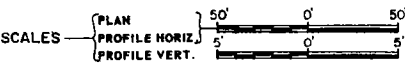


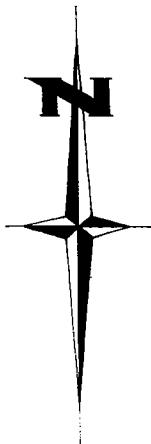
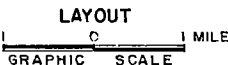
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FOR INDEX OF SHEETS, SEE SHEET NO. 3



F.A. ROUTE 561 (U.S. ROUTE 30)
SECTION 110 BR-1 & 110 BR-2
PROJECT BR-F-561(9)
WHITESIDE COUNTY

C-92-110-82



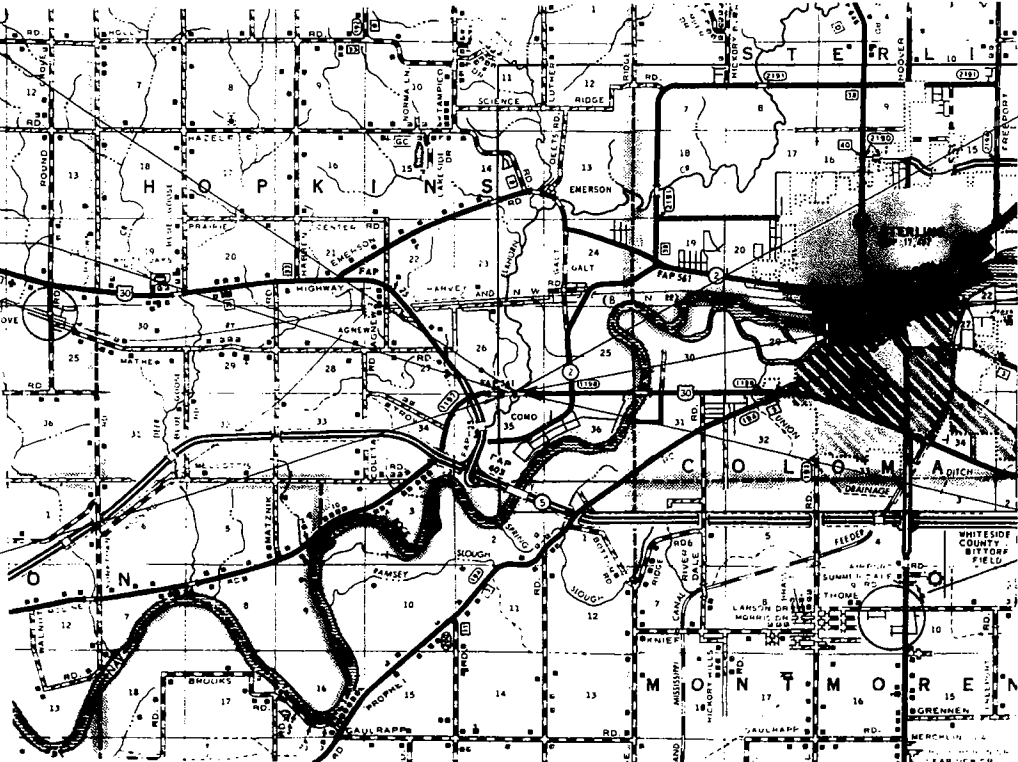
SECTION 110 BR-2
BEGINS
STATION 230+96.96

SECTION 110 BR-2 INCLUDES THE REMOVAL OF THE EXISTING SUPERSTRUCTURE AND ITS REPLACEMENT WITH A 119'-10" BK-BK. 3 SPAN WIDE FLANGE BEAM STRUCTURE WITH A 43'-2" O-O. REINFORCED CONCRETE DECK. EXISTING R.C. PILE BENT PIERS AND SPILL THRU ABUTMENTS TO BE EXTENDED. F.A. ROUTE 561 OVER ELKHORN CREEK OVER FLOW AT STATION 232+10

SECTION 110 BR-2
ENDS
STATION 223+23.04

CALL J.U.L.I.E.
BEFORE YOU DIG
800-892-0123
HOPKINS TOWNSHIP

DESIGN DESIGNATION
1075 (03) AREA SERVICE 0.20 (B-20)

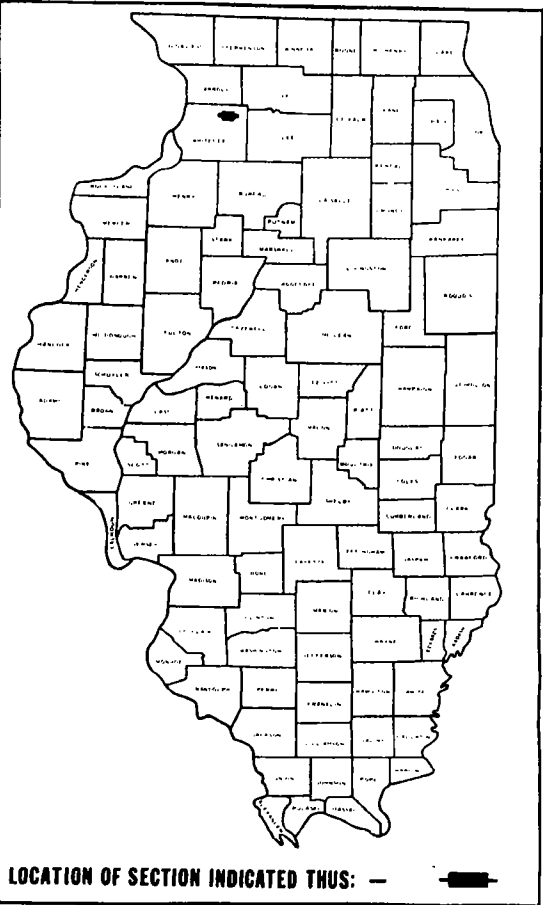
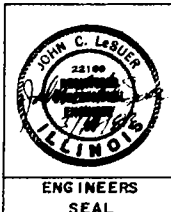


NET LENGTH OF SECTION 110 BR-1 = 552.08 LIN. FT. = 0.105 MILES
NET LENGTH OF SECTION 110 BR-2 = 226.08 LIN. FT. = 0.043 MILES

SECTION 110 BR-1
ENDS
STATION 229+31.04

SECTION 110 BR-1 INCLUDES THE REMOVAL OF THE EXISTING SUPERSTRUCTURE AND ITS REPLACEMENT WITH A 447'-1" BK-BK. 6 SPAN WIDE FLANGE BEAM STRUCTURE WITH A 43'-2" O-O. REINFORCED CONCRETE DECK. EXISTING R.C. PIER AND SPILL THRU ABUTMENTS TO BE WIDENED. F.A. ROUTE 561 OVER ELKHORN CREEK AT STATION 226+55.

SECTION 110 BR-1
BEGINS
STATION 223+78.96



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: MAY 20 1983
EXAMINED: 7-1 1983
PASSED: 7-1 1983
APPROVED: 7-1 1983

Ralph J. Weber DISTRICT ENGINEER
D. L. Wolaver ENGINEER OF PLANS AND CONTRACTS
John R. Oaks ENGINEER OF DESIGN
John C. Lebler CHIEF ENGINEER OF HIGHWAYS

CASLER, HOUSER & HUTCHISON, INC.
CONSULTING ENGINEERS
1801 WEST LAFAYETTE AVE.
JACKSONVILLE, ILLINOIS

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE

QTY. NO.	ITEM	UNIT	TOTAL QUANTITY	SECTION 110 BR-1		SECTION 110 BR-2	
				244-30	2071/2A	244-30	2031/2A
202005	TREE REMOVAL (OVER 15 INCH DIAMETER)	IN. DIA.	156	62		94	
202005	EARTH EXCAVATION (WIDENING)	CU. YD.	151	71		80	
212012	AGGREGATE SHOULDERS, TYPE B	TON	226	99		127	
202005	BITUMINOUS CONCRETE BASE COURSE WIDENING 8"	SQ. YD.	496	232		264	
202001	TREE REMOVAL (6 TO 15 INCH DIAMETER)	IN. DIA.	32	32			
406007	BITUMINOUS CONCRETE BINDER COURSE	TON	42	20		22	
406013	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D1 CLASS I	TON	70	34		36	
40602	BRIDGE APPROACH PAVEMENT (STANDARD 238")	SQ. YD.	232	116		116	
406015	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SQ. YD.	86	43		43	
501017	REMOVAL OF EXISTING SUPER-STRUCTURES NO. 1	EACH	1		1		
501018	REMOVAL OF EXISTING SUPER-STRUCTURES NO. 2	EACH	1				1
501024	CONCRETE REMOVAL	CU. YD.	142.6		96.6		46
501029	EXPANSION BOLTS 3/4 INCH	EACH	220		220		
502001	STRUCTURE EXCAVATION	CU. YD.	130		70		60
503001	FLOOR DRAINS	EACH	82		68		14
503003	PROTECTIVE COAT	SQ. YD.	2955		2335		620
504003	CLASS X CONCRETE	CU. YD.	913.6		694.0		219.6
507001	FURNISHING AND ERECTING STRUCTURAL STEEL	L. SUM	1		0.85		0.15
507005	STUD BEAR CONNECTORS	EACH	7200		7200		
512001	REINFORCEMENT BARS	POUND	55,416	6700	13,400	6700	8,010
512002	REINFORCEMENT BARS (EPOXY COATED)	POUND	175,850		133,410		32,440
513013	FURNISHING STEEL PILES HP8X36	LIN. FT.	346		90		256
513027	DRIVING STEEL PILES	LIN. FT.	346		90		256
513033	TEST PILE STEEL HP8X36	EACH	4		2		2
514001	NAME PLATES	EACH	2		1		1
601001	STONE RIPRAP	SQ. YD.	920		410		510
617001	PAVEMENT REMOVAL	SQ. YD.	196	98		98	
620020	PAVEMENT REMOVAL AND BITUMINOUS REPLACEMENT, TYPE II, 10 INCH	SQ. YD.	30	15		15	
X62837	STEEL PLATE BEAM GUARDRAIL, TYPE A	LIN. FT.	752	445		307	
628031	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	6	4		2	
X62844	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8	4		4	
632001	DELINEATORS	EACH	3	2		1	
633002	WOOD GUARD RAIL REMOVAL	LIN. FT.	915	417		498	
X64201	SEEDING, CLASS II (MODIFIED)	ACRE	0.9	0.6		0.3	
646004	ENGINEER'S FIELD OFFICE, TYPE A	CAL. NO.	20	5		5	
647001	PAVEMENT MARKING TAPE	LIN. FT.	900	450		450	
X04748	MOBILIZATION	L. SUM	1		0.5		0.5
X04043	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	EACH	1	0.5		0.5	
Z10280	NEOPRENE EXPANSION JOINT 2 1/2"	LIN. FT.	84		84		
210296	PERMANENT BENCH MARKS, TYPE 1	EACH	1	1			
X50313	PREFORMED JOINT SEAL 2 1/2"	LIN. FT.	172		86		86
X61640	TEMPORARY CONCRETE BARRIER	LIN. FT.	830		830		
X61641	TEMPORARY CONCRETE BARRIER, TERMINAL SECTION	EACH	4		2		2
X61642	RELOCATE TEMPORARY CONCRETE BARRIER	LIN. FT.	1652		734		918
X64323	HYDRAULIC MULCH	POUND	1350	900		450	
X64851	TRAFFIC CONTROL AND PROTECTION STD. 2303	L. SUM	1	.5		.5	

* SPECIAL PROVISIONS

GENERAL NOTES

THE REMOVAL OF BITUMINOUS SURFACING NOT ON A RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE REMOVED AS EARTH EXCAVATION. THE REMOVAL OF BITUMINOUS SURFACING ON A RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE, SHALL BE CONSIDERED INCIDENTAL TO PAVEMENT REMOVAL.

THE CONTRACTOR AT HIS OWN EXPENSE, SHALL RELOCATE AND REPLACE TO THE SATISFACTION OF THE ENGINEER ALL SIGNS IN ACCORDANCE WITH ARTICLE 107.22 OF THE STANDARD SPECIFICATIONS.

THE EARTH REMOVED IN SHAPING THE SUBGRADE OF THE PAVEMENT SHALL BE DISPOSED OF BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER, WITHOUT ADDITIONAL COMPENSATION, IT BEING UNDERSTOOD THAT THE COST OF PERFORMING SUCH WORK IS INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PARTICULAR TYPE OF EXCAVATION.

THE CONTRACTOR SHALL PLACE A PERMANENT BENCH MARK, TYPE I IN THE BRIDGE PARAPET FOR SECTION 110 BR-1 STRUCTURE, AS DIRECTED BY THE ENGINEER.

THE FINAL TOP 4" OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE ABLE TO SUPPORT VEGETATION, SEEDING CLASS II (MODIFIED) SHALL BE PLACED ON THE TOPSOIL AND DISTURBED EARTH SURFACES. THE COST OF ALL FERTILIZER NUTRIENTS SHALL BE CONSIDERED INCIDENTAL TO SEEDING CLASS II (MODIFIED).

THE FOLLOWING ITEMS HAVE BEEN ESTIMATED FOR THE TWO SECTIONS:

NITROGEN FERTILIZER NUTRIENTS	90 LBS
PHOSPHORUS FERTILIZER NUTRIENTS	180 LBS
POTASSIUM FERTILIZER NUTRIENTS	54 LBS

SEEDING, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, THE RATE OF APPLICATION OF ACTUAL FERTILIZER NUTRIENTS PER ACRE OF SEEDING CLASS II SHALL BE:

NITROGEN FERTILIZER NUTRIENTS	180 LBS
PHOSPHORUS FERTILIZER NUTRIENTS	200 LBS
POTASSIUM FERTILIZER NUTRIENTS	60 LBS

HYDRAULIC MULCH SHALL BE APPLIED AT A RATE OF 1500 LBS/ACRE OF SEEDING UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

ANY REFERENCE TO A STANDARD IN THESE PLANS WILL BE INTERPRETED TO MEAN THE LATEST EDITION AS INDICATED BY THE SUB-NUMBER LISTED IN THE INDEX OF SHEETS COPY OF THE STANDARD INCLUDED IN THESE PLANS.

THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL SUCH TIME AS AN ILLINOIS REGISTERED LAND SURVEYOR HAS HAD THE OPPORTUNITY TO REESTABLISH THE MARKER OR MONUMENT.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS ARE TO THE TOP OF THE FINISHED SURFACE.

THE FOLLOWING UTILITY COMPANY HAS FACILITIES WITHIN THE LIMITS OF CONSTRUCTION:

COMMONWEALTH EDISON

REMOVED BITUMINOUS CONCRETE PAVEMENT, CONCRETE PAVEMENT, ETC. SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY AT THE CONTRACTOR'S OWN EXPENSE AT LOCATIONS PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

EXISTING PAVEMENT, DRIVEWAY PAVEMENT, ETC., DAMAGED BY THE CONTRACTOR'S OPERATIONS AND NOT OTHERWISE NECESSARY TO REPLACE, SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

THE FOLLOWING ITEMS HAVE BEEN ESTIMATED FOR THE TWO SECTIONS:

BITUMINOUS MATERIALS (PRIME COAT)	0.12 TONS
AGGREGATE (PRIME COAT)	9.8 TONS

THE COST OF BITUMINOUS MATERIALS (PRIME COAT) AND AGGREGATE (PRIME COAT) SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

THE QUANTITIES SHOWN ARE INFORMATIONAL ONLY. ALL WASTE MATERIAL SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY AT THE CONTRACTOR'S EXPENSE. NO OVERLAP WILL BE ALLOWED.

BEFORE CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED ON THE FLOW LINE OF RIVERS, CREEKS OR DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE END OF EACH WORKING DAY. AT THE COMPLETION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

INDEX OF SHEETS

SHEET NO.

1	COVER SHEET
2	TYPICAL SECTION, SPECIAL DETAILS
3	GENERAL NOTES, INDEX OF SHEETS, SYMBOLS, REQUIRED STATE STANDARDS, SUMMARY OF QUANTITIES
4	PLAN & PROFILE, SECTION 110 BR-1
5	PLAN & PROFILE, SECTION 110 BR-2
6	SPECIAL DETAILS - BITUMINOUS RUNOUT (BUTT JOINT) & BRIDGE APPROACH PAVEMENT
7	TRAFFIC CONTROL DEVICES
8	SPECIAL DETAIL - GUARDRAIL REFLECTORS
9 - 21	BRIDGE PLANS, 110 BR-1
22 - 31	BRIDGE PLANS, 110 BR-2

REQUIRED STATE STANDARDS

1686-4	STANDARD SYMBOLS AND ABBREVIATIONS
2113-2	DETAIL OF NAME PLATE FOR BRIDGES
2117-1	BITUMINOUS PATCHING DETAILS
2135	DETAILS OF PERMANENT SURVEY MARKERS
2149-11	DELINEATORS
2230-13	STEEL PLATE BEAM GUARD RAIL
2298-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2299-9	DESIGN OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE
2300-2	FLAGGER TRAFFIC CONTROL SIGN
2302-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2307-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2323-5	PAVEMENT JOINTS
2324-5	BRIDGE APPROACH SHOULDER PAVEMENT
2336-3	TRAFFIC BARRIER TERMINAL TYPE 1 & 1A
2341-1	TRAFFIC BARRIER TERMINAL TYPE 6
2350-2	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
2382-1	BRIDGE APPROACH PAVEMENT
2383-1	TEMPORARY CONCRETE BARRIER
2303-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

SYMBOLS



EXISTING PAVEMENT

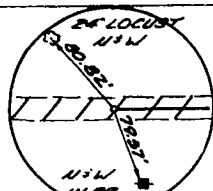


PROPOSED STEEL PLATE BEAM GUARD RAIL



MAIL BOX

U.S.S. DATUM
5TH 64 1929



STA. 219+00.00
(P.K. N.W. 1/4)

T. 21 N.

R. 6 E.

4TH P.M.

BM - ROD IN NW. 1/4 WALL-ELKHORN RTE 50
BRIDGE, RT. STA. 228+78 ELEV. 630.625

N.E. 1/4, SEC. 35

CREEK

SECTION 110BR-1
BEGINS
STA. 228+78.96

PROPOSED STRUCTURE
STA. 228+58, 0° SKEW
SEE SH#9 FOR HYDRAULICS
SEE SH#9 TO SH#21 FOR
DETAILS
EXISTING SUPERSTRUCTURE
TO BE REMOVED.

SECTION 110BR-1
ENDS
STA. 229+31.04

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 561	*	Whiteside	51	4
S.A. 219+00 TO STA. 230+00				
FED. ROAD DIST. NO. ILLINOIS PROJECT				

AGGREGATE SHOULDERS TYPE B			
LOCATION	STATION	STATION	TON
R	222+06.96	224+17.63	38.0
L	223+21.45	224+17.63	25.3
L	228+90.04	230+00.00	32.4
TOTAL			95.7
USE			99

BITUMINOUS CONCRETE BASE COURSE WIDENING, 3'			
LOCATION	STATION	STATION	SQ. YD.
R	222+06.96	223+34.46	54.9

R	223+34.46	224+17.63	67.0
R	228+92.37	230+00.00	109.4
TOTAL			176.4
USE			232.0

BITUMINOUS CONCRETE RINDER COURSE			
LOCATION	STATION	STATION	TON
R	222+06.96	224+17.63	10.12
R	228+92.37	230+00.00	9.13
TOTAL			19.25
USE			20

BRIDGE APPROACH PAVEMENT (STANDARD 2382)			
STATION	STATION	SQ. YD.	
224+11.96	224+31.96	57.8	
228+78.04	228+98.04	57.8	
TOTAL			115.6

REINFORCEMENT BARS			
STATION	STATION	POUND	
224+11.96	224+31.96	3350	
228+78.04	228+98.04	3350	
TOTAL			6700

PAVEMENT REMOVAL AND BITUMINOUS REPLACEMENT TYPE 2 (10')			
STATION	STATION	SQ. YD.	
224+08.96	224+11.96	7.5	
228+98.04	229+01.04	7.5	
TOTAL			15

PAVEMENT REMOVAL			
STATION	STATION	SQ. YD.	
224+11.96	224+32	49.0	
228+78	228+98.04	49.0	
TOTAL			98.0

DELINEATORS			
LOCATION	STATION	EACH	
R	222+58.96	1	
R	229+32.30	1	
TOTAL			2

TREE REMOVAL (OVER 15 INCH DIAMETER)			
STATION	SIDE	DISTANCE	IN. DIA.
222+56	R	25'	15
223+92	R	25'	15
224+26	L	25'	24

SEEDING CLASS (MODIFIED)			
LOCATION	STATION	STATION	ACRES
L & R	223+79	229+31	0.6

TREE REMOVAL (6 TO 15 INCH DIAMETER)			
STATION	SIDE	DISTANCE	IN. DIA.
223+02	L	30'	15
223+17	L	25'	14

BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I			
LOCATION	STATION	STATION	TON
R	222+06.96	224+17.63	9.9
L & R	223+78.96	224+11.96	7.3
L & R	228+98.04	229+31.04	7.3
R	228+92.37	230+00.00	9.0
TOTAL			33.5
USE			34

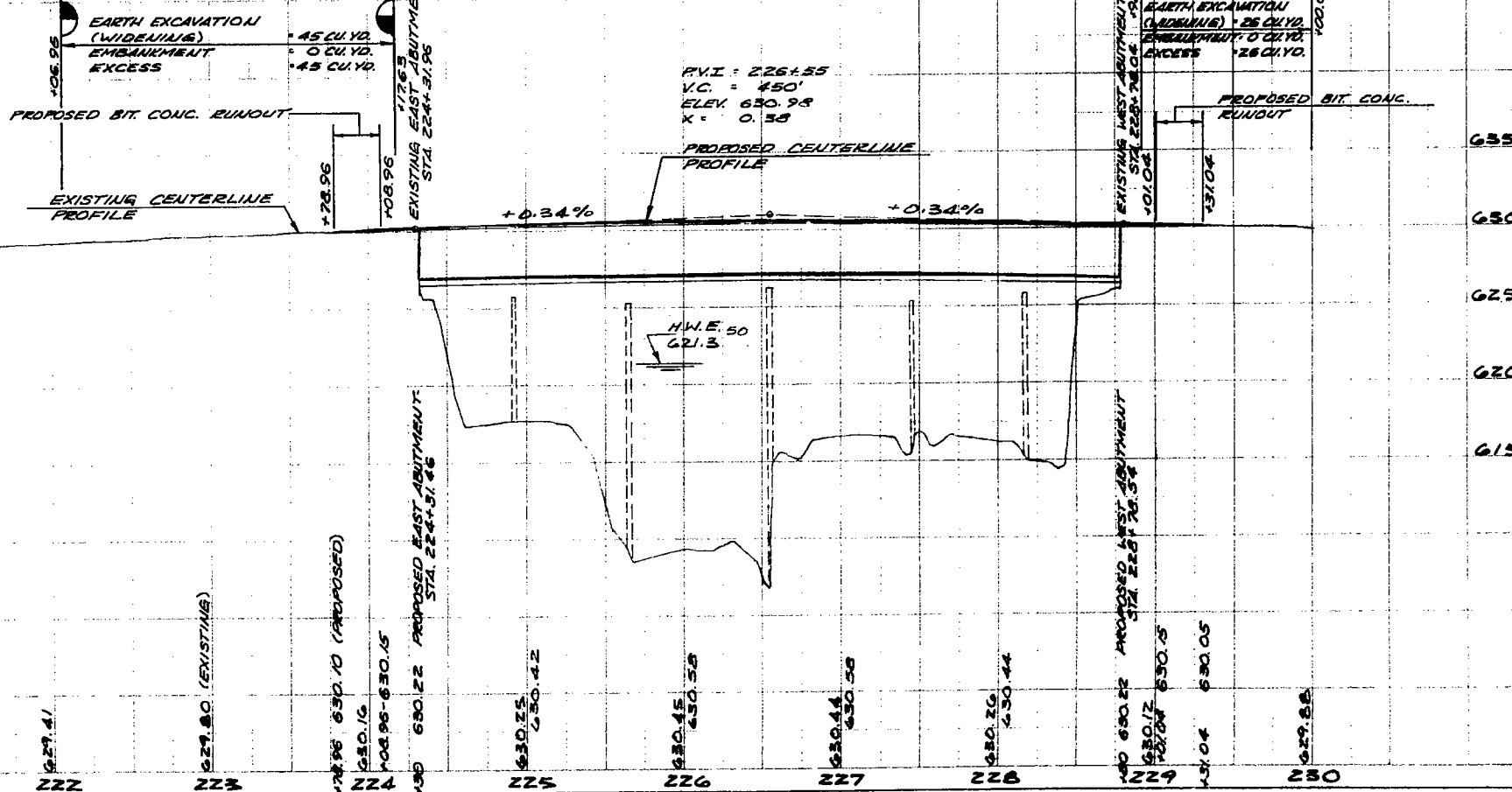
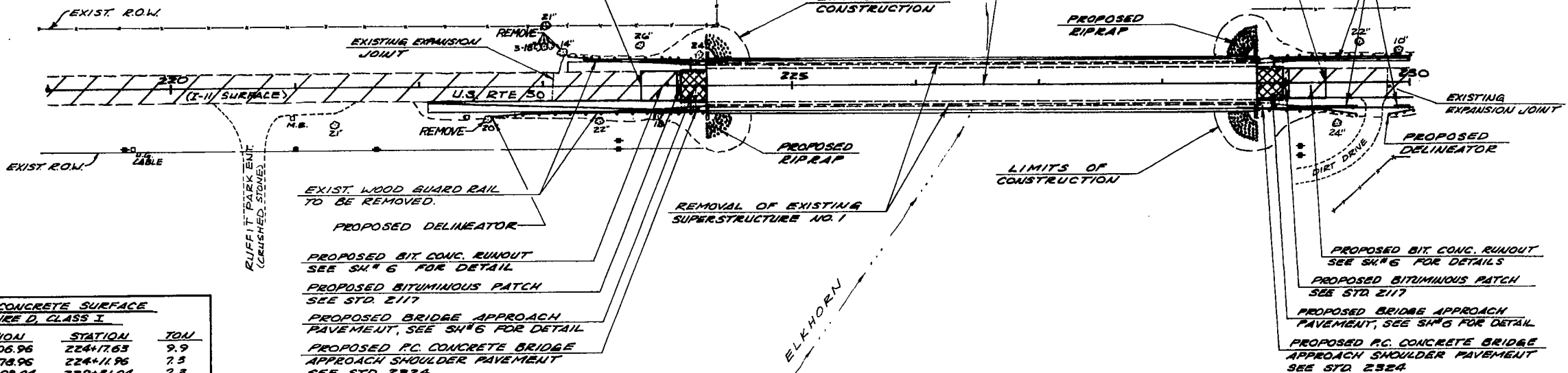
P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT			
LOCATION	STATION	STATION	SQ. YD.
L	224+19.96	224+31.96	10.6
R	224+19.96	224+31.96	10.6
L	228+78.04	228+90.04	10.6
R	228+78.04	228+90.04	10.6
TOTAL			42.4
USE			43

WOOD GUARD RAIL REMOVAL			
LOCATION	STATION	STATION	LIN. FT.
R	223+31	224+32	101
L	223+32	224+32	100
R	228+78	229+58	80
L	228+78	230+00	122
R	229+86	230+00	14
TOTAL			417

STEEL PLATE BEAM GUARD RAIL, TYPE A			
LOCATION	STATION	STATION	LIN. FT.
L	223+46.45	224+08.95	62.50
R	223+46.45	224+08.95	125.00
L	229+01.05	231+26.95	225.90
R	229+01.05	229+32.30	31.25
TOTAL			444.65

TRAFFIC BARRIER TERMINAL, TYPE 1			
LOCATION	STATION	STATION	EACH
R	222+38.95	222+38.95	1
L	223+21.45	223+46.45	1
R	229+32.30	229+57.30	1
R	229+83.20	230+08.20	1
TOTAL			4

TRAFFIC BARRIER TERMINAL, TYPE 6			
LOCATION	STATION	STATION	EACH
L	224+08.95	224+48.76	1
R	224+08.95	224+48.76	1
L	228+81.24	229+01.05	1
R	228+61.24	229+01.05	1
TOTAL			4



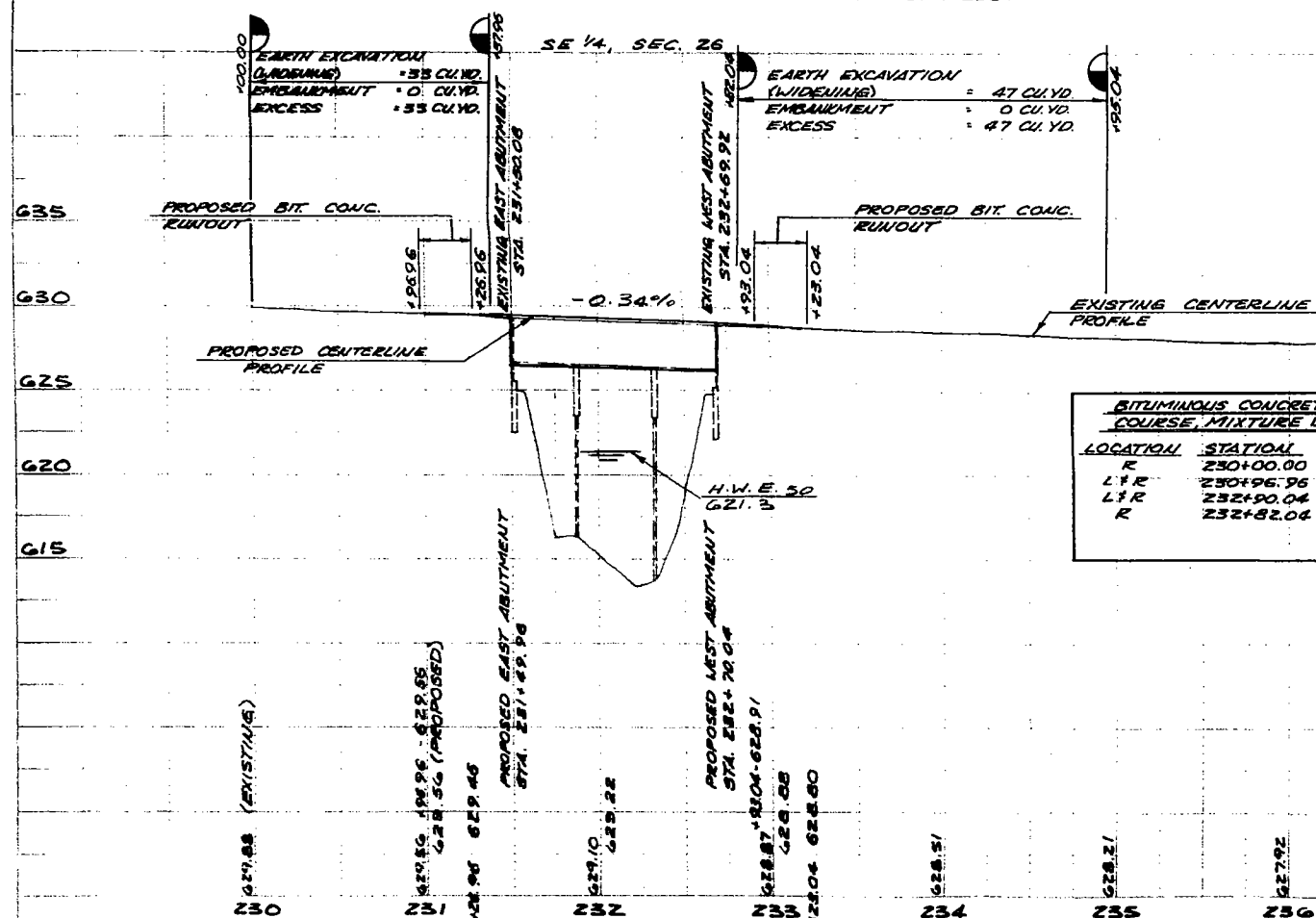
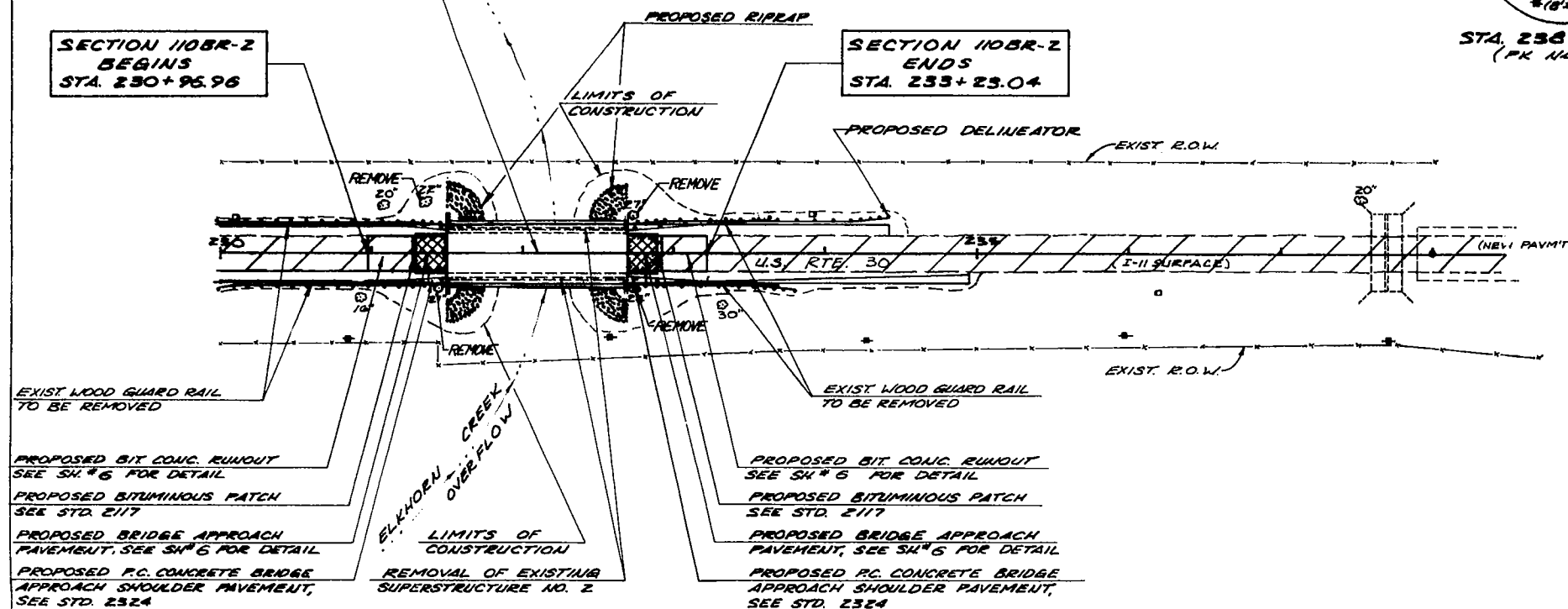
STATE OF ILLINOIS, WHITESIDE COUNTY, SEC. 110BR-1 & 110BR-2, PLAN & PROFILE
STA. 219+00 TO STA. 230+00

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
GA 361	*	Whiteside	51	5
STA. 250+00		TO STA. 237+00		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	

* 112 BR-1 & 112 BR-2

**SECTION 1105R-1
BEGINS
STA. 230+96.96**

SECTION 1108R-
ENDS
STA. 233+23.04



<u>BRIDGE APPROACH PAVEMENT</u> <u>(STANDARD 2382)</u>		
<u>STATION</u>	<u>STATION</u>	<u>SO. YD.</u>
231+29.96	231+49.96	57.8
232+70.04	232+90.04	57.8
	TOTAL	115.6
	USE	116

<u>REINFORCEMENT BARS</u>		
<u>STATION</u>	<u>STATION</u>	<u>POUND</u>
231+29.96	231+49.96	5350
232+70.04	232+90.04	5350
	TOTAL	6700

<u>PAVEMENT REMOVAL AND BITUMINOUS REPLACEMENT, TYPE X (10')</u>		
<u>STATION</u>	<u>STATION</u>	<u>50 YD.</u>
231+26.96	231+29.96	7.5
232+90.04	232+93.04	7.5

TOTAL		15
<u>PAVEMENT REMOVAL</u>		
<u>STATION</u>	<u>STATION</u>	<u>SR YR</u>
231+29.96	231+50	89
232+70	232+90.04	89

	TOTAL	98
<u>DELINEATOR</u>		
<u>LOCATION</u>	<u>STATION</u>	<u>EACH</u>
2	254+23.05	1
TREE REMOVAL (OVER 16 INCH DIAMETER)		

<u>STATION</u>	<u>SIDE</u>	<u>E. DISTANCE</u>	<u>N. DIA.</u>
231+56	L	35'	22
231+45	R	23'	21
232+73	L	25'	27
232+75	R	23'	26

		TOTAL	94
<u>SEEDING CLASS 2 (ADJUDGED)</u>			
<u>LOCATION</u>	<u>STATION</u>	<u>STATION</u>	<u>ACRES</u>
LTR	250+97	233+25	0.5

[illegible]

<u>PC CONCRETE BRIDGE APPROACH</u>			
<u>SHOULDER PAVEMENT</u>			
<u>LOCATION</u>	<u>STATION</u>	<u>STATION</u>	<u>SQ. YD.</u>
L	231+37.96	231+69.96	10.5
R	231+37.96	231+69.96	10.5
L	232+70.04	232+82.04	10.5
R	232+70.04	232+82.04	10.5

		TOTAL	42.4
		USE	43
<u>WOOD GUARD RAIL REMOVAL</u>			
<u>LOCATION</u>	<u>STATION</u>	<u>STATION</u>	<u>LIN. FT.</u>
L	230+00	231+30	130

R	230+00	231+50	130
R	232+70	233+69	99
L	252+70	233+69	99
		TOTAL	228
<u>STEEL PLATE BEAM GUARD RAIL TYPE A</u>			

LOCATION	STATION	STATION	LINE FT.
L	252+93.05	254+18.05	125.00
R	252+92.05	254+55.58	62.50
R	250+08.20	251+26.95	118.75
USE 307 L.F.		TOTAL	306.25

TRAFFIC BARRIER TERMINAL TYPE 1			
LOCATION	STATION	STATION	WASH
R	234+55.95	234+80.65	1
L	234+18.05	234+43.05	1
		TOTAL	2

LOCATION	STATION	STATION	EACH
L	Z81+26.93	Z81+66.76	1
R	Z81+26.93	Z81+66.76	1
L	Z82+83.24	Z82+93.05	1
R	Z82+83.24	Z82+93.05	1

STATION		TOTAL	4
<u>AGGREGATE SHOULDER TYPE E</u>			
<u>LOCATION</u>	<u>STATION</u>	<u>STATION</u>	<u>TOTAL</u>
L	2304+00.00	2314+37.96	40.6
L	2324+02.04	2344+43.05	47.4

R	232+82.04	234+96.04	35.1
		TOTAL	129.1
		USE	127

<u>SITUMINOUS CONCRETE BASE COURSE</u>		
<u>WIDENING, 5'</u>		
<u>LOCATION</u>	<u>STATION</u>	<u>SG. YD.</u>
R	235+67.54 - 234+95.04	54.9

K	230+00.00	231+37.96	140.0	635
R	232+82.06	238+62.64	68.8	
		TOTAL	208.8	
		USE	204	
BITUMINOUS CONCRETE BINDER COURSE				

LOCATION	STATION	STATION	TOTAL
R	250400.00	2343796	1168
R	252482.04	236493.04	10.27
		TOTAL	21.95
		USE	22

					620
--	--	--	--	--	-----

					G/S
--	--	--	--	--	-----

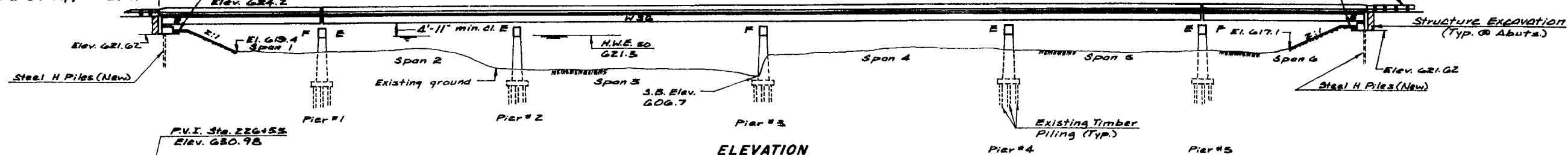
[illegible][illegible][illegible]

B.M. - Rod in Northwest Wingwall Elkhorn Creek Bridge
 R.T. Sta. 226+78 - Elev. 620.63
 Str. No. 098-0033

Existing Structure: Built in 1939 & 1940 as P.A. 141, Sec. 110-B-1 at Sta. 226+55.
 Six spans wide flange beams with R.C. deck on R.C. solid piers and R.C. spill thru abutments - ± 446'. Existing superstructure to be removed and replaced utilizing stage construction so as to maintain one lane traffic at all times. Existing piers to be extended and abutments reconstructed to accommodate the new superstructure. No Salvage.

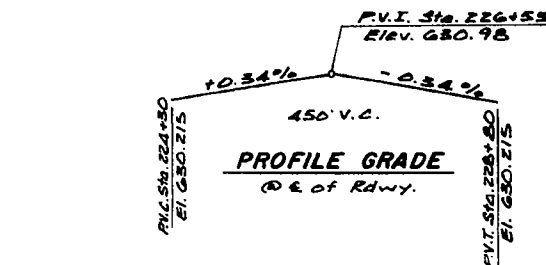
End of Appr. Pav't.

Proposed Berm
 Elev. 624.2

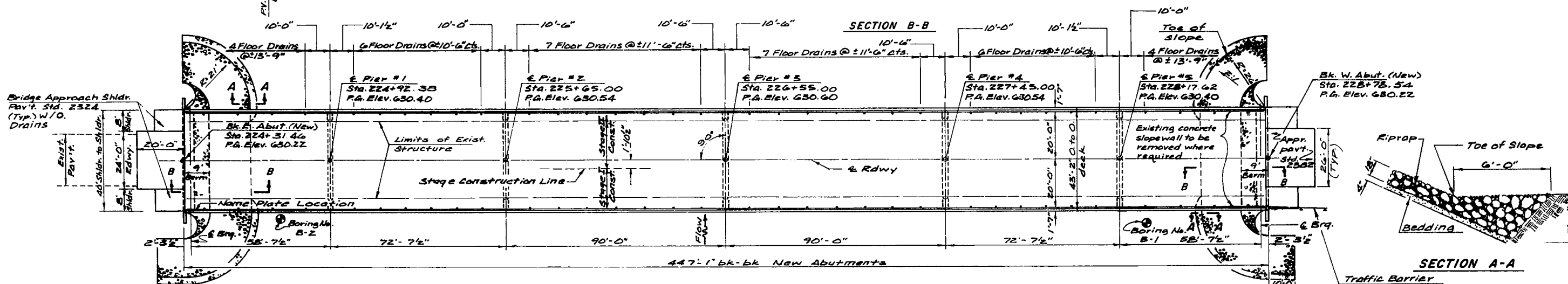


ELEVATION

See Sh. #2 for General Notes and Total Bill of Material.



PROFILE GRADE
 @ E. of Rdwy.



PLAN

STATION 226+55
 REBUILT 198 BY
 STATE OF ILLINOIS
 F.A. RT. 561 SEC. 110BR-1
 PROJECT BR-F-561(9)
 LOADING HS20
 STR. NO. 098-0033

NAME PLATE
 (See Std. 2113)

WATERWAY INFORMATION

Drainage Area 253 Sq. Mi.		Low Grade Elev. 628.5		@ Sta. 219+00					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Net. H.W.E.	Head Ft.	Headwater El.	Exist.	Prop.	Exist.
Design	50	11,140	2160	621.3	0.70	0.70	622.00	622.00	
Base	100	12400	2340	621.8	0.78	0.78	622.58	622.58	
Overlapping									
Max. Calc.	500	15,260	2620	622.6	0.95	0.95	623.55	623.55	

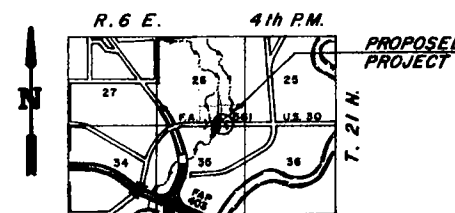
DESIGN STRESSES

(LOAD FACTOR DESIGN)

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Structural)

LOADING HS20-44

Allow 25 #/Sq. Ft. for future wearing surface
 Design Specifications & 1977 AASHTO & 1978, 1979, 1980, & 1981 Interim Specifications.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
 ELKHORN CREEK
 F.A. RTE 561 SECTION 110BR-1
 WHITESIDE COUNTY
 STATION 226+55



APPROVED

JAMES O. HAMILTON

REGISTERED STRUCTURAL ENGINEER

OF ILLINOIS

James O. Hamilton

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.	—	70	70
Protective Coat	Sq. Yd.	2335	—	2335
Concrete Removal	Cu. Yd.	—	96.6	96.6
Expansion Bolts $\frac{3}{4}$ " ϕ	Each	—	220	220
Class X Concrete	Cu. Yd.	562.2	131.8	694.0
Structural Steel	L. Sum.	1	—	1
Stud Shear Connectors	Each	7200	—	7200
Reinforcement Bars	Lbs.	—	13,400	13,400
Reinforcement Bars (Epoxy Coated)	Lbs.	139,410	—	139,410
Name Plates	Each	—	—	1
Preformed Joint Seal (2 $\frac{1}{2}$ ")	Lin. Ft.	86	—	86
Neoprene Expansion Jt. (2 $\frac{1}{2}$ ")	Lin. Ft.	84	—	84
Floor Drains	Each	68	—	68
Temporary Concrete Barrier	Lin. Ft.	450	—	450
Removal of Existing Superstructure	Each	1	—	1
Stone Riprap	Sq. Yd.	—	—	410
Steel Piles HP 8 x 36	Lin. Ft.	—	90	90
Test Piles Steel HP 8 x 36	Each	—	2	2

GENERAL NOTES

See Proposal for Boring Data.

Fasteners shall be high strength bolts (AASHTO M 164, Type 3).

Bolts $\frac{3}{4}$ " ϕ , open holes $1\frac{1}{8}$ " ϕ , unless otherwise noted.

Calculated weight of Structural Steel: (460,950 lbs. M222), (2400 lbs. M183.)

All structural steel shall be AASHTO M 222 except expansion joint angles and attached bars which shall be AASHTO M 183.

Expansion joint angles and attached bars shall be shop painted with two coats of basic lead silico chromate paint.

Field welding of construction accessories will not be permitted to the bottom flanges of beams or girders nor to the top flange for a distance equal to one fourth the span length each way from piers 2, 3 & 4. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

AASHTO M 222 structural steel shall not be painted except, that for a distance of three times the depth of the beams or girders (but not to exceed 10 feet) each way from deck joints, the AASHTO M 222 structural steel shall be cleaned and given one coat of the basic lead silico chromate primer and maroon field coat. Both coats to be applied in the shop with spot painting only in the field.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the wide flange beams and all splice plate material.

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.

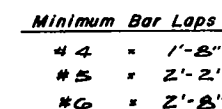
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,080 lbs., and $\frac{3}{4}$ " ϕ x 12" hooked bolts.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations with tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

The contractor shall drive two steel HP 8 x 36 test piles in permanent locations at East & West Abutments as directed by the Engineer before ordering the remainder of piles.

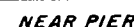
GENERAL NOTES & TOTAL BILL OF MATERIAL
FA ROUTE 561 SECTION 110BR-1
WHITESIDE COUNTY
STATION 226+55



AT ABUTMENTS

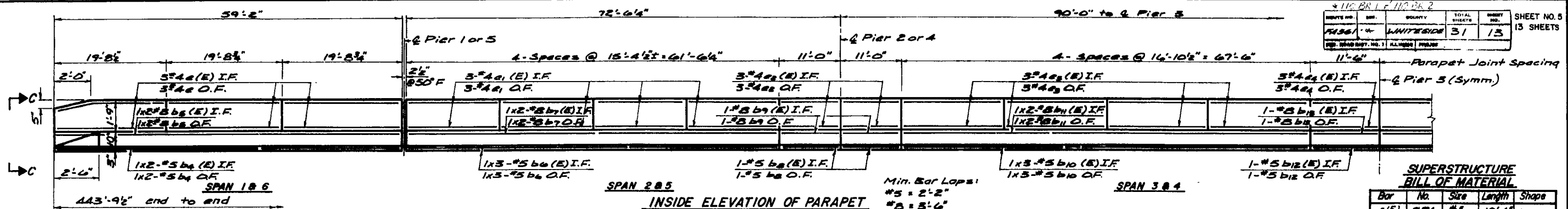


(See Details on SM-6)



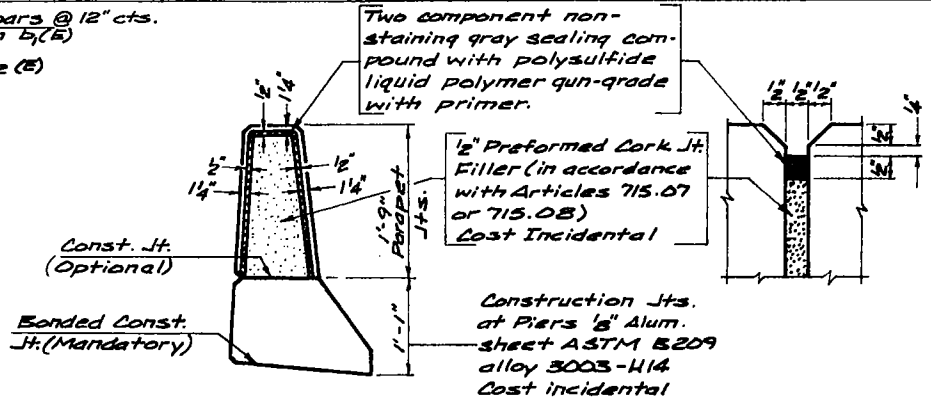
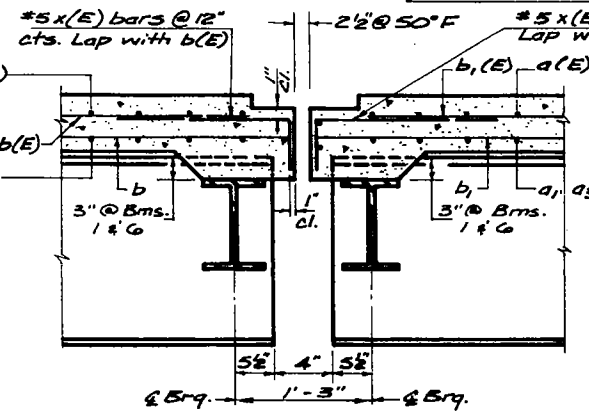
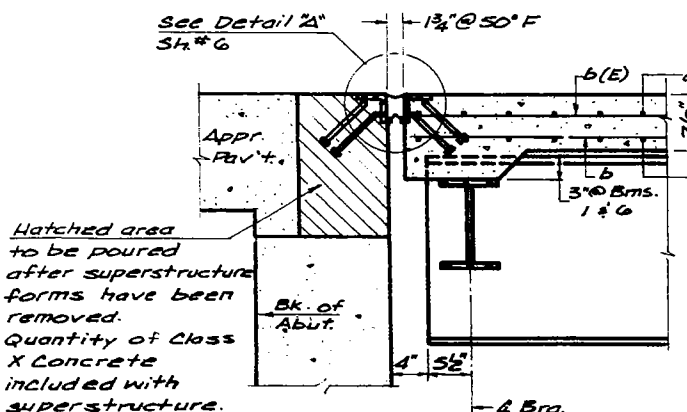
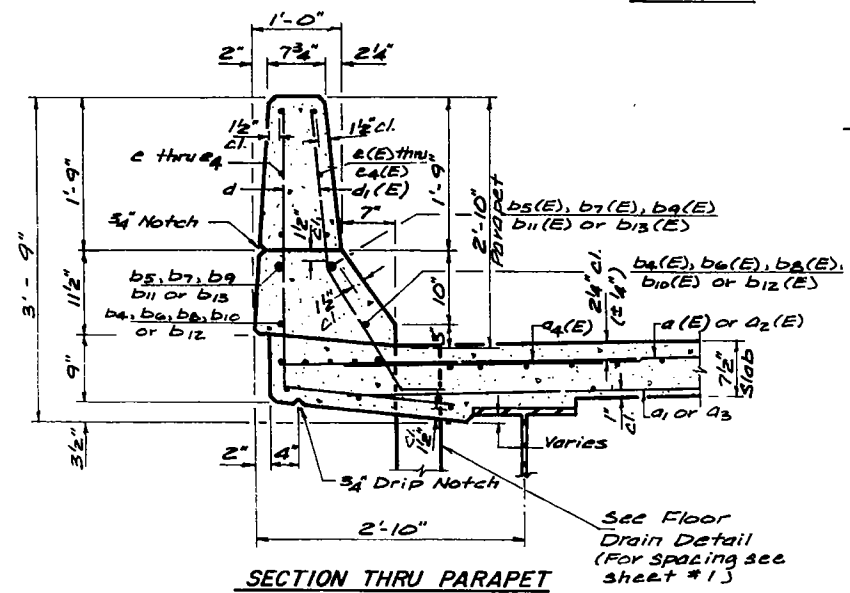
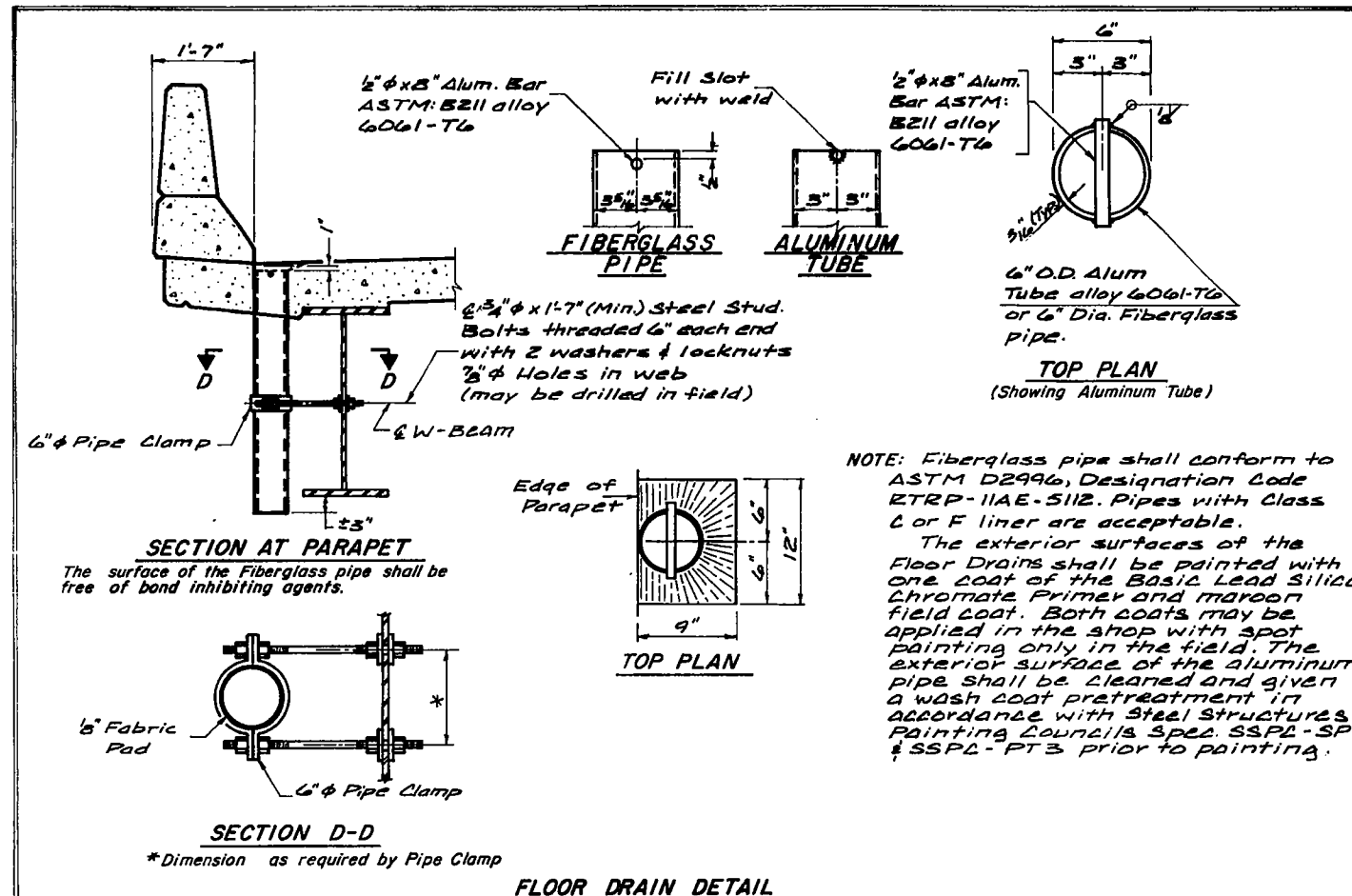
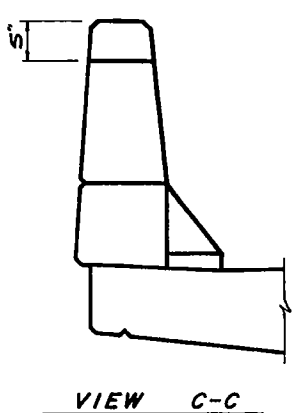
NEAR MIDSPAN

SUPERSTRUCTURE
F.A. ROUTE 561 SECTION 110BR-1
WHITESIDE COUNTY
STATION 226+55



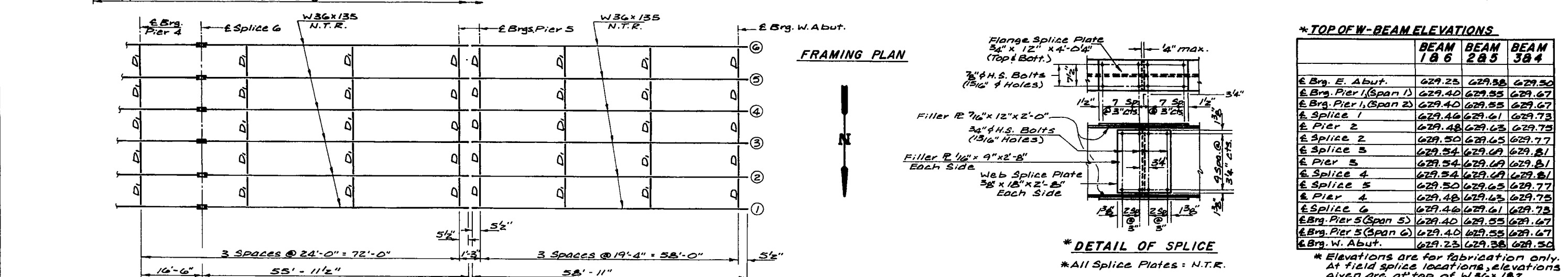
**SUPERSTRUCTURE
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	886	#5	18'-6"	
a ₁ (E)	627	#5	18'-6"	
a ₂ (E)	886	#5	22'-5"	
a ₃ (E)	627	#5	22'-5"	
a ₄ (E)	886	#6	4'-0"	
b(E)	184	#5	30'-9"	
b ₁ (E)	164	#5	30'-9"	
b ₂ (E)	552	#5	29'-1"	
b ₃ (E)	451	#5	31'-6"	
b ₄ (E)	252	#6	25'-10"	
b ₅ (E)	8	#5	30'-9"	
b ₆ (E)	8	#5	30'-9"	
b ₇ (E)	8	#8	31'-5"	
b ₈ (E)	12	#5	22'-0"	
b ₉ (E)	12	#5	22'-0"	
b ₁₀ (E)	8	#8	32'-6"	
b ₁₁ (E)	8	#8	32'-6"	
b ₁₂ (E)	8	#8	32'-6"	
b ₁₃ (E)	8	#8	10'-9"	
b ₁₄ (E)	8	#8	10'-9"	
b ₁₅ (E)	12	#5	24'-0"	
b ₁₆ (E)	12	#5	24'-0"	
b ₁₇ (E)	8	#8	35'-6"	
b ₁₈ (E)	8	#8	35'-6"	
b ₁₉ (E)	4	#5	11'-3"	
b ₂₀ (E)	4	#5	11'-3"	
b ₂₁ (E)	4	#8	11'-3"	
b ₂₂ (E)	4	#8	11'-3"	
d	556	#4	5'-1"	L
d ₁ (E)	958	#5	3'-11"	L
d ₂ (E)	12	#5	4'-2"	L
e(E)	36	#4	19'-5"	
e ₁ (E)	36	#4	19'-5"	
e ₂ (E)	48	#4	15'-1"	
e ₃ (E)	48	#4	15'-1"	
e ₄ (E)	24	#4	10'-9"	
e ₅ (E)	24	#4	10'-9"	
e ₆ (E)	48	#4	16'-7"	
e ₇ (E)	48	#4	16'-7"	
e ₈ (E)	12	#4	11'-5"	
e ₉ (E)	12	#4	11'-5"	
x(E)	164	#5	4'-1"	
Reinforcement Bars (Epoxy Coated)				Lbs. 139,410
Class X Concrete				Cu.Yds. 562.2
Floor Drains				Each 68

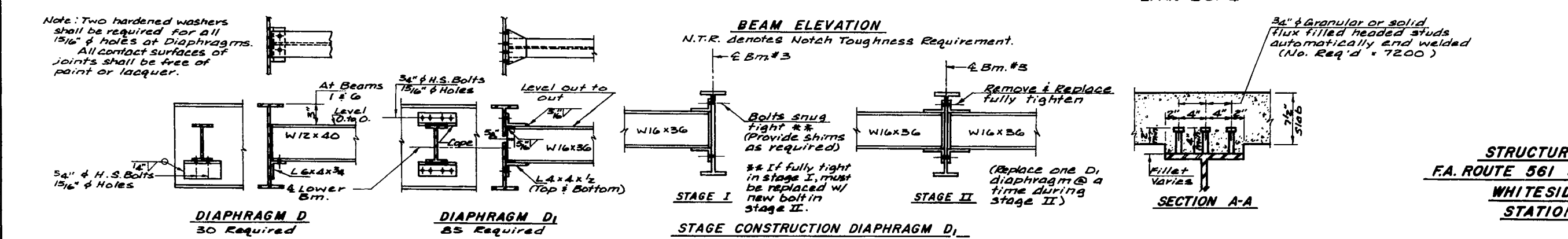


Note: All reinf. bars in deck & parapet shall be epoxy coated. See Special Provisions.

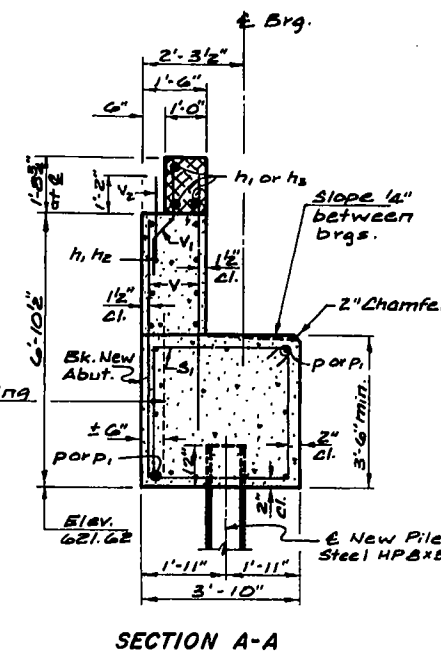
**SUPERSTRUCTURE DETAILS
 F.A. ROUTE 561 SECTION 110BR-1
 WHITESIDE COUNTY
 STATION 226+55**



* Elevations are for fabrication only.
At field splice locations, elevations
given are at top of W36x182
beams.



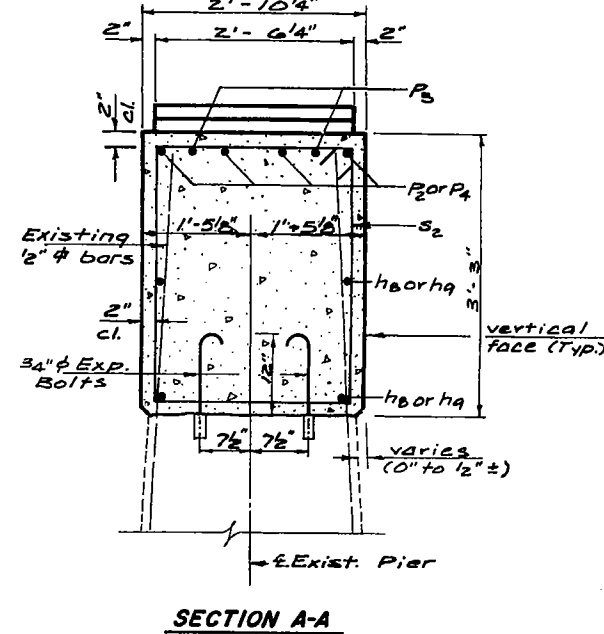
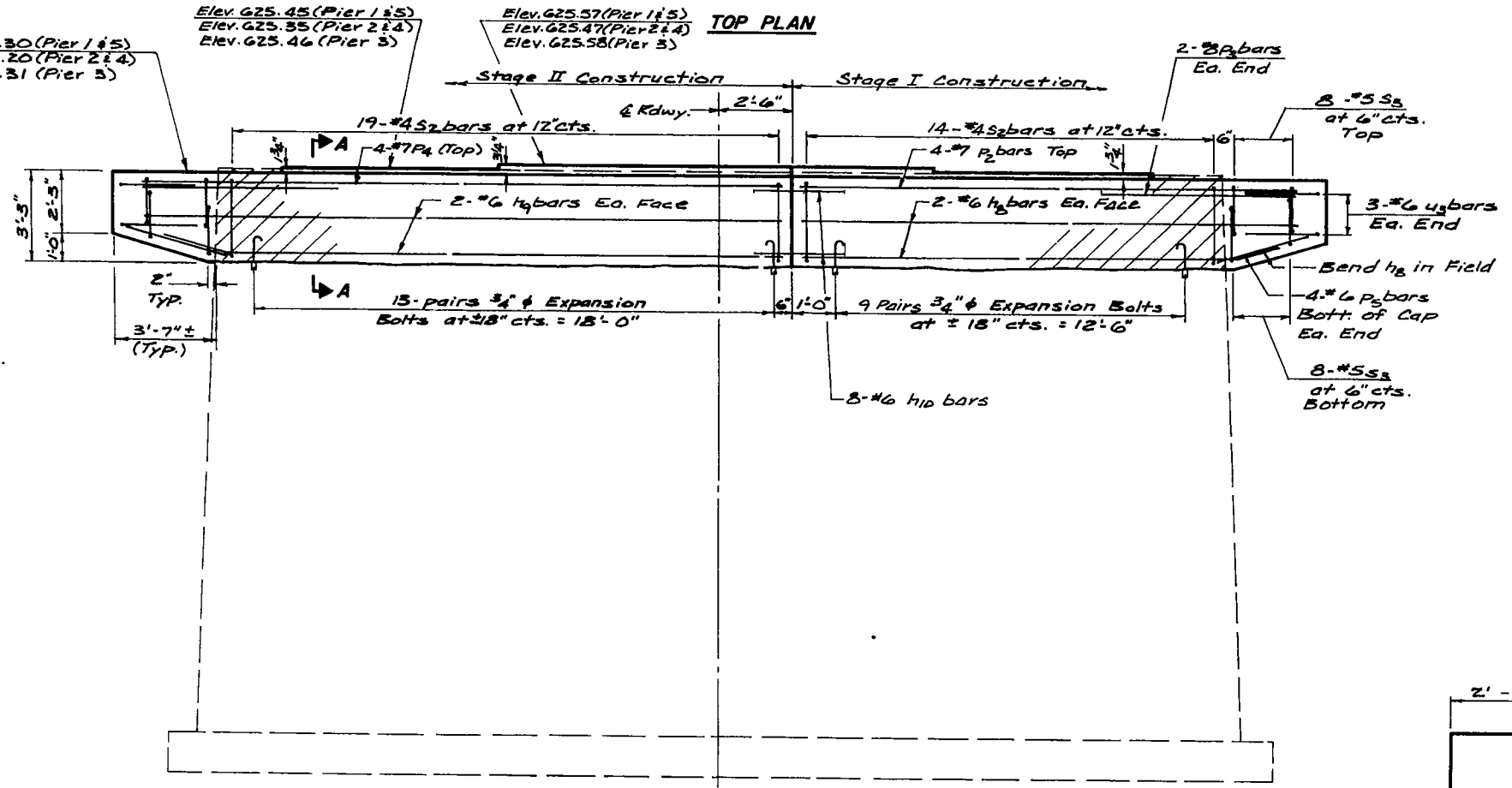
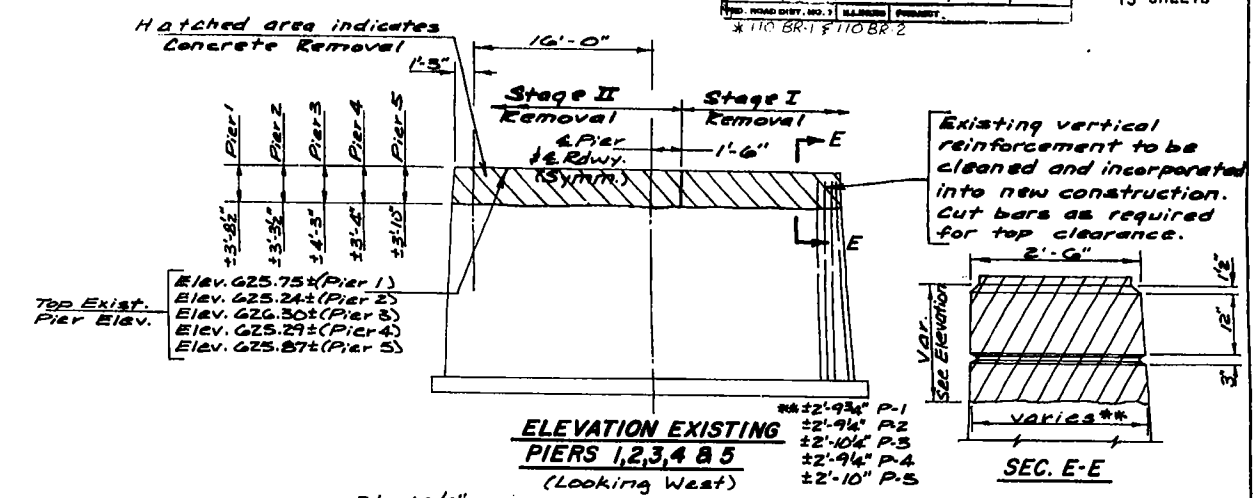
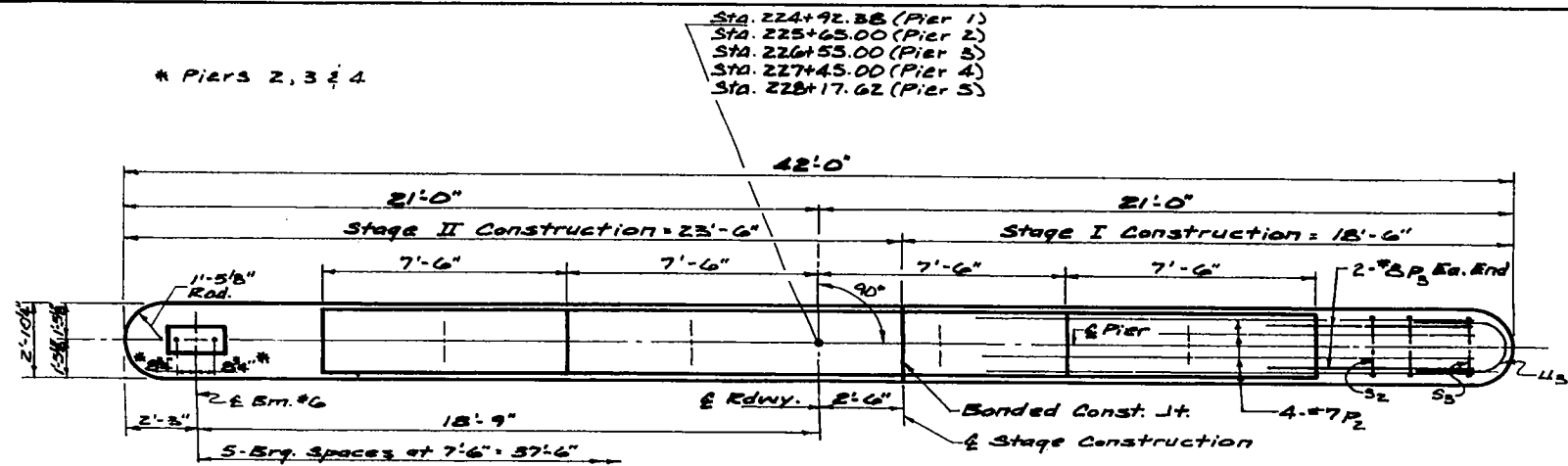
STRUCTURAL STEEL
F.A. ROUTE 561 SECTION 110 BR-
WHITESIDE COUNTY
STATION 226+55



WEST ABUTMENT				
BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
h	8	#5	18'-9"	—
h ₁	3	#6	18'-9"	—
h ₂	8	#5	23'-9"	—
h ₃	3	#6	23'-9"	—
h ₄	24	#5	8'-0"	—
h ₅	4	#5	3'-0"	—
h ₆	4	#5	5'-0"	—
h ₇	11	#5	6'-0"	—
P	7	#8	18'-9"	—
P ₁	7	#8	23'-9"	—
S ₁	40	#4	14'-1"	□
U ₁	8	#6	11'-5"	□
V	88	#5	6'-3"	—
V ₁	44	#5	3'-6"	—
V ₂	44	#5	3'-0"	—
V ₃	12	#5	7'-6"	—
V ₄	8	#5	6'-3"	—
Class X Concrete			Cu. Yd.	51.4
Reinforcement Bars			Lbs.	3,180
Steel Piles HP 8 x 36			Lin. Ft.	44
Concrete Removal			Cu. Yd.	18.4
Test Piles Steel HP 8 x 36			Each	1

WEST ABUTMENT
F.A. ROUTE 561 SECTION 110 BR-1
WHITESIDE COUNTY
STATION 226+55

* If Existing Pile is less than 6" to face then cast monolithic "blister" with #4 bars at $\pm 12"$ cts. vertically. (Cast incidental.) See Detail A.



**FIVE PIERS
BILL OF MATERIAL
PIERS 1 THRU 5**

BAR	NO	SIZE	LENGTH	SHAPE
h8	20	#6	17'-0"	—
h9	20	#6	22'-0"	—
h10	40	#6	6'-0"	—
P2	20	#7	17'-0"	—
P3	20	#8	8'-0"	—
P4	20	#7	22'-0"	—
P5	40	#6	3'-0"	—
S2	165	#4	11'-7"	□
S3	160	#5	9'-11"	□
u3	30	#6	7'-9"	U
Class X Concrete		Cu Yds.	71.5	
Reinforcement Bars		Lbs.	7,050	
Concrete Removal		Cu Yds.	62.4	
Expansion Bolts (3/4" φ)		Each	220	

