CNW RD

ROADWAY IMPROVEMENTS

PREPARED FOR

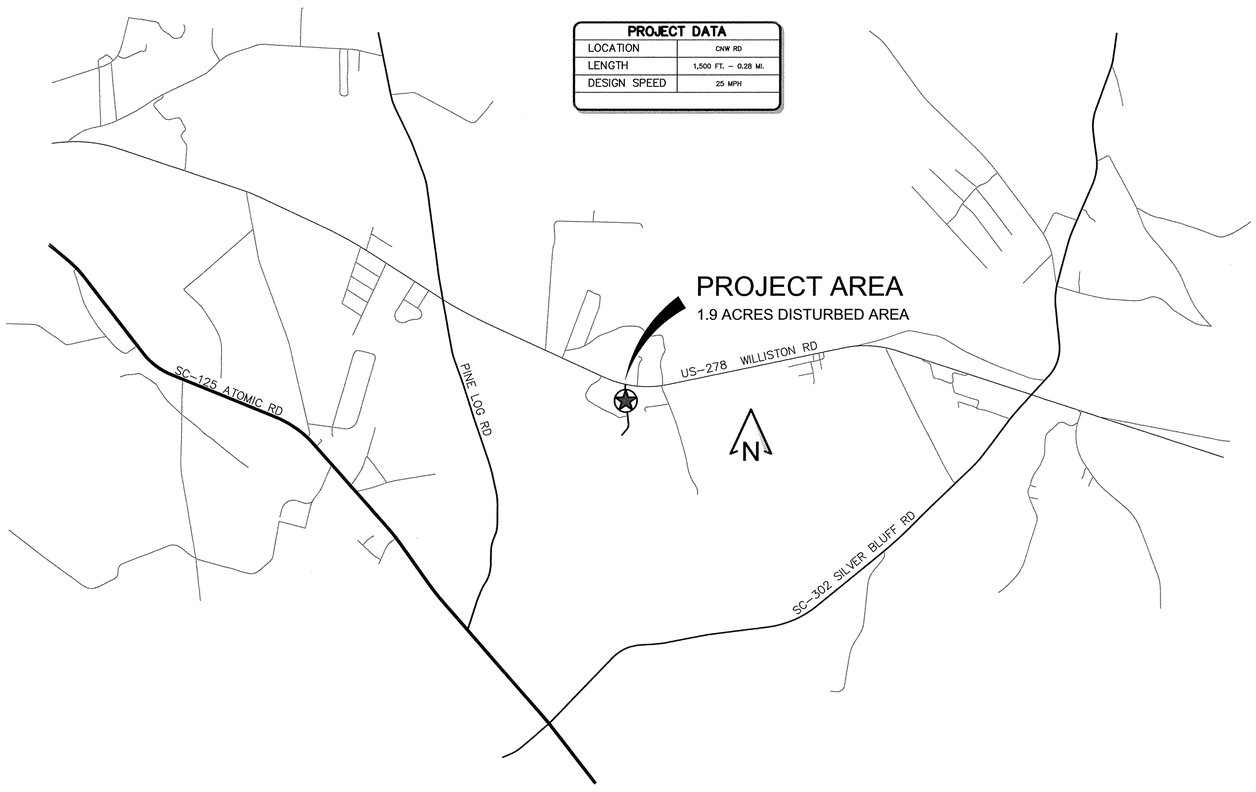
AIKEN COUNTY DEPARTMENT OF ENGINEERING

1930 UNIVERSITY PKWY

AIKEN, SOUTH CAROLINA 29801

TELEPHONE: (803) 642-1535

PROJECT DATA	
LOCATION	CNW RD
LENGTH	1,500 FT. – 0.28 MI.
DESIGN SPEED	25 MPH



PREPARED BY

SOUTHERN PARTNERS, INC.

1233 AUGUSTA WEST PARKWAY

AUGUSTA, GEORGIA 30909

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NO.	DATE	REVISION	BY
5			
4			
3	3-29-16	REVISED PER GOVERNMENT REVIEW	PRG
2	10-27-15	SUBMITTED FOR GOVERNMENT BID	PRG
1	06-29-15	SUBMITTED FOR GOVERNMENT REVIEW	PRG

SOUTHERN PARTNERS INC
ENGINEERING - SURVEYING - LAND PLANNING
1233 AUGUSTA WEST PARKWAY
AUGUSTA, GEORGIA 30909
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engineering@southernpartners.net

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 20074
JOHN P. R. GREEN

SOUTH CAROLINA
SOUTHERN PARTNERS ENGINEERING & LAND SURVEYING COMPANY, INC.
C00529
CERTIFICATE OF AUTHORIZATION

CNW RD
ROADWAY IMPROVEMENTS
EXISTING ROAD IMPROVEMENTS - PAVEMENT
PROJECT LOCATED OFF OF US-278, WILLISTON RD IN AIKEN COUNTY, SOUTH CAROLINA

AIKEN COUNTY DEPARTMENT OF ENGINEERING

ATTN: JOE BERRY, PE
1930 UNIVERSITY PKWY
AIKEN, SC 29801
PHONE: 803/642-1535

PROJECT DATA	
TOTAL LENGTH	1,500 FT
ROADWAY WIDTH	22 FT

811
Know what's **below**
Call before you dig

SHEET INDEX	
COVER SHEET	1
INDEX PLAN	2
NOTES/ DETAILS	3
PLAN & PROFILES	4-5
CROSS SECTIONS	6-7
SESC PLAN	8-9

S.P. No. 15-26892
SCALE : NTS
DATE : 04-16-15
DESIGN: MDW REVIEW: PRG

1

MISCELLANEOUS NOTES:

1. KNOWN UTILITY FACILITIES ARE SHOWN SCHEMATICALLY ON THE PLANS, AND NOT NECESSARILY ACCURATE IN LOCATION AS TO PLAN OR ELEVATION. UTILITY FACILITIES, SUCH AS SERVICE LINES OR UNKNOWN FACILITIES NOT SHOWN ON HIGHWAY PLANS WILL NOT RELIEVE THE REQUIREMENT EXCEPT AS NOTED BELOW. "EXISTING UTILITY FACILITIES" MEANS ANY UTILITY FACILITY THAT EXISTS ON THE PROJECT IN ITS ORIGINAL, RELOCATE OR NEWLY INSTALLED POSITION. ALL INDIVIDUAL SERVICE LINES ARE NOT SHOWN ON THE PLANS.
2. EXISTING WATER METERS SHALL BE RELOCATED AS NECESSARY TO COMPLETE CONSTRUCTION.
3. CONSTRUCTION SHALL BE COMPLETED SO AS TO PROVIDE LIMITED SERVICE INTERRUPTION. WATER AND SEWER SERVICE SHALL NOT BE TERMINATED AT ANY LOCATION IN EXCESS OF 12 HOURS. WATER AND SEWER CUSTOMERS SHALL BE GIVEN 48 HOUR MINIMUM NOTICE WHEN SERVICE IS TO INTERRUPTED.
4. ALL EXISTING MAILBOXES SHALL BE OFFSET LATERALLY AS REQUIRED TO CLEAR WAY FOR CONSTRUCTION. THE COST OF THIS WORK SHALL BE INCLUDED IN LUMP-SUM CONSTRUCTION.
5. ALL DRIVEWAYS THAT ARE TO BE RECONSTRUCTED SHALL BE REPLACED IN KIND, I.E. ASPHALT FOR ASPHALT, CONCRETE FOR CONCRETE AND AGGREGATE SURFACE COURSE FOR EARTH. THE DRIVEWAY LOCATIONS INDICATED ON THE PLANS ARE FROM THE BEST AVAILABLE DATA. THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE ENGINEER PRIOR TO MAKING ANY REVISIONS SUCH AS TO LOCATIONS, WIDTH AND/OR NUMBER OF DRIVES TO BE CONSTRUCTED WHERE REQUIRED. THE DRIVES SHALL BE PAVED AS FOLLOWS, UNLESS OTHERWISE SPECIFIED:

ASPHALT DRIVES		1 1/2" COMPACTED TYPE C ASPHALT PAVING
CONCRETE DRIVES	RESIDENTIAL:	6" CLASS "B" CONCRETE
	COMMERCIAL:	8" CLASS "B" CONCRETE
EARTH DRIVES		2" AGGREGATE SURFACE COURSE UNLESS OTHERWISE SPECIFIED ON PLANS SPREAD ON THE SURFACE AND NOT MIXED IN

6. INGRESS AND EGRESS SHALL BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES, UNLESS OTHERWISE NOTED IN THE PLANS.

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF AIKEN COUNTY.
2. NOTIFY COUNTY ENGINEER'S OFFICE BEFORE STARTING CONSTRUCTION.
3. BENCH MARK IS U.S.G.S. DATUM.
4. ALL SILT BARRIERS MUST BE PLACED IMMEDIATELY FOLLOWING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION IS COMPLETED.
5. ALL TRAFFIC SIGNS ARE TO BE PER SOUTH CAROLINA D.O.T. SPECIFICATIONS.
6. ALL DITCHES AND SWALES WILL BE GRASSED TO AIKEN COUNTY SPECIFICATIONS.
7. ALL DRAINAGE EASEMENTS MUST BE GRASSED AND RIP-RAPPED AS REQUIRED TO CONTROL EROSION.
8. ALL FILL SHALL BE PLACED IN 6" LAYERS AND COMPACTED WITH A SHEEPS FOOT ROLLER.
9. TOP 6" OF SUBGRADE TO BE MIXED IN PLACE AND COMPACTED TO 100% MAXIMUM DRY DENSITY, AND INSPECTED BY AIKEN COUNTY BEFORE BASE COURSE IS PLACED.
10. VERIFICATION OF BASE MATERIAL, 6" G.A.B., CONFORMING TO SOUTH CAROLINA D.O.T. SPEC. SECTION 303, SHALL BE SUBMITTED BY THE CONTRACTOR PRIOR TO DUMPING THE BASE MATERIAL.
11. G.A.B. MUST BE 6" MINIMUM AND CONSTRUCTED, PREPARED AND COMPACTED TO 100% MAXIMUM DRY DENSITY AS PER SC DOT SPECIFICATIONS.
12. ALL COMPACTION TEST ON BASE SHALL BE PAID FOR BY CONTRACTOR.
13. PRIME COAT TO BE 0.25 GALLONS/S.Y. OF MC-30 LIQUID ASPHALT.
14. MINIMUM ASPHALT MIX TO BE 1 1/2" S.C. TYPE C AFTER COMPACTION AS PER S.C. DOT SPECS, LATEST EDITION.
15. ALL SHOULDERS AND SLOPES TO BE GRASSED AS PER S.C. DOT SPECIFICATIONS.
16. THE CONTRACTOR SHALL COORDINATE THE WORK OF THE UTILITY COMPANIES.
17. APPROVAL OF THESE PLANS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ADHERING TO THE WEIGHT LIMITS PRESCRIBED ON COUNTY MAINTAINED ROADS FOR HAULING EQUIPMENT AND/OR MATERIALS TO AND FROM THIS SITE.
18. FINISH GRADES SHOWN ARE FINAL SURFACE GRADES. (TOP OF PAVING)
19. THE CONTRACTOR SHALL VERIFY I.E. OF ALL EXISTING PIPES AND ROAD GRADE ELEVATIONS OF EXISTING ROADS BEFORE BEGINNING CONSTRUCTION.
20. ANY DISCREPANCIES, ERRORS, OR OMISSIONS DISCOVERED WITHIN THESE PLANS OR IN THE SPECIFICATIONS SHOULD BE NOTED ON THE CONTRACTORS PROPOSAL AND DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO CORRECT SAME.
21. ALL EXCESS CUT SHALL BE WASTED WITHIN PROJECT LIMITS AS DIRECTED BY ENGINEER OR COUNTY.

SESC NOTES

CONSTRUCTION START: JUL, 2016
FINAL STABILIZATION: FEB, 2017

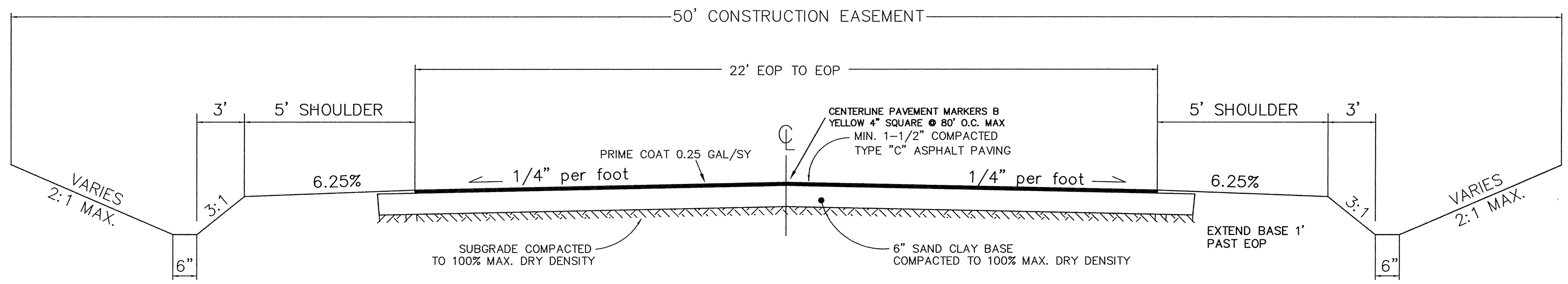
1. INSTALL CONSTRUCTION EXIT AS SHOWN.
2. CLEARING AND GRUBBING – 2 WEEKS – INSTALL SILT BARRIERS (SILT FENCE) AS CLEARING PROGRESSES.
3. GRADING – 8 WEEKS – MAINTAIN ALL SEDIMENT CONTROL MEASURES & PLACE TEMPORARY SEEDING AND/OR PERMANENT GRASSING WHERE PRACTICAL. INSTALL SEDIMNET BASINS AS WORK PROGRESSES.
4. UTILITY CONSTRUCTION – 8 WEEKS – PROVIDE SILT AND TRAP PROTECTION. GRASS AND MULCH AS SOON AS POSSIBLE.
5. ROADWAY CONSTRUCTION – 6 WEEKS – REMOVE TRAP PROTECTION REMOVE SILT FROM DRAINAGE SYSTEMS AND SEDIMENT RETENTION FACILITIES.
6. FINAL GRASSING – 4 WEEKS – MULCH & FERTILIZE PER VEGETATION PLAN.

SEE 'CONSTRUCTION SCHEDULE CHART' FOR A MORE DETAILED INFORMATION ABOUT REQUIRED MEETING AND SPECIFIC CLEARING FOR BMP INSTALLATION. CONSTRUCTION SCHEDULE IS BASED ON ESTIMATED WORK TIME AND MAY VARY.

VEGETATION PLAN

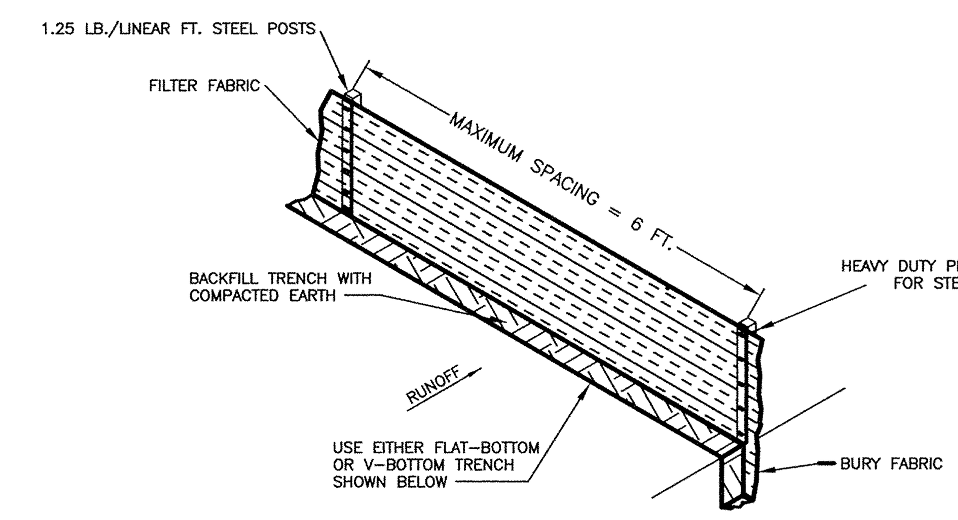
ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE GRASSED ACCORDING TO THE FOLLOWING SPECIFICATIONS:

A. FERTILIZER: 10-10-10 (TYPICAL). 1500 LB/ACRE. B. LIME: 3000 LB/ACRE.
C. GRASS: COMMON HULLED BERMUDA (MAY – SEPTEMBER) OR COMMON UNHULLED BERMUDA (OCTOBER-APRIL), Ds2 30 LB./ACRE.
D. TEMPORARY SEEDING: BROWN TOP MILLET (MAY – SEPTEMBER) OR ABRUZZI RYE (OCTOBER – APRIL), Ds3 30 – 40 LB./ACRE.
E: MULCH: HAY, 2.5 TONS PER ACRE WITHIN 24 HOURS OF SEEDING. ANCHOR WITH DISK HARROW.

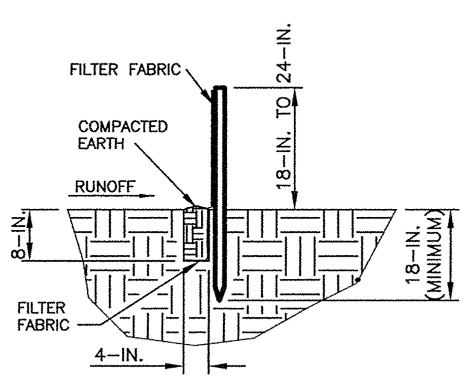


TYPICAL CROSS-SECTION

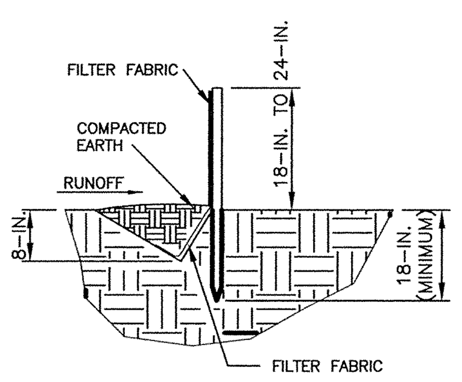
NOT TO SCALE



SILT FENCE INSTALLATION



FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL

SILT FENCE (Sd1)

NOT TO SCALE

When and Where to Use It
Silt fence is applicable in areas:

Where the maximum sheet or overland flow path length to the fence is 100-feet.
Where the maximum slope steepness (normal [perpendicular] to fence line) is 2H:1V.
That do not receive concentrated flows greater than 0.5 cfs.

Do not place silt fence across channels or use it as a velocity control BMP.

Materials

Steel Posts
Use 48-inch long steel posts that meet the following minimum physical requirements:
Composed of high strength steel with minimum yield strength of 50,000 psi.
Have a standard "T" section with a nominal face width of 1.38-inches and nominal "T" length of 1.48-inches.
Weigh 1.25 pounds per foot (± 8%).
Have a soil stabilization plate with a minimum cross section area of 17-square inches attached to the steel posts.
Painted with a water based baked enamel paint.

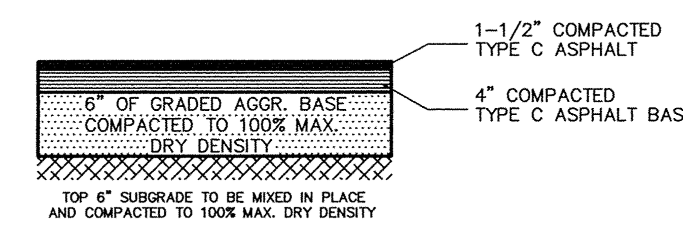
Use steel posts with a minimum length of 4-feet, weighing 1.25 pounds per linear foot (± 8%) with projections to aid in fastening the fabric. Except when heavy clay soils are present on site, steel posts will have a metal soil stabilization plate welded near the bottom such that when the post is driven to the proper depth, the plate will be below the ground level for added stability.
The soil plates should have the following characteristics:
Be composed of minimum 15 gauge steel.
Have a minimum cross section area of 17-square inches.

Geotextile Filter Fabric
Filter fabric is:
Composed of fibers consisting of long chain synthetic polymers composed of at least 85% by weight of polyolefins, polyesters, or polyamides. Formed into a network such that the filaments or yarns retain dimensional stability relative to each other. Free of any treatment or coating which might adversely alter its physical properties after installation. Free of defects or flaws that significantly affect its physical and/or filtering properties. Cut to a minimum width of 36 inches.

Use only fabric appearing on SCDOT Approval Sheet #34 meeting the requirements of the most current edition of the SCDOT Standard Specifications for Highway Construction.

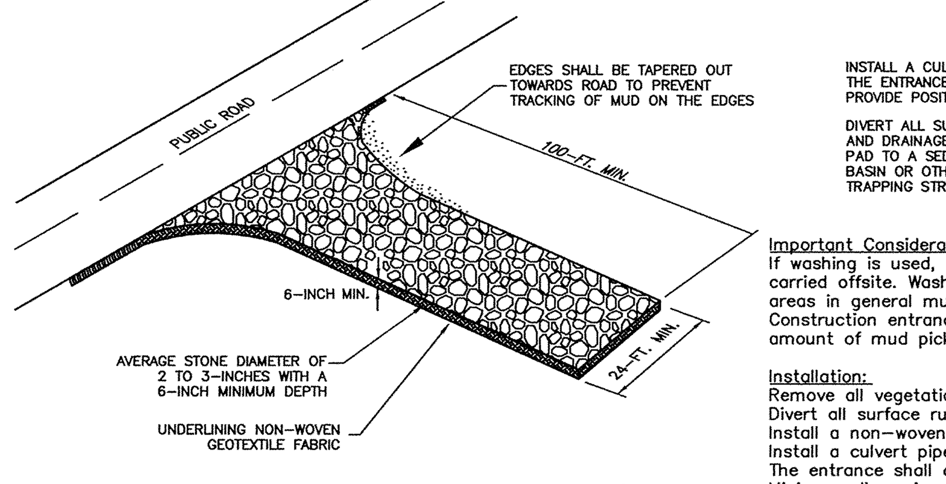
Installation
Excavate a trench approximately 6-inches wide and 6-inches deep when placing fabric by hand. Place 12-inches of geotextile fabric into the 6-inch deep trench, extending the remaining 6-inches towards the upslope side of the trench. Backfill the trench with soil or gravel and compact.Bury 12-inches of fabric into the ground when pneumatically installing silt fence with a slicing method. Purchase fabric in continuous rolls and cut to the length of the barrier to avoid joints. When joints are necessary, wrapped the fabric together at a support post with both ends fastened to the post, with a 6-inch minimum overlap. Install posts to a minimum depth of 24-inches. Install posts a minimum of 1- to 2- inches above the fabric, with no more than 3-feet of the post above the ground. Space posts to maximum 6-feet centers. Attach fabric to wood posts using staples made of heavy-duty wire at least 1½-inch long, spaced a maximum of 6-inches apart. Staple a 2-inch wide lathe over the filter fabric to securely fasten it to the upslope side of wooden posts. Attach fabric to the steel 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. Install the fabric a minimum of 24-inches above the ground. When necessary, the height of the fence above ground may be greater than 24-inches. In tidal areas, extra silt fence height may be required. The post height will be twice the exposed post height. Post spacing willremain the same and extra height fabric will be 4-, 5-, or 6-feet tall. Locate silt fence checks every 100 feet maximum and at low points. Install the fence perpendicular to the direction of flow and place the fence the proper distance from the toe of steep slopes to provide sediment storage and access for maintenance and cleanout.

Inspection and Maintenance
Inspect every seven calendar days and within 24-hours after each rainfall event that produces ½-inches or more of precipitation. Check for sediment buildup and fence integrity. Check where runoff has eroded a channel beneath the fence, or where the fence has sagged or collapsed by fence overtopping.
If the fence fabric tears, begins to decompose, or in any way becomes ineffective, replace the section of fence immediately.
Remove sediment accumulated along the fence when it reaches 1/3 the height of the fence, especially if heavy rains are expected.
Remove trapped sediment from the site or stabilize it on site.
Remove silt fence within 30 days after final stabilization is achieved or after temporary best management practices (BMPs) are no longer needed.
Permanently stabilize disturbed areas resulting from fence removal.



SCDOT ASPHALT PAVING DETAIL

N.T.S.



CONSTRUCTION EXIT (Co)

NOT TO SCALE

INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.

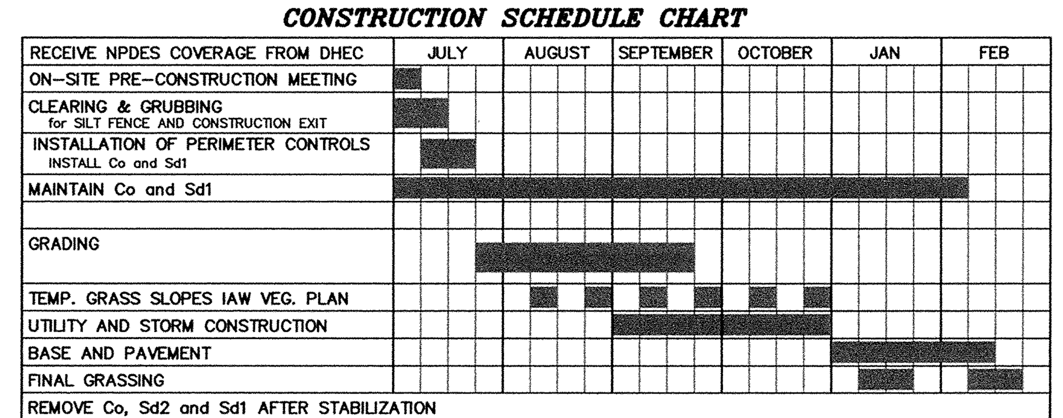
DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN OR OTHER SEDIMENT TRAPPING STRUCTURE.

Important Considerations
If washing is used, provisions must be made to intercept the wash water and trap the sediment before it is carried offsite. Washdown facilities shall be required as directed by SCDHEC as needed. Washdown areas in general must be established with crushed gravel and drain into a sediment trap or sediment basin. Construction entrances should be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by vehicles.

Installation:
Remove all vegetation and any objectionable material from the foundation area.
Divert all surface runoff and drainage from stones to a sediment trap or basin.
Install a non-woven geotextile fabric prior to placing any stone.
Install a culvert pipe across the entrance when needed to provide positive drainage.
The entrance shall consist of 1-inch to 3-inch D50 stone placed at a minimum depth of 6-inches.
Minimum dimensions of the entrance shall be 24-feet wide by 100-feet long, and may be modified as necessary to accommodate site constraints.
The edges of the entrance shall be tapered out towards the road to prevent tracking of mud at the edge of the entrance.

Inspection and Maintenance:
Inspect construction entrances every seven (7) calendar days and within 24-hours after each rainfall event that produces ½-inches or more of precipitation, or after heavy use. Check for mud and sediment buildup and pad integrity. Make daily inspections during periods of wet weather. Maintenance is required more frequently in wet weather conditions. Reshape the stone pad as needed for drainage and runoff control. Wash or replace stones as needed and as directed by the inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce mud being carried off-site by vehicles. Frequent washing will extend the useful life of stone. Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin. Repair any broken pavement immediately.

CONSTRUCTION SCHEDULE CHART



DISTURBED AREA PER THIS PLAN: 0.6 Ac.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Co	CONSTRUCTION EXIT			A CRUSHED STONE PAD LOCATED AT THE CONSTRUCTION EXIT TO PROVIDE A PLACE FOR REMOVING MUD FROM TIRES THEREBY PROTECTING PUBLIC STREETS
Sdl	SEDIMENT BARRIER			A BARRIER TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT MAY BE SANDBAGS, BALES OF STRAW OR HAY, BRUSH, LOGS, AND POLES, GRAVEL, OR A SEDIMENT FENCE. THE BARRIERS ARE USUALLY TEMPORARY AND INEXPENSIVE.
Ds2	DISTURBED AREA STABILIZATION (TEMPORARY)		Ds2	ESTABLISHING A TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS ON DISTURBED AREAS.
Ds3	DISTURBED AREA STABILIZATION (PERMANENT)		Ds3	PLANTING PERMANENT VEGETATION ON ERODIBLE AREAS TO STABILIZE THE SOIL AND REDUCE EROSION AND DAMAGE TO DOWN STREAM AREAS.
Cd	CHECK DAM			A SMALL TEMPORARY BARRIER OR DAM CONSTRUCTED ACROSS A SWALE, DRAINAGE DITCH OR AREA OF CONCENTRATED FLOWS.
St	STORM DRAIN OUTLET PROTECTION			A SHORT SECTION OF RIP-RAP CHANNEL AT THE OUTLET OF A STORM DRAIN SYSTEM PREVENTING EROSION FROM THE CONCENTRATED RUNOFF.
Sd2	INLET SEDIMENT TRAP			A TEMPORARY PROTECTIVE DEVICE FORMED AROUND A STORM DRAIN DROP INLET TO TRAP SEDIMENT.

REQUIRED SCDHEC NOTES

1) IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL 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. NO SLOPES ON SITE TO EXCEED 2:1.

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 PER WEEK AND AFTER 1/2" RAINFALL EVENTS BY A QUALIFIED INSPECTOR. 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 WITH GRASSING 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 SEDIMENT 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 CONSTRUCTION AREAS 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 SWALES 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. THERE ARE NO WETLANDS/WATERS OF THE STATE BEING DISTURBED BY THIS PROJECT.

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 BECOMING 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 CLEAN-OUT 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.

20. TEMPORARY RIP-RAP STRUCTURES MAY BE LEFT IN PLACE WITH THE OWNER'S PERMISSION.

21. ALL FUEL VESSELS MUST BE PROTECTED WITH A LINED CONTAINMENT BERM AND IF A SPILL OCCURS, IT MUST BE CLEANED UP AND CONTAMINATED SOILS REMOVED AND DISPOSED OF PROPERLY.

22. CONSTRUCTION DEBRIS MAY NOT BE BURNED OR BURIED.

3			
2			
1	3-29-16	REVISED PER GOVERNMENT REVIEW	PRG
0	10-27-15	SUBMITTED FOR GOVERNMENT BID	PRG
0	06-29-15	SUBMITTED FOR GOVERNMENT REVIEW	PRG
NO.	DATE	REVISION	BY

SOUTHERN PARTNERS INC
ENGINEERING - SURVEYING LAND PLANNING
1233 AUGUSTA WEST PARKWAY
AUGUSTA, GEORGIA 30909
(706) 855-6000
engineering@southernpartners.net

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20074 JOHN P. R. GREEN

SOUTH CAROLINA SOUTHERN PARTNERS ENGINEERING & LAND SURVEYING COMPANY, INC. C00529 CERTIFICATE OF AUTHORIZATION

CNW RD ROADWAY IMPROVEMENTS

EXISTING ROAD IMPROVEMENTS – PAVEMENT
PROJECT LOCATED OFF OF US-278, WILLISTON RD IN AIKEN COUNTY, SOUTH CAROLINA

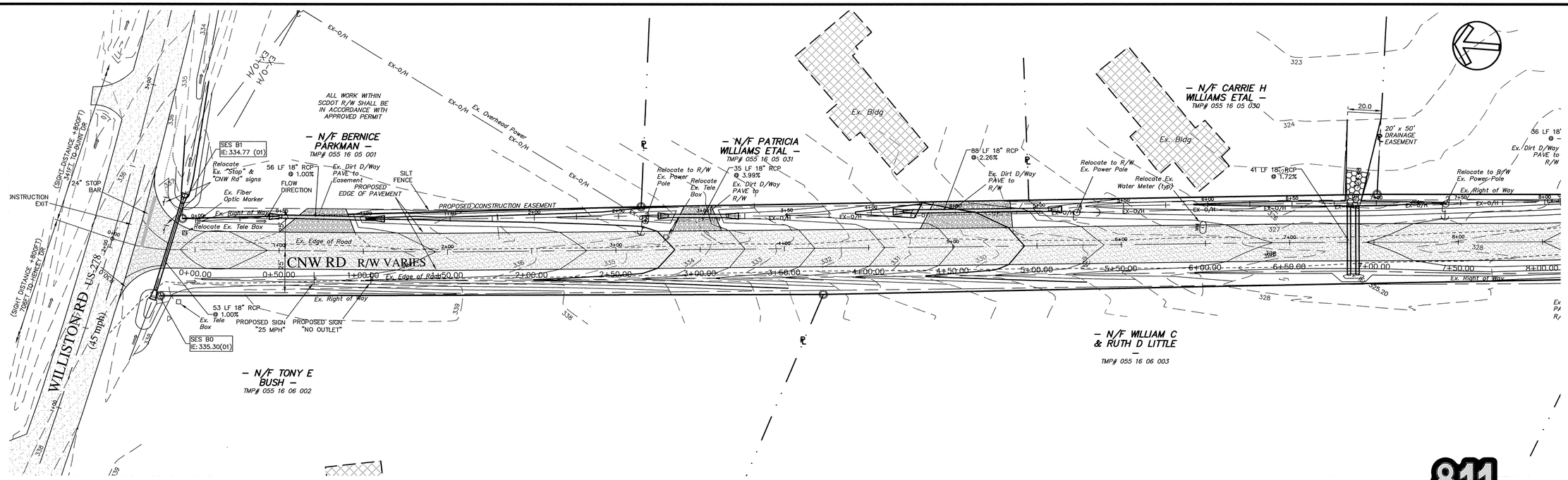
AIKEN COUNTY DEPARTMENT OF ENGINEERING

ATTN: JOE BERRY, PE
1930 UNIVERSITY PKWY
AIKEN, SC 29801
PHONE: 803/642-1535

PROJECT DATA	
TOTAL LENGTH	1,500 FT
ROADWAY WIDTH	22 FT

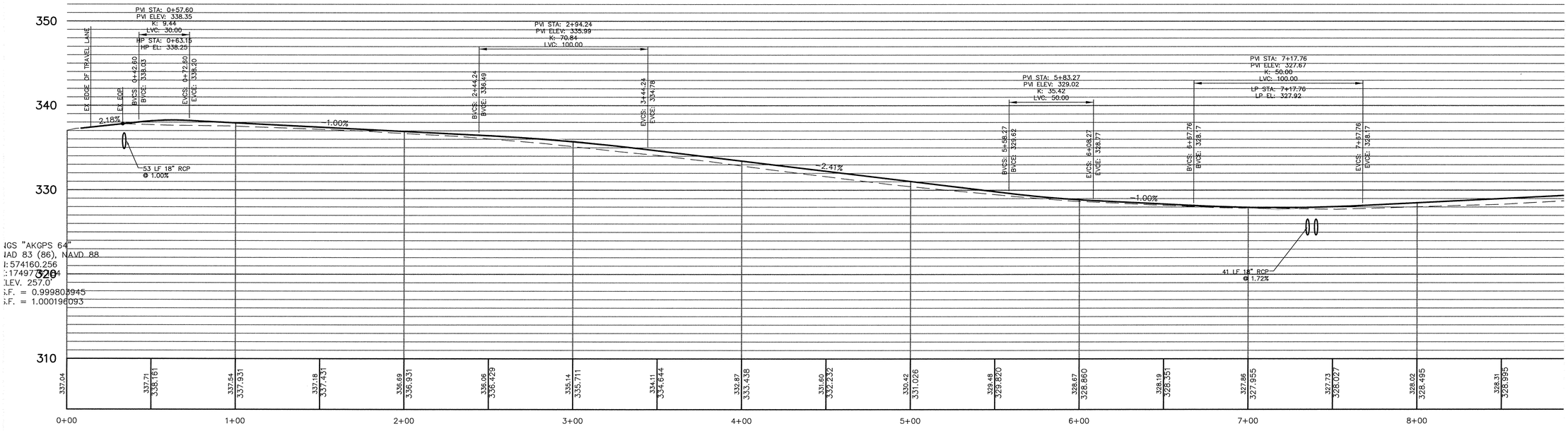
SHEET INDEX	
COVER SHEET	1
INDEX PLAN	2
NOTES/ DETAILS	3
PLAN & PROFILES	4-5
CROSS SECTIONS	6-7
SESC PLAN	8-9

S.P. No. 15-26892
SCALE :
DATE : 04-16-15
DESIGN: MDW REVIEW: PRG



811 Know what's **below** **Call** before you dig

GRAPHIC SCALE: 1" = 30'



GRAPHIC SCALE: HORZ: 1" = 30' VERT: 1" = 10'

IGS "AKGPS 64"
IAD 83 (86), NAVD 88
I: 574160.256
: 1749736.004
LEV. 257.0
S.F. = 0.999803945
S.F. = 1.000196093

P-CNW Rd

NO.	DATE	REVISION	BY
7			
6			
5	3-29-16	REVISED PER GOVERNMENT REVIEW	PRG
4	10-27-15	SUBMITTED FOR GOVERNMENT BID	PRG
3	06-29-15	SUBMITTED FOR GOVERNMENT REVIEW	PRG
2			
1			

SOUTHERN PARTNERS INC
ENGINEERING - SURVEYING LAND PLANNING
1233 AUGUSTA WEST PARKWAY
AUGUSTA, GEORGIA 30909
(706) 855-6000
engineering@southernpartners.net

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 20074 JOHN P. R. GREEN

SOUTH CAROLINA SOUTHERN PARTNERS ENGINEERING & LAND SURVEYING COMPANY, INC. C00529 CERTIFICATE OF AUTHORIZATION

CNW RD ROADWAY IMPROVEMENTS

EXISTING ROAD IMPROVEMENTS – PAVEMENT
PROJECT LOCATED OFF OF US-278, WILLISTON RD IN AIKEN COUNTY, SOUTH CAROLINA

AIKEN COUNTY DEPARTMENT OF ENGINEERING

ATTN: JOE BERRY, PE
1930 UNIVERSITY PKWY
AIKEN, SC 29801
PHONE: 803/642-1535

PROJECT DATA

TOTAL LENGTH	1,500 FT
ROADWAY WIDTH	22 FT

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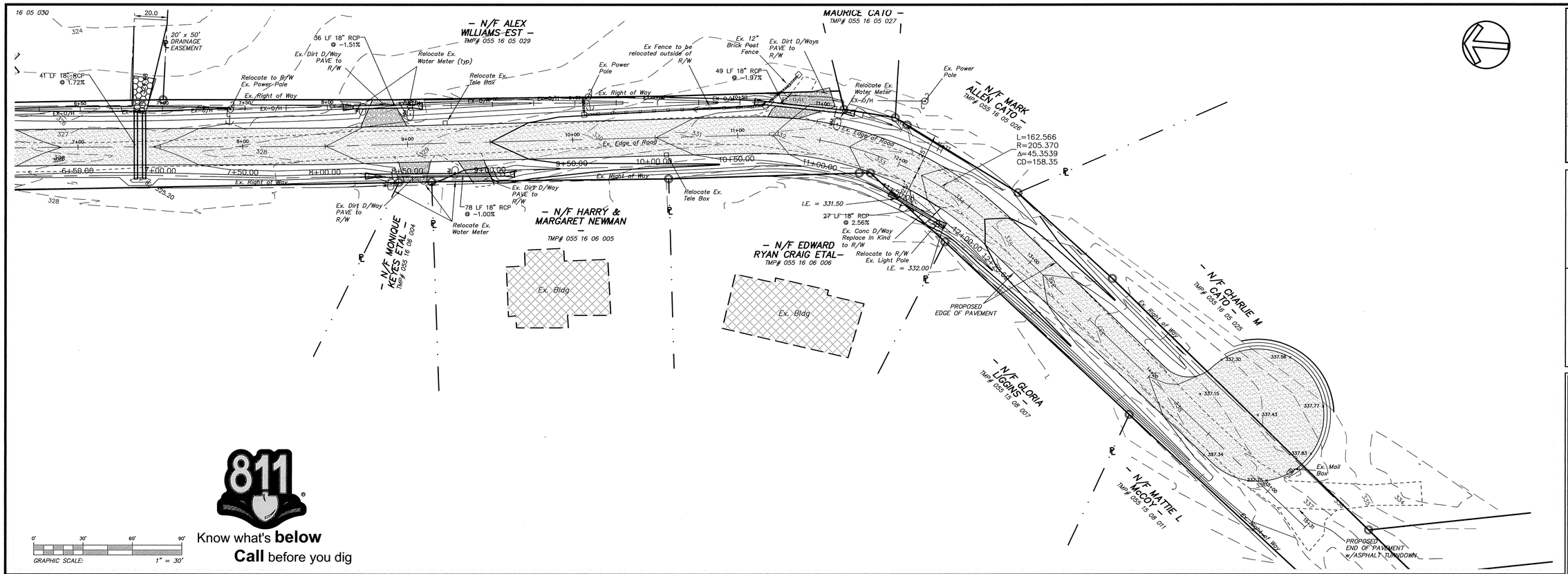
CROSS SECTIONS	6–7
SESC PLAN	8–9

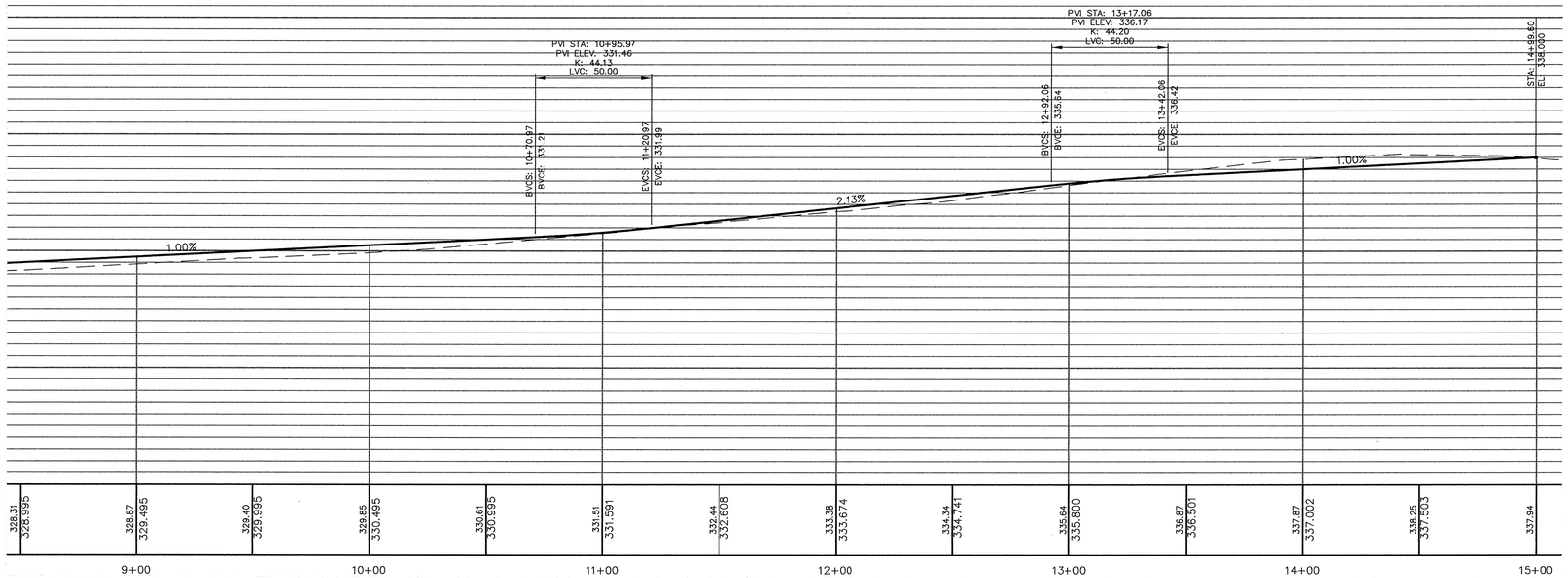
S.P. No. 15-26892
SCALE :
DATE : 04-16-15
DESIGN: MDW REVIEW: PRG

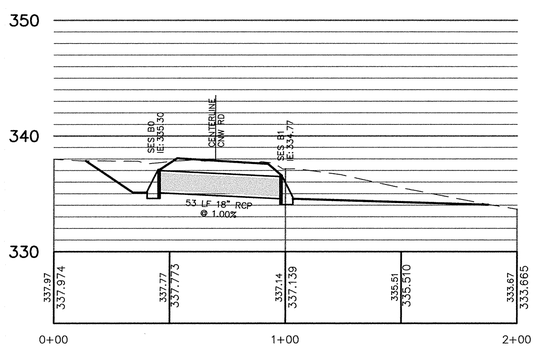
4



811 Know what's **below** **Call** before you dig

GRAPHIC SCALE: 0' 30' 60' 90' 1" = 30'





STM B

GRAPHIC SCALE: 0' 30' 60' 90' HORZ: 1" = 30' VERT: 1" = 10'

NO.	DATE	REVISION	BY
5			
4			
3	3-29-16	REVISED PER GOVERNMENT REVIEW	PRG
2	10-27-15	SUBMITTED FOR GOVERNMENT BID	PRG
1	06-29-15	SUBMITTED FOR GOVERNMENT REVIEW	PRG

SOUTHERN PARTNERS INC
ENGINEERING - SURVEYING
LAND PLANNING
1233 AUGUSTA WEST PARKWAY
AUGUSTA, GEORGIA 30909
(706) 855-6000
engineering@southernpartners.net

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 20674
JOHN P. R. GREEN

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
SOUTHERN PARTNERS ENGINEERING & LAND SURVEYING COMPANY, INC.
C00529

CNW RD
ROADWAY IMPROVEMENTS

EXISTING ROAD IMPROVEMENTS – PAVEMENT
PROJECT LOCATED OFF OF US-278, WILLISTON RD IN AIKEN COUNTY, SOUTH CAROLINA

AIKEN COUNTY DEPARTMENT OF ENGINEERING

ATTN: JOE BERRY, PE
1930 UNIVERSITY PKWY
AIKEN, SC 29801
PHONE: 803/642-1535

PROJECT DATA	
TOTAL LENGTH	1,500 FT
ROADWAY WIDTH	22 FT

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S.P. No. 15-26892
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DATE : 04-16-15
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5

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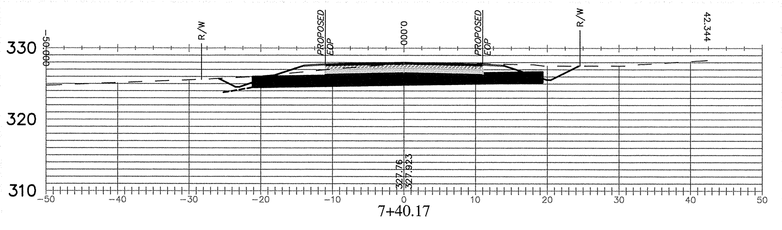
3	3-29-16	REVISED PER GOVERNMENT REVIEW	PRG
4			
5			

GRAPHIC SCALE: 1" = 10'



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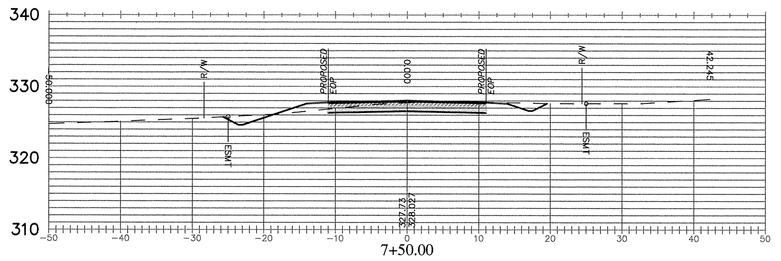

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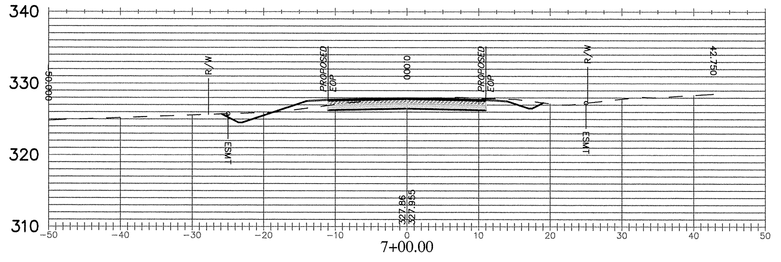

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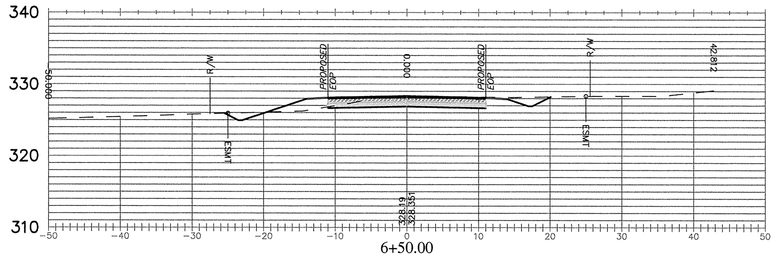

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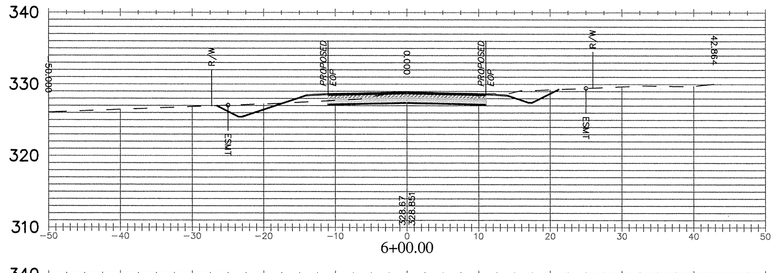

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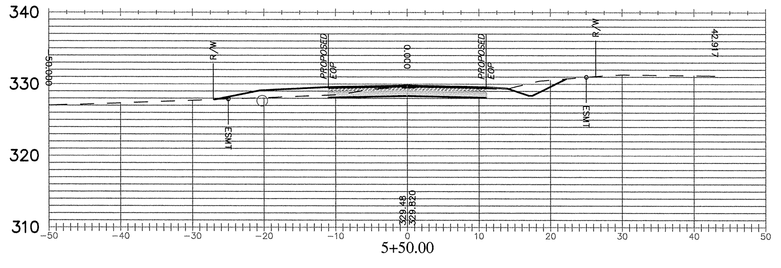

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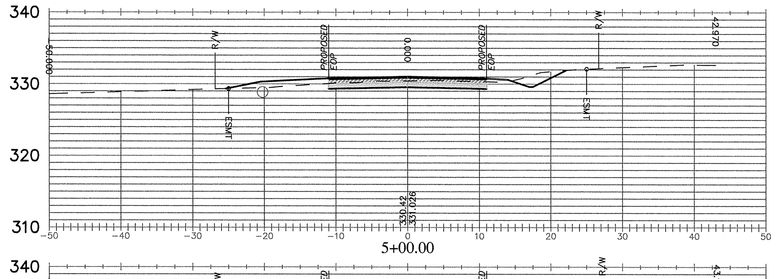

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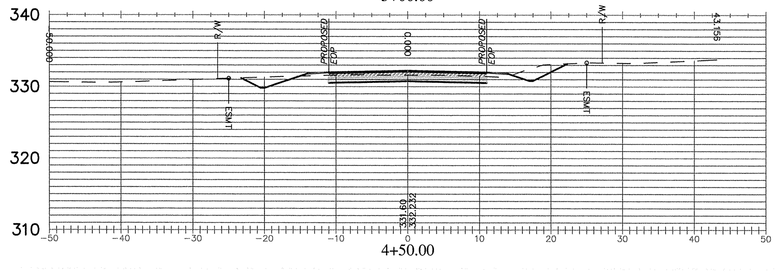

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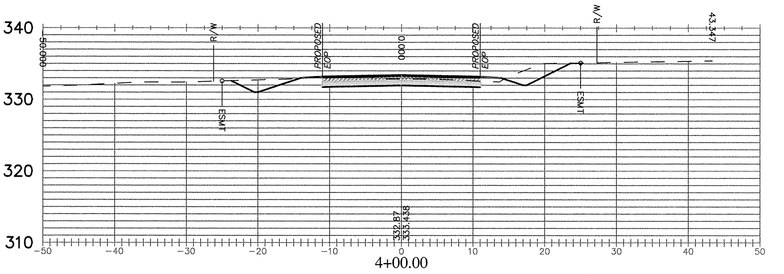

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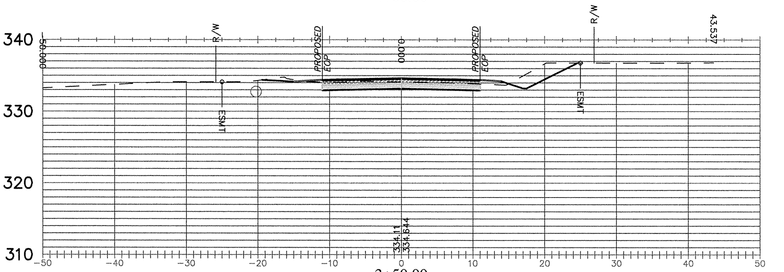

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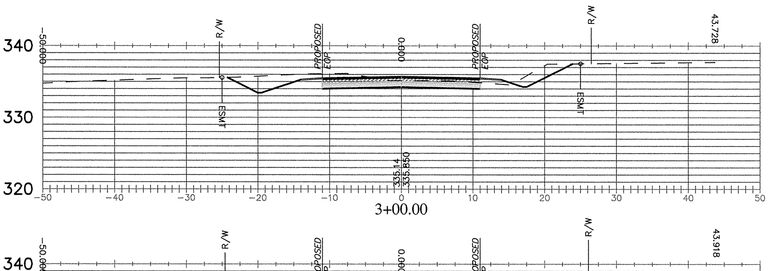

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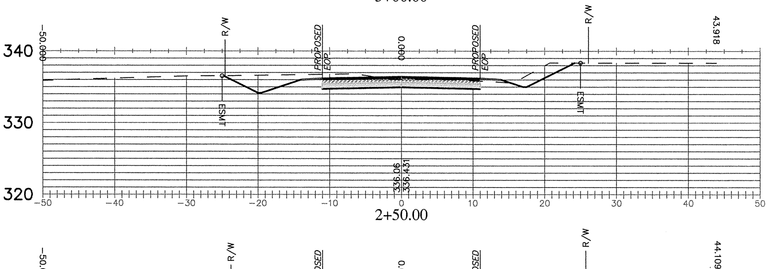

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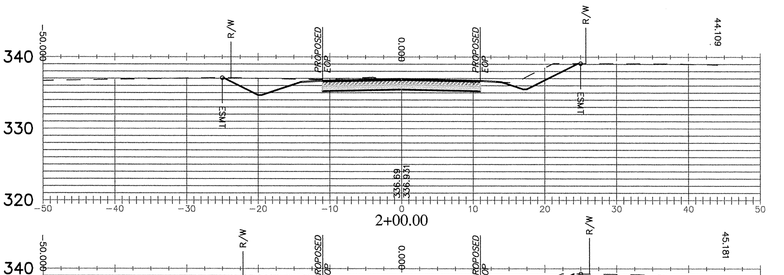

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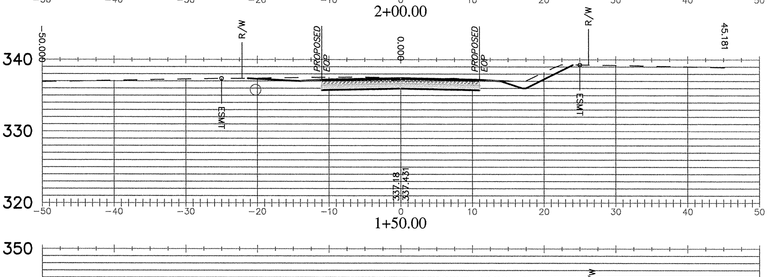

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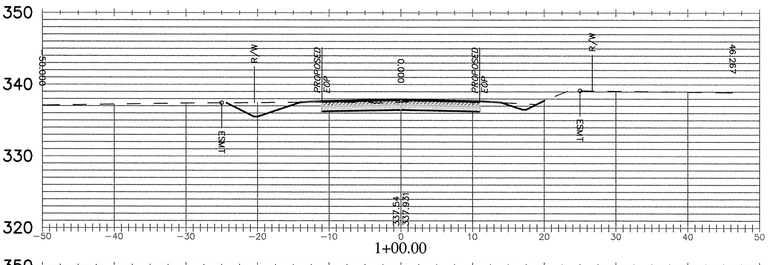

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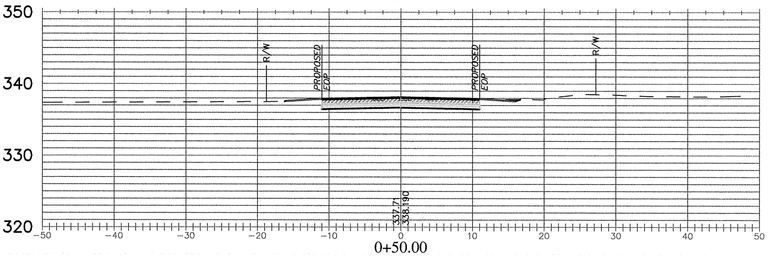


0+50.00

SHEET INDEX	
COVER SHEET	1
INDEX PLAN	2
NOTES/ DETAILS	3
PLAN & PROFILES	4-5
CROSS SECTIONS	6-7
SIGN PLAN	8-9

PROJECT DATA	
TOTAL LENGTH	1,500 FT
ROADWAY WIDTH	22 FT

AIKEN COUNTY DEPARTMENT OF ENGINEERING
ATTN: JACK BRANHAM, PE
1930 UNIVERSITY PKWY
AIKEN, SC 29801
PHONE: 803/642-1535

CNW RD
ROADWAY IMPROVEMENTS

EXISTING ROAD IMPROVEMENTS – PAVEMENT
PROJECT LOCATED OFF OF US-278, WILLISTON RD IN AIKEN COUNTY, SOUTH CAROLINA

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION — SOUTHERN PARTNERS LAND SURVEYING CORP. 3600

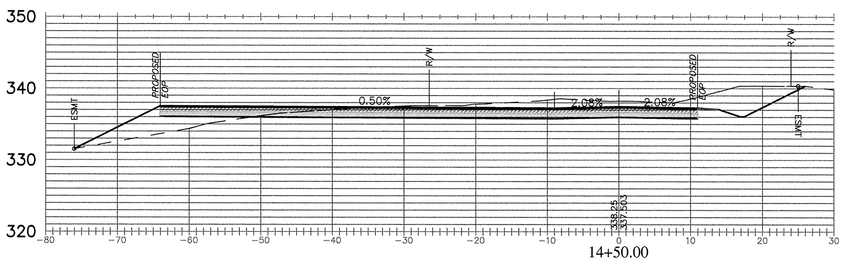
JOHN R. GREEN — REGISTERED — SOUTH CAROLINA — 20004 — LAND SURVEYOR

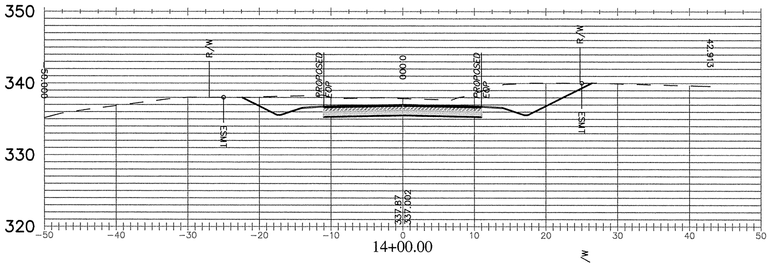
SOUTHERN PARTNERS INC
Land Surveying • Civil Engineering • Environmental Services
1251 AUGUSTA WEST PARKWAY
AUGUSTA, GEORGIA 30909
(706) 650-0060 FAX (706) 650-0067
engineering@southernpartners.net

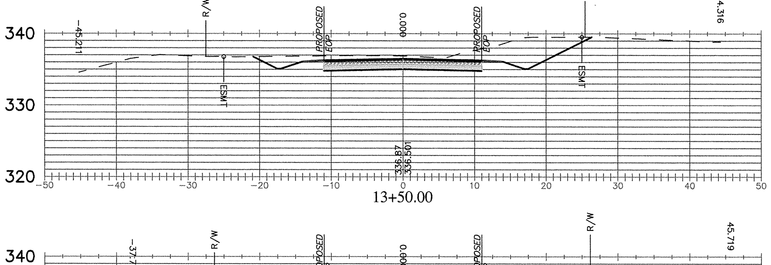
SHEET NO.	6
DRAWN BY	SPI
SCALE	1" = 10'
DATE	10-29-2015
BOOK NO.	1
PAGE NO.	1
JOB NO.	15-29995

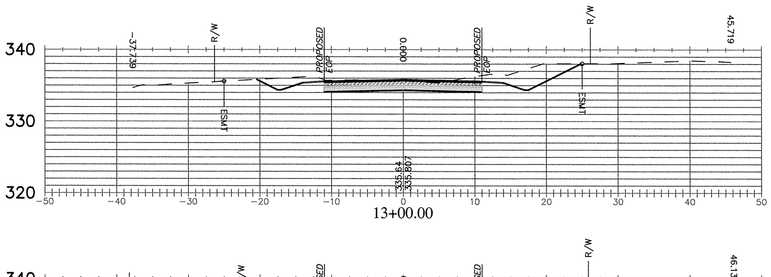
NO	DATE	REVISION	BY
5			
4			
3	3-29-16	REVISED PER GOVERNMENT REVIEW	PRG
2	10-27-15	SUBMITTED FOR GOVERNMENT BID	PRG
1	06-29-15	SUBMITTED FOR GOVERNMENT REVIEW	PRG

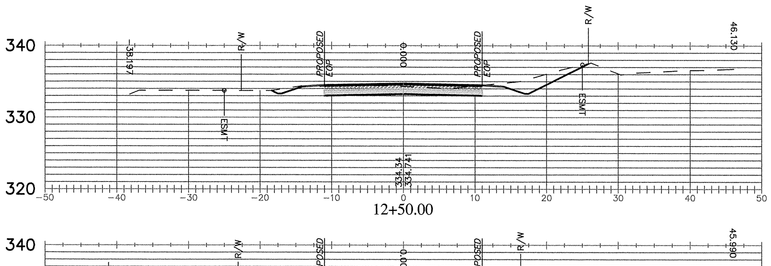
GRAPHIC SCALE:
HORIZ. 1" = 10'
VERT. 1" = 10'

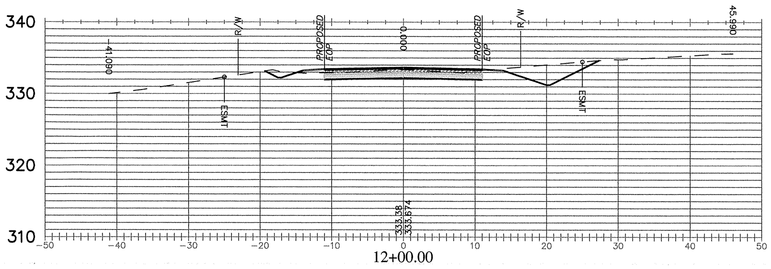


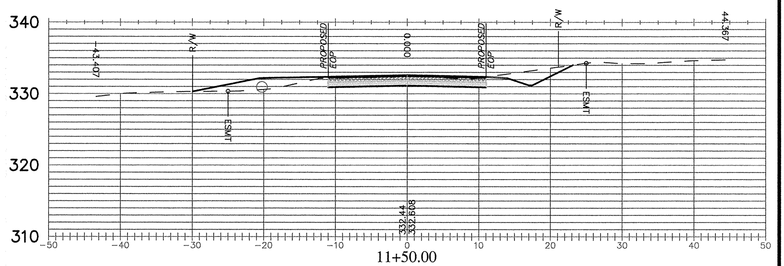


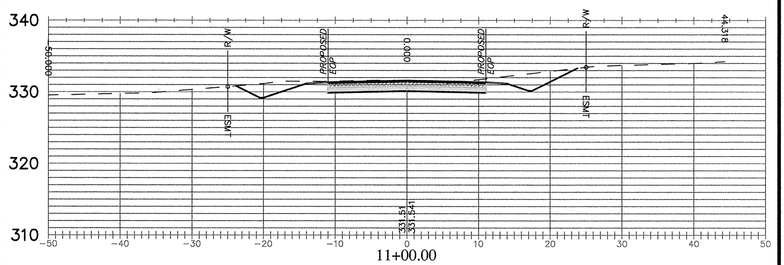


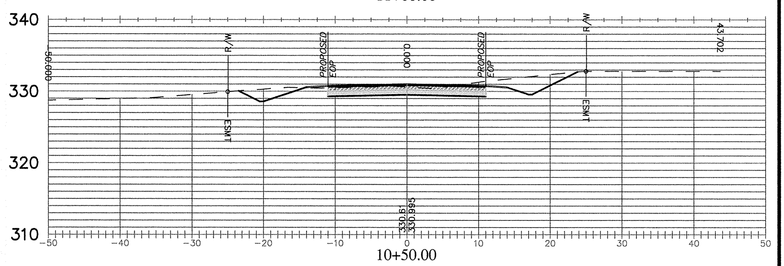


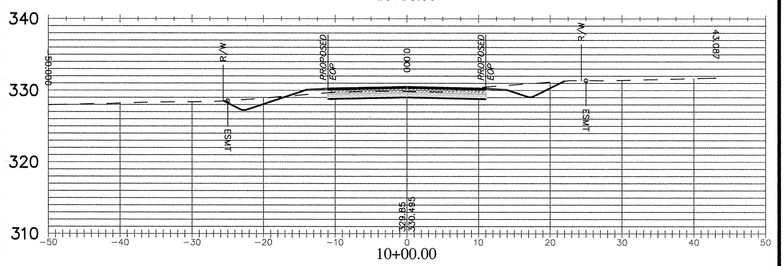


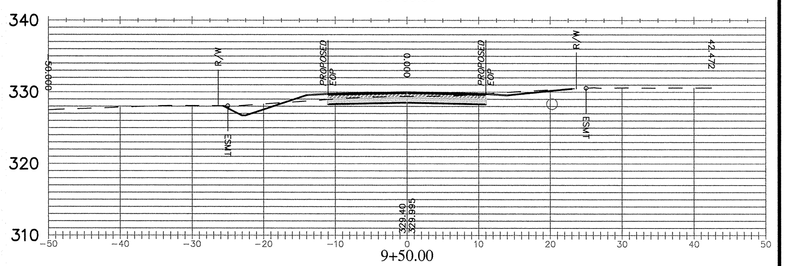


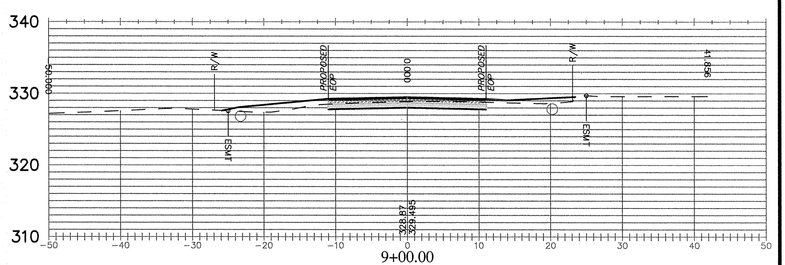


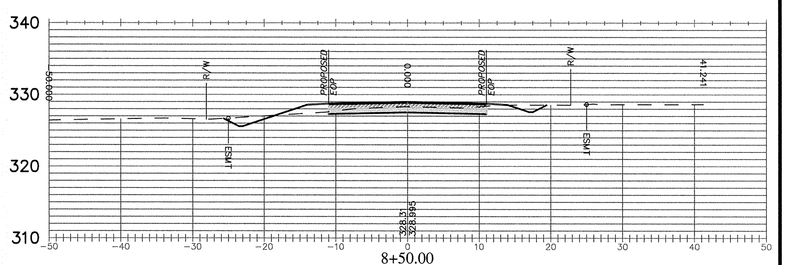


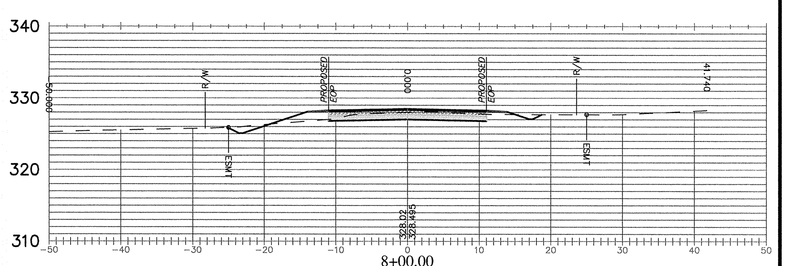












SHEET INDEX

COVER SHEET	1
INDEX PLAN	2
NOTES/ DETAILS	3
PLAN & PROFILES	4-5
CROSS SECTIONS	6-7
SCSC PLAN	8-9

JOB No.	15-2692
SCALE	AS NOTED
DESIGN	MJF
DRAWN	MJF
CHECK	PRG

7

PROJECT DATA

TOTAL LENGTH	1,500 FT
ROADWAY WIDTH	22 FT

AIKEN COUNTY DEPARTMENT OF ENGINEERING
ATTN: JOE BERRY, PE
1930 UNIVERSITY PKWY
AIKEN, SC 29801
PHONE: (803) 642-1535

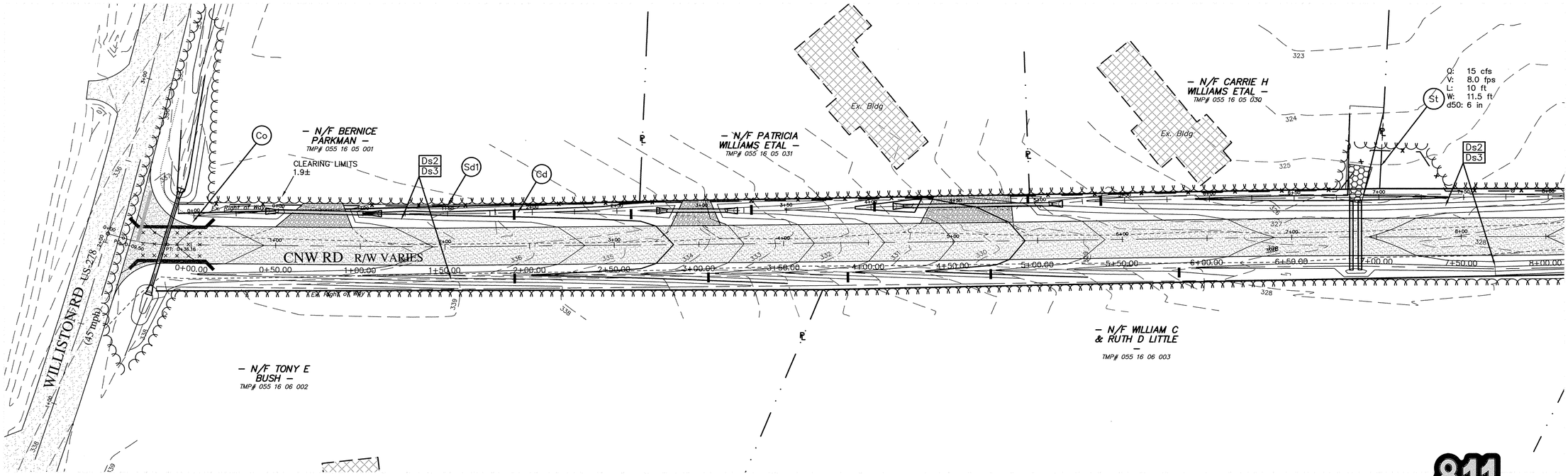
CNW RD
ROADWAY IMPROVEMENTS

EXISTING ROAD IMPROVEMENTS – PAVEMENT
PROJECT LOCATED OFF OF US-278, WILLISTON RD IN AIKEN COUNTY, SOUTH CAROLINA

SOUTH CAROLINA ★ CERTIFICATE OF AUTHORIZATION ★ SOUTHERN PARTNERS LAND SURVEYING, INC. C00592

REGISTERED PROFESSIONAL ENGINEER ★ SOUTH CAROLINA ★ No. 20974 ★ BRIAN R. GREEN

SOUTHERN PARTNERS INC
LAND PLANNING ★ ENGINEERING ★ SURVEYING
1000 WESTGATE DRIVE, SUITE 252
AUGUSTA, GEORGIA 30909
PHONE: (706) 737-1111
engineering@southernpartnersinc.com



0' 30' 60' 90'

GRAPHIC SCALE: 1" = 30'

811

Know what's **below**
Call before you dig

NO.	DATE	REVISION	BY
6			
5			
4	3-29-16	REVISED PER GOVERNMENT REVIEW	PRG
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SOUTHERN PARTNERS
ENGINEERING - SURVEYING LAND PLANNING INC
1233 AUGUSTA WEST PARKWAY
AUGUSTA, GEORGIA 30909
(706) 855-6000
engineering@southernpartners.net

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 20074
JOHN P. R. GREEN

SOUTH CAROLINA
SOUTHERN PARTNERS ENGINEERING & LAND SURVEYING COMPANY, INC. C00529
CERTIFICATE OF AUTHORIZATION

CNW RD
ROADWAY IMPROVEMENTS

EXISTING ROAD IMPROVEMENTS - PAVEMENT
PROJECT LOCATED OFF OF US-278, WILLISTON RD IN AIKEN COUNTY, SOUTH CAROLINA

AIKEN COUNTY DEPARTMENT OF ENGINEERING

ATTN: JOE BERRY, PE
1930 UNIVERSITY PKWY
AIKEN, SC 29801
PHONE: 803/642-1535

PROJECT DATA	
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INDEX PLAN	2
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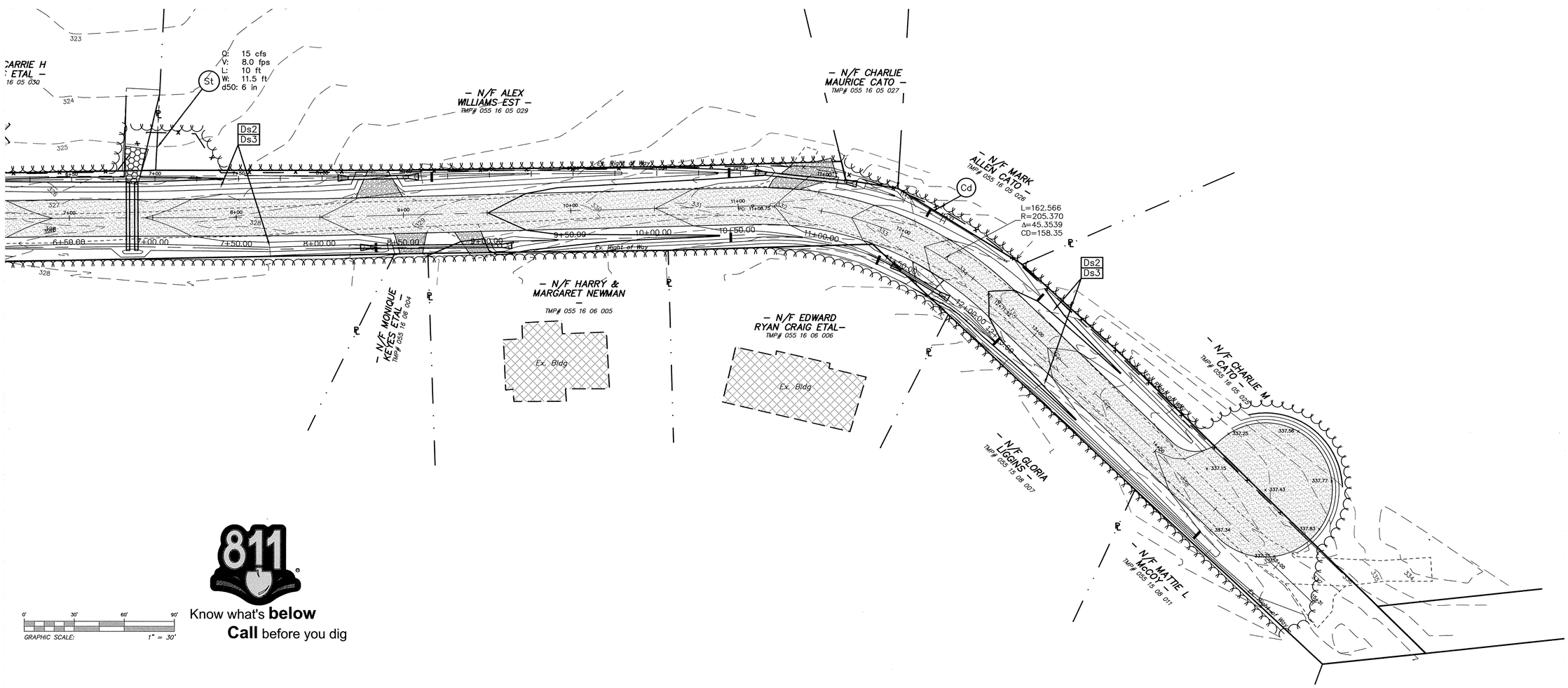
SCALE :
DATE : 04-16-15
DESIGN: MDW REVIEW: PRG

8



0' 30' 60' 90'

GRAPHIC SCALE: 1" = 30'

811 Know what's **below** **Call** before you dig

NO.	DATE	REVISION	BY
5			
4			
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SOUTHERN PARTNERS INC
ENGINEERING - SURVEYING
LAND PLANNING
1233 AUGUSTA WEST PARKWAY
AUGUSTA, GEORGIA 30909
(706) 855-6000
engineering@southernpartners.net

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 20074
JOHN P. R. GREEN

SOUTH CAROLINA
SOUTHERN PARTNERS ENGINEERING & LAND SURVEYING COMPANY, INC.
C00529
CERTIFICATE OF AUTHORIZATION

CNW RD
ROADWAY IMPROVEMENTS

EXISTING ROAD IMPROVEMENTS - PAVEMENT
PROJECT LOCATED OFF OF US-278, WILLISTON RD IN AIKEN COUNTY, SOUTH CAROLINA

AIKEN COUNTY DEPARTMENT OF ENGINEERING

ATTN: JOE BERRY, PE
1930 UNIVERSITY PKWY
AIKEN, SC 29801
PHONE: 803/642-1535

PROJECT DATA	
TOTAL LENGTH	1,500 FT
ROADWAY WIDTH	22 FT

SHEET INDEX	
COVER SHEET	1
INDEX PLAN	2
NOTES/ DETAILS	3
PLAN & PROFILES	4-5
CROSS SECTIONS	6-7
SESC PLAN	8-9

S.P. No. 15-26892
SCALE :
DATE : 04-16-15
DESIGN: MDW REVIEW: PRG

9