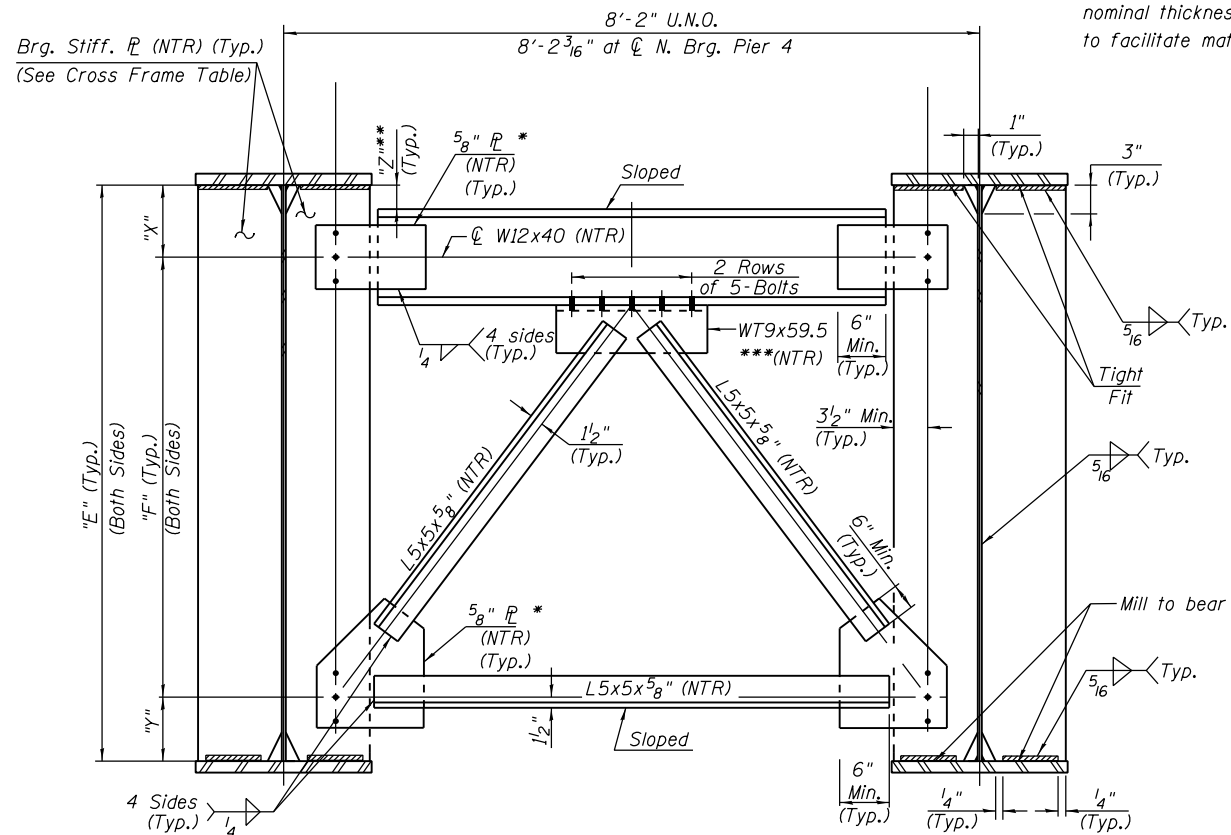


INTERIOR CROSS FRAME - Type 3
(270 Required)

- * Bend flange if required.
- ** Contractor to coordinate with Modular Joint Manufacturer.
- *** Alternate WT shapes utilizing 5/8" nominal thickness are permitted to facilitate material acquisition.



END CROSS FRAME - Type 4
(30 Required)

CROSS FRAME TABLE

Name	Type	Quantity	"E"	"F"	"X"	"Y"	"Z"	Connection flange or Brg. flange
CF301	4	10	5'-10"	3'-11 1/2"	1'-4 1/2"	6"	10 1/2"	1" x 8 1/2"
CF302	3	5	5'-10"	4'-10"	6"	6"	---	1" x 10 1/2"
CF303	3	75	5'-10"	4'-10"	6"	6"	---	0 5/8" x 8 1/2"
CF401	4	10	7'-6"	5'-8"	1'-4"	6"	10"	1" x 8 1/2"
CF402	3	5	7'-6"	6'-6"	6"	6"	---	1 1/2" x 10 1/2"
CF403	3	110	7'-6"	6'-6"	6"	6"	---	0 5/8" x 8 1/2"
CF501	4	10	5'-4"	3'-5 1/2"	1'-4 1/2"	6"	10 1/2"	1" x 8 1/2"
CF502	3	5	5'-4"	4'-4"	6"	6"	---	1" x 9 1/2"
CF503	3	70	5'-4"	4'-4"	6"	6"	---	0 5/8" x 8 1/2"

Notes:

1. See Sheets S-83, S-87 & S-91 for location of girder cross frames.
2. AASHTO M270 Grade 50 steel shall be used for all cross frames, connection plates, and bearing stiffeners, unless otherwise noted.
3. Intermediate transverse stiffeners shall use the same size clips & fillet welds as connection plates. Likewise, jacking stiffeners shall use the same size clips & fillet welds as the bearing stiffeners.
4. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
5. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.
6. Bolt spacing shall be 3" min. & edge distances shall be 2" min.
7. Field reaming shall not exceed that permitted in Article 505.08(l) of the Standard Specifications. If any field reaming is required, two hardened washers are required for each oversized bolt hole.
8. Erection shall be accomplished by a steel erection contractor or sub-contractor certified as an Advanced Certified Steel Erector (ACSE) by the American Institute of Steel Construction (AISC). See special provision for "Erection of Complex Steel Structures".
9. All cross frames between girders shall be installed with erection pins and bolts in accordance with erection plan submitted to and approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
10. The Contractor shall either:
 - a. Ream cross frame connection holes during shop assembly, or
 - b. Provide detailing and fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08(l) of the Standard Specifications.

0161705-60W28-5101-xFrame1.dgn



USER NAME = floresg
PLOT SCALE = N.T.S.
PLOT DATE = 5/7/2014

DESIGNED - DD
CHECKED - ATB
DRAWN - DD
CHECKED - ATB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS FRAME DETAILS II
STRUCTURE NO. 016-1705

SHEET NO. S-101 OF S-165 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-01OR	COOK	747	417
CONTRACT NO. 60W28			ILLINOIS FED. AID PROJECT	