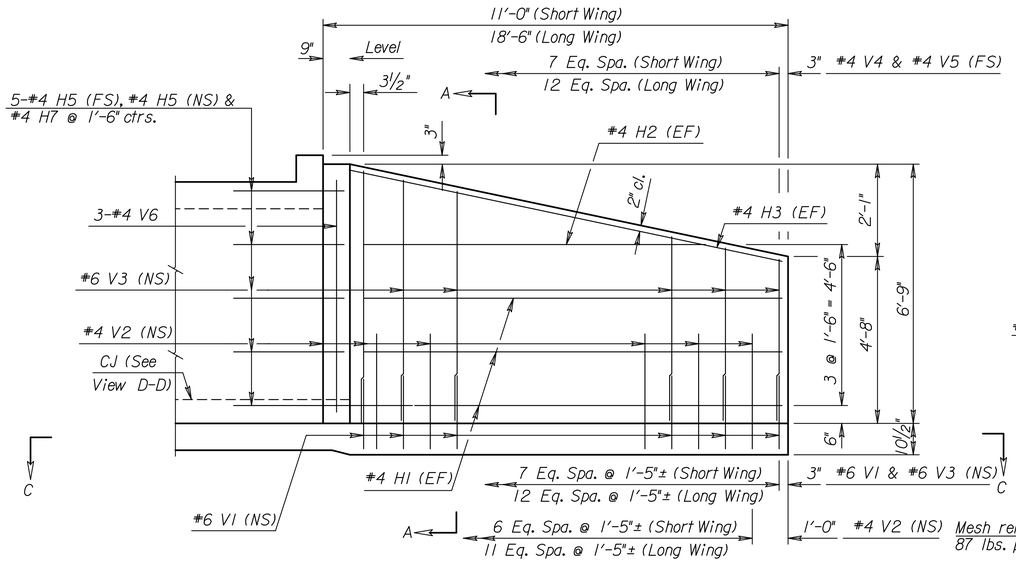
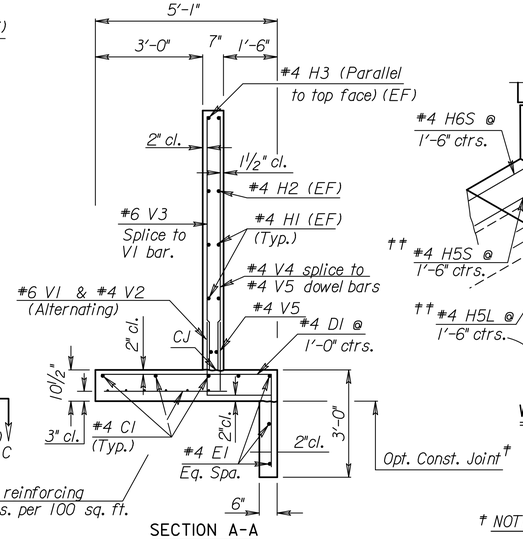
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|
| KANSAS | 15120-001 | 2015 | 30 | 36 |

## GENERAL NOTES

DESIGN SPECIFICATION: AASHTO LRFD Spec., 2007 Ed., 2009 Int.
DESIGN LOADING: HL93
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 ¾" 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. Wire Reinforcing mesh shall be electrically welded and shall be composed of 6 x 6- W6 x W6 welded wire fabric and shall be classified as pounds of reinforcing and included in the total quantity for the bid item Reinforcing Steel (Gr. 60)
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 down-stream wings in locations subject to scour only when specified on the plans or by the Engineer.
BACKFILL MATERIAL: Use Granular Backfill material meeting the requirements of SB-1, SB-2, SCA-2, SCA-3 or SCA-5. Backfill all wings to limits shown on the "RCB Auxiliary Sheet".
FILTER FABRIC: Separate in-situ material from granular backfill with approved filter fabric complying with Section 1710. Filter Fabric is subsidiary to "Granular Backfill".
FOUNDATION STABILIZATION: Use Foundation Stabilization on all wingwalls unless founded on rock or granular material.

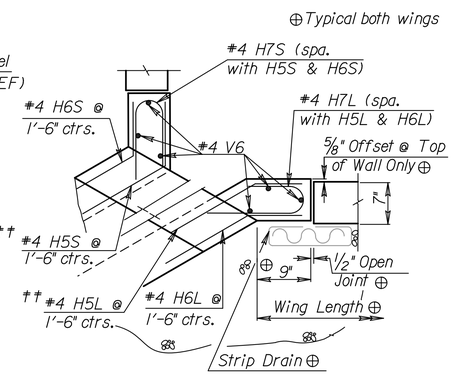



ELEVATION OF WINGWALL
(Backface Shown)




SECTION A-A

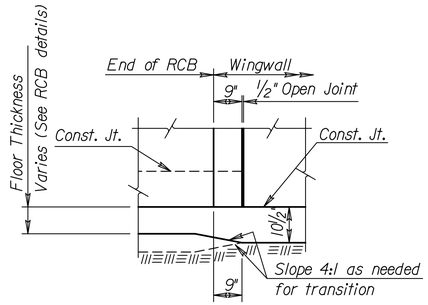
See "RCB Aux. Details" sheet for additional requirements.



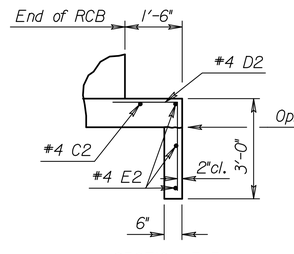

WINGWALL JOINT DETAIL
(Plan View)

† NOTE: Const. Jt. may be used at Contractor's option when approved by the Engineer. DI bars or mesh may be spliced thus: ⌐¬ Minimum overlap shall be 1'-3". No increase in quantities or cost shall be allowed when Contractor elects this option.

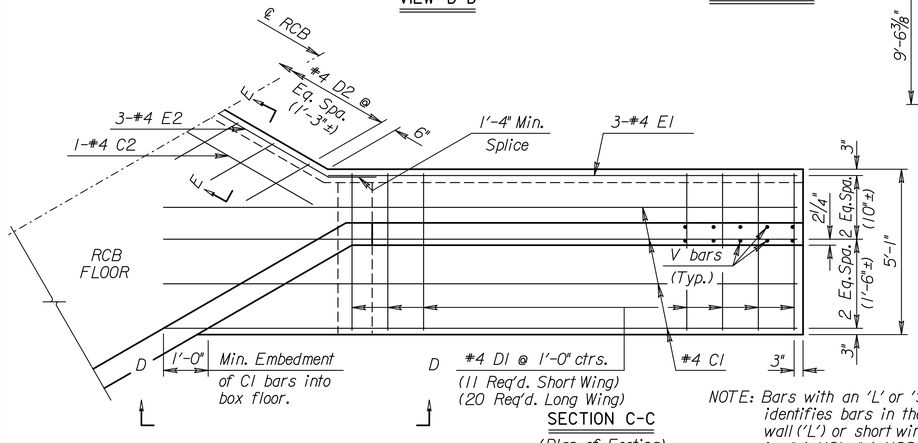
NOTE:
EF = Each Face
NS = Near Side
FS = Far Side
CJ = Const. Joint




VIEW D-D

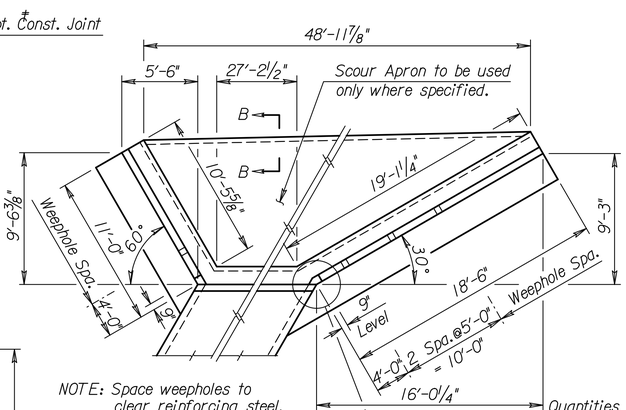



SECTION E-E

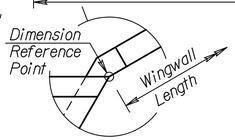



SECTION C-C
(Plan of Footing)

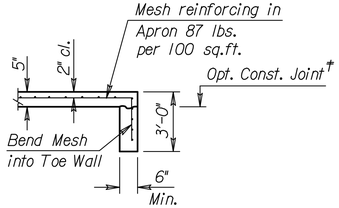
NOTE: Bars with an 'L' or 'S' designation identifies bars in the long wing-wall ('L') or short wingwall ('S'); ie. #4 H2L, #4 H2S, etc.




NOTE: Space weepholes to clear reinforcing steel. See "RCB Aux. Details" sheet for additional weephole details.

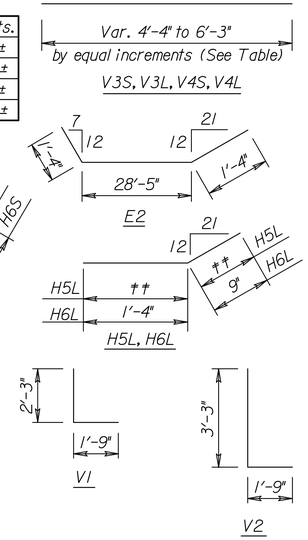



WING DIMENSIONS FOR 30° SKEWED BOX
(3½:1 Embankment Slope)




SECTION B-B

| Bar | Incrmts. |
|---|---|
| V3S | 3¼"± |
| V3L | 1⁵⁄₁₆"± |
| V4S | 3¼"± |
| V4L | 1⁵⁄₁₆"± |




BENDING DIAGRAM
(All dimensions are out to out of bars.)
†† Bend in Field

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

WINGWALL QUANTITIES (One End Only)

| | Foundation Stabilization | | Concrete (Gr. 4.0) | |
|---|---|---|---|---|
| Wingwalls | 4.02 | (C.Y.) | 13.46 | (C.Y.) |
| Apron | 0.00 | (C.Y.) | 0.00 | (C.Y.) |
| Soil Saver | 0.00 | (C.Y.) | 0.00 | (C.Y.) |

| | | |
|---|---|---|
| Reinforcing Steel (Gr. 60) | 1188 | Lbs. |
| Welded Wire Fabric (Wings) | 130 | Lbs. |
| Welded Wire Fabric (Apron) | 0 | Lbs. |
| Granular Backfill (Wingwalls) | 36.00 | C.Y. |
| Filter Fabric (subsidiary) | 37.00 | S.Y. |

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

✳See Bending Diagram

| 30° Skew | Mark | #4 C1S | #4 C1L | #4 D1 ✳ | #4 E1S | #4 E1L | #4 C2 | #4 D2 ✳ | #4 E2 ✳ | #6 V1 ✳ | #4 V2 ✳ | #6 V3S | #6 V3L | #4 H1S | #4 H1L | #4 H2S | #4 H2L | #4 H3S | #4 H3L | #4 H5S ✳ | #4 H5L ✳ | #4 H6S | #4 H6L | #4 H7S ✳ | #4 H7L ✳ | #4 V4S | #4 V4L | #4 V5 | #4 V6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number | 4 | 4 | 31 | 3 | 3 | 1 | 23 | 3 | 21 | 19 | 8 | 13 | 6 | 6 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 13 | 21 | 6 |
| | Length | 13'-6" | 26'-0" | 7'-5" | 10'-3" | 19'-0" | 30'-0" | 5'-8" | 31'-1" | 4'-0" | 5'-0" | ✳ | ✳ | 9'-10" | 17'-4" | 7'-5" | 13'-0" | 10'-0" | 17'-4" | 2'-2" | 2'-0" | 2'-0" | 2'-1" | 1'-8" | 2'-0" | ✳ | ✳ | 2'-1" | 7'-0" |

| NO. | DATE | REVISIONS | BY | APP'D |
|---|---|---|---|---|
| 3 | | | | |
| 2 | | | | |
| 1 | | | | |

KANSAS DEPARTMENT OF TRANSPORTATION
Br. No. N/A-87-N/A(000) Sta. 10+Wing
EAST FLARED WINGWALLS
6 ft Rise (30*SKEW) (10* ROT.)
~~BR 10.30.06~~ Sedgwick Co.

| FHWA APPROVAL | | 10-20-10 | APP'D | Terry L. Fleck |
|---|---|---|---|---|
| DESIGNED | DETAILED | | QUANTITIES | CADD |
| DESIGN CK. | DETAIL CK. | | QUAN. CK. | CADD CK. |

REGISTERED PROFESSIONAL ENGINEER CHARLES W. THOMPSON 23458 KANSAS 11/02/2015

Plotted By: mlb | Plot Location:
File: U:\Wichita-Civil\2015\15120\001\Trans\Bridge\DGN_Project\030_3-8x6(Wing1)_EAST.dgn
Plot Date: 11/2/2015