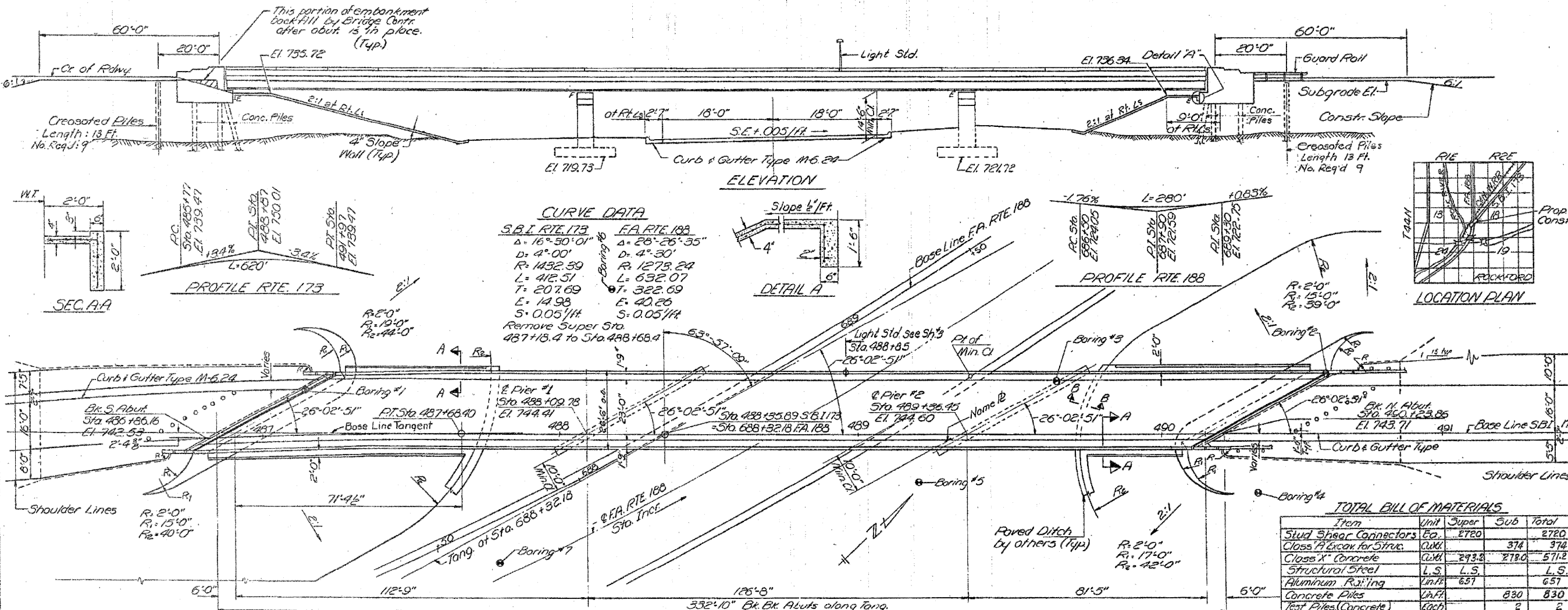


B.M. T.B.M. 5-731-1 Chiseled in Concrete base of light std. Steel & Shake Drive In. 3' 7" Lt. of Sta. 491+65 line 'C'.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
F.A. 188	1-2HB	WINNEBAGO	187	116	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



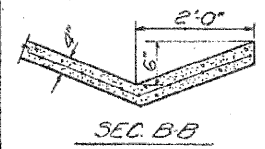
**CURVE DATA**

S.B.L. RTE. 173	F.A. RTE. 188
Δ = 16° 50' 01"	Δ = 28° 26' 35"
D = 4° 00'	D = 4° 30'
R = 1432.59	R = 1278.24
L = 412.51	L = 632.07
T = 207.69	T = 322.69
E = 14.98	E = 40.26
S = 0.05/ft	S = 0.05/ft

Remove Super Sta. 487+13.4 to Sta. 488+68.4

**TOTAL BILL OF MATERIALS**

Item	Unit	Super	Sub	Total
Stud Shear Connectors	Ea.	2720		2720
Class A Excav. for Struct.	Cu.Yd.		374	374
Class X Concrete	Cu.Yd.	293.8	218.0	511.8
Structural Steel	L.S.	L.S.		L.S.
Aluminum Roofing	Unit	657		657
Concrete Piles	Lin.Ft.		830	830
Test Piles (Concrete)	Each		2	2
Creosoted Piles (to 20 Ft)	Lin.Ft.		234	234
Name Plates	Each		1	1
Slope Wall (4")	Sq.Yd.		300	300
Protective Coat	Sq.Yd.	1150		1150
Bridge Seat Sealant	L.S.			Lump Sum
Reinforcement Bars	Lb.	13,010	32,070	105,080



STATION 688+32.18  
BUILT 1971 BY  
STATE OF ILLINOIS  
F.A. PROJ. U-276(11)  
LOADING HS20-44

**NAME PLATE**  
Sta. 218-1

**SPANS 1 & 2: COMP. GIRDERS**

Table of Mom. & Shears - Int. Girders	Steel Sec. - Max. Mom.	SPAN-1	SPAN-2
DL	124.8 K	510.7 K	
Comp. Sec. Max. Mom.			
S.D.L.	365.8 K	302.4 K	
LL + Imp.	959.3 K	914.5 K	
Total	1325.1 K	1216.9 K	

**SHEARS**

S.A. 1	2	3	4	5	6	7	8	9	10
S.D.L.	17.3 K	4.0 K	2.9 K	0	2.8 K				
LL + Imp.	42.9 K	20.9 K	47.0 K	21.8 K	46.7 K				
Total	60.2 K	24.9 K	76.8 K	24.8 K	75.2 K				

**SPAN 3: NON-COMP. GIRDERS**

Moment	Reactions
4 ft	No. Abut. Pier 2
DL 509.0 K	34.7 K 146.5 K
LL + Imp. 620.9 K	40.9 K 69.3 K
Total 1129.9 K	75.6 K 215.8 K

**PROPERTIES Steel Section**

Section	Area	Moment	Section Mod.
1	4.52	1.55	0.45
2	30.16	530.46	24.22
3	114.9	194.7	95.11
4	5.52	1.55	0.45
5	30.16	530.46	24.22
6	114.9	194.7	95.11
7	4.52	1.55	0.45
8	30.16	530.46	24.22
9	114.9	194.7	95.11
10	4.52	1.55	0.45

**Comp. Section**

Span	Area	Moment	Section Mod.
1	333.90	1244.1	1168
2	1272	1168	

**GENERAL NOTES**

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Fasteners shall be high strength bolts. Bolts 3/8" φ, open holes 1/8" unless otherwise noted.

Calculated weight of Structural Steel = 303,300 lbs.

Cast steel shall be Class 70. Structural steel weldments of equal sections and meeting ASTM A-36 may be substituted for castings at the option of the Contractor, subject to approval by the Engineer prior to fabrication. No additional compensation will be allowed the Contractor for this substitution.

The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

Field welding of construction accessories will not be permitted to the bottom flange of beams or 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.

Anchor bolts shall be set before bolting cross frames over supports.

Class A Excavation for structures includes excavation for slope wall.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

The Contractor shall drive 2 concrete test piles in permanent locations, one at each abutment as directed by the Engineer before ordering the remainder of piles.

DESIGNED: M. M. M. M. M.  
CHECKED: J. M. M. M. M.  
DRAWN: R. Ferrando  
CHECKED: J. M. M. M. M.

APRIL 20 1971  
EXAMINED: J. M. M. M. M.  
PASSED: J. M. M. M. M.  
APPROVED: J. M. M. M. M.

**DESIGN STRESSES**

f<sub>c</sub> = 1400 psi Super.  
f<sub>c</sub> = 75 psi Ftgs.  
f<sub>s</sub> = 20,000 psi Reinf.  
f<sub>s</sub> = 20,000 psi Struct.  
n = 10

LL Deflection:  
1/200 = Composite  
1/1000 = non-Composite

**GENERAL PLAN & ELEVATION**  
PROJ. U-276(11)  
F.A. RTE. 188 SEC. 1-2HB  
WINNEBAGO COUNTY  
STA. 688+32.18

ROUTE FAP 303 (IL 251) & FAU 5146 (FOREST HILLS ROAD)	SECTION 1-HB & 1-2-HB-D	COUNTY WINNEBAGO	SHEET 161 OF 216
		CONTRACT 64879	

INFORMATION ONLY

Revised May 21 '70