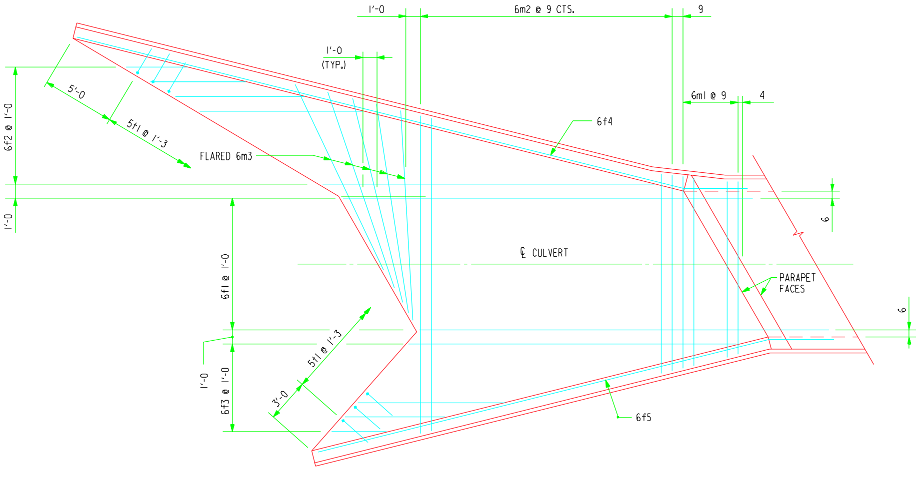
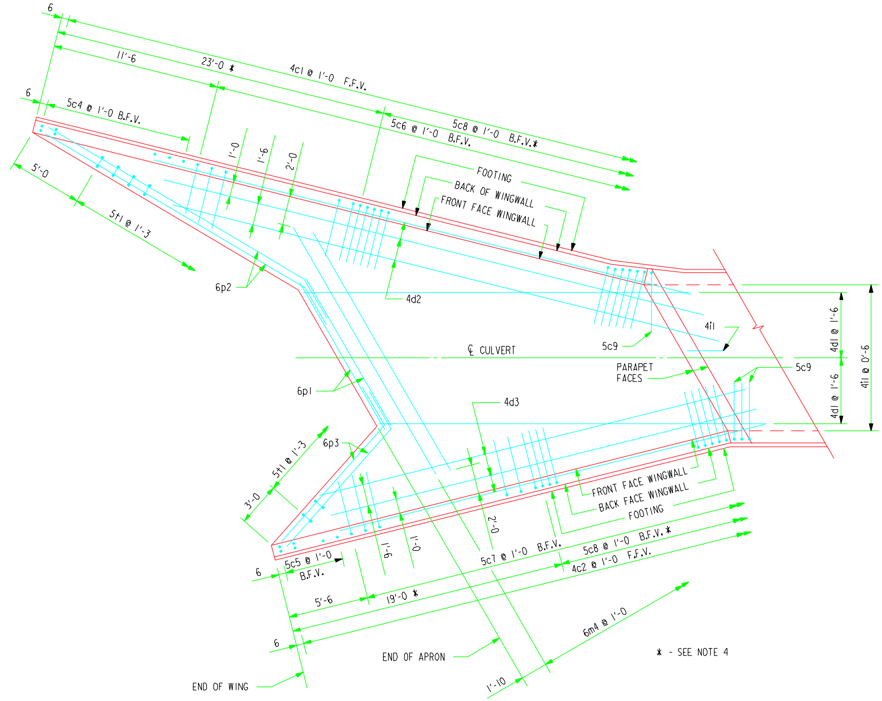


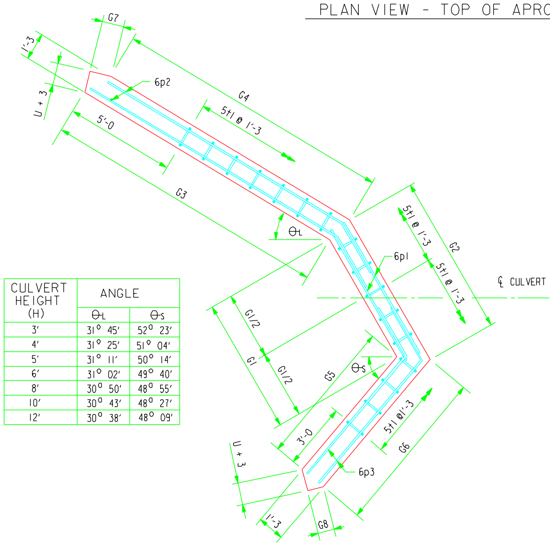
PLAN VIEW - TOP OF APRON REINFORCING BARS



PLAN VIEW - BOTTOM OF APRON REINFORCING BARS

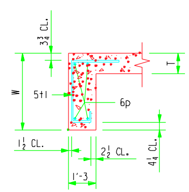
NOTES :

1. BAR SPACINGS AND POSITIONS SHOWN ARE SIMILAR FOR ALL SIZES OF HEADWALLS IN THIS STANDARD.
2. WINGWALL BARS CONSISTENTLY REFERENCED FROM END OF WING FOR ALL HEADWALLS.
3. TOP TRANSVERSE FLOOR BARS ARE REFERENCED APPROXIMATELY 4" FROM THE BACK OF THE PARAPET FOR ALL HEADWALLS.
4. THERE ARE NO 5c8 BARS IN THE 3',4',5' AND 6' HEIGHT HEADWALL.
5. FOR REINFORCING IN CURTAIN WALL SEE CURTAIN WALL DETAILS THIS DWG.
6. FOR DIMENSION TABLE SEE DWG. FWH 30-4-87.



CULVERT HEIGHT (H)	ANGLE	
	θ_L	θ_S
3'	31° 45'	52° 23'
4'	31° 25'	51° 04'
5'	31° 11'	50° 14'
6'	31° 02'	49° 40'
8'	30° 50'	48° 55'
10'	30° 43'	48° 27'
12'	30° 38'	48° 09'

PLAN



SECTION

CURTAIN WALL DETAILS

LATEST REVISION DATE :

APPROVED BY :

STANDARD DESIGN

FLARED WING HEADWALLS

FOR

REINFORCED CONCRETE BOX CULVERTS

HIGHWAY DIVISION

IOWA DEPARTMENT OF TRANSPORTATION

MAY , 1987

FWH 30-5-87

FWH305.S01

XXXXXXXXXXSYSTEMTIME XXXXXXXUSERNAME XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXDGNSPEC