

All legume seed shall be inoculated with appropriate nitrogen-fixing bacteria. The innoculant shall be a pure cultur prepared specifically for the seed species and used with the dates on the container. Plant selection may also include annual companion crops A mixing medium recommended by the manufacturer shall be Annual companion crops should be used only when the used to bond the innoculant to the seed. For conventional perennial species are not planted during their optimum planting

seeding, use twice the amount of innoculant recommended by the manufacturer. For hydraulic seeding, four times the amount of innoculant recommended by the manufacturer shall be used All inoculated seed shall be protected from the sun and gigh temperatures and shall be planted the same day inoculated. No noculated seed shall remain inthe hydroseeder longer than one

Planting

PLANTING OPTIONS

Common Bermuda (unhulled)

Common Bermuda (hulled)

Common Bermuda (hulled)

Common Bermuda (hulled)

1/ REGION 2 - Southern Piedmont

+Tall Fescue

Browntop Millet

PLANTING OPTIONS

Browntop mille

Rye Grain 1

Ryegrass

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 ½ to ½ inch of soil for small seed and ½ to 1 inch. for large seed when using a cultipacker or other suitable

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. Th seed must be uniformly distributed and planted at the proper

Individual Plants Shrubs, vines and sprigs may b eplanted 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 indiviual 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.

+ Preferred seed mixes that include two permanent and one temporary species.

Highly competitive grass that will spread into sodded lawns and bermuda pastures.

2/ Planting dates may need to be altered to fit temperature variations and local conditions.

PLANTING DATES & SEED RATES FOR TEMPORARY VEGETATION

REGION 2

8/15-12/30

9/1-12/15

STARTING AND COMPLETION DATES ARE APPROXIMATE

INLET SEDIMENT TRAP

& NOTE INTENDED TO BE CONTRACTUAL.

PLANTING DATES 2/

Seed rates are higher when one species is seeded alone.

4/ Use soil test recommendations for lime and fertlilzer.

1/ Unusual site conditions may require heavier seeding rates.

EROSION CONTROL DEVICES

TEMPORARY & FINAL GRASSING

CLEARING & GRUBBING

ROUGH GRADING

INFRASTRUCTURE

FINE GRADING

ACTIVITY

TARGETED PERMANENT GRASS SPECIES IS COMMON BERMUDA

Mulching Mulch is required for all permanent vegetation

applications. Mulch applied to seeded areas shall

from the following and apply as idicated:

achieve 75% soil cover. Select tht mulching material

1. 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

Wood cellulose mulch or wood pulp fiber shall be

used with hydraulic seeding. It shall be applied at the

be applied (at a rate indicated above) after hydraulic

3. One thousand pounds of *wood cellulose* or *wood*

hydraulic seeding on slopes ³/₄:1 or steeper.

e applied at a rate of three tons per acre.

This is not appropriate for seeded areas.

block sod, mulch is not required.

uniform application during seeding

to cover 75% of the soil surface.

Applying Mulch

Anchoring Mulch

PLANTING DATES & SEED RATES

PLANTING DATES

REGION 2

9/1-10/15

4/1-6/1

10/1-3/1

. Pine straw or pine bark shall be applied at a

thickness of 3 inches for bedding purposes. Other

. Bituminous treated roving may be applied on

suitable materials in sufficient quantity may be used

where ornamentals or other ground covers are planted

When using temporary erosion control blankets or

planted areas on slopes, in ditches or dry waterways to

applied wtihtin 24 hours after an area has been planted.

Wood cellulose and wood pulp fibers shall not contain

germination or growth inhibiting factors. They shall be

shall contain a dve to allow visual metering and aid in

Straw or hay mulch will be spread uniformly within 24

hours after seeding and/or planting. The mulch may be

preading equipment or by hand. Mulch shall be applied

Emulsified asphalt can be (a) sprayed uniformly onto

the mulch as it is ejected from the blower machine or

application when straw or hay is spread by methods

The combination of asphalt emulsion and water shall

spraying. The mixture shall consist of 100 gallons of

Care shall be taken at all times to protect state waters,

consist of a homogeneous mixture satisfactory for

grade SS-1h or CSS-1h emulsified asphalt and 100

the public, adjacent property, pavements, curbs,

sidewalks, and all other structures from asphalt

(b) sprayed on the mulch immediately following mulch

Wood cellulose or wood fiber mulch shall be applied

uniformly with hydraulic seeding equipment.

Anchor straw or hay mulch immediately after

application by one of the following methods:

other than special blower equipment.

gallons of water per ton of mulch.

spread by blower-type spreading equipment, other

evenly dispersed when agitated in water. The fibers

revent erosion. Bituminous treated roving shall be

Application rates and materials must meet Georgia

Department of Transportation specifications.

pulp fiber, which inludes a tackifier, shall be used with

. Sericea lespedeza hay containing mature seed shall

rate of 500 pounds per acre. Dry straw or dry hay shall

2. Hay and straw mulch shall be pressed into the soil mmediately 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 inches or more in diameter and 8 to 12

cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil. 3. Synthetic tackifiers or binders approved by GDOT shall be applied in conjunction with or immediately after tha mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. Refer to Tb - Tackifiers and Binders. 4. Rye or wheat can be included with Fall and Winter

inches apart. The edges of the disks shall be dull

enough to press the mulch into the ground without

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 may mulch on unstable soils and concentrated flow areas These amterials shall be installed and anchored according to manufacturer's specifications.

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

Bermudagrass, Bahiagrass and Tall Fescue may be mowed as desired. Maintain at least 6 inches of top growth uder any use and management. Moderate use of top growth is beneficial after establishment. Exclude traffic until th plants are well established Because of the quail nesting season, mowing should no take place between May and September.

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.

terial	Depth	
in straw	4" to 6"	
ss hay	4" to 6"	
e needles	3" to 5"	
od waste	4" to 6"	

Irrigation will be applied at a rate that will not cause

Topdressing will be applied on all temporary and

SEED RATES

ACRE

SEED RATES

(PURE LIVE SEED)

ACRE

168 (3 bushels)

180 (3 bushels)

2"x4" WOOD FRAME

SECTION

_TYPE-C SILT FENCE W/WIRE BACKING

-BURIED FABRIC SILT FENCE

pemanent (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

1000 SQ. FT.

Second year fertilizer rates and maintenance fertilizer rates are listed in Table 6-5.1.

STEP 1: CUT TERMINAL SLOT.

STEP 2: SNUG MAT INTO SLOT

A. STAKE MAT INTO SLOT.

C. BACKFILL AND COMPACT.

VERTICAL CUT.

B. USE 1" X 3" PRESSURE TREATED

A. REVERSE MAT ROLL DIRECTION 1

B. STAKE MAT TO ANCHOR TERMINAL

SEQUENTIAL ROLL RUN OUT IN

OVERLAY CHECK LOT.

BOARD TO SPACE MAT AGAINST

(Sd1) Sediment Barrier

Sediment barriers are temporary structures typically onstructed of silt fence supported by steel or wood posts. Other types of barriers may include sandbags, straw bales, brush piles or other filtering material.

o prevent sediment carried by sheet flow from leaving the site and entering natural drainage ways or storm drainage system by slowing storm water moff and causing the deposition of sediment at the

Barriers should be installed where runoff can be stored behind the barrier with out damaging the fence or the submerged area behind the fence. aterways, or other concentrated flow areas.

DESIGN CRITERIA HAY OR STRAW BALES

Hay or straw bales retain sediment load transported by sheet flow from disturbed areas. The bales' comparatively low flow rate should be considered when choosing the appropriate sediment barrier. Ponding above the bale can occur rapidly. The slop lengths contributing runoff to a bale barrier canno exceed those listed in Table 6-20.1. Straw and hay bales shall not be used if the project duration is expected to exceed three months.

Land Slope	Maximum Slope Length Above Bale
Percent	Feet
<2	75
2 to 5	50
5 to 10	35
10 to 20	20
>20*	10

no stormwater disposal system is present), maximum

slope length behind a silt fence shall not exceed

Like hay or straw bales, silt fence is designed to retain sediment transported by sheet flow from disturbed areas. Silt fence performs the same function as hav or straw bales, allows a higher flow rate, and is usually faster and cheaper to install. Approved silt fence fabrics are listed in the Georgia Department of Transportation Qualified Products List #36 (QPL-36). See Table 6-20.5 for current Georgia OT silt fence specifications Wher all runoff is to stored behind the fence (where

those shown in Table 6-20.2. The drainage area shall not exceed 1/4 acre for every 100 feet of silt fence. CDITEDIA EOD SILT EENCE DI ACEMENT

Land Slope	Maximum Slope Length Above Fence
Percent	Feet
<2	100
2 to 5	75
5 to 10	50
10 to 20	25
>20*	15
n areas where the slope is greatlat area length of 10 feet between the slope to the fence should	ater than 20%,

BLANKET AND MATTING CROSS-SECTIONS

TEMPORARILY STAKE MAT UNDER MODERATE TENSION.

STEP 2: WORK UPSTREAM ACROSS

STEP 3: TUCK MAT LAP INTO SLOT

BACKFILL AND PROGRESS UPSTREAM

PULL OUT TEMPORARY STAKES WHEN

NO LONGER NEEDED FOR TENSIONING.

SLOPE STABILIZATION

AND STAKE.

CHECK SLOT AND LAP BACK 15"

NOTE: DETAILS FOR FLOATING SURFACE SKIMMER, OUTLET CONTROL

SEDIMENT TRAP ARE LOCATED ON SHEET 3 OF THESE DRAWINGS.

100% OF THE PROJECT AREA IS DAVIDSON LOAM (DgB2)

BACKFILL TERMINAI SLOT.

PICTORAL VIEW OF TRANSVERSE SLOT

START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.

SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND

THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO

WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE

. USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE

6. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT

FIRST ROLL IS CENTERED LONGITUDINALLY IN MID-CHANNEL

AND PINNED WITH TEMPORARY STAKES TO MAINTAIN

THE CHANNEL CENTER.

THE LINING AT THE ROLL ENDS.

STREAM OVER REFILLED TERMINAL

STAKE MAT DOWN TO ANCHOR

C. PROGRESS UPSTREAM WITH ROLL.

STRUCTURE RETROFIT. & ROCK OUTLET FOR THE TEMPORARY

Type A Silt Fence Sd1-A This 36-inch wide filter fabric shall be used on levelopments where the life of the project is greater

than or equal to six months.

Type C Silt Fence Sd1-C Type C silt fence is 36-inches wide with wire reinforcement. The wire reinforcement is necessary because this fabric allows almost three times the flow rate as Type A silt fence. Type C silt fence shall be used where runoff flows or velocities are particularly

high or wher slopes exceed a vertical height of 10 feet. Provide a riprap splash pad or other outlet protection device for any point where flow may top the sediment fence. Ensure that the maximum height of the fence at a protected, reinforced outlet does not exceed 1ft. and

CONSTRUCTION SPECIFICATIONS

that support post spacing does not exceed 4 ft.

The manufacturer shall have either an approved color mark yarn in the fabric or label the fabricated silt fence with both the manufacturer and fabric name every 100

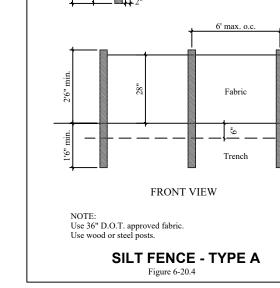
The temporary silt fence shall be installed according to this specification, as shown on the plans or as directed by the engineer. For installation of the fabric, see Figures 6-20.4, 6-20.5 and 6-20.6 respectively. Post installation shall start at the center of the lowpoint (if applicable) with remaining posts spaced 6 feet apart for Type A and B silt fences can be used with both wood and steel posts, only steel posts shall be used with Type C silt fence. For post size requirements, see Table 6-20.3. Fasteners for wood posts are listed in Table Along stream buffers and other sensitive areas, two

rows of Type C silt fence or one row ot Type C silt fence backed by havbales shall be used.

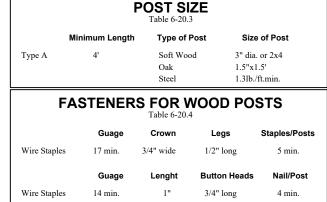
MAINTENANCE

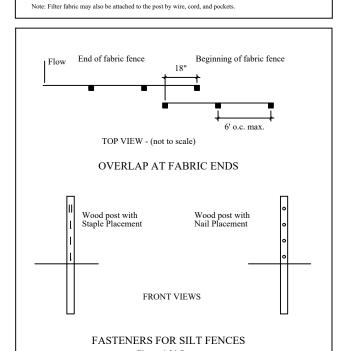
at the barrier is removed.

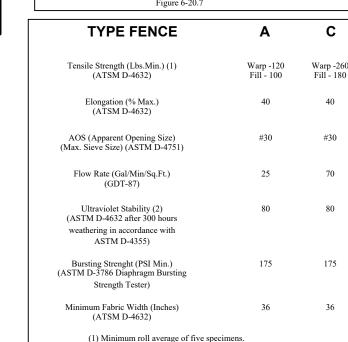
Sediment shall be removed once it has accumulated t one-half the original height of the barrier. Filter fabric shall be replaced whenever it has deteriorated to such an extent that the effectiveness of the fabric is reduced approximately six months). Temporary sediment parriers shall remain in place until disturbed areas have been permanently stabilized. All sediment accumulate

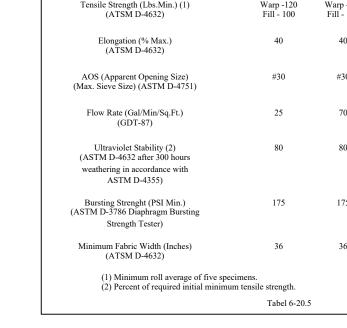


SIDE VIEW









4" GAP REQUIRED T PREVENT PONDING -8" CONCRETE BLOCK ROADWAY. SILT SAVER FILTER TO BE USED FOR INLET

WRAPPED IN FILTER FABR (AMOCO CEF-2019) WITH HOLES IN BLOCKS FACE INLET SEDIMENT TRAP

EROSION CONTROL NOTES & DETAILS BUS PARKING IMPROVEMENTS FOR JONES Proj. #: 1162-004-01

FOR THE JONES COUNTY BOARD OF EDUCATION JONES COUNTY, GA

DSGN BY: CAD BY: CHECKED BY:

INGRAM & ASSOCIATES Consulting Engineers, LLC 1002 Park Avenue N Tifton, Georgia 31793 (T) 229-387-8536 (F) 478-742-4690 www.ingrameng.com

- 5. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6".
- CHANNEL BANK. . A FILTER BLANKET OR FILTER FABRIC SHALL BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION FILTER BLANKET SHALL CONSIST OF A
- 8. RIPRAP APRON AND FILTER MATERIAL SHALL BE WELL GRADED, LEVEL, AND

- CHART FOR DIMENSIONING INFORMATION.
- CHANNEL BANK TO THE TOP OF THE

STORM DRAIN OUTLET PROTECTION

6. EXTEND THE RIPRAP APRON UP THE

O PREVENT SOIL MOVEMENT THROUGH

MINIMUM TAILWATE

GRADED GRAVEL LAYER OR SYNTHETIC FILTER CLOTH. FILTER BLANKET IS INTENDED

1. REFER TO STORM DRAIN OUTLET PROTECTION

SECTION

DESCRIPTION OF REVISION

EXTENDED TO ACHIEVE MAX. STABILITY

2. d_o = DIAMETER OF OUTLET PIPE 3. d50 = MIN. STONE DIAMETER4. $d_{max} = MAX$. STONE DIA. = $(1.5 \times d50)$

TYPICAL CRUSHED STONE CONSTRUCTION EXIT

GEOTEXTILE UNDERLINER

AMOCO CEF-2019

332 New Street Macon, Georgia 31201 (T) 478-745-3996

N.S.A. R-2 (1.5" - 3.5")

COARSE AGGREGATE



(FILTER FABRIC W/ SUPPORTING FRAME

COUNTY TRANSPORTATION OFFICE

SHT. 8 OF 9

SHEET #:

USGS TOPOGRAPHIC MAP SCALE: 1" = 2000'

EROSION CONTROL NOTES & DETAILS

BUS PARKING IMPROVEMENTS FOR JONES

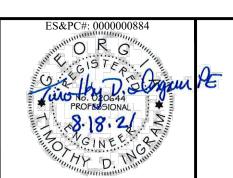
COUNTY TRANSPORTATION OFFICE

PROJ. #: 1162-004-01

RTATION OFFICE	DSGN BY:		
HE	CAD BY:		
RD OF EDUCATION	CHECKED BY:		
INTY. GA	DATE: AUGUST 20		

NO.

DESCRIPTION OF REVISION



JONES COUNTY, GA

#: 1162-004-01
BY: TI
Y: KG
ED BY: TI
AUGUST 2021
SHT. 9 0F 9