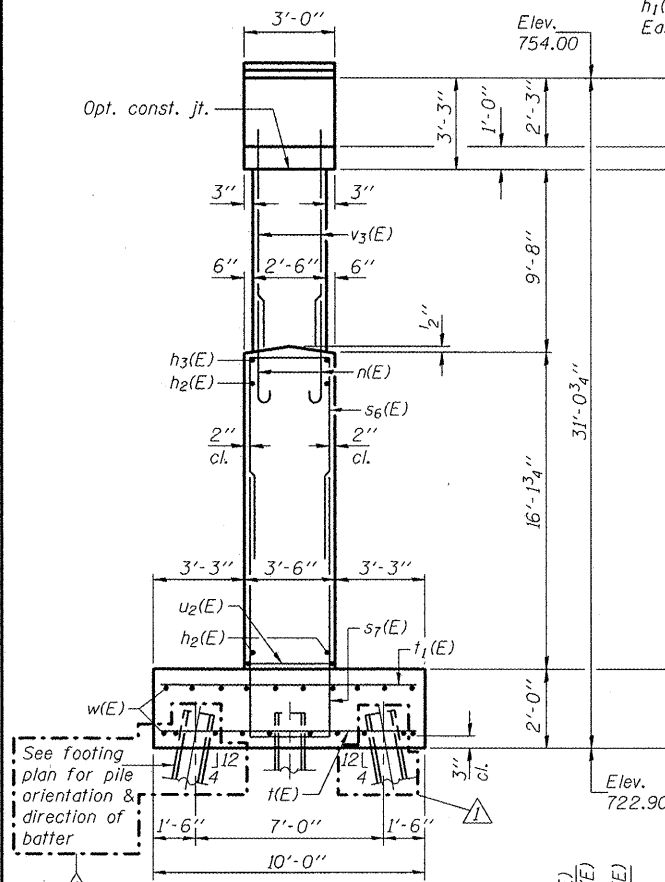


A diagram showing a circular cross-section of a fiber. Inside the circle, there are several radial lines pointing towards the center. A label $v_3(E)$ is positioned above the circle, with two lines pointing to the center of the circle.

Plan view of partial cap showing
hook orientation of $v_3(E)$ bars.



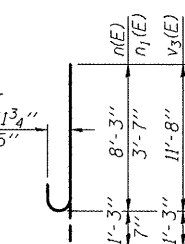
END VIEW

Type: Steel HP12x53
Nominal Required Bearing: 360 Kips
Factored Resistance Available: 180 Kips
Est. Length: 53'
No. Production Piles: 14
No. Test Piles: 1

DESIGNED	D.P. Narielwala
CHECKED	S.M. Ryan
DRAWN	h.t. duong
CHECKED	DPN/SMR

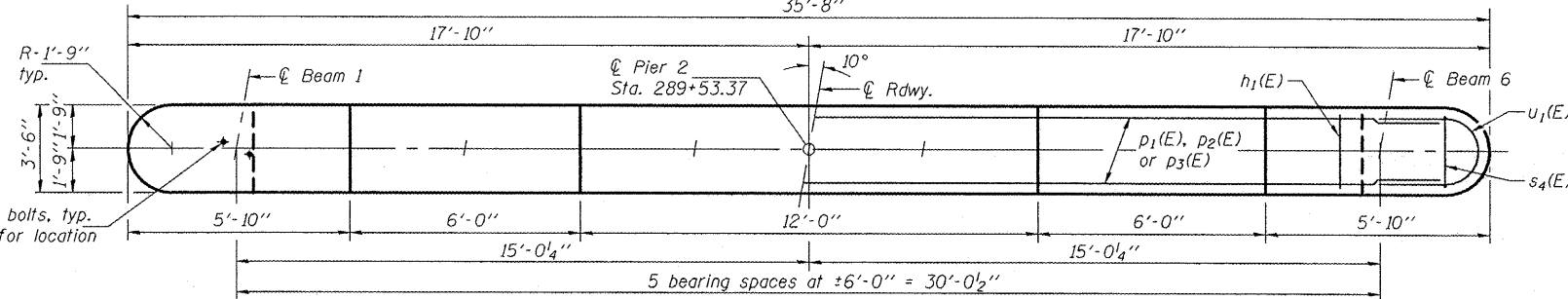
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BARS $n(E)$,
 $n_1(E)$ & $v_3(E)$

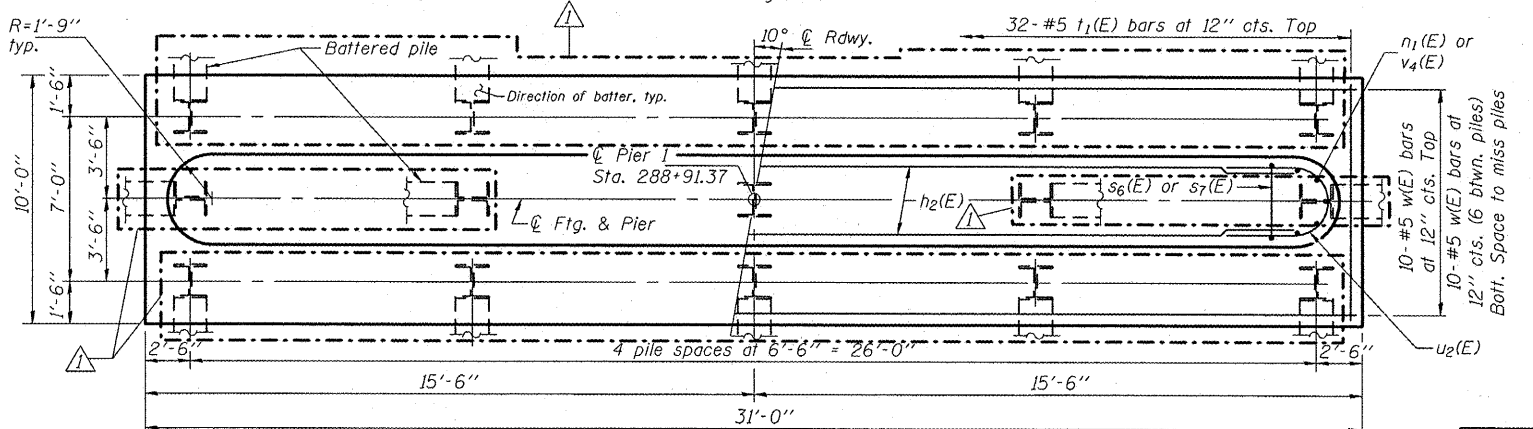


#5 bar = 2'-2"
#8 bar (lapped with #6 bar) = 6'-4"

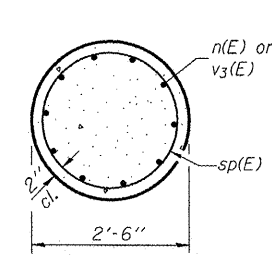
TOP PLAN



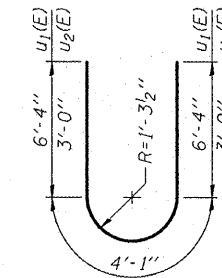
ELEVATION
(Looking east)



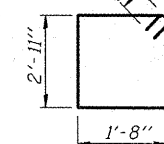
FOOTING PLAN



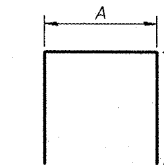
SEC. C-C



BARS $u_1(E)$
& $u_2(E)$



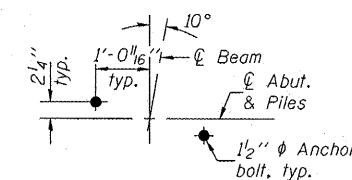
BAR $s_5(E)$



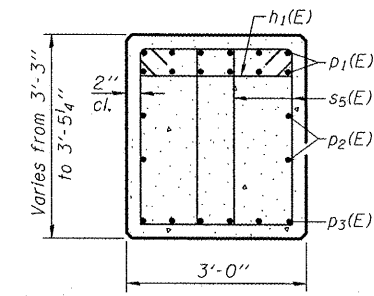
BARS $s_4(E)$,
 $s_6(E)$ & $s_7(E)$

A & B DIMENSIONS

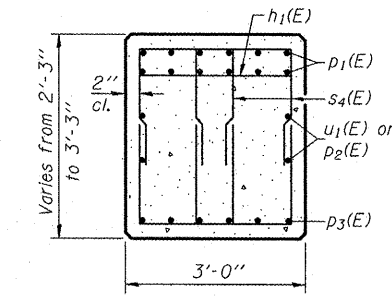
Bar	A	B
$s_4(E)$	1'-8"	2'-
$s_6(E)$	3'-2"	10'-
$s_7(E)$	3'-2"	11'-1



DETAIL A



SEC. A-A



SEC. B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_1(E)$	17	#4	2'-8"	—
$h_2(E)$	32	#5	25'-6"	—
$h_3(E)$	3	#8	25'-6"	—
$n(E)$	30	#9	9'-6"	U
$n_1(E)$	10	#5	4'-2"	U
$p_1(E)$	12	#8	32'-2"	—
$p_2(E)$	4	#7	32'-2"	—
$p_3(E)$	6	#8	35'-2"	—
$s_4(E)$	48	#5	6'-10"	U
$s_5(E)$	52	#5	10'-1"	U
$s_6(E)$	27	#8	24'-0"	U
$s_7(E)$	52	#8	27'-0"	U
$sp(E)$	3	#4	10'-0"	MM
$t(E)$	48	#7	9'-6"	—
$t_1(E)$	32	#7	9'-6"	—
$u_1(E)$	6	#6	16'-9"	U
$u_2(E)$	34	#5	10'-1"	U
$v_3(E)$	30	#9	12'-11"	U
$v_4(E)$	10	#5	13'-8"	—
$w(E)$	20	#5	30'-6"	—
Braced Excavation			Cu. Yd.	112
Concrete Structures			Cu. Yd.	103.7
Reinforcement Bars, Epoxy Coated			Pound	14880
Furnishing Steel Piles				
HP12x53			Foot	742
Driving Piles			Foot	742
Test Pile Steel				
HP12x53			Each	1
Anchor Bolts 1 1/2"			Each	12

*Weight includes spacers for spirals.
**Length is height of spiral.

PIER 2

STRUCTURE NO. 074-0086

SHEET NO. 19 25 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1517	12VBR-1	PIATT	168	104
	SN 074-0086		CONTRACT NO. 70388		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

1 Revised 12/17/2009, DPN