7/14/87

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

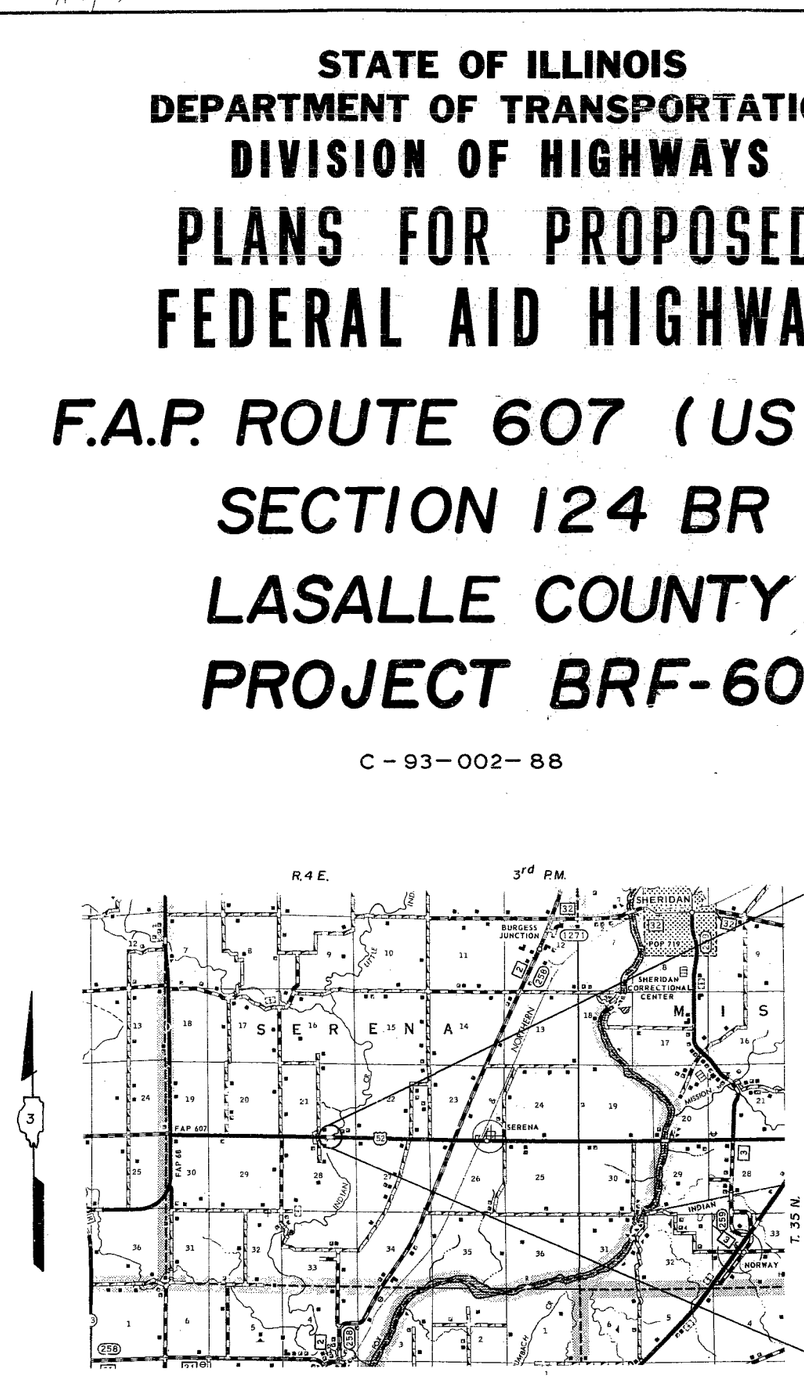
F.A.P. ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY
PROJECT BRF-607(59)

C-93-002-88

SHEET NO.	INDEX OF SHEETS
1.	COVER SHEET
2.	TYPICAL SECTIONS, DETAILS
3.	SCHEDULES OF QUANTITIES
4.	TRAFFIC CONTROL & GUARDRAIL REFLECTORS, GENERAL NOTES
5.	PLAN AND PROFILE
6-11.	CROSS SECTIONS
12.	GENERAL PLAN AND ELEVATION
13-15.	DECK ELEVATIONS
16.	SUPERSTRUCTURE
17.	SUPERSTRUCTURE DETAILS
18.	FRAMING PLAN & GIRDER ELEVATION
19.	STRUCTURAL STEEL DETAILS
20.	BEARING DETAILS
21.	WEST ABUTMENT
22.	EAST ABUTMENT
23.	PIER NO. 1
24.	PIER NO. 2
25.	ANCHOR BOLT DETAILS FOR BEARINGS
26.	6"DIAMETER FLOOR DRAINS & STEEL DRAINAGE SCUPPER
27.	ALTERNATE - CAST IRON DRAINAGE SCUPPER
28.	BORING DATA

STANDARDS:

1686-4	SYMBOLS AND ABBREVIATIONS
2113-2	NAMEPLATE FOR BRIDGES
2135	PERMANENT SURVEY MARKERS
2230-14	STEEL PLATE BEAM GUARDRAIL
2258-3	PAVED DITCH, TYPE A AND TYPE B
2298-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2299-10	DESIGN OF TRAFFIC CONTROL DEVICES
2300-3	FLAGGER TRAFFIC CONTROL SIGN
2302-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2304-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2305-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2306-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2307-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2308-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2323-8	PAVEMENT JOINTS
2324-6	BRIDGE APPROACH SHOULDER PAVEMENT
2327-9	SUB-SURFACE DRAINS
2341-1	TRAFFIC BARRIER TERMINAL, TYPE 6
2382-2	BRIDGE APPROACH PAVEMENT
BLR 21-2	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2396	TYPICAL PAVEMENT MARKINGS
2228-4	METAL END SECTIONS FOR PIPE CULVERTS



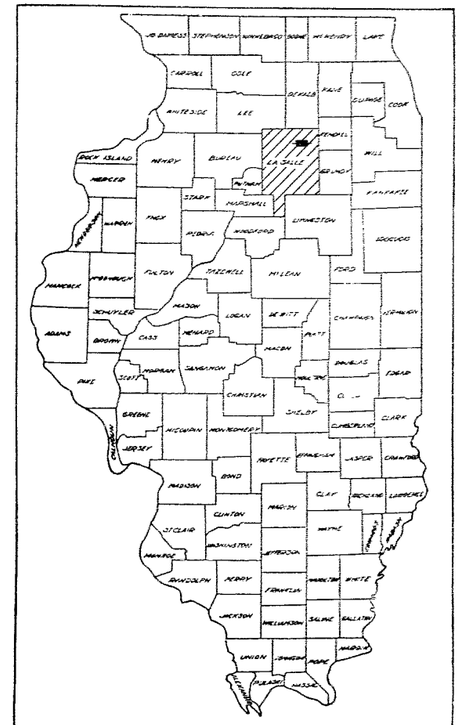
LOCATION MAP

0 1 MI. 2 MI. 3 MI.

GROSS & NET LENGTH OF SECTION = 1200.00 FT = 0.227 MILES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 607	124 BR	LASALLE	28	1
FHWA REG. 5	ILLINOIS			

P-93-015-79



LOCATION OF SECTION INDICATED THUS:—

1986 ADT = 1050 AREA SERVICE

P.C. = 81.0% S.U. = 7.3% M.U. = 11.7%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 7/24 19 87 — DISTRICT ENGINEER

EXAMINED 9-11 19 87 — ENGINEER OF PLANS AND CONTRACTS

PASSED 9-11 19 87 — ENGINEER OF DESIGN

APPROVED 9-11 19 87 — DIRECTOR, DIVISION OF HIGHWAYS

HAROLD P. WENDLER E-2361 REGISTERED PROFESSIONAL ENGINEER 7-22-87 ILLINOIS

Harold P. Wendler

SQUAD LEADER: BRAD CRESTO
PROJECT ENGINEER: GREGG MOUNTS
CONSULTANT: HAROLD P. WENDLER AND ASSOCIATES, INC.
J.U.L.I.E. NO. 800-892-0123
TOWNSHIP: SERENA

CONTRACT NO. 42892

F.A.P. 607	124 BR	LASALLE	28	13

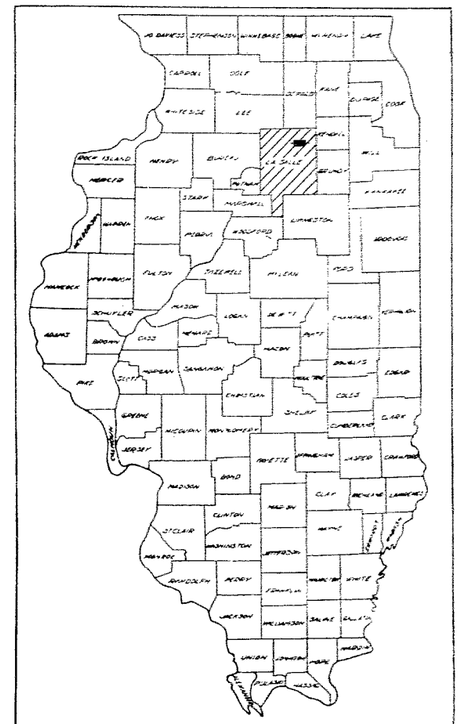
P-93-015-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

F.A.P. ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY
PROJECT BRF-607(59)

C-93-002-88



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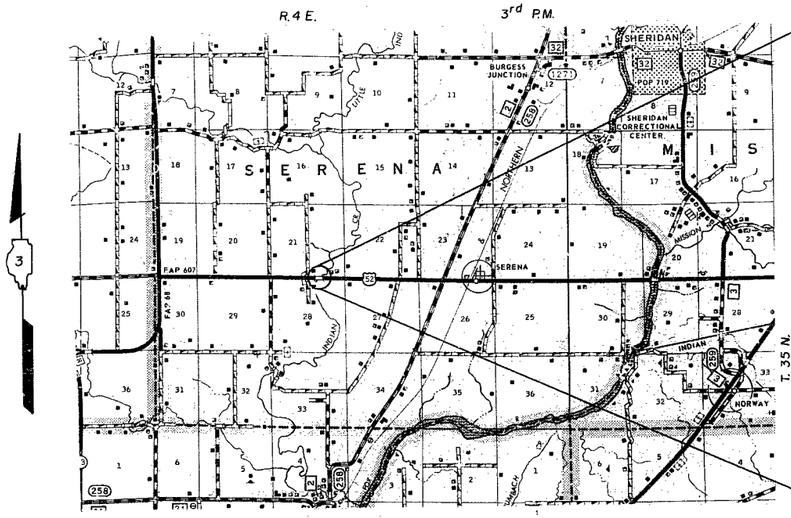
As REVISED



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DIVISION OF HIGHWAYS

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HAROLD P. WENDLER REGISTERED PROFESSIONAL ENGINEER 11-22-87 ILLINOIS

Harold P. Wendler

SQUAD LEADER: BRAD CRESTO
PROJECT ENGINEER: GREGG MOUNTS
CONSULTANT: HAROLD P. WENDLER AND ASSOCIATES, INC.
J.U.L.I.E. NO. 800-892-0123
TOWNSHIP: SERENA

CONTRACT NO. 2 892

Run for 10/16/87 Letting

7/14/87

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

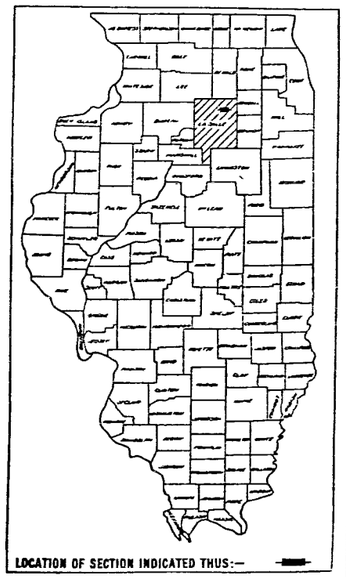
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F.A.P. ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY
PROJECT BRF-607(59)

C-93-002-88

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	28	1

P-93-015-79



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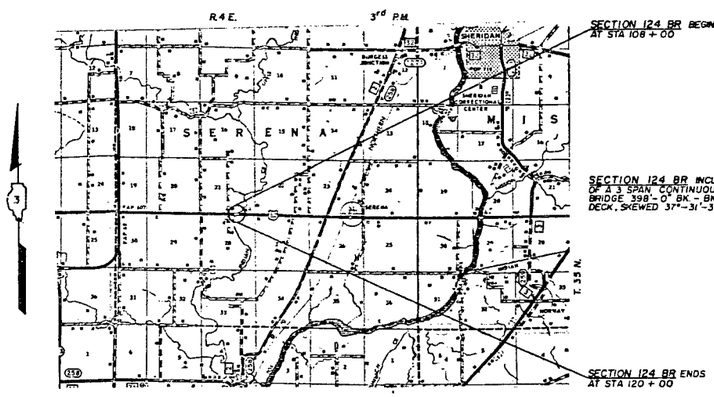

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 7/24, 19 87 — DISTRICT ENGINEER
EXAMINED ____, 19 ____
PASSED ____, 19 ____ — ENGINEER OF PLANS AND CONTRACTS
APPROVED 9-11, 19 87 — ENGINEER OF BUREAU

Harold P. Wendler
HAROLD P. WENDLER
PROFESSIONAL ENGINEER
22-86
ILLINOIS

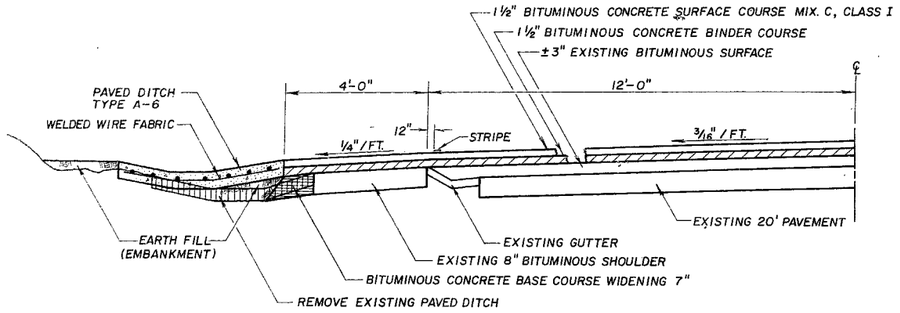
SQUAD LEADER: BRAD CRESTO
PROJECT ENGINEER: GREGG MOUNTS
CONSULTANT: HAROLD P. WENDLER AND ASSOCIATES, INC.
JULIE NO 800-892-0123
TOWNSHIP: SERENA

CONTRACT NO. 4.892

LASALLE COUNTY SECTION 124 BR F.A. ROUTE 607 (US 52)

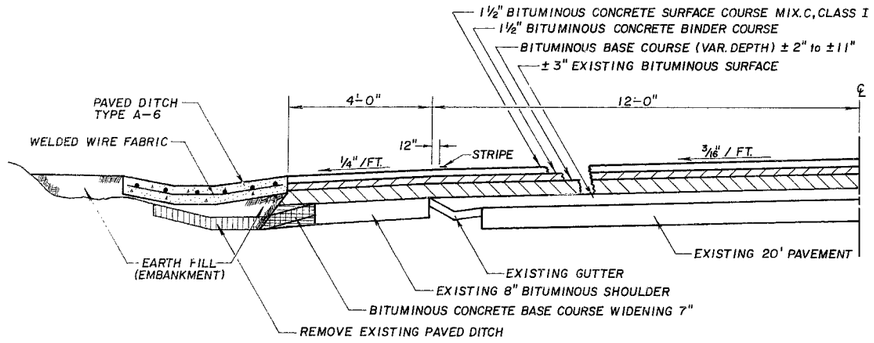
As Revised 11-16-87 L.W. As Revised 4-20-88 L.W.

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE		2
ILLINOIS PROJECT				



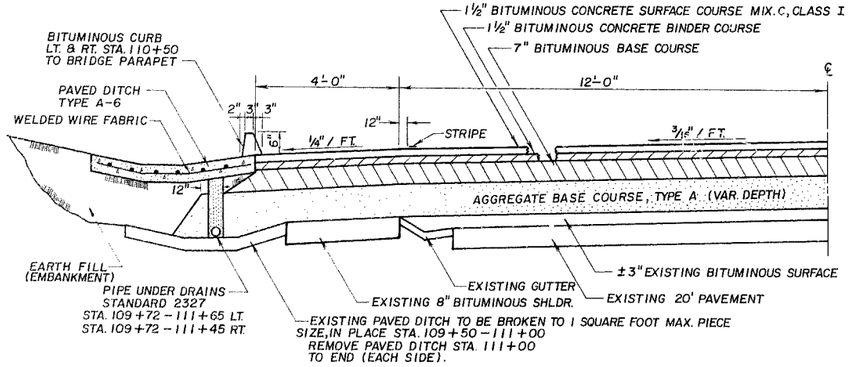
TYPICAL ROADWAY CROSS SECTION NO. 1

STA. 107+75 – 109+00



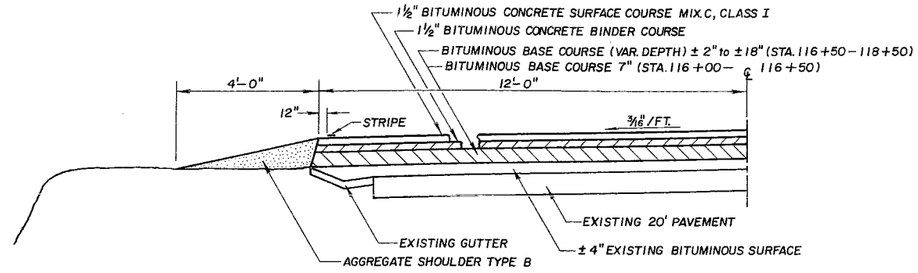
TYPICAL ROADWAY CROSS SECTION NO. 2

STA. 109+00 – 109+50



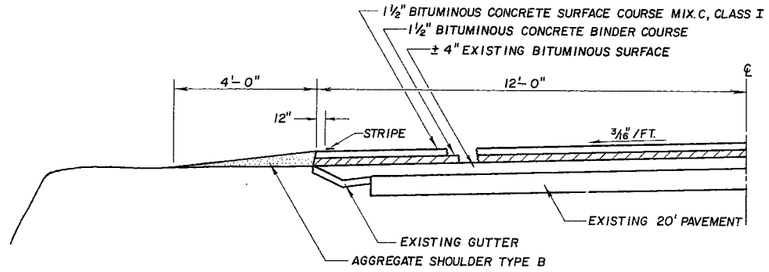
TYPICAL ROADWAY CROSS SECTION NO. 3

STA. 109+50 – 111+40



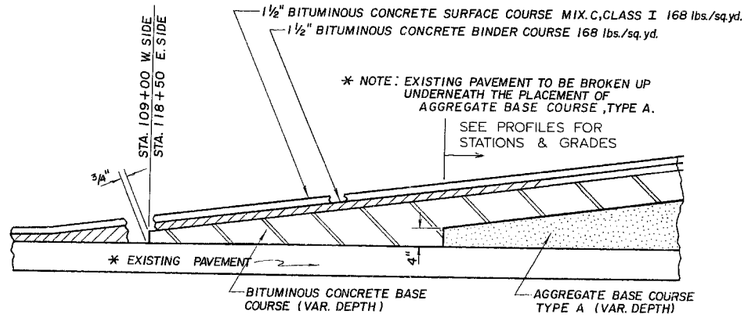
TYPICAL ROADWAY CROSS SECTION NO. 4

STA. 116+00 – 118+50

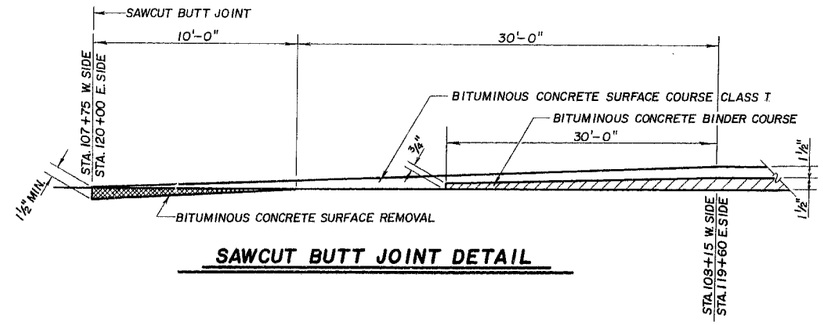


TYPICAL ROADWAY CROSS SECTION NO. 5

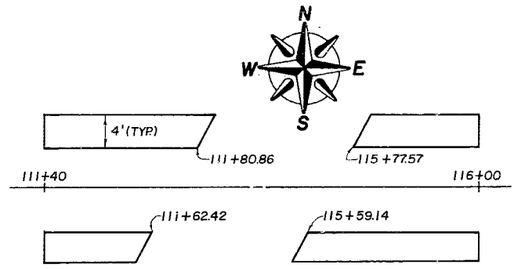
STA. 118+50 – 120+00



TAPER DETAIL



SAWCUT BUTT JOINT DETAIL



BRIDGE APPROACH SHOULDER PAVEMENT LIMITS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

REVIEWED BY: BFC — DISTRICT ENGINEER OF DESIGN
DATE: July 23, 1987
EXAMINED BY:
DISTRICT ENGINEER OF CONSTRUCTION
DISTRICT ENGINEER OF MAINTENANCE
DISTRICT ENGINEER OF MATERIALS
DISTRICT ENGINEER OF TRAFFIC
DISTRICT ENGINEER OF PLANNING

TYPICAL SECTIONS & DETAILS
F.A.P ROUTE 607
SECTION 124 BR
LASALLE COUNTY

MAINLINE QUANTITIES

LOCATION	TYPICAL	AGG. SHLDRS. T-B (TON)	AGG. BASE COURSE T-A (TON)	BASE COURSE WIDENING 7" (SQ.YD)		BIT. BASE COURSE (TON)	BIT. MATL. PRIME (GAL.)	BIT. CONC. BINDER (TON)	BIT. CONC. SURFACE (TON)	BRIDGE APPR. PVT. (SQ.YD.)	P.C.C. BR. APPR. SHLDR. (SQ.YD.)	BIT. CURB (LIN. FT.)	PAVED DITCH A-6 (LIN. FT.)	PVT. REMOVAL (SQ.YD.)	BIT. CONC. SURFACE REMOVAL (SQ.YD.)	PAVED DITCH REMOVAL (LIN. FT.)	PIPE DRAINS 12" (LIN. FT.)	TY. B INLET BOX 2324 (EACH)	METAL END SECT. 12" (EACH)	CONC. THRUST BLOCKS (EACH)
WEST STA [illegible]	1,2,3	—	867	78		208	418	103	109	84.4	18.8 LT. 10.6 RT.	132 LT. 112 RT.	413 LT. 398 RT.	26.9	26.7	263 LT. 248 RT.	—	—	—	—
SUBTOTAL WEST		0	867	78		208	418	103	109	84.4	29.4	244	811	26.9	26.7	511	0	—	—	—
EAST STA [illegible]	4,5	81	—	—		257	174	85	90	84.4	10.0 LT. 18.2 RT.	—	—	139.1	26.7	—	9 LT. 17 RT.	2	2	2
PRIVATE ENTRANCE [illegible]		—	23	—		—	15	5	6	—	—	—	—	—	—	—	—	—	—	—
SUBTOTAL EAST		81	23	0		257	189	90	96	84.4	28.2	0	0	139.1	26.7	0	26	2	2	2
TOTAL		81	890	78		465	607	193	205	168.8	57.6	244	811	166	53.4	511	26	2	2	2

PAINT PAVEMENT MARKING

LOCATION	4" EDGE LINE SINGLE WHITE (LIN. FT.)	6" CENTER LINE DOUBLE YELLOW (LIN. FT.)
WEST [illegible]	792	792
BRIDGE [illegible] - 115 + 69	796	796
EAST 115 + 69 - 120 + 00	862	862
TOTAL	2450	2450

GUARDRAIL

LOCATION	S.P.B.G.R. TY. A REMOVAL & SALVAGE (LIN. FT.)	REMOVE & RE-ERECT TRAFFIC BARRIER TYPE IA (EACH)	ERECTING S.P.B.G.R. TY. A (LIN. FT.)	T.B.T., T-6 (EACH)	GUARDRAIL REFLECTORS (EACH)
N.E. QUAD	50		12.5	1	9
N.W. QUAD	50	1	25	1	4
S.W. QUAD	37.5	1	25	1	4
S.E. QUAD	50			1	7
TOTAL	187.5	2	62.5	4	24

SEEDING

LOCATION	SEEDING CLASS I (ACRES)	NITROGEN FERTILIZER (LBS.)	PHOSPHORUS FERTILIZER (LBS.)	POTASSIUM FERTILIZER (LBS.)	MULCH METHOD II (TON)	EMULSIFIED ASPHALT (GAL.)
N.E. QUAD	0.1	9	17	9	0.21	21
N.W. QUAD	0.1	9	17	9	0.21	21
S.W. QUAD	0.2	10	23	10	0.27	27
S.E. QUAD	0.1	9	17	9	0.21	21
TOTAL	0.5	37	74	37	0.9	90

LOCATION	PIPE UNDERDRAINS 4" (LIN. FT.)
LT 109 + 72 - 111 + 65	193
RT 109 + 72 - 111 + 45	173
TOTAL	366

QUANTITIES FOR BRIDGE APPROACH PAVEMENT 24'-0"

SKEW ANGLE DEGREES	BOTTOM REINFORCEMENT TRANSVERSE #5 NO.	BOTTOM REINFORCEMENT TRANSVERSE #5 LENGTH	BOTTOM REINFORCEMENT LONGITUDINAL #7 NO. REQUIRED	TOP REINFORCEMENT TRANSVERSE #4 NO.	TOP REINFORCEMENT TRANSVERSE #4 LENGTH	TOP REINFORCEMENT LONGITUDINAL #4 NO. REQUIRED	REINFORCEMENT (TOTAL WEIGHT) (POUNDS)	SLAB AREA (SQ. YDS.)	6x6 - W5.5 x W5.5 WWF DIMENSIONS L (ft.) x W (ft.)	6x6 - W5.5 x W5.5 WWF AREA ** (SQ. YDS.)
24'-0" PAVEMENT										
37°31'35"	17	29'-8"	7 (EACH EDGE BEAM) + 42 (SLAB) at 5½" cts. 19'-0" LONG WEIGHT = 2175 POUNDS	5	29'-8"	20 BARS - 19'-6" LONG, WEIGHT = 260 POUNDS	3060	77.9	22'-3" x 12'-6"	30.9

** AREA DOES NOT INCLUDE 8" LONGITUDINAL LAPS.
WWF = WELDED WIRE FABRIC

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	WEST	EAST	STR. No. 050-0201
20700100	EMBANKMENT	CU YD	333	333	—	—
21501200	AGGREGATE SHOULDERS, TYPE B	TON	81	—	81	—
30100100	AGGREGATE BASE COURSE, TYPE A	TON	890	867	23	—
30650200	BASE COURSE WIDENING 7"	SQ YD	78	78	—	—
30801200	BITUMINOUS BASE COURSE	TON	465	208	257	—
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	■ 1,000			
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	■ 797	418	189	—
40600300	AGGREGATE (PRIME COAT)	TON	■ 5			
40600700	BITUMINOUS CONCRETE BINDER COURSE	TON	193	103	90	—
40601200	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE C; CLASS I	TON	■ 405	109	96	—
40801150	BRIDGE APPROACH PAVEMENT (STANDARD 2382)	SQ YD	170	85	85	—
40801500	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SQ YD	57.6	29.4	28.2	—
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	—	—	1
50200100	STRUCTURE EXCAVATION	CU YD	381	—	—	381
50200300	COFFERDAM EXCAVATION	CU YD	128			128
50200400	ROCK EXCAVATION FOR STRUCTURES	CU YD	90.4	—	—	90.4
50200500	COFFERDAMS	EACH	2			2
50300100	FLOOR DRAINS	EACH	42	—	—	42
50300300	PROTECTIVE COAT	SQ YD	346	—	—	346
50300320	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	10	—	—	10
50300250	CLASS X CONCRETE SUPERSTRUCTURE	CU YD	427.3			427.3
50400300	CLASS X CONCRETE	CU YD	402.9	—	—	402.9
50700100	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	—	—	1
50700500	STUD SHEAR CONNECTORS	EACH	3,060	—	—	3,060
51115547	METAL END SECTION 12"	EACH	2	—	2	—
51200100	REINFORCEMENT BARS	POUND	59,400	3,060	3,060	53,280
51200200	REINFORCEMENT BARS, EPOXY COATED	POUND	103,320	—	—	103,320
51301400	FURNISHING STEEL PILES HP10X42	LIN FT	1,064	—	—	1,064
51302700	DRIVING STEEL PILES	LIN FT	1,064	—	—	1,064
51303400	TEST PILE STEEL HP10X42	EACH	2	—	—	2
51400100	NAME PLATES	EACH	1	—	—	1
60100100	STONE RIPRAP	SQ YD	651	—	—	651
60700500	PIPE DRAINS 12"	LIN FT	26	—	26	—
60707600	PIPE UNDERDRAINS 4"	LIN FT	366	366	—	—
61246910	TYPE B INLET BOX, STANDARD 2324	EACH	2	—	2	—
61601600	BITUMINOUS CONCRETE CURB	LIN FT	244	244	—	—
61614800	PAVED DITCH, TYPE A-6	LIN FT	811	811	—	—
61700100	PAVEMENT REMOVAL	SQ YD	166	26.9	139.1	—
61701000	BITUMINOUS CONCRETE SURFACE REMOVAL	SQ YD	54	27	27	—
61704000	PAVED DITCH REMOVAL	LIN FT	511	511	—	—
62800085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	2	2	—
63300510	STEEL PLATE BEAM GUARD RAIL, TYPE A REMOVAL AND SALVAGE	LIN FT	137.5	87.5	[illegible]	—
63301995	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1A	EACH	2	2	—	—
63400310	ERECTING STEEL PLATE BEAM GUARDRAIL, TYPE A	LIN FT	62.5	50	12.5	—
64200100	SEEDING, CLASS I	ACRE	0.5	0.3	0.2	—
64200400	NITROGEN FERTILIZER NUTRIENT	POUND	37	18	18	—
64200500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	74	40	34	—
64200600	POTASSIUM FERTILIZER NUTRIENT	POUND	37	19	18	—
64300120	MULCH, METHOD 2	TON	1	0.6	0.4	—
64300500	EMULSIFIED ASPHALT	GALLON	90	48	42	—
64600400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	0.5	0.5	9
65000100	MOBILIZATION	L SUM	1	—	—	1
*T5020200	PAINT PAVEMENT MARKING - LINE 4"	LIN FT	2,450	792	862	796
*T5020400	PAINT PAVEMENT MARKING - LINE 6"	LIN FT	2,450	792	862	796
*T5080200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	16	—	—	16
*T5100300	GUARD RAIL REFLECTORS	EACH	24	8	16	—
Z0013500	CONCRETE THRUST BLOCKS	EACH	2	—	2	—
Z0018000	DRAINAGE SCUPPERS (SPECIAL)	EACH	6	—	—	6
Z0035100	NEOPRENE EXPANSION JOINT 2 1/2"	LIN FT	43	—	—	43
Z0035200	NEOPRENE EXPANSION JOINT 4"	LIN FT	43	—	—	43
Z0039200	PERMANENT SURVEY MARKERS, TYPE I	EACH	1	—	—	1
△ Z0076600	TRAINEES	HOUR	1000			

* SPECIALTY ITEMS
■ TOTAL QUANTITY INCLUDES QUANTITIES OF REPAIR ITEMS FOR LOCAL ROADS SEE TABLE BELOW (CONSTRUCTION TYPE CODE : I000)

CONSTRUCTION TYPE CODE: EAST & WEST - SFTY 3Q
REPL. STR. No. 050-0201 - X071-2B
△ Y080

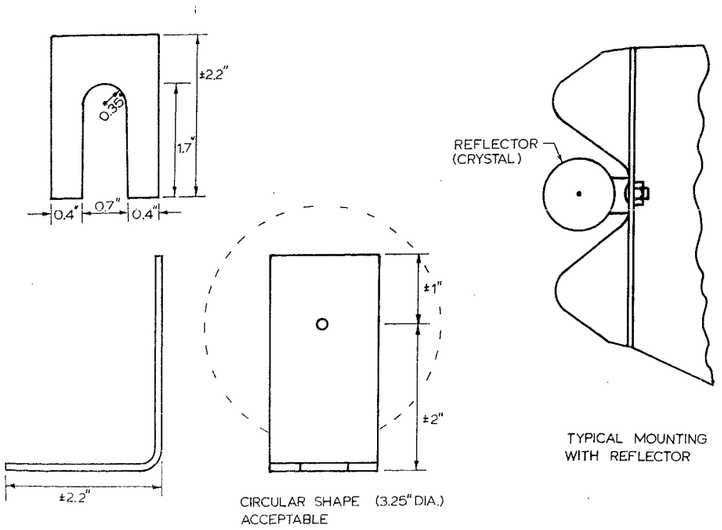
REPAIR ITEM FOR LOCAL ROADS

AGG SURF TY A (TON)	BIT CONC SURF MIX C (TON)	BIT MATLS PRIME (GAL)	AGG PRIME (TON)
1,000	200	190	5

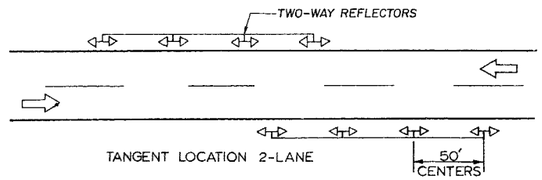
THESE ITEMS ARE ESTIMATES ONLY AND MAY OR MAY NOT BE NEEDED. THERE WILL BE NO ADJUSTMENT IN PRICE DUE TO A CHANGE IN QUANTITY.

SCHEDULES OF QUANTITIES
F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY

F.A. ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
607	124 BR	LASALLE		4
ILLINOIS PROJECT				



GUARD RAIL REFLECTOR BRACKET



APPLICATION OF REFLECTORS ATTACHED TO GUARD RAIL

NOTE:
1. BRACKET TO BE FABRICATED FROM 14 GAGE (MIN.) STEEL GALVANIZED IN ACCORDANCE WITH AASHTO M 111.
2. INSTALL AT THE SPACING SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. BRACKET "FOOT" SHALL BE PLACED BETWEEN THE BOLT HEAD AND THE PLATE WASHER (IF PRESENT).
4. BRACKETS SHALL NOT BE PLACED WITHIN 25 FEET OR THE END OF A BREAKAWAY CABLE TERMINAL (BCT) SECTION OR WITHIN AN EXPANSION SPLICE.
5. ON THREE BEAM RAIL, THE BRACKETS SHALL BE ATTACHED TO THE UPPER SPLICE BOLTS.

GENERAL NOTES

THE THICKNESS OF BITUMINOUS MIXTURES 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.

CLASS I SEEDING SHALL BE APPLIED TO ALL EXISTING AREAS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS. NUTRIENTS AND MULCH SHALL BE APPLIED TO ALL PROPOSED SEEDING AREAS EXCEPT THAT MULCH SHALL NOT BE APPLIED TO EXCELSIOR BLANKET AREAS.

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 MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

BEFORE ORDERING PIPE CULVERTS AND PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05 TONS/CU YD
BITUMINOUS MATERIALS PRIME COAT	0.08 GAL/SQ YD OR 0.375 GAL/SQ YD
AGGREGATE PRIME COAT	0.002 TONS/SQ YD
BITUMINOUS CONCRETE SURFACE COURSE	112 LBS/SQ YD/INCH
NITROGREN FERTILIZER NUTKIENT	80 LBS/ACRE
PHOSPHOROUS FERTILIZER NUTRIENT	160 LBS/ACRE
POTASSIUM FERTILIZER NUTRIENT	80 LBS/ACRE
TEMPORARY PAVEMENT MARKING	10 FT/100 FT OF APPLICATION
MULCH METHOD 2	2 TONS/ACRE
EMULSIFIED ASPHALT	100 GAL/TON OF MULCH

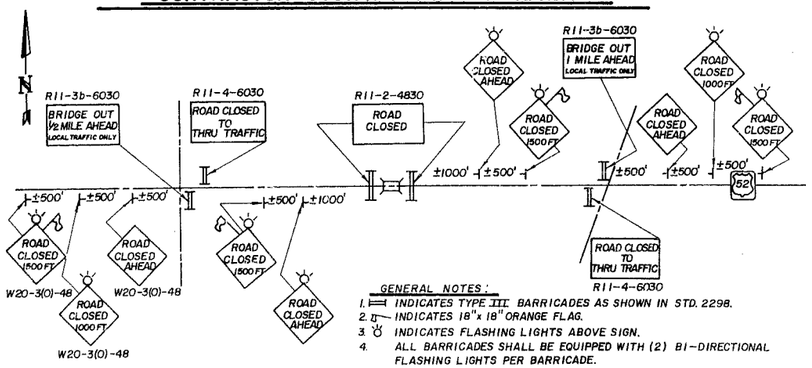
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.26 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED FOR NONEMERGENCY WORK.

MEMBERS OF JULIE. KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

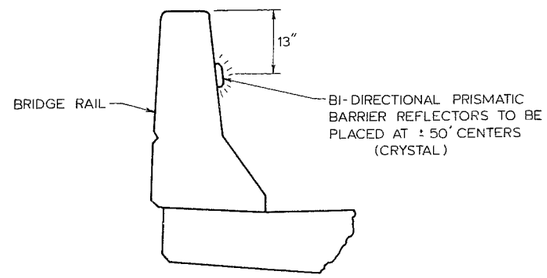
ILL. BELL TELEPHONE COMPANY

ILL. POWER COMPANY

CONTRACTOR SIGNING RESPONSIBILITY



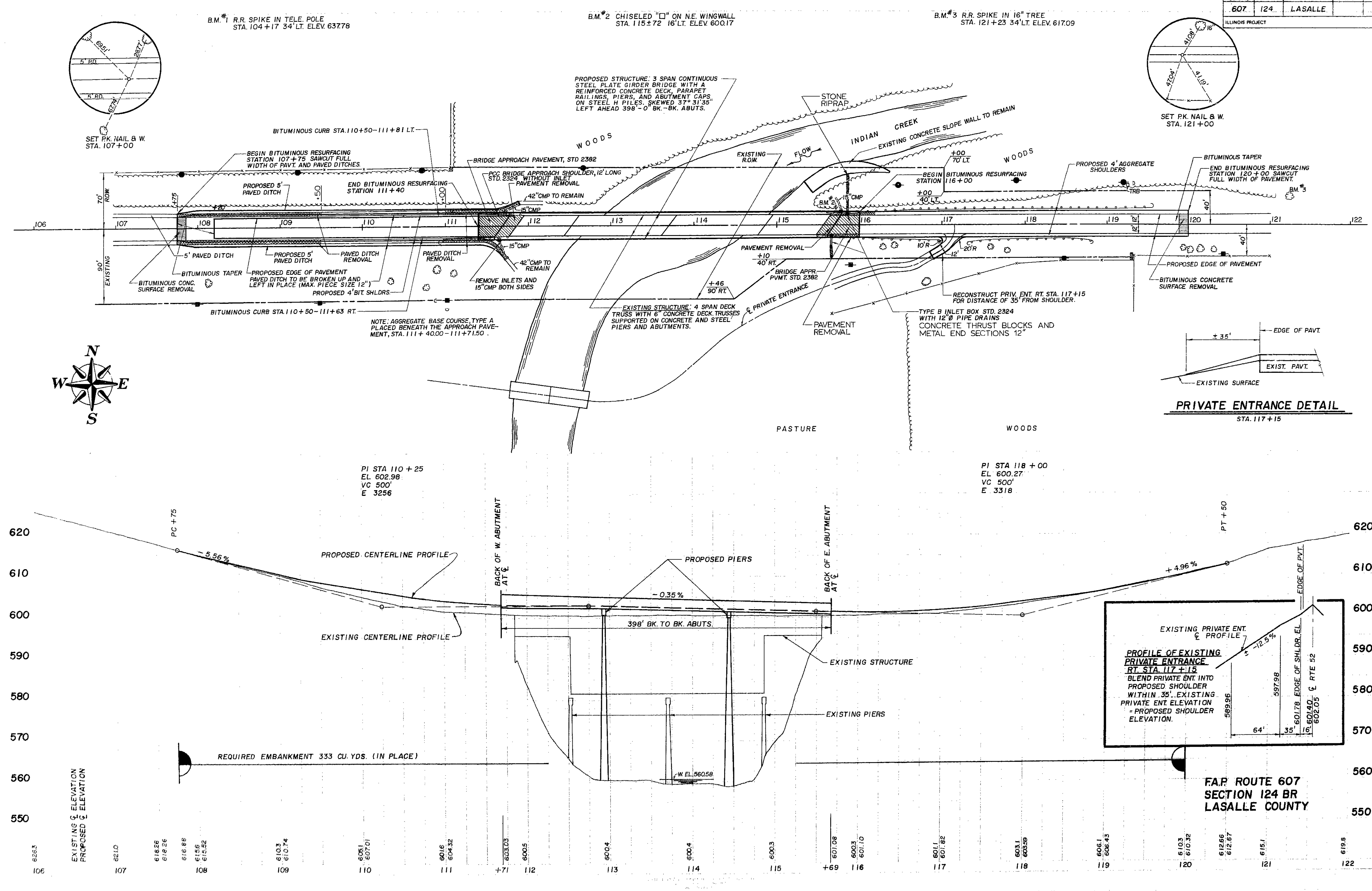
GENERAL NOTES:
1. ═╡ INDICATES TYPE III BARRICADES AS SHOWN IN STD. 2298.
2. ▽ INDICATES 18"x 18" ORANGE FLAG.
3. ☼ INDICATES FLASHING LIGHTS ABOVE SIGN.
4. ALL BARRICADES SHALL BE EQUIPPED WITH (2) BI-DIRECTIONAL FLASHING LIGHTS PER BARRICADE.
5. ALL SIGNS TO BE POST MOUNTED.
6. ALL TRAFFIC CONTROL DEVICES SHOWN, TO BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR.



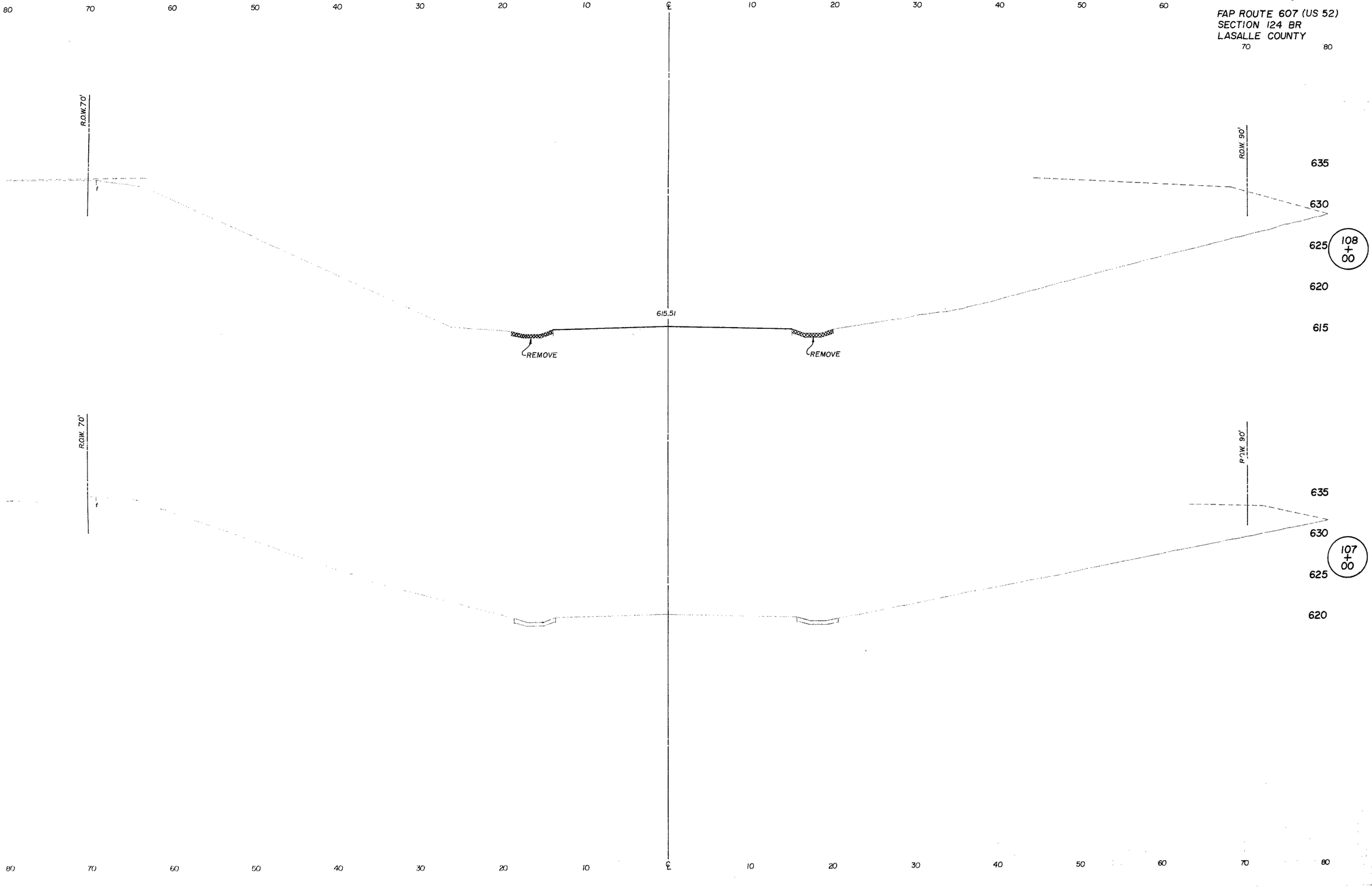
SUGGESTED MOUNTING LOCATION FOR BARRIER REFLECTORS

TRAFFIC CONTROL & GUARDRAIL REFLECTORS
F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY

F.A. ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
607	124	LASALLE		5
ILLINOIS PROJECT				



FAP ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY



FAP ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

635
630
625
620
615
610
605

R.O.W. 70'

R.O.W. 90'

110 + 00

607.01

TO BE BROKEN UP AND LEFT IN PLACE, MAX. PIECE SIZE 12".

C-0 F-33

TO BE BROKEN UP AND LEFT IN PLACE, MAX. PIECE SIZE 12".

635
630
625
620
615
610

R.O.W. 70'

R.O.W. 90'

109 + 00

610.73

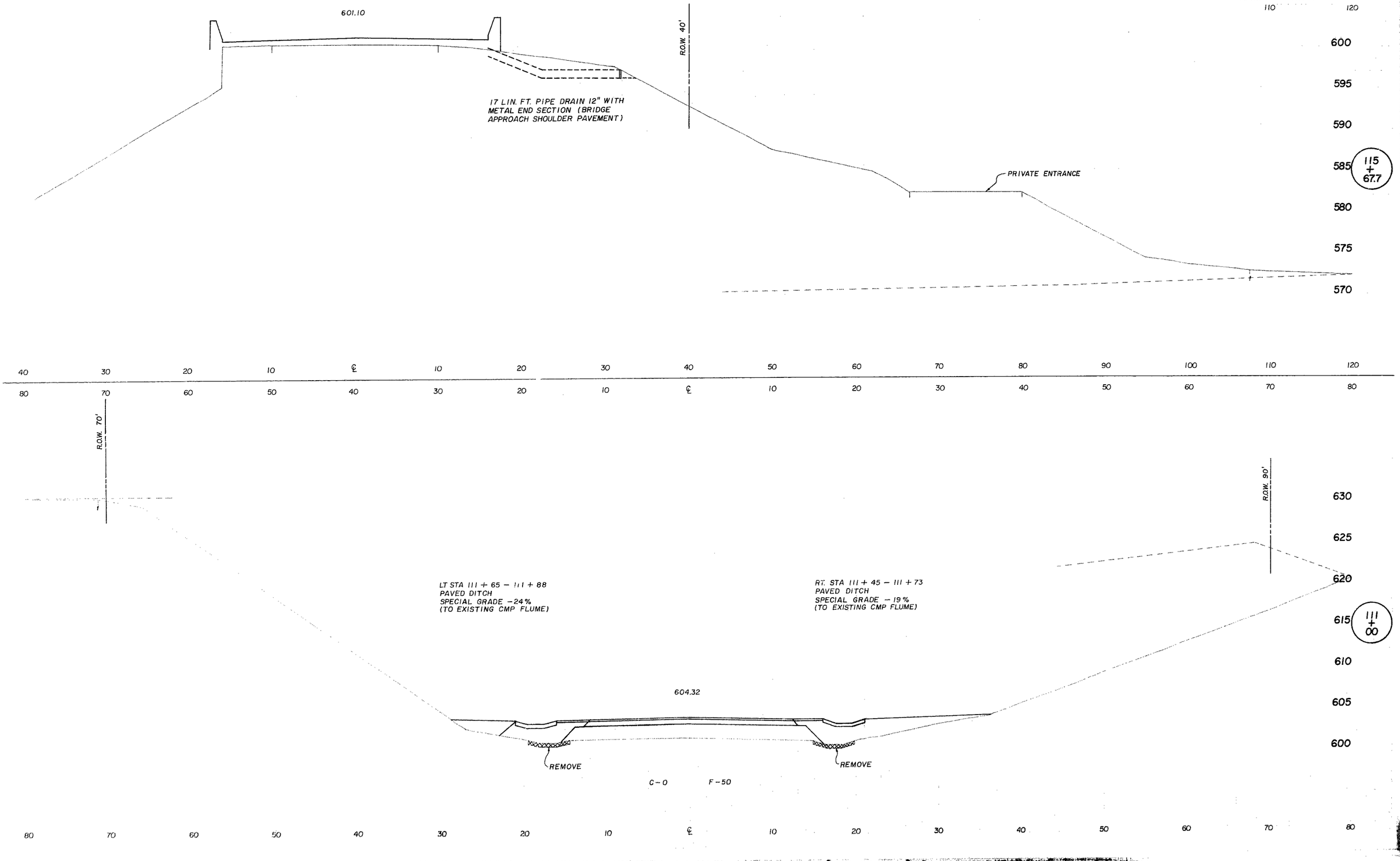
REMOVE

REMOVE

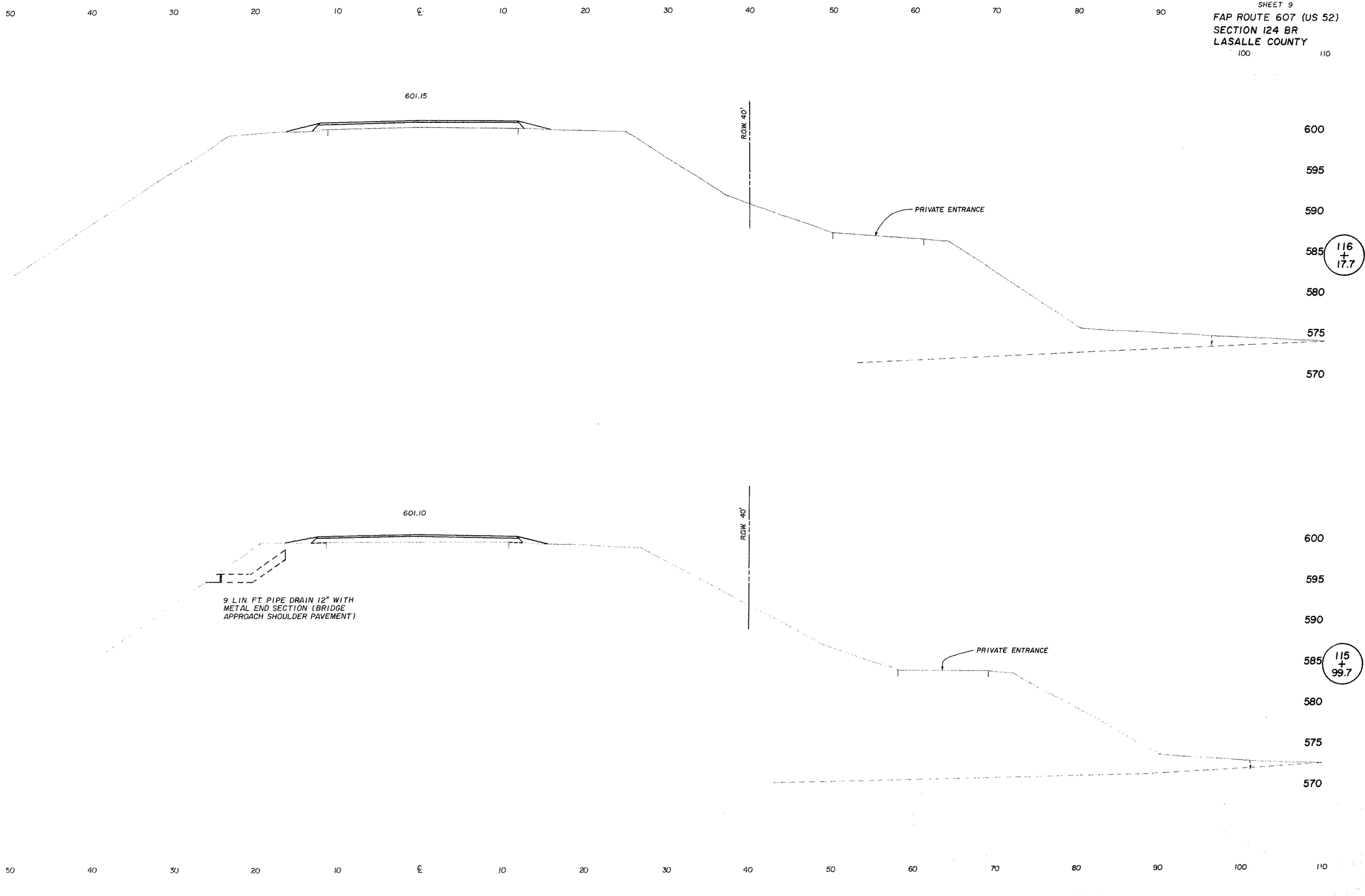
C-0 F-4

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

FAP ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY

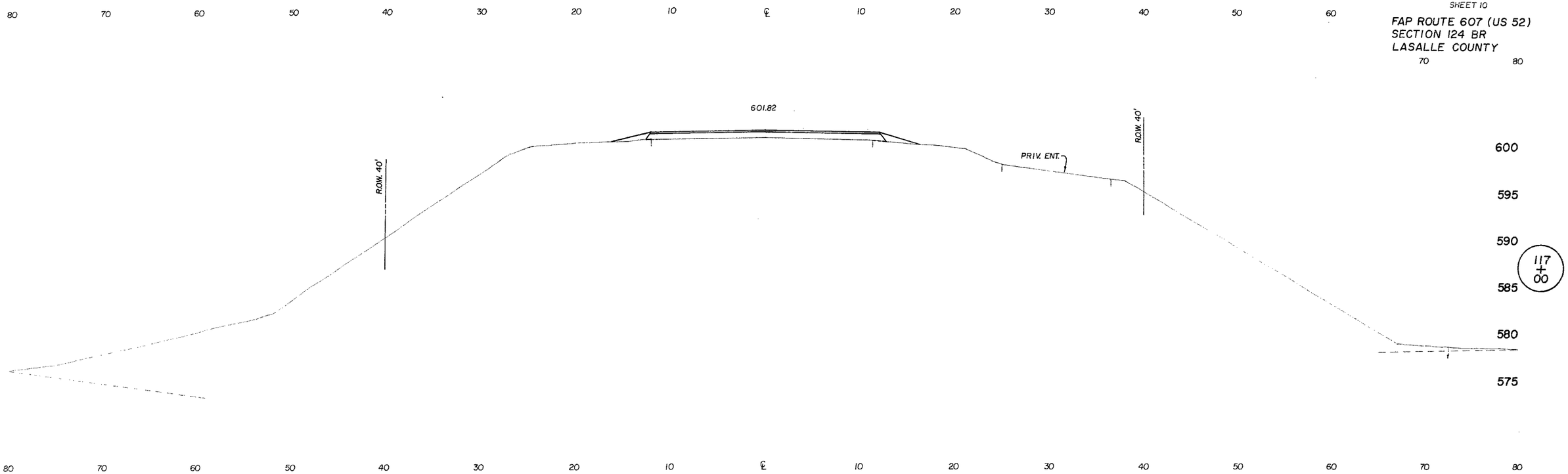


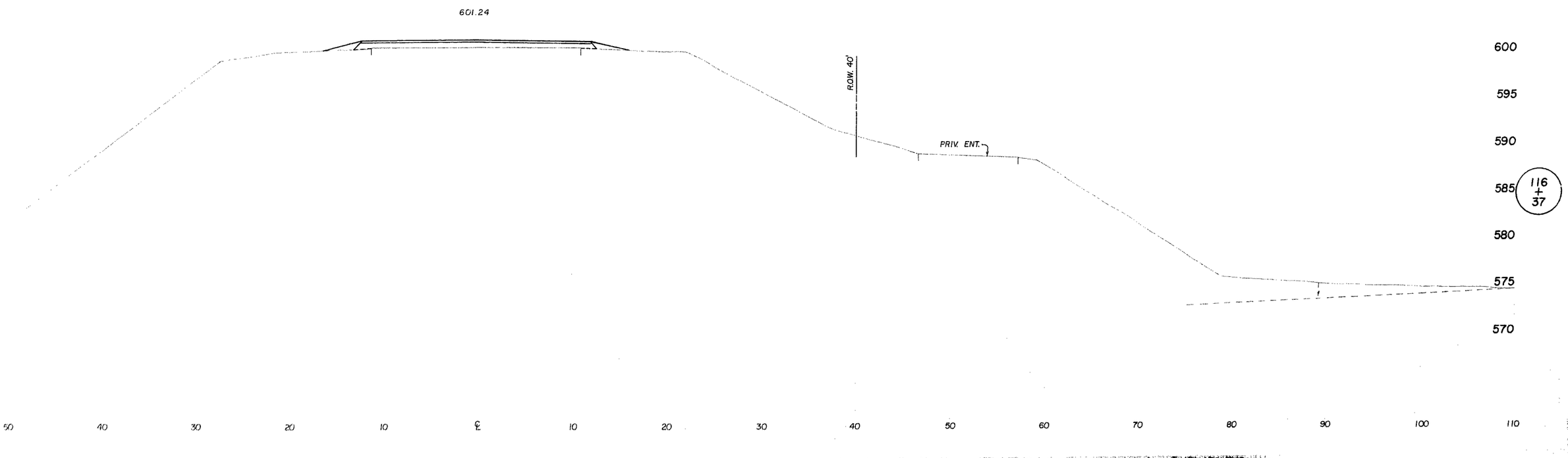
FAP ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY



SHEET 10

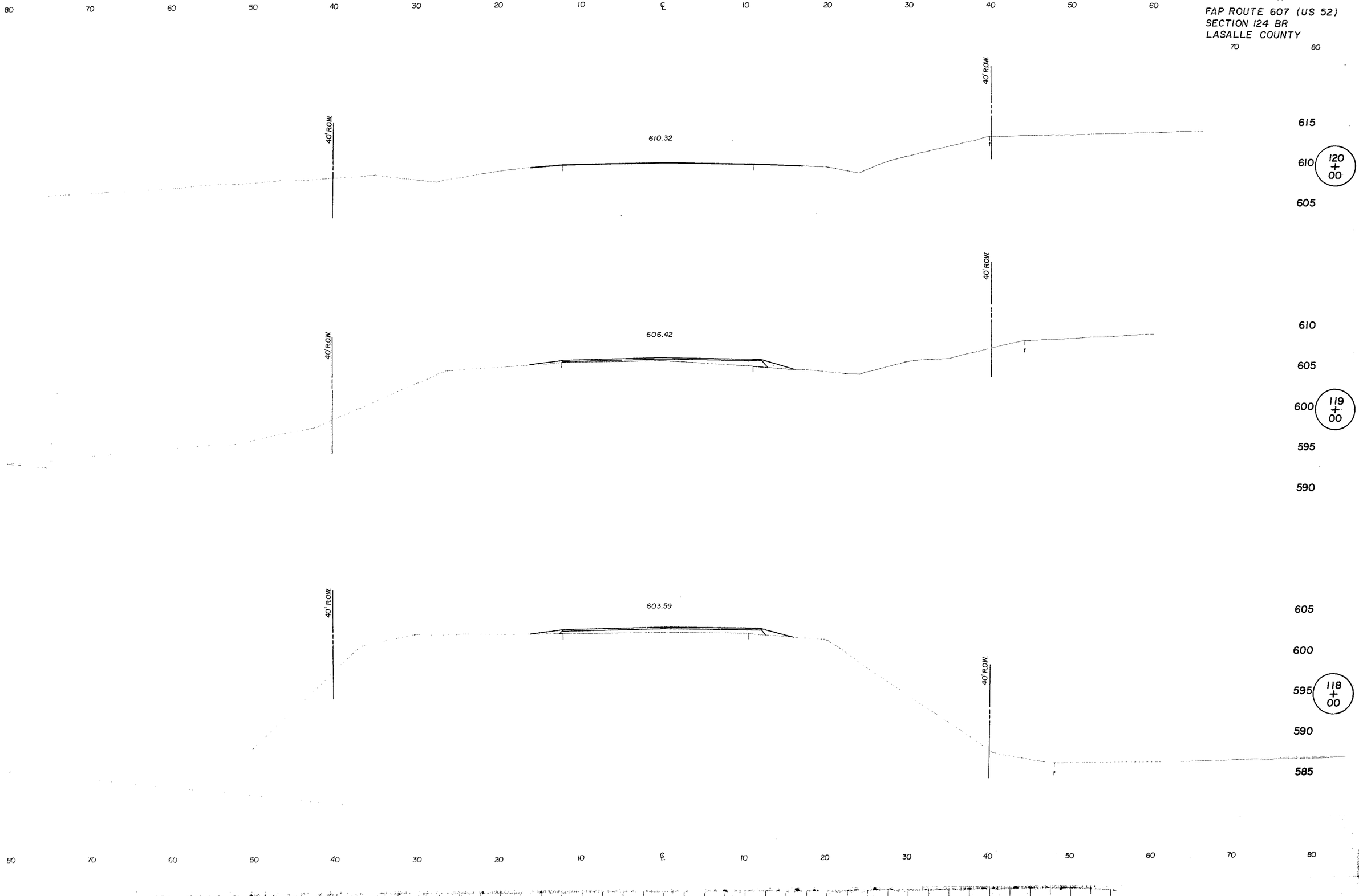
FAP ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY





SHEET 11

FAP ROUTE 607 (US 52)
SECTION 124 BR
LASALLE COUNTY



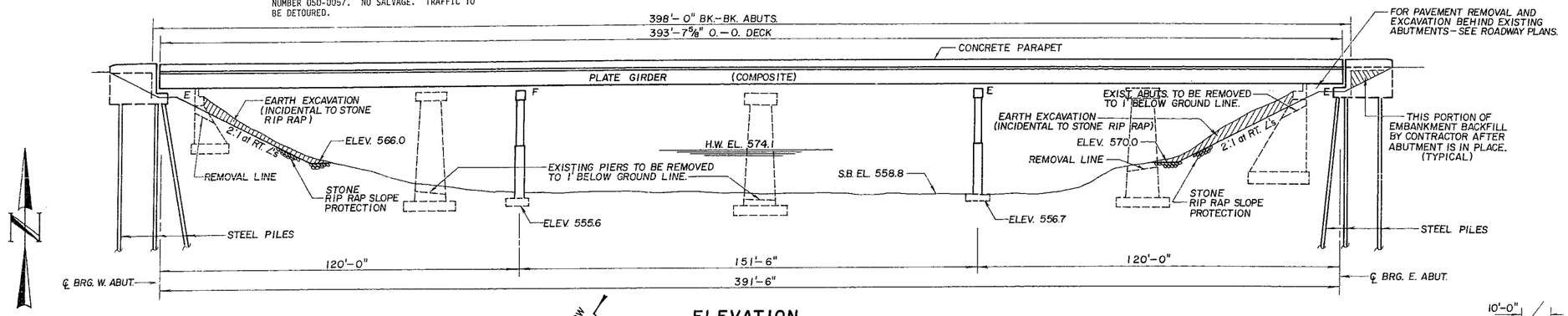
BENCH MARK: CHISELED SQUARE ON NORTHEAST WINGWALL

ELEVATION 600.17

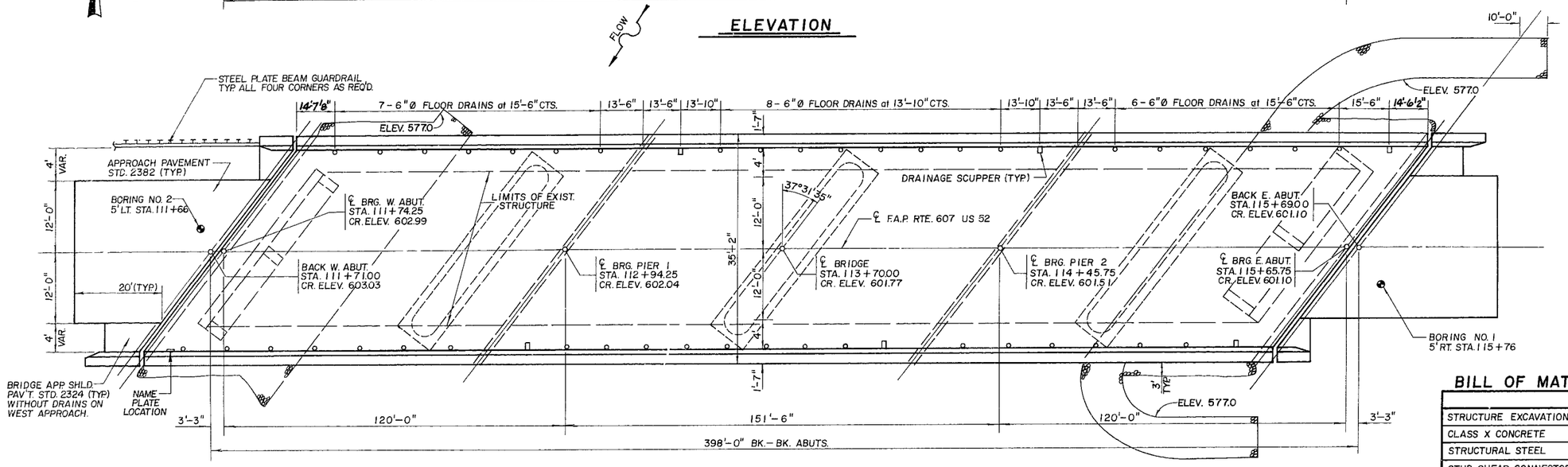
EXISTING STRUCTURE: BUILT IN 1930 AS SECTION 124 B, ROUTE 69. FOUR SPAN DECK TRUSS WITH A 6" CONCRETE DECK, 22 FEET 9 INCHES FA - FA OF CURBS, 375 FEET, 4 INCHES BK - BK ABUTMENTS. EXISTING STRUCTURE TO BE REMOVED. EXISTING STRUCTURE NUMBER 050-0057. NO SALVAGE. TRAFFIC TO BE DETOURED.

F.A. ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
607	124 BR	LASALLE	18	12
ILLINOIS PROJECT				

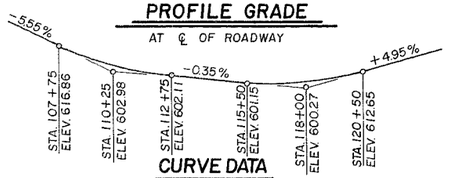
BR. SHEET 1 OF 16 SHEETS



ELEVATION



PLAN



PROFILE GRADE

AT ℄ OF ROADWAY

CURVE DATA

P.I. STA. 110+25.00
ELEV. 602.98
V.C. 500'
X +3.254
K 0.98

P.I. STA. 118+00.00
ELEV. 600.27
V.C. 500'
X +3.316
K 0.94

STATION 113+70.00
BUILT 198 BY
STATE OF ILLINOIS
F.A.P. ROUTE 607, SEC. 124 BR
LOADING HS 20
STR. NO. 050-0201

PROJECT BRF-607(59)

LETTERING FOR NAMEPLATE

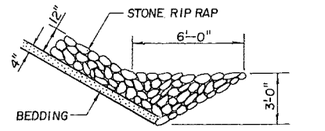
SEE STD. 2113

DESIGN STRESSES

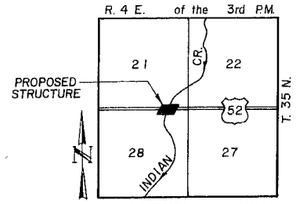
f'c = 3500 PSI
fy = 60,000 PSI (REINFORCEMENT)
fy = 50,000 PSI (STRUCTURAL STEEL M 223, GRADE 50)
fy = 36,000 PSI (STRUCTURAL STEEL M 183)

DESIGN SPECIFICATIONS

1983 AASHTO & 1984 & 1985 INTERIMS (ALLOW 25 LBS./SQ.FT. FOR FUTURE WEARING SURFACE)



STONE RIP RAP ANCHOR DETAIL



LOCATION SKETCH

GENERAL NOTES

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS.

CALCULATED WEIGHT OF STRUCTURAL STEEL: 270,340 LBS. M183
205,490 LBS. M223, GRADE 50

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8"Ø, OPEN HOLES 15/16"Ø UNLESS OTHERWISE NOTED.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER SUPPORTS.

THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THESE COMPONENETS ARE THE TENSION FLANGES, WEBS AND ALL SPLICE MATERIAL OF THE STEEL GIRDERS.

THE CONTRACTOR SHALL DRIVE 2-HP10X42 TEST PILES IN A PERMANENT LOCATION ONE EACH AT WEST ABUTMENT, AND EAST ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.

REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31, M42 OR M53, GRADE 60.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED.

LAYOUT OF STONE RIP RAP MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.

All high strength bolt connections shall conform to the requirements of the latest issue of the Specifications for Structural Joints using ASTM A325(M164) or A490(M253) Bolts for slip-critical connections. Except tightning methods using either the load indicating washers or the calibrated wrench are not allowed.

BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUPER	SUB	TOTAL
STRUCTURE EXCAVATION	CU.YD.		381	381
CLASS X CONCRETE	CU.YD.		402.9	402.9
STRUCTURAL STEEL	L. SUM	1		1
STUD SHEAR CONNECTORS	EACH	3060		3060
REINFORCEMENT BARS	LBS.		53,280	53,280
REINFORCEMENT BARS (EPOXY COATED)	LBS.	103,320		103,320
FURNISHING STEEL PILES HP 10 x 42	LIN.FT.		1064	1064
DRIVING STEEL PILES HP 10 x 42	LIN.FT.		1064	1064
TEST PILES HP 10 x 42	EACH		2	2
NEOPRENE EXPANSION JOINT - 2½"	LIN.FT.	43		43
NEOPRENE EXPANSION JOINT - 4"	LIN.FT.	43		43
DRAINAGE SCUPPERS	EACH	6		6
FLOOR DRAINS - 6" DIA.	EACH	42		42
PROTECTIVE COAT	SQ.YD.	320	26	346
NAMEPLATES	EACH			1
STONE RIP RAP	SQ.YD.			651
REMOVAL OF EXISTING STRUCTURES	EACH			1
ROCK EXCAVATION FOR STRUCTURE	CU.YDS.		90.4	90.4
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH		10	10
CLASS X CONCRETE SUPERSTRUCTURE	CU.YDS.	427.3		427.3
Cofferdams	Each		2	2
Cofferdam Excavation	Cu.Yds.		125	125

WATERWAY INFORMATION

DRAINAGE AREA = 237 SQ. MI. LOW GRADE ELEV. 601.07 at STA. 115+84

FLOOD	FREQ. YR.	Q. C.F.S.	OPENING SQ. FT. EXIST.	OPENING SQ. FT. PROP.	NAT. H.W.E.	HEAD-FT. EXIST.	HEAD-FT. PROP.	HEADWATER EL. EXIST.	HEADWATER EL. PROP.
DESIGN	50	7961	2605	2605	574.1	0.30	0.30	574.4	574.4
BASE	100	9082	2746	2746	574.7	0.38	0.38	575.08	575.08
OVERTOPPING									
MAX CALC.	500	11672			576.9				

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

LOADING HS 20-44

STATE OF ILLINOIS HAROLD P. WENDLER 2743 REGISTERED STRUCTURAL ENGINEER

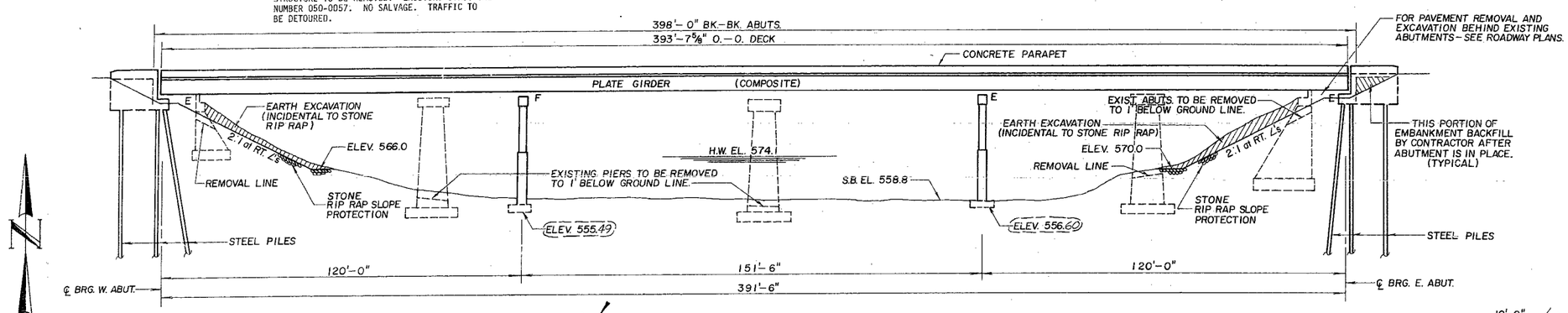
GENERAL PLAN AND ELEVATION
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

BENCH MARK: CHISELED SQUARE ON NORTHEAST WINGWALL
ELEVATION 600.17

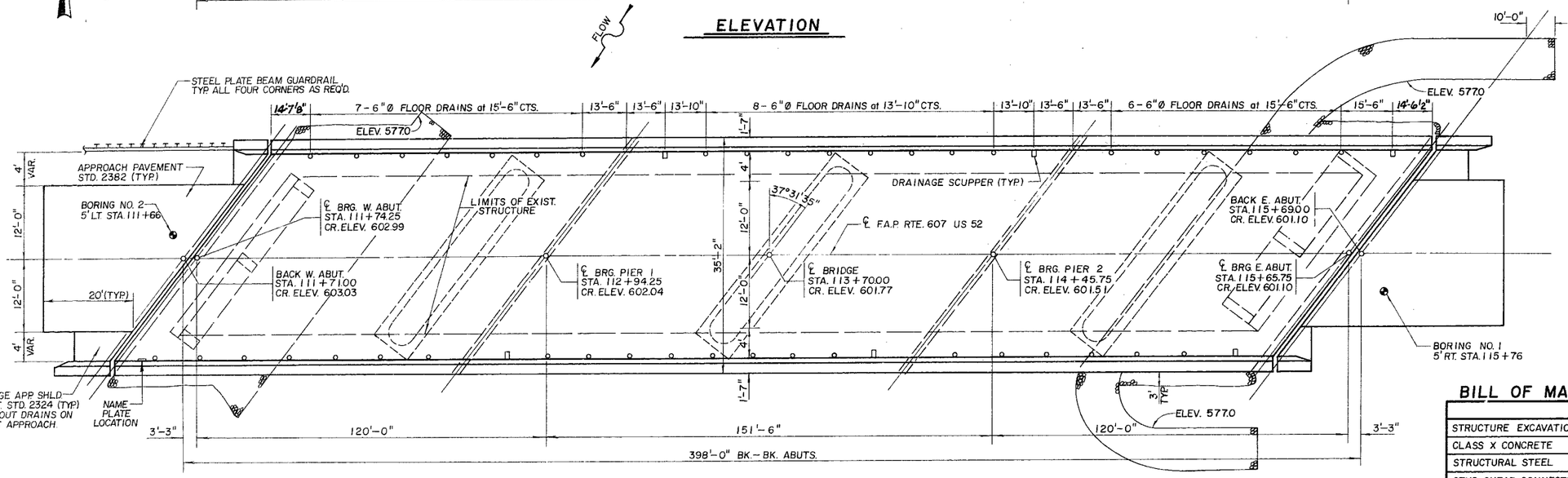
EXISTING STRUCTURE: BUILT IN 1930 AS SECTION 124 B, ROUTE 69. FOUR SPAN DECK TRUSS WITH A 6" CONCRETE DECK, 22 FEET 9 INCHES FA - FA OF CURBS, 375 FEET, 4 INCHES BK - BK ABUTMENTS. EXISTING STRUCTURE TO BE REMOVED. EXISTING STRUCTURE NUMBER 050-0057. NO SALVAGE. TRAFFIC TO BE DETOURED.

F.A. ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
607	124 BR	LASALLE	28	12A
ILLINOIS PROJECT				

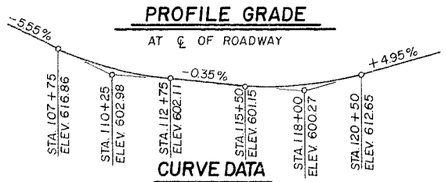
BR. SHEET 1 OF 16 SHEETS



ELEVATION



PLAN



PROFILE GRADE
AT ℄ OF ROADWAY

CURVE DATA

P.I. STA. 110+25.00
ELEV. 602.98
V.C. 500'
X +3.254
K 0.98

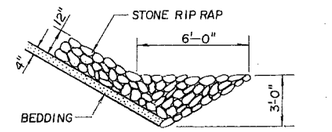
P.I. STA. 118+00.00
ELEV. 600.27
V.C. 500'
X +3.316
K 0.94

STATION 113+70.00
BUILT 198 BY
STATE OF ILLINOIS
F.A.P. ROUTE 607, SEC. 124 BR
LOADING HS 20
STR. NO. 050-0201

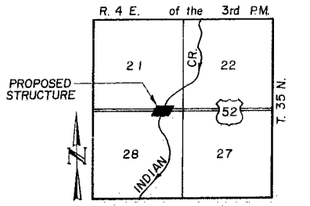
LETTERING FOR NAMEPLATE
SEE STD. 2113

DESIGN STRESSES
f'c = 3500 PSI
fy = 60,000 PSI (REINFORCEMENT)
fy = 50,000 PSI (STRUCTURAL STEEL M 223, GRADE 50)
fy = 36,000 PSI (STRUCTURAL STEEL M 183)

DESIGN SPECIFICATIONS
1983 AASHTO & 1984 & 1985 INTERIMS (ALLOW 25 LBS./SQ.FT. FOR FUTURE WEARING SURFACE)



STONE RIP RAP ANCHOR DETAIL



LOCATION SKETCH

WATERWAY INFORMATION

DRAINAGE AREA = 237 SQ. MI. LOW [illegible]DE ELEV. 601.07 at STA. 115+84

FLOOD	FREQ. YR.	Q. C.F.S.	OPENING Sq.		NAT. H.W.E.	HEAD-FT.		HEADWATER EL.	
			EXIST.	PROP.		EXIST.	PROP.	EXIST.	PROP.
DESIGN	50	7961	2605	2605	574.1	0.30	0.30	574.4	574.4
BASE	100	9082	2746	2746	574.7	0.38	0.38	575.08	575.08
OVERTOPPING									
MAX CALC	500	11672			576.9				

AS REVISED

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

GENERAL NOTES

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS.

CALCULATED WEIGHT OF STRUCTURAL STEEL: 270,340 LBS. M183
205,490 LBS. M223, GRADE 50

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8"Ø, OPEN HOLES 15/16"Ø UNLESS OTHERWISE NOTED.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER SUPPORTS.

THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THESE COMPONENETS ARE THE TENSION FLANGES, WEBS AND ALL SPLICE MATERIAL OF THE STEEL GIRDERS.

THE CONTRACTOR SHALL DRIVE 2-HP10X42 TEST PILES IN A PERMANENT LOCATION ONE EACH AT WEST ABUTMENT, AND EAST ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.

REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31, M42 OR M53, GRADE 60.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED.

LAYOUT OF STONE RIP RAP MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.

All high strength bolt connections shall conform to the requirements of the latest issue of the Specifications for Structural Joints using ASTM A325(M164) or A490(M253) Bolts for slip-critical connections. Except tightening methods using either the load indicating washers or the calibrated wrench are not allowed.

BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUPER	SUB	TOTAL
STRUCTURE EXCAVATION	CU.YD.		381	381
CLASS X CONCRETE	CU.YD.		402.9	402.9
STRUCTURAL STEEL	L. SUM	1		1
STUD SHEAR CONNECTORS	EACH	3060		3060
REINFORCEMENT BARS	LBS.		53,280	53,280
REINFORCEMENT BARS (EPOXY COATED)	LBS.	103,320		103,320
FURNISHING STEEL PILES HP 10 x 42	LIN.FT.		1064	1064
DRIVING STEEL PILES HP 10 x 42	LIN.FT.		1064	1064
TEST PILES HP 10 x 42	EACH		2	2
NEOPRENE EXPANSION JOINT - 2½"	LIN.FT.	43		43
NEOPRENE EXPANSION JOINT - 4"	LIN.FT.	43		43
DRAINAGE SCUPPERS	EACH	6		6
FLOOR DRAINS - 6" DIA.	EACH	42		42
PROTECTIVE COAT	SQ.YD.	320	26	346
NAMEPLATES	EACH			1
STONE RIP RAP	SQ.YD.			651
REMOVAL OF EXISTING STRUCTURES	EACH			1
ROCK EXCAVATION FOR STRUCTURE	CU.YDS.		90.4	90.4
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH		10	10
CLASS X CONCRETE SUPERSTRUCTURE	CU.YDS.	427.3		427.3
Cofferdams	Each		2	2
Cofferdam Excavation	Cu Yds.		45	45

HAROLD P. WENDLER 2743 REGISTERED STRUCTURAL ENGINEER DIXON, ILL.

LOADING HS 20-44

GENERAL PLAN AND ELEVATION
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

Revised 11-15-91 L.W.

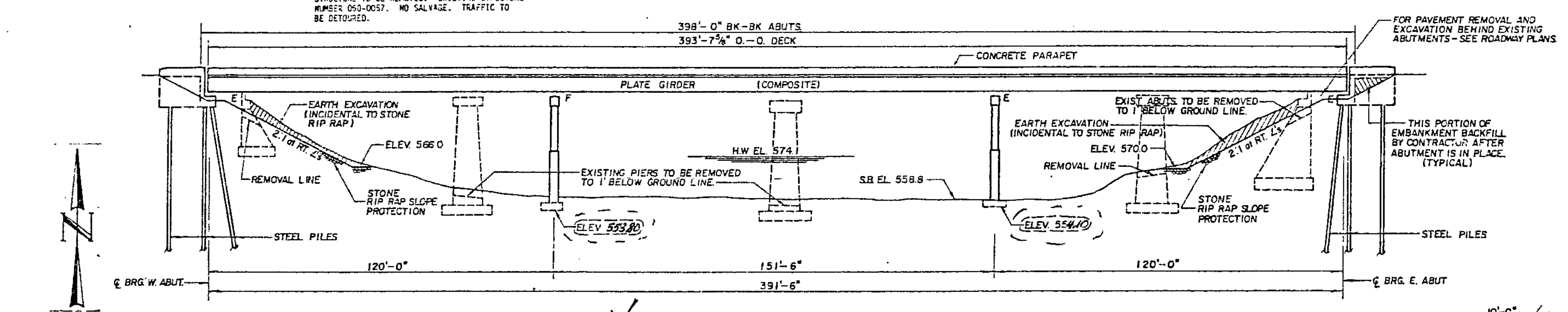
BENCH MARK: CHISELED SQUARE ON NORTHEAST WINGWALL
ELEVATION 600.17

EXISTING STRUCTURE: BUILT IN 1936 AS SECTION 124 B, ROUTE 69. FOUR SPAN DECK TRUSS WITH A 6" CONCRETE DECK, 22 FEET 9 INCHES FA - FA OF CURBS, 375 FEET, 4 INCHES BK - BK ABUTMENTS. EXISTING STRUCTURE TO BE REMOVED. EXISTING STRUCTURE NUMBER 050-0057. NO SALVAGE. TRAFFIC TO BE DETOURED.

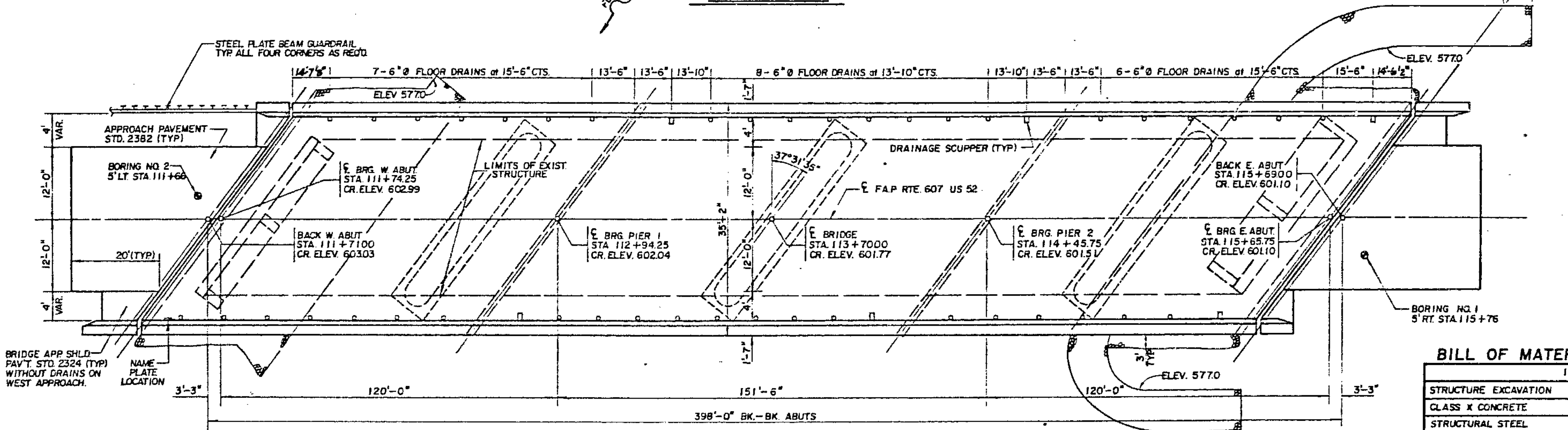
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	28	12B

ILLINOIS PROJECT

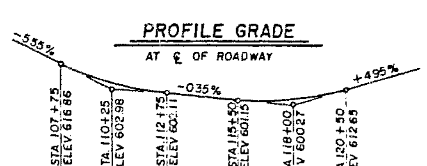
BR. SHEET 1 OF 16 SHEETS



ELEVATION



PLAN



PROFILE GRADE

AT ℄ OF ROADWAY

CURVE DATA

P.I. STA. 110+25.00	P.I. STA. 118+00.00
ELEV. 602.98	ELEV. 600.27
V.C. 500'	V.C. 500'
x +3.254	x +3.316
K 0.98	K 0.94

STATION 113+70.00
BUILT 198_ BY
STATE OF ILLINOIS
F.A.P. ROUTE 607, SEC. 124 BR
LOADING HS 20
STR. NO. 050-0201

LETTERING FOR NAMEPLATE

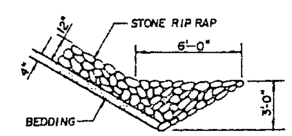
SEE STD. 2113

DESIGN STRESSES

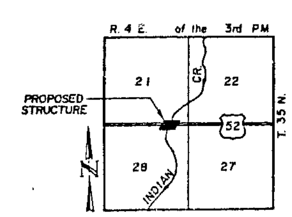
f'c = 3500 PSI
fy = 60,000 PSI (REINFORCEMENT)
fy = 50,000 PSI (STRUCTURAL STEEL M 223, GRADE 50)
fy = 36,000 PSI (STRUCTURAL STEEL M 183)

DESIGN SPECIFICATIONS

1983 AASHTO & 1984 & 1985 INTERIMS (ALLOW 25 LBS./SQ.FT. FOR FUTURE WEARING SURFACE)



STONE RIP RAP ANCHOR DETAIL



LOCATION SKETCH

GENERAL NOTES

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS.

CALCULATED WEIGHT OF STRUCTURAL STEEL: 270,340 LBS. M183
205,490 LBS. M223, GRADE 50

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8"Ø, OPEN HOLES 15/16"Ø UNLESS OTHERWISE NOTED.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER SUPPORTS.

THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THESE COMPONENETS ARE THE TENSION FLANGES, WEBS AND ALL SPLICE MATERIAL OF THE STEEL GIRDERS.

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BILL OF MATERIAL – BRIDGE

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REINFORCEMENT BARS (EPOXY COATED)	LBS.	103,320		103,320
FURNISHING STEEL PILES HP 10 x 42	LIN.FT.		1064	1064
DRIVING STEEL PILES HP 10 x 42	LIN.FT.		1064	1064
TEST PILES HP 10 x 42	EACH		2	2
NEOPRENE EXPANSION JOINT – 2½"	LIN.FT.	43		43
NEOPRENE EXPANSION JOINT – 4"	LIN.FT.	43		43
DRAINAGE SCUPPERS	EACH	6		6
FLOOR DRAINS – 6" DIA.	EACH	42		42
PROTECTIVE COAT	SQ.YD.	320	26	346
NAMEPLATES	EACH			1
STONE RIP RAP	SQ.YD.			651
REMOVAL OF EXISTING STRUCTURES	EACH			1
ROCK EXCAVATION FOR STRUCTURE	CU.YDS.		90.4	90.4
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH		10	10
CLASS X CONCRETE SUPERSTRUCTURE	CU.YDS.	427.3		427.3
Cofferdams	Each		2	2
Cofferdam Excavation	Cu.Yds.		[illegible]	[illegible]

WATERWAY INFORMATION

DRAINAGE AREA = 237 SQ MI LOW GRADE ELEV. 601.07 at STA 115+84

FLOOD	FREQ. YR	Q CFS	OPENING SQ FT		NAT HWE	HEAD-FT		HEADWATER EL	
			EXIST	PROP		EXIST.	PROP.	EXIST	PROP
DESIGN	50	7061	2605	2605	574.1	0.30	0.30	574.4	574.4
BASE	100	9082	2746	2746	574.7	0.38	0.38	575.08	575.08
OVERTOPPING									
MAX CALC	500	11672			576.9				

AS REVISED

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD ILLINOIS

DO NOT SCALE DRAWING. FOLLOW DIMENSIONS

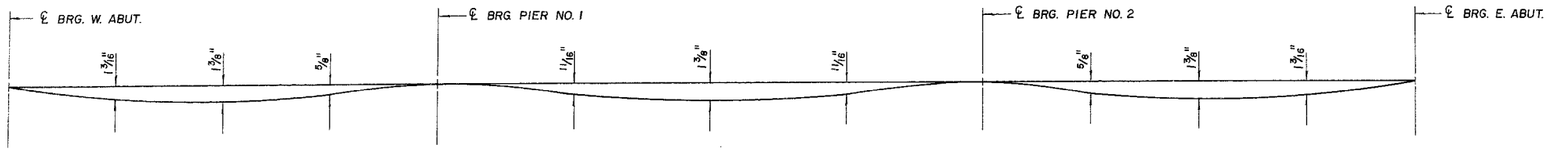
LOADING HS 20-44

GENERAL PLAN AND ELEVATION
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

As Revised 11-16-87 L.W.   As Revised 4-20-88 L.W.

F.A. ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	25	13
ILLINOIS PROJECT				

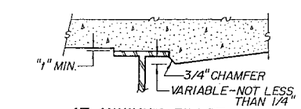
BR. SHEET 2 OF 16 SHEETS



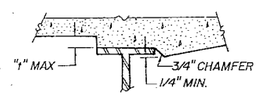
DEAD LOAD DEFLECTION DIAGRAM

(INCLUDES WEIGHT OF CONCRETE ONLY)

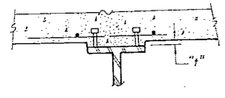
NOTE: THE ABOVE DEFLECTIONS ARE NOT TO BE USED IN THE FIELD IF THE ENGINEER IS WORKING FROM THE GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS AS SHOWN BELOW.



AT MINIMUM FILLET
EXTERIOR BEAM



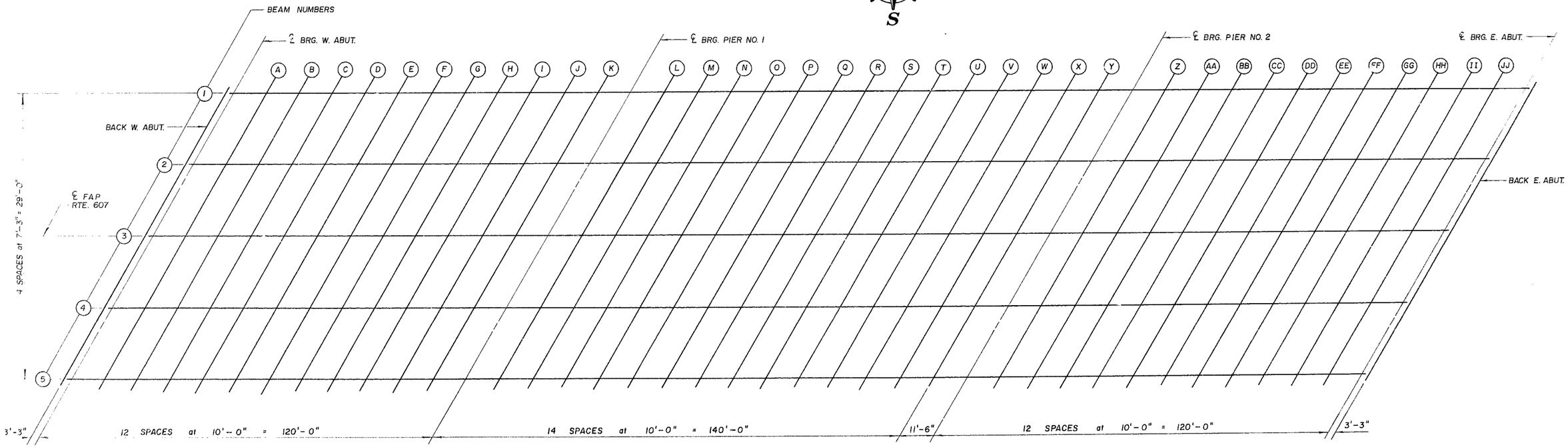
AT MAXIMUM FILLET
EXTERIOR BEAM



COMPOSITE
INTERIOR BEAM

NOTE: TO DETERMINE "t"- AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED ELEVATIONS OF TOP FLANGES OF THE BEAMS SHALL BE TAKEN AT THE STATIONS SHOWN. THESE ELEVATIONS SUBTRACTED FROM THE THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS MINUS FLOOR THICKNESS EQUALS THE FILLET HEIGHTS ABOVE TOP FLANGE OF BEAMS.

FILLET HEIGHTS



PLAN

DECK ELEVATIONS
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

F.A. ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	22	14
ILLINOIS PROJECT				

BR. SHEET 3 OF 16 SHEETS

BEAM NO. 1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ADJ. FOR DEAD LOAD DEFLECTION
BK W ABUT	111+82.14	14.5	602.639	602.639
CL BRG W ABUT	111+85.39	14.5	602.598	602.598
A	111+95.39	14.5	602.475	602.540
B	112+05.39	14.5	602.362	602.485
C	112+15.39	14.5	602.260	602.427
D	112+25.39	14.5	602.168	602.361
E	112+35.39	14.5	602.087	602.288
F	112+45.39	14.5	602.016	602.207
G	112+55.39	14.5	601.955	602.120
H	112+65.39	14.5	601.905	602.032
I	112+75.39	14.5	601.865	601.950
J	112+85.39	14.5	601.830	601.874
K	112+95.39	14.5	601.797	601.810
CL BRG PIER 1	113+05.39	14.5	601.760	601.760
L	113+15.39	14.5	601.725	601.736
M	113+25.39	14.5	601.690	601.730
N	113+35.39	14.5	601.655	601.733
O	113+45.39	14.5	601.620	601.739
P	113+55.39	14.5	601.585	601.742
Q	113+65.39	14.5	601.550	601.735
R	113+75.39	14.5	601.515	601.716
S	113+85.39	14.5	601.480	601.682
T	113+95.39	14.5	601.445	601.633
U	114+05.39	14.5	601.410	601.571
V	114+15.39	14.5	601.375	601.500
W	114+25.39	14.5	601.340	601.424
X	114+35.39	14.5	601.305	601.350
Y	114+45.39	14.5	601.270	601.284
CL BRG PIER 2	114+56.89	14.5	601.230	601.230
Z	114+66.89	14.5	601.195	601.208
AA	114+76.89	14.5	601.160	601.204
BB	114+86.89	14.5	601.125	601.210
CC	114+96.89	14.5	601.090	601.217
DD	115+06.89	14.5	601.055	601.220
EE	115+16.89	14.5	601.020	601.211
FF	115+26.89	14.5	600.985	601.186
GG	115+36.89	14.5	600.950	601.143
HH	115+46.89	14.5	600.915	601.082
II	115+56.89	14.5	600.880	601.003
JJ	115+66.89	14.5	600.860	600.925
CL BRG E ABUT	115+76.89	14.5	600.848	600.848
BK E ABUT	115+80.14	14.5	600.846	600.846

BEAM NO. 2

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ADJ. FOR DEAD LOAD DEFLECTION
BK W ABUT	111+76.57	7.25	602.842	602.842
CL BRG W ABUT	111+79.82	7.25	602.798	602.798
A	111+89.82	7.25	602.669	602.734
B	111+99.82	7.25	602.550	602.673
C	112+09.82	7.25	602.442	602.609
D	112+19.82	7.25	602.345	602.538
E	112+29.82	7.25	602.257	602.458
F	112+39.82	7.25	602.181	602.372
G	112+49.82	7.25	602.114	602.279
H	112+59.82	7.25	602.058	602.185
I	112+69.82	7.25	602.012	602.097
J	112+79.82	7.25	601.976	602.020
K	112+89.82	7.25	601.941	601.954
CL BRG PIER 1	112+99.82	7.25	601.906	601.906
L	113+09.82	7.25	601.871	601.882
M	113+19.82	7.25	601.836	601.876
N	113+29.82	7.25	601.801	601.879
O	113+39.82	7.25	601.766	601.885
P	113+49.82	7.25	601.731	601.888
Q	113+59.82	7.25	601.696	601.881
R	113+69.82	7.25	601.661	601.862
S	113+79.82	7.25	601.626	601.828
T	113+89.82	7.25	601.591	601.779
U	113+99.82	7.25	601.556	601.717
V	114+09.82	7.25	601.521	601.646
W	114+19.82	7.25	601.486	601.570
X	114+29.82	7.25	601.451	601.496
Y	114+39.82	7.25	601.416	601.430
CL BRG PIER 2	114+51.32	7.25	601.376	601.376
Z	114+61.32	7.25	601.341	601.354
AA	114+71.32	7.25	601.306	601.350
BB	114+81.32	7.25	601.271	601.356
CC	114+91.32	7.25	601.236	601.363
DD	115+01.32	7.25	601.201	601.366
EE	115+11.32	7.25	601.166	601.357
FF	115+21.32	7.25	601.131	601.332
GG	115+31.32	7.25	601.096	601.289
HH	115+41.32	7.25	601.061	601.228
II	115+51.32	7.25	601.026	601.149
JJ	115+61.32	7.25	600.998	601.063
CL BRG E ABUT	115+71.32	7.25	600.980	600.980
BK E ABUT	115+74.57	7.25	600.977	600.977

BEAM NO. 3

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ADJ. FOR DEAD LOAD DEFLECTION
BK W ABUT	111+71.00	0.0	603.033	603.033
CL BRG W ABUT	111+74.25	0.0	602.987	602.987
A	111+84.25	0.0	602.853	602.918
B	111+94.25	0.0	602.728	602.851
C	112+04.25	0.0	602.615	602.782
D	112+14.25	0.0	602.511	602.704
E	112+24.25	0.0	602.418	602.619
F	112+34.25	0.0	602.335	602.526
G	112+44.25	0.0	602.263	602.428
H	112+54.25	0.0	602.201	602.328
I	112+64.25	0.0	602.150	602.235
J	112+74.25	0.0	602.109	602.153
K	112+84.25	0.0	602.074	602.087
CL BRG PIER #1	112+94.25	0.0	602.039	602.039
L	113+04.25	0.0	602.004	602.015
M	113+14.25	0.0	601.969	602.009
N	113+24.25	0.0	601.934	602.012
O	113+34.25	0.0	601.899	602.018
P	113+44.25	0.0	601.864	602.021
Q	113+54.25	0.0	601.829	602.014
R	113+64.25	0.0	601.794	601.995
S	113+74.25	0.0	601.759	601.961
T	113+84.25	0.0	601.724	601.912
U	113+94.25	0.0	601.689	601.850
V	114+04.25	0.0	601.654	601.779
W	114+14.25	0.0	601.619	601.703
X	114+24.25	0.0	601.584	601.629
Y	114+34.25	0.0	601.549	601.563
CL BRG PIER #2	114+45.75	0.0	601.508	601.508
Z	114+55.75	0.0	601.473	601.486
AA	114+65.75	0.0	601.438	601.482
BB	114+75.75	0.0	601.403	601.488
CC	114+85.75	0.0	601.368	601.495
DD	114+95.75	0.0	601.333	601.498
EE	115+05.75	0.0	601.298	601.489
FF	115+15.75	0.0	601.263	601.464
GG	115+25.75	0.0	601.228	601.421
HH	115+35.75	0.0	601.193	601.360
II	115+45.75	0.0	601.158	601.281
JJ	115+55.75	0.0	601.125	601.190
CL BRG E ABUT	115+65.75	0.0	601.101	601.101
BK E ABUT	115+69.00	0.0	601.096	601.096

DECK ELEVATIONS
F.A.P ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

F.A. ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	32	15
ILLINOIS PROJECT				

BR. SHEET 4 OF 16 SHEETS

BEAM NO. 4

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ADJ. FOR DEAD LOAD DEFLECTION
BK W ABUT	111+65.43	7.25	603.001	603.001
CL BRG W ABUT	111+68.68	7.25	602.953	602.953
A	111+78.68	7.25	602.813	602.878
B	111+88.68	7.25	602.683	602.806
C	111+98.68	7.25	602.563	602.730
D	112+08.68	7.25	602.454	602.647
E	112+18.68	7.25	602.355	602.556
F	112+28.68	7.25	602.267	602.458
G	112+38.68	7.25	602.189	602.354
H	112+48.68	7.25	602.121	602.248
I	112+58.68	7.25	602.064	602.149
J	112+68.68	7.25	602.017	602.061
K	112+78.68	7.25	601.980	601.993
CL BRG PIER #1	112+88.68	7.25	601.945	601.945
L	112+98.68	7.25	601.910	601.921
M	113+08.68	7.25	601.875	601.915
N	113+18.68	7.25	601.840	601.918
O	113+28.68	7.25	601.805	601.924
P	113+38.68	7.25	601.770	601.927
Q	113+48.68	7.25	601.735	601.920
R	113+58.68	7.25	601.700	601.901
S	113+68.68	7.25	601.665	601.867
T	113+78.68	7.25	601.630	601.818
U	113+88.68	7.25	601.595	601.756
V	113+98.68	7.25	601.560	601.685
W	114+08.68	7.25	601.525	601.609
X	114+18.68	7.25	601.490	601.535
Y	114+28.68	7.25	601.455	601.469
CL BRG PIER #2	114+40.18	7.25	601.415	601.415
Z	114+50.18	7.25	601.380	601.393
AA	114+50.18	7.25	601.345	601.389
BB	114+70.18	7.25	601.310	601.395
CC	114+80.18	7.25	601.275	601.402
DD	114+90.18	7.25	601.240	601.405
EE	115+00.18	7.25	601.205	601.396
FF	115+10.18	7.25	601.170	601.371
GG	115+20.18	7.25	601.135	601.328
HH	115+30.18	7.25	601.100	601.267
II	115+40.18	7.25	601.065	601.188
JJ	115+50.18	7.25	601.030	601.095
CL BRG E ABUT	115+60.18	7.25	601.000	601.000
BK E ABUT	115+63.43	7.25	600.994	600.994

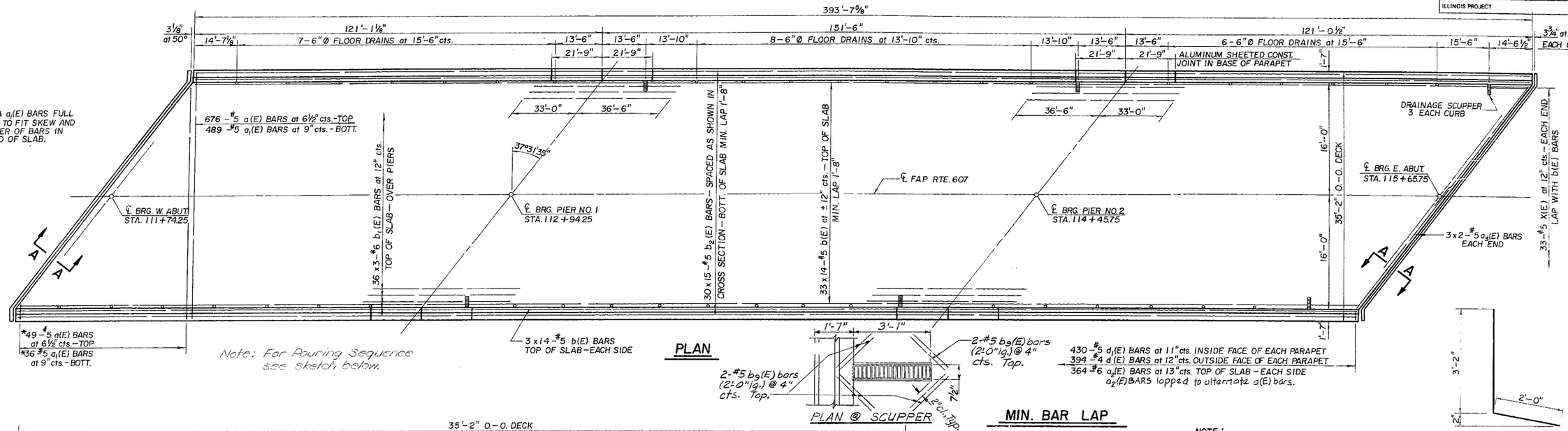
BEAM NO. 5

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ADJ. FOR DEAD LOAD DEFLECTION
BK W ABUT	111+59.86	14.5	602.959	602.959
CL BRG W ABUT	111+63.11	14.5	602.910	602.910
A	111+73.11	14.5	602.763	602.828
B	111+83.11	14.5	602.628	602.751
C	111+93.11	14.5	602.502	602.669
D	112+03.11	14.5	602.387	602.580
E	112+13.11	14.5	602.282	602.483
F	112+23.11	14.5	602.188	602.379
G	112+33.11	14.5	602.104	602.269
H	112+43.11	14.5	602.031	602.158
I	112+53.11	14.5	601.968	602.053
J	112+63.11	14.5	601.915	601.959
K	112+73.11	14.5	601.873	601.886
CL BRG PIER #1	112+83.11	14.5	601.838	601.838
L	112+93.11	14.5	601.803	601.814
M	113+03.11	14.5	601.768	601.808
N	113+13.11	14.5	601.733	601.811
O	113+23.11	14.5	601.698	601.817
P	113+33.11	14.5	601.663	601.820
Q	113+43.11	14.5	601.628	601.813
R	113+53.11	14.5	601.593	601.794
S	113+63.11	14.5	601.558	601.760
T	113+73.11	14.5	601.523	601.711
U	113+83.11	14.5	601.488	601.649
V	113+93.11	14.5	601.453	601.578
W	114+03.11	14.5	601.418	601.502
X	114+13.11	14.5	601.383	601.428
Y	114+23.11	14.5	601.348	601.362
CL BRG PIER #2	114+34.61	14.5	601.308	601.308
Z	114+44.61	14.5	601.273	601.286
AA	114+54.61	14.5	601.238	601.282
BB	114+64.61	14.5	601.203	601.288
CC	114+74.61	14.5	601.168	601.295
DD	114+84.61	14.5	601.133	601.298
EE	114+94.61	14.5	601.098	601.289
FF	115+04.61	14.5	601.063	601.264
GG	115+14.61	14.5	601.028	601.221
HH	115+24.61	14.5	600.993	601.160
II	115+34.61	14.5	600.958	601.081
JJ	115+44.61	14.5	600.923	600.988
CL BRG E ABUT	115+54.61	14.5	600.889	600.889
BK E ABUT	115+57.86	14.5	600.879	600.879

DECK ELEVATIONS
F.A.P ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	22	16
ILLINOIS PROJECT				

BR. SHT. 5 OF 16



PLAN

PLAN @ SCUPPER

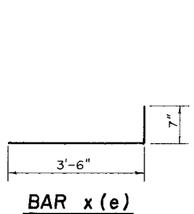
BAR d (e)

MIN. BAR LAP

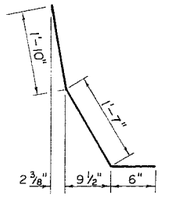
#5 = 1'-8"

#8 = 3'-8"

NOTE:
BARS INDICATED THUS 33 x 14-5 ETC. INDICATES 33 LINES OF BARS WITH 14 LENGTHS PER LINE.



BAR x (e)



BAR d_1 (e)

BILL OF MATERIAL – SUPERSTRUCTURE

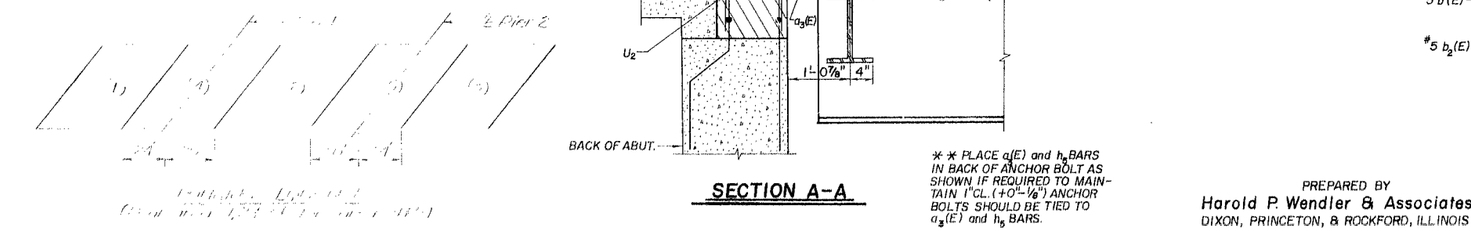
BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	725	#5	34'-0"	
a_1(E)	525	#5	34'-0"	
a_2(E)	728	#6	4'-0"	
a_3(E)	12	#5	22'-9"	
b(E)	546	#5	29'-8"	
b_1(E)	216	#6	24'-6"	
b_2(E)	450	#5	27'-10"	
b_3(E)	32	#8	27'-6"	
b_4(E)	16	#8	21'-4"	
b_5(E)	16	#8	29'-9"	
b_6(E)	32	#5	26'-0"	
b_7(E)	16	#8	21'-4"	
b_8(E)	16	#5	28'-3"	
b_9(E)	46	#5	2'-0"	
d(E)	788	#4	5'-2"	
d_1(E)	860	#5	3'-11"	
e(E)	168	#4	13'-10"	
e_1(E)	48	#4	2'-5"	
e_2(E)	84	#4	15'-0"	
X(E)	66	#5	4'-1"	

CLASS X CONCRETE SUPERSTRUCTURE	CU.YDS.	427.3
REINFORCEMENT BARS (EPOXY CTD.)	LBS.	103,320
NEOPRENE EXPANSION JT. (2½")	LIN.FT.	43
DRAINAGE SCUPPERS	EACH	6
PROTECTIVE COAT	SQ.YD.	320
NEOPRENE EXPANSION JT. (4")	LIN. FT.	43
FLOOR DRAINS	EACH	42

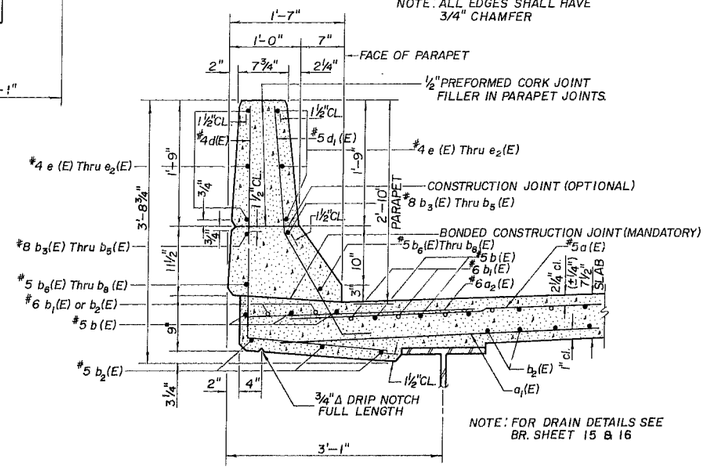
BARS DESIGNATED (E) SHALL BE EPOXY COATED.

CROSS SECTION

(LOOKING EAST)



NOTE: ALL EDGES SHALL HAVE ¾" CHAMFER



NOTE: FOR DRAIN DETAILS SEE BR. SHEET 15 & 16

CURB SECTION

NOTE: HATCHED AREA TO BE POURED AFTER SUPERSTRUCTURE FORMS HAVE BEEN REMOVED. QUANTITY OF CLASS X CONCRETE INCLUDED WITH SUPERSTRUCTURE.

NOTE: FOR NEOPRENE JOINT DETAILS SEE BR. SHEET 6

** PLACE a_3(E) and h_5 BARS IN BACK OF ANCHOR BOLT AS SHOWN IF REQUIRED TO MAINTAIN 1" CL. (+0"-⅛") ANCHOR BOLTS SHOULD BE TIED TO a_3(E) and h_5 BARS.

SECTION A-A

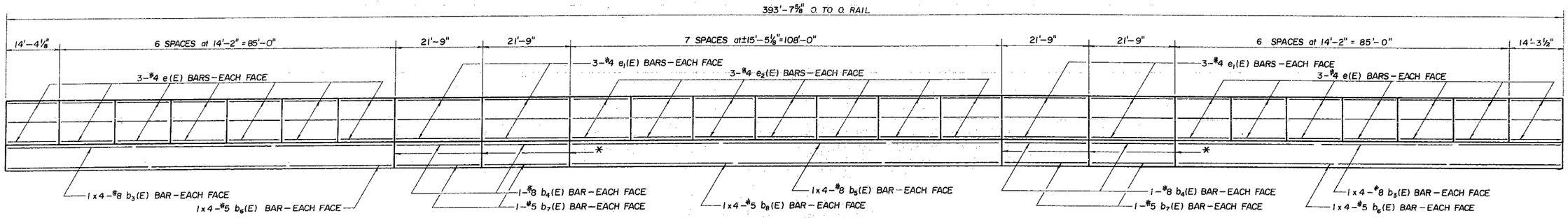
PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

SUPERSTRUCTURE
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

F.A. ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
607	124 BR	LASALLE	28	17
ILLINOIS PROJECT				

BR. SHEET 6 OF 16 SHEETS



NOTE: BARS INDICATED THUS: 1 x 4-#8 b_3(E) ETC. INDICATES 1 LINE OF BARS WITH 2 LENGTHS PER LINE.

PARAPET JOINT SPACING

ALL DIMENSIONS ARE ALONG INSIDE FACE OF PARAPET

* ⅛" ALUMINUM SHEET JOINT IN BASE OF PARAPET

MIN. LAP REQ'D.

#4 BAR	1'-4"
#5 BAR	1'-8"
#8 BAR	3'-8"

GENERAL NOTES

CONTINUOUS SEAL NEOPRENE EXPANSION JOINT CONSIST OF MOLDED ANCHOR BLOCKS OF ELASTOMER AND STEEL. FIELD ASSEMBLED OVER CONTINUOUS LENGTHS OF ELASTOMERIC MEMBRANE. SEE SPECIAL PROVISIONS.

THE ELASTOMERIC MEMBRANE SHALL BE PREMOLDED WITH A SINGLE OR A DOUBLE UPWARD CONVOLUTION THAT WILL HAVE A "MEMORY" TO RETURN TO ITS MOLDED POSITION UPON JOINT CLOSURE.

THE STEEL REINFORCEMENT MUST EXTEND UP THE BACK FACE OF ANCHOR BLOCKS WHEN ASPHALT SURFACES ARE USED BUT IS OPTIONAL IN CONCRETE BLOCKOUT.

THE CONVOLUTION LENGTH SHALL BE SUCH THAT THE EXTENDED LENGTH WILL NOT BE GREATER THAN THE MANUFACTURED LENGTH WHEN THE JOINT IS FULLY EXPANDED IN ITS DESIGN RANGE AND WILL NOT PROTRUDE ABOVE THE ANCHOR BLOCKS WHEN THE JOINT IS FULLY COMPRESSED.

JOINT OPENINGS SHALL BE ADJUSTED IN ACCORDANCE WITH ARTICLE 503.07(C) OF THE STANDARD SPECIFICATIONS WHEN THE DECK IS POURED AT A AMBIENT TEMPERATURE OTHER THAN 50° F.

THE PARAPET FLAPS MAY BE FURNISHED FACTORY VULCANIZED TO THE ROADWAY MEMBRANE PROVIDED THE CENTERLINE OF THE CONVOLUTION IS MAINTAINED AND THE PROCESS AND METHOD MEET THE APPROVAL OF THE ENGINEER.

ANCHOR BOLTS, WASHERS AND NUTS, TO BE PLATED AGAINST CORROSION IN ACCORDANCE WITH THE SPECIAL PROVISIONS, SHALL BE ZINC-COATED BY THE MECHANICAL PLATING METHOD CONFORMING TO ASTM B695, CLASS 50. ZINC-COATED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M291 AND SHALL MEET THE SUPPLEMENTARY REQUIREMENTS S1.1 THRU S1.2.1 OF THE SAME SPECIFICATIONS FOR LUBRICANT AND TESTING.

INSTALLATION NOTES

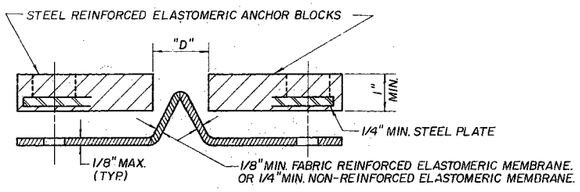
(1) INSTALL SPONGE MANDRELS INTO POSITIONS SHOWN TO FORM FLAP CONVOLUTION.

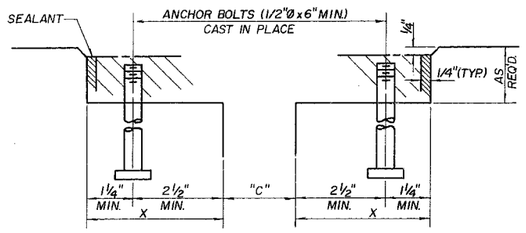
(2) INSTALL PARAPET PIECE (TRIM ROADWAY FLAP TO FIT BEFORE APPLYING EPOXY).

(3) INSTALL CONTINUOUS SEAL IN ROADWAY.

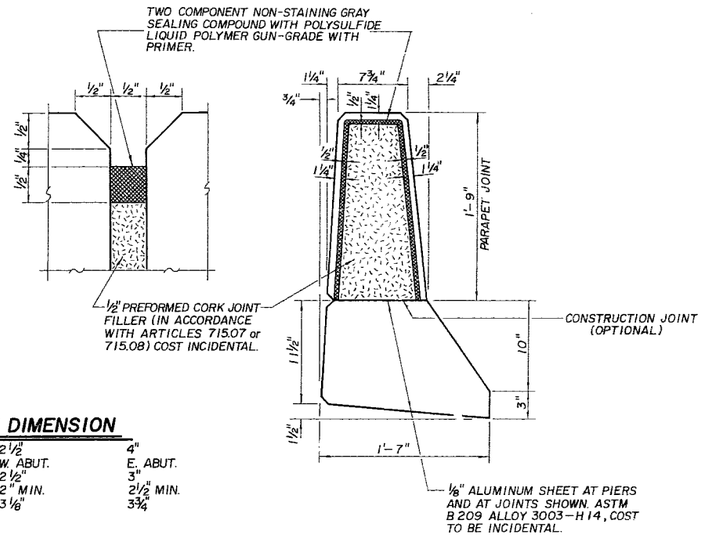
(4) INSTALL ANCHOR BLOCKS AS INDICATED.

NOTE A: MAXIMUM SPACING OF ANCHOR BOLTS SHALL BE 12" CENTERS.





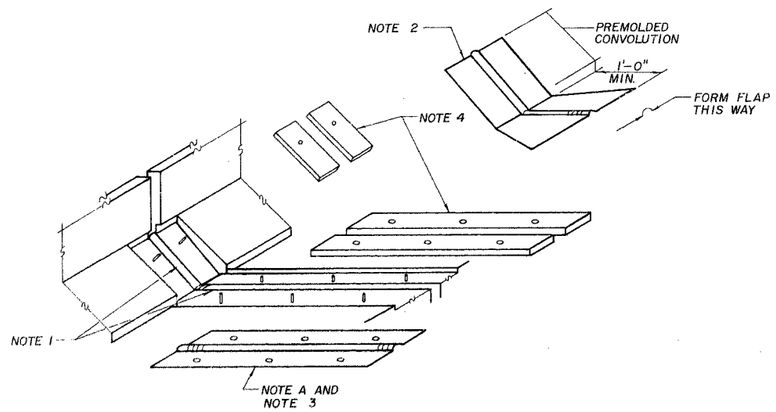
CROSS SECTION



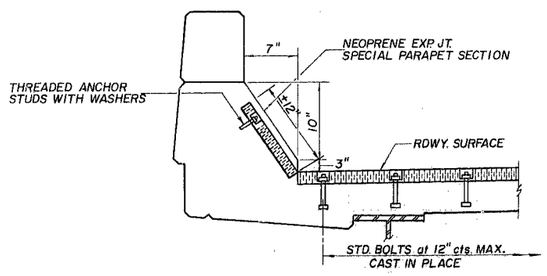
EXPANSION JOINT DIMENSION

JOINT SIZE	2½"	4"
LOCATION	W. ABUT.	E. ABUT.
"C" at 50° F	2½"	3"
"D" at 50° F	2" MIN.	2½" MIN.
"F" at 50° F	3⅛"	3¾"

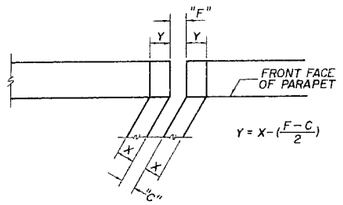
DETAILS OF PARAPET JOINT



TYPICAL END TREATMENT



CURB INSTALLATION



FORMING BLOCKOUT SKETCH

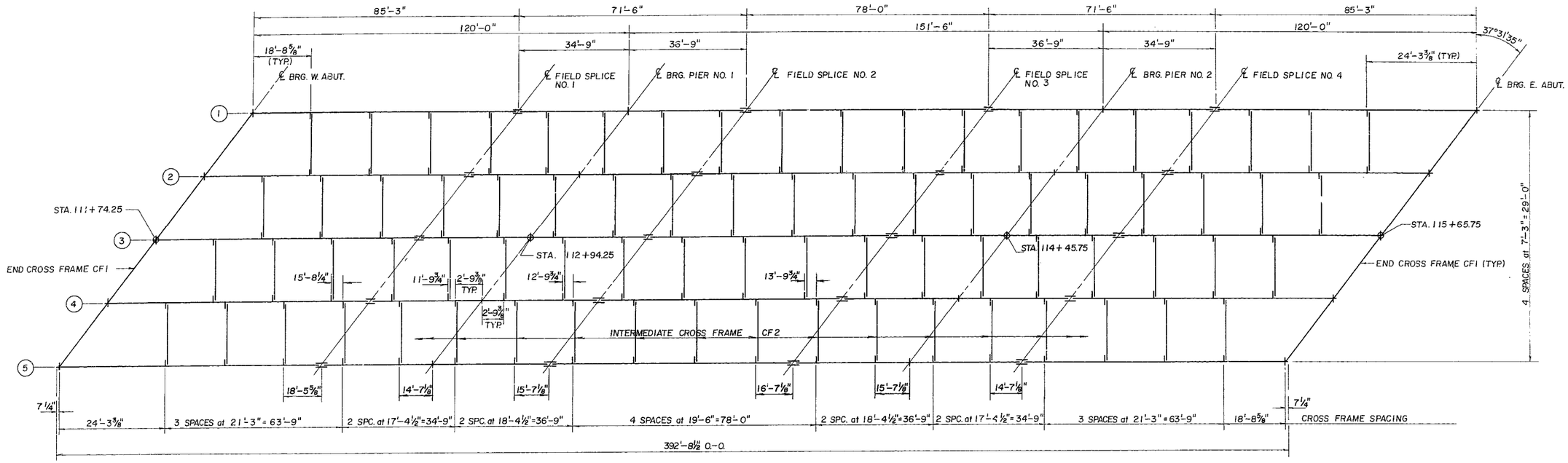
PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

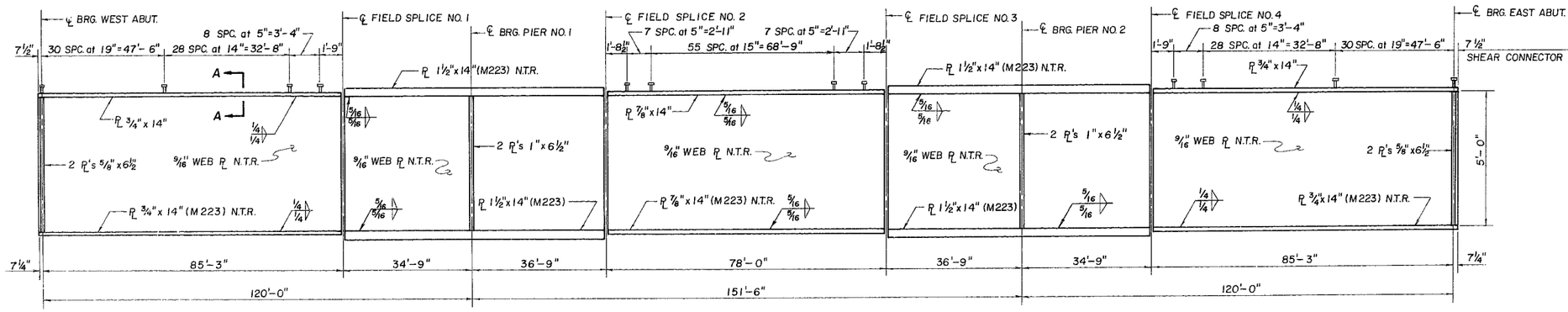
SUPERSTRUCTURE DETAILS
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113 + 70.00

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	33	18
ILLINOIS PROJECT				

BR. SHEET 7 OF 16 SHEETS

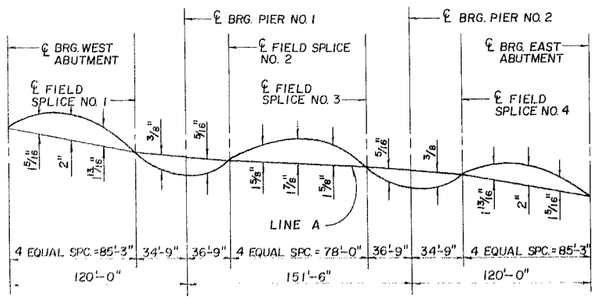


FRAMING PLAN



GIRDER ELEVATION

NOTE: ALL STEEL LABELED (M223) SHALL BE AASHTO M 223 – GRADE 50.
(N.T.R. INDICATES NOTCH TOUGHNESS REQUIREMENTS)



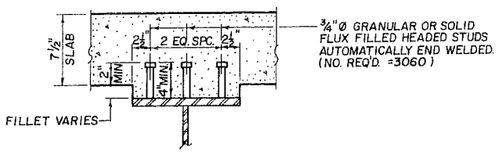
CAMBER DIAGRAM (*)

NOTES: LINE A IS A STRAIGHT LINE BETWEEN ℄ BEARING STIFFENER AT ABUTMENTS AND ℄ FIELD SPLICE AND BETWEEN ℄ FIELD SPLICES AT TOP OF WEB PLATE.
CAMBER SHOWN INCLUDES ALLOWANCES FOR VERTICAL CURVE AND FULL DEAD LOAD DEFLECTION, EXCLUDING FUTURE WEARING SURFACES.

TOP OF WEB ELEVATIONS (*)

GIRDER / LOCATION	1	2	3	4	5
℄ BRG. W. ABUT.	601.85	602.05	602.24	602.20	602.16
℄ FIELD SPLICE #1	600.99	601.14	601.28	601.19	601.10
℄ BRG. PIER #1	600.95	601.09	601.23	601.13	601.03
℄ FIELD SPLICE #2	600.74	600.88	601.01	600.92	600.81
℄ FIELD SPLICE #3	600.46	600.61	600.74	600.65	600.54
℄ BRG. PIER #2	600.42	600.56	600.70	600.60	600.50
℄ FIELD SPLICE #4	600.21	600.36	600.49	600.40	600.29
℄ BRG. E. ABUT.	600.10	600.23	600.35	600.25	600.14

* FOR FABRICATION ONLY



SECTION A-A

GENERAL NOTES

ALL LONGITUDINAL AND TRANSVERSE DIMENSIONS ARE MEASURED HORIZONTALLY.
ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO M-183 UNLESS OTHERWISE NOTED.
ALL BEARING STIFFENERS SHALL BE VERTICAL IN THE COMPLETED STRUCTURE AND ALL INTERMEDIATE CROSS FRAMES SHALL BE NORMAL TO THE GIRDERS.

FOR NOTCH TOUGHNESS REQUIREMENT, SEE GENERAL NOTES ON SHEET 11.

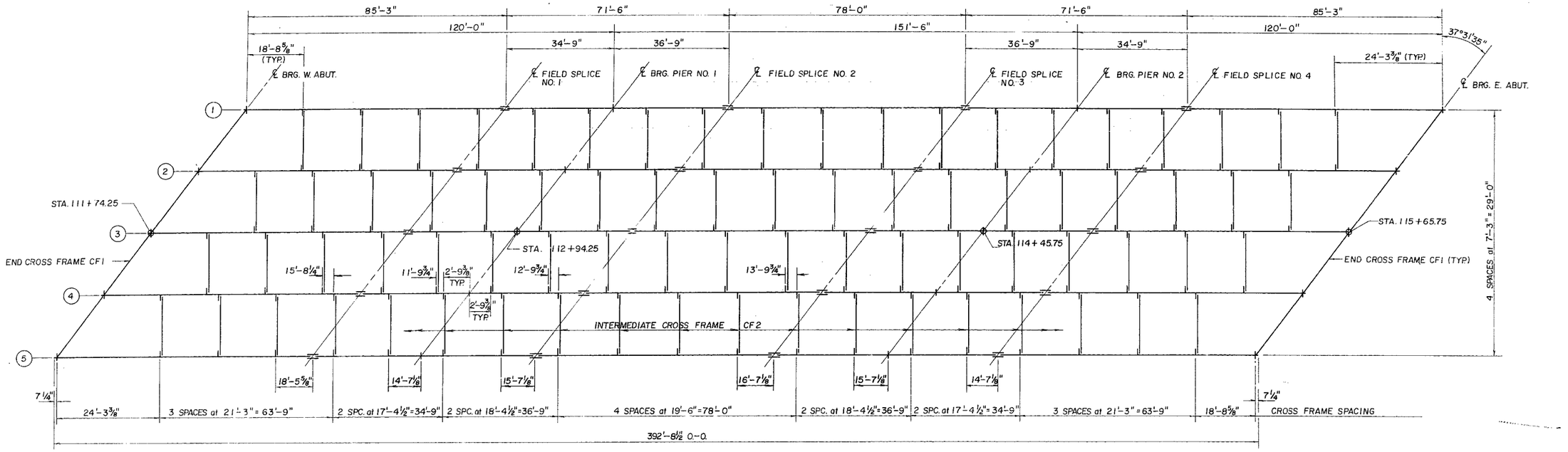
PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

FRAMING PLAN & GIRDER ELEVATION
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

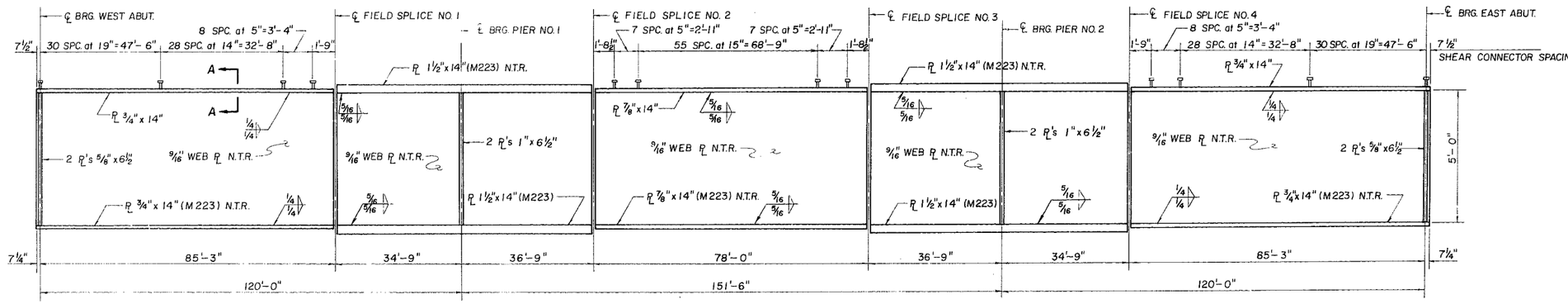
DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	28	184
ILLINOIS PROJECT				

BR. SHEET 7 OF 16 SHEETS



FRAMING PLAN



GIRDER ELEVATION

NOTE: ALL STEEL LABELED (M223) SHALL BE AASHTO M 223 - GRADE 50.
(N.T.R. INDICATES NOTCH TOUGHNESS REQUIREMENTS)

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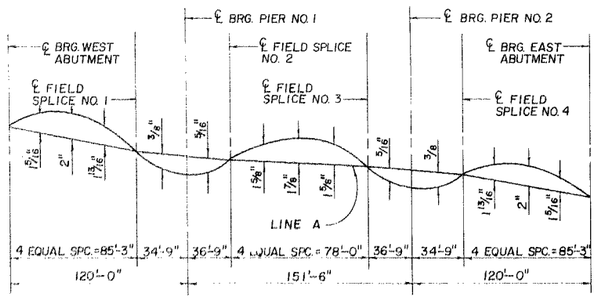


CAMBER DIAGRAM (*)

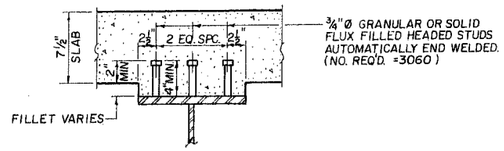
NOTES: LINE A IS A STRAIGHT LINE BETWEEN ℄ BEARING STIFFENER AT ABUTMENTS AND ℄ FIELD SPLICE AND BETWEEN ℄ FIELD SPLICES AT TOP OF WEB PLATE.
CAMBER SHOWN INCLUDES ALLOWANCES FOR VERTICAL CURVE AND FULL DEAD LOAD DEFLECTION, EXCLUDING FUTURE WEARING SURFACES.

AS REVISED

TOP OF WEB ELEVATIONS (*)

GIRDER LOCATION	1	2	3	4	5
℄ BRG. W. ABUT.	601.85	602.05	602.24	602.20	602.16
℄ FIELD SPLICE #1	600.99	601.14	601.28	601.19	601.10
℄ BRG. PIER #1	(600.34)	(600.98)	(601.12)	(601.03)	(600.93)
℄ FIELD SPLICE #2	600.74	600.88	601.01	600.92	600.81
℄ FIELD SPLICE #3	600.46	600.61	600.74	600.65	600.54
℄ BRG. PIER #2	(600.30)	(600.45)	(600.59)	(600.49)	(600.30)
℄ FIELD SPLICE #4	600.21	600.36	600.49	600.40	600.29
℄ BRG. E. ABUT.	600.10	600.23	600.35	600.25	600.14

* FOR FABRICATION ONLY



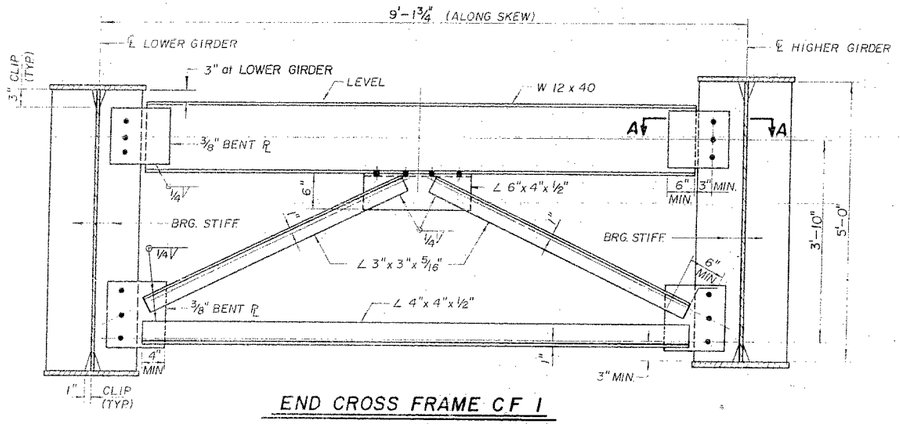
SECTION A-A

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

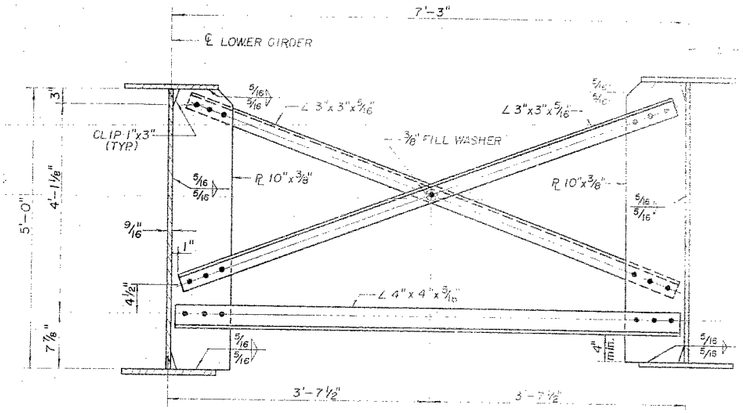
FRAMING PLAN & GIRDER ELEVATION
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

As Revised 11-16-87 L.W.



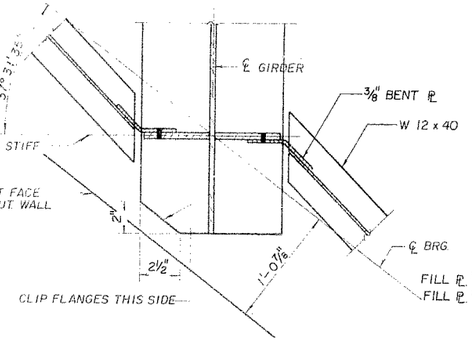
END CROSS FRAME CF 1

NOTE: PROVIDE 1 1/16"Ø HOLES FOR ⅞"Ø H.S. BOLTS WITH HARDENED WASHERS OVER ALL OVERSIZE HOLES.

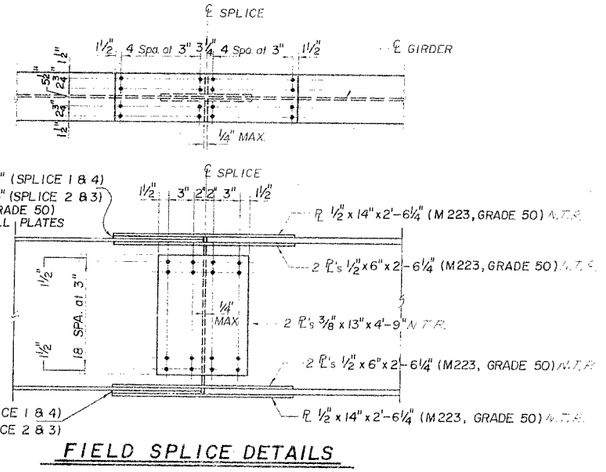


INTERMEDIATE CROSS FRAME CF 2

NOTE: PROVIDE 1 1/16"Ø HOLES FOR ⅞"Ø H.S. BOLTS WITH HARDENED WASHERS OVER ALL OVERSIZE HOLES

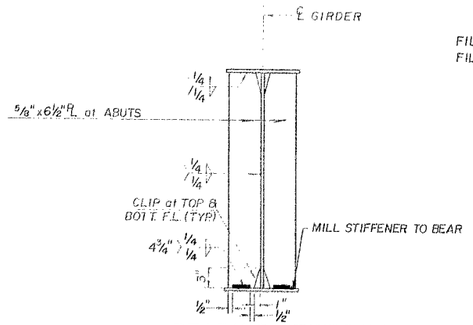


SECTION A-A

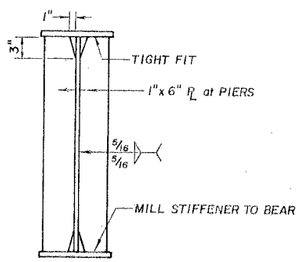


FIELD SPLICE DETAILS

NOTE: ⅞"Ø BOLTS SHALL BE USED FOR FLANGE & WEB SPLICE, OPEN HOLES 15/16"Ø



BEARING STIFFENER AT ABUTMENTS



BEARING STIFFENER AT PIERS

INTERIOR BEAM MOMENT TABLE

	04 SPAN 1	PIER 1 & 2	[illegible]
Is (in⁴)	29500	49839	32825
Ic (in⁴)	69707		74733
Ss (in³)	959	1582	1053
Sc (in³)	1364		1475
w (k/ft)	0.944	1.287	0.344
M_{DL} (ft-k)	758	2314	671
S_{DL} (k/ft)	0.343		0.343
M_{SDL} (ft-k)	334		361
M_{LL} (ft-k)	1058	950	1156
M_{IMP} (ft-k)	203	194	222
$S/2(M_{LL}+I)$	2101	1910	1138
Ma	4152	5491	4364
Mu	8163	1	8715
fs w (non-comp)(ksi)	9.5	17.5	7.6
fs w (comp)(ksi)	3.3		5.2
f_s S/2(LL+I)(ksi)	18.5	16.8	10.7
fs (overload)(ksi)	31.3	32.0	29.7
fs (total)(ksi)	40.7	41.6	28.6
VR	48.5		36.0

INTERIOR GIRDER REACTION TABLE

	ABUTS	[illegible]
R ℄ (k)	552	
S ℄ (k)	423	
[illegible]		

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total and Overload).

I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s (Total and Overload).

VR is the maximum ℄ + impact shear range in span.

f_s (Total) is the sum of the stresses due to [illegible]

f_s (Overload) is the sum of the stresses due to $M_{DL} + M_{SDL} + \frac{5}{3}(M_{LL} + I)$

M_{DL} - Moment due to dead loads on non-composite section.

M_{SDL} - Moment due to dead loads on composite section.

M_{LL} - Moment due to live load on non-composite or composite section.

I - Live load impact.

Mu = Full plastic moment capacity for compact, braced section.

Ma (Applied Moment) = $1.3\left[M_{DL} + M_{SDL} + \frac{5}{3}(M_{LL} + I)\right]$

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

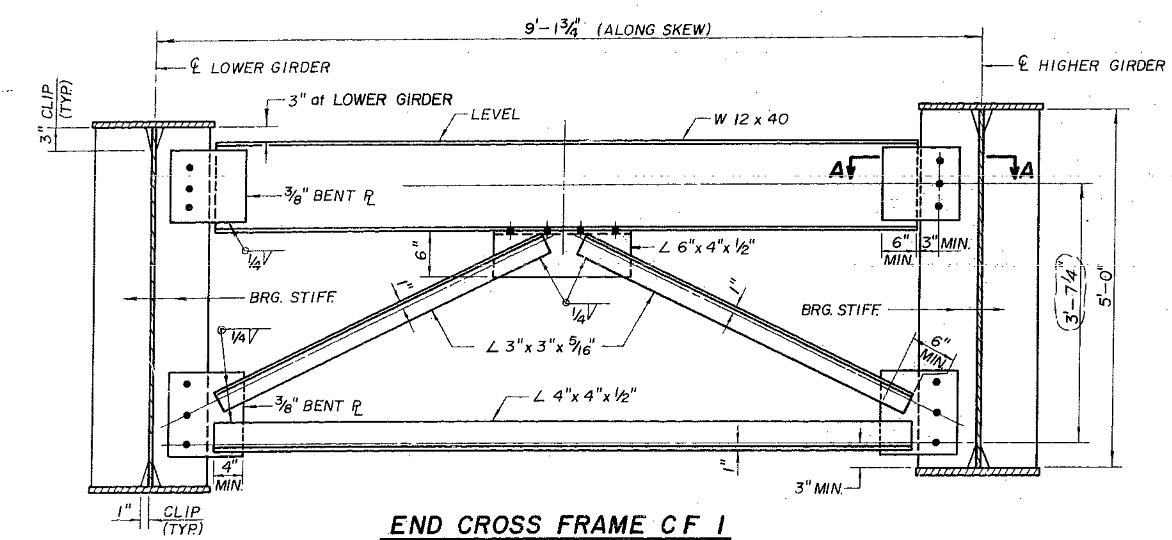
PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

STRUCTURAL STEEL DETAILS
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113 + 70.00

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	25	19A

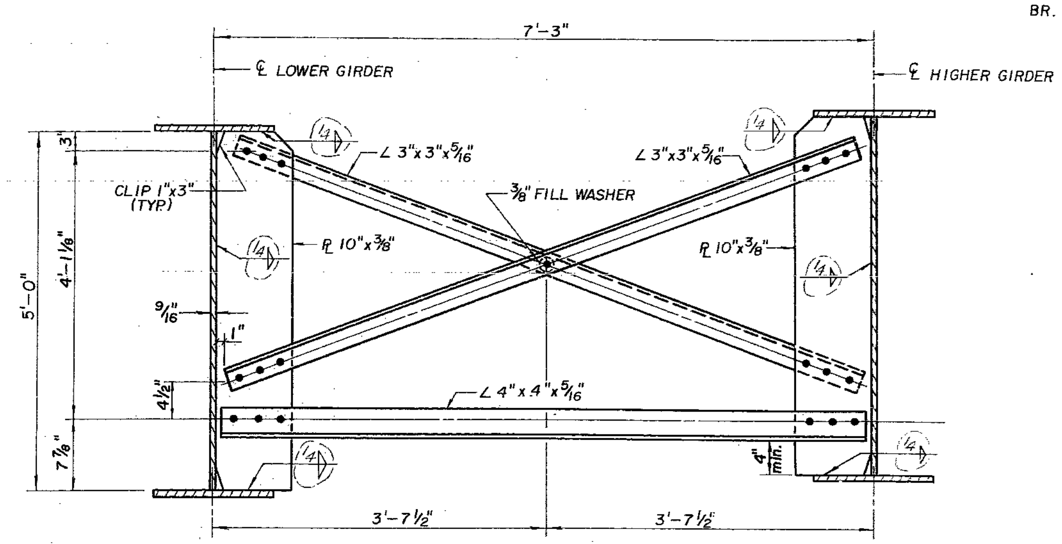
ILLINOIS PROJECT

BR. SHEET 8 OF 16 SHEETS



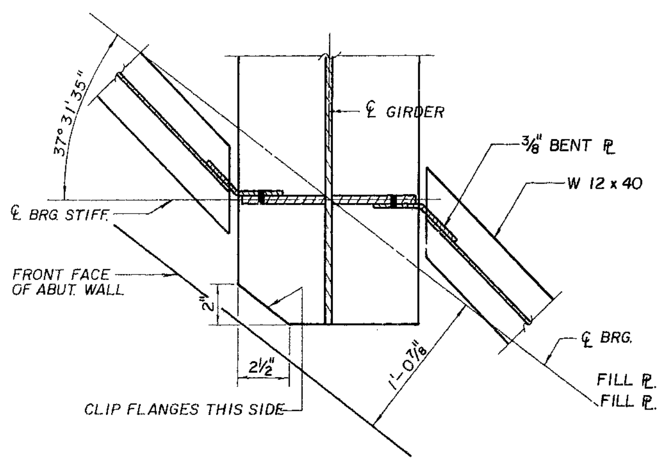
END CROSS FRAME CF 1

NOTE: PROVIDE 1 1/16"Ø HOLES FOR 7/8"Ø H.S. BOLTS WITH HARDENED WASHERS OVER ALL OVERSIZE HOLES.

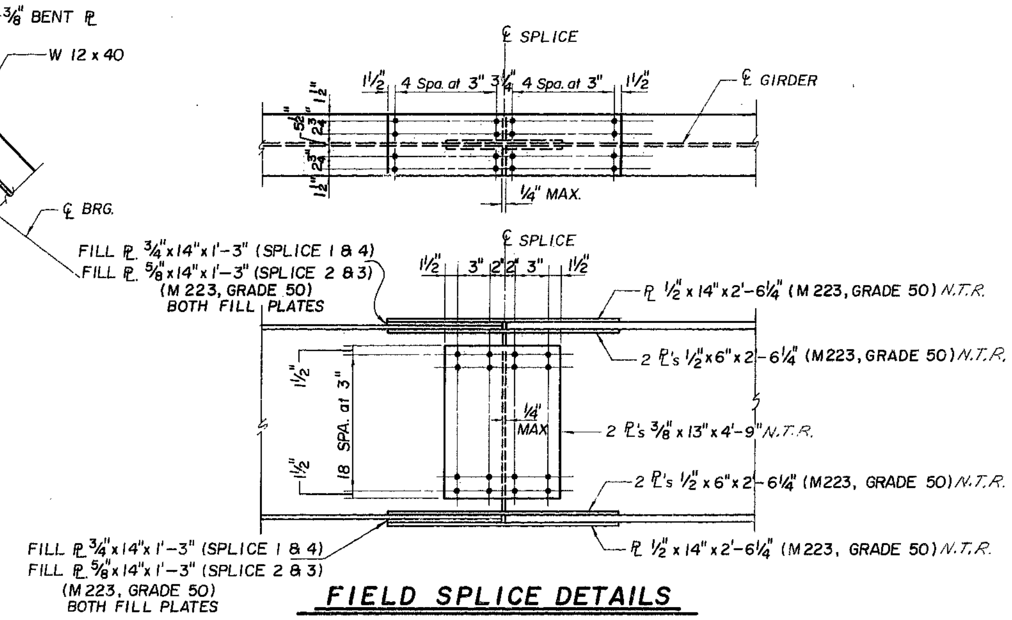


INTERMEDIATE CROSS FRAME CF 2

NOTE: PROVIDE 1 1/16"Ø HOLES FOR 7/8"Ø H.S. BOLTS WITH HARDENED WASHERS OVER ALL OVERSIZE HOLES.

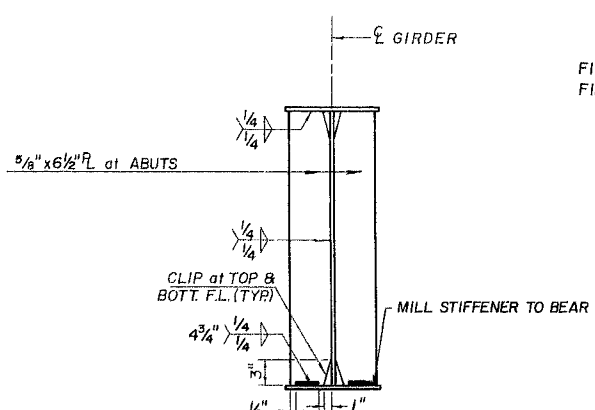


SECTION A-A



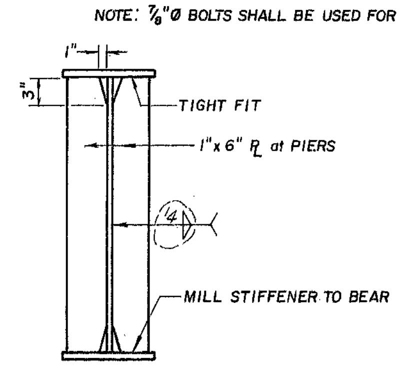
FIELD SPLICE DETAILS

NOTE: 7/8"Ø BOLTS SHALL BE USED FOR FLANGE & WEB SPLICE, OPEN HOLES 15/16"Ø



BEARING STIFFENER

AT ABUTMENTS



BEARING STIFFENER

AT PIERS

INTERIOR BEAM MOMENT TABLE

	0.4 SPAN 1	PIER 1 & 2	0.5 SPAN 2
I_s (in^4)	29500	49839	32823
I_c (in^4)	69707		74733
S_s (in^3)	959	1582	1063
S_c (in^3)	1364		1472
DL (k/ft)	0.944	1.287	0.944
M_{DL} (ft-k.)	758	2314	671
S_{DL} (k/ft.)	0.343		0.343
M_{SDL} (ft-k.)	334		381
M_{LL} (ft.-k.)	1058	952	1156
M_{IMP} (ft-k.)	203	194	222
$\frac{5}{3}(M_{LL}+I)$	2101	1910	2296
Ma	4152	5491	4354
Mu	8163	[illegible]	8715
fs DL (non-comp)(ksi)	9.5	17.5	7.6
fs DL (comp)(ksi)	3.3		3.4
fs 5/3(LL+I)(ksi)	18.5	14.5	18.7
fs (overload)(ksi)	31.3	32.0	29.7
fs (total)(ksi)	40.7	41.6	38.6
VR	48.5		99.0

INTERIOR GIRDER REACTION TABLE

	ABUTS.	PIER 1 & 2
R DL (k)	55.6	197.7
R LL (k)	42.3	84.2
IMPACT (k)	8.6	16.2
R total (k)	106.5	298.1

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total and Overload).

I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s (Total and Overload).

VR is the maximum LL + impact shear range in span.

f_s (Total) is the sum of the stresses due to $1.3\,[M\,DL + M_s\,DL + \frac{5}{3}(M\,LL + I)]$

f_s (Overload) is the sum of the stresses due to $M\,DL + M_s\,DL + \frac{5}{3}(M\,LL + I)$

M DL - Moment due to dead loads on non-composite section.

M_s DL - Moment due to dead loads on composite section.

M LL - Moment due to live load on non-composite or composite section.

I - Live load impact.

Mu = Full plastic moment capacity for compact, braced section.

Ma (Applied Moment) = $1.3\,[M\,DL + M_s\,DL + \frac{5}{3}(M\,LL + I)]$

AS REVISED

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

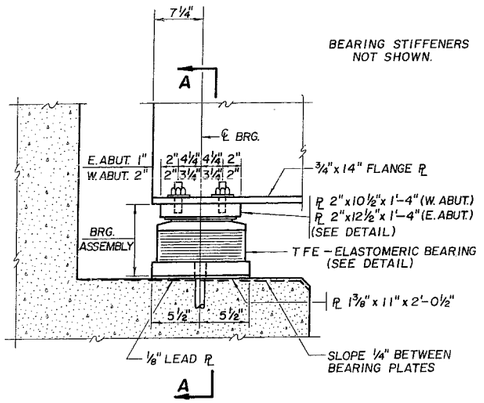
STRUCTURAL STEEL DETAILS
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113 + 70.00

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

As Revised 11-16-91 C.W.

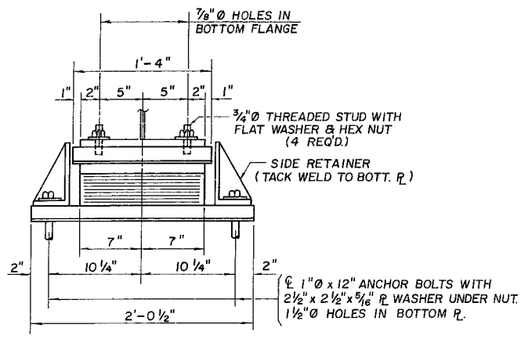
F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	[illegible]	20
ILLINOIS PROJECT				

BR. SHEET 9 OF 16 SHEETS

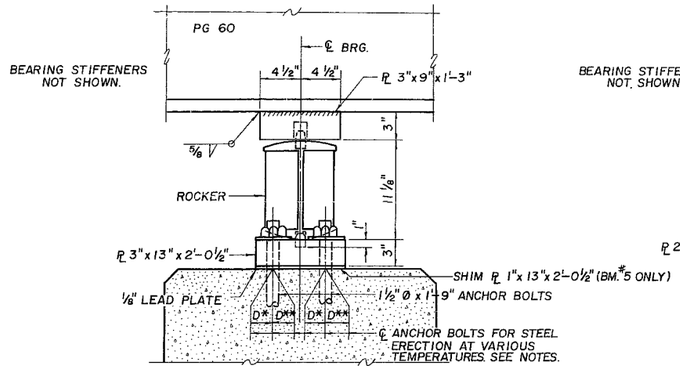


BEARING STIFFENERS NOT SHOWN.

ELEVATION

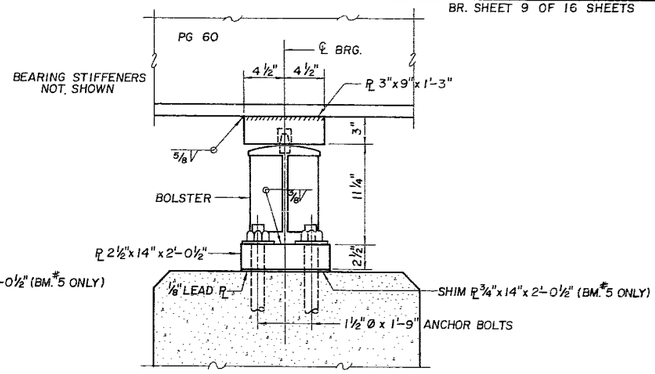


SECTION A-A



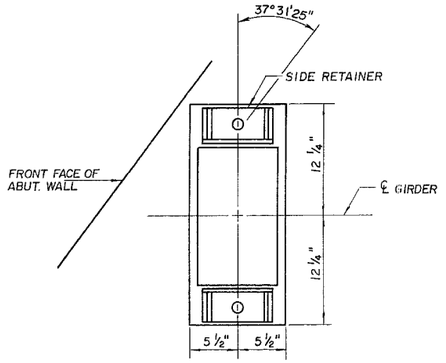
BEARING STIFFENERS NOT SHOWN.

ELEVATION

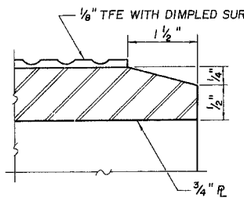


BEARING STIFFENERS NOT SHOWN

ELEVATION



PLAN ABUTMENTS



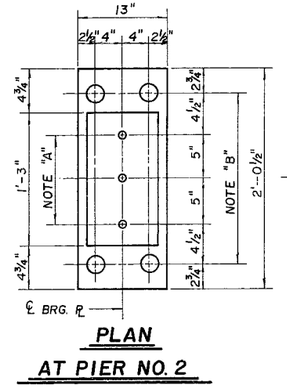
SECTION THRU TFE

NOTES FOR SETTING OF ANCHOR BOLTS AT EXPANSION BEARINGS

A) D* (SIDE OF BRG. AWAY FROM FIXED BRG.)
D*=1/8" PER EACH 100' OF EXPANSION FOR EVERY 15° FALL BELOW THE NORMAL TEMP. OF 50° F.
D**(SIDE OF BRG. TOWARD FIXED BRG.)
D**=1/8" PER EACH 100' OF EXPANSION FOR EVERY 15° RISE ABOVE THE NORMAL TEMP. OF 50° F.

B) AFTER GIRDERS HAVE BEEN ERECTED AND DIMENSIONS D* & D** DETERMINED, HOLES SHALL BE DRILLED AND ANCHOR BOLTS SHALL BE INSTALLED AS SHOWN ON BR. SHT. 14 ALL FIXED ANCHOR BOLTS MAY BE BUILT INTO THE MASONRY.

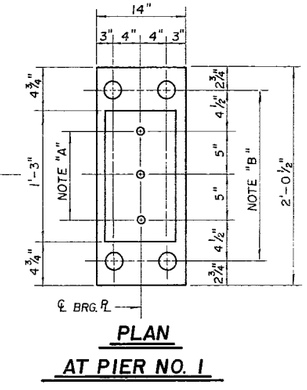
NOTES: ALL STEEL FOR BEARING ASSEMBLIES TO BE AASHTO M-183 UNLESS OTHERWISE NOTED.



PLAN AT PIER NO. 2

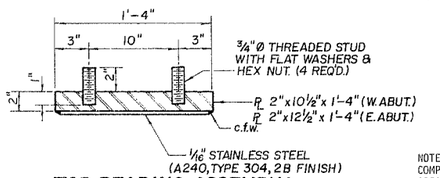
NOTE "A"
1⅜"Ø HOLES 1" DEEP IN TOP PL FOR 1¼"Ø PINTLES. THREAD OR PRESS FIT PINTLES IN BOTTOM PL.

NOTE "B"
2" Ø HOLES FOR 1½"Ø x 1'-9" ANCHOR BOLTS 3"x3"x5/16" PL WASHERS UNDER NUT.

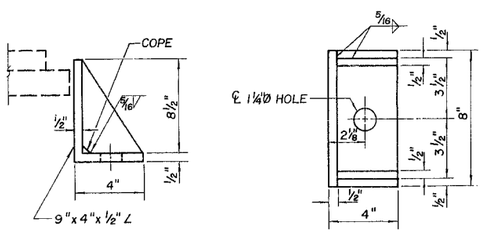


PLAN AT PIER NO. 1

NOTE: FOR INTERIOR BEAM MOMENT TABLE AND INTERIOR GIRDER REACTION TABLE SEE BRIDGE SHEET NO. 8



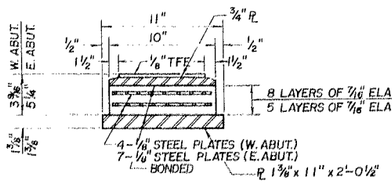
TOP BEARING ASSEMBLY



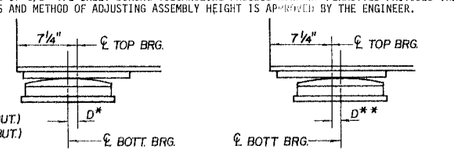
SIDE RETAINER

NOTE: THE 1/8" TFE SHEET SHALL BE BONDED DIRECTLY TO THE TOP STEEL PLATE WITH A TWO COMPONENT MEDIUM VISCOSITY EPOXY RESIN CONFORMING TO THE REQUIREMENTS OF THE FEDERAL SPECIFICATION MMM-A-134, TYPE 1. THE BOND AGENT SHALL BE APPLIED ON THE FULL AREA OF THE CONTACT SURFACES.

BONDING OF 1/8" TFE SHEET DURING VULCANIZING PROCESS WILL BE PERMITTED PROVIDED THE PROCESS AND METHOD OF ADJUSTING ASSEMBLY HEIGHT IS APPROVED BY THE ENGINEER.



BOTTOM BEARING ASSEMBLY

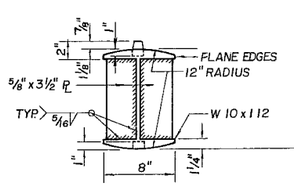


BELOW 50° F (MOVE BOTT. BRG. AWAY FROM FIXED BRG.)

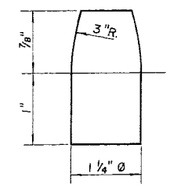
ABOVE 50° F (MOVE BOTT. BRG. TOWARD FIXED BRG.)

SETTING ANCHOR BOLTS AT EXP. BRG.

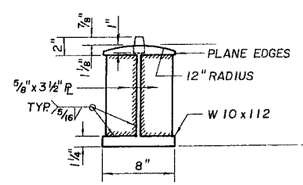
EQUIVALENT WELDED PLATES MAY BE USED IN LIEU OF ROLLED ANGLES WITH STIFFENERS FOR SIDE RETAINERS.



ROCKER (PIER NO. 2)



PINTLE



BOLSTER (PIER NO. 1)

BILL OF MATERIAL

TYPE II ELASTOMERIC BRG.	EACH	10

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

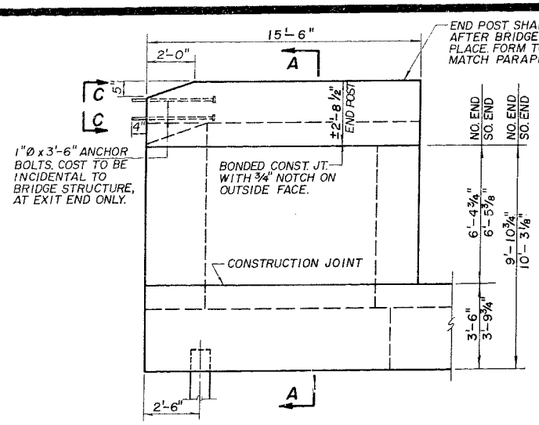
BEARING DETAILS
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

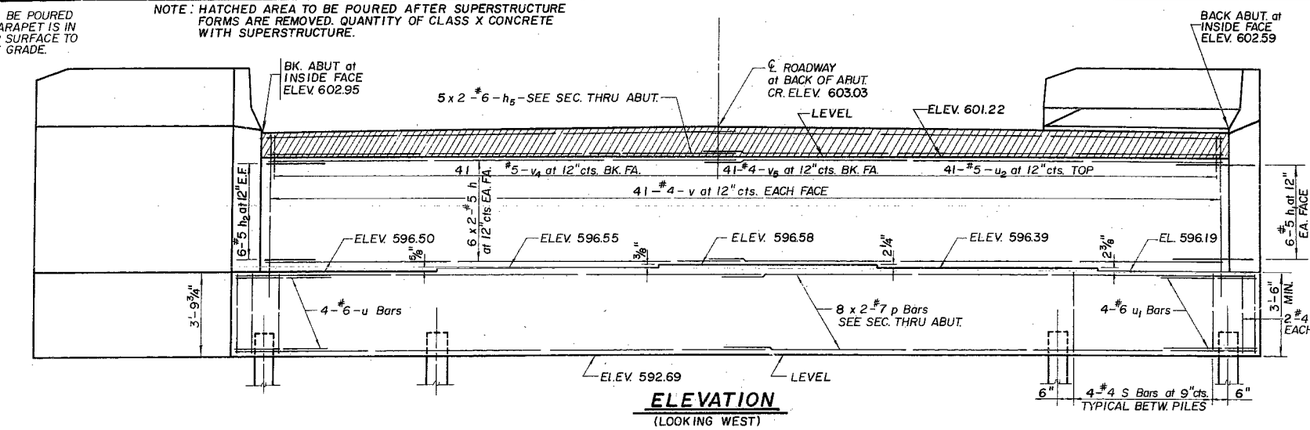
F.A. ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
607	124 BR	LASALLE		21
ILLINOIS PROJECT				

BR. SHEET 10 OF 16 SHEETS

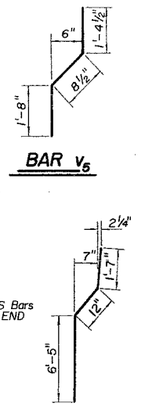
NOTE: HATCHED AREA TO BE POURED AFTER SUPERSTRUCTURE FORMS ARE REMOVED. QUANTITY OF CLASS X CONCRETE WITH SUPERSTRUCTURE.

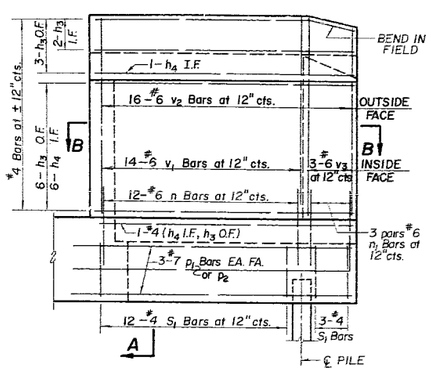


WINGWALL ELEVATION

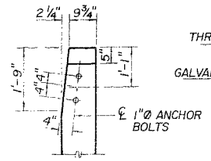


ELEVATION
(LOOKING WEST)

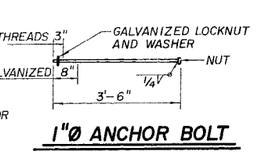




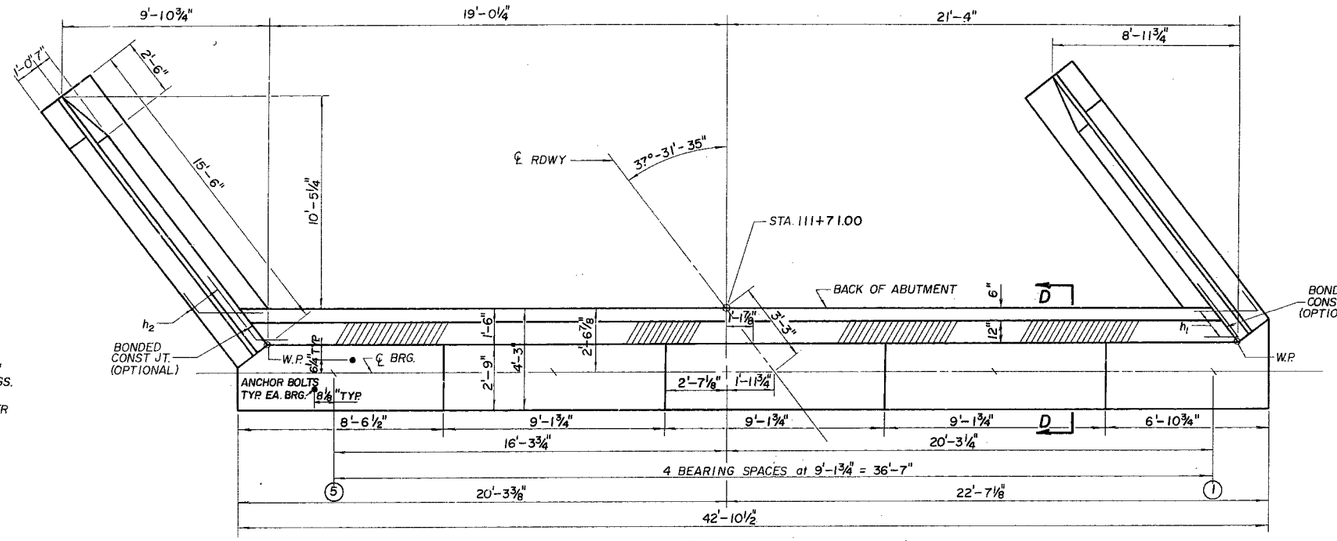
WINGWALL ELEVATION
REINFORCEMENT



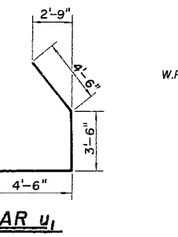
VIEW C-C

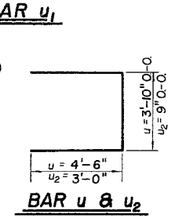


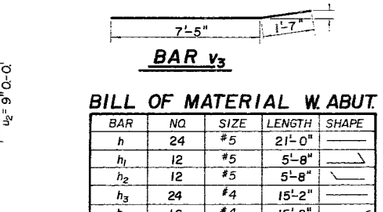
1"Ø ANCHOR BOLT



TOP VIEW







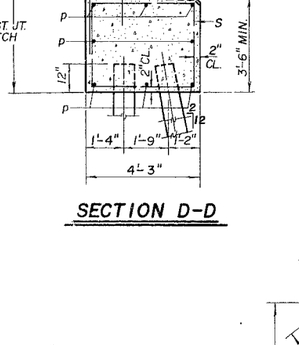
SECTION B-B

BAR v3

BILL OF MATERIAL W. ABUT.

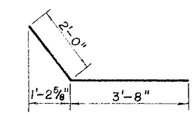
BAR	NO.	SIZE	LENGTH	SHAPE
h	24	#5	21'-0"	
h1	12	#5	5'-8"	
h2	12	#5	5'-8"	
h3	24	#4	15'-2"	
h4	16	#4	15'-2"	
h5	10	#6	21'-0"	
n	24	#6	10'-4"	
n1	12	#6	5'-2"	
p	16	#7	23'-8	
p1	6	#7	15'-3"	
p2	6	#7	17'-6"	
S	52	#4	14'-11"	
S1	30	#4	9'-5"	
u	4	#6	12'-10"	
u1	4	#6	12'-6"	
u2	41	#5	6'-9"	
v	82	#4	7'-8"	
v1	28	#6	9'-0"	
v2	32	#6	9'-0"	
v3	6	#6	5'-0"	
v4	41	#5	2'-8"	
v5	41	#4	3'-9"	

CLASS X CONCRETE	CU. YDS.	59.1
REINFORCEMENT BARS	LBS.	5710
FURN. STEEL PILES, HP10x42	LIN. FT.	532
DRIVING STEEL PILES	LIN. FT.	532
TEST PILES, STEEL HP 10x42	EACH	1
PROTECTIVE COAT	SQ.YD.	13
STRUCTURE EXCAVATION	CU.YD.	172

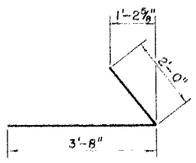


SECTION A-A

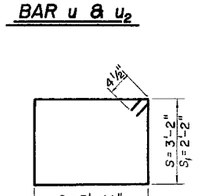
SECTION D-D



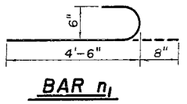
BAR h2



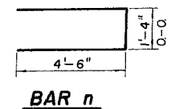
BAR h1



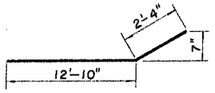
BAR S & S1



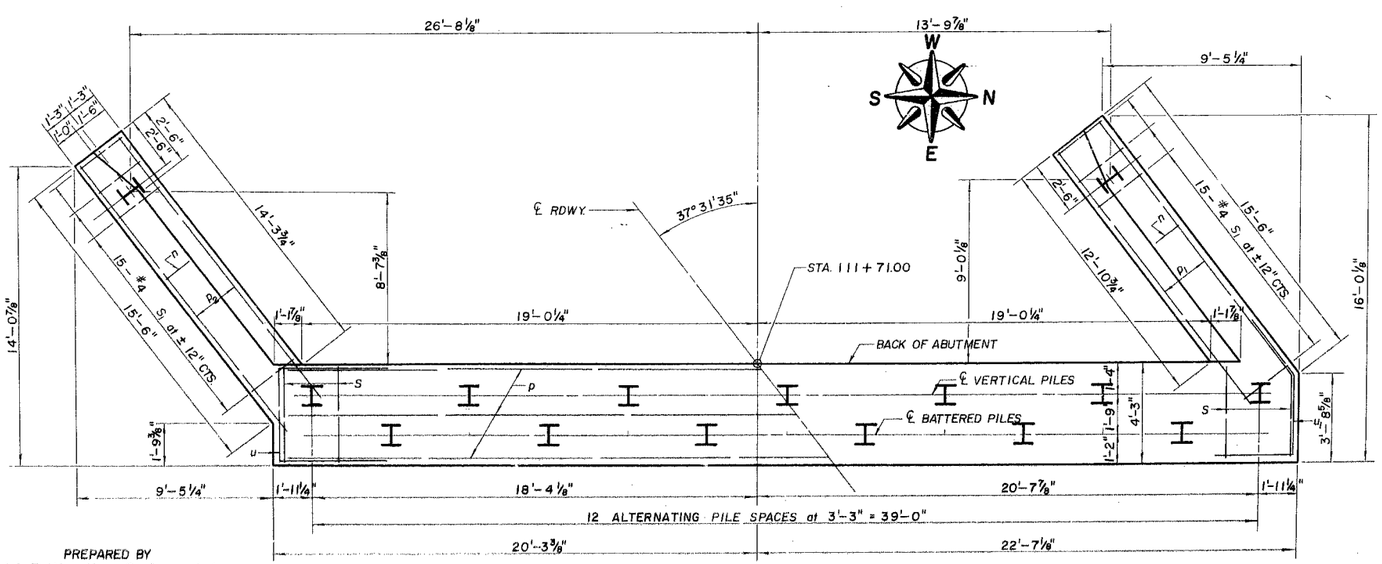
BAR n1



BAR n



BAR h4



PLAN-PILE CAP

PILE DATA

TYPE STEEL HP 10 x 42
CAPACITY REFUSAL
EST. LENGTH 38 FT.
NO REQUIRED 14 + 1 TEST PILE

MIN. BAR LAP

#4	1'-4"
#5	1'-8"
#6	2'-0"
#7	4'-10"

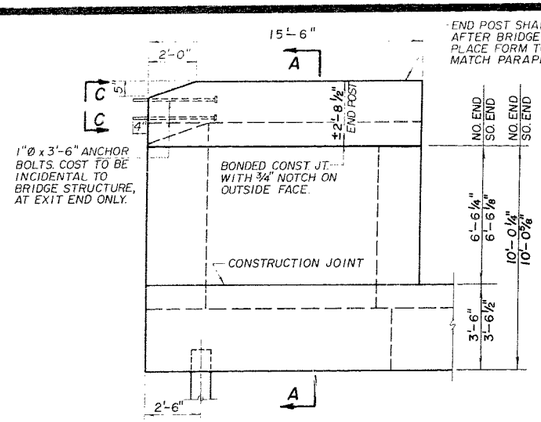
PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

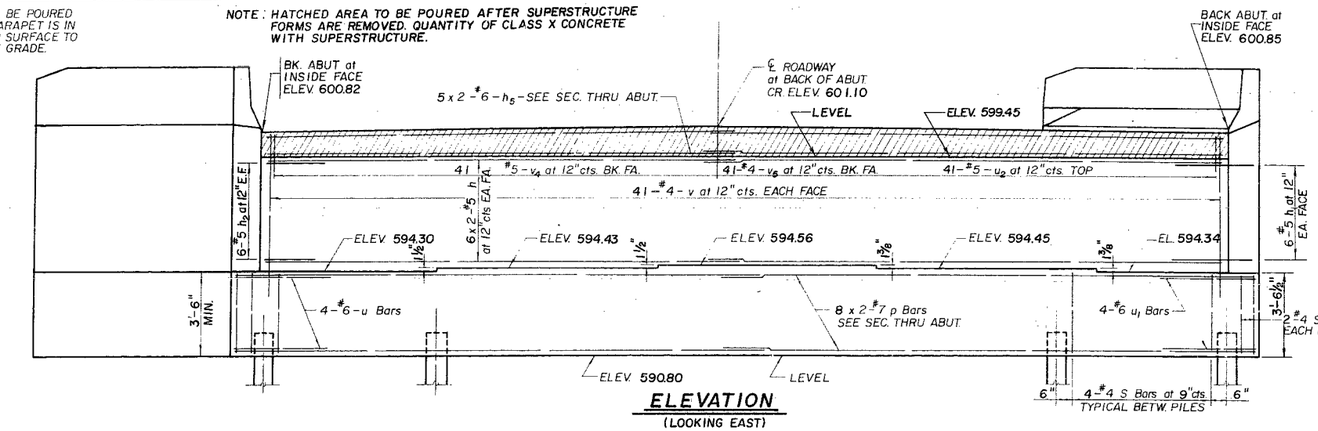
WEST ABUTMENT
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE		22
ILLINOIS PROJECT				

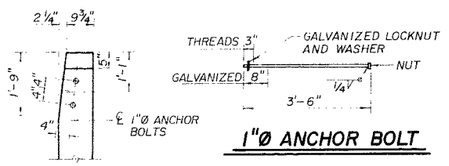
BR. SHEET 11 OF 16 SHEETS



WINGWALL ELEVATION

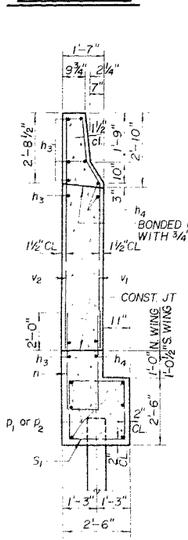


ELEVATION
(LOOKING EAST)

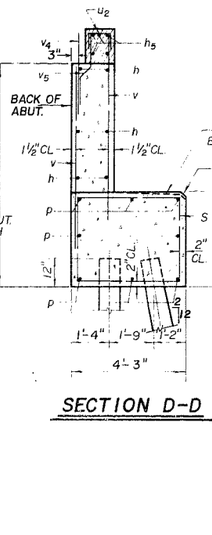


1"Ø ANCHOR BOLT

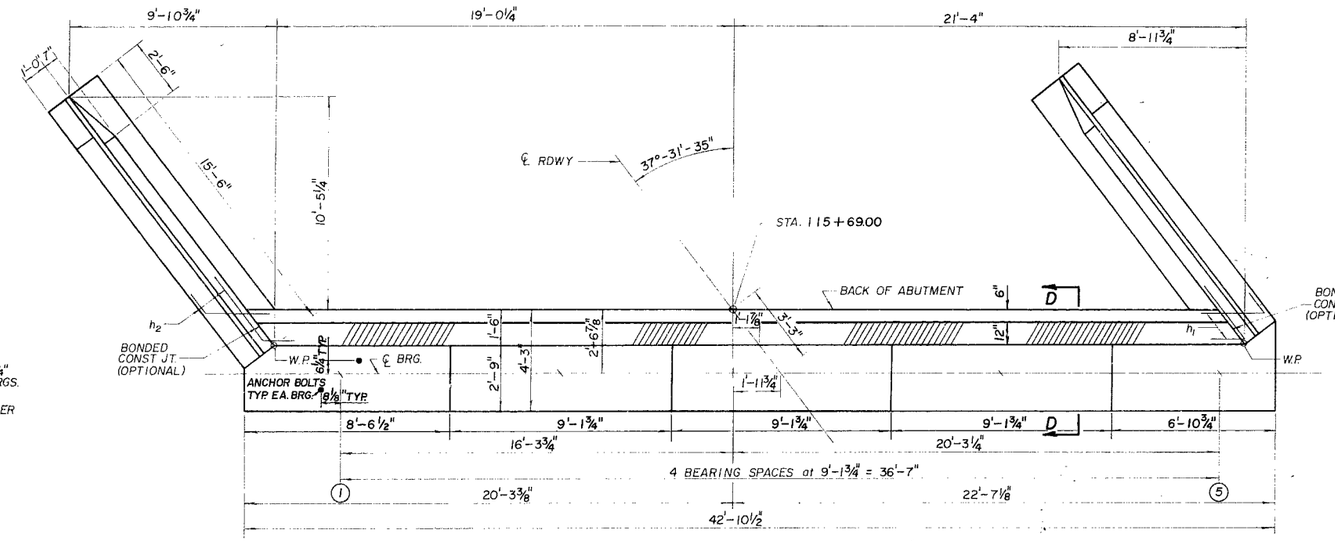
VIEW C-C



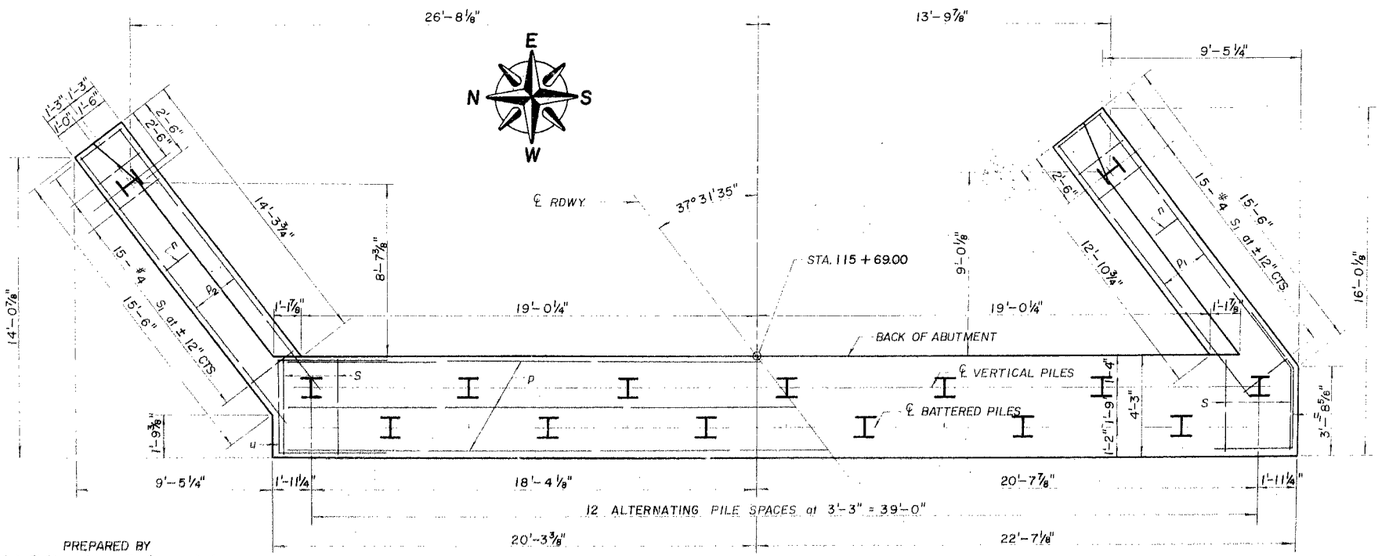
SECTION A-A



SECTION D-D



TOP VIEW



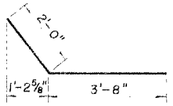
PLAN-PILE CAP

PILE DATA

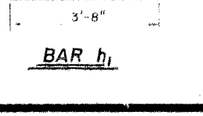
TYPE	STEEL HP 10 x 42
CAPACITY	REFUSAL
EST LENGTH	38 FT.
NO REQUIRED	14 + 1 TEST PILE

MIN. BAR LAP

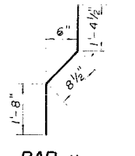
#4	1'-4"
#5	1'-8"
#6	2'-0"
#7	4'-10"



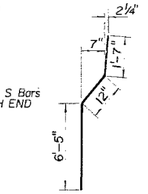
BAR h_2



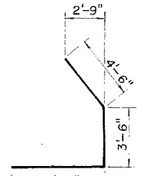
BAR h_1



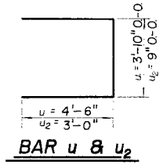
BAR v_5



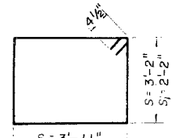
BAR v_1



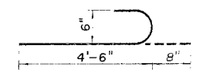
BAR u_1



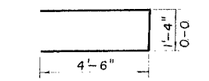
BAR u & u_2



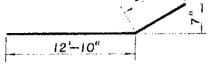
BAR S & S_1



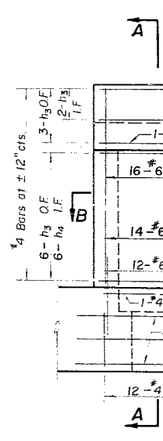
BAR n_1



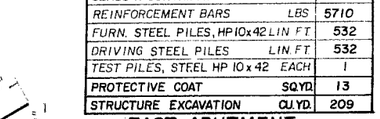
BAR n



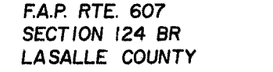
BAR h_4



WINGWALL ELEVATION
REINFORCEMENT



SECTION B-B



BAR v_3

BILL OF MATERIAL E. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h	24	#5	21'-0"	
h_1	12	#5	5'-8"	
h_2	12	#5	5'-8"	
h_3	24	#4	15'-2"	
h_4	16	#4	15'-2"	
h_5	10	#6	21'-0"	
n	24	#6	10'-4"	
n_1	12	#6	5'-2"	
p	16	#7	23'-8	
p_1	6	#7	15'-3"	
p_2	6	#7	17'-6"	
S	52	#4	14'-11"	
S_1	30	#4	9'-5"	
u	4	#6	12'-10"	
u_1	4	#6	12'-6"	
u_2	41	#5	6'-9"	
v	82	#4	7'-8"	
v_1	28	#6	9'-0"	
v_2	32	#6	9'-0"	
v_3	6	#6	9'-0"	
v_4	41	#5	2'-8"	
v_5	41	#4	3'-9"	

CLASS X CONCRETE	CU. YDS.	58.4
REINFORCEMENT BARS	LBS	5710
FURN. STEEL PILES, HP10x42	LIN. FT.	532
DRIVING STEEL PILES	LIN. FT.	532
TEST PILES, STEEL HP 10x42	EACH	1
PROTECTIVE COAT	SQ. YD.	13
STRUCTURE EXCAVATION	CU. YD.	209

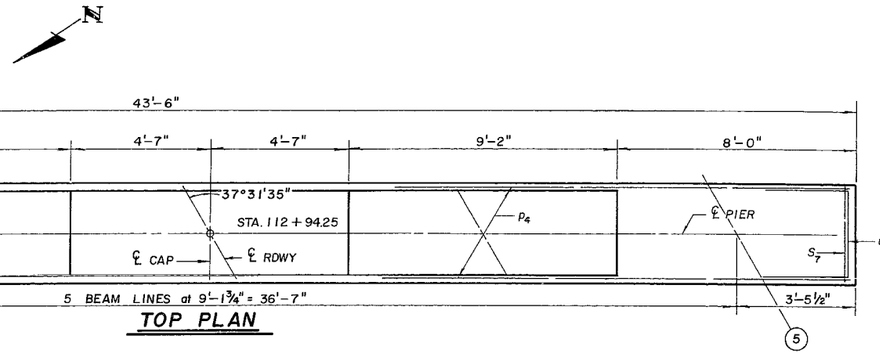
EAST ABUTMENT
F.A.P. RTE. 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

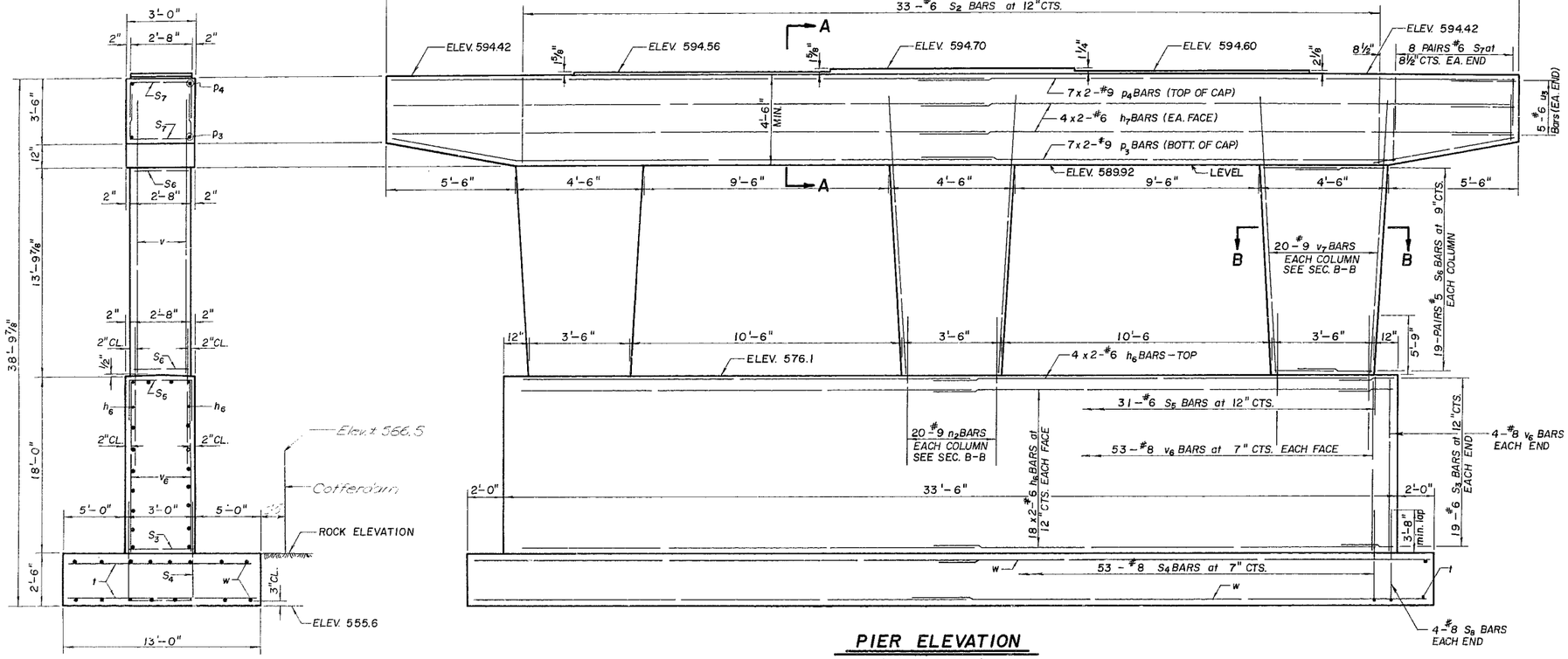
DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

F.A. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	22	23
ILLINOIS PROJECT				

BR. SHEET 12 OF 16 SHEETS



TOP PLAN



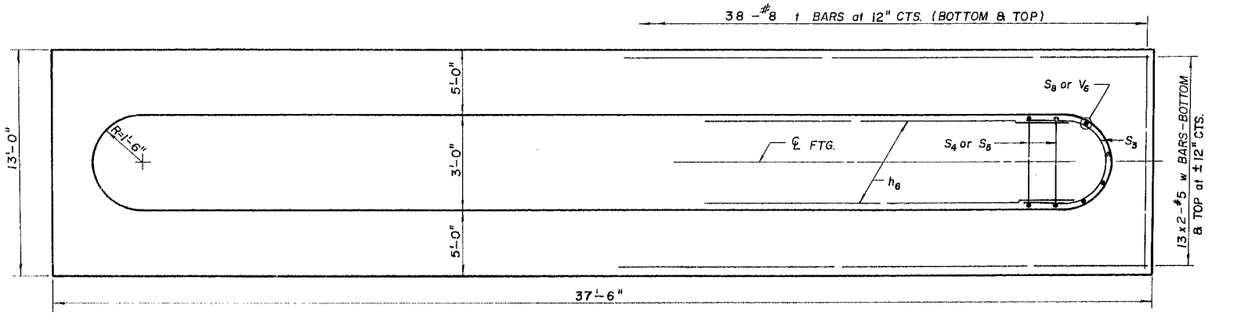
PIER ELEVATION

(LOOKING EAST)

END VIEW

NOTE: ENTIRE FOOTING SHALL BE POURED INTO BEDROCK AS SHOWN. TOP OF FOOTING SHALL BE AT ROCK ELEVATION.

MAX. BRG. PRESSURE = 56 TSF



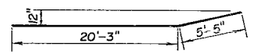
FOOTING PLAN

NOTES

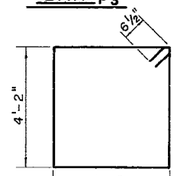
SPACE REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS.

POUR STEPS MONOLITHICALLY WITH CAP.

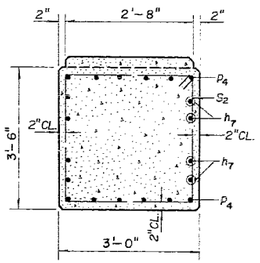
ALL EDGES SHALL HAVE STANDARD ¾" CHAMFERS EXCEPT AS NOTED.



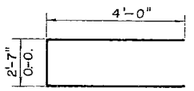
BAR p_3



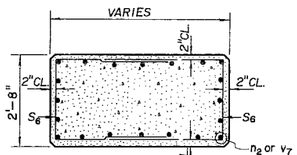
BAR S_2



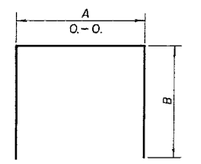
SECTION A-A



BAR U_3



SECTION B-B



BARS S_4 THRU S_7

A & B DIMENSIONS

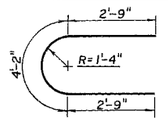
BAR	A	B
S_4	2'-8"	6'-0"
S_5	2'-8"	2'-0"
S_6	2'-4"	3'-2"
S_7	2'-8"	3'-2"

MIN. SPLICE

#5	2'-5"
#6	2'-7"
#7	2'-9"
#8	3'-8"
#9	8'-1"

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h_6	80	#6	16'-7"	
h_7	16	#6	22'-10"	
n_2	60	#9	11'-6"	
p_3	14	#9	25'-8"	
p_4	14	#9	25'-7"	
S_2	33	#6	14'-9"	
S_3	38	#6	9'-8"	
S_4	53	#8	14'-8"	
S_5	31	#6	6'-8"	
S_6	114	#5	8'-8"	
S_7	32	#6	9'-0"	
S_8	8	8	6'-0"	
t	76	#8	12'-6"	
u_3	10	#6	10'-7"	
v_6	114	#8	17'-10"	
v_7	60	#9	18'-2"	
w	52	#5	19'-9"	
CLASS X CONCRETE			CU.YDS.	150.3
REINFORCEMENT BARS			LBS.	25,490
ROCK EXCAV. FOR STRUCT.			CU.YDS.	50.0
Cofferdam EXCAVATION			CU.YDS.	105
Cofferdams			Each	1



BAR S_3

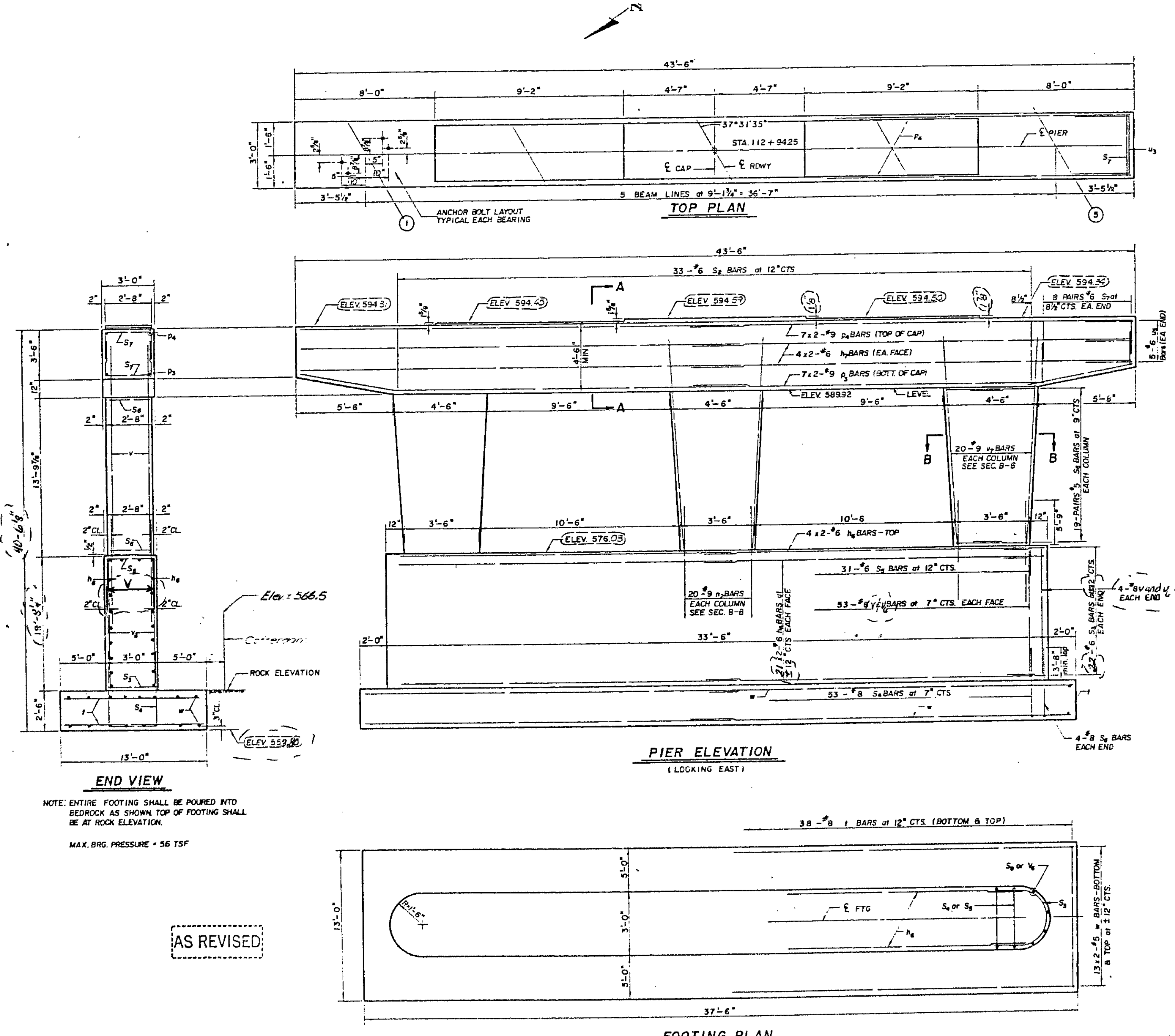
PIER NO. 1
F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

607	124 BR	LASALLE	28	238

BR. SHEET 12 OF 16 SHEETS



NOTE: ENTIRE FOOTING SHALL BE POURED INTO BEDROCK AS SHOWN. TOP OF FOOTING SHALL BE AT ROCK ELEVATION.

MAX. BRG. PRESSURE = 56 TSF

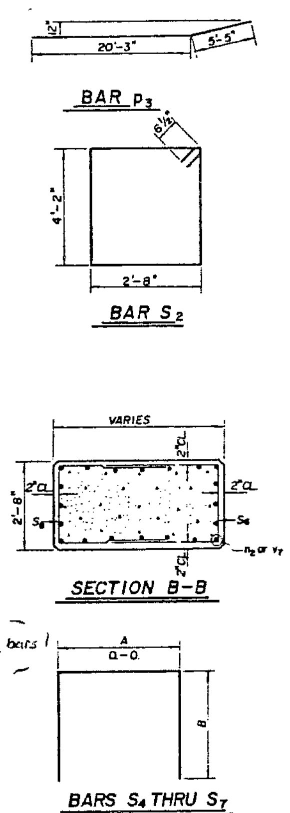
AS REVISED

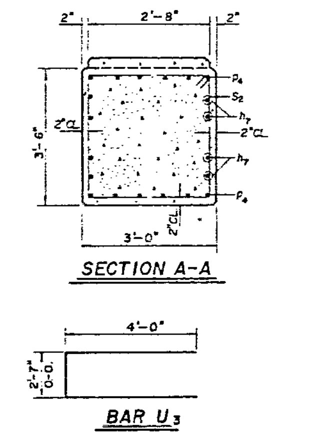
NOTES

SPACE REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS.

POUR STEPS MONOLITHICALLY WITH CAP.

ALL EDGES SHALL HAVE STANDARD ¾" CHAMFERS EXCEPT AS NOTED.





A & B DIMENSIONS

BAR	A	B
S_4	2'-8"	6'-0"
S_5	2'-8"	2'-0"
S_6	2'-4"	3'-2"
S_7	2'-8"	3'-2"

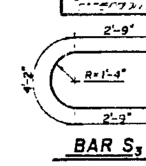
MIN. SPLICE

#5	2'-5"
#6	2'-7"
#7	2'-9"
#8	3'-8"
#9	8'-1"

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h_6	92	#6	16'-7"	
h_7	16	#6	22'-10"	
n_2	60	#9	11'-6"	
p_3	14	#9	25'-8"	
p_4	14	#9	25'-7"	
S_2	33	#6	14'-9"	
S_3	44	#6	9'-8"	
S_4	53	#8	14'-8"	
S_5	31	#6	6'-8"	
S_6	114	#5	8'-8"	
S_7	32	#6	9'-0"	
S_8	8	8	6'-0"	
t	76	#8	12'-6"	
u_3	10	#6	10'-7"	
V	114	#8	[illegible]	
v_6	114	#8	17'-10"	
v_7	60	#9	18'-2"	
w	52	#5	19'-9"	

CLASS X CONCRETE	CU. YDS.	150.3
REINFORCEMENT BARS	LBS.	25,490
ROCK EXCAV. FOR STRUCT.	CU. YDS.	500
Cofferdam EXCAVATION	CU. YDS.	105
Cofferdam	Each	1



PIER NO. 1
F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113 + 70.00

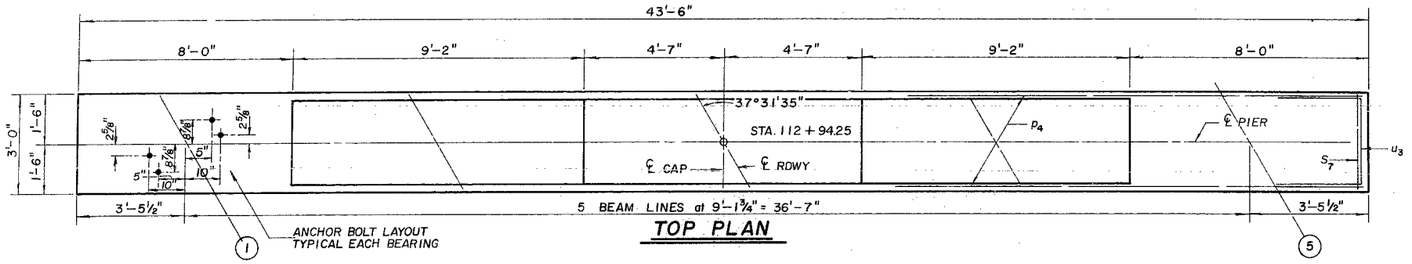
PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

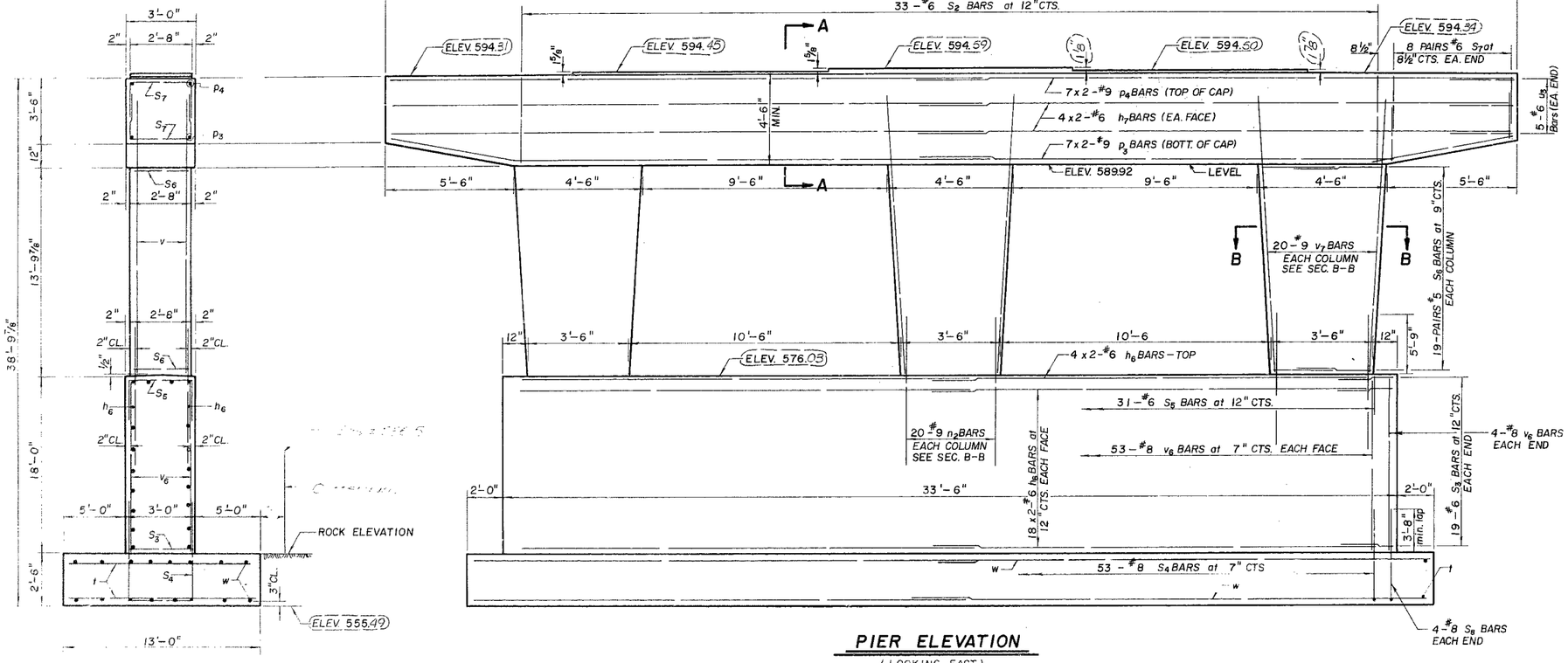
As Revised 11-16-87 L.W. As Revised 4-20-88 L.W.

F.A. ROUTE NO	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	28	234
ILLINOIS PROJECT				

BR. SHEET 12 OF 16 SHEETS



TOP PLAN



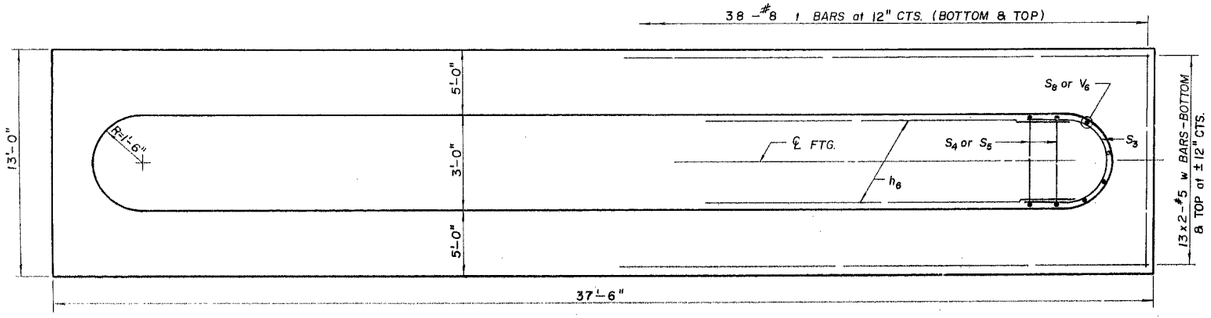
PIER ELEVATION

(LOOKING EAST)

END VIEW

NOTE. ENTIRE FOOTING SHALL BE POURED INTO BEDROCK AS SHOWN. TOP OF FOOTING SHALL BE AT ROCK ELEVATION.

MAX. BRG. PRESSURE = 56 TSF



FOOTING PLAN

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, & ROCKFORD, ILLINOIS

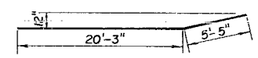
DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

NOTES

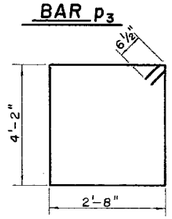
SPACE REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS.

POUR STEPS MONOLITHICALLY WITH CAP.

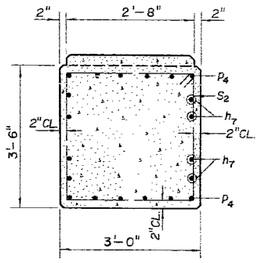
ALL EDGES SHALL HAVE STANDARD ¾" CHAMFERS EXCEPT AS NOTED.



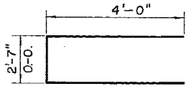
BAR P_3



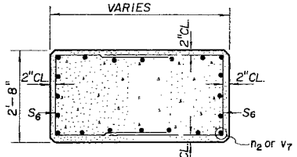
BAR S_2



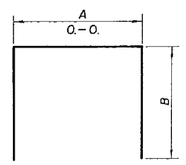
SECTION A-A



BAR U_3



SECTION B-B



BARS S_4 THRU S_7

A & B DIMENSIONS

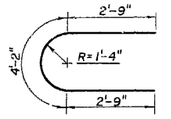
BAR	A	B
S_4	2'-8"	6'-0"
S_5	2'-8"	2'-0"
S_6	2'-4"	3'-2"
S_7	2'-8"	3'-2"

MIN. SPLICE

#5	2'-5"
#6	2'-7"
#7	2'-9"
#8	3'-8"
#9	8'-1"

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h_6	80	#6	16'-7"	
h_7	16	#6	22'-10"	
n_2	60	#9	11'-6"	
P_3	14	#9	25'-8"	
P_4	14	#9	25'-7"	
S_2	33	#6	14'-9"	
S_3	38	#6	9'-8"	
S_4	53	#8	14'-8"	
S_5	31	#6	6'-8"	
S_6	114	#5	8'-8"	
S_7	32	#6	9'-0"	
S_8	8	8	6'-0"	
t	76	#8	12'-6"	
u_3	10	#6	10'-7"	
v_6	114	#8	17'-10"	
v_7	60	#9	18'-2"	
w	52	#5	19'-9"	
CLASS X CONCRETE			CU.YDS.	150.3
REINFORCEMENT BARS			LBS.	25,490
ROCK EXCAV. FOR STRUCT.			CU.YDS.	50.0
Corridor EXCAVATION			CU.YDS.	10.5
Corridor Fill				



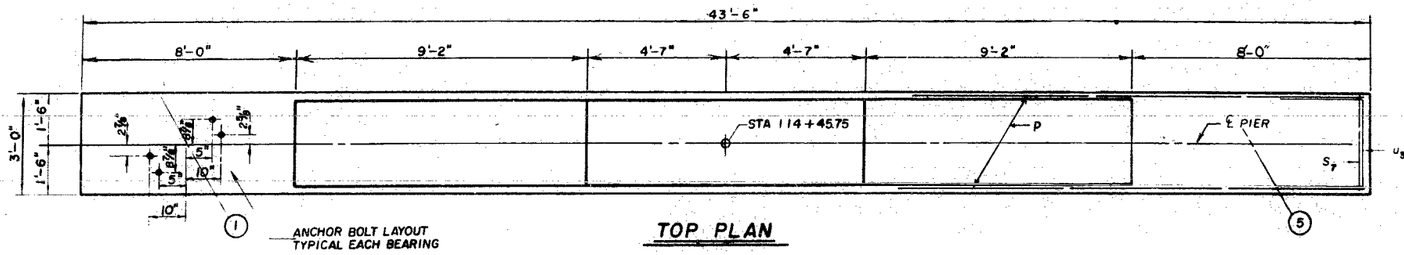
BAR S_3

PIER NO. 1
F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

AS REVISED

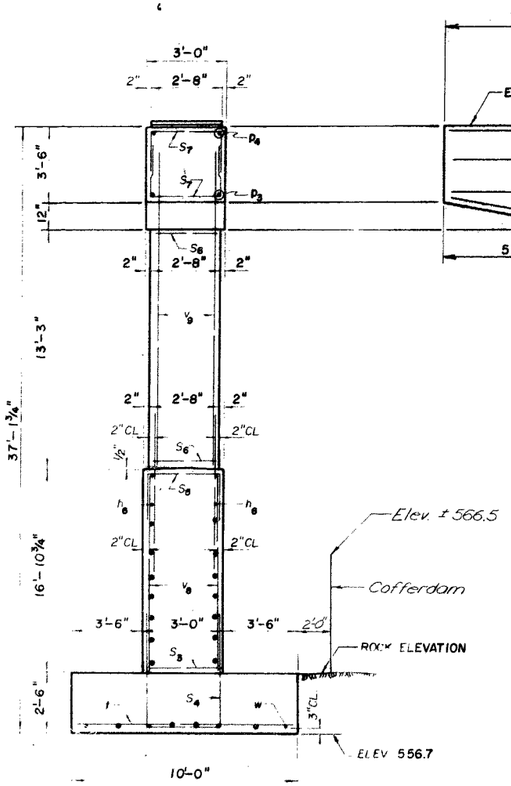
SECTION NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
607	124 BR	LASALLE	28	24
ILLINOIS PROJECT				

BR. SHEET 13 OF 16 SHEETS



ANCHOR BOLT LAYOUT TYPICAL EACH BEARING

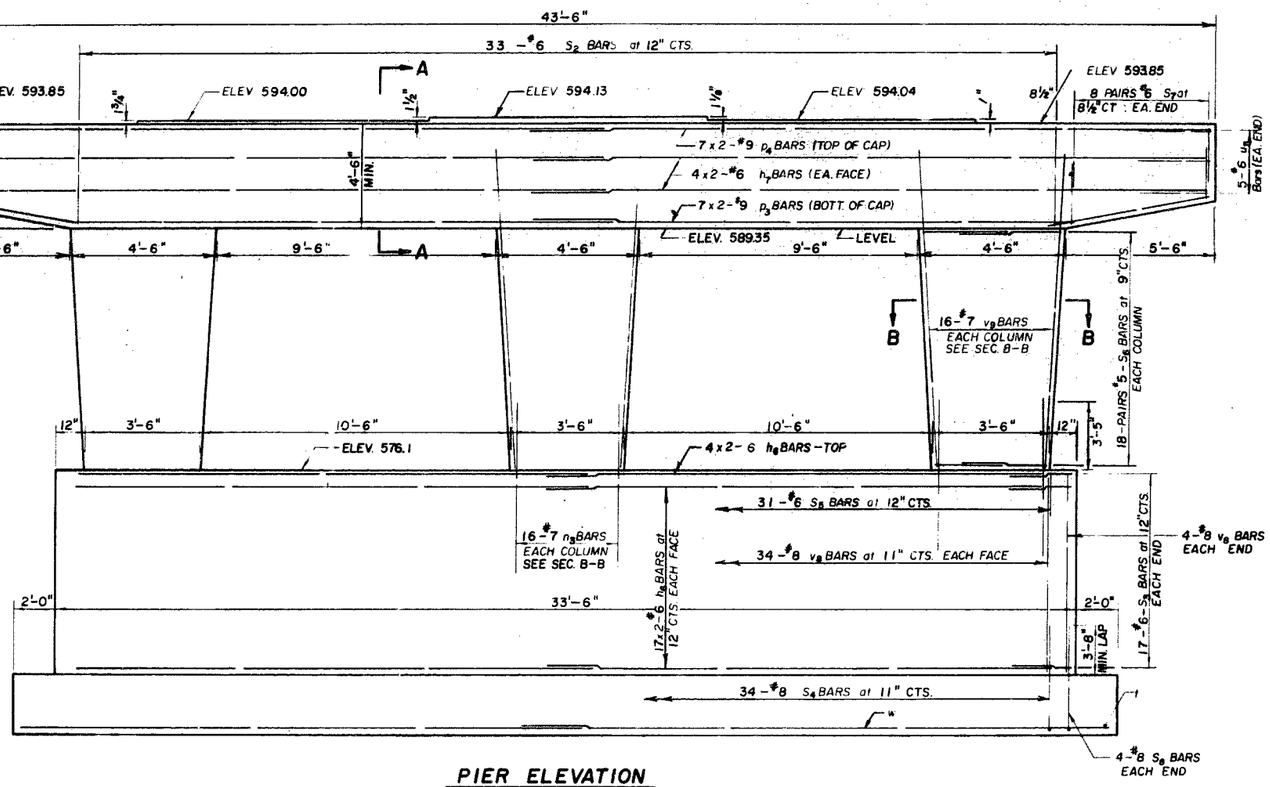
TOP PLAN



END VIEW

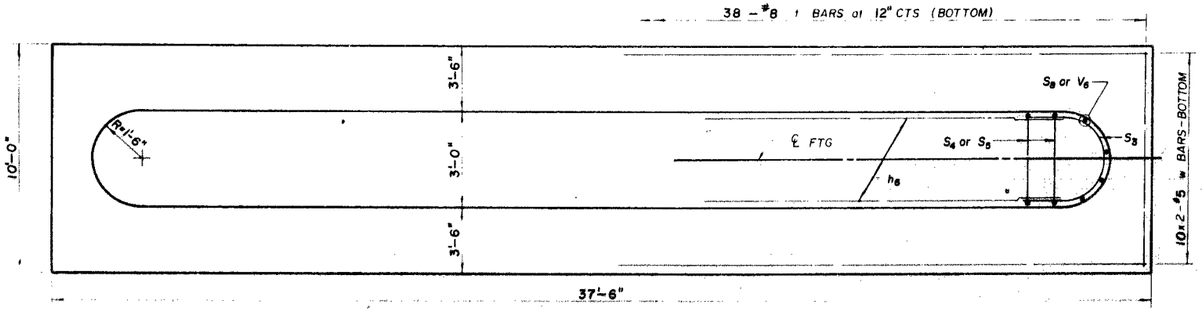
NOTE: ENTIRE FOOTING SHALL BE POURED INTO BEDROCK AS SHOWN. TOP OF FOOTING SHALL BE AT ROCK ELEVATION.

MAX. BRG. PRESSURE = 4.5 TSF



PIER ELEVATION

(LOOKING EAST)



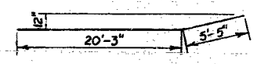
FOOTING PLAN

NOTES

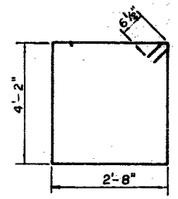
SPACE REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS.

POUR STEPS MONOLITHICALLY WITH CAP.

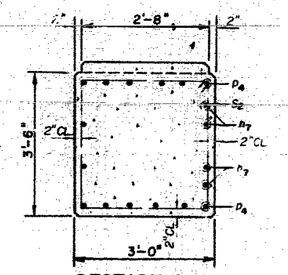
ALL EDGES SHALL HAVE STANDARD ¾" CHAMFERS EXCEPT AS NOTED.



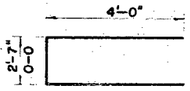
BAR p3



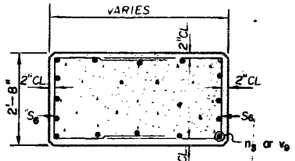
BAR S2



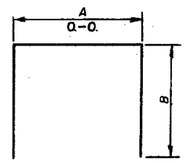
SECTION A-A



BAR U3



SECTION B-B



BARS S4 THRU S7

A & B DIMENSIONS

BAR S	A	B
S4	2'-8"	6'-0"
S5	2'-8"	2'-0"
S6	2'-4"	3'-2"
S7	2'-8"	3'-2"

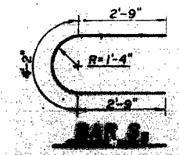
MIN. SPLICE

#5	2'-5"
#6	2'-7"
#7	2'-9"
#8	3'-8"
#9	8'-1"

BILL OF MATERIAL

BAR	NO	SIZE	LENGTH	SHAPE
h8	76	#6	16'-7"	
h7	16	#6	22'-10"	
n5	48	#7	6'-10"	
p3	14	#9	25'-8"	
p4	14	#9	25'-7"	
S2	33	#6	14'-9"	
S3	34	#6	9'-8"	
S4	34	#8	14'-8"	
S5	31	#6	6'-8"	
S6	108	#5	8'-8"	
S7	32	#6	9'-0"	
S8	8	8	6'-0"	
t	38	#8	9'-6"	
u3	10	#6	10'-7"	
v8	68	#8	16'-9"	
v9	48	#7	18'-9"	
w	20	#5	19'-9"	

CLASS X CONCRETE	CU YDS	135.1
REINFORCEMENT BARS	LBS	16,370
ROCK EXCAV. FOR STRUCT.	CU YDS	40.4
EXCAVATION	CU YDS	23
Cofferdams	Each	1



BAR S8

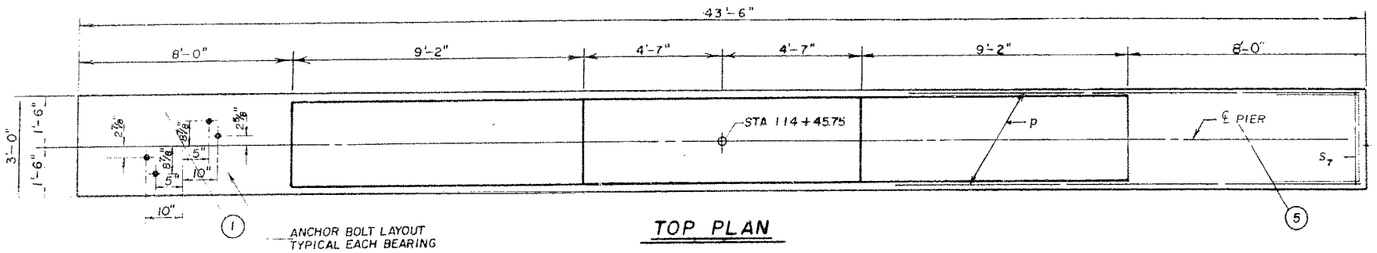
PIER NO. 2
F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, ROCKFORD, ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

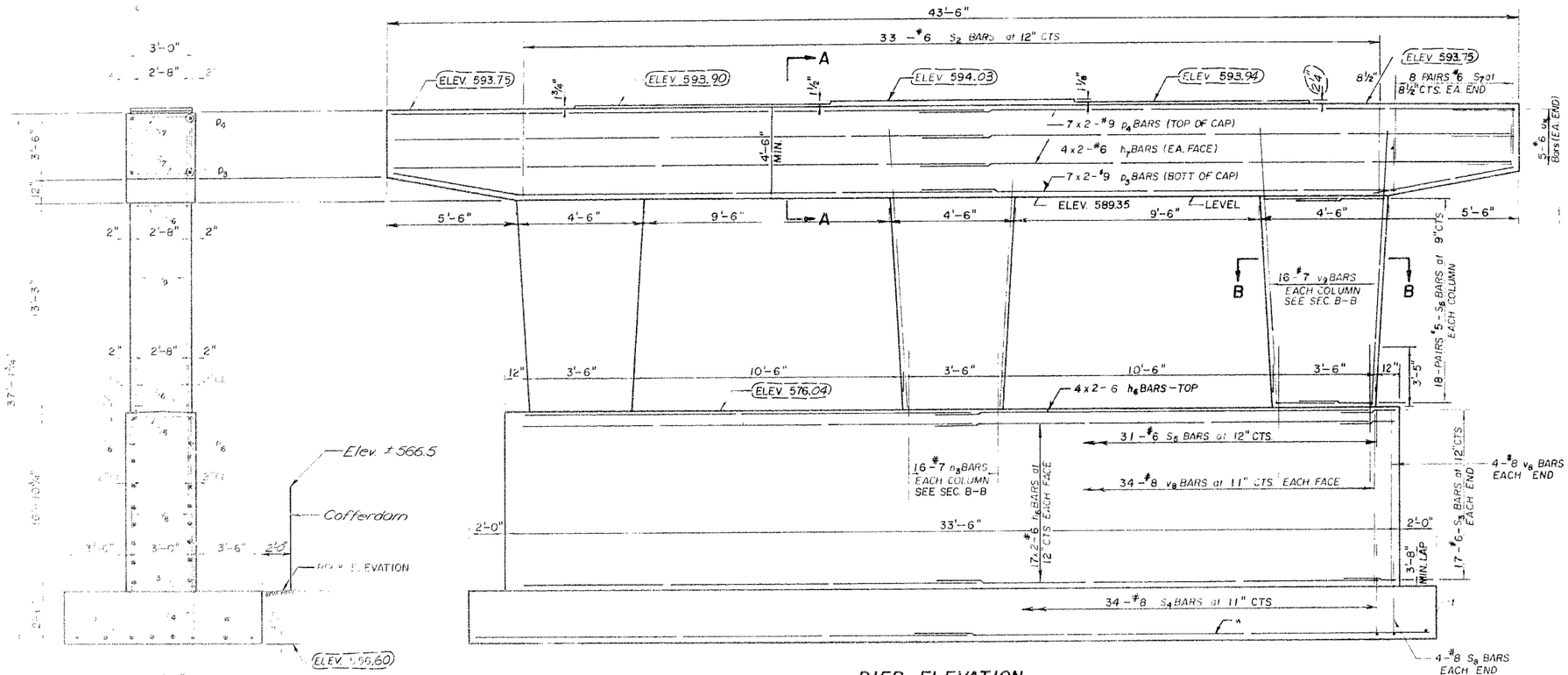
F.A. ROUTE NO.	SEC.	COUNTY		
607	124 BR	LASALLE	22	(29A)
ILLINOIS PROJECT				

BR. SHEET 13 OF 16 SHEETS



ANCHOR BOLT LAYOUT
TYPICAL EACH BEARING

TOP PLAN



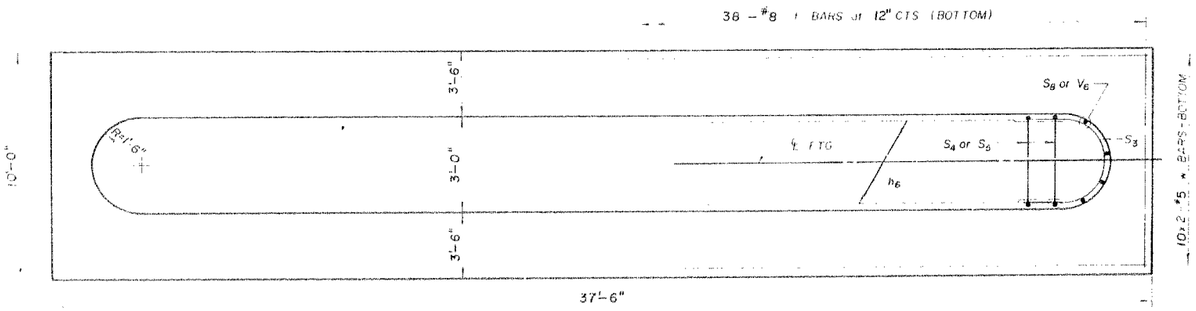
PIER ELEVATION
(LOOKING EAST)

END VIEW

NOTE ENTIRE FOOTING SHALL BE POURED INTO BEDROCK AS SHOWN. TOP OF FOOTING SHALL BE AT ROCK ELEVATION

MAX. BRG. PRESSURE = 4.5 TSF

AS REVISED



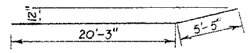
FOOTING PLAN

NOTES

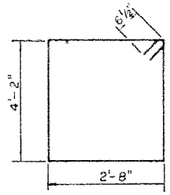
SPACE REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS.

POUR STEPS MONOLITHICALLY WITH CAP

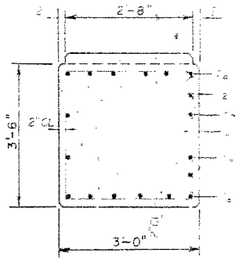
ALL EDGES SHALL HAVE STANDARD ¾" CHAMFERS EXCEPT AS NOTED.



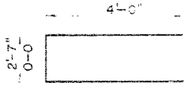
BAR p3



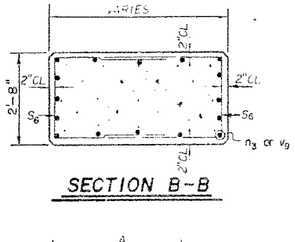
BAR S2



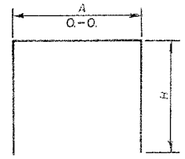
SECTION A-A



BAR U3



SECTION B-B



BARS S4 THRU S7

A & B DIMENSIONS

BAR S	A	B
S4	2'-8"	6'-0"
S5	2'-8"	2'-0"
S6	2'-4"	3'-2"
S7	2'-8"	3'-2"

MIN. SPLICE

#5	2'-5"
#6	2'-7"
#7	2'-9"
#8	3'-8"
#9	8'-1"

BILL OF MATERIAL

BAR	NO.	SIZE	LG.
P6	76	#6	6'-1"
P7	16	#6	22'-3"
S5	48	#7	6'-7"
P3	14	#9	35'-5"
P4	14	#9	35'-5"
S2	33	#6	14'-9"
S3	34	#6	9'-8"
S4	34	#8	14'-9"
S5	31	#6	6'-6"
S6	108	#6	8'-8"
S7	32	#6	9'-0"
S8	8	8	6'-1"
t	38	#8	9'-6"
U3	10	#5	2'-7"
V8	68	#5	16'-3"
V9	48	#7	18'-9"
W	20	#5	19'-1"

CLASS X CONCRETE		135
REINFORCEMENT BARS		16,370
ROCK EXCAV. FOR STRUCT.	CU YDS.	40.4
Cofferdam EXCAVATION	CU YDS.	53
Cofferdams	Each	1

BAR S3

PIER NO. 2
FA.P ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, ROCKFORD, ILLINOIS

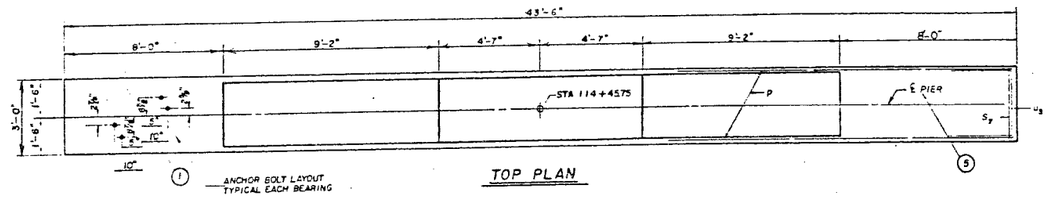
DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

As Revised 11-16-81 J.W.

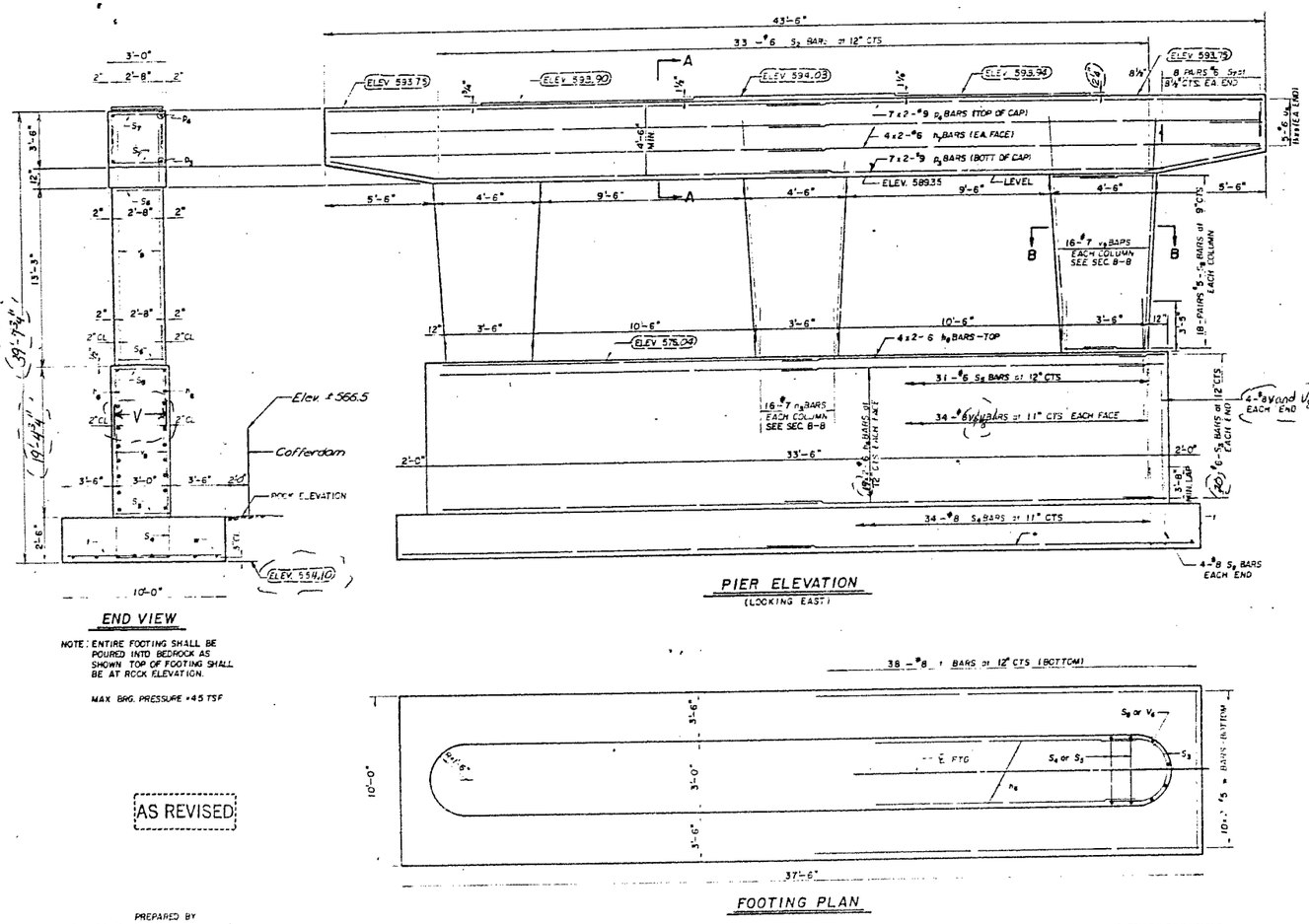
F.A. ROUTE NO.	SEC.	COUNTY	SHEET NO.
607	124 BR	LASALLE	28 (24A)

ALL ENGINEERING PROJECTS

BH. SHEET 13 OF 16 SHEETS



TOP PLAN



PIER ELEVATION

(LOOKING EAST)

END VIEW

NOTE: ENTIRE FOOTING SHALL BE POURED INTO BEDROCK AS SHOWN TOP OF FOOTING SHALL BE AT ROCK ELEVATION.

MAX BRG. PRESSURE = 45 TSF

AS REVISED

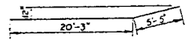
FOOTING PLAN

NOTES

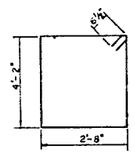
SHEAR REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS

POUR STEPS MONOLITHICALLY WITH CAP

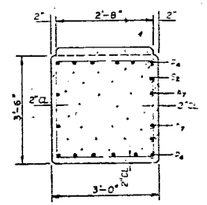
ALL EDGES SHALL HAVE STANDARD ¾" CHAMFERS EXCEPT AS NOTED.



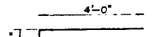
BAR P3



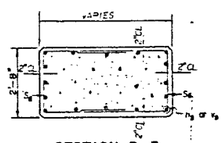
BAR S2



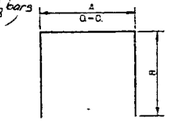
SECTION A-A



BAR U3



SECTION B-B



BARS S4 THRU S7

A & B DIMENSIONS

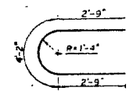
BAR S	A	B
S4	2'-8"	6'-0"
S5	2'-8"	2'-0"
S6	2'-4"	3'-2"
S7	2'-8"	3'-2"

MIN. SPLICE

#5	2'-5"
#6	2'-7"
#7	2'-9"
#8	3'-8"
#9	8'-1"

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
n4	(84)	#6	16'-7"	
n7	16	#6	22'-0"	
n3	48	#7	6'-10"	
P3	14	#9	25'-8"	
P4	14	#9	25'-7"	
S2	33	#6	14'-9"	
S3	(90)	#6	9'-8"	
S4	34	#8	14'-8"	
S5	31	#6	6'-8"	
S6	108	#5	8'-8"	
S7	32	#6	9'-0"	
S8	8	#8	6'-0"	
T	38	#8	9'-6"	
U3	10	#6	10'-7"	
V	76	#8	6'-3"	
V8	(96)	#8	16'-9"	
W	48	#7	18'-9"	
X	20	#5	19'-9"	
CLASS X CONCRETE			CU YDS	135
REINFORCEMENT BARS			LBS	16,370
ROCK EXCAV. FOR STRUCT.			CU YDS	404
Cofferdam EXCAVATION			CU YDS	23
Cofferdams			Each	1



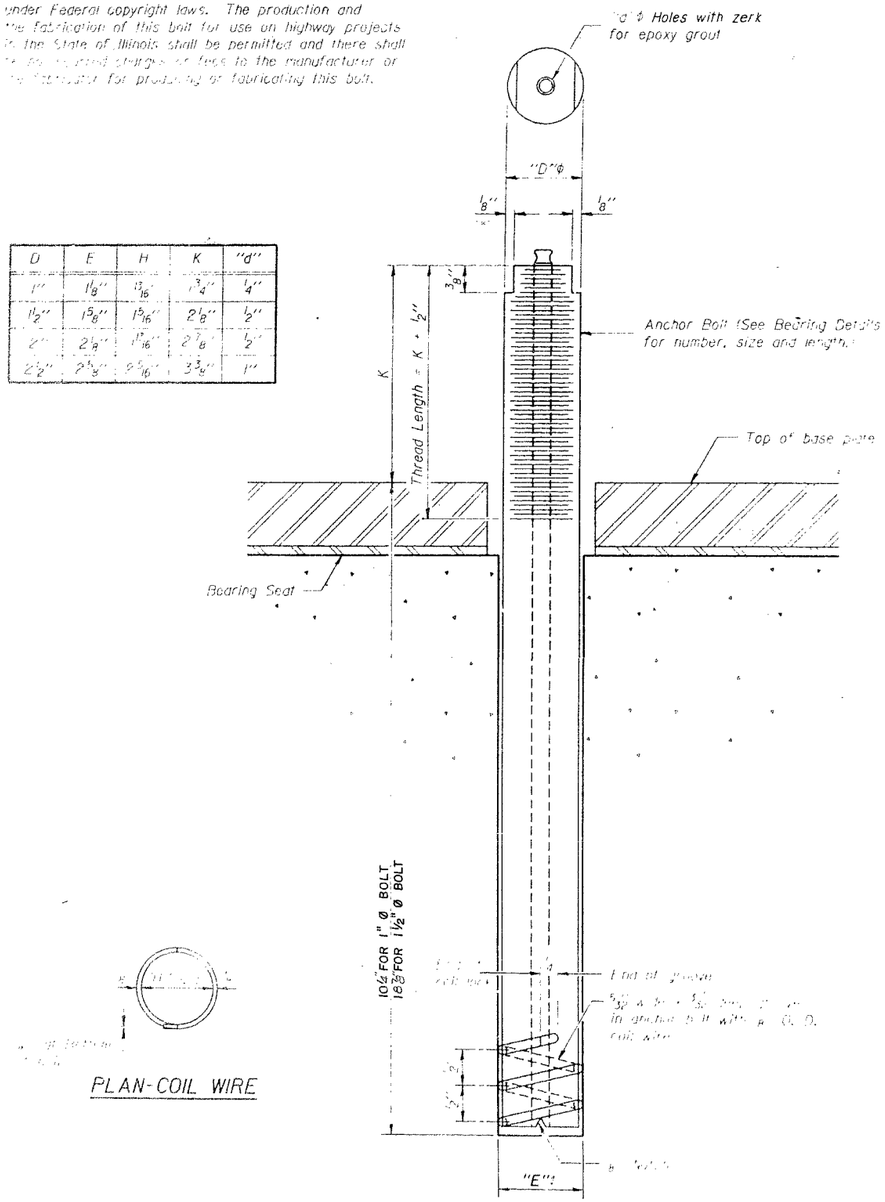
BAR S3

PIER NO. 2
F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

PREPARED BY
Harold P. Wendler & Associates
DIXON, PRINCETON, ROCKFORD, ILLINOIS

DO NOT SCALE DRAWING, FOLLOW DIMENSIONS

As Revised 11-16-87 L.W. As Revised 4-20-88 L.W.



D	E	H	K	"d"
1"	1⅛"	13/16"	1¾"	¼"
1½"	1⅝"	1⅝"	2⅛"	½"
2"	2⅛"	1⅝"	2⅝"	½"
2½"	2⅝"	2⅝"	3¾"	1"

PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A519, Grade 1026 and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system comforming to ASTM C881, Type I, Grade I and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer conforming to ASTM A307.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

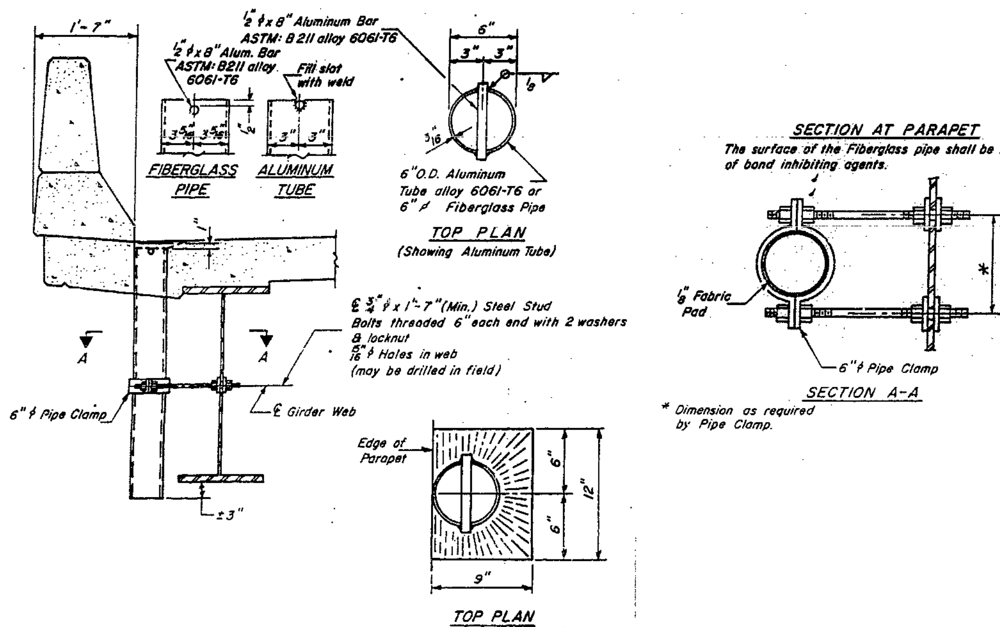
The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

Anchor bolts, nuts and washers shall be completely coated by either the hot-dipped process conforming with AASHTO M232 or the mechanical plating method conforming to ASTM B695, Class 50. Zinc coated nuts shall be tapped oversize in accordance with the requirements of AASHTO M291 and shall meet the supplementary requirements S1.1 thru S1.2.1 of the same specifications for lubricant and testing.

ANCHOR BOLT DETAILS FOR BEARINGS

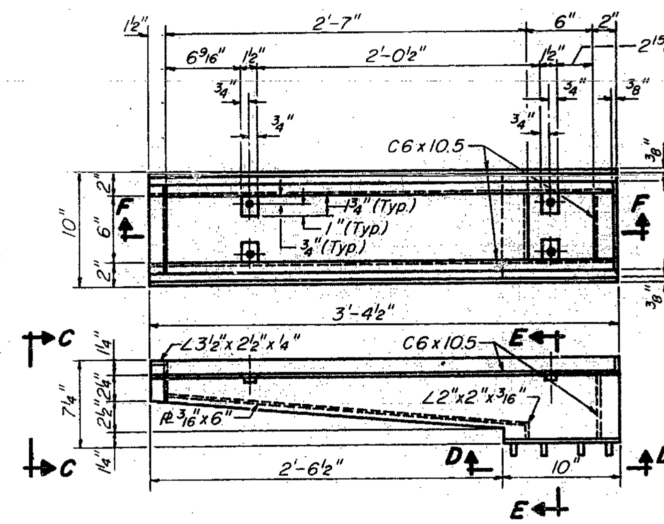
F.A.P ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

6" DIAMETER FLOOR DRAINS

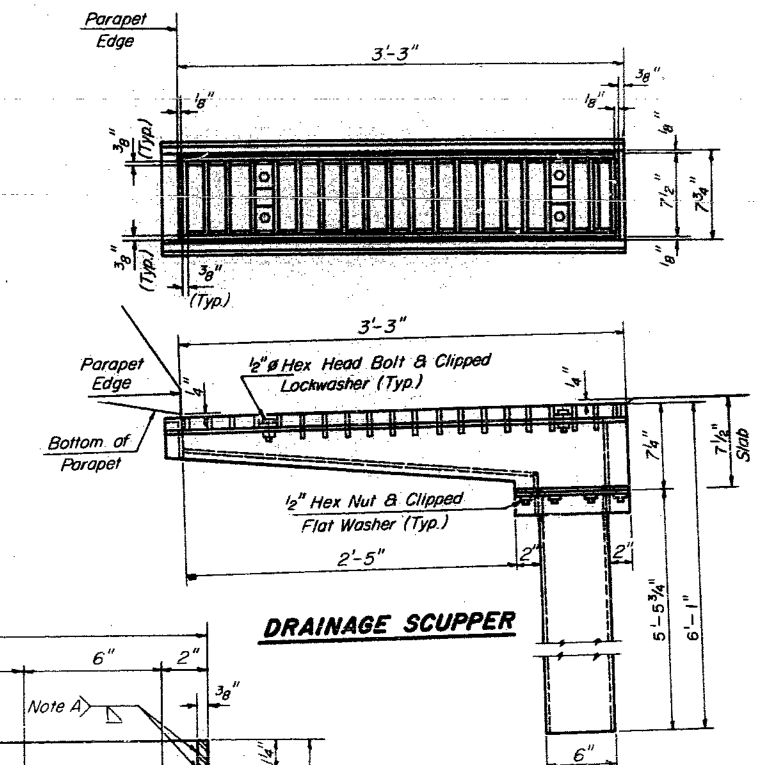


NOTE: Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

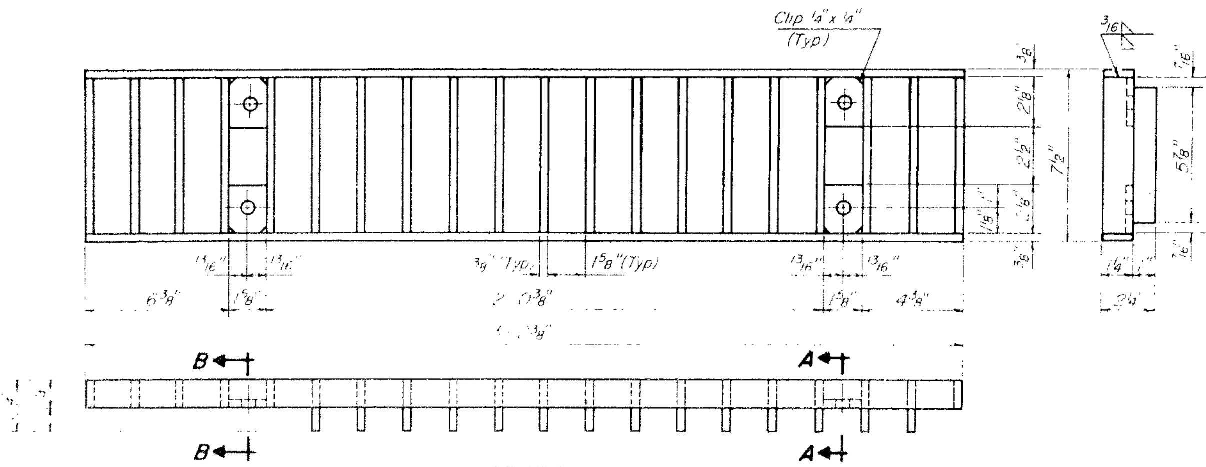
The exterior surfaces of the Floor Drain shall be painted with the vinyl enamel coat painting specified for Structural Steel. The exterior surfaces of the Aluminum tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting.



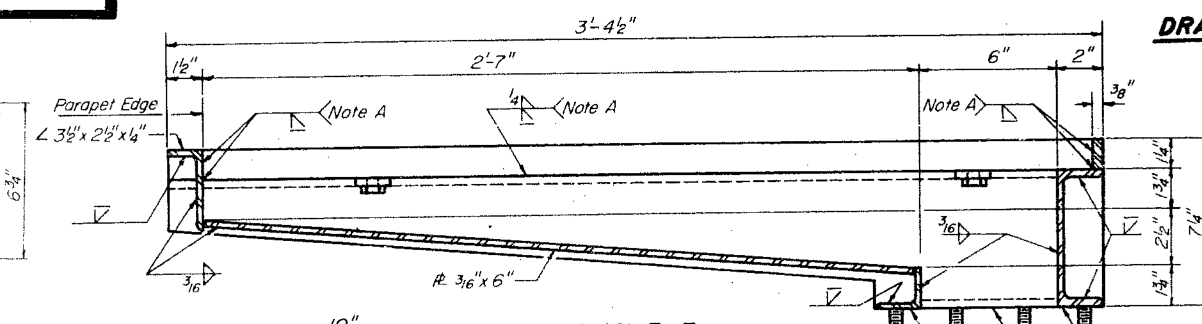
FRAME



DRAINAGE SCUPPER

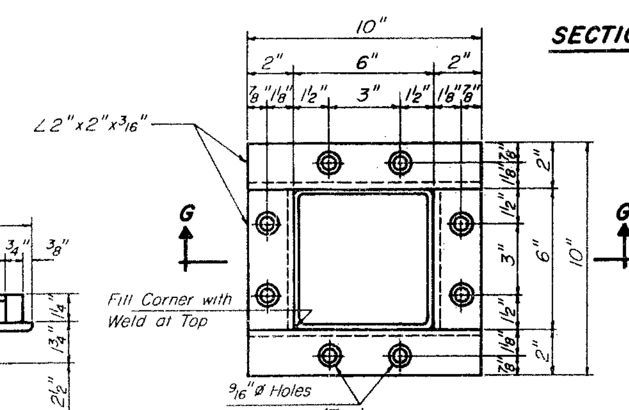


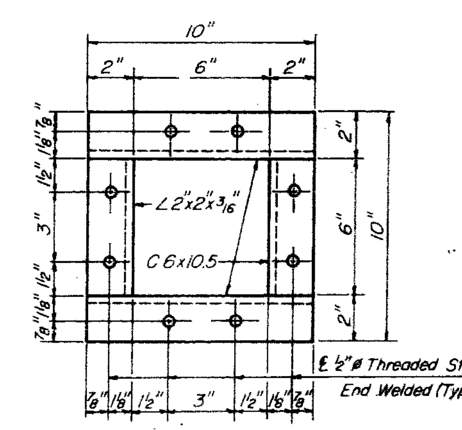
GRATE



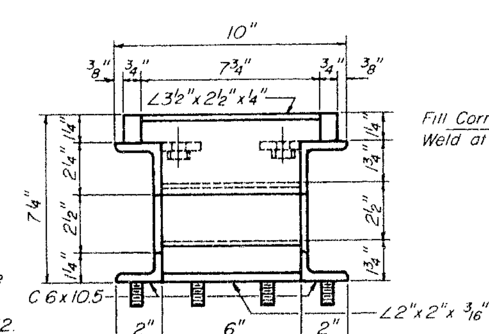
SECTION F-F

Note A: Surface of welds shall be recessed 1/16" Max. or placed flush with inside face of bars to provide clearance for Grate.





VIEW D-D



VIEW C-C

Notes:

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B, or A-501 Structural Steel Tubing.

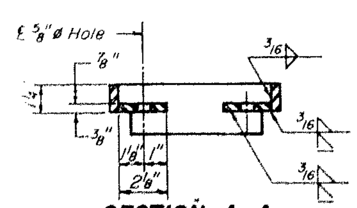
All other shapes, plates and bars shall conform to the requirements of A.A.S.H.T.O. M 183.

Bolts, studs, washers and nuts shall conform to the requirements of A.S.T.M.: A-307.

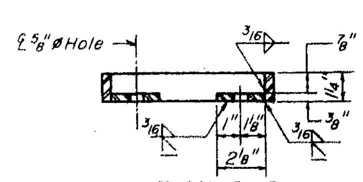
The Grate, Frame, and Downspout shall be galvanized after shop fabrication in accordance with A.A.S.H.T.O.: M-111 & A.S.T.M.: A-385.

All bolts, washers and nuts shall be galvanized in accordance with A.A.S.H.T.O.: M 232.

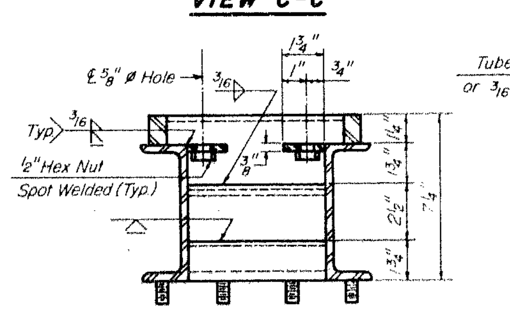
Cost of the Grate, Frame, Downspout, Bolts, Washers and Nuts including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS"



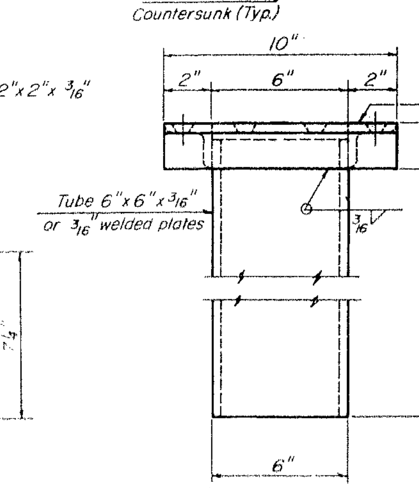
SECTION A-A



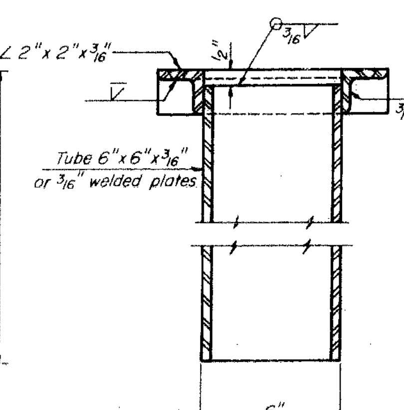
SECTION B-B



SECTION E-E



DOWNSPOUT



SECTION G-G

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper	Each	6

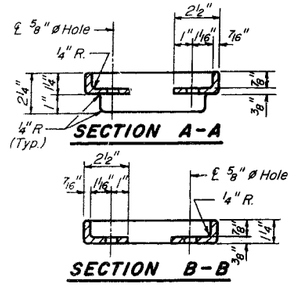
6" DIAMETER FLOOR DRAINS & STEEL DRAINAGE SCUPPER

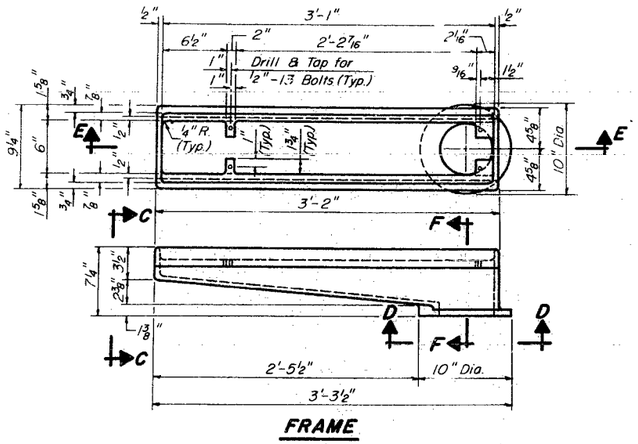
F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113+70.00

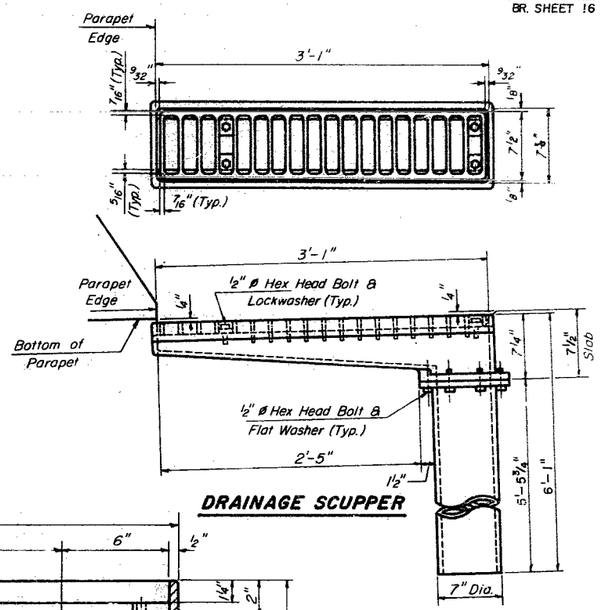
(Sheet 1 of 2)

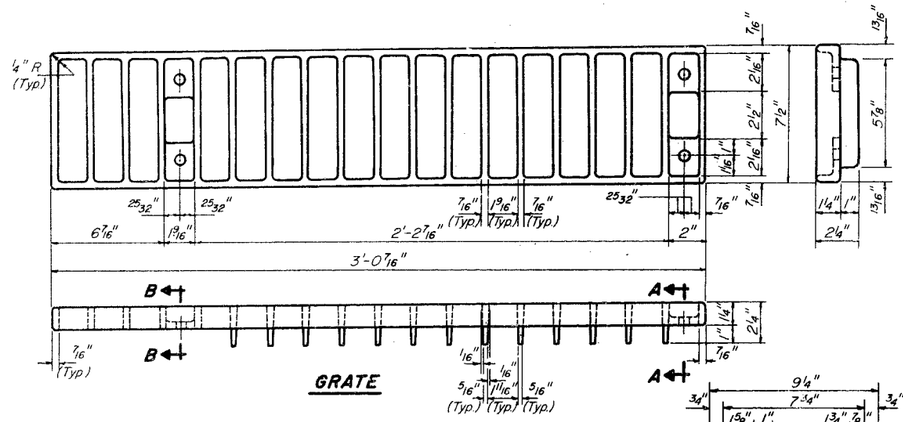
F.A.P. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	NO.
607	124 BR	LASALLE	28	27
ILLINOIS PROJECT				

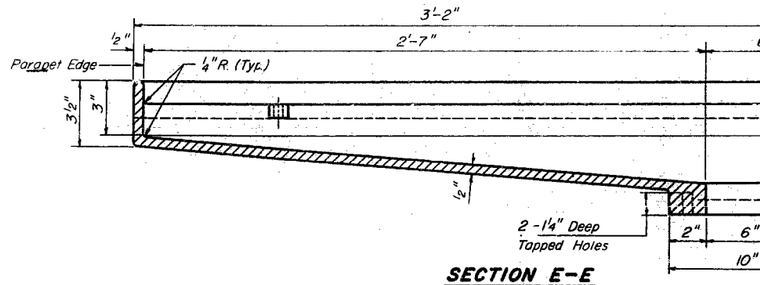
BR. SHEET 16 OF 16 SHEETS

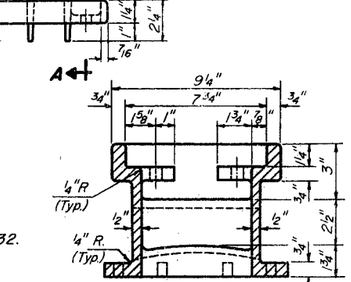


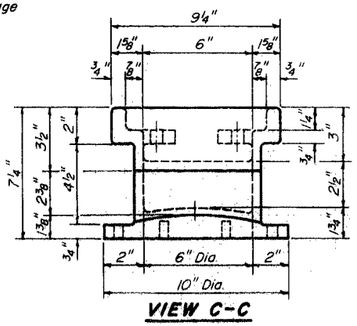


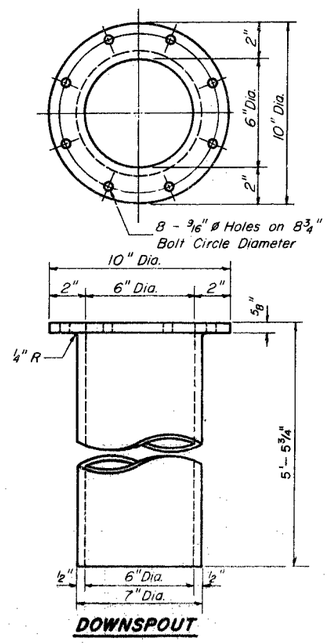


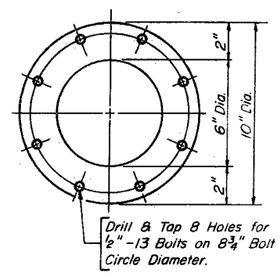












Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO: M-105, Class 30.

Bolts and washers shall conform to the requirements of A.S.T.M.: A-307.

All bolts and washers shall be galvanized in accordance with A.A.S.H.T.O.: M-232.

As an alternate bolts and washers may be stainless steel conforming to the requirements of A.S.T.M.: A-193. Type 304.

Cost of the Grate, Frame, Downspout, bolts and washers including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS".

The Contractor may use at his option steel drainage scuppers or cast iron drainage scuppers.

(Sheet 2 of 2)

ALTERNATE - CAST IRON DRAINAGE SCUPPER

F.A.P. ROUTE 607
SECTION 124 BR
LASALLE COUNTY
STATION 113 +70.00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FA 607	124 BR	LASALLE	28	28
F.H.W.A. REG. 4	ILLINOIS	PROJECT		

FORM NO. B-D 127 REV 9-80 Sh. 1 of 1 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT
ROUTE FAP 607
SEC. 124 BR
COUNTY LaSalle
Boring No. 3 (Pier)
Station 114+44
Offset 46.5' Rt.

BRIDGE U.S. Route 52 over Indian Creek
STA. 113+70
Date 3/25/85
Bored By K. Whittington
Checked By W. Beck

Surface Water El. 561.7
Groundwater El. at Completion 562.4
After ___ Hours ___

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 568.4			
BR. SANDY LOAM			
BR. SAND & GRAVEL	10	-	6
	5	-	14
558.4	13	-	10
GR. SAND & GRAVEL 556.4	22	-	9
ST. PETER SANDSTONE	-	-	12

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 failure:
B – Bulge Failure
S – Shear Failure
E – Estimated Value
P – Penetrometer

FORM NO. B-D 127 REV 9-80 Sh. 1 of 1 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT
ROUTE FAP 607
SEC. 124 BR
COUNTY LaSalle
Boring No. 1(E. Abut.)
Station 115+76
Offset 5' Rt.

BRIDGE U.S. Route 52 over Indian Creek
STA. 113+70
Date 3/22/85
Bored By J. Legan
Checked By W. Beck

Surface Water El. 561.7
Groundwater El. at Completion ___
After ___ Hours ___

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 600.3			
BIT. BASE 597.8			
VERY STIFF BR. SICL. (FILL)	6	2.0 P	21
	9	3.0 P	26
	7	2.0 P	25
589.8	3		16
BR. SAND 589.3	4		16
	5		10
VERY STIFF BR. SIL.-TILL	11	3.0 P	11
583.8	11	3.0 P	12
BR. GRAVEL 583.3	7		13
VERY STIFF BR. SIL.-TILL	16		10
580.8			
VERY STIFF GR. SIC-TILL	6	3.5 P	20
VERY STIFF GR. SIC.-TILL 575.8	15	1.5 S	17
STIFF GR. SIC. 574.3	7	2.3 S	25
	7		23
STIFF GR. & BR. SIL.-TILL 572.3	6	1.4 S	21
	21	4.5 P	17
HARD TO STIFF GR. SIL. (END OF FILL) 569.8	2		17
LOOSE DK. GR. SAND 568.3	14		11
MEDIUM GR. SAND 566.3	13		12
MEDIUM GR. SAND & FINE GRAVEL	9		15
	9		18
558.3	9		21
ST. PETER SANDSTONE			

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 failure:
B – Bulge Failure
S – Shear Failure
E – Estimated Value
P – Penetrometer

FORM NO. B-D 127 REV 9-80 Sh. 1 of 1 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT
ROUTE FAP 607
SEC. 124 BR
COUNTY LaSalle
Boring No. 2 (W. Abut.)
Station 111+66
Offset 5' Lt.

BRIDGE U.S. Route 52 over Indian Creek
STA. 113+70
Date 3/22/85
Bored By J. Legan
Checked By W. Beck

Surface Water El. 561.7
Groundwater El. at Completion ___
After ___ Hours ___

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 600.5			
598.6			
MEDIUM DK. GR. SIC. 596.5	5	1.0 P	27
MEDIUM BR. GR. SIC.-TILL	7	0.8 B	17
593.0	6		17
HARD BR. SICL.-TILL	26	6.1 B	12
	27	5.5 B	11
584.0	25	4.3 S	10
VERY STIFF GR. SICL.-TILL	15	4.4 S	12
	12	2.3 B	13
580.5	9	2.5P	13
DENSE SAND	51	-	4
DENSE SAND 575.5	47	-	9
	-	-	14
MEDIUM DK. GR. SIC. 596.5	40	-	19
DENSE GR. SAND 573.0	6	-	19
MEDIUM BR. GR. SIC.-TILL	16	2.8 B	12
VERY STIFF GR. SIL.-TILL	22	3.2 P	10
566.5	46	4.5 P	9
HARD DK. GR. SIL.-TILL	88	4.5 P	8
561.5	100/12"	-	9
HARD GR. SANDY LOAM-TILL 559.0	82	-	8
DENSE FINE TO MEDIUM GRAVEL 557.0	46	-	15
ST. PETER SANDSTONE			

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 failure:
B – Bulge Failure
S – Shear Failure
E – Estimated Value
P – Penetrometer

BORING DATA