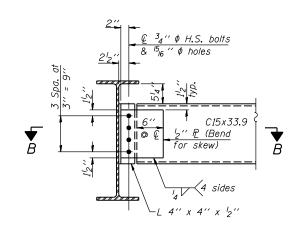


SECTION B-B



-New or Existing Beams-© Beam or girder web and © C15 x 40 at end of channel (See Note 3) 4" @ Q € C15 X 40 (See Note 3) 0 0 $\frac{Q}{8}$ $\frac{3}{16}$ $\frac{3}{16}$ $\frac{9}{16}$ H.S. bolts 2 √ 4 Sides 6"<u>X 4" X ¹2" or</u> bent P when placed along skew INTERIOR DIAPHRAGM - D2

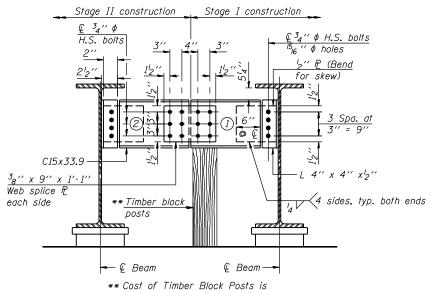
(52 Required)

-New or Existing Beams- Beam or girder web and € C12 x 25 at end of channel (See Note 4) € C12 X 25 (See Note 4) $\frac{Q}{8}$ $\frac{3}{16}$ $\frac{3}{16}$ $\frac{9}{16}$ H.S. bolts √ 4 Sides 6" X 4<u>" X ¹2" or</u> bent P when placed along skew

INTERIOR DIAPHRAGM - D3

(58 Required)

END DIAPHRAGM-D1 (24 Required)

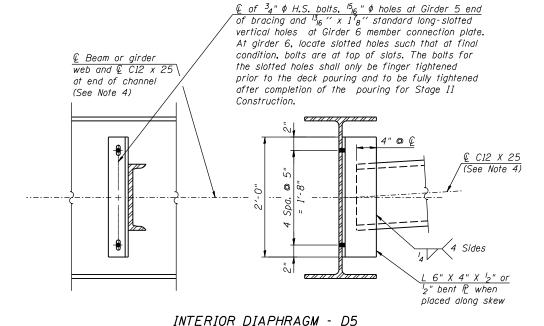


included with Structural Steel.

END DIAPHRAGM-D4 (2 Required)

END DIAPHRAGM STAGE CONSTRUCTION SEQUENCE

- 1.) Order diaphragm in two sections.
- 2.) Attach section (1) of diaphragm to beam
- 3.) Place timber block posts between section (1) of diaphragm and abutment bearing section.
- 4.) Attach section ② of diaphragm to both beam—and section ① of diaphragm during stage II construction with splice plates.
- 5.) Remove timber block posts.



NOTES

- 1. Work this sheet with Sheets S47, S49 and S50.
- 2. Two hardened washers are required for each set of oversized holes.
- 3. Alternate C15x50 diaphragm channels are permitted for D2 diaphragms to facilitate material acquisition. Calculated weight of structural steel is based on C15x40. The alternate, if utilized, shall be provided at no extra cost to the Department.
- 4. Alternate C12x30 diaphragm channels are permitted for D3 and D5 diaphragms to facilitate material acquisition. Calculated weight of structural steel is based on C12x25. The alternate, if utilized, shall be provided at no extra cost to the Department.
- 5. 15 in diameter holes shall be field drilled into existing Beams 1 & 10 to connect angles for Diaphragms D2 & D3.

GRÆEF 8501 W. Higgins Road; Suite 280 Chicago, Illinois 60631; (773) 399-0112

USER NAME	=	DESIGNED	-	J.Z.	6/15/2012	REVISED	-
		CHECKED	-	J.A.Z.	6/15/2012	REVISED	-
PLOT SCAL	E =	DRAWN	-	E.E.J.	6/15/2012	REVISED	-
PLOT DATE	=	CHECKED	-	J.Z.	6/15/2012	REVISED	-

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

(1 Required)

DIAPHRAGM DETAILS STRUCTURE NO. 045-0039							
SHEET NO S48 O	F 116 SHEETS						

г		ILLINOIS FED. A	IN PROJECT		
_[CONTRACT	NO. 6	50133
	349	(10 & 11VB) R-3	KANE	507	269
	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.