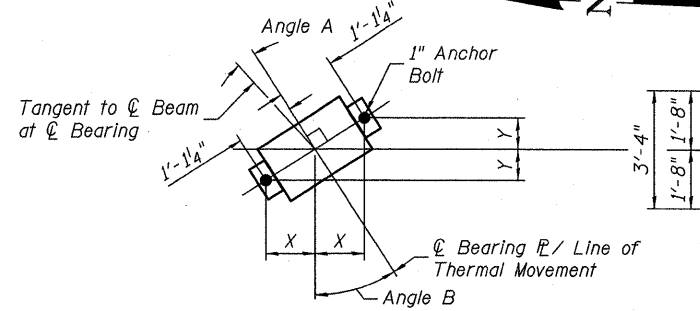


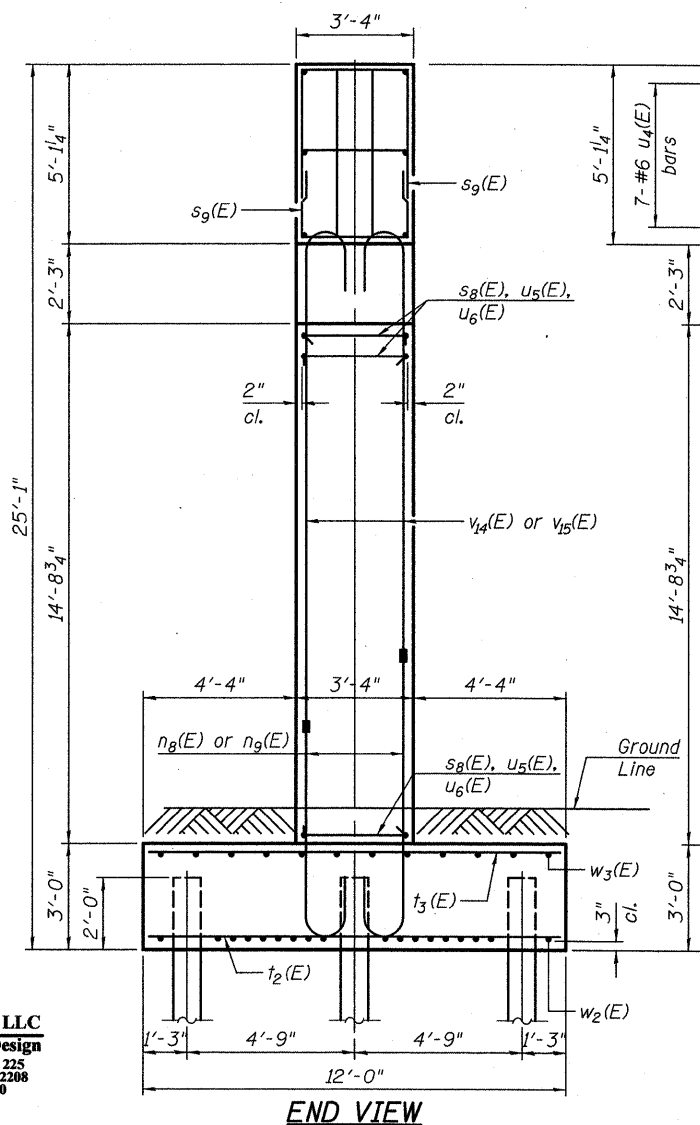
Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 29 of 33.  
 Each set of  $s_9(E)$ ,  $s_{10}(E)$  and  $s_{11}(E)$  bars has 4 bars (2 top and 2 bottom). See Section A-A.  
 For details of Mechanical Splice, see sheet 30 of 33.  
 The piers shall have all exposed surfaces treated with Concrete Sealer.



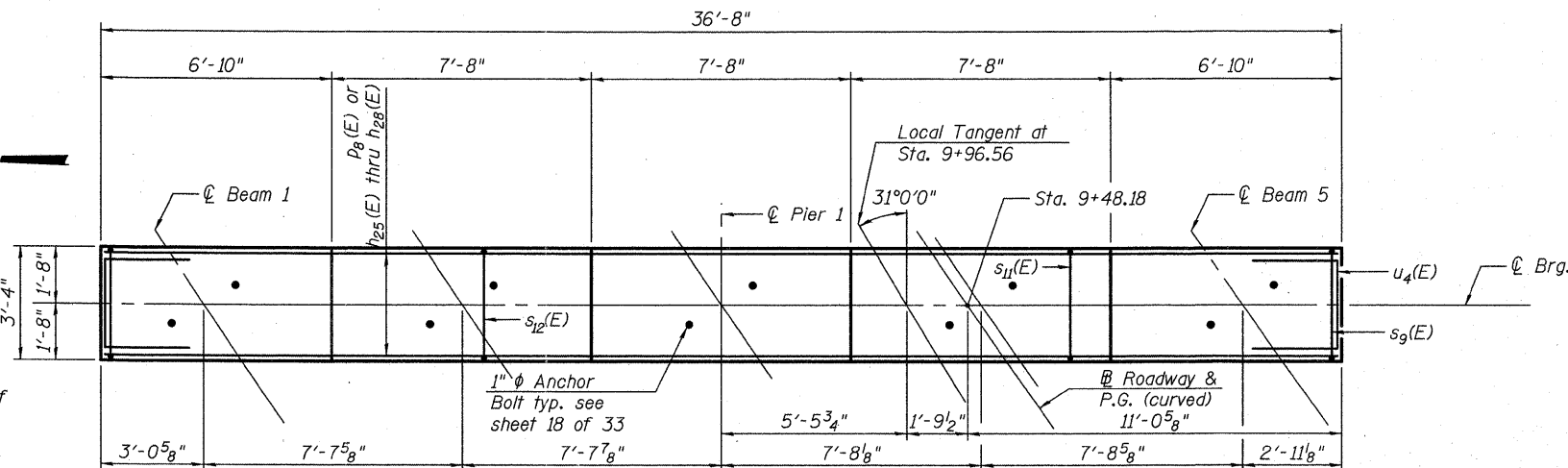
**ANCHOR BOLT LAYOUT**

**ANCHOR BOLT LAYOUT DIMENSIONS**

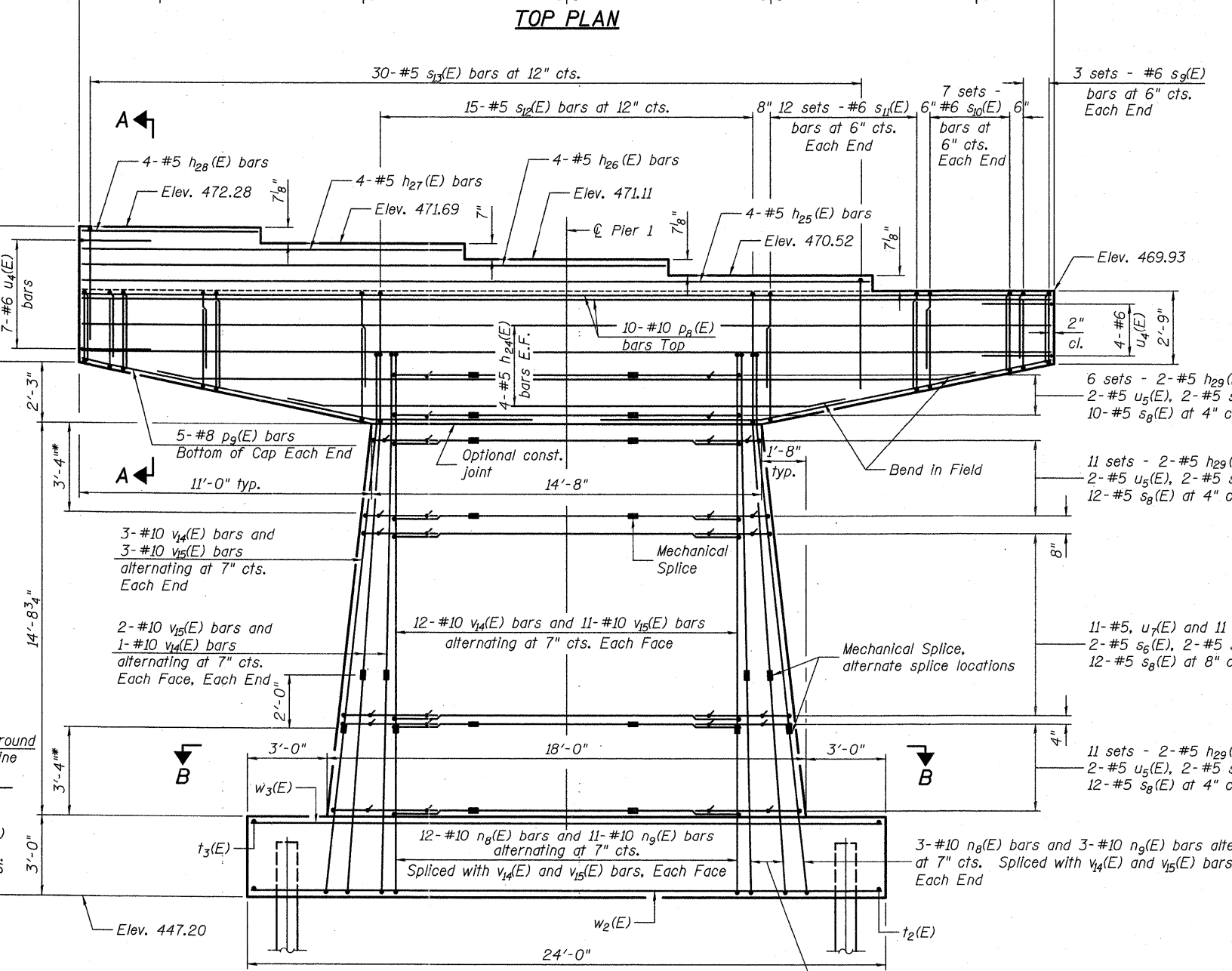
	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5
Angle A	2°21'	2°23'	2°24'	2°26'	2°28'
Angle B	31°21'	31°39'	31°55'	32°13'	32°32'
X	11 <sup>3</sup> / <sub>8</sub> "	11 <sup>1</sup> / <sub>4</sub> "	11 <sup>1</sup> / <sub>4</sub> "	11 <sup>1</sup> / <sub>4</sub> "	11 <sup>1</sup> / <sub>8</sub> "
Y	6 <sup>1</sup> / <sub>8</sub> "	7"	7"	7 <sup>1</sup> / <sub>8</sub> "	7 <sup>1</sup> / <sub>8</sub> "



**END VIEW**



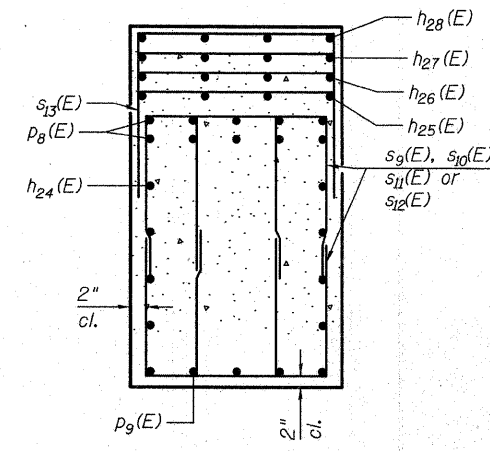
**TOP PLAN**



**ELEVATION**

(Looking East)

\* Limits of plastic hinging region. No lap splices allowed.



**SECTION A-A**

**MIN BAR LAP**

#6 bars = 2'-3"

**PILE DATA**

Type: HP 12x53 with Pile Shoes  
 Nominal Required Bearing: 411 kip  
 Factored Resistance Available: 226 kip  
 Est. Length: 19'  
 No. Production Piles: 12  
 No. Test Piles: 1

**EFK Moen, LLC**  
 Civil Engineering Design  
 331 Salem Place, Suite 225  
 Fairview Heights, IL 62208  
 Phone 618-266-4250

FILE NAME = 1000098-78182-025-Pier-1 0 of 21.dgn  
 USER NAME = jo  
 DESIGNED - CTW  
 CHECKED - CDL  
 PLOT SCALE = 0:1.0000 '1' / IN.  
 DRAWN - DP  
 PLOT DATE = 9/7/2011  
 DATE - 9/7/2011

REVISIONS:  
 REVISION -  
 REVISION -  
 REVISION -  
 REVISION -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 1**  
**STRUCTURE NO. 100-0098**

SHEET NO. 25 OF 33 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(X1-6-2)HB-2	WILLIAMSON	968	708
				CONTRACT NO. 78182
ILLINOIS FED. AID PROJECT				