

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2		FAYETTE	20	1
		ILLINOIS	CONTRACT NO. 74817	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

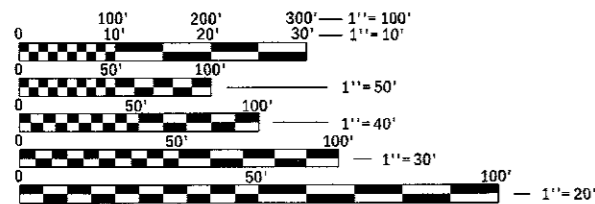
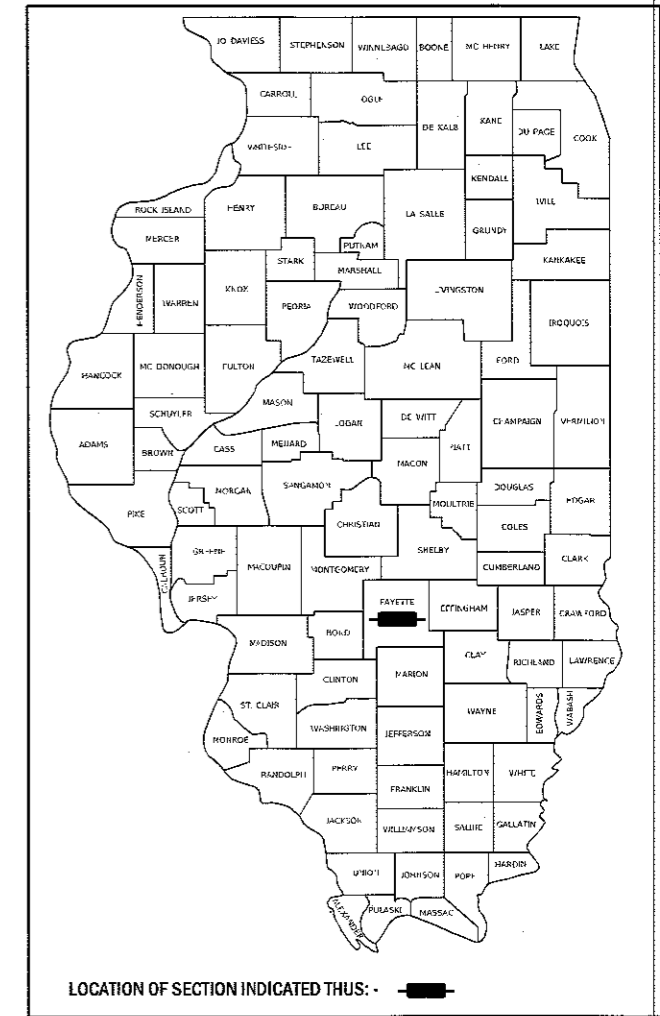
PROPOSED HIGHWAY PLANS

FAS 2793/FAS 1751/FAI 70 (OLD ILL 140/US 40/I-70) SECTION D7 BRIDGE PAINTING 2018-2

BRIDGE PAINTING FAYETTE COUNTY

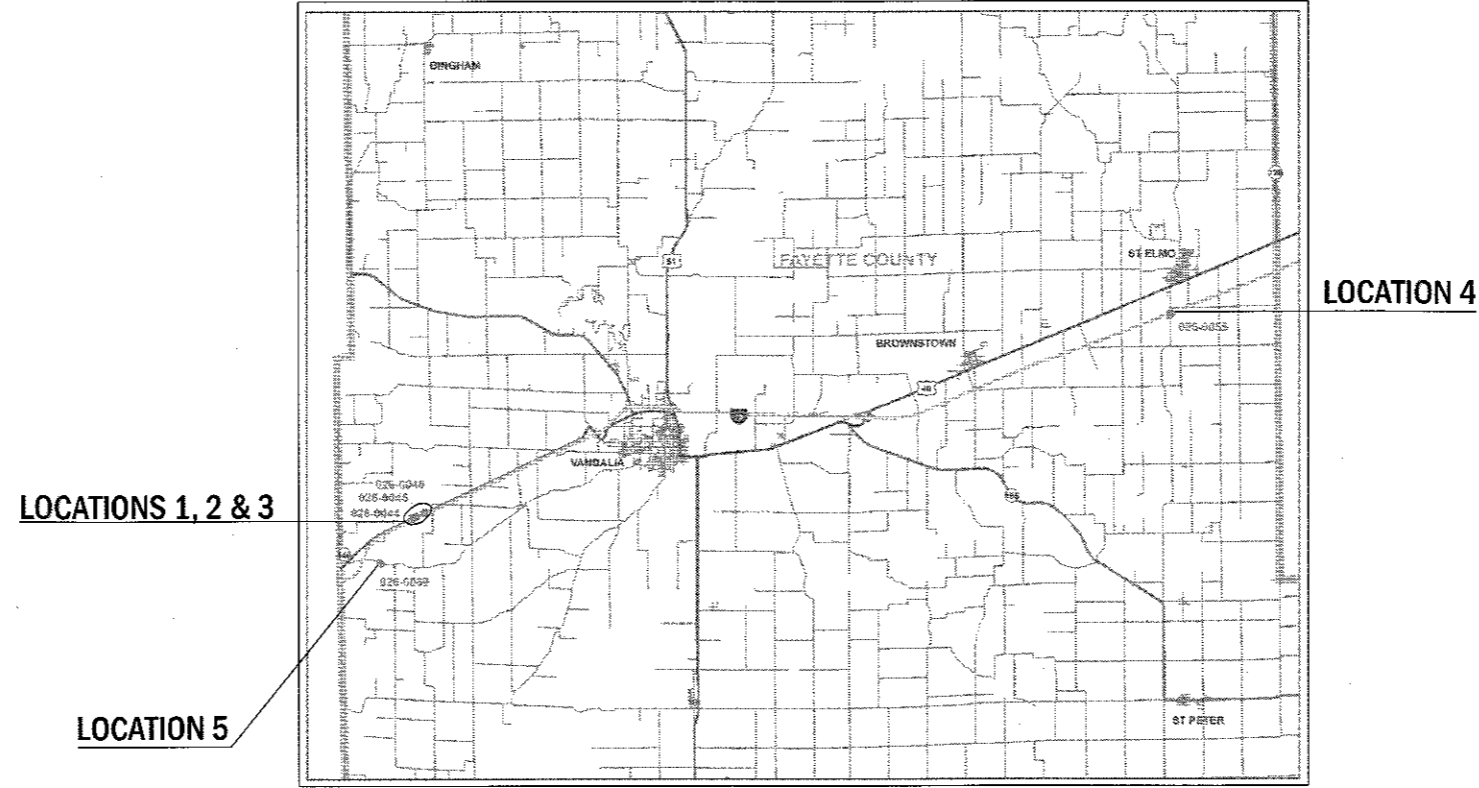
C-97-007-18

D-97-004-18



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. 74817

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 31 20 17

Jeffrey M South Jr
REGIONAL ENGINEER

Oct 13 20 17
Maureen M. Addis, PE/EP
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 13 20 17
[Signature]
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS & GENERAL NOTES
3	LOCATION DESCRIPTIONS
4	SUMMARY OF QUANTITIES
5	LOCATION MAP
6-20	EXISTING STRUCTURE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 20:

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, & PATTERNS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTI-LANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTI-LANE, MORE THAN 15' AWAY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-10	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-12	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701411-09	LANE CLOSURE, MULTI-LANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701901-06	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016; THE SUPPLEMENTAL SPECIFICATIONS, THE RECURRING SPECIAL PROVISIONS, AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THE PROPOSED PROJECT IS LOCATED AT FIVE LOCATIONS IN FAYETTE COUNTY. THERE ARE A TOTAL OF FIVE STRUCTURES TO BE PAINTED.

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

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

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

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

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

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

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PLOT DATE = 9/1/2017	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INDEX OF SHEETS & GENERAL NOTES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 BRIDGE PAINTING 2018-2	FAYETTE	20	2
CONTRACT NO. 74817				
		ILLINOIS	FED. AID PROJECT	

LOCATION 1

BRIDGE #1
 ROUTE: FAS 1751
 MARKED: US 40
 SECTION: P-2BR
 STATION: 120+98.32
 STRUCTURE NUMBER: 026-0044

TYPE OF BRIDGE: Wide Flange I-Beams • 3 Spans (5 Beams)
 LOCATION: 2.3 miles east of the Bond County line
 FEATURE CARRIED/SPANNED: US 40 over Hurricane Creek

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 within 5' (measured along the beam) of the abutments, including beams, bearings, and diaphragms, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottom of the bottom flange of both fascia beams, for the entire length of the 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.

The existing paint at this location does not contain lead.

LOCATION 3

BRIDGE #3
 ROUTE: FAS 1751
 MARKED: US 40
 SECTION: P-2BR-2
 STATION: 140+08.18
 STRUCTURE NUMBERS: 026-0046

TYPE OF BRIDGE: Wide Flange I-Beams - 3 Spans (5 Beams)
 LOCATION: 2.6 miles east of the Bond County line
 FEATURE CARRIED/SPANNED: US 40 over Hurricane Creek

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 within 5' (measured along the beam) of the abutments, including beams, bearings, and diaphragms, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottom of the bottom flange of both fascia beams, for the entire length of the 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.

The existing paint at this location does not contain lead.

LOCATION 2

BRIDGE #2
 ROUTE: FAS 1751
 MARKED: US 40
 SECTION: P-2BR-1
 STATION: 127+63.68
 STRUCTURE NUMBERS: 026-0045

TYPE OF BRIDGE: Wide Flange I-Beams • 3 Spans (5 Beams)
 LOCATION: 2.4 miles east of the Bond County line
 FEATURE CARRIED/SPANNED: US 40 over Hurricane Creek Branch

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 within 5' (measured along the beam) of the abutments, including beams, bearings, and diaphragms, shall be cleaned by SSPC-SP10- Near White Metal Blast Cleaning. The entire outside and bottom of the bottom flange of both fascia beams, for the entire length of the 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.

The existing paint at this location does not contain lead.

LOCATION 4

BRIDGE #4
 ROUTE: FAI 70.
 MARKED: I-70
 SECTION: 26-5HB-2
 STATION: 1143+96.91
 STRUCTURE NUMBERS: 026-0055

TYPE OF BRIDGE: Wide Flange I-Beams • 4 Spans (6 Beams) Beams)
 LOCATION: St. Elmo Interchange
 FEATURE CARRIED/SPANNED: FAS 2720 over I-70

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.

Two air monitors will be required at this location.

The existing paint at this location contains lead.

LOCATION 5

BRIDGE #5
 ROUTE: FAS 2793
 MARKED: Old ILL 140
 SECTION: PB-1
 STATION: 503+85
 STRUCTURE NUMBERS: 026-0089

TYPE OF BRIDGE: Wide Flange I-Beams-5 Spans (5 Beams)
 LOCATION: 0.9 miles southeast of US 40
 FEATURE CARRIED/SPANNED: Old ILL 140 over Hurricane Creek

COLOR OF THE FINISH COAT SHALL BE REDDISH BROWN, MUNSELL 2.5YR 3/4.

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 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.

The existing paint at this location contains lead.

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
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LOCATION DESCRIPTIONS			
SCALE:	SHEET	OF	SHEETS
	STA.		TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 BRIDGE PAINTING 2018-2	FAYETTE	20	3
CONTRACT NO. 74817				
ILLINOIS FED. AID PROJECT				

RURAL
100%
STATE

RURAL
100%
STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0047		
67100100	MOBILIZATION	LSUM	1	1		
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	2	2		
	701402					
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	2	2		
	701411					
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD	LSUM	1	1		
	701201					
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD	LSUM	1	1		
	701401					
70400100	TEMPORARY CONCRETE BARRIER	FOOT	275	275		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	825	825		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1		
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3	3		
X7010410	SPEED DISPLAY TRAILER	CAL MO	2	2		
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	120	120		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0047		
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT	LSUM	1	1		
	CLEANING RESIDUES					
Z0007114	CONTAINMENT AND DISPOSAL OF NON-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		
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	LSUM	1	1		
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	LSUM	1	1		
Z0010505	CLEANING AND PAINTING STEEL BRIDGE NO. 5	LSUM	1	1		

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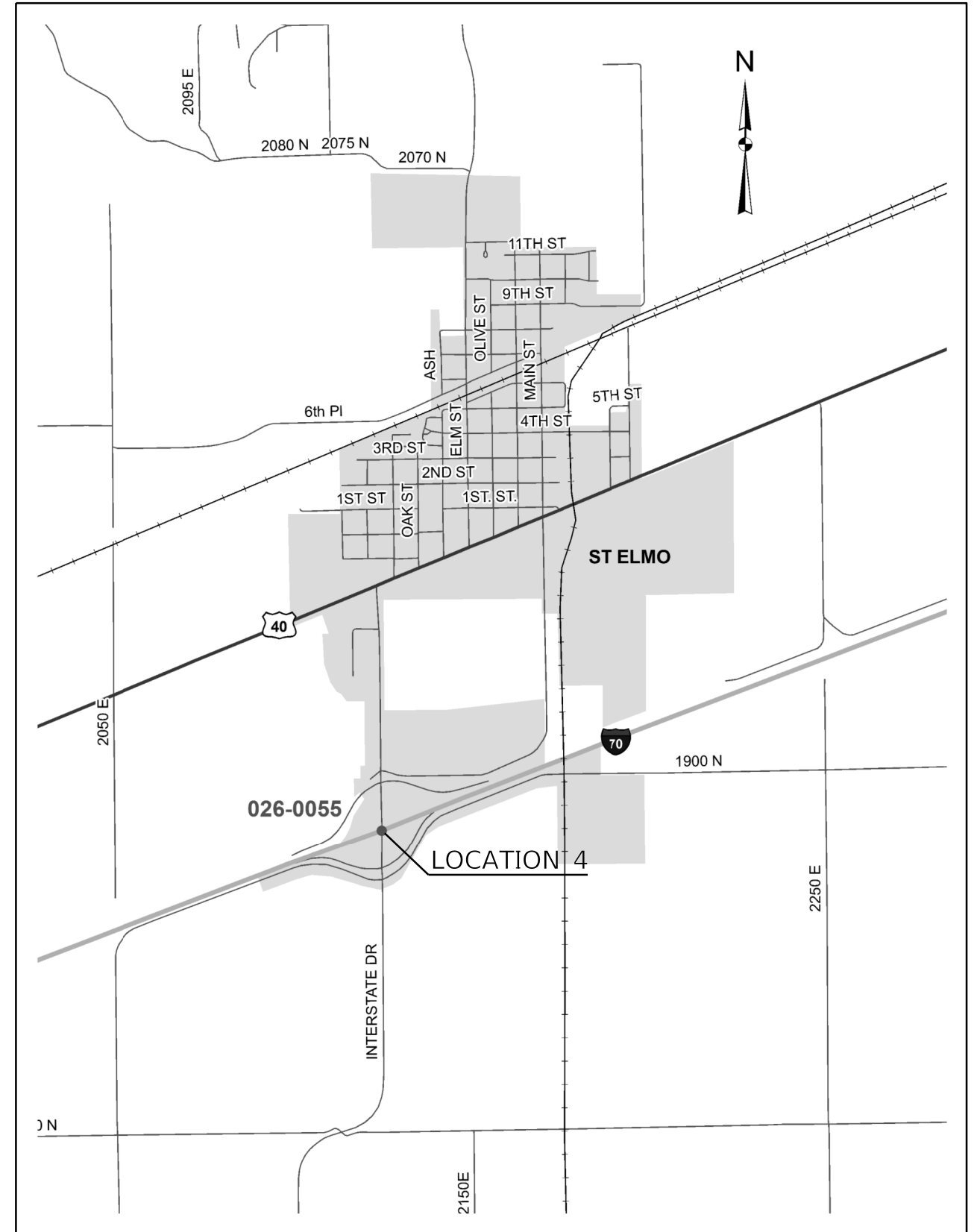
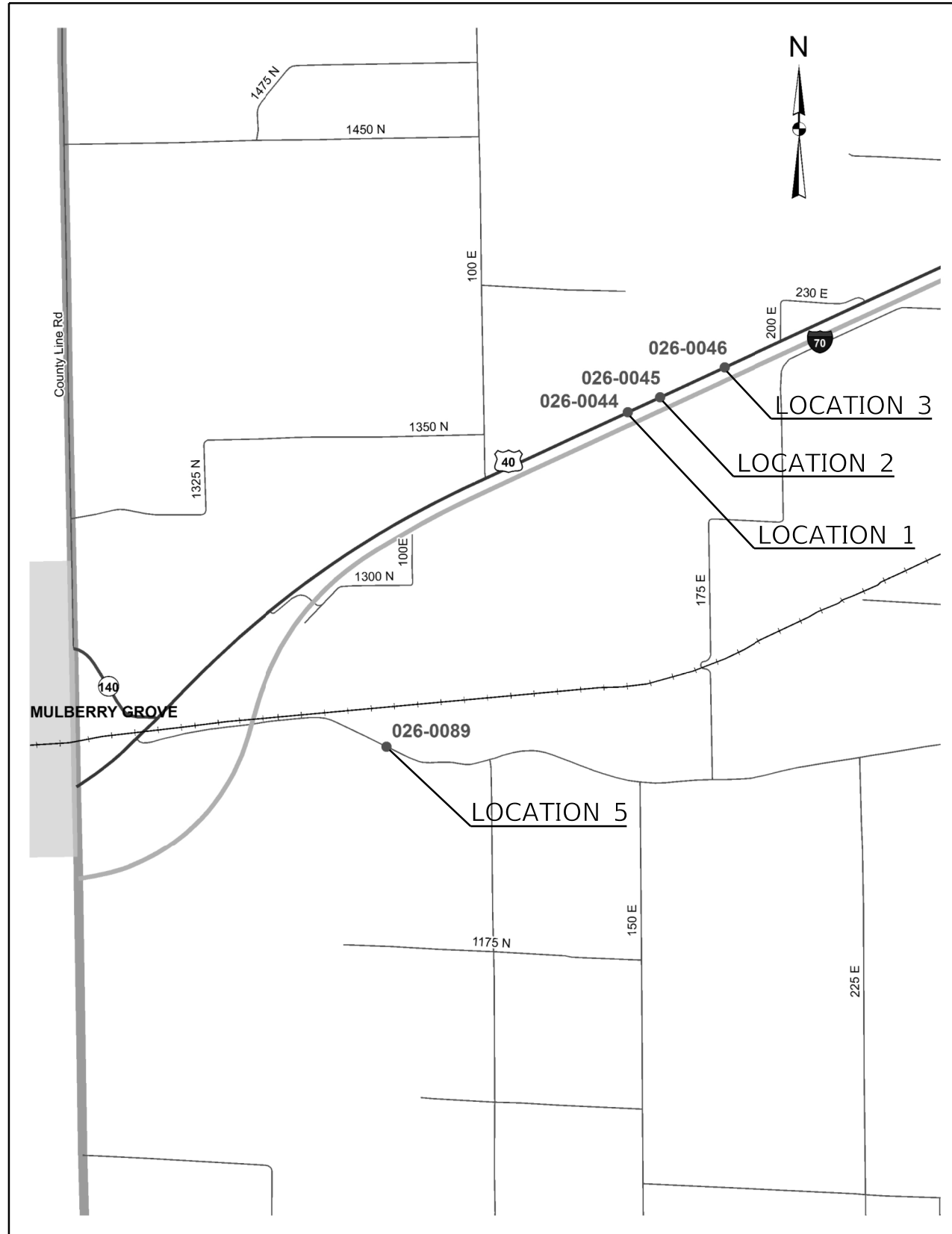
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2		FAYETTE	20	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74817	



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOCATION MAPS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2		FAYETTE	20	5
CONTRACT NO. 74817			ILLINOIS FED. AID PROJECT	

Bench Mark: Top of N.E. Wingwall of Exist. Structure No. 026-0044 E.L. 493.21
 Existing Structure: Struct. No. 026-0044
 Three span R.C. arched girder design with a 7" deck. The deck is supported by four-column, buried R.C. abutts, on timber piling and by solid R.C. piers on timber piling. The bridge is skewed 26° left ahead and is 109.67' BK to BK of abutments, and 24'-8" out to out.
 Traffic shall be detoured. No Salvage.

DESIGN SPECIFICATIONS
 1989 AASHTO and 1990 Interims and Seismic Retrofitting Guidelines for Highway Bridges
 Allow 25% FT² for Future Wearing Surface, AASHTO Fatigue Stress Cycles Case II

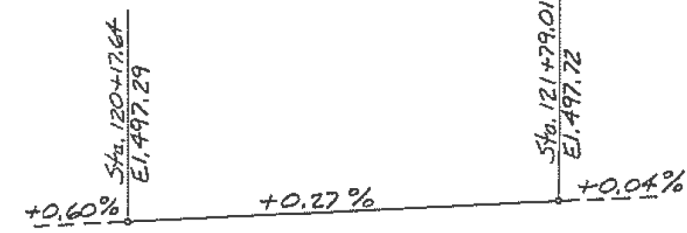
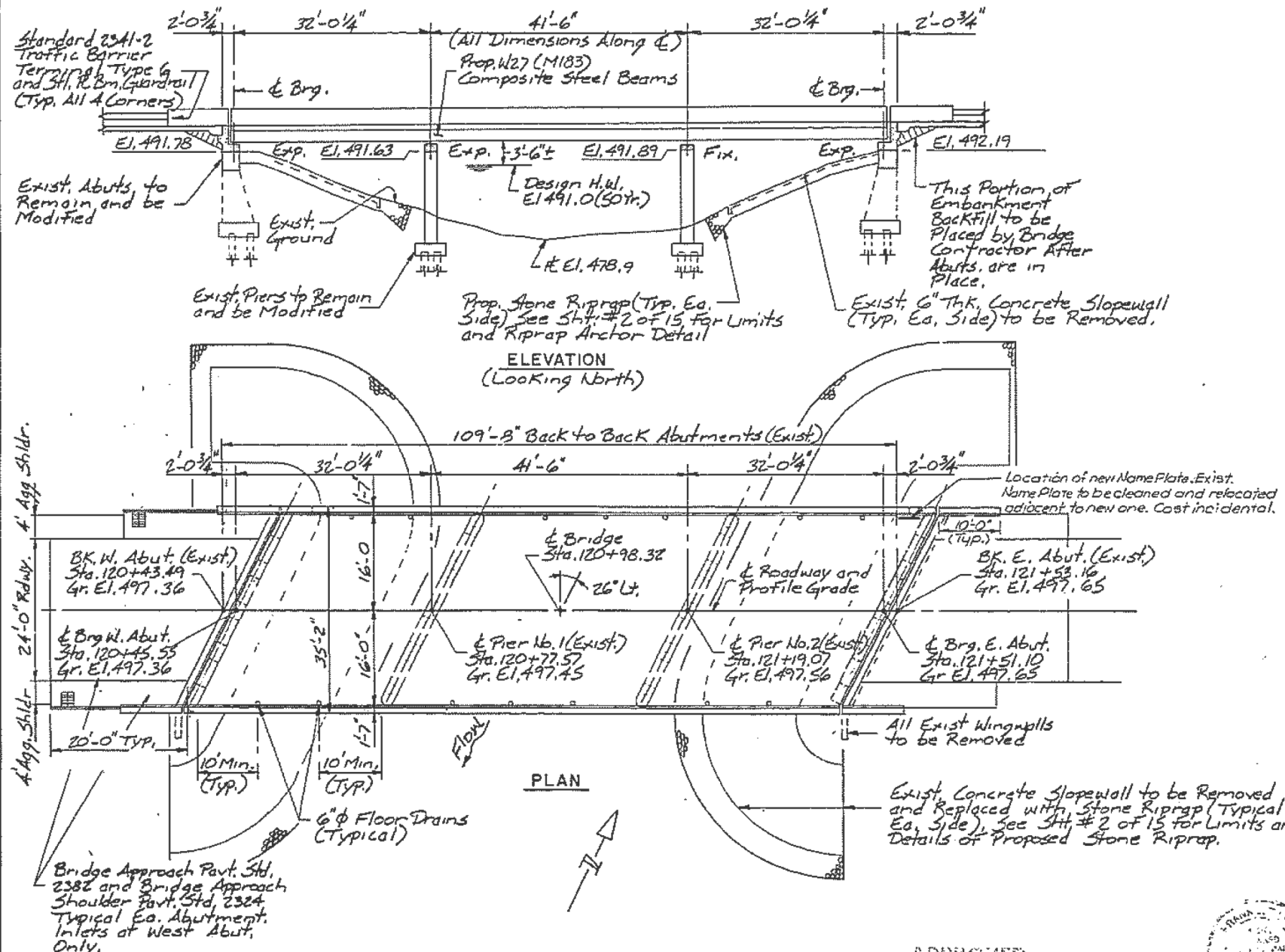
DESIGN STRESSES (New Construction)
 F'c = 3500 psi
 * Fy = 60,000 psi (Reinforcement)
 Fy = 36,000 psi (M183)
 * Epoxy Coated Reinforcement Bars shall be used throughout.

WATERWAY INFORMATION

Drainage Area 124.2 Sq. Mi., Low Grade E.L. 495.98 @ Sta. 114+00									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Not. Ex. Prop.	Head - Ft. Ex. Prop.	Headwater E.L. Ex. Prop.	Headwater E.L. Prop.	Headwater E.L. Ex. Prop.	Headwater E.L. Prop.
Design	50	14790	350	550	491.0	2.4	2.4	493.4	493.4
Base	100	16640	565	565	491.2	2.9	2.9	494.1	494.1
Overlapping	500	21100	595	595	491.6	4.4	4.4	496.0	496.0
Max. Calc.									

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	P-2BR	FAYETTE	53	9

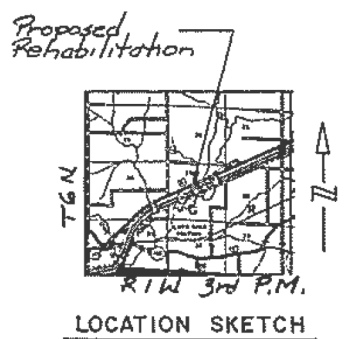
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 SHEET # 1 OF 15



PROPOSED ROADWAY PROFILE
 (at E FAP Rte 12)

STA. 120+98.32
 RESULT 19 BY
 STATE OF ILLINOIS
 OLD FAP RTE. 12 SEL. P-2BR
 LOADING HS-20
 SN 026-0044

NAME PLATE



LOCATION SKETCH

APPROVED
 FOR STRUCTURAL & POLICY ONLY
 Ralph E. ...
 Engineer of Bridges and Structures

Frank J. ...
 ILLINOIS STRUCTURAL NO. 3100
 Expires 11/30/32

LOADING HS20-44
 RALPH HAHN AND ASSOCIATES, INC.
 ENGINEERS-ARCHITECTS-CONSULTANTS
 1320 SOUTH STATE STREET
 SPRINGFIELD, ILLINOIS 62704

GENERAL PLAN & ELEVATION
 BRIDGE OVER HURRICANE CR. OVERFLOW
 OLD FAP RTE. 12 (US 40) OR 2601
 SECT. P-2BR
 FAYETTE COUNTY
 STA. 120+98.32
 S.N. 026-0044

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 DEPARTMENT OF TRANSPORTATION

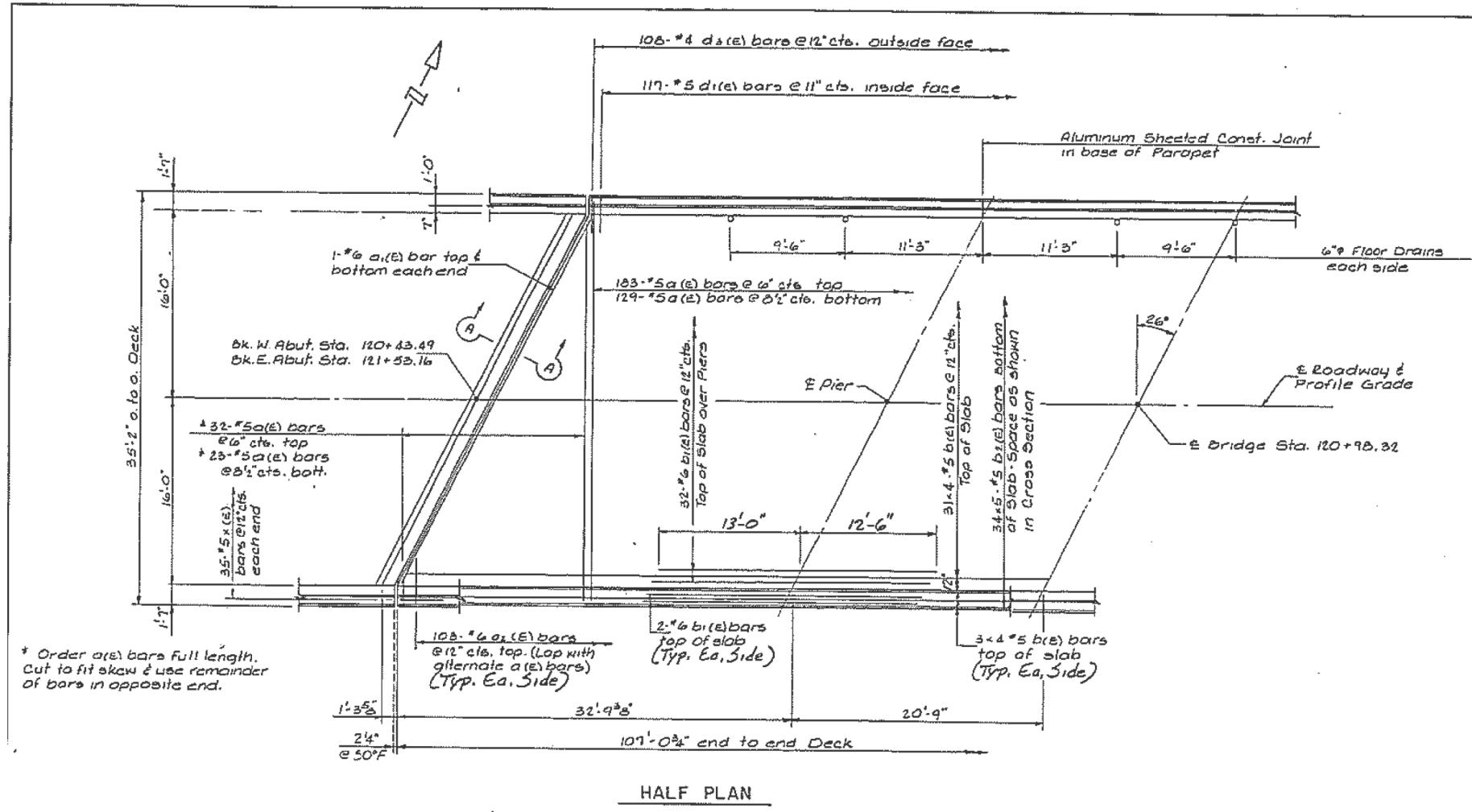
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7	BRIDGE PAINTING 2018-2	FAYETTE	20	6

CONTRACT NO. 74817
 ILLINOIS FED. AID PROJECT

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	P-2BR	FAYETTE	53	12
STA.	TO STA.			
120+98.32	120+43.49			

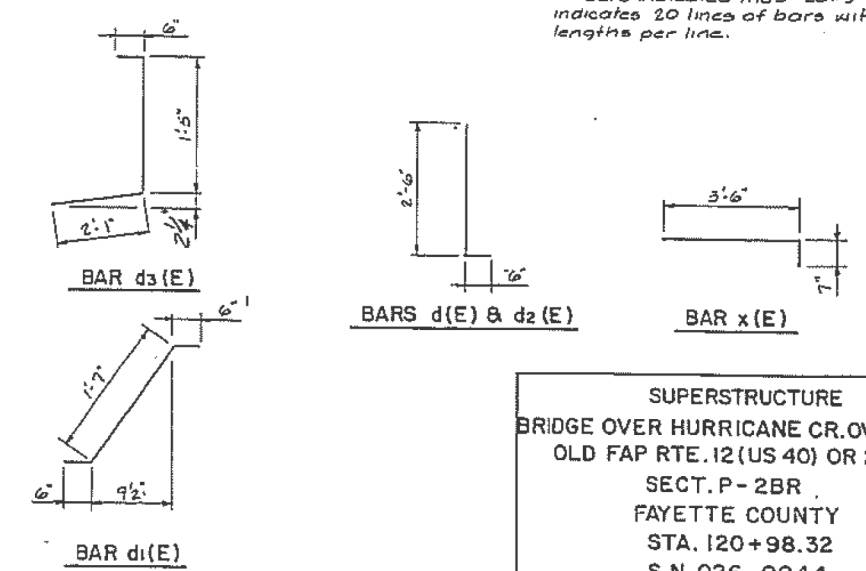
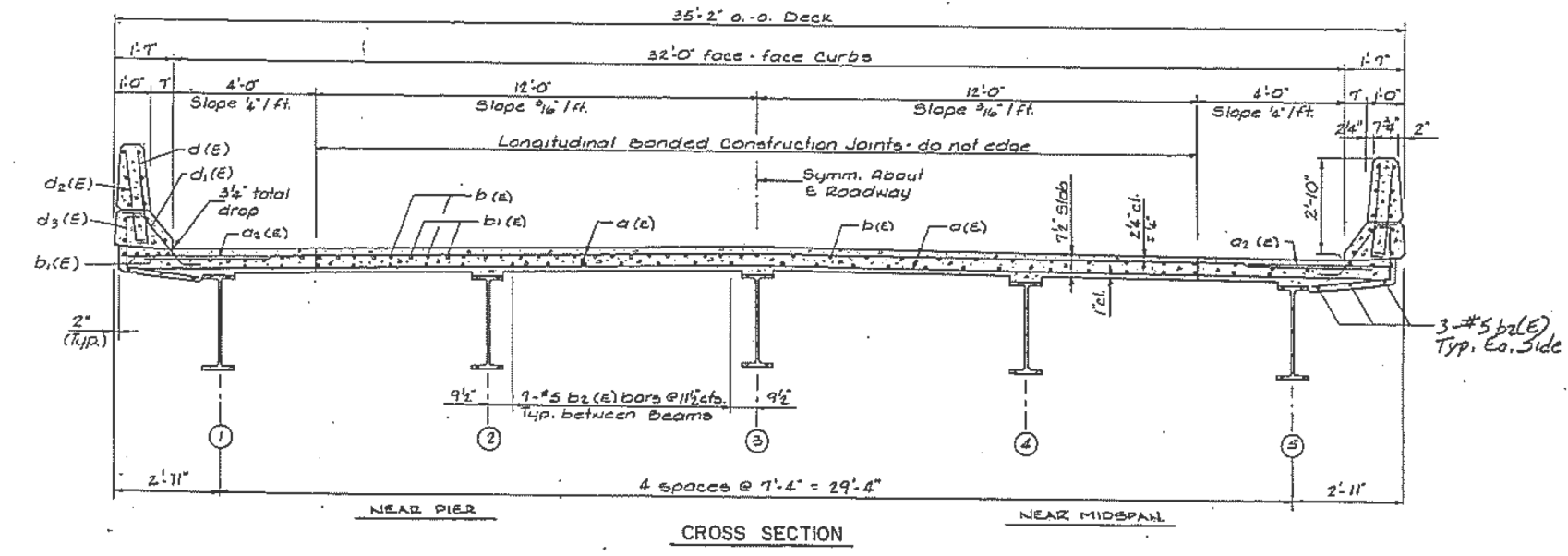
Sheet # 4 of 15



MIN. BAR LAPS
 #5 = 2'-2"
 #6 = 2'-7"
 #8 = 4'-6"

SUPERSTRUCTURE BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a1(E)	367	#5	38'-0"	
a2(E)	4	#6	35'-6"	
a3(E)	216	#6	4'-0"	
b1(E)	148	#5	25'-5"	
b2(E)	72	#6	25'-6"	
b3(E)	170	#5	23'-3"	
d1(E)	234	#5	3'-0"	
d2(E)	234	#5	2'-7"	
d3(E)	216	#4	3'-0"	
d4(E)	216	#4	4'-0"	
c1(E)	48	#4	16'-1"	
c2(E)	36	#4	13'-6"	
c3(E)	16	#3	18'-5"	
c4(E)	8	#3	22'-11"	
c5(E)	16	#5	17'-4"	
c6(E)	8	#5	21'-9"	
x(E)	70	#5	4'-1"	
Class X Concrete Superstructure				Cu.Yds. 117.9
Reinforcement Bars (Epoxy Coated)				Lbs. 31,060
Floor Drains				Each 14



Notes: See Sheet #5 of 15 for Superstructure Details.
 Reinforcement bars designated (E) shall be epoxy coated.
 Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

SUPERSTRUCTURE
 BRIDGE OVER HURRICANE CR. OVERFLOW
 OLD FAP RTE. 12 (US 40) OR 2601
 SECT. P-2BR
 FAYETTE COUNTY
 STA. 120+98.32
 S.N. 026-0044

90-101c

USER NAME = stefenmk	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/1/2017	CHECKED -	REVISED -
	DATE -	REVISED -

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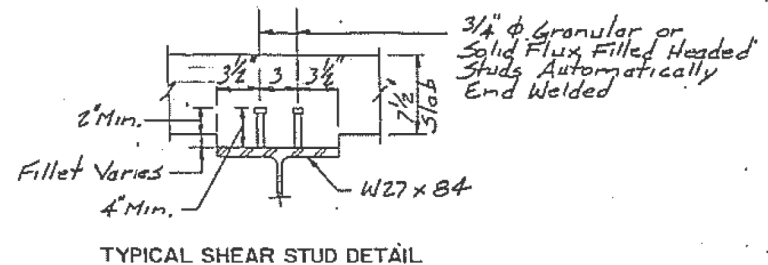
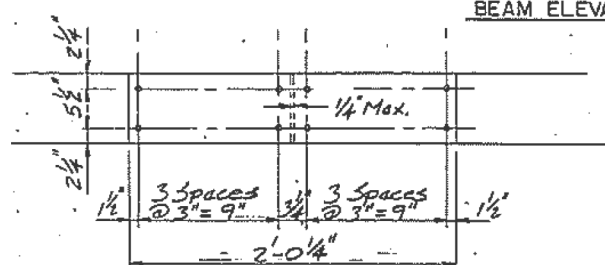
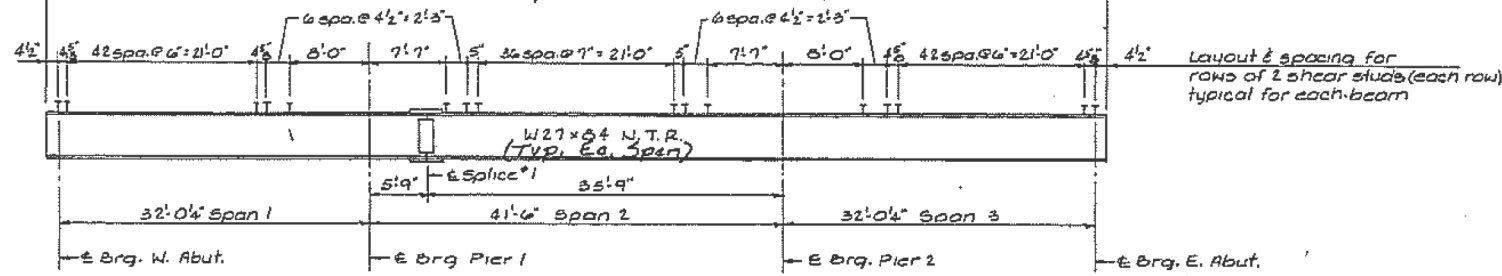
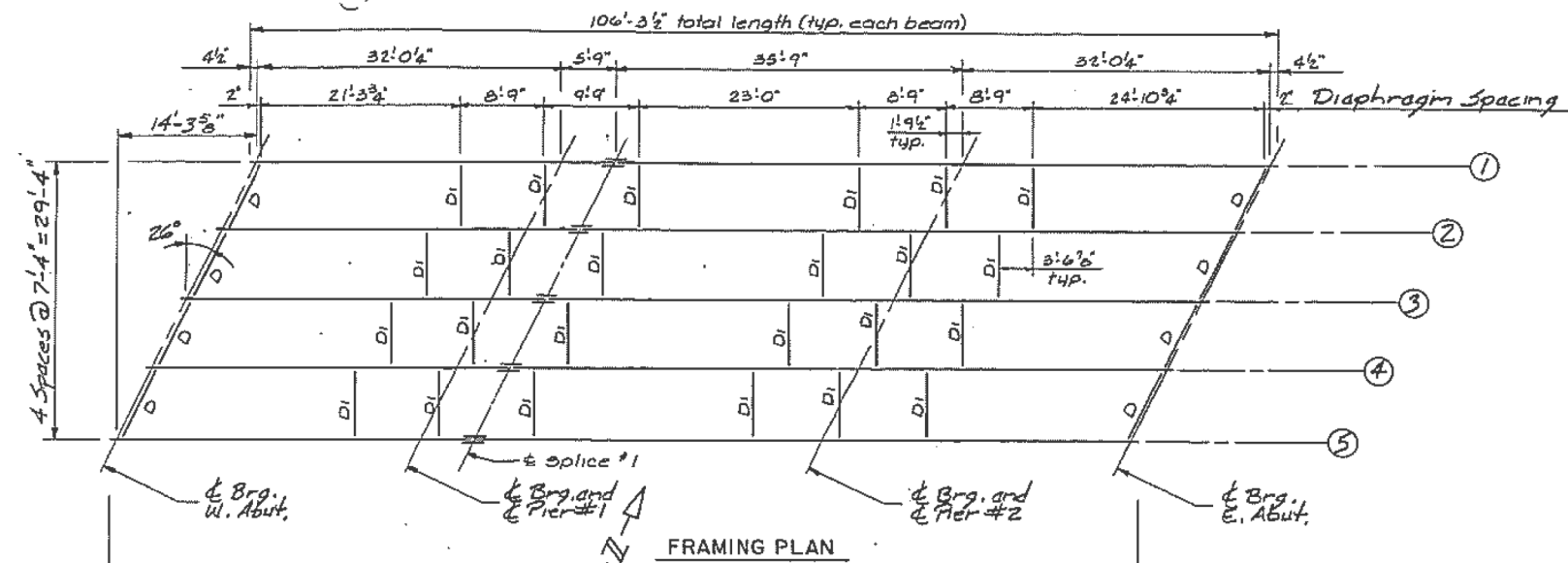
EXISTING PLAN SHEETS
 S.N. 026-0044

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2		FAYETTE	20	7
				CONTRACT NO. 74817
ILLINOIS FED. AID PROJECT				

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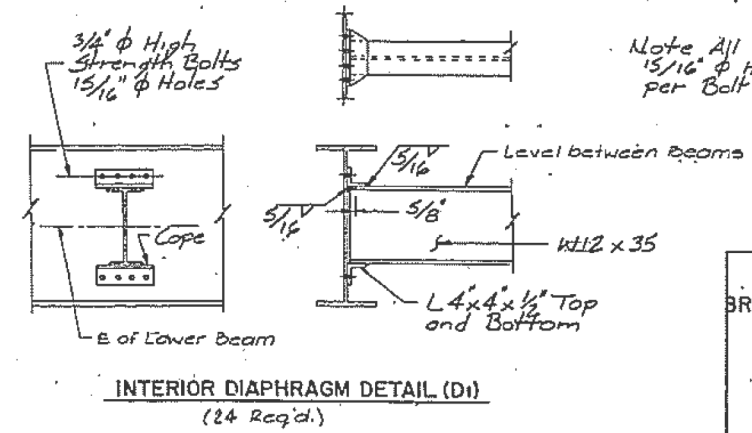
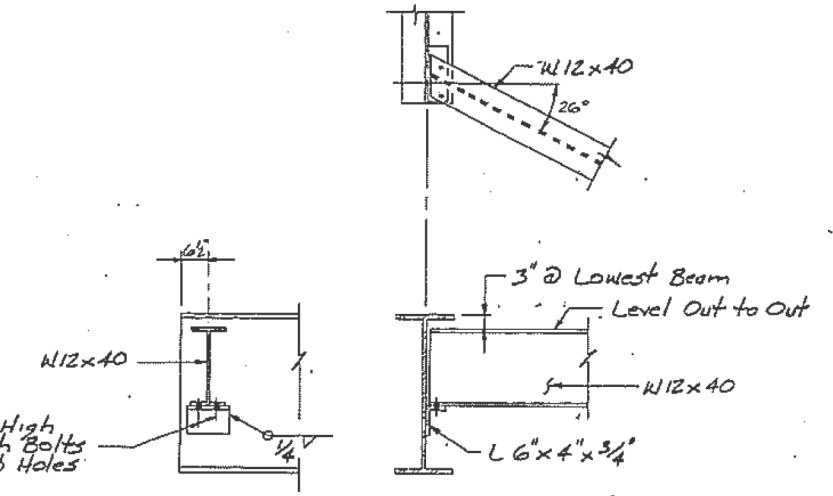
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12	P-2BR	FAYETTE	53	14
STA.	FROM REG.	ILLINOIS	TO STA.	
				Sht #6 of 15



**** TOP OF BEAM ELEVATIONS TABLE**

BEAM NO.	1	2	3	4	5
E Brg. W. Abut.	496.409	496.327	496.632	496.508	496.370
E Brg. @ Pier 1	496.495	496.613	496.719	496.594	496.457
E Splice	496.511	496.629	496.723	496.610	496.473
E Brg. @ Pier 2	496.607	496.726	496.831	496.706	496.569
E Brg. E. Abut.	496.694	496.812	496.917	496.793	496.655

** Elevations on top surface of top flange for fabrication purposes only.



FRAMING PLAN
 BRIDGE OVER HURRICANE CR. OVERFLOW
 OLD FAP RTE. 12 (US 40) OR 2601
 SECT. P-2BR
 FAYETTE COUNTY
 STA. 120+98.32
 S.N. 026-0044

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING PLAN SHEETS
 S.N. 026-0044

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7	BRIDGE PAINTING 2018-2	FAYETTE	20	8
ILLINOIS				FED. AID PROJECT

Bench Mark: Top of N.E. Wingwall of Exist. Structure No. 026-0045 El. 499.77
 Existing Structure: Struct. No. 026-0045
 Three Span R.C. arched girder design with a 7' deck. The deck is supported by Abutment bents on conc. piles and by conc. pile bents. The bridge is skewed 40° Left, ahead and is 171.83 BK to BK. of Abutments and 24.8' out to out. Traffic shall be detoured. No Salvage

DESIGN SPECIFICATIONS
 1989 AASHTO and AASHTO 1990 Interims and Seismic Retrofitting Guidelines for Highway Bridges.
 Allow 25#/SqFt for Future Wearing Surface AASHTO Fatigue Stress Cycles Case II

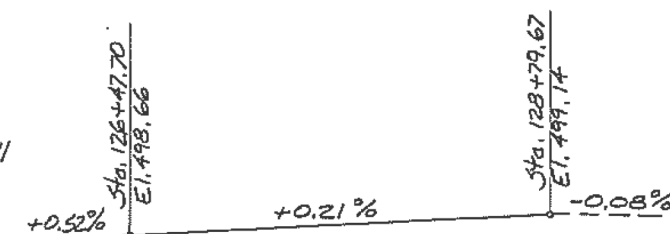
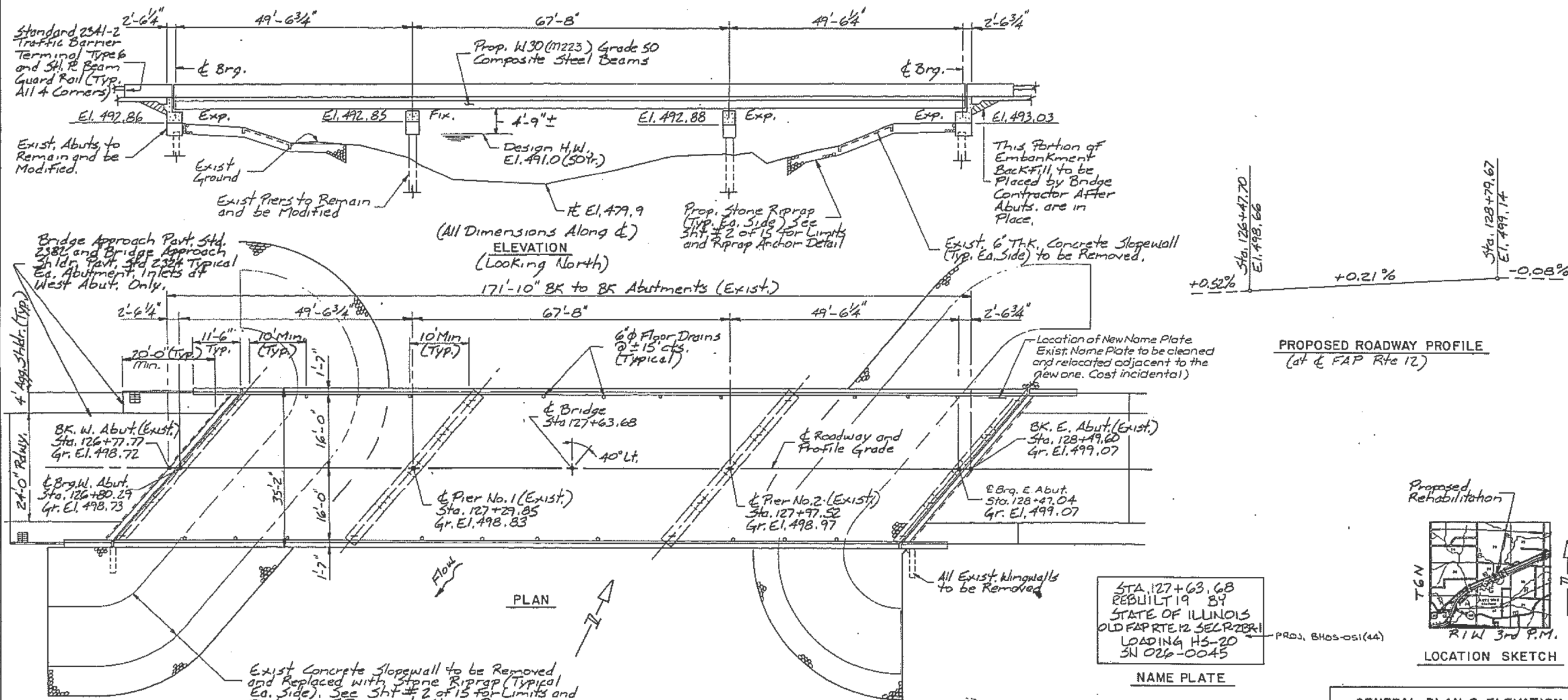
DESIGN STRESSES (New Construction)
 $F'_c = 3500 \text{ psi}$
 $F_y = 60,000 \text{ psi}$ (Reinforcement)
 $F_y = 36,000 \text{ psi}$ (M183) Structural Stl.
 $F_y = 50,000 \text{ psi}$ (M223 grade 50) Structural Stl.
 * Epoxy Coated Reinforcement Bars shall be used throughout.

WATERWAY INFORMATION

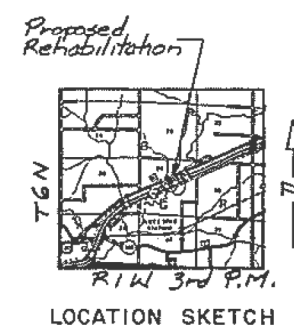
Drainage Area 124.2 Sq. Mi. Low Grade El. 495.98 @ Sta. 114+00									
Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.	Na. Existing Prop.	Na. Head - Ft. Existing Prop.	Headwater Existing Prop.	Headwater Existing Prop.	Headwater Existing Prop.	Headwater Existing Prop.
Design	50	14700	545	545	491.0	2.4	2.4	493.4	493.4
Base	100	16640	560	560	491.2	2.9	2.9	494.1	494.1
Overlapping	500	21100	600	600	491.6	4.4	4.4	496.0	496.0
Max. Calc.									

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	P-2BR-1	FAYETTE	53	24

STA. FROM STA. TO STA.
 STA. 126+79.67 TO STA. 128+47.70
 STA. 128+47.70 TO STA. 129+14
 SH# 1 OF 15



NAME PLATE
 STA. 127+63.68
 REBUILT 19 84
 STATE OF ILLINOIS
 OLD FAP RTE. 12 SELP-2BR-1
 LOADING HS-20
 SN 026-0045



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Hahn
 Engineer of Bridges and Structures

4-15-91
Frank L. Jolley
 ILLINOIS STRUCTURAL NO. 5100

LOADING HS20-44
 RALPH HAHN AND ASSOCIATES, INC.
 ENGINEERS-ARCHITECTS-CONSULTANTS
 1320 SOUTH STATE STREET
 SPRINGFIELD, ILLINOIS 62704

GENERAL PLAN & ELEVATION
 BRIDGE OVER HURRICANE CREEK BRANCH
 OLD FAP RTE. 12 (US 40) OR 2601
 SECT. P-2BR-1
 FAYETTE COUNTY
 STA. 127+63.68
 S.N. 026-0045

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USER NAME	DESIGNED	REVISIONS
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	CHECKED	REVISIONS
	DATE	REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

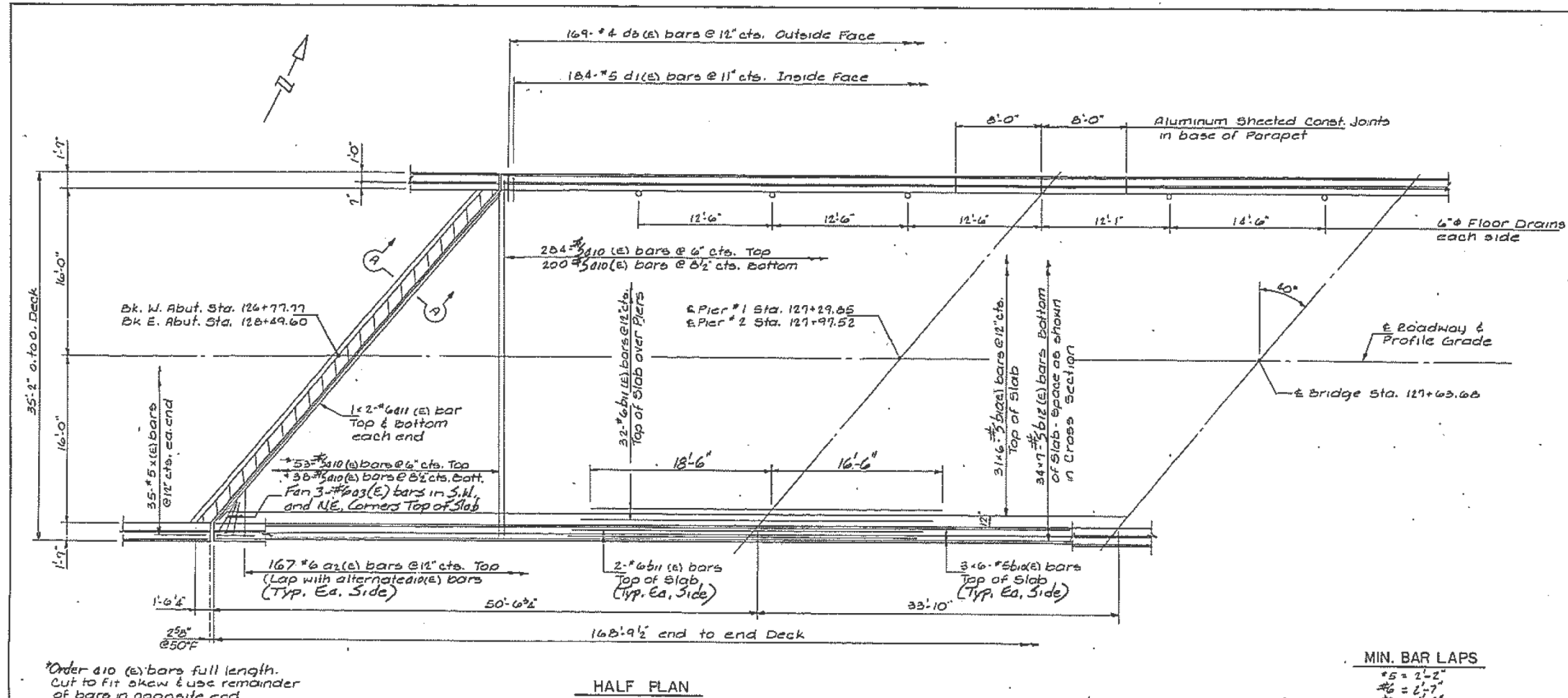
EXISTING PLAN SHEETS
 S.N. 026-0045

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7	BRIDGE PAINTING 2018-2	FAYETTE	20	9

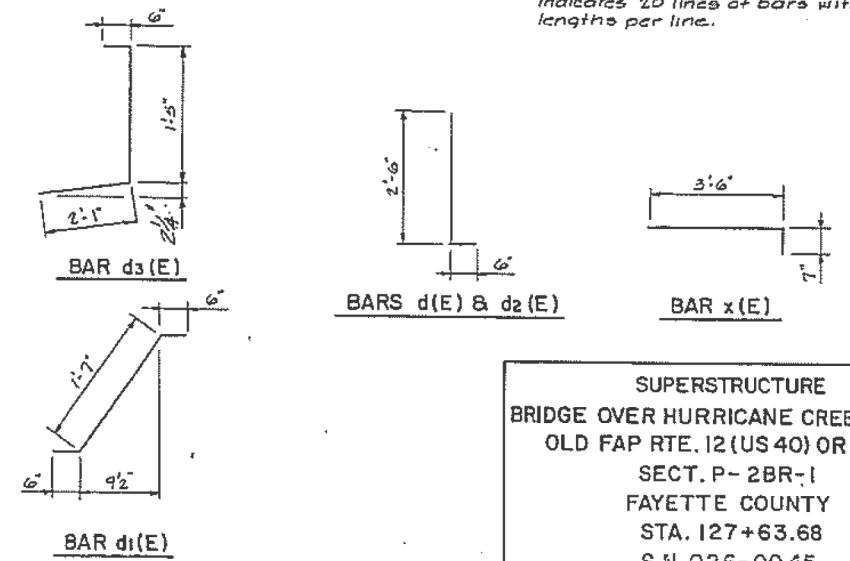
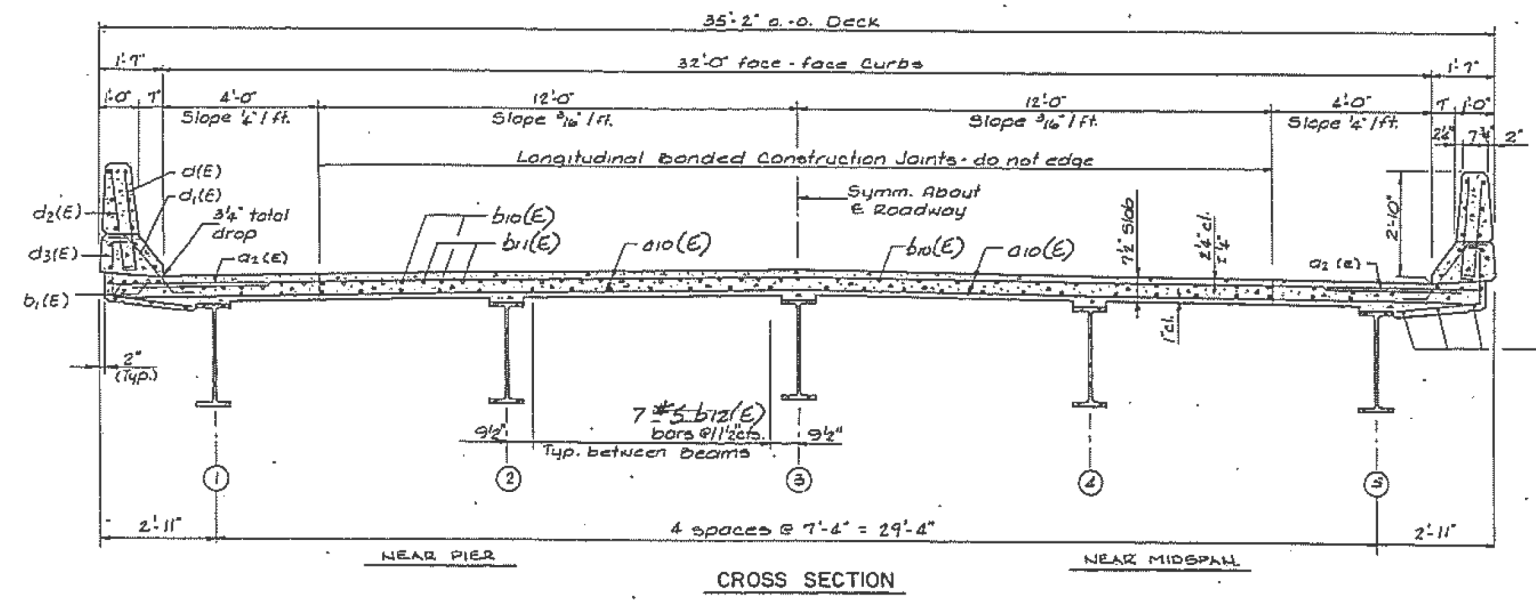
CONTRACT NO. 74817
 ILLINOIS FED. AID PROJECT

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	P-2BR-1	FAYETTE	53	27
STA.	TO STA.			
F.H.W.A. REG.	ALPHAS			
Sht. # 4 of 15				



SUPERSTRUCTURE BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a10 (E)	575	#5	33'-6"	
a11 (E)	8	#6	22'-3"	
a2 (E)	334	#6	4'-0"	
a3 (E)	6	#6	6'-0"	
b10 (E)	222	#5	30'-0"	
b11 (E)	72	#6	35'-0"	
b12 (E)	238	#5	26'-0"	
d (E)	368	#5	3'-0"	
d1 (E)	368	#5	2'-7"	
d2 (E)	338	#4	3'-0"	
d3 (E)	338	#4	4'-0"	
e10 (E)	72	#4	13'-11"	
e11 (E)	28	#4	7'-8"	
e12 (E)	20	#4	16'-11"	
e13 (E)	10	#8	23'-5"	
e14 (E)	10	#8	7'-8"	
e15 (E)	8	#8	28'-0"	
e16 (E)	16	#5	22'-5"	
e17 (E)	10	#5	7'-8"	
e18 (E)	8	#5	27'-0"	
x (E)	70	#5	4'-1"	
Class X Concrete Superstructure		Cu. Yds.	185.1	
Reinforcement Bars (Epoxy Coated)		Lbs.	47600	
Floor Drains		Each	20	



Notes: Size Sheet #5 of 15 for Superstructure Details.
 Reinforcement bars designated (E) shall be epoxy coated.
 Bars indicated thus 20 #3 #5 etc. indicates 20 lines of bars with b lengths per line.

SUPERSTRUCTURE
 BRIDGE OVER HURRICANE CREEK BRANCH
 OLD FAP RTE. 12 (US 40) OR 2601
 SECT. P-2BR-1
 FAYETTE COUNTY
 STA. 127+63.68
 S.N. 026-0045

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	DRAWN -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

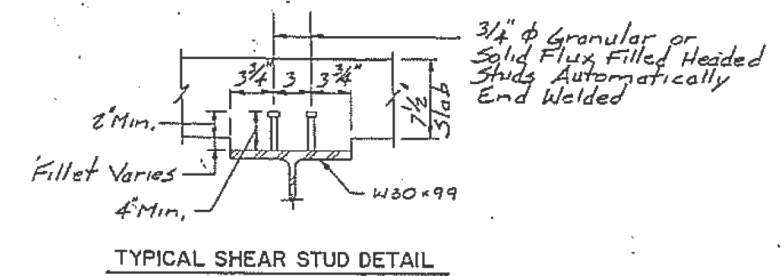
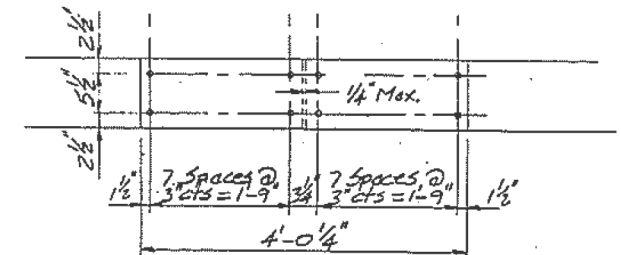
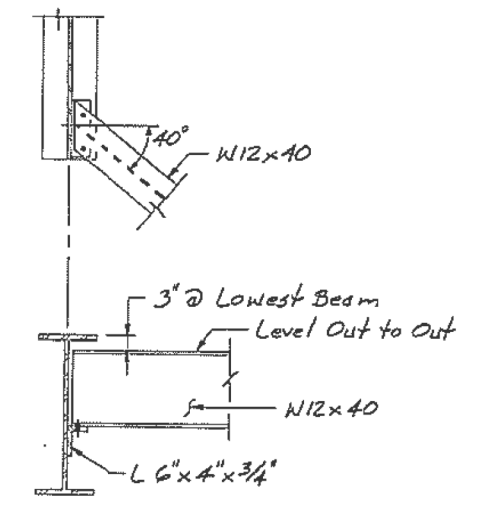
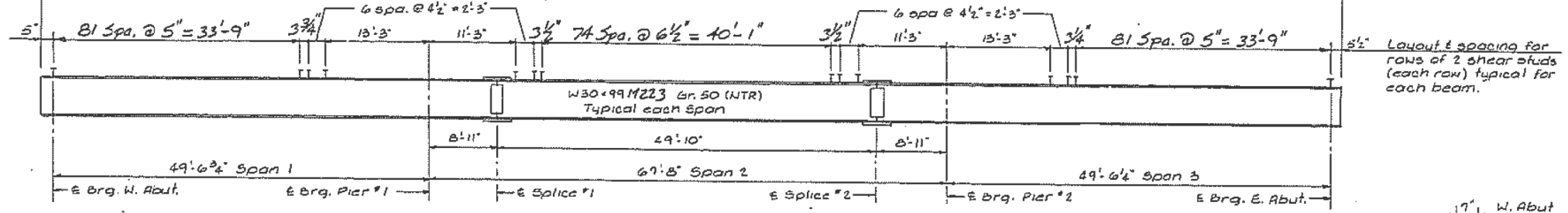
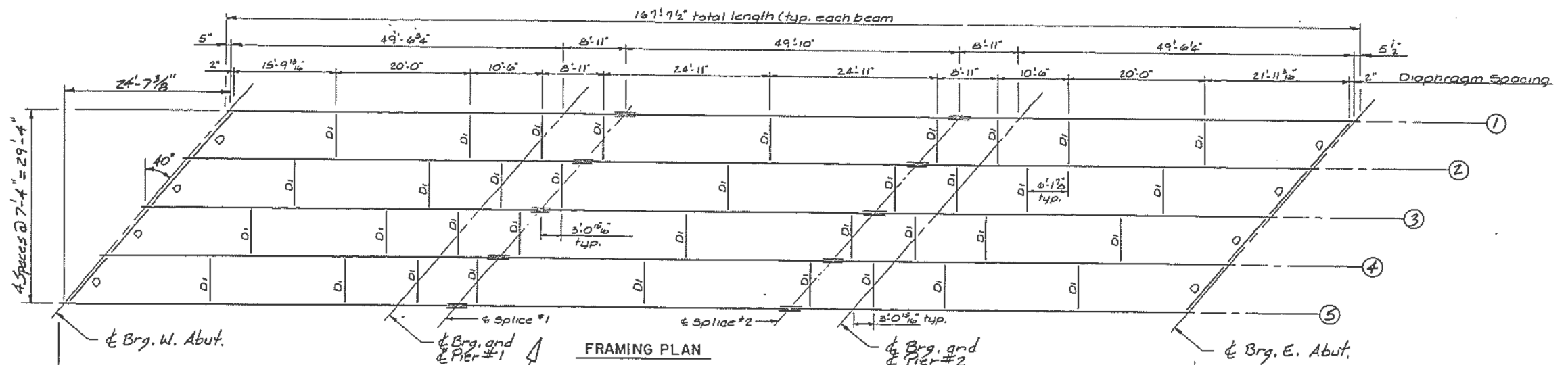
EXISTING PLAN SHEETS
S.N. 026-0045

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2		FAYETTE	20	10
CONTRACT NO. 74817				
ILLINOIS FED. AID PROJECT				

90-1010

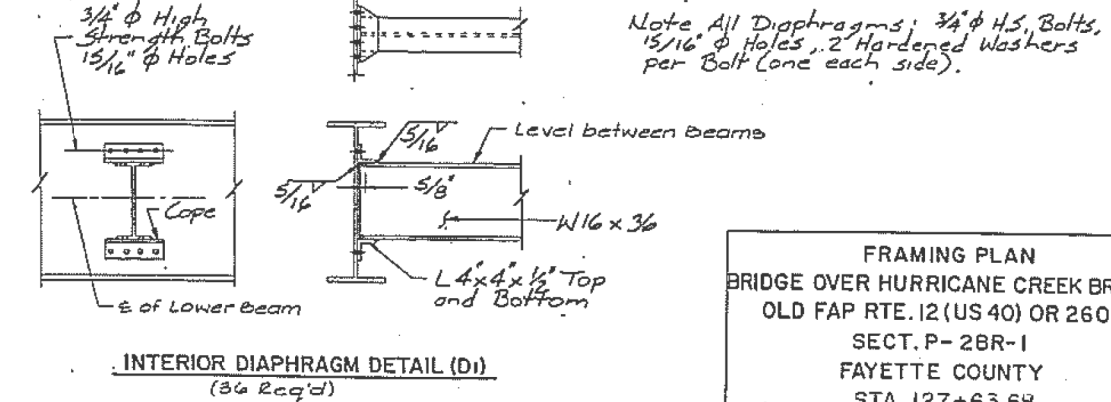
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	P-2BR-1	FAYETTE	53	29
STA.	TO STA.			
F.H.W.A. REG.	ILLINOIS			
Sht. # 6 of 15				



TOP OF BEAM ELEVATIONS TABLE

BEAM NO	1	2	3	4	5
& Brg. W. Abut	497.778	497.894	497.996	497.868	497.725
& Brg. @ & Pier 1	497.881	497.996	498.098	497.971	497.830
& Splice No. 1	497.899	498.014	498.116	497.989	497.848
& Splice No. 2	498.002	498.117	498.220	498.092	497.951
& Brg. @ & Pier 2	498.020	498.125	498.228	498.110	497.969
& Brg. E. Abut.	498.122	498.237	498.340	498.212	498.071

** Elevations on top surface of top flange for fabrication purposes only.



Note: All Diaphragms: 3/4" φ H.S. Bolts, 15/16" φ Holes, 2 Hardened Washers per Bolt (one each side).

Note: NTR Notch Toughness Requirements for all splice plates.
 All bolts for field splices to be 7/8" φ H.S. Bolts with 15/16" φ Holes.

FRAMING PLAN
 BRIDGE OVER HURRICANE CREEK BRANCH
 OLD FAP RTE. 12 (US 40) OR 2601
 SECT. P-2BR-1
 FAYETTE COUNTY
 STA. 127+63.68
 S.N. 026-0045

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	DRAWN -	REVISED -
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PLOT DATE = 9/3/2017	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET	OF SHEETS	STA.	TO STA.

EXISTING PLAN SHEETS
 S.N. 026-0045

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2	FAYETTE		20	11
CONTRACT NO. 74817				
ILLINOIS		FED. AID PROJECT		

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Bench Mark: Top of N.E. Wingwall of Exist. Structure No. 026-0046 El. 504.76
 Existing Structure: Struct. No. 026-0046
 Three Span, R.C. arched girder with a 7" deck. The deck is supported by Abut. bents on conc. piles and by Solid R.C. Piers on Spread Footings. The bridge is skewed 40° Left ahead and is 184.66' BK. to BK. of Abuts. and 24'-8" out to out. Traffic shall be detoured. No Salvage.

DESIGN SPECIFICATIONS
 1989 AASHTO and 1990 Interims and Seismic Retrofitting Guidelines for Highway Bridges
 Allow 25% Sa.F. for Future Wearing Surface AASHTO Fatigue Stress Cycles Case II.

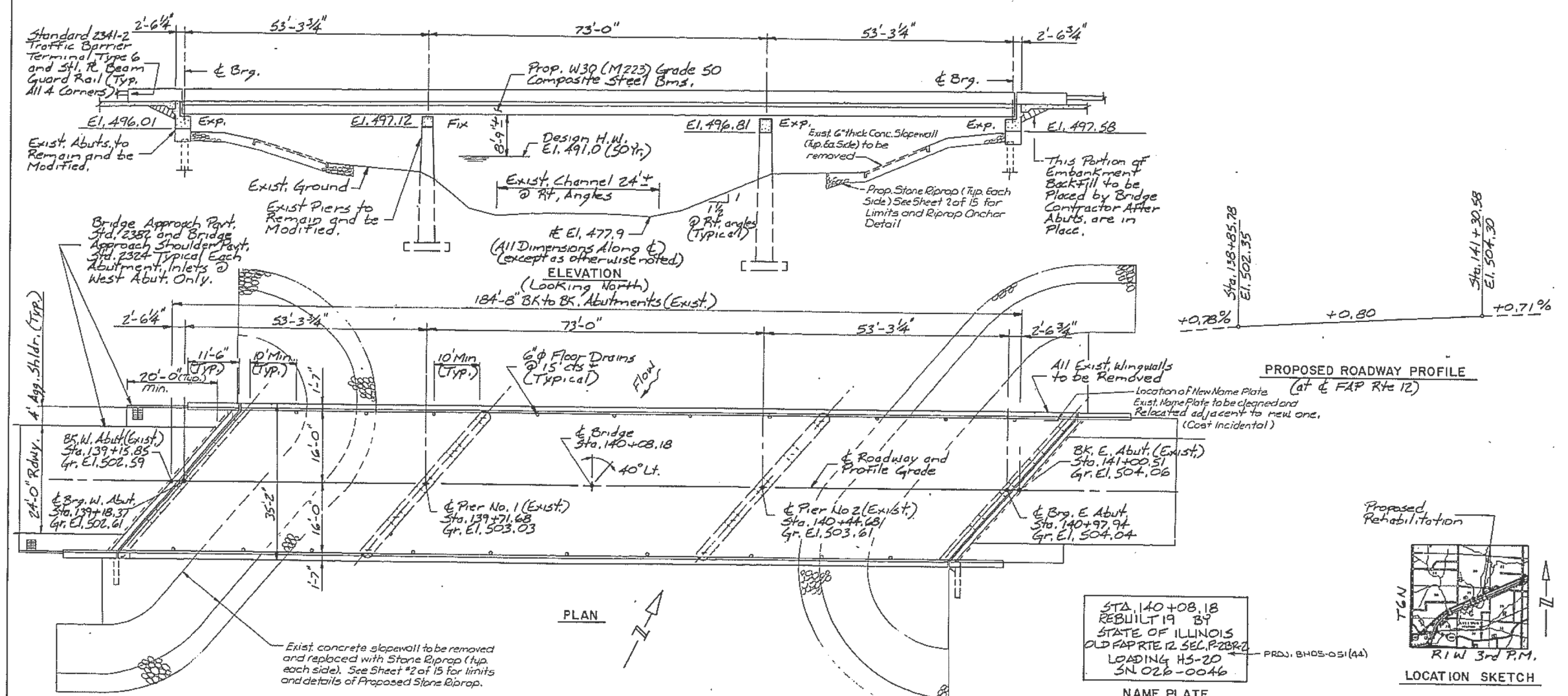
DESIGN STRESSES (New Construction)
 $F_c = 3500 \text{ psi}$
 $F_y = 60,000 \text{ psi}$ (Reinforcement)
 $F_y = 36,000 \text{ psi}$ (M183) Struct. Steel
 $F_y = 50,000 \text{ psi}$ (M223 Grade 50) Structural Stl.
 * Epoxy Coated Reinforcement Bars shall be used throughout.

WATERWAY INFORMATION
 Drainage Area 124.2 Sq. Mi. Low Grade El. 495.98 @ Sta. 114+00

Flood	Freq. Yr.	Q	Opening Sq. Ft.	Not. H.W.E.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	50	14770	645	645	491.0	2.4
Base	100	16640	660	660	491.2	2.9
Overtopping	500	21100	700	700	491.6	4.4
Max. Calc.						

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	P2BR-2	FAYETTE	53	39

Sta. 140+08.18 TO STA. 141+30.58
 Sht. # 1 of 15



PROPOSED ROADWAY PROFILE
 (at & FAP Rte 12)

STA. 140+08.18
 REBUILT 19 89
 STATE OF ILLINOIS
 OLD FAP RTE 12 SEC. P2BR-2
 LOADING HS-20
 S.N. 026-0046



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
 Engineer of Bridges and Structures

ILLINOIS STRUCTURAL NO. 3100
 Expires 11/30/192

LOADING HS20-44
 RALPH HAHN AND ASSOCIATES, INC.
 ENGINEERS-ARCHITECTS-CONSULTANTS
 1320 SOUTH STATE STREET
 SPRINGFIELD, ILLINOIS 62704

GENERAL PLAN & ELEVATION
 BRIDGE OVER HURRICANE CR.
 OLD FAP RTE. 12 (US 40) OR 260 I
 SECT. P-2BR-2
 FAYETTE COUNTY
 STA. 140+08.18
 S.N. 026-0046

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

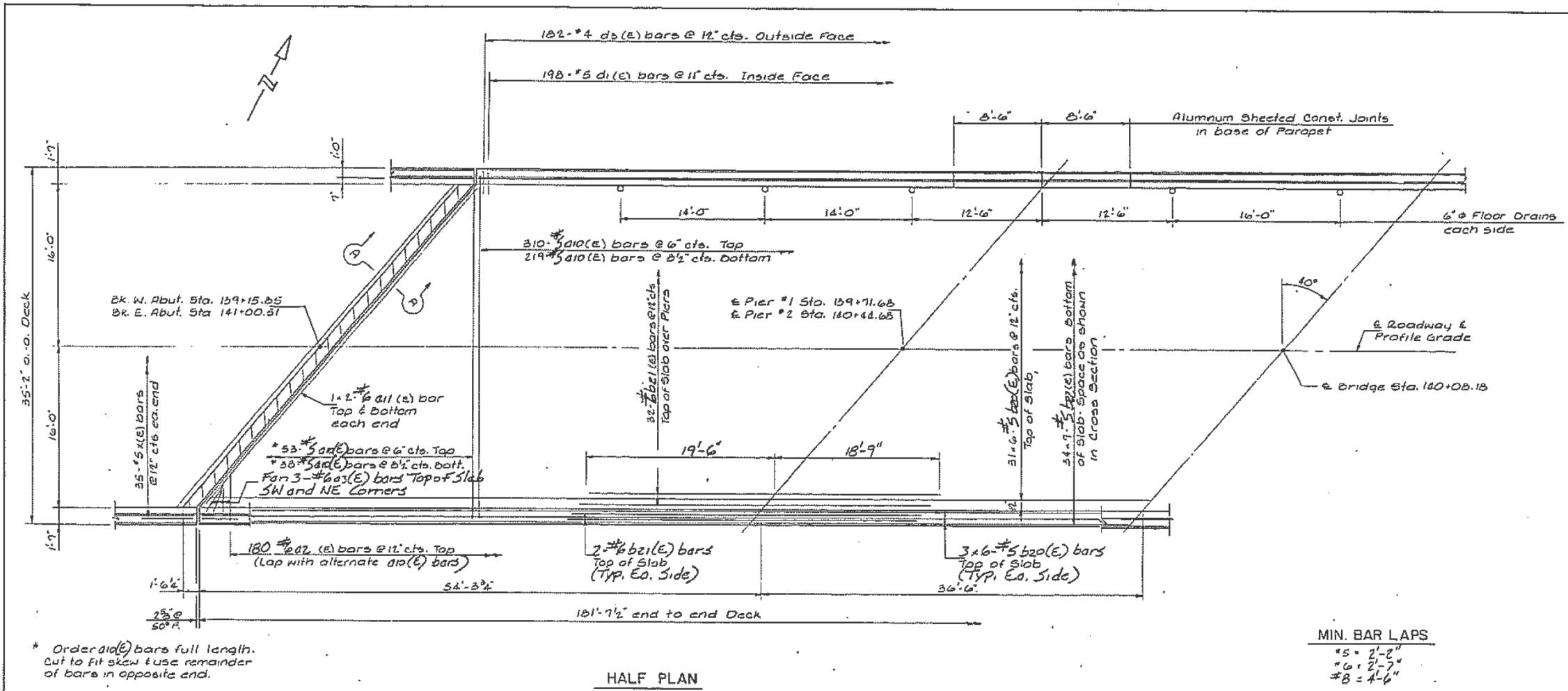
EXISTING PLAN SHEETS
 S.N. 026-0046

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7	BRIDGE PAINTING 2018-2	FAYETTE	20	12

CONTRACT NO. 74817
 ILLINOIS FED. AID PROJECT

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	P-2BR-2	FAYETTE	53	42
TO STA.			FROM STA.	
317.4			317.4	
Sht. #4 of 15				

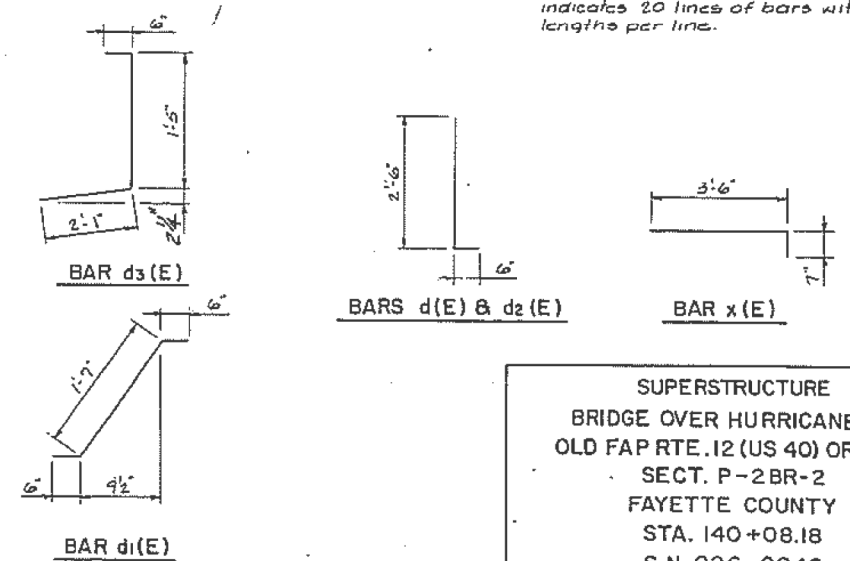
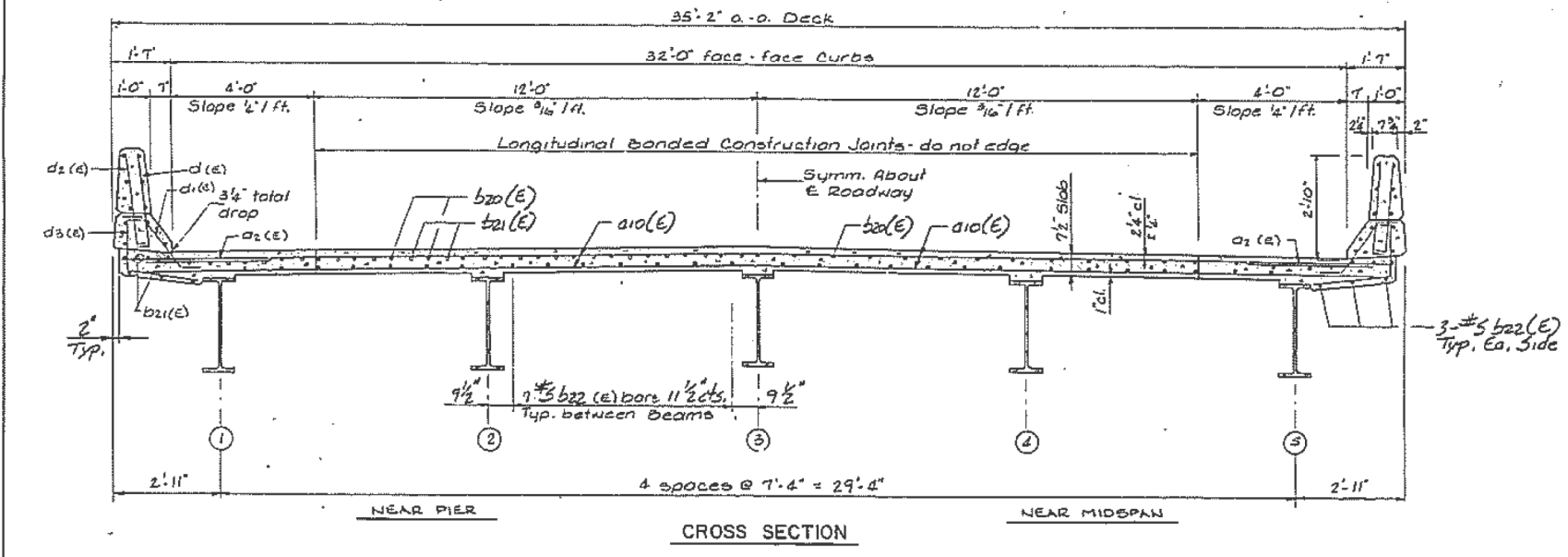


* Order side bars full length. Cut to fit skew to use remainder of bars in opposite end.

MIN. BAR LAPS
 #5 = 2'-2"
 #6 = 2'-7"
 #8 = 4'-6"

SUPERSTRUCTURE BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a1(E)	620	#5	33'-6"	
a11(E)	8	#6	22'-3"	
a1(E)	360	#6	4'-0"	
a3(E)	6	#6	6'-0"	
b2(E)	222	#5	37'-3"	
b21(E)	72	#6	38'-3"	
b2(E)	238	#5	28'-0"	
d (E)	396	#5	3'-0"	
d1(E)	396	#5	2'-9"	
d2(E)	364	#4	3'-0"	
d3(E)	364	#4	2'-0"	
e2(E)	72	#4	14'-11"	
e2(E)	48	#4	8'-2"	
e2(E)	48	#4	13'-8"	
e25(E)	16	#8	25'-0"	
e2(E)	16	#8	8'-2"	
e25(E)	8	#8	30'-1"	
e2(E)	16	#5	29'-11"	
e2(E)	16	#5	8'-2"	
e2(E)	8	#5	29'-0"	
x(E)	70	#5	2'-1"	
Class X Concrete Superstructure		Cu. Yds.	198.8	
Reinforcement Bars (Epoxy Coated)		Lbs.	51260	
Floor Drains		Each	20	



Notes: See Sheet #5 of 15 for Superstructure Details. Reinforcement Bars designated (E) shall be epoxy coated. Bars indicated thus 20 x 3 #5 etc. indicates 20 lines of bars with 3 lengths per line.

SUPERSTRUCTURE BRIDGE OVER HURRICANE CR. OLD FAP RTE. 12 (US 40) OR 2601 SECT. P-2BR-2 FAYETTE COUNTY STA. 140+08.18 S.N. 026-0046

90-101E

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	DRAWN -	REVISED -
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

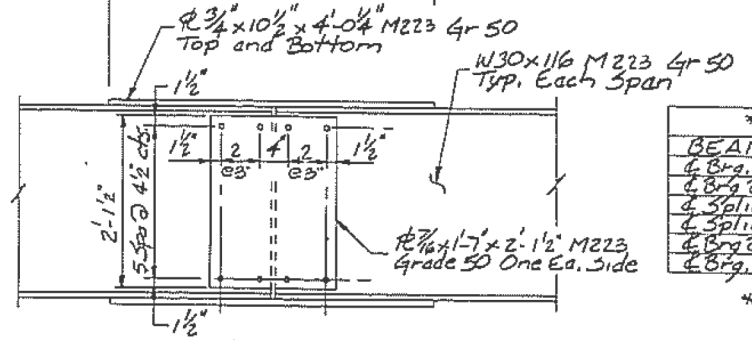
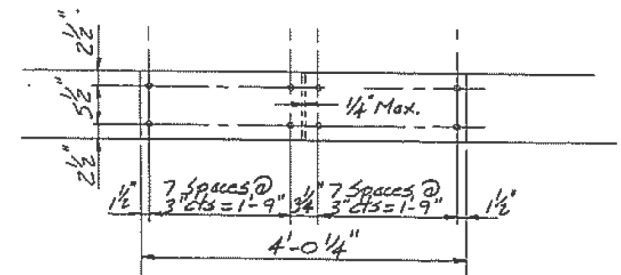
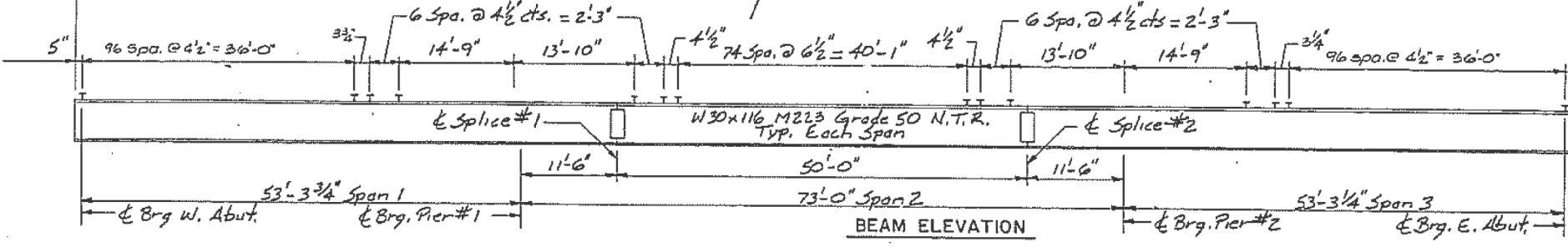
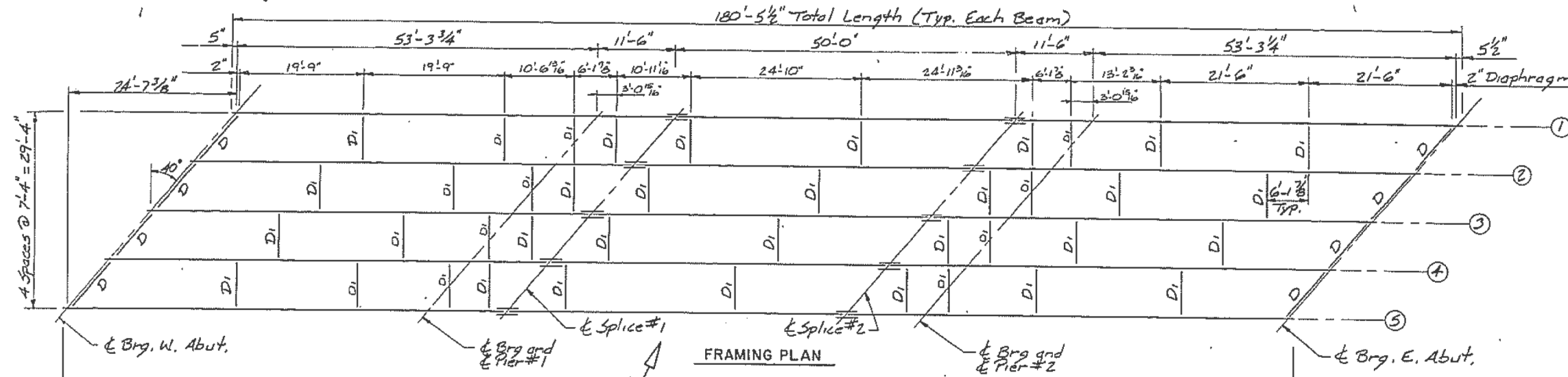
EXISTING PLAN SHEETS S.N. 026-0046

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2		FAYETTE	20	13
CONTRACT NO. 74817			ILLINOIS FED. AID PROJECT	

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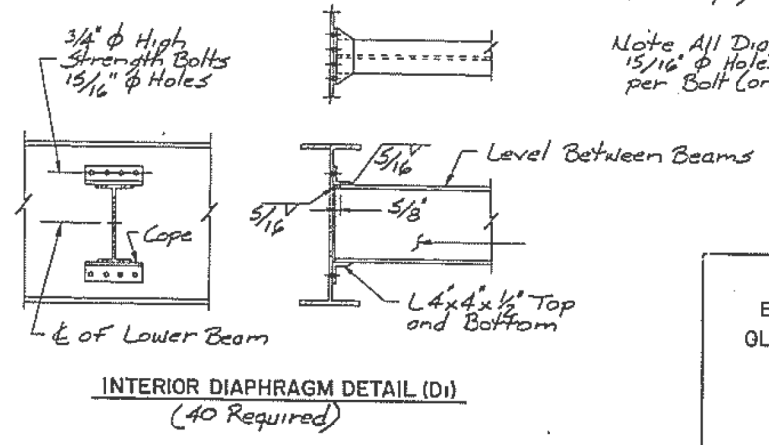
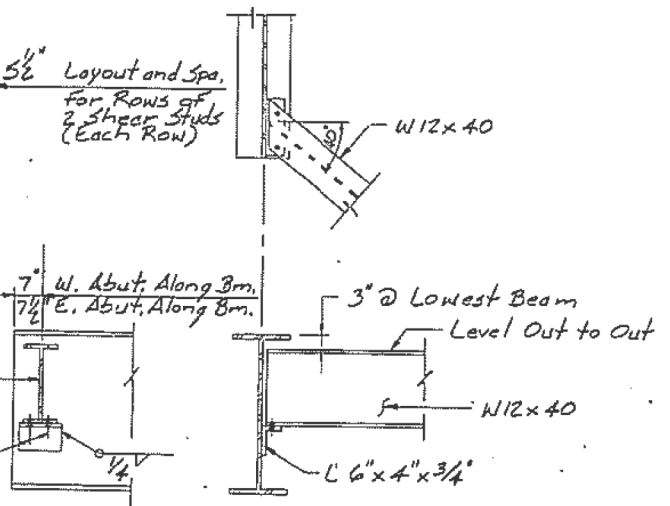
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	P-2BR-2	FAYETTE	53	44
STA.	FROM STA.	TO STA.	Sht. # 6 of 15	
			2" Diaphragm Spacing	



**** TOP OF BEAM ELEVATIONS TABLE**

BEAM NO.	1	2	3	4	5
↳ Brg. W. Abut.	501.734	501.813	501.879	501.715	501.538
↳ Brg. @ Pier #1	502.159	502.158	502.304	502.140	501.963
↳ Splice No. 1	502.751	502.330	502.316	501.217	502.055
↳ Splice No. 2	502.748	502.727	502.772	501.627	501.452
↳ Brg. @ Pier #2	502.740	502.819	502.884	502.721	502.544
↳ Brg. E. Abut.	503.164	503.743	503.309	503.145	502.968

** Elevations on Top Surface of Top Flange for Fabrication Purposes only.



Note NTR Notch Toughness Requirements for all splice plates.

FIELD SPLICE DETAIL
All Bolts for Field Splices to be 7/8" φ H.S. Bolts with 15/16" φ Holes.

Note All Diaphragms: 3/4" φ H.S. Bolts, 15/16" φ Holes, 2 Hardened Washers per Bolt (one each side).

FRAMING PLAN
BRIDGE OVER HURRICANE CR.
OLD FAP RTE. 12 (US 40) OR 2601
SECT. P-2BR-2
FAYETTE COUNTY
STA. 140+08.18
S.N. 026-0046

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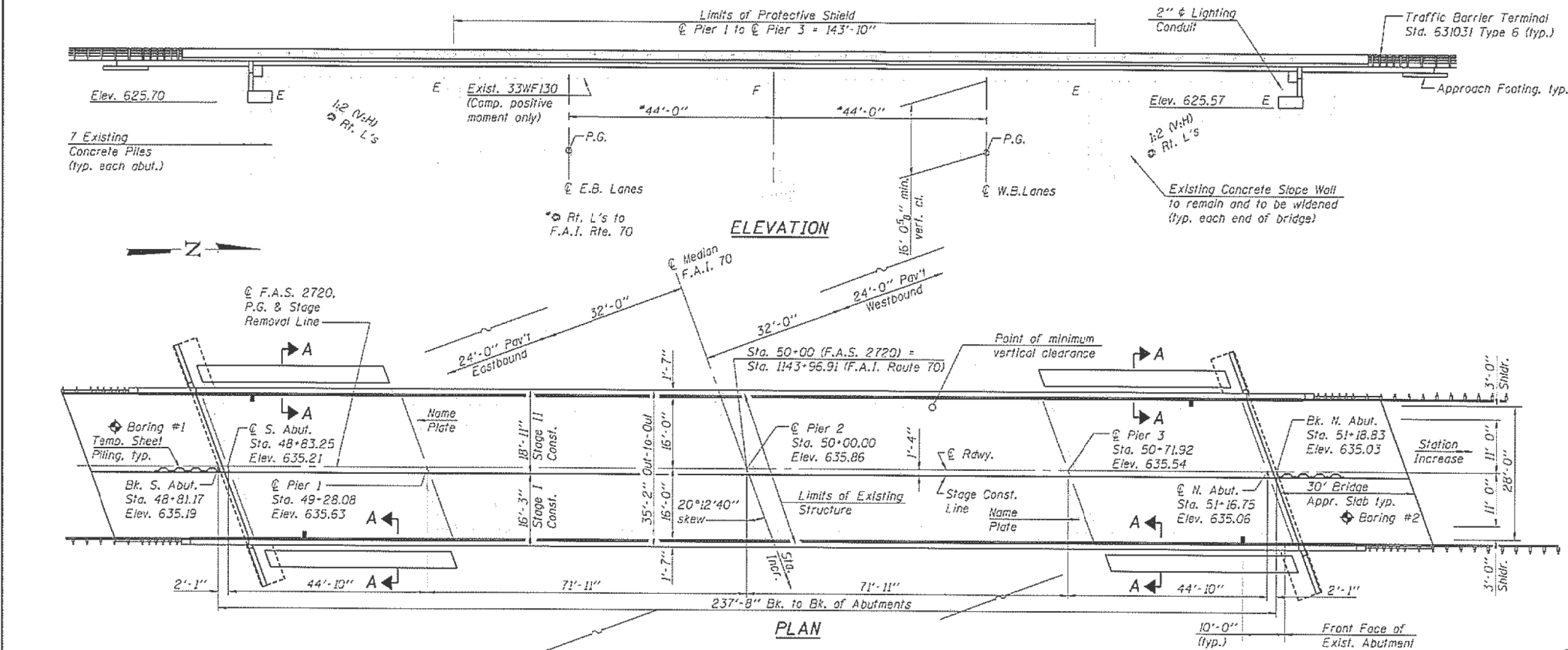
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.

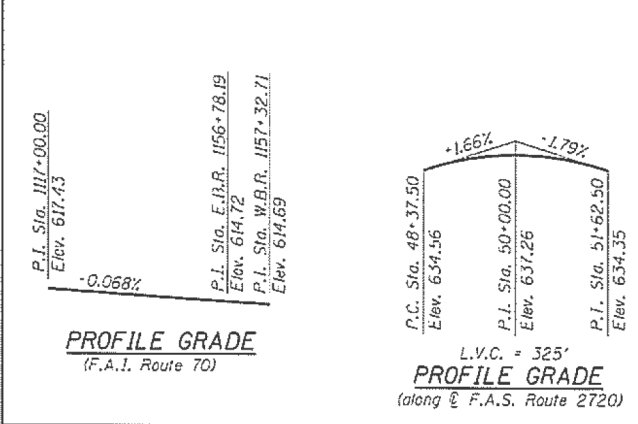
EXISTING PLAN SHEETS
S.N. 026-0046

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7	BRIDGE PAINTING 2018-2	FAYETTE	20	14
				CONTRACT NO. 74817
				ILLINOIS / FED. AID PROJECT

Bench Mark: Chiseled "x" top center concrete base at Pier #1 south of I-70. Elev. 616.96
 Chiseled "x" top of bridge curb southwest corner. Elev. 635.63
 Existing Structure: S.N. 026-0055 was built in 1962 as S.A. Route 7, Section 26-5HB-2 at Station 50+00. The structure consists of a 4 span reinforced concrete deck on continuous steel WF beams supported on spill-thru reinforced concrete abutments with spread footings supported on piles and reinforced concrete hammer-head piers with spread footings supported on creosoted timber piles. The structure length is 237'-8" back-to-back of abutments, and the structure width is 33'-8" cut-to-out of deck. The concrete deck is to be removed and replaced and the spill-thru abutments are to be rehabilitated as semi-integral abutments. Traffic to be maintained utilizing stage construction.
 No Salvage.



Notes:
 See sheet 2 of 24 for Section A-A.



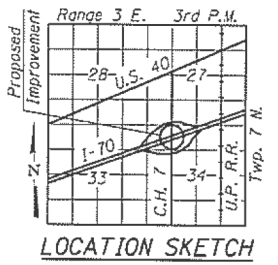
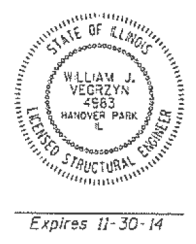
DESIGN SPECIFICATIONS (NEW CONSTR.)

2002 AASHTO
DESIGN STRESSES
FIELD UNITS (NEW CONSTR.)
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

FIELD UNITS (EXIST. CONSTR.)
 $f'_c = 3,500$ psi
 $f_y = 40,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Structural Steel)

LOADING HS20-44 (NEW CONSTR.)
 Allow 25#/sq. ft. for future wearing surface

SEISMIC DATA
 Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.075g
 Site Coefficient (S) = 1.2



STATION 1143+96.91
 REBUILT BY
 STATE OF ILLINOIS
 F.A.S. 2720 SEC. (26-5,26-5-1,25-1-1)R
 LOADING HS 20
 STRUCTURE NO. 026-0055

NAME PLATE
 See Std. 515001
 Locate one new Name Plate adjacent to each existing name plate on Pier 1 and pier 3. Existing name plates shall be cleaned with the cost of cleaning included with Name Plates.

GENERAL PLAN
 F.A.S. ROUTE 2720 (CH 7) OVER I-70
 F.A.I. Route 70
 SECTION (26-5,26-5-1,25-1-1)R
 FAYETTE COUNTY
 STATION 50+00.00
 S.N. 026-0055



USER NAME = steffemk	DESIGNED - WJV	REVISED -
	CHECKED - CJB	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - WJV	REVISED -
PLOT DATE = 12-22-2011	CHECKED - CJB	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 24 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2720	(26-5,26-5-1,25-1-1)R	Fayette	92	68
CONTRACT NO. 74469			ILLINOIS FED. AID PROJECT	

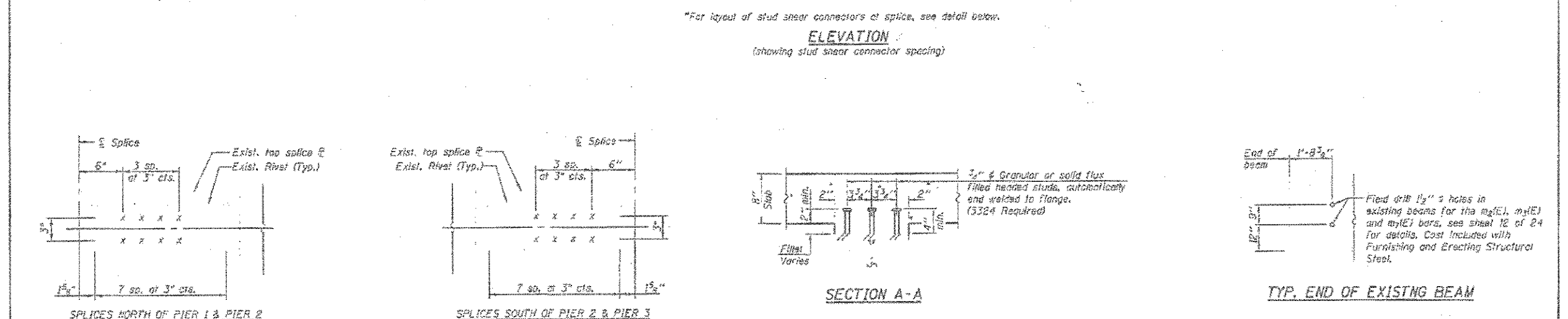
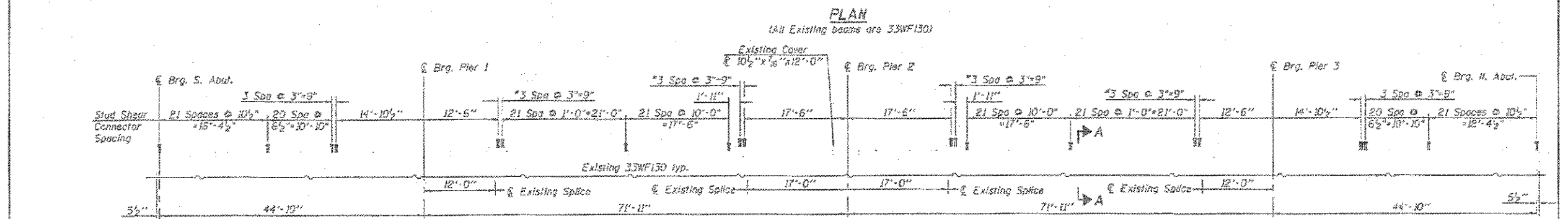
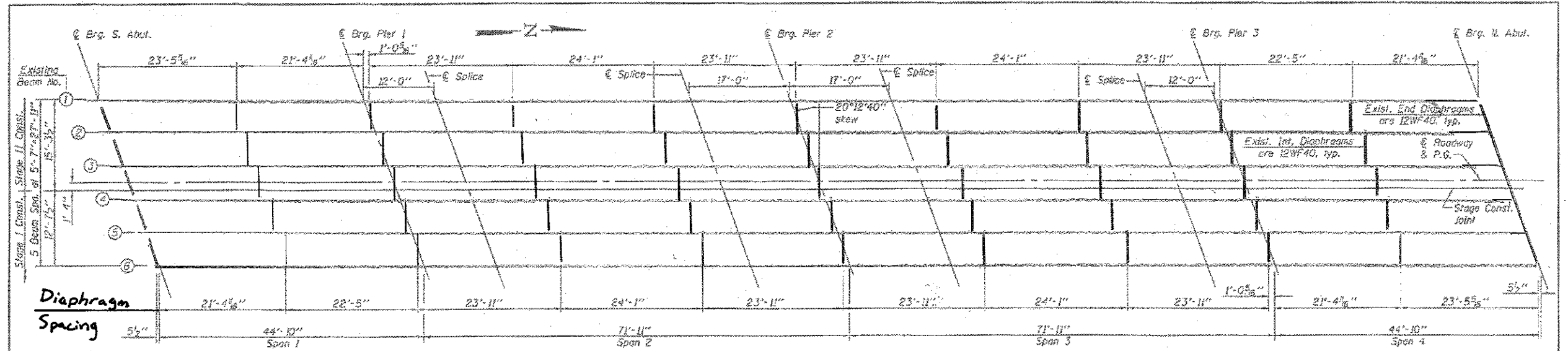
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PLOT DATE = 9/3/2017	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING PLAN SHEETS
 S.N. 026-0055

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D7 BRIDGE PAINTING 2018-2	FAYETTE	20	15
CONTRACT NO. 74817			ILLINOIS FED. AID PROJECT	

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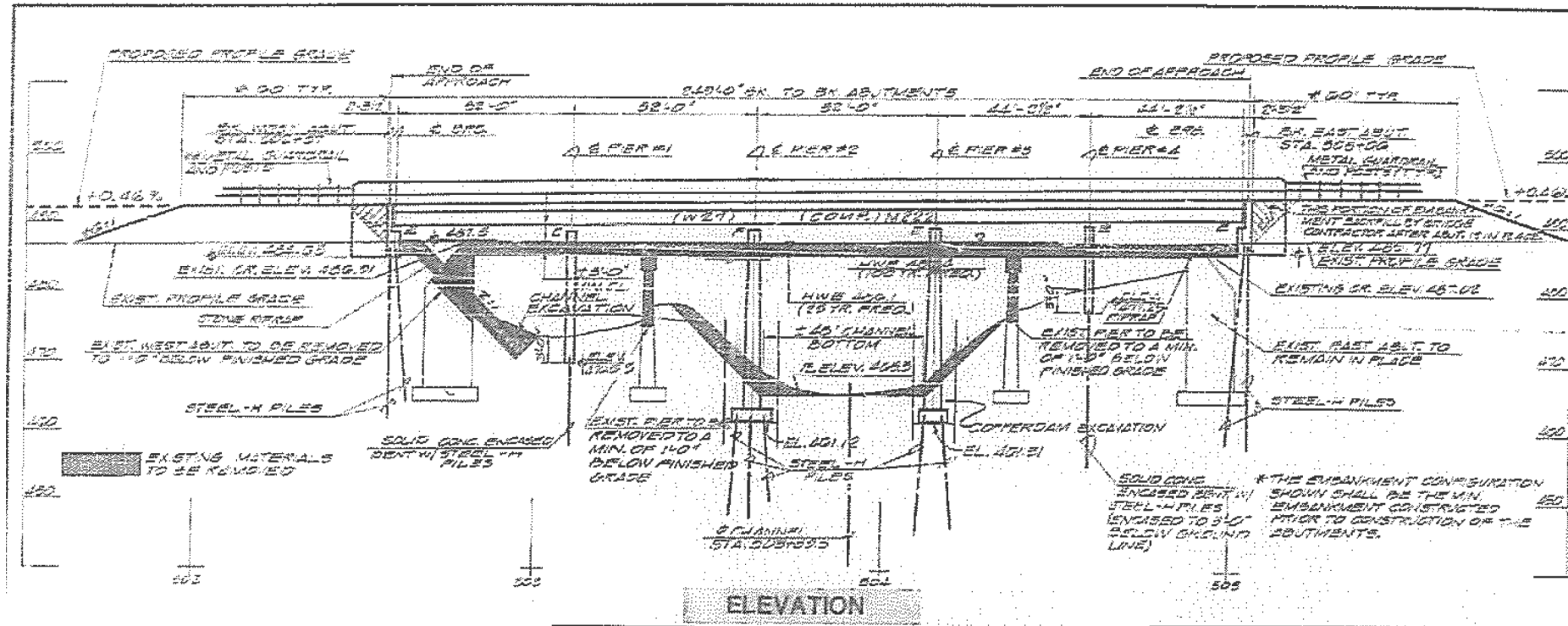


V3 Companies of Illinois Ltd 1328 Janssen Avenue Woodridge, IL 60513 630 724 9292 phone 630 724 9292 fax www.v3co.com	DESIGNED -	WJW	REVISOR -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN AND ELEVATION STRUCTURE NO. 026-0055 SHEET NO. 16 OF 24 SHEETS	F.A.S. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	CHECKED -	CJB	REVISOR -				2720	026-025-5-126-1-02R	Fayette	20	16		
	PLotted SCALE -	1" = 100'-0"	DRAWN -	WJW			REVISOR -						
	PLotted DATE -	02-22-2011	CHECKED -	CJB			REVISOR -						

4. Frame Plan and Elevation.dwg 6/2/2014 1:05:00 PM

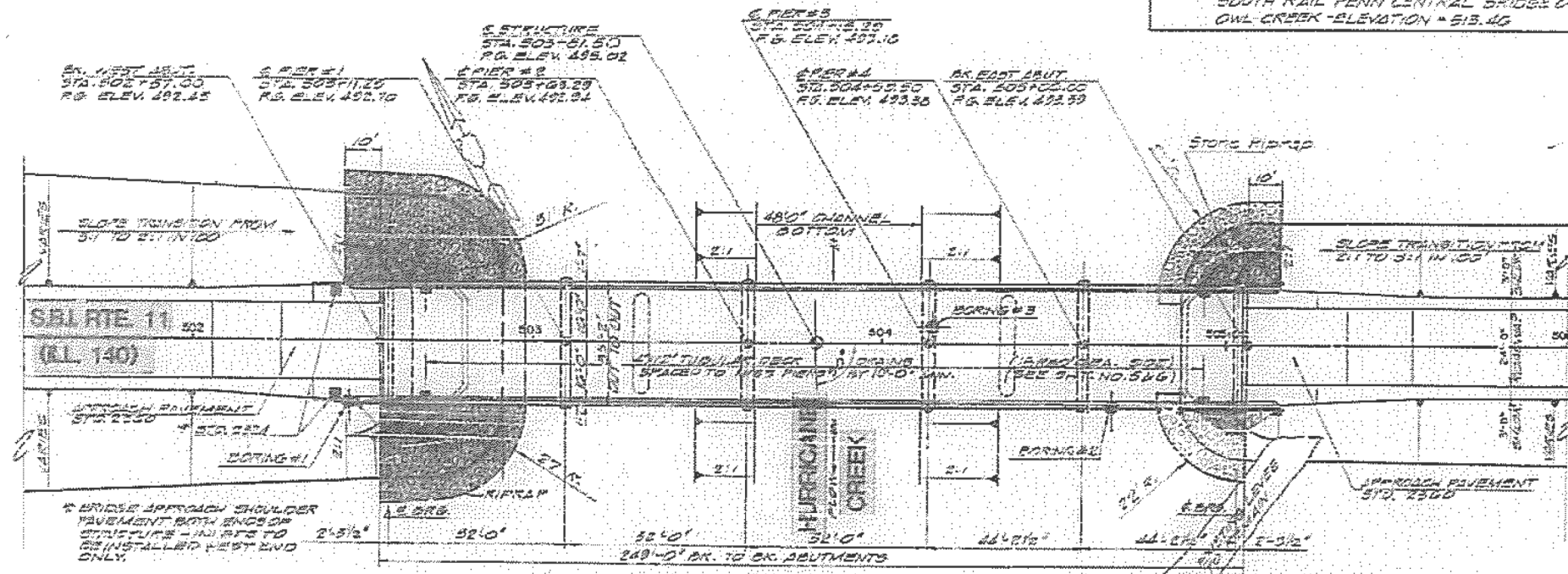
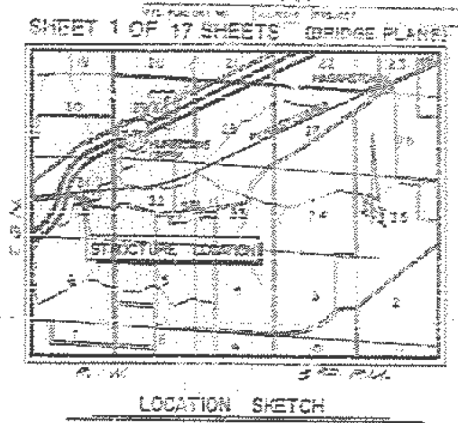
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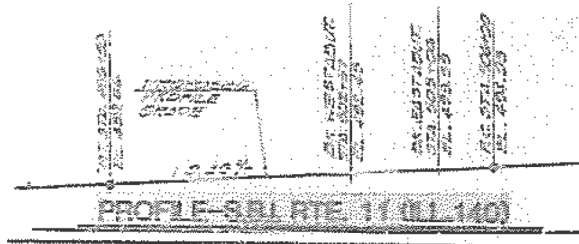
Structure number robe supplied by district.

STATION 503+82
 BUILT 198 BY
 STATE OF ILLINOIS
 SBI RTE 11 SEC PB-1
 PROJ OR CD 02-081
 LOADING HS 20
 STR. NO. 025-
 NAME PLATE
 ILL STATE STD. 2113



BM# : U.S.C. & G.S. BRASS PLAQUE IS SOUTH OF SOUTH RAIL PENN CENTRAL BRIDGE OVER OWL CREEK - ELEVATION = 513.46

TOTAL BILL OF MATERIALS			
ITEM	UNIT	SUPER	SUB TOTAL
REMOVAL OF EXISTING STRUCTURES No.1	EACH	—	1
Protective Cost	SYD.	1095	1095
Structure Excavation	CY	—	204
Cofferdam Excavation	CY	—	198
Cofferdams	EA	—	2
Steel Piles	EA	30	30
Neoprene Expansion Joint (8")	L.F.	68	68
Class X Concrete	CY	2647	2647
Stud Shear Connectors	EACH	3555	3555
Structural Steel	LS	1	1
Reinforcement Bars	LBS	22260	22260
Reinforcement Bars (Epoxy Casted)	LBS	40840	40840
Steel Piles HP10X42	L.F.	1532	1532
Test Pile Steel HP10X42	EA	—	2
Stone Riprap	CY	—	761
Name Plate	EA	—	1



Exist. structure description:
 208' back to back of abutments. 2 rein. conc. thru girder approach spans and 1 thru steel truss with reinforced concrete substructure. To be removed. No salvage.

APPROVED
 FOR THE DISTRICT ENGINEER
 [Signature]



REVISION		
NO.	BY	DATE

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 SBI RTE 11 (ILL. RTE. 140)
 SECTION PB-1 STA. 503+81
 HURRICANE CREEK
 FAYETTE COUNTY
 GENERAL PLAN & ELEVATION

SCALE: 1" = 20'-0"
 DATE: 5/1/17
 SHEET: 17 OF 17

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 PROJECT: 74817

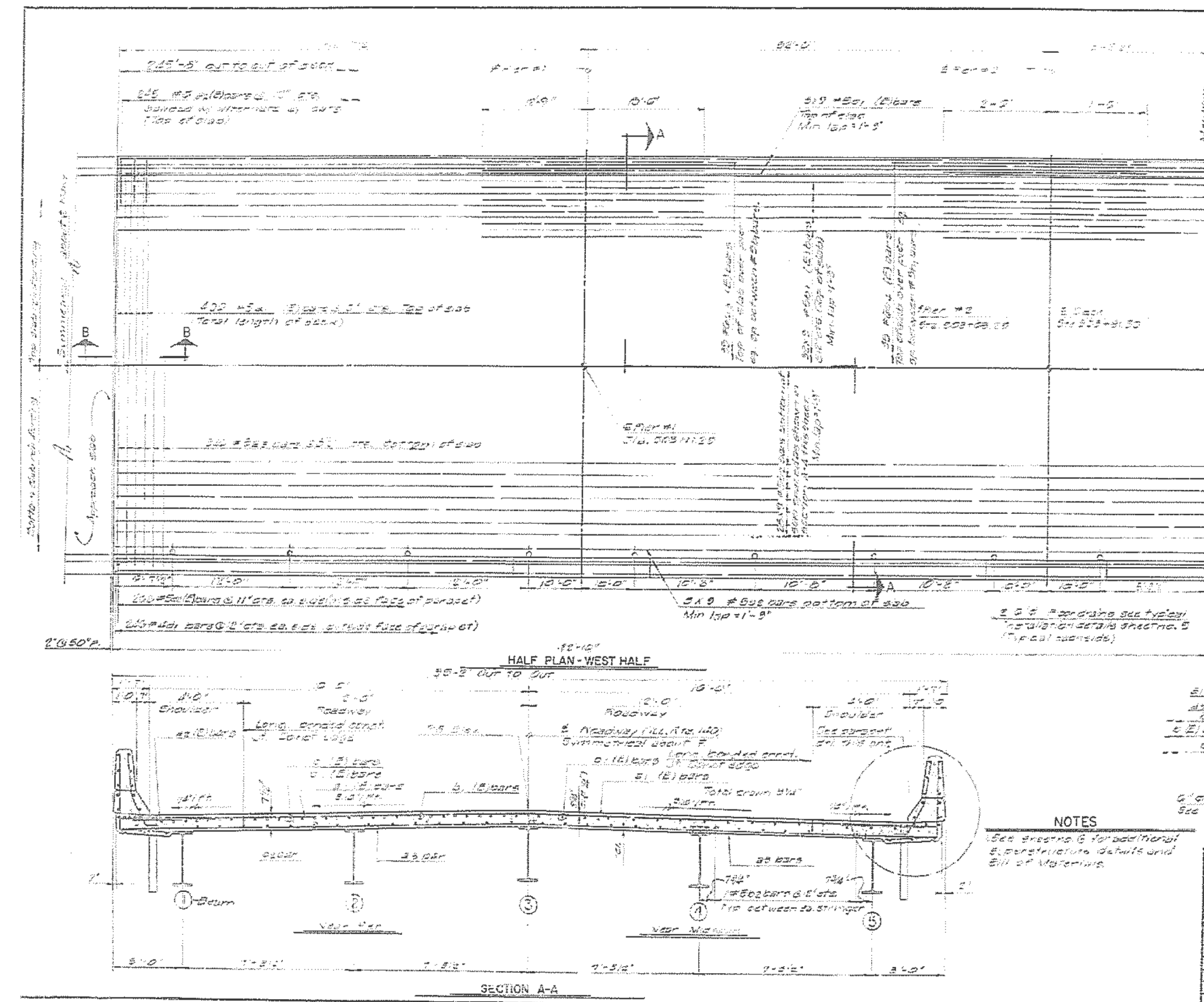
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	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

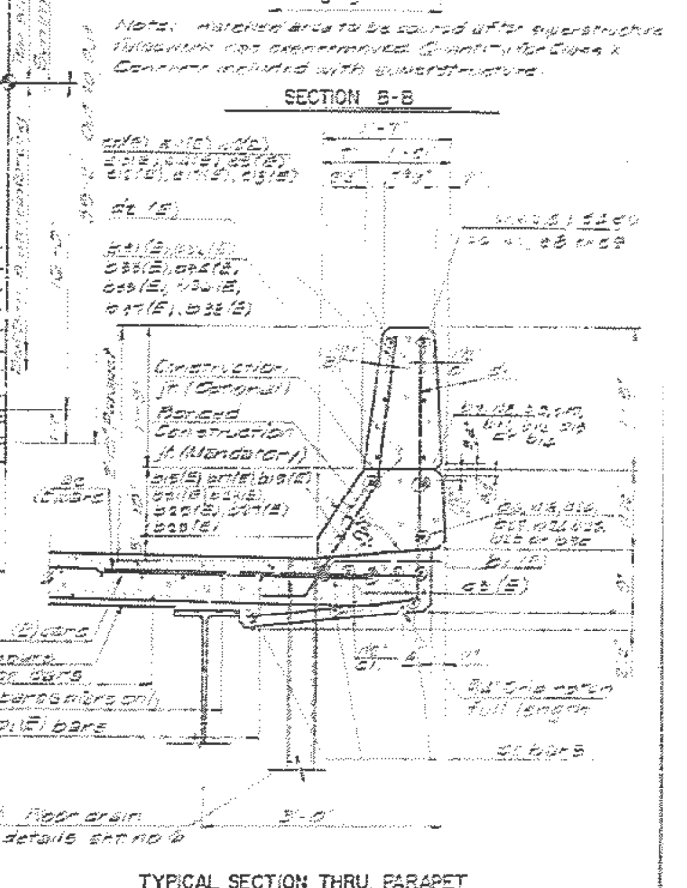
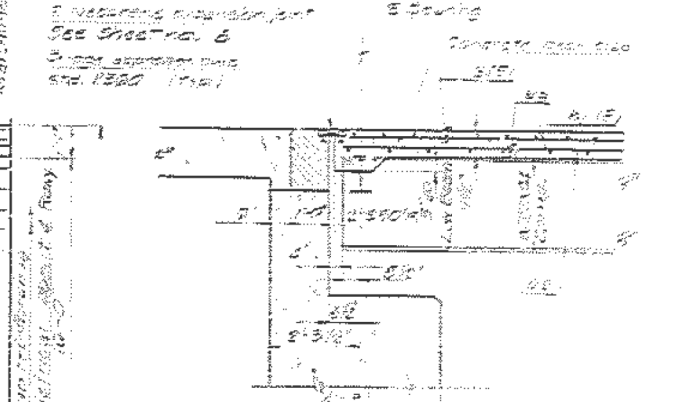
EXISTING PLAN SHEETS
 S.N. 026-0089

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2		FAYETTE	20	17
CONTRACT NO. 74817				
ILLINOIS FED. AID PROJECT				



SHEET NO.	5	OF 17 SHEETS
PROJECT NO.	D7 BRIDGE PAINTING 2018-2	
SECTION	FAYETTE COUNTY	
DATE	9/27/17	
DRAWN BY	J.J.T.	
CHECKED BY	J.J.T.	
DESIGNED BY	J.J.T.	
APPROVED BY	J.J.T.	



REVISIONS	
NO.	DATE

DESIGNED BY	J.J.T.	SCALE	1/8" = 1'-0"	SHEET NO.	5
DRAWN BY	J.J.T.	DATE	9/27/17	OF	17
CHECKED BY	J.J.T.	PROJECT NO.	D7 BRIDGE PAINTING 2018-2		
DESIGNED BY	J.J.T.	SECTION	FAYETTE COUNTY		
APPROVED BY	J.J.T.	CONTRACT NO.	74817		

NOTES
 1. See sheet No. 6 for additional superstructure details and Bill of Materials.

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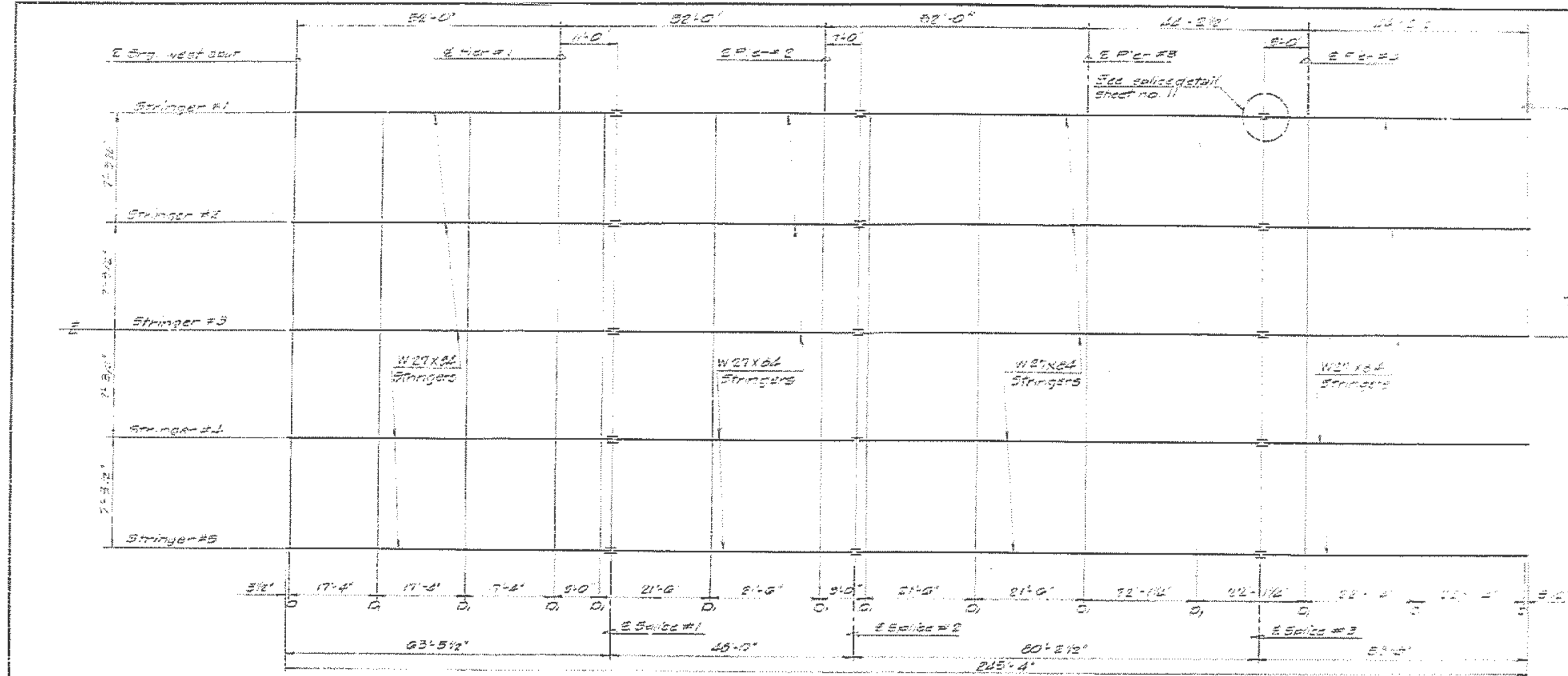
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	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING PLAN SHEETS
S.N. 026-0089**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2	FAYETTE		20	18
ILLINOIS		FED. AID PROJECT		

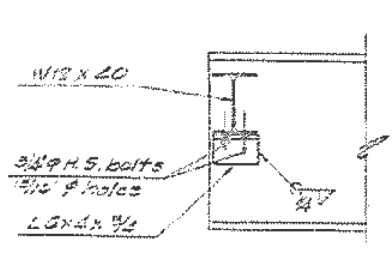
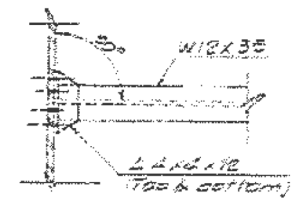
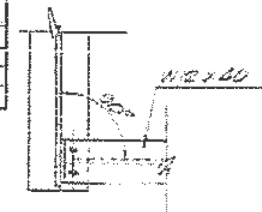


INTERIOR GIRDER REACTION TABLE

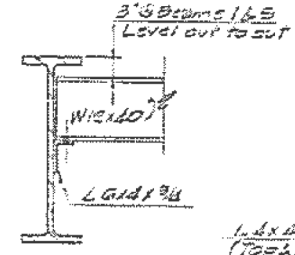
	W. ABUT.	PIER #1	PIER #2	PIER #3	PIER #4	E. ABUT.
Roll (K)	23.5	55.5	57.2	55.1	55.1	20.0
Roll (K)	37.7	22.5	22.5	21.5	23.2	20.0
Sum (K)	10.6	18.5	12.0	11.7	18.7	10.0
Total (K)	71.8	122.7	111.9	102.3	110.0	60.6

Note: See sheet No. 10 for interior girder moment tables.

FRAMING PLAN



END DIAPHRAGM-D
(23 R22715)



INTERIOR DIAPHRAGM-Di
(23 R22715)

ELEVATIONS TOP OF STRINGERS

LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5
E. Splice #1	201.55	201.62	201.75	201.62	201.55
E. Splice #2	201.75	201.66	201.37	201.55	201.75
E. Splice #3	201.75	201.51	202.02	201.51	201.75
Pier #1	201.57	202.10	202.01	202.10	201.57
Pier #2	202.00	202.15	202.22	202.15	202.00
Pier #3	202.21	202.34	202.45	202.34	202.21
Pier #4	202.27	202.50	202.61	202.50	202.27
E. Splice #4	202.01	202.54	202.08	202.54	202.01
E. Splice #5	202.02	202.75	202.66	202.75	202.02

Note: Elevations refer to top of flange of actual girder (stringer) and do not include splice plates. These elevations are theoretical and are to be used for fabrication of structural steel only.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 SBI RTE. 11 (ILL. RTE. 140)
 SECTION PB-1 STA. 503+81
 FAYETTE COUNTY

STRUCTURAL STEEL

SCALE: None JOB NO. 2018-0089
 DATE 5/1/19 DATE 5/1/19
 SHEET 9 SHEETS 19

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 PROJECT: 74817

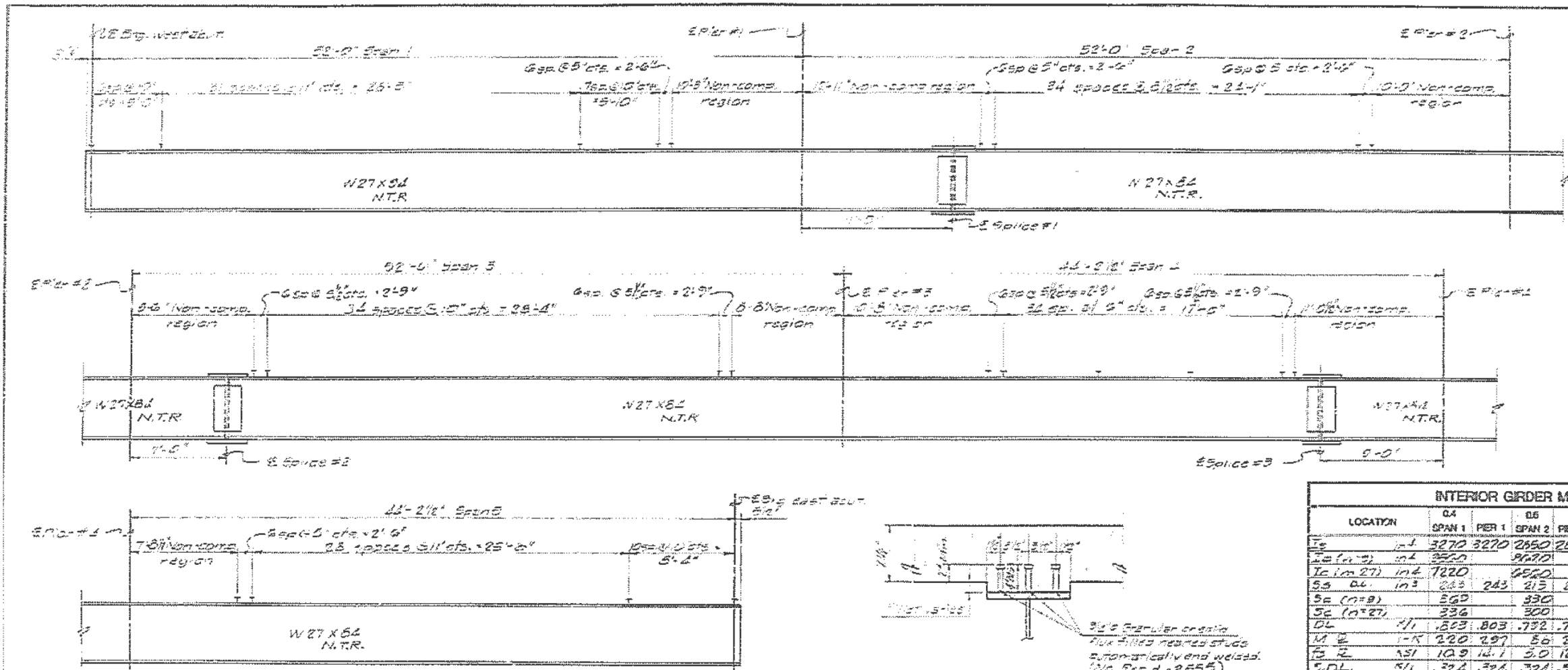
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	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

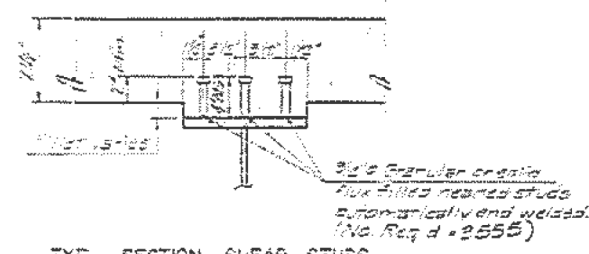
EXISTING PLAN SHEETS
 S.N. 026-0089

SCALE: SHEET OF SHEETS STA. TO STA.

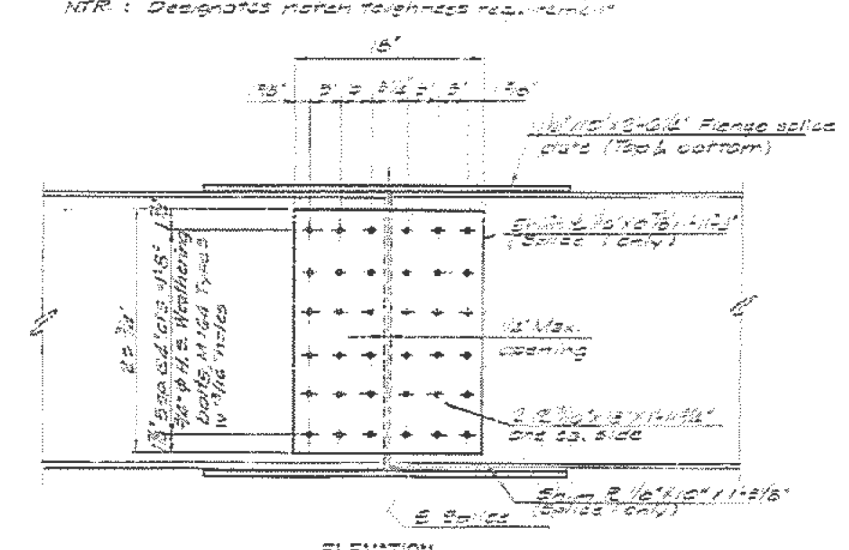
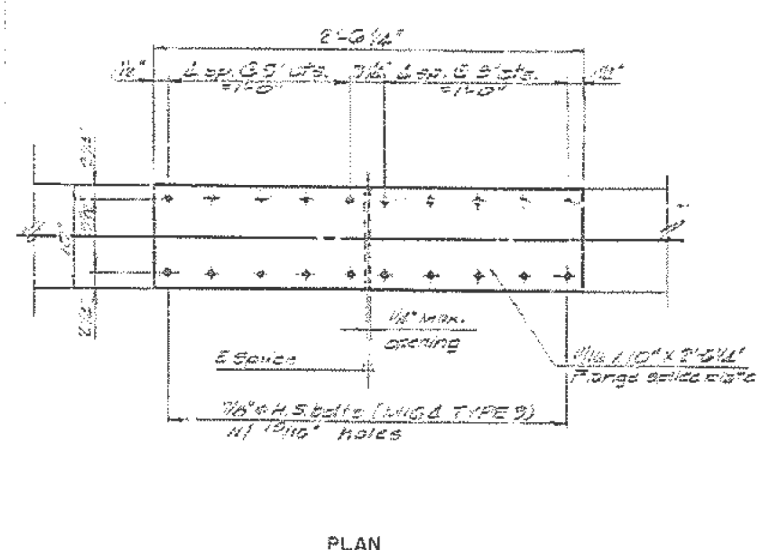
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7	BRIDGE PAINTING 2018-2	FAYETTE	20	19
CONTRACT NO. 74817				
ILLINOIS		FED. AID PROJECT		



INTERIOR GIRDER MOMENT TABLE										
LOCATION	G4		G5		G5		G5		G6	
	SPAN 1	PIER 1	SPAN 2	PIER 2	SPAN 3	PIER 3	SPAN 4	PIER 4	SPAN 5	PIER 5
Is (in ²)	3270	3270	2650	2650	2650	2650	2650	2650	2650	2650
Is (in ⁴)	3500	3500	4870	4870	4870	4870	4870	4870	4870	4870
Ss (in ²)	243	243	215	215	215	215	215	215	215	215
Ss (in ⁴)	863	863	330	330	330	330	330	330	330	330
Sc (in ²)	236	236	300	300	300	300	300	300	300	300
DL	111	803	792	792	792	792	792	792	792	792
M _u	1-K	220	227	56	225	137	190	52	273	107
S _u	KSI	10.9	13.1	5.0	12.7	7.7	11.0	3.9	11.4	9.1
S _{DL}	KSI	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
M _u / S _u	KSI	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
F _s S _{DL}	KSI	2.5	2.7	2.5	2.4	2.8	3.3	3.3	3.7	3.3
M _u / F _s	KSI	825.7	837.9	672	87.4	478.0	809.0	826	817	643.3
M _u / M _{IMP}	KSI	23.5	19.4	100	104.8	188.6	24.1	183	222	107.8
TOTAL	KSI	10523	4973	800	479.2	851.9	42.7	681	1055	651.5
F _s Comp.	KSI	32.0	34.0	31.3	29.9	31.3	31.7	29.8	30.8	30.3
F _s TOTAL	KSI	28.6	28.0	28.5	28.0	28.5	28.2	27.9	27.9	28.3
VR	K	33.3	31.2	30.9	30.9	30.9	30.9	30.9	30.9	30.9



SHEAR STUD ELEVATIONS
N.T.R. : Designates match toughness requirement



TYPICAL SPLICE DETAILS

I_s and I_{sc} are the moment of inertia and section modulus of the steel section used in computing f_s total.
 I_{cs} and S_{cs} are the moment of inertia and section modulus of the composite section used in computing f_s total.
 V_R is the maximum V allowed shear force in each.
The load factor (1.3) [$1.2 + 5/13(1 + \text{imp.})$] used in computing moments and stresses.

REVISIONS			STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
NO.	DATE		S.B.I. RTE 11 (ILL. RTE 140) SECTION P8-1 STA. 503+51 FAYETTE COUNTY	
			STRUCTURAL STEEL	
			SCALE 1/8"=1'-0"	JOB NO. 7866-02
DESIGNED BY	J. J. T.		DATE 9/18/17	SHEET 10 OF 17
DRAWN BY	S. S. N.			
CHECKED BY	J. J. T.			
APPROVED BY	M. M. M.			

USER NAME = steffenk	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 9/1/2017	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING PLAN SHEETS				
SCALE:	SHEET	OF SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR. D7 BRIDGE PAINTING 2018-2		FAYETTE	20	20
CONTRACT NO. 74817				
ILLINOIS			FED. AID PROJECT	