

1-18-13 LETTING ITEM 047

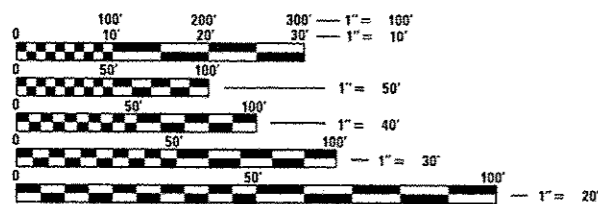
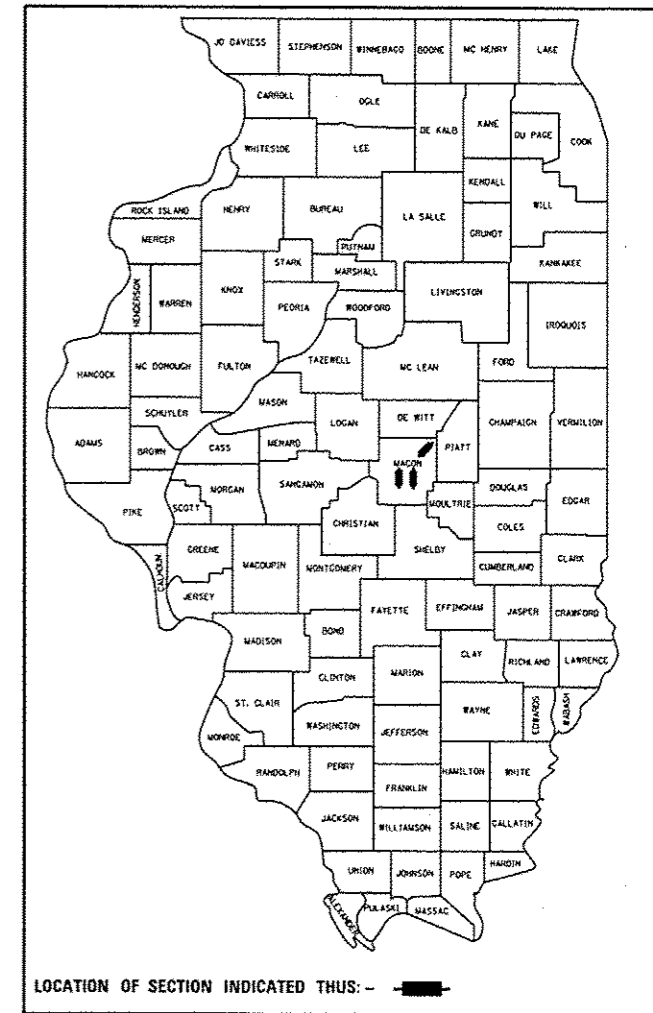
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PROPOSED
 HIGHWAY PLANS**
 VARIOUS ROUTES
 SECTION D7 BRIDGE PAINTING 2013-2
 BRIDGE PAINTING
 MACON COUNTY
 C-97-107-12

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	MACON	27	1
ILLINOIS			CONTRACT NO. 74580	

* VARIOUS ROUTES
 ** D7 BRIDGE PAINTING 2013-2

FOR INDEX OF SHEETS, SEE SHEET NO. 2

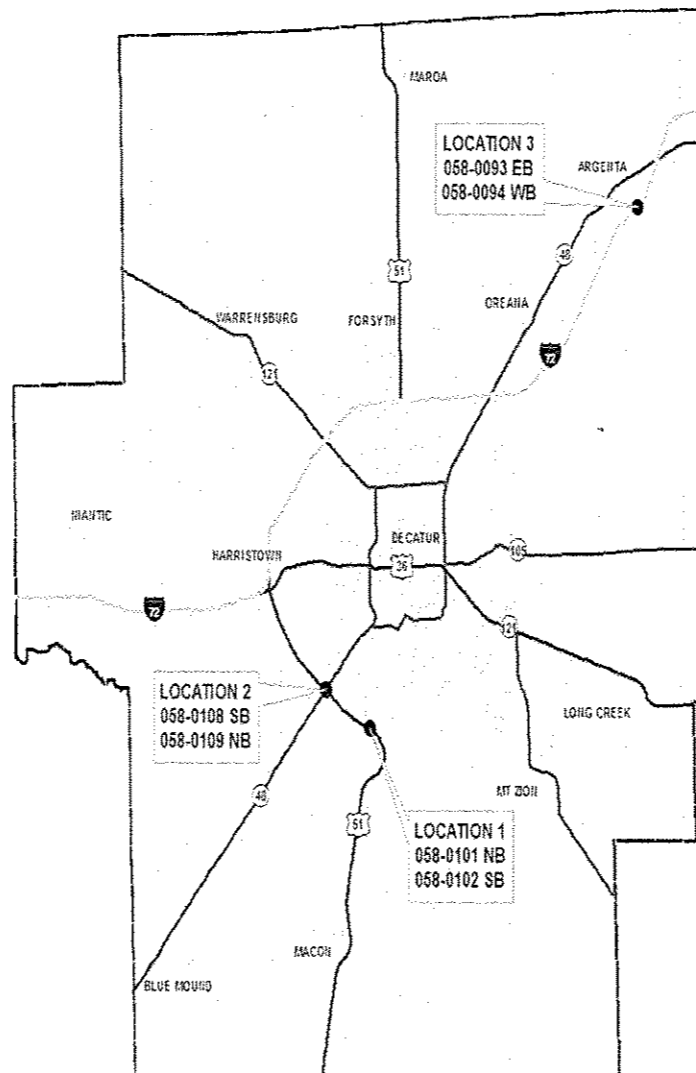
ADT'S
 U.S. 51 = 3,500 (2010)
 I-72 = 10,300 (2010)



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. 74580



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED Dec 3 20 12
Roger L. Drishell
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 7 20 12
John D. Baranzelli, P.E. /BL
 acting ENGINEER OF DESIGN AND ENVIRONMENT

Dec 7 20 12
William R. Fry /a
 acting DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	INDEX OF SHEETS & GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	LOCATION DESCRIPTIONS
5-27	EXISTING STRUCTURE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 27:

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 701411-08	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701423-06	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
STANDARD 701901-03	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 3 LOCATIONS IN MACON COUNTY IN DISTRICT 7. LOCATION 1 IS AT STRUCTURE NUMBERS 058-0101 AND 058-0102 ON NORTHBOUND AND SOUTHBOUND US ROUTE 51 IN MACON COUNTY. LOCATION 2 IS AT STRUCTURE NUMBERS 058-0108 AND 058-0109 ON NORTHBOUND AND SOUTHBOUND US ROUTE 51 IN MACON COUNTY. LOCATION 3 IS AT STRUCTURE NUMBERS 058-0093 AND 058-0094 ON EASTBOUND AND WESTBOUND INTERSTATE 72 IN MACON COUNTY.

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

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

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 OP1 AND OP2 PAINTING CONTRACTOR CERTIFICATION WILL BE REQUIRED FOR THIS PROJECT.

* VARIOUS ROUTES
** 07 BRIDGE PAINTING 2013-2

FILE NAME *	USER NAME * stafffrank	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS AND GENERAL NOTES			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwworkspace\stafffrank\0307267\0	74580-ahc-index.dgn	DRAWN -	REVISED -		SCALE: N/A	SHEET 1	OF 1	SHEETS	STA.	TO STA.	MACON	27	2
	PLOT SCALE * 100.0000 / 1 in.	CHECKED -	REVISED -		CONTRACT NO. 74580								
Default	PLOT DATE * 10/23/2012	DATE -	REVISED -		[ILLINOIS] FED. AID PROJECT								

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				0014	0014	
67100100	MOBILIZATION	L SUM	1	0.33	0.67	
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2		2	
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	4	2	2	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	4	2	2	
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	0.33	0.67	
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1	0.33	0.67	
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1		
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	1		
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1		1	
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1		1	
Z0010505	CLEANING AND PAINTING STEEL BRIDGE NO. 5	L SUM	1		1	
Z0010506	CLEANING AND PAINTING STEEL BRIDGE NO. 6	L SUM	1		1	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	0.5	0.5	

* VARIOUS ROUTES
** D7 BRIDGE PAINTING 2013-2

FILE NAME *	USER NAME = staffannk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pvc\work\spwidot\stoffsannk\00307207\074580-shr-40a.dgn	74580-shr-40a.dgn	DRAWN -	REVISED -					*	**	MACON	27	3
PLOT SCALE = 100.0000 / 1 in.		CHECKED -	REVISED -		SCALE: N/A			SHEET 1	OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 74580
Default	PLOT DATE = 10/23/2012	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

LOCATION DESCRIPTIONS

LOCATION 1

ROUTE: NB FAP 322
 MARKED: US 51
 SECTION: 58-20HVB
 STATION: 133+62.06
 STRUCTURE NUMBER: 058-0101 (Steel Bridge No. 1)

TYPE OF BRIDGE: WF & PG beam Structure - 4 Spans (8 beams)
 LOCATION: 1 Mile south of Decatur
 FEATURE CARRIED/SPANNED: NB US 51 over BUS 51 and the IC RR

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, within 10' (measured along the beam) of the abutments and any expansion joint (pin and link assembly), shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottoms of both fascia beams 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.

ROUTE: SB FAP 322
 MARKED: US 51
 SECTION: 58-20HVB
 STATION: 133+62.06
 STRUCTURE NUMBER: 058-0102 (Steel Bridge No. 2)

TYPE OF BRIDGE: WF & PG beam Structure - 4 Spans (7 beams)
 LOCATION: 1 Mile south of Decatur
 FEATURE CARRIED/SPANNED: SB US 51 over BUS 51 and the IC RR

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, within 10' (measured along the beam) of the abutments and any expansion joint (pin and link assembly), shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottoms of both fascia beams 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: EB FAP 322
 MARKED: US 51
 SECTION: 58-20HVB-1
 STATION: 235+00.78
 STRUCTURE NUMBER: 058-0108 (Steel Bridge No. 3)

TYPE OF BRIDGE: WF & PG beam Structure - 4 Spans (7 beams)
 LOCATION: 0.5 Miles Southwest of Decatur
 FEATURE CARRIED/SPANNED: SB US 51 over ILL 48 and the N&S RR

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, within 10' (measured along the beam) of the abutments and any expansion joint (pin and link assembly), shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottoms of both fascia beams 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 DESCRIPTIONS (Cont'd)

ROUTE: WB FAP 322
 MARKED: US 51
 SECTION: 58-20HVB-1
 STATION: 235+00.78
 STRUCTURE NUMBER: 058-0109 (Steel Bridge No. 4)

TYPE OF BRIDGE: WF & PG beam Structure - 4 Spans (8 beams)
 LOCATION: 0.5 Miles Southwest of Decatur
 FEATURE CARRIED/SPANNED: NB US 51 over ILL 48 and the N&S RR

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, within 10' (measured along the beam) of the abutments and any expansion joint (pin and link assembly), shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottoms of both fascia beams 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 3

ROUTE: EB FAI 72
 MARKED: I-72
 SECTION: 58-66B
 STATION: 721+12.00
 STRUCTURE NUMBER: 058-0093 (Steel Bridge No. 5)

TYPE OF BRIDGE: PG Structure - 3 Spans (6 beams)
 LOCATION: 1 Mile East of Argenta
 FEATURE CARRIED/SPANNED: EB I-72 over Friends Creek

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, within 5' (measured along the beam) of the abutments and any expansion joint, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottoms of both fascia beams 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.

ROUTE: WB FAI 72
 MARKED: I-72
 SECTION: 58-66B
 STATION: 721+12.00
 STRUCTURE NUMBER: 058-0094 (Steel Bridge No. 6)

TYPE OF BRIDGE: PG Structure - 3 Spans (6 beams)
 LOCATION: 1 Mile East of Argenta
 FEATURE CARRIED/SPANNED: WB I-72 over Friends Creek

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, within 5' (measured along the beam) of the abutments and any expansion joint, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottoms of both fascia beams 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.

* VARIOUS ROUTES
 ** D7 BRIDGE PAINTING 2013-2

FILE NAME *	USER NAME * stafferek	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION DESCRIPTIONS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default		CHECKED -	REVISED -										
		DATE -	REVISED -										

CONTRACT NO. 74580
 [ILLINOIS] FED. AID PROJECT

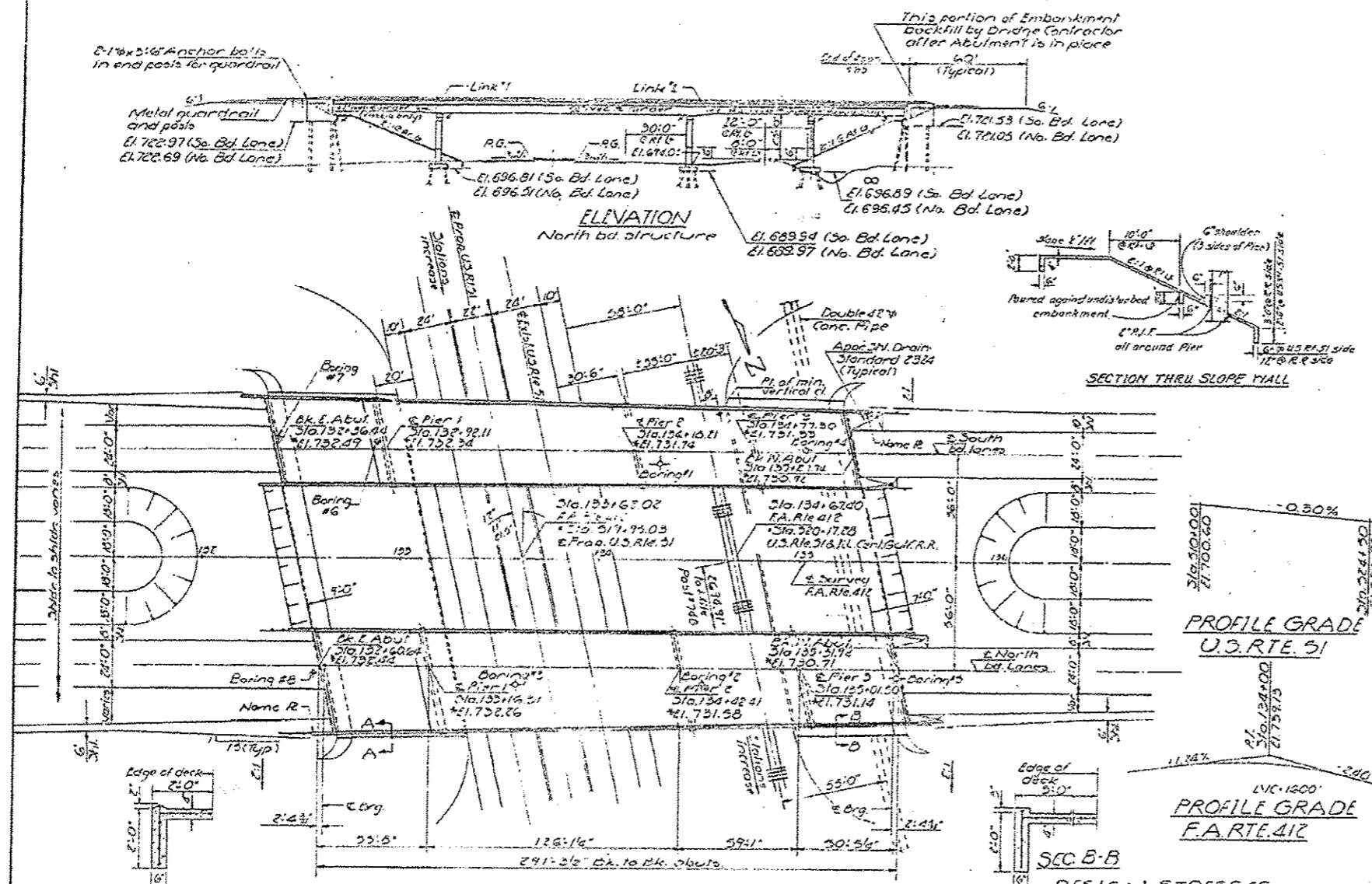
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
412	58-20	Macon	95	36

SMH-G E1.691.83 Critical Square on NW corner of concrete pier...
East side of U.S. Rte 51 approximately 350 ft. North of centerline.

GENERAL NOTES

Reinforcing steel shall be high strength deformed bars...
Concrete shall be placed in accordance with Article 5.03(2) of the Std. Specifications...
Protective Coats shall not be applied to surfaces to which Waterproofing Membrane System is applied.



TOTAL BILL OF MATERIAL

Item	Quantity	Unit	Total
Structural Concrete Surface Course Class 1	256	cu yd	256
Structure Excavation	170	cu yd	170
Protective Coat	472	sq ft	472
Waterproofing Membrane System	2906	sq ft	2906
Structural Steel	1	lb	1
Minimum Rebar	1255	lb	1255
Reinforcement Bars	62700	lb	62700
Concrete Piles	9619	cu yd	9619
Cast Piles (Concrete)	2	cu yd	2
Slope Wall (C&G)	2962	sq ft	2962
Formed Joint Series (1.5)	94	sq ft	94
Name Plate	2	sq ft	2
Structural Steel	8	sq ft	8
Steel Sheet Piling	3915	sq ft	3915
Steel Sheet Piling	6650	sq ft	16472
Structural Steel (2.5)	101	sq ft	101
Waterproofing Membrane System	92	sq ft	92

DESIGNED: [Signature]

CHECKED: [Signature]

DRAWN: [Signature]

CHECKED: [Signature]

PLAN
* Elevations @ Top of Class I

STATION 133+62.06
BUILT BY
STATE OF ILLINOIS
F.A. RTE. 412 SEC. 58-20HVB
P.A. PROJ. 58FEBRFG-412(7)
LOADING HS 20

NAME PLATE
(See Sta. 131.5)

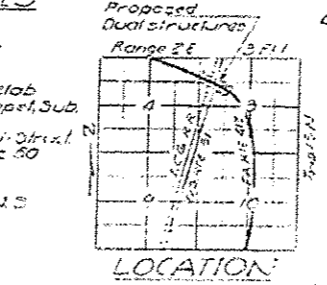
DESIGN STRESSES

Piers - $f_c = 3500$ psi
 $f_y = 60,000$ psi
 $n = 8.5$

FC-1200 psi Deck slab
FC-1400 psi Curb, Parapet, Sub.
FC-20,000 psi Reinf.
FC-20,000 psi Struck
FC-1400 psi Grade 50
FC-7000 psi Footings
FC-1400 psi

Allow 25% for Piers & NS

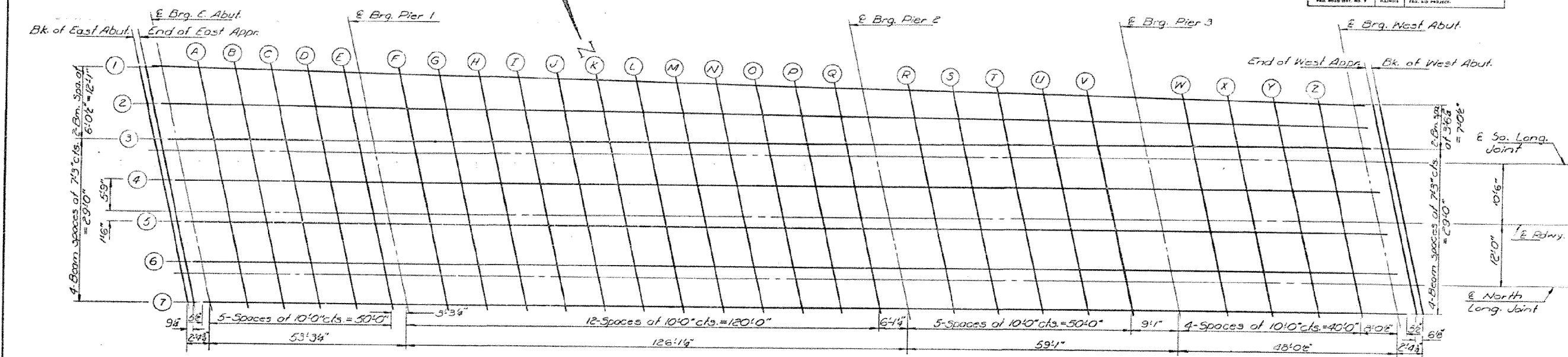
Design Specifications
ASHTO 1993 & Additions
(See Appendix B)



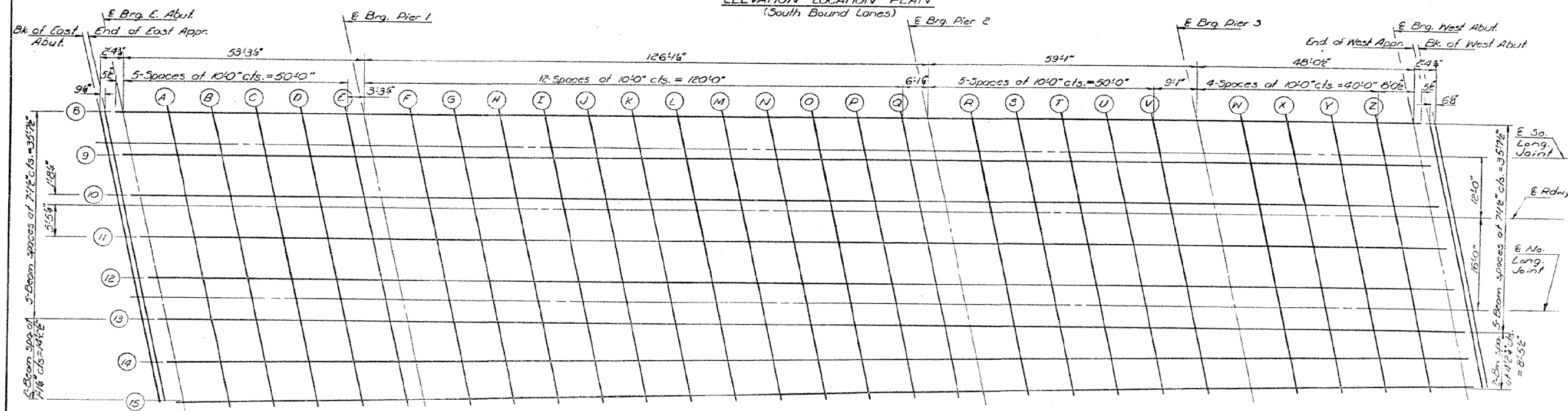
PROJECT 58FEBRFG-412(7)
GENERAL PLAN AND ELEVATION
F.A. RTE. 412 OVER U.S. RTE 51
AND ILLINOIS CENTRAL GULF RR
F.A. ROUTE 412
SECTION 58-20HVB
MACON COUNTY
STATION 133+62.06 (F.A. RTE 412)
STATION 134+67.00 (U.S. RTE 51)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
412	58-20	Macon	95	38
SHEET NO. 3 33 SHEETS				



ELEVATION LOCATION PLAN
(South Bound Lanes)



ELEVATION LOCATION PLAN
(North Bound Lanes)

DESIGNED	Suresh Desai	EXAMINED	Dec 18 1975
CHECKED	John A. Morris	PASSED	
DRAWN	R. Doty	APPROVED	
CHECKED	Jam		

ELEVATION LOCATION PLANS
NORTH AND SOUTH BOUND LANES
F.A. RT 412 SEC. 58-20/NB
MACON COUNTY
STA. 133+62.06

VARIOUS ROUTES
D7 BRIDGE PAINTING 2013-2

FILE NAME =	USER NAME = steffennk	DESIGNED -	REVISED -
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

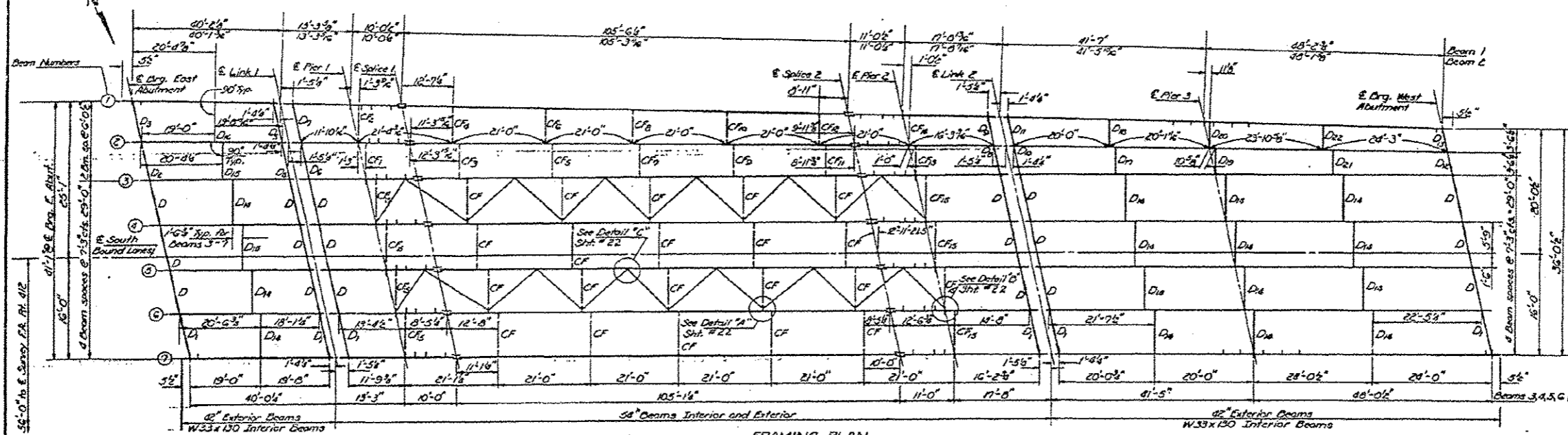
EXISTING STRUTURE PLAN

SCALE: NA SHEET 2 OF 23 SHEETS STA. TO STA.

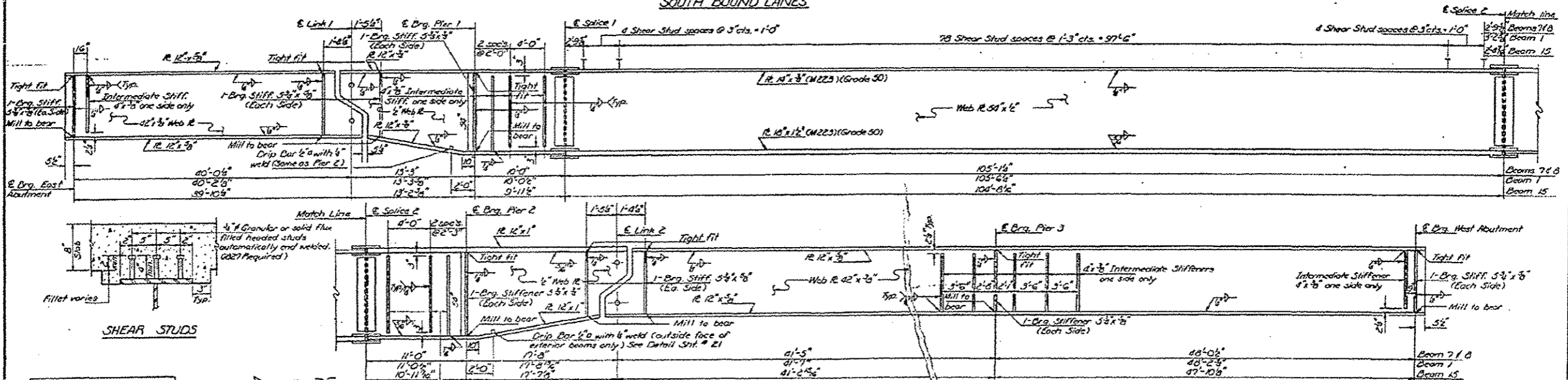
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MACON	27	6
CONTRACT NO. 74580				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
412	20	MACON	54	54
SHEET NO. 54 33 SHEETS				



FRAMING PLAN
SOUTH BOUND LANES



EXTERIOR BEAM ELEVATION

DESIGNED	Suresh Desai	EXAMINED	Dec 10 2012
CHECKED	John A. Mans	PASSED	
DRAWN	Joe Sutherland	APPROVED	
CHECKED	(Signature)		

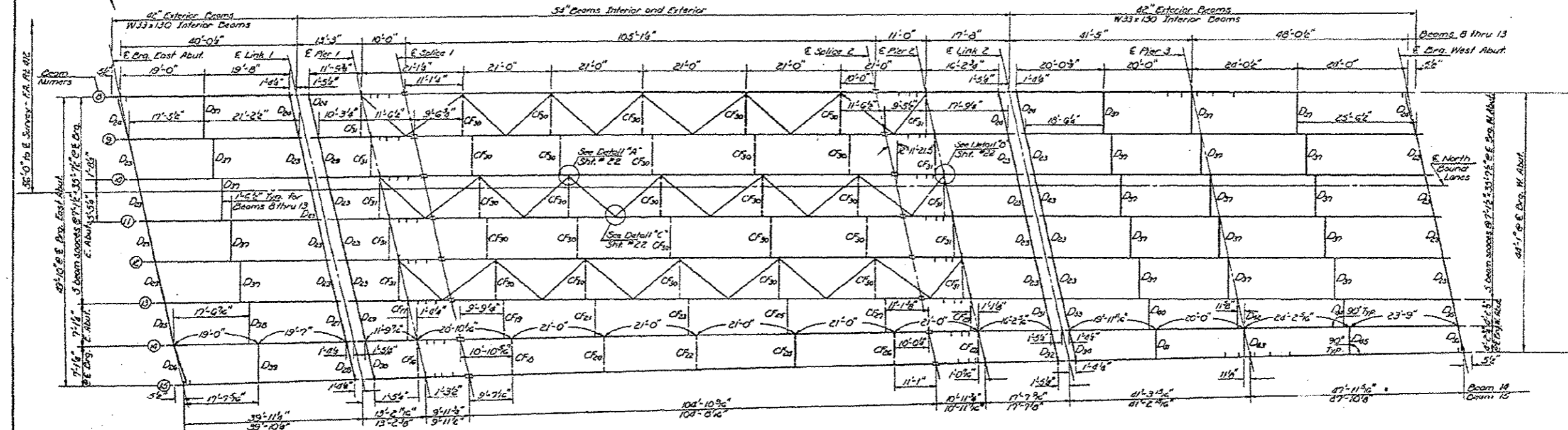
SHEAR STUDS

Note: All longitudinal dimensions are measured along E Beam unless shown otherwise.
All transverse dimensions are at right angles to E Roadway unless shown otherwise.
All structural steel is AASHTO M103 except as shown.

STRUCTURAL STEEL
F.A. RT 412 SEC. 20-20HVB
MACON COUNTY
STA. 133 + 62.06

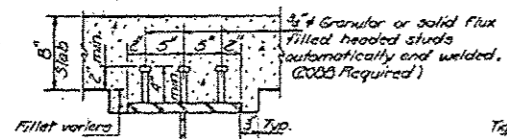
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
412	58-20	MACON	95	55
				33 SHEETS

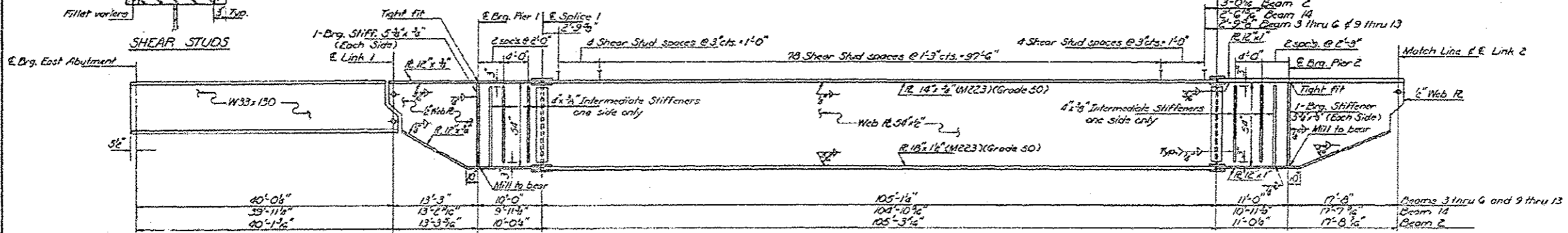


FRAMING PLAN
NORTH BOUND LANES

Note: All longitudinal dimensions are measured along E Beam unless shown otherwise.
All transverse dimensions are of right angles to E Roadway unless shown otherwise.
All structural steel is AASHTO M183 except as shown.



SHEAR STUDS



INTERIOR BEAM ELEVATION

DESIGNED	Suresh Desai	EXAMINED	Dec 18 11 05
CHECKED	John A. Morris	PASSED	
DRAWN	Joe Sutherland	APPROVED	
CHECKED			

STRUCTURAL STEEL
FA. RT. 412, SEC. 58-20 HVB
MACON COUNTY
STA. 133+62.06

VARIOUS ROUTES
07 BRIDGE PAINTING 2013-2

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE PLAN 058-0101	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
g:\p\work\p\idots\stoffs\k140307287\074580-shr-plan.dgn	stoffs	-	-					MACON	27	8
PLOT SCALE = 1/8\"/>										
DATE	DATE	DATE	DATE							

SCALE: NA SHEET 4 OF 23 SHEETS STA. TO STA.

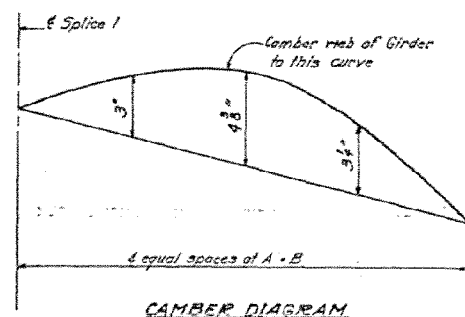
ILLINOIS FED. AID PROJECT CONTRACT NO. 74580

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
58-20	HVB	MACON	95	56
SHEET NO. 20				
33 SHEETS				

TOP OF WEB OR FLANGE ELEVATIONS
(Elevations for fabrication only.)
* Indicates top of Flange.

Location	SOUTH BOUND LANES							NORTH BOUND LANES							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
E. Reg. E. Abut.	731.16	*731.33	*731.45	*731.57	*731.63	*731.52	731.33	731.29	*731.47	*731.57	*731.51	*731.39	*731.24	*731.09	730.88
E. Link #1	730.91	731.02	731.13	731.25	731.31	731.19	731.06	731.01	731.12	731.23	731.16	731.04	730.89	730.75	730.61
E. Bra. Pier #1	730.98	731.09	731.20	731.32	731.40	731.28	731.14	731.08	731.20	731.31	731.24	731.12	730.96	730.82	730.68
E. Splice #1	730.93	731.18	731.25	731.40	731.46	731.34	731.20	731.14	731.27	731.37	731.31	731.18	731.01	730.87	730.73
E. Splice #2	730.56	730.65	730.74	730.89	730.94	730.82	730.68	730.57	730.67	730.77	730.72	730.60	730.42	730.30	730.18
E. Bra. Pier #2	730.41	730.50	730.59	730.72	730.78	730.65	730.51	730.40	730.52	730.62	730.55	730.43	730.25	730.14	730.02
E. Link #2	730.17	730.26	730.34	730.45	730.51	730.38	730.25	730.12	730.24	730.34	730.27	730.15	729.99	729.87	729.76
E. Bra. Pier #3	729.97	*730.11	*730.19	*730.30	*730.35	*730.23	730.02	729.88	*730.06	*730.16	*730.09	*729.97	*729.81	*729.70	729.53
E. Reg. W. Abut.	729.74	*729.86	*729.93	*730.03	*730.09	*729.96	729.74	729.61	*729.78	*729.87	*729.80	*729.67	*729.51	*729.41	729.26



A & B DIMENSIONS

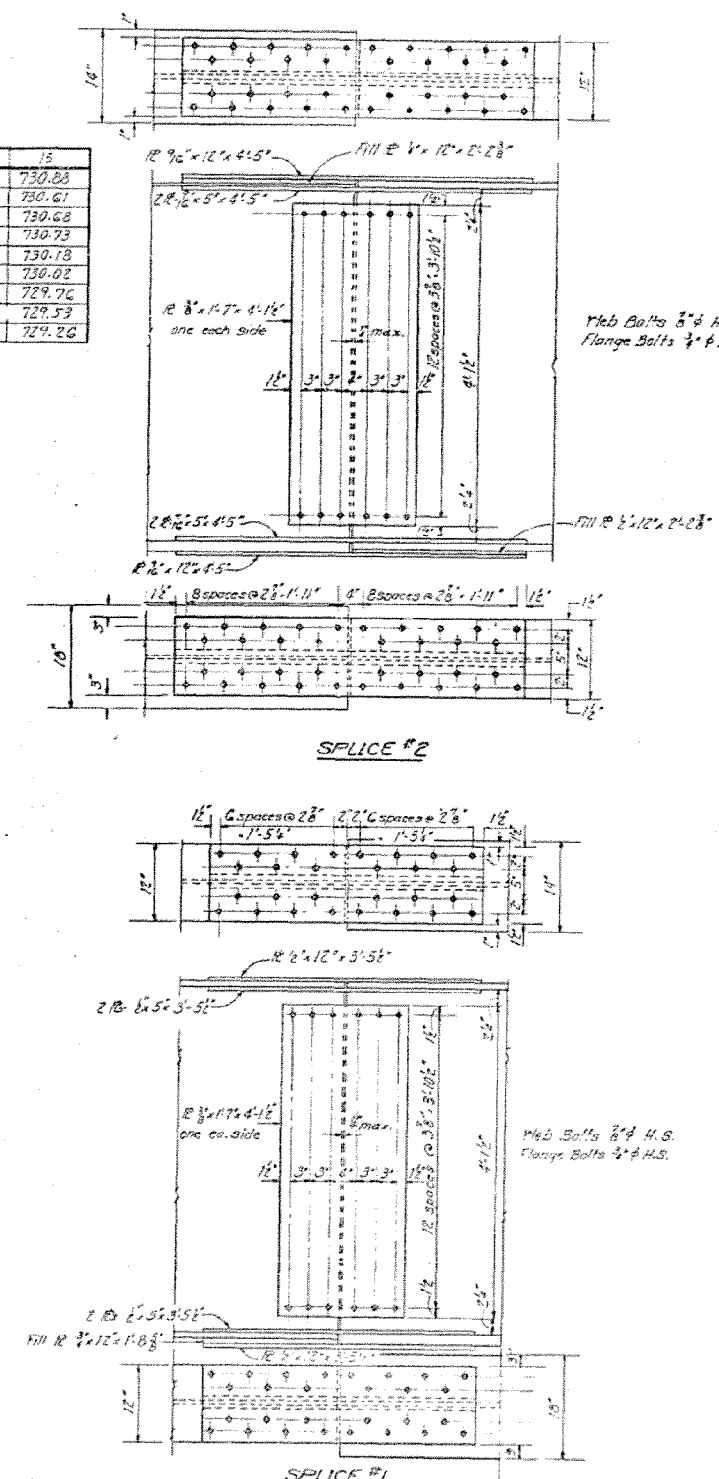
Beam	A	B
1	26'-4"	105'-6"
2	26'-3 1/2"	105'-3 1/2"
3 thru 13	26'-3 1/2"	105'-11"
14	26'-2 1/2"	104'-10 1/2"
15	26'-2"	104'-8 1/2"

INTERIOR GIRDER MOMENT TABLE						
	.4 Span 1	Pier 1	.5 Span 2	Pier 2	.5 Span 3	Pier 3
I _s (in ⁴)	6710	20045	31911	24711	6710	6710
I _c (in ⁴)			84,296			
S _s (in ³)	406	722	1493	882	406	406
S _c (in ³)			2017			
M (k-ft)	.891	.922	1.002	.947	.891	.891
M ₀ (k)	198	313	1607	447	224	65
P ₀ (ksi)	5.3	5.2	12.7	6.1	6.4	1.9
S ₀ (k-ft)	.46	.46	.46	.46	.46	.46
M ₀ (k)	92	162	732	201	81	94
M ₀ (k)	89	482	1299	564	305	191
M ₀ (k)	89	135	200	141	85	56
TOTAL (k)	477	779	2291	945	458	314
R ₀ (ksi)	14.1	12.7	13.6	12.3	13.7	10.1
I ₀ (ksi)	19.4	13.1	26.5	18.2	20.5	13.0
V ₀ (k)			63.2			

INTERIOR GIRDER REACTION TABLE						
	E. Abut. #1	Pier 1	Pier 2	Pier 3	Link 2	W. Abut.
R ₀ (k)	27.0	134.9	121.4	67.6	24.2	29.1
R ₀ (k)	36.4	48.6	48.4	40.3	32.1	36.0
Imp. (k)	10.9	9.5	10.0	12.1	9.3	10.5
R ₀ TOTAL (k)	74.3	193.0	199.8	120.0	65.6	75.6

I_s and S_s are the moment of inertia and section modulus of the steel section.
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing R₀.
V₀ is the maximum & impact shear force in span used to determine shear connector spacing.

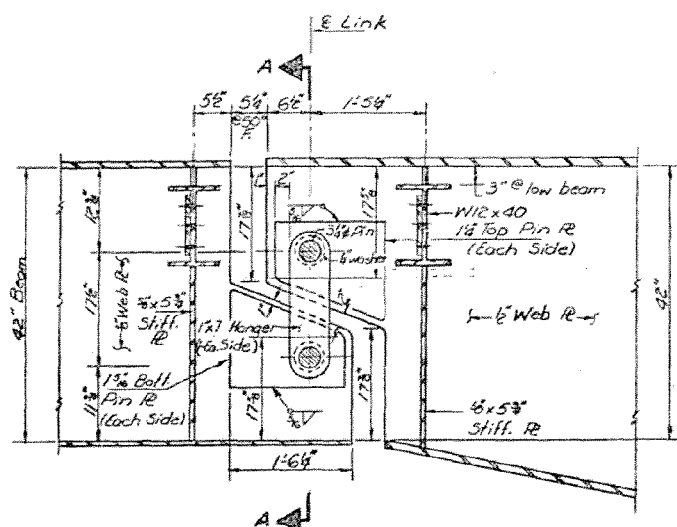
DESIGNED	Suresh Desai	EXAMINED	DEC 18 2015
CHECKED	John A. Morris	PASSED	
DRAWN	S.A.	APPROVED	
CHECKED	Sam		



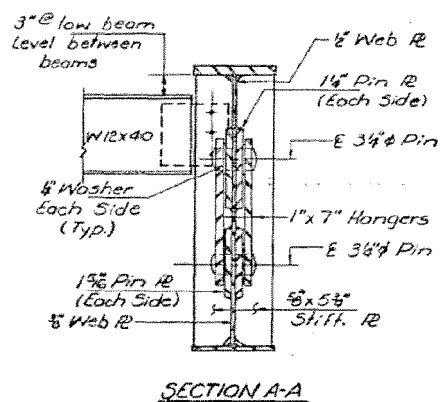
STRUCTURAL STEEL-DETAILS
F.A.R.T. 412 SEC. 58-20HVB
MACON COUNTY
STA. 153+62.06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

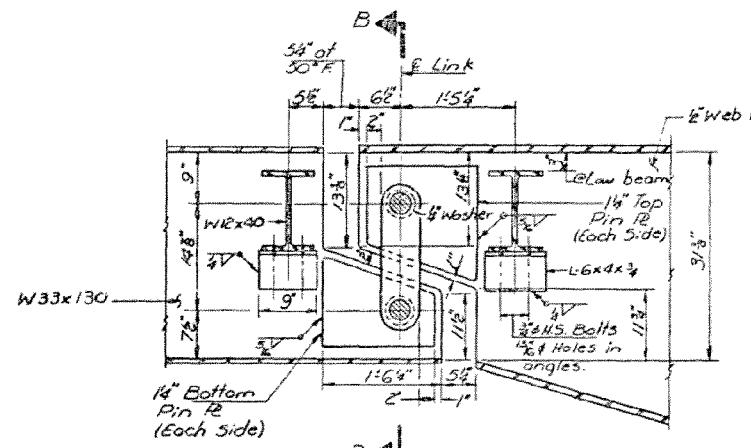
PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 21 33 SHEETS
412	58-20 HVB	Macou	75	57	



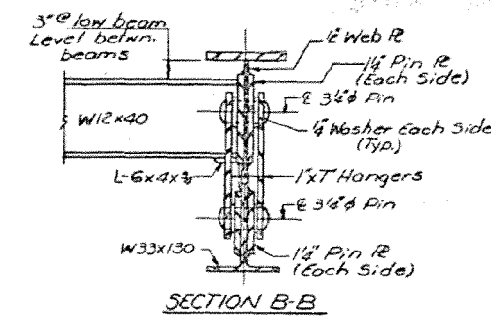
LINK #1#2 - OUTSIDE BEAMS



SECTION A-A

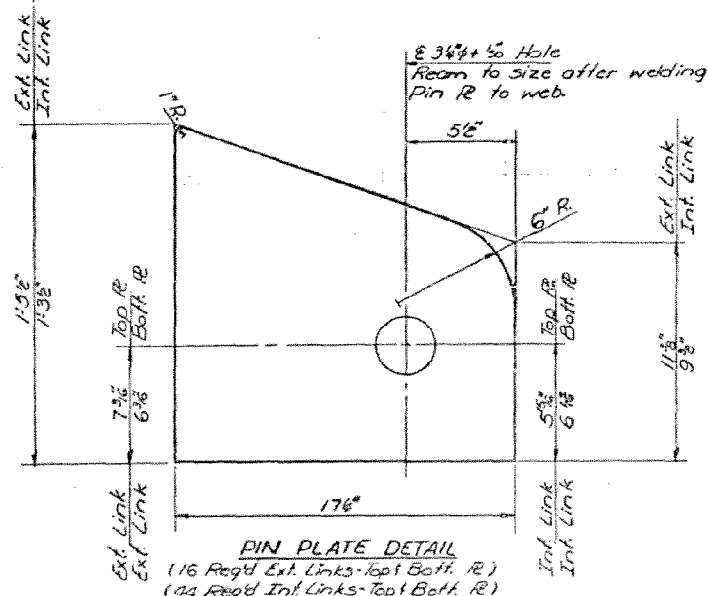


LINK #1#2 - INTERIOR BEAMS

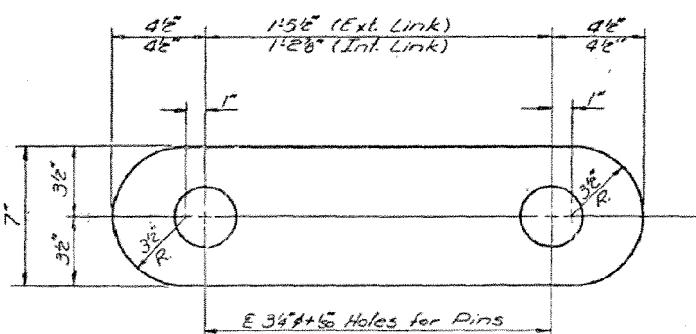


SECTION B-B

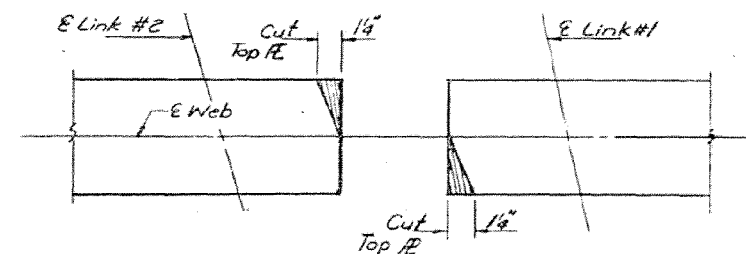
Note:
All longitudinal dimensions are given along E Beam.



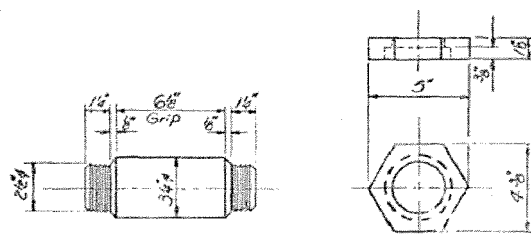
PIN PLATE DETAIL
(16 Req'd Ext. Links - Top Bolt R)
(44 Req'd Int. Links - Top Bolt R)



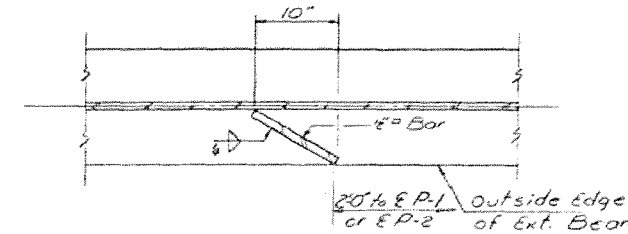
HANGER DETAIL
(16 Req'd - Ext. Links)
(44 Req'd - Int. Links)



TYPICAL DETAIL OF TOP FLANGES AT LINKS



PIN DETAIL
(60 Required)
Pin shall be SAE 0620 Steel.
Heat Treated:
Case harden except threads.
Case Depth: .12-.15 inches
Surface Hardness: 58 HRC



PLAN DRIP BAR

STRUCTURAL STEEL DETAILS
F.A. RT. 412 SEC. 58-20HVB
MACON COUNTY
STA. 133+62.06

DESIGNED	Suresh Desai	EXAMINED	[Signature]
CHECKED	John A. Marcus	PASSED	[Signature]
DRAWN	R. Doty	APPROVED	[Signature]
CHECKED	[Signature]		

FILE NAME =	USER NAME = steffennk	DESIGNED -	REVISED -
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUTURE PLAN

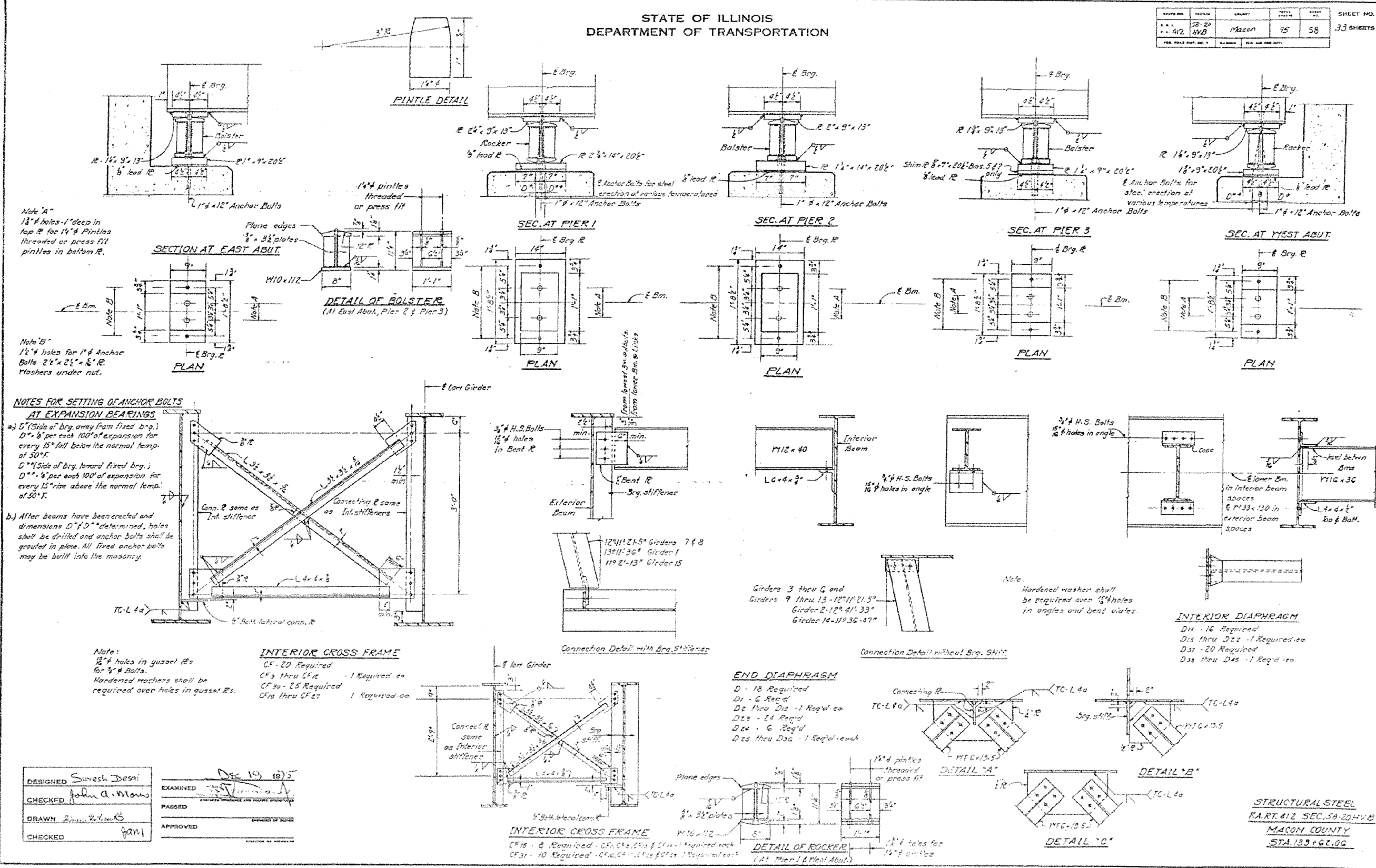
SCALE: NA SHEET 6 OF 23 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MACON	27	10
CONTRACT NO. 74580				
ILLINOIS FED. AID PROJECT				

VARIOUS ROUTES
D7 BRIDGE PAINTING 2013-2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	QUANTITY	UNIT	PRICE	TOTAL
412	28	sq. yd.	58	1624
33 SHEETS				

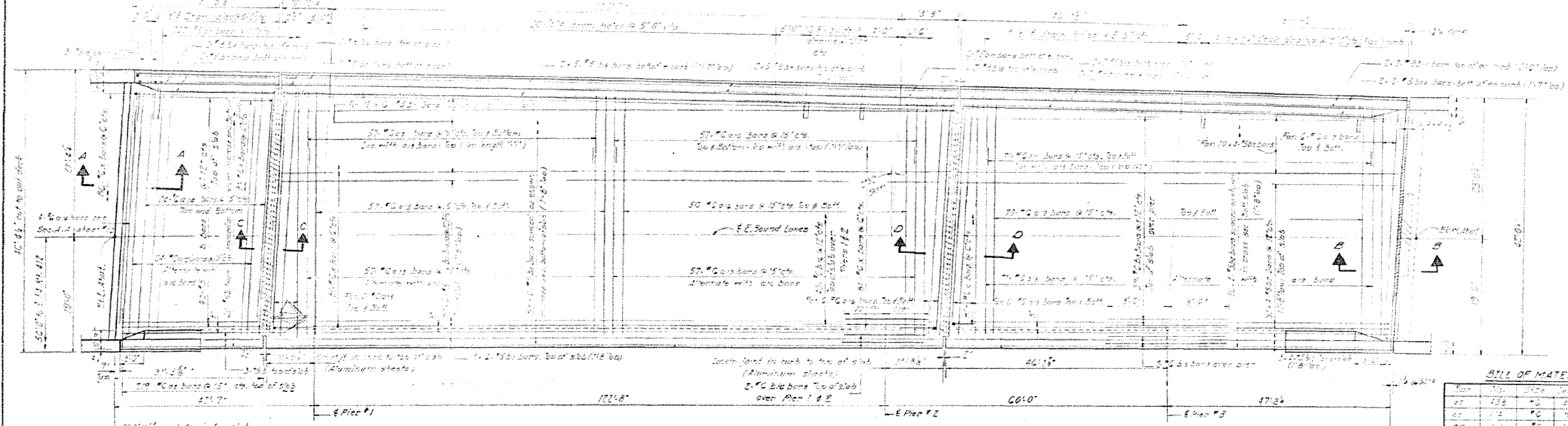


DESIGNED	Suresh Desai	EXAMINED	Dec 19, 2015
CHECKED	John A. Manno	PASSED	
DRAWN	John A. Manno	APPROVED	
CHECKED	John A. Manno		

STRUCTURAL STEEL
 PART 412 SEC. 58-204-VB
 MACON COUNTY
 STA. 139+62.00

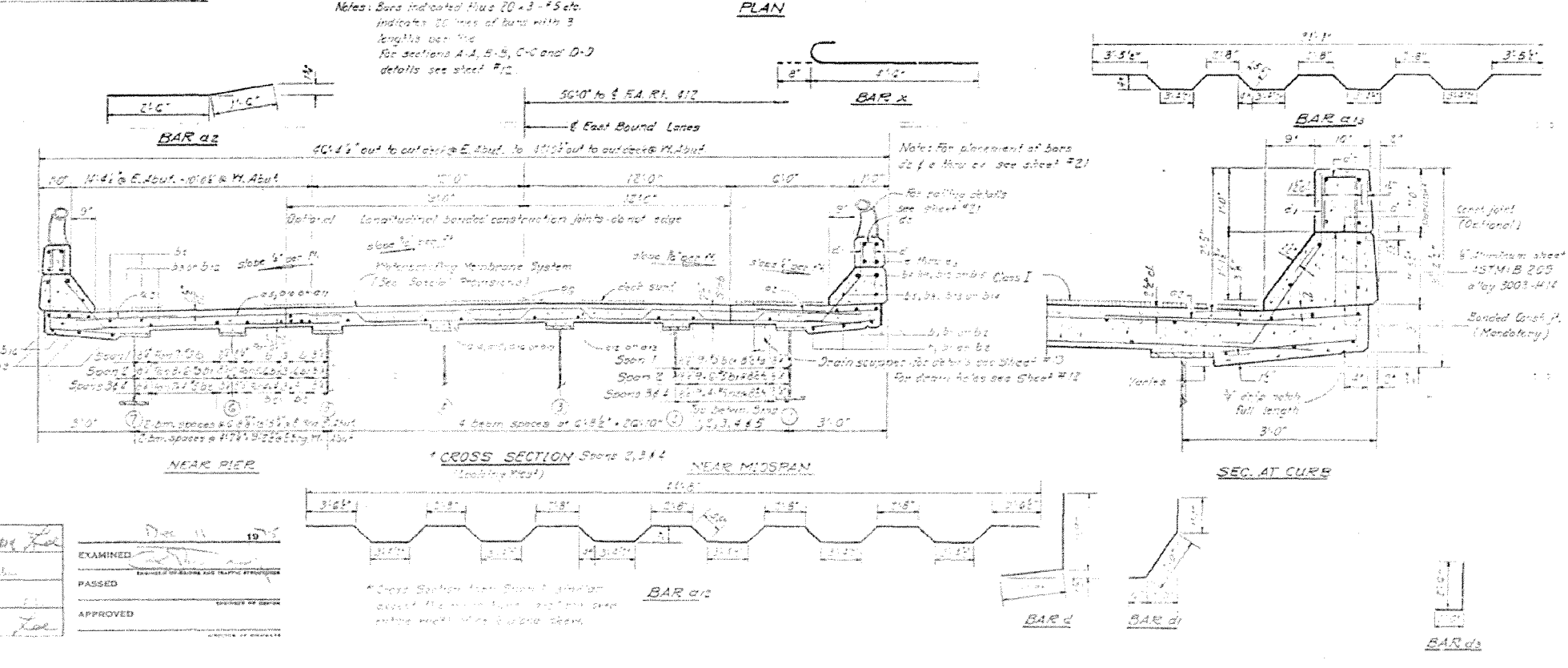
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE OF SHEET	NO. OF SHEETS	TOTAL SHEETS	SHEET NO.
10/23/12	13	27	13



BILL OF MATERIAL

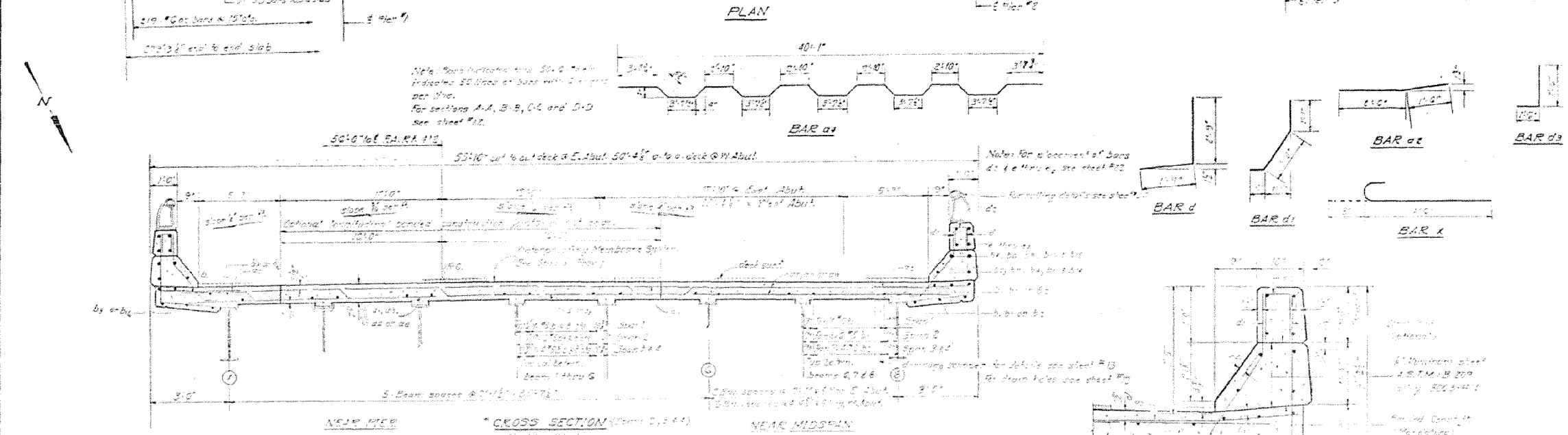
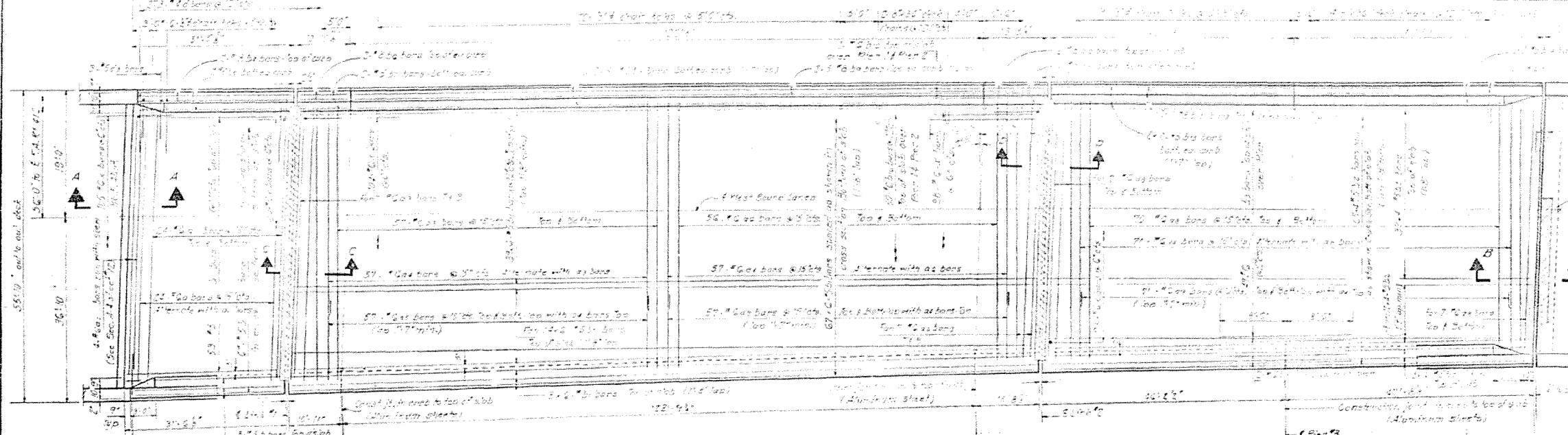
Bar	Qty	Size	Length	Volume
1	138	#5	3'-0"	
2	12	#5	15'-0"	
3	12	#5	15'-0"	
4	12	#5	15'-0"	
5	12	#5	15'-0"	
6	12	#5	15'-0"	
7	12	#5	15'-0"	
8	12	#5	15'-0"	
9	12	#5	15'-0"	
10	12	#5	15'-0"	
11	12	#5	15'-0"	
12	12	#5	15'-0"	
13	12	#5	15'-0"	
14	12	#5	15'-0"	
15	12	#5	15'-0"	
16	12	#5	15'-0"	
17	12	#5	15'-0"	
18	12	#5	15'-0"	
19	12	#5	15'-0"	
20	12	#5	15'-0"	
21	12	#5	15'-0"	
22	12	#5	15'-0"	
23	12	#5	15'-0"	
24	12	#5	15'-0"	
25	12	#5	15'-0"	
26	12	#5	15'-0"	
27	12	#5	15'-0"	
28	12	#5	15'-0"	
29	12	#5	15'-0"	
30	12	#5	15'-0"	
31	12	#5	15'-0"	
32	12	#5	15'-0"	
33	12	#5	15'-0"	
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97	12	#5	15'-0"	
98	12	#5	15'-0"	
99	12	#5	15'-0"	
100	12	#5	15'-0"	



DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN	APPROVED
CHECKED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	DATE	SHEET NO.
100-1-100	100-1-100	MACON	10/23/12	14
SHEET NO. 14 OF 23 SHEETS				



BILL OF MATERIAL

Bar	Qty	Size	Length	Weight
a	1	#4	10'-0"	1.10
b	1	#4	10'-0"	1.10
c	1	#4	10'-0"	1.10
d	1	#4	10'-0"	1.10
e	1	#4	10'-0"	1.10
f	1	#4	10'-0"	1.10
g	1	#4	10'-0"	1.10
h	1	#4	10'-0"	1.10
i	1	#4	10'-0"	1.10
j	1	#4	10'-0"	1.10
k	1	#4	10'-0"	1.10
l	1	#4	10'-0"	1.10
m	1	#4	10'-0"	1.10
n	1	#4	10'-0"	1.10
o	1	#4	10'-0"	1.10
p	1	#4	10'-0"	1.10
q	1	#4	10'-0"	1.10
r	1	#4	10'-0"	1.10
s	1	#4	10'-0"	1.10
t	1	#4	10'-0"	1.10
u	1	#4	10'-0"	1.10
v	1	#4	10'-0"	1.10
w	1	#4	10'-0"	1.10
x	1	#4	10'-0"	1.10
y	1	#4	10'-0"	1.10
z	1	#4	10'-0"	1.10

DESIGNED: *[Signature]*
CHECKED: *[Signature]*
DRAWN: *[Signature]*
CHECKED: *[Signature]*

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUTURE PLAN

VARIOUS ROUTES
D7 BRIDGE PAINTING 2013-2

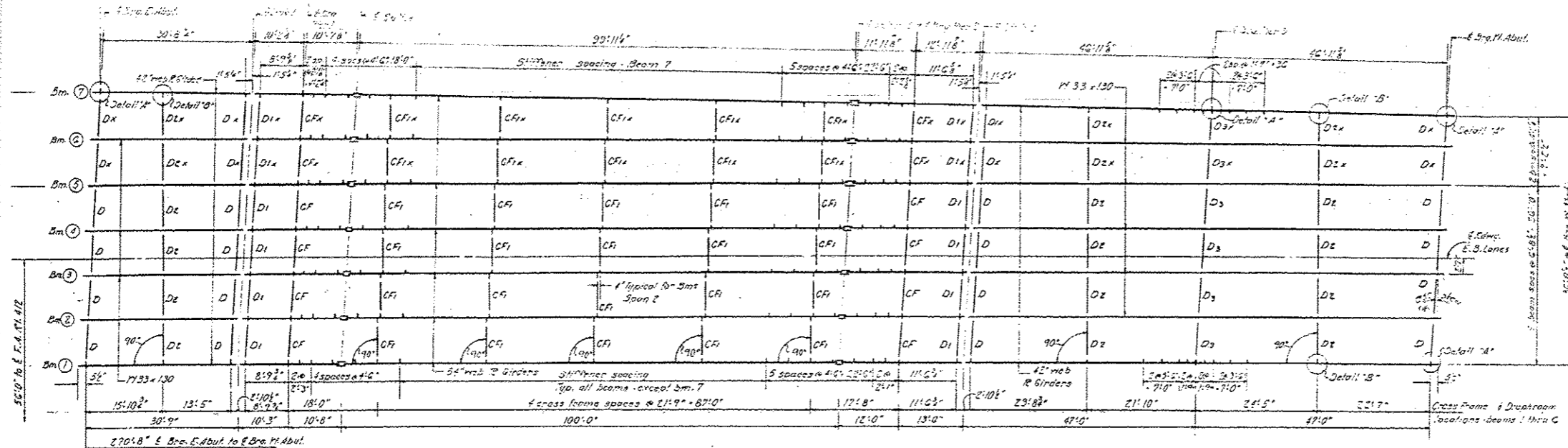
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	••	MACON	27	14
CONTRACT NO. 74580				
ILLINOIS FED. AID PROJECT				

FILE NAME =	USER NAME = steffennk	DESIGNED -	REVISED -
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/23/2012	DATE -	REVISED -

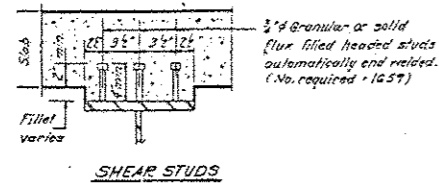
SCALE: NA SHEET 10 OF 23 SHEETS STA. TO STA.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	DATE	SHEET NO.	TOTAL SHEETS
58-26	MACON	107	58	33 SHEETS



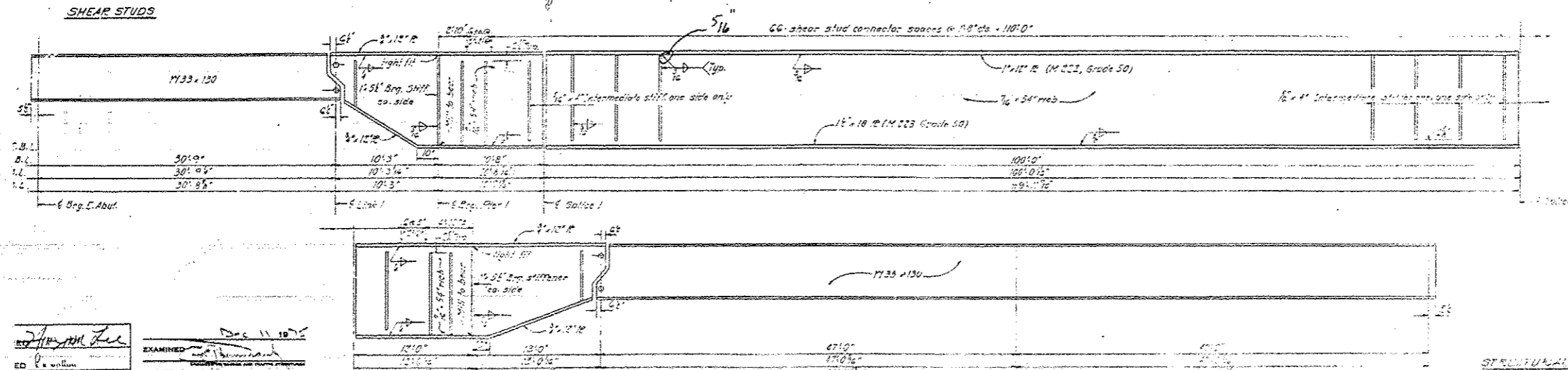
FRAMING PLAN - E.B. LANES



SHEAR STUDS

Note:
All structural steel shall be
AASHTO M183 except as noted
in beam elevation.

For details 'A' & 'B' see Sheet # 12



STRUCTURAL STEEL

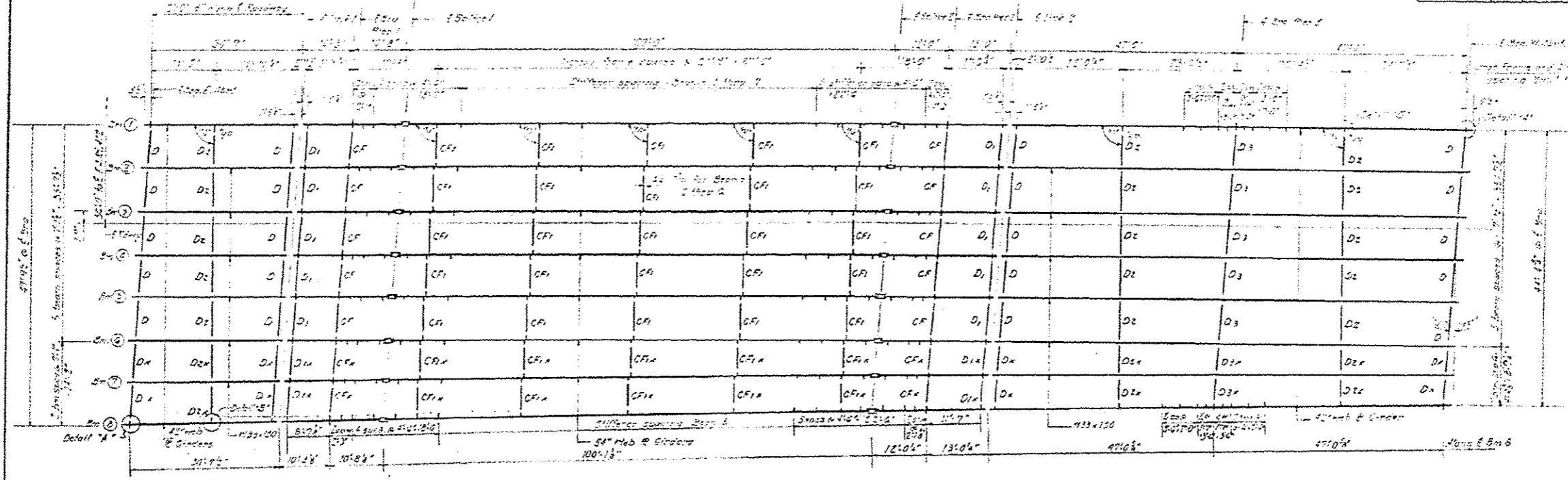
EXAMINED
PASSED
DATE 11 10 15

VARIOUS ROUTES
07 BRIDGE PAINTING 2013-2

FILE NAME :	USER NAME :	DESIGNED :	REVISED :	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUTURE PLAN 058-0102 (E8)	F.A.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		DATE :	REVISED :			STA. TO STA.		ILLINOIS FED. AID PROJECT			

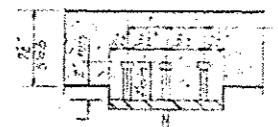
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	058-26	SECTION	MASS	SHEET NO.	107	TOTAL SHEETS	113
SHEET NO. 107 OF 113 SHEETS							

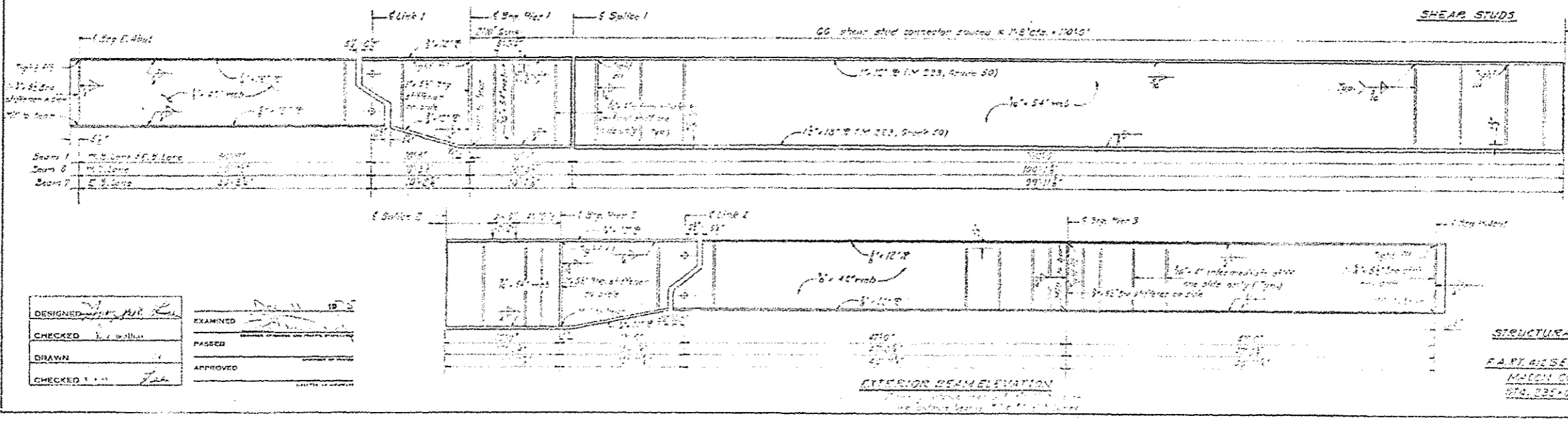


FRAMING PLAN - W.B. LANES

Notes:
All structure steel shall be
AASHTO M163 steel, except otherwise
noted in beam elevation.
For details 'A' & 'B' see sheet P-13



SHEAR STUDS



EXTERIOR BEAM ELEVATION

STRUCTURAL STEEL

PARTIAL SECTION
MASONRY
914.235+00.18

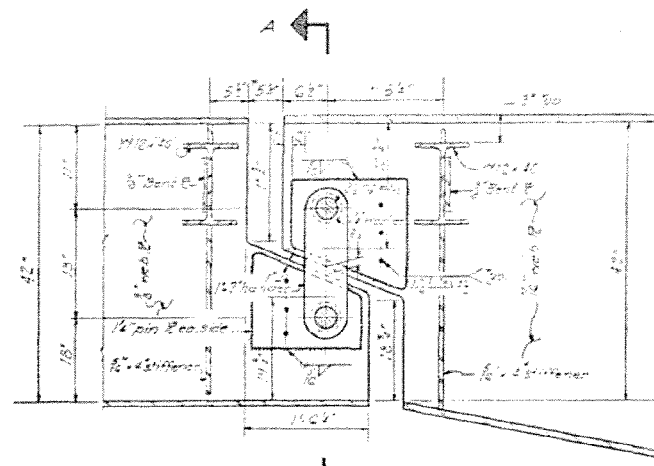
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CHECKED	[Signature]	PASSED	[Signature]
DRAWN	[Signature]	APPROVED	[Signature]
CHECKED	[Signature]		

VARIOUS ROUTES
D7 BRIDGE PAINTING 2013-2

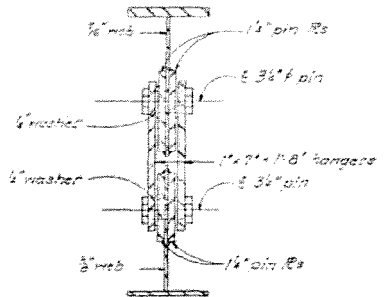
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74580-shr-plan.dgn	staffennk	DRAWN	REVISED								MACON	27	17
PLOT SCALE = 1/8" = 1'-0"		CHECKED	REVISED						CONTRACT NO. 74580				
PLOT DATE = 10/23/2012		DATE	REVISED						ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

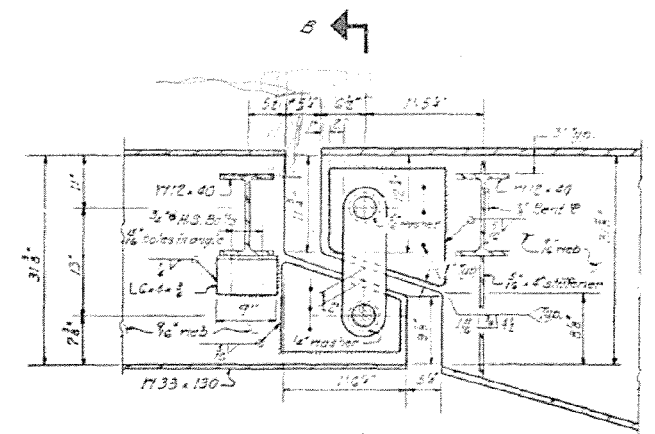
PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
93-20	MASSON	107	10
SHEET NO. 10			
23 SHEETS			



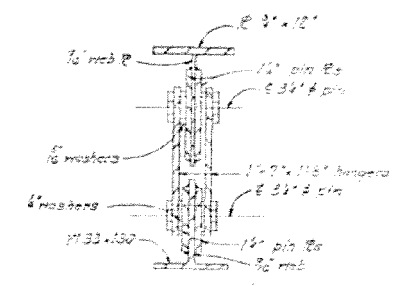
LINK 1-OUTSIDE BEAMS
+ 21 50'±



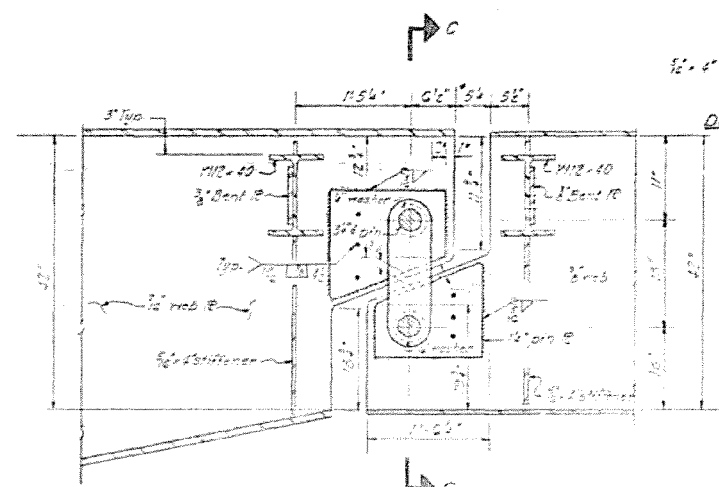
SECTION A-A



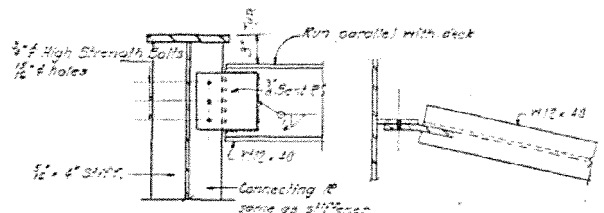
LINK 1-INTERIOR BEAMS
+ 21 50'±



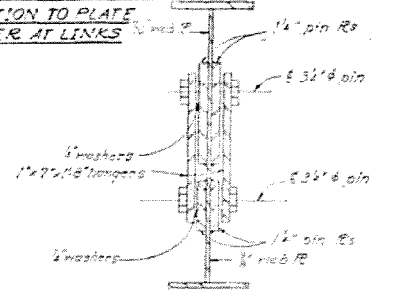
SECTION B-B



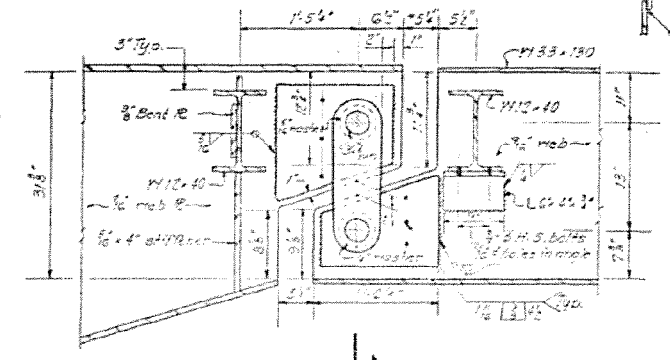
LINK 2-OUTSIDE BEAMS
+ 21 50'±



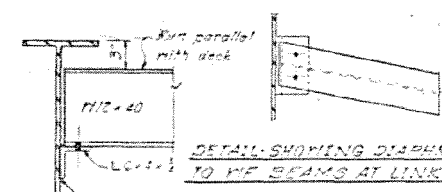
DETAIL-SHOWING DIAPHRAGM CONNECTION TO PLATE GIRDER AT LINKS



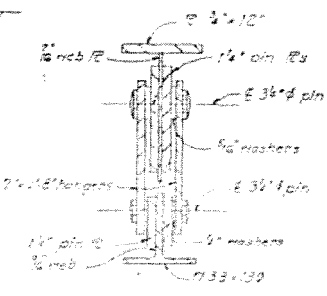
SECTION C-C



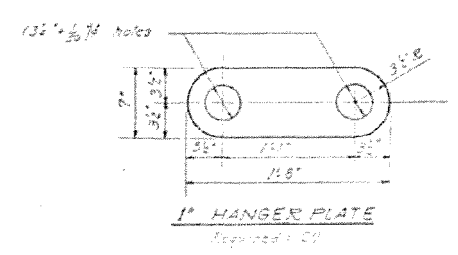
LINK 2-INTERIOR BEAMS
+ 21 50'±



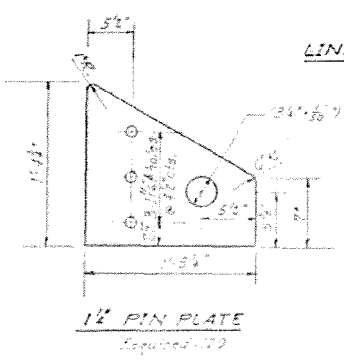
DETAIL-SHOWING DIAPHRAGM CONNECTION TO WF BEAMS AT LINKS



SECTION D-D



1" HANGER PLATE
Required 1 CV

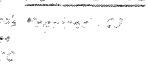


1/2" PIN PLATE
Required 1 CV

PIN SPECIFICATIONS

Material: ASTM A325 Grade B
Heat treated case hardened and tempered
Case depth: 0.015 inches
Surface hardness: 58 HRC

PIN DETAIL



STRUCTURAL STEEL DETAILS

R.A. RT. 412 SEC. 2A-2.11.18-1
MACON COUNTY
STA. 235+00.76

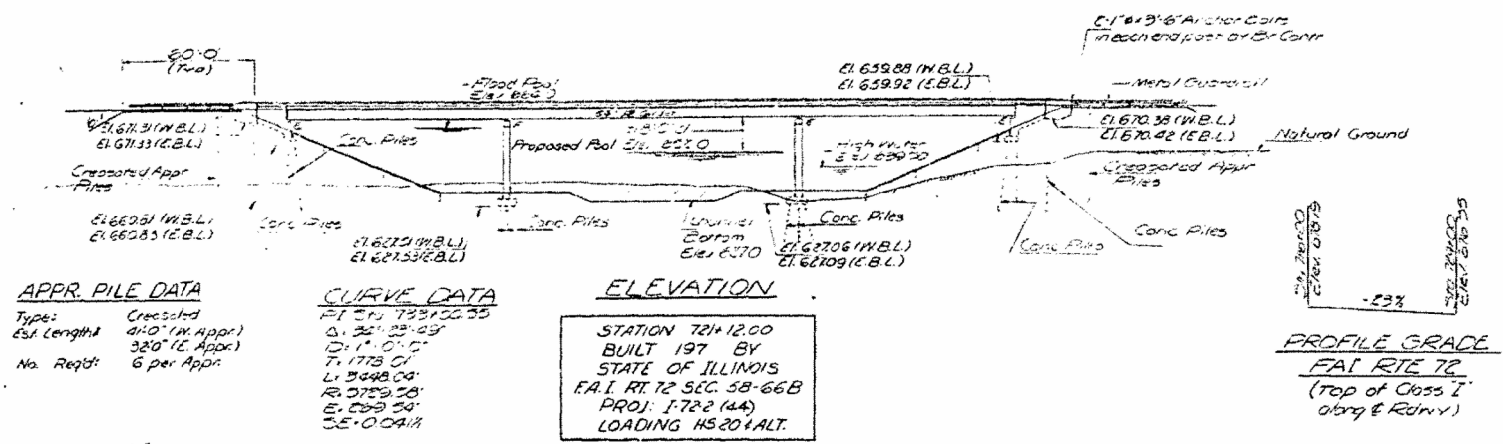
DESIGNED	<i>Thomas Lee</i>	EXAMINED	<i>10/25</i>
CHECKED	<i>10/25</i>	PASSED	
DRAWN		APPROVED	
CHECKED	<i>10/25</i>		

VARIOUS ROUTES
D7 BRIDGE PAINTING 2013-2

3.14.16 Check Mark...
 Friends Creek ACCN 075 78+30 Elev 661.48

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
58-668	MACON	50	6
SHEET NO. 1 33 SHEETS			



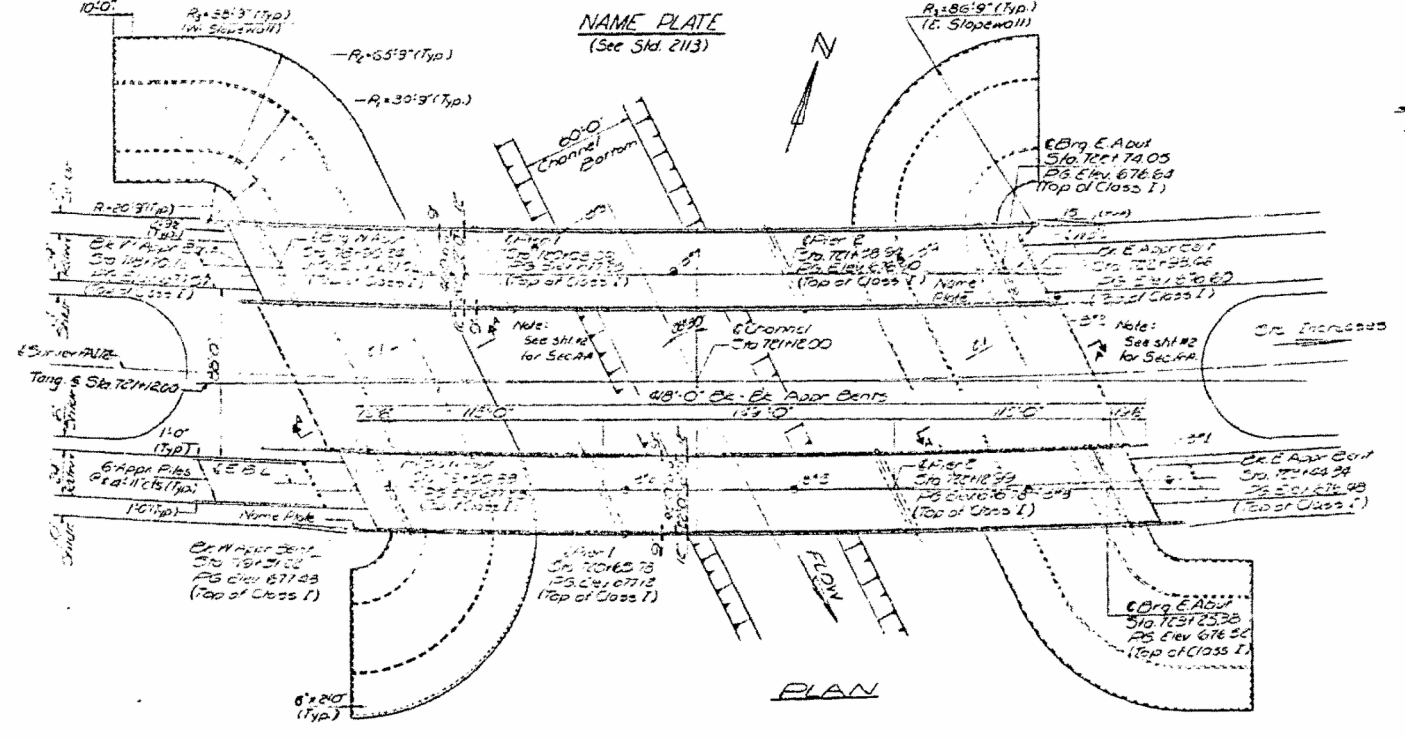
APPR. PILE DATA
 Type: Cressed
 Est. Length: 41.0' (W. Appr.)
 32.0' (E. Appr.)
 No. Req'd: 6 per Appr.

CURVE DATA
 P.T. ST. 78+50.35
 Δ: 25° 33' 25"
 D: 173.01'
 L: 3048.00'
 R: 3759.58'
 E: 629.59'
 S.E. 0.041%

ELEVATION
 STATION 78+12.00
 BUILT 197 BY
 STATE OF ILLINOIS
 F.A.I. RTE 72 SEC. 58-668
 PROJ: I-722 (44)
 LOADING HS 20+1 ALT.

NAME PLATE
 (Sec. Std. 2113)

PROFILE GRADE
 F.A.I. RTE 72
 (Top of Class I
 abng & Rdwy.)



DESIGN STRESSES
 R=100,000 psi Deck Slab
 R=100,000 psi Curb, Parapet, Apr. Slab & Sub
 R=200,000 psi Reinf. Structural
 v=75 psi Ftgs.
 n=10

WATERWAY INFORMATION
 Drainage Area: 112.50 miles
 Character: Wooded & Cultivated
 Reg'd Opening: 1000 sq ft
 Proposed Opening: 1900 sq ft
 Obs: 90.19 cfs

Allow 85 lbs/sq ft for F.I.W.S.
 Design Specifications 1969 (AASH)
 (as applicable)
 LOADING HS 20+1 ALT

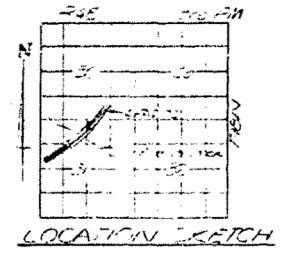
DESIGNED	Stef J. S. Lin
CHECKED	Stef J. S. Lin
DRAWN	J. Sutherland
CHECKED	Stef J. S. Lin

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

GENERAL NOTES

All reinforcement bars shall be lapped 4d diameters unless otherwise shown.
 Fasteners shall be high strength bolts. Bolts 3/4" dia, open holes 1/2" unless otherwise noted.
 Calculated weight of Structural Steel = 126742.0 Lbs.
 Cast steel shall be Class 70. Structural steel weldments of equal sections and meeting ASTM A36 may be substituted for castings at the option of the Contractor, subject to approval by the Engineer prior to fabrication. No additional compensation will be allowed the Contractor for this substitution.
 The basic lead silico chromate paint system shall be used for shop and field painting of Structural Steel.
 Field welding of construction accessories will not be permitted to the bottom flange of beams or 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 shall be permitted only when approved by the Engineer.
 Anchor bolts shall be set before bolting cross frames over supports.
 Slope wall shall be reinforced with welded wire fabric 6x6 mesh, weighing 35# per 100 sq. ft.
 Layout of slope walls may be varied in the field to suit ground conditions as directed by the Engineer.
 The Contractor shall drive 1 concrete test pile in a convenient location at West Abutment (E.W. Abut Lane), East Abutment (E.E. Lane) and Pier 2 (W. Abut Lane) as directed by the Engineer with a order the remainder of piles.
 Concrete piles of abutments shall be driven in holes precored through the embankment in accordance with Article 513.09(c) of the Standard Specifications.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
 The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Standard Concrete.
 Protective Coat shall not be applied to surfaces to which Coat for Interlayer Protective Coat is applied.
 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 ceiling. Two 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.

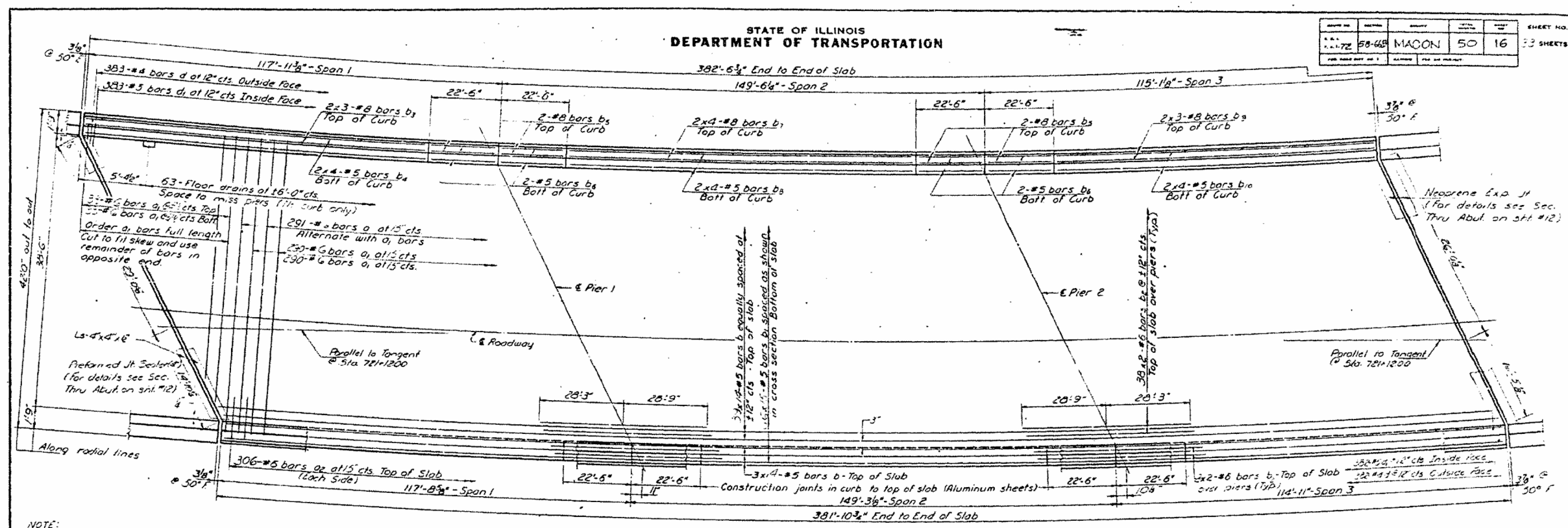


GENERAL INFORMATION
 PROJ: I-722 (44) 40
 F.A.I. RTE 72 SEC. 58-668
 MACON COUNTY
 STA. 78+12.00

Rev. 6-13-73

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

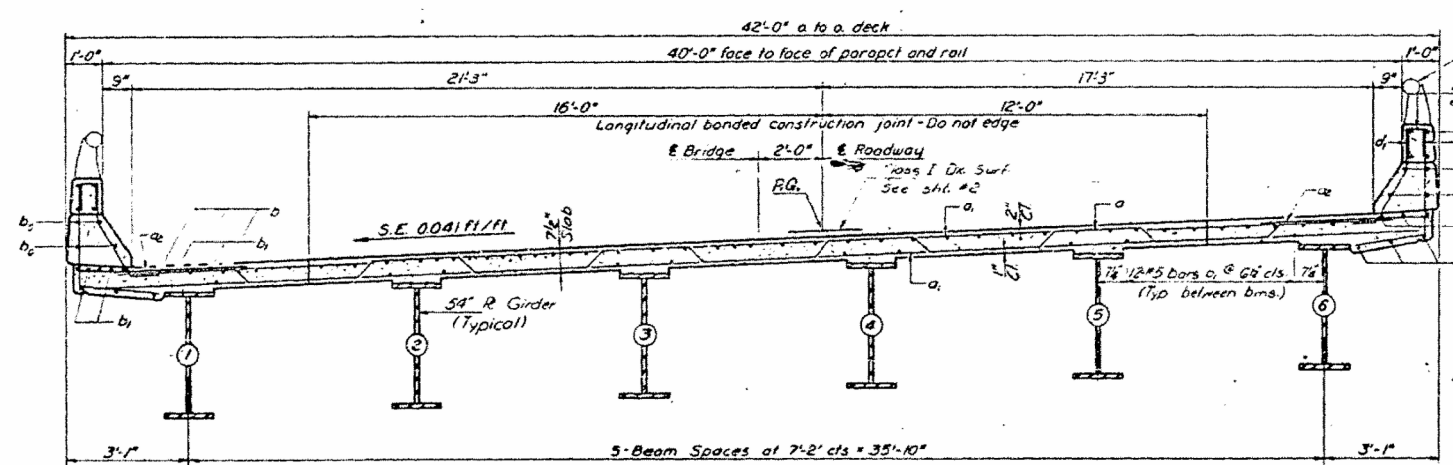
PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
58-668	MACON	50	16
SHEET NO.			53 SHEETS



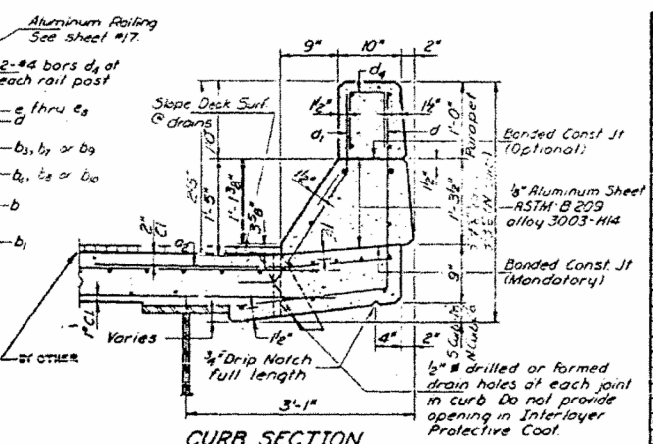
NOTE:
Bars indicated thus 3#1, 1#4, #6 etc.
indicates 3# lines of bars with 1#
length per line.
Min. bar laps = 24 dia.

PLAN
(Horizontal dimensions along inside face of curb)

Note:
For placement of bars d_4 (e thru e_3)
see sheet #15 thru #17



CROSS SECTION
(Looking East)
(Horizontal Dimensions are given along
radial lines)



CURB SECTION
Cost of aluminum sheets shall be
incidental to Class X Concrete.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	231	#6	27.8	
a1	522	#6	27.8	
a2	612	#6	41.0	
b	350	#5	25.6	
b1	350	#5	25.9	
b2	25	#6	33.3	
b3	2	#6	33.3	
b4	16	#5	22.9	
b5	12	#5	22.3	
b6	12	#5	22.3	
b7	16	#8	27.6	
b8	16	#8	27.0	
b9	12	#8	32.3	
b10	16	#5	23.0	
d	763	#4	25.8	
d1	763	#5	3.5	

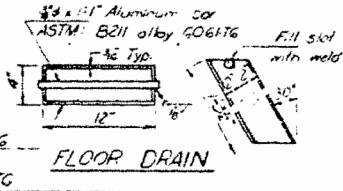
Parapet reinforcement and Class X
Concrete are billed on sheet #17.
For Section thru Abutment and
bar details see sheet #12.

SUPERSTRUCTURE DETAILS
WEST BOUND LANES
FAI RT. 72 - SEC. 58-668
MACON COUNTY
STA. 721+1200

DESIGNED: *Stanley J. Lee*
CHECKED: *Alan H. Hutton*
DRAWN: *R. Doty*
CHECKED: *W. S. L.*

EXAMINED: *W. E. B...*
PASSED: *W. E. B...*
Richard H. Westerman

FEB 21 10 13



Aluminum Sheets Welded
ASTM: B209 alloy 6061-T6
or Aluminum Extrusions
ASTM: B221 alloy 6061-T6

VARIOUS ROUTES
D7 BRIDGE PAINTING 2013-2

FILE NAME =	USER NAME = steffennk	DESIGNED -	REVISED -
ei:\pw_work\p1dot\stefennk\d0307287\074580-sht-plan.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
Default	PLOT DATE = 10/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

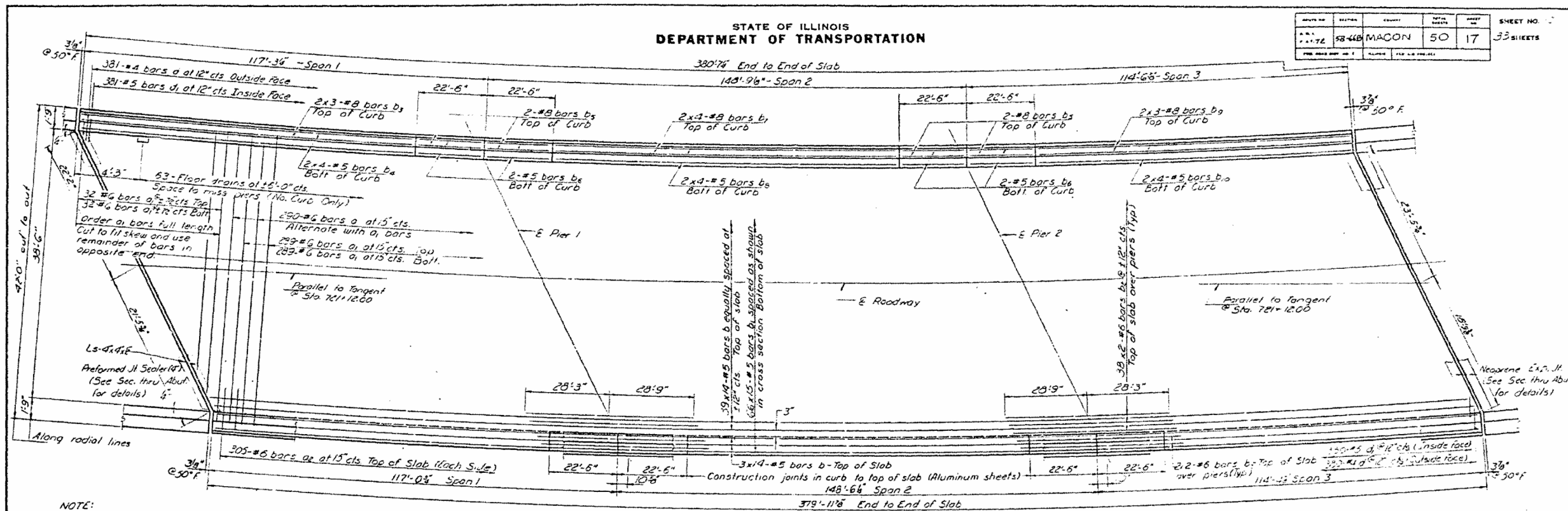
EXISTING STRUTURE PLAN

SCALE: NA SHEET 17 OF 23 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MACON	27	21
CONTRACT NO. 74580				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

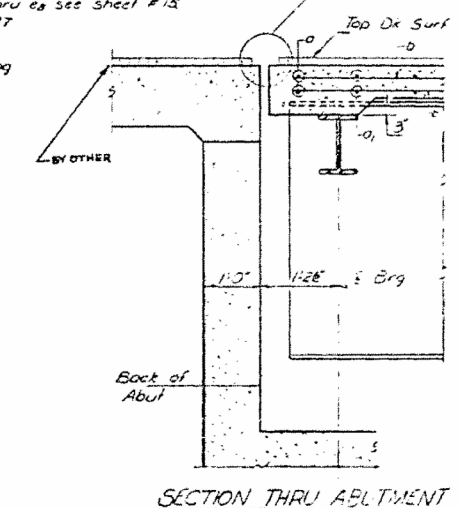
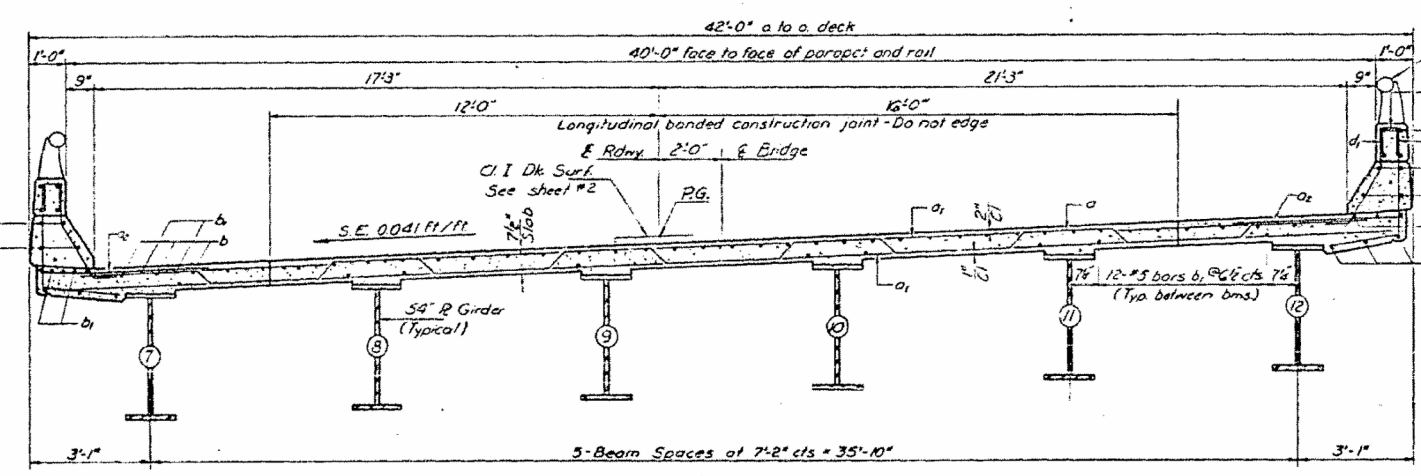
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
58-44B	MACON	50	17	33 SHEETS



NOTE:
Bars indicated thus 39x14 #6 etc.
indicates 39 lines of bars with 14
lengths per line.
Min. bar laps = 24 dia.

PLAN
(Horizontal dimensions along inside
face of curb)

Note:
For placement of bars d₄
to thru e₃ see sheet #15
thru #17

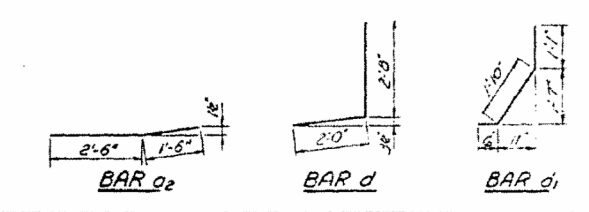
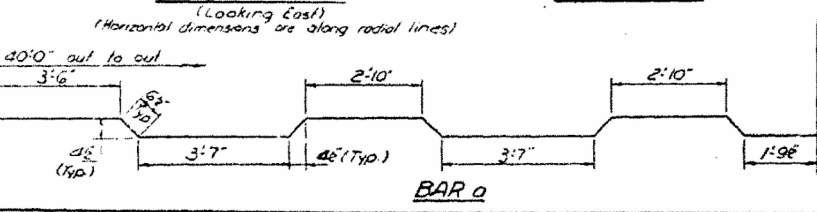


BILL OF MATERIAL

Bar No.	Size	Length	Space
a	2-#5	23'	5'-5"
a ₁	2-#5	25'-0"	
a ₂	2-#5	25'-0"	
b	2-#5	24'-0"	
b ₁	2-#5	23'-0"	
b ₂	2-#5	23'-0"	
b ₃	2-#5	23'-0"	
b ₄	2-#5	23'-0"	
b ₅	2-#5	23'-0"	
b ₆	2-#5	23'-0"	
b ₇	2-#5	23'-0"	
b ₈	2-#5	23'-0"	
b ₉	2-#5	23'-0"	
b ₁₀	2-#5	23'-0"	
b ₁₁	2-#5	23'-0"	
b ₁₂	2-#5	23'-0"	
b ₁₃	2-#5	23'-0"	
b ₁₄	2-#5	23'-0"	
b ₁₅	2-#5	23'-0"	
b ₁₆	2-#5	23'-0"	
b ₁₇	2-#5	23'-0"	
b ₁₈	2-#5	23'-0"	
b ₁₉	2-#5	23'-0"	
b ₂₀	2-#5	23'-0"	
b ₂₁	2-#5	23'-0"	
b ₂₂	2-#5	23'-0"	
b ₂₃	2-#5	23'-0"	
b ₂₄	2-#5	23'-0"	
b ₂₅	2-#5	23'-0"	
b ₂₆	2-#5	23'-0"	
b ₂₇	2-#5	23'-0"	
b ₂₈	2-#5	23'-0"	
b ₂₉	2-#5	23'-0"	
b ₃₀	2-#5	23'-0"	
b ₃₁	2-#5	23'-0"	
b ₃₂	2-#5	23'-0"	
b ₃₃	2-#5	23'-0"	
b ₃₄	2-#5	23'-0"	
b ₃₅	2-#5	23'-0"	
b ₃₆	2-#5	23'-0"	
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b ₇₃	2-#5	23'-0"	
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b ₉₇	2-#5	23'-0"	
b ₉₈	2-#5	23'-0"	
b ₉₉	2-#5	23'-0"	
b ₁₀₀	2-#5	23'-0"	

DESIGNED: *St. Louis*
CHECKED: *R. D. Ody*
DRAWN: *R. D. Ody*
CHECKED: *R. D. Ody*

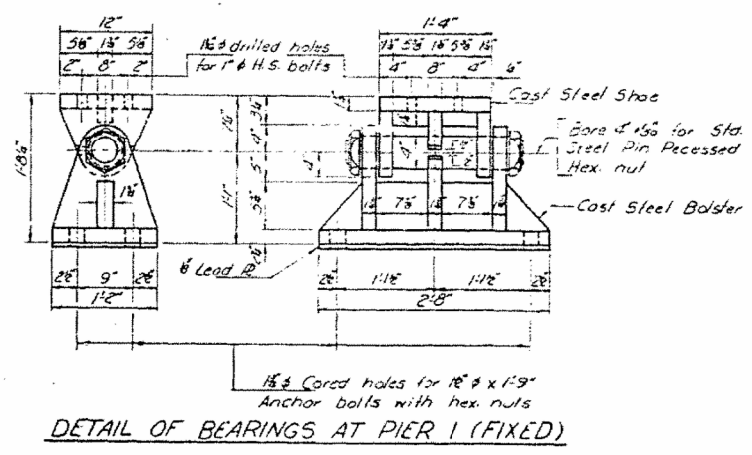
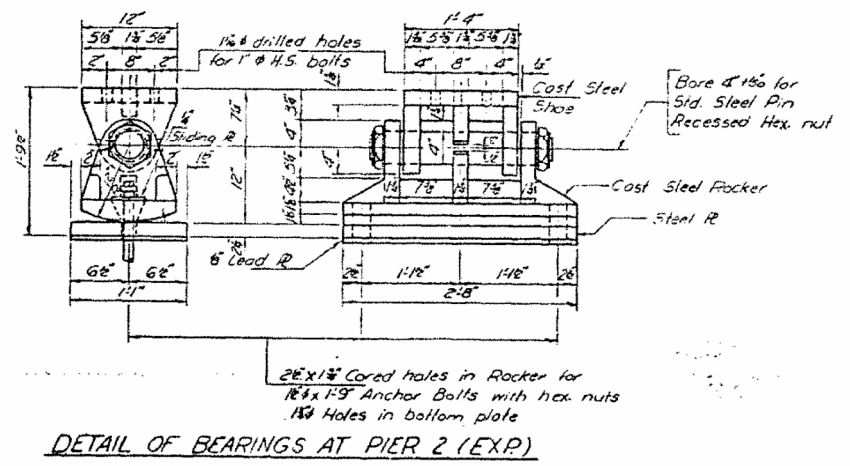
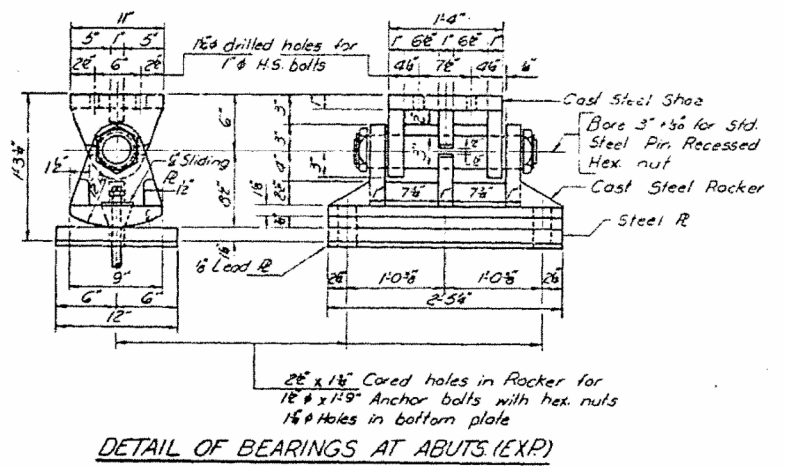
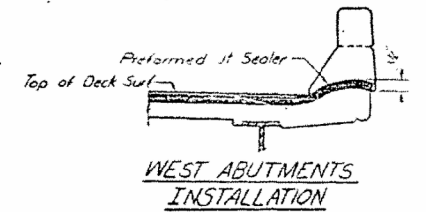
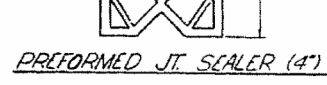
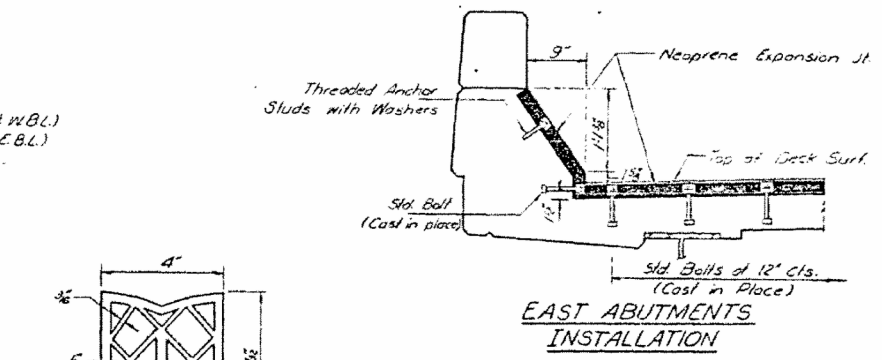
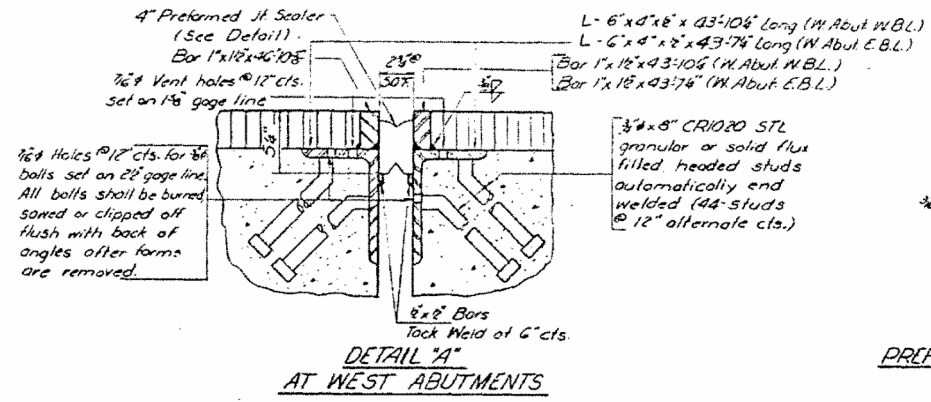
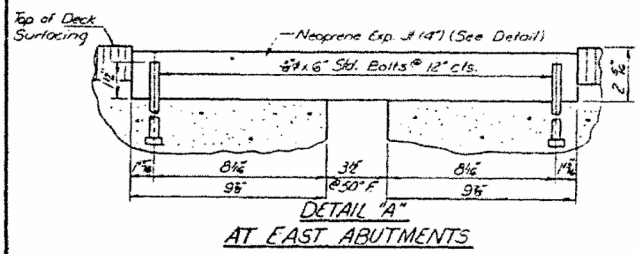
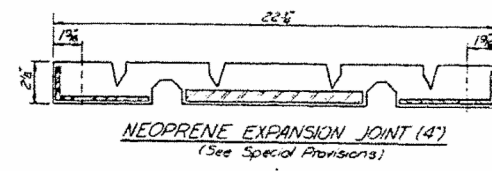
EXAMINED: *Feb 21 1013*
PASSED: *VE*
APPROVED: *Richard J. Halterman*



SUPERSTRUCTURE DETAILS
EAST BOUND LINES
AL RT 72 - SEC. 58-66B
MACON COUNTY
STA. 721+1200

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
58-66	3	MACON 50 23	33 SHEETS



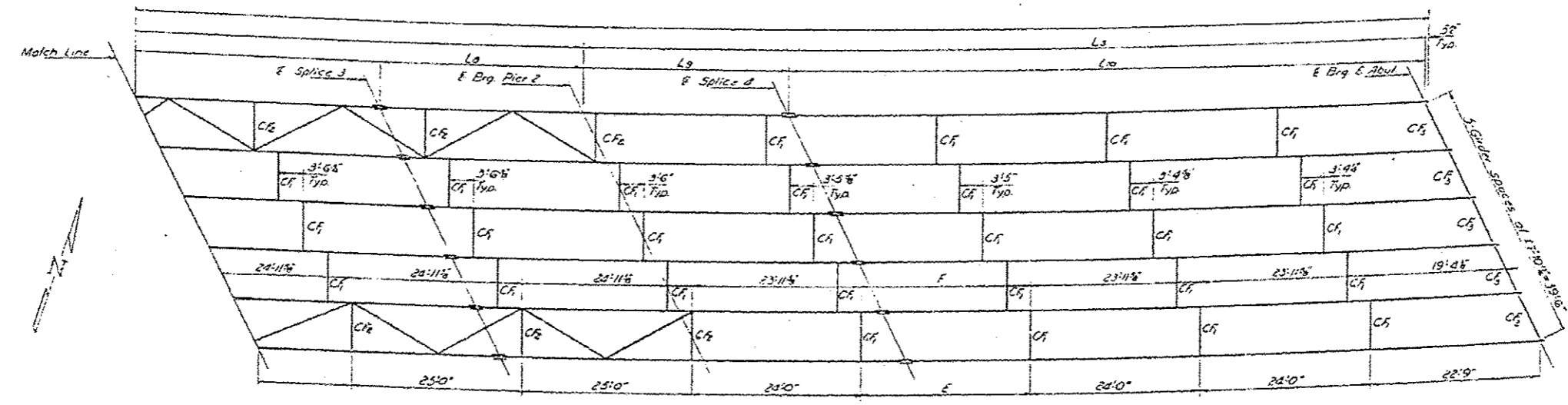
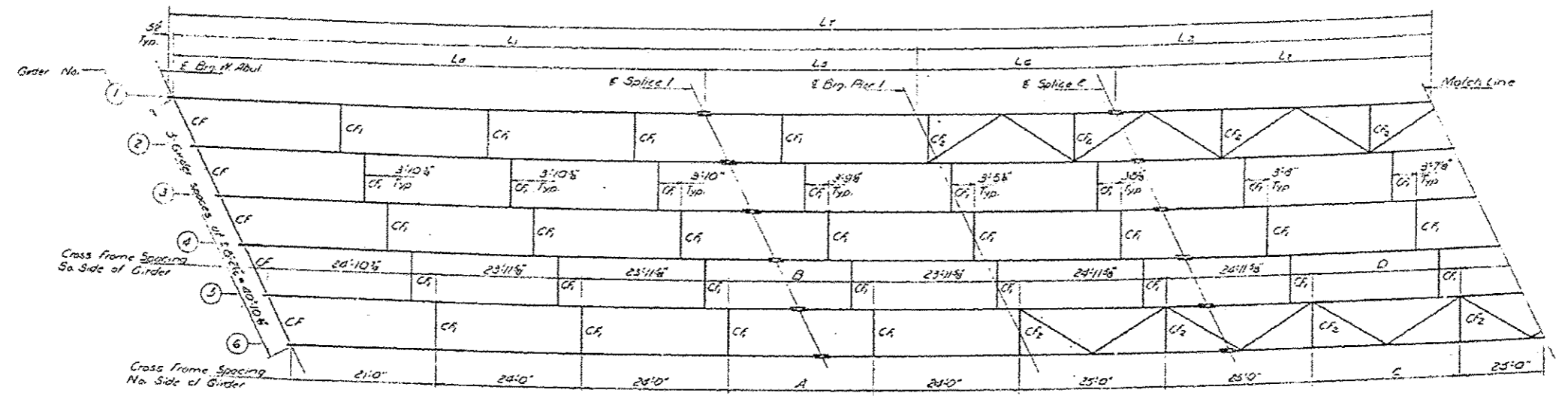
DESIGNED *Stanley S. Lin*
CHECKED *R. D. Doly*
DRAWN *R. Doly*
CHECKED *R. Doly*

EXAMINED *Richard H. Hosterman*
PASSED *Richard H. Hosterman*
DATE *FEB 21 10 13*

EXPANSION DEVICES
AND BEARING DETAILS
EAST AND WEST BOUND LANES
F.A.I. RT. 72 SEC. 38-66B
MACON COUNTY
STA. 721+12.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	CONTRACT NO.	SHEET NO.	TOTAL SHEETS
58-05	MACON 50	24	33 SHEETS



FRAMING PLAN
Girders are spaced 97.8" c/c along radial lines

DESIGNED	St. G. S. L.	EXAMINED	Feb 21 12/3
CHECKED	John P. White	PASSED	W. A. Blum
DRAWN	R. Doty		
CHECKED	P. K. S. L.		

Notes:
Place CF & CF2 along radial lines.
See sheet #21 for table L thru L6
& A thru F dimensions.
See sheets #21 & #22 for remainder
of Structural Steel details.

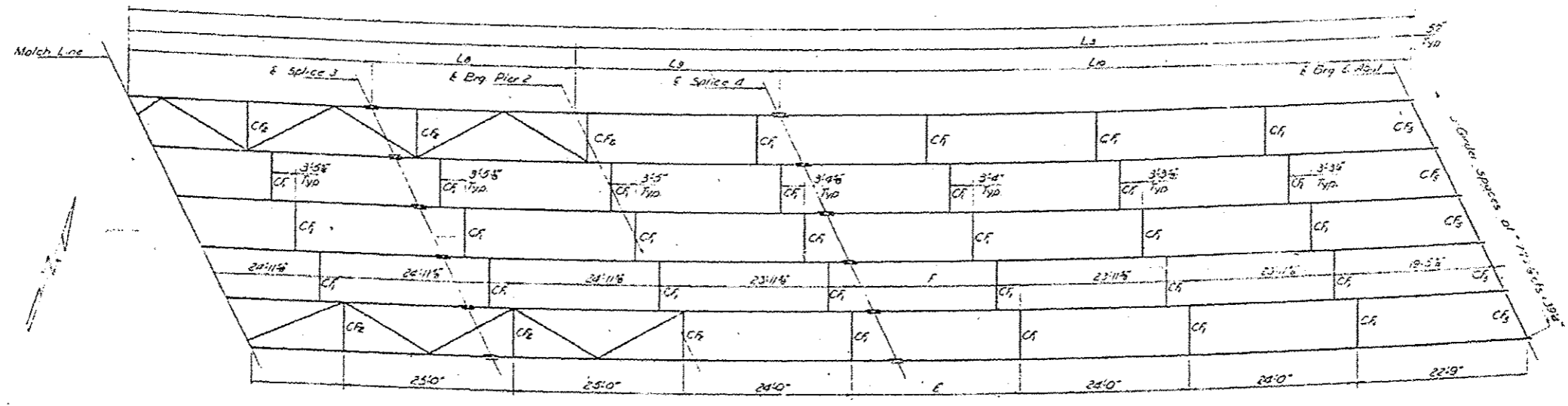
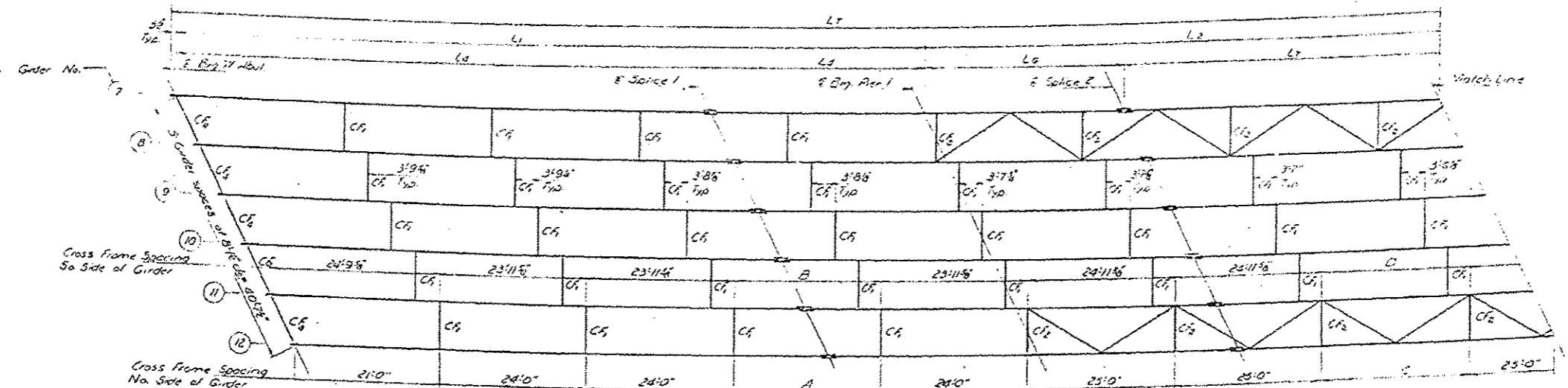
STRUCTURAL STEEL
WEST BOUND LANES
FAI. RT. 72 SEC. 58-66B
MACON COUNTY
STA. 721+12.00

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE PLAN 058-0094(WB)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pv\work\p\dot\stg\staff\m\003072971.D	74580-shr-plan.dgn	DRAWN	REVISED		SCALE: NA	.	..	MACON	27	24
Default	PLOT SCALE = 100.0000 / 1 in.	CHECKED	REVISED		SHEET 20 OF 23 SHEETS				CONTRACT NO. 74580	
	PLOT DATE = 10/23/2012	DATE	REVISED		STA. TO STA.				ILLINOIS FED. AID PROJECT	

• VARIOUS ROUTES
• D7 BRIDGE PAINTING 2013-2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
09-46	MACON 50	25	33 SHEETS



FRAMING PLAN
Girders are spaced @ 72" cts. along radial lines

DESIGNED <i>Stanley S. Lee</i>	EXAMINED <i>W. J. [Signature]</i>
CHECKED <i>[Signature]</i>	PASSED <i>[Signature]</i>
DRAWN <i>P. Galy</i>	
CHECKED <i>[Signature]</i>	

Note:
Place CF & CF₂ along radial lines.
See sheet #21 for table L thru U
& A thru F dimensions.
See sheets #21 & #22 for remainder
of Structural Steel details.

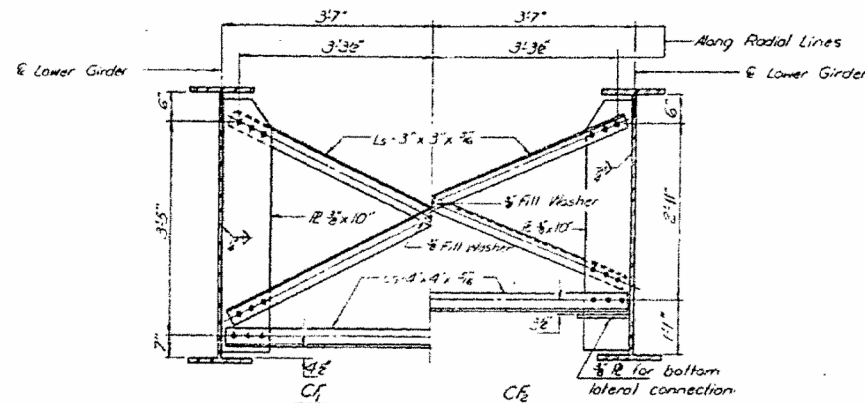
STRUCTURAL STEEL
EAST BOUND LANES
EAL RT 72 SEC. 58-66B
MACON COUNTY
STA 721+12.00

FILE NAME: <i>crispw\work\p\st01\st01\staffenk\08307287\10</i>	USER NAME: <i>staffenk</i>	DESIGNED: <i>-</i>	REVISED: <i>-</i>	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE PLAN 098-0093 (E0)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	74580-st-1-plan.dgn	DRAWN: <i>-</i>	REVISED: <i>-</i>					MACON	27	25	
	PLOT SCALE: <i>1/8" = 1'-0"</i>	CHECKED: <i>-</i>	REVISED: <i>-</i>			SCALE: NA	SHEET 21 OF 23 SHEETS	STA.	TO STA.	CONTRACT NO. 74580	
	PLOT DATE: <i>10/23/2012</i>	DATE: <i>-</i>	REVISED: <i>-</i>			ILLINOIS FED. AID PROJECT					

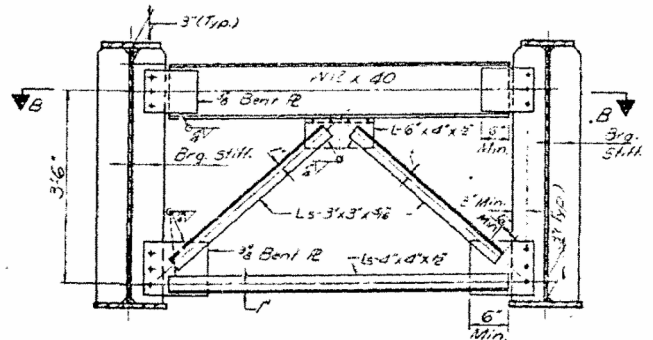
• VARIOUS ROUTES
• 07 BRIDGE PAINTING 2013-2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

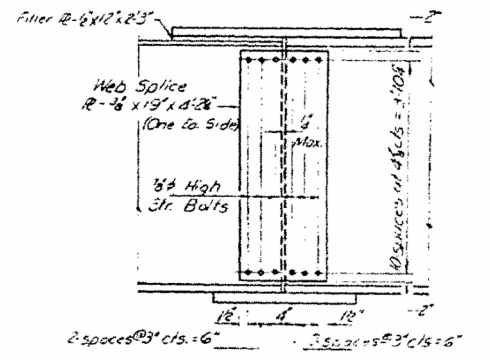
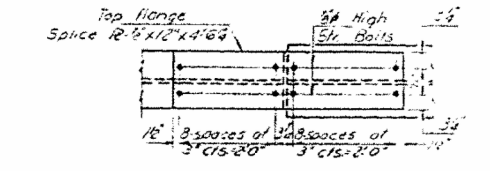
PROJECT NO.	58-66	SECTION	MACON	SHEET NO.	50 26	SHEET NO.	33 SHEETS
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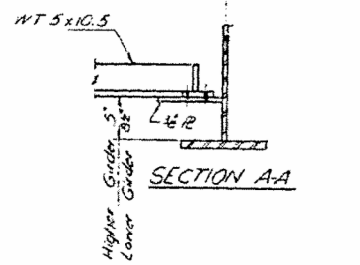
CROSS FRAME
No. Required for CF=122
No. Required for CF=28



CROSS FRAME CF1, CF2, CF3, CF4 & CF5
No. Required for CF1, CF2, CF3, CF4, CF5=5ea.



FIELD SPLICE DETAIL



SECTION A-A

TABLE OF 'L' DIMENSIONS

	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12
Radius	5633.66	5660.83	5668.00	5675.16	5682.32	5689.48	5696.64	5703.80	5710.96	5718.12	5725.28	5732.44
L1	149.64	149.52	149.40	149.28	149.16	149.04	148.92	148.80	148.68	148.56	148.44	148.32
L2	112.28	112.20	112.12	112.04	111.96	111.88	111.80	111.72	111.64	111.56	111.48	111.40
L3	21.11	21.08	21.05	21.02	20.99	20.96	20.93	20.90	20.87	20.84	20.81	20.78
L4	34.10	34.05	34.00	33.95	33.90	33.85	33.80	33.75	33.70	33.65	33.60	33.55
L5	37.65	37.60	37.55	37.50	37.45	37.40	37.35	37.30	37.25	37.20	37.15	37.10
L6	40.9	40.85	40.80	40.75	40.70	40.65	40.60	40.55	40.50	40.45	40.40	40.35
L7	37.24	37.20	37.16	37.12	37.08	37.04	37.00	36.96	36.92	36.88	36.84	36.80
L8	34.4	34.35	34.30	34.25	34.20	34.15	34.10	34.05	34.00	33.95	33.90	33.85
L9	79.48	79.44	79.40	79.36	79.32	79.28	79.24	79.20	79.16	79.12	79.08	79.04
L10	381.34	381.24	381.14	381.04	380.94	380.84	380.74	380.64	380.54	380.44	380.34	380.24

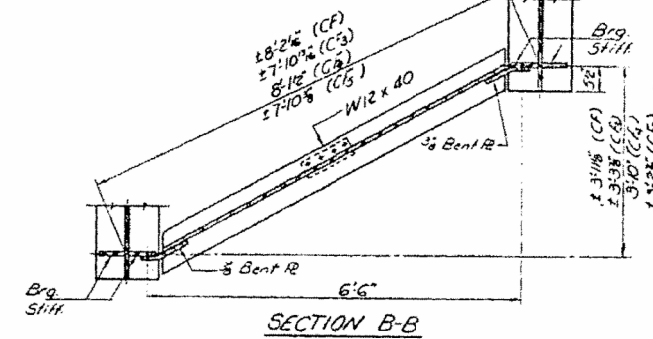
TABLE OF DIMENSIONS 'A' THRU 'F'

	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12
A	21.11	21.08	21.05	21.02	20.99	20.96	20.93	20.90	20.87	20.84	20.81	20.78
B	21.10	21.08	21.06	21.04	21.02	21.00	20.98	20.96	20.94	20.92	20.90	20.88
C	24.64	24.62	24.60	24.58	24.56	24.54	24.52	24.50	24.48	24.46	24.44	24.42
D	24.64	24.62	24.60	24.58	24.56	24.54	24.52	24.50	24.48	24.46	24.44	24.42
E	21.06	21.04	21.02	21.00	20.98	20.96	20.94	20.92	20.90	20.88	20.86	20.84
F	21.06	21.04	21.02	21.00	20.98	20.96	20.94	20.92	20.90	20.88	20.86	20.84

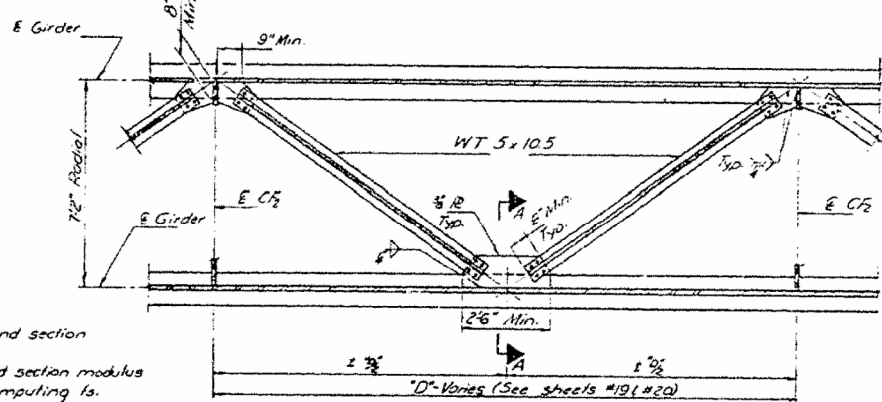
INTERIOR GIRDER MOMENT TABLE

	Span 1	Span 2	Span 3
Is (in ⁴)	27820.4	18235.4	18235.4
Ic (in ⁴)	10922.1	10922.1	10922.1
Sx (in ³)	1204.5	2631.0	1204.5
Sy (in ³)	1668.6	1668.6	1668.6
r (in)	0.922	1.161	0.922
MIP (k)	73.82	208.61	691.0
MIP (k-ft)	7.4	21.3	69.1
MIP (k-in)	0.44	0.44	0.44
MIP (k)	403.4	782.2	451.5
MIP (k-ft)	33.6	65.2	37.6
MIP (k-in)	2.038	2.006	1.862
Total (k)	1591.3	2111.8	1671.9
Sx Spacing (ft)	11.4	9.6	12.0
Sy Spacing (ft)	8.9	17.7	13.7
M (k)	33.4	65.7	33.3

Is and Sx are the moment of inertia and section modulus of the steel section.
Ic and Sy are the moment of inertia and section modulus of the composite section used in computing Is.
VR is the maximum 4' impact shear range in span used to determine shear connector spacing.



SECTION B-B



TYPICAL LATERAL BRACING PLAN

TOP OF WEB ELEVATIONS - Before Any Deflection
(For Fabrication Only)

	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12
E Brg. # Abut.	675.71	675.99	676.28	676.56	676.85	677.14	677.42	677.71	677.99	678.28	678.56	678.85
E Splice 1	675.39	675.87	676.16	676.44	676.73	677.02	677.31	677.60	677.89	678.18	678.47	678.76
E Pier 1	675.44	675.72	676.01	676.29	676.58	676.87	677.16	677.45	677.74	678.03	678.32	678.61
E Splice 2	675.43	675.73	676.02	676.30	676.59	676.88	677.17	677.46	677.75	678.04	678.33	678.62
E Splice 3	675.42	675.76	676.05	676.33	676.62	676.91	677.20	677.49	677.78	678.07	678.36	678.65
E Pier 2	675.09	675.37	675.66	675.94	676.23	676.52	676.81	677.10	677.39	677.68	677.97	678.26
E Splice 4	675.07	675.35	675.64	675.92	676.21	676.50	676.79	677.08	677.37	677.66	677.95	678.24
E Brg. E. Abut.	674.83	675.11	675.40	675.68	675.97	676.26	676.55	676.84	677.13	677.42	677.71	678.00

INTERIOR GIRDER REACTION TABLE

	Abut. 1	Pier 1	Pier 2	Abut. 2
R1 (k)	512	213.4	210.3	53.4
R2 (k)	424	225	219	42.3
Imp. (k)	8.9	16.3	16.4	8.9
R Total (k)	1085	324	308.6	106.6

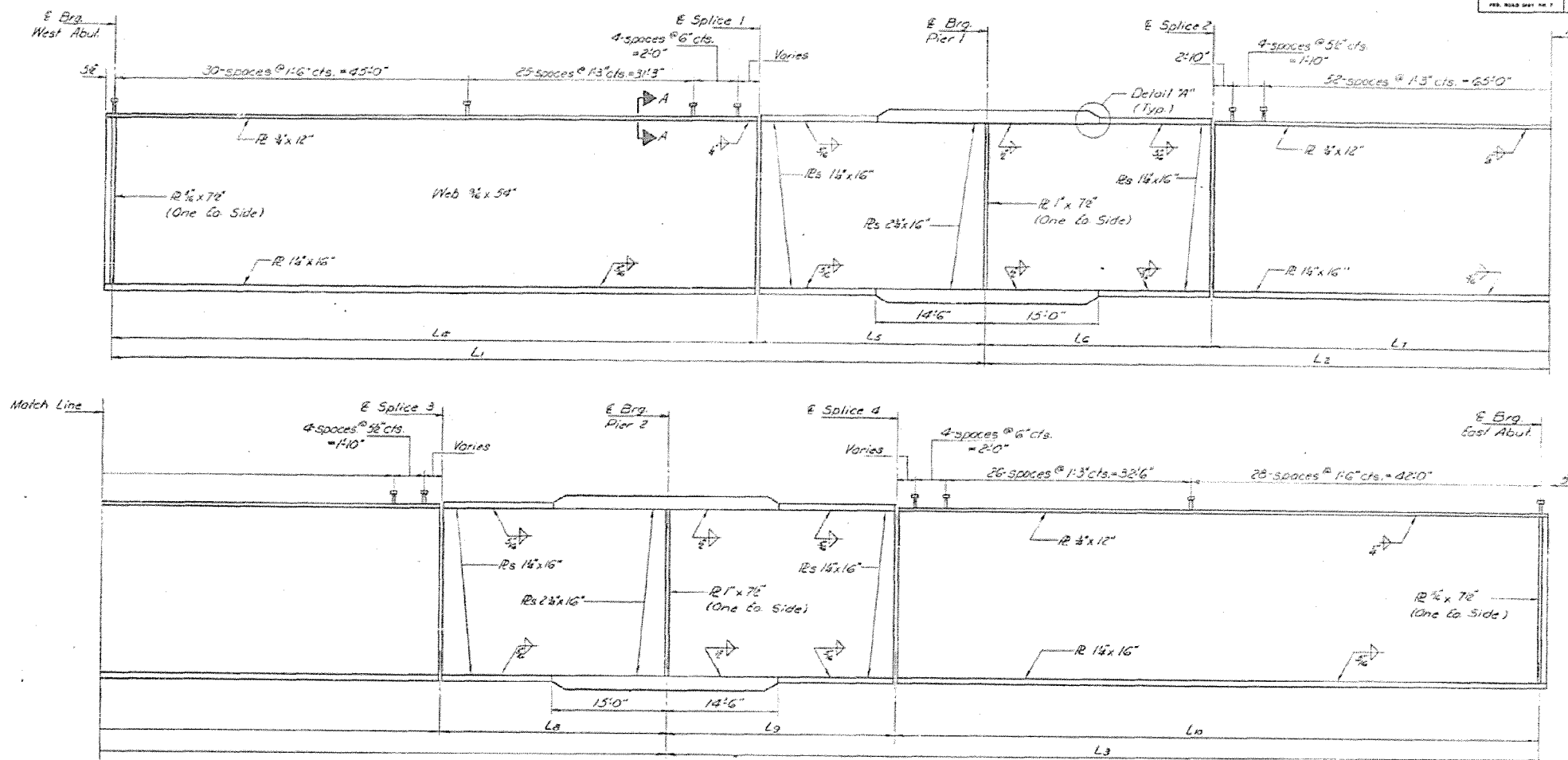
DESIGNED: St. L. & P.
CHECKED: R. D. Dady
DRAWN: R. Dady
CHECKED: S. L. S. L.

EXAMINED: [Signature]
PASSED: [Signature]
DATE: FEB 21 10'

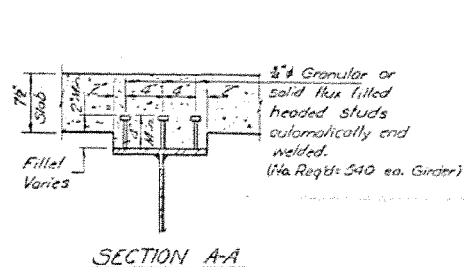
STRUCTURAL STEEL DETAILS
EAST AND WEST BOUND LANES
F.A.I. RT. 72 SEC. 58-66B
MACON COUNTY
STA. 721+1200

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	PROJECT	SHEET NO.	TOTAL SHEETS
72	58-66	MACON	27	33
SHEET NO. 27				

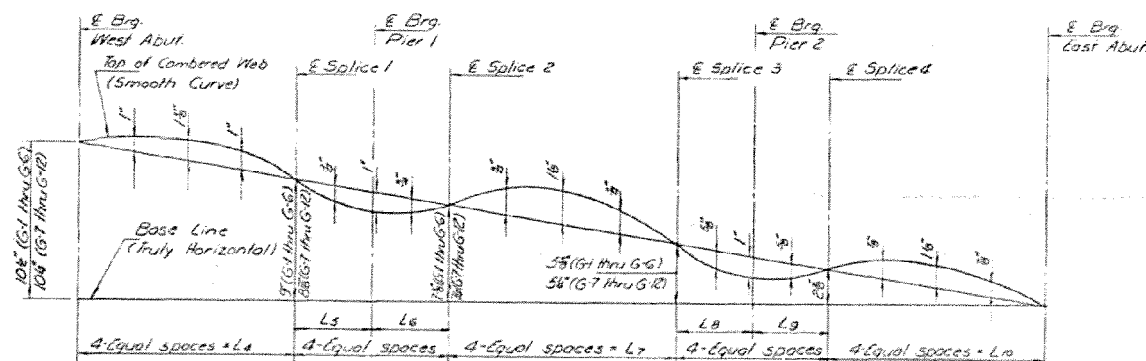
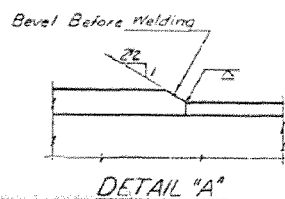


GIRDER ELEVATION
(All dimensions along E Girder)

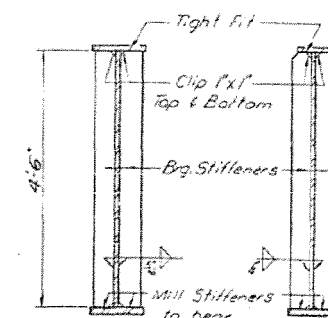


DESIGNED	Stanley S. Stein
CHECKED	John P. Butler
DRAWN	R. Dohy
CHECKED	R. G. S. L.

EXAMINED	Richard H. Holtzman
PASSED	Richard H. Holtzman
APPROVED	Richard H. Holtzman



CAMBER DIAGRAM



SECTION AT PIERS SECTION AT ABUTMENTS

Notes:
See sheet #21 for dimensions L₄ thru L₁₀.

STRUCTURAL STEEL
EAST AND WEST BOUND LANES
F.A.I. RT. 72 SEC. 58-66B
MACON COUNTY
STA. 721+12.00