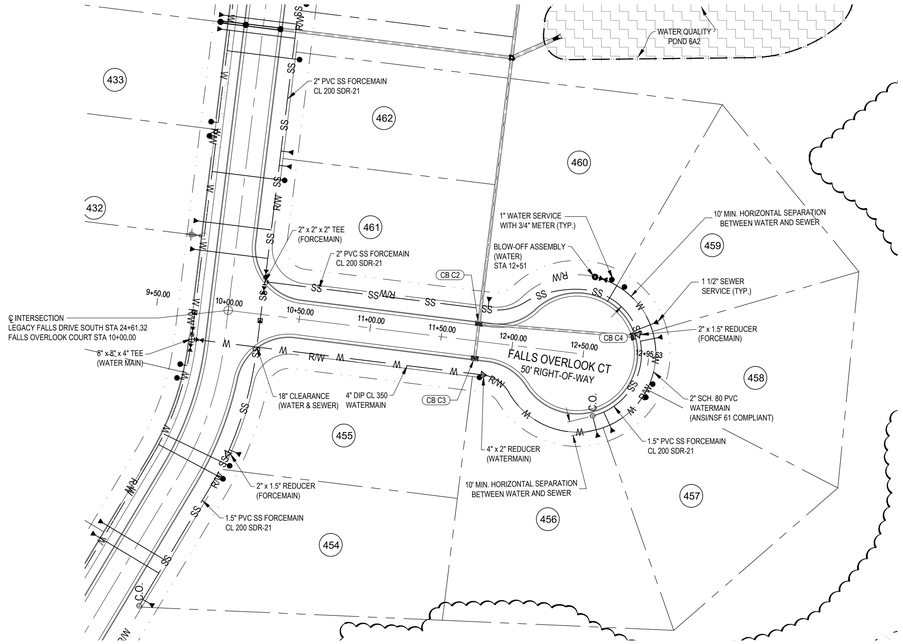
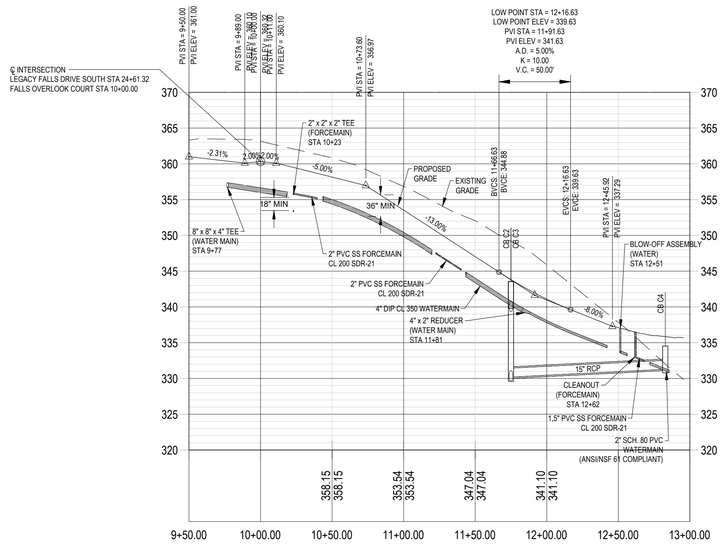


FALLS OVERLOOK CT PLAN & PROFILE

SCALE: 1"=50' H, 1"=10' V



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NORTH

50' 0 50' 100'

SCALE: 1" = 50'

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LEGEND

- PROPERTY LINE (PL)
- R/W — RIGHT-OF-WAY LINE
- SETBACK LINE
- UTILITY EASEMENT
- 140 — EXISTING MAJOR CONTOUR
- 139 — EXISTING MINOR CONTOUR
- 140 — PROPOSED MAJOR CONTOUR
- 139 — PROPOSED MINOR CONTOUR
- PROPOSED STORM DRAINAGE PIPE
- SS — PROPOSED GRAVITY SEWER
- W — PROPOSED WATER LINE
- TP — PROPOSED TREE PROTECTION FENCE
- LD — PROPOSED LIMITS OF DISTURBANCE
- PROPOSED RETAINING WALL
- FLARED END SECTION
- STORM MANHOLE
- YARD INLET
- CATCH BASIN
- FLOW ARROW
- 100.0' — PROPOSED SPOT ELEVATION
- TW=100.0' — PROPOSED GRADE AT TOP OF WALL
- BW=100.0' — PROPOSED GRADE AT BOTTOM OF WALL

NO.	REVISIONS	DATE
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NORTH CAROLINA PROFESSIONAL SEAL 034332 ENGINEER JASEPH M. CRAIG
01/30/19

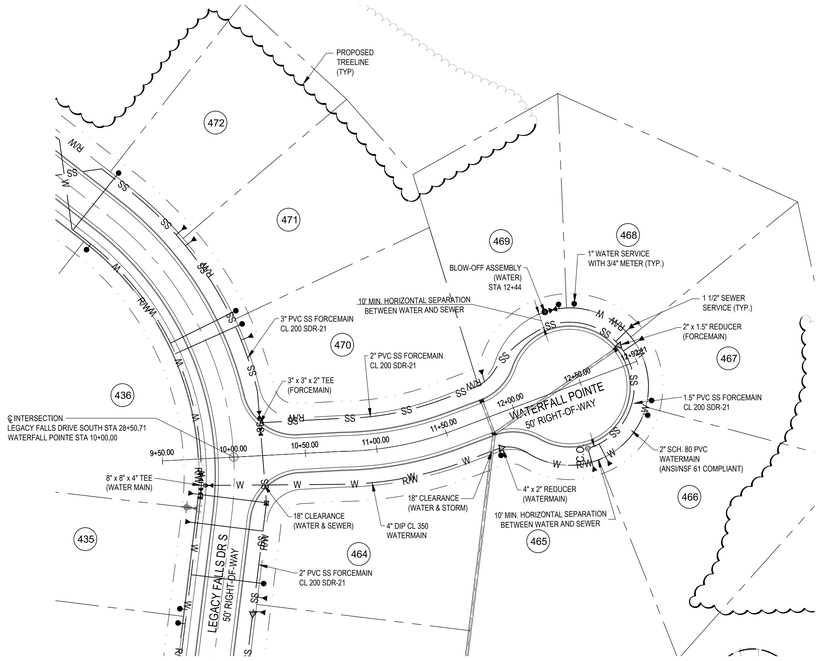
THE LEGACY - PHASE 6
CONSTRUCTION PLANS
PLAN & PROFILE - FALLS OVERLOOK CT
STA. 10+00 - 12+85.63

BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
Scale: 1" = 50'
Drawn: JCH
Checked: JMC
Project No. 330-12
Computer Dwg. Name: 330-12 17 PLAN & PROFILE C

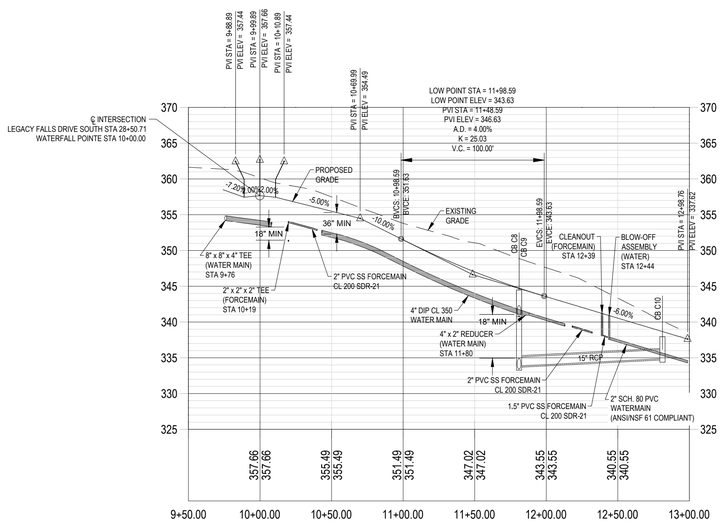
Sheet No: 17 Of 32

P:\330 (Freehold Capital)\330-12 (Legacy Phase 6)\Design\Planset\Construction Plans\330-12 17 PLAN & PROFILE C.dwg PLOTTED: 2/7/2019 10:32 AM BY: BMUELLER



WATERFALL POINTE PLAN & PROFILE

SCALE: 1"=50' H, 1"=10' V



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- RIGHT-OF-WAY LINE (R/W)
- SETBACK LINE
- UTILITY EASEMENT
- EXISTING MAJOR CONTOUR (140)
- EXISTING MINOR CONTOUR (139)
- PROPOSED MAJOR CONTOUR (140)
- PROPOSED MINOR CONTOUR (139)
- PROPOSED STORM DRAINAGE PIPE
- PROPOSED GRAVITY SEWER (SS)
- PROPOSED WATER LINE (W)
- PROPOSED TREE PROTECTION FENCE (TP)
- PROPOSED LIMITS OF DISTURBANCE (LD)
- PROPOSED RETAINING WALL
- FLARED END SECTION
- STORM MANHOLE
- YARD INLET
- CATCH BASIN
- FLOW ARROW
- PROPOSED SPOT ELEVATION (100.0')
- PROPOSED GRADE AT TOP OF WALL (TW=100.0')
- PROPOSED GRADE AT BOTTOM OF WALL (BW=100.0')

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01/30/19

NORTH

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SCALE: 1" = 50'

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THE LEGACY - PHASE 6
CONSTRUCTION PLANS
PLAN & PROFILE - WATERFALL POINTE
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BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
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Computer Dwg. Name 330-12 18 PLAN & PROFILE D

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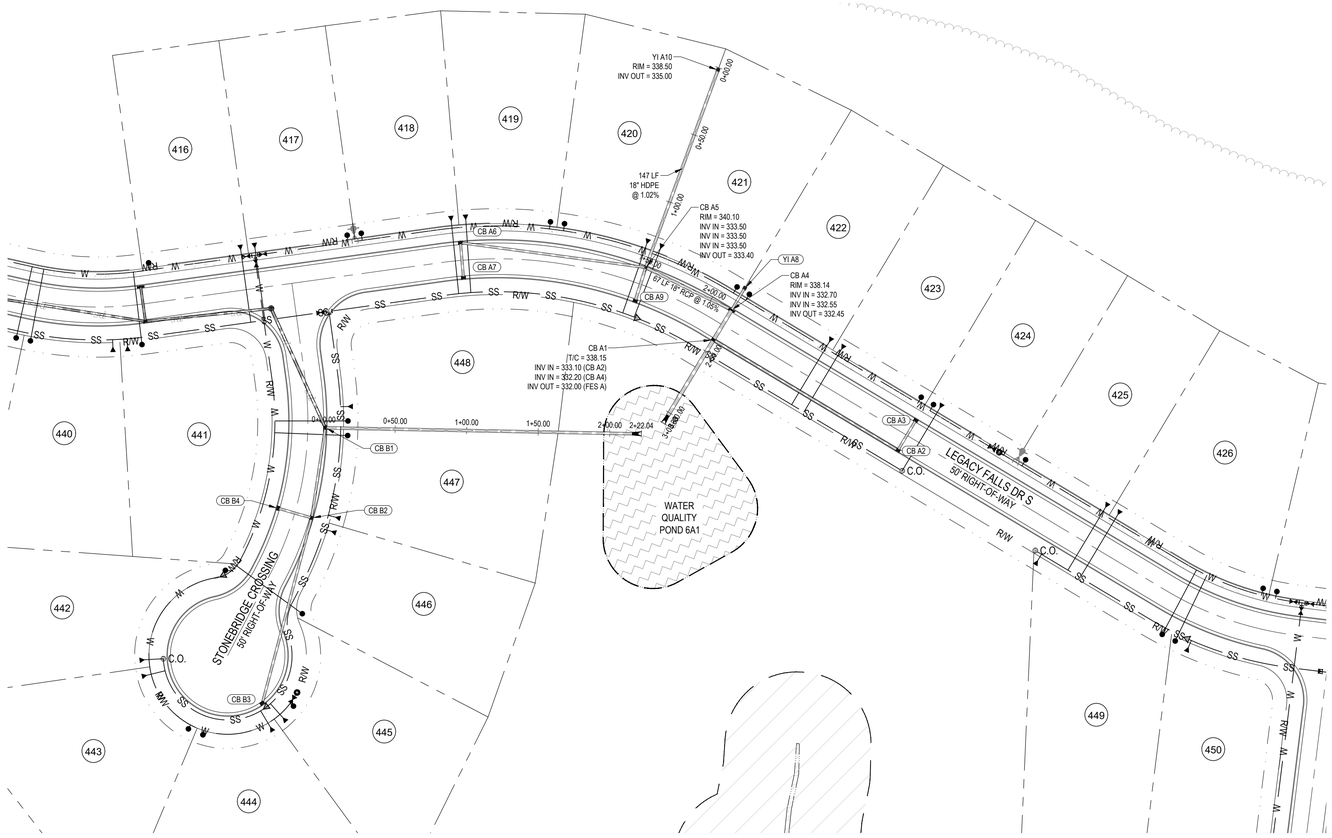
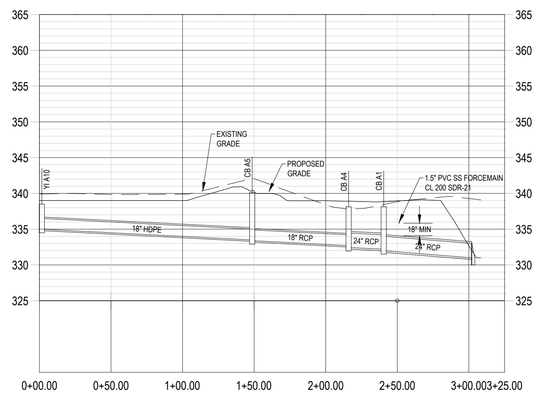


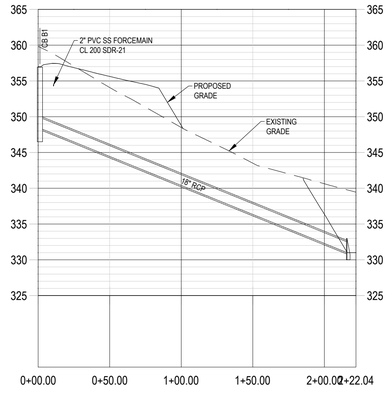
STORM OUTFALLS A & B - PLAN

SCALE: 1"=50'



STORM OUTFALL A - PROFILE

SCALE: 1"=50' H, 1"=10' V



STORM OUTFALL B - PROFILE

SCALE: 1"=50' H, 1"=10' V

LEGEND

- PROPERTY LINE (PL)
- RIGHT-OF-WAY LINE
- SETBACK LINE
- UTILITY EASEMENT
- EXISTING MAJOR CONTOUR
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 034332 JOSEPH M. CRAIG
01/30/19

THE LEGACY - PHASE 6
CONSTRUCTION PLANS
PLAN & PROFILE - STORM OUTFALLS A & B

BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
Scale: 1" = 50'
Drawn: JCH
Checked: JMC
Project No. 330-12
Computer Dwg. Name 330-12 19 PLAN & PROFILE- OUTFALL A

NORTH

50' 0 50' 100'

SCALE: 1" = 50'

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Sheet No: 19 Of 32

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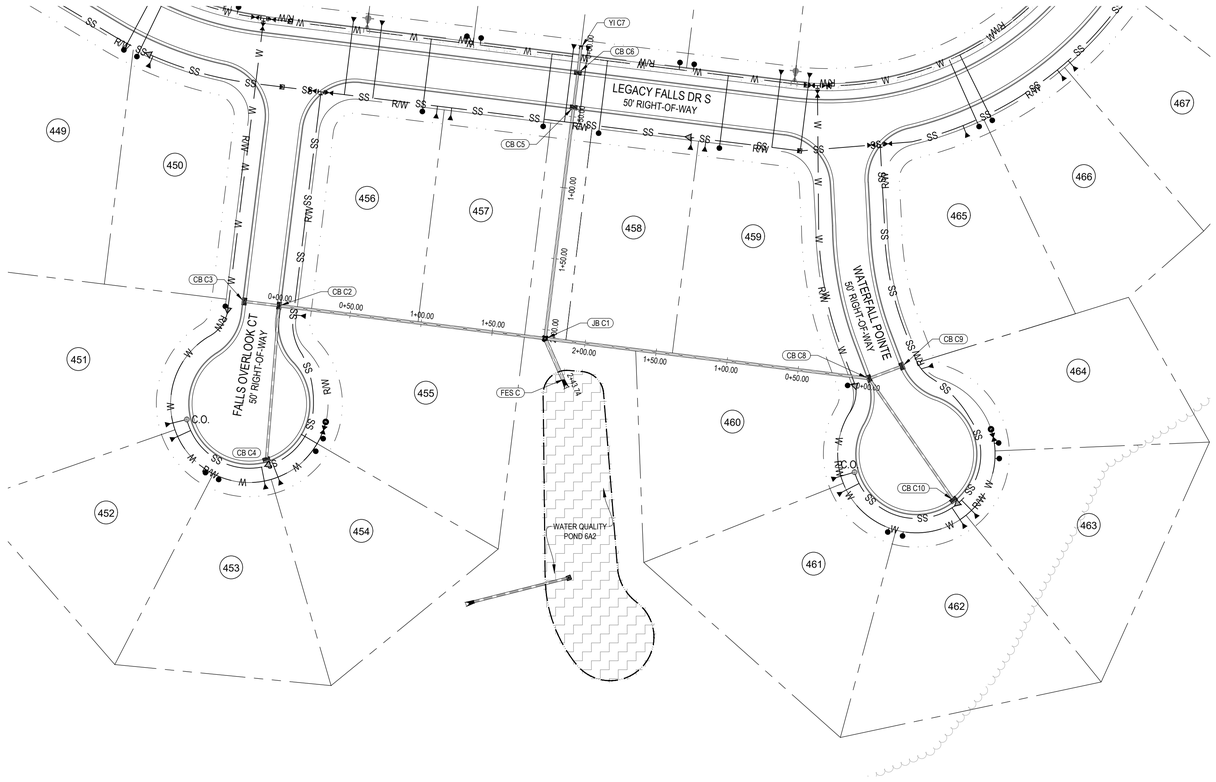
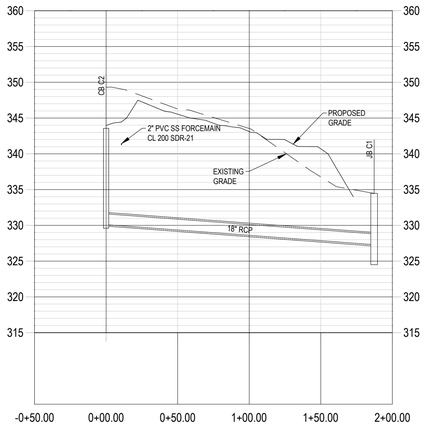


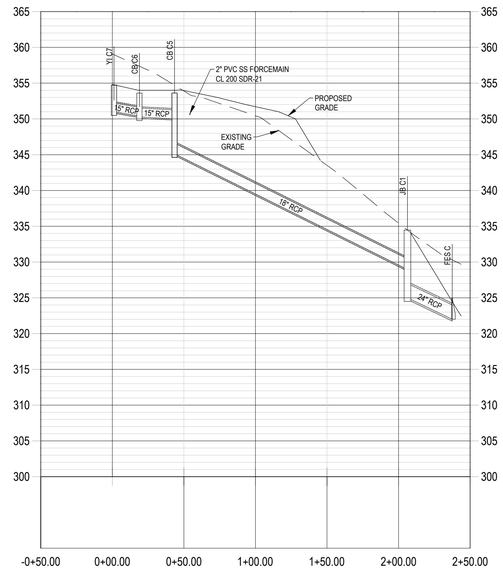
STORM OUTFALL C - PLAN

SCALE: 1"=50' H



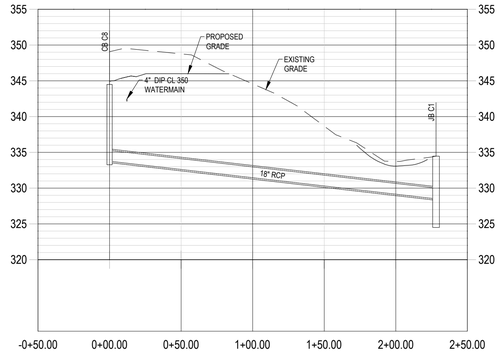
STORM C2-C1 - PLAN & PROFILE

SCALE: 1"=50' H, 1"=10' V



STORM OUTFALL C - PLAN & PROFILE

SCALE: 1"=50' H, 1"=10' V



STORM C7-C1 - PLAN & PROFILE

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LEGEND

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- SETBACK LINE
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PLAN & PROFILE -
STORM OUTFALL C
BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
Scale: 1" = 50'
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Checked: JMC
Project No. 330-12
Computer Dwg. Name: 330-12 20 PLAN & PROFILE- OUTFALL B

Sheet No: 20 Of 32

NORTH
50' 0 50' 100'
SCALE: 1" = 50'

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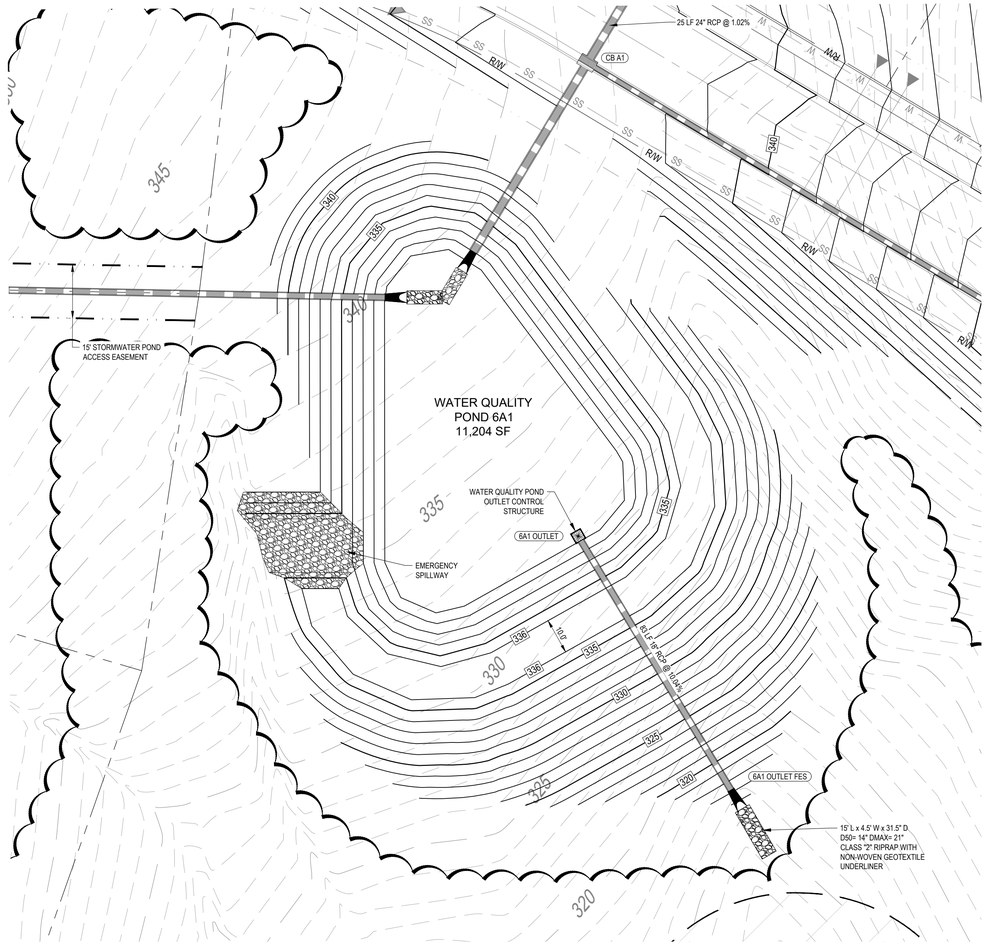
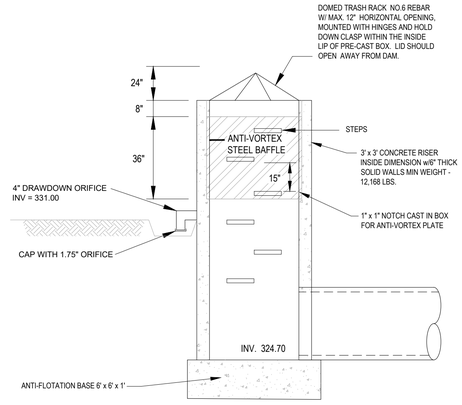


STORMWATER POND PLAN

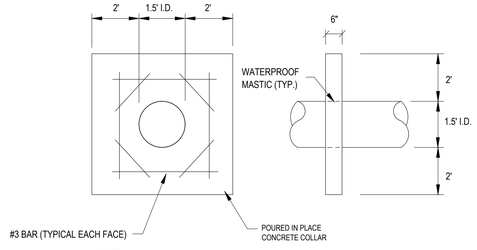
1" = 20'



NOTE:
CONTINUOUS RUBBER WATERSTOPS SHALL BE PROVIDED AT ALL CONSTRUCTION JOINTS IN RISER AND SECTIONS SHALL BE STRAPPED TOGETHER W/STAINLESS STEEL HARDWARE.

WATER QUALITY POND OUTLET CONTROL STRUCTURE

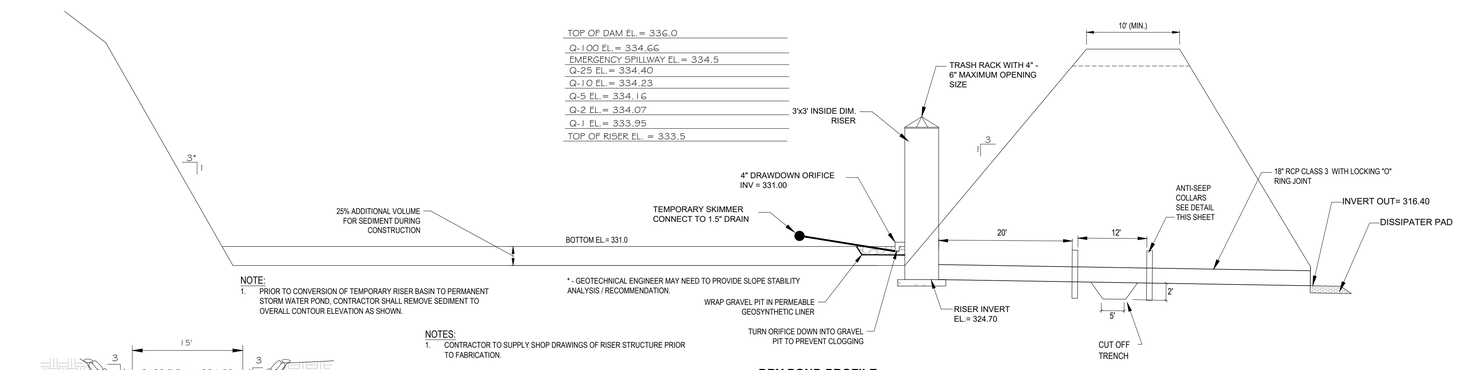
NOT TO SCALE



NOTE:
CONCRETE SHALL BE 3000 PSI @ 28 DAYS REINFORCING STEEL, ASTM A615, GRADE 60; FY - 60,000 PSI COLLAR SHOULD BE PLACED AT LEAST TWO FEET FROM PIPE JOINT

ANTI-SEEP COLLAR DETAIL

NOT TO SCALE



NOTE:
1. PRIOR TO CONVERSION OF TEMPORARY RISER BASIN TO PERMANENT STORM WATER POND, CONTRACTOR SHALL REMOVE SEDIMENT TO OVERALL CONTOUR ELEVATION AS SHOWN.

* - GEOTECHNICAL ENGINEER MAY NEED TO PROVIDE SLOPE STABILITY ANALYSIS / RECOMMENDATION.

NOTES:
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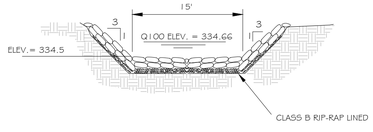
DRY POND PROFILE

NOT TO SCALE



EMERGENCY SPILLWAY

LEGEND

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2. ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LIMBS SHALL BE REMOVED FROM THE FILL MATERIAL PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3-INCH (IN ANY DIRECTION) SHALL BE REMOVED FROM THE FILL PRIOR TO COMPACTION.
3. FILL MATERIAL PLACED AT DENSITIES LOWER THAN SPECIFIED MINIMUM DENSITIES OR AT MOISTURE CONTENTS OUTSIDE THE SPECIFIED RANGES OR OTHERWISE NOT CONFORMING TO SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS.
4. ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT SOIL LIFT.
5. SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
6. FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS; ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. IN NO CASE SHALL THERE BE AN ATTEMPT TO STABILIZE ANY PORTIONS OF THE FOUNDATION SOILS WITH CRUSHED STONE.
7. TREATMENT OF SEEPAGE AREAS, SUBGRADE PREPARATION, FOUNDATION DEWATERING AND ROCK FOUNDATION PREPARATION (I.E., TREATMENT WITH SLUSH GROUTING, DENTAL CONCRETE, ETC.) MAY BE REQUIRED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER. ALL SUCH ACTIVITIES SHALL BE CLOSELY MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.
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12. TO RE-ESTABLISH VEGETATION AFTER CONSTRUCTION, A 2- TO 3-INCH LAYER OF TOPSOIL SHALL BE PLACED ON THE DISTURBED EMBANKMENT SURFACE AND THE AREA SEEDED AND MULCHED OR HYDROSEEDED.

GENERAL GRADING NOTES

1. REFER TO THE OVERALL SITE LAYOUT FOR RELATED NOTES.
2. BOUNDARY & TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY PREPARED BY THE CE GROUP, INC.
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4. THE CONTRACTOR SHALL NOTE THAT THE PLANS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EVERY OFFSET, TRANSITION, GRADE CHANGE, ETC. THAT MAY BE REQUIRED FOR A COMPLETE AND WORKING SYSTEM.
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7. ALL FILL TO BE COMPACTED TO 98% DRY DENSITY (STANDARD PROCTOR) UNDER PAVEMENT AND BUILDING PADS OR AS SPECIFIED IN PROJECT GEOTECHNICAL REPORT BY OTHERS.
8. THE PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS. REFER TO PAVEMENT AND SIDEWALK DETAILS TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
9. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL FLOW BY GRAVITY AWAY FROM BUILDINGS AND ACROSS NEW PAVEMENT AND/OR LANDSCAPE AREAS TO NEW OR EXISTING STORM DRAIN INLETS, SWALES, DITCHES OR OVERLAND SHEET FLOW.
10. GRADE BUILDING PAD(S) TO A LEVEL BELOW FINISHED FLOOR ELEVATION EQUAL TO THE FLOOR SLAB THICKNESS TO AN ACCURACY OF 1/10TH OF A FOOT.
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12. ALL STORM DRAINAGE PIPING SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED.
13. SEE SHEET 31 FOR DRAINAGE STRUCTURE DETAILS.

NOTES:

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NORTH

20' 0 20' 40'

SCALE: 1" = 20'

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CE GROUP
301 GLENWOOD AVE. 220
RALEIGH,NC 27603
PHONE: 919-367-8790
FAX: 919-322-0032
www.cegroupinc.com
License # C-1739

NORTH CAROLINA PROFESSIONAL SEAL 034332 ENGINEER JASEEH M. CRAIG
01/30/19

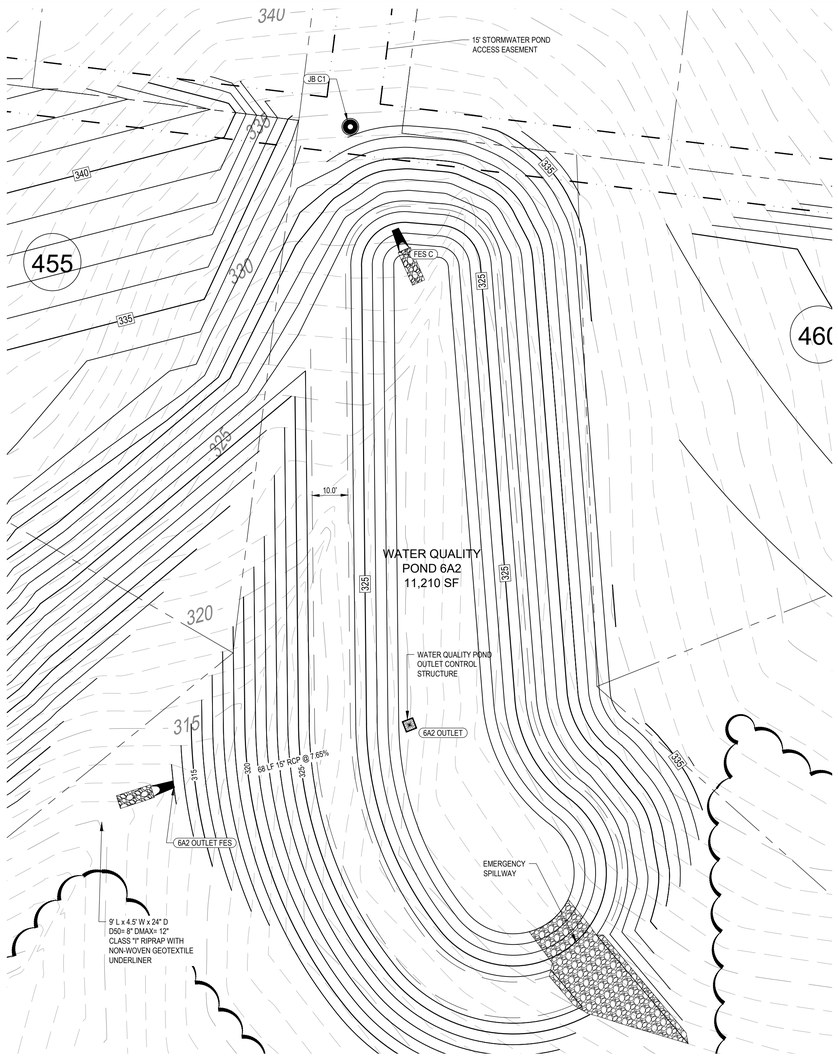
THE LEGACY - PHASE 6
CONSTRUCTION PLANS
STORMWATER POND 6A1 PLAN

BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
Scale: 1" = 20'
Drawn: JCH
Checked: JMC
Project No. 330-12
Computer Dwg. Name 330-12 21 STORMWATER POND A1

Sheet No: 21 Of 32

P:\330 (Freehold Capital)\330-12 (Legacy Phase 6)\Design\Planset\Construction Plans\330-12 21 STORMWATER POND A1.dwg PLOTTED: 2/7/2019 10:33 AM BY: BMUELLER



STORMWATER POND PLAN

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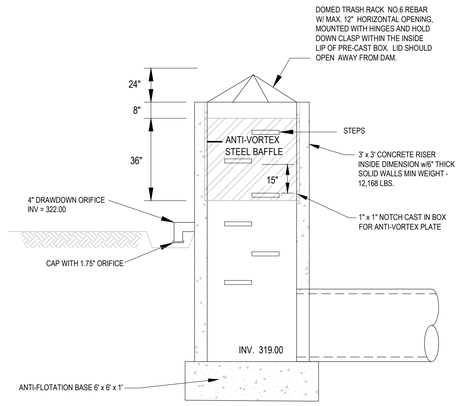
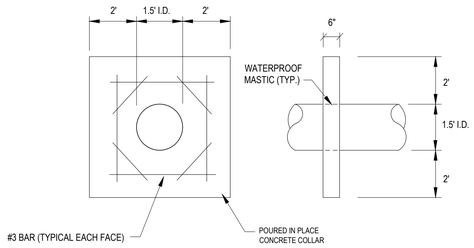


NOTE:
CONTINUOUS RUBBER WATERSTOPS SHALL BE PROVIDED AT ALL CONSTRUCTION JOINTS IN RISER AND SECTIONS SHALL BE STRAPPED TOGETHER W/STAINLESS STEEL HARDWARE.

WATER QUALITY POND OUTLET CONTROL STRUCTURE

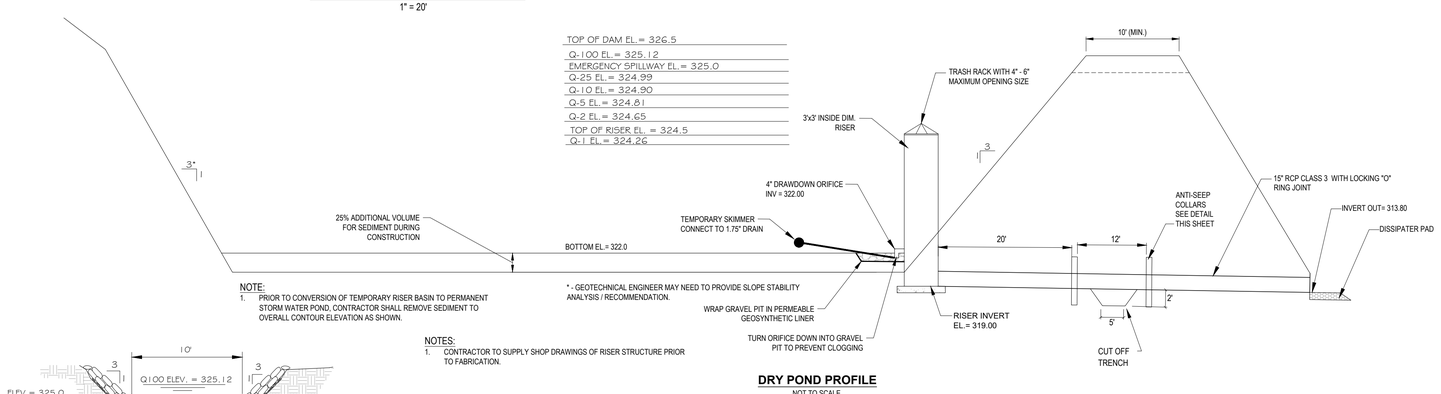
NOT TO SCALE



NOTE:
CONCRETE SHALL BE 3000 PSI @ 28 DAYS REINFORCING STEEL, ASTM A615, GRADE 60, FY - 60,000 PSI COLLAR SHOULD BE PLACED AT LEAST TWO FEET FROM PIPE JOINT

ANTI-SEEP COLLAR DETAIL

NOT TO SCALE



NOTE:
1. PRIOR TO CONVERSION OF TEMPORARY RISER BASIN TO PERMANENT STORM WATER POND, CONTRACTOR SHALL REMOVE SEDIMENT TO OVERALL CONTOUR ELEVATION AS SHOWN.

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NORTH CAROLINA PROFESSIONAL SEAL 034332 ENGINEER JOSEPH M. CRAIG
01/30/19

THE LEGACY - PHASE 6
CONSTRUCTION PLANS
STORMWATER POND 6A2 PLAN

BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
Scale: 1" = 20'
Drawn: JCH
Checked: JMC
Project No. 330-12
Computer Dwg. Name 330-12 22 STORMWATER POND A2

Sheet No: 22 Of 32

P:\330 (Freehold Capital)\330-12 (Legacy Phase 6)\Design\Plansets\Construction Plans\330-12 22 STORMWATER POND A2.dwg PLOTTED: 2/7/2019 10:34 AM BY: BMUELLER

Seedbed Preparation:

1. Chisel compacted areas and spread topsoil three inches deep over adverse soil conditions, if available.
2. Rip the entire area to six inches deep.
3. Remove all loose rock, roots, and other obstructions leaving surface reasonable smooth and uniform.
4. Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture)
5. Continue tillage until a well-pulverized, firm reasonably uniform seedbed is prepared four to six inches deep.
6. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
7. Mulch immediately after seeding and anchor mulch.
8. Inspect all seeded areas and make necessary repairs for reseedings within the planting season, if possible. If stand should be over 60% damaged, reestablish following the original lime, fertilizer and seeding rates.
9. Consult EFS Environmental Engineers on maintenance treatment and fertilization after permanent cover is established.

Mixture
Agricultural Limestone: 2 tons/acre (3 tons/acre in clay soils)
Fertilizer: 1,000 lbs/acre - 10-10-10
Superphosphate: 500 lbs/acre - 20% analysis
Mulch: 2 tons/acre - small grain straw
Anchor: Asphalt Emulsion at 300 gals/acre

Seeding Schedule

PERMANENT

Date	Type	Planting Rate
Aug 15 - Nov 1	Tall Fescue	300 lbs/acre
Nov 1 - Mar 1	Tall Fescue & Abruzzi Rye	300 lbs/acre
Mar 1 - Apr 15	Tall Fescue	300 lbs/acre
Apr 15 - Jun 30	Hulled Common Bermudagrass	25 lbs/acre
Jul 1 - Aug 15	Tall Fescue AND Browntop Millet or Sorghum - Sudan Hybrids ***	125 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum - Sudan Hybrids)

TEMPORARY

Mar 1 - Jun 1	Sericea Lespedeza (scarified) and use the following combinations:	50 lbs/acre (Sericea Lespedeza);
Mar 1 - Apr 15	Add Tall Fescue	120 lbs/acre
Mar 1 - Jun 30	Or add Julled Common Bermudagrass	25 lbs/acre
Jun 1 - Sept 1	Tall Fescue AND Browntop Mullet or Sorghum - Sudan Hybrids ***	120 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Mullet); 30 lbs/acre (Sorghum - Sudan Hybrids)
Sept 1 - Mar 1	Sericea Lespedeza (unhulled - unscarified) AND Tall Fescue	70 lbs/acre (Sericea Lespedeza); 120 lbs/acre (Tall Fescue)
Nov 1 - Mar 1	And Abruzzi Rye	25 lbs/acre

Consult EFS Environmental Engineer for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those which do well under location conditions; other seeding rate combinations are possible.

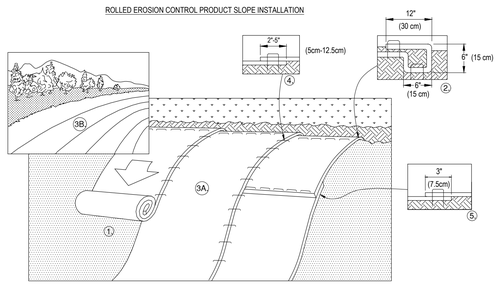
*** TEMPORARY: Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow over 12" in height before mowing, otherwise fescue may be shaded out.

GROUND STABILIZATION *

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days allowed
Slopes 3:1 or flatter	14 days	7-days for slopes greater than 50-feet in length
All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW Zones)

* "Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable." (Section II.B (2)(b)

ROLLED EROSION CONTROL PRODUCT SLOPE INSTALLATION

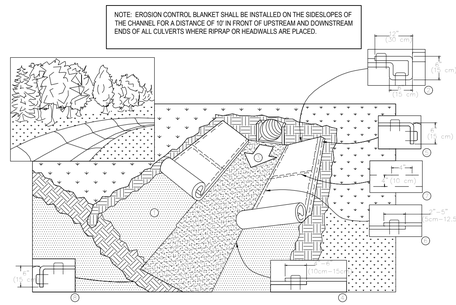


1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH. NOTE: "IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

ROLLED EROSION CONTROL PRODUCT DETAIL (SLOPE CONDITION)

NOT TO SCALE

NOTE: EROSION CONTROL BLANKET SHALL BE INSTALLED ON THE SIDESLOPES OF THE CHANNEL FOR A DISTANCE OF 10' IN FRONT OF UPSTREAM AND DOWNSTREAM ENDS OF ALL CULVERTS WHERE RIPRAP OR HEADWALLS ARE PLACED.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

CRITICAL POINTS

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

ROLLED EROSION CONTROL PRODUCTS (SWALE CONDITION)

NOT TO SCALE

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet – EroNet™ P300® Permanent Erosion Control Blanket

DESCRIPTION

The permanent erosion control blanket shall be a machine-produced mat of 100% UV stable polypropylene fiber. The matting shall be of consistent thickness with the synthetic fibers evenly distributed over the entire area of the mat. The matting shall be covered on the top side with black heavyweight UV-stabilized polypropylene netting having ultraviolet additives to delay breakdown and an approximate 0.50 x 0.50 inch (1.27 x 1.27 cm) mesh. The bottom net shall also be UV-stabilized polypropylene with a 0.63 x 0.63 inch (1.57 x 1.57 cm) mesh size. The blanket shall be sewn together on 1.5 inch (3.81 cm) centers with non-degradable thread. All mats shall be manufactured with a colored thread stitched along both outer edges as an overlap guide for adjacent mats. The P300 shall meet Type 5A, 5B, specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.18

Index Property	Test Method	Typical
Thickness	ASTM D6525	0.47 in. (11.94 mm)
Resiliency	ASTM D6524	91.5%
Density	ASTM D792	0.916 g/cm³
Mass/Unit Area	ASTM 6566	13.03 oz/sy (443 g/m2)
UV Stability	ASTM D4355/ 1000 hr	90%
Porosity	ECTC Guidelines	95.89%
Stiffness	ASTM D1388	0.94 in-lb (1085378 mg-cm)
Light Penetration	ASTM D6567	17.9%
Tensile Strength - MD	ASTM D6818	438 lbs/ft (6.49 kN/m)
Elongation - MD	ASTM D6818	28.1%
Tensile Strength - TD	ASTM D6818	291.9 lbs/ft (4.32 kN/m)
Elongation - TD	ASTM D6818	26.7%
Biomass Improvement	ASTM D7322	497%

Material Content		
Matrix	100% UV stable Polypropylene Fiber	0.7 lbs/sq yd (0.38 kg/sm)
Netting	Top: UV-stabilized Polypropylene	5 lbs/1000 sq ft (24.4 g/sm)
	Bottom: UV-stabilized Polypropylene	3 lbs/1000 sq ft (14.7 g/sm)
Thread	Polypropylene, UV stable	

Standard Roll Sizes		
Width	6.5 ft (2.0 m)	8 ft (2.44 m)
Length	108 ft (32.92 m)	112 ft (35.14 m)
Weight ± 10%	61 lbs (27.66 kg)	76.25 lbs (34.59 kg)
Area	80 sq yd (66.0 sm)	100 sq yd (83.61 sm)

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.001	0.029	0.082
20-50 ft	0.036	0.060	0.086
≥ 50 ft (15.2 m)	0.070	0.090	0.110

Design Permissible Shear Stress		
	Short Duration	Long Duration
Phase 1: Unvegetated	3.0 psf (144 Pa)	2.0 psf (96 Pa)
Phase 2: Partially Veg.	8.0 psf (383 Pa)	8.0 psf (383 Pa)
Phase 3: Fully Veg.	8.0 psf (383 Pa)	8.0 PSF (383 Pa)
Unvegetated Velocity	9.0 fps (2.7 m/s)	
Vegetaged Velocity	16 fps (4.9 m/s)	

Roughness Coefficients – Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.034
0.50 – 2.0 ft	0.034-0.020
≥ 2.0 ft (0.60 m)	0.020

NORTH AMERICAN GREEN
North American Green
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Poseyville, Indiana 47633
nagreen.com
800-772-2040

EC_RMX_MPDS_P300_5.13

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet – EroNet™ S150® Erosion Control Blanket

DESCRIPTION

The short-term double net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (*NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation*). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with a lightweight photodegradable polypropylene netting having an approximate 0.50 x 0.50 in. (1.27 x 1.27 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The S150 shall meet Type 2.D specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17

Index Property	Test Method	Typical
Thickness	ASTM D6525	0.32 in. (8.13 mm)
Resiliency	ECTC Guidelines	80.5%
Water Absorbency	ASTM D1117	370%
Mass/Unit Area	ASTM D6475	8.15 oz/sy (277.1 g/sm)
Swell	ECTC Guidelines	15%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	6.06 oz-in
Light Penetration	ASTM D6567	12.4%
Tensile Strength - MD	ASTM D6818	159.6 lbs/ft (2.37 kN/m)
Elongation - MD	ASTM D6818	31.7%
Tensile Strength - TD	ASTM D6818	93.6 lbs/ft (1.39 kN/m)
Elongation - TD	ASTM D6818	26.7%
Biomass Improvement	ASTM D7322	371%

Material Content		
Matrix	100% Straw Fiber	0.5 lbs/sq yd (0.27 kg/sm)
Netting	Top and bottom nets: lightweight photodegradable	1.5 lbs/1000 sq ft (0.73 kg/100 sm)
Thread	Degradable	

Standard Roll Sizes			
Width	6.67 ft (2.03 m)	8 ft (2.4 m)	16.0 ft (4.87 m)
Length	108 ft (32.92 m)	112 ft (34.14 m)	108 ft (32.92 m)
Weight ± 10%	40 lbs (18.14 kg)	50 lbs (22.68 kg)	96 lbs (43.54 kg)
Area	80 sq yd (66.9 sm)	100 sq yd (83.61 sm)	192 sq yd (165.6 sm)

Roughness Coefficients – Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.055
0.50 – 2.0 ft	0.055-0.021
≥ 2.0 ft (0.60 m)	0.021

Design Permissible Shear Stress	
Unvegetated Shear Stress	1.75 psf (84 Pa)
Unvegetated Velocity	6.0 fps (1.83 m/s)

NTPEP ASTM D6460 Large-Scale Channel	
Unvegetated Shear Stress	2.42 psf (115.9 Pa)
Unvegetated Velocity	9.0 fps (2.75 m/s)

NTPEP Large-scale Slope
ASTM D6459 - C-factor = 0.029

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.004	0.106	N/A
20-50 ft	0.062	0.118	N/A
≥ 50 ft (15.2 m)	0.12	0.180	N/A

NORTH AMERICAN GREEN
North American Green
5401 St. Wendel-Cynthiana Road
Poseyville, Indiana 47633
nagreen.com
800-772-2040

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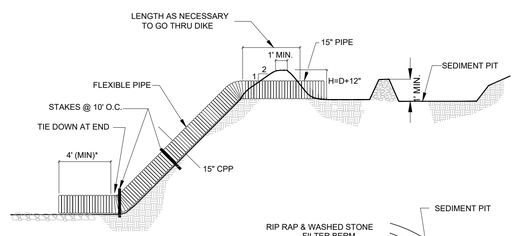
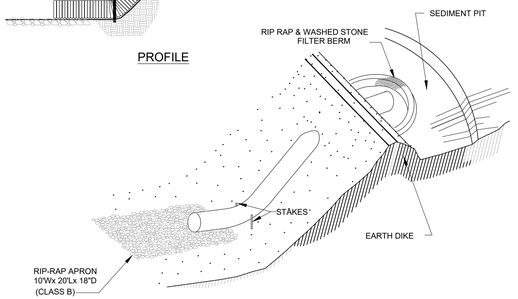
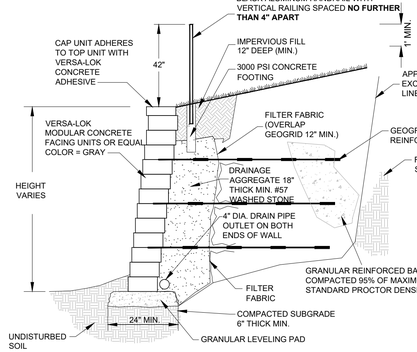


PROFILE



TEMPORARY SLOPE DRAIN

NOT TO SCALE



NOTE: FINAL WALL DESIGN TO BE PROVIDED BY OTHERS.

NOTES:

1. FACTOR OF SAFETY FOR SLIDING: 1.5
2. FACTOR OF SAFETY FOR OVERTURNING: 2.0
3. FOLLOW APPLICABLE PROVISIONS OF SPECIFICATIONS FOR THE PROPER INSTALLATION OF VERSA-LOK RETAINING WALL SYSTEM AND GEOGRID.
4. ALLOWABLE SOIL BEARING PRESSURE: 3000 PSF
5. ALL FILL OR BACKFILL SHALL BE FREE FROM ROOTS, TRASH, WOOD SCRAPS AND OTHER EXTRANEOUS MATERIAL. PLACE FILL IN LIFTS OF NO MORE THAN 8 INCHES AND COMPACT EACH LIFT TO 95% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT.
6. PROVIDE BRACING AGAINST WALL AS REQUIRED TO PREVENT DAMAGE DURING COMPACTION OF FILL. ONLY HAND-OPERATED COMPACTION EQUIPMENT TO BE USED WITHIN 3 FEET OF WALL.
7. MINIMUM 18" DRAINAGE FILL BEHIND WALL.
8. PROVIDE LATERAL DRAINAGE.
9. WEIGHT OF SOIL = 120 PCF.
10. PROVIDE 42" HIGH HAND RAILING ALONG THE TOP OF WALLS WITH A DIFFERENCE IN ELEVATION OF 30" AND GREATER. RAILING AND CONNECTIONS SHALL BE ENGINEERED AND FABRICATED TO MEET THE NC BUILDING CODE REQUIREMENTS. SHOP DRAWINGS TO BE PROVIDED.
11. CONTRACTOR TO PROVIDE SHOP DRAWING FOR RAILING AND FOOTING.
12. WALL DESIGN TO BE CERTIFIED BY GEOTECHNICAL ENGINEER PER EXISTING SOIL CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO PROVIDE ENGINEERED SHOP DRAWINGS FOR APPROVAL.

SEGMENTAL BLOCK WALL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS:

1. THE TOP OF THE EARTH DIKE OVER THE INLET PIPE AND THOSE DIKES CARRYING WATER TO THE PIPE SHALL BE AT LEAST 1 FOOT HIGHER AT ALL POINTS THAN THE TOP OF THE INLET PIPE.
2. THE PIPE SHALL BE FLEXIBLE WITH WATER TIGHT CONNECTING BANDS. FLEXIBLE PIPE SHOULD BE STAKED ON EITHER SIDE.
3. A RIP RAP APRON SHALL BE PROVIDED AT THE OUTLET, IF EMPTYING INTO A DISTURBED AREA.
4. THE SOIL AROUND AND UNDER THE INLET PIPE AND ENTRANCE SECTION SHALL BE HAND TAMPED IN 4" LIFTS TO THE TOP OF THE EARTH DIKE.
5. FOLLOW-UP INSPECTION AND ANY NEEDED MAINTENANCE SHALL BE PERFORMED AFTER EACH STORM.

STOP!
BEFORE YOU DIG CALL
THE NC ONE CALL CENTER
1-800-632-4949
IT'S THE LAW!

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CHATHAM COUNTY, NCDEQ PWSS, AND NCDOT STANDARDS AND SPECIFICATIONS.

NO.	DATE	REVISIONS
9	2019-01-30	PER NCDEQ - PERC5 COMMENTS
8	2019-01-14	PER PERC5 & PWSS COMMENTS
7	2018-12-17	PER CHATHAM COUNTY COMMENTS
6	2018-08-13	PER OWNER COMMENTS
5	2018-08-02	PER NCDEQ COMMENTS
4	2018-06-18	PER OWNER COMMENTS
3	2018-04-11	PER EROSION CONTROL COMMENTS
2	2018-04-05	PER EROSION CONTROL COMMENTS
1	2018-03-15	PER CLIENT COMMENTS

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NORTH CAROLINA PROFESSIONAL SEAL 034332 ENGINEER JOSEPH M. CRAIG
01/30/19

THE LEGACY - PHASE 6
CONSTRUCTION PLANS
SEDIMENT & EROSION CONTROL DETAILS

BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
Scale:
Drawn: JCH
Checked: JMC
Project No. 330-12
Computer Dwg. Name 330-12 23 SEC DETAILS

Sheet No: 23 Of 32

P:\330\ (Freehold Capital)\330-12 (Legacy Phase 6)\Design\Phansets\Construction Plans\330-12 23 SEC DETAILS.dwg PLOTTED: 2/7/2019 10:34 AM BY: BMUELLER

MAINTENANCE NOTES:

NPDES PERMIT COMPLIANCE REQUIRES INSPECTIONS EVERY 7 CALENDAR DAYS BY A NPDES QUALIFIED INSPECTOR AND PERIODIC INSPECTIONS WITHIN 24 HOURS OF ANY RAINFALL EVENT OF 0.5 INCHES OR GREATER. THESE INSPECTIONS MAY RESULT IN RECOMMENDATIONS FOR ROUTINE MAINTENANCE OF THE SOIL EROSION CONTROL DEVICES, AS WELL AS FURTHER MAINTENANCE AS OUTLINED BELOW.

1. THROUGHOUT THE CONSTRUCTION PERIOD, ALL MUD/SILT TRACKED ONTO EXISTING TOWN/STATE ROADS FROM THE SITE DUE TO CONSTRUCTION SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR.

2. MAINTAIN THE GRAVEL PAD (CONSTRUCTION ENTRANCE/EXIT) IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP-DRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

3. INSPECT SEDIMENT FENCES (SILT FENCE) AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS ONCE ACCUMULATION HAS REACHED HALF OF THE HEIGHT OF THE SILT FENCE TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

4. INSPECT SILT FENCE OUTLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT. CLEAR THE WIRE FENCE AND HARDWARE CLOTH OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH OR HARDWARE CLOTH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

5. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE SIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

6. INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.

7. INSPECT PERMANENT DIVERSIONS AFTER EVERY RAINFALL DURING THE CONSTRUCTION OPERATION. IMMEDIATELY REMOVE ANY OBSTRUCTIONS FROM THE FLOW AREA, AND REPAIR THE DIVERSION RIDGE. CHECK OUTLETS, AND MAKE TIMELY REPAIRS AS NEEDED. MAINTAIN THE VEGETATION IN A VIGOROUS, HEALTHY CONDITION AT ALL TIMES. REPAIR JUTE NET AS NEEDED TO ENSURE A GOOD STAND OF GRASS.

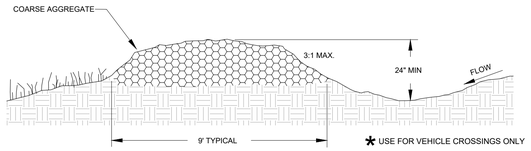
8. TEMPORARY SEEDING:
   RE-FERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, RE-FERTILIZE, AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

9. PERMANENT SEEDING:
   A. GENERALLY, A STAND OF VEGETATION CANNOT BE DETERMINED TO BE FULLY ESTABLISHED UNTIL SOIL COVER HAS BEEN MAINTAINED FOR ONE FULL YEAR FROM PLANTING. INSPECT SEEDED AREAS FOR FAILURE AND MAKE NECESSARY REPAIRS AND RESEEDINGS WITHIN THE SAME SEASON, IF POSSIBLE.
   B. RESEEDING - IF A STAND HAS INADEQUATE COVER, RE-EVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER. RE-ESTABLISH THE STAND AFTER SEEDBED PREPARATION OR OVER-SEED THE STAND. CONSIDER SEEDING TEMPORARY, ANNUAL SPECIES IF THE TIME OF YEAR IS NOT APPROPRIATE FOR PERMANENT SEEDING.
   C. IF VEGETATION FAILS TO GROW, SOIL MUST BE TESTED TO DETERMINE IF ACIDITY OR NUTRIENT IMBALANCE IS RESPONSIBLE.
   D. FERTILIZATION - ON THE TYPICAL DISTURBED SITE, FULL ESTABLISHMENT USUALLY REQUIRES REFERTILIZATION IN THE SECOND GROWING SEASON. FINE TURF REQUIRES ANNUAL MAINTENANCE FERTILIZATION 9TABLE 6.12B). USE SOIL TESTS IF POSSIBLE OR FOLLOW THE GUIDELINES GIVEN FOR THE SPECIFIC SEEDING MIXTURE.

10. SKIMMER BASINS
    A. INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.
    B. REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.
    C. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.
    D. IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.
    E. CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND DEBRIS FROM THE SKIMMER AND POOL AREAS.
    F. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE. IF ICE IS PRESENT IN THE SKIMMER BASIN, REMOVE IMMEDIATELY.

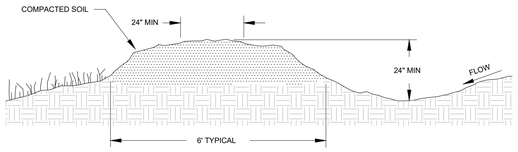
11. CHECK DAMS
    A. INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHANNEL WHEN NEEDED.
    B. ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADDITIONAL MEASURES CAN BE TAKEN SUCH AS, INSTALLING A PROTECTIVE RIPRAP LINER IN THAT PORTION OF THE CHANNEL (PRACTICE 6.31 RIPRAP-LINED AND PAVED CHANNELS OF NCDENR EROSION & SEDIMENTATION CONTROL MANUAL).
    C. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION. ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

12. HORSESHOE INLET PROTECTION
    A. INSPECT HORSESHOE INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE SEDIMENT STORAGE AREA TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING.
    B. CHECK THE STRUCTURE FOR DAMAGE. AND RIPRAP DISPLACED FROM THE STONE HORSESHOE MUST BE REPLACED IMMEDIATELY.
    C. AFTER ALL THE SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL THE UNSTABLE SEDIMENT, SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND PROVIDE PERMANENT GROUND COVER (SURFACE STABILIZATION).



TEMPORARY GRAVEL DIVERSION DIKE

NOT TO SCALE

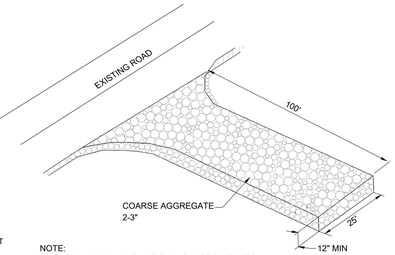


TEMPORARY DIVERSION BERM/SWALE

NOT TO SCALE

NOTES:

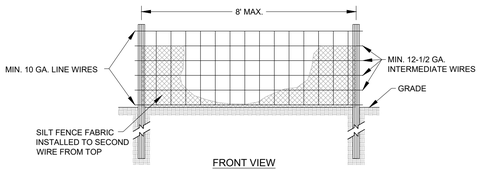
1. GRAVEL PAD TO BE 25' x 100' AND12" THICK MINIMUM.
2. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.
3. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR MAXIMUM UTILIZATION BY ALL CONSTRUCTION VEHICLES.
4. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE MAY BE NECESSARY; KEEP SOME HANDY.
5. ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED UP IMMEDIATELY.
6. IF CONSTRUCTION ON THE SITE IS SUCH THAT MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE TIRES OF THE VEHICLE MUST BE WASHED BEFORE ENTERING THE EXISTING ROAD.



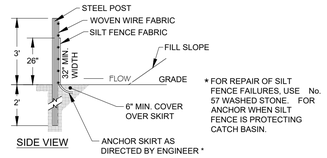
NOTE:
APPLICABLE AT ALL POINTS OF INGRESS & EGRESS UNTIL SITE IS STABILIZED, FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.

TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE



FRONT VIEW



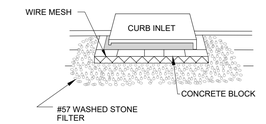
SIDE VIEW

NOTES:
1. USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.
2. END OF SILT FENCE NEEDS TO BE TURNED UPHILL.

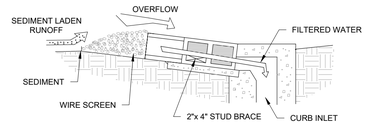
* FOR REPAIR OF SILT FENCE FAILURES, USE No. 57 WASHED STONE. FOR ANCHOR WHEN SILT FENCE IS PROTECTING CATCH BASIN.

TEMPORARY SILT FENCE

NOT TO SCALE

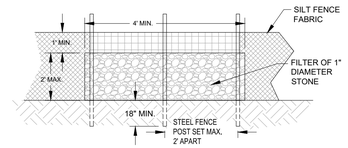


NOTES:
APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE INLET.



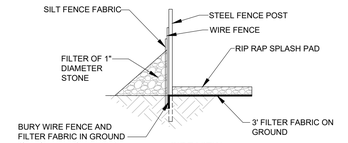
BLOCK AND GRAVEL CURB INLET PROTECTION

NOT TO SCALE



FRONT VIEW

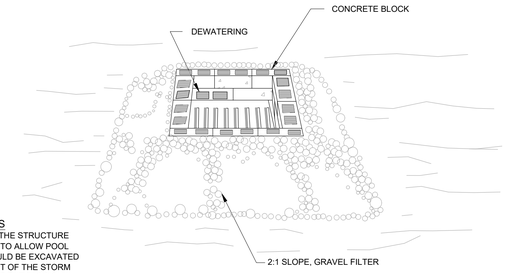
NOTE:
CONTRACTOR SHALL FIELD LOCATE OUTLETS AT LOW POINTS IN EACH RUN OF SILT FENCE.



SIDE VIEW

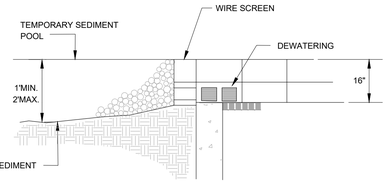
SILT FENCE OUTLET

NOT TO SCALE



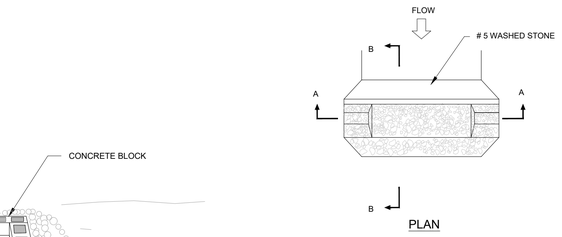
CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE ON THE BOTTOM ROW TO ALLOW POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2 INCH BELOW THE CREST OF THE STORM DRAIN. PLACE THE BOTTOM ROW OF THE BLOCK AGAINST THE EDGE OF THE STORM DRAIN FOR LATERAL SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. IF NEEDED, GIVE LATERAL SUPPORT TO SUBSEQUENT ROWS BY PLACING 2x4 WOOD STUDS THROUGH BLOCK OPENINGS.
2. CAREFULLY FIT HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENING OVER ALL BLOCK OPENING TO HOLD GRAVEL IN PLACE.
3. USE CLEAN GRAVEL,3/4-TO 1/2-INCH IN DIAMETER, PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER AND SMOOTH IT TO AN EVEN GRADE. DOT #57 WASHED STONE IS RECOMMENDED .

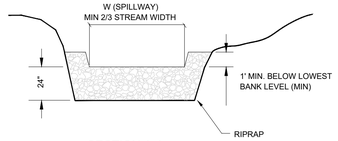


BLOCK AND GRAVEL INLET PROTECTION

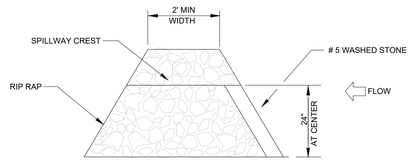
NOT TO SCALE



PLAN



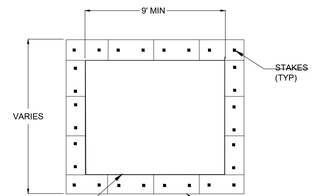
SECTION A-A



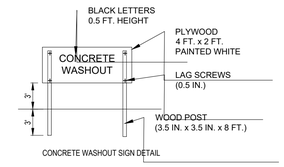
SECTION B-B

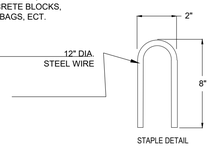
TEMPORARY STONE CHECK DAM

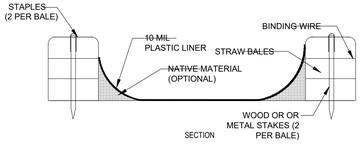
NOT TO SCALE



NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY







CONCRETE WASHOUT-ABOVE GRADE

NOT TO SCALE

STOP!
BEFORE YOU DIG CALL
THE NC ONE CALL CENTER
1-800-632-4949
IT'S THE LAW!

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CHATHAM COUNTY, NCDEQ PWSS, AND NCDOT STANDARDS AND SPECIFICATIONS.

NO.	REVISIONS	DATE
9	PER NCDEQ - PERC5 COMMENTS	2019-01-30
8	PER PERC5 & PWSS COMMENTS	2019-01-14
7	PER CHATHAM COUNTY COMMENTS	2018-12-17
6	PER OWNER COMMENTS	2018-08-13
5	PER NCDEQ COMMENTS	2018-08-02
4	PER OWNER COMMENTS	2018-06-18
3	PER EROSION CONTROL COMMENTS	2018-04-11
2	PER EROSION CONTROL COMMENTS	2018-04-05
1	PER CLIENT COMMENTS	2018-03-15

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 034332 JASCHEN M. CRAIG
01/30/19

THE LEGACY - PHASE 6
CONSTRUCTION PLANS
SEDIMENT & EROSION CONTROL DETAILS

BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
Scale:
Drawn: JCH
Checked: JMC
Project No. 330-12
Computer Dwg. Name 330-12 24 SEC DETAILS

Sheet No: 24 Of 32

P:\330 (Freehold Capital)\330-12 (Legacy Phase 6)\Design\Plansets\Construction Plans\330-12 24 SEC DETAILS.dwg PLOTTED: 2/7/2019 10:34 AM BY: BMUELLER