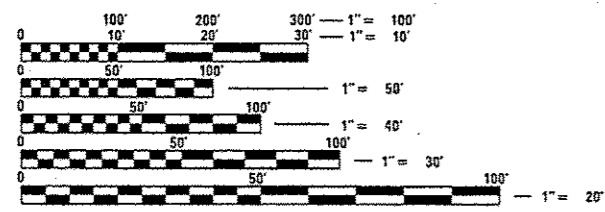
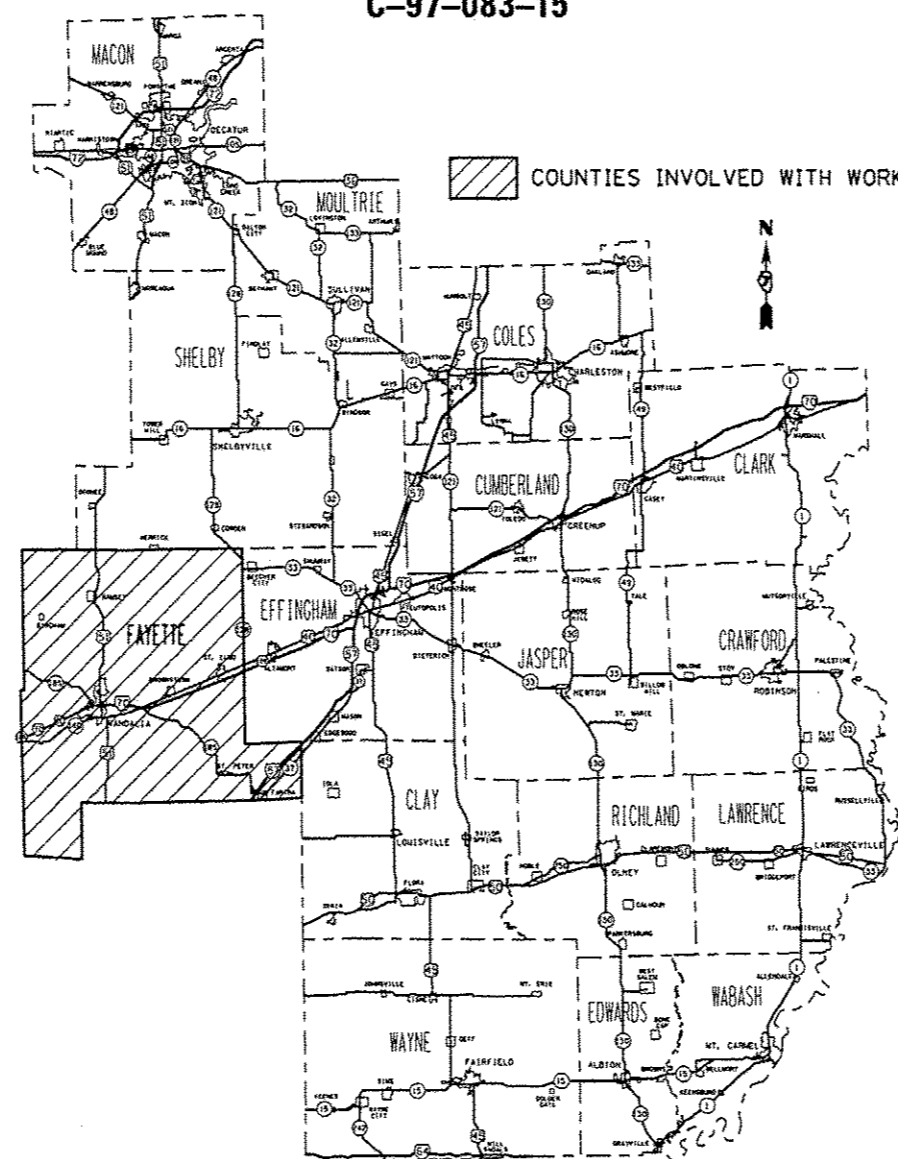
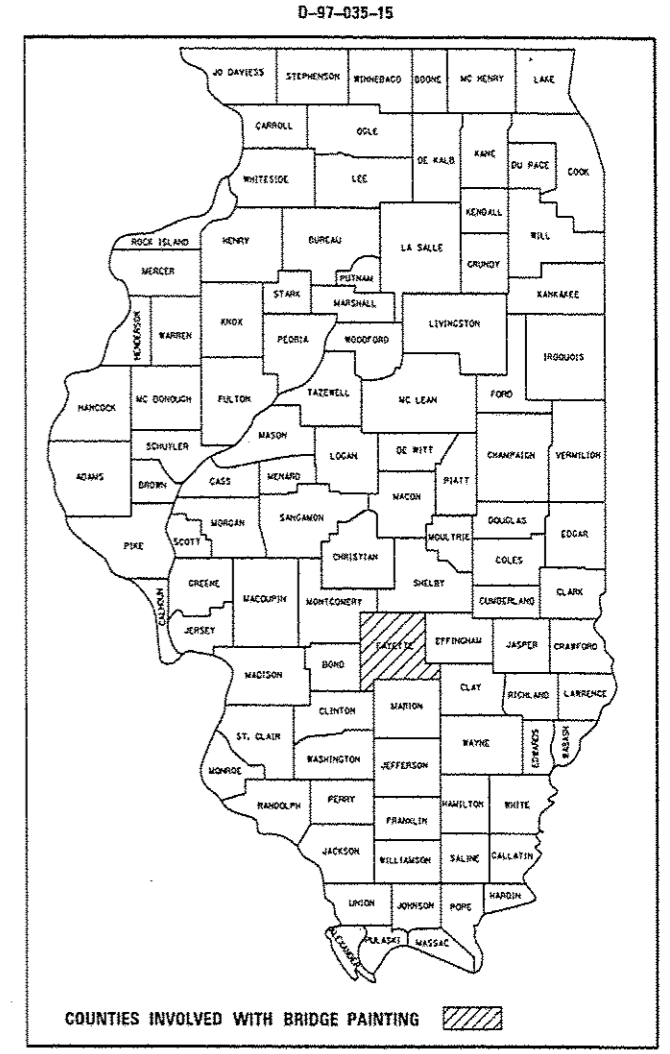


STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PROPOSED
 HIGHWAY PLANS**
 F.A.I. ROUTE 70 (1-70)
 SECTION D7 BRIDGE PAINTING 2016-4
**BRIDGE PAINTING
 FAYETTE COUNTY**
 C-97-083-15

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE PAINTING 2016-4	FAYETTE	10	1
		ILLINOIS	CONTRACT NO. 74729	

FOR INDEX OF SHEETS, SEE SHEET NO. 2



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. 74729

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED August 10 2015
Roger L. Dinkel
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 2 2015
John D. Baranzelli, P.E.
 ENGINEER OF DESIGN AND ENVIRONMENT

Oct 2 2015
Cherice S. Man, P.E.
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS, GENERAL NOTES, & LOCATION DESCRIPTIONS
3	SUMMARY OF QUANTITIES
4-10	EXISTING STRUCTURE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 10:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
T01001-02	OFF-RD OPERATIONS, 2L2W, MORE THAN 15' AWAY
T01006-05	OFF-ROAD OPERATIONS, 2L2W, 15' TO 24" FROM PAVEMENT EDGE
T01101-04	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
T01106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
T01201-04	LANE CLOSURE, 2L, 2W, DAY ONLY
T01400-08	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
T01402-10	LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER
T01406-09	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
T01901-04	TRAFFIC CONTROL DEVICES
T04001-07	TEMPORARY CONCRETE BARRIER

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 INTERSTATE 70 IN FAYETTE COUNTY.

THE WORK INCLUDED IN THIS SECTION CONSISTS OF CLEANING AND PAINTING TWO 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 OVERSPRAY WILL BE REMOVED AT THE CONTRACTOR'S EXPENSE.

THE SSPC QP1 AND QP2 PAINTING CONTRACTOR CERTIFICATION WILL BE REQUIRED FOR THIS PROJECT.

BRIDGE LOCATION DESCRIPTIONS

LOCATION #1

ROUTE: I-70
 MARKED: I-70
 SECTION: 26.1HB2
 STATION: 335+00
 STRUCTURE NUMBER: 026-0077

TYPE OF BRIDGE: Wide Flange I Beams-5 Spans (5 Beams)
 LOCATION: 1 mile west of the US Route 40 Interchange
 FEATURE CARRIED/SPANNED: TR-373 over I-70 & US 40

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.

No air monitors will be required at this location.

LOCATION #2

ROUTE: I-70
 MARKED: I-70
 SECTION: 26.1HB1
 STATION: 279+13.31
 STRUCTURE NUMBERS: 026-0073

TYPE OF BRIDGES: Wide Flange I Beams-6 Spans (6 Beams)
 LOCATION: 2.2 miles west of the US Route 40 Interchange
 FEATURE CARRIED/SPANNED: CH-11 over I-70 & US 40

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.

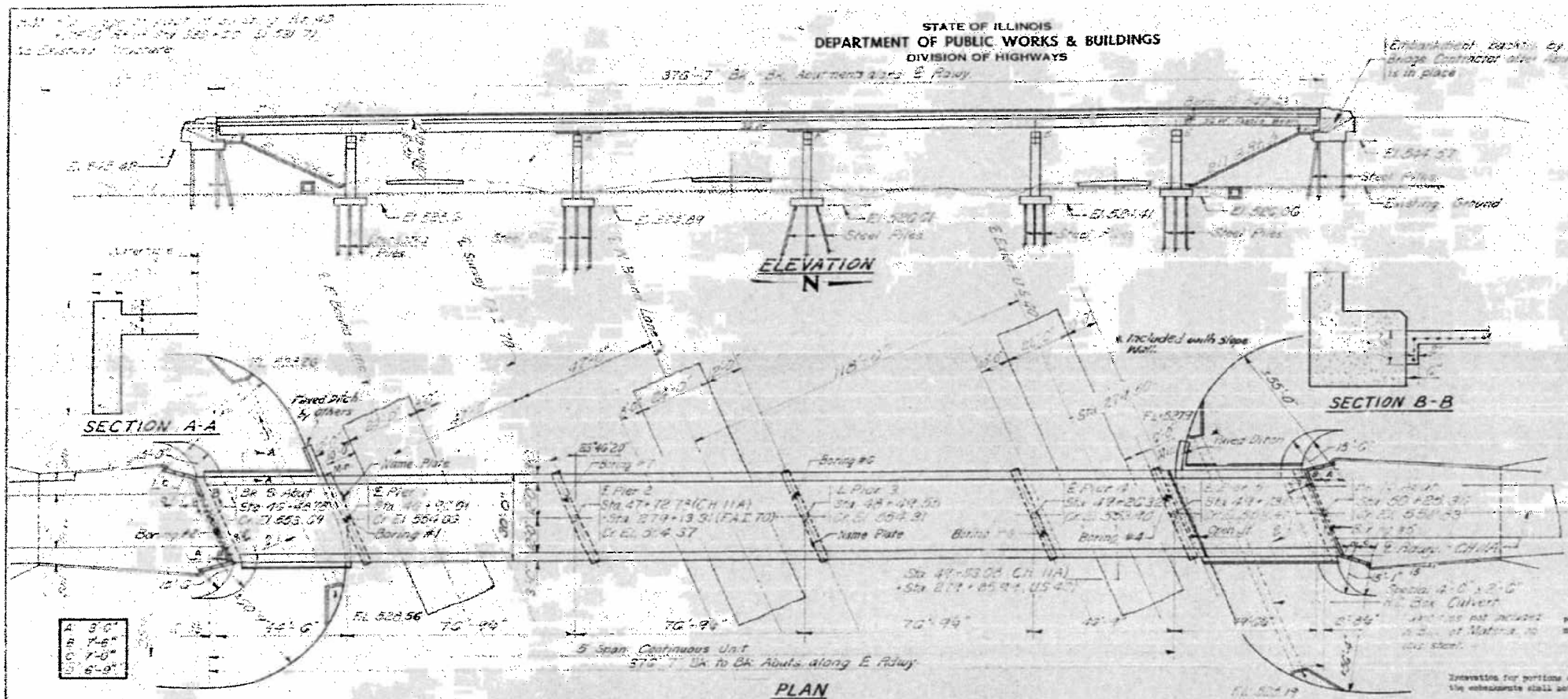
The designated areas cleaned per Near White Metal Blast Cleaning - SSPC-SP10 shall be painted according to the requirements of Paint System 1 - OZ/E/U.

One air monitor will be required at this location.

FILE NAME #	USER NAME # steffernk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, GENERAL NOTES AND BRIDGE LOCATIONS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pu\1\184E810INTEG.illinois.gov\PIB07\Documents\DOT Offices\District 7\Projects\74729\Drawings\CAD\Sheets\0774729-shr-gemnote	CHECKED -	REVISED -	70			DT BRIDGE PAINTING 2016-	FAYETTE	10	2	
Default	DATE -	REVISED -	SCALE: N/A			SHEET 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 74729	
	PLOT SCALE = 1/8" = 1' / in.								ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0014 100% STATE	
67100100	MOBILIZATION	LSUM	1	1	
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	2	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1	
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	LSUM	1	1	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	550	550	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1650	1650	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	6	6	
X7010410	SPEED DISPLAY TRAILER	CAL MO	4	4	
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	56	56	
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	240	240	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0014	
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	LSUM	1	1	
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	LSUM	1	1	
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	LSUM	1	1	
3					



DATE	REVISION	BY	NO.	SHEET NO.
7/23/2015	1	STEFFENK	33	10

GENERAL NOTES

Concrete aggregate to be used in bridge construction and wing walls must be crushed free of dirt, lumps, clumps, lumps, and soft materials. The concrete floor and walls shall be finished in accordance with Article 5.02 of the Standard Specifications.

Reinforcing steel shall be conforming with ASTM A615 Grade 60, except where otherwise specified.

Reinforcing steel shall be lap spliced in accordance with Article 5.03 of the Standard Specifications.

Reinforcing steel shall be lap spliced in accordance with Article 5.03 of the Standard Specifications.

The exposed surface of the concrete shall be finished in accordance with Article 5.02 of the Standard Specifications.

Reinforcing steel shall be lap spliced in accordance with Article 5.03 of the Standard Specifications.

Reinforcing steel shall be lap spliced in accordance with Article 5.03 of the Standard Specifications.

Reinforcing steel shall be lap spliced in accordance with Article 5.03 of the Standard Specifications.

Reinforcing steel shall be lap spliced in accordance with Article 5.03 of the Standard Specifications.

Reinforcing steel shall be lap spliced in accordance with Article 5.03 of the Standard Specifications.

STRESS TABLES
1-5 SPAN CONTINUOUS PLUS 1-SIMPLE SPAN
TABLE OF MOMENTS AND REACTIONS - INTERIOR BEAMS

Span	Moments - K-ft				Reactions - Kips					
	Pier 1	Pier 2	Pier 3	Pier 4	Pier 1	Pier 2	Pier 3	Pier 4	Abut	
1-2	100	370	500	185	250	19	64	74	50	22
2-3	510	240	237	300	240	69	17	17	27	20
3-4	60	60	70	80	70	8	15	9	8	8
4-5	370	670	600	640	650	45	100	110	71	26

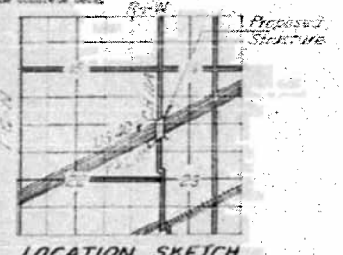
PROPERTIES

Steel Section	W 18 x 40
Is	18,100 in ⁴
Ss	600 in ³
Ssc	600 in ³

DL = Dead Load
LL = Live Load
Imp = Impact
Is = Moment of Inertia of W with Cover Plates
Ss = Sec. Mod. for steel section
Ssc = Sec. Mod. with steel section

TOTAL BILL OF MATERIAL

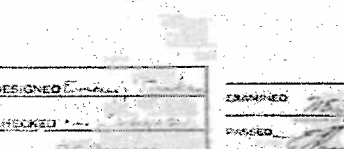
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
Class A Excavation for Structure	Cu Yds	230	2.30	507.00
Structural Steel	Lbs	314,750	1.75	550,712.50
Class A Concrete	Cu Yds	331.4	1.75	580.95
Aluminum Hooprail	Lbs	240	1.40	336.00
Reinforcing Bars	Lbs	20,220	5.00	101,100.00
Concrete Piles	Yds	50	12.80	640.00
Test Piles (Timber)	Yds	1	1.00	1.00
Steel Piles (A.B.P.C.)	Yds	2109	1.00	2109.00
Test Piles (Steel P.C.P.)	Yds	2	1.00	2.00
Name Plates	Yds	8	1.00	8.00
Sign Wall (G)	Sq Yds	1470	1.00	1470.00
Protective Coat	Sq Yds	1470	1.00	1470.00



PROFILE - EXISTING U.S. 40



PROFILE - F.A.I. RT. 70



V.C. DATA - C.H. 11A

DESIGN STRESSES
 R = 1400 psi Super I Std
 F_y = 20000 psi
 F_v = 20000 psi
 V = 70 psi
 V = 10 psi
 Allow. Defl. = 1/160 in

GENERAL PLAN AND ELEVATION

PROJ. I-70-2 (87) 57
 C.H. 11A OVER F.A.I. RT. 70 & U.S. RT. 40
 F.A.I. RT. 70 SEC. 26-14B-1
 FAYETTE COUNTY
 STA. 279+13.31

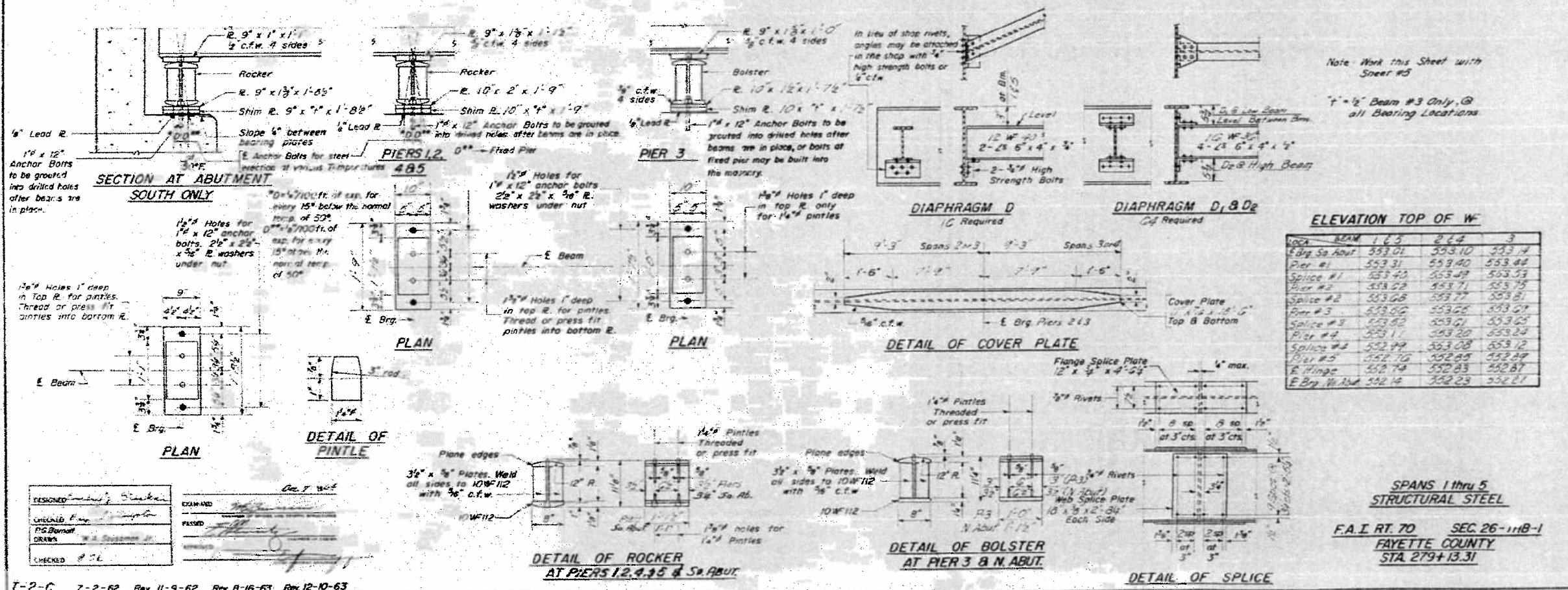
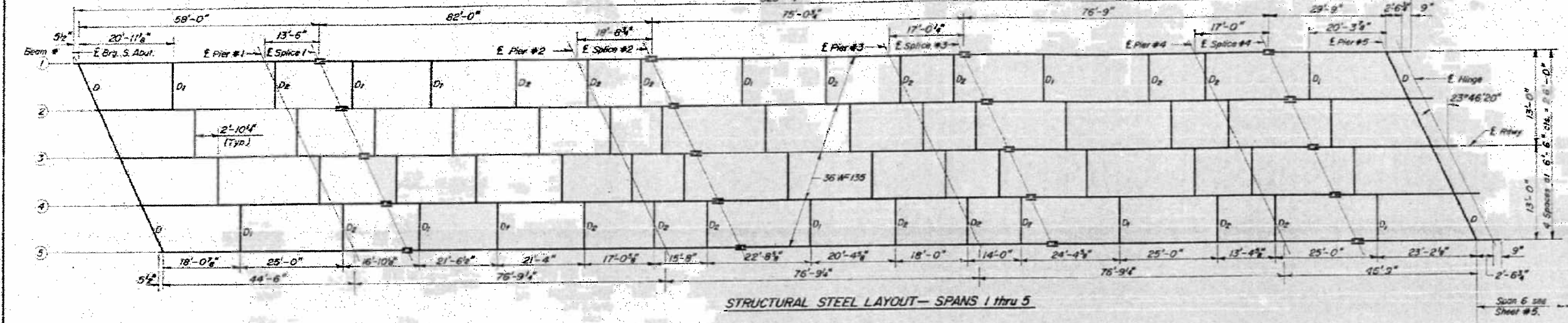
STATION 279+13.31
 BUILT BY
 STATE OF ILLINOIS
 F.A.I. RT. 70 SEC. 26-14B-1
 F.A. PROJ. I-70-2 (87)
 LOADING HS 15
 NAME PLATE
 See Drawing 013

DESIGNED	STEFFENK
CHECKED	STEFFENK
DRAWN	STEFFENK
CHECKED	STEFFENK

DESIGNED	STEFFENK
CHECKED	STEFFENK
DRAWN	STEFFENK
CHECKED	STEFFENK

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

DATE	BY	CHECKED	SCALE	SHEET NO.
10-20-20	W. H. FAYETTE	JD	1/2"	16 SHEETS



ELEVATION TOP OF W

Locn.	BEAM	1 & 2	2 & 3	3
E Brg. S. Abut.	553.01	553.10	553.14	
Pier #1	553.31	553.40	553.44	
Splice #1	553.43	553.49	553.53	
Pier #2	553.52	553.71	553.75	
Splice #2	553.68	553.77	553.81	
Pier #3	553.82	553.88	553.91	
Splice #3	553.82	553.91	553.95	
Pier #4	553.11	553.20	553.24	
Splice #4	552.99	553.08	553.12	
Pier #5	552.76	552.85	552.89	
E Hinge	552.74	552.83	552.87	
E Brg. W. Abut.	552.14	552.23	552.27	

DESIGNED: *W. H. Fayette*
CHECKED: *JD*
DRAWN: *W. H. Fayette*
DATE: 7-2-62

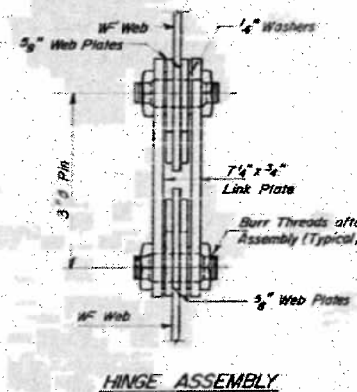
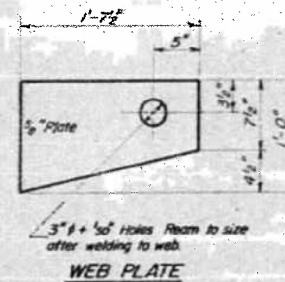
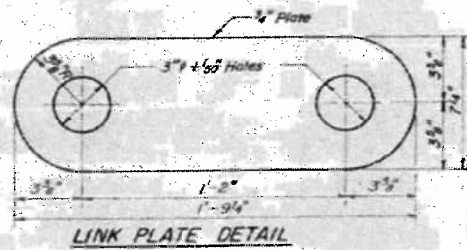
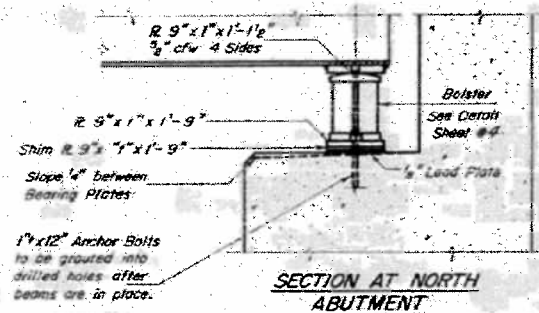
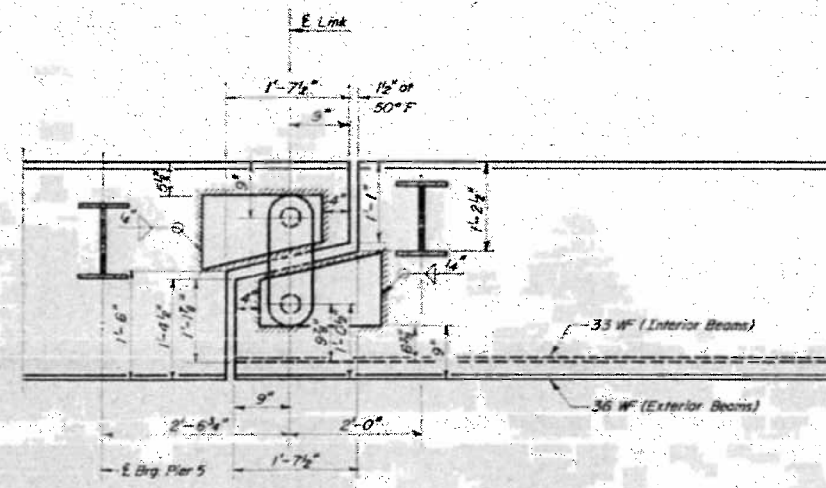
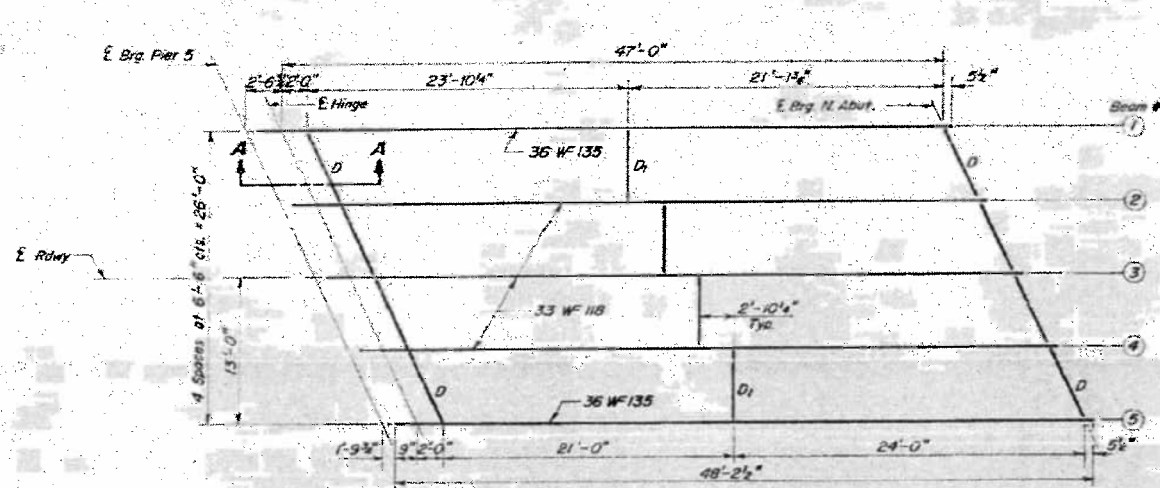
I-2-C 7-2-62 Rev. 11-9-62 Rev. 8-16-63 Rev. 12-10-63

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

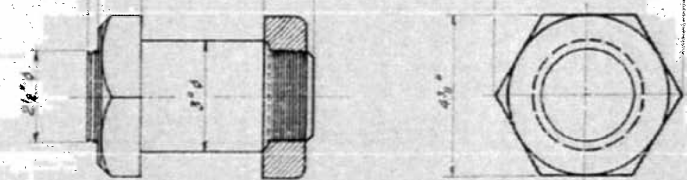
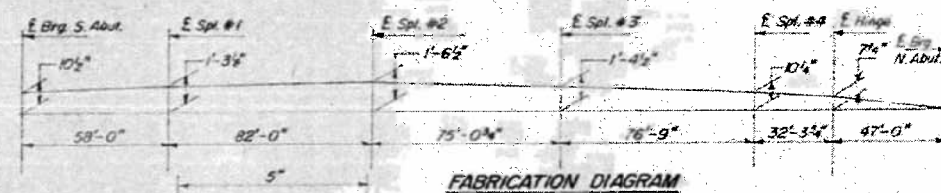
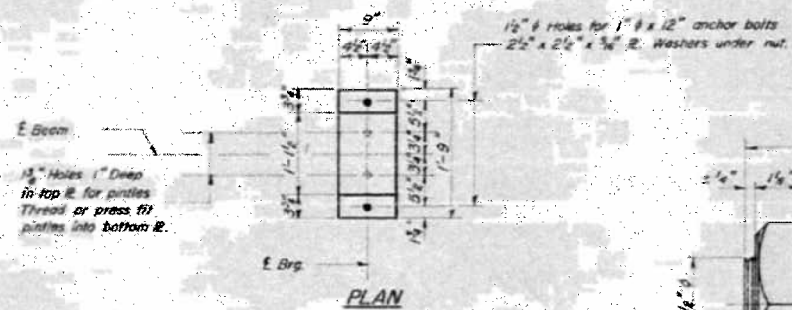
PLAN
STRUCTURE 026-0073

SCALE: N/A SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE PAINTING 2016-4	FAYETTE	10	6
CONTRACT NO. 74729			ILLINOIS FED. AID PROJECT	



Note: Work this sheet with Sheet #4



DESIGNED: [Signature]	EXAMINED: [Signature]
CHECKED: [Signature]	PASSED: [Signature]
DRAWN: PG [Signature]	APPROVED: [Signature]
CHECKED: [Signature]	

**SPAN 6
STRUCTURAL STEEL**
F.A.I. RT. 70 SEC. 26 - IHB-1
FAYETTE COUNTY
STA. 279 + 13.31

on existing Route 40 Pavt. Edge T.P. 5
 Lt. of Sta 335+00 (F.A.I. 70) El. 531.51

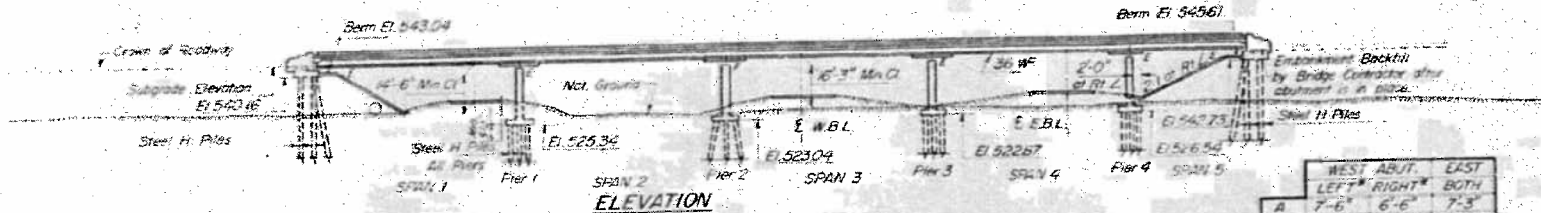
STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

NO.	DATE	BY	REVISION
1		STAYETTE	5.1
2			5.1

SHEET NO. 11 SHEETS

GENERAL NOTES

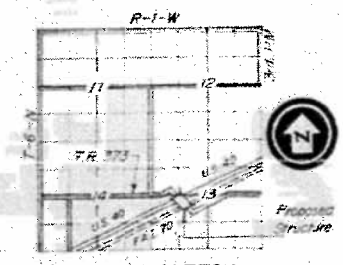
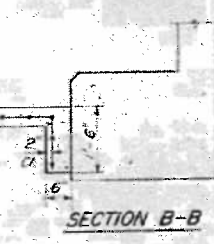
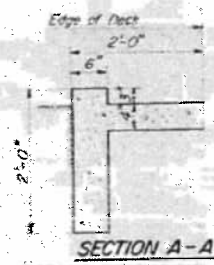
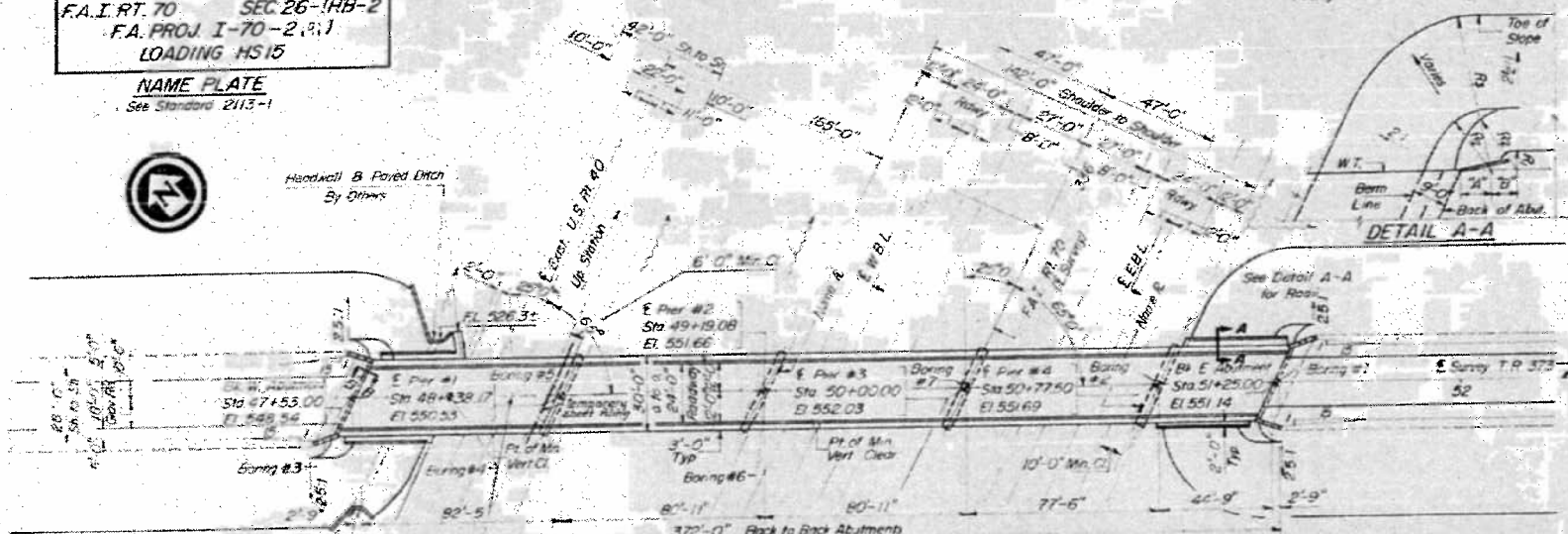
Coarse aggregate to be used in parapet handrails and wing walls must be free of chert, flint, limonite, lignite and soft sandstone. The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications. Slope walls shall be reinforced with welded wire fabric 6" x 6" mesh, weighing 36# per 100 Sq Ft. All reinforcement bars shall be lapped 20 diameters unless otherwise shown. Rivets 3/4" x 1/2" Open holes 1 1/2" x 1/2" unless otherwise noted. Anchor bolts shall be set before fastening diaphragms over supports. Exposed surfaces of the Armor Angle shall be given two shop coats of red lead paint, the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted. Armor angles are included in the quantity of Structural Steel. Est. Weight = 730 lbs. Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Article 56.1 to 56.5 inclusive of the Standard Specifications. The contractor shall drive two steel BPP36 test piles in permanent locations, one at the West Abutment and one at Pier 3, as directed by the Engineer before ordering the remaining piles. All Structural Steel shall conform to the ASTM Specification A-76. Permanent forms will not be permitted in forming the concrete floor. Permission for portions of structures to be classified.



	WEST ABUT.	EAST
	LEFT	RIGHT
A	7'-6"	6'-6"
B	8'-3"	8'-3"
C	5'-3"	3'-3"
R ₁	15'-9"	14'-9"
R ₂	55'-9"	54'-5"

*Facing direction of increasing stationing

STATION 335+00
 BUILT IN BY
 STATE OF ILLINOIS
 F.A.I. RT. 70 SEC. 26-1HB-2
 F.A. PROJ. I-70-2 (P. 1)
 LOADING HS 15
 NAME PLATE
 See Standard 2113-1



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	F.A.I.	TOTAL
Class A Excavation for Structures	Cu Yds		140	140
Class X Concrete	Cu Yds	369.5	236.9	626.4
Protective Coat	Sq Yds	1440		1440
Structural Steel	Lbs	320,840		320,840
Aluminum Handrail	Lin Ft	740		740
Reinforcement Bars	Lbs	65,350	25,510	90,860
Steel Piles (BPP36)	Lin Ft		2262	2262
Test Piles (Steel BPP36)	Each		2	2
Armor Plates	Each		2	2
Slope Wall (14")	Sq Yds		360	360
Temporary Steel Sheet Piling	Sq Ft		375	375

*NOTE: Class A Excavation includes slope wall excavation

GENERAL PLAN & ELEVATION

F.A.I. RT. 70 SEC. 26-1HB-2
 PROJ. I-70-2 (P. 1) 56
 FAYETTE COUNTY
 STA 335+00 (F.A.I. RT. 70)
 STA 50+00 (TWP. RT. 373)

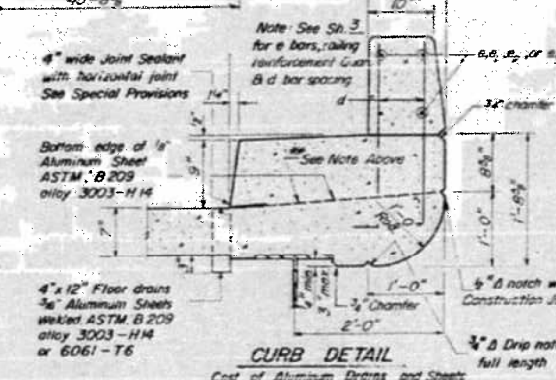
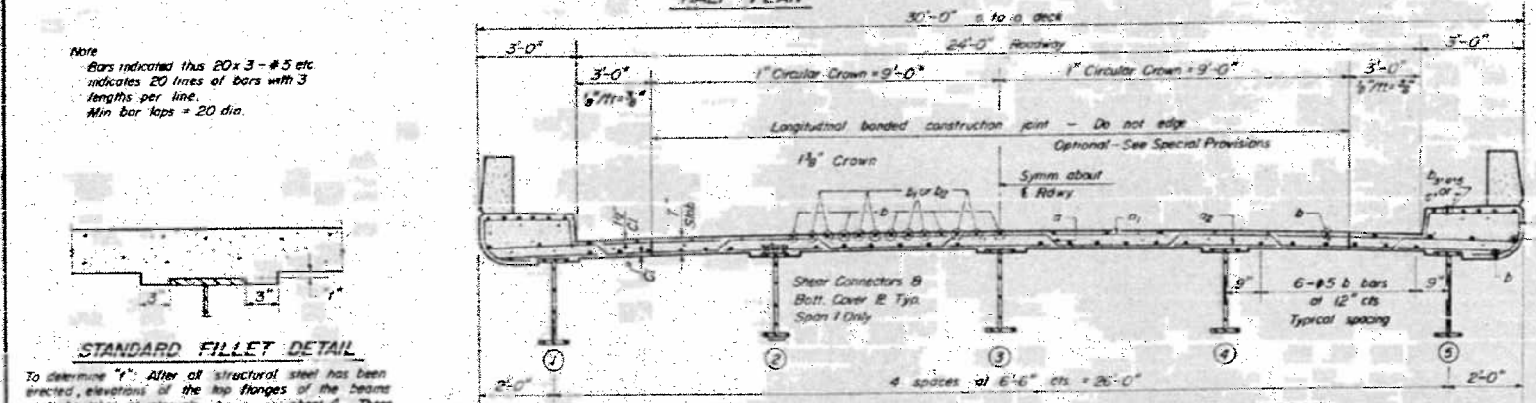
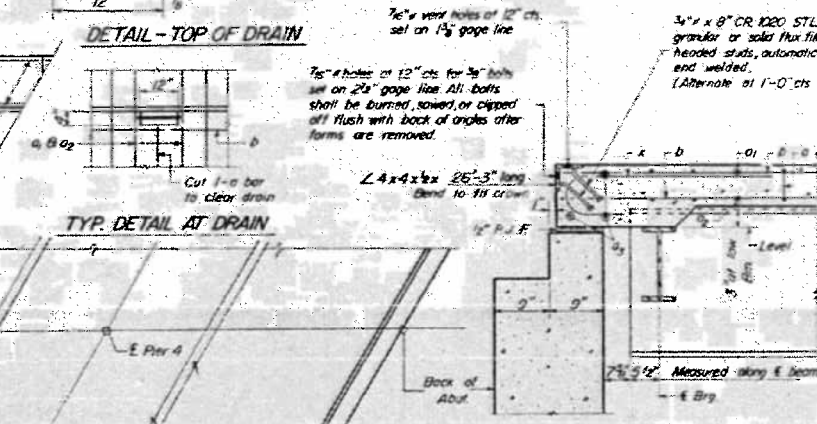
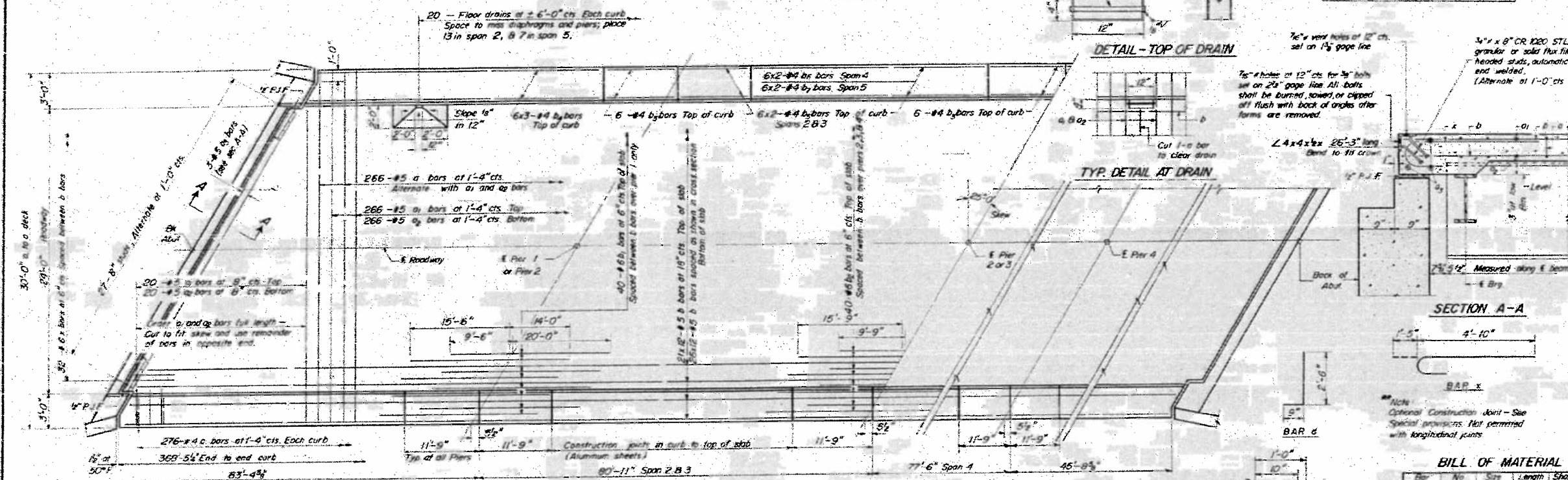
DESIGN STRESSES
 f_c = 1400 psi Super B Sub
 f_c = 75 psi (Footings)
 f_s = 20,000 psi Reinft.
 f_s = 20,000 psi Struct. (A-36)
 n = 10
 Allow. L. B. = $\frac{L}{1000}$; L. A. = $\frac{L}{1200}$ Comp.
 Loading: HS 15-44

DESIGNED: [Signature]
 CHECKED: Emory J. [Signature]
 DRAWN: PG [Signature]
 CHECKED: E.J.S.
 [Signatures and stamps]

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

DATE	REVISED	BY	REASON
10-10-62			
11-1-63			
5-1-64			

SHEET NO. 2
11 SHEETS



BILL OF MATERIAL

Bar No.	Size	Length	Shape
a1	#5	29'-6"	
a2	#5	29'-6"	
a3	#5	26'-0"	
b	#5	31'-0"	
b1	#6	29'-6"	
b2	#6	25'-6"	
b3	#4	11'-6"	
b4	#4	24'-9"	
b5	#4	25'-3"	
b6	#4	27'-6"	
b7	#6	17'-9"	
c	#4	5'-9"	
d	#5	3'-3"	
x	#6	6'-3"	

Reinforcement Bars Lbs. 62,330

Structural Steel Lbs. 320,840

Class X Concrete Cu Yd. 369.5

Weight of bearing assemblies with lead plates, and anchor bolts are included as structural steel. Est. Wt. = 9040#

Includes quantities from Steel 3

Interior Bars

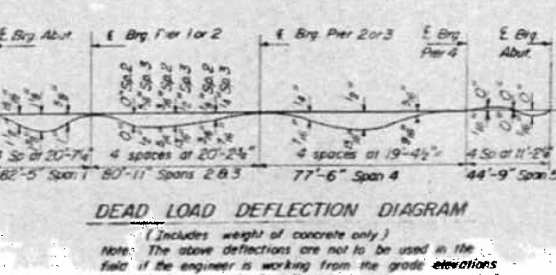
Exterior Bars

STANDARD FILLET DETAIL

To determine "r". After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 4. These elevations subtracted from the Grade Elevations Adjusted for Dead Load Deflections shown on sheet 4, minus slab thickness, equals the fillet heights "r" above top of beams.

DESIGNED	Checked	Drawn
EMERY J. SHIKAN	EMERY J. SHIKAN	G.L. BECKER
Checked	Approved	
E.J.S.	I.E. DUFF	

I-5-L (>15°) 10-10-62 Rev. 11-1-63 Rev. 5-1-64



SUPERSTRUCTURE

F.A.I. RT. 70 SEC. 26-1HB-2

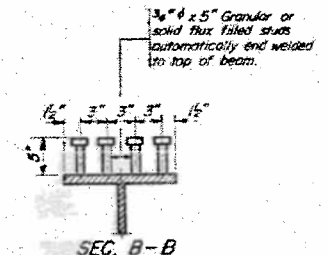
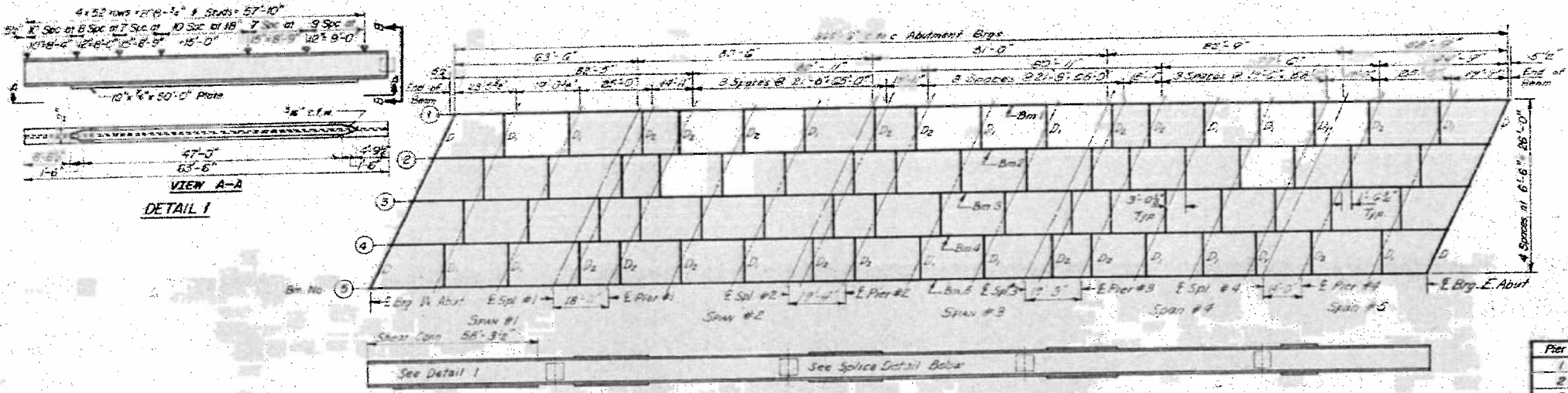
FAYETTE COUNTY

STA. 335+00 (F.A.I. 70)

STA. 50+00 (TWP. RD. 373)

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

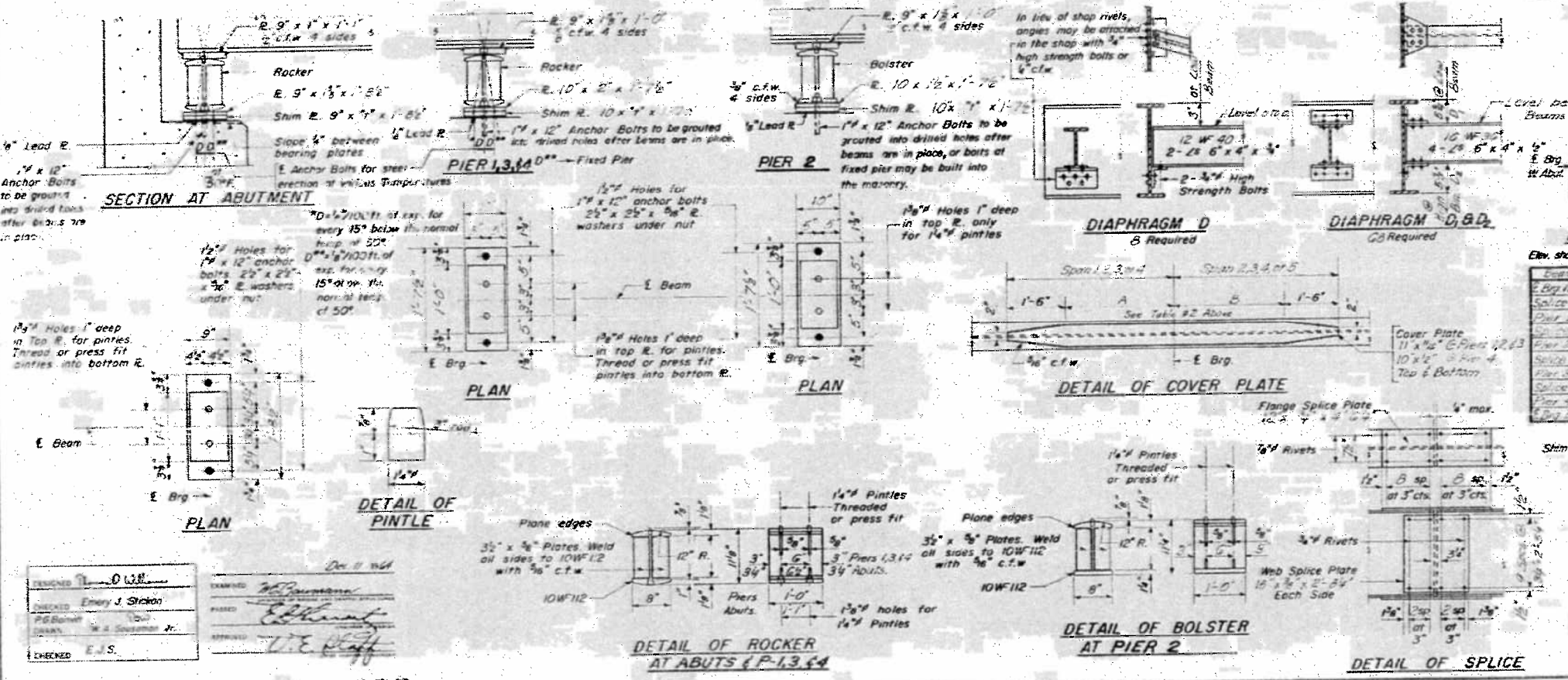
NO. 1	NO. 2	NO. 3	NO. 4	NO. 5
10	11	12	13	14
FAYETTE				11 SHEETS



Note: Weight of studs is included in quantity of Structural Steel. Est. Weight = 770⁰

TABLE 2

Pier #	Cover Plate Lengths			TOTAL
	A	B	A+B	
1	12'-3"	12'-3"	24'-6"	27'-6"
2	12'-3"	12'-3"	24'-6"	27'-6"
3	12'-3"	11'-9"	24'-0"	27'-0"
4	7'-9"	4'-6"	12'-3"	15'-3"



DESIGNED BY: O.W.H.
CHECKED: Emory J. Strickon
P.B. BAKER
DATE: 7/23/2015
E.J.S.

I-2-C 7-2-62 Rev 11-9-62 Rev 8-16-63 Rev 12-10-63

STRUCTURAL STEEL
F.A.I. RT. TO SEC 26-11B-2
FAYETTE COUNTY
STA 335+00