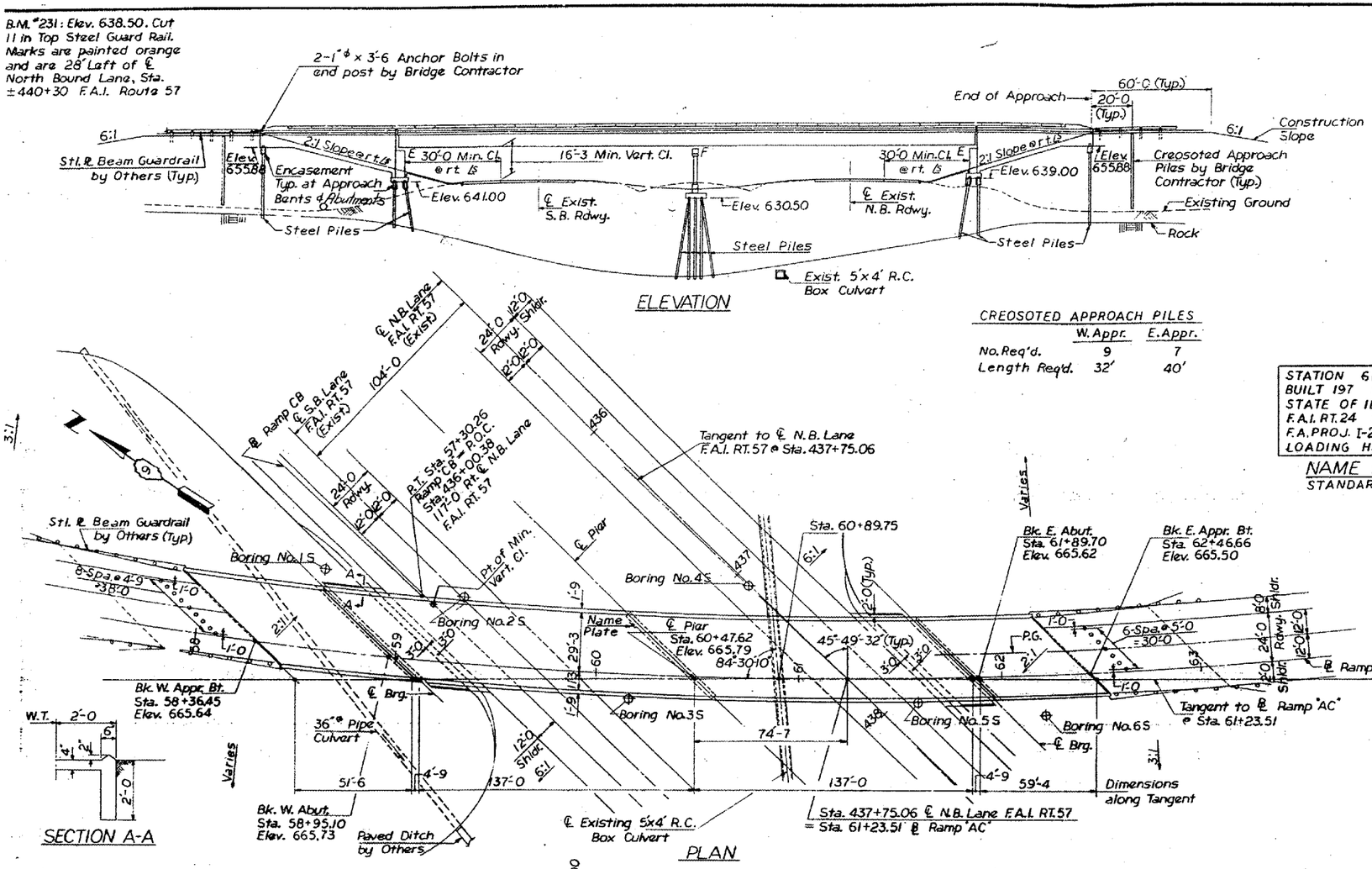


CREOSOTED APPROACH PILES

	W. Appr.	E. Appr.
No. Req'd.	9	7
Length Req'd.	32'	40'

STATION 61+23.51
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. RT. 24 SEC. XI-2HB
F.A. PROJ. I-24-1(32) O
LOADING HS20

NAME PLATE
STANDARD 2113

GENERAL NOTES

1. ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.
2. FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4" ϕ, OPEN HOLES 13/16" ϕ, UNLESS OTHERWISE NOTED.
3. CALCULATED WEIGHT OF STRUCTURAL STEEL 682,040 LBS.
4. THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.
5. FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
6. ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER SUPPORTS.
7. SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, WEIGHING 50# PER 100 SQ. FT.
8. THE CONTRACTOR SHALL DRIVE ONE STEEL TEST PILE IN A PERMANENT LOCATION AT THE PIER AND AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
9. AN ALTERNATE STRAND PATTERN USING EXTRA HIGH STRENGTH PRESTRESSING STRAND (270 K.S.I.) IS PERMITTED.

BILL OF MATERIAL

ITEM	UNIT	SUB-STRUCT.	SUPER-STRUCT.	TOTAL
Structure Excavation	Cu.Yds.	150		150
Furnishing & Erecting Structural Steel	L.S.		.9	.9
Aluminum Railing	Lin.Ft.		785	785
Class X Concrete	Cu.Yds.	598.0	648.8	1246.8
Reinforcement Bars	Lbs.	52970	152,010	204,980
Furnishing & Erecting P.P.C. I-Beams, 48"	Lin.Ft.		695	695
Steel Piles (8 BP 36)	Lin.Ft.	4087		4087
Test Piles, Steel (8 BP 36)	Each	3		3
Creosoted Piles (20.1' to 38')	Lin.Ft.	288		288
Creosoted Piles (over 38')	Lin.Ft.	280		280
Bridge Seat Sealer	L.S.	.9		.9
Name Plates	Each	1		1
Slope Wall (4")	Sq.Yds.	440		440
Protective Coat	Sq.Yds.		2170	2170

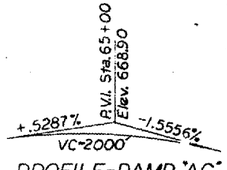
BRIDGE NO. 6
S.N. 100-0060
FOR INFORMATION ONLY

DESIGN STRESSES

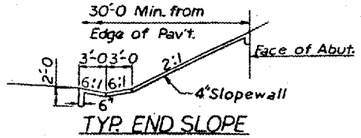
FIELD UNITS
f'_c = 1200 p.s.i.-Deck Slab
f'_c = 1400 p.s.i.-Curb, Parapet & Sub.
f_s = 20,000 p.s.i.-Reinf.
f_s = 20,000 p.s.i.-Struct. (A-36)
v_c = 75 p.s.i.-Ftgs.
n = 10

PRECAST PRESTRESSED UNITS
f'_c = 5000 p.s.i.
f'_{ci} = 4000 p.s.i.
f'_s = 248,000 p.s.i.-Strands
f'_{si} = 173,600 p.s.i.-Strands

Allowable ℄ Defl. = $\frac{L}{1000}$ Non-Comp.
Allowable Fut. Wearing Surf. = 25#/□'
Loading = HS20-44 & Alternate



PROFILE-RAMP "AC"



TYP. END SLOPE
All Dimensions are at Rt. ∠s to the Abut.

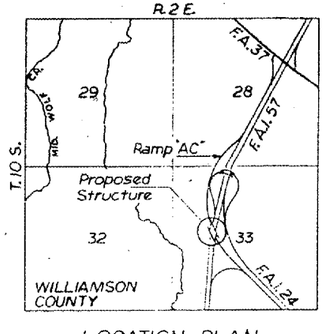
EXISTING F.A.I. 57
PAVEMENT ELEVATIONS

℄ N.B. Lane — ℄ S.B. Lane
Edge of Pvt.
10'-0 12'-0 12'-0 80'-0 12'-0 12'-0 10'-0
Edge of Exist. Paved Shoulder — Edge of Exist. Paved Shoulder

STATION									
434	640.80	641.36	641.48	641.34		641.34	641.44	641.29	640.86
435	640.10	640.57	640.70	640.57		640.52	640.65	640.50	640.11
436	639.28	639.79	639.94	639.83		639.73	639.86	639.75	639.48
437	638.55	639.06	639.17	639.02		638.99	639.16	639.06	638.61
438	637.99	638.38	638.46	638.33		638.32	638.42	638.27	637.86
439	637.51	637.75	637.82	637.54		637.50	637.60	637.49	637.08

CURVE DATA

Curve	P.I.	Curve No.	Δ	D	R	T	L
N.B. Lane F.A.I. 57	419+75.42	—	19°-16'-30"	0°-28'-00"	12,277.70'	2,084.88'	4,130.36'
Ramp "AC"	53+23.58	3	95°-04'-54"	2°-30'-00"	2,291.83'	2,504.67'	3,803.26'
Ramp "CB"	52+54.93	7	4°-23'-31"	0°-27'-43"	12,408.06'	476.81'	951.15'



LOCATION PLAN

STATE OF ILLINOIS
HAROLD M. BROWNELL
2364
REGISTERED STRUCTURAL ENGINEER

ILLINOIS DIVISION OF HIGHWAYS
F.A.I. ROUTE 24
PROJECT _____ SECTION XI-2HB
WILLIAMSON COUNTY
GENERAL PLAN & ELEVATION
RAMP "AC" STATION 61+23.51
Designed By: H.M. | Drawn By: W.C. | Quantities By: L.P.