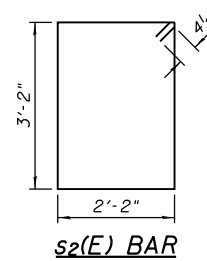
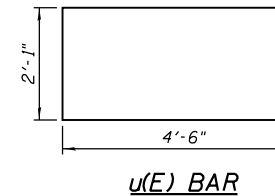


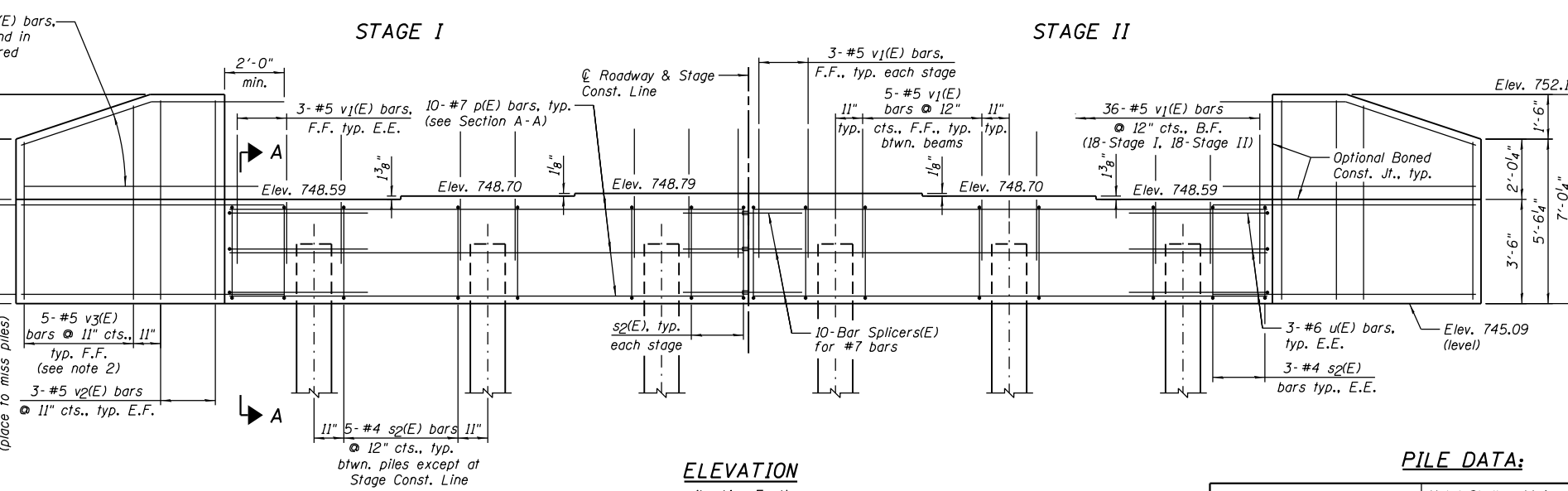
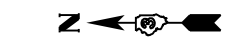
TOP VIEW ABUTMENT (SHOWING BEARING SEAT)



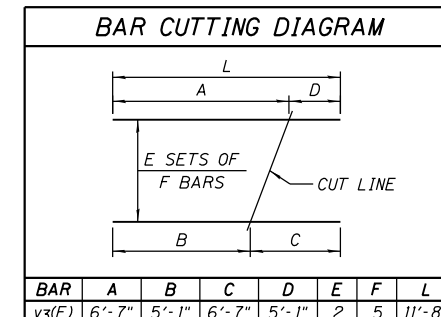
s2(E) BAR



u(E) BAR



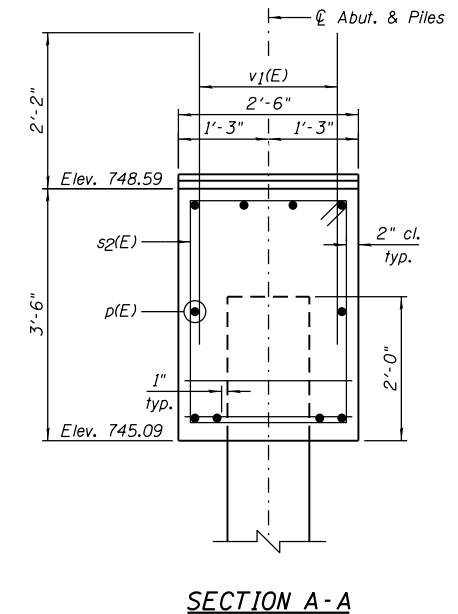
PLAN - PILE CAP



BAR CUTTING DIAGRAM

EAST ABUTMENT  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n(E)	20	#5	8'-10"	—
h1(E)	20	#5	9'-1"	—
p(E)	20	#7	17'-3"	—
s2(E)	32	#4	11'-5"	□
u(E)	6	#6	11'-1"	□
v1(E)	68	#5	4'-4"	—
v2(E)	12	#5	6'-8"	—
v3(E)	10	#5	11'-8"	—
Item	Unit	Quantity		
Structure Excavation	Cu. Yd.	86		
Concrete Structures	Cu. Yd.	15.0		
Reinforcement Bars, Epoxy Coated	Pound	1,930		
Furnishing Metal Shell Piles 14" x 0.312"	Foot	145		
Driving Piles	Foot	145		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	6		
Geocomposite Wall Drain	Sq. Yd.	30		
Pipe Underdrains for Structures 4"	Foot	82		
Porous Granular Embankment, Special	Cu. Yd.	51		



SECTION A-A

Fan 5-#5 h1(E) bars, typ., E.F., bend in field as required

5-#5 n(E) bars @ 9" cts., typ. E.F. (place to miss piles)

5-#5 v3(E) bars @ 11" cts., 11" typ. F.F. (see note 2)

3-#5 v2(E) bars @ 11" cts., typ. E.F.

ELEVATION  
(Looking East)

PILE DATA:

Pile Type and Size	Metal Shell - 14 in. dia. x 0.312 in. walls with pile shoes
Nominal Required Bearing	463 kips
Factored Resistance Available	255 kips
Estimated Pile Length	29 Feet
Number of Production Piles	5
Number of Test Piles	1

NOTES:

- 1.) Pour steps monolithically with cap.
- 2.) Order v3(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in opposite face of wingwall.
- 3.) Bend or cut n(E) bars to miss piles.
- 4.) E.F. denotes Each End, F.F. denotes Front Face, B.F. denotes Back Face and E.F. denotes Each Face.
- 5.) See Sheet B19 for Bar Splicer Details.

Farnsworth GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - TCR	REVISED
CHECKED - JML	REVISED
DRAWN - JWK	REVISED
CHECKED - MSW	REVISED
DATE - 8/10/12	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT  
STRUCTURE NO. 027-0101

SHEET NO. B16 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	19BR	FORD	61	38
CONTRACT NO. 66A12				
ILLINOIS FED. AID PROJECT				