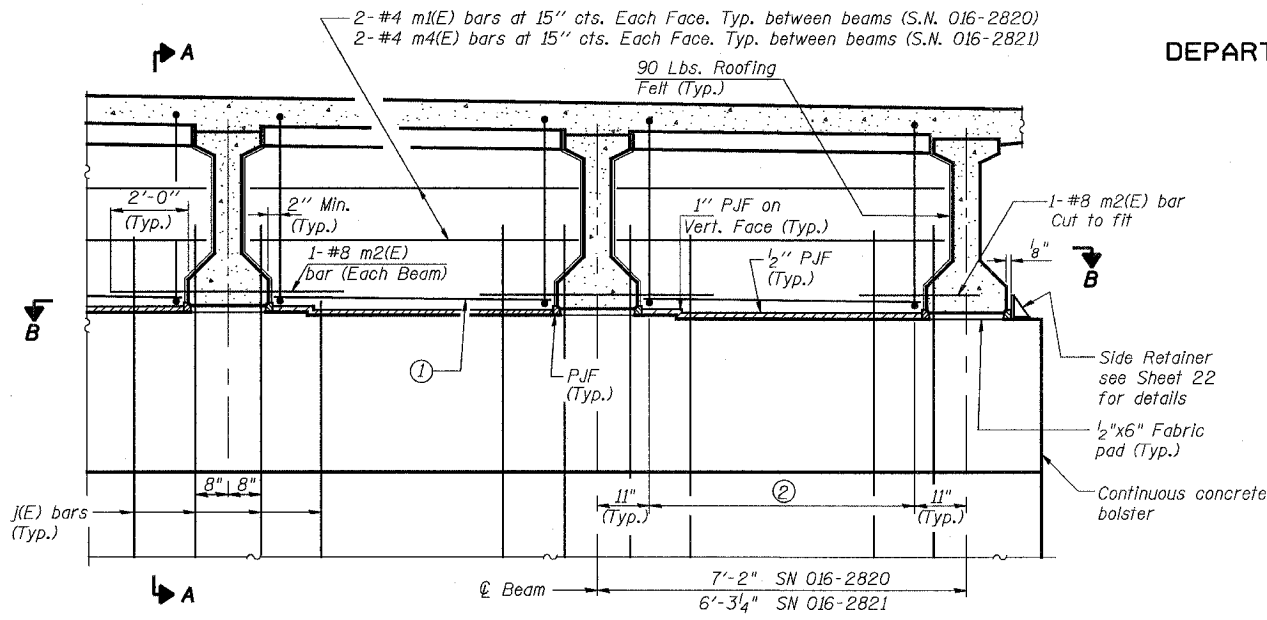


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 351	2008-001VB	COOK	579	431
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT-		

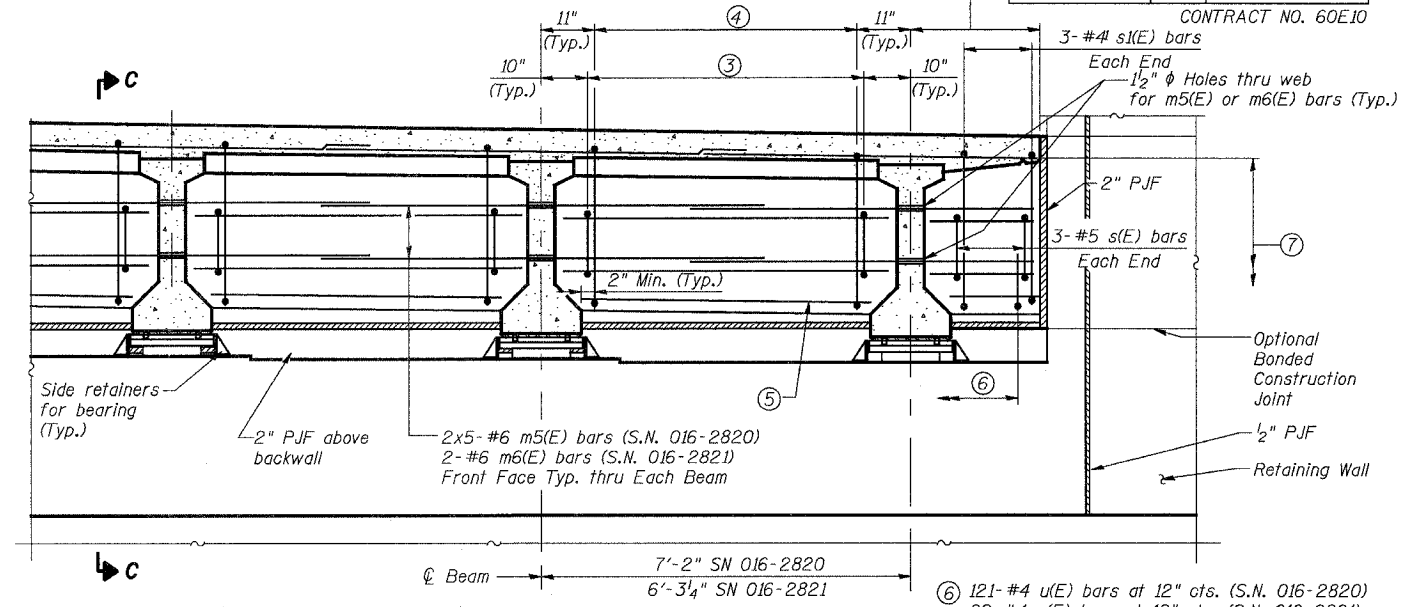
SHEET NO. 21
54 SHEETS

CONTRACT NO. 60E10



DIAPHRAGM AT PIER

- ① 1- #6 m(E) bar Each Face. Typ. between beams (16 locations S.N. 016-2820)
1- #6 m3(E) bar Each Face. Typ. between beams (4 locations S.N. 016-2821)
- ② 6- #4 s2(E) bars at 12" cts. Typ. between beams (16 locations S.N. 016-2820)
5- #4 s2(E) bars at 12" cts. Typ. between beams (4 locations S.N. 016-2821)

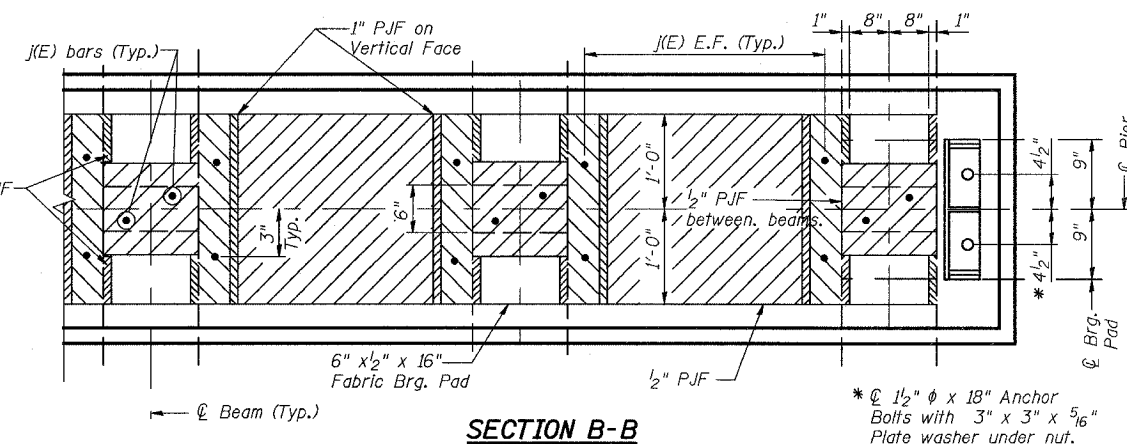


DIAPHRAGM AT ABUTMENT
(2 Required)

- ③ 6- #5 s(E) bars at 12" cts. Typ. between beams (16 locations S.N. 016-2820)
5- #5 s(E) bars at 12" cts. Typ. between beams (4 locations S.N. 016-2821)
- ④ 6- #4 s1(E) bars at 12" cts. Typ. between beams (16 locations S.N. 016-2820)
5- #4 s1(E) bars at 12" cts. Typ. between beams (4 locations S.N. 016-2821)
- ⑤ 2- #6 m(E) bars Front Face Typ. between beams (16 locations S.N. 016-2820)
2- #6 m3(E) bars Front Face Typ. between beams (4 locations S.N. 016-2821) (See Section C-C for spacing)

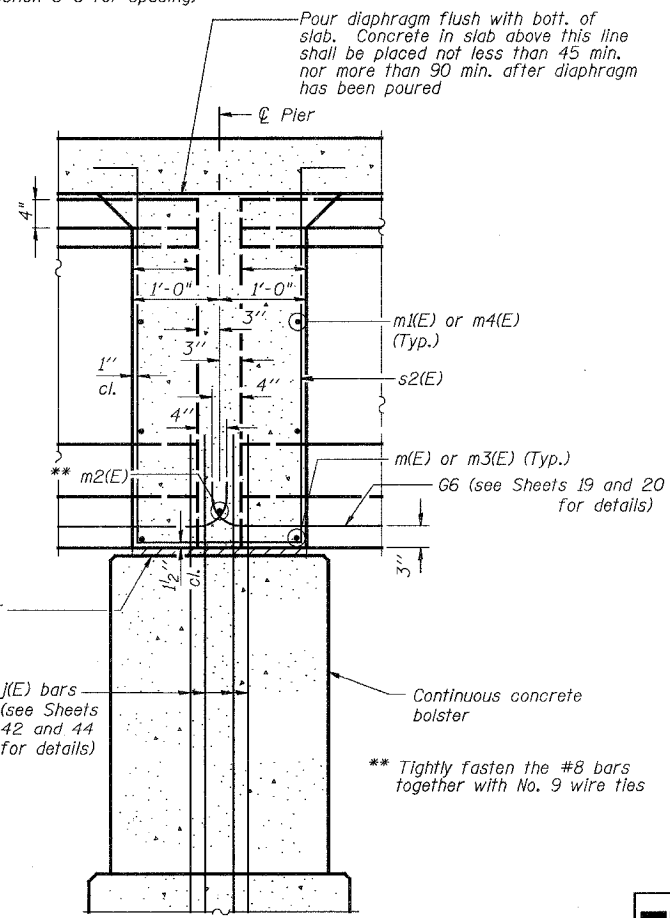
- ⑥ 121- #4 u(E) bars at 12" cts. (S.N. 016-2820)
29- #4 u(E) bars at 12" cts. (S.N. 016-2821)
- ⑦ 12x5- #6 m5(E) bars (S.N. 016-2820)
12- #6 m6(E) bars (S.N. 016-2821) (See Section C-C for spacing)

** v(E) (see Sheets 13 through 15 for details)
Bar Splicers (E) for #5 bars @ 12" cts.

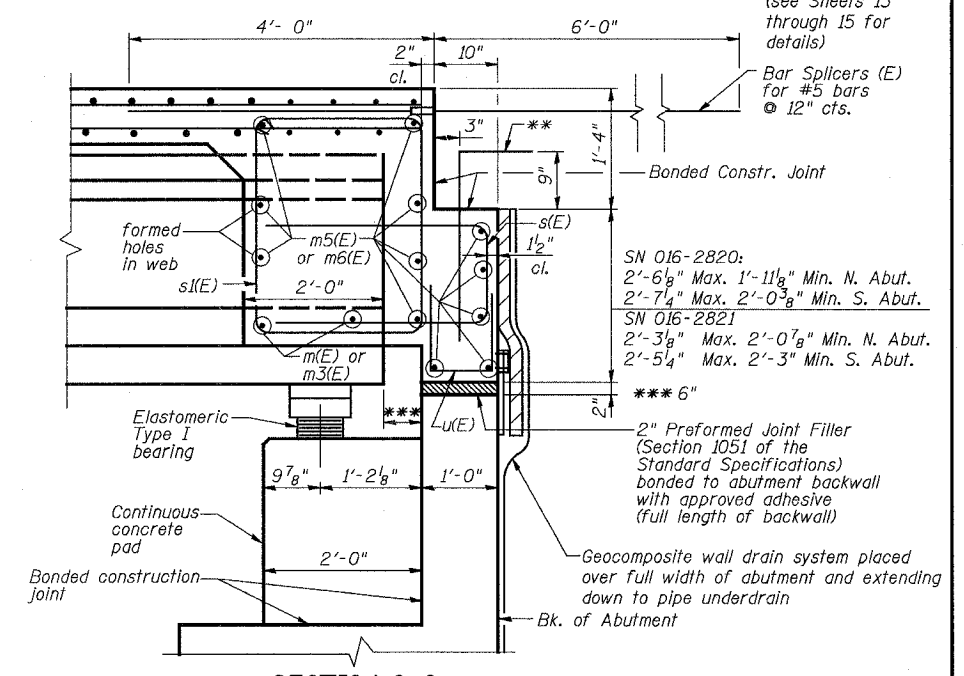


SECTION B-B

- Notes:
- Work this Sheet with Sheets 13 through 16, 19 and 20.
 - For bar bend details and Bill of Materials see Sheet 16.
 - See Sheets 34 for drainage detail behind backwall.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus 2 x 5- #6 etc. indicates 2 lines of bars with 5 lengths per line.
 - Concrete in diaphragm is included with Concrete Superstructure.
 - The s(E), s1(E) and s2(E) bars shall be placed at right angles to the beams.
 - See Sheet 47 for anchor bolt details.
 - Min. Lap Length for #6 bar is 2'-9".
 - Cost of preformed joint fillers, fabric pad and 90 lb roofing felt is included in "Concrete Superstructure".



SECTION A-A



SECTION C-C

3/13/2008 2:52:39 PM G:\17049\969\structures\2820_w_hwi\dwg\ref\main\plans\21-diaphragm.dwg

DESIGNED	EV
CHECKED	NPP
DRAWN	EV
CHECKED	NPP

URS
100 South Wacker Drive,
Suite 500
Chicago, IL 60606
(312) 939-1000

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US RTE 6 FROM I-294 TO IL RTE 1
DIAPHRAGM DETAILS

STRUCTURES FOR CN INTERMODAL
YARD VEHICLES OVER U.S. RTE. 6 (159TH STREET)

STATION 95+02.14 STRUCTURE NOS. 016-2820 & 016-2821
SCALE: N.T.S. DATE: 9/21/2008