



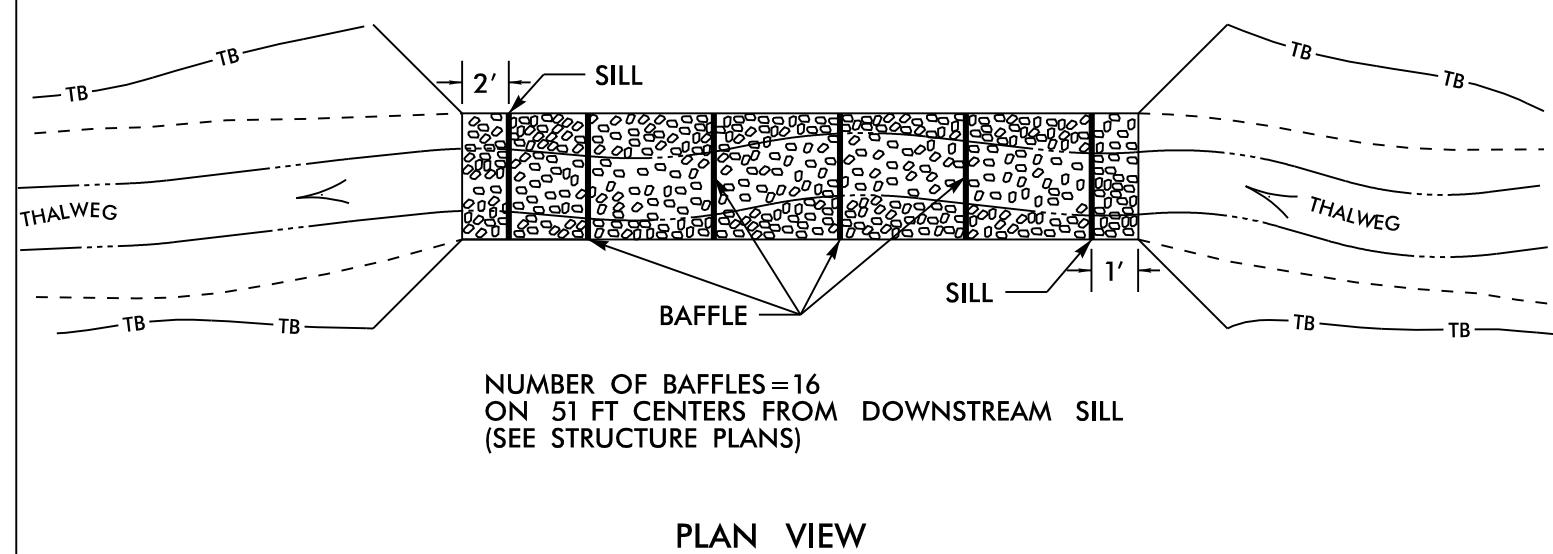
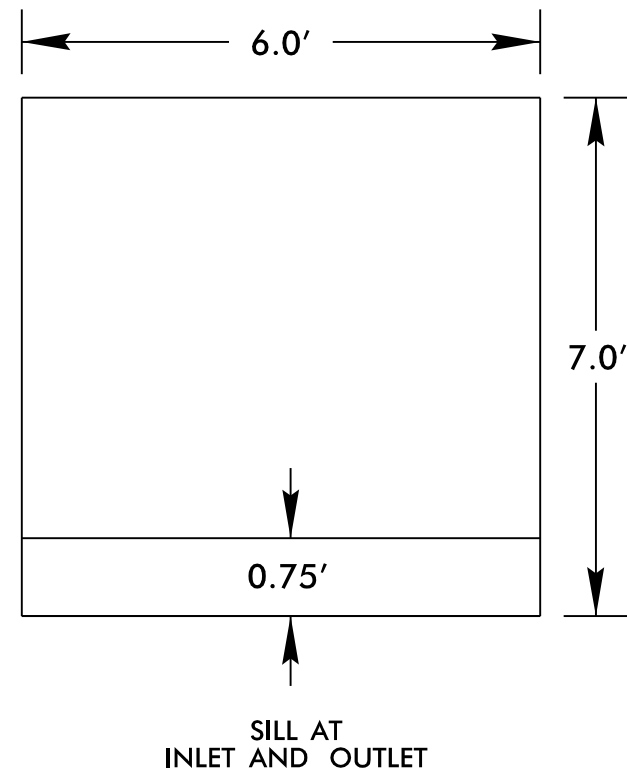
DETAIL HH

(NOT TO SCALE)

SINGLE BARREL CULVERT W/SILLS AND BAFFLES

***NOTES:**

- 1) NATIVE BED MATERIAL SHALL BE PLACED BETWEEN THE SILLS IN THE CULVERT. NATIVE MATERIALS CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED OR FLOODPLAIN AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. RIP RAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL. IF RIP RAP IS USED, NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FACILITATE ANIMAL PASSAGE. THE TOP SURFACE OF THE NATURAL STREAM BED MATERIAL SHALL BE PLACED AND LEVELED TO A FLAT SURFACE TO ALLOW FOR ANIMAL PASSAGE. NATIVE MATERIAL AND RIP RAP ARE SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.
- 2) SILLS/BAFFLES ARE TO BE 1.0 FT. WIDE, CAST SEPARATELY AND ATTACHED BY DOWELS.
- 3) TOP OF SILLS/BAFFLES SHOULD MATCH STREAM BED ELEVATION IN LOW FLOW CHANNEL OF STREAM. (THALWEG)
- 4) DO NOT SET ELEVATION OF SILLS/BAFFLES ABOVE BANK FULL.
- 5) NUMBER OF SILLS/BAFFLES DETERMINED BY THE ENGINEER.



6' X 7' RCBC AT -L- STA 397+73

9/13

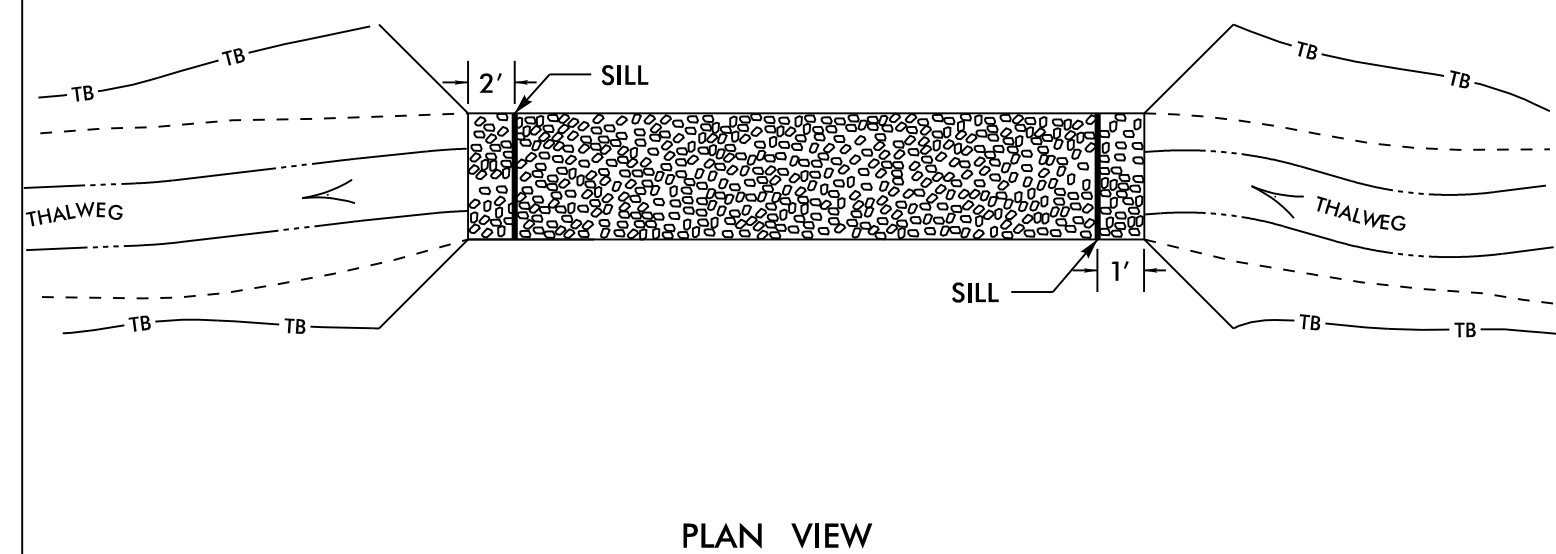
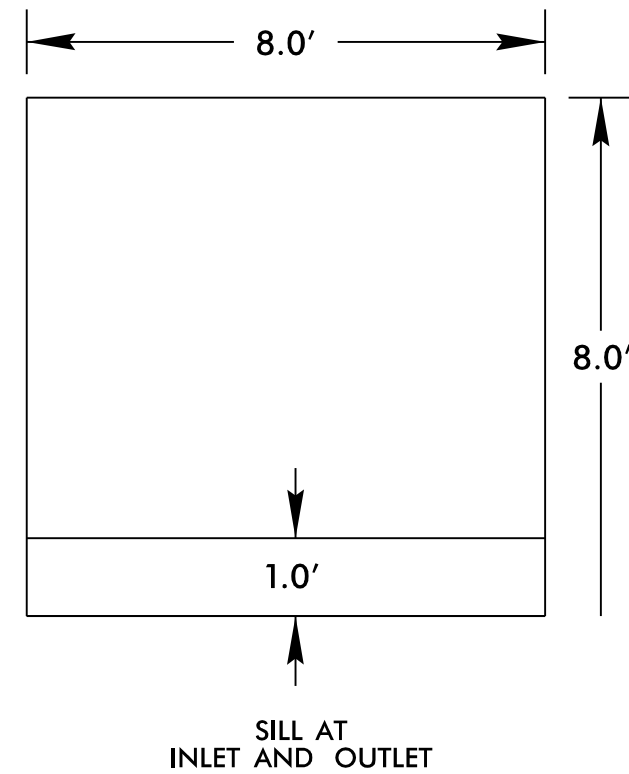
DETAIL II

(NOT TO SCALE)

SINGLE BARREL CULVERT W/SILLS

***NOTES:**

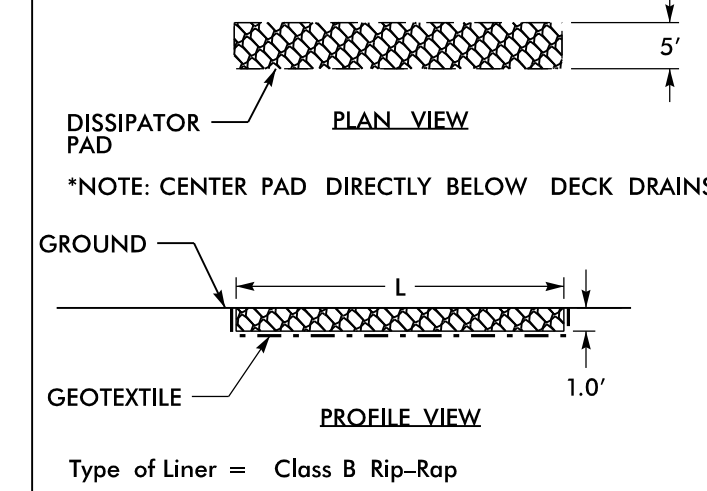
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- 4) DO NOT SET ELEVATION OF SILLS/BAFFLES ABOVE BANK FULL.



8' X 8' RCBC AT -L- STA 437+97

DETAIL JJ

DECK DRAIN DISSIPATOR PAD
(Not to Scale)

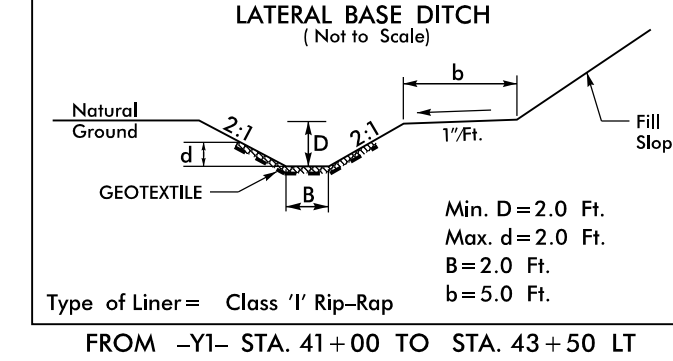


*NOTE: CENTER PAD DIRECTLY BELOW DECK DRAINS

FROM -L- STA 472+52 TO STA 472+74 LT
FROM -L- STA 472+96 TO STA 473+08 RT
FROM -L- STA 473+85 TO STA 474+43 LT
FROM -L- STA 474+29 TO STA 474+90 RT

DETAIL LL

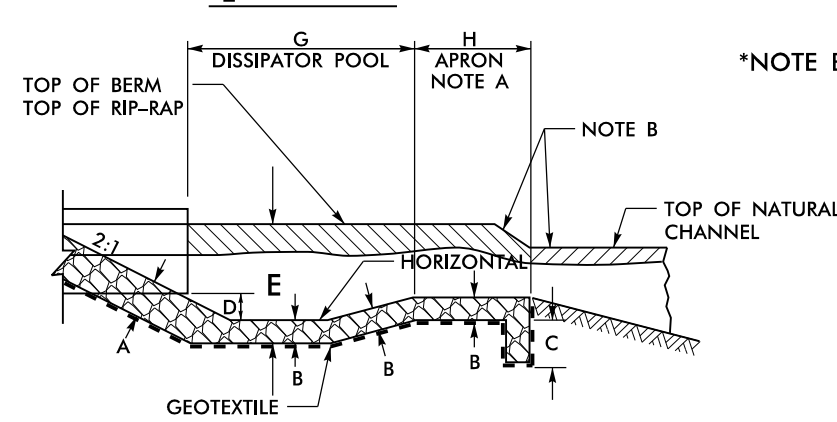
LATERAL BASE DITCH
(Not to Scale)



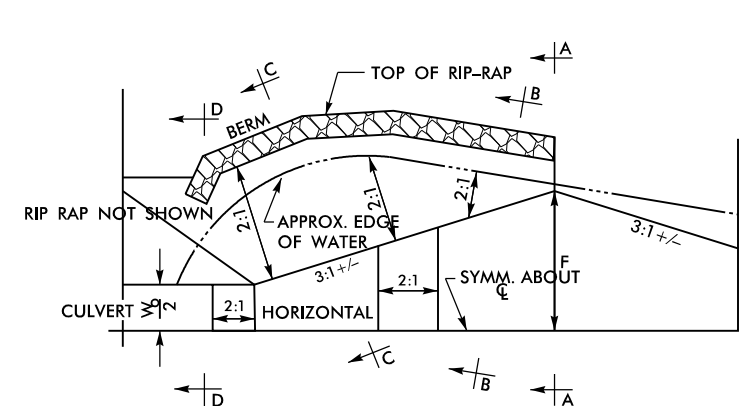
DETAIL KK

RIP-RAPPED ENERGY DISSIPATOR BASIN

C SECTION



HALF PLAN

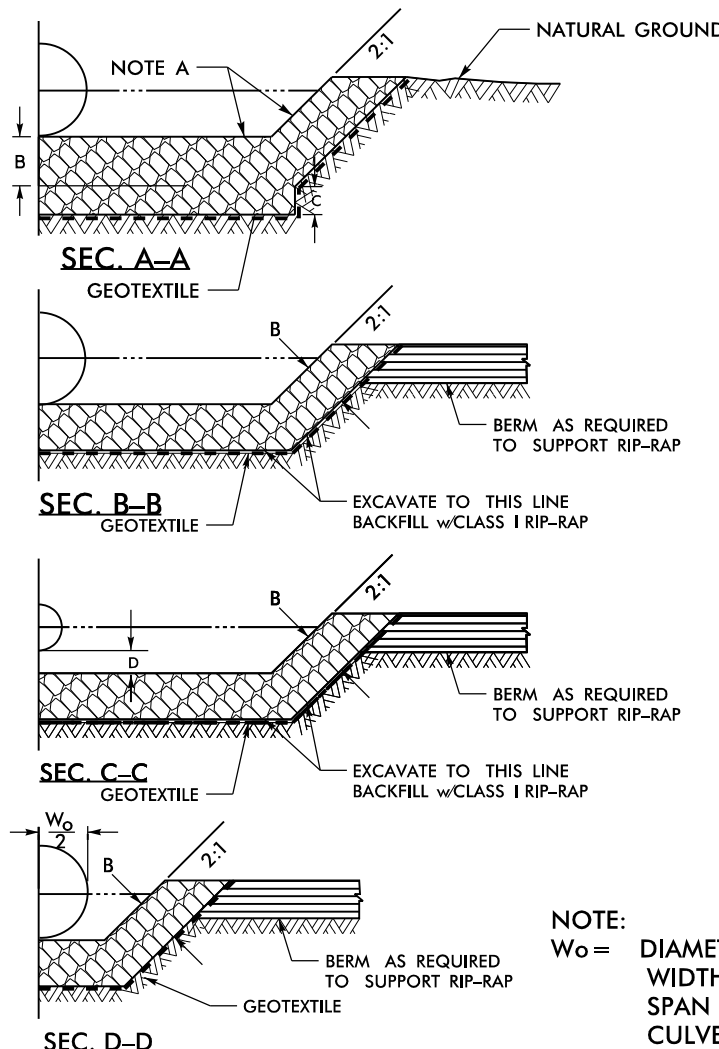


DIM.	1	2	3	4	5	6	7	8
A	2'							
B	2'							
C	2'							
D	2'							
E	7'							
F	12'							
G	20'							
H	10'							

CLASS 'I' RIP RAP
EST. 105 TONS
EST. 190 SY GEOTEXTILE FABRIC
EST. 100 CY DDE

*ALL DIMENSIONS APPROXIMATE IN FEET

- *NOTE A: IF EXIT VELOCITY OF BASIN IS SPECIFIED, EXTEND BASIN AS REQUIRED TO OBTAIN SUFFICIENT CROSS SECTIONAL AREA AT SECTION A-A SUCH THAT $Q_{des} / (CROSS SECTION AREA AT SEC. A-A) = SPECIFIED VELOCITY$.
- *NOTE B: WARP BASIN TO CONFORM TO NATURAL STREAM CHANNEL. TOP OF RIP-RAP IN FLOOR OF BASIN SHOULD BE AT SAME ELEVATION OR LOWER THAN NATURAL CHANNEL BOTTOM AT SEC. A-A. PROVIDE SMOOTH TRANSITION FROM END OF APRON TO NATURAL CHANNEL WIDTH.



NOTE:
 W_o = DIAMETER OF PIPE,
WIDTH OF BOX OR
SPAN OF PIPE-ARCH
CULVERTS