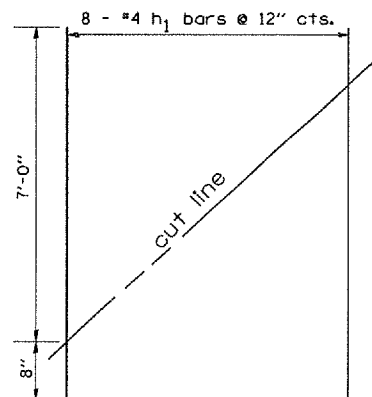
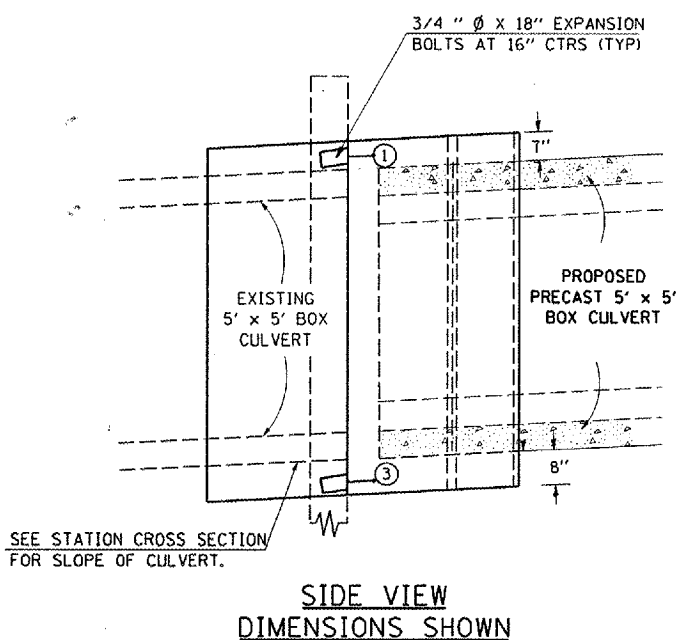
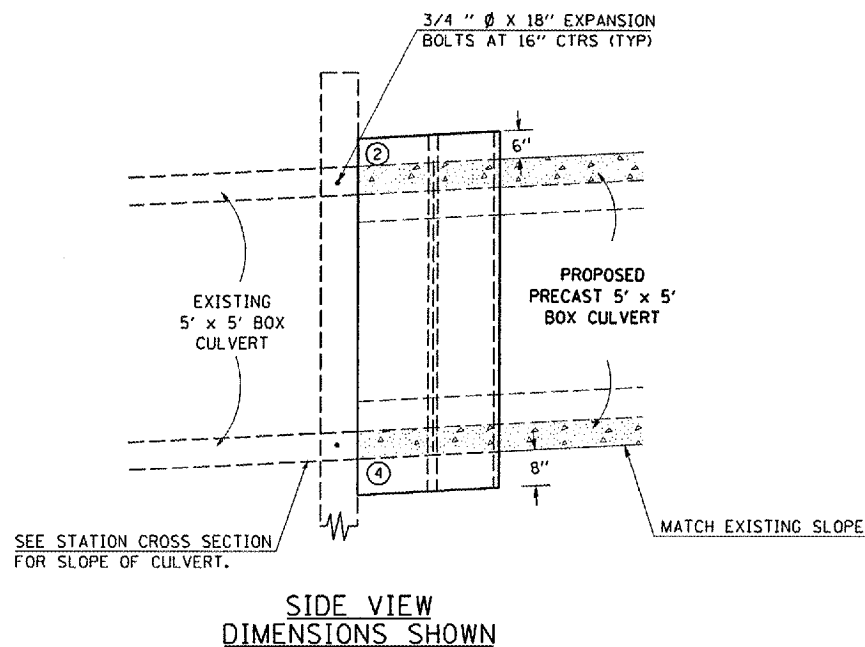
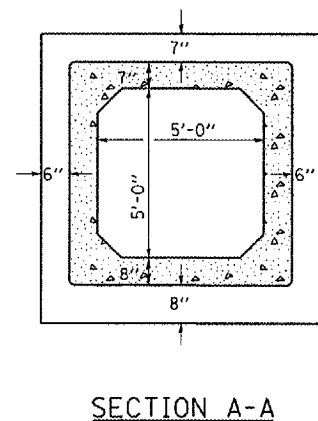
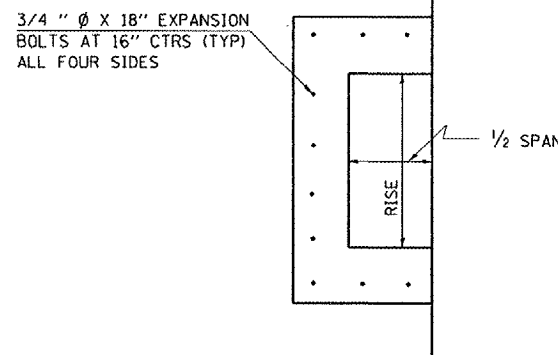
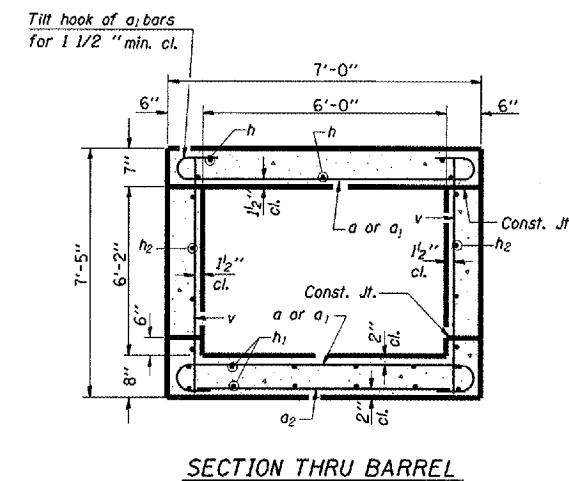
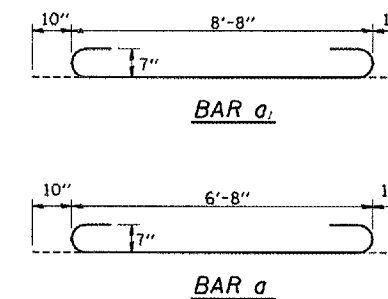
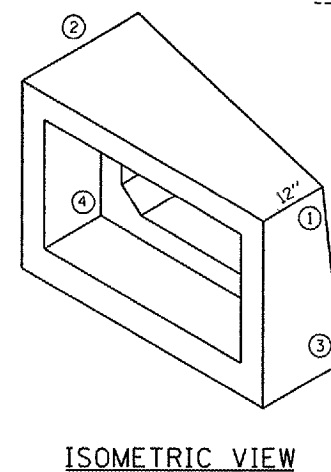
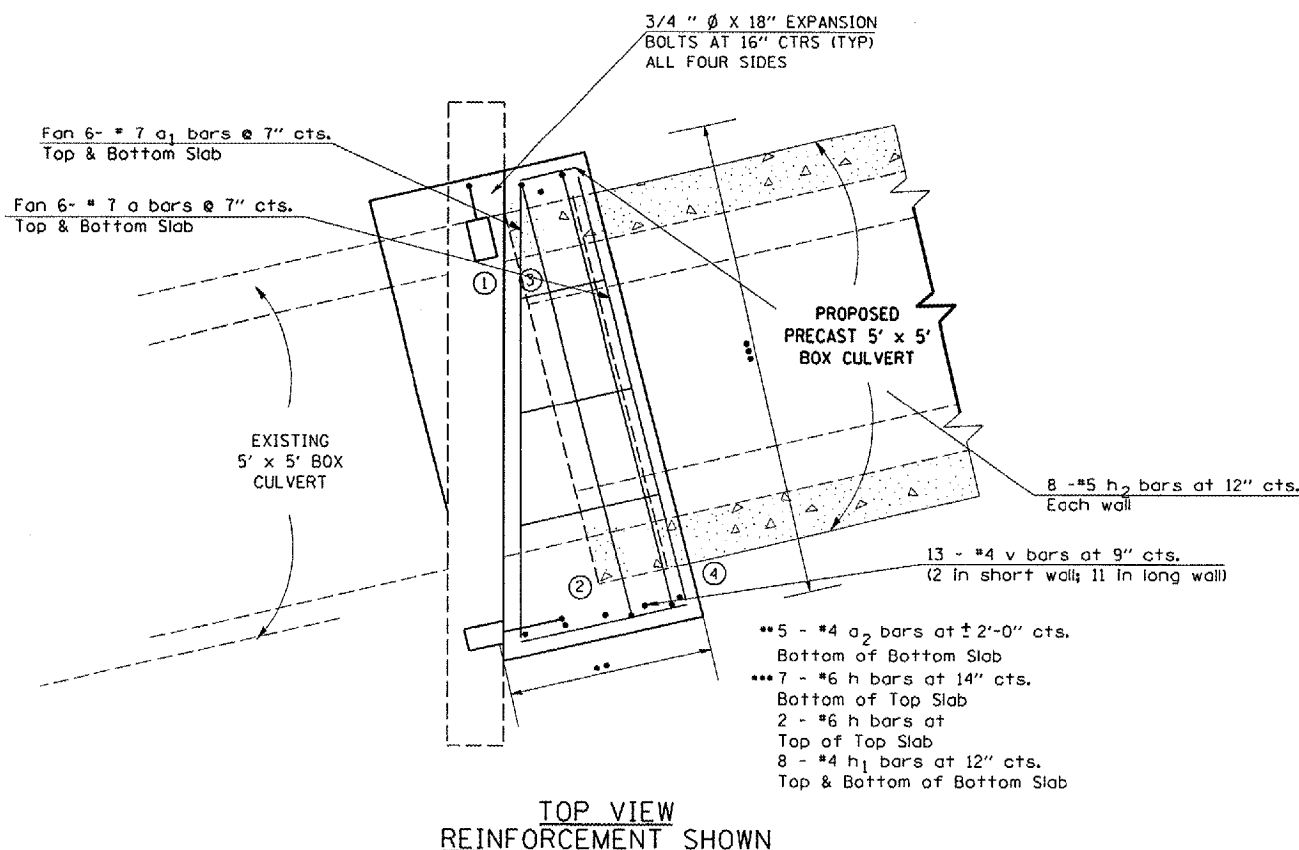
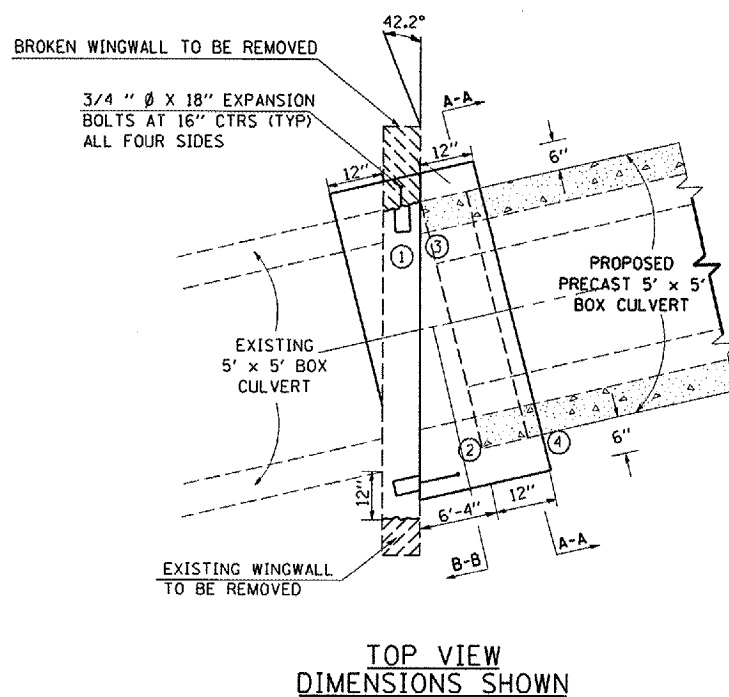


**CONCRETE COLLAR FOR
PRECAST BOX CULVERTS
STA. 752+80 RT SIDE**



Order h₁ bars full length. Cut as shown and use remainder of bars in opposite face.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	12	#7	8'-4"	C
a ₁	12	#7	10'-4"	C
a ₂	5	#4	9'-0"	—
h	9	#7	7'-0"	—
h ₁	8	#4	7'-8"	—
h ₂	8	#5	7'-8"	—
v	13	#4	7'-1"	—
Expansion Bolts 3/4"			Each	22
Concrete Box Culverts			Cu. Yd.	5.19
Reinforcement Bars			Pound	697

Cut a₂, h, h₁, and h₂ bars in the field to fit.

NOTES:

ANCHOR BOLTS, MEETING THE REQUIREMENTS OF ARTICLE 1006.09 OF THE STANDARD SPECIFICATIONS, SHALL EXTEND A MINIMUM OF 9 INCHES INTO THE NEW CONCRETE. EXPANSION SHIELDS SHALL PROVIDE A MINIMUM CERTIFIED PROOF LOAD OF 4080 POUNDS.

THE CONCRETE COLLAR SHALL NOT BE PAID FOR SEPARATELY WHEN CONSTRUCTED IN CONJUNCTION WITH PRECAST BOX CULVERTS, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRECAST CONCRETE BOX CULVERTS. THIS PRICE SHALL INCLUDE THE EXPANSION BOLTS, CONCRETE, REINFORCEMENT BARS AND THE REMOVAL OF SUCH PORTIONS OF THE EXISTING HEADWALLS AND WINGWALLS AS MAY BE REQUIRED. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.