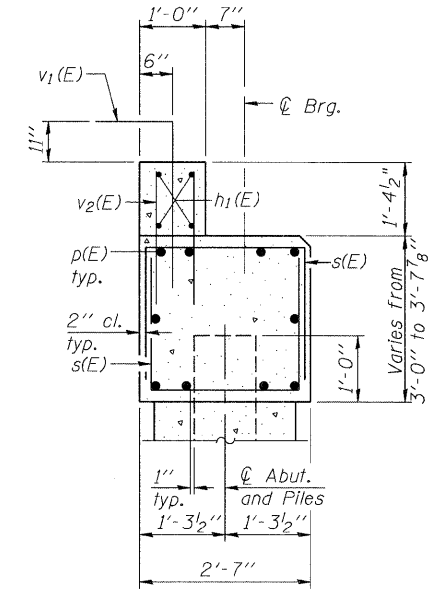
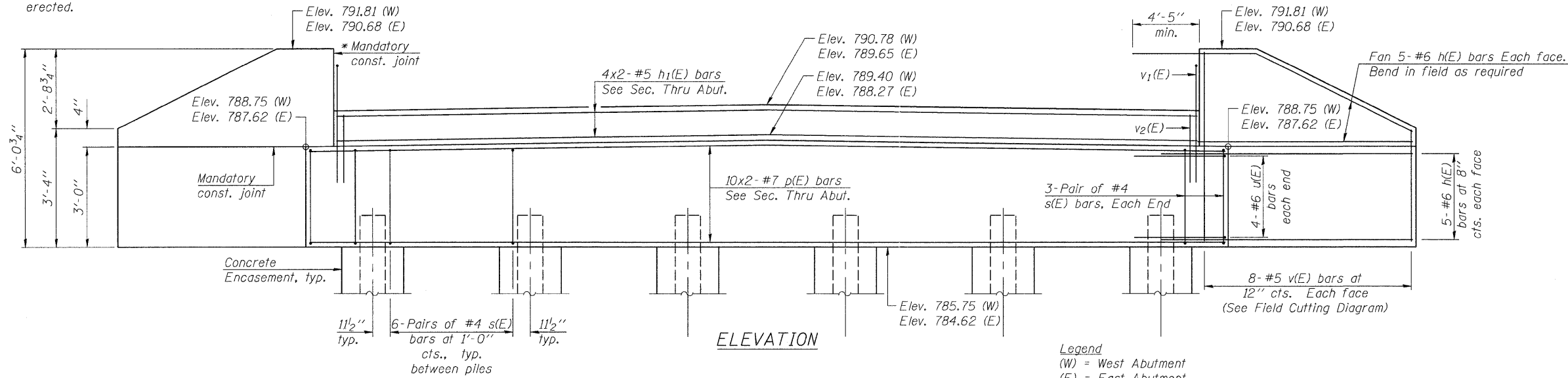
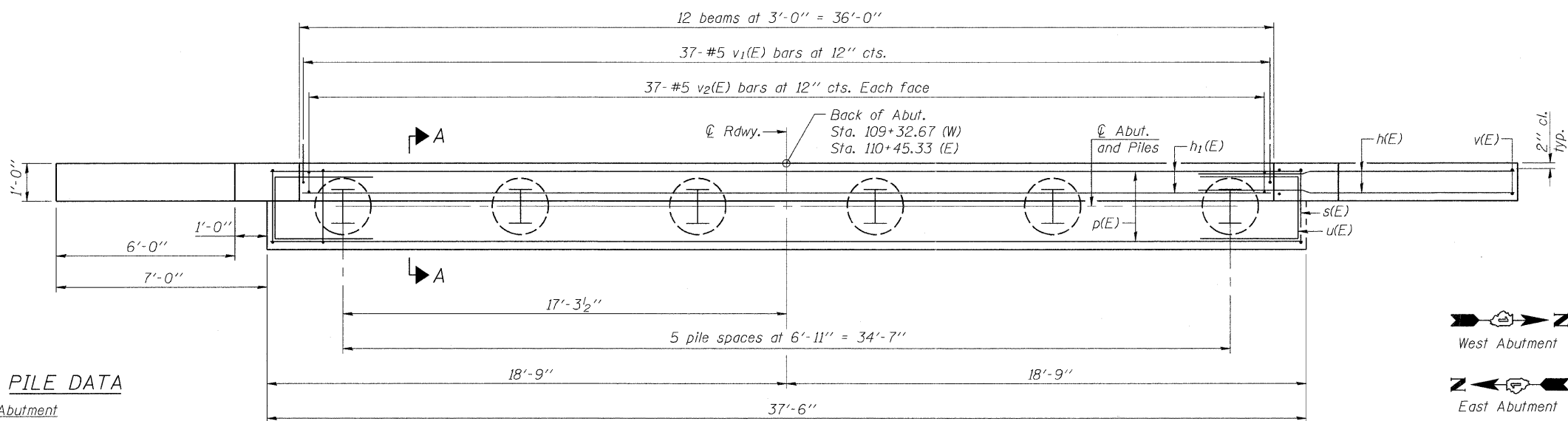


* Cast top of wingwall flush with exterior beam face after beams have been erected.



Legend
(W) = West Abutment
(E) = East Abutment



BILL OF MATERIAL

Two Abutments

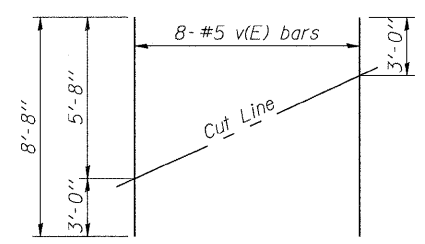
Bar	No.	Size	Length	Shape
h(E)	80	#6	12'-9"	—
h ₁ (E)	16	#5	19'-7"	—
p(E)	40	#7	21'-8"	—
s(E)	144	#4	7'-5"	□
u(E)	16	#6	11'-1"	□
v(E)	32	#5	8'-8"	—
v ₁ (E)	74	#5	5'-0"	└
v ₂ (E)	74	#5	4'-2"	└
Structure Excavation		Cu. Yd.	96	
Concrete Structures		Cu. Yd.	33	
Reinforcement Bars, Epoxy Coated		Pound	5,610	
Furnishing Steel Piles, HP 14x73		Foot	425	
Driving Piles		Foot	425	
Test Pile, Steel HP 14x73		Each	3	
Concrete Encasement		Cu. Yd.	7	
Pile Shoes		Each	12	
Concrete Sealer		Sq. Ft.	434	

PILE DATA

West Abutment
Type: HP 14x73 with Pile Shoes
Nominal Required Bearing: 360 kips
Factored Resistance Available: 180 kips
Est. Length: 40 feet
No. Production Piles: 4
No. Test Piles: 2

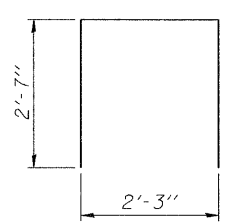
East Abutment
Type: HP 14x73 with Pile Shoes
Nominal Required Bearing: 360 kips
Factored Resistance Available: 180 kips
Est. Length: 53 feet
No. Production Piles: 5
No. Test Piles: 1

Notes:
Contractor shall drive a total of three (3) test piles in a permanent location, one at the East Abutment and two at the West Abutment as directed by the engineer, before ordering the remainder of piles.
An abandoned railroad embankment may be encountered behind the existing west abutment. Piles shall be driven through embankment.



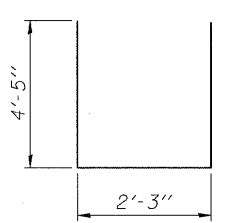
FIELD CUTTING DIAGRAM

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

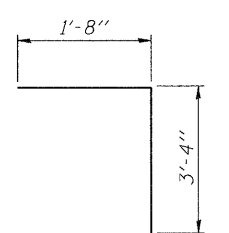


BAR s(E)

Vary lap length in pair to maintain a 2" clearance.



BAR u(E)



BAR v₁(E)

MINIMUM BAR LAP

#5 bar = 3'-3"
#7 bar = 5'-10"

Notes:
For details of piles and Concrete Encasement, see sheet 14 of 18.
Cast backwall after beams and concrete wearing surface have been erected.
Bar indicated thus 1x2-#5 ect. indicates 1 line of bars with 2 lengths per line.
Apply Concrete Sealer to abutment seats, backwall, and exposed faces of the wingwalls.

AD-2742-0 7-1-10

	1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = brianf	DESIGNED RRD	REVISED -	MCHENRY COUNTY DIVISION OF TRANSPORTATION HILL ROAD BRIDGE OVER NORTH BRANCH NIPPERSINK CREEK	ABUTMENTS DETAILS STRUCTURE NO. 056-3192 SHEET NO. 12 OF 18 SHEETS	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLDT SCALE =	DRAWN BJF	REVISED -	21			08-00356-00-BR	MCHENRY	67	42	
PLDT DATE = 1/3/2012	CHECKED RRD	REVISED -					CONTRACT NO. 63666		ILLINOIS FED. AID PROJECT		