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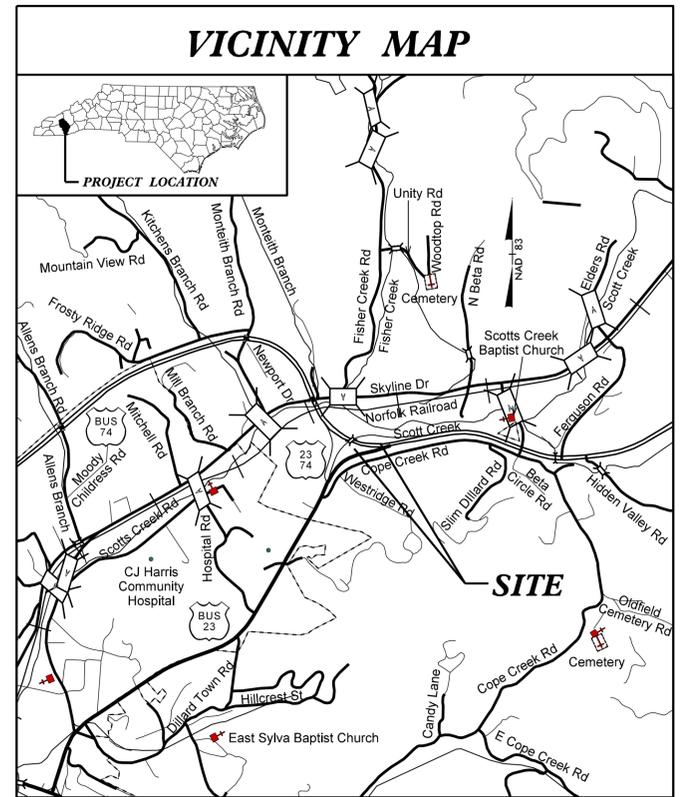
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09/08/16

TIP PROJECT: R-4436NC
CONTRACT: 34625.2.60

See Sheet 1-A For Index of Sheets

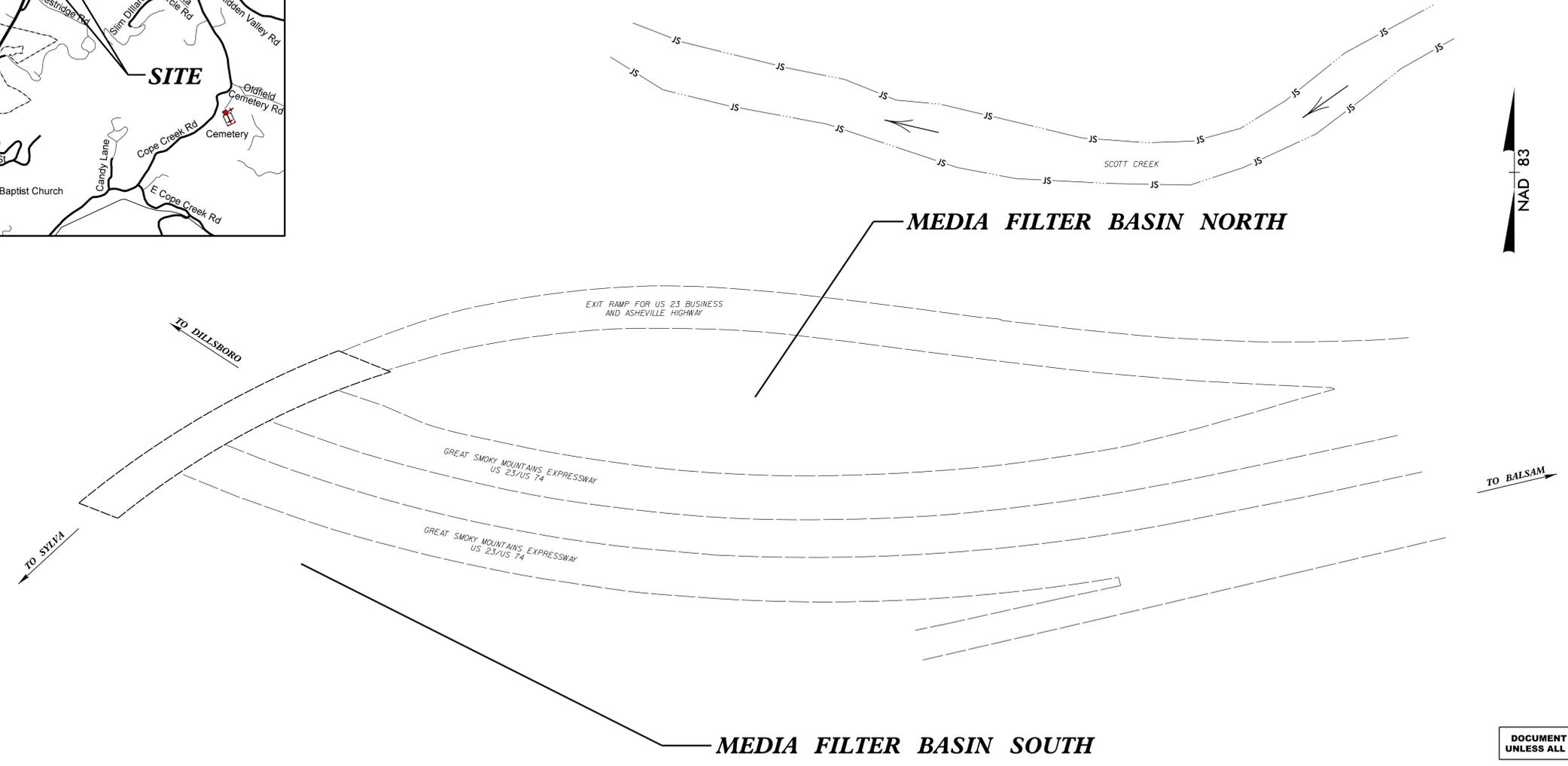


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
JACKSON COUNTY

LOCATION: US 23/US 74/US 23 Business INTERCHANGE

TYPE OF WORK: RETROFIT STORMWATER CONTROL MEASURES (MEDIA FILTERS) INCLUDING: GRADING, DRAINAGE, SEED & MULCH, AND EROSION CONTROL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4436NC	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
34625.1.1		P.E.	
34625.2.60	STP-0023(034)	CONSTRUCTION	



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5/9/2016
L:\Drainage\psh_1\Title Sheet.dgn
K.cooper

NCDOT CONTACT:
BRIAN LIPSCOMB, PE
HIGHWAY STORMWATER PROGRAM

REVISION SCHEDULE:
30% DESIGN SUBMITTAL 10-12-2015
90% DESIGN SUBMITTAL 11-18-2015
FINAL DESIGN SUBMITTAL 05-09-2016

Stantec
Stantec Consulting Services Inc. Tel. (919) 851-6866
801 Jones Franklin Road Fax. (919) 851-7024
Suite 300 www.stantec.com
Raleigh, NC 27606 License No. F-0672

2012 STANDARD SPECIFICATIONS

LETTING DATE:
6/14/16

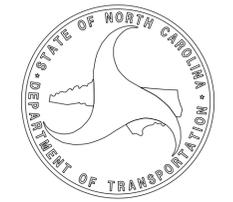
KEN CARPER
PROJECT ENGINEER

JEFF LU
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

STEVEN BONDOR
SEAL 12786
ENGINEER
SEVEN M. BONDOR
5/9/2016

STEVEN BONDOR P.E.
SIGNATURE:



PROJECT REFERENCE NO. <i>R-4436NC</i>	SHEET NO. <i>1-A</i>
RW SHEET NO. _____	
HYDRAULICS ENGINEER	

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INDEX OF SHEETS

SHEET NUMBER	SHEET DISCRPTION
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2-A	RISER DETAILS BASIN NORTH
2-B	RISER DETAILS BASIN SOUTH
2-C	FOREBAY AND CLEANOUT DETAILS
2-D	RISER TRASH RACK DETAILS
2-E	MEDIA FILTER BASIN TYPICAL CROSS SECTION DETAILS
2-F	SURVEY CONTROL
2-G	EXISTING CONDITIONS MAP
3B /3D	SUMMARY OF QUANTITES
4	PLAN SHEET BASIN NORTH
5	PLAN SHEET BASIN SOUTH
TC-1	TRAFFIC CONTROL PLAN
EC-1	EROSION CONTROL PLAN BASIN NORTH AND SOUTH
EC-2	EROSION CONTROL DETAILS

STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N. C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N. C., DATED JANUARY, 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
200.02	METHOD OF CLEARING - METHOD II
300.01	METHOD OF PIPE INSTALLATION
840.15	BRICK DROP INLET
840.31	CONCRETE JUNCTION BOX - 12" THRU 66" PIPE
840.32	BRICK JUNCTION BOX - 12" THRU 66" PIPE
840.54	MANHOLE FRAME AND COVER
876.03	DRAINAGE DITCH WITH CL. A RIPRAP
1607.01	GRAVEL CONSTRUCTION ENTRANCE
1632.03	ROCK INLET SEDIMENT TRAP TYPE C

GENERAL NOTES

1. SPECIFICATIONS: NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (JANUARY 2012)
2. GRADING: THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATIONS OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY NCDOT IN ORDER TO SECURE A PROPER TIE-IN.
3. SUBSURFACE PLANS: NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHALL PREPARE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale *S.U.E. = Subsurface Utility Engineering

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	-----
Property Monument	□ EGM
Parcel/Sequence Number	⑫③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB
Existing Historic Property Boundary	----- HPB

Known Contamination Area: Soil	----- ☠
Potential Contamination Area: Soil	----- ☠
Known Contamination Area: Water	----- ☠
Potential Contamination Area: Water	----- ☠
Contaminated Site: Known or Potential	----- ☠

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	----- JS
Buffer Zone 1	----- BZ 1
Buffer Zone 2	----- BZ 2
Flow Arrow	←
Disappearing Stream	-----
Spring	○
Wetland	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	-----
Switch	-----
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite R/W Marker	-----
Proposed Control of Access Line with Concrete C/A Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	-----

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	-----
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	○
Pavement Removal	-----

VEGETATION:

Single Tree	○
Single Shrub	○
Hedge	-----
Woods Line	-----

Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	-----
Paved Ditch Gutter	-----
Storm Sewer Manhole	-----
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	-----
H-Frame Pole	●
U/G Power Line LOS B (S.U.E.*)	-----
U/G Power Line LOS C (S.U.E.*)	-----
U/G Power Line LOS D (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	-----
U/G Telephone Cable LOS B (S.U.E.*)	-----
U/G Telephone Cable LOS C (S.U.E.*)	-----
U/G Telephone Cable LOS D (S.U.E.*)	-----
U/G Telephone Conduit LOS B (S.U.E.*)	-----
U/G Telephone Conduit LOS C (S.U.E.*)	-----
U/G Telephone Conduit LOS D (S.U.E.*)	-----
U/G Fiber Optics Cable LOS B (S.U.E.*)	-----
U/G Fiber Optics Cable LOS C (S.U.E.*)	-----
U/G Fiber Optics Cable LOS D (S.U.E.*)	-----

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	-----
U/G Water Line LOS C (S.U.E.*)	-----
U/G Water Line LOS D (S.U.E.*)	-----
Above Ground Water Line	-----

TV:

TV Pedestal	⊠
TV Tower	⊗
U/G TV Cable Hand Hole	-----
U/G TV Cable LOS B (S.U.E.*)	-----
U/G TV Cable LOS C (S.U.E.*)	-----
U/G TV Cable LOS D (S.U.E.*)	-----
U/G Fiber Optic Cable LOS B (S.U.E.*)	-----
U/G Fiber Optic Cable LOS C (S.U.E.*)	-----
U/G Fiber Optic Cable LOS D (S.U.E.*)	-----

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	-----
U/G Gas Line LOS C (S.U.E.*)	-----
U/G Gas Line LOS D (S.U.E.*)	-----
Above Ground Gas Line	-----

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
SS Forced Main Line LOS B (S.U.E.*)	-----
SS Forced Main Line LOS C (S.U.E.*)	-----
SS Forced Main Line LOS D (S.U.E.*)	-----

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	⊠
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line LOS B (S.U.E.*)	-----
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	⊠
A/G Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

5/14/09

PROJECT REFERENCE NO. <i>R-4436NC</i>	SHEET NO. <i>2-A</i>
RW SHEET NO. _____	
HYDRAULICS ENGINEER	
	
5/9/2016	

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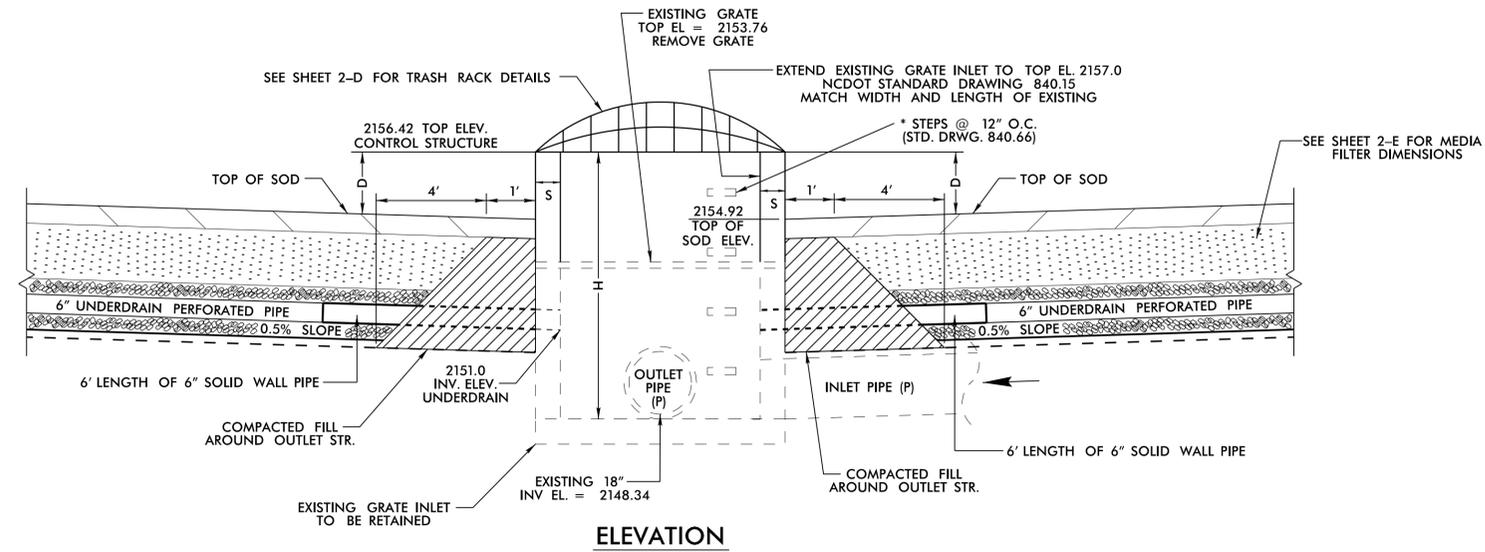


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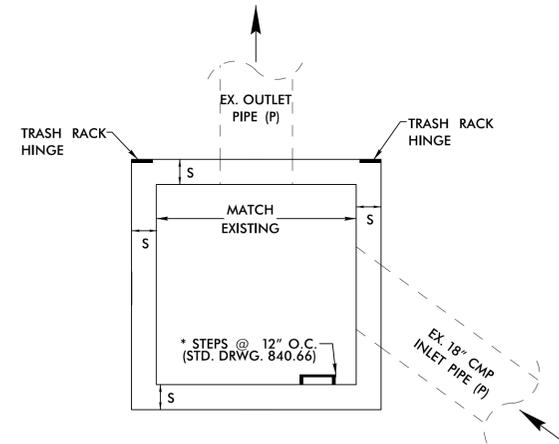
MEDIA FILTER BASIN NORTH

RISER DETAIL

NOT TO SCALE



ELEVATION



PLAN VIEW

TRASH RACK NOT SHOWN FOR CLARITY

***NOTE: IF STEPS ARE PRESENT IN EXISTING STRUCTURE, INSTALL NEW STEPS IN RISER SECTION IN LINE WITH EXISTING STEPS.**

DIMENSIONS FOR CONTROL STRUCTURE

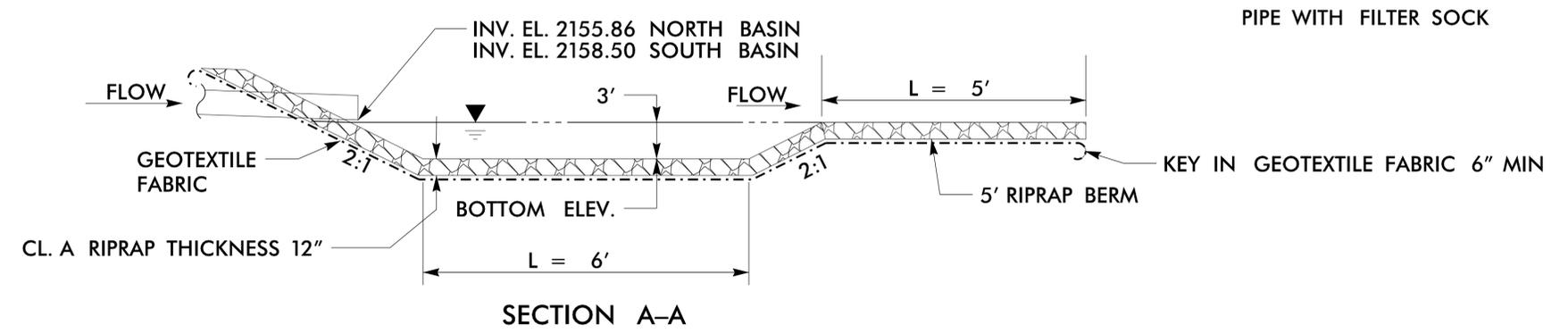
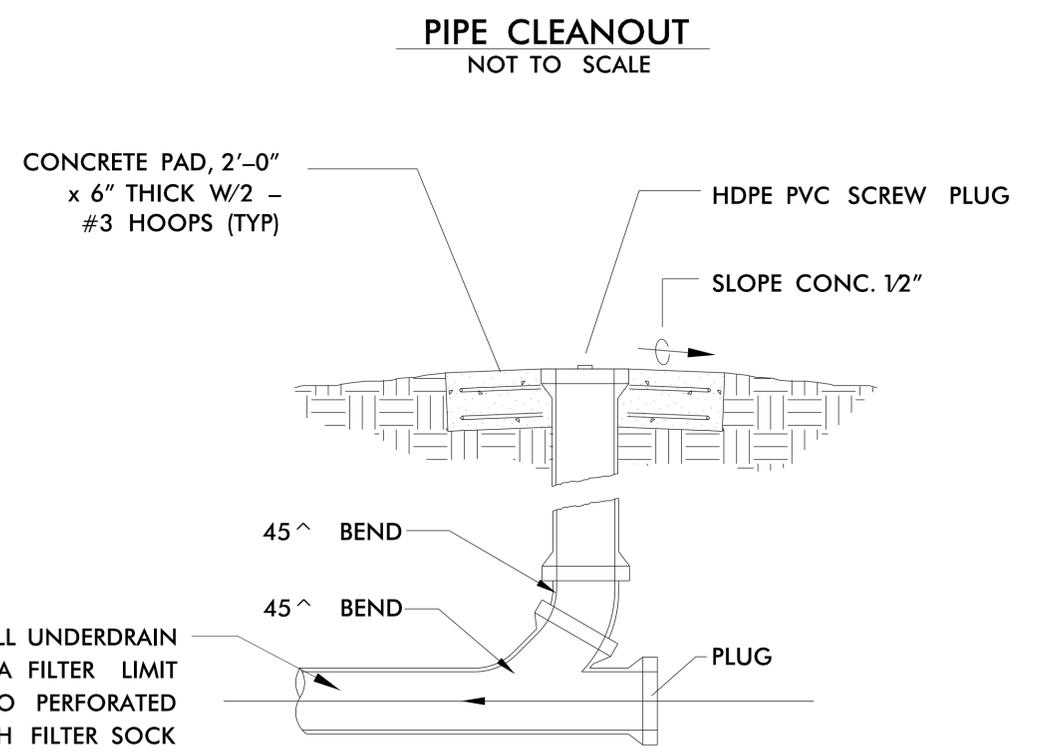
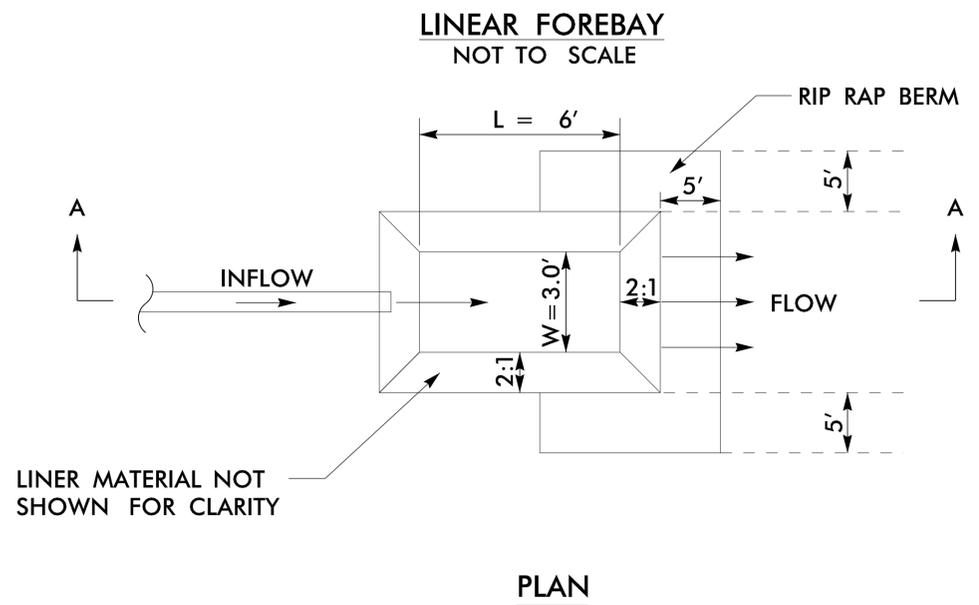
S (INCHES) 8" MIN.	TOP OF SOD ELEV.	TOP ELEVATION CONTROL STRUCTURE	MAX. STORAGE DEPTH (D) FEET	INV. ELEV. UNDERDRAINS	CTL. STR. DIMENSIONS (W x L x H)	EXISTING OUTLET PIPE INV. ELEV.	OUTLET PIPE DIAMETER (P) INCHES
6"	2154.92	2156.42	1.5	2151.0	MATCH EXIST.	2148.34	EX. 18" PIPE

5/9/2016
c:\nwg\psh_2-a_riser_basin_north_details.dgn

5/14/16

PROJECT REFERENCE NO. <i>R-4436NC</i>	SHEET NO. <i>2-C</i>
RW SHEET NO. _____	
HYDRAULICS ENGINEER	
	
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FOREBAY AND CLEANOUT DETAILS



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RISER AND TRASH RACK DETAILS

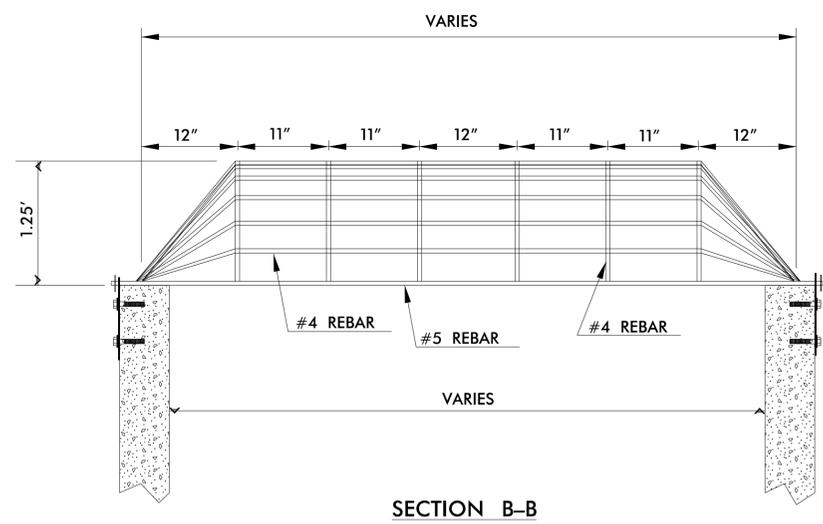
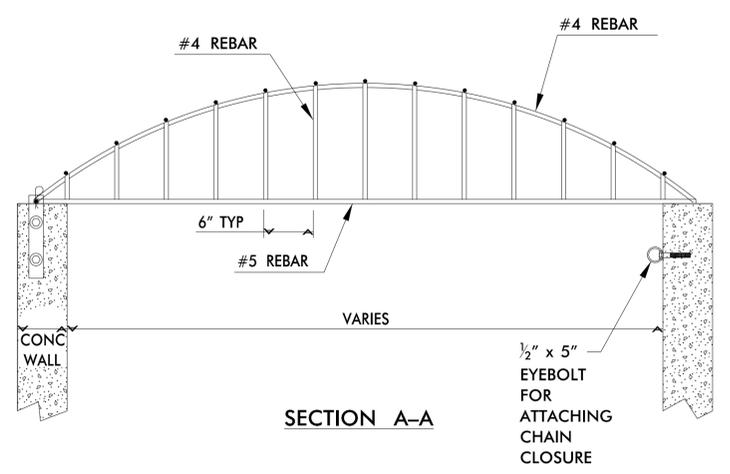
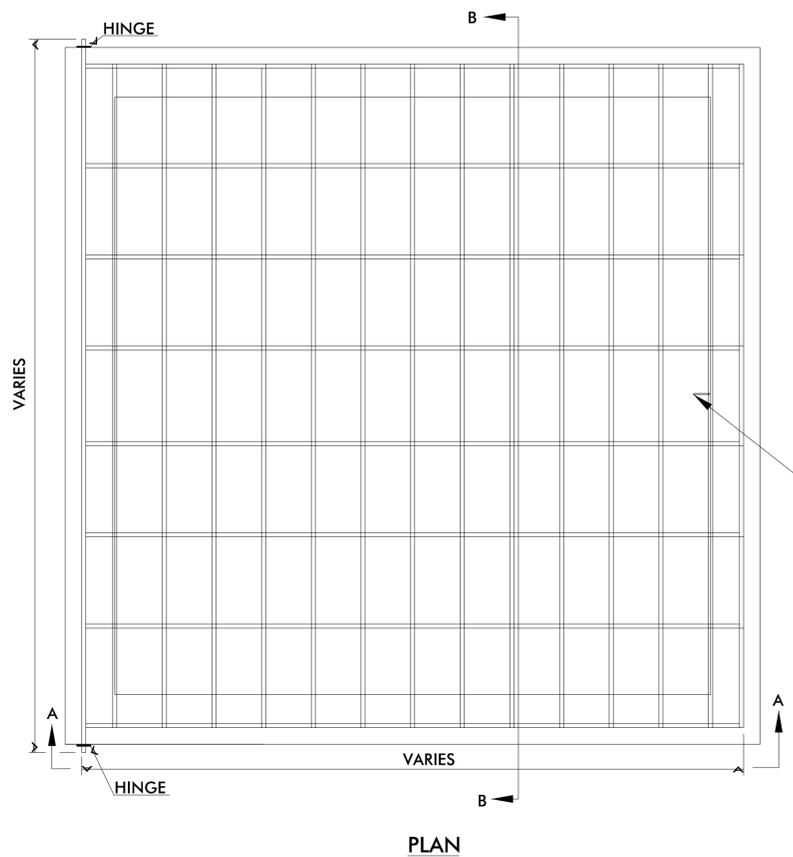
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RW SHEET NO.	
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REBAR TRASH RACK



- RISER TRASH RACK NOTES:**
1. ALL JOINTS SHALL BE FULLY WELDED AROUND JOINT WITH A MINIMUM OF A 1/4" BEAD.
 2. IF BOLTS ARE ANCHORED IN CONCRETE, FOLLOW STD. DWG. 862.03 AND 862.04 FOR ANCHORING PROCEDURE.
 3. EYEBOLT FOR CHAIN CLOSURE SHALL BE INSTALLED BY THE SAME METHOD AS THE HINGE PLATE BOLTS.
 4. RACK AND HARDWARE SHALL BE REBAR AND GALVANIZED IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS.

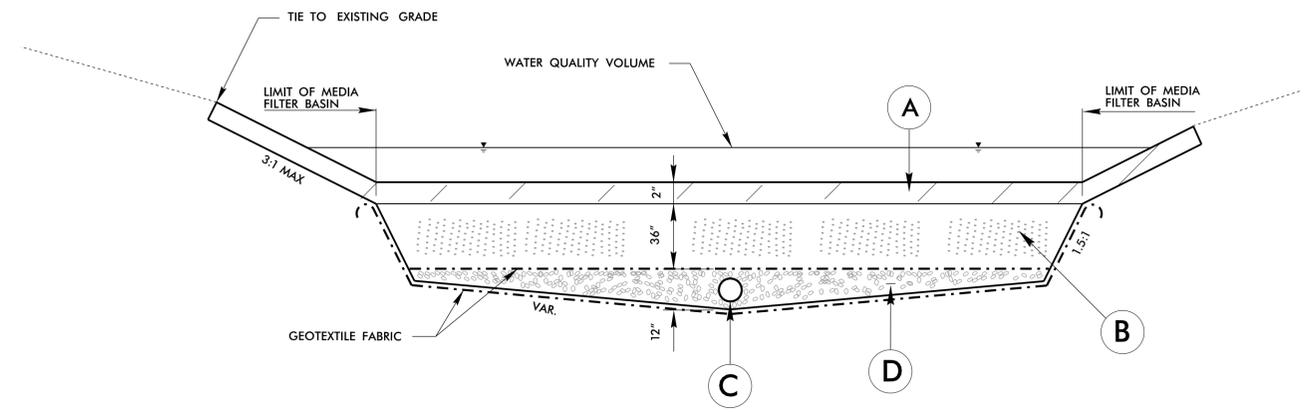
* NOT TO SCALE

5/14/19

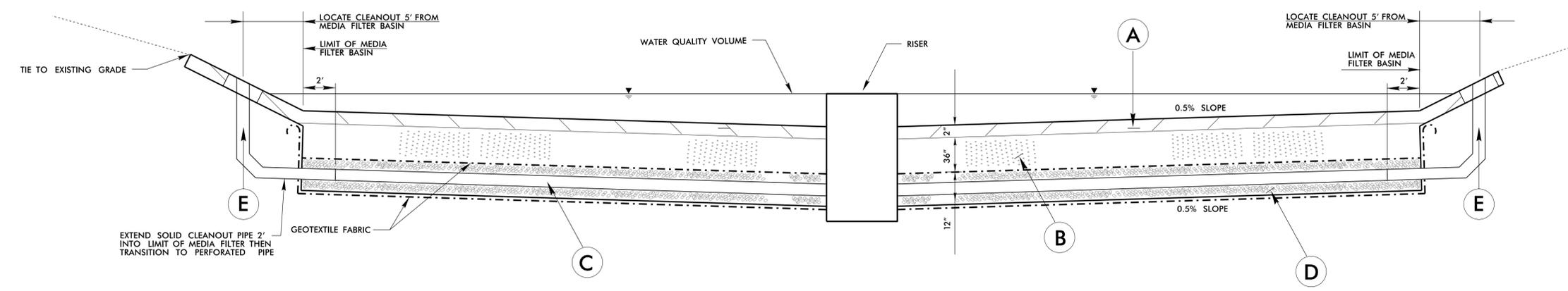
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RW SHEET NO. _____	
HYDRAULICS ENGINEER	
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MATERIALS	
A	½ CUT FESCUE SOD
B	ENGINEERED MEDIA
C	6" PERFORATED HDPE UNDER-DRAIN WITH FILTER SOCK, PER NCDOT SECTION 1032-7
D	WASH STONE NO. 57 AS PER NCDOT SPEC.
E	6" HDPE SOLID CLEANOUT PIPE, PER NCDOT SECTION 1032-7

MEDIA FILTER BASIN TYPICAL CROSS SECTION DETAILS



MEDIA FILTER BASIN
TYPICAL SECTION A-A
NOT TO SCALE



MEDIA FILTER BASIN
TYPICAL SECTION B-B
NOT TO SCALE

5/9/2016
U:\D:\rainage\psh_2-E_MISC_Details.dgn
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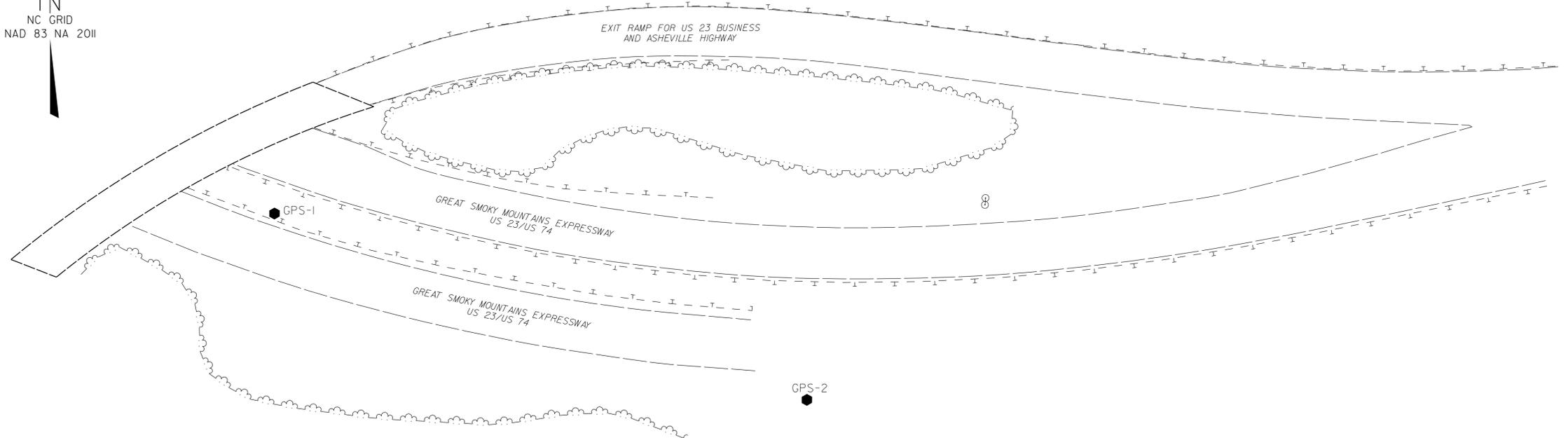
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CONTROL

POINT	NORTH	EAST	ELEVATION	STATION	OFFSET
1	623933.118	749568.219	2159.34		
DESCRIPTION : GPS-1 (1/2" REBAR W/ PLASTIC CAP)					
2	623817.042	749900.799	2166.91		
DESCRIPTION : GPS-2 (1/2" REBAR W/ PLASTIC CAP)					

EXISTING CONDITIONS SURVEY

SITE COORDINATE CONTROL AND EXISTING CONDITIONS FOR PROJECT ARE FROM A TOPOGRAPHIC SURVEY PERFORMED IN SEPTEMBER 2015 BY:
STANTEC CONSULTING
801 JONES FRANKLIN ROAD
RALEIGH, NC 27606

DATUM DESCRIPTION

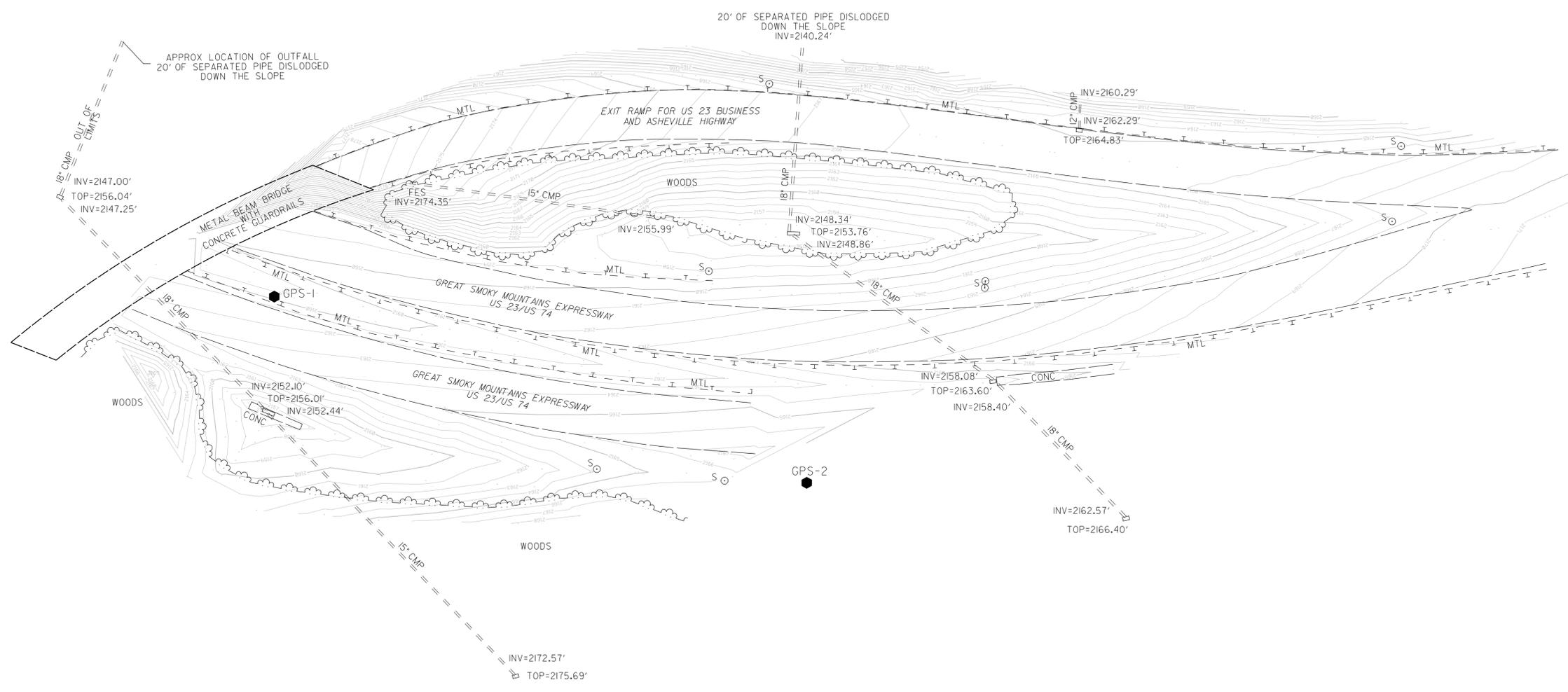
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "GPS-1"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 623933.118(±) EASTING: 749568.219(±)
ELEVATION: 2159.34(±)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999776789
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS-1" TO ±L- STATION IS
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

SURVEY CONTROL SHEET

5/9/2016
U:\Drawings\psh_2-F_Survey Control.dgn



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EXISTING CONDITIONS

12/06/07

COMPUTED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. R-4436NC	SHEET NO. 3B / 3D
RW SHEET NO. _____	
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DRAINAGE SUMMARY (for Stormwater BMP's)

SUMMARY OF EARTHWORK (for Stormwater BMP's)

ITEM DESCRIPTION	UNIT	QUANTITY		
		NORTH BASIN	SOUTH BASIN	PROJECT TOTALS
UNCLASSIFIED EXCAVATION	CY	486	409	895
ENGINEERED MEDIA	CY	293	338	630
RIP RAP CL. A	TON	63	20	83
NO. 57 STONE, WASHED	TON	114	132	246

ITEM DESCRIPTION	UNIT	QUANTITY		
		NORTH BASIN	SOUTH BASIN	PROJECT TOTALS
6" PERFORATED SUBDRAIN PIPE	LF	120	70	190
UNDERDRAIN PIPE - NONPERFORATED	LF	26	16	42
CLEANOUT	EA	2	2	4
GEOTEXTILE FOR DRAINAGE (TYPE 2, NON-WOVEN)	SY	583	658	1240
CONCRETE RISER	EA	0	1	1
ADJUST DI CONVERT TO CONCRETE RISER	EA	1	0	1
REBAR TRASH RACK	EA	1	1	2
PIPE REMOVAL	LF	20	75	95
15" RCP - III	LF	22	30	52
18" RCP - III	LF	0	15	15
MASONRY DRAINAGE STRUCTURE - CONCRETE JB	EA	1	1	2
FRAME WITH COVER, STD. 840.54 (MANHOLE)	EA	1	1	2
CONVERT DI TO JB	EA	0	1	1
WATERTIGHT MANHOLE COVER	EA	0	1	1

SUMMARY FOR EROSION CONTROL (for Stormwater BMP's)

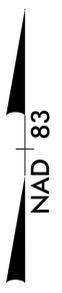
ITEM DESCRIPTION	UNIT	QUANTITY		
		NORTH BASIN	SOUTH BASIN	PROJECT TOTALS
SEDIMENT CONTROL STONE 57	TON	8	12	20
STONE FOR EROSION CONTROL 'A'	TON	22	22	44
TEMP. SILT FENCE	LF	500	350	850
1/4" HARDWARE CLOTH	LF	40	60	100
GEOTEXTILE FOR E.C. (TYPE 2, NON-WOVEN)	SY	73	73	146
SEEDING & MULCHING	ACR	0.2	0.2	0.4
SOD	SY	266	307	573
WATER	1000 GAL	25	25	50

5/23/2016
 U:\Drainage\R4436NC_Hyd_DET_SUM.dgn
 Steven W. Bondor

5/14/2016

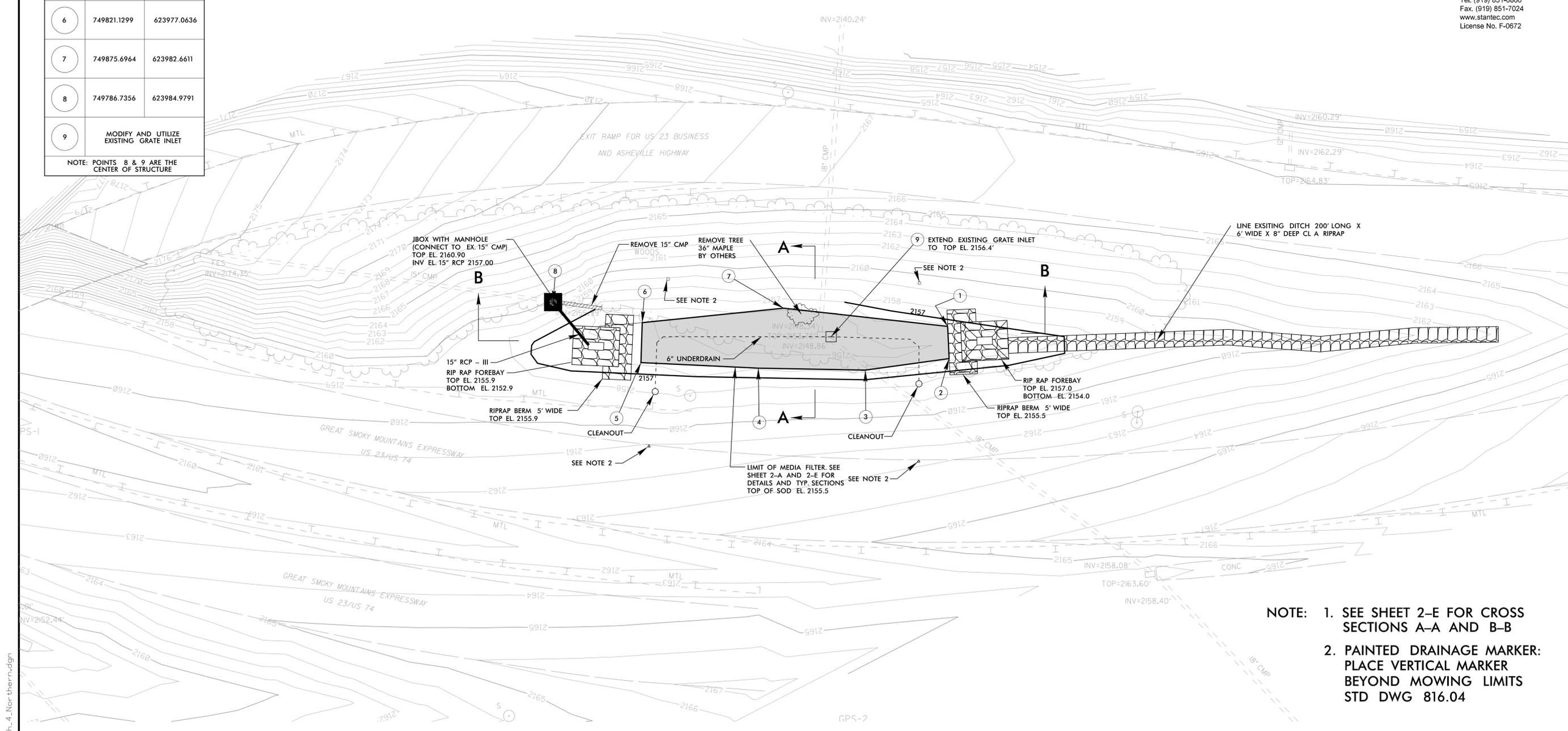
COORDINATE TABLE LIMITS OF MEDIA FILTER BASIN		
	X	Y
1	749939.0334	623975.6197
2	749939.5990	623963.2234
3	749907.2525	623958.7780
4	749865.9348	623959.5498
5	749820.6264	623961.6752
6	749821.1299	623977.0636
7	749875.6964	623982.6611
8	749786.7356	623984.9791
9	MODIFY AND UTILIZE EXISTING GRATE INLET	

NOTE: POINTS 8 & 9 ARE THE CENTER OF STRUCTURE



PROJECT REFERENCE NO. R-4436NC	SHEET NO. 4
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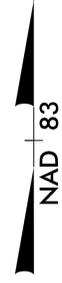


- NOTE: 1. SEE SHEET 2-E FOR CROSS SECTIONS A-A AND B-B
 2. PAINTED DRAINAGE MARKER: PLACE VERTICAL MARKER BEYOND MOWING LIMITS STD DWG 816.04

MEDIA FILTER BASIN NORTH

5/9/2016
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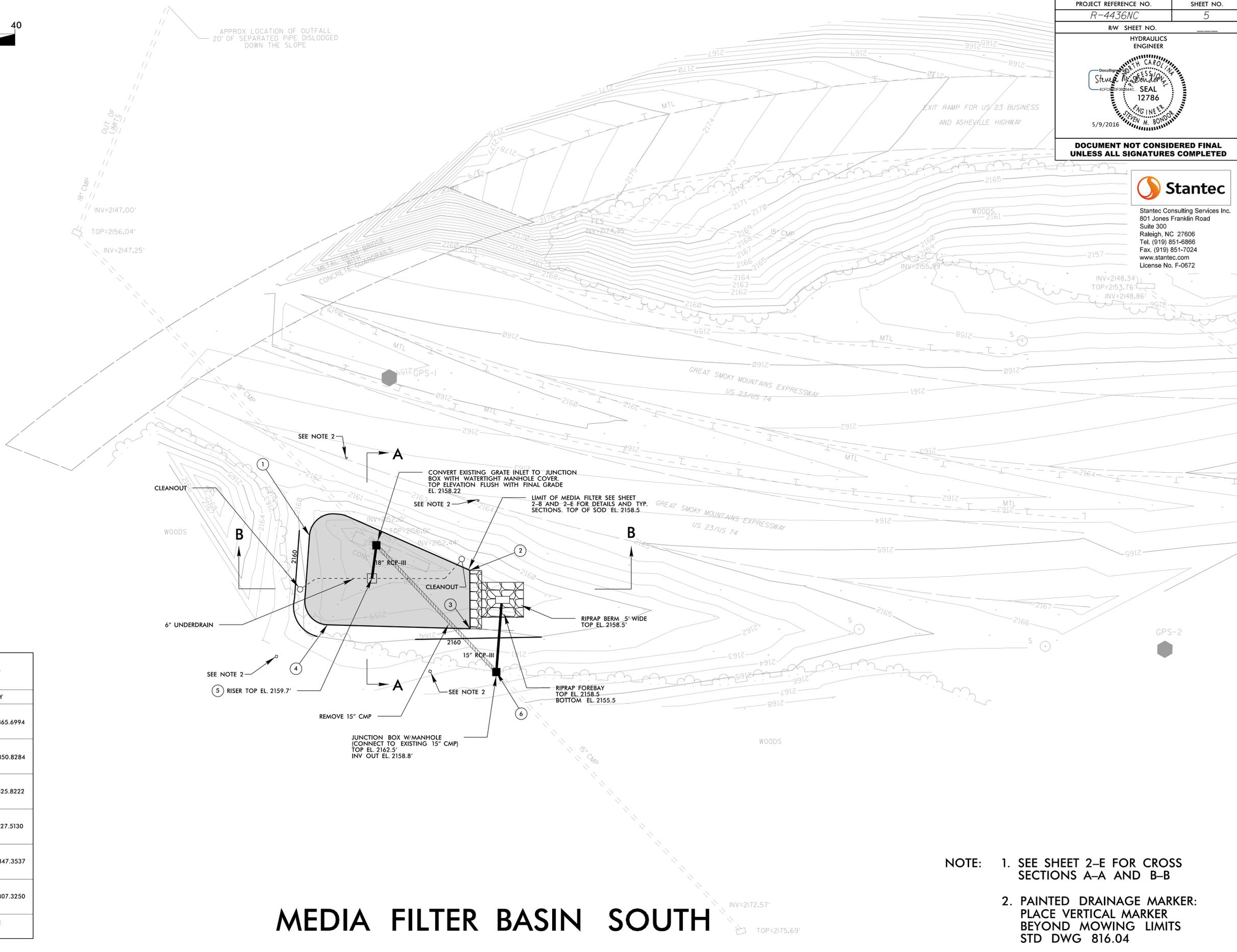
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PROJECT REFERENCE NO. R-4436NC	SHEET NO. 5
RW SHEET NO.	
HYDRAULICS ENGINEER	
5/9/2016	
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COORDINATE TABLE LIMITS OF MEDIA FILTER BASIN		
	X	Y
1	749534.0085	623865.6994
2	749602.7367	623850.8284
3	749602.8783	623825.8222
4	749541.7014	623827.5130
5	749560.7967	623847.3537
6	749614.1350	623807.3250

NOTE: POINTS 5 & 6 ARE THE CENTER OF STRUCTURE

MEDIA FILTER BASIN SOUTH

- NOTE:
- SEE SHEET 2-E FOR CROSS SECTIONS A-A AND B-B
 - PAINTED DRAINAGE MARKER: PLACE VERTICAL MARKER BEYOND MOWING LIMITS STD DWG 816.04

5/9/2016
U:\Drainage\psh_5_Southern.dgn

TRAFFIC CONTROL PLAN

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
ALL ROADS	6:00 A.M.-9:00 A.M. MONDAY THRU FRIDAY 4:00 P.M.-7:00 P.M. MONDAY THRU FRIDAY

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
ALL ROADS

HOLIDAY

- 1) FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2) FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- 3) FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY; THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- 6) FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- 7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8) FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

TRAFFIC PATTERN ALTERATIONS

H) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- I) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- J) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1180.01	SKINNY - DRUM

PROJECT REFERENCE NO. R-4436NC	SHEET NO. TC-01
RW SHEET NO.	
TRANSPORTATION ENGINEER	
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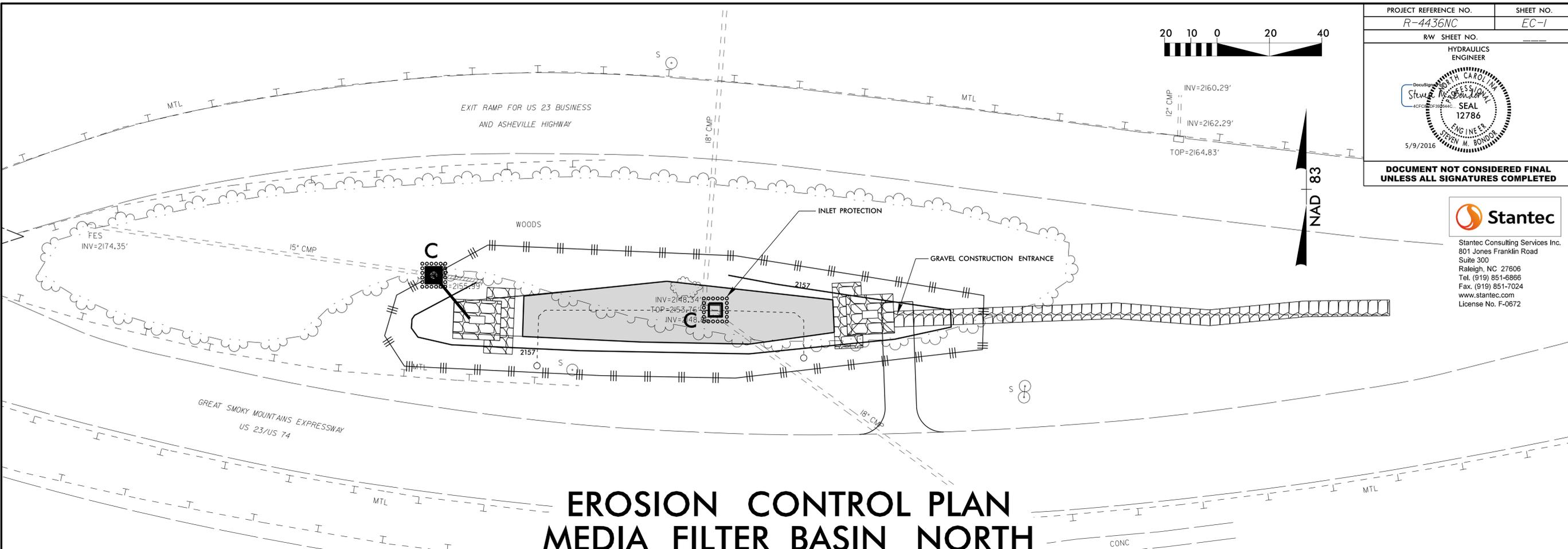


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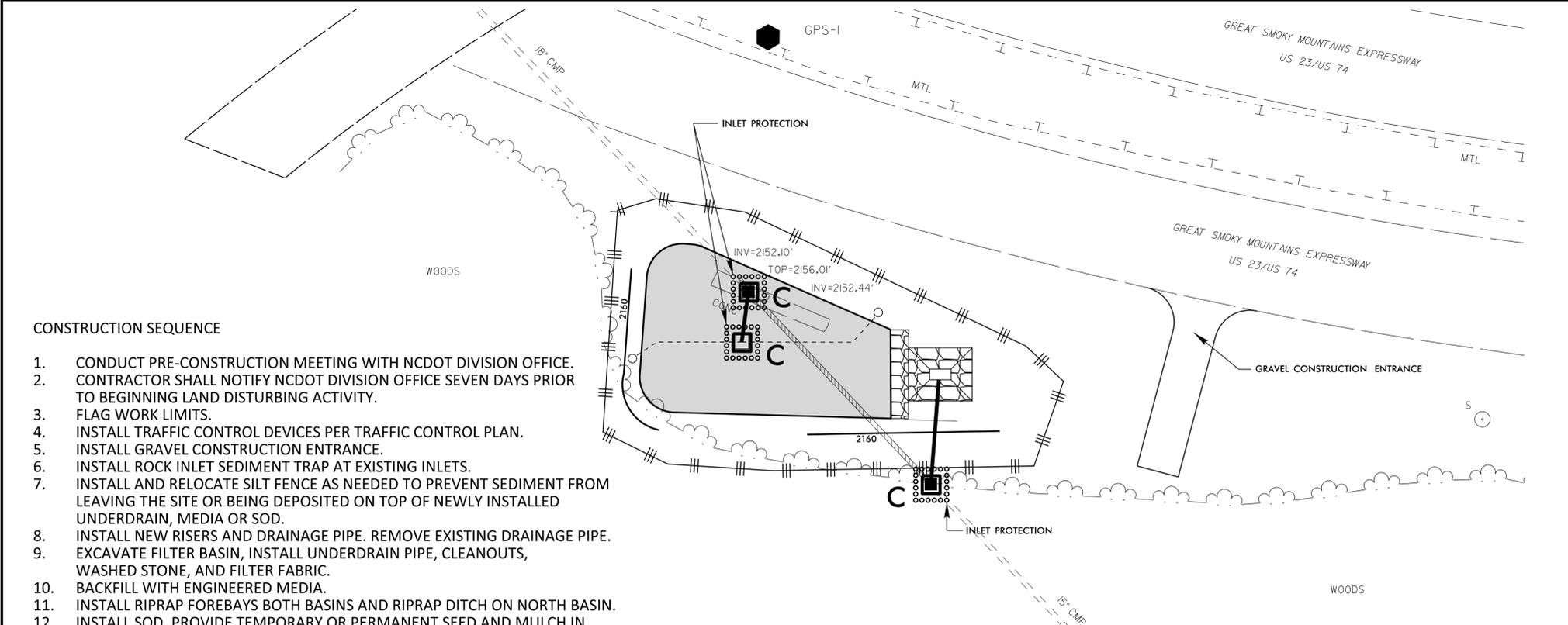


PROJECT REFERENCE NO. <i>R-4436NC</i>	SHEET NO. <i>EC-1</i>
RW SHEET NO.	
HYDRAULICS ENGINEER	
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EROSION CONTROL PLAN MEDIA FILTER BASIN NORTH



STD. #	DESCRIPTION	SYMBOL
1605.01	TEMPORARY SILT FENCE	
1632.06	ROCK INLET SEDIMENT TRAP TYPE C	

- CONSTRUCTION SEQUENCE**
1. CONDUCT PRE-CONSTRUCTION MEETING WITH NCDOT DIVISION OFFICE.
 2. CONTRACTOR SHALL NOTIFY NCDOT DIVISION OFFICE SEVEN DAYS PRIOR TO BEGINNING LAND DISTURBING ACTIVITY.
 3. FLAG WORK LIMITS.
 4. INSTALL TRAFFIC CONTROL DEVICES PER TRAFFIC CONTROL PLAN.
 5. INSTALL GRAVEL CONSTRUCTION ENTRANCE.
 6. INSTALL ROCK INLET SEDIMENT TRAP AT EXISTING INLETS.
 7. INSTALL AND RELOCATE SILT FENCE AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE OR BEING DEPOSITED ON TOP OF NEWLY INSTALLED UNDERDRAIN, MEDIA OR SOD.
 8. INSTALL NEW RISERS AND DRAINAGE PIPE. REMOVE EXISTING DRAINAGE PIPE.
 9. EXCAVATE FILTER BASIN, INSTALL UNDERDRAIN PIPE, CLEANOUTS, WASHED STONE, AND FILTER FABRIC.
 10. BACKFILL WITH ENGINEERED MEDIA.
 11. INSTALL RIPRAP FOREBAYS BOTH BASINS AND RIPRAP DITCH ON NORTH BASIN.
 12. INSTALL SOD. PROVIDE TEMPORARY OR PERMANENT SEED AND MULCH IN REMAINING DISTURBED AREA PER NCDOT SPECIFICATIONS.
 13. CONFIRM WITH NCDOT WHEN VEGETATION IS STABILIZED AND REMOVE TEMPORARY DEVICES.

EROSION CONTROL PLAN MEDIA FILTER BASIN SOUTH

5/9/2016
J:\Dr-projects\EC-1-Erosion Control Plan.dgn

EROSION CONTROL DETAILS

PROJECT REFERENCE NO. <i>R-4436NC</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
HYDRAULICS ENGINEER	

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STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **TEMPORARY SILT FENCE**

NOTES

- USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
- USE FILTRATION GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED.
- PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.
- FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.

SHEET 1 OF 1
1605.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **GRAVEL CONSTRUCTION ENTRANCE**

NOTES

- PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
- LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
- MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
- ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
- LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
- NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
- USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
- INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

NOTE: PLACE FILTRATION GEOTEXTILE BENEATH STONE

SHEET 1 OF 1
1607.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **ROCK INLET SEDIMENT TRAP TYPE C**

NOTE

- USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
- USE 24 GAUGE MINIMUM WIRE MESH HARDWARE CLOTH WITH 1/4 INCH MESH OPENINGS.
- PLACE TOP OF WIRE MESH A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
- INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
- USE 5" STEEL POST, INSTALLED 1.5' DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
- SPACE POST A MAXIMUM OF 4'.

SHEET 1 OF 1
1632.03