

**NOTES:**

PLACE 6"-12" OF SALVAGED FILL MATERIAL FOR THE EXTENT OF THE PROPOSED SOIL LIFT AND FOLD MATTING OVER TOWARD EXISTING CHANNEL BANK TO ENCAPSULATE THE SOIL LIFT ABOVE THE BOTTOM 1' OF FILL. MATERIAL MAY BE COMPACTED IN 6" LIFTS ENCAPSULATED IN A SINGLE WRAP.

WHERE PROPOSED BENCH ELEVATION REQUIRES GREATER THAN 12", CONSECUTIVE LIFTS SHALL BE USED TO ACHIEVE PROPOSED GRADE. CONSECUTIVE LIFTS SHALL BE APPROXIMATELY EQUAL IN HEIGHT AND PLACED SO BANK MAINTAINS A 3:1 SIDE SLOPE.

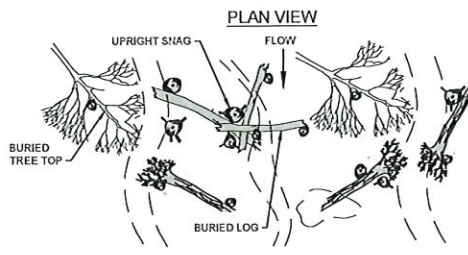
KEY EXCESS MATTING INTO FILL MATERIAL. FASTEN MATTING IN PLACE WITH WOODEN STAKES, DRIVING STAKE THROUGH SOIL LIFT(S) AND INTO UNDISTURBED EARTH AS SHOWN ON DETAIL.

PROPOSED FILL BANK SHALL BE COMPACTED TO GRADE AND WRAPPED IN ACCORDANCE WITH E&S BLANKET INSTALLATION DETAIL. MATTING SHALL BE SHINGLED SO THAT THE MATTING ON AN UPSTREAM SOIL LIFT SITS ABOVE THE MATTING ON A DOWNSTREAM SOIL LIFT IN ORDER TO PREVENT SCOUR.

ALTERNATIVE FILL BANK CONSTRUCTION APPROACH MAY BE UTILIZED AS APPROVED BY DESIGN ENGINEER, IN CONCURRENCE WITH PA DEP.

WHERE FLOODPLAIN BENCH IS SPECIFIED ON PLANS, BENCH ELEVATION SHALL BE ACHIEVED VIA SOIL LIFT. FILL BANK SHALL BE INSTALLED STARTING AT THE TOE OF SLOPE SHOWN ON PLANS. WHERE NO FLOODPLAIN BENCH IS SHOWN, SOIL LIFT SHALL BE INSTALLED FOR BOTTOM 1' OF FILL BANK.

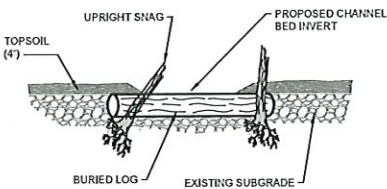
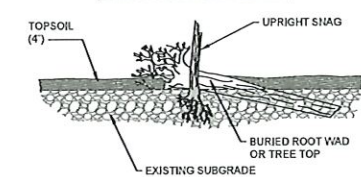
**D-1**  
7  
FILL BANK  
NOT TO SCALE



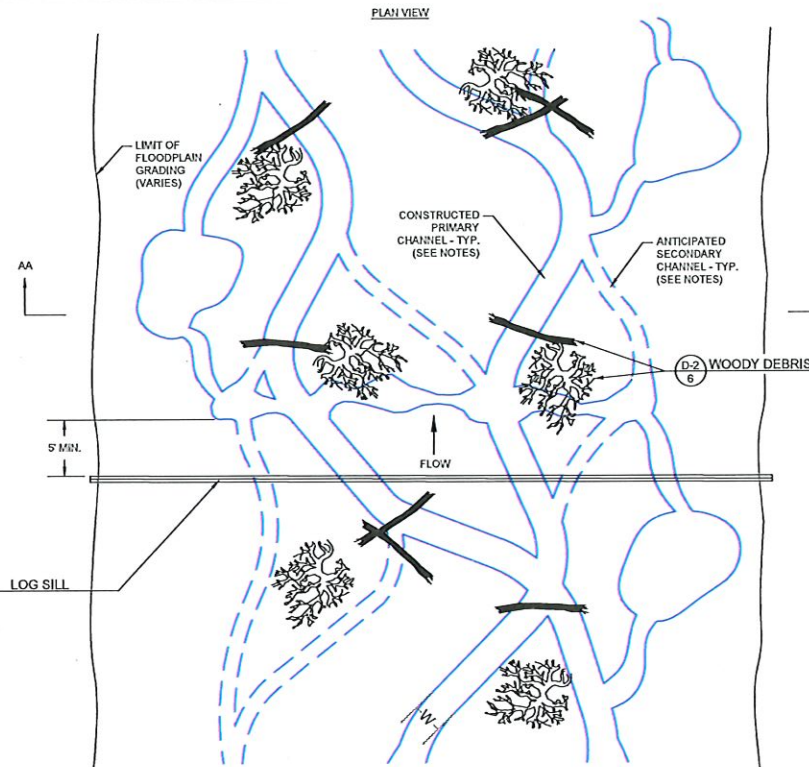
**WOODY DEBRIS NOTES:**

1. WOODY DEBRIS SHALL BE INSTALLED AT THE DIRECTION OF THE PROJECT DESIGNER. THE SIZE, FINAL LOCATION, AND ORIENTATION OF PROPOSED WOODY DEBRIS MAY VARY AND WILL BE DETERMINED BY THE PROJECT DESIGNER BASED ON SITE CONDITIONS DURING CONSTRUCTION.
2. WOODY DEBRIS SHALL CONSIST OF A COMBINATION OF INDIVIDUAL LOGS, ROOT WADS, AND TREE TOPS HARVESTED FROM TREES/BRUSH THAT HAS BEEN CLEARED FROM THE SITE.
3. ALL WOODY DEBRIS SHALL BE PARTIALLY BURIED AND/OR PINNED WITH UPRIGHT SHAGS SO THAT WILL NOT BE DISPLACED BY HIGH FLOWS.

**CROSS SECTION VIEWS**



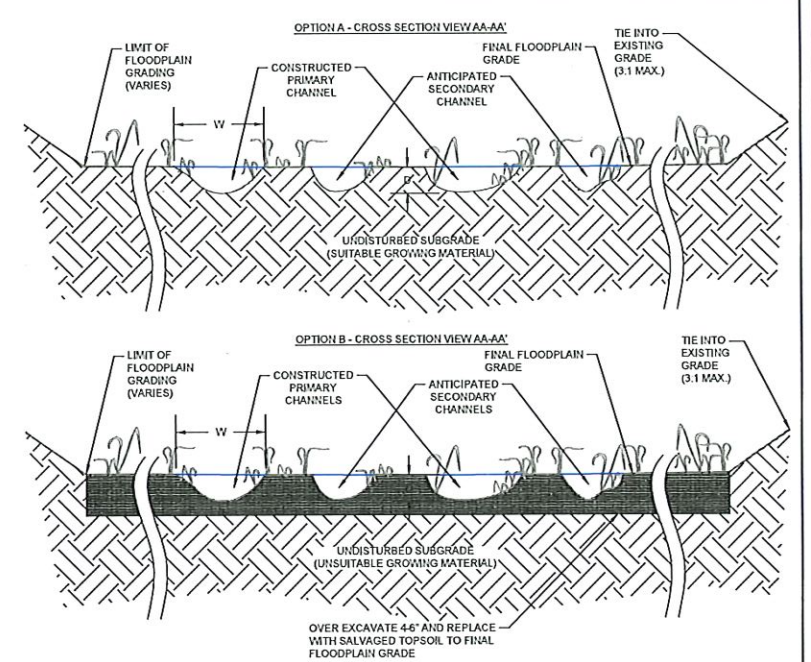
**D-2**  
7  
WOODY DEBRIS  
NOT TO SCALE



**FLOODPLAIN & CHANNEL CONSTRUCTION NOTES:**

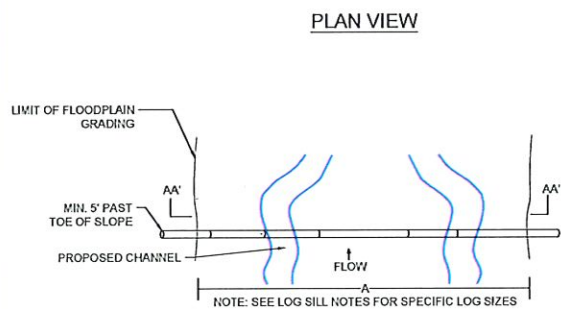
1. TOPSOIL SHALL BE SALVAGED WITHIN PROPOSED FLOODPLAIN AND STOCKPILED FOR USE AS TOP DRESSING TO FINAL GRADE.
2. EXCAVATE PROPOSED FLOODPLAIN TO DESIGN ELEVATIONS AND PROCEED WITH THE NECESSARY APPROACH, DEPENDANT UPON WHAT TYPE OF MATERIAL IS PRESENT AT THE DESIGN ELEVATIONS AS DETERMINED AND APPROVED BY THE PLAN PREPARER.
  - 2.1. **OPTION A** - IF SUITABLE GROWING MATERIAL, AS APPROVED BY THE PLAN PREPARER, IS PRESENT AT FINAL FLOODPLAIN ELEVATIONS, LEAVE THE MATERIAL IN PLACE AND PROCEED WITH CONSTRUCTION.
  - 2.2. **OPTION B** - IF UNSUITABLE GROWING MATERIAL IS PRESENT AT FINAL FLOODPLAIN ELEVATIONS, OVER-EXCAVATE BY 6" AND REPLACE WITH SALVAGED SUITABLE GROWING MATERIAL, AS APPROVED BY THE PLAN PREPARER, TO FINAL FLOODPLAIN GRADE.
3. INSTALL WOODY DEBRIS, ROCK ARMORING, AND LOG SILLS THROUGHOUT THE FLOODPLAIN AT THE DIRECTION OF THE PLAN PREPARER PRIOR TO PLACING SALVAGED TOPSOIL.
4. FIELD MARK PROPOSED ALIGNMENTS OF PRIMARY STREAM CHANNELS AT THE DIRECTION OF THE PLAN PREPARER.
5. CONSTRUCT TWO (2) PRIMARY CHANNELS TO PROPOSED DIMENSIONS ALONG FIELD-MARKED PROPOSED ALIGNMENTS. MULTIPLE SECONDARY CHANNELS SHALL NOT BE CONSTRUCTED AS THESE FEATURES ARE ANTICIPATED TO DEVELOP OVER TIME FOLLOWING CONSTRUCTION.
6. EXCAVATE SECONDARY HABITAT DEPRESSIONS AND MICROTOPOGRAPHY IN CONJUNCTION WITH THE LINEAR PROGRESSION OF THE CHANNEL GRADING AT THE DIRECTION OF THE PLAN PREPARER.
7. SOME IRREGULARITIES IN FINAL GRADE ARE ACCEPTABLE, AT THE DIRECTION OF THE PLAN PREPARER, TO CREATE MICRO-TOPOGRAPHY (NOT TO EXCEED +/- 3"), WHICH IS NOT DEPICTED BY PROPOSED CONTOURS. DO NOT COMPACT TOPSOIL.
8. SEED AND MAT THE RESTORED FLOODPLAIN PER THE LANDSCAPE PLAN.
9. PLANT TREES, SHRUBS, AND HERBACEOUS PLUGS PER THE PLAN.
10. WHERE IT IS NECESSARY TO TRAVERSE ACROSS THE FLOODPLAIN, ALL RUTS LEFT BY EQUIPMENT SHALL BE CORRECTED IF DEEMED NECESSARY BY THE PLAN PREPARER.

**D-6**  
7  
FLOODPLAIN AND CHANNEL CONSTRUCTION  
NOT TO SCALE

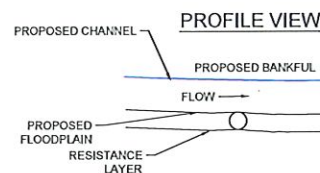
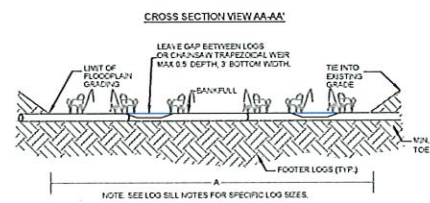


**TABLE D-2. CHANNEL DIMENSIONS**

CHANNEL	BOTTOM WIDTH (W)	DEPTH (D)	SIDE SLOPE
PRIMARY	3' TYP	0.5' TYP.	10:1 MIN.



**CROSS SECTION VIEW AA-AA'**



**NOTES:**

ALL PROPOSED LOG SILL STRUCTURES SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF AND/OR SUBJECT TO THE APPROVAL OF THE PLAN PREPARER. IF STRUCTURE INSTALLATION AND PERFORMANCE ARE NOT IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS, THE STRUCTURE SHALL BE RE-SET OR REINSTALLED IN ACCORDANCE WITH THE DESIGN DETAILS AND SPECIFICATIONS.

THE LOCATION AND ORIENTATION OF THE PROPOSED LOG SILL STRUCTURES MAY BE MODIFIED UNDER DIRECTION OF THE PLAN PREPARER BASED ON SITE CONDITIONS DURING CONSTRUCTION.

LOG SILLS SHALL BE CONSTRUCTED OF LOGS HARVESTED FROM ON-SITE IF POSSIBLE. 20' MINIMUM LENGTH LOGS ARE RECOMMENDED TO MAKE INSTALLATION MORE MANAGEABLE. LOGS WILL RANGE IN DIAMETER OF 12-24", OR AS NECESSARY TO REACH THE RESISTANCE LAYER AS SHOWN ON THE PROFILE. WHEN DEPTH TO RESISTANCE LAYER CANNOT BE ACHIEVED THROUGH A SINGLE LOG, DOUBLE LOG SILLS CAN BE INSTALLED UNDER THE DIRECT SUPERVISION OF AND/OR SUBJECT TO THE APPROVAL OF THE PLAN PREPARER.

LOG SILLS SHALL BE PLACED INDIVIDUALLY ON THE RESISTANCE LAYER AND KEIED INTO CHANNEL BED AND BANK AS SHOWN IN THE DETAIL. LOG SILLS ARE INTENDED TO PROVIDE GRADE CONTROL. THEREFORE, THE TOP SURFACE OF THE LOG SILL SHALL BE PLACED AT THE PROPOSED ELEVATION SHOWN ON THE PROFILE VIEW AND EXTEND ACROSS FLOODPLAIN AS SHOWN ON PLAN VIEW. THE TOP SURFACE WILL BE 0.5' BELOW THE SURFACE WITHIN THE FLOODPLAIN.

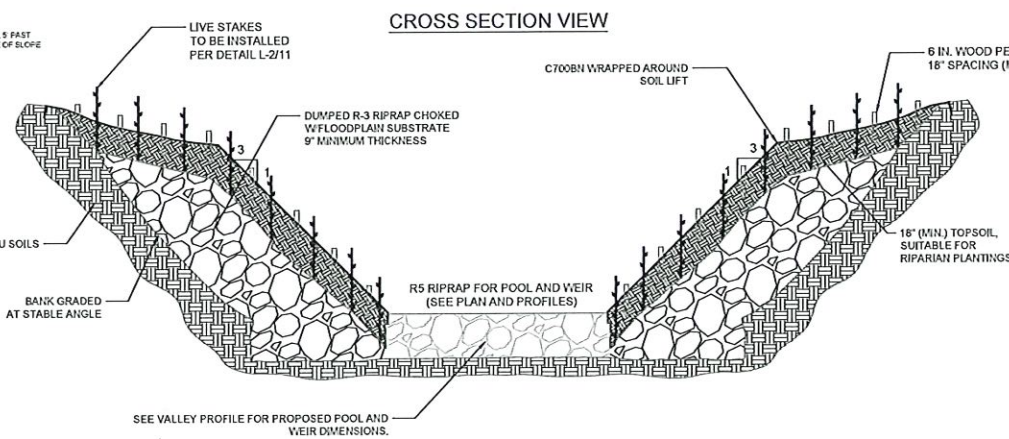
THE LOG SILL SHALL BE PLACED LINEARLY WITH TIGHT, CONTINUOUS SURFACE TO THE GREATEST EXTENT POSSIBLE.

NO SIGNIFICANT VOIDS SHALL EXIST BETWEEN ADJOINING LOGS. IN ORDER TO PREVENT WATER-PIPING BETWEEN STRUCTURE LOGS, THE CONTRACTOR SHALL CHOKE (BY HAND IF NECESSARY) ALL UNDESIRABLE VOIDS WITH SMALL BOULDERS, COBBLE, AND ROCK FRAGMENTS IN COMBINATION WITH GEOTEXTILE FABRIC IF NECESSARY. FILL ALL VOIDS GREATER THAN OR EQUAL TO 3 INCHES IN SIZE FOR COBBLE AND GRAVEL BASED STREAMS, AND 2 INCH FOR SAND AND CLAY BASED STREAMS.

MATERIAL EXCAVATED FOR THE LOG SILLS MAY BE USED MINIMALLY (AT THE DISCRETION OF THE PROJECT DESIGNER) FOR FILL ON THE UPSTREAM SIDE OF THE LOG SILL.

IN THE EVENT THAT SUFFICIENT SILL LOGS CANNOT BE HARVESTED ON SITE, CONTRACTOR SHALL IMPORT SUITABLE SILLS OR MAY IMPLEMENT ROCK SILL ALTERNATIVES AS APPROVED BY PLAN.

**D-3**  
7  
LOG SILL  
NOT TO SCALE



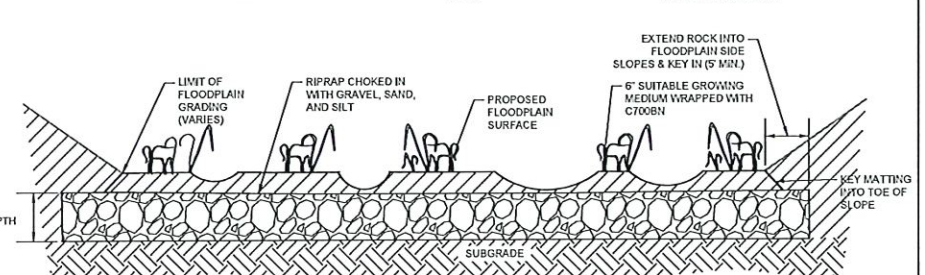
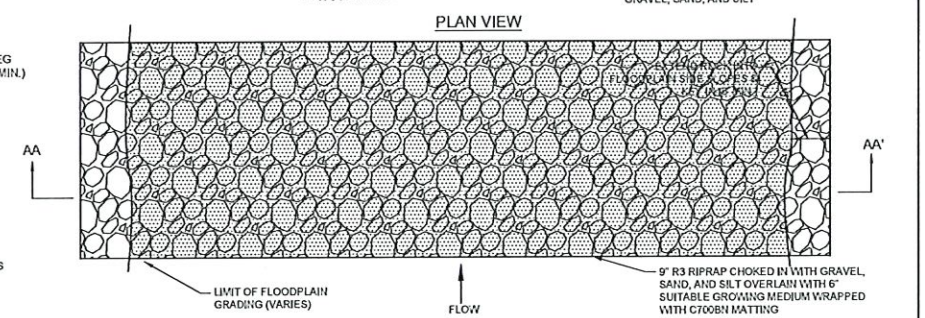
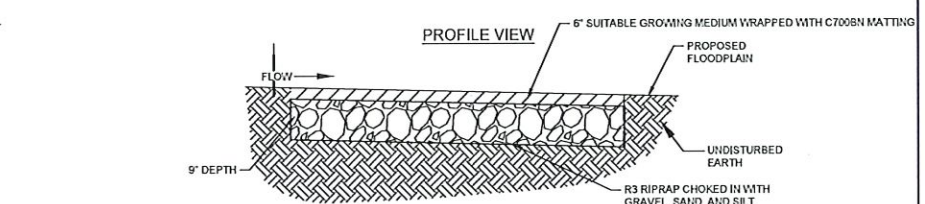
**CONTROL NOTES:**

ROCK SHALL CONSIST OF R3 RIPRAP UNIFORMLY CHOKED WITH AVAILABLE EXISTING BED MATERIAL AND ONSITE SOILS TO A MINIMUM DEPTH OF 9" OR TO COMPETENT BEDROCK.

WHERE FILL MATERIAL IS SPECIFIED ATOP ROCK GRADE CONTROL, MATERIAL SHALL BE COMPACTED TO GRADE AND WRAPPED WITH NAG C700 BN OR APPROVED EQUIVALENT IN ACCORDANCE WITH THE E&S MATTING DETAIL.

ROCK GRADE CONTROL SHALL BE INSTALLED UNDER THE SUPERVISION AND DIRECTION OF THE PLAN PREPARER. IF INSTALLATION AND PERFORMANCE ARE NOT IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS, RE-SET OR REINSTALL IN ACCORDANCE WITH THE DESIGN DETAILS AND SPECIFICATIONS.

**D-4**  
7  
ROCK UNDERLAYMENT - BANKS  
NOT TO SCALE



**NOTES:**

SEE TEMPORARY CONTROL MEASURES FOR C700BN MATTING SPECIFICATIONS.

MATTING SHALL BE SHINGLED, KEIED IN AND STAKED IN ACCORDANCE WITH THE EROSION CONTROL BLANKET INSTALLATION DETAIL.

**D-5**  
7  
ROCK UNDERLAYMENT - FLOODPLAIN  
NOT TO SCALE

REVISIONS

NO	DATE	DESCRIPTION

SIGNATURE BLOCK


PROJECT NUMBER: D-1338.2-20  
 DRAWN BY: NPM  
 CHECKED BY: RWG  
 DATE: 09/17/2021  
 SCALE: N/A  
 PLAN TYPE: CONSTRUCTION DRAWINGS  
 SHEET NUMBER: 7