

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* 13 + 2 = 15 TOTAL SHEETS

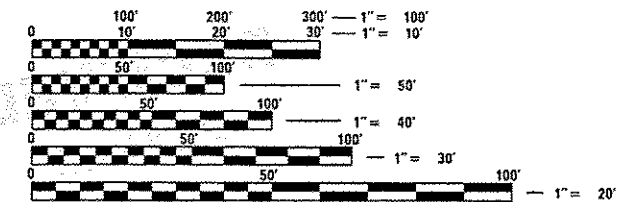
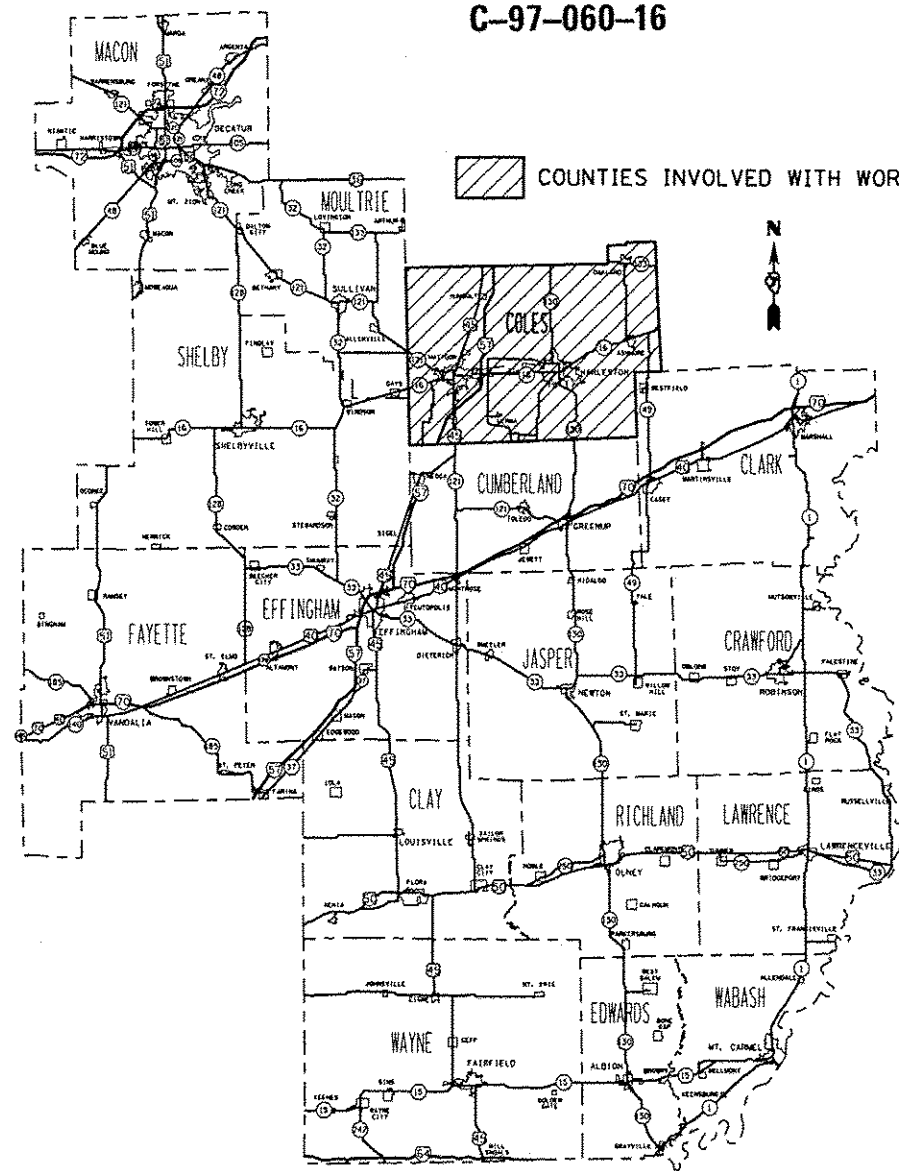
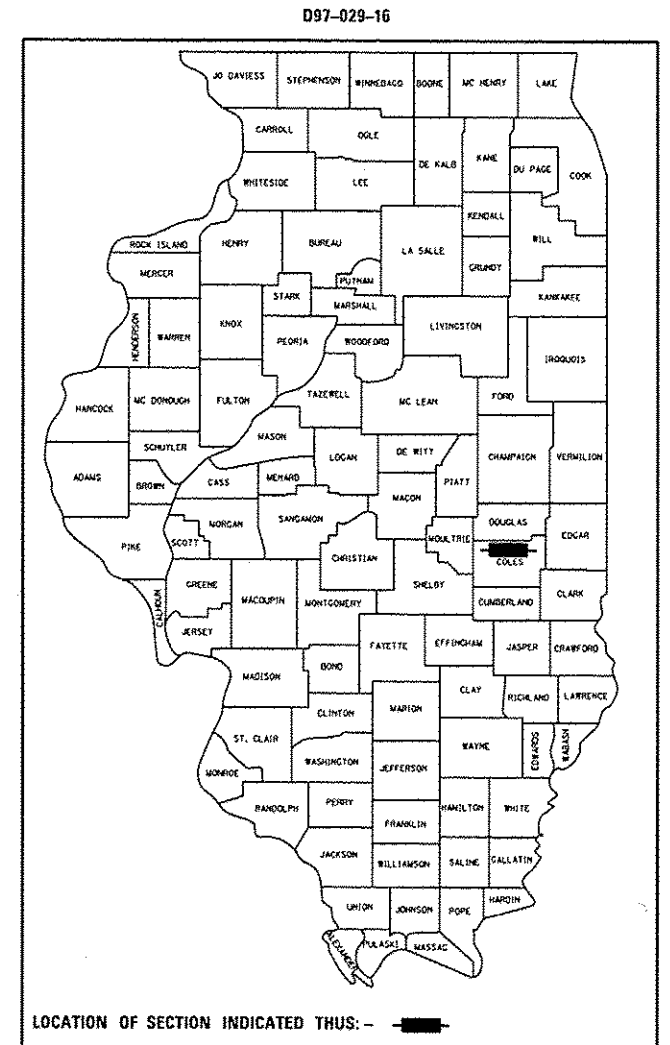
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	COLES	13	1
		ILLINOIS	CONTRACT NO. 74765	

* F.A.P. ROUTE 91, F.A.U. ROUTE 7643, F.A.S. 1668
** D7 BRIDGE PAINTING 2017-2

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

VARIOUS ROUTES
(F.A.P. ROUTE 91 & F.A.U. ROUTE 7643, F.A.S. 1668)
SECTION D7 BRIDGE PAINTING 2017-2
BRIDGE PAINTING
COLES COUNTY
C-97-060-16



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.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. 74765

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 2 2016
[Signature]
REGIONAL ENGINEER

Sept 30 2016
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

Sept 30 2016
[Signature] 2
DIRECTOR OF PROGRAM DEVELOPMENT

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
4-13B	EXISTING STRUCTURE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 13:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-RD 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, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701201-04	LANE CLOSURE, 2L, 2W, DAY OPERATIONS ONLY
701400-08	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-09	LANE CLOSURE, FREEWAY/EXPRESSWAY
701901-05	TRAFFIC CONTROL DEVICES

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 THREE LOCATIONS IN COLES COUNTY. THERE ARE A TOTAL OF FOUR STRUCTURES TO BE PAINTED, LOCATION ONE HAS TWO STRUCTURES.

THE WORK INCLUDED IN THIS SECTION CONSISTS OF CLEANING AND PAINTING TWO BRIDGES AT ONE LOCATION 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.

BRIDGE LOCATION DESCRIPTIONS

LOCATION 1

BRIDGE #1
ROUTE: FAP 91
MARKED: ILL 16
SECTION: 51B
STATION: 440+42
STRUCTURE NUMBER: 015-0017

TYPE OF BRIDGE: Girders with floor beam system-3 Spans (2 Girders & 24 Floor Beams)

LOCATION: 0.5 miles west of Charleston
FEATURE CARRIED/SPANNED: ILL 16 over Riley 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 girders, floor beams, bearings and diaphragms/lateral bracing, 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.

BRIDGE #2

ROUTE: FAP 91
MARKED: ILL 16
SECTION: 51B
STATION: 440+42
STRUCTURE NUMBERS: 015-0018

TYPE OF BRIDGE: Girders with floor beam system-3 Spans (2 Girders & 24 Floor Beams)

LOCATION: 0.5 miles west of Charleston
FEATURE CARRIED/SPANNED: ILL 16 over Riley 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 girders, floor beams, bearings and diaphragms/lateral bracing, 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

BRIDGE #3
ROUTE: FAS 1668
MARKED: CH 16
SECTION: 10BR-1
STATION: 1305+82.14
STRUCTURE NUMBER: 015-0027

TYPE OF BRIDGE: Wide Flange I Beams-4 Spans (6 Beams)

LOCATION: 2 miles south of Charleston
FEATURE CARRIED/SPANNED: CH 16 over Cassel 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, on all beams, 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.

Four air monitors will be required at this location.

LOCATION 3

BRIDGE #4
ROUTE: FAS 1668
MARKED: CH 16
SECTION: 10-BR
STATION: 1132+66.97
STRUCTURE NUMBER: 015-0028

TYPE OF BRIDGE: Wide Flange I Beams-3 Spans (5 Beams) With Steel Pile Bents and Caps

LOCATION: 4 miles south of Charleston
FEATURE CARRIED/SPANNED: CH 16 over the south fork of Indian 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, on all beams, 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 exposed steel pile bents and caps shall be cleaned in their entirety by SSPC-SP10- Near White Metal Blast Cleaning. The painted beam ends, pile bents, and caps contain lead paint.

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.

Three air monitors will be required at this location.

FILE NAME: p:\1188468\INTEG.ILLINOIS.GOV\PROJECTS\74765\DRAWING\CAD\sheet\0774765-shs-gennat	USER NAME: staffennk	DESIGNED: -	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, GENERAL NOTES AND BRIDGE LOCATIONS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED: -	REVISED: -		SCALE: N/A	SHEET 1	OF 1 SHEETS	STA.	TO STA.	COLES	13	2	
		DATE: -	REVISED: -		CONTRACT NO. 74765								
					ILLINOIS FED. AID PROJECT								

* FAP RTE 91, FAU RTE 7643, FAS 1668
** 07 BRIDGE PAINTING 2017-2

08 09 11

100 %
STATE

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0014 URBAN	0014 RURAL	
67100100	MOBILIZATION	LSUM	1	0.75	0.25	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	0.5	0.5	
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	LSUM	1	1		
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	LSUM	1	0.75	0.25	
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	

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0014			

7

Bench Mark: Permanent survey marker in S.E. parapet wall of N. structure over E.I.R.C. Railroad, Sta. 13+257.828 - Elevation 197.925

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DATE	SCALE	SHEET NO.
F.A. 91	05/08/16	COLES	2
			12 SHEETS

Existing Structure: S.N. 015-0017 (N.B.) & 015-0018 (E.B.) was built as F.A. Rte. 91, Sec. 15B & 51F in 1961. The existing structure is a 75.296 m pk. to pk. abutment, three span steel plate girder with floor beams on a vaulted abutment supporting a reinforced concrete deck with an out-to-out width of 10.871 m. Damaged beam ends were repaired and elastomeric bearings were added in 1999. The existing deck is to be removed and replaced with a deck with an out-to-out width of 11.2 m. Traffic shall be diverted to adjacent bridge during reconstruction utilizing temporary median cross over.

No salvage

SCOPE OF WORK

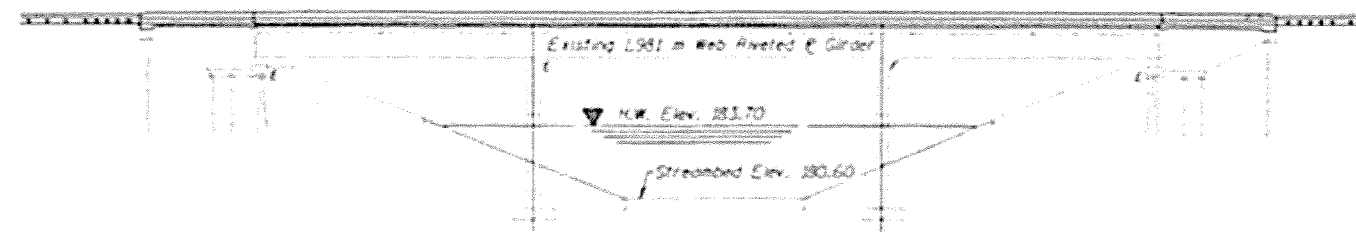
1. Remove and replace existing deck.
2. Remove and replace end floorbeams.
3. Existing Structural Steel shall be cleaned and painted.
- ****4. Slopewall repair.

GENERAL NOTES

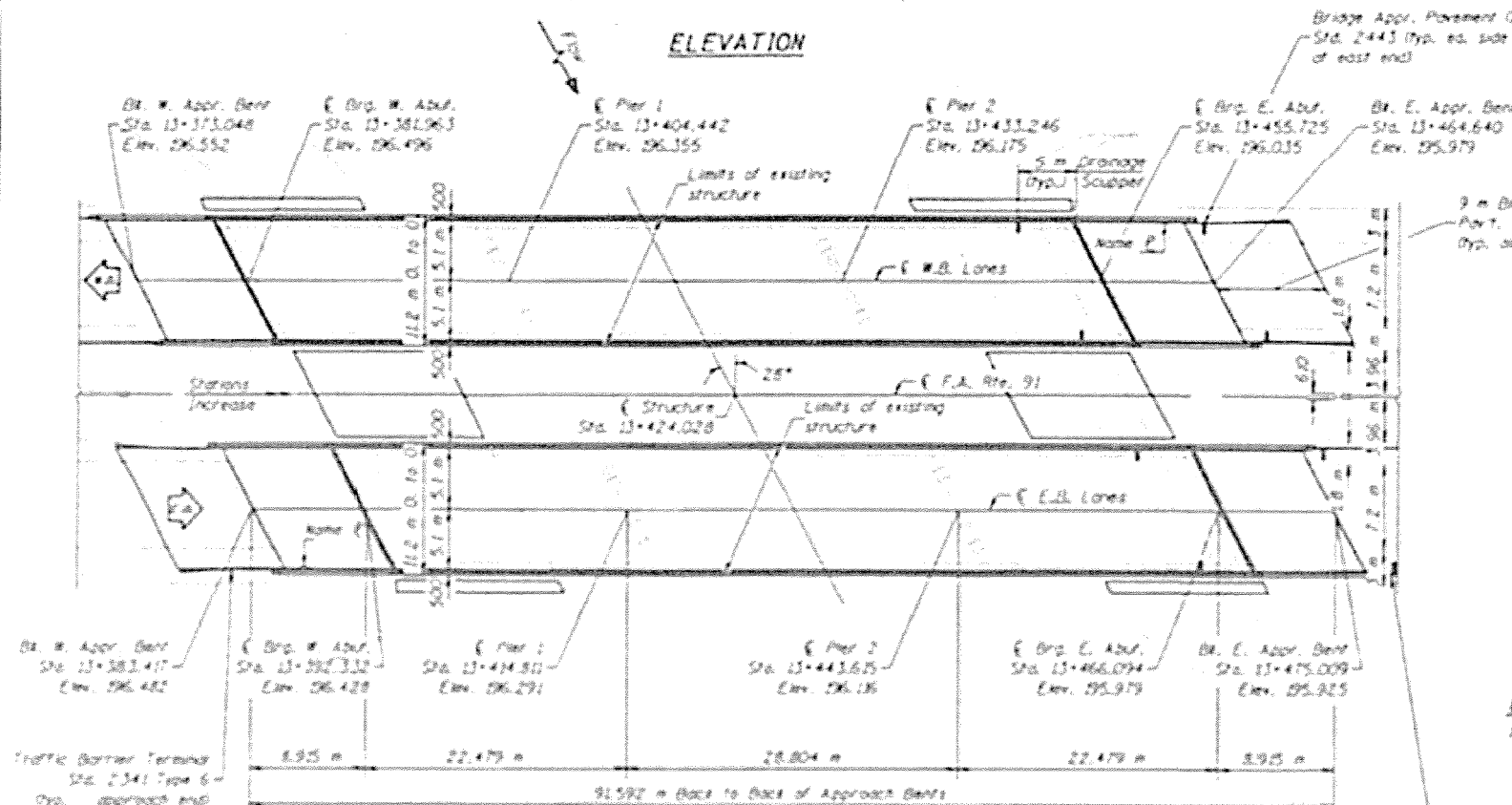
Fasteners shall be high strength bolts. Bolts M20, open holes 24 mm, unless otherwise noted.
Field welding of construction accessories will not be permitted to the bottom flange of floorbeams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the supports. Field welding in other areas will be permitted only when approved by the Engineer.
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the new wide flange floor beams.
Reinforcement bars shall conform to the requirements of AASHTO M-318, M-42M, or M-52M Grade 400.
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
Cleaning and painting of the existing structural steel shall be as specified in the Special Provision for "Cleaning and Painting Existing Steel Structures." All existing structural steel within 15 m of either side of expansion joints shall be cleaned by Method 1. All remaining existing structural steel shall be cleaned by Method 2. The Lead and Chromate Free Alkyd Paint System shall be used for painting of existing structural steel. The prime and intermediate coats shall be applied as specified in the Special Provision, followed by a spot final finish coat over all newly primed steel surfaces. The color of the final finish coat shall be Light Grey, Munsell No. 10Y 7/1.
The inorganic zinc rich primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Light Grey, Munsell No. 10Y 7/1. See Special Provision "Cleaning & Painting Metal Structures".
All dimensions are in millimeters (mm) unless otherwise shown.
Cost of removing existing steel bridge rail shall be included in "Removal of Existing Concrete Deck."

**** For slopewall repair details and quantities, See Rwy plans.

Note: Removal of existing Finger Plate expansion joints is incidental to removal of Existing Concrete Deck.



ELEVATION



PLAN

STATION 13+424.028
REBUILT BY
STATE OF ILLINOIS
F.A. RTE. 91-SEC. 15B/51F
F.A. PROJ.
LOADING MS20
STR. NO. ***

NAME PLATE
See Std. 2113

*** 015-0017 for N.B. Bridge
015-0018 for E.B. Bridge

LOADING MS18

DESIGN SPECIFICATIONS
1992 AASHTO, 1993 & 1994 Interim

DESIGN STRESSES

FIELD LIMITS

- Reinforcement
 $f_c = 24$ MPa
 $f_s = 400$ MPa (reinforcement)
 $f_s = 250$ MPa (structural steel)

Existing Construction

- $f_c = 96.50$ MPa
 $f_s = 138$ MPa (reinforcement)
 $f_s = 214$ MPa (structural steel)

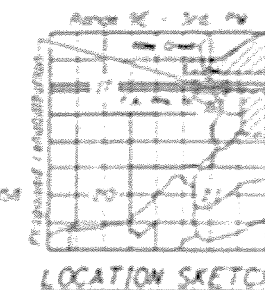
SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (AU) = 0.058
 Site Coefficient (S) = L2

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
Removal of Existing Concrete Deck	Each	2		2
Structural Steel Removal	kg	4690		4690
Concrete Superstructure	m ³	569.5		569.5
Protective Coat	m ²	417		417
Reinforcement Bars, Epoxy Coated	kg	131800		131800
Name Plates	Each	2		2
Grillage Supports	Each	4		4
Furnishing & Erecting Structural Steel	kg	7500		7500
Bridge Deck Draining	m ²	1750		1750
Cleaning and Painting Steel Bridge	L.S.	1		1
Power Tool Cleaning Residue	L.S.	1		1
Containment and Disposal	L.S.	1		1
Blasting Residue	L.S.	1		1
Containment and Disposal	L.S.	1		1
Bonded Reinforced Joint Seal 25 mm	m	25.4		25.4
Bonded Reinforced Joint Seal 50 mm	m	25.4		25.4

- Quantity does not include bridge deck surface.
- Existing name plates shall be cleaned and relocated next to new name plates. Cost incidental to Name Plates.



GENERAL PLAN
IL. RTE. 91 OVER
RILEY CREEK
F.A. RTE. 91 - SEC. 15B/51F
COLES COUNTY
STA. 13+424.028
STRUCTURE NO. 015-0017 (N.B.)
STRUCTURE NO. 015-0018 (E.B.)

FAP 91, FAU 7643, FAS 1668
07 BRIDGE PAINTING 2017-2

DESIGNED	January 9, 2016
CHECKED	July 2, 2016
DATE	July 2, 2016
CHECKED	July 2, 2016

DESIGNED: [Signature]
 CHECKED: [Signature]
 DATE: July 2, 2016



PROFILE GRADE
Roadway: 015-0017 (N.B.)

PROFILE GRADE
Roadway: 015-0018 (E.B.)

FILE NAME	USER NAME = steffennk	DESIGNED -	REVISED -
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Default	PLOT SCALE = 100.0000 / 1 in.	CHECKED -	REVISED -
	PLOT DATE = 8/4/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

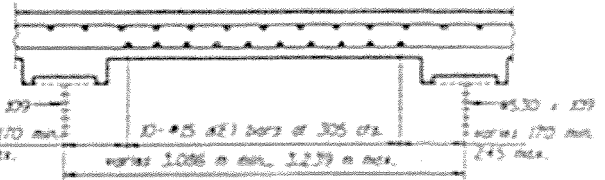
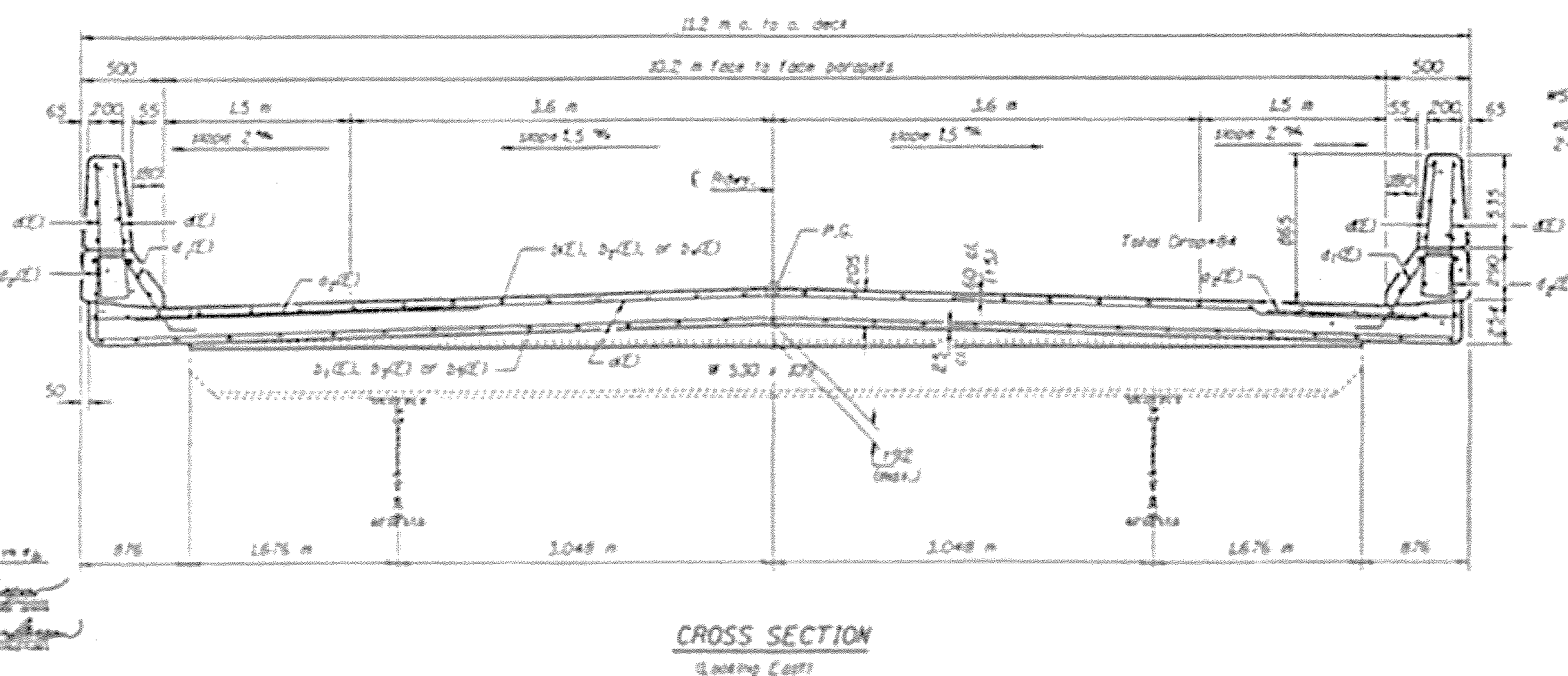
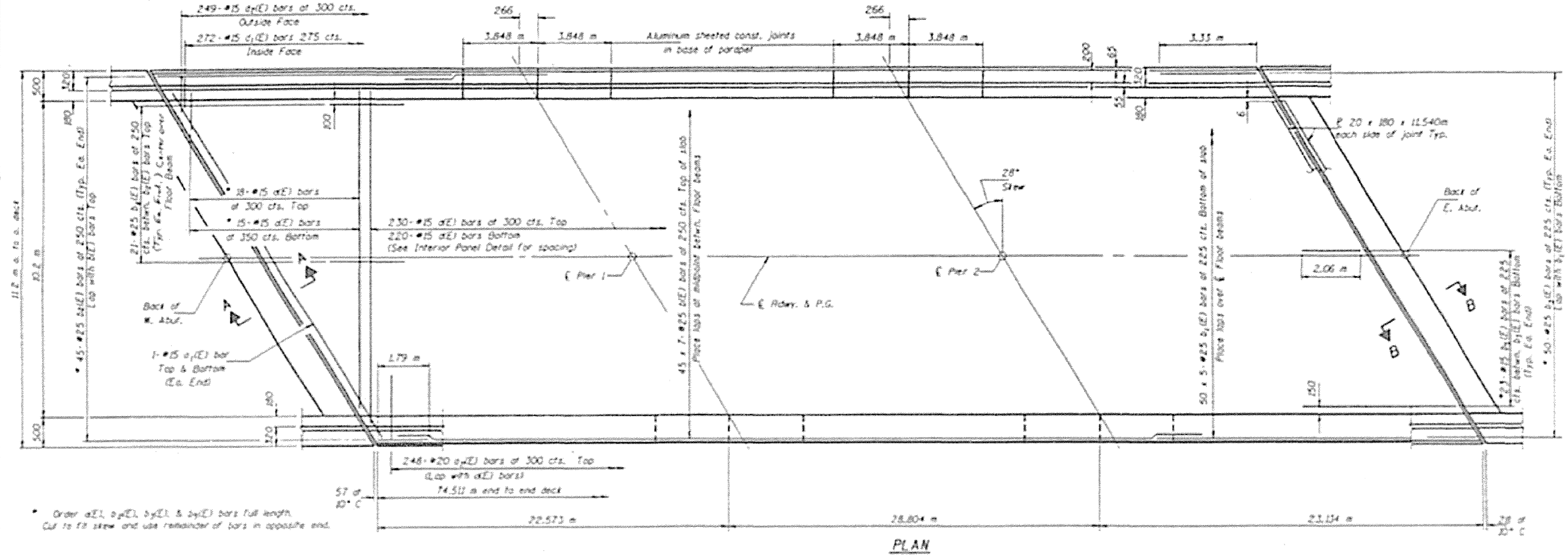
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PLAN
STRUCTURES 018-0017/0018

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
91	15B/51F	COLES	13	4
CONTRACT NO. 74765				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FA. N	018	017	47	12 SHEETS
				SHEET NO. 5



DESIGNED: *Franklin C. ...*
CHECKED: *Mark P. ...*
DATE: 8/4/2016

DESIGNED: *Royal E. ...*
CHECKED: *Royal E. ...*
DATE: 8/4/2016

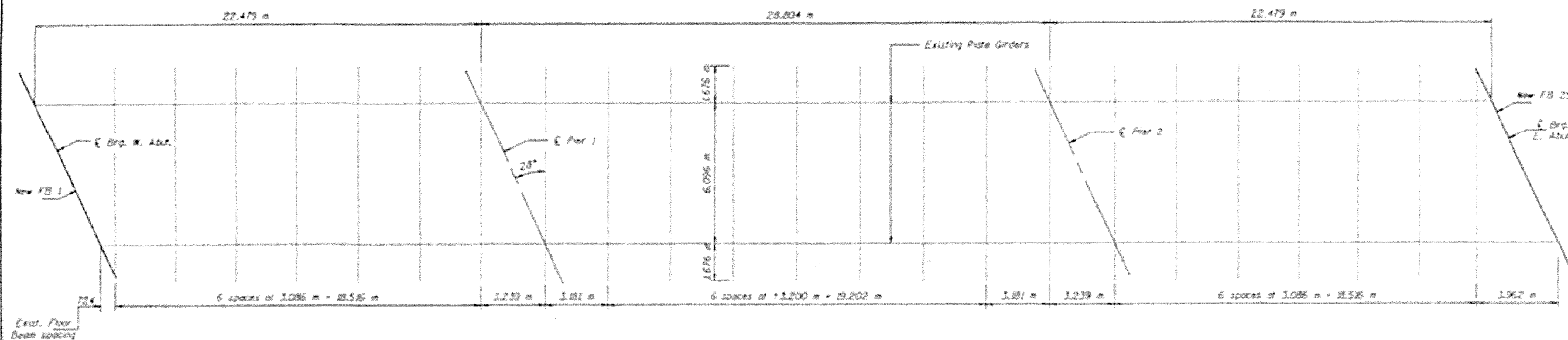
ORDER: *826*
S-1-RD15* (M) 1-83

SUPERSTRUCTURE
IL. RTE. 16 OVER RILEY CREEK
F.A. RTE. 91 - SEC. (SIB)BR
COLES COUNTY
STA. 13+424.028

FILE NAME: pw\11084EBIDINTEG\illinois.gov\PIWDDT\Documents\DOT Offices\District 7\Projects\74765\DRAWING\CAB\sheet\0774765-sht-plan.dgn	USER NAME: steffennk	DESIGNED: -	REVISIONS:	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN STRUCTURES 018-0017/0018	F.A. RTE.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:
PLOT SCALE: 100.0000 / 1 in.	CHECKED: -	REVISIONS:	SCALE: N/A	CONTRACT NO. 74765	STA. TO STA.	COLES	13	5	ILLINOIS FED. AID PROJECT	
PLOT DATE: 8/4/2016	DATE: -	REVISIONS:	SHEET 2 OF 3 SHEETS							

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FA. N.	GROUP	COLES	STA.	SHEET NO. 10
			52	12 SHEETS

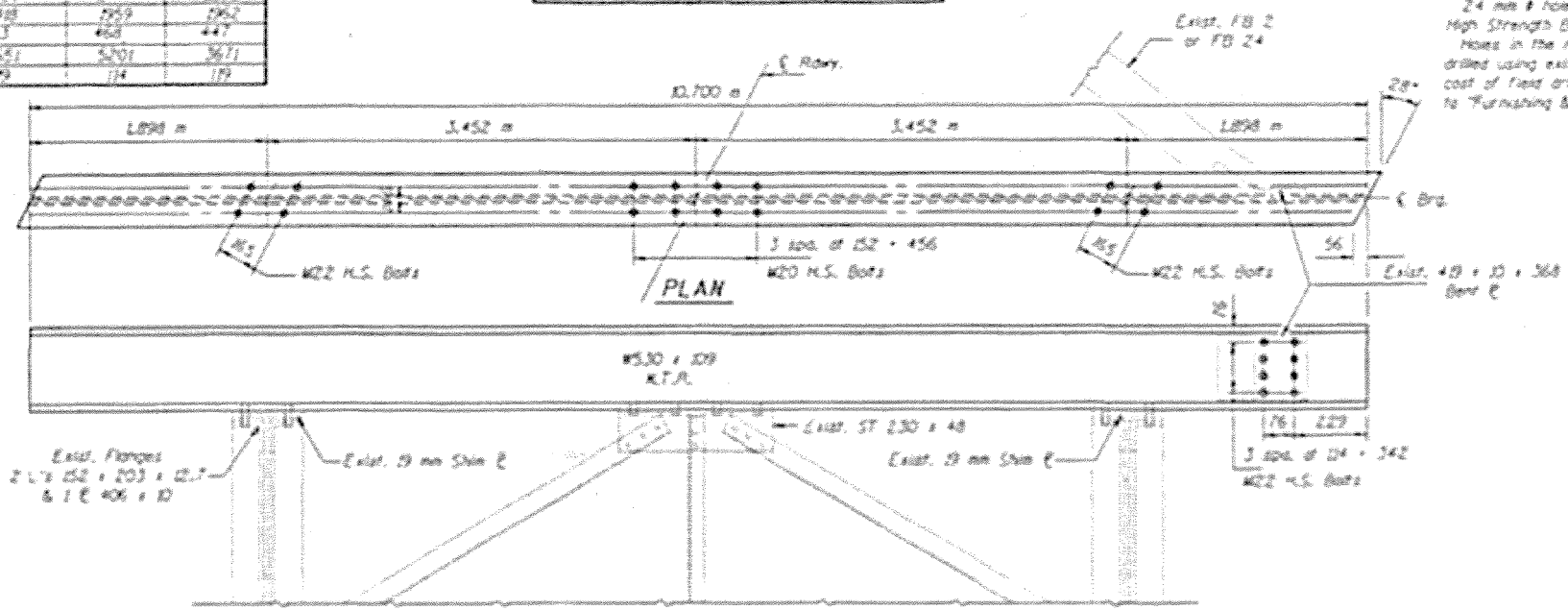


	0.4 Sp. 1 of 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_x (mm ⁴)	11,050	47,030	11,050
S_x (mm ³)	30,850	45,860	30,850
I_y (mm ⁴)	79.2	79.2	79.2
S_y (mm ³)	27.50	27.74	27.50
M_D (kN-m)	29.8	25.9	26.2
M_L (kN-m)	4.3	4.6	4.4
M (Total) (kN-m)	34.1	30.5	30.6
I_x (Total) (mm ⁴)	179	174	179

	Abut.	Pier
R_V (kN)	324	1021
R_H (kN)	456	681
T_{imp} (kN)	125	251
R (Total) (kN)	805	1953

I_x is the moment of inertia of the steel section used to calculate f_x .
 S_x is the section modulus of the steel section used to calculate f_x .
 M_D = Moment due to Dead Loads.
 M_L = Moment due to Live Load.
 M (Total) = Moment due to Live Load Impact.
 f_x (Total) = The sum of stresses due to $M_D + M_L + M$ (Imp.)

Note: All dimensions are in millimeters (mm) except as noted.
 N.T.R. indicates Notch Toughness Required.
 FB indicates Transverse Floor Beams.
 Two hardened washers shall be required over all oversized holes.
 28 mm # holes shall be required for all W22 High Strength Bolts.
 24 mm # holes shall be required for all W20 High Strength Bolts.
 Holes in the new Floor Beams shall be field drilled using exist. holes as a template. The cost of field drilling shall be included in "Furnishing & Erecting Structural Steel."



DESIGNED: [Signature]
 CHECKED: [Signature]
 DRAWN: SHANE SUMNER
 CHECKED: [Signature]

STRUCTURAL STEEL
 IL. RTE. 16 OVER RILEY CREEK
 F.A. RTE. 91 - SEC. (51B)BR
 COLES COUNTY
 STA. 13+424.028

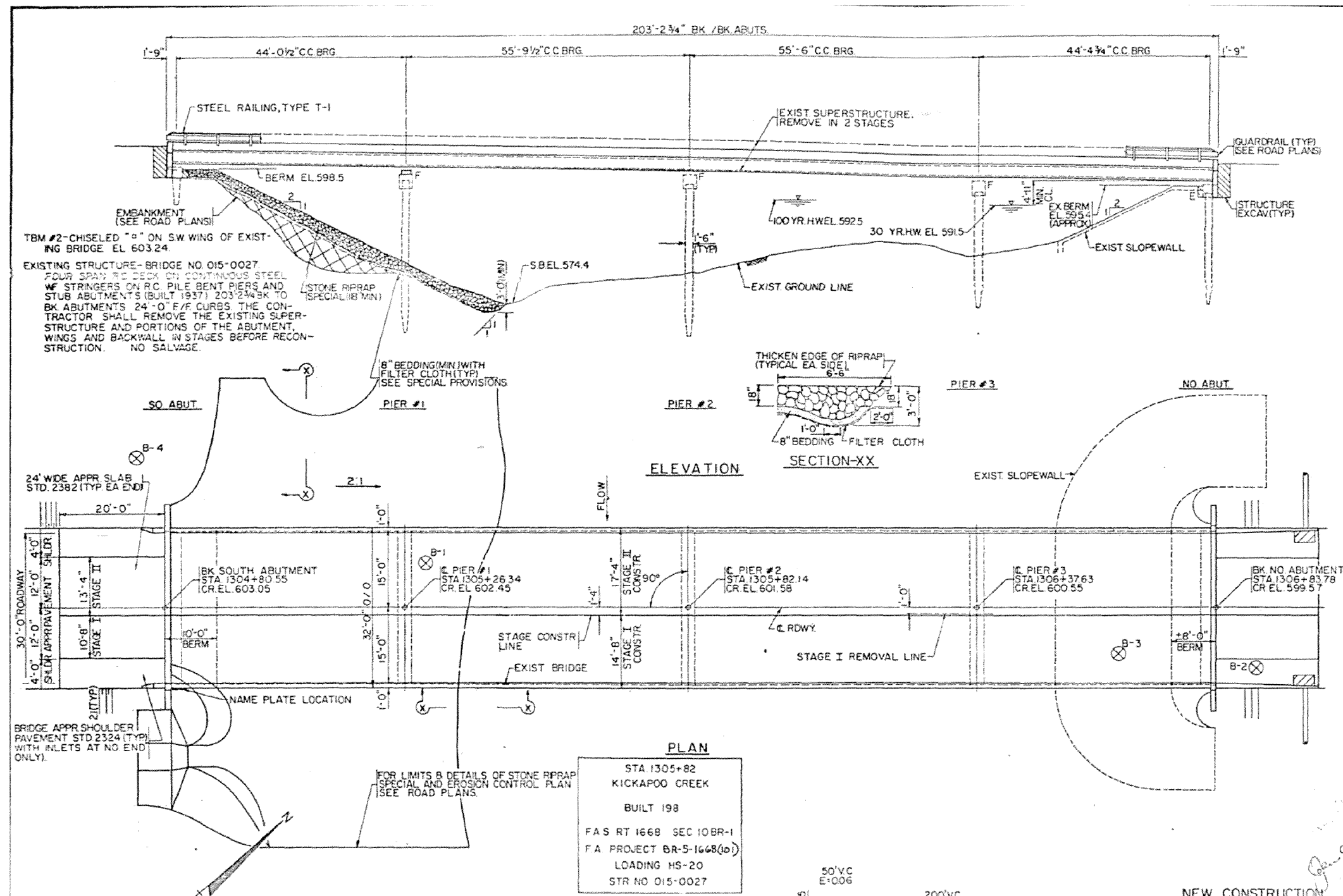
Existing W530 x 109 and floorbeam to be removed and replaced as shown above.

SHEET 1 OF 11
GENERAL NOTES

- SEE PROPOSAL FOR BORING DATA
 - FASTENERS SHALL BE HIGH STRENGTH BOLTS (AASHTO M164, TYPE 3) BOLTS 3/4" Ø, OPEN HOLES 1 1/16" Ø, UNLESS OTHERWISE NOTED
 - CALCULATED WEIGHT OF STRUCTURAL STEEL = 123,530 LBS
 - ALL STRUCTURAL STEEL SHALL BE AASHTO M222 UNPAINTED TYPE EXCEPT EXPANSION JOINT ANGLES AND ATTACHED BARS SHALL BE AASHTO M83 AND SHOP PAINTED WITH TWO COATS OF BASIC LEAD SILICO CHROMATE PAINT.
 - ALL STRUCTURAL STEEL FOR A DISTANCE OF THREE TIMES THE DEPTH OF THE BEAMS EACH WAY FROM DECK JOINTS SHALL BE CLEANED AND GIVEN ONE COAT OF THE BASIC LEAD SILICO CHROMATE PRIMER AND MAROON FIELD COAT. BOTH COATS TO BE APPLIED IN THE SHOP WITH SPOT PAINTING ONLY IN THE FIELD.
 - 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 WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
 - ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.
 - THE PROPOSED BRIDGE IS TO BE CONSTRUCTED IN TWO STAGES DURING CONSTRUCTION, PORTIONS OF THE EXISTING AND PROPOSED BRIDGES ARE TO BE USED FOR REVERSIBLE ONE-WAY TRAFFIC FOR DETAILS OF STAGE CONSTRUCTION, SEE SHEET 2 OF 11.
 - 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 BEARING. TWO 1/8" ADJUSTING SHIMS OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS FOR TYPE I ELASTOMERIC BEARINGS. SHIMS OF THE DIMENSIONS OF TOP PLATE SHALL BE PROVIDED AND PLACED AS DETAILED.
 - THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2 THESE COMPONENTS ARE ALL SPLICE PLATE MATERIAL AND THE WIDE FLANGE BEAMS
 - REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 OR M-53 GRADE 60
 - ALL CONTACT SURFACES OF JOINTS FOR DIAPHRAGMS SHALL BE FREE OF PAINT OR LACQUER.
- (SEE SHEET 2 FOR CONTINUATION OF GENERAL NOTES)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	—	1
CONCRETE REMOVAL	CUYD	—	8.2	8.2
EXPANSION BOLTS 3/4" INCH Ø	EACH	—	48	48
STRUCTURE EXCAVATION	CUYD	—	30	30
FLOOR DRAINS	EACH	20	—	20
PROTECTIVE COAT	SQYD	753	—	753
PREFORMED JOINT SEAL 2 1/2"	LINFT	64	—	64
ELASTOMERIC BEARING ASSEMBLY TYPE II	EACH	12	—	12
CLASS X CONCRETE	CUYD	172.6	11.7	184.3
STRUCTURAL STEEL	LSUM	1	—	1
STEEL RAILING, TYPE T-1	LINFT	406	—	406
TEMPORARY BRIDGE RAIL	LINFT	500	—	500
REINFORCEMENT BARS	POUND	14,550	1,730	16,280
REINFORCEMENT BARS (EPOXY COATED)	POUND	27,460	—	27,460
NAME PLATES	EACH	1	—	1
Stone Riprap Special	Sq Yds	—	550	550

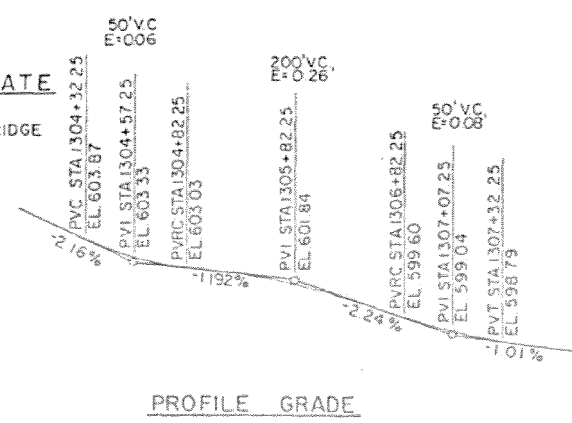
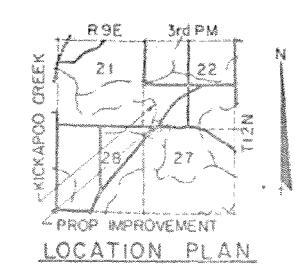


PLAN

STA 1305+82
KICKAPOO CREEK
BUILT 198
FAS RT 1668 SEC 10BR-1
F.A. PROJECT BR-5-1668(101)
LOADING HS-20
STR NO 015-0027

LETTERING FOR NAME PLATE

(SEE STD 2113)
LOCATE AT SOUTHEAST CORNER OF BRIDGE



NEW CONSTRUCTION DESIGN STRESSES

$f'_c = 3,500$ psi.
 $f_y = 60,000$ psi. (REINF)
 $f_y = 50,000$ psi. (STR. STEEL, M-222)

LOADING HS-20-44
(*25 psf ALLOWANCE FOR FUTURE WEARING SURFACE).
DESIGN SPECIFICATIONS: AASHTO 1977 & 1978, 1979, 1980 & 1981 INTERIMS. (NEW CONSTRUCTION)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

[Signature]

BRIDGE NO 015-0027

WATERWAY DATA

DRAINAGE AREA = 9750 SQMI		LOW GRADE EL = 596.62		AT STA 1313+00				
FLOOD	FREQ.	Q	OPENING SQ. FT.	NAT. H.WE.	HEAD-FT. EXIST.	HEAD-FT. PROP.	HEADWATER EL. EXIST.	HEADWATER EL. PROP.
DESIGN	30	8060	1615	591.5'	0.56	0.65	592.06	592.15
BASE	100	10309	1798	592.5'	0.83	0.94	593.33	593.44
OVERTOPPING								
MAX CALC	500	13226	2010	593.7'	1.18	1.32	594.88	595.02

GENERAL PLAN & ELEVATION

KICKAPOO CREEK
SEC. 10 BR-1, FAS. RT. 1668

COLES COUNTY
STA 1305+82.14

ENGINEERS & CONSULTANTS

BLANK, WESSELINK, COOK & ASSOCIATES, INC.

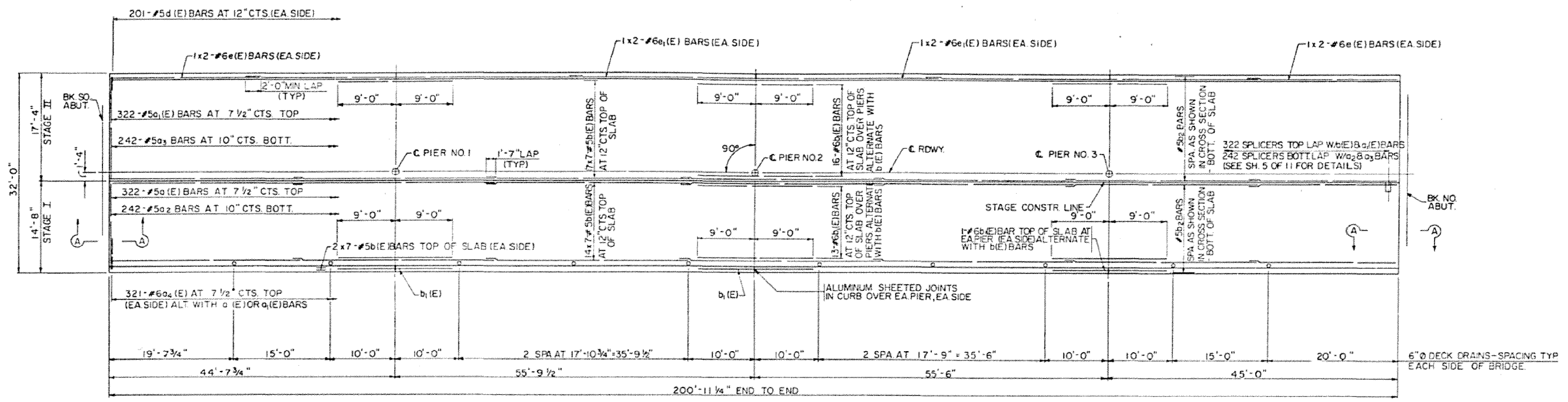
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Default	PLOT DATE = 8/4/2016	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PLAN
STRUCTURE 015-0027**

SCALE: N/A SHEET 1 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COLES	13	7
CONTRACT NO. 74765				
ILLINOIS FED. AID PROJECT				



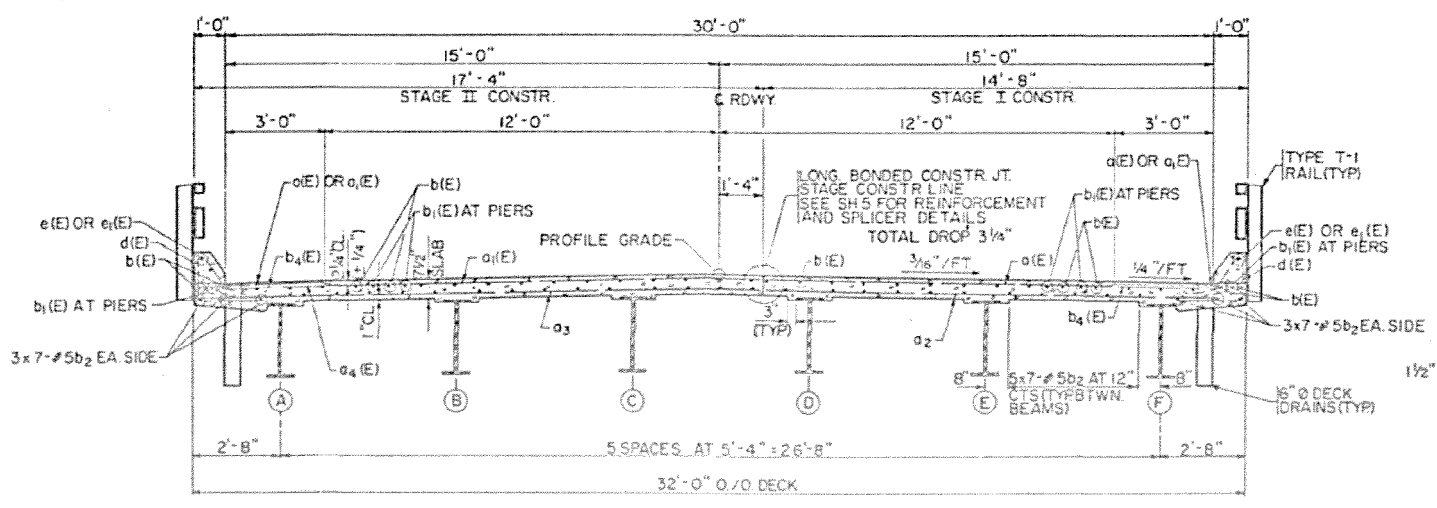
FOR SECTION A-A SEE SHEET 5.
 FOR HANDRAIL POST SPACING SEE SHEET 6.
 FOR TEMPORARY BRIDGE RAIL POST SPACING SEE SHEET 7.

PLAN

BILL OF MATERIAL - SUPERSTRUCTURE

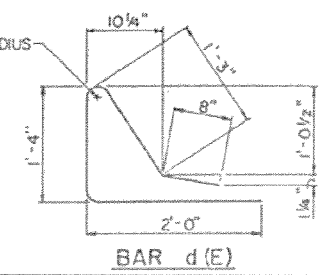
STAGE I CONSTRUCTION				
BAR	NO	SIZE	LENGTH	SHAPE
a ₁ (E)	322	#5	14'-5"	—
a ₂	242	#5	14'-0"	—
a ₄ (E)	321	#6	4'-0"	—
b(E)	112	#5	30'-0"	—
b ₁ (E)	42	#5	18'-0"	—
b ₂	98	#5	30'-0"	—
d(E)	201	#5	5'-3"	—
e(E)	4	#6	23'-4"	—
e ₁ (E)	4	#6	28'-10"	—
CLASS X CONCRETE			CU YD	79.9
REINFORCEMENT BARS			LBS	6,610
REINFORCEMENT BARS (EPOXY COATED)			LBS	12,830
FLOOR DRAINS			EACH	10

STAGE II CONSTRUCTION				
BAR	NO	SIZE	LENGTH	SHAPE
a ₁ (E)	322	#5	17'-1"	—
a ₃	242	#5	16'-8"	—
a ₄ (E)	321	#6	4'-0"	—
b(E)	133	#5	30'-0"	—
b ₁ (E)	51	#6	18'-0"	—
b ₂	119	#5	30'-0"	—
d(E)	201	#5	5'-3"	—
e(E)	4	#6	23'-4"	—
e ₁ (E)	4	#6	28'-10"	—
CLASS X CONCRETE			CU YD	92.7
REINFORCEMENT BARS			LBS	7,940
REINFORCEMENT BARS (EPOXY COATED)			LBS	14,630
FLOOR DRAINS			EACH	10



FOR SECTION THRU CURB AND DRAIN SEE SHEET 5

CROSS SECTION



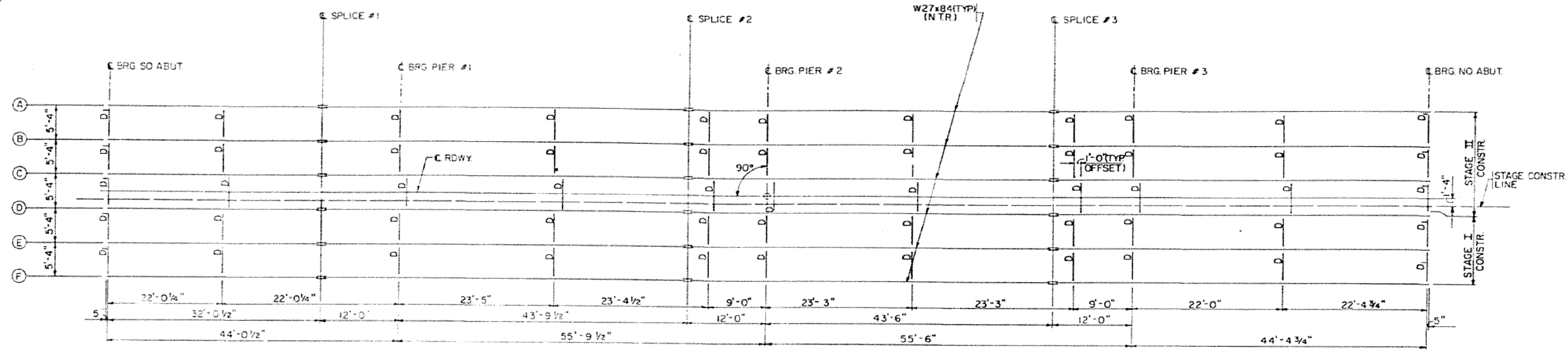
REV NO	DESCRIPTION	BY	DATE	APPROVAL
SUPERSTRUCTURE				
KICKAPOO CREEK SEC. 10 BR-1, F.A.S. RT. 1668		SCALE NONE		
COLES COUNTY STA. 1305+ 82.14		S.W.C. PROJECT NO. 034-B001		
BLANK, WESSELMAN, COOK & ASSOCIATES, INC. ENGINEERS & CONSULTANTS		CLIENT PROJECT NO. P-95-026-79		
DRAWING NO.		DATE		

FILE NAME =	USER NAME = steffennk	DESIGNED -	REVISED -
pw\1\084EBID\INTEG\illinois.gov\PIWID\Documents\DOT Offices\District 7\Projects\7475\DRAWING\CAB\sheets\0774765-sht-plan.dgn		CHECKED -	REVISED -
Default	PLOT DATE = 8/4/2016	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE: N/A	SHEET 2	OF 4 SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COLES	13	8
CONTRACT NO. 74765				
ILLINOIS FED. AID PROJECT				



FRAMING PLAN

NOTE NTR INDICATES NOTCH TOUGHNESS REQUIREMENT.

	04 SPAN 1 OR 4	PIER #1 OR #3	05 SPAN 2 OR 3	PIER #2
I_s (in ⁴)	2850	2850	2850	2850
S_s (in ³)	213	213	213	213
Q (k/ft)	0.787	0.787	0.787	0.787
M (k')	40	258	133	267
M_L (k')	439	404	475	439
IMP (k')	130	117	138	127
M TOTAL (k')	7.8	7.79	7.46	8.33
f_s (ksi)	5	43.9	42.0	46.9

I_s AND S_s ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE STEEL SECTION USED IN COMPUTING f_s . THE LOAD FACTOR (1.3) [$Q + 5/16 IMP$] IS USED IN COMPUTING MOMENTS AND STRESSES.

	SO OR NO ABUT	PIER #1 OR #3	PIER #2
R_Q (k)	130	437	439
R_L (k)	26.2	34.3	33.6
IMP (k)	79	10.3	10.1
R TOTAL (k)	471	88.3	87.6

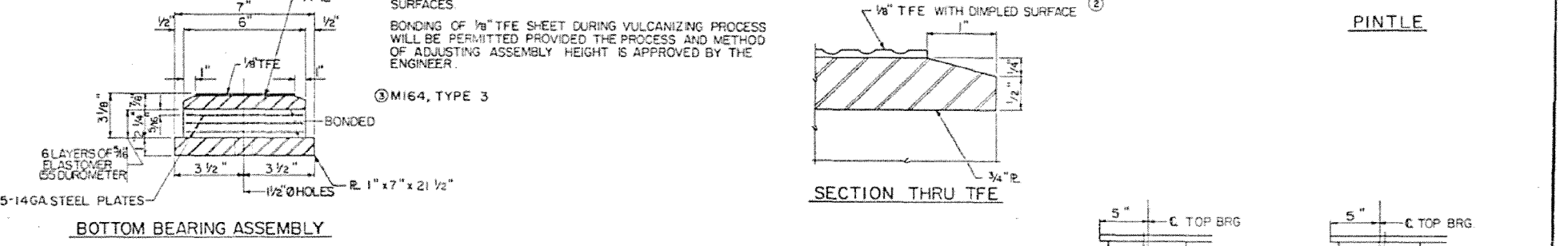
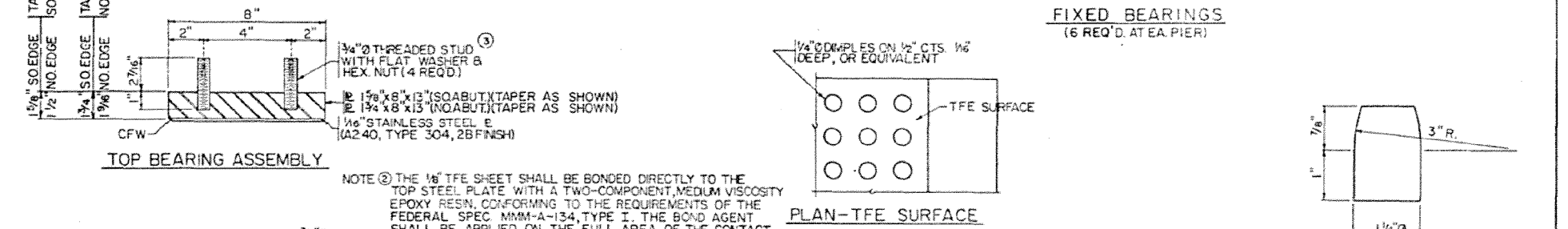
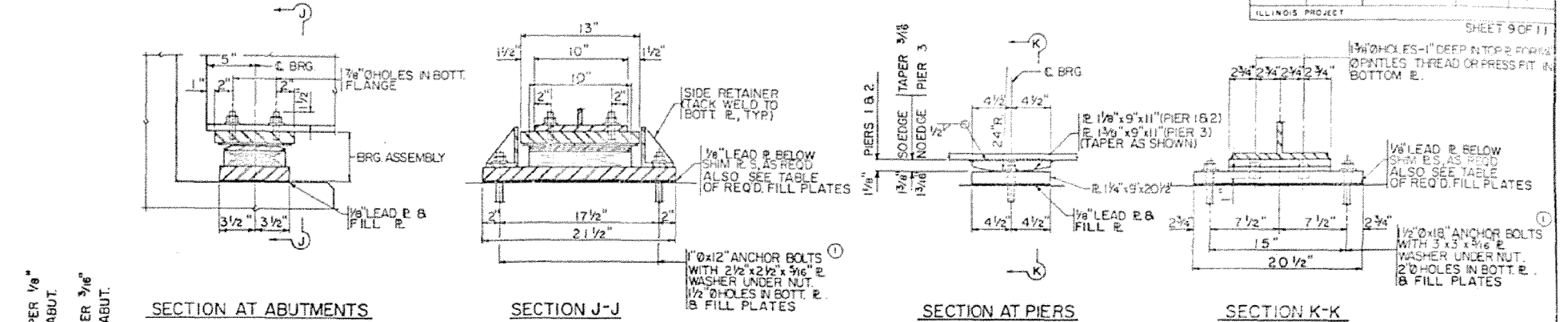
TOP OF BEAM ELEVATIONS *

BEAM	C BRG SOUTH ABUT	C SPLICE #1	C BRG PIER #1	C SPLICE #2	C BRG PIER #2	C SPLICE #3	C BRG PIER #3	C BRG NORTH ABUT
A OR F	60215	60170	60152	60086	60064	59987	59963	59872
B OR E	60224	60179	60161	60095	60073	59996	59972	59881
C OR D	60232	60187	60169	60103	60081	60004	59980	59889

*FOR FABRICATION ONLY

REV NO	DESCRIPTION	BY	DATE	APPROVAL
STRUCTURAL STEEL				
KICKAPOO CREEK SEC 10 BR-1, FAS. RT 1668			SCALE NONE	
COLES COUNTY STA 1305+82.14			CLIENT PROJECT NO 11-15-026-75	
BLANK WESELINK CONSULTANTS, INC			DRAWING NO 43-11-17	

FAP 91, FAU 7643, FAS 1668
07 BRIDGE PAINTING 2017-2



NOTE: UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL PLATES FOR BEARING ASSEMBLIES, RETAINER ANGLES AND SHM AND FILL PLATES SHALL BE M23, SHOT PUNTED AS SPECIFIED FOR STRUCTURAL STEEL NEAR DECK JOINTS. NO PAINT IS ALLOWED ON SLIDING SURFACES.

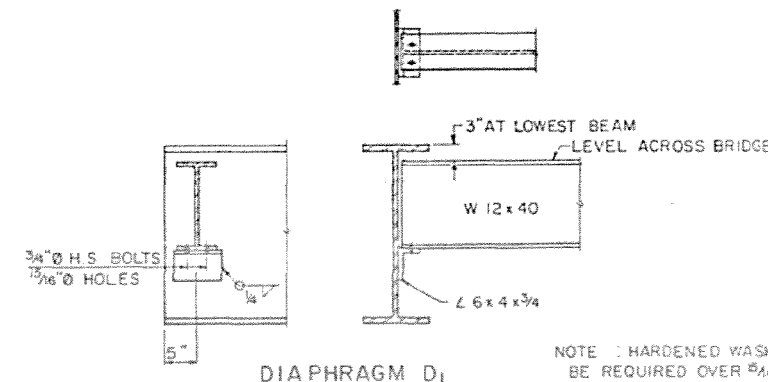
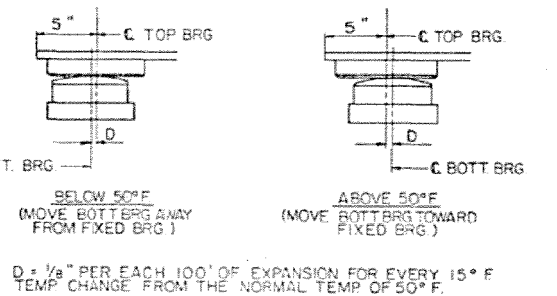
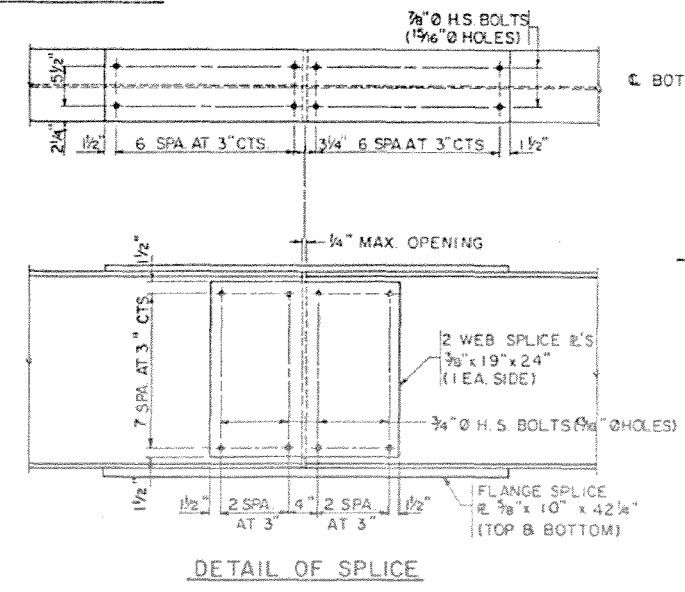


TABLE OF REQUIRED BEARING FILL PLATES

BEAMS	SO ABUT	PIER NO. 1	PIER NO. 2	PIER NO. 3	NO ABUT
ABF	1 9/16" x 7" x 2 1/2"		3/4" x 9" x 20 1/2"		3/8" x 7" x 2 1/2"
B&E	2 3/4" x 7" x 2 1/2"		1 7/8" x 9" x 20 1/2"	1 7/8" x 9" x 20 1/2"	1/2" x 7" x 2 1/2"
C&D	3 3/4" x 7" x 2 1/2"		2 7/8" x 9" x 20 1/2"	2 7/8" x 9" x 20 1/2"	2 1/2" x 7" x 2 1/2"



NOTE: AFTER BEAMS HAVE BEEN ERECTED HOLES AT EXPANSION BEARINGS SHALL BE DRILLED AND ANCHOR BOLTS GROUTED IN PLACE. ANCHOR BOLTS AT FIXED BEARINGS MAY BE BUILT INTO THE MASONRY.

REV. NO.	DESCRIPTION	BY	DATE	APPROVAL
STRUCTURAL STEEL				
KICKAPOO CREEK SEC. 10 BR-1, FAS. RT. 1668		SCALE NONE		DRAWING NO. 24-19-12
COLES COUNTY STA. 1305+82.14		CLIENT PROJECT NO. 034-8001		
DRAWN BY: JCC DATE: 07-27-05		CHECKED BY: JCC DATE: 08-09-05		ENGINEERS & CONSULTANTS

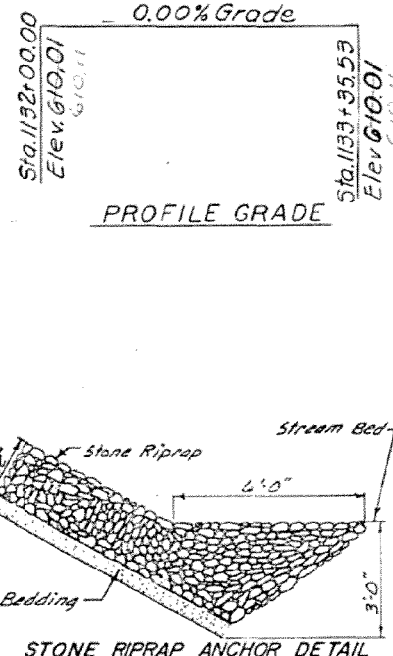
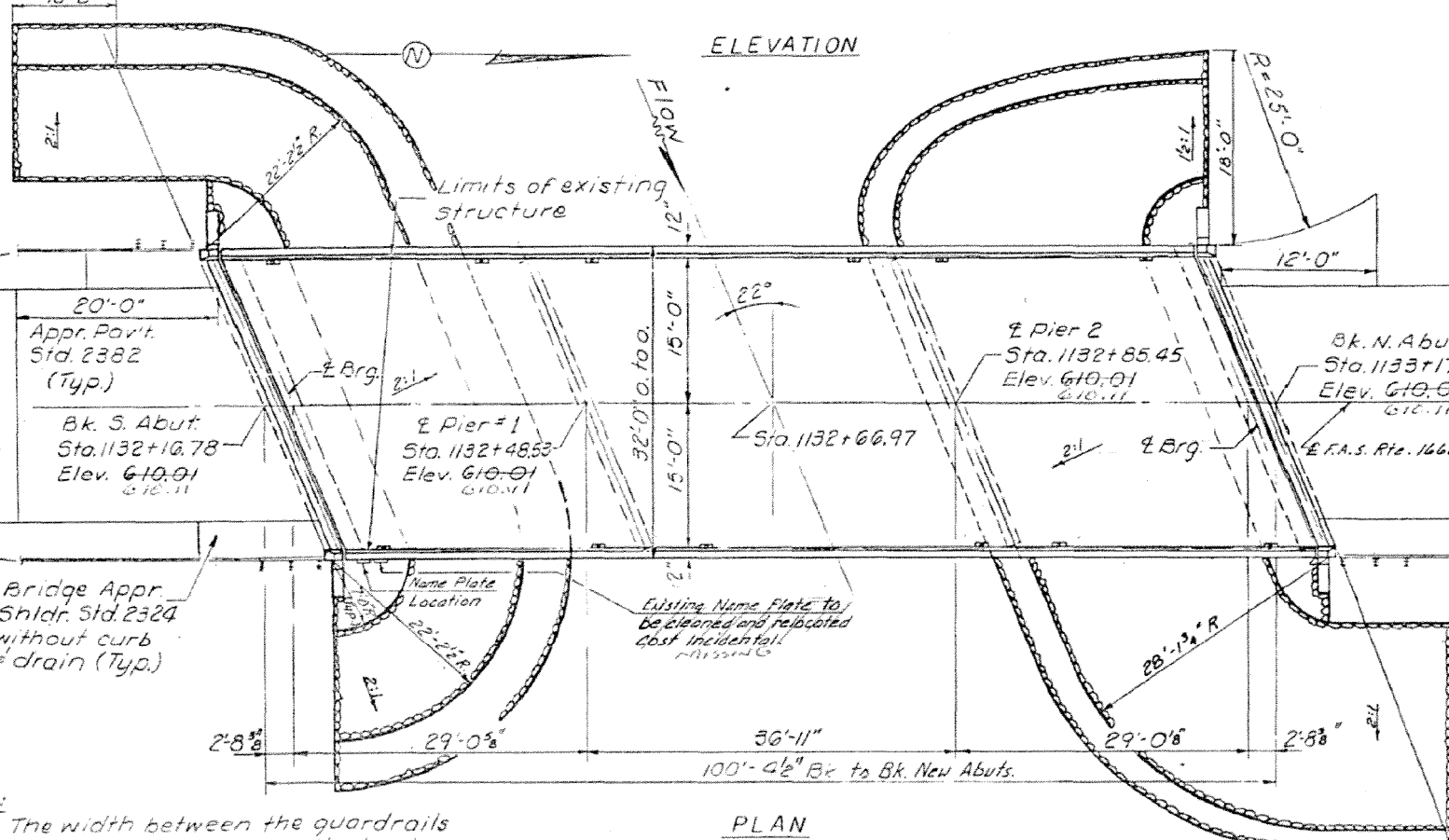
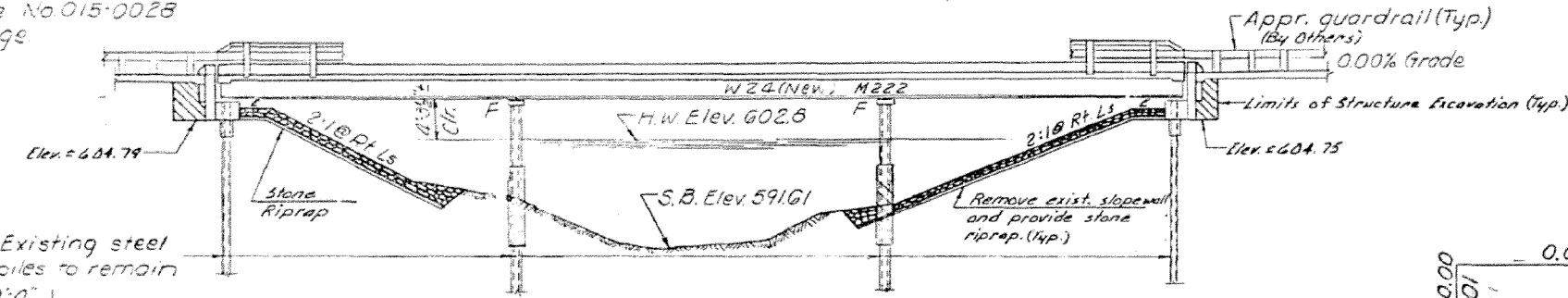
B.M. Chiseled square on NW wingwall of bridge Elev. 60983
 Existing structure built as F.A. RTE. 170 Sec. 10-B in 1937,
 concrete deck on steel I beams, Bk. to Bk. 97.13' long and
 24'-0" face of hubguard. Superstructure shall be
 removed, substructure to be reused. Road shall be closed,
 traffic will be detoured.
 Structure No. 015-0028
 No salvage.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1668	10BR	Coles	27	13
SHEET NO. 11 SHEETS				

GENERAL NOTES

All new structural steel shall be AASHTO M222.
 The Basic Lead Silico Chromate Paint System shall be used for shop and field painting of new structural steel except where otherwise noted.
 AASHTO M222 structural steel shall not be painted except for a distance of three times the depth of the beams or girders (But not exceeding 10 feet) each way from the deck joint. The AASHTO M222 structural steel to be painted shall be cleaned and given one coat of the Basic Lead Silico Chromate Primer and mason field coat. Both coats shall be applied in the shop with spot painting only in the field.
 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 will be permitted only when approved by the Engineer.
 Anchor bolts shall be set before bolting diaphragms over supports.
 Fasteners shall be high strength bolts (AASHTO M163, Type 3). Bolts 7/8" open holes 5/8", unless otherwise noted.
 Calculated weight of Structural Steel = 41,270.
 The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are all splice plate material and the wide flange beams.
 Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.
 Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 Layout of Stone Riprap may be varied in the field to suit ground conditions as directed by the Engineer.
 The existing bearing seat elevations shall be checked prior to ordering material for the bearings. If the elevations are more than 1/8" higher than those shown on the plans, the Bridge Engineer shall be notified so adjustments can be made to the bearings. If the elevations are more than 1/8" lower, the adjusting shims noted on sht. #9 shall be used.



STATION 1132+66.97
 INDIAN CREEK
 REBUILT 1980
 F.A. RTE. 1668 SEC. 10-BR
 F.A. PROJ. BR-S-1668(102)
 LOADING HS20
 STR. NO. 015-0028
 NAME PLATE
 (See Std. 2113)

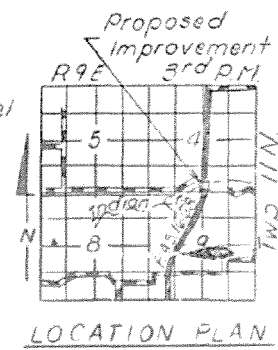
TOTAL BILL OF MATERIAL				
ITEM	UNIT	SUPER	SUB	TOTAL
Class X Concrete	Cu. Yds.	84.5	11.0	95.5
Removal of Exist. Superstructure	Each			1
Structure Excavation	Cu. Yds.		24	24
Protective Coat	Sq. Yds.	362		362
Stud Shear Connectors	Each		1740	1740
Structural Steel	L.S.	1		1
Reinforcement Bars	Lbs.	7860	2450	10,310
Reinforcement Bars (Epoxy Coated)	Lbs.	14,550		14,550
Neoprene Expansion Joint (2")	Lin. Ft.	68		68
Name Plates	Each	1		1
Stone Riprap	Sq. Yds.		648	648
Floor Drains	Each	12		12
Elastomeric Bearing Assembly, Type I	Each	10		10
Concrete Removal	Cu. Yds.		5.5	5.5
Steel Railing, Type T-1	Lin. Ft.	194		194
Slope Wall Removal	Sq. Yds.		282	282
Cleaning and Painting	L.S.		1	1

Note: The width between the guardrails shall be the same width as the bridge. Shoulder widening may be required for the length of the guardrail.

DESIGN STRESSES

$f_c = 3,500 \text{ p.s.i.}$
 $f_y = 60,000 \text{ p.s.i. (Reinf.)}$
 $f_y = 50,000 \text{ p.s.i. (Struct. Steel)}$
 AASHTO M222

Design Specifications: 1977
 AASHTO 1978, 1979, 1980, 1981
 Interim Specifications as applicable.
 Allow 25"/sq ft for future wearing surface.



WATERWAY INFORMATION

Drainage Area 0.65 Sq. Mi. Low Grade Elev. 60984 @ Sta.										
	Flood Yrs	Q CFS	Opening Sq. Ft.		Nat. HWE	Head-Ft		Headwater El		
			Exist	Prop		Exist	Prop	Exist	Prop	
Design	50	5012	412	412	6028	0.64	0.64	6034	6034	
Base	100	5923	482	482	6036	1.18	1.18	60478	60478	
Max Calc	300	6135	557	557	6045	1.91	1.91	6064	6064	

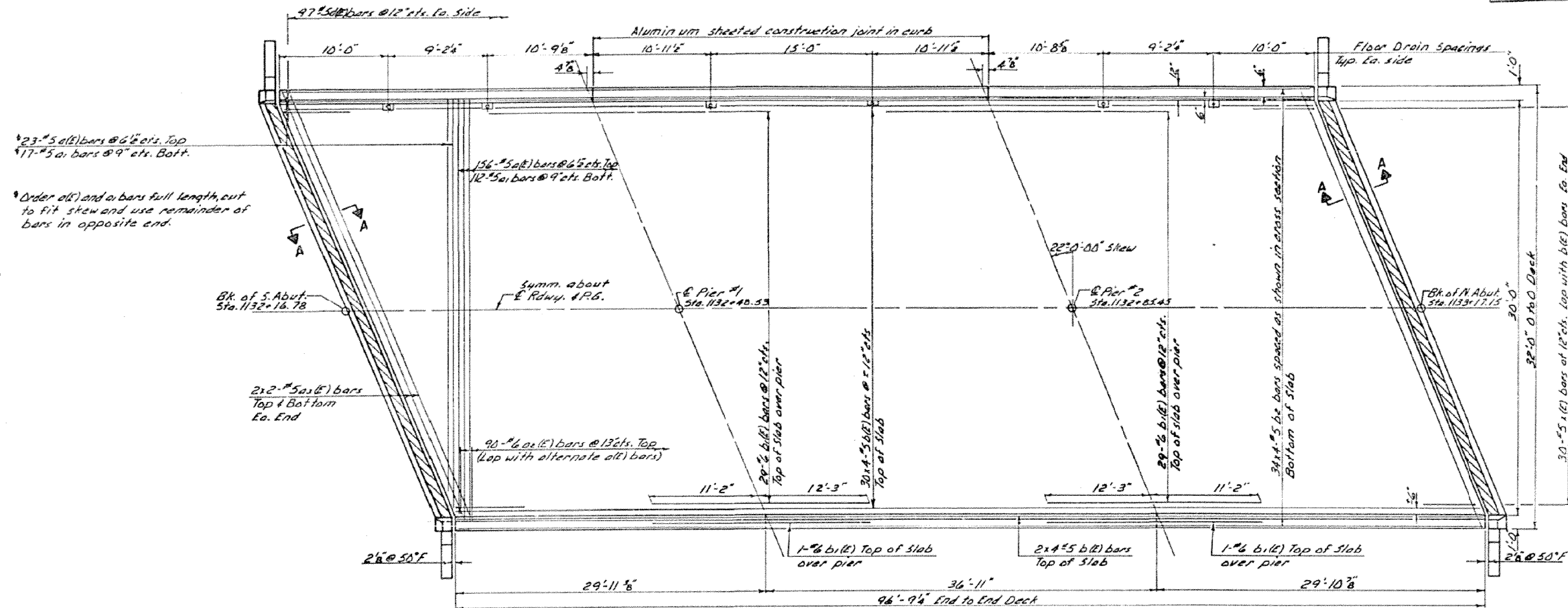
LOADING HS20-44

GENERAL PLAN
 F.A.S. RTE. 1668 OVER INDIAN CREEK
 F.A.S. RTE. 1668 SEC. 10-BR
 COLES COUNTY
 STA. 1132+66.97

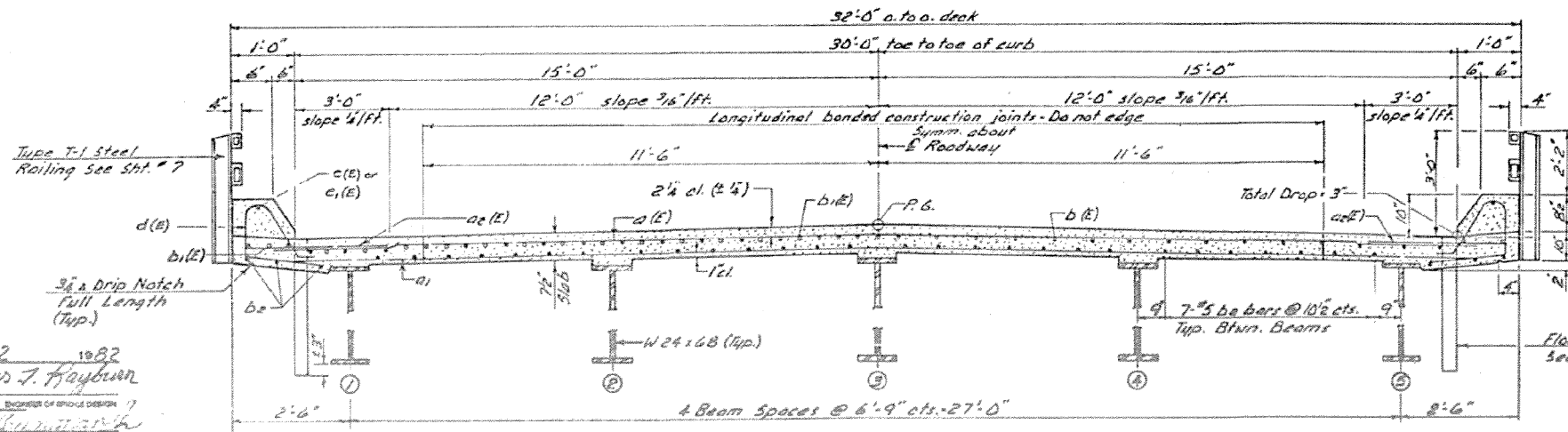
DESIGNED	October 22, 1982	DESIGNED	-
CHECKED	James V. Fryburn	REVISOR	-
DRAWN	Carl E. Thompson	CHECKED	-
CHECKED	TJD CPP	DATE	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10BR	10BR	Coles	27	16
SHEET NO. 4 11 SHEETS				



PLAN



CROSS SECTION
Looking North

NOTES:
See sheet #5 for superstructure details, Bill of Material and Section A-A.
Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.
Bars indicated thus 20x3 #5 etc. indicates 20 lines of bars with 3 length per line.
Hatched area to be poured after superstructure forms have been removed.

DESIGNED Chhagan P. Bhatt
CHECKED Thomas J. ...
DRAWN R. Sommer
CHECKED T.D. C.P.R.

October 22 1982
EXAMINED James T. Hayburn
PASSED ...
APPROVED ...

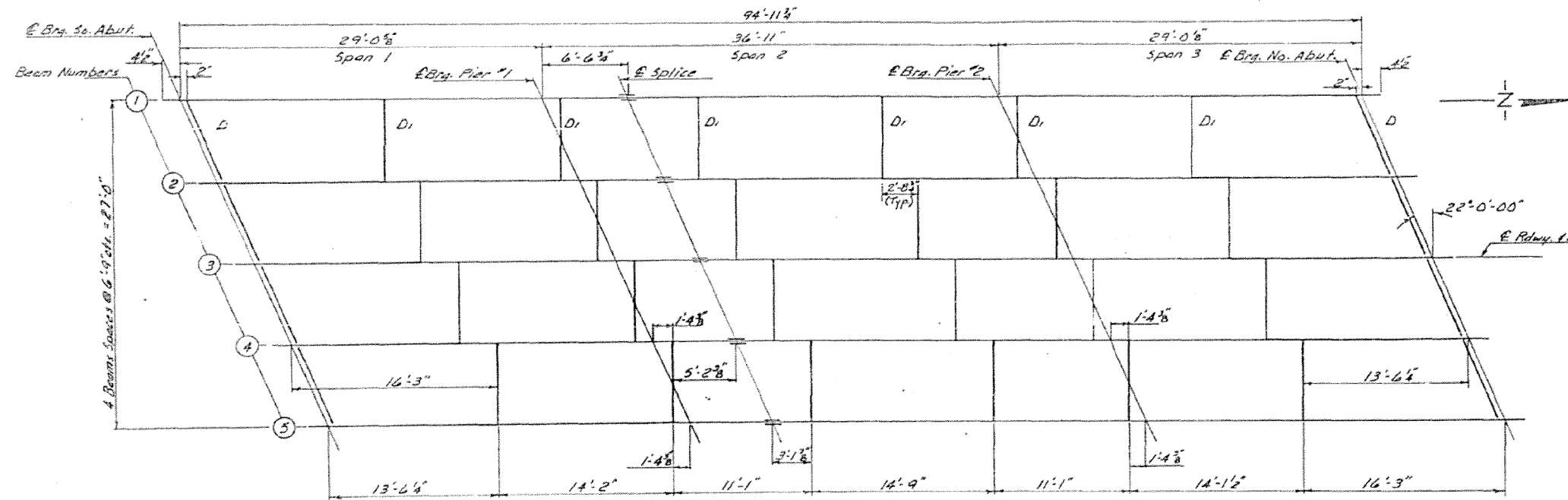
SUPERSTRUCTURE
F.A.S. RTE. 1668 SECTION 10-BR
COLES COUNTY
STA. 1132+66.97

FILE NAME =	USER NAME = steffennk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN STRUCTURE 015-0028	SCALE: N/A	SHEET 2 OF 3 SHEETS	STA.	TO STA.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\11084EBID\INTEG.11\inois.gov\PIWIDOT\Documents\DOT Offices\District 7\Projects\7475\DRAWN\CAB\sheet\0774765-sht-plan.dwg		CHECKED -	REVISED -									COLES	13	12
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -									CONTRACT NO. 74765		
	PLOT DATE = 8/4/2016	DATE -	REVISED -							ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
10BR	10BR	Coles	27	20

11 SHEETS



INTERIOR GIRDER MOMENT TABLE

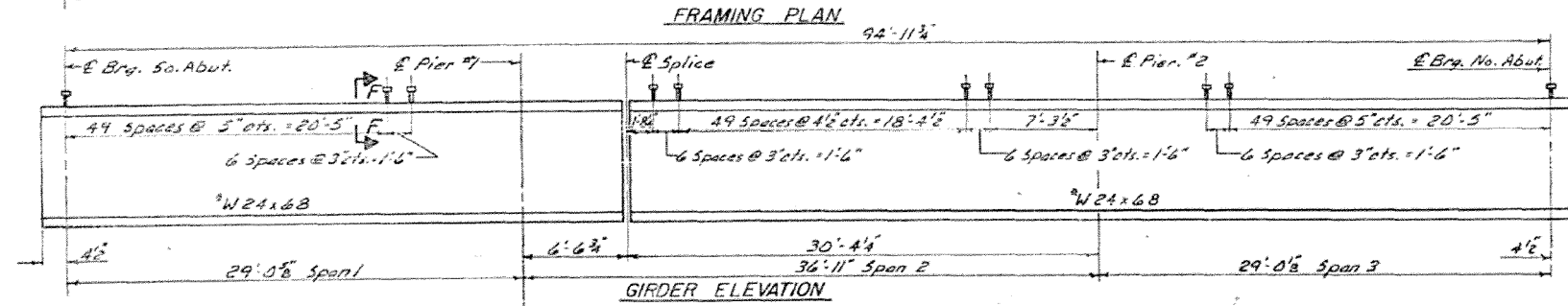
	4 Sp. #1	Piers #1/2	5 Sp. #2
I_s (in ⁴)	1830	1749.3	1830
I_c (in ⁴)	5922.8	—	5922.8
S_s (in ³)	154	143.2	154
S_c (in ³)	247.8	—	247.8
R (K)	725	725	725
M_D (K)	53.61	104.27	56.21
$F_{non-comp}$ (ksi)	4.18	8.74	4.38
S_D (K)	217	217	217
$M_s D$ (K)	18.60	24.86	23.22
M_i (K)	312.35	269.97	349.37
M_{imp} (K)	93.71	80.99	104.82
Total (K)	424.66	375.82	477.41
F_s comp (ksi)	20.56	31.49	23.12
F_s Total (ksi)	24.74	40.23	27.50
V_R (K)	41.58	—	34.54

*** I_s and S_s are the moment of inertia and section modulus of the steel section used in computing F_s total. I_c and S_c are the moment of inertia and section modulus of the composite section used in computing F_s total. V_R is the maximum \pm Impact shear range in span. The load factor (1.3) \oplus \pm Imp is used in computing moments and stresses.

TOP OF FLANGE ELEVATIONS

Beam #	E. Brq. N. S. Abut.	E. Brq. Piers #1 & #2	E. Splice
Beam #1	609.072	609.072	609.072
Beam #2	609.186	609.186	609.186
Beam #3	609.291	609.291	609.291
Beam #4	609.186	609.186	609.186
Beam #5	609.072	609.072	609.072

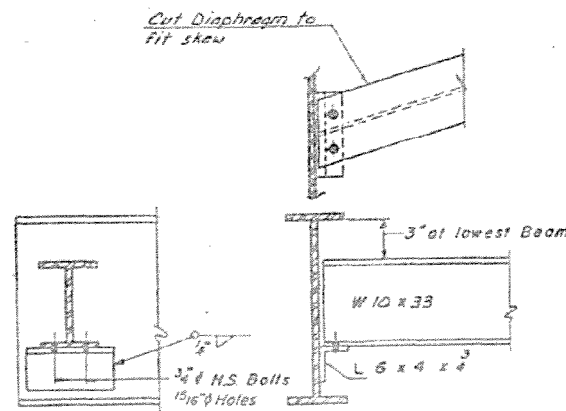
*** For fabrication only.



INTERIOR GIRDER REACTION TABLE

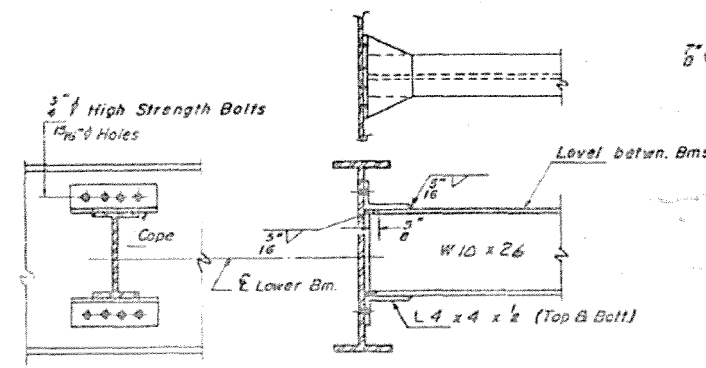
	Abut.	Pier
R_R (K)	7.76	26.68
R_S (K)	2.49	7.82
R_L (K)	28.89	37.92
R_{IMP} (K)	6.67	11.38
R Total (K)	47.81	83.8

** Values given in table are based upon service loads.

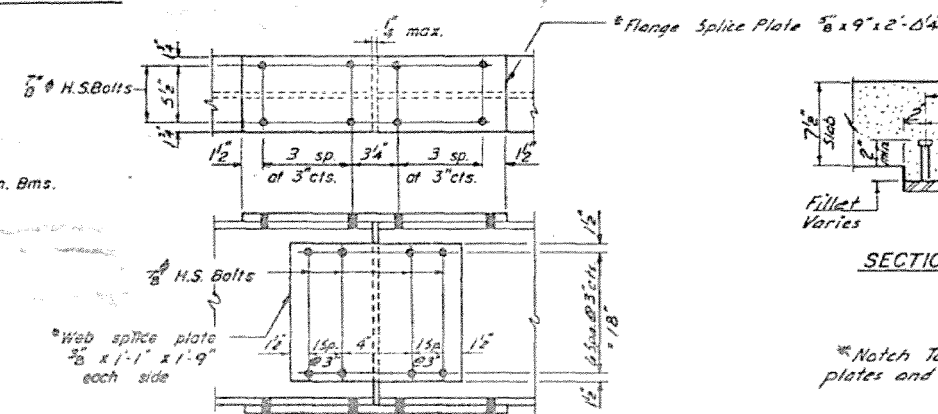


DIAPHRAGM D
8 Required

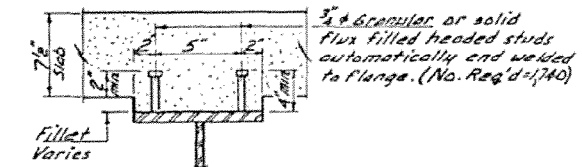
Note: Two hardened washers shall be required over all 1 1/2" holes. All contact surfaces of joints shall be free of paint or lacquer.



DIAPHRAGM D1
24 Required



SPlice



* Notch Toughness Requirements are required for these plates and shapes.

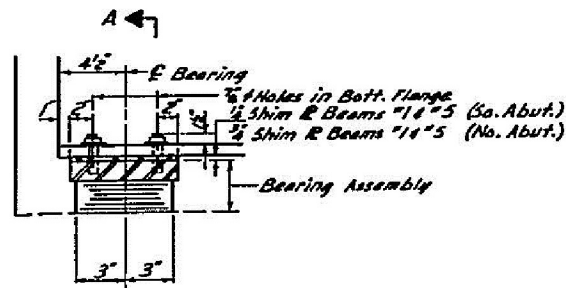
DESIGNED *Chhagan P. Btl*
CHECKED *Thomas J. Dangel*
DRAWN *R. Sommer*
CHECKED *T.J.D. C.P.P.*

EXAMINED *James F. Rayburn*
10/22/22
PASSED
APPROVED

STRUCTURAL STEEL
F.A.S. RTE. 1668 SECTION 10-BR
COLES COUNTY
STA. 1132+66.97

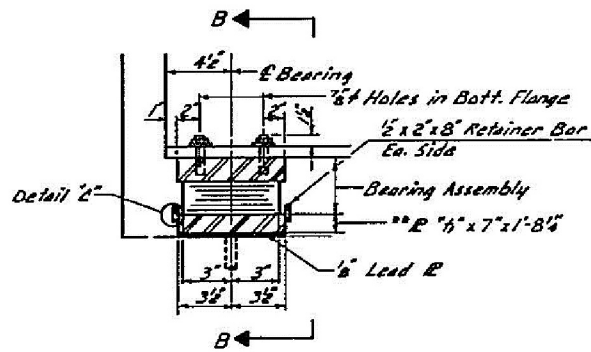
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9 //SHEETS
F.A.S. RTE. 1668	10BR	COLES	27	21	
FILE NAME	DATE	DESIGNED	CHECKED	DRAWN	APPROVED

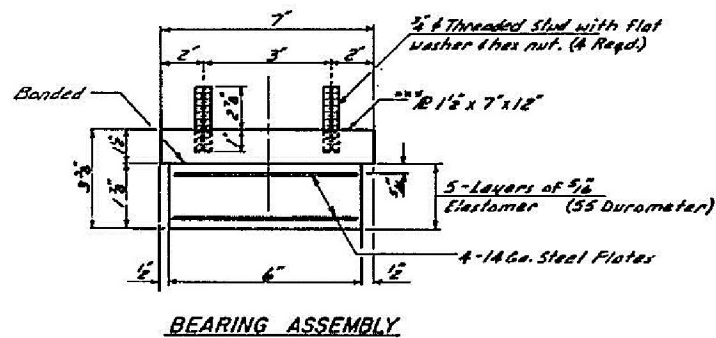


SECTION AT ABUTS.
(Beams 1 & 5)

Note: Shim plates shall not be placed under Bearing Assembly.

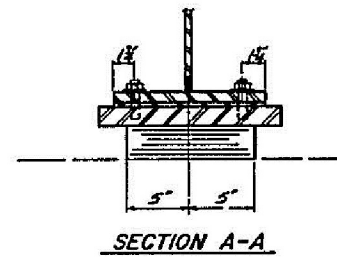


SECTION AT ABUTS.
(Beams 2, 3 & 4)

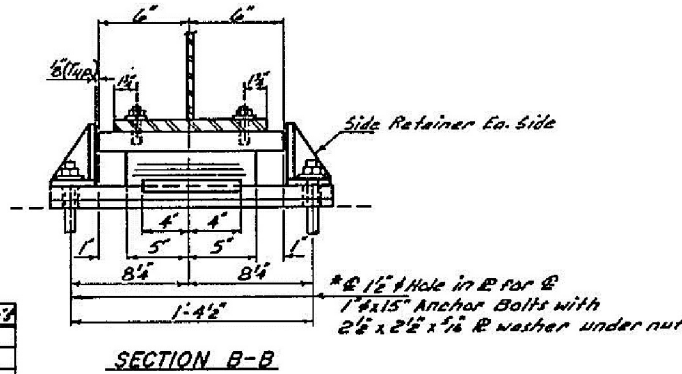


BEARING ASSEMBLY

TYPE I ELASTOMERIC EXP. BRG.



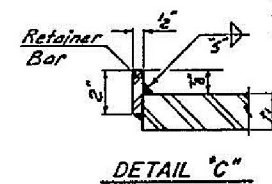
SECTION A-A



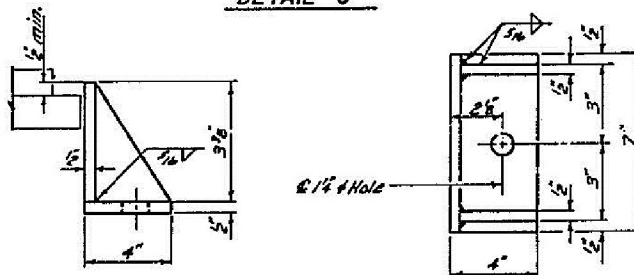
SECTION B-B

BEARING R. DATA

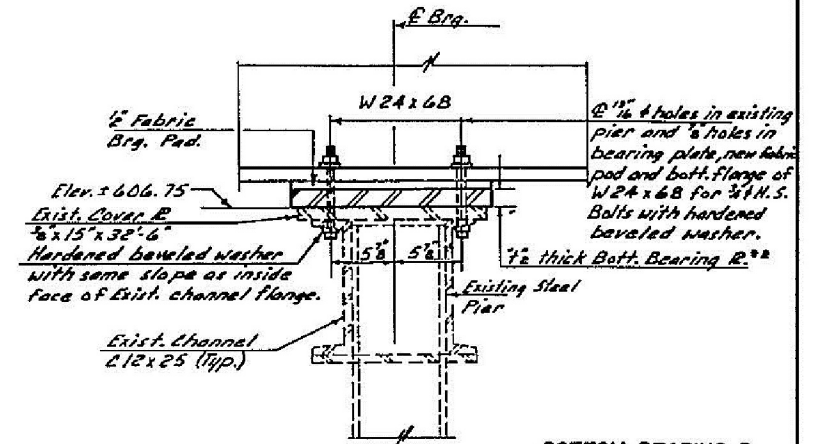
LOCATION	"H"	Weld Size's
Beams 2 & 4, So. Abut.	1 1/2"	3/8"
Beam 3, So. Abut.	2 1/2"	3/8"
Beams 2 & 4, No. Abut.	2"	3/8"
Beam 3, No. Abut.	3 1/2"	3/8"



DETAIL C



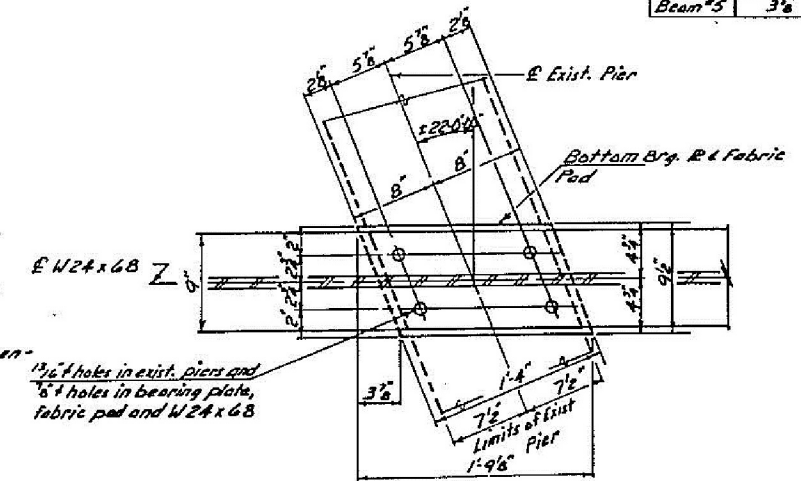
SIDE RETAINER
12 Required



SECTION AT PIERS

BOTTOM BEARING R. DATA AT PIERS

Location	"H"
Beam 1	3 1/2"
Beam 2	5"
Beam 3	6 1/2"
Beam 4	5"
Beam 5	3 1/2"



BOTTOM BEARING R. PLAN

- Note: After beams have been erected, holes at expansion bearing shall be drilled and anchor bolts grouted in place.
- Note: Provide two (2) 1/8" adjusting shims of the dimensions of the bottom bearing plate for each bearing at both piers and for beams 2, 3 & 4 at both abutments.
- Note: Provide two (2) 1/8" adjusting shims of the dimensions of the top plate for beams 1 & 5 at both abutments.

1 1/2" holes in exist. piers and 1/2" holes in bearing plate, fabric pad and W24x68

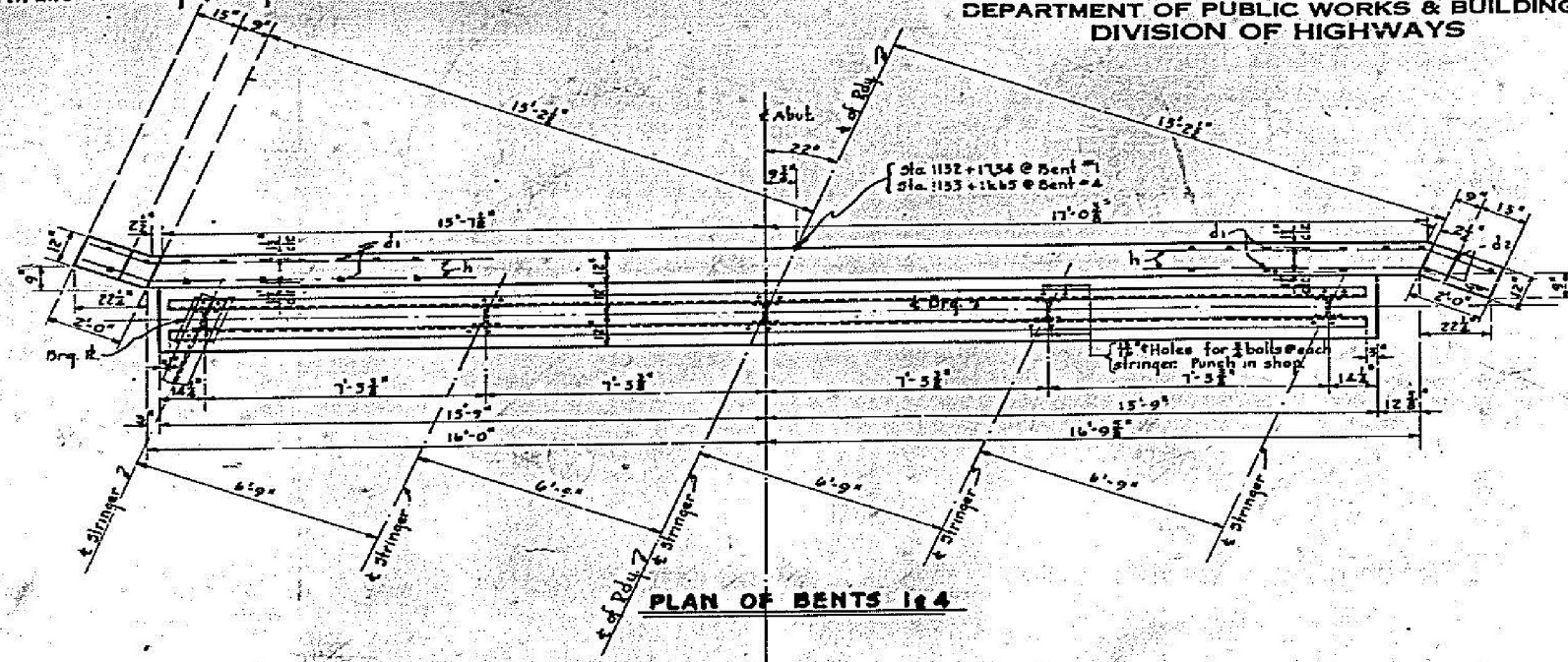
Note: The Structural Steel Bearing Plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO N222.

BILL OF MATERIAL

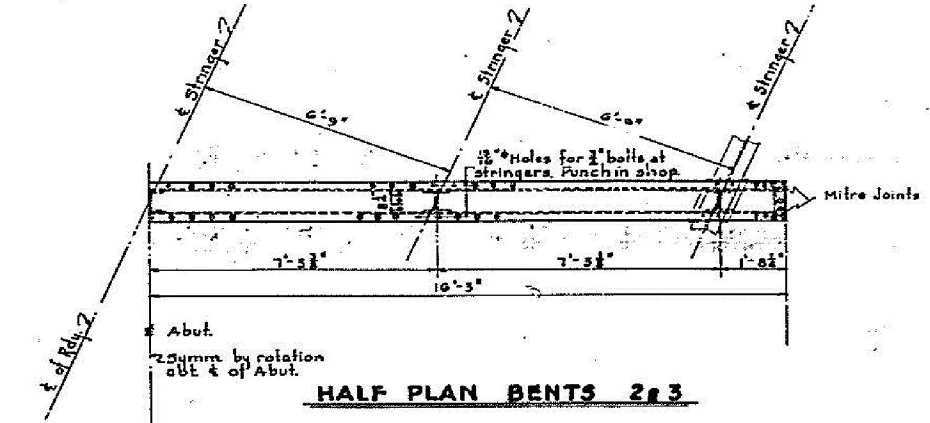
ITEM	UNIT	QUANTITY
Elastomeric Bearing Ass'y, Type I	EA.	10

BEARING DETAILS
F.A.S. RTE. 1668 SECTION 10-BR
COLES COUNTY
STA. 1132+66.97

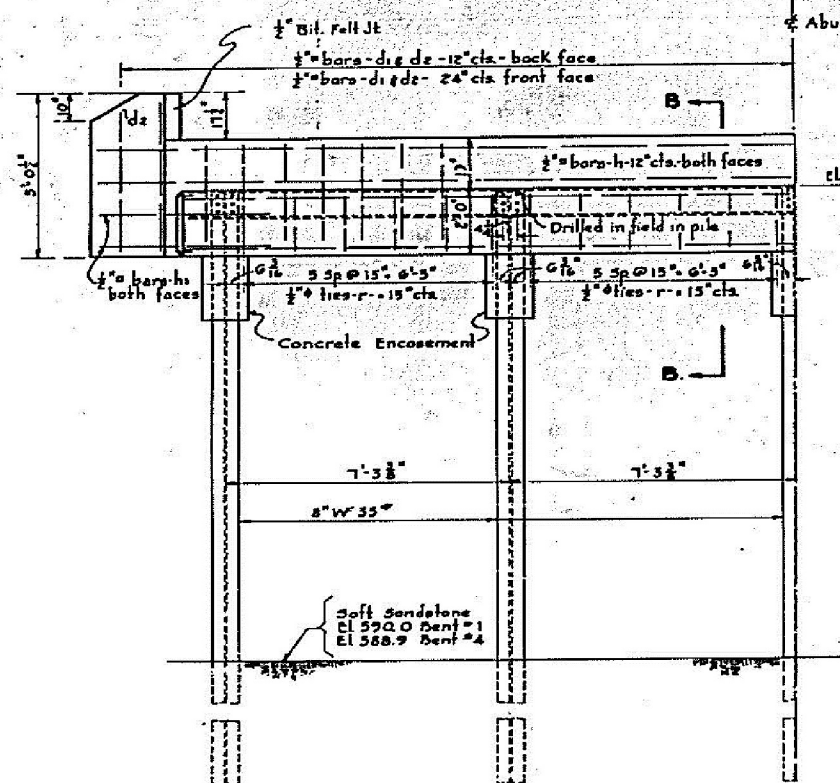
DESIGNED Chhagan P. Patil
CHECKED Thomas J. Sammer
DRAWN R. Sammer
CHECKED T.J.D. C.P.P.
October 22, 1982
EXAMINED James J. Haysburn
PASSED
APPROVED



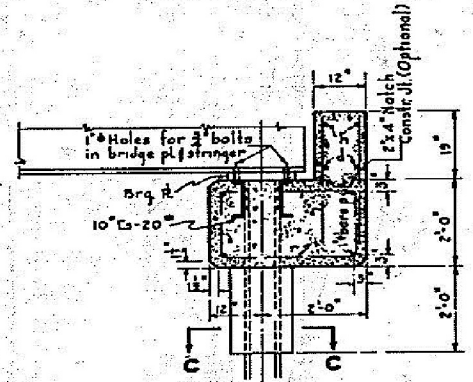
PLAN OF BENTS 1 & 4



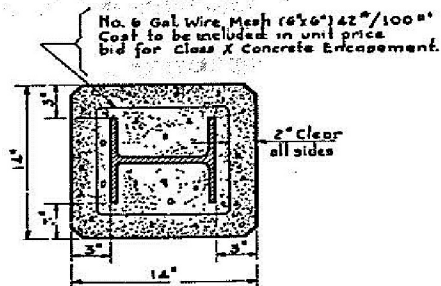
HALF PLAN BENTS 2 & 3



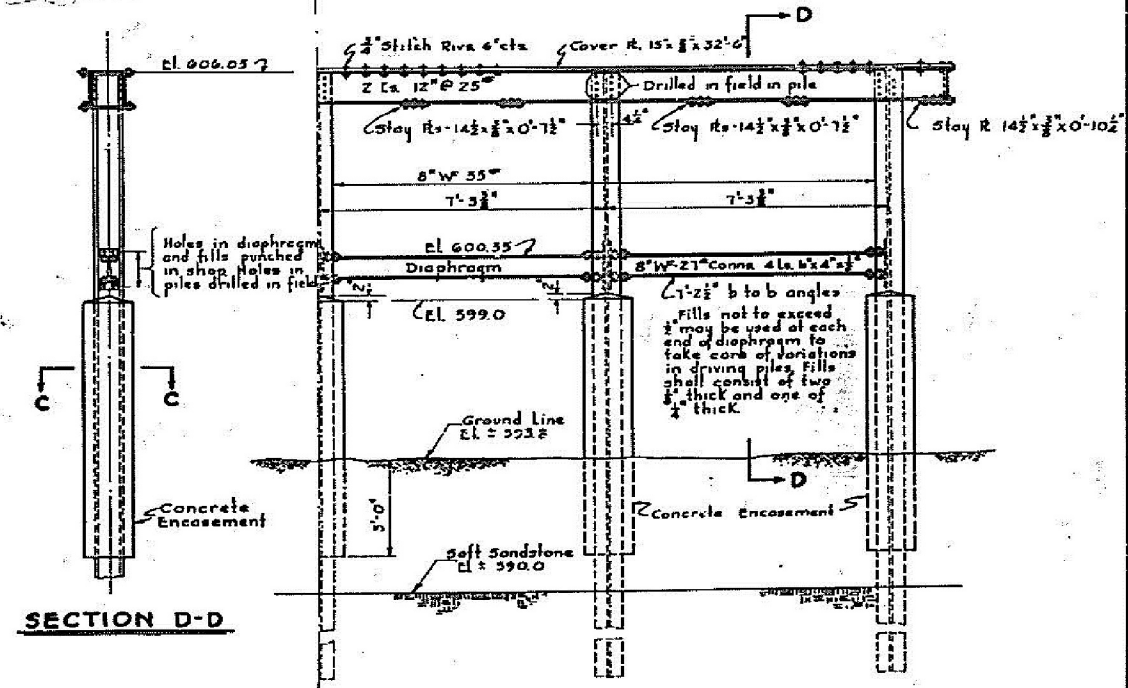
HALF ELEVATION OF BENTS 1 & 4



SECTION B-B



SECTION C-C



SECTION D-D

HALF ELEVATION OF BENTS 2 & 3

NOTES
Class X concrete shall be used throughout.
All steel piles shall be ordered 22'-0" long, unless otherwise directed by the engineer.
Steel piles shall be driven to a penetration satisfactory to the Engineer.
Piles shall, if feasible, be driven so tops of piles are at the finished elevation, otherwise the tops of piles at the cut off shall be made as smooth as practicable.
Payment for driving steel piles shall be by force account and will be made in accordance with Art. 24 of the Standard Specifications. See Special Provisions.
Piles shall receive two shop coats for full length of pile.

BILL OF MATERIAL

Bar	No.	Size	Length
d1	98	3/4" ø	3'-0"
d2	14	3/4" ø	4'-0"
h	16	3/4" ø	19'-0"
h:	16	3/4" ø	3'-0"
p	8	1" ø	31'-0"
r	48	3/4" ø	7'-3"
Class X Concrete Encasement Cu. Yds. 3.0			
Class X Concrete Cu. Yds. 15.2			
Reinforcing Steel Lbs. 1530			
Furnishing Steel Piles Lbs. 24970			

BENTS
S.A. RTG SEC. 10-B
COLES COUNTY
STA. 1132+61

STANDARD	COMPUTED	M.P. SUPERAN	EXAMINER	3-3-1937
	CHECKED	J. H. Alexander		
	DRAWN	M.P.S. - J.F. O'Brien		
	CHECKED	J.H.A.		
SPECIAL	ASSEMBLED			
	CHECKED			