

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	14-14HB-BP-1	CLINTON	23	1
		ILLINOIS	CONTRACT NO. 76L38	

D-98-049-18



PROPOSED HIGHWAY PLANS

FAP ROUTE 327 (US 50)
SECTION 14-14HB-BP-1
PROJECT NHPP-8R51(080)
BRIDGE PAINTING
CLINTON COUNTY

C-98-192-18

FOR INDEX OF SHEETS, SEE SHEET NO. 2

LOCATION 1 & 2:

US 50

2017 ADT = 5700 (ACTUAL)

2018 ADT = 5800 (ESTIMATED)

2038 ADT = 7300 (ESTIMATED)

SU = 3.3% MU = 7.5%

LOCATION 3:

US 50

2017 ADT = 6700 (ACTUAL)

2018 ADT = 6800 (ESTIMATED)

2038 ADT = 8300 (ESTIMATED)

SU = 4.1% MU = 7.5%

LOCATION 2

US 50 AT FLAT BRANCH ROAD

SN 014-0056

LOCATION 1

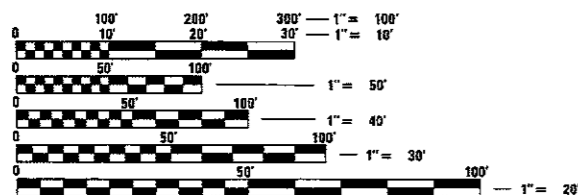
US 50 AT FROGTOWN ROAD

014-0055

LOCATION 3

US 50 AT KASKASKIA RIVER

SN 014-0061

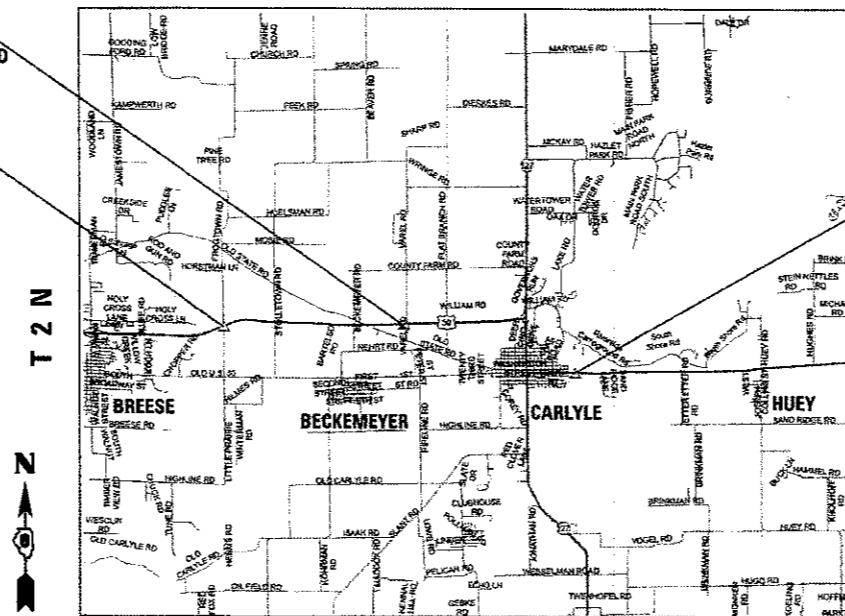


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER HERVE GELIN 618-346-3179
SQUAD LEADER BILLIE OWEN 618-346-3209

CONTRACT NO. 76L38



R 4 W

NOT TO SCALE

R 3 W

LOCATION MAP

GROSS LENGTH = 794.00 FT. = 0.150 MILE
NET LENGTH = 794.00 FT. = 0.150 MILE

LOCATION 1

GROSS LENGTH = 0.052 MILE

NET LENGTH = 0.052 MILE

LOCATION 2

GROSS LENGTH = 0.043 MILE

NET LENGTH = 0.043 MILE

LOCATION 3

(SN 014-0061)

GROSS LENGTH = 0.055 MILE

NET LENGTH = 0.055 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Dec 8 2017
Jeffrey Z. Kammer
REGIONAL ENGINEER

Feb 2 2018
James P. [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

James P. [Signature]
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
- 3-4 SUMMARY OF QUANTITIES
- 5-10 EXISTING STRUCTURE PLANS - LOCATION 1 - SN 014-0055
- 11-16 EXISTING STRUCTURE PLANS - LOCATION 2 - SN 014-0056
- 17-21 EXISTING STRUCTURE PLANS - LOCATION 3 - SN 014-0061
- 22-23 TRAFFIC CONTROL PLAN SHEETS

HIGHWAY STANDARDS

- 000001-06
- 701001-02
- 701006-05
- 701321-17
- 701501-06
- 701801-06
- 701901-07
- 704001-08

GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

LOCATION	UTILITY	TYPE	ABOVE GROUND	BELOW GROUND
SN 014-0055	CHARTER COMMUNICATIONS	CABLE TV	X	X
	CARLYLE NORTH WATER CO	WATER		X
	COUNTRYMARK REFINING & LOGISTIC	PIPELINE		X
	AT&T ILLINOIS	COMMUNICATIONS	X	X
	KINDERMORGAN	PIPELINE		X
SN 014-0056	AT&T ILLINOIS	COMMUNICATIONS	X	X
	CHARTER COMMUNICATIONS	CABLE TV	X	X
	AMEREN ILLINOIS	GAS & ELECTRIC	X	X
	CARLYLE NORTH WATER CO	WATER		X
	CITY OF CARLYLE	SEW/WAT/ELE	X	X
SN 014-0061	AT&T ILLINOIS	COMMUNICATIONS	X	X
	CHARTER COMMUNICATIONS	CABLE TV	X	X
	AMEREN ILLINOIS	GAS/ELECTRIC	X	X
	CITY OF CARLYLE	SEW/WAT/ELE	X	X

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY * . NON- J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

2. THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING SHOWN IN THE PLAN SHEETS WAS CREATED USING MICROFILM. IT SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
3. ALL TURF AREAS DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
4. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT EACH END OF THE PROJECT LOCATIONS AND THE ENTRANCE OF ANY INTERCHANGES AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE, 48".
5. THE SSPC-QP1 AND SSPC-QP2 CERTIFICATIONS WILL BE REQUIRED FOR THE BRIDGES.
6. A MINIMUM OF TWO AIR MONITORS WILL BE REQUIRED AT LOCATIONS 1 AND 2, AND A MINIMUM OF THREE AIR MONITORS WILL BE REQUIRED AT LOCATION 3 TO MONITOR ABRASIVE BLASTING OPERATIONS AT THESE SITES. SEE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".
7. FOR LOCATIONS 1, 2 (SN 014-0055, 014-0056) 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- SP10. 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 SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1.
8. FOR LOCATION 3 (014-0061) 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- SP10. 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 INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR THE EXTERIOR AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE REDDISH BROWN, MUNSELL NO 2.5YR 3/4.

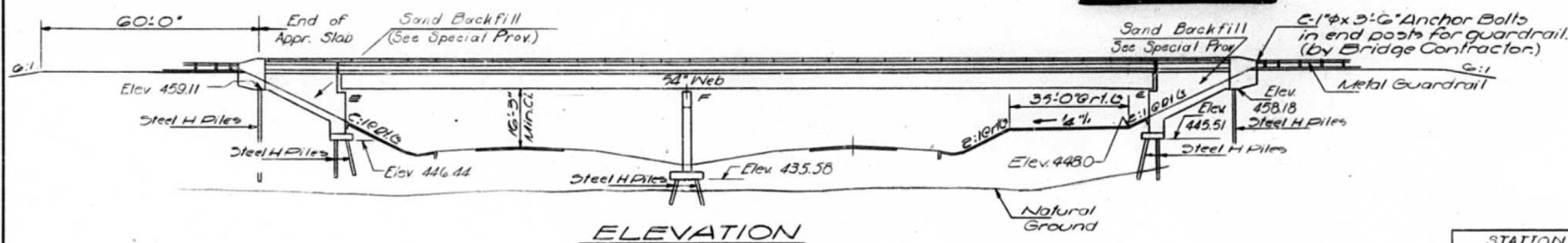
COMMITMENTS

NONE

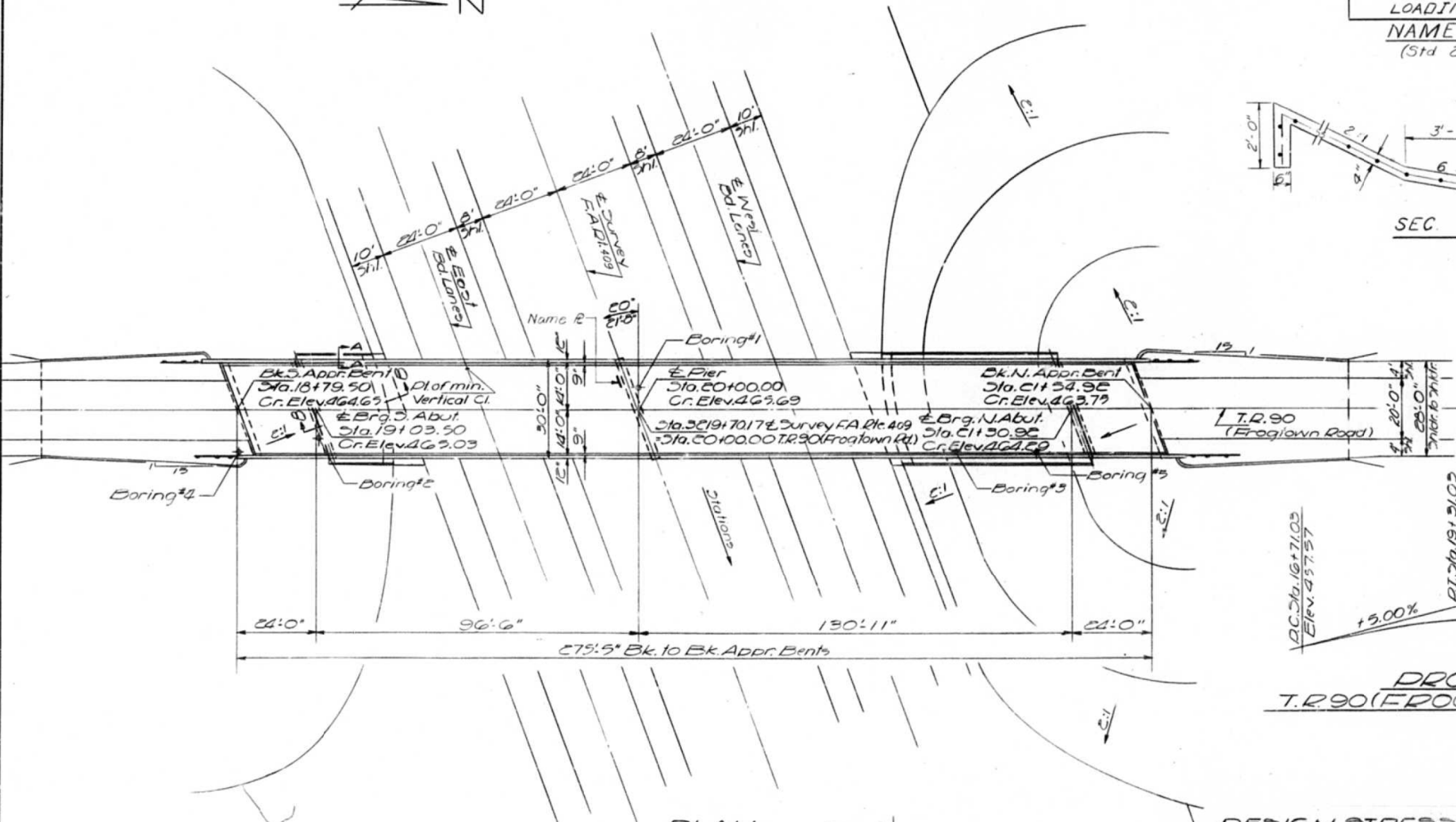
FILE NAME =	USER NAME = leej	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 8\Projects\0876\Drawings\0876\0876-14HB-BP-1\0876-14HB-BP-1-01.dwg	PLotted	CHECKED -	REVISED -			327	14-14HB-BP-1	CLINTON	23	2
Default	PLotted	DATE -	REVISED -			CONTRACT NO. 76L38		ILLINOIS FED. AID PROJECT		

B.M. - Elevation 438.55 P.R. Spike in 30" Oak Tree
Station 3200+73, 384' Left (35' West Frogtown Road)

STATE OF ILLINOIS

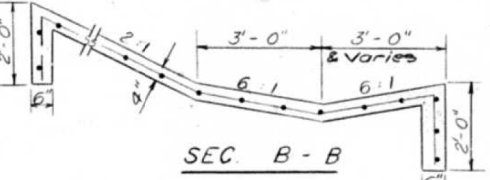


ELEVATION



PLAN

STATION 3219+70.17
BUILT 197 BY
STATE OF ILLINOIS
F.A. RT. 409 SEC. 14-14 HB-2
F.A. PROJ. EBF-409-1 (10)
LOADING HS 15
NAME PLATE
(Std 2115)



SEC. B-B

PROFILE
T.R. 90 (FROGTOWN ROAD)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
409	14 HB-2	Clinton	31	7	12 SHEETS

GENERAL NOTES

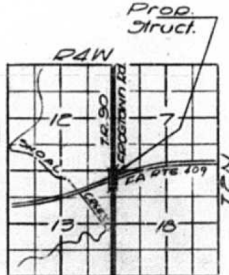
All reinforcement bars shall be lapped 24 diameters unless otherwise noted.
Fasteners shall be high strength bolts. Bolts 3/4" Ø; open holes 1/2" Ø unless otherwise noted.
Calculated weight of Structural Steel = 224,020 Lbs
The basic lead Silico Chromate paint system shall be used for shop and field painting of Structural Steel.
Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
Anchor bolts shall be set before fastening cross frames over supports.
Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 sq ft.
The Contractor shall drive three Steel Test Piles in a permanent locations, one @ S Appr. Bent, one @ N Abut & one @ pier, as directed by the Engineer before ordering the remainder of piles.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
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.
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Class X Concrete	Cu. Yds.	277.3	188.1	465.4
Reinforcement Bars	Lbs.	63,420	20,290	83,710
Structural Steel	L.S.	1		1
Aluminum Railing	Lin. Ft.	240		240
Steel Piles (HP12x53)	Lin. Ft.		1865	1865
Test Piles Steel (HP12x53)	Each		3	3
Name Plates	Each		1	1
Slope Walls (4')	Sq. Yds.		468	468
Protective Coat	Sq. Yds.	1014		1014
Preformed Jt. Sealer, 2 1/2"	Lin. Ft.	32		32
Stud Shear Connectors	Each	660		660
Sand Backfill	Cu. Yds.		298	298
Preformed Joint Sealer, 4"	Lin. Ft.	32		32

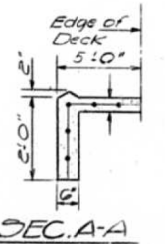
DESIGN STRESSED
 $f_c = 1200$ psi - Deck Slab
 $f_c = 1400$ psi - Curb, Parapet, Sub. 1
 $f_s = 20,000$ psi - Reinf. Appr. Slab
 $f_s = 20,000$ psi - Struct.
 $v_c = 75$ psi - Footings
 $n = 10$
 Allowable $W_d \leq 1600$ Composite
 Allowable Fut. W. S. $25 \leq 100$ Ft.



LOCATION SKETCH

PROJECT EBF-409-1 (10)
 GENERAL PLAN & ELEVATION
 T.R. 90 (FROGTOWN ROAD)
 OVER F.A. RTE. 409
 F.A. ROUTE 409
 SECTION 14-14 HB-2
 CLINTON COUNTY
 STATION 3219+70.17

DESIGNED: *Ann Miller Lee*
 CHECKED: *GB Miller*
 DRAWN: *C.E. Wilkins*
 CHECKED: *GB Miller*
 EXAMINED: *Richard H. Golterman*
 PASSED: *Richard H. Golterman*
 APPROVED: *Richard H. Golterman*
 DECEMBER 21 1970



SEC. A-A

PROFILE
F.A. ROUTE 409

LOADING HS 15-44

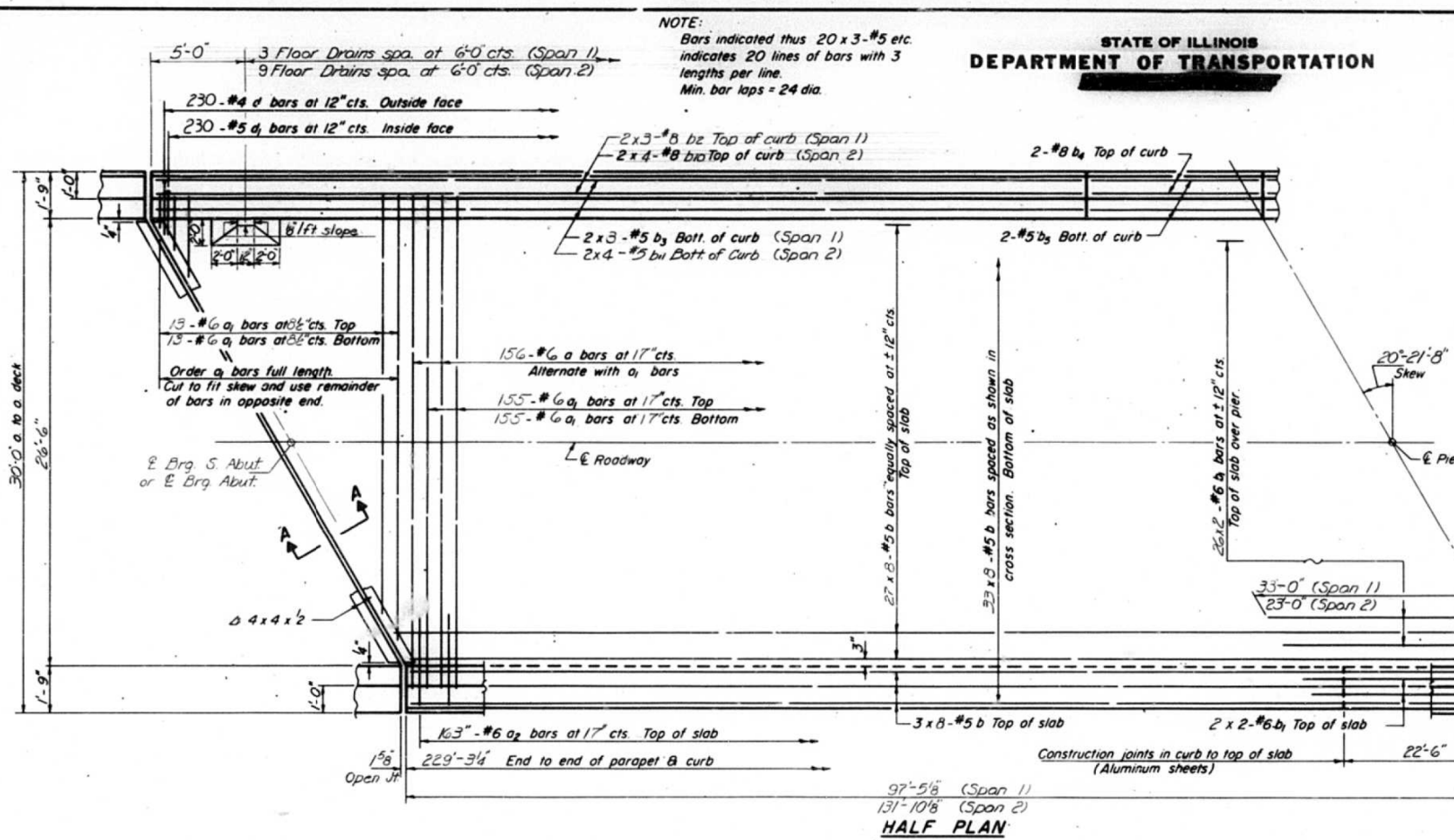
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FOR YOUR INFORMATION ONLY

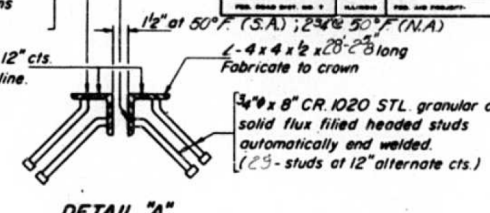
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
1409	14HB-2	Clinton	31	6
SHEET NO. 2				12 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.

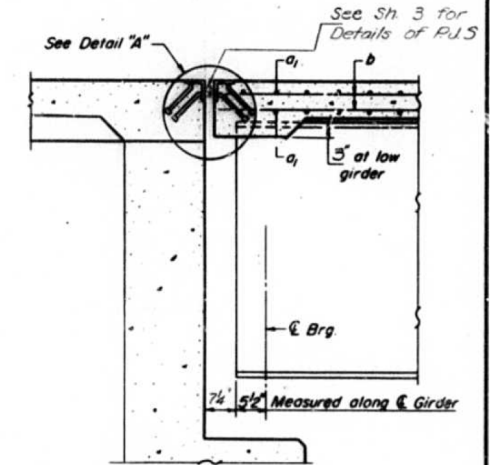


7/16" holes at 12" cts. for 3/8" bolts set on 2 1/2" gage line. All bolts shall be burned, sawed or clipped off flush with back of angles after forms are removed.

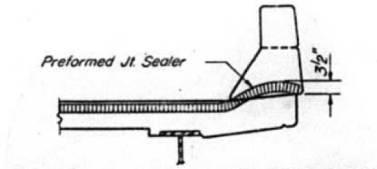


DETAIL "A"

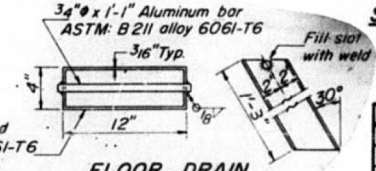
3/4" x 8" CR 1020 STL granular or solid flux filled headed studs automatically end welded. (29 studs at 12" alternate cts.)



SECTION A-A



TYPICAL END OF SEALER TREATMENT



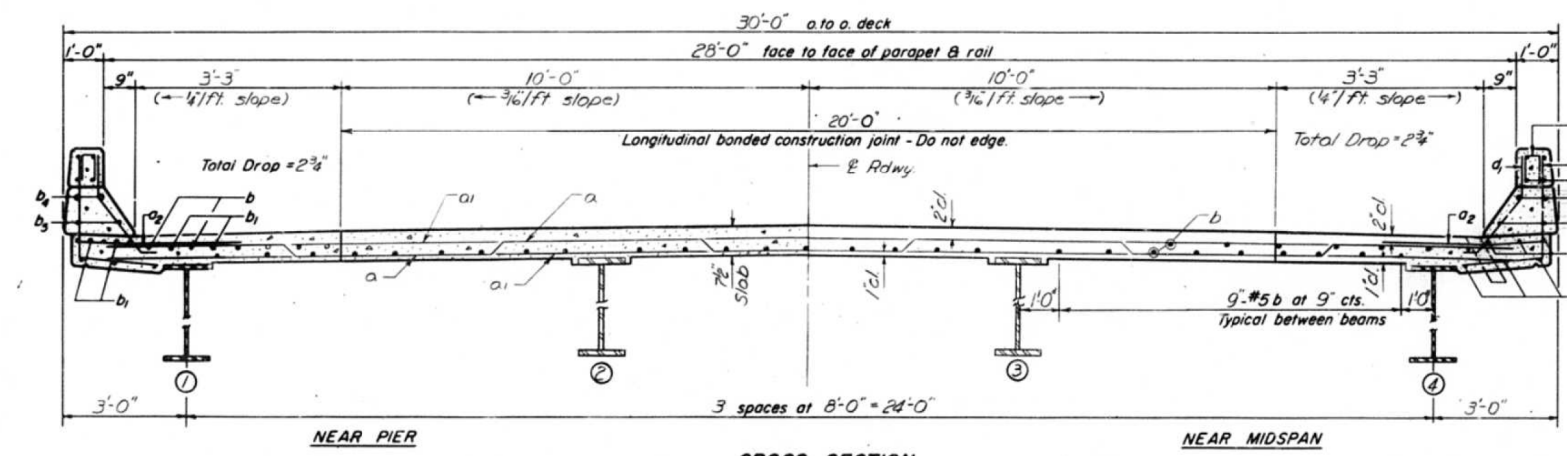
FLOOR DRAIN

Aluminum Sheets Welded ASTM: B 209 alloy 6061-T6 or Aluminum Extrusions ASTM: B 221 alloy 6061-T6 Cost incidental to Class X Concrete

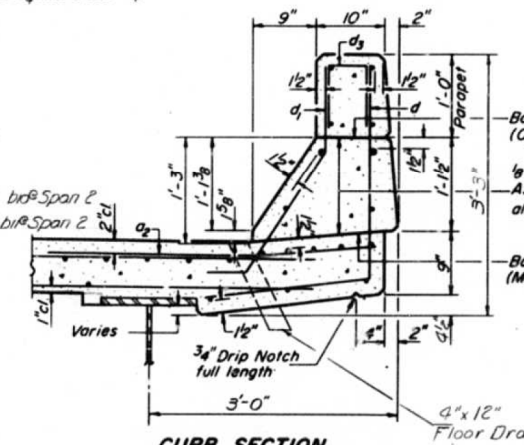
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	156	#6	28'-11"	
a ₁	336	#6	27'-11"	
a ₂	326	#6	4'-0"	
b	528	#5	29'-9"	
b ₁	60	#6	28'-0"	
b ₂	12	#8	26'-8"	
b ₃	12	#5	25'-9"	
b ₄	8	#8	22'-3"	
b ₅	8	#5	22'-3"	
b ₆	16	#5	28'-10"	
b ₁₁	16	#5	28'-3"	
d	460	#4	4'-6"	J
d ₁	160	#5	3'-3"	J
Reinforcement Bars				Lbs. 49,290
Class X Concrete				Cu Yds. 1951

NOTE: For placement of bars d₃ and e₁ thru e₃ see sheet #4



CROSS SECTION
(Looking South)



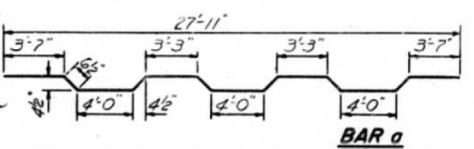
CURB SECTION

Cost of Aluminum Sheets shall be incidental to Class X Concrete.

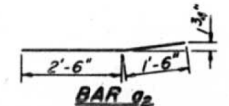
Parapet Reinforcement and Class X Concrete are billed on sheet #4.

DESIGNED: <u>Alvin Loe</u>	EXAMINED: <u>[Signature]</u>
CHECKED: <u>G.B. Miller</u>	PASSED: <u>[Signature]</u>
DRAWN: <u>C.E. Wilkins</u>	APPROVED: <u>[Signature]</u>
CHECKED: <u>GBM</u>	

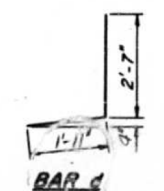
NOTE:
Concrete Deck shall be poured from S. Abutment to N. Abutment



BAR a



BAR a₂



BAR d



BAR d₁

SPANS 1 & 2
F.A. RT. 409 SEC. 14-14 HB-2
CLINTON COUNTY
STA. 3219+70.17

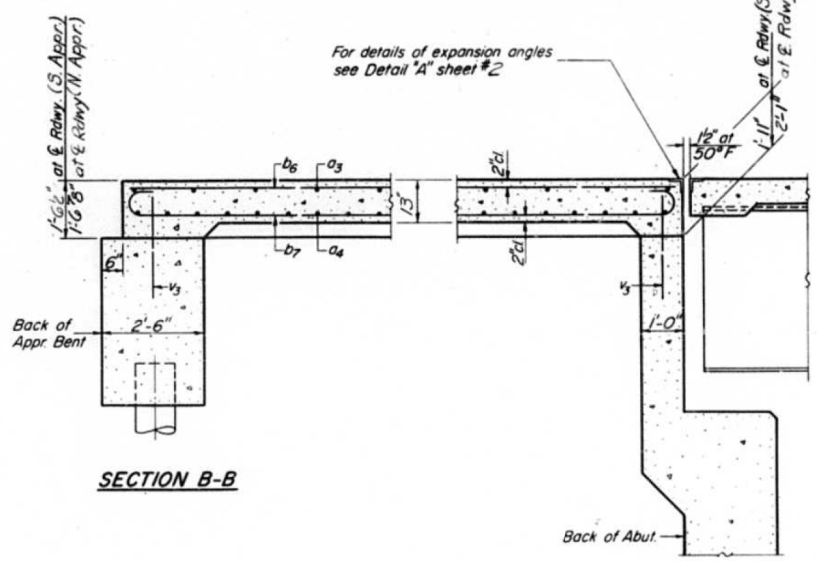
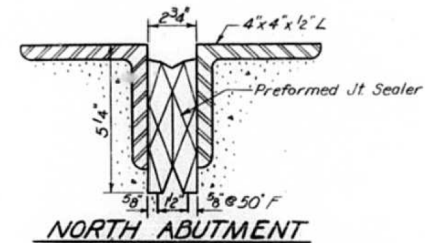
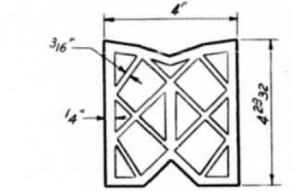
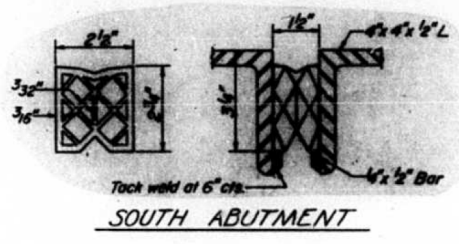
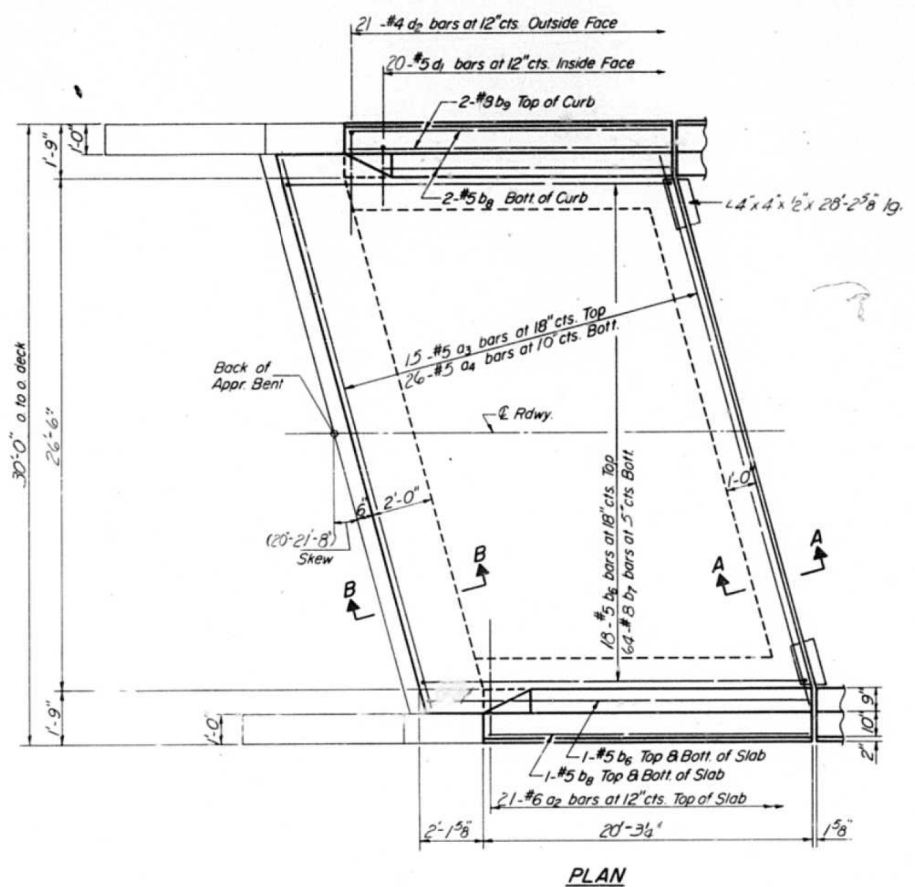
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FOR YOUR INFORMATION ONLY

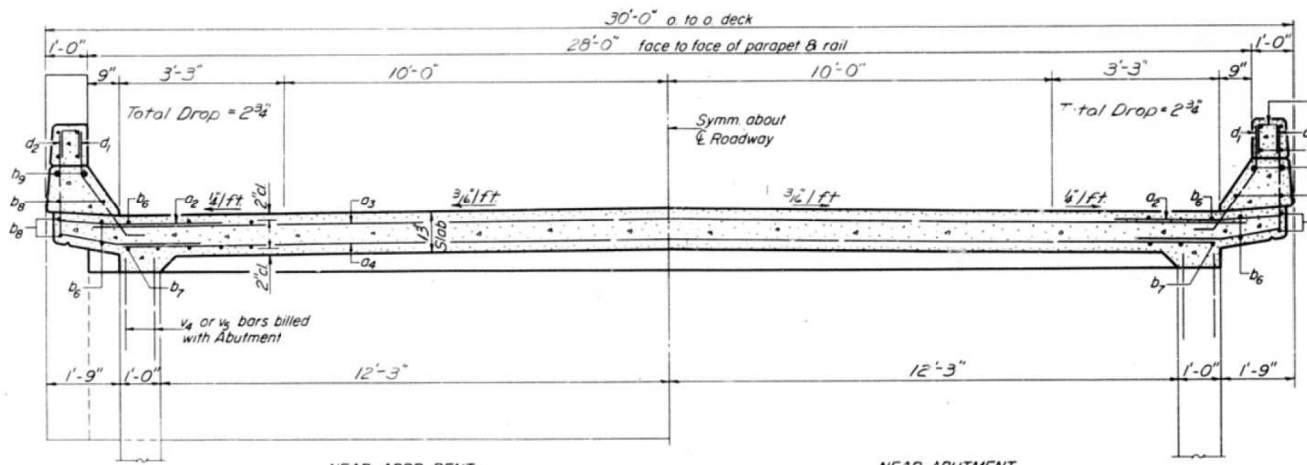
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
409	14-14HB-2	Clinton	31	9
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

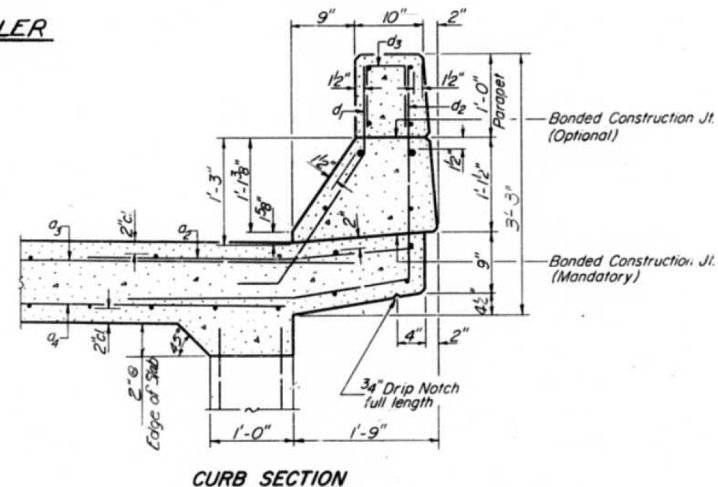
12 SHEETS



SECTION A-A



CROSS SECTION



CURB SECTION

TWO APPR. SLABS
BILL OF MATERIAL

Bar	No	Size	Length	Shape
a2	84	#6	4'-0"	—
a3	30	#5	29'-6"	—
a4	52	#5	28'-0"	—
b6	44	#5	22'-2"	—
b7	128	#8	24'-0"	—
b8	16	#5	20'-0"	—
b9	8	#8	20'-0"	—
d1	80	#5	3'-3"	J
d2	84	#4	5'-11"	J
Reinforcement Bars			Lbs	13,550
Class X Concrete			Cu Yds.	64.8

*Parapet Reinforcement and Class X Concrete are billed on sheet #4

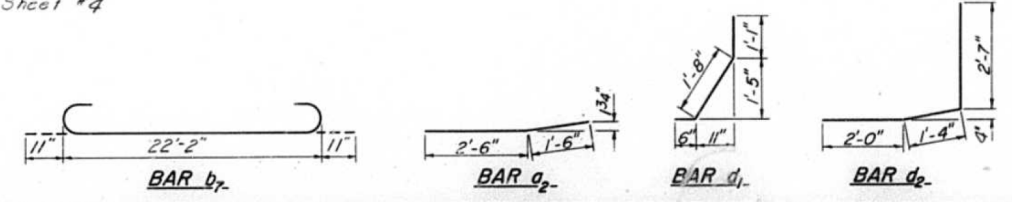
NO. & SO. APPROACH
F.A. RT. 409 SEC. 14-14HB-2
CLINTON COUNTY
STA. 3219+70.17

DESIGNED: *Two-Mun-Lar*
CHECKED: *SB Miller*
DRAWN: *C. E. Wilkins*
CHECKED: *GRM*

EXAMINED: *W. J. G. [Signature]*
PASSED: *W. J. G. [Signature]*
APPROVED: *Richard H. Gollerman*

DEC. 21 1970

NOTE:
* For placement of bars d3 and e. See Sheet #4

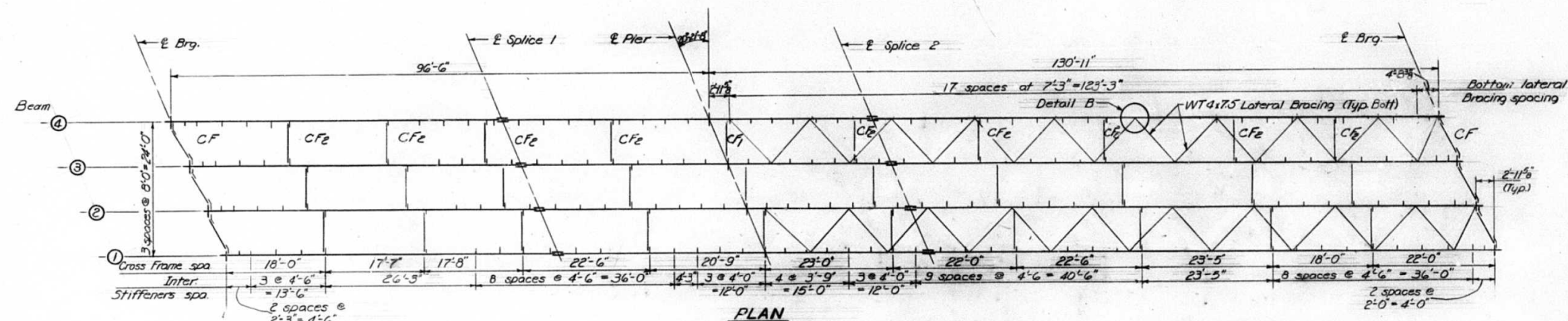


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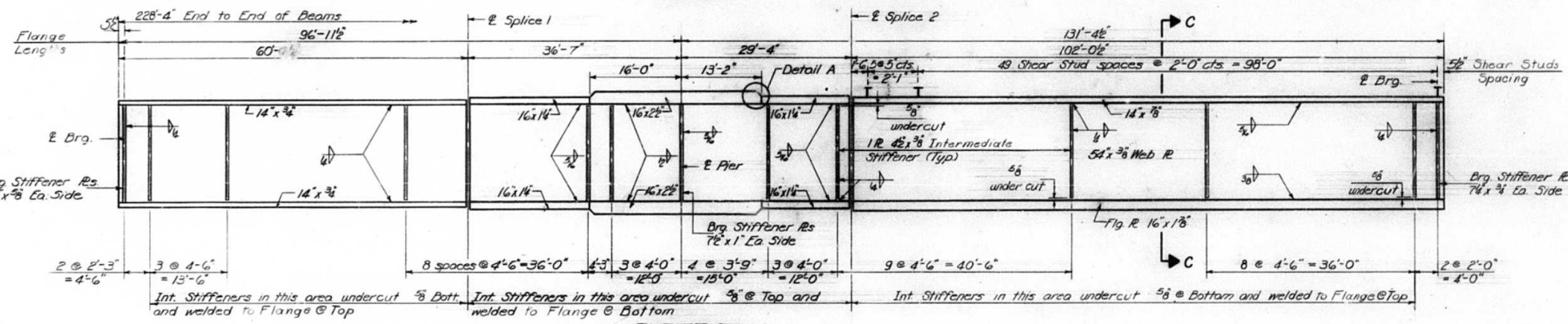
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

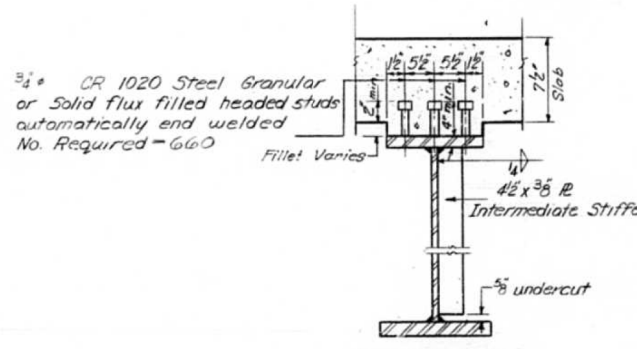
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409	14-14H-2	Clinton	31	11
SHEET NO. 5 12 SHEETS				



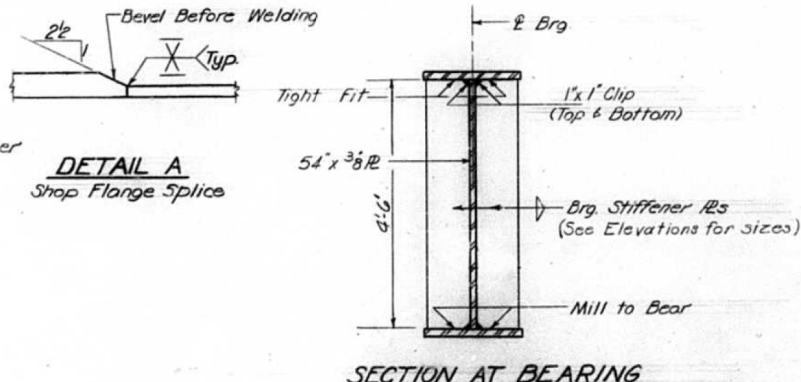
PLAN



ELEVATION

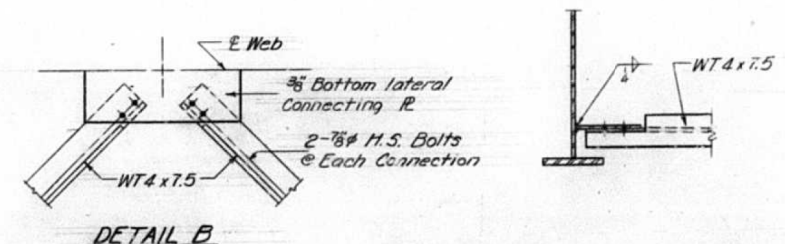


SECTION C-C



DETAIL A
Shop Flange Splice

SECTION AT BEARING



DETAIL B

DESIGNED	<i>Ann. J. Lee</i>	EXAMINED	<i>[Signature]</i>
CHECKED	<i>G.P. Miller</i>	PASSED	<i>W.E. Baumann</i>
DRAWN	<i>C.E. Wilkins</i>	APPROVED	<i>Robert H. Hollerman</i>
CHECKED	<i>CBM</i>		

STRUCTURAL STEEL
FA. RT. 409 SEC. 14-14H-2
CLINTON COUNTY
STA. 3219+7017

NOT TO SCALE

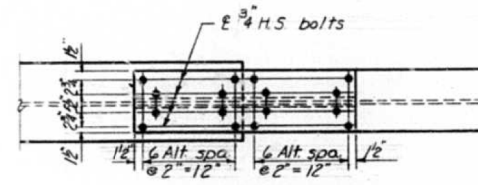
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Default	PLOT DATE = 12/8/2017	CHECKED -	REVISED -	SCALE:	CONTRACT NO. 76L38				
		DATE -	REVISED -	SHEET 4 OF 6 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

FOR YOUR INFORMATION ONLY

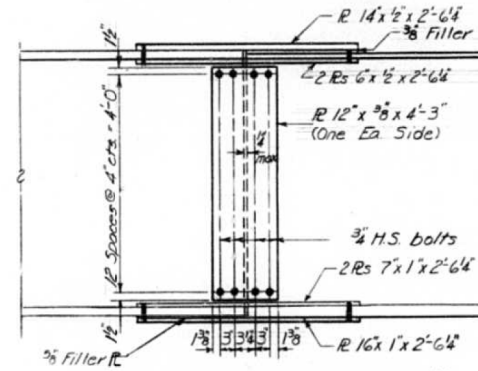
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
409	14-HB-1	CLINTON	31	12

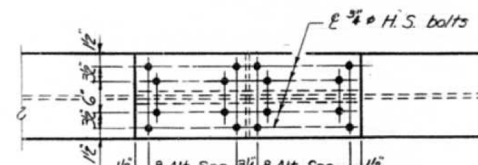
SHEET NO. 6
12 SHEETS



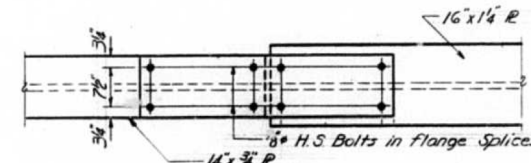
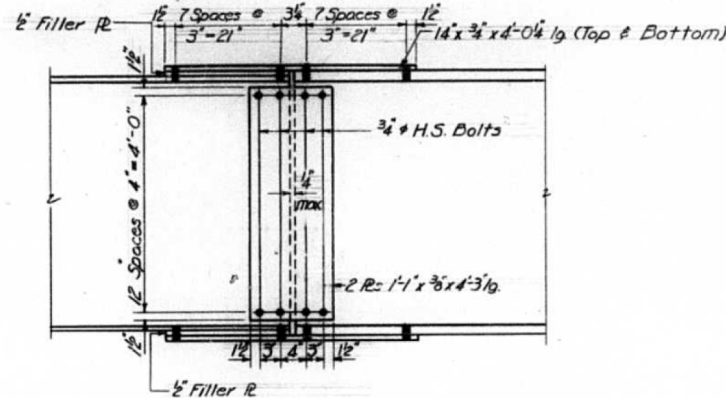
PLAN TOP FLANGE



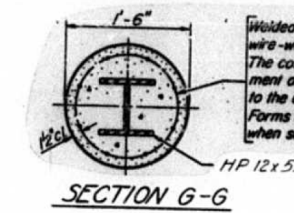
DETAIL OF FIELD SPLICE #2



PLAN BOTTOM FLANGE



DETAIL OF FIELD SPLICE #1



Welded wire fabric 6"x6 mesh #4 wire weighing 58#/100 sq. ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit.

TOP OF WEB ELEVATIONS

Location	E Brg S Abut	E Splice #1	E Pier	E Splice #2	E Brg N Abut
Beam 1	464.21	464.65	464.67	464.77	463.30
Beam 2	464.31	464.77	464.80	464.91	463.50
Beam 3	464.26	464.75	464.80	464.93	463.56
Beam 4	464.08	464.60	464.67	464.80	463.49

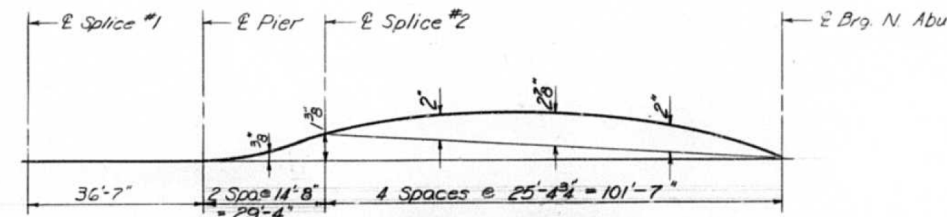
*Elevations have been adjusted for camber

INTERIOR GIRDER REACTION TABLE

	S. Abut	Pier	N. Abut
R _g (k)	38.0	208.6	72.9
R _h (k)	34.1	64.5	36.0
Imp (k)	4.1	7.8	4.4
R Total (k)	76.2	280.9	113.3

INTERIOR GIRDER MOMENT TABLE

	0.3 Sp 1	Pier	6 Span 2
I _s (in ⁴)	20660	68761	33528
I _c (in ⁴)			80842
S _s (in ³)	745	2331	934
S _c (in ³)			4809
Q (°/ft)	1.37	1.40	1.03
M _g (k)	524	2717	1302
F _s (ksi)	84	14.0	16.7
S _g (k/ft)			40
M _{sp} (k)			552
M _g (k)	551	821	962
M _{imp} (k)	125	172	188
Total (k)	676	993	1702
F _s (ksi)	10.9	5.1	4.2
F _s Total (ksi)	19.3	19.1	20.9
VR (k)	37.7	49.6	41.2



CAMBER DIAGRAM
(Span 2 only. No Camber within first 59'-11" Sections of Span 1)

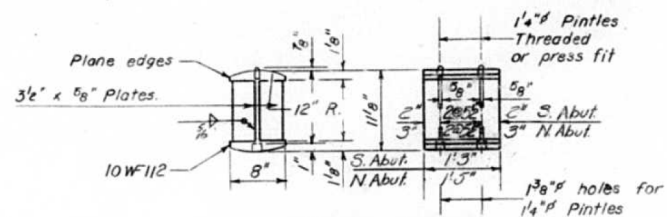
DESIGNED: *H. Miller Lee*
 CHECKED: *C.B. Miller*
 DRAWN: *C.E. Wilkins*
 CHECKED: *C.B. Miller*

EXAMINED: *DEC. 21 1970*
 PASSED: *W.E. Baumann*
 APPROVED: *Richard H. Klotterman*

STRUCTURAL STEEL DETAILS
 FA. RT. 409 SEC. 14-14 HB-2
 CLINTON COUNTY
 STA. 3219 + 70.17

NOT TO SCALE

FOR YOUR INFORMATION ONLY

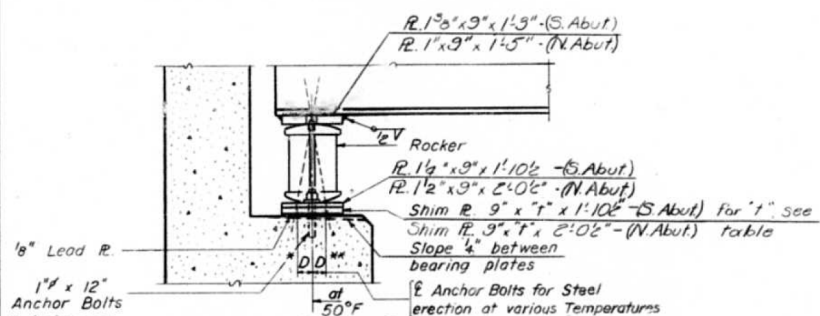


DETAIL OF ROCKER AT ABUTMENTS

TABLE OF VALUE "t"

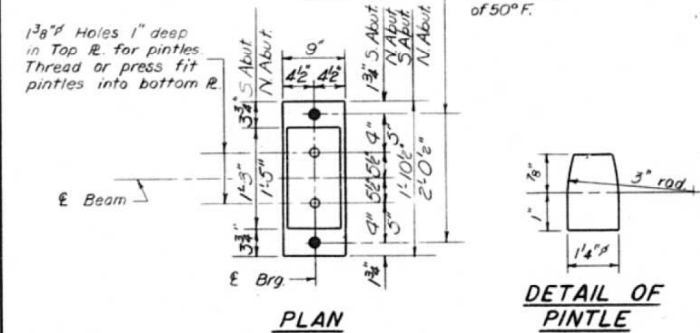
Location	Beam 1	Beam 2	Beam 3	Beam 4
E Brg S Abut.	0	3/8"	0	0
E Brg N Abut.	0	1/2"	1"	3/4"

Shim Plate thickness at Abutments



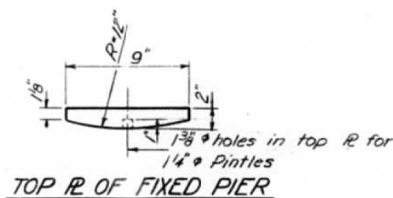
SECTION AT ABUTMENTS

1/8" Lead R.
1" x 12" Anchor Bolts to be grouted into drilled holes after beams are in place.
R 1" x 9" x 1" 3/4" (S. Abut)
R 1" x 9" x 1" 1/2" (N. Abut)
R 1 1/2" x 9" x 1" 10/16" (S. Abut)
R 1 1/2" x 9" x 2" 0/16" (N. Abut)
Shim R 9" x 1" x 1" 10/16" (S. Abut) for "t" See
Shim R 9" x 1" x 2" 0/16" (N. Abut) table
Slope 1/4" between bearing plates
1/2" Anchor Bolts for Steel erection at various Temperatures at 50°F.
D = 1/8" / 100 ft of exp for every 15° below the normal temp of 50°F.
D** = 1/8" / 100 ft of exp for every 15° above the normal temp of 50°F.
1/2" Holes for 1" x 12" anchor bolts. 2 1/2" x 2 1/2" x 3/16" R. washers under nut

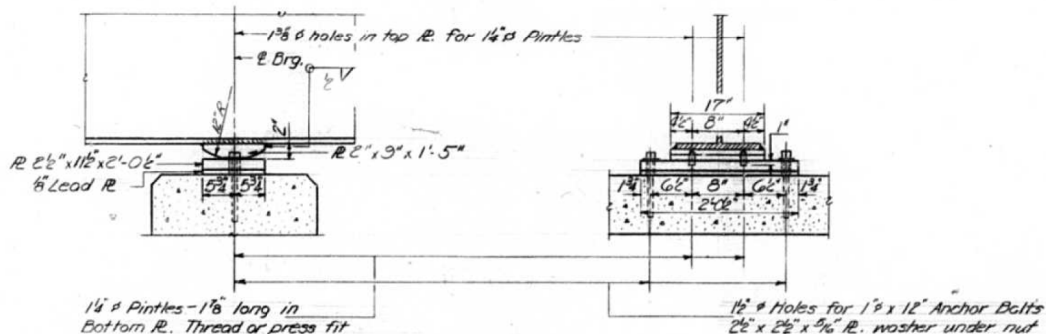


PLAN

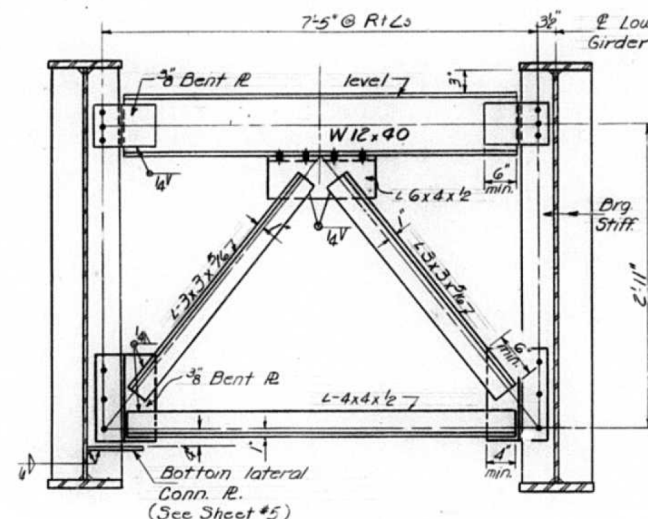
DETAIL OF PINTLE



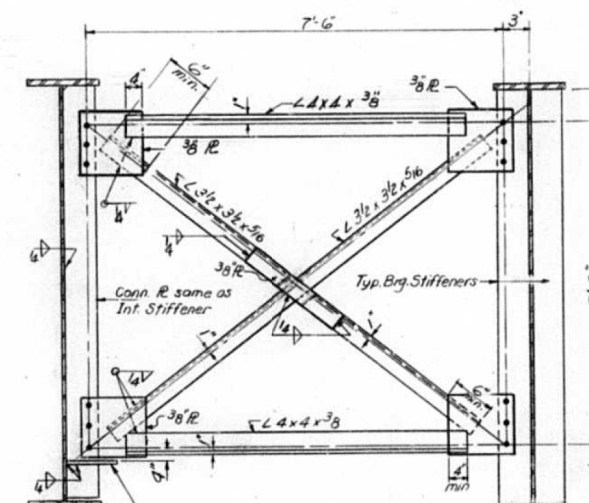
TOP R OF FIXED PIER



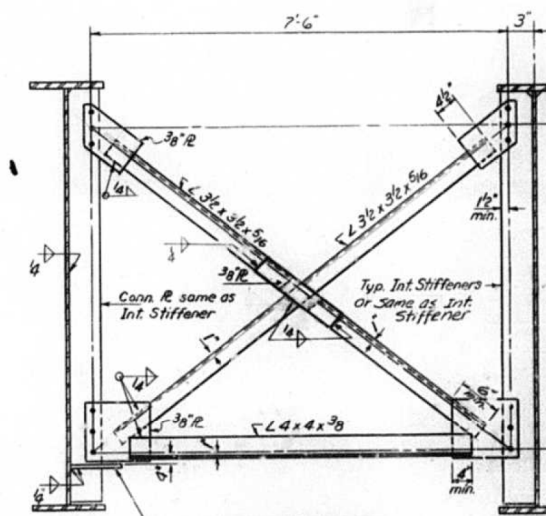
SECTION AT PIER



END CROSS FRAME CF
No. Required 6



CROSS FRAME CF1
No. Required 3



CROSS FRAME CF2
No. Required 27

BEARING & DIAPHRAGM DETAILS
FA RT. 409 SEC. 14-14HB-2
CLINTON COUNTY
STA. 3219 + 70.17

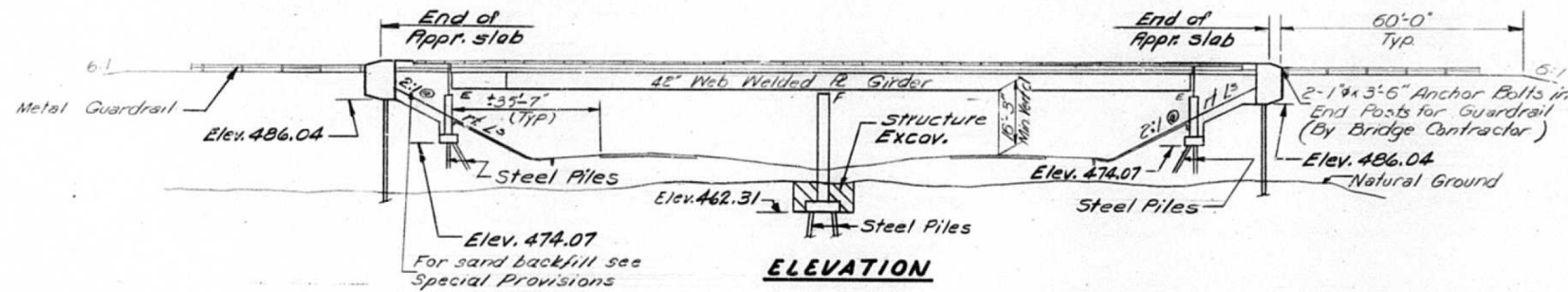
FOR YOUR INFORMATION ONLY

NOT TO SCALE

B.M. Elevation 465.23 RR Spike in East Side of Power Pole Sta 10+07, 2d Lt (TR 126)

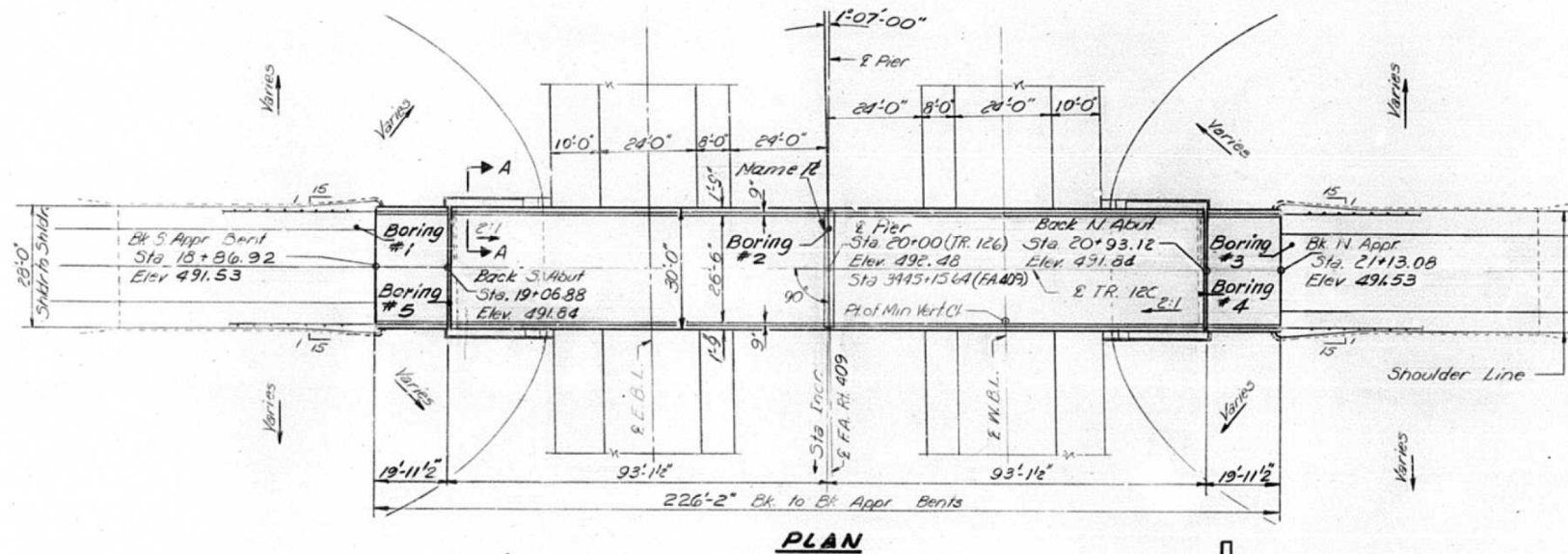
STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. / SHEETS
409	14-11	Clinton	24	6	10 SHEETS
FED. ROAD DIST. NO. 7	PLAN NO.	FED. AID PROJECT			



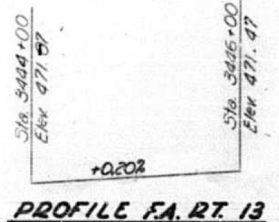
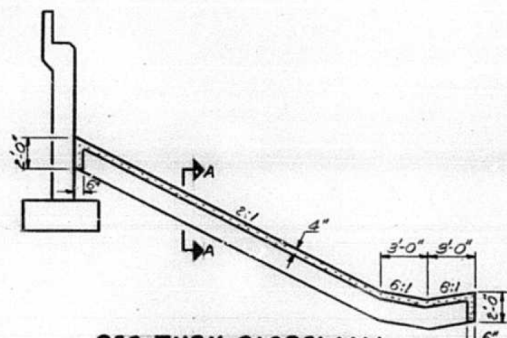
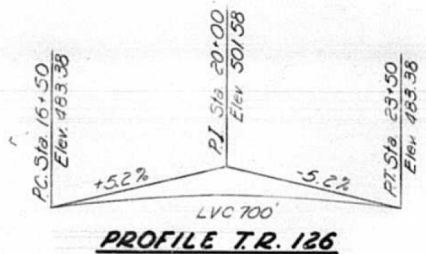
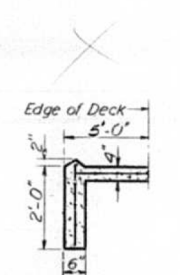
GENERAL NOTES

All reinforcement bars shall be lapped 24 dia unless otherwise shown. Fasteners shall be high strength bolts. Bolts 3/4" φ, open holes 1 1/8" φ, unless otherwise noted. The basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel. Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer. Anchor bolts shall be set before bolting cross frames over supports. Slope wall shall be reinforced with welded wire fabric 6" x 6" mesh, weighing 58 lb. per 100 sq. ft. The Contractor shall drive two steel test piles in a permanent location one each at the So. Abutment and pier as directed by the Engineer before ordering the remainder of piles. The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments. 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. Calculated weight of Structural Steel = 150640 lbs.



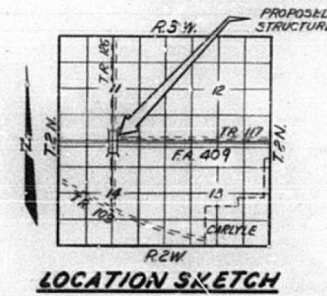
TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Structure Excavation	Cu. Yds.			50
Protective Coal	Sq. Yds.	840		840
Class X Concrete	Cu. Yds.	223.6	170.6	394.2
Structural Steel	Lump Sum	1		1
Stud Shear Connectors	Ea.	1320		1320
Aluminum Railing	Lft. Ft.	443		443
Reinforcement Bars	Lbs.	32030	20550	72580
Sand Backfill	Cu. Yds.		180	180
Steel Piles (2BP42)	Lin. Ft.			1334
Test Piles Steel (10BP42)	Ea.		2	2
Name Plates	Ea.		1	1
Slope Wall (A)	Sq. Yds.			290
Preformed Joint Sealer	Lin. Ft.	60		60



NAME PLATE

STATION 3445+15.64
BUILT BY
STATE OF ILLINOIS
F.A. RT. 409 SEC. 14-14HB-5
F.A. PROJ. EBF-409-1(5)
LOADING HS 15



GENERAL PLAN & ELEVATION
T.R. 126 OVER F.A. RT 409
PROJ. EBF-409-1(5)
F.A. RT. 409 SEC. 14-14HB-5
CLINTON COUNTY
STATION: 3445+15.64

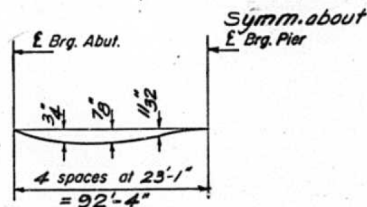
DESIGNED: John Haynes
CHECKED: Patrick S. Coe
DRAWN: J. Kessler
CHECKED: Patrick S. Coe

EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: Richard H. Goltzman

DESIGN STRESSES
FIELD UNITS
fc = 1200 psi Deck Slab Spans 21.3
fc = 1400 psi Deck Slab Spans 14.4
+ curb parapet and substructure
fs = 20,000 psi (Reinf) 20,000 psi struct
vc = 75 psi (ftgs)
n = 10
Allowable FWS = 25% per 39.11
Allowable E & A = 7200 Composite

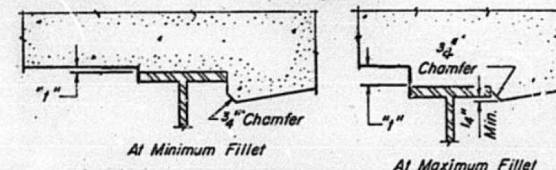
NOT TO SCALE

FOR YOUR INFORMATION ONLY



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 below.

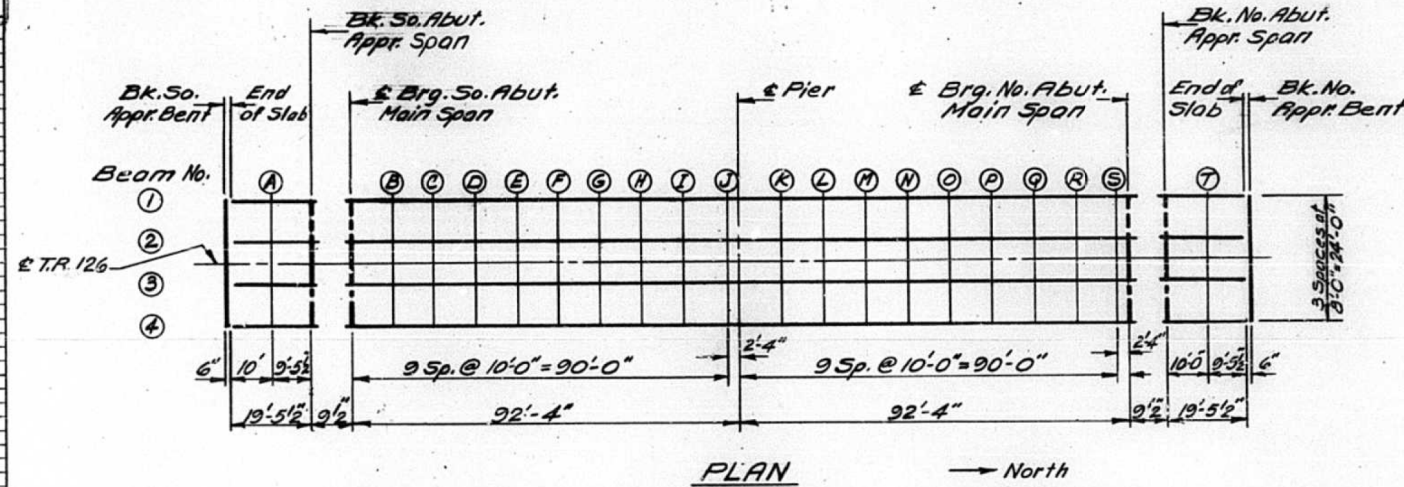


To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS

Beams 1 & 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. So. Appr. Bent	1886.920	12.000	451.413	451.413
End of Slab	1887.420	12.000	451.422	451.422
A	1897.420	12.000	451.582	451.582
Bk. of So. Abut.	1906.878	12.000	451.719	451.719
E Brg. So. Abut. Main Span	1967.670	12.000	451.730	451.730
B	1917.670	12.000	451.840	451.887
C	1927.670	12.000	451.575	452.029
D	1937.670	12.000	452.075	452.140
E	1947.670	12.000	452.160	452.230
F	1957.670	12.000	452.230	452.296
G	1967.670	12.000	452.286	452.372
H	1977.670	12.000	452.326	452.354
I	1987.670	12.000	452.352	452.367
J	1997.670	12.000	452.363	452.366
E Pier	2000.003	12.000	452.363	452.363
K	2010.003	12.000	452.356	452.368
L	2020.003	12.000	452.334	452.358
M	2030.003	12.000	452.296	452.338
N	2040.003	12.000	452.244	452.306
O	2050.003	12.000	452.178	452.249
P	2060.003	12.000	452.096	452.163
Q	2070.003	12.000	451.959	452.060
R	2080.003	12.000	451.828	451.921
S	2090.003	12.000	451.762	451.768
E Brg. No. Abut. Main Span	2092.337	12.000	451.730	451.730
Bk. No. Abut.	2093.128	12.000	451.719	451.719
T	2103.128	12.000	451.573	451.573
End of Slab	2112.587	12.000	451.422	451.422
Bk. No. Appr. Bent	2113.087	12.000	451.413	451.413



Beams 2 & 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. So. Appr. Bent	1886.920	4.000	451.517	451.517
End of Slab	1887.420	4.000	451.525	451.525
A	1897.420	4.000	451.685	451.685
Bk. of So. Abut.	1906.878	4.000	451.822	451.822
E Brg. So. Abut. Main Span	1967.670	4.000	451.833	451.833
B	1917.670	4.000	451.963	451.990
C	1927.670	4.000	452.078	452.132
D	1937.670	4.000	452.178	452.244
E	1947.670	4.000	452.263	452.333
F	1957.670	4.000	452.334	452.389
G	1967.670	4.000	452.380	452.435
H	1977.670	4.000	452.430	452.457
I	1987.670	4.000	452.455	452.471
J	1997.670	4.000	452.466	452.469
E Pier	2000.003	4.000	452.467	452.467
K	2010.003	4.000	452.459	452.472
L	2020.003	4.000	452.437	452.462
M	2030.003	4.000	452.400	452.442
N	2040.003	4.000	452.348	452.409
O	2050.003	4.000	452.281	452.352
P	2060.003	4.000	452.199	452.266
Q	2070.003	4.000	452.103	452.163
R	2080.003	4.000	451.991	452.025
S	2090.003	4.000	451.865	451.871
E Brg. No. Abut. Main Span	2092.337	4.000	451.833	451.833
Bk. No. Abut.	2093.128	4.000	451.822	451.822
T	2103.128	4.000	451.677	451.677
End of Slab	2112.587	4.000	451.525	451.525
Bk. No. Appr. Bent	2113.087	4.000	451.517	451.517

DESIGNED *John Hansen*
 CHECKED *Prakash S. (s)*
 DRAWN *Leona Heeren*
 CHECKED *Prakash S. (s)*

EXAMINED *April 7 1970*
 PASSED *Richard H. Galtman*
 APPROVED *Richard H. Galtman*

TOP OF SLAB ELEVATIONS
 R.A. RT-409 SEC 14-14HB-5
 CLINTON COUNTY
 STATION 244+15.62

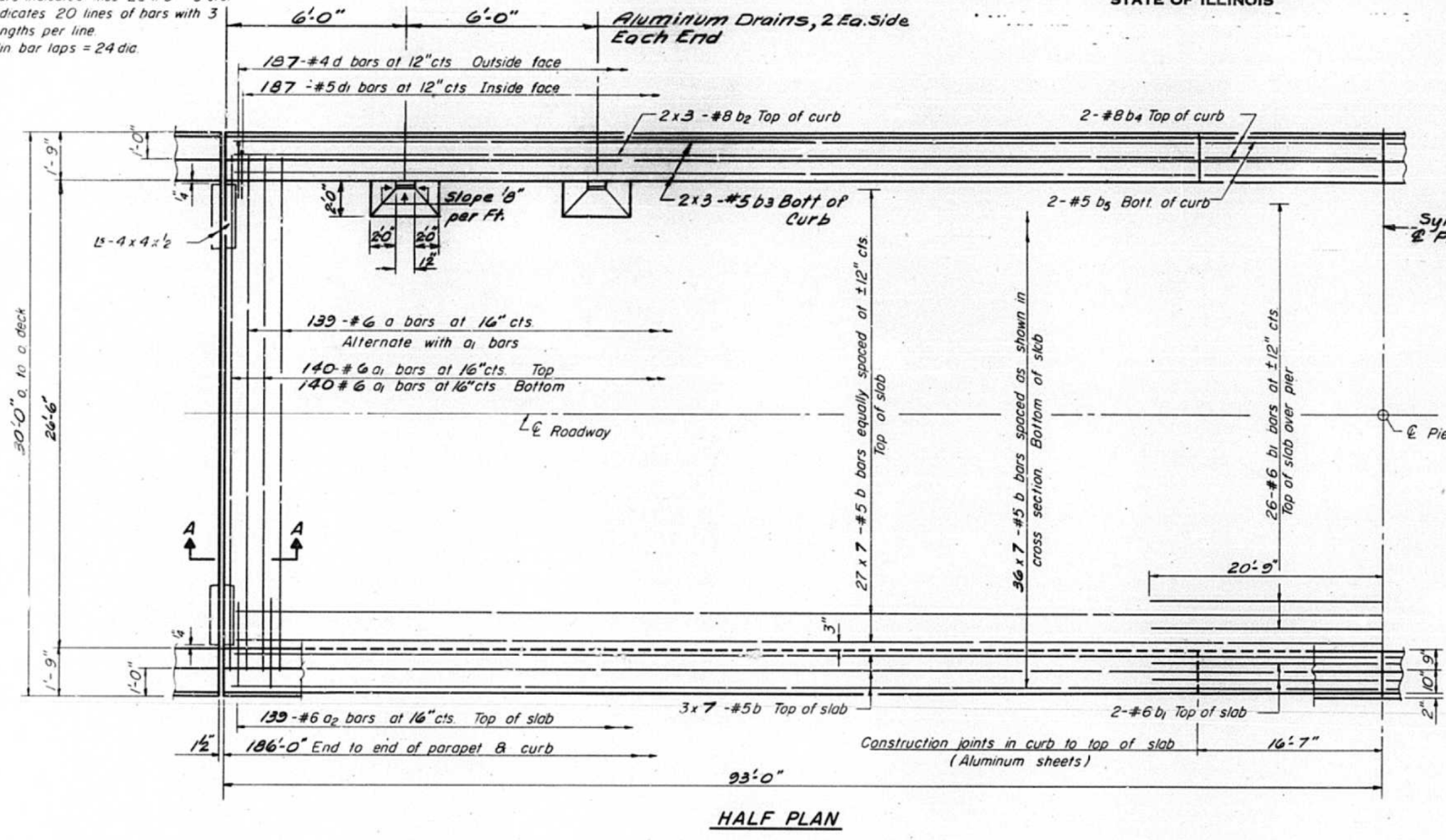
FOR YOUR INFORMATION ONLY

NOT TO SCALE

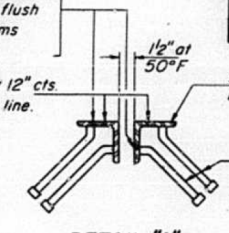
NOTE:
Bars indicated thus 20 x 3-#5 etc.
indicates 20 lines of bars with 3
lengths per line.
Min bar laps = 24 dia.

STATE OF ILLINOIS

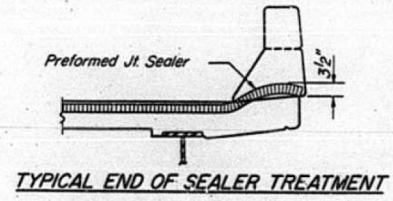
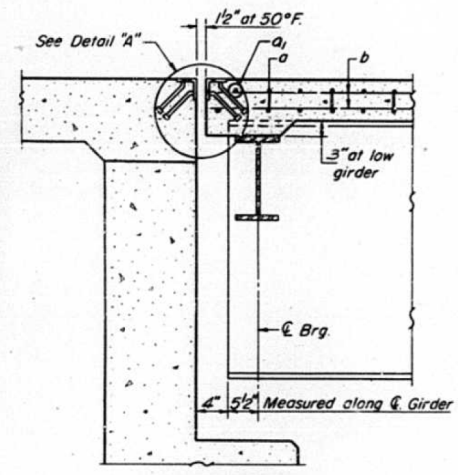
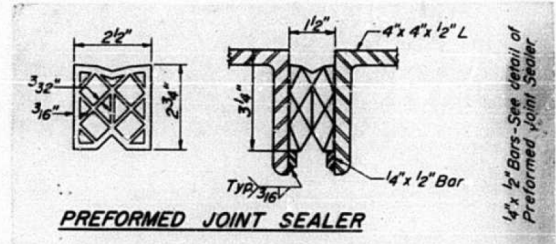
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
409	14-14 HB-1	Clinton	24	8
SHEET NO. 3				
10 SHEETS				



1/6" holes at 12" cts. for 3/8" bolts set on 2 1/2" gage line. All bolts shall be burned, sawed or clipped off flush with back of angles after forms are removed.



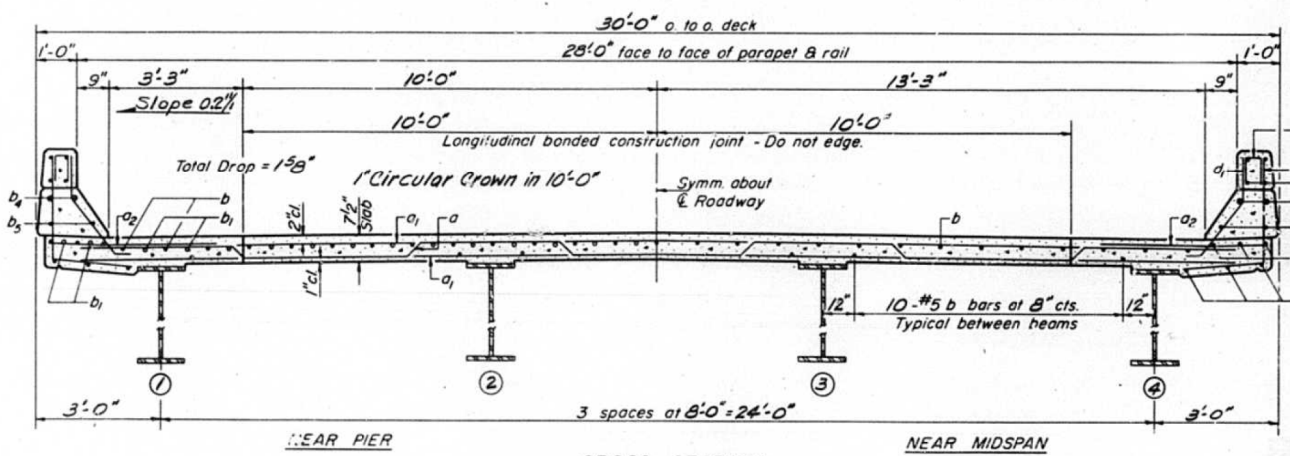
3/4" x 8" CR. 1020 STL. granular or solid flux filled headed studs automatically end welded. (27' studs at 12" alternate cts.)



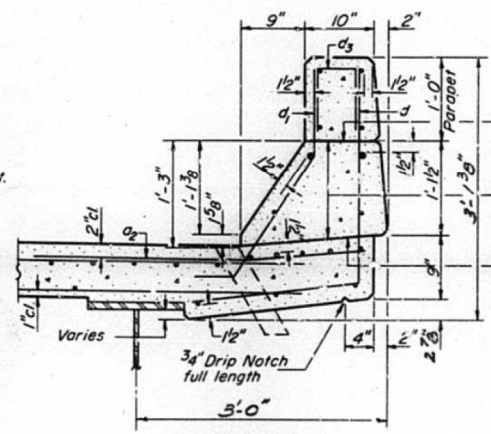
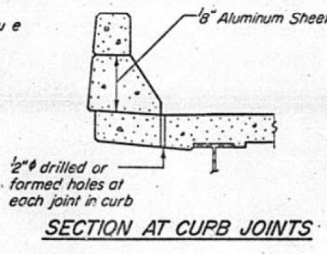
TWO SPANS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	139	#6	29'-0"	
a1	280	#6	28'-0"	
a2	278	#6	4'-0"	
b	483	#5	27'-7"	
b1	30	#6	41'-6"	
b2	24	#8	26'-9"	
b3	24	#5	26'-3"	
b4	8	#8	16'-4"	
b5	8	#5	16'-4"	
d	374	#4	4'-6"	J
d1	374	#5	3'-3"	J
Reinforcement Bars				Lbs. 40870
Class X Concrete				Co. Yds. 156.1
Structural Steel				Lbs. 150640

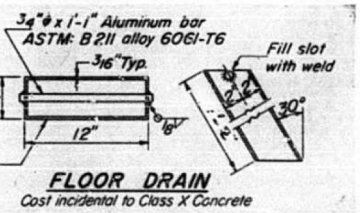
* Weight of bearing assemblies with lead plates and anchor bolts are included as Structural Steel. WT = 3780 lbs.
Parapet Reinforcement and Class X Concrete are billed on sheet # 5



NOTE: For placement of bars d3 and e thru e see sheet # 5

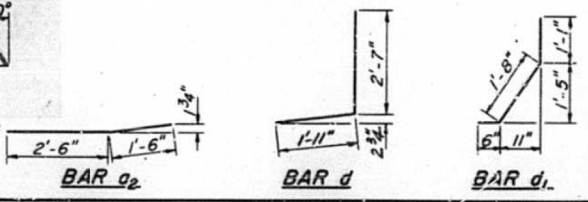
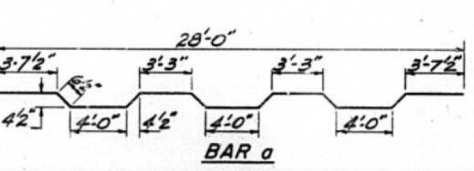


CURB SECTION
Cost of Aluminum Sheets shall be incidental to Class X Concrete.



Aluminum Sheets Welded
ASTM: B 209 alloy 6061-T6
or Aluminum Extrusions
ASTM: B 221 alloy 6061-T6

DESIGNED	John Haynes	EXAMINED	1970
CHECKED	Frank S. Co.	PASSED	1970
DRAWN	Leon Heeren	APPROVED	Richard J. Grotzman
CHECKED	Frank S. Co.		



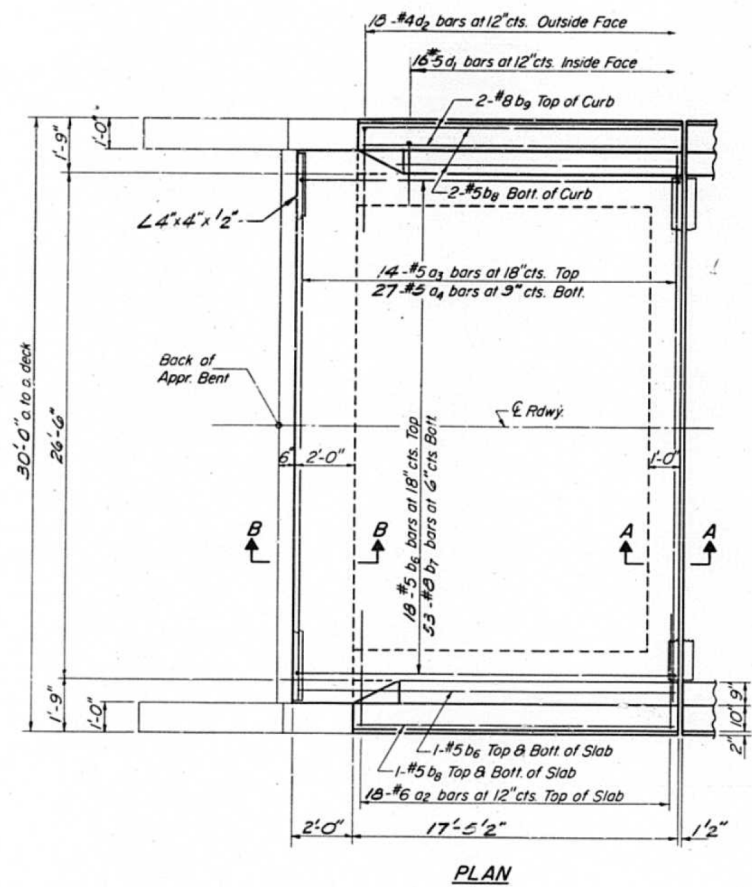
SLAB DETAILS-MAIN SPANS
F.A.R.T. 409 SEC. 14-14HB-5
CLINTON COUNTY
STATION 3445+15.64

S-4-0 4-22-68

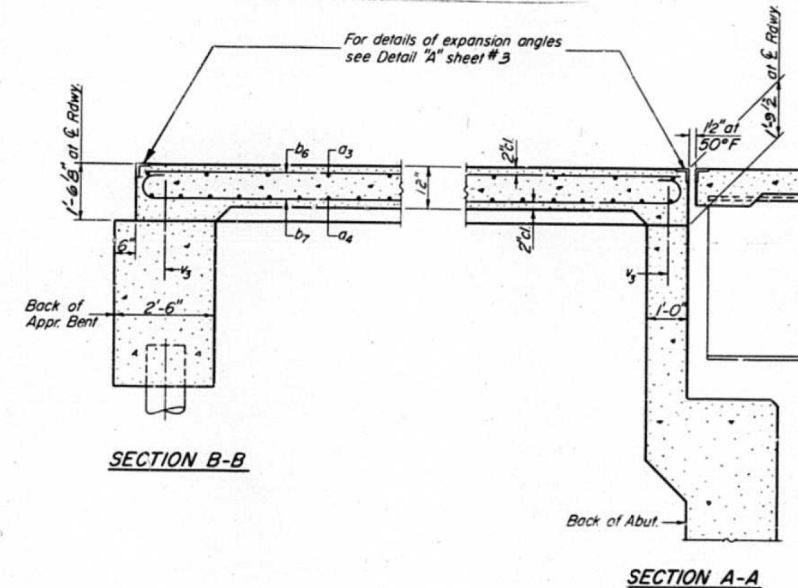
FOR YOUR INFORMATION ONLY

NOT TO SCALE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4
409	14-14 HB-5	Clinton	24	9	10 SHEETS
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

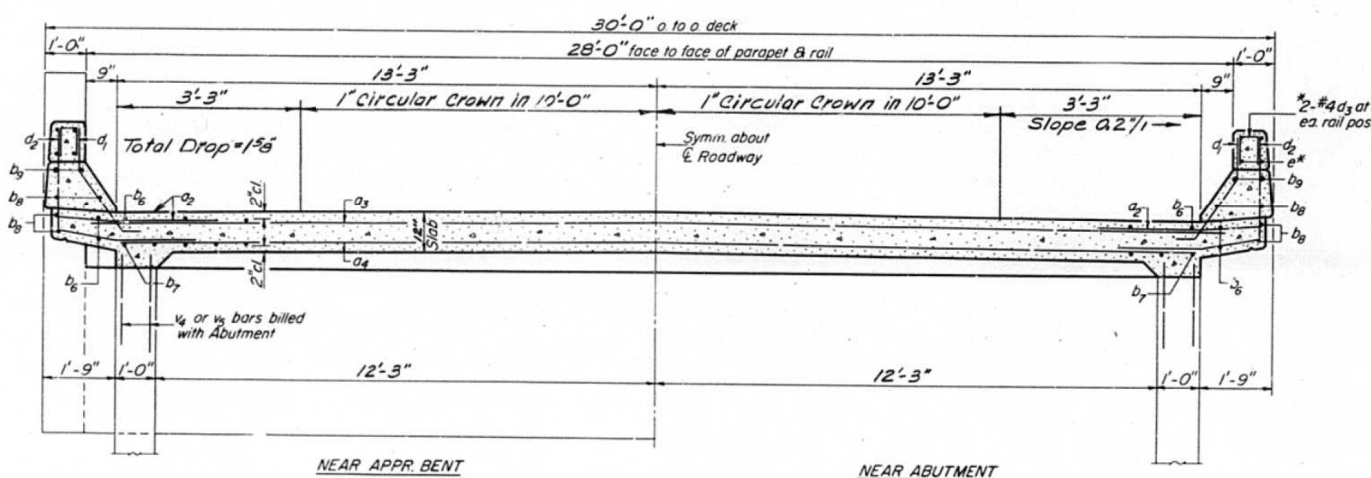


PLAN

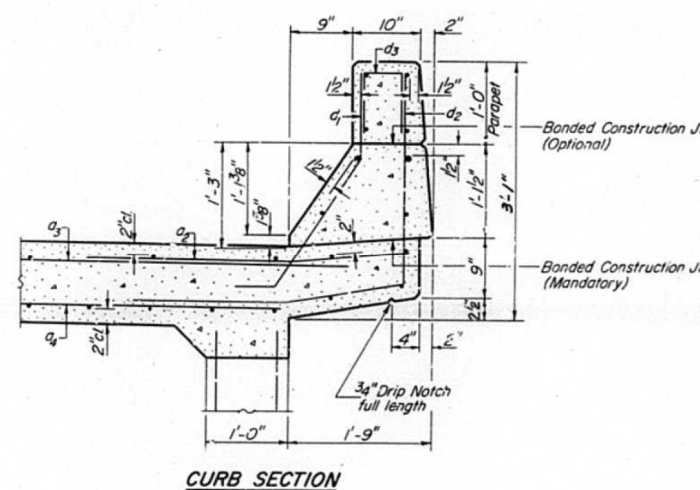


SECTION B-B

SECTION A-A



CROSS SECTION



CURB SECTION

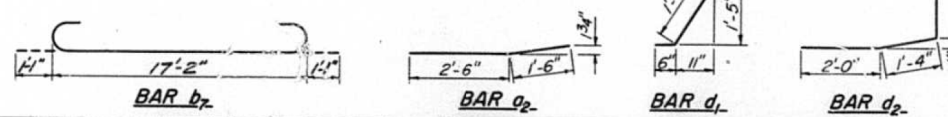
TWO APPR. SLABS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2	72	#5	4'-0"	—
a3	28	#5	27'-9"	—
a4	54	#5	26'-3"	—
b6	44	#5	19'-2"	—
b7	106	#8	19'-2"	—
b8	16	#5	17'-2"	—
b9	8	#8	17'-2"	—
a1	64	#5	3'-3"	—
a2	72	#4	5'-11"	—
Reinforcement Bars		Lbs.	10250	
Class X Concrete		Cu Yds.	53.2	

*Parapet Reinforcement and Class X Concrete are billed on sheet #5

DESIGNED	John Hoyer	EXAMINED	April 7 1970
CHECKED	Ponkash S. (s)	PASSED	Richard H. Holtzman
DRAWN	Leona Heeren	APPROVED	Richard H. Holtzman
CHECKED	Ponkash S. (s)		

SAS-0 3-1-69

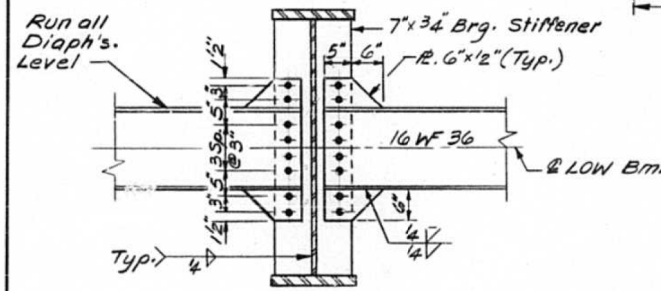
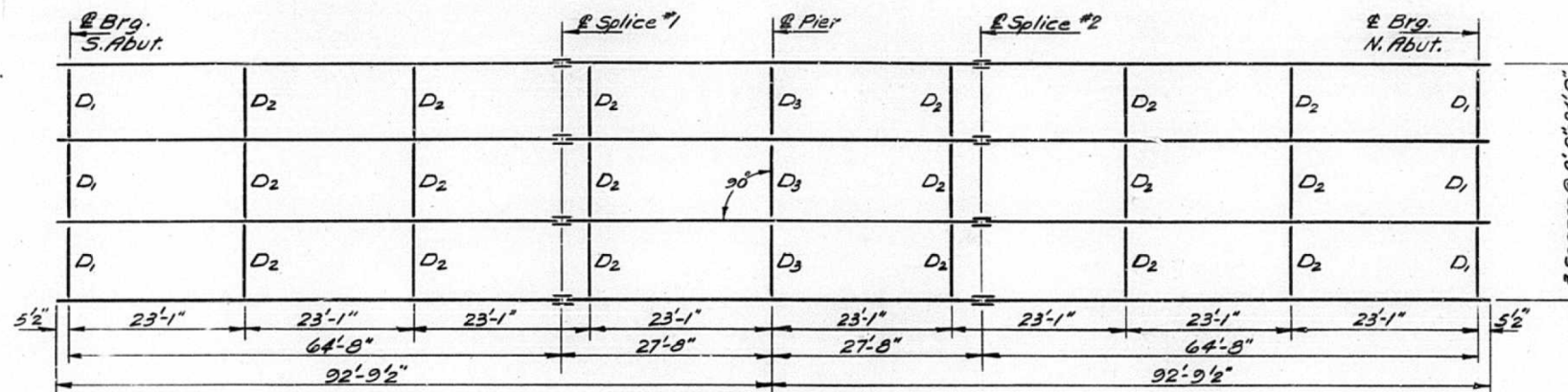
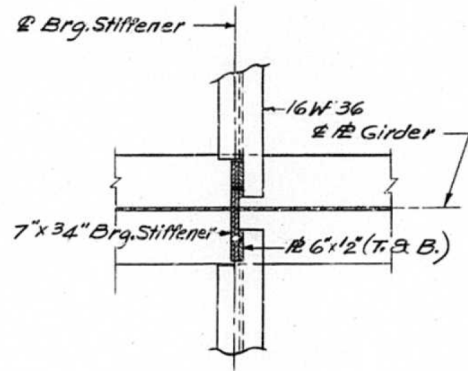


SLAB DETAILS-APPR. SPANS
F.A. RT 409 SEC. 14-14 HB-5
CLINTON COUNTY
STATION 3445+15.64

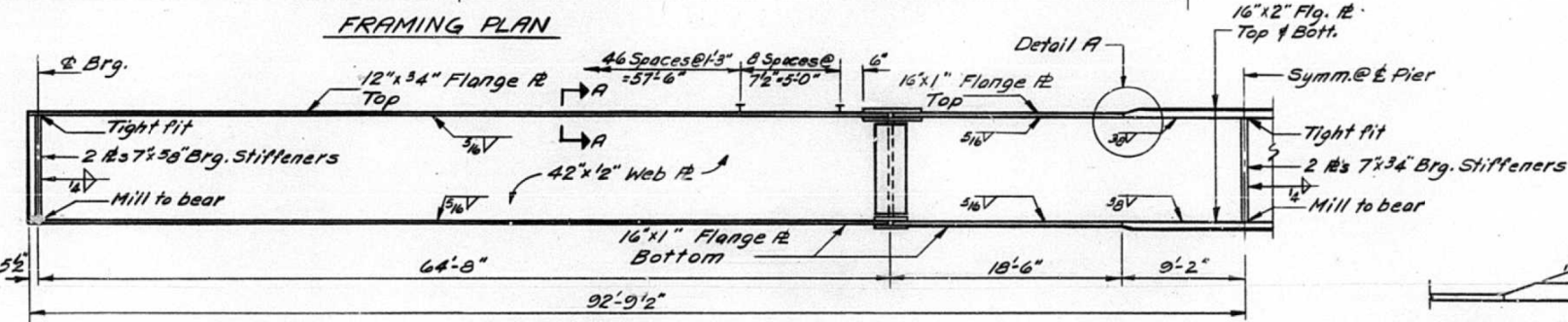
NOT TO SCALE

FOR YOUR INFORMATION ONLY

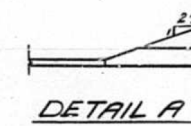
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14-14	HB-5	Clinton	24	11
SHEET NO. 6				
10 SHEETS				



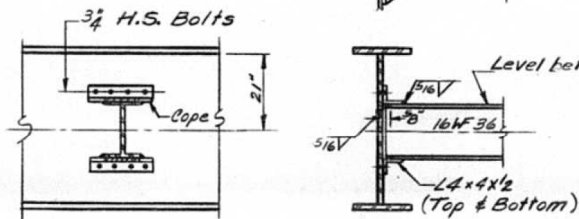
DIAPHRAGM D3
3 Required



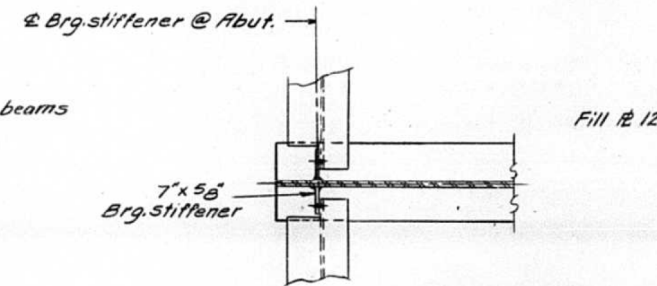
GIRDER ELEVATION



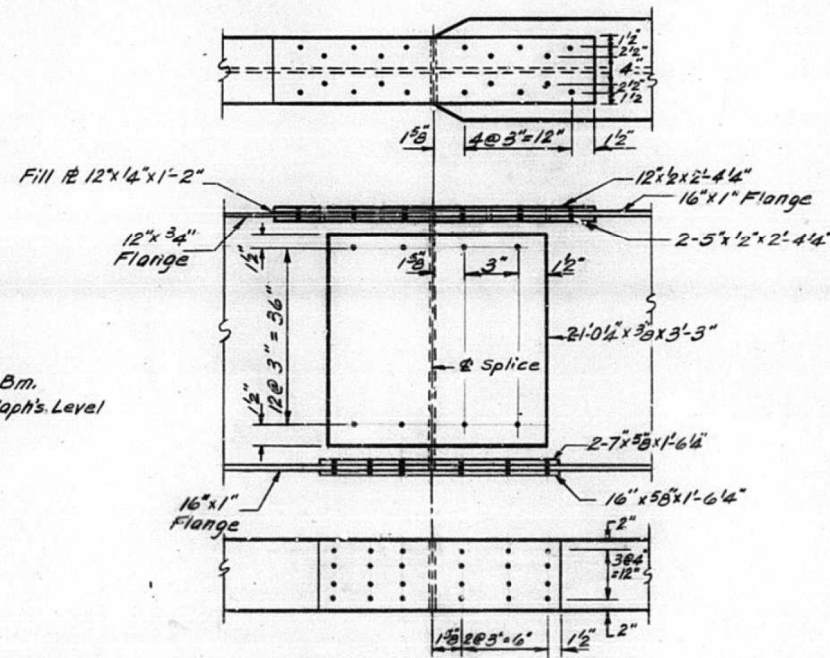
DETAIL A



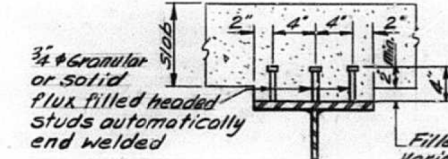
INTERIOR DIAPHRAGM D2
18 Required



DIAPHRAGM D1
6 Required



FIELD SPLICE
8 Required



SEC. A-A
DETAIL OF
SHEAR CONNECTORS

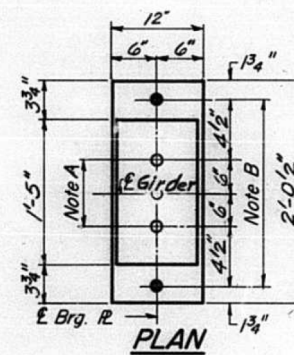
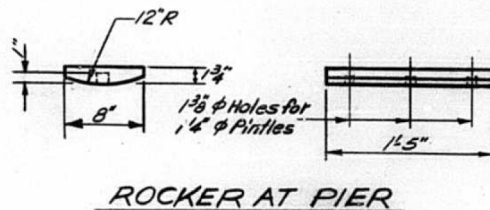
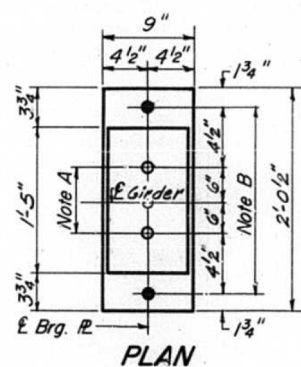
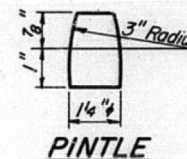
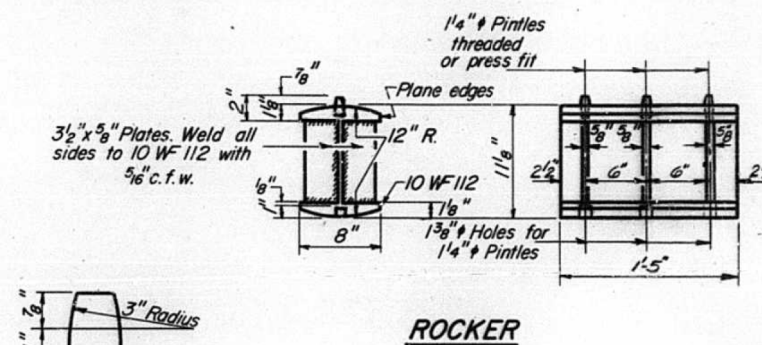
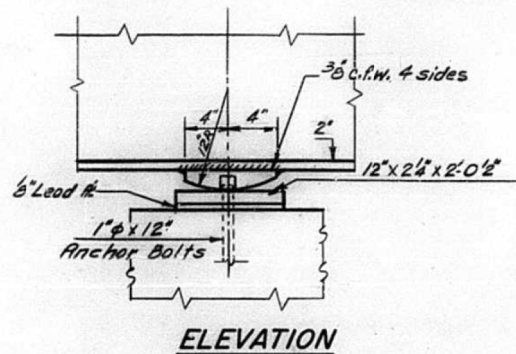
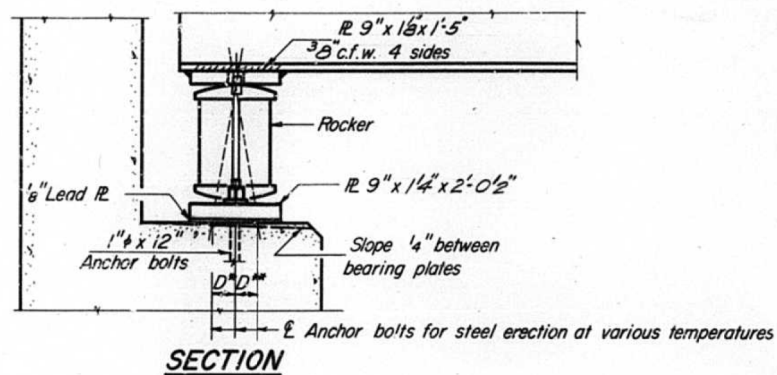
SPLICE & GIRDER DETAILS
F.A.R.T. 409 SEC. 14-14HB-5
CLINTON COUNTY
STATION 3445+15.64

DESIGNED	John Hoyer	EXAMINED	April 7, 1970
CHECKED	Frank S. G.	PASSED	Robert H. Gallerman
DRAWN	Leono Heeren	APPROVED	Robert H. Gallerman
CHECKED	Frank S. G.		

NOT TO SCALE

FILE NAME =	USER NAME = leej	DESIGNED -	REVISED -	STATE OF ILLINOIS	EXISTING PLANS - SN 014-0056	F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\11084EBIDINTEG\illinois.gov\PI\DOT Documents\DOT Offices\District 8\Projects\0875\Drawings\6AD\Sheets\0875-138-sht.mso		DRAWN -	REVISED -	DEPARTMENT OF TRANSPORTATION	LOCATION 2	327	14-14HB-BP-1	CLINTON	23	15
Default	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -		SCALE:	SHEET 5 OF 6 SHEETS		STA.	TO STA.	
	PLOT DATE = 12/8/2017	DATE -	REVISED -			ILLINOIS FED. AID PROJECT		CONTRACT NO. 76L38		

FOR YOUR INFORMATION ONLY



PLAN
AT ABUTMENTS

ROCKER AT PIER

PLAN
AT PIER

NOTE A
1 3/8" Holes - 1" deep in top R. for pintles. Thread or press fit pintles into bottom R.

NOTE B
1 1/2" Holes for 1" anchor bolts. 2 1/2" x 2 1/2" x 5/16" R. Washers under nut.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ± 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg. away from fixed brg.)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg.)
D** = 1/8" 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.

BEARING ASSEMBLY DETAILS

TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY)

	0.4 Sp. 1	Pier
Is (in ⁴)	14,097.0	34084.3
Ic (in ⁴)	35,380.6	
Ss (in ³)	882.5	1481.9
Sc (in ³)	1188.6	
φ (K/I)	.99	1.24
M _P (IK)	512.3	-1276.9
f _s P (KSI)	6.96	10.33
S _P (K/I)	.35	
M _s P (IK)	221.24	
M _z (IK)	592.39	737.22
M _{imp} (IK)	176.94	220.20
Total (IK)	769.33	957.42
f _s z (KSI)	10.46	7.75
f _s Total (KSI)	17.42	18.08
VR (K)	46.50	

	Girder #1	Girder #2	Girder #3	Girder #4
ε Brg. S. Abut.	491.04	491.14	491.14	491.04
ε Splice #1	491.59	491.69	491.69	491.59
ε Pier	491.57	491.67	491.67	491.57
ε Splice #2	491.59	491.69	491.69	491.59
ε Brg. N. Abut.	491.04	491.14	491.14	491.04

	Abut.	Pier
R _E (K)	44.79	159.72
R _z (K)	34.49	53.79
Imp (K)	7.93	12.37
R total	87.21	305.89

Is and Ss are the moment of inertia and section modulus of the steel section.
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs.
V_e is the maximum ε + Impact shear range.

DESIGNED: John Hayes
CHECKED: Pankaj S. W.
DRAWN: P.G. Barnett
EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]

BEARING DETAILS
R.R. RT. 409 SEC. 14-14 HB-5
CLINTON COUNTY
STATION 3445+15.64

I-2-B 9-1-65

NOT TO SCALE

FOR YOUR INFORMATION ONLY

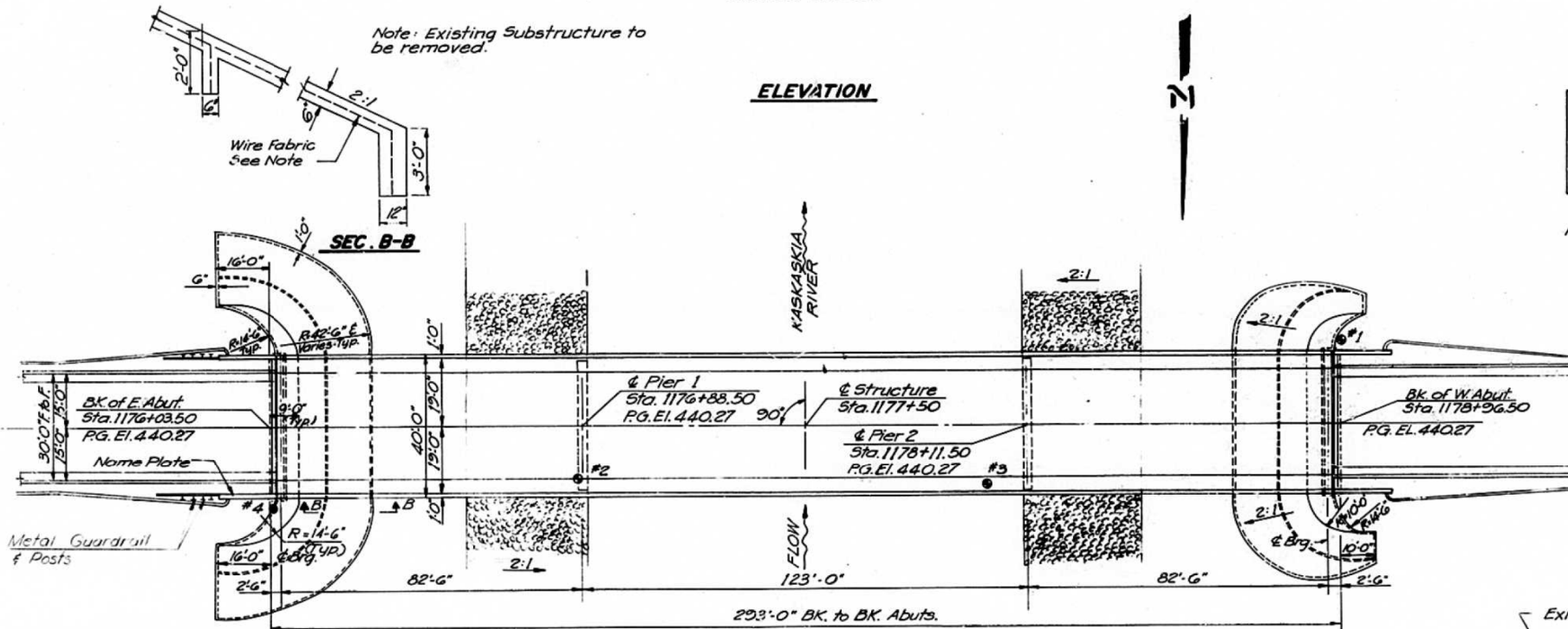
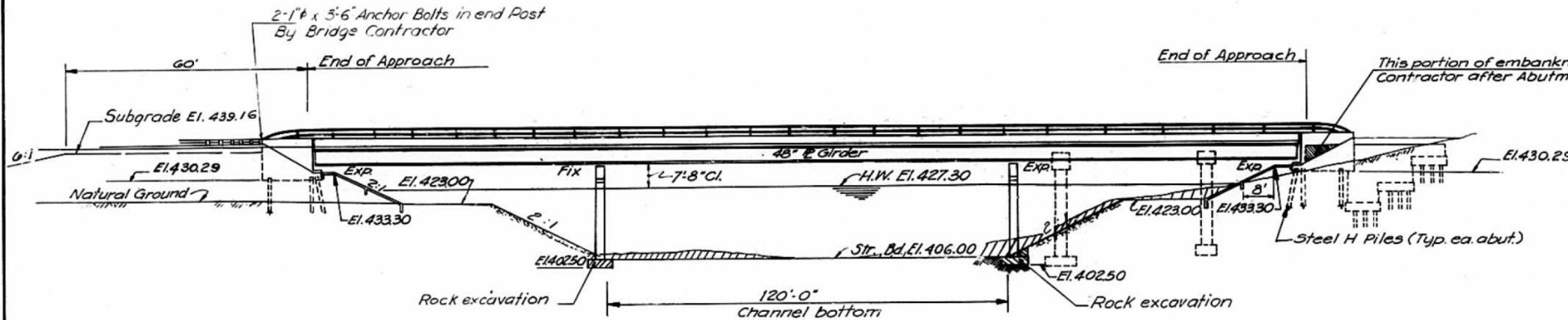
BM : 0' Chiseled on N.W. corner of top step 22' Lx
 Sta. 1174+54 El. 442.29
 Existing Structure : Built as SBI Rte 12, Sec. 22C in 1922
 at Sta. 1174+50 18 Conc. Girder Spans 4' 1-180
 Steel Truss, RC Closed Abuts, 16 Open Pier &
 2 Solid Piers. Existing Structure to be removed by
 Contractor, as required by Engineer before beginning
 Construction.
 No Salvage

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

ROUTE NO.	SECTION	SUBJECT	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 OF
1780	22B	Clinton	31	8	13 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

GENERAL NOTES :

All Reinforcement Bars Shall be Lapped 24 Diame-
 ters Unless Otherwise Shown.
 Fasteners Shall be High Strength Bolts 7/8" φ,
 Open Holes 1 5/16" φ, Unless Otherwise Noted.
 Calculated Weight of Structural Steel 407,000 Lbs.
 The Basic Lead Silico Chromate Paint System
 Shall be Used for Shop and Field Painting of
 Structural Steel.
 Field Welding of Construction Accessories will
 not be Permitted to the Bottom Flange of beams
 or Girders nor to the Top Flange for a Distance
 Equal to One Fourth the Span Length Each Way
 From the Pier Supports. Field Welding in Other
 Areas Will be Permitted Only When Approved
 by Engineer.
 Anchor Bolts Shall be Set Before Bolting Cross
 Frames Over Supports
 Slope Wall Shall be Reinforced with Welded Wire
 Fabric 6"x6" Mesh, Weighing 5.8# Per 100 Sq. Ft.
 Lay out of Slope Walls may be Varied in the
 Field to Suit Ground Conditions as Directed
 by the Engineer.
 The Contractor Shall Drive Four (2) HPI0x57
 Test Piles in a Permanent Location as Directed
 By the Engineer Before Ordering the Remainder
 of Piles. (See Abutment Sheets)



STATION 1177+50
 KASKASKIA RIVER
 BUILT 197
 F.A.S. RT. 1780 SEC. 22BR
 PROJ. BR-S-1780-003
 LOADING H320

NAME PLATE
 For Name Plate Details Refer to Sld. 213

The Embankment Configuration Shown Shall be
 The Minimum Embankment that Must be Cons-
 tructed Prior to Construction of the Abutments.
 Protective Coat Shall not be Applied to Surfa-
 ces to which Waterproofing Membrane Sys-
 tem is Applied.
 Bearing Seat Surfaces Shall be Constructed
 or Adjusted to the Designated Elevations
 within a Tolerance of ± 1/8 Inch. Adjustment
 Shall be Made Either by Grinding the Surface
 or by Shimming the Bearing. Two 1/8" Adjust-
 ing Shims of the Dimensions of the Bottom
 Bearing Plate, Shall be Provided for Each
 Bearing in Addition to All Other Plates or
 Shims.
 The main load Carrying member Components
 Subject to the Supplemental Requirements for
 Notch Toughness are the Flanges, as designated
 on Elev. and Webs, and all Splice Plates of the
 steel Girders or Wide Flange Beams.
 Reinforcement bars used in the
 superstructure deck shall conform to
 the requirements of AASHTO
 M31, Gr. 40 or M53, Gr. 60.

DESIGNED	W.H. WEIHS
CHECKED	W.C. WILLIAMS
DRAWN	M.E. BRACHO
CHECKED	W.H. WEIHS

DESIGN STRESSES

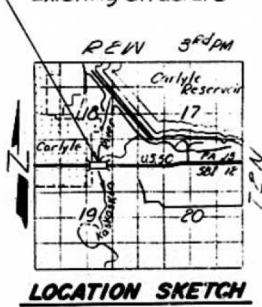
$f_s = 20,000$ p.s.i. (Structural AASHTO M183)
 Deck Slab, Load Factor Design (1974 AASHTO)
 $f_c = 3500$ psi
 $f_y = 60,000$ p.s.i. (Reinf.)
 Substructure, curb and parapets
 Service Load Design:
 $f_c = 1400$ p.s.i.
 $f_s = 20,000$ p.s.i. (Reinf.)
 $v_c = 75$
 $n = 10$

Allow 25# / sq' for Future W.S.
 Design Specifications: 1973 AASHTO
 as applicable

WATERWAY INFORMATION

Drainage Area 2608 Sq.Mi.
 Character Carlyle Dam release
 Present Opening 15,600 Sq.Ft.
 Proposed Opening 3,550 Sq.Ft.
 Required Opening 3,530 Sq.Ft.
 Created Head 0.05'
 $Q(50) = 10,000$ cfs

LOADING HS 20-44



APPROVED
 FOR STRUCTURAL ENGINEERING ONLY

BOSWELL ENGINEERING

GENERAL PLAN AND ELEVATION
 F.A.S. RTE. 1780 (S.B.I. RTE. 12)
 F.A.S. RTE. 1780 SECTION 22 BR.
 CLINTON COUNTY
 STATION 1177 + 50

31.12

FILE NAME =	USER NAME = leej	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS - SN 014-0061 LOCATION 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\1\1084EBIDINTEG\Illinois.gov\PWIDOT Documents\DOT Offices\District 8\Projects\0875\Drawings\6A0 sheets\D876L38-shr-mso	DRAWN	CHECKED	REVISED			327	14-14HB-BP-1	CLINTON	23	17
Default	PLOT SCALE = 100.0000' / in.	DATE -	REVISED -			CONTRACT NO. 76L38				
					SCALE:	SHEET 1 OF 5 SHEETS STA. TO STA.				ILLINOIS FED. AID PROJECT

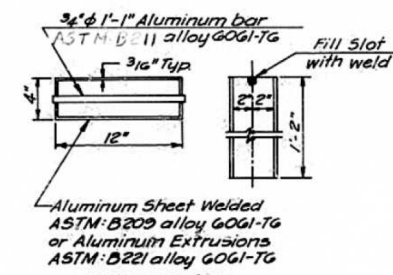
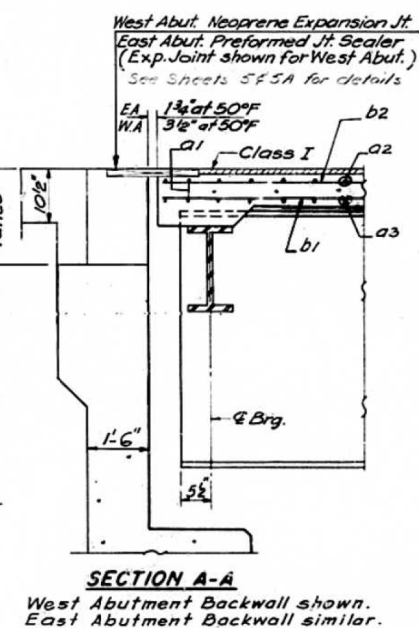
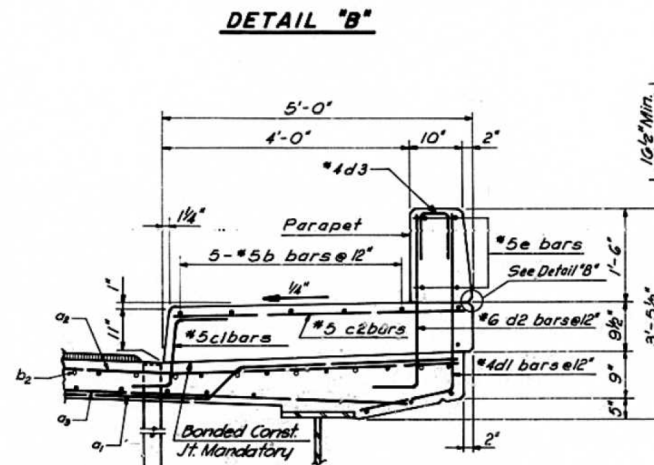
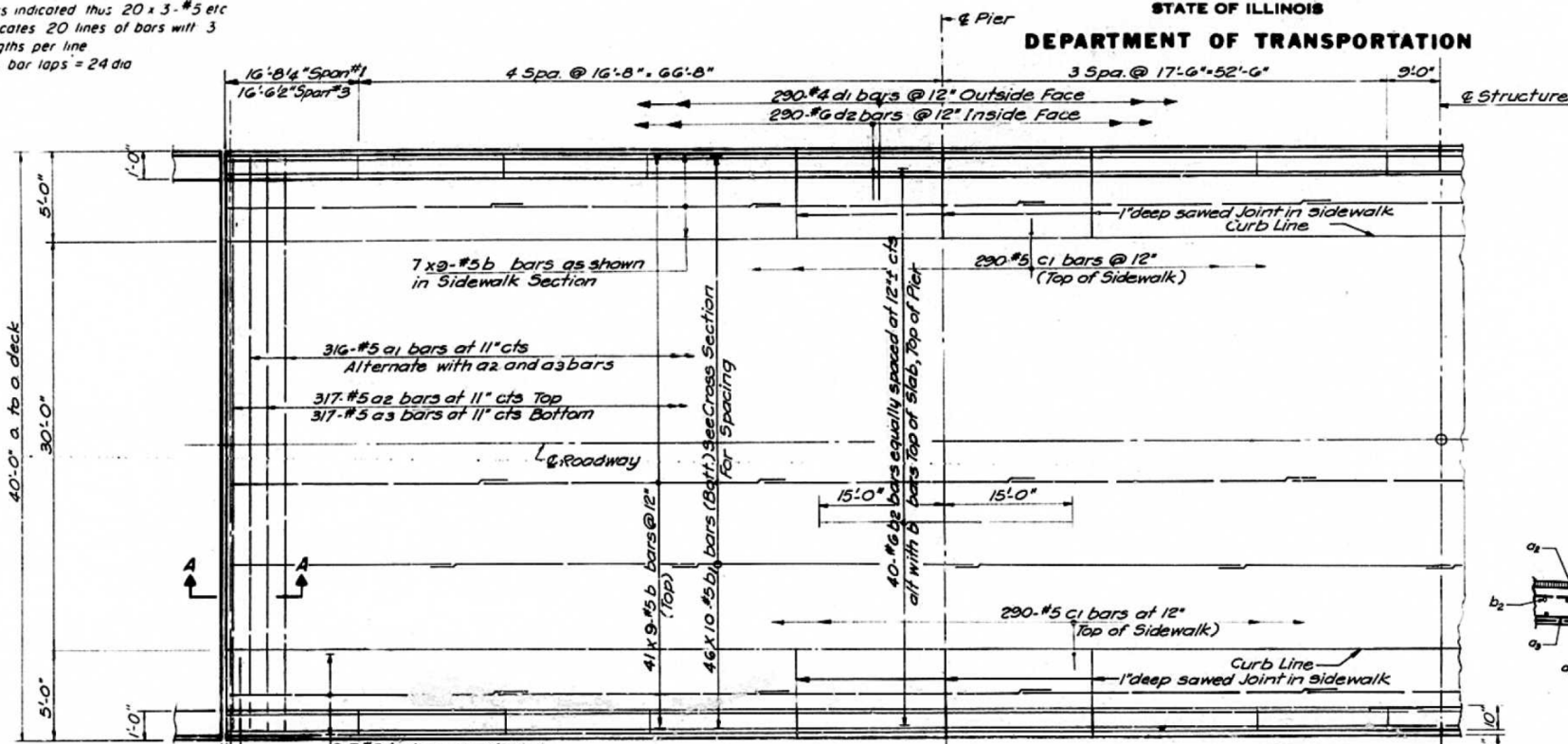
FOR YOUR INFORMATION ONLY

NOT TO SCALE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	228R	Clinton	31	11
SHEET NO. 4 of 13 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

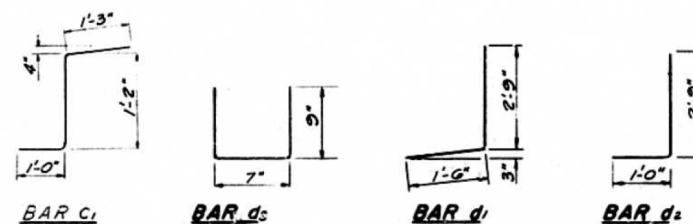
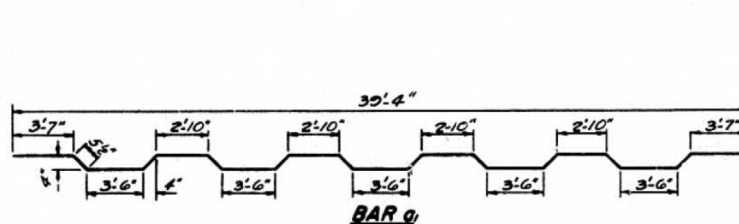


BILL OF MATERIAL

Bar	No	Size	Length	Shape
a1	316	#5	40'-7"	~
a2	317	#5	39'-4"	~
a3	317	#5	37'-6"	~
b	495	#5	33'-4"	~
b1	460	#5	30'-1"	~
b2	80	#6	30'-0"	~
c1	580	#5	3'-3"	┌
c2	580	#5	4'-7"	┌
d1	580	#4	4'-2"	┌
d2	580	#6	3'-8"	┌
d3	124	#4	2'-0"	┌
e1	72	#5	16'-4"	~
e2	48	#5	17'-3"	~
e3	8	#5	17'-2"	~
e4	8	#5	16'-2"	~

Reinforcement Bars	Lbs	85,900
Class X Concrete	Cu Yds	390.0

DESIGNED	W.H. WEIHS
CHECKED	W.C. WILLIAMS
DRAWN	V.A. ORTEGA
CHECKED	W.H. WEIHS



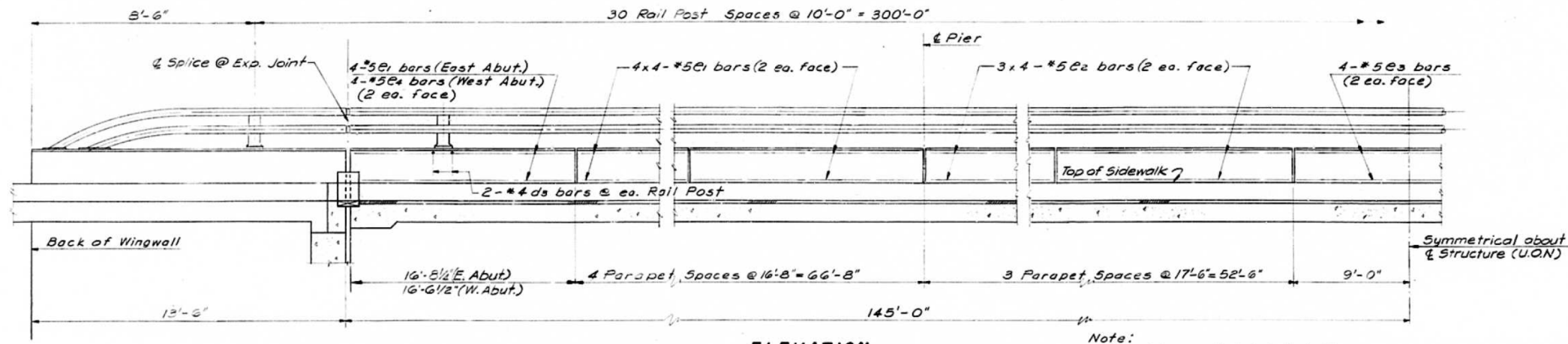
SUPERSTRUCTURE-SHEET 1
F.A.S. RTE.1780(S.B.I. RTE.12)
OVER KASKASKIA RIVER
SECTION 22 - B.R.
CLINTON COUNTY
STATION 1177 + 50

NOT TO SCALE

FOR YOUR INFORMATION ONLY

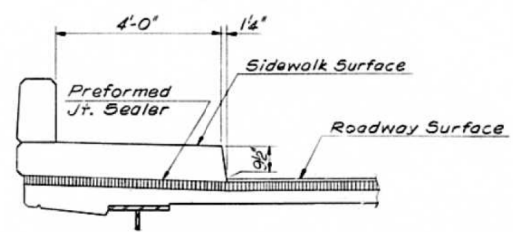
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	2282	Clinton	31	12
SHEET NO 5 of 13 SHEETS				

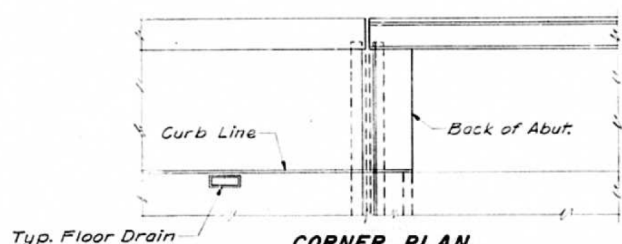


ELEVATION

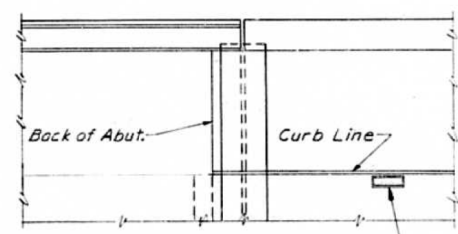
Note:
For Parapet Joint Details
see Sheet No. 6



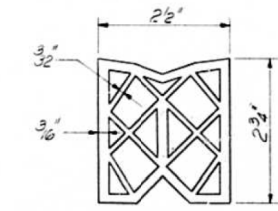
SIDEWALK EXP. JT. INSTALLATION (EAST ABUTMENT)



CORNER PLAN AT EAST ABUTMENT

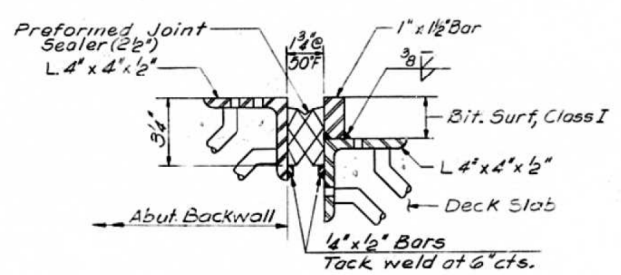


CORNER PLAN AT WEST ABUTMENT



PREFORMED JT. SEALER (2 1/2")

NOTE: For Neoprene Expansion Joint Details See Str. 5A.



ARMORED JT. FOR PREFORMED JT. SEALER (EAST ABUTMENT)

Note: For Bill of Material See Sheet No. 4

DESIGNED	W.H. WEIHS
CHECKED	W.C. WILLIAMS
DRAWN	V.A. ORTEGA
CHECKED	W.H. WEIHS

**SUPERSTRUCTURE-SHEET 2
EAS. RTE. 1780 (SBL RTE. 12)
OVER KASKASKIA RIVER
SECTION 22 - B.R.
CLINTON COUNTY
STATION 1177 + 50**

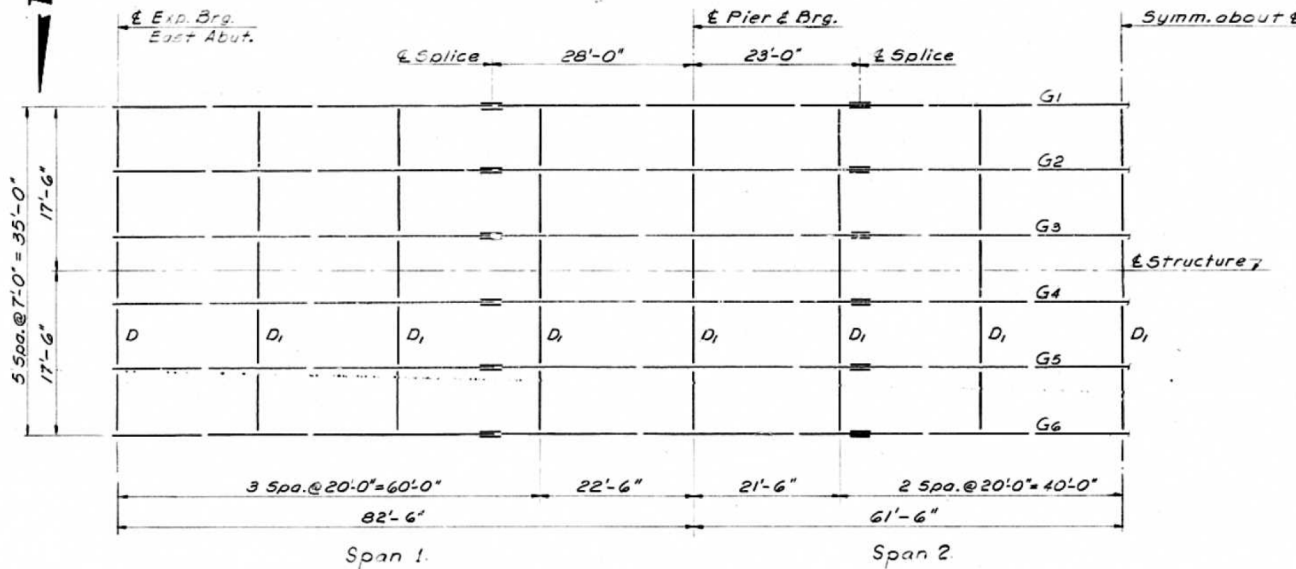
NOT TO SCALE

FOR YOUR INFORMATION ONLY

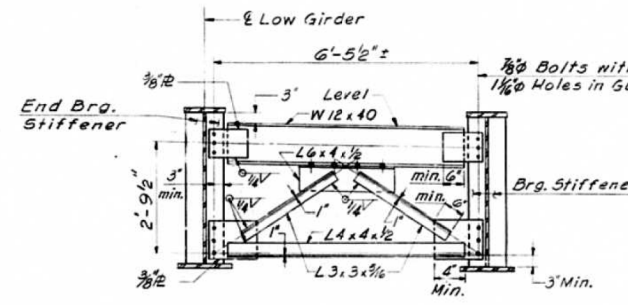
FILE NAME =	USER NAME = leej	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS - SN 014-0061 LOCATION 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\11084EBIDINTEG.illinois.gov\PIDOT\Documents\DOT Offices\District 8\Projects\0876\Drawings\084\084-sht-misc	DESIGNED -	REVISED -	327			14-14HB-BP-1	CLINTON	23	19	
Default	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -			CONTRACT NO. 76L38				
	PLOT DATE = 12/8/2017	DATE -	REVISED -	SCALE:	SHEET 3 OF 5 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

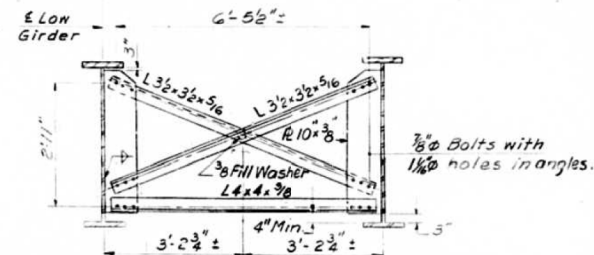
SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.	SHEET NO.
1780 2280	Clinton	31	14	13 SHEETS



FRAMING PLAN

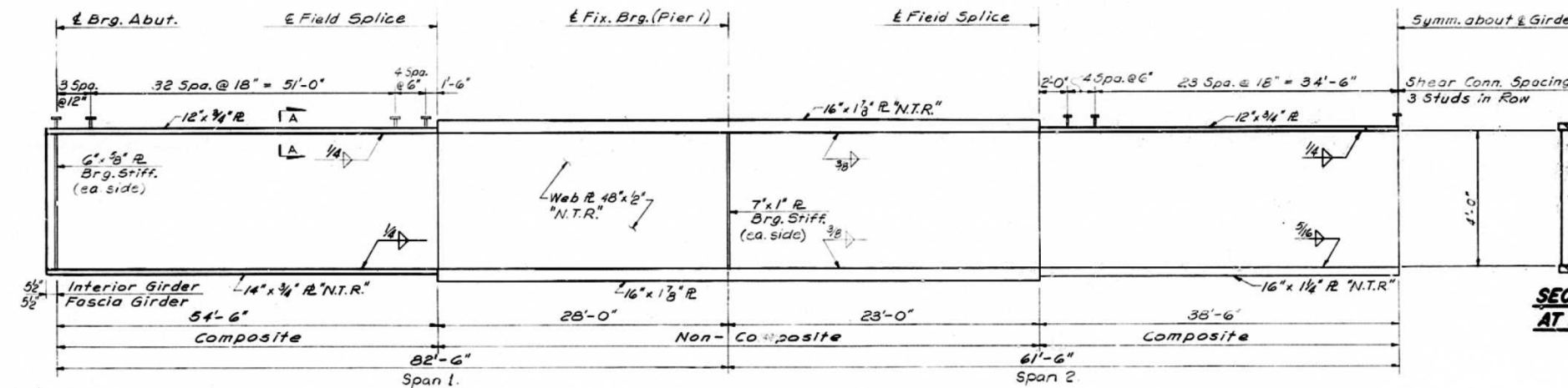


TYPICAL END CROSS FRAME D



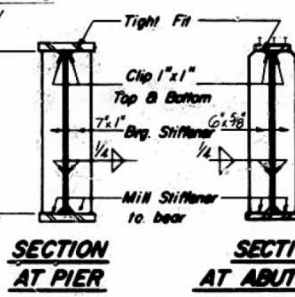
TYPICAL INTERIOR CROSS FRAME D1

- Notes:
- 1) All Structural Steel to be AASHTO designated M183 unless otherwise noted.
 - 2) Minimum Fillet Welds to be 1/4".
 - 3) Hardened Washers shall be required over Holes in Gusset Plates and Angles

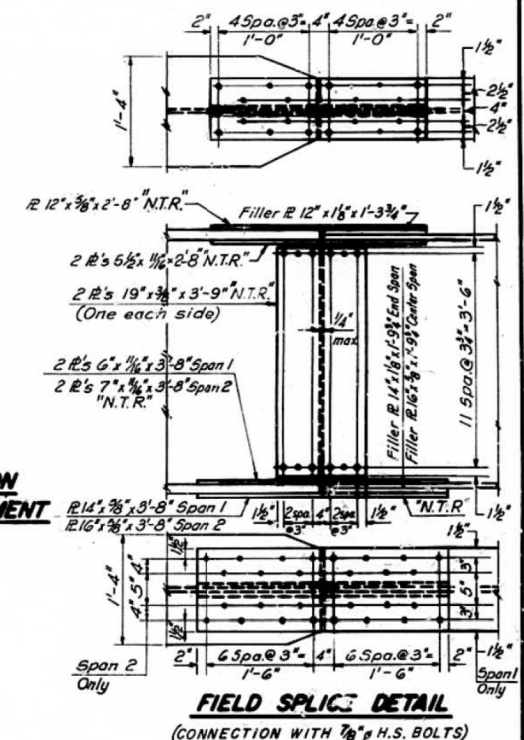


GIRDER ELEVATION

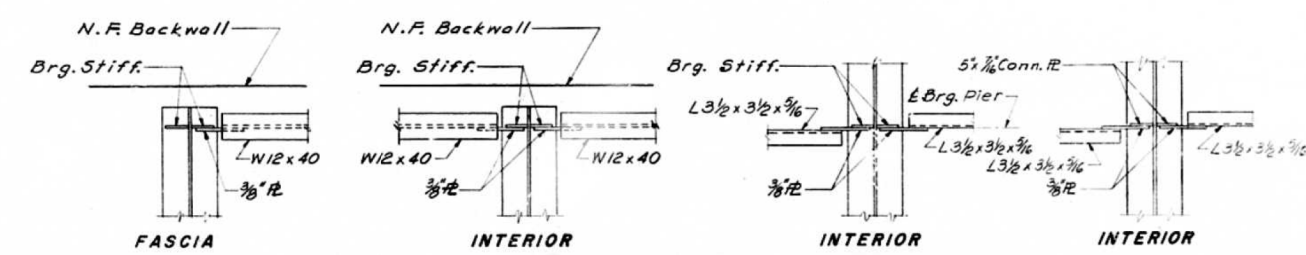
Note: "N.T.R." designates Notch Toughness Requirements.



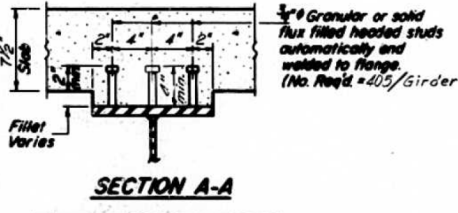
SECTION AT PIER
SECTION AT ABUTMENT



FIELD SPLICE DETAIL
(CONNECTION WITH 7/8" H.S. BOLTS)



TYPICAL FRAME CONNECTION DETAILS



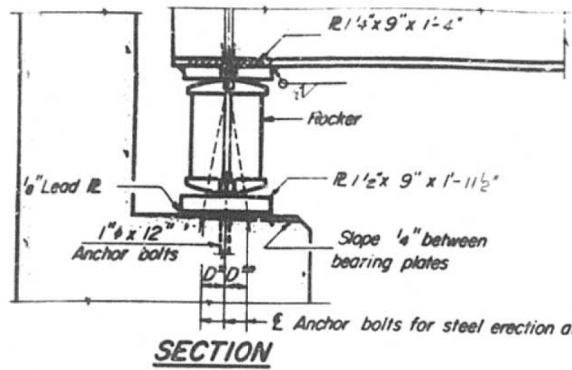
SECTION A-A

DESIGNED	W.H. WEIHS
CHECKED	E. CORNELLE
DRAWN	V.A. ORTEGA
CHECKED	W.H. WEIHS

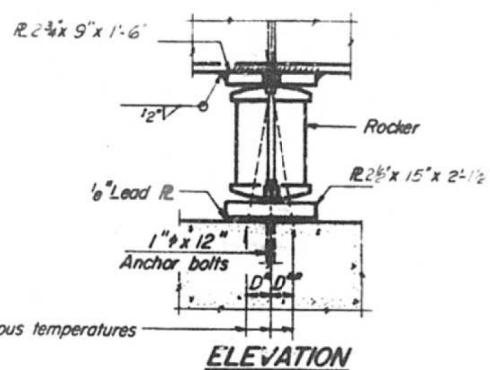
STEEL FRAMING PLAN
F.A.S. RTE. 1780 (S.B.I. RTE. 12)
OVER KASKASKIA RIVER
SECTION 22 - B.R.
CLINTON COUNTY
STATION 1177 + 50

NOT TO SCALE

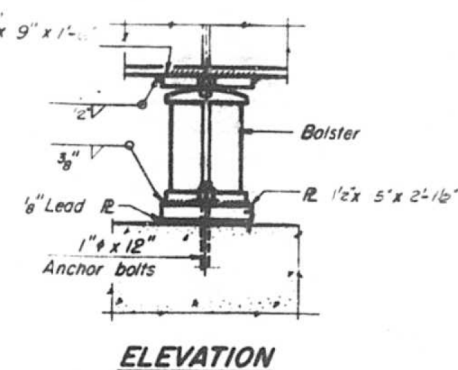
FOR YOUR INFORMATION ONLY



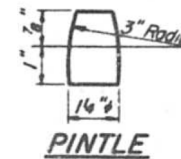
SECTION



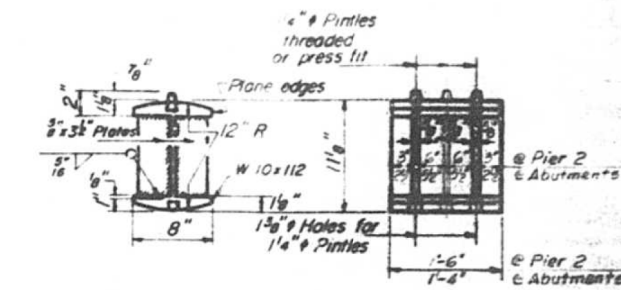
ELEVATION



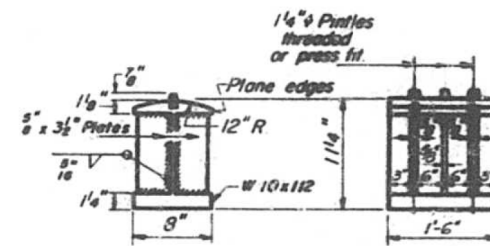
ELEVATION



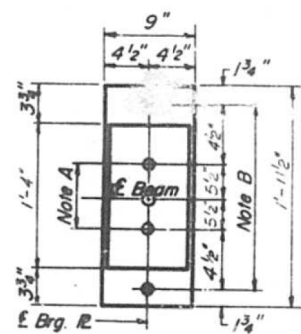
PINTLE



ROCKER

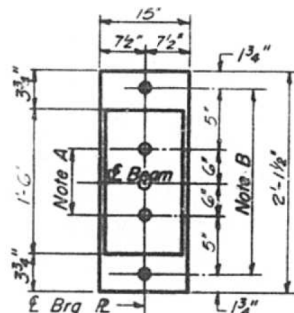


BOLSTER



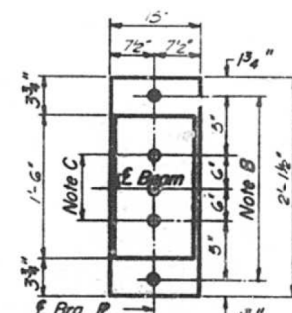
PLAN
AT ABUTMENT
12 Required

NOTE A
1 3/8 inch Holes - 1 inch deep in top R.
for pintles. Thread or press fit
pintles into bottom R.



PLAN
AT PIER 2
6 Required

NOTE B
1 1/2 inch Holes for 1 inch anchor bolts.
ie x 2 1/2 x 2 1/2 R. Washers
under nut.



PLAN
AT PIER 1
6 Required

NOTE C
1 3/8 inch Holes 1 inch deep in top R.
only for 1 1/4 inch pintles.

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg away from fixed brg.)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg.)
D** = 1/8" 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.

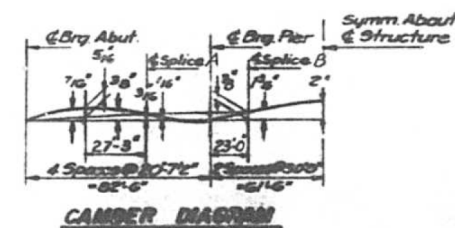
BEARING ASSEMBLY DETAILS

	0.45Sp.1	Pier	0.55Sp.2
I _s (in. ⁴)	16,163.92	41,958.32	20,678.60
I _c (in. ⁴)	42,376.86	—	59,972.14
S _s (in. ³)	676.04	1,620.80	1,028.90
S _c (in. ³)	988.33	—	1,465.50
DL (K/ft)	0.843	0.958	0.877
M _{DL} (K)	258.08	1,181.79	498.40
I _s DL (KSI)	4.180	8.760	8.820
S _{DL} (K/ft)	0.520	0.520	0.520
M _{S_{DL}} (K)	183.74	602.41	380.97
M _L (K)	620.49	671.91	608.79
M _{max} (K)	150.00	148.00	179.00
Total (K)	780.49	819.91	987.79
TRAIL - ROAD	11.945	10.220	11.515
f _{ax} (KSI)	16.125	19.280	17.541
VR (K)	133.05	—	159.74

	G1 & G6	G2 & G5	G3 & G4
4 Brg. Abut.	439.028	439.137	439.246
4 Brg. Pier	439.028	439.137	439.246
4 Splice A	439.044	439.153	439.262
4 Splice B	439.101	439.210	439.319

	Abut.	Pier
R _{DL} (K)	21.06	107.62
R _{SpL} (K)	14.14	60.79
T _{DL} (K)	44.30	65.80
T _{SpL} (K)	10.64	14.49
R _{TOTAL} (K)	35.20	248.64

* For Fabrication only



CAMBER DIAGRAM

DESIGNED W.H. WEINS
CHECKED E. CORNELLE
DRAWN M. CHITTELL
CHECKED W.H. WEINS

As Revised 9-12-77 L.W.

AS REVISED

Send to me the Manual for use of the Steel Section. It will be of great help to you.

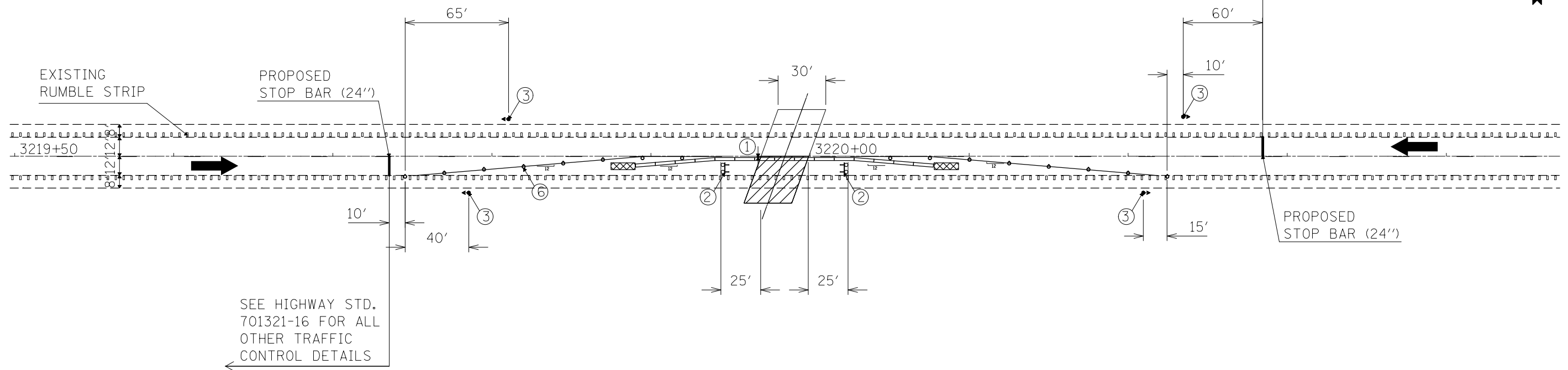
FOR YOUR INFORMATION ONLY

NOT TO SCALE

GENERAL NOTES

- ① THE TEMPORARY CONCRETE BARRIER SHALL BE PLACED SLIGHTLY BACK FROM THE LANE LINE TO ENSURE FULL VISIBILITY OF THE LANE LINE.
- ② TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- ③ THE EDGE OF THE POST MOUNTED SIGNAL HEAD SHALL BE BETWEEN 24" AND 6' FROM EDGE OF SHOULDER.
- ④ SEE HIGHWAY STD. 701321-16 TRAFFIC CONTROL DETAILS NOT SHOWN.
- ⑤ STAGING OF THE TAPERED TEMPORARY CONCRETE BARRIER AND DRUMS SHALL BE MIRRORED FOR THE WESTBOUND LANE CLOSURE.
- ⑥ DRUMS SHALL BE PLACED AT 25' CENTERS.

SEE HIGHWAY STD. 701321-16 FOR ALL OTHER TRAFFIC CONTROL DETAILS



SEE HIGHWAY STD. 701321-16 FOR ALL OTHER TRAFFIC CONTROL DETAILS

LEGEND

- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- WORK AREA
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TRAFFIC DIRECTION ARROW
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- SIGN
- TYPE III BARRICADE WITH FLASHING LIGHTS

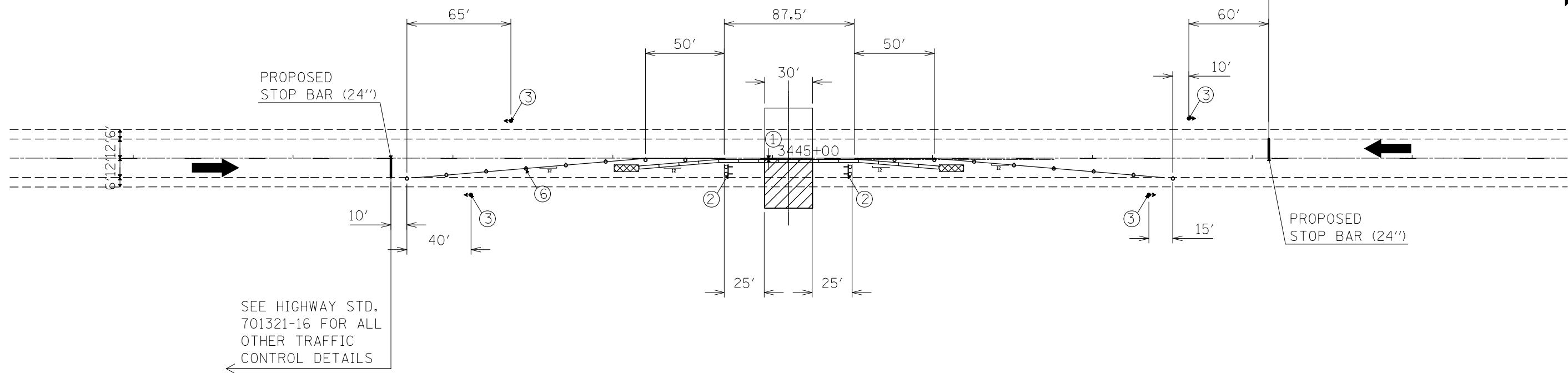
SN 014-0055
 US 50 AT FROGTOWN RD
 STA. 3219+70.17
 NOT TO SCALE

FILE NAME =	USER NAME = leej	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN SHEETS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\11084EBIDINTEG.illinois.gov\PIDOT\Documents\IDOT Offices\District 8\Projects\0876\Drawings\EA\Sheets\D876L38-sht-detai	PLotted	CHECKED -	REVISED -					327	14-14HB-BP-1	CLINTON	23	22
Default	PLOT SCALE = 100.0000' / 1in.	DATE -	REVISED -		SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.			CONTRACT NO. 76L38				
	PLOT DATE = 12/8/2017				ILLINOIS FED. AID PROJECT							

GENERAL NOTES

- ① THE TEMPORARY CONCRETE BARRIER SHALL BE PLACED SLIGHTLY BACK FROM THE LANE LINE TO ENSURE FULL VISIBILITY OF THE LANE LINE.
- ② TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
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SEE HIGHWAY STD. 701321-16 FOR ALL OTHER TRAFFIC CONTROL DETAILS



SEE HIGHWAY STD. 701321-16 FOR ALL OTHER TRAFFIC CONTROL DETAILS

LEGEND

- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- WORK AREA
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TRAFFIC DIRECTION ARROW
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- SIGN
- TYPE III BARRICADE WITH FLASHING LIGHTS

SN 014-0056
 US 50 AT FLAT BRANCH RD
 STA. 3445+15.64
 NOT TO SCALE

FILE NAME =	USER NAME = leej	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN SHEETS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Default	DATE -	REVISED -					327	14-14HB-BP-1	CLINTON	23	23
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -		SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.			CONTRACT NO. 76L38				
	PLOT DATE = 12/8/2017	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							