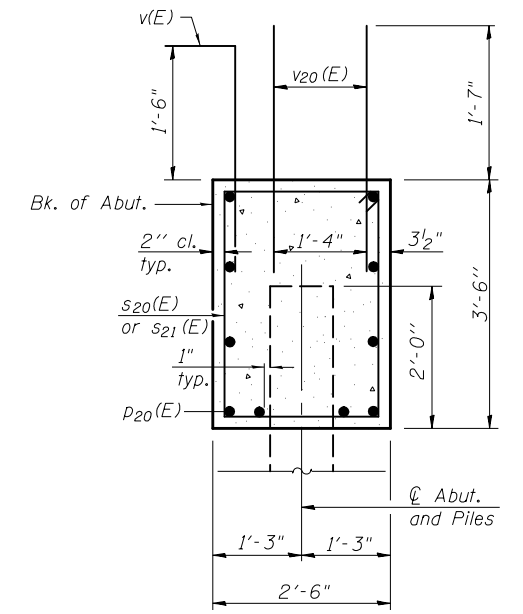
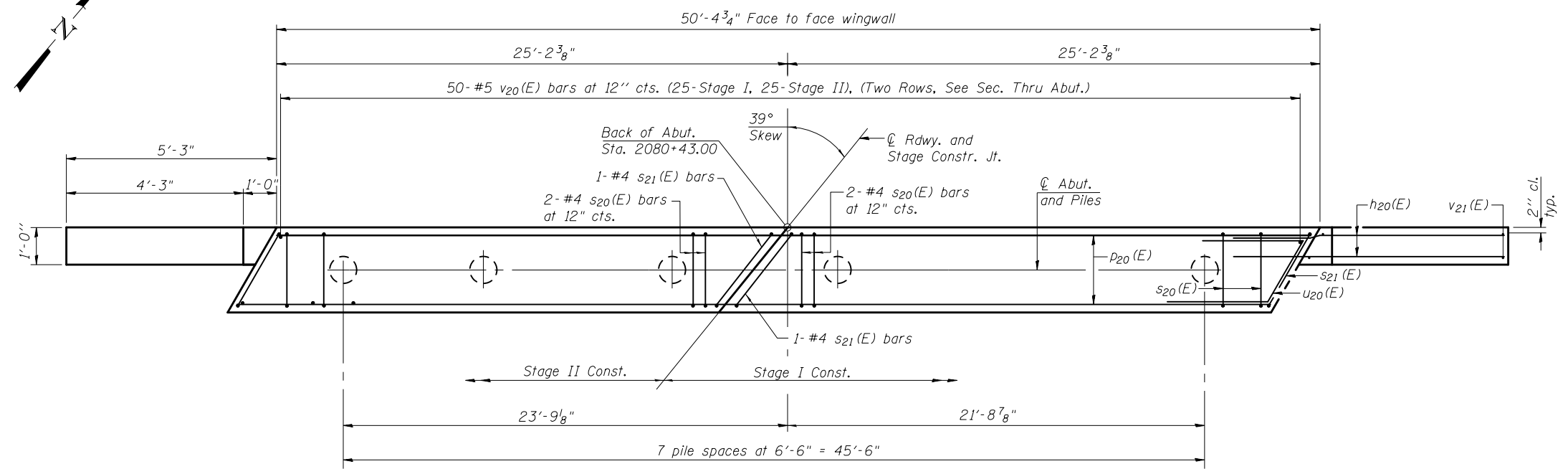
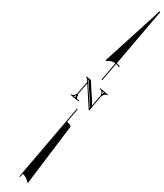


**ELEVATION AT NORTH ABUTMENT**



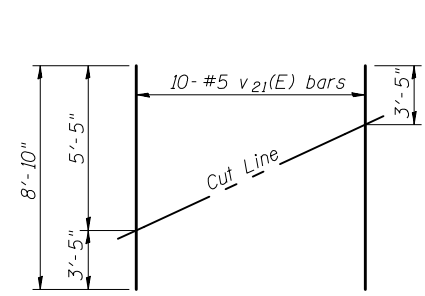
**SEC. THRU ABUT.**



**PLAN**

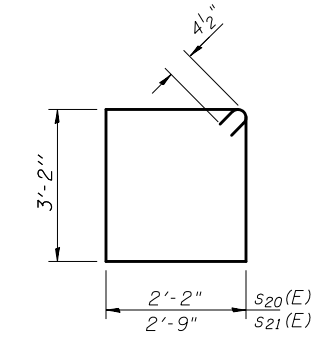
**PILE DATA**

Type: Metal Shell Piles 14" dia. x 0.312" walls with pile shoes  
 Nominal Required Bearing: 281 kips  
 Factored Resistance Available: 140 kips  
 Est. Length: 38'  
 No. Production Piles: 7  
 No. Test Piles: 1

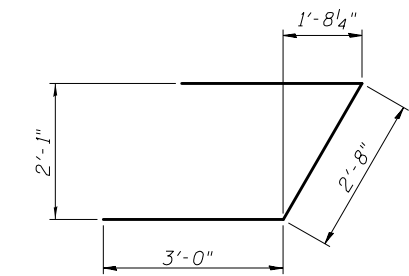


**FIELD CUTTING DIAGRAM**

Order v21(E) full length. Cut as shown and use remainder of bars in opposite face.



**BARS s20(E) & s21(E)**



**BAR u20(E)**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h20(E)	36	#5	7'-9"	—
p20(E)	20	#7	24'-10"	—
s20(E)	44	#4	11'-5"	□
s21(E)	4	#4	12'-7"	□
u20(E)	8	#6	8'-8"	∟
v20(E)	100	#5	3'-7"	—
v21(E)	10	#5	8'-10"	—
v22(E)	4	#5	5'-5"	—
* Structure Excavation		Cu. Yd.	110	
Concrete Structures		Cu. Yd.	18.3	
Reinforcement Bars, Epoxy Coated		Pound	2,270	
Furnishing Metal Shell Piles 14" x 0.312"		Foot	266	
Driving Piles		Foot	266	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	8	

For details of Bar Splicers, see sheet 18 of 19.  
 For details of piles, see sheet 17 of 19.  
 For v(E) bar details, see sheets 9 thru 11 of 19.  
 \*Includes 46 Cu. Yd. Structure Excavation for Porous Granular Embankment, Special.

HURST-ROSCHE ENGINEERS, INC.  
 HILLSBORO, ILLINOIS 62049  
 (217)532-3959 FAX (217)532-3212  
 HR JOB # 190-1580



AI-R 7-1-10

FILE NAME =	USER NAME =	DESIGNED -	REVISIONS
		JSP	REVISIONS
		CJC	REVISIONS
		UJ	REVISIONS
		RVB	REVISIONS

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT  
 STRUCTURE NO. 010-0286

SHEET NO. 15 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
808	94BR-1	CHAMPAIGN	50	28
				CONTRACT NO. 70582

ILLINOIS FED. AID PROJECT