

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

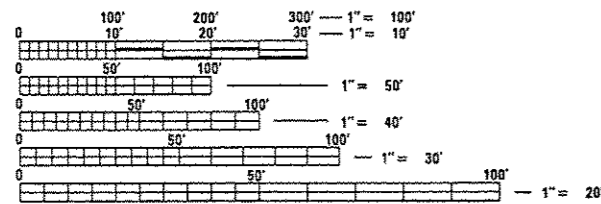
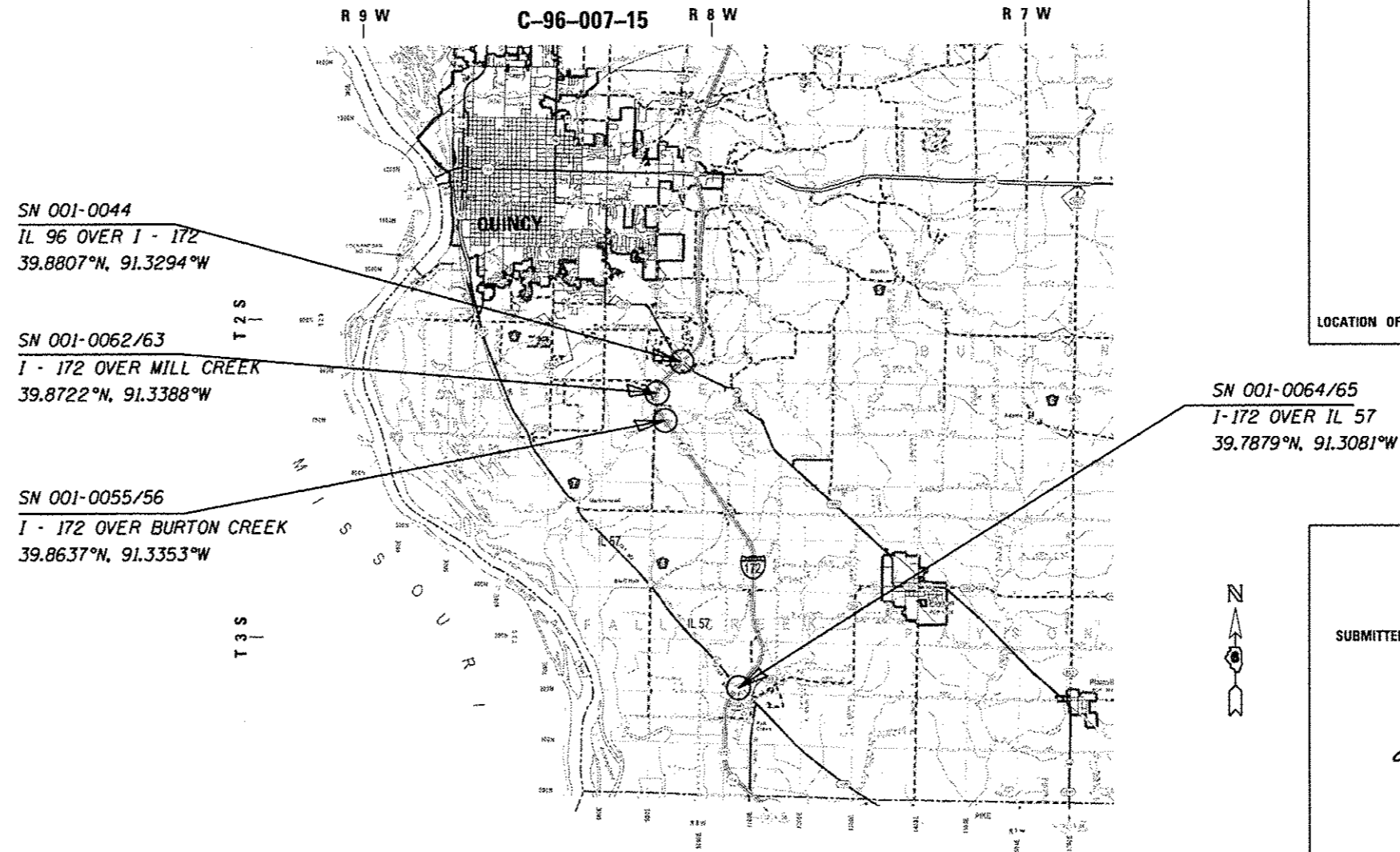
F.A.I. ROUTE 172 (I - 172)
SECTION D6 BDGE PAINTING 2015

FOR INDEX OF SHEETS, SEE SHEET NO. 2

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
172	D6 BDGE PAINTING 2015	ADAMS	30	1
		ILLINOIS	CONTRACT NO. 72H36	



ADAMS COUNTY



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 BRANDON DUDLEY (217) 785-9290
PROJECT MANAGER DAVE COPENBARGER (217) 785-5306

CONTRACT NO. 72H36

GROSS LENGTH = x.xx FT. = x.xxx MILE
NET LENGTH = x.xx FT. = x.xxx MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 21, 2014
Roger Z. Dudley
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 17, 2014
John D. Baranzoni, PE, Jr.
acting ENGINEER OF DESIGN AND ENVIRONMENT

Oct 17, 2014
Omer Camom, PE, Jr.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS:

- 1 COVER SHEET
- 2 INDEX, HIGHWAY STANDARDS, & GENERAL NOTES
- 3-4 SUMMARY OF QUANTITIES
- 5-8 EXISTING PLANS, SN 001-0044
- 9-13 EXISTING PLANS, SN 001-0055/56
- 14-22 EXISTING PLANS, SN 001-0062/63
- 23-30 EXISTING PLANS, SN 001-0064/65

STANDARDS

- 701001-02
- 701006-05
- 701101-04
- 701106-02
- 701400-07
- 701401-08
- 701411-08
- 701422-06
- 701901-03

GENERAL NOTES:

STRUCTURE NO 1 - SN 001-0044, IL 96 OVER I-172 AT THE INTERSECTION OF I-172 AND IL 96 ADAMS CO. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL EXISTING STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10. ALL STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN, MUNSELL NO 7.5G 4/8. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES AND SHALL BE GRAY, MUNSELL NO 5B 7/1.

STRUCTURE NO 2/3 - SN 001-0055/56, I-172 NB/SB OVER BURTON CREEK 1.4M SOUTH OF I-172/IL 96 IN ADAMS CO. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL EXISTING STEEL LOCATED 10' FROM ALL EXPANSION JOINTS AND ALL EXTERIOR SURFACES OF BOTH FASCIA BEAMS INCLUDING THE BOTTOM FLANGE OF THE FASCIA BEAM SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10. ALL EXISTING STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN, MUNSELL NO 7.5G 4/8. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1.

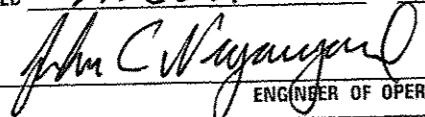


STRUCTURE NO 4/5 - SN 001-0062/63, I-172 SB/NB OVER MILL CREEK 0.8M SOUTH OF I-172/IL 96 IN ADAMS CO. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL EXISTING STEEL LOCATED 10' FROM ALL EXPANSION JOINTS AND ALL EXTERIOR SURFACES OF BOTH FASCIA BEAMS INCLUDING THE BOTTOM FLANGE OF THE FASCIA BEAM SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10. ALL EXISTING STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN, MUNSELL NO 7.5G 4/8. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1.

STRUCTURE NO 6/7 - SN 001-0064/65, I-172 SB/NB OVER IL 57 AT THE INTERSECTION OF I-172 AND IL 57 ADAMS CO. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL EXISTING STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10. ALL STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR THE OUTSIDE AND BOTTOM OF THE FASCIA BEAMS SHALL BE GREEN, MUNSELL NO 7.5G 4/8. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES AND SHALL BE GRAY, MUNSELL NO 5B 7/1.

THE USE OF AIR MONITORS WILL BE REQUIRED AT ALL STRUCTURES. A MINIMUM OF 2 MONITORS WILL BE REQUIRED AT EACH BRIDGE TO MONITOR ABRASIVE BLASTING OPERATIONS AT THIS SITE, SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE SSPC-QP-1 AND SSPC-QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED FOR THESE BRIDGES.

THE CONTAINMENT SYSTEM AT STRUCTURES 001-0064 & 001-0065 SHALL INCLUDE A SUSPENDED SOLID FLOORING SYSTEM OVER DRIVING LANES OF IL 57. THE FLOORING SYSTEM SHALL BE SUFFICIENT TO PROTECT TRAFFIC ON IL 57 FROM ANY AND ALL FALLING DEBRIS. A MINIMUM HEIGHT OF 16' BELOW THE BOTTOM OF THE CONTAINMENT SHALL BE MAINTAINED OVER DRIVING LANES OF IL 57. TRAFFIC ON IL 57 IS TO REMAIN OPEN DURING WORK OPERATIONS, HOWEVER THE CONTRACTOR WILL BE ALLOWED SHORT TERM LANE CLOSURES OF IL 57 ACCORDING TO STANDARD 701301 DURING SETUP AND TEARDOWN OPERATIONS. SUPPLYING, ERECTING, MAINTAINING, AND REMOVING THE FLOORING SYSTEM SHALL BE CONSIDERED INCIDENTAL TO "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NUMBERS 6 & 7" AND SHALL NOT BE MEASURED FOR PAYMENT.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6	
EXAMINED	AUGUST 14 th 20 14  ENGINEER OF OPERATIONS
EXAMINED	August 6 20 14  ENGINEER OF PROJECT IMPLEMENTATION
EXAMINED	August 6 20 14  ENGINEER OF PROGRAM DEVELOPMENT

FILE NAME *	USER NAME * kadjrmo	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX, STANDARDS, GENERAL NOTES, & SIGNATURES	SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	F.A.T RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
o:\operations\bridgeplans.ead\72h36	72 bridge paint 2015\plonahet.dgn	DRAWN -	REVISED -			172	D6 BDGE PAINTING 2015	ADAMS	30	2					ILLINOIS	FED. AID PROJECT	
Default	PLOT SCALE * 1/8"=1'-0"	CHECKED -	REVISED -														
	PLOT DATE * Aug-19-2014 02:27:15PM	DATE -	REVISED -														

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				100% STATE
				BRIDGE
				0014
				S.N.
67100100	MOBILIZATION	L SUM	1	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	4	4
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	4	4
70800105	TEMPORARY WATER FILLED BARRIER	FOOT	600	600
X7010410	SPEED DISPLAY TRAILER	CAL MO	4	4
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1	1
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1	1
Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1	1
Z0007105	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 5	L SUM	1	1
Z0007106	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 6	L SUM	1	1
Z0007107	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 7	L SUM	1	1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1

14

FILE NAME *	USER NAME * kadimo	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\operations\bridgeplans_eed\72h36 - 1	72 bridge paint 2015\plansheet.dgn	DRAWN -	REVISED -		172	D6 BOGE PAINTING 2015	ADAMS	30	3					
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____					CONTRACT NO. 72H36				
	PLOT DATE = Aug-19-2014 04:02:31PM	DATE -	REVISED -		ILLINOIS FED. AID PROJECT									

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				BRIDGE 0014 S.N.
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	1
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1	1
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1	1
Z0010505	CLEANING AND PAINTING STEEL BRIDGE NO. 5	L SUM	1	1
Z0010506	CLEANING AND PAINTING STEEL BRIDGE NO. 6	L SUM	1	1
φ Z0070604	TRAINEES TRAINING PROGRAM GRADUATE	Hour	500	500
Z0010507	CLEANING AND PAINTING STEEL BRIDGE NO. 7	L SUM	1	1

φ

φ 0042

WATER FILLED BARRIER SCHEDULE		
SN	LOCATION	BARRIER QUANTITY
001-0044	I-172 NB	300'
001-0044	I-172 SB	300'

GENERAL NOTES

ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8" Ø, OPEN HOLS 1 1/16" Ø, UNLESS OTHERWISE NOTED.

CALCULATED HEIGHT OF STRUCTURAL STEEL = 19.22' 10.50"
M 18.5 391.54"
FIELD PAINTING OF STRUCTURAL STEEL.

THE BASIC LEAD SELLING CHARGE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

FIELD WEARINGS 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-TWO (1/2) THE SPAN LENGTHS FROM THE PILE SUPPORTS.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.

GRADE SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, REINFORCING BAR PER 100 SQ. FT.

THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A REPRESENTATIVE LOCATION AT EACH ABUTMENT AND PIER AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.

CONCRETE PILES AT ABUTMENTS SHALL BE DRIVEN BY HOLES PRECURED THROUGH THE EMBANKMENT IN ACCORDANCE WITH ARTICLE 513.09(C) OF THE STANDARD SPECIFICATIONS.

THE CONCRETE WALL SECTION ABOVE THE EMBANKMENT CONSTRUCTION JOINT AT THE ABUTMENT SHALL BE CONSTRUCTED IN TWO SECTIONS. THE FIRST SECTION SHALL BE CONCRETE SHALL COMPLY TO THE REQUIREMENTS OF REINFORCED CONCRETE. PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

BEARING SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATION WITHIN A TOLERANCE OF ± 1/8" HIGH. ADJUSTMENT SHALL BE MADE EITHER BY GRADING THE SURFACE OR BY SHIMMING THE BEARING. THE 1/2" PROTECTIVE SHIMS OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS. THE EMBANKMENT CONSTRUCTION JOINT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

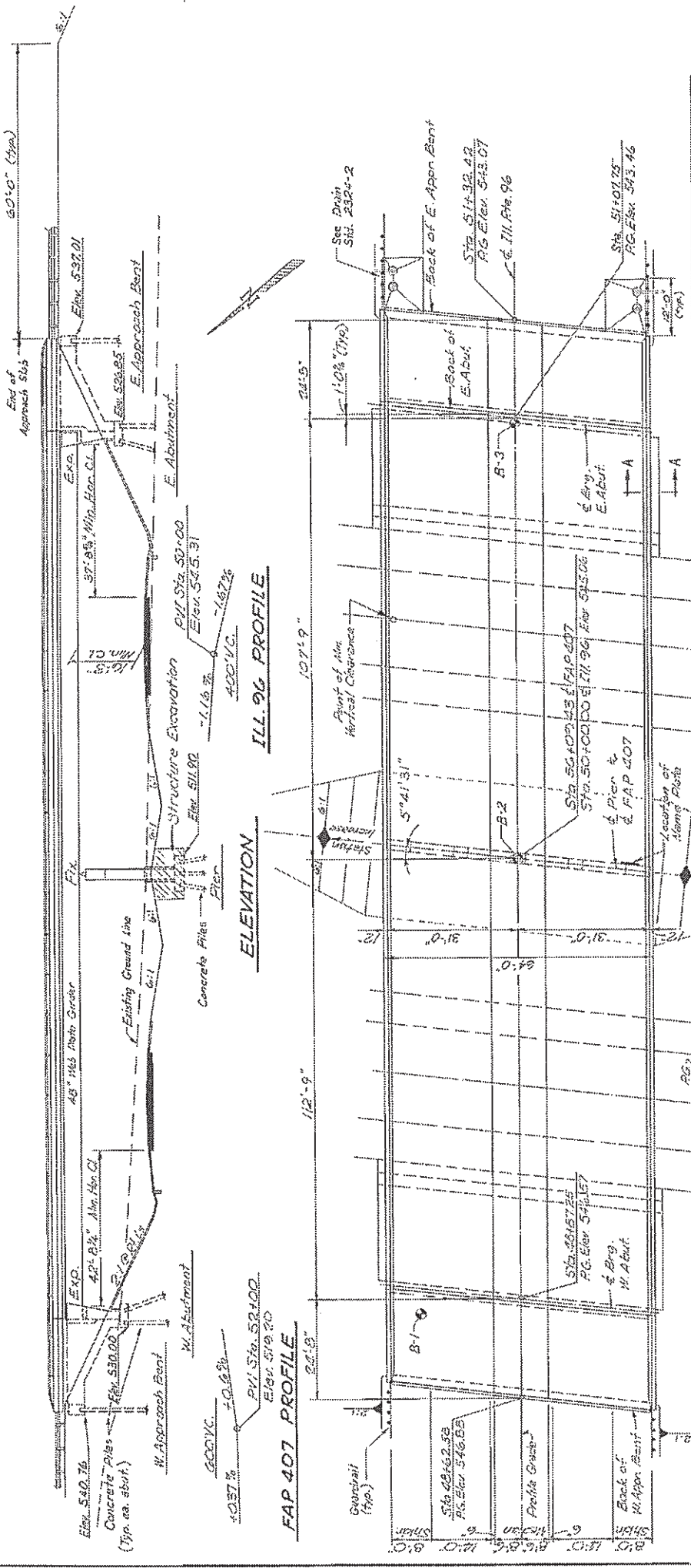
TOTAL BILL OF MATERIALS

Item	Unit	Super	Sub	Total
Structure Excavation	Cu Yds.	370		370
Class X Concrete	Cu Yds.	484.2		1099.4
Structural Steel	Lump Sum			1
Reinforcement Bars	Lbs.	137,911	50,894	188,805
Concrete Piles	Lin. Ft.	2940		2940
Test Piles, Concrete	Lin. Ft.			3
Slope Wall, 4' High	Sq. Yds.	520		520
Bit Conc. Surf. Course	Tons	85		85
Waterproofing Membrane System	Sq. Yds.	1315		1315
Aluminum Roofing	Lin. Ft.	533.6		533.6
Preformed Joint Sealer	Lin. Ft.	129		129
Steel Sinker Connectors, 3/4"	Lbs.	3,834		3,834
Protective Coat	Sq. Yds.	730		730
Sand Backfill	Cu Yds.	455		455
Name Plate	Ea.		1	1

GENERAL PLAN & ELEVATION
ILL. RTE. 96 OVER F.A.P. RTE. 407
F.A.P. RTE. 407 - SEC. 1-5 HB
ADAMS COUNTY
STATION 56+09.43
PROJ. EBRF-407-1(5)

PLANS PREPARED BY AMERICAN ENGINEERS CO.

DEPARTMENT OF TRANSPORTATION



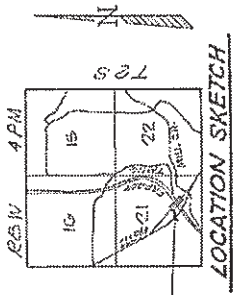
STATION 56+09.43
BUILT 197 BY
STATE OF ILLINOIS
F.A.P. RTE. 407 SEC. 1-5HB
F.A. PROJ. EBRF-407-1(5)
LOADING HS20

NAME PLATE
See Std. 2113

DESIGN STRESSES

$f_c = 1200$ psi Deck Slab (Main Spans)
 $f_c = 1400$ psi Curb, Parapet, Deck Slab (Approach Spans) & Substructure
 $f_s = 75$ psi (Figs.)
 $f_s = 10$
 $f_s = 20,000$ psi Reinf.
 $f_s = 20,000$ psi Street (M182) ; 27,000 psi (M222) Street
Allowable & Deflection = 1/440
Design Specifications 1973 ASHRAE (as applicable)
Add 25% per sq. ft. for future wearing surface.

LOADING-HS20-44

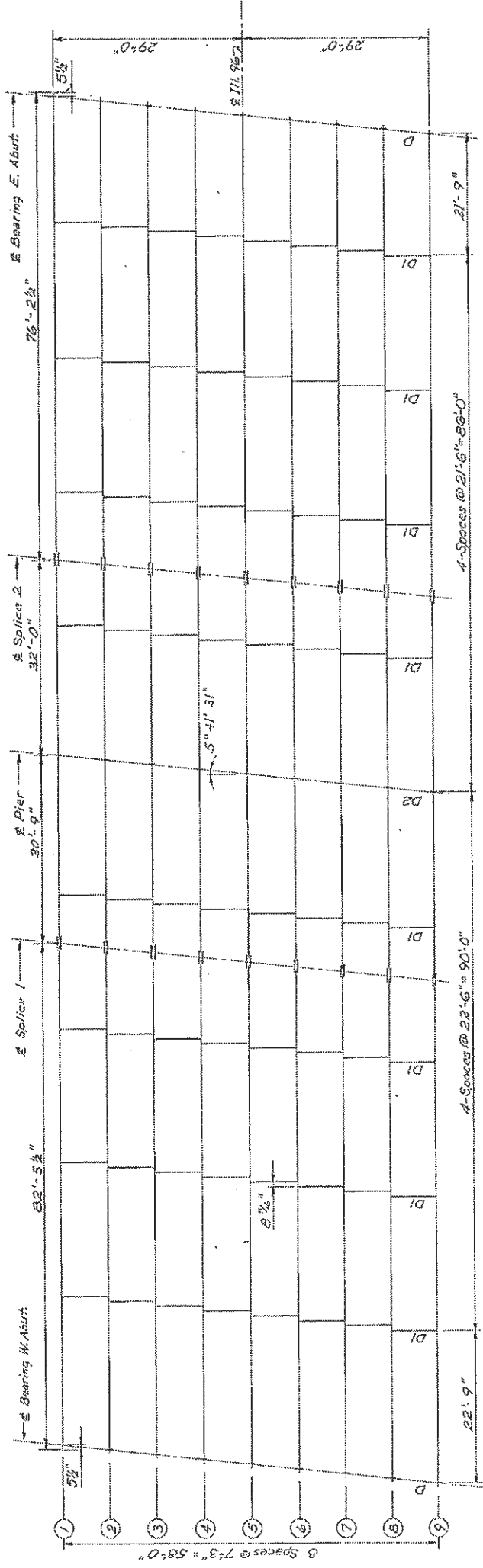


SECTION A-A

DESIGNED	CDC
CHECKED	HMH
DRAWN	CDC
CHECKED	HMH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 7	
11 SHEETS	
DATE	12.1
DESIGNED BY	ADAMS
DRAWN BY	59
CHECKED BY	
IN CHARGE	

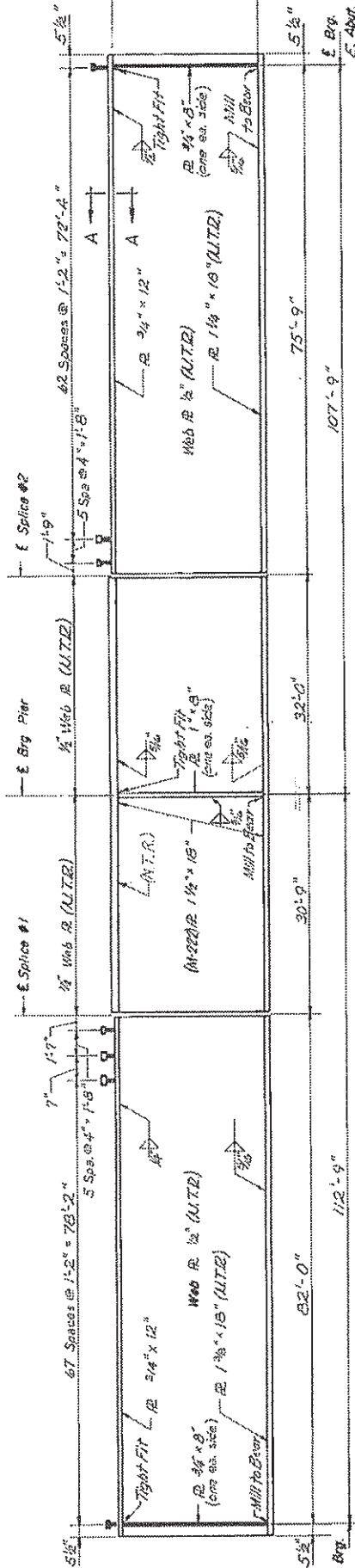


FRAMING PLAN

Note: The main load carrying member components subject to the supplemental requirements for match toughness are the flanges as designated in the elevation view along with the webs and all splice plates of the steel girders.

NOTE: 1/4" holes in bent plates and angles for diaphragms using 3/8" bolts. Hardened washers shall be required over 1/4" holes.

NOTE: 1/4" holes in bent plates and angles for diaphragms using 3/8" bolts. Hardened washers shall be required over 1/4" holes.



GIRDER ELEVATION

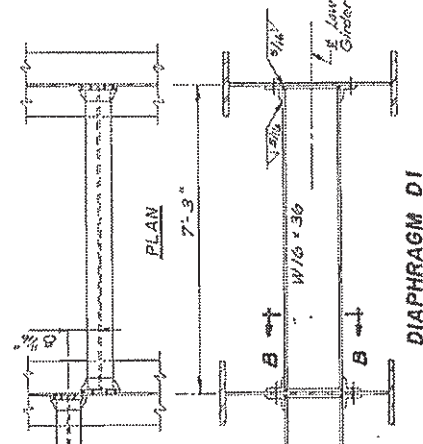
1/4" granular or sand flux filled headed studs automatically end welded to flange. (No Req. = 420) (Cont.)



SECTION A-A

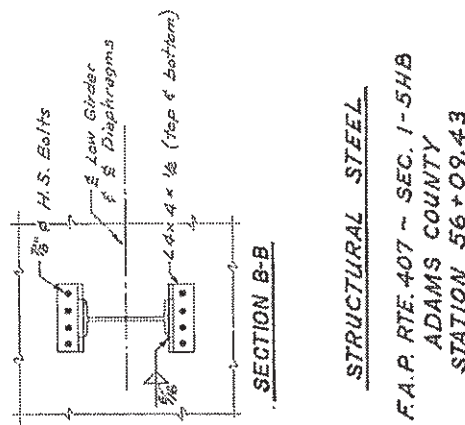
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DRAWN BY	MM
CHECKED BY	MM

6-1 7-1-72



DIAPHRAGM D1

DIAPHRAGM D2

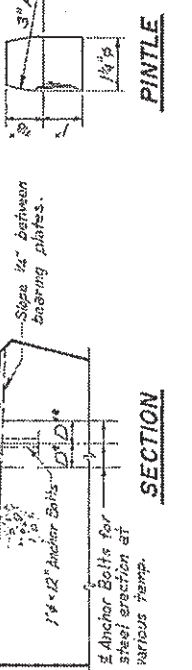
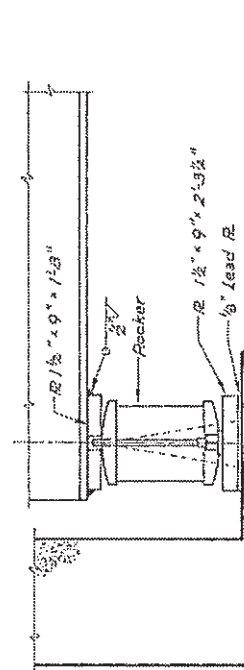
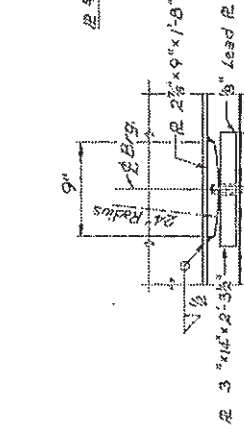
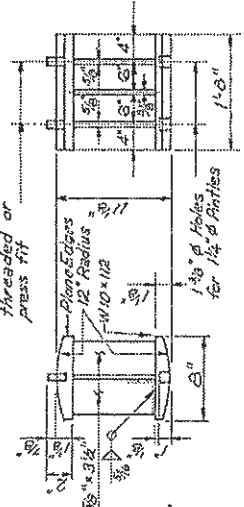


SECTION B-B

STRUCTURAL STEEL
F.A.P. RTE. 407 - SEC. 1-5HB
ADAMS COUNTY
STATION 56+09.43

Rev. 8-4-75

FILE NAME	USER NAME	DESIGNED	REVISION	STATE OF ILLINOIS	SECTION	TOTAL SHEETS
Operations\brdg\ppl\ad\7238 - 1-72 bridge.ppt\2815\plan\sheet.dgn	Kadimo	-	-	DEPARTMENT OF TRANSPORTATION	D6 BOGE PAINTING 2015	NO.
PLOT SCALE = 1/8" = 1'-0"		CHECKED	REVISION	EXISTING SN: 001-0044	ADAMS	30
PLOT DATE = Aug/19/2014 11:23:49AM		REVISION	REVISION	FOR INFORMATION ONLY	CONTRACT NO.	6
		DATE	REVISION	SCALE:	ILLINOIS FED. AID PROJECT	72H36



MOMENT & SHEAR TABLE

	0.4 Span 1	Pier	0.6 Span 2
I ₃ (in ⁴)	2238.9	37697	21584
S ₃ (in ³)	120.4	1978	1123
D ₁ (in)	0.927	0.999	0.922
M _{DL} (ft-k)	755	1631	628
A _{DL} (sq. ft)	7.52	13.64	6.71
I _c (in ⁴)	44,600	—	40,655
S _c (in ³)	1935	—	1890
M _{sc} (ft-k)	327.3	440	284
A _{sc} (sq. ft)	2.83	3.57	2.22
I _e (in ⁴)	64,890	—	57,714
S _e (in ³)	1683	—	1513
M _e (ft-k)	974	767	915
A _e (sq. ft)	205	164	197
M _{total} (ft-k)	1179	926	1112
A _{total} (sq. ft)	8.41	7.51	8.82
I _{total} (in ⁴)	162.3	24.7	17.5
VR	55.3	—	56.9

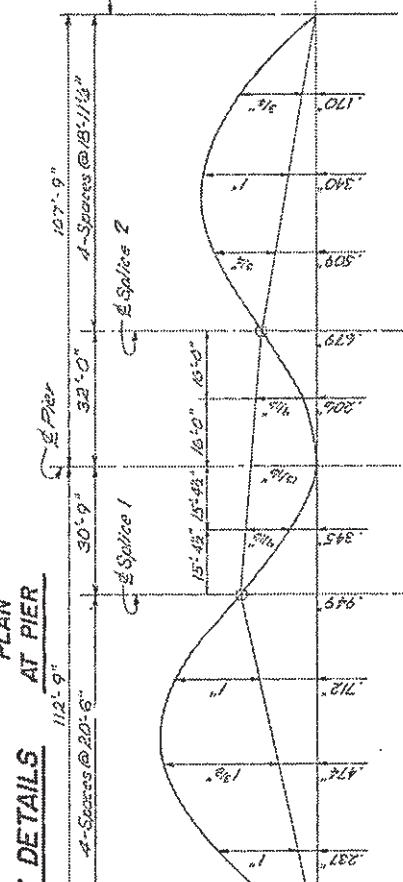
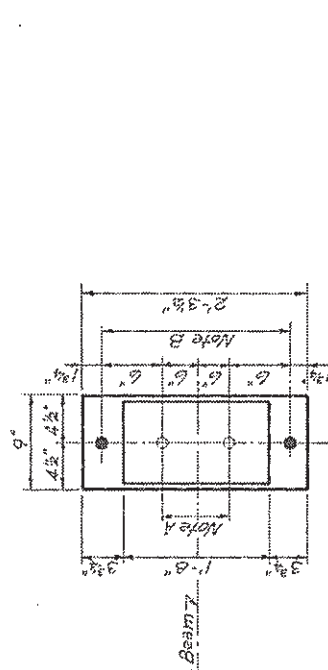
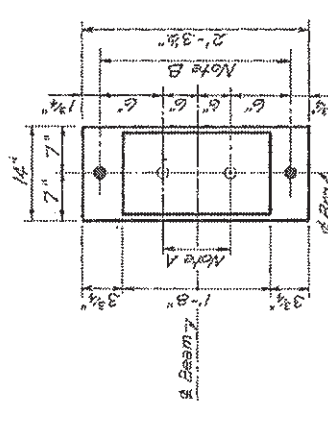
REACTION TABLE

	Abutment	Pier
R _{DL} (k)	60.8	209.1
R _{sc} (k)	47.6	75.3
R _e (k)	10.1	16.5
R _{total} (k)	118.5	303.9

I₃ and S₃ are the moment of inertia and section modulus at the steel section. I_c and S_c are the moment of inertia and section modulus of the composite section used in computing S_e. VR is the maximum LL + impact shear range in a span.

Note A
 1 1/8" holes - 1" deep in top R for pintles. Thread or press fit pintles into bottom R.
 Note B
 1 1/8" holes for 1" Anchor Bolts. 3/8" x 2 1/2" x 2 1/2" R washers under nut.

Note A
 1 1/8" holes - 1" deep in top R for pintles. Thread or press fit pintles into bottom R.
 Note B
 1 1/8" holes for 1" Anchor Bolts. 3/8" x 2 1/2" x 2 1/2" R washers under nut.

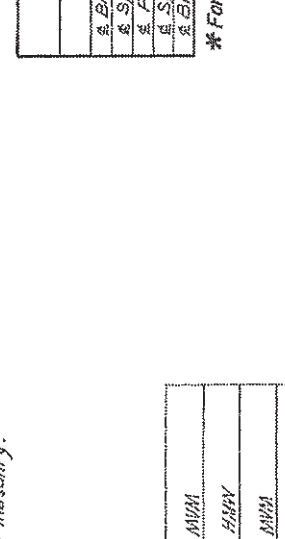
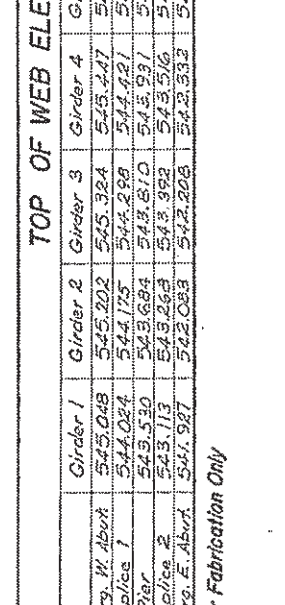


TOP OF WEB ELEVATIONS *

	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7	Girder 8	Girder 9
Brg. W. Abut	545.018	545.202	545.324	545.247	545.569	545.465	545.361	545.257	545.152
S. Splice 1	544.024	544.175	544.298	544.421	544.543	544.441	544.338	544.235	544.130
Pier	543.530	543.684	543.810	543.931	544.055	543.952	543.849	543.746	543.641
S. Splice 2	543.113	543.264	543.392	543.516	543.640	543.537	543.434	543.331	543.197
Brg. E. Abut	541.927	542.033	542.156	542.283	542.416	542.552	542.692	542.837	542.977

* For Fabrication Only

Notes on setting anchor bolts at expansion bearings:
 a) D* (Side of brg. away from fixed brg.) D* = 1/8" per each 100' of expansion for every 15° fall below the normal temperature of 50°F.
 D** (Side of brg. toward fixed brg.) D** = 1/8" per 100' of expansion for every 15° rise above the normal temp. of 50°F.
 b) After beams have been erected and dimensions D* and D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

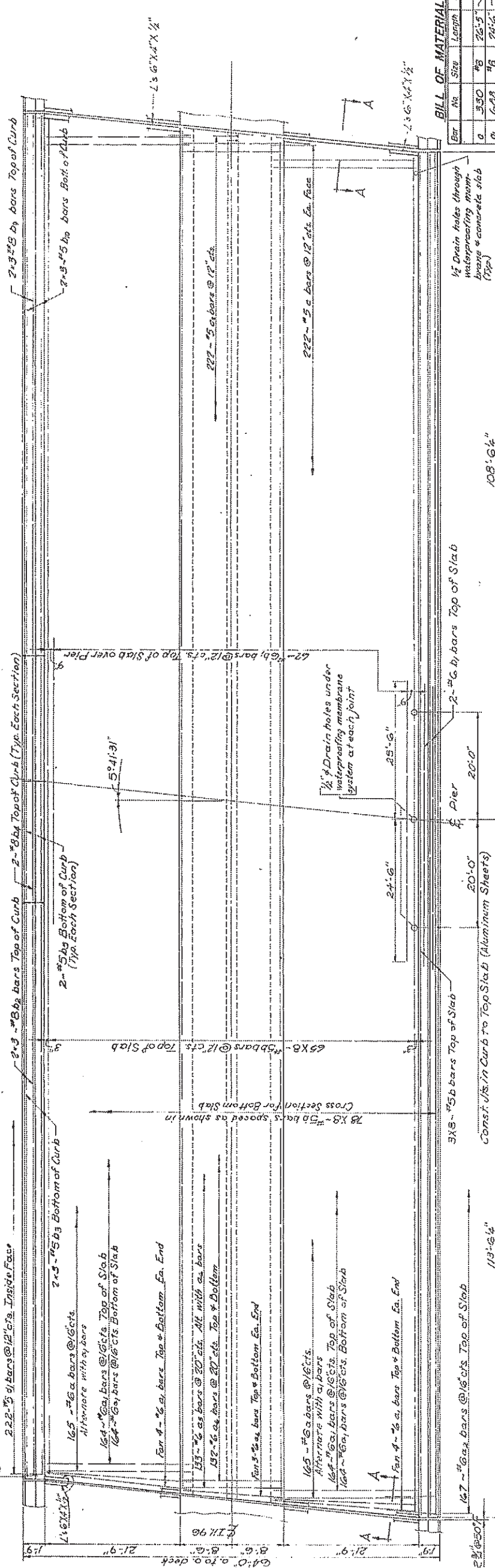


BEARING DETAILS
 FAR RTE. 407 - SEC. 1-5H
 ADAMS COUNTY
 STATION 56 + 09.43

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

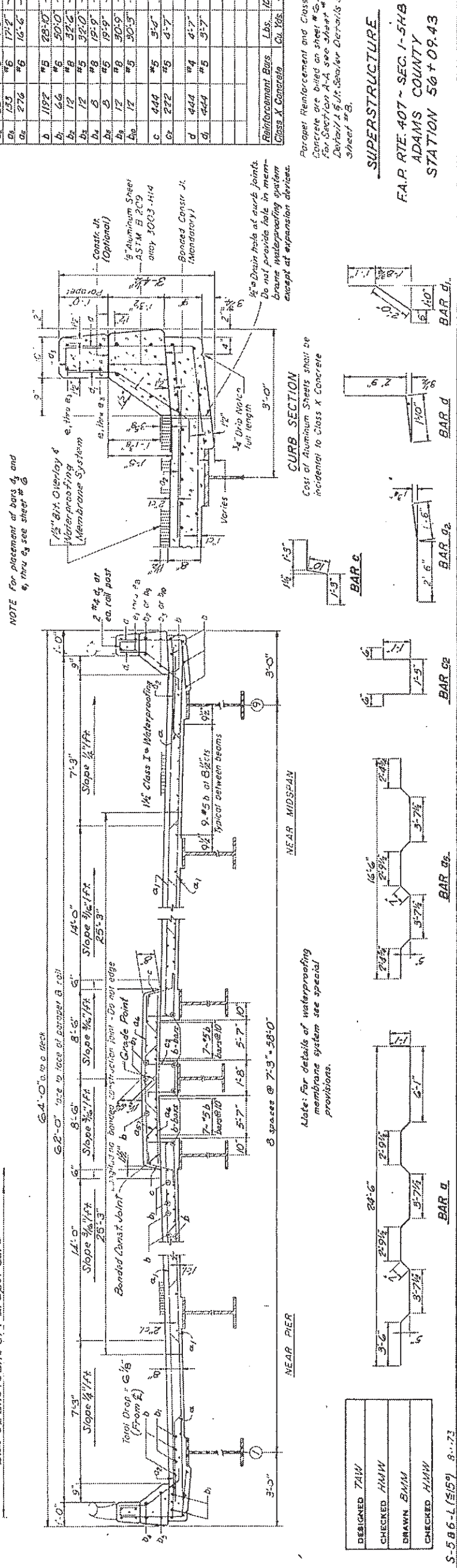
SHEET NO. 5	11 SHEETS
DATE	ADAMS 121 57

NOTE: Bars indicated thus 20 x 3 #5 etc. indicates 20 lines of bars with 3 heights per inch. Min bar tags = 24 dia.



BILL OF MATERIAL

Bar No	Size	Length	Shape
0	#8	26'-5"	
1	#8	24'-6"	
2	#8	4'-0"	
3	#6	17'-2"	
4	#6	16'-6"	
5	#5	28'-0"	
6	#6	30'-0"	
7	#8	32'-0"	
8	#8	32'-0"	
9	#8	19'-9"	
10	#8	19'-9"	
11	#8	30'-5"	
12	#8	30'-5"	
13	#5	5'-0"	
14	#5	4'-7"	
15	#5	3'-7"	



NOTE: For placement of bars d₁ and d₂, thru e₃ see sheet # 4.

CURB SECTION
Cost of Aluminum Sheets shown is incidental to Class X Concrete

NEAR PIER
NEAR MIDSPAN

NOTE: For details of waterproofing membrane system see special provisions.

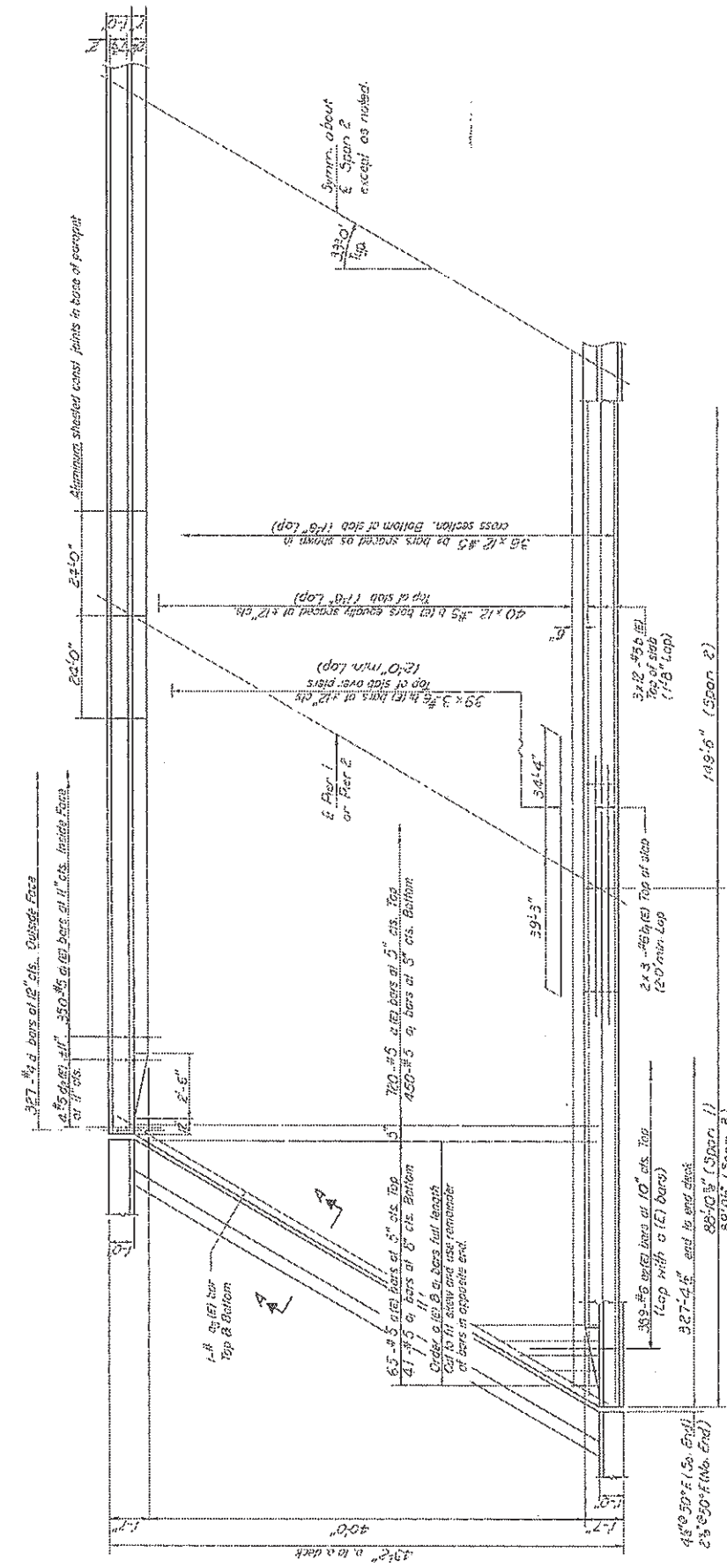
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CHECKED	HMM
DRAWN	BMM
CHECKED	HMM

S-586-L(1519) 8-1-73

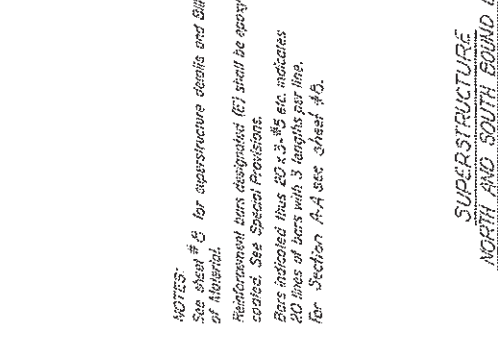
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 7
22 SHEETS

PROJECT NO.	ADAMS	DATE	1.1
CITY	ADAMS	BY	...
FOR THE ILLINOIS DEPARTMENT OF TRANSPORTATION			



HALF PLAN



CROSS SECTION

NOTES:
See sheet # 6 for superstructure details and Bill of Materials.
Reinforcement bars designated (ET) shall be epoxy coated. See Special Provisions.
Rebar indicated has a 3.5% yield strength.
20 bars of bars with 3 ties per ft. for Section A-A see sheet # 6.

SUPERSTRUCTURE
NORTH AND SOUTH BOUND LANES
E.A. RT. 408 SEC. 1-4E
ADAMS COUNTY
STA. 149+80.00

DESIGNED BY: DAN KRULL
CHECKED BY: [Signature]
DRAWN BY: R. Dohy
CHECKED BY: [Signature]

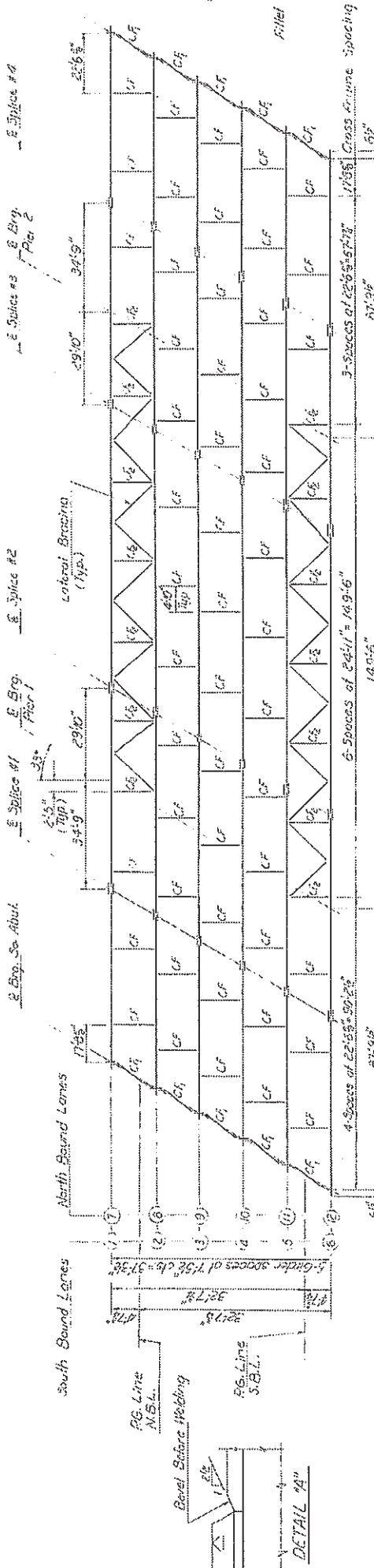
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DATE: 9-27-78

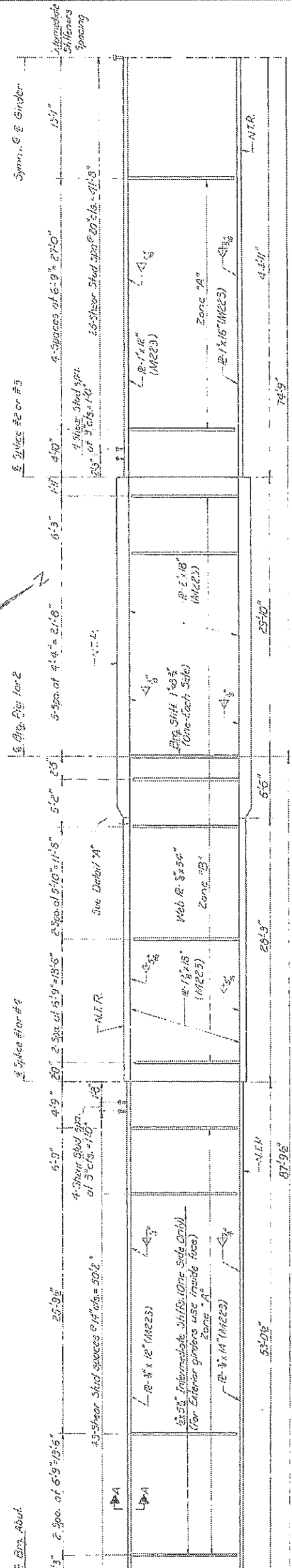
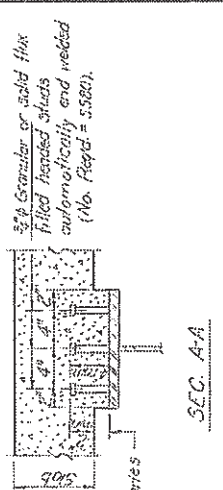
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DATE	BY	NO.
172	11/15/15	AD	15
SHEET NO. 11		OF 22 SHEETS	

By: No. Abut.



FRAMING PLAN

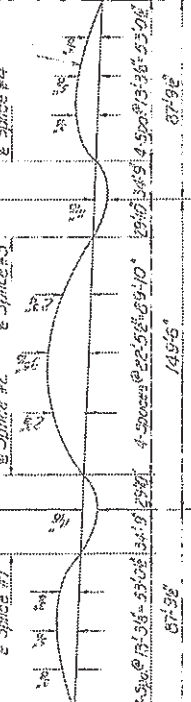


HALF GIRDER ELEVATION

Span	1st	2nd	3rd	4th	5th
1st	104.9	194.9	619.3	1099.3	259.7
2nd	17.4	45.9	217.0	100.4	37.8
3rd	17.3	72.5	217.0	100.4	37.8
4th	17.3	92.8	129.7	99.9	102.2
5th	17.3	255.6	304.2	172.3	137.8
6th	17.3	32.3	32.3	32.3	32.3
7th	17.3	137.8	235.5	499.9	276.1
8th	17.3	330.5	471.2	215.5	215.5
9th	17.3	127.6	225.7	379.5	259.9
10th	17.3	23.2	15.2	15.2	15.2
11th	17.3	21.2	32.6	43.7	51.7
12th	17.3	63.7	51.7	51.7	51.7

Span	1st	2nd	3rd	4th	5th
1st	27.6	77.7	177.7	177.7	77.7
2nd	42.3	19.8	19.8	19.8	42.3
3rd	42.3	19.8	19.8	19.8	42.3
4th	42.3	19.8	19.8	19.8	42.3
5th	42.3	19.8	19.8	19.8	42.3

CAMBER DIAGRAM



DESIGNED: DAN KRULL
 CHECKED: [Signature]
 DRAWN: [Signature]
 CHECKED: [Signature]

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

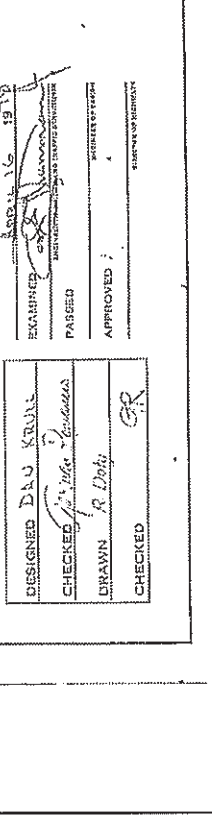
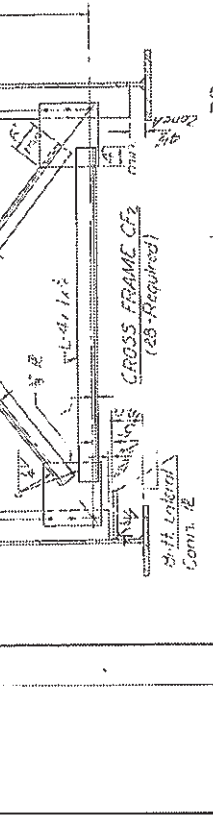
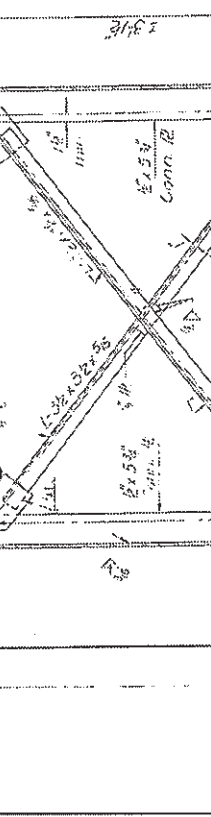
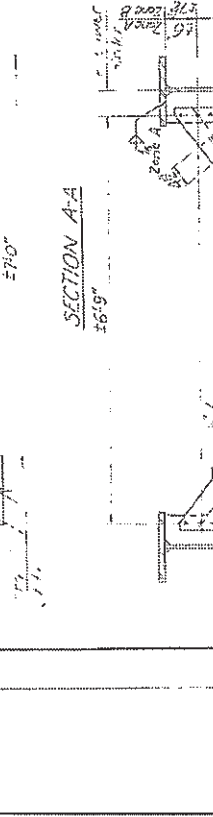
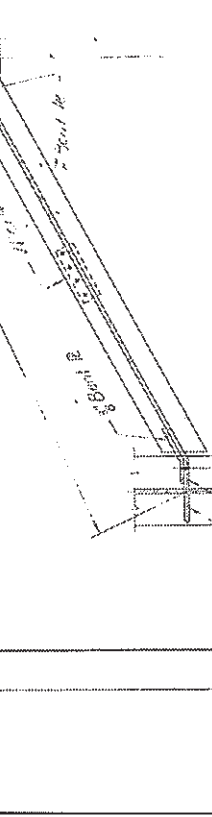
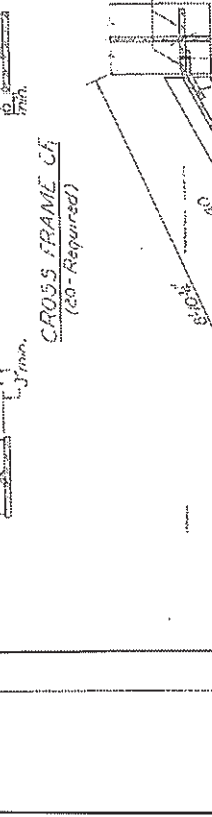
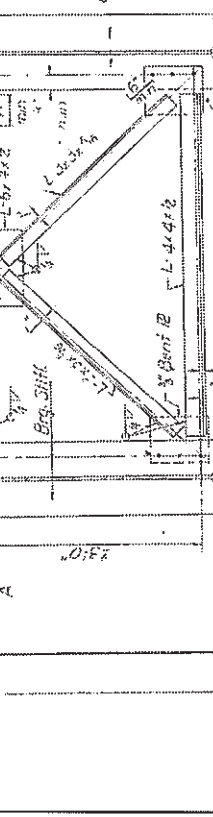
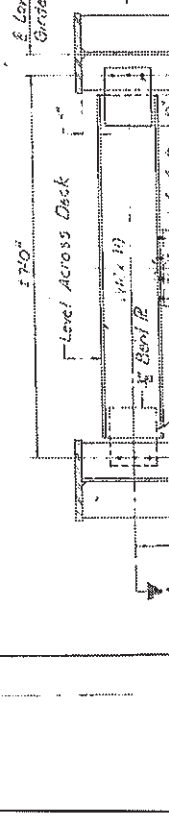
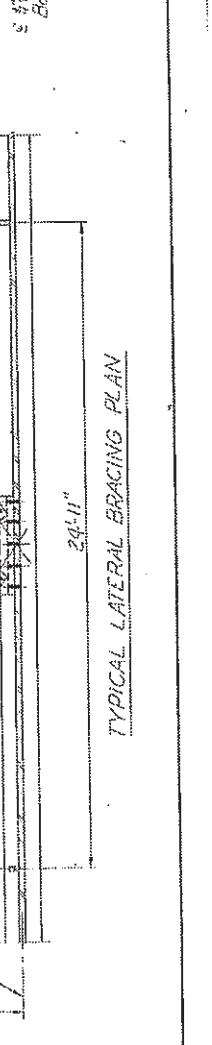
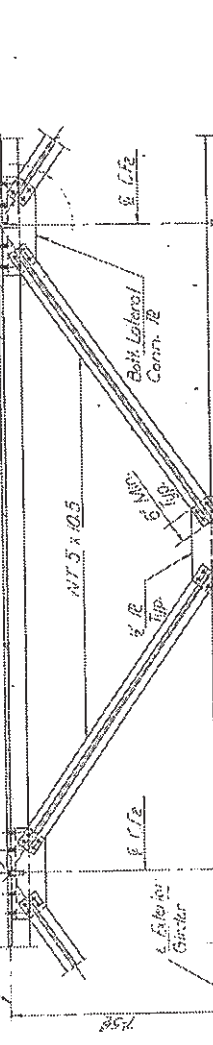
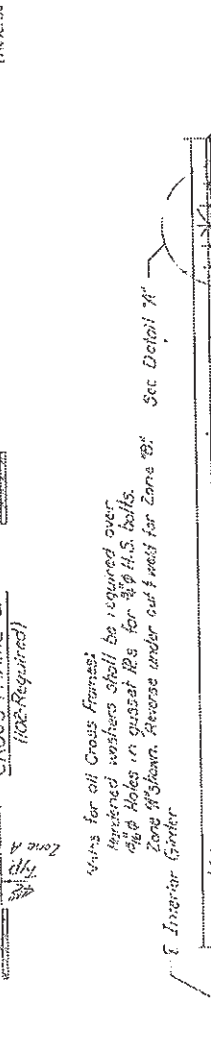
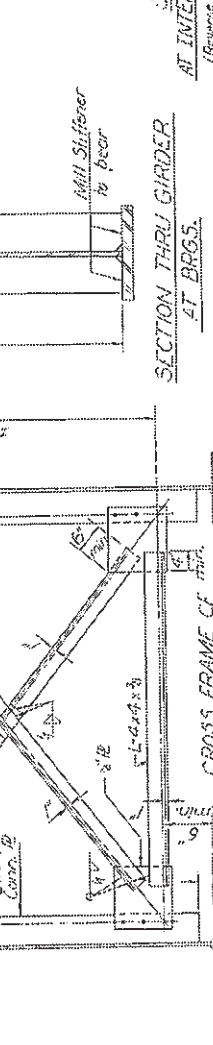
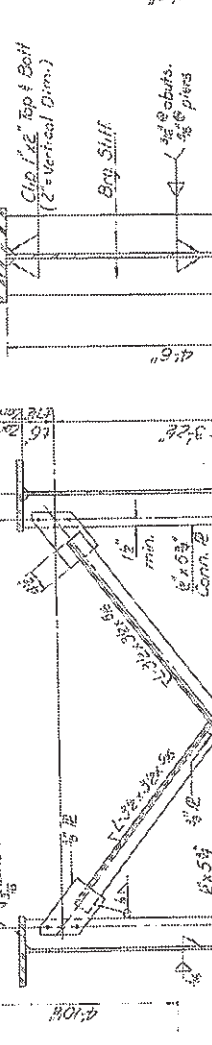
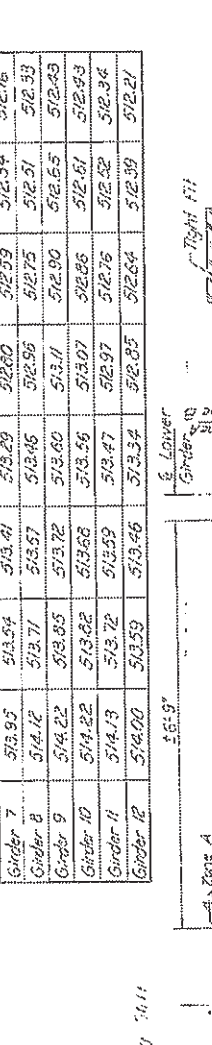
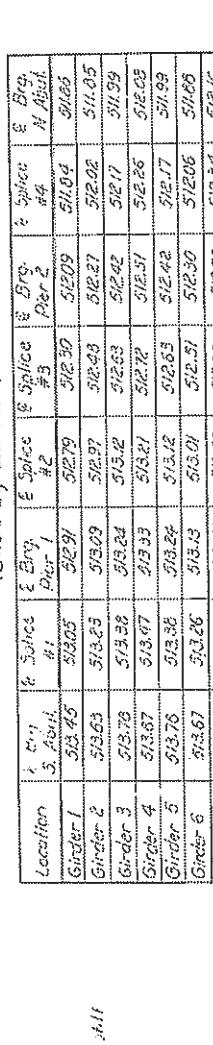
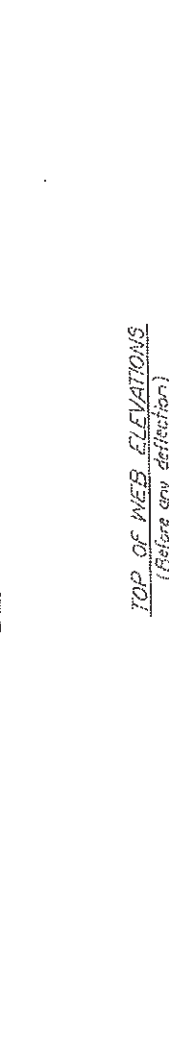
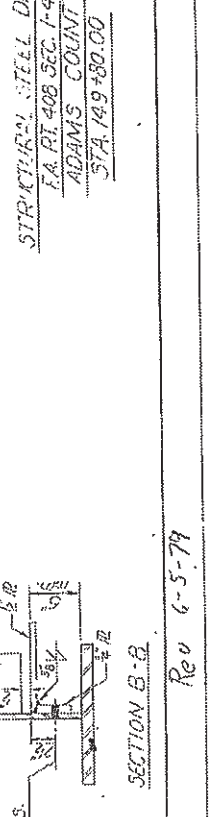
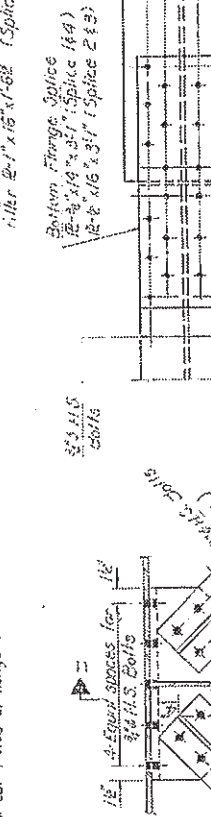
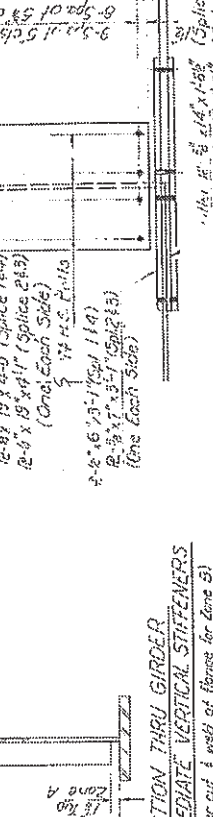
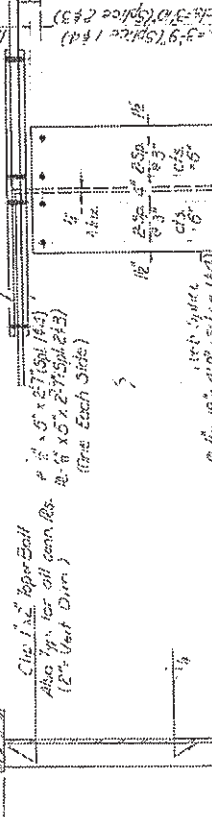
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Notes:
 Dimensions are given along E Girder.
 Intermediate stiffeners in Zone 'A' shall be under cut 1/8" of the bottom only.
 Intermediate stiffeners in Zone 'B' shall be under cut 1/8" of the top only.
 For remainder of Structural steel details see sheet #12.
 M.I.R. designates Match to adjacent Requirement. **STRUCTURAL STEEL**
 All Flange R's shall be M223, Grade 50, **NORTH AND SOUTH BOUND LANES**
 EA. RT. 408 SEC. 1-4B
 ADAMS COUNTY
 STA. 149+00.00

Note: Load factors 1.3 [2+5+(4+)] is used for computing moments. Is and Ss are the moment of inertia and section modulus of the steel section. Is and Ss are the moment of inertia and section modulus of the composite section used in computing Is.
 VR is the maximum \pm Impact shear range in span.

TOP OF WEB ELEVATIONS
(Before any deflection)

Location	1st Splice #1	2nd Splice #2	3rd Splice #3	4th Splice #4	5th Splice #5	6th Splice #6	7th Splice #7	8th Splice #8	9th Splice #9	10th Splice #10	11th Splice #11	12th Splice #12
Girder 1	513.45	513.91	514.37	514.83	515.29	515.75	516.21	516.67	517.13	517.59	518.05	518.51
Girder 2	513.63	514.09	514.55	515.01	515.47	515.93	516.39	516.85	517.31	517.77	518.23	518.69
Girder 3	513.78	514.24	514.70	515.16	515.62	516.08	516.54	517.00	517.46	517.92	518.38	518.84
Girder 4	513.87	514.33	514.79	515.25	515.71	516.17	516.63	517.09	517.55	518.01	518.47	518.93
Girder 5	513.78	514.24	514.70	515.16	515.62	516.08	516.54	517.00	517.46	517.92	518.38	518.84
Girder 6	513.67	514.13	514.59	515.05	515.51	515.97	516.43	516.89	517.35	517.81	518.27	518.73
Girder 7	513.53	513.99	514.45	514.91	515.37	515.83	516.29	516.75	517.21	517.67	518.13	518.59
Girder 8	514.12	514.58	515.04	515.50	515.96	516.42	516.88	517.34	517.80	518.26	518.72	519.18
Girder 9	514.22	514.68	515.14	515.60	516.06	516.52	516.98	517.44	517.90	518.36	518.82	519.28
Girder 10	514.22	514.68	515.14	515.60	516.06	516.52	516.98	517.44	517.90	518.36	518.82	519.28
Girder 11	514.13	514.59	515.05	515.51	515.97	516.43	516.89	517.35	517.81	518.27	518.73	519.19
Girder 12	514.00	514.46	514.92	515.38	515.84	516.30	516.76	517.22	517.68	518.14	518.60	519.06



DESIGNED BY: KADIRMO
DRAWN BY: R. D. DUFFY
CHECKED BY: D. J. KRAUS
DATE: 09/19/2014 12:08:43PM

EXAMINED BY: [Signature]
PASSED BY: [Signature]
APPROVED BY: [Signature]

DESIGNED BY: KADIRMO
DRAWN BY: R. D. DUFFY
CHECKED BY: D. J. KRAUS
DATE: 09/19/2014 12:08:43PM

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PASSED BY: [Signature]
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DESIGNED BY: KADIRMO
DRAWN BY: R. D. DUFFY
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DATE: 09/19/2014 12:08:43PM

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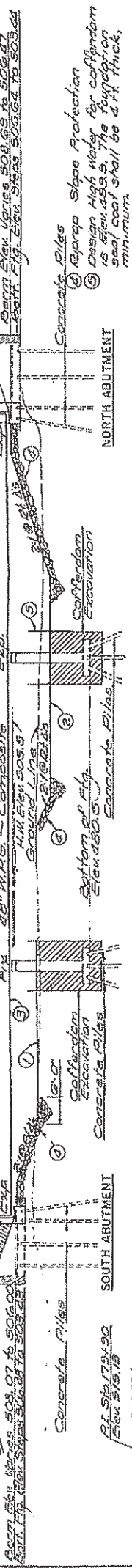
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DEPARTMENT OF TRANSPORTATION
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SHEETS: 12
CONTRACT NO.: 72H36

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PLOT DATE: 09/19/2014 12:08:43PM
DESIGNED BY: KADIRMO
DRAWN BY: R. D. DUFFY
CHECKED BY: D. J. KRAUS
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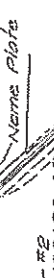
SHEET NO. 1
 27 SHEETS
 174

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

This portion of Embankment backfill by Bridge Contractor after Abutment is in place.



ELEVATION
 (SHOWN LOOKING AT LOW GIRDER)



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUBSTR.	TOTAL
STRUCTURE EXCAVATION	CU YD	734.8	477	1211.8
CLASS "X" CONCRETE	LUMP SUM		1,058.2	1,058.2
STRUCTURAL STEEL	LBS.	104,980	192,520	297,500
REINFORCEMENT BARS (EPOXY COATED)	LBS.	113,400	13,420	126,820
CONCRETE PILES	LIN. FT.		6109	6109
TEST PILES CONCRETE	EACH		5	5
STUD SHEAR CONNECTORS	EACH		6,036	6,036
NEOPRENE EXPANSION JOINT, 2"	LIN. FT.		107	107
NEOPRENE EXPANSION JOINT, 2 1/4"	LIN. FT.		176	176
FLOOR DRAINS	EACH		2	2
PROTECTIVE COAT	SO. YD.		3,441	3,441
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH		10	10
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH		10	10
COFFERDAM	CU YD.		428	428
SEAL COAT CONCRETE	CU YD.		2,408	2,408
COFFERDAM EXCAVATION	CU YD.		2,408	2,408

For quantity of Dumped Stone Riprap, Special, see Roadway Plans

NAME PLATE
 See Std. 2113
 (Str. No. to be furnished by Eng.)

STATION 181+30.0
 BUILT 1988 BY
 STATE OF ILLINOIS
 F.A. ROUTE 408 SEC. 1-4B-1
 F.A. PROJ. NO. FFD-408-155
 LOADING HS20
 STR. NO.

GENERAL PLAN & ELEVATION
 F.A. RTE. 408 OVER MILL CREEK
 ADAMS COUNTY
 STA. 181+30.00 F.A. 408
 PLANS PREPARED BY AMERICAN ENGINEERING CO.

EXISTING SN: 001-006263
 FOR INFORMATION ONLY
 SHEETS: STA. TO STA.

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

USER NAME: kadm
 172 bridges point 2810\kadm\kadm.dgn
 PLOT SCALE: 1/8" = 1'-0"
 PLOT DATE: Aug-19-2014 12:16:58PM

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

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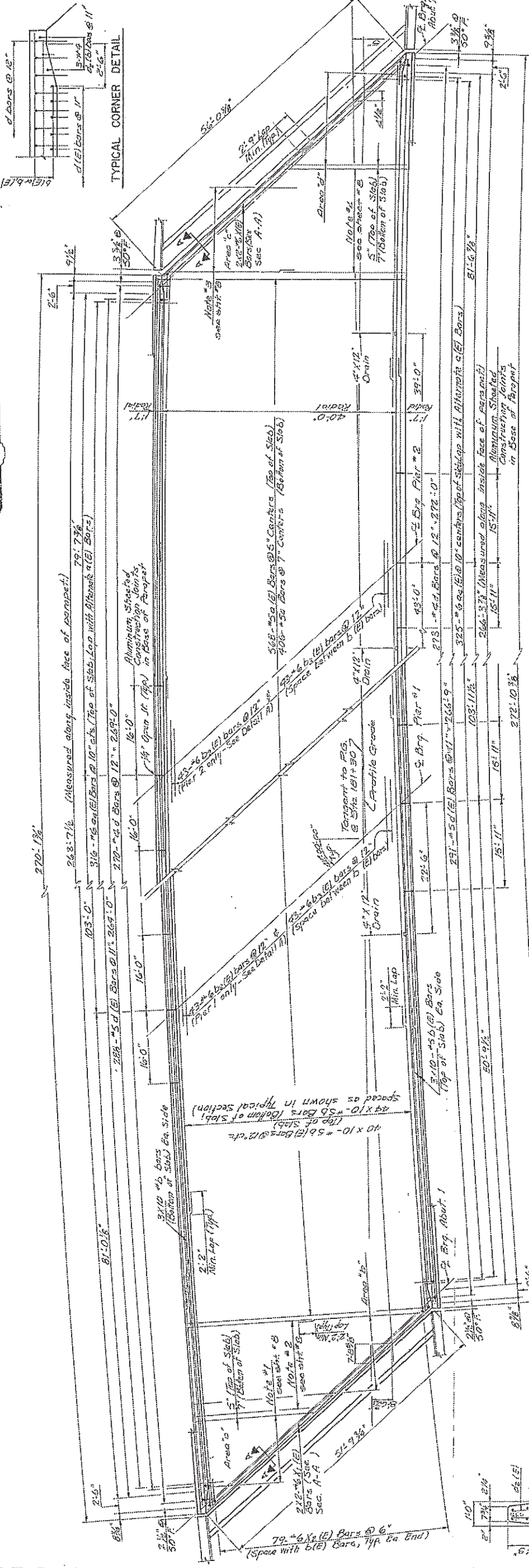
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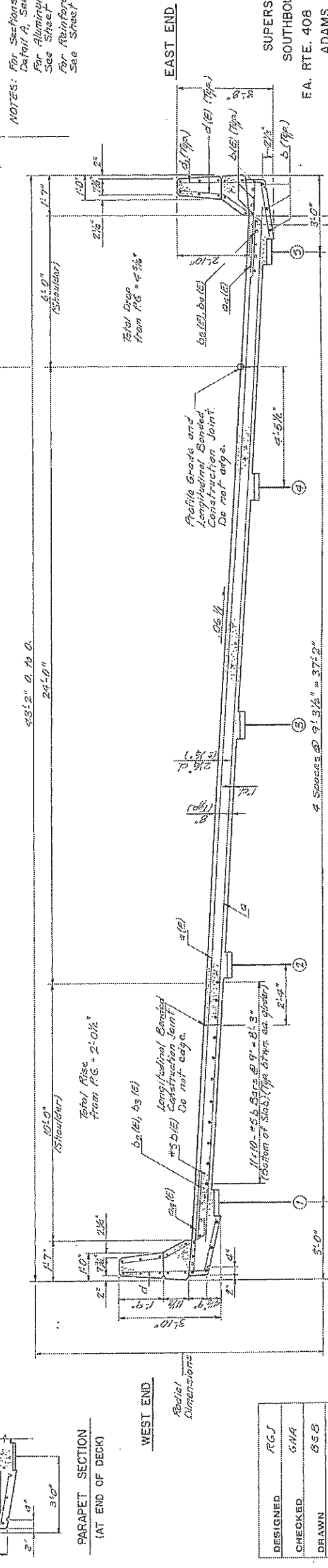
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO.	6
TOTAL SHEETS	27
DATE	7/14/08
PROJECT	ADAMS
NO. SHEETS	57
NO. SHEETS	22



PLAN
(Southbound Lanes)



TYPICAL SECTION - SOUTHBOUND LANES

NOTES:
For Sections A-A, and Detail A, See Sheet B.
For Aluminum Drain Details, See Sheet 3.
For Reinforcement Notes, Refer to See Sheet 8.

DESIGNED	RGJ
CHECKED	GWA
DRAWN	BSS
CHECKED	M/MT

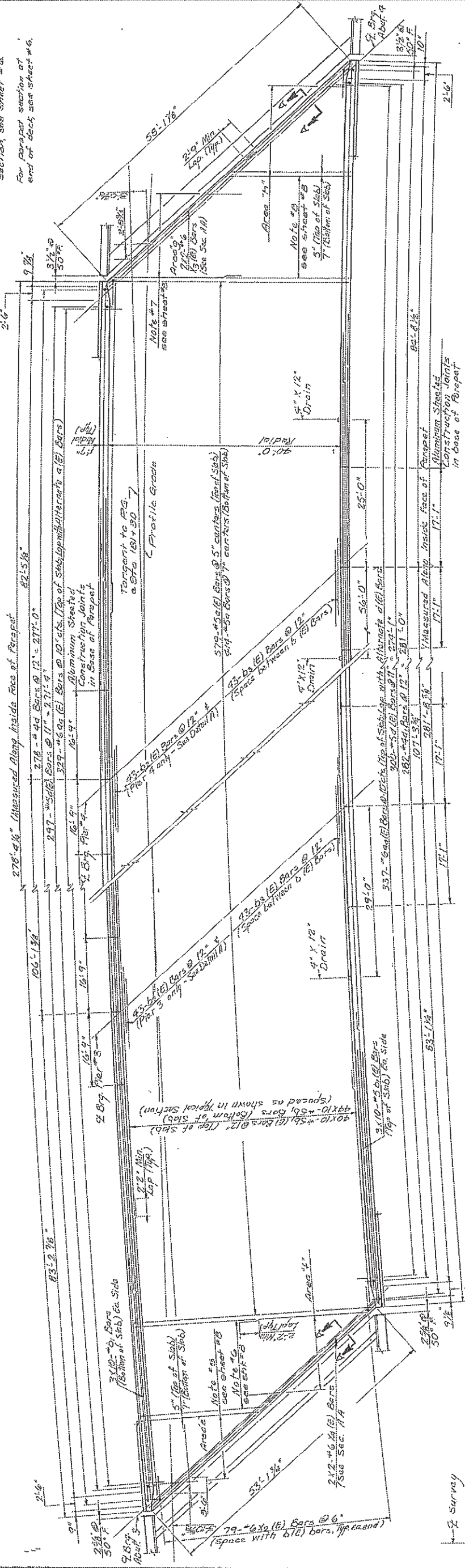
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				FOR INFORMATION ONLY	06	ADAMS	30
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				OF	06	ADAMS	30
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				STA.	06	ADAMS	30
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

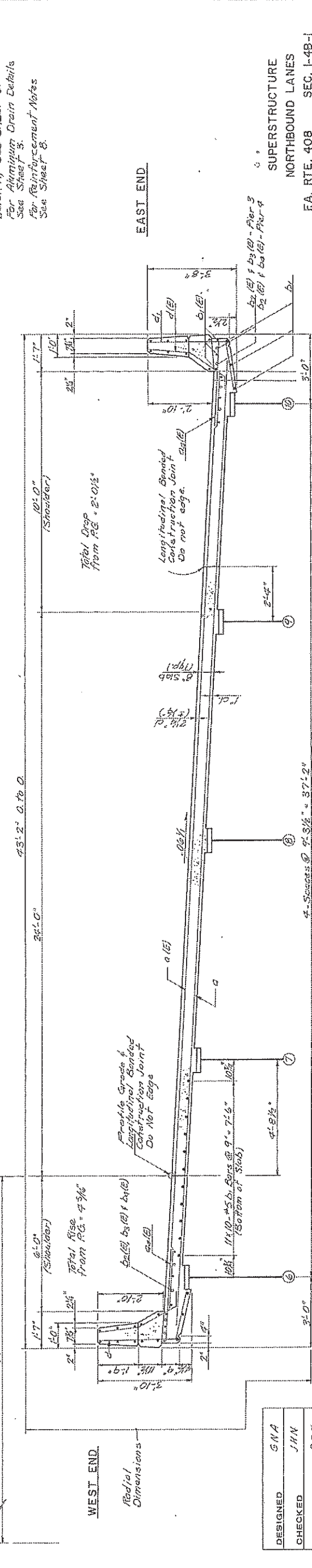
SHEET NO. 7
17 SHEETS

PROJECT	SHEET NO.	TOTAL SHEETS	DATE
ADAMS	57	23	
ILLINOIS	REG. NO.	PROJECT	

Note: For typical corner section, see sheet #6.
For parapet section at end of deck, see sheet #6.



PLAN
(Northbound Lanes)



TYPICAL SECTION - NORTHBOUND LANES
(Looking Ahead Station)

NOTES: For Sections A-A, and B-B, See Sheet #8.
For Aluminum Drain Details See Sheet #5.
For Reinforcement Notes See Sheet #8.

FA. RTE. 408 SEC. 1-4B-1
ADAMS COUNTY
STA. 181+30.00 F.A. 408

4" Spacing @ 9'-3 1/2" x 37'-2"

DESIGNED	GNA
CHECKED	JHN
DRAWN	BSB
CHECKED	MJM

FILE NAME:	USER NAME:	DESIGNED:	REVISED:	STATE OF ILLINOIS	DESIGNATION:	SECTION:	COUNTY:	TOTAL SHEETS:
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		CHECKED:	---	DEPARTMENT OF TRANSPORTATION	172	06 BODE PAINTING 2015	ADAMS	16
		DATE:	---	DEPARTMENT OF TRANSPORTATION	172	06 BODE PAINTING 2015	ADAMS	16
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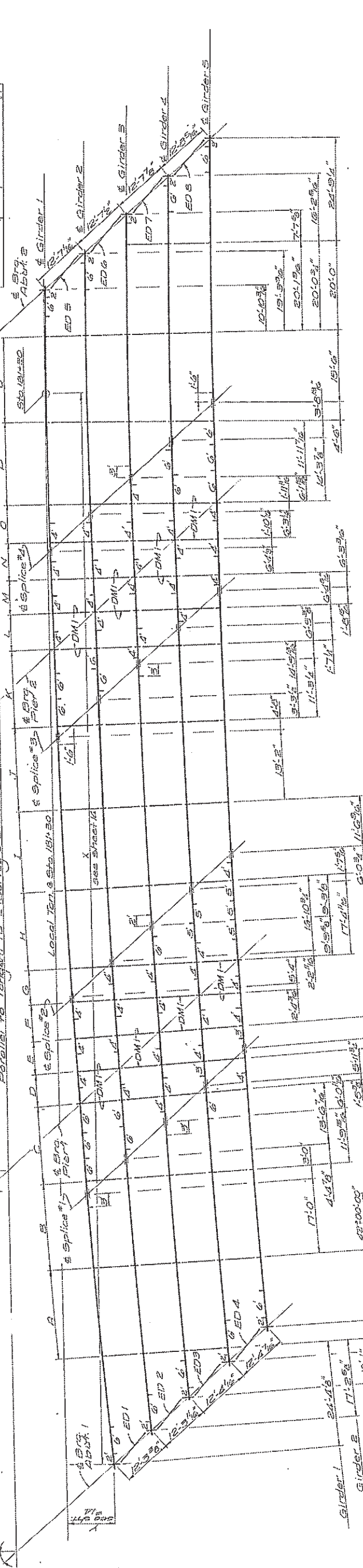
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
Parallel to Tarrant to Survey Sta. 181+30

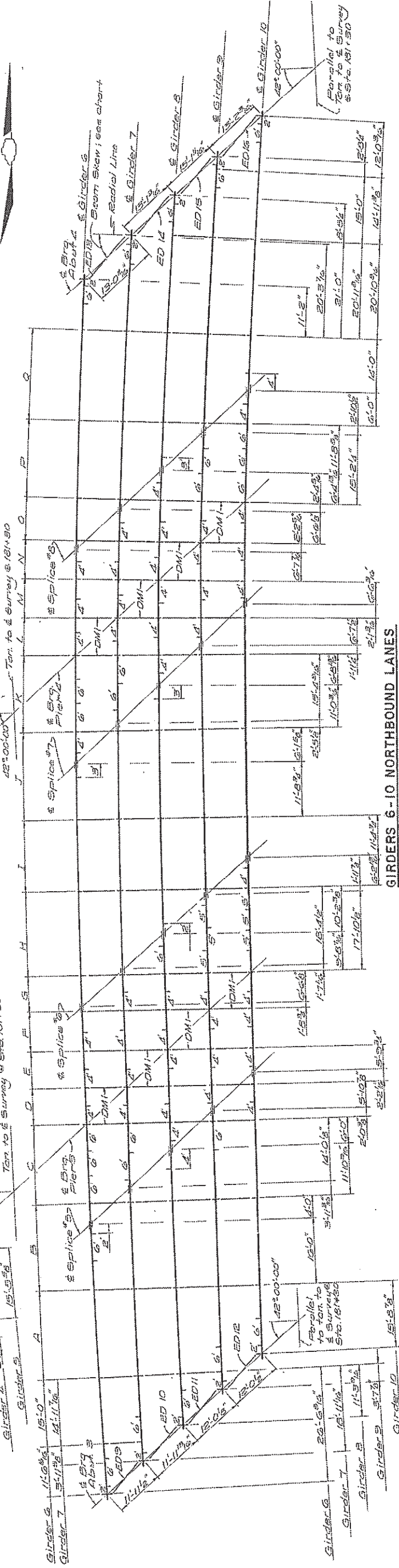
ADAMS COUNTY
PROJECT NO. 08-BOCE PAINTING 2015

ADAMS COUNTY
F.A. RTE. 172

SECTION
COUNTY
TOTAL SHEETS
SHEET NO.



GIRDERS 1-5 SOUTHBOUND LANES



GIRDERS 6-10 NORTHBOUND LANES

Note: All dimensions measured along girders. All diaphragms not labeled are DM 2.

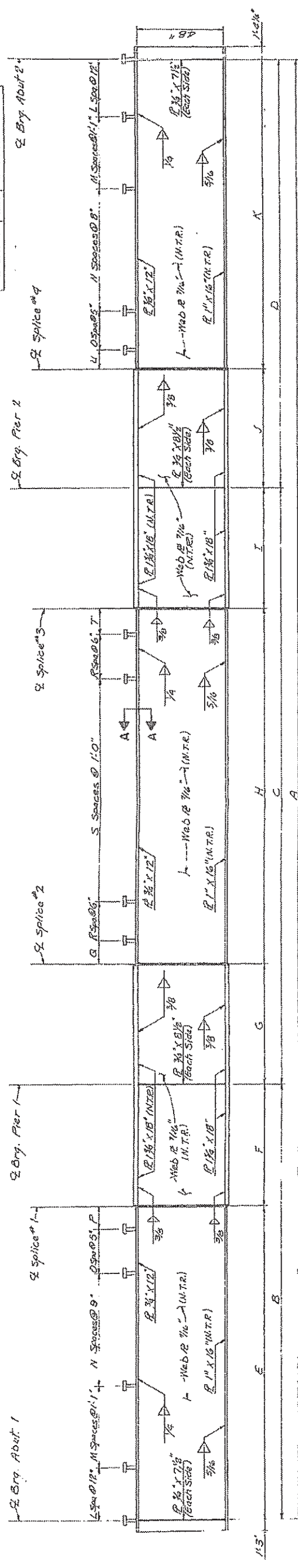
FRAMING PLAN
F.A. RTE. 408 SEC. 1-4B-1
ADAMS COUNTY
STA. 181+30.00 F.A. 408

GIRDER	DIAPHRAGM SPACINGS										BEAM SKEW AT BEARING										
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	ABUTS 1	PIERS 1,3	PIERS 2,4	ABUTS 2,4
1	20'-0"	19'-11"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
2	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
3	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
4	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
5	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
6	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
7	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
8	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
9	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"
10	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"

DESIGNED	EBY
CHECKED	MVM
DRAWN	EBY
CHECKED	MVM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	ADAMS	DATE	2/1/14
DESIGNER	ADAMS	CHECKED	ADAMS
DATE	2/1/14	SCALE	AS SHOWN



N.T.R. Denotes Net Thickness Requirements
for Location and Spacing of Diaphragm Connection
plates and Intermediate Stiffeners, see Framing Plan, Sheet #12

GIRDER ELEVATION

GIRDER DIMENSIONS

GIRDER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	267.3%	82.4%	103.0%	81.0%	61.4%	21.0"	25.0"	55.16%	22.6"	22.6"	59.5%	9	24	30	6	1.4 1/8"	1.3"	6	47	1.3 1/8"	1.1 3/8"
2	247.10%	82.1%	103.2%	82.1%	61.6"	21.0"	25.0"	55.18%	22.6"	22.6"	59.5%	9	24	30	6	1.4 1/8"	1.3"	6	47	1.3 1/8"	1.1 3/8"
3	248.5%	82.1%	103.2%	82.1%	61.7%	21.0"	25.0"	55.18%	22.6"	22.6"	59.5%	9	24	30	6	1.4 1/8"	1.3"	6	47	1.3 1/8"	1.1 3/8"
4	249.1%	82.1%	103.2%	82.1%	61.8%	21.0"	25.0"	55.18%	22.6"	22.6"	59.5%	9	24	30	6	1.4 1/8"	1.3"	6	47	1.3 1/8"	1.1 3/8"
5	267.8%	82.1%	103.1%	82.1%	61.7%	21.0"	25.0"	55.18%	22.6"	22.6"	59.5%	9	24	30	6	1.4 1/8"	1.3"	6	47	1.3 1/8"	1.1 3/8"

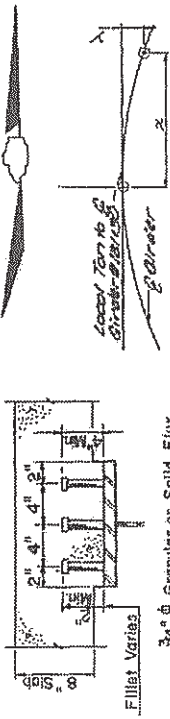
CUTOFF ANGLE, θ

GIRDER	ABUT. 1	ABUT. 2
1	37.143	42.349
2	37.287	42.515
3	37.479	42.682
4	37.553	42.857
5	37.720	43.021

TOP OF WEB ELEVATIONS (For Fabrication Only)*

GIRDER NO.	1	2	3	4	5
Q. Brg. Abut. 1	575.24	574.50	574.37	573.09	573.50
Splice 1	575.54	575.00	574.46	573.99	573.99
Q. Brg. Pier 1	575.59	575.05	574.52	573.98	573.44
Splice 2	575.85	575.22	574.69	574.04	573.50
Splice 3	575.79	575.25	574.71	574.17	573.63
Q. Brg. Pier 2	575.89	575.34	574.79	574.24	573.71
Q. Brg. Abut. 2	576.07	575.53	574.98	574.44	573.89

* Elevations of Splices have been adjusted for Dead Load Deflections.



FLANGE CUTTING DETAIL

AS REVISED

DESIGNED	JHW
CHECKED	MYM
DRAWN	BSG
CONSOLIDATED	MYM

GIRDER COORDINATES - TANGENT TO GIRDER AT STA. 1B1+30.00

GIRDER	Q. BRG. ABUT. 1	SPLICE 1	Q. BRG. PIER 1	SPLICE 2	SPLICE 3	Q. BRG. PIER 2	SPLICE 4	Q. BRG. ABUT. 2	RADIUS	
1	-249.050	101.563	-187.879	6.027	-166.918	4.740	-141.952	3.427	-86.483	1.272
2	-247.043	99.991	-179.903	5.524	-158.238	4.317	-133.949	3.042	-78.247	1.045
3	-253.832	97.356	-173.328	5.060	-150.947	3.900	-125.949	2.716	-70.032	0.839
4	-225.387	87.744	-163.899	4.474	-142.918	3.508	-117.353	2.589	-61.776	0.635
5	-271.736	81.774	-155.872	4.184	-134.878	3.135	-108.920	2.287	-53.580	0.493

INTERIOR GIRDER MOMENT TABLE

IS	0.4 SPAN 1	PIER 1	0.5 SPAN 2	PIER 2	0.5 SPAN 3
IS (ft)	18.337	27	43.030	37	18.337
IS (ft)	863.04	1671.08	863.04	1671.08	863.04
DL	1.15	1.23	1.15	1.23	1.15
MDL	440.77	1238.98	344.11	1232.22	435.09
ISg DL	641	8.90	4.78	6.81	4.37
ISg (ft-2)	36364.31	49020.31	36364.31	49020.31	36364.31
ISg	1079.38	1671.08	1079.38	1671.08	1079.38
ISDL	145.14	333.24	153.00	331.57	145.14
ISgSDL	1.89	2.39	1.69	2.39	1.78
ISg (ft-3)	53224.16	43020.31	53224.16	43020.31	53224.16
ISg	1794.75	1271.08	1794.75	1271.08	1794.75
MLL	843.84	754.25	843.84	754.25	843.84
MIMP	203.43	172.99	169.42	172.99	203.43
Mg TOTAL	1047.02	927.78	1035.09	927.78	1047.02
ISg LL	10.47	6.44	10.35	6.43	10.47
ISg	1.69	1.05	1.69	1.05	1.69
ISg TOTAL	20.16	12.00	18.53	12.00	20.16
VR	72.72	72.72	72.72	72.72	72.72

REACTION TABLE

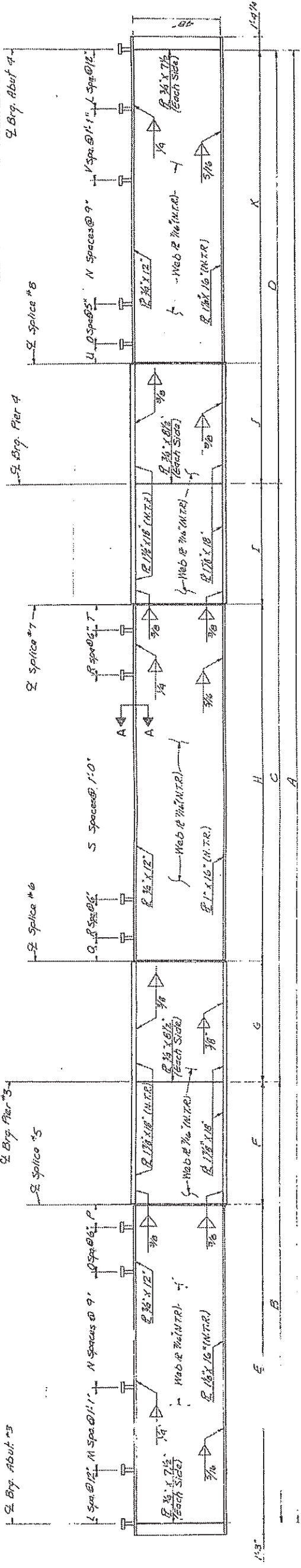
R DL	PIER 1	PIER 2	ABUT. 2
R DL	43.98	46.36	44.97
R LL	52.53	80.85	81.79
R IMP	12.65	18.55	18.63
R TOTAL	109.16	245.20	245.39

STRUCTURAL STEEL, GIRDERS 1-5

F. A. RTE. 408 SEC. 1-4B-1
ADAMS COUNTY
STA. 1B1+30.00 F. A. 408

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADAMS 57 30A
SHEET NO. 27 SHEET



N.T.R. Denotes Notch Toughness Requirements for location and spacing of diaphragm connection plates and intermediate stiffeners, see Framing Plan, Sheet #12.

GIRDER ELEVATION

GIRDER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
6	275'-5 1/2"	84'-0 1/2"	106'-1 1/2"	85'-1 1/2"	62'-0 1/2"	22'-0"	26'-0"	56'-1 1/2"	24'-0"	24'-0"	60'-0 1/2"	0	23	33	6	1'-10 3/4"	1'-6"	7	46	1'-7 3/8"	1'-8 1/2"	22
7	276'-1 1/2"	84'-0 1/2"	106'-5"	85'-0 1/2"	62'-0 1/2"	22'-0"	26'-0"	56'-5"	24'-0"	24'-0"	61'-0 1/2"	0	23	33	6	2'-0 3/8"	1'-6"	7	46	1'-11"	1'-10 1/2"	22
8	275'-10 1/8"	84'-1 1/2"	106'-8 1/2"	85'-3 1/2"	62'-1 1/2"	22'-0"	26'-0"	56'-8 1/2"	24'-0"	24'-0"	61'-3 1/2"	0	23	33	6	2'-3 1/2"	1'-6"	7	46	2'-2 1/2"	2'-1 1/2"	22
9	277'-6"	85'-1 1/2"	106'-1 1/2"	85'-0 1/2"	62'-1 1/2"	22'-0"	26'-0"	56'-1 1/2"	24'-0"	24'-0"	61'-4 1/2"	0	23	33	6	2'-5 1/2"	1'-6"	7	47	1'-5 1/2"	2'-5 1/2"	22
10	276'-5 1/4"	85'-3 1/8"	107'-3 1/2"	85'-9 1/8"	63'-5 1/4"	22'-0"	26'-0"	57'-3 1/8"	24'-0"	24'-0"	61'-7 1/8"	0	23	33	6	2'-7 1/8"	1'-6"	7	47	1'-9 1/8"	2'-5 1/8"	22

CUTOFF ANGLE, Θ

GIRDER	ABUT. 3	ABUT. 4
6	38.947	44.539
7	39.100	44.718
8	39.254	44.904
9	39.410	45.096
10	39.567	45.288

TOP OF WEB ELEVATIONS (For Fabrication Only)*

GIRDER NO.	6	7	8	9	10
Abut. 3	514.02	513.49	512.95	512.41	511.87
Splice 5	514.02	513.55	512.01	512.47	511.93
Abut. 4	514.19	513.65	513.05	512.51	511.97
Splice 6	514.19	513.65	513.11	512.57	512.03
Abut. 5	514.30	513.75	513.21	512.67	512.13
Splice 7	514.30	513.75	513.21	512.67	512.13
Abut. 6	514.37	513.82	513.28	512.73	512.19
Abut. 7	514.54	513.99	513.44	512.89	512.34

* Elevations at Splices have been adjusted for Dead Load Deflections.

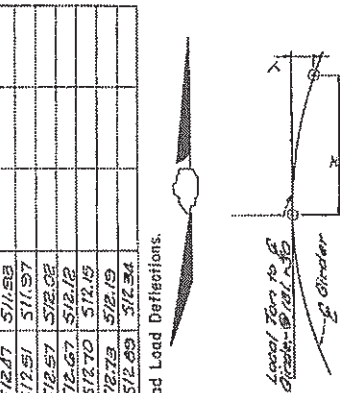
INTERIOR GIRDER MOMENT TABLE

IS	0.4 SPAN 1	PIER 3	0.5 SPAN 2	PIER 4	0.6 SPAN 3
Is (in ⁴)	19207.59	46228.60	18337.21	46228.60	79207.59
S _{xx} (in ³)	937.67	1778.88	863.04	1778.88	937.67
DL (k-ft)	1.16	1.50	1.15	1.50	1.16
MDL (k-ft)	486.70	-7323.33	353.22	-7323.33	485.10
F _g DL (k-ft)	6.23	8.93	6.97	8.93	6.30
Ic (in ²)	38455.03	46228.60	36364.32	46228.60	38455.03
S _{xx} (in ³)	1188.00	1778.88	1094.38	1778.88	1188.00
SDL (k-ft)	0.36	0.36	0.36	0.36	0.36
MSDL (k-ft)	172.63	-3553.71	141.27	-3553.71	174.22
F _g SDL (k-ft)	1.75	2.60	1.75	2.60	1.75
Ic (in ²)	53423.75	46228.60	50216.16	46228.60	53423.75
S _{xx} (in ³)	1294.27	1778.88	1134.75	1778.88	1294.27
M _{LL} (k-ft)	872.19	-800.52	823.44	-801.23	872.87
M _{IMP} (k-ft)	204.22	-191.22	190.64	-181.20	200.72
M _{TOTAL} (k-ft)	1074.41	-991.74	1014.08	-982.43	1073.59
F _g LL (k-ft)	9.39	6.62	10.78	6.63	9.63
F _g TOTAL (k-ft)	19.39	19.39	19.39	19.39	19.39
VR (k)	75.27	75.27	75.27	75.27	75.27

REACTION TABLE

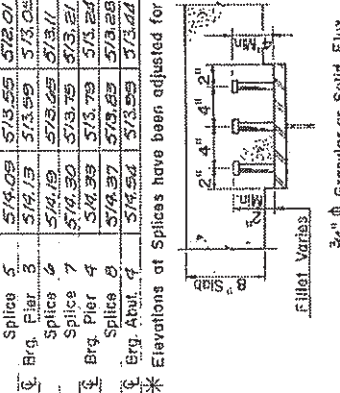
	ABUT. 3	PIER 3	PIER 4	ABUT. 4
R DL (k)	49.24	171.41	171.41	45.60
R LL (k)	52.74	82.67	83.14	52.75
R IMP (k)	12.58	18.72	18.81	12.55
R TOTAL (k)	114.56	272.80	273.36	110.91

STRUCTURAL STEEL, GIRDERS 6-10
F.A. RTE. 408 SEC. 1-4B-1
ADAMS COUNTY
STA. 181+30.00 F.A. 408



FLANGE CUTTING DETAIL

AS REVISED



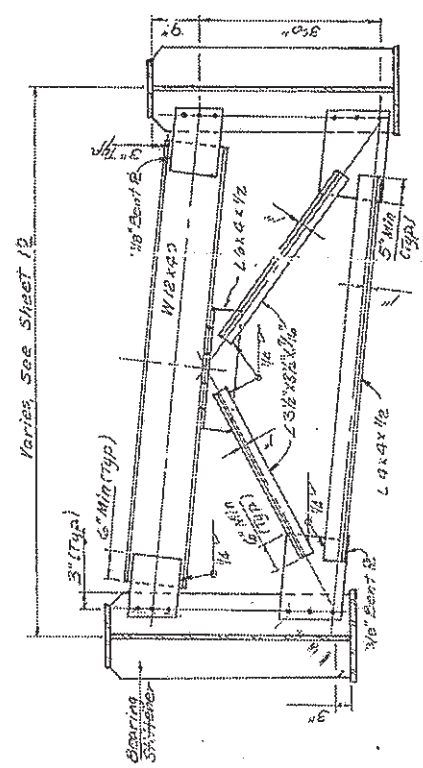
OFFSET SKETCH

GIRDER COORDINATES - TANGENT TO GIRDER AT STA. 181+30.00

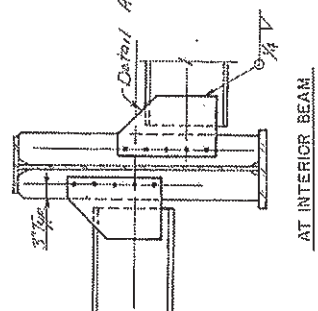
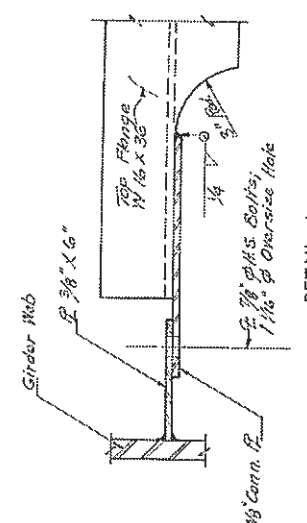
GIRDER	ABUT. 3	ABUT. 4	SPLICE 5	SPLICE 6	SPLICE 7	ABUT. 7	ABUT. 8	ABUT. 9	ABUT. 10
6	-150.902	-4.011	-89.036	1.372	-60.009	0.204	14.097	0.096	-40.084
7	-142.499	3.608	-79.281	1.132	-57.838	0.594	-31.841	0.180	-24.525
8	-134.479	3.223	-71.406	0.914	-49.617	0.938	-23.614	0.035	-33.088
9	-126.441	2.859	-63.341	0.714	-41.365	0.306	-15.364	0.042	-41.624
10	-118.385	2.514	-55.084	0.544	-33.097	0.196	-7.099	0.009	-30.188

DESIGNED: J.R.H.
CHECKED: M.V.H.
DRAWN: S.S.B.
CHECKED: M.V.H.

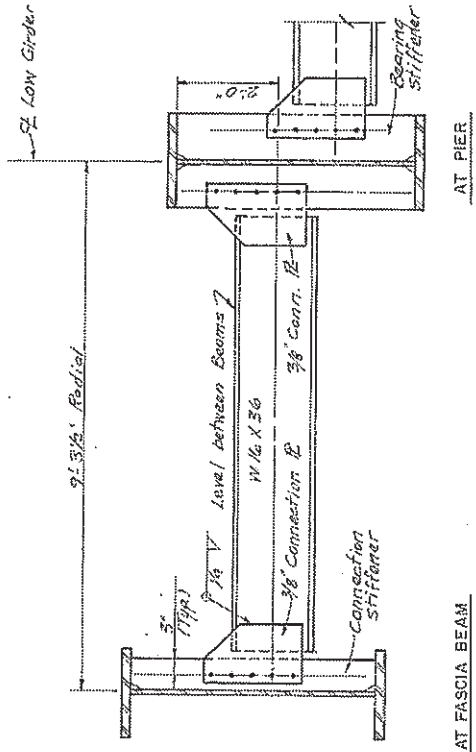
DATE	BY	CHKD	APP'D
1-18-11	ADAMS	ST	SI
SHEET NO. 15		TOTAL SHEETS 27	



END DIAPHRAGM
(EOI thru EO16)

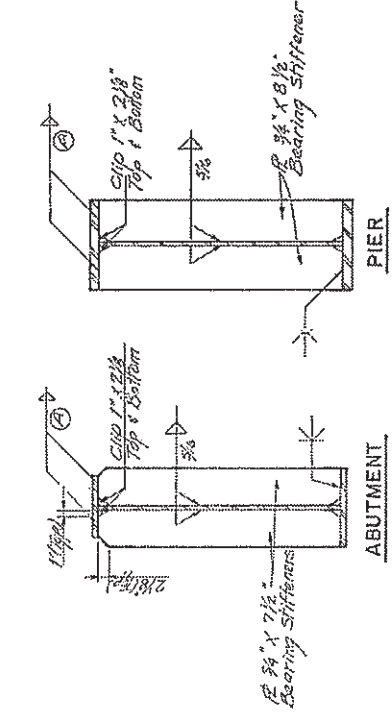


AT INTERIOR BEAM

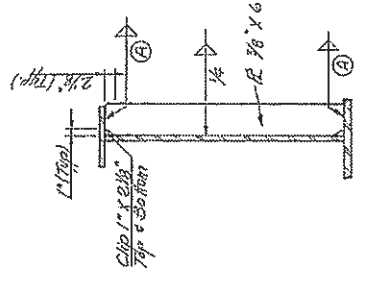


AT FASCIA BEAM

INTERIOR DIAPHRAGM
DIM 1 FROM 2



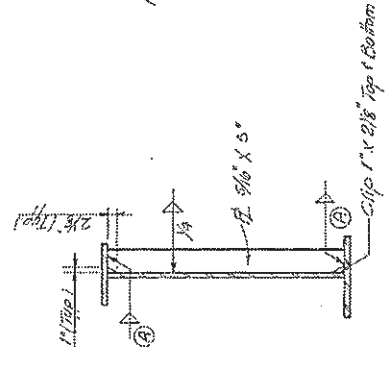
BEARING STIFFENERS



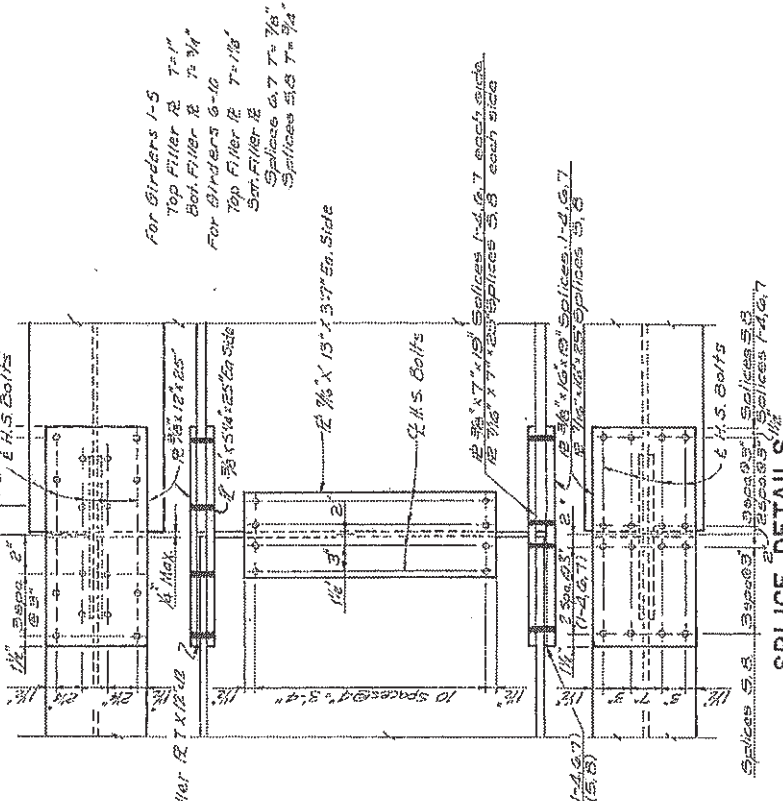
DIAPHRAGM CONNECTION PLATE

Use 7/8\"/>

Use two hardened washers per bolt at all over-size holes. All contact surfaces of the diaphragm joints shall be free of paint or lacquer.



INTERMEDIATE STIFFENER



SPLICE DETAILS

1. All bolts are 7/8\"/>

Fillet Welds	
Flange Thick.	Weld Size
3/4"	1/4"
1"	5/16"
1 1/8"	3/8"
1 1/2"	7/8"

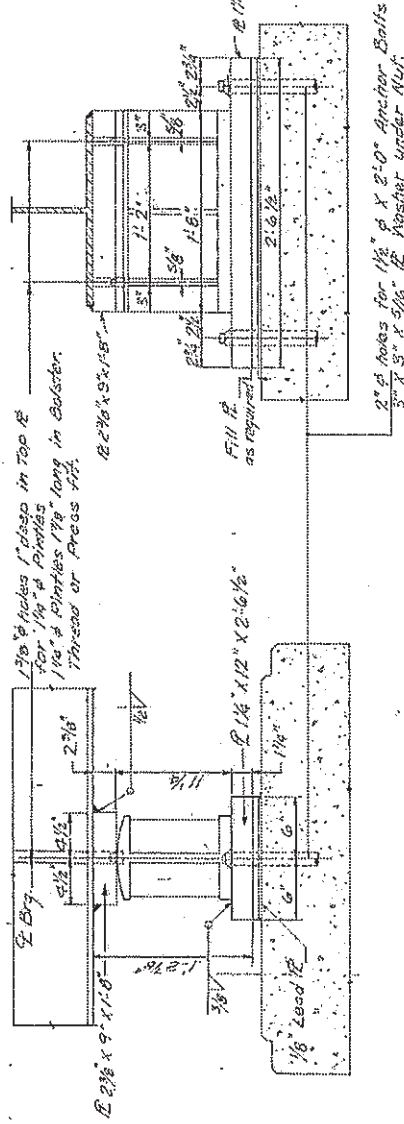
STEEL DETAILS
F.A. RTE. 408 SEC. 1-4B-1
ADAMS COUNTY
STA. 181+30.00 F.A. 408

DESIGNED	JHN
CHECKED	MVM
DRAWN	BSS
CHECKED	MVM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

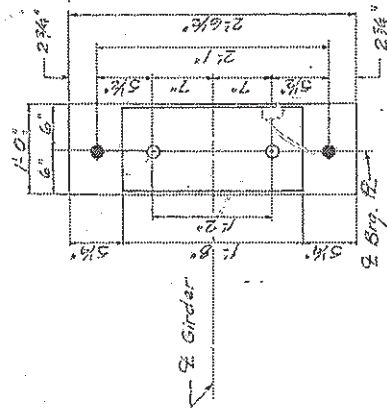
SHEET NO 16
Z7 SHEETS

DATE	BY	CHECKED	DATE	BY	CHECKED
1-14-08	ADAMS	57	57	57	57



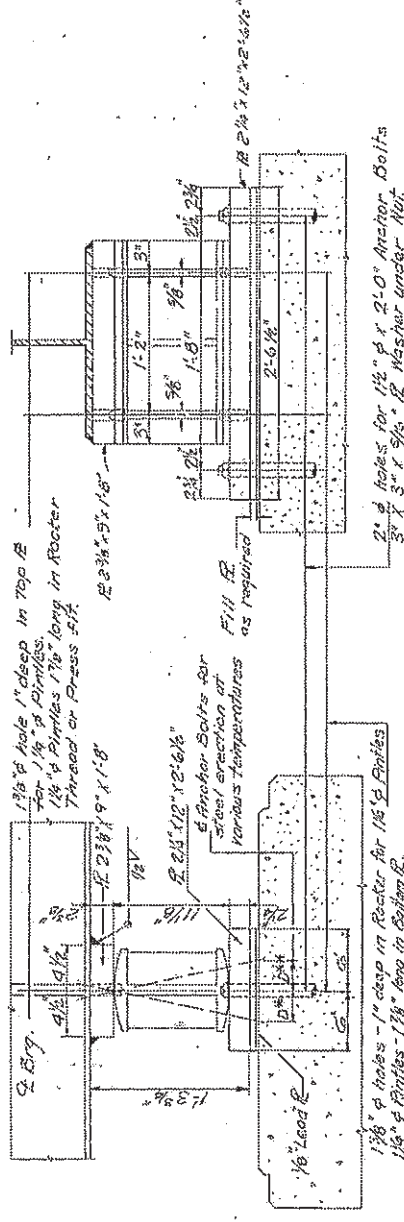
SIDE

ELEVATION



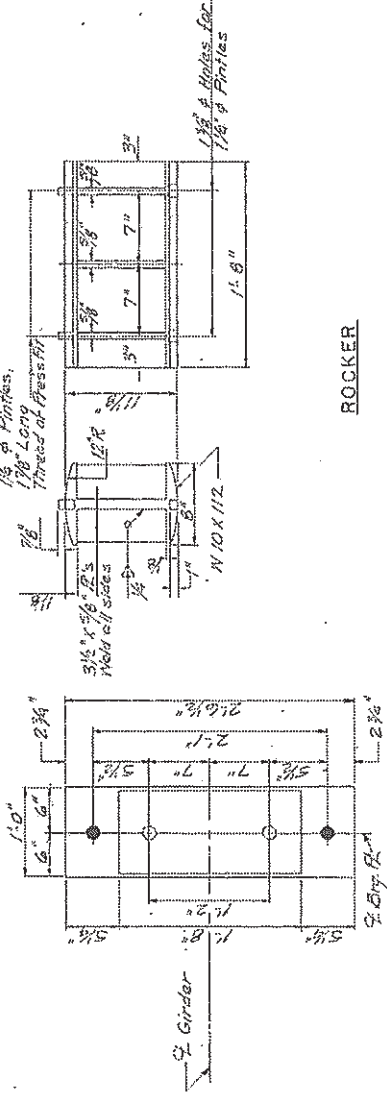
PLAN

FIXED BEARING - PIER 1, 3



SIDE

ELEVATION



PLAN

EXPAN. BEARING - PIER 2, 4



PINTLE

STEEL
BEARING DETAILS
FA. RTE. 408 SEC. 1-48-1
ADAMS COUNTY
STA. 181+30.00 F.A. 408

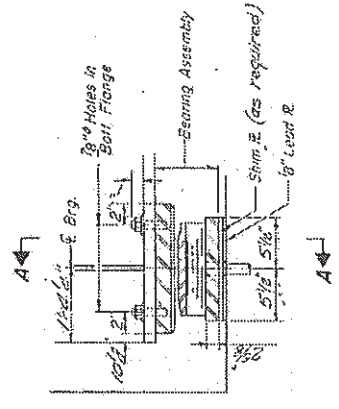
NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- Side of bearing away from fixed bearing) $D^* = 1/8''$ per each 100' of expansion for every 15° fall below the normal temp. of 50° F.
- Side of bearing toward fixed bearing) $D^* = 1/8''$ per each 100' of expansion for every 15° rise above the normal temp. of 50° F.

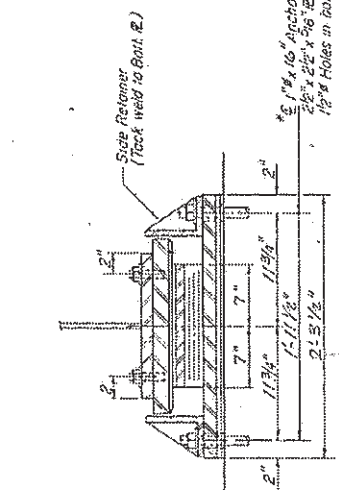
After beams have been erected and dimensions D^* or D^* have been determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

DESIGNED	MVM
CHECKED	JHN
BRAWN	BSB
CHECKED	MVM

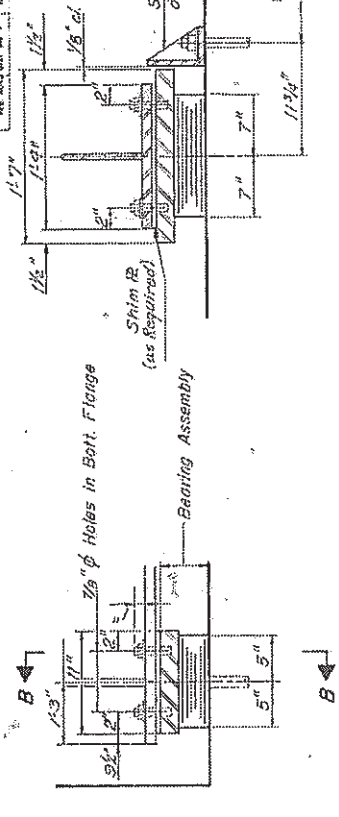
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USER NAME =	kodjimo	DRAWN	REVISED								
PLOT SCALE =	100.0000 / 1 in.	CHECKED	REVISED								
PLOT DATE =	Aug19-2014 10:05:58PM	DATE	REVISED								
FILE NO.	1-408	SHEET NO.	57	SECTION	06 BOBE PAINTING 2015	COUNTY	ADAMS	TOTAL SHEETS	30	SHEET NO.	21
PROJECT NO.	ADAMS	DATE	57	SECTION	06 BOBE PAINTING 2015	COUNTY	ADAMS	CONTRACT NO.	72H36	PROJECT	ILLINOIS FED. AID PROJECT



SECTION A-A

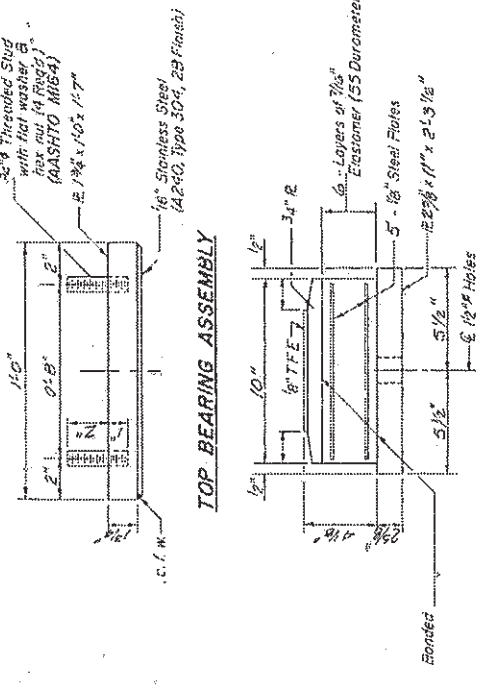


SECTION 4-4



SECTION B-B

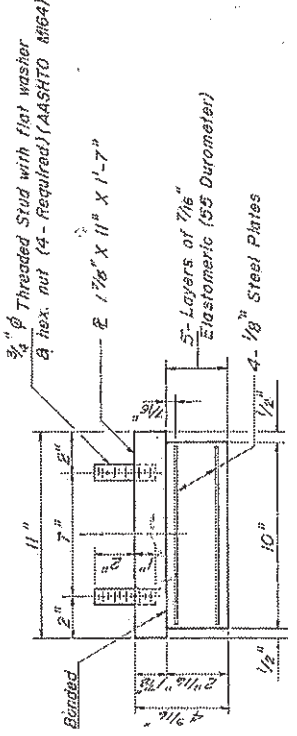
TYPE II TFE ELASTOMERIC EXP BRG.
at Abertments 2 and 4



TOP BEARING ASSEMBLY

BOTTOM BEARING ASSEMBLY

TYPE I ELASTOMERIC EXP BRG.
at Abertments 1 and 3

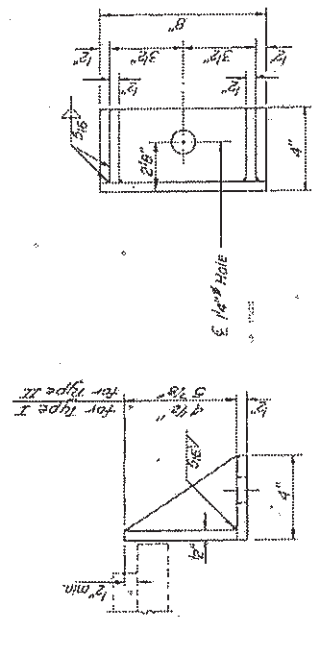


BEARING ASSEMBLY

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

*Note: After girders have been erected holes of expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be left for the masonry.

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MILM-4-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SIDE RETAINER

DESIGNED	MVM
CHECKED	JHN
DRAWN	BSS
CHECKED	MVM

ELASTOMERIC
BEARING DETAILS
F.A. RTE. 408 SEC. 1-4B-1
ADAMS COUNTY
STA. 181+30.00 F.A. 408

I-2-E2 4-1-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO.	72436	TOTAL SHEETS	30
PROJECT NO.	172	COUNTY	ADAMS
SECTION	D6	DATE	12/15/15
DATE	12/15/15	BY	ADAMS
BY	ADAMS	CHECKED	SEY
CHECKED	SEY	DATE	12/15/15

GENERAL NOTES
1. THE CONTRACTOR SHALL DRIVE THREE (3) CONCRETE TEST PILES IN PROMINENT LOCATIONS. ONE EACH AT APPROX. BENT # 3, APPROX. # 1 AND APPROX. # 2 AS DIRECTED BY THE ENGINEER BEFORE UNDERMINING THE REMAINDER OF THE PILE.
2. THE INH LINE CORRELATING BETWEEN COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR BOLT TIGHTNESS ZONE 2. THESE COMPONENTS ARE THE TENSION PLATES, HEAD AND ALL WEB AND TENSION FLANGE PLATE INTERVALS OF THE STEEL GIRDERS.
3. THE EMBANKMENT CONSTRUCTION SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED TO ALLOW FOR THE CONSTRUCTION OF THE STRUCTURE.
4. THE BASIC LEAD SIZED CHROME PLATE SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.
5. FIELD HELDING OF CONNECTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF THE STEEL GIRDERS. FIELD HELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
6. ANCHOR BOLTS SHALL BE SET BEFORE ERECTING CROSS FRAMES OVER SUPPORTS.
7. FACTORS SHALL BE USED TO DETERMINE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED TO ALLOW FOR THE CONSTRUCTION OF THE STRUCTURE.
8. SEE PROPOSAL FOR BORING DATA.
9. THE SLOPE SHALL BE REINFORCED WITH WELDED WIRE FABRIC, F.W.F. - 18" x 18" x 14" D. NEIGHBORING 58 LBS. PER 100 SQ. FT.
10. CONCRETE PILES AT APPROXIMATE AND APPROXIMATE SHALL BE DRIVEN IN LINES PRECISED THROUGH THE EMBANKMENT IN ACCORDANCE WITH ARTICLE 515.08 (C) OF THE STANDARD SPECIFICATIONS.
11. SEE PROPOSAL FOR BORING DATA.
12. THE SLOPE SHALL BE REINFORCED WITH WELDED WIRE FABRIC, F.W.F. - 18" x 18" x 14" D. NEIGHBORING 58 LBS. PER 100 SQ. FT.
13. CONCRETE PILES AT APPROXIMATE AND APPROXIMATE SHALL BE DRIVEN IN LINES PRECISED THROUGH THE EMBANKMENT IN ACCORDANCE WITH ARTICLE 515.08 (C) OF THE STANDARD SPECIFICATIONS.

DESIGN LOADING HS20-44
Allow 50% P.S.I. for future widening. Surface design per Specifications 1977, 1978, 1979, and 1980 Interim Specifications.
DESIGN STRESSES - LOAD FACTOR DESIGN
P_t = 5,500 P.S.I. Concrete
P_c = 50,000 P.S.I. Prestressing Steel (Hybrid Girder Design)
P_s = 180,000 P.S.I. Strand
PRECAST PRESTRESSED STRESSES
P_t = 5,500 P.S.I. Concrete
P_c = 50,000 P.S.I. Prestressing Steel (Hybrid Girder Design)
P_s = 180,000 P.S.I. Strand

STRUCTURE EXCAVATION
LIMITS OF EARTH EMBANKMENT
LIMITS OF REMOVAL OF UNSUITABLE MATERIAL AND REPLACEMENT WITH POROUS GRANULAR EMBANKMENT. SEE SHEET #21.1.

DESIGN LOADING HS20-44
Allow 50% P.S.I. for future widening. Surface design per Specifications 1977, 1978, 1979, and 1980 Interim Specifications.
DESIGN STRESSES - LOAD FACTOR DESIGN
P_t = 5,500 P.S.I. Concrete
P_c = 50,000 P.S.I. Prestressing Steel (Hybrid Girder Design)
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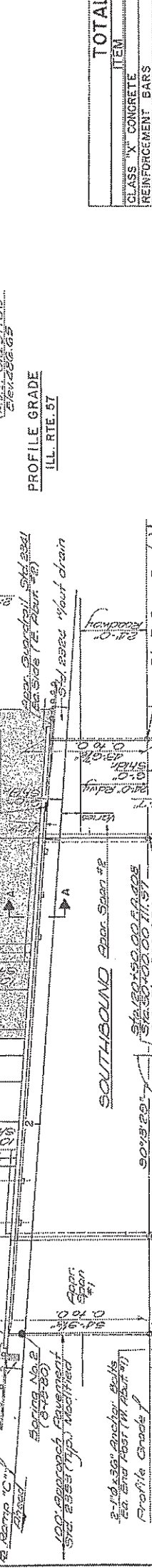
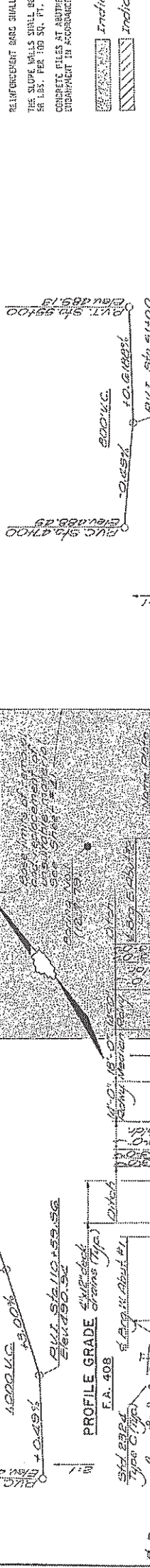
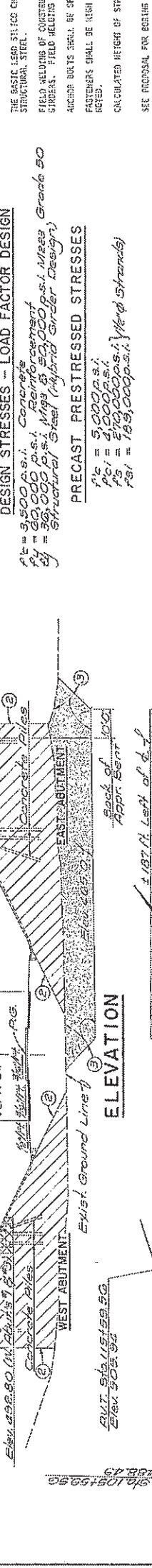
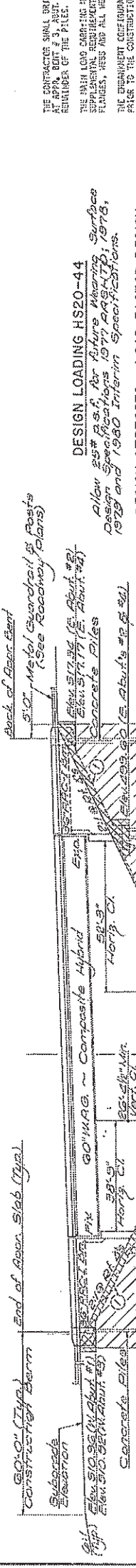
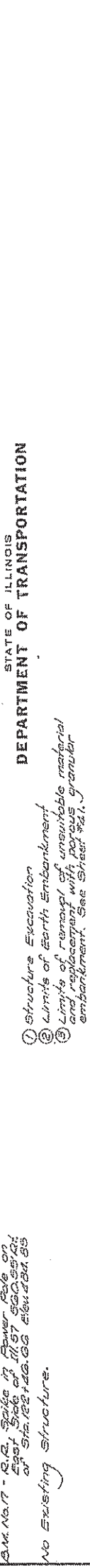
DESIGN LOADING HS20-44
Allow 50% P.S.I. for future widening. Surface design per Specifications 1977, 1978, 1979, and 1980 Interim Specifications.
DESIGN STRESSES - LOAD FACTOR DESIGN
P_t = 5,500 P.S.I. Concrete
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P_c = 50,000 P.S.I. Prestressing Steel (Hybrid Girder Design)
P_s = 180,000 P.S.I. Strand



TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUBSTR.	TOTAL
CLASS "X" CONCRETE	CU. YD.	620.0	561.0	1181.0
REINFORCEMENT BARS	LBS.	82,430	55,200	137,630
REINFORCEMENT BARS (EPOXY-COATED)	LBS.	94,730	---	94,730
STRUCTURAL STEEL	LUMP SUM	---	---	---
STRUCTURE EXCAVATION	CU. YD.	---	1,002	1,002
CONCRETE PILES	LIN. FT.	---	7308	7308
TEST PILES, CONCRETE	EACH	---	3	3
P.P.C. - 1 BEAMS, 36"	LIN. FT.	---	624	624
NEOPRENE EXPANSION JOINT (E)	EACH	---	2	2
NAME PLATES	EACH	---	2	2
SLOPEWALL (4')	SO. YD.	---	1,112	1,112
STUD SHEAR CONNECTORS	EACH	---	3,654	3,654
ELASTOMERIC BEARING ASSEMBLY, TYPE 1	EACH	---	14	14
PROTECTIVE COAT	SO. YD.	---	2,613	2,613
FLOOR DRAINS	EACH	---	20	20
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU. YD.	---	14,550	14,550
POROUS GRANULAR EMBANKMENT	CU. YD.	---	14,550	14,550

FOR INFORMATION ONLY. Additional Details of Removal, Replacement and Construction Phasing are shown on Detail Sheet No. 41.

GENERAL PLAN & ELEVATION
F.A. RTE. 408 Over Ill. 57
F.A. RTE. 408 SEC. 1-3HB
ADAMS COUNTY
STA. 120+50.00 F.A. 408
PLANS PREPARED BY AMERICAN ENGINEERING CO.
ILLINOIS (FED. AID PROJECT)

DESIGNED MUM
CHECKED OSY
DRAWN SEY
CHECKED MUM

EXISTING SN: 001-006465
FOR INFORMATION ONLY
SHEETS STA. TO STA.
SCALE: SHEET

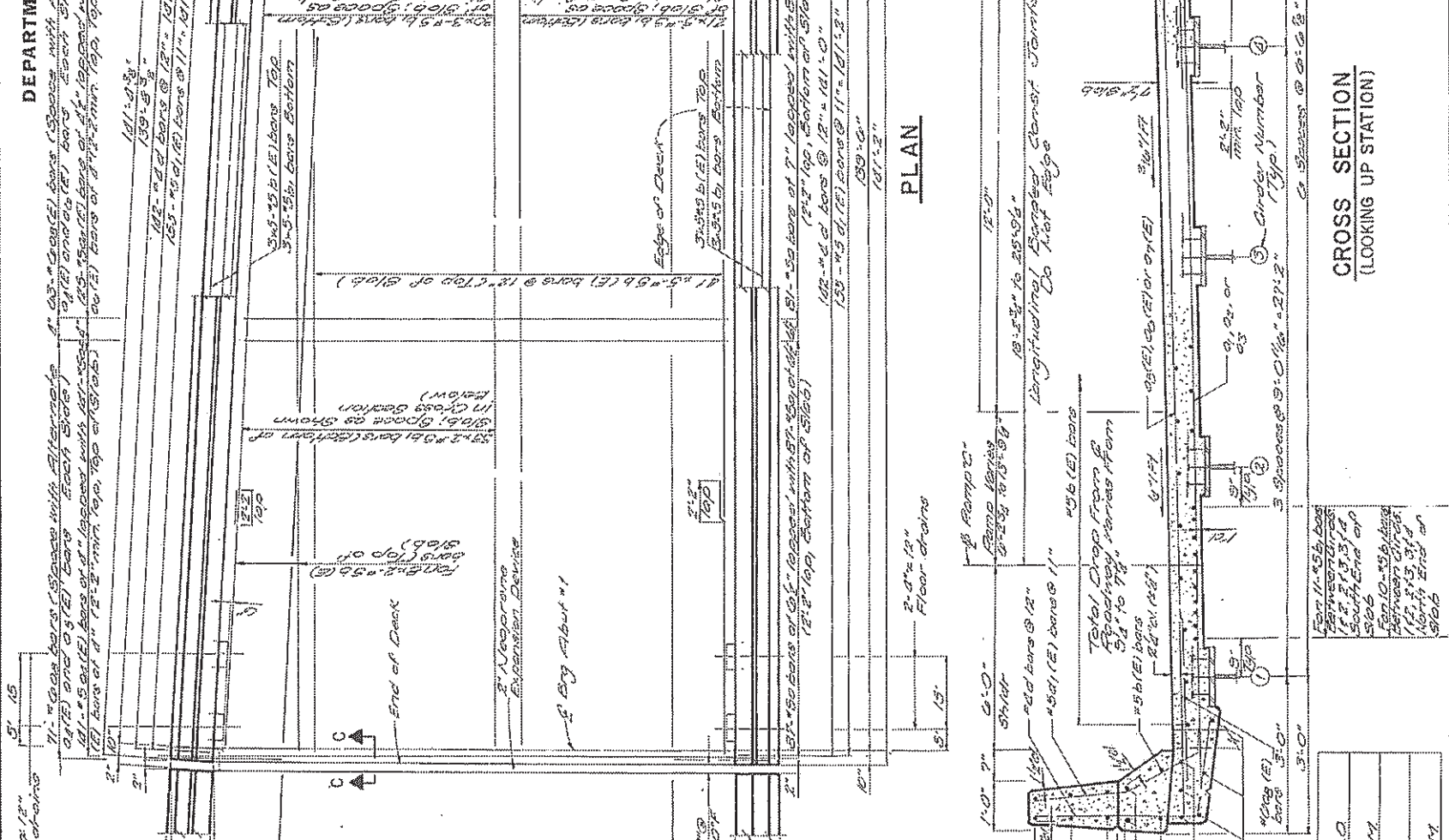
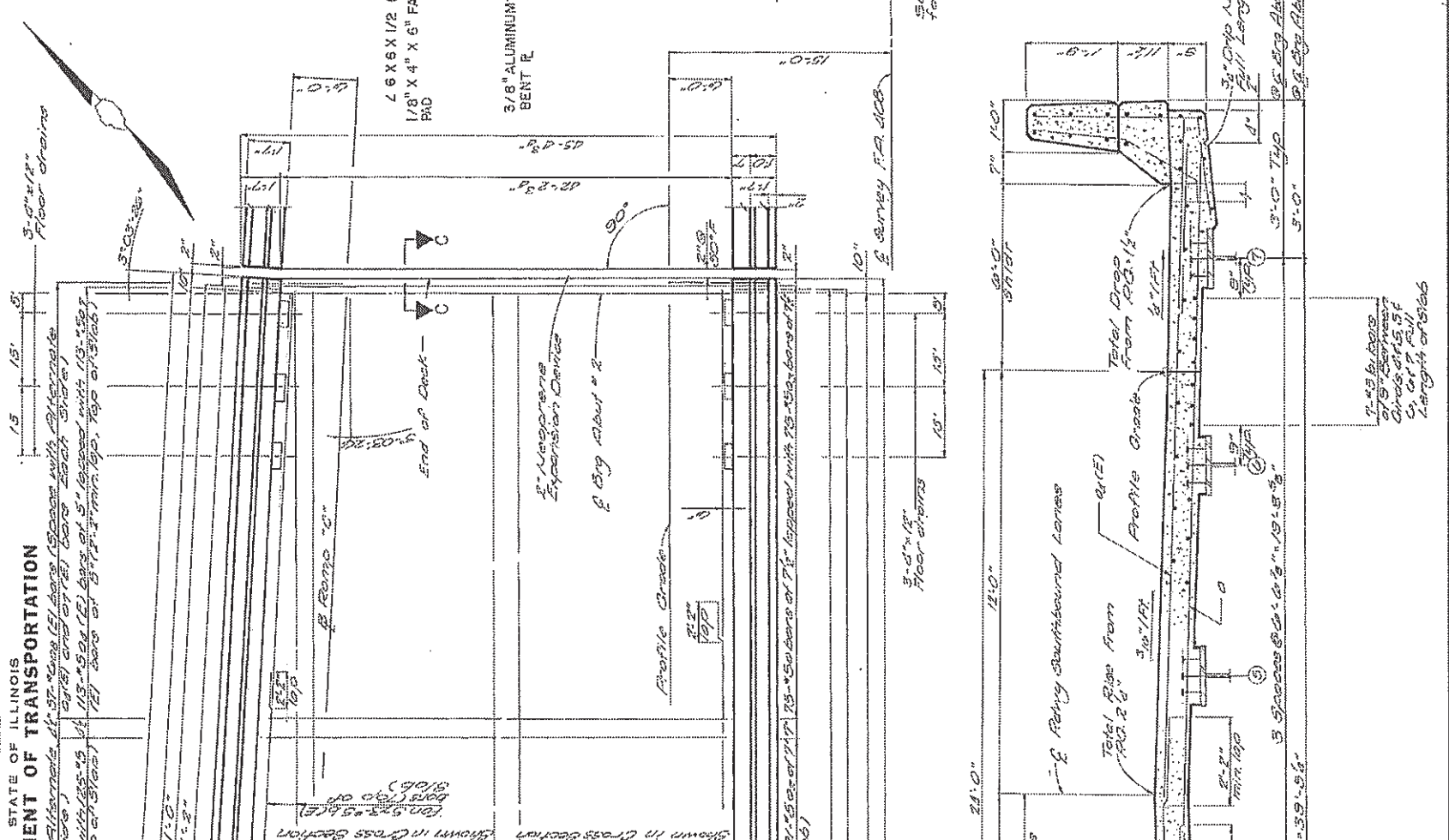
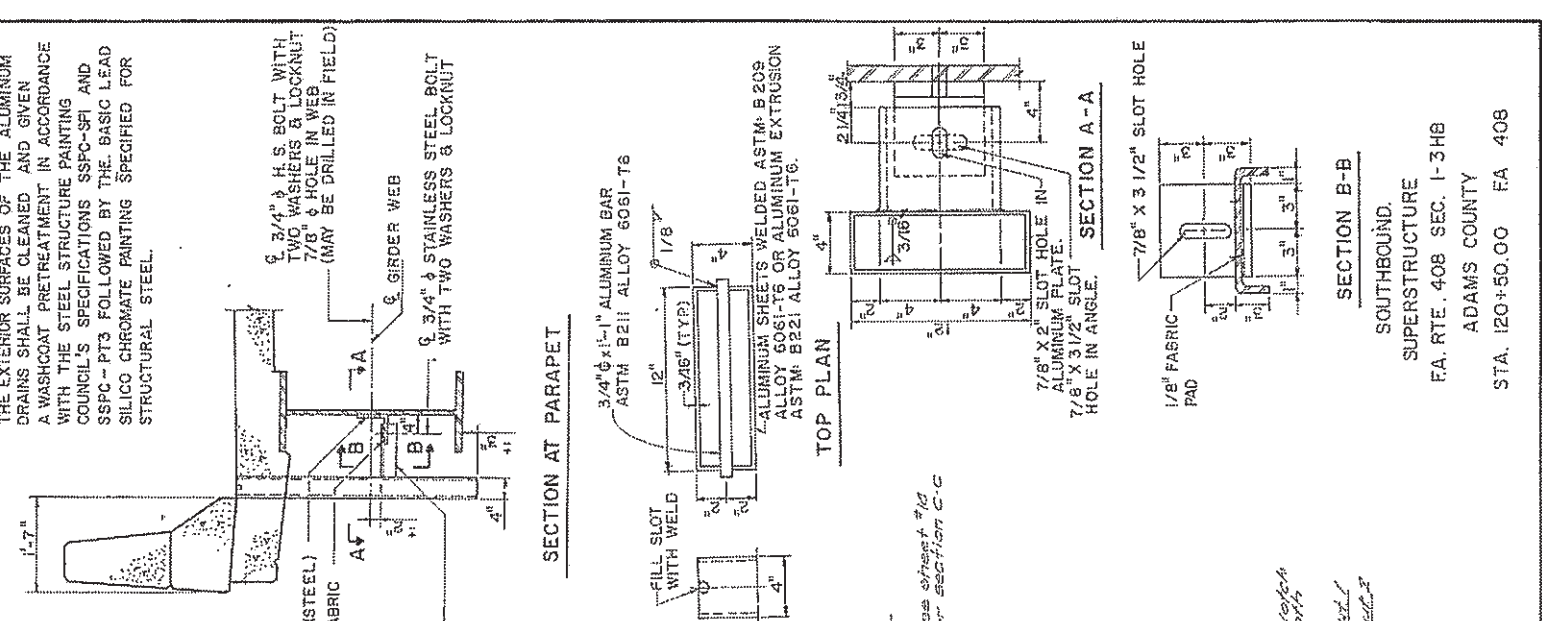
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
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PLOT SCALE: 1/8" = 1'-0"
PLOT DATE: Aug-19-2014 08:25:09PM

SHEET NO. 12
SHEETS 23

REV.	DATE	BY	CHKD.
1	10/15/15	ADAMS	153
2	11/10/15	ADAMS	69

PROJECT NO. 153-3HB
FA. RTE. 408
SHEET NO. 12
TOTAL SHEETS 23

NOTE:
THE EXTERIOR SURFACES OF THE ALUMINUM DRAINS SHALL BE CLEANED AND GIVEN A WASHCOAT PRETREATMENT IN ACCORDANCE WITH THE STEEL STRUCTURE PAINTING COUNCIL'S SPECIFICATIONS SSPC-SP1 AND SSPC-PT3 FOLLOWED BY THE BASIC LEAD SILICO CHROMATE PAINTING SPECIFIED FOR STRUCTURAL STEEL.



DESIGNED RLO
CHECKED MVM
DRAWN RLO
CHECKED MVM

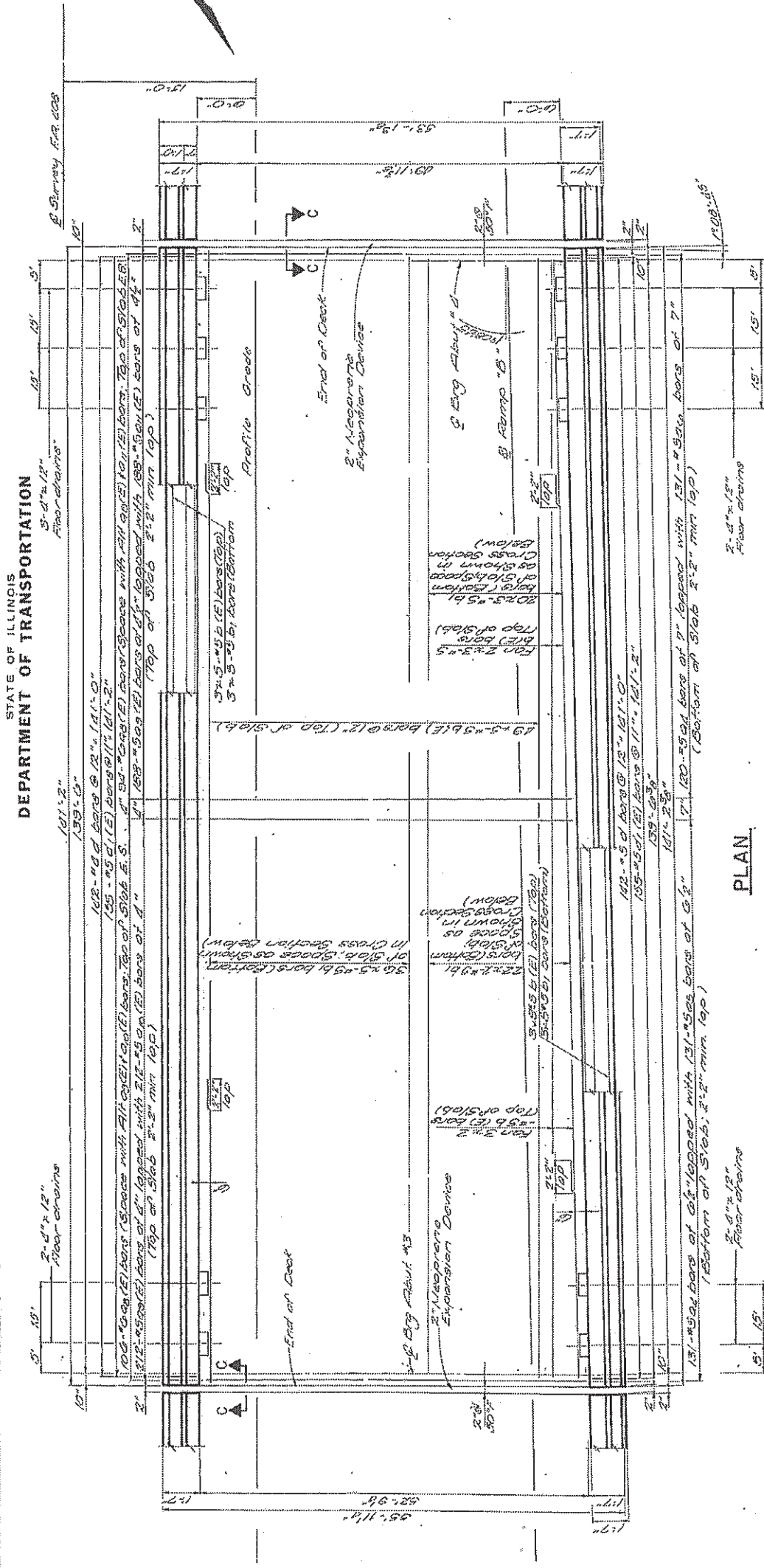
USER NAME = kadrina
172 bridge paint 2015\kadrina\Edg
PLOT SCALE = 1/8\"/>

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

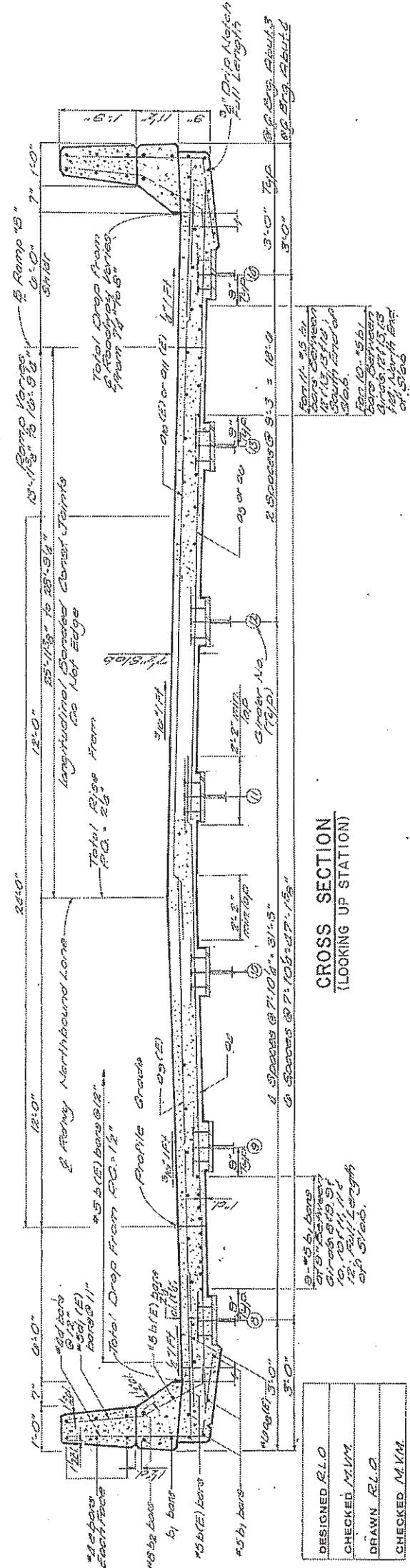
SHEET NO. 13
SHEETS 209

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400B-1-3 HR	ADAMS	159	70
ILLINOIS	ILLINOIS	ILLINOIS	ILLINOIS

FOR FLOOR DRAIN DETAILS, SEE SHEET NO. 12
FOR SECTION C-C, SEE SHEET NO. 14



PLAN



**CROSS SECTION
(LOOKING UP STATION)**

DESIGNED R.L.O.
CHECKED M.V.M.
DRAWN R.L.O.
CHECKED M.V.M.

USER NAME = kadrimo
PROJECT = 172 bridge part 2BISplombestegn
PLOT SCALE = 1/8" = 1'-0"
PLOT DATE = Aug-19-2014 8:46:41PM

DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EXISTING SN: 001-006465
FOR INFORMATION ONLY

FULL RTEL: 172
SECTION: D6 BDGE PAINTING 2015
COUNTY: ADAMS
TOTAL SHEETS: 30

SHEET NO. 13
SHEETS 209
CONTRACT NO. 72H36
ILLINOIS FED. AID PROJECT

NORTHBOUND
SUPERSTRUCTURE
FA. RTE. 408 SEC. 1-3HB
ADAMS COUNTY
STA. 120+50.00 FA 408

DATE	BY	REVISION
10/11/13	ADAMS	1/33
10/11/13	ADAMS	73

STATE NO.	PROJECT	SECTION	SHEET NO.
1-3HB	ADAMS	172	73
F.A. 408	ADAMS	D6 BOCE PAINTING 2015	26
120+50.00	ADAMS	ILLINOIS FED. AID PROJECT	26

BRG. LAYOUT AT ABUT.

BRG. LAYOUT AT ABUT.

BRG. LAYOUT AT ABUT.

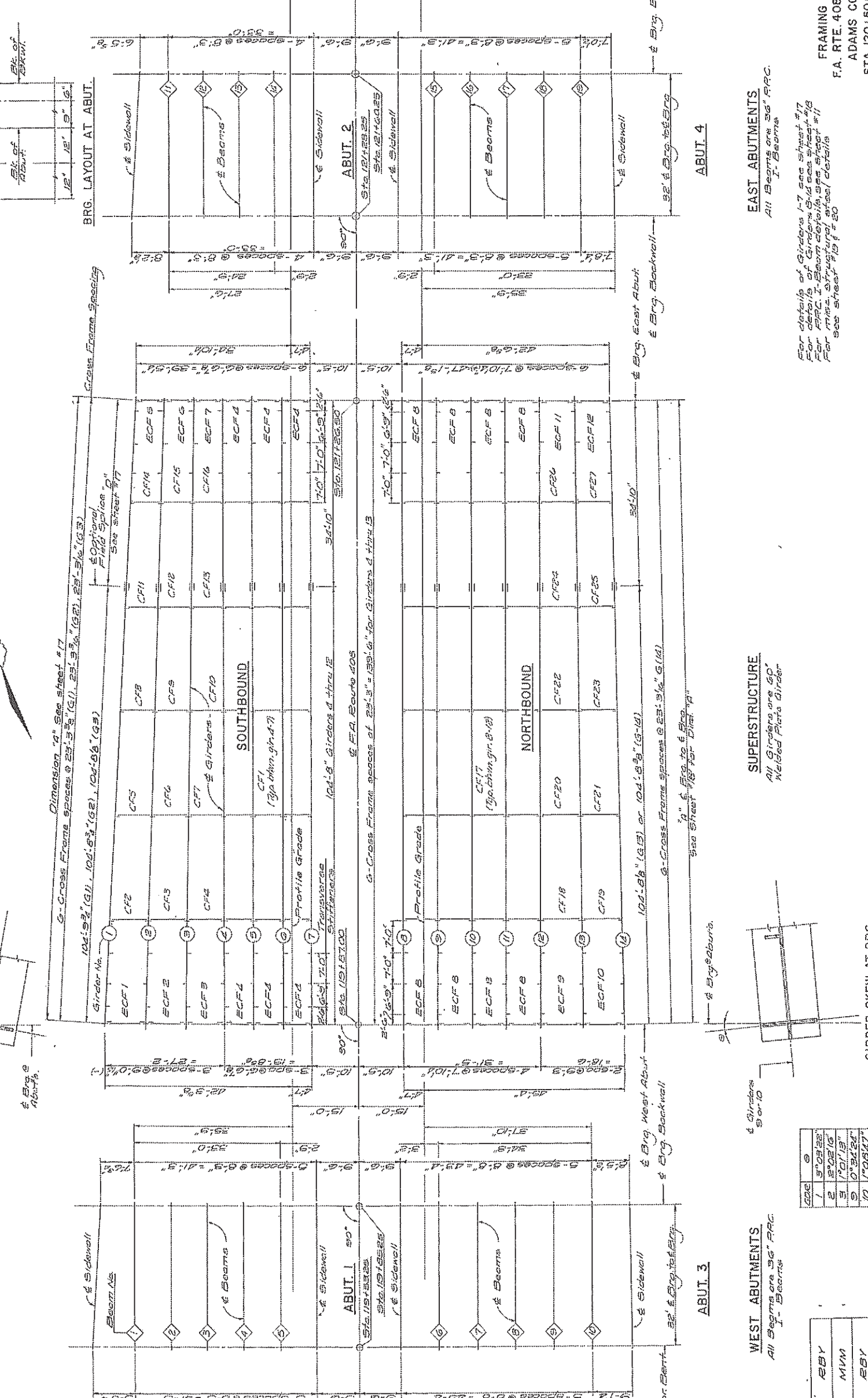
BRG. LAYOUT AT ABUT.

BRG. LAYOUT AT ABUT.

BRG. LAYOUT AT ABUT.

BRG. LAYOUT AT ABUT.

BRG. LAYOUT AT ABUT.



DESIGNED: EBY

CHECKED: MVM

DRAWN: EBY

CHECKED: MVM

DATE: 10/11/13

10/11/13

10/11/13

10/11/13

10/11/13

10/11/13

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10/11/13

10/11/13

WEST ABUTMENTS
All Beams are 36" PRC
I-Beams

EAST ABUTMENTS
All Beams are 36" PRC
I-Beams

FRAMING PLAN
F.A. RTE. 408 SEC. 1-3HB
ADAMS COUNTY
STA. 120+50.00 F.A. 408

For details of Girders 1-7 see sheet #17
For details of Girders 8-10 see sheet #18
For details of Beams 1-10 see sheet #11
For details of structural steel details
see sheet #19 & #20

EXISTING SN: 001-006465
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED: EBY
DRAWN: EBY
CHECKED: MVM
DATE: 10/11/13

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PLOT SCALE: 1/8"=1'-0"
PLOT DATE: Aug 19 2014 10:41:11 AM

REVISIONS
1 10/11/13
2 10/11/13
3 10/11/13
4 10/11/13
5 10/11/13
6 10/11/13
7 10/11/13
8 10/11/13
9 10/11/13
10 10/11/13

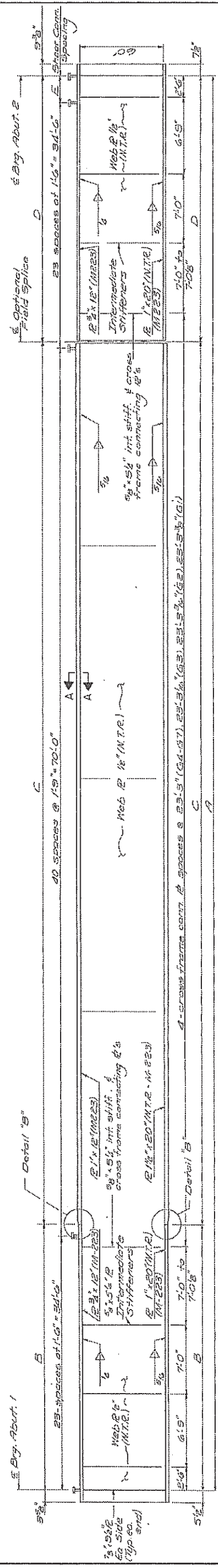
SCALE: SHEETS: STA. TO STA.
SHEET 73 OF 73

TOTAL SHEET NO. 73
COUNT 30
ADAMS COUNTY
CONTRACT NO. 12H36

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 17
SHEETS 23

DATE	ISSUED	BY	SCALE
11/10/00	11/10/00	ADAMS	7/4
11/10/00	11/10/00	ADAMS	7/4
11/10/00	11/10/00	ADAMS	7/4

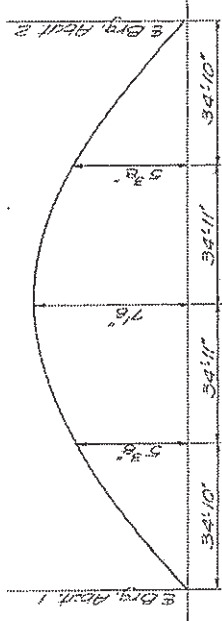
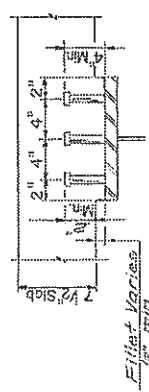
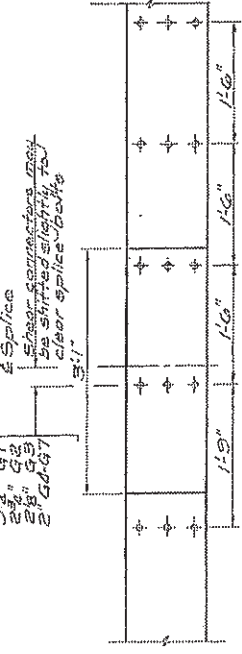
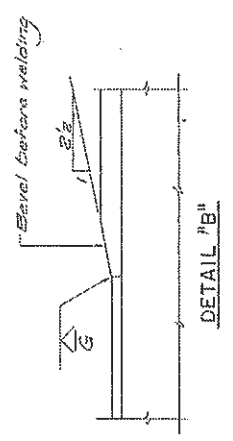


GIRDER ELEVATION

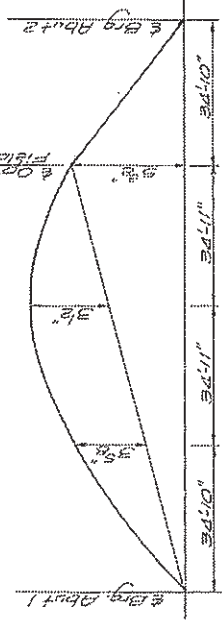
NOTE: All dimensions are measured along E of girder.
N.T.R. denotes Notch Toughness Requirements are applicable.
Work this sheet with sheets 16, 19 & 20.
All flange plates, end splice plates as shown on sheets 16, 19 & 20 shall be A572-50. All other steel shall be A36.
LOAD FACTORS 1.2DL+1.6(LL+L1) ARE USED FOR COMPUTING MOMENTS & STRESSES.
L1 AND S1 ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE STEEL SECTION.
L1 AND S1 ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE COMPOSITE SECTION.
VR IS THE MAXIMUM LL+L1 SHEAR RANGE IN THE SPAN.

GIRDER DIMENSIONS						
	A	B	C	D	E	
1	159'10"	34'10"	62'11"	34'10"	5'8"	
2	159'10"	34'10"	62'11"	34'10"	7'	
3	159'10"	34'10"	62'11"	34'10"	6'	
4	159'10"	34'10"	62'11"	34'10"	6'	
5	159'10"	34'10"	62'11"	34'10"	6'	
6	159'10"	34'10"	62'11"	34'10"	6'	
7	159'10"	34'10"	62'11"	34'10"	6'	

TOP OF WEB ELEVATIONS (For Fabrication Only)						
	1	2	3	4	5	6
Q. Brg. Abut. 1	517.65	517.65	517.65	517.65	517.65	517.65
Q. Opt. Field Splice	521.54	521.49	521.69	521.74	521.69	521.54
Q. Brg. Abut. 2	521.97	522.11	522.23	522.39	522.53	522.63



CAMBER DIAGRAM
(STEEL AND DECK DEAD LOADS)
(WITHOUT OPTIONAL FIELD SPLICE)



CAMBER DIAGRAM
(WITH OPTIONAL FIELD SPLICE)

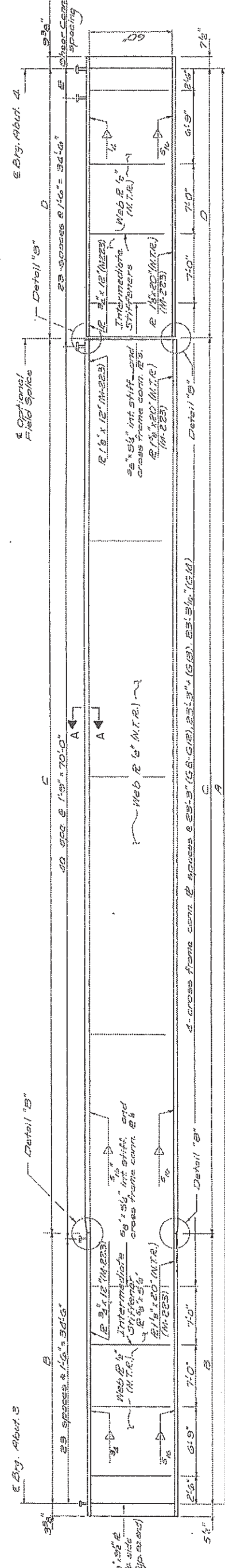
INTERIOR GIRDER MOMENT TABLE		REACTION TABLE	
0.25 SPAN 0.5 SPAN 0.75 SPAN		ABUT. 1 ABUT. 2	
Is (in ⁴)	39990	REACTION (k)	256.9
S _x (in ³)	1841	RD (k)	27.5
DL (ft-k)	94	RL (k)	47.5
MDL (ft-k)	2293	RIMP (k)	2.9
FRS DL (ft-k)	20.1	RTOTAL (k)	156.5
Is (in ⁴)	6012		
S _x (in ³)	2822		
MDL (ft-k)	288		
FRS DL (ft-k)	4.9		
ISE S _{DL} (in ³)	2498		
IC (in ³)	10709		
S _{cb} (in ³)	1824		
M.L. (ft-k)	2434		
MIMP (ft-k)	559		
MULTOTAL (ft-k)	3983		
FRS LL (ft-k)	20.2		
FRS TOTAL (ft-k)	47.5		
VR (k)	67.20		

GIRDERS 1-7
STRUCTURAL STEEL
F.A. RTE. 408 SEC. 1-3HB
ADAMS COUNTY
STA. 120+50.00 F.A. 408

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 18
SHEETS 29

DATE	DESIGNER	CHECKER
11/14/08	ADAMS	75



NOTE: All dimensions are measured along E of girder.
M.T.R. denotes Notch Toughness Requirements are applicable.
Mark this sheet with sheets 15, 16, 180
All flange plates and splice plates are to be A572-50 as per AASHTO M-283 steel, AASHTO M-183.

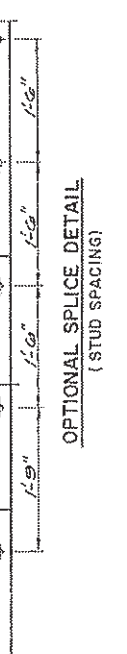
GIRDER ELEVATION

GIRDER	A	B	C	D	E
9	139.6	34.10	69.10	34.10	6
9	139.6	34.10	69.10	34.10	6
10	139.6	34.10	69.10	34.10	6
11	139.6	34.10	69.10	34.10	6
12	139.6	34.10	69.10	34.10	6
13	139.6	34.10	69.10	34.10	6
14	139.6	34.10	69.10	34.10	6

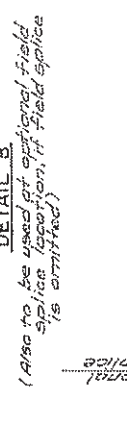
TOP OF WEB ELEVATIONS (For Fabrication Only)

Station	9	10	11	12	13	14
E. Brg. Abut. 3	517.92	518.06	518.19	518.29	517.95	517.67
E. Opt. Field Splice	521.87	521.85	521.78	521.68	521.54	521.20
E. Brg. Abut. 4	522.10	522.25	522.37	522.28	522.12	521.98

OPTIONAL SPLICE DETAIL (STUD SPACING)



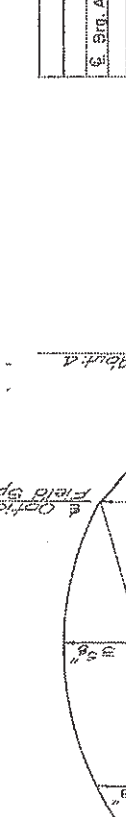
DETAIL "B"



SECTION A-A



CAMBER DIAGRAM (WITH OPTIONAL FIELD SPLICE)



CAMBER DIAGRAM (STEEL AND DECK DEAD LOADS) (WITHOUT OPTIONAL FIELD SPLICE)



REACTION TABLE

REACTION	ABUT. 3	ABUT. 4
RDL (k)	92.9	91.7
RLL (k)	52.4	43.9
RIMP (k)	11.2	10.1
R TOTAL (k)	156.5	145.7

INTERIOR GIRDER MOMENT TABLE

0.23 SPAN	0.50 SPAN	0.75 SPAN
Is (in-k)	355.32	479.12
Is (in-k)	187	200.7
DL (in-k)	1.01	1.09
MDL (in-k)	2.452	2.72
Is (in-k)	20.2	19.6
Is (in-k)	6.3301	7.915
Is (in-k)	17.96	17.96
Is (in-k)	0.303	0.300
MSDL (in-k)	7.9	7.0
Is (in-k)	4.8	4.7
Is (in-k)	112.54	112.54
Is (in-k)	10.80	10.72
Is (in-k)	55.56	55.56
Is (in-k)	67.2	67.2
Is (in-k)	422.6	422.6
Is (in-k)	19.7	19.5
Is (in-k)	44.1	44.5
Is (in-k)	67.2	67.2

REACTION TABLE

REACTION	ABUT. 3	ABUT. 4
RDL (k)	92.9	91.7
RLL (k)	52.4	43.9
RIMP (k)	11.2	10.1
R TOTAL (k)	156.5	145.7

GIRDERS 8-14
STRUCTURAL STEEL
F.A. RTE. 408 SEC. 1-3HB
ADAMS COUNTY
STA. 120+50.00 F.A.408

DESIGNED: JNG
CHECKED: MWH
DRAWN: JNG
CHECKED: RBY

FILE NAME: USER NAME: s.kadrino
c:\operations\br-projects\cmv\2h36 - 1-72 bridge paint 2815\sheet.dgn
PLOT SCALE: 1/8" = 1'-0"
PLOT DATE: Aug-19-2014 8:20:33PM

DESIGNED: -
DRAWN: -
CHECKED: -
DATE: -

REVISIONS:

REVISION	DESIGNED	DATE
REVISION	DRAWN	DATE
REVISION	CHECKED	DATE
REVISION	DATE	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SN: 001-008465
FOR INFORMATION ONLY

SCALE: SHEETS: STA. TO STA.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SN: 001-008465
FOR INFORMATION ONLY

SCALE: SHEETS: STA. TO STA.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SN: 001-008465
FOR INFORMATION ONLY

SCALE: SHEETS: STA. TO STA.

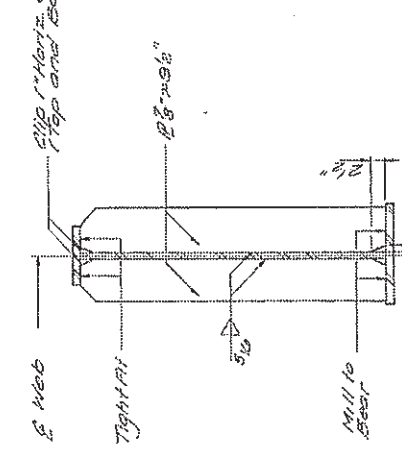
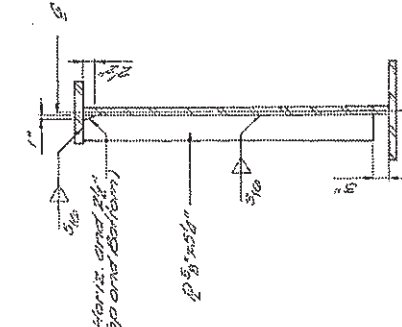
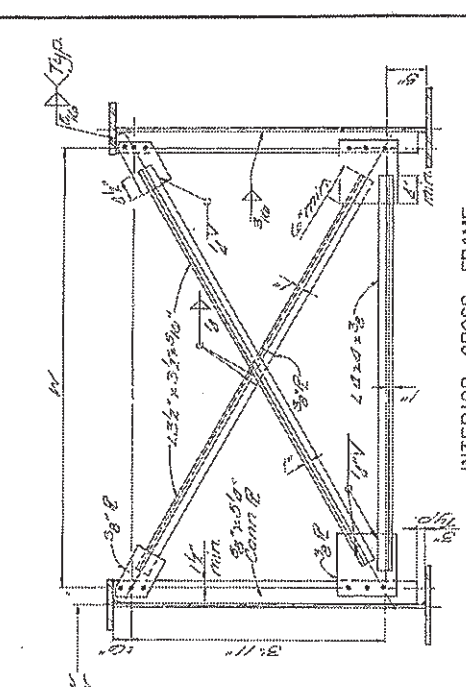
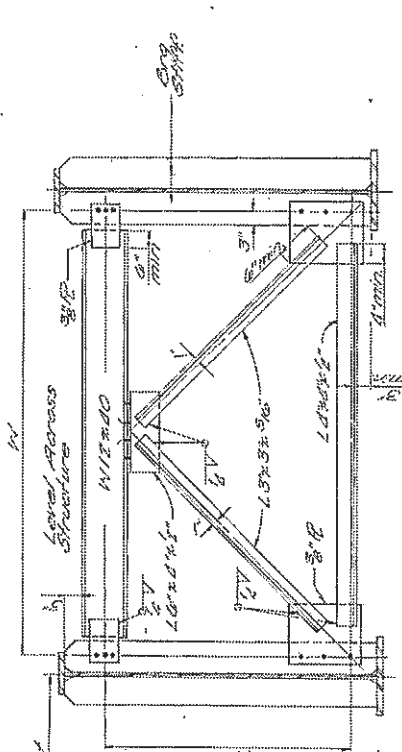
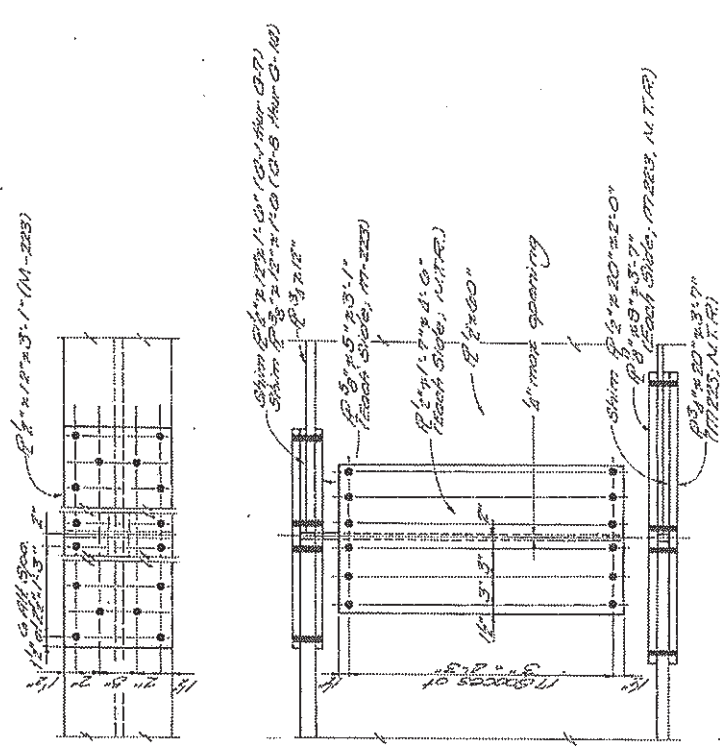
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SN: 001-008465
FOR INFORMATION ONLY

SCALE: SHEETS: STA. TO STA.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 13	SHEETS 29
DATE	DESIGNER
1-1-08	ADAMS
1-1-08	76
1-1-08	1-1-08
1-1-08	1-1-08



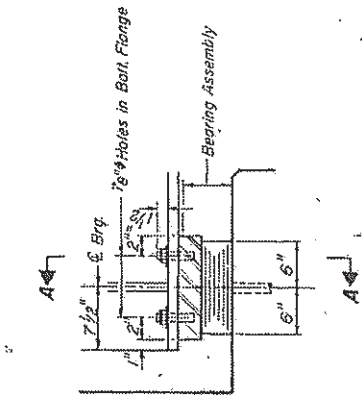
Notes:
For interior girder space stiffeners on alternate webs
For exterior girders space stiffeners on interior face of webs
All contact surfaces of the joints or lagwasher frames shall be free of paint or lacquer
Use 3/4" High strength bolts in 1/4" dia. holes for cross frame connections. Provide hardened washers over all holes (2 per bolt)

DESIGNED	RLO
CHECKED	JMG
DRAWN	RLO
CHECKED	MVM

DIAPHRAGM DIMENSIONS											
TYPE	W	Ø	TYPE	W	Ø	TYPE	W	Ø	TYPE	W	Ø
CF1	5'-0"	3'-0"	CF2	5'-0"	3'-0"	CF3	5'-0"	3'-0"	CF4	5'-0"	3'-0"
CF5	5'-0"	3'-0"	CF6	5'-0"	3'-0"	CF7	5'-0"	3'-0"	CF8	5'-0"	3'-0"
CF9	5'-0"	3'-0"	CF10	5'-0"	3'-0"	CF11	5'-0"	3'-0"	CF12	5'-0"	3'-0"
CF13	5'-0"	3'-0"	CF14	5'-0"	3'-0"	CF15	5'-0"	3'-0"	CF16	5'-0"	3'-0"
CF17	5'-0"	3'-0"	CF18	5'-0"	3'-0"	CF19	5'-0"	3'-0"	CF20	5'-0"	3'-0"
CF21	5'-0"	3'-0"	CF22	5'-0"	3'-0"	CF23	5'-0"	3'-0"	CF24	5'-0"	3'-0"
CF25	5'-0"	3'-0"	CF26	5'-0"	3'-0"	CF27	5'-0"	3'-0"	CF28	5'-0"	3'-0"
CF29	5'-0"	3'-0"	CF30	5'-0"	3'-0"	CF31	5'-0"	3'-0"	CF32	5'-0"	3'-0"
CF33	5'-0"	3'-0"	CF34	5'-0"	3'-0"	CF35	5'-0"	3'-0"	CF36	5'-0"	3'-0"
CF37	5'-0"	3'-0"	CF38	5'-0"	3'-0"	CF39	5'-0"	3'-0"	CF40	5'-0"	3'-0"
CF41	5'-0"	3'-0"	CF42	5'-0"	3'-0"	CF43	5'-0"	3'-0"	CF44	5'-0"	3'-0"
CF45	5'-0"	3'-0"	CF46	5'-0"	3'-0"	CF47	5'-0"	3'-0"	CF48	5'-0"	3'-0"
CF49	5'-0"	3'-0"	CF50	5'-0"	3'-0"	CF51	5'-0"	3'-0"	CF52	5'-0"	3'-0"
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CF57	5'-0"	3'-0"	CF58	5'-0"	3'-0"	CF59	5'-0"	3'-0"	CF60	5'-0"	3'-0"
CF61	5'-0"	3'-0"	CF62	5'-0"	3'-0"	CF63	5'-0"	3'-0"	CF64	5'-0"	3'-0"
CF65	5'-0"	3'-0"	CF66	5'-0"	3'-0"	CF67	5'-0"	3'-0"	CF68	5'-0"	3'-0"
CF69	5'-0"	3'-0"	CF70	5'-0"	3'-0"	CF71	5'-0"	3'-0"	CF72	5'-0"	3'-0"
CF73	5'-0"	3'-0"	CF74	5'-0"	3'-0"	CF75	5'-0"	3'-0"	CF76	5'-0"	3'-0"
CF77	5'-0"	3'-0"	CF78	5'-0"	3'-0"	CF79	5'-0"	3'-0"	CF80	5'-0"	3'-0"
CF81	5'-0"	3'-0"	CF82	5'-0"	3'-0"	CF83	5'-0"	3'-0"	CF84	5'-0"	3'-0"
CF85	5'-0"	3'-0"	CF86	5'-0"	3'-0"	CF87	5'-0"	3'-0"	CF88	5'-0"	3'-0"
CF89	5'-0"	3'-0"	CF90	5'-0"	3'-0"	CF91	5'-0"	3'-0"	CF92	5'-0"	3'-0"
CF93	5'-0"	3'-0"	CF94	5'-0"	3'-0"	CF95	5'-0"	3'-0"	CF96	5'-0"	3'-0"
CF97	5'-0"	3'-0"	CF98	5'-0"	3'-0"	CF99	5'-0"	3'-0"	CF100	5'-0"	3'-0"

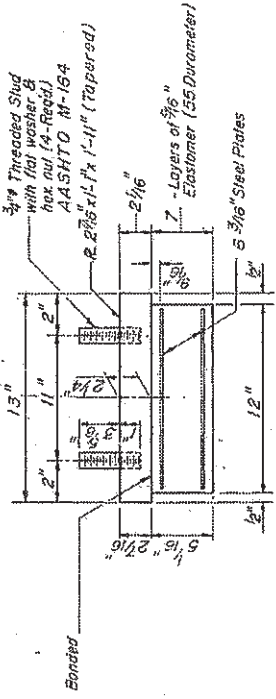
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 20	TOTAL SHEETS 30
PROJECT NO. 1-406-1-3HB	CONTRACT NO. 72H36
DESIGNER ADAMS	DATE 1/5/97
DRAWN 77	CHECKED



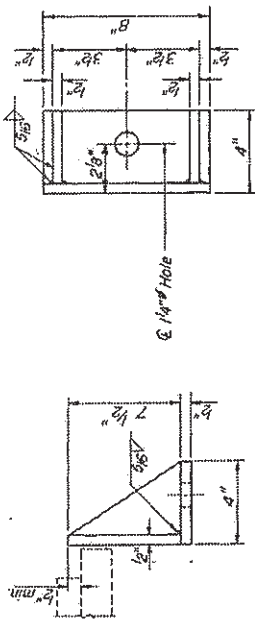
SECTION A-A
(Looking South)

TYPE I ELASTOMERIC EXP BRG.



BEARING ASSEMBLY
(Looking South)

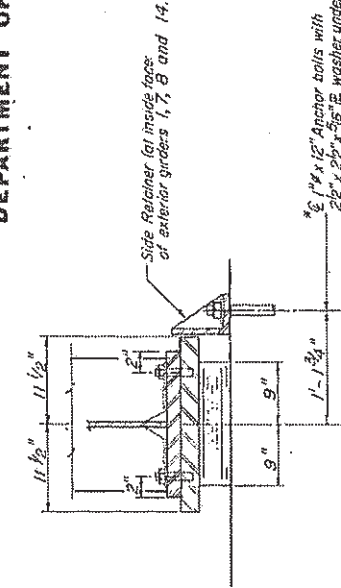
Note: Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER
(Four Required)

DESIGNED	JNG
CHECKED	RLO
DRAWN	SSB
CHECKED	M/M

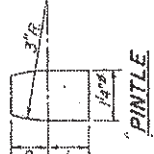
J-2-E1 4-1-79



SECTION A-A
(Looking North)

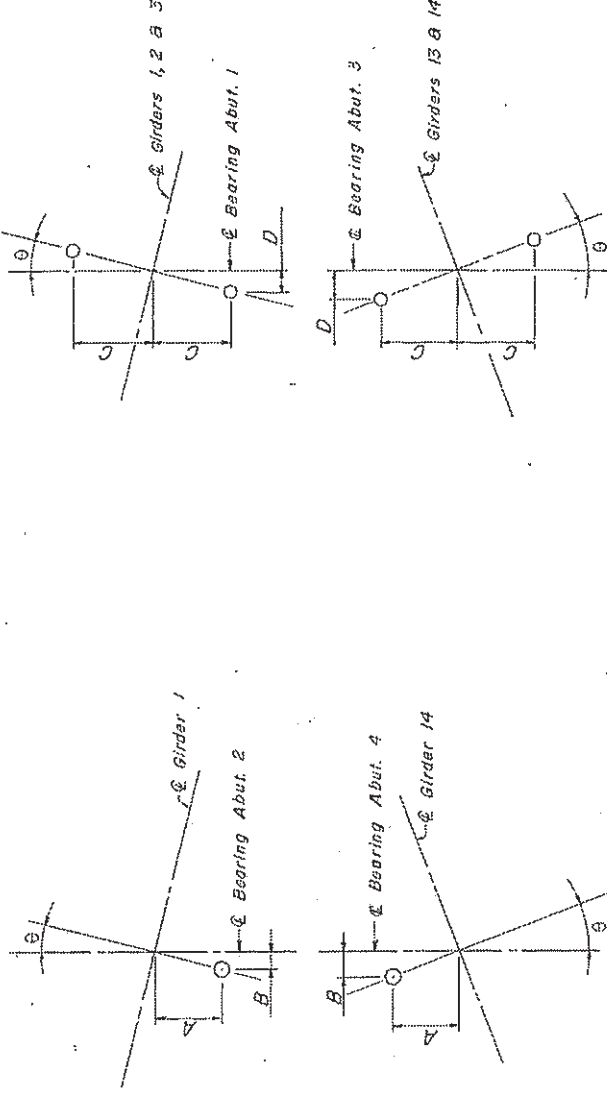
ELEVATION AT ABUT. 1 & 3
(Looking North)

FIXED BEARING



PINTLE

*Note: After girders have been erected holes of expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts of fixed bearings may be built into the masonry.



ANCHOR BOLT LAYOUT - Abut. 2 & 4

ANCHOR BOLT LAYOUT - Abut. 1 & 3

Gir	θ	A	B
1	5°03'22"	11'11 1/2"	3 1/2"
7	0°	11'5 1/2"	0"
8	0°	11'5 1/2"	0"
14	1°08'47"	11'3 1/2"	1 1/2"

Gir	θ	C	D
1	5°03'22"	10 1/2"	1 1/2"
2	2°02'18"	10 1/2"	1 1/2"
3	1°21'15"	10 1/2"	1 1/2"
4-12	0°	10 1/2"	0"
13	0°39'24"	10 1/2"	1 1/2"
14	1°08'47"	10 1/2"	1 1/2"

BEARING DETAILS
F.A.I. RTE 408 SEC. 1-3 HB
ADAMS COUNTY
STA. 120+50.00 F.A. 408