

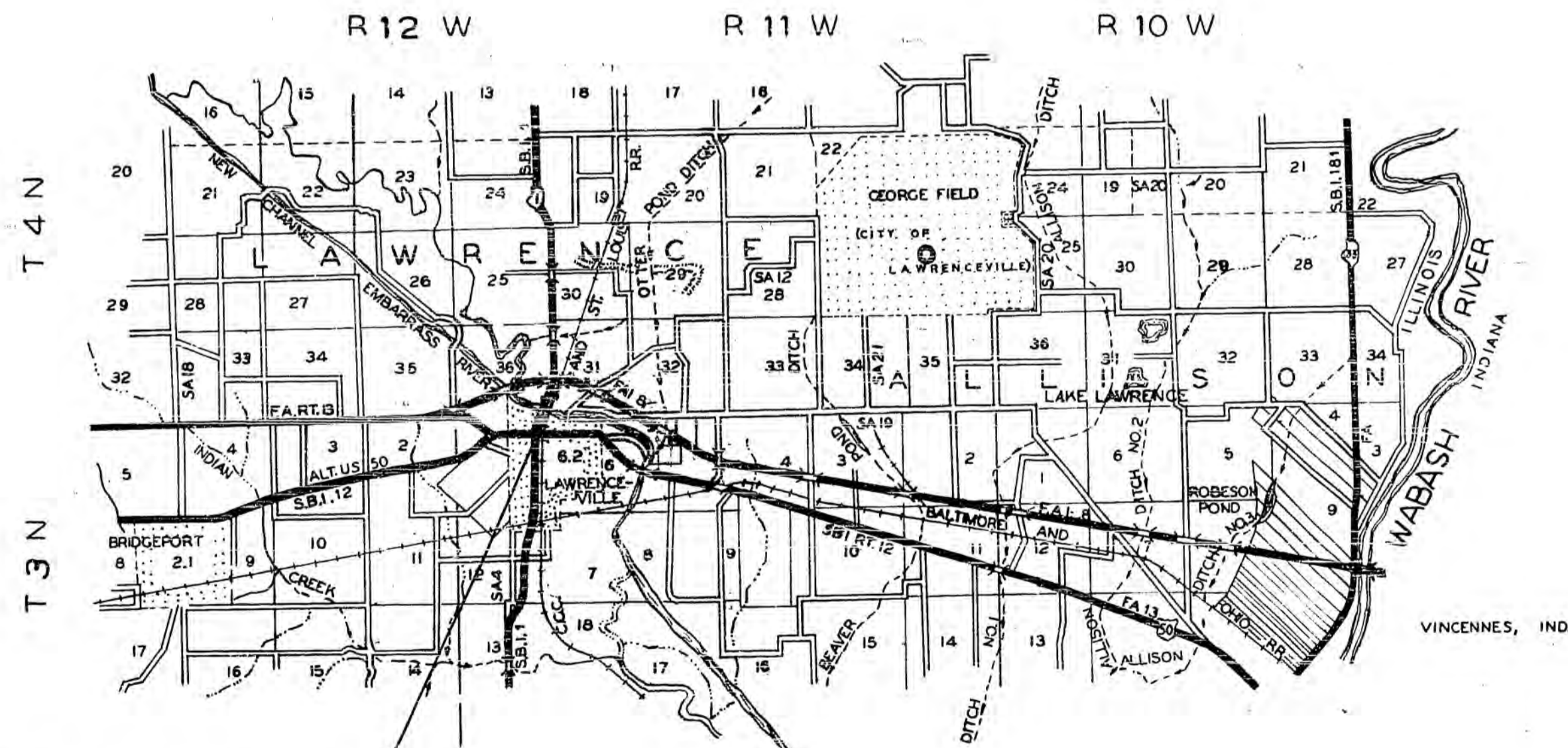
STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
 DIVISION OF HIGHWAYS
 PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY

FEDERAL AID PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 8	5-23VB	LAWRENCE	18	1
FED. ROAD DIST. NO.	ILLINOIS	PROJECT	FIG-08-4(18)	

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

FAI-64

FAI ROUTE 8 SECTION 51-23 V B
 PROJECT FIG-08-4(18)
 LAWRENCE COUNTY



PROJECT FIG-08-4(18)
 PROPOSED IMPROVEMENT FAI ROUTE 8
 SECTION 51-23VB INCLUDES THE CONSTRUCTION
 OF ONE 3-SPAN CONTINUOUS
 STEEL I-BEAM BRIDGE OVER C.C.C. & ST.L.
 RAILROAD.
 3- SPANS : 2 @ 46'-6" AND 1 @ 54'-4"
 30'-0" ROADWAY RT STA 583+36.0

LAYOUT
 APPROXIMATE SCALE: 1 INCH = 1 MILE
 NET LENGTH TO BE IMPROVED 151.01' = 0.029 MILE
 NET LENGTH OF PROJECT FIG-08-4(18) = 151.01' = 0.029 MILE

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	
SUBMITTED	12-5 1958
EXAMINED	Dec. 30, 1958
PASSED	Dec. 30, 1958
APPROVED	Dec. 30, 1958
APPROVED	Dec. 30, 1958

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER DATE

FAL ROUTE 8, SECTION 51-23VB, LAWRENCE COUNTY
 PLANS PREPARED BY DISTRICT 7 DESIGN OFFICE

- EXAMINED Dec 4, 1958 Fred C. Nelson
 DISTRICT ENGINEER OF DESIGN
- EXAMINED Dec 5, 1958 Robert N. Hamble
 DISTRICT ENGINEER OF CONSTRUCTION
- EXAMINED Dec 5, 1958 J. P. Van der Meer
 DISTRICT ENGINEER OF MAINTENANCE
- EXAMINED Dec 5, 1958 Wilmer A. Hoellars
 DISTRICT ENGR. OF RESEARCH & PLANNING
- EXAMINED Dec 5, 1958 J. B. Fudler
 DISTRICT ENGINEER OF TRAFFIC
- EXAMINED 12-5, 1958 D. C. Bliss
 DISTRICT ENGINEER

INDEX OF SHEETS
 FAL ROUTE 8, SECTION 51-23VB
 LAWRENCE COUNTY

SHEET NO.	TITLE
1	COVER SHEET
2	SIGNATURES, INDEX OF SHEETS, GENERAL NOTES, SUMMARY OF QUANTITIES AND CLASS X SCHEDULE
3	PLAN AND PROFILE, STATION 570+00 TO STATION 587+00 AND TYPICAL SECTION
4-14	BRIDGE PLANS: BRIDGE RT. STATION 583+36.0
15	CULVERT PROFILES, STATION 582+45 AND STATION 584+25
16	STANDARD 2051
17	STANDARDS 2113, 1571S AND 2114
18	STANDARD 2136

GENERAL NOTES
 FAL ROUTE 8, SECTION 51-23VB
 LAWRENCE COUNTY

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, STANDARD SPECIFICATIONS, ADOPTED JANUARY 2, 1958, AND THE SPECIAL PROVISIONS.

SECTION 51-23VB INCLUDES THE CONSTRUCTION OF ONE CONTINUOUS STEEL I-BEAM BRIDGE OVER THE C.C.C. AND ST. LOUIS RAILROAD AT RT. STATION 583+36.0 (1), THREE (3) SPANS, 2 AT 16'-6" AND 1 AT 51'-4" WITH A 30'-0" ROADWAY, AND OTHER INCIDENTAL WORK NECESSARY TO COMPLETE THE SECTION.

EMBANKMENT SHALL BE FURNISHED BY THE CONTRACTOR FROM SOURCES APPROVED BY THE ENGINEER. SEE SPECIAL PROVISIONS.

NO PAYMENT WILL BE MADE FOR OVERHAUL ON ANY MATERIAL MOVED FROM ANY SOURCE.

ONE SIGN CONFORMING TO STANDARD 2136 SHALL BE ERRECTED AT A LOCATION AS DIRECTED BY THE ENGINEER.

SUMMARY OF QUANTITIES
 FAL ROUTE 8, SECTION 51-23VB
 LAWRENCE COUNTY

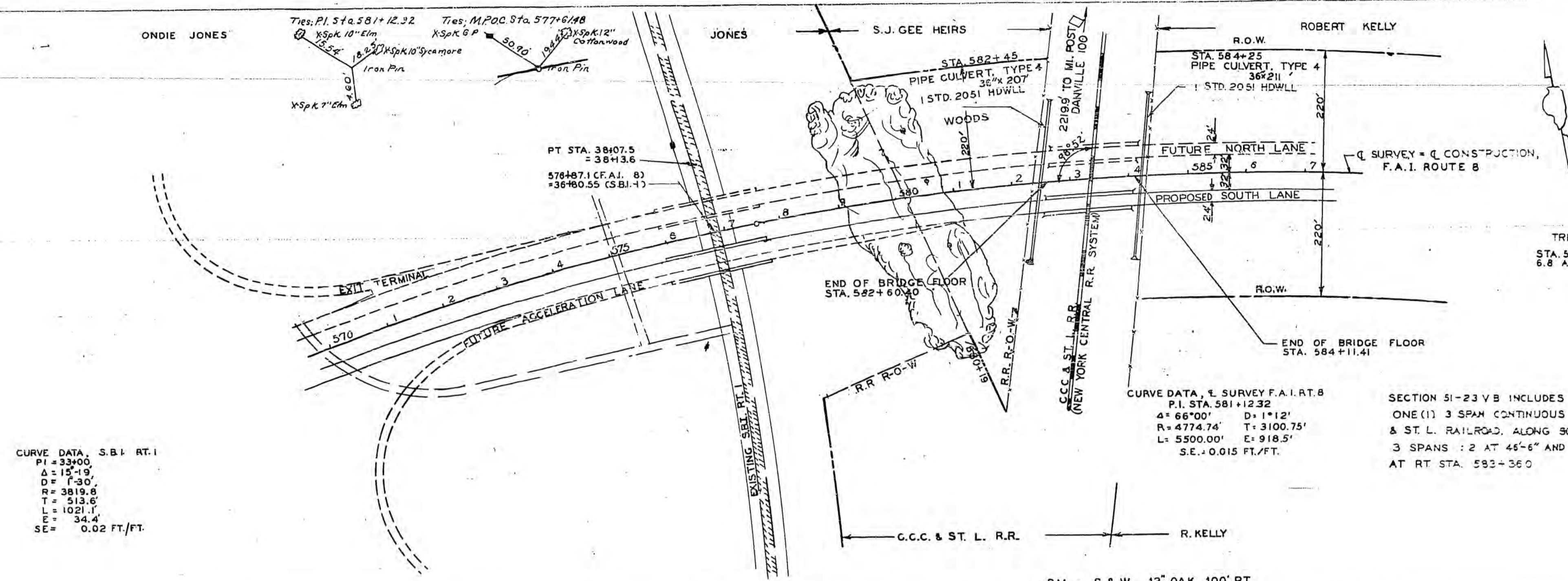
ITEM	UNIT	QUANTITY
CLASS X CONCRETE REINFORCEMENT BARS	CU. YDS. LBS.	514.7 55,470
FURNISHING AND ERECTING STRUCTURAL STEEL NAME PLATES	LBS. EACH	144,370 1
CLASS A EXCAVATION FOR STRUCTURES EMBANKMENT	CU. YDS. CU. YDS.	250 67,600
FURNISHING METAL FILE SHELLS, 12 IN. DRIVING AND FILLING SHELLS	LIN. FT. LIN. FT.	1,010 1,010
FURNISHING CREGGOTED FILES, 20.1' - 38' DRIVING TIMBER FILES	LIN. FT. LIN. FT.	2,600 2,600
TEST PILES (METAL SHELL) TEST PILES (TIMBER)	EACH EACH	2 2
SLOPE WALL PIPE CULVERTS, TYPE L, 36"	SQ. YDS. LIN. FT.	559 418
TREE REMOVAL - ACRES	ACRES	6.8
ALTERNATE A METAL HANDRAIL	LIN. FT.	330
ALTERNATE B ALUMINUM HANDRAIL	LIN. FT.	340

CLASS X CONCRETE SCHEDULE
 FAL ROUTE 8, SECTION 51-23VB
 LAWRENCE COUNTY

STATION	BRIDGE CU. YDS.	HEADWALLS CU. YDS.	REINFORCEMENT BARS LBS.	STRUCTURAL STEEL LBS.
582+45		2.4	65	
583+36.0	509.9		55,340	144,370
584+25		2.4	65	
SUB-TOTALS	509.9	4.8	55,470	144,370

TOTAL CLASS X CONCRETE = 514.7 CU. YDS.

HIGHWAY CLASSIFICATION 1690-T-70

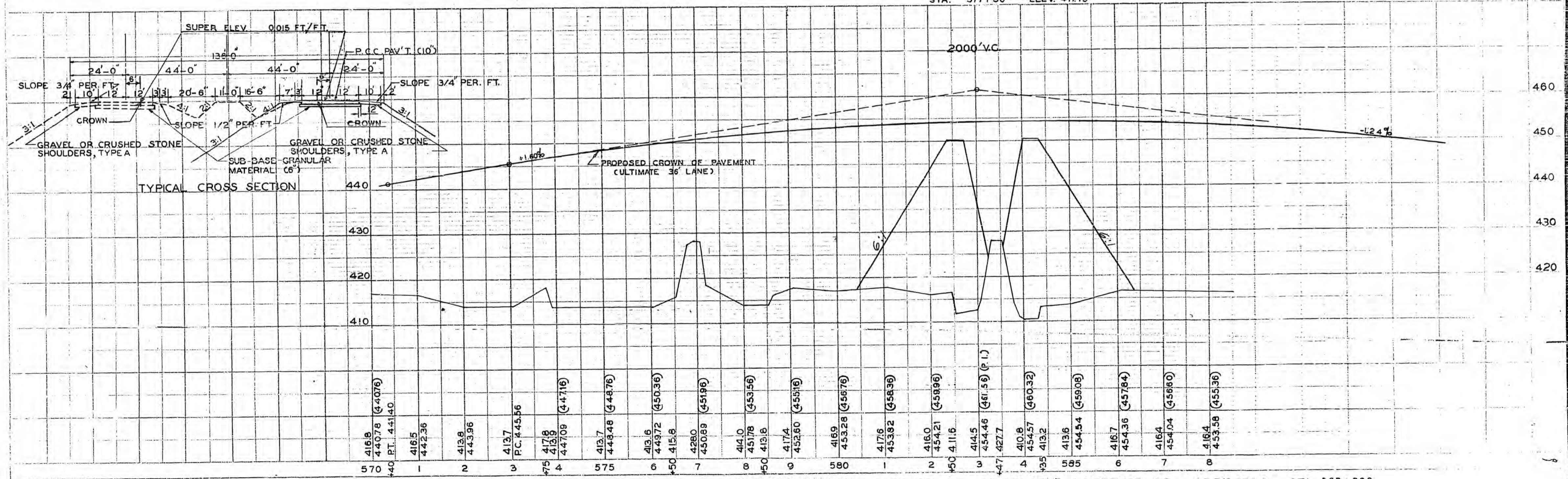


CURVE DATA, S.B.I. RT. 1
P.I. = 33+00
Δ = 15°-19'
D = 1'-30"
R = 3819.8'
T = 513.6'
L = 1021.1'
E = 34.4'
SE = 0.02 FT./FT.

CURVE DATA, S. SURVEY F.A.I. RT. 8
P.I. STA. 581+12.32
Δ = 66°00' D = 1°12'
R = 4774.74' T = 3100.75'
L = 5500.00' E = 918.5'
S.E. = 0.015 FT./FT.

SECTION 51-23 VB INCLUDES THE CONSTRUCTION OF ONE (1) 3 SPAN CONTINUOUS STEEL I-BEAM BRIDGE OVER C.C.C. & ST. L. RAILROAD, ALONG SOUTH LANE OF F.A.I. RT. 8
3 SPANS : 2 @ 45'-6" AND 1 @ 54'-4" WITH A 30'-0" ROADWAY AT RT. STA. 583+36.0

B.M. ~ S. & W. 12" OAK 100' RT.
STA. 577+50 ELEV. 417.73



FAI-67

S.M. 5° E W. 12" Oak 100' R. Sta. 577+50 El. 417.73 (U.S.G.S. Datum)
Existing Structure: None

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-18	51-23VA	Lawrence	18	4
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

GENERAL NOTES

Class X Concrete shall be used throughout
The Concrete floor slab shall be finished in accordance with Article 51.19 of the 5th Spcs.
Rivets 24, open holes 1/2 unless noted. Field Connections riveted except as otherwise noted or specified.

All Rockers, Bearing Plates, Lead Plates, Shim Plates, Pintles and Anchor Bolts shall be fabricated and set in accordance with Article 51.15 of the 5th Spcs. and are included for payment as Structural Steel.

Anchor Bolts shall be set before riveting diaphragms over support. Welding shall comply with current specifications of the Amer. Welding Society, Welded Highway and Railway Bridges.

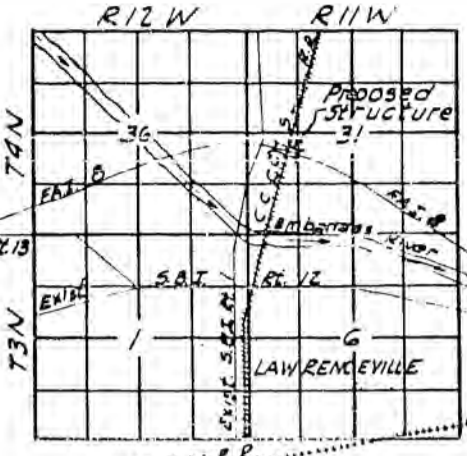
Expansion Guards shall be fabricated and erected to fit the crown in accordance with Article 51.12(d) of the 5th Spcs. Expansion Guards are included for payment as Structural Steel.

All surfaces of the expansion guards shall be given two shop coats of red lead paint except the 2"x5/8"x1'-0" straps. The straps shall not be painted except as otherwise provided all Structural Steel shall receive one shop coat of red lead paint after inspection and two field coats of paint furnished and applied by the Contractor. Cleaning and painting shall comply with Articles 56.1 thru 56.5 inclusive of the 5th Spcs. Inspection by the Illinois Div. of Highways.

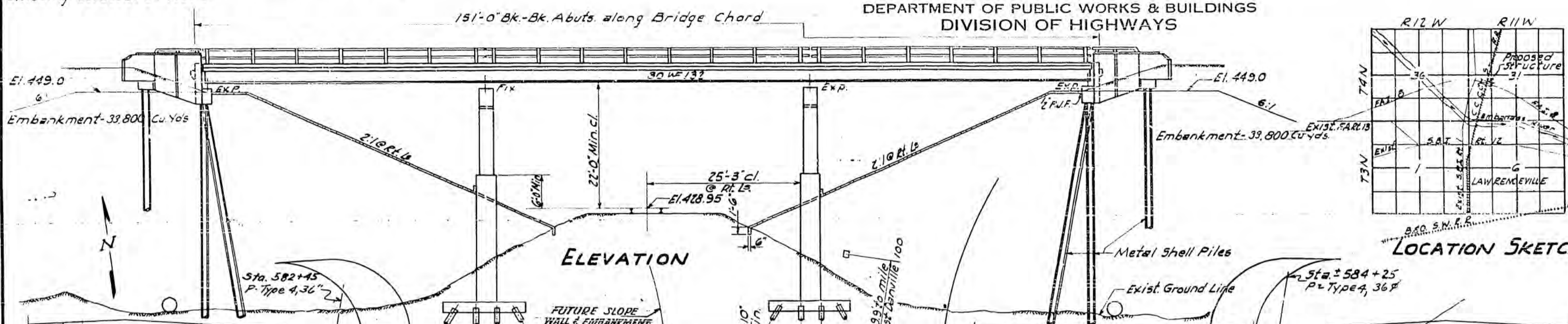
Before Superstructure is placed, construct embankments in accordance with Sec. 16 of the 5th Spcs.

The Contractor shall core holes to the original ground line before driving metal shell piles.

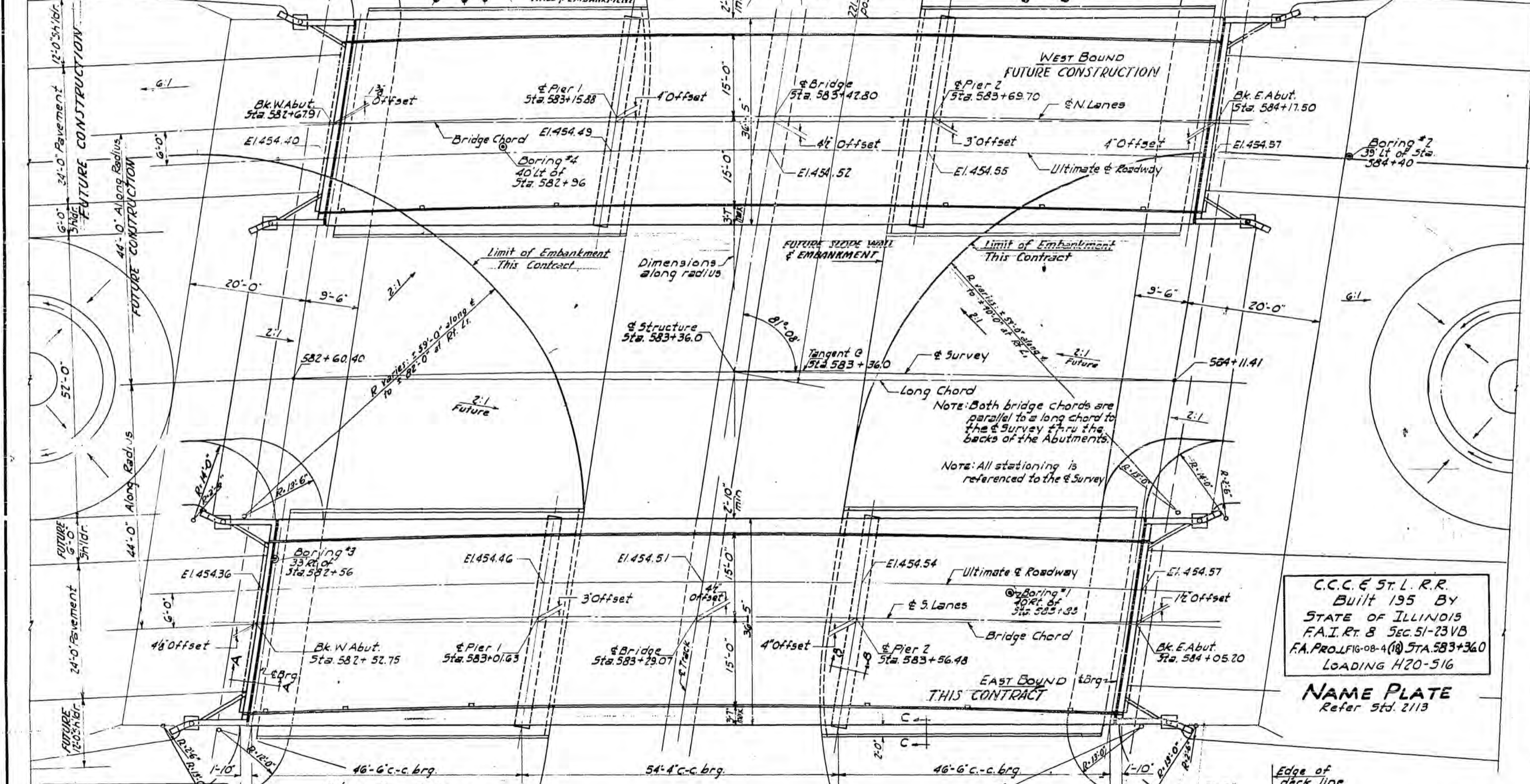
The Contractor shall drive 2 Metal Shell Test Piles in permanent locations under Abutments and 2 Timber Test Piles before ordering metal shell and creosoted piles. One timber test pile shall be driven near each pier.



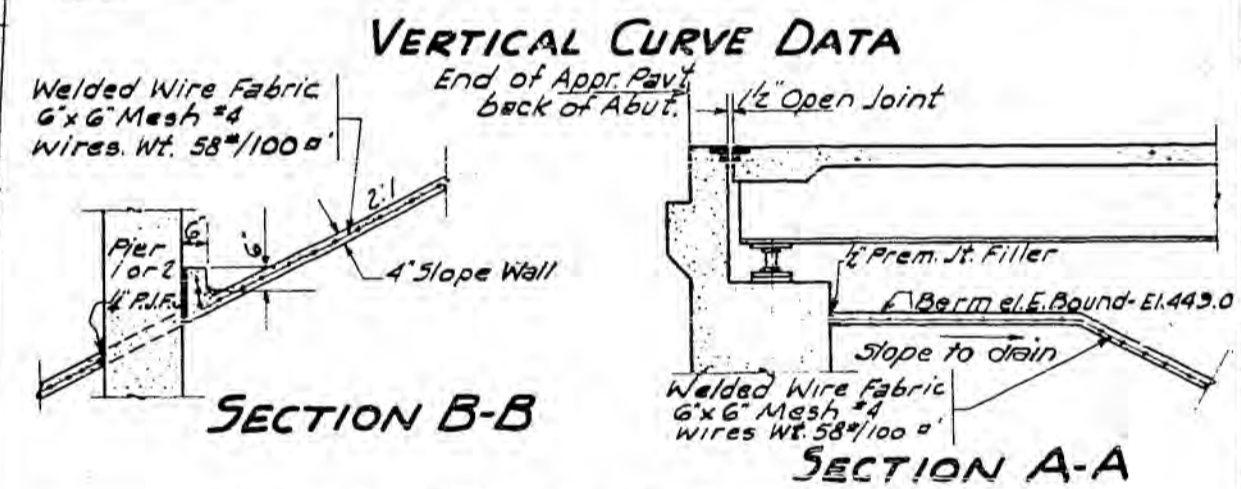
LOCATION SKETCH



ELEVATION



PLAN



VERTICAL CURVE DATA

SECTION B-B

SECTION A-A

TOTAL BILL OF MATERIAL

ITEM	SUPER.	SUB.	TOTAL
Class X Concrete	Cu. Yds. 151.5	358.4	509.9
Reinforcement Bars	Lbs. 26,300	29,040	55,340
Structural Steel	Lbs. 144,370		144,370
Class A Excav. for Structures	Cu. Yds. 250		250
Slope Wall (R)	Sq. Yds. 559		559
Alternate A-Metal Handrail	Lin. Ft. 330		330
Alternate B-Aluminum Handrail	Lin. Ft. 340		340
Name Plates	Each 1		1
Metal Shell Piles	Lin. Ft. 1010		1010
Test Piles (Metal Shell)	Each 2		2
Creosoted Piles	Lin. Ft. 2600		2600
Test Piles (Timber)	Each 2		2
Embankment	Cu. Yds. 67,600		67,600

C.C. & ST. L. R.R.
Built 195 BY
STATE OF ILLINOIS
F.A.I. RT. 8 SEC. 51-23VB
F.A. PROJ. 16-08-4(10) STA. 583+36.0
LOADING H20-516

NAME PLATE
Refer Std. 2113

DESIGN STRESSES

fc = 1400 p.s.i. (Super)
fc = 1000 p.s.i. (Sub)
fs = 20,000 p.s.i. (Reinf.)
fs = 18,000 p.s.i. (Struct.)
n = 10
* = 75 p.s.i. Pier Hfys.

LOADING H20-516-44

GENERAL PLAN & ELEVATION

PROJECT FI-08-4 (18)
C.C. & ST. L. R.R. (N.Y.C.)
F.A.I. RT. 8 SEC. 51-23VB
LAWRENCE COUNTY
STATION 583+36.0 (1)

SECTION C-C

This Contract includes East Bound Structure only

DESIGNED: J. J. Connelley
CHECKED: J. N. A. J.
DRAWN: J. J. Sandoval
CHECKED: J. N. A. J.
REVISED: 10-16-58 J.B.N.

EXAMINED: W. J. Romine
PASSED: J. J. Sandoval
APPROVED: R. H. Bartelme

OF SURVEY HORIZ. CURVE DATA
P.I. Sta. 581 + 12.32
Δ = 66°-00' E = 318.5
D = 1°-12' L = 5500.0
R = 4774.74 S.E. = .015'/ft.
T = 3100.75

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

F.A.I.-64

Boring No. 1	Blows per 30' Foot	Elevation	Blows per 30' Foot	Blows per 30' Foot	Notes
Boring located at Station 583+83, 40 Ft RL Center-line.			392.0	14	
			391.0		
Surface of Ground.		412.2	387.0		Medium gray fine sand.
Stiff mottled silty clay fill.			385.0	16	
		410.0			
		409.5			
Qu-1.06	2	408.5			
		385.0			
Stiff mottled silty clay.		407.0	382.0		
Qu-1.30	3	406.0	381.0	20	Qu-5.92
		404.5	379.5		
Qu-1.48	4	403.5	378.5	24	Qu-6.13 Hard gray silty clay.
		402.5	377.0		
Dense gray fine sand.	34	402.0	376.0	26	Qu-5.29
		401.0			
		400.5			
		399.5	374.5	26	Qu-6.20
		398.5	373.5		
		373.0			
Medium fine gray sand.	16	397.0	372.0	24	Very stiff gray sandy clay. Qu-3.68
		356.0	371.0		
		394.5	369.5	20	Medium fine gray clayey sand.
		393.5	368.5		
					NOTE No stability problem

Boring No. 2	Blows per 30' Foot	Elevation	Blows per 30' Foot	Blows per 30' Foot	Notes
Boring located at Station 584+40, 35 Ft RL Center-line.			392.0	18	
			391.0		
Surface of Ground.		412.2			Medium gray fine sand.
Very stiff mottled silty clay fill.			410.5		
		387.0			
		386.0		18	
Very stiff mottled silty clay.		407.0	383.5	4	Qu-2.66
		406.0			
		404.5	382.0	5	Qu-2.64
		403.5			
		403.0			
Stiff gray sandy clay.		402.0	379.5	8	Qu-1.30
		401.0	378.5		
		400.5			
		399.5	377.0	18	Qu-3.51
		398.5	376.0		
Medium gray fine sand.		397.0	375.0	10	Very stiff gray silty clay, some lenses. Qu-2.24
		396.0	374.5		
		395.0	373.5	9	
		394.5	373.0		
		393.5	372.0	7	Very stiff gray clay lenses in loose gray fine sand.
			370.0		

Boring No. 3	Blows per 30' Foot	Elevation	Blows per 30' Foot	Blows per 30' Foot	Notes
Boring located at Station 583+83, 40 Ft RL Center-line.			369.0		
			367.0		
Surface of Ground.		412.2			Medium gray sand.
Very stiff gray clay lenses in loose fine gray sand.			366.0	37	
		362.0			
Dense gray poorly graded subangular fine sand.		361.0		38	

Boring No. 3	Blows per 30' Foot	Elevation	Blows per 30' Foot	Blows per 30' Foot	Notes
Boring located at Station 582+56, 33 Ft RL Center-line.			394.5	20	Dense gray uniform fine sand.
			393.5		
Surface of Ground.		414.4	391.5		
Medium mottled silty clay fill.			389.5	22	Qu-6.05
			388.5		Hard gray silty clay.
Qu-0.82	1	409.5	387.0	14	Qu-5.31
		408.5	386.0		
		408.0			
		407.0	384.5	16	Qu-5.55
Loose brown poorly graded slightly clayey fine sand.	7	406.0	383.5		
		404.5	382.0	16	Qu-5.72
		404.0			
Loose gray uniform fine sand.	5	403.5	382.0		
		402.5			
		402.0			
		401.0			
Medium gray uniform fine sand.	23	399.5			
		398.5			
		397.5			
		396.0			
Dense gray uniform fine sand.	36	396.0			

Boring No. 4	Blows per 30' Foot	Elevation	Blows per 30' Foot	Blows per 30' Foot	Notes
Boring located at Station 582+56, 40 Ft RL Center-line.			395.0	20	Medium gray sand.
			394.0		
Surface of Ground.		414.8			
Stiff mottled clay fill.			413.0		
			380.5		
			390.0	16	Qu-6.54
			389.0		
Very stiff gray mottled clay.		410.0	409.0	6	Qu-2.30
		408.0			
		407.5	385.0	4	Qu-1.88
		406.5	384.0		Qu-6.50 Hard gray sandy clay.
Stiff gray mottled sandy clay.		405.0			
		404.0			
		403.5			
Loose gray clayey sand.		402.5	380.0	5	Qu-6.37
		401.5	379.0		
		401.0			
		400.0	377.5	18	Qu-6.46
		399.0	376.5		
Medium gray sand.					

Note: N = Blows per foot of penetration of sampling spoon. Hammer Weight = 350 Lbs. Drop = 12 inches.
Qu = Unconfined compressive strength in tons per square foot.

DESIGNED *H. H. ...*
CHECKED *H. H. ...*
DRAWN *H. H. ...*
CHECKED *H. H. ...*

EXAMINED *M. ...*
PASSED *E. ...*
APPROVED *R. K. ...*

BORING DATA

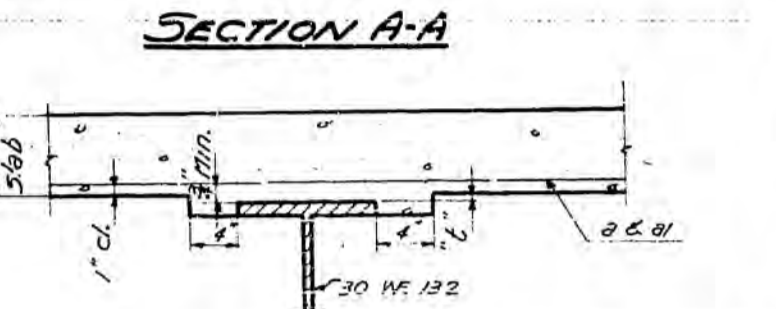
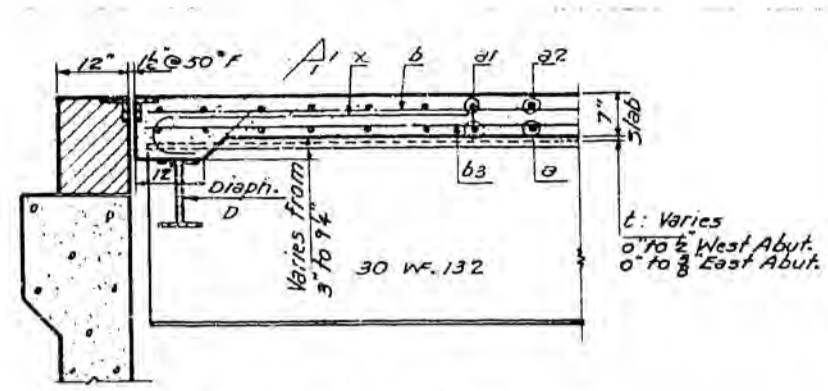
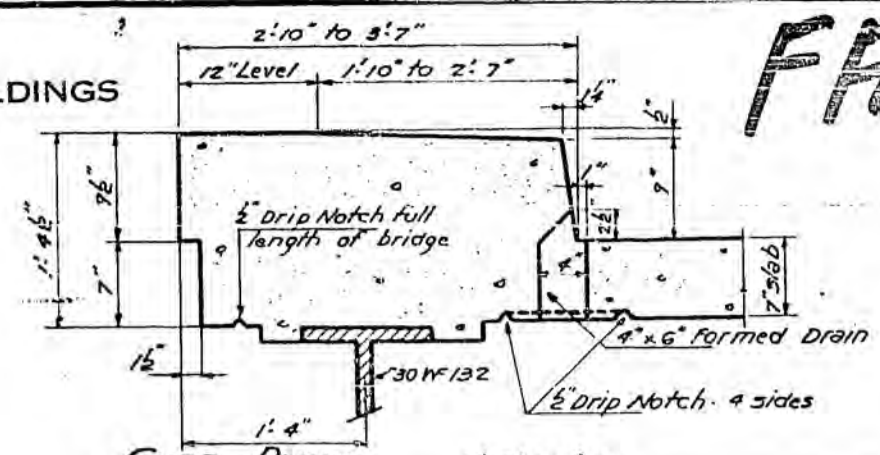
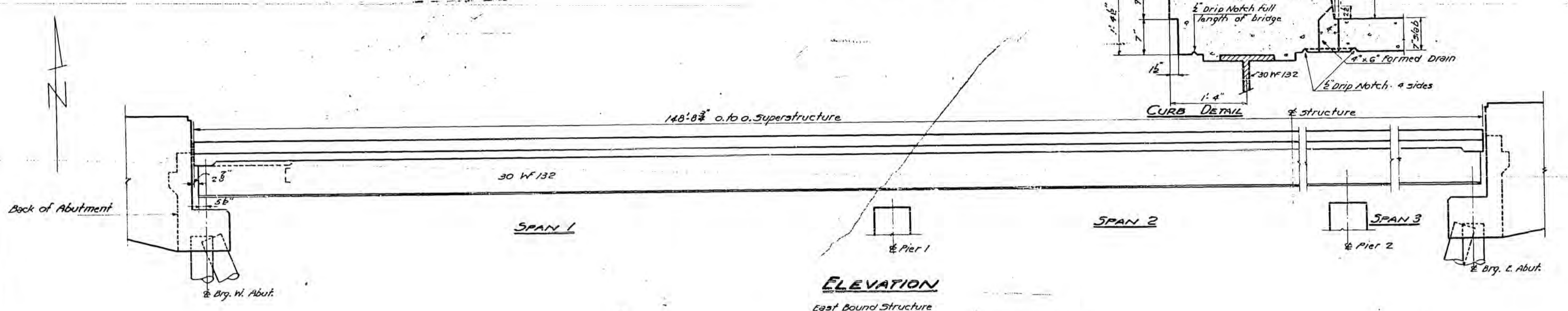
C.C.C. & ST. L. R.R. (N.Y.C.)
F.A.I. 8 SEC. 51-23 YB
LAWRENCE COUNTY
STA. 583+36.0 (1)

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

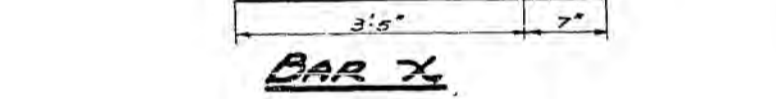
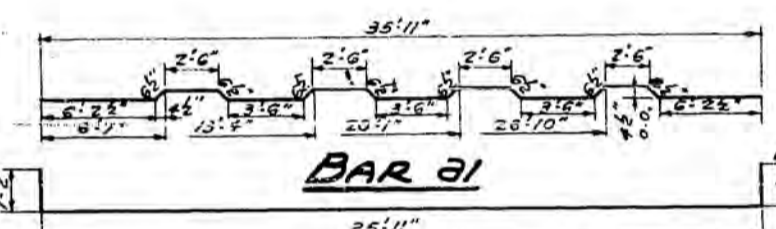
F.A.I.-64

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1. A. 18	51-23VB	Lawrence	18	6
FED. ROAD DIST. NO. 7		BLANKET	FED. AID PROJECT	

SHEET NO. 3
11 SHEETS



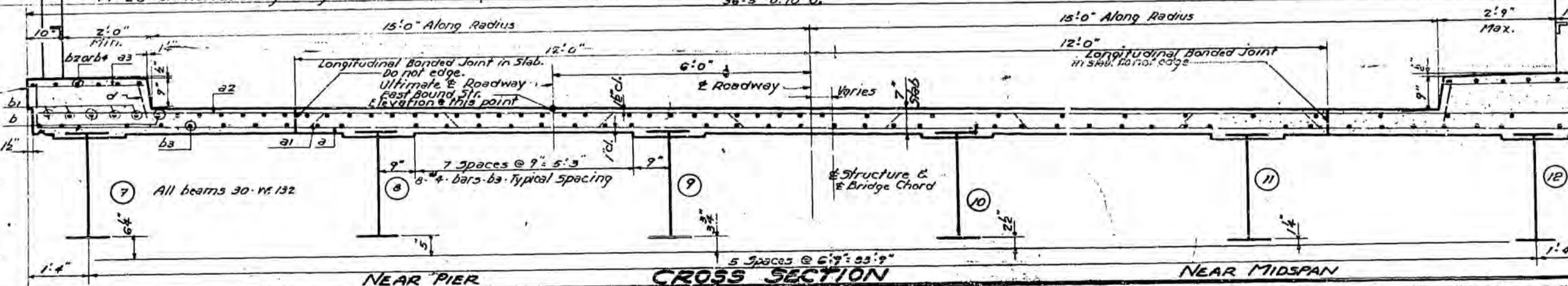
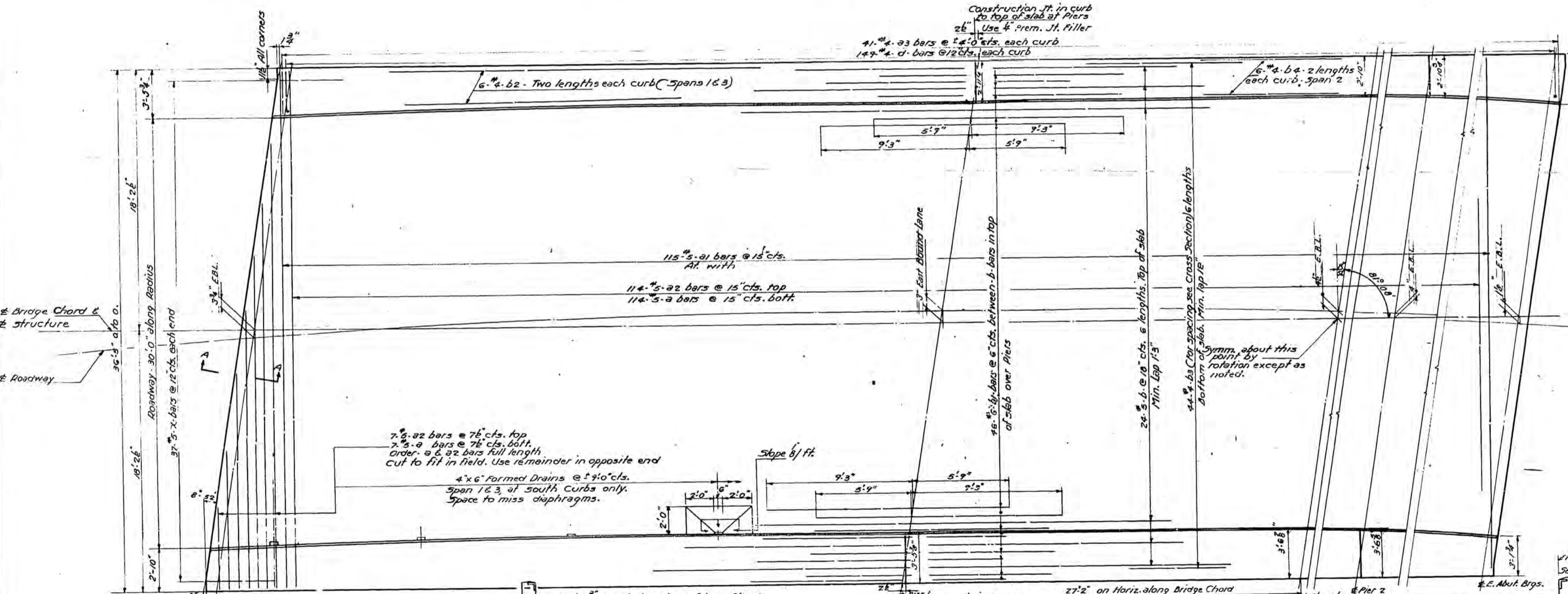
METHOD OF DETERMINING FILLET HEIGHTS
After all structural steel has been erected elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 ft from these elevations subtract the increment of deflection for these points determined from the Dead Load deflection diagram. The elevations so obtained subtracted from the theoretical grade elevation minus floor thickness equals the fillet heights above top of beam.



BILL OF MATERIAL / STRUCT.

BAR	NO.	SIZE	LENGTH	SHAPE
a	121	#5	38'-3"	
a'	115	#5	37'-3"	
a2	121	#5	36'-0"	
a3	82	#4	3'-3"	
b	144	#5	26'-0"	
b1	92	#6	15'-0"	
b2	48	#4	24'-0"	
b3	264	#4	25'-9"	
b4	24	#4	27'-6"	
c	298	#4	1'-7"	
x	74	#5	4'-0"	

Class X Concrete	Cu. Yds.	151.5
Reinforcement Bars	Lbs.	26300
Structural Steel	Lbs.	144370



DESIGNED *[Signature]*
CHECKED *[Signature]*
DRAWN *[Signature]*
CHECKED *[Signature]*
REV. 10-16-58 J.B.N.

EXAMINED *[Signature]*
PASSED *[Signature]*
APPROVED *[Signature]*

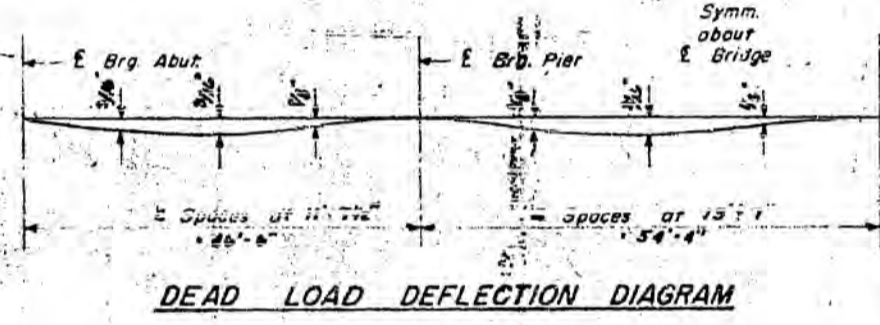
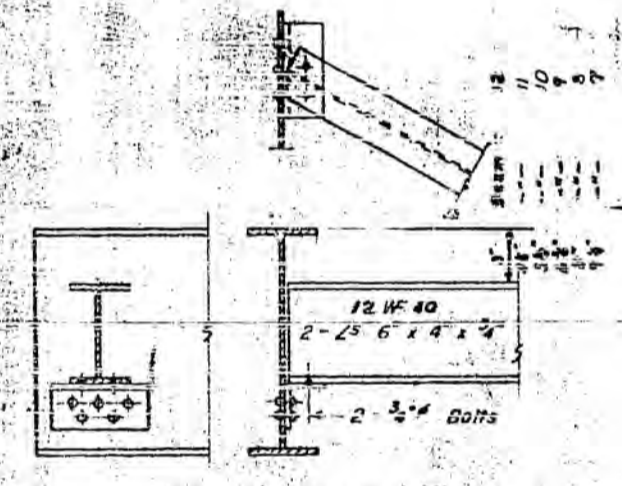
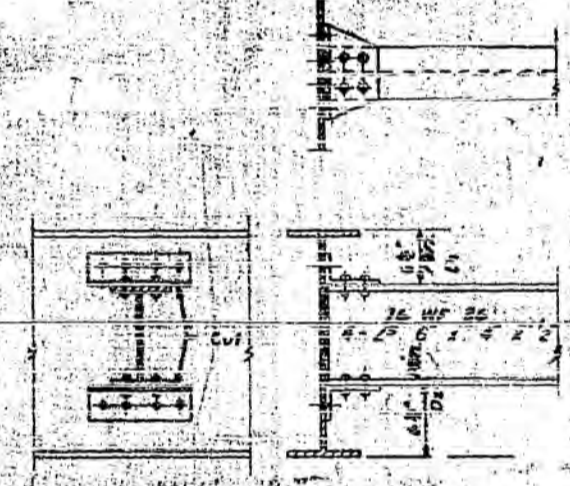
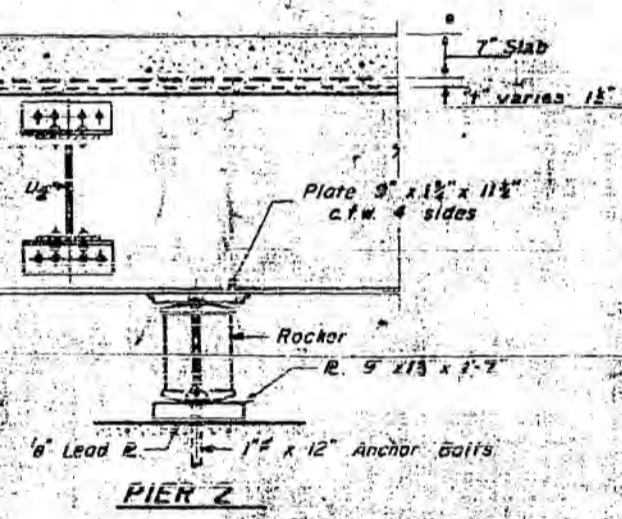
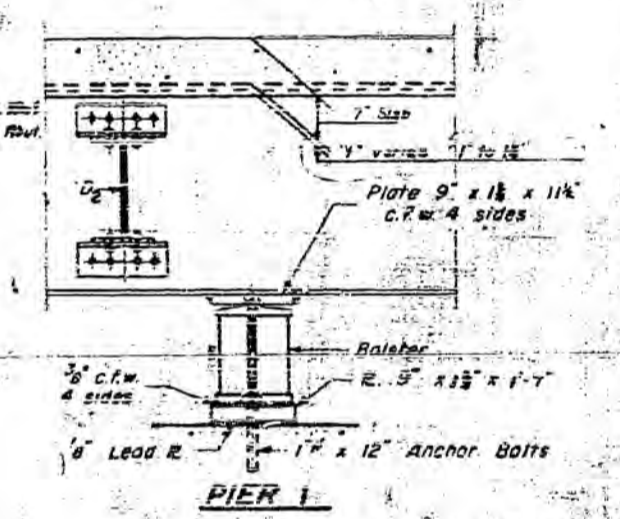
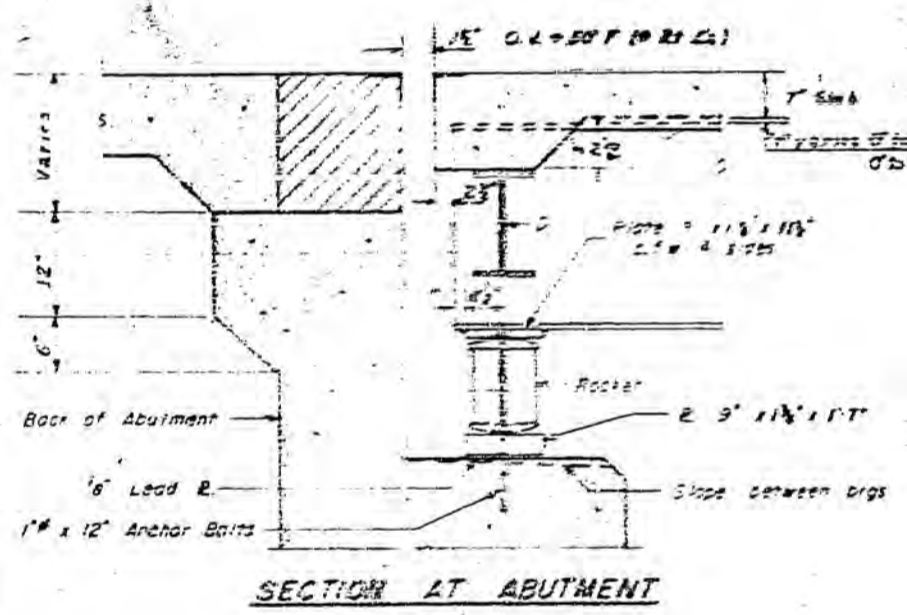
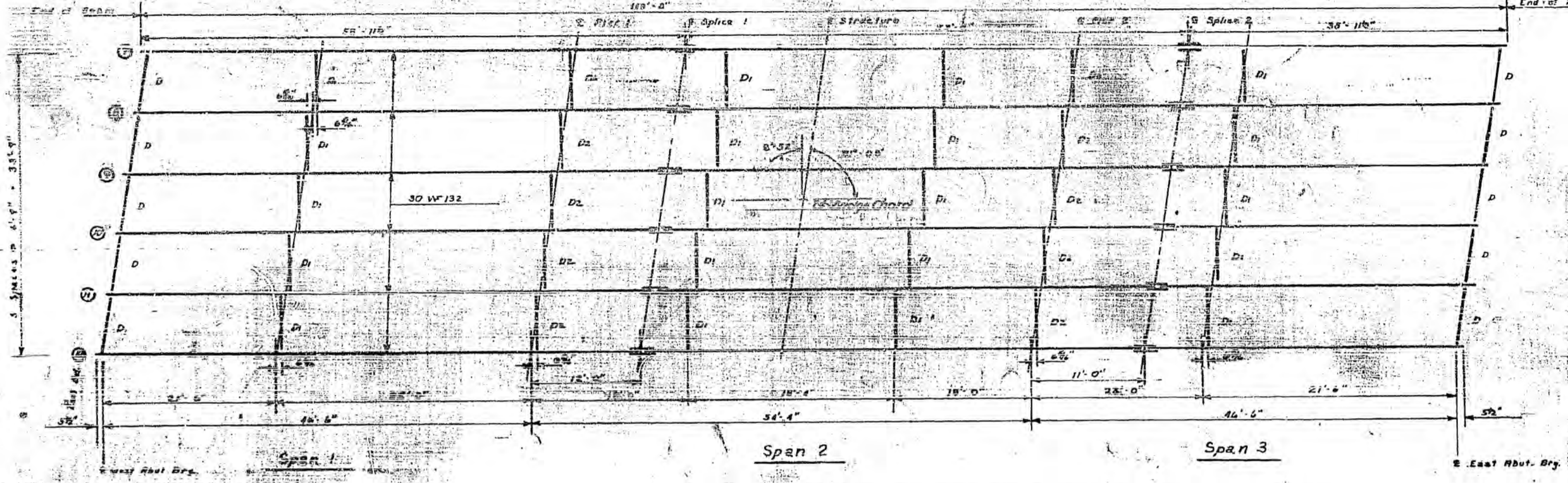
Nov. 3 1958

SUPERSTRUCTURE
C.C.C. & ST. L. R. R. (N.Y.C.)
F.A.I. R.R. 8 - SEC. 51-23VB
LAWRENCE COUNTY
STATION 583+36.0 (1)

This Contract includes East Bound Structure only

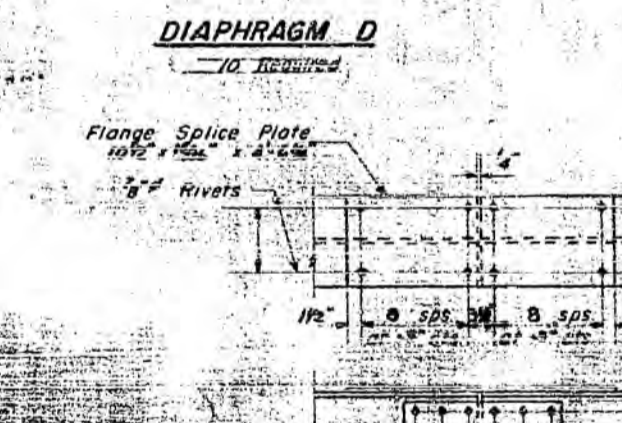
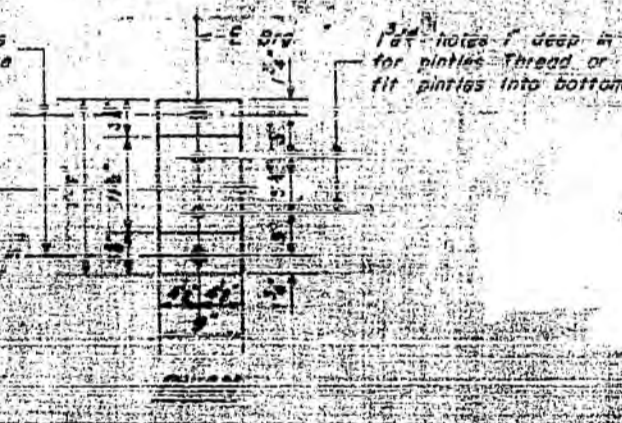
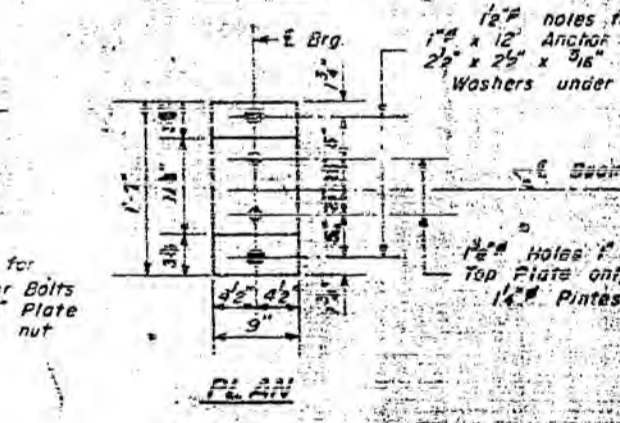
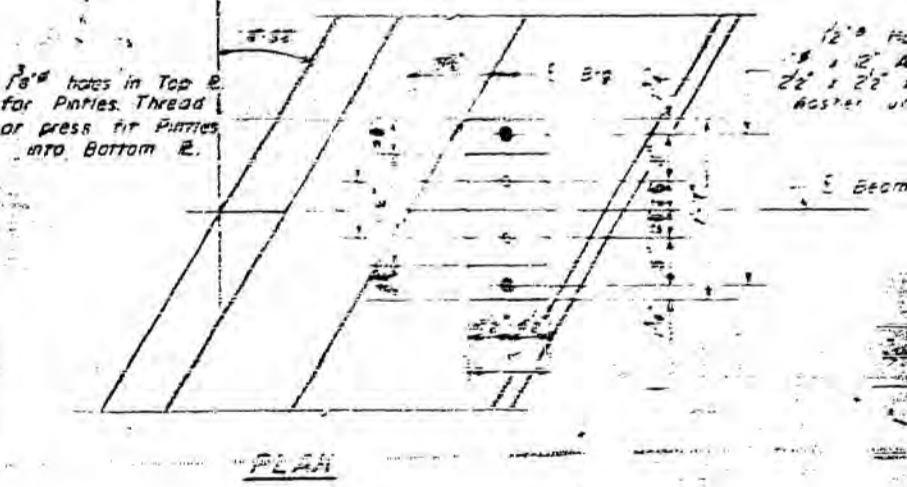
FRI-64

ROUTE NO.	FIELD	OFFICE	TOTAL SHEETS	SHEET NO.
118	LAURENCE	18	7	4
SHEETS				



ELEVATION TOP OF BEAMS

Beam	West Abut.	Pier 1	Splice 1	Pier 2	Splice 2	East Abut.
1	454.14	454.16	454.17	454.22	454.23	454.23
2	454.06	454.06	454.07	454.12	454.13	454.23
3	453.93	453.95	453.96	454.01	454.02	454.12
4	453.83	453.85	453.86	453.91	453.92	454.02
5	453.72	453.74	453.75	453.80	453.81	453.91
6	453.62	453.64	453.65	453.70	453.71	453.81
7	453.44	453.46	453.47	453.52	453.53	453.63
8	453.34	453.36	453.37	453.42	453.43	453.53
9	453.23	453.25	453.26	453.31	453.32	453.42
10	453.13	453.15	453.16	453.21	453.22	453.32
11	453.02	453.04	453.05	453.10	453.11	453.21
12	453.42	453.44	453.45	453.50	453.51	453.61

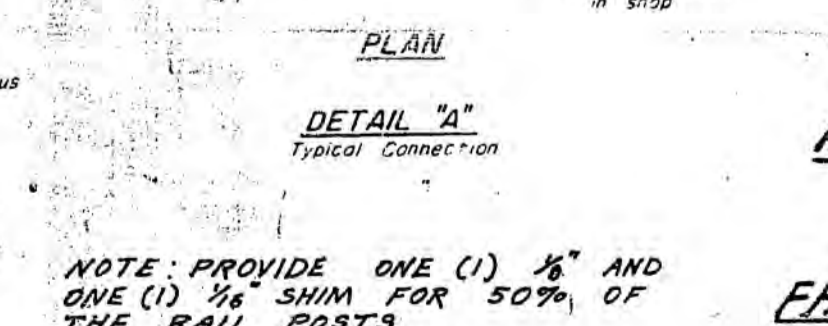
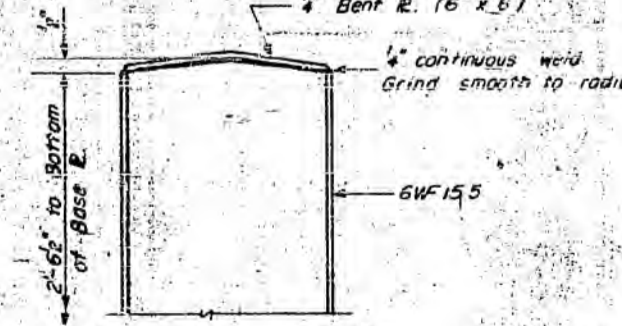
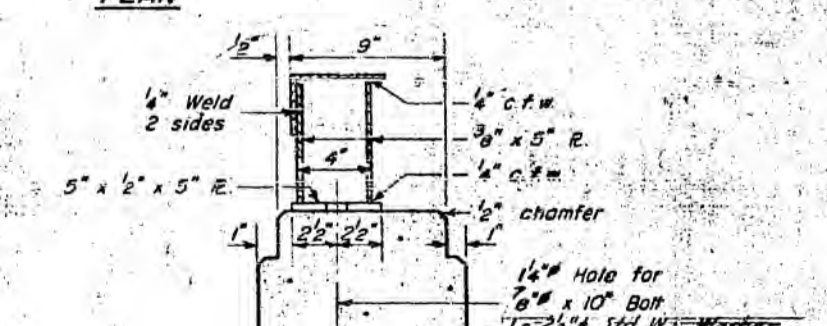
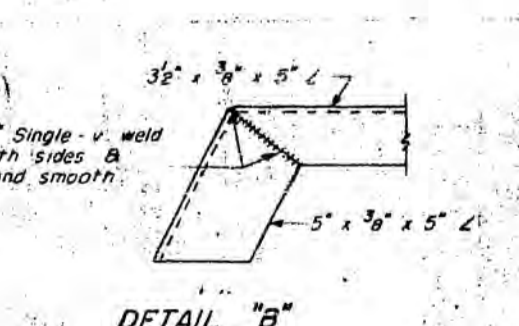
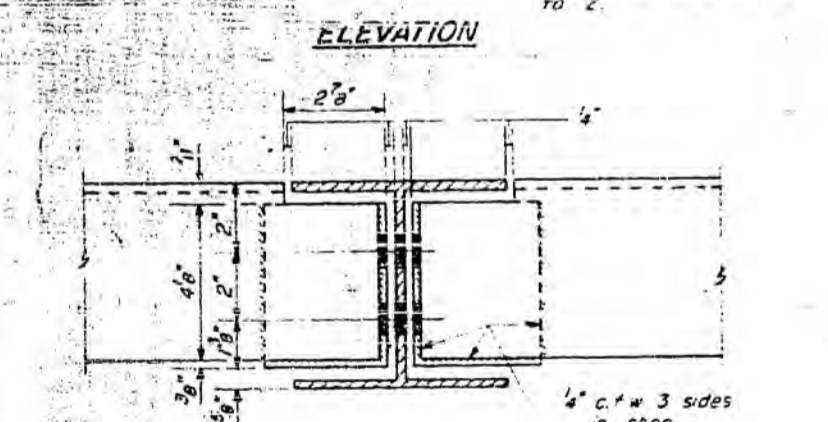
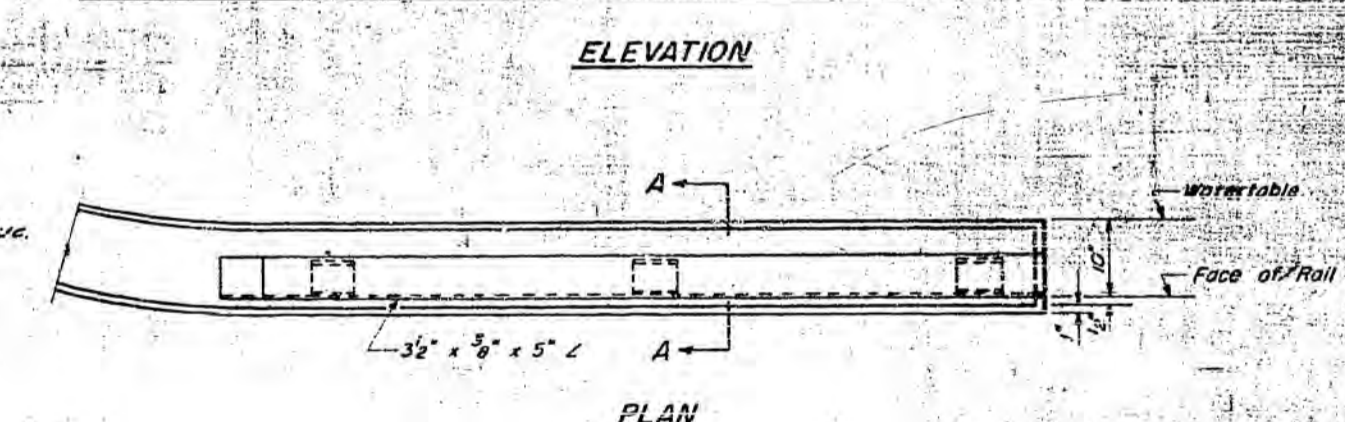
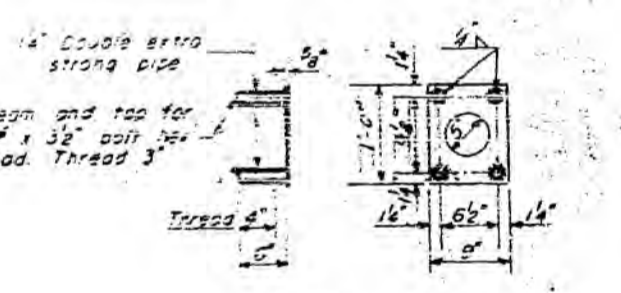
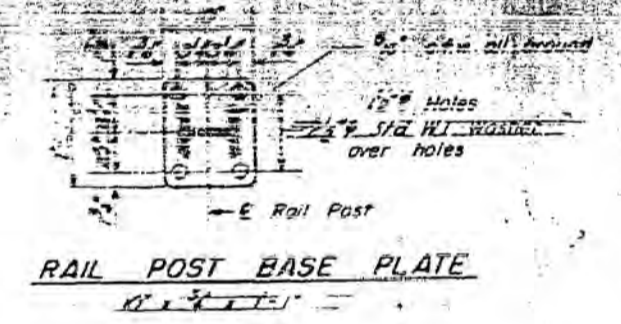
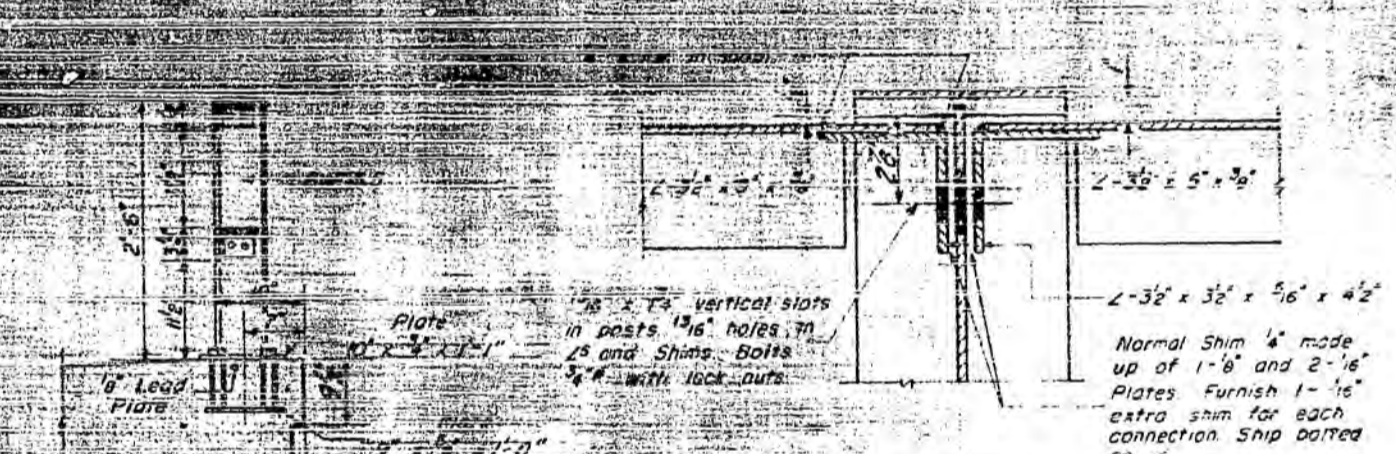
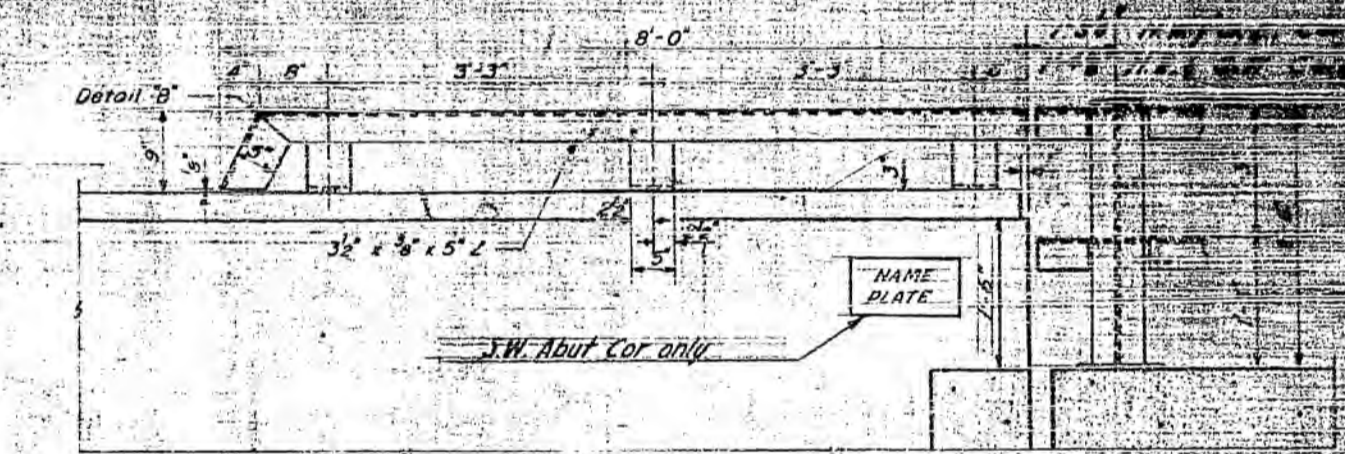
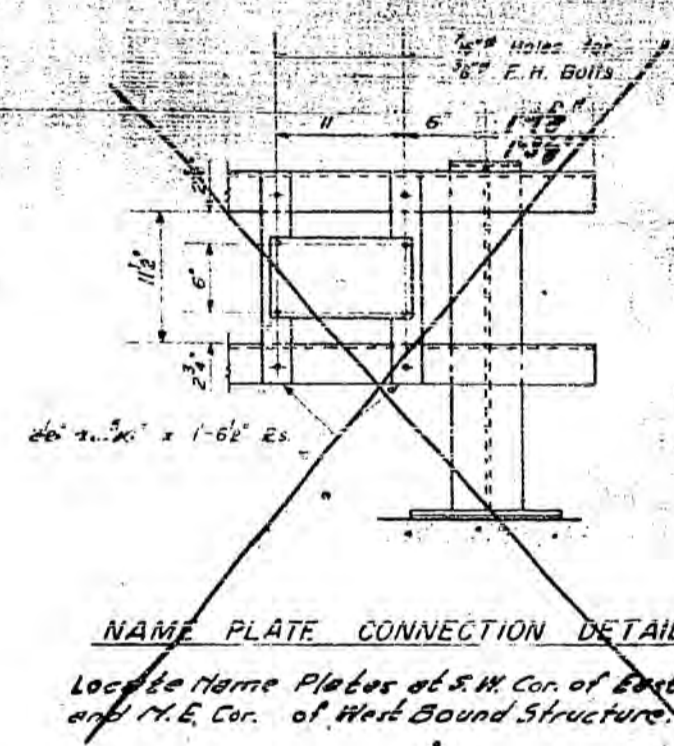
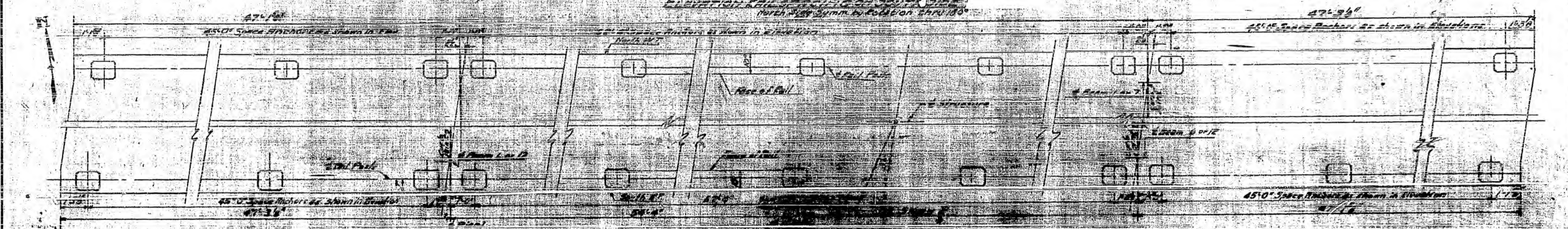
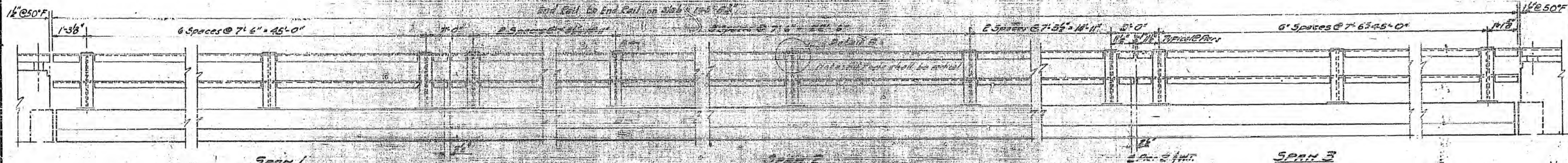


Estimate total weight of castings, pins, plates, pintles, anchor bolts and lead plates included in Bill of Materials on sheet 3 is 6760 lbs.

DESIGNED: [Signature]
CHECKED: [Signature]
DRAWN: [Signature]
CHECKED: [Signature]
Rev. 10-16-35 J.B.H.

EXAMINED: [Signature]
FILED: [Signature]
APPROVED: [Signature]

STRUCTURAL STEEL
C.C.C. & S.T.L.R.R. (N.Y.C.)
F.R.I. RT. 8 SEC. 51-23VB
LAURENCE COUNTY
STA. 583+36.0 (1)



NOTE: PROVIDE ONE (1) 1/8" AND ONE (1) 1/4" SHIM FOR 50% OF THE RAIL POSTS.

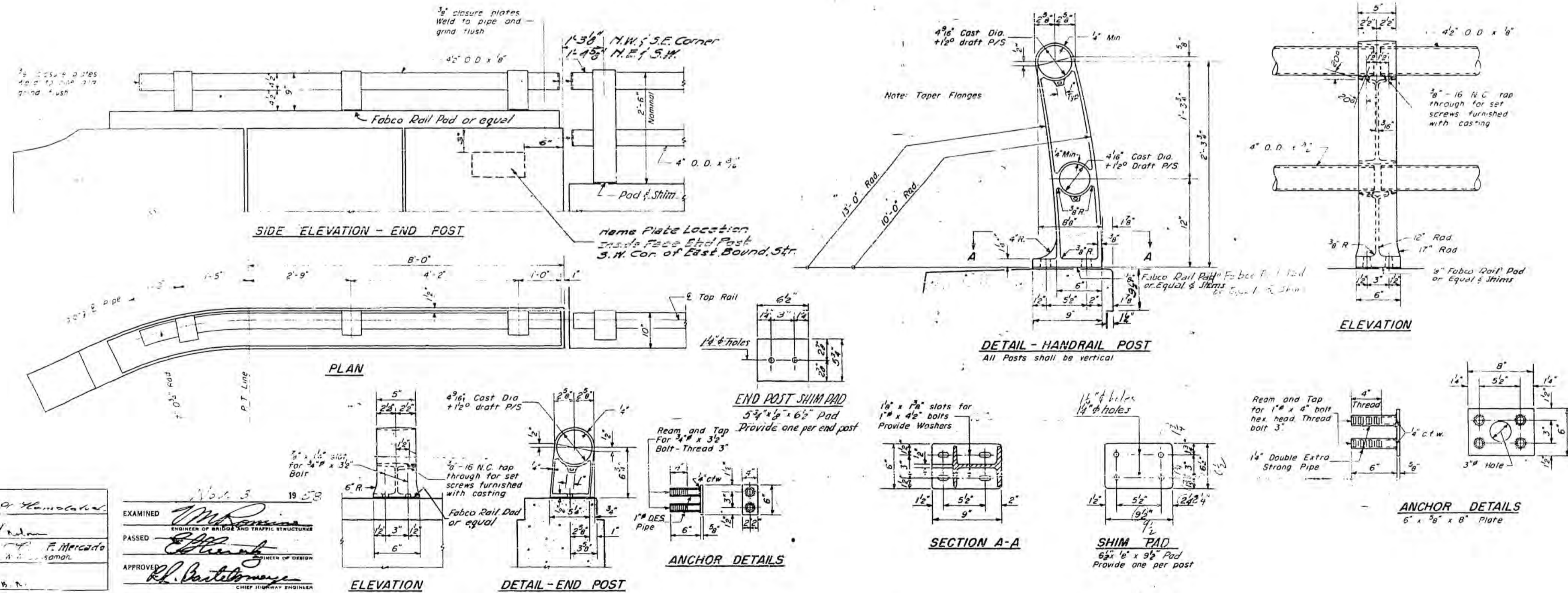
BILL OF MATERIAL
4 1/2" x 3/4" x 1-6" Es. 330
NOTE: "Bent R. Handrail" includes both the car and the two angle rail.
NOTE: All bolts, nuts & washers shall be Hot Dip Galvanized.
ALTERNATE #1 METAL HANDRAIL

CCC & ST. L. P. R. (NYC)
FAL R. B. SEC 51-23VB
LAWRENCE COUNTY
STA 583+36.0 (1)

DESIGNED: W. H. McLaughlin
CHECKED: J. H. A. J.
DRAWN: K. R. ... W. A. Sausman
CHECKED: J. H. A. J.
REV. 10-16-58 J.B.N.

EXAMINED: W. H. McLaughlin
PASSED: J. H. A. J.
APPROVED: R. L. ...
NOV 3 19 58

For Spacing of Posts See Sheet 5



BILL OF MATERIAL
Alternate A Aluminum Handrail Lin. Ft. 2.00

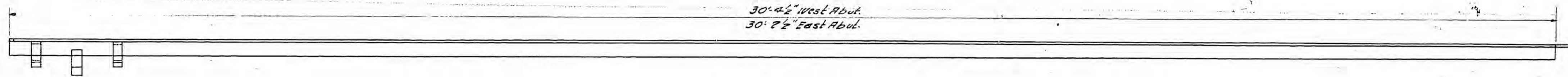
Notes
Aluminum Handrail Post (Permanent Cast) shall conform to ASTM Spec. B-108-54T Alloy 5G7CA, condition T-6.
Aluminum Alloy Extruded Tube shall conform to ASTM Spec. B235 5G7 Alloy 6S11A condition T6.
Aluminum Alloy Shims shall be made from sheet or plate conforming to ASTM Spec. B209-54T alloy condition 0.
Aluminum Alloy Bolts shall be made from rod conforming to ASTM Spec. B211-54T Alloy CG42A Bolt heads shall conform to American Standards regular hexagon, ASA Spec. B-18.2. Threads shall conform to American Standard Course Series, Class 2. ZA-2-3. The finished bolts shall be heat treated to the T4 Temper, given an anodic coating of least 0.0002 inches in thickness and chromate sealed.
Aluminum Alloy Washers shall be made from sheet conforming to ASTM Spec. B209-54T Alloy Clad CG 42A Condition T4.
Anchor Device shall conform to Structural Carbon Steel ASTM A7-50T.
Provide 1/2" and 2 1/2" shims for 50% of Rail Posts.

ALTERNATE B ALUMINUM HANDRAIL
CCC I ST L P R (M X)
FAI R 8 SEC 51-23 V B
LAWRENCE COUNTY
STA 583+36 (1)

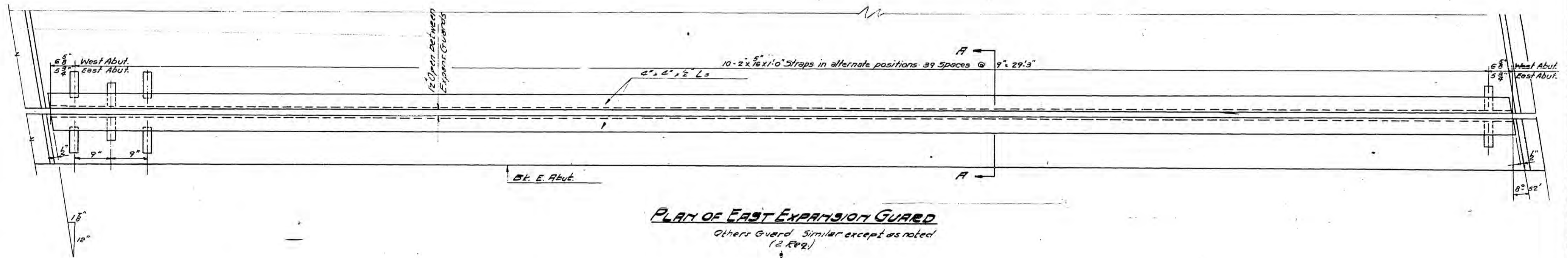
DESIGNED: J. Hamel
CHECKED: F. Mercado
DRAWN: J. Hamel
CHECKED: J. Hamel

EXAMINED: M. R. ...
PASSED: ...
APPROVED: R. L. ...
CHIEF HIGHWAY ENGINEER

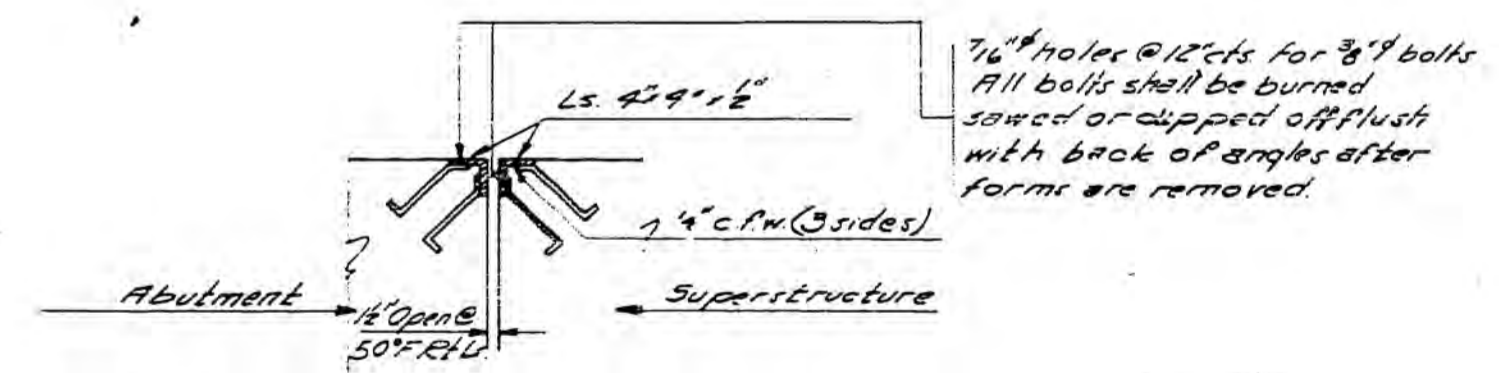
PROJECT NO.	STATION	COUNTY	TOTAL SHEETS	SHEET NO.
18	5+23.78	Lawrence	18	10
ILLINOIS		FED. AID PROJECT		



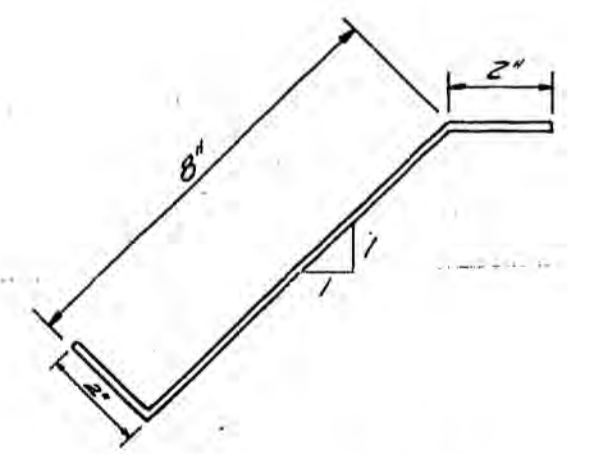
EXPANSION GUARD PROFILE



PLAN OF EAST EXPANSION GUARD
Others Guard Similar except as noted
(2 Req.)



SECTION A-A



STRAP DETAIL
(320 Req)

NOTE: Estimated WT. of Ls.
4" x 4" x 1/2" end Straps
2" x 5/16" x 12" included as
Structural Steel in
Bill of Material on
Sheet 3 is 1910 lbs.

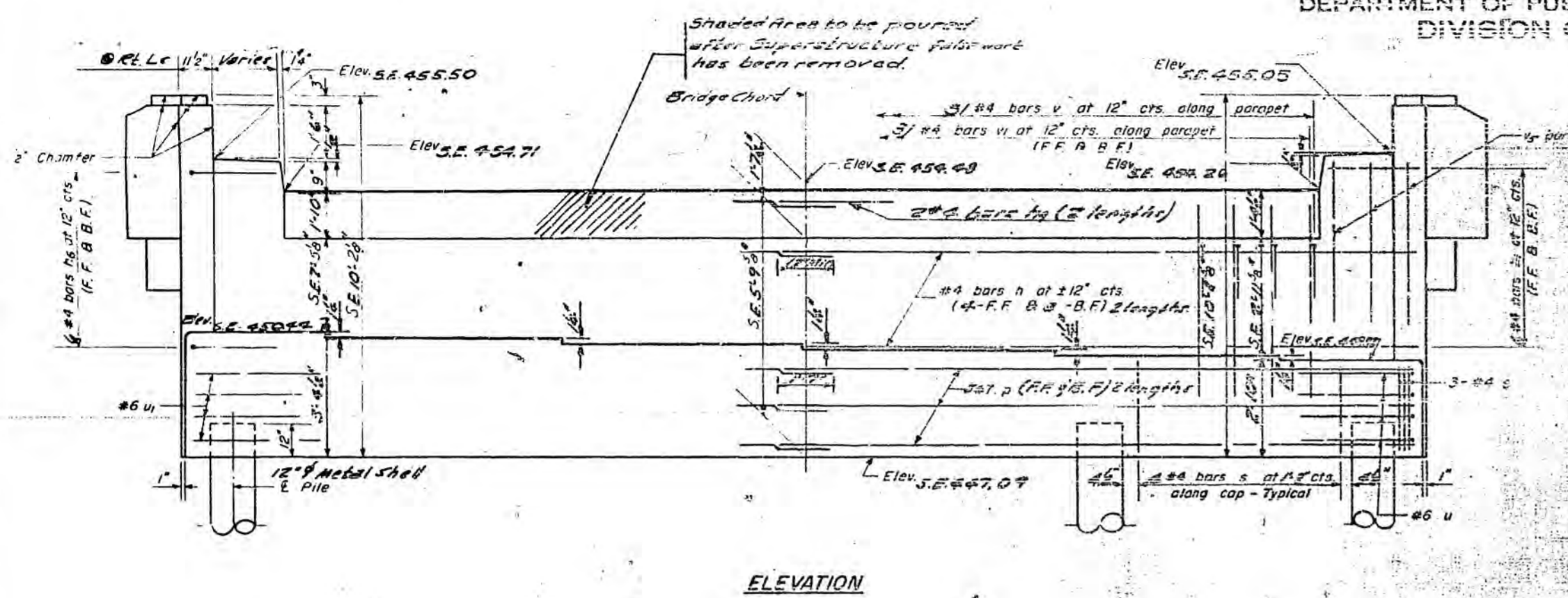
DESIGNED <i>W. Hemelick</i>	EXAMINED <i>Nov. 3 1958</i>
CHECKED <i>V. B. ...</i>	PASSED <i>[Signature]</i>
DRAWN <i>W. H. F. Mercado</i>	APPROVED <i>[Signature]</i>
CHECKED <i>J. B. N.</i>	Rev. 10-16-58 J.B.N.

EXPANSION GUARDS
C.C. & ST. L. R.R. (N.Y.C.)
FAI Rt. 8 SEC. 51-23 VB.
LAWRENCE COUNTY
STA. 583+36.0 (1)

This Contract includes East Guard Structure only

ROUTE NO. 513VB	SECTION Lawrence	COUNTY Lawrence	TOTAL SHEETS 18	SHEET NO. 12
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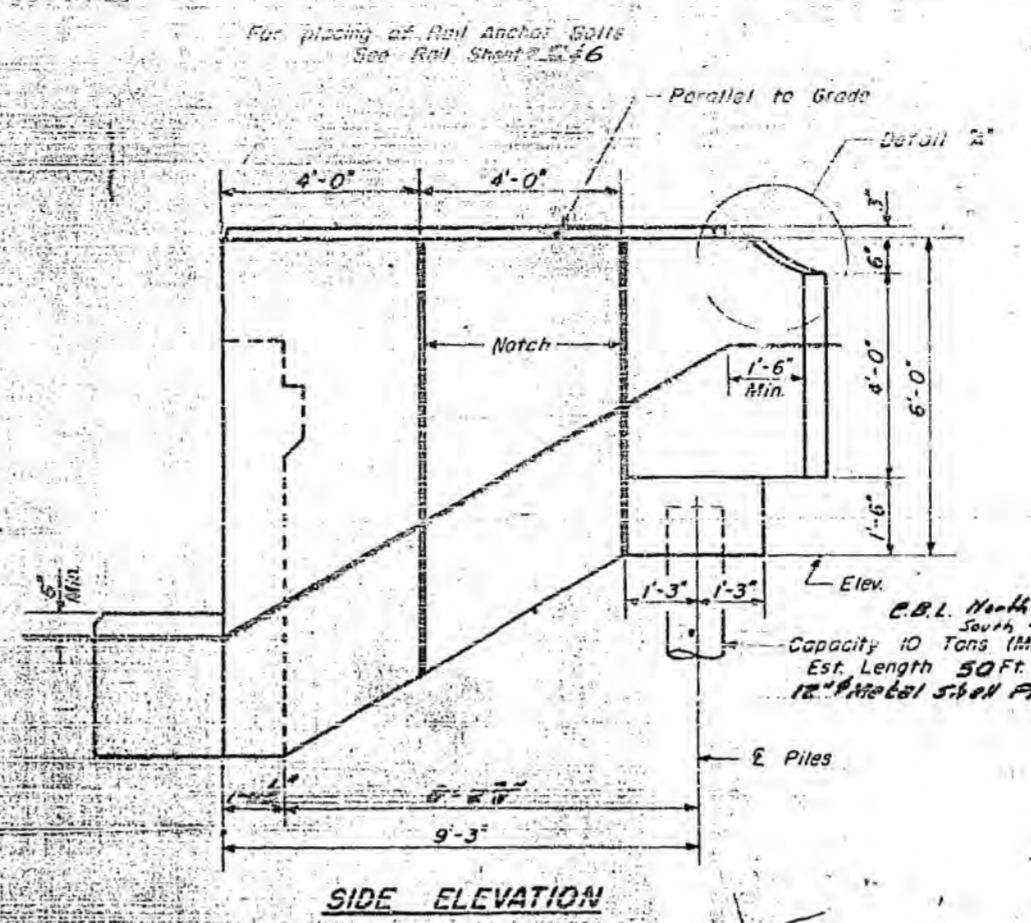
SHEET NO. 9
 11 SHEETS



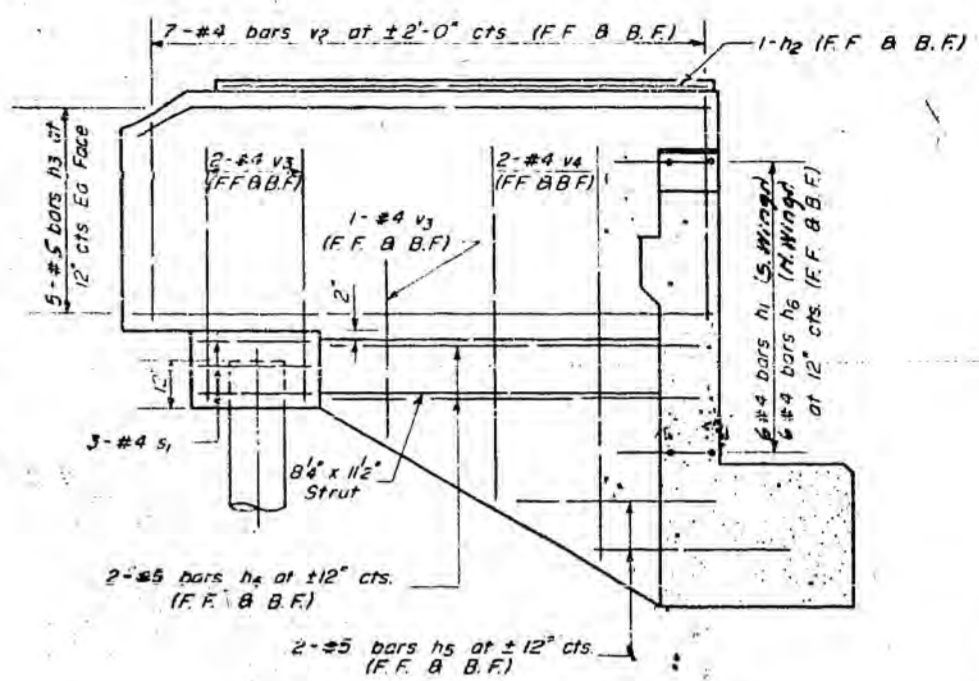
ELEVATION

PILE DATA

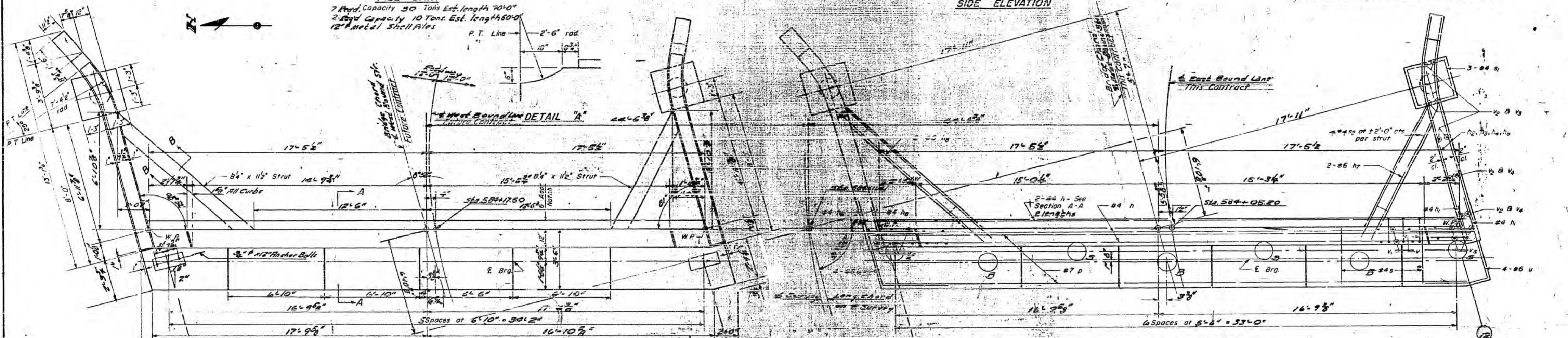
7 Piles Capacity 30 Tons Est. length 70'-0"
 2 Piles Capacity 10 Tons Est. length 50'-0"
 12" Metal Shell Piles



SIDE ELEVATION



INSIDE ELEVATION OF BRACKET



FUTURE CONSTRUCTION PLAN OF ABUTMENT

THIS CONTRACT PLAN OF ABUTMENT

BEST ABUTMENT BILL OF MATERIAL - UNABUTMENT

Bar No.	Size	Length	Shape	Bar No.	Size	Length	Shape
h	#4	18'-9"	U	5	#4	12'-1"	U
hi	#4	5'-8"	U	6	#4	9'-3"	U
hp	#5	10'-8"	U	8	#4	3'-0"	U
h2	#5	12'-8"	U	4	#6	12'-0"	U
h4	#5	3'-0"	U	4	#6	12'-0"	U
h5	#5	3'-9"	U				
h6	#5	2'-5"	U				
h7	#6	9'-0"	U	v	#4	3'-6"	U
h8	#6	10'-9"	U	v1	#4	6'-0"	U
h9	#6	10'-9"	U	v2	#4	4'-3"	U
h10	#6	10'-9"	U	v3	#4	3'-6"	U
h11	#6	10'-9"	U	v4	#4	5'-6"	U
h12	#7	19'-0"	U	v5	#4	6'-3"	U

Glass X Concrete
 Cu Yds. 278
 Reinforcement Bars Lbs. 2220
 Metal Shell Piles Lin. Ft. 520
 12" Metal Shell Piles

DESIGNED: *V. E. Kowalski*
 CHECKED: *V. N. A.*
 DRAWN: *F. Mercado*
 CHECKED: *V. N.*
 Rev. 10-16-58 J.B.H.

Nov. 3 1958
 EXAMINED: *R. B. [Signature]*
 PASSED: *[Signature]*
 APPROVED: *R. B. [Signature]*

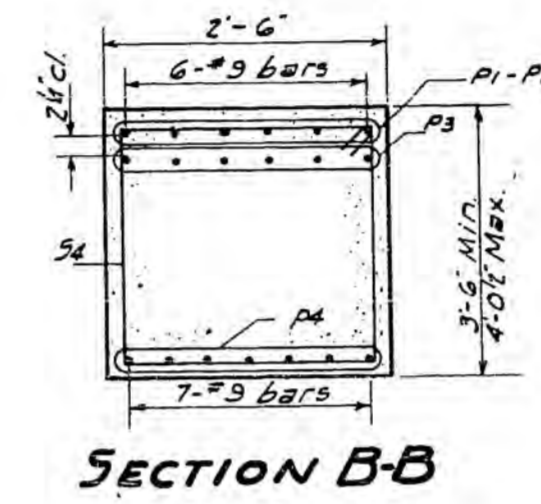
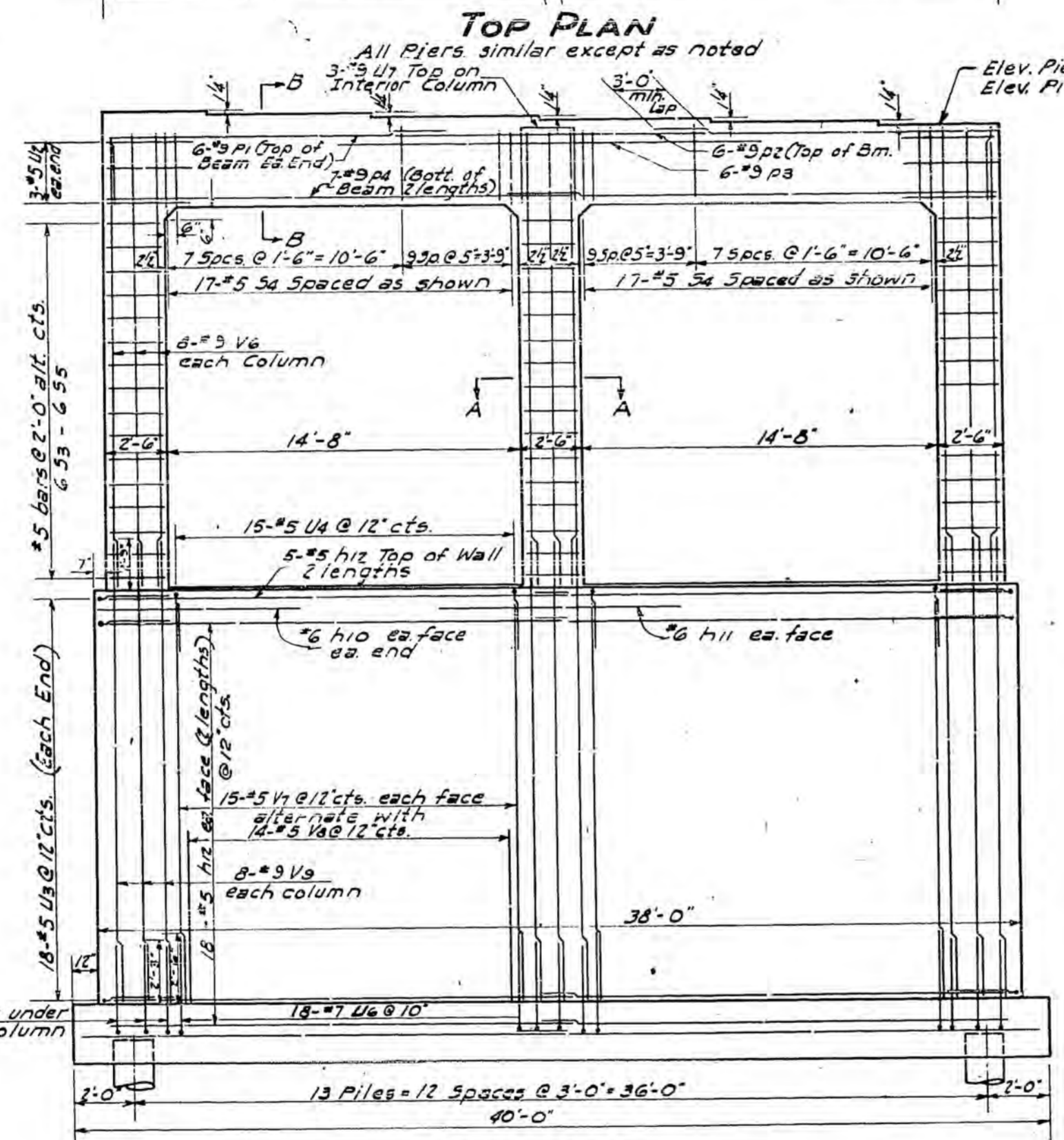
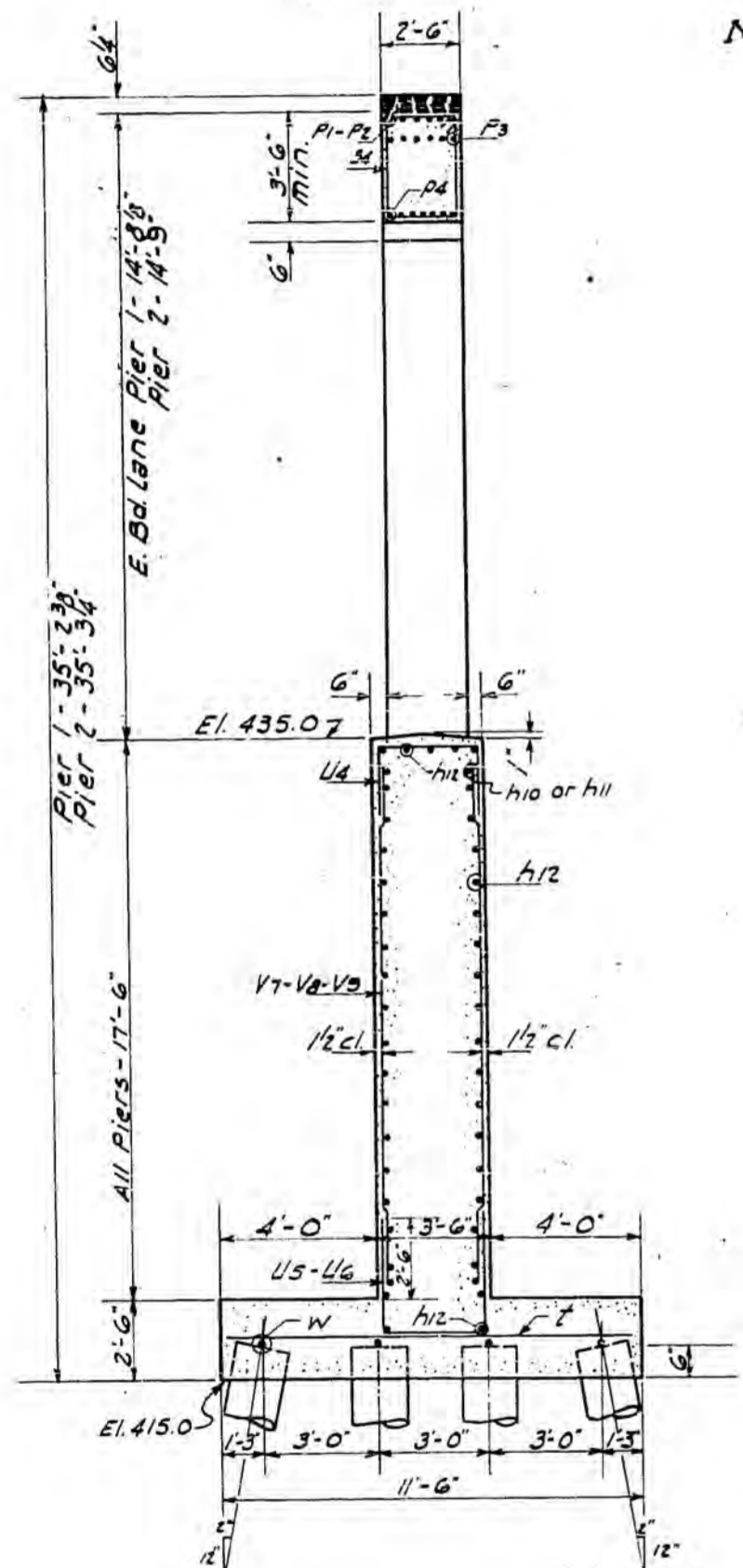
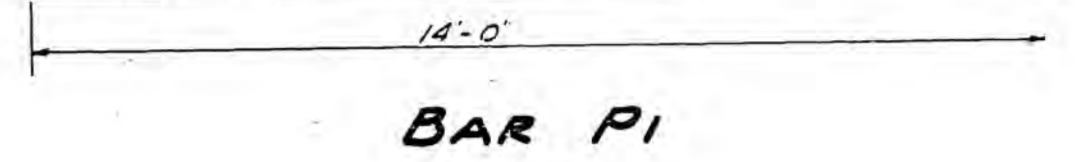
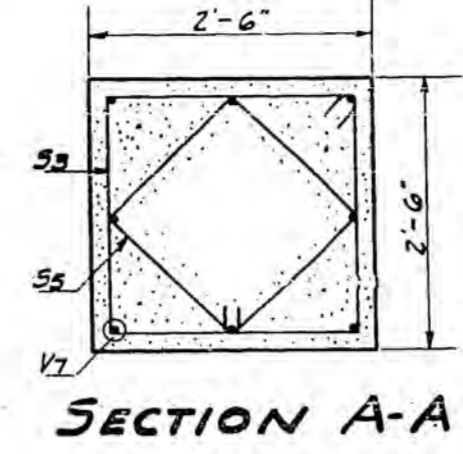
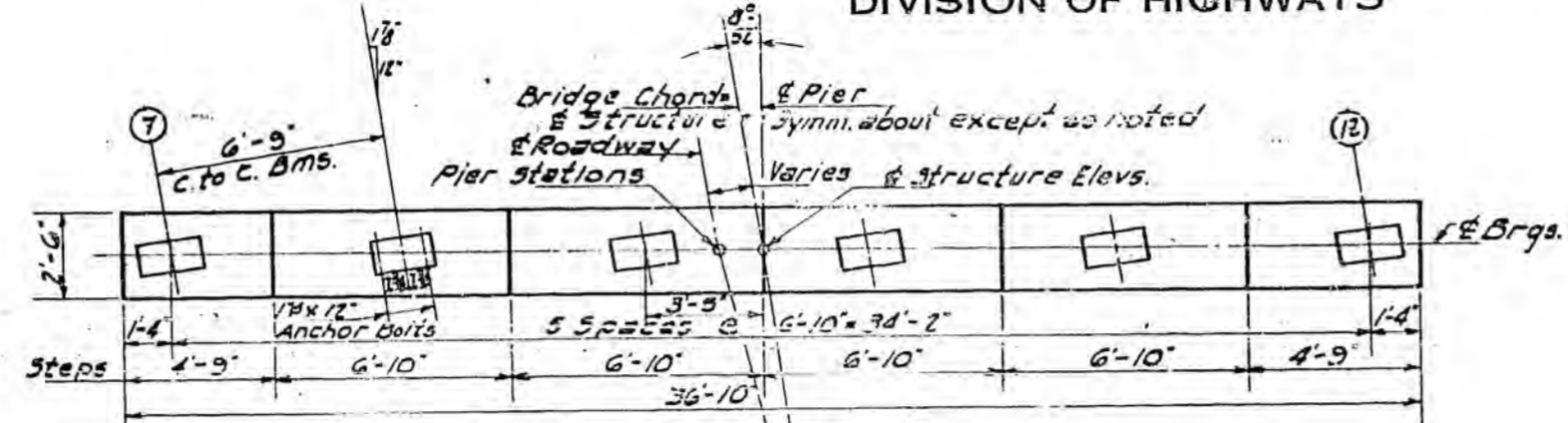
EAST ABUTMENT
 C.C.C. & ST. L. & P. (N.Y.C.)
 F.R.I. R.T. B SEC. 51-23VB
 LAWRENCE COUNTY
 STA. 583+36.0(1)

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

FAI-64

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18	51-23VB	Lawrence	18	13
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

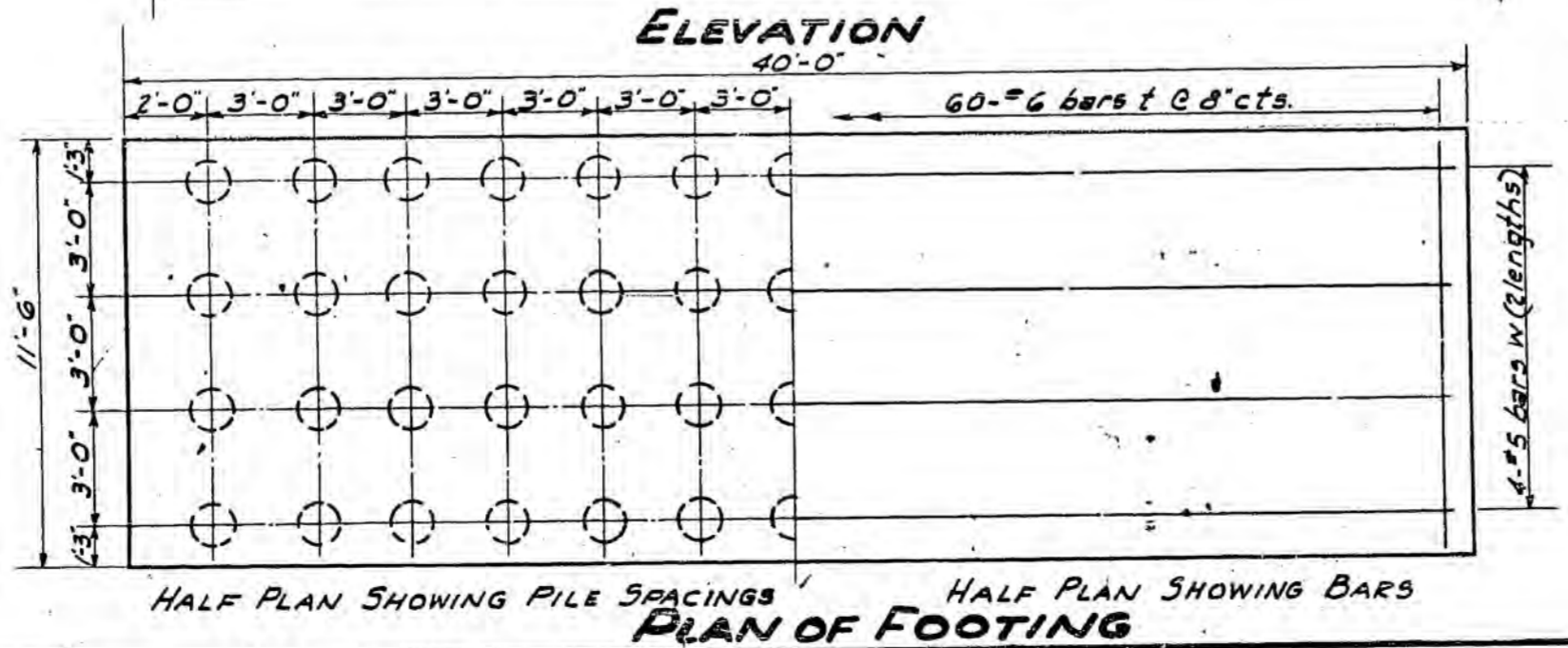
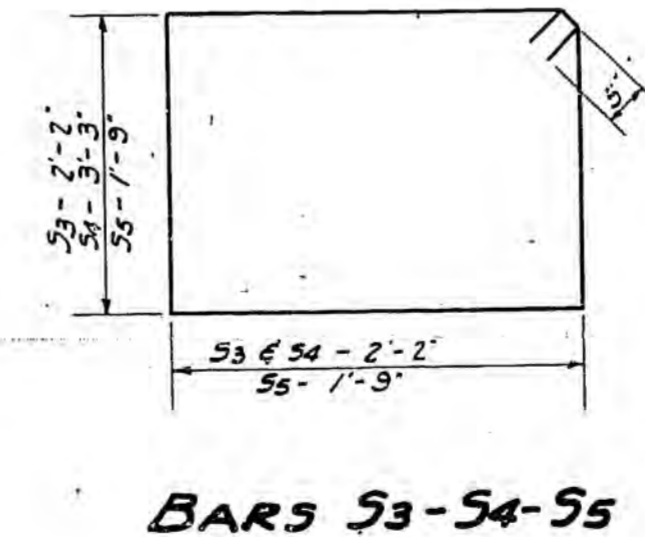
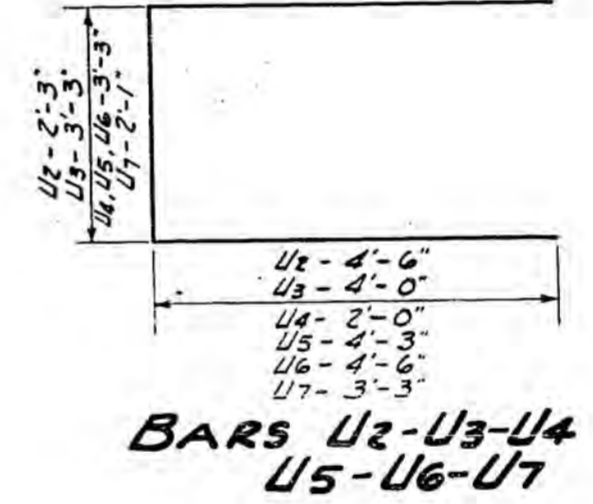
Pier 1 Sta. 583+01.63 & Rwy. Elev. - 454.37
Pier 2 Sta. 583+56.48 & Rwy. Elev. - 454.45



FILE DATA
52 Creosoted Timber Piles
reqd. for each of 2 Piers
Capacity - 20 Tons
Est. Length - 25'-0"
Drive one test pile near each pier

BILL OF MATERIAL (2 PIERS)

BAR	NO.	SIZE	LENGTH	SHAPE
h12	164	#5	19'-3"	—
p1	24	#9	17'-3"	—
p2	12	#9	15'-0"	—
s3	36	#5	9'-6"	□
s4	68	#5	11'-8"	□
s5	36	#5	7'-10"	□
t	120	#6	11'-3"	—
u2	12	#5	11'-3"	—
u3	72	#5	11'-3"	—
u4	60	#5	7'-3"	—
u5	18	#9	11'-9"	—
u6	72	#7	12'-3"	—
u7	6	#9	8'-7"	—
v6	48	#9	14'-6"	—
v7	120	#5	17'-3"	—
v8	112	#5	6'-0"	—
v9	48	#9	20'-3"	—
w	16	#5	20'-6"	—
p3	12	#9	20'-0"	—
p4	28	#9	19'-3"	—
h10	8	#6	6'-0"	—
h11	4	#6	9'-0"	—
Class X Concrete		Cu. Yds.	302.8	
Reinforcement Bars		Lbs.	24600	
Creosoted Piles		Lin. Ft.	2600	
Test Piles		Each	2	



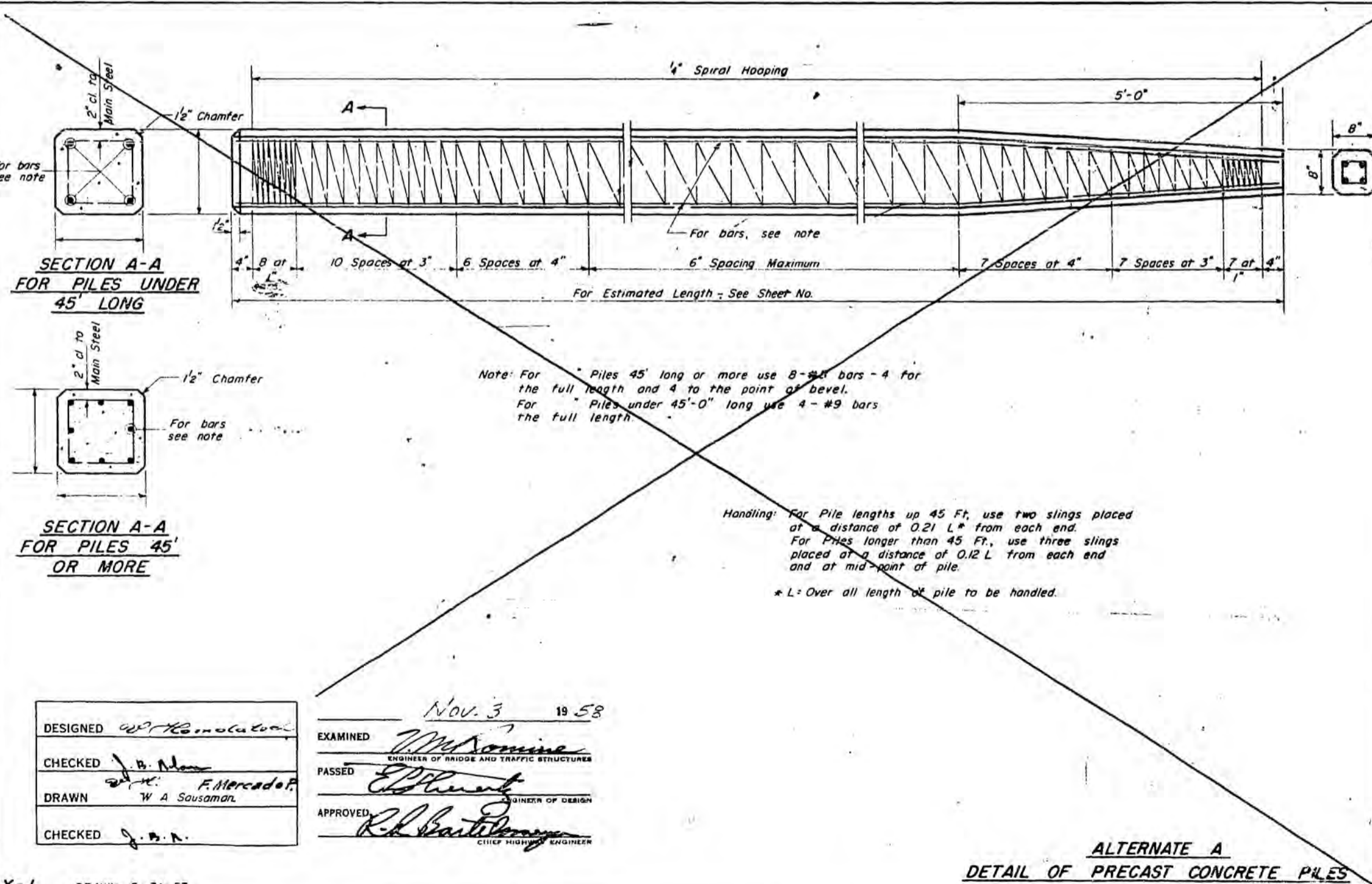
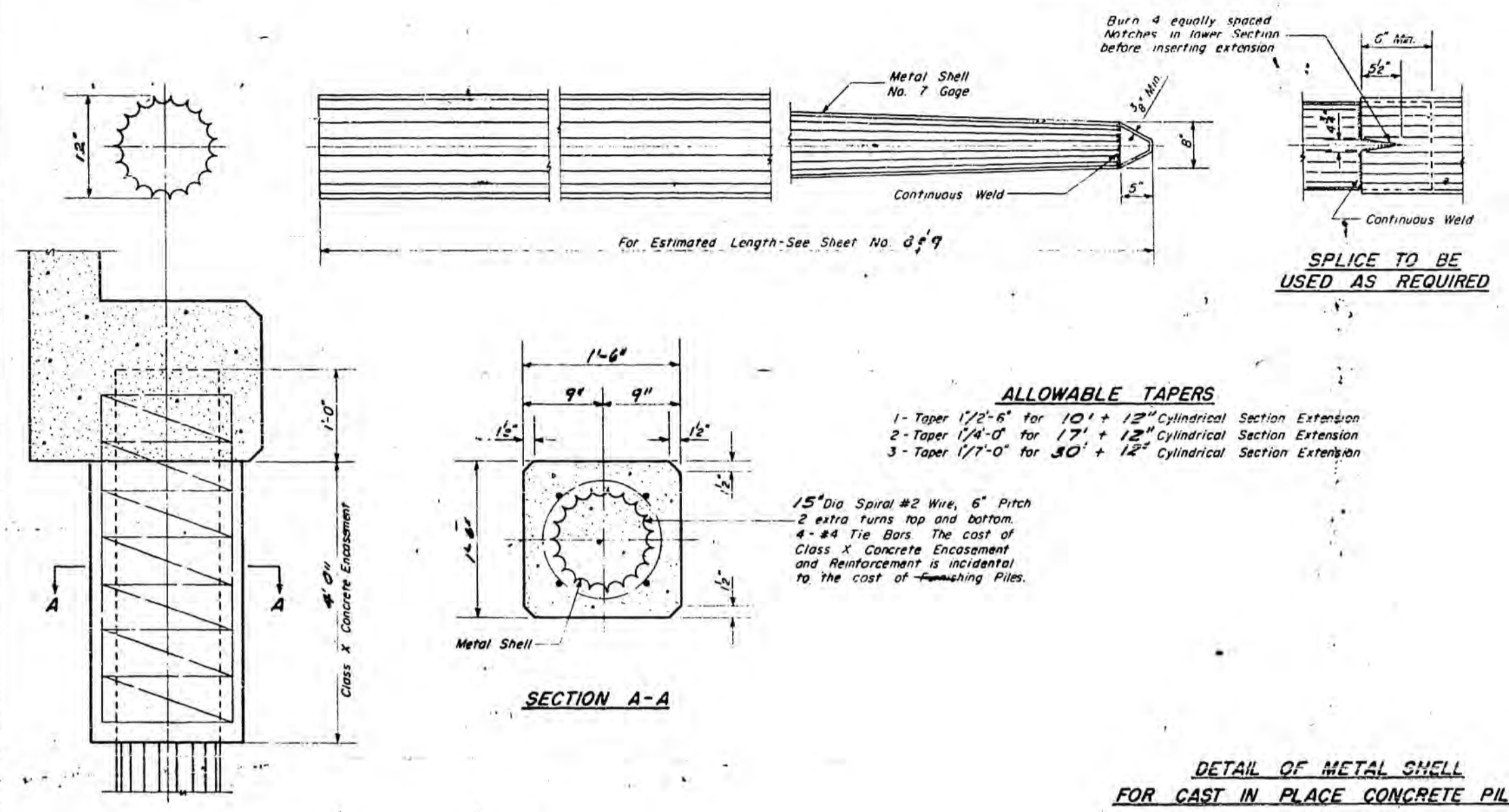
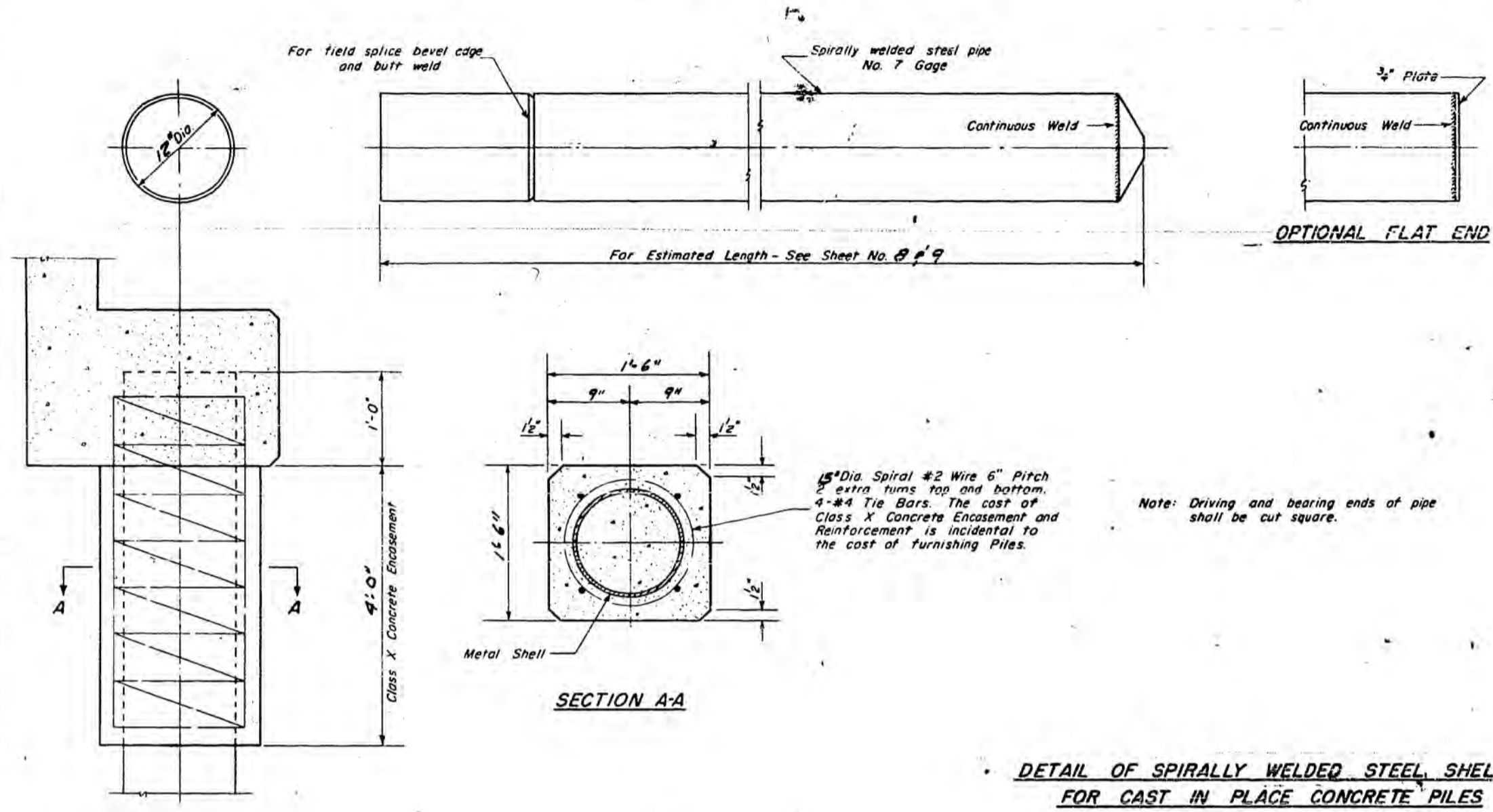
DESIGNED *W. Kamoldech*
CHECKED *J. N. ...*
DRAWN *W. J. Sandoval*
CHECKED *J. N. ...*
Rev. 10-16-58 J.B.N.

EXAMINED *McKinnin*
PASSED *...*
APPROVED *R. B. ...*
NOV 3 19 58

PIERS
C.C.C. & ST. L. R.R. (N.Y.C.)
F.A.I. RT. 8 SEC. 51-23 V.B
LAWRENCE COUNTY
STATION 583+36.0 (?)

This Contract includes East Bound Structure only

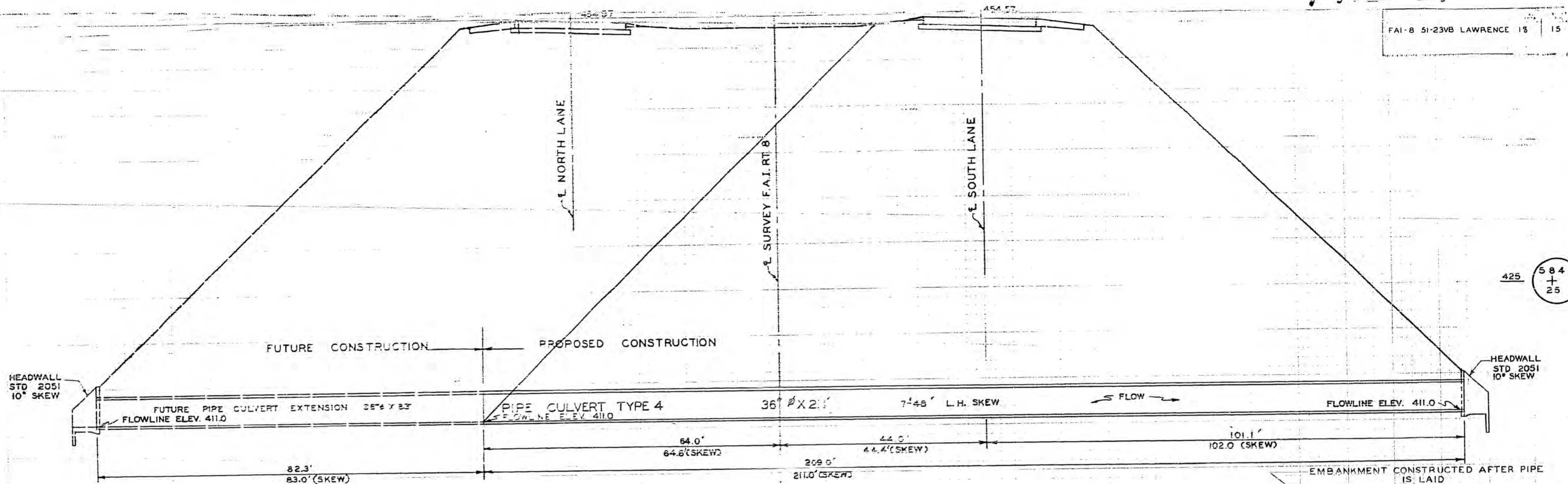
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. //
18	5-23VB	Lawrence	18	14	// SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



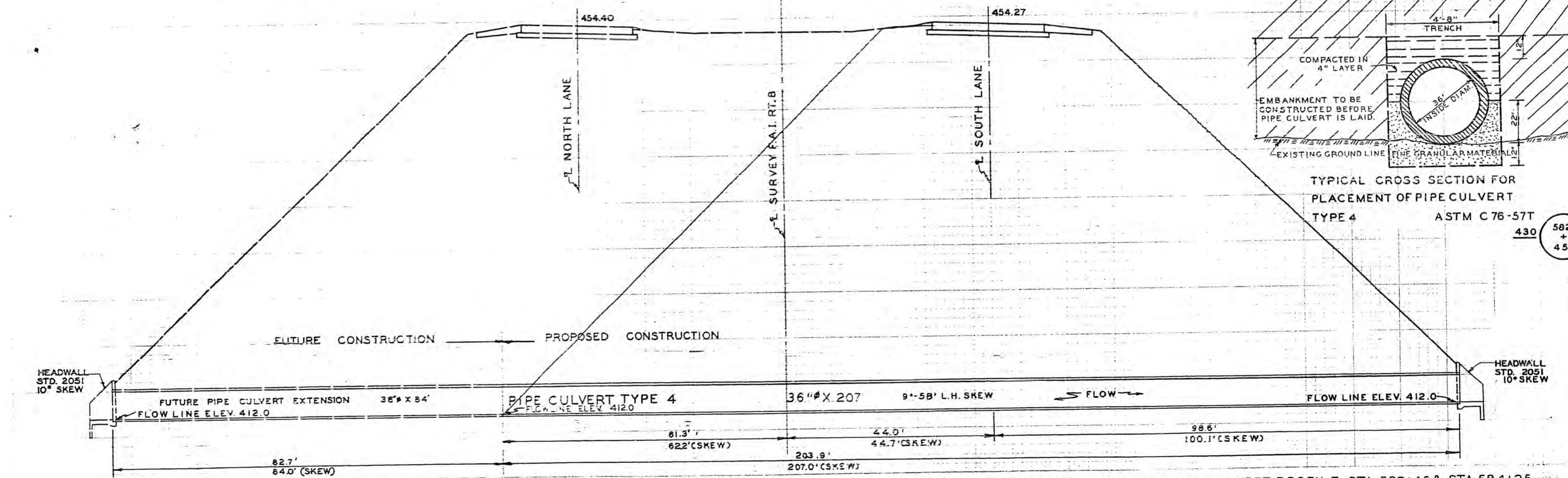
DESIGNED	<i>W. A. Soussan</i>
CHECKED	<i>J. B. N...</i>
DRAWN	<i>W. A. Soussan</i>
CHECKED	<i>J. B. N...</i>

EXAMINED	<i>Nov 3 19 58</i> <i>W. A. Soussan</i> ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED	<i>E. J. ...</i> ENGINEER OF DESIGN
APPROVED	<i>R. B. ...</i> CHIEF ENGINEER

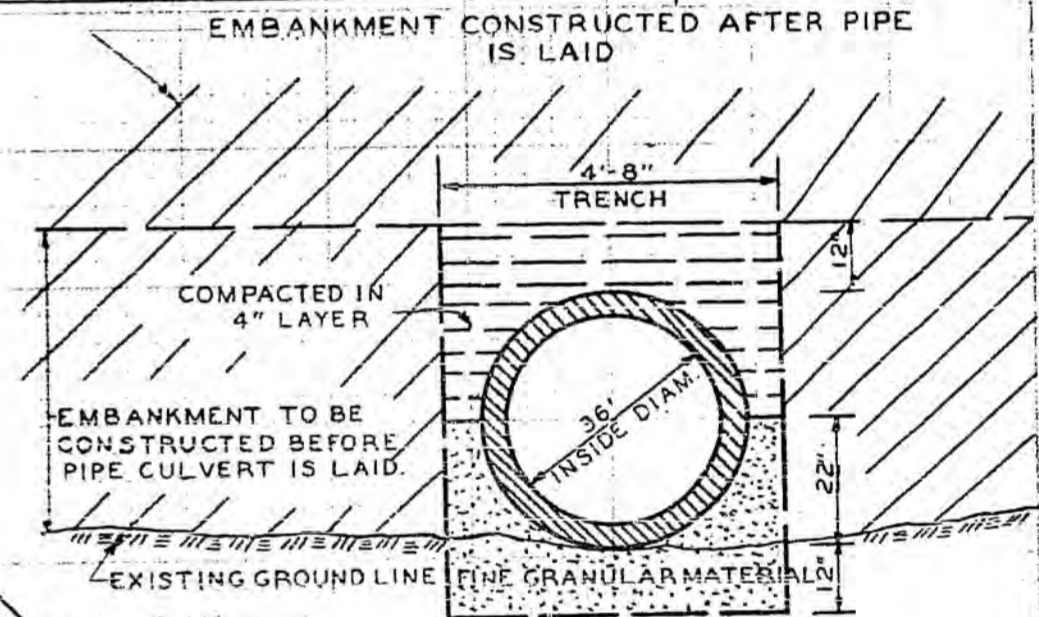
PILE DETAILS
CCC & ST. L. R.R. (N.Y.C.)
FAI RT. 8 SEC. 51-23 V.B.
LAWRENCE COUNTY
STA. 583+360 (1)



584 + 25



582 + 45



TYPICAL CROSS SECTION FOR PLACEMENT OF PIPE CULVERT TYPE 4 ASTM C 76-57T