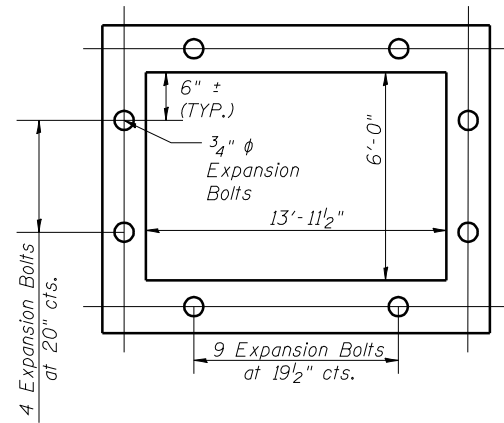
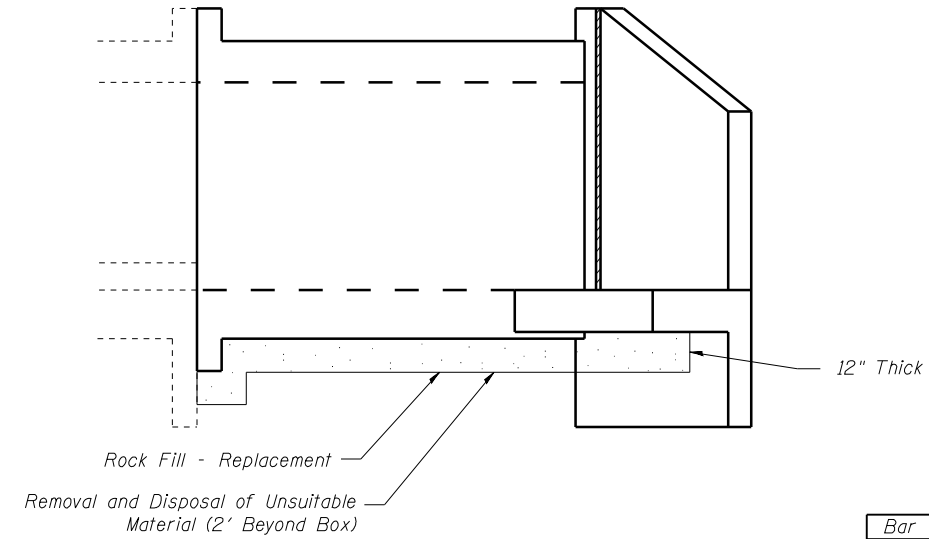


SECTION THRU BARREL



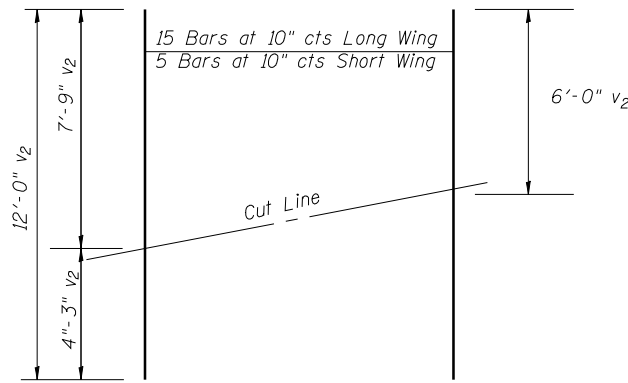
EXPANSION BOLT PLACEMENT DETAIL

Note:
Expansion Bolts shall be 3/4" ϕ hooked bolts.
Hooked bolts shall extend a minimum of 9"
into new concrete



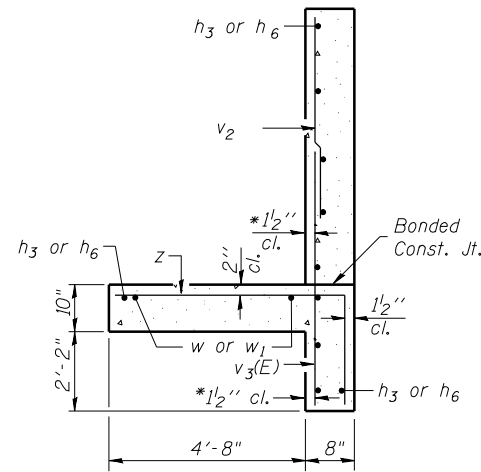
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₁	130	#7	10'-4"	
a ₂	14	#4	8'-3"	
d	9	#4	4'-6"	
h	9	#6	29'-3"	
h ₁	18	#4	29'-3"	
h ₂	12	#5	29'-3"	
h ₃	11	#4	24'-3"	
h ₄	6	#6	15'-0"	
h ₅	9	#7	15'-0"	
h ₆	11	#4	7'-9"	
s	48	#4	5'-9"	
v	94	#4	6'-11"	
v ₁	4	#4	10'-9"	
v ₂	20	#4	12'-0"	
v _{3(E)}	40	#4	4'-9"	
w	7	#5	28'-6"	
w ₁	7	#5	12'-0"	
z	57	#6	7'-9"	
Concrete Box Culverts	Cu. Yd.		40.4	
Reinforcement Bars, Epoxy Coated	Pound		130	
Reinforcement Bars	Pound		6380	
Rockfill- Replacement	Ton		31.1	
Removal & Disposal of Unsuitable Material	Cu. Yd.		15.2	
Expansion Bolts, 3/4"	Each		26	



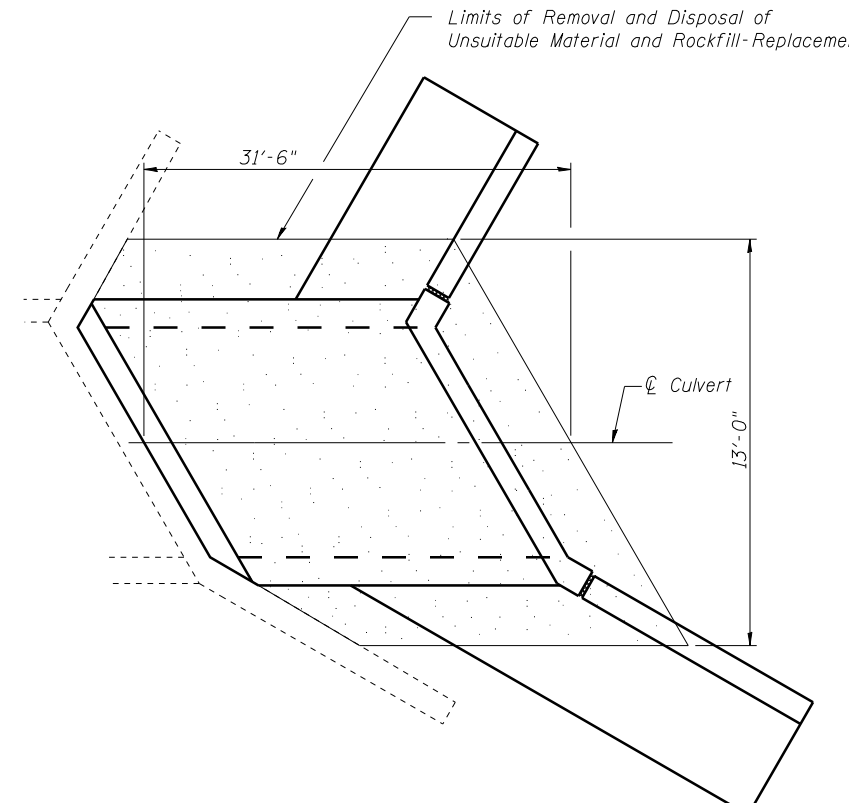
FIELD CUTTING DIAGRAM

Order v₂ full length. Cut as shown and use remainder of bars in opposite end of wing



SECTION A-A

* v₂ & v₃ bars shall not be placed more than 1 1/2" cl. from back face of wingwall.



NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.

BOX CULVERT EXTENSION DETAILS
IL RTE 1
F.A.P. RTE. 332 - SEC. (103B)B-1
WABASH COUNTY
STATION 851 +29.38
STRUCTURE NO. 093-7012

