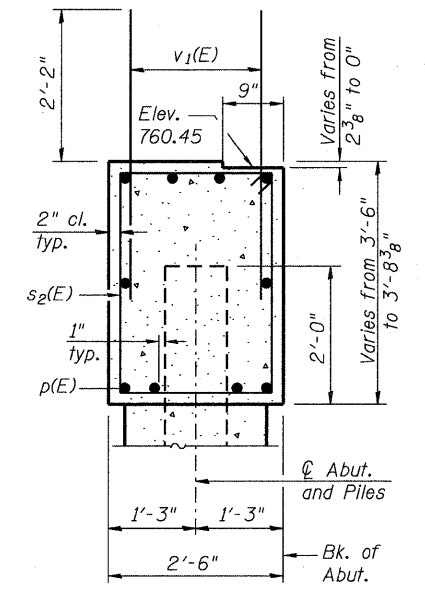
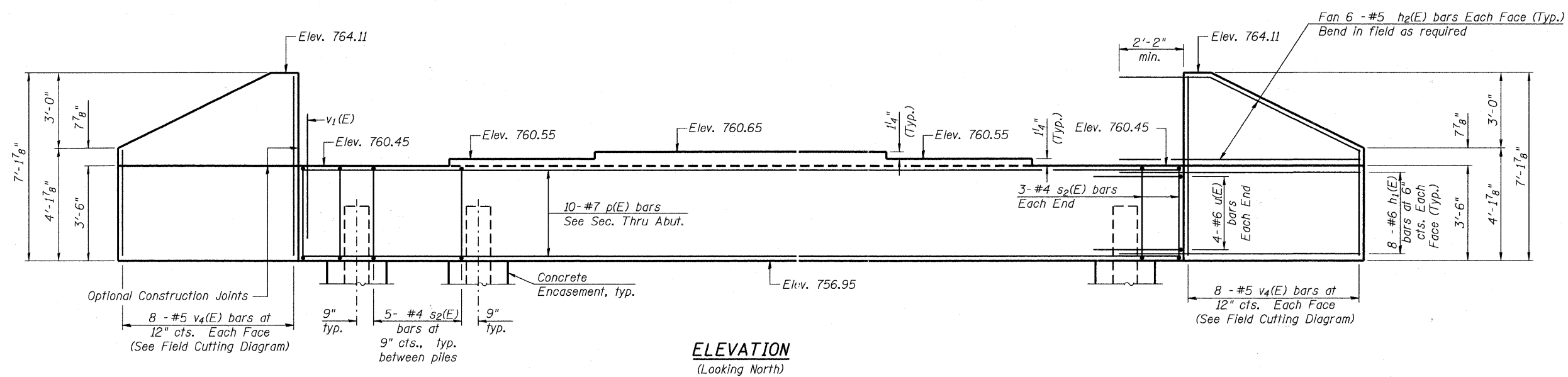
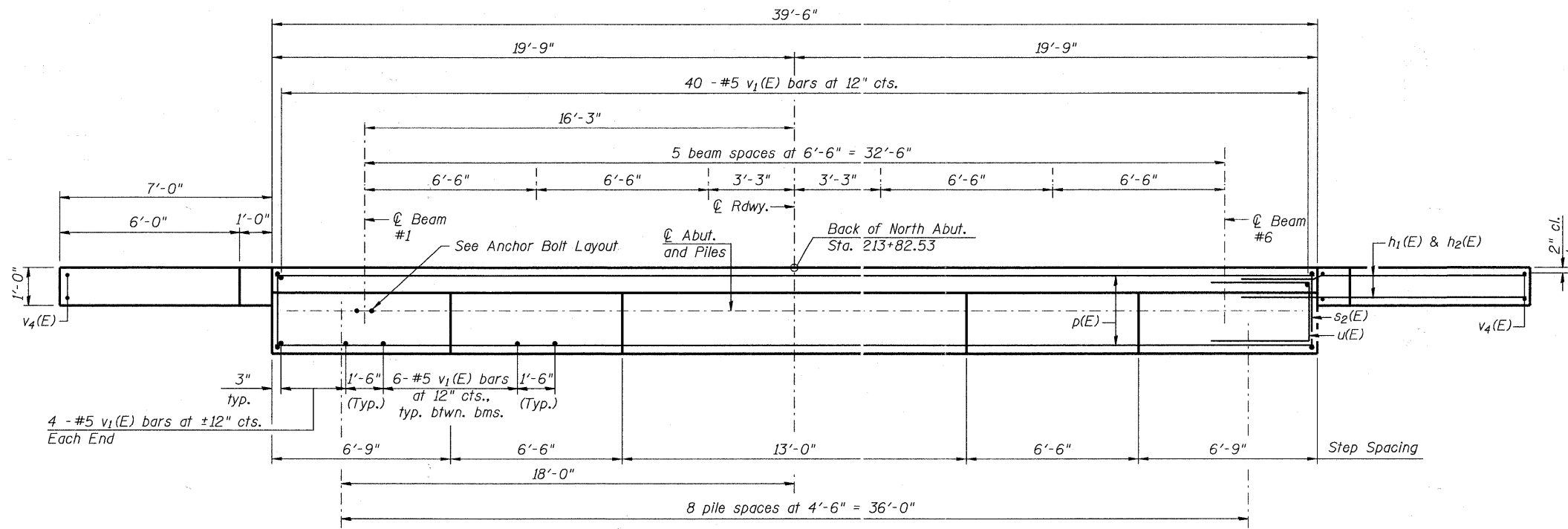


Notes:  
Pour steps monolithically with cap.



**ELEVATION**  
(Looking North)

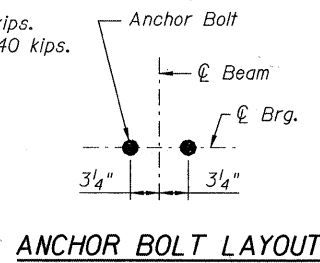
**SEC. THRU ABUT.**



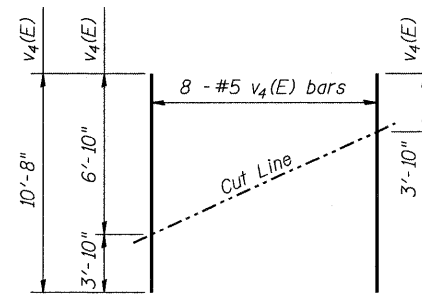
**PLAN**

**PILE DATA**

Type: Steel HP 14x73  
Nominal Required Bearing: 250 kips.  
Factored Resistance Available: 140 kips.  
Est. Length: 48 feet  
No. Production Piles: 8  
No. Test Piles: 1

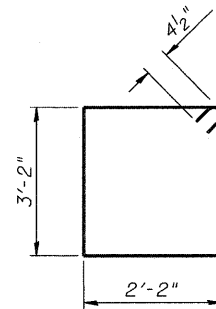


**ANCHOR BOLT LAYOUT**

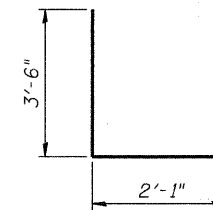


**FIELD CUTTING DIAGRAM**

Order v4(E) bars full length. Cut as shown and use remainder of bars in opposite face.



**BAR s2(E)**



**BAR u(E)**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h1(E)	32	#6	13'-6"	—
h2(E)	24	#5	9'-10"	—
p(E)	10	#7	39'-2"	—
s2(E)	46	#4	11'-5"	□
u(E)	8	#6	9'-1"	U
v1(E)	78	#5	4'-4"	—
v4(E)	16	#5	10'-8"	—
Structure Excavation		Cu. Yd.	121	
Concrete Structures		Cu. Yd.	16.2	
Reinforcement Bars, Epoxy Coated		Pound	2700	
Furnishing Steel Piles, HP14x73		Foot	384	
Driving Piles		Foot	384	
Test Pile, Steel HP14x73		Each	1	
Concrete Encasement		Cu. Yd.	5.0	
Geocomposite Wall Drain		Sq. Yd.	26	
Porous Granular Embankment (Special)		Cu. Yd.	54	
Pipe Underdrains For Structures, 4"		Foot	58	

For details of piles and Concrete Encasement, see sheet 20 of 28.

AI-0 7-1-10

**Bollinger, Lach & Associates, Inc.**  
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED - JJJ	REVISED -
PLOT SCALE =	CHECKED - SRT	REVISED -
PLOT DATE = 3/25/2011	DRAWN - GM	REVISED -
	CHECKED - SRT	REVISED -

**McHENRY COUNTY**  
**DIVISION OF TRANSPORTATION**  
**BLIVIN STREET OVER NIPPERSINK CREEK**

**NORTH ABUTMENT**  
**STRUCTURE NO. 056-3191**

SCALE: SHEET NO. 18 OF 28 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00355-00-BR	MCHEMRY	69	43
CONTRACT NO. 63583			ILLINOIS FED. AID PROJECT	