

- LEGEND
- EXISTING CONCRETE SURFACE
  - PROPOSED CONCRETE SURFACE
  - EXISTING SHED AREA
  - PROPOSED SHED AREA
  - PROPOSED GRAVEL DRIVE

PROJECT INFORMATION	
TMS # 189-00-01-015 (PORTION)	
TOTAL ACREAGE	14.60 ACRES
DISTURBED ACREAGE	3.35 AC. (CURRENT PHASE) 9.20 AC. (COMPLETED & STABILIZED) 12.55 AC. TOTAL
ON-SITE SOILS	BLADEN, OGEECHEE, YEMASSEE, YAUHANNAH A
FEMA FLOOD MAP INFORMATION	NOT LOCATED IN A FLOOD ZONE



THESE DRAWINGS REFLECT  
**AS-BUILT**  
CONDITIONS

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSPECTIONS

REVIEWED BY: \_\_\_\_\_ DATE: 9/15/15  
ENGINEERING

GRAND STRAND WATER AND SEWER AUTHORITY

BY: DRT DATE: 2015/09-15

REVISION: AS-BUILT

GRAND STRAND WATER & SEWER AUTHORITY

166 JACKSON BLUFF RD.  
P.O. BOX 2368  
CONWAY, SC 29525-2368  
(803) 453-5000  
(803) 453-5006 FAX  
(803) 453-5008 TDD  
E-MAIL: GSWSA.COM

BUCKSPORT COMPOSTING FACILITY  
SHED EXTENSION 2

(GSWSA'S BUCKSPORT COMPOST FACILITY)

PROJ. #955-01

SOUTH CAROLINA  
REGISTERED PROFESSIONAL ENGINEER  
No. 26566  
JASON L. POSTON

DATE: November 2013 A.D.  
SCALE: as shown  
FILENAME: ...design (Compost Shed Extension).dgn

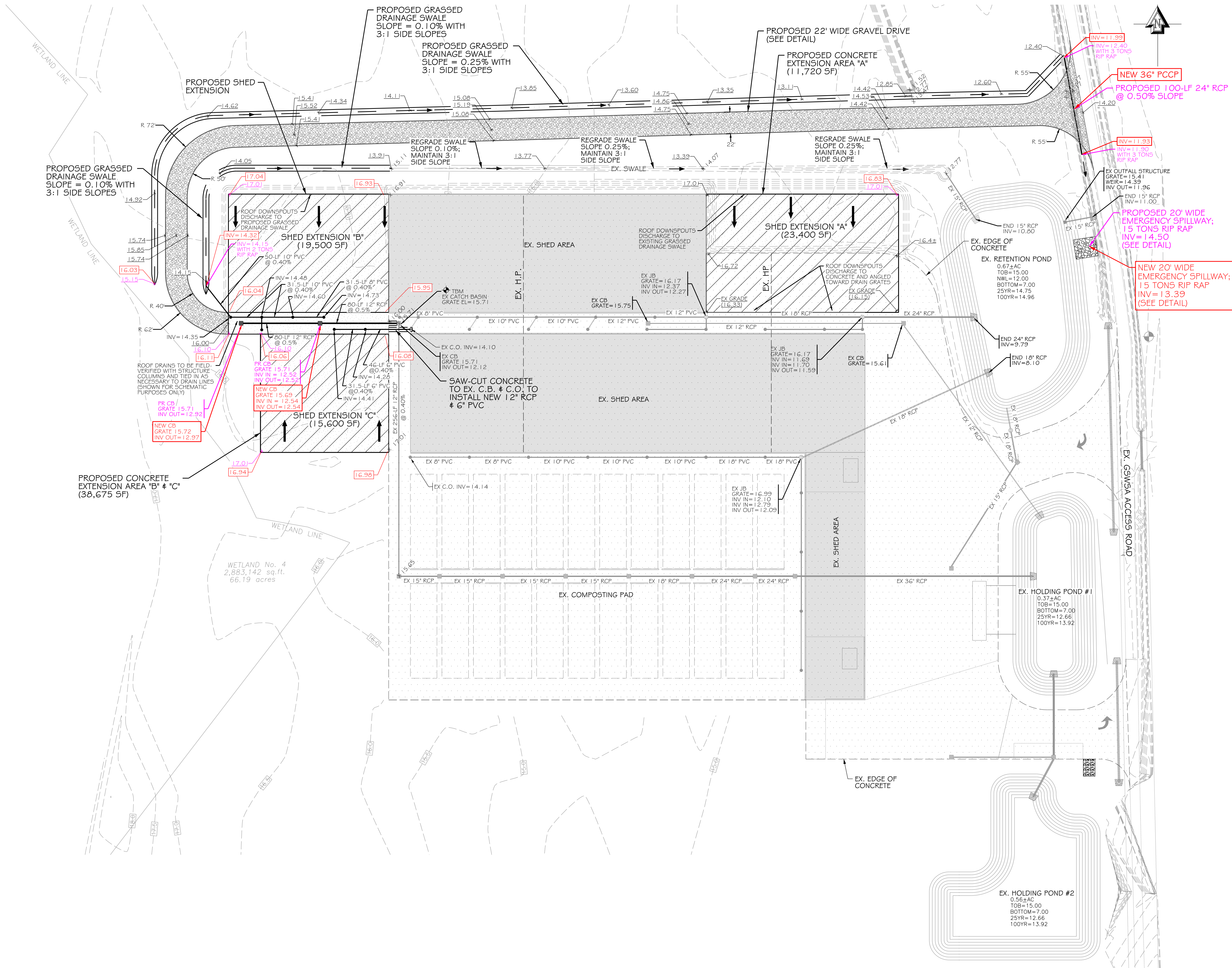
DESIGNED BY: Ray Thompkins

CHECKED BY: C. Ryan Hayes

APPROVED BY: JASON L. POSTON PE #26566

SHEET 1 OF 5





FINAL AS-BUILTS WILL BE SUBMITTED TO Horry County PRIOR TO FINAL INSPECTION.

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LEGEND	
	PROPOSED DRAINAGE FLOW
	EXISTING SPOT GRADE
	PROPOSED SPOT GRADE
	AS-BUILT SPOT GRADE
	EXISTING CONCRETE SURFACE
	PROPOSED CONCRETE SURFACE
	EXISTING SHED AREA
	PROPOSED SHED AREA
	PROPOSED GRAVEL DRIVE

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REVIEWED BY: INSPECTIONS DATE: 9/15/15

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GRAND STRAND WATER AND SEWER AUTHORITY

GRADING & DRAINAGE PLAN  
BUCKSPORT COMPOSTING FACILITY SHED EXTENSION 2

BY: DRT DATE: 2015/09/15

REVISION: 

AS-BUILT	
----------	--

GRAND STRAND WATER & SEWER AUTHORITY

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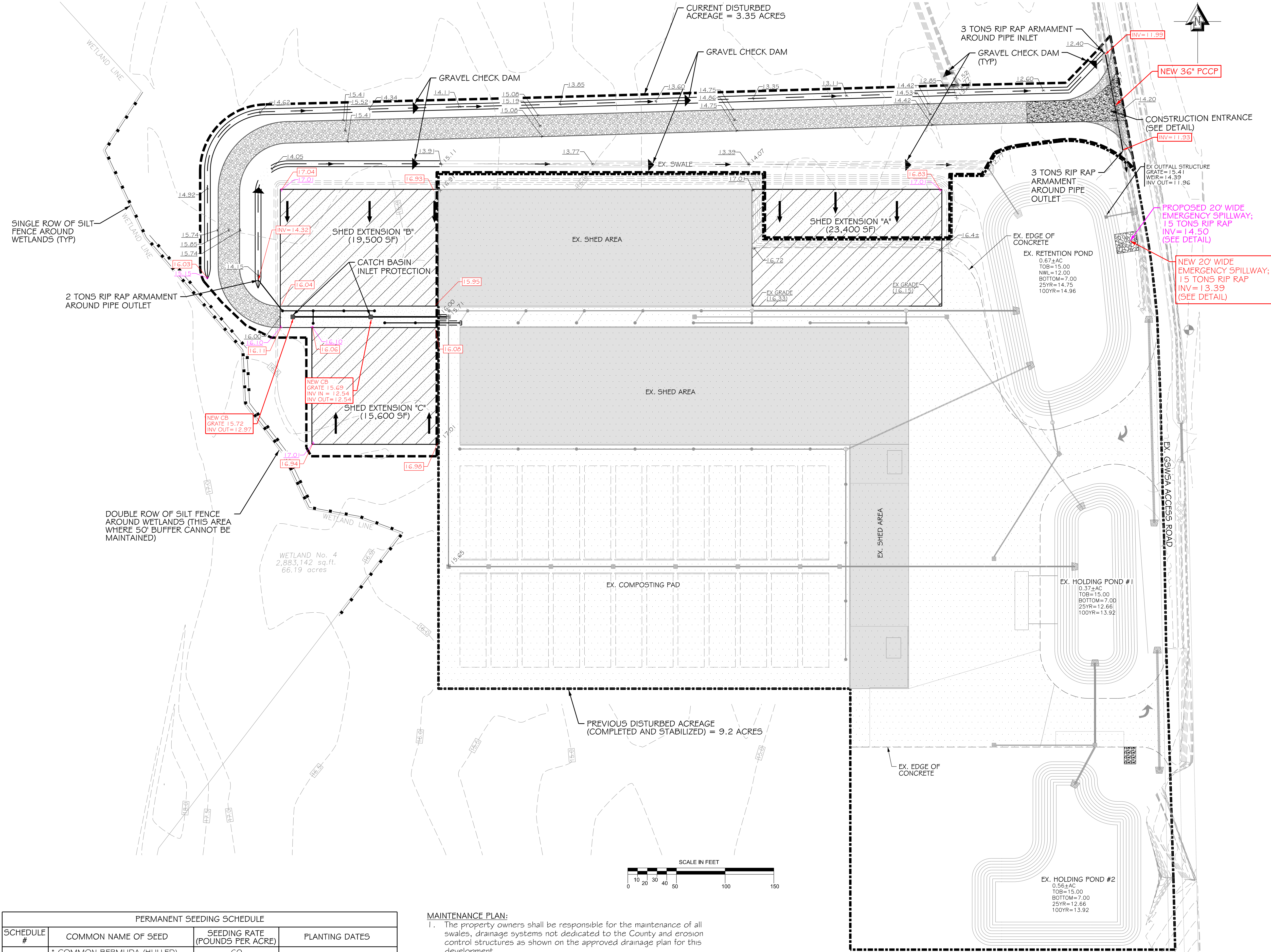
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SHEET **2** OF 5

#26-062-002/5-S





PERMANENT SEEDING SCHEDULE			
SCHEDULE #	COMMON NAME OF SEED	SEEDING RATE (POUNDS PER ACRE)	PLANTING DATES
3	• COMMON BERMUDA (HULLED) • SERICEA LESPEDEZA (SCARIFIED)	60 50	MARCH 1 - AUGUST 14
4	• COMMON BERMUDA (UNHULLED) • SERICEA LESPEDEZA (UNHULLED, UNSCARIFIED) • ANNUAL RYEGRASS	90 80 15	AUGUST 15 - FEBRUARY 28

NOTES:

- CONTRACTOR SHALL FERTILIZE AND LIME AS SOIL CONDITIONS DICTATE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING A HEALTHY STAND OF GRASS. THE CONTRACTOR SHALL REGRADE AND RESEED AS NEEDED FOR THE DURATION OF THE WARRANTY PERIOD. THE CONTRACTOR'S WARRANTY PERIOD SHALL BE EXTENDED UNTIL A 75% GRASS COVER IS ACHIEVED.
- CONTRACTOR SHALL COVER ALL SEEDED AREAS WITH STRAW MULCH WITH A MINIMUM THICKNESS OF TWO INCHES (2").

MAINTENANCE PLAN:

- The property owners shall be responsible for the maintenance of all swales, drainage systems not dedicated to the County and erosion control structures as shown on the approved drainage plan for this development.
- All swales and pond side slopes shall be mowed on a regular basis.
- All outfall structures shall be cleaned of debris twice a year or as needed to maintain the integrity of the structure.
- All catch basins, junction boxes or curb inlets shall be cleaned of debris once a year or as needed to maintain the integrity of the structure.
- Treatment of the pond for algae and weed growth shall be done on an as needed basis to provide water quality.
- Remove sediment buildup from bottom of pond once every five years or as needed to maintain pond storage area.

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ENGINEERING

GRAND STRAND WATER AND SEWER AUTHORITY

LEGEND	
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	EXISTING SPOT GRADE
	PROPOSED SPOT GRADE
	AS-BUILT SPOT GRADE
	EXISTING CONCRETE SURFACE
	PROPOSED CONCRETE SURFACE
	EXISTING SHED AREA
	PROPOSED SHED AREA
	PROPOSED GRAVEL DRIVE

Standard Notes

- 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.
- 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.
- 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.
- 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.
- 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.
- 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/silt from pavement, as may be required.
- 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 SCR1000000.
- 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.
- 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.
- 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.
- 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.
- 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.
- Minimize soil compaction and, unless infeasible, preserve topsoil.
- 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.
- 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.).
- The following discharges from sites are prohibited:
  - Wastewater from washout of concrete, unless managed by an appropriate control;
  - Wastewater from washout and cleanup 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.
- 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.
- 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.
- 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.

Construction Sequence

- Obtain land disturbance permit.
- Set up pre-construction conference with Horry County Stormwater Department to discuss erosion control measures.
- Mobilize on site.
- Install silt fencing, cleaning only as necessary to install these devices.
- Clear, grub, rough grading and installing construction entrance.
- Begin cleaning and grubbing.
- Install new stormwater drainage system, including inlet protection.
- Maintain erosion control devices as needed.
- Install utilities.
- Stabilize site as areas are brought up to finished grade.
- Finish grading/paving, seeding and sodding.
- Install shed.
- Perform site cleanup/demobilization. Remove sediment and erosion control measures.

DATE: 2015/09/15  
BY: DRT  
REVISION: AS-BUILT

168 JACKSON BLUFF RD.  
P.O. BOX 2368  
CONWAY, SC 29525-2368  
(843) 354-0686 FAX: (843) 354-4641  
E-MAIL: GSWSA@GSAWATER.COM

BUCKSPORT COMPOSTING FACILITY  
SHED EXTENSION 2  
(GSWSA'S BUCKSPORT COMPOST FACILITY)

PROJ. #955-01

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CHECKED BY: C. Ryan Hayes  
APPROVED BY: JASON L. POSTON PE#26566

SHEET 3 OF 5

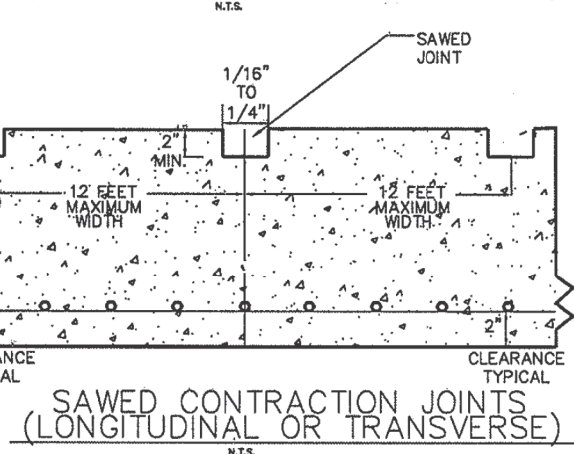


INSTALLATION: THE EMPTY DANDY BAG® SHOULD BE PLACED OVER THE GRATE AS THE GRATE STANDS ON END. IF USING THE OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLOW IN POUCH, ON THE BOTTOM (BELOW-GRADE SIDE) OF THE UNIT. ATTACH ABSORBENT PILLOW TO TETHER LOOP. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME

DANDY BAG®



- 1). JOINTS SHALL BE INSTALLED IN BOTH LONGITUDINAL AND TRANSVERSE DIRECTIONS.
- 2). LONGITUDINAL JOINTS SHALL BE INSTALLED AT 12 FEET MAXIMUM SPACING.
- 3). TRANSVERSE JOINTS SHALL BE INSTALLED AT 12 FEET MAXIMUM SPACING.
- 4). CONSTRUCTION JOINTS SHALL BE INSTALLED AT THE END OF EACH DAY'S RUN OR WHERE PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE.
- 5). EXPANSION JOINTS SHALL BE INSTALLED WHERE SLAB AUTOS BUILDINGS, POLES, MANHOLES, DRAINAGE STRUCTURES, OR OTHER PAVEMENTS.
- 6). EXPANSION JOINTS SHALL NOT BE LESS THAN 1 FOOT FROM ANY LONGITUDINAL JOINT.
- 7). SUBGRADE MATERIAL SHALL BE IN ACCORDANCE WITH GEOTECHNICAL REPORT AND IN NO CASE SHALL BE LESS THAN 6" GABC PER SDOOT STANDARD SPECIFICATIONS.
- 8). REINFORCING STEEL SHALL CONFORM TO ASHOTO M-31, GRADE 60.



TYPICAL CATCH BASIN DETAIL  
N.T.S.



TYPICAL CONSTRUCTION ENTRANCE  
N.T.S.

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_  
INSPECTIONS

REVIEWED BY: \_\_\_\_\_ DATE 9/15/15  
ENGINEERING

GRAND STRAND WATER AND SEWER AUTHORITY

## STANDARD DETAIL SHEET

BUCKSPORT COMPOSTING FACILITY SHED EXTENSION 2

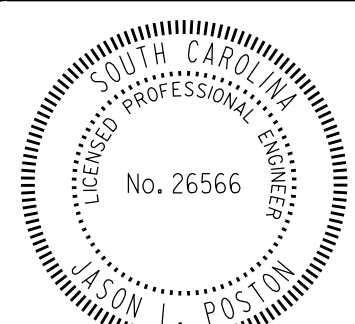
**GRAND STRAND**  
WATER & SEWER  
AUTHORITY

166 JACKSON BLUFF RD.  
P.O. BOX 23668  
CONWAY, SC 29525-2368

(843) 442-8200 OR 347-4641  
FAX: 347-4642  
E-MAIL: [GWSWA@COM](mailto:GWSWA@COM)

**BUCKSPORT COMPOSTING FACILITY  
SHED EXTENSION 2**  
(GSWSA'S BUCKSPORT COMPOST FACILITY)

PROJ. #955-01



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DESIGNED BY	Ray Thompkins
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CHECKED BY	C. Ryan Hayes
APPROVED BY	

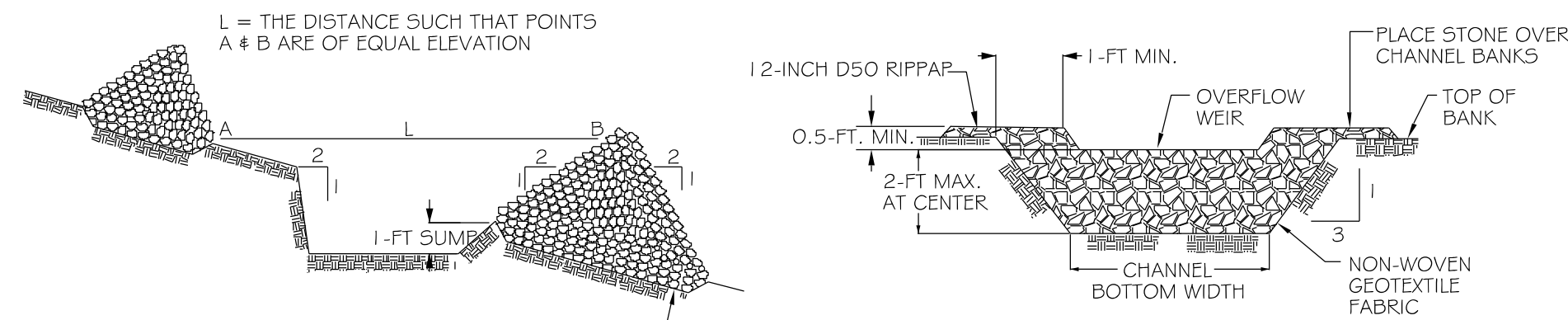
JASON L. POSTON PE #26566

SHEET

4

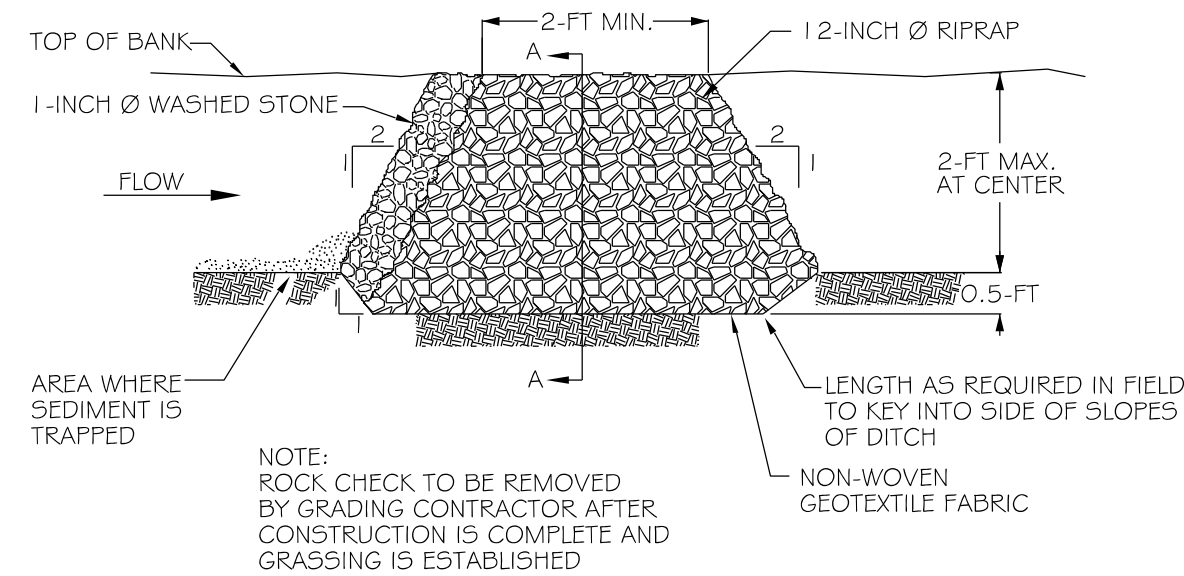
OF 5





SPACING BETWEEN DITCH CHECK

CROSS SECTION A-A THRU STONE DITCH CHECK



TYPICAL DITCH CHECK SECTION

ROCK DITCH CHECK

When and Where to Use It:

A rock ditch check should be installed in steeply sloped swales, or in swales where adequate vegetation cannot be established. Rock ditch checks should be used only in small open channels. Rock ditch checks should not be placed in waters of the commonwealth or USGS blue-line streams (unless approved by SCDHEC or Federal authorities).

Installation:

A non-woven geotextile fabric shall be installed over the soil surface where the rock ditch check is to be placed. The body of the rock ditch check shall be composed of 1/2-inch D50 Riprap.

The upstream face of the rock ditch check may be composed of 1-inch D50 washed stone.

Rock ditch checks should not exceed a height of 2-feet at the centerline of the channel.

Rock ditch checks should have a minimum top flow length of 2-feet.

Stone should be placed over the channel banks to prevent water from cutting around the ditch check.

The rock must be placed by hand or mechanical placement (no dumping of rock to form dam) to achieve complete coverage of the ditch or swale and to ensure that the center of the check is lower than the edges.

The maximum spacing between the dams should be such that the toe of the upstream check is at the same elevation as the top of the downstream check.

Inspection and Maintenance:

Inspect rock ditch checks every seven (7) calendar days and within 24-hours after each rainfall event that produces -inches or more of precipitation. Inspect for sediment and debris accumulation. Inspect ditch check edges for erosion and repair promptly as required.

Sediment should be removed when it reaches 1/3 the original check height.

In the case of grass-lined ditches and swales, rock ditch checks should be removed when the grass has matured sufficiently.

To protect the ditch or swale unless the slope of the swale is greater than 4%.

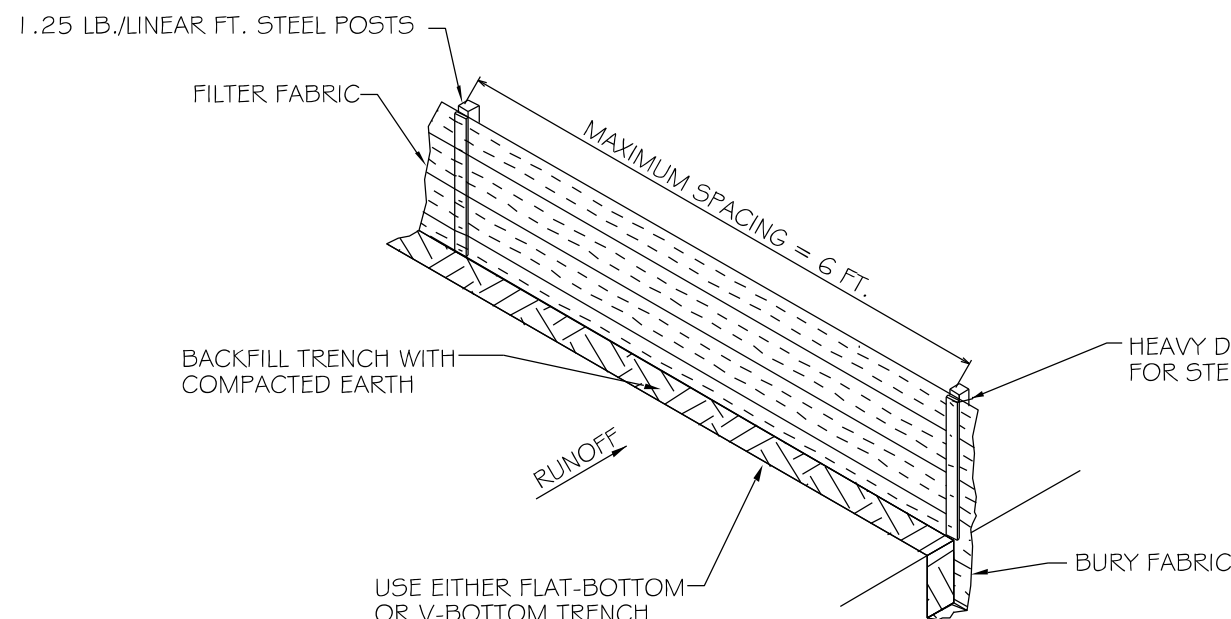
After construction is complete, all stone should be removed by the grading contractor if vegetation will be used for permanent erosion control measures.

The area beneath the rock ditch checks should be seeded and mulched immediately after rock check dam removal.

South Carolina Department of Health and Environmental Control

ROCK DITCH CHECK

STANDARD DRAWING NO.	SC-04	Page	1 of 1
APPROVED BY:	SDHEC	AUGUST, 2005	DATE



SILT FENCE INSTALLATION

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.

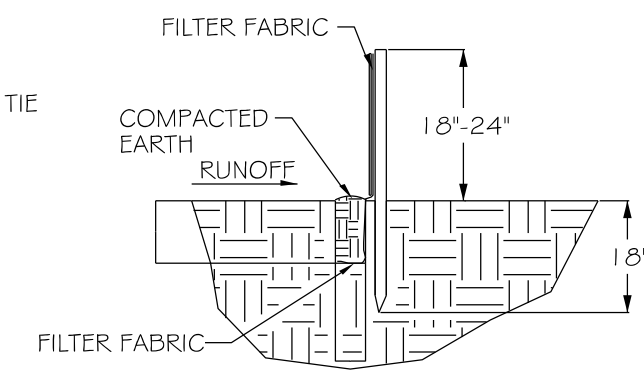
Materials:

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

- 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 fitting 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.



FLAT-BOTTOM TRENCH DETAIL

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 1 -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 will remain 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 cleanup.

Inspection and Maintenance:

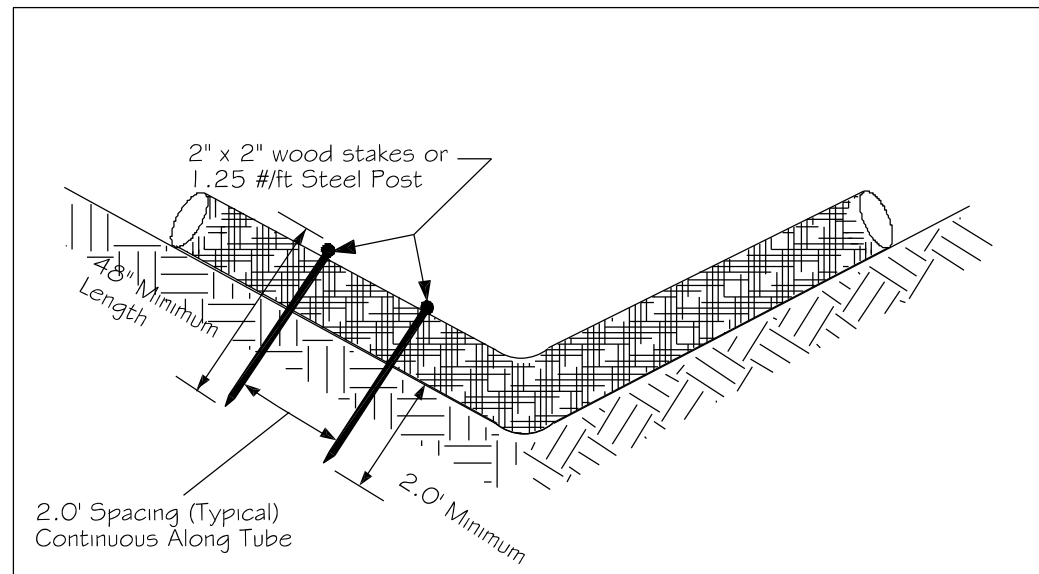
Inspect every seven calendar days and within 24-hours after each rainfall event that produces -inches or more of precipitation. Check for sediment buildup and fence integrity. Check where runoff has eroded a channel beneath the fence, or where the fence has sagged or collapsed by fence overtopping.

If the fence fabric tears, begins to decompose, or in any way becomes ineffective, replace the section of fence immediately.

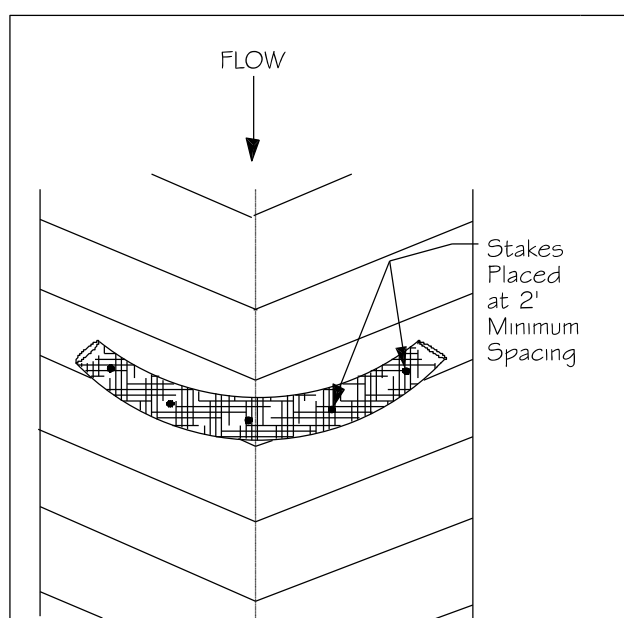
Remove sediment accumulated along the fence when it reaches 1/3 the height of the fence, especially if heavy rains are expected.

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.



END VIEW OF DITCH



TOP VIEW OF DITCH

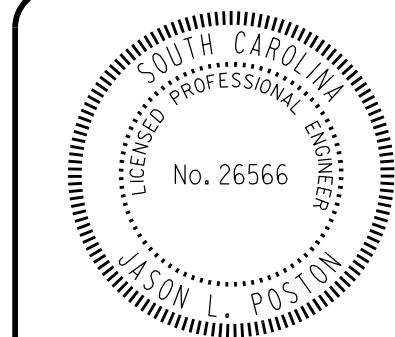
South Carolina Department of Health and Environmental Control

SEDIMENT TUBE

STANDARD DRAWING NO.	SC-05
APPROVED BY:	SDHEC
AUGUST, 2005	DATE

BUCKSPORT COMPOSTING FACILITY SHED EXTENSION 2

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