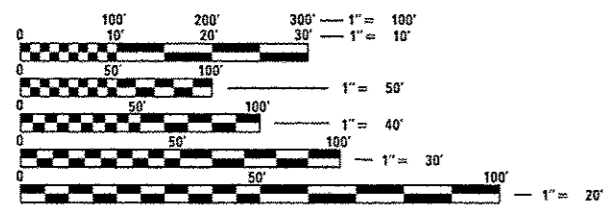
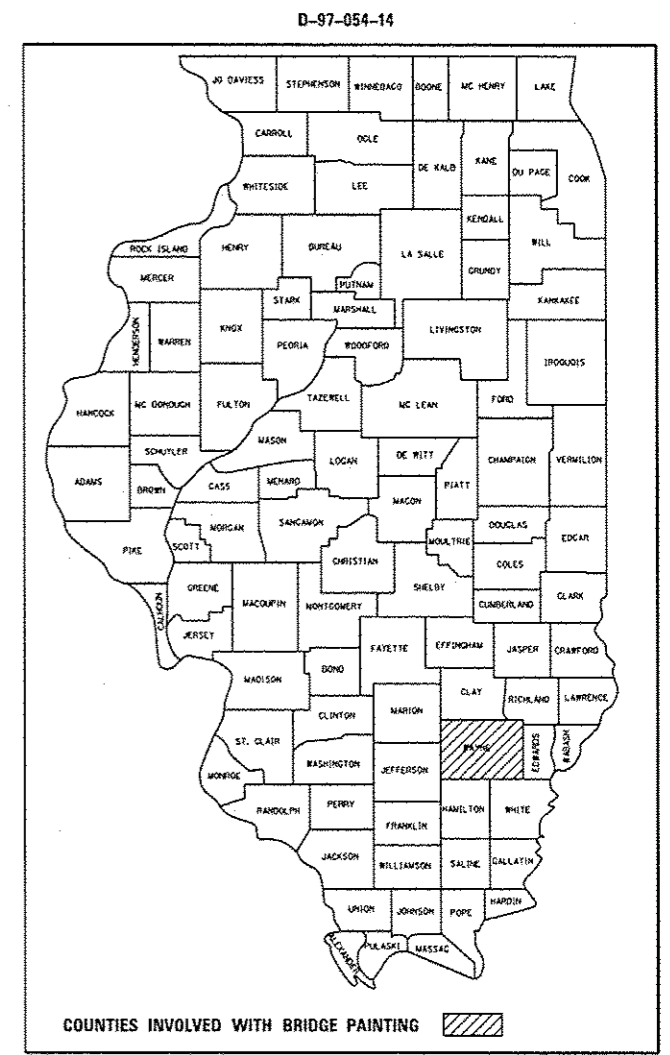
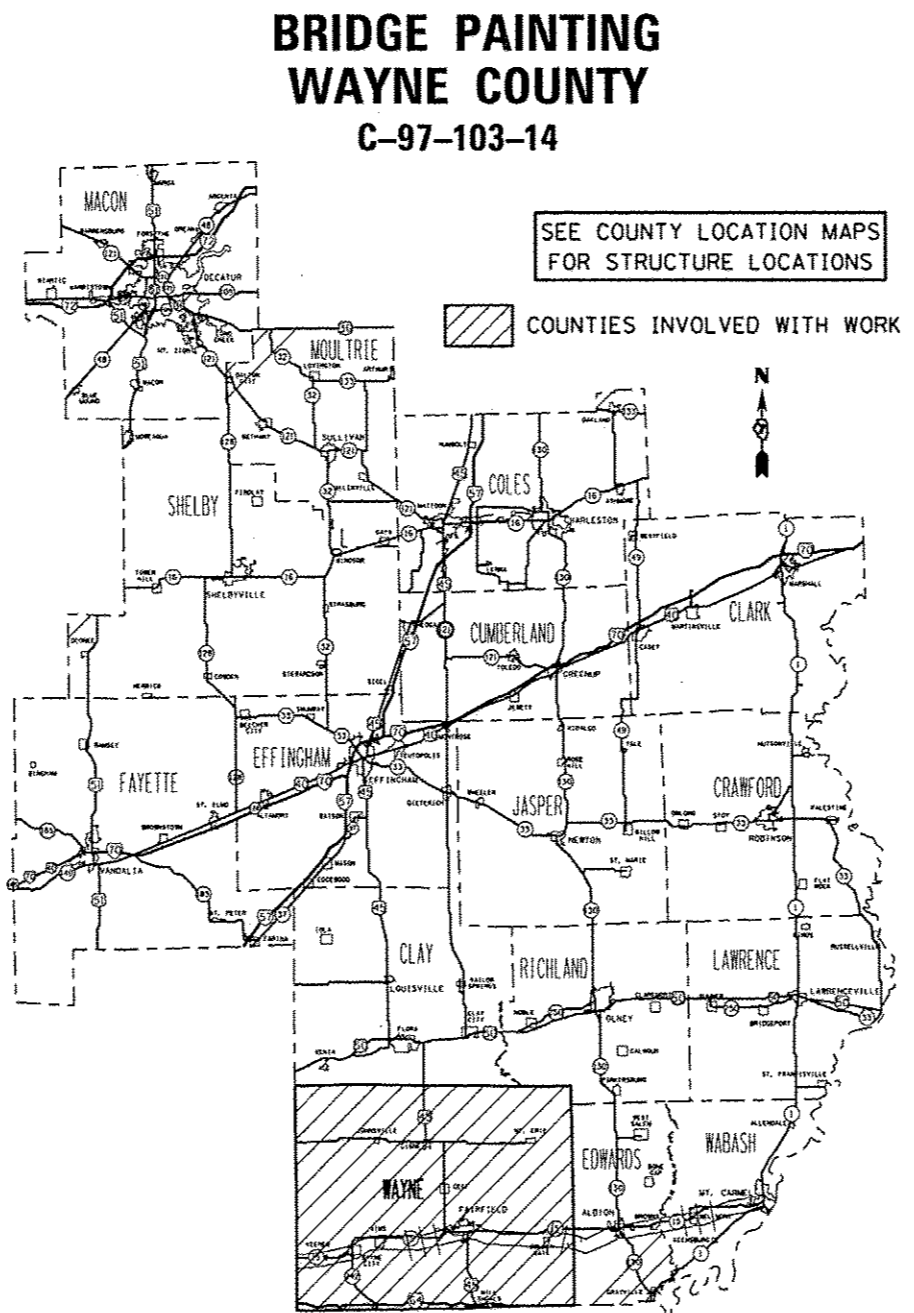


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS
F.A.P ROUTE 823 (IL. RTE. 15)
SECTION D7 BRIDGE PAINTING 2015-4

FOR INDEX OF SHEETS, SEE SHEET NO. 2

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE PAINTING 2015-4	WAYNE	15	1
		ILLINOIS	CONTRACT NO. 74700	



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. 74700

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED August 05 2014
Roger L. Orishell / 1600
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 17 2014
John D. Baranzelli / PE / 16
 ENGINEER OF DESIGN AND ENVIRONMENT

Oct 17 2014
Omer Osman / PE / 16
 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
4-14	EXISTING STRUCTURE PLANS
15	LOCATION MAP

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 15:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-ROAD OPERATIONS, 2L2W, 15' MINIMUM AWAY FROM PAVEMENT EDGE
701006-05	OFF-ROAD OPERATIONS, 2L2W, 15' AWAY TO EDGE OF PAVEMENT
701201-04	LANE CLOSURE, 2L2W, DAY ONLY
701901-03	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 2 LOCATIONS ON ILLINOIS ROUTE 15 IN WAYNE COUNTY IN DISTRICT 7.

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

BRIDGE LOCATION DESCRIPTIONS

LOCATION #1

ROUTE: FAP 823
 MARKED: IL 15
 SECTION: 22BR-7
 STATION: 492+75
 STRUCTURE NUMBER: 096-0010

TYPE OF BRIDGE: Plate Girder-3 Spans (5 Girders)
 & Wide Flange I-Beams-18 Spans (5 Beams)

LOCATION: 4.5 miles west of the Edwards County line
 FEATURE CARRIED/SPANNED: IL 15 over the Little Wabash River

COLOR OF THE FINISH COAT SHALL BE GREEN, MUNSELL 10B 3/6

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, girders, bearings and diaphragms/lateral bracing, within 5' (measured along the beam/girder) of the abutments and any expansion joints at piers, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The fascia beams/girders, for the entire length of the bridge, shall be cleaned in their entirety 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.

2 air monitors will be required at this location.

LOCATION #2

ROUTE: FAP 823
 MARKED: IL 15
 SECTION: 22-BR-3
 STATION: 348+61.5
 STRUCTURE NUMBER: 096-0061

TYPE OF BRIDGE: Wide Flange I-Beams-6 Spans (5 Beams)
 LOCATION: 2 miles west of the Edwards County line
 FEATURE CARRIED/SPANNED: IL 15 over White Oak Slough

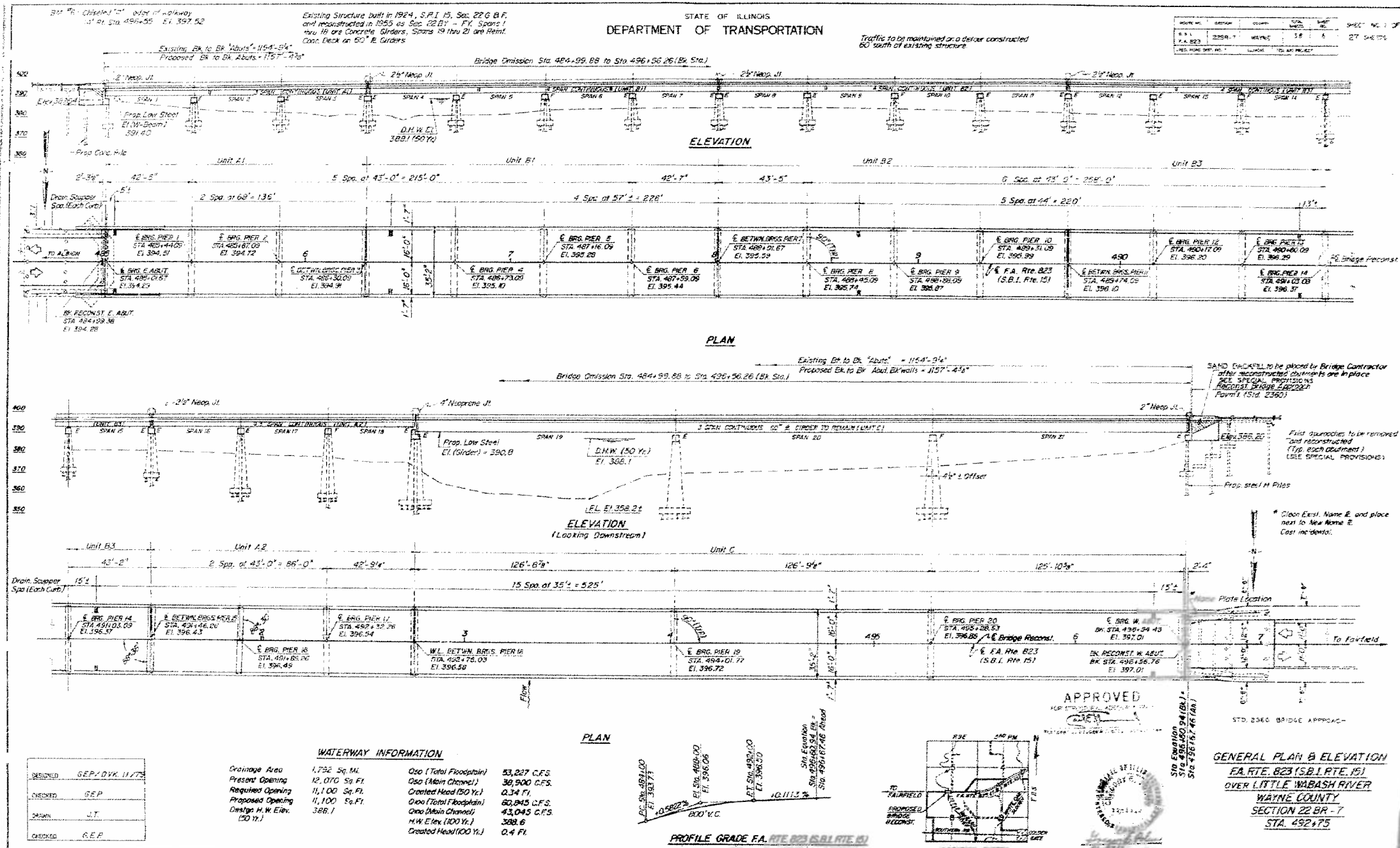
COLOR OF THE FINISH COAT SHALL BE GREEN, MUNSELL 10B 3/6

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 joints at piers shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The outside and bottom of the bottom flange of the fascia beams, for the entire length of the bridge, shall be cleaned in their entirety 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.

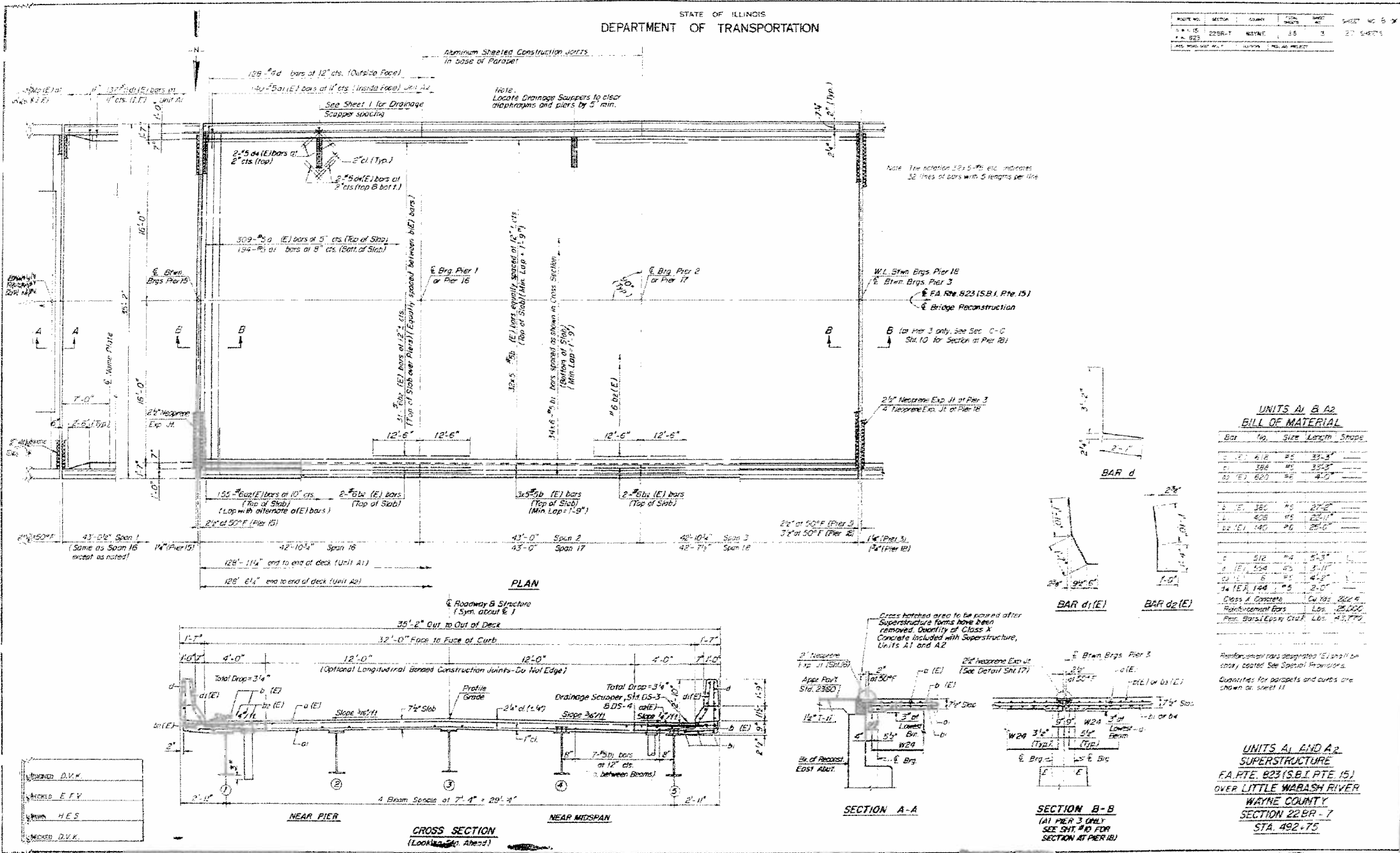
FILE NAME =	USER NAME = steffennh	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, GENERAL NOTES AND BRIDGE LOCATION DESCRIPTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	74700-015-index.dgn	DRAWN -	REVISED -			823 D7 BRIDGE PAINTING 2015-4	WAYNE	15	2		
	PLOT SCALE = 100,0000 1" = 100'	CHECKED -	REVISED -			CONTRACT NO. 74700					
Default	PLOT DATE = 6/5/2014	DATE -	REVISED -			SCALE: N/A	SHEET 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	



FILE NAME =	USER NAME = steffennk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN STRUCTURE 096-0010			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	et:\pw\work\pwork\stefennk\d0403598\074700-sht-plan.dgn	DRAWN -	REVISED -		SCALE: N/A	SHEET 1	OF 11 SHEETS	STA.	TO STA.	823 D7 BRIDGE PAINTING 2015-4	WAYNE	15	4
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 74700								
	PLOT DATE = 8/5/2014	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

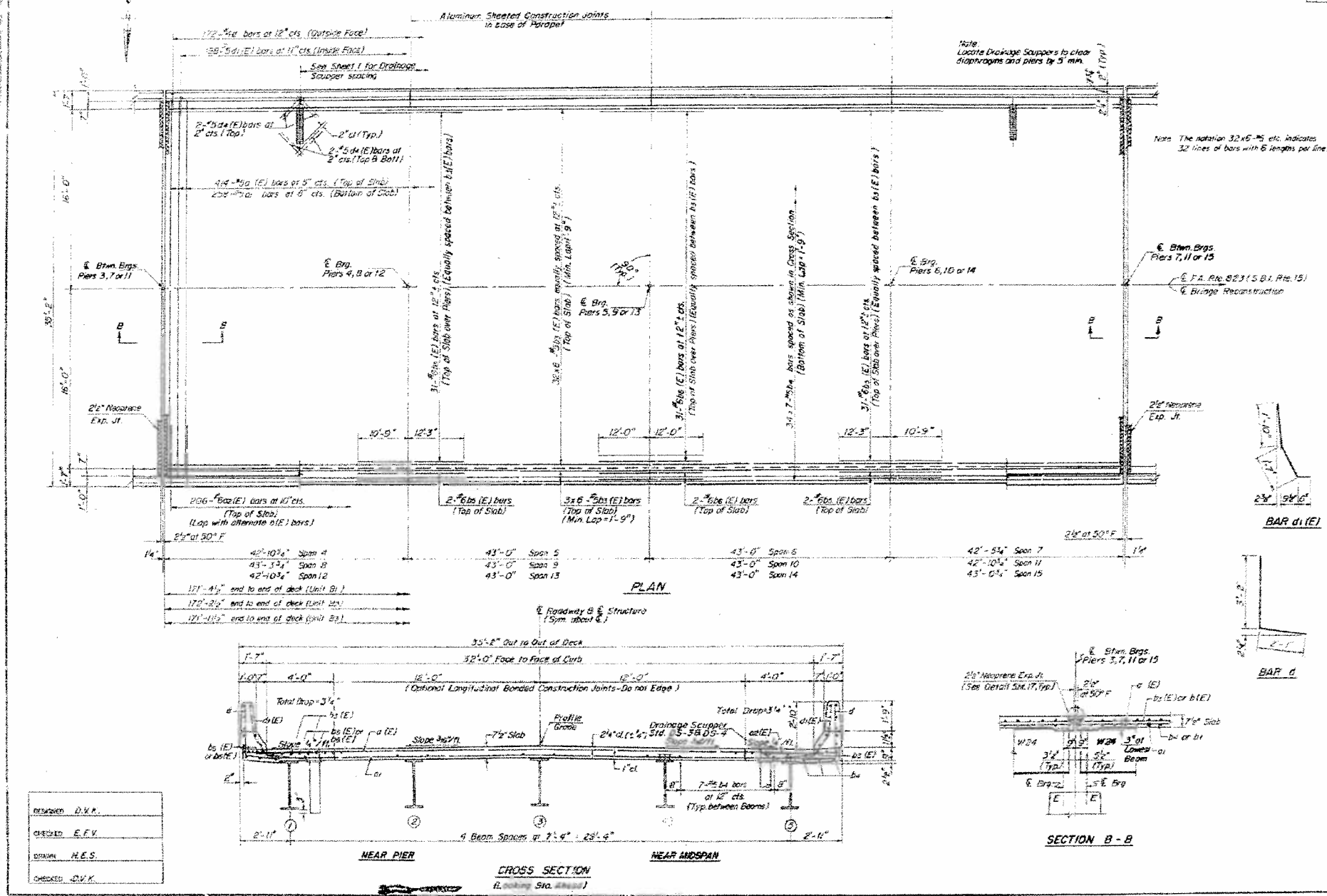
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	096-0010	WAYNE	15	5



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
096-0010	BRIDGE	33	14
DATE	SCALE	PROJECT NAME	
8/5/2014	N/A	WAYNE COUNTY	



UNITS B1, B2, B3
BILL OF MATERIAL

Bar	No.	Size	Length	Weight
#4 (E)	1848	#4	33'-0"	
#5 (E)	776	#5	33'-0"	
#6 (E)	1026	#6	4'-0"	
#8 (E)	684	#8	30'-0"	
#10 (E)	714	#10	25'-0"	
#12 (E)	810	#12	23'-0"	
#14 (E)	105	#14	24'-0"	
#16 (E)	1026	#16	31'-0"	
#18 (E)	1188	#18	31'-0"	
#20 (E)	256	#20	22'-0"	

Class 3 Concrete to 4000 psi
Reinforcement Bars to 60,000 psi
Rein. Bars (Epoxy Coated) to 80,000 psi

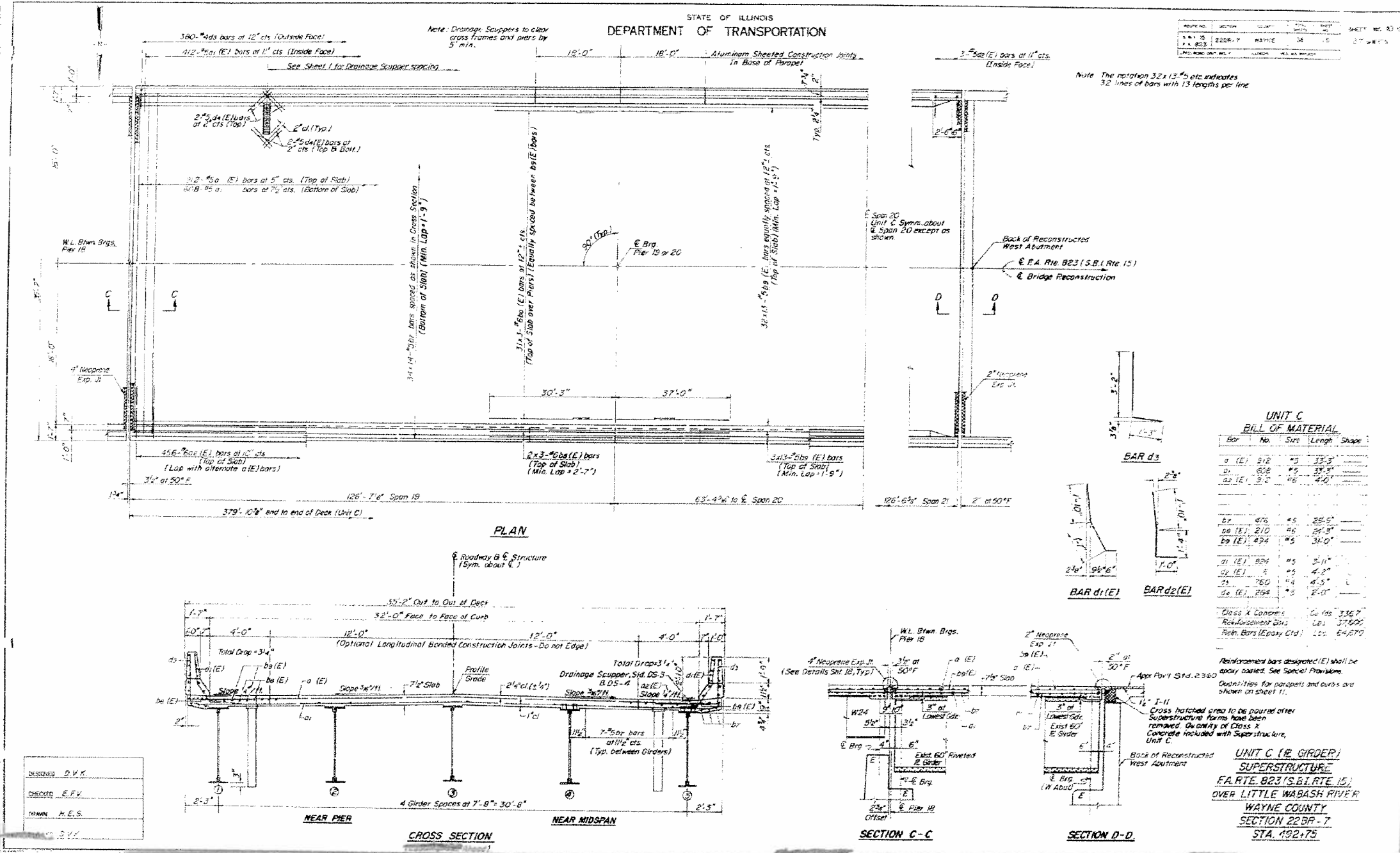
Reinforcement bars designated (E) shall be epoxy coated. See Section Provisions.
Quantities for parapets and curbs are shown on Sheet 11.

UNITS B1, B2, AND B3
SUPERSTRUCTURE
F.A.R.T.E. 623 (S.P.R.T.E. 15)
WAYNE COUNTY
SECTION 22BR-7
STA. 492+75

DESIGNED	D.V.K.
CHECKED	E.F.V.
DRAWN	H.E.S.
CHECKED	D.V.K.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
11-1-823	22BR-7	38	10



DESIGNED	D.V.K.
CHECKED	E.F.V.
DRAWN	H.E.S.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
825	228A-7	WAYNE	18	27

TABLES OF DIMENSIONS

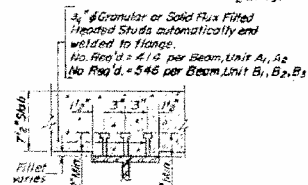
UNITS A

Unit Dim.	A1	A2
A	126'-1"	123'-2 1/2"
B	42'-0"	42'-3"
C	42'-3"	42'-0 1/2"
D	42'-10 1/2"	42'-18 1/2"
E	34'-0 1/2"	34'-5 1/4"
F	17'-6"	17'-3"
G	17'-3"	17'-0 1/4"
H	7'-4"	7'-2"
I	2'-1"	1'-10 1/4"

UNITS B

Unit Dim.	B1	B2	B3
A1	171'-0"	171'-10"	171'-7"
B1	42'-3"	42'-6"	42'-3"
C1	41'-10"	42'-3"	42'-5"
D1	42'-8 1/2"	43'-1 1/2"	42'-8 1/2"
E1	42'-3 1/2"	42'-8 1/2"	42'-10 1/2"
F1	17'-3"	17'-8"	17'-3"
G1	16'-10"	17'-3"	17'-5"
H1	7'-2"	7'-7"	7'-2"
I1	7'-9"	8'-1"	8'-3"

SECTION THRU SLAB



DESIGNED	E.F.V.
CHECKED	D.V.K.
ISSUED	P.W.M.
DATE	P.V.K.

UNIT B1-TOP OF W BEAM ELEVATIONS

Beam	Loc	Brig Pier #3	Brig Pier #4	Splice #5	Brig Pier #5	Brig Pier #6	Brig Pier #7
Beam 1	394.01	394.14	394.17	394.31	394.45	394.48	394.60
Beam 2	394.14	394.27	394.30	394.44	394.58	394.61	394.81
Beam 3	394.25	394.39	394.41	394.55	394.69	394.73	394.92

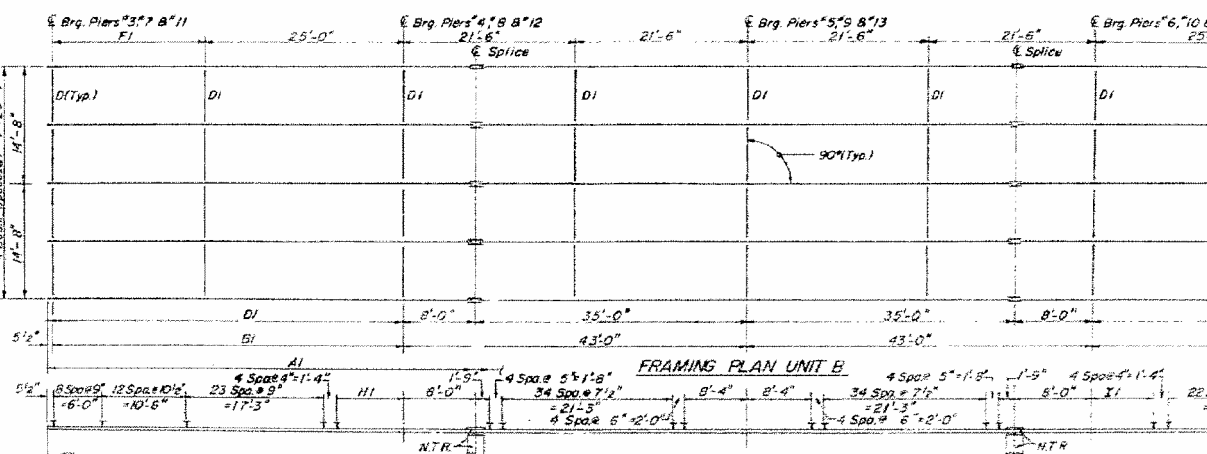
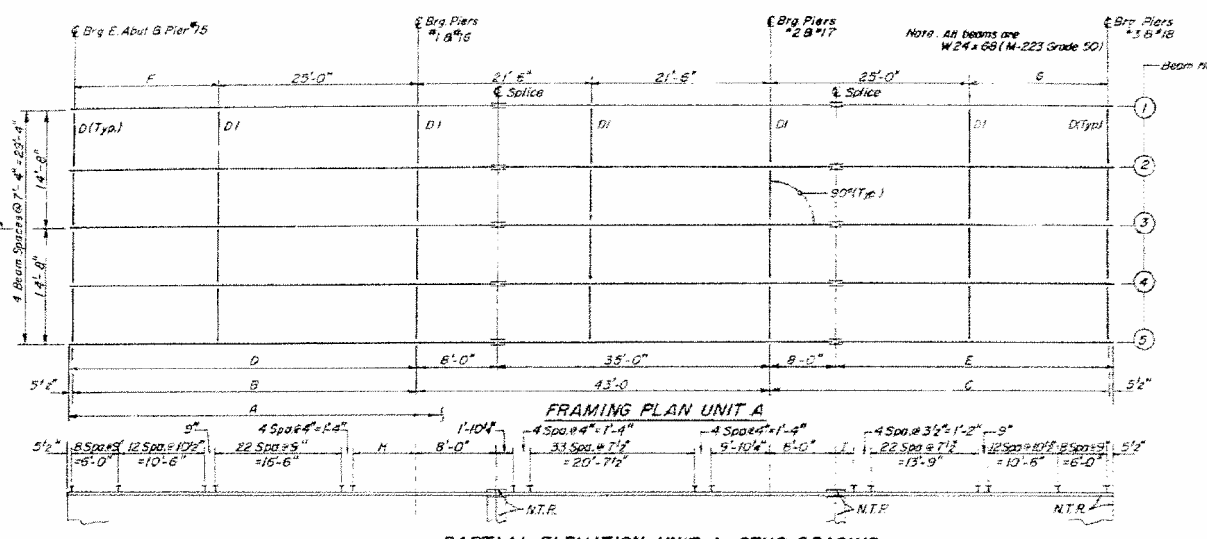
UNIT B2-TOP OF W BEAM ELEVATIONS

Beam	Loc	Brig Pier #7	Brig Pier #8	Splice #9	Brig Pier #9	Brig Pier #10	Brig Pier #11
Beam 1	394.69	394.76	394.80	394.90	395.01	395.03	395.15
Beam 2	394.81	394.91	394.93	395.03	395.13	395.16	395.32
Beam 3	394.93	395.02	395.04	395.15	395.25	395.28	395.43

UNIT B3-TOP OF W BEAM ELEVATIONS

Beam	Loc	Brig Pier #11	Brig Pier #12	Splice #13	Brig Pier #13	Brig Pier #14	Brig Pier #15
Beam 1	395.19	395.24	395.25	395.32	395.39	395.41	395.52
Beam 2	395.32	395.37	395.38	395.45	395.52	395.54	395.65
Beam 3	395.44	395.49	395.50	395.56	395.63	395.65	395.76

FRAMING PLAN-TOP BEAM ELEV'S
EA. RTE. 823 (S.B.I. RTE. 15)
OVER LITTLE WABASH RIVER
WAYNE COUNTY
SECTION 22 BR - 7
STA. 492+75



UNITS A
TOP OF W BEAM ELEVATIONS
UNIT A1

Beam	Loc	Brig Pier #15	Brig Pier #16	Splice #17	Brig Pier #17	Splice #18	Brig Pier #18
Beam 1	393.38	393.55	393.58	393.77	393.80	394.00	
Beam 2	393.51	393.68	393.71	393.90	393.93	394.13	
Beam 3	393.63	393.79	393.83	394.02	394.05	394.24	

For fabrication only

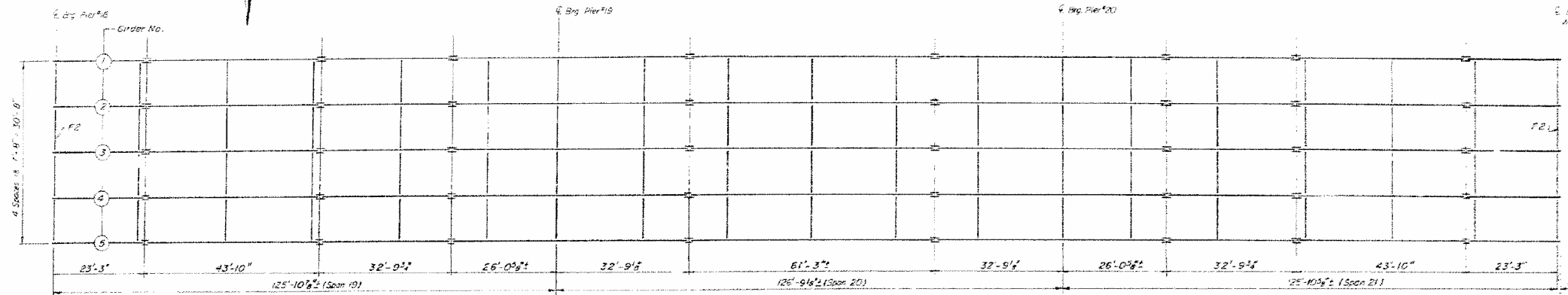
UNIT A2

Beam	Loc	Brig Pier #15	Brig Pier #16	Splice #17	Brig Pier #17	Splice #18	Brig Pier #18
Beam 1	395.52	395.53	395.53	395.58	395.59	395.67	
Beam 2	395.65	395.66	395.66	395.71	395.72	395.80	
Beam 3	395.77	395.77	395.77	395.82	395.84	395.91	

For fabrication only

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11-823	225R-7	WAYNE	15	15
27 SHEETS				

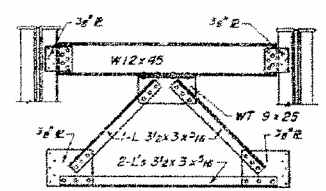
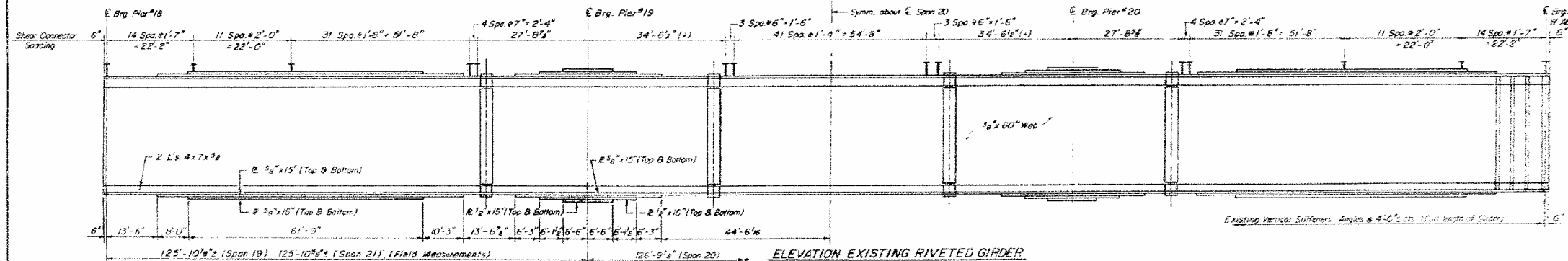


INTERIOR GIRDER REACTION TABLE

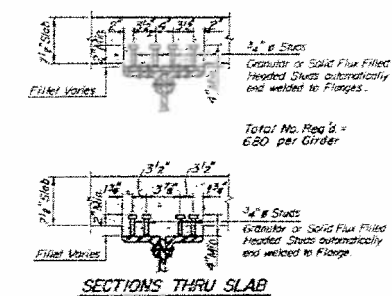
	At Abut. or Pier 18	Pier 19 or 20
R _B (k)	69.4	186.6
R _L (k)	45.6	83.6
R _R (k)	9.1	16.6
R Total (k)	124.3	287.0

Note: Studs shall be 3/4" # and shall have a minimum length of 4". Stud lengths shall be varied as required to satisfy the requirement of 2" minimum embedment into slab. Stud row spacings are 1' and may be varied in the field to allow studs to miss existing rivet heads.

Note: R Girder modifications are limited to the application of Stds and the replacement of End X-Braces (F2) at each end of girder. Girders are to be cleaned and painted. See Special Provisions.



Note 7:
All dimensions are to be obtained from field measurements. Members may be connected by 1/4" fillet welds instead of rivets except at connection of diaphragm to web stiffeners where 3/8" diameter A325 bolts may be substituted. All existing holes in the web stiffeners for the diaphragms are to be used.



INTERIOR GIRDER MOMENT TABLE

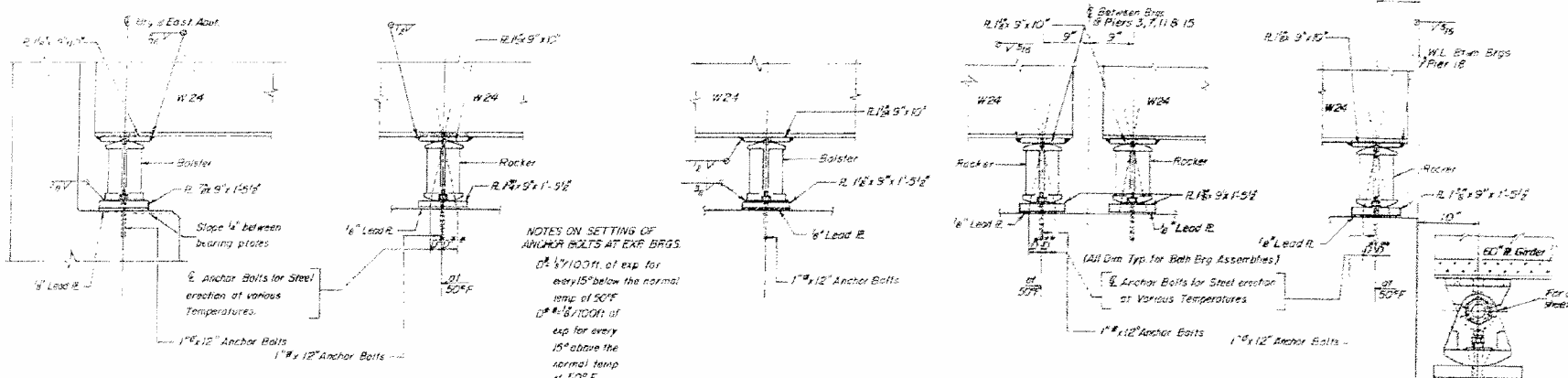
	1953	20	Pier 19 or 20	1953 Sp 20
I _x (in ⁴)	101,922	65,648	26,028	53,595
I _y (in ⁴)	1,756	2,060	860	860
S _x (in ³)	2,964	1,112	1,112	1,112
S _y (in ³)	1,086	1,290	0,572	0,572
I _x (in ⁴)	1,308	-1,845	297.5	297.5
I _y (in ⁴)	107.3	4.15	0.160*	0.160*
M _x (ft-k)	213.5	94.6	94.6	94.6
M _y (ft-k)	1,177.6	-975.4	925.5	925.5
M _{total} (ft-k)	234.6	-154.2	184.6	184.6
M _{total-comp} (ft-k)	1,625.7	-1,170.6	1,208.8	1,208.8
I _x comp (in ⁴)	945	-6.82	13.04	13.04
I _y comp (in ⁴)	15.84	-17.35	17.15	17.15
VR	58.2	—	53.3	53.3

I_x and I_y are the moment of inertia and section modulus of the steel section. I_x and S_x are the moment of inertia and section modulus of the composite section used in computing I_x. VR is the maximum shear range in span. *VR includes wt. of 25% of F.W.S. only weight due to curbs and parapets is carried by Exterior Girders.

PLATE GIRDER MODIFICATIONS
EA RTE 823 (SBI RTE 15)
OVER LITTLE WABASH RIVER
WAYNE COUNTY
SECTION 22 BR - 7
STA. 492+75

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET	TOTAL SHEETS
205A-1	WAYNE	34	1
DRAWN BY: R.V.M.		DATE: 8/5/2014	SCALE: 1/8" = 1'-0"



INTERIOR BEAM MOMENT TABLE
 045038, Piers 2, 6, 10, 14, 18

UNIT	1830	1830	1830	1830
I_x (in ⁴)	1830	1830	1830	1830
I_y (in ⁴)	6020	6020	6020	6020
S_x (in ³)	154	154	154	154
S_y (in ³)	250	250	250	250
R_x (in ²)	0.778	1.102	0.778	1.102
M_x (in ²)	1830	2519	1830	2519
I_x (in ⁴)	1830	1830	1830	1830
S_x (in ³)	0.324	0.324	0.324	0.324
M_x (in ²)	67.6	67.6	67.6	67.6
M_{total} (in ²)	1830	2519	1830	2519
I_{total} (in ⁴)	662.8	390.8	720.7	333.8
$I_{x,combined}$	4150	2120	3456	2693
$I_{y,combined}$	50	4638	50	4638
V_{H} (in ²)	47.8	43.7	43.7	40.7

INTERIOR BEAM MOMENT TABLE
 045047, Piers 4, 8, 12, 16, 20

UNIT	1830	1830	1830	1830
I_x (in ⁴)	1830	1830	1830	1830
I_y (in ⁴)	6020	6020	6020	6020
S_x (in ³)	154	154	154	154
S_y (in ³)	250	250	250	250
R_x (in ²)	0.778	1.102	0.778	1.102
M_x (in ²)	1830	2519	1830	2519
I_x (in ⁴)	1830	1830	1830	1830
S_x (in ³)	0.324	0.324	0.324	0.324
M_x (in ²)	67.6	67.6	67.6	67.6
M_{total} (in ²)	1830	2519	1830	2519
I_{total} (in ⁴)	662.8	390.8	720.7	333.8
$I_{x,combined}$	4150	2120	3456	2693
$I_{y,combined}$	50	4638	50	4638
V_{H} (in ²)	47.8	43.7	43.7	40.7

INTERIOR BEAM REACTION TABLE
 Piers 2, 6, 10, 14, 18

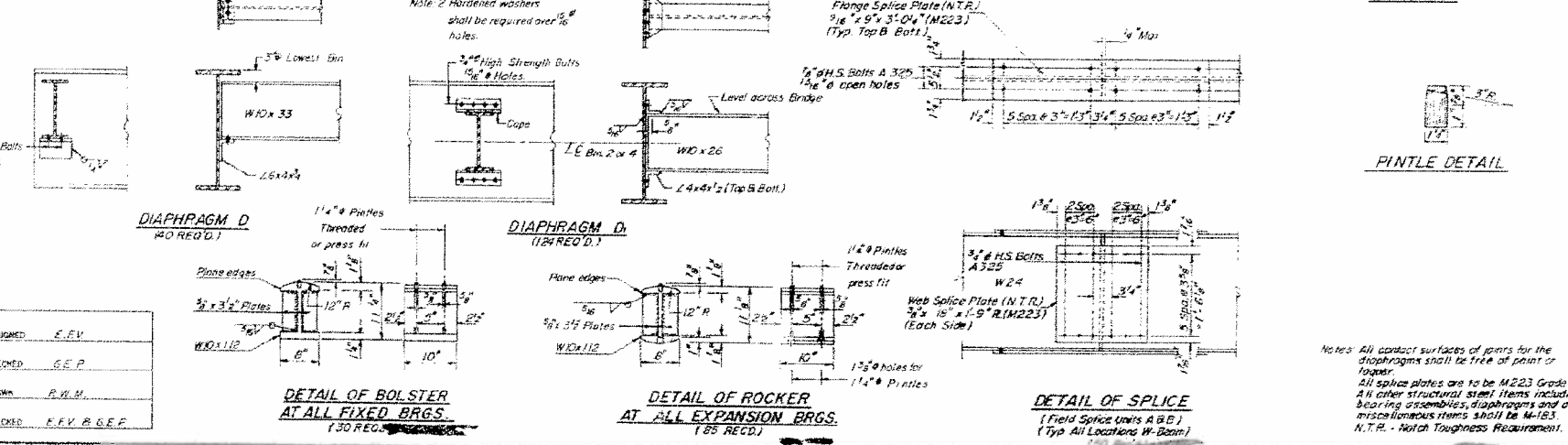
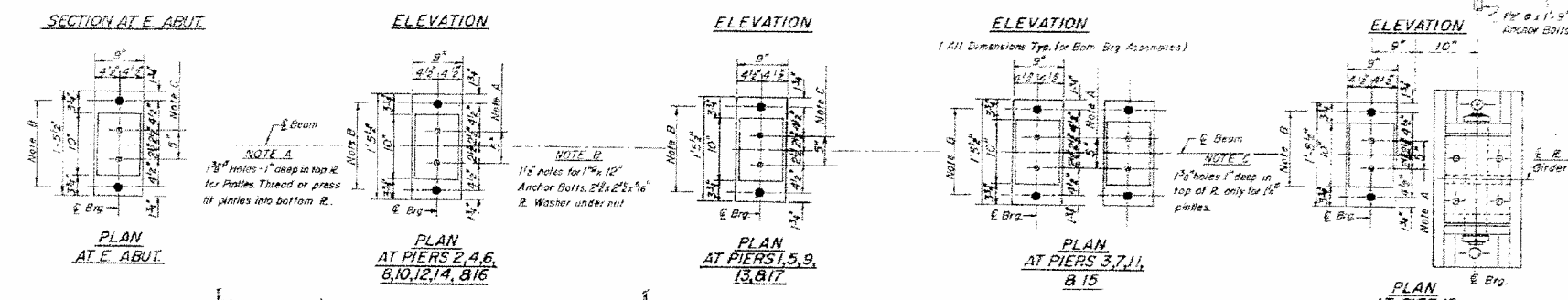
UNIT	1830	1830	1830	1830
R_x (k)	130	130	130	130
R_y (k)	36.1	42.4	36.1	42.4
I_{mp} (k)	10.8	12.7	10.8	12.7
R_{total} (k)	85.9	106.5	85.9	106.5

INTERIOR BEAM REACTION TABLE
 Piers 4, 8, 12, 16, 20

UNIT	1830	1830	1830	1830
R_x (k)	130	130	130	130
R_y (k)	36.1	42.4	36.1	42.4
I_{mp} (k)	10.8	12.7	10.8	12.7
R_{total} (k)	85.9	106.5	85.9	106.5

I_x and S_x are the moment of inertia and section modulus of the steel section used in computing I_x total.
 I_y and S_y are the moment of inertia and section modulus of the composite section used in computing I_y total.
 V_H is the maximum shear range in span used to determine shear connector spacing.
 The load factor for 1.37 (1.3) (1.3) is included in computing moments and stresses.
 * Computed by conventional elastic beam formula.
 ** Computed using plastic theory section is compact for design moment.

STRUCTURAL STEEL-BRG'S & DIAPHRAGMS
 PART 825 (SBI RYE 15)
 OVER LITTLE WABASH RIVER
 WAYNE COUNTY
 SECTION 22 BR-7
 STA. 492+75

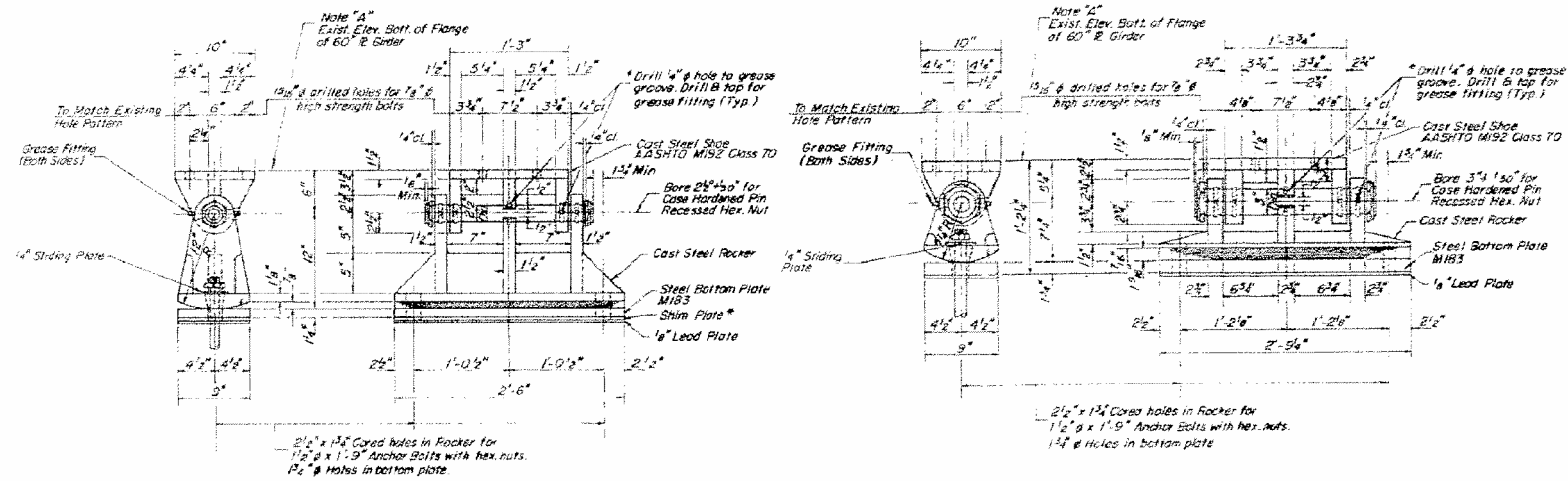


DESIGNED	E.E.V.
CHECKED	G.E.P.
DRAWN	R.V.M.
CHECKED	E.F.V. & G.E.P.

Notes: All contact surfaces of joints for the diaphragms shall be free of paint or loam.
 All splice plates are to be A325 Grade 50.
 All other structural steel items including bearing assemblies, diaphragms and other miscellaneous items shall be A-103.
 N.T.R. - Not a Toughness Requirement.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7	WAYNE	15	11
SHEET NO. 50F				



AT WEST ABUTMENT AND PIER # 18
(10 Assemblies Req'd)

AT PIER # 19
(5 Assemblies Req'd)

* Shim Plate 9" x 2'-6" x 3/8" required at corner girder at West Abutment.

Notes: M183 Structural Steel weldments of equal sections may be substituted for the castings. Fillet or partial penetration weld shall be used for weldments. Minimum weld size shall be 1/4 thickness of plate being welded, except maximum size of welds shall not exceed 3/4".
Provide 1/2" U.S. bolts for attachment of processed bearing assemblies to flanges of existing plate girder.

GREASE GROOVE ON SADDLE

* Note: Grease bearing assembly with molybdenum grease before installation.

DESIGNED	F.E.V.
CHECKED	G.E.P.
DRAWN	H.E.S.
CHECKED	

PLATE GIRDER
REPLACEMENT BEARINGS
FA RTE. 823(S.91 RTE. 15)
OVER LITTLE WABASH RIVER
WAYNE COUNTY
SECTION 22 BR-7
STA. 492+75

Notes:

- Note "A": Maintain Existing Bottom of Flange Elevations.
- "B": The Existing Fixed Bearing Assembly Pier #20 shall be cleaned and painted in accordance with Std. Spec. 509.05.
- "C": Existing Expansion Bearings at Piers 18 & 19 and West Abutment shall be removed and replaced. Cost of removal shall be incidental to Structural Steel.

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
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Default	PLOT DATE = 8/5/2014	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

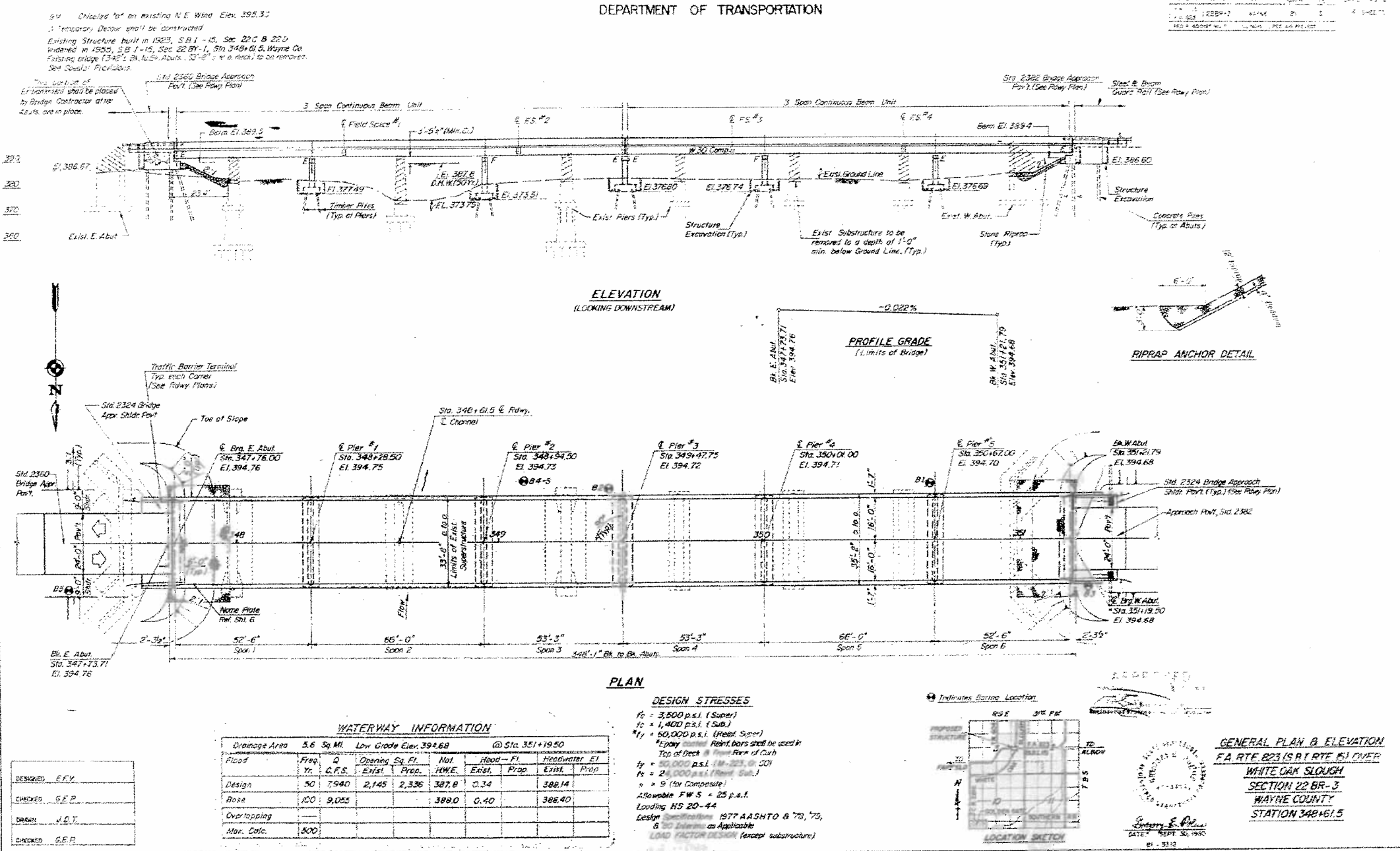
PLAN
STRUCTURE 096-0010

SCALE: N/A SHEET 8 OF 11 SHEETS STA. TO STA.

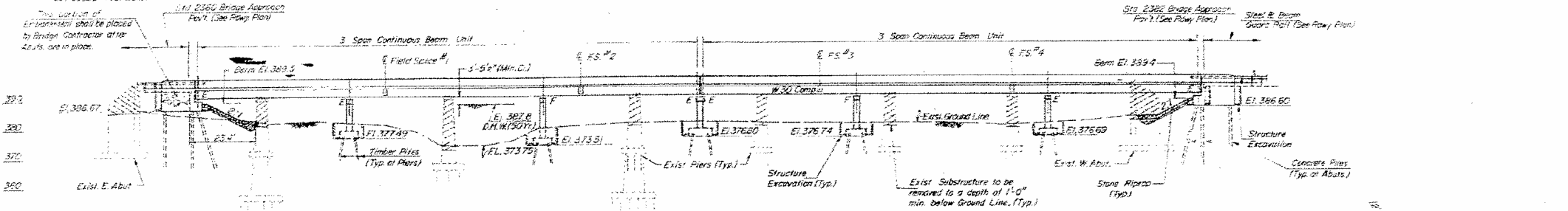
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823	D7 BRIDGE PAINTING 2015-4	WAYNE	15	11
CONTRACT NO. 74700				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

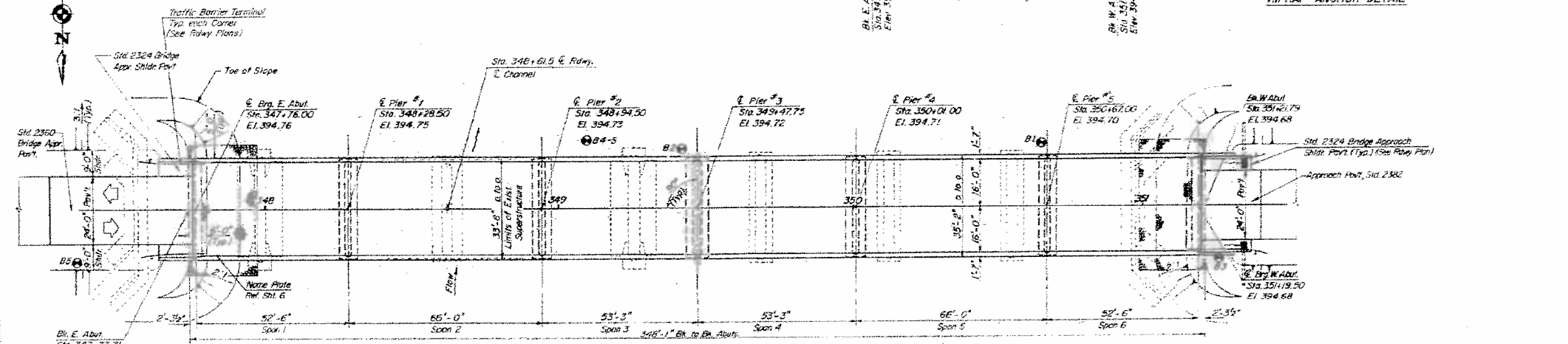
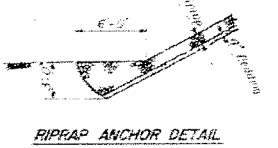
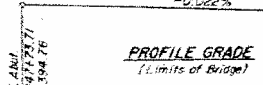
DATE	BY	SCALE	SHEET NO.
12/28/14	STEFFENK	AS SHOWN	9
PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS
823 D7 BRIDGE PAINTING 2015-4	WAYNE	WAYNE	15
CONTRACT NO. 74700			



to be cribbed for an existing N.E. Wind Elev. 395.32
Temporary Deck and to be constructed
Existing Structure built in 1923, S.B. 1 - 15, Sec. 22 C & 22 D
Installed in 1925, S.B. 1 - 15, Sec. 22 B & 1, Sta. 348+61.5, Wayne Co.
Existing bridge (342' S. B. 1 to S. Abut. 32'-0" x 6' deck) to be removed.
See Details' Profiles.



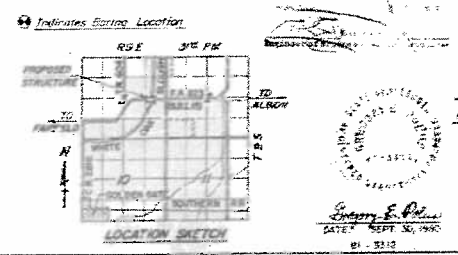
ELEVATION
(LOOKING DOWNSTREAM)



PLAN

WATERWAY INFORMATION						
Drainage Area	5.6 Sq. Mi.	Low Grade Elev.	394.68	@ Sta. 351+19.50		
Flood	Freq. 0	Opening	Sta. Fl.	Not. H.W.E.	Hood - Fl.	Headwater E1
	Yr. C.F.S.	Exist. Prop.		Exist. Prop.	Exist. Prop.	Exist. Prop.
Design	50	7,940	2,145	2,336	387.8	0.34
Base	100	9,053			388.0	0.40
Overlapping						
Max. Conc.	300					

DESIGN STRESSES
 $f_c = 3,500$ p.s.i. (Super)
 $f_c = 1,400$ p.s.i. (Sub.)
 $f_t = 50,000$ p.s.i. (Reinf. Steel)
 Reinf. Bars shall be used in
 Top of Deck @ 10" from Face of Deck
 $f_y = 50,000$ p.s.i. (AASHTO 201)
 $f_y = 24,000$ p.s.i. (Reinf. Steel)
 $n = 9$ (for Composite)
 Allowable F.W.S. = 25 p.s.f.
 Loading HS 20-44
 Lesly's Specifications 1977 AASHTO & 70, 75,
 & 80 Editions as Applicable
 LOAD FACTOR DESIGN (except substructure)

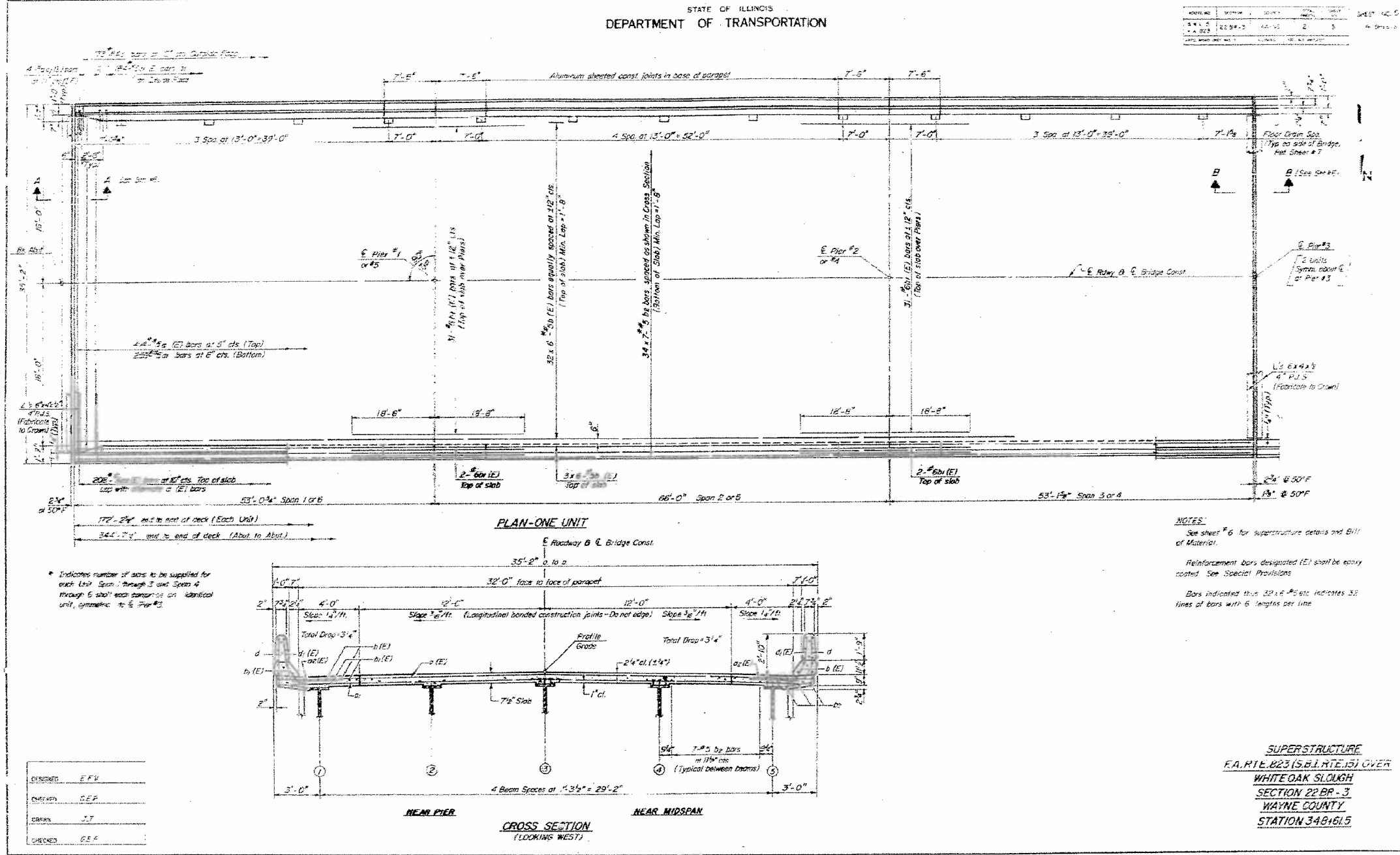


GENERAL PLAN & ELEVATION
 FA. RTE. 823 (S. & R. RTE. 151) OVER
 WHITE OAK SLOUGH
 SECTION 22 BR-3
 WAYNE COUNTY
 STATION 348+61.5

DESIGNED	E.F.V.
CHECKED	G.E.P.
DRAWN	J.D.T.
CHECKED	G.E.P.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

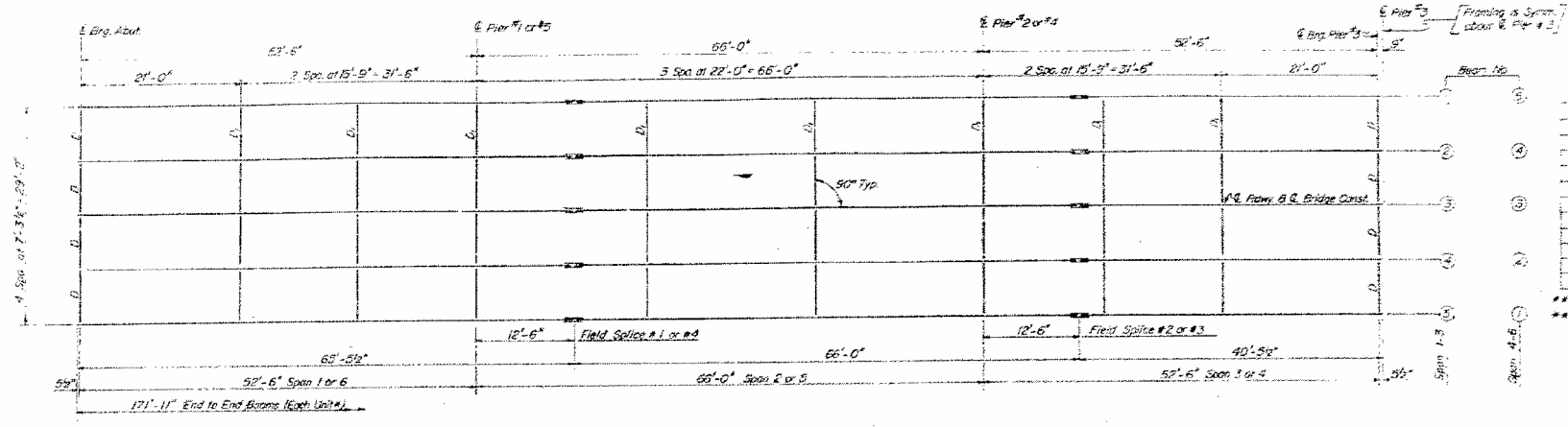
DATE	BY	CHECKED	SCALE	SHEET NO.
8/5/2014	EFV	SEP	N/A	15



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		DRAWN -	REVISED -		SCALE: N/A	SHEET 10	OF 11 SHEETS	STA. TO STA.	823 D7 BRIDGE PAINTING 2015-4	WAYNE	15	13
Default	PLOT DATE = 8/5/2014	CHECKED -	REVISED -					CONTRACT NO. 74700		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET	TOTAL SHEETS
14-022	22 BR-3	11	14
FILE NAME	DATE	DESIGNED BY	CHECKED BY
	8/5/2014	E.F.V.	G.E.P./D.J.K.

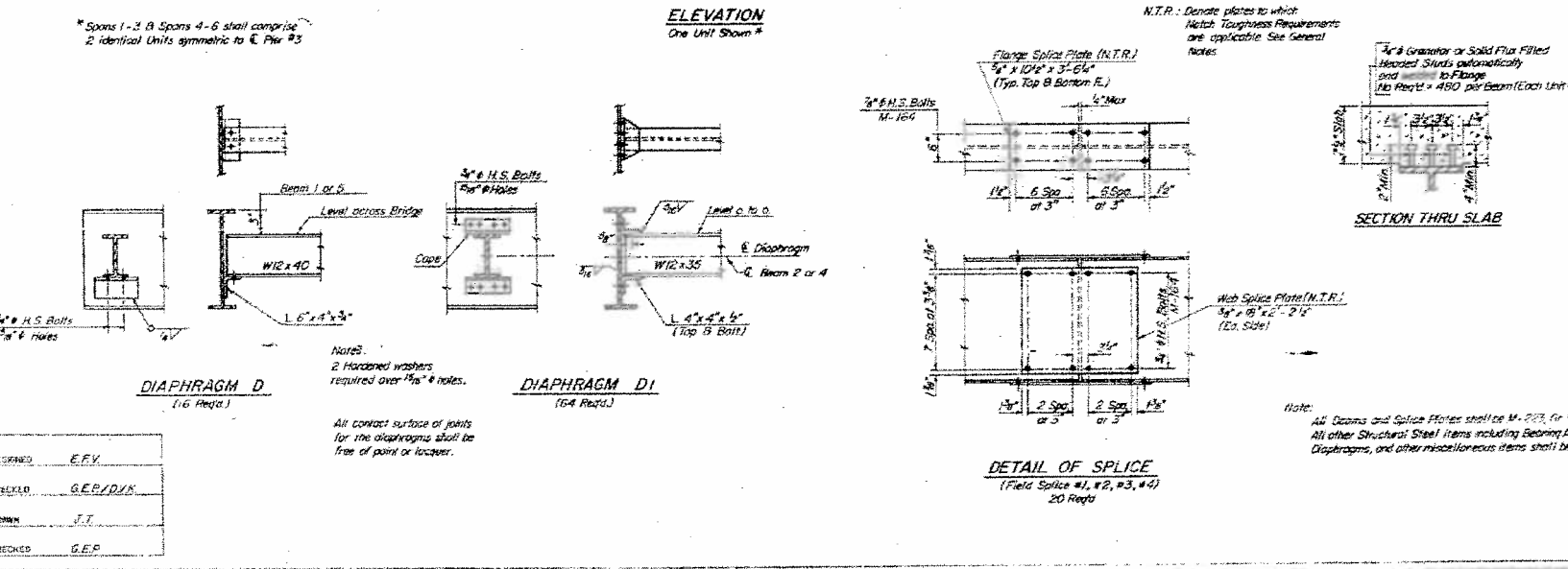
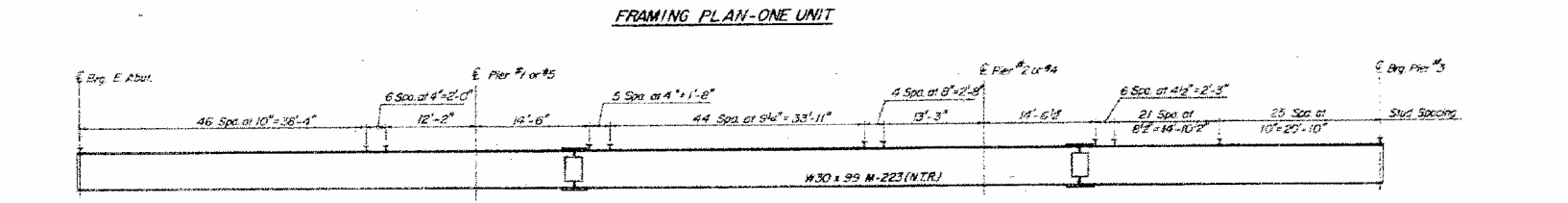


ELEVATIONS - TOP OF W BEAMS

Location	Beam #1	Beam #2	Beam #3	Beam #4	Beam #5
E. Abut.	395.80	393.93	394.04	393.93	393.80
E. Pier #1	393.79	393.90	394.01	393.90	393.79
E. Splice 1	393.79	393.90	394.01	393.90	393.79
E. Pier #2	393.77	393.90	394.01	393.90	393.77
E. Splice 2	393.77	393.90	394.01	393.90	393.77
E. Pier #3	393.76	393.88	394.00	393.88	393.76
E. Splice 3	393.75	393.88	393.99	393.88	393.75
E. Pier #4	393.75	393.88	393.99	393.88	393.75
E. Splice 4	393.74	393.87	393.98	393.87	393.74
E. Pier #5	393.74	393.87	393.98	393.87	393.74
E. W. Abut.	393.73	393.86	393.97	393.86	393.73

INTERIOR BEAM MOMENT TABLE

Is (in ⁴)	End Span	Piers	Midspan
Is (in ⁴)	3850	3990	3950
Is (in ⁴)	1,017	---	1,017
Is (in ⁴)	269	260	269
Is (in ⁴)	401	---	401
Is (in ⁴)	0.012	1.122	0.012
Is (in ⁴)	---	4970	200.2
Is (in ⁴)	0.324	-21.86	8.93
Is (in ⁴)	34.2	---	118.5
Is (in ⁴)	534.2	459.0	950.8
Is (in ⁴)	234.7	104.5	249.1
Is (in ⁴)	1181.2	593.9	136.4
Is (in ⁴)	34.75	-26.00	30.32
Is (in ⁴)	43.67	-47.91	48.32
Is (in ⁴)	531	---	451



INTERIOR BEAM REACTION TABLE

	Abut. E. Pier #3	Pier #2, #4, #5
R (k)	22.73	74.58
R (k)	42.80	49.50
Imp (k)	12.10	13.40
R Total (k)	77.63	137.58

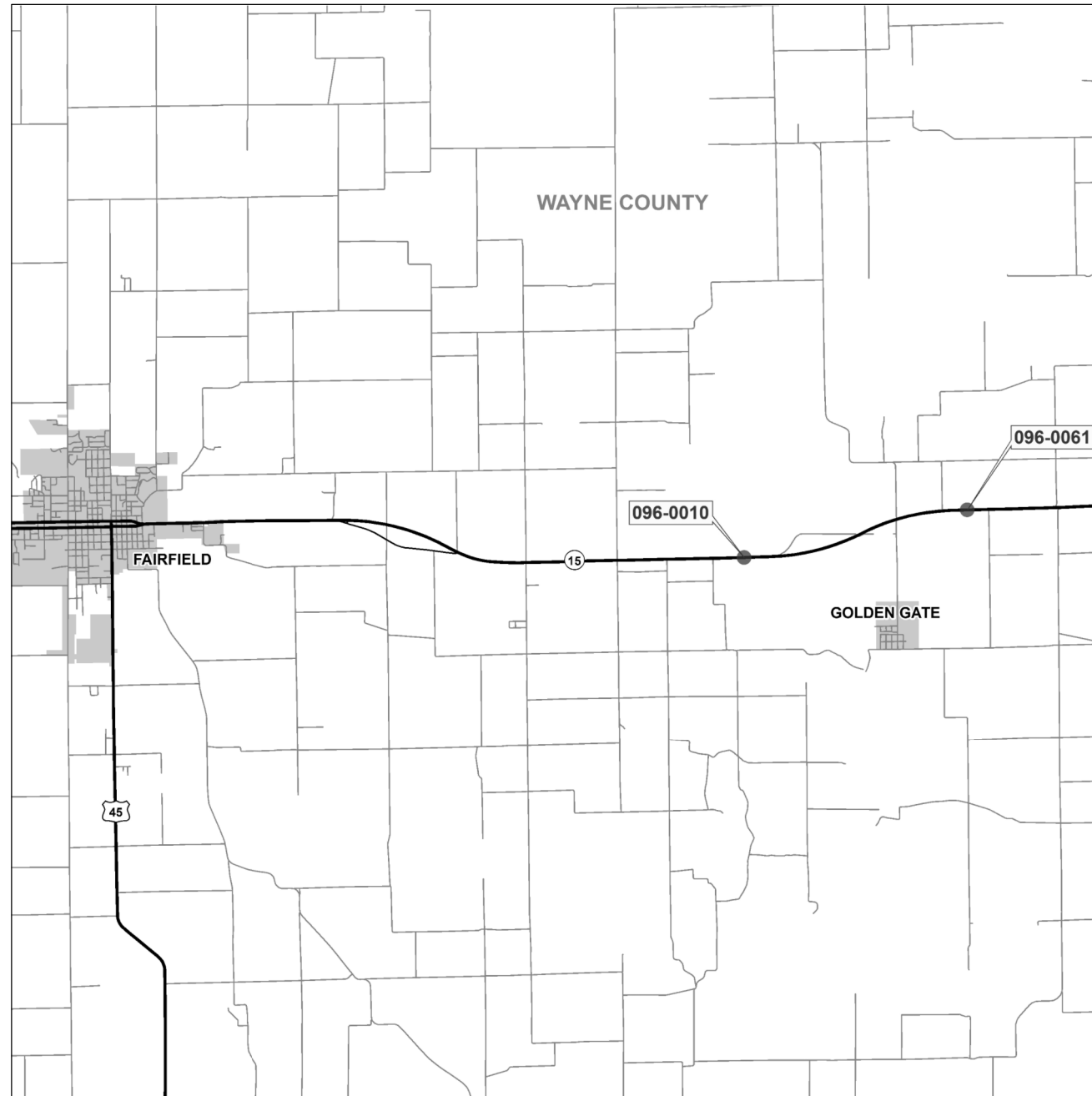
Notes:
Is and Is are the moment of inertia and section modulus of the steel section used in computing Is Total
Is and Is are the moment of inertia and section modulus of the composite section used in computing Is Total
Imp is the maximum impact stress range in span
The load factor (1.3) Imp is included for computing moments and stresses.
Section is correct for positive moment

STRUCTURAL STEEL DETAILS
F.A. RTE. 823 (S. BL) RTE. 81 OVER
WHITE OAK SLOUGH
SECTION 22 BR-3
WAYNE COUNTY
STATION 348+81.5

DESIGNED	E.F.V.
CHECKED	G.E.P./D.J.K.
DRAWN	J.T.
CHECKED	G.E.P.

Notes:
2 Hecobond washers required over 1/2" notes.
All contact surface of joints for the diaphragms shall be free of paint or looser.

D7 BRIDGE PAINTING 2015-4
 S.N. 096-0010 & S.N. 096-0061
 WAYNE COUNTY



FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/5/2014	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

BRIDGE LOCATION MAP

SCALE: N/A SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE PAINTING 2015-4	WAYNE	15	15
CONTRACT NO. 74700				
ILLINOIS FED. AID PROJECT				