0 80 160 Feet

GEORGIA WATER & ENVIRONMENTAL SERVICES
1510 Newcastle Street, Suite 204, Brunswick, GA 31520
Phone: (478) 235-0307

Project Location
Glynn County
Georgia

GWES Project: 065.02.3.18
Prepared by CN on 12-11-2018
Technical Review by BM on 12-15-2018

Client/Project

Glynn County Board of Commissioners

Figure No.
1

Page 01 of 01

Title
Aerial Map

VILLAGE DRAINAGE IMPROVEMENTS
PHASE II

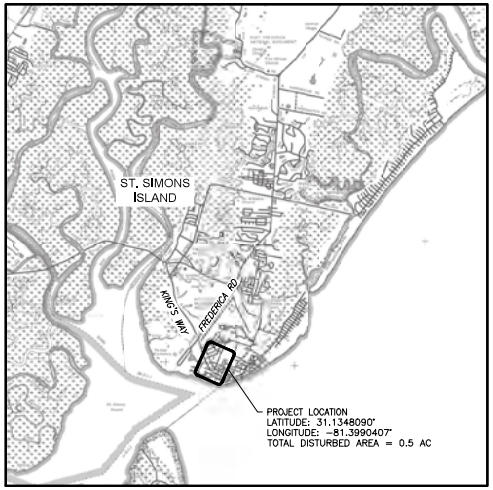
FOR

GLYNN COUNTY
BOARD OF COMMISSIONERS

Glynn County, GA

24 Hr. Contact: Ben Pierce, PE, Roads and Drainage Division Manager

Tel.: (912) 554-7744



VICINITY MAP

SCALE: N.T.S.

Glynn County
GEORGIA

DRAWING INDEX

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

BRUNSWICK - MACON - PERRY

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4875 Riverside Drive, Ste 101, Macon, Georgia 31210
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GWES Project Number: 065.02.3.18

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GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION WITH GLYNN COUNTY PUBLIC WORKS (COUNTY).

2. ALL CONSTRUCTION SHALL CONFORM TO THE PLANS, SPECIFICATIONS, AND COUNTY STANDARDS. IN THE EVENT OF CONFLICTS, THE STRICTEST OF THE STANDARDS SHALL APPLY.

3. ANY REFERENCE TO "CONTRACTOR" SHALL BE ASSUMED TO ALSO APPLY TO ANY AND ALL OF THE CONTRACTOR'S VENDORS, SUPPLIERS, AND SUBCONTRACTORS.

4. THE TOPOGRAPHIC SURVEY WAS PREPARED BY SHUPE SURVEYING COMPANY, P.C. DATED JULY 13, 2018.

5. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. NEITHER SHUPE SURVEYING COMPANY, GWES, NOR GLYNN COUNTY ASSUME ANY LIABILITY FOR THE EXISTENCE, LOCATION, MATERIAL OR SIZE OF ANY UNDERGROUND UTILITY SHOWN ON THIS SURVEY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, EXACT LOCATION, MATERIAL AND SIZE OF ANY UNDERGROUND UTILITY BEFORE BIDDING OR EXCAVATING ON THIS PROJECT.

6. UNDERGROUND UTILITIES SHOWN WERE MARKED BY UTILITY OWNERS AS PART OF 811 DESIGN LOCATE TICKET.

7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES AND ASSOCIATED AGENCIES NO LESS THAN SEVENTY-TWO (72) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO HAVE ALL UTILITIES AND FACILITIES LOCATED IN THE FIELD. LOCAL UTILITIES AND CORRESPONDING TELEPHONE NUMBERS ARE LISTED BELOW. THIS LIST IS PROVIDED AS A COURTESY TO THE CONTRACTOR AND SHOULD NOT BE ASSUMED TO BE COMPLETE.

UTILITIES PROTECTION CENTER	811
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION	(912) 261-7126
GEORGIA POWER COMPANY	(912) 506-4569
SOUTHERN GAS COMPANY	(404) 584-4338
AT&T	(770) 784-3972
COMCAST	(770) 559-6879

8. THE CONTRACTOR SHALL VERIFY ALL POTENTIAL UTILITY CONFLICTS AND SHALL IMMEDIATELY NOTIFY COUNTY OF ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS. IF A DISCREPANCY EXISTS WITH THE UTILITY LOCATIONS, THE CONTRACTOR SHALL CONTACT COUNTY BEFORE ORDERING ANY POTENTIALLY AFFECTED MATERIALS OR BEGINNING CONSTRUCTION.

9. THE CONTRACTOR SHALL RETAIN A GEORGIA LICENSED SURVEYOR TO PROVIDE THE HORIZONTAL AND VERTICAL CONTROL DATA FOR THE PROJECT. BENCHMARK AND SURVEY CONTROL POINT INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY COUNTY OR COUNTY'S SURVEYOR. DISCREPANCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF COUNTY IMMEDIATELY.

10. ANY REFERENCE POINTS, RIGHT-OF-WAY MONUMENTS, PROPERTY CORNERS, BENCHMARKS OR OTHER MONUMENTS DISTURBED AS A RESULT OF CONSTRUCTION SHALL BE IMMEDIATELY RESTORED BY A REGISTERED LAND SURVEYOR LICENSED TO PRACTICE IN THE STATE OF GEORGIA, WITH ALL ASSOCIATED COSTS BORNE BY THE CONTRACTOR. LIKEWISE ALL LANDSCAPES, STREET SIGNS, MAILBOXES, TRAFFIC SIGNS AND OTHER STREET FURNITURE AND APPURTENANCES DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION.

11. MINIMUM DEPTH OF COVER ON STORM DRAINAGE PIPING SHALL BE 12". COVER DEPTHS LESS THAN 12" MUST BE APPROVED IN ADVANCE, IN WRITING BY THE ENGINEER AND COUNTY. ADDITIONAL PROTECTION MAY BE REQUIRED FOR APPROVAL.

12. THE MINIMUM HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER LINES, SEWER LINES, AND STORM DRAINS SHALL CONFORM TO COUNTY REQUIREMENTS.

13. THE CONTRACTOR SHALL NOTIFY COUNTY'S INSPECTORS AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING AND SECURING ANY NECESSARY STORAGE AND STAGING AREAS FOR CONSTRUCTION EQUIPMENT AND MATERIAL. SECURITY OF EQUIPMENT AND MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

15. CONSTRUCTION AND STORAGE AREAS SHALL BE KEPT NEAT AND CLEAN AT ALL TIMES.

16. SHOP DRAWINGS AND CERTIFICATIONS FOR ALL CONSTRUCTION MATERIALS ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND PRODUCT LITERATURE TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.

17. ALL NON-FLANGED FITTINGS AND VALVES SHALL UTILIZE RESTRAINED JOINTS. THIS REQUIREMENT SHALL ALSO INCLUDE THE USE OF RESTRAINED JOINTS ALONG ADJACENT JOINTS OF PIPE IN ACCORDANCE WITH COUNTY STANDARD DETAILS.

18. THE CLEARING AND CONSTRUCTION LIMITS ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS. AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING AREAS WITHOUT WRITTEN CONSENT FROM THE COUNTY AND THE PROPERTY OWNER. ANY REPAIR OR RECONSTRUCTION OF DAMAGED AREAS IN SURROUNDING PROPERTIES SHALL BE COMPLETED BY THE CONTRACTOR IMMEDIATELY. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE ALLOWED. DO NOT REMOVE TREES, ORNAMENTALS, LANDSCAPING, OR OTHER LANDSCAPE ITEMS WITHOUT PRIOR APPROVAL FROM THE COUNTY.

19. ALL EXCAVATED TRENCHES SHALL BE COMPLETELY FILLED OR COVERED WITH PLATES AT THE END OF EACH WORK DAY. THIS SHALL BE A MANDATORY REQUIREMENT.

20. THE CONTRACTOR SHALL MAKE AN EFFORT TO MAINTAIN ACCESS TO PUBLIC, PRIVATE, AND COMMERCIAL PROPERTIES AT ALL TIMES DURING CONSTRUCTION.

21. THE CONTRACTOR SHALL RELOCATE DUMPSTERS AS NECESSARY AND SHALL MAINTAIN ACCESS TO DUMPSTERS AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN ACCESS ON BACK ALLEY FOR DELIVERY TRUCKS AND TRASH TRUCK THROUGHOUT CONSTRUCTION.

22. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN AND REPAIR ALL ROADS DAMAGED DURING THE CONSTRUCTION PERIOD. IN SO DOING, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE BEFORE AND AFTER VIDEOS OF ROAD CONDITION FROM THE PROJECT SITE TO THE NEAREST STATE HIGHWAY. THE PUBLIC WORKS AND ROAD DEPARTMENTS OF THE RESPECTIVE CITIES AND COUNTIES SHALL BE CONTACTED BEFORE CONSTRUCTION BEGINS AND VIDEOS PROVIDED FOR THEIR REVIEW AND ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING AND PROVIDING ANY REPAIR BONDS REQUIRED BY THE RESPECTIVE ROAD DEPARTMENTS. LOAD LIMITS ON EXISTING ROADS SHALL BE OBSERVED BY THE CONTRACTORS.

23. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR WITHIN THE LIMITS OF CLEARING AND CONSTRUCTION PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES SHALL BE INSTALLED, PHASED, AND INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED IMMEDIATELY. REFER TO EROSION AND SEDIMENTATION CONTROL PLAN FOR ADDITIONAL REQUIREMENTS. SEE DRAWING NUMBERS EC-1 - EC-3 FOR EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS.

24. ALL DISTURBED AREAS SHALL BE RE-VEGETATED IMMEDIATELY AFTER CONSTRUCTION IN A MANNER CONSISTENT WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO OR CONCURRENT WITH THE START OF CONSTRUCTION.

24. THE CONTRACTOR SHALL KEEP EXISTING CHANNELS AND DITCHES OPEN TO DAILY FLOW AND STORMWATER PASSAGE AT ALL TIMES DURING THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A BYPASS PUMPING PLAN FOR ENGINEER REVIEW. UPON REVIEW, THE CONTRACTOR SHALL BE RESPONSIBLE FOR BYPASS PUMPING THROUGHOUT CONSTRUCTION AS NECESSARY TO INSTALL NEW INFRASTRUCTURE.

26. DUE TO NATURE OF BYPASS PUMPING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM NEW INFRASTRUCTURE UPON COMPLETION OF WORK.

27. THE CONTRACTOR SHALL DEWATER THE WORK AREA TO PROVIDE DRY EXCAVATION AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE ALL PIPE, PUMPS, MATS, STONE, SAND, EXCAVATION, LABOR, ETC. TO ADEQUATELY DEWATER WORK AREA. IF CONTRACTOR ENCOUNTERS GROUNDWATER, GEOTEXTILE MUST BE LAID BELOW PIPE BEDDING MATERIALS AND ENCOMPASS ALL GRADED AGGREGATE BASE.

28. ALL WASTE MATERIALS EXCAVATED FROM THE SITE SHALL BE REMOVED AND PROPERLY DISPOSED OFF-SITE BY THE CONTRACTOR. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (NON-ORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM OR STOCKPILED ON THE SITE.

29. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ORGANIC MATTER, STUMPS, DELETERIOUS MATTER, CONCRETE PAVING, FOUNDATIONS, AND OTHER UNSUITABLE MATERIAL FROM WITHIN THE TRENCH AREAS.

30. STRUCTURAL FILL SHALL MEET COMPACTION REQUIREMENTS AND STANDARDS SET FORTH IN THE SPECIAL PROVISIONS AND SPECIFICATIONS. MATERIALS EXCAVATED THAT ARE NOT SUITABLE FOR BACKFILL SHALL BE REMOVED FROM PROJECT AREA AT NO DIRECT COST TO COUNTY. BORROW MATERIALS MUST MEET REQUIREMENTS OF STRUCTURAL FILL AND SHALL BE OBTAINED FROM A SUITABLE SOURCE AND AT THE EXPENSE OF THE CONTRACTOR.

31. THE CONTRACTOR SHALL STOCKPILE AND LATER SPREAD A MINIMUM OF 4 INCHES OF TOPSOIL IN AREAS TO BE LANDSCAPED OR SEEDED.

32. FOLLOWING SUBSTANTIAL COMPLETION OF THE PROJECT AND PRIOR TO FINAL PAYMENT, A RECORD SURVEY SHALL BE PERFORMED OF THE PROJECT AND RECORD DRAWINGS SHALL BE PREPARED. THE SURVEY SHALL BE PERFORMED BY A LAND SURVEYOR REGISTERED IN THE STATE OF GEORGIA ARRANGED, COORDINATED, AND PAID FOR BY THE CONTRACTOR. THE RECORD DRAWINGS SHALL SHOW PIPE ALIGNMENT, INVERT ELEVATIONS AT 0.01 FOOT INTERVALS, AND INLETS, JUNCTION BOXES, BENDS, ETC. A REDLINE MARKUP OF THE DRAWINGS SHALL BE PREPARED WITH ALL INFORMATION SHOWN AND DELIVERED TO THE ENGINEER IN ACCORDANCE WITH THE GENERAL CONDITIONS.

TYPICAL LEGEND

	EXISTING	PROPOSED
PROPERTY LINE W/ PIN	IRF	
RIGHT OF WAY (R/W)		
BENCHMARK		
CONTROL POINT	CONTROL POINT #102	
TREE	12" PALM, 18" OAK	
SIGN		
SANITARY SEWER W/ MANHOLE	SS	
SANITARY SEWER CLEANOUT	C/O	
OVERHEAD POWER/POWER POLE	OHP	
LIGHT POLE/GUY WIRE		
WATER LINE	W W	
WATER VALVE		
FIRE HYDRANT		
GAS LINE	GAS	
CATCH BASIN		
CURB INLET		
JUNCTION BOX		
ASPHALT PAVING		
MILL AND OVERLAY		
CONCRETE		
BRICK SIDEWALK/CROSSWALK		
STORMWATER PIPING		
REMOVE		
LAGOON		
LIMITS OF CLEARING AND CONSTRUCTION		
FLOW DIRECTION		

ABBREVIATION LEGEND

AC.	- ACRE(S)	O.C.E.W.	- OFF CENTER EACH WAY
C&G	- CURB AND GUTTER	PVC	- POLYVINYL CHLORIDE
CI	- CURB INLET	RCEP	- REINFORCED CONCRETE ELLIPTICAL PIPE
CIMH	- CURB INLET MANHOLE	RCP	- REINFORCED CONCRETE PIPE
CONC.	- CONCRETE	S.F.	- SQUARE FEET
CMP	- CORRUGATED METAL PIPE	S.S.	- STAINLESS STEEL
CP	- CONTROL POINT	SDMH	- STORM DRAIN MANHOLE
ELEV.	- ELEVATION	SSMH	- SANITARY SEWER MANHOLE
EXIST.	- EXISTING	STD.	- STANDARD
ESPCP	- EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN	S.Y.	- SQUARE YARDS
G.D.O.T.	- GEORGIA DEPARTMENT OF TRANSPORTATION	STA.	- STATION
HDPE	- HIGH-DENSITY POLYETHYLENE	TYP.	- TYPICAL
INV.	- INVERT	V.F.	- VERTICAL FEET
L.F.	- LINEAR FEET		

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS PHASE II
FOR
GLYNN COUNTY
BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
DESIGNED:	S.L.N.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

GENERAL CONSTRUCTION NOTES, LEGEND, AND ABBREVIATIONS

SCALE: AS SHOWN

DRAWING NO.
C-1

SHEET: 1 OF 14

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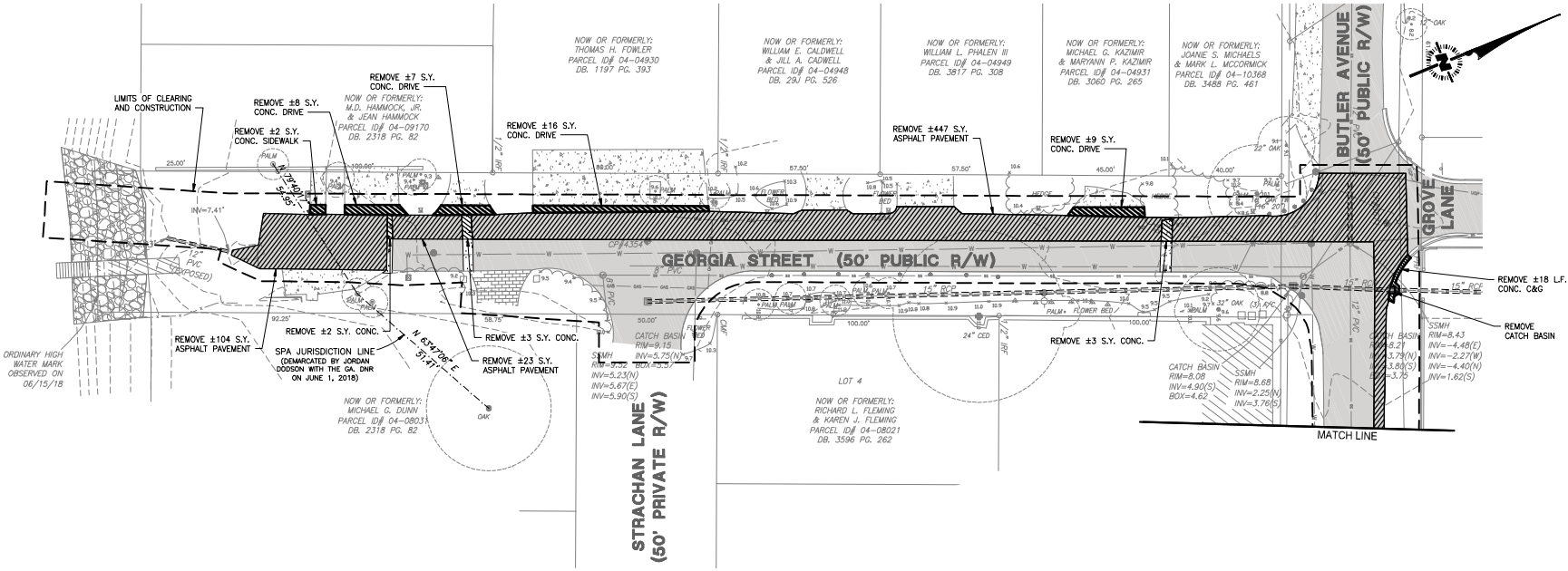
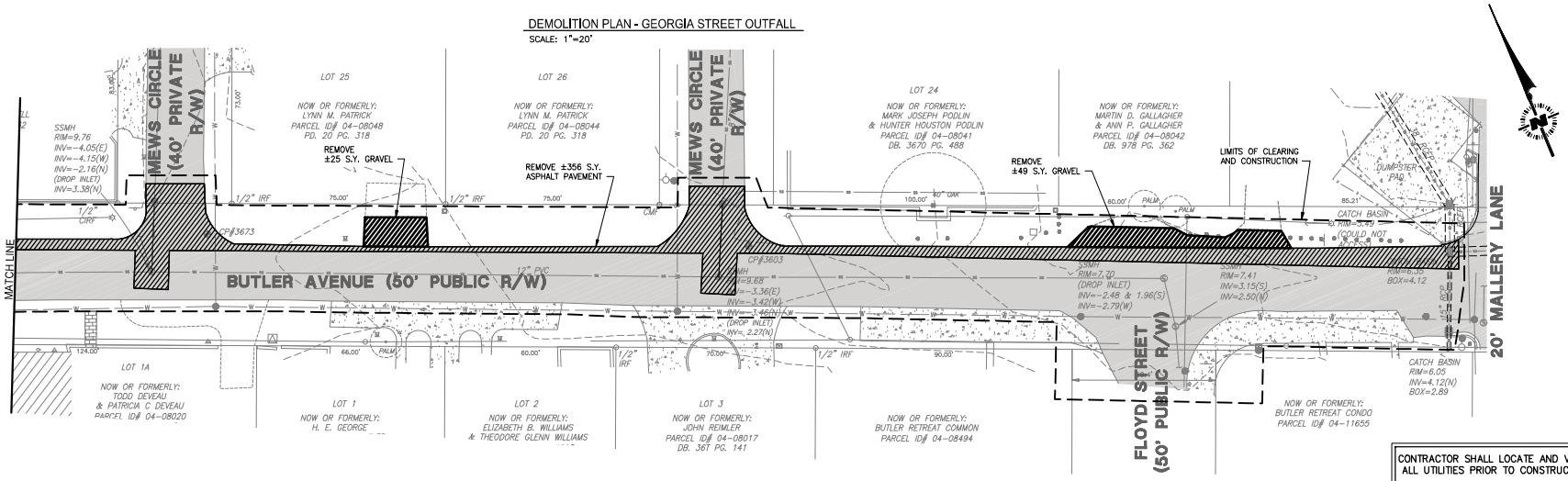


DEMOLITION PLAN - GEORGIA STREET OUTFALL

SCALE: 1"=20'



DEMOLITION PLAN - GEORGIA STREET OUTFALL

SCALE: 1"=20'

NOTES:

1. STREET LIGHTS, SHRUBS, AND TREES IN WORK AREA SHALL NOT BE REMOVED AND SHALL BE PROTECTED AT ALL TIMES.

CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL CONTACT ALL UTILITY OWNERS AND COORDINATE ALL CROSSINGS PRIOR TO CONSTRUCTION.

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VILLAGE DRAINAGE IMPROVEMENTS PHASE II

FOR

GLYNN COUNTY BOARD OF COMMISSIONERS

GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
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APPROVED:	B.B.M.
DATE:	April 2019

DEMOLITION PLAN - GEORGIA STREET OUTFALL

0 20' 40'

SCALE: AS SHOWN

DRAWING NO. C-2

SHEET: 2 OF 14

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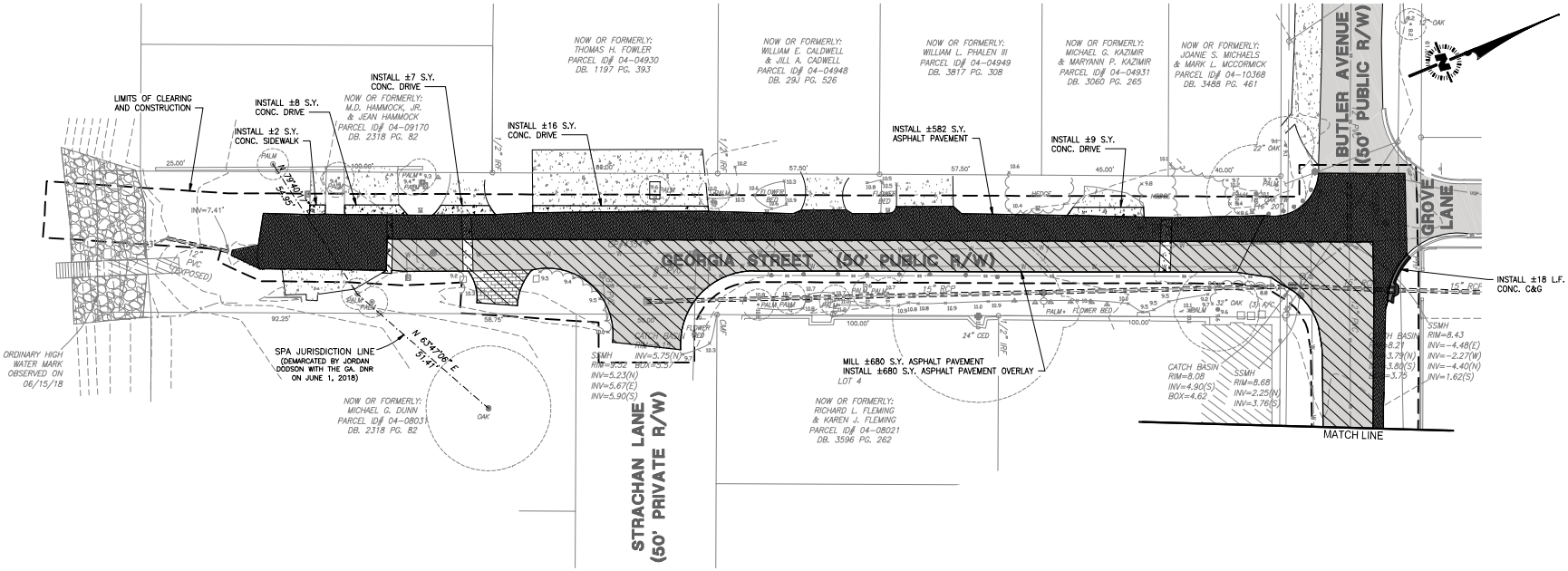
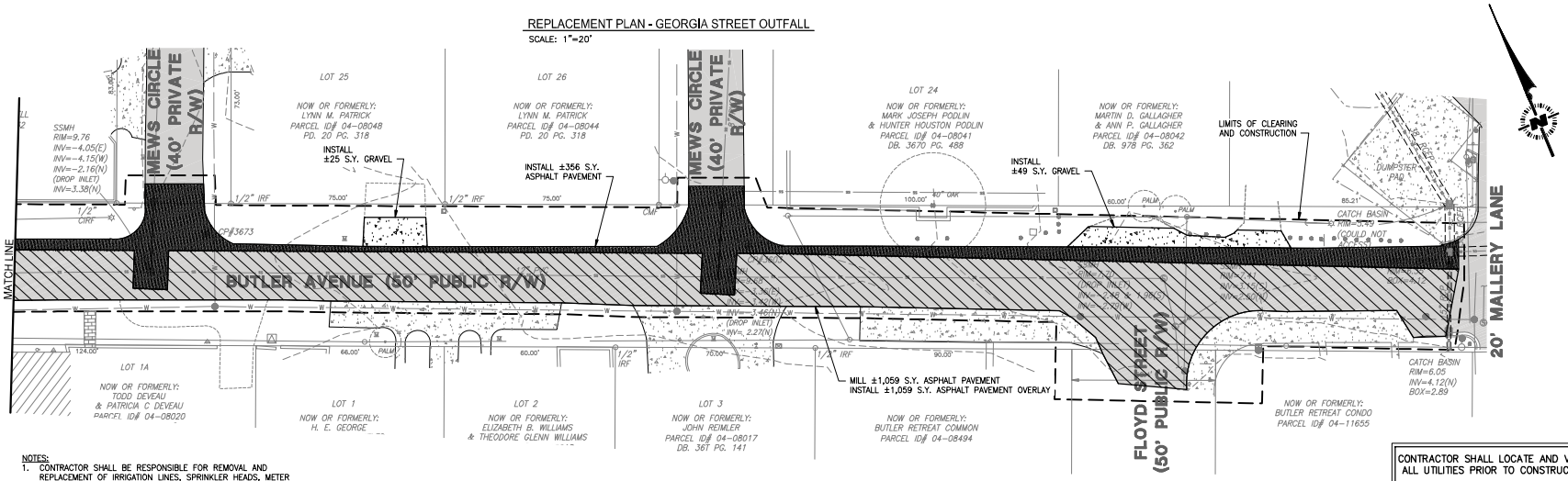


REPLACEMENT PLAN - GEORGIA STREET OUTFALL

SCALE: 1"=20'



NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF IRRIGATION LINES, SPRINKLER HEADS, METER BOXES, ETC. THAT ARE DAMAGED OR IN CONFLICT WITH PROPOSED IMPROVEMENTS.

REPLACEMENT PLAN - GEORGIA STREET OUTFALL

SCALE: 1"=20'

CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL CONTACT ALL UTILITY OWNERS AND COORDINATE ALL CROSSINGS PRIOR TO CONSTRUCTION.

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VILLAGE DRAINAGE IMPROVEMENTS PHASE II

FOR

GLYNN COUNTY BOARD OF COMMISSIONERS

GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
DESIGNED:	S.L.N.
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APPROVED:	B.B.M.
DATE:	April 2019

REPLACEMENT PLAN - GEORGIA STREET OUTFALL

0 20' 40'

SCALE: AS SHOWN

DRAWING NO. C-3

SHEET: 3 OF 14

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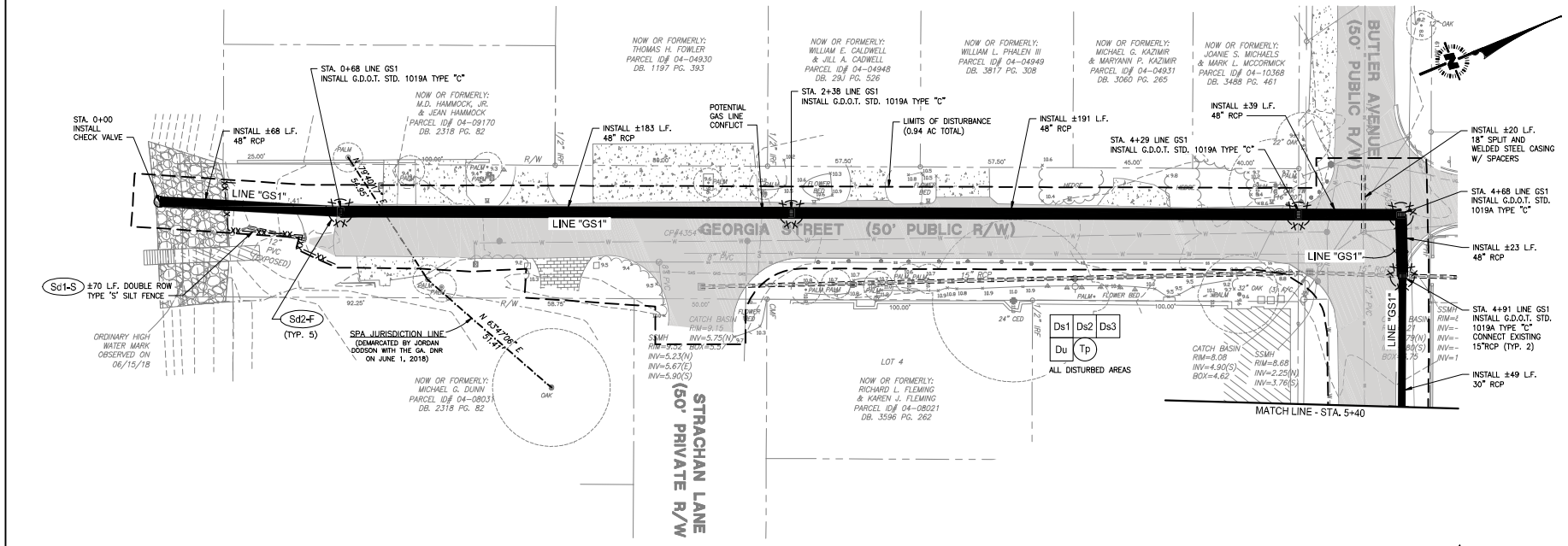
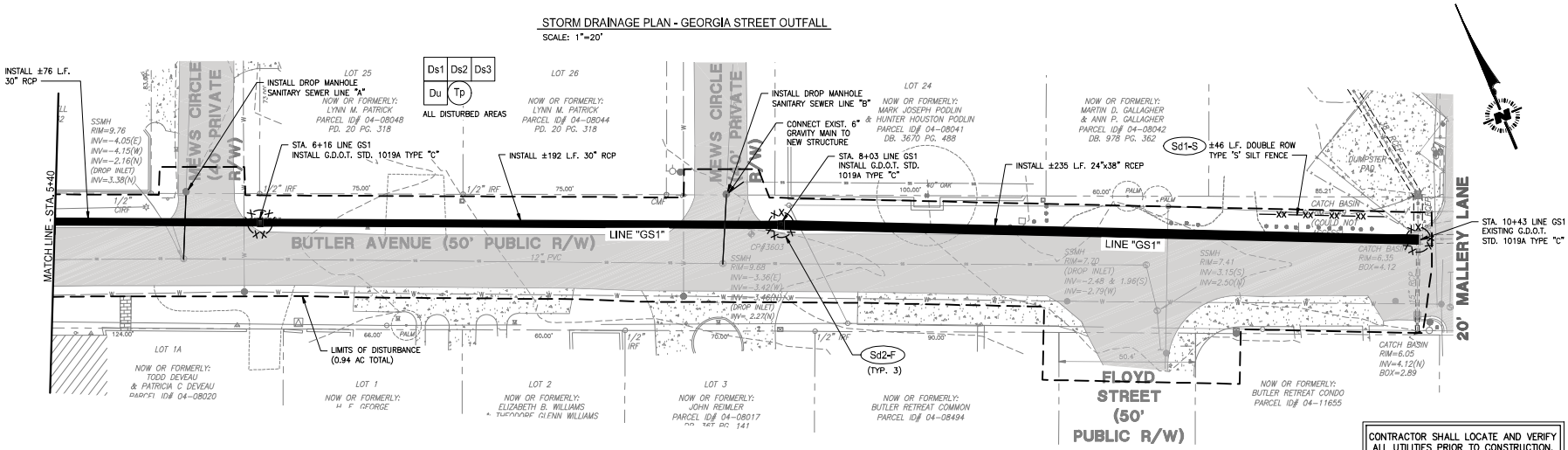


STORM DRAINAGE PLAN - GEORGIA STREET OUTFALL

SCALE: 1"=20'



STORM DRAINAGE PLAN - GEORGIA STREET OUTFALL

SCALE: 1"=20'

ESPCP PHASING

1. INITIAL BMPS SHALL INCLUDE DUST CONTROL AND INLET SEDIMENT TRAPS.
2. INTERMEDIATE BMPS SHALL INCLUDE STORM DRAIN OUTLET PROTECTION AND MAINTENANCE OF ALL BMPS.
3. FINAL BMPS SHALL INCLUDE MAINTENANCE OF ALL BMPS.

CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL CONTACT ALL UTILITY OWNERS AND COORDINATE ALL CROSSINGS PRIOR TO CONSTRUCTION.

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS PHASE II

FOR

GLYNN COUNTY BOARD OF COMMISSIONERS

GLYNN COUNTY, GEORGIA

PROJECT NO.	065.02.2.18
DESIGNED:	S.L.N.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

STORM DRAINAGE PLAN - GEORGIA STREET OUTFALL

0 20' 40'

SCALE: AS SHOWN

DRAWING NO.

C-4

SHEET: 4 OF 14

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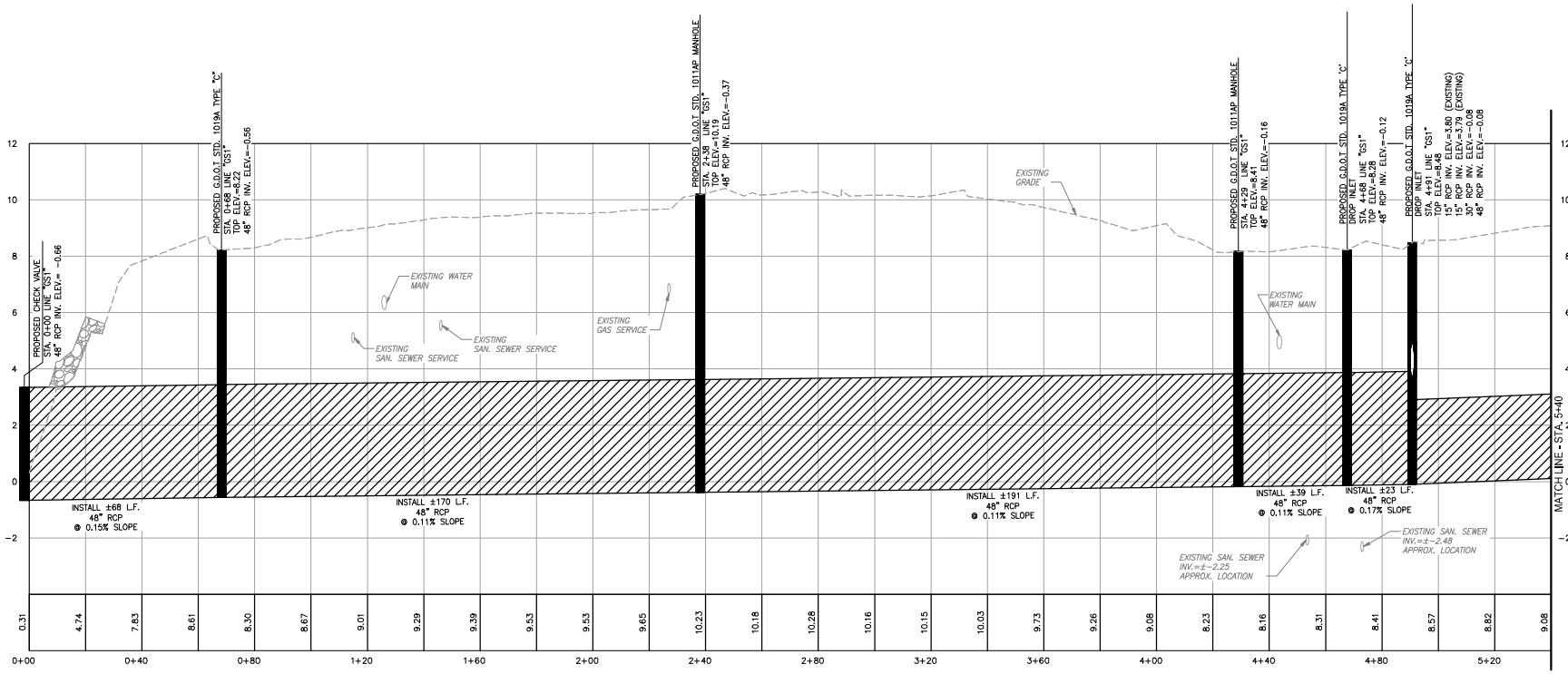

STORM DRAINAGE PROFILE - GEORGIA STREET OUTFALL "GS1"

H: 0 20' 40'
V: 0 2' 4'

NOTES:

1. PRECAST STRUCTURES SHALL BE 6" LOWER THAN INVERTS SHOWN FOR IN-FIELD ADJUSTMENTS.
2. EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR REFERENCE ONLY AT APPROXIMATE DEPTH. CONTRACTOR SHALL LOCATE IN THE FIELD AND PROTECT DURING CONSTRUCTION.

CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL CONTACT ALL UTILITY OWNERS AND COORDINATE ALL CROSSINGS PRIOR TO CONSTRUCTION.

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GLYNN COUNTY
BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
DESIGNED:	S.L.N.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

STORM DRAINAGE PROFILE
GEORGIA STREET OUTFALL
"GS1"

SCALE: AS SHOWN

DRAWING NO.
C-5

SHEET: 5 OF 14

G:\My Drives\Active\065.023.18 Village Drainage Ph II\Phase II\Drawings\Sheet Files\065023C001.dwg
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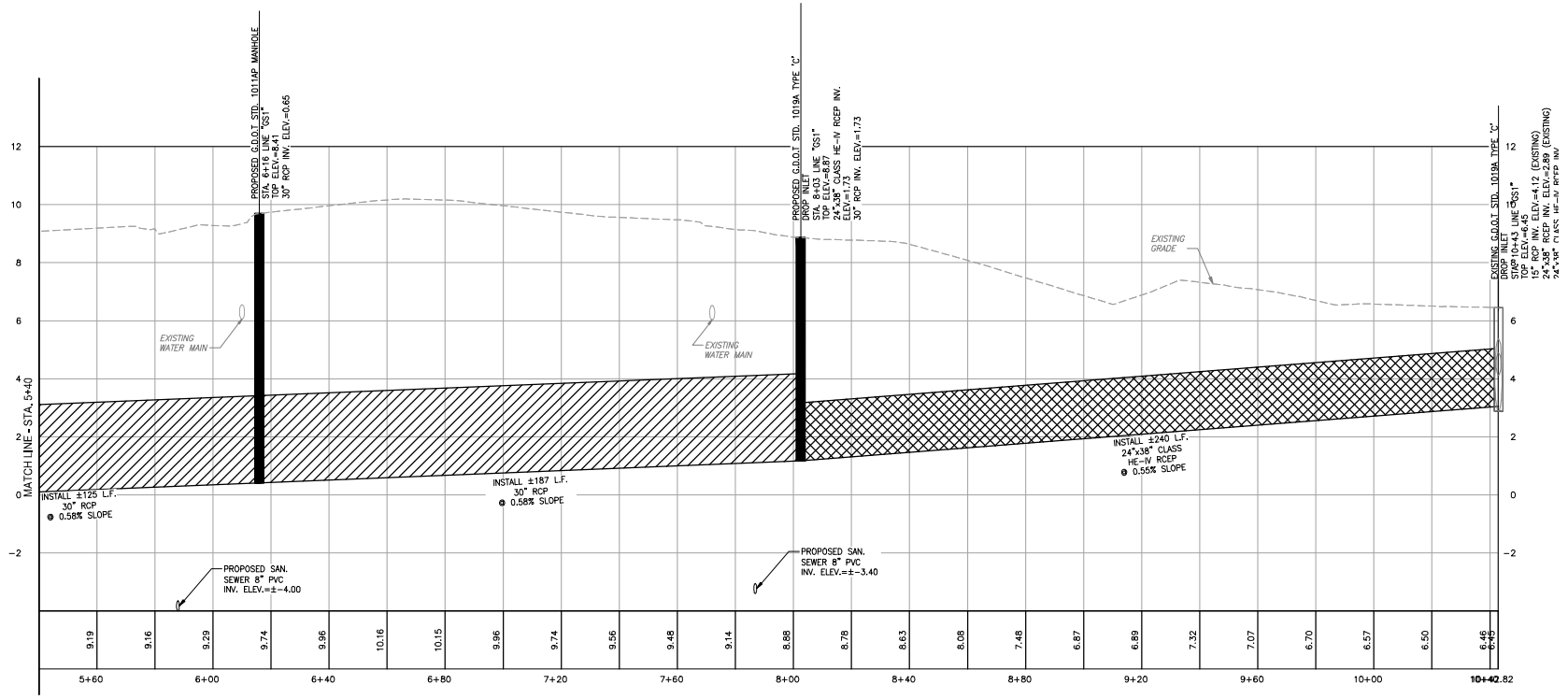

STORM DRAINAGE PROFILE - GEORGIA STREET OUTFALL "GS1"

H:0 20' 40'
V:0 2' 4'

NOTES:

1. PRECAST STRUCTURES SHALL BE 6" LOWER THAN INVERTS SHOWN FOR IN-FIELD ADJUSTMENTS.
2. EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR REFERENCE ONLY AT APPROXIMATE DEPTH. CONTRACTOR SHALL LOCATE IN THE FIELD AND PROTECT DURING CONSTRUCTION.

CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL CONTACT ALL UTILITY OWNERS AND COORDINATE ALL CROSSINGS PRIOR TO CONSTRUCTION.

GEORGIA811
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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS
PHASE II
FOR
GLYNN COUNTY
BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
DESIGNED:	S.L.J.V.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

STORM DRAINAGE PROFILE
GEORGIA STREET OUTFALL
"GS1"

SCALE: AS SHOWN

DRAWING NO.
C-6

SHEET: 6 OF 14

G:\My Drives\Active\065.023.18 Village Drainage Phase II\Drawings\Sheet_Files\065023C001.dwg
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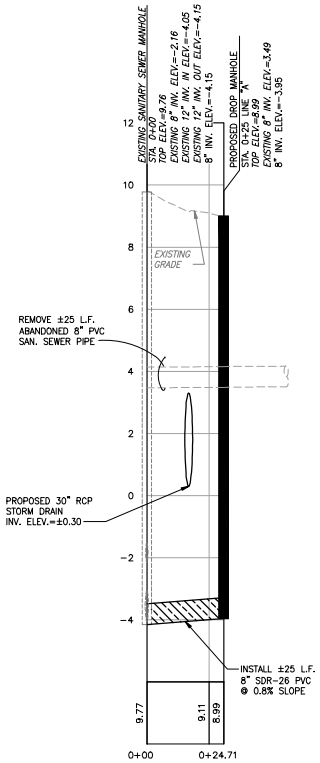
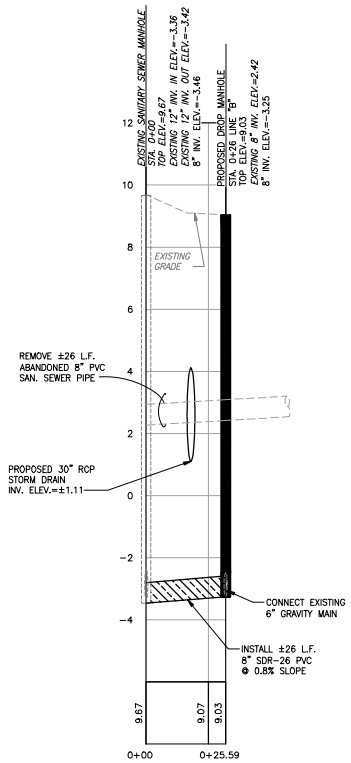


SANITARY SEWER PROFILE - LINE "A"

H:0 20' 40'
V:0 2' 4'



SANITARY SEWER PROFILE - LINE "B"

H:0 20' 40'
V:0 2' 4'

NOTES:

1. PRECAST STRUCTURES SHALL BE 6" LOWER THAN INVERTS SHOWN FOR IN-FIELD ADJUSTMENTS.
2. EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR REFERENCE ONLY AT APPROXIMATE DEPTH. CONTRACTOR SHALL LOCATE IN THE FIELD AND PROTECT DURING CONSTRUCTION.

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS
PHASE II
FOR
GLYNN COUNTY
BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

PROJECT NO.	065.02.2.18
DESIGNED:	S.L.J.V.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April, 2019

SANITARY SEWER PROFILES
LINE "A" AND LINE "B"

SCALE: AS SHOWN

DRAWING NO.
C-7

SHEET: 7 OF 14

G:\My Drives\Georgia\065.02.2.18 Village Drainage Phase II\Drawings\Sewer_Profile\065.02.2.18.dwg
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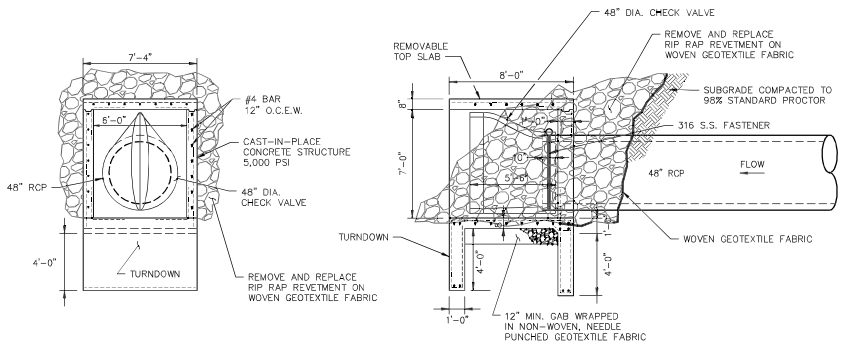
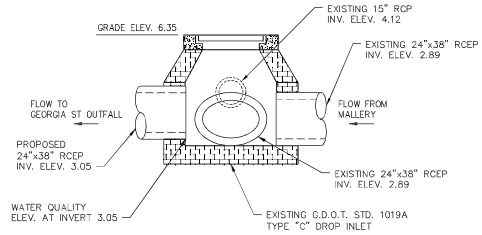
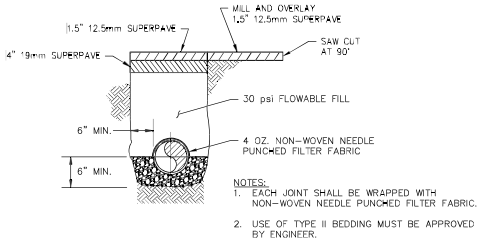


1 DETAIL - GEORGIA STREET OUTFALL STRUCTURE
SCALE: N.T.S.

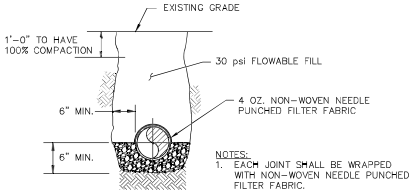


2 DETAIL - WATER QUALITY STRUCTURE
SCALE: N.T.S.



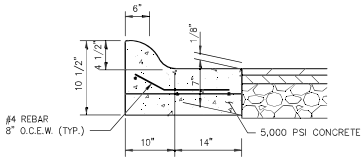
NOTES:
1. EACH JOINT SHALL BE WRAPPED WITH NON-WOVEN NEEDLE PUNCHED FILTER FABRIC.
2. USE OF TYPE II BEDDING MUST BE APPROVED BY ENGINEER.

3 DETAIL - ASPHALT PAVEMENT REPLACEMENT AND STORM PIPE BEDDING
SCALE: N.T.S.



NOTES:
1. EACH JOINT SHALL BE WRAPPED WITH NON-WOVEN NEEDLE PUNCHED FILTER FABRIC.
2. USE OF TYPE II BEDDING MUST BE APPROVED BY ENGINEER.

4 DETAIL - STORM PIPE BEDDING
SCALE: N.T.S.



NOTES:
1. SECTIONS, WHERE DIRECTED BY THE ENGINEER, MAY BE CONSTRUCTED IN UNIFORM LENGTHS OF TWENTY (20) FEET ON TANGENT; LENGTH MAY BE REDUCED FOR CLOSURE AND AT CORNERS TO NOT LESS THAN SIX (6) FEET.
2. BASIS OF PAYMENT: PER LINEAR FOOT.
3. CONCRETE CURB AND GUTTER IN ACCORDANCE WITH GDOT SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
6. STANDARD CURB AND GUTTER CURB FACE SHALL BE GDOT STD 9032B TYPE 2.

5 DETAIL - HEAVY DUTY ROLL-OVER CURB AND GUTTER
SCALE: N.T.S.

ISSUE SEQUENCE

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS
PHASE II
FOR
GLYNN COUNTY
BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
DESIGNED:	S.L.J.V.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

MISCELLANEOUS DETAILS

SCALE: AS SHOWN

DRAWING NO.
C-8

SHEET: 8 OF 14

C:\My Checks\065\023.18 (Glynn Drainage Ph II Phase II)\Drawings\Sheet_C8.dwg
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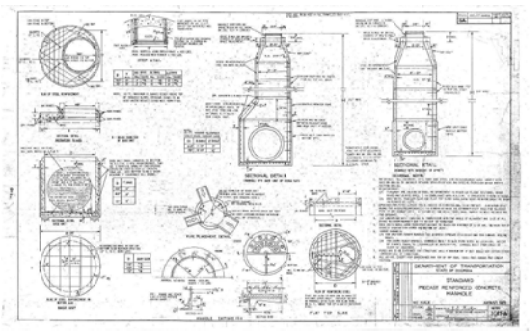
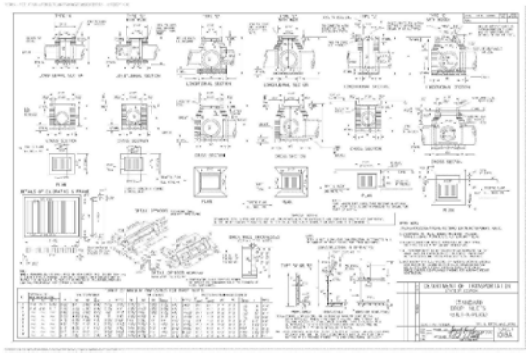
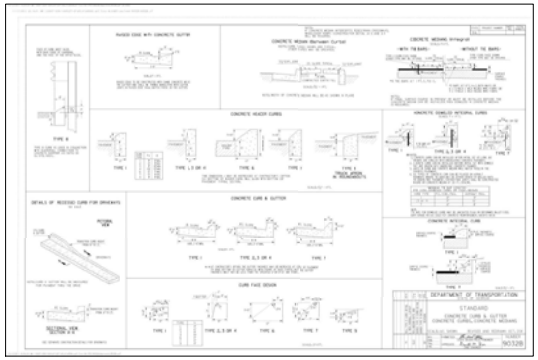


6 DETAIL - G.D.O.T. STD. 1011AP: PRECAST REINFORCED CONCRETE MANHOLE
SCALE: N.T.S.



7 DETAIL - G.D.O.T. STD. 1019A: MODIFIED DROP INLET
SCALE: N.T.S.



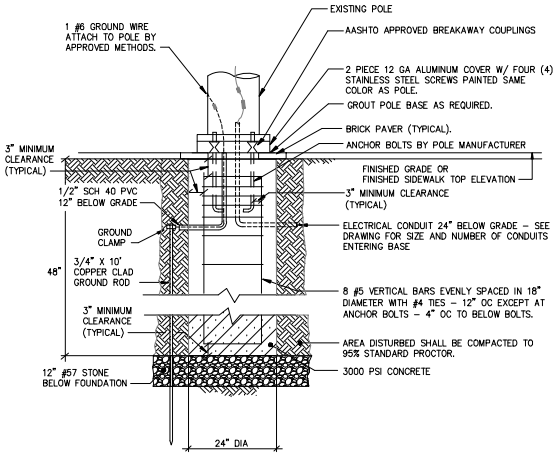
8 DETAIL - G.D.O.T. STD. 9032B: CONCRETE CURB AND GUTTER
SCALE: N.T.S.

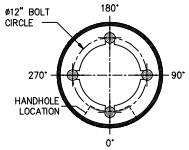
NOTES:

1. G.D.O.T. STD. DETAILS SHOWN FOR CONVENIENCE ONLY. PLEASE REFER TO G.D.O.T. WEBSITE FOR CURRENT CONSTRUCTION STANDARDS AND DETAILS.
http: //mydocs.dot.ga.gov/info/gdotpubs/ConstructionStandardsAndDetails/Forms/AllItems.aspx

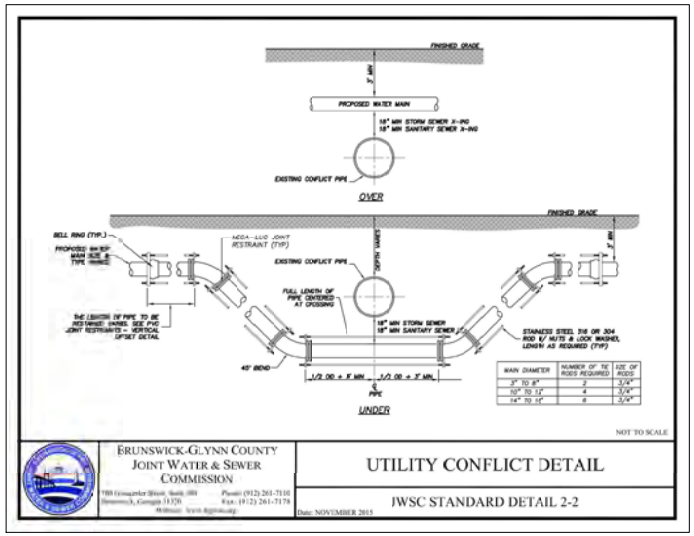
NOTES:

1. PITCHED GUTTER TO BE USED WHERE PAVEMENT DRAINS AWAY FROM CURB AND NORMAL GUTTER TO BE USED WHERE PAVEMENT DRAINS TOWARD GUTTER.
2. FIVE FOOT LONG TRANSITIONS SHALL BE PROVIDED BETWEEN NORMAL GUTTER AND PITCHED GUTTER.
3. SECTIONS, WHERE DIRECTED BY THE ENGINEER, MAY BE CONSTRUCTED IN UNIFORM LENGTHS OF TWENTY (20) FEET ON TANGENT; LENGTH MAY BE REDUCED FOR CLOSURE AND AT CORNERS TO NOT LESS THAN SIX (6) FEET.
4. BASIS OF PAYMENT: PER LINEAR FOOT (INCLUDING VARIABLE HEIGHT CURB.)
5. CONCRETE CURB AND GUTTER IN ACCORDANCE WITH GDOT SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
6. STANDARD CURB AND GUTTER CURB FACE SHALL BE GDOT STD 9032B TYPE 2.





9 DETAIL - FIXTURE FOUNDATION
SCALE: N.T.S.



MAIN DIAMETER	NUMBER OF TIE RODS REQUIRED	SIZE OF RODS
2" TO 8"	2	3/4"
10" TO 12"	4	3/4"
14" TO 16"	6	3/4"

10 DETAIL - JWSC STD. UTILITY CONFLICT
SCALE: N.T.S.

ISSUE SEQUENCE

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS PHASE II
FOR
GLYNN COUNTY BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

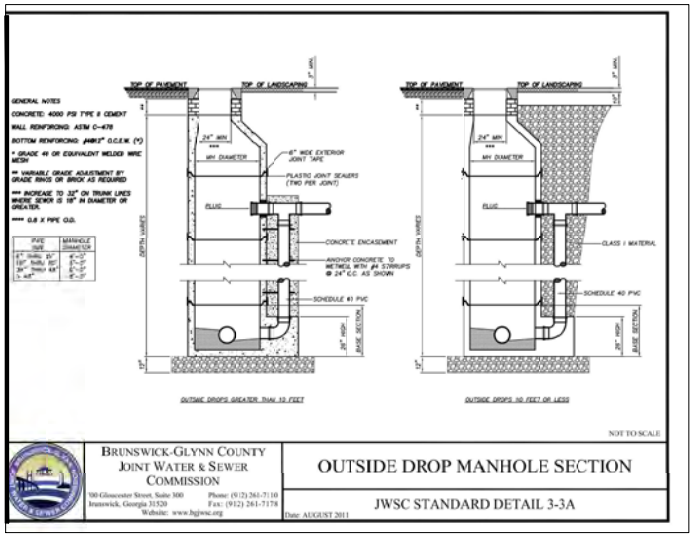
PROJECT NO. 065.023.18
DESIGNED: S.L.N.
CHECKED: B.B.M.
APPROVED: B.B.M.
DATE: April 2019

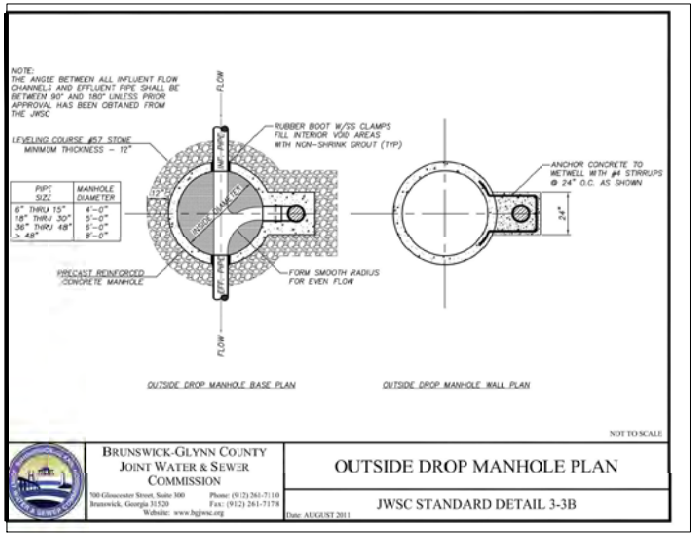
MISCELLANEOUS DETAILS

SCALE: AS SHOWN

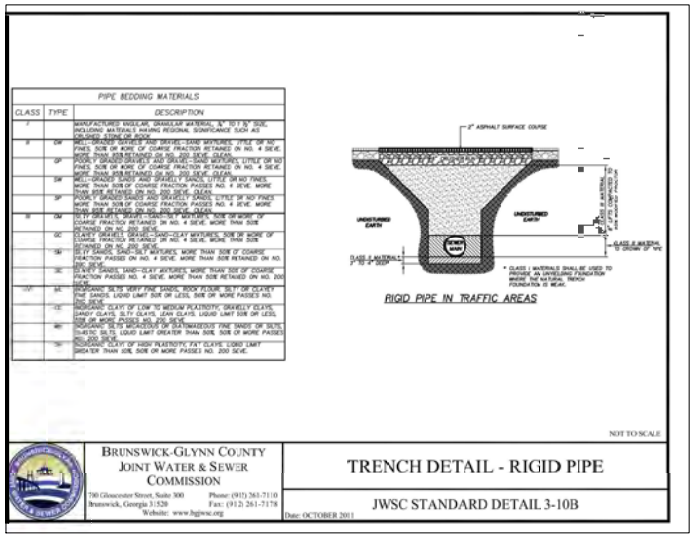
DRAWING NO. C-9

SHEET: 9 OF 14

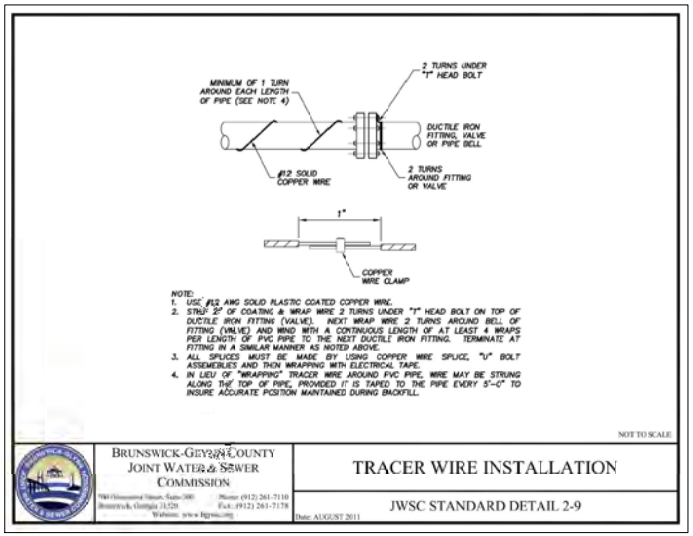




11 DETAIL - JWSC STD. MANHOLE
SCALE: N.T.S.



12 DETAIL - JWSC STD. SEWER BEDDING
SCALE: N.T.S.



13 DETAIL - JWSC STD. TRACER WIRE INSTALLATION
SCALE: N.T.S.

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VILLAGE DRAINAGE IMPROVEMENTS PHASE II
FOR
GLYNN COUNTY BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

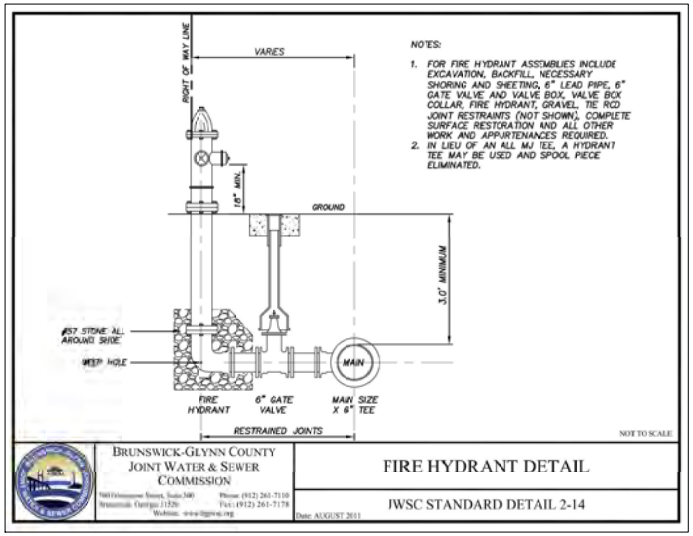
PROJECT NO.	065.023.18
DESIGNED:	S.L.N.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

MISCELLANEOUS DETAILS

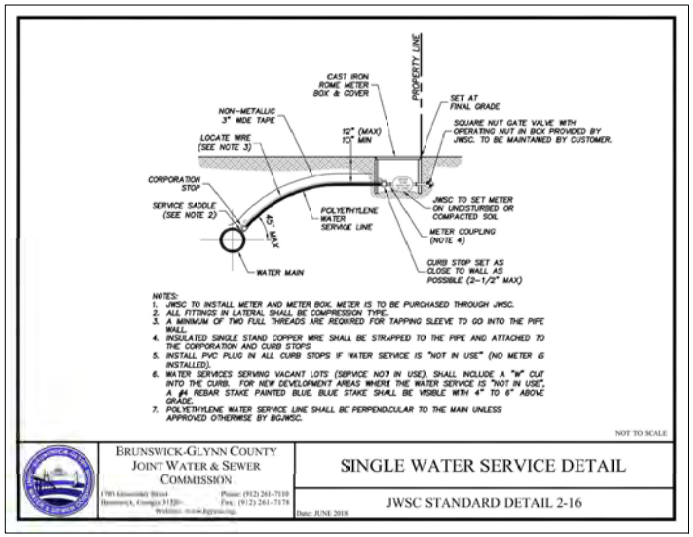
SCALE: AS SHOWN

DRAWING NO.
C-10

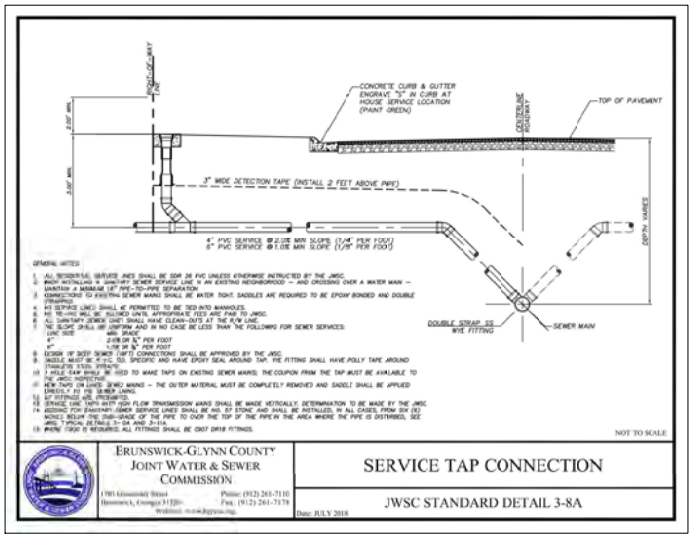
SHEET: 10 OF 14



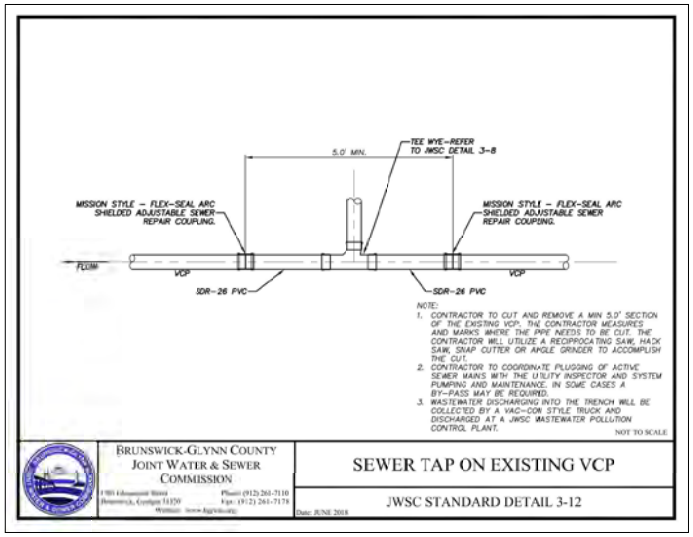
14 DETAIL - JWSC STD. FIRE HYDRANT
SCALE: N.T.S.



15 DETAIL - JWSC STD. SINGLE WATER SERVICE
SCALE: N.T.S.



16 DETAIL - JWSC STD.SERVICE TAP CONNECTION
SCALE: N.T.S.



17 DETAIL - JWSC STD. SEWER TAP ON EXISTING VCP
SCALE: N.T.S.

ISSUE SEQUENCE

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS PHASE II
FOR
GLYNN COUNTY BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
DESIGNED:	S.L.N.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

MISCELLANEOUS DETAILS

SCALE: AS SHOWN

DRAWING NO.
C-11

SHEET: 11 OF 14

G:\My Drives\Gwes\065.023.18 Village Drainage II\01 Phase II\01 Engineering\Level_2\pd\065.023.18.dwg
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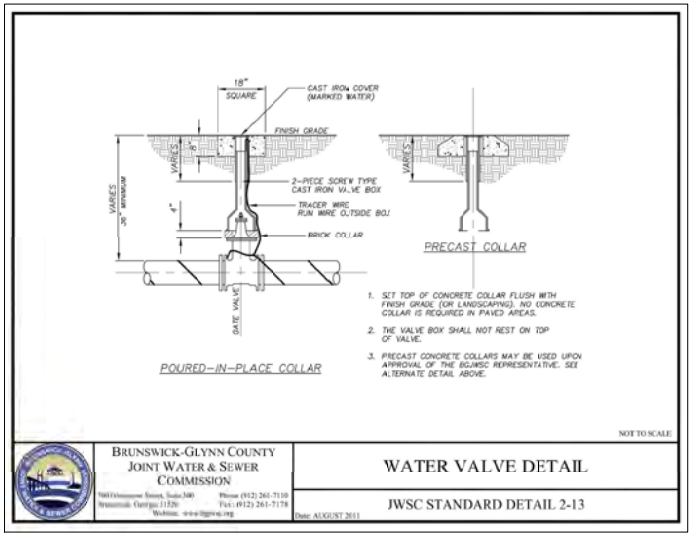
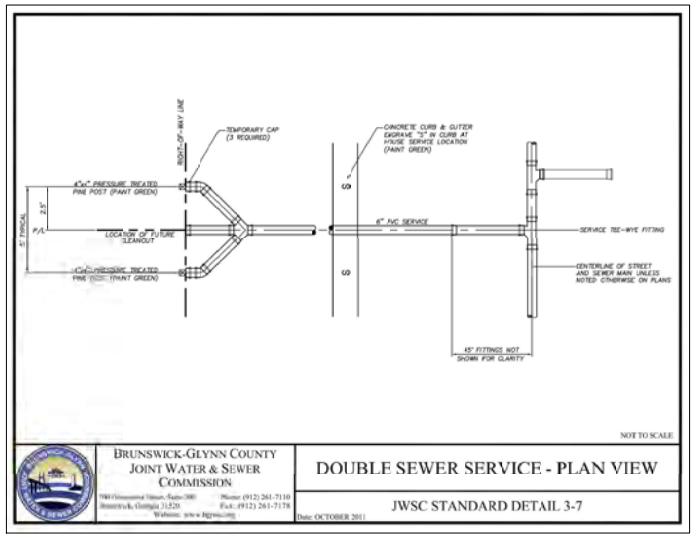
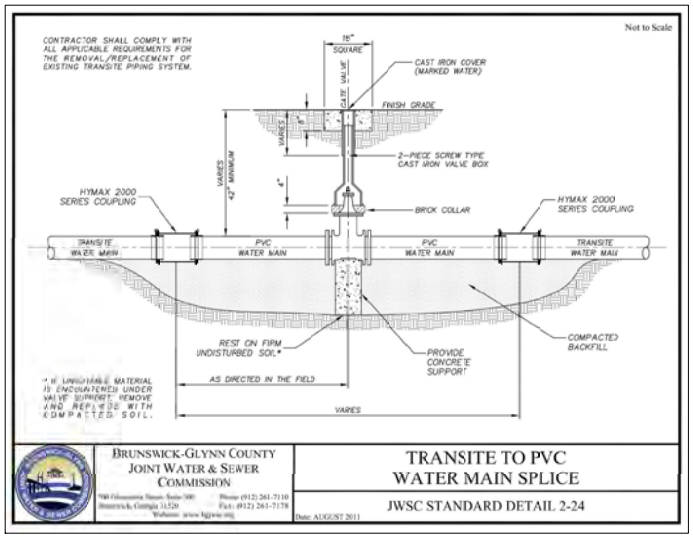


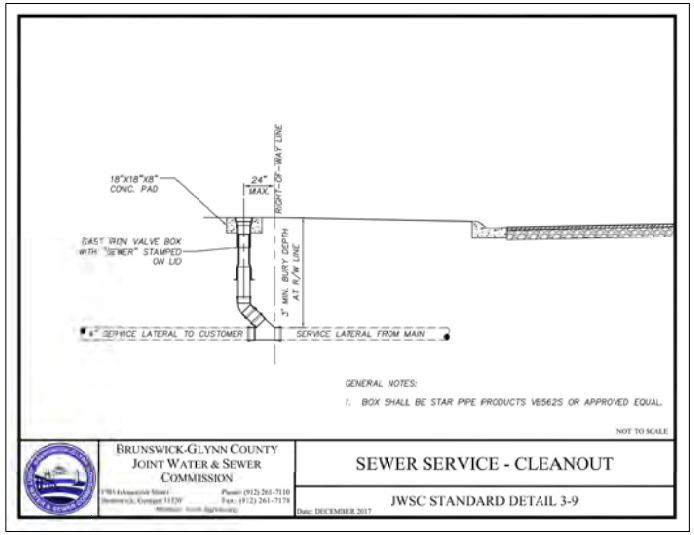
18 DETAIL - JWSC STD. WATER VALVE
SCALE: N.T.S.



19 DETAIL - JWSC STD. DOUBLE SEWER SERVICE
SCALE: N.T.S.



20 DETAIL - JWSC STD. TRANSITE TO PVC WATER MAIN SPLICE
SCALE: N.T.S.



21 DETAIL - JWSC STD. SEWER SERVICE - CLEANOUT
SCALE: N.T.S.

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GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
DESIGNED:	S.L.N.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

MISCELLANEOUS DETAILS

SCALE: AS SHOWN

DRAWING NO. C-12

SHEET: 12 OF 14

EROSION, SEDIMENTATION, AND POLLUTION CONTROL AND VEGETATION NOTES:

1. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND LOCAL AND STATE REQUIREMENTS.

2. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED DAILY BY THE CONTRACTOR, AND REQUIRED REPAIRS OR MAINTENANCE SHALL BE COMPLETED BEFORE WORK STOPS EACH DAY.

3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONTINUOUSLY MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION.

4. FAILURE TO PROPERLY INSTALL AND MAINTAIN BEST MANAGEMENT PRACTICES (BMPs) IN REGARDS TO EROSION AND SEDIMENTATION CONTROL MAY RESULT IN A STOP WORK ORDER UNTIL BMPs MEET LOCAL AND STATE REQUIREMENTS.

5. ESTABLISHMENT OF TEMPORARY (Ds2) AND PERMANENT (Ds3) VEGETATION FOR THIS PROJECT SHALL BE PERFORMED AS DETAILED IN DRAWING NO. C-4.

6. APPLY FERTILIZER CONTAINING NITROGEN, PHOSPHOROUS, AND POTASH AT RATES RECOMMENDED BY THE MANUFACTURER. APPLY AGRICULTURAL LIME AT RATES RECOMMENDED BY THE LOCAL COUNTY EXTENSION OFFICE BASED ON SOIL ANALYSIS RESULTS.

7. IF DEEMED NECESSARY, THE CONTRACTOR SHALL CONSTRUCT ADDITIONAL BMPs AS DIRECTED BY THE OWNER TO REDUCE THE LIKELIHOOD OF SITE EROSION.

8. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE "MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA, 2016 EDITION".

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

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

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

12. 24 HOUR CONTACT: BEN PIERCE, PE (912) 554-7744
bpierce@glynncounty-ga.gov

13. OWNER/ PRIMARY PERMITTEE: GLYNN COUNTY PUBLIC WORKS
4145 NORWICH ST.
BRUNSWICK, GA 31520
(912) 554-7744

14. TOTAL CONSTRUCTION AREA IS APPROXIMATELY 0.94 ACRE IN SIZE.

15. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY THE CONTRACTOR UPON CONTRACT COMPLETION AS DIRECTED BY THE OWNER.

16. VELOCITY DISSIPATION DEVICES SHALL BE PLACED AT DISCHARGE LOCATION(S) AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL FOR THE PURPOSE OF PROVIDING A NON-EROSIVE VELOCITY OF FLOW FROM THE OUTLET STRUCTURE TO A DOWNSTREAM WATERCOURSE. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER INSTALLATION AND TIMELY MAINTENANCE OF BMPs. ALSO, THE CONTRACTOR IS TO KEEP BMPs IN GOOD AND EFFECTIVE OPERATING CONDITION UP TO FINAL STABILIZATION AND APPROVAL BY THE OWNER.

17. SILT FENCE SHALL BE INSTALLED ON THE DOWN SLOPE SIDE OF ALL DISTURBANCES AS SHOWN ON THE PLANS.

18. AMENDMENTS OR REVISIONS TO THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

19. IMPACTS TO WETLANDS AND STATE WATERS ARE NOT EXPECTED DUE TO CONSTRUCTION ACTIVITIES.

20. THE RECEIVING WATERS FOR THE PROPOSED PROJECT IS ST. SIMON'S SOUND. ALL WETLANDS WITHIN 200 FEET OF THE PROJECT SITE HAVE BEEN DELINEATED. THIS PROJECT IS NOT LOCATED WITHIN 1 LINEAR MILE UPSTREAM OF A 303(d) LISTED STREAM .

21. CONSTRUCTION ACTIVITIES ARE LOCATED WITHIN 50 FEET OF WATERS OF THE STATE.

22. EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN IS IN COMPLIANCE WITH WASTE DISPOSAL AND SANITARY REGULATIONS DURING AND AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

23. THE DESIGN PROFESSIONAL WHO PREPARED THE ESPCP PLAN IS TO INSPECT THE INSTALLATION OF INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WITHIN 7 DAYS AFTER INSTALLATION.

24. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

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

26. THERE IS NO SIGNIFICANT INCREASE IN STORMWATER RUNOFF DUE TO CONSTRUCTION ACTIVITIES.

PETROLEUM SPILLS AND LEAKS

ANY LEAKS OR SPILLS OF PETROLEUM PRODUCTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTAIN, CONTROL, AND REMEDIATE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL GUIDELINES, ORDINANCES, AND LAWS.

CONTROL OF POLLUTANTS: POLLUTANTS OR POTENTIALLY HAZARDOUS MATERIALS, SUCH AS FUELS, LUBRICANTS, LEAD PAINT, CHEMICALS OR BATTERIES, SHALL BE TRANSPORTED, STORED, AND UTILIZED IN A MANNER TO PREVENT SPILLS AND LEAKS AND PROVIDE LEGAL DISPOSAL OF ALL SUCH MATERIALS.

REMEDIATION OF POLLUTANTS: SOILS THAT ARE EXPOSED TO SPILLS AND LEAKS SHALL BE EXCAVATED AND REMOVED FROM SITE. CONTAMINATED SOILS SHALL BE TRANSPORTED TO AN APPROVED HAZARDOUS MATERIAL FACILITY IN ACCORDANCE WITH FEDERAL AND STATE LAWS. THE EXCAVATED AREA SHALL BE BACKFILLED WITH SUITABLE SOILS, COMPACTED, AND SEEDED.

NON-STORMWATER DISCHARGES

NON-STORMWATER DISCHARGES AS DEFINED IN PART IIIA.2 OF THE NPDES PERMIT WILL BE IDENTIFIED AFTER CONSTRUCTION HAS COMMENCED AND SHALL BE SUBJECT TO THE SAME REQUIREMENTS AS STORMWATER DISCHARGES AS REQUIRED BY THE GEORGIA EROSION AND SEDIMENTATION CONTROL ACT, THE NPDES PERMIT, THE CLEAN WATER ACT, THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, DEPARTMENT STANDARDS, DEPARTMENT SPECIFICATIONS, AND DEPARTMENT SPECIAL PROVISIONS.

BMPS SUCH AS EROSION CONTROL MATTING, STONE CHECK DAMS, AND STORM OUTLET PROTECTION WILL REMAIN POST-CONSTRUCTION TO CONTROL STORMWATER POLLUTANTS.

SOURCES OF POLLUTION

POTENTIAL SOURCES OF POLLUTION TO STORMWATER MAY INCLUDE MACHINERY, VEHICLES, TRASH AND DEBRIS, SANITARY FACILITIES, ETC.

POLLUTANTS WILL BE MINIMIZED BY CONTRACTOR PROTOCOLS TO KEEP THE SITE FREE FROM TRASH AND TO PLACE SANITARY FACILITIES ON STABLE GROUND AWAY FROM DRAINAGE CHANNELS.

OFF-SITE VEHICLE TRACKING AND WASHDOWN

CONTRACTOR SHALL NOT BE PERMITTED TO LEAVE SITE WITHOUT PROPER SEDIMENT REMOVAL FROM VEHICLE TRACKS. EQUIPMENT, ESPECIALLY CONCRETE OR ASPHALT TRUCKS, CONCRETE MIXER CHUTES, HOPPERS, AND TOOLS SHALL NOT BE WASHED OR CLEANED OUT IN THE PROJECT AREA EXCEPT IN AREAS WHERE UNUSED PRODUCT CONTAMINANTS CAN BE PREVENTED FROM ENTERING WATERWAYS. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.

SANITARY WASTES

A MINIMUM OF ONE PORTABLE SANITARY UNIT MUST BE PROVIDED PER TEN WORKERS ON THE PROJECT SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITIES PROVIDER IN COMPLIANCE WITH LOCAL AND STATE REGULATIONS. ALL SANITARY WASTE UNITS SHOULD BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORMWATER DISCHARGE IS NEGLIGIBLE.

SEDIMENT STORAGE

THIS PROJECT IS A LINEAR INFRASTRUCTURE PROJECT IN A DEVELOPED AREA OF ST. SIMONS ISLAND, GA. A TEMPORARY (OR PERMANENT) SEDIMENT BASIN IS NOT FEASIBLE IN THE PROJECT AREA. INLET SEDIMENT TRAPS (SD2-F) AND (SD2-P) BMPS SHALL BE IMPLEMENTED AND MAINTAINED TO MINIMIZE THE SEDIMENT RUNOFF FROM ITS ±0.94 AC. OF DISTURBED AREA. INLET SEDIMENT TRAPS ARE SUFFICIENT TO PROVIDE THE NECESSARY 67 C.Y. OF STORAGE PER ACRE DRAINED. SEE CALCULATION AS FOLLOWS:

SEDIMENT STORAGE CALCULATION

INLET SEDIMENT TRAP **(Id2-F)** CALCULATIONS		
DIAMETER OF INLET SEDIMENT TRAP (FT)		8
AREA OF SEDIMENT TRAP (SQ. FT)	$A=\pi R^2$	50
VOLUME OF SEDIMENT STORAGE (CU. FT.)		402
CU.FT. TO C.Y.	(#) x .037037	14.89
TOTAL NUMBER SEDIMENT TRAPS		8
TOTAL STORAGE AREA - INLET SEDIMENT TRAPS (C.Y.)		119
TOTAL AVAILABLE STORAGE SILT FENCE (SD2-F) (C.Y.) "TS"		**119**
TOTAL DISTURBED AREA (AC) "DA"		*0.9*
REQUIRED SEDIMENT STORAGE (C.Y.) "RS"	("DA")(67 C.Y./AC)	**60**
EXCESS OR (SHORTAGE) STORAGE (C.Y.)	"TS - "RS"	**59**

UNIFORM CODE

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sd2	*INLET SEDIMENT TRAP*			*An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.*
St	*STORMDRAIN OUTLET PROTECTION*			*A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.*
Tp	*TOPSOILING*			*The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.*

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	*DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)*		Ds1	*Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.*
Ds2	*DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)*		Ds2	*Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.*
Ds3	*DISTURBED AREA STABILIZATION (WITH PERM SEEDING)*		Ds3	*Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.*
Du	*DUST CONTROL ON DISTURBED AREAS*		Du	*Controlling surface and air movement of dust on construction site, roadways and similar sites.*

GENERAL PROJECT ACTIVITY NARRATIVE:

THIS PROJECT CONSISTS OF UPGRADING STORMWATER INFRASTRUCTURE AS WELL AS PAVING, CURB AND GUTTER AND OTHER SURFACE IMPROVEMENTS TO IMPROVE STORMWATER RUN-OFF CONVEYANCE TO ST. SIMON'S SOUND OUTFALL.

START (OUTFALL @ ST. SIMONS SOUND): LATITUDE: 31.136929 LONGITUDE: -81.395432
END (INLET @BUTLER AVE. AND MALLERY LN.: LATITUDE: 31.135162 LONGITUDE: -81.396339
TOTAL PROJECT AREA 0.94 ACRES
TOTAL DISTURBED AREA 0.94 ACRES

SITE CONSTRUCTION SCHEDULE:

ANTICIPATED STARTING DATE: NOVEMBER 2019
ANTICIPATED ENDING DATE: MAY 2020

MONTH / ACTIVITY	1	2	3	4	5	6	7
INITIAL EROSION CONTROL							
CLEARING & GRUBBING							
INSTALLATION OF STORM DRAINAGE PIPING							
MAINTAIN ESPC ITEMS							
FINAL STABILIZATION							
REMOVE TEMPORARY BMPs							

ISSUE SEQUENCE

NO.	DATE	DESCRIPTION
A		

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS PHASE II
FOR
GLYNN COUNTY
BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

PROJECT NO.	065.022.18
DESIGNED:	S.L.N.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April, 2019

EROSION, SEDIMENTATION, AND POLLUTION CONTROL NOTES, LEGEND, AND SCHEDULE

SCALE: AS SHOWN

DRAWING NO.
EC-1

SHEET: 13 OF 14

G:\My Drives\Active\065.022.18 Village Drainage Ph2 Phase II\Engineering\Plans\065.022.18-C-Plans.dwg
2019-04-18 3:18 AM By: Stewart

DEFINITION
APPLYING PLANT RESIDUES OR OTHER SUITABLE MATERIALS, PRODUCED ON THE SITE IF POSSIBLE, TO THE SOIL SURFACE.

PURPOSE
–TO REDUCE RUNOFF AND EROSION
–TO CONSERVE MOISTURE
–TO PREVENT SURFACE COMPACTION OR CRUSTING
–TO CONTROL UNDESIRABLE VEGETATION
–TO MODIFY SOIL TEMPERATURE
–TO INCREASE BIOLOGICAL ACTIVITY IN THE SOIL

REQUIREMENT FOR REGULATORY COMPLIANCE
MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS. IF AN AREA WILL REMAIN UNDISTURBED FOR FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED. REFER TO Ds2–DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING), Ds3–DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING), AND Ds4–DISTURBED AREA STABILIZATION (WITH SODDING).

SPECIFICATIONS
MULCHING WITHOUT SEEDING:
THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

SITE PREPARATION:
1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT BARRIERS.
3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

MULCHING MATERIALS:
SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:
1. DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
2. WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
3. CUTBACK ASPHALT (SLOW CURING) SHALL BE APPLIED AT 1200 GALLONS PER ACRE (OR 1/4 GALLON PER SQ. YD.).
4. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND RE–USED.

APPLYING MULCH:
WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.
1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20–30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
3. CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF "TRACKING IN" OR DAMAGE TO SHOES, CLOTHING, ETC.
4. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

ANCHORING MULCH:
1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE IN 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER–TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE–5 OR SS–1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE. USE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFIERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATIONS Tb–TACKIFIERS AND BINDERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.
3. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

SEEDING

MONTH	TEMPORARY SEED	RATE (PER ACRE)	PERMANENT SEED	RATE (PER ACRE)
JANUARY	RYE GRASS	40 – 50 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA (2)	8 – 10 LB. 30 – 40 LB. (1)
FEBRUARY			UNHULLED BERMUDA SERICEA LESPEDEZA (2) FESCUE	8 – 10 LB. 30 – 40 LB. 30 – 50 LB.
MARCH	RYE ANNUAL LESPEDEZA WEEPING LOVEGRASS	2 – 3 BU. 20 – 25 LB. 4 – 6 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA (2) FESCUE	8 – 10 LB. 30 – 40 LB. 30 – 50 LB.
APRIL	RYE BROWN TOP MILLET ANNUAL LESPEDEZA SUDAN GRASS	2 – 3 BU. 30 – 40 LB. 20 – 25 LB. 35 LB.	WEEPING LOVEGRASS HULLED BERMUDA BAHIA	4 – 6 LB. 5 – 6 LB. 40 – 60 LB.
MAY	WEEPING LOVEGRASS SUDAN GRASS BROWN TOP MILLET	4 – 6 LB. 35 LB. 30 – 40 LB.	WEEPING LOVEGRASS HULLED BERMUDA BAHIA	4 – 6 LB. 5 – 6 LB. 40 – 60 LB.
JUNE	WEEPING LOVEGRASS SUDAN GRASS BROWN TOP MILLET	4 – 6 LB. 35 LB. 30 – 40 LB.	WEEPING LOVEGRASS HULLED BERMUDA BAHIA	4 – 6 LB. 5 – 6 LB. 40 – 60 LB.
JULY	WEEPING LOVEGRASS SUDAN GRASS BROWN TOP MILLET	4 – 6 LB. 35 LB. 30 – 40 LB.	WEEPING LOVEGRASS HULLED BERMUDA BAHIA	4 – 6 LB. 5 – 6 LB. 40 – 60 LB.
AUGUST	RYEGRASS WEEPING LOVEGRASS	40 – 50 LB. 4 – 6 LB.		
SEPTEMBER			TALL FESCUE	30 – 50 LB.
OCTOBER	WHEAT	2 – 3 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA (2) FESCUE	8 – 10 LB. 30 – 40 LB. 30 – 50 LB.
NOVEMBER	WHEAT	2 – 3 LB.	UNHULLED BERMUDA FESCUE SERICEA LESPEDEZA	8 – 10 LB. 30 – 50 LB. 30 – 40 LB.
DECEMBER	RYE RYEGRASS WHEAT	2 – 3 LB. 40 – 50 LB. 2 – 3 LB.	UNHULLED BERMUDA SERICEA LESPEDZA FESCUE	8 – 10 LB. 30 – 40 LB. 30 – 50 LB.

(1) USE A MINIMUM OF 40 LBS. SCARIFIED SEED, REMAINDER MAY BE UNSCARIFIED, CLEAN HULLED SEED.
(2) USE EITHER COMMON SERALA, OR INTERSTATE SERICEA LESPEDEZA.

SEEDING (CONTINUED)

LIME NOTES:
AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION.

FERTILIZER

FERTILIZER REQUIREMENTS (GSWCC 2016 ED., TABLE 6–5.1.)

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

1/ Apply in spring following seeding.
2/ Apply in split applications when high rates are used.
3/ Apply in 3 split applications
4/ Apply when plants are pruned.
5/ Apply to grass species only.
6/ Apply when plants grow to a height of 2 to 4 inches.

MULCHING
MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS.
MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% TO 100% SOIL COVER. WHEN SELECTING A MULCH, DESIGN PROFESSIONALS SHOULD CONSIDER THE MULCH'S FUNCTIONAL LONGEVITY, VEGETATION ESTABLISHMENT ENHANCEMENT, AND EROSION CONTROL EFFECTIVENESS. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:
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 RATE OF 2 1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIERS, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
7. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS, SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

APPLYING MULCH:
STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER–TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.

ANCHORING MULCH:
ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS:
1. HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD. A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL.
2. SYNTHETIC TACKIFIERS, BINDERS OR HYDRAULIC MULCH SPECIFICALLY DESIGNED TO TACK STRAW, SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. ALL TACKIFIERS, BINDERS OR HYDRAULIC MULCH SPECIFICALLY DESIGNED TO TACK STRAW SHOULD BE VERIFIED NONTOXIC THROUGH EPA 2021.0 TESTING. REFER TO TACKIFIERS–TAC
3. RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE–QUARTER TO ONE–HALF BUSHEL PER ACRE.
4. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

Ds2 SEEDING, FERTILIZER, AND MULCHING Ds3

CONSTRUCTION SPECIFICATIONS:

1. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4 TO 6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.

2. IF pH VALUE IS LESS THAN 6.0. LIME SHALL BE APPLIES AND INCORPORATED WITH THE TOPSOIL TO ADJUST THE pH TO 6.5 OR HIGHER. TOPSOILS CONTAINING SOLUBLE SALTS GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

3. THE LOCATION OF TOPSOIL STOCKPILES SHOULD NOT OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF–SITE ENVIRONMENTAL DAMAGE.

4. STOCKPILES SHALL BE CONTAINED BY SEDIMENT BARRIERS TO PREVENT SEDIMENTATION ON ADJACENT AREAS. STOCKPILES SHALL BE STABILIZED ON ACCORDANCE WITH SPECIFICATIONS FOR DS1, DS2, PM OR TB.

SITE PREPARATION:

1. TOPSOILING: WHEN TOPSOILING, MAINTAIN NEEDED EROSION CONTROL PRACTICE SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, DIKES, LEVEL SPREADERS, WATERWAYS, SEDIMENT BASINS, ETC.

2. GRADING: GRADES ON THE AREAS TO BE TOP SOILED WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE MAINTAINED.

3. LIMING: SOIL TESTS SHOULD BE USED TO DETERMINE THE pH OF THE SOIL. WHERE THE pH OF THE SUBSOIL IS 5.0 OR LESS OR COMPOSED OF HEAVY CLAYS, AGRICULTURAL LIMESTONE SHALL BE SPREAD AT THE RATE OF 100 POUNDS PER 1,000 SQUARE FEET. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

4. BONDING: USE ONE OF THE FOLLOWING METHODS TO INSURE BONDING OF TOPSOIL:

A. TILLING: AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOPSOIL, THE SUB GRADE SHALL BE LOOSENED BY DISCING OR SCARIFYING TO A DEPTH OF AT LEAST 3 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL.

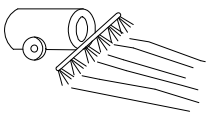
B. TRACKING: PASSING A BULLDOZER OVER THE ENTIRE SURFACE AREA OF THE SLOPE TO LEAVE HORIZONTAL DEPRESSIONS.

5. APPLYING TOPSOIL:

A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITH WITHOUT DAMAGING SOIL STRUCTURE.

B. A UNIFORM APPLICATION OF 6 INCHES (UNSETTLED) IS RECOMMENDED, BUT MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER OR LANDSCAPE ARCHITECT.

Tp TOPSOILING
N.T.S.



TEMPORARY METHODS
MULCHES. SEE STANDARD DS1 – DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO STANDARD TB–TACKIFIERS AND BINDERS. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER. SEE STANDARD DS2 – DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

SPRAY–ON ADHESIVES. THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD TB–TACKIFIERS AND BINDERS.

TILLAGE. THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS.

IRRIGATION. THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

BARRIERS. SOLID BOARD FENCES, SNOWFENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

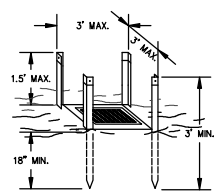
CALCIUM CHLORIDE. APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS
PERMANENT VEGETATION. SEE STANDARD DS3 –DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

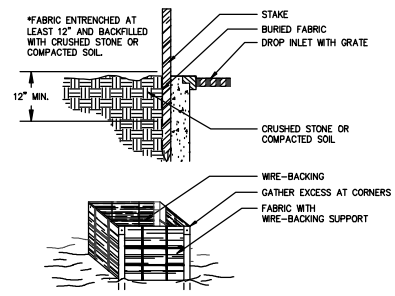
TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD TP – TOPSOILING.

STONE. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD CR–CONSTRUCTION ROAD STABILIZATION.

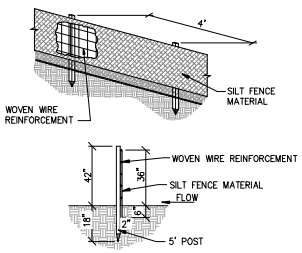
Du DUST CONTROL
N.T.S.



NOTES:
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.



Sd2-F DETAIL - INLET PROTECTION
SCALE: N.T.S.



ALL SILT FENCE MUST MEET THE MINIMUM STANDARDS SET FORTH IN SECTION 171 – TEMPORARY SILT FENCE G.D.O.T. STANDARD SPECIFICATIONS AND APPROVED AS AN ALTERNATIVE BMP BY GSWCC.

Sd1-S DETAIL - SEDIMENT BARRIER SILT FENCE
N.T.S.

ISSUE SEQUENCE

NO.	DATE	DESCRIPTION
	A	

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GEORGIA WATER & ENVIRONMENTAL SERVICES, LLC

VILLAGE DRAINAGE IMPROVEMENTS PHASE II
FOR
GLYNN COUNTY
BOARD OF COMMISSIONERS
GLYNN COUNTY, GEORGIA

PROJECT NO.	065.023.18
DESIGNED:	S.L.N.
CHECKED:	B.B.M.
APPROVED:	B.B.M.
DATE:	April 2019

EROSION, SEDIMENTATION, AND POLLUTION CONTROL MISCELLANEOUS DETAILS

SCALE: AS SHOWN

DRAWING NO.
EC-2

SHEET: 14 OF 14

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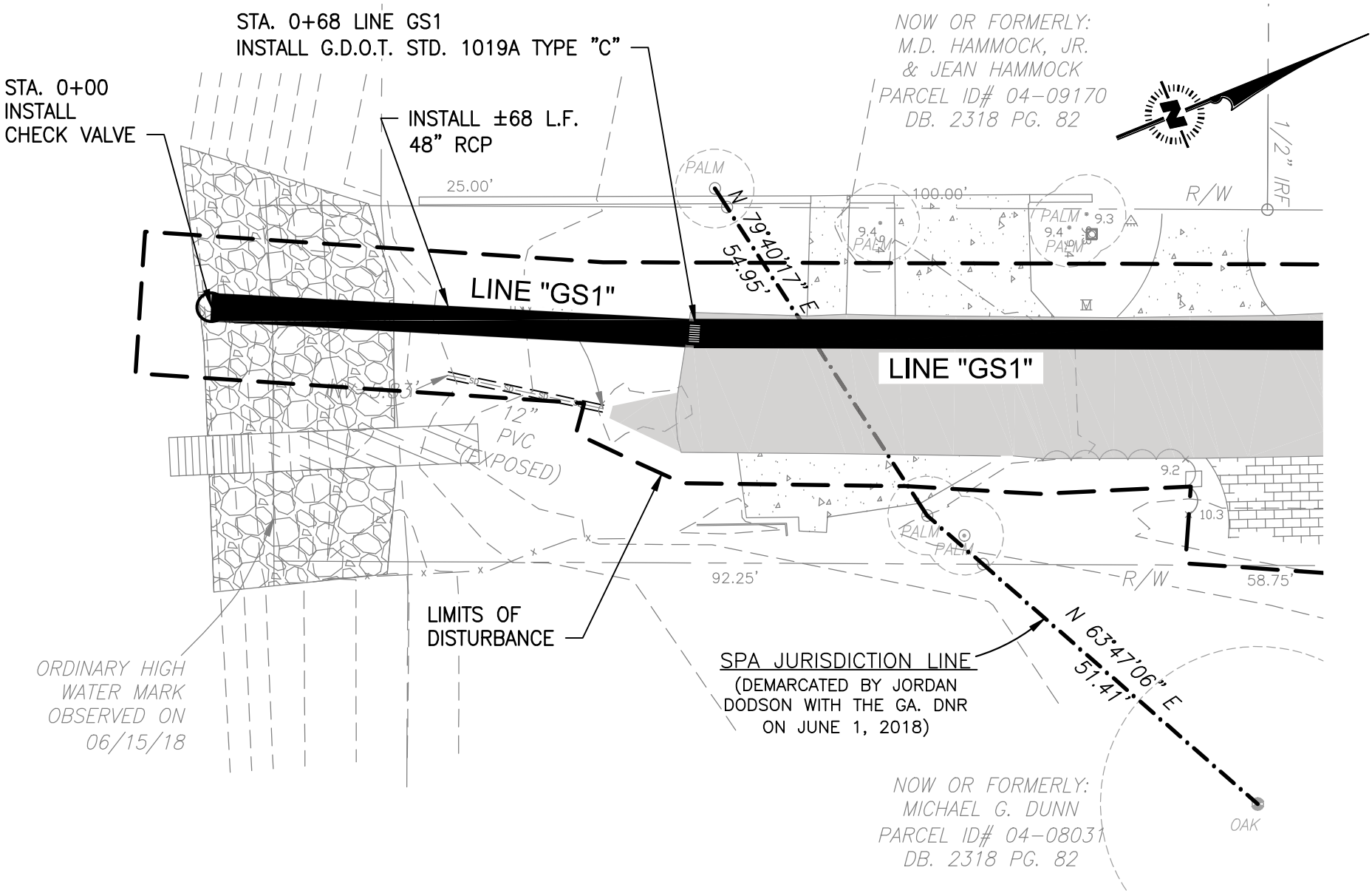
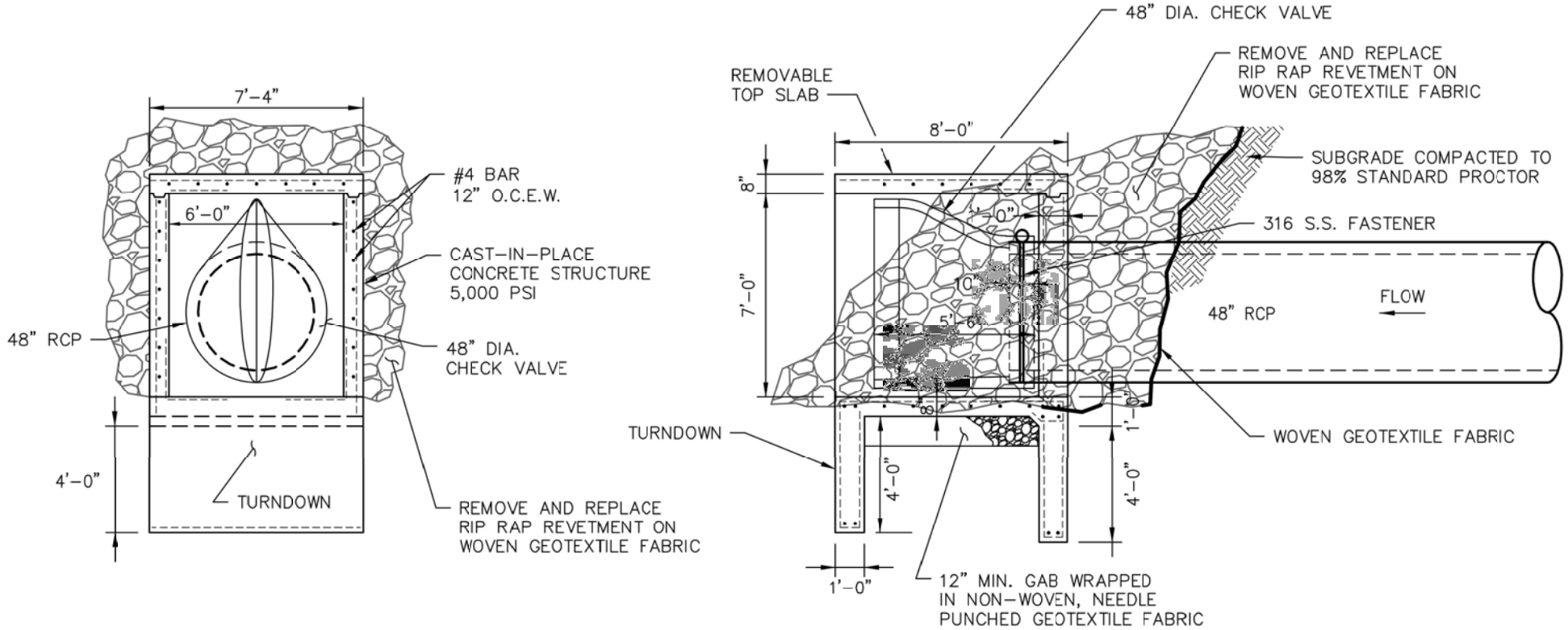


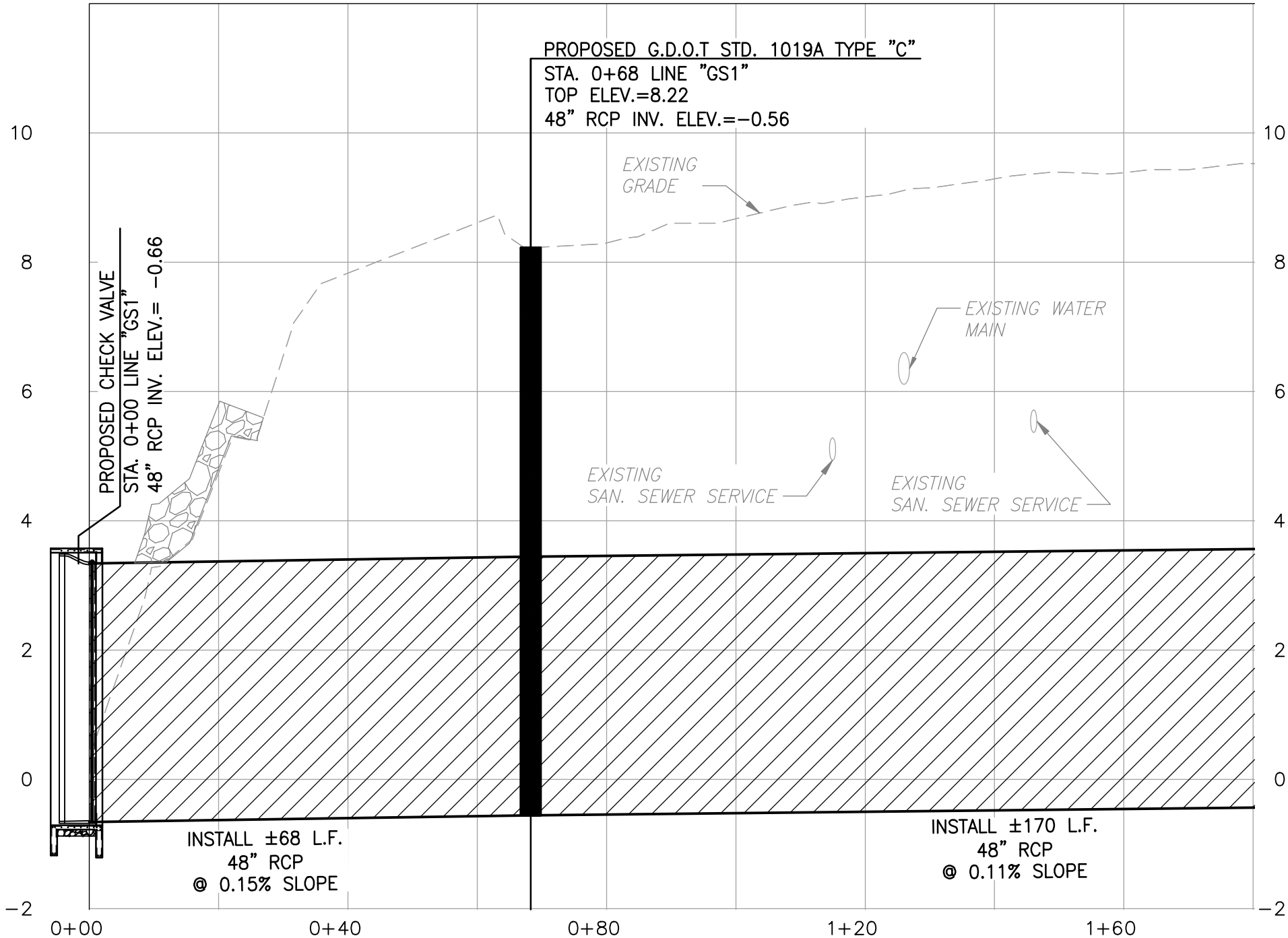
STORM DRAINAGE PLAN - GEORGIA STREET OUTFALL

SCALE: 1"=20'



1 DETAIL - GEORGIA STREET OUTFALL STRUCTURE

SCALE: N.T.S.

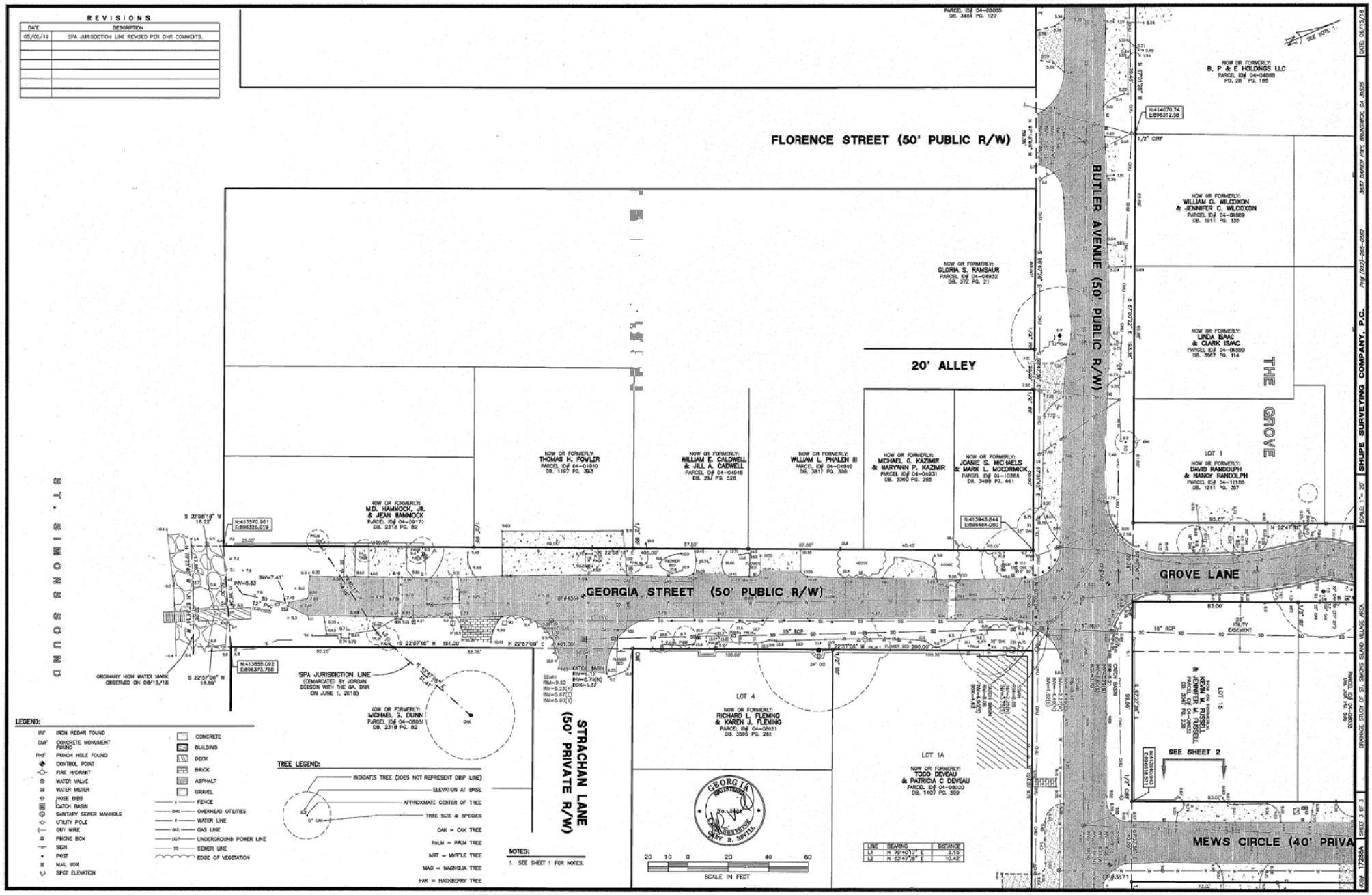


STORM DRAINAGE PROFILE - GEORGIA STREET OUTFALL "GS1"

H: 0 20' 40'

V: 0 2' 4'

REVISIONS	
DATE	DESCRIPTION
06/06/19	SPA JURISDICTION LINE REVISED PER DNR COMMENTS.



LEGEND:

- IRF — IRON REBAR FOUND
- CMF — CONCRETE MONUMENT FOUND
- PHF — PUNCH HOLE FOUND
- CONTROL POINT
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- HOSE BIBB
- CATCH BASIN
- SANITARY SEWER MANHOLE
- UTILITY POLE
- GUY WIRE
- PHONE BOX
- SIGN
- POST
- MAIL BOX
- SPOT ELEVATION
- CONCRETE
- BUILDING
- DECK
- BRICK
- ASPHALT
- GRAVEL
- FENCE
- OHU — OVERHEAD UTILITIES
- W — WATER LINE
- GAS — GAS LINE
- UGP — UNDERGROUND POWER LINE
- SS — SEWER LINE
- EDGE OF VEGETATION

TREE LEGEND:

- INDICATES TREE (DOES NOT REPRESENT DRIP LINE)
- ELEVATION AT BASE
- APPROXIMATE CENTER OF TREE
- TREE SIZE & SPECIES
- OAK = OAK TREE
- PALM = PALM TREE
- MRT = MYRTLE TREE
- MAG = MAGNOLIA TREE
- HAK = HACKBERRY TREE

NOTES:

1. SEE SHEET 1 FOR NOTES.

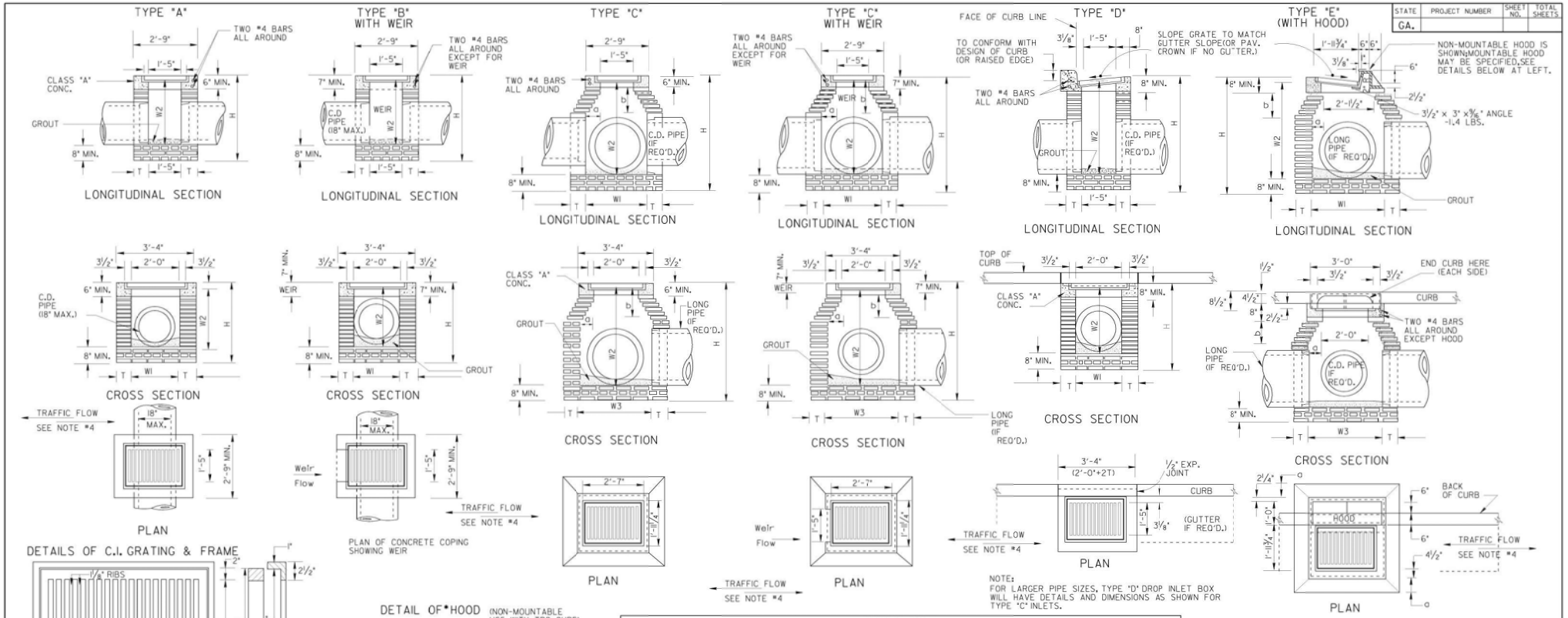
LINE	BEARING	DISTANCE
L1	N 79°40'17" E	3.15'
L2	N 53°47'08" E	10.42'

GEORGIA REGISTERED LAND SURVEYOR GARY R. SHIELD

SHIPE SURVEYING COMPANY, P.C.
3537 DARIEN HWY, BRUNSWICK, GA 31525
PH/ (912)-264-0562

DATE: 06/15/18
SCALE: 1"= 20'
DRAINAGE STUDY OF ST. SIMONS ISLAND VILLAGE AREA
PROJECT NO. 17288A
SHEET 3 OF 3

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



NOTE:
MINIMUM DIMENSIONS GIVEN IN TABLE BELOW ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONCRETE PIPES WITH NORMAL COVER AND CLEARANCES. THESE DIMENSIONS MAY BE MODIFIED IF SO DETAILED IN THE PLANS OR AS DIRECTED BY THE ENGINEER. DIMENSIONS GIVEN ARE MINIMUM EXCEPT FOR "a" WHICH IS MAXIMUM.

SPECIAL NOTE:
STANDARD 1019A INLETS ARE FOR USE AT LOW POINTS & WHERE HYDRAULIC LOW CAPACITY GRATES ARE SUFFICIENT. WHERE HIGHER CAPACITY GRATES ARE NEEDED ON A CONTINUOUS GRADE, STANDARD 1019B IS RECOMMENDED.

NOTE:
DETAILS NOT SHOWN FOR CONSTRUCTION ALTERNATES WILL BE SIMILAR TO THAT SHOWN FOR BRICK MASONRY.

NOTE: CONCRETE WALLS WILL BE REINFORCED WITH #4 BARS 12" O.C. BOTH WAYS, BUT WHERE H IS OVER 9 FT., AND PIPE IS OVER 30" I.D., THE HORIZONTAL STEEL, WHICH IS MORE THAN 9 FT. DEEP WILL BE INCREASED TO 6" SPACINGS. 6" CONC. BOTTOM SLABS WILL BE REINFORCED WITH #4 BARS 12" O.C. BOTH WAYS.

NOTE: FOR PRECAST ALTERNATES, SEE STD. 1019-A PRECAST AND/OR STD. 1040 PRECAST AND BUILT-IN-PLACE COMPONENTS MAY BE USED IN COMBINATIONS WHICH PROVIDE PROPER FITS AND STRUCTURAL ADEQUACY.

GENERAL NOTES:

1. SPECIFICATIONS:GEORGIA STANDARD AND CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. ½" EXPANSION JOINT WILL BE REQUIRED WHERE RIGID PAVEMENT, CONCRETE SIDEWALK OR CONCRETE GUTTER MEETS DROP INLETS.
3. ALIGNMENT, NUMBER AND SIZES OF PIPES SHOWN ARE ONLY TYPICAL. SEE PLANS FOR ACTUAL PIPE CULVERT REQUIREMENTS.
4. ALL TYPE DROP INLETS WILL BE CONSTRUCTED (AS SHOWN), SO THAT THE GRATE BARS ARE PERPENDICULAR TO THE FLOW OF TRAFFIC EXCEPT ON LIMITED ACCESS PROJECTS OR WHERE BICYCLES ARE PROHIBITED.
5. BRICK MASONRY WITH CLASS "A" CONC. TOP PORTION IS SHOWN AS STANDARD CONSTRUCTION WITH ALTERNATES PERMITTED AS SHOWN, BOTTOM SLAB MAY BE 8" MIN. NON-REINFORCED CONCRETE, 8" BRICK OR 6" MIN. REINFORCED CONCRETE, SEE APPLICABLE STANDARDS FOR ALTERNATE PRECAST CONSTRUCTION.

TABLE OF MINIMUM DIMENSIONS FOR DROP INLETS

D	TYPES"A" or "B" BRICK OR REINF. CONC.			TYPE "C" OR"D" (BRICK)						TYPE "E" (BRICK)						TYPE"C","D" OR"E" (REINFORCED CONCRETE)						
	W1	W2	H(min)	W1	W2	W3	a (MAX.)	b	H(min.)	W1	W2	W3	a (MAX.)	b	H(min.)	W1 type"C"	W1 type"E"	W2	W3	a (MAX.)	b	H(min.)
15"	2'- 0"	2'- 7"	3'-3½"	2'-2⅛"	2'-4"	2'-9⅛"	0'-4⅜"	0'-7⅛"	3'-9½"	3'-2⅛"	3'- 1"	3'-0⅝"	0'-7⅜"	1'-1⅛"	3'-11½"	2'- 0"	2'- 1"	2'- 7"	2'- 0"	3½"	6"	3'- 6"
18"	2'- 0"	2'-10"	3'- 7"	2'-2½"	3'-2½"	2'-9⅛"	0'-4⅜"	0'-7⅛"	4'-1"	3'-2⅛"	3'-4½"	3'-0⅝"	0'-7⅜"	1'-1⅛"	4'- 1"	2'- 0"	2'- 1"	3'- 0"	2'- 0"	3½"	6"	3'-11"
24"	~	~	~	2'-8⅛"	3'-3⅛"	3'-3⅛"	0'-7⅜"	1'-1⅛"	4'- 9"	3'-2⅛"	3'-11½"	3'-0⅝"	0'-7⅜"	1'-1⅛"	4'-8¼"	2'- 8"	2'- 9"	3'- 8"	2'- 6"	6½"	8¼"	4'- 7"
30"	~	~	~	3'-7¼"	4'-0¼"	3'-10⅛"	1'-0⅛"	1'- 9"	5'-10"	3'-5½"	4'-8⅜"	3'- 4"	0'- 8"	1'-1⅞"	5'-6⅞"	3'- 4"	3'- 6"	4'- 9"	3'- 0"	9⅞"	16½"	5'-10"
36"	~	~	~	4'-1⅞"	6'-0⅝"	4'-8⅞"	1'-4⅞"	2'-2¼"	6'-11⅛"	3'-11½	5'-8⅜"	3'-10"	0'-11"	1'-7⅛"	6'-7⅛"	3'-10"	4'- 0"	5'-10"	3'- 9"	1'- 2"	2'- 0"	6'-10"
42"	~	~	~	4'-5 "	7'-3¼"	5'- 0"	1'- 6"	2'-7⅜"	8'-0¼"	4'-6½"	7'-5⅝"	4'- 5"	1'-2½"	2'-1⅝"	8'-4⅜"	4'- 5"	4'- 6"	7'- 0"	4'- 3"	1'- 5"	2'-5½"	7'-11"
48"	~	~	~	5'- 0"	8'-2⅜"	5'- 7"	1'-9½"	3'-1¼"	9'-1¼"	5'-1½"	8'-6⅝"	5'- 0"	1'- 6"	2'-7⅜"	9'-5⅜"	5'- 0"	5'- 0"	8'- 2"	5'- 0"	1'-9½"	3'-1½"	9'- 2"
54"	~	~	~	5'- 7"	9'- 4"	6'- 2"	2'- 1"	3'-7½"	10'-2½"	5'-8½"	9'-7¾"	5'- 7"	1'-9½"	3'-4¼"	10'-6¼"	5'- 6"	5'- 6"	9'- 2"	5'- 6"	2'-0½"	3'-6½"	10'- 0"
60"	~	~	~	6'- 2"	1'-4⅛"	6'- 9"	2'-4½"	4'-1⅝"	11'-3¼"	6'-3½"	10'-8⅝"	6'- 2"	2'- 1"	3'-7⅜"	1'-7⅜"	6'- 0"	6'- 0"	10'- 3"	6'- 0"	2'-3½"	4'- 0"	11'- 1"

DATE	REVISION	BY
		DES. ____ REV. ____ TRA. ____ CHK. ____

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD DROP INLETS
(BUILT-IN-PLACE)

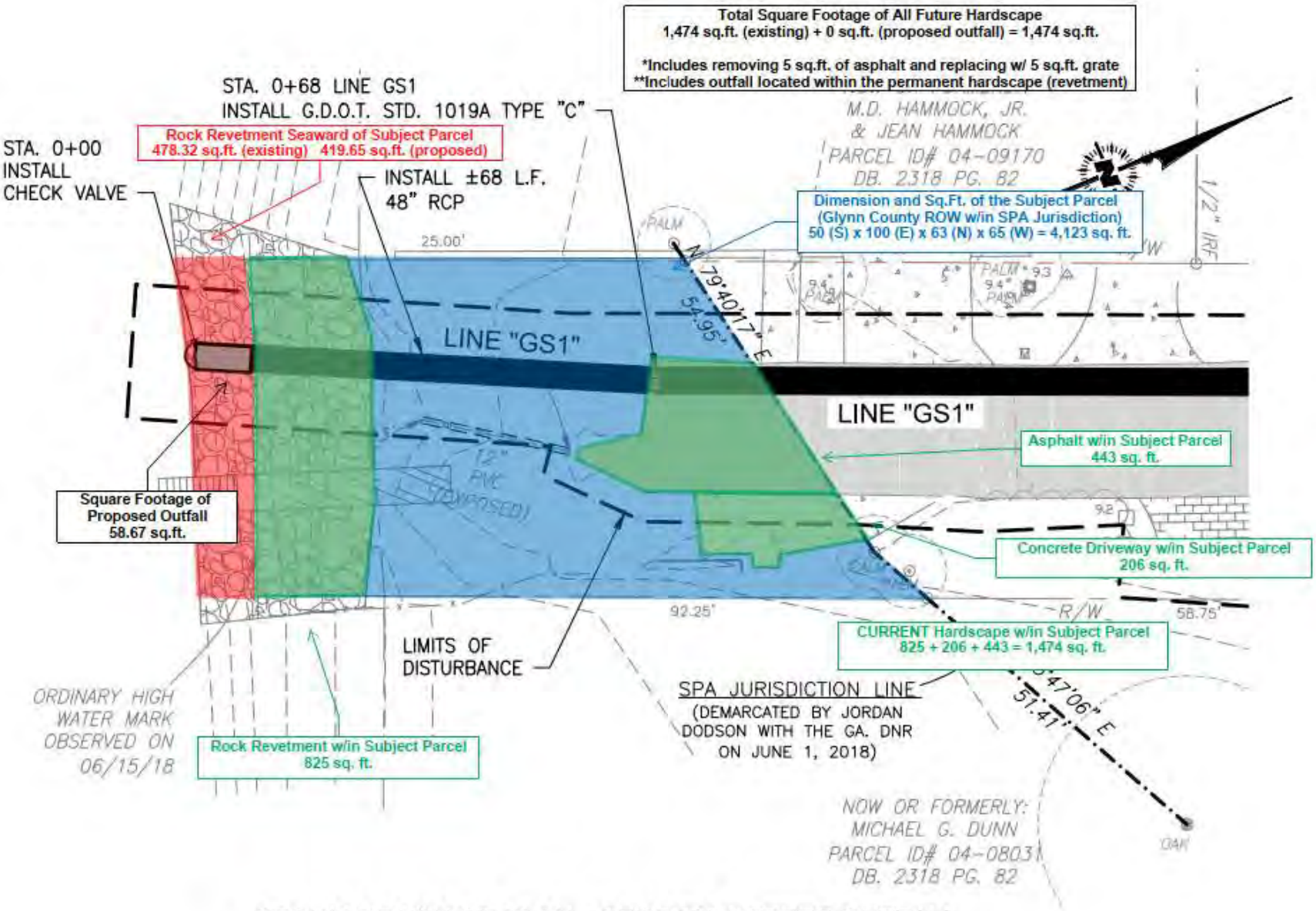
SCALE AS SHOWN

REV. & REDR. AUG., 1999

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) CHIEF ENGINEER

NUMBER 1019A



STORM DRAINAGE PLAN - GEORGIA STREET OUTFALL

SCALE: 1"=20'