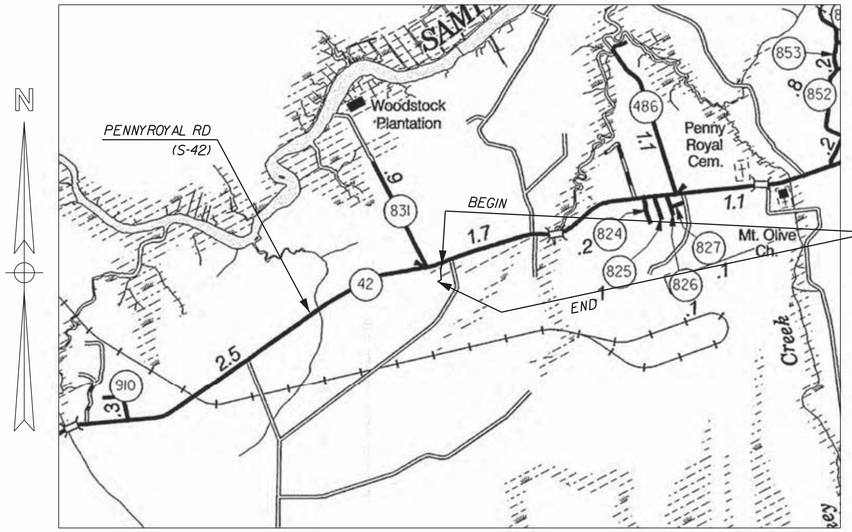
STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	ROUTE NO.	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE		1	

GEORGETOWN COUNTY DEPARTMENT OF PUBLIC SERVICES
DIVISION OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENTS FOR EVANS PLACE

INDEX OF SHEETS



LAYOUT
1" = 2640'

GEORGETOWN COUNTY

NET LENGTH OF ROADWAY	0.13	MILES
NET LENGTH OF OUTFALL	0.00	MILES
NET LENGTH OF PROJECT	0.13	MILES
LENGTH OF EXCEPTIONS	0.00	MILES
GROSS LENGTH OF PROJECT	0.13	MILES

NOTE: ALL WORKMANSHIP AND MATERIAL ON THIS PROJECT TO CONFORM WITH SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2007 EDITION), AND BOOK OF STANDARD DRAWINGS FOR ROAD CONSTRUCTION.

RAILROAD INVOLVEMENT?
YES / (NO)

NPDES PERMIT INFORMATION

NPDES Disturbed
Area = 0.6 Acres

Approximate Location of Roadway is:

Longitude 79°22'50.5" W
Latitude 33°20'36.4" N

Hydrology and NPDES Design provided by:

Davis & Floyd

3 DAYS BEFORE DIGGING IN
SOUTH CAROLINA

CALL 811

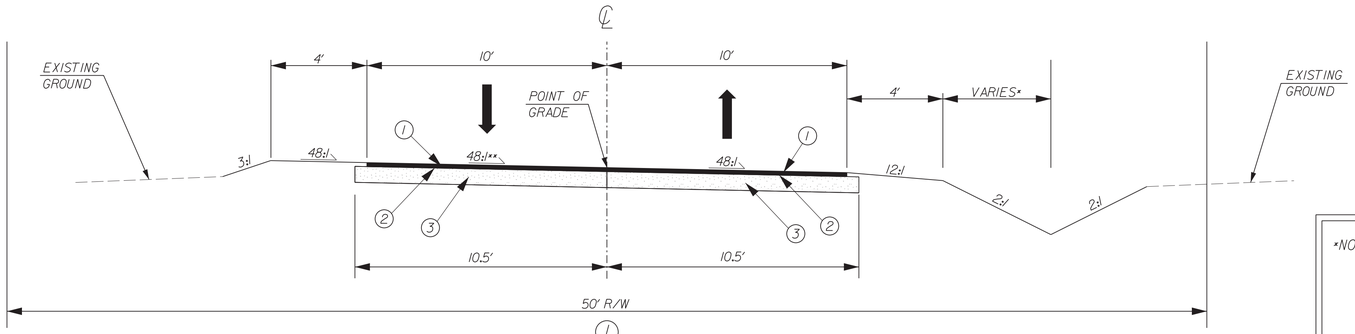
PALMETTO UTILITY PROTECTION SERVICES, INC. (PUPS)
ALL UTILITIES MAY NOT BE A MEMBER OF PUPS.

CONSULTING ENGINEERING FIRM	CONSULTANT - PROJECT ENGINEER
SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION DAVIS & FLOYD, INC. No. C00538	SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL
	Tilley Bull 2019.09.18 09:12:13 -04'00'

FOR CONSTRUCTION : _____ DATE

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	3	

TYPICAL SECTION
EVANS PLACE
GEORGETOWN COUNTY



① TWO LANE
TYPICAL SECTION
STA. 10+14.25 TO STA. 13+14.25

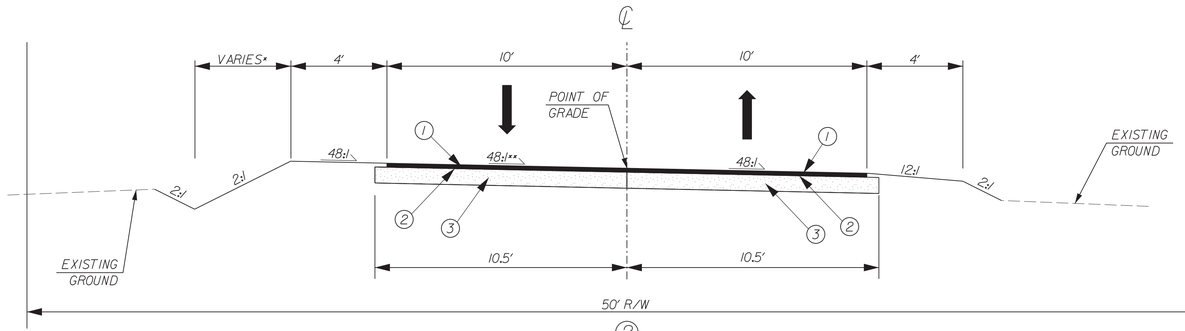
*NOTE: SPECIAL DITCH SECTION RIGHT
STA. 10+50 TO STA. 13+14.25

SPECIAL DITCH SECTIONS LEFT
STA. 13+21.60 TO STA. 16+80.78

SEE CROSS SECTIONS AND PROFILE

**NOTE: NORMAL CROWN
STA. 12+60.00 - STA. 14+50.00
USE 40' TRANSITIONS

WITHIN THE SCDOT R/W USE THE FOLLOWING PAVEMENT DESIGN
H/M ASPHALT CONCRETE SURFACE COURSE TYPE B (220#/SY)
H/M ASPHALT CONCRETE INTERMEDIATE COURSE TYPE B (440#/SY)
H/M ASPHALT CONCRETE BASE COURSE TYPE B (450#/SY)



② TWO LANE
TYPICAL SECTION
STA. 13+14.25 TO STA. 16+80.78

PAVEMENT LEGEND
① H/M ASPHALT CONCRETE SURFACE COURSE TYPE C (200#/SY)
② PRIME COAT
③ 8" GRADED AGGREGATE BASE COURSE

SOUTH CAROLINA
DAVIS & FLOYD, INC.
No. C00538
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 20214
GEORGE TILLEY BULL
Tilley Bull
2019.09.18
16:13:26 -04'00'

DAVIS & FLOYD
SINCE 1954
WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8602

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

TYPICAL SECTION

SCALE 1" = 3'

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	5	

GENERAL CONSTRUCTION NOTES:

THE CONTRACTOR MUST PERFORM ALL WORK IN ACCORDANCE WITH THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS FOR ROAD CONSTRUCTION (LATEST EDITION), SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION), SCDOT TRAFFIC SIGNAL SPECIFICATIONS, AND THE MUTCD, 2009 EDITION.

THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT THE TRANSFER OF SUSPENDED SOLIDS AND/OR CHEMICAL SOLUTIONS OFF-SITE, AND TO PREVENT EXCESSIVE SILTATION OF EXISTING DRAINAGE PIPES, CULVERTS, AND DITCHES. THE CONTRACTOR SHALL ROUTINELY INSPECT AND MAINTAIN THESE DEVICES. ALL CHECK DAMS AND RIPRAP SHOWN ARE CLASS B UNLESS OTHERWISE STATED.

THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE FACILITIES SHOWN ON THE PLANS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE UTILITIES INFORMATION SHOWN ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION OF ALL UTILITIES BEFORE CONSTRUCTION. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THAT THE PROPER COORDINATION WITH THE VARIOUS UTILITY OWNERS HAS BEEN PERFORMED. THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY DURING RELOCATION OPERATIONS.

THE LOCATION OF UTILITIES SHOWN IN THE PLANS SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS DESIGNATED BY A TEST HOLE. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.

THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, STORM DRAINS, UTILITIES AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR OR COORDINATE WITH UTILITY OWNERS TO REPAIR ANY DAMAGES DUE TO CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO THE OWNER.

THE CONTRACTOR SHALL NOT STORE ANY MATERIALS OR EQUIPMENT WITHIN 15 FT OF THE EDGE OF TRAVEL WAY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PERMISSION TO STORE EQUIPMENT ON ADJACENT PROPERTIES.

PIPE LENGTHS THAT ARE SHOWN ON THE PLANS ARE ROUNDED TO THE NEAREST 4' INCREMENT AND CALCULATED ALONG THE PIPE SLOPE FROM CENTER OF BOX TO CENTER OF BOX. FIELD ADJUSTMENTS OF THE ACTUAL PIPE LENGTHS MAY BE NECESSARY.

ANY COSTS ASSOCIATED WITH REMOVING EXISTING PIPE SHALL BE INCLUDED IN THE COST OF PLACING NEW PIPE.

FINAL SURFACE COURSE ON ALL ROADWAYS SHALL NOT BE PLACED UNTIL ALL DRAINAGE AND CURB AND GUTTER INSTALLATIONS ARE COMPLETE.

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PROPER DEWATERING PROCEDURES TO PREVENT THE FLOW AND ACCUMULATION OF SURFACE AND GROUND WATER IN EXCAVATED AREAS. ALL OF THE WATER PUMPED OR DRAINED SHALL BE DISPOSED OF WITHOUT UNDUE INTERFERENCE WITH OTHER WORK OR DAMAGE TO PAVEMENTS AND OTHER SURFACES OR PROPERTY. DISCHARGED WATER FROM ALL DEWATERING OPERATIONS SHALL BE FILTERED IN ACCORDANCE WITH SCDHEC OR OCRM REGULATIONS OR AS APPROVED BY THE ENGINEER. A PLAN FOR DEWATERING SHALL BE SUBMITTED TO THE RESIDENT CONSTRUCTION ENGINEER AND OCRM FOR APPROVAL PRIOR TO ANY WORK BEING PERFORMED WHERE DEWATERING IS REQUIRED. ONCE APPROVED AN ADDITIONAL COPY OF THE PLAN SHOULD BE PROVIDED TO GEORGETOWN COUNTY PUBLIC WORKS.

THE CONTRACTOR SHALL PROVIDE A DETAILED CONTRACTOR'S EROSION CONTROL PLAN TO THE RESIDENT CONSTRUCTION MANAGER FOR APPROVAL PRIOR TO COMMENCING ANY WORK ON THE PROJECT.

THE CONTRACTOR SHALL PROVIDE A DETAILED TRAFFIC CONTROL PLAN TO THE RESIDENT CONSTRUCTION MANAGER FOR APPROVAL BEFORE STARTING ANY WORK ON THE PROJECT. THIS PLAN SHALL INCLUDE DETAILS CONCERNING PLACEMENT OF REFLECTORIZED BARRELS, CONES, AND/OR TYPE 2 BARRICADES IN ACCORDANCE WITH THE 2009 MUTCD.

THE CONTRACTOR SHALL PROVIDE ALL SHEETING, SHORING, AND BRACING REQUIRED TO PROTECT ADJACENT STRUCTURES AND UTILITIES OR TO MINIMIZE TRENCH WIDTH AS REQUIRED. PAYMENT FOR SUCH MEASURES IS INCLUDED IN THE BID PRICE FOR THE ITEM BEING CONSTRUCTED.

WHERE STORM PIPES AND STRUCTURES ARE IDENTIFIED TO BE ABANDONED IN PLACE, THE FOLLOWING PROCEDURES SHALL BE UTILIZED:

PIPES: PLUG END(S) WITH BRICK AND GROUT.
STRUCTURES: REMOVE RIM/COVER AND CONE OR TOP SLAB.
PLUG PIPE OPENINGS WITH BRICK AND GROUT.
FILL STRUCTURE WITH FLOWABLE FILL TO BOTTOM OF PAVEMENT SECTION.
TEMPORARY ASPHALT IF NEEDED.

ANY COSTS ASSOCIATED WITH ABANDONING PIPES OR STRUCTURES SHALL BE INCLUDED IN THE COST OF PLACING NEW PIPE OR STRUCTURES ACCORDINGLY.

CONSTRUCTION SIGNS: CONSTRUCTION SIGN SETS SHALL BE PLACED ALONG BOTH APPROACHES OF THE ROADWAY INTERSECTING WITH THE PROJECT ROADWAY. ROAD WORK AHEAD AND DIRECTIONAL ARROW SIGNS ARE TO BE PLACED APPROXIMATELY 100' IN ADVANCE OF THE INTERSECTION OF THE ROAD UNDER CONSTRUCTION. END ROAD WORK SIGN SHOULD BE PLACED 50' AFTER THE SECOND INTERSECTION WITH THE PROJECT ROADWAY. DISCRETION SHOULD BE USED IN PLACEMENT OF THE SIGNS, NO SIGHTLINES FROM ROADWAYS OR DRIVEWAYS SHOULD BE AFFECTED BY THE PLACEMENT OF THE SIGNS.

W20-1-48-A
ROAD WORK AHEAD
M6-1-21
W20-1-48-5
ROAD WORK 500 FT
END ROAD WORK
G20-2-48

PAVE ALL DRIVEWAYS TO R/W LINE. UNLESS THE DRIVEWAY IS LABELED, THE STANDARD DRIVEWAY RADIUS IS 10'. THIS MAY BE MODIFIED PER DIRECTION OF THE ENGINEER TO FIT FIELD CONDITIONS.

THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS SHOWN ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING CONSTRUCTION.

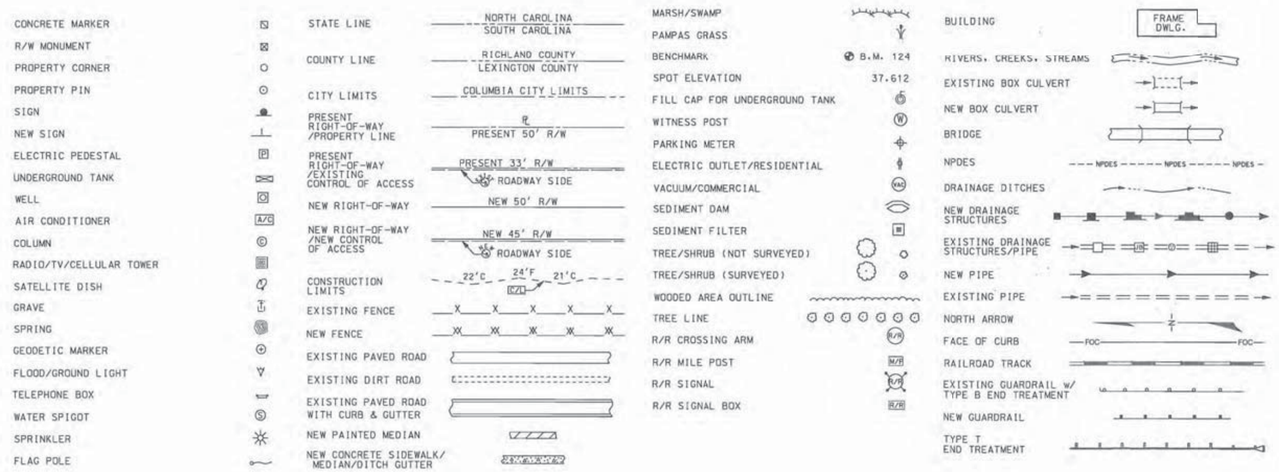
THE ENGINEER RESERVES THE RIGHT TO ADJUST THE LOCATION OF ALL PROPOSED IMPROVEMENTS TO MEET FIELD CONDITIONS IF NECESSARY.

STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

ALL DISTURBED AREAS SHALL BE SEEDED AFTER GRADING IS COMPLETE OR WITHIN 7 DAYS AFTER WORK STOPS IN AN AREA UNLESS WORK IS TO RESUME IN THAT AREA IN LESS THAN 21 DAYS.

NOTE:
1. SEE SCDOT STANDARD DRAWING NO. 625-305-00 FOR PAVEMENT MARKING DETAILS.
2. SEE SCDOT STANDARD DRAWING NO. 651-110-00 FOR FLAT SHEET MOUNTING DETAILS.
3. IF A SIGN MARKED TO BE RELOCATED IS DAMAGED BY THE CONTRACTOR, THE CONTRACTOR IS RESPONSIBLE FOR REPLACING THE SIGN.
4. CONTRACTOR IS TO SAW-CUT CONNECTIONS TO EXISTING ROADWAYS AND/OR DRIVEWAYS WHERE APPLICABLE.
5. CONTRACTOR IS TO PAVE DRIVEWAY APRONS TO RIGHT-OF-WAY LIMITS.

STANDARD SYMBOLS



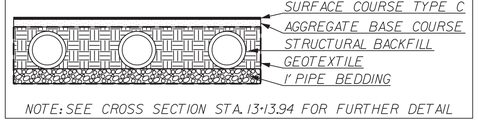
INCLUSION ITEMS

THE FOLLOWING QUANTITIES ARE NOT SHOWN IN DETAIL ON THE PLANS BUT ARE INCLUDED IN THE SUMMARY OF ESTIMATED QUANTITIES AND MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.

DESCRIPTION	UNIT	QUANTITY	DESCRIPTION
FINE GRADING	LS	NEC	WHERE DIRECTED BY ENGINEER
UNCLASSIFIED EXCAVATION	CY	250.000	FOR STRIPPING
BORROW EXCAVATION	CY	325.000	FILL FOR STRIPPING
NO. 57 STONE FOR BACKFILL[1]	TON	15.000	AS DIRECTED BY ENGINEER FOR PIPE BEDDING
MUCK EXCAVATION	CY	300.000	FOR UNSUITABLE MATERIAL
MAINTENANCE STONE	TON	20.000	WHERE DIRECTED BY ENGINEER
PERMANENT VEGETATION	MSY	2.141	FOR ALL DISTURBED AREAS
TEMPORARY VEGETATION	MSY	2.141	FOR ALL DISTURBED AREAS
PERMANENT CONSTRUCTION SIGNS (GROUND MOUNTED)	SF	86.000	WHERE DIRECTED BY ENGINEER
STABILIZED CONSTRUCTION ENTRANCE	SY	140.000	WHERE DIRECTED BY ENGINEER

1. IF NO. 57 STONE IS REQUIRED FOR PIPE BEDDING, IT SHOULD BE WRAPPED IN A GEOTECHNICAL FABRIC. ALL LABOR AND MATERIAL ASSOCIATED WITH WRAPPING THE STONE SHALL BE INCLUDED IN THE COST OF THE STONE.

TRIPLE CULVERT INSTALLATION TYPICAL SECTION
(NOT TO SCALE)



NOTE: SEE CROSS SECTION STA. 13+13.94 FOR FURTHER DETAIL

DAVIS & FLOYD, INC. SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION No. C00538

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BUIE
Tilley Buie 2019.09.18 16:12:37 -04'00'

DAVIS & FLOYD
SINCE 1954
WWW.DAVISFLOYD.COM
3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8902

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

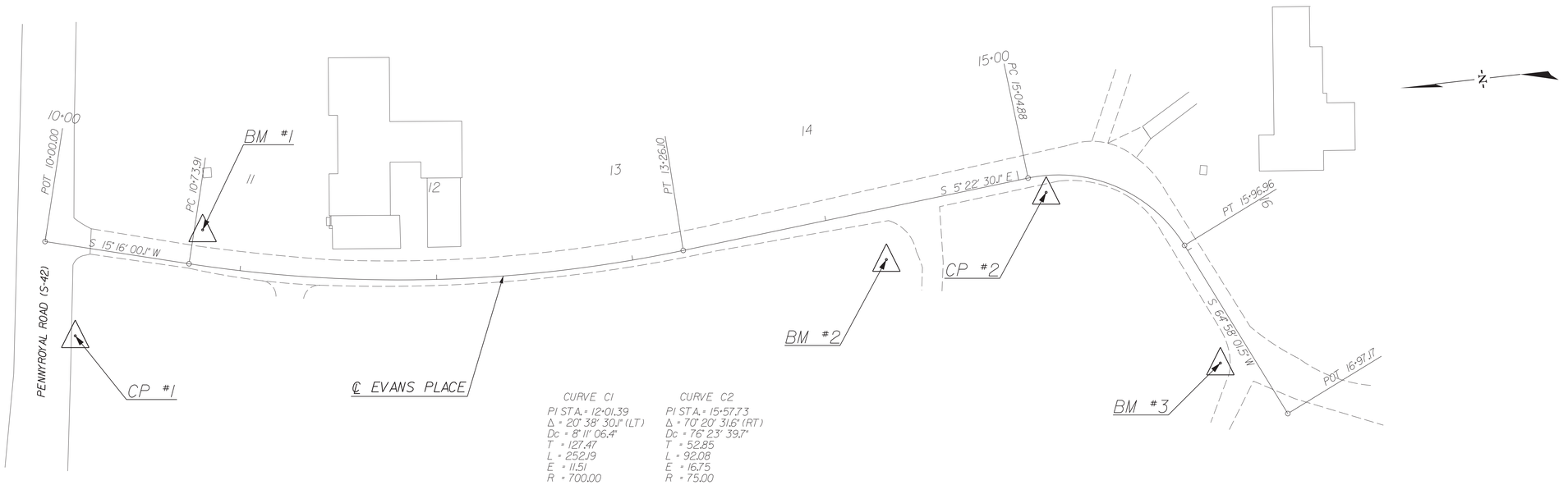
DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

GENERAL CONSTRUCTION NOTES

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	5A	



CURVE C1
PI STA. = 12+01.39
Δ = 20° 38' 30.1" (LT)
Dc = 8° 11' 06.4"
T = 127.47
L = 252.19
E = 11.51
R = 700.00

CURVE C2
PI STA. = 15+57.73
Δ = 70° 20' 31.6" (RT)
Dc = 76° 23' 39.7"
T = 52.85
L = 92.08
E = 16.75
R = 75.00

CONTROL POINTS

		NORTHING	EASTING	OFFSET	STATION
CP #1	REBAR AND CAP	553296.70	2494392.45	44.96' RT	10+22.45
CP #2	REBAR AND CAP	552799.10	2494409.20	8.56' RT	15+13.33

BENCHMARKS

		NORTHING	EASTING	ELEV.	OFFSET	STATION
BM #1	NAIL IN POLE	553226.42	2494438.59	13.16'	18.04' LT	10+78.22
BM #2	NAIL IN POLE	552883.45	2494384.41	10.88'	25.71' RT	14+26.01
BM #3	NAIL IN POLE	552721.03	2494313.02	13.83'	15.74' RT	16+57.42

Beginning chain EVANS description
==========

Point P1 N 553,306.5211 E 2,494,441.7341 Sta 10+00.00

Course from P1 to PC C1 S 15° 16' 00.07" W Dist 73.9140

Curve Data

Curve C1
P.I. Station 12+01.39 N 553,112.2393 E 2,494,388.7060
Delta = 20° 38' 30.14" (LT)
Degree = 8° 11' 06.40"
Tangent = 127.4748
Length = 252.1860
Radius = 700.0000
External = 11.5123
Long Chord = 250.8244
Mid. Ord. = 11.3261
P.C. Station 10+73.91 N 553,235.2156 E 2,494,422.2716
P.T. Station 13+26.10 N 552,985.3251 E 2,494,400.6471
C.C. N 553,050.8970 E 2,495,097.5691
Back = S 15° 16' 00.07" W
Ahead = S 5° 22' 30.07" E
Chord Bear = S 4° 56' 45.00" W

Course from PT C1 to PC C2 S 5° 22' 30.07" E Dist 178.7798

Curve Data

Curve C2
P.I. Station 15+57.73 N 552,754.7138 E 2,494,422.3448
Delta = 70° 20' 31.57" (RT)
Degree = 76° 23' 39.74"
Tangent = 52.8500
Length = 92.0776
Radius = 75.0000
External = 16.7503
Long Chord = 86.4029
Mid. Ord. = 13.6923
P.C. Station 15+04.88 N 552,807.3314 E 2,494,417.3941
P.T. Station 15+96.96 N 552,732.3510 E 2,494,374.4593
C.C. N 552,800.3058 E 2,494,342.7239
Back = S 5° 22' 30.07" E
Ahead = S 64° 58' 01.50" W
Chord Bear = S 29° 47' 45.72" W

Course from PT C2 to P2 S 64° 58' 01.50" W Dist 100.2121

Point P2 N 552,689.9473 E 2,494,283.6606 Sta 16+97.17

==========
Ending chain EVANS description

0 30 60 90 120

DAVIS & FLOYD, INC. CERTIFICATE OF AUTHORIZATION SOUTH CAROLINA No. C00538

REGISTERED PROFESSIONAL ENGINEER SOUTH CAROLINA No. 20214 GEORGE TILLEY BULL
Tilley Bull 2019.09.18 16:12:48 -04'00'

DAVIS & FLOYD
SINCE 1954
WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8902

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

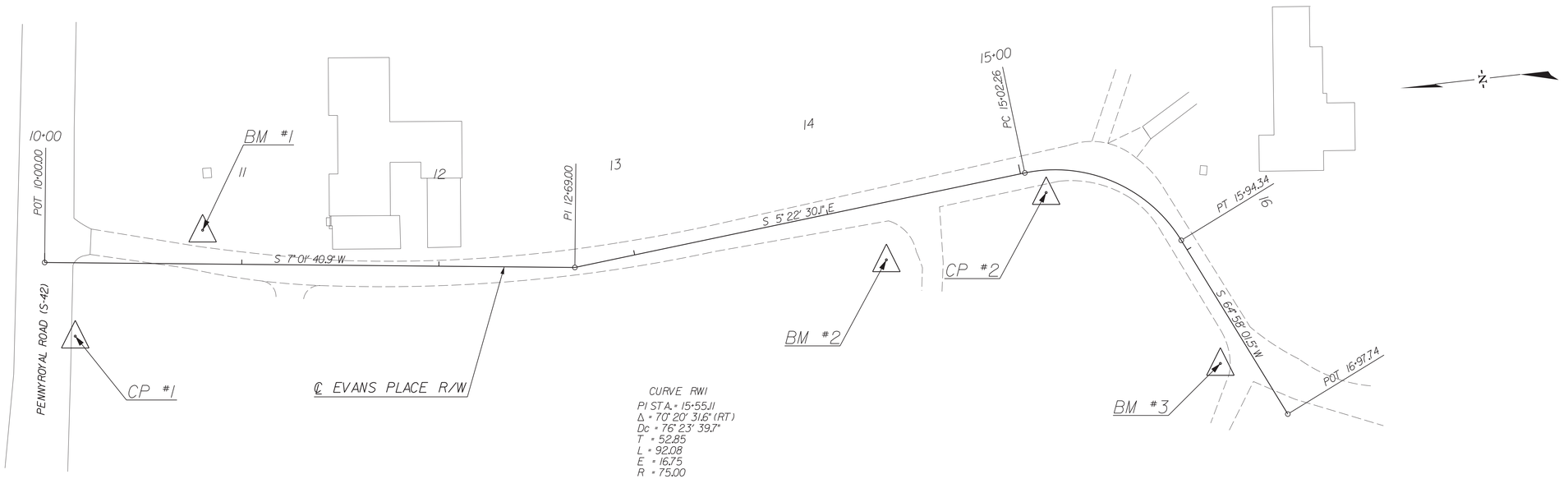
DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
REFERENCE DATA SHEET

SCALE 1"= 30'

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	5B	



CURVE RW1
PI STA. = 15+55.11
Δ = 70° 20' 31.6" (RT)
Dc = 76° 23' 39.7"
T = 52.85
L = 92.08
E = 16.75
R = 75.00

Beginning chain EVANS-RW description

Point RW1 N 553,307.8947 E 2,494,431.3436 Sta 10+00.00

Course from RW1 to RW2 S 7° 01' 40.91" W Dist 269.0012

Point RW2 N 553,040.9147 E 2,494,398.4300 Sta 12+69.00

Course from RW2 to PC RW1 S 5° 22' 30.07" E Dist 233.2610

Curve Data

Curve RW1
P.I. Station 15+55.11 N 552,756.0618 E 2,494,425.2312
Delta = 70° 20' 31.57" (RT)
Degree = 76° 23' 39.74"
Tangent = 52.8500
Length = 92.0776
Radius = 75.0000
External = 16.7503
Long Chord = 86.4029
Mid. Ord. = 13.6923
P.C. Station 15+02.26 N 552,808.6794 E 2,494,420.2806
P.T. Station 15+94.34 N 552,733.6990 E 2,494,377.3458
C.C. N 552,801.6538 E 2,494,345.6104
Back = S 5° 22' 30.07" E
Ahead = S 64° 58' 01.50" W
Chord Bear = S 29° 47' 45.72" W

Course from PT RW1 to RW3 S 64° 58' 01.50" W Dist 103.3978

Point RW3 N 552,689.9473 E 2,494,283.6606 Sta 16+97.74

Ending chain EVANS-RW description

CONTROL POINTS

		NORTHING	EASTING	OFFSET	STATION
CP #1	REBAR AND CAP	553296.70	2494392.45	37.23' RT	10+15.87
CP #2	REBAR AND CAP	552799.10	2494409.20	11.41' RT	15+12.37

BENCHMARKS

		NORTHING	EASTING	ELEV.	OFFSET	STATION
BM #1	NAIL IN POLE	553226.42	2494438.59	13.16'	17.16' LT	10+79.98
BM #2	NAIL IN POLE	552883.45	2494384.41	10.88'	28.71' RT	14+24.46
BM #3	NAIL IN POLE	552721.03	2494313.02	13.83'	15.74' RT	16+57.99

0 30 60 90 120

DAVIS & FLOYD, INC. SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION No. C00538

SOUTH CAROLINA REGISTERED PROFESSIONAL Engineering No. 20214 GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:13:00 -04'00'

DAVIS & FLOYD

SINCE 1954

WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
843.554.6602

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GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
REFERENCE DATA SHEET

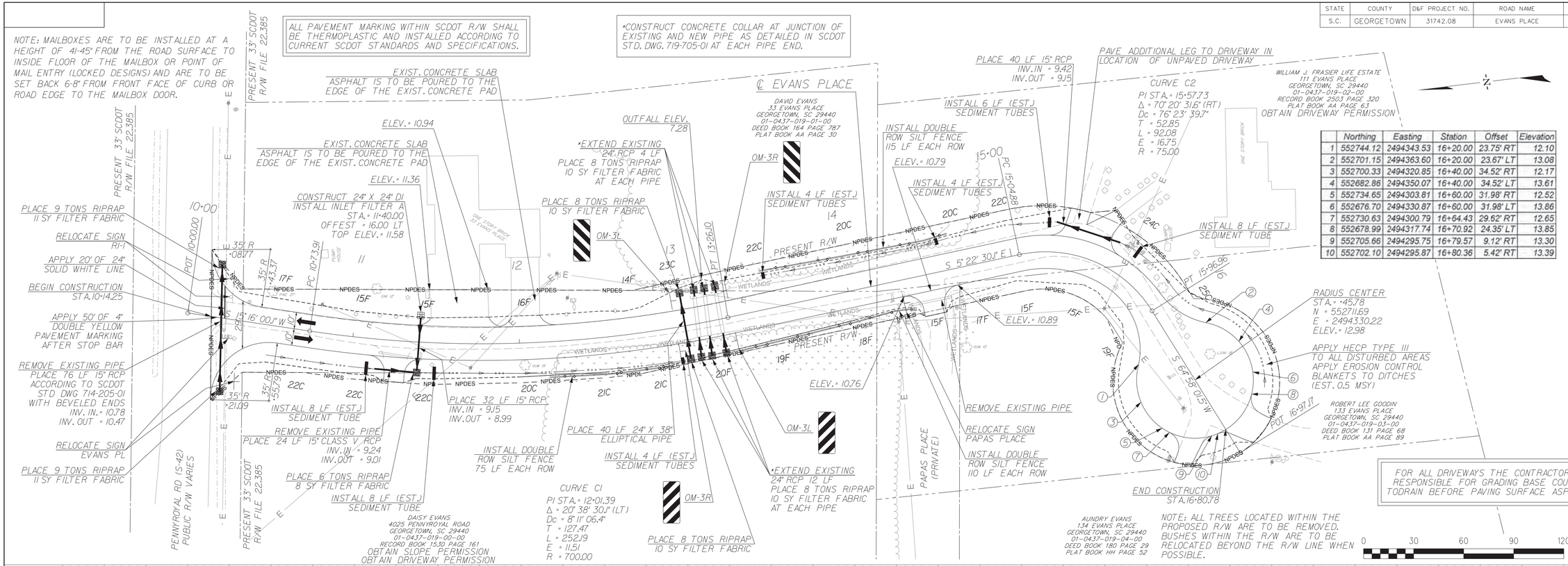
SCALE 1" = 30'

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	6	

NOTE: MAILBOXES ARE TO BE INSTALLED AT A HEIGHT OF 41-45" FROM THE ROAD SURFACE TO INSIDE FLOOR OF THE MAILBOX OR POINT OF MAIL ENTRY (LOCKED DESIGNS) AND ARE TO BE SET BACK 6-8" FROM FRONT FACE OF CURB OR ROAD EDGE TO THE MAILBOX DOOR.

ALL PAVEMENT MARKING WITHIN SCDOT R/W SHALL BE THERMOPLASTIC AND INSTALLED ACCORDING TO CURRENT SCDOT STANDARDS AND SPECIFICATIONS.

*CONSTRUCT CONCRETE COLLAR AT JUNCTION OF EXISTING AND NEW PIPE AS DETAILED IN SCDOT STD. DWG. 719-705-01 AT EACH PIPE END.



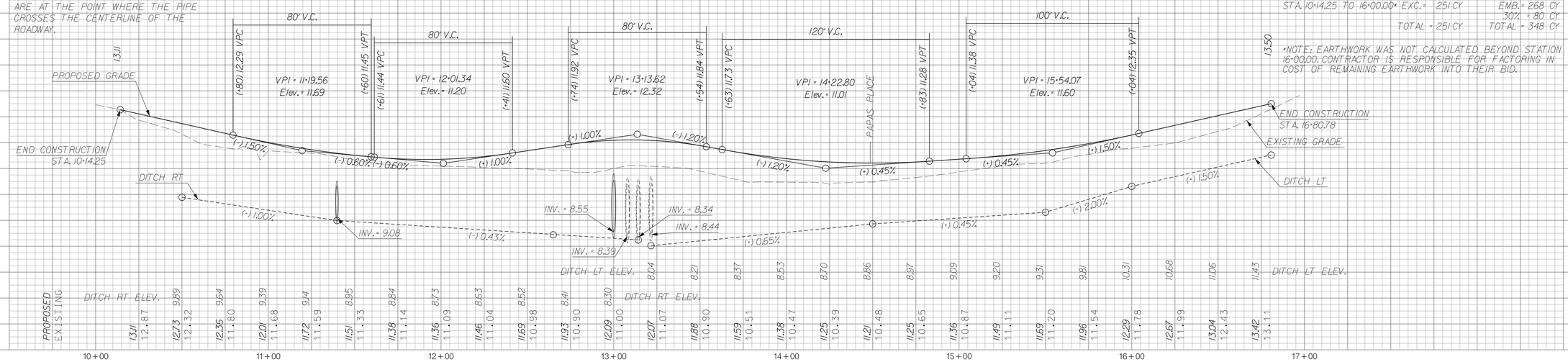
	Northing	Easting	Station	Offset	Elevation
1	552744.12	2494343.53	16+20.00	23.75' RT	12.10
2	552701.15	2494363.60	16+20.00	23.67' LT	13.08
3	552700.33	2494320.85	16+40.00	34.52' RT	12.17
4	552682.86	2494350.07	16+40.00	34.52' LT	13.61
5	552734.65	2494303.81	16+60.00	31.98' RT	12.52
6	552676.70	2494330.87	16+60.00	31.98' LT	13.86
7	552730.63	2494300.79	16+64.43	29.62' RT	12.65
8	552678.99	2494317.74	16+70.92	24.35' LT	13.85
9	552705.66	2494295.75	16+79.57	9.12' RT	13.30
10	552702.10	2494295.87	16+80.36	5.42' RT	13.39

FOR ALL DRIVEWAYS THE CONTRACTOR IS RESPONSIBLE FOR GRADING BASE COURSE TODRAIN BEFORE PAVING SURFACE ASPHALT.

NOTE: ALL TREES LOCATED WITHIN THE PROPOSED R/W ARE TO BE REMOVED. BUSHES WITHIN THE R/W ARE TO BE RELOCATED BEYOND THE R/W LINE WHEN POSSIBLE.

0 30 60 90 120

NOTE: PIPE INVERTS SHOW ON PROFILE ARE AT THE POINT WHERE THE PIPE CROSSES THE CENTERLINE OF THE ROADWAY.



EARTHWORK FOR EVANS PLACE
STA. 10+14.25 TO 16+00.00 EXC. = 251 CY EMB. = 268 CY
30% = 80 CY
TOTAL = 251 CY TOTAL = 348 CY

*NOTE: EARTHWORK WAS NOT CALCULATED BEYOND STATION 16+00.00. CONTRACTOR IS RESPONSIBLE FOR FACTORING IN COST OF REMAINING EARTHWORK INTO THEIR BID.

SOUTH CAROLINA DAVIS & FLOYD, INC. No. C00538 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Tilley Bull 2019.09.18 09:13:14 -04'00'

DAVIS & FLOYD

SINCE 1954

WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE CHARLESTON, SC 29418 (843) 554-6662

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

DGN. JJC DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
PLAN AND PROFILE SHEET

SCALE 1" = 30' HOR. 1" = 2' VER.

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	EC1	

OCRM STANDARD NOTES

1. If necessary, slopes which exceed eight (8) feet should be stabilized with synthetic or vegetative mats, in addition to hydroseeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed until the slope is brought to grade.

2. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased, except as stated below:
   - Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions stabilization measures must be initiated as soon as practicable.
   - Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated on that portion of the site.

3. All sediment and erosion control devices shall be inspected once every calendar week. If periodic inspection or other information indicates that a BMP has been inappropriately or incorrectly installed, the Permittee must address the necessary replacement or modification required to correct the BMP within 48 hours of identification.

4. Provide silt fence and or other control devices, as may be required, to control soil erosion during utility construction. All disturbed areas shall be cleaned, graded, and stabilized immediately after the utility installation. Fill, cover, and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove any sediments before being pumped back into any waters of the state.

5. All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and or offsite sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.

6. The contractor must take necessary action to minimize the tracking of mud onto paved roadway(s) from the construction area and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.

7. Residential subdivisions require erosion control features for infrastructure as well as for individual lot construction. Individual property owners shall follow these plans during construction or obtain approval of an individual plan in accordance with S.C. REG. 72-300 ET SEQ. and SCR100000.

8. Temporary diversion berms and or ditches will be provided as needed during construction to protect work areas from upslope runoff and or to divert sediment laden water to appropriate traps or stable outlets.

9. All waters of the state (WOS), including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 50-foot buffer can't be maintained between the disturbed area and all WOS. A 10-foot buffer should be maintained between the last row of silt fence and all WOS..

10. Litter, construction debris, oils, fuels, and building products with significant potential for impact (such as stockpiles of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from being a pollutant source in storm water discharges.

11. A copy of the SWPPP, inspections records, and rainfall data must be retained at the construction site or a nearby location easily accessible during normal business hours, from the date of commencement of construction activities to the date that final stabilization is reached.

12. Initiate stabilization measures on any exposed steep slope (3H:1V or greater) where land-disturbing activities have permanently or temporarily ceased, and will not resume for a period of 7 calendar days.

13. Minimize soil compaction and, unless infeasible, preserve topsoil.

14. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.

15. Minimize the discharge of pollutants from dewatering of trenches and excavated areas. These discharges are to be routed through appropriate BMPs (sediment basin, filter bag, etc.).

16. The following discharges from sites are prohibited:
   - Wastewater from washout of concrete, unless managed by an appropriate control;
   - Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
   - Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
   - Soaps or solvents used in vehicle and equipment washing.

17. After construction activities begin, inspections must be conducted at a minimum of at least once every calendar week and must be conducted until final stabilization is reached on all areas of the construction site.

18. If existing BMPs need to be modified or if additional BMPs are necessary to comply with the requirements of this permit and/or SC's Water Quality Standards, implementation must be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the SWPPP and alternative BMPs must be implemented as soon as reasonably possible.

19. A Pre-Construction Conference must be held for each construction site with an approved On-Site SWPPP prior to the implementation of construction activities. For non-linear projects that disturb 10 acres or more this conference must be held on-site unless the Department has approved otherwise.

SEEDING INSTALLATION

A. Seed all disturbed areas of construction (excluding riprap lined ditches).

B. No seeding should be undertaken in windy or unfavorable weather, when the ground is too wet to rake easily, when it is in a frozen condition, or too dry.

C. The subgrade of all areas to be seeded shall be raked and all rubbish, sticks, roots, and stones larger than 2 IN shall be removed.

D. Fertilizer shall be uniformly spread and disked or roto-tilled to a depth of at least 4 IN.

E. Immediately following this preparation the seed shall be uniformly applied and lightly raked into the surface. Lightly roll the surface and water with fine spray. Seed shall be applied, depending on the period of year, at the rates indicated in Section 810 of the SCDOT Standard Specifications for Highway Construction (Edition 2007).

All seeded areas shall be mulched with clean small-grain straw at a rate of 1½ to 2 tons per acre. Asphalt emulsion shall be applied uniformly at a rate of 300 GAL per acre to tack the mulch, unless otherwise shown on the plans. Mechanical tacking will be considered on a case-by-case basis as approved by the Engineer.

F. All seeded areas shall be watered and maintained in good condition. Reseeding shall be done if and when necessary until a good, healthy, uniform growth is established over the entire area seeded.

G. Slopes shall be protected against washouts by an approved method. Any washout which occurs shall be regraded and reseeded until good sod is established.

NARRATIVE DESCRIPTION

Ditches will be cut on both sides of the proposed roadway conveying stormwater to the crossline pipes. Sediment tubes and silt fence will be used in the proposed ditches and around the perimeter of the project disturbance area to control sediment leaving the project area. The topography of the project site is very flat. The soils on the project consist of Yauhannah loamy fine sand, an A/D hydrologic group soil, and Bladen loam, an C/D hydrologic group soil. There are 6 houses located on the properties adjacent to the project.

SEQUENCE OF CONSTRUCTION

A. Obtain all permits.

B. Contact the office of Ocean and Coastal Resource Management (OCRM) at (843)238-4528 prior to commencing construction activities.

C. Install sediment erosion controls as follows:

1. Silt Fences shall be used to prevent silt from leaving the limits of construction.
2. Stabilized Graveled Construction Entrances shall be used at locations where construction vehicles access public non-construction areas. Vehicles shall be washed down as necessary to prevent tracking of silt offsite.
3. A temporary rock filter dam or sediment tube shall be used as ditch checks as directed by the Engineer.
4. Adhere by all of the OCRM Standard Notes listed on the right of this sheet and install BMP's per the SCDOT Standard Drawings for Erosion Control.

D. A recommended sequence of construction follows:

1. Clear and grub only areas necessary for perimeter erosion and sediment control silt fence, hay bales, and temporary sediment traps.
2. Construct perimeter controls.
3. Construct new drainage appurtenances within the areas protected by perimeter controls.
4. Install protection around inlets and stabilize disturbed areas as soon as possible (within 7 calendar days).
5. Proceed with construction. Limit disturbed areas to areas with work in progress to limit disruption to traffic. Schedule work to maintain access to all driveways as long as possible.
6. Erosion controls may be removed after the area contributing flow to that particular erosion control device has been stabilized.
7. Stabilize all remaining areas.
8. Clean out temporary sediment control as needed; check controls every seven (7) days.
9. Remove sediment controls 30 days after all disturbed areas have stabilized.

STANDARD EROSION CONTROL DRAWINGS

DRAWING NO.	DRAWING DESCRIPTION	LATEST REVISION
804-305-01	OUTLET PROTECTION WITH NO DEFINED CHANNEL	7/2017
804-305-02	OUTLET PROTECTION WITH NO DEFINED CHANNEL	7/2017
804-305-03	OUTLET PROTECTION WITH NO DEFINED CHANNEL	7/2017
804-310-00	OUTLET PROTECTION WITH DEFINED CHANNEL	7/2017
815-001-01	TYPE A INLET STRUCTURE FILTERS	7/2017
815-205-00	SEDIMENT TUBE DITCH APPLICATION	7/2017
815-605-00	TEMPORARY EROSION & SEDIMENTATION CONTROL	7/2017

Copies of SCDOT Standard Drawings are available
at the following web address http://www.scdot.org/doing/sd_Disclaimer.aspx

SOUTH CAROLINA — DAVIS & FLOYD, INC. — No. C00538 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — No. 20214 — GEORGE TILLEY BULL — Tilley Bull 2018.09.18 16:13:26 -04'00'

DAVIS & FLOYD

SINCE 1954

WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8062

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
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2			
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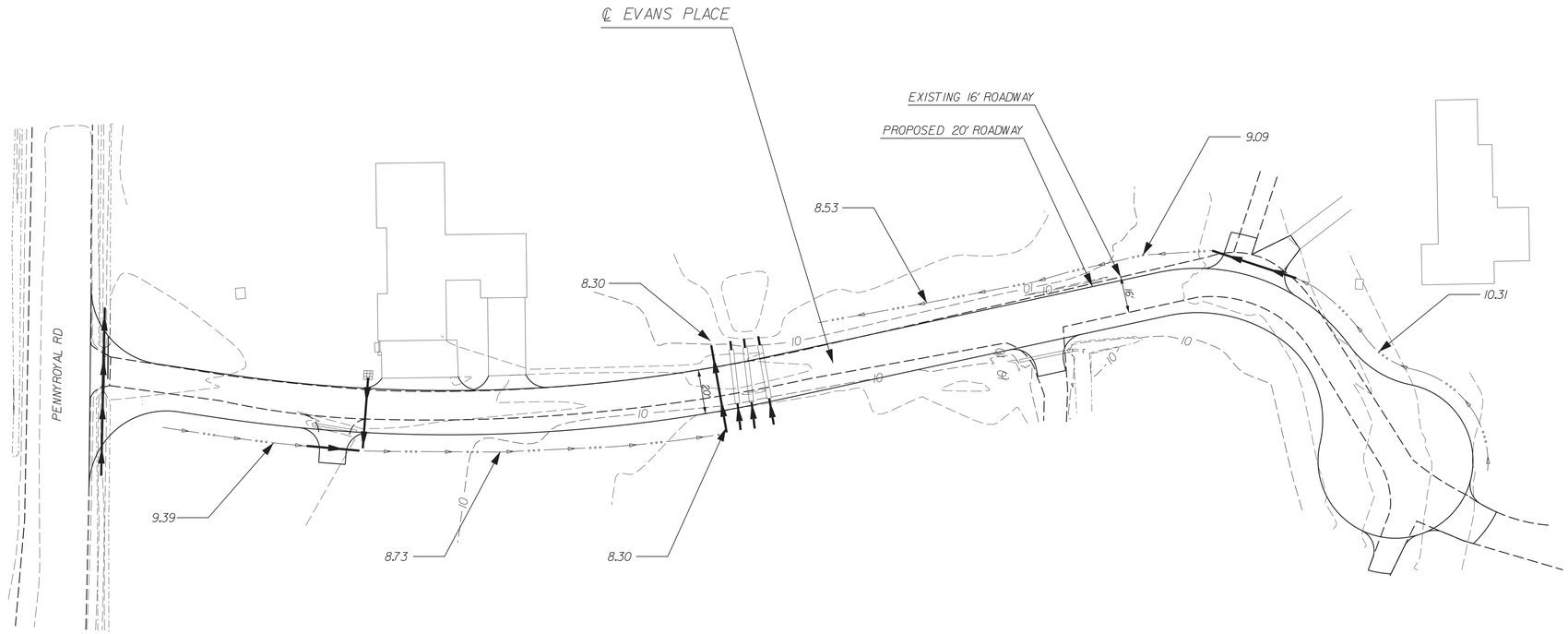
DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

EROSION CONTROL NOTES

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	EC2	



FOR PERMIT CONSIDERATION ONLY

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CHARLESTON, SC 29418
(843) 554-8062

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
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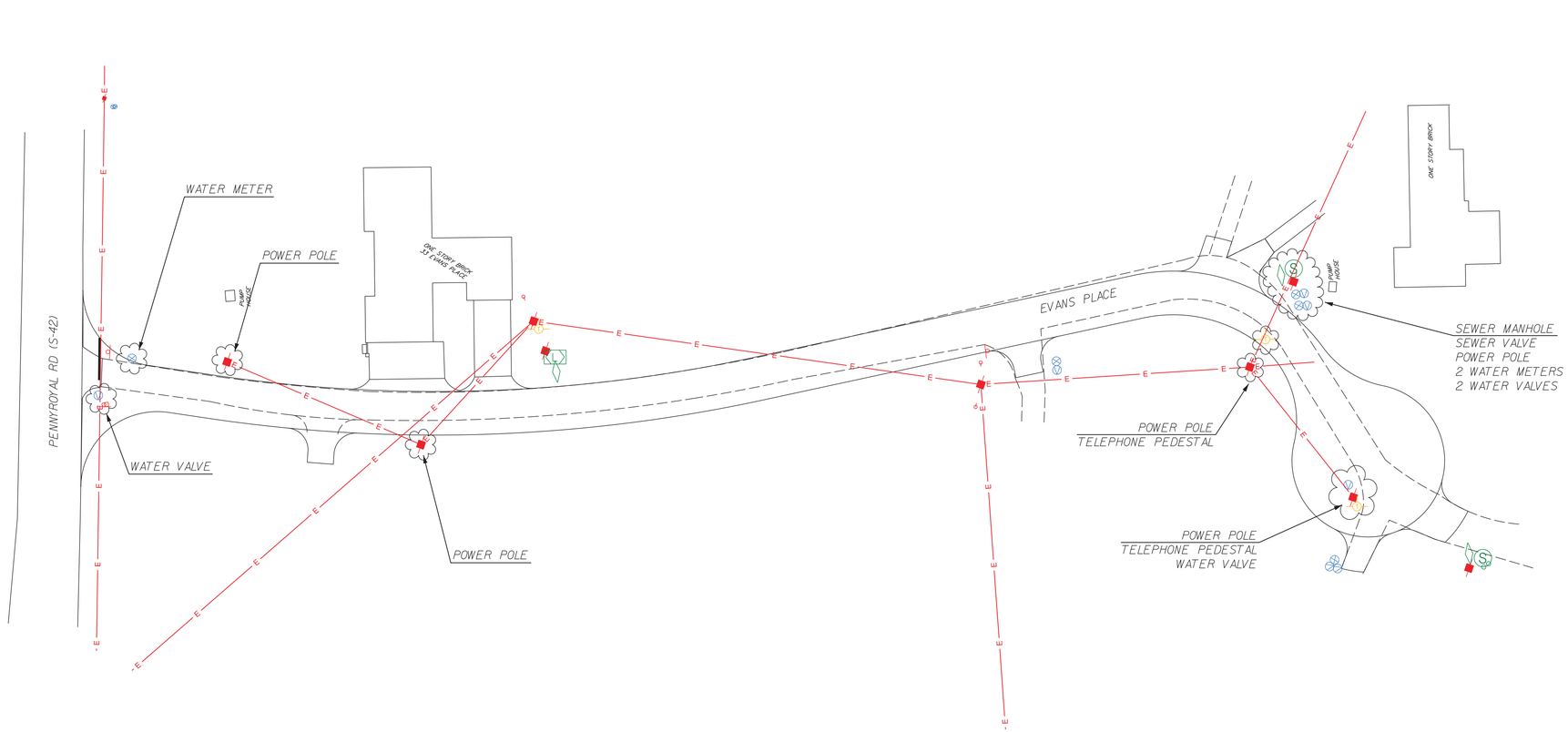
DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

SCALE 1" = 30'

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	U1	



NOTE: CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITIES TO FACILITATE RELOCATIONS. IF THERE ARE ANY DELAYS WITH THE RELOCATION WORK, CONTRACTOR IS TO PROMPTLY REPORT THEM TO PUBLIC WORKS.

FOR INFORMATION ONLY. CONTRACTOR SHALL CALL PUPS (811) BEFORE DIGGING

E	POWER
W	WATER
SS	SEWER
UTV	TELECOM
	CONFLICT OR POTENTIAL CONFLICT

L	SEWER LIFT STATION
S	SEWER MANHOLE
	SEWER VALVE
	UTILITY POLE
	WATER METER
V	WATER VALVE
T	TELEPHONE PEDESTAL

0 30 60 90 120

FOR UTILITY COORDINATION ONLY

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3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8902

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R/W DATE
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GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

UTILITIES SHEET

SCALE 1"= 30' HOR.

xsborder.dgn

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	X1	

EVANS PLACE

R/W
11.21
96:1
0.010 FT./FT.
11.69
10.98
0.021 FT./FT.
12:1
2:1
8.52
2:1
R/W
WETLAND
3
12+50.00
18
14
22

END R.C.
BEGIN TRANS.
STA.12+20.00

R/W
11.04
12:1
0.021 FT./FT.
11.36
11.09
0.021 FT./FT.
12:1
2:1
8.73
2:1
R/W
12
12+00.00
6
32
7

R/W
11.50
12:1
0.021 FT./FT.
11.51
11.33
0.021 FT./FT.
12:1
2:1
8.95
2:1
R/W
22
11+50.00
2
9
1

R/W
11.84
3:1
48:1
0.021 FT./FT.
12.00
11.68
0.021 FT./FT.
12:1
2:1
9.39
2:1
R/W
23
11+00.00
2
35
8

R/W
12.12
3:1
48:1
0.021 FT./FT.
12.73
12.32
0.021 FT./FT.
12:1
2:1
9.89
2:1
R/W
15
10+50.00
7
16
53

BEGIN CONSTRUCTION
STA.10+14.25

END N.C.
BEGIN TRANS.
STA.14+50.00

R/W
2:1
8.86
WETLAND
12:1
0.021 FT./FT.
11.21
10.48
0.021 FT./FT.
12:1
2:1
10.35
R/W
8
14+50.00
4
11
12

R/W
2:1
8.53
WETLAND
12:1
0.021 FT./FT.
11.38
10.47
0.021 FT./FT.
12:1
2:1
9.02
WETLAND
R/W
4
14+00.00
9
6
34

R/W
2:1
8.21
WETLAND
12:1
0.021 FT./FT.
11.88
10.89
0.021 FT./FT.
12:1
2:1
8.72
WETLAND
R/W
2
13+50.00
28
2
31

STRUCTURAL BACKFILL EMBANKMENT SLOPE SHALL BEGIN 2' BEYOND THE EDGE OF PAVEMENT AND BE SLOPED AT 1:1. STRUCTURAL BACKFILL SHALL BE WRAPPED IN GEOTEXTILE FABRIC AS SHOWN ON SHEET 6

7.47
R/W
2:1
12:1
0.021 FT./FT.
12.10
11.41
0.021 FT./FT.
12:1
2:1
8.44
WETLAND
WETLAND
R/W
13+13.94

END TRANS.
BEGIN N.C.
STA.12+60.00

R/W
2:1
8.30
WETLAND
12:1
0.021 FT./FT.
12.09
11.80
0.021 FT./FT.
12:1
2:1
8.30
WETLAND
R/W
9
13+00.00
27
5
23

DAVIS & FLOYD, INC.
No. C005138
GEORGETOWN, SOUTH CAROLINA
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 20214
GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:44:44 -04'00'

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STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	X2	

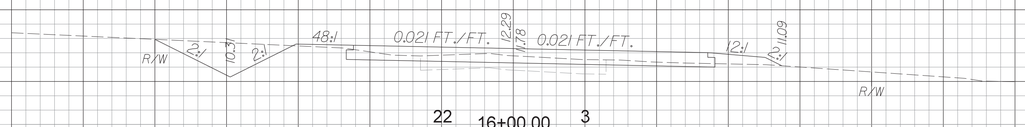
EVANS PLACE

DAVIS & FLOYD, INC. No. C005.38 GEORGIA CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:44:20 -04'00'

BEGIN CONSTRUCTION
STA.16+80.78



22 16+00.00 3

32 5

11 15+50.00 4

22 10

13 15+00.00 7

14 10

END TRANS.
BEGIN R.C.
STA.14+90.00

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STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D01	

PERMANENT SEEDING - COASTAL

SPECIES	LBS/Ac	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	10 LBS/Ac												
BAHIAGRASS	40 LBS/Ac												
BROWNTOP MILLET	10 LBS/Ac												
BAHIAGRASS	30 LBS/Ac												
SERICEA LESPEDEZA	40 LBS/Ac												
BROWNTOP MILLET	10 LBS/Ac												
ATLANTIC COASTAL	15 LBS/Ac												
PANICGRASS	PLS												
BROWNTOP MILLET	10 LBS/Ac												
SWITCHGRASS	8 LBS/Ac												
(ALAMO)	PLS												
LITTLE BLUESTEM	4 LBS/Ac												
SERICEA LESPEDEZA	20 LBS/Ac												
BROWTOP MILLET	10 LBS/Ac												
WEEPING LOVEGRASS	8 LBS/Ac												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	10 LBS/Ac												
BAHIAGRASS	40 LBS/Ac												
RYE, GRAIN	10 LBS/Ac												
BAHIAGRASS	40 LBS/Ac												
CLOVER, CRIMSON	5 LBS/Ac												
(ANNUAL)													
BROWTOP MILLET	10 LBS/Ac												
BAHIAGRASS	30 LBS/Ac												
SERICEA LESPEDEZA	40 LBS/Ac												
BROWTOP MILLET	10 LBS/Ac												
BERMUDA, COMMON	10 LBS/Ac												
SERICEA LESPEDEZA	40 LBS/Ac												
BROWNTOP MILLET	10 LBS/Ac												
BERMUDA, COMMON	12 LBS/Ac												
KOBE LESPEDEZA	10 LBS/Ac												
(ANNUAL)													
BROWNTOP MILLET	10 LBS/Ac												
BAHIAGRASS	20 LBS/Ac												
BERMUDA, COMMON	6 LBS/Ac												
SERICEA LESPEDEZA	40 LBS/Ac												
BROWNTOP MILLET	10 LBS/Ac												
SWITCHGRASS	8 LBS/Ac												
LITTLE BLUESTEM	PLS												
INDIANGRASS	3 LBS/Ac												
	PLS												
	3 LBS/Ac												
	PLS												

TEMPORARY SEEDING - COASTAL

SPECIES	LBS/Ac	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	40 LBS/Ac												
RYE, GRAIN	56 LBS/Ac												
RYEGRASS	50 LBS/Ac												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET OR	40 LBS/Ac												
JAPANESE MILLET													
RYE, GRAIN OR	56 LBS/Ac												
OATS	75												
RYEGRASS	50 LBS/Ac												

NOTES:

1) *ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.*

2) *FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.*

SOUTH CAROLINA — DAVIS & FLOYD, INC. — No. C00538 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — REGISTERED PROFESSIONAL — No. 20214 — GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:44:00 -04'00'

DAVIS & FLOYD

SINCE 1954

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R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

SEEDING SCHEDULE

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D02	

NOTES:

1) ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.

2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.

PAVEMENT MARKING TYPICAL
STANDARD MARKINGS FOR INTERSECTIONS

ADDITIONAL GUIDANCE THROUGH INTERSECTIONS

- THE PATTERN ILLUSTRATED BELOW IS TO BE USED TO EXTEND MARKINGS THROUGH LARGE INTERSECTIONS WHERE ADDITIONAL GUIDANCE IS NEEDED.

- THE ABOVE MARKINGS SHOULD ALWAYS BE USED TO GUIDE AND SEPARATE TRAFFIC WHERE COMPOUND TURNING MANEUVERS OCCUR. SUCH MARKINGS WILL BE SHOWN ON THE PLANS WHERE NEEDED.
- THE BROKEN LINES ARE TO BE THE SAME COLOR AS THE LINE THEY EXTEND.

STOPLINES

- ALL STOPLINES ARE TO BE MARKED WITH 24" SOLID WHITE LINES.
- WHERE CROSSWALK MARKINGS EXIST, STOPLINES SHOULD BE PLACED IN ADVANCE OF, AND PARALLEL TO, THE NEAREST CROSSWALK LINE. A MINIMUM DISTANCE OF 4' SHOULD EXIST BETWEEN THE CROSSWALK AND STOPBAR.
- IN THE ABSENCE OF A MARKED CROSSWALK, THE STOPLINE SHOULD BE PLACED AT A DISTANCE OF NO LESS THAN 4 FEET AND NO MORE THAN 30 FEET FROM THE PAVEMENT EDGE OF THE INTERSECTING ROUTE.

APPLICATION OF MARKINGS AT INTERSECTIONS

1. STOP LINES ARE TO BE APPLIED AT ALL SIGNALIZED INTERSECTIONS.
2. AT NON-SIGNALIZED INTERSECTIONS, THE ROADWAYS WHICH MUST STOP ARE TO HAVE STOPLINES IF CENTERLINES ARE PRESENT.
3. WHERE STOPLINES ARE USED, LANE LINES AND CENTER LINES WILL TERMINATE AT THE STOPLINE. THEY DO NOT EXTEND ACROSS STOPLINES NOR DO THEY TERMINATE PRIOR TO STOPLINES. LOCATION OF STOPLINES SHOULD BE DETERMINED PRIOR TO MARKING LONGITUDINAL LINES.
4. LANE LINES TERMINATING AT A STOPLINE SHOULD NOT BE LESS THAN 10 FEET IN LENGTH, HOWEVER THEY MAY BE LONGER. THE LAST LANE LINE WILL BE 10-40 FEET LONG.

*** THE FOLLOWING PROCEDURE WILL AID IN THIS DETERMINATION:***

a. MARK A SPOT 50 FEET IN ADVANCE OF STOPLINE OF EACH LANE LINE APPROACH.

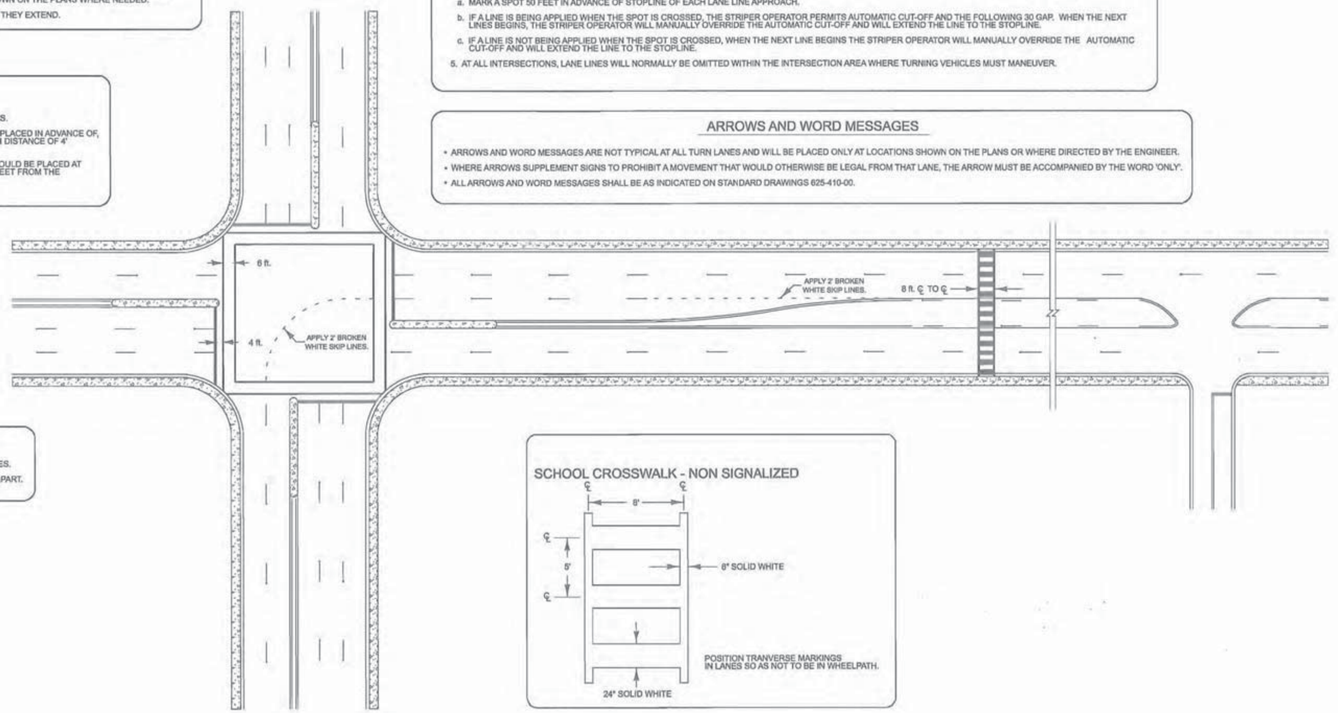
b. IF A LINE IS BEING APPLIED WHEN THE SPOT IS CROSSED, THE STRIPER OPERATOR PERMITS AUTOMATIC CUT-OFF AND THE FOLLOWING 30 GAP. WHEN THE NEXT LINES BEGINS, THE STRIPER OPERATOR WILL MANUALLY OVERRIDE THE AUTOMATIC CUT-OFF AND WILL EXTEND THE LINE TO THE STOPLINE.

c. IF A LINE IS NOT BEING APPLIED WHEN THE SPOT IS CROSSED, WHEN THE NEXT LINE BEGINS THE STRIPER OPERATOR WILL MANUALLY OVERRIDE THE AUTOMATIC CUT-OFF AND WILL EXTEND THE LINE TO THE STOPLINE.

5. AT ALL INTERSECTIONS, LANE LINES WILL NORMALLY BE OMITTED WITHIN THE INTERSECTION AREA WHERE TURNING VEHICLES MUST MANEUVER.

ARROWS AND WORD MESSAGES

- ARROWS AND WORD MESSAGES ARE NOT TYPICAL AT ALL TURN LANES AND WILL BE PLACED ONLY AT LOCATIONS SHOWN ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER.
- WHERE ARROWS SUPPLEMENT SIGNS TO PROHIBIT A MOVEMENT THAT WOULD OTHERWISE BE LEGAL FROM THAT LANE, THE ARROW MUST BE ACCOMPANIED BY THE WORD 'ONLY'.
- ALL ARROWS AND WORD MESSAGES SHALL BE AS INDICATED ON STANDARD DRAWINGS 625-410-00.



CROSSWALKS

- ALL CROSSWALKS ARE TO BE MARKED WITH 8" SOLID WHITE LINES.
- CROSSWALK LINES ARE TO BE SPACED NOT LESS THAN 6 FEET APART.

THIS DRAWING IS NOT TO SCALE

SOUTH CAROLINA — DAVIS & FLOYD, INC. — No. C00538 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — No. 20214 — GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:43:40 -04'00'

DAVIS & FLOYD

SINCE 1954

WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8602

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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3			
2			
1			

DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
PAVEMENT MARKINGS DETAIL

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	003	

NOTES:

1) ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.

2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.

TABLE 815-605A

HEIGHT OF FILL (y) IN FEET	FILL SLOPE	MINIMUM SILT FENCE OFFSET FROM TOE OF SLOPE (x) IN FEET	MINIMUM RIGHT OF WAY OFFSET FROM TOE OF SLOPE (NPDES LINE) (z) IN FEET	CHECK LENGTH IN FEET**
<6	2:1 4:1 6:1	2	3	2
6-10	2:1	12*	13*	5
	4:1 6:1	3	4	3
>10	2:1	12*	13*	5
	4:1 6:1	4	5	4

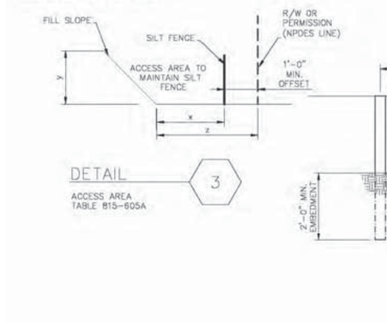
*THESE MINIMUM OFFSETS MAY BE REDUCED WHEN CURB AND GUTTER OR SOME OTHER FEATURE REDUCES THE FLOW OF WATER DOWN THE SLOPE. THE SMALL OFFSETS OF EACH GROUP OF HEIGHT OF FILL CANNOT BE REDUCED.

**SILT FENCE CHECKS WILL HAVE A MAXIMUM LENGTH OF FIVE (5) FEET OR UNTIL THEY TIE BACK INTO THE SLOPE.

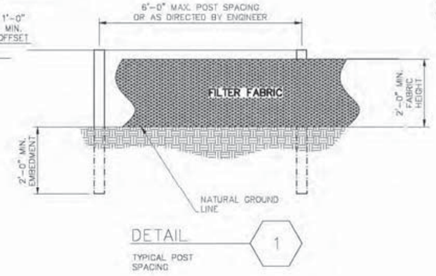
SEE 815-605-10 FOR TEMPORARY DIVERSION DIKE

SEE 815-605-20 FOR TEMPORARY SILT DITCH

SEE 815-605-30 FOR ROLLED EROSION CONTROL PRODUCT



DETAIL 3
ACCESS AREA TABLE 815-605A



DETAIL 1
TYPICAL POST SPACING

NOTES:
1. SILT FENCE CHECKS MUST BE LOCATED EVERY 100 FEET MAXIMUM AND AT LOW POINTS. FILTER FABRICS SHALL CONFORM TO SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

2. USE POSTS CONFORMING TO SCDOT STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. POSTS SHALL BE A MINIMUM OF 5 FEET LONG AND INSTALLED TO A MINIMUM DEPTH OF 24 INCHES WITH NO MORE THAN 3 FEET OF THE POST ABOVE GROUND. AT LEAST 1 TO 2 INCHES OF THE POSTS SHALL EXTEND ABOVE THE TOP OF THE FABRIC. POST SPACING WILL BE A MAXIMUM OF 6 FEET ON CENTER .

3. POSTS SHALL HAVE PROJECTIONS FOR FASTENING THE FABRIC TO THE POST. POSTS SHALL ALSO HAVE A SOIL PLATE NEAR THE BOTTOM OF THE POST, EXCEPT WHEN HEAVY CLAY SOILS ARE PRESENT ON-SITE.

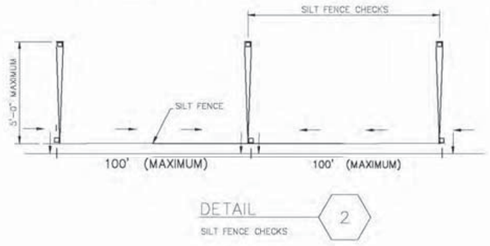
4. ATTACH FABRIC TO POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN ALL CASES TIES SHOULD BE AFFIXED IN NO LESS THAN 4 PLACES.

5. SILT SHALL BE REMOVED AND DISPOSED OF WHEN SILT ACCUMULATES TO ½ THE HEIGHT OF THE FENCE. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON-SITE. MAINTENANCE OF SILT FENCE WILL BE MEASURED AND PAID FOR BY THE ITEM OF REMOVAL OF SILT RETAINED BY SILT FENCE.

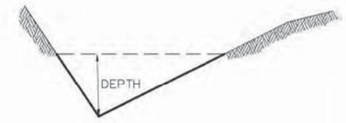
6. TYPICAL SILT FENCE APPLICATIONS REQUIRE 24 INCHES OF THE FABRIC TO BE ABOVE GROUND. WHEN NEEDED, THE HEIGHT OF SILT FENCE FABRIC ABOVE THE GROUND MAY BE GREATER THAN 24". SEE PLANS FOR APPLICATION OF HIGHER SILT FENCE, PAY ITEMS, AND INSTALLATION METHODS.

7. IN TIDAL AREAS, EXTRA SILT FENCE MAY BE REQUIRED. THE LENGTH OF POST WILL BE TWICE THE EXPOSED POST HEIGHT. POST SPACING WILL REMAIN AS SHOWN HEREIN. EXTRA HEIGHT FABRIC WILL BE 4, 5, OR 6 FEET TOTAL WIDTH.

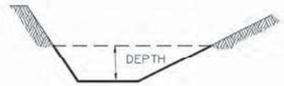
8. PAY ITEMS:
815300O SILT FENCE _____ LF
815300S SILT FENCE EXTRA HEIGHT _____ LF
8153090 REPLACE/REPAIR SILT FENCE _____ LF
8154050 REMOVAL OF SILT RETAINED BY SILT FENCE _____ LF



DETAIL 2
SILT FENCE CHECKS



DETAIL 9
ROLLED EROSION CONTROL V DITCH



DETAIL 10
ROLLED EROSION CONTROL FLAT BOTTOM DITCH

NOTES:

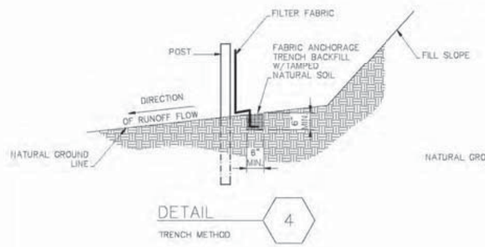
1. THE DEPTH OF THE EROSION CONTROL PRODUCTS ARE TO BE DETERMINED BY DESIGN AND PLACED ON PLAN SHEETS.

2. INSTALL IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

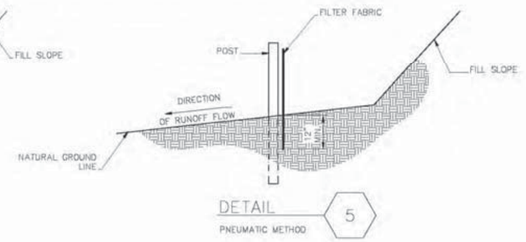
3. COST OF INSTALLATION AND MATERIALS SHALL BE INCLUDED IN THE PAY ITEM FOR ROLLED EROSION CONTROL PRODUCT.

4. PAY ITEMS:
8151150 TEMPORARY EROSION CONTROL BLANKET (ECB) _____ SY
8151151 TURF REINFORCEMENT MATTING (TRM) TYPE 1 _____ SY
8151152 TURF REINFORCEMENT MATTING (TRM) TYPE 2 _____ SY
8151153 TURF REINFORCEMENT MATTING (TRM) TYPE 3 _____ SY

12 INCHES OF THE FABRIC SHALL BE BURIED REGARDLESS, IF PLACED PNEUMATICALLY OR WITH A TRENCHER. BOTH METHODS SHOWN BELOW.



DETAIL 4
TRENCH METHOD



DETAIL 5
PNEUMATIC METHOD

NOT TO SCALE

DAVIS & FLOYD, INC. SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION No. C00538

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

, Tilley Bull
2019.09.18
16:43:21 -04'00'

DAVIS & FLOYD

SINCE 1954

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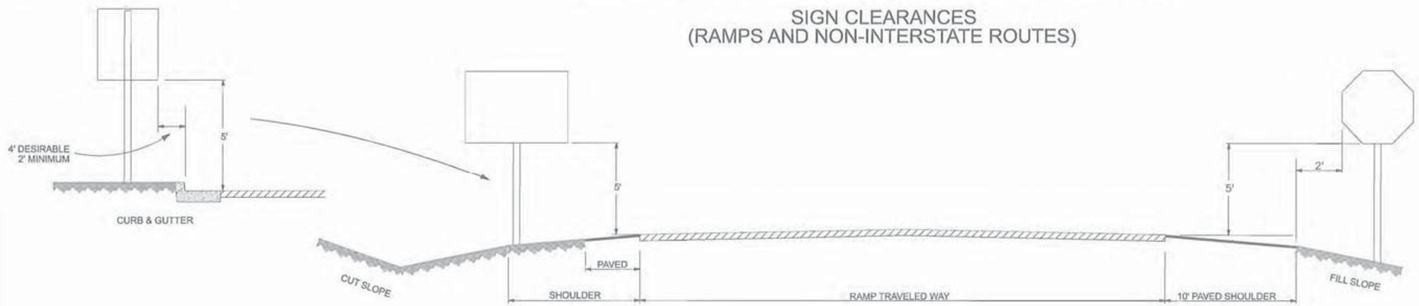
GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
TEMPORARY SILT FENCE AND ROLLED EROSION CONTROL PRODUCT DETAILS

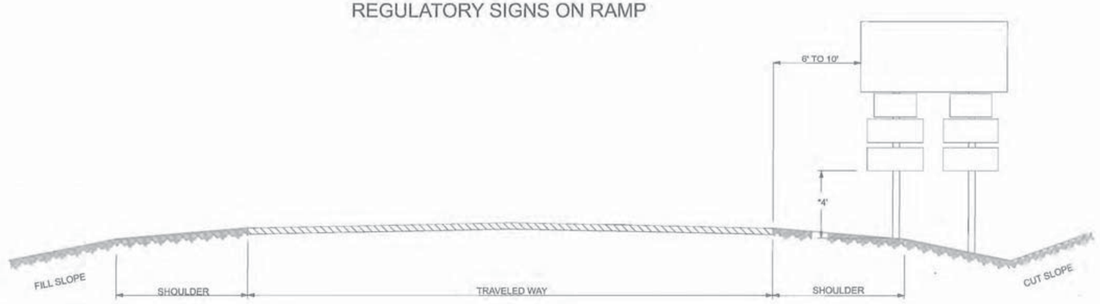
STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D04	

TYPICAL INSTALLATION GUIDE (2)

SIGN CLEARANCES (RAMPS AND NON-INTERSTATE ROUTES)

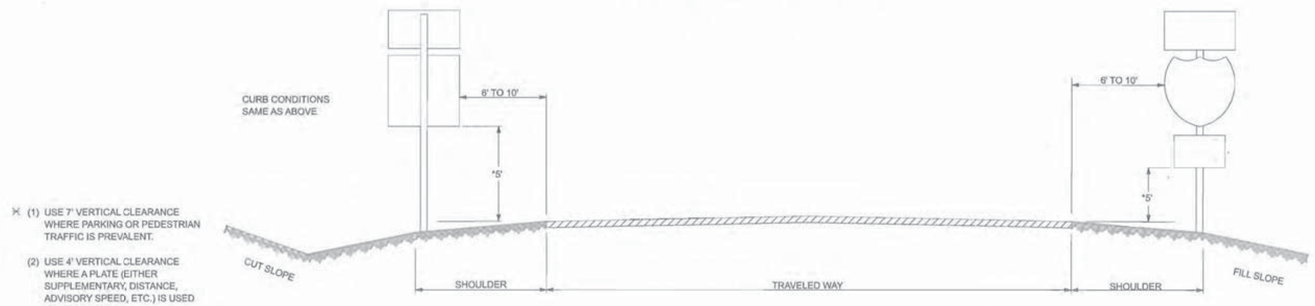


REGULATORY SIGNS ON RAMP



* (1) USE 4' VERTICAL CLEARANCE WHERE A PLATE (EITHER SUPPLEMENTARY, DISTANCE, ADVISORY SPEED, ETC.) IS USED UNDER A SIGN.

DESTINATION SIGNS ON RAMPS



* (1) USE 7' VERTICAL CLEARANCE WHERE PARKING OR PEDESTRIAN TRAFFIC IS PREVALENT.

(2) USE 4' VERTICAL CLEARANCE WHERE A PLATE (EITHER SUPPLEMENTARY, DISTANCE, ADVISORY SPEED, ETC.) IS USED UNDER A SIGN.

CROSS ROADS AND FRONTAGE ROADS

NOTES:

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SOUTH CAROLINA — DAVIS & FLOYD, INC. — No. C00538 — CERTIFICATE OF AUTHORIZATION

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GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

SIGN INSTALLATION DETAIL

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	005	

NOTES:

1) ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.

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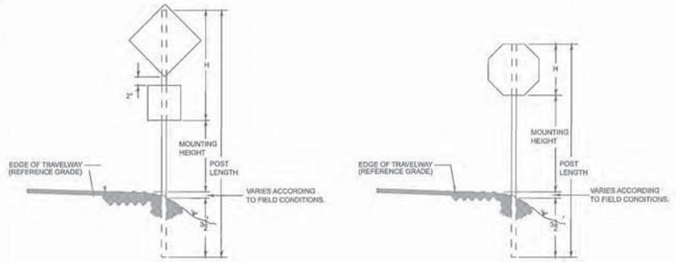
FLAT SHEET SIGN MOUNTING DETAILS



SIGNS MOUNTED ON FREEWAY RAMPS AND CONVENTIONAL ROADS

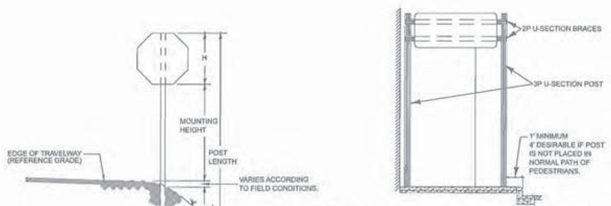
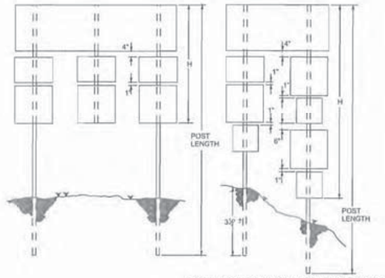


ILLUSTRATION OF SIGN ASSEMBLY SPANNING SIDEWALK

NOTE:

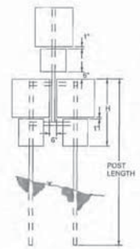
THE PURPOSE OF SPANNING THE SIDEWALK IS TO PROVIDE AN UNOBSTRUCTED WAY FOR PEDESTRIANS, AND AT THE SAME TIME LOCATE SIGNS WITHIN RIGHT-OF-WAY, WITH GOOD VISABILITY FOR TRAFFIC. EACH INSTALLATION MUST BE INDIVIDUALLY PLANNED AND CONSTRUCTED TO ACCOMPLISH THIS PURPOSE. THE PROJECT ENGINEER SHOULD APPROVE THE CONTRACTORS PLAN FOR SUPPORTING SIGNS SPANNING SIDEWALKS BEFORE THEY ARE ERECTED.



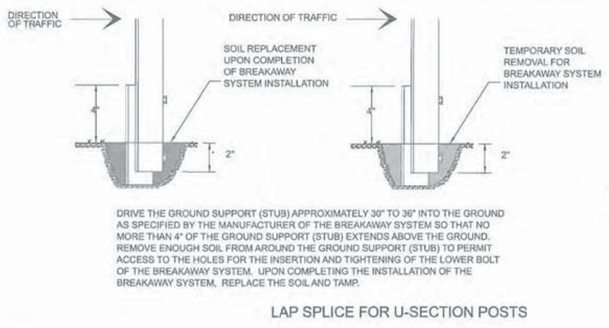
THIS TABLE GIVES APPROXIMATE POST LENGTH FOR NORMAL CONDITIONS. WHEN CUT OR FILL SECTIONS ARE SIGNIFICANT, POST LENGTH SHALL BE ADJUSTED ACCORDINGLY.

WHEN H IS	LESS THAN 2'	2' TO 2'-11"	3' TO 3'-11"	4' TO 4'-11"	5' AND LONGER
POST LENGTH (FT) FOR 5' MOUNTING HGT.	12'	13'	14'	H PLUS 10'	

NOTE: ADD 2' TO POST LENGTH FOR 7' MOUNTING HEIGHT.



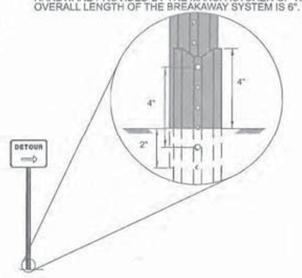
NOTE:
POST LENGTHS NOT SHOWN OR THIS SHEET ARE SHOWN ON THE PLAN SHEETS.



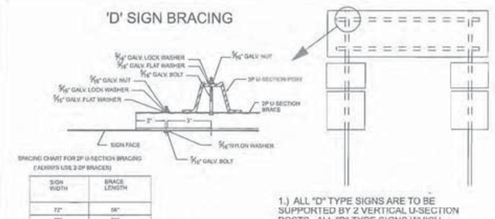
DRIVE THE GROUND SUPPORT (STUB) APPROXIMATELY 30" TO 36" INTO THE GROUND AS SPECIFIED BY THE MANUFACTURER OF THE BREAKAWAY SYSTEM SO THAT NO MORE THAN 4" OF THE GROUND SUPPORT (STUB) EXTENDS ABOVE THE GROUND. REMOVE ENOUGH SOIL FROM AROUND THE GROUND SUPPORT (STUB) TO PERMIT ACCESS TO THE HOLES FOR THE INSERTION AND TIGHTENING OF THE LOWER BOLT OF THE BREAKAWAY SYSTEM. UPON COMPLETING THE INSTALLATION OF THE BREAKAWAY SYSTEM, REPLACE THE SOIL AND TAMP.

LAP SPLICE FOR U-SECTION POSTS

BOLTS MUST BE 4" APART. THE GROUND SUPPORT (STUB) SHALL NOT EXTEND HIGHER THAN 4" ABOVE THE GROUND. ATTACH THE SIGN SUPPORT TO THE BACK OF THE GROUND SUPPORT (STUB) WITH THE APPROPRIATE HARDWARE PROVIDED BY THE MANUFACTURER OF THE BREAKAWAY SYSTEM. OVERALL LENGTH OF THE BREAKAWAY SYSTEM IS 6".



'D' SIGN BRACING



SPACING CHART FOR 2P U-SECTION BRACING (ALWAYS USE 2 2P BRACES)

SIGN WIDTH	BRACE LENGTH
72"	56"
78"	60"
84"	64"
90"	68"
96"	72"
102"	76"
108"	80"
114"	84"
120"	88"
126"	92"
138"	100"
144"	104"
150"	108"
156"	112"

1.) ALL "D" TYPE SIGNS ARE TO BE SUPPORTED BY 2 VERTICAL U-SECTION POSTS. ALL "D" TYPE SIGNS WHICH ARE 6' WIDE OR WIDER WILL BE HORIZONTALLY BRACED WITH 2, 2P U-SECTION POSTS. ADDITIONALLY, ANY ASSEMBLY OF SIGNS ATTACHED BETWEEN VERTICAL SUPPORTS WILL BE ATTACHED WITH A PRESCRIBED LENGTH OF U-SECTION POST.

2.) ALL 2P POSTS USED AS CENTER VERTICAL MEMBERS IN SIGN ASSEMBLIES SHALL HAVE HOLES ON 1" CENTERS FOR ENTIRE LENGTH.

SIZE & LENGTH OF U-SECTION POSTS FOR SINGLE SIGNS

POST QUANTITY, SIZE & LENGTH FOR INSTALLATIONS HAVING MORE THAN ONE SIGN ARE SHOWN ON THE PLANS

SIGN NO.	NO. OF POSTS	POST SIZES 5' MTG. HT. LBS./FT.	5' MTG. HT. LGTH.	7' MTG. HT. LBS./FT.	7' MTG. HT. LGTH.
R1-1-24	1	3P	12	3P	14
R1-1-30	1	3P	12	3P	14
R1-1-48	2	3P	14	3P	16
R1-2-36	1	3P	12	3P	14
R1-2-48	2	3P	13	3P	15
R2-1-24	1	3P	12	3P	14
R2-1x-24	1	3P	12	3P	14
R2-1x-48	2	3P	13	3P	17
R2-6-24	1	3P	12	3P	14
R4-1-24	1	3P	12	3P	14
R4-2-24	1	3P	12	3P	14
R4-3-24	1	3P	12	3P	14
R4-3-36	2	3P	14	3P	16
R4-4-42	2	3P	14	3P	16
R5-1-30	1	3P	12	3P	14
R5-1-36	2	3P	13	3P	15
R5-1a-36	2	3P	12	3P	14
R5-10a-30	1	3P	13		
R6-1-36	1	3P	10	3P	12
R9-4-36	2	3P	12	3P	14
R8-8-42	2	3P	13	3P	14
W1-1-24	1	3P	12	3P	14
W1-1-36	1	3P	14	3P	16
W1-2-30	1	3P	13	3P	15
W1-2-36	1	3P	14	3P	16
W1-3-30	1	3P	13	3P	15
W1-3-36	1	3P	14	3P	16
W1-4-30	1	3P	13	3P	15
W1-4-36	1	3P	14	3P	16
W1-5L-30	1	3P	13	3P	15
W1-6-48	2	3P	12	3P	14
W1-7-48	2	3P	17	3P	14
W2-1-24	1	3P	12	3P	14
W2-1-30	1	3P	13	3P	15
W2-1-36	1	3P	14	3P	16
W2-3-24	1	3P	12	3P	14
W2-5-30	1	3P	13	3P	15
W3-1-36	1	3P	14	3P	16
W3-2-36	1	3P	14	3P	16
W3-1-36	1	3P	14	3P	16
W5-1-36	1	3P	14	3P	16
W5-2-36	1	3P	14	3P	16
W5-3-30	1	3P	13	3P	15
W14-1-24	1	3P	12	3P	14
W14-1-30	1	3P	13	3P	15
W6-4-48	2	3P	14	3P	16
W16-1-36	1	3P	13	3P	15

SIGN NO.	NO. OF POSTS	POST SIZES 5' MTG. HT. LBS./FT.	5' MTG. HT. LGTH.	7' MTG. HT. LBS./FT.	7' MTG. HT. LGTH.
W3-1-24	1	3P	12	3P	14
W3-1-30	1	3P	13	3P	15
W3-1-36	1	3P	14	3P	16
W3-1-24	1	3P	12	3P	14
W3-1-30	1	3P	13	3P	15
W3-1-36	1	3P	14	3P	16
W3-2-36	1	3P	14	3P	16
W3-3-30	1	3P	13	3P	15
W3-3-36	1	3P	14	3P	16
W3-4-48	2	3P	16	3P	18
W3-5-30	1	3P	13	3P	15
W3-5-36	1	3P	14	3P	16
W4-1-36	1	3P	14	3P	16
W4-2-36	1	3P	14	3P	16
W4-3-48	2	3P	16	3P	18
W5-1-48	2	3P	16	3P	18
W13-2-48	2	3P	16	3P	18

SIGN NO.	NO. OF POSTS	POST SIZES 5' MTG. HT. LBS./FT.	5' MTG. HT. LGTH.	7' MTG. HT. LBS./FT.	7' MTG. HT. LGTH.
THE FOLLOWING TO BE MOUNTED AT 4' HT.					
D10-1-12-XX	1	2P	10		
D10-2-12-XX	1	2P	11		
D10-3-13-XX	1	2P	12		
THE FOLLOWING TO BE MOUNTED AT 5' HT.					
R1-2-60	2	3P			
R4-3-48	2	3P			
R4-4-48	2	3P			
R11-1-48	2	3P			
W13-2-48	2	3P			

NOTE:

POST LENGTHS SHOWN IN THIS CHART ARE GENERAL AND SHOULD BE USED FOR BID PURPOSES ONLY. CONTRACTOR IS REQUIRED TO VERIFY FIELD CONDITIONS TO DETERMINE EXACT LENGTHS OF POSTS NEEDED.

DELINEATOR POSTS SHALL BE 2P U-SECTION POST 72" LONG.

SOUTH CAROLINA DAVIS & FLOYD, INC. No. C00538 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:42:48 -04'00'

DAVIS & FLOYD

SINCE 1954

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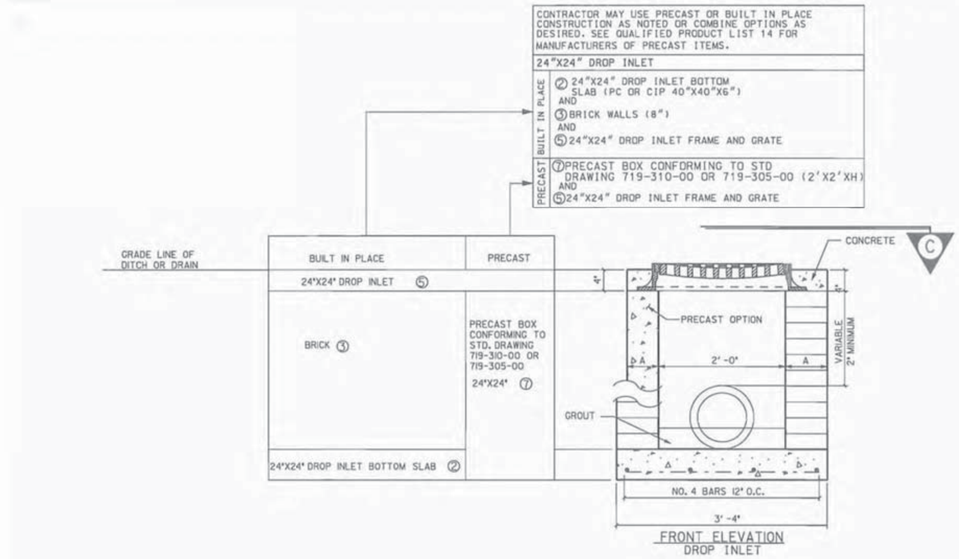
GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

SIGN MOUNTING DETAIL

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D06	



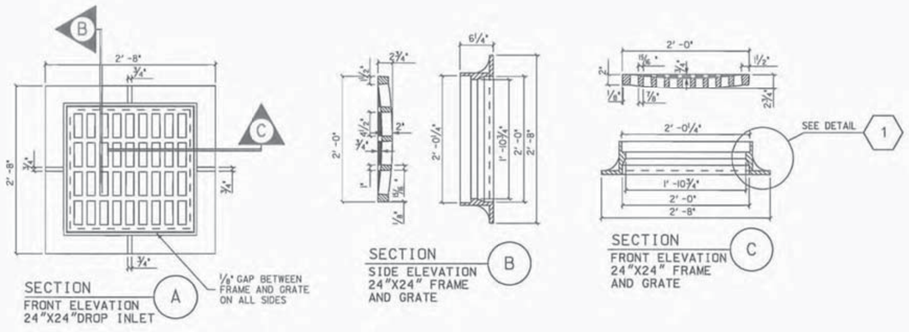
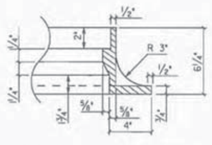


TABLE 719-105B
STANDARD PC ITEMS FOR DROP INLET
(24"X24") DROP INLET BOTTOM SLAB (PC OR CIP 40"X40"X6") SEE ALSO STD. DRAWING 719-310-00 OR 719-305-00

TABLE 719-105A		
24"X24" DROP INLET		
DIMENSION	BUILT IN PLACE OPTION	PRECAST
A	8"	6"
B	24"	SEE STD. DRAWING 719-305-00 AND 719-310-00 (2'X2'XH) PRECAST BOX
C	3'-4"	SEE STD. DRAWING 719-305-00 AND 719-310-00 (2'X2'XH) PRECAST BOX

USE SHEETS 719-105-01 THROUGH 719-105-02 FOR THIS ITEM.
THIS DRAWING IS NOT TO SCALE



NOTES:
1. SEE 719-110-01 FOR DROP INLET (24"X 36"). FOR BUILT IN PLACE CONSTRUCTION OF THE CATCH BASIN WALLS, EITHER BRICK MASONRY (WALLS ONLY) OR CIP CLASS 3000 CONCRETE MAY BE USED. FOR PRECAST CONSTRUCTION, A MINIMUM OF CLASS 4000P CONCRETE SHALL BE USED.

2. CONCRETE WALLS ARE TO BE 6" THICK WITH A MINIMUM REINFORCING STEEL AREA 0.20 SQUARE INCHES PER FOOT UNLESS NOTED. FOR BRICK, THE WALLS ARE TO BE 8" THICK CONCRETE BRICK AND SIMILAR SOLID UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 55, GRADE S-11. THE INTERIOR DIMENSIONS ARE TO REMAIN AS SHOWN FOR EITHER TYPE OF CONSTRUCTION.

3. THE BOTTOM SLAB OF THE BOX SHALL BE A MINIMUM OF 6" THICK REINFORCED CONCRETE (CLASS 3000 OR 4000P) WITH A REINFORCING STEEL AREA OF 0.20 SQUARE INCHES PER FOOT. WIRE MESH BE USED IN LIEU OF STEEL BARS PROVIDED A MINIMUM OF 0.20 SQUARE INCHES PER FOOT I S MET.

4. MORTAR SHALL BE TYPE S OR M.

5. REINFORCING STEEL SHALL BE ASTM A-706, LOW-ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT, GRADE 60. WIRE MESH SHALL CONFORM TO AASHTO M 55 AND M

6. SEE STANDARD DRAWING 719-550-00 FOR STEPS. WHICH ARE REQUIRED WHEN STRUCTURE DEPTH EXCEEDS 4'-6".

7. SEE STANDARD DRAWINGS 719-420-00 AND 719-425-00 FOR DEPTHS GREATER THAN 12'. PRECAST CONCRETE CIRCULAR DRAINAGE STRUCTURES ARE REQUIRED WHEN THE DEPTH FROM THE TOP OF THE DRAINAGE BOX BOTTOM SLAB TO THE TOP OF THE GROUND EXCEEDS 12'-0".

8. LOCATION AND SIZE OF PIPES ARE SITE SPECIFIC. (SEE DRAINAGE PLANS). THE BOTTOM OF THE CATCH BASIN IS TO BE GROUTED TO THE LOWEST FLOW LINE ELEVATION OF ALL PIPES. BOTTOM SLAB IS CAST IN PLACE WITH PIPES INSTALLED. BOTTOM SLAB THICKNESS MUST BE ACHIEVED BEYOND PIPE OUTSIDE DIAMETER.

9. THE FLOOR OF THE BASIN MUST SLOPE IN THE DIRECTION OF THE OUTLET PIPE AS SHOWN AND THE INSIDE OF OUTLET PIPE SHALL BE FLUSH WITH FLOOR OF BASIN.

10. SEE STANDARD DRAWING 719-305-00 OR 719-310-00 FOR MAXIMUM PIPE DIAMETERS. THE PIPE SIZES SHOWN ARE MAXIMUM FOR BRICK AND PRECAST BOXES WHEN PIPE ENTERS PERPENDICULAR AND AT THE CENTER OF THE BOX WALL. CONTRACTOR SHOULD CONFIRM THAT PIPE USED FITS APPROPRIATELY INTO BOX.

FRAME AND GRATE NOTES:
11. ALL CASTINGS SHALL CONFORM TO AASHTO M 105, CLASS 35B AND THE SPECIFICATIONS OF AASHTO M 306

12. (a) STEEL GRATES AND FRAME MAY BE USED IN LIEU OF CAST IRON AS LONG AS THE LOADING (NOTE 12d) AND HYDRAULIC REQUIREMENTS ARE MET, AND ARE ON THE DEPARTMENT'S LIST OF APPROVED SUPPLIERS. (QUALIFIED PRODUCT LIST 45)
(b) STEEL GRATES SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH AASHTO M 111.
(c) STEEL GRATES AND FRAMES SHALL BE DIMENSIONED TO BE INTERCHANGEABLE WITH EACH PIECE OF THE CAST IRON GRATE AND FRAME SHOWN. STEEL GRATES MUST HAVE POSITIVE MEANS TO BE RETAINED IN THE FRAME.
(d) STRENGTH REQUIREMENTS OF STEEL GRATES AND FRAMES MUST MEET AASHTO M 306
(e) MANUFACTURERS DESIRING TO BE PLACED ON THE DEPARTMENT'S QUALIFIED PRODUCT LIST SHOULD CONTACT THE MATERIALS AND RESEARCH ENGINEER FOR PROCEDURES.

13. THE LONGEST DIMENSIONS OF THE OPENING IN THE IRON GRATE SHOULD BE ORIENTED IN THE DIRECTION OF FLOW, IF PRACTICABLE. THIS GRATE IS NOT SUITABLE FOR PEDESTRIAN TRAFFIC BECAUSE GRATE OPENINGS EXCEED 1/2".

14. AS SHOWN BY THIS DRAWING, THE FRAME IS SET LEVEL, BUT THE ENGINEER MAY SET SAME ON SLOPE AS REQUIRED BY LOCAL DRAINAGE CONDITIONS.

15. AFTER THE FRAME IS SET IN ITS FINAL POSITION, IT IS TO BE ENCASED WITH CONCRETE AS SHOWN BY DRAWING.

16. ALL MANUFACTURING PROCESSES FOR THE FRAME AND GRATE MUST OCCUR IN THE UNITED STATES.

PRECAST NOTES:
17. THE USE OF PRECAST UNITS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF OBTAINING SATISFACTORY INSTALLATIONS. SEE STANDARD DRAWINGS FOR PRECAST CONCRETE DRAINAGE BOX OR STRUCTURE FOR ADDITIONAL DETAILS AND SPECIFICATIONS.

18. LIFT HOLES AND/OR DEVICES MAY BE PLACED AS NECESSRY . ALL LIFT HOLES SHALL BE GROUTED SHUT PRIOR TO COMPLETION OF THE INSTALLATION. ALL LIFTING METHODS MUST MEET OSHA REGULATIONS.

19. THE CONTRACTOR SHALL USE A SINGLE SOURCE MANUFACTURER CHOSEN FROM THE LIST ON QUALIFIED PRODUCT LIST 14 FOR PRECAST ITEMS ON THIS DRAWING.

20. FOLLOW QUALIFIED PRODUCT POLICY 14 IN ORDER TO BE LISTED ON QUALIFIED PRODUCT LIST 14.

21. CONTRACTOR MAY SUBMIT DESIGN DRAWINGS AND CALCULATIONS FOR MODIFICATIONS TO THIS ITEM ON A PROJECT BY PROJECT BASIS. MODIFICATIONS TO THESE ITEMS WILL NOT BE LISTED ON ANY QUALIFIED PRODUCT LIST. SUBMIT ALL PROPOSALS FOR PROJECT SPECIFIC MODIFICATIONS TO THE RESIDENT ENGINEER FOR REVIEW BY THE ENGINEER OF RECORD.

22. JOINTS BETWEEN INSTALLED PIECES AND PRECAST ITEMS TO BE PLACED SHALL BE SEALED WITH A 1/2" GROUT LIFT OR AN APPROPRIATE PLASTIC PREFORMED GASKET (QUALIFIED PRODUCT LIST 13.)

PRECAST INSTALLATION NOTES:
23. BED SHALL BE PREPARED AND COMPACTED FOR PRECAST DRAINAGE STRUCTURE AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS FOR PRECAST ITEMS. ELEVATION OF BEDDING MATERIAL SHALL BE APPROPRIATE TO ACCOMMODATE ELEVATIONS OF ALL PIPES AND REQUIRED BOX TOP ELEVATION.

24. PLACE AND LEVEL PRECAST BOX OR SLAB.

25. PIPES SHALL BE INSTALLED AND GROUTED IN PLACE.

26. PIPES AND BOX SHALL BE BACKFILLED AND COMPACTED AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS.

27. ANY LOCATION WHERE THE ABOVE REQUIREMENTS CANNOT BE MET SHALL BE COMPLETED USING CAST IN PLACE MATERIALS MEETING THE REQUIREMENTS OF THIS STANDARD DRAWING. ANY ADDITIONAL MATERIALS OR COSTS ASSOCIATED WITH THE USE OF PRECAST SHALL BE PAID FOR BY THE CONTRACTOR AND MAY NOT BE CHARGED TO SCDOT.

28. THE CONTRACT UNIT PRICE FOR DROP INLETS SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS, (BUILT IN PLACE OR PRECAST), AND WORK INCIDENTAL TO THE CONSTRUCTION OF THE STRUCTURE COMPLETE IN PLACE AS SHOWN, INCLUDING THE CURB AND GUTTER, IN ACCORDANCE WITH THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

29. PRECAST CONCRETE CIRCULAR STRUCTURES ARE REQUIRED FOR THE FOLLOWING APPLICATIONS UNLESS PROHIBITED BY THE PLANS OR SPECIAL PROVISIONS.

(a) ON DRAINAGE STRUCTURES WITH A DEPTH EQUAL TO OR GREATER THAN 12 FEET.

(b) ON DRAINAGE STRUCTURES WHERE THE FLOW LINE ELEVATION OF THE INLET PIPE IS EQUAL TO OR HIGHER THAN THE INSIDE TOP (SOFFIT) OF THE OUTLET PIPE.

(c) AS REQUIRED BY THE PROJECT PLANS.

30. THE PAY ITEM SHALL BE:
DROP INLET (24"X24")_____EA

NOTES:

1) ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.

2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.

SOUTH CAROLINA DAVIS & FLOYD, INC. No. C00538 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:42:31 -04'00'

DAVIS & FLOYD

SINCE 1954

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8062

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R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

DROP INLET (24" X 24") DETAIL

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D07	

NOTES:

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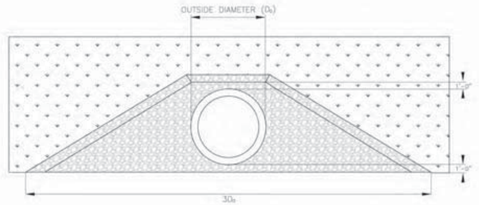
2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.



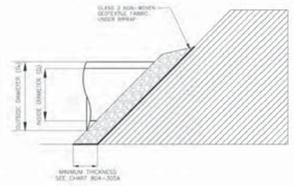
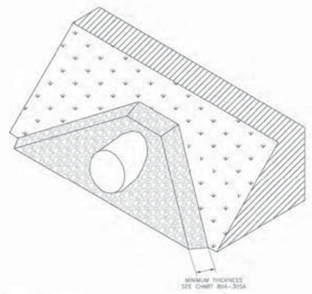


CHART 804-305A
SLOPE STABILIZATION RIPRAP PLACEMENT WITH MINIMUM TAILWATER

MINIMUM CLASS*	D_{50} (FT)	MINIMUM THICKNESS (FT)	OUTSIDE PIPE DIAMETER
A	0.50	1.00	UP TO 24"
B	0.75	1.50	UP TO 84"
C	1.30	2.60	LARGER THAN 84"

*WHEN RIPRAP APRON IS PRESENT, USE SAME CLASS OF RIPRAP ON SLOPE AS SPECIFIED FOR APRON. SEE DRAWING # 804-305-03 OR PLANS FOR APRON RIPRAP SPECIFICATIONS.



NOTES:

1) DESIGN OUTLET PROTECTION IN ACCORDANCE WITH THE SCDOT WATER QUALITY MANUAL.

2) OUTLET PROTECTION WILL HAVE A WIDTH THREE TIMES THE OUTSIDE DIAMETER OF THE OUTLET PIPE AT TOE OF SLOPE.

3) ADVANCE OUTLET PROTECTION UP THE SLOPE A MINIMUM OF 1 FOOT ABOVE TOP OF PIPE.

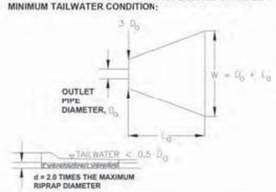
4) SEE DRAWINGS # 804-305-02 AND 804-305-03 FOR RIPRAP APRON DIMENSIONS.

4) THE PAY ITEMS MAY INCLUDE:

2031000	UNCLASSIFIED EXCAVATION	CY
8041010	RIPRAP (CLASS A)	TON
8041020	RIPRAP (CLASS B)	TON
8041030	RIPRAP (CLASS C)	TON
8042800	GEOTEXTILE FABRIC FOR EROSION CONTROL UNDER RIPRAP (CLASS 2)	SY
8151151	TURF REINFORCEMENT MATTING (TRM) TYPE 1	SY
8151152	TURF REINFORCEMENT MATTING (TRM) TYPE 2	SY
8151153	TURF REINFORCEMENT MATTING (TRM) TYPE 3	SY

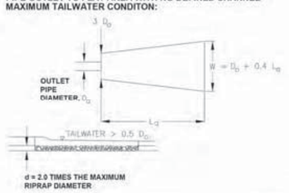
THIS DRAWING IS NOT TO SCALE

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL MINIMUM TAILWATER CONDITION:



PIPE INSIDE DIAMETER (D_i) (FT)	MAX PIPE SLOPE	OUTLET PROTECTION DIMENSIONS			MIN RIPRAP CLASS	RIPRAP DEPTH (d) (FT)
		$3D_O$ (FT)	L_d (FT)	W (FT)		
1.5	≤ 1%	6	10	12	A	1.5
1.5	2%	6	14	16	A	1.5
1.5	5%	6	19	21	B	2.7
2.0	≤ 1%	8	14	17	A	1.5
2.0	2%	8	19	22	B	2.7
2.0	5%	8	26	29	B	2.7
2.5	≤ 1%	10	18	21	A	1.5
2.5	2%	10	25	28	B	2.7
2.5	5%	10	34	37	C	3.6
3.0	≤ 1%	12	24	28	B	2.7
3.0	2%	12	32	36	B	2.7
3.0	5%	12	42	46	C	3.6
3.5	≤ 1%	14	28	33	B	2.7
3.5	2%	14	37	42	C	3.6
3.5	5%	14	48	53	C	3.6
4.0	≤ 1%	16	33	38	B	2.7
4.0	2%	16	43	48	C	3.6

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL MAXIMUM TAILWATER CONDITON:



PIPE INSIDE DIAMETER (D_i) (FT)	MAX PIPE SLOPE	OUTLET PROTECTION DIMENSIONS			MIN RIPRAP CLASS	RIPRAP DEPTH (d) (FT)
		$3D_O$ (FT)	L_d (FT)	W (FT)		
1.5	≤ 1%	6	8	6	A	1.5
1.5	2%	6	23	11	A	1.5
1.5	5%	6	40	18	A	1.5
2.0	≤ 1%	8	14	8	A	1.5
2.0	2%	8	30	15	A	1.5
2.0	5%	8	55	25	B	2.7
2.5	≤ 1%	10	20	11	A	1.5
2.5	2%	10	39	19	A	1.5
2.5	5%	10	66	30	B	2.7
3.0	≤ 1%	12	27	15	A	1.5
3.0	2%	12	55	26	A	1.5
3.0	5%	12	91	40	C	3.6
3.5	≤ 1%	14	33	18	A	1.5
3.5	2%	14	66	31	B	2.7
3.5	5%	14	106	47	C	3.6
4.0	≤ 1%	16	42	22	A	1.5
4.0	2%	16	78	37	B	2.7

NOTES:

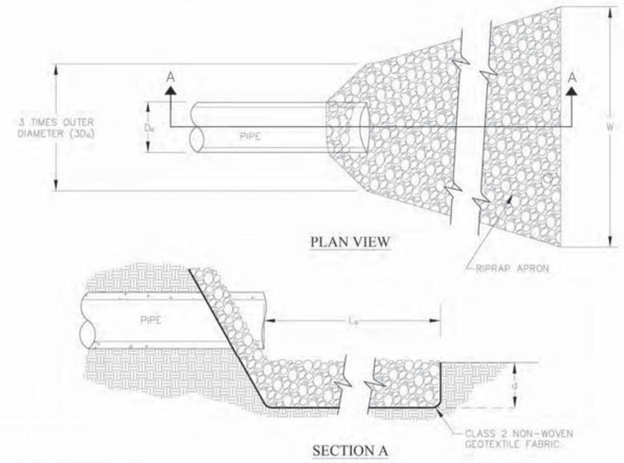
1) THESE TABLES ARE ONLY APPLICABLE FOR THE PIPE SIZES AND MAXIMUM PIPE SLOPES LISTED.

2) LARGER PIPES OR GREATER SLOPES REQUIRE ALTERNATIVE OUTLET PROTECTION DESIGN.

3) WHEN PLANS SPECIFY LARGER OR DIFFERENT OUTLET PROTECTION THAN SHOWN IN TABLES, INSTALL OUTLET PROTECTION PER THE PLANS.

4) SEE DRAWING # 804-305-02 FOR MORE INFORMATION ON OUTLET PROTECTION DIMENSIONS.

THIS DRAWING IS NOT TO SCALE



NOTES:

1) L_o = THE LENGTH OF THE RIPRAP APRON.

2) W = WIDTH OF OUTLET PROTECTION AT END OF RIPRAP APRON.

3) D_o = OUTER DIAMETER OF OUTLET PIPE.

4) $3D_o$ = WIDTH OF OUTLET PROTECTION AT TOE OF SLOPE AT PIPE OUTLET.

5) SEE DRAWING # 804-305-03 OR PLANS FOR DIMENSIONS L_o, W, AND $3D_o$.

6) d = DEPTH OF RIPRAP = 2.0 TIMES THE MAXIMUM RIPRAP DIAMETER.

7) SEE DRAWING # 804-305-01 FOR RIPRAP SLOPE STABILIZATION AROUND PIPE.

THIS DRAWING IS NOT TO SCALE

SOUTH CAROLINA DAVIS & FLOYD, INC. No. C00538 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Digitally signed by George Tilley Bull
2019.09.18 16:42:15 -04'00'

DAVIS & FLOYD

SINCE 1954

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CHARLESTON, SC 29418
(843) 554-8602

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R/W DATE
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GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
OUTLET PROTECTION WITH NO DEFINED CHANNEL DETAILS

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D08	

CHART 804-310A
SLOPE STABILIZATION RIPRAP PLACEMENT WITH MINIMUM TAILWATER

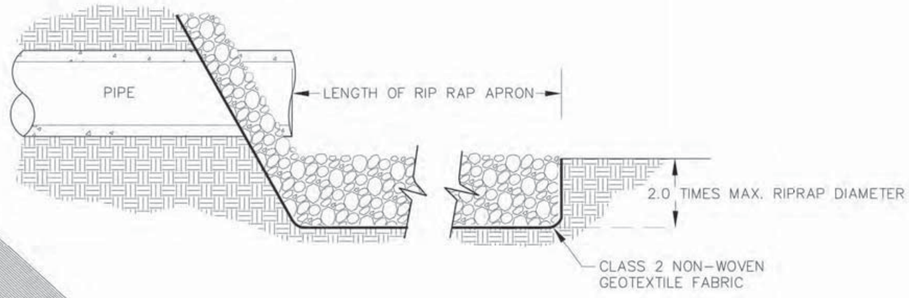
MINIMUM CLASS*	D_{50}(FT)	MINIMUM THICKNESS (FT)	OUTSIDE PIPE DIAMETER
A	0.50	1.00	UP TO 24"
B	0.75	1.50	UP TO 84"
C	1.30	2.60	LARGER THAN 84"

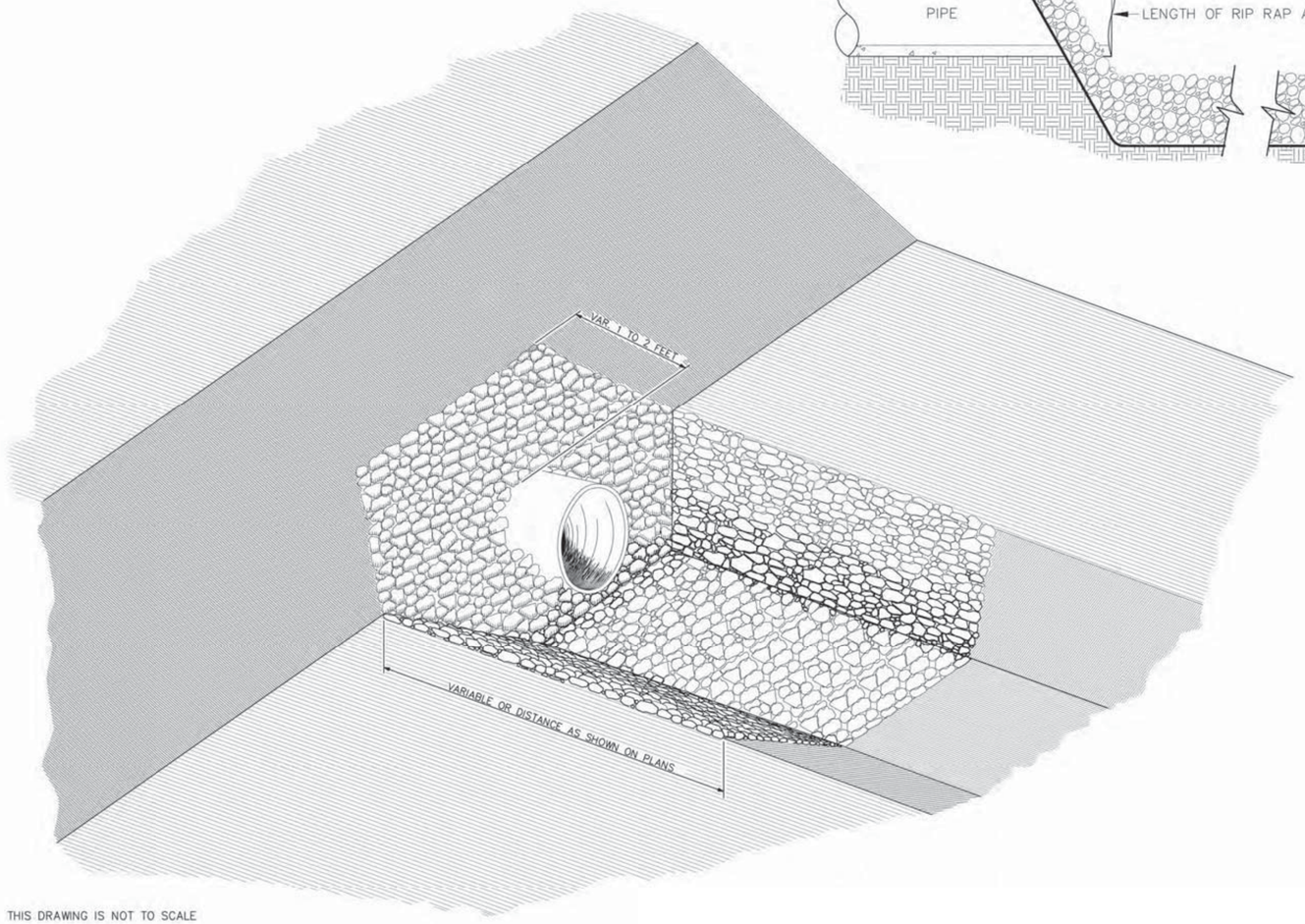
*WHEN RIPRAP CHANNEL IS PRESENT, USE SAME CLASS OF RIPRAP ON SLOPE AS SPECIFIED FOR CHANNEL ON THE PLANS.

NOTES:

1. CLASS 2 NON-WOVEN GEOTEXTILE FABRIC TO BE USED UNDER RIPRAP.
2. SEE STANDARD DRAWINGS SECTION 719-600-00 FOR ADDITIONAL PIPE END TREATMENT OPTIONS.
3. THE PAY ITEMS SHALL BE:

2031000	UNCLASSIFIED EXCAVATION	CY
8041010	RIPRAP (CLASS A)	TON
8041020	RIPRAP (CLASS B)	TON
8041030	RIPRAP (CLASS C)	TON
8042800	GEOTEXTILE FABRIC FOR EROSION CONTROL UNDER RIPRAP (CLASS 2)	SY





THIS DRAWING IS NOT TO SCALE

NOTES:

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2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.

SOUTH CAROLINA DAVIS & FLOYD, INC. No. C00538 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:42:01 -04'00'

DAVIS & FLOYD

SINCE 1954

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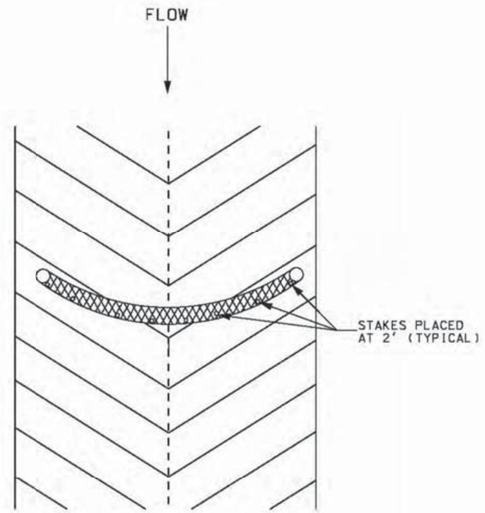
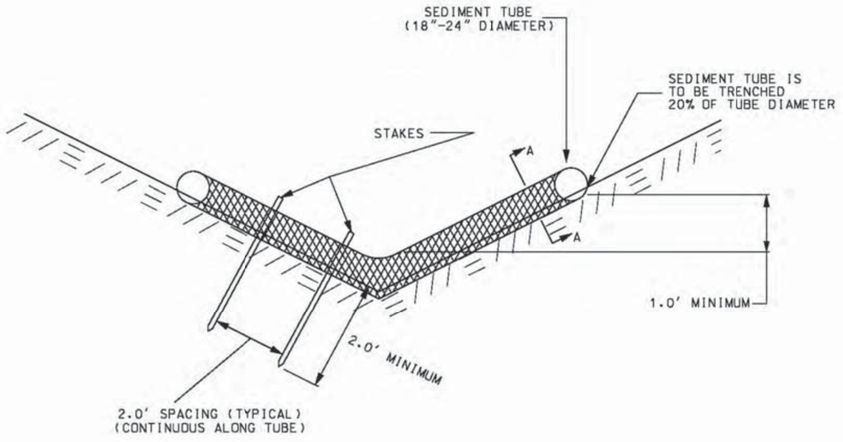
GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
OUTLET PROTECTION WITH DEFINED CHANNEL DETAIL

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D09	



TOP VIEW OF DITCH



END VIEW OF DITCH

THIS DRAWING IS NOT TO SCALE

NOTES:

1. SEDIMENT TUBE SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 815 OF THE SCDOT STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION (LATEST EDITION), AND MUST BE LISTED ON SCDOT QUALIFIED PRODUCT LIST NUMBER 57. SEDIMENT TUBES MUST MEET THE CRITERIA OUTLINED IN THE SUPPLEMENTAL SPECIFICATIONS BEFORE BEING LISTED ON QPL, AND BE FREE FROM DEFECTS OR TRANSPORTATION DAMAGE.

2. PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE SEDIMENT TUBES ARE IN COMPLETE CONTACT WITH UNDERLYING SOIL. SEDIMENT TUBES ARE TO BE 18-24 INCHES IN DIAMETER AND ARE TO BE TRENCHED TO A DEPTH OF 20% OF TUBE DIAMETER. LAY THE SEDIMENT TUBE FLAT IN THE U-SHAPED TRENCH AND COMPACT THE UPSTREAM SEDIMENT TUBER SOIL INTERFACE. PLACE AND ANCHOR THE SEDIMENT TUBE ENDS SO THEY ARE POSITIONED UPSTREAM OF THE SEDIMENT TUBE CENTER POINT. SEDIMENT TUBES FOR DITCH CHECKS WEIGHING MORE THAN 18 POUNDS PER FOOT DO NOT REQUIRE TRENCHING.

3. SEDIMENT TUBE SHALL BE INSTALLED IMMEDIATELY AFTER GRADING AND CONSTRUCTION. SEDIMENT TUBE SHALL BE MAINTAINED DURING SUBGRADE AND BASE PREPARATION UNTIL BASE COURSE IS COMPLETE. SEDIMENT TUBES MAY BE TEMPORARILY MOVED DURING CONSTRUCTION.

4. SEDIMENT TUBES ARE TO BE INSTALLED PERPENDICULAR TO WATER FLOW AND EXTEND UP SIDE SLOPES A MINIMUM OF 1 FOOT ABOVE DESIGN FLOW DEPTH. SPACE TUBES ACCORDING TO THE FOLLOWING TABLE:

SLOPE	MAXIMUM SEDIMENT TUBE SPACING
LESS THAN 2%	150 FEET
2%	100 FEET
3%	75 FEET
4%	50 FEET
5%	40 FEET
6%	30 FEET
GREATER THAN 6%	25 FEET

5. STAKE SEDIMENT TUBES FOR DITCH CHECKS USING STAKES WITH A MINIMUM MEASURED DIMENSION OF 3/4" X 3/4" AND A MAXIMUM MEASURED DIMENSION OF 2" X 2", OR USING STEEL POSTS(1.25lbs/linear foot)A MINIMUM OF 4' IN LENGTH. USE STEEL POSTS WITHOUT A SOIL PLATE AND PAINTING IS NOT REQUIRED. SPACE POSTS OR STAKES ON 2' CENTERS AND DRIVE THEM INTO THE GROUND TO A MINIMUM DEPTH OF 2'. INSTALL THE STAKES ON THE DOWNSTREAM THIRD OF THE SEDIMENT TUBE. SEDIMENT TUBES FOR DITCH CHECKS WEIGHING MORE THAN 18 POUNDS PER FOOT DO NOT REQUIRE STAKING.

6. SELECT PROPER LENGTH OF TUBE TO MINIMIZE THE NUMBER NEEDED TO SPAN THE WIDTH OF DRAINAGE AREA. ONE CONTINUOUS LENGTH IS PREFERRED COMPARED TO TWO OVERLAPPING TUBES. IF NECESSARY, SEDIMENT TUBES CAN BE LAPPED A MINIMUM OF 6 INCHES TO PREVENT PASSAGE OF FLOW AND SEDIMENT THROUGH FIELD JOINT.

7. INSTALL SEDIMENT TUBES FOR DITCH CHECKS OVER BARE SOIL, MULCHED AREAS, OR EROSION CONTROL BLANKETS. KEEP SEDIMENT TUBES FOR DITCH CHECKS IN PLACE UNTIL FULLY ESTABLISHED VEGETATION AND ROOT SYSTEMS HAVE COMPLETELY DEVELOPED AND CAN SURVIVE ON THEIR OWN.

8. INSPECT SEDIMENT TUBES AFTER INSTALLATION FOR GAPS UNDER THE SEDIMENT TUBES AND FOR GAPS BETWEEN THE JOINTS OF ADJACENT ENDS OF SEDIMENT TUBES. INSPECT SEDIMENT TUBES EVERY 7 DAYS. REPAIR ALL RILLS, GULLIES, AND UNDERCUTTING NEAR SEDIMENT TUBES. REMOVE ALL SEDIMENT DEPOSITS THAT IMPAIR THE FILTRATION CAPABILITY OF SEDIMENT TUBES WHEN THE SEDIMENT REACHES 1/3 THE HEIGHT OF THE EXPOSED SEDIMENT TUBE.

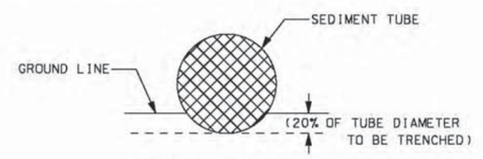
9. REMOVE AND/OR REPLACE INSTALLED SEDIMENT TUBES AS REQUIRED TO ADAPT TO CHANGING CONSTRUCTION SITE CONDITIONS. REMOVE SEDIMENT TUBES WHEN THE FUNCTIONAL LONGEVITY IS EXCEEDED AS DETERMINED BY THE ENGINEER, INSPECTOR, OR MANUFACTURER'S REPRESENTATIVE. GATHER SEDIMENT TUBES AND DISPOSE OF THEM IN REGULAR MEANS AS NON-HAZARDOUS, INERT MATERIAL.

10. PRIOR TO FINAL STABILIZATION, BACKFILL ALL TRENCHES, DEPRESSIONS, AND OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF SEDIMENT TUBES.

11. CLEAN OUT OF TUBES WILL BE PAID FOR AS CLEANING SILT BASINS.

12. PAYMENT SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, MAINTENANCE, AND INCIDENTALS NECESSARY TO COMPLETE WORK.

13. THE PAY ITEMS SHALL BE:
    8152007 SEDIMENT TUBE ..... LF
    8154010 CLEANING SILT BASINS ..... CY



SECTION A-A

NOTES:

1) ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.

2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.

DAVIS & FLOYD, INC. CERTIFICATE OF AUTHORIZATION No. C00538

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Tilley Bull 2019.09.18 16:41:47 -04'00'

DAVIS & FLOYD

SINCE 1954

WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8902

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
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3			
2			
1			

DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
SEDIMENT TUBE DITCH
APPLICATION DETAIL

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D10	

NOTES:

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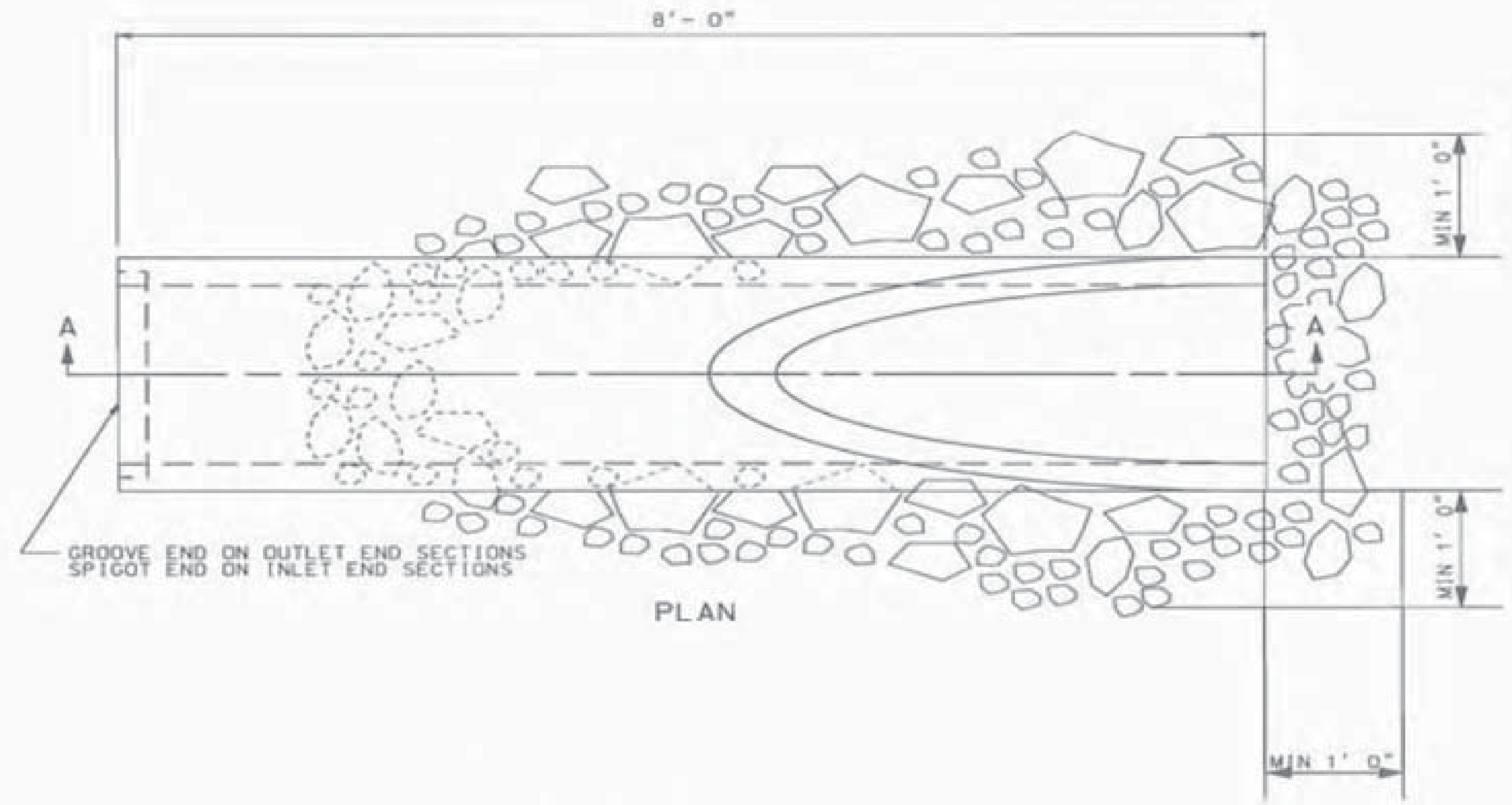
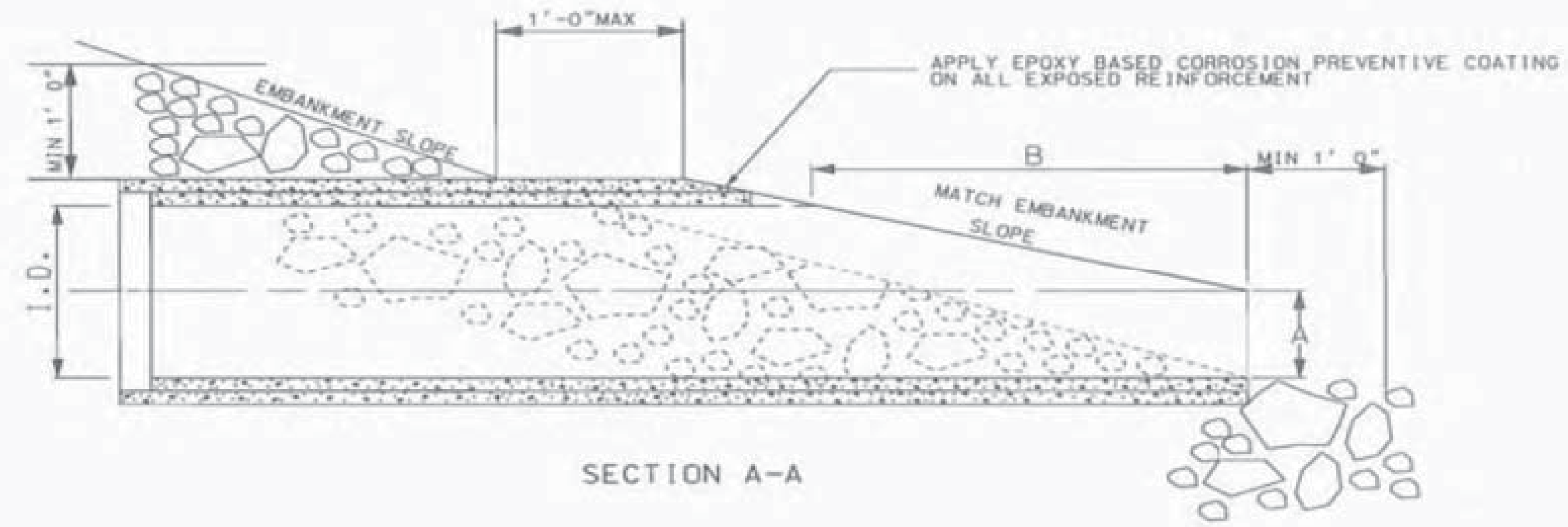


PLAN



SECTION A-A

NOTES:

1. BEVELED END SECTIONS WILL BE MANUFACTURED IN ACCORDANCE WITH SCDOT SUPPLEMENTAL TECHNICAL SPECIFICATIONS SC-M-714. THESE SPECIAL PIPE SECTIONS WILL BE MADE DURING THE MANUFACTURING OF OTHER STATE APPROVED REINFORCED CONCRETE PIPE.

2. THE PIPE BEVEL MAY BE SAWED IN THE FIELD IN LIEU OF BEING MANUFACTURED. IN FIELD SAWING, THE PIPE OPENING MAY COME TO A POINT AT THE PIPE CREST RATHER THAN A RADIUS IF APPROVED BY THE PIPE MANUFACTURER ALTERNATE PIPE FOR SIDELINES MUST HAVE EACH END BEVELED TO MATCH THE ADJACENT SLOPES.

3. PLACE RIPRAP AS DIRECTED BY THE RCE.

4. PAYMENT FOR BEVELED END SECTIONS WILL BE AS DIRECTED IN SC-M-714.

5. THE PAY ITEM SHALL BE:

7199100 BEVELING OF PIPE ENDS________________EA.
8041XXX RIPRAP(CLASS_)____________________TON
8048XXX GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP(CLASS 2) TYPE____S.Y.

CHART 719-610B		
RIPRAP PLACEMENT		
CLASS	D_{50}(FT)	MINIMUM THICKNESS (FT)
B	0.75	1.50
C	1.30	2.60

		TABLE 719-610A				
		EMBANKMENT SLOPE				
		6:1	5:1	4:1	3:1	2:1
		6	5	4	3	2
I.D.(IN)	A(IN)	B (BEVELED LENGTH) (IN)				
15	6	54	45	36	27	18
18	9	54	45	36	27	18
24	10	NA	70	56	42	28
30	12	NA	NA	72	54	36
36	15	NA	NA	NA	63	42
42	20	NA	NA	NA	66	44
48	24	NA	NA	NA	72	48
54	24	NA	NA	NA	NA	60
60	24	NA	NA	NA	NA	72

SOUTH CAROLINA
DAVIS & FLOYD, INC.
No. C00538
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 20214
GEORGE TILLEY BULL

Tilley Bull
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R/W ____ DATE ____
CHK. GTB DATE ____

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE

END TREATMENT
(RCP BEVELED END)

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D11	

NOTES:

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2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.

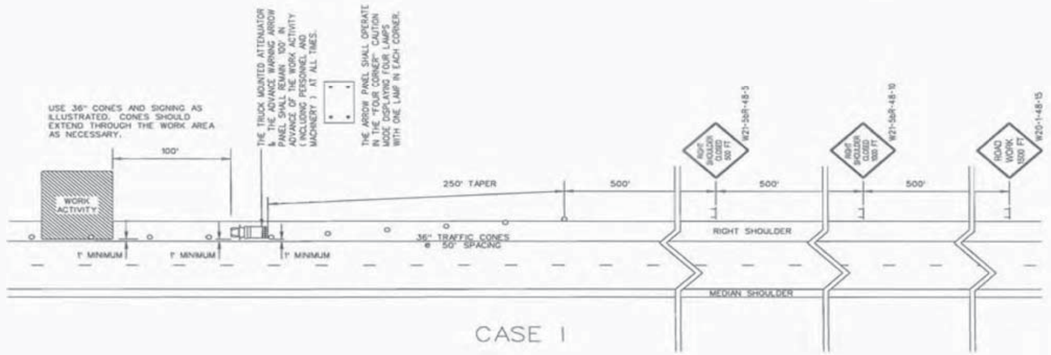
GENERAL NOTES

1. ALL SIGN LOCATIONS ARE TO BE MEASURED FROM THE WORK AREA. WORK LIMITS FOR THE PROJECT WILL BE DETERMINED BY THE ENGINEER AND AS INDICATED IN THE CONTRACT.
2. INSTALL ADVANCE WARNING SIGNS MOUNTED ON PORTABLE SIGN SUPPORTS NO LESS THAN 4 FEET FROM THE NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF AN ADJACENT TRAVEL LANE ON ROADWAYS WITH EARTH SHOULDERS AND NO LESS THAN 6 FEET FROM THE NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF AN ADJACENT TRAVEL LANE ON ROADWAYS WITH PAVED SHOULDERS. WHEN CURB & GUTTER IS PRESENT, INSTALL THE SIGN NO LESS THAN 2 FEET FROM THE NEAR EDGE OF THE SIGN TO THE FACE OF THE CURB.
3. SPACINGS INDICATED ARE FOR NORMAL CONDITIONS; ADJUSTMENTS MAY BE REQUIRED DUE TO HORIZONTAL AND/OR VERTICAL ALIGNMENTS OR OTHER SIGHT DISTANCE RESTRICTIONS.
4. ALL SIGNS MOUNTED ON PORTABLE SIGN SUPPORTS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 5 FEET FROM THE GROUND TO THE BOTTOM OF THE SIGN. ALL SIGNS MOUNTED ON GROUND MOUNTED U-CHANNEL POSTS OR SQUARE STEEL TUBE POSTS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 7 FEET FROM THE GRADE ELEVATION OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE TO THE BOTTOM OF THE SIGN UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. MOUNT ALL SIGNS STRAIGHT AND LEVEL AND WITH THE FACE OF THE SIGNS PERPENDICULAR TO THE SURFACE OF THE ROADWAY.
5. REFLECTORIZE ORANGE ADVANCE WARNING SIGNS AND ANY ORANGE AREAS OF A MULTI-COLORED ADVANCE WARNING SIGN WITH A FLUORESCENT ORANGE COLORED PRISMATIC RETROREFLECTIVE SHEETING. REFLECTORIZE WHITE REGULATORY SIGNS AND ANY WHITE AREAS OF A MULTI-COLORED ADVANCE WARNING SIGN WITH A WHITE COLORED PRISMATIC RETROREFLECTIVE SHEETING.
6. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH ALL NCHRP REPORT 350 REQUIREMENTS AND SHALL REQUIRE APPROVAL BY THE DEPARTMENT. ONLY THOSE TRAFFIC CONTROL DEVICES INCLUDED ON THE "APPROVED PRODUCTS LIST FOR TRAFFIC CONTROL DEVICES IN WORK ZONES" ARE CONSIDERED ACCEPTABLE FOR USE. THIS LIST MAY BE ACCESSED ON THE DEPARTMENT'S WEB SITE AT: www.scdot.org .
7. THE CONTRACTOR SHALL PROVIDE AND UTILIZE ANY SPECIAL SIGN MOUNTING ASSEMBLIES AND HARDWARE THAT MAY BE NECESSARY FOR INSTALLING AND MOUNTING SIGNS IN AREAS OF CONCRETE MEDIAN BARRIER, BRIDGE PARAPET WALLS OR DOUBLEFACED GUARDRAIL.
8. THE PRIMARY TRAFFIC CONTROL DEVICES UTILIZED FOR DAYTIME SHOULDER CLOSURES ARE 36" CONES. THE PRIMARY TRAFFIC CONTROL DEVICES UTILIZED FOR NIGHTTIME SHOULDER CLOSURES ARE PORTABLE PLASTIC DRUMS. DURING DAYTIME SHOULDER CLOSURES, 42" OVERSIZED CONES MAY BE SUBSTITUTED FOR 36" CONES. DURING NIGHTTIME SHOULDER CLOSURES, 42" OVERSIZED CONES ARE PROHIBITED FOR USE. IF THIS TRAFFIC CONTROL SETUP EXTENDS INTO THE HOURS OF DARKNESS, REPLACE ALL CONES, 36" OR 42" OVERSIZED, WITH PORTABLE PLASTIC DRUMS.
9. THE 36" CONES UTILIZED DURING DAYLIGHT HOURS ARE NOT REQUIRED TO BE REFLECTORIZED. REFLECTORIZE ALL 42" OVERSIZED CONES UTILIZED DURING DAYTIME SHOULDER CLOSURES WITH TYPE III FLEXIBLE PRISMATIC RETROREFLECTIVE SHEETING UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. REFLECTORIZE ALL PORTABLE PLASTIC DRUMS WITH TYPE III FLEXIBLE PRISMATIC RETROREFLECTIVE SHEETING UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
11. THE DEPARTMENT PROHIBITS CONDUCTING WORK ON PRIMARY AND SECONDARY ROUTES WITHIN 1' OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE UNDER A SHOULDER CLOSURE. ALL WORK THAT MAY REQUIRE THE PRESENCE OF EQUIPMENT, PERSONNEL, MATERIALS OR WORK VEHICLES WITHIN 1' OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE SHALL BE CONDUCTED UNDER A LANE CLOSURE.

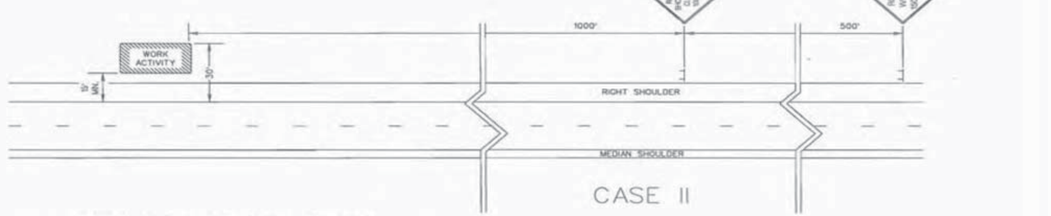
   CASE I: WHENEVER ANY PORTION OF THE SHOULDER AREA WITHIN 15' BUT NOT CLOSER THAN 1' OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE MUST BE OCCUPIED BY EQUIPMENT, PERSONNEL, MATERIALS OR WORK VEHICLES TO CONDUCT THE WORK, INSTALL AND MAINTAIN THE SIGNING AND TRAFFIC CONTROL DEVICES AS ILLUSTRATED.

   CASE II: WHENEVER THE WORK IS CONDUCTED BEYOND 15' BUT WITHIN 30' OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE, INCLUDING THE PRESENCE OF EQUIPMENT, PERSONNEL, MATERIALS OR WORK VEHICLES, INSTALL AND MAINTAIN THE SIGNING AND TRAFFIC CONTROL AS ILLUSTRATED.

12. CONDUCT THE WORK IN SUCH A MANNER THAT WILL NOT REQUIRE ENCROACHMENT OF TRAFFIC CONTROL DEVICES, EQUIPMENT, PERSONNEL, MATERIALS OR ANY WORK RELATED VEHICLES WITHIN 1' OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE.
13. PLACE THE TRUCK MOUNTED ATTENUATOR AT A LOCATION 100' IN ADVANCE OF THE WORK ACTIVITY AND NO CLOSER THAN 1' FROM THE NEAR EDGE OF THE ADJACENT TRAVEL LANE.
14. FOR A CASE I SCENARIO IN THE RIGHT SHOULDER AREA, ADJUST THE TAPER AS NECESSARY TO FIT THE WIDTH OF THE SHOULDER WHILE MAINTAINING THE REQUIRED 250' TAPER LENGTH.
15. IF WORK IS BEING CONDUCTED SIMULTANEOUSLY AT TWO DIFFERENT LOCATIONS AT THE SAME TIME UNDER CASE I SHOULDER CLOSURES, SEPARATE THE TWO LOCATIONS BY NO LESS THAN 1 MILE FROM THE END OF THE FIRST CASE I CLOSURE THAT A MOTORIST WILL ENCOUNTER TO THE BEGINNING OF THE TAPER OF THE SECOND CASE I CLOSURE. A MINIMUM SEPARATION DISTANCE OF ONE-HALF MILE IS RECOMMENDED BETWEEN SHOULDER CLOSURES WHEN ONE OR BOTH SHOULDER CLOSURES IS A CASE II CLOSURE.
16. THE DEPARTMENT RESERVES THE RIGHT TO RESTRICT WORK OPERATIONS AND/OR WITHHOLD THE MONTHLY ESTIMATE IF THE TRAFFIC CONTROL IS NOT PROPERLY INSTALLED AND MAINTAINED AS DIRECTED BY THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, THE STANDARD DRAWINGS, THE PLANS AND/OR THE ENGINEER.
17. THIS TYPICAL TRAFFIC CONTROL SETUP APPLIES TO THE INSTALLATION OF SHOULDER CLOSURES IN THE RIGHT SHOULDER AREAS OF PRIMARY AND SECONDARY ROADWAYS.



CASE I



CASE II

PORTABLE TRUCK MOUNTED ATTENUATOR

1. UTILIZE A TRUCK MOUNTED ATTENUATOR ATTACHED TO THE REAR OF A TRUCK WITH A MINIMUM GROSS VEHICULAR WEIGHT (GVW) OF 15,000 POUNDS (ACTUAL WEIGHT). IF THE ADDITION OF SUPPLEMENTAL WEIGHT TO THE VEHICLE AS BALLAST IS NECESSARY, CONTAIN THE MATERIAL WITHIN A STRUCTURE CONSTRUCTED OF STEEL. CONSTRUCT THIS STEEL STRUCTURE TO HAVE A MINIMUM OF FOUR SIDES AND A BOTTOM. A TOP IS OPTIONAL. BOLT THIS STRUCTURE TO THE FRAME OF THE TRUCK. UTILIZE A SUFFICIENT NUMBER OF FASTENERS FOR ATTACHMENT OF THE STEEL STRUCTURE TO THE FRAME OF THE TRUCK TO ENSURE THE STRUCTURE WILL NOT SEPARATE FROM THE FRAME OF THE TRUCK DURING AN IMPACT UPON THE ATTACHED TRUCK MOUNTED ATTENUATOR. UTILIZE EITHER DRY LOOSE SAND OR STEEL REINFORCED CONCRETE FOR BALLAST MATERIAL WITHIN THE STEEL STRUCTURE TO ACHIEVE THE NECESSARY WEIGHT. THE BALLAST MATERIAL SHALL REMAIN CONTAINED WITHIN THE CONFINES OF THE STEEL STRUCTURE AND SHALL NOT PROTRUDE FROM THE STEEL STRUCTURE IN ANY MANNER.
2. LOCATE THE TRUCK MOUNTED ATTENUATOR 100 FEET IN ADVANCE OF THE WORK AREA UNLESS OTHERWISE SPECIFIED.
3. PROVIDE, INSTALL AND MAINTAIN THE TRUCK MOUNTED ATTENUATOR AS SPECIFIED BY THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

ADVANCE WARNING ARROW PANEL

ALL ADVANCE WARNING ARROW PANELS SHALL BE 48" x 96" WITH A MINIMUM LEGIBILITY DISTANCE OF 1 MILE. PLACEMENT OF AN ADVANCE WARNING ARROW PANEL MAY REQUIRE ADJUSTMENTS DUE TO HORIZONTAL AND/OR VERTICAL ALIGNMENT OR OTHER SIGHT DISTANCE RESTRICTIONS. THE PANEL FACE SHALL BE NONREFLECTIVE BLACK. ALL ADVANCE WARNING ARROW PANELS SHALL COMPLY WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.

WHEN AN ADVANCE WARNING ARROW PANEL IS REQUIRED TO OPERATE IN THE CAUTION MODE, THE ADVANCE WARNING ARROW PANEL SHALL DISPLAY THE "FOUR CORNERS" CAUTION MODE, WITH ONE LAMP IN EACH CORNER. DISPLAY OF ANY OTHER TYPE OF CAUTION MODE OTHER THAN THE "FOUR CORNERS" CAUTION MODE SUCH AS THE "FLASHING BAR" OR THE "ALTERNATING DIAMOND" CAUTION MODES ARE UNACCEPTABLE AND PROHIBITED.

LEGEND

○ 36" TRAFFIC CONES

DAVIS & FLOYD, INC. — SOUTH CAROLINA — CERTIFICATE OF AUTHORIZATION — No. C00538

SOUTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — No. 20214 — GEORGE TILLEY BULL

Tilley Bull
2019.09.18
13:41:20 -04'00'

DAVIS & FLOYD

SINCE 1954

WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8602

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GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
SHOULDER CLOSURE

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D12	

NOTES:

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FLAGGING OPERATIONS
GENERAL NOTES

(ALL NOTES, SPECIFICATIONS AND REQUIREMENTS ON THIS STANDARD DRAWING APPLY TO ALL SUBSEQUENT STANDARD DRAWINGS REGARDING FLAGGING OPERATIONS UNLESS OTHERWISE NOTED)

FLAGGING OPERATIONS -

1. KEY FEATURES RELEVANT TO FLAGGING OPERATIONS:

   APPROACH TAPER - THIS IS A ONE-LANE TWO-WAY TAPER PLACED IN THE TRAVEL LANE WHERE THE WORK ACTIVITY TAKES PLACE. THIS TAPER PRECEDES THE BUFFER SPACE AND THE WORK ACTIVITY AREA. THE LENGTH OF THIS TAPER MAY VARY FROM 50 FEET TO 100 FEET. INSTALL AND MAINTAIN NO LESS THAN FIVE (5) TRAFFIC CONTROL DEVICES EQUALLY SPACED AT 10' TO 25' INTERVALS AS NECESSARY TO CORRESPOND WITH THE LENGTH OF THE TAPER.

   DOWNSTREAM TAPER - THIS TAPER, PLACED IN THE TRAVEL LANE WHERE THE WORK ACTIVITY TAKES PLACE, FOLLOWS THE WORK ACTIVITY AREA AND SERVES AS THE TERMINATION AREA FOR THE CLOSURE OF THE TRAVEL LANE. THE LENGTH OF THIS TAPER MAY VARY FROM 50 FEET TO 100 FEET. INSTALL AND MAINTAIN NO LESS THAN FIVE (5) TRAFFIC CONTROL DEVICES IN THIS TAPER.

   FLAGGER STATION - THIS IS THE SPECIFIC LOCATION OF THE FLAGGER.

   CLOSED LANE FLAGGER - THIS FLAGGER IS STATIONED ADJACENT TO THE FIRST TRAFFIC CONTROL DEVICE IN THE APPROACH TAPER WHO CONTROLS THE TRAFFIC THAT REQUIRES RELOCATION FROM THE TRAVEL LANE BEING CLOSED TO TRAFFIC.

   OPEN LANE FLAGGER - THIS FLAGGER IS STATIONED 100 FEET BEYOND THE LAST TRAFFIC CONTROL DEVICE IN THE DOWNSTREAM TAPER WHO CONTROLS THE TRAFFIC OPERATING IN THE TRAVEL LANE REMAINING OPEN TO TRAFFIC.

   BUFFER SPACE - THIS AREA IS LOCATED BETWEEN THE DOWNSTREAM END OF THE APPROACH TAPER AND THE NEAREST LIMITS OF THE WORK ACTIVITY AREA AND MAY PROVIDE SOME RECOVERY SPACE FOR AN ERRANT VEHICLE. THE PRESENCE OF PERSONNEL, TOOLS, MATERIALS, EQUIPMENT, WORK VEHICLES, ETC. WITHIN THE LIMITS OF THE BUFFER SPACE IS PROHIBITED. HOWEVER, WHEN THE MINIMUM DISTANCE REQUIREMENTS FOR THE BUFFER SPACE ARE UNAVAILABLE, A TRUCK MOUNTED ATTENUATOR MAY TEMPORARILY ENCROACH UPON THE BUFFER SPACE IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE SECTION BELOW ENTITLED, "BUFFER SPACE", WHEN APPROVED BY THE ENGINEER.

   WORK ACTIVITY AREA - PERSONNEL, MATERIALS, EQUIPMENT, WORK VEHICLES, ETC. ARE PRESENT WITHIN THIS AREA TO CONDUCT THE WORK.

   LIMITS of the WORK ACTIVITY AREA - THIS IS THE BOUNDARY OF THE WORK ACTIVITY AREA FIRST ENCOUNTERED, FROM EITHER DIRECTION, BY MOTORISTS PASSING BY THE WORK ACTIVITY AREA IN THE ADJACENT TRAVEL LANE OPEN TO TRAFFIC AND CONTROLLED BY THE FLAGGERS.

   APPROACH LANE - TRAFFIC APPROACHES AN INTERSECTION OR A SPECIFIC LOCATION IN THIS TRAVEL LANE.

   DEPARTURE LANE - TRAFFIC DEPARTS FROM AN INTERSECTION OR A SPECIFIC LOCATION IN THIS TRAVEL LANE.

   MAINLINE APPROACH - THIS IS AN APPROACH TO THE WORK ACTIVITY AREA ON THE ROADWAY WHERE THE WORK ACTIVITY AREA IS LOCATED.

   SIDE ROADS - THESE ROADS INTERSECT THE ROADWAY ON WHICH THE WORK ACTIVITY AREA IS LOCATED.

   LIMITS of the INTERSECTION - THE LIMITS OF OR THE PHYSICAL AREA WITHIN AN INTERSECTION IS DEFINED BY THE LOCATION OF STOP BARS WHEN PRESENT, WHEN STOP BARS ARE ABSENT, THE LIMITS OF OR THE PHYSICAL AREA WITHIN AN INTERSECTION IS DEFINED BY THE LOCATION POINTS WHERE THE CORNER RADII BETWEEN ADJACENT ROADWAY APPROACHES TIE TO THE EDGE OF PAVEMENT OR THE EDGE OF TRAVEL LANE ADJACENT TO THE EDGE OF PAVEMENT OF EACH ROADWAY.

2. INSTALL, CONDUCT AND MAINTAIN FLAGGING OPERATIONS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, THE STANDARD DRAWINGS, THE MUTCD AND THE "SOUTH CAROLINA FLAGGER'S HANDBOOK" UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. INSTALL ALL SIGNS RELATIVE TO A FLAGGING OPERATION PRIOR TO INITIATION OF THE OPERATION AND REMOVE OR COVER ALL SIGNS IMMEDIATELY UPON TERMINATION OF THE OPERATION. EQUIP EACH FLAGGER WITH A 24" x 24" STOP/SLOW PADDLE MOUNTED ON A RIGID HANDLE WITH A MINIMUM LENGTH OF 7 FEET. THE DEPARTMENT PROHIBITS THE USE OF FLAGS EXCEPT DURING EMERGENCY SITUATIONS.
3. LANE CLOSURES FOR FLAGGING OPERATIONS ARE RESTRICTED TO A MAXIMUM DISTANCE OF 2 MILES UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE WORK LIMITS WILL COMPLY WITH THE CONTRACT AND SHALL REQUIRE THE ENGINEER'S APPROVAL PRIOR TO BEGINNING THE WORK.
4. INSTALL AND MAINTAIN THE PROPER ARRAY OF ADVANCE WARNING SIGNS FOR EACH "MAINLINE APPROACH" WHEN A FLAGGING OPERATION IS IN PLACE AND ACTIVE. WHEN NECESSARY TO RELOCATE THE "FLAGGER STATION" WHILE ACTIVELY MAINTAINING THE FLAGGING OPERATION, INSTALL AN ADDITIONAL ARRAY OF ADVANCE WARNING SIGNS AT THE LOCATION RELATIVE TO THE NEW "FLAGGER STATION" AND REMOVE THE ORIGINAL ARRAY OF ADVANCE WARNING SIGNS IMMEDIATELY UPON COMPLETION OF THE RELOCATION OF THE FLAGGER TO THE NEW "FLAGGER STATION".
5. INSTALL ALL ADVANCE WARNING SIGNS IMMEDIATELY PRIOR TO INITIATING A FLAGGING OPERATION AND REMOVE OR COVER ALL SIGNS IMMEDIATELY UPON TERMINATION OF THE OPERATION.
6. MAINTAIN TWO-WAY RADIO COMMUNICATIONS BETWEEN ALL FLAGGERS.

NIGHTTIME FLAGGING OPERATIONS -

1. EACH FLAGGER SHALL WEAR SAFETY APPAREL IN COMPLIANCE WITH THE REQUIREMENTS OF ANSI/ ISEA 107 STANDARD PERFORMANCE FOR CLASS 3 RISK EXPOSURE, LATEST REVISION, WHEN CONDUCTING NIGHTTIME FLAGGING OPERATIONS.
2. ILLUMINATE EACH "FLAGGER STATION" WITH ANY COMBINATION OF PORTABLE LIGHTS, STANDARD ELECTRIC LIGHTS, EXISTING STREET LIGHTS, ETC. THAT WILL PROVIDE A MINIMUM ILLUMINATION LEVEL OF 108 Lx OR 10 fc WHEN CONDUCTING NIGHTTIME FLAGGING OPERATIONS.
3. SUPPLEMENT EACH ARRAY OF ADVANCE WARNING SIGNS ON EACH "MAINLINE APPROACH" WITH A TRAILER MOUNTED CHANGEABLE MESSAGE SIGN. THESE CHANGEABLE MESSAGE SIGNS ARE NOT REQUIRED ON THE "SIDE ROADS" INTERSECTING THE ROADWAY WHERE THE "WORK ACTIVITY AREA" IS LOCATED. ALSO, THESE CHANGEABLE MESSAGE SIGNS ARE NOT REQUIRED DURING DAYTIME FLAGGING OPERATIONS UNLESS OTHERWISE DIRECTED BY THE STANDARD DRAWINGS. INSTALL THE CHANGEABLE MESSAGE SIGNS IN ADVANCE OF THE ADVANCE WARNING SIGN ARRAYS. THE MESSAGES SHOULD BE "PREPARE TO STOP", "FLAGGER AHEAD", A TRUCK MOUNTED CHANGEABLE MESSAGE SIGN IS NOT AN ACCEPTABLE ALTERNATIVE TO A TRAILER MOUNTED CHANGEABLE MESSAGE SIGN DURING NIGHTTIME FLAGGING OPERATIONS.
4. UTILIZE PORTABLE PLASTIC DRUMS OR 42" OVERSIZED TRAFFIC CONES IN PLACE OF 36" STANDARD TRAFFIC CONES DURING NIGHTTIME FLAGGING OPERATIONS.

BUFFER SPACE -

1. THE MINIMUM DISTANCE REQUIREMENTS FOR THE "BUFFER SPACE" ARE BASED UPON THE LEGAL POSTED REGULATORY SPEED LIMIT OF THE ROADWAY PRIOR TO BEGINNING THE WORK.

SPEED LIMIT	DISTANCES
LOW SPEED ≤ 35 MPH	200 FEET
INTERMEDIATE SPEED 40 - 50 MPH	300 FEET
HIGH SPEED 55 MPH	400 FEET

2. THE PRESENCE OF PERSONNEL, TOOLS, MATERIALS, EQUIPMENT, WORK VEHICLES, ETC. WITHIN THE LIMITS OF THE "BUFFER SPACE" IS PROHIBITED. A TRUCK MOUNTED ATTENUATOR IS THE ONLY WORK VEHICLE THAT MAY TEMPORARILY ENCROACH UPON THE "BUFFER SPACE" IN ACCORDANCE WITH THE CONDITIONS SPECIFIED IN THE FOLLOWING NOTE WHEN APPROVED BY THE ENGINEER. SEE NOTE NO. 3.
3. WHEN THE MINIMUM DISTANCE REQUIREMENTS FOR THE "BUFFER SPACE" ARE UNAVAILABLE DUE TO FIELD CONDITIONS, IT MAY BE NECESSARY FOR A TRUCK MOUNTED ATTENUATOR TO TEMPORARILY ENCROACH UPON THE "BUFFER SPACE" WHEN APPROVED BY THE ENGINEER. A TRUCK MOUNTED ATTENUATOR IS THE ONLY VEHICLE PERMITTED TO TEMPORARILY ENCROACH UPON THE "BUFFER SPACE" AND THIS ENCROACHMENT IS ONLY PERMITTED WHEN ALL REASONABLE OPTIONS TO AVOID DOING SO HAVE BEEN EXHAUSTED. WHEN ENCROACHMENT UPON THE "BUFFER SPACE" IS APPROVED BY THE ENGINEER, MINIMIZE THE TIME DURATION OF THE ENCROACHMENT BY REMOVAL OF THE TRUCK MOUNTED ATTENUATOR FROM THE "BUFFER SPACE" AT THE FIRST OPPORTUNITY THE MINIMUM DISTANCE REQUIREMENTS FOR THE "BUFFER SPACE" BECOME AVAILABLE.

SIGNS AND TRAFFIC CONTROL DEVICES -

1. MEASURE THE ADVANCE WARNING SIGN LOCATIONS FOR EACH APPROACH FROM THE "FLAGGER STATION" LOCATED ON THAT APPROACH.
2. INSTALL THE ADVANCE WARNING SIGNS AS SPACING INTERVALS BASED UPON THE POSTED REGULATORY SPEED LIMIT OF THE ROADWAY PRIOR TO BEGINNING ANY WORK. THE ADVANCE WARNING SIGN SPACING INTERVALS INDICATED ARE FOR NORMAL CONDITIONS. ADJUSTMENTS TO THESE DISTANCES MAY BE NECESSARY DUE TO EXISTING SIGNS, INTERSECTING ROADWAYS, HORIZONTAL AND/OR VERTICAL ALIGNMENTS OR OTHER SIGHT DISTANCE RESTRICTIONS. SEE TABLE A.
3. INSTALL ADVANCE WARNING SIGNS MOUNTED ON PORTABLE SIGN SUPPORTS NO LESS THAN 4 FEET FROM THE NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF AN ADJACENT TRAVEL LANE ON ROADWAYS WITH EARTH SHOULDERS AND NO LESS THAN 6 FEET FROM THE NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF AN ADJACENT TRAVEL LANE ON ROADWAYS WITH PAVED SHOULDERS. WHEN CURB & GUTTER IS PRESENT, INSTALL THE SIGN NO LESS THAN 2 FEET FROM THE NEAR EDGE OF THE SIGN TO THE FACE OF THE CURB.
4. ALL SIGNS MOUNTED ON PORTABLE SIGN SUPPORTS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 5 FEET FROM THE GROUND TO THE BOTTOM OF THE SIGN. ALL SIGNS MOUNTED ON GROUND MOUNTED U-CHANNEL OR SQUARE STEEL TUBE POSTS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 7 FEET FROM THE GRADE ELEVATION OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE TO THE BOTTOM OF THE SIGN UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. MOUNT ALL SIGNS STRAIGHT AND LEVEL AND WITH THE FACE OF THE SIGNS PERPENDICULAR TO THE SURFACE OF THE ROADWAY.
5. REFLECTORIZE ORANGE ADVANCE WARNING SIGNS AND ANY ORANGE AREAS OF A MULTI-COLORED ADVANCE WARNING SIGN WITH A FLUORESCENT ORANGE COLORED PRISMATIC RETROREFLECTIVE SHEETING. REFLECTORIZE WHITE REGULATORY SIGNS AND ANY WHITE AREAS OF A MULTI-COLORED ADVANCE WARNING SIGN WITH A WHITE COLORED PRISMATIC RETROREFLECTIVE SHEETING.
6. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE REQUIREMENTS OF NCHRP REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE MASH AND SHALL REQUIRE APPROVAL BY THE DEPARTMENT. ONLY THOSE TRAFFIC CONTROL DEVICES INCLUDED ON THE "APPROVED PRODUCTS LIST FOR TRAFFIC CONTROL DEVICES IN WORK ZONES" ARE CONSIDERED ACCEPTABLE FOR USE. THIS LIST MAY BE ACCESSED ON THE DEPARTMENT'S WEB SITE AT: www.scdot.org
7. RETROREFLECTORIZATION OF 36" TRAFFIC CONES USED DURING DAYLIGHT HOURS IS NOT REQUIRED IN THE EVENT A DAYTIME FLAGGING OPERATION EXTENDS INTO THE NIGHTTIME HOURS, REPLACE ALL 36" TRAFFIC CONES WITH EITHER PORTABLE PLASTIC DRUMS OR 42" OVERSIZED TRAFFIC CONES. REFLECTORIZE ALL PORTABLE PLASTIC DRUMS AND 42" OVERSIZED TRAFFIC CONES WITH TYPE III OR GREATER FLEXIBLE MICROPRISMATIC RETROREFLECTIVE SHEETING UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
8. DELINEATE THE TANGENT AREA OF THE LANE CLOSURE WITH THE NECESSARY TRAFFIC CONTROL DEVICES TO MINIMIZE ENCROACHMENT BY MOTORISTS INTO THE CLOSED TRAVEL LANE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ON ROADWAYS WITH POSTED REGULATORY SPEED LIMITS OF 35 MPH OR LESS, INSTALL THE TRAFFIC CONTROL DEVICES AT SPACING INTERVALS OF 25 FEET. ON ROADWAYS WITH POSTED REGULATORY SPEED LIMITS OF 40 MPH OR GREATER, INSTALL THE TRAFFIC CONTROL DEVICES AT SPACING INTERVALS OF 50 FEET. SEE TABLE B.

ADVANCE WARNING ARROW PANEL -

1. DURING FLAGGING OPERATIONS, AN ADVANCE WARNING ARROW PANEL SHALL OPERATE IN THE "FOUR CORNERS" CAUTION MODE WHEN LOCATED WITHIN OR IN BETWEEN THE LIMITS OF THE ADVANCE WARNING SIGN ARRAYS SPECIFIC TO A FLAGGING OPERATION. OPERATION OF AN ADVANCE WARNING ARROW PANEL IN AN ARROW, CHEVRON OR ANY OTHER TYPE OF CAUTION MODE OTHER THAN THE "FOUR CORNERS" CAUTION MODE WHEN LOCATED WITHIN OR IN BETWEEN THE LIMITS OF THE ADVANCE WARNING SIGN ARRAYS AS SPECIFIED HEREINBEFORE IS PROHIBITED.
2. ALL ADVANCE WARNING ARROW PANELS SHALL COMPLY WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION. THE SPECIFIC LOCATION OF AN ADVANCE WARNING ARROW PANEL MAY REQUIRE ADJUSTMENTS DUE TO HORIZONTAL AND/OR VERTICAL ALIGNMENT OR OTHER SIGHT DISTANCE RESTRICTIONS.

TRUCK MOUNTED ATTENUATOR -

1. A TRUCK MOUNTED ATTENUATOR IS OPTIONAL. UTILIZATION OF A TRUCK MOUNTED ATTENUATOR SHOULD BE CONSIDERED WHEN THE MINIMUM DISTANCE REQUIREMENTS FOR THE "BUFFER SPACE" ARE UNAVAILABLE DUE TO FIELD CONDITIONS. HOWEVER, A TRAILER MOUNTED ADVANCE WARNING ARROW PANEL MAY BE UTILIZED IN PLACE OF A TRUCK MOUNTED ATTENUATOR DURING TRAFFIC CONTROL SETUPS FOR WORK ACTIVITIES SUCH AS ASPHALT CONCRETE PLACEMENT OPERATIONS WHEN APPROVED BY THE ENGINEER.
2. WHEN UTILIZING A TRUCK MOUNTED ATTENUATOR, ENSURE THE TRUCK HAS THE CORRECT GROSS VEHICULAR WEIGHT (GVW) REQUIRED FOR THE TYPE OF TRUCK MOUNTED ATTENUATOR BEING UTILIZED. A DIRECT TRUCK MOUNTED TRUCK MOUNTED ATTENUATOR, A UNIT MOUNTED AND ATTACHED TO BRACKETS OR SIMILAR DEVICES CONNECTED TO THE FRAME OF THE TRUCK, REQUIRES A TRUCK WITH A MINIMUM GVW OF 15,000 POUNDS (ACTUAL WEIGHT) UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. A TRAILER TOWED TRUCK MOUNTED ATTENUATOR, A TRAILER TYPE UNIT TOWED FROM BEHIND AND ATTACHED TO THE FRAME OF THE TRUCK VIA A PINTLE HOOK / HITCH, REQUIRES A TRUCK WITH A MINIMUM GVW OF 10,000 POUNDS (ACTUAL WEIGHT) UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. IF THE ADDITION OF SUPPLEMENTAL WEIGHT TO THE VEHICLE AS BALLAST IS NECESSARY, CONTAIN THE MATERIAL WITHIN A STRUCTURE CONSTRUCTED OF STEEL. CONSTRUCT THIS STEEL STRUCTURE TO HAVE A MINIMUM OF FOUR (4) SIDES AND A BOTTOM. A TOP IS OPTIONAL. BOLT THIS STRUCTURE TO THE FRAME OF THE TRUCK. UTILIZE A SUFFICIENT NUMBER OF FASTENERS FOR ATTACHMENT OF THE STEEL STRUCTURE TO THE FRAME OF THE TRUCK TO ENSURE THE STRUCTURE WILL NOT SEPARATE FROM THE FRAME OF THE TRUCK DURING AN IMPACT UPON THE TRUCK MOUNTED ATTENUATOR. UTILIZE EITHER DRY LOOSE SAND OR STEEL REINFORCED CONCRETE FOR BALLAST MATERIAL WITHIN THE STEEL STRUCTURE TO ACHIEVE THE NECESSARY WEIGHT. THE BALLAST MATERIAL SHALL REMAIN CONTAINED WITHIN THE CONFINES OF THE STEEL STRUCTURE IN ITS ENTIRETY AND SHALL NOT PROTRUDE FROM THE STEEL STRUCTURE IN ANY MANNER.
3. LOCATE THE TRUCK MOUNTED ATTENUATOR APPROXIMATELY 100 FEET IN ADVANCE OF THE "WORK ACTIVITY AREA" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. PROVIDE, INSTALL AND MAINTAIN THE TRUCK MOUNTED ATTENUATOR AS SPECIFIED BY THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

GENERAL -

1. CONDUCT THE WORK IN SUCH A MANNER SO AS NOT TO ENCROACH ONTO THE ADJACENT TRAVEL LANE OPEN TO TRAFFIC. INSTALL, MAINTAIN AND ADJUST THE TRAFFIC CONTROL DEVICES AS NECESSARY TO ENSURE PROPER DELINEATION OF THE WORK AREA.
2. IF WORK IS BEING CONDUCTED AT TWO DIFFERENT LOCATIONS AT THE SAME TIME, SEPARATE THE TWO LOCATIONS BY NO LESS THAN 2 MILES FROM THE LAST TRAFFIC CONTROL DEVICE IN THE "DOWNSTREAM TAPER" OF THE FIRST LANE CLOSURE TO THE FIRST TRAFFIC CONTROL DEVICE IN THE "APPROACH TAPER" OF THE SECOND LANE CLOSURE ENCOUNTERED BY A MOTORIST UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. THE DEPARTMENT RESERVES THE RIGHT TO RESTRICT WORK OPERATIONS AND/OR WITHHOLD THE MONTHLY ESTIMATE IF THE TRAFFIC CONTROL IS NOT PROPERLY INSTALLED AND MAINTAINED AS DIRECTED BY THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, THE STANDARD DRAWINGS, THE PLANS AND/OR THE ENGINEER.

TABLE A

SIGN PLACEMENT INTERVALS	
SPEED LIMIT	*
* ≤ 35 MPH LOW SPEED	200
* 40 - 50 MPH INTERMEDIATE SPEED	350
* 55 MPH HIGH SPEED	500

* REGULATORY POSTED SPEED LIMIT PRIOR TO BEGINNING WORK

TABLE B

TRAFFIC CONTROL DEVICE SPACING INTERVALS WORK ACTIVITY / BUFFER SPACE AREAS	
SPEED LIMIT	SPACING INTERVALS
≤ 35 MPH	25 FEET
40 - 55 MPH	50 FEET

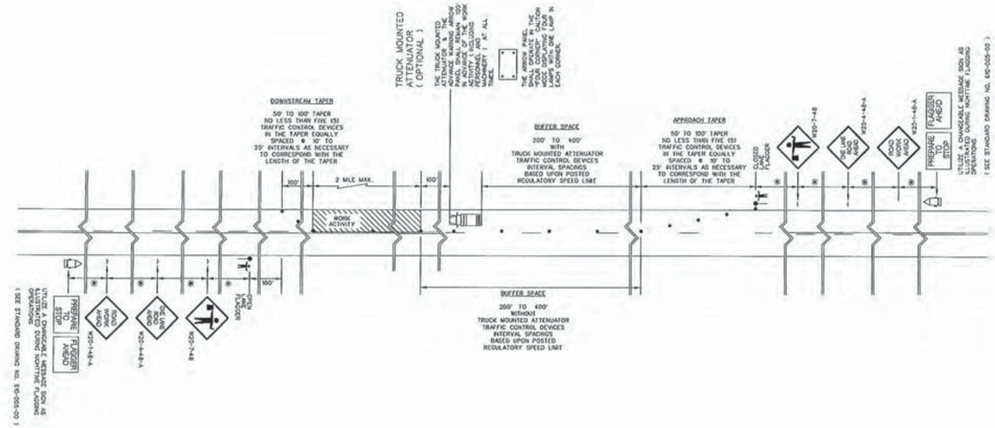


TABLE A

SIGN PLACEMENT INTERVALS	
SPEED LIMIT	*
* ≤ 35 MPH LOW SPEED	200
* 40 - 50 MPH INTERMEDIATE SPEED	350
* 55 MPH HIGH SPEED	500

* REGULATORY POSTED SPEED LIMIT PRIOR TO BEGINNING WORK

TABLE B

TRAFFIC CONTROL DEVICE SPACING INTERVALS WORK ACTIVITY / BUFFER SPACE AREAS	
SPEED LIMIT	SPACING INTERVALS
≤ 35 MPH	25 FEET
40 - 55 MPH	50 FEET

SOUTH CAROLINA DAVIS & FLOYD, INC. No. C00538 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:41:06 -04'00'

DAVIS & FLOYD

SINCE 1954

WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 556-8602

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
LANE CLOSURE

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D13	

INSTALLATION:

1. FILTER FABRIC IS USED FOR INLET PROTECTION WHEN STORMWATER FLOWS ARE RELATIVELY SMALL (1.0 CFS OR LESS) WITH LOW VELOCITIES. WHERE THE INLET DRAINS AREA HAS GRADES NO GREATER THAN 5% AND THE IMMEDIATE DRAINAGE AREA AROUND THE INLET (5 FOOT RADIUS) HAS GRADES LESS THAN 1%. DO NOT USE IN AREAS RECEIVING CONCENTRATED FLOW OR WHERE DITCHES ARE PAVED. A TRENCH SHALL BE EXCAVATED 6 INCHES WIDE AND 6 INCHES DEEP AROUND THE OUTER PERIMETER OF THE STAKES UNLESS FABRIC IS PNEUMATICALLY INSTALLED.

2. FILTER FABRIC SHALL CONFORM TO SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION). FILTER FABRIC SHALL EXTEND A MINIMUM OF 12 INCHES INTO THE TRENCH. THE TRENCH SHALL BE BACKFILLED WITH SOIL OR CRUSHED STONE AND COMPACTED OVER THE FILTER FABRIC UNLESS FABRIC IS PNEUMATICALLY INSTALLED.

3. USE STEEL POSTS WITH A MINIMUM POST LENGTH OF 5 FEET CONSISTING OF STANDARD "T" SECTIONS WITH A WEIGHT OF 1.25 POUNDS PER FOOT (±8%). THE HEIGHT OF THE FILTER BARRIER ABOVE GROUND SHALL BE A MINIMUM OF 24 INCHES. POSTS SHALL BE SPACED AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 2 FEET APART AND DRIVEN INTO THE GROUND A MINIMUM OF 24 INCHES. ATTACH FABRIC TO POSTS USING ONLY HEAVY DUTY PLASTIC TIES. ATTACH AT LEAST 4 EVENLY SPACED TIES IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC.

4. FILTER FABRIC SHOULD BE IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE PROTECTED AREA TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER FABRIC SHOULD BE WRAPPED TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST WITH A MINIMUM 6 INCH OVERLAP.

5. PROVIDE A FILTER FABRIC CAPABLE OF REDUCING EFFLUENT SEDIMENT CONCENTRATIONS BY NOT LESS THAN 80% UNDER TYPICAL SEDIMENT MIGRATION CONDITIONS.

INSPECTION AND MAINTENANCE:

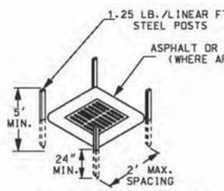
1. INSPECTIONS SHOULD BE MADE EVERY SEVEN (7) CALENDAR DAYS. ANY NEEDED REPAIRS SHOULD BE HANDLED IMMEDIATELY.

2. IF THE FABRIC BECOMES CLOGGED, IT SHOULD BE REPLACED.

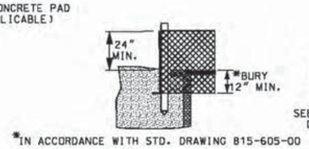
3. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY 1/3 THE HEIGHT OF THE FILTER FABRIC. IF A SUMP IS USED, SEDIMENT SHOULD BE REMOVED WHEN IT FILLS APPROXIMATELY 1/3 THE DEPTH OF THE HOLE. MAINTAIN THE POOL AREA. ALWAYS PROVIDING ADEQUATE SEDIMENT STORAGE VOLUME FOR THE NEXT STORM. TAKE CARE NOT TO DAMAGE OR UNDERCUT FABRIC WHEN REMOVING SEDIMENT. CLEANING INLET STRUCTURE FILTERS IS PAID FOR EACH (EA) FILTER CLEANED OF DEPOSITED SEDIMENT FROM THE AREA ADJACENT TO EACH INLET STRUCTURE FILTER.

4. STORM DRAIN INLET PROTECTION STRUCTURES SHOULD BE REMOVED ONLY AFTER THE DISTURBED AREAS ARE PERMANENTLY STABILIZED. REMOVE ALL CONSTRUCTION MATERIAL AND SEDIMENT, AND DISPOSE OF THEM PROPERLY. GRADE THE DISTURBED AREA TO DRAIN. USE APPROPRIATE PERMANENT STABILIZATION METHODS TO STABILIZE BARE AREAS AROUND THE INLET.

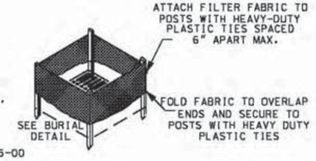
5. THE PAY ITEMS SHALL BE:
   8156219 INLET STRUCTURE FILTER TYPE A_____LF
   8154155 CLEANING INLET STRUCTURE FILTERS_____EA



POST INSTALLATION DETAIL



FILTER FABRIC BURIAL DETAIL



FILTER FABRIC INSTALLATION DETAIL

TYPE A
LOW FLOW INLET FILTERS
(FILTER FABRIC INLET PROTECTION)

THIS DRAWING IS NOT TO SCALE.

INSTALLATION:

1. INSTALL SEDIMENT TUBES BY LAYING THEM FLAT ON THE GROUND. CONSTRUCT A SMALL TRENCH TO A DEPTH THAT IS 20% OF THE SEDIMENT TUBE DIAMETER. LAY THE SEDIMENT TUBE IN THE TRENCH AND COMPACT THE UPSTREAM SEDIMENT TUBE/SOIL INTERFACE. INSTALL ALL SEDIMENT TUBES SO NO GAPS EXIST BETWEEN THE SOIL AND THE BOTTOM OF THE SEDIMENT TUBE. LAP THE ENDS OF ADJACENT SEDIMENT TUBES A MINIMUM OF 6 INCHES TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. NEVER STACK SEDIMENT TUBES ON TOP OF ONE ANOTHER.

2. SHOULD SEDIMENT TUBE BECOME DAMAGED DURING INSTALLATION, PLACE A STAKE ON BOTH SIDES OF THE DAMAGED AREA TERMINATING THE TUBE SEGMENT AND INSTALL A NEW TUBE SEGMENT.

3. INSTALL SEDIMENT TUBES USING WOODEN STAKES WITH A MINIMUM POST LENGTH OF 4 FEET AND A MINIMUM MEASURED DIMENSION OF ¾" X ¾" AND A MAXIMUM MEASURED DIMENSION OF 2" X 2". OR USING STEEL POSTS (1.25lbs./linear foot). USE STEEL POSTS WITHOUT A SOIL PLATE AND PAINTING IS NOT REQUIRED. SPACE POSTS OR STAKES ON 2-FOOT CENTERS AND DRIVE THEM INTO THE GROUND TO A MINIMUM DEPTH OF 2 FEET. INSTALL THE STAKES ON THE DOWNSTREAM (1/3) OF THE SEDIMENT TUBE. ENSURE THE AREAS FOR STAKE INSTALLATION ARE COMPACTED SO THE POSTS ARE PROPERLY INSTALLED.

INSPECTION AND MAINTENANCE:

1. INSPECT SEDIMENT TUBES AFTER INSTALLATION FOR GAPS UNDER THE SEDIMENT TUBES AND FOR GAPS BETWEEN THE JOINTS OF ADJACENT ENDS OF SEDIMENT TUBES. REPAIR RILLS, GULLIES, AND ALL UNDERCUTTING NEAR SEDIMENT TUBES. INSPECT SEDIMENT TUBES EVERY 7 DAYS.

2. REMOVE SEDIMENT WHEN IT REACHES APPROXIMATELY ½ HEIGHT OF THE INLET STRUCTURE FILTER. IF A SUMP IS USED, REMOVE SEDIMENT WHEN IT FILLS APPROXIMATELY ½ THE DEPTH OF THE HOLE. MAINTAIN THE POOL AREA, ALWAYS PROVIDING ADEQUATE SEDIMENT STORAGE VOLUME FOR THE NEXT STORM EVENT. CLEANING INLET STRUCTURE FILTER IS PAID FOR EACH (EA) FILER CLEANED OF DEPOSITED SEDIMENT FROM THE AREA ADJACENT TO EACH INLET STRUCTURE FILTER.

3. REMOVE AND/OR REPLACE INSTALLED SEDIMENT TUBES AS REQUIRED TO ADAPT TO CHANGING CONSTRUCTION SITE CONDITIONS.

4. REMOVE ALL SEDIMENT TUBES FROM THE SITE WHEN THE FUNCTIONAL LONGEVITY IS EXCEEDED AS DETERMINED BY THE ENGINEER, INSPECTOR, OR MANUFACTURER'S REPRESENTATIVE.

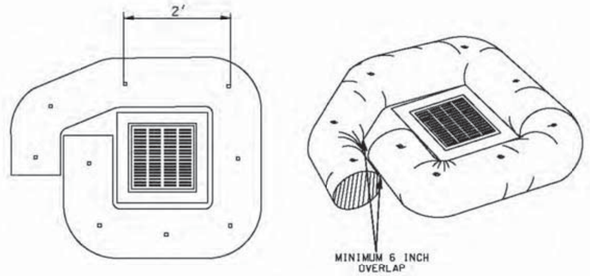
5. DISPOSE OF SEDIMENT TUBES BY REGULAR MEANS AS NON-HAZARDOUS, INERT MATERIAL.

6. THE PAY ITEMS SHALL BE:
   8156219 INLET STRUCTURE FILTER TYPE A_____LF
   8154155 CLEANING INLET STRUCTURE FILTERS_____EA

NOTES:

1) ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.

2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.



TYPE A
LOW FLOW INLET FILTERS
(SEDIMENT TUBE INLET PROTECTION)

SOUTH CAROLINA
DAVIS & FLOYD, INC.
No. C00538
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 20214
GEORGE TILLEY BUIE
Tilley Buie
2019.09.18
16:40:55 -04'00'

DAVIS & FLOYD
SINCE 1954
WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-8602

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1			

DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
TYPE A INLET STRUCTURE FILTERS DETAIL

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D14	

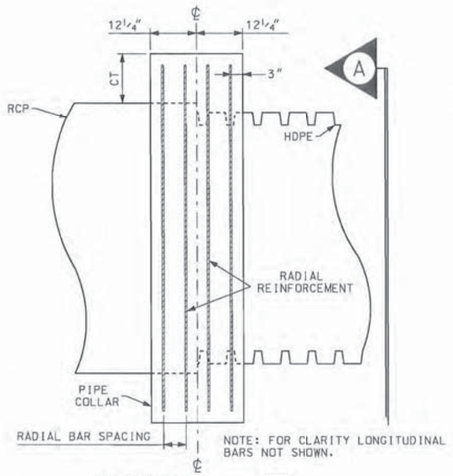
NOTES:

1. SEE STANDARD DRAWING 719-705-02 FOR NOTES.

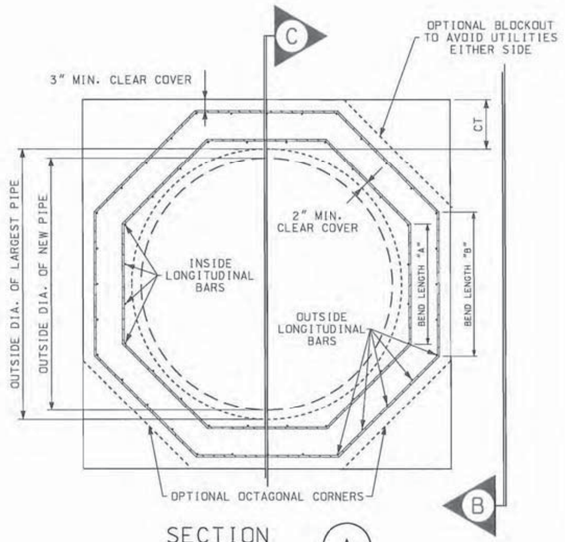
NOTES:

1) ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.

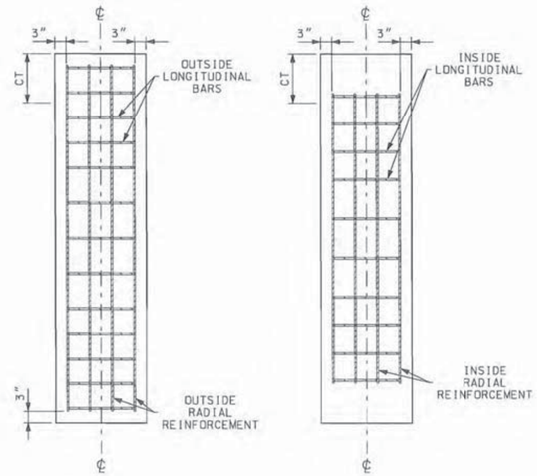
2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.



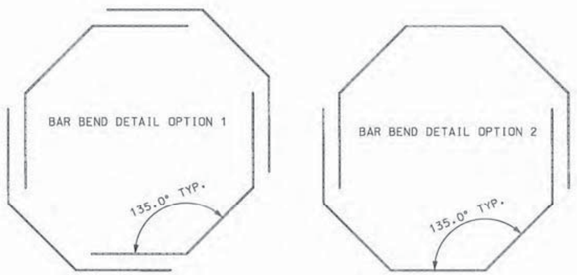
DETAIL 1
SCALE 3/8":1'
PIPE COLLAR ELEVATION



SECTION A
SCALE 3/8":1'
PIPE COLLAR PLAN VIEW



SECTION B
SCALE 3/8":1'
PIPE COLLAR



DETAIL 2
SCALE 1/4":1'
RADIAL REINFORCEMENT BENDING OPTIONS

TABLE: 719-705A							
PIPE INSIDE DIAMETER	COLLAR THICKNESS, [CT]	REINFORCING STEEL BAR	RADIAL SPACING	BEND LENGTH "A"	BEND LENGTH "B"	NO. OF "A" LONGITUDINAL BARS	NO. OF "B" LONGITUDINAL BARS
12"	8"	NO. 4	9"	9.30"	11.4"	2	2
24"	8"	NO. 4	9"	15.1"	17.2"	3	3
36"	10"	NO. 4	6"	21.0"	24.7"	3	4
48"	10"	NO. 4	6"	26.75"	30.5"	4	4
60"	13"	NO. 4	6"	32.5"	38.75"	4	5
72"	13"	NO. 4	6"	38.3"	45.5"	5	5

NOTE: THE BEND LENGTHS "A" & "B", ARE BASED ON THE CLEARANCES FROM THE OUTSIDE DIAMETER OF A C-WALL RCP.

SOUTH CAROLINA DAVIS & FLOYD, INC. No. C00538 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL

Tilley Bull
2019.09.18
16:40:43 -04'00'

DAVIS & FLOYD

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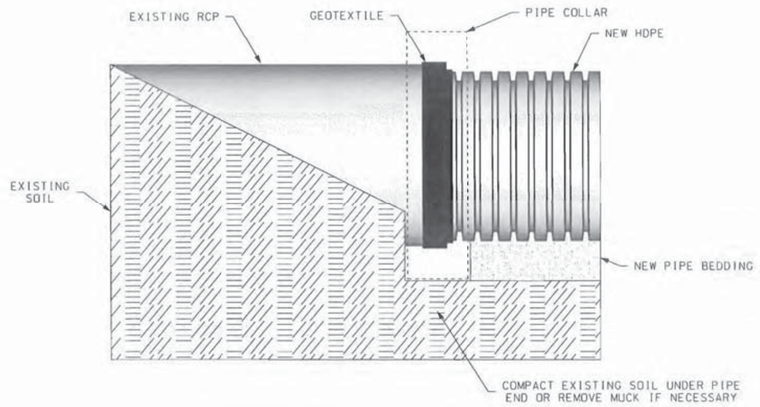
DGN. JJG DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
DRAINAGE STRUCTURE
UNIVERSAL PIPE COLLAR
DETAIL

STATE	COUNTY	D&F PROJECT NO.	ROAD NAME	SHEET NO.	TOTAL SHEETS
S.C.	GEORGETOWN	31742.08	EVANS PLACE	D15	



DETAIL 3
SCALE 1/4":1'
EXISTING PIPE EXCAVATION AND NEW PIPE INSTALLATION

NOTES:

1. THIS STANDARD DRAWING IS ONLY APPLICABLE FOR RCP, HDPE, AND SRAP SMOOTH WALL PIPE. THIS PIPE COLLAR IS ONLY INTENDED TO BE USED WITH PIPE OF THE SAME SPECIFIED INSIDE DIAMETER. FOR CONNECTING TWO PIPES WITH DIFFERENT INSIDE DIAMETERS, USE A JUNCTION BOX.

2. EXCAVATE SOIL AROUND EXISTING PIPE AS NECESSARY. THE SOIL BELOW EXISTING PIPE END SHOULD ONLY BE EXCAVATED TO A DEPTH THAT WILL ACCOMMODATE THE THICKNESS OF THE PIPE COLLAR.

3. WHEN INSTALLING NEW PIPE, USE MATERIALS AND METHODS OF CONSTRUCTION FOR PERMANENT PIPE INSTALLATIONS THAT CONFORM TO SCDOT SUPPLEMENTAL TECHNICAL SPECIFICATION SC-M-714.

4. THE INSIDE INVERT OF THE NEW PIPE MUST BE ALIGNED WITH THE INSIDE INVERT OF THE EXISTING PIPE AS IN DETAIL 4. THE BEDDING MATERIALS FOR THE NEW PIPE MUST BE PLACED SO THAT THE PIPE INVERTS REMAIN ALIGNED DURING THE BACKFILL PROCESS.

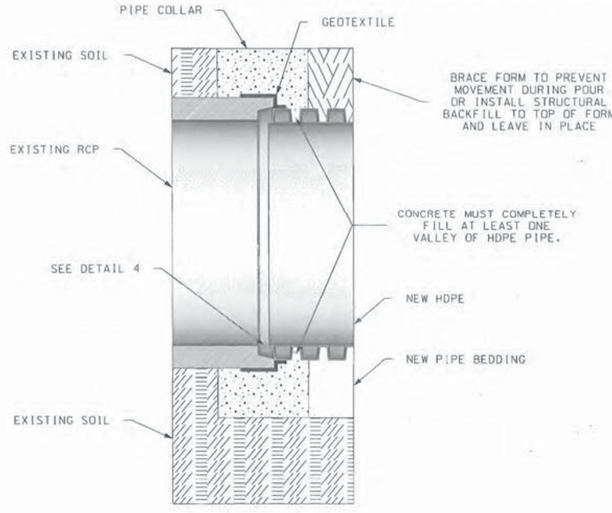
5. WRAP THE INTERFACE BETWEEN THE EXISTING PIPE & NEW PIPE WITH GEOTEXTILE OR OTHER SUITABLE MATERIAL TO PREVENT CONCRETE FROM ENTERING THE JOINT WHEN THE CONCRETE COLLAR IS POURED. SECURE THIS MATERIAL SO THAT IT REMAINS IN PLACE AS THE CONCRETE FOR THE PIPE COLLAR IS POURED.

6. A SQUARE COLLAR IS SHOWN IN SECTION A. THE BOTTOM CORNERS OF PIPE COLLAR MAY BE OMITTED WHERE REQUIRED TO CLEAR OBSTRUCTIONS, OR TO MINIMIZE THE AMOUNT OF CONCRETE. ALL DIMENSIONS SHOWN IN TABLE:719-705A MUST BE MAINTAINED.

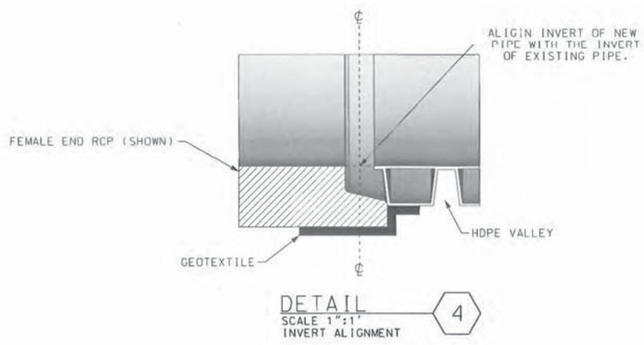
7. USE REINFORCEMENT BAR SIZE NO. 4. SPACING BETWEEN INSIDE AND OUTSIDE REINFORCEMENT IS ESTABLISHED BY THE COLLAR THICKNESS AND CLEAR EDGE DISTANCE. ALL CLEAR EDGE DISTANCES MUST BE MAINTAINED AROUND COLLAR.

8. 2" MINIMUM CLEAR COVER SHOWN ON SECTION A (STANDARD DRAWING 719-705-01) BETWEEN INSIDE RADIAL REINFORCEMENT AND PIPE OUTSIDE DIAMETER. THEREFOR, THE BEND LENGTHS "A" & "B" IN TABLE 719-705A WILL VARY WITH DIFFERENT PIPE TYPES.

9. THE PAY ITEM SHALL BE:
7197705X CONCRETE PIPE COLLAR-XX INCH PIPE_____EA.



SECTION C
SCALE 3/8":1'
INTERFACE BETWEEN EXISTING PIPE AND NEW PIPE



DETAIL 4
SCALE 1":1'
INVERT ALIGNMENT

NOTES:

1) ANY REFERENCES TO PAYMENT IS SUPERCEDED BY PROJECT SPECIFICATIONS IN THE CONTRACT.

2) FIELD ADJUSTMENTS TO IMPLEMENT DETAILS MAY BE REQUIRED AND CAN BE APPROVED BY THE COUNTY RESIDENT CONSTRUCTION MANAGER OR THE PROJECT ENGINEER.

SOUTH CAROLINA DAVIS & FLOYD, INC. No. C00538 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20214 GEORGE TILLEY BULL
Tilley Bull
2019.09.18
16:40:32 -04'00'

DAVIS & FLOYD
SINCE 1954
WWW.DAVISFLOYD.COM

3229 W. MONTAGUE AVENUE
CHARLESTON, SC 29418
(843) 554-6602

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

DGN. JJC DATE
R/W DATE
CHK. GTB DATE

GEORGETOWN COUNTY
ENGINEERED ROADS PROGRAM

EVANS PLACE
TYPE A INLET STRUCTURE FILTERS DETAIL