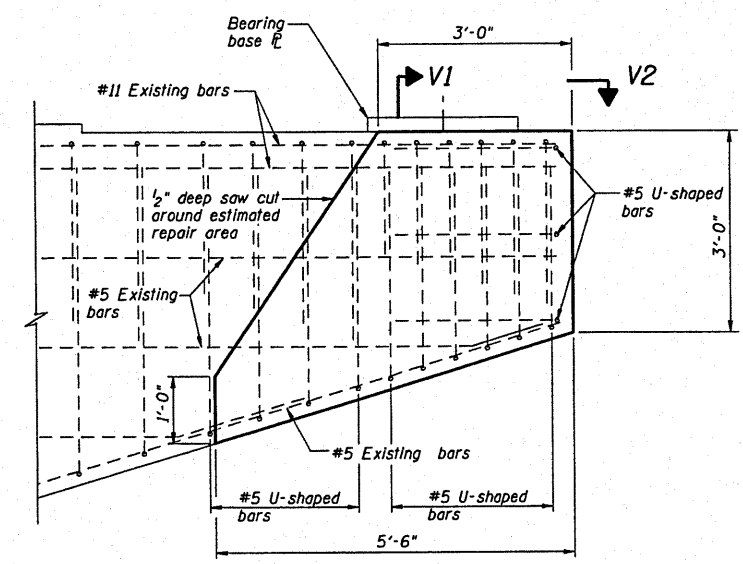
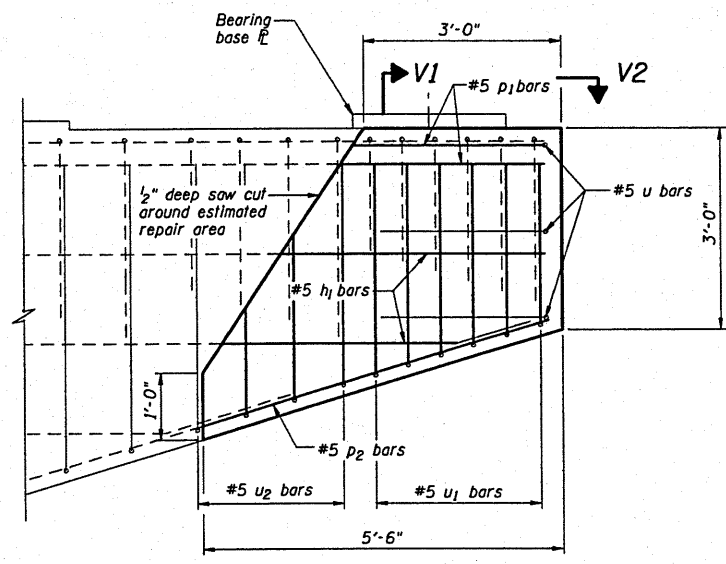


ROUTE NO.	SECTION	COUNTY	POST MILE	SHEET NO.
FAS 447	*	Fullton	43	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

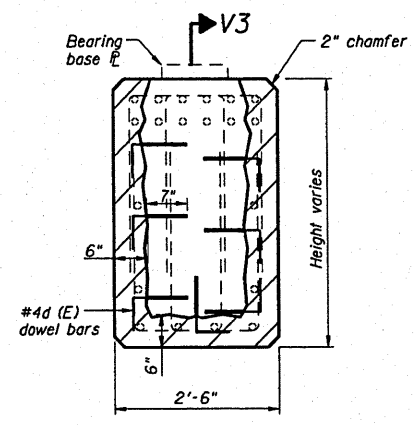


EXISTING PIER CAP END ELEVATION

NOTE: Bar sizes and locations were taken from the existing plans. After concrete removal and cleaning of existing reinforcing, bars that have more than surface corrosion should have a new epoxy coated replacement bar "E" lapped next to the damaged bar. See bar list and diagrams.

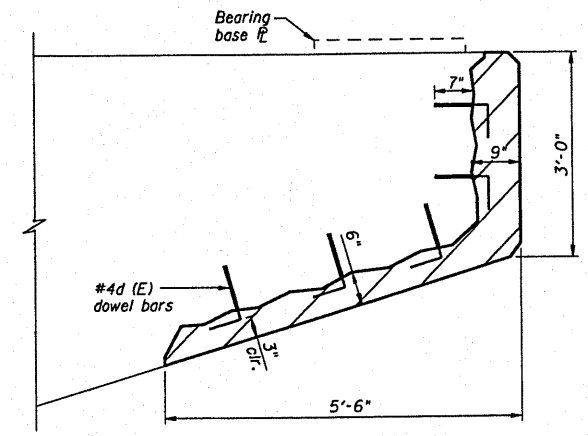


PROPOSED PIER CAP END REPAIR ELEVATION



SECTION V1

Hatched areas represent concrete removal & replacement.



SECTION V3

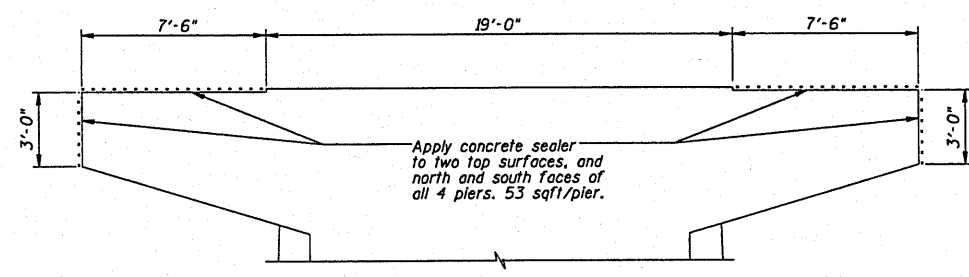
Hatched areas represent concrete removal & replacement.

BILL OF MATERIAL PER PIER CAP END				
Bar	No.	Size	Length	Shape
d (E)	23	# 4	1'-4"	□
h (E)	4	# 5	4'-0"	—
p1 (E)	4	# 5	2'-9"	—
p2 (E)	4	# 5	5'-4"	—
u (E)	3	# 5	7'-0"	—
u1 (E)	6	# 5	7'-2"	—
u2 (E)	3	# 5	8'-0"	—
Concrete Removal		Cu. Yds.	0.9	
Concrete Structures		Cu. Yds.	0.9	
Reinforcement Bars, Epoxy Coated		Lbs.	170	

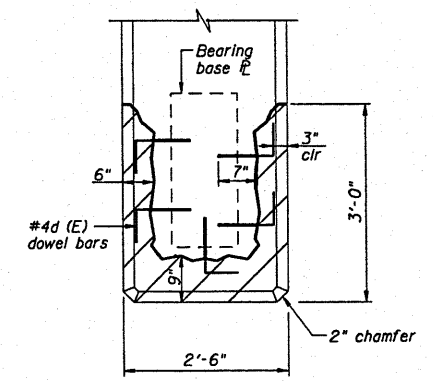
Reinforcement bars designated (E) shall be epoxy coated.

Bars with an "E" refer to the epoxy coated replacement bar to be lapped next to the original bar. Bars may be cut to fit at the direction of Engineer.

This Bill of Material is based upon complete bar replacement. Replace bars at the direction of the Engineer. Adhesive Anchor all d (E) bars

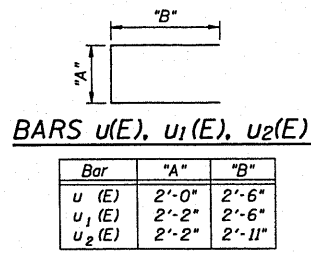


CONCRETE SEALER APPLICATION

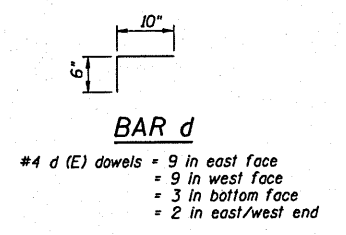


SECTION V2

Hatched areas represent concrete removal & replacement.



Bar	"A"	"B"
u (E)	2'-0"	2'-6"
u1 (E)	2'-2"	2'-6"
u2 (E)	2'-2"	2'-11"



#4 d (E) dowels = 9 in east face
= 9 in west face
= 3 in bottom face
= 2 in east/west end

Stagger to avoid conflicts between faces. Epoxy anchor using EPCON 6 ceramic 2-part epoxy or Hilti 2-part adhesive HIT-RE 500-SD in holes 7" deep into concrete. Cost of anchorage is included with the cost of Reinforcing Bars, Epoxy Coated.

BILL OF MATERIAL - 4 PIERS

LOCATION	Pier 1	Pier 2	Pier 3	Pier 4	Unit	Total
Concrete Removal	0.0	1.8	1.8	0.9	C.Y.	4.5
Concrete Structures	0.0	1.8	1.8	0.9	C.Y.	4.5
Reinforcing Bars, Epoxy Coated	0.0	340	340	170	Pound	850
Concrete Sealer	53	53	53	53	Sqft.	212

DSGN	K.J. Hoffmann				
DR	K.J. Hoffmann				
CHK	J.A. Fraenhoffer				
APVD	J.A. Fraenhoffer	NO.	DATE	REVISION	BY

FRAUENHOFFER
Frauenhoffer and Associates, P.C. Consulting Engineers
3002 Crossing Court Champaign, IL 61822 217-351-6268

PIER CAP REPAIRS		SHEET 41
FAS 447 (C.H. 17) OVER SPOON RIVER SECTION 08-00121-01-BR FULTON COUNTY		DWG NO. 8015PIER.dgn DATE JAN 2010 PROJ NO. 8015