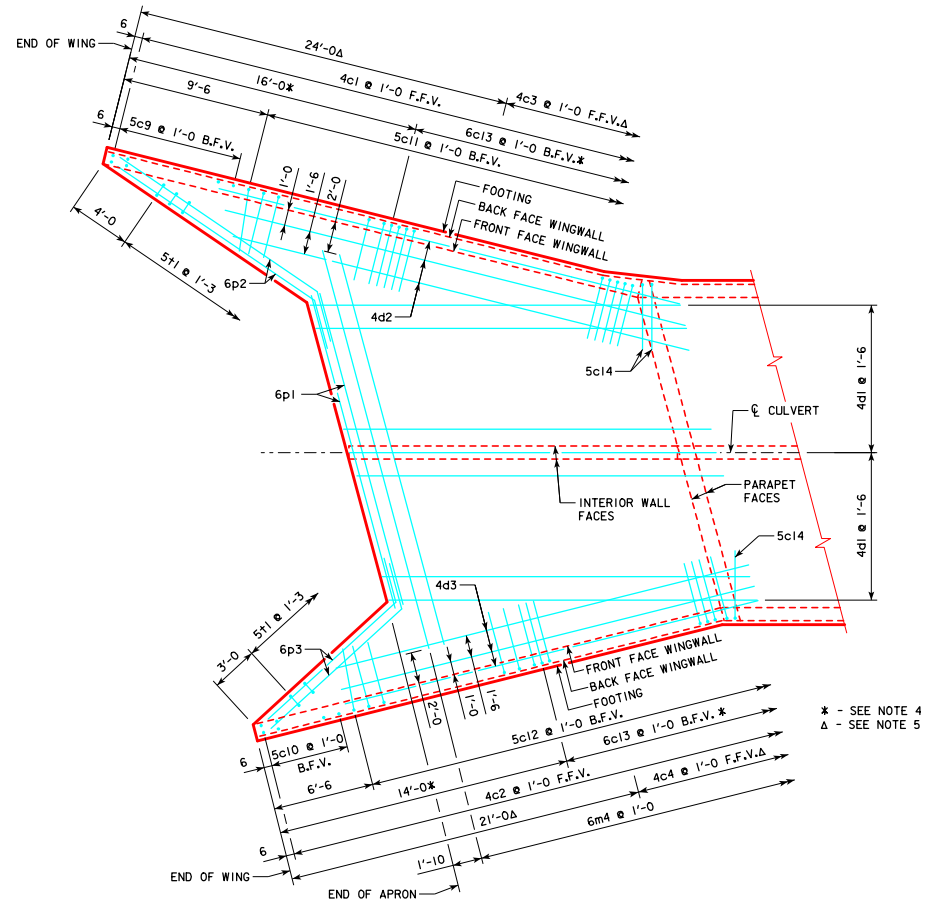


PLAN VIEW - TOP OF APRON REINFORCING BARS



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 6c13 BARS IN THE 4' & 5' HEIGHT HEADWALLS.
5. 4c3 & 4c4 BARS USE ONLY IN THE 9', 10', 11' & 12' HEIGHT HEADWALLS.
6. FOR DIMENSION TABLE SEE SHEET TWH 15-2-12.
7. FOR REINFORCING IN CURTAIN WALL SEE CURTAIN WALL DETAILS ON SHEET TWH 15-4-12.

\* - SEE NOTE 4  
 Δ - SEE NOTE 5

LATEST REVISION DATE  APPROVED BY BRIDGE ENGINEER 	IOWA Department of Transportation Highway Division STANDARD DESIGN <b>TWIN REINFORCED CONCRETE                  BOX CULVERTS</b> APRIL, 2012	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; text-align: center; padding: 5px;"> <b>FLARED WING                              HEADWALLS</b>                              15° SKEW                         </td> <td style="width: 40%; text-align: center; padding: 5px;"> <b>TWH 15-3-12</b> </td> </tr> </table>	<b>FLARED WING                              HEADWALLS</b> 15° SKEW	<b>TWH 15-3-12</b>
<b>FLARED WING                              HEADWALLS</b> 15° SKEW	<b>TWH 15-3-12</b>			