

STATE OF ILLINOIS
WINNEBAGO COUNTY HIGHWAY DEPARTMENT
**PLANS FOR PROPOSED
ROSCOE BRIDGE**
SECTION 142-B-CF

INDEX OF SHEETS.

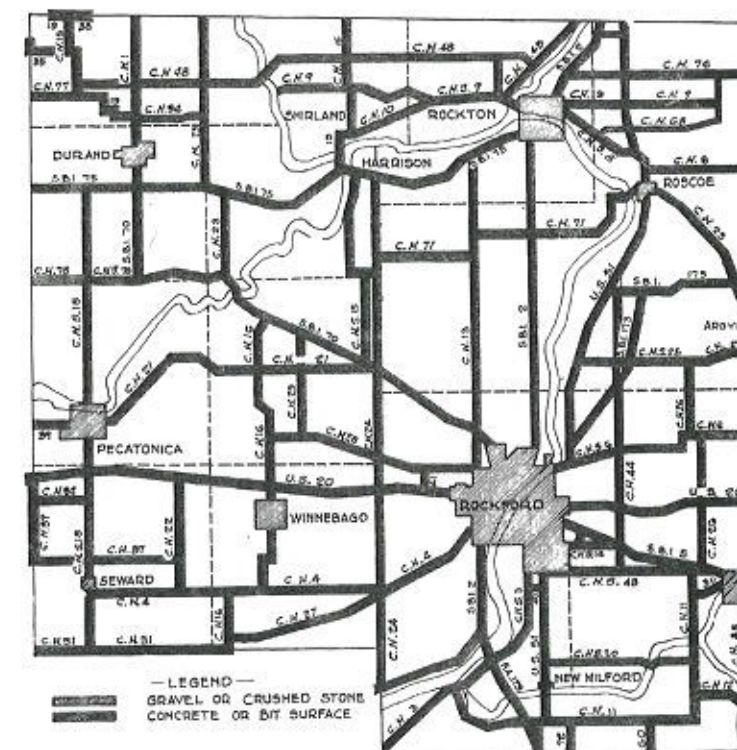
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SECTION 142-B-CF INCLUDES THE COMPLETE CONSTRUCTION
OF A 5-SPAN CONTINUOUS STEEL GIRDER BRIDGE, SPANS 54'11.5'-0",
AT STATION 519+28.50, CARRYING RELOCATED ROSCOE ROAD OVER
THE ROCK RIVER.

SECTION 142-B-CF
BEGINNIG AT STA. 516+28.45



SECTION 142-B-CF
ENDS AT STA. 524+28.55



- WITH NOTES + COMPS
- SEE SHEETS 4, 6 + 7
- ECN 2/21/2025

GROSS LIMITS OF CONTRACT 580.10 FEET 1.099 MILES
NET LIMITS OF CONTRACT 580.10 FEET 1.099 MILES

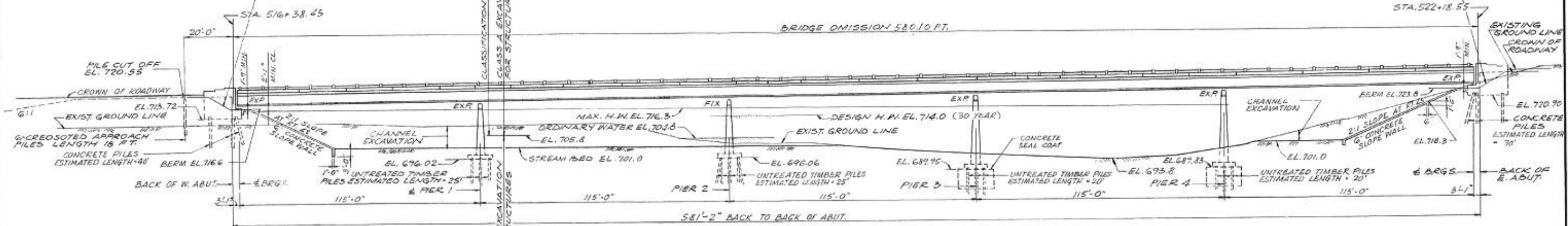
ALFRED BENESCH & CO.
CONSULTING ENGINEERS
10 S. WABASH AVE.
CHICAGO, ILLINOIS

Samuel Benes
#1459

TEMPORARY BENCH MARK: 600 SPIKE
IN ROOT 8" ELM 18' RT. OF STA. 518+00
EL. 712.78
EXIST. STRUCTURE: 4 TRUSS SPANS
SUPPORTED ON MASONRY ABUTMENTS
AND PIERS, LOCATED 325' UPSTREAM
FROM PROPOSED STRUCTURE, TO BE
REMOVED BY COUNTY.

THIS PORTION OF EMBANKMENT
BACKFILL BY BRIDGE CONTRACTOR
AFTER ABUTMENT IS IN PLACE

THIS PORTION OF EMBANKMENT
BACKFILL BY BRIDGE CONTRACTOR
AFTER ABUTMENT IS IN PLACE



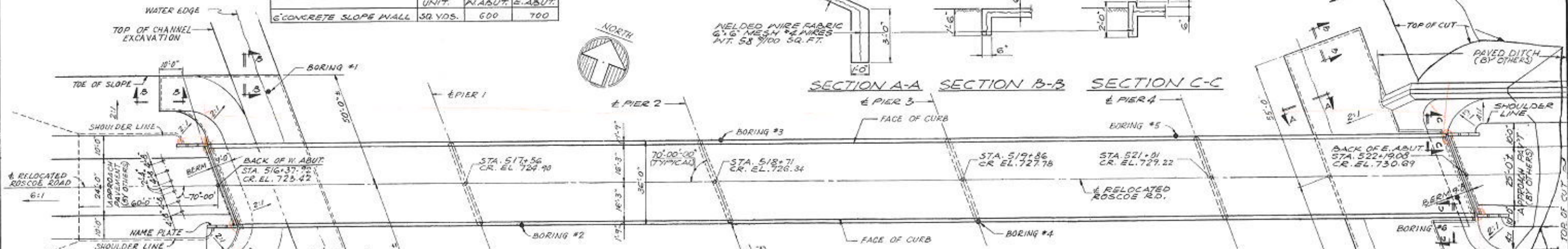
EMBANKMENT * 4,800 CU. YDS.
BORROW EXCAVATION * 3,760 CU. YDS.

	UNIT.	W. ABUT.	E. ABUT.
6" CONCRETE SLOPE WALL	SQ. YDS.	600	700

ELEVATION
SCALE: 1" = 20'-0"

WELDED WIRE FABRIC
6" X 6" MESH @ 24 INCHES
INT. 58 7/100 SQ. FT.

SECTION A-A SECTION B-B SECTION C-C



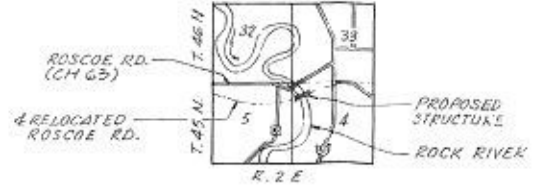
ROADWAY CLASSIFICATION
CLASS 'C' ROAD DNY: 575 (1987) SPEED: 70 MPH

WATERWAY DATA
DRAINAGE AREA 6,370 SQ. MILES
CHARACTER ROLLING, CULTIVATED
PRESENT OPENING 4610 SQ. FT.
REQUIRED OPENING (30 YR. FLOOD) 6800 SQ. FT.
PROPOSED OPENING 6800 SQ. FT.

DESIGN DATA
LOADING
HS-20-44
FUTURE D.L. 1/2" BITUMINOUS WEARING SURFACE
CONCRETE
f_c = 3500 PSI
f_c = 1400 PSI
f_c = 1000 PSI (WITH EARTH PRESSURE)
Y = 75% (FOOTING)
n = 10
REINFORCING STEEL
f_s = 20,000 PSI
STRUCTURAL STEEL
f_t = 20,000 PSI (A 36)
PILE LOADS
ABUTMENTS 35 TONS (CONCRETE)
PIERS 24 TONS (UNTREATED TIMBER)
L.L. DEFLECTION
Δ_L = L/1200 (COMPOSITE)

PROFILE GRADE

STATION 519+28.50
ROCK RIVER
BUILT 1967 BY
WINNEBAGO COUNTY
SECT. 142-B-CF
LOADING HS 20



LOCATION SKETCH

LETTERING FOR NAME PLATE

APPROVED
COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

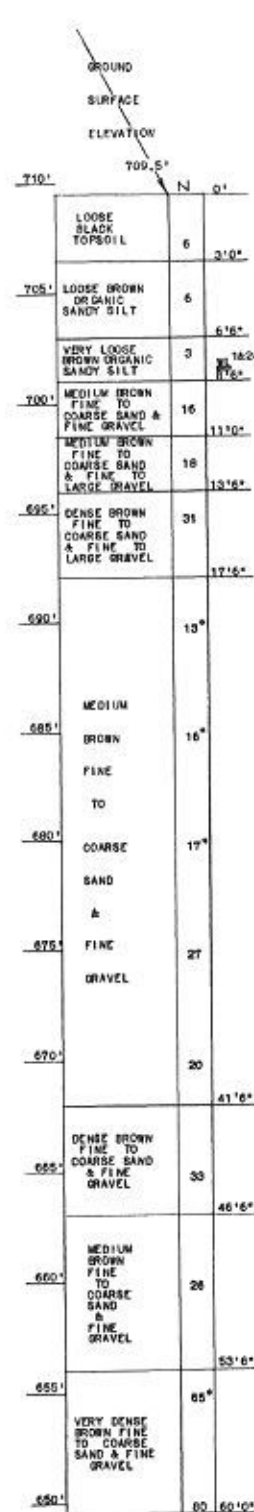
SEE STATE OF ILLINOIS STD. 2113-1

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS

GENERAL PLAN AND ELEVATION
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50

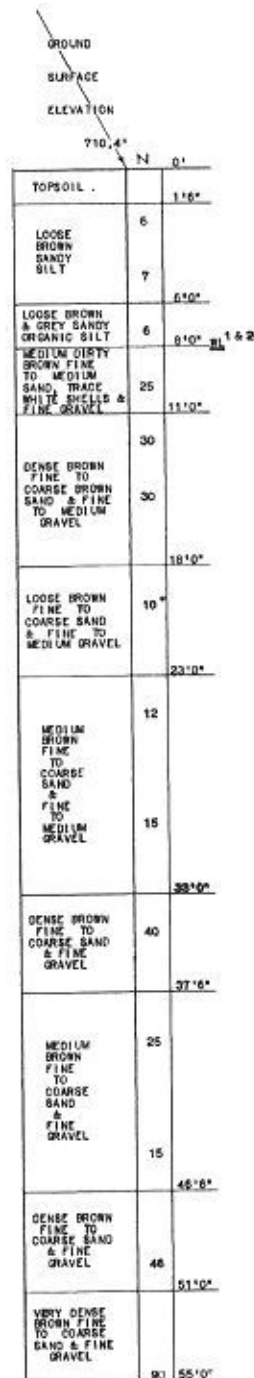
SOIL TEST BORINGS

BORING N°1



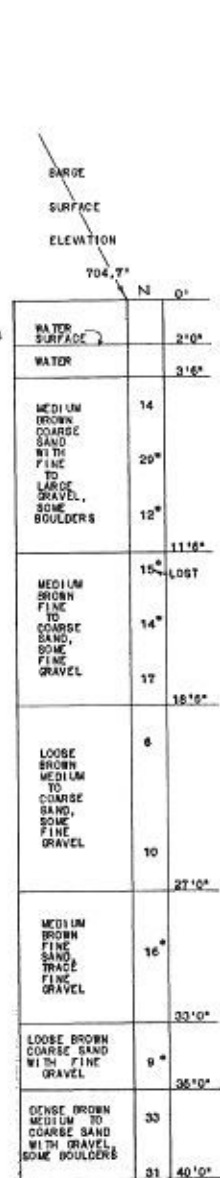
USED 58'6" OF
2-1/2" CASING
8/1-2/66

BORING N°2



USED 53'6" OF
2-1/2" CASING
8/3/66

BORING N°3

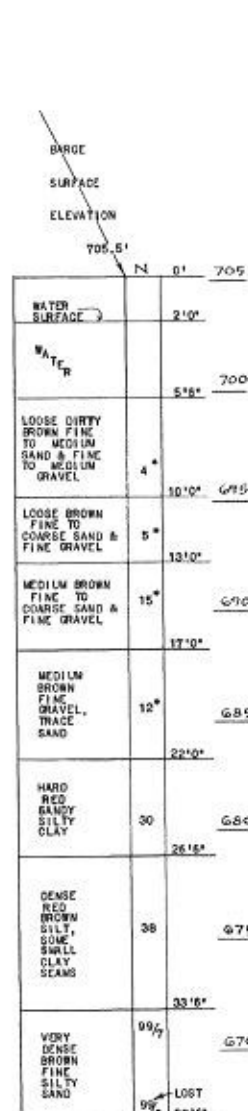


DRING N°4



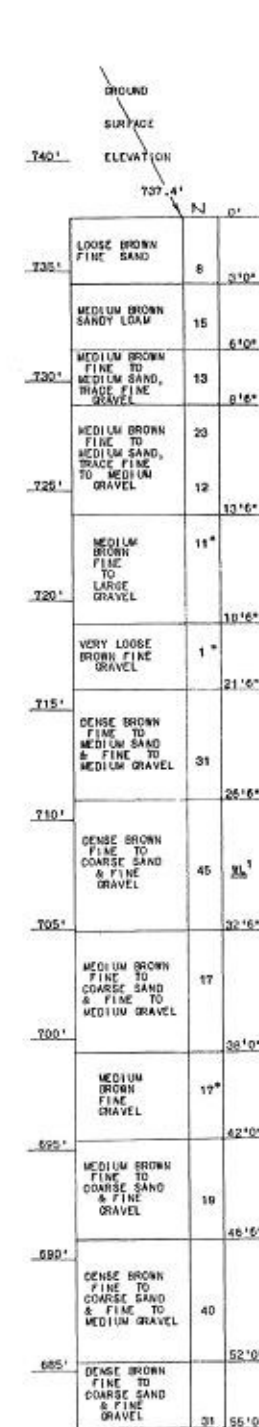
USED 32'6"
2-1/2" CA
7/29/0

BORING N° 5



ED 23'6" OF
1/2" CASING

BORING N° 6



USED 48" 6" O
2-1/2" CASING
R/C-4/66

BRIDGE GENERAL NOTES

CLASS X CONCRETE SHALL BE USED THROUGHOUT EXCEPT AS OTHERWISE NOTED. CONCRETE FOR FLOOR SLABS TO BE PLACED IN ONE CONTINUOUS OPERATION BETWEEN CONSTRUCTION JOINTS SHOWN IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIAL PROVISIONS AND SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

COARSE AGGREGATE TO BE USED IN PARAPET HANDRAILS AND WINGWALLS OF ABUTMENTS MUST BE ABSOLUTELY FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

ALL REINFORCEMENT BARS SHALL BE LAPPED 20 DIAMETERS UNLESS OTHERWISE SHOWN.

ALL STRUCTURAL STEEL SHALL CONFORM TO A.S.T.M. A36 EXCEPT AS OTHERWISE NOTED.

THE SHOP CONNECTIONS FOR STRUCTURAL STEEL SHALL BE WELDED. WELDING SHALL BE IN ACCORDANCE WITH CURRENT SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES OF THE AMERICAN WELDING SOCIETY AND AS NOTED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

ALL FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS EXCEPT AS OTHERWISE NOTED. ALL BOLTS SHALL BE 3/4" DIAMETER IN 19/16" HOLES EXCEPT IN GIRDER SPLICES WHICH SHALL BE 7/8" DIAMETER IN 15/16" HOLES. HOLES FOR SPLICES IN GIRDERS AND SPLICE PLATES SHALL BE PUNCHED 11/16" DIAMETER AND REAMED TO CORRECT SIZE WITH GIRDERS ASSEMBLED FULL LENGTH IN THE SHOP IN PROPER POSITION. ASSEMBLY OF GIRDERS SHALL BE WITH OR WITHOUT CROSSFRAMES. LEAVE ASSEMBLED FOR INSPECTION.

ALL ROCKERS, BOLSTERS, PINTLES, BEARING PLATES, LEAD PLATES AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT 73,410 POUNDS.

ROADWAY EXPANSION GUARDS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13(d) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT 17,820 POUNDS.

ROADWAY EXPANSION GUARDS SHALL BE ASSEMBLED IN THE SHOP IN PROPER POSITION AND SHALL BE LEFT ASSEMBLED FOR INSPECTION.

FINGER PLATES SHALL BE FLAME CUT AS PROVIDED IN ARTICLE 54.5 (f) OF THE STANDARD SPECIFICATIONS.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSSFRAMES OVER PIERS AND ABUTMENTS.

STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT EXCEPT AS OTHERWISE SPECIFIED. ALL PAINT TO BE FURNISHED AND APPLIED BY THE CONTRACTOR. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.

THE EXPOSED SURFACES OF THE EXPANSION GUARDS SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT; THE CONTACT SURFACES SHALL BE GIVEN ONE SHOP COAT OF RED LEAD PAINT. ANCHOR STUDS SHALL NOT BE PAINTED.

SHOP INSPECTION OF STRUCTURAL STEEL SHALL BE BY ILLINOIS DIVISION OF HIGHWAYS BEFORE PAINTING.

THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A PERMANENT LOCATION AT THE EAST AND WEST ABUTMENTS AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE CONCRETE PILES.

THE CONTRACTOR SHALL DRIVE ONE TIMBER TEST PILE IN A PERMANENT LOCATION AT PIERS 1, 2, 3 AND 4 AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE TIMBER PILES.

FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF 1/4 OF THE SPAN EACH WAY FROM PIER SUPPORTS ON THE TOP FLANGES OF GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

FILL OF MATERIAL

TOTAL	SUPER	SUP	UNIT	PAY ITEM
5,760	-	-	CU. YD.	BORROW EXCAVATION
470	-	-	CU. YD.	EARTH EXCAVATION
87,000	-	-	CU. YD.	CHANNEL EXCAVATION
127	-	127	CU. YD.	CLASS A EXCAVATION FOR STRUCTURES
246	-	246	CU. YD.	CLASS B EXCAVATION FOR STRUCTURES
624	-	624	CU. YD.	COFFERDAM EXCAVATION
1	-	1	EACH	COFFERDAM (PIER 3)
1	-	1	EACH	COFFERDAM (PIER 4)
586	-	586	CU. YD.	CLASS A CONCRETE
707	610	97	CU. YD.	CLASS X CONCRETE
322	-	322	CU. YD.	SEAL COAT CONCRETE
2,600	2,600	-	SQ. YD.	PROTECTIVE COAT
726,900	726,900	-	POUND	FURNISHING AND ERECTING STRUCTURAL STEEL
199,650	158,630	31,020	POUND	REINFORCEMENT BARS
3,270	-	3,270	LIN. FT.	FURNISHING UNTREATED PILES UP TO 30 FEET
108	-	108	LIN. FT.	FURNISHING CROSSED PILES UP TO 20 FEET
4	-	4	EACH	TEST PILE TIMBER
3,878	-	3,878	LIN. FT.	DRIVING TIMBER PILES
840	-	840	LIN. FT.	DRIVING CONCRETE PILES
840	-	840	LIN. FT.	FURNISHING CONCRETE PILES
2	-	2	EACH	TEST PILE CONCRETE
1	-	1	EACH	NAME PLATES
1,300	-	1,300	SQ. YD.	SLOPEWALL 6 INCH
1,155	1,155	-	LIN. FT.	ALUMINUM HANDRAIL
1	-	1	LUMP SUM	BRIDGE SEAT SEALANT
1	-	-	EACH	ENGINEER'S FIELD OFFICE TYPE A

* BRIDGE SEAT SEALANT AT ABUTMENTS ONLY.

B O R I N G N O T E S

BORING DATA SHOWN ARE ONLY A GUIDE TO THE BIDDERS IN ESTIMATING THE SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK.
FOR LOCATION OF BORINGS SEE SHT. 1
"N" INDICATES NUMBER OF BLOWS REQUIRED TO DRIVE A 2" OD SAMPLING SPOON 12 INCHES WITH A 140 LB. WEIGHT FALLING 30 INCHES.
99/7 INDICATES 99 BLOWS PER 7 INCHES OF PENETRATION.
"WL 1/24" INDICATES WATER LEVEL OBSERVED 1 HOUR & 24 HOURS AFTER COMPLETING BORING.
* - INDICATES LOST CIRCULATING WATER.

BORINGS, GENERAL NOTES, QUANTITIES
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

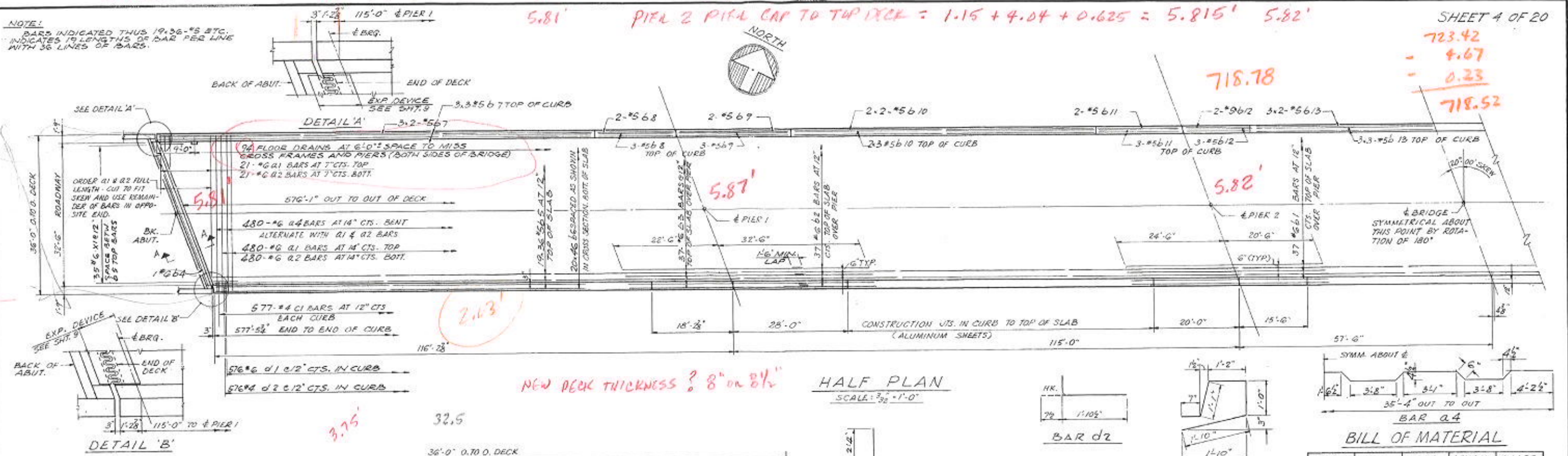
$$\text{ABUTMENT TO TOP DECK} = 1.14' + 4.04' + 0.625' = 5.805'$$

$$\text{PIERS 1, 314 PIER CAP TO TOP DECK} = 1.20' + 4.04' + 0.625' = 5.865' \quad 5.87'$$

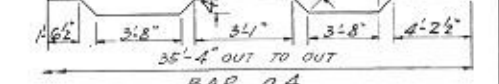
$$\text{PIER 2 PIER CAP TO TOP DECK} = 1.15' + 4.04' + 0.625' = 5.815' \quad 5.82'$$

SHEET 4 OF 20

NOTE:
BARS INDICATED THUS 19-36-#5 ETC.
INDICATES 19 LENGTHS OF BAR PER LINE
WITH 36 LINES OF BARS.



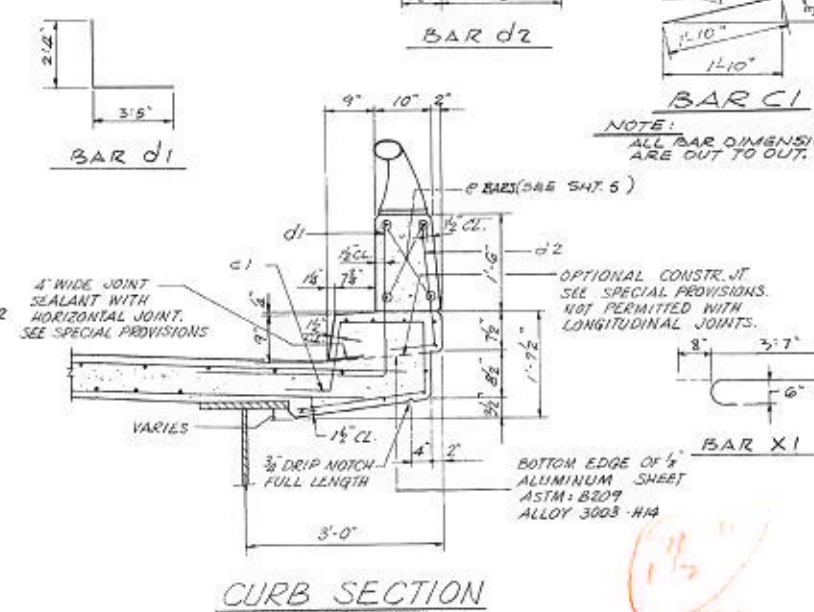
HALF PLAN
SCALE: 3/32" = 1'-0"



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a1	501	#6	35'-3"	
a2	501	#6	33'-0"	
a3	430	#6	36'-4"	
x1	70	#6	4'-3"	C
b1	74	#6	45'-0"	
b2	74	#6	16'-6"	
b3	74	#6	40'-0"	
b4	2	#6	35'-6"	
b5	684	#5	3'-16"	
b6	920	#5	30'-0"	
b7	60	#5	33'-6"	
b8	20	#5	18'-0"	
b9	20	#5	27'-9"	
b10	40	#5	34'-0"	
b11	20	#5	19'-9"	
b12	20	#5	15'-3"	
b13	60	#5	28'-9"	
c1	1154	#4	5'-8"	
d1	1152	#6	5'-9"	
d2	1152	#4	2'-6"	
REINFORCEMENT BARS			LBS.	163,890
STRUCTURAL STEEL			LBS.	726,906
CLASS 'X' CONCRETE			CU. YDS.	551

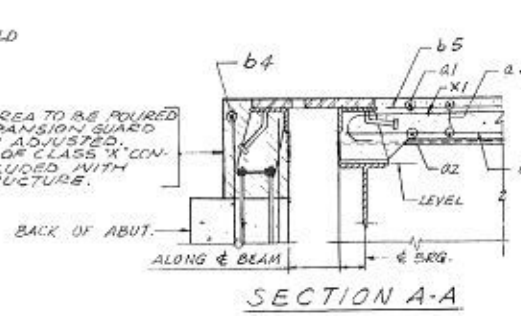
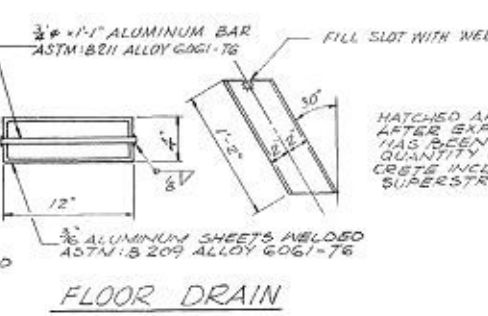
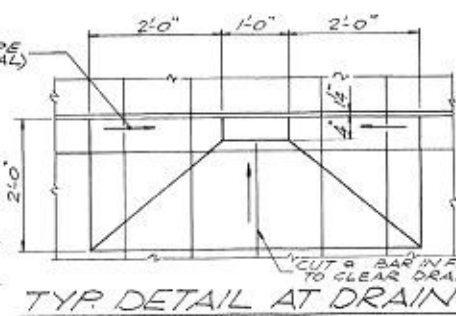
* WEIGHT OF BEARING ASSEMBLIES WITH LEAD PLATES, AND ANCHOR BOLTS ARE INCLUDED AS STRUCTURAL STEEL.
EST. WT. = 13,410
THE LENGTHS AND QUANTITIES OF LONGITUDINAL REINFORCEMENT AND CLASS X CONCRETE IN PARAPETS ARE NOT INCLUDED IN ABOVE QUANTITIES. SEE SHEET 5



COST OF ALUMINUM DRAINS AND SHEETS SHALL BE INCIDENTAL TO CLASS X CONCRETE

CROSS SECTION
LOOKING EAST
SCALE: 3/8" = 1'-0"

37.5'
24'
13.5'
3.75'
37.5' E TO FACE OF PARAPET
GAIN ONE FOOT ON EACH SIDE
5.25' SHOULDER

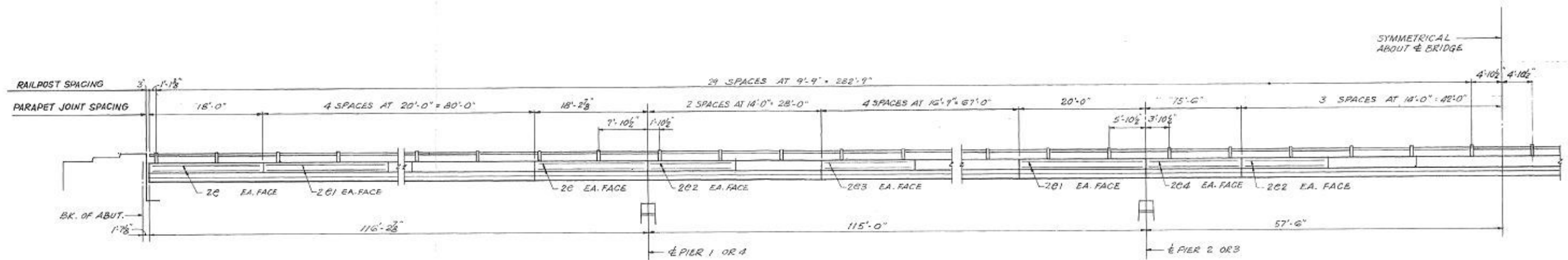


578.91
578.94

DECK REINFORCEMENT PLAN
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50

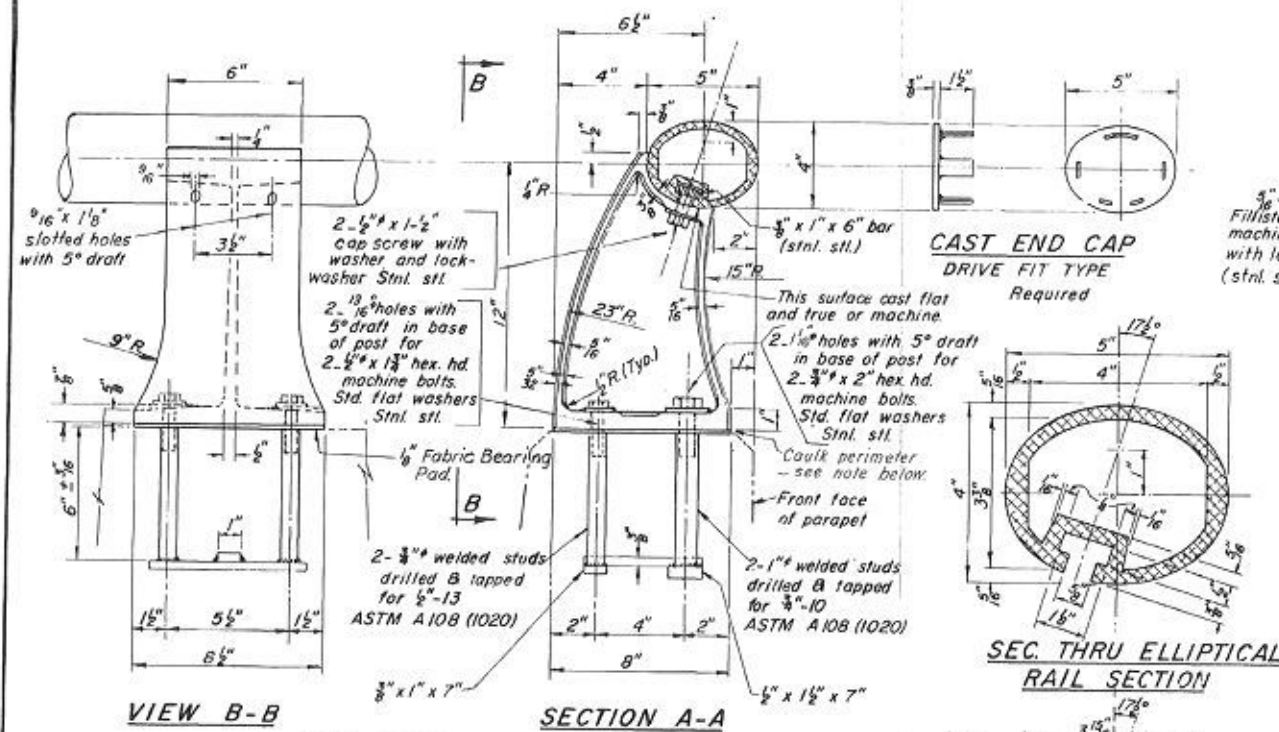
APPROVED
COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

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HALF ELEVATION OF HANDRAIL

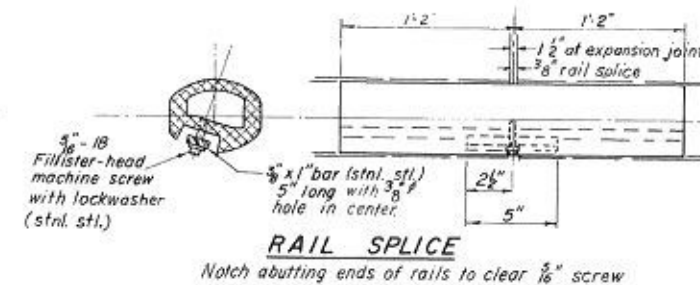
SCALE: $\frac{1}{8}'' = 1'-0''$



VIEW B-B

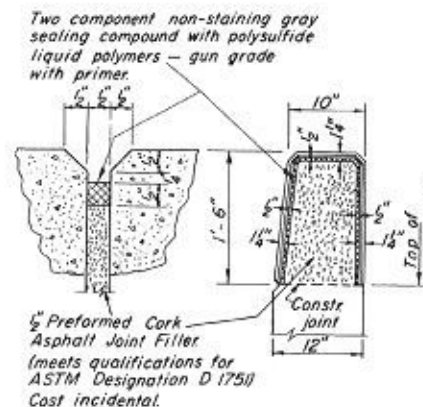
SECTION A-A

RAIL POST DETAILS

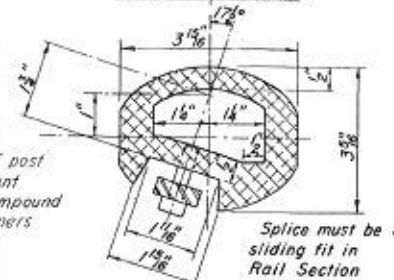


RAIL SPLICE

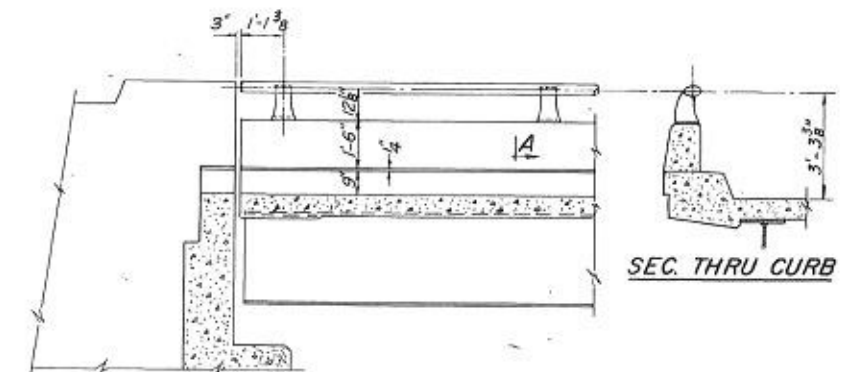
Notch abutting ends of rails to clear $\frac{5}{16}$ " screw



PARAPET JOINT DETAIL



SEC THRU SPLICE



ELEVATION - END POST

SEC. THRU CURB

NOTES

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-221 alloy 6061-T6, and shall extend a minimum of 2 panel lengths (attached to minimum of 3 posts) except at ends or at open joints where a minimum of 1 panel length is required. All joints in railing must be spliced per detail.

See Special Provisions for following Material Specifications:

Cast Aluminum Alloy Bridge Post-Alloy A344-T4

Stainless Steel Bars, Cap Screws, Washers and Lockwashers
Fabric Bearing Pad

Fabric Bearing Pad

METHOD of MEASUREMENT: Aluminum handrail shall be measured in lineal feet. The length paid for shall be the over all length along the top longitudinal railing member thru all posts and caps.

BASIS of PAYMENT: Aluminum handrail shall be paid for at the contract unit price per lineal foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.

Cost of rail splice, end caps, and hardware to be incidental to item ALUMINUM HANDRAIL.

Provide 1- $\frac{5}{8}$ " and 2- $\frac{1}{2}$ " Aluminum Shims for 25 % of the Posts. Rail element shall be parallel to Grade—high spots shall be ground, and low spots shimmed.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO ILLINOIS

CHICAGO, ILLINOIS

PARAPETS & RAILS
BILL OF MATERIAL

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
0	32	#5	17-9	—
01	80	#5	19-9	—
02	80	#5	13-9	—
03	64	#5	16-6	—
04	16	#5	15-3	—

CLASS X CONCRETE	CU. YDS.	59
REINFORCEMENT BARS	LBS.	4,740
ALUMINUM HANDRAIL	LIN. FT.	1,155

HANDRAIL DETAILS
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50

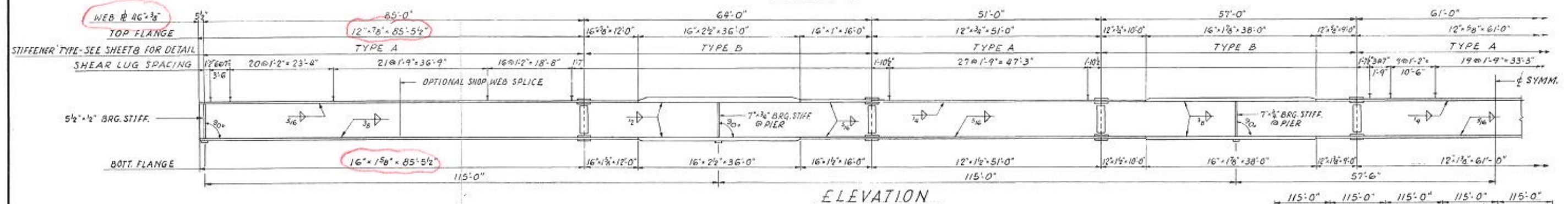
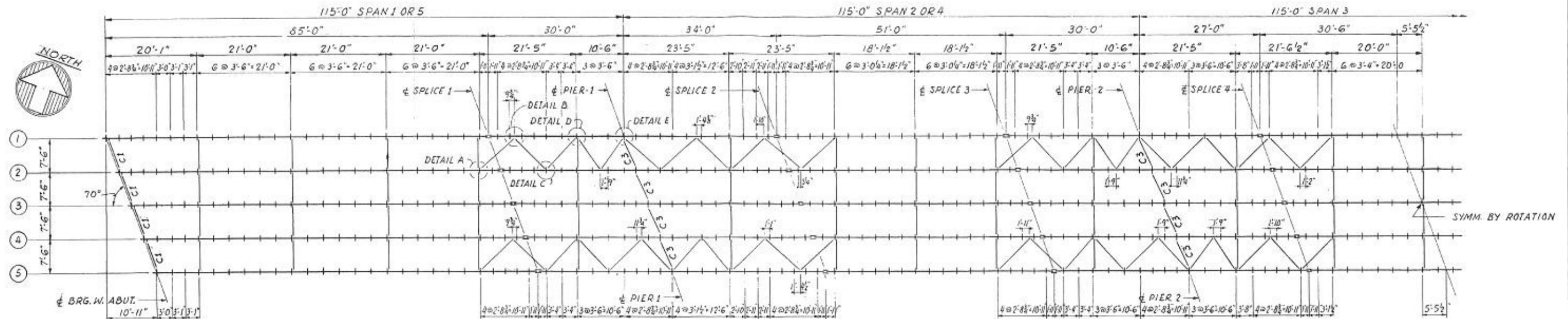
RELOCATED ROSCOE ROAD

OVER ROCK RIVER

SECTION 142-B-CF

WINNEBAGO COUNTY

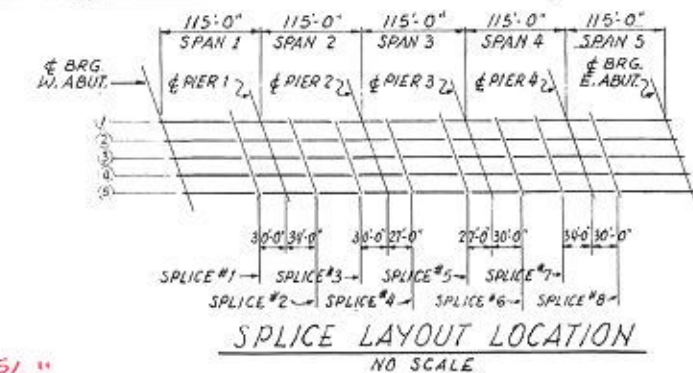
STATION 519+28.50



TOP OF WEB ELEVATIONS
FOR FABRICATION ONLY.

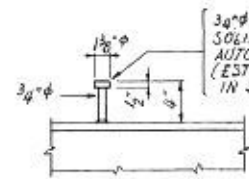
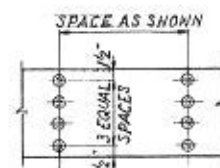
BEAM	1	2	3	4	5
LOCATION					
BRG. W. ABUTMENT	722.532	722.499	722.650	722.567	722.468
SPLICE #1	723.478	723.645	723.797	723.713	723.615
PIER 1	723.769	723.936	724.088	724.004	723.906
SPLICE #2	724.183	724.350	724.502	724.418	724.320
SPLICE #3	724.833	725.000	725.151	725.068	724.969
PIER 2	725.207	725.374	725.525	725.442	725.343
SPLICE #4	725.591	725.758	725.910	725.826	725.728
SPLICE #5	726.354	726.521	726.672	726.589	726.490
PIER 3	726.644	726.811	726.963	726.879	726.781
SPLICE #6	727.020	727.187	727.339	727.255	727.157
SPLICE #7	727.646	727.813	727.964	727.881	727.782
PIER 4	728.082	728.249	728.400	728.317	728.218
SPLICE #8	728.541	728.708	728.859	728.776	728.677
BRG. E. ABUTMENT	729.519	729.686	729.838	729.754	729.656

STUD SHEAR CONNECTORS ON THE BEAM FLANGES SHALL BE PLACED IN THE FIELD AFTER ALL THE STEEL HAS BEEN ERECTED AND THE DECK FORMS ARE IN PLACE.
FLANGE SHEAR CONNECTORS ARE INCLUDED IN THE QUANTITY FOR STRUCTURAL STEEL.



BOTTOM FLANGE - 16" x 1 1/8"
WEB - 46" x 3/8"
TOP FLANGE - 12" x 7/8"

TOTAL HEIGHT = 48 1/2" (46 + 1.625 + 0.815)
4.04'



WELDED STUD SHEAR CONNECTOR
NO SCALE

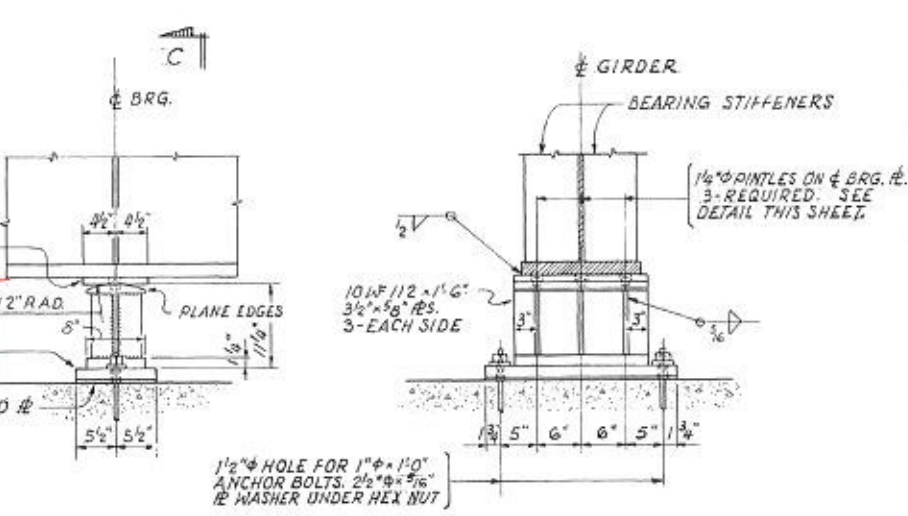
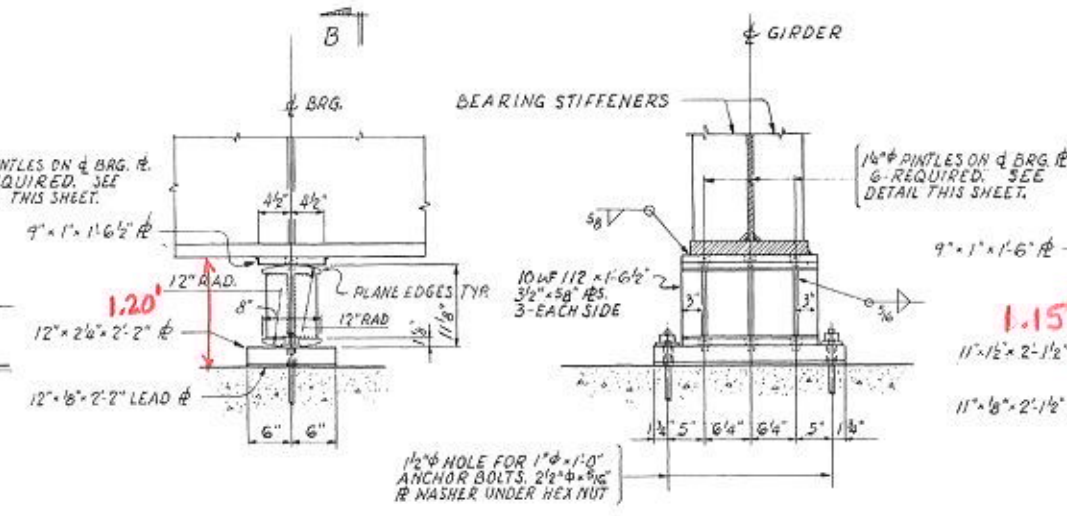
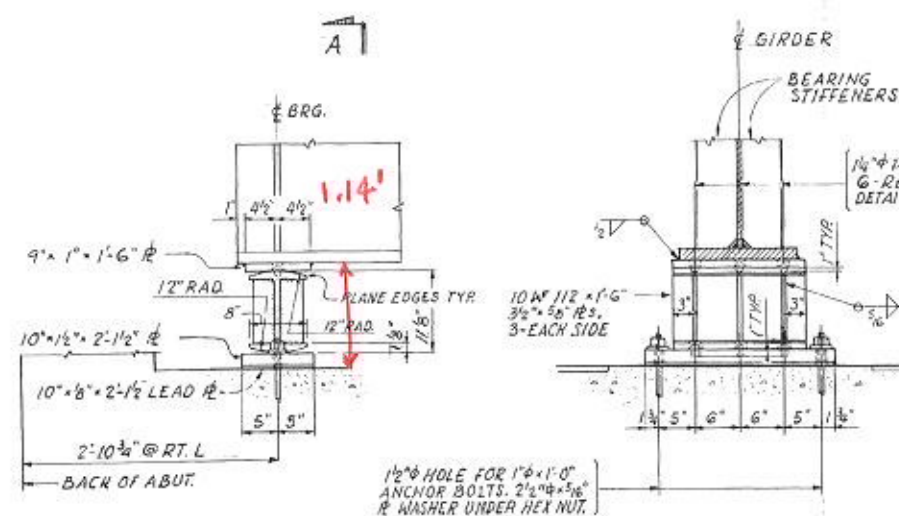
APPROVED _____
COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED _____
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED _____
ENGINEER OF DESIGN
APPROVED _____
CHIEF HIGHWAY ENGINEER

NOTE:

TOP OF WEB ELEVATIONS ARE BASED ON A DIMENSION OF 9 3/4" SUBTRACTED FROM ELEVATIONS OF TOP OF SLAB, ADJUSTED FOR DEADLOAD DEFLECTION.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
16 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

FRAMING PLAN
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50



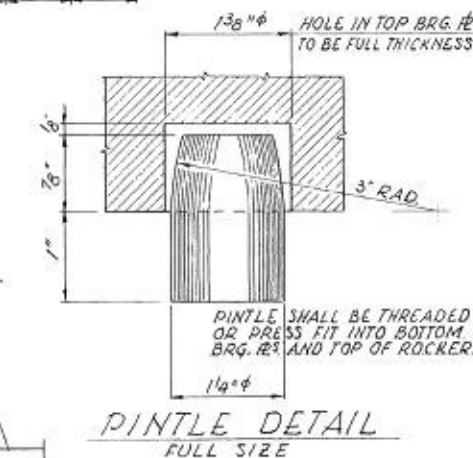
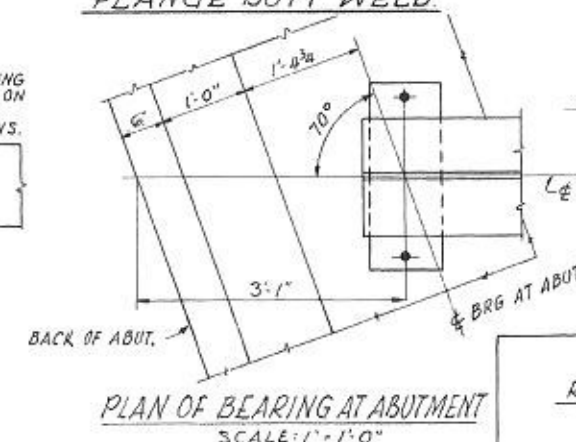
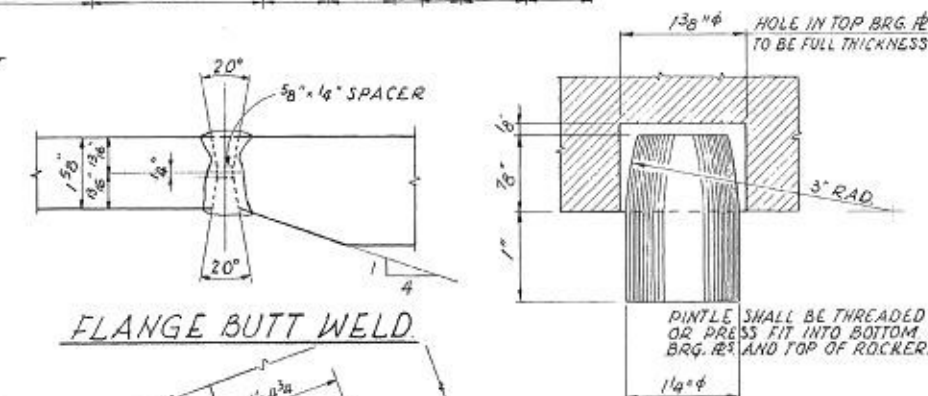
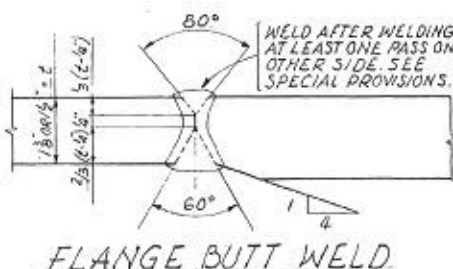
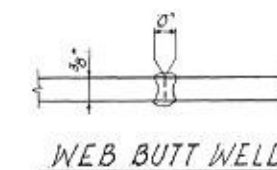
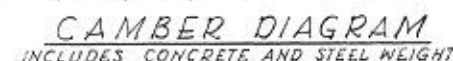
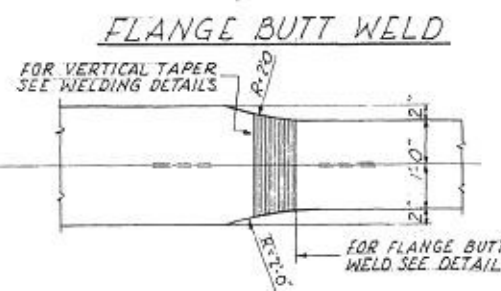
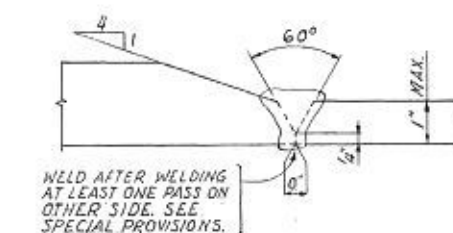
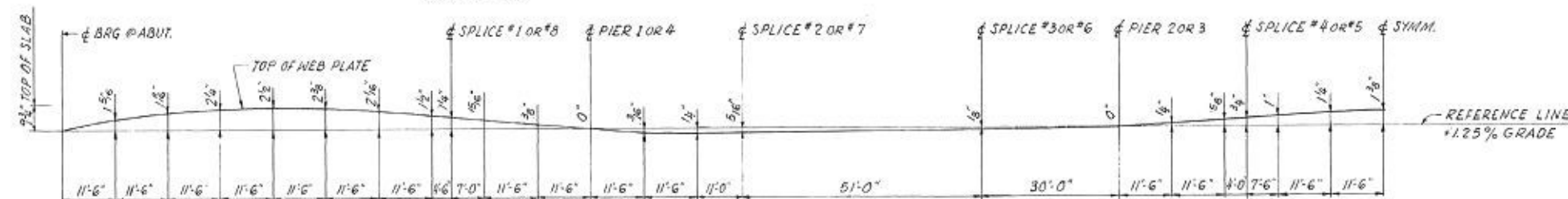
STRESS TABLE "A"

TABLE OF MOMENTS AND REACTIONS - INTERIOR BEAMS					
	MOMENTS (FT.-KIPS)			REACTIONS (KIPS)	
	PIER 14	PIER 23	E&W ABUT.	PIER 14	PIER 23
*DEAD LOAD	- 2046	- 1420	52.9	164.6	136.0
LIVE LOAD	- 990	- 855	50.3	79.3	75.4
IMPACT	- 200	- 178	10.5	16.5	15.7
TOTAL	- 3236	- 2453	113.7	260.4	227.1
SEC. MOD. PROVIDED	1964	1500			

* SUPERIMPOSED DEAD LOAD INCLUDED

STRESS TABLE "B"

		0.4 SPAN 185		0.5 SPAN 264		0.5 SPAN 3	
		STEEL SECTION		STEEL SECTION		STEEL SECTION	
		MAX. MOMENT (FT. KIPS)		MAX. MOMENT (FT. KIPS)		MAX. MOMENT (FT. KIPS)	
O.L.		+ 837		+ 173		+ 436	
		COMPOSITE SECTION		COMPOSITE SECTION		COMPOSITE SECTION	
		MAX. MOMENT (FT. KIPS)		MAX. MOMENT (FT. KIPS)		MAX. MOMENT (FT. KIPS)	
S.O.L.		+ 295		+ 124		+ 179	
L.L.		+ 1002		+ 762		+ 800	
IMP.		+ 208		+ 158		+ 165	
TOTAL		+ 1505		+ 1044		+ 1144	
		SHEAR (KIPS)		SHEAR (KIPS)		SHEAR (KIPS)	
		AT SPLICES: 185 MID SPAN		AT SPLICES: 264 MID SPAN		AT SPLICES: 465 MID SPAN	
S.D.L.		11.6 3.6		7.6 1.0		8.8 0	
L.L.		36.6 23.8		34.0 2.7		35.0 19.0	
IMP.		7.6 4.8		7.0 4.3		7.2 4.0	
TOTAL		55.8 32.2		48.6 26.0		51.0 23.0	
		STEEL SECTION		STEEL SECTION		STEEL SECTION	
PROPERTIES	I _s	20,990		16,980		15,250	
	S _{rs}	682		593		528	
	S _{bs}	1,190		865		797	
		COMPOSITE SECTION-n=10		COMPOSITE SECTION-n=10		COMPOSITE SECTION-n=10	
	I _c	54,160		43,640		41,380	
	S _{rc}	4,020		4,060		4,080	
	S _{sc}	1,550		1,163		1,090	



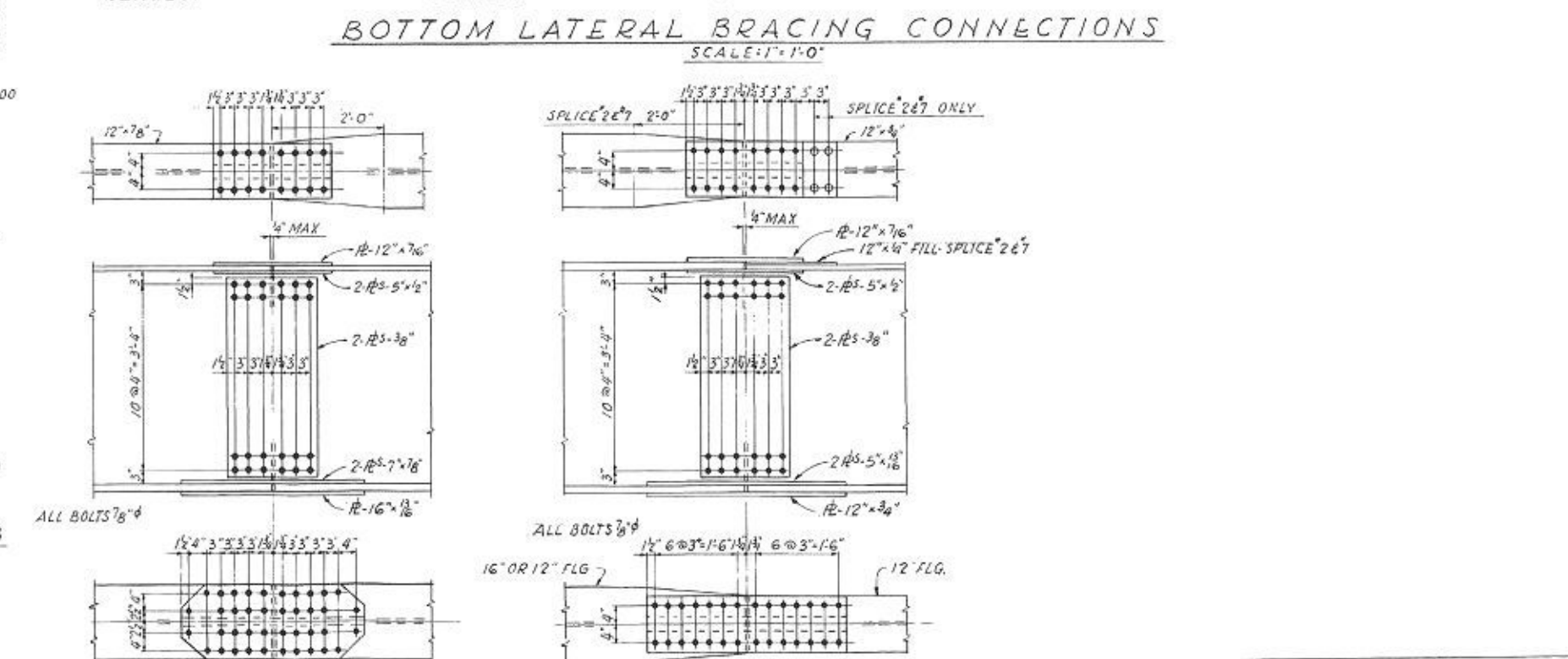
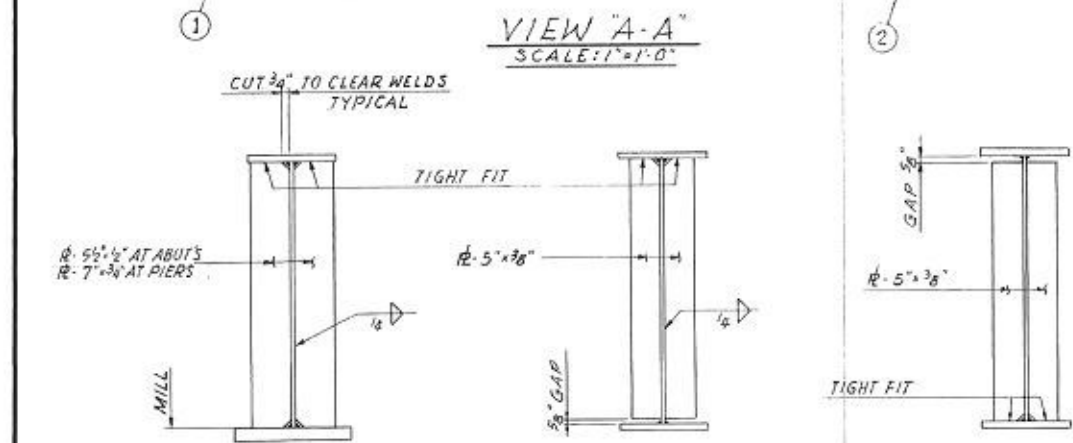
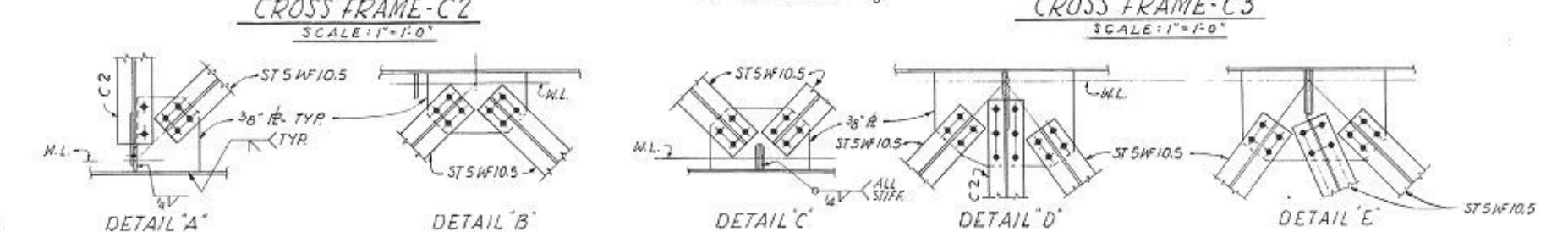
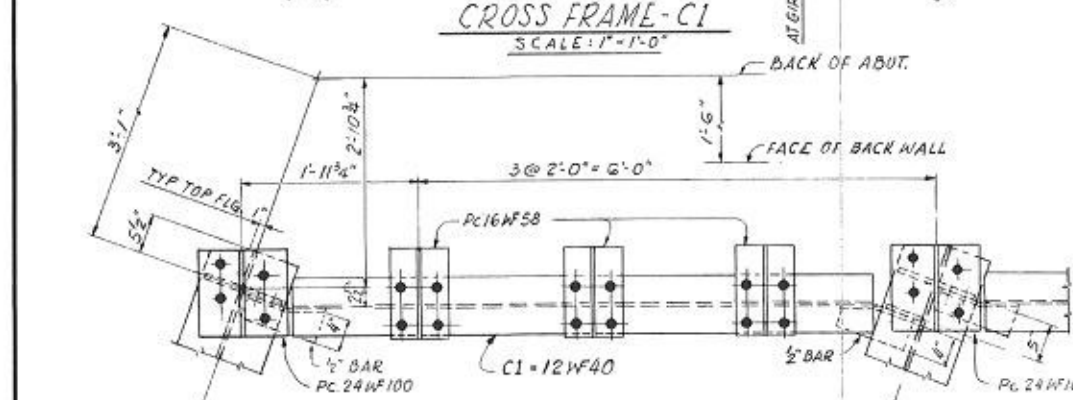
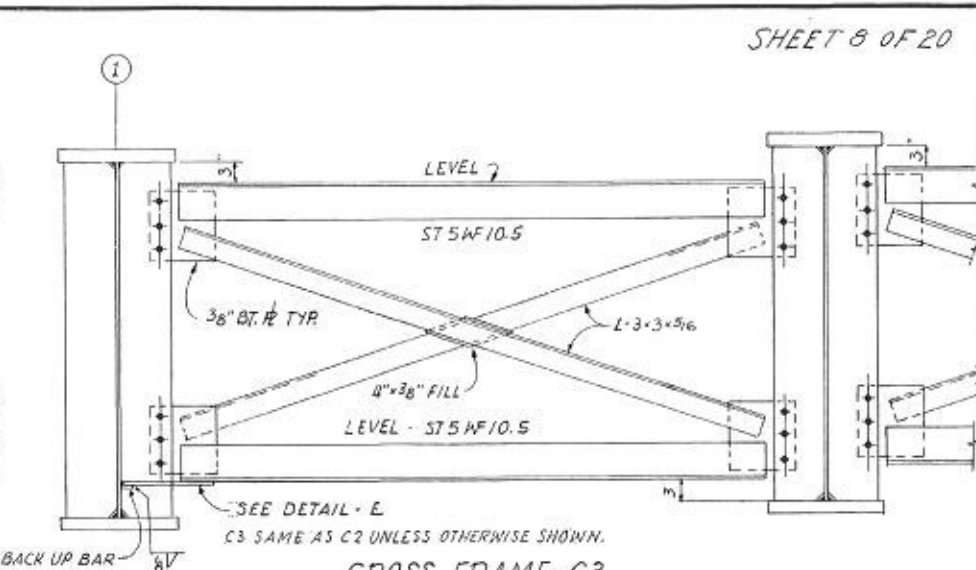
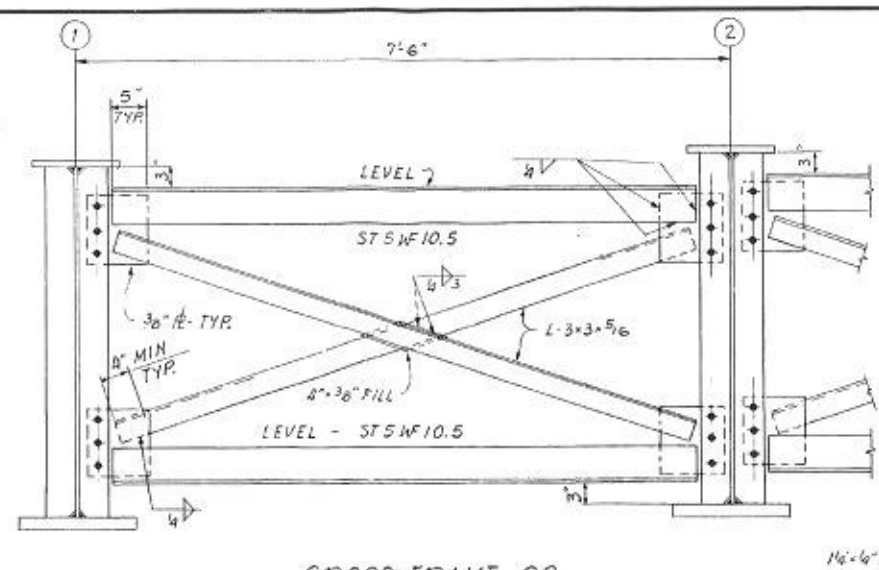
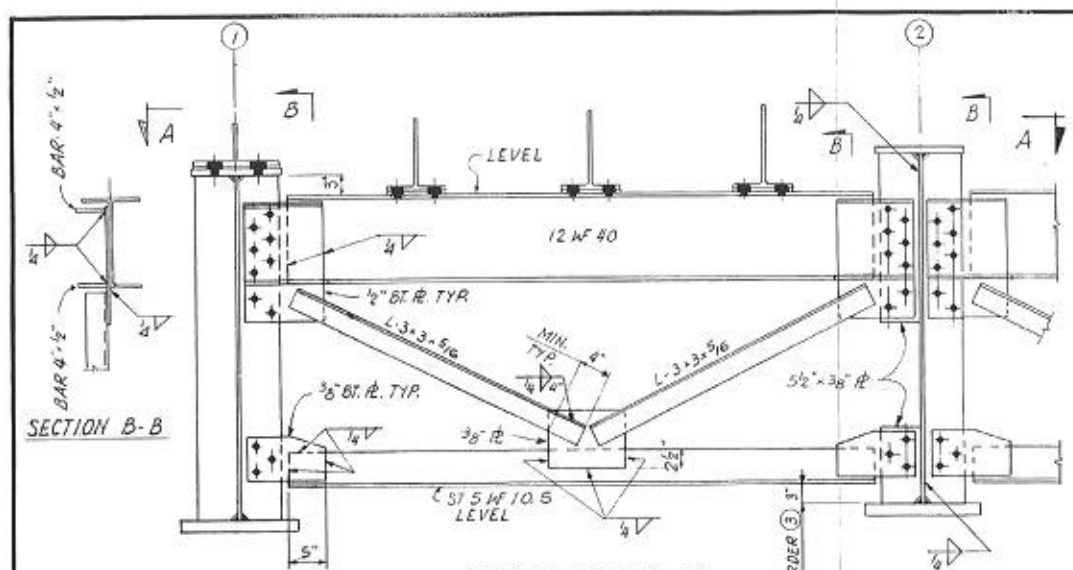
APPROVED	COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED	ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED	ENGINEER OF DESIGN
APPROVED	CHIEF HIGHWAY ENGINEER

S.O.L. * SUPERIMPOSED DEAD LOAD
 I_s * MOMENT OF INERTIA STEEL SECT.
 S_{Ts} * SECT. MOD. TOP STEEL SECT.
 S_{Bs} * SECT. MOD. BOT. STEEL SECT.
 I_c * MOMENT OF INERTIA COMP. SECT.
 S_{Tc} * SECT. MOD. TOP COMP. SECT.
 S_{Bc} * SECT. MOD. BOT. COMP. SECT.

NOTE:
ALL BUTT WELDS AND ALL FILLET WELDS CONNECTING WEB TO FLANGES SHALL BE BY THE SUBMERGED ARC AUTOMATIC WELDING METHOD. SEE SPECIAL PROVISIONS.

STEEL DETAILS
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



APPROVED _____ COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED _____ ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED _____ ENGINEER OF DESIGN
APPROVED _____ CHIEF HIGHWAY ENGINEER

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

STEEL DETAILS
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50

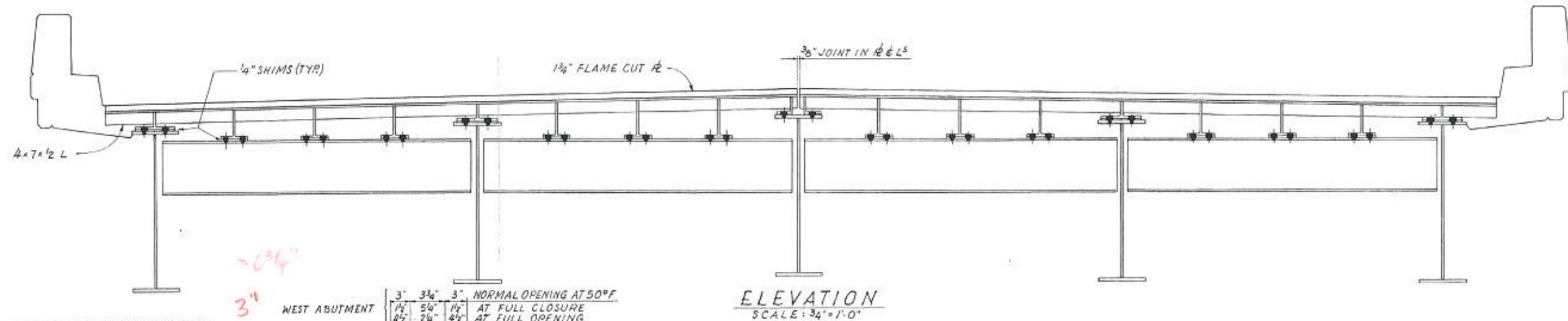
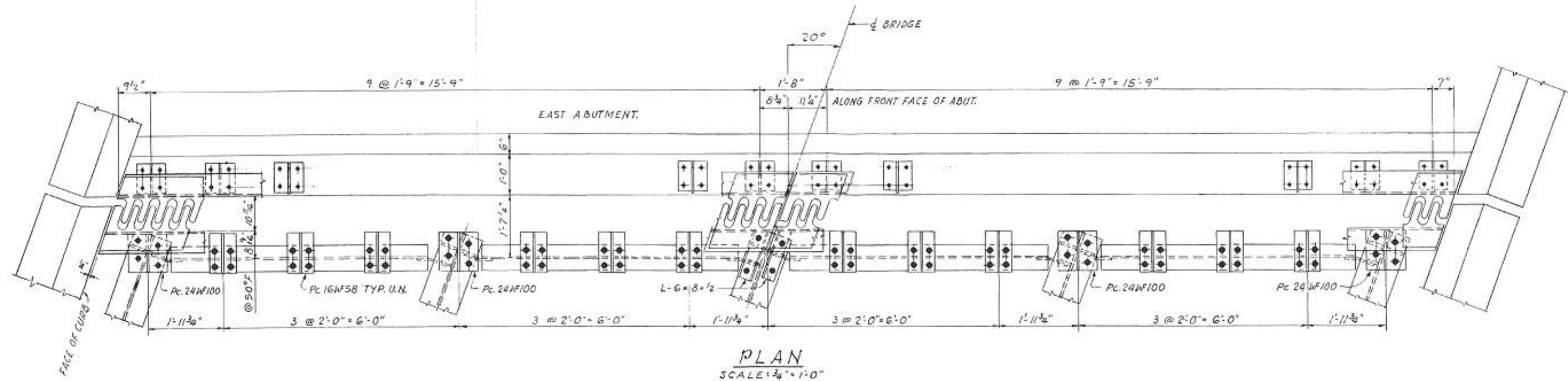
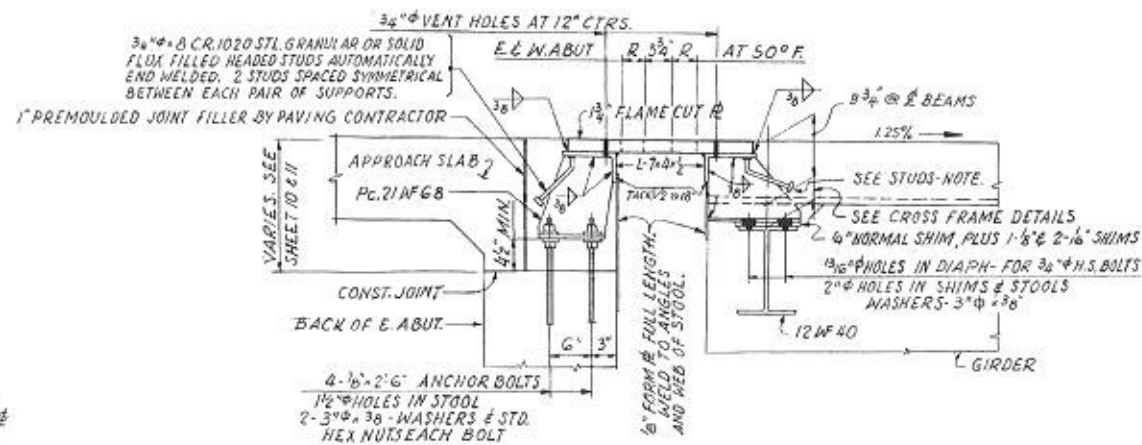
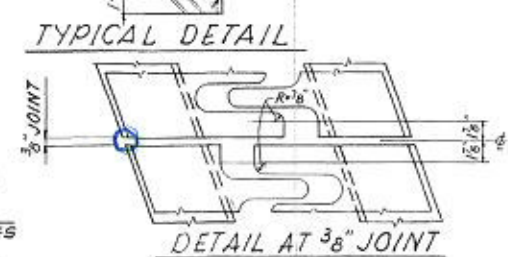
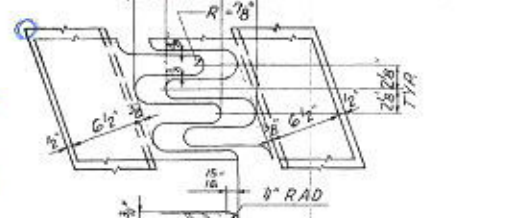


TABLE OF "R" DIMENSIONS

TEMP.	"R" EAST ABUT.	"R" WEST ABUT.
110°F	1 5/8"	1 7/8"
90°F	1 7/8"	2 1/4"
70°F	2 7/8"	2 5/8"
50°F	3"	3"
30°F	3 3/8"	3 3/8"
10°F	4 1/8"	3 3/4"

USE THESE VALUES OF "R" FOR TEMPERATURES EXISTING AT THE TIME OF ADJUSTMENT OF EXPANSION DEVICE.

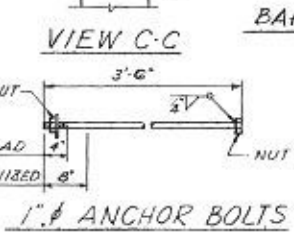
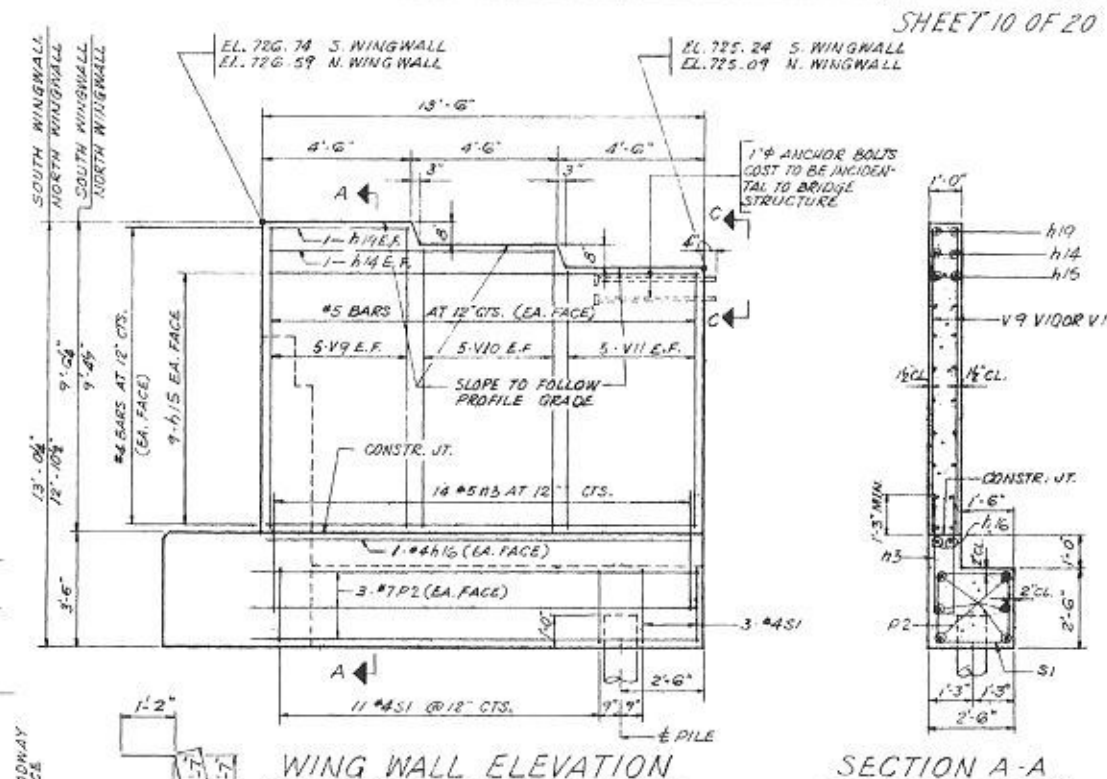
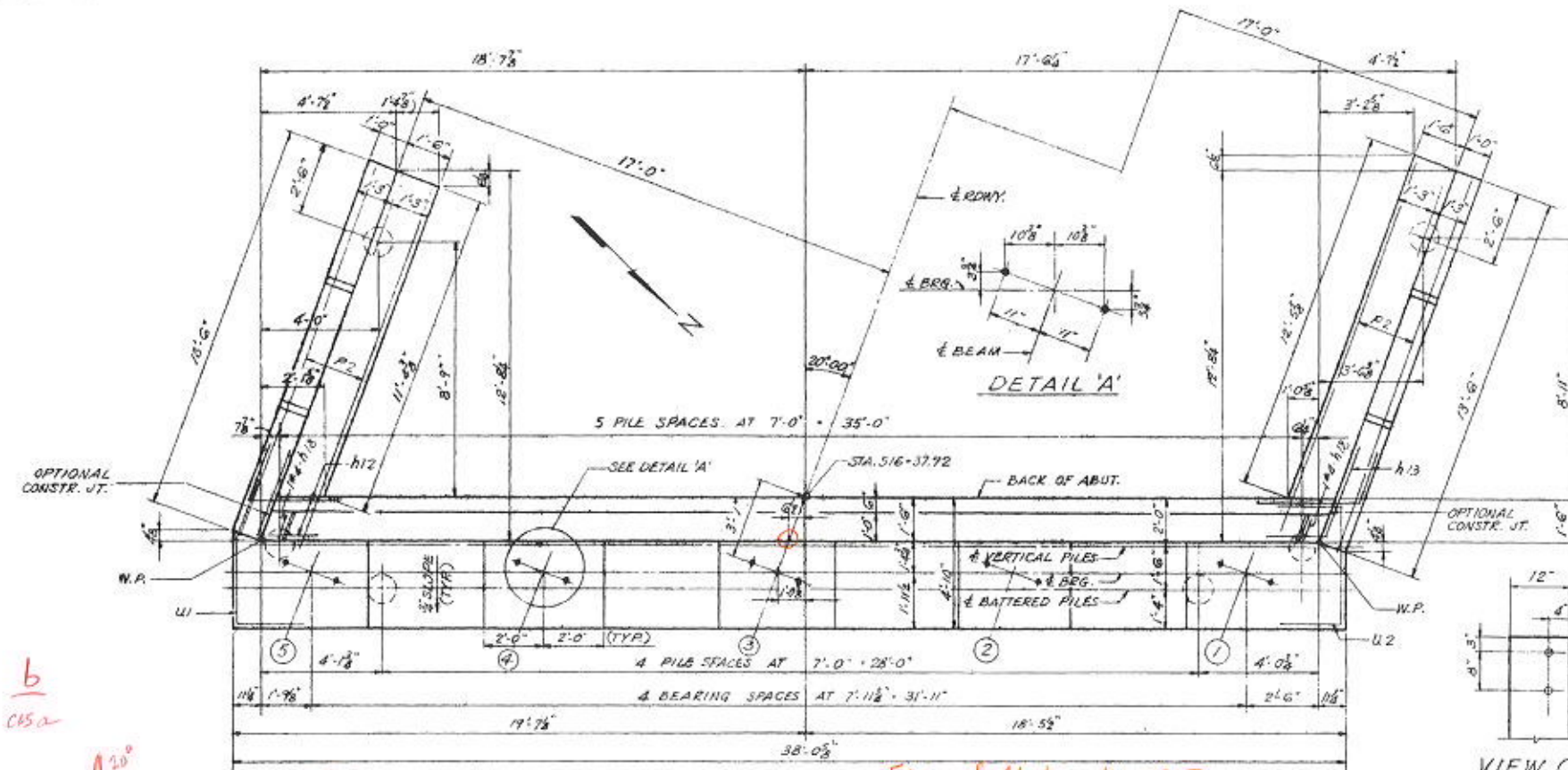
WEST ABUTMENT	3"	3 3/4"	3"	NORMAL OPENING AT 50°F
	1 1/2"	5 1/2"	1 1/2"	AT FULL CLOSURE
	4 1/2"	2 1/2"	4 1/2"	AT FULL OPENING
EAST ABUTMENT	3"	3 3/4"	3"	NORMAL OPENING AT 50°F
	3 1/2"	6"	3 1/2"	AT FULL CLOSURE
	5 1/4"	1 1/2"	5 1/4"	AT FULL OPENING



APPROVED _____ COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED _____ ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED _____ ENGINEER OF DESIGN
APPROVED _____ CHIEF HIGHWAY ENGINEER

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

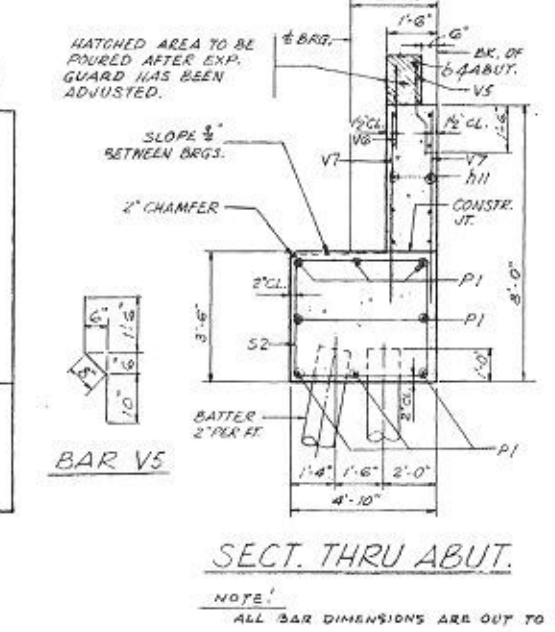
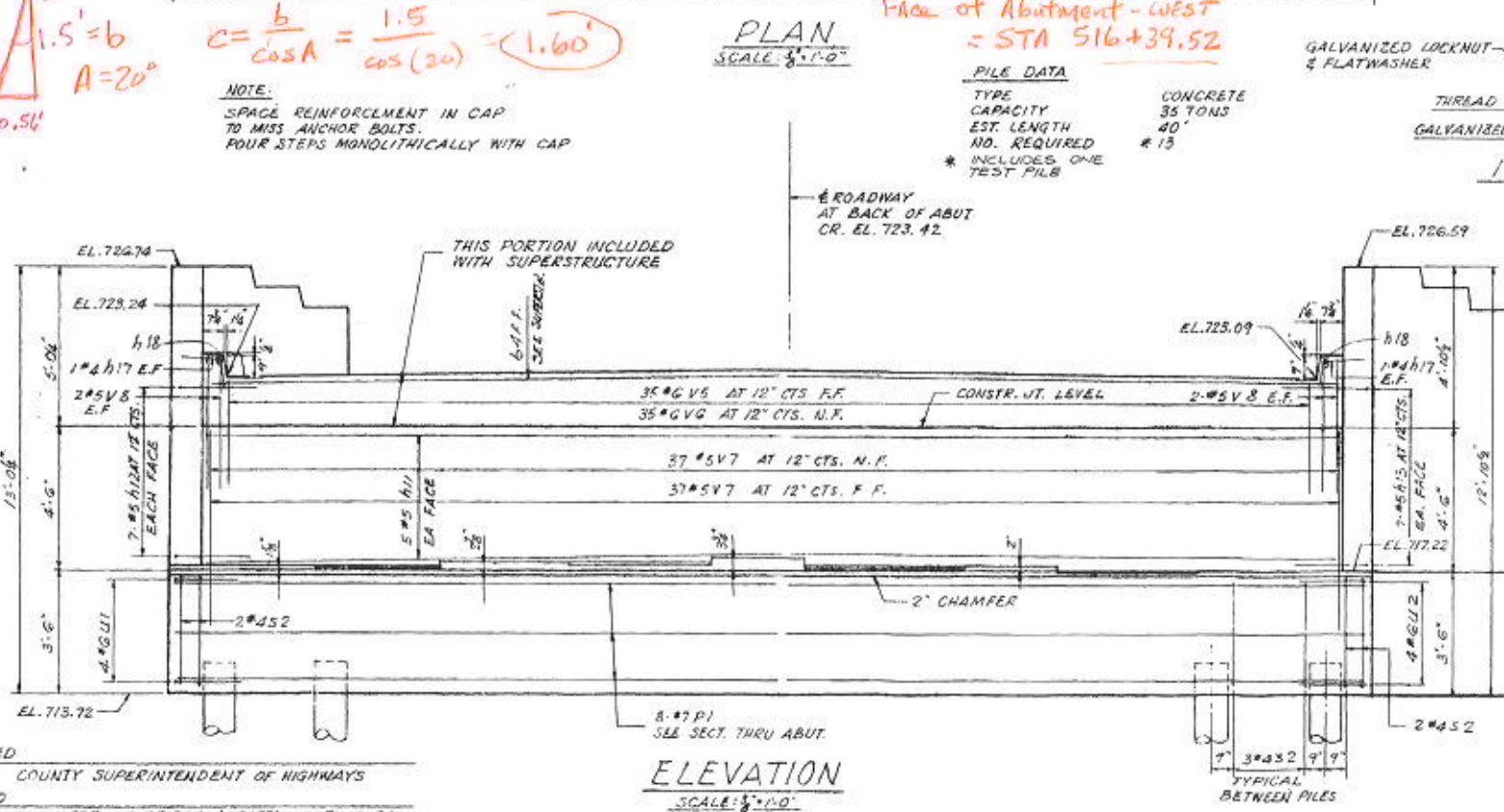
ROADWAY EXPANSION GUARDS
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50



WEST ABUTMENT
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h11	10	#5	35'9"	—
h12	14	#5	4'6"	L
h13	14	#5	4'6"	—
h14	4	#4	8'8"	—
h15	36	#4	13'2"	—
h16	4	#4	13'0"	—
h17	4	#4	2'9"	—
h18	2	#4	0'9"	—
h19	4	#4	4'2"	—
h3	28	#5	8'3"	U
P1	8	#7	37'6"	—
P2	12	#7	13'6"	—
S1	28	#4	9'5"	□
S2	34	#4	15'11"	□
U1	4	#6	6'6"	L
U2	4	#6	7'6"	□
V5	35	#6	3'0"	—
V6	35	#6	2'9"	—
V7	74	#5	6'0"	—
V8	8	#5	3'6"	—
V1	20	#5	7'3"	—
V10	20	#6	8'6"	—
V11	20	#5	7'9"	—
CLASS 'X' CONCRETE			CU. YDS.	18
REINFORCEMENT BARS			LBS.	4030
CONCRETE PILES			LN. FT.	480
TEST PILES, CONCRETE			EA.	1

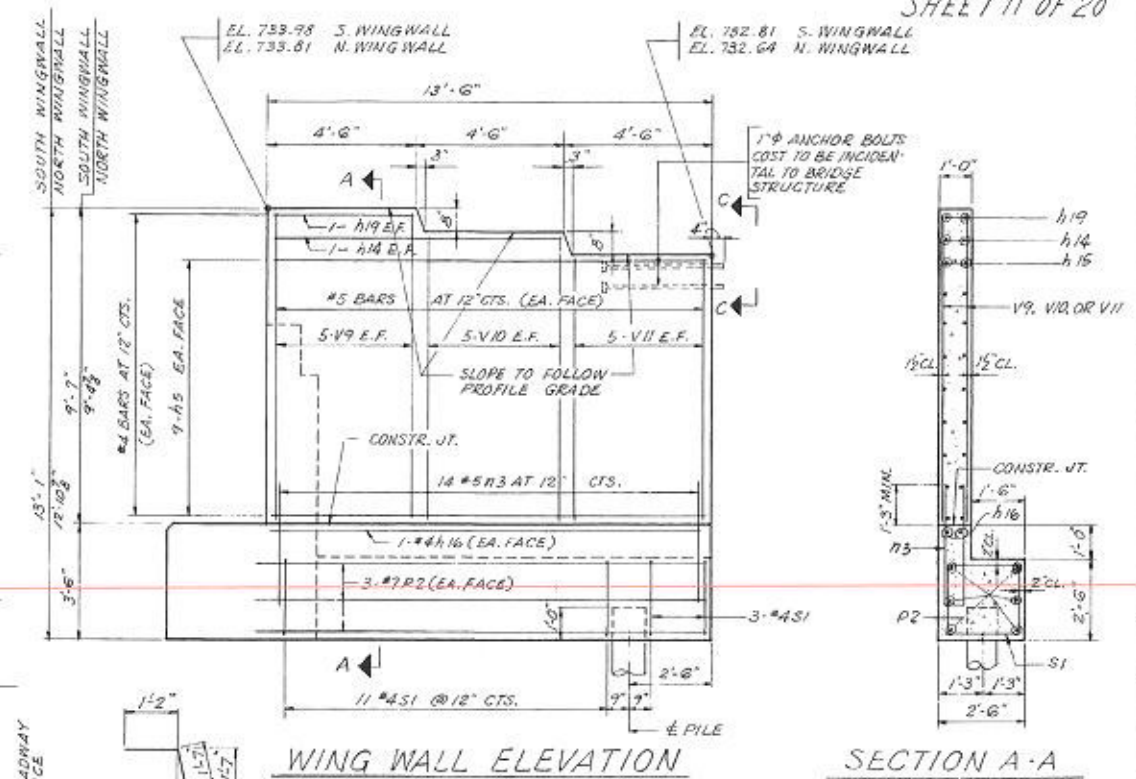
WEST ABUTMENT & WINGWALLS
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50



STA 516+36.32
STA 522+7.48
581.16'
1.60' 1.5' = b
A = 20°
c = $\frac{b}{\cos A} = \frac{1.5}{\cos(20)} = 1.60'$
NOTE:
SPACE REINFORCEMENT IN CAP
TO MISS ANCHOR BOLTS.
FOUR STEPS MONOLITHICALLY WITH CAP
5.14' 4'8.3'
516+3.06
516+32.78
522+13.94
581.16
570.88

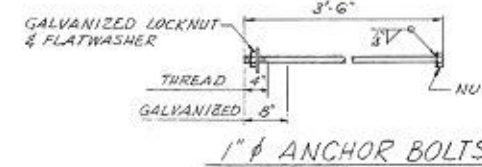
APPROVED
COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



PLAN
SCALE: $\frac{1}{2}'' = 1'-0''$

<u>FILE DATA</u>	
TYPE	CONCRETE
CAPACITY	35 TONS
EST. LENGTH	30'
NO. REQUIRED	*13
* INCLUDES ONE TEST FILE	



BAR UI

BAR S1 & S2

BAR N3

BAR U2

BAR h12

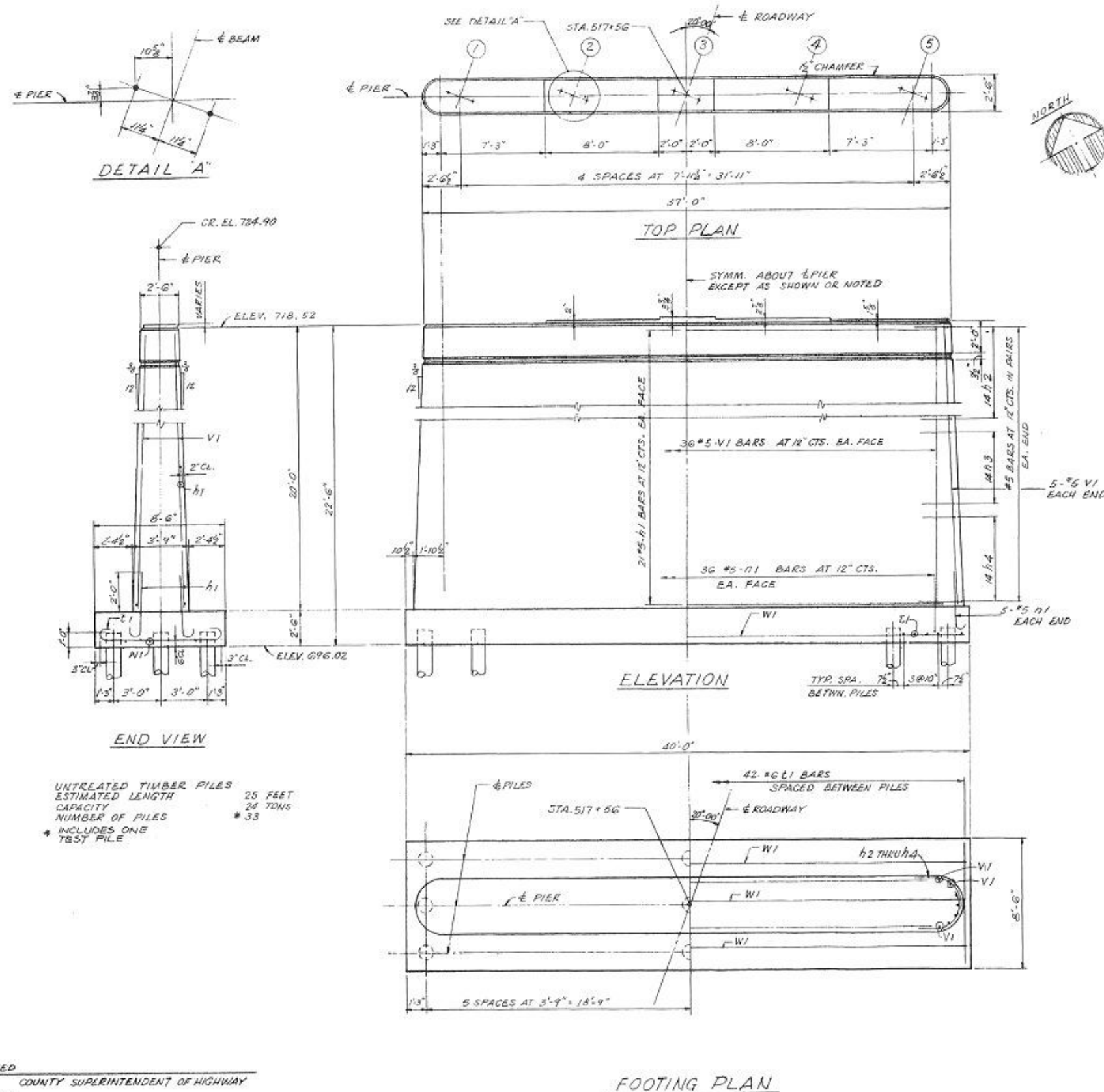
BAR h13

SECT. THRU ABUT.

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

EAST ABUTMENT & WINGWALLS
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+23.50

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



APPROVED
COUNTY SUPERINTENDENT OF HIGHWAY

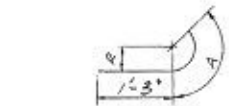
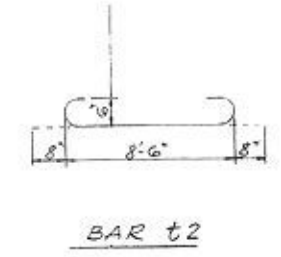
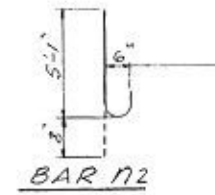
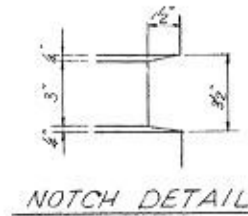
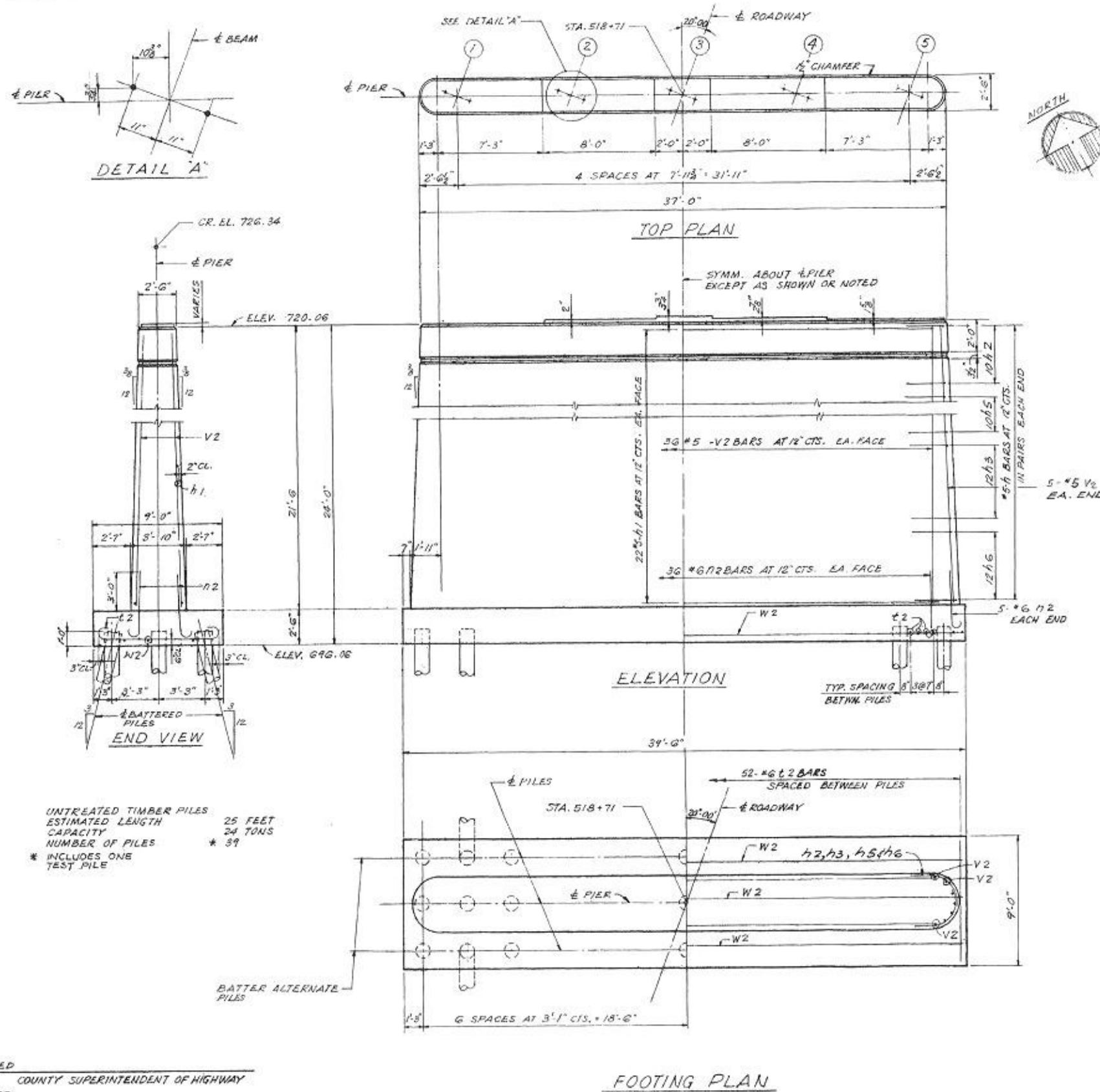
EXAMINED
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES

PASSED
ENGINEER OF DESIGN

APPROVED
CHIEF HIGHWAY ENGINEER

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

PIER 1
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50



BAR	R	A
h2	14 3/4"	2'-7"
h3	14 6/8"	3'-0"
h5	14 4/8"	2'-9"
h6	14 9/8"	3'-5"

PIER 2
BILL OF MATERIAL

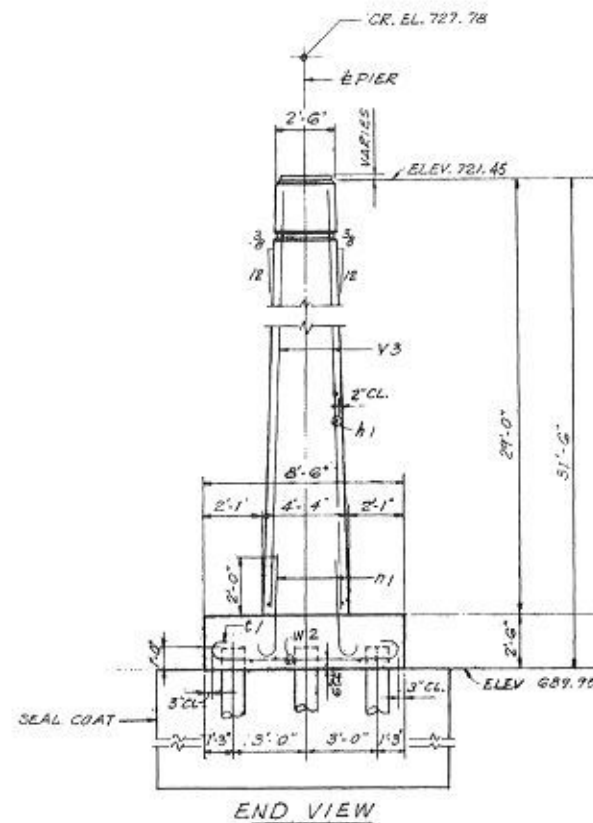
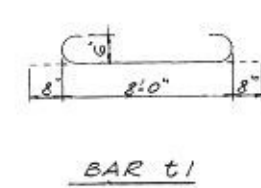
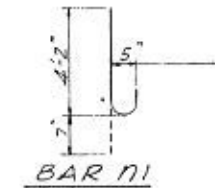
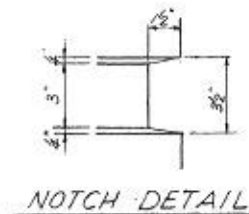
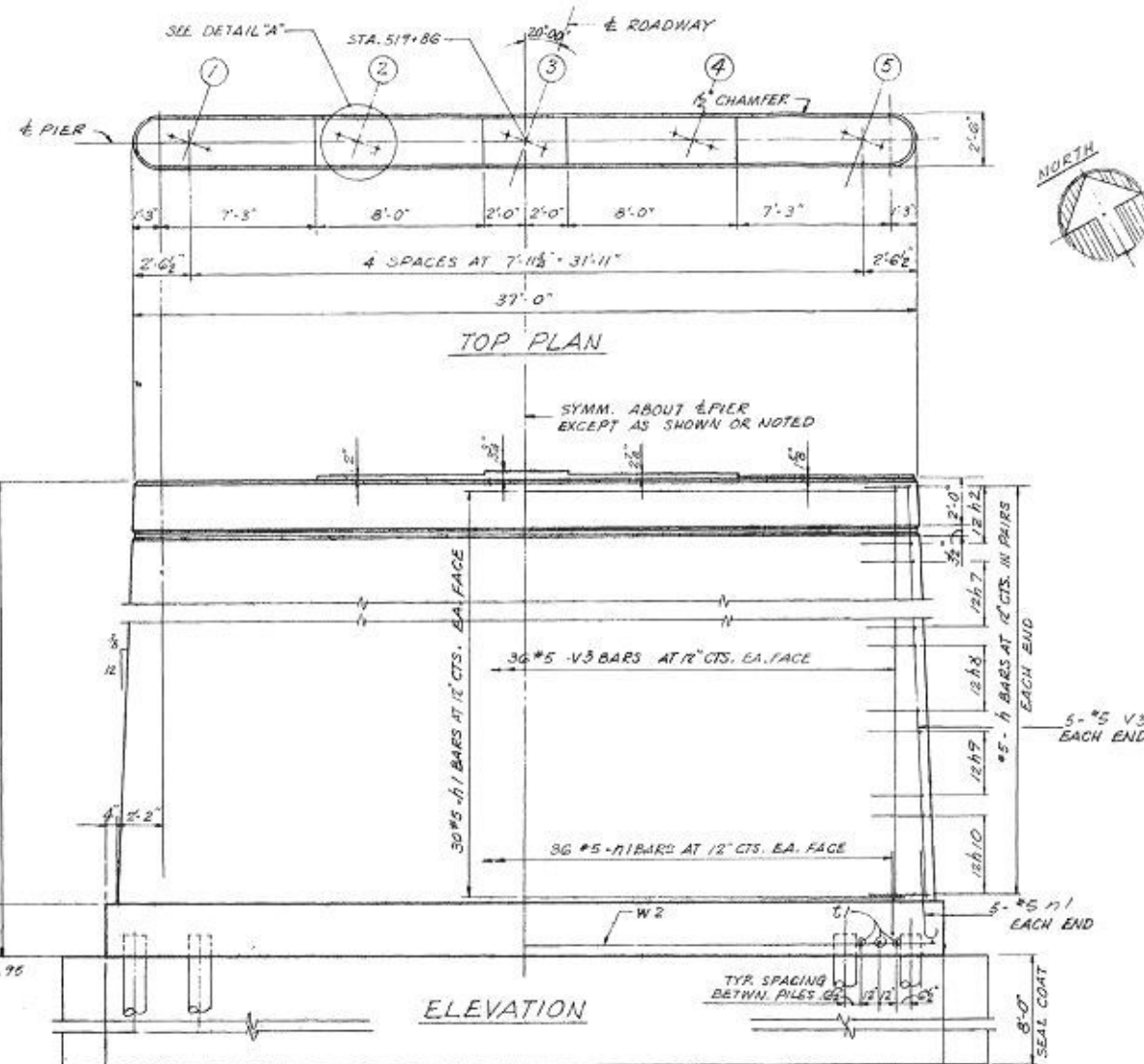
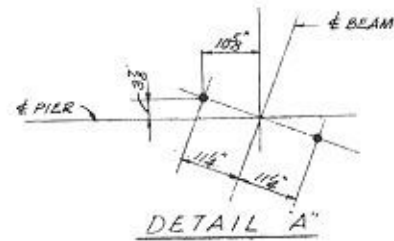
BAR	NO.	SIZE	LENGTH	SHAPE
h1	44	#5	3'-6"	—
h2	20	#5	3'-10"	—
h3	24	#5	4'-3"	—
h5	20	#5	4'-0"	—
h6	24	#5	4'-8"	—
h2	82	#6	5'-9"	—
h2	52	#6	9'-10"	—
V2	82	#5	21'-5"	—
W2	3	#6	39'-0"	—
CLASS A CONCRETE			CU. YDS.	126
REINFORCEMENT BARS			LBS.	5,440
UNTREATED TIMBER PILES			LN. FT.	950
TEST PILE, TIMBER			EACH	1

NOTE:
ALL BAR DIMENSIONS ARE OUT TO OUT

PIER 2
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B.C.F
WINNEBAGO COUNTY
STATION 519+28.50

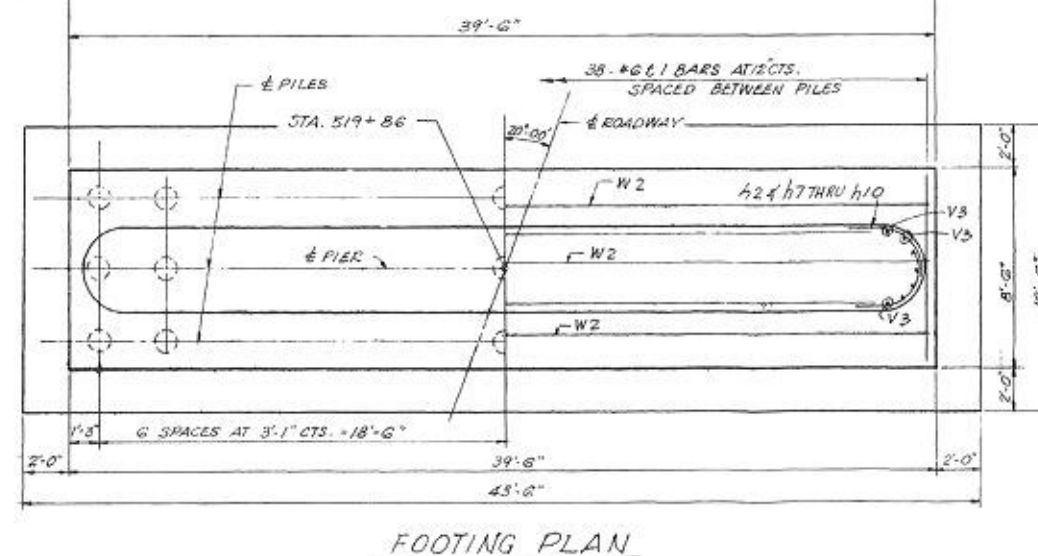
APPROVED
COUNTY SUPERINTENDENT OF HIGHWAY
EXAMINED
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS



UNTREATED TIMBER PILES
ESTIMATED LENGTH
CAPACITY
NUMBER OF PILES
* INCLUDES ONE
TEST PILE

20 FEET
24 TONS
* 39



BAR	R	A
h2	1'-3"	2'-7"
h7	1'-5"	2'-10"
h8	1'-7"	3'-2"
h9	1'-9"	3'-5"
h10	2'-0"	3'-9"

DETAIL OF BARS
BARS h2 & h7 TO h10

PIER 3
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h1	60	#5	34'-6"	—
h2	24	#5	3'-10"	—
h7	24	#5	4'-1"	—
h8	24	#5	4'-5"	—
h9	24	#5	4'-8"	—
h10	24	#5	5'-0"	—
n1	82	#5	4'-9"	L
t1	38	#6	9'-4"	C
v3	82	#5	28'-9"	—
w2	3	#6	39'-0"	—
CLASS A CONCRETE				CU. YDS. 167
REINFORCEMENT BARS				LBS. 6280
SEAL COAT CONCRETE				CU. YDS. 161
UNTREATED TIMBER PILES				LN. FT. 760
TEST PILE, TIMBER				EACH 1

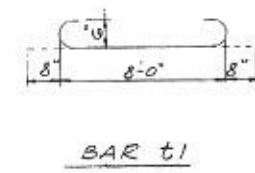
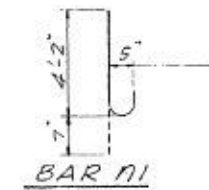
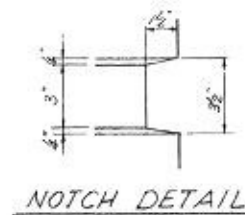
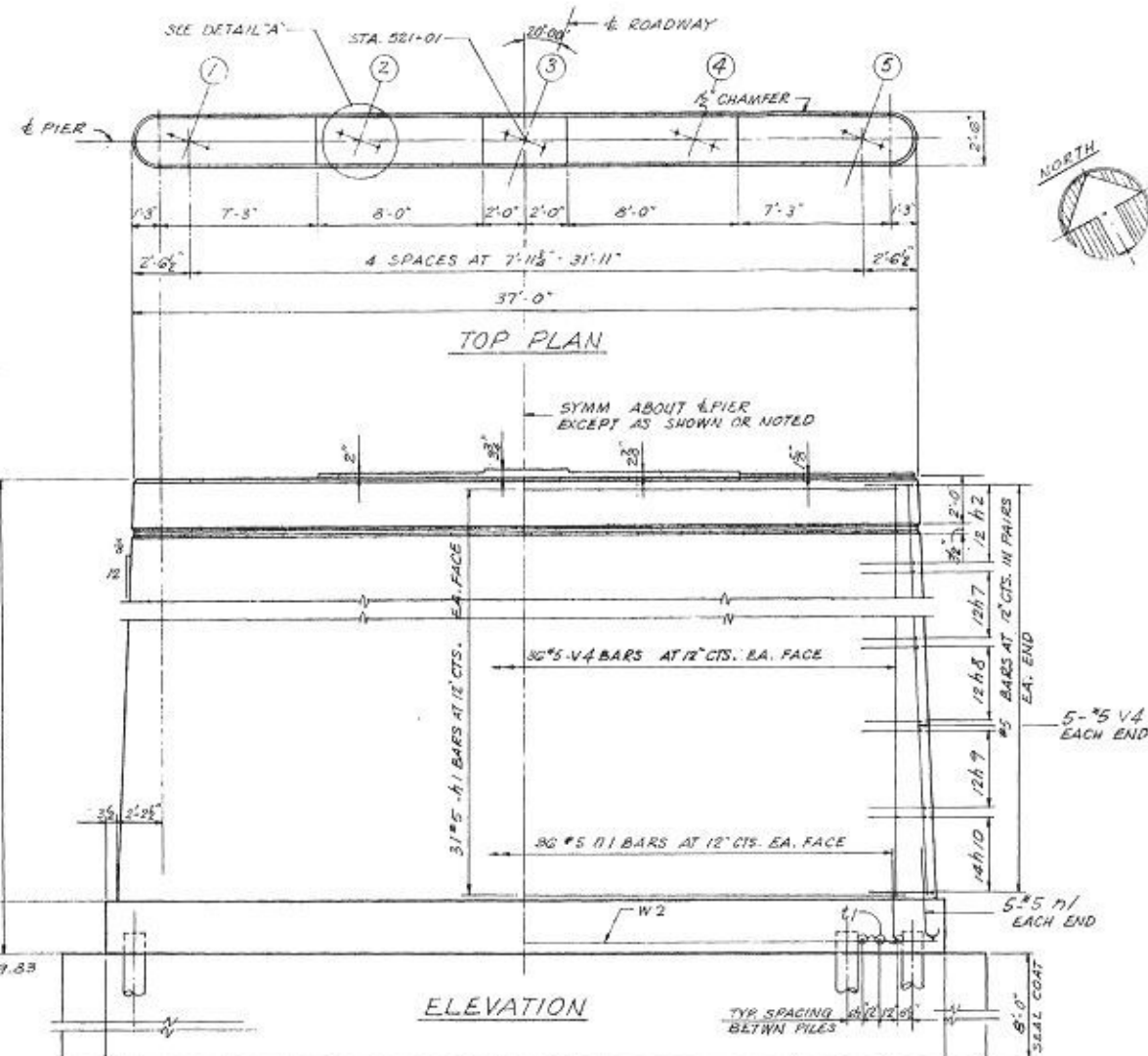
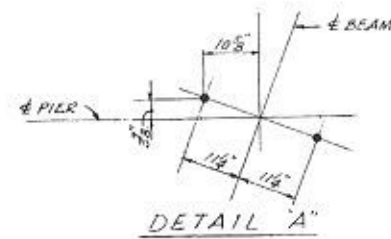
NOTE:
THICKNESS OF SEAL COAT
DESIGNED FOR WATER ELEVATION
OF 700.8

NOTE:
ALL BAR DIMENSIONS ARE OUT TO OUT

APPROVED
COUNTY SUPERINTENDENT OF HIGHWAY
EXAMINED
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
18 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS

PIER 3
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50



PIER 4
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
N1	62	#5	34'-0"	—
N2	24	#5	3'-10"	—
N7	24	#5	4'-1"	—
N8	24	#5	4'-5"	—
N9	24	#5	4'-8"	—
N10	28	#5	5'-0"	—
N1	82	#5	4'-9"	—
t1	38	#6	9'-4"	—
V4	82	#5	30'-3"	—
W2	3	#6	39'-0"	—
CLASS A CONCRETE			CU. YDS.	176
REINFORCEMENT BARS			LBS.	8,500
SEAL COAT CONCRETE			CU. YDS.	181
UNTREATED TIMBER PILES			LN. FT.	760
TEST PILE, TIMBER			EACH	1

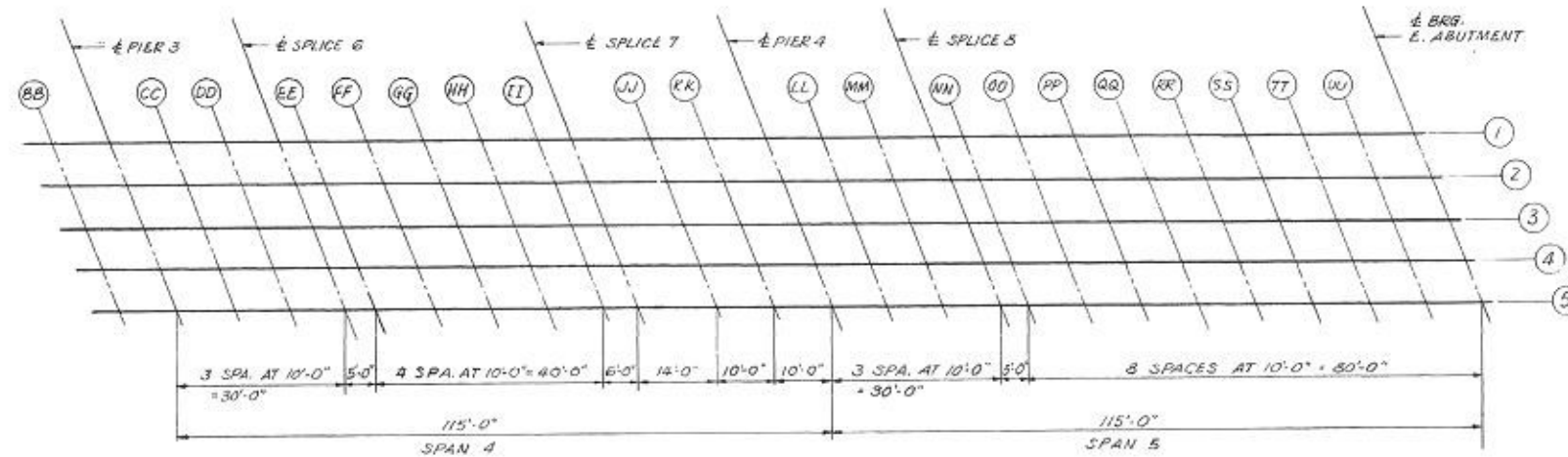
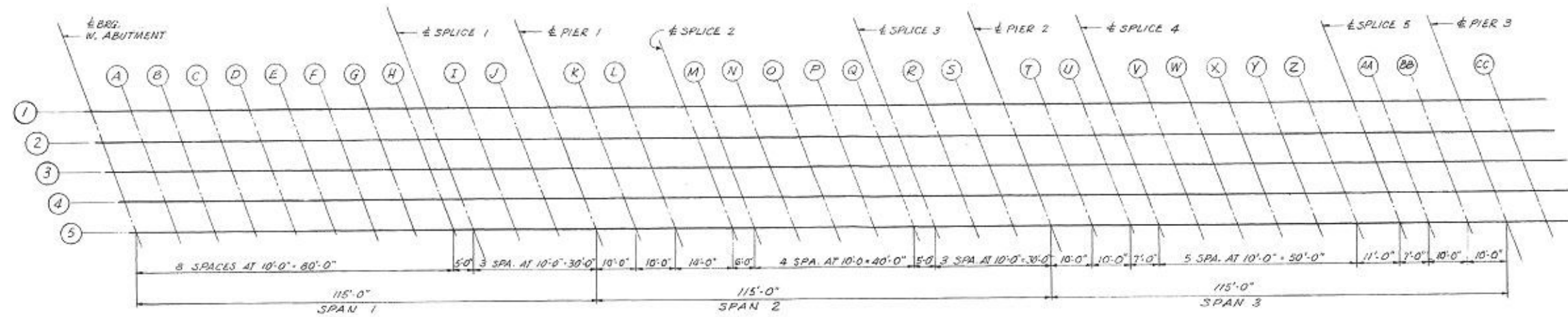
NOTE:
THICKNESS OF SEAL COAT
DESIGNED FOR WATER ELEVATION
OF 726.8

NOTE:
ALL BAR DIMENSIONS ARE OUT TO OUT

PIER 4
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B OF
WINNEBAGO COUNTY
STATION 519+28.50

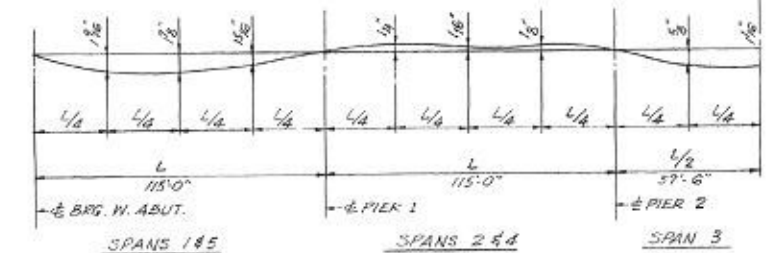
APPROVED
COUNTY SUPERINTENDENT OF HIGHWAY
EXAMINED
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS



PLAN

ALL DIMENSIONS ARE ALONG β BEAMS

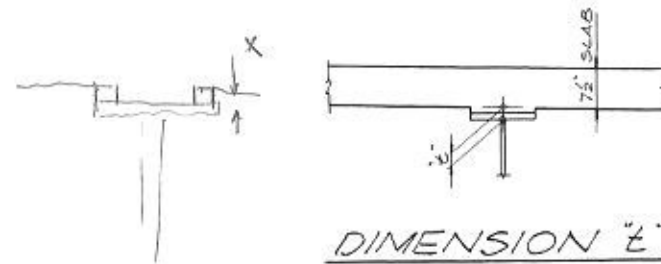


DEAD LOAD DEFLECTION DIAGRAM

INCLUDES WEIGHT OF CONCRETE ONLY

NOTE:

THE ABOVE DEFLECTIONS ARE NOT FOR USE IN THE FIELD IF THE ENGINEER IS WORKING FROM THE THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION.



DIMENSION "t"

AFTER ALL STRUCTURAL STEEL HAS BEEN
ERECTED, ELEVATIONS OF THE TOP OF FLANGE
PLATES OF THE GIRDERS SHALL BE TAKEN
AT THE LOCATIONS SHOWN ON SHEETS 117
AND 118. ALL DIMENSIONS TO THESE
LOCATIONS SHALL BE SUBTRACTED FROM THE
MEASURED ELEVATION. THE ELEVATIONS OF THE
TOP OF FLANGE PLATES OF THE GIRDERS
THEN BE SUBTRACTED FROM THE THEORETICAL
GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD
EFFECTS. THE RESULTING DIMENSION
SO OBTAINED MINUS THE SLAB THICKNESS OF 75
EQUALS THE DIMENSION "L".

APPROVED _____ COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED _____ ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
PASSED _____ ENGINEER OF DESIGN
APPROVED _____ CHIEF HIGHWAY ENGINEER

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

TOP OF SLAB ELEVATIONS
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50

SPAN 1

SPAN 2

SPAN 3

SPAN 4

SPAN 5

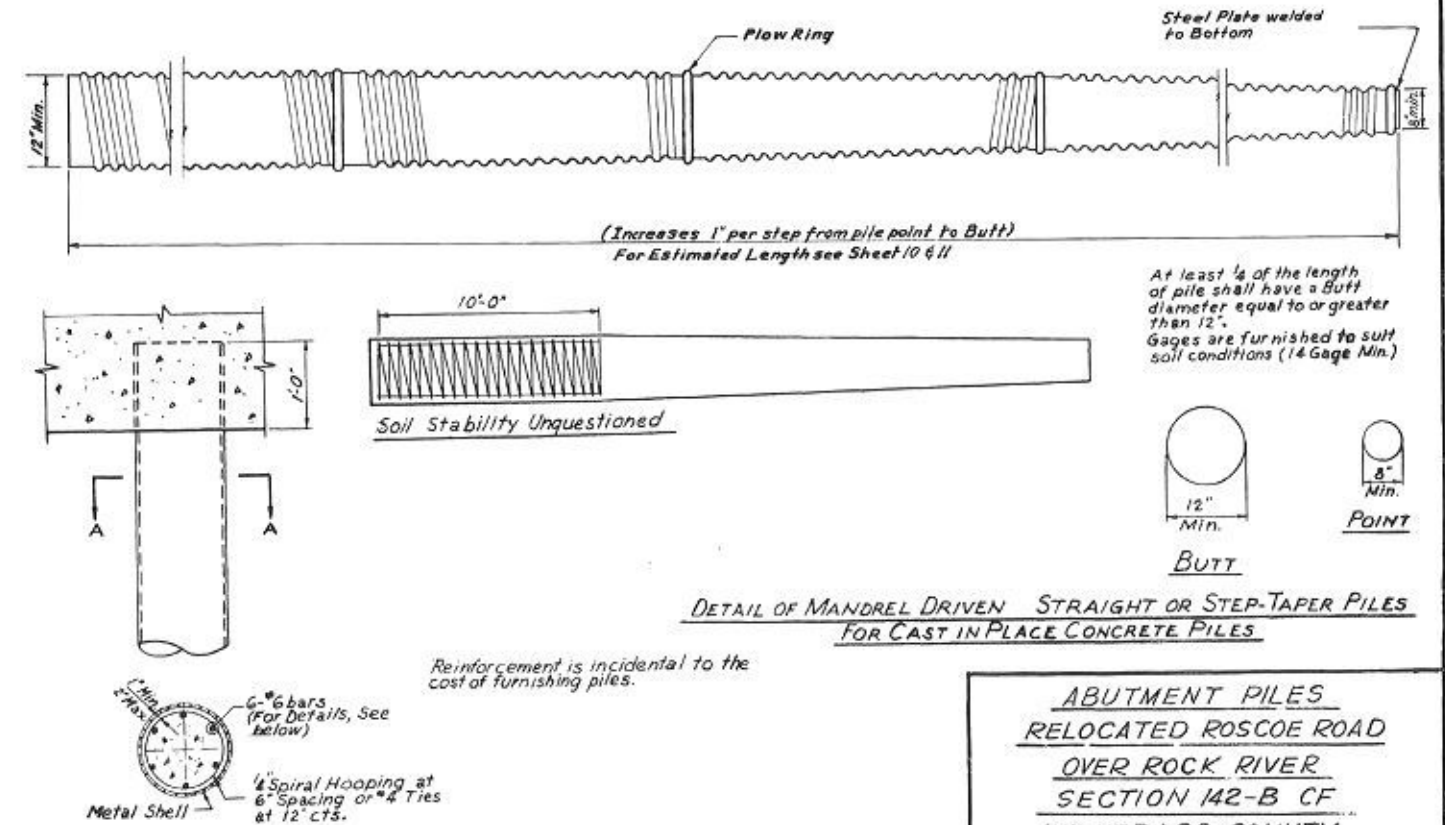
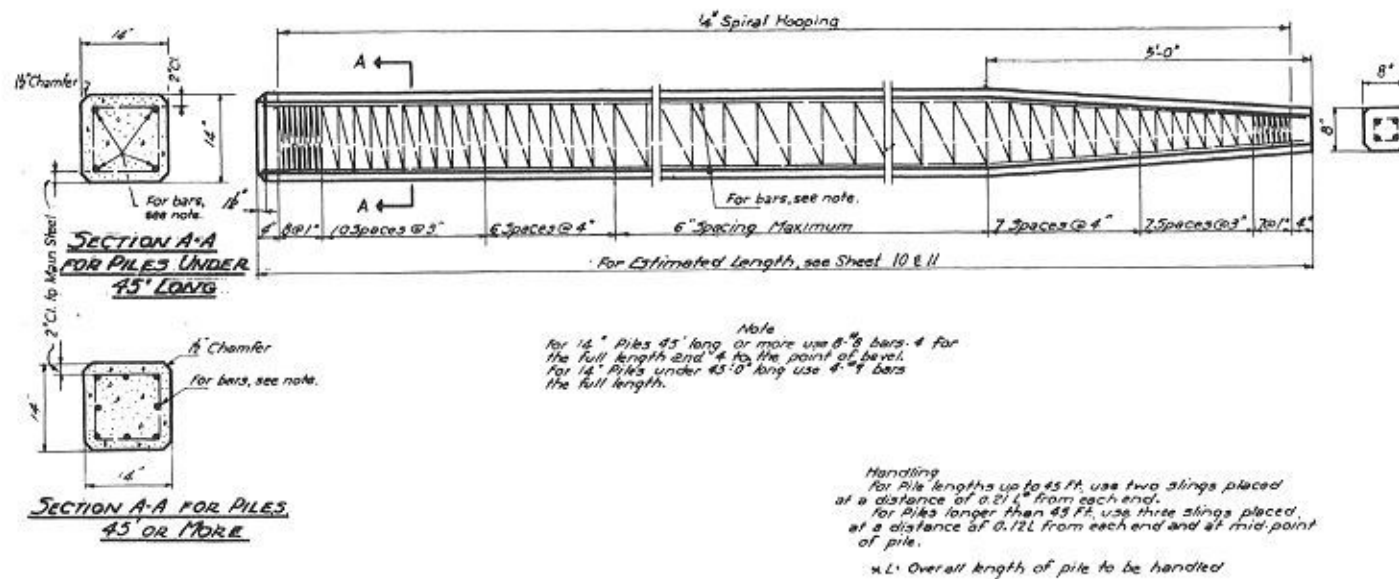
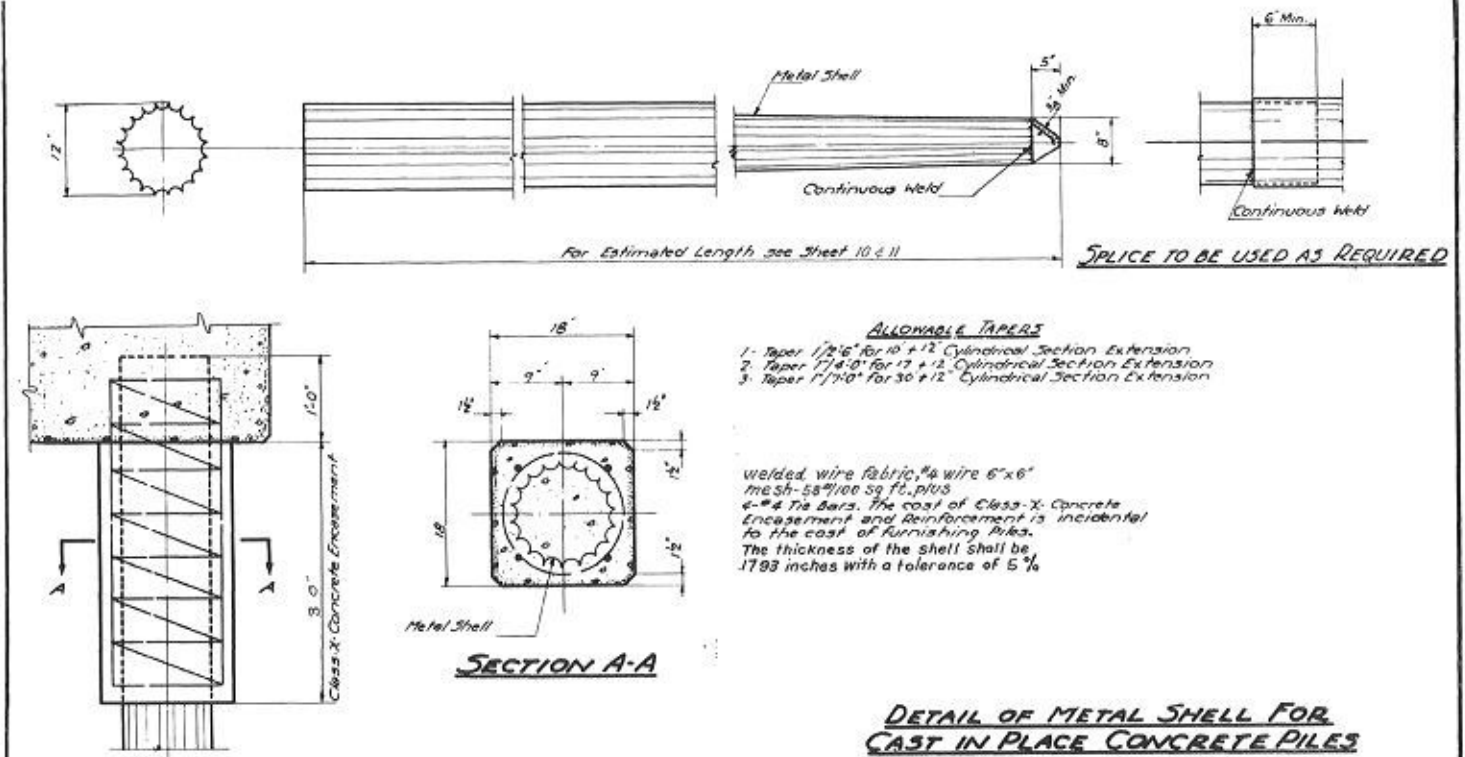
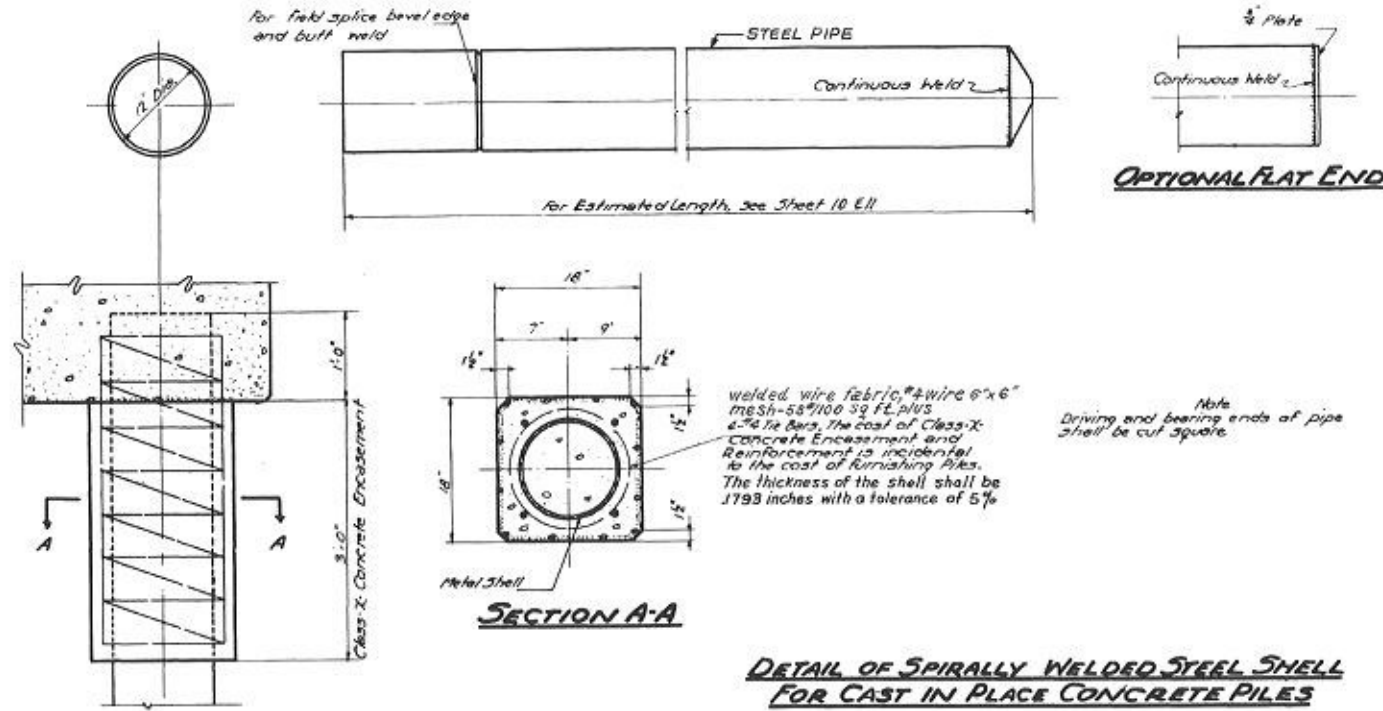
LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
E. Brg. M. Abut.	1.	51635.540	15,000	723,144	723,144	Brg. Pier 1	1.	51750.540	15,000	724,581	724,581	Brg. Pier 2	1.	51855.540	15,000	726,019	726,019	Brg. Pier 3	1.	51980.540	15,000	727,456	727,456	Brg. Pier 4	1.	52095.540	15,000	728,894	728,894
	2.	51638.270	7,500	723,311	723,311		2.	51753.270	7,500	724,748	724,748		2.	51860.270	7,500	726,186	726,186		2.	51983.270	7,500	727,623	727,623		2.	52098.270	7,500	729,061	729,061
	3.	51641.000	0,000	723,462	723,462		3.	51756.000	0,000	724,900	724,900		3.	51863.000	0,000	726,337	726,337		3.	51986.000	0,000	727,775	727,775		3.	52101.000	0,000	729,212	729,212
	4.	51643.729	7,500	723,379	723,379		4.	51758.729	7,499	724,816	724,816		4.	51866.729	7,499	726,494	726,494		4.	51989.729	7,499	727,891	727,891		4.	52103.729	7,500	729,129	729,129
	5.	51646.459	15,000	723,280	723,280		5.	51761.459	14,999	724,718	724,718		5.	51869.459	15,000	726,595	726,595		5.	51991.459	14,999	727,993	727,993		5.	52106.459	15,000	729,030	729,030
A	1.	51645.540	15,000	723,267	723,322	K	1.	51760.540	15,000	724,706	724,692	T	1.	51875.540	15,000	726,144	726,157	CC	1.	51990.540	15,000	727,581	727,573	LL	1.	52105.540	15,000	729,019	729,040
	2.	51648.270	7,500	723,436	723,489		2.	51763.270	7,500	724,859	724,859		2.	51878.270	7,500	726,311	726,324		2.	51993.270	7,500	727,748	727,740		2.	52108.270	7,500	729,186	729,207
	3.	51651.000	0,000	723,567	723,640		3.	51766.000	0,000	725,025	725,010		3.	51881.000	0,000	726,462	726,475		3.	51996.000	0,000	727,900	727,891		3.	52111.000	0,000	729,337	729,358
	4.	51653.729	7,500	723,504	723,557		4.	51768.729	7,499	724,941	724,927		4.	51883.729	7,500	726,379	726,392		4.	51998.729	7,499	727,816	727,808		4.	52113.729	7,500	729,254	729,275
	5.	51656.459	15,000	723,405	723,458		5.	51771.459	14,999	724,843	724,829		5.	51886.459	15,000	726,280	726,293		5.	52001.459	14,999	727,718	727,709		5.	52116.459	15,000	729,155	729,176
B	1.	51655.540	15,000	723,394	723,493	L	1.	51770.540	15,000	724,631	724,611	U	1.	51885.540	15,000	726,259	726,301	DD	1.	52000.540	15,000	727,705	727,696	MM	1.	52115.540	15,000	729,144	729,195
	2.	51658.270	7,500	723,561	723,660		2.	51773.270	7,500	724,598	724,578		2.	51888.270	7,500	726,436	726,468		2.	52003.270	7,500	727,873	727,863		2.	52118.270	7,500	729,311	729,362
	3.	51661.000	0,000	723,712	723,811		3.	51776.000	0,000	725,129	725,129		3.	51891.000	0,000	726,573	726,619		3.	52006.000	0,000	728,025	728,014		3.	52121.000	0,000	729,462	729,513
	4.	51663.730	7,500	723,629	723,728		4.	51778.730	7,499	725,066	725,046		4.	51893.730	7,500	726,504	726,536		4.	52008.730	7,499	727,941	727,931		4.	52123.730	7,500	729,430	729,480
	5.	51666.459	15,000	723,530	723,629		5.	51781.459	14,999	724,968	724,947		5.	51896.459	15,000	726,405	726,437		5.	52011.459	14,999	727,843	727,832		5.	52126.459	15,000	729,380	729,431
C	1.	51665.540	15,000	723,519	723,653	SPL. #2	1.	51780.540	15,000	724,956	724,937	SPL. #4	1.	51892.540	15,000	726,356	726,403	SPL. #6	1.	52010.540	15,000	727,831	727,823	SPL. #8	1.	52125.540	15,000	729,369	729,420
	2.	51668.270	7,500	723,686	723,820		2.	51783.270	7,500	725,123	725,104		2.	51895.270	7,500	726,523	726,570		2.	52013.270	7,500	727,998	727,990		2.	52128.270	7,500	729,436	729,487
	3.	51671.000	0,000	723,837	723,971		3.	51786.000	0,000	725,275	725,255		3.	51898.000	0,000	726,675	726,722		3.	52016.000	0,000	728,150	728,141		3.	52131.000	0,000	729,507	729,558
	4.	51673.730	7,500	723,754	723,888		4.	51788.730	7,499	725,191	725,172		4.	51900.730	7,500	726,591	726,638		4.	52018.730	7,499	728,066	728,058		4.	52133.730	7,500	729,574	729,625
	5.	51676.459	15,000	723,655	723,789		5.	51791.459	14,999	725,093	725,073		5.	51903.459	15,000	726,493	726,540		5.	52021.459	14,999	727,968	727,959		5.	52136.459	15,000	729,640	729,691
D	1.	51675.540	15,000	723,644	723,800	M	1.	51790.540	15,000	725,081	725,067	V	1.	51902.540	15,000	726,481	726,530	EE	1.	52015.540	15,000	727,894	727,887	HH	1.	52130.540	15,000	729,629	729,680
	2.	51678.270	7,500	723,811	723,967		2.	51793.270	7,500	725,248	725,234		2.	51905.270	7,500	726,648	726,717		2.	52018.270	7,500	728,061	728,054		2.	52133.270	7,500	729,696	729,747
	3.	51681.000	0,000	723,962	724,118		3.	51796.000	0,000	725,400	725,385		3.	51908.000	0,000	726,800	726,860		3.	52020.999	0,000	728,125	728,117		3.	52136.000	0,000	729,763	729,814
	4.	51683.730	7,500	723,879	724,035		4.	51798.730	7,499	725,316	725,302		4.	51910.730	7,500	726,716	726,785		4.	52023.729	7,499	728,190	728,182		4.	52138.730	7,500	729,830	729,881
	5.	51686.459	15,000	723,780	723,936		5.	51801.459	14,999	725,218	725,203		5.	51913.460	15,000	726,618	726,687		5.	52026.459	14,999	728,255	728,247		5.	52141.459	15,000	729,897	729,948
E	1.	51685.540	15,000	723,769	723,930	N	1.	51800.540	15,000	725,206	725,198	W	1.	51912.541	15,000	726,605	726,690	FF	1.	52025.540	15,000	728,269	728,261	OO	1.	52140.540	15,000	729,906	729,957
	2.	51688.270	7,500	723,936	724,097		2.	51803.270	7,500	725,373	725,365		2.	51915.270	7,500	726,773	726,857		2.	52028.270	7,500	728,334	728,326		2.	52143.270	7,500	729,973	730,024
	3.	51691.000	0,000	724,087	724,248		3.	51806.000	0,000	725,525	725,516		3.	51918.000	0,000	726,925	727,009		3.	52030.999	0,000	728,400	728,392		3.	52146.000	0,000	729,999	730,050
	4.	51693.730	7,500	724,004	724,165		4.	51808.730	7,499	725,441	725,433		4.	51920.730	7,500	726,841	726,925		4.	52033.729	7,499	728,465	728,457		4.	52148.730	7,500	730,024	730,075
	5.	51696.460	15,000	723,905	724,066		5.	51811.460	14,999	725,343	725,334		5.	51923.460	15,000	726,743	726,827		5.	52036.459	14,999	728,530	728,522		5.	52151.460	15,000	730,093	730,144
F	1.	51695.541	15,000	723,894	724,046	O	1.	51810.541	15,000	725,331	725,327	X	1.	51922.541	15,000	726,731	726,821	GG	1.	52035.540	15,000	728,544	728,536	PP	1.	52150.540	15,000	730,101	730,152
	2.	51698.270	7,500	724,061	724,213		2.	51813.270	7,500	725,498	725,494		2.	51925.270	7,500	726,898	726,988		2.	52038.270	7,500	728,611	728,603		2.	52153.270	7,500	730,168	730,219
	3.	51701.000	0,000	724,212	724,364		3.	51816.000	0,000	725,650	725,645		3.	51928.000	0,000	727,050	727,140		3.	52041.000	0,000	728,676	728,668		3.	52156.000	0,000	730,235	730,286
	4.	51703.730	7,500	724,129	724,281		4.	51818.730	7,499	725,566	725,562		4.	51930.730	7,500	726,966	727,056		4.	52043.729	7,499	728,739	728,731		4.	52158.730	7,500	730,302	730,353
	5.	51706.460	15,000	724,030	724,182		5.	51821.460	14,999	725,468	725,463		5.	51933.460	15,000	726,868	726,958		5.	52046.459	14,999	728,800	728,792		5.	52161.460	15,000	730,369	730,420
G	1.	51705.541	15,000	724,019	724,150	P	1.	51820.541	15,000	725,456	725,452	Y	1.	51932.541	15,000	726,856	726,940	HH	1.	52045.540	15,000	728,809	728,801	QQ	1.	52160.541	15,000	730,379	730,430
	2.	51708.270	7,500	724,186	724,317		2.	51823.270	7,500	725																			

ABUTMENT PILES

PILING TO BE USED AT THE ABUTMENTS SHALL BE ANY OF THE VARIOUS KINDS SHOWN BELOW

SHEET 18 OF 20

ROUTE NO.	SECTION	COUNT	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
S. P. S. REG. NO. 4	ILLINOIS	PROJECT		



APPROVED _____ COUNTY SUPERINTENDENT OF HIGHWAYS

EXAMINED _____ ENGINEER OF BRIDGE & TRAFFIC STRUCTURES

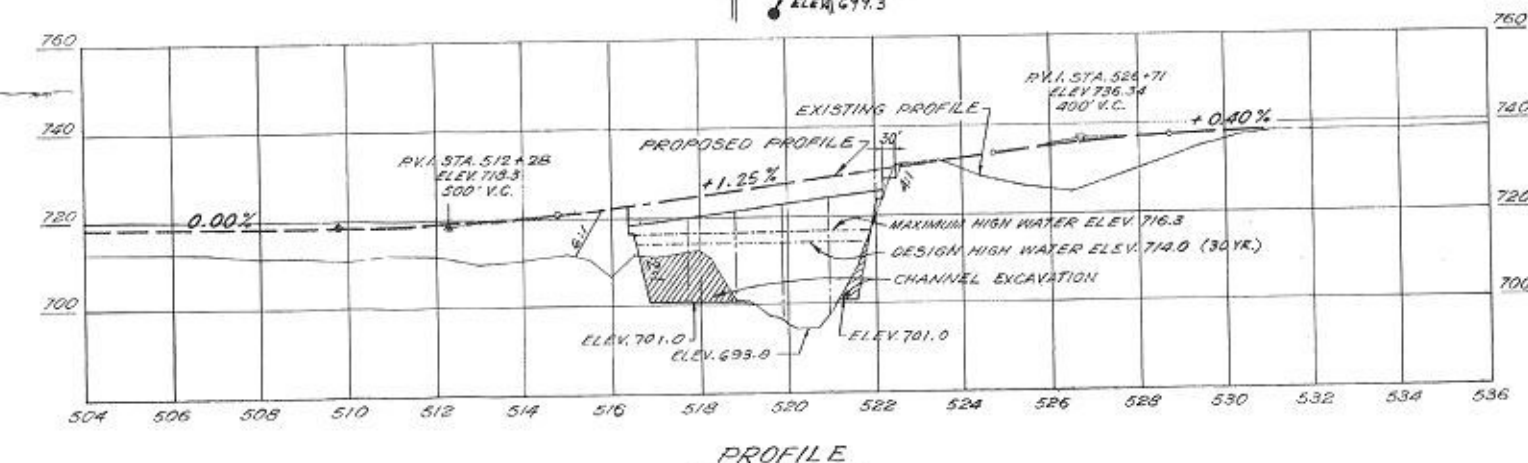
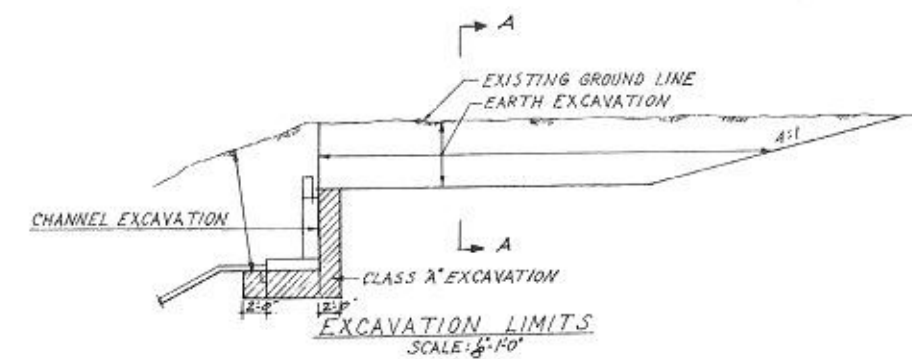
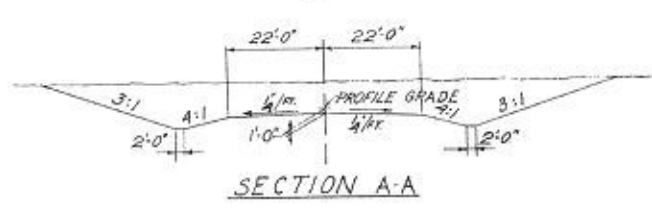
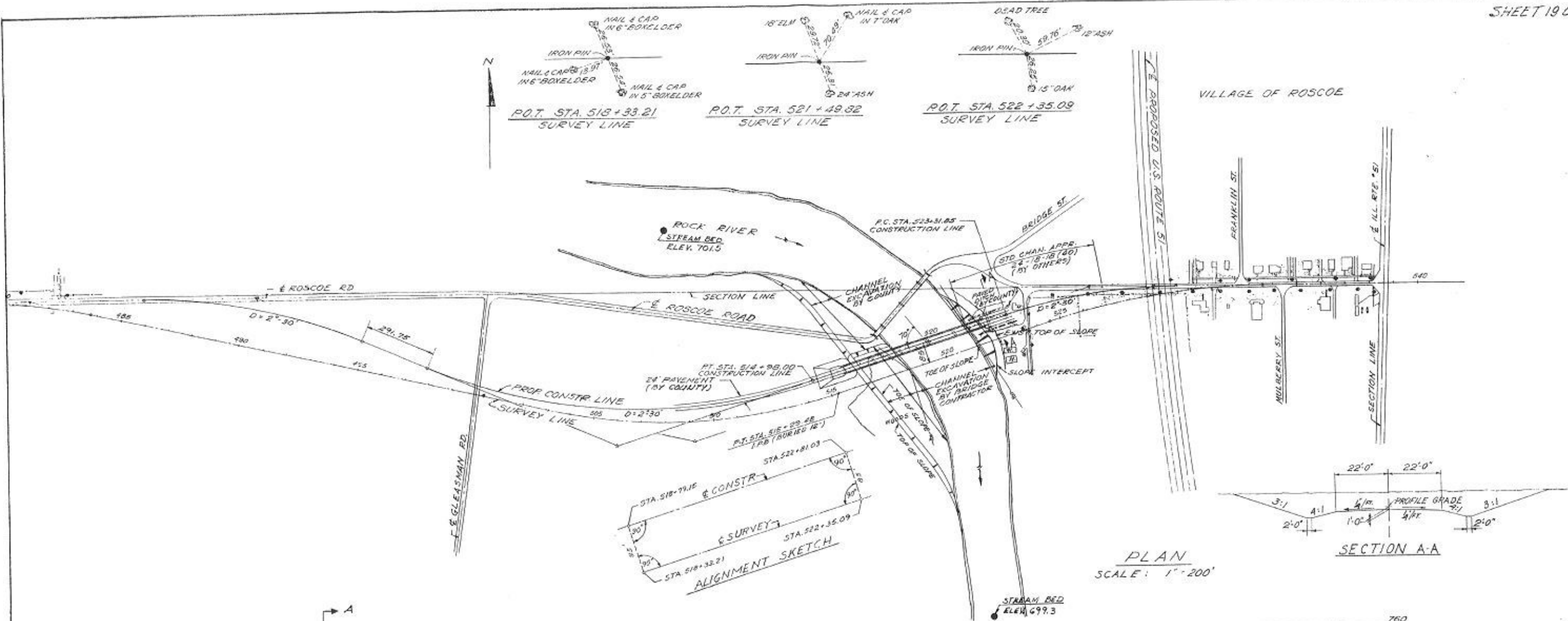
PASSED _____ ENGINEER OF DESIGN

APPROVED _____ CHIEF HIGHWAY ENGINEER

DETAIL OF PRECAST CONCRETE PILES

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

ABUTMENT PILES
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B CF
WINNEBAGO COUNTY
STATION 519+28.50



ROAD PLAN AND PROFILE
RELOCATED ROSCOE ROAD
OVER ROCK RIVER
SECTION 142-B-CF
WINNEBAGO COUNTY
STATION 519+28.50