

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A.S. ROUTES 1724 & 2715  
SECTION D7 BRIDGE PAINTING 2014-5

BRIDGE PAINTING  
EFFINGHAM COUNTY

C-97-081-13

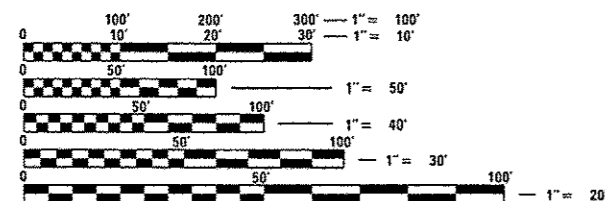
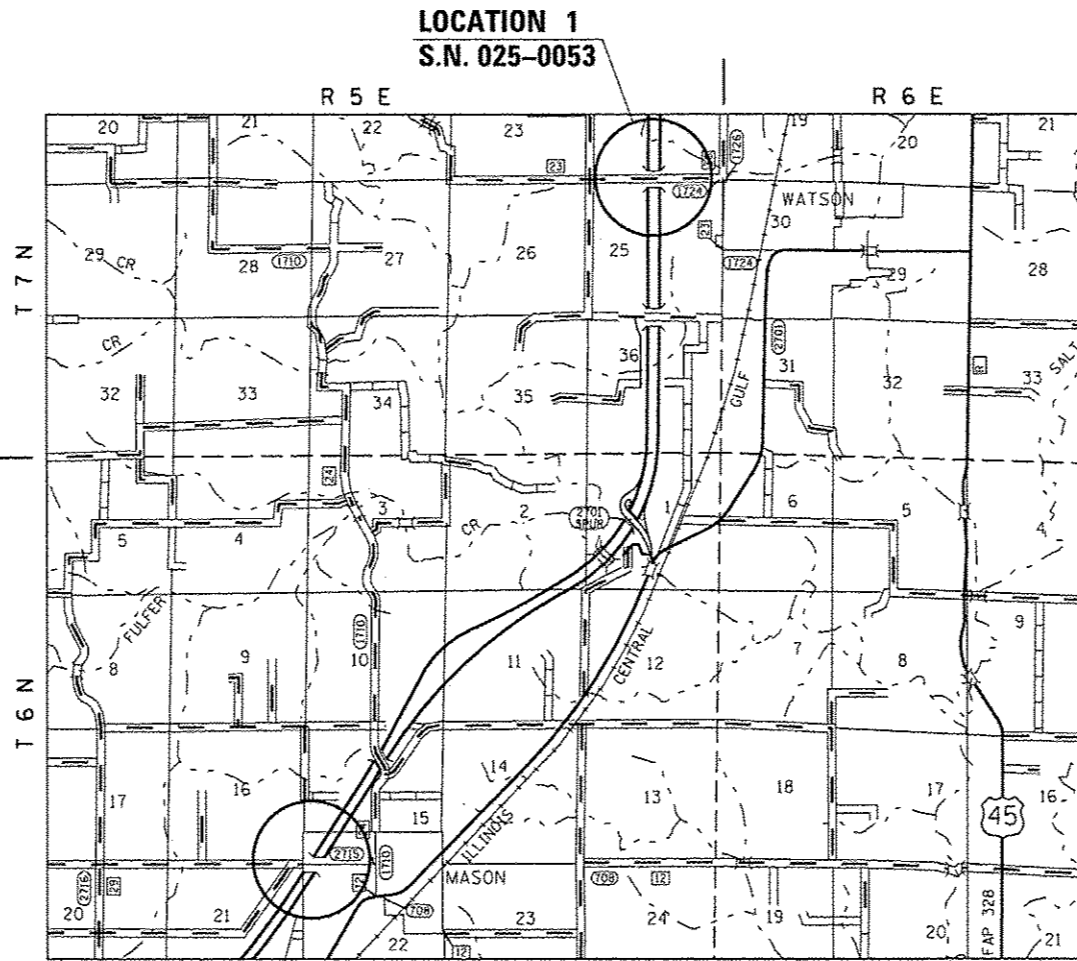
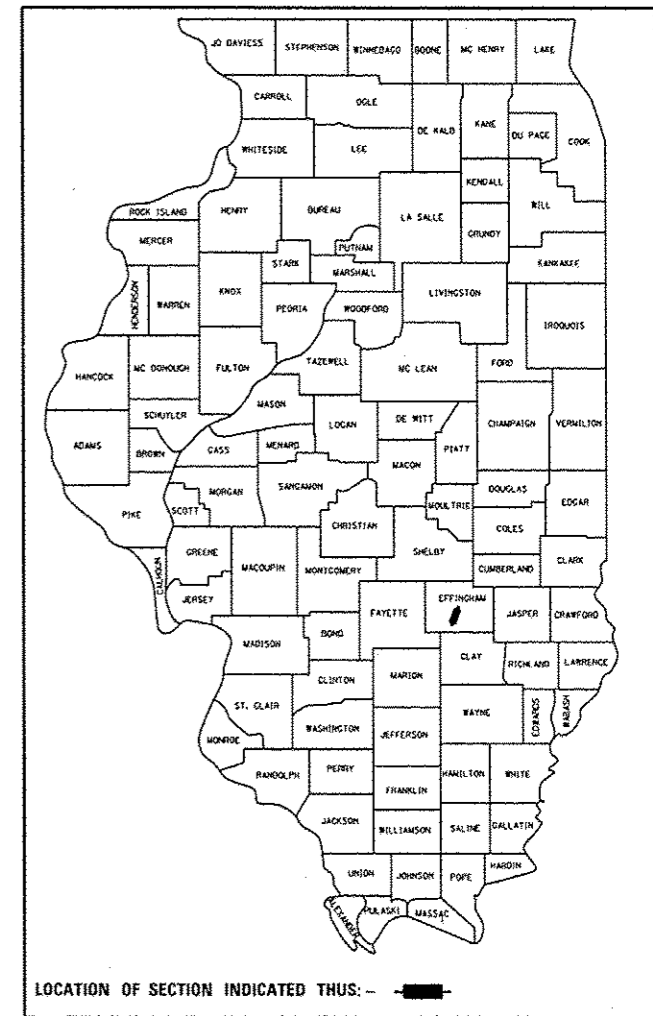
FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT = 14,500 (2011)

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1724 2715		EFFINGHAM	9	1
		ILLINOIS	CONTRACT NO. 74635	

\*07 BRIDGE PAINTING 2014-5

D-97-035-13



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: TOM RONAN  
PROJECT MANAGER: TOM RONAN  
PHONE: (217)-342-8320  
CONTRACT NO. 74635

LOCATION 2  
S.N. 025-0043

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Aug 08 20 13  
Page L Dinkel  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 4 20 13  
John D. Baranzelli, P.E.  
ENGINEER OF DESIGN AND ENVIRONMENT

October 4 20 13  
Omur Osman, P.E.  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, GENERAL NOTES, LOCATION DESCRIPTIONS
3	SUMMARY OF QUANTITIES
4-9	EXISTING STRUCTURE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 9:

STANDARD 701001-02	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701006-04	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701101-03	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701106-02	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701400-06	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701402-09	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701406-06	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701901-02	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

## GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012; THE SUPPLEMENTAL SPECIFICATIONS, THE RECURRING SPECIAL PROVISIONS, AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THE PROPOSED PROJECT IS LOCATED AT TWO LOCATIONS ON I-57 IN EFFINGHAM COUNTY.

THE WORK INCLUDED IN THIS SECTION CONSISTS OF CLEANING AND PAINTING BRIDGES AT TWO LOCATIONS AS SPECIFIED IN THE PLANS AND SPECIAL PROVISIONS.

THE STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED AS SPECIFIED IN THE SPECIAL PROVISIONS.

ALL DECK DRAINS SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THEIR OWN EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL - OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

ONLY STRUCTURAL STEEL IS TO BE PAINTED. ALL OTHER SURFACES WILL BE PROTECTED FROM BEING PAINTED. ALL PAINT AND OVERSPRAY WILL BE REMOVED AT THE CONTRACTOR'S EXPENSE.

THE SSPC OPI AND OP2 PAINTING CONTRACTOR CERTIFICATION WILL BE REQUIRED FOR THIS PROJECT.

## STRUCTURE LOCATION DESCRIPTIONS

### LOCATION #1

ROUTE: FAI 57  
 MARKED: I-57  
 SECTION: 25, 7HB1  
 STATION: 4780+17.28  
 STRUCTURE NUMBER: 025-0053

TYPE OF BRIDGE: Wide Flange I Beams-4 Spans (5 Beams)  
 LOCATION: 4 Miles South of the Southwest Tri-level  
 FEATURE CARRIED/SPANNED: FAS 1724 over I-57

COLOR OF THE FINISH COAT SHALL BE GRAY, MUNSELL 5B 7/1.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All structural steel, including beams, bearings and diaphragms, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning.

The designated areas cleaned per Near White Metal Blast Cleaning - SSPC-SP10 shall be painted according to the requirements of Paint System 1 - OZ/E/U.

One air monitor will be required at this location.

### LOCATION #2

ROUTE: FAI 57  
 MARKED: I-57  
 SECTION: 25, 6HB3  
 STATION: 4430+53.37  
 STRUCTURE NUMBER: 025-0043

TYPE OF BRIDGE: Wide Flange I Beams-4 Spans (5 Beams)  
 LOCATION: West Corporate Limits of Mason  
 FEATURE CARRIED/SPANNED: CH 12 over I-57

COLOR OF THE FINISH COAT SHALL BE GRAY, MUNSELL 5B 7/1 FOR ALL BEAMS.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All structural steel, including beams, bearings and diaphragms, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning.

The designated areas cleaned per Near White Metal Blast Cleaning - SSPC-SP10 shall be painted according to the requirements of Paint System 1 - OZ/E/U.

No air monitors will be required at this location.

\*07 BRIDGE PAINTING 2014-5

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, GENERAL NOTES AND STRUCTURE LOCATION DESCRIPTIONS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwork\pwork\steffenkh\0348369\074635-ahf-index.dgn	steffenkh	-	-		SCALE: N/A	1724		EFFINGHAM	9	2
		DRAWN	REVISED		SHEET 1 OF 1 SHEETS	2715				
		CHECKED	REVISED		STA. TO STA.					
		DATE	REVISED							

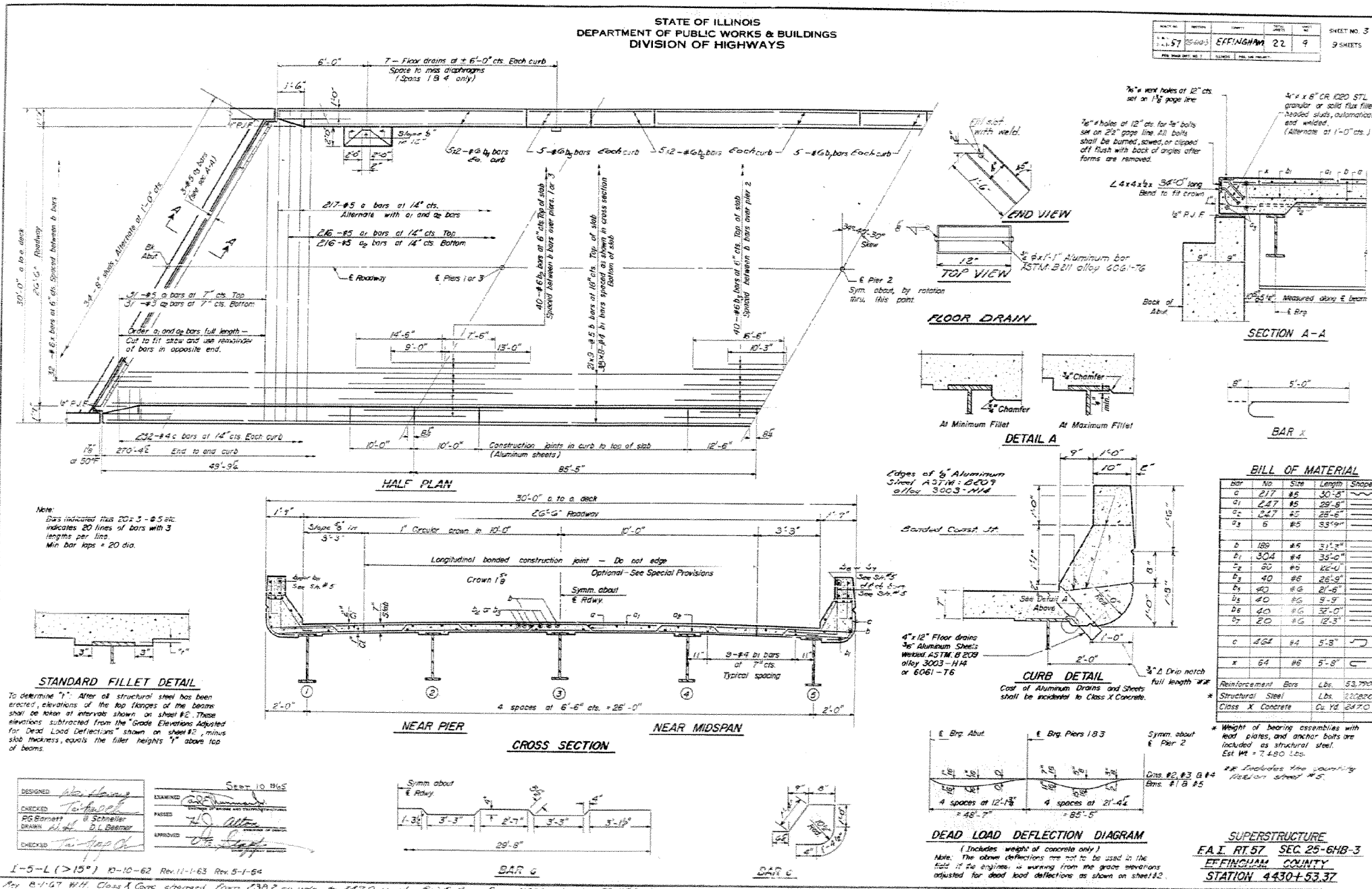
CONTRACT NO. 74635  
ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		100% STATE 0014		
67100100	MOBILIZATION	L SUM	1	1		
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1		
X7010208	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	EACH	2	2		
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1	1		
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1		
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	1		

\*07 BRIDGE PAINTING 2014-5

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

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
1157	EFFINGHAM	22	9
SHEET NO. 3		9 SHEETS	



Note:  
Bars indicated plus 20x3-#5 etc.  
indicates 20 lines of bars with 3  
lengths per line.  
Min. bar laps = 20 dia.

**STANDARD FILLET DETAIL**  
To determine "Y" After all structural steel has been  
erected, elevations of the top flanges of the beams  
shall be taken at intervals shown on sheet #2. These  
elevations subtracted from the "Grade Elevations Adjusted  
for Dead Load Deflections" shown on sheet #2, minus  
slab thickness, equals the fillet heights "Y" above top  
of beams.

DESIGNED	SEEN	SEEN	SEEN
CHECKED	SEEN	SEEN	SEEN
DRAWN	SEEN	SEEN	SEEN
CHECKED	SEEN	SEEN	SEEN

1-5-L (>15") 10-10-62 Rev. 11-63 Rev. 5-1-64  
Per 8-1-67 W.H. Class A Concrete changed from 2382 cu yds to 2470 cu yds. Rein. Bars from 41800 lbs to 53790 lbs.

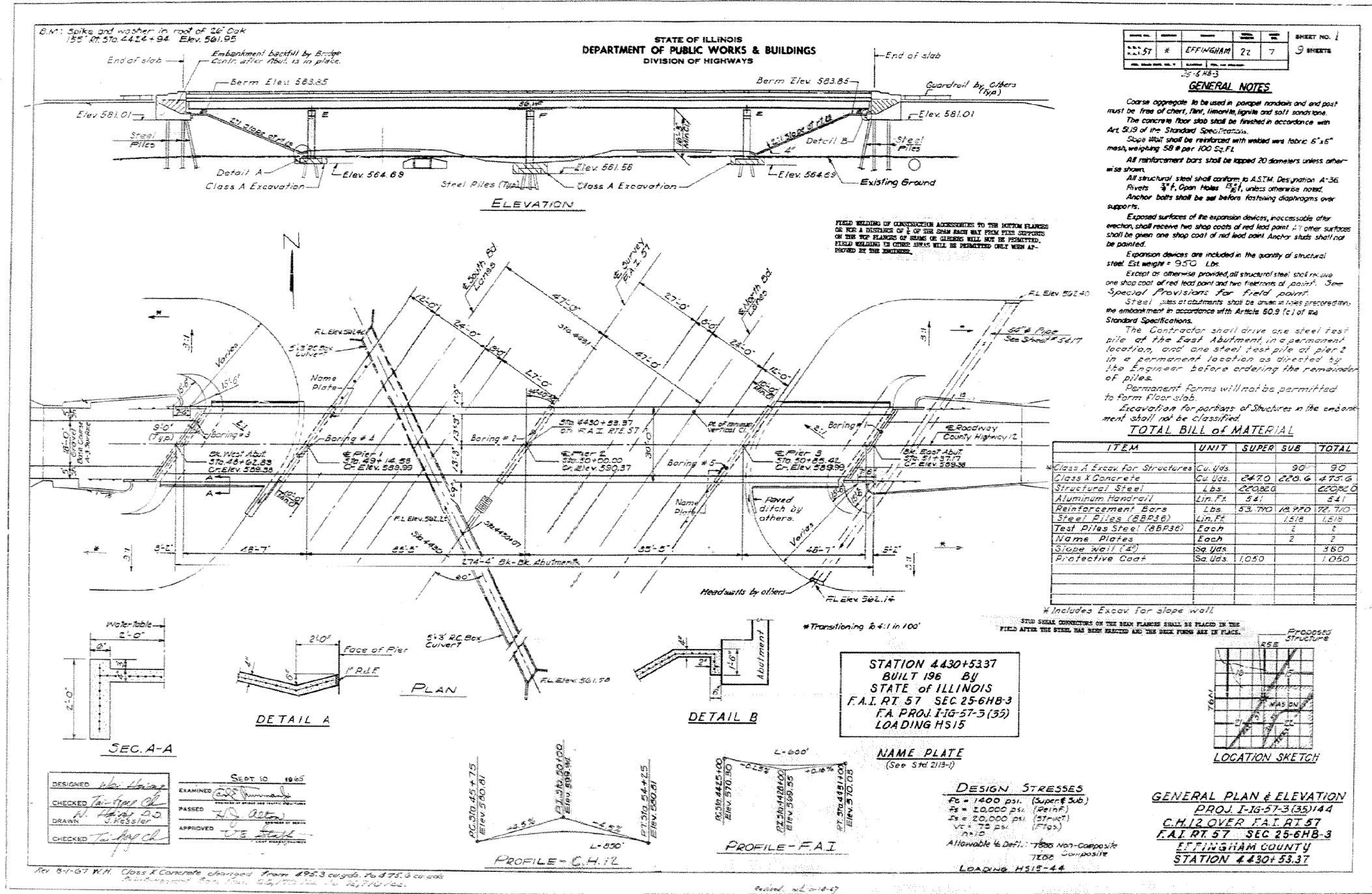
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a	217	#5	30'-8"	~
a1	247	#5	29'-8"	~
a2	247	#5	25'-5"	~
a3	6	#5	53'-9"	~
b	80	#6	31'-2"	~
b1	304	#4	35'-0"	~
b2	80	#6	22'-4"	~
b3	40	#6	26'-5"	~
b4	40	#6	21'-6"	~
b5	40	#6	5'-5"	~
b6	40	#6	32'-0"	~
b7	20	#6	12'-3"	~
c	454	#4	5'-8"	~
x	64	#5	5'-8"	~

Reinforcement Bars Lbs. 53,790  
Structural Steel Lbs. 22,000  
Class X Concrete Cu Yd. 2470

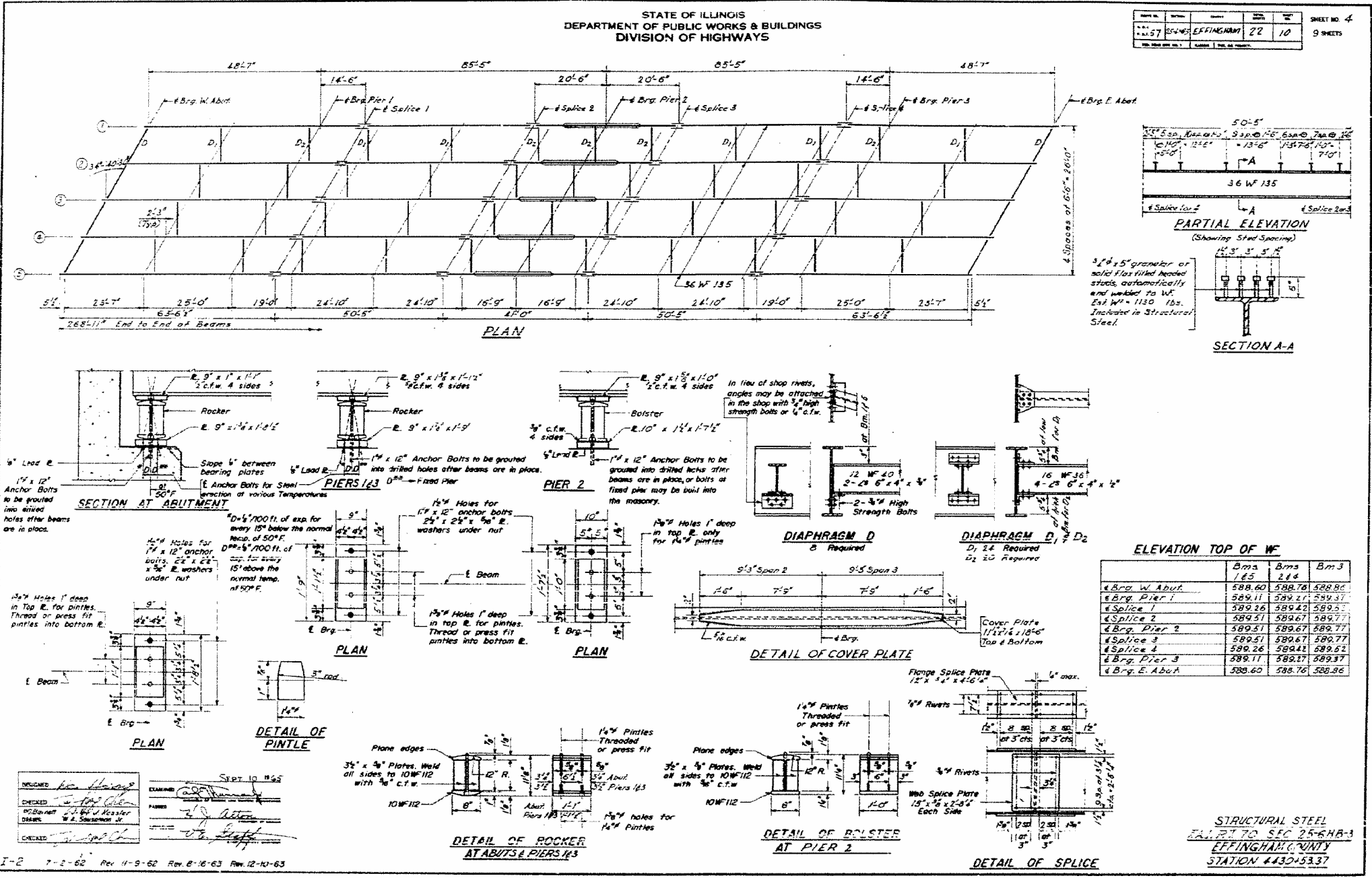
\* Weight of bearing assemblies with  
lead plates, and anchor bolts are  
included as structural steel.  
Est. Wt = 7,480 lbs.  
\*\* Includes the country  
portion sheet #5.

**SUPERSTRUCTURE**  
F.A.I. RT. 57 SEC. 25-6HB-3  
EFFINGHAM COUNTY  
STATION 4430+53.37



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

PROJECT NO.	25-045	EFFINGHAM	22	10
SHEET NO.	4			
TOTAL SHEETS	9			



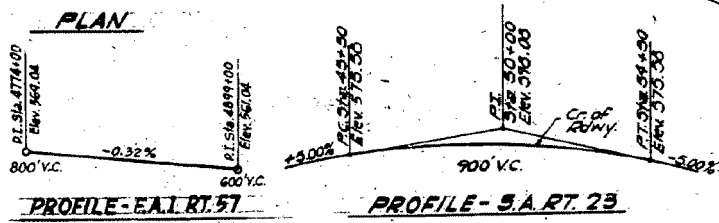
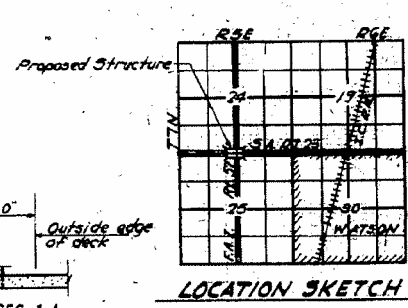
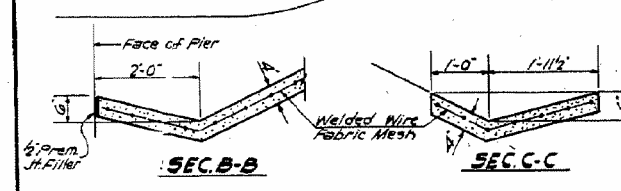
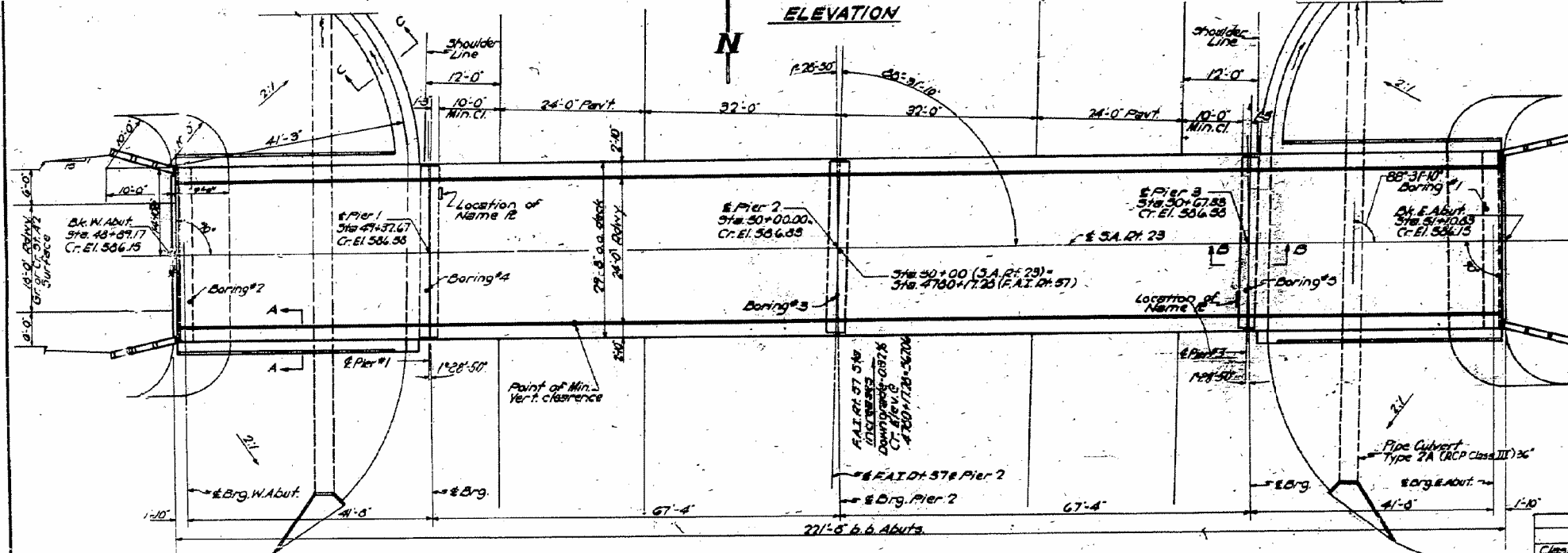
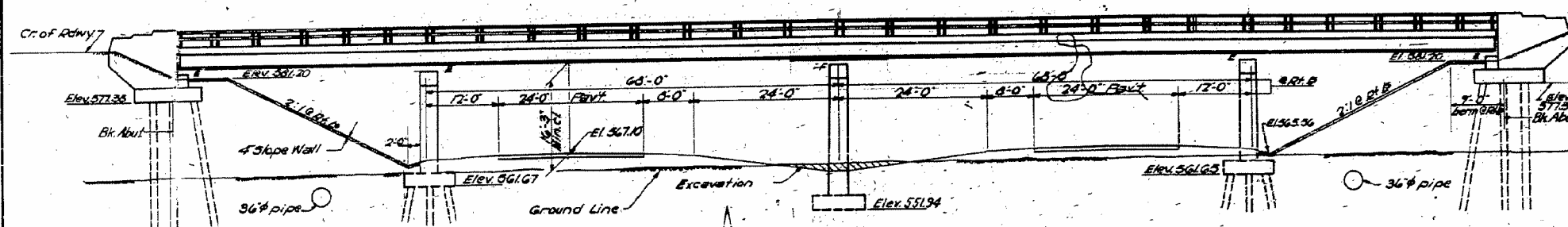
B.M.R.R. Spike in 36" Eln on North Side of East & West Rt. 475 Lt. Sta 4780+40 Elev. 564.77

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

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
FAZ 57	EFFINGHAM	35	8

GENERAL NOTES

Class X concrete shall be used throughout. The concrete floor slab shall be finished in accordance with Article 517 of the Standard Specifications. Slope wall shall be reinforced with welded wire fabric 6x6 mesh, #4 wires, weighing 50 per 100 sq.ft. Rivets 3/8" open holes 3/8" unless noted. Cover 1 1/2" and beams to which cover 1 1/2" are welded shall conform to A.S.T.M. specifications of Structural Steel for welding, Designation A-575. All holes for splices shall be punched 1/8" and reamed to proper size (1/8" in web and 3/16" in flange) with all beams assembled in the shop in proper position. Leave assembled in shop for inspection. Anchor bolts shall be set before riveting diaphragms over supports. All bolsters, rockers, bearing plates, shim plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 515 of the Standard Specifications and are included in quantity of Structural Steel. Except as otherwise provided all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Article 561 to 565 inclusive of the Standard Specifications. All paint shall be furnished and applied by the Contractor. Concrete piles through embankment shall be driven in preared holes in accordance with Article 609 (c) of the Standard Specifications. The Contractor shall drive one concrete test pile at each abutment in permanent locations and one timber test pile in the vicinity of pier 1 as directed by the Engineer before ordering remainder of piles. Coarse aggregate which is to be used in end posts must be absolutely free of chert, flint, ironite, lignite, and soft sandstone.



TOTAL BILL OF MATERIAL

ITEM	SUPER	SUB	TOTAL
Class X Excav. for Structures (exc'd)		210	210
Class X Concrete	177.0	206.0	383.0
Furnishing & Erecting Struct. Steel Lbs.	155,870		155,870
Furnishing & Erecting Metal Handrail Lbs.	489		489
Reinforcement Bars Lbs.	29,150	14,740	43,890
Crested Piles up to 20' Lin.Ft.		350	350
Test Piles (Timber) Ea.		1	1
Concrete Piles Lin.Ft.		504	504
Test Piles (Concrete) Ea.		2	2
Name Plates Ea.		2	2
Slope Wall (4') Sq.Yds.		360	360

DESIGNED: W. H. Hanson  
CHECKED: T. M. H. King  
DRAWN: J. Sandoval  
CHECKED: T. M. H. King

EXAMINED: W. H. Hanson  
APPROVED: R. B. W. [Signature]

DATE: July 29 1960

STATION 4780+17.25  
BUILT 1960 BY  
STATE OF ILLINOIS  
F.A.I. RT. 57 SEC. 25-74B-1  
F.A. PROJ. I-57-4(14)  
LOADING H15-32

DESIGN STRESSES  
F<sub>c</sub> = 1400 psi. Super  
F<sub>t</sub> = 75 psi. Footings  
F<sub>s</sub> = 20,000 psi. Reinf.  
F<sub>s</sub> = 15,000 psi. Struct.  
n = 10  
LOADING H15-32-44  
Max. Soil Pressure = 8,000 psf

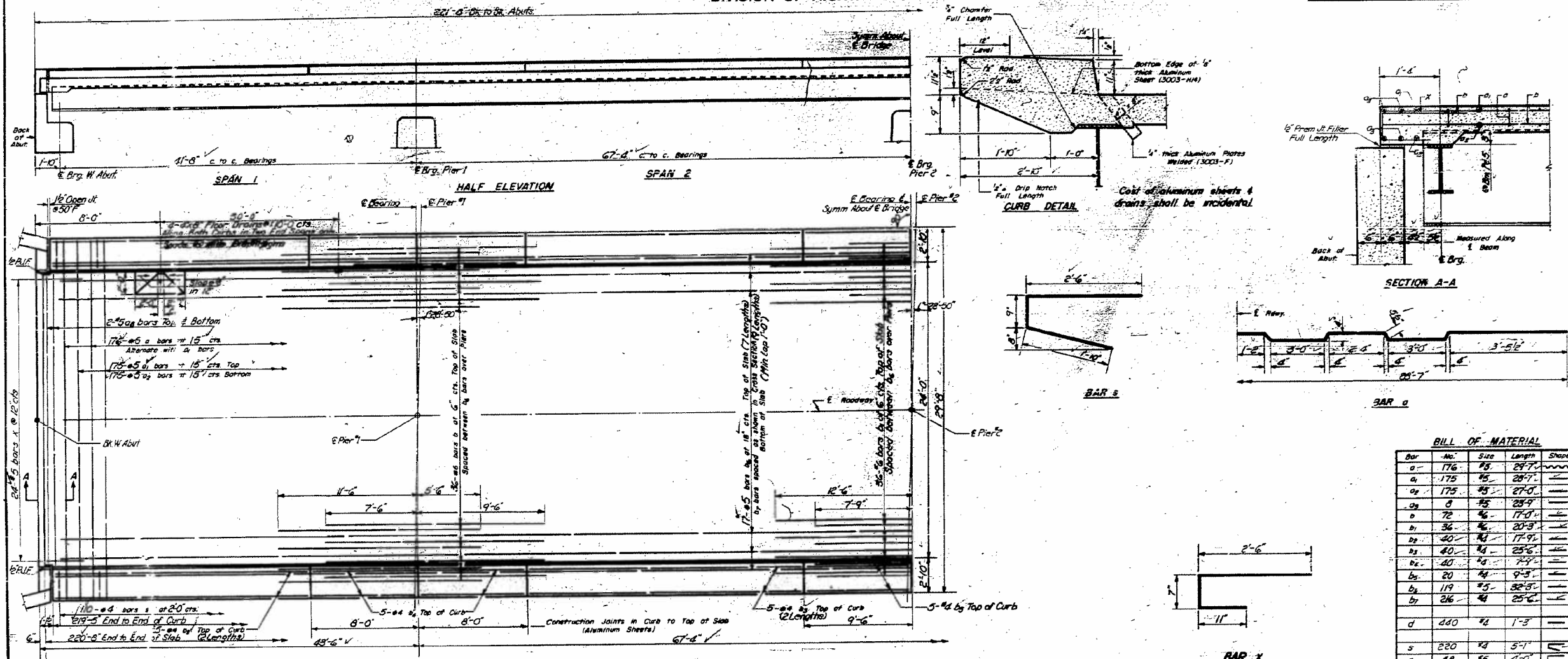
PROJ. I-57-4(14)15A  
GENERAL PLAN & ELEVATION  
S.A. RT. 23 OVER  
F.A.I. RT. 57 SEC. 25-74B-1  
EFFINGHAM COUNTY  
STA. 4780+17.25

NAME PLATE LETTERING  
See 370.215

Revised: 5-7-61: W.H.M. - S. ELEVATION, removed notations of 4:1 embankment backfills & removed the following notations from each structural section: "Establishment of Class X concrete...".

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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RT. 57	257H8-1	EFFINGHAM	35	10
SHEET NO. 3				
11 SHEETS				



**BILL OF MATERIAL**

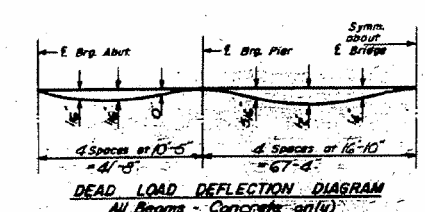
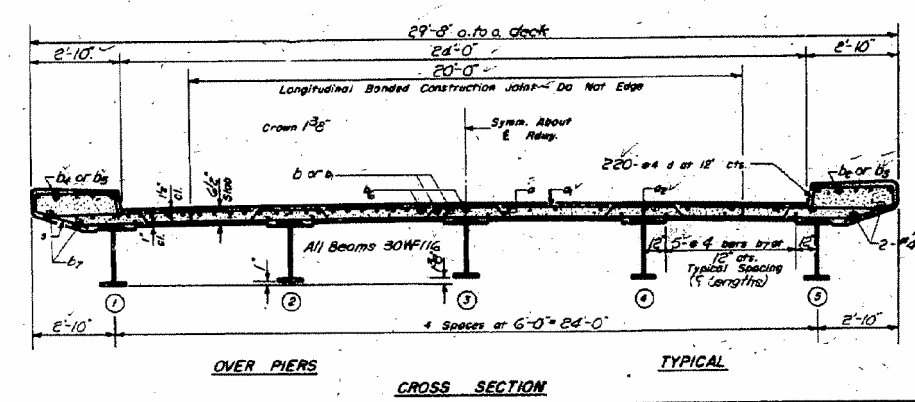
Bar	No.	Size	Length	Shape
a	176	#5	29'-7"	—
a	175	#5	28'-7"	—
a	175	#5	27'-0"	—
a	8	#5	25'-9"	—
b	72	#6	17'-9"	—
b	36	#6	20'-3"	—
b	40	#4	17'-9"	—
b	40	#4	25'-6"	—
b	40	#4	7'-9"	—
b	20	#4	9'-3"	—
b	119	#5	32'-5"	—
b	216	#4	25'-6"	—
d	440	#4	1'-3"	—
s	220	#4	5'-1"	—
x	48	#5	4'-0"	—
Class X Concrete				Cu. Yd. 1770
Reinforcement Bars				Lb. 29,190
Structural Steel				Lb. 155,870

Weight of Bolsters, Rockers, Bearing Plates, Lead Plates and Anchor Bolts included as Structural Steel. Est. Weight = 6480 lbs.

**METHOD OF DETERMINING FILET HEIGHT "f"**  
After all structural steel has been erected elevations of the top flanges of the beams shall be taken at intervals shown on sheet No. 3. These elevations subtracted from the top of slab elevations with correction for D.L. Deflections for these points minus floor thickness equals the fillet heights above top of beam.

DESIGNED: W. Heide  
CHECKED: T. M. Young  
DRAWN: W. S. Sausman  
EXAMINED: W. E. Bannerman  
APPROVED: R. P. Bannerman

July 29 1960



**DESIGN STRESSES**  
f<sub>s</sub> = 18,000 Structural Steel  
f<sub>c</sub> = 2,000 Reinforcement  
f<sub>c</sub> = 1,400 Superstructure  
f<sub>c</sub> = 1,400 Substructure  
n = 10

**SUPERSTRUCTURE**  
FAI RT. 57 SEC. 257H8-1  
EFFINGHAM COUNTY  
STA. 4780+7.28



