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SITE DEVELOPMENT PLANS
FOR

LOVEJOY SANITARY SEWER REALIGNMENT

BEAUFORT, SC

PREPARED FOR

CITY OF BEAUFORT

PROJECT NUMBER 130215H

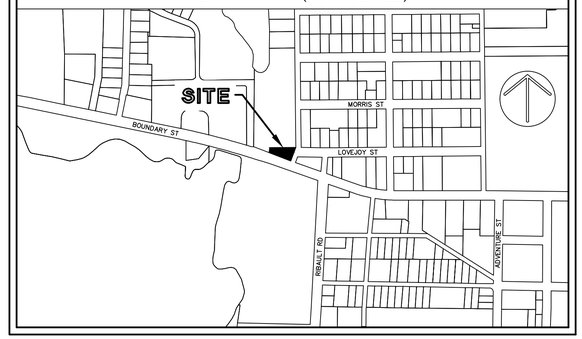
PREPARED BY

Ward Edwards ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH (843) 837-5250 / FAX (843) 837-2558
WWW.WARDEDWARDS.COM

LOVEJOY SANITARY SEWER REALIGNMENT

BJWSA PROJECT #: 2015-024

VICINITY MAP (NOT TO SCALE)



PROJECT DATA

DEVELOPER:	CITY OF BEAUFORT PUBLIC WORKS 16 BURTON HILL ROAD BEAUFORT, SC 29906
24 HOUR CONTACT:	LAMAR TAYLOR, OPERATIONS OFFICER
TELEPHONE:	(843)-525-7054
FAX:	(843)-525-7095
JURISDICTION:	BEAUFORT, SC
TAX MAP #:	R122 001 000 0012 0000
911/STREET ADDRESS:	2015 BOUNDARY STREET SUITE 300
PROPERTY OWNER OF RECORD:	TOWN CENTER INN LLC
FEMA FLOOD ZONE:	11-A & C
FEMA FLOOD PANEL:	COMMUNITY NO. 450026, PANEL 0005D, DATED: 09/29/1986
NPDES DISTURBED AREA:	0.05 ACRES
APPROXIMATE LOCATION OF SITE:	INTERSECTION OF RIBAUT ROAD AND BOUNDARY STREET
LONGITUDE:	W 80° 41' 11"
LATITUDE:	N 32° 26' 26"

☑ NOT FOR CONSTRUCTION
☐ RELEASED FOR CONSTRUCTION

SCHEDULE OF DRAWINGS

SHEET NO.	DESCRIPTION
C101	COVER SHEET (THIS SHEET)
C102	CONSTRUCTION LEGENDS
C103	EXISTING CONDITIONS & DEMOLITION PLAN
C104	UTILITY PLAN
C105-6	CONSTRUCTION DETAILS & SANITARY SEWER PROFILE

RELEASE SCHEDULE

RELEASE NO.	DESCRIPTION	DATE
A.	RELEASED FOR PERMITTING	10-03-14
B.	RELEASED FOR BIDDING	11-11-14
C.	RELEASED FOR BIDDING - REVISIONS	12-31-14
D.	RELEASED FOR BIDDING - JACK & BORE	02-11-15

SOUTH CAROLINA — WARD EDWARDS, INC. No. C00152 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — PROFESSIONAL ENGINEER — LICENSE NO. 22768 — 02-11-15 — GREGORY A. BATSON

SCDHEC-OCRM CERTIFICATION:
"I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-300 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000."

PROJECT #: 130215H

WARD EDWARDS, INC.

LOVEJOY SANITARY SEWER REALIGNMENT

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GENERAL NOTES:

1. BOUNDARY INFORMATION TAKEN FROM TREE AND TOPO SURVEY PREPARED FOR 303 ASSOCIATES, LLC, CITY OF BEAUFORT, R120-001-000-0012-000, DATED 10-19-1978 REVISED 11-4-2013, BEAUFORT SURVEYING, INC.
2. TOPOGRAPHIC DATA PROVIDED BY BEAUFORT SURVEYING, INC., DATED 10-19-1978 REVISED 11-4-2013.
3. APPROXIMATE LOCATION OF CERTAIN EXISTING UNDERGROUND UTILITY LINES AND STRUCTURES ARE SHOWN ON THE PLANS FOR INFORMATION ONLY ADDITIONAL UNDERGROUND LINES OR STRUCTURES MAY EXIST THAT ARE NOT SHOWN. CALL PALMETTO UTILITY PROTECTION SERVICE AT 1-888-721-7877 BETWEEN THE HOURS OF 7:00 AM AND 7:00 PM MONDAY THRU FRIDAY AT LEAST THREE WORKING DAYS BEFORE COMMENCING CONSTRUCTION. REQUEST UNDERGROUND UTILITIES TO BE LOCATED AND MARKED WITHIN AND NEAR THE CONSTRUCTION SITE.
4. COMPLY WITH SOUTH CAROLINA UNDERGROUND UTILITY DAMAGE PREVENTION ACT (S.C. CODE ANN, 58-35-10, CT-SEQ, SUPP. 1978). NOTIFICATION OF INTENT TO EXCAVATE MAY BE GIVEN BY CALLING THE TOLL FREE NUMBER: 1-800-922-0983.
5. PROTECT BENCH MARKS AND PROPERTY MONUMENTS FROM DAMAGE DURING CONSTRUCTION OPERATIONS. REPLACE ANY BENCH MARKS OR MONUMENTS DAMAGED OR DESTROYED AS A RESULT OF CONTRACTOR'S OPERATIONS AT NO COST TO THE OWNER.
6. OFF-STREET PARKING FOR THE CONTRACTOR'S EMPLOYEES AND AUTHORIZED VISITORS TO THE SITE MUST BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION.
7. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO WEIGHT LIMITS PRESCRIBED FOR ALL PUBLIC ROADS WHEN HAULING EQUIPMENT AND MATERIALS TO AND FROM THE PROJECT SITE. DAMAGES TO EXISTING PAVEMENT DUE TO THE CONTRACTOR'S CONSTRUCTION OPERATIONS OR IMPROPER TRANSPORTATION OF MATERIALS AND EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. AT LEAST ONE DRIVING LANE ON PUBLIC ROADS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES. TRAFFIC LANES WILL ONLY BE CLOSED WITH THE EXPRESS WRITTEN CONSENT OF THE AGENCY HAVING JURISDICTION OVER THE ROADWAY. NOTIFY AGENCY HAVING JURISDICTION AT LEAST 5 DAYS BEFORE CLOSING ANY DRIVING LANES TO TRAFFIC. PROVIDE TRAFFIC CONTROL DEVICES, SIGNS AND FLAGMEN AS REQUIRED TO ENSURE PUBLIC SAFETY.
9. CONTRACTOR SHALL COORDINATE DEMOLITION, CLEARING AND CONSTRUCTION OF IMPROVEMENTS TO MINIMIZE INTERFERENCE WITH VEHICULAR AND PEDESTRIAN TRAFFIC AND WITH OPERATIONS OF EXISTING FACILITIES.

WATER AND SEWER LINE CONSTRUCTION:

1. ALL WATER AND SEWER LINE CONSTRUCTION SHALL CONFORM TO APPLICABLE STATE AND BEAUFORT JASPER WATER AND SEWER AUTHORITY REQUIREMENTS, STANDARDS AND SPECIFICATIONS.
2. BJWSA WILL BE RESPONSIBLE FOR INSPECTION AND APPROVAL OF ALL WATER AND SEWER SYSTEM CONSTRUCTION AND FOR ACCEPTANCE FOR OPERATION AND MAINTENANCE.
3. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION OF ALL UTILITY OWNERS AND FOR FIELD VERIFICATION OF BOTH HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO COMMENCING CONSTRUCTION. ANY DAMAGES TO EXISTING UTILITIES DUE TO THIS CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. NOTIFY THE PROJECT ENGINEER, IF CONFLICTS WITH EXISTING STRUCTURES REQUIRE THAT PROPOSED UTILITIES BE RELOCATED.
5. THE CONTRACTOR MUST NOTIFY BJWSA FORTY-EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION, INSPECTION OR TESTING OF THE WATER DISTRIBUTION SYSTEM.
6. PIPE, FITTINGS, VALVES AND APPURTENANCES FOR WATER AND SEWER LINES SHALL ALL BE IN ACCORDANCE WITH THE REQUIREMENTS CONTAINED IN THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY TECHNICAL SPECIFICATIONS.
7. INSTALLATION OF WATER AND SEWER LINES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
8. CONTRACTOR SHALL INSTALL MECHANICAL RESTRAINTS ON ALL BENDS, PLUGS AND TEES, 2" OR LARGER, ON WATERLINES AND SANITARY SEWER FORCE MAINS.
9. ALL WATER MAINS SHALL BE STERILIZED AND PRESSURE TESTED IN ACCORDANCE WITH BJWSA SPECIFICATIONS.
10. SEPARATION OF WATER MAINS AND SEWERS:
    a. PARALLEL INSTALLATION: UNLESS OTHERWISE SPECIFICALLY SHOWN IN A SPECIAL DETAIL ON THE PLANS, INSTALL WATER MAINS AT LEAST 10-FT. HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY SEWER OR SANITARY SEWER FORCE MAIN, THE DISTANCE BEING MEASURED IN A HORIZONTAL PLANE BETWEEN THE OUTSIDE SURFACES OF THE PIPES.
    b. CROSSINGS: UNLESS OTHERWISE SPECIFICALLY SHOWN IN A SPECIAL DETAIL ON THE PLANS, INSTALL WATER LINES CROSSING SANITARY SEWERS OR SANITARY SEWER FORCE MAINS TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18-INCHES BETWEEN THE OUTSIDE SURFACES OF THE PIPES. THIS SHALL BE THE CASE WHETHER THE WATER LINE IS ABOVE OR BELOW THE SANITARY SEWER LINE. WHENEVER POSSIBLE LOCATE THE WATER LINE ABOVE THE SEWER LINE. WHERE A NEW WATER LINE CROSSES A NEW SEWER LINE, PLACE A FULL LENGTH OF DUCTILE IRON PIPE FOR BOTH THE WATER AND THE SEWER LINE AT THE CROSSING WITH BOTH PIPES POSITIONED SO THAT THE JOINTS ON EACH ARE AS FAR AS POSSIBLE FROM THE POINT OF CROSSING. WHERE A NEW WATER LINE CROSSES AN EXISTING SEWER LINE, PLACE ONE FULL LENGTH OF DUCTILE IRON PIPE WATER LINE SO THAT THE JOINTS ARE AS FAR FROM THE POINT OF CROSSING AS POSSIBLE.
11. THE CONTRACTOR SHALL CUT AND PATCH EXISTING PAVEMENT AS REQUIRED FOR THE INSTALLATION OF UTILITY LINES.
12. SANITARY MANHOLE RIM GRADES SHOWN ARE APPROXIMATE. ADJUST RIM ELEVATIONS TO BE FLUSH WITH FINISHED GRADE.
13. THE CONTRACTOR UNDER THIS CONTRACT SHALL NOT MAKE ANY CONNECTIONS TO THE EXISTING WATER OR SANITARY SEWER SYSTEMS UNLESS EXPRESSLY AUTHORIZED TO DO SO BY THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY. ALL WATER AND SEWER IMPROVEMENTS UNDER THIS CONTRACT MUST BE CONSTRUCTED COMPLETE, TESTED, INSPECTED AND APPROVED BY THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY BEFORE ANY AUTHORIZATION TO CONNECT WILL BE GIVEN. COORDINATION OF TESTING, INSPECTION AND CONNECTIONS WITH THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY IS THE RESPONSIBILITY OF THE CONTRACTOR UNDER THIS CONTRACT.
14. ALL WATER MAINS SHALL BE INSTALLED WITH THIRTY-SIX INCHES (36") MINIMUM COVER (FROM FINISHED GRADE). MAXIMUM DEPTH SHALL BE FIVE FEET (5'). WHERE WATER MAINS MAY CONFLICT WITH OTHER UTILITIES, THE WATER MAIN CROSSING SHALL BE CONSTRUCTED WITH DUCTILE IRON PIPE, MECHANICAL JOINT 45-DEG. BENDS AND MECHANICAL RESTRAINTS.

SITE CLEARING AND DEMOLITION:

1. NO CLEARING SHALL OCCUR WITHIN DESIGNATED BUFFER ZONES, TREE PROTECTION ZONES, OUTSIDE OF THE PROPERTY LINES OR BEYOND THE CLEARING LIMITS UNLESS OTHERWISE SPECIFICALLY SHOWN ON THE PLANS.
2. ONLY THOSE TREES DESIGNATED ON THE DRAWINGS FOR REMOVAL ARE TO BE REMOVED AS PART OF THE SITE CLEARING OPERATIONS.
3. THE CONTRACTOR SHALL INSTALL A CONTINUOUS LINE OF FLAGGING OR FENCING ALONG THE LIMITS OF CLEARING PRIOR TO COMMENCING ANY CLEARING, DEMOLITION OR CONSTRUCTION WORK ON THE PROJECT.
4. EXERCISE CAUTION DURING CLEARING OPERATIONS TO AVOID FELLING TREES INTO DESIGNATED TREE PROTECTION ZONES.
5. NO BURNING WILL BE ALLOWED WITHIN 50 FEET OF A TREE PROTECTION ZONE OR TREE DRIP LINE.
6. SELECTIVE CLEARING AREAS SHALL BE CLEARED OF ALL BRUSH AND UNDERSTORY GROWTH.

TREE PROTECTION-BEAUFORT

1. ALL TREES HAVING A TRUNK DIAMETER OF 8-INCHES (dbh) OR LARGER, AND SPECIMEN TREES MUST BE PRESERVED UNLESS SPECIFICALLY APPROVED FOR REMOVAL IN ACCORDANCE WITH THE CITY OF BEAUFORT ZONING AND DEVELOPMENT STANDARDS ORDINANCE AND INDICATED ON THE PLANS TO BE REMOVED.
2. PRIOR TO COMMENCING ANY CLEARING OR CONSTRUCTION OPERATIONS ON THE SITE, THE CONTRACTOR SHALL ERECT TREE PROTECTION BARRIERS AROUND EACH TREE OR GROUP OF TREES DESIGNATED FOR PRESERVATION IN ACCORDANCE WITH THE DETAILS ON THE PLANS AND THE REQUIREMENTS CONTAINED IN ARTICLE 7, SECTION 7.3, PAR. D.3 OF THE CITY OF BEAUFORT, SOUTH CAROLINA UNIFIED DEVELOPMENT ORDINANCE.
3. A TREE PROTECTION ZONE SHALL BE ESTABLISHED IN ACCORDANCE WITH THE PROVISIONS CONTAINED IN ARTICLE 7, SECTION 7.3, PAR. D.3 OF THE CITY OF BEAUFORT, SOUTH CAROLINA UNIFIED DEVELOPMENT ORDINANCE FOR EACH EXISTING TREE OR GROUPING OF TREES DESIGNATED FOR PRESERVATION. THE MINIMUM TREE PROTECTION ZONE AS DEFINED IN THE ORDINANCE IS A CIRCULAR AREA CENTERED ON THE TREE AND HAVING A RADIUS OF THE GREATER OF 5-FT. OR ONE-HALF FOOT PER INCH dbh (DIAMETER AT BREAST HEIGHT). THE SIZE OR CONFIGURATION OF THE TREE PROTECTION ZONE MAY BE ADJUSTED AT THE DISCRETION OF THE CITY'S ADMINISTRATOR OF THE ORDINANCE.
    A PLACEMENT OR STORAGE OF ANY SOIL, DEBRIS, OILS, FUEL, PAINTS, BUILDING MATERIALS OR ANY OTHER MATERIALS.
    B BURNING
    C VEHICLE PARKING
    D PAVING
    E TRENCHING FOR UTILITIES
4. WHERE UTILITY LINES MUST PASS THRU THE TREE PROTECTION ZONE, THEY SHALL BE INSTALLED BY HORIZONTAL BORING BENEATH THE ROOTS OF THE TREE.
5. WHERE IT IS NECESSARY FOR MACHINERY AND EQUIPMENT TO PASS WITHIN THE TREE PROTECTION ZONE, APPROVAL MUST BE OBTAINED FROM THE ZONING AND DEVELOPMENT ADMINISTRATOR. SPECIAL MEASURES WILL BE REQUIRED TO PROTECT THE ROOTS FROM EXCESSIVE COMPACTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL TREE REMOVAL PERMITS AND FOR COORDINATING ALL INSPECTIONS REQUIRED BY BEAUFORT COUNTY IN CONNECTION WITH TREE PRESERVATION AND REMOVAL ACTIVITIES. DURING CONSTRUCTION.

SITE GRADING AND DRAINAGE:

1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING 72-HOUR NOTICE TO ALL RESPECTIVE UTILITY COMPANIES FOR FIELD VERIFICATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. ANY DAMAGES TO EXISTING UTILITIES DUE TO THIS CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. TEMPORARY CONTROL OF STORM WATER DRAINAGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SEQUENCING AND CONSTRUCTION TECHNIQUES SHALL PREVENT OBSTRUCTION OF STORM SEWERS, PONDING IN TRAFFIC AREAS OR RISING OF WATER LEVELS WHICH WOULD ENTER ADJACENT BUILDINGS OR STRUCTURES.
3. FULL WIDTH OF STREET AND ROAD RIGHTS-OF-WAY MUST BE CLEARED AND GRADED AS SHOWN IN THE DETAILS ON THE DRAWINGS
4. SUBGRADE PREPARATION: TOP SOIL SHALL BE REMOVED FROM PAVED AREAS TO A MINIMUM DEPTH OF 4". ALL EXCAVATION SHALL BE TO SUBGRADE LIMITS.
5. ALL UTILITY PIPE LINES, CONDUITS AND SLEEVES UNDER PAVED AREAS MUST BE IN PLACE PRIOR TO COMPLETION OF THE ROADWAY SUBGRADE COMPACTION.
6. FINISH GRADING SHALL INCLUDE THE PLACEMENT OF TOPSOIL OVER ALL UNPAVED AREAS NOT OCCUPIED BY BUILDINGS OR STRUCTURES AND FINE GRADING AROUND BUILDINGS, ADJACENT TO WALKS, CURBS, GUTTERS AND STRUCTURES TO ASSURE POSITIVE DRAINAGE.

SCDHEC/OCRM SEDIMENT AND EROSION CONTROL STANDARD NOTES (REVISED DEC-2012):

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.
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 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 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 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 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 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.

WORK ON SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY:

1. COMPLY WITH ALL SPECIAL PROVISIONS CONTAINED IN THE DEPARTMENT OF TRANSPORTATION ENCROACHMENT PERMIT ISSUED FOR THE WORK.
2. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION AND COORDINATION OF ALL WORK ON DOT RIGHTS-OF-WAY WITH THE DISTRICT ENGINEERING REPRESENTATIVE.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A DOT APPROVED TRAFFIC CONTROL PLAN FOR SITE ACCESS AND FOR CONSTRUCTION ON DEPARTMENT OF TRANSPORTATION RIGHTS-OF-WAY. ALL TRAFFIC CONTROL PROVISIONS MUST COMPLY WITH DEPARTMENT OF TRANSPORTATION MINIMUM REQUIREMENTS. LIGHTS, SIGNS, FLAGMEN AND ALL OTHER TRAFFIC CONTROL DEVICES MUST CONFORM TO THE REQUIREMENTS CONTAINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. PROVIDE ALL REGULATORY SIGNS, PAVEMENT STRIPING AND MARKINGS, AS REQUIRED BY THE SOUTH CAROLINA DOT DISTRICT ENGINEERING INSPECTOR. ALL SIGNS MUST CONFORM TO THE REQUIREMENTS CONTAINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND TO THE SOUTH CAROLINA DOT STANDARD DETAILS WITH RESPECT TO COLOR, SIZE, REFLECTIVITY, HEIGHT AND PLACEMENT.
5. ALL PAVEMENT MARKINGS ON DOT RIGHTS-OF-WAY SHALL BE THERMOPLASTIC (125 MIL THICKNESS) AND MUST COMPLY WITH THE REQUIREMENTS IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PLACEMENT SHALL BE IN ACCORDANCE WITH SOUTH CAROLINA DOT STANDARD DRAWINGS 603-3 AND 603-4, AS APPLICABLE.
6. ALL PAVEMENT MARKINGS TO BE REMOVED MUST BE ERADICATED BY GRINDING.

DRY UTILITY CONDUITS FOR ELECTRIC, TELEPHONE AND CABLE TV:

1. ALL DRY UTILITY CONDUIT ENDS SHALL BE CAPPED AND MARKED WITH A STEEL REBAR STAKE IMBEDDED ONE (1) FOOT BELOW GROUND SURFACE.
2. 48" MINIMUM DEPTH FOR ALL ELECTRICAL CONDUITS.
3. MAINTAIN MINIMUM 12" VERTICAL CLEARANCE WHEN CROSSING WATER, SEWER, AND STORM DRAIN LINES.
4. MAINTAIN MINIMUM 18" HORIZONTAL CLEARANCE WHEN PARALLELING WATER, SEWER AND STORM DRAIN LINES.
5. EXTEND CONDUIT BEYOND PAVEMENT, CURB, AND SIDEWALKS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE INSTALLATION OF ALL UTILITY SERVICE CONNECTIONS. REFER TO APPROVED BUILDING PLANS FOR THE EXACT LOCATION OF ALL SERVICE CONNECTIONS. THE CONTRACTOR MUST INSTALL ALL CONDUITS, AS SHOWN ON THE PLANS OR AS REQUIRED BY RESPECTIVE UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE STRICT COMPLIANCE WITH ALL APPLICABLE CODES AND REGULATIONS WITH REGARDS TO THE INSTALLATION OF UTILITIES AND CONDUIT.
7. LOCATIONS SHOWN ON THE PLANS FOR PROPOSED DRY UTILITY CONDUITS ARE APPROXIMATE ONLY. ALL DIMENSIONING AND STAKING SHOULD BE BASED ON ECONOMICAL AND PRACTICAL CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE RESPECTIVE UTILITY REPRESENTATIVES, PRIOR TO ANY CONDUIT INSTALLATION.
8. TRANSFORMER PADS SHALL BE LOCATED AS DIRECTED BY THE RESPECTIVE UTILITY REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE CODE REQUIREMENTS.
9. NOTIFY THE ENGINEER IF CONFLICTS WITH EXISTING OR PROPOSED STRUCTURES REQUIRE THAT PROPOSED UTILITIES BE RELOCATED.

LEGEND

LINETYPES:

DESCRIPTION	EXISTING	PROPOSED
CENTERLINE		
CONTOUR LINE	15	15
CURB & GUTTER (standard)		
CURB & GUTTER (roll curb)		
DITCH CENTERLINE		
DRAIN LINE	SD	SD
EASEMENT		
FORCE MAIN	FM	FM
PAVEMENT		
PROPERTY LINE		
SEWER LINE	SS	SS
WATER LINE	W	WL

TYPICAL SYMBOLS:

DESCRIPTION	EXISTING	PROPOSED
TREE	9 P	
TREE TO BE REMOVED		9 P
TREE PROTECTION		9 P
SPOT ELEVATION	X15.0	FG:15.0
TOP OF PAVING	X15.0	TP:15.00
TOP OF CURB	X15.0	TC:15.00
TOP OF WALK	X15.0	TW:15.00
DIRECTION OF FLOW		

STRUCTURE SYMBOLS:

DESCRIPTION	EXISTING	PROPOSED
WEIR INLET		SDWI: A1
CATCH BASIN		SDCB: A1
CURB INLET		SDCI: A1
CURB INLET (WITH GRATE)		SDCI: A1
STORM DRAIN JUNCTION BOX	D	SDJB: A1
STORM DRAIN MANHOLE		SDMH: A1
STORM GRATE INLET		SDGI: A1
SANITARY SEWER MANHOLE	S	SSMH: A1
SANITARY SEWER CLEANOUT		CO
SANITARY SEWER WYE		

WATER SYSTEM SYMBOLS:

DESCRIPTION	EXISTING	PROPOSED
WATER METER		
WATER VALVE		WV
REDUCER		
POST INDICATOR VALVE		
FIRE HYDRANT		
BLOWOFF HYDRANT		
YARD HYDRANT		
FIRE DEPART. CONNECT. (FDC)		
CAP		
PLUG		

MATERIAL SYMBOLS:

DESCRIPTION	EXISTING	PROPOSED
PROPOSED DEMOLITION		
PROPOSED SIDEWALK/ CONCRETE		
EXISTING WETLANDS		
PROPOSED AGGREGATE/ STONES		
PROPOSED ASPHALT (STANDARD ASPHALT)		
PROPOSED ASPHALT (HEAVY DUTY)		
PERVIOUS PAVERS		

EROSION & SEDIMENT CONTROL LEGEND

EROSION PREVENTION

DESCRIPTION	SYMBOL
LAND GRADING:	LG OR
SURFACE ROUGHENING:	
TOPSOILING:	
TEMPORARY SEEDING:	TS
MULCHING:	M
ECB OR TRM:	
FGM:	FGM
BFM:	BFM
PERMANENT SEEDING:	PS
SODDING:	SO
RIPRAP:	
OUTLET PROTECTION:	RIPRAP ECB or TRM
DUST CONTROL:	DC
POLYACRYLAMIDE (PAM):	PAM

SEDIMENT CONTROL

DESCRIPTION	SYMBOL
SEDIMENT BASIN:	
TEMPORARY SEDIMENT TRAP:	
ROCK SEDIMENT DIKE:	
ROCK CHECK DAM:	OR
SEDIMENT TUBE:	
SILT FENCE:	
REINFORCED SILT FENCE:	
TYPE A-FABRIC INLET PROTECTION:	A
TYPE A-SEDIMENT TUBE INLET PROTECTION:	A
TYPE B - WIRE MESH AND STONE DROP INLET PROTECTION:	B
TYPE C - BLOCK AND GRAVEL INLET PROTECTION:	C
TYPE D - RIGID INLET FILTERS:	D
TYPE E - SURFACE COURSE CURB INLET FILTER:	E
TYPE F - INLET TUBE:	F

RUNOFF CONVEYANCE MEASURES:

DESCRIPTION	SYMBOL
VEGETATED CHANNELS:	
RIPRAP-LINED CHANNELS:	
ECB OR TRM-LINED CHANNELS:	
PAVED CHANNELS:	PC PC PC
PIPE SLOPE DRAINS:	
TEMPORARY STREAM CROSSING:	
TEMPORARY DIVERSION DITCH OR SWALE:	TD TD
PERMANENT DIVERSION DITCH:	PD PD
DIVERSION DIKE OR BERM:	DD DB
LEVEL SPREADER:	
SUBSURFACE DRAIN:	SSD SSD

SEQUENCE OF CONSTRUCTION ACTIVITIES PROJECT PHASING

ESTIMATED START DATE: 02/2015 ESTIMATED COMPLETION DATE: 03/2015

ITEMS MUST OCCUR IN THE ORDER LISTED; ITEMS CANNOT OCCUR CONCURRENTLY UNLESS SPECIFICALLY NOTED.
1. RECEIVE NPDES COVERAGE FROM DHEC.
2. PRE-CONSTRUCTION MEETING (ON-SITE IF MORE THAN 10 DISTURBED & NON-LINEAR)
3. NOTIFY DHEC EQC REGIONAL OFFICE OR OCRM OFFICE 48 HOURS PRIOR TO BEGINNING LAND-DISTURBING ACTIVITIES.
4. INSTALLATION OF CONSTRUCTION ENTRANCE(S).
5. CLEARING & GRUBBING ONLY AS NECESSARY FOR INSTALLATION OF PERIMETER CONTROLS.
6. INSTALLATION OF PERIMETER CONTROLS (E.G. SILT FENCE).
7. CLEARING & GRUBBING ONLY IN AREAS OF BASINS / TRAPS / PONDS.
8. INSTALLATION OF BASINS / TRAPS / PONDS AND INSTALLATION OF DIVERSIONS TO THOSE STRUCTURES (OUTLET STRUCTURES MUST BE COMPLETELY INSTALLED AS SHOWN ON THE DETAILS BEFORE PROCEEDING TO NEXT STEP; AREAS DRAINING TO THESE STRUCTURES CANNOT BE DISTURBED UNTIL THE STRUCTURES & DIVERSIONS TO THE STRUCTURES ARE COMPLETELY INSTALLED).
9. CLEARING & GRUBBING OF SITE OR DEMOLITION (SEDIMENT & EROSION CONTROL MEASURES FOR THESE AREAS MUST ALREADY BE INSTALLED).
10. ROUGH GRADING.
11. INSTALLATION OF STORM DRAIN SYSTEM AND PLACEMENT OF INLET PROTECTION AS EACH INLET IS INSTALLED.
12. FINE GRADING, PAVING, ETC.
13. PERMANENT / FINAL STABILIZATION.
14. CLEAN-OUT OF DETENTION BASINS THAT WERE USED AS SEDIMENT CONTROL STRUCTURES AND RE-GRADING OF DETENTION POND BOTTOMS; IF NECESSARY, MODIFICATION OF SEDIMENT BASIN RISER TO CONVERT TO DETENTION BASIN OUTLET STRUCTURE.
15. REMOVAL OF TEMPORARY SEDIMENT & EROSION CONTROL MEASURES AFTER ENTIRE AREA DRAINING TO THE STRUCTURE IS FINALLY STABILIZED (THE DEPARTMENT RECOMMENDS THAT THE PROJECT OWNER / OPERATOR HAVE THE SWPPP PREPARER OR REGISTRATION EQUIVALENT APPROVE THE REMOVAL OF TEMPORARY STRUCTURES).
16. PERFORM AS-BUILT SURVEYS OF ALL DETENTION STRUCTURES AND SUBMIT TO DHEC OR MS4 FOR ACCEPTANCE.
17. SUBMIT NOTICE OF TERMINATION (NOT) TO DHEC AS APPROPRIATE.

NOTE: IF FLOWS FROM OFFSITE AREAS WILL BE DIVERTED AROUND THE SITE AND THE ON-SITE STRUCTURES ARE NOT DESIGNED TO HANDLE FLOWS FROM THE OFFSITE AREAS, THEN THE DIVERSIONS / PIPING FOR THE OFFSITE FLOWS MUST BE INSTALLED BEFORE LAND-DISTURBING ACTIVITIES BEGIN ON THE SITE; INCLUDE THIS IN SEQUENCE. SEDIMENT AND EROSION CONTROL MEASURES FOR THE DISTURBED AREAS FOR THE DIVERSION / PIPING MUST BE INSTALLED BEFORE THOSE AREAS ARE DISTURBED AND SHOULD BE SHOWN ON THE PLANS.
NOTE: IF AN EXISTING DETENTION / SEDIMENT BASIN IS BEING MODIFIED TO HANDLE THE FLOWS FROM THE PROPOSED DEVELOPMENT, THEN IT MUST BE MODIFIED BEFORE LAND-DISTURBING ACTIVITIES BEGIN ON THE SITE. THIS SHOULD BE INCLUDED IN THE SEQUENCE.
NOTE: INCLUDE INDIVIDUAL LOT DEVELOPMENT / CONSTRUCTION IN THE SEQUENCE IF THE SITE WILL NOT BE MASS-GRADED.
NOTE: INSTALLATION OF SOME PERMANENT WATER QUALITY DEVICES SHOULD OCCUR AFTER THE SITE IS STABILIZED; INCLUDE THIS IN THE SEQUENCE. CLEANOUT OF OTHER WATER QUALITY DEVICES THAT WERE USED DURING CONSTRUCTION SHOULD OCCUR AFTER SITE STABILIZATION.
NOTE: MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES MUST CONTINUE UNTIL THE SITE IS PERMANENTLY STABILIZED AND THE CONTROLS ARE REMOVED.
**BE SURE TO NUMBER AND LIST ALL ITEMS IN NUMERICAL ORDER FOR YOUR CONSTRUCTION SEQUENCE.

STANDARD ABBREVIATIONS

Ac	ACRE	MJ	MECHANICAL JOINT
ADT	AVERAGE DAILY TRAFFIC	N	NORTH
ASPH	ASPHALT	NBR	NORTH BOUND ROADWAY
BEG	BEGIN	NC	NORMAL CROWN
BL	BASELINE	NGVD	NATIONAL GEODETIC VERTICAL DATUM
BM	BENCHMARK	NIC	NOT IN CONTRACT
BOB	BOTTOM OF BANK	OD	OUTSIDE DIAMETER
BOTT	BOTTOM	OH	OVERHEAD
BRG	BEARING	OHP	OVERHEAD POWER
BT	BURIED TELEPHONE	PAVT	PAVEMENT
B/C	BACK OF CURB	PC	POINT OF CURVATURE
C	RATE OF CHANGE IN SLOPE	PCC	POINT OF COMPOUND CURVATURE
C & G	CURB AND GUTTER	PERF	PERFORATED
CATV	CABLE TELEVISION	PG	PROFILE GRADE
CB	CATCH BASIN	PGE	PROFILE GRADE ELEVATION
CI	CURB INLET	PGL	PROFILE GRADE LINE
CL	CLEARANCE OR CENTERLINE	PI	POINT OF INTERSECTION
CONST	CONSTRUCTION	PR	POINT OF ROTATION
CORR	CORRECTION	PRC	POINT OF REVERSE CURVATURE
CF	CUBIC FEET	PRCST	PRECAST
CY	CUBIC YARD	PT	POINT OF TANGENCY
DA	DRAINAGE AREA	PVC	POLYVINYL CHLORIDE
DBI	DITCH BOTTOM INLET	PVI	POINT OF VERTICAL INTERSECTION
DBL	DOUBLE	Q	PEAK DISCHARGE OR FLOW VOLUME (CFS)
DHV	DESIGN HOURLY VOLUME	R	RATE OF CHANGE IN ELEVATION
DI	DROP INLET	R OR RAD	RADIUS
DIA OR D	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DIP	DUCTILE IRON PIPE	RDWY	ROADWAY
DT	DITCH	REQ OR REQD	REQUIRED
E	SUPERELEVATION	RT	RT
E	EAST OR EXTERNAL DISTANCE	R/W	RIGHT OF WAY
EGL	EXISTING GRADE LINE	S	SPEED OR SOUTH OR SLOPE
EL OR ELEV	ELEVATION	SAHM	SAND-ASPHALT HOT MIX
EMBK	EMBANKMENT	SAN	SANITARY
ENGR	ENGINEER	SF	SQUARE FOOT OR SILT FENCE
EQ	EQUAL	SY	SQUARE YARD
ESMT	EASEMENT	SBR	SOUTH BOUND ROADWAY
EW	ENDWALL	SD	STORM SEWER
EXIST	EXISTING	SED	SEDIMENT
F & I	FURNISH AND INSTALL	SHW	SEASONAL HIGH WATER
FES	FLARED END SECTION	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSMH	SANITARY SEWER MANHOLE
FM	FORCE MAIN	STA	STATION
FT	FOOT OR FEET	SUBGR	SUBGRADE
FUT	FUTURE	SUR	SURVEY
GI	GRATE INLET	SW OR SWK	SIDEWALK
GRD	GRADE	TC	TOP OF CURB
H OR HT	HEIGHT	TCE	TEMPORARY CONSTRUCTION EASEMENT
HDPE	HIGH DENSITY POLYETHYLENE	TEL	TELEPHONE
HDWL	HEADWALL	TEMP	TEMPERATURE OR TEMPORARY
HORIZ	HORIZONTAL	TG	TOP OF GRATE
HP	HIGH POINT	TOB	TOP OF BANK
HW	HIGHWATER	TP	TOP OF PAVEMENT
HWY	HIGHWAY	TW	TOP OF SIDEWALK
HYD	HYDRANT OR HYDRAULIC	TYP	TYPICAL
ID	INSIDE DIAMETER	UNDDR	UNDERDRAIN
IE	INVERT ELEVATION	UG	UNDERGROUND
IN	INCH	UE	UNDERGROUND ELECTRIC
INSTL	INSTALL	UT	UNDERGROUND TELEPHONE
JB	JUNCTION BOX	UTIL	UTILITIES
LF	LINEAR FEET	VERT	VERTICAL
LGTH	LENGTH	W	WIDTH OR WEST
LOW	LIMIT OF WORK	WL	WATER LINE
LP	LOW POINT	WM	WATER MAIN
LT	LEFT	WT	WATER TABLE OR WEIGHT
MES	MITRED END SECTION	WV	WATER VALVE
MH	MANHOLE	WWF	WELDED WIRE FABRIC
MHW	MEAN HIGH WATER	YI	YARD INLET

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 22768 LICENSED GREGORY A. BA 02-11-15

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION WARD EDWARDS, INC. No. C00152

PLAN REVISIONS

NO.	DESCRIPTION	DATE
1	MOVED PRO. SAN. SEWER TO CENTER OF EASEMENT	12/31/14
2	MOVED PRO. SAN. SEWER - JACK & BORE BOUNDARY	02/11/15
3		
4		
5		
6		
7		

Ward Edwards ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH (843) 837-5250 / FAX (843) 837-2558
WWW.WARDEDWARDS.COM

LOVEJOY SANITARY SEWER REALIGNMENT
BEAUFORT COUNTY, SOUTH CAROLINA
CITY OF BEAUFORT PUBLIC WORKS
BEAUFORT, SOUTH CAROLINA
CONSTRUCTION NOTES

☑ NOT FOR CONSTRUCTION
☐ RELEASED FOR CONSTRUCTION

PROJECT #:	130215H
DATE:	02/11/15
DESIGNED BY:	RB
CHECKED BY:	GAB
SCALE:	N.T.S.

SHEET C102

IF THIS SHEET IS LESS THAN 22" X 34" IT IS A REDUCED PRINT, SCALE ACCORDINGLY

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TREE & TOPO SURVEY

PREPARED FOR

303 ASSOCIATES, LLC

PORTION OF LOT 61 AND 52, SECTION 31, 1N-1W

BEAUFORT TAX MAP 1, PARCEL 12

BEAUFORT COUNTY SOUTH CAROLINA

3.960 ACRES
+0.021 ACRES
3.981 ACRES TOTAL

LEGEND:
IPS – IRON PIN SET
IPF – IRON PIN FOUND
CMF – CONCRETE MONUMENT FOUND
PP – POWER POLE
LP – LIGHT POLE
WV – WATER VALVE
WM – WATER METER
SSMH – SEWER MANHOLE
SDCB – STORM CATCH BASIN
VM – VALVE MARKER
PBOX – POWER BOX
TRAN – TRANSFORMER
PLM – PIPELINE MARKER

TREE LEGEND:
LO – LIVE OAK
G – GUM
CH – CHERRY
MB – MULBERRY
SB – SUGAR BERRY
PAL – PALMETTO
MAG – MAGNOLIA
LrO – LAUREL OAK

NO.	BEARING	DISTANCE
AA	N51°13'50"E	23.90'
AB	N89°11'40"E	7.55'
AC	S68°25'43"W	20.99'

NO.	DELTA	RADIUS	ARC	TANGENT	C.BEARING	CHORD
1	8°18'58"	1437.55'	208.65'	104.51'	N70°26'29"W	208.42'
2	0°43'42"	1462.70'	18.59'	9.30'	N76°20'10"W	18.59'

REFERENCE PLAT:
PLAT BY R.D. TROGDON, JR. DATED OCT. 19, 1978 AND REVISED NOV. 2, 1981 AND RECORDED IN THE OFFICE OF THE CLERK OF COURT FOR BEAUFORT COUNTY, SOUTH CAROLINA IN PLAT BOOK 30, PAGE 82.

THIS PROPERTY IS LOCATED IN ZONE C, B, AND A-11 (EL 13.0) AS DETERMINED BY FEMA, FIRM COMMUNITY-PANEL NUMBER 450026 0005 D, DATED 9-29-86.

R120-001-000-0012-0000

REVISED 5-24-07 – ADDED TREE & TOPO
REVISED 7-19-07 – UPDATED BOUNDARY
REVISED 11-9-07 – UPDATED TREE SURVEY
REVISED 3-31-08 – LOT LINE CORRECTION
REVISED 6-13-12 – ADDED MORE TOPO
REVISED 11-4-13 – ADDED LOVEJOY PROPERTY & UPDATED TREES IN THIS AREA

P13339T2/MMA

PLUG EXISTING SSMH: SS10-092 @ EAST 8" PVC LOCATION

CAP EXISTING 6" FORCE MAIN AND ABANDON IN PLACE

CAP EXISTING 6" FORCE MAIN AT MARSH ROAD AND FILL WITH FLOWABLE FILL (±85 LF)

FUTURE BOUNDARY STREET DRY UTILITY DUCT BANK, LOCATION SHOWN AS APPROXIMATE

REMOVE (2) EXISTING LIVE OAKS AND REPLACE WITH (2) NEW 6" CALAPER LIVE OAKS (QUERCUS VIRGINIANA)

CONTRACTOR TO MAINTAIN SIGNAGE DURING CONSTRUCTION (TYP. 3)

REMOVE AND REINSTALL EXISTING LIGHT POLE AS REQUIRED TO INSTALL PROPOSED SANITARY SEWER LINE

DEMO 235 LF EXISTING 6" FORCE MAIN

DEMO 120 LF EXISTING 8" PVC GRAVITY SANITARY SEWER

CONTRACTOR TO MAINTAIN SEWER SERVICE TO ALL EXISTING SERVICES DURING CONSTRUCTION BY TEMPORARY RE-ROUTING, CONSTRUCTION SEQUENCE AND OR PUMP/HAUL, METHODS TO BE APPROVED BY BJWSA AND ENGINEER.

SEED STABILIZE ALL DISTURBED AREAS, AS PER DETAILS (±3,000 SF) (TS)(PS)

DEMO 37 SY EXISTING CONCRETE SIDEWALK TO BACK OF CURB, SAWCUT IF MONOLITHIC

GRAPHIC SCALE
20 10 0 20 40

I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN.
ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

SOUTH CAROLINA BEAUFORT SURVEYING INC. No. 00189 CERTIFICATE OF AUTHORIZATION

DAVID S. YOUMANS RLS 9765
BEAUFORT SURVEYING, INC.
1613 PARIS AVENUE
PORT ROYAL, S.C.29935
PHONE (803) 524-3261

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SOUTH CAROLINA ENGINEER GREGORY A. DAVIS No. 22708 02-11-15

SOUTH CAROLINA NO. 1 SURVEYOR CERTIFICATE OF AUTHORIZATION WARD EDWARDS, INC. No. C00152

NO.	DESCRIPTION	DATE
7		
6		
5		
4		
3	MOVED PRO. SAN. SEWER - JACK & BORE BOUNDARY	02/11/15
2	MOVED PRO. SAN. SEWER TO CENTER OF EASEMENT	12/31/14
1		

PLAN REVISIONS

Ward Edwards ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH (843) 837-5250 / FAX (843) 837-2558
WWW.WARDEDWARDS.COM

LOVEJOY SANITARY SEWER REALIGNMENT
BEAUFORT COUNTY, SOUTH CAROLINA
CITY OF BEAUFORT PUBLIC WORKS
BEAUFORT, SOUTH CAROLINA

EXISTING CONDITIONS & DEMOLITION PLAN

☑ NOT FOR CONSTRUCTION
☐ RELEASED FOR CONSTRUCTION

PROJECT #:	1302ISH
DATE:	02/11/15
DESIGNED BY:	RB
CHECKED BY:	GAB
SCALE:	1"=20'

SHEET
C103

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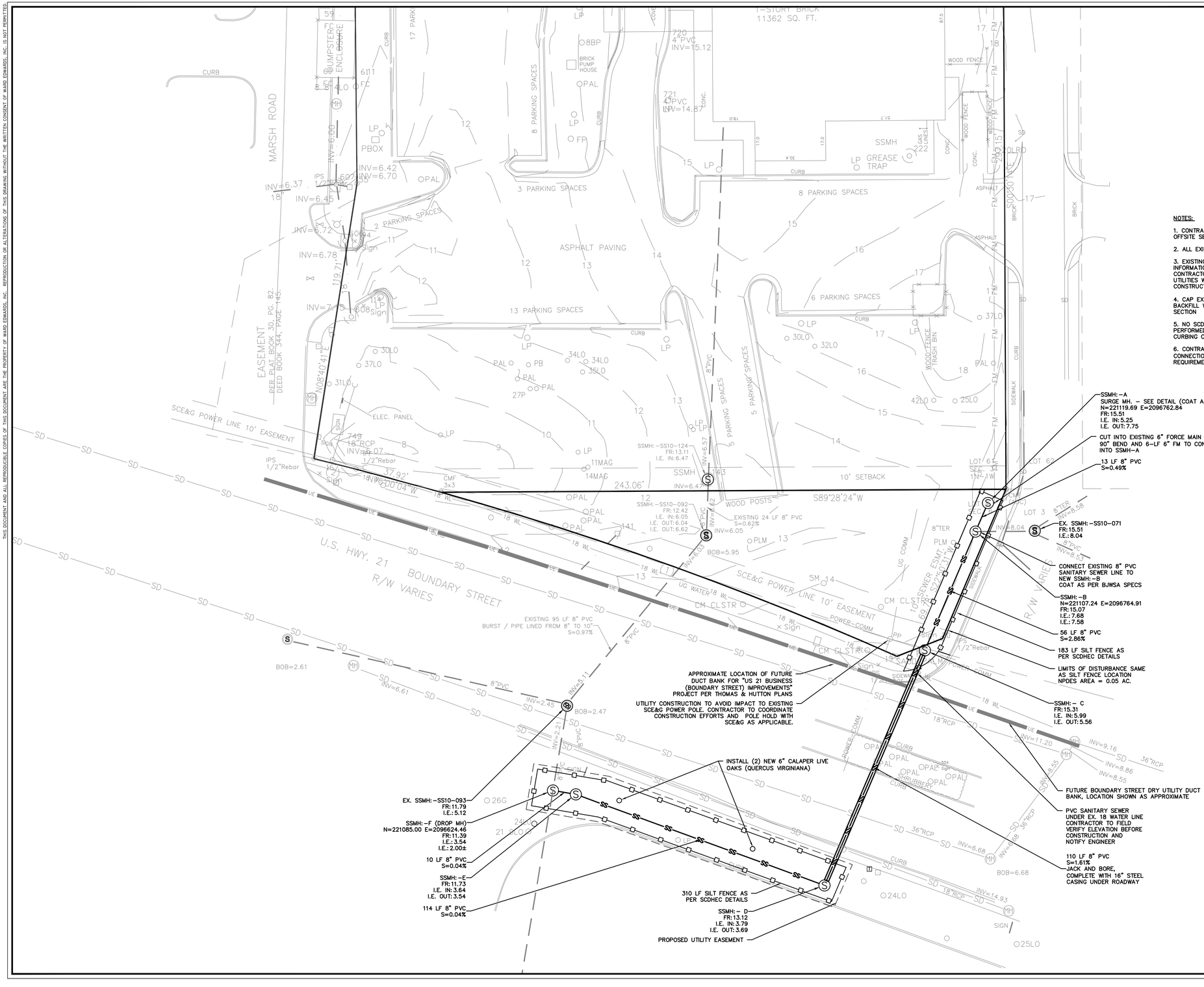

NOTES:

1. CONTRACTOR TO NOTIFY ******* 48-HOURS PRIOR TO OFFSITE SEWER CONSTRUCTION INITIATION.

2. ALL EXISTING DISTURBED LANDSCAPING TO BE REPLANTED.

3. EXISTING UTILITIES SHOWN ARE BASED ON BEST AVAILABLE INFORMATION PROVIDED BY SURVEYOR AND BJWSA. CONTRACTOR TO VERIFY LOCATION AND ELEVATIONS OF ALL UTILITIES WITHIN LIMITS OF DISTURBANCE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF CONFLICT EXISTS.

4. CAP EXISTING 6" FORCE MAIN AT MARSH ROAD AND BACKFILL WITH FLOWABLE FILL THROUGH ENTIRE ABANDON SECTION

5. NO SCDOT LANE CLOSURE PERMITTED, ALL WORK TO BE PERFORMED FROM BEHIND BACK OF CURB AND NOT DISTURB CURBING OR STREET PAVING

6. CONTRACTOR TO COORDINATE NEW AND EXISTING SYSTEM CONNECTIONS AND TEMPORARY SHUTDOWN/BYPASS REQUIREMENTS WITH BJWSA.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22708 GREGORY A. BAKER 02-11-15

NORTH CAROLINA NOTARIZED CERTIFICATE OF AUTHORIZATION WARD EDWARDS, INC. No. C00152

NO.	DESCRIPTION	DATE
3	MOVED PRO. SAN. SEWER - JACK & BORE BOUNDARY	02/11/15
2	MOVED PRO. SAN. SEWER TO CENTER OF EASEMENT	12/31/14
1	PLAN REVISIONS	

Ward Edwards ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH (843) 837-2558 / FAX (843) 837-2558
WWW.WARDEDWARDS.COM

LOVEJOY SANITARY SEWER REALIGNMENT

BEAUFORT COUNTY, SOUTH CAROLINA

CITY OF BEAUFORT PUBLIC WORKS
BEAUFORT, SOUTH CAROLINA

UTILITY PLAN

☑ NOT FOR CONSTRUCTION
☐ RELEASED FOR CONSTRUCTION

PROJECT #:	L30215H
DATE:	02/11/15
DESIGNED BY:	RB
CHECKED BY:	GAB
SCALE:	1"=20'

SHEET
C104

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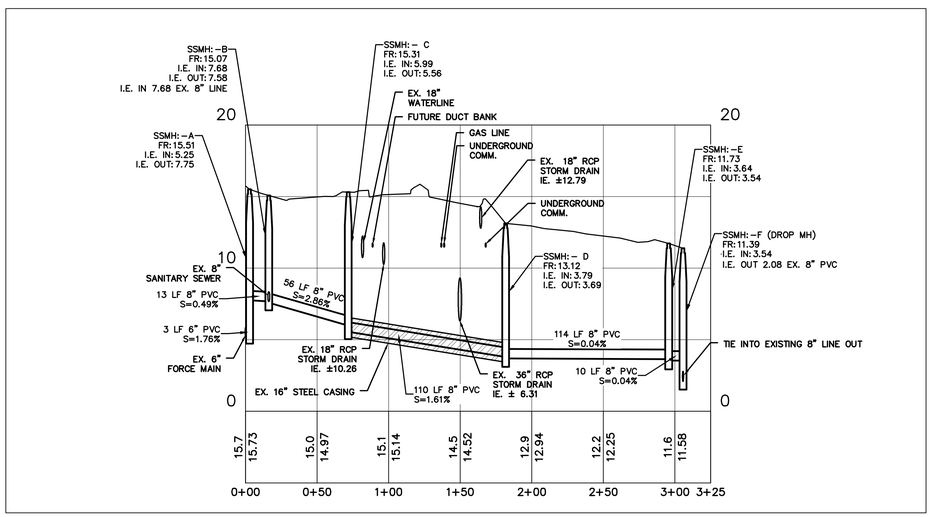


SANITARY SEWER PROFILE

SCALE: 1" = 50' HORIZ
1" = 5' VERT

PERMANENT SEEDING – COASTAL

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

PS PERMANENT SEEDING - COASTAL

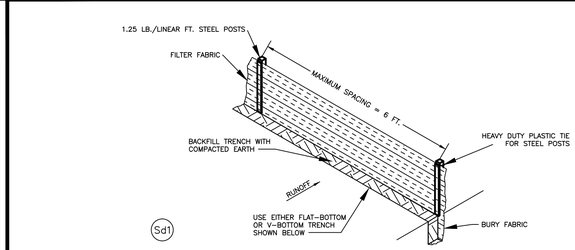
DETAIL 02370-010

TEMPORARY SEEDING – COASTAL

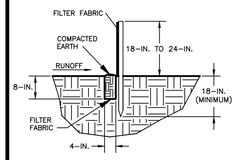
SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	40 LBS/AC			■	■	■	■	■	■	■			
RYE, GRAIN	56 LBS/AC	■	■	■						■	■	■	■
RYEGRASS	50 LBS/AC	■	■	■	■					■	■	■	■
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET OR JAPANESE MILLET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

TS TEMPORARY SEEDING - COASTAL

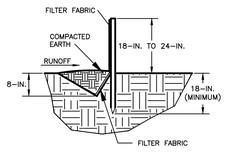
DETAIL 02370-011



SILT FENCE INSTALLATION



FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL

South Carolina Department of Health and Environmental Control

SILT FENCE

STANDARD DRAWING NO. SC-03 Page 1 of 3

APPROVED BY: _____ AUGUST, 2005
SCDHEC DATE

SILT FENCE DETAIL

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.

South Carolina Department of Health and Environmental Control

SILT FENCE

STANDARD DRAWING NO. SC-03 Page 2 of 3

APPROVED BY: _____ AUGUST, 2005
SCDHEC DATE

SILT FENCE DETAIL

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 cell 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.

South Carolina Department of Health and Environmental Control

SILT FENCE

STANDARD DRAWING NO. SC-03 Page 3 of 3

APPROVED BY: _____ AUGUST, 2005
SCDHEC DATE

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22708 GREGORY A. WARD 02-11-15

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION WARD EDWARDS, INC. No. C00152

NO.	DESCRIPTION	DATE
1	MOVED PRO. SAN. SEWER TO CENTER OF EASEMENT	12/31/14
2	MOVED PRO. SAN. SEWER - JACK & BORE BOUNDARY	02/11/15
3		
4		
5		
6		
7		

PLAN REVISIONS

Ward Edwards ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH (843) 837-5250 / FAX (843) 837-2558
WWW.WARDEDWARDS.COM

LOVEJOY SANITARY SEWER REALIGNMENT
BEAUFORT COUNTY, SOUTH CAROLINA
CITY OF BEAUFORT PUBLIC WORKS
BEAUFORT, SOUTH CAROLINA

CONSTRUCTION DETAILS

☑ NOT FOR CONSTRUCTION
☐ RELEASED FOR CONSTRUCTION

PROJECT #:	13021SH
DATE:	02/11/15
DESIGNED BY:	RB
CHECKED BY:	GAB
SCALE:	AS NOTED

SHEET
C105

IF THIS SHEET IS LESS THAN 22" X 34" IT IS A REDUCED PRINT. SCALE ACCORDINGLY

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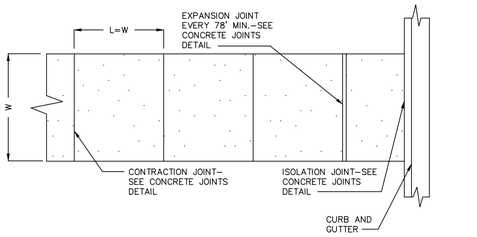
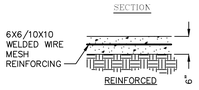


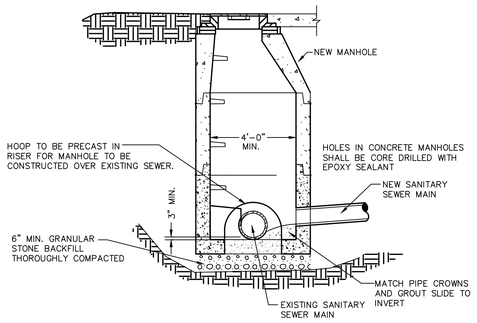
NOTES:

1. W = VARIES, REFER TO STAKING PLAN. FILL IN BASED ON SITE PLAN
2. L = WIDTH OF PAVING UNLESS OTHERWISE INDICATED ON PLAN.
3. SLOPE = AS INDICATED ON GRADING PLAN, NOT TO EXCEED 2% CROSS OR 8.33% LONGITUDINAL.
4. ALL CONCRETE SHALL BE CLASS A 3000 PSI.
5. FINISH: BROOM WITH HAND TOOLED JOINTS AND EDGES.



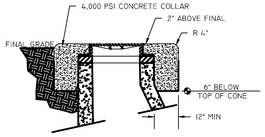
CONCRETE SIDEWALK

DETAIL 03300-006



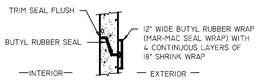
NEW MANHOLE OVER EXISTING SEWER LINE

DETAIL 02530-027

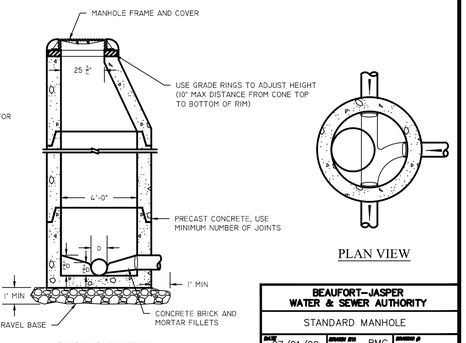


RURAL MANHOLE PROTECTIVE COLLAR

NOTES:
1. REFER TO STANDARD SPECIFICATIONS FOR INTERIOR COATING REQUIREMENTS.
2. CONCRETE GROUTING IS NOT ALLOWED INSIDE MANHOLES.
3. RIM ELEVATION ON RURAL MANHOLES SHALL BE 6" HIGHER THAN NEAREST MANHOLE OUTSIDE THE RURAL AREA.



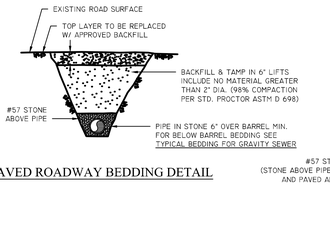
JOINT DETAIL



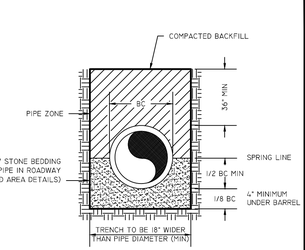
SECTION VIEW

PLAN VIEW

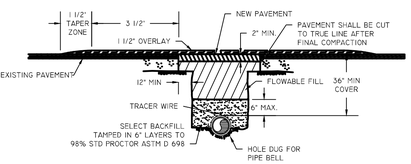
BEAUFORT–JASPER WATER & SEWER AUTHORITY		
STANDARD MANHOLE		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S–09
SCALE N.T.S	APPROVED BY ERS	



UNPAVED ROADWAY BEDDING DETAIL



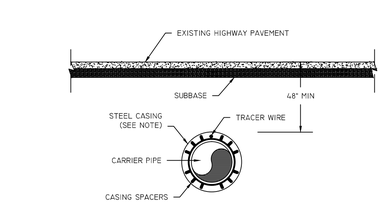
TYPICAL BEDDING FOR GRAVITY SEWER PIPE



PAVED AREA DETAIL

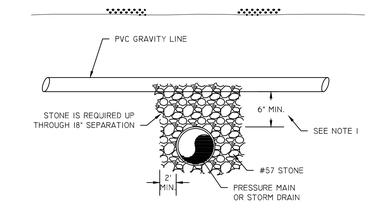
NOTES:
1. PAVEMENT CUT TO EXTEND 12" BEYOND EDGES OF TRENCH INSTALLATION CUT. FINAL CUT TO BE MADE AFTER FINAL COMPACTION.
2. MATCH EXISTING PAVEMENT TYP. THICKNESS IS TO BE 2" UNLESS EXISTING IS THICKER.
3. ALL INSTALLATIONS IN PUBLIC ROADWAYS SHALL COMPLY WITH CONDITIONS OUTLINED ON APPLICABLE ENCROACHMENT PERMIT, IF MORE STRINGENT.

BEAUFORT–JASPER WATER & SEWER AUTHORITY		
BEDDING DETAIL, GRAVITY PIPE		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S–01
SCALE N.T.S	APPROVED BY ERS	



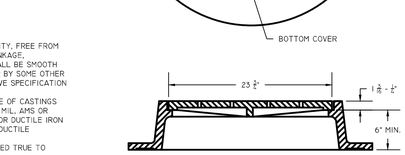
GRAVITY MAIN CROSSING UNDER STORM DRAIN / PRESSURE MAIN

NOTE:
1. SYSTEMS SHOULD NOT BE DESIGNED WITH LESS THAN 12" SEPARATION. IF LESS SEPARATION IS UNAVOIDABLE, WRITTEN AUTHORIZATION FROM BJWSA IS REQUIRED.



GRAVITY MAIN CROSSING OVER STORM DRAIN / PRESSURE MAIN

BEAUFORT–JASPER WATER & SEWER AUTHORITY		
GRAVITY MAIN CROSSING		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S–03
SCALE N.T.S	APPROVED BY ERS	

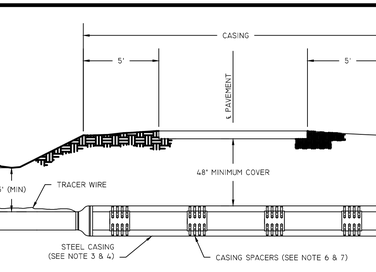


LOGO

NOTES:

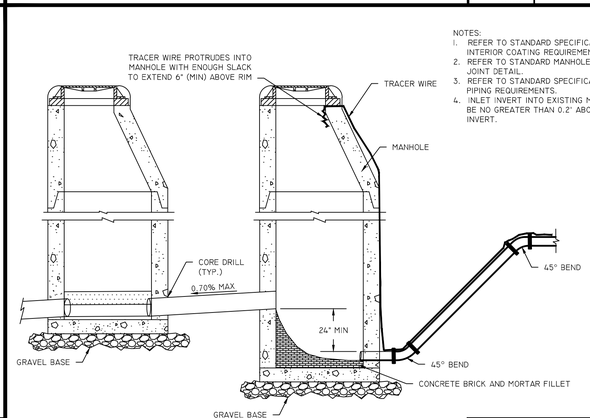
1. CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE, DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR BY SOME OTHER APPROVED METHOD UNLESS AN ALTERNATIVE SPECIFICATION IS MADE.
2. MATERIALS USED IN THE MANUFACTURE OF CASTINGS SHOULD CONFORM TO ASTM, AASHTO, ASA, MIL, AMS OR FEDERAL SPECIFICATIONS FOR GRAY IRON OR DUCTILE IRON AS FOLLOWS: GRAY IRON-ASTM CLASS 35, DUCTILE IRON-GRADE 60-40-18.
3. ALL CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN

BEAUFORT–JASPER WATER & SEWER AUTHORITY		
MANHOLE, COVER AND FRAME		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S–05
SCALE N.T.S	APPROVED BY ERS	



NOTES:
1. STEEL CASING TO EXTEND MINIMUM OF 5' BEYOND EDGE OF PAVEMENT.
2. ALL CONSTRUCTION TO BE INSPECTED AND APPROVED BY LOCAL COUNTY OR STATE ROAD DEPARTMENT.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WELD INSPECTIONS PRIOR TO PUSHING CASING.
4. SIZE AND WALL THICKNESS OF CASING TO BE APPROVED BY BJWSA AND DOT DEPT.
5. PLUG BOTH ENDS OF CASING WITH CASCADE CASING PLUGS.
6. CASING SPACERS SHALL BE ALL STAINLESS STEEL WITH PLASTIC SLIDES.
7. SPACING OF CASING SPACERS SHALL BE PER MANUFACTURERS SPECIFICATIONS BASED UPON CARRIER PIPE MATERIAL.

BEAUFORT–JASPER WATER & SEWER AUTHORITY		
BORE AND JACK DETAIL		
DATE 07/01/09	DRAWN BY BMC	DRAWING # G–03
SCALE N.T.S	APPROVED BY ERS	



NOTES:
1. REFER TO STANDARD SPECIFICATIONS FOR INTERIOR COATING REQUIREMENTS.
2. REFER TO STANDARD MANHOLE DETAIL FOR JOINT DETAIL.
3. REFER TO STANDARD SPECIFICATIONS FOR PIPING REQUIREMENTS.
4. INLET INVERT INTO EXISTING MANHOLE SHOULD BE NO GREATER THAN 0.2' ABOVE OUT GOING INVERT.

BEAUFORT–JASPER WATER & SEWER AUTHORITY		
FORCE MAIN CONTROL MANHOLE		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S–08
SCALE N.T.S	APPROVED BY ERS	

CERTIFICATE OF AUTHORIZATION NO. C00152 — WARD EDWARDS, INC. — NORTH CAROLINA

REGISTERED PROFESSIONAL ENGINEER — No. 22708 — GREGORY A. SCHOLL — NORTH CAROLINA

NO.	DESCRIPTION	DATE
7		
6		
5		
4		
3	MOVED PRO. SAN. SEWER - JACK & BORE BOUNDARY	02/11/15
2	MOVED PRO. SAN. SEWER TO CENTER OF EASEMENT	12/31/14
1	PLAN REVISIONS	

Ward Edwards ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH (843) 837-5250 / FAX (843) 837-2558
WWW.WARDEDWARDS.COM

LOVEJOY SANITARY SEWER REALIGNMENT
BEAUFORT COUNTY, SOUTH CAROLINA
CITY OF BEAUFORT PUBLIC WORKS
BEAUFORT, SOUTH CAROLINA

CONSTRUCTION DETAILS

☒ NOT FOR CONSTRUCTION
☐ RELEASED FOR CONSTRUCTION

PROJECT #:	130215H
DATE:	02/11/15
DESIGNED BY:	RB
CHECKED BY:	GAB
SCALE:	AS NOTED

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