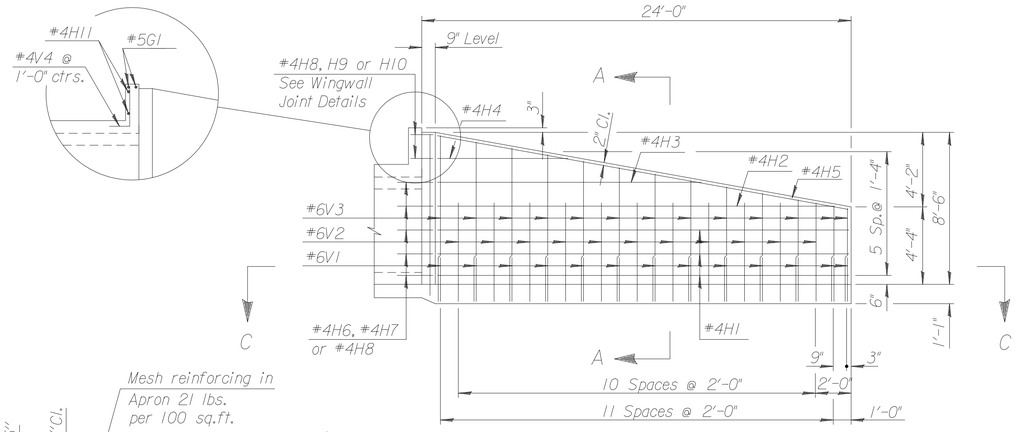
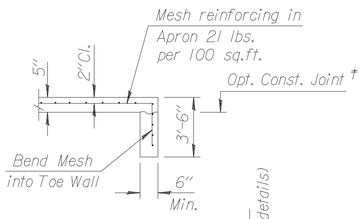
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-84004	2005	105	215

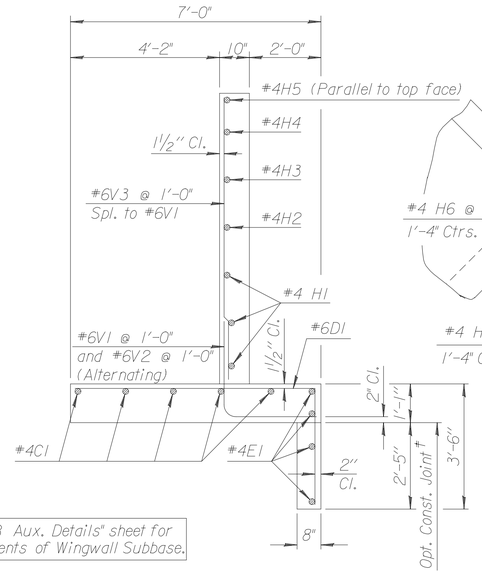


ELEVATION OF WINGWALL

(Backface Shown)

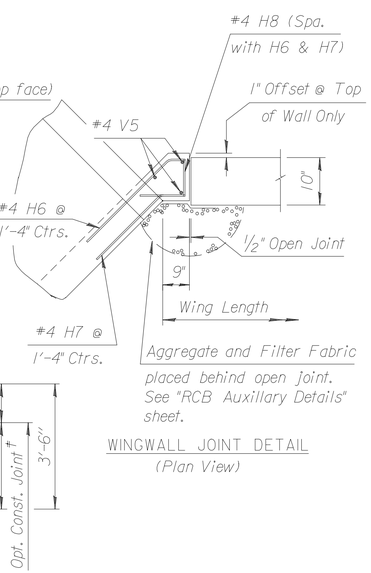


SECTION B-B



See "RCB Aux. Details" sheet for requirements of Wingwall Subbase.

SECTION A-A



WINGWALL JOINT DETAIL

(Plan View)

GENERAL NOTES

UNIT STRESSES: Grade 4.0 Concrete; f'c = 4,000 p.s.i.
Reinforcing Steel; fy = 60,000 p.s.i.

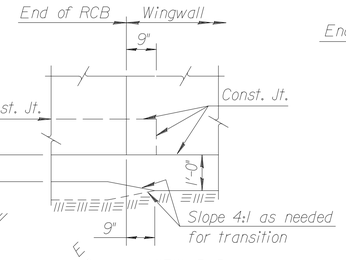
CONCRETE: Grade 4.0 Concrete shall be used throughout. Bevel all exposed edges with a ¾inch triangular moulding.

REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. Welded Wire Fabric shall conform to ASTM A185. All dimensions relative to reinforcing steel shall be to center-line of bar unless otherwise noted.

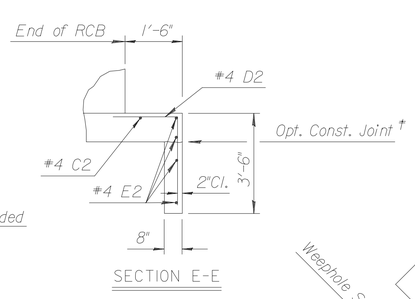
QUANTITIES: Wingwall Quantities include all quantities outside the neat lines of the box, excluding the hubguard.

APRON: A 5" concrete slab shall be constructed between the downstream wings in locations subject to scour only when specified on the plans or by the Engineer. Wire Reinforcing mesh shall be electrically welded and shall be composed of 6 x 6-W1.4 x W1.4 welded wire fabric and shall be classified as pounds of reinforcing.

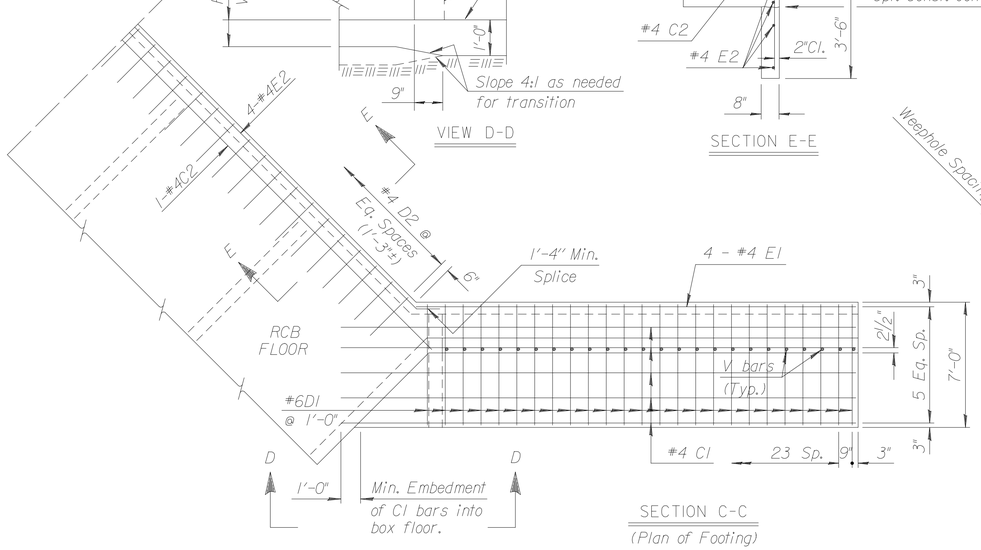
FOUNDATION AND BACKFILL MATERIAL: Soils judged as high plasticity clays, fat clays, expansive clays, or organic clays are unsuitable for foundation and/or backfill material for wingwalls and will not be used. Where these conditions exist, Foundation Stabiliation and/or Granular Backfill (Wingwalls) shall be used as determined by the Engineer. See "RCB Auxiliary Details" sheet for additional details.



VIEW D-D

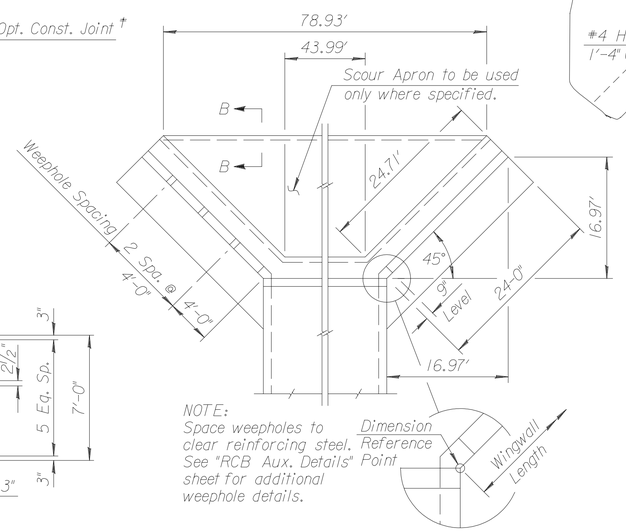


SECTION E-E



SECTION C-C

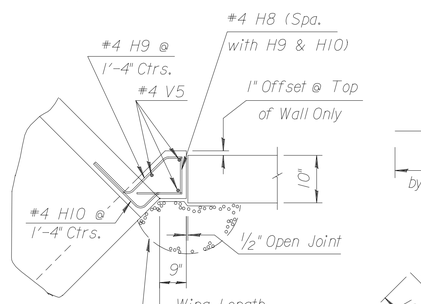
(Plan of Footing)



WING DIMENSIONS FOR NORMAL BOX

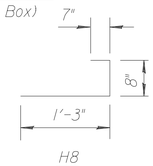
(4:1 Embankment Slope)

NOTE:
EF = Each Face
NS = Near Side
FS = Far Side
CJ = Const. Joint

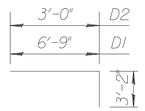


WINGWALL JOINT DETAIL

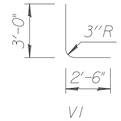
(Plan View above Box)



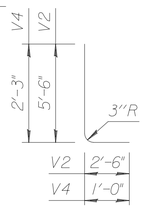
H8



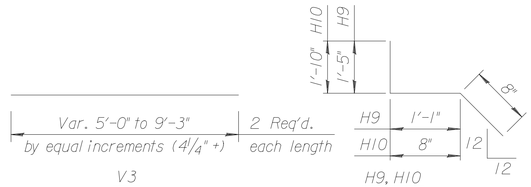
D1,D2



V1

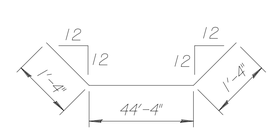


V2, V4

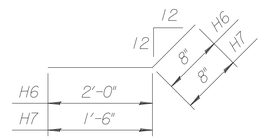


V3

H9, H10



E2



H6, H7

Quantities listed below are included in the Summary of Quantities shown on the RCB details.

WINGWALL QUANTITIES (One End Only)	
Concrete (Grade 4.0):	
Wingwalls	31.76 CY.
Apron	0.0 CY.
Soil Saver	0.0 CY.
Reinforcing Steel	2599.87 Lbs.
Welded Wire Fabric	0 Lbs.

BENDING DIAGRAM

(All dimensions are out to out of bars.)

NOTE: Reinforcing Bar List is for both wings at one end of box only.

* See Bending Diagram

	Mark	#4C1	#4C2	#6D1	#4D2	#4E1	#4E2	#4H1	#4H2	#4H3	#4H4	#4H5	#4H6	#4H7	#4H8	#4H9	#4H10	#4H11	#6V1	#6V2	#6V3	#4V4	#4V5		
0° Skew	Number	10	2	50 *	36 *	8	4 *	6	2	2	2	2	10*	10 *	14 *	4	4	4	26*	22*	26	50	6		
	Length	28'-9"	25'-6"	9'-11"	6'-2"	24'-7"	47'-0"	23'-0"	22'-2"	14'-9"	7'-3"	23'-4"	2'-8"	2'-2"	2'-6"	3'-2"	3'-2"	25'-0"	5'-6"	8'-0"	*	3'-3"	9'-0"		

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

Sta. 83+54.00

9 ft Rise (0°SKEW)

~~BR 10,00,09~~ Sedgwick Co.

FHWA APPROVAL	6-5-91	APP'D	KENNETH F. HURST
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK.

Plotted By: ras | Plot Location: $UNIT$
File: i:/2004/04219/FINAL/04219-000_C-5-9'x6'Wing(EKNV7).dgn
Plot Date: 9-27-2005