04-25-14 LETTING ITEM 070

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82, 14(1HB)-P, 82-8B-P	ST CLAIR, CLINTON	29	1
	ILLINOIS	CONTRACT NO. 76G63		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAI ROUTE 64 (I-64)
SECTION 82, 14(1HB)-P, 82-8B-P

BRIDGE PAINTING
ST CLAIR/CLINTON COUNTY

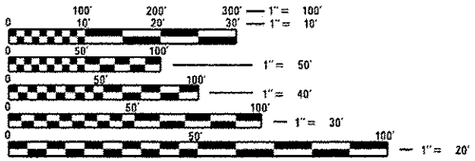
C-98-064-13

INDEX OF SHEETS

I-64 (ST. CLAIR COUNTY)
2013 ADT= 35500 (ACTUAL)
2014 ADT= 35900 (ESTIMATED)
SU= 2.7% MU= 15.2%

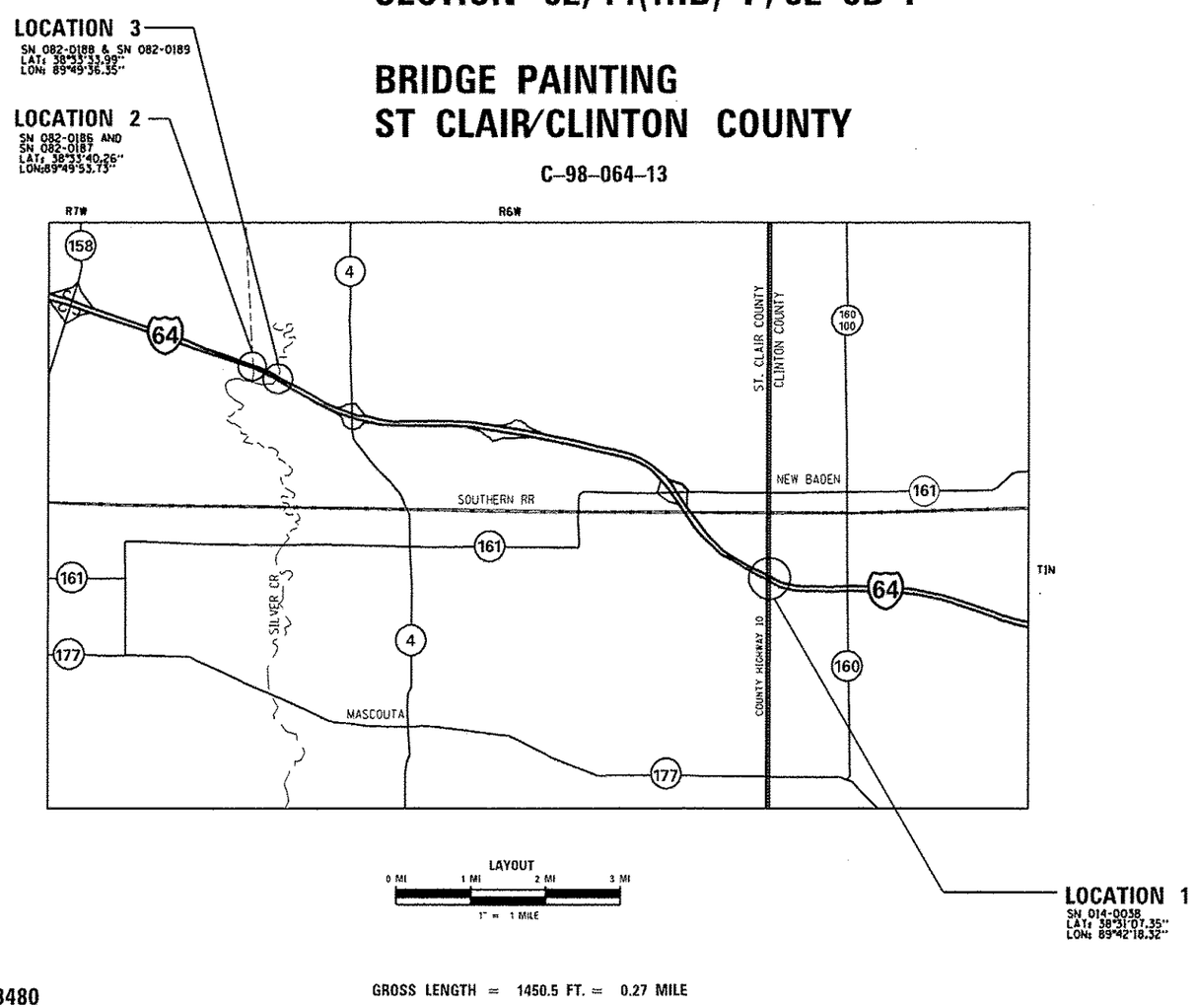
I-64 (CLINTON COUNTY)
2013 ADT= 24100 (ACTUAL)
2014 ADT= 24300 (ESTIMATED)
SU= 3.0% MU= 24.9%

CH 10 OVER I-64
2013 ADT= 300 (ACTUAL)
2014 ADT= 325 (ESTIMATED)



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

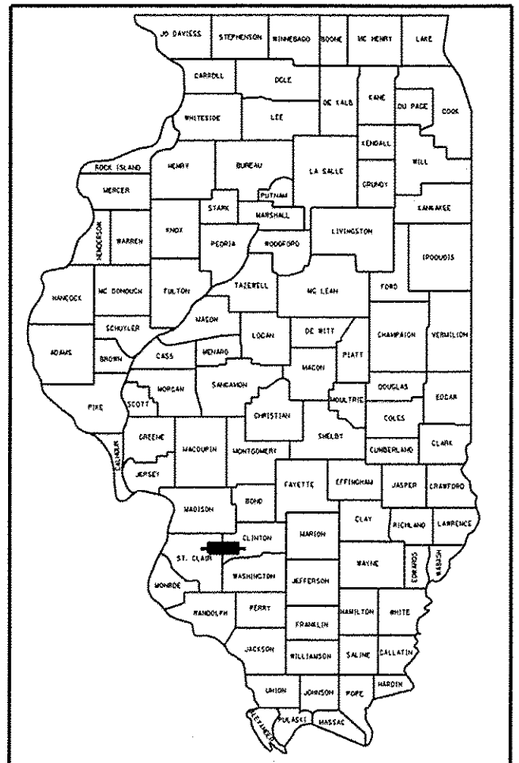


N

LAYOUT
0 MI 1 MI 2 MI 3 MI
1" = 1 MILE

GROSS LENGTH = 1450.5 FT. = 0.27 MILE
NET LENGTH = 1450.05 FT. = 0.27 MILE

D-98-061-13



LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Feb 5 20 14
Jeffrey T. Kern
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 21 20 14
John D. Baranzelli, PE /for
ENGINEER OF DESIGN AND ENVIRONMENT
March 21 20 14
Omer Osman, PE /for
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: TIM PADGETT 618-346-3325
PROJECT MANAGER: PHILIP COPPERNOLL 618-346-3480

CONTRACT NO. 76G63

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E (1-800-892-0123 OR 811) OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY.

2. UTILITY INTERFERENCES ARE NOT ANTICIPATED ON THIS CONTRACT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE VARIOUS UTILITY OWNERS. ALL POTENTIAL CONFLICTS SHALL BE INVESTIGATED AND REMEDIAL ACTION TAKEN PRIOR TO INTERRUPTION OF THE CONTRACTOR'S PROGRESS. NO ADDITIONAL COST SHALL BE ADDED TO THE CONTRACT RESULTING FROM UTILITY CONFLICTS.

3. THE SSPC-OP1 AND SSPC-OP2 CERTIFICATIONS WILL BE REQUIRED FOR THE BRIDGE.

4. ALL TURF AREA DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN AT THE CONTRACTOR'S EXPENSE.

5. THE USE OF CONES SHALL NOT BE PERMITTED ON THIS PROJECT.

6. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT EACH END OF THE PROJECT LOCATIONS AND ALL INTERSECTING SIDE ROADS AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE, 48".

7. CHANGEABLE MESSAGE SIGNS SHALL BE PLACED TWO (2) WEEKS PRIOR TO ANY LANE RESTRICTIONS AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.

8. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSE WORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL- TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

STANDARDS

000001-06
001006
701001-02
701006-05
701101-04
701106-02
701201-04
701206-03
701400-07
701401-08
701901-03
701406-08

COMMITMENTS

NONE

LOCATION SPECIFIC GENERAL NOTES

LOCATION 1

A MINIMUM OF TWO AIR MONITORS WILL BE REQUIRED AT THE STRUCTURE (SN 014-0038) TO MONITOR ABRASIVE BLASTING OPERATION, SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES."

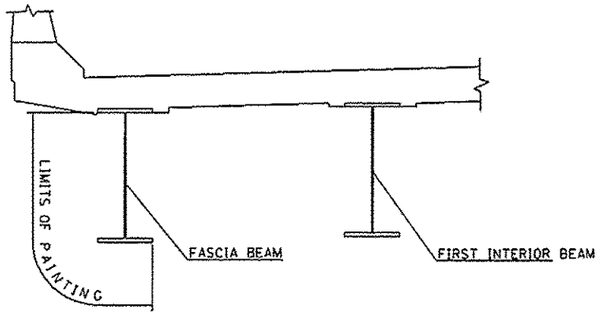
CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL EXISTING STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING- SSPC-SP-10. ALL EXISTING STEEL SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1-OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1.

LOCATIONS 2 & 3

A MINIMUM OF TWO AIR MONITORS WILL BE REQUIRED AT EACH STRUCTURE (SN 082-0186,0187) (SN 082-0188,0189) TO MONITOR ABRASIVE BLASTING OPERATION, SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES."

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL WHITHIN 5 FT (MEASURED ALONG THE BEAM) OF EITHER SIDE OF DECK JOINTS SHALL BE CLEAN PER NEAR WHITE BLAST CLEANING- SSPC-SP10. THE EXTERIOR SURFACES AND BOTTOM OF THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE CLEANED PER COMMERCIAL GRADE POWER TOOL CLEANING-SSPC-SP15.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING AND PER COMMERCIAL GRADE POWER TOOL CLEANING SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 5 - MCU. THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1.



LIMITS FOR PAINTING OF FASCIA BEAM
(APPLIES TO LOCATIONS 2 AND 3)
(AWAY FROM BEAM ENDS)
(NTS)

I-64 PEAK HOUR RESTRICTIONS

		MINIMUM NUMBER OF LANES TO BE LEFT OPEN SUNDAY TO SATURDAY *																							
STRUCTURE NO.	ROUTE	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
SN 082-0186, 0187	I-64 EASTBOUND	1 LANE CLOSURE ALLOWED												ALL LANES OPEN						1 LANE CLOSURE ALLOWED					
SN 082-0188, 0189	I-64 WESTBOUND	1 LANE CLOSURE ALLOWED						ALL LANES OPEN											1 LANE CLOSURE ALLLOWED						
SN 014-0038	I-64 EASTBOUND	1 LANE CLOSURE ALLOWED																							
	I-64 WESTBOUND	1 LANE CLOSURE ALLOWED																							

* SEE SPECIAL PROVISIONS FOR ADDITIONAL PEAK HOUR LANE RESTRICTIONS

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED - ___	REVISED - ___	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, HIGHWAY STANDARDS & COMMITMENTS	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ___	REVISED - ___			64	82.1411HB)-P, 82-8B-P	ST CLAIR, CLINTON	29	2
	PLOT SCALE = #SCALE#	CHECKED - ___	REVISED - ___						CONTRACT NO. 76663	
	PLOT DATE = #DATE#	DATE - _____	REVISED - ___		SCALE: N/A SHEET NO. __ OF ___ SHEETS STA. _____ TO STA. _____	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

				CONSTRUCTION CODE				
				CLINTON	ST CLAIR			
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0014 014-0038	BRIDGE 0014 082-0186	BRIDGE 0014 082-0187	BRIDGE 0014 082-0188	BRIDGE 0014 082-0189
67100100	MOBILIZATION	L SUM	1	0.2	0.2	0.2	0.2	0.2
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	6	2	1	1	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1				
70100455	TRAFFIC CONTROL AND PROTECTION, STANDARD 701206	L SUM	1	1				
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6	2	1	1	1	1
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1		0.25	0.25	0.25	0.25
X0323583	SPEED INDICATOR SIGN	CAL DA	180	60	30	30	30	30
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
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1				
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1		1			

14

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED - ___	REVISED - ___
		DRAWN - ___	REVISED - ___
	PLOT SCALE = #SCALE#	CHECKED - ___	REVISED - ___
	PLOT DATE = #DATE#	DATE - _____	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A | SHEET NO. 1 OF 2 SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
___	82,141(HBI-P, 82-8B-P	ST CLAIR, CLINTON	29	3
		CONTRACT NO. 76063		
FED. ROAD DIST. NO. ,	ILLINOIS FED. AID PROJECT			

				CONSTRUCTION CODE				
				CLINTON	ST CLAIR			
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0014 014-0038	BRIDGE 0014 082-0186	BRIDGE 0014 082-0187	BRIDGE 0014 082-0188	BRIDGE 0014 082-0189
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

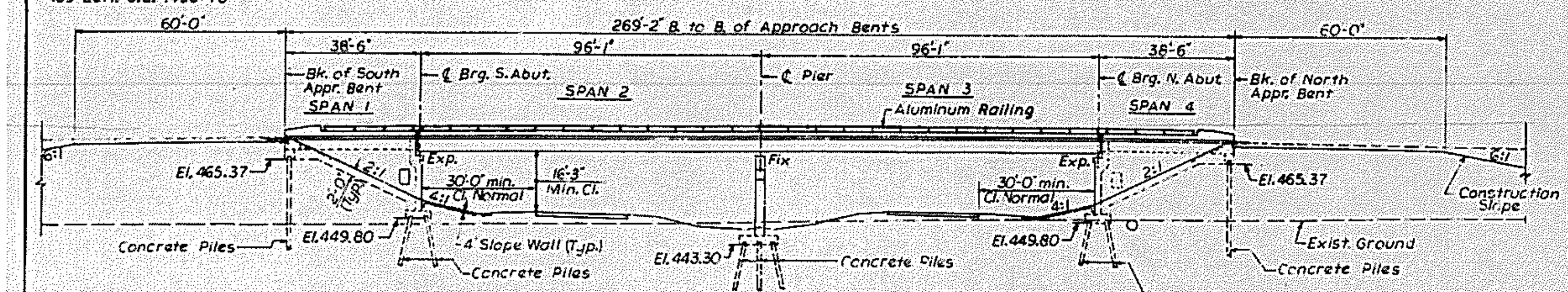
3

FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					64	82,141(NB)-P, 82-88-P	ST CLAIR, CLINTON	29	4
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -								CONTRACT NO. 76063	
	PLOT DATE = #DATE#	DATE -	REVISED -		SCALE: N/A	SHEET NO. 2 OF 2 SHEETS	STA. ____ TO STA. ____	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

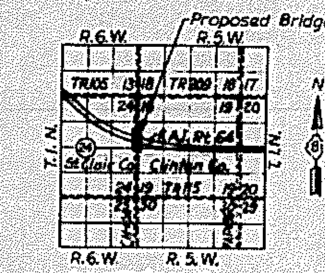
Bench Mark #4 El. 456.41
R.R. Spike in Power Pole (A-5)
439' Left Sta. 1456+78

EXISTING STRUCTURE DETAILS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.— 64	82,14(IHB)	ST. CLAIR CLINTON	37	8
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT I-64-2(24)76	



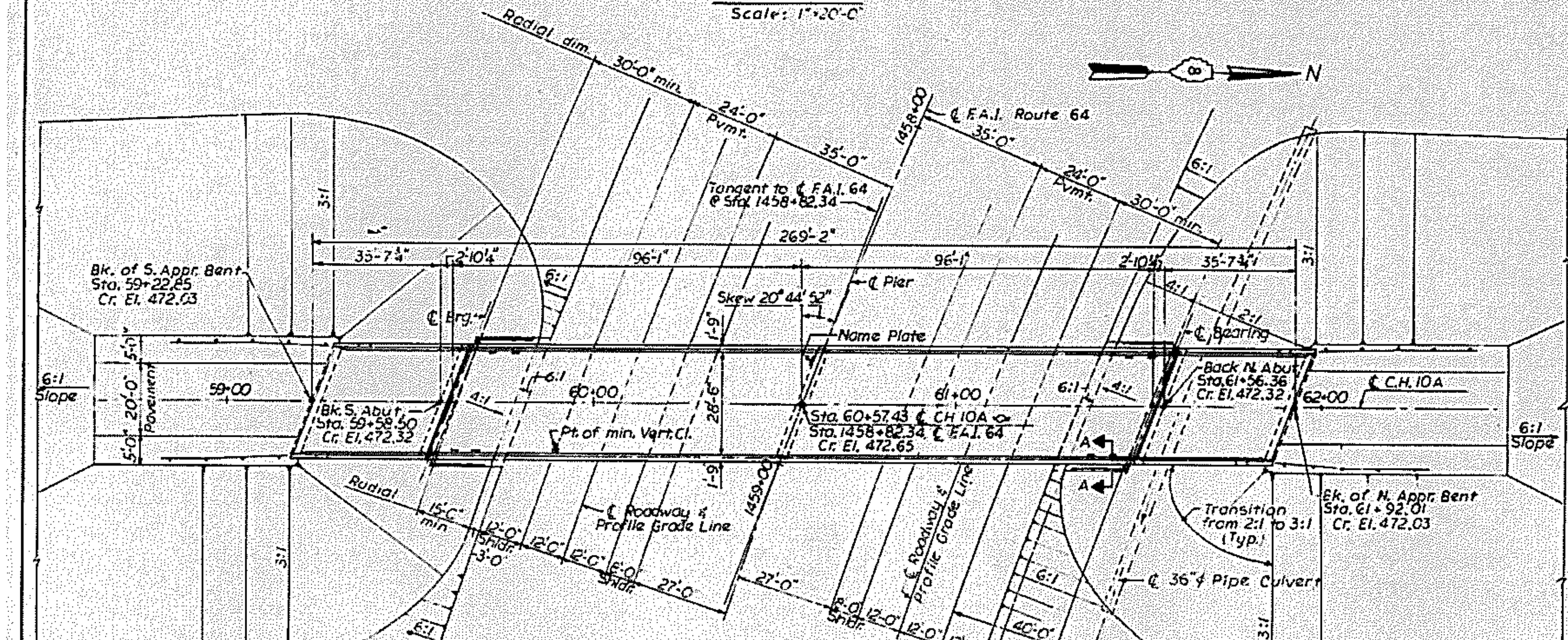
ELEVATION
Scale: 1"=20'-0"



LOCATION PLAN

STATION 1458+82.34
BUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 64 SEC. 82,14(IHB)
FA. PROJ. I-64-2(24)
LOADING HS15

NAME PLATE
See Std. 2113



PLAN
Scale: 1"=20'-0"

DESIGN STRESSES AND LOADS

*f's = 248,000 psi. } Prestressing Steel
fsi = 17_,_00 psi. }
f'c = 5,0__ psi. } Prestressed Concrete
f'ci = 4,000 psi }
f'c = 1,200 psi. Slab
f'c = 1,400 psi. Substructure, Parapet & Curb
fs = 20,000 psi. Structural Steel (A-36)
fs = 20,000 psi. Reinforcement
v = 75 psi. Footings
n = 10

LIVE LOAD DEFLECTION: $\frac{L}{1000}$ Non-composite, $\frac{L}{1200}$ Composite

LOADING: HS15-44

*Alternate f's = 270,000 psi. is permitted

GENERAL NOTES

COARSE AGGREGATE TO BE USED IN PARAPET HANDRAILS AND END POST MUST BE ABSOLUTELY FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 503.16(c) OF THE STANDARD SPECIFICATIONS.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, WEIGHING 58# PER 100 SQ. FT.

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

ALL STRUCTURAL STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS DESIGNATION A-36.

Fasteners shall be HIGH STRENGTH STEEL BOLTS ¾", OPEN HOLES 13/16" EXCEPT AS NOTED.

HIGH STRENGTH STEEL BOLT CONNECTIONS SHALL BE IN ACCORDANCE WITH ARTICLE 505.04(g) OF THE STANDARD SPECIFICATIONS.

ANCHOR BOLTS SHALL BE SET BEFORE FASTENING DIAPHRAGMS OVER SUPPORTS.

EXPANSION GUARDS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 503.08 (c) OF THE STANDARD SPECIFICATIONS.

The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

An alternate strand pattern using Extra High Strength prestressing strand (270 K.S.I.) is permitted.

EXPANSION GUARDS ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT 2660 LBS.

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

THE CONTRACTOR SHALL DRIVE ONE (1) TEST PILE IN A PERMANENT LOCATION AT EACH OF THE FOLLOWING LOCATIONS: SOUTH ABUTMENT, NORTH ABUTMENT, AND PIER

THE TEST PILE FOR EACH LOCATION MUST BE DRIVEN BEFORE ORDERING THE REMAINDER OF PILES.

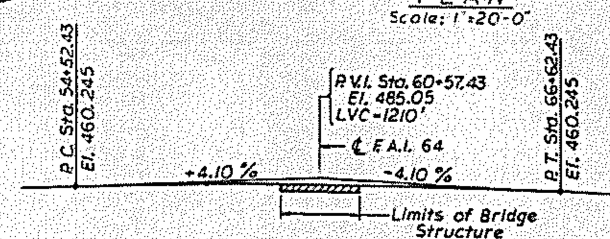
EXCAVATION FOR PORTIONS OF STRUCTURES IN THE EMBANKMENTS SHALL NOT BE CLASSIFIED.

FUTURE W.S. 25#/SQ. FT.

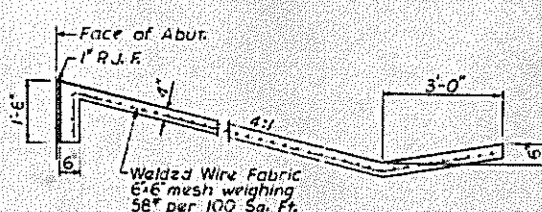
FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF ⅓ OF THE SPAN EACH WAY FROM PIER SUPPORTS ON THE TOP FLANGES OF BEAMS OR GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

CURVE DATA
℄ F.A.I. ROUTE 64

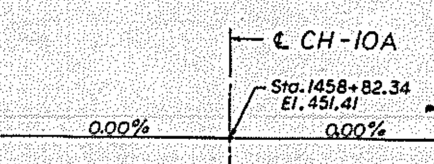
P.I. = Sta. 1445+85.05
Δ = 56°58'18"
D = 0°28'00"
R = 12,277.67'
L = 12,636.79'
T = 6,942.36'
E = 1,826.85'
P.C. = Sta. 1376+42.69
P.T. = Sta. 1502+79.48
S.E. = 0.016 ft/ft.



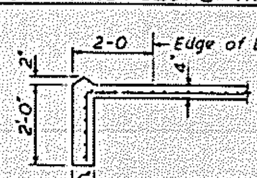
C.H.-10A-PROFILE ALONG ℄ ROADWAY



SECTION THRU SLOPE WALL



F.A.I. 64-PROFILE



SECTION A-A

DESIGNED BY S.F.
DRAWN BY V.B.
CHECKED BY R.M.R.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Structure Excavation	Cu. Yds.	—	56	56
Furnishing and Erecting Precast Prestressed Concrete I-Beams (36")	Lin. Ft.	359	—	359
Class X Concrete	Cu. Yds.	271.7	260.4	532.1
Protective Coat	Sq. Yds	1,095	—	1,095
* Furnish. and Erect. Structural Steel	Lump Sum	0.38	—	0.38
Reinforcement Bars	Lbs.	57,880	21,530	79,410
Driving Concrete Piles	Lin. Ft.	—	2,312	2,312
Furnishing Concrete Piles	Lin. Ft.	—	2,312	2,312
Test Piles Concrete	Ea.	—	3	3
Name Plates	Ea.	—	1	1
Slope Wall 4"	Sq. Yds.	—	196	196
Aluminum Railing	Lin. Ft.	498	—	498
Permanent Survey Marker Type I	Ea.	—	1	1
Preformed Joint Sealer	Lin. Ft.	67	—	67
Stud Shear Connectors	Each	2200		2200

* Calculated weight of Structural Steel = 187,790 Pounds

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GENERAL PLAN
C.H. 10A OVER F.A.I. ROUTE 64
STATION 1458+82.34
F.A.I. RT. 64 ST. CLAIR & CLINTON CO. SECTION 82,14(IHB)

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

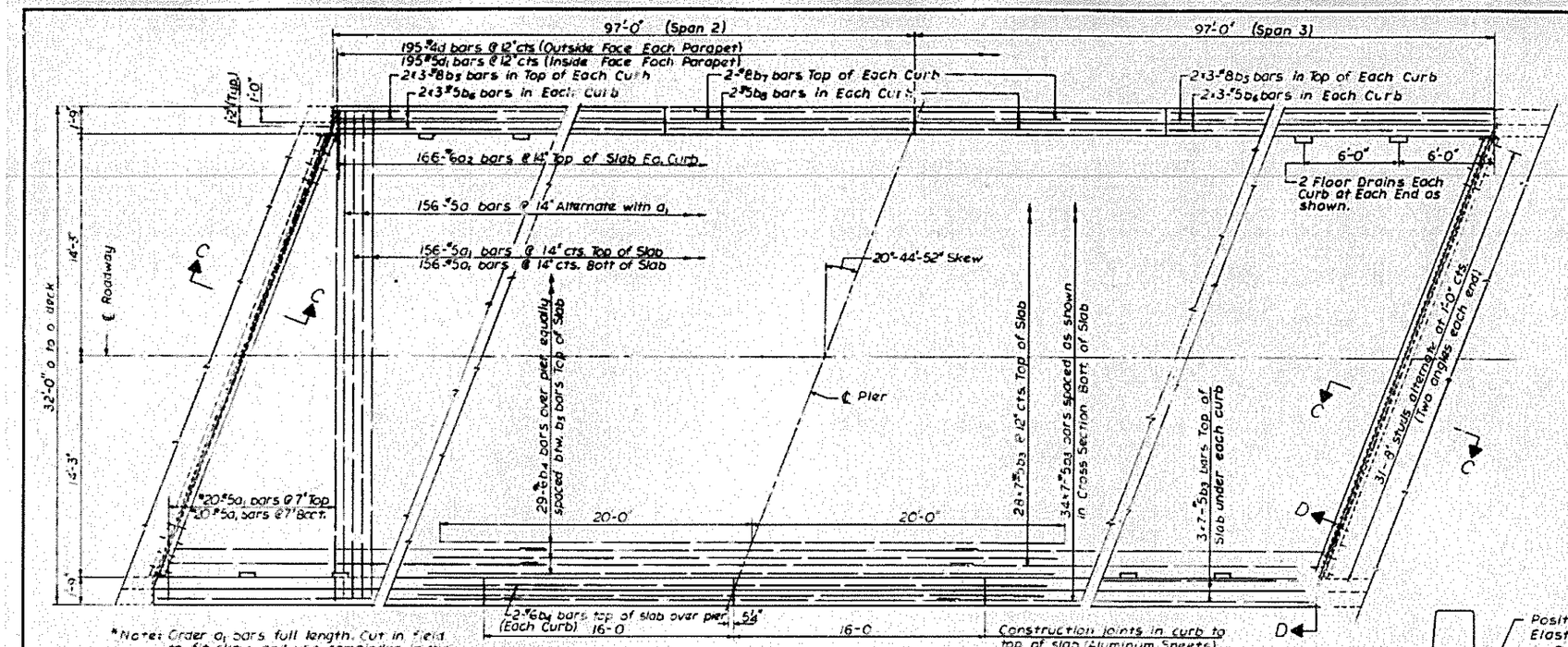
SHEET 1 of 16

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE DETAILS STRUCTURE NO. 014-0038
		DRAWN -	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -		
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE: SHEET NO. __ OF __ SHEETS STA. __ TO STA. __

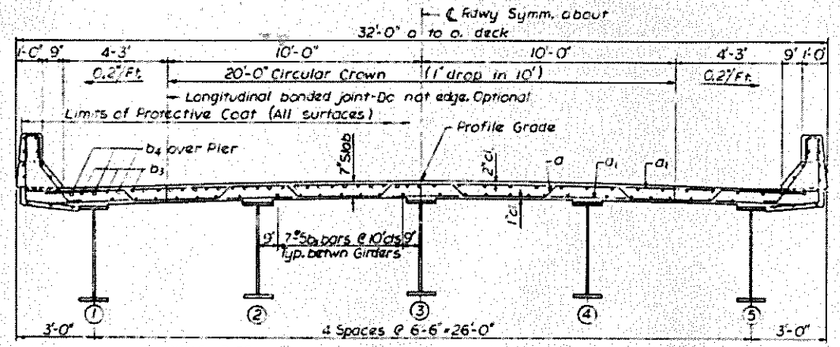
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82.14-I(HB)-P	CLINTON	29	5
CONTRACT NO. 76G63				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.—64	82.14(IHB)	ST. CLAIR CLINTON	37	10
FED. ROAD DIV. NO. 6	ILLINOIS	PROJECT		



PLAN



CROSS SECTION

CURB SECTION

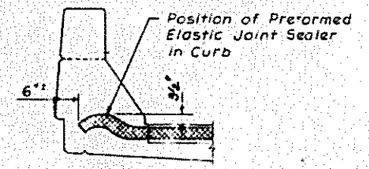
Cost of Aluminum Sheet shall be incidental to Class X Concrete

DESIGNED BY V.B.
DRAWN BY V.B.
CHECKED BY S.F.

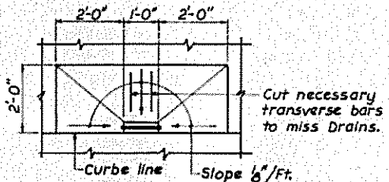
Note:
Vent holes, bolt holes and anchor studs not shown.

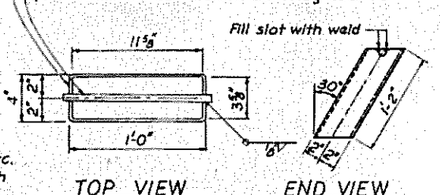
DETAIL OF PREFORMED ELASTIC JOINT SEALER

NOTES: Bars indicated thus 28-#7b5 etc. indicates 28 lines of bars with 7 lengths per line.
Min. bar lap = 24 dia.
All edges shall have ¾" chamfer.
All clearances shall be 1½" unless shown otherwise.



SECTION D-D

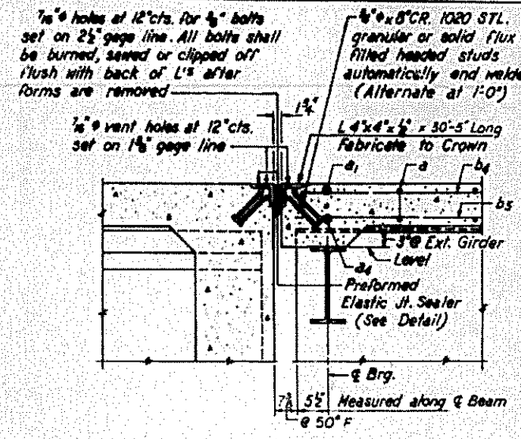




TOP VIEW END VIEW

FLOOR DRAIN DETAIL

(Cost Incidental to Class "X" Concrete)



SECTION C-C

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	156	#5	31'-0"	
a1	352	#5	30'-0"	
a2	332	#6	4'-0"	
b3	476	#5	28'-8"	
b4	33	#6	40'-0"	
b5	24	#8	28'-3"	
b6	24	#5	27'-9"	
b7	8	#8	15'-9"	
b8	8	#5	15'-9"	
d	390	#4	4'-7"	L
d1	390	#5	3'-5"	L
Reinforcement Bars			Lbs.	39,840
Structural Steel *			L. S.	0.38
Class X Concrete			Cu. Yds.	166.6
Preformed Joint Sealer			Lin. Ft.	67
Protective Coat			Sq. Yds.	790

* Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel. Est. Wt. = 5,300 Lbs.

The quantities of reinforcement and Class X Concrete in parapets are billed separately on sheet No. 4 and are not included above.
For Bar bending diagrams see Sheet No. 2

Est. Weight of structural steel = 167,790 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

SUPERSTRUCTURE
SPANS 2 AND 3

C.H.IOA OVER F.A.I. ROUTE 64

STATION 1458+82.34

F.A.I. RT. 64 ST. CLAIR & CLINTON CO. SECTION 82.14(IHB)

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 3 OF 16

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

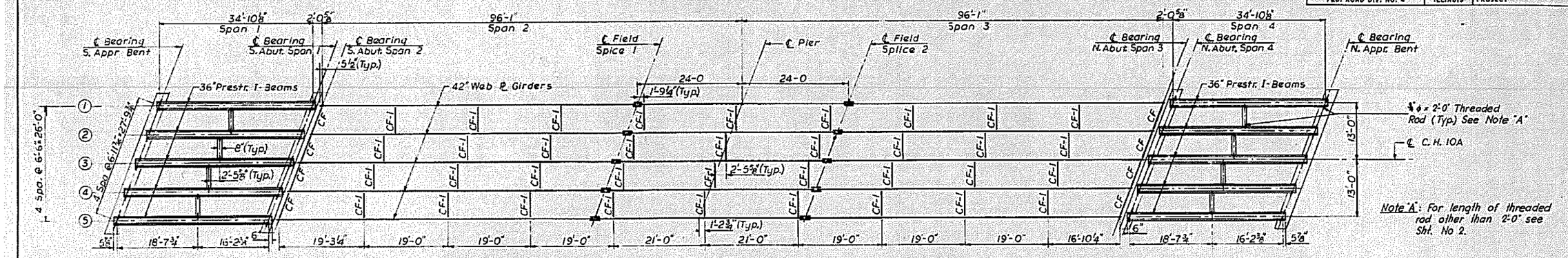
PLAN AND CROSS SECTION
STRUCTURE NO. 014-0038

SCALE: ____ SHEET NO. __ OF __ SHEETS STA. ____ TO STA. ____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82.14-(IHB)-P	CLINTON	29	6
		CONTRACT NO. 76663		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

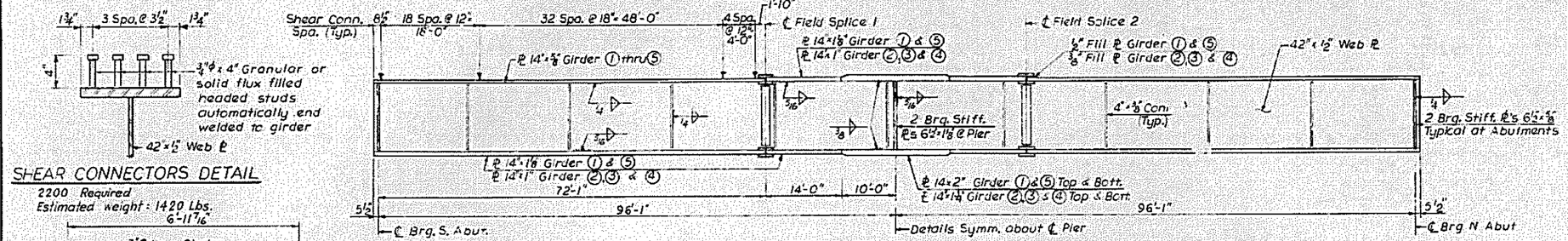
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.—64	82,14(1HB)	ST. CLAIR CLINTON	37	13
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



Note "A": For length of threaded rod other than 2'-0" see Sht. No 2.

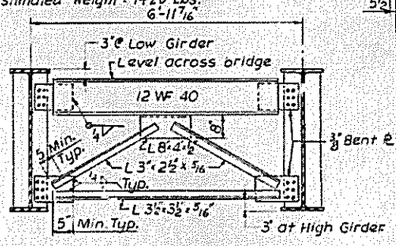
PLAN



ELEVATION

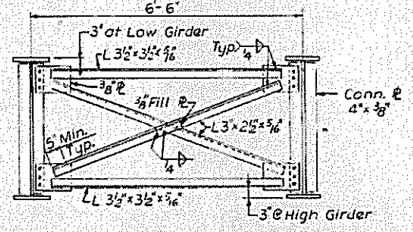
SHEAR CONNECTORS DETAIL

2200 Required
Estimated weight: 1420 Lbs.



TYPICAL CROSS FRAME-CF

8 Required



TYPICAL CROSS FRAME-CF-1

36 Required

TABLE OF MOMENTS AND SHEARS (Interior Girder)

	SPAN 1 & 4		SPAN 2 & 3								
	Moment(Ft.k)	Shear (kips)	Moment (Ft. kip)		Reaction(Kips)		Shear (Kips)				
	℄ Span	Abutment	¼ Pt. Span	Pier	Abutment	Pier	Abutment	¼ Pt. Span	½ Pt. Span	¾ Pt. Span	Pier
D.L.	158	17.5	436	1001	26.6	92.7	—	—	—	—	—
S.D.L.	47	5.4	225	345	11.5	40.0	11.5	4.2	3.8	11.5	20.0
L.L.	160	23.4	533	431	28.1	45.8	28.1	20.8	16.5	23.2	29.9
Imp.	48	7.0	120	97	6.3	10.4	6.3	4.7	3.7	5.2	6.8
Total	413	53.3	—	1874	72.5	188.9	45.9	29.7	24.0	39.9	56.7

TOP OF WEB ELEVATION

(For Fabrication only)

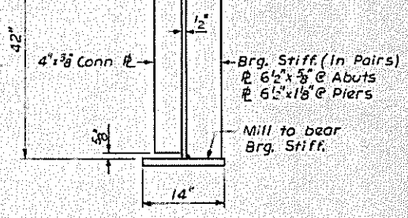
	Girder ①	Girder ②	Girder ③	Girder ④	Girder ⑤
℄ Brg. S. Abut.	471.57	471.66	471.68	471.63	471.50
℄ Splice 1	471.72	471.66	471.90	471.86	471.72
℄ Brg. Pier	471.72	471.86	471.90	471.86	471.72
℄ Splice 2	471.72	471.86	471.90	471.86	471.72
℄ Brg. N. Abut.	471.50	471.63	471.68	471.66	471.57

GIRDER PROPERTIES

(INTERIOR)

Steel Section	
Is	13230 in^4
Srs	544 in^3
Sbs	681 in^3
Composite Section	
Ic	31,200 in^4
Src	3310 in^3
Sbc	912 in^3

Section modulus at Pier = 1166 in^3



TYPICAL SECTION

NOTES:
For Field Splice Details see Sheet No. 8

DESIGNED BY S. F.
DRAWN BY V. B.
CHECKED BY S. F.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN AND STEEL DETAILS

C.H. 10A OVER F.A.I. ROUTE 64

STATION 1458+82.34

F.A.I. RT. 64 ST. CLAIR & CLINTON CO. SECTION 82,14(1HB)

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 6 OF 16

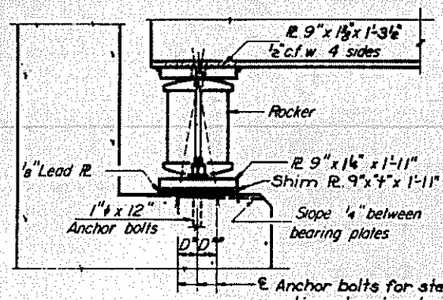
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN AND STEEL DETAILS STRUCTURE NO. 014-0038
		DRAWN -	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -		
	PLOT DATE = $DATE$	DATE -	REVISED -		

SCALE: ____ SHEET NO. __ OF __ SHEETS STA. ____ TO STA. ____

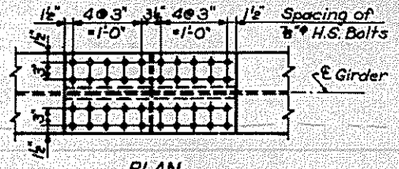
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82.14-(1HB)-P	CLINTON	29	7
		CONTRACT NO. 76063		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

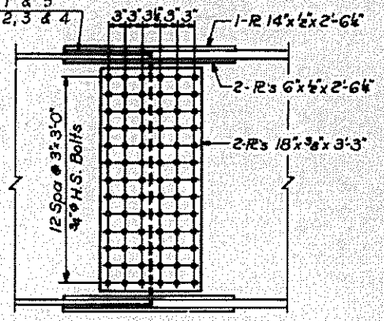
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-64	82,14(IHB)	ST. CLAIR CLINTON	37	15
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



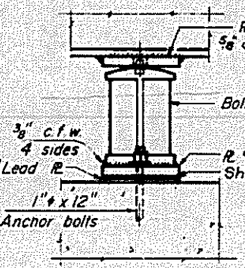
SECTION



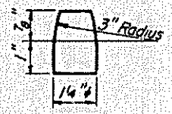
PLAN
(Top & Bott. Plates)



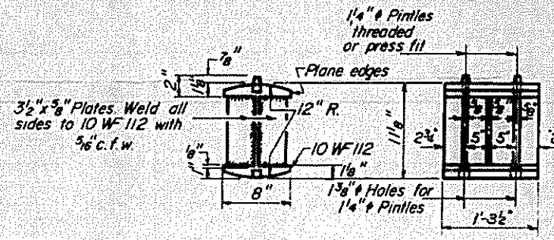
ELEVATION
FIELD SPLICE



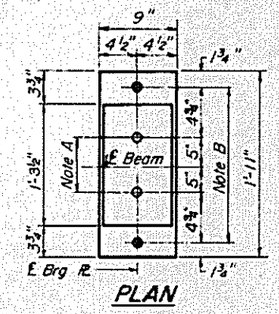
ELEVATION



PINTLE



ROCKER

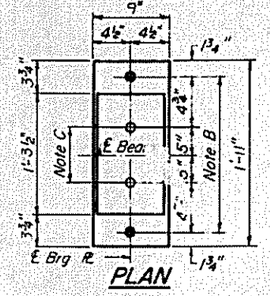


PLAN

AT ABUTMENT

NOTE A
1⅜"ϕ Holes – 1" deep in top PL for pintles. Thread or press fit pintles into bottom PL.

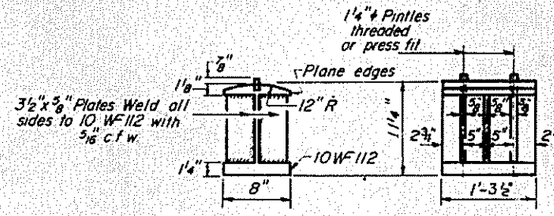
NOTE B
1½"ϕ Holes for 1"ϕ anchor bolts 2½"x 2½"x 5/16" PL Washers under nut.



PLAN

AT PIER

NOTE C
1⅜"ϕ Holes 1" deep in top PL only for 1¼"ϕ pintles

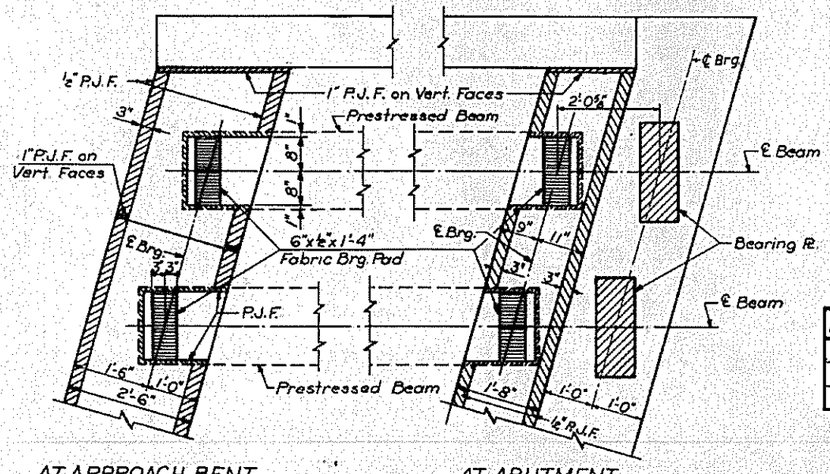


BOLSTER

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

a) D* (Side of brg. away from fixed brg.)
D* = ⅛" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
D** (Side of brg. toward fixed brg.)
D** = ⅛" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.

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



AT APPROACH BENT

AT ABUTMENT

PLAN

TOP OF BEAM ELEVATIONS
(Spans 1 & 4)

	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5
℄ Brg. S. Appr. Bent	471.33	471.41	471.41	471.36	471.24
℄ Brg. S. Abut.	471.59	471.68	471.68	471.64	471.53
℄ Brg. N. Abut.	471.53	471.64	471.68	471.68	471.59
℄ Brg. N. Appr. Bent.	471.24	471.36	471.41	471.41	471.33

SHIM "t" THICKNESSES

Location \ Girder	1	2	3	4	5
S. Abutment	—	3/8"	5/8"	—	—
Pier	—	—	3/8"	—	—
N. Abutment	—	—	5/8"	3/8"	—

DESIGNED BY S.F.
DRAWN BY V.B.
CHECKED BY S.F.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

BEARING DETAILS

C.H.10A OVER F.A.I. ROUTE 64

STATION 1458+82.34

F.A.I. RT. 64 ST. CLAIR & CLINTON CO. SECTION 82,14(IHB)

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 8 OF 16

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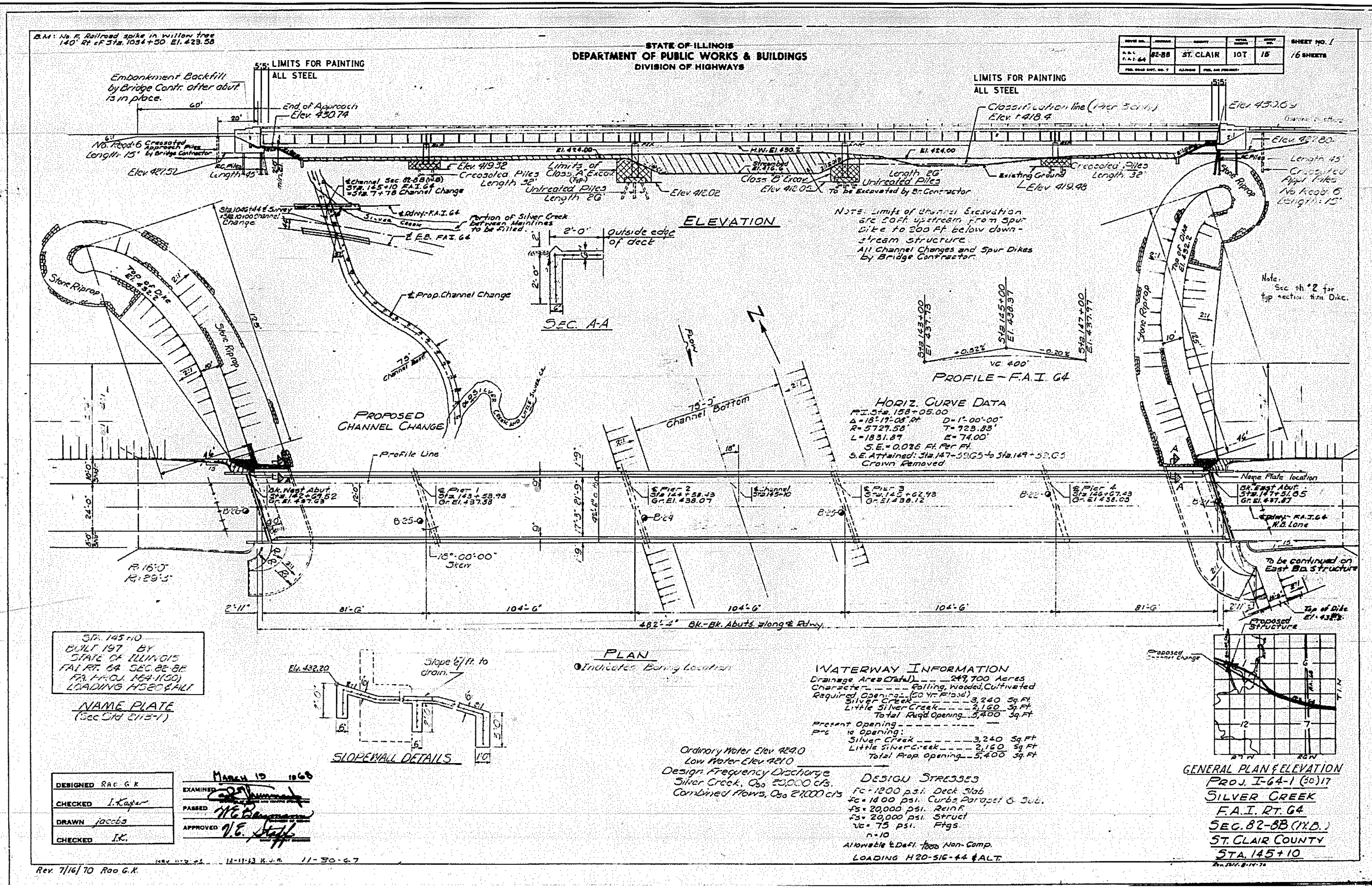
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS
STRUCTURE NO. 014-0038

SCALE: _____ | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82,14-1(HB)-P	CLINTON	29	8
		CONTRACT NO. 76663		
FED. ROAD DIST. NO. ,	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY



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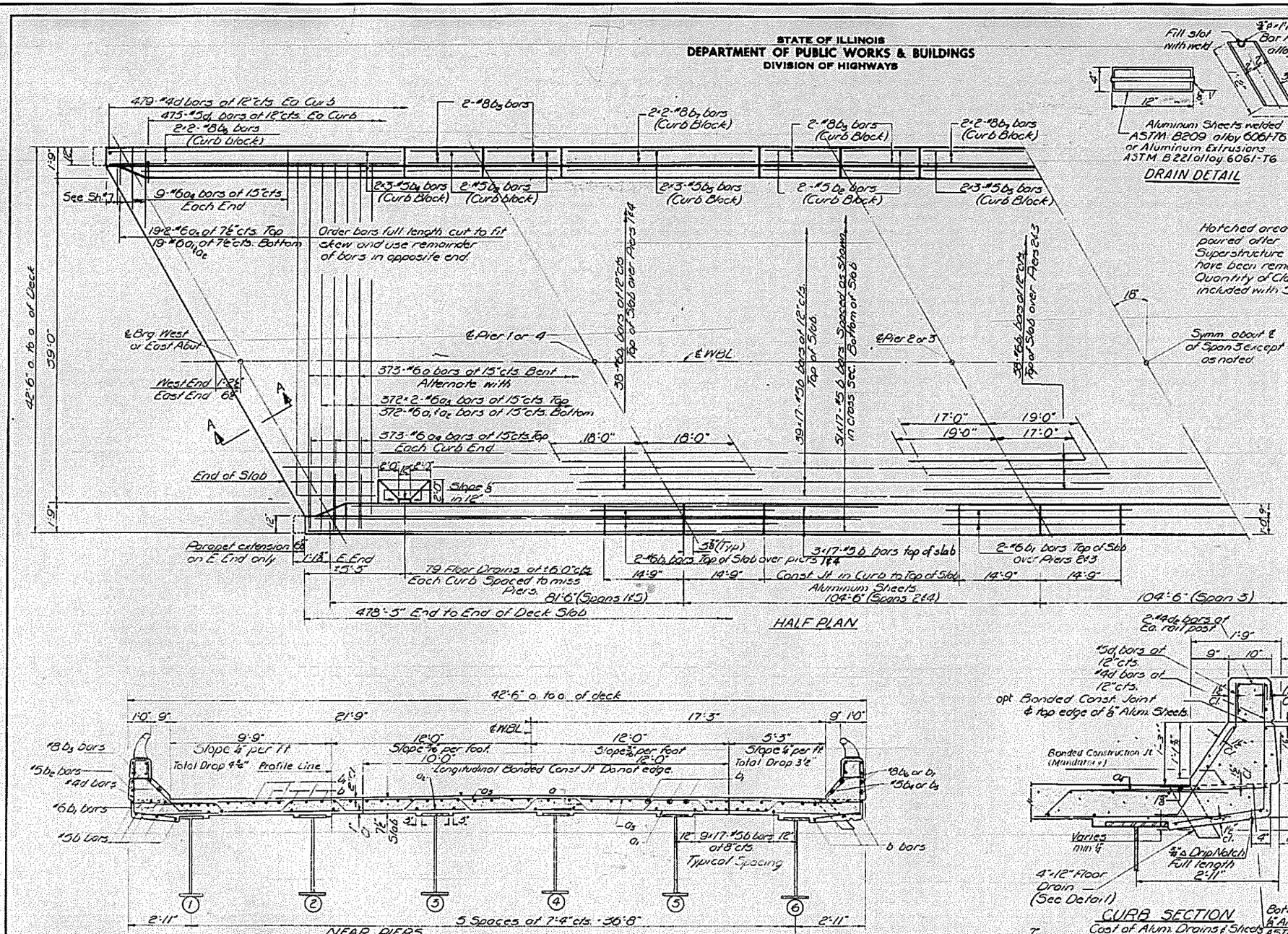
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	9
		CONTRACT NO. 76G63		

FOR INFORMATION ONLY

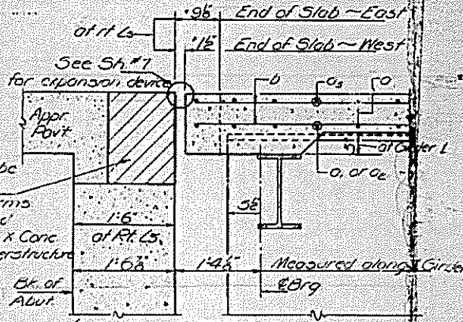
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE SEC.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-64	82-8B	ST. CLAIR	107	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

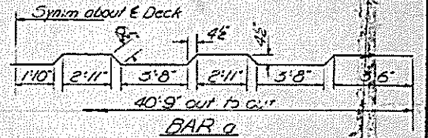
SHEET NO. 3
16 SHEETS



DRAIN DETAIL



SECTION A-A



BAR a

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
a	373	#6	42'-5"	
a1	391	#6	17'-0"	
a2	391	#6	24'-0"	
a3	782	#6	21'-0"	
a4	764	#6	4'-0"	
b	1632	#5	29'-3"	
b1	168	#6	36'-0"	
b2	32	#5	14'-6"	
b3	32	#8	14'-6"	
b4	24	#5	23'-6"	
b5	36	#5	25'-9"	
b6	16	#8	35'-0"	
b7	24	#8	38'-6"	
d	958	#4	4'-6"	
d1	950	#3	5'-3"	
Reinforcement Bars		Lbs	49480	
Structural Steel		Lump Sum	L.S.	
Class X Concrete		Cu.Yds	550.0	

NEAR PIERS

NEAR MIDSPANS

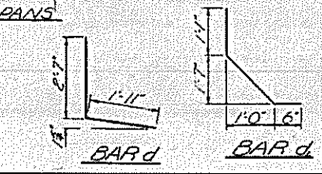
CROSS SECTION
(Looking East)

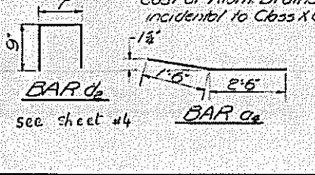
CURB SECTION

Cost of Alum. Drains & Sheets incidental to Class X Concrete

Bottom edge of ⅛" Alum. Sheets ASTM: B209 alloy 3003-H14

The lengths & quantities of longitudinal reinforcement & class X Concrete in parapets are not included in the above quantities See Sheet #4





DESIGNED	RAO G K
CHECKED	I. Kafe
DRAWN	R FERRNIOO
CHECKED	I.K.

EXAMINED March 19 1964
PASSED H.E. Bauman
APPROVED V.E. Kaff

SUPERSTRUCTURE
FAI RTE. 64 SEC. 82-8B(VB)
ST. CLAIR COUNTY
STA. 145 +10

FILE NAME = #FILE1#	USER NAME = #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS
STRUCTURE NO. 082-0186

SCALE: ____ SHEET NO. __ OF __ SHEETS STA. ____ TO STA. ____

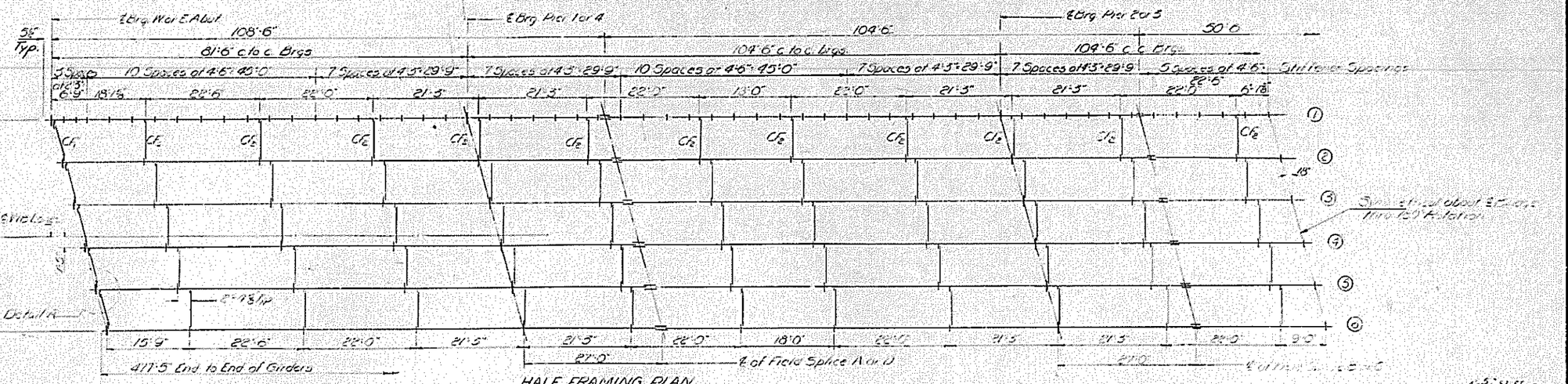
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	CLINTON	29	10
		CONTRACT NO. 76063		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

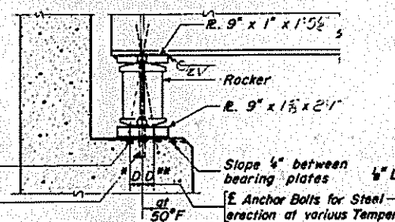
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. P.A.P. 64	82-8B	ST. CLAIR	107	20
FED. ROAD DIST. NO.	CONTRACT NO.	FED. AID PROJECT		

SHEET NO. 5
16 SHEETS



HALF FRAMING PLAN



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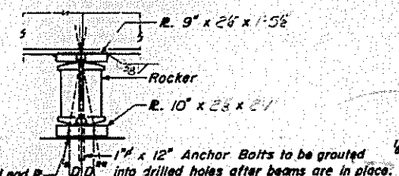
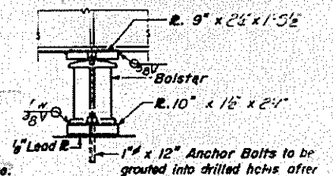
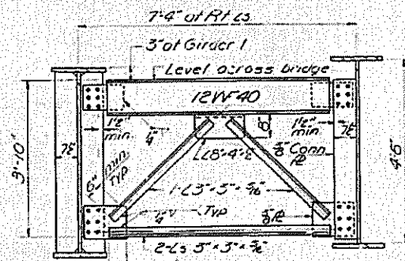


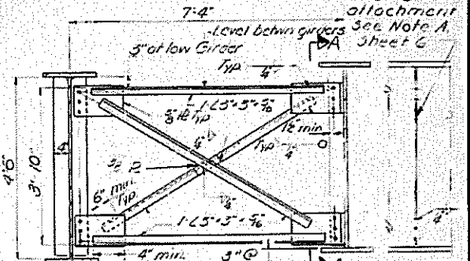


PIER 2



TYPICAL CROSS FRAME-CF1
10 Required

Note: Use ⅞" HS Bolts in 13/16" Holes in Cross frame field connections.

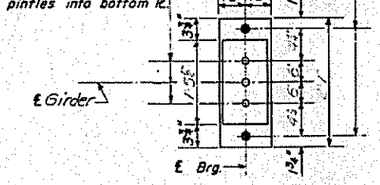


TYPICAL CROSS FRAME-CF2
110 Required

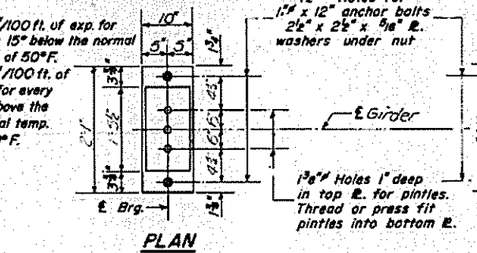
VIEW A-A

ELEVATIONS TOP OF WEB (For Fabrication only)

Girder	℄ Brg. at Abut	℄ Brg. Pier 1	℄ Splice A	℄ Brg. Pier 2	℄ Splice C	℄ Splice C	℄ Brg. Pier 3	℄ Splice D	℄ Brg. Pier 4	℄ Brg. at Abut
1	436.77	436.98	451.08	451.19	451.19	451.24	451.22	451.15	451.14	451.00
2	436.93	451.14	437.21	437.31	451.30	451.37	451.35	437.29	451.10	
3	437.05	437.21	451.34	451.44	437.45	451.51	437.49	451.45	437.41	437.27
4	451.14	437.35	451.42	437.52	437.56	451.58	437.56	451.52	437.49	437.34
5	437.03	437.24	451.31	437.41	451.45	451.46	451.41	437.40	437.36	437.22
6	436.90	451.11	437.16	437.25	451.36	437.32	437.30	437.26	437.22	437.08



PLAN



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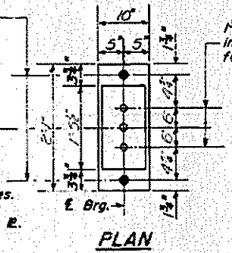

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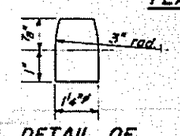
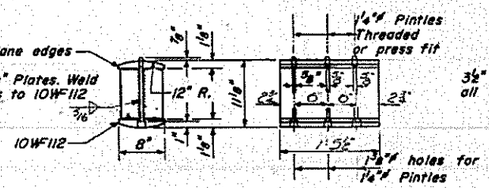
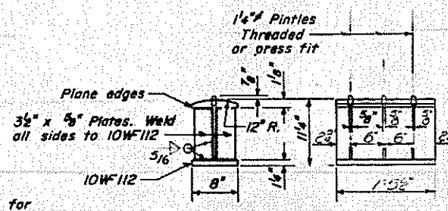


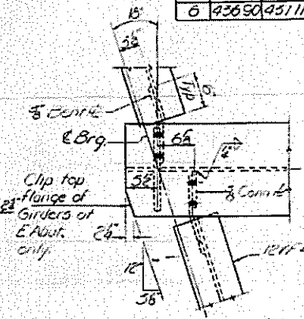
DETAIL OF PINTLE



DETAIL OF ROCKER AT PIERS 1, 3 & 4 & ABUTS.



DETAIL OF BOLSTER AT PIER 2



DETAIL 'A'

STRUCTURAL STEEL
FAI RTE 64 SEC. 82-8B (WB)
ST CLAIR COUNTY
STA. 145+10

DESIGNED	R.A.C. & K.
CHECKED	I. Kaiser
DRAWN	P.G. Barnett / W.A. Sausaman Jr. / R.F.
CHECKED	I.K.

EXAMINED — MARCH 15 1963
PASSED — H.E. Bauman
APPROVED — V.E. Graff

I-2 7-2-62 Rev. 11-9-62 Rev. 8-16-63 Rev. 12-10-63

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING
STRUCTURE NO. 082-0186

SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

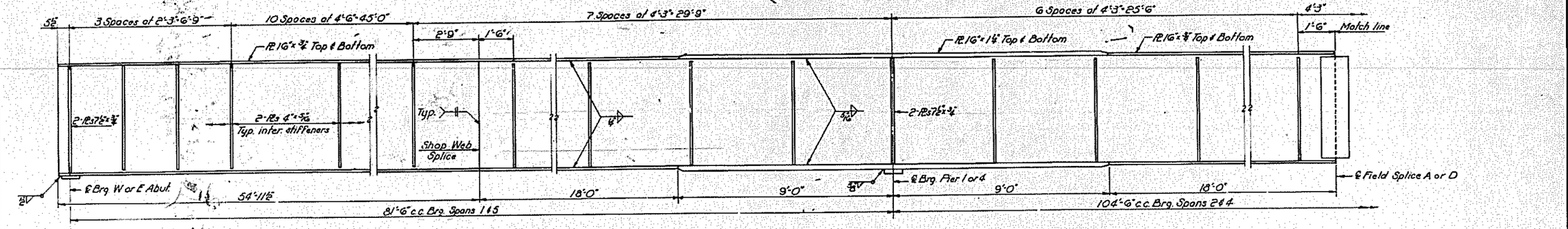
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	11
		CONTRACT NO. 76663		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

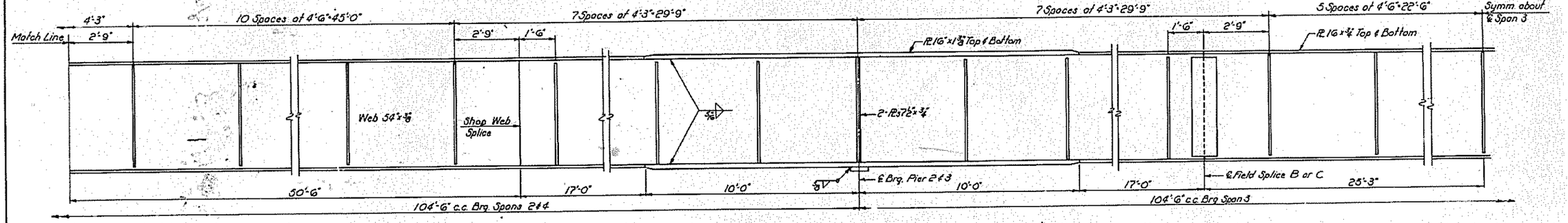
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

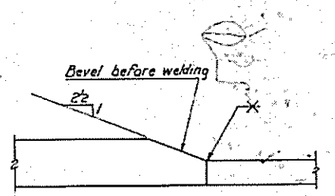
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. RTE. 64	82-8B	ST. CLAIR	107	21
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
16 SHEETS

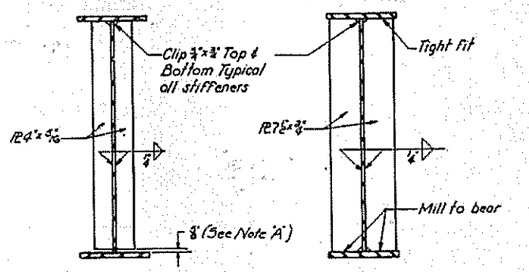


GIRDER ELEVATIONS



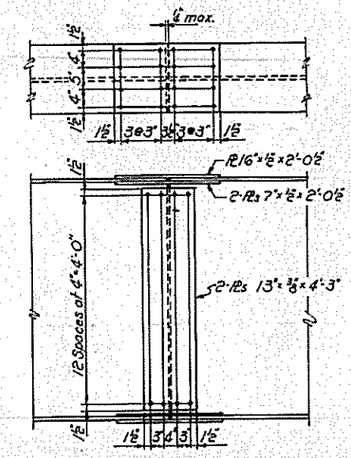


FLANGE SPLICE



INTERMEDIATE BEARING

STIFFENERS DETAILS



DETAIL OF FIELD SPLICE

NOTE:

All bolts for field splices shall be ⅞" high strength bolts.

Contact surfaces of all splice shall be free of all oil or paint.

A: Intermediate stiffeners within 2'-0" from ℄ Pier 4 shall be tight fit at the bottom and ⅝" undercut at the top. All other intermediate stiffeners shall be tight fit at the top and ⅝" undercut at the bottom.

DESIGN	
DETAILED	I. Kaplan
TRACED	R F
CHECKED	I.K.

EXAMINED March 19 1968
PASSED M. E. Bauman
APPROVED W. E. Wolff

STRUCTURAL STEEL
F.A.I. RT. 64 SEC. 82-8B(W.B.)
ST. CLAIR COUNTY
STA. 145+10

FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - ___	REVISED - ___
		DRAWN - ___	REVISED - ___
	PLOT SCALE = $SCALE$	CHECKED - ___	REVISED - ___
	PLOT DATE = $DATE$	DATE - _____	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS
STRUCTURE NO. 082-0186

SCALE: N/A | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	12
		CONTRACT NO. 76663		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. RT. 64	82-8B	ST. CLAIR	107	32

SHEET NO. 1 OF 16 SHEETS

B.M.: 1" Railroad Spike in willow tree, 140' Rt. of Sta. 1034+50 Elev. 423.58

LIMITS FOR PAINTING ALL STEEL

5' 5'

60'-0"

End of Approach

Embankment backfill by Br. Contractor after Abut is in place.

20'-0"

Guardrail by others

Elev. 430.50

Cr. of Rdwy.

Subgrade Elev.

Natural Ground

Creosoted Appr. Piles No. Reqd.: 6 Length = 15 Ft

Elev. 428.01

Elev. 432.2

Elev. 430.42

20'-0"

Creo. Appr. Piles by Bridge Contractor

No. Req'd: 6 Length = 15'

Conc. Piles Length 30'

Elev. 427.60

PC Sta. 1045+00 Elev. 438.00

PI Sta. 1047+00 Elev. 436.60

PT Sta. 1049+00 Elev. 438.24

+0.32%

-0.20%

V.C. = 400'

PROFILE F.A.I. RT. 64

HORIZ. CURVE DATA
P.I. Sta. 1038 + 09.39
Δ = 10°-27'-24"
R = 12,277.67'
L = 2,240.71'
D = 0°-28'-00"
T = 1123.40'
E = 51.30'
S.E. = .013 Ft./Ft.
S.E. Attained Sta. 1049+26.00 to Sta. 1051+26.00

Exp.

Class A Excavation.

El. 419.38

Creosoted piles Length 32'

Fix.

El. 411.41

Untreated Piles Length 26'

H.W. Elev. 430.2

L.W. Elev. 415.6

Limits of Class A Excavation

ELEVATION

Exp.

Elev. 424.0

El. 411.47

Length 26'

Untreated Piles

Channel Excavation by Bridge Contractor

Creosoted Piles Length 32'

Exp.

El. 419.67

Conc. Piles Length 30'

Exp.

Dike continued from N.B. Structure. Quantities included in N.B. Structure.

Sta. 1046+44 F.A.I. Rt. 64 = Sta. 10+00 Channel Change

Local Tangent @ Sta. 1046+44.00

℄ Survey F.A.I. Rt. 64 & Station Line

Local Tang. @ Sta. 1043+43

℄ Rdwy.

Name & Location

℄ Pier 1 Sta. 1045+03.94 Elev. 436.01

℄ Pier 2 Sta. 1046+12.53 Elev. 436.28

℄ Pier 3 Sta. 1047+21.01 Elev. 436.39

℄ Pier 4 Sta. 1048+31.20 Elev. 436.35

Ck. ℄ Abut. Sta. 1049+20.01 Elev. 436.20

Bk. W. Abut. Sta. 1044+16.66 Elev. 437.73

Shoulder Lines

R = 16'-0" = Variable
R = 29-3" = Variable

1'-0" x 3'-0" Toewall (Typ.)

64'-0"

108'-7"

108'-7"

108'-7"

64'-0"

301'-0" Bk. Bk. Abuts. along Local Tangent

B-31 B-32 B-30 B-29 B-28 B-27

75'-0" Channel

21'-00"

44'-0"

42'-6" c to c

22'-6"

16'-0"

9'-0"

9'-0"

10'-0"

10'-0"

24'-0" Bridge Rdwy.

3'-1"

3'-1"

R = 16'-0" Var.
R = 20'-0" Var.

● = Indicates Boring Location

PLAN

℄ of Channel Sec. 82-6B(W.B.) Sta. 145+10 F.A.I. 64 = Sta. 7+76. Channel Change

℄ W.B. F.A.I. 64

SILVER CREEK

Portion of Silver Creek btwn. Mainlines to be Filled.

℄ Survey

Sta. 1046+44 ℄ Survey = Sta. 10+00 Channel Change

℄ E.B. F.A.I. 64

℄ Prop. Channel Change

PROPOSED CHANNEL CHANGE

75' Channel Bott.

OLD SILVER & LITTLE SILVER CREEK

SILVER CREEK

STATION 1046+44
BUILT 197 BY
STATE OF ILLINOIS
FAI RT. 64 SEC. 82-8B
FA. PROJ. I-64-1(50)
LOADING H S 20 & ALT.

NAME PLATE
Std. 2113-1

Elv. 432.29

Slope ½" per Ft. to drain

20'

21'

6"

2'-3"

SLOPEWALL DETAILS

WATERWAY INFORMATION

Drainage Area (Total)	249.700 Acres
Character	Rolling, Wooded & Cultivated
Required Opening (50 Yr. Flood):	
Silver Creek	3240 Sq. Ft.
Little Silver Creek	2160 Sq. Ft.
Total Req'd. Opening	5400 Sq. Ft.
Present Opening	None
Proposed Opening:	
Silver Creek	3240 Sq. Ft.
Little Silver Creek	2160 Sq. Ft.
Total Prop. Opening	5400 Sq. Ft.
Ordinary Water Elev.	421.0
Low Water Elev.	421.0
Design Frequency Discharge:	
Silver Creek, Qso	25,000 c.f.s.
Combined flows, Qso	27,000 c.f.s.

Proposed E.B. Struct.
Proposed Chan. Change
Little Silver Creek

Silver Creek RT 11N RG 11W

F.A.I. Rt. 64

LOCATION SKETCH

DESIGN STRESSES
f'c = 1200 p.s.i. (Deck Slab.)
fs = 20000 p.s.i. (Reinf.)
fs = 20000 p.s.i. (Struct.)
Vc = 75 p.s.i. (Figs.)
n = 10
Allowable ℄ Defl. = 1/1000 (Non Comp.)
f'c = 1400 p.s.i. (Curbs, Parapets & Sub.)
LOADING H S 20-44 & ALT.

GENERAL PLAN & ELEVATION
PROJ. I-64-1(50)17
OVER SILVER CREEK
F.A.I. RT. 64 SEC. 82-8B(E.B.)
ST. CLAIR COUNTY
STA. 1046+44

Rev. Sheet 6-14-72

DESIGNED	I. Kaspar	EXAMINED	March 19 1969
CHECKED	RAG G.K. K.R.	PASSED	W.E. Bauman
DRAWN		APPROVED	W.E. Staff
CHECKED	R.G.K.		

Rev. 7/16/70 Roo G.K.

FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - ___	REVISED - ___
		DRAWN - ___	REVISED - ___
	PLOT SCALE = $SCALE$	CHECKED - ___	REVISED - ___
	PLOT DATE = $DATE$	DATE - ___	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS
STRUCTURE NO. 082-0187

SCALE: N/A | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	13
		CONTRACT NO. 76663		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

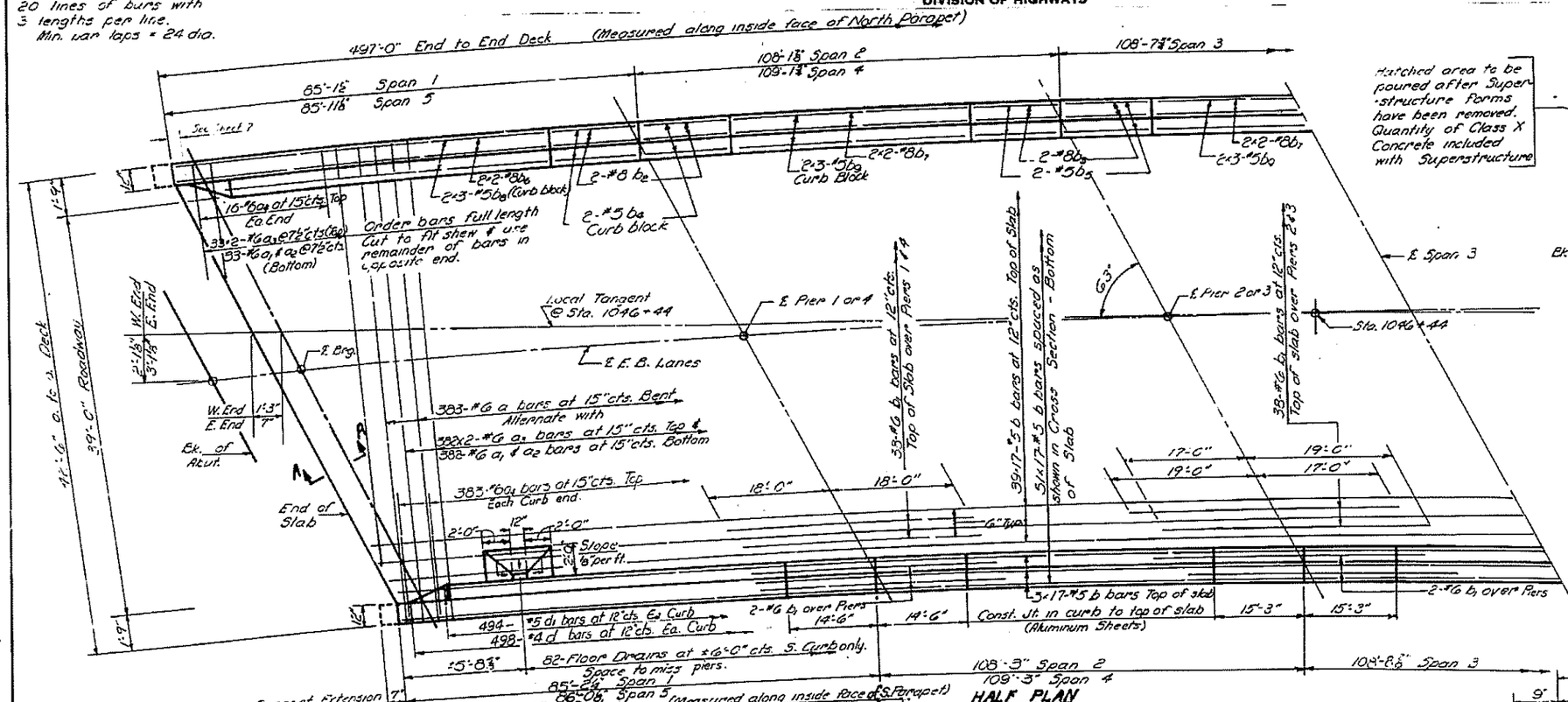
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 64	82-8B	ST. CLAIR	107	35
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3
16 SHEETS

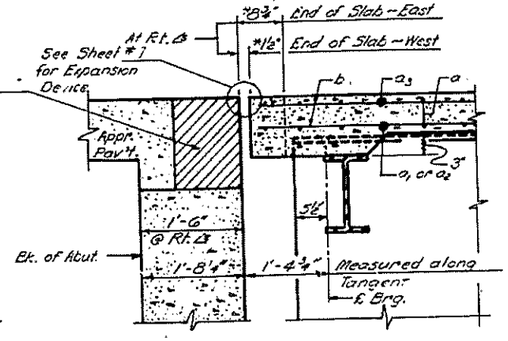
Note:
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
Min. bar laps = 24 dia.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

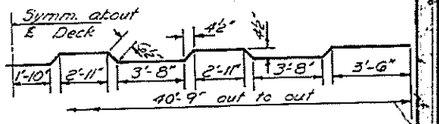


Hatched area to be poured after Superstructure forms have been removed. Quantity of Class X Concrete included with Superstructure

* At normal temp. 50°F



SECTION A-A

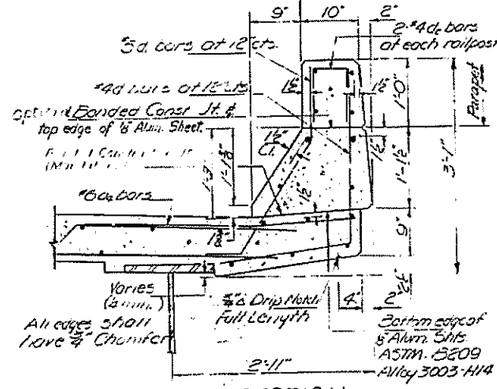


BAR a

BAR a4

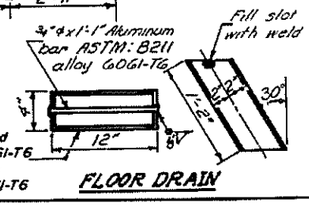
BILL OF MATERIALS

Bar	No.	Size	Length	Shape
a	383	#6	42'-5"	
a1	415	#6	17'-0"	
a2	415	#6	24'-0"	
a3	830	#6	21'-6"	
a4	798	#6	4'-0"	
o	1632	#5	30'-3"	
b1	168	#6	35'-0"	
b2	16	#8	14'-3"	
b3	16	#8	13'-0"	
b4	16	#5	14'-3"	
b5	16	#5	15'-0"	
b6	16	#8	36'-9"	
b7	24	#8	41'-0"	
b8	24	#5	29'-6"	
b9	36	#5	27'-3"	
d	996	#4	4'-6"	
d1	988	#5	3'-5"	
Reinforcement Bars			Lbs.	10320
Structural Steel			L.S.	L.S.
Class X Concrete			Cu. Yds.	371.4



CURB SECTION

Cost of Alum. Drains & Sheets shall be incidental to Class X Conc.



FLOOR DRAIN

BAR a3

BAR d1

The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in the above quantities. See Sheet 4.

DESIGNED	I. Kaplan
CHECKED	
DRAWN	J.R. Boice I.K.
CHECKED	R. G. K.

EXAMINED, PASSED, APPROVED — March 19 1968 — M.E. Bowman — M.E. Kapp

SUPERSTRUCTURE
F.A.I. RT. 64 SEC. 82-8B(EB)
ST. CLAIR COUNTY
STA. 1046 + 44

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = #DATE#	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS
STRUCTURE NO. 082-0187

SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

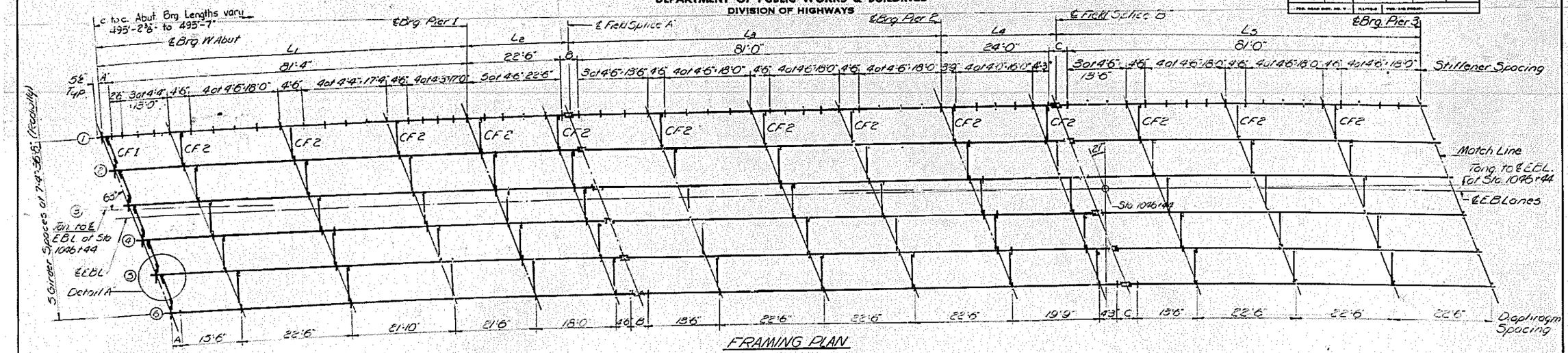
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST. CLAIR	29	14
		CONTRACT NO. 76063		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

STATE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 64	82-8B	ST. CLAIR	107	37

SHEET NO. 5
16 SHEETS



GIRDER LENGTHS & DIMENSIONS

Girder	Radius	Span 1 L1	Span 2 L2	Span 2 L3	Span 3 L4	Span 3 L5	Span 4 L6	Span 4 L7	Span 5 L8	Span 5 L9	A	B	C	D	E
1	12249.73	85°-10⅜"	24°-9⅜"	85°-9⅜"	25°-8⅜"	82°-11⅜"	25°-7"	83°-6¾"	23°-11⅝"	61°-4⅜"	2'-6⅜"	4'-8"	3'-7⅜"	4'-1⅜"	4'-4⅝"
2	12242.42	85°-10⅜"	24°-9⅜"	85°-9⅜"	25°-8⅜"	82°-11⅝"	25°-7⅜"	83°-6⅜"	23°-11⅝"	61°-4⅜"	2'-6⅜"	4'-8⅜"	3'-8"	4'-2"	4'-4⅝"
3	12235.09	85°-11"	24°-9⅝"	85°-9⅜"	25°-8⅜"	82°-11⅝"	25°-7⅜"	83°-7⅛"	23°-11⅝"	61°-5"	2'-7"	4'-8⅜"	3'-8⅜"	4'-2⅛"	4'-4⅞"
4	12227.75	85°-11⅛"	24°-9⅝"	85°-10"	25°-8⅜"	82°-11⅞"	25°-7⅜"	83°-7⅛"	23°-11⅝"	61°-5⅛"	2'-7⅛"	4'-8⅝"	3'-8⅝"	4'-2⅜"	4'-5⅛"
5	12220.42	85°-11⅛"	24°-9⅝"	85°-10⅛"	25°-8⅜"	82°-11⅞"	25°-7⅜"	83°-7⅛"	23°-11⅝"	61°-5⅜"	2'-7⅛"	4'-8⅞"	3'-8⅞"	4'-2⅝"	4'-5⅜"
6	12213.09	85°-11⅜"	24°-9⅞"	85°-10⅜"	25°-8⅝"	83°-0"	25°-7⅝"	83°-7⅜"	23°-11⅝"	61°-5⅝"	2'-7⅜"	4'-9"	3'-8⅝"	4'-2⅞"	4'-5⅝"

OFFSET DIMENSIONS ~ GIRDER LAYOUT

Girder	℄ Brg W.A. x	℄ Brg W.A. y	℄ Brg P1 x	℄ Brg P1 y	℄ Splice A x	℄ Splice A y	℄ Brg P2 x	℄ Brg P2 y	℄ Splice B x	℄ Splice B y	℄ Brg P3 x	℄ Brg P3 y	℄ Splice C x	℄ Splice C y	℄ Brg P4 x	℄ Brg P4 y	℄ Splice D x	℄ Splice D y	℄ Brg E.A x	℄ Brg E.A y
1	1113	2189	453	890	316	620	.032	.063	.003	.007	.089	194	.186	.366	650	1297	850	1668	1445	2837
2	1080	2120	431	846	297	584	.026	.052	.002	.004	.110	216	.201	.395	689	1353	882	1732	1487	2919
3	1046	2053	409	804	279	548	.021	.042	.000	.001	.122	239	.217	.426	718	1410	916	1797	1534	3012
4	1012	1987	388	762	262	514	.016	.032	0	0	.134	264	.233	.459	748	1469	949	1864	1574	3091
5	978	1922	367	721	245	481	.012	.024	0	0	.147	289	.250	.492	779	1529	984	1931	1619	3178
6	947	1858	347	682	228	449	.009	.017	0	0	.161	316	.268	.527	810	1590	1019	2000	1664	3267

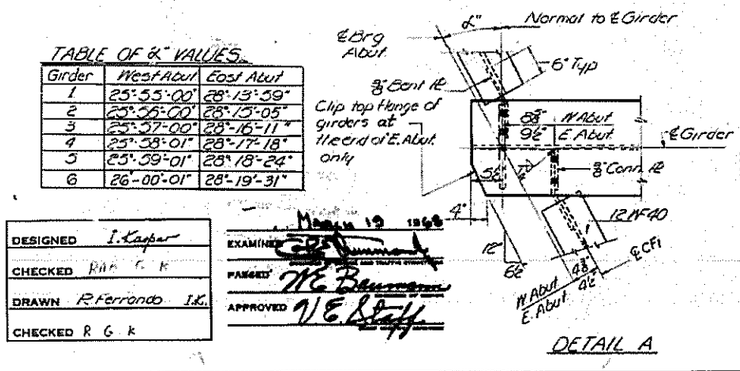
Note: All dimensions are in ft.

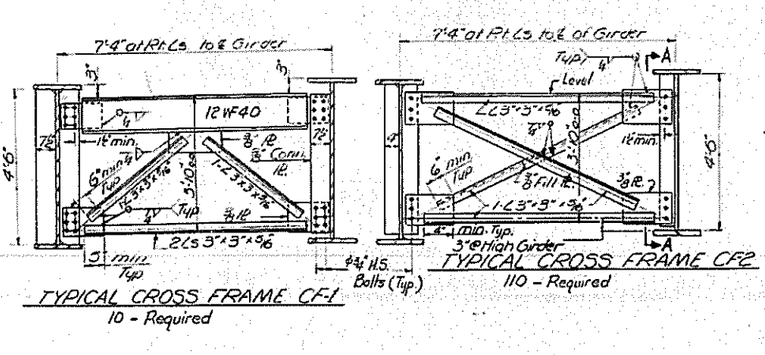
ELEVATIONS ~ TOP OF WEB
(For Fabrication only)

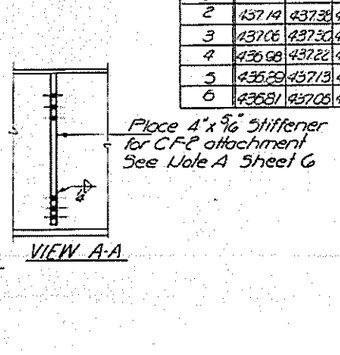
Girder	℄ Brg W.Abut	℄ Brg. Pier 1	℄ Splice A	℄ Brg Pier 2	℄ Splice B	℄ Brg Pier 3	℄ Splice C	℄ Brg Pier 4	℄ Splice D	℄ Brg E.Abt
1	437.25	437.47	437.55	437.72	437.71	437.62	437.84	437.77	437.72	437.72
2	437.19	437.38	437.48	437.63	437.68	437.73	437.72	437.68	437.66	437.62
3	437.06	437.30	437.38	437.50	437.60	437.65	437.67	437.60	437.58	437.52
4	436.98	437.22	437.30	437.47	437.52	437.57	437.58	437.51	437.49	437.42
5	436.89	437.13	437.21	437.38	437.43	437.48	437.49	437.42	437.40	437.32
6	436.81	437.05	437.13	437.30	437.38	437.42	437.41	437.34	437.32	437.22

TABLE OF ℓ VALUES

Girder	West Abut	East Abut
1	25°-55'-00"	28°-13'-59"
2	25°-56'-00"	28°-13'-05"
3	25°-57'-00"	28°-16'-11"
4	25°-58'-01"	28°-17'-18"
5	25°-59'-01"	28°-18'-24"
6	26°-00'-01"	28°-19'-31"







DESIGNED	I. Kaspar
CHECKED	R G K
DRAWN	R. Ferrando I.K.
CHECKED	R G K

EXAMINED March 19 1968
PASSED
APPROVED

STRUCTURAL STEEL
FAI RT 64 SEC. 82-8B (EBL)
ST CLAIR COUNTY
STA 1046+44

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - ___	REVISED - ___
		DRAWN - ___	REVISED - ___
	PLOT SCALE = $SCALE$	CHECKED - ___	REVISED - ___
	PLOT DATE = $DATE$	DATE - _____	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING
STRUCTURE NO. 082-0187

SCALE: N/A | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

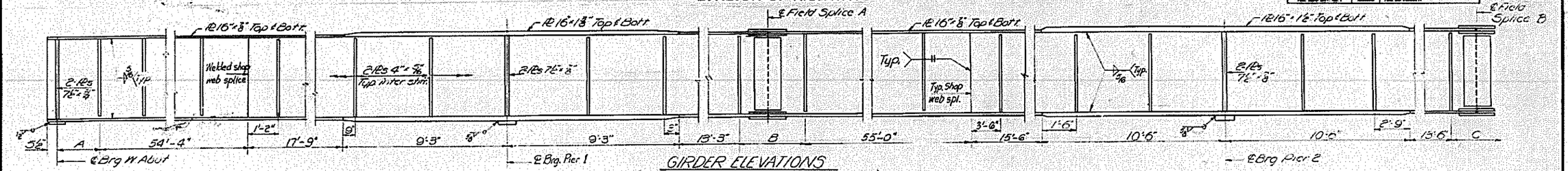
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	15
		CONTRACT NO. 76G65		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

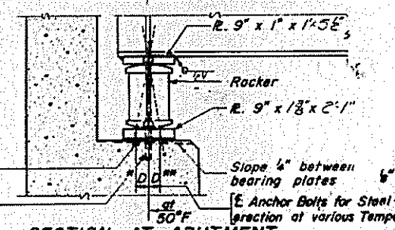
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 64	82-8B	ST. CLAIR	107	38

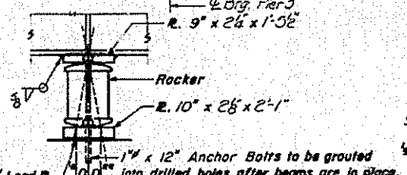
SHEET NO. 6
16 SHEETS



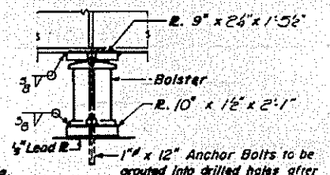
GIRDER ELEVATIONS
(To be fabricated to its required radius.)



SECTION AT ABUTMENT

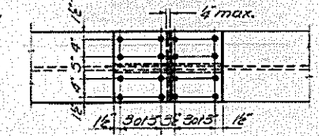


PIER 1,3 & 4



PIER 2

D** — Fixed Pier



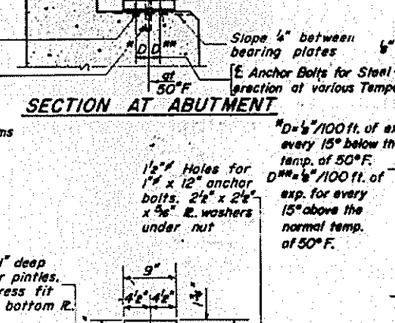
DETAIL OF FIELD SPLICE
(24 – Required)

INTERMEDIATE STIFFENERS DETAILS

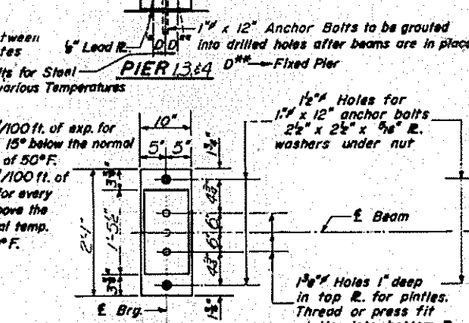
BEARING STIFFENERS DETAILS

NOTES:

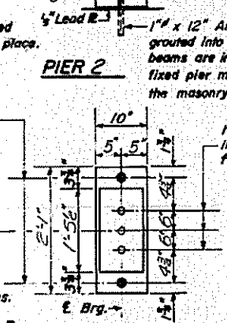
All bolts for field splices shall be ⅞" high strength bolts. Contact surfaces of all splices shall be free of oil or paint.
For dimensions ABC.DE and Stiffener Spacings See Sht #5
'A' - Intermediate Stiffeners within E-30" from ℄ Piers shall be a tight fit at the bottom and ⅜" undercut at the top. All other Int. Stiffeners shall be a tight fit at the top and ⅜" undercut at the bottom.



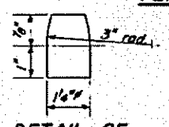
PLAN



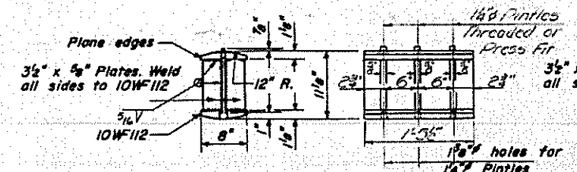
PLAN



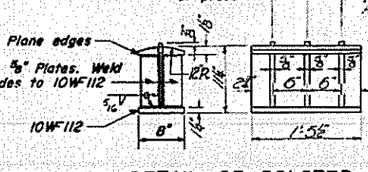
PLAN



DETAIL OF PINTLE



DETAIL OF ROCKER AT PIERS 1,3 & E ABUT.



DETAIL OF BOLSTER AT PIER 2

DESIGNED	I. Kaplan	EXAMINED
CHECKED	R.A.C. C.V.	PASSED
P.G. Barnett / DRAWN	Tennessee / W.A. Sausaman Jr.	APPROVED
CHECKED	R. G. K.	

MARCH 19 1968
M.E. Baumann
V.E. Stoffel

I-2 7-2-62 Rev. 11-9-62 Rev. 8-16-63 Rev. 12-10-63

STRUCTURAL STEEL
FAI RTE. SEC. 82-8B(EB)
ST. CLAIR COUNTY
STA. 1046+44

FILE NAME = #FILE1#	USER NAME = #USER#	DESIGNED - ___	REVISED - ___
		DRAWN - ___	REVISED - ___
	PLOT SCALE = #SCALE#	CHECKED - ___	REVISED - ___
	PLOT DATE = #DATE#	DATE - ___	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS
STRUCTURE NO. 082-0187

SCALE: N/A | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

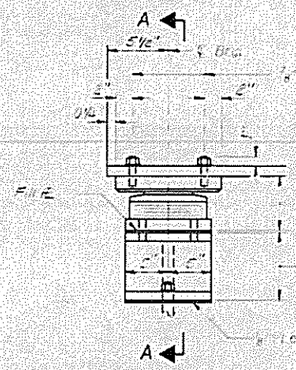
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	16
		CONTRACT NO. 76063		
FED. ROAD DIST. NO. ,	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

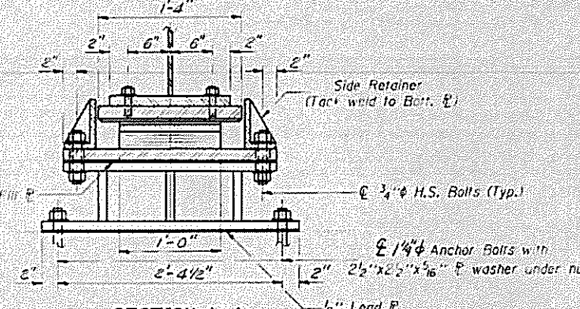
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO.
I-2 E4	*	ST. CLAIR	24	14	SHEETS
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

* 82-8BI-(1,2)



ELEVATION AT ABUT.

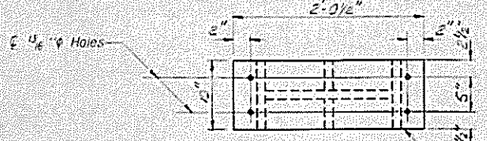


SECTION A-C

TYPE II TFE ELASTOMERIC EXP. BRG.

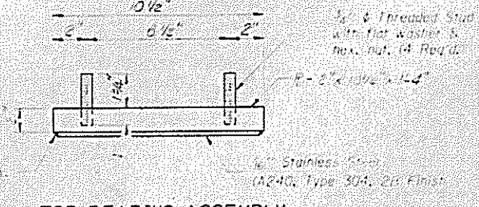
Note: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy.

Note: Diaphragm removal and replacement may be required to facilitate drilling holes in bottom flange for bearing attachment. Cost is incidental to "F.&E. Struct. Steel".

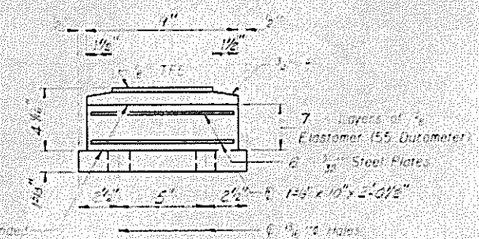


PLAN - TOP PLATE

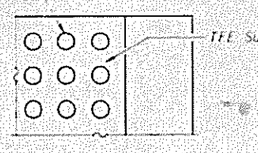
Note: Before installing the new bearings, remove the top ℄ of the existing bearing assembly from the bottom flange of the girders and grind smooth all weld material remaining on the bottom flange. Cost is incidental to "F.&E. Structural Steel".



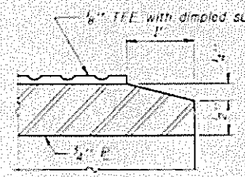
TOP BEARING ASSEMBLY



BOTTOM BEARING ASSEMBLY



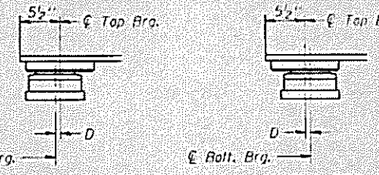
PLAN-TFE SURFACE



SECTION THRU TFE

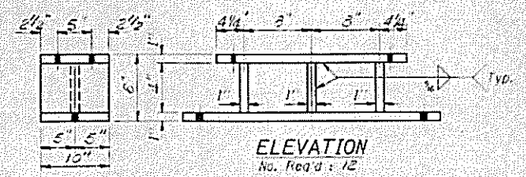
Note: The ½" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ½" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

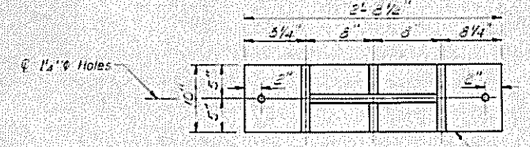


SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100° of expansion for every 15° temp. change from the normal temp. of 50°F.



ELEVATION
No. Req'd.: 12



PLAN - BOTTOM PLATE

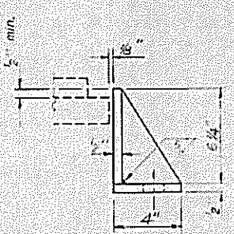
Note: No mill plates are required at these locations.

BEAM REACTIONS

Live Load	41.3K
Dead Load	37.4K
Uplift	9.3K

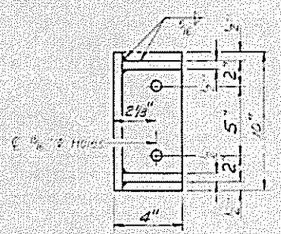
DESIGNED		EXAMINED	19
CHECKED		PASSED	ENGINEER OF STRUCTURAL DESIGN
DRAWN		APPROVED	ENGINEER OF BRIDGE AND STRUCTURES
CHECKED			DIRECTOR OF HIGHWAYS

I-2-E2



SIDE RETAINER

Equivalent rolled angle with stiffener will be allowed in lieu of welded plate.



Note: New steel pedestals, side retainers, lead plates, and anchor bolts are included in "Furn. and Erect. Structural Steel".

BILL OF MATERIAL

Item	Unit	Total
Elastomeric bearing, Assembly, Type II	Each	12
Furnishing and Erecting Structural Steel	Lbs.	3390

WEST ABUTMENTS
S.N. 082-0186 & 082-0187
ELASTOMERIC BEARINGS

FAI ROUTE 64
SEC. 82-8BI-(1,2)
ST. CLAIR COUNTY

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - ___	REVISED - ___
		DRAWN - ___	REVISED - ___
	PLOT SCALE = $SCALE$	CHECKED - ___	REVISED - ___
	PLOT DATE = $DATE$	DATE - _____	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BEARING DETAILS (SN-082-0186, 0187)

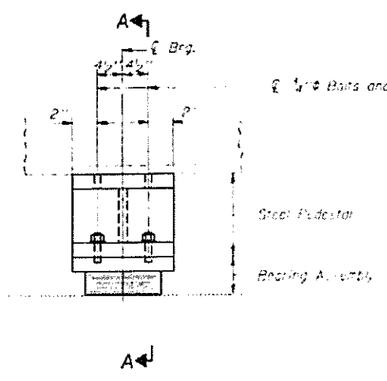
SCALE: N/A | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	17
		CONTRACT NO. 76063		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

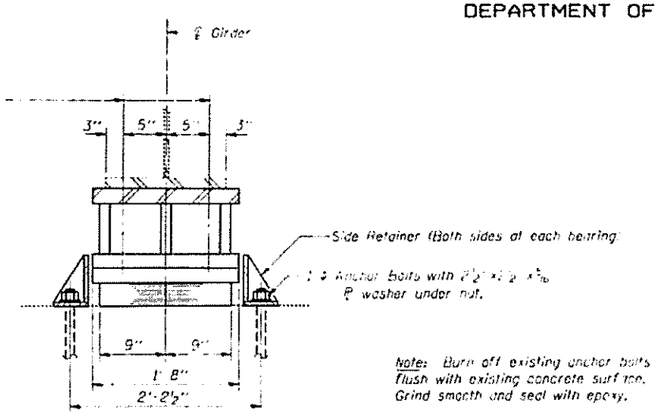
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 15
24 SHEETS



ELEVATION AT PIER

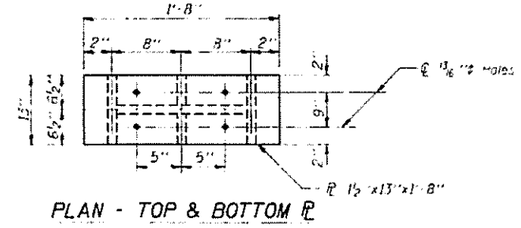


SECTION A-A

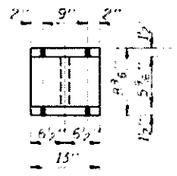
Note: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy.

TYPE I ELASTOMERIC EXP. BRG.

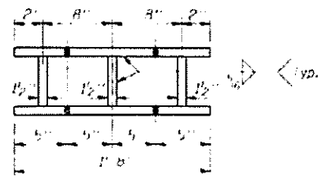
Note: Before installing the new bearings, remove the top ℙ of the existing bearing assembly from the bottom flange of the girders and grind smooth all weld material remaining on the bottom flange. Cost is incidental to "F.&E. Structural Steel".



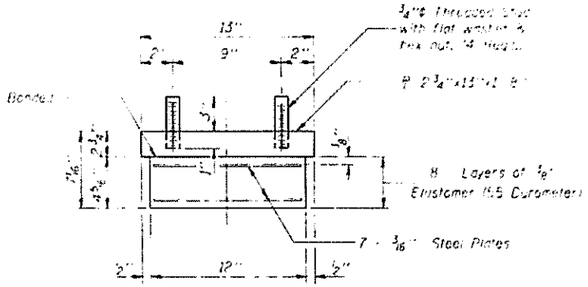
PLAN - TOP & BOTTOM ℙ



END VIEW



ELEVATION
No. Req'd = 24



BEARING ASSEMBLY

NOTE: Shim plates shall not be placed under bearing assembly

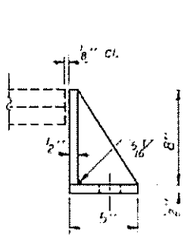
BEAM REACTIONS

Live Load	71.3 k
Dead Load	134.0 k
Impact	15.2 k

Note: Diaphragm removal and replacement may be required to facilitate drilling holes in bottom flange for bearing attachment. Cost is incidental to "F.&E. Struct. Steel".

BILL OF MATERIAL
(For Two Structures)

Item	Unit	Total
Elastomeric Bearing Assembly Type I (Special)	Each	24
Furnishing and Erecting Structural Steel	Lbs.	9640

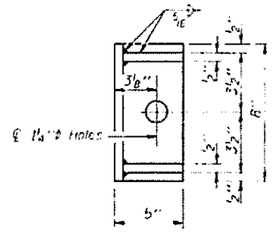


SIDE RETAINER

(48 required)

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Note:
New steel pedestals, side retainers and anchor bolts are included in "F.&E. Structural Steel".



PIERS 1 & 3
ELASTOMERIC BEARINGS (SPECIAL)

F.A.I. RT. 64 SEC. 82-8BI-(1,2)
ST. CLAIR COUNTY
STA. 145 + 10 - W.B. (082-0186)
STA. 1046 + 44 - E.B. (082-0187)

(S.N. 082-0186 & 082-0187)

DESIGNED	C.H.M.
CHECKED	K.A.S.
DRAWN	T. D. Carlstedt
CHECKED	C.H.M.

EXAMINED _____ 19
PASSED _____ ENGINEER OF STRUCTURAL SERVICES
APPROVED _____ ENGINEER OF BUREAU OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS

I-2-E1 12-1-83

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - ___	REVISED - ___	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BEARING DETAILS (SN-082-0186, 0187)
		DRAWN - ___	REVISED - ___		
	PLOT SCALE = $SCALE$	CHECKED - ___	REVISED - ___		SCALE: N/A | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____
	PLOT DATE = $DATE$	DATE - _____	REVISED - ___		

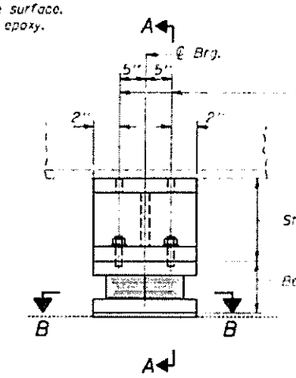
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	18
		CONTRACT NO. 76063		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

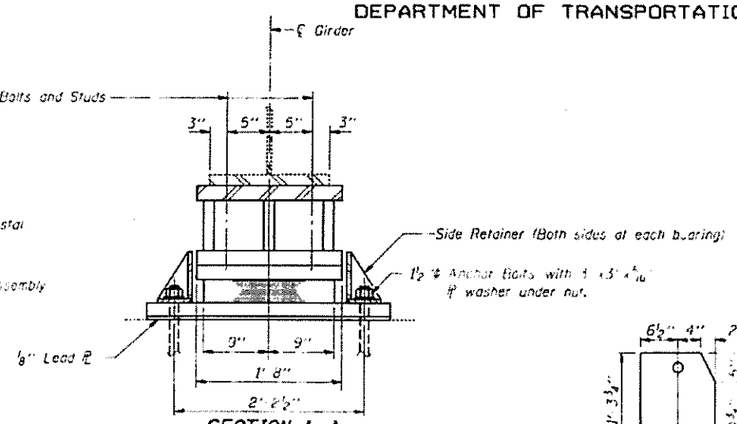
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 16
24 SHEETS

Note: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy.

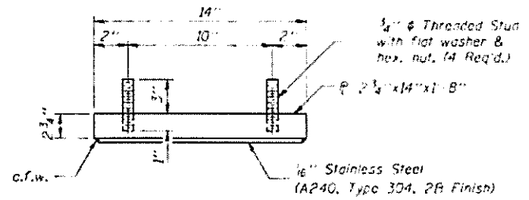


ELEVATION AT PIER
Looking North

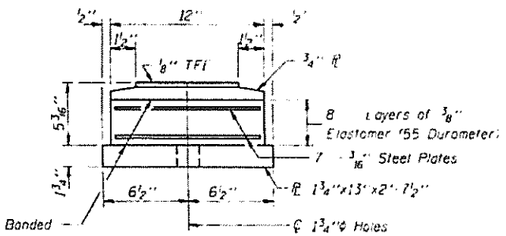


SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

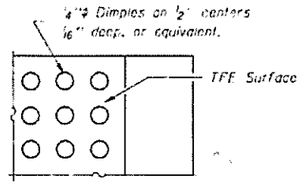


TOP BEARING ASSEMBLY

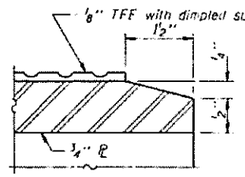


BOTTOM BEARING ASSEMBLY

Note: Before installing the new bearings, remove the top ℄ of the existing bearing assembly from the bottom flange of the girders and grind smooth all weld material remaining on the bottom flange. Cost is incidental to "F.&E. Structural Steel".



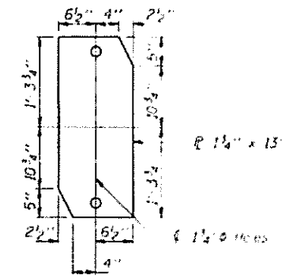
PLAN-TFE SURFACE



SECTION THRU TFE

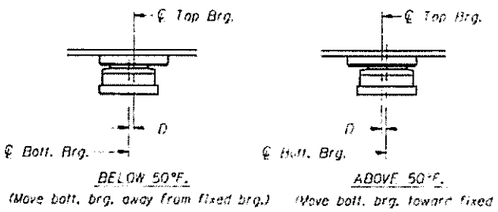
Note: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SECTION B-B

BOTTOM PLATE CLIPPING DETAIL
○ F. B. Structure (082-0187) only

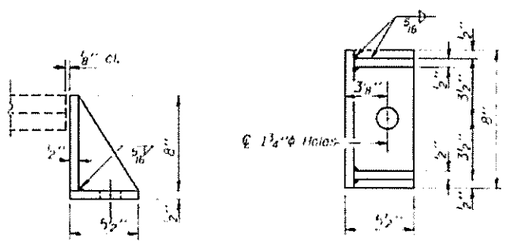


BELOW 50°F. (Move bott. brg. away from fixed brg.)

ABOVE 50°F. (Move bott. brg. toward fixed brg.)

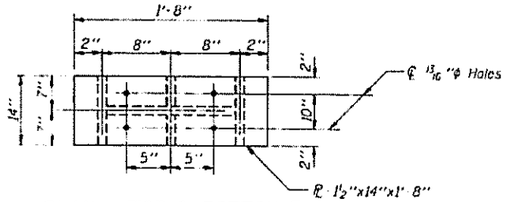
SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100° of expansion for every 15° temp. change from the normal temp. of 50°F.

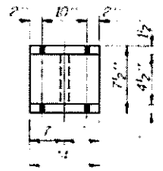


SIDE RETAINER
(24 Required)

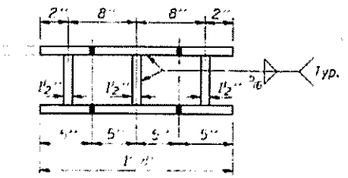
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



PLAN - TOP & BOTTOM ℄



END VIEW



ELEVATION
No. Req'd : 12

Note: Diaphragm removal and replacement may be required to facilitate drilling holes in bottom flange for bearing attachment. Cost is incidental to "F.&E. Struct. Steel".

BEAM REACTIONS

Live Load	71.3 k
Dead Load	134.0 k
Impact	15.2 k

Note: New steel pedestals, side retainers, lead plates and anchor bolts are included in "Furn. and Erect. Structural Steel".

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II (Special)	Each	12
Furnishing and Erecting Structural Steel	Lbs.	5250

PIER 4
ELASTOMERIC BEARINGS(SPECIAL)
F.A.I. RT. 64 SEC. 82-8BI-(1,2)
ST. CLAIR COUNTY
STA. 145 + 10 - W.B. (082-0186)
STA. 1046 + 44 - E.B. (082-0187)
(S.N. 082-0186 & 082-0187)

DESIGNED	C.H.N.
CHECKED	P.A.B.
DRAWN	r.b. carbonell
CHECKED	C.H.N.

19
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

I-2-E2 12-1-83

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - ___	REVISED - ___
		DRAWN - ___	REVISED - ___
	PLOT SCALE = $SCALE$	CHECKED - ___	REVISED - ___
	PLOT DATE = $DATE$	DATE - ___	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

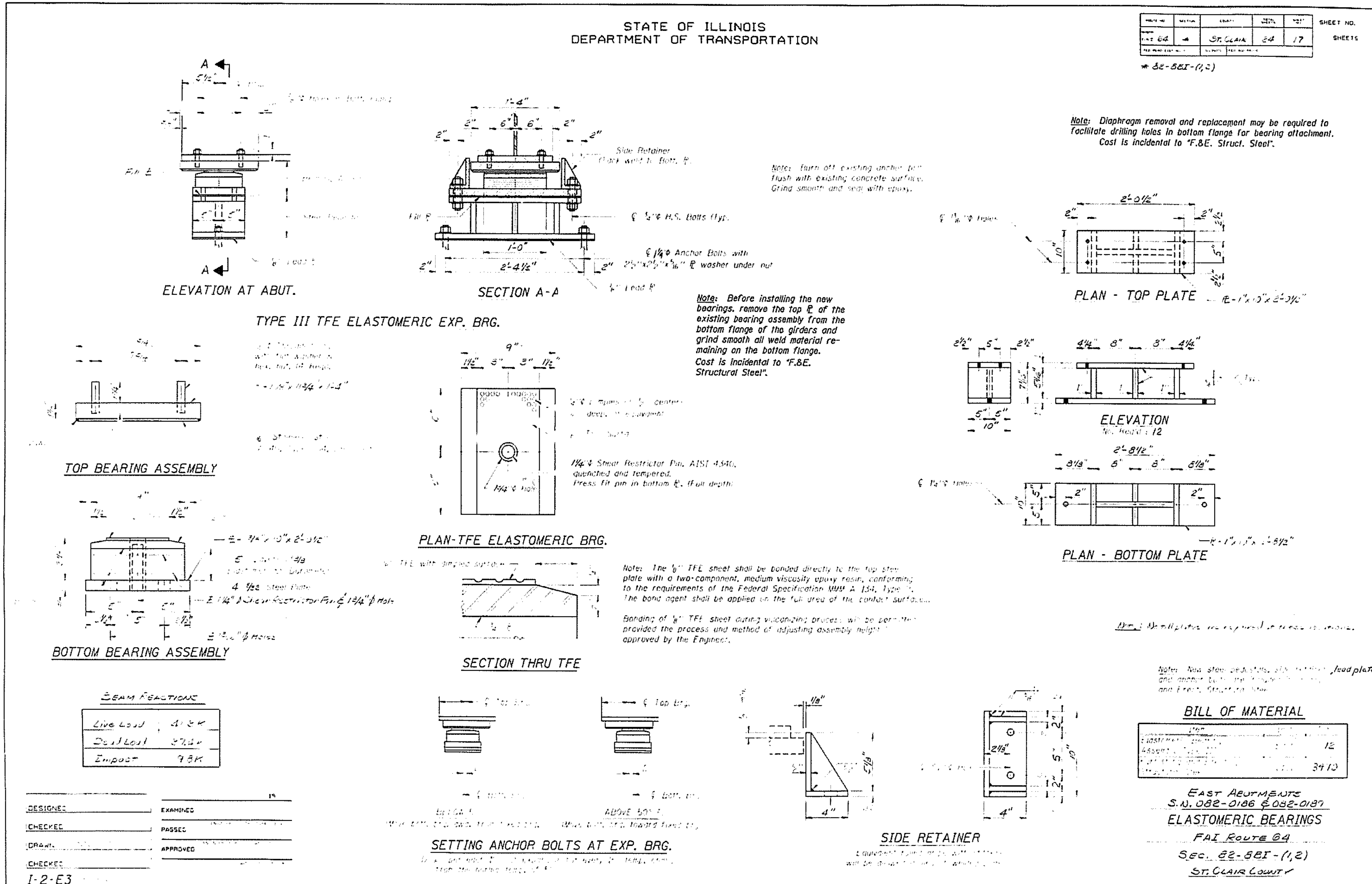
EXISTING BEARING DETAILS (SN-082-0186, 0187)

SCALE: ___ | SHEET NO. __ OF ___ SHEETS | STA. ___ TO STA. ___

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	CLINTON	29	19
		CONTRACT NO. 76663		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY



FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BEARING DETAILS (SN-082-0186, 0187)
		DRAWN -	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -		
	PLOT DATE = $DATE$	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	CLINTON	29	20
		CONTRACT NO. 76G63		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

FOR INFORMATION ONLY

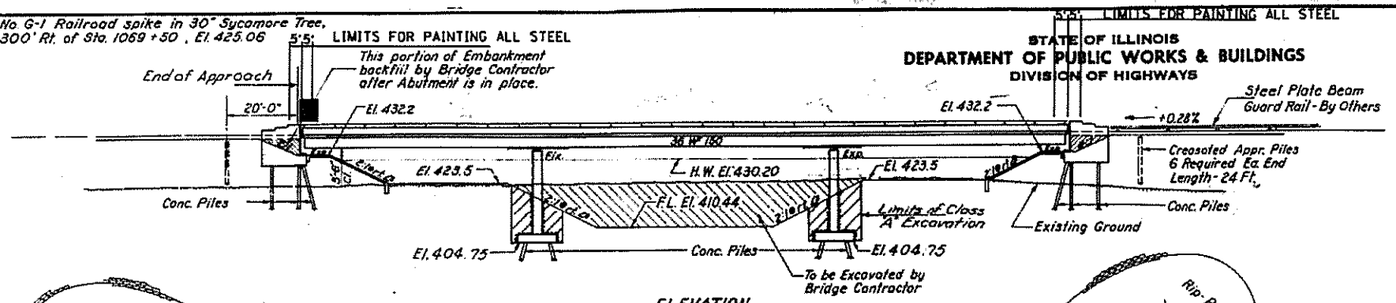
SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
A.R.A. P.A.I. 64	82-8B	ST. CLAIR	107	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
11 SHEETS

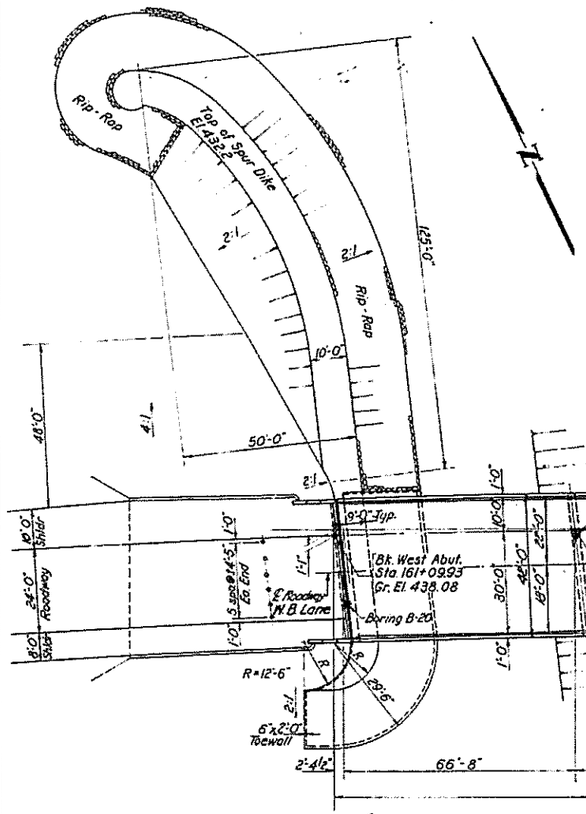
B.M.: No. G-1 Railroad spike in 30" Sycamore Tree, 300' Rt. of Sta. 1069+50, El. 425.06

S.S. LIMITS FOR PAINTING ALL STEEL

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



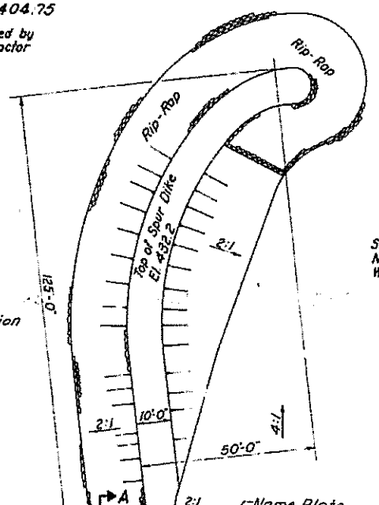
ELEVATION

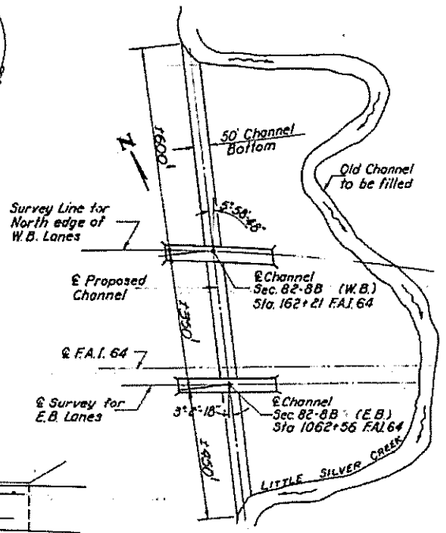


PLAN

Note: All Channel Changes and Spur Dikes by Bridge Contractor. For Dike Cross-Section See Sheet #1A

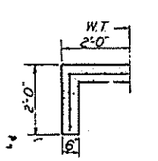
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.



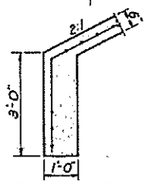


PROPOSED CHANNEL CHANGE

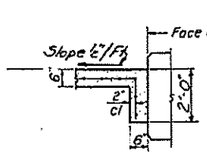
Note: Piles shall be jetted if necessary to reach minimum tip elevations shown.



SECTION A-A



SECTION B-B



SECTION C-C

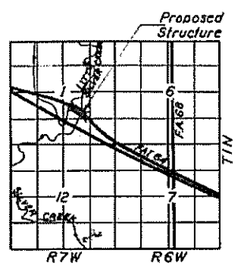
DESIGNED	R. Bradford Jr.
CHECKED	R. Kowert
	R.A.C. R.B.
DRAWN	J.L. Armstrong
CHECKED	R.K.

Dec. 14 1967

EXAMINED
PASSED
APPROVED

CURVE DATA

Δ = 18°19'-08" Rt. D = 1°-00'-00"
R = 5729.58' T = 923.83'
L = 1831.89' E = 74.00'
S.E. = 0.028 Ft. per Ft.
S.E. Attained Sta. 166+46.39 to Sta. 168+46.39
Crown removed.



LOCATION PLAN

WATERWAY INFORMATION

Drainage Area ----- (Total) 249,700 Acres
Character -----Rolling, Wooded, Cultivated
Required Opening --(50 Yr. Flood):
Silver Creek ---------- 3,240 Sq. Ft.
Little Silver Creek ------ 2,160 Sq. Ft.
Total Req'd. Opening --- 5,400 Sq. Ft.
Proposed Opening:
Silver Creek ---------- 3,240 Sq. Ft.
Little Silver Creek ------ 2,160 Sq. Ft.
Total Prop. Opening --- 5,400 Sq. Ft.
Ordinary Water Elevation --- 416.0
Low Water Elevation ---- 412.5
Design Frequency Discharge: Little Silver Creek, Q_{50} 9600 cfs.

DESIGN STRESSES

f'c = 1400 psi. Super & Sub
fs = 20,000 psi. Reinf.
fs = 20,000 psi. Struct.
Vc = 75 psi. Ftgs.
n = 10
Allowable ℄ Defl. = L/1000 Non-Composite

LOADING HS 20-44 & ALT.

GENERAL NOTES

Calculated wt. of Structural Steel = 276,920 lbs.
Slope Wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 sq. ft.
Layout of slope walls may be varied to suit ground conditions in the field as directed by the Engineer.
All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
Fasteners shall be high strength bolts. Bolts ¾" ϕ; open holes 13/16" ϕ, unless otherwise noted.
Anchor bolts shall be set before bolting diaphragms over supports.
The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.
The Contractor shall drive one concrete test pile on a permanent location at each Pier and at the East Abutment as directed by the Engineer before ordering the remainder of piles.

The Contractor shall drive the piles to the capacity on the plans and to the following minimum elevations:
℄ of Rt. Abutments --- El. 392.0
Pier 1 --- El. 385.0
Pier 2 --- El. 383.0

STATION 162+21
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. RT. 64 SEC. 82-8B
F.A. PROJ. I-64-1(50)
LOADING HS 20 & ALT.

NAME PLATE LETTERING
See Standard 2113-1

TOTAL BILL OF MATERIAL

	Item	Unit	Super	Sub	Total
	Class A Concrete	Cu. Yds.		270.6	270.6
*	Class A Excavation for Structures	Cu. Yds.		530	530
	Structural Steel	Lump Sum	L.S.		L.S.
	Aluminum Railing	Lin. Ft.	441		441
	Class X Concrete	Cu. Yds.	252.0	92.8	344.8
	Reinforcement Bars	Lbs.	71,000	21,600	92,600
	Creosoted Piles (20.1'+a 38')	Lin. Ft.		288	288
	Concrete Piles	Lin. Ft.		1762	1762
	Test Piles (Concrete)	Each		3	3
	Name Plates	Each	1		1
	Stone Riprap	Sq. Yds.		1240	1240
	Slope Wall (6")	Sq. Yds.		454	454
	Protective Coat	Sq. Yds.	1132		1132
**	Bridge Seat Sealant	Lump Sum	L.S.		L.S.

*Includes excavation for Slope Walls.
**Applied at Abutments.

FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF ½ OF THE SPAN EACH WAY FROM PIER SUPPORTS ON THE TOP FLANGES OF BEAMS OR GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

PROJ. I-64-1(50)17
GENERAL PLAN & ELEVATION
LITTLE SILVER CREEK
F.A.I. RT. 64 SEC. 82-8B (NB)
ST. CLAIR COUNTY
STA. 162+21

Rev. 11-10-66 R.B. Jr. Added Guard Rail to E. Approach. Changed Class X Conc. 337.4 to 340.3 & 581.7 to 584.6 Cu. Yds. Changed Reinf. Bars 59,980; 19,030 & 79,010 to 64,110; 19,790 & 83,900 Lbs.

Rev. 8-21-67 Changed Cl. X Conc., Cu. Yds., Super from 284.3 to 293.3 & Total from 584.6 to 593.6. Reinf. Bars, Lbs., Super from 64110 to 68460 & Total from 83900 to 88250. S.D.. Rev. 7-13-70 Rod. G.K.

Rev. 9-4-68 Rod. G.K. Rev. 8-11-70 Rev. Skid. 8-14-70

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS
STRUCTURE NO. 082-0188

SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	21
		CONTRACT NO. 76663		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

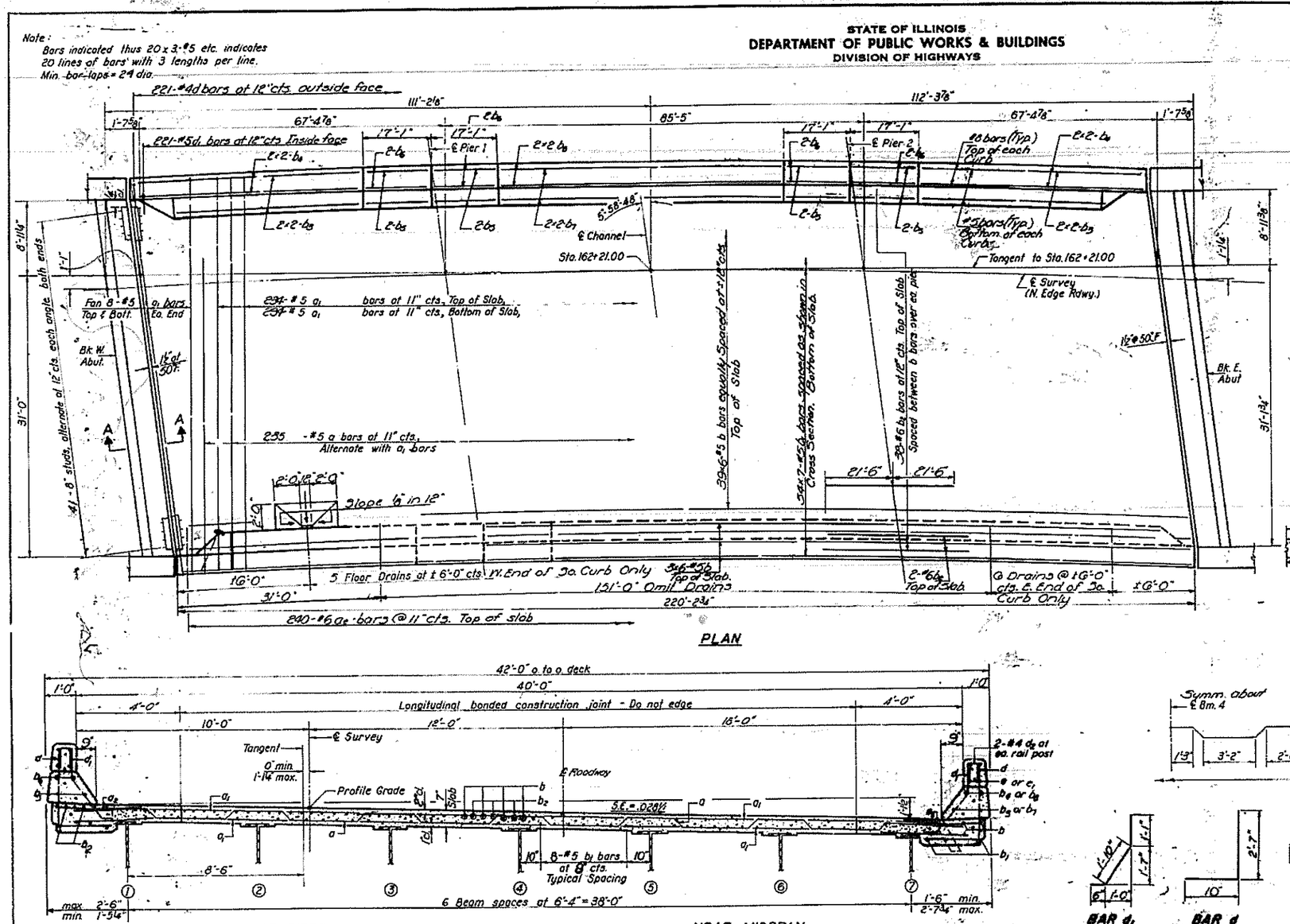
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 64	82-8B	ST. CLAIR	107	51
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2
11 SHEETS

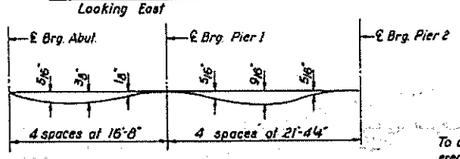
Note:
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
Min. bar laps = 24 dia.



PLAN

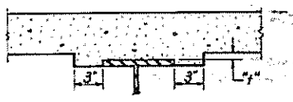
NEAR PIERS NEAR MIDSPAN

CROSS SECTION
Looking East



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only)
Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet #3.

STANDARD FILLET DETAIL



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet #3. These elevations subtracted from the "Grade Elevations Adjusted for Dead Load Deflections" shown on sheet #3, minus slab thickness, equals the fillet heights "t" above top of beams.

DESIGNED	R. Bradford Jr.
CHECKED	P. Howard P.E.
DRAWN	J. L. Armstrong
CHECKED	R.K.

Dec. 4 1964
EXAMINED M.G. Sammons
PASSED
APPROVED U.E. Hoff

Rev 11/4/66 R.B. Jr. Top reinforcement clearance revised to 2" additional bars added. Rev. Reinf. Bar Total 59,080 to 64,110 Lbs.

Revised: 8/16/67 - Changed Curb Sec. to new configuration; Changed Cl. X Conc., Cu. Yds. from 244.3 to 255.3 Reinf. Bars Lbs., from 64110 to 68460. S.D.

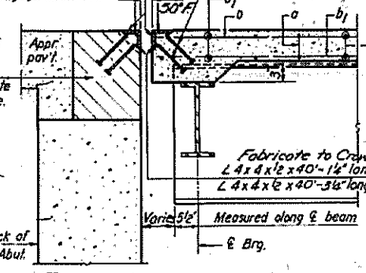
Rev: 9-4-68 Rao. G.K.

"6 ϕ holes at 12" cts. for ¾" bolts set on 2½" gage line. All bolts shall be burned, sawed, or clipped off flush with back of angles after forms are removed.

"6 ϕ vent holes at 12" cts. set on 1'-0" gage line.

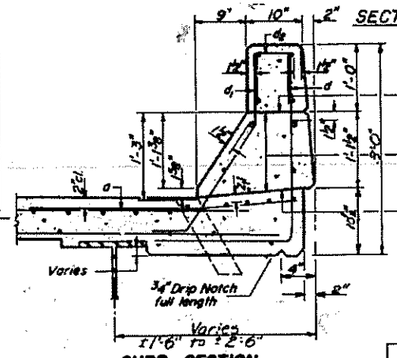
¾" ϕ x 8" CR 1020 STL granular or solid flux filled headed studs, automatically end welded. (Alternate of 1'-0" cts.)

Hatched area to be poured after superstructure forms have been removed. Quantity of Class X Concrete included with superstructure.

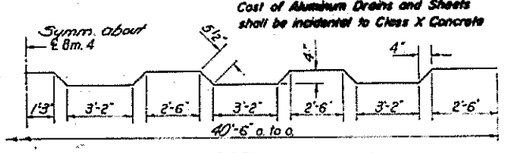


Fabricate to Crown
L 4 x 4 x ½ x 40'-1¼" long W. Abut.
L 4 x 4 x ½ x 40'-3½" long E. Abut.

SECTION A-A

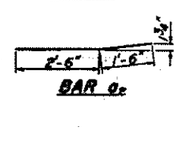


CURB SECTION
Cost of Aluminum Drains and Sheets shall be incidental to Class X Concrete



BAR a

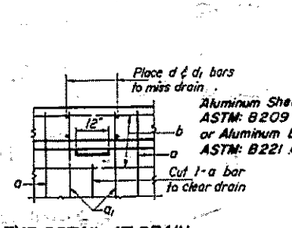
BAR d1 BAR d



BAR a2

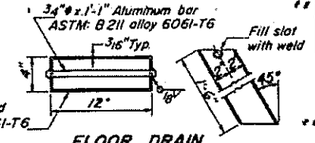
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	235	#5	42'-0"	
a1	500	#5	41'-4"	
a2	480	#6	4'-0"	
b	270	#5	37'-9"	
b1	378	#5	32'-9"	
b2	84	#6	43'-0"	
b3	16	#5	25'-9"	
b4	16	#8	26'-5"	
b5	16	#5	16'-10"	
b6	16	#8	16'-10"	
b7	8	#5	26'-3"	
b8	8	#8	26'-9"	
d	442	#4	3'-5"	
d1	442	#5	3'-5"	
** Class X Concrete			Cu Yds	252.0
** Reinforcement Bars			Lbs.	71,000
Structural Steel			L.S.	L.S.



TYP DETAIL AT DRAIN

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



FLOOR DRAIN
Cost incidental to Class X Concrete
Total 11 Required

** Includes Parapet Quantities - see Sheet #4

SUPERSTRUCTURE
F.A.I. RT 64 SEC. 82-8B
ST. CLAIR COUNTY
STA. 162+21

FILE NAME = #FILE1#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE DETAILS STRUCTURE NO. 082-0188
		DRAWN -	REVISED -		
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		
	PLOT DATE = #DATE#	DATE -	REVISED -		

SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

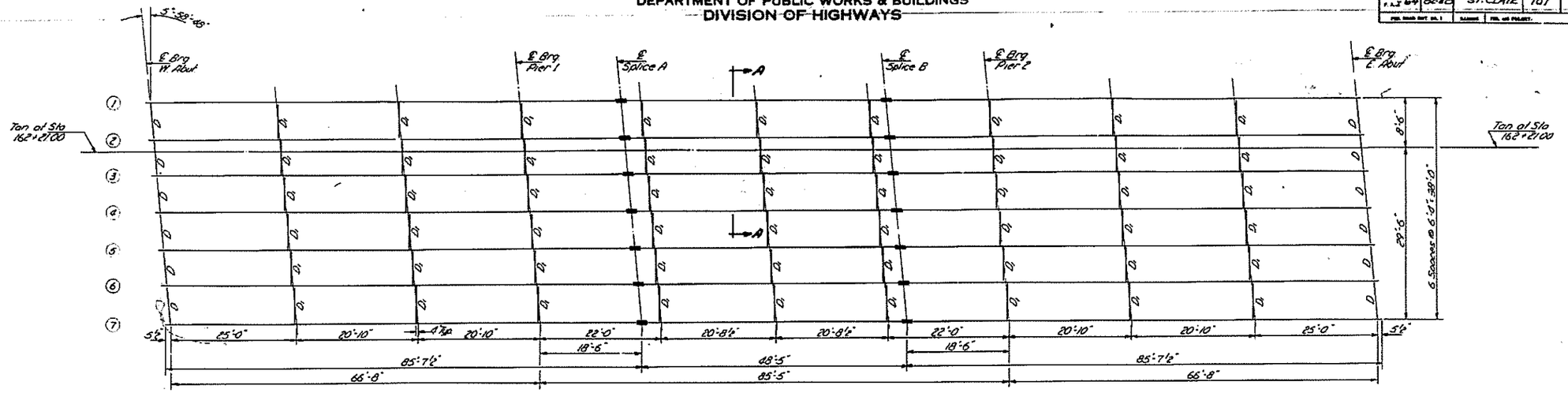
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	22
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 76663	

FOR INFORMATION ONLY

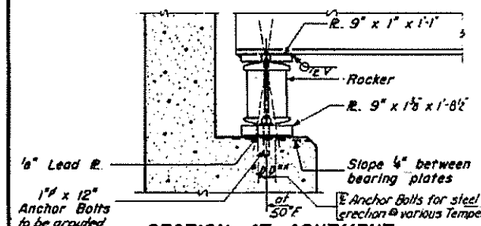
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. RTE. 64	82-8B	ST. CLAIR	107	54
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

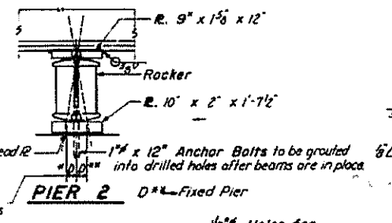
SHEET NO. 5
11 SHEETS



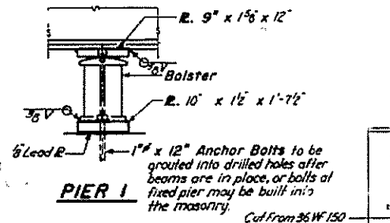
FRAMING PLAN
All Beams 36 WF 150



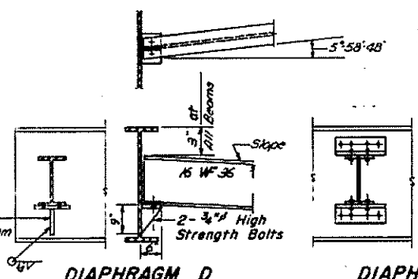
SECTION AT ABUTMENT



PIER 2 D"↳Fixed Pier

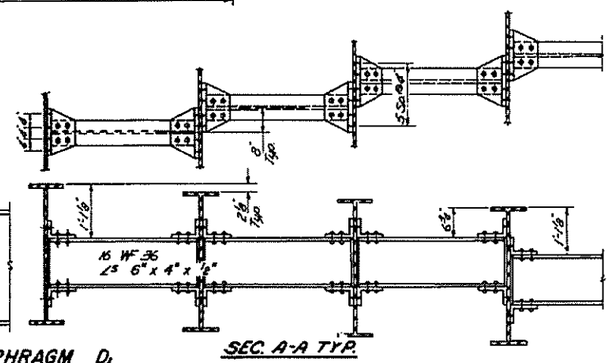


PIER 1

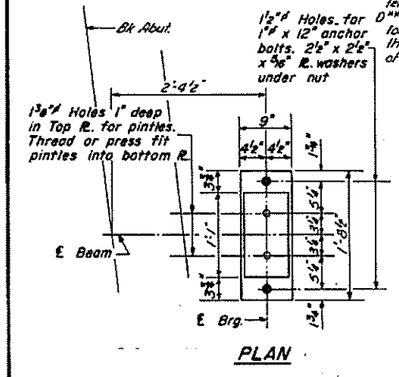


DIAPHRAGM D
12 Required

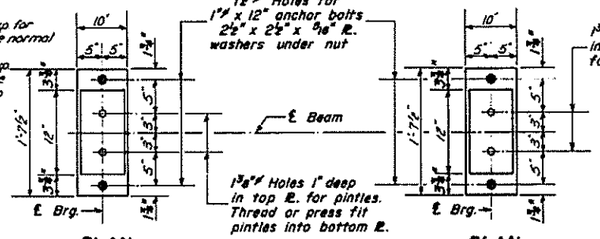
DIAPHRAGM D₁
54 Required



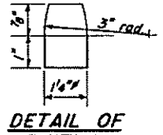
SEC. A-A TYP.



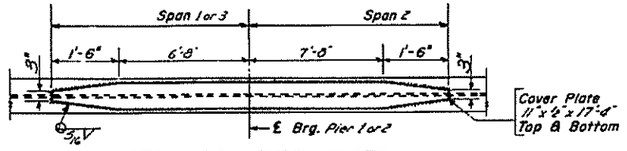
PLAN



PLAN



DETAIL OF PINTLE

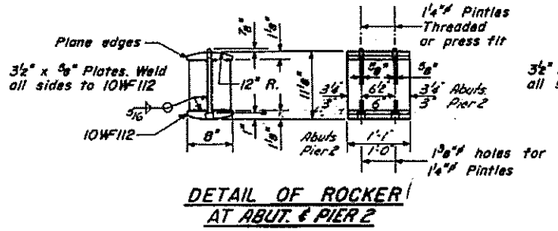


DETAIL OF COVER PLATE

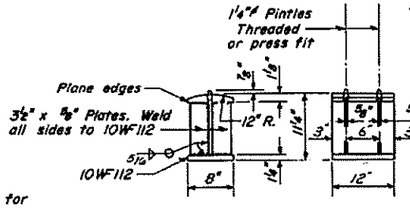
Loc. / Brg.	1	2	3	4	5	6	7
℄ Brg. W. Abut	437.77	437.59	437.42	437.24	437.06	436.89	436.71
℄ Pier 1	437.90	437.72	437.55	437.37	437.19	437.02	436.84
℄ Splice A	437.93	437.75	437.58	437.40	437.22	437.05	436.87
℄ Splice B	438.07	437.89	437.72	437.54	437.36	437.19	437.01
℄ Pier 2	438.14	437.96	437.79	437.61	437.43	437.26	437.08
℄ Brg. E. Abut.	438.38	438.20	438.03	437.85	437.67	437.50	437.32

ELEVATION TOP OF WF

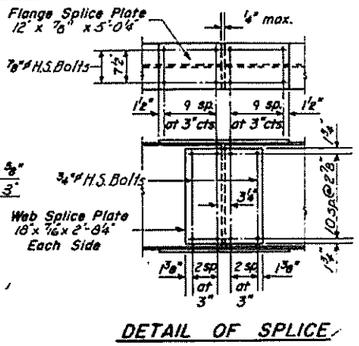
Note :- Diaphragm connectors may be adopted to shop welding subject to approval by the Engineer.



DETAIL OF ROCKER AT ABUT. & PIER 2



DETAIL OF BOLSTER AT PIER 1



DETAIL OF SPLICE

DESIGNED	R. Bradford Jr.	EXAMINED	W.B. Bauermeister
CHECKED	R. Kowert	PASSED	E.B. Lamb
R.G. Barnett / DRAWN	L. Hankess / W.A. Sausaman Jr.	APPROVED	C.E. Olaff
CHECKED	R.K.		

Dec. 14 1964

I-2-C 7-2-62 Rev. 11-9-62 Rev. 8-16-63

STRUCTURAL STEEL
F.A.S. RT. 64 - SEC. 82-8B
ST. CLAIR COUNTY
STA. 162+21

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING
STRUCTURE NO. 082-0188
SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	23
		CONTRACT NO. 76063		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

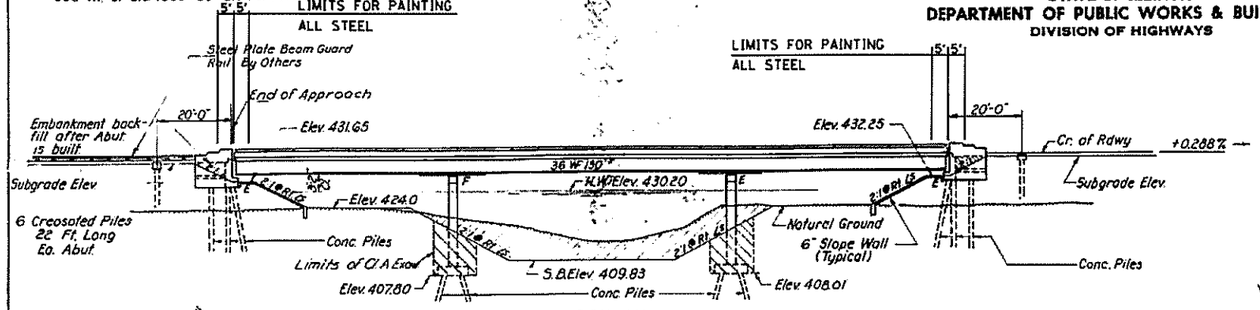
FOR INFORMATION ONLY

B.M. #G-1 Railroad spike in 30" sycamore tree 300' Rt. of Sta. 1069+50 Elev. 425.06

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

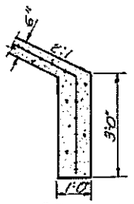
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 64	82-8B	ST. CLAIR	107	61
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
9 SHEETS

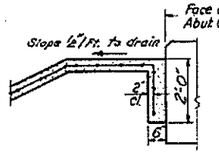


ELEVATION

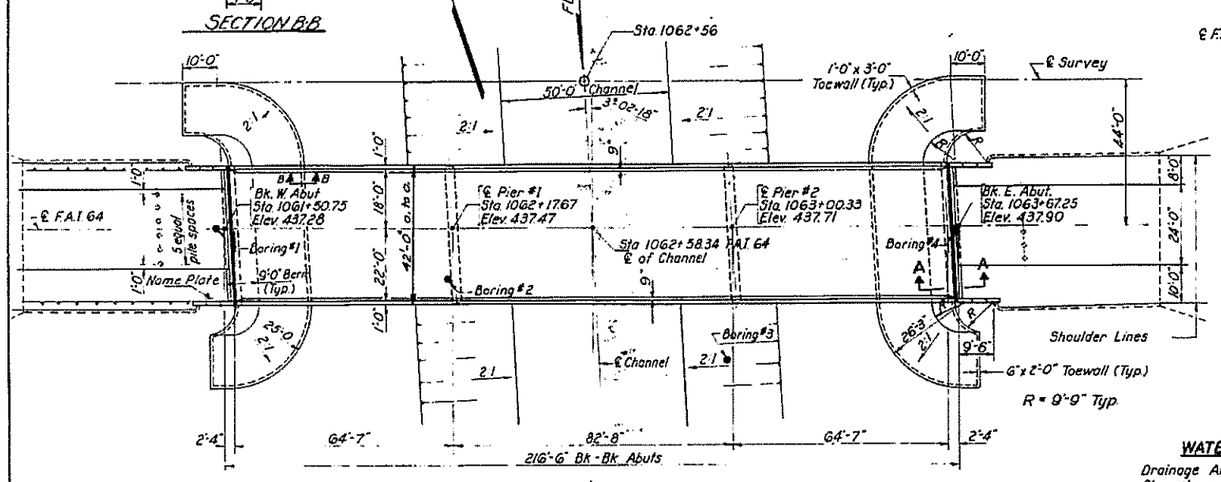
Note: The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.



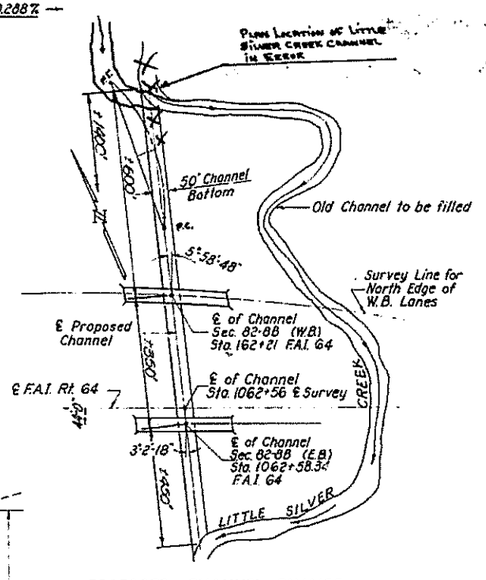
SECTION B-B



SECTION A-A



PLAN



PROPOSED CHANNEL CHANGE

Note: Piles shall be jetted if necessary to reach minimum tip elevations shown.

GENERAL NOTES

Slope Wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 Sq. Ft.

Layout of slope walls may be varied to suit ground conditions in the field as directed by the Engineer.

All reinforcement bars shall be lapped 24 dia. meters unless otherwise shown.

Anchor bolts shall be set before bolting diaphragms over supports.

Fasteners shall be high strength bolts. Bolts ¾"ϕ, open holes 15/16" ϕ, unless otherwise noted.

Calculated Wt. of Structural Steel = 269,740 lbs.

The Basic Lead Silica Chromate paint system shall be used for shop and field painting of Structural Steel.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

The Contractor shall drive one concrete test pile at the East Abutment and one concrete test pile at Pier 1 in permanent locations as directed by the Engineer before ordering the remainder of piles.

The Contractor shall drive the piles to the capacity on plans and to the following minimum elevations.

West Abut. – Elev. 381.0
Pier 1 – – – Elev. 382.0
Pier 2 – – – Elev. 386.0
East Abut. - Elev. 387.0

FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF ¼ OF THE SPAN EACH WAY FROM PIER SUPPORTS ON THE TOP FLANGES OF BEAMS OR GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

TOTAL BILL OF MATERIAL

	Item	Unit	Super	Sub	Total
**	Class A Excavation for Structures	Cu. Yds.		446.02	446.02
	Structural Steel	Lump Sum			
	Class X Concrete	Cu. Yds.	250.7	86.5	337.3
	Class A Concrete	Cu. Yds.		234.3	234.3
	Reinforcement Bars	Lbs.	67,999	17,505	85,504
	Creosoted Piles (20.1' to 38')	Lin. Ft.			
	Concrete Piles	Lin. Ft.		1814.0	1814.0
*	Test Piles (Concrete)	Each			
	Aluminum Railing	Lin. Ft.	426.7		426.7
	Name Plates	Each			
	Slope Wall 6"	Sq. Yds.		667.39	667.39
	Protective Coat	Sq. Yds.	1,111.99		1,111.99
*	Bridge Seat Sealant	Lump Sum			

* Applied at Abutments
** Includes excavation for Slope Walls.

WATERWAY INFORMATION

Drainage Area (Total) ------ 249,700 Acres
Character ------ Rolling, wooded, cultivated
Required Opening – (50 Yr. Fl.)
Silver Creek ------ 3,240 Sq. Ft.
Little Silver Creek ---- 2,160 Sq. Ft.
Total Req'd Opening ---- 5,400 Sq. Ft.
Present Opening ---------- None
Proposed Opening
Silver Creek ------ 3,240 Sq. Ft.
Little Silver Creek ---- 2,160 Sq. Ft.
Total Prop. Opening --- 5,400 Sq. Ft.
Ordinary Water Elev 416.0
Low Water Elev. 412.5
Design Frequency Discharge:
Little Silver Creek, Q_{50} 9600 cfs

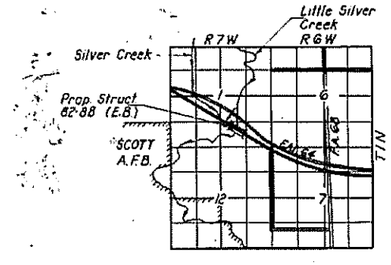
DESIGN STRESSES

fc = 1,400 p.s.i. Super & Sub
fs = 20,000 psi Reinf.
fs = 20,000 psi. Struct.
Vc = 75 psi. Flgs.
n = 10
Allowable Δ Defl. 1/1000 Non Composite

LOADING HS 20-44 & ALT.

STATION 1062+56
BUILT 1971 BY
STATE OF ILLINOIS
F.A.I. RT. 64 SEC. 82-8B
F.A. PROJ. I-64-1(50)
LOADING HS 20 & ALT

NAME PLATE LETTERING
See Standard 2113-1



LOCATION PLAN

DESIGNED	Walter Perry	EXAMINED	Dec. 14 1964
CHECKED	R. Bradford Jr.	PASSED	
DRAWN	J.L. Armstrong	APPROVED	
CHECKED	R. Bradford Jr.		

PROJ. I-64-1(50)17
GENERAL PLAN & ELEVATION
F.A.I. RT. 64 SEC. 82-8B (EB)
ST. CLAIR COUNTY
STA. 1062+56

Rev. 11-16-66 R.B.Jr. Wingwalls straightened. In Total Bill quantity of Reinf Bars in Super. revised from 58,890 to 62,710, Sub 15,760 to 16,190 & Total 74,150 to 78,900#; Class X Conc. in Sub. revised from 305.7 to 307.5 & Total 543.7 to 545.5 Cu. Yds.

Rev. 9-21-67 S.D.: Changed Reinf. Bars, Lbs., From 62,710 to 66,930 & 78,900 to 83,120. Cl. X Conc. Cu. Yds., From 238.0 to 240.6 & 545.5 to 554.1.

Rev. 9-4-68 Rao G.K. Rev. 5-11-70 Rao G.K. Rev. 7-14-70 Rao G.K.

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = #DATE#	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE DETAILS
STRUCTURE NO. 082-0189

SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

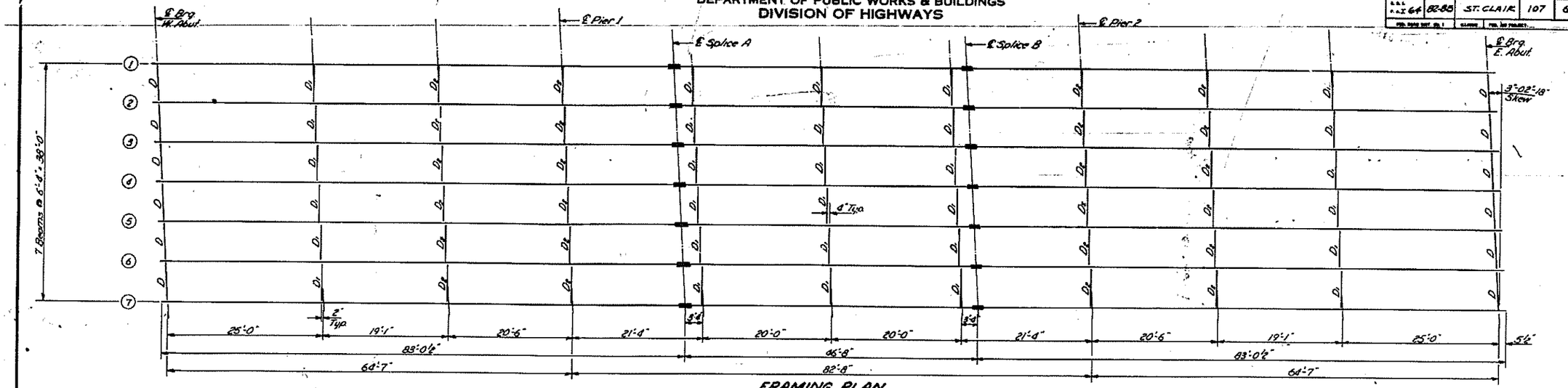
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	24
		CONTRACT NO. 76063		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

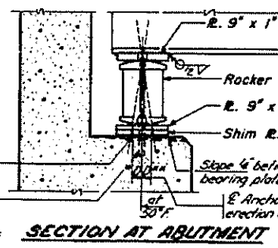
FOR INFORMATION ONLY

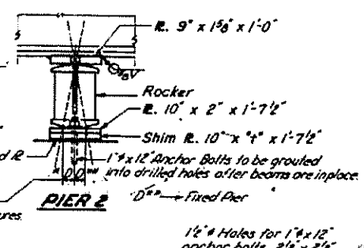
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

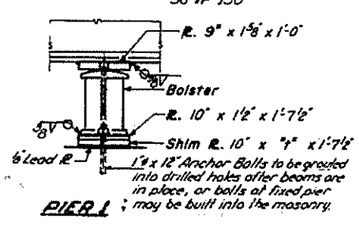
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 64	82-88	ST. CLAIR	107	65
FED. ROAD DIST. NO. 1	CLASS	FED. AID PROJECT		

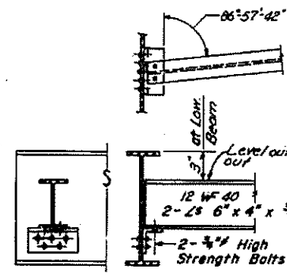
SHEET NO. 4
9 SHEETS











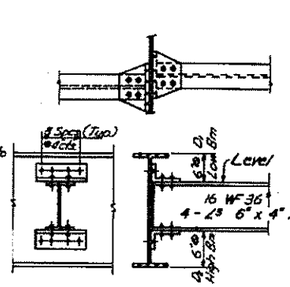
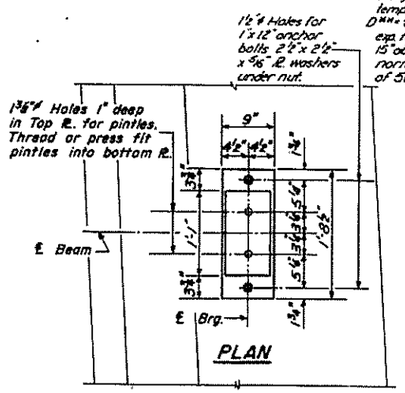
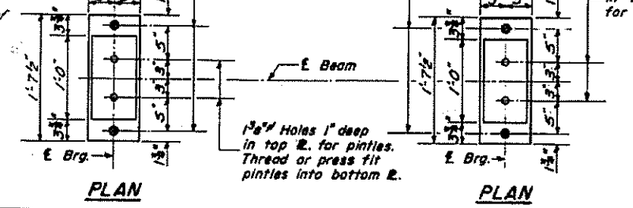
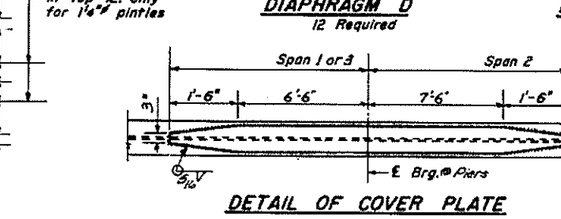


TABLE OF "f" DIMENSIONS

Loc. / Bm	1	2	3	4	5	6	7
℄ Brg. W. Abut		3/8"	1/2"	1/2"			
℄ Pier 1		3/8"	1/2"	1/2"			
℄ Pier 2		3/8"	1/2"	1/2"			
℄ Brg. W. Abut		3/8"	1/2"	1/2"			



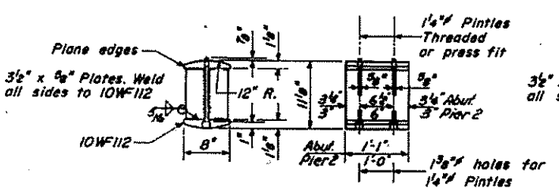


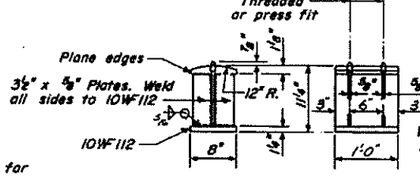


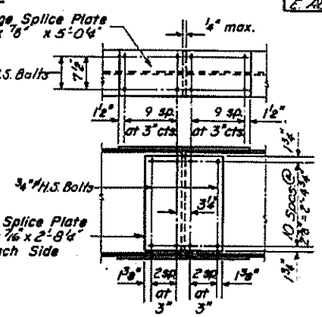
ELEVATION TOP OF WF

Loc. / Bm	1	2	3	4	5	6	7
℄ Brg. W. Abut	436.46	436.59	436.68	436.68	436.64	436.52	436.39
℄ Pier 1	436.61	436.74	436.83	436.83	436.79	436.67	436.54
℄ Splice A	436.65	436.78	436.87	436.87	436.83	436.71	436.58
℄ Splice B	436.79	436.92	437.01	437.01	436.97	436.85	436.72
℄ Pier 2	436.85	436.98	437.07	437.07	437.03	436.91	436.78
℄ Brg. E. Abut	437.07	437.20	437.29	437.29	437.25	437.13	437.00

Note: Diaphragm connections may be adapted to shop welding subject to approval by the Engineer.







DESIGNED Walter Perry
CHECKED R. Bradford Jr.
P.G. Barnett, L. Hartless, W.T.
DRAWN W.A. Sausemen Jr.
CHECKED R. Bradford Jr.

Dec. 14 1964
EXAMINED
PASSED
APPROVED

I-2-C 7-2-62 Rev. 11-9-62 Rev. 8-16-63

STRUCTURAL STEEL
F.A.I. Rt. 64 - SEC. 82-88
ST. CLAIR COUNTY
STA. 1062+36

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - ___	REVISED - ___
		DRAWN - ___	REVISED - ___
	PLOT SCALE = $SCALE$	CHECKED - ___	REVISED - ___
	PLOT DATE = $DATE$	DATE - ___	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING
STRUCTURE NO. 082-0189

SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

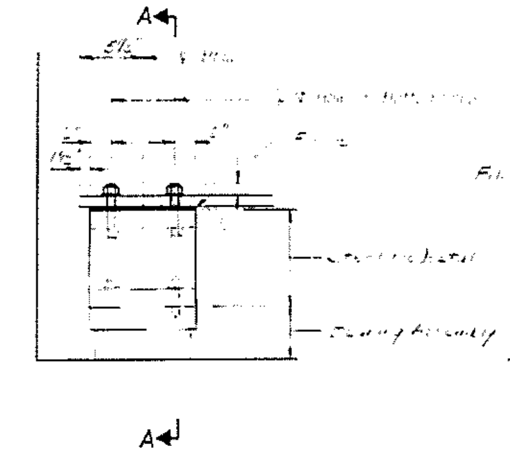
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-88-P	ST CLAIR	29	25
		CONTRACT NO. 76063		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

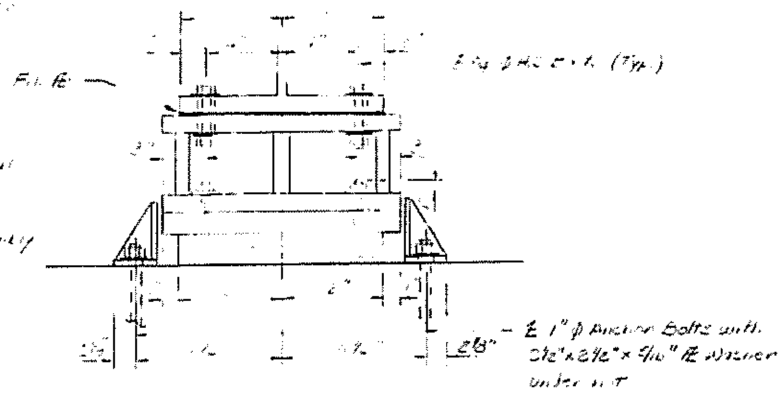
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	*	ST. CLAIR	24	18

* 82-8BI-(1,2)



ELEVATION AT ABUT.



SECTION A-A

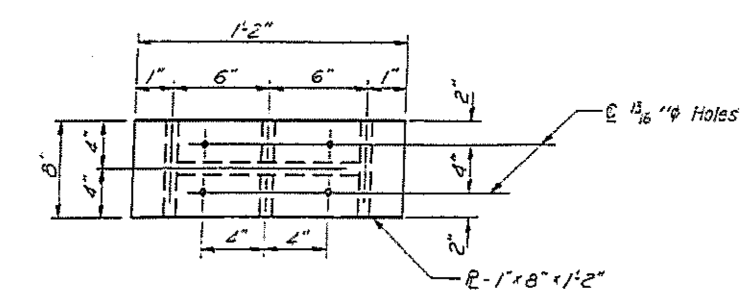
TYPE I ELASTOMERIC EXP. BRG.

Note: Before installing the new bearings, remove the top Ⓟ of the existing bearing assembly from the bottom flange of the girders and grind smooth all weld material remaining on the bottom flange. Cost is incidental to "F.&E. Structural Steel".

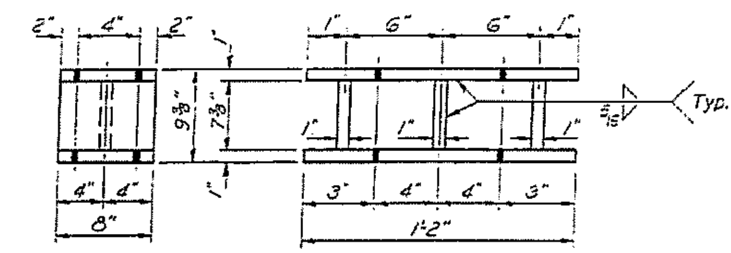
Note: Fill plates are required in Str. No. 082-0189 at beams no. 2,3&4. Thicknesses of fill plates are ⅜"-beam no. 2, ½"-beam no. 3 & ½"-beam no. 4. Additional dimensions are the same as shown for the top pedestal plate, [illegible] bottom flange.

Note: New steel pedestals, side retainers, fill plates and anchor bolts are included in "Furnish and Erect Structural Steel."

Note: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy.



PLAN - TOP & BOTTOM Ⓟ



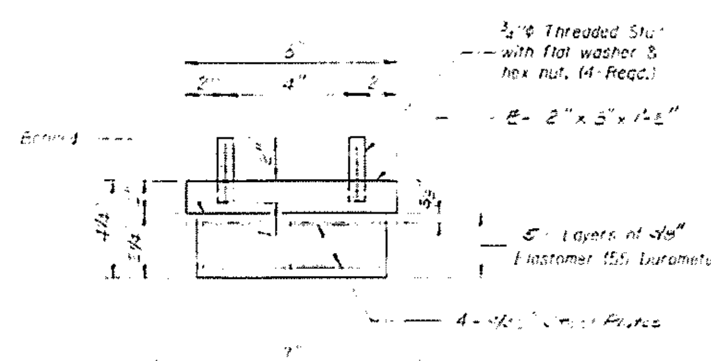
END VIEW

ELEVATION

No. Req'd : 14

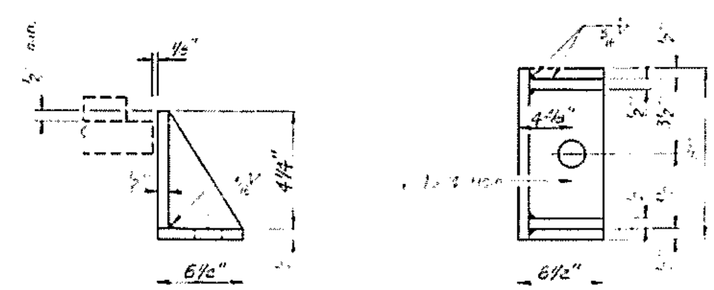
BEAM REACTIONS

Live Load	34.3 K
Dead Load	25.2 K
Impact	6.9 K



BEARING ASSEMBLY

Note: [illegible] under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffener will be allowed in lieu of welded [illegible].

Note: New side retainers and anchor bolts are included in Furn. & Erect. Structural Steel.

Note: Diaphragm removal and replacement may be required to facilitate drilling holes in bottom flange for [illegible] attachment. Cost is incidental to "F.&E. Str. Steel".

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Furnishing and Erecting Structural Steel	[illegible]	24[illegible]

WEST ABUTMENTS
S.N. 082-0188 & 082-0189
ELASTOMERIC BEARINGS

FAI ROUTE 64
SEC. 82-8BI-(1,2)
ST. CLAIR COUNTY

DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN	APPROVED
CHECKED	

I-2-E1

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BEARING DETAILS (SN-082-0188, 0189)

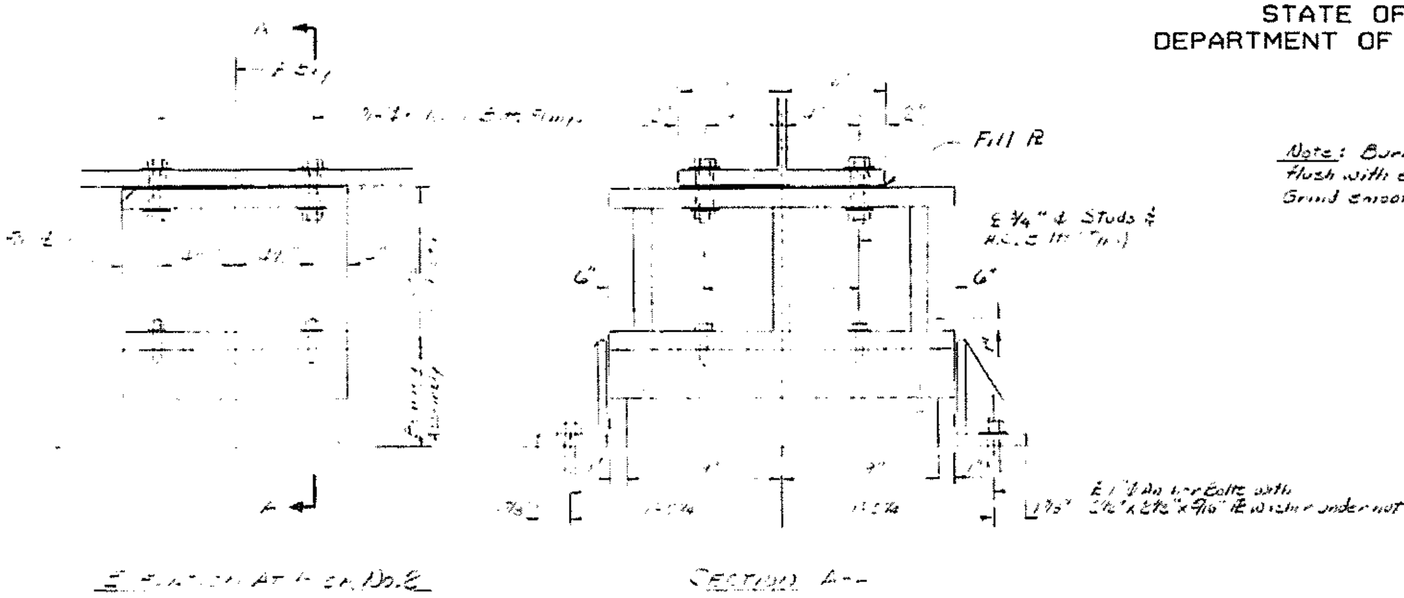
SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. ______ TO STA. ______

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	26
		CONTRACT NO. 76G63		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

FOR INFORMATION ONLY

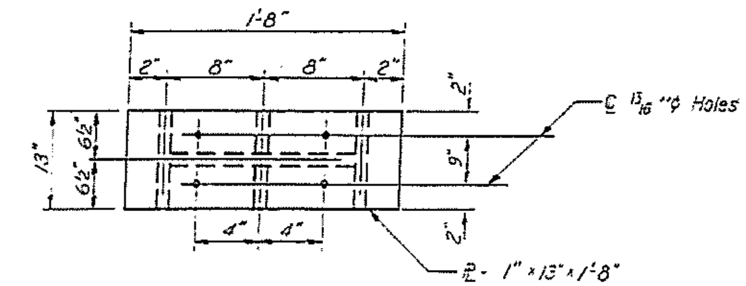
RTE. 64 | SECTION * | COUNTY ST. CLAIR | TOTAL SHEETS 24 | SHEET NO. 14
* 82-8BI-(1,2)



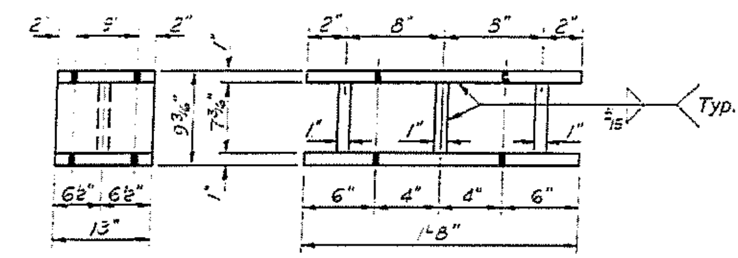
ELEVATION AT BEAM No. 2 SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

Note: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy.



PLAN - TOP & BOTTOM P



END VIEW

ELEVATION

No. Req'd : 14

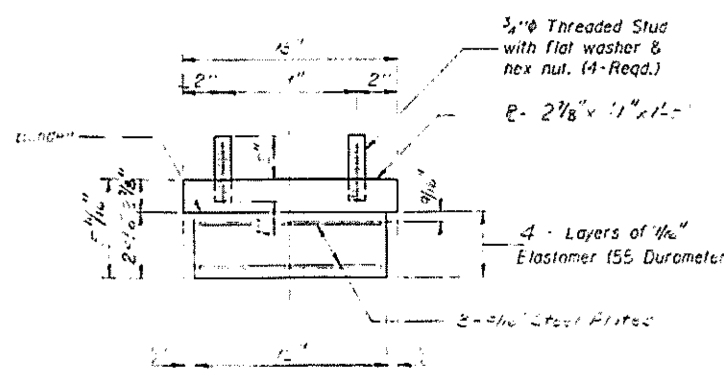
Note: Before installing the new bearings, remove the top P of the existing bearing assembly from the bottom flange of the girders and grind smooth all weld material remaining on the bottom flange. Cost is incidental to "F.&E. Structural Steel".

Note: Fill plates are [illegible] at beams no. 2, 3 & 4. Thickness of fill plates are [illegible] beam no. 3, ½ - beam no. 2 & 1/2" beam no. 4. Additional dimensions are the same as shown for the typ. [illegible] plate.

Note: New [illegible], side retainers, fill plates and [illegible] bolts are included in [illegible]

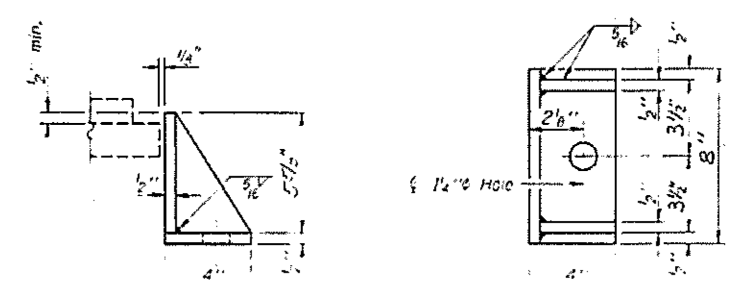
BEAM REACTIONS

Live Load	48.5K
Dead Load	84.6K
Impact	12.6K



BEARING ASSEMBLY

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



SIDE RETAINER

Equivalent rolled angle with stiffener will be allowed in lieu of welded plates.

Note: New side retainers and anchor bolts are included in Furn. and Erect. Structural Steel.

Note: Diaphragm removal and replacement may be required to facilitate drilling holes in bottom flange for bearing attachment. Cost is incidental to "F.&E. Struct. Steel".

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Furnishing and Erecting Structural Steel	Lbs.	4140

PIER No. 2
S.N. 082-0188 & 082-0189
ELASTOMERIC BEARINGS

FAI ROUTE 64
SEC. 82-8BI-(1,2)
ST. CLAIR COUNTY

DESIGNED
CHECKED
DRAWN
CHECKED

EXAMINED
PASSED — ENGINEER OF STRUCTURAL SERVICES
APPROVED — ENGINEER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS

I-2-E1

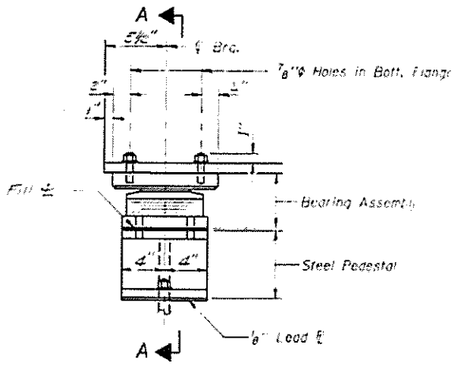
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

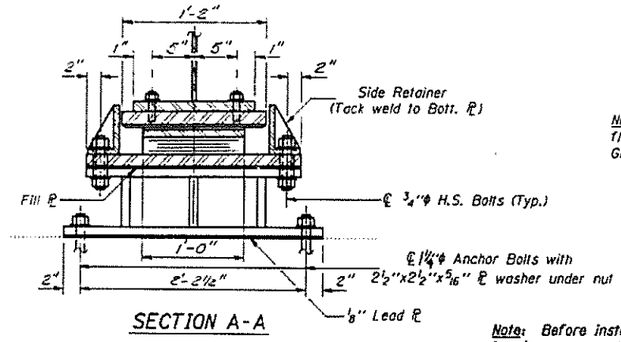
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 64	*	ST. CLAIR	24	20
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO.
SHEETS

* 82-88I-(1,2)

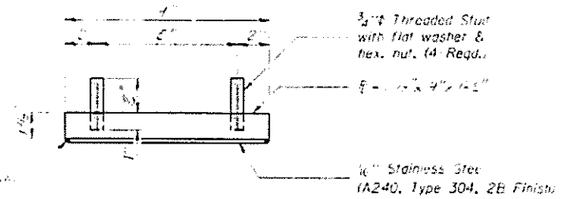


ELEVATION AT ABUT.

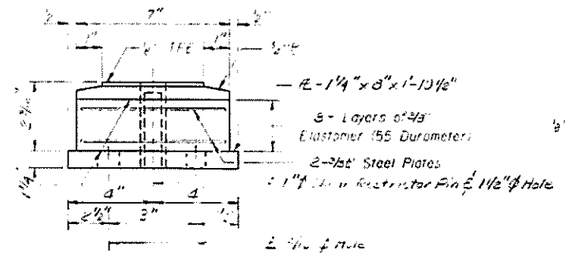


SECTION A-A

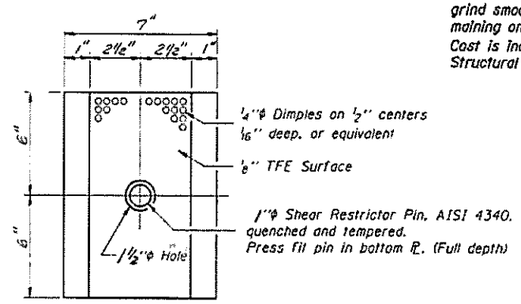
TYPE III TFE ELASTOMERIC EXP. BRG.



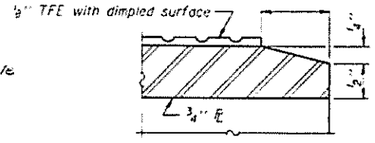
TOP BEARING ASSEMBLY



BOTTOM BEARING ASSEMBLY



PLAN-TFE ELASTOMERIC BRG.



SECTION THRU TFE

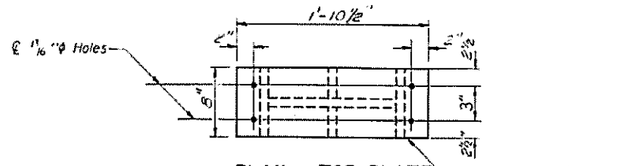
Note: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type ?. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

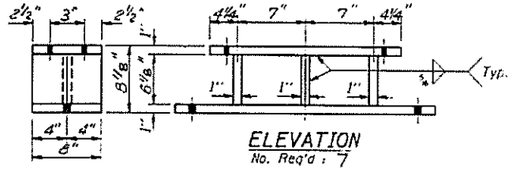
Note: Before installing the new bearings, remove the top ℗ of the existing bearing assembly from the bottom flange of the girders and grind smooth all weld material remaining on the bottom flange. Cost is incidental to "F.&E. Structural Steel".

Note: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy.

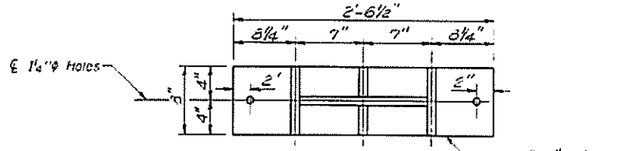
Note: Diaphragm removal and replacement may be required to facilitate drilling holes in bottom flange for bearing attachment. Cost is incidental to "F.&E. Struct. Steel".



PLAN - TOP PLATE



ELEVATION
No. Req'd : 7



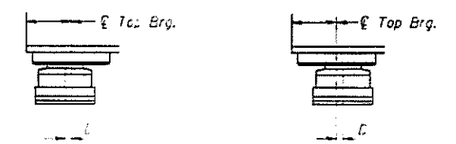
PLAN - BOTTOM PLATE

Note: No fill plates are required at these locations.

Note: New steel pedestals, side retainers, load plates and anchor bolts are included in "Furn. and Erect. Structural Steel".

BEAM REACTIONS

Live Load	34.3K
Dead Load	35.2K
Impact	8.9K

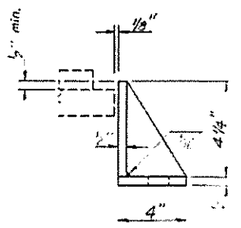


BELOW 50° F.
(When bott. brg. away from fixed brg.)

ABOVE 50° F.
(When bott. brg. toward fixed brg.)

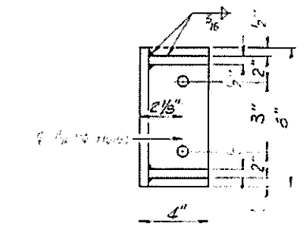
SETTING ANCHOR BOLTS AT EXP. BRG.

½" per each 100° of expansion for every 15° temp. change from the normal temp. of 50° F.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plate.



BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type III	Each	7
Furnish & Install Anchor Bolts	Lbs.	1650

EAST ABUTMENT
S.N. 082-0188

ELASTOMERIC BEARINGS

FAI Route 64

Sec. 82-88I-(1,2)

St. Clair County

DESIGNED	EXAMINED	19
CHECKED	PASSED	
DRAWN	APPROVED	
CHECKED		

I-2-E3

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BEARING DETAILS (SN-082-0188, 0189)

SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

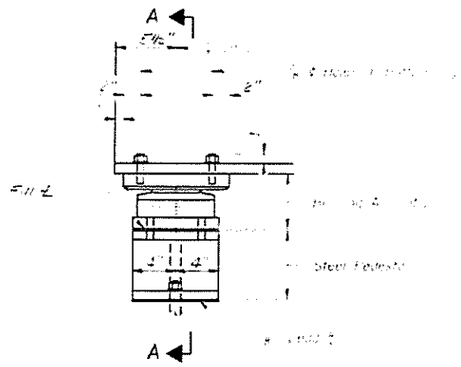
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-88-P	ST CLAIR	29	28
		CONTRACT NO. 76063		
FED. ROAD DIST. NO. ,	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

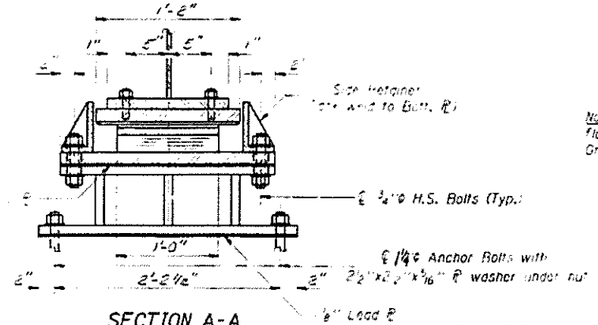
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

				SHEET NO.
FAI 64	*	St. Clair	34	21 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 82-SBI-(1,2)



ELEVATION AT ABUT.

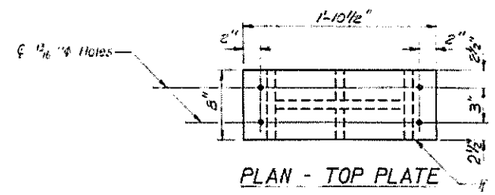


SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

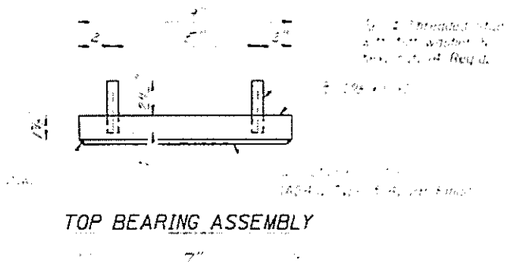
Note: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy.

Note: Diaphragm removal and replacement may be required to facilitate drilling holes in bottom flange for bearing attachment. Cost is incidental to "F.&E. Struct. Steel".

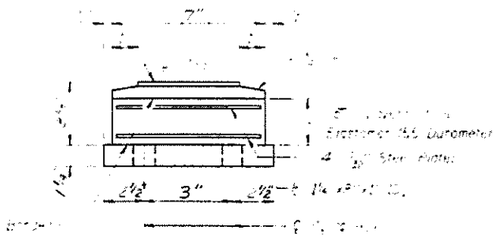


PLAN - TOP PLATE

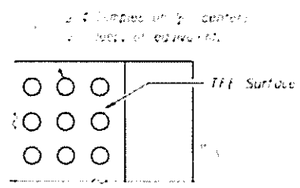
Note: Before installing the new bearings, remove the top ℄ of the existing bearing assembly from the bottom flange of the girders and grind smooth all weld material remaining on the bottom flange. Cost is incidental to "F.&E. Structural Steel".



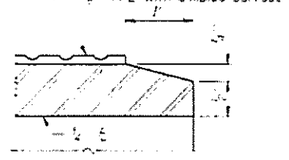
TOP BEARING ASSEMBLY



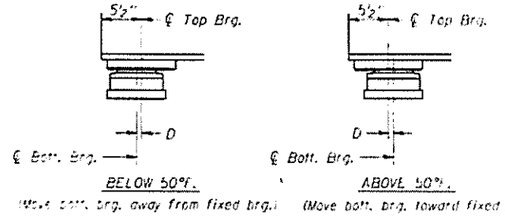
BOTTOM BEARING ASSEMBLY



PLAN-TFE SURFACE

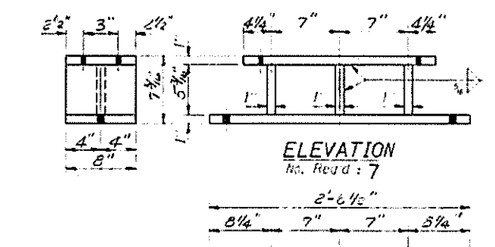


SECTION THRU TFE

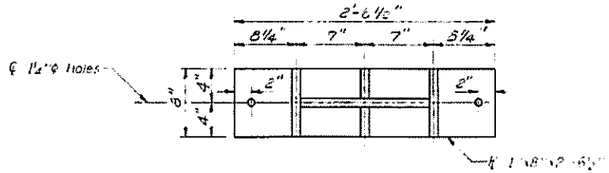


SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



ELEVATION
No. Req'd: 7



PLAN - BOTTOM PLATE

Note: Fill plates are required at beams no. 2,3&4. Thickness of fill plates are ½"- beams 2, ⅜"- beams 2 & ½"- at beam no. 4. All other dimensions are the same as shown for the top pedestal plate.

BEAM REACTIONS

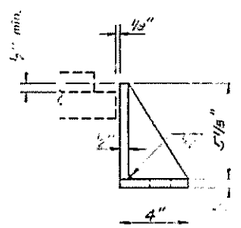
	34.0K
	25.5K
	8.9K

DESIGNED		EXAMINED	
CHECKED		PASSED	
DRAWN		APPROVED	
CHECKED			

I-2-E2

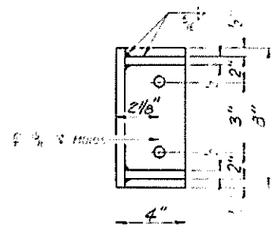
Note: The ... This sheet shall be bonded directly to the top steel plate with a ... component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM A 134, Type ... The bond shall be applied on the full area of the contact surfaces.

Caution: ... This sheet during elastomeric bearing assembly process will permit only the process and method of adjusting assembly height ... the Engineer.



SIDE RETAINER

Equivalent rolled angle with stiffener will be allowed in lieu of welded plate.



Note: New steel pedestals, side retainers, fill plates, lead plates, and anchor bolts are included in Furn. and Erect. Structural Steel.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	7
Furnishing and Erecting Structural Steel	Lb.	1670

EAST ABUTMENT
S.N. 082-0189
ELASTOMERIC BEARINGS
FAI ROUTE 64
SEC. 82-8BI-(1,2)
ST. CLAIR COUNTY

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BEARING DETAILS (SN-082-0188, 0189)

SCALE: N/A | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-8B-P	ST CLAIR	29	29
		CONTRACT NO. 76663		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		