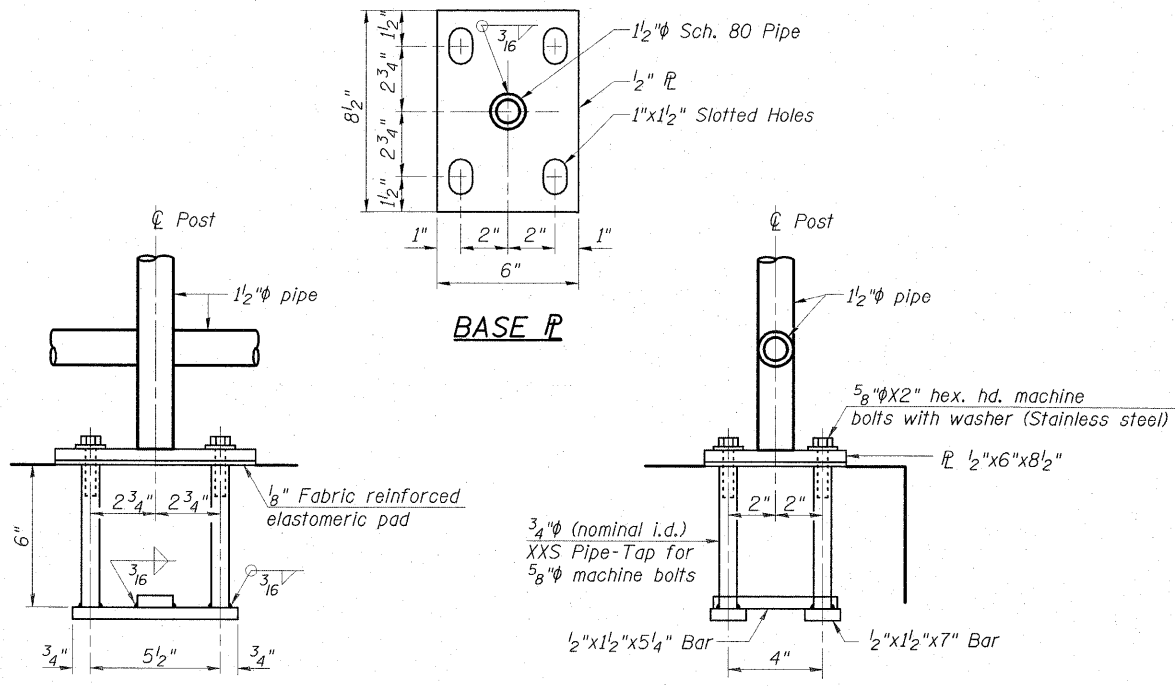


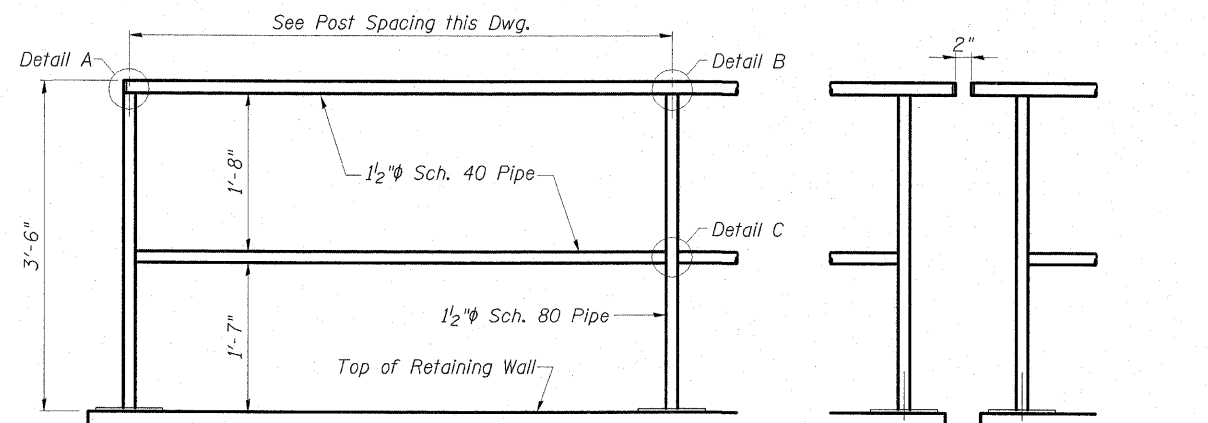
0160064-74149-17-RailPipe.dgn 7/31/2009 12:36:35 PM HAS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



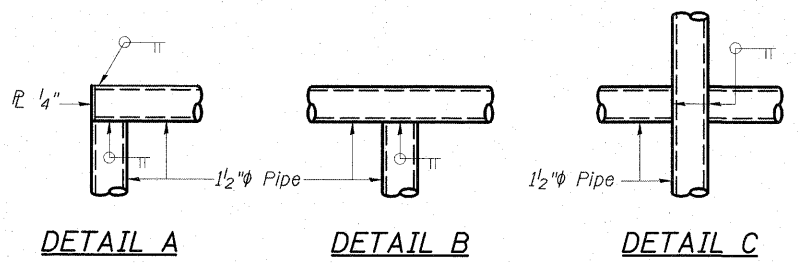
ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



TYPICAL ELEVATION

ELEVATION AT EXPANSION JOINT



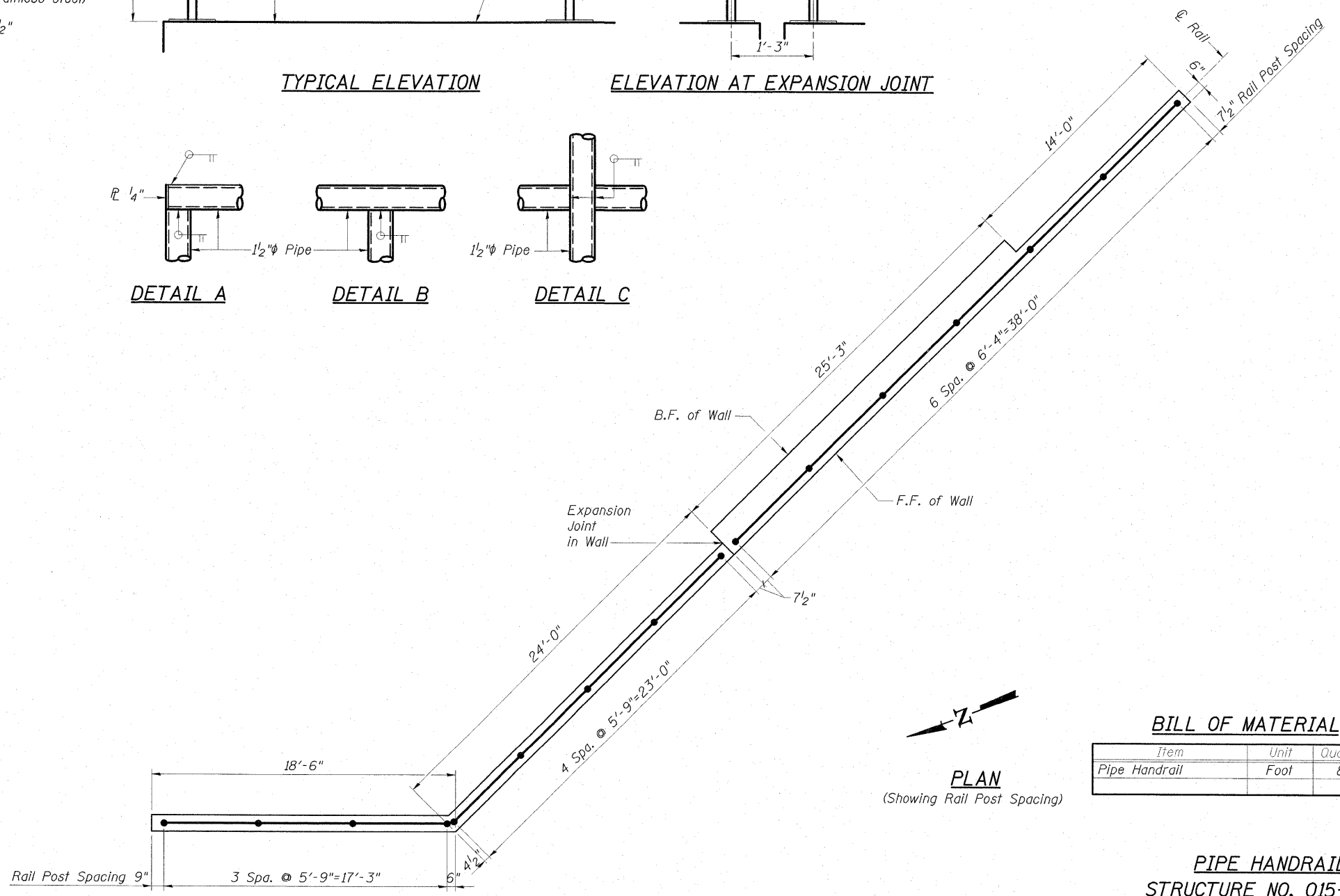
DETAIL A

DETAIL B

DETAIL C

NOTES

- All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
- Rails shall be 1/2" Schedule 40 Steel Pipe.
- Posts shall be 1/2" Schedule 80 Steel Pipe.



PLAN
(Showing Rail Post Spacing)

BILL OF MATERIAL

Item	Unit	Quantity
Pipe Handrail	Foot	80

**PIPE HANDRAIL
STRUCTURE NO. 015-0064**

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	03/09
DRAWN BY:	cj	03/09
CHECKED BY:	MTD	03/09
APPROVED BY:	RDP	08/09

SHEET NO. 17 35 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	325	(19VBR)BR	COLES	92	41
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 74149					