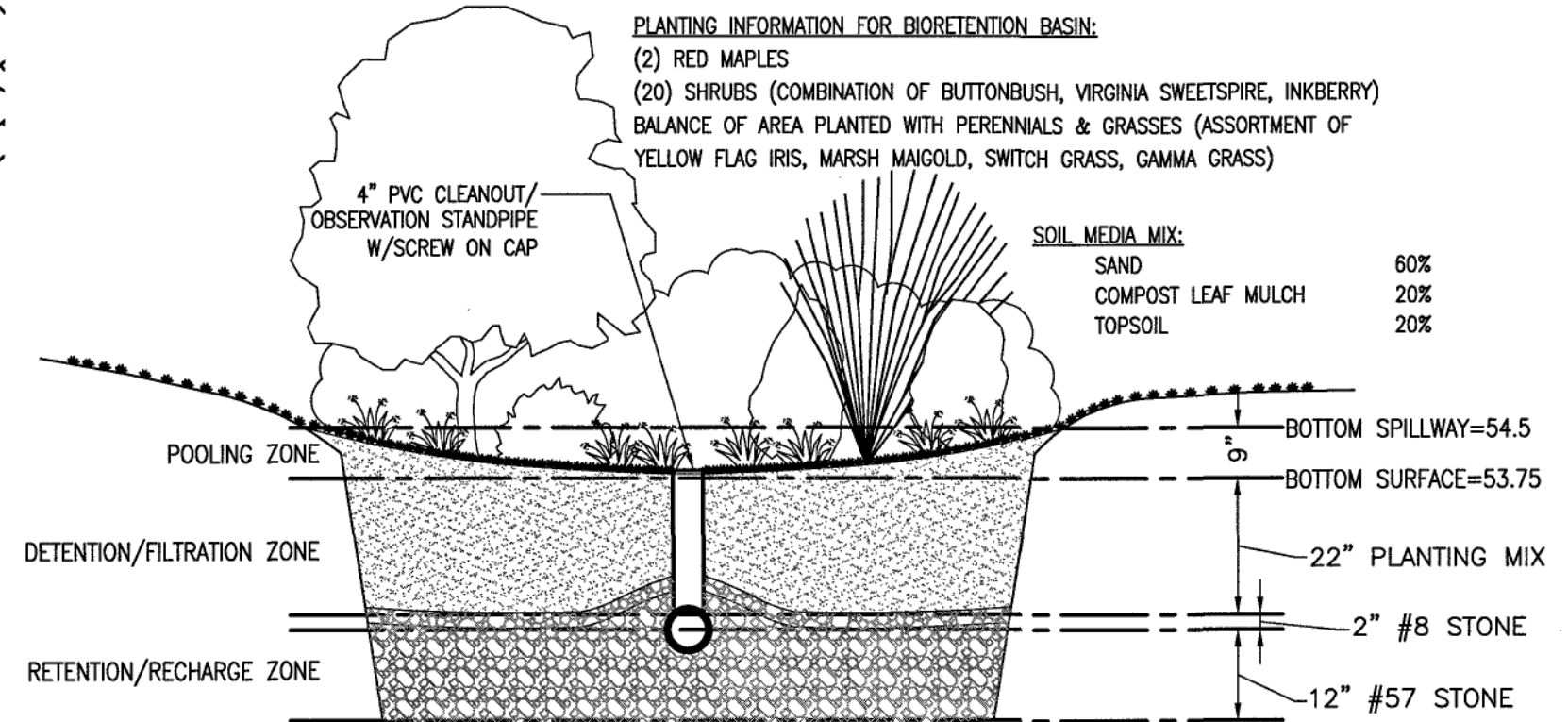


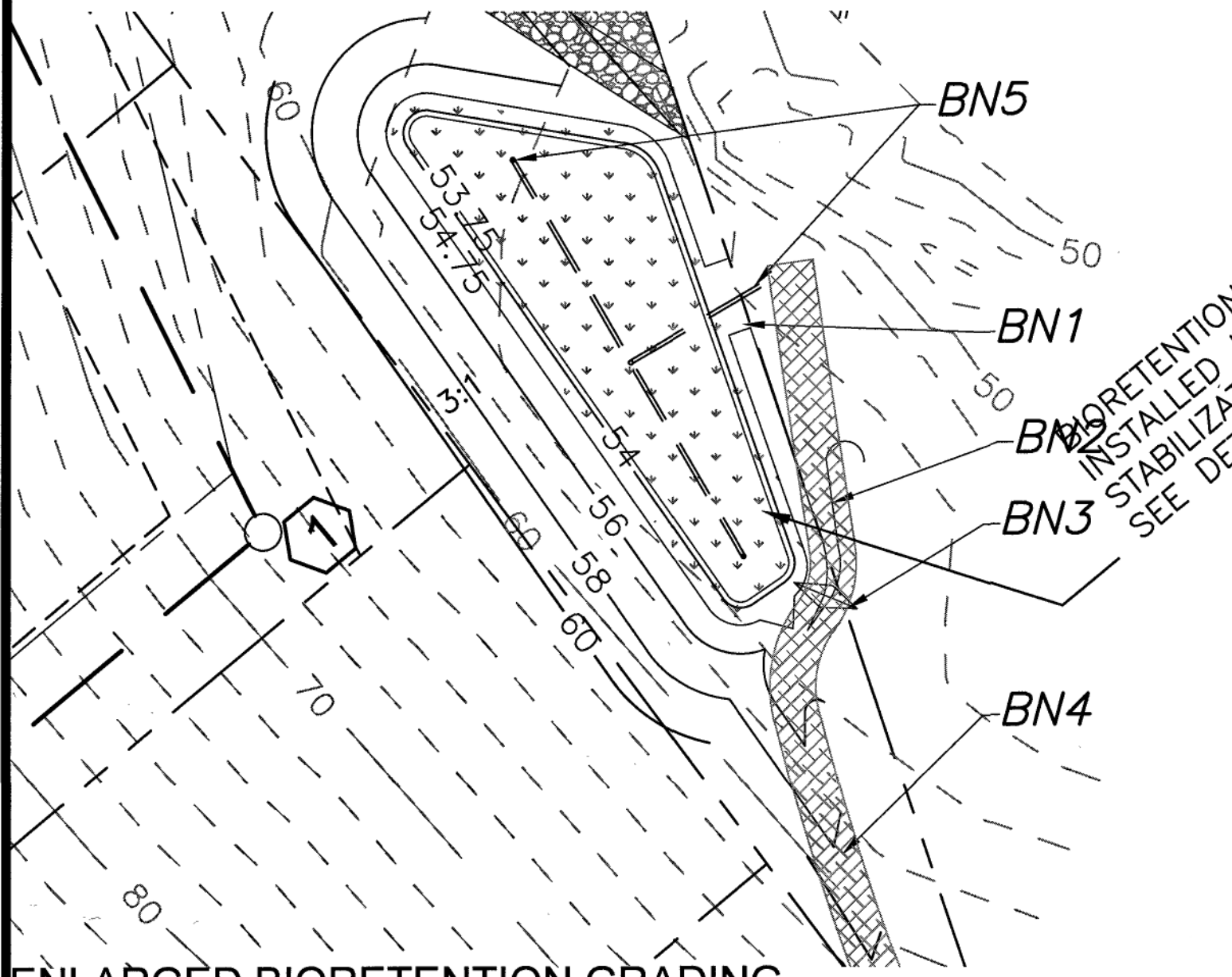
**STREAM BYPASS  
DISCHARGE STRUCTURE & SCHEMATIC SECTION**  
NOT TO SCALE

**BIORETENTION BASIN SHEET NOTES**

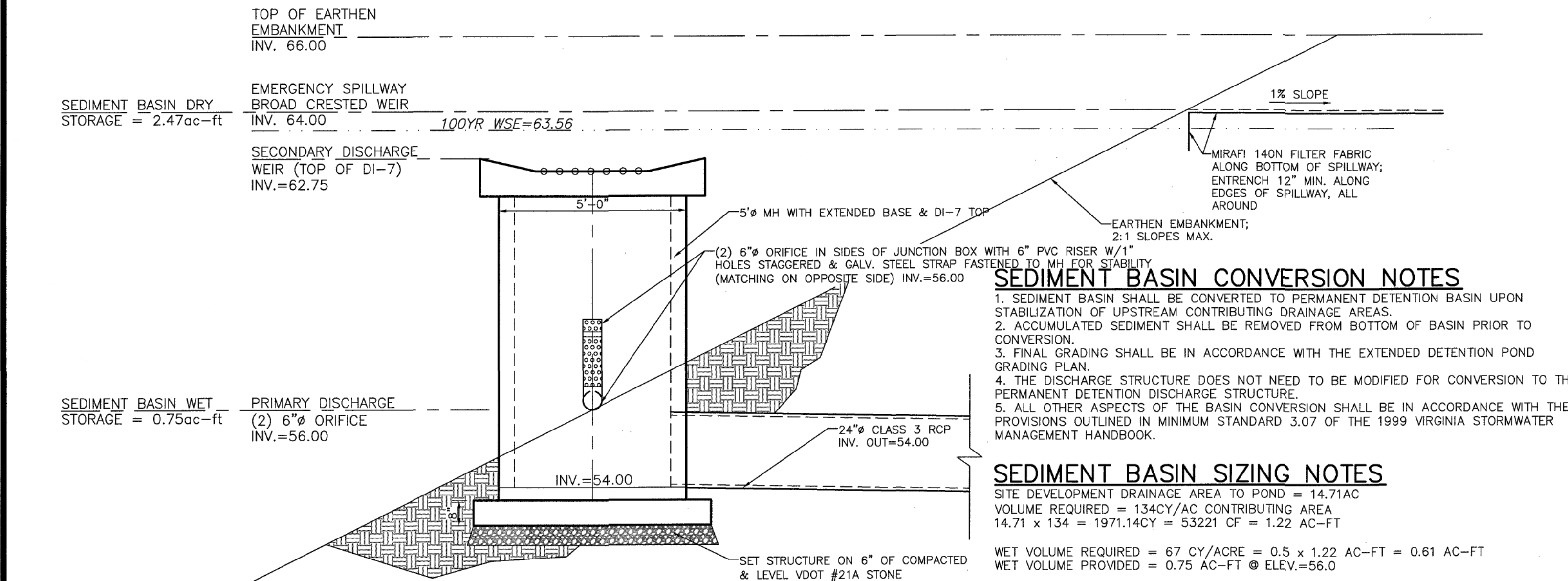
- BN1** 6FT W x 0.25FT D GRASSED OVERFLOW SPILLWAY THROUGH 3FT WIDE BIORETENTION BASIN BERM. BOTTOM SPILLWAY=54.50; TOP BERMS4.75
- BN2** HIGH FLOW BYPASS SWALE TO EXISTING NATURAL CHANNEL
- BN3** LOW FLOW DIVERSION EARTHEN CHECK DAM IN SWALE TO DIRECT FLOW INTO BIORETENTION BASIN. TOP OF DIVERSION=54.5
- BN4** DIVERSION SWALE TO DIRECT YARD RUNOFF INTO BIORETENTION BASIN. DIVERSION SHALL BE LINED WITH NORTH AMERICAN GREEN SC150 MATTING, STAPLE PATTERN D, OR EQUAL.
- BN5** 60LF OF 4" SLOTTED HDPE PIPE FROM DRAINAGE MEDIA TO DAYLIGHT IN OVERFLOW/DRAINAGE SWALE. CUT END OF PIPE FLUSH WITH SLOPED GRADE & POUR 16" SQUARE x 4" THICK CONCRETE COLLAR AT END OF PIPE. INSTALL CLEANOUTS @ EACH END & ONE AT INTERSECTION WITH OVERFLOW TO DAYLIGHT. SEE TYPICAL CROSS SECTION.



**TYPICAL BIORETENTION CROSS SECTION**  
NOT TO SCALE



**ENLARGED BIORETENTION GRADING**  
1"=20'



**SEDIMENT BASIN CONVERSION NOTES**

1. SEDIMENT BASIN SHALL BE CONVERTED TO PERMANENT DETENTION BASIN UPON STABILIZATION OF UPSTREAM CONTRIBUTING DRAINAGE AREAS.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM BOTTOM OF BASIN PRIOR TO CONVERSION.
3. FINAL GRADING SHALL BE IN ACCORDANCE WITH THE EXTENDED DETENTION POND GRADING PLAN.
4. THE DISCHARGE STRUCTURE DOES NOT NEED TO BE MODIFIED FOR CONVERSION TO THE PERMANENT DETENTION DISCHARGE STRUCTURE.
5. ALL OTHER ASPECTS OF THE BASIN CONVERSION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OUTLINED IN MINIMUM STANDARD 3.07 OF THE 1999 VIRGINIA STORMWATER MANAGEMENT HANDBOOK.

**SEDIMENT BASIN SIZING NOTES**

SITE DEVELOPMENT DRAINAGE AREA TO POND = 14.71AC

VOLUME REQUIRED = 134CY/AC CONTRIBUTING AREA

14.71 x 134 = 1971.14CY = 53221 CF = 1.22 AC-FT

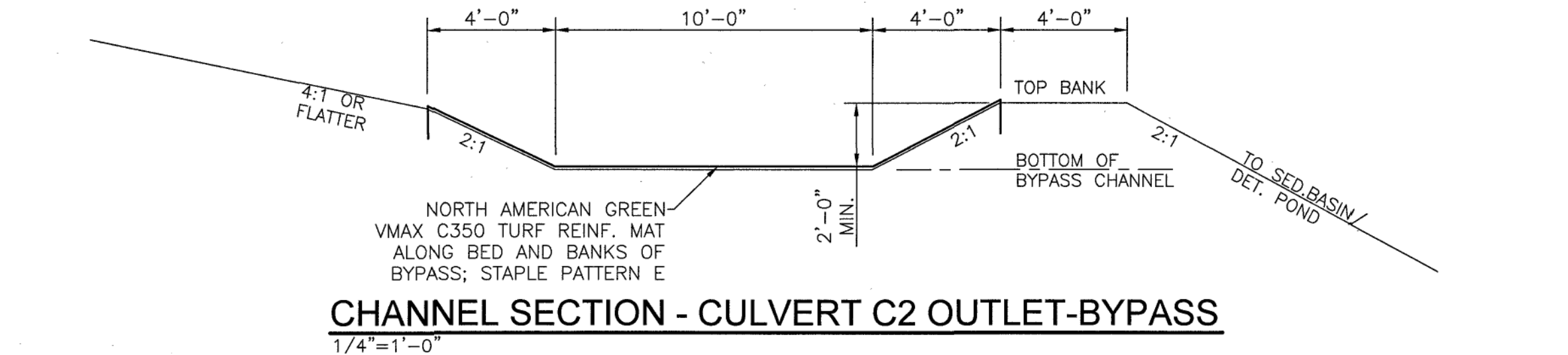
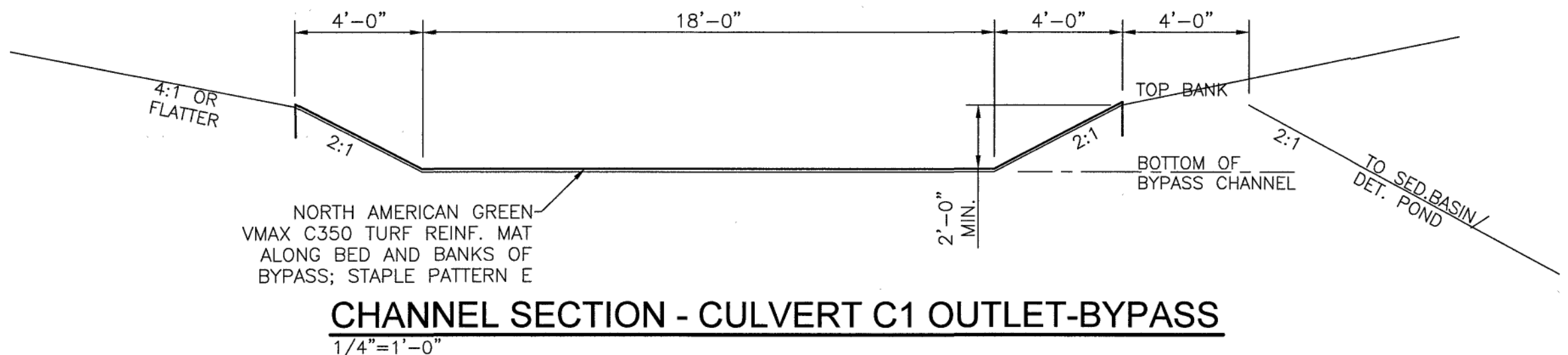
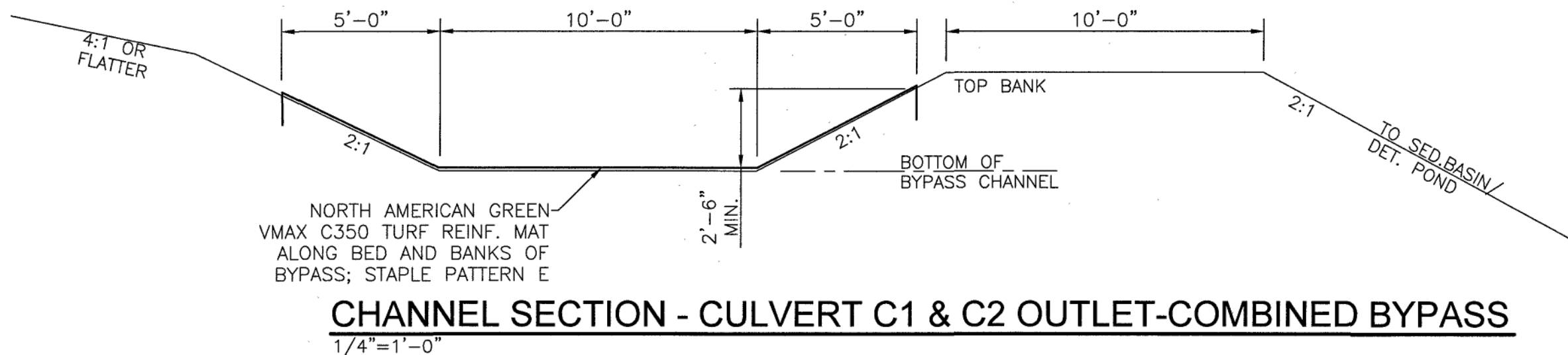
WET VOLUME REQUIRED = 67 CY/ACRE = 0.5 x 1.22 AC-FT = 0.61 AC-FT

WET VOLUME PROVIDED = 0.75 AC-FT @ ELEV.=56.0

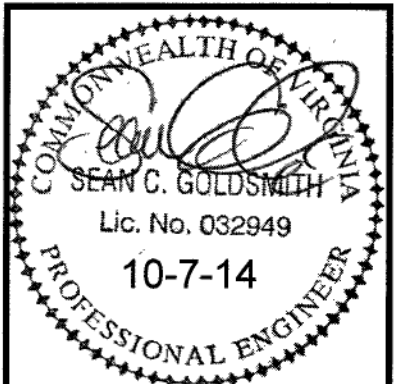
DRY VOLUME REQUIRED = 67 CY/ACRE = 0.5 x 1.22 AC-FT = 0.61 AC-FT

DRY VOLUME PROVIDED = 2.47 AC-FT (TO EMERG. SPILLWAY @ ELEV.=64.0)

**SEDIMENT BASIN DISCHARGE STRUCTURE**  
NOT TO SCALE



**BYPASS CHANNEL TYPICAL SECTIONS**  
SCALE: 1"=20'



Revisions By	Date
1-SED. BASIN/BYPASS	9/19/14
2-STRM& SWR RVSN	10/7/14



STORMWATER MANAGEMENT DETAILS

PHASE 1  
COTTAGES OF STEEPLECHASE  
BOTETOURT COUNTY, VIRGINIA

Scale: AS SHOWN  
Date: 4-24-14  
Design By: SCG  
CAD By: SCG  
Checked By:  
Project No.: 12052

Sheet No.

**C7**