FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5HB & 4	IROQUOIS	47	1
B. P. R. SEC. NO. 4	ILLINOIS	PROJECT	I-57-6(75)281	

P-93-008-00

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

SCALES

PLAN	1 INCH	100 FT.	
PROFILE, HOR.	1 INCH	100 FT.	
PROFILE, VERT.	1 INCH	10 FT.	
CROSS-SECTIONS	1 INCH	5 FT.	VERT.
	1 INCH	10 FT.	HOR.

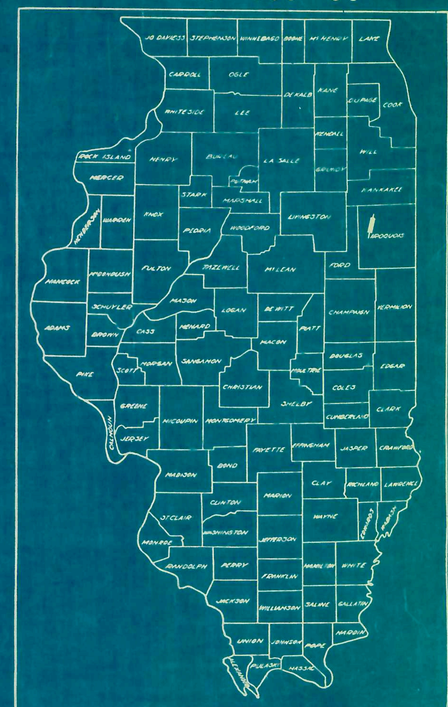
AS BUILT

F.A.I. ROUTE 57 SECTION 38-5HB-4 IROQUOIS COUNTY

AS BUILT

PROJECT I-57-6(75)281

C-93-058-66



LOCATION OF SECTION INDICATED THUS:—

APPROVED

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

SUBMITTED 11-8 1966
DISTRICT ENGINEER

EXAMINED 12-23 1966
ENGINEER OF ROAD PLANS AND CONTRACTS

PASSED 12-23 1966
ENGINEER OF DESIGN

APPROVED 12-23 1966
CHIEF HIGHWAY ENGINEER

APPROVED 12-23 1966
DIRECTOR

STA 30+00 U.S. RT. 54
STA 800+59.81 F.A.I. RT. 57

SECTION 38-5HB-4 INCLUDES A 4-SPAN WF-BEAM GRADE SEPARATION STRUCTURE (CARRYING U.S. 54 OVER F.A.I. ROUTE 57) SPANS 2@87'-4" AND 2@41'-9" AT STA. 800+59.81 AND INCLUDES THE COMPLETE CONSTRUCTION OF APPROACH ROADWAYS

SECTION 38-5HB-4
BEGINS STA 9+53.58

SECTION 38-5HB-4
ENDS STA 48+44.98

NET LENGTH OF IMPROVE. : 3,891.40 LIN. FT. 0.737 MILES
LENGTH OF PROJECT: 0.00 LIN. FT. 0.000 MILES

LOCATION PLAN

0 1 2 3 4 5 MILES

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER DATE

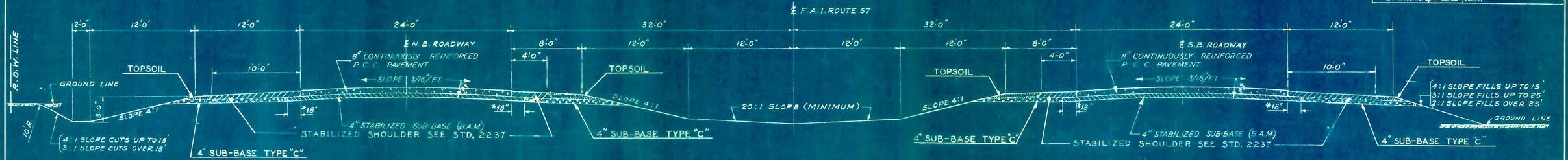
PREPARED BY

HANSEN-SCHNEEMAN & ASSOCIATES

CONSULTING ENGINEERS CHICAGO ILLINOIS

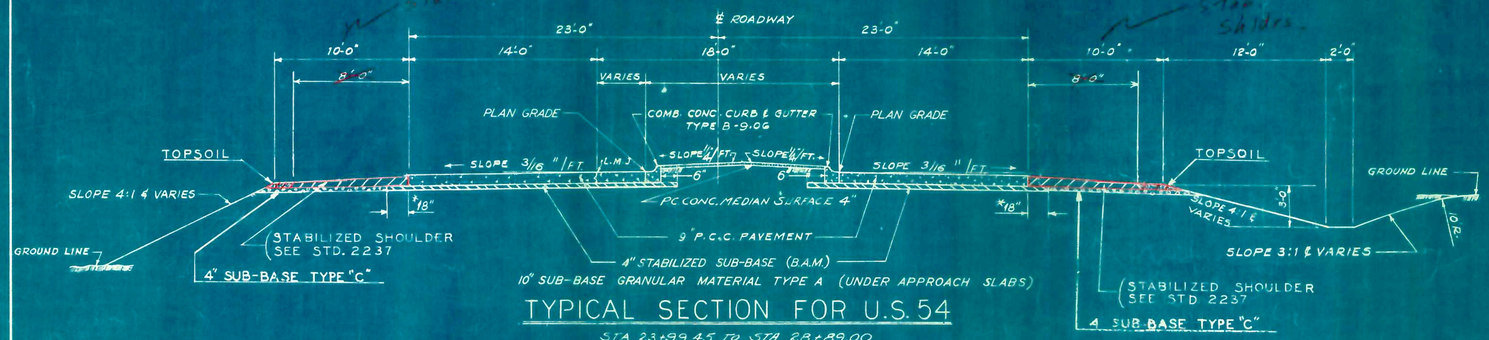
ROADWAY CLASSIFICATION		
U.S. 54	1987	DHV 520-M-70
F.A.I. ROUTE 57	1987	DHV 1740-T-70
U.S. 54	1967	DHV 220-M-70

FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
ROUTE No. 57	SEC. 38-5 HB 4	IROQUOIS	47	2
B. P. R. REG. NO. 4	ILLINOIS	PROJECT		



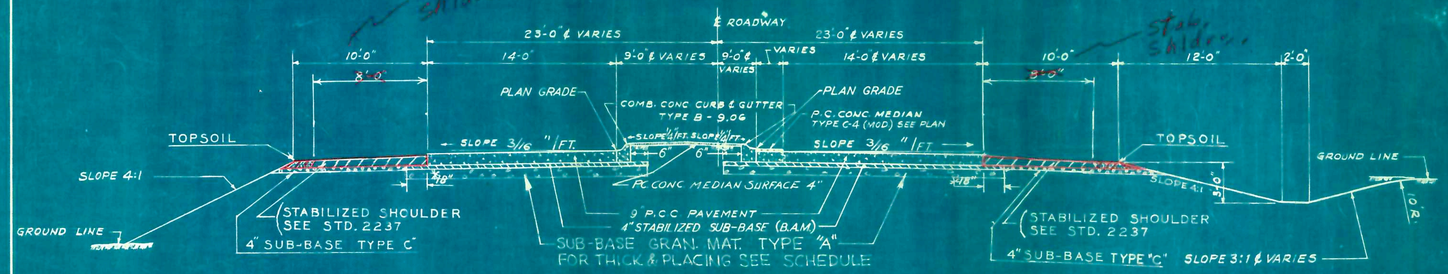
TYPICAL SECTION — F.A.I. ROUTE 57

* IF A SLIP FORM PAVER IS USED THE STABILIZED SUB-BASE SHALL BE EXTENDED AN ADDITIONAL 12 INCHES THE ADDITIONAL 12 INCHES SHALL BE CONSIDERED AS BEING INCLUDED IN THE PRICE OF STABILIZED SHOULDER



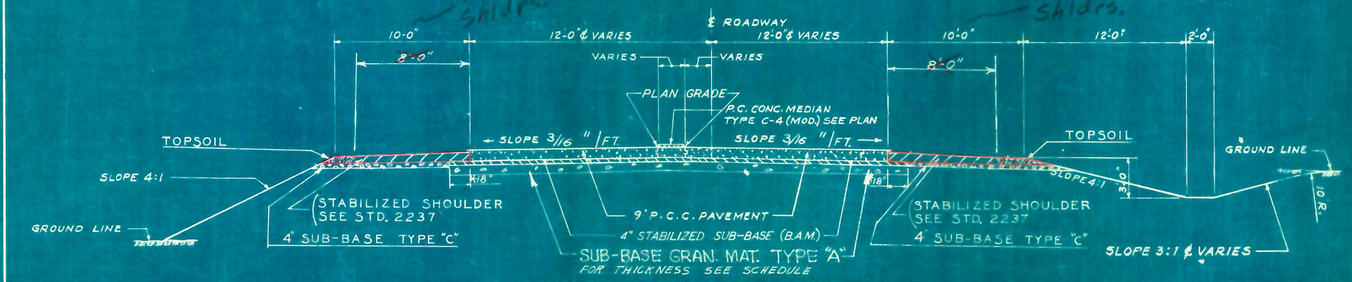
TYPICAL SECTION FOR U.S. 54

STA 23+99.45 TO STA 28+89.00
STA 31+11.00 TO STA 35+99.28



TYPICAL SECTION FOR U.S. 54

STA 17+11.39 TO STA 23+99.45
STA 35+99.28 TO STA 40+87.17



TYPICAL SECTION FOR U.S. 54

STA 11+53.58 TO STA 17+11.39
STA 40+87.17 TO STA 46+44.98

PAVEMENT DESIGN DATA

STRUCTURAL DESIGN TRAFFIC: YEAR 1976: P.C. = 2205
(20 YR. DESIGN = 18 kip AXLE LOADS) S.U. = 375; M.U. = 570
CLASS I ROADS AND STREETS

MINIMUM SOIL SUPPORT: CBR = 2.6
PERCENT OF S.D.T. IN DESIGN LANE: U_D = 50; U_S = 50; U_M = 50
T.F. = 2.53
PAVEMENT STRUCTURE MATERIALS: (RIGID DESIGN)
SURFACE COURSE TYPE: 9" S.R.P.
SUBBASE TYPE: 4" STABILIZED SUB-BASE

THE NOMINAL THICKNESSES FOR SUBBASE GRANULAR MATERIAL; BASE AND SURFACE COURSES ARE SHOWN ON THE TYPICAL SECTIONS, STANDARDS, SCHEDULES OR SPECIAL DETAILS. THE CONSTRUCTED THICKNESS OF THE ABOVE ITEMS SHALL NOT BE LESS THAN 90 PER CENT OF THE NOMINAL THICKNESS AT ANY LOCATION.

THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

PROTECTIVE COAT SHALL ALSO BE APPLIED TO ALL GUTTER FLAGS, FACE OF CURB, AND MEDIAN SURFACE.

ROADWAY CLASSIFICATION
U.S. 54 CLASS C

F.A.I ROUTE 57 SECTION 38-5 HB-4

IROQUOIS COUNTY

TYPICAL CROSS SECTIONS

SCALE: 3/16" = 1'-0" EXCEPT AS NOTED

DRAWN BY: R

ROUTE No.	SEC.	COUNTY	SHEET No.
57	38-5 HB 4	IROQUOIS	3

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE STATION	ROAD STATION
	LOCATION OF WORK			36+00.00	9+53.58 TO 28+89.00 31+11.00 TO 56+98.98 RAMP STUBS
	CONSTRUCTION TYPE CODE			X7.1	722.3
010001	TREE REMOVAL (6 TO 15 INCH DIAMETER)	IN. DIA.	73		73
010002	TREE REMOVAL (OVER 15 INCH DIAMETER)	IN. DIA.	488		488
011001	EARTH EXCAVATION	CU. YD.	45,077		45,077
013001	BORROW EXCAVATION	CU. YD.	156,930		156,930
024001	SUB-BASE GRANULAR MATERIAL, TYPE A	TON	217		217
024016	STABILIZED SUB-BASE 4"	SQ. YD.	14,998		14,998
027001	TOP SOIL	CU. YD.	2,526		2,526
036001	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A	TON	170		170
046001	BITUMINOUS MATERIAL (PRIME COAT)	GAL.	98		98
048067	PORTLAND CEMENT CONCRETE PAVEMENT 9"	SQ. YD.	12,618		12,618
048011	PORTLAND CEMENT CONCRETE PAVEMENT [6"-10½" VAR]	SQ. YD.	251		251
048018	REMOVING AND REPLACING CURING COVERING	UNIT	11		11
048019	PAVEMENT FABRIC	SQ. YD.	12,618		12,618
050001	CLASS A EXCAVATION FOR STRUCTURES	CU. YD.	134	134	
052003	CLASS X CONCRETE	CU. YD.	749.4	745.5	3.9
052016	CLASS X CONCRETE (HEADWALL)	CU. YD.	5.5		5.5
052021	PROTECTIVE COAT	SQ. YD.	17,539	1,490	16,049
054001	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	333,860	333,860	
058034	PIPE CULVERTS, TYPE 2A, 36"	LIN. FT.	285		285
058199	PIPE CULVERTS, TYPE 1, 15"	LIN. FT.	165		165
058222	PIPE CULVERTS, TYPE 2, 15"	LIN. FT.	58		58
058225	PIPE CULVERTS, TYPE 2, 24"	LIN. FT.	56		56
058985	PIPE CULVERTS, TYPE 2A, RCCP 24"	LIN. FT.	92		92
058987	PIPE CULVERTS, TYPE 2A, RCCP 36"	LIN. FT.	162		162
059001	REINFORCEMENT BARS	POUND	149,197	130,595	18,602
060004	FURNISHING CREOSOTED PILES UP TO 20'	LIN. FT.	240		240
060005	FURNISHING CREOSOTED PILES 20.1' TO 38'	LIN. FT.	2,100	2,100	
060006	FURNISHING CREOSOTED PILES OVER 50'	LIN. FT.			
060007	TEST PILE TIMBER	EACH	1	1	
060008	DRIVING TIMBER PILE	LIN. FT.	2,340	2,340	
060043	DRIVING CONCRETE PILES	LIN. FT.	1,000	1,000	
060044	FURNISHING CONCRETE PILES	LIN. FT.	1,000	1,000	
060047	TEST PILE CONCRETE	EACH	2	2	
061001	NAME PLATES	EACH	1		1
066001	STORM SEWER, TYPE 1, 8"	LIN. FT.	150		150
066003	STORM SEWER, TYPE 1, 12"	LIN. FT.	150		150
080094	COMBINATION CONCRETE CURB AND GUTTER TYPE M-6.06	LIN. FT.	92		92
080104	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.06	LIN. FT.	4,032		4,032
081054	PORTLAND CEMENT CONCRETE MEDIAN, TYPE C-4, MODIFIED	LIN. FT.	470		470
082001	PAVEMENT REMOVAL	SQ. YD.	1,875		1,875
082031	BITUMINOUS CONCRETE SURFACE REMOVAL	SQ. YD.	800		800
083002	SLOPE WALL, 4 INCH	SQ. YD.	665	665	
083009	PORTLAND CEMENT CONCRETE MEDIAN SURFACE - 4 INCH	SQ. FT.	19021		19021
094001	STEEL PLATE BEAM GUARD RAIL	LIN. FT.	800		800
109001	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	11		11
112001	SODDING	SQ. YD.	723		723
1112002	SUPPLEMENTAL WATERING	UNIT	33		33
113006	FERTILIZER NUTRIENTS (8-1-1 RATIO)	TON	0.84		4
158006	PIPE CULVERT, TYPE 3A, RCLP 24"	LIN. FT.	112		112
K00020	CROWN VETCH SEEDING	ACRE	2.4		2.4
Z00004	ALUMINUM HANDRAIL	LIN. FT.	440	440	
Z00142	INCIDENTAL BITUMINOUS SURFACING	TON	136		136
Z00346	BUILDING REMOVAL	L SUM	1		1
Z00350	PERMANENT SURVEY MARKERS, TYPE 1	EACH	2		2
Z01002	EXPLORATION TRENCH (52 INCH DEPTH)	LIN. FT.	250		250
Z01023	BRIDGE SEAT SEALANT	LUMP SUM	1	1	
Z01028	WOVEN WIRE FENCE	LIN. FT.	595		595
Z01379	ENGINEER'S FIELD LABORATORY *	EACH	1*		
Z01388	ENGINEER'S FIELD OFFICE TYPE A *	EACH	1*		
Z01468	STABILIZED SHOULDER 9"	SQ. YD.	5842		5842
024018	SUB-BASE GRANULAR MATERIAL TYPE "C"	TON	1860		1860
	ALTERNATE C				
111002	STRAW FOR ASPHALT-COATED MULCH	TON	16.8		16.8
111003	EMULSIFIED ASPHALT	GAL.	1630		1630
	ALTERNATE B				
111010	EXCELSIOR MULCH	TON	22.2		22.2

* CONSTRUCTION TYPE CODE CE 58

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	TYPICAL CROSS SECTIONS
3	SUMMARY OF QUANTITIES, INDEX OF SHEETS, GENERAL NOTES AND SCHEDULES
4	SCHEDULES
5 & 6	PLAN AND PROFILE, U.S. ROUTE 54
7	PLAN AND PROFILE, F.A.I. ROUTE 57
8	GEOMETRICS AND RIGHT OF WAY, U.S. ROUTE 54 INTERCHANGE
9 THRU 11	RAMP & TR.44 PROFILE
12	DRAINAGE, U.S. ROUTE 54 INTERCHANGE
13	CHANNELIZED APPROACHES AND DETAILS
14	DETAILS, U.S. ROUTE 54 INTERCHANGE
15 THRU 20	CROSS SECTIONS, U.S. ROUTE 54
21 THRU 26	RAMP & TR.44 CROSS SECTIONS
27	MAINLINE CROSS SECTIONS
*28 THRU 37	BRIDGE PLANS, STRUCTURE AT STATION 800+59.81 F.A.I. ROUTE 57
38 & 38A	STANDARDS 1686-3 AND 2122-1
39 & 39A	STANDARDS 2153-4 AND 2113-1
40, 40A, 40B	STANDARDS 2115-1, 2187-2, 2114
41, 41A, 41B	STANDARDS 1744-1, 2179-1 AND 2231
42 & 42A	STANDARDS 1766-4 AND 2208-2
43 & 43A	STANDARDS 1976 & 2237
44	STANDARDS 1909-6
45, 45A, 45B	STANDARDS 2143-1, 2135, 2130
46	STANDARD 2169-2
47	STANDARD 2230

* INCLUDES 34A & 36A

GENERAL NOTES

SECTION 38-5HB 4 INCLUDES THE FURNISHING OF ALL MATERIALS AND CONSTRUCTION OF A STEEL GIRDER GRADE SEPARATION STRUCTURE, SPAN 2 AT 67'-4" AND 2 AT 41'-9" (CARRYING U.S. ROUTE 54 OVER F.A.I. ROUTE 57 AT STATION 800+59.81 SURVEY LINE ON F.A.I. ROUTE 57). THE SECTION ALSO INCLUDES CONSTRUCTION OF U.S. ROUTE 54 APPROACH EMBANKMENT AND ROADWAY. THE ROADWAY SECTION CONSISTS OF 9" PORTLAND CEMENT CONCRETE PAVEMENT (2 AT 14' AND VARIES) ON VARIABLE DEPTH STABILIZED SUB-BASE (B.A.M.). THE PAVEMENT WILL BE SEPARATED BY VARIABLE WIDTH MEDIAN.

IT IS THE CONTRACTOR'S RESPONSIBILITY, AS DETAILED IN SECTION 74 OF THE STANDARD SPECIFICATIONS TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE DEPARTMENT, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE OF CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 7.19 AND 7.21 OF THE STANDARD SPECIFICATIONS.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE ENDS OF EXISTING DRAINAGE LINES WHICH ARE NOT TO BE INCORPORATED INTO THE PROPOSED IMPROVEMENT ARE TO BE SEALED. COST OF SUCH WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

ADDED EXPENSE WHICH WILL BE INVOLVED IN CONNECTING EXISTING DRAIN TILE, STORM SEWER, OR PIPE CULVERTS TO PROPOSED STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE STRUCTURE INVOLVED.

I SIGN CONFORMING TO STD. 2153-4 SHALL BE PLACED AS SHOWN ON SHEET 6 OF THE PLANS AND PROFILES OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BECOME THE PROPERTY OF THE STATE AND REMAIN IN PLACE UNTIL THE COMPLETION OF THE PAVING.

STABILIZED SHOULDERS (B.A.M.) 9"

SIDE U.S. ROUTE 54	STATION	TO STATION	LENGTH FEET	WIDTH FEET	STABILIZED SHLDR (B.A.M.) 9" SQ. YD.
L & R	9+53.60	20+08.00	2@ 1444.40	8 10'	2034.5
L	21+86.00	22+06.00	20.00	8 10	17.8
R	21+86.00	22+25.00	39.00	8 10	34.7
L	23+59.00	28+89.00	530.00	8 10	471.1
R	23+68.00	28+89.00	521.00	8 10	463.1
L	31+11.00	36+32.00	521.00	8 10	463.1
R	31+11.00	36+40.00	529.00	8 10	470.2
L	37+74.00	48+46.98	1070.98	8 10	952.0
R	37+93.00	48+44.98	1051.98	8 10	935.1
TOTAL					5842

4" STABILIZED SUB-BASE IN SQ. YD. & SUB-BASE GRANULAR MATERIAL, TYPE A IN TONS

SIDE U.S. ROUTE 54	STATION	TO STATION	LENGTH FEET	WIDTH FEET	COMP. THICKNESS-INCHES	TON 2.05 T/CY	SQ. YD.
L & R	9+53.58	11+53.58	200.00	2@2-6 & VARIES	4 & 7	82.0	155.6
L & R	11+53.58	17+11.39	557.81	1@ 27 & VARIES	4 & 7	775.4	1,945.2
L	17+11.39	20+00.00	288.61	1@ 17.08	4 & 7	218.3	547.7
R	17+11.39	20+00.00	288.61	22.58 & VAR.	4 & 7	244.9	614.4
L & R	20+00.00	20+81.64	81.64	2@ 17.08 & VAR.	4		309.9
L & R	20+81.64	22+09.34	127.70	1@ 49'	4		625.7
L & R	22+09.34	23+29.18	119.84	2@ 17.08	4		455.6
L & R	23+29.18	23+99.45	70.27	1@ 49'	4		370.9
L	23+99.45	28+49.00	449.55	1@ 29.08 & VAR	4		1339.3
R	23+99.45	28+49.00	449.55	1@ 17.08	4		855.7
L	31+51.00	35+99.28	448.28	1@ 17.08	4		854.7
R	31+51.00	35+99.28	448.28	1@ 29.08 & VAR.	4		1333.8
L & R	35+99.28	36+69.57	70.29	1@ 49'	4		370.9
L & R	36+69.57	40+50.00	380.43	2@ 17.08 & VAR.	4		1,491.1
L & R	40+50.00	40+87.17	37.17	2@ 17.08 & VAR.	4 & 6	55.2	161.7
L & R	40+87.17	46+44.98	557.81	1@ 27' & VARIES	4 & 6	664.6	1,945.2
L & R	46+44.98	48+44.98	200.00	2 2-6 & VARIES	4 & 6	53.2	155.6
L & R	28+49	28+89	40.00	17.08 & VARIES	6	62.0	
L & R	31+11	31+51	40.00	17.08 & VARIES	6	52.2	
RAMP A	0+24	1+09.23	85.23	VARIES	4		354.5
RAMP B	17+74.42	18+63.68	89.26	VARIES	4		378.0
RAMP C	17+38.49	18+27.75	89.26	VARIES	4		378.0
RAMP D	0+24	1+09.23	85.23	VARIES	4		354.5
TOTALS						217	14,998.2

"A" SUB-BASE GRANULAR MATERIAL (TYPE "C")

SIDE	STATION TO STATION		LENGTH	TON 2.05 T/CY
LT. & RT.	9+53.59	21+05.00	1151.42	1653.39
RT.	21+79.2	22+25.20	46.00	13.05
LT.	21+79.2	22+06.08	26.88	7.63
RT.	23+68.00	27+80.00	412.00	94.20
LT.	23+59.00	27+00.00	341.00	96.75
LT. & RT.	27+00.00	28+00.00	100.00	56.95
LT. & RT.	28+00.00	29+89.00	189.00	45.75
LT. & RT.	31+11.00	32+00.00	89.00	48.75
LT. & RT.	32+00	33+00	100.00	54.95
LT.	33+00	36+32.00	332.00	94.20
RT.	33+00	36+41.00	341.00	96.75
LT.	37+73.51	48+44.98	1071.47	304.01
RT.	37+92.67	48+44.98	1052.31	298.57
TOTAL				2640.1

SODDING

STATION TO STATION		NET LENGTH FEET	WIDTH FEET	SQ. YDS.
24+00 SPD & REMOVALS	37+00	1079	2 @ 3' 18'	719 9
TOTAL				728

F.A.I. ROUTE 57 — SECTION 38-5HB 4

IROQUOIS COUNTY

SUMMARY OF QUANTITIES, INDEX OF SHEETS, GENERAL NOTES, AND SCHEDULES

COUNTY	SHEET NO.	TOTAL SHEETS
57 IROQUOIS	47	4

B. P. R. REG. NO. 4 ILLINOIS PROJECT

38-5
HB-4

CLASS X CONCRETE, REINFORCEMENT BARS

SIDE U.S. ROUTE 54	STATION TO STATION		TYPE	STANDARD	CLASS X CONCRETE CU. YD.	RE-BAR POUND
L	28+49	28+89	APPR. SLAB	1909-6(11)	0.97	4608
R	28+49	28+89	APPR. SLAB	1909-6(11)	0.97	4608
L	31+11	31+51	APPR. SLAB	1909-6(11)	0.97	4608
R	31+11	31+51	APPR. SLAB	1909-6(11)	0.97	4608
L & R	38+00		2 HEADWALLS	1976036-2	3.5	100
L & R	42+00		2 HEADWALLS	1976024-2	2.0	70
			CLASS X CONCRETE		3.9	18,602
			CLASS X CONCRETE (HEADWALL)		5.5	

PORTLAND CEMENT CONCRETE PAVEMENT

SIDE U.S. ROUTE 54	STATION TO STATION		LENGTH FEET	WIDTH FEET	SQUARE YARD 9"	SQUARE YARD 16½-10½-16½
L & R TAPERS	9+53.56	11+53.56	200.00	2@ 1 & VARIES		
L & R TRANS APPR.	11+53.56	20+73.55	919.97	1@24 & VARIES 1@ 14 1@ 15 & VAR.	2,836.0	
L & R	20+73.55	20+81.64	8.09	2@ 14	25.2	
L & R	20+81.64	22+09.34	127.70	1@ 46 & VAR.	570.0	
T.R.64 INTERSECT.	22+09.34	23+29.18	119.84	2@ 14	372.8	
L & R				1@ 46 & VAR.	336.5	
RAMP INTERSECTION	23+29.18	23+99.45	70.27		691.5	
L	23+99.45	26+38.83	239.38	1@ 26	492.5	
L	26+38.83	28+48.33	209.50	1@ 26 & VAR.	699.3	
R	23+99.45	28+49.01	449.56	1@ 14		63.2
L	28+48.66	28+88.66	40.00	1@ 14 & VAR.		62.2
R	28+49.34	28+89.34	40.00	1@ 14		62.2
L	31+10.66	31+50.66	40.00	1@ 14 & VAR.	697.4	63.2
R	31+11.34	31+51.34	40.00	1@ 14	492.5	
L	31+50.99	35+99.28	448.29	1@ 14 & VAR.	687.9	
R	31+51.67	33+61.17	209.50	1@ 26		
R	33+61.17	35+99.28	238.11			
L & R			70.29	1@ 46 & VAR.	336.5	
RAMP INTERSECTION	35+99.28	36+69.57	55.54	2@ 14	172.5	
L & R	36+69.57	37+25.01	919.97	1@ 15 & VAR. 1@ 14 1@ 24 & VAR.	2,836.0	
L&R TRANS APPR.	37+25.01	46+44.98		2@ 1 & VAR.	88.9	
			200.00		300.0	
L&R TAPERS	46+44.98	48+44.98	86.23	16' & VARIES	297.0	
U.S.54 RAMP A	0+23.00	1+09.23	90.32	16' & VARIES	297.0	
U.S.54 RAMP B	17+72.42	18+64.74	90.32	16 & VARIES	300.0	
U.S.54 RAMP C	17+38.49	18+28.81	86.23	16 & VARIES		
U.S.54 RAMP D	0+23.00	1+09.23				
					12,618.4	250.8

GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A 2.05 TON/CU.YD.

SIDE	U.S. ROUTE 54	LENGTH FEET	WIDTH FEET	COMP. THICKNESS-INCHES	TON
RIGHT	FIELD ENT. STA. 11+86	20	14 & VAR.	6	12.5
LEFT	PRIV. ENT. STA. 15+47	21	14 & VAR.	8	17.4
RIGHT	FIELD ENT. STA. 16+25	18	14 & VAR.	6	11.4
RIGHT	PRIV. ENT. STA. 41+55	55	14 & VAR.	8	41.5
LEFT	PRIV. ENT. STA. 41+55	58	14 & VAR.	8	43.6
RIGHT	PRIV. ENT. STA 45+00	20	14 & VAR.	8	16.7
LEFT	FIELD ENT. STA 46+50	22	14 & VAR.	6	13.5
LEFT	FIELD ENT. STA. 48+00	22	14 & VAR.	6	13.5
					170.1

BIT. MATL. PR. COAT & INCIDENTAL BITUMINOUS SURFACING

SIDE	U.S. ROUTE 54		LENGTH FEET	INCIDENTAL BITUMINOUS SURFACING TONS 112#/S.Y.	BIT. MAT. L PR. COAT GAL./O OR .375 GAL./S.Y.
TAPER	9+53.60	11+53.60	200.0	68.0	49
TAPER	46+45.00	48+45.00	200.0	68.0	49
				136	98

COMB. CONCRETE CURB & GUTTER, TYPE B-9.06

SIDE U.S. ROUTE 54	STATION TO STATION		LENGTH FEET
L & R	17+11.39	21+10.10	807.26
L & R	21+80.88	23+43.50	339.00
L & R	23+88.00	28+89.00	1005.50
L & R	31+11.00	36+12.00	1004.96
L & R	36+55.25	40+87.17	875.28
			4032.00

P.C.C. MEDIAN, TYPE C-4 (MOD)

SIDE U.S. ROUTE 54	STATION TO STATION		LENGTH FEET
L & R	15+61.39	17+96.25	235
L & R	40+02.31	42+37.17	235
			470

STEEL PLATE BEAM GUARD RAIL

SIDE U.S. ROUTE 54	STATION TO STATION		LENGTH FEET
L & R	26+88.0	28+88.0	400.0
L & R	31+11.0	33+11.0	400.0
			800.0

P.C. CONCRETE MEDIAN SURFACE 4"

SIDE U.S. ROUTE 54	STATION TO STATION		LENGTH FEET	WIDTH FEET	AREA SQ. FT.
L & R	17+11.39	21+07.10	395.71	15'-10" & VAR.	4575
L & R	21+63.88	23+41.50	157.62	15'-10" & VAR	2300
R	23+90.00	26+38.83	248.83	3'-10" & VAR.	953
L & R	26+38.83	28+89.00	250.17	15'-10" & VAR	2460
L & R	31+11.00	33+51.17	250.17	15'-10" & VAR.	2460
L	33+61.17	36+10.00	248.83	3'-10" & VAR.	953
L & R	36+57.25	40+87.17	429.92	15'-10" & VAR	5125
U. S. ROUTE 54	RAMP B ISLAND			VARIES	975
U. S. ROUTE 54	RAMP C ISLAND			VARIES	975
					19,021.0

TREE REMOVAL (6 TO 15 IN. DIA.)

SIDE U.S. ROUTE 54	STATION	IN. DIA.
L	15+96	14
L	20+32	11
L	20+56	7
L	21+56	15
L	35+42	10
R	41+67	7
LT. U.S. RT. 54 RAMP A	1+37 TO 3+20	1@9
		73

TREE REMOVAL (OVER 15 IN. DIA.)

SIDE U.S. ROUTE 54	STATION	IN. DIA.
L	15+72	19
L	16+46	24
L	16+69	19
L	16+92	21
L	20+22	19
L	23+22	45
L	24+81	32
L	34+40	42
L	37+55	46
L	38+00	39
L	39+77	18
L	41+36	34
L	41+70	36
LT. U.S. RT. 54 RAMP A	1+37 TO 3+20	1@46 1@21 1@27
		488

PAVEMENT REMOVAL

STATION TO STATION U.S. ROUTE 54		LENGTH FEET	WIDTH FEET	SQ. YD.
11+53.60	17+15.00	561.40	18	1,122.8
28+81.00	28+99.00	18.00	18	36.0
29+27.67	29+37.67	10.00	18	20.0
29+95.00	30+05.00	10.00	16	20.0
30+62.33	30+72.33	10.00	18	20.0
31+01.00	31+19.00	18.00	18	36.0
43+35.00	46+45.00	310.00	18	620.0
				1,874.8

PERMANENT SURVEY MARKERS

TYPE	STATION	EACH
I	11+55.00	1
I	21+30.00	1
I	27+30.00	1
I	46+40.00	1
		4

TYPE M-6.06 CURB & GUTTER

LOCATION U.S ROUTE 54	LENGTH LIN. FT
RAMP B ISLAND	46
RAMP C ISLAND	46
	92

R.O.W. MARKERS

SIDE	STATION	EACH
LT.	14+00	1
RT.	16+00	1
LT.	20+85	1
RT.	21+00	1
RT.	38+00	1
LT.	38+00	1
RT.	40+00	1
RT.	42+00	1
LT.	44+00	1
RT.	44+90	1
LT.	46+00	1
		11

F.A.I. ROUTE 57 SECTION 38-5HB 4
IROQUOIS COUNTY

SCHEDULES

FEDERAL AID ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
57	38-3 HB-4	IROQUOIS	47	3
STA.	TO STA.			
BPR No. 4				

CURVE DATA U.S.RTE.54

P.I. STA. 24+30.00
Δ = 00°-06'-00"
D = 00°-01'-00"
T = 300.00'
L = 600.00'
R = 343,774.68'
E = 0.13'
SE = 0.00'

SEC. 23 T.26N. R.10E. 3RD. P.M.
ONARGA TWP.

CLARENCE WEBER

EARL W. & MARIE COX

HAROLD CURPHEY

ULRICH THEESFELD

NURSERY STOCK

SEC. 24 T.26N. R.10E. 3RD. P.M.
ONARGA TWP.

BARN, CRIB, BARN, S G, SHED, PRIV ENT (GRAVEL), 25TY FR HSE, 14" STUMP

℄ EXISTING U.S. ROUTE 54

EXIST. 18 P.C.C. PAVEMENT WITH BITUMINOUS SURFACING

℄ EXIST. T.R. RTE. 44 SECTION LINE

P.C. STA. 21+30.00

P.I. STA. 24+30.00

P.T. STA. 27+30.00

CURVE 1

P.I. STA. 27+01.47 - 3' RT.
Δ = 05°-29'-46.29"
D = 04°-23'-24.72"
T = 82.64'
L = 125.19'
R = 1,305.08'
E = 1.51'

CURVE 2

P.I. STA. 28+26.17 - 9' LT.
Δ = 05°-29'-46.29"
D = 04°-23'-24.72"
T = 82.64'
L = 125.19'
R = 1,305.08'
E = 1.51'

BEGIN CONSTRUCTION
U.S. ROUTE 54
STA. 9+53.58

STA. 15+47 LT.
PRIV. ENT.

STA. 15+47.38.2' LT.
PI
15" x 34'

400 SQ. YD. BITUMINOUS CONCRETE SURFACE REMOVAL

1' STUB

200' TAPER
SEE STD. 2143-1

STA. 11+86 RT.
FIELD ENT.

STA. 11+86.26 RT.
PI
15" X 28'

STA. 21+53 U.S. RTE. 54
273' LT.

STA. 20+23
C.A. = 130'

STA. 21+01.3
C.A. = 130'

STA. 21+26.93 ℄ U.S. RTE. 54
= STA. 113+72.55 ℄ RELOC. T.R. RTE 44

STA. 20+22
C.A. = 80.93'

2 STY FR. HOUSE BUILDING REMOVAL

END A/C LINE 17+11.39

R/W & A/C LINE SPUR LINE 'L'

℄ R/W & A/C LINE

END A/C LINE 17+11.39

STA. 16+25 RT.
FIELD ENT.

STA. 16+25, 36' RT.
PI
15" X 32'

FOR DETAILS OF CHANNELIZED APPROACH SEE SHEET 13

STA. 23+00.03 ℄ U.S. RTE. 54
= STA. 12+53.29 RAMP "C"

180'-150'-180' 3.5' OFFSET ℄ RAMP 'C'

STA. 23+23.43 ℄ U.S. RTE. 54
= STA. 0+00 RAMP 'D'

FOR RAMP TERMINAL DETAILS SEE SHT. 14

STA. 30+00 U.S. RTE. 54
= STA. 800+39.81 F.A.I. RTE. 57

℄ U.S. RTE. 54

℄ F.A.I. RTE. 57

CURVE 1

CURVE 2

NOTE: TRANSISTION PAVEMENT SLOPE
FROM 3/16"/FT. TO .01 FT./FT.
STA. 28+29 TO 28+89
STA. 31+71 TO 31+11
(SEE SHEET #13 FOR BAR SCHEDULE)

BRIDGE APPROACH SLABS METHOD II STANDARD 1909-6

SIDE	STATION TO STATION		P.C.C. PAVT. 16½"-10½"-16½" SQ. YDS.	SLAB REINFORCING BARS-LBS.	R.C. PILE CAPS REINF. BARS LBS.	R.C. PILE CAPS CONC. C.Y.
LT	28+48.66	28+88.66	63.2	4268	340	0.97
LT	31+10.66	31+50.66	62.2	4268	340	0.97
RT	28+49.34	28+89.34	62.2	4268	340	0.97
RT	31+11.34	31+51.34	63.2	4268	340	0.97

THE FOLLOWING ITEMS SHALL BE PROVIDED FROM STA 9+53.60 TO STA. 48+44.98 SECTION 38-5HB-4

** 25.2 TONS	EXCELSIOR MULCH	3 TONS/ACRE
8.4 ACRES	CROWN VETCH SEEDING	
0.84 TONS	FERTILIZER NUTRIENTS (0-1-1 RATIO)	200 #/ACRE
* 16.8 TONS	STRAW FOR ASPHALT COATED MULCH	2 TON/ACRE
* 1680 GALS.	EMULSIFIED ASPHALT	100 GAL./TON OF STRAW
3 UNITS	SUPPLEMENTAL WATERING	4.2 GAL./SQ. YD.

B.M. #54 A
"D" CUT IN CONC. HDWL.
STA. 11+95 - 21.3' RT.
ELEV. 669.53

P.K. NAIL IN BASE OF 15" TREE
P.K. NAIL IN P.P.
37.81'
102.84'
P.K. NAIL AT P.C.
63.58'
P.K. NAIL IN UTILITY POLE
P.C. STA. 21+30.00 ℄ U.S. RTE. 54

P.K. NAIL IN P.P.
P.K. NAIL IN BASE OF 30" WALNUT
84.42'
58.36'
69.92'
P.K. NAIL AT P.I.
TELEPHONE SERVICE POST
P.I. STA. 24+30.00 ℄ U.S. RTE. 54

P.K. NAIL IN P.P.
P.K. NAIL IN P.P.
44.27'
88.00'
P.K. NAIL AT P.T.
38.60'
P.K. NAIL IN T.P.
P.T. STA. 27+30.00 ℄ U.S. RTE. 54

B.M. #54 C
TOP OF R.O.W. MON.
STA. 800+88 - 129' RT.
ELEV. 670.71

A ALTERNATE A
** ALTERNATE B

EMBANKMENT	31,448	CU. YDS.
EMBANKMENT RAMPS C&D & T.R. 44	13,780	CU. YDS.
* EMBANKMENT	14,300	CU. YDS.
EARTH EXCAV. (OUTSIDE DITCH BACKSLOPE)	1,524	CU. YDS.
** EARTH EXCAVATION	31,096	CU. YDS.
BORROW EXCAVATION	28,184	CU. YDS.
BORROW EXCAV. RAMPS C&D & T.R. 44	15,701	CU. YDS.
* BORROW EXCAVATION	17,303	CU. YDS.

*= FOR ABUTMENT CONES
** SEE SPECIAL PROVISIONS FOR EARTH EXCAVATION

BEGIN CONSTRUCTION
U.S. ROUTE 54
STA. 9+53.60

200' TAPER

+0.63%

+0.20%

+0.20%

+0.20%

PVC STA. 11+82.60 ELEV. 669.44

PVT STA. 12+53.60 ELEV. 669.84 300' V.C. K = 40.03

PVC STA. 12+53.60 ELEV. 670.17

PVC STA. 15+94.90 ELEV. 671.43

PVI STA. 17+44.90 ELEV. 672.28 300' V.C. K = 40.03

PVT STA. 18+34.90 ELEV. 672.63

PVC STA. 25+00 ELEV. 667.35

PROFILE OF PROPOSED CROWN ON U.S. ROUTE 54

PROFILE OF EXISTING PAVEMENT ON U.S. ROUTE 54

F.L. 667.10

F.L. 667.29

F.L. 669.10

F.L. 669.10

F.L. 666.8

F.L. 666.6

RT. DITCH

LT. DITCH

LT. DITCH

RT. DITCH

SPEC. DITCH RT.

SPEC. DITCH LT.

SPEC. DITCH RT.

+2.00%

-2.00%

P.V.I. STA. 30+00
ELEV. 697.35
1000' V.C.
Y = -5.00

16'-2" MIN CLEARANCE

14'-2" MIN CLEARANCE

ELEV. EXISTING PAVEMENT
ELEV. PROPOSED CROWN

669.82	669.82	669.71	669.05	668.77	669.82	669.39	670.36	670.77	671.15	671.40	671.82	671.67	671.46	671.17	670.60	670.05	669.62	669.44	669.39	669.41	669.45	669.54	669.85	669.85	669.40						
669.82	669.82	670.42	669.91	670.17	670.95	670.80	671.40	672.28	673.57	674.35	675.35	675.35	675.35	675.35	674.16	673.85	673.85	673.85	673.85	673.85	673.85	673.85	673.85	673.85	673.85						
05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	

700 690 680 670 660

PROFILE: SURVEYED, PLOTTED, NOTE BOOK, B. M.'S NOTED, STRUCTURE NOTATIONS CHKD, NO., BY

PLAN: SURVEYED, PLOTTED, NOTE BOOK, NO., LIMIT SHEET, R.E. OR AREA ENGR.

RUSSELL & ERSKINE CO. NEW YORK

FED. AID ROUTE No.	SEC.	SHEET
57	18-S IROQUOIS 47 HB-4	6
STA.		
BPR. REG. No. 4		

CLARENCE WEBER

EARL W. & MARIE COX

WALTER M. & BERNICE A. BUFF
SEC. 24 T. 26N. R. 10E. 3RD. P.M.
ONARGA TWP.

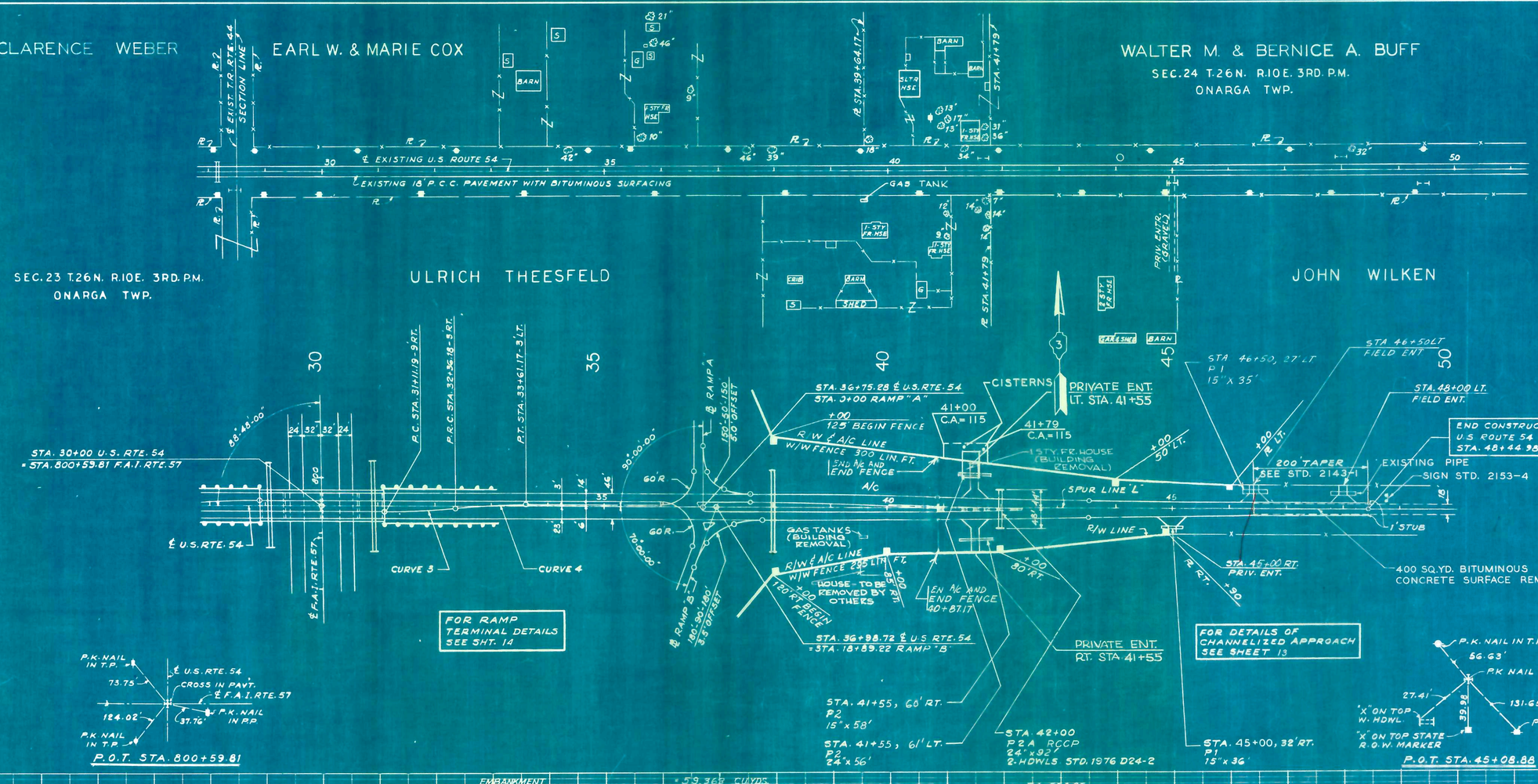
SEC. 23 T. 26N. R. 10E. 3RD. P.M.
ONARGA TWP.

ULRICH THEESFELD

JOHN WILKEN

PLAN
SURVEYED
DRAWN
PLOTTED
QUANTITIES CHECKED
RT. OF WAY CHECKED
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
DRAWN
GRADES CHECKED
B.M.'S NOTED
STRUCTURE NOTATIONS CHECKED
NOTE BOOK
NO.
BY
DATE



CURVE 3
P.I. STA. 31+73.83 - 9' RT.
Δ = 05°-29-46.29"
D = 04°-23-24.72"
T = 62.64'
L = 125.19'
R = 1,305.08'
E = 1.51'

CURVE 4
P.I. STA. 32+98.53 - 3' LT.
Δ = 05°-29'-46.29"
D = 04°-23'-24.72"
T = 62.64'
L = 125.19'
R = 1,305.08
E = 1.51'

P.O.T. STA. 800+59.81

P.O.T. STA. 45+08.88

B.M. #54 B
□ CUT IN CONC. HDWL.
STA. 49+46.4 - 22' RT.
ELEV. 669.76

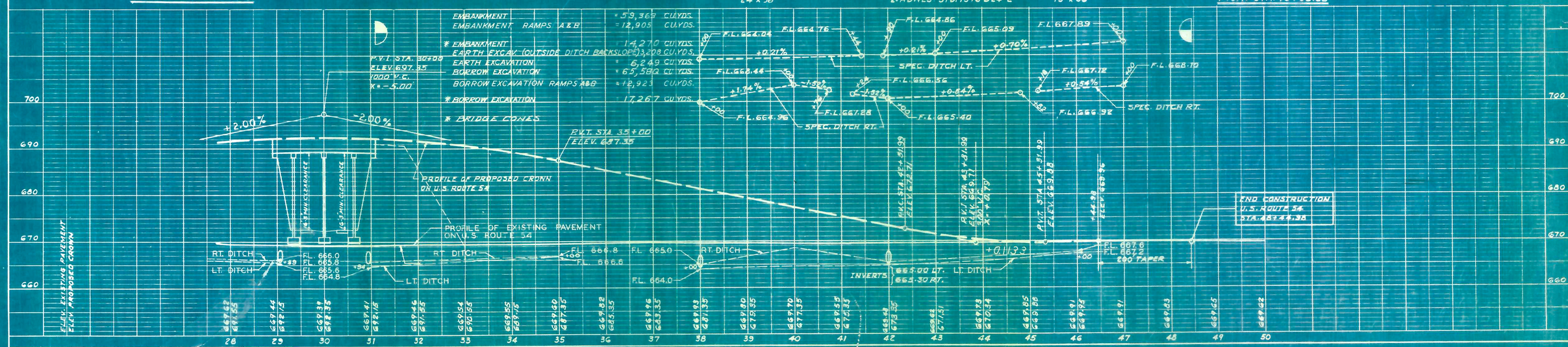


PLATE 1 PLAN - PROFILE O.P.R. & R.E. STANDARD

FEDERAL AID PROJECT	STATE	COUNTY	NO. SHEETS	SHEET NO.
57	HB-4	IROQUOIS	47	-7
STA.		T.S.&S.A.		
BPR REG 464	ILLINOIS	PROJECT		

PI STA 782+44.84
Δ = 43° 48' 19.2"
D = 1° 30' 00"
T = 1435.72'
L = 2920.36'
R = 3819.72'
E = 297.1
SE 0.017
SE ATTAINED: (REMOVE CROWN)
STA 765+75.10 TO STA 767+75.12
STA 795+63.48 TO STA 797+63.48
FULL SE STA 767+75.12 TO STA 795+63.48

EARL W. & MARIE COX

ULRICH THEESFELD
SEC. 24 T. 26 N. R. 10 E. 3RD. P.M.
ONARGA TWP.

THIS SHEET FOR INFORMATION ONLY

R/W & A/C LINE 7

RAMP A

RAMP B

RAMP C

RAMP D

12' FARM TILE

AT STA 796+29.48

91° 12' 00"

STA 800+59.81 ℄ F.A.I. ROUTE 57
STA 30+00 ℄ U.S. ROUTE 54

OVER PASS STRUCTURE & APPROACHES CONSTRUCTED UNDER SEC. 38-5 HB-4

8' FARM TILE

W/W FENCE - 612 LIN. FT. ±

520 LIN. FT.

℄ F.A.I. ROUTE 57

℄ EXIST. T.R. RTE. 44

SECTION LINE

A/C LINE & W/W FENCE

10' FARM TILE

EXISTING R/W LINE

REPORTED 12' FARM TILE

BEGIN FENCE
END SINGLE STRAND CABLE ROAD GUARD

STA. 44+00

END FENCE
BEGIN SINGLE STRAND CABLE ROAD GUARD

A/C LINE & SINGLE STRAND GUARD

℄ RELOC T.R. RTE. 44

R/W LINE

105

FOR INTERCHANGE DETAILS SEE SHEETS 12 THRU 14

P.K. NAIL IN T.P.

℄ U.S. RTE. 54

CROSS IN PAVT.

℄ F.A.I. RTE. 57

73.75

124.02

87.76

P.K. NAIL IN PPD

P.K. NAIL IN T.P.

P.O.T. STA. 800+59.81

I.P. @ P.T.

℄ F.A.I. RTE. 57

181.6'

158.25

I.P. @ F.L.

I.P. @ F.L.

T.R. RTE. 44

P.T. STA. 796+29.48

CLARENCE WEBER

B.M. #54C
TOP OF R.O.W. MON.
STA. 800+88-189 RT.
ELEV. 670.71

ULRICH THEESFELD
SEC. 23 T. 26 N. R. 10 E. 3RD. P.M.
ONARGA TWP.

39+87
ROW 106.77

129+55.63 RELOC ℄ T.R. RTE. 44
℄ RT 3°

STA. 124+80

I.P. @ P.O.T.

℄ F.A.I. RTE. 57

251.37

179.85

℄ T.R. RTE. 44

I.P. @ F.L.

P.O.T. STA. 813+56.16

PRIVATE DRIVE (GRAVEL)

HAROLD CURPHEY

B.M. #34 (TO BE PROTECTED)
U.S.G.S. MONUMENT
STAMPING ONARGA 1959
STA. 814+26 — 166.3 RT.
ELEV. 674.769

25,827 CU. YDS. FROM M.L. IS TO BE HAULED TO RAMPS A, B, C & D, & T.R. 44

EARTH EXCAVATION

F.A.I. RTE. 57	40,526 CU. YDS.
RAMP A	6,342 CU. YDS.
RAMP B	7,801 CU. YDS.
RAMP C	1,348 CU. YDS.
RAMP D	4,810 CU. YDS.
T.R. RTE. 44	9344 CU. YDS.

EMBANKMENT

F.A.I. RTE. 57	9,135 CU. YDS.
RAMP A	* 13,359 CU. YDS.
RAMP B	* 6,316 CU. YDS.
RAMP C	* 11,981 CU. YDS.
RAMP D	* 6,783 CU. YDS.
T.R. RTE. 44	* 14,825 CU. YDS.

BORROW EXCAVATION

F.A.I. RTE. 57	0 CU. YDS.
*RAMP A	0 CU. YDS.
*RAMP B	0 CU. YDS.
*RAMP C	0 CU. YDS.
*RAMP D	0 CU. YDS.
*T.R. RTE. 44	6747 CU. YDS.

*28,886 CU. YDS. OBTAINED BETWEEN STA. 797+97.65 TO STA. 806+39.27 FOR RAMPS & T.R. 44

PROFILE OF PROPOSED CROWN ON F.A.I. ROUTE 57

PROFILE OF EXISTING GROUND

PVC STA. 811+00
ELEV. 674.45
K = 60.72
A = -0.63

PVT STA. 815+00

INVERTS
666.55 LT.
667.72 MED.

INVERTS
661.56 LT.
661.30 RT.

SPEC. MEDIAN DITCH GRADE

REMOVE TOPSOIL N.B. LANE

REMOVE TOPSOIL S.B. LANE

SPEC. MEDIAN DITCH GRADE
REMOVE TOPSOIL
N.B. LANE

SPEC. DITCH LT.

SPEC. DITCH RT.

ELEV. EXISTING GROUND
ELEV. PROPOSED CROWN

STA	EXIST.	PROP.
790	670.67	670.67
91	670.86	670.86
92	671.09	671.09
93	671.21	671.21
94	671.33	671.33
795	671.57	671.57
96	671.76	671.76
97	671.93	671.93
98	672.11	672.11
99	672.29	672.29
800	672.47	672.47
01	672.65	672.65
02	672.83	672.83
03	673.01	673.01
04	673.19	673.19
05	673.37	673.37
06	673.55	673.55
07	673.73	673.73
08	673.91	673.91
09	674.09	674.09
810	674.21	674.21
11	674.20	674.20
12	674.07	674.07
13	673.89	673.89
14	673.49	673.49
815	673.17	673.17
16	672.85	672.85
17	672.53	672.53
18	672.21	672.21
19	671.89	671.89
820	671.57	671.57

F.L. 666.65
F.L. 665.77
F.L. 663.44
F.L. 662.56
F.L. 667.32
F.L. 669.72
F.L. 663.63
F.L. 663.21
F.L. 668.31
F.L. 668.78
F.L. 667.78
F.L. 666.50
F.L. 668.77
F.L. 666.70
F.L. 668.41
F.L. 668.43
F.L. 666.60
F.L. 666.28

+0.18%
-0.39%
-0.31%
+0.30%
-0.32%
-0.38%
-0.29%
-1.00%
-0.50%
-0.35%
-0.20%

PLAT | PLAN PROFILE XXXXXX COUNTY
SHEETS & LINES AS SHOWN

FEDERAL A.D. ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5 112-4	IROQUOIS	47	8
STA.	TO STA.			
BPR REG No. 4	ILLINOIS	PROJECT		

STA 24+16.30 RAMP 'A'
=STA 777+82.70 F.A.I. RTE. 57 - 57 LEFT

780' ℄ F.A.I. RTE. 57

P.I. STA. 19+45.18 RAMP 'A'
=STA. 782+61.47 F.A.I. RTE. 57 - 45.86' LT.

CURVE A-3
P.I. STA. 19+45.18
Δ = 14°-28'-16.98"
D = 01°-31'-39.45"
T = 476.19'
L = 947.31'
R = 3750.65'
E = 30.11'

CURVE A-2
P.I. STA. 11+56.89
Δ = 57°-04'-19.08"
D = 08°-18'-13.46"
T = 375.20'
L = 687.30'
R = 690.00'
E = 95.41'
S.E. = 0.083½ (REMOVE CROWN)
S.E. ATTAINED
STA. G+65.69 TO STA. 8+39.65
STA. 13+28.72 TO STA. 14+68.99
FULL S.E. STA. 8+39.65 TO STA. 13+28.72

785+00 F.A.I. RTE. 57
150' LT.

781+48 F.A.I. RTE. 57
150' LT.

P.C.C. STA. 14+68.99

NOSE STA. 14+68.99 RAMP 'A'
=STA 787+46.89 F.A.I. RTE. 57-62 LEFT

W/W FENCE

790+50 F.A.I. RTE. 57
227' LT.
R/W & A/C LINE

793+16 F.A.I. RTE. 57
408' LT.

P.C. STA. 7+81.69

P.I. STA. 3+49.36 RAMP 'A'
=STA. 36+75.28 U.S. RTE. 54 - 349.46 LT.

RAMP 'A'

CURVE A-1
P.I. STA. 3+49.36
Δ = 46°-10'-41.22"
D = 12°-50'-47.72"
T = 190.13'
L = 359.46'
R = 446.00'
E = 38.84'
S.E. = 0.083½ (REMOVE CROWN)
S.E. ATTAINED
STA. 1+09.23 TO STA. 2+83.23
STA. 4+60.69 TO STA. 6+34.69
FULL S.E. STA. 2+83.23 TO STA. 4+60.69

37+35 U.S. RTE. 54
372' LT.

STA. 36+75.28 U.S. RTE. 54
=STA. 0+00 RAMP 'A'

36+08 U.S. RTE. 54
556' LT.

38+00 U.S. RTE. 54
123' LT. - END FENCE

W/W FENCE - 1,345 LIN. FT.

150-50-150'
5.0' OFFSET

P.C. STA. 1+59.23

180'-90-180'
3.5' OFFSET

38+00 U.S. RTE. 54
120' RT. - BEGIN FENCE

STA 36+98.72 U.S. RTE. 54
=STA 18+89.22 RAMP 'B'

36+50 U.S. RTE. 54
360' RT.

CURVE B-2
P.I. STA. 15+56.70
Δ = 25°-46'-28.69"
D = 12°-50'-47.73"
T = 102.04'
L = 200.63'
R = 446.00'
E = 11.52'
S.E. = 0.08½ (REMOVE CROWN)
S.E. ATTAINED
STA. 13+42.66 TO STA. 15+10.66
STA. 15+95.72 TO STA. 17+74.42
FULL S.E. STA. 15+10.66 TO STA. 15+95.72

35+73 U.S. RTE. 54
453' RT.

STA 0+00 RAMP 'B'
=STA 817+66.23 F.A.I. RTE. 57-57 LEFT

℄ F.A.I. ROUTE 57

CURVE B-1
P.I. STA. 9+40.82
Δ = 43°-56'-55.33"
D = 08°-18'-13.45"
T = 278.42'
L = 529.26'
R = 690.00'
E = 54.05'
S.E. 0.083½ (REMOVE CROWN)
S.E. ATTAINED
STA. 11+33.66 TO STA. 13+07.66
FULL S.E. STA. 6+62.40 TO STA. 11+33.66

NOSE STA. 5+29.93 RAMP 'B'
=STA 812+36.05 F.A.I. RTE. 57-66 LEFT

P.I. STA. 15+56.70 RAMP 'B'
=STA. 35+63.81 U.S. RTE. 54 - 353.11' RT.

RAMP 'B'

P.T. STA. 11+91.66

806+80 F.A.I. RTE. 57
338 LT.

808+75 F.A.I. RTE. 57
215' LT.

P.C. STA. 6+62.40

811+08 F.A.I. RTE. 57
153' LT.

R/W & A/C LINE

W/W FENCE

814+00 F.A.I. RTE. 57
130' LT.

STA 23+53.57 RAMP 'D'
=STA 821+87.11 F.A.I. RTE. 57-57 RIGHT

CURVE B-1
P.I. STA. 9+40.82
Δ = 43°-56'-55.33"
D = 08°-18'-13.45"
T = 278.42'
L = 529.26'
R = 690.00'
E = 54.05'
S.E. 0.083½ (REMOVE CROWN)
S.E. ATTAINED
STA. 11+33.66 TO STA. 13+07.66
FULL S.E. STA. 6+62.40 TO STA. 11+33.66

P.T. STA. 5+18.69

P.I. STA. 11+56.89 RAMP 'A'
=STA. 791+28.83 F.A.I. RTE. 57 - 64.74 LT.

P.T. STA. 796+29.48

EARL W. & MARIE COX

ULRICH THEESFELD

STA 800+59.81 F.A.I. ROUTE 57
=STA 30+00.00 U.S. ROUTE 54

CURVE A-1
CURVE A-2
CURVE A-3
CURVE B-1
CURVE B-2

BUILDING REMOVAL

1-STY. FR. HSE.

BARN

SPUR LINE 'L'

℄ U.S. RTE. 54

785
790
795
800
805
810
815

℄ F.A.I. ROUTE 57

24.32'

CURVE C-1
W/W FENCE - 883 LIN. FT.

786+00 F.A.I. RTE. 57
110' RT.

P.I. STA. 3+33.54 RAMP 'C'
=STA. 787+68.29 F.A.I. RTE. 57-88.74 RT.

790+62 F.A.I. RTE. 57
R. RT. - END FENCE

R/W & A/C LINE

98+97.01 RELOC. T.R. RT.: .44
R. LT.

BEGIN CONSTRUCTION
RELOC. T.R. RTE. 44
STA. 17+74.35 BACK
STA. 98+97.01 AHEAD

CURVE F-1
P.I. STA. 103+22.83
Δ = 49°-34'-47.09"
D = 08°-11'-48.57"
T = 322.83
L = 604.87
R = 699.00'
E = 70.95'
S.E. = 0.04½ (REMOVE CROWN)
S.E. ATTAINED
STA. 98+98.00 TO STA. 100+51.00
STA. 105+48.87 TO STA. 107+16.87
FULL S.E. STA. 100+51.00 TO STA. 105+48.87

STA 0+00 RAMP 'D'
=STA 784+42.38 F.A.I. RTE. 57-57 RIGHT

17+74.35 T.R. RTE. 44
R. RT.

P.C. STA. 100+00

P.I. STA. 9+08.12 RAMP 'C'
=STA. 793+18.66 F.A.I. RTE. 57 - 112.13 RT.

℄ EXISTING T.R. RTE. 44

SPUR LINE 'M'

P.I. STA. 103+22.83 RELOC. T.R. RTE. 44
=STA. 792+71.64 F.A.I. RTE. 57 - 163.64' RT.

CLARENCE WEBER

P.I. STA. 15+12.28 RAMP 'C'
=STA. 795+64.15 F.A.I. RTE. 57 - 66' RT.

NOSE STA. 5+30.69 RAMP 'C'
=STA. 789+64.15 F.A.I. RTE. 57 - 66' RT.

P.C.C. STA. 6+65.95

21+50 T.R. RTE. 44
112 RT.

23+65 T.R. RTE. 44
283' RT.

P.T. STA. 111+32.14

P.I. STA. 106+04.87

P.I. STA. 111+05.78 RELOC. T.R. RTE. 44
=STA. 22+19.72 U.S. RTE. 54 - 255.13 LT.

BEGIN SINGLE STRAND CABLE ROAD GUARD.

CURVE F-2
P.I. STA. 111+05.78
Δ = 28°-40'-47.09"
D = 13°-03'-05.17"
T = 112.23'
L = 219.74'
R = 439.00
E = 14.12'
S.E. = 0.04½ (REMOVE CROWN)
S.E. ATTAINED
STA. 108+81.55 TO STA. 110+49.55
STA. 111+19.66 TO STA. 112+87.66
FULL S.E. STA. 110+49.55 TO STA. 111+19.66

P.I. STA. 15+12.28 RAMP 'C'
=STA. 795+63.85 U.S. RTE. 54 - 349.38' LT.

SINGLE STRAND CABLE ROAD GUARD

STA. 23+62.03 U.S. RTE. 54
=STA. 18+55.29 RAMP 'C'

180'-90-180'
5.0' OFFSET
R.C.

CURVE F-2

P.C. STA. 13+98.00

P.I. STA. 1+59.97

P.I. STA. 24+30.00

P.I. STA. 3+72.13 RAMP 'D'
=STA. 23+23.43 U.S. RTE. 54 - 371.18' RT.

P.C. STA. 8+19.31

P.C. STA. 122+49.38

37+23 T.R. RTE. 44
277' RT.

P.T. STA. 5+56.03

P.I. STA. 16+21.75

P.I. STA. 24+30.00

P.C. STA. 16+55.29

P.T. STA. 14+54.66

P.C. STA. 14+54.66

P.T. STA. 16+55.29

P.I. STA. 1+59.97

P.C. STA. 1+59.23

P.T. STA. 1+09.23

P.C. STA. 1+59.23

P.I. STA. 3+49.36 RAMP 'A'
=STA. 36+75.28 U.S. RTE. 54 - 349.46 LT.

RAMP 'A'

CURVE A-1

CURVE A-2

CURVE A-3

CURVE B-2

RAMP 'B'

CURVE B-1

RAMP 'D'

CURVE D-1

CURVE D-2

CURVE F-3

CURVE F-4

CURVE C-1

CURVE C-2

CURVE C-3

CURVE F-1

CURVE F-2

CURVE C-2
P.I. STA. 9+08.12
Δ = 38°-45-09.10"
D = 08°-18'-13.46"
T = 242.67'
L = 466.69'
R = 690.00'
E = 41.43'
S.E. = 0.083½ (REMOVE CROWN)
S.E. ATTAINED
STA. 10+74.1470 STA. 12+48.14
FULL S.E. STA. 6+65.45 TO STA. 10+74.14

CURVE C-3
P.I. STA. 15+12.28
Δ = 28°-44'-38.55"
D = 12°-50'-47.73"
T = 114.28'
L = 223.75'
R = 446.00
E = 14.24'
S.E. = 0.08½ (REMOVE CROWN)
S.E. ATTAINED
STA. 12+86.00 TO STA. 14+54.00
STA. 15+63.38 TO STA. 17+38.49
FULL S.E. STA. 14+54.00 TO STA. 15+63.38

CURVE DATA F.A.I. RTE. 57
P.I. STA. 762+44.84
Δ = 43°-48'-19.20"
D = 01°-30'-00"
T = 1535.72'
L = 2920.36'
R = 3819.72'
E = 297.17'
S.E. = 0.017½ (REMOVE CROWN)
S.E. ATTAINED
STA. 765+75.12 TO STA. 767+75.12
STA. 795+63.48 TO STA. 797+63.48
FULL S.E. STA. 767+75.12 TO STA. 795+63.48

STA. 21+01.3
C.A. = 130°

END SINGLE STRAND CABLE ROAD GUARD

P.C. STA. 109+33.55

22+55 U.S. RTE. 54
390' LT.

21+53 U.S. RTE. 54
273' LT.

P.T. STA. 112+73.39

STA. 22+23.3
C.A. = 80°

2 STY. FR. HSE. BUILDING REMOVAL

BARN

STA 28+51.00 U.S. RTE. 54
=STA 30+00.00 EXISTING T.R. RTE. 44

P.I. STA. 11+29.87 RAMP 'D'
=STA. 809+25.85 F.A.I. RTE. 57 - 80.23 RT.

℄ EXISTING T.R. RTE. 44

SPUR LINE 'M'

P.I. STA. 125+71.24 RELOC. T.R. RTE. 44
=STA. 809+50.61 F.A.I. RTE. 57 - 144.29 RT.

ULRICH THEESFELD

NURSERY STOCK

P.T. STA. 27+30.00

P.C. STA. 21+30.00

21+00 U.S. RTE. 54
85' RT.

BEGIN SINGLE STRAND CABLE ROAD GUARD

P.C. STA. 21+30.00

21+90 U.S. RTE. 54
315' RT.

P.C. STA. 116+85.42

STA 21+26.93 U.S. RTE. 54
=STA 119+72.55 RELOC. T.R. RTE. 44

22+55 U.S. RTE. 54
435' RT.

P.I. STA. 118+06.74 RELOC. T.R. RTE. 44
=STA. 22+75.60 U.S. RTE. 54 - 407.97' RT.

23+38 U.S. RTE. 54
555' RT.

P.T. STA. 119+21.98

CURVE D-1
P.I. STA. 3+72.13
Δ = 50°-52'-50.75"
D = 12°-50'-47.73"
T = 218.16'
L = 396.06'
R = 446.00'
E = 47.89'
S.E. = 0.083½ (REMOVE CROWN)
S.E. ATTAINED
STA. 1+09.23 TO STA. 2+83.23
STA. 4+98.03 TO STA. 6+72.03
FULL S.E. STA. 2+83.23 TO STA. 4+98.03

CURVE D-2
P.I. STA. 11+29.87
Δ = 48°-36'-08.52"
D = 08°-18'-13.46"
T = 311.56'
L = 585.31
R = 690.00'
E = 67.08'
S.E. = 0.083½ (REMOVE CROWN)
S.E. ATTAINED:
STA. 7+02.31 TO STA. 8+76.31
STA. 12+63.35 TO STA. 14+03.62
FULL S.E. STA. 8+76.31 TO STA. 12+63.35

CURVE DATA U.S. RTE. 54
P.I. STA. 24+30.00
Δ = 00°-06'-00"
D = 00°-01'-00"
T = 300.00'
L = 600.00'
R = 343,774.68'
E = 0.13'
S.E. = 0.00

NOTE: ROW FENCE & SINGLE STRAND GUARD IS TO BE ERECTED UNDER SECTION 38-5.

STA 23+23.43 U.S. RTE. 54
=STA. 0+00 RAMP 'D'
150'-50'-150'
5.0' OFFSET

STA 21+69.72 U.S. RTE. 54
=STA 18+89.22 RAMP 'B'

STA 18+89.22 RAMP 'B'
=STA 817+66.23 F.A.I. RTE. 57-57 LEFT

STA 23+53.57 RAMP 'D'
=STA 821+87.11 F.A.I. RTE. 57-57 RIGHT

STA 821+87.11 F.A.I. RTE. 57-57 RIGHT
=STA 812+36.05 F.A.I. RTE. 57-66 LEFT

NOSE STA. 14+03.62 RAMP 'D'
=STA 812+37.06 F.A.I. RTE. 57-62 LEFT

P.T. STA. 14+03.62

P.T. STA. 12+52.64

RELOC. T.R. RTE. 44
STA. 129+55.63 BACK
STA. 43+18.80 AHEAD

129+55.63 RELOC. T.R. RTE. 44
R. RT.

CURVE F-3
P.I. STA. 118+06.74
Δ = 30°-50'-53.69"
D = 13°-03'-05.17"
T = 121.12'
L = 236.36'
R = 439.00'
E = 16.40'
S.E. 0.04½ (REMOVE CROWN)
S.E. ATTAINED:
STA. 115+73.62 TO STA. 117+41.62
STA. 118+65.98 TO STA. 120+33.98
FULL S.E. STA. 117+41.62 TO STA. 119+65.98

END SINGLE STRAND CABLE ROAD GUARD

BEGIN WOVEN WIRE FENCE.

CURVE F-4
P.I. STA. 125+71.24
Δ = 49°-26'-54.09"
D = 08°-11'-48.56"
T = 321.66'
L = 603.26'
R = 695.00'
E = 70.54'
S.E. 0.04½ (REMOVE CROWN)
S.E. ATTAINED
STA. 121+37.38 TO STA. 123+05.38
STA. 127+96.64 TO STA. 129+64.64
FULL S.E. STA. 123+05.38 TO STA. 127+96.64

39+87
ROW 106.77

+80

+00

F.A.I. ROUTE 57 SECTION 38-5

IROQUOIS COUNTY

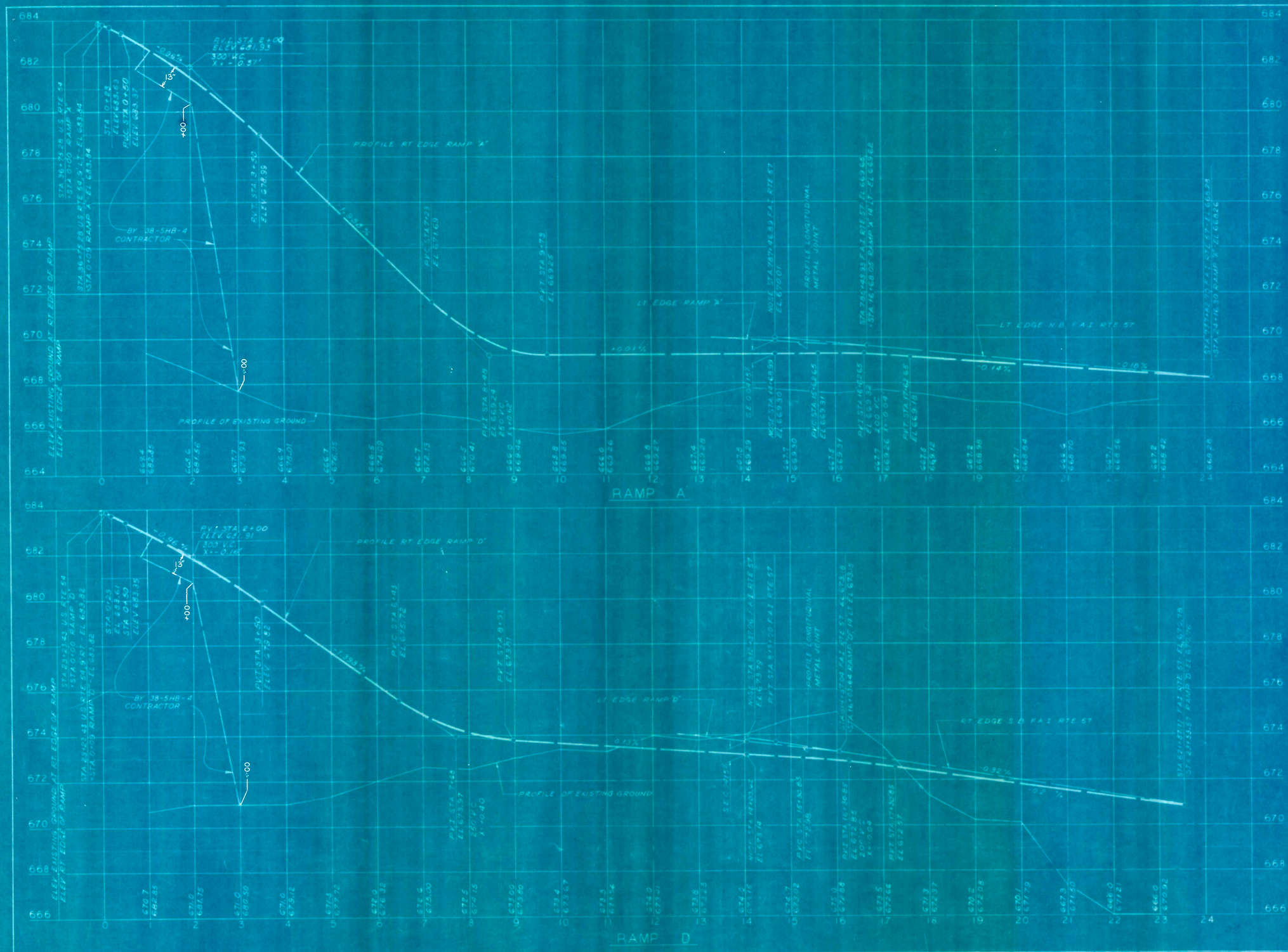
GEOMETRICS & R.O.W.

U.S. ROUTE 54 INTERCHANGE

SCALE: 1" = 100'

DRAWN BY: G.H.S.

FEDERAL AID PROJECT | STATE | COUNTY
57 38-5 IROQUOIS 47 9
STA. TO STA.
BPR REG No 4 | LETTER | PROJECT



FAI ROUTE 57 SECTION 38-5

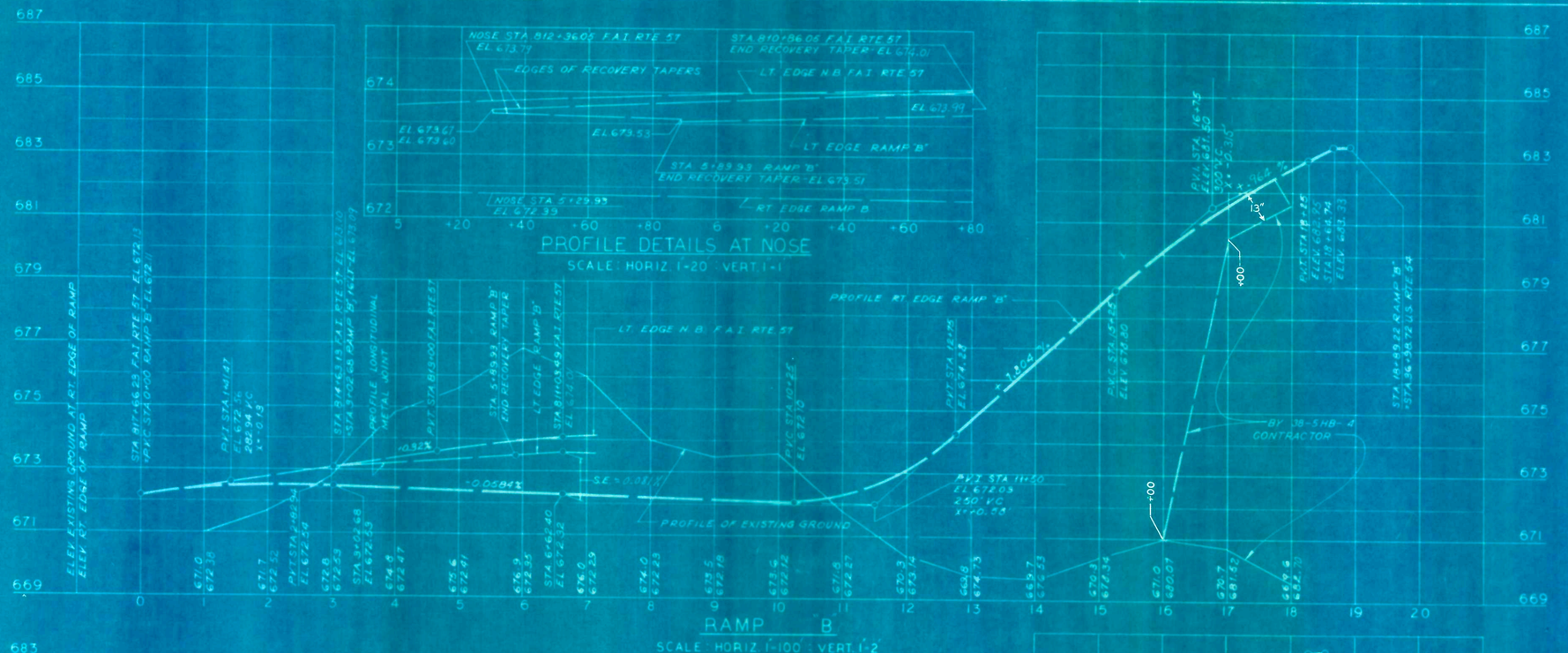
IROQUOIS COUNTY

PROFILES
RAMP A & RAMP D
U.S. ROUTE 54 INTERCHANGE

SCALE HORIZ. 1"=100
VERT. 1"=2-0

DRAWN BY GHS

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5 HB-4	IROQUOIS	47	10
STA.		TO STA.		
APPROVED	ILLINOIS	PROJECT		



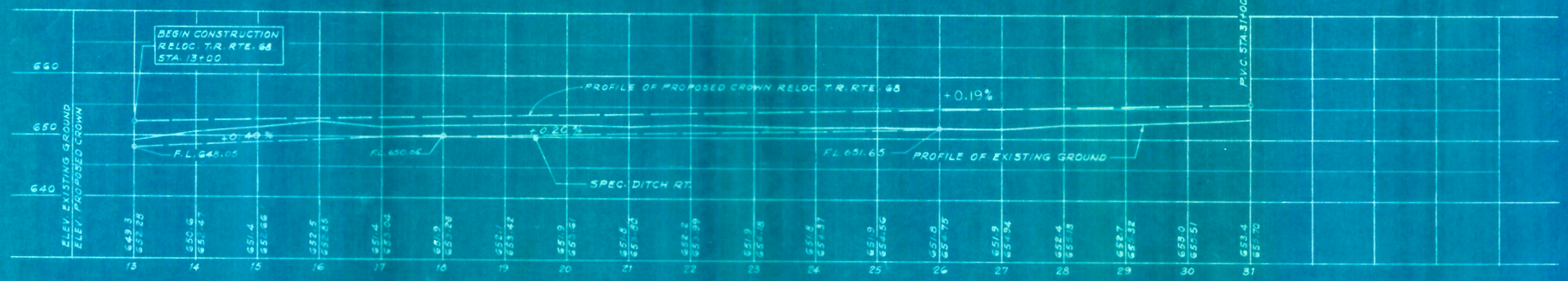
F.A.I. ROUTE 57 SECTION 38-5

IROQUOIS COUNTY

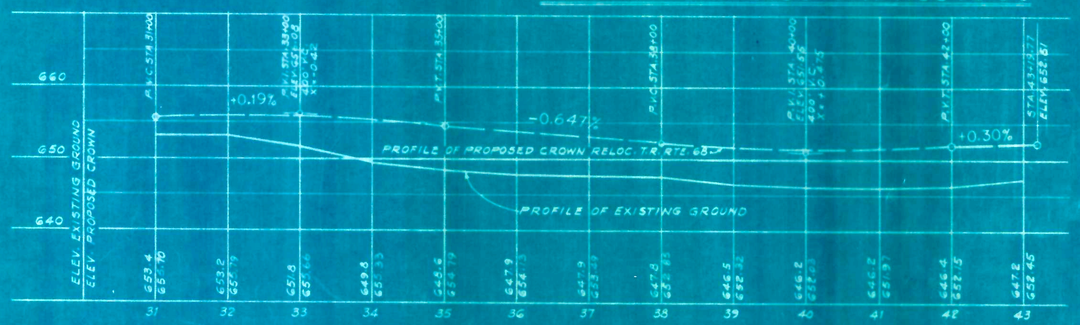
PROFILES
RAMP 'B' & RAMP 'C'
U.S. ROUTE 54 INTERCHANGE

SCALE AS NOTED DRAWN BY G.H.S.

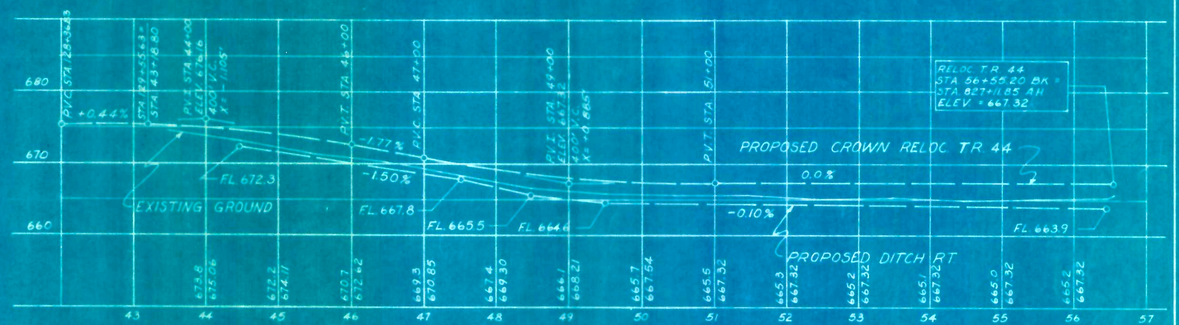
FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5 HB-4	IROQUOIS	47	11
STA.	TO STA.			
3PRREG 464	ILLINOIS	PROJECT		



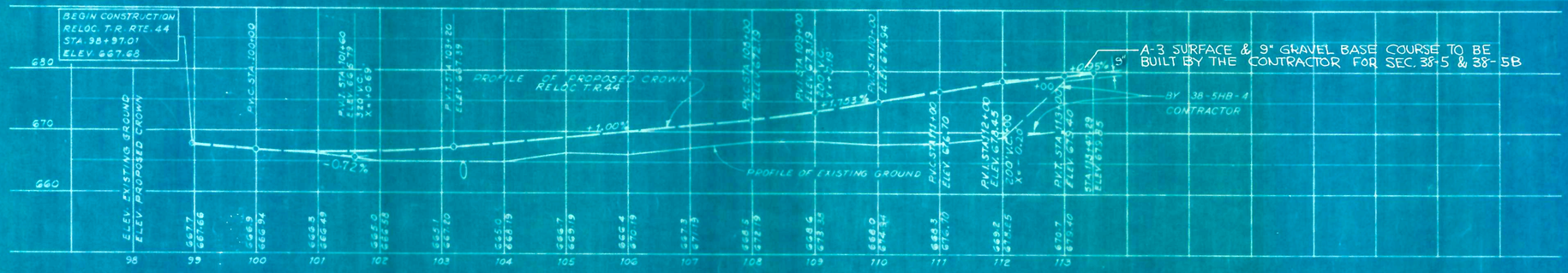
PROFILE OF RELOC. T.R. ROUTE 68



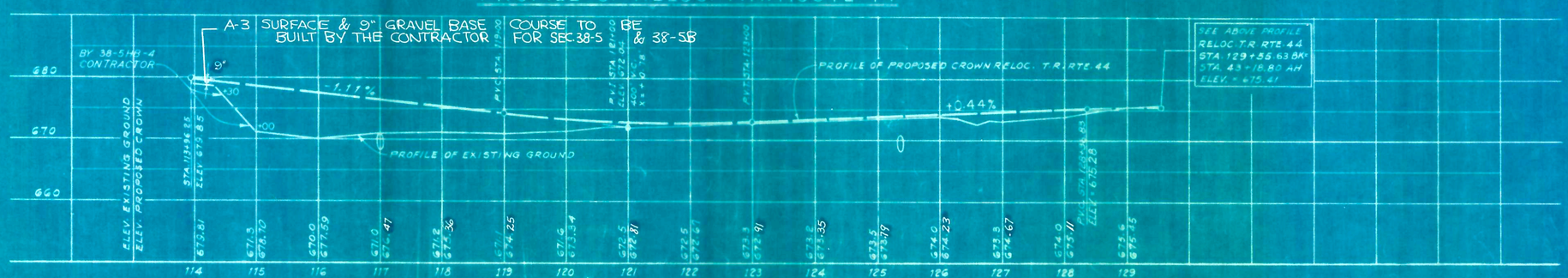
PROFILE OF RELOC. T.R. ROUTE 68



PROFILE OF RELOCATED T.R. ROUTE 44



PROFILE OF RELOC. T.R. ROUTE 44



PROFILE OF RELOC. T.R. ROUTE 44

F.A.I. ROUTE 57 SECTION 38-5

IROQUOIS COUNTY

PROFILES OF RELOC. T.R. ROUTE 68 RELOC. T.R. ROUTE 44

SCALE: HOR: 1"=100' VER: 1"=10'

DRAWN BY: R.R.

FEDERAL AID ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET No.
57	38-5 HB-4	IROQUOIS	47	12
STA.		TO STA.		
APP. REG. No. 4	ILLINOIS	PROJECT		

RAMP 'A'

STA 11+00
P2A-RCCP
42"x 70'
2-HDWLS. STD. 1997 D42-2

U.S. RTE. 54

* STA. 29+07
P2A
36"x141'

* STA 30+94
P2A
36"x144'

* STA 38+00
P2A-RCCP
36"x 162
2-HDWLS. STD. 1976 D36-2

RAMP 'B'

STA. 14+13 RT.
FARM TILE TO BE OUTLETTED IN DITCH
1-SPEC. HDWL. REQ'D

STA. 9+00
P1A- RCCP
24"x 51
2-HDWLS. STD. 1976 D24-2

F.A.I. RTE. 57

STA. 793+42
P2A-RCCP
36"x 176'
2-HDWLS. STD. 1976 D36-2
1-MOD. 1858 R INLET
F.L. GG5.77
INV. GG1.35

STA. 799+87.4 RT 91.5'
1 HDWL. STD. 205108 36-2 25° SKEW

STA. 799+89.3 LT. 95.5'
1 HDWL. STD. 205108 36-2 25° SKEW

STA. 801+27.9 RT. 94.5'
1 HDWL. STD 205108 36-2 25° SKEW

STA. 801+32.8 LT. 92.5
1 HDWL. STD. 205108 36-2 25° SKEW

STA. 804+00 LT.
P2A-RCCP
24"x66'
2-HDWLS. STD. 1976 D24-2

RAMP 'C'

STA. 9+00
P2A-RCCP
36"x 69'
2-HDWLS. STD 1976 D36-2

RELOC. T.R. RTE. 44

STA. 103+36
P1A
36"x 45'
2-HDWLS. STD. 1976 D36-2

RAMP 'D'

* STA. 2+78
P3A-RCCP
24"x 112
2-HDWLS STD. 1976 D24-2 (BY OTHERS)

STA. 11+00
P2A-RCCP
24"x 66'
2-HDWLS. STD. 1976 D24-2

RELOC. T.R. RTE. 44

STA. 117+00
P2A
24"x 59
2-HDWLS. STD. 1976 D24-2

STA. 125+38
P2A
24"x 48'
2-HDWLS. STD. 1976 D24-2

NOTE:
* BY CONTRACTOR FOR SECTION 38-5 HB-4

F.A.I. ROUTE 57 SECTION 38-5

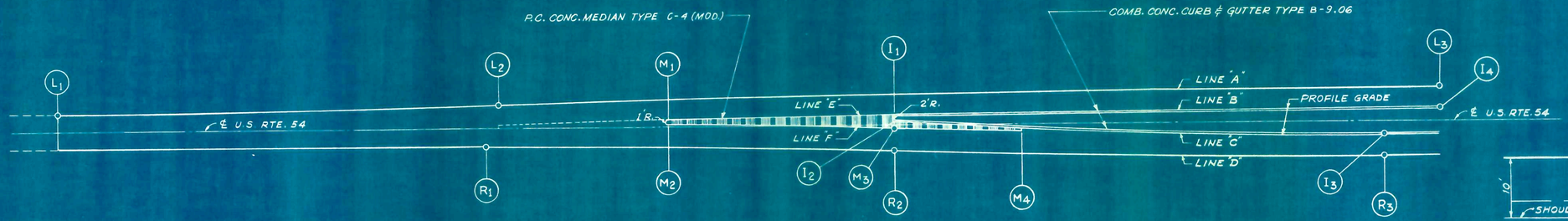
IROQUOIS COUNTY

DRAINAGE

U.S. ROUTE 54 INTERCHANGE

SCALE: 1"=100' DRAWN BY: R.R.

FEDERAL AID ROUTE No.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5 HB-4	IROQUOIS	47	13
B.F.H. REG. NO. 4	ILLINOIS (PROJECT)			



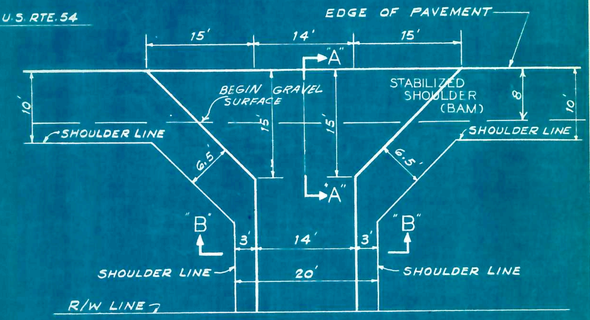
STAKING PLAN AND GEOMETRICS
CHANNELIZED APPROACHES
SCALE: 1" = 40'

APPROACH OFFSETS — FROM CENTERLINE

CONTROL POINT	STATION	STATION	OFFSETS TO CONTROL LINES					
			LINE A	LINE E	LINE B	LINE C	LINE F	LINE D
L1	11+53.58	46+44.98	12.00					12.00
	11+78.58	46+19.98	12.03					12.00
	12+03.58	45+94.98	12.10					12.00
	12+28.58	45+69.98	12.23					12.00
	12+53.58	45+44.98	12.41					12.00
	12+78.58	45+19.98	12.64					12.00
	13+03.58	44+94.98	12.92					12.00
	13+28.58	44+69.98	13.25					12.00
	13+53.58	44+44.98	13.63					12.00
	13+78.58	44+19.98	14.07					12.00
	14+03.58	43+94.98	14.55					12.00
	14+28.58	43+69.98	15.09					12.00
R1	14+40.01	43+58.55	15.35					12.00
L2	14+47.97	43+50.59	15.54					12.00
	14+53.58	43+44.98	15.67					12.01
	14+78.58	43+19.98	16.25					12.10
	15+03.58	42+94.98	16.81					12.27
	15+28.58	42+69.98	17.34					12.53
	15+53.58	42+44.98	17.85					12.88
M1 M2	15+61.39	42+37.17	18.00	4.00			- 2.00	13.00
	15+76.58	42+19.98	18.33	4.33			- 1.70	13.30
	16+03.58	41+94.98	18.79	4.79			- 1.18	13.82
	16+28.58	41+69.98	19.23	5.22			- .59	14.41
	16+53.58	41+44.98	19.64	5.64			.10	15.10
	16+78.58	41+19.98	20.03	6.02			.86	15.86
	17+03.58	40+94.98	20.39	6.39			1.72	16.72
I1 I2 M3 R2	17+11.39	40+87.17	20.50	6.50	6.50	- 2.50	2.00	17.00
	17+28.58	40+69.98	20.73		6.73	- 1.32	2.62	17.62
	17+53.58	40+44.98	21.05		7.05	.29	3.45	18.45
	17+78.58	40+19.98	21.34		7.34	1.76	4.22	19.22
M4	17+96.25	40+02.31	21.53		7.53	2.72	4.72	19.72
	18+03.58	39+94.98	21.61		7.61	3.09		19.92
	18+28.58	39+69.98	21.86		7.86	4.29		20.54
	18+53.58	39+44.98	22.08		8.08	5.35		21.10
	18+78.58	39+19.98	22.28		8.28	6.28		21.58
	19+03.58	38+94.98	22.45		8.45	7.07		21.99
	19+28.58	38+69.98	22.60		8.60	7.73		22.33
	19+53.58	38+44.98	22.73		8.73	8.25		22.61
	19+78.58	38+19.98	22.83		8.83	8.63		22.81
	20+03.58	37+94.98	22.91		8.91	8.88		22.94
	20+28.58	37+69.98	22.96		8.96	8.99		23.00
I3 R3	20+37.05	37+61.51	22.97		8.97	9.00		23.00
	20+53.58	37+44.98	22.99		8.99	9.00		23.00
L3 I4	20+73.55	37+25.01	23.00		9.00	9.00		23.00

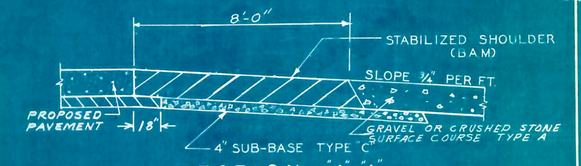
APPROACH LONGITUDINAL DIMENSIONS

	L1	L2	L3	R1	R2	R3	M2	M3	M4	M1	I1	I4	I2	I3
STATION	11+53.58	14+47.97	20+73.55	14+40.01	17+11.39	20+37.05	15+61.39	17+11.39	17+96.25	15+61.39	17+11.39	20+73.55	17+11.39	20+37.05
STATION	46+44.98	43+50.59	37+25.01	43+58.55	40+87.17	37+61.51	42+37.17	40+87.17	40+02.31	42+37.17	40+87.17	37+25.01	40+87.17	37+61.51
RADIUS		12242.46	26233.22		7367.05	8840.87		7382.05	8825.87		26219.22	26219.22		4616.81

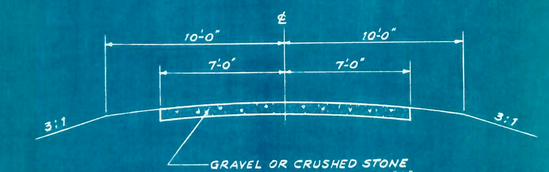


PLAN
SCALE: 1" = 10'

PRIVATE ENTRANCE AND FIELD ENTRANCE DETAILS



SECTION "A-A"
SCALE: 3/8" = 1'-0"



SECTION "B-B"
SCALE: 1/4" = 1'-0"

BAR SCHEDULE FOR 1 - 14' x 40' 16 1/2" - 10 1/2" - 16 1/2" APP. SLAB				
NO.	SIZE	LENGTH	SHAPE	WEIGHT
66	# 5	13' 6"	STRAIGHT	929
44	# 8	21' 4"	⊂ ⊃	2506
18	# 8	17' 4"	⊂ ⊃	833
		TOTAL WEIGHT		4268

BAR SCHEDULE FOR 1 R.C. CAP				
NO	SIZE	LENGTH	SHAPE	WEIGHT
14	# 4	5'	□	47
8	# 8	13' 9"	STRAIGHT	293
		TOTAL WEIGHT		340

F.A.I. ROUTE 57 SECTION 38-5 HB-4

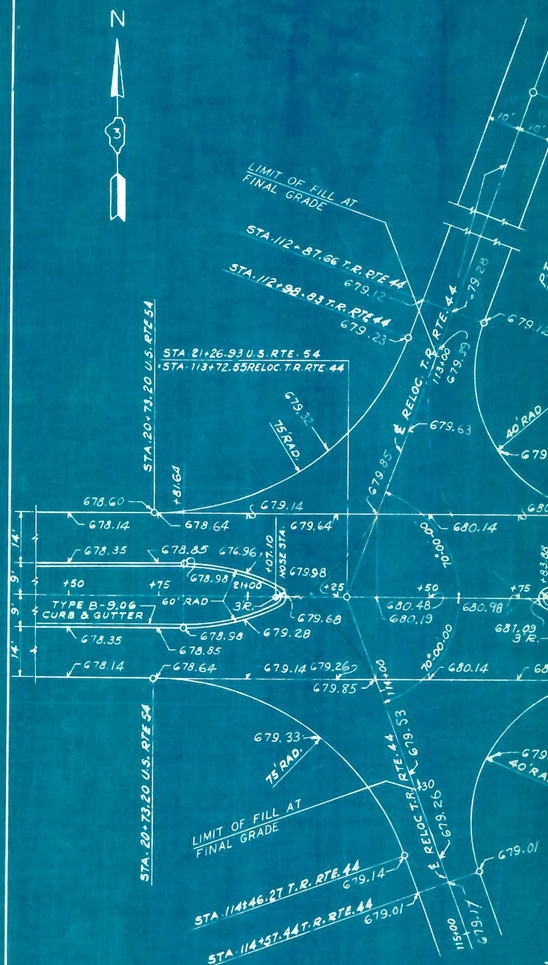
IROQUOIS COUNTY

CHANNELIZED APPROACHS & DETAILS

U.S. ROUTE 54 INTERCHANGE

SCALE: AS NOTED DRAWN BY: R.R.

FEDERAL AID ROUTE No.	S.C.	COUNTY	TOTAL SHEETS	SHEET No.
57	38-5 HB-4	IROQUOIS	47	14
STA.	TO STA.			
BPR Reg. No. 4	ILLINOIS	PROJECT		



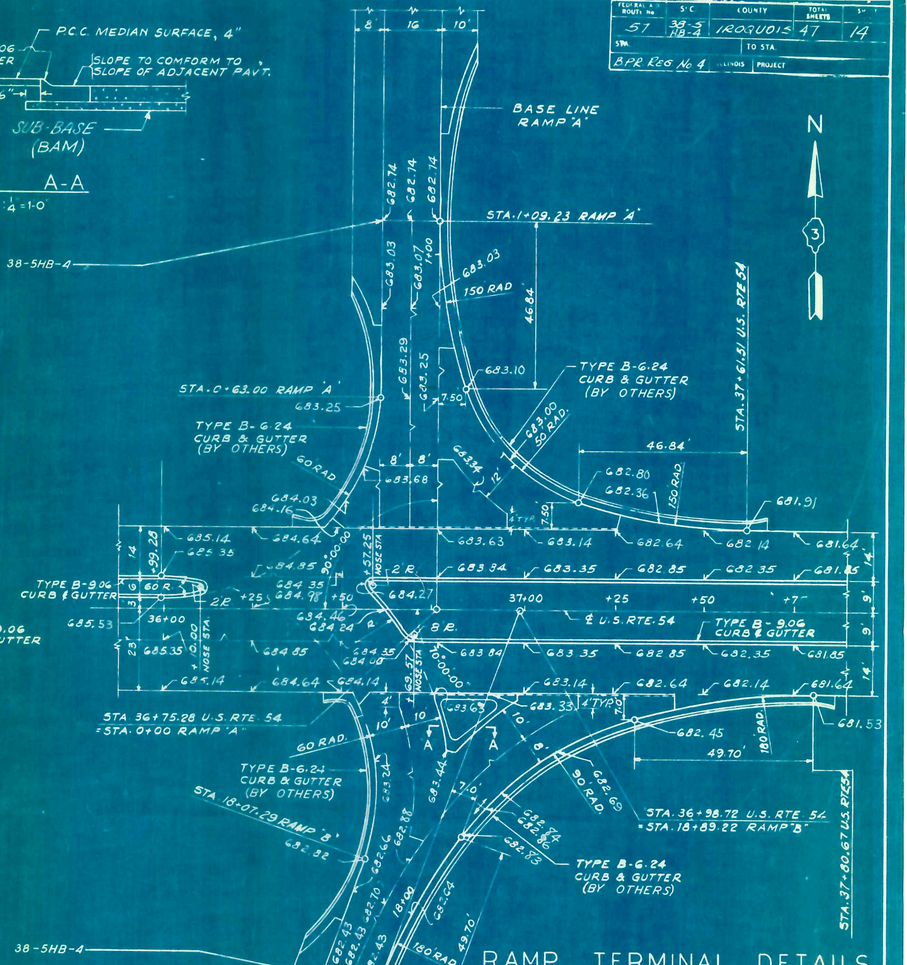
RAMP TERMINAL DETAILS

RAMP C", RAMP D" & RELOC. T.R. RTE. 44

SCALE: 1"=20'

SECTION A-A

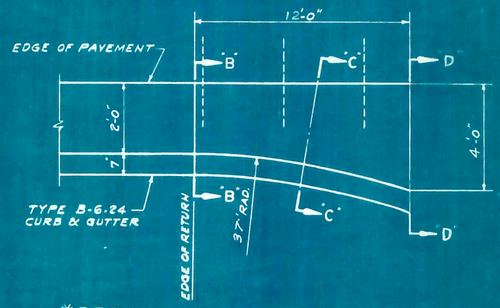
SCALE: 1"=1'-0"

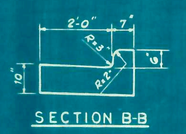


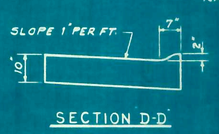
RAMP TERMINAL DETAILS

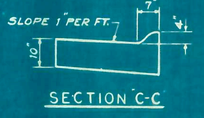
RAMP "A" & RAMP "B"

SCALE: 1"=20'









*DETAIL OF FLARED ENDING FOR COMBINATION CURB AND GUTTER TYPE B-6.24

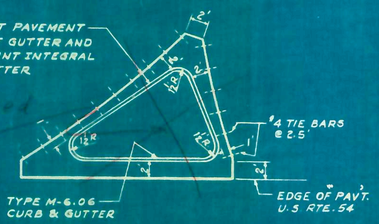
SCALE: ½"=1'-0"

NOTE:
THE FLARED ENDING FOR COMBINATION CURB AND GUTTER TYPE B-6.24 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.24.

*NOTE: RAMP CURB AND GUTTER TYPE B-6.24 BY OTHERS.

NOTE:
THE CONTRACT UNIT PRICE FOR PORTLAND CEMENT CONCRETE PAVEMENT 9" SHALL INCLUDE THE INSTALLATION OF #4 TIE BARS ACCORDING TO STD. 2130 FOR THE TYPE B-6.24 CURB AND GUTTER.

NOTE: CONSTRUCT PAVEMENT BETWEEN EDGE OF GUTTER AND CONSTRUCTION JOINT INTEGRAL WITH CURB & GUTTER.



ISLAND DETAIL

SCALE: ⅜"=1'-0"

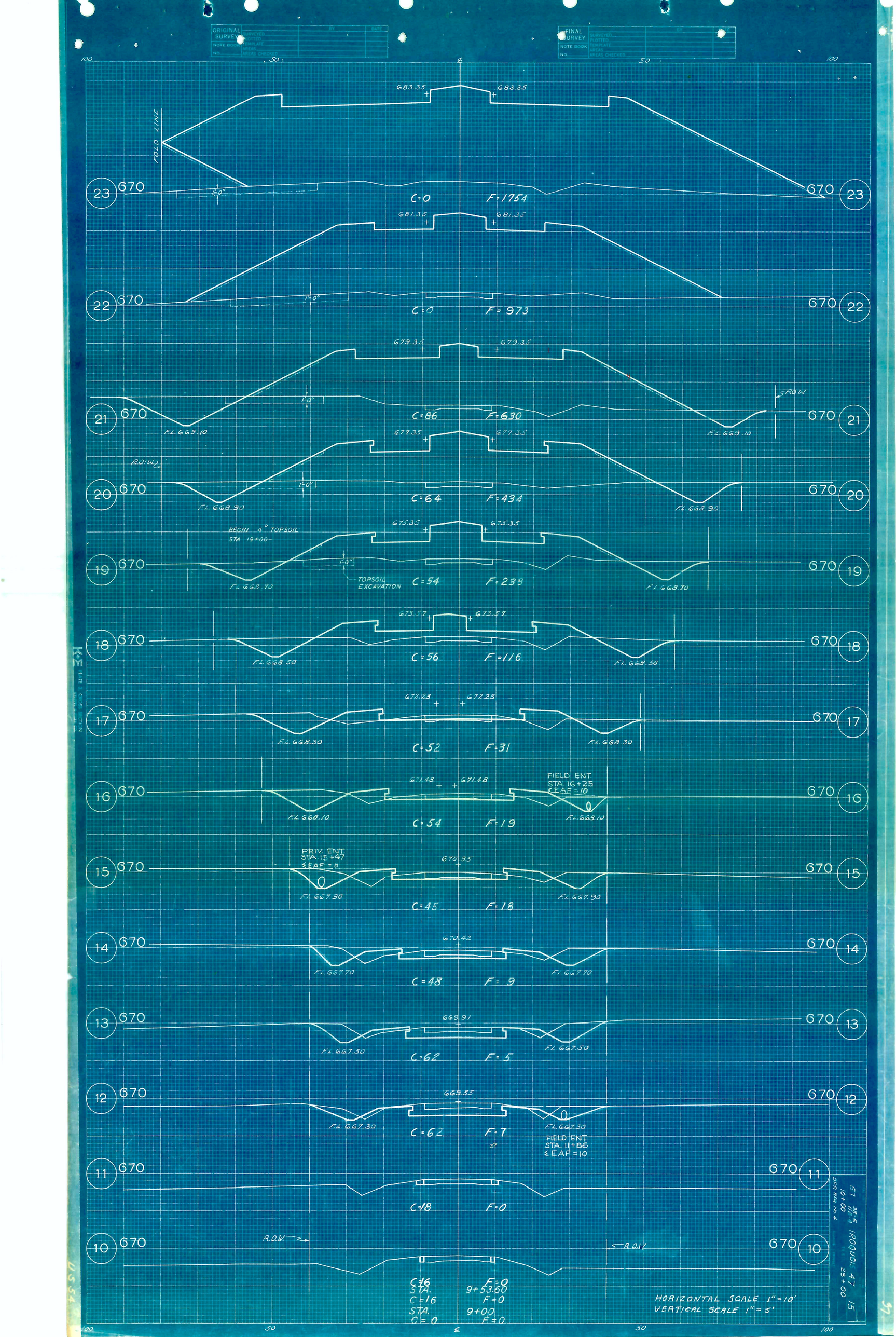
F.A.I. ROUTE 57 SECTION 38-5

IROQUOIS COUNTY

DETAILS

U.S. ROUTE 54 INTERCHANGE

SCALE: AS NOTED DRAWN BY: R.R.


ORIGINAL SURVEY
FINAL SURVEY
100
50
℄
50
100
FOLD LINE
683.35
683.35
23 670
F-0"
C=0
F=1754
670 23
681.35
681.35
22 670
F-0"
C=0
F=973
670 22
679.35
679.35
21 670
F-0"
C=86
F=630
℄ ROW
F.L. 669.10
F.L. 669.10
670 21
677.35
677.35
R.O.W.
20 670
F-0"
C=64
F=434
F.L. 668.90
F.L. 668.90
670 20
BEGIN 4" TOPSOIL
STA 19+00
675.35
675.35
19 670
F-0"
TOPSOIL EXCAVATION
C=54
F=239
F.L. 668.70
F.L. 668.70
670 19
673.57
673.57
18 670
C=56
F=116
F.L. 668.50
F.L. 668.50
670 18
672.28
672.23
17 670
F.L. 668.30
C=52
F=31
F.L. 668.30
670 17
671.48
671.48
FIELD ENT.
STA. 16+25
℄ EAF = 10
16 670
F.L. 668.10
C=54
F=19
F.L. 668.10
670 16
PRIV. ENT.
STA. 15+47
℄ EAF = 8
670.95
15 670
F.L. 667.90
F.L. 667.90
C=45
F=18
670 15
670.42
14 670
F.L. 667.70
F.L. 667.70
C=48
F=9
670 14
669.91
13 670
F.L. 667.50
F.L. 667.50
C=62
F=5
670 13
669.55
12 670
F.L. 667.30
F.L. 667.30
C=62
F=7
FIELD ENT.
STA. 11+86
℄ EAF = 10
670 12
11 670
C=18
F=0
670 11
R.O.W.
℄ R.O.W.
10 670
C=16
STA.
C=16
STA.
C=0
F=0
9+53.60
F=0
9+00
F=0
670 10
HORIZONTAL SCALE 1"=10'
VERTICAL SCALE 1"=5'
SHEET NO. 57
TOTAL SHEETS 71
0+00
23+00
47.15
100
50
℄
50
100

57 38-5 IROQUOIS 47 16
118-4
24+00 28+89
BPR Region 4

28+89

670

F.L. 666.00

4' TOPSOIL

3:1

STA. 29+07
INV. 665.85

692.10

STA. 29+07
C=71
F=0

STA. 29+00
C=71
F=0

EMBANKMENT FOR ABUTMENT CONES

F=44

C=71

1:2

TOPSOIL EXCAVATION

STA. 29+07
INV. 665.64

691.55

STA. 28+29
C=71
F=44

F=465

F.L. 665.59

F.L. 665.79

SEE SHEET NO. 19

M/L

FOLD LINE

F.L. 666.21

690.55

C=81

F=3104

F.L. 666.45

689.15

296' RT OF STA 799+00

LIMITS OF CUT SHOWN ON CROSS SECTIONS

F.L. 666.02

CUT BEYOND DASHED BACKSLOPE IS INCLUDED IN THIS CONTRACT. SEE BALANCE POINTS FOR THE LUMP SUM QUANTITY.

C=90

F=2619

F.L. 666.69

687.35

F.L. 666.25

C=128

F=2033

F.L. 666.93

685.35

STATION 24+00

BEGIN SOD

F.L. 666.48

C=0

F=1566

28
89

28

27

26

25

24

50

PLATE 3. CROSS SECTION OF P.R.R. & R.F. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
P. & E. Co. No. 46-30

U.S. 54

ORIGINAL SURVEY — SURVEYED — BY — DATE — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — NOTE BOOK — NO.

FINAL SURVEY — SURVEYED — BY — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — NOTE BOOK — NO.

50 ℄ 50

687.35 687.35

FOLD LINE — FOLD LINE

35 — 670 — 35

M/L — SEE SHEET NO. 20 — 1'-0"

F.L. 666.63 — TOPSOIL EXCAVATION

C=79 F=2350

802+00 LT OF STA. 498' — LIMIT OF CUT SHOWN ON CROSS SECTIONS

F.L. 666.82

689.15 689.15

4" TOPSOIL

34 — 670 — 34

SEE SHEET NO. 20

F.L. 666.18

C=59 F=2889

802+00 LT OF STA. 398' — LIMIT OF CUT SHOWN ON CROSS SECTIONS

F.L. 666.57

690.55 690.55

33 — 670 — 33

SEE SHEET NO. 20

F.L. 665.73

C=64 F=3273

802+00 LT OF STA. 298' — LIMIT OF CUT SHOWN ON CROSS SECTIONS

F.L. 666.32

691.55 691.55

3:1 — 3:1

EMBANKMENT FOR ABUTMENT CONES

32 — 670 — 32

SEE SHEET NO. 19

F.L. 665.28

C=91 F=465

802+00 LT OF STA. 198' — LIMIT OF CUT SHOWN ON CROSS SECTIONS

F.L. 666.07

692.10 692.10

STA. 31+71

C=86 F=45

EMBANKMENT FOR ABUTMENT CONES

2:1 — 2:1

31 — 11 — 670 — 31 — 11

SEE SHEET NO. 19

F.L. 664.87

C=86 F=45

802+00 LT OF STA. 108' — LIMIT OF CUT SHOWN ON CROSS SECTIONS

F.L. 665.84

CUT BEYOND DASHED BACKSLOPE IS INCLUDED IN THIS CONTRACT. SEE BALANCE POINTS FOR THE LUMP SUM QUANTITY.

STA. 31+00

C=86 F=0

STA. 30+94

C=86 F=0

INV. 665.00

F.L. 664.80 STA. 30+94

INV. 665.60

F.L. 665.80 STA. 30+94

30 — 670 — 30

US 54

ST. RTE. 4 IROQUOIS 47 17

30+00 to 35+00

DPR SEC. No. 4

50 ℄ 50

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE — NOTE BOOK — NO.

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE — NOTE BOOK — NO.

100 50 R.O.W. ℄ 50 100

STA. 48+44.98

48 670 — PRIV. ENT. STA 48+00 — C=16 F=0 — ℄ R.O.W. — 670 48

47 670 — EXISTING PIPE — C=16 F=0 — FL 667.89 — FL 668.10 — 670 47

C=48 F=0

46 670 — FIELD ENT. STA. 44+50 ℄ EAF =14 — 669.95 — FL 667.19 — FL 667.56 — 670 46

C=63 F=4

45 670 — 669.88 — PRI. ENT. STA 45+00 ℄ EAF = 12 — FL 666.49 — ℄ 667.02 — 670 45

C=100 F=2

44 670 — 670.34 — FL 665.79 — FL 666.48 — 670 44

C=62 F=26

43 670 — 671.51 — FL 665.09 — FL 665.94 — 670 43

C=140 F=68

42 670 — 673.35 673.35 — INV 665.00 — INV 665.30 — FL 664.88 — FL 665.40 — 670 42

C=195 F=171

41 670 — END 4" TOPSOIL STA 41+30 — 675.35 675.35 — PRI. ENT. STA. 41+55 ℄ EAF = 128 — PRI. ENT. STA 41+55 ℄ EAF = 129 — 1'-0" — TOPSOIL EXCAVATION — FL 664.67 — ℄ 666.92 — 670 41

C=185 F=322

40 675 — 677.35 677.35 — 5 R.O.W. — 1'-0" — FL 664.46 — FL 668.44 — 675 40

C=165 F=561

39 675 — 679.35 679.35 — 1'-0" — 681.35 681.35 — FL 664.25 — FL 666.70 — R.O.W. ℄ — 675 39

C=189 F=890

38 675 — 1'-0" — INV. 664.24 — INV 664.76 — 664.06 — FL 664.96 — 675 38

C=218 F=1183

37 675 — 683.35 683.35 — END SOD STATION 37+00 — FOLD LINE — 1'-0" — FOLD LINE — 675 37

C=0 F=1942

36 675 — 685.35 685.35 — FOLD LINE — 1'-0" — FOLD LINE — 675 36

C=0 F=1884

100 50 ℄ 50 100

51 IROQUOIS 47 18
36+00 48+00
F.A.R. Rte. No. 4 ILLINOIS PROJECT

250 200 150 100 50

57 38-5 HB-4 IROQUOIS 47 19

US 54 ℄

32 + 00 670

31 + 11 670

28 + 89 670

28 + 00 670

26 + 00 670

25 + 00 670

670 32 + 00

670 31 + 11

670 28 + 89

670 28 + 00

670 26 + 00

670 25 + 00

M/L LIMIT OF CUT SHOWN ON CROSS SECTIONS

204' LT OF STA. 799+00 — SEE SHEET NO. 17

115' LT OF STA. 799+00 — SEE SHEET NO. 17

101' RT. OF STA. 799+00 — SEE SHEET NO. 16

196' RT OF STA. 799+00 — SEE SHEET NO. 16

396' RT OF STA. 799+00 — SEE SHEET NO. 16

496' RT OF STA. 799+00 — SEE SHEET NO. 16

CUT BEYOND DASHED BACKSLOPE IS INCLUDED IN THIS CONTRACT. SEE BALANCE POINTS FOR LUMP SUM QUANTITY.

ORIGINAL SURVEY — NOTE BOOK NO. — PLOTTED — TRACED — CHECKED — DATE 3-25-42 5-15-42 — R.R.H. R.R.H.

PLATE 3. CROSS SECTION

FEDERAL AID NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5 HB-4	IROQUOIS	47	20

U S 54

℄

250 200 150 100 50

35 + 00 670

34 + 00 670

33 + 00 670

M/L

504' LT OF STA 799+00

LIMIT OF CUT SHOWN ON CROSS SECTIONS

SEE SHEET NO. 17

404' LT OF STA 799+00

LIMIT OF CUT SHOWN ON CROSS SECTIONS

SEE SHEET NO. 17

304' LT OF STA 799+00

LIMIT OF CUT SHOWN ON CROSS SECTIONS

SEE SHEET NO. 17

CUT BEYOND DASHED BACKSLOPE IS INCLUDED IN THIS CONTRACT. SEE BALANCE POINTS FOR LUMP SUM QUANTITY.

ORIGINAL SURVEY NOTE BOOK NO.

DATE 3-25-65 3-25-65

BY A.A.H. A.A.H.

SURVEYED PLOTTED TYPIST AREAS CHECKED

250 200 150 100 50 ℄ U.S. 54

RAMP 'A' EMBANKMENT ENDS AT 3+00 SECTION
38-5/8-4 F-104

STA 13+20
C=215
F=45

STA 0+83
C=0
F=1085

STA 0+37
C=0
F=0

STA 0+00
C=122
F=0

C=107
F=863

C=100
F=740

C=104
F=586

C=129
F=423

C=149
F=260

C=152
F=261

C=151
F=147

C=164
F=157

C=200
F=138

C=184
F=98

C=200
F=55

C=215
F=45

BEGIN TOPSOIL

4" TOPSOIL

EXCAVATION

ENGINEER

MATCH LINE

N.B. ROADWAY FAIRLY STR

RAMP 'A' US RTE. 50

RAMP 'B' US. RTE. 54

RAMP "C" EMBANKMENT ENDS AT 16+00
SECT: 38-5HB-4 CL=0° F=0°

STA 18+12
C=0
F=0

STA 17+68
C=12
END TOPSOIL STA 17+50
F=0 *F=1260

BY: 38-5HB-4 CONTRACTOR

C=8
F=0
F=1254

C=17
F=922

C=33
F=637

C=29
F=435

C=37
F=364

C=32
F=233

C=56
F=155

C=92
F=105

C=105
F=123

C=52
F=125

C=39
F=108

STA 6+70
C=30
F=125

℄ MATCH LINE

TOPSOIL EXCAVATION

BEGIN TOPSOIL STA 10+00

4 TOPSOIL

S.B. ROADWAY - FAL RTE 57

ST. 38-5 HB-4 TROJANS 17+00 SPRINGAM 4 17+00

47 23

17 670
16 670
15 670
14 670
13 670
12 670
11 665
10 665
9 665
8 665
7 665

50

ST 38-5 HB-4 ROLLOS 47 24
2003 2003
BRIDGE No 4

RAMP "D" EMBANKMENT ENDS AT 3+00
SECT. 38-5HB-4 C=0' F=0'

RAMP D US RTE 54

TR44 EMBANKMENT ENDS AT 112+00
SECT 38-5HBF-4 C=0 F=0

STA 113+30
C=0
F=0

38-5
HB-4

47 25

TR44 EMBANKMENT ENDS AT 115+00
C=0* F=0*

*JOINT BY 38-SHB-4 CONTRACTOR

RELOC TR RTE 44

THIS SHEET FOR INFORMATION ONLY

806 670 — FL.666.79 — 673.55 — C=908 — FL.668.32 — F=115 — S=52 — FL.666.86 — 673.55 — 670 806
805 670 — FL.666.57 — 673.37 — C=978 — FL.668.12 — F=175 — FL.666.66 — 673.37 — 670 805
804 670 — FL.666.35 — INV.666.55 — 673.19 — C=1228 — INV.667.72 — FL.667.92 — F=305 — FL.666.40 — 673.19 — 670 804
803 670 — FL.666.13 — 673.01 — C=1378 — FL.668.13 — F=485 — FL.666.26 — 673.01 — 670 803
802 670 — FL.665.91 — BRIDGE FILL — 672.83 — C=1555 — FL.668.34 — F=330 — FL.666.06 — BRIDGE FILL — 672.83 — 670 802
801 670 — 672.65 — C=12 — FL.668.35 — F=275 — 672.65 — 670 801
800 670 — BRIDGE FILL — 672.47 — C=0 — FL.668.34 — F=305 — BRIDGE FILL — 672.47 — 670 800
799 670 — FL.664.42 — 672.29 — C=3101 — FL.667.95 — F=345 — FL.665.14 — 672.29 — 670 799
798 670 — FL.668.89 — 672.11 — C=3394 — FL.667.56 — F=315 — FL.664.56 — 672.11 — 670 798

SEE SHEET NO 92 — SEE SHEET NO 92 — SEE SHEET NO 92 — SEE SHEET NO 90 — SEE SHEET NO 90 — SEE SHEET NO 91 — SEE SHEET NO 91

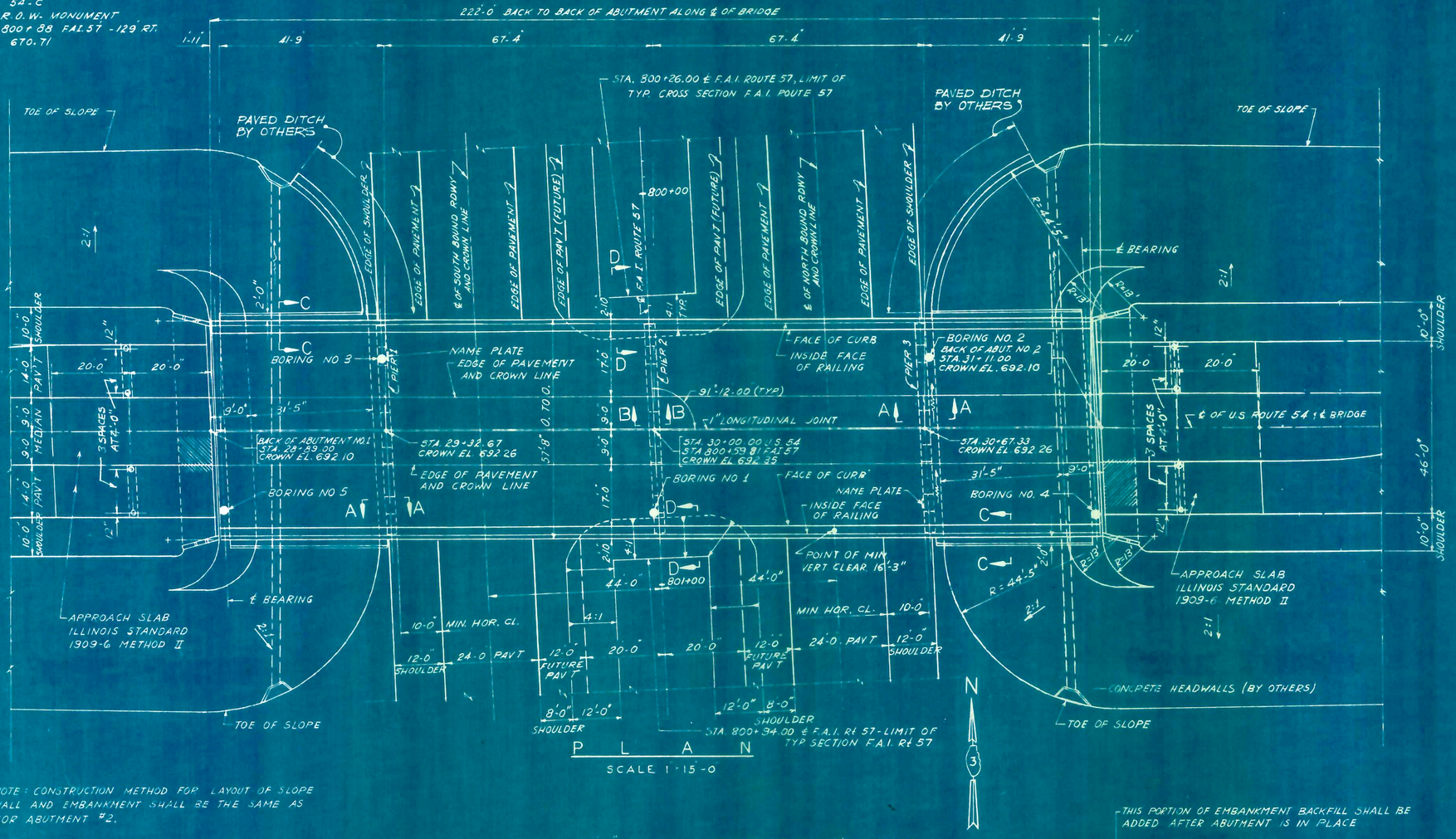
150 100 50 ℄ 50 100 150

ORIGINAL SUPERSEDED

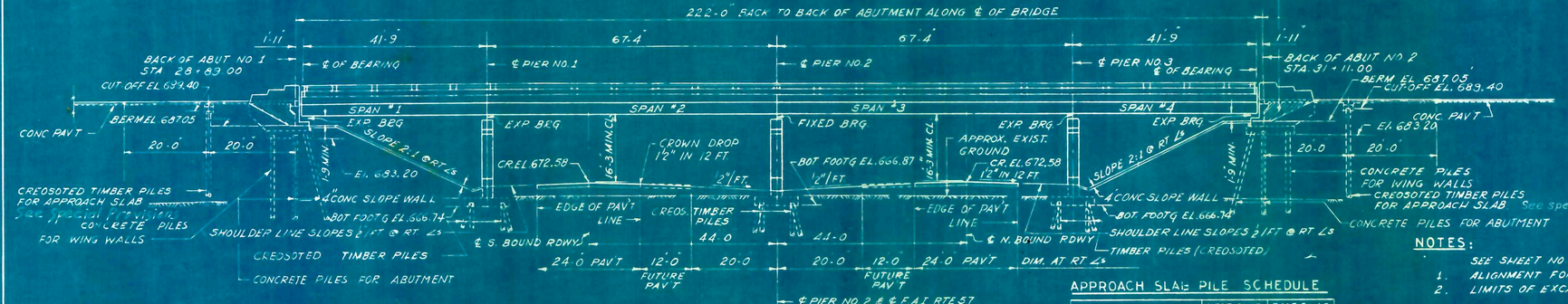
FEDERAL AID ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
57	38-5 HB-4	IROQUOIS	47	28
B.P.R. REG NO 4	ILLINOIS	PROJECT I-57-6C		

SHEET NO 1 OF 11

B.M. 54-C
TOP R.O.W. MONUMENT
STA. 800+88 FAI 57 - 129' RT.
ELEV. 670.71



NOTE: CONSTRUCTION METHOD FOR LAYOUT OF SLOPE WALL AND EMBANKMENT SHALL BE THE SAME AS FOR ABUTMENT #2.



E L E V A T I O N

SCALE : 1" : 15'-0"

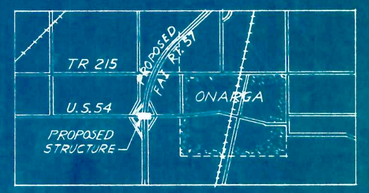
THIS PORTION OF EMBANKMENT BACKFILL SHALL BE ADDED AFTER ABUTMENT IS IN PLACE

APPROACH SLAB PILE SCHEDULE		
	WEST SLAB	EAST SLAB
NO REQUIRED	8	8
REQ'D LENGTH	15'	15'

CREOSOTED TIMBER PILES UP TO 20': 240 (2 APPROACH SLABS)

INDEX OF SHEETS SECTION 38-5 HB-4 STRUCTURE

SHEET NO.	TITLE
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES, QUANTITIES AND EXCAVATION
3	BORINGS AND NAME PLATE
4	DECK PLAN AND REINFORCEMENT
5	ELEVATIONS
6	STEEL FRAMING PLAN AND DETAILS
7&7A	HANDRAIL PLAN AND DETAILS
8	PIER 1, 2, AND 3
9	ABUTMENTS AND WING WALLS - PART I
10	ABUTMENTS AND WING WALLS - PART II
11	PILES FOR ABUTMENTS



LOCATION SKETCH

ROAD CLASSIFICATION: C

DESIGN SPEED: 70 M.P.H.

DESIGN LOAD
LIVE LOAD: H S 20-44
FUTURE DEAD LOAD: 12" WEARING SURFACE

DESIGN STRESSES
f'c = 1400 PSI SUPERSTRUCTURE AND SUBSTRUCTURE
fs = 20 000 PSI REINFORCING
fs = 20 000 PSI STRUCTURAL
n = 10
V = 75 PSI
STRUCTURAL STEEL: A S T M A-36
AASHO-61 SPECIFICATIONS AND DESIGN POLICY OF BRIDGE OFFICE, STATE OF ILLINOIS.

PILE LOADS
ABUTMENTS: } 30 TONS CONCRETE PILES
WING WALLS: }
PIERS : 20 TONS CREOSOTED TIMBER PILES

NOTE FOR SLOPEWALL
4" CONCRETE SLOPEWALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6"x6" MESH NO 4 WIRE, WEIGHING APPROXIMATELY 38 1/100 SQ. FT.

NOTES:
See Special provisions.
SEE SHEET NO 2 FOR THE FOLLOWING ITEMS.
1. ALIGNMENT FOR F.A.I ROUTE 57
2. LIMITS OF EXCAVATION FOR STRUCTURES AT PIERS,
3. SECTIONS A-A, B-B, AND VIEW D-D
4. SECTION AT ABUTMENT
5. DETAIL OF THE EDGE OF THE SLOPE WALL (SEC. C-C)
6. PROFILE FOR U.S 54

DESIGNED BY: P.X.
DRAWN BY: A.M.
CHECKED BY: P.X.
IN CHARGE: P.X.

GENERAL PLAN AND ELEVATION
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A. PROJECT
F.A.I. ROUTE 57 SECTION 38-5HB 4
IROQUOIS COUNTY
STATION 800+59.81

12-19-66 J.M.J Rev. pile piles from 4 spc. 4'-0" to 3 spc. @ 4'-0"

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5HB-4	IROQUOIS	47	29
B.P.R. REG. NO. 7	ILLINOIS	PROJECT F-57-6(C)		

SHEET NO 2 OF 11

GENERAL NOTES

CLASS "X" CONCRETE SHALL BE USED THROUGHOUT

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ART. 51.19 OF THE STANDARD SPECIFICATIONS

COST OF FLOOR DRAINS IN THE DECK SLAB AND THE COST OF ALUMINUM PLATES FOR CONSTRUCTION JOINTS IN CURBS SHALL BE INCIDENTAL TO THE COST OF CLASS "X" CONCRETE IN THE SUPERSTRUCTURE.

THE CONCRETE SLAB SHALL BE POURED IN ONE CONTINUOUS OPERATION BETWEEN LONGITUDINAL CONSTRUCTION JOINTS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ART. 51.11 OF THE STANDARD SPECIFICATIONS.

RIVETS 3/4" DIA., OPEN HOLES 13/16" DIA., UNLESS OTHERWISE NOTED.

FIELD CONNECTIONS TO BE RIVETED UNLESS OTHERWISE NOTED.

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

ALL ROCKERS, BEARING PLATES, LEAD PLATES, SHIM PLATES, PINTLES AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ART. 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY FOR STRUCTURAL STEEL. EST. WT.: 13360 LBS.

ANCHOR BOLTS SHALL BE SET BEFORE RIVETING DIAPHRAGMS OVER SUPPORTS.

THE SURFACES OF THE EXPANSION GUARDS THAT ARE INACCESSIBLE AFTER CONSTRUCTION SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT. OMIT PAINT ON STUDS.

EXPANSION GUARDS ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL. EST. WT.: 1800 LBS.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

ALL PAINT SHALL BE FURNISHED AND APPLIED BY THE CONTRACTOR

COARSE AGGREGATE USED IN END POSTS and parapets to be absolutely free of chert, flint, limonite, lignite and soft sandstone.

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

CONCRETE PILES THROUGH EMBANKMENT SHALL BE DRIVEN IN PRECORED HOLES IN ACCORDANCE WITH ARTICLE 60.9(c) OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL DRIVE ONE TIMBER TEST PILE IN THE VICINITY OF PIER NO. 2 AND AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE TIMBER PILES.

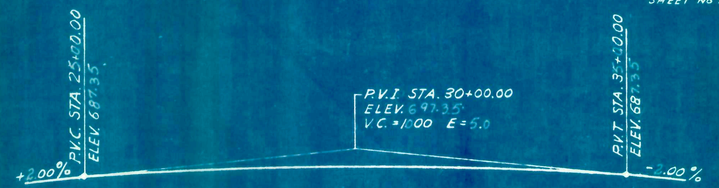
FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF ¼ OF THE SPAN EACH WAY FROM PIER SUPPORTS OF THE TOP FLANGES OF BEAMS OR GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

"Excavation for portions of structures in the embankment shall not be classified.

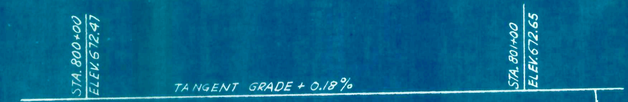
TOTAL BILL OF METERIALS

PAY ITEM	UNIT	SUPER.	SUBSTR.	TOTAL
CLASS "A" EXCAVATION FOR STRUCTURES	CU. YDS	-	134	134
CLASS "X" CONCRETE	CU. YDS	397.5	348.0	745.5
FURNISHING & ERECTING STRUCT. STEEL	LBS	333,860	-	333,860
Aluminum Handrail	LIN. FT.	440	-	440
REINFORCEMENT BARS	LBS	80,760	48,835	130,595
FURNISHING CREOSOTED PILES UP TO 20 FT.	LIN. FT.	-	240	240
FURNISHING CREOSOTED PILES (20.1 TO 38 FT)	LIN. FT.	-	2100	2100
TEST PILE TIMBER	EACH	-	1	1
DRIVING TIMBER PILES	LIN. FT.	-	2340	2340
PROTECTIVE COAT	SQ. YDS	1490	-	1490
DRIVING CONCRETE PILES	LIN. FT.	-	1000	1000
FURNISHING CONCRETE PILES	LIN. FT.	-	1000	1000
TEST PILES CONCRETE	EACH	-	1	1
NAME PLATES	EACH	-	2	2
SLOPE WALL 4"	SQ. YDS	-	665	665
*BRIDGE SEAT SEALANT	L.SUM	-		

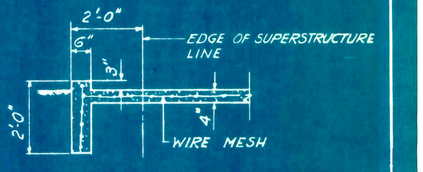
* At Abutments Only



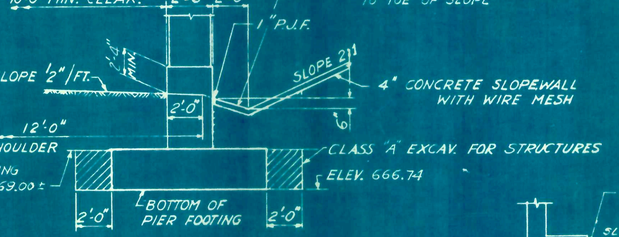
PROFILE OF CROWN OF U.S. 54 OVER F.A.I. ROUTE 57



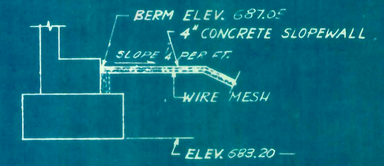
PROFILE OF CROWN OF F.A.I. ROUTE 57 UNDER U.S. 54



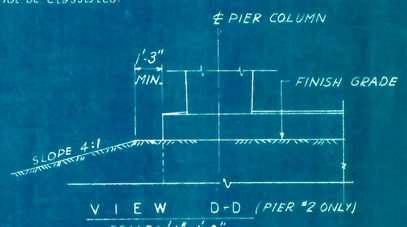
SECTION C-C
SCALE: ½"=1'-0"
(SHOWING DETAIL OF THE EDGE OF THE SLOPE WALL) SEE SHEET #1



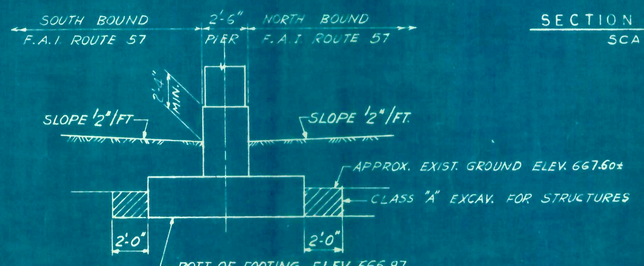
SECTION A-A
(PIERS #1 AND #3)
SCALE: ¼"=1'-0"



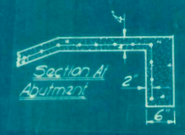
SECTION AT ABUTMENT
SCALE ¼"=1'-0"



VIEW D-D (PIER #2 ONLY)
SCALE: ¼"=1'-0"



SECTION B-B
(PIER #2 ONLY)
SCALE: ¼"=1'-0"



DESIGNED BY:	P.X.
DRAWN BY:	P.X.
CHECKED BY:	A.M.
IN CHARGE:	P.X.

GENERAL NOTES-QUANTITIES AND EXCAVATION
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A. PROJECT
F.A.I. ROUTE 57 SECTION 38-5HB 4
IROQUOIS COUNTY
STATION 800+59.81

Original Quantities: Class X Conc. Super 365.6, total 1166 cu yds; Reinf. bars super 16,760, total 130,595 Lbs.; 4" slope wall 441 sq. yds. As Rev. Reinf Steel Str. Steel from 333,000" to 333,860" Reinf Super from 79,700" to 80,760" Total from 128,135" to 130,595" 12-19-66 J.M.J

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5 HB-4	IROQUOIS	47	30
B.P.R. REG NO. 4	ILLINOIS	PROJECT I-57-GC 3		

SHEET NO 3 OF 11

BORING NO.1

PIER NO.2
STA. 30+00
OFFSET 21 RT.

N	qu T/SF	W %	
			667.59 GROUND SURFACE
6	-	18	LOOSE BLACK & YELLOWISH BROWN SANDY LOAM
			664.59
6	-	20	LOOSE YELLOWISH BROWN & GRAY FINE SAND
			662.09
11	-	17	MEDIUM GRAY FINE SAND
			659.59
10	-	24	MEDIUM GRAY SILT
			657.09
15	1.6 S	22	STIFF GRAY CLAY (VARVED)
			654.59
17	2.1 S	22	VERY STIFF GRAY CLAY (VARVED)
			652.09
29	3.1 S	24	VERY STIFF GRAY CLAY (LACUSTRINE)
			649.59
37	3.1 S	24	HARD GRAY CLAY (LACUSTRINE)
			647.09
21	3.2 S	25	
22	2.5 S	25	
21	2.7 S	25	
22	2.7 S	23	VERY STIFF GRAY CLAY (LACUSTRINE)
25	3.2 S	25	
26	2.9 S	28	
29	2.5 S	26	
			629.59
38	3.5 S	25	HARD GRAY CLAY (LACUSTRINE)
			627.09
26	3.4 S	29	
27	3.0 S	22	VERY STIFF GRAY CLAY (LACUSTRINE)
33	3.4 S	25	
			619.59
26	4.1 S	21	MEDIUM GRAY FINE TO COARSE
			618.09 SAND (WATER)
			HARD GRAY CLAY (LACUSTRINE)
			616.59
38	4.9 S	20	MEDIUM GRAY SANDY CLAY
			615.59
			614.09 HARD GRAY CLAY
31	3.8 S	18	VERY STIFF GRAY CLAY (TILL)
			612.09
44	3.3 S	18	HARD GRAY CLAY (TILL)
45	6.0 S	20	
			607.09
300 S	9.2 S	10	GRAY SHALE
			604.59
114	-	12	VERY DENSE SILT TO FINE SAND
			602.09
100	7.3 S	16	HARD GRAY CLAY (LACUSTRINE)
93	8.3 S	21	597.59

BORING NO.2

PIER NO.3
STA. 30+68
OFFSET 19 LT.

N	qu T/SF	W %	
			668.99 GROUND SURFACE
7	1.0 E	16	MEDIUM BLACK & YELLOWISH BROWN SANDY LOAM
			665.49
5	0.7 S	22	MEDIUM YELLOWISH BROWN & GRAY SANDY LOAM
			662.99
8	-	20	LOOSE YELLOWISH BROWN & GRAY FINE SAND
			660.49
6	0.8 S	27	MEDIUM YELLOWISH BROWN & GRAY SILTY CLAY
9	1.2 S	23	
			655.49
13	1.4 S	23	STIFF GRAY SILTY CLAY
29	3.1 S	23	
			651.49
			650.49 HARD GRAY CLAY
43	3.3 S	22	
32	2.4 S	28	VERY STIFF GRAY CLAY (LACUSTRINE)
27	2.5 S	25	
			642.99
30	4.2 S	24	HARD GRAY CLAY (LACUSTRINE)
31	4.9 S	24	
			637.99
24	1.7 S	25	STIFF GRAY CLAY (LACUSTRINE)
			635.49
24	2.8 S	28	
23	2.3 S	24	
22	3.0 S	27	VERY STIFF GRAY CLAY (LACUSTRINE)
28	3.1 S	24	
28	3.4 S	23	
32	3.8 S	24	
			620.49
39	3.2 S	23	DENSE YELLOWISH BROWN SAND
			618.99 618.49 HARD GRAY CLAY

BORING NO.3

PIER NO.1
STA 29+32
OFFSET 17 LT.

N	qu T/SF	W %	
			669.09
9	-	15	LOOSE BLACK & YELLOWISH BROWN SANDY LOAM
			665.59
8	-	17	LOOSE YELLOWISH BROWN & GRAY SANDY LOAM
			663.09
15	1.9 S	20	MEDIUM YELLOWISH BROWN & GRAY SILTY CLAY
			660.59
10	1.4 S	22	STIFF YELLOWISH BROWN & GRAY SILTY CLAY
			658.09
12	1.6 S	20	STIFF GRAY SILTY CLAY
14	1.2 S	23	
35	1.1 E	23	653.09
28	3.8 S	23	
25	2.7 S	22	VERY STIFF GRAY CLAY (LACUSTRINE)
18	2.4 S	25	
16	2.4 S	25	
13	1.8 S	26	
16	2.5 S	26	
17	3.5 S	25	
20	3.6 S	26	
25	3.7 S	23	VERY STIFF GRAY CLAY (LACUSTRINE)
20	2.4 S	22	
20	4.1 S	22	
			625.59
31	3.6 S	22	HARD GRAY CLAY (LACUSTRINE)
			623.09
			VERY STIFF GRAY CLAY
			621.59 (LACUSTRINE)
			620.59 DENSE YELLOWISH BROWN SAND
30	4.8 S	27	618.59 VERY STIFF GRAY CLAY

BORING NO.4

ABUT NO.2
STA. 31+09
OFFSET 22.5 RT.

N	qu T/SF	W %	
			667.89 GROUND SURFACE
8	-	22	LOOSE BLACK & YELLOWISH BROWN SANDY LOAM
			664.89
10	-	14	MEDIUM YELLOWISH BROWN & GRAY SILT & FINE SAND
			662.39
12	-	19	MEDIUM YELLOWISH BROWN & GRAY FINE TO COARSE SAND
			659.89
10	-	24	MEDIUM YELLOWISH BROWN & GRAY SILT
			657.39
13	2.1 S	22	VERY STIFF GRAY CLAY (VARVED)
12	2.0 S	22	
24	1.8 S	25	652.39 STIFF GRAY CLAY (VARVED)
			650.89
31	4.8 S	24	MEDIUM YELLOWISH BROWN FINE TO COARSE SAND
			649.89
27	2.4 S	25	HARD GRAY CLAY (LACUSTRINE)
23	3.0 S	22	647.39
19	3.2 S	25	VERY STIFF GRAY CLAY (LACUSTRINE)
17	2.0 S	26	
20	1.4 S	25	
15	3.1 S	27	637.39
19	2.7 S	26	STIFF GRAY CLAY (LACUSTRINE)
21	3.3 S	25	634.89
19	2.3 S	24	
19	2.8 S	23	VERY STIFF GRAY CLAY (LACUSTRINE)
23	2.4 S	26	
			620.39
40	3.2 S	26	DENSE YELLOWISH BROWN FINE TO COARSE SAND
			618.39
50	1.0 E	-	VERY STIFF GRAY CLAY
37	3.3 S	17	612.89

BORING NO.5

ABUT. NO. 1
STA. 28+91
OFFSET 22 RT.

N	qu T/SF	W %	
			668.34 GROUND SURFACE
13	-	6	MEDIUM YELLOWISH BROWN & GRAY FINE SAND
			662.84
20	-	19	MEDIUM YELLOWISH BROWN & GRAY SILT
18	-	21	660.34
			STIFF GRAY SILTY CLAY
9	1.3 S	23	657.34
18	2.7 S	21	VERY STIFF GRAY CLAY (VARVED)
18	3.0 S	23	
			652.84
			HARD GRAY CLAY (LACUSTRINE)
30	3.1 S	22	650.34
			649.34 YELLOWISH BROWN FINE TO COARSE SAND
39	4.7 S	22	647.84 HARD GRAY CLAY
27	3.1 S	25	
22	2.2 S	27	
22	3.1 S	26	
21	3.1 S	26	VERY STIFF GRAY CLAY (LACUSTRINE)
23	2.7 S	24	
24	2.7 S	26	
22	3.4 S	26	
25	3.8 S	25	
28	3.8 S	27	
			625.34
26	4.1 S	23	HARD GRAY CLAY (LACUSTRINE)
			621.34
29	4.9 S	24	DENSE YELLOWISH BROWN 619.34 SAND
35	3.9 S	23	618.34 VERY STIFF GRAY CLAY

NOTE:
N - STANDARD PENETRATION TEST - BLOWS PER FOOT TO DRIVE 2" O.D. SPLIT SPOON SAMPLER 12" WITH 140# HAMMER FALLING 30".
QU - UNCONFINED COMPRESSIVE STRENGTH T/SF
W - WATER CONTENT - PERCENTAGE OF OVEN DRY WEIGHT - %

TYPE OF FAILURE:
B - BULGE FAILURE
S - SHEAR FAILURE
E - ESTIMATED VALUE

NOTE:
BORING DATA ARE SHOWN ONLY AS A GUIDE FOR BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE FIELD. FOR LOCATION OF BORINGS SEE SHEET NO. 1

GROUND WATER ELEVATIONS

	DATE	TIME	ELEV.
BORING #1	8-30-60	AT COMPLETION	660.29
	8-31-60	AFTER 24 HRS	660.29
BORING #2	9-7-60	AT COMPLETION	660.30
	9-8-60	AFTER 24 HRS	660.30
BORING #3	9-9-60	AT COMPLETION	660.20
	9-10-60	AFTER 24 HRS	660.20
BORING #4	10-6-60	AT COMPLETION	660.15
	10-7-60	AFTER 24 HRS	660.15
BORING #5	10-7-60	AT COMPLETION	660.25
	10-8-60	AFTER 24 HRS.	660.25

STATION 800+59.81
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. ROUTE 57 SEC. 38-5 HB-4
F.A. PROJ. I-57-6(75)
LOADING H-20

SEE STATE OF ILLINOIS STANDARD 2113-1

LETTERING FOR NAME PLATES

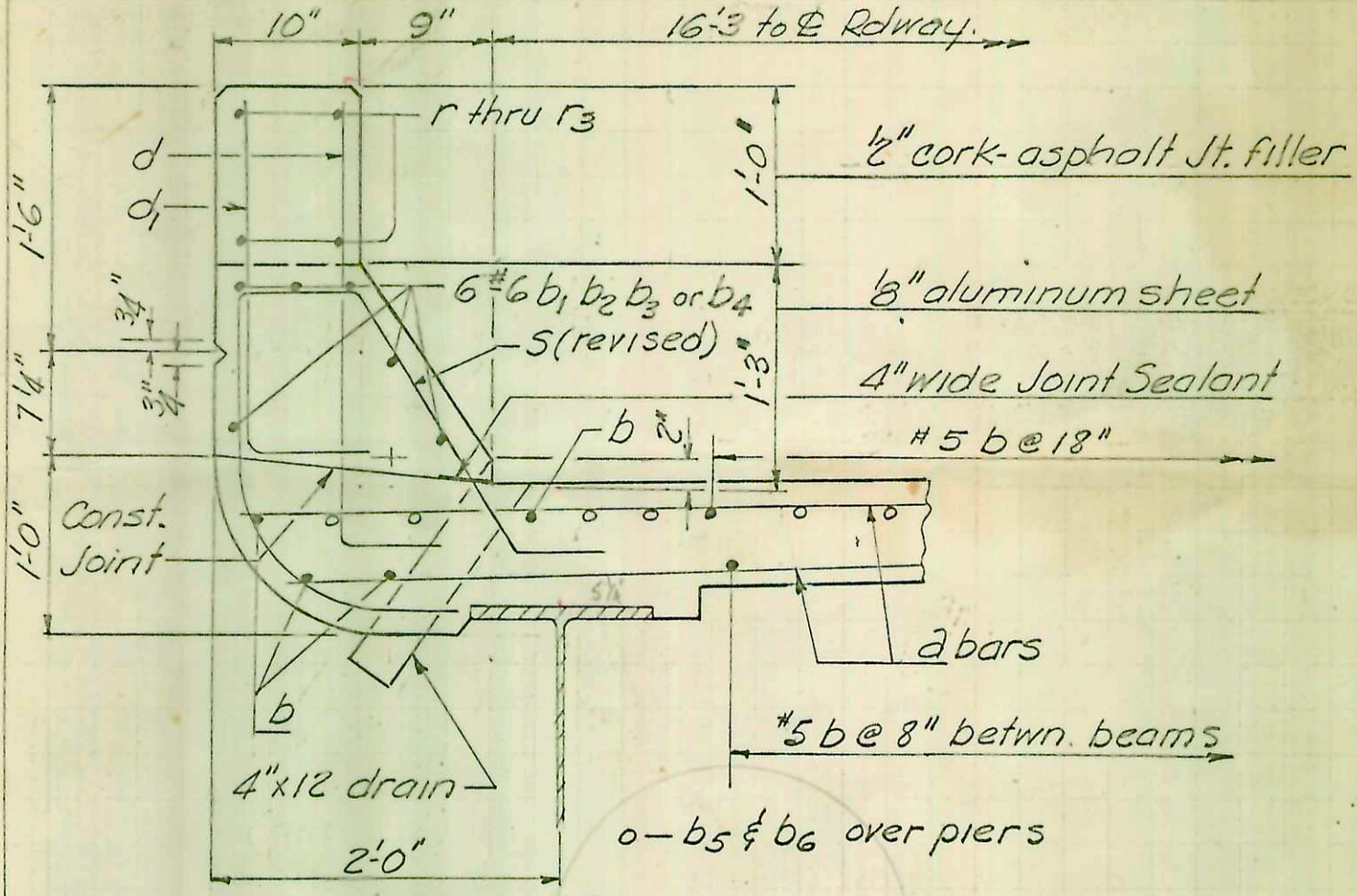
2 REQUIRED

FOR LOCATION OF NAME PLATES SEE SHEET NO. 8

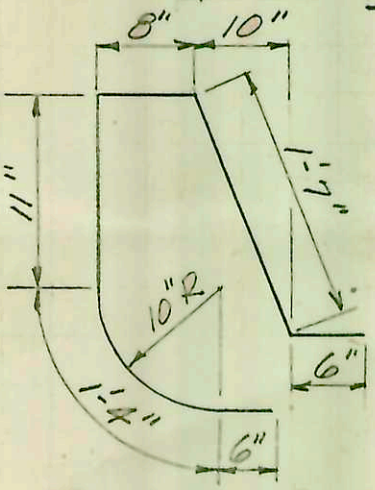
VERTICAL SCALE 1"=5'-0"

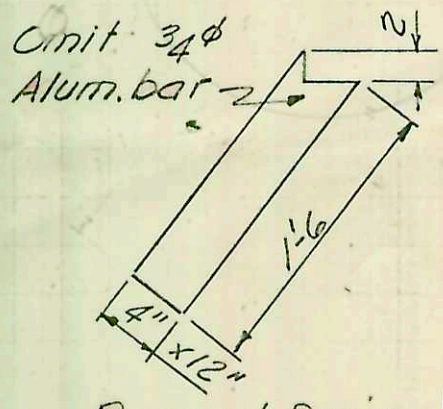
DESIGNED BY:	—
DRAWN BY :	A.M.
CHECKED BY:	P.X.
IN CHARGE :	P.X.

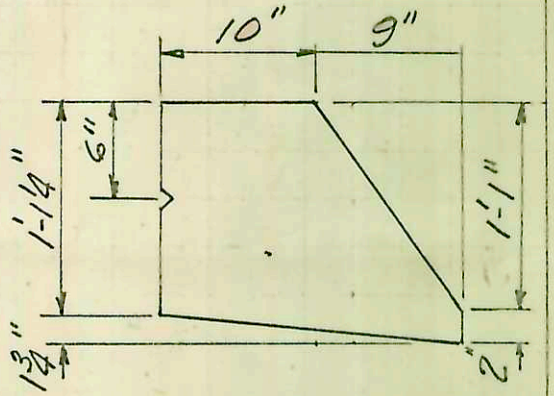
BORINGS AND NAME PLATES
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A. PROJECT
F.A.I. ROUTE 57 SECTION 38-5 HB-4
IROQUOIS COUNTY
STATION 800+59.81



REVISED CURB







Revised Alum. Sheet

Revised Bars

Revised Drain

Reinforcement Revisions:

#5 S bar - length revised to 5'-6"

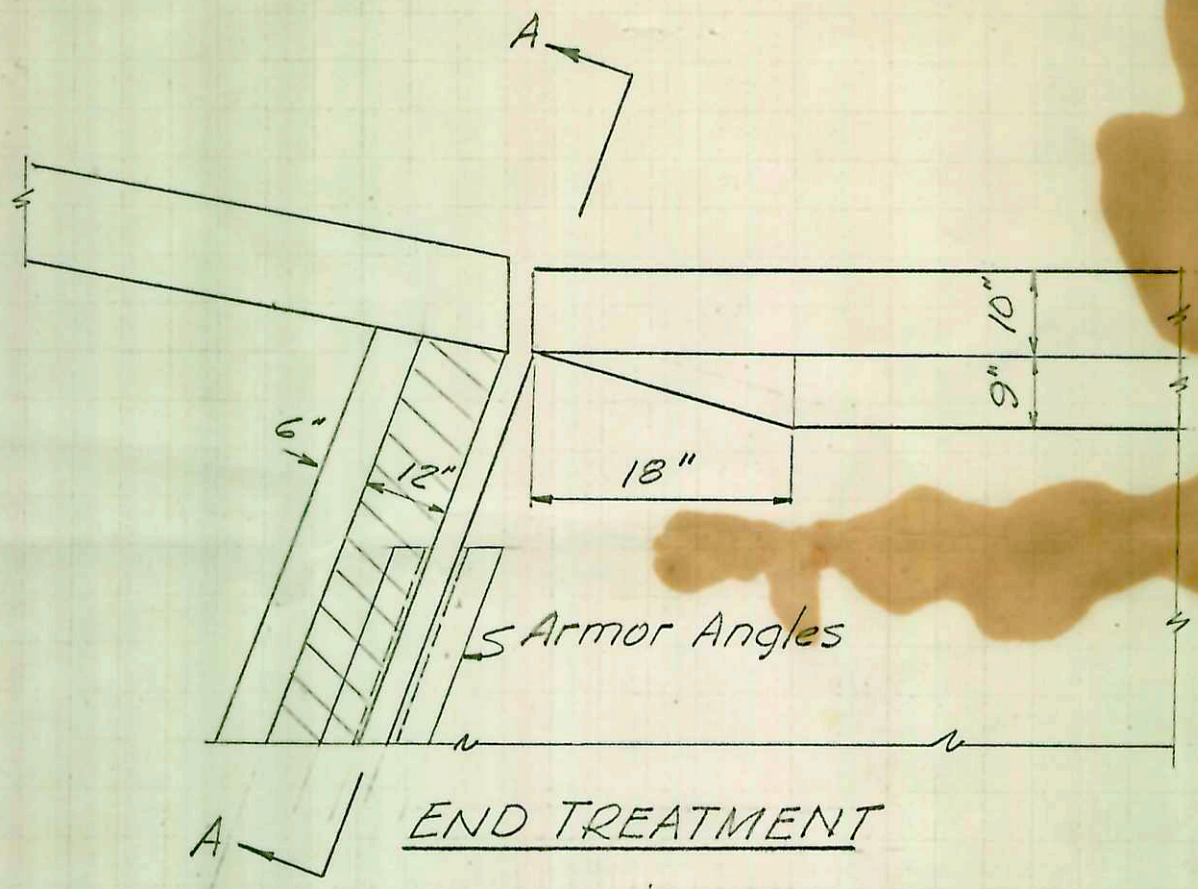
b_1 b_2 b_3 b_4 - revised from #4 to #6

REVISED CURB & PARAPET DETAILS

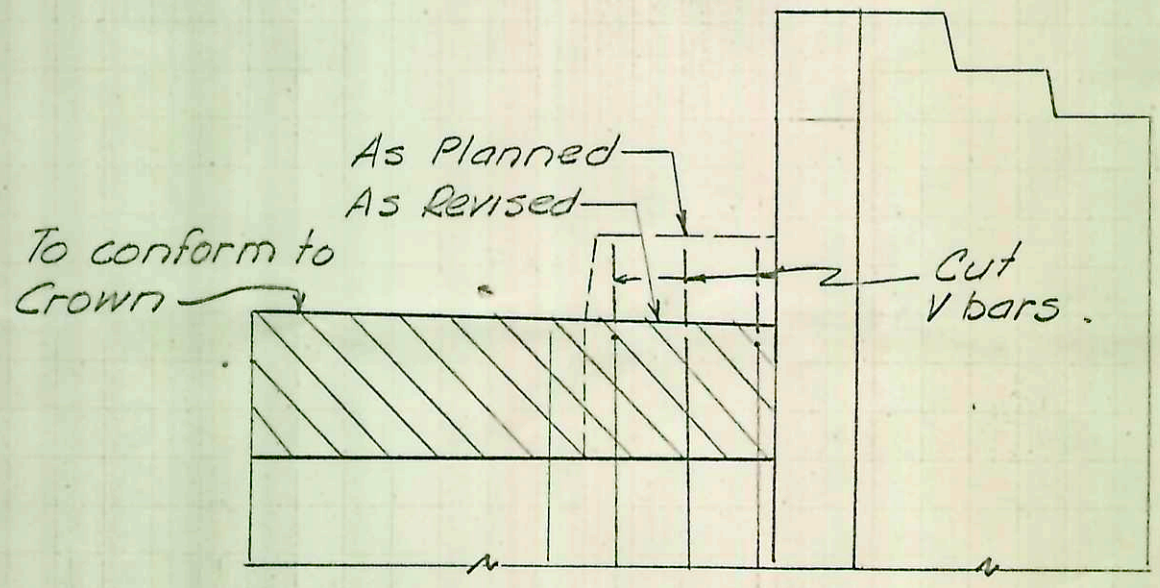
FAI RT. 57 SEC. 38-3HB
SEC. 38-5HB-2
SEC. 38-5HB-4

IROQUOIS CO.

RAK 6-20-67



END TREATMENT



SECTION A-A

F.A.I. RT 57
SEC. 38-3HB
SEC. 38-5HB-2
SEC 38-5HB-3
IROQUOIS CO.

RAK 6-20-67

FEDERAL AID ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
57	38-5HB-4	IROQUOIS	47	31
B.P.R. REG NO 4	ILLINOIS	PROJECT I-57-6		

SHEET NO 4 OF 11

HALF PLAN

SCALE 3/16" = 1'-0"

HALF CROSS SECTION

SCALE 3/8" = 1'-0"

SECTION B-B

For Conc. Sealer & Rod See Special Provisions.

DETAIL OF 1/8" ALUMINUM SHEETS

USED IN CURB JOINTS (3003-H14)

Optional constr. jt. see special provisions.

CURB DETAIL

SCALE 1" = 1'-0"

DETAIL OF FILLET 't'

SCALE 1" = 1'-0"

METHOD OF DETERMINING FILLET HEIGHTS 't': AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES OF THE BEAMS SHALL BE TAKEN AT THE STATIONS SHOWN ON SHEET NO. 5 THESE ELEVATIONS SUBTRACTED FROM THE "THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION" SHOW ON SHEET NO 5 MINUS FLOOR THICKNESS EQUALS THE FILLET HEIGHTS ABOVE TOP OF BEAMS.

FOR SHADED AREA OF CONCRETE SEE ABUT. DRAWINGS. QUANTITY OF CLASS 'X' CONCRETE INCLUDED WITH SUPERSTRUCTURE

BAR SCHEDULE

BAR MARK	NO	SIZE	LENGTH	SHAPE
a	480	#5	22'-0"	
a1	473	#5	21'-6"	STRAIGHT
a2	478	#5	21'-0"	"
a3	590	#5	6'-3	"
a4	296	#5	7'-9	"
b	672	#5	29'-6"	STRAIGHT
b1	84	#4	35'-3"	"
b2	168	#4	6'-9	"
b3	168	#4	26'-6	"
b4	84	#4	10'-0"	"
b5	120	#6	15'-6	"
b6	60	#6	21'-0	"
S	440	#5	6'-3	
S1	440	#5	3'-9	
S2	440	#5	5'-3"	

TABLE OF QUANTITIES (SUPERSTRUCTURE)

ITEM	UNIT	QUANTITY
CLASS 'X' CONCRETE	CU YDS	377.
REINFORCEMENT BARS	LBS.	77290
STRUCTURAL STEEL	LBS	333860

3/8" x 1'-1" Aluminum Bar ASTM: B211 6061-T6 alloy

TOP VIEW — END VIEW

FLOOR DRAIN

DETAIL AT MEDIAN

SCALE 3/4" = 1'-0"

SECTION A A

SCALE 1/2" = 1'-0"

DETAIL OF 1/8" ALUMINUM SHEETS

USED IN MEDIAN JOINTS 3003-H14

SCALE 1/2" = 1'-0"

DESIGNED BY: A.M.
DRAWN BY: A.M.
CHECKED BY P.X.
IN CHARGE: P.X.

NOTE: MINIMUM LAP FOR ALL REINFORCEMENT BARS SHALL BE 20 BAR DIAMETERS.

DECK PLAN & REINFORCEMENT
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A. PROJECT
F.A.I. ROUTE 57 SECTION 38-5 HB 4
IROQUOIS COUNTY
STATION 800+59.81

Class X Conc. from 385.0 to 377.2 Cu. Yds., Reinforcement bars from 72,560 to 74,830 Lbs. A.S.A.

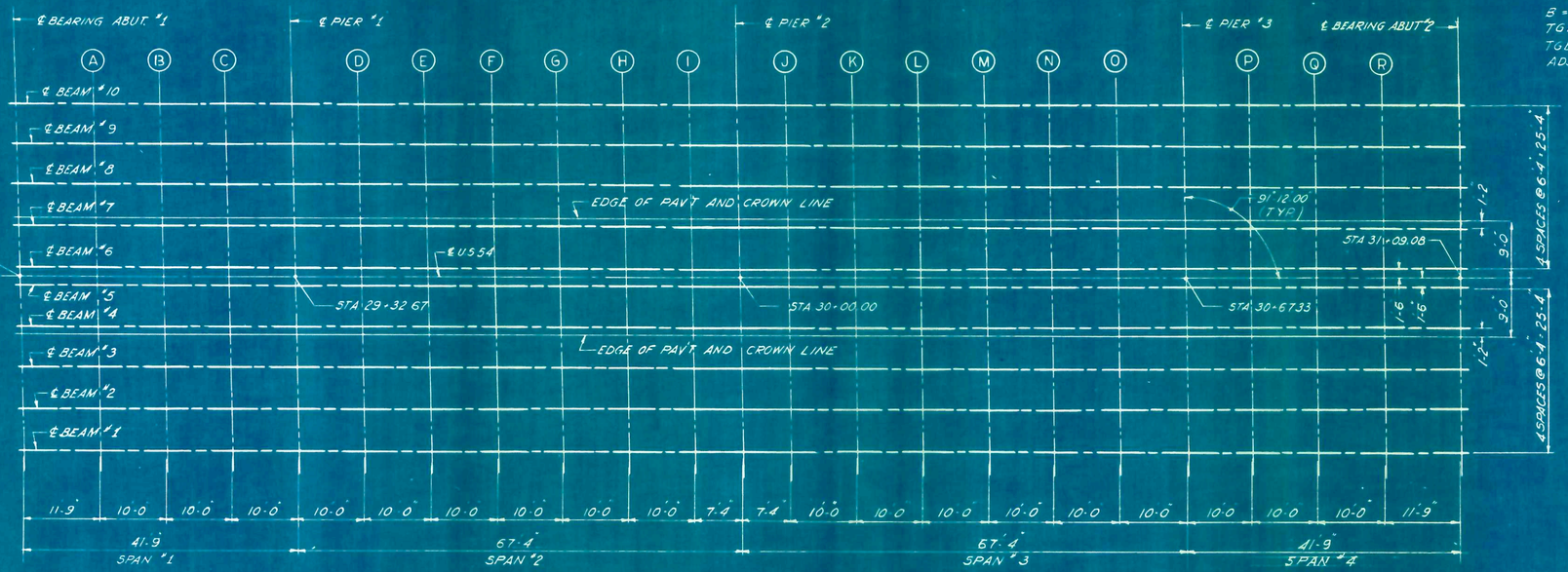
12-19-66 J.M.J. Rev rein bars from 74 830 to 77290, structural steel from 333 000 to 333860.

FEDERAL AID ROUTE NO	SEC.	COUNTY	TOTAL SHEETS	SHEET NO
57	38 5HB-4	IROQUOIS	47	32
B.P.R. REG. NO 4	ILLINOIS	PROJECT I-57-6(C)		

SHEET NO 5 OF 11

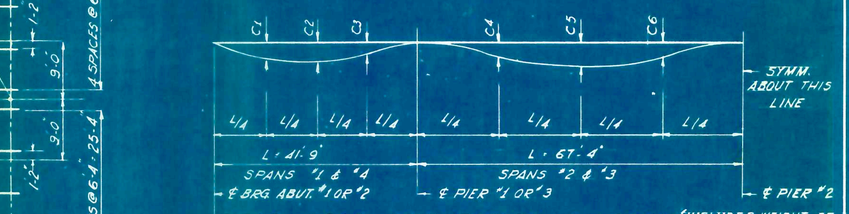
KEY TO NOTATION
L = LINE
B = BEAM
TGE = THEORETICAL GRADE ELEVATION
TGE DLD = THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION

NOTE: ALL DEFLECTIONS SHOWN BELOW SHALL NOT BE USED IN THE FIELD IF THE ENGINEER WORKS FROM THE THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS.



P L A N

SCALE: $\frac{3}{32}$" = 1'-0



DEAD LOAD DEFLECTION DIAGRAM (INCLUDES WEIGHT OF CONCRETE ONLY)

FOR VALUES C1 - C6 SEE TABLE BELOW

TABLE OF DEAD LOAD DEFLECTIONS

BEAM	C1	C2	C3	C4	C5	C6
"1 AND "10	3/32"	3/32"	0"	1/16"	3/4"	5/16"
"2, "3, "8 AND "9	1/16"	1/16"	0"	11/32"	9/16"	1/4"
"4 AND "7	1/16"	1/16"	0"	5/16"	1/2"	1/4"
"5 AND "6	1/16"	1/16"	0"	5/16"	1/2"	1/4"

(INCLUDES WEIGHT OF CONCRETE ONLY)

TABLE OF ELEVATIONS*

L	B	STATION	TGE	TGE DLD
℄ BEARING ABUT "1	1	28+91.48	691.936	691.936
	2	28+91.35	691.999	691.999
	3	28+91.22	692.061	692.061
	4	28+91.08	692.125	692.125
	5	28+90.95	692.937	692.937
	6	28+90.89	692.937	692.937
	7	28+90.76	692.123	692.123
	8	28+90.62	692.059	692.059
	9	28+90.49	691.995	691.995
	10	28+90.36	691.932	691.932
LINE "A"	1	29+03.23	691.985	691.992
	2	29+03.10	692.047	692.052
	3	29+02.97	692.110	692.115
	4	29+02.83	692.173	692.178
	5	29+02.70	692.386	692.391
	6	29+02.64	692.985	692.990
	7	29+02.51	692.172	692.177
	8	29+02.37	692.107	692.112
	9	29+02.24	692.044	692.049
	10	29+02.11	691.380	692.387
LINE "B"	1	29+13.23	692.021	692.028
	2	29+13.10	692.084	692.089
	3	29+12.97	692.147	692.152
	4	29+12.83	692.210	692.215
	5	29+12.70	693.023	693.028
	6	29+12.64	693.022	693.027
	7	29+12.51	692.209	692.214
	8	29+12.37	692.144	692.149
	9	29+12.24	692.081	692.086
	10	29+12.11	692.017	692.024
LINE "C"	1	29+23.23	692.054	692.059
	2	29+23.10	692.117	692.117
	3	29+22.97	692.179	692.179
	4	29+22.83	692.243	692.243
	5	29+22.70	693.055	693.055
	6	29+22.64	693.055	693.055
	7	29+22.51	692.242	692.242
	8	29+22.37	692.177	692.177
	9	29+22.34	692.114	692.114
	10	29+22.11	692.051	692.051

L	B	STATION	TGE	TGE DLD
℄ PIER "1	1	29+33.23	692.083	692.083
	2	29+33.10	692.45	692.145
	3	29+32.97	692.208	692.208
	4	29+32.83	692.272	692.272
	5	29+32.70	693.084	693.084
	6	29+32.64	693.084	693.084
	7	29+32.51	692.271	692.271
	8	29+32.37	692.207	692.207
	9	29+32.24	692.143	692.143
	10	29+32.11	692.080	692.080
LINE "D"	1	29+43.23	692.108	692.121
	2	29+43.10	692.110	692.180
	3	29+42.97	692.233	692.243
	4	29+42.83	692.297	692.306
	5	29+42.70	693.109	693.118
	6	29+42.64	693.109	693.118
	7	29+42.51	692.296	692.305
	8	29+42.37	692.232	692.242
	9	29+42.24	692.168	692.178
	10	29+42.11	692.105	692.118
LINE "E"	1	29+53.23	692.128	692.174
	2	29+53.10	692.191	692.226
	3	29+52.97	692.254	692.289
	4	29+52.83	692.318	692.351
	5	29+52.70	693.130	693.163
	6	29+52.64	693.130	693.163
	7	29+52.51	692.317	692.350
	8	29+52.37	692.253	692.288
	9	29+52.24	692.189	692.224
	10	29+52.11	692.126	692.172
LINE "F"	1	29+63.23	692.145	692.209
	2	29+63.10	692.208	692.257
	3	29+62.97	692 271	692.320
	4	29+62.83	692.334	692.379
	5	29+62.70	693.147	693.192
	6	29+62.64	693.147	693.192
	7	29+62.51	692.334	692.379
	8	29+62.37	692.270	692.319
	9	29+62.24	692.207	692.256
	10	29+62.11	692.143	692.207

L	B	STATION	TGE	TGE DLD
℄ PIER "2	1	29+73.23	692.158	692.206
	2	29+73.10	692.221	692.258
	3	29+72.97	692.283	692.320
	4	29+72.83	692.347	692.381
	5	29+72.70	693.160	693.194
	6	29+72.64	693.160	693.194
	7	29+72.51	692.347	692.381
	8	29+72.37	692.283	692.320
	9	29+72.34	692.220	692.257
	10	29+72.11	692.156	692.204
LINE "G"	1	29+83.23	692.166	692.196
	2	29+83.10	692.229	692.251
	3	29+82.97	692.292	692.314
	4	29+82.83	692.356	692.377
	5	29+82.70	693.169	693.190
	6	29+82.64	693.169	693.190
	7	29+82.51	692.356	692.377
	8	29+82.37	692.292	692.314
	9	29+82.24	692.229	692.251
	10	29+82.11	692.166	692.196
LINE "H"	1	29+93.23	692.171	692.180
	2	29+93.10	692.234	692.240
	3	29+92.97	692.297	692.303
	4	29+92.83	692.361	692.367
	5	29+92.70	693.174	693.180
	6	29+92.64	693.174	693.180
	7	29+92.51	692.361	692.367
	8	29+92.37	692.297	692.303
	9	29+92.24	692.234	692.240
	10	29+92.11	692.171	692.180
℄ PIER "2	1	30+00.56	692.172	692.172
	2	30+00.43	692.235	692.235
	3	30+00.30	692.298	692.298
	4	30+00.17	692.362	692.362
	5	30+00.03	693.175	693.175
	6	29+99.97	693.175	693.175
	7	29+99.84	692.362	692.362
	8	29+99.71	692.298	692.298
	9	29+99.57	692.235	692.235
	10	29+99.44	692.172	692.172

L	B	STATION	TGE	TGE DLD
LINE "I"	1	30+07.90	692.171	692.180
	2	30+07.77	692.234	692.240
	3	30+07.63	692.297	692.303
	4	30+07.50	692.361	692.367
	5	30+07.37	693.174	693.180
	6	30+07.31	693.174	693.180
	7	30+07.17	692.361	692.367
	8	30+07.04	692.297	692.303
	9	30+06.91	692.234	692.240
	10	30+06.77	692.171	692.180
LINE "J"	1	30+17.90	692.166	692.196
	2	30+17.77	692.229	692.251
	3	30+17.63	692.292	692.314
	4	30+17.50	692.356	692.377
	5	30+17.37	693.169	693.190
	6	30+17.31	693.169	693.190
	7	30+17.17	692.356	692.377
	8	30+17.04	692.292	692.314
	9	30+16.91	692.229	692.251
	10	30+16.77	692.166	692.196
LINE "K"	1	30+27.90	692.166	692.204
	2	30+27.77	692.220	692.257
	3	30+27.63	692.283	692.320
	4	30+27.50	692.347	692.381
	5	30+27.37	693.160	693.194
	6	30+27.31	693.160	693.194
	7	30+27.17	692.347	692.381
	8	30+27.04	692.283	692.320
	9	30+26.91	692.221	692.258
	10	30+26.77	692.158	692.206
LINE "L"	1	30+37.90	692.143	692.207
	2	30+37.77	692.220	692.256
	3	30+37.63	692.270	692.319
	4	30+37.50	692.334	692.379
	5	30+37.37	693.147	693.192
	6	30+37.31	693.147	693.192
	7	30+37.17	692.334	692.379
	8	30+37.04	692.271	692.320
	9	30+36.91	692.208	692.257
	10	30+36.77	692.145	692.209

L	B	STATION	TGE	TGE DLD
LINE "N"	1	30+47.90	692.126	692.172
	2	30+47.77	692.189	692.229
	3	30+47.63	692.253	692.288
	4	30+47.50	692.317	692.350
	5	30+47.37	693.130	693.163
	6	30+47.31	693.130	693.163
	7	30+47.17	692.318	692.351
	8	30+47.04	692.254	692.289
	9	30+46.91	692.191	692.226
	10	30+46.77	692.128	692.174
LINE "O"	1	30+57.90	692.105	692.118
	2	30+57.77	692.168	692.178
	3	30+57.63	692.232	692.242
	4	30+57.50	692.296	692.305
	5	30+57.37	693.109	693.318
	6	30+57.31	693.109	693.180
	7	30+57.17	692.297	692.306
	8	30+57.04	692.233	692.243
	9	30+56.91	692.170	692.180
	10	30+56.77	692.108	692.121
℄ PIER "3	1	30+67.90	692.080	692.080
	2	30+67.77	692.143	692.143
	3	30+67.63	692.207	692.207
	4	30+67.50	692.271	692.271
	5	30+67.37	693.084	693.084
	6	30+67.31	693.084	693.084
	7	30+67.17	692.272	692.272
	8	30+67.04	692.208	692.208
	9	30+66.91	692.145	692.145
	10	30+66.77	692.083	692.083
LINE "P"	1	30+77.90	692.051	692.051
	2	30+77.77	692.114	692.114
	3	30+77.63	692.177	692.177
	4	30+77.50	692.242	692.242
	5	30+77.37	693.055	693.055
	6	30+77.31	693.055	693.055
	7	30+77.17	692.243	692.243
	8	30+77.04	692.179	692.179
	9	30+76.91	692.117	692.117
	10	30+76.77	692.054	692.054

L	B	STATION	TGE	TGE DLD
LINE "Q"	1	30+87.90	692.017	692.024
	2	30+87.77	692.081	692.086
	3	30+87.63	692.144	692.149
	4	30+87.50	692.209	692.214
	5	30+87.37	693.022	693.027
	6	30+87.31	693.023	693.028
	7	30+87.17	692.210	692.215
	8	30+87.04	692.147	692.152
	9	30+86.91	692.084	692.089
	10	30+86.77	692.021	692.152
LINE "R"	1	30+97.90	691.980	692.987
	2	30+97.77	692.044	692.049
	3	30+97.63	692.107	692.112
	4	30+97.50	692.172	692.177
	5	30+97.37	692.985	692.990
	6	30+97.31	692.986	692.991
	7	30+97.17	692.173	692.178
	8	30+97.04	692.110	692.115
	9	30+96.91	692.047	692.052
	10	30+96.77	691.985	691.992
℄ BEARING ABUT "2	1	31+09.65	691.932	691.932
	2	31+09.52	691.995	691.995
	3	31+09.38	692.059	692.059
	4	31+09.25	692.123	692.123
	5	31+09.12	692.937	692.937
	6	31+09.06	692.937	692.937
	7	31+08.92	692.125	692.125
	8	31+08.79	692.061	692.061
	9	31+08.66	691.999	691.999
	10	31+08.52	691.936	691.936

DETAIL FOR BEAMS 1, 4, 5, 6, 7 & 10

* NOTE ALL ELEVATIONS ON THIS SHEET REFER TO POINT "E" AS SHOWN ABOVE. ELEVATIONS FOR BEAMS "2, "3, "8 & "9 REFER TO TOP OF SLAB AT ℄ BEAM

ELEVATIONS - TOP OF STEEL**

BEAM	℄ BRG. ABUT. "1	℄ PIER "1	℄ FIELD SPLICE "1	℄ PIER "2	℄ FIELD SPLICE "2	℄ FIELD SPLICE "3	℄ PIER "3	℄ BRG. ABUT. "2
"1	691.35	691.45	691.55	691.56	691.61	691.55	691.45	691.35
"2	691.42	691.51	691.61	691.62	691.67	691.61	691.51	691.41
"3	691.48	691.57	691.67	691.69	691.74	691.67	691.57	691.48
"4	691.54	691.64	691.74	691.75	691.80	691.74	691.64	691.54
"5	691.60	691.70	691.80	691.81	691.86	691.80	691.70	691.60
"6	691.60	691.70	691.80	691.81	691.86	691.80	691.70	691.60
"7	691.54	691.64	691.74	691.75	691.80	691.74	691.64	691.54
"8	691.48	691.57	691.67	691.69	691.73	691.67	691.57	691.48
"9	691.41	691.51	691.61	691.62	691.67	691.61	691.51	691.42
"10	691.35	691.45	691.55	691.56	691.61	691.55	691.45	691.35

** NOTE: ELEVATIONS IN TABLE ARE TAKEN AT THE TOP OF THE FLANGE FOR ABUT'S, PIER "1 AND PIER "3 AND AT THE TOP OF THE PLATE FOR PIER "2 AND ALL FIELD SPLICES. THESE ELEVATIONS ARE TO BE USED FOR FABRICATION OF STRUCTURAL STEEL ONLY AND THEY DO NOT INCLUDE ANY ALLOWANCE FOR DEAD LOAD DEFLECTION.

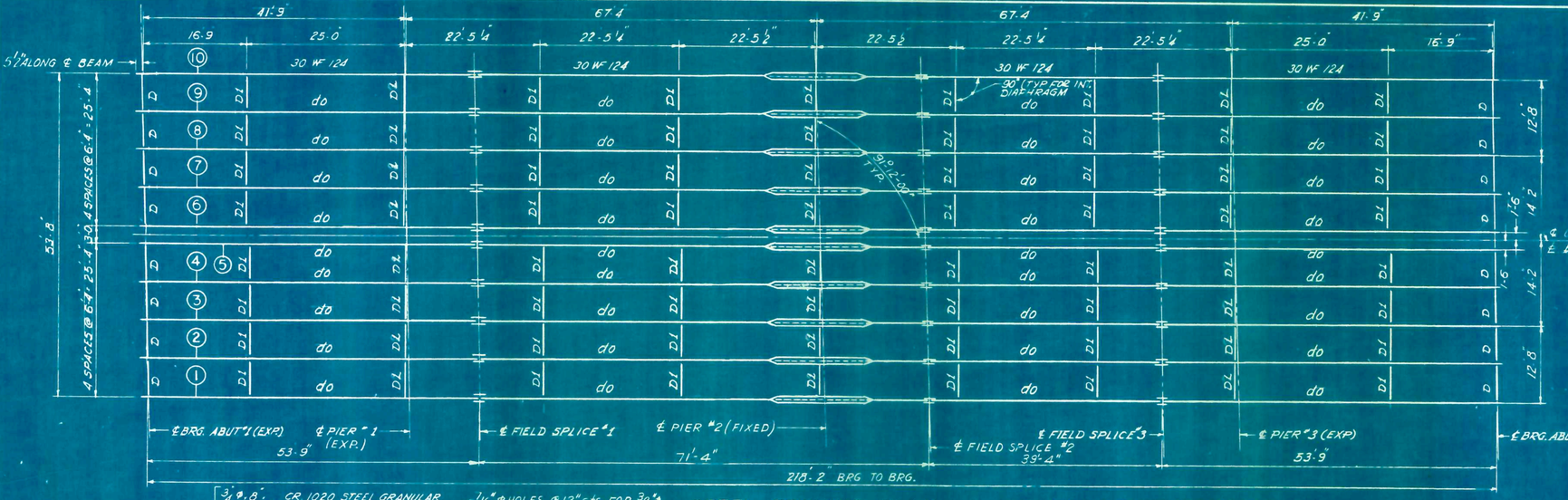
DESIGNED BY:	A.M.
DRAWN BY:	A.M.
CHECKED BY:	P.X.
IN CHARGE:	P.X.

ELEVATIONS
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A. PROJECT
F.A.I. ROUTE 57 SECTION 38-5HB 4
IROQUOIS COUNTY
STATION 800+59.81

FEDERAL AID ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
57	38-5HB-4	IROQUOIS	47	33
B P R REG NO 7	ILLINOIS	PROJECT I-57-6(C)		SHEET NO 6 OF 11

STEEL FRAMING PLAN

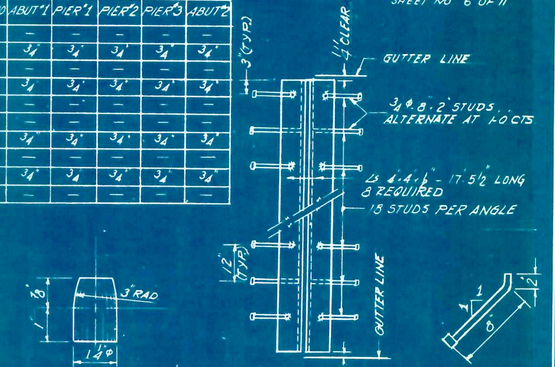
SCALE 3/32" 1'-0"



NOTE: FOR ELEVATIONS (TOP OF STEEL) SEE SHEET NO 5

TABLE OF SHIM PLATES

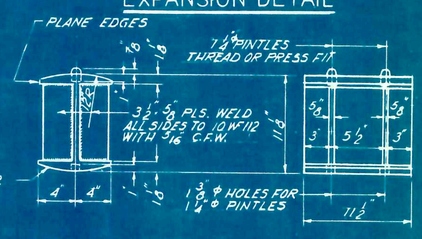
BEAM NO	ABUT "1	PIER "1	PIER "2	PIER "3	ABUT "2
1	—	—	—	—	—
2	¾"	¾"	¾"	¾"	¾"
3	—	—	—	—	—
4	¾"	¾"	¾"	¾"	¾"
5	—	—	—	—	—
6	—	—	—	—	—
7	¾"	¾"	¾"	¾"	¾"
8	—	—	—	—	—
9	¾"	¾"	¾"	¾"	¾"
10	—	—	—	—	—



PINTLE DETAIL

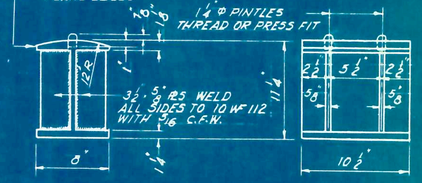
STUD DETAIL

EXPANSION DETAIL

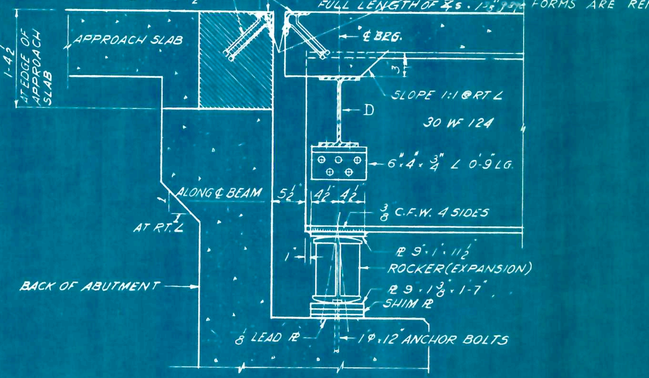


ROCKER DETAIL AT EXP. BEARING

SCALE 1½"-1'-0"

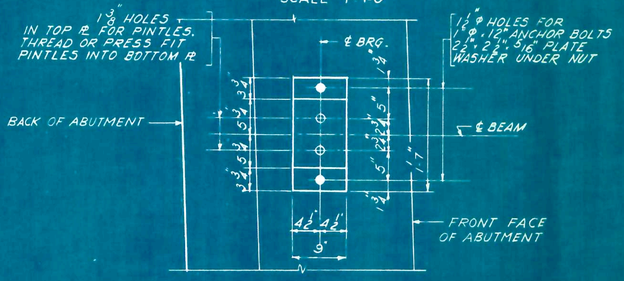


BOLSTER DETAIL AT FIXED BEARING



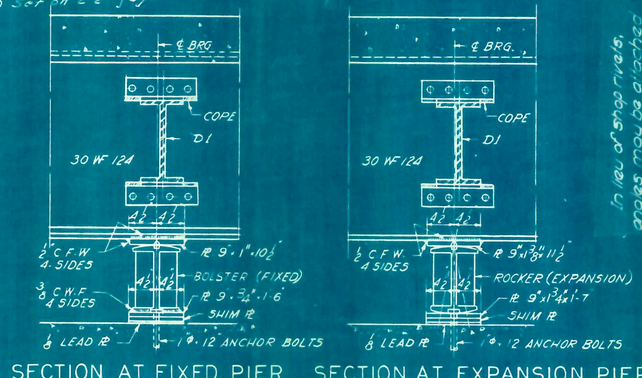
SECTION AT ABUTMENT

SCALE 1"-1'-0"



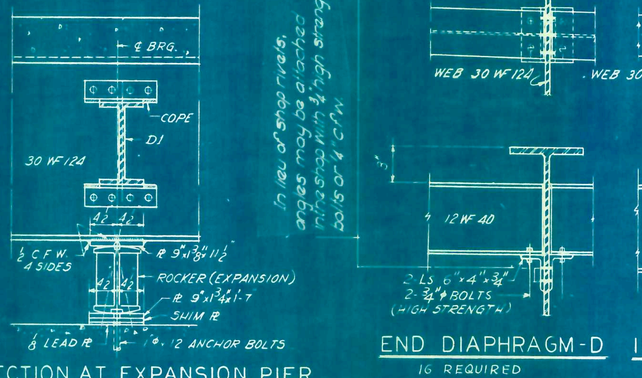
PLAN

SCALE 1"-1'-0"



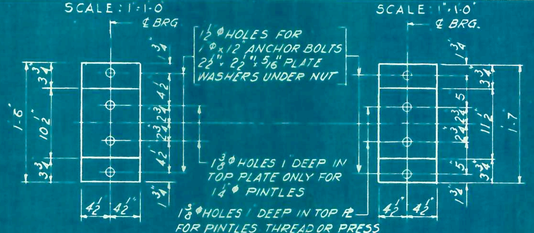
SECTION AT FIXED PIER

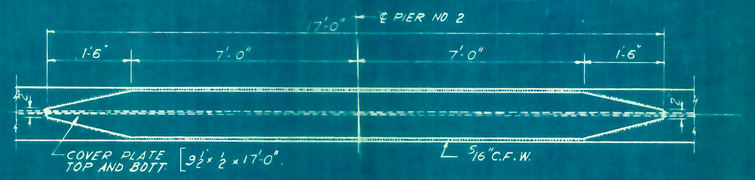
SCALE 1"-1'-0"



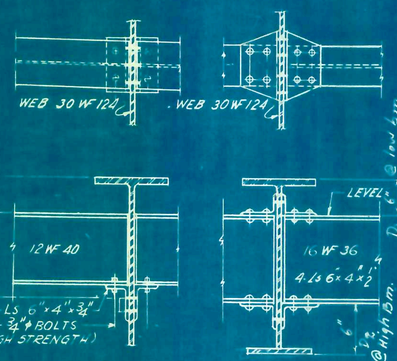
SECTION AT EXPANSION PIER

SCALE 1"-1'-0"





DETAIL OF COVER PLATES (PIER "2 ONLY)

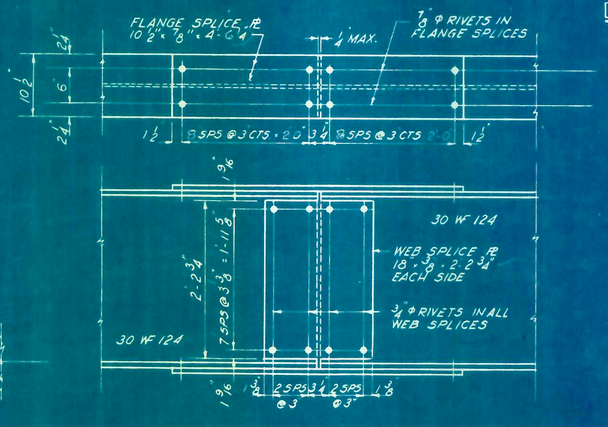


END DIAPHRAGM-D

16 REQUIRED

INT. DIAPHRAGM-D1

72 REQUIRED



SPLICE DETAIL

SCALE 1"-1'-0"

NOTE: FOR SPLICE DETAIL ALL RIVET HOLES TO BE REAMED WITH ALL PARTS ASSEMBLED TO GRADE AND ALL PARTS MATCH MARKED

Bearings and Anchorage

The location of the anchor bolts and vertical alignment of the expansion bearings shall be adjusted to the temperature at the time of erection. See Art 54.9(f)

Anchor Bolts shall be grouted into drilled holes after bodms are in place, or bolts at fixed pier may be built into the masonry

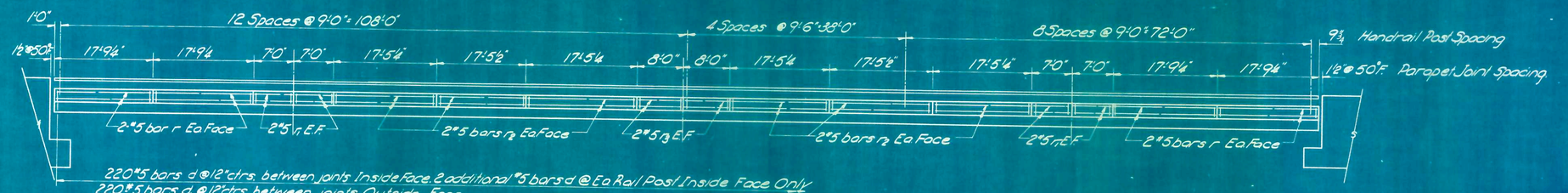
DESIGNED BY:	A.M.
DRAWN BY:	A.M.
CHECKED BY:	P.X.
IN CHARGE:	P.X.

STEEL FRAMING PLAN AND DETAILS
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A. PROJECT
F.A.I. ROUTE 57 SECTION 38-5HB 4
IROQUOIS COUNTY

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. 57	38-5 HB-4	IROQUOIS	47	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
11 SHEETS



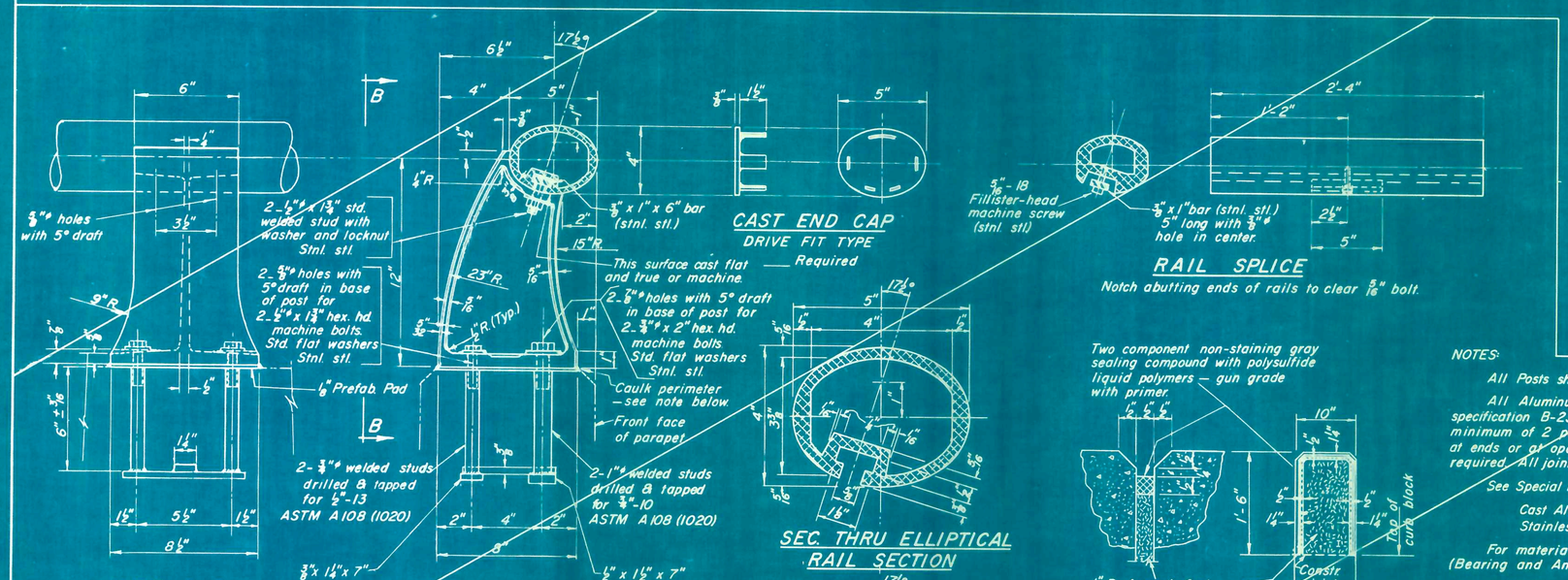
220 #5 bars d @ 12" ctrs between joints Inside Face & additional #5 bars d @ Ea Rail Post Inside Face Only
220 #5 bars d1 @ 12" ctrs between joints Outside Face

ELEVATION

Bar	No.	Size	Length	Shape
r	32	#5	17'5"	—
r1	32	#5	6'8"	—
r2	48	#5	17'1"	—
r3	16	#5	7'8"	—
d	540	#5	3'3"	⌐¬
d1	440	#5	2'9"	⌐¬

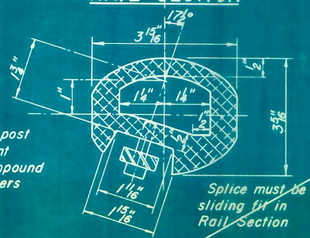
BARS d & d1

Note For Rail Details see Sheet No. 22A of 34



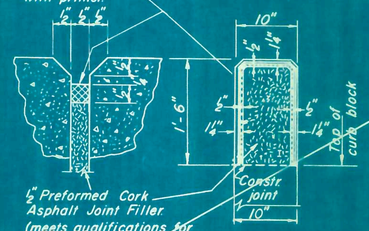
VIEW B-B
SECTION A-A
RAIL POST DETAILS
CAST END CAP
DRIVE FIT TYPE
RAIL SPLICE
Notch abutting ends of rails to clear 5/16" bolt.

SEC. THRU ELLIPTICAL RAIL SECTION

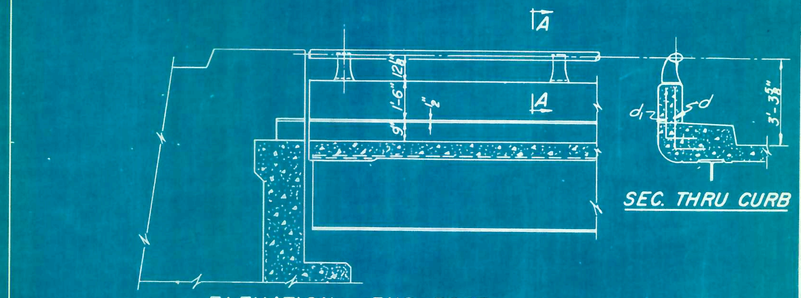


Splice must be a sliding fit in Rail Section
SEC. THRU SPLICE

Two component non-staining gray sealing compound with polysulfide liquid polymers — gun grade with primer.



½" Preformed Cork Asphalt Joint Filler. (meets qualifications for ASTM Designation D 1751) Cost incidental
PARAPET JOINT DETAIL



SEC. THRU CURB
ELEVATION — END POST

NOTES:

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-235 alloy 6061-T6, or 6062-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 344-T4.
Stainless Steel Welded Stud Bolts, Washers, and Locknuts.

For material composition of Prefabricated Pad, see Article 54.9(f), (Bearing and Anchorage), of the Standard Specifications.

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 gaps.

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 1-⅛" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade — high spots shall be ground, and low spots shimmed.

BILL OF MATERIAL

Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	4395
Class X Concrete	Cu. Yds	20.3
Reinforcement Bars	Lbs	4870

ALUMINUM HANDRAIL
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
SECTION 38-5HB4
IROQUOIS COUNTY

DESIGNED	
CHECKED	
DRAWN Wm. M. Best	
CHECKED	

19
EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

Note:
Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers —gun grade with primer.

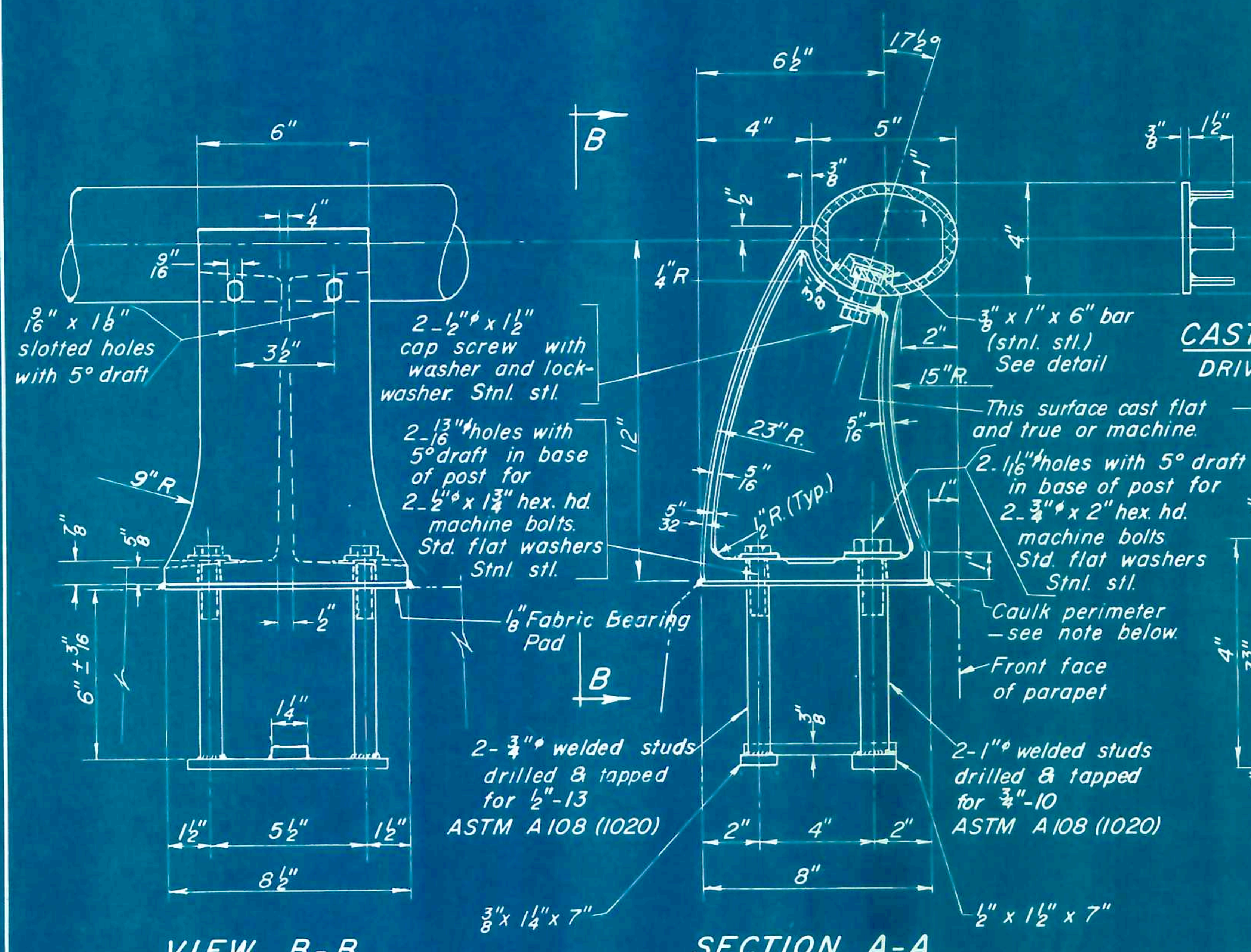
R-17 Dwn 5-28-64 Rev. 1-20-65

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 57	38-SHB-4	Iroquois	47	34 A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

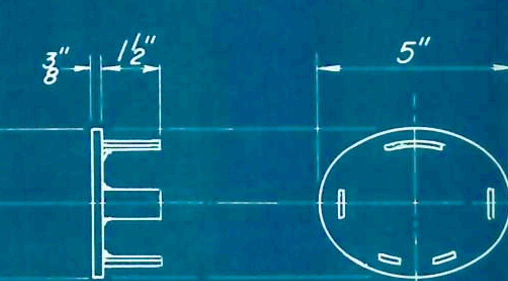
SHEET NO. 7A
11 SHEETS

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

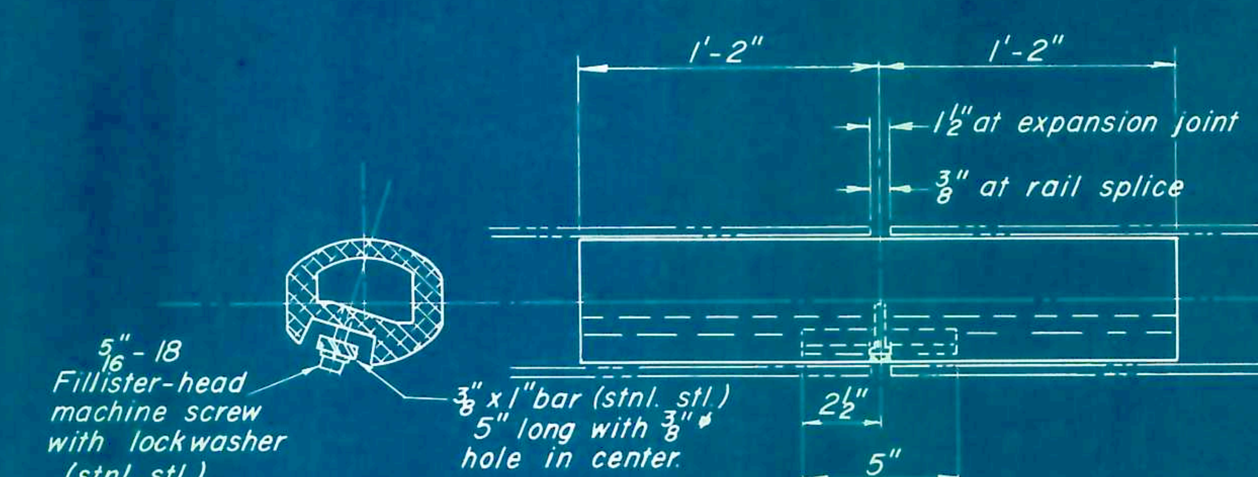
Note: For Parapet Elevation see Sheet No. 22 of 34



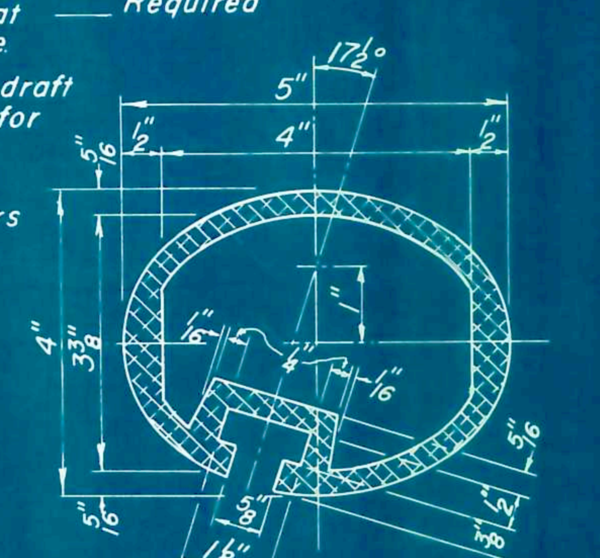
RAIL POST DETAILS



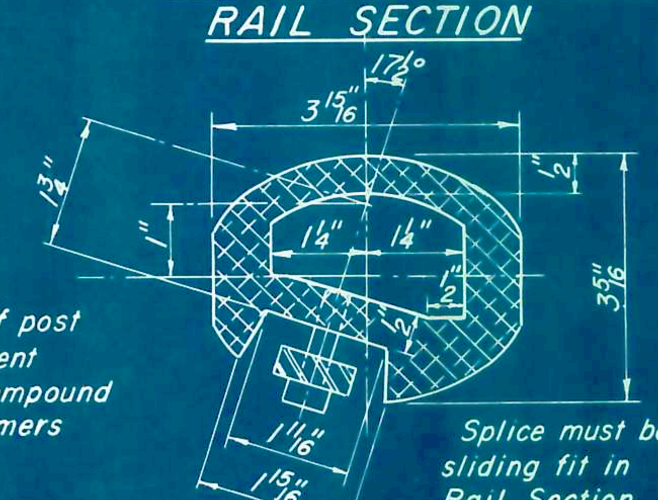
CAST END CAP
DRIVE FIT TYPE
— Required



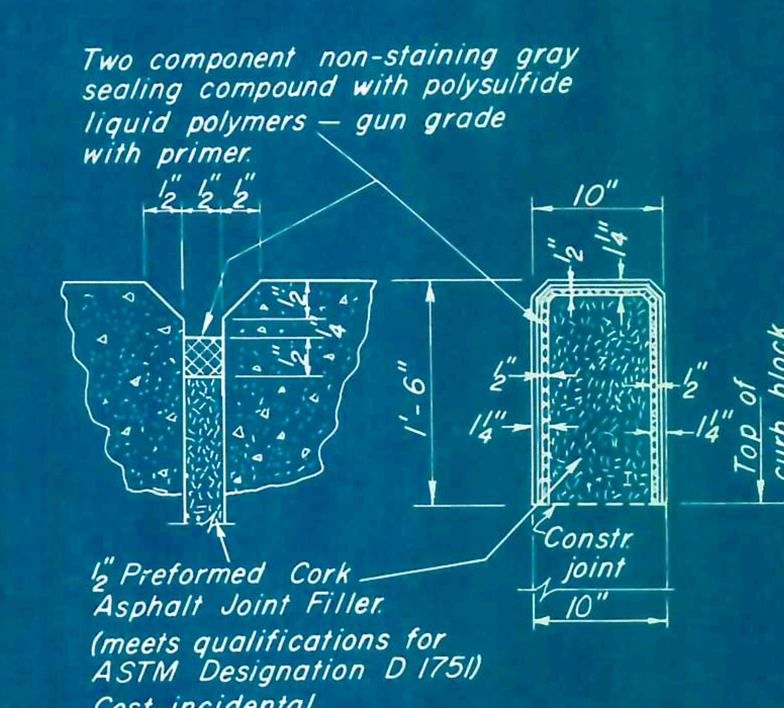
RAIL SPLICE
Notch top of slot in rails to clear 5/16" screw



SEC. THRU ELLIPTICAL RAIL SECTION



SEC. THRU SPLICE

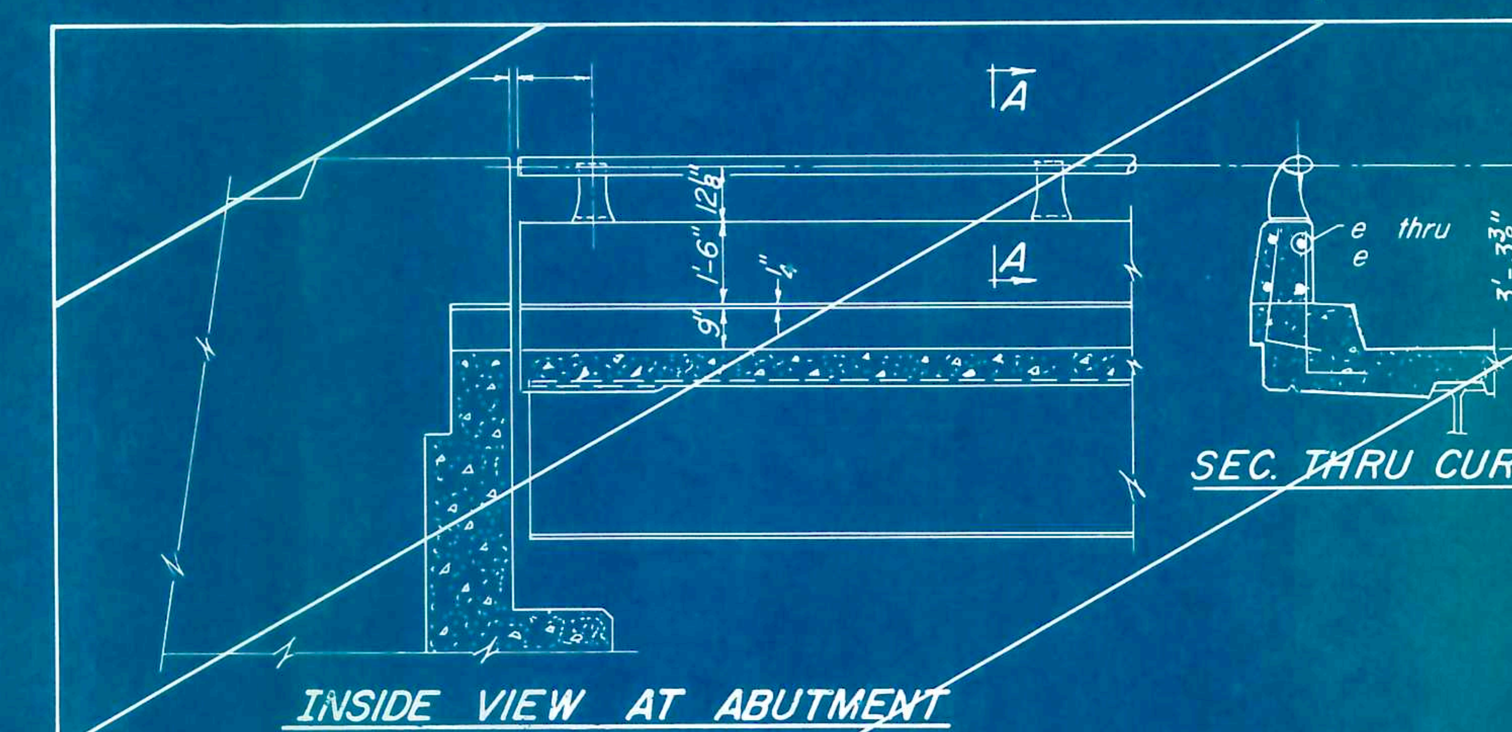


PARAPET JOINT DETAIL

CLAMP BAR

Note:

Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers —gun grade with primer.



INSIDE VIEW AT ABUTMENT

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 a 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

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 gaps.

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 haraware to be incidental to item ALUMINUM HANDRAIL.

Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade — high spots shall be ground, and low spots shimmed.

PARAPETS & RAILS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e		#5		——
e_1		#5		——
e_2		#5		——
e_3		#5		——
e_4		#5		——

Class X Concrete	Cu. Yds.	
Reinforcement Bars	Lbs.	
Aluminum Handrail	Lin. Ft.	

ALUMINUM HANDRAIL

U.S. ROUTE 54 OVER F.A.I. 57
F.A.I. ROUTE 57 SEC. 38-SHB-4
IROQUOIS COUNTY

DESIGNED	
CHECKED	
DRAWN	Wm. M. Best
CHECKED	

19
EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

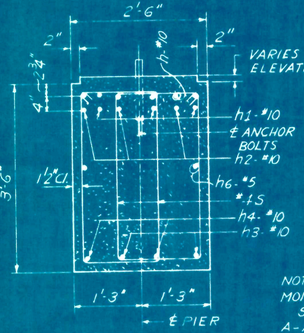
R-17 Rev. 10-8-65 1-5-66

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
57	38 SHB-4	IROQUOIS	47	35
B.P.R. SEQ NO. 1	ILLINOIS	PROJECT I-57-6(C)		

SHEET NO 8 OF 11

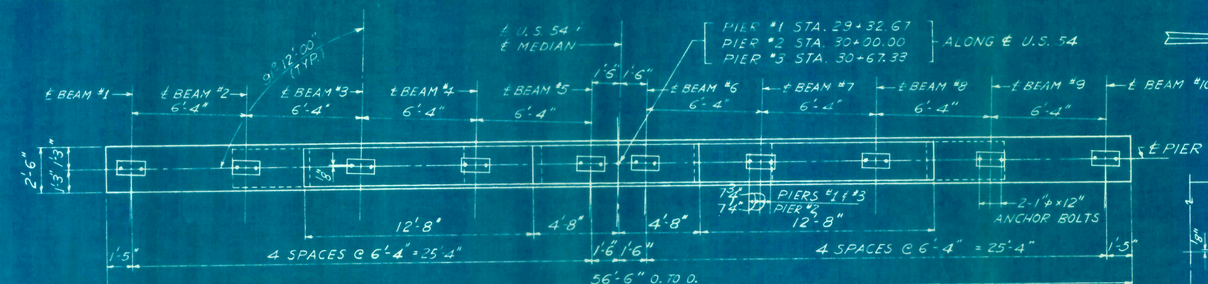
BAR SCHEDULE FOR ONE PIER

MARK	NO	SIZE	LENGTH	SHAPE
h	12	#10	28'-0"	STR.
h1	6	#10	31'-9"	"
h2	6	#10	18'-9"	"
h3	4	#10	12'-9"	"
h4	4	#10	25'-6"	"
h5	8	#6	10'-6"	"
h6	4	#5	29'-0"	"
h7	10	#9	23'-6"	"
h8	16	#5	23'-0"	"
U	64	#5	5'-6"	⊓
U1	20	#4	6'-0"	⊓
U2	68	#5	10'-0"	⊓
t	16	#6	6'-3"	⊏⊐
t1	96	#5	7'-6"	⊏⊐
S	54	#4	10'-3"	⊏⊐
V	64	#9	13'-0"	STR.
d	64	#9	6'-0"	"
d1	40	#5	6'-6"	L
f	8	#9	25'-9"	⊔
f1	8	#6	25'-0"	⊔
Z	52	#5	7'-3"	⊂

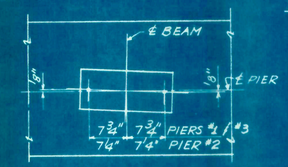


SECTION AA
SCALE: 3/4"=1'-0"

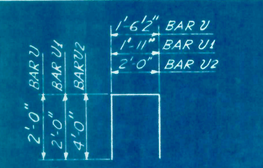
NOTE: PEDESTAL STEPS SHALL BE POURED MONOLITHICALLY WITH PIER CAP. SPACE TOP BARS AS SHOWN IN SECTION A-A TO AVOID INTERFERENCE WITH DRILLING OF HOLES FOR ANCHOR BOLTS. FOR TABLE OF SHIM PLATES SEE SHEET NO. 6



TOP PLAN PIERS #1, #2 & #3
SCALE: 1/4"=1'-0"

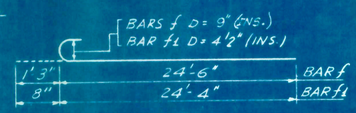


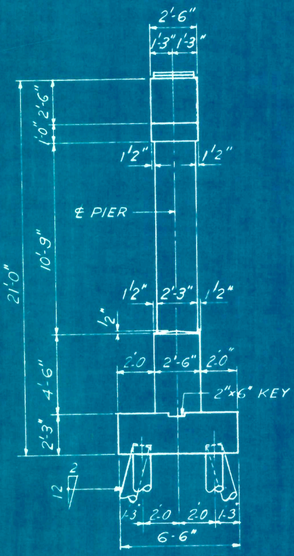
ANCHOR BOLT DETAIL



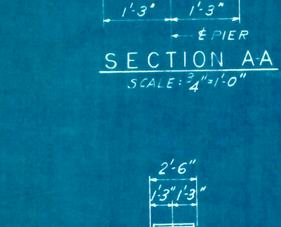
BARS U, U1 & U2

BARS t & t1



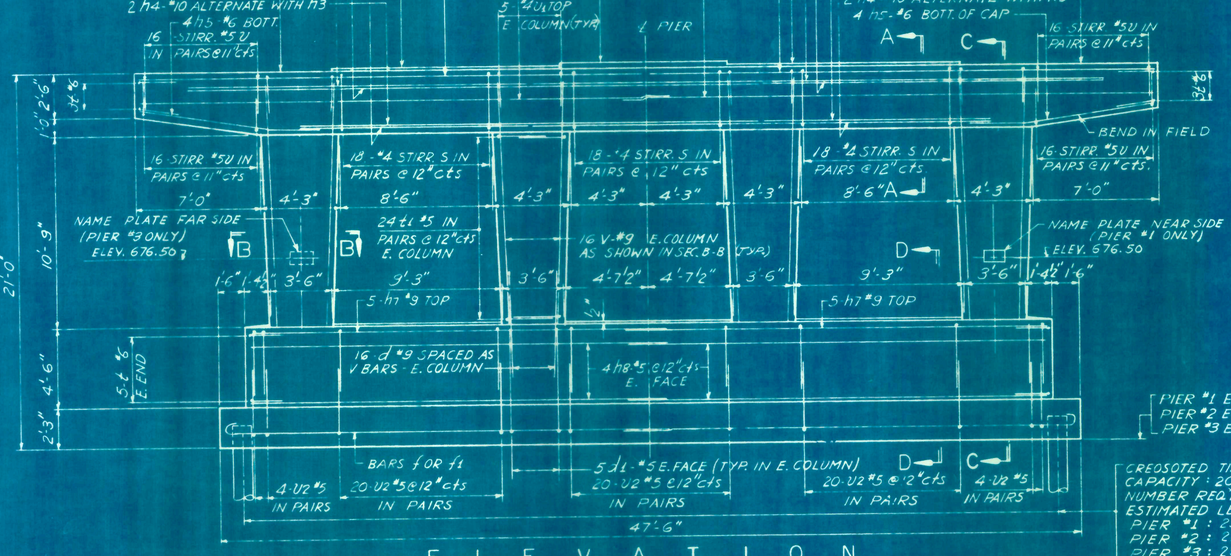


END VIEW
SCALE: 1/4"=1'-0"

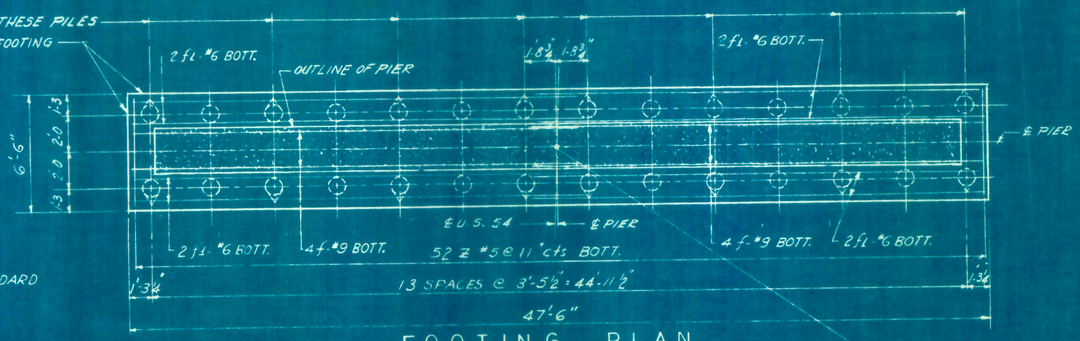


SECTION B-B
SCALE: 1/2"=1'-0"

NOTE: ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFER EXCEPT FOOTING.



ELEVATION
SCALE: 1/4"=1'-0"

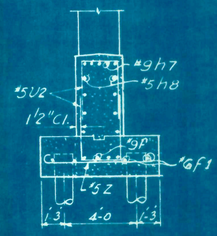


FOOTING PLAN
SCALE: 1/4"=1'-0"

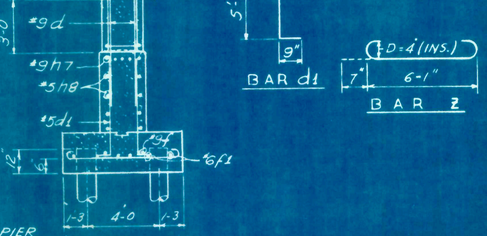
PIER #1 STA. 29+32.67
PIER #2 STA. 30+00.00
PIER #3 STA. 30+67.33

PIER #1 EL. 666.74
PIER #2 EL. 666.87
PIER #3 EL. 666.74

CREOSOTED TIMBER PILES
CAPACITY: 20 TONS
NUMBER REQ'D: 28 EACH PIER
ESTIMATED LENGTH:
PIER #1: 25 FT.
PIER #2: 25 FT.
PIER #3: 25 FT.
1 TEST PILE IN VICINITY OF PIER #2.



SECTION D-D
SCALE: 1/4"=1'-0"



SECTION C-C
SCALE: 1/4"=1'-0"

TABLE OF QUANTITIES

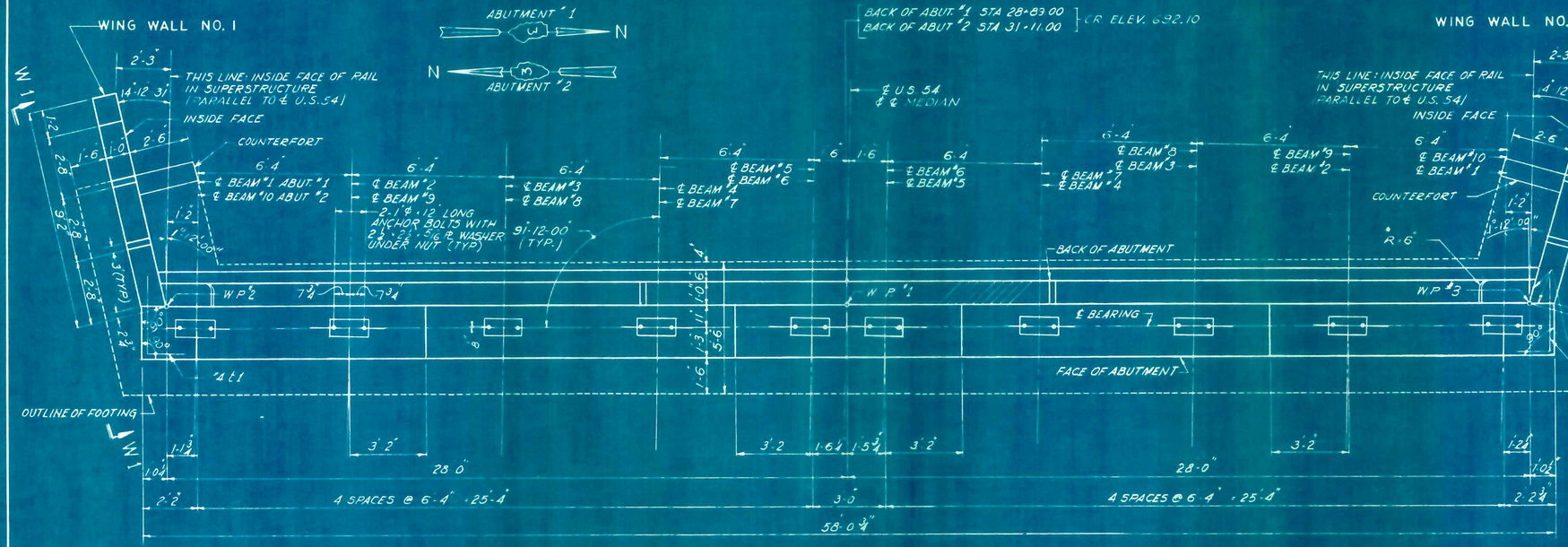
ITEM	UNIT	QUANTITY			
		PIER #1	PIER #2	PIER #3	TOTAL
CLASS "X" CONCRETE	CU. YDS	75	75	75	225
REINFORCEMENT BARS	LBS.	13065	13065	13065	39195
CREOSOTED TIMBER PILES	LIN. FT.	700	700	700	2100
TEST PILES (TIMBER)	EACH	-	1	-	1

DESIGNED BY:	P. X.
DRAWN BY:	P. X.
CHECKED BY:	A. M.
IN CHARGE:	P. X.

PIERS #1, #2 AND #3
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A. PROJECT
F.A.I. ROUTE 57 SECTION 38-5 HB-4
IROQUOIS COUNTY
STATION 800+59.81

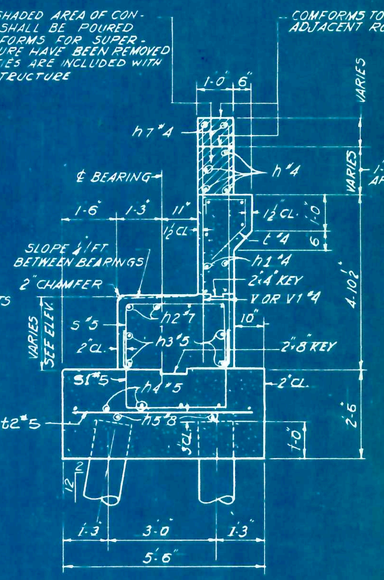
FEDERAL AID ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
57	38 HB-4	IROQUOIS	47	36
B.P.R. REG NO 4	ILLINOIS	PROJECT I-57-6( )		

SHEET NO 9 OF 11

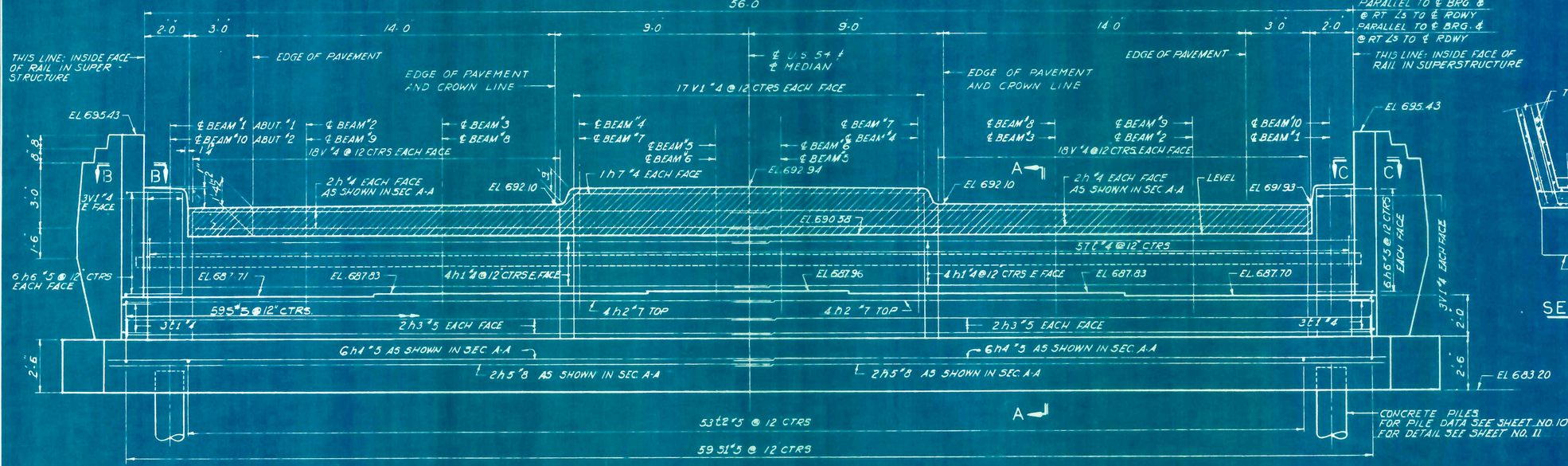


P L A N
SCALE ⅜"=1'-0"

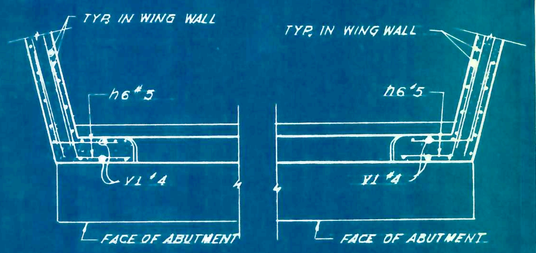
NOTE: PEDESTAL STEPS SHALL BE POURED MONOLITHICALLY WITH ABUTMENT CAP
SPACE h2 BARS TO AVOID INTERFERENCE WITH ANCHOR BOLTS
FOR BAR SCHEDULE SEE SHEET NO 10



SECTION A-A
SCALE ½"=1'-0"



E L E V A T I O N
SCALE ⅜"=1'-0"



SECTION B-B
SCALE ⅜"=1'-0"

SECTION C-C
SCALE ⅜"=1'-0"

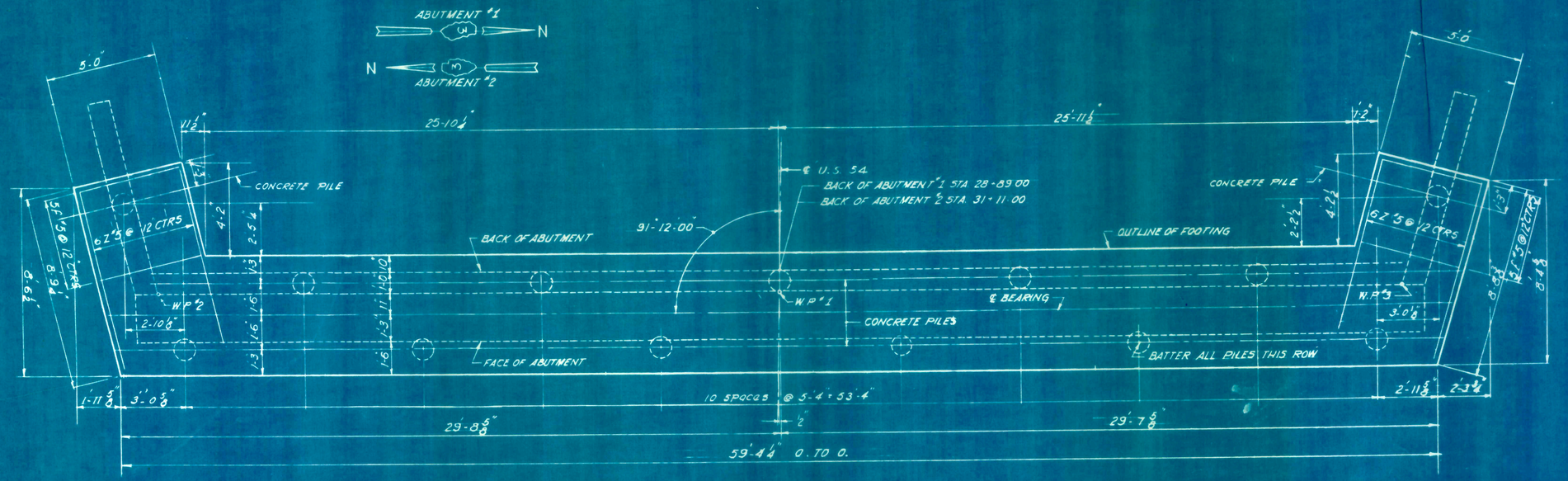
DESIGNED BY:	P.X.
DRAWN BY:	A.M.
CHECKED BY:	P.X.
IN CHARGE:	P.X.

ABUTMENTS & WING WALLS - PART I
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A.I. PROJECT
F.A.I. ROUTE 57 SECTION 38-5 HB-4
IROQUOIS COUNTY
STATION 800+59.81

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
57	38-5 HB-4	IROQUOIS	47	36A

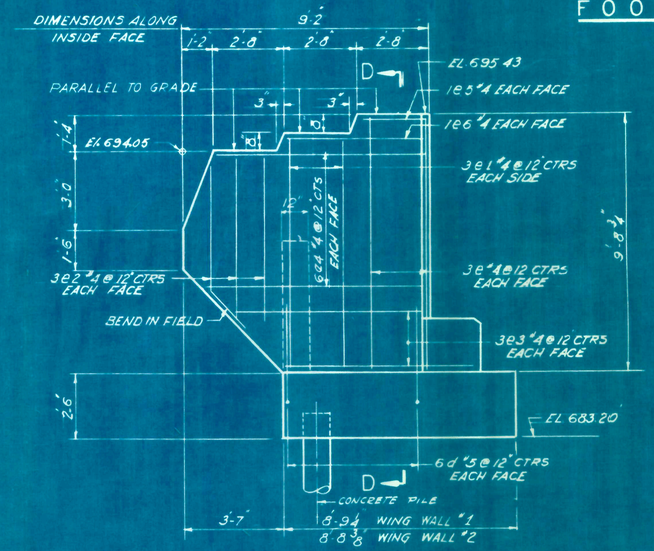
ILLINOIS PROJECT I-57-6( )

SHEET NO 10 OF 11



FOOTING AND PILE PLAN

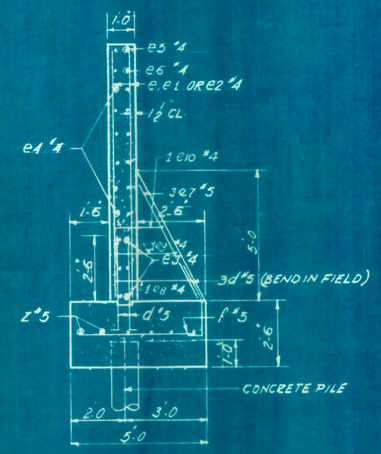
SCALE ⅜" = 1'-0"



ELEVATION W1 W1

SCALE ⅜" = 1'-0"

NOTE: ELEVATION W2 W2 SIMILAR AT OPPOSITE HAND



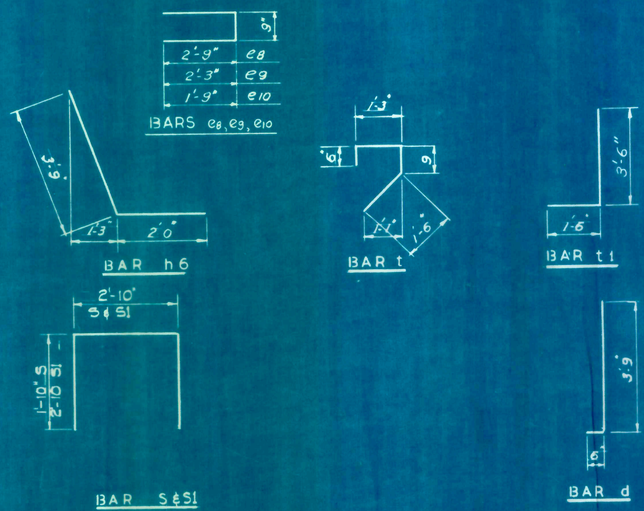
SECTION D-D

SCALE ⅜" = 1'-0"

PILE SCHEDULE FOR ONE ABUTMENT

PILES	CONCRETE
CAPACITY	30 TONS
NO. REQUIRED	13*
EST. LENGTH	40 FT.

*INCLUDES 1 CONCRETE TEST PILE FOR ABUT. #1



BAR SCHEDULE FOR ONE ABUTMENT				
MARK	NO.	SIZE	LENGTH	SHAPE
h	8	#4	26'-9"	STRAIGHT
h1	16	#4	28'-9"	"
h2	8	#7	29'-9"	"
h3	8	#5	29'-9"	"
h4	16	#5	30'-3"	"
h5	4	#8	30'-3"	"
h6	24	#5	5'-9"	⌐
h7	2	#4	16'-3"	STRAIGHT
V	72	#4	6'-0"	STRAIGHT
V1	46	#4	7'-0"	"
t	57	#4	4'-0"	⌐
t1	6	#4	5'-3"	⌐
t2	53	#5	5'-3"	STRAIGHT
S	59	#5	6'-6"	⌐
S1	59	#5	8'-6"	⌐
Z	12	#5	8'-6"	STRAIGHT
f	10	#5	4'-9"	STRAIGHT
d	30	#5	4'-3"	L
e	12	#4	9'-6"	STRAIGHT
e1	12	#4	8'-9"	"
e2	12	#4	6'-3"	"
e3	12	#4	7'-0"	"
e4	24	#4	7'-9"	"
e5	4	#4	2'-6"	"
e6	4	#4	5'-0"	"
e7	6	#5	6'-0"	⌐
e8	4	#4	6'-3"	⌐
e9	4	#4	5'-3"	⌐
e10	4	#4	4'-3"	⌐

BARS e8, e9, e10	
2'-9"	e8
2'-3"	e9
1'-9"	e10

NOTE
FOR DETAIL OF CONCRETE PILES SEE SHEET NO 11
WORK THIS DRAWING WITH SHEET NO 9

QUANTITIES FOR ABUTMENTS

ITEM	UNIT	QUANTITY ABUT #1	QUANTITY ABUT #2	TOTAL
CLASS 'X' CONCRETE	CU YDS.	61.5	61.5	123
REINFORCEMENT BARS	LBS	4620	4620	9240
CONCRETE PILES	LIN FT.	480	520	1000
TEST PILES (CONCRETE)	EACH	1	–	1

* CONCRETE PILES — DRIVEN — LIN FT. 755 840 1595
FURNISHED — 40 FT.

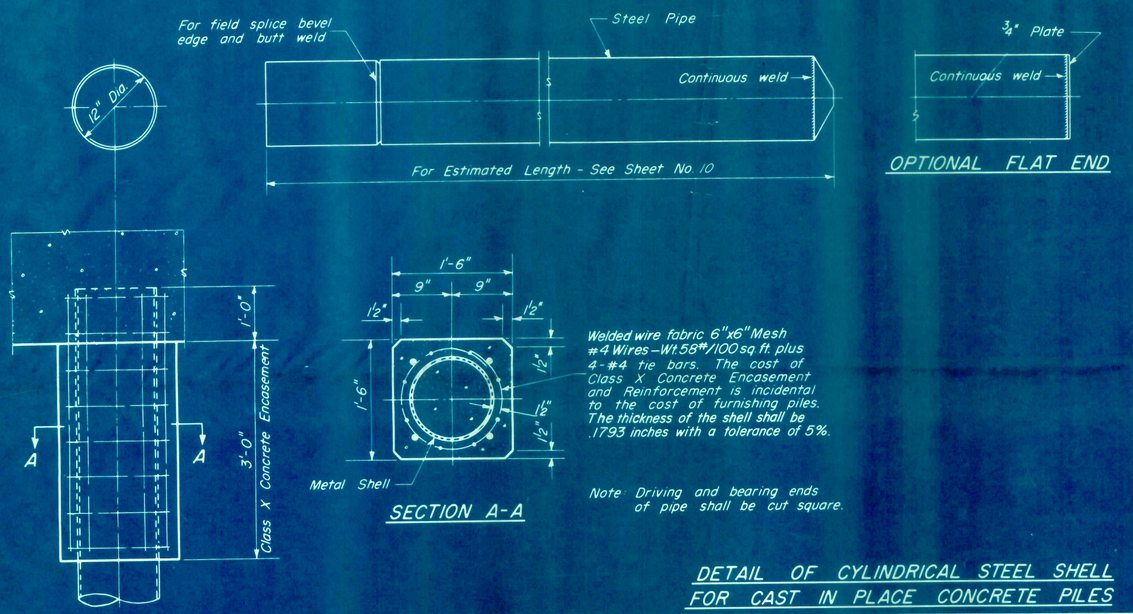
DESIGNED BY: P.X.
DRAWN BY: A.M.
CHECKED BY: P.X.
IN CHARGE: P.X.

ABUTMENTS & WING WALLS - PART II
GRADE SEPARATION
U.S. ROUTE 54
OVER F.A.I. ROUTE 57
F.A. PROJECT
FAI ROUTE 57 SECTION 38-5 HB-4
IROQUOIS COUNTY
STATION 800+59.81

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	38-5 HB-4	Iroquois	47	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

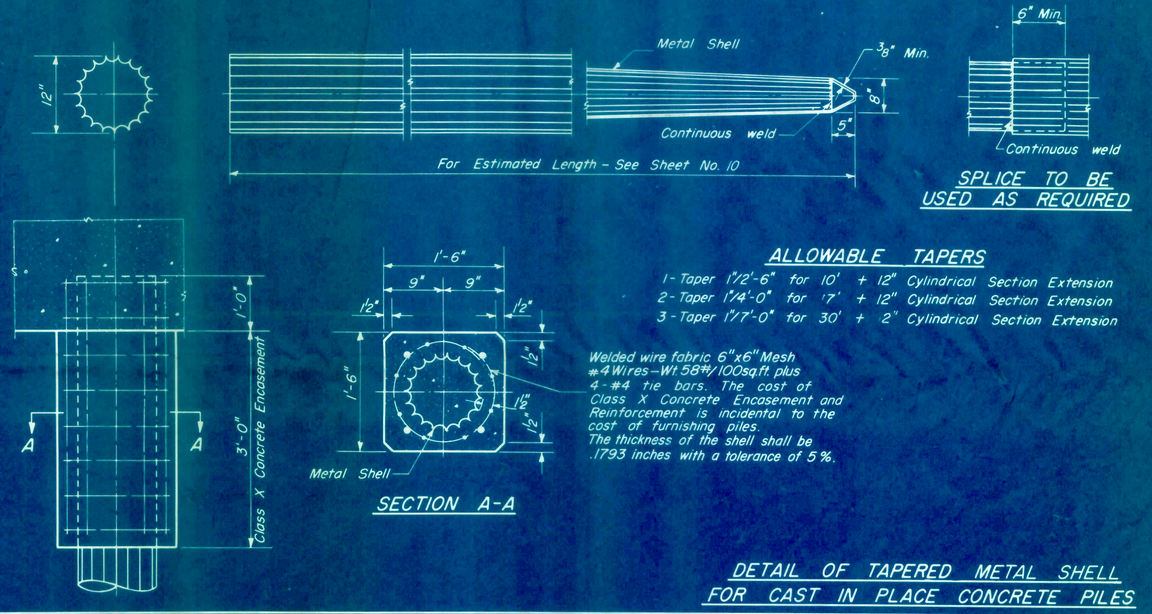
SHEET NO. 11 // SHEETS



SECTION A-A

OPTIONAL FLAT END

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



SPLICE TO BE USED AS REQUIRED

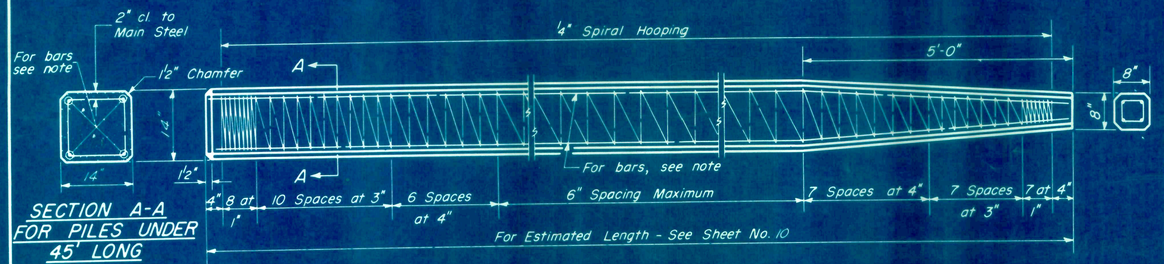
SECTION A-A

ALLOWABLE TAPERS

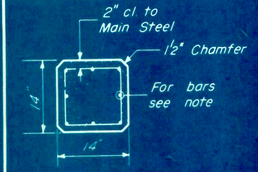
1 - Taper 1'-12'-6" for 10' + 12" Cylindrical Section Extension
2 - Taper 1'-4'-0" for 17' + 12" Cylindrical Section Extension
3 - Taper 1'-7'-0" for 30' + 2' Cylindrical Section Extension

Welded wire fabric 6"x6" Mesh #4 Wires - Wt 58#/100 sq. ft. plus 4-#4 tie bars. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. The thickness of the shell shall be .1793 inches with a tolerance of 5%.

DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



SECTION A-A FOR PILES UNDER 45' LONG



SECTION A-A FOR PILES 45' OR MORE

Note: For 14" Piles 45' long or more use 8-#8 bars 4 for the full length and 4 to the point of bevel. For 14" Piles under 45' long use 4-#9 bars the full length.

Handling: For Pile lengths up to 45', use two slings placed at a distance of 0.21 L* from each end. For Piles longer than 45', use three slings placed at a distance of 0.12 L* from each end and at mid-point of pile.

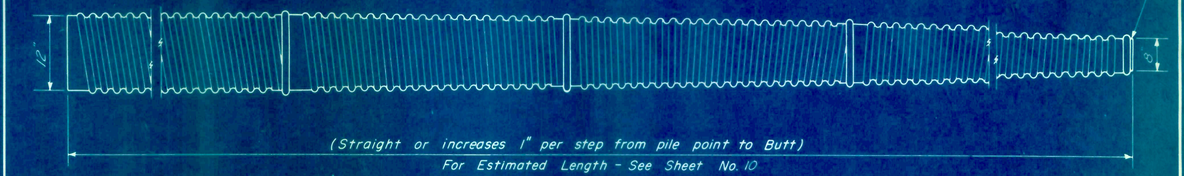
*L = Over all length of pile to be handled.

DESIGNED	
CHECKED	
DRAWN	P.G. Barnett W.A. Sausaman
CHECKED	

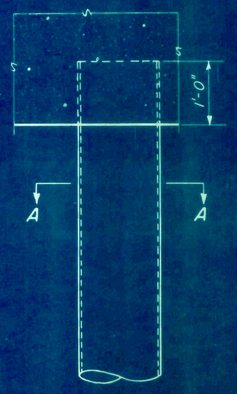
19
EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

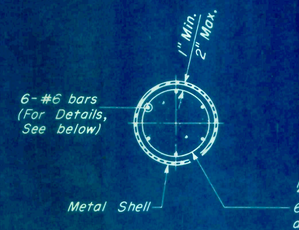
X-1 Rev. 5-12-61 9-27-62 4-20-64 7-26-65

DETAIL OF PRECAST CONCRETE PILES



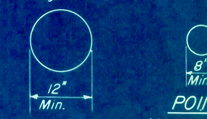
At least 1/4 of the length of pile shall have a Butt diameter equal to or greater than 12".
Gages are furnished to suit soil conditions (14 Gage Min.)





Reinforcement is incidental to the cost of furnishing piles.

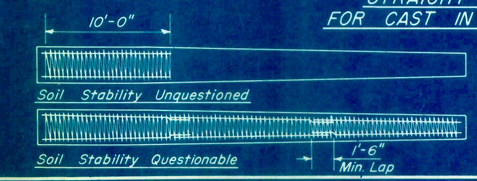
SECTION A-A



BUTT

POINT
(Applies only to Step Taper type pile)

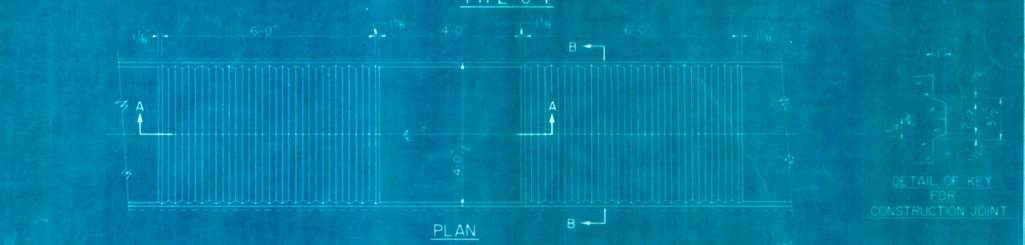
DETAIL OF MANDREL DRIVEN STRAIGHT OR STEP-TAPER PILES FOR CAST IN PLACE CONCRETE PILES



PILES FOR ABUTMENTS
U.S. 54 OVER F.A.I. 57
F.A.I. ROUTE 57 SEC. 38-5HB-4
IROQUOIS COUNTY

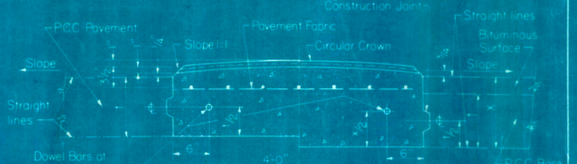
STANDARD DESIGN
CONCRETE MEDIANS

TYPE C-4



PLAN

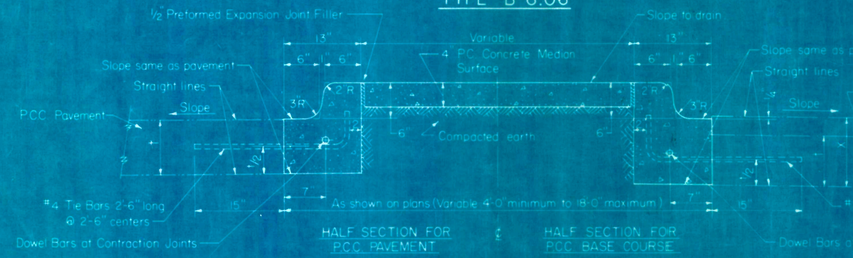
SECTION A-A



HALF SECTION FOR PCC PAVEMENT — HALF SECTION FOR PCC BASE COURSE

SECTION B-B

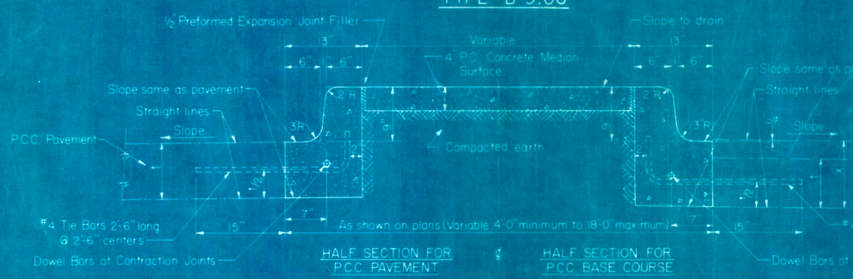
TYPE B-6.06



HALF SECTION FOR PCC PAVEMENT — HALF SECTION FOR PCC BASE COURSE

TRANSVERSE SECTION

TYPE B-9.06



HALF SECTION FOR PCC PAVEMENT — HALF SECTION FOR PCC BASE COURSE

TRANSVERSE SECTION

GENERAL NOTES

Dimension "t" is equal to the adjacent pavement edge thickness or base course edge thickness.

Dimension "x" is equal to the adjacent base course edge thickness plus the bituminous surface edge thickness.

CONTRACTION JOINTS – Contraction Joints of a type similar to that used in the adjacent pavement shall be installed in the Concrete Median in prolongation with the joints in the pavement. The details of the transverse joints in the Concrete Median shall be approved by the Engineer. If Contraction Joints are not provided in the pavement, Contraction Joints will not be required in the Concrete Median. The cost of Contraction Joints including furnishing and placing dowel bars shall be included in the unit price bid per lineal foot for the particular type of Concrete Median specified.

The cost of furnishing and placing pavement fabric in the median Type C-4 shall be included in the unit price bid per lineal foot for PORTLAND CEMENT CONCRETE MEDIAN, TYPE C-4.

The concrete median shall be constructed in accordance with the applicable portions of Section 80 of the Standard Specifications. The total perimeter of median curb will be measured for payment, and payment will be made at the contract unit price per lineal foot for the type of median specified.

The 4" P.C. Concrete Median Surface shall be constructed in accordance with the applicable provisions of Section 83 of the Standard Specifications. This work shall be measured in place, and the area computed in square feet; payment will be made at the contract unit price per square foot for PORTLAND CEMENT CONCRETE MEDIAN SURFACE 4" INCHES which price shall include the cost of furnishing and installing the expansion joints.

The earth work shall be considered as being incidental to Earth Excavation.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED December 12, 1962	W.H.F.	12-12-62
Engineer of Road Plans And Contracts		
APPROVED December 12, 1962		
Engineer of Design		

STANDARD 2122-1

Redrawn W.F. 2-12-62

STANDARD SYMBOLS AND ABBREVIATIONS

THESE SYMBOLS AND ABBREVIATIONS ARE USED THROUGHOUT THESE PLANS UNLESS OTHERWISE NOTED

SYMBOLS

- State Line
- Shelby Co. / Fayette Co. — County Line
- Township Line
- City, Village or Town Limits
- Section or Grant Line
- Section Corner
- Quarter Corner
- Same Ownership
- PL — Unfenced Property Line
- PL — Fenced Property Line
- Fence Line
- Sid No. — Construction Identification Sign
- Right of Way Marker
- R.O.W. — Existing Right of Way Line
- R.O.W. — Existing Fenced Right of Way Line
- Proposed Right of Way Line
- A.C. — Proposed Right of Way Line coincident with access control line
- A.C. — Access Control Line (Not coincident with Right of Way Line)
- 150' — Proposed Right of Way Dimension
- Construction Limits
- Base or Survey Line
- Channel Change Easement
- Temporary Easement (Detour, Grading etc.)
- Stream
- NAME — Lake or Pond
- Marsh
- Levee
- Summit
- Deciduous Trees
- Evergreen Trees
- Hedge
- Railroad or Utility Tracks
- Curb Wall
- Retaining Wall
- Existing Drive or Traveled Way
- Pipe Lines (G Gas, W Water, O Oil)
- North Arrow
- Centerline
- Roadway
- Traffic Direction Arrow
- Longitudinal Construction Joint
- Longitudinal Metal Joint
- Contraction Joint
- Expansion Joint
- Guard Rail
- Existing Pavement, Curb & Gutter, Driveway Pavement & Sidewalk to be removed
- Existing Culvert
- Culvert to be Constructed
- Culvert with Drop Inlet
- P 936.25 — Elevation of Surface of Finished Pavement at Point Indicated
- C 936.50 — Elevation of Top of Curb at Point Indicated
- G 936.00 — Elevation of Flow Line of Gutter at Point Indicated
- 19.46 — Storm Sewer (Direction of Flow & Invert Elevation Indicated)
- 31.97 — Tile Drain (Direction of Flow & Invert Elevation Indicated)
- Existing Inlet, Inlet to be Adjusted, or Inlet to be Reconstructed
- •• Inlet to be Constructed
- Inlet to be filled with Sand & Connection Sealed
- • Existing Catch Basin, Catch Basin to be Adjusted, or Catch Basin to be Reconstructed
- •• Catch Basin to be Constructed
- Catch Basin to be filled with Sand & Connection Sealed
- • Existing Manhole, Manhole to be Adjusted, or Manhole to be Reconstructed
- •• Manhole to be Constructed
- Manhole to be filled with Sand & Connection Sealed
- • Existing Valve Vault, Valve Vault to be Adjusted, or Valve Vault to be Reconstructed
- •• Valve Vault to be Constructed
- Valve Vault to be filled with Sand & Connection Sealed
- • Existing Fire Hydrant, or Fire Hydrant to be Adjusted
- (M) Fire Hydrant & Auxiliary Valve to be Moved (Symbol with Letter Indicates New Location)
- • Existing Light Standard, or Light Standard to be Adjusted
- (M) Light Standard to be Moved (Symbol with Letter Indicates New Location)
- • Existing Stop & Go Light, or Stop & Go Light to be Adjusted
- (M) Stop & Go Light to be Moved (Symbol with Letter Indicates New Location)
- • Existing Traffic Sign, or Traffic Sign to be Adjusted
- (M) Traffic Sign to be Moved (Symbol with Letter Indicates New Location)
- • Existing House Service Box or House Meter Vault, or House Service Box or House Meter Vault to be Adjusted
- (M) House Service Box or House Meter Vault to be Moved (Symbol with Letter Indicates New Location)
- • Existing Main Service Box or Main Meter Vault, or Main Service Box or Main Meter Vault to be Adjusted
- (M) Main Service Box or Main Meter Vault to be Moved (Symbol with Letter Indicates New Location)
- Trolley Pole
- Telephone or Telegraph Pole
- Power Line Pole
- H — House
- † — Church
- S — Shed
- Storage 25'8" — Business Building
- B — Barn
- P — School
- T.H. — Town Hall

ABBREVIATIONS

T.D.	Tile Drain	℄-B	Centerline to Back of Curb	R.P.S.	Reference Point Stake	Sec.	Section
S.S.	Storm Sewer (Existing)	Δ	Central Angle	I.P.	Iron Pipe	Sta.	Station
S.S. (18"x24" TYPE I)	Storm Sewer (Size, Length and Type)	D	Degree of Curve	N&W	Nail & Washer	P.L.	Property Line
S.S. (18"x24" TYPE I RCP)	Storm Sewer (Size, Length, Type and Material)	T.	Tangent Length	T.P.	Telephone Pole	F.E.	Field Entrance
		L.	Curve Length	P.P.	Power Pole	P.E.	Private Entrance
		R.	Radius of Curve	F.P.	Fence Post	F.A.I.	Federal-aid Interstate
C.M.P.	Corrugated Metal Pipe	E.	External Distance	F.H.	Fire Hydrant	F.A.	Federal-aid
C.I.P.	Cast Iron Pipe	S.	Superelevation (ft. per ft. of width)	B.M.	Bench Mark	F.A.S.	Federal-aid Secondary
P.C.	Pipe Culvert (Existing)	P.C.	Point of Curvature	R.R.S.	Railroad Spike	S.B.I.	State Bond Issue
P. (18"x24" TYPE I)	Pipe Culvert (Size, Length and Type)	P.I.	Point of Intersection	R.O.W.	Right of Way	M.F.T.	Motor Fuel Tax
		P.T.	Point of Tangency	Inv.	Invert	S.A.	State-aid Road
P. (18"x24" TYPE I CMCP)	Pipe Culvert (Size, Length, Type and Material)	P.O.T.	Point on Tangent	F.L.	Flow Line	C.H.	County Highway
		P.C.C.	Point of Compound Curvature	S.M.	State of Illinois Survey Marker	T.R.	Township Road
P.C.C.	Portland Cement Concrete	P.R.C.	Point of Reverse Curvature	U.S.C.&G.S.	U.S. Coast & Geodetic Survey	C.S.	City Street
F.-F.	Face to Face of Curb	V.C.	Vertical Curve	U.S.G.S.	U.S. Geological Survey	Proj.	Project
B-B	Back to Back of Curb	X	External Distance of Vertical Curve	Elev.	Elevation	A.C.	Access Control
℄-F.	Centerline to Face of Curb			Rt.	Route		

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED May. 12, 1966	J.F.L.	11-18-58
Engineer of Road Plans And Contracts	W.F.	9-3-59
APPROVED May. 12, 1966	W.F.	11-19-62
Engineer of Design	W.F.	5-12-66

● If it is definitely known that adjustment or reconstruction is required, place A or R inside the symbol. If a new casting is required, show the casting number. Use P for open, C for closed lid. Example – Catch Basin to be reconstructed with new type 5 frame, open lid = (R) 5P

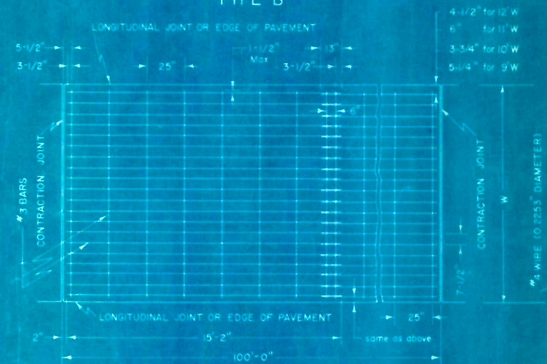
●● First character denotes type of structure. Use Sp. for special design. Second character denotes number of frame or grate. Example – Type A manhole with type 1 frame and closed lid = ● A-1C

STANDARD 1686-3

Drawn 5-7-53 Redrawn 11-19-62 (Half Size) W.F.

STANDARD DESIGN FOR PAVEMENT FABRIC

TYPE B

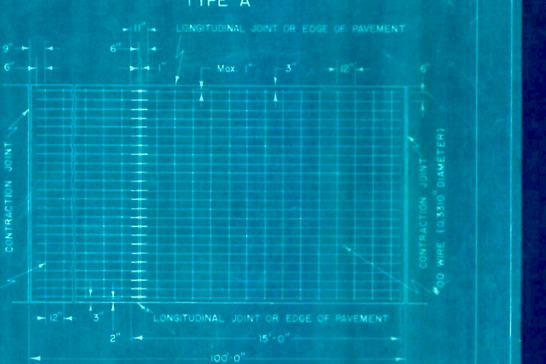


Approximate weight per 100 square feet = 80 pounds. The Pavement Fabric shall conform to the requirements of the Specifications for Fabricated Steel Bar or Rod Mats for Concrete Reinforcement, A.S.T.M. Designation A-184.

Hard grade billet-steel, hard grade axle-steel or rail-steel shall be used for the longitudinal bars. Intermediate grade billet-steel or axle-steel shall be used for the transverse bars. All bars shall meet the requirements specified in Article 1241.1 of the Standard Specifications for Road and Bridge Construction.

Each bar intersection shall be clipped using #9 gage wire.

TYPE A



Approximate weight per 100 square feet = 78 pounds. The Pavement Fabric shall conform to the requirements of the Specifications for Welded Steel Wire Fabric for Concrete Reinforcement, A.S.T.M. Designation A-185. Welded wire fabric for concrete pavement may be furnished in either flat sheets or hinged flat sheets; the method of hinging the hinged sheets shall meet the approval of the Engineer.

NOTE

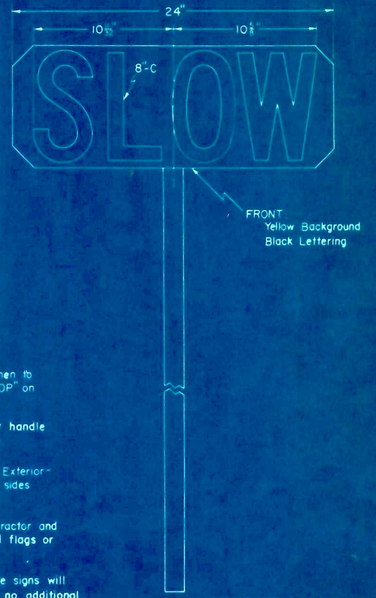
Pavement Fabric which is lapped transversely shall have a minimum lap of six (6) inches.

Specification References: Articles 4812, 48.17, 48.35, 48.36 and 1241.1

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BLDGS. DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED Sept. 24 1954	WHF	7-12-61
H J Otten ENGINEER OF ROAD PLANS AND CONTRACTS	WHF	7-3-61
APPROVED 1954		
ENGINEER OF DESIGN		

STANDARD 2115-1

STANDARD DESIGN FOR FLAGMAN TRAFFIC CONTROL SIGN



-NOTE-

The paddle type sign used by the flagmen to direct traffic shall be constructed with "STOP" on one side and "SLOW" on the reverse side.

Signs may be constructed with a short handle or a long staff which rests on the ground.

The material for the sign shall be 1/4" Exterior Grade A-A Plywood or Exterior D.F.P.A.-2 sides sound.

These signs shall be furnished by the Contractor and shall be used by the flagmen in lieu of red flags or other signaling devices.

The cost of furnishing and maintaining the signs will be considered incidental to the contract and no additional compensation will be allowed.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BLDGS. DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED 1954		
H J Otten ENGINEER OF ROAD PLANS AND CONTRACTS		
APPROVED April 12 1954		
ENGINEER OF DESIGN		

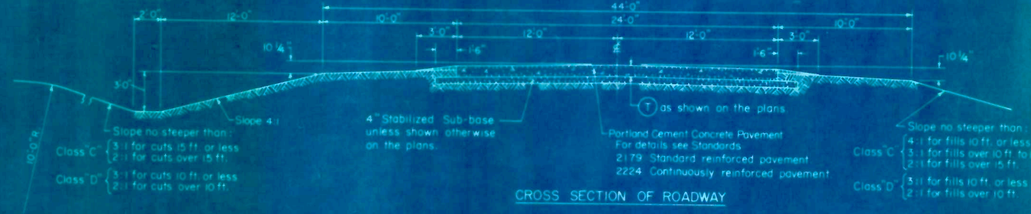
STANDARD 2114

STANDARD DESIGN

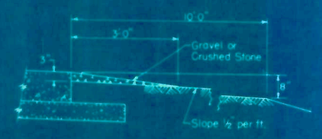
ROADWAY FOR 24 FT. P.C.C. PAVEMENT

(HIGHWAY CLASSES "C" & "D")

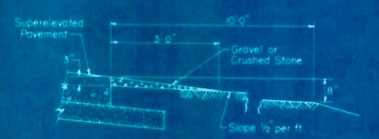
Shoulders and side slopes shall be rounded 12 inches in each direction from the tangent intersection of these surfaces.



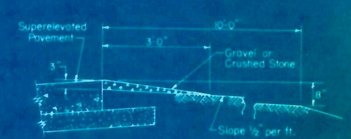
CROSS SECTION OF ROADWAY



DETAIL OF SHOULDERS
(Tangent Pavement)



DETAIL OF SHOULDER ON INSIDE OF CURVE
(Superelevated Pavement)



DETAIL OF SHOULDER ON OUTSIDE OF CURVE
(Superelevated Pavement)

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED July 7 1966	W.F.	11-4-63
William Austree Engineer of Road Plans And Contracts	W.F.	7-7-66
APPROVED July 7 1966		
H J Otten Engineer of Design		

GENERAL NOTE

Superelevated pavement shall be rotated around the centerline of the pavement.

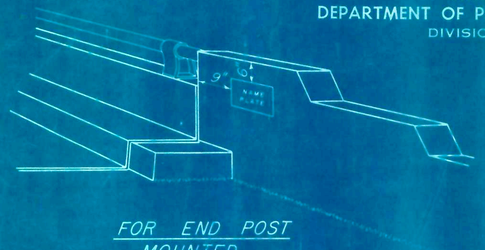
(T) = 10", 9", 8", or 7" pavement thickness.

When a slip form paver is used the stabilized sub-base may be extended to a width 6 inches greater than the width from outside to outside of the slip form paver tracks. Such extended width will not be measured for payment but shall be considered as being incidental to the contract.

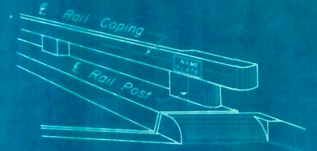
STANDARD 2187-2

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

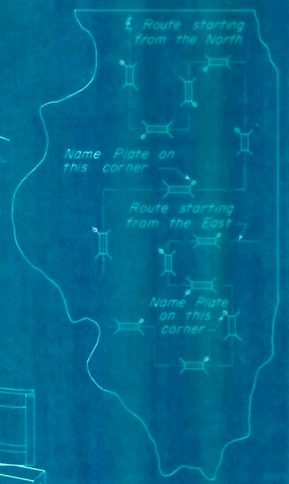
Sheet 1 of 1

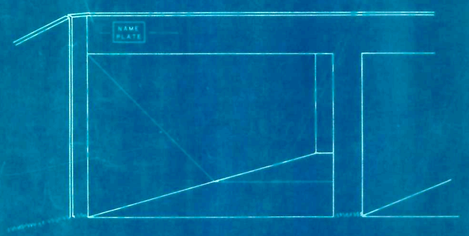


FOR END POST MOUNTED



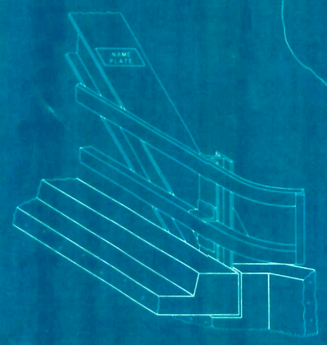
FOR CONCRETE RAILS



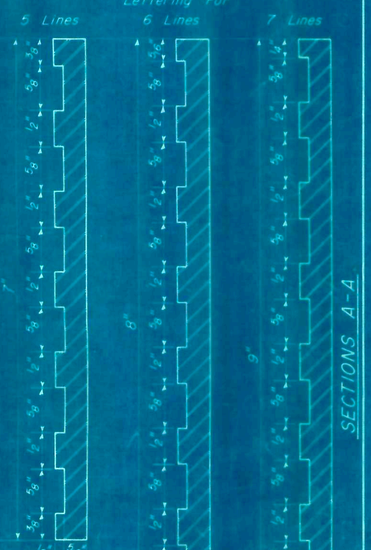


FOR MULTI-SPAN CULVERTS

Note Unless otherwise noted on the plans, Name Plates are not required for single box culverts.



FOR TRUSSES



Material: Best quality brass or bronze.
Border & Lettering Raised 1/8 inch Square cut and not tapered. Top surface polished.

Fastenings:
- For Concrete Rails, Culvert Headwalls & Subways — Four lugs at least three inches long, cast on back of plate.
- For Steel Truss Span — Plate to be fastened on steel member at fabricating shop by brazing around entire perimeter of plate.
- For Steel Rails — Plate to be bolted on with 4 3/8" brass or bronze machine bolts with countersunk head.
- For Concrete Rails — Plate to be centered on ℄ of rail post and ℄ of handrail coping.
- For Steel Truss Span — Braze to end post about five feet above roadway.
- For Steel Rails — Place midway between horizontal rail members.
- For Subways — See design plans for location.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	
PASSED	NOVEMBER 15, 1963
	A. A. Sandusky, Engineer of Road Plans And Contracts
APPROVED	NOVEMBER 15, 1963
	E. E. Secrest, Engineer of Design

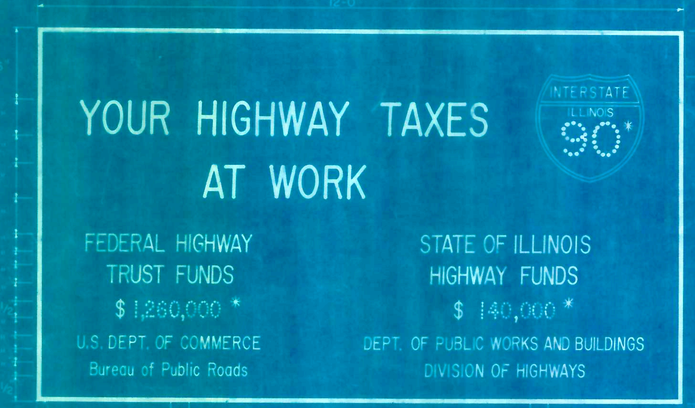
DETAIL OF NAME PLATE FOR BRIDGES

Rev. 11-15-63

STD. 2153-1

STANDARD DESIGN

SIGN FOR INTERSTATE SYSTEM PROJECT
(FEDERAL AND STATE)



* Data marked with an asterisk will be furnished to the Contractor by the District Engineer when a contract is awarded.

Signs shall be made of wood (1" lumber rigidly cleated); or of metal (16 gage); or of B-B Exterior High Density Overlay (both sides) Douglas Fir Plywood conforming to the requirements set forth in Commercial Standard CS 45-55 published by the U.S. Department of Commerce (5/8 thick). When plywood is used, the four edges shall be sealed with aluminum paint conforming to the requirements of Article 126.22 of the Standard Specifications.

The Contractor shall furnish all the material, including shields, and labor for constructing and erecting the signs. The signs shall be placed prior to the starting of actual construction operations. Before any sign is erected, it shall be approved by the Engineer as to its appearance and quality of construction. The signs shall remain in place and shall be maintained in satisfactory condition until the project is accepted by the Department. The Contractor shall then remove the signs and the material, including shields, will become his property.

The border shall be black and the letters printed black on a white background. The letters, width of stroke, width of letters, and shape shall be Series C of the "Standard Alphabets for Highway Signs, Public Roads Administration, Federal Works Agency, 1952."

The number of signs and their location will be shown on the plans. The cost of the signs, the erection and later removal of the signs shall be incidental to the cost of construction.

SHIELD FOR SIGN

Shields shall be made of Aluminum Alloy Sheet and Plate, A.S.T.M. Designation: B 209, Alloy G.S. 11A T6 5 or of steel (16 gage); or B-B Exterior, High Density Overlay (both sides) Douglas Fir Plywood conforming to the requirements set forth in Commercial Standard CS 45-55 published by the U.S. Department of Commerce (3/8 thick). When plywood is used, the edge of the shield shall be sealed with aluminum paint conforming to the requirements of Article 126.22 of the Standard Specifications.

Reflectorized material shall not be used.

Mounting hardware shall be rust proof.

Shield No.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W
MI-3-2424	24	24	8 1/2	14 1/2	3	15	15	3 1/4	2 1/2	2 1/2	1	1 1/2	1 1/8	8	5 1/2	7 1/2	2 1/2	3 3/4	3 1/4	5 1/2	2 1/2
MI-3-3025	30	25	9 1/2	16 1/2	3 1/4	16 1/2	17 1/2	3 1/4	2 1/2	2 1/2	1 1/4	1 1/2	2 1/4	8	5 1/2	7 1/2	2 1/2	3 3/4	3 1/4	5 1/2	2 1/2

NOTE
Use Shield No. MI-3-2424 for two digit route number.
Use Shield No. MI-3-3025 for three digit route number.

Background, as indicated, Red or Blue, the colors to conform to the standard colors shown in the A.A.S.H.O. "Manual for Signing and Pavement Marking of the National System of Interstate and Defense Highways."

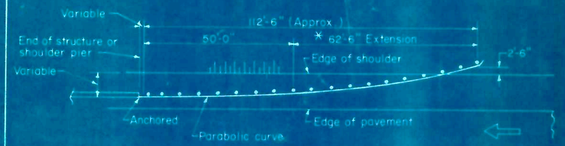
Letters, numerals, and border, White.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	
PASSED	November 20, 1960
	A. A. Sandusky, Engineer of Road Plans And Contracts
APPROVED	November 30, 1960
	E. E. Secrest, Engineer of Design

REVISIONS	
BY	DATE
W.F.	4-1-64

STANDARD 2153-4

STANDARD DESIGN
TYPICAL APPLICATIONS OF STEEL PLATE BEAM GUARDRAIL

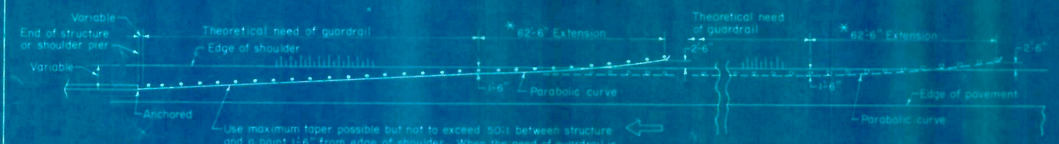


MINIMUM GUARDRAIL
AT OVERPASS STRUCTURES AND SHOULDER PIERS

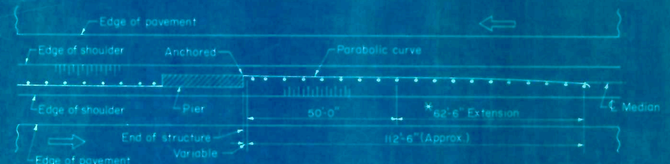
GUARDRAIL TREATMENT AT OVERPASS STRUCTURES :-
For two-lane, two-way highway a minimum of nine panels (12'-6") of single beam guardrail shall be placed at both ends of the structure and on both sides of the highway.

For dual highway a minimum of nine panels (12'-6") of single beam guardrail shall be placed at the approach end of the structure and on both sides of the highway, except the median guardrail shall be omitted where a single structure is used without a center rail or parapet.

GUARDRAIL TREATMENT AT SHOULDER PIERS :-
A minimum of nine panels (12'-6") of single beam guardrail shall be placed in advance of all shoulder piers.



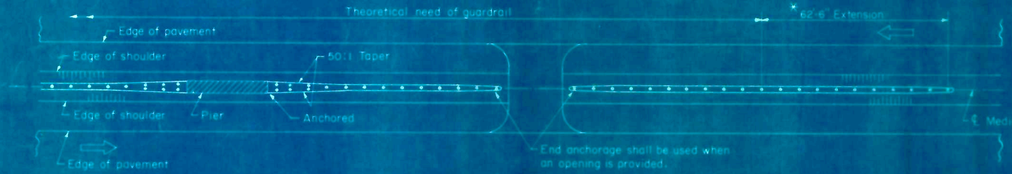
GUARDRAIL AT OVERPASS STRUCTURES AND SHOULDER PIERS
WHEN THEORETICAL NEED IS MORE THAN 50 FEET



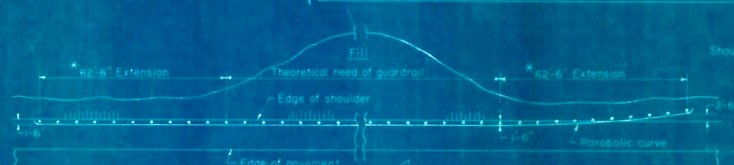
GUARDRAIL TREATMENT IN MEDIAN :-
Nine panels (12'-6") of single beam guardrail shall be placed in advance of all median piers where the median width is greater than 30 feet and designed without curb and gutter.

Double beam guardrail shall be placed in all medians having a width of 30 feet or less and designed without curb and gutter.

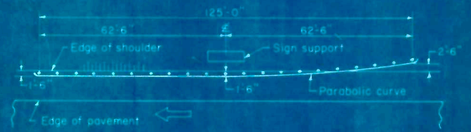
GUARDRAIL AT PIER IN MEDIAN GREATER THAN 30 FEET



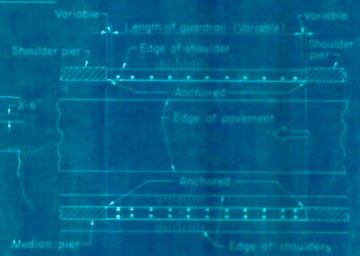
GUARDRAIL IN MEDIAN OF 30 FEET OR LESS



GUARDRAIL AT FILL

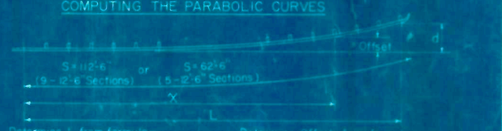


GUARDRAIL AT SIGN SUPPORT



GUARDRAIL BETWEEN PIERS
OF DUAL STRUCTURES

COMPUTING THE PARABOLIC CURVES



* The 62'-6" extension of guardrail is required beyond the point of theoretical need to develop guardrail anchorage.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED February 11, 1966 A V VanArsdall Engineer of Road Plans And Contracts		
APPROVED February 11, 1966 H J Acton Engineer of Design		

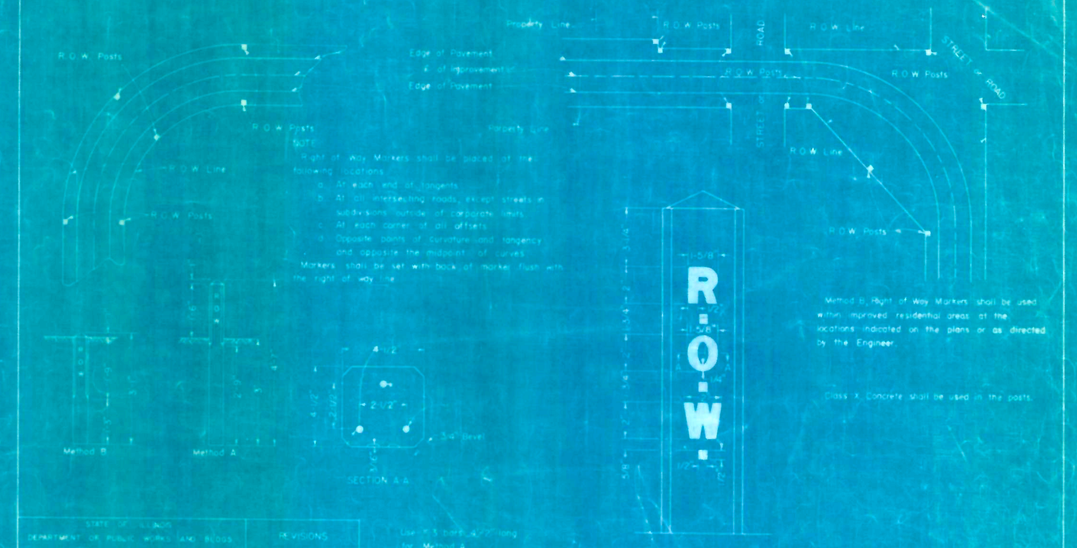
GENERAL NOTE
Guardrail height from finished ground line to center line of rail shall be 1'-9" including the length placed on the side slope.

For details of the Steel Plate Beam Guardrail see Standard 2230

STANDARD 2231

(Half Size)

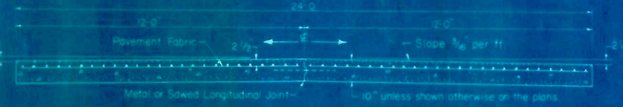
STANDARD DESIGN FOR RIGHT OF WAY MARKERS



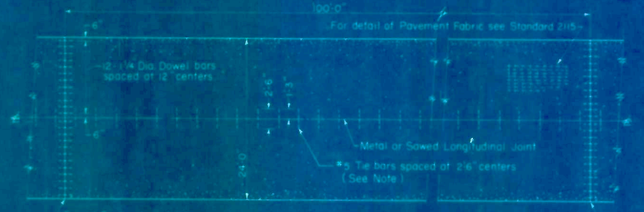
STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BLDGS. DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED August 1954 ENGINEER OF ROAD PLANS AND CONTRACTS APPROVED August 1954 ENGINEER OF DESIGN		

STANDARD 1744-I

STANDARD DESIGN
24 FT. PORTLAND CEMENT CONCRETE PAVEMENT

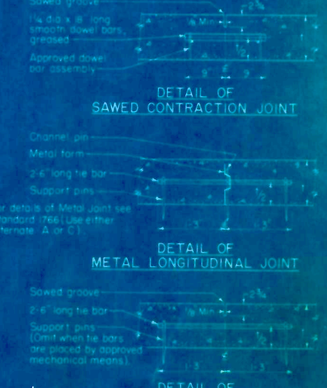


CROSS SECTION OF PAVEMENT



PLAN OF PAVEMENT

Sawed joints shall be sealed with a hot poured material meeting the requirements of the Tentative Specifications for Concrete Joint Sealer, Hot-Poured Elastic Type, A.S.T.M. Designation: D1190-59T, or sealed with a cold applied, ready-mixed concrete joint sealing compound meeting the requirements of Article 1.48.33 A (b).



STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED April 1, 1963 A V VanArsdall Engineer of Road Plans And Contracts	W.F.	4-1-65
APPROVED April 1, 1963 H J Acton Engineer of Design		

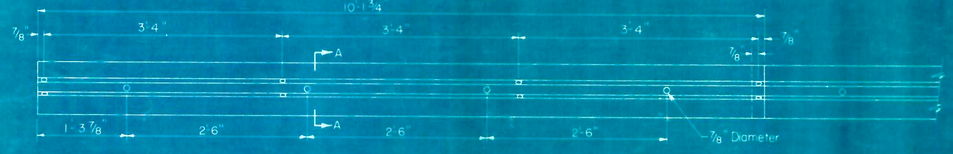
NOTE
#4 Tie bars shall be used when pavement is less than 10 inches thick.

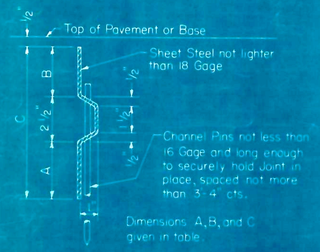
STANDARD 2179-I

(Half Size) W.F. 12-2-65

ALTERNATE DESIGNS FOR LONGITUDINAL METAL JOINT

TYPE A



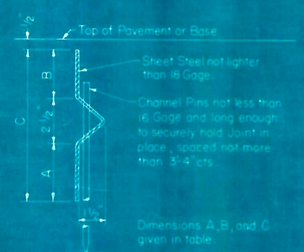


SECTION A-A

Dimensions for TYPE A Metal Joint

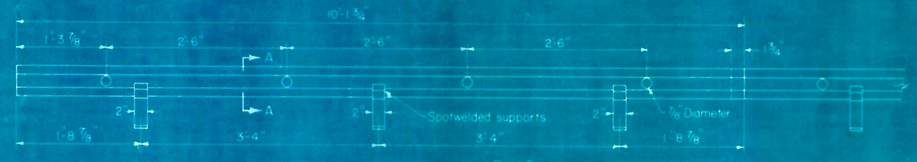
TYPE	A	B	C
P.C Concrete (9")	3 1/4	2 3/4	8 1/2
Bituminous (8" P.C Conc. Base)	2 3/4	2 1/4	7 1/2
P.C Concrete (10")	3 3/4	3 1/4	9 1/2
Bituminous (9" P.C Conc. Base)	3 1/4	2 3/4	8 1/2

NOTE
This type permitted where pavement on each side of the joint is constructed either in one or separate operations. Metal joints shall remain in place in all cases.



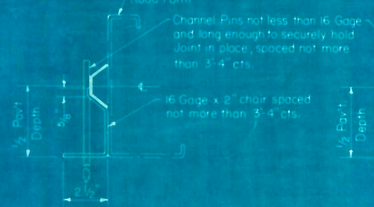
ALTERNATE SECTION

TYPE C



SECTION A-A

NOTE
This type permitted only where pavement on each side of the joint is constructed in separate operations. The metal joint may be left in place.



SUPPORTING CHAIR ALTERNATE

SUPPORTING CHAIR ALTERNATE

SUPPORT PIN DESIGN FOR TIE BARS THRU LONGITUDINAL METAL JOINTS

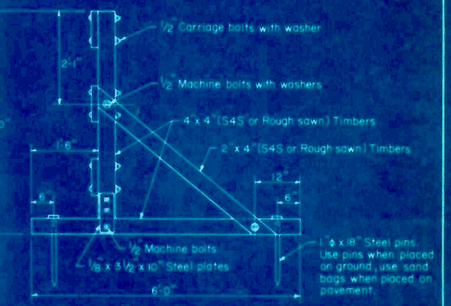
STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED November 18, 1959 — A Van Ausdall, Engineer of Road Plans And Contracts	W.H.F.	11-9-59
APPROVED November 23, 1959 — Engineer of Design	W.H.F.	11-21-61
	W.F.	4-1-65

NOTE
Except as otherwise noted on plans, tie bars with support pins, shall be used with the longitudinal metal joint. The following sizes of tie bars will be required:
For P.C.C. Pavement and P.C.C. Base Course less than 10" thick, use #4 bars 2'-6" long.
For P.C.C. Pavement 10" thick, use # 5 bars 2'-6" long.

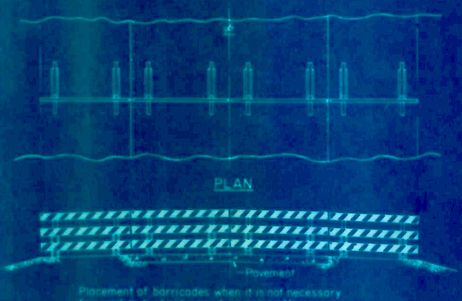
STANDARD 1766-4

STANDARD DESIGN BARRICADES

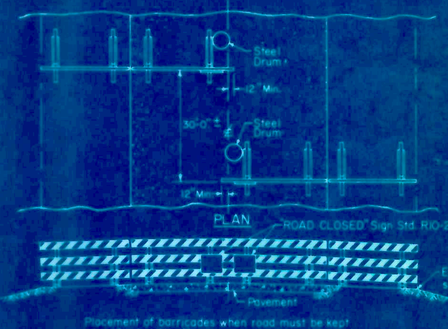
CLASS I BARRICADE



END VIEW



Placement of barricades when it is not necessary for road to be kept open for local traffic



Placement of barricades when road must be kept open for local traffic

The barricade shall be to the edge of shoulders except when otherwise directed by the Engineer or shown on the detail construction plans.

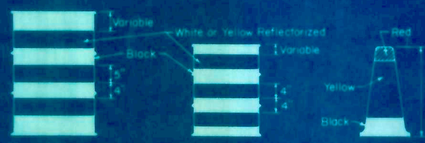
TYPICAL APPLICATIONS OF CLASS I BARRICADES CLOSING A ROAD

TYPE "A" BARRICADE HORSE

TYPE "B" BARRICADE HORSE

ROAD CLOSED
BY ORDER OF
VIOLATORS SUBJECT TO ARREST
OPEN ONLY
TO RESIDENT AND CONTRACTORS TRAFFIC

SIGN
(STD. RIO-20-3024)



STEEL DRUM (50 GAL.)

STEEL DRUM (30 GAL.)

CONE

GENERAL NOTES

No word message will be permitted on the barricades.

A name plate not exceeding 6 inches wide, bearing the owners name may be suspended from the barricade.

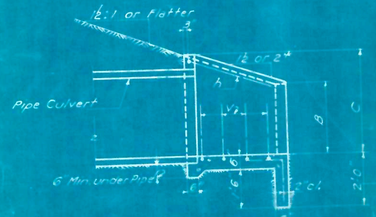
All lumber and materials shall be substantial and durable and shall be approved by the Engineer.

When required the steel drums shall be anchored as directed by the Engineer.

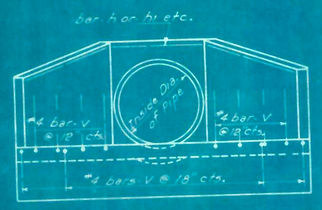
STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED January 4, 1965 — A Van Ausdall, Engineer of Road Plans And Contracts	W.F.	11-24-64
APPROVED January 4, 1965 — Engineer of Design	W.F.	9-7-65

STANDARD 2208-2

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



SECTION A-A

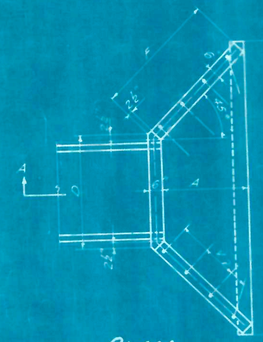


END VIEW

BARS h TO h9

Bend in field
One leg cut in each headwall

BAR V



PLAN

TABLE OF DIMENSIONS

Design No.	Inside dia. of Pipe	Slope of * Fill	Dimensions A	B	C	D	E	F	C.Y. Conc. 2 Headwalls Cu. Yds.	Reinforcement Bars h Bars Mark	Length	V Bars No.	Total Wt. 2 Headwalls
D15-1	15"	1:1	1'7"	10"	1'11"	2'0"	5'5½	2'3½	0.9	h	6'9"	6	40
D15-2	15"	2:1	2'2"	10"	1'11"	2'0"	6'7½	3'4½	1.2	h1	8'3"	22	60
D18-1	18"	1:1	1'7"	1'1"	2'2"	2'3"	5'8½	2'3½	1.0	h2	9'0"	16	40
D18-2	18"	2:1	2'2"	1'0"	2'2"	2'3"	6'10½	3'4½	1.3	h3	8'6"	22	60
D24-1	24"	1:1	2'1"	1'4"	2'5"	2'7"	7'4½	3'7½	1.5	h4	9'3"	22	60
D24-2	24"	2:1	2'10"	1'4"	2'5"	2'7"	8'10½	4'3½	2.0	h5	11'0"	28	70
D30-1	30"	1:1	2'6"	1'7"	2'8"	2'10"	8'8½	3'9"	2.0	h6	11'0"	28	70
D30-2	30"	2:1	3'4"	1'7"	2'8"	2'10"	10'4½	4'11"	2.6	h7	13'0"	34	80
D36-1	36"	1:1	3'0"	1'10"	3'0"	3'2"	10'4½	4'5½	2.6	h8	13'9"	30	80
D36-2	36"	2:1	4'0"	1'10"	3'0"	3'2"	12'4½	5'10½	3.5	h9	15'6"	40	100

Mark	B	D
h	1'10"	2'3½
h1	1'10"	3'2½
h2	2'1"	2'5½
h3	2'1"	3'2½
h4	2'9"	3'5"
h5	2'9"	4'1½
h6	3'3"	3'10½
h7	4'0"	4'10½
h8	3'11"	4'6"
h9	5'0"	5'9½

Note
Classy Concrete shall be used throughout.

* If embankment slope above headwall is flatter than 2:1 provide wings for 2:1 slope.

SEPT. 5 1958

EXAMINED [signature] ENGINEER OF BRIDGES AND MISCELLANEOUS STRUCTURES

PASSED [signature] ENGINEER OF BRIDGES

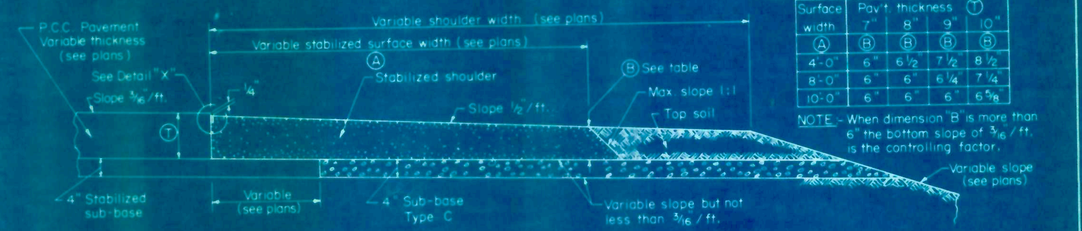
APPROVED [signature] CHIEF ENGINEER & DIRECTOR

M. Miller Signs Rec. Nov. 58

REINFORCED CONCRETE HEADWALLS FOR 15"-18"-24"-30" & 36" DIAMETER PIPE CULVERTS AT RIGHT ANGLES WITH ROADWAY

STANDARD 1976

STANDARD DESIGN
STABILIZED SHOULDER DETAILS FOR P.C.C. PAVEMENT

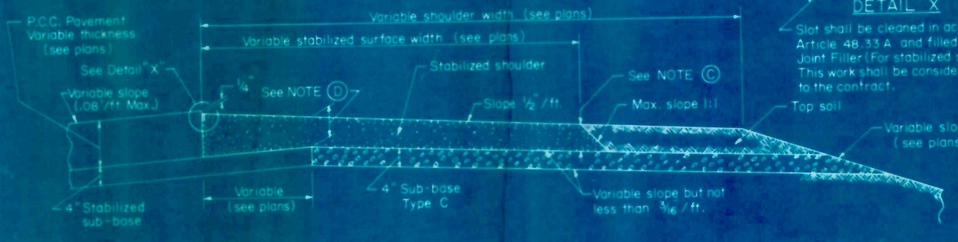


TABLE

Surface width (A)	Pav't. thickness (T) 7" (B)	8" (B)	9" (B)	10" (B)
4'-0"	6"	6 1/2	7 1/2	8 1/2
8'-0"	6"	6"	6 1/4	7 1/4
10'-0"	6"	6"	6"	6 5/8

NOTE - When dimension 'B' is more than 6" the bottom slope of 3/16 / ft. is the controlling factor.

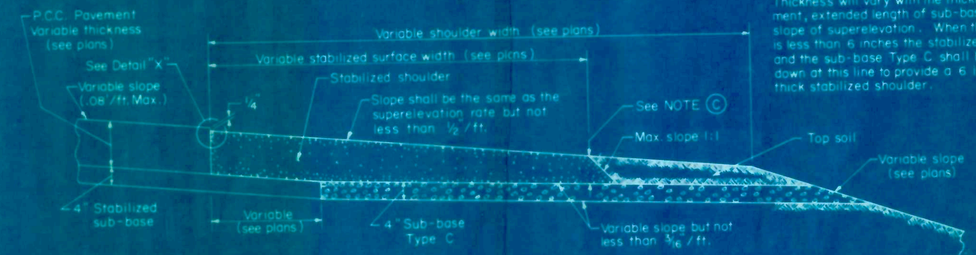
SHOULDERS FOR TANGENT PAVEMENT



DETAIL "X"

Slot shall be cleaned in accordance with Article 48.33 A and filled with Elastic Joint Filler (For stabilized shoulders). This work shall be considered incidental to the contract.

SHOULDERS FOR SUPERELEVATED PAVEMENT
(OUTSIDE OF CURVE)



SHOULDERS FOR SUPERELEVATED PAVEMENT
(INSIDE OF CURVE)

NOTE "C"
Thickness shall be 6 inches, but because of the variations in the thickness of pavement and the slope of superelevation it may be necessary to increase this thickness so that the bottom slope will not be less than 3/16 /ft.

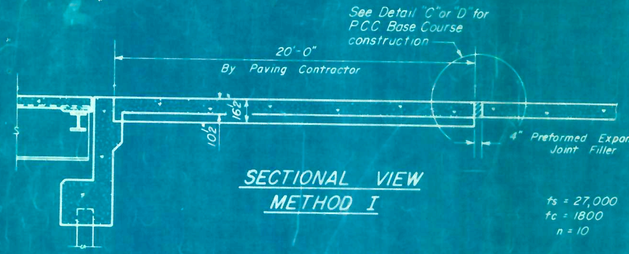
NOTE "D"
Thickness will vary with the thickness of pavement, extended length of sub-base, and the slope of superelevation. When this thickness is less than 6 inches the stabilized shoulder and the sub-base Type C shall be stepped down at this line to provide a 6 inch minimum thick stabilized shoulder.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED July 7, 1966 A V VanArsdall Engineer of Road Forms and Contracts		
APPROVED July 7, 1966 [signature] Engineer of Design		

STANDARD 2237
(Half Size) W.F.

DETAILS OF BRIDGE APPROACHES

P.C.C. PAVEMENT (16½"-10½"-16½") AND P.C.C. BASE COURSE (16½"-10½"-16½")



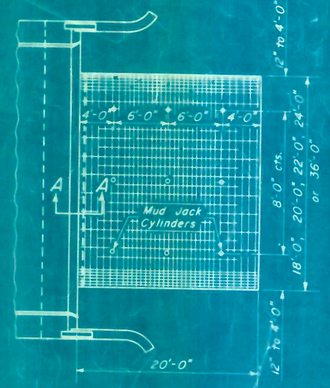
SECTIONAL VIEW METHOD I

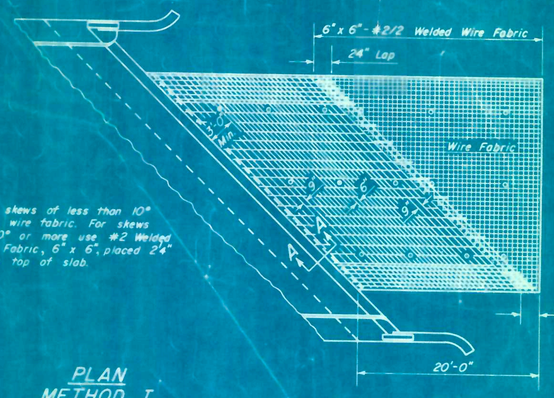
fs = 27,000
fc = 1800
n = 10

DETAIL "B"
(When bituminous surface is being placed on bridge and approach)

OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a Traffic Lane.

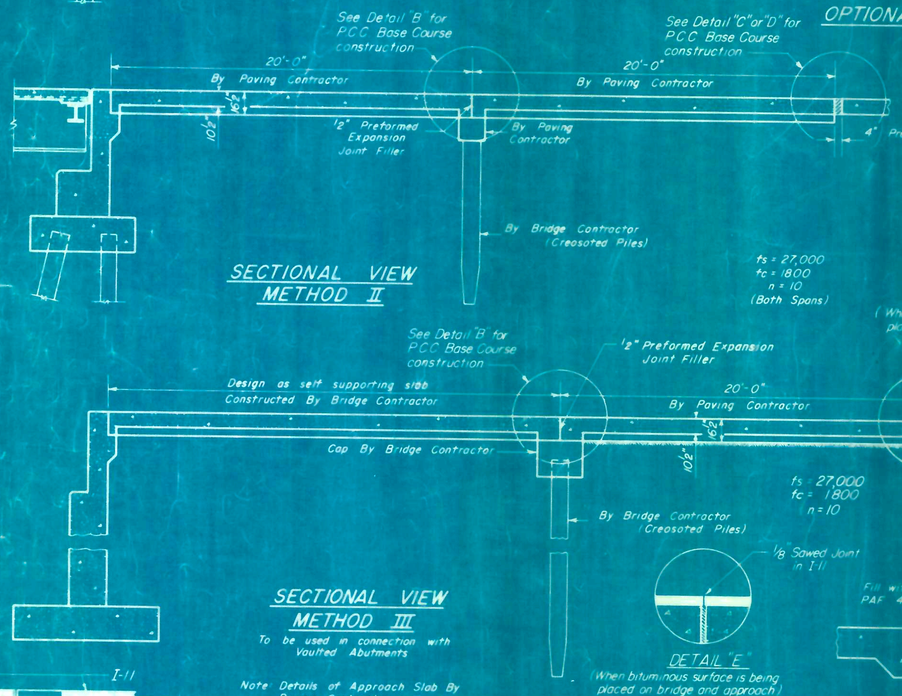




For skews of less than 10° omit wire fabric. For skews of 10° or more use #2 Welded Wire Fabric, 6" x 6", placed 2" below top of slab.

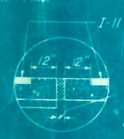
PLAN METHOD I

Expanded Metal weighing not less than 78 Lbs. per 100 sq. ft. or a welded bar mat weighing not less than 78 Lbs per 100 sq. ft. having members of equal size in both directions and spaced not over 8" apart may be used instead of the #2 Welded Wire Fabric, 6" x 6", provided the expanded metal or bar mat is furnished at no additional cost to the State.



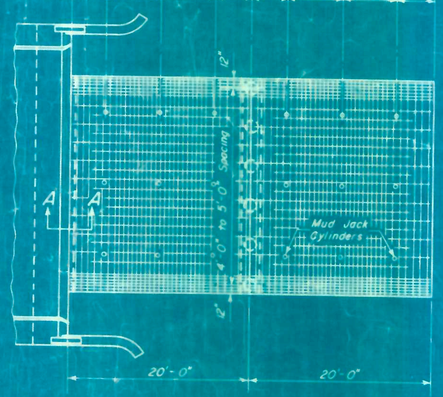
SECTIONAL VIEW METHOD II

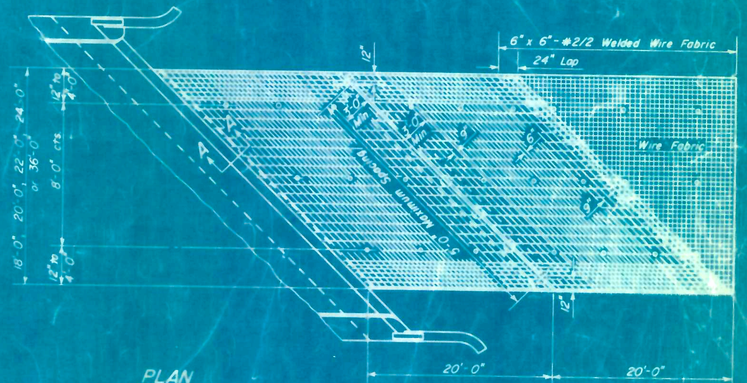
fs = 27,000
fc = 1800
n = 10
(Both Spans)



DETAIL "C"
(When bituminous surface is being placed on bridge and approach)

DETAIL "D"
(When bituminous surface is not being placed on bridge and approach)





PLAN METHOD II

SECTION A-A
(When bituminous surface is being placed on bridge and approach)

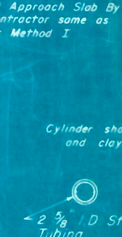
SECTION A-A
(P.C.C. Pavement construction)

SECTIONAL VIEW METHOD III

To be used in connection with Vaulted Abutments

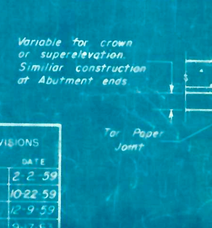
Note Details of Approach Slab By Paving Contractor same as shown for Method I

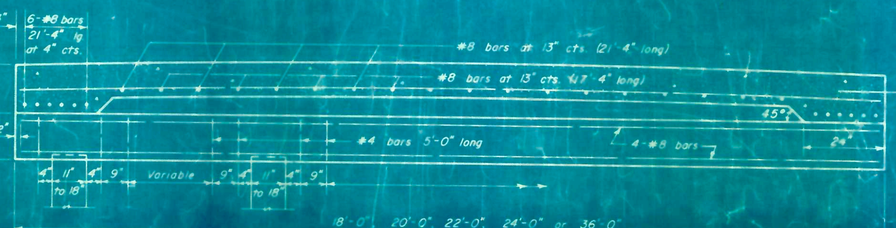
DETAIL "E"
(When bituminous surface is being placed on bridge and approach)



DETAIL OF MUD JACK CYLINDER

Mud Jack Cylinders not required for P.C.C. Base Course

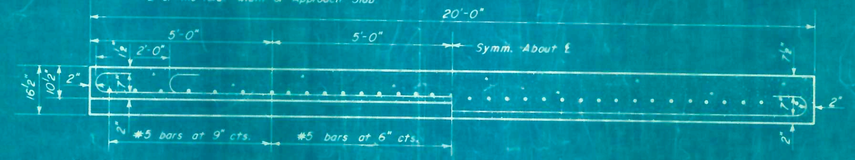




SECTIONAL VIEW OF CONCRETE SLAB AND GAP

LONGITUDINAL EXPANSION JOINT

To be used when Approach Slabs are greater than 36'-0" wide. Joint shall be placed at edge of Traffic Lane nearest to the ℄ of the total width of Approach Slab.



LONGITUDINAL SECTION THRU CENTER OF SLAB

LONGITUDINAL SECTION THRU THICKENED EDGE OF SLAB

No ⌀ when road plans show curb and gutter or gutter adjacent to approach slabs place #4 Tie bar 2'-6" long at 2'-6" cts. Cost of the bars included in contract unit price for Curb & Gutter or Gutter.

The transition for gutter shall be made in 100 feet and will be paid for as CONCRETE GUTTER of the type specified.

The transition for curb and gutter shall be made in 20 feet and will be paid for as COMBINATION CURB and GUTTER of the type specified.

GENERAL NOTES

FOR P.C.C. PAVEMENT

The slab or slabs will be paid for at the contract unit price for PORTLAND CEMENT CONCRETE PAVEMENT (16½"-10½"-16½").

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

All Reinforcement Bars will be paid for at the contract unit price for REINFORCEMENT BARS, except as noted.

The Welded Wire Fabric, Mud Jack Cylinders, and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE PAVEMENT (16½"-10½"-16½").

Preformed Expansion Joint Filler shall conform to Section 129 of the Standard Specification.

Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated.

The Contractor shall, after completion of the finishing operations, mark the location of the Mud Jack Cylinders.

FOR P.C.C. BASE COURSE

The slab or slabs will be paid for at the contract unit price for PORTLAND CEMENT CONCRETE BASE COURSE (16½"-10½"-16½").

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

All Reinforcement Bars will be paid for at the contract unit price for REINFORCEMENT BARS, except as noted.

The Welded Wire Fabric, Concrete Headers and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE BASE COURSE (16½"-10½"-16½").

Preformed Expansion Joint Filler shall conform to Section 129 of the Standard Specification.

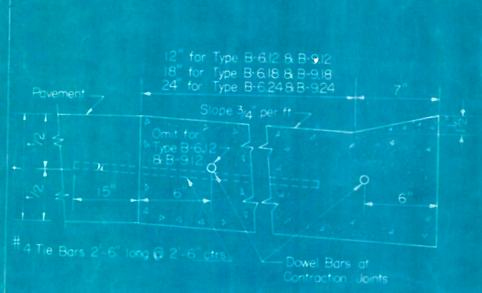
Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS		REVISIONS BY	DATE
PASSED Dec. 18 1958		WAS	2-2-59
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES		CET	10-22-59
APPROVED Dec. 18 1958		WAS	12-9-59
ENGINEER OF DESIGN		WHF	9-17-63
		KHW	7-29-64
		WF	10-28-64

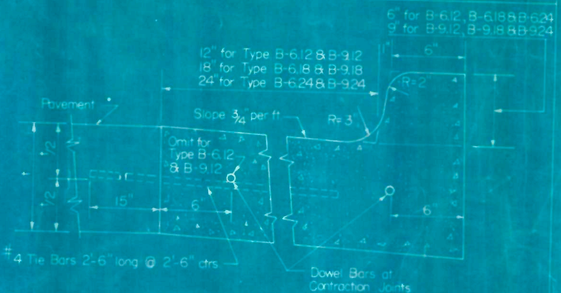
STANDARD 1909-6

STANDARD DESIGN

CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER

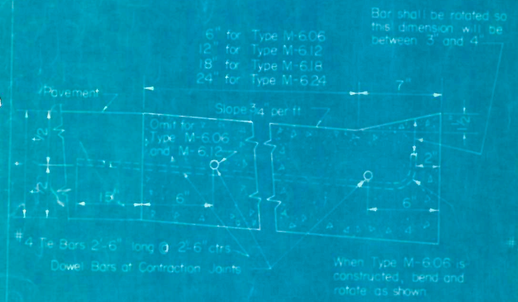


DEPRESSED CURB

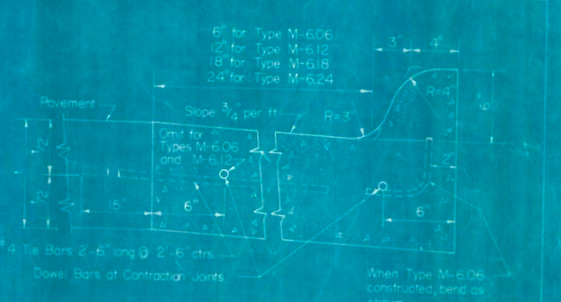


BARRIER CURB

COMBINATION CONCRETE CURB AND GUTTER TYPES B-6.12, B-6.18, B-6.24, B-9.12, B-9.18 AND B-9.24



DEPRESSED CURB



MOUNTABLE CURB

COMBINATION CONCRETE CURB AND GUTTER TYPES M-6.06, M-6.12, M-6.18 AND M-6.24

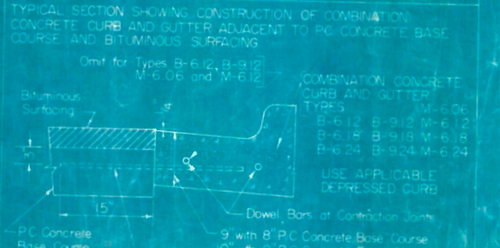
DEPRESSED CURB

NOTE: To be used only adjacent to P.C.C. Pavement or P.C.C. Base Course

BARRIER CURB

CONCRETE CURB TYPE B

TYPICAL SECTION SHOWING CONSTRUCTION OF COMBINATION CONCRETE CURB AND GUTTER ADJACENT TO P.C. CONCRETE BASE COURSE AND BITUMINOUS SURFACING



COMBINATION CONCRETE CURB AND GUTTER TYPES

B-6.12	B-9.12 M-6.12
B-6.18	B-9.18 M-6.18
B-6.24	B-9.24 M-6.24

USE APPLICABLE DEPRESSED CURB

NOTE: When tie bars are placed in existing base, the cost of furnishing, drilling, setting tie bars, mortaring, etc. shall be included in the unit price bid per lineal foot for the type of Combination Concrete Curb and Gutter constructed.

GENERAL NOTES

"t" = Thickness of pavement or base course

DEPRESSED CURBS — The top of curbs shall be depressed where the curb and gutter is constructed across alleys and for private drives or where directed by the Engineer.

CONTRACTION JOINTS — Contraction joints of a type similar to that used in the adjacent pavement shall be installed in the Curb or Curb and Gutter in prolongation with the joints in the pavement. The details of the transverse joints shall be approved by the Engineer. If contraction joints are not provided in the pavement, contraction joints will not be required in the Curb or Curb and Gutter. The cost of contraction joints including dowel bars and the cost of furnishing and installing tie bars shall be included in the unit price bid per lineal foot for CONCRETE CURB or for the particular type of COMBINATION CONCRETE CURB AND GUTTER.

Where Curb and Gutter are not adjacent to P.C. Concrete Pavement or P.C. Concrete Base Course, tie bars, contraction joints and dowel bars shall be omitted.

Specification Reference: Section 80.

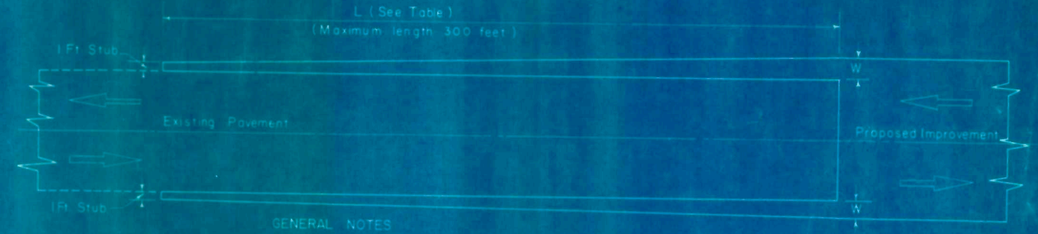
STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED November 27 1961		
A. A. Van Hasdall, Engineer of Road Plans and Contracts		
APPROVED November 27 1961		
Engineer of Design		

STANDARD 2130

DRAWN WMS 10-31-61

STANDARD DESIGN

WIDTH TRANSITION



GENERAL NOTES

Barricades and warning signs shall be provided, erected, and maintained by the Contractor in accordance with Article 7.14 of the Standard Specifications. The barricades and warning signs shall conform with those shown on Standard 1977-4, and they shall be placed at the locations designated by the Engineer.

At locations where there will be a temporary gap in the widening due to a narrow bridge which is being, or is to be, reconstructed or widened, the length of transition from the wider surface to the bridge shall be as shown in the table.

The material used for the transition shall be the same type as was used to construct the widening or pavement. The thickness shall be the same as that of the widening or pavement being constructed.

This work will be paid for at the contract unit price included in the contract for the type of widening or pavement being constructed.

TRANSITION LENGTHS FOR VARIOUS WIDTHS	
W feet	L feet
2	150
3	200
4	250
6	300

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED JULY 1 1959	KHW	3-23-64
A. A. Van Hasdall, Engineer of Road Plans And Contracts		
APPROVED JULY 1 1959		
Engineer of Design		

STANDARD 2143-1

Redrawn by K.H.W. 3-23-64

DETAILS OF PERMANENT SURVEY MARKERS

THE MARKERS MAY BE EITHER PRECAST OR CONSTRUCTED ON THE SITE EXCEPT WHERE IT IS NECESSARY TO INSTALL THE TABLET IN AN EXISTING ROCK LEDGE, THE CONCRETE PAVEMENT, OR A STRUCTURE.

THE LOCATION OF THE MARKERS SHALL BE IN ACCORDANCE WITH THE PLANS. IN GENERAL, THE MARKERS WILL BE PLACED AT THE P.T.'S AND P.C.'S OF HORIZONTAL CURVES AND SPACED ALONG THE TANGENTS IN A WAY THAT A MINIMUM OF TWO MARKERS ARE ALWAYS INTER-VISIBLE.

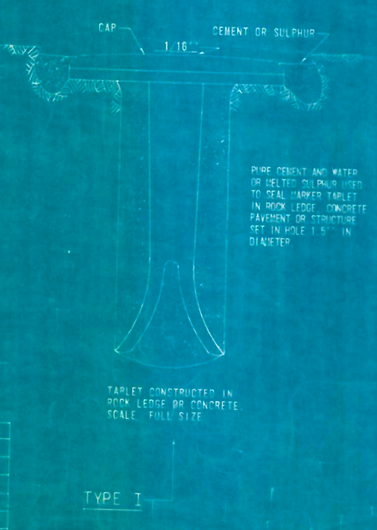
THE MARKERS SHALL BE PLACED UNDER THE DIRECTION OF THE ENGINEER AND SHALL BE INSTALLED IN A WORKMANLIKE MANNER IN ORDER THAT THERE BE NO FUTURE SETTLEMENT OR HORIZONTAL SHIFTING. THE MONUMENTS SHALL BE PLACED IN A WAY THAT THE SURVEY POINT WILL FALL WITHIN THE PORTION OF THE PLAQUE PROVIDED FOR THAT PURPOSE.

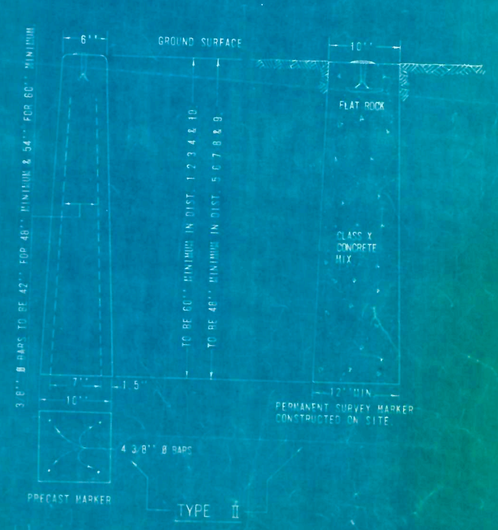
THE PROJECT DESIGNATION, THE CENTERLINE STATION, THE SURVEY POINT, AND THE ELEVATION SHALL BE PERMANENTLY MARKED BY THE USE OF METAL DIES AFTER THE MARKER HAS BEEN INSTALLED.

THE CONTRACT UNIT PRICE FOR PERMANENT SURVEY MARKERS WILL BE PAYMENT IN FULL FOR FURNISHING, INSTALLING, AND PERMANENTLY MARKING THE TYPE SPECIFIED.

STATE OF ILLINOIS SURVEY MARKER — DO NOT DEFACE — DIVISION OF HIGHWAYS

TYPE I





TYPE II

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED August 8 1958		
A. A. Van Hasdall, DIRECTOR OF HIGHWAYS		
APPROVED August 8 1958		
CHIEF ENGINEER		

STANDARD 2135

STANDARD DESIGN
WOVEN WIRE FENCE

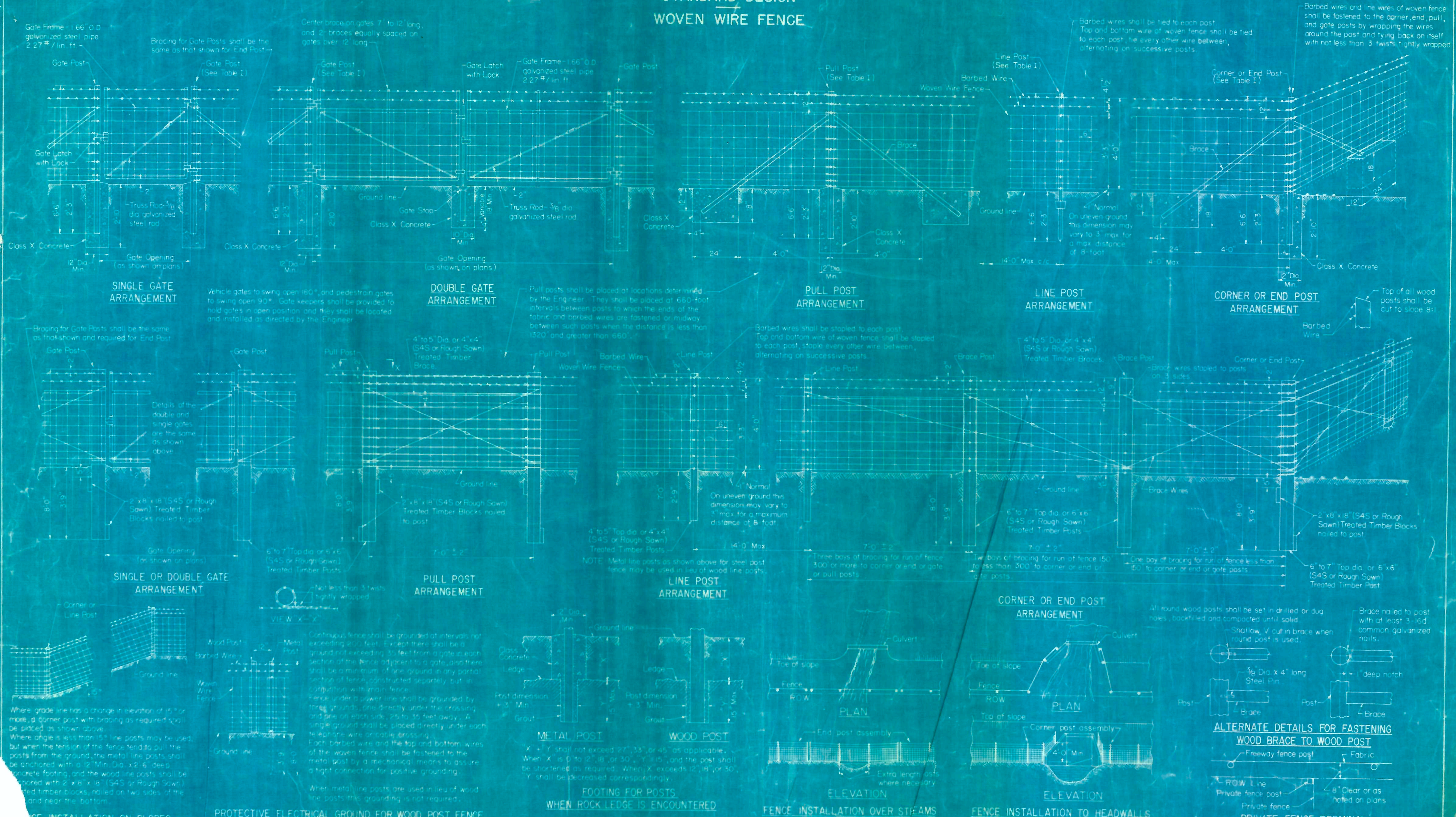


TABLE I - METAL POSTS SIZES & WEIGHTS

GATE POSTS: Single gate up to 4 Ft, Double gate up to 8 Ft — Section	Lbs/Lin Ft	GATE POSTS: Single gate over 4 Ft to 8 Ft, Double gate over 8 Ft to 16 Ft — Section	Lbs/Lin Ft	GATE POSTS: Single gate over 8 Ft to 12 Ft, Double gate over 16 Ft to 24 Ft — Section	Lbs/Lin Ft	CORNER or END or PULL POSTS — Section	Lbs/Lin Ft	LINE POSTS — Section	Lbs/Lin Ft	BRACES — Section	Lbs/Lin Ft
Pipe 2.375" OD	3.65	Pipe 2.875" OD	5.79	Pipe 3½" OD	7.58	Pipe 2.375" OD	3.6[illegible]	Pipe 1.[illegible]5" OD	1.68	Pipe 1.66" OD	2.27
Tubing 2½" Sq	4.32	Tubing 3" Sq	5.78	Tubing 3" Sq	8.80	Tubing 2½" Sq	4.3[illegible]	Tubing [illegible] Sq	1.41		
Ang 2½"x2½"x¼"	4.1	Ang 3"x3"x5/16"	6.1	Ang 3½x3½x3/8	8.5	Ang 2½x2½x¼	4	L, T, U, Y, or other approved structural shapes	1.33 Min	Ang 2"x2"x¼" or other approved structural shapes	3.19
H, I, U, structural shapes	4.1 Min	H, I, U, structural shapes	6.1 Min	H, I, U, structural shapes	8.5 Min	H, I, U, structural shapes	4 [illegible] Min				3.4 Min

NOTE
Steel pipe and steel tubing posts shall be furnished with steel, or malleable iron, or wrought iron post tops of approved type and shall be galvanized. The zinc coating shall be not less than 1.2 ounces per square foot of surface.

Where fence line has a change in direction of 15 degrees or more, a corner post with bracing as required shall be placed as shown above. Where angle is less than 15 degrees and existing conditions require corner post, they shall be placed as directed by the Engineer.

STATE OF ILLINOIS [illegible]MENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS NOVEMBER 27, 1961	REVISIONS BY	DATE
	W.F.	4-1-64
	W.F.	8-6-64

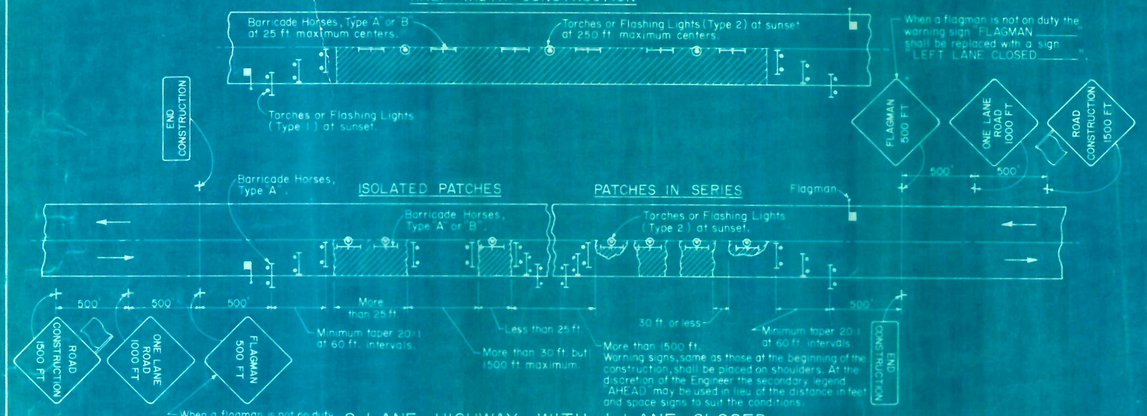
STANDARD 2169-2

WHF 10-24-61

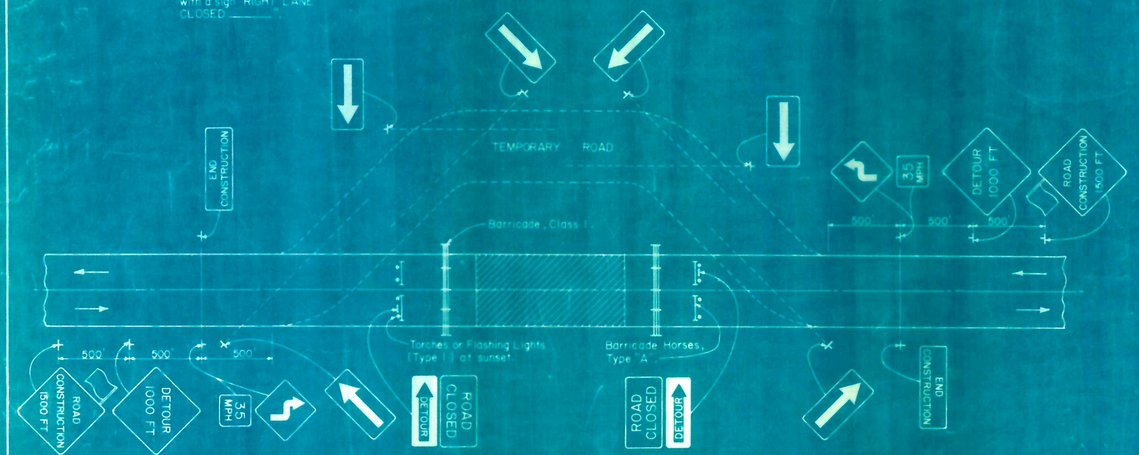
STANDARD DESIGN

TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND REPAIRS

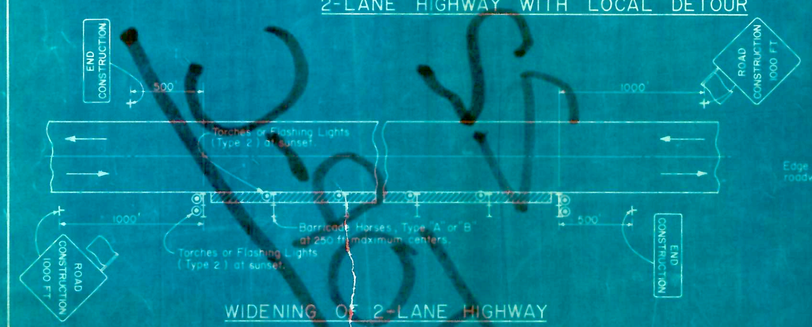
HALF WIDTH CONSTRUCTION



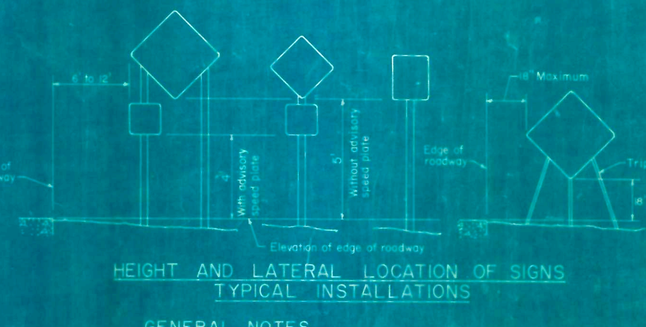
2-LANE HIGHWAY WITH 1-LANE CLOSED



2-LANE HIGHWAY WITH LOCAL DETOUR

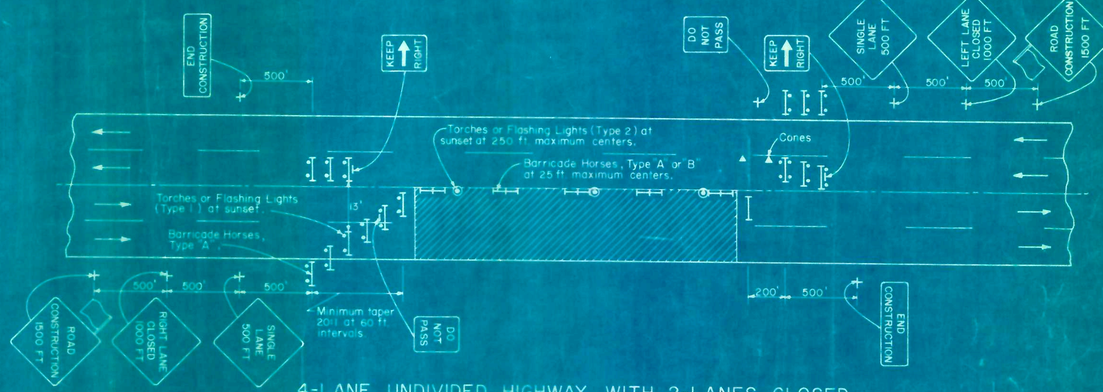


WIDENING OF 2-LANE HIGHWAY

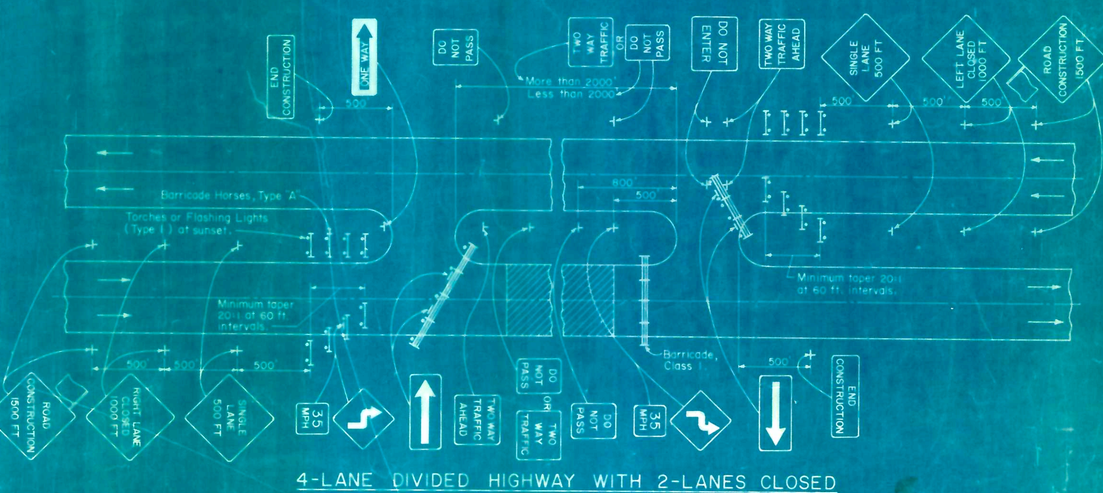


HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATIONS

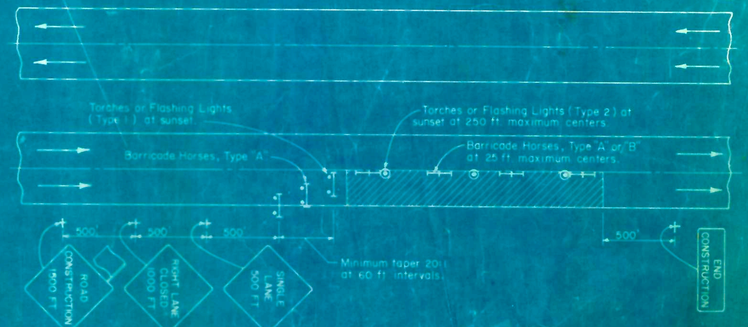
4-LANE UNDIVIDED HIGHWAY WITH 2-LANES CLOSED



4-LANE DIVIDED HIGHWAY WITH 2-LANES CLOSED



4-LANE DIVIDED HIGHWAY WITH 1-LANE CLOSED



KEY TO SYMBOLS

- Type A Barricade Horse
- Type A or B Barricade Horse
- Class I Barricade
- Type 1 Flashing Light
- Type 2 Flashing Light
- Flagman
- Cones

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED August 3, 1964	W.P.	1-14-66
Engineer of Road Plans And Contracts		
APPROVED August 3, 1964		
Engineer of Design		

The location of signs and barricades at each repair job as indicated in detail on the sketches shall be varied for local conditions. Judgment shall be used in the placement of these signs and barricades to give traffic ample warning of the obstruction.

The "ROAD CONSTRUCTION _____" signs are to be placed only at the limits of the zones of repairs as shown in the sketches.

Red flags shall be displayed on the "ROAD CONSTRUCTION _____" signs at each end of the zone of repairs. The frequency of flags on the barricade horses, will rest with the judgment of the Engineer or Foreman in charge of the repair crew. It is suggested, however, that the flags be displayed at least on the first barricade of a zone of repairs.

Barricades placed parallel to center line shall not project into lane open to traffic.

Type 1 Flashing Light shall have one 7 inch diameter yellow lens.

Type 2 Flashing Light shall have two 7 inch diameter yellow lens.

GENERAL NOTES

Type 1 and Type 2 Flashing Lights shall be regulated to flash 70 to 80 times per minute, the length of dwell, or on-time, shall not be less than 25% but is shall be GE 1850 or equal.

Flashing Lights shall be placed at least 3 feet above pavement.

Type "A" Barricade Horse with support at one end, may be used on widening.

Type B Barricade Horse may be used as delineators to direct flow of traffic.

When approved by the Engineer the Contractor may use two Type "B" (4'-0") Barricade Horses in lieu of one Type "A" Barricade Horse.

Torches or Flashing Lights and Barricades shall be furnished and maintained by the Contractor.

Reflectorized signs will be furnished the Contractor by the Department in accordance with Article [illegible] of the Standard Specifications.

Standard 2208 for [illegible] Devices.

STANDARD 2209-1

(Full Size) 10-30-64 W.P.