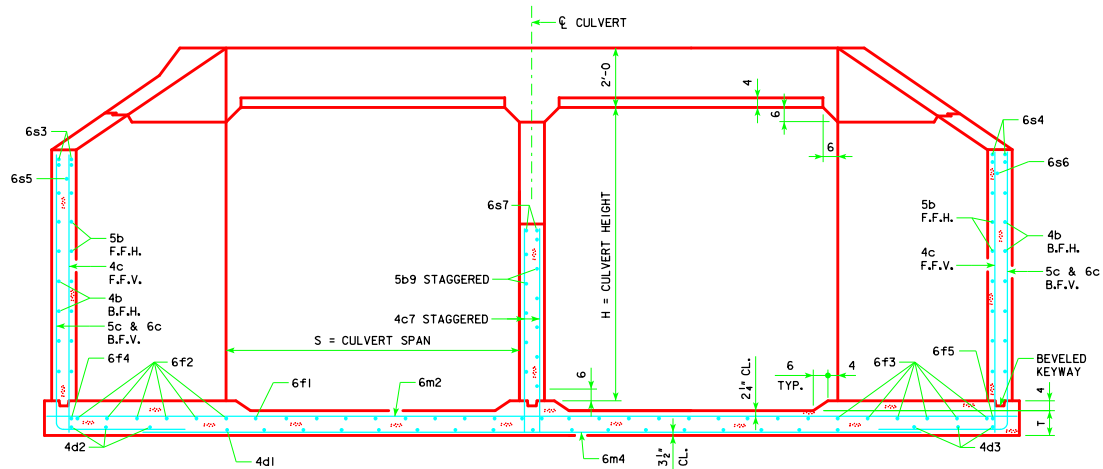
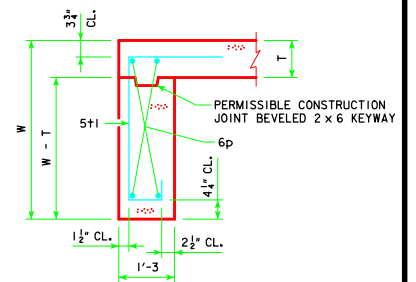


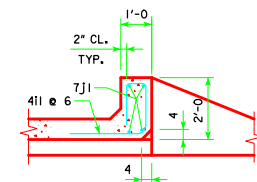
ENGLISH BEDSIGNEDTWINCULVERTS.DGN - TWH 45-5-12 - THIS SHEET ISSUED 04-12.



TYPICAL SECTION - NEAR CENTER OF APRON

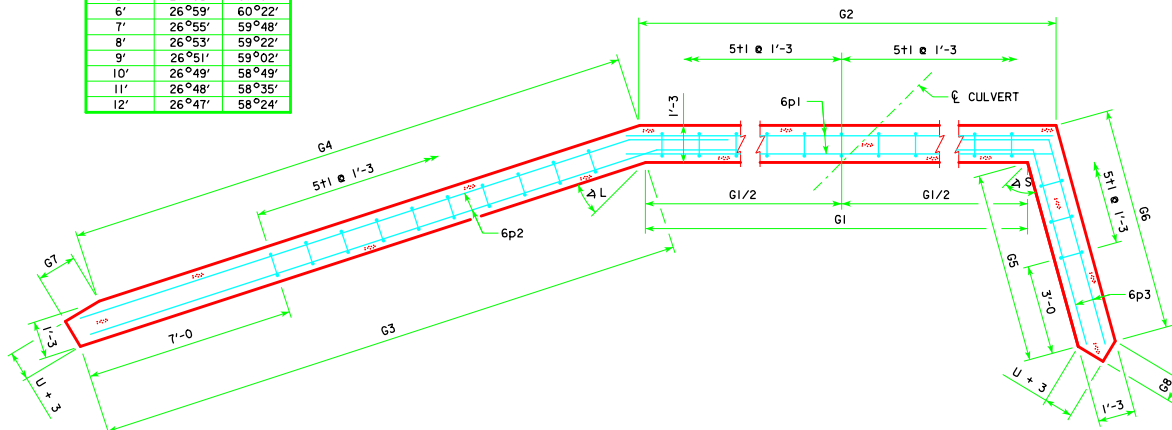


SECTION THRU CURTAIN WALL

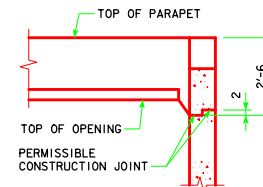


SECTION THRU PARAPET

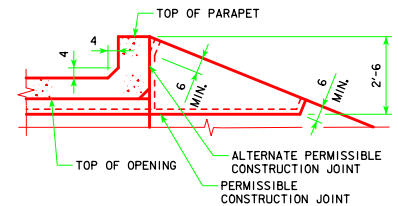
CULVERT HEIGHT (H)	ANGLE	
	Δ L	Δ S
4'	27°10'	62°06'
5'	27°03'	61°07'
6'	26°59'	60°22'
7'	26°55'	59°48'
8'	26°53'	59°22'
9'	26°51'	59°02'
10'	26°49'	58°49'
11'	26°48'	58°35'
12'	26°47'	58°24'



CURTAIN WALL PLAN



TOP OF WINGWALL DETAILS



NOTES:

1. SEE SHEET TWRCB G1-12 FOR GENERAL INFORMATION, SPECIFICATIONS, AND DESIGN STRESSES.
2. FOR DIMENSION TABLE SEE SHEET TWH 45-2-12.

LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division
		STANDARD DESIGN TWIN REINFORCED CONCRETE BOX CULVERTS APRIL, 2012
		FLARED WING HEADWALLS 45° SKEW
		TWH 45-5-12