KANE AND KENDALL COUNTIES

BURTON BRIDGE

INDEX OF SHEETS

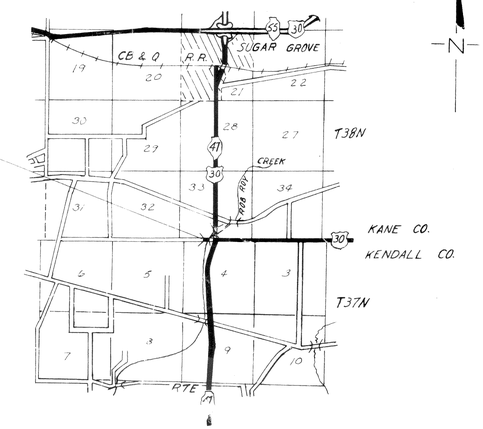
SUMMARY OF QUANTITIES

QUANTITIES	UNIT OF MEASURE	PAY ITEMS
144.7	CU.YDS.	CLASS X CONCRETE
14,700	LBS.	REINFORCEMENT BARS
54	LIN.FT.	METAL PLATE BRIDGE RAIL
1	EACH	NAME PLATES
1	EACH	TEST PILES (TIMBER)
1,034	LIN.FT.	FURNISHING UNTREATED PILES UP TO 30 FEET
1,034	LIN.FT.	DRIVING TIMBER PILES
47	EACH	METAL SHOES
1	EACH	REMOVAL OF EXISTING STRUCTURES
230	CU.YDS.	CLASS A EXCAVATION FOR STRUCTURES
205	CU.YDS.	CLASS B EXCAVATION FOR STRUCTURES

Burton Bridge includes the construction of a single span RC. Slab bridge on closed concrete abutments, 30' bk. bk. of abutments, 24' roadway, 1' curbs @ Sta. 6+10. Skew = 15°.

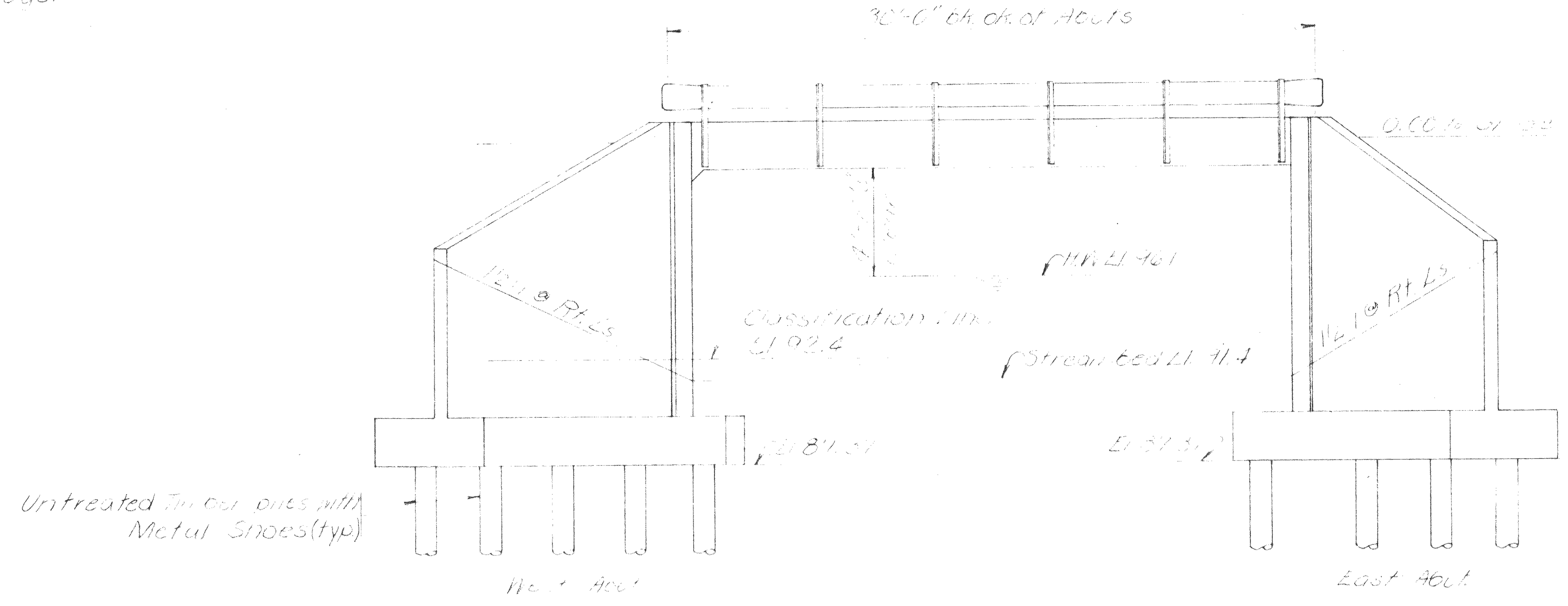
LAYOUT

APPROX. SCALE 1"= 1 MILE

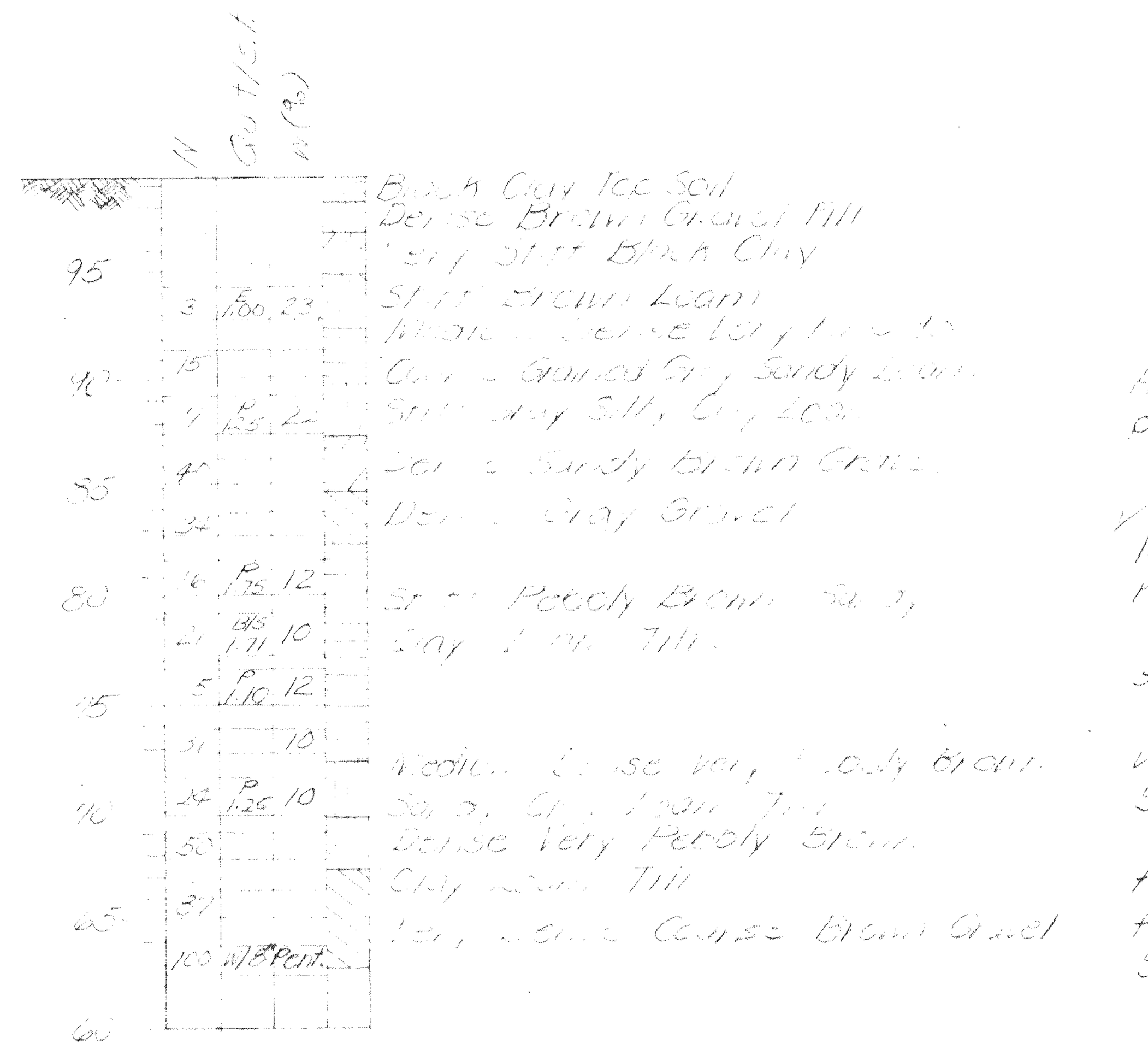


3044

B.M. - Top of south end of pier - Bridge on RTE 47 El 100.00
Exist. Structure - 1 span I om. @ 2_' ct., 16' roadway, Planked Deck
Substructure - Closed Steel Abutments.
Contractor shall remove existing structure at the time of construction.
No Salvage.



ELEVATION



BORING

Sta. 5+98
½ ℄ Rt.

N - Blows per ft. to drive 2" O.D. Split Spoon sampler 12" with 140# hammer falling 30".
Qu - Unconfined Compressive strength in tons per sq ft.
W - Water Content - Percentage of oven dry weight - %

GENERAL NOTES

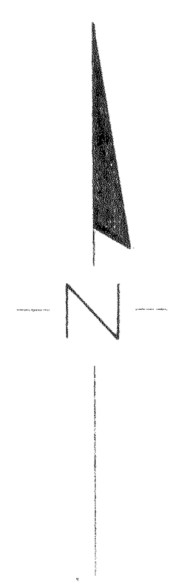
Class X concrete shall be used throughout.
The concrete floor shall be finished in accordance with Art 51.14 of the Standard Specifications, and shall be poured in one continuous operation.
Curbs shall be poured monolithically with the slab.
The Contractor shall drive one test pile in a permanent location in the East abutment before ordering the remainder of the piles.
Boring is shown only as a guide for bidders in estimating soil conditions which may be encountered in the work.
The backs of the abutments and wingwalls shall be waterproofed in accordance with Art 51.21 of the Standard Specifications.
No backfill or embankment shall be placed behind the abutments until the floor slab is poured and falsework is removed. See Art. 50.10 of the Standard Specifications.

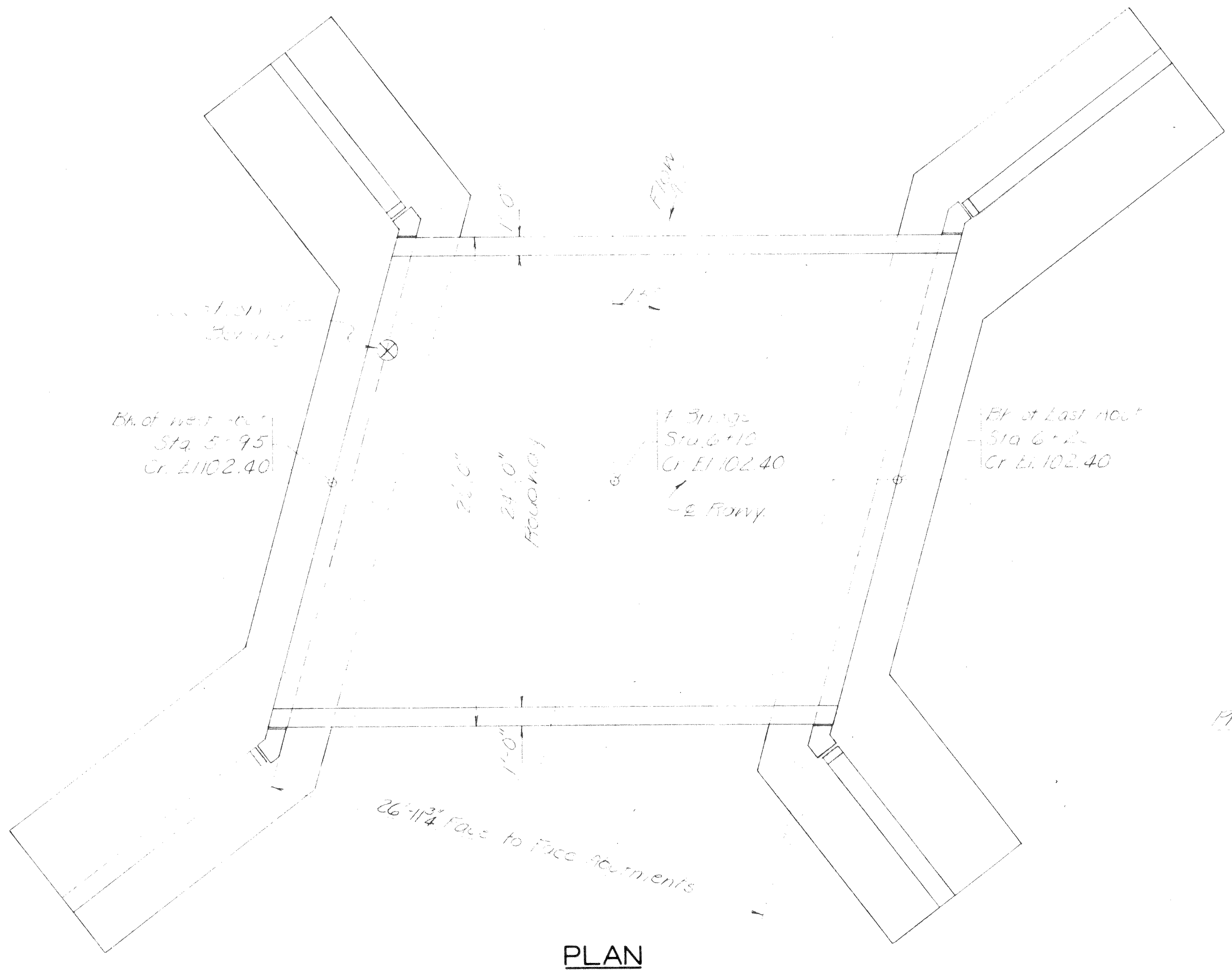
STATION 6+10
ROB ROY CREEK
BURTON BRIDGE BUILT 196-

KANE - KENDALL COUNTIES
LOADING HS15

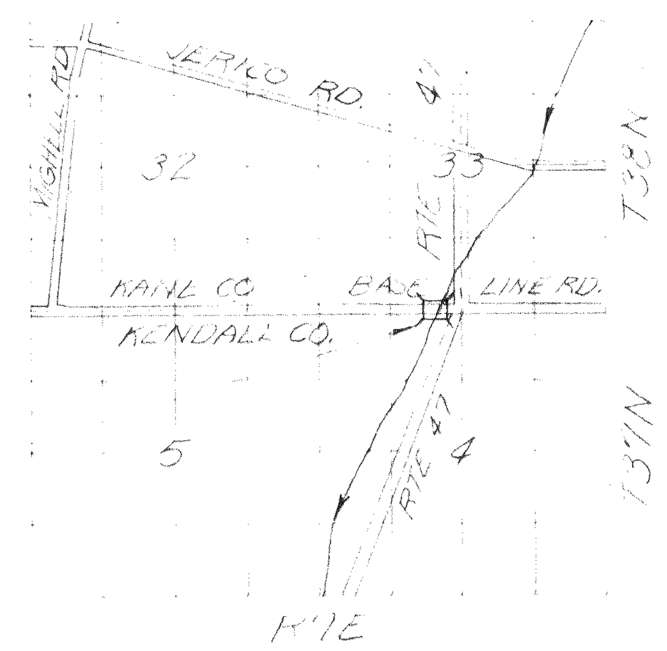
LETTERING FOR NAME PLATE

See Std 2113-1





PLAN



Proposed Bridge

LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEM		SUPER	SUB	TOTAL
Class X Concrete	Cu Yds	40.6	104.1	144.7
Reinforcement Bars	Lbs.	9220	5480	14,700
Metal Plate Bridge Rail	Lin Ft	54	-	54
Name Plates	Each	1	-	1
Test Piles (Timber)	Each	-	1	1
Untreated Timber Piles	Lin Ft	-	1,034	1,034
Metal Shoes	Each	-	47	47
Removal of Existing Structures	Each	-	-	1
Class A Excavation for Structures	Cu Yds	-	-	230
Class B Excavation for Structures	Cu Yds	-	-	205

WATERWAY DATA

Drainage Area	3,600 Acres
Req'd. Opening (15 yr)	125 Sq Ft
Present Opening	110 Sq Ft
Proposed Opening	127 Sq Ft

DESIGN STRESSES

fc = 1,400 psi (Super)
fc = 1,000 psi (Sub)
fs = 20,000 psi (reinf.)
v = 15 psi (Ftgs.)
n = 10

Loading HS15-44

Marcus J. Rice
Illinois Structural No 2134

MARCUS J. RICE · REGISTERED · 2134 · ILLINOIS · STRUCTURAL ENGINEER

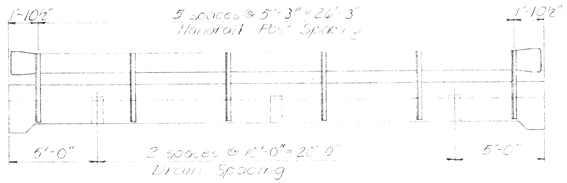
GENERAL PLAN & ELEVATION
BURTON BRIDGE

KANE - KENDALL COUNTIES
STATION 6+10

COLLINS AND RICE
CONSULTING ENGINEERS

DESIGNED REG | CHECKED MJR
DRAWN J.N. | DATE 1-20-66 | NO. 364

3044



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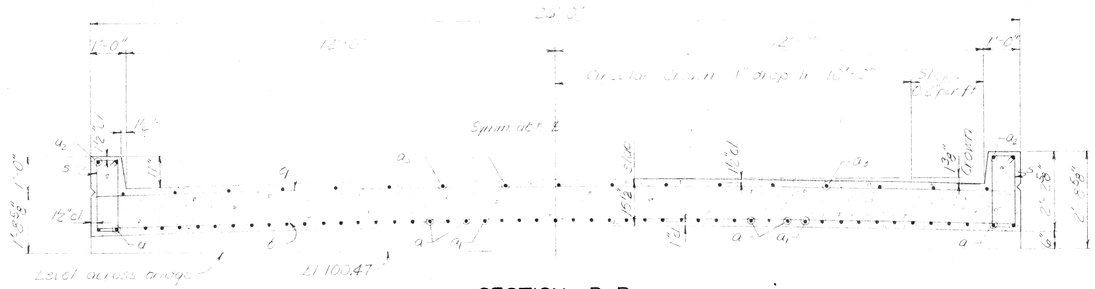
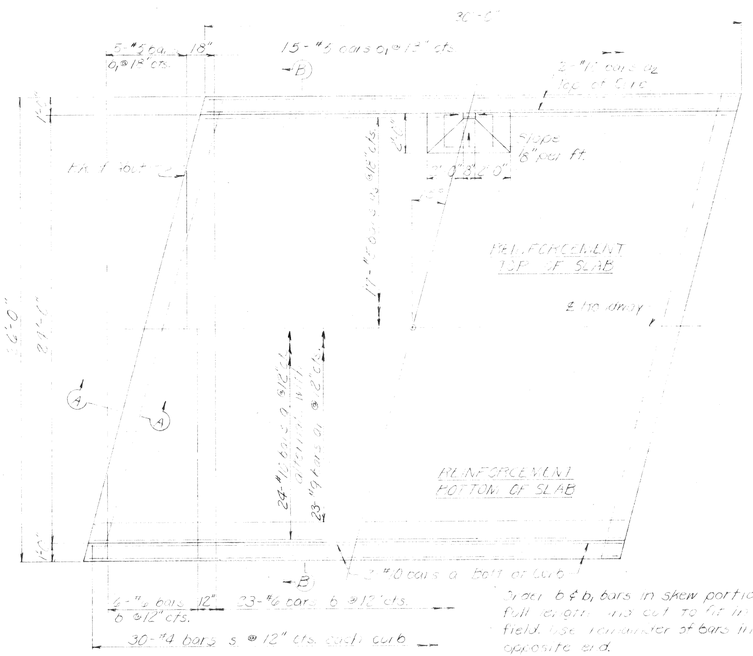
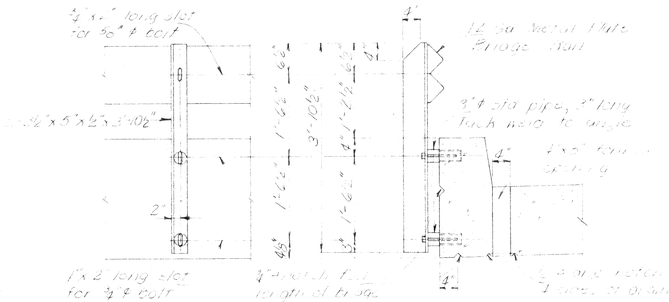


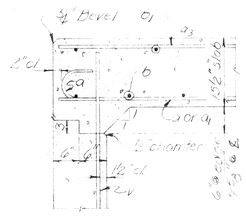
SECTION B-B



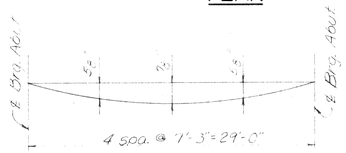
PLAN



HANDRAIL AND DRAIN DETAIL



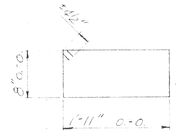
SECTION A-A



DL. DEFLECTION DIAGRAM

In addition to D.L. Deflection the Contractor shall include camber for shrinkage and settlement of falsework

BAR q



BAR s

BILL OF MATERIAL
SUPERSTRUCTURE

BAR	NO.	SIZE	LENGTH	SHAPE
a	28	#11	32'-11"	
a1	23	#9	29'-8"	
a2	4	#11	27'-8"	
s	17	#5	29'-8"	
b	29	#6	25'-9"	
b1	20	#5	25'-9"	
q	60	#4	5'-11"	
Class A Concrete			Cu.Yds.	40.6
Reinforcement Bars			Lbs.	9,220
Metal Plate Bridge Rail			Lin.Ft.	54

SUPERSTRUCTURE
BURTON BRIDGE

KANE-KENDALL COUNTIES
STATION 6+10

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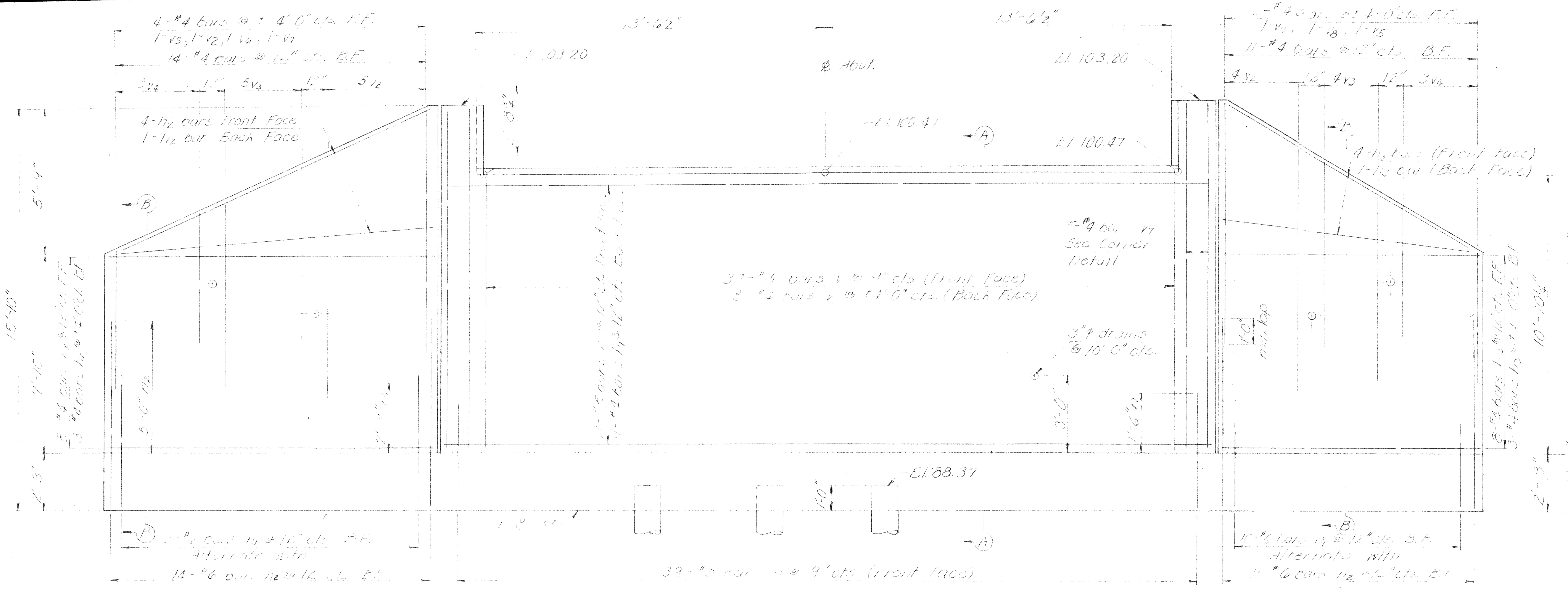
DRAWN J.N. DATE 1-20-66 NO. 364



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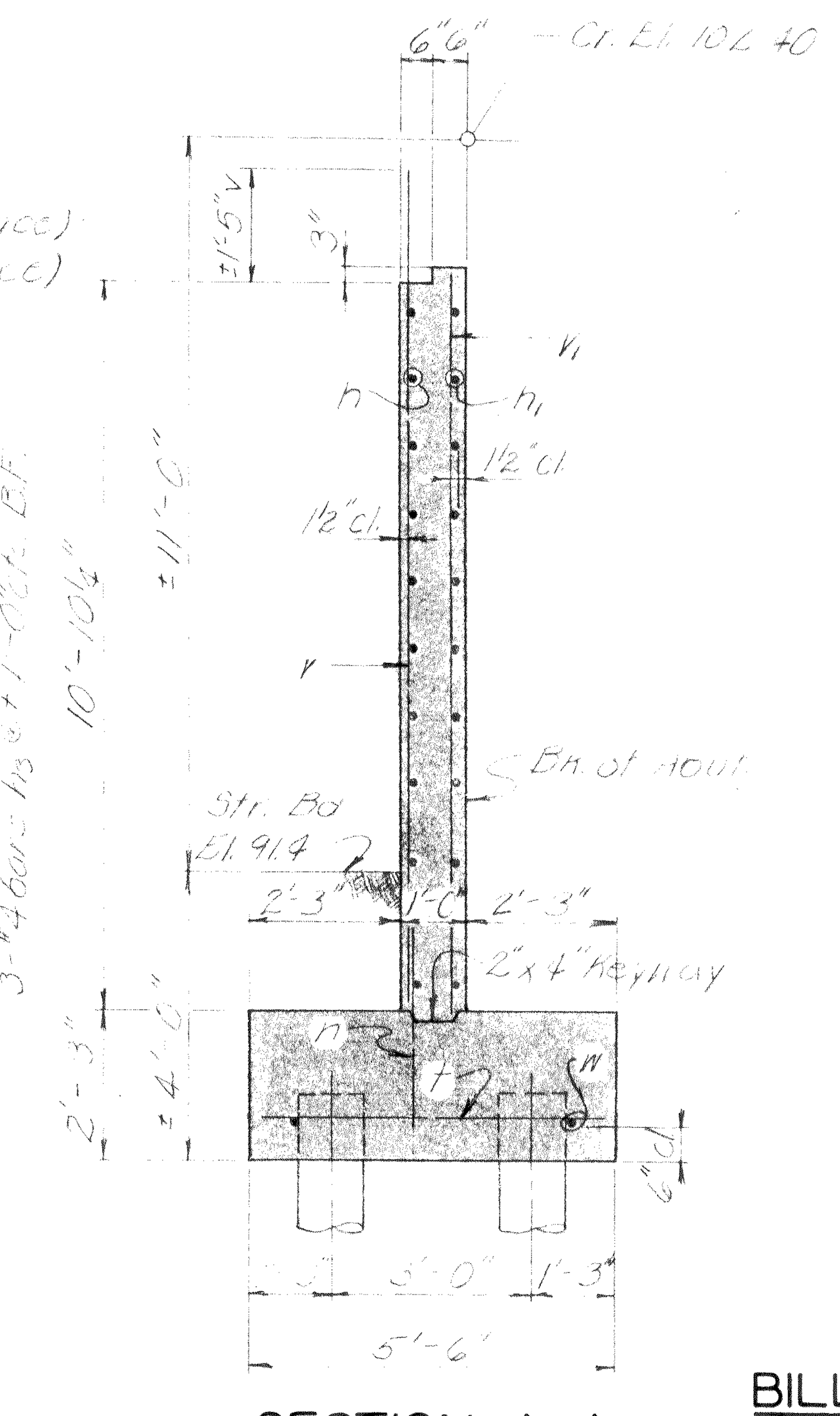

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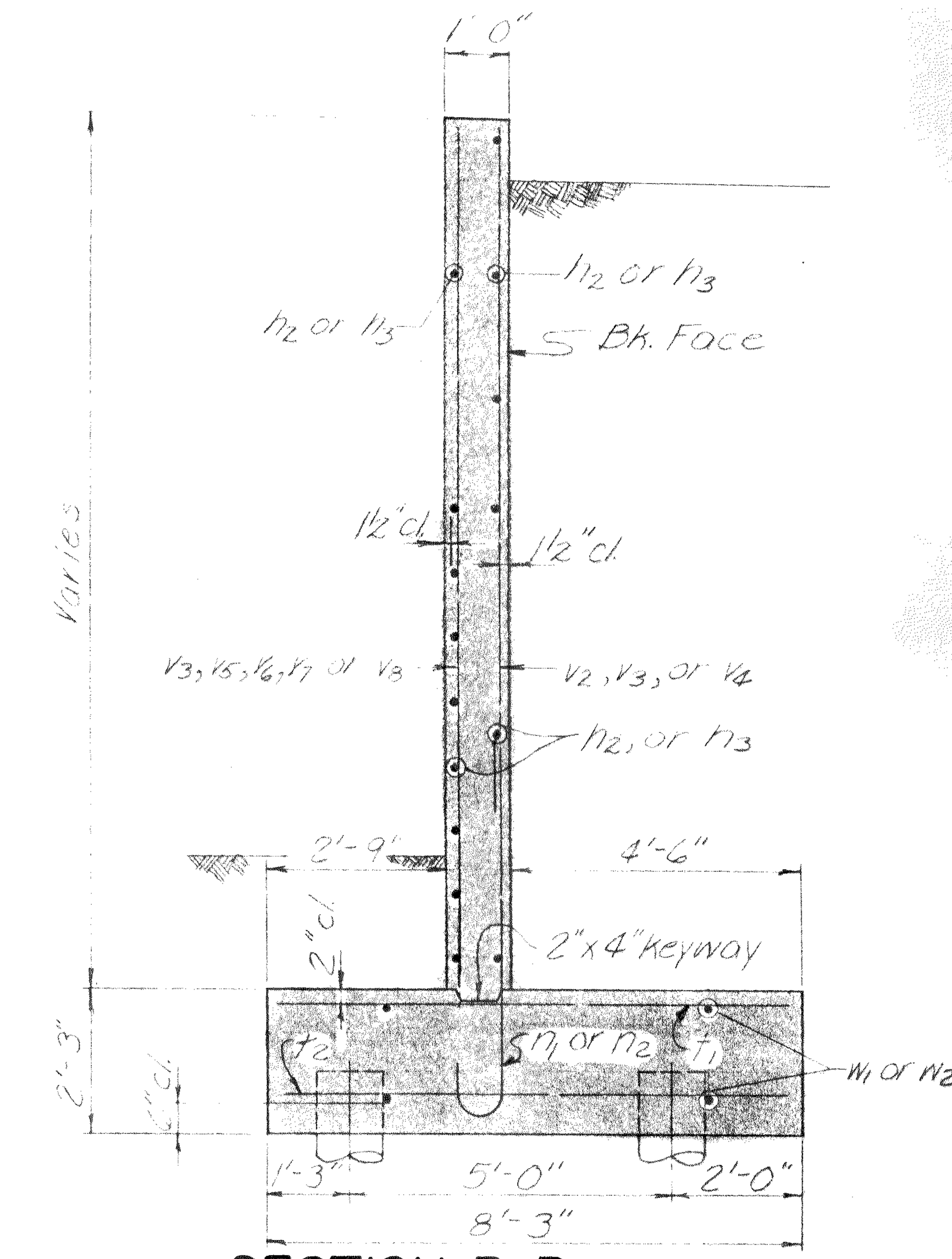
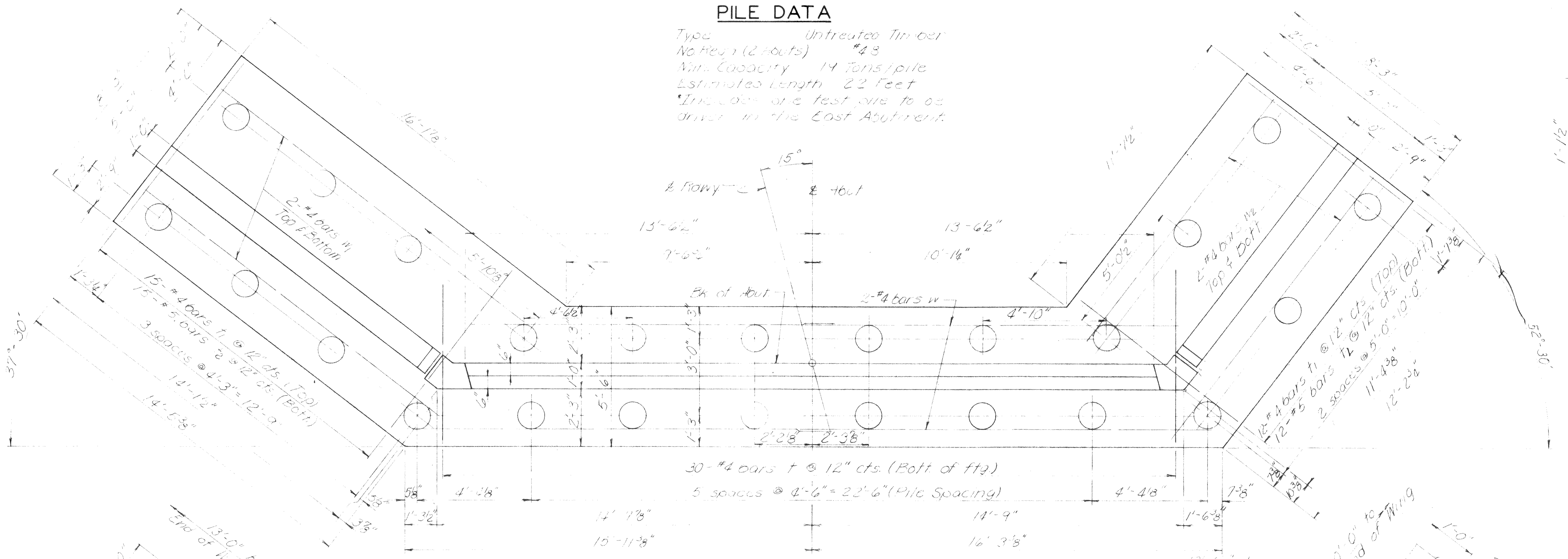


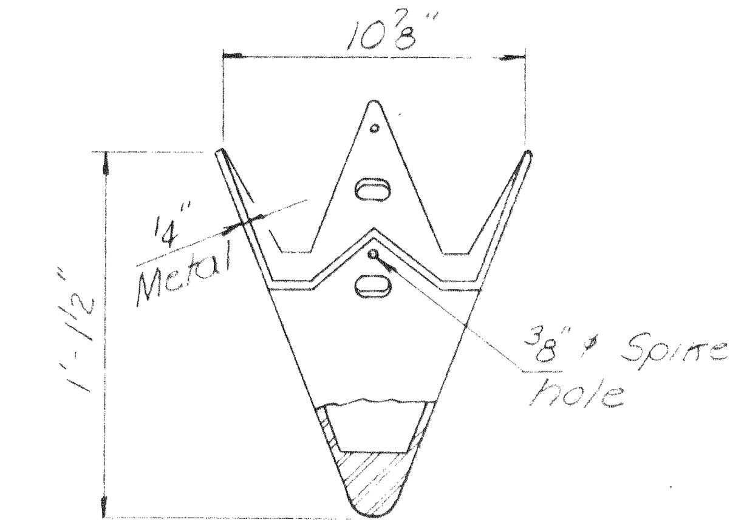
SECTION B-B

PILE DATA

Type: Untreated Timber
No. Hogs (2 abuts): 48
Min. Capacity: 14 Tons/pile
Estimated Length: 22 Feet
"Ins. Cal." are test pile to be driven in the East Abutment.



PLAN

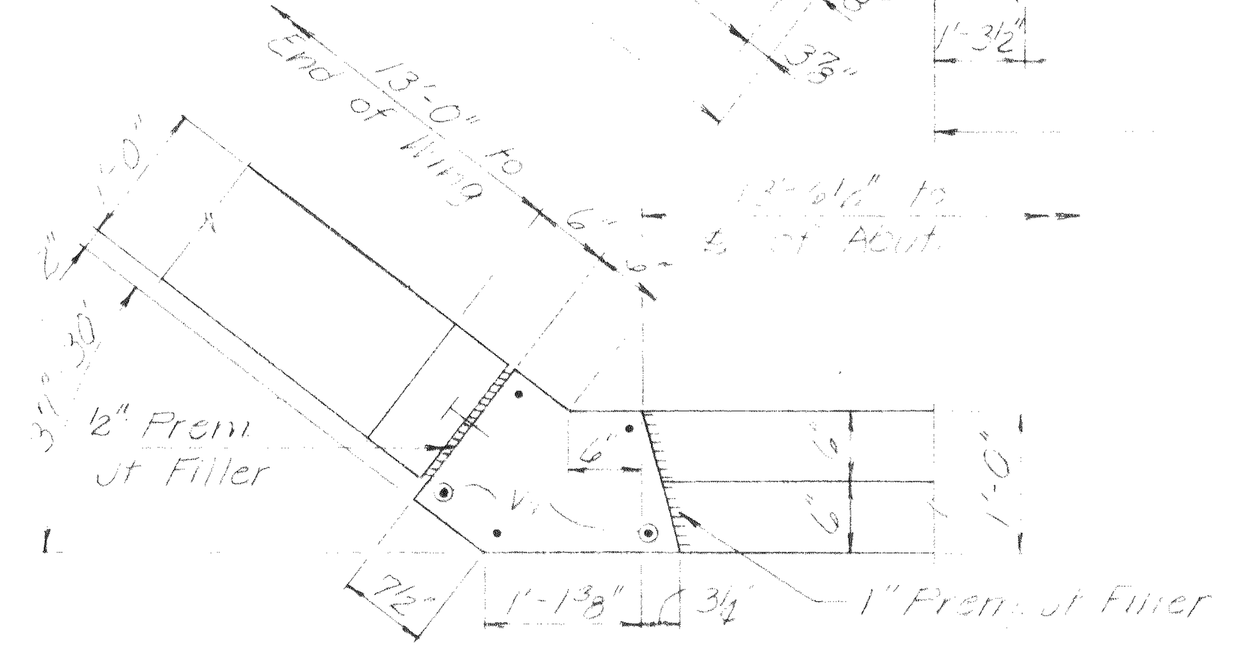


METAL PILE SHOE

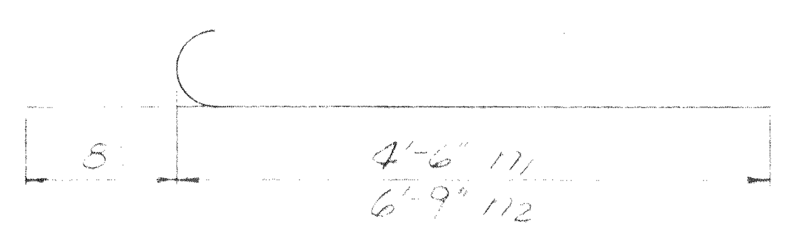
BILL OF MATERIAL 2 - ABUTMENTS

BAR	NO.	SIZE	LENGTH	SHAPE
h	22	#5	29'-3"	——
h_1	22	#4	28'-6"	——
h_2	32	#4	13'-3"	——
h_3	32	#4	10'-3"	——
n	78	#5	3'-3"	——
n_1	46	#6	5'-2"	⊂
n_2	50	#6	7'-5"	⊂
v	74	#5	12'-3"	——
v_1	16	#4	10'-9"	——
v_2	20	#4	9'-6"	——
v_3	18	#4	7'-3"	——
v_4	14	#4	5'-1"	——
v_5	4	#4	7'-9"	——
v_6	2	#4	11'-6"	——
v_7	24	#4	13'-5"	——
v_8	2	#4	10'-6"	——
t	60	#4	5'-3"	——
t_1	54	#4	8'-0"	——
t_2	54	#5	8'-0"	——
w	8	#4	16'-6"	——
w_1	4	#4	15'-6"	——
w_2	4	#4	12'-6"	——

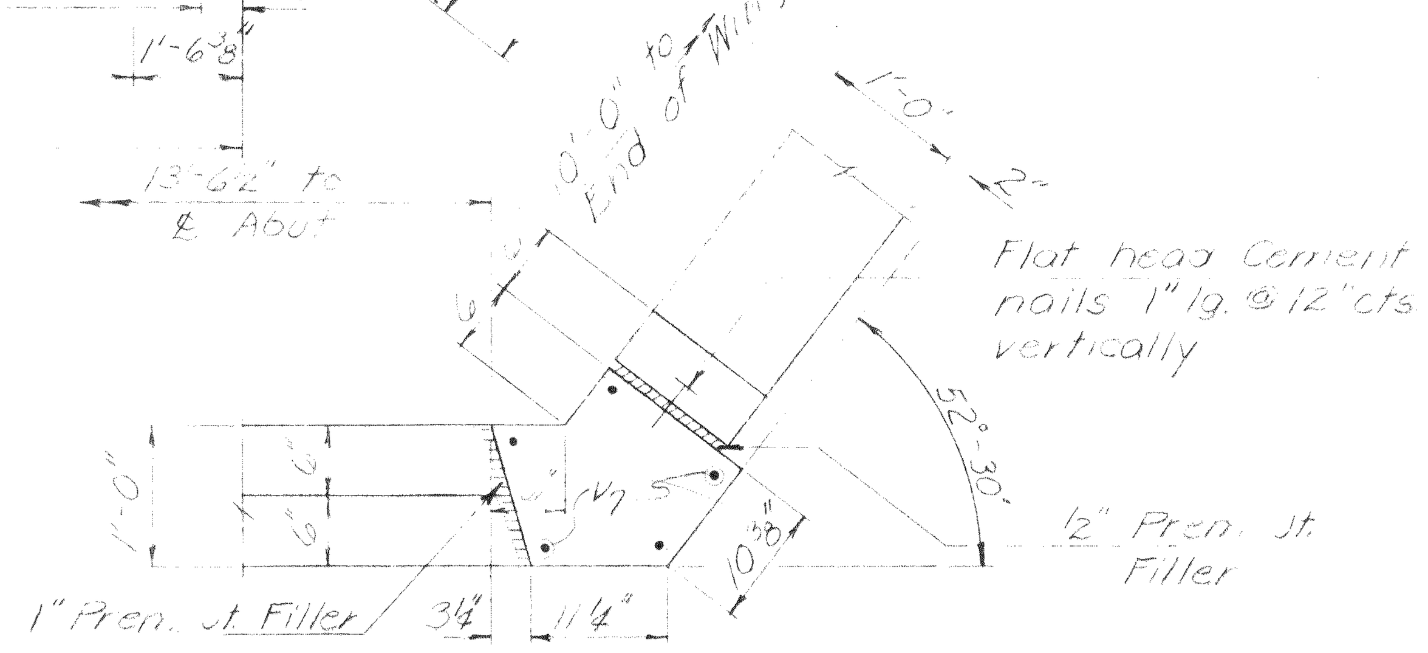
Class X Concrete	Cu. Yds.	104.1
Reinforcement Bars	Lbs.	5,480
Untreated Timber Piles	Lin. Ft.	1,034
Metal Shoes	Each	47
Test Piles (Timber)	Each	1



CORNER DETAILS



BARS n_1 & n_2



CORNER DETAILS

ABUTMENTS
BURTON BRIDGE

KANE-KENDALL COUNTIES
STATION 6+10

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