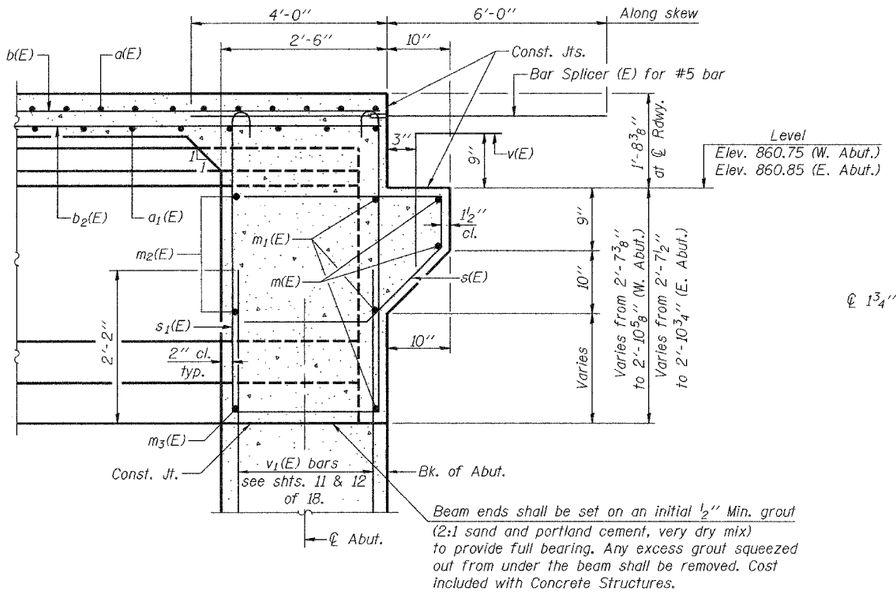
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		144
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
18 SHEETS

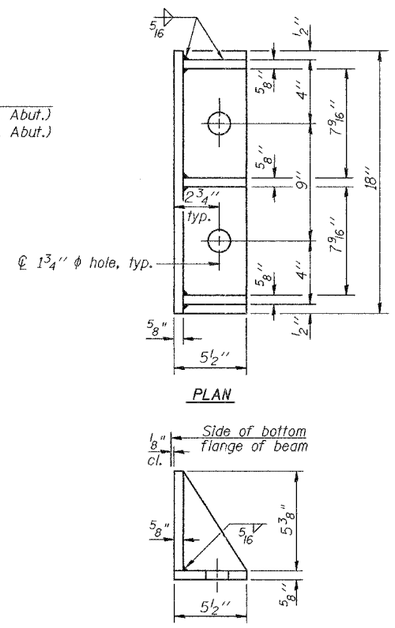
Contract #64800



Beam ends shall be set on an initial 1/2" Min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

SECTION A-A

Dimensions at Rt. L's to abutments, except as shown.

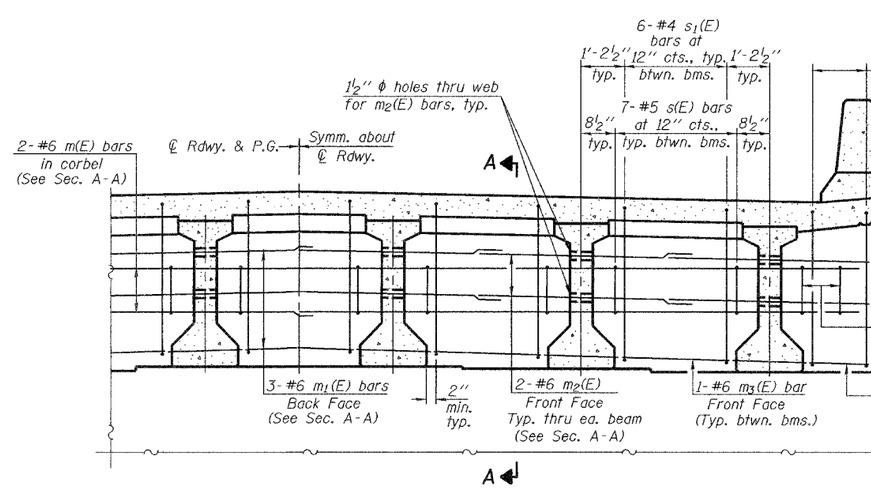


PLAN

ELEVATION

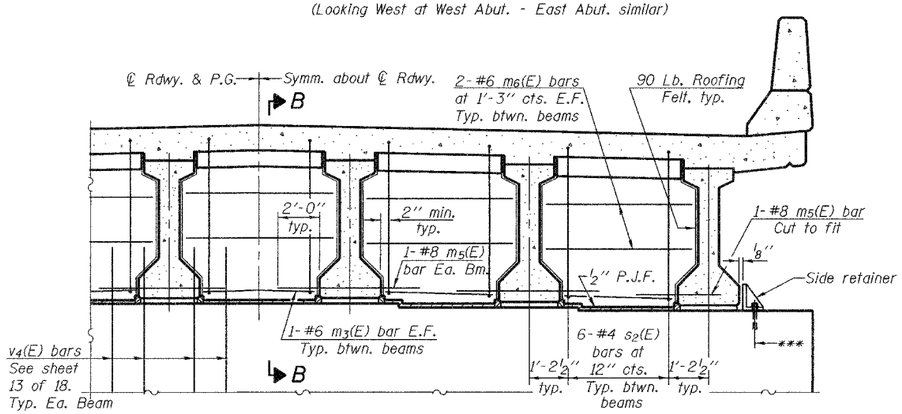
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



DIAPHRAGM ELEVATION AT ABUTMENT

(Looking West at West Abut. - East Abut. similar)

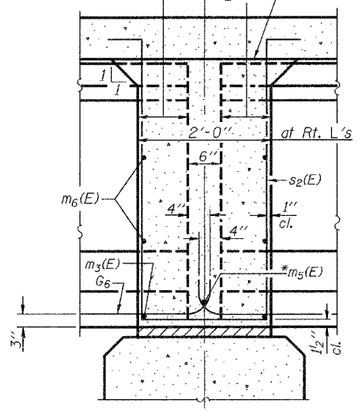


DIAPHRAGM ELEVATION AT PIER

(Looking West)

Roofing felt shall be bonded to side of beam embedded into diaphragm.

Pour diaphragm flush with bott. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.



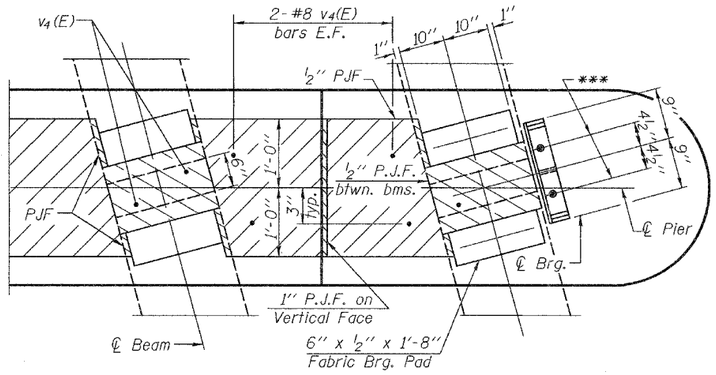
SECTION B-B

(At Pier, Dimensions along ℄ beam, except as shown).

*Tightly fasten the #8 bars together with No. 9 wire ties.

MIN. BAR LAP

#6 bars = 2'-9"



FIXED PIER DETAIL

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 6 of 18.

Concrete in diaphragm is included with Concrete Superstructure on sheet 6 of 18.

For details of bars s(E), s_1(E) & s_2(E) see sheet 6 of 18.

The s(E), s_1(E) & s_2(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

Cost of 90 Lb. roofing felt is included with Concrete Superstructure.

The side retainer shall be galvanized after shop fabrication according to AASHTO M 111. Cost of side retainer shall be included with Concrete Structures.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M134 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

***℄ 1 1/2" ϕ x 18" Anchor bolts (ASTM F1554 Grade 36) with 3" x 3" x 5/16" ℄ washer under nut.

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

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