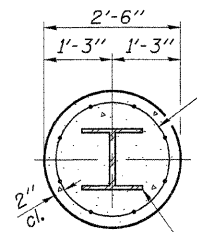


**ELEVATION**  
(Looking South)

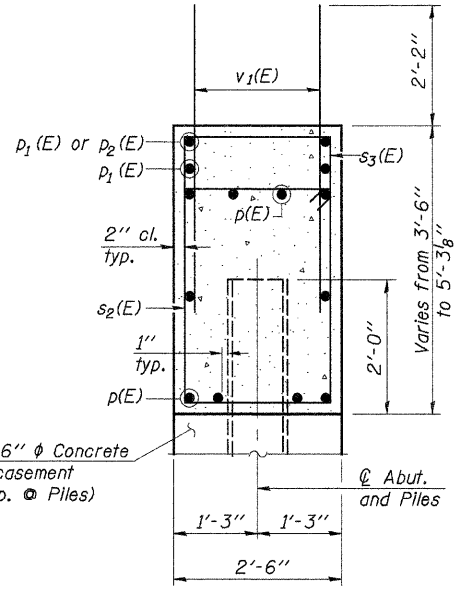
**PILE DATA**

Type & Size: Steel Piles HP14x89  
 Nominal Required Bearing: Set in Rock (See Note A)  
 Est. Length: 29 ft.  
 No. Production Piles: 5  
 The Steel H-Piles shall be according to ASTM A270 Grade 50



**SECTION A-A**  
Concrete Encasement

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, and Reinforcement is included with Concrete Encasement. Forms for Encasement may be omitted when soil conditions permit. Extend welded wire fabric 1'-0" min. into abutment cap.

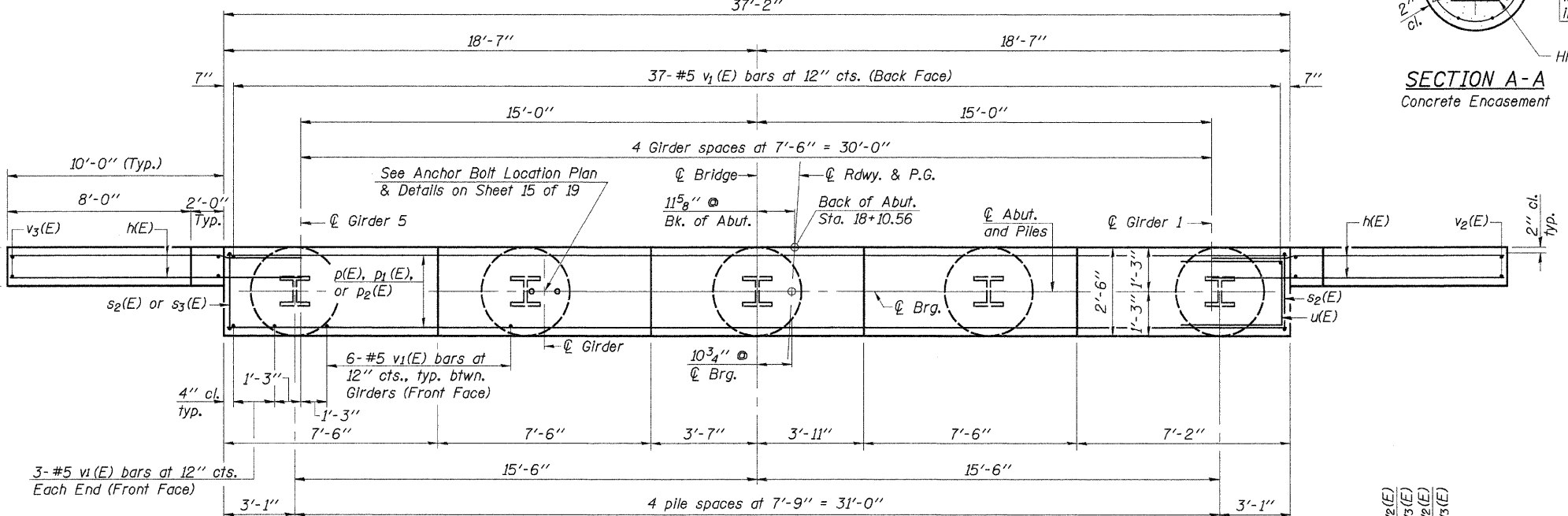


**SEC. THRU ABUT.**

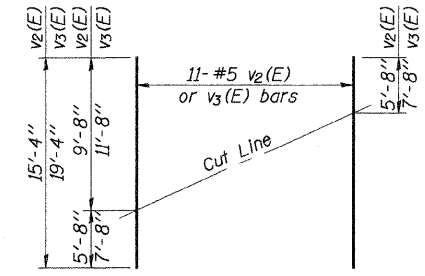
**SOUTH ABUT. BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	52	#7	13'-0"	—
p(E)	10	#7	36'-10"	—
p1(E)	6	#7	15'-0"	—
p2(E)	2	#7	7'-3"	—
s2(E)	34	#5	11'-7"	□
s3(E)	32	#5	9'-4"	□
u(E)	10	#6	12'-3"	□
v1(E)	67	#5	4'-4"	—
v2(E)	11	#5	15'-4"	—
v3(E)	11	#5	19'-4"	—
Structure Excavation			Cu. Yd.	68
Concrete Structures			Cu. Yd.	22.1
Reinforcement Bars, Epoxy Coated			Pound	3,960
Furnishing Steel Piles HP14x89			Foot	145
Setting Piles in Rock			Each	5
Concrete Encasement			Cu. Yd.	2.8

For details of piles see sheet 18 of 19.

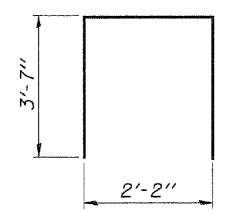


**PLAN**

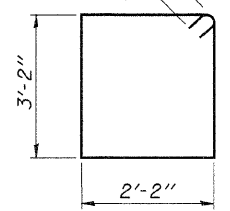


**FIELD CUTTING DIAGRAM**

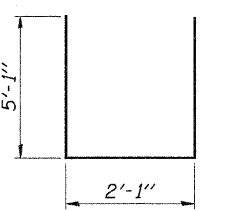
Order v2(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.



**BAR s3(E)**



**BAR s2(E)**



**BAR u(E)**

DESIGNED	J.A.M.
CHECKED	A.R.K.
DRAWN	S.A.P.
CHECKED	A.R.K. & J.A.M.

\*Note A:  
 Precore through existing earth, fragmented limestone and sound rock as shown. Piles shall be grouted into the rock with Class SI Concrete. Precored holes shall be clean at time of placement and grouting. The Class SI Concrete used for grouting piles into rock and the Porous Granular Embankment Material used to fill cored holes, are included in the price for "Setting Piles in Rock." See Special Provisions.

11-1-06

**SOUTH ABUTMENT**  
 SECTION 93-00112-00-BR  
 JO DAVIESS COUNTY  
 COUNTY HIGHWAY 3  
 STATION 18+74.60

4440 ASH GROVE  
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**FEHR-GRAHAM & ASSOCIATES, LLC**  
 ENGINEERING AND SCIENCE CONSULTANTS  
 FERRISVILLE, ILLINOIS

JOB NO.: 46859  
 FILE: ABUT1.dgn  
 DATE: 03/24/09