

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2HB-4)BP	BUREAU	14	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 66876		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS**

**PROPOSED  
HIGHWAY PLANS**

**FAI ROUTE 180 (I-180)  
SECTION (06-2HB-4)BP**

**BRIDGE PAINTING  
BUREAU COUNTY**

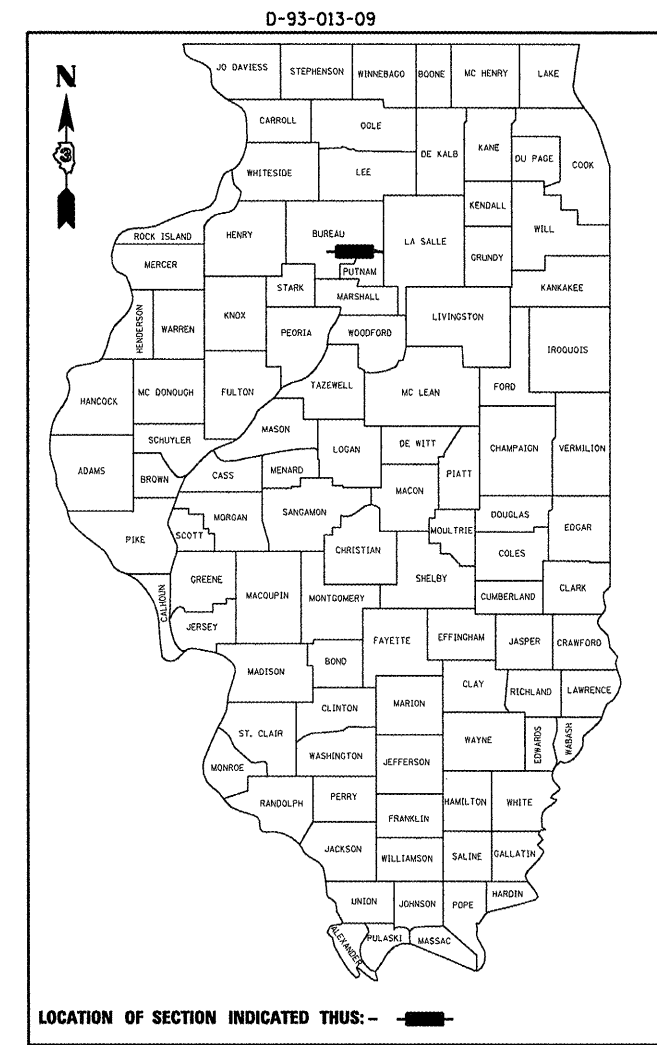
C-93-024-09

**STANDARDS**

1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTION
5. STAGE I TRAFFIC CONTROL
6. STAGE II TRAFFIC CONTROL
- 7 - 14. EXISTING STRUCTURE PLANS

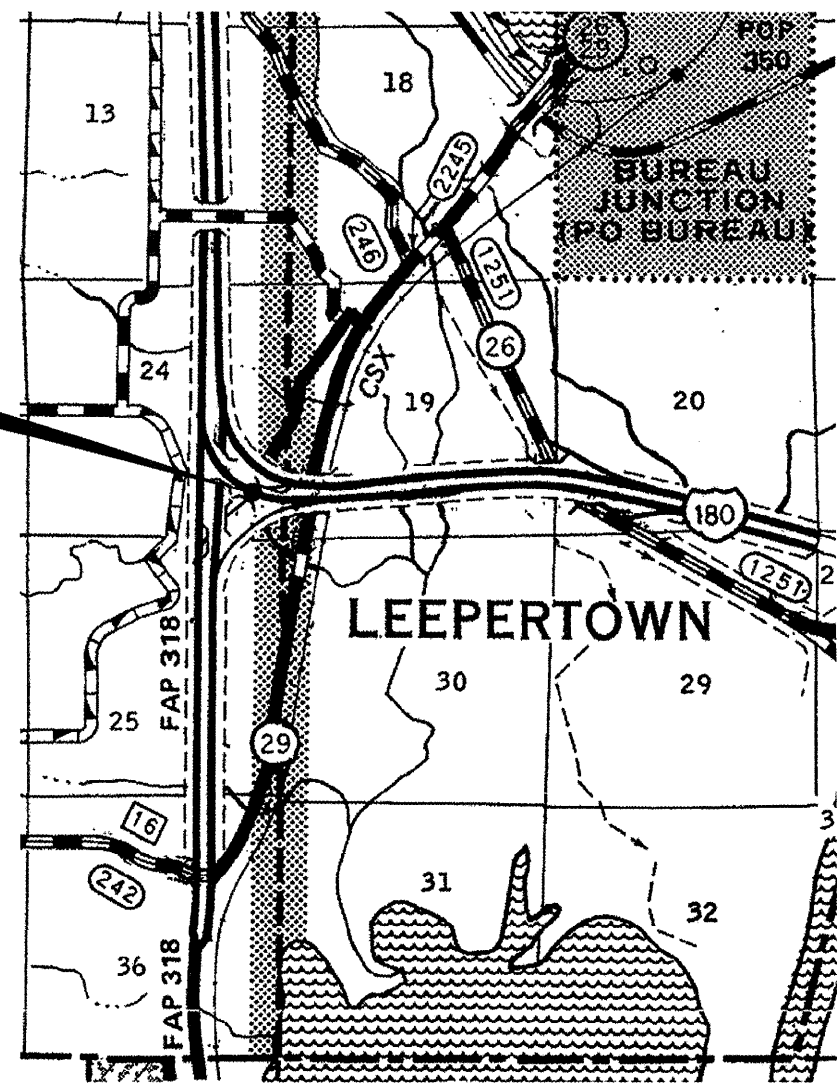
**STANDARDS**

- |           |   |
|-----------|---|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                                  |
| 701101-02 | OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE |
| 701106-02 | OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY                    |
| 701400-03 | APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY                                  |
| 701401-05 | LANE CLOSURE, FREEWAY/EXPRESSWAY  |
| 701402-07 | LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER                                |
| 701901-01 | TRAFFIC CONTROL DEVICES   |
| 704001-05 | TEMPORARY CONCRETE BARRIER  |



**FUNCTIONAL CLASSIFICATION**  
RURAL - INTERSTATE  
F.A.I. ROUTE 180 (I-180)  
2007 ADT = 2800  
P.V. = 75.9%    M.U. = 17.9%    S.U. = 6.2%

**PROJECT LOCATION**  
SN 006-0056  
FAI ROUTE 180 (ROADWAY "F")  
OVER FAI ROUTE 180 (ROADWAY "G")  
3.0 MILES WEST OF HENNEPIN



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

**PROJECT ENGINEER JOE KANNEL  
UNIT CHIEF RON WOODSHANK**

**CONTRACT NO. 66876**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED October 22, 08  
George F. Ryan  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 5, 20 08  
Eric E. Horn  
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

December 5, 20 08  
Christine M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED BASED UPON THE UNIT BID FOR THE WORK.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

THE CONTRACTOR SHALL BE REQUIRED TO SECURE WASTE CONTAINERS THAT REMAIN ON THE JOB SITE. THIS WILL ENTAIL THAT ALL WASTE CONTAINERS CAN NOT BE MOVED OR OPENED DURING NON-WORKING HOURS.

WORKING DAYS SHALL BE CHARGED UNTIL THE CONTRACTOR/ SUBCONTRACTOR LICENSED TO DISPOSE OF LEAD PAINT RESIDUE HAS REMOVED THE WASTE MATERIAL FROM THE JOB SITE ACCORDING TO ALL FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES.

THE CONTRACTOR SHALL PROVIDE A MINIMUM OF FOUR (4") AMBIENT AIR MONITORS FOR THIS PROJECT THAT SHALL BE USED ACCORDING TO THE SPECIAL PROVISION. FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES", AND AS DIRECTED BY THE ENGINEER.

THE SSPC QP-1 AND QP-2 CONTRACTOR CERTIFICATION WILL NOT BE REQUIRED FOR THIS CONTRACT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DISTRICT THREE

PREPARED BY: [Signature]  
DISTRICT STUDIES & PLANS ENGINEER

DATE: 10-22-08

EXAMINED BY: [Signature]  
DISTRICT CONSTRUCTION ENGINEER

[Signature]  
DISTRICT MATERIALS ENGINEER

[Signature]  
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED -
ct\pwwork\pwwork\WOODSHANKR1\dms50937	D366876 - SN 006-0256-details.dgn	DRAWN - RON WOODSHANK	REVISED -
	PLOT SCALE = 100.0000 / IN.	CHECKED -	REVISED -
	PLOT DATE = Oct 09, 2008 - 06:58:27 AM	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

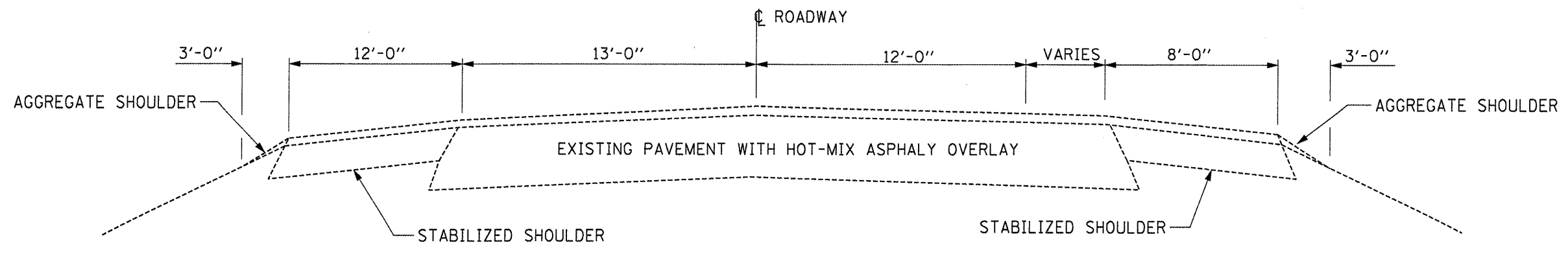
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2HB-4)BP	BUREAU	14	2
FED. ROAD DIST. NO. [ILLINOIS]			CONTRACT NO. 66876	

# SUMMARY OF QUANTITIES

CONSTRUCTION CODE: SFTY-2A

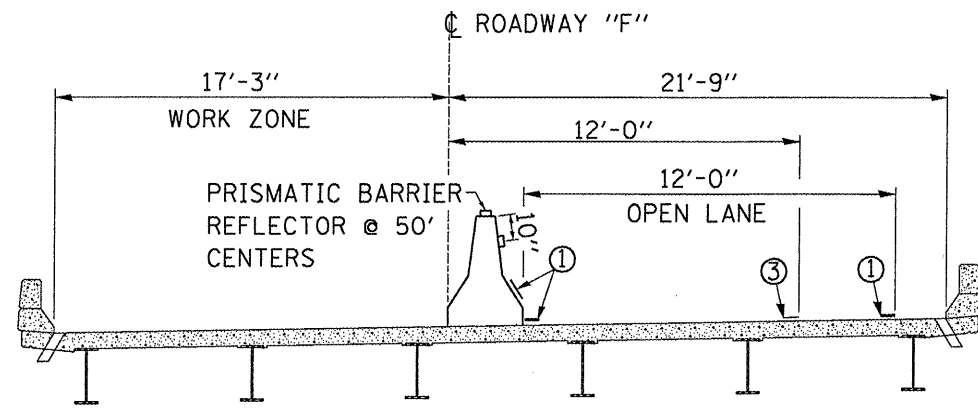
CODE NO.	ITEM	UNIT	RURAL 100% STATE TOTAL QUANTITY
50600300	CLEANING AND PAINTING STEEL BRIDGE	L SUM	1
50606400	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1
67100100	MOBILIZATION	L SUM	1
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	1
70101605	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	EACH	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	340
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	340
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1180
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	960
78300100	PAVEMENT MARKING REMOVAL	SQ FT	745
X5067500	BRIDGE CLEANING AND PAINTING WARRANTY	L SUM	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1

\* SPECIALTY ITEM



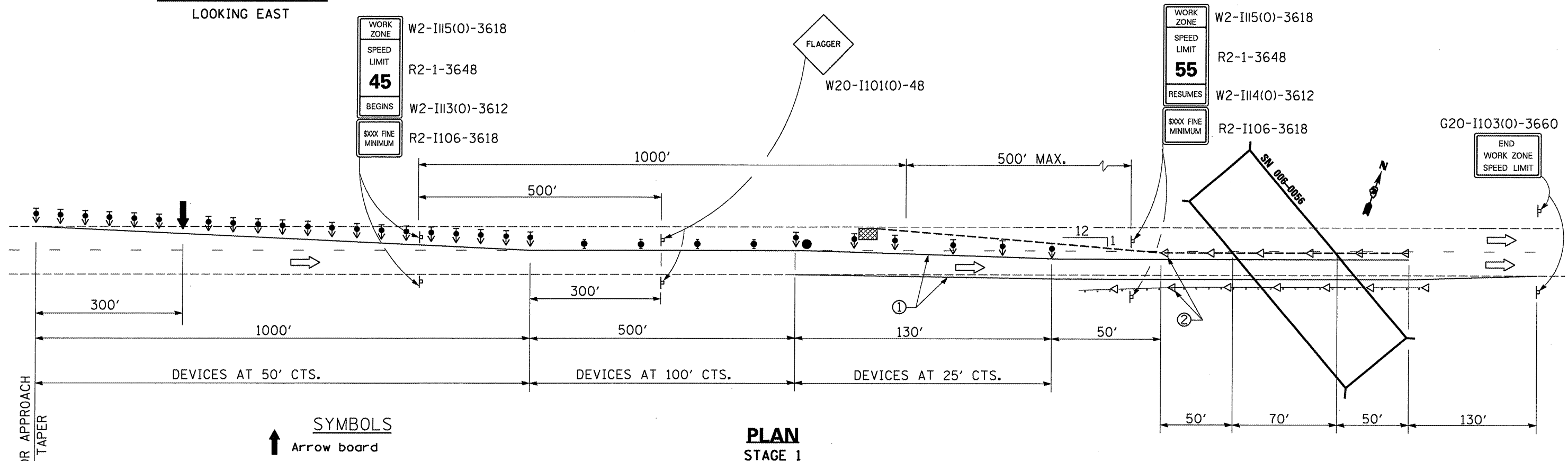
**TYPICAL SECTION**

FILE NAME = c:\pw\work\PWIDOT\WOODSHANKRL\dms50937	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTION</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D366876 - SN 006-0056-details.dgn	DRAWN - RON WOODSHANK	REVISED -			180	(06-2HB-4)BP	BUREAU	14	4
	PLOT SCALE = 1/8" = 100.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 66876				
	PLOT DATE = Oct 02, 2008 - 10:04:54 AM	DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS			
SCALE:		SHEET NO. 1 OF 1 SHEETS		STA. 652+25.70 TO STA. 654+59.25						



**CROSS SECTION**  
LOOKING EAST

- ① Temporary pavement marking tape shall be placed throughout the taper and along-side the work area. The right edge line shall be white and the left edge line shall be yellow.
- ② Barrier wall/guardrail markers at 7.6 m (25'). Markers on right shall be crystal and markers on left shall be amber.
- ③ Pavement Marking removal



**SYMBOLS**

- ↑ Arrow board
- ▨ Work area
- ⊥ Sign
- ⬆ Direction Indicator barricade with steady burn monodirectional light
- ⬇ Type II barricade, drum, or vertical barricade with steady burn monodirectional light
- Temporary concrete barrier
- ◁ Monodirectional barrier wall/guardrail marker
- ▨ Impact attenuator
- Flagger with traffic control sign

**PLAN**  
STAGE 1

**GENERAL NOTES**

This standard is used where at any time any vehicle, equipment, workers or their activities will encroach on the pavement or on the shoulder within 600 mm (24") of the edge of pavement for day light operation exceeding one day and where temporary concrete barrier is utilized.

This Standard must always be used in combination with Standard 701400.

When work is being performed in the left lane, the set up would be a mirror image to what is shown.

SEE STANDARD 701400 FOR APPROACH  
START OF LANE CLOSURE TAPER

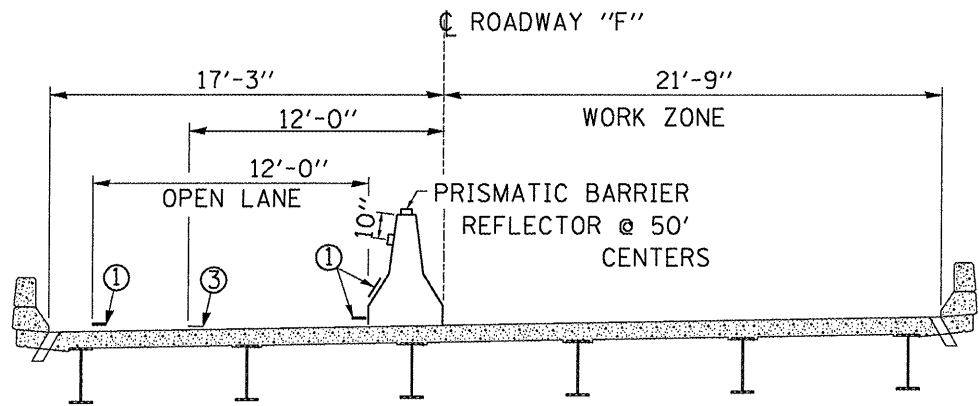
FILE NAME =	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED -
c:\pw\work\PWIDOT\WOODSHANKR\dma50937	D366876 - SN 006-0058-detail.dgn	DRAWN - RON WOODSHANK	REVISED -
	PLOT SCALE = 100.0000 / IN.	CHECKED -	REVISED -
	PLOT DATE = Oct 07, 2008 - 06:54:14 AM	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**STAGE I TRAFFIC CONTROL**

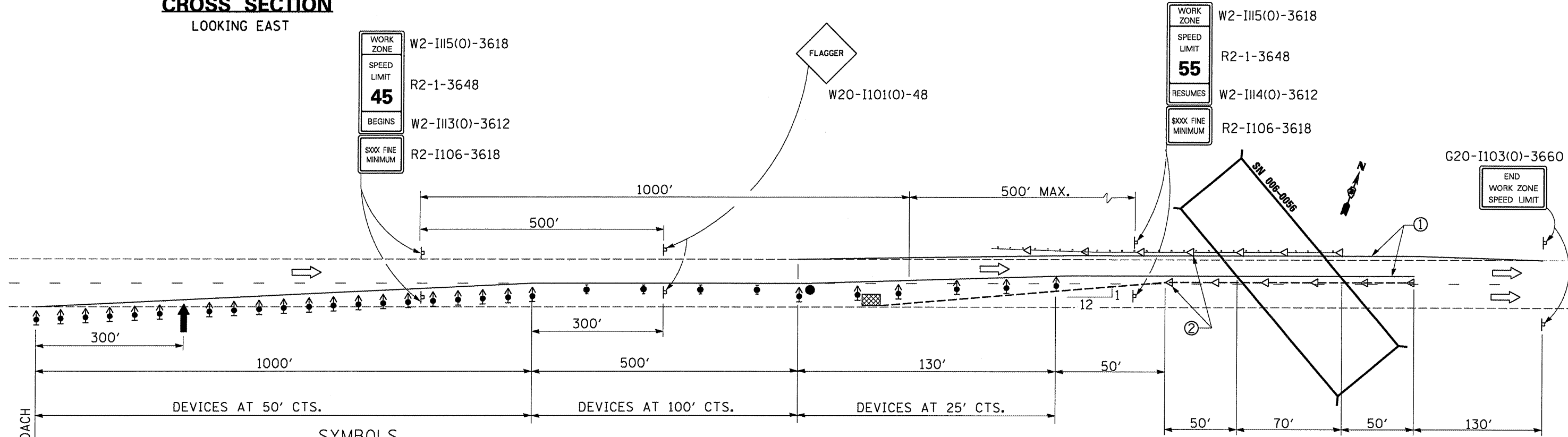
SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE. 180	SECTION (06-2HB-4)BP	COUNTY BUREAU	TOTAL SHEETS 14	SHEET NO. 5
FED. ROAD DIST. NO. ILLINOIS			CONTRACT NO. 66876	



**CROSS SECTION**  
LOOKING EAST

- ① Temporary pavement marking tape shall be placed throughout the taper and along-side the work area. The right edge line shall be white and the left edge line shall be yellow.
- ② Barrier wall/guardrail markers at 7.6 m (25'). Markers on right shall be shall be crystal and markers on left shall be amber.
- ③ Pavement Marking removal



SEE STANDARD 701400 FOR APPROACH START OF LANE CLOSURE TAPER

**SYMBOLS**

- ↑ Arrow board
- ▨ Work area
- ⊥ Sign
- ♣ Direction Indicator barricade with steady burn monodirectional light
- ⊕ Type II barricade, drum, or vertical barricade with steady burn monodirectional light
- Temporary concrete barrier
- ◁ Monodirectional barrier wall/guardrail marker
- ▣ Impact attenuator
- Flagger with traffic control sign

**PLAN**  
STAGE 1

**GENERAL NOTES**

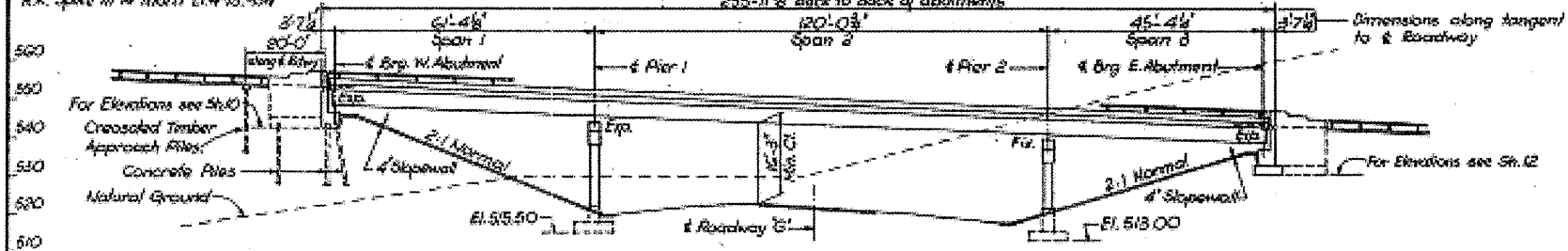
This standard is used where at any time any vehicle, equipment, workers or their activities will encroach on the pavement or on the shoulder within 600 mm (24") of the edge of pavement for day light operation exceeding one day and where temporary concrete barrier is utilized.

This Standard must always be used in combination with Standard 701400.

When work is being performed in the left lane, the set up would be a mirror image to what is shown.

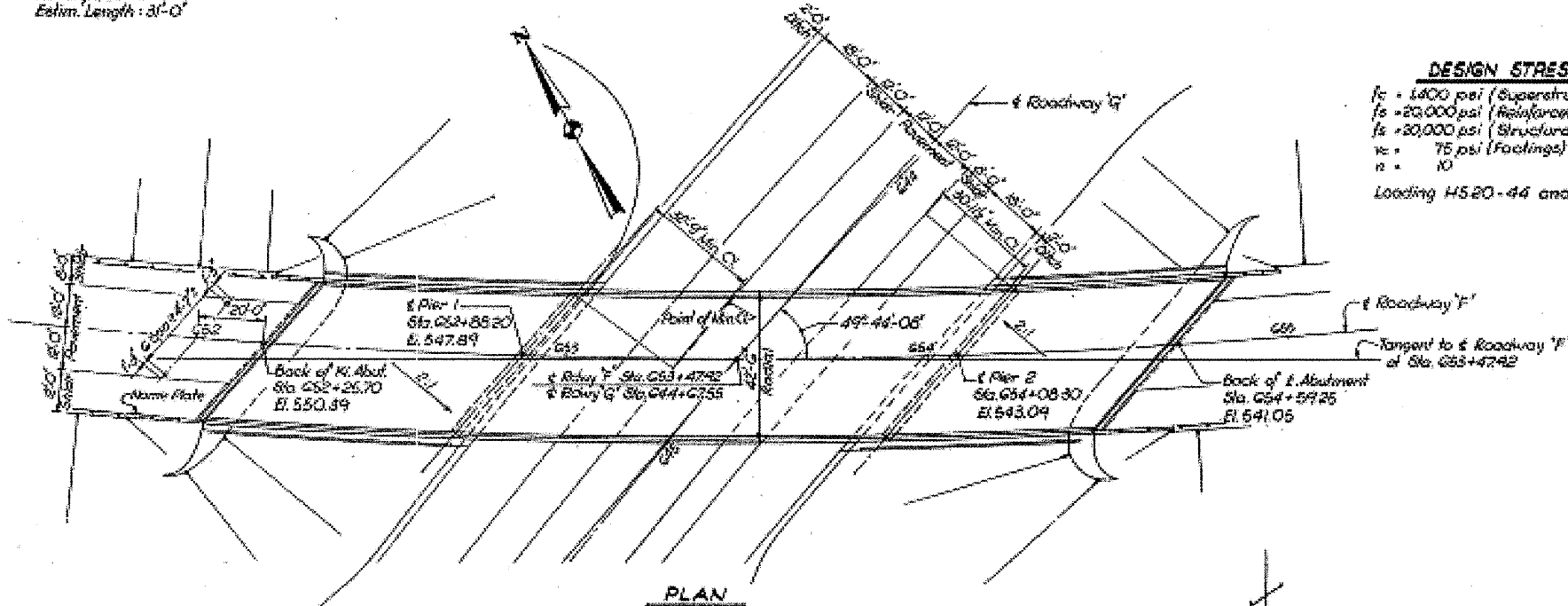
FILE NAME = c:\pwwork\pwwid01\WOODSHANKRL\dms90937	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>STAGE II TRAFFIC CONTROL</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0366876 - SN 006-0056-details.dgn	DRAWN - RON WOODSHANK	REVISED -			180	(06-2HB-4)BP	BUREAU	14	6
	PLOT SCALE = 1/8" = 100.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 66876				
	PLOT DATE = Oct 09, 2008 - 05:54:20 AM	DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS			

Branch Mark No. 88  
 250' Left Sta. 607+50 (Survey @ EA. I. 180)  
 R.R. Spike in W. Abutment El. 498.934



**APPROACH PILE DATA**

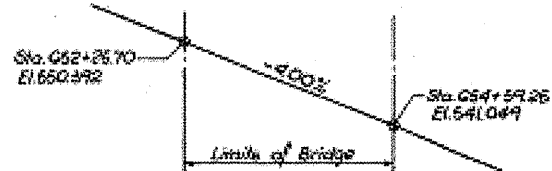
Type: Crossed Timber  
 No. Required: 7  
 Estim. Length: 31'-0"



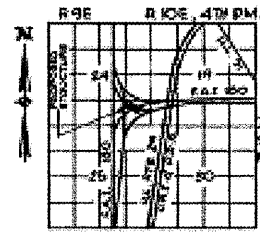
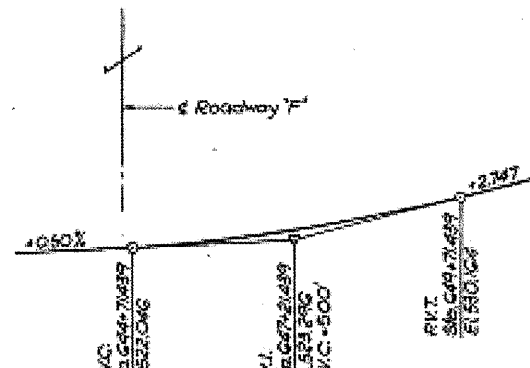
**HORIZONTAL CURVE DATA**

Roadway 'F'	Roadway 'G'
PI: 653+08.590	PI: 655+02.701
Δ: 91° 36' 27"	Δ: 89° 22' 23"
D: 3'-00'-00"	D: 3'-00'-00"
R: 1909.859'	R: 1909.859'
T: 1909.209'	T: 1909.076'
L: 3053.583'	L: 2979.102'
E: 629.790'	E: 770.483'
PC: 654+44.817	PC: 656+73.626
PT: 658+47.900	PT: 658+52.728

**PROFILE & ROADWAY 'F'**



**PROFILE & ROADWAY 'G'**



**LOCATION PLAN**

**DESIGN STRESSES**

$f_c = 1800$  psi (Superstructure & Substructure)  
 $f_s = 20,000$  psi (Reinforcement)  
 $f_s = 30,000$  psi (Structural Steel)  
 $w_c = 75$  psi (Footings)  
 $n = 10$   
 Loading HS20-44 and alternate

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. - 180	06-2HB-4	BUREAU	103	7
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I-180-7(43)	

**GENERAL NOTES**

Coarse aggregate to be used in parapet handrails and end post must be absolutely free of chert, flint, limestone, lignite and soft sandstone.

The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications.

Slope Wall shall be reinforced with welded wire fabric 6" x 6" mesh, weighing 50# per 100 Sq. Ft.

All reinforcement bars shall be lapped 20 diameters unless otherwise shown.

All structural steel shall conform to A.S.T.M. specifications Designation A-36.

Expansion guards shall be fabricated and erected in accordance with Article 51.13 (d) of the Standard Specifications.

The exposed surfaces of the expansion guard shall be given two shop coats of red lead paint, the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted.

Expansion guards are included in the quantity of Structural Steel. Estimated weight 2220 lbs.

Concrete piles at abutment shall be driven in holes precast through the embankment in accordance with Article 66.9 (c) of the Standard Specifications.

The Contractor shall drive one (1) test pile in a permanent location at each of the following locations: W. Abutment

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.

Except as otherwise provided, all Structural Steel shall receive one shop coat of first lead paint and two field coats of paint. See Special Provisions for Field Paint.

All cross reference sheet numbers shown on the bridge plans are the numbers located in the lower right hand corner of each sheet.

All welding shall conform to the Standard Specifications for Welded Highway and Railway Bridges of the American Welding Society, AWS E-30-GG.

All Field Connections Bolts, High Strength Steel Bolts 7/8" open holes 1 1/16" except as noted.

High Strength Steel Bolt Connections shall be in accordance with Article 54.2g of the Standard Specifications.

Anchor bolts shall be set before bolting diaphragms over supports.

Permanent forms will not be permitted in forming the concrete floor. Future Yf.B. 35#/Sq Ft.

**TOTAL BILL OF MATERIAL**

Item	Unit	Superstr.	Substr.	Total
Class 'A' Excavation for Structures	Cu. Yds	-	480	480
Class 'X' Concrete	Cu. Yds	2837	3305	6142
Protective Coat	Sq. Yds	1863	-	1863
Furnishing & Erecting Structural Steel	Lbs	387,280	-	387,280
Reinforcement Bars	Lbs	82,150	43,200	125,350
Furnishing Crossed Piles (20' x 36' 0")	Lin. Ft.	-	217	217
Driving Timber Piles	Lin. Ft.	-	217	217
Driving Concrete Piles	Lin. Ft.	-	392	392
Furnishing Concrete Piles	Lin. Ft.	-	392	392
Test Piles (Concrete)	Ea.	-	1	1
Name Plates	Ea.	-	1	1
Slope Wall Grout	Sq. Yds	-	772	772
Aluminum Handrail	Lin. Ft.	458	-	458
Bridge Seat Sealant*	Lump Sum	-	.84	.84

\* At Abutments only.

BRIDGE NO. 8

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

**GENERAL PLAN**

ROADWAY 'F' OVER ROADWAY 'G'

STATION 653+47.92

F. A. I. RT. 180 BUREAU COUNTY SECTION 06-2HB-4

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

BREEY  
 1 of 18

**FOR INFORMATION ONLY**

APPROVED

DESIGNED BY: A.T.  
 DRAWN BY: E.C.  
 CHECKED BY: A.T.  
 APPROVED BY: K.A.

Revision: In Total Bill of Material, Be-bar quantity is separate of total amount  
 from 77,350' & 120,350' to 82,150' & 129,650' respectively - 10/2/07

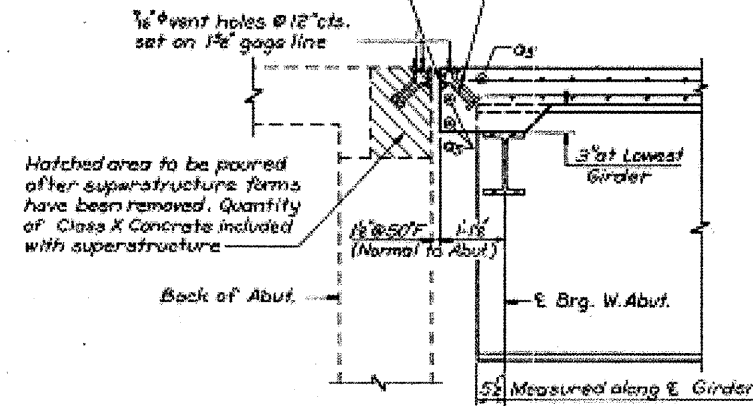




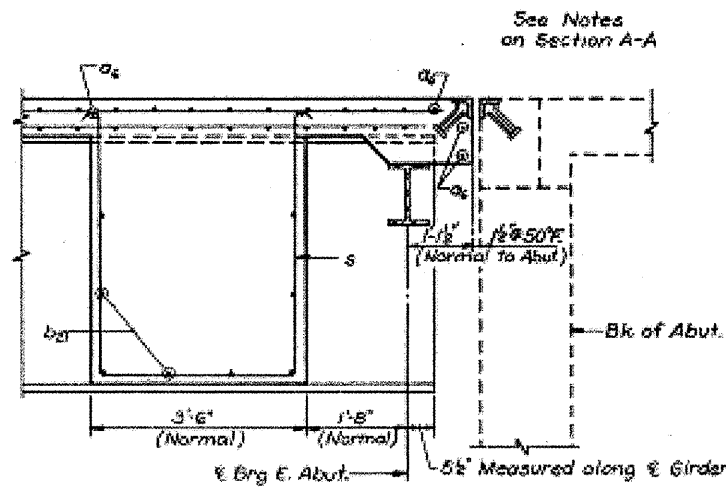


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. - 180	06-2HR-4	BUREAU	105	12
FED. ROAD DIST. NO. 4		ILLINOIS PROJECT		

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

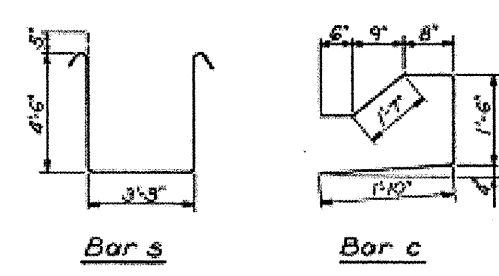
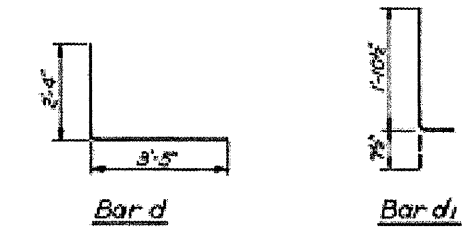


SECTION A-A



SECTION B-B

See Notes on Section A-A

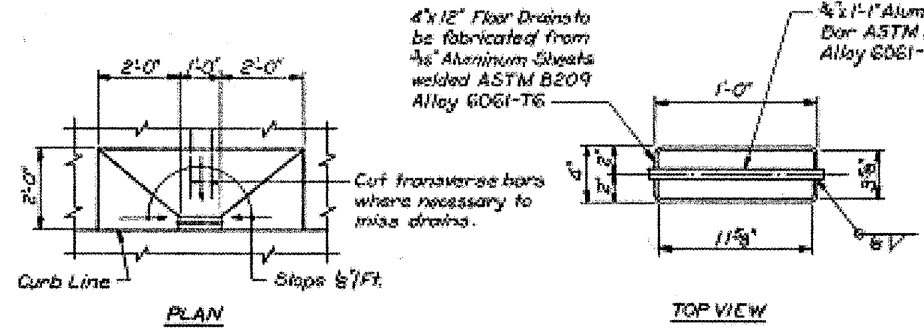


BILL OF MATERIAL

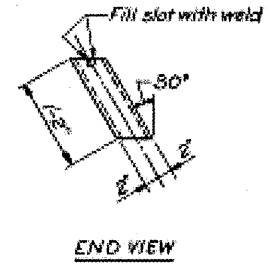
Bar No.	No.	Size	Length	Shape
4a1	315	#6	41'-11"	
4a2	315	#6	39'-11"	
4a3	47	#6	42'-5"	
4a4	60	#6	42'-3"	
4a5	6	#6	25'-11"	
4a6	10	#6	28'-7"	
4b	558	#5	39'-3"	
4b1	43	#6	41'-0"	
4b2	43	#6	45'-6"	
4b3	3	#6	40'-0"	
4b4	6	#6	20'-3"	
4b5	12	#6	11'-9"	
4b6	9	#6	32'-11"	
4b7	6	#6	23'-9"	
4b8	3	#6	24'-9"	
4b9	3	#6	39'-3"	
4b10	9	#6	32'-6"	
4b11	3	#6	24'-0"	
4b12	2	#5	40'-0"	
4b13	4	#5	20'-3"	
4b14	6	#5	11'-5"	
4b15	6	#5	32'-10"	
4b16	4	#5	23'-9"	
4b17	2	#5	24'-9"	
4b18	2	#5	39'-3"	
4b19	6	#5	32'-5"	
4b20	2	#5	24'-0"	
4b21	40	#5	9'-9"	
4c	368	#4	6'-1"	
4d	459	#6	5'-9"	L
4d1	459	#4	2'-6"	L
4s	35	#4	13'-1"	U

Item	Unit	Total
Reinforcement Bars	Lbs.	
Structural Steel	Lbs.	360,220
Class X Concrete	Cu. Yds.	283.7
Protective Coat	Sq. Yds.	1153

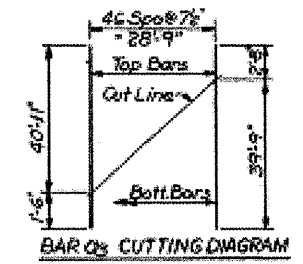
**\*NOTE X:**  
The first one or two Digits of the Bar Mark in the Bill of Material correspond to the Sheet Number. These Digits are omitted on the Drawing.



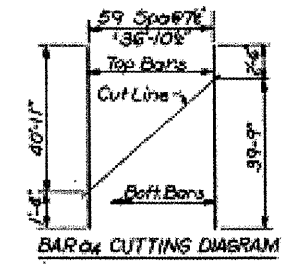
FLOOR DRAIN DETAIL  
(Cost incidental to Class X Concrete)



BAR SPACING DIAGRAM  
(For horizontally curved slab)

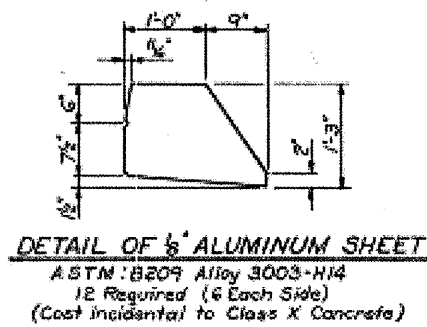


BAR d3 CUTTING DIAGRAM



BAR d4 CUTTING DIAGRAM

**NOTES:**  
Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel. Est. Wt. 9050 lbs.  
The lengths and quantities of longitudinal reinforcement in parapet are not included in above quantities. See Sh. 5.



DETAIL OF 1/2 ALUMINUM SHEET  
ASTM: B209 Alloy 3003-H14  
12 Required (6 Each Side)  
(Cost incidental to Class X Concrete)

DESIGNED BY: R.W.  
DRAWN BY: J.S.  
CHECKED BY: B.A.  
APPROVED BY: R.A.

Revision: 4c-bar quantity changed from 75,480 to 85,580 10-2-67

APPROVED  
FOR STRUCTURAL PURPOSES ONLY  
C. E. HANCOCK  
REGISTERED PROFESSIONAL ENGINEER  
NO. 2-267  
DIVISION OF STRUCTURAL ENGINEERING

# FOR INFORMATION ONLY

BRIDGE NO. 8

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

SUPERSTRUCTURE DETAILS  
ROADWAY "F" OVER ROADWAY "G"

STATION 655+47.92

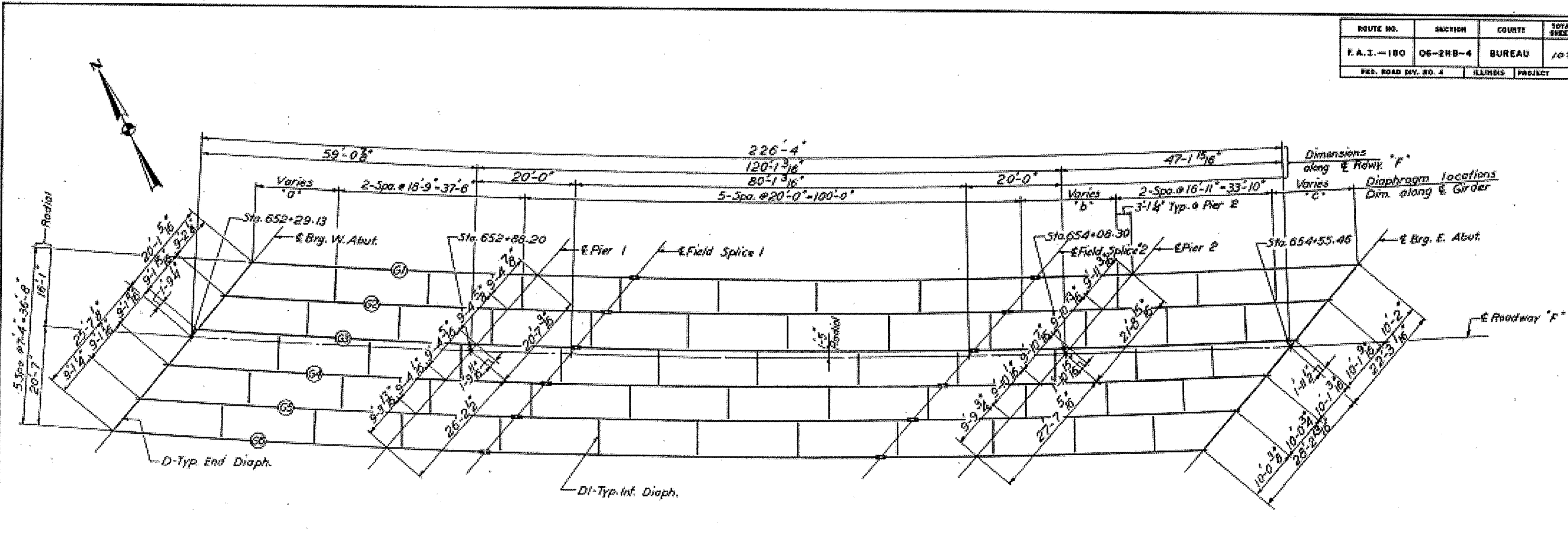
F. A. I. RT. 180 BUREAU COUNTY SECTION 06-2HR-4

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

SHEET  
4 OF 18



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 180	06-2HB-4	BUREAU	108	17
FED. ROAD DIST. NO. 4		ILLINOIS	PROJECT	



**FRAMING PLAN**

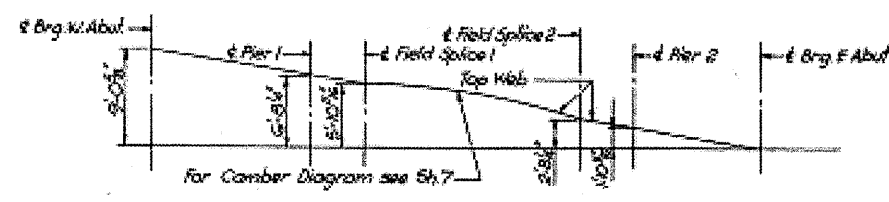
**TOP OF GIRDER WEB ELEVATIONS FOR FABRICATION**  
(Deflection not included)

Girder	# Brig. W. Abut.	Pier 1	E. Field Splice 1	E. Field Splice 2	Pier 2	# Brig. E. Abut.
G1	547.47	545.11	544.31	541.11	540.30	538.42
G2	548.31	545.85	545.15	541.95	541.15	539.26
G3	549.15	545.79	545.99	542.79	541.99	540.10
G4	549.99	547.63	546.83	543.63	542.83	540.94
G5	550.83	548.48	547.67	544.47	543.67	541.78
G6	551.67	549.30	548.51	545.31	544.52	542.62

GIRDER RADII	
G1	1893.776
G2	1901.109
G3	1908.442
G4	1915.775
G5	1923.108
G6	1930.441

TABLE OF MOMENTS AND REACTIONS INT. GIRDERS										
		Moments (Ft. Kips)					Reactions (Kips)			
		Span 1	Span 2	Span 3	Pier 1	Pier 2	W. Abut.	Pier 1	Pier 2	E. Abut.
PRIMARY LOADING	Dead Load	95	1045	50	1310	1290	16.4	136.9	134.0	Et. 1
	Live Load	381	755	267	625	637	38.3	63.8	64.8	36.5
	Impact	104	155	78	145	153	10.4	14.9	15.5	10.6
	Total	580	1955	295	2080	2080	65.1	215.6	214.3	68.2
	Required S.M. (in) <sup>3</sup>	376	1359	183	1423	1423				
TORQUE LOADING	Dead Load	0.49	7.50	-0.26	7.94	7.81				
	Live Load	1.97	5.40	1.34	3.79	3.86				
	Impact	0.54	1.10	0.39	0.87	0.93				
	Total	3.00	14.0	1.47	12.60	12.60				
	Required S.M. (in) <sup>3</sup>	24.50	61.25	24.50	61.25	61.25				
S.M. Furnished Torque	Primary	644	1395	644	1395	1395				
		24.50	61.25	24.50	61.25	61.25				

DIMENSIONS a, b, & c.			
Girder	"a"	"b"	"c"
G1	18'-9 1/4"	20'-10 1/8"	16'-9 5/16"
G2	18'-7 9/16"	20'-5 15/16"	16'-7 3/8"
G3	18'-5 7/8"	20'-2"	16'-5 1/2"
G4	18'-4 5/8"	19'-10"	16'-3 5/8"
G5	18'-2 3/4"	19'-6 1/8"	16'-1 1/8"



Note: All girders shall be fabricated to their respective radii shown on table above.

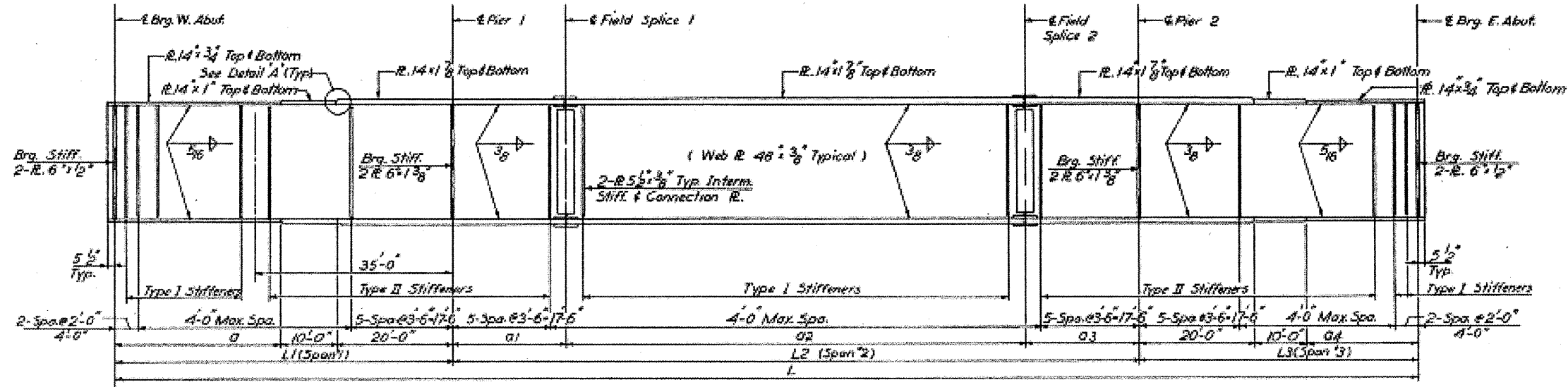
**APPROVED**  
FOR INFORMATION, APPROVAL ONLY  
*[Signature]*  
DATE: 10-2-07

BRIDGE NO. 8  
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BLDGS.  
DIVISION OF HIGHWAYS  
**FRAMING PLAN**  
ROADWAY "F" OVER ROADWAY "G"  
STATION 652+47.82  
F.A.I. RT. 180 BUREAU COUNTY SECTION 06-2HB-4  
H. W. LOCHNER, INC.  
ENGINEERS  
CHICAGO, ILLINOIS

SHEET NO. 11  
OF 18

**FOR INFORMATION ONLY**

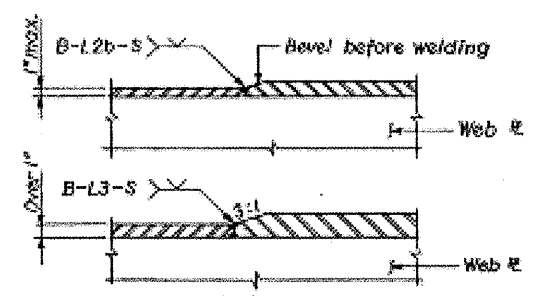
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. - 180	06-2HB-4	BUREAU	103	15
FED. ROAD DIST. NO. 4		ILLINOIS	PROJECT	



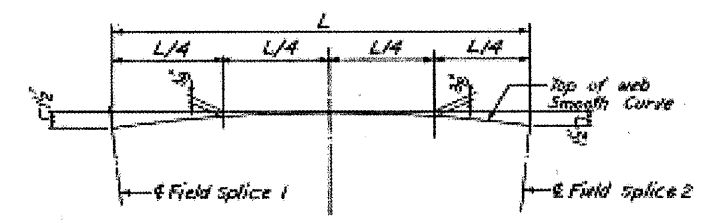
GIRDER SCHEDULE

Girder	L	L1	L2	L3	O	O1	O2	O3	O4
G1	227-8 1/2	59-4 1/2	120-10 1/2	47-6 1/2	29-4 1/2	20-1 1/2	80-7 1/2	20-1 1/2	17-0 1/2
G2	221-0 1/2	59-2 1/2	120-5 1/2	47-4 1/2	29-2 1/2	20-0 1/2	80-4 1/2	20-0 1/2	17-4 1/2
G3	226-5 1/2	59-1 1/2	120-1 1/2	47-2 1/2	29-1 1/2	20-0 1/2	80-1 1/2	20-0 1/2	17-2 1/2
G4	225-9 1/2	58-11 1/2	119-10 1/2	47-0 1/2	28-11 1/2	19-11 1/2	79-11 1/2	19-11 1/2	17-0 1/2
G5	225-2 1/2	58-10 1/2	119-5 1/2	46-10 1/2	28-10 1/2	19-10 1/2	79-8 1/2	19-10 1/2	16-10 1/2
G6	224-7 1/2	58-8 1/2	119-2 1/2	46-8 1/2	28-8 1/2	19-8 1/2	79-5 1/2	19-10 1/2	16-8 1/2

GIRDER ELEVATION

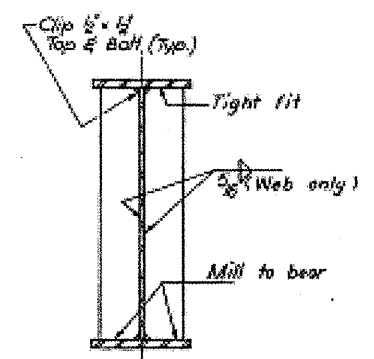


DETAIL 'A'  
 (Showing thickness transition)  
 Note: All welding shall conform to A.W.S. (D2.0-66)

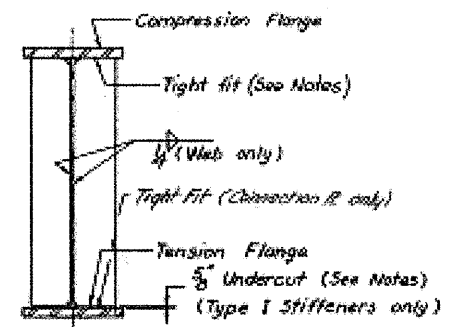


CAMBERING DIAGRAM

For Fabrication of Structural Steel,  
 Includes allowance for Deflection due  
 to weight of concrete.



BEARING STIFFENERS



INTERMEDIATE STIFFENERS  
 & CONNECTION PLATES

Notes:  
 Type I Stiffeners shall fit tight at the top flange  
 and be undercut 5/8 at the bottom flange.  
 Type II Stiffeners shall fit tight at the bottom flange  
 and be undercut 5/8 at the top flange.  
 All bearing Stiffener Plates shall be Vertical

APPROVED  
 FOR STRUCTURAL ACCURACY ONLY  
 [Signature]  
 10-2-07  
 District Engineer of Bridge & Traffic Structures

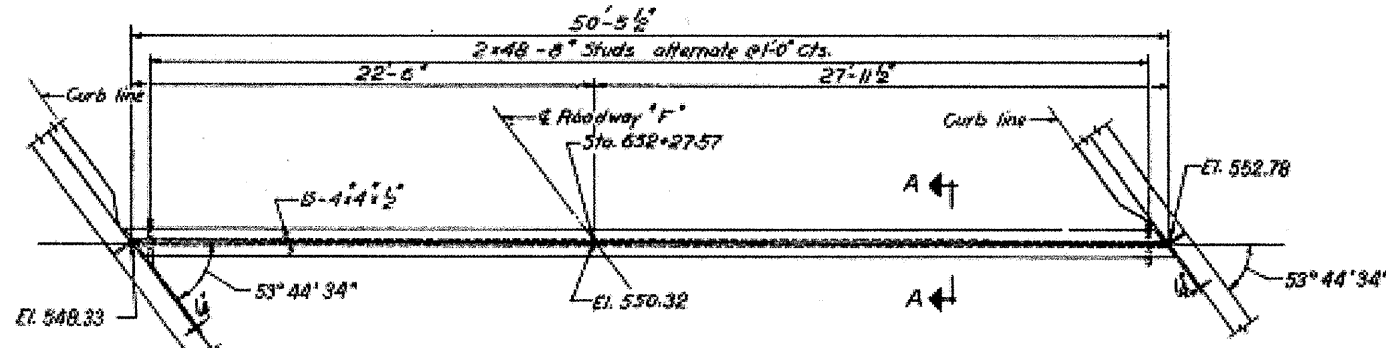
BRIDGE NO. 8  
 STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
 GIRDER DETAILS  
 ROADWAY "F" OVER ROADWAY "G"  
 STATION 655+47.92  
 F. A. I. RT. 180 BUREAU COUNTY SECTION 06-2HB-4  
 H. W. LOCHNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS  
 SHEET NO. 7 OF 18

FOR INFORMATION ONLY

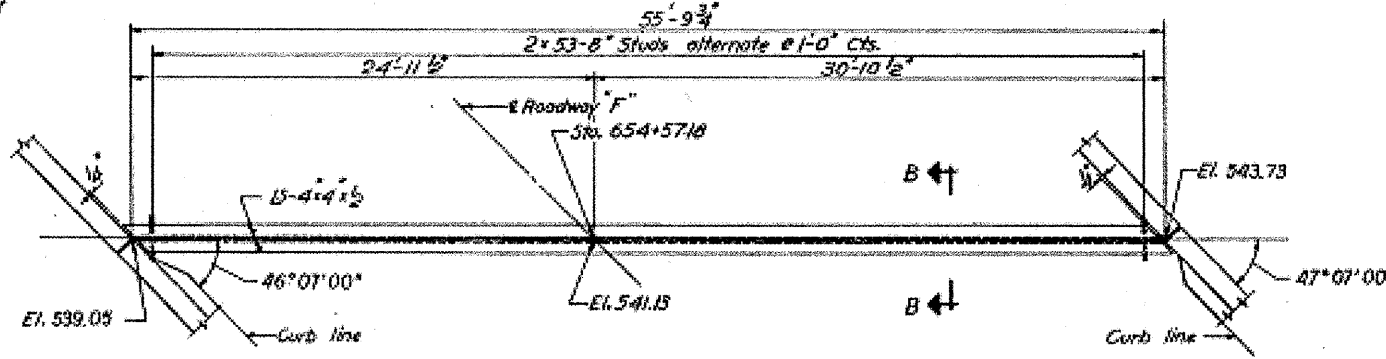
DESIGNED BY: P.K.  
 DRAWN BY: J.J.  
 CHECKED BY: B.B.  
 APPROVED BY: K.A.



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. - 180	06-2NB-4	BUREAU	108	16
FED. ROAD DIST. NO. 4		ILLINOIS	PROJECT	

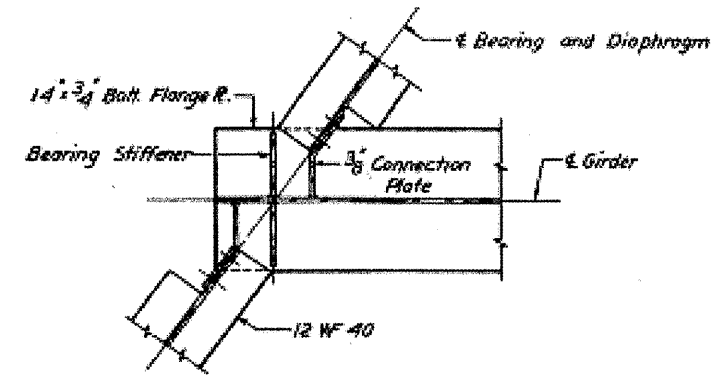


PLAN WEST ABUT.

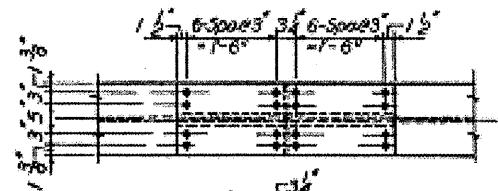


PLAN EAST ABUT.

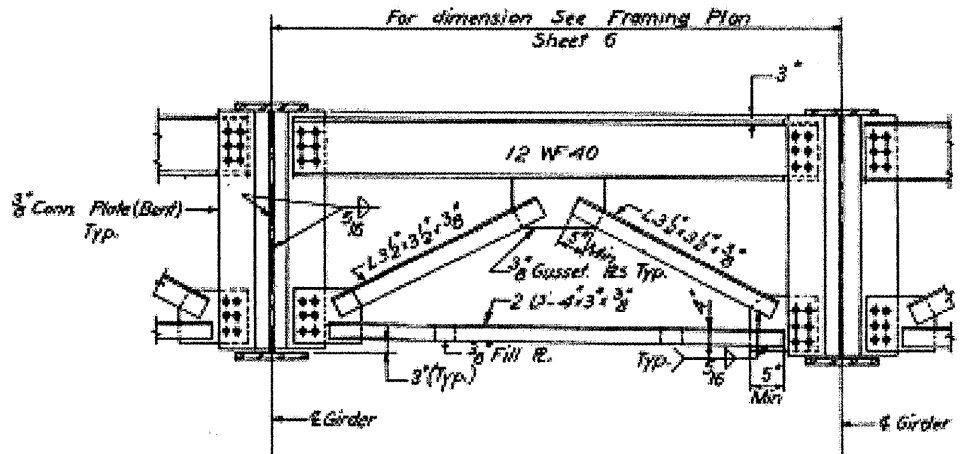
EXPANSION DEVICES



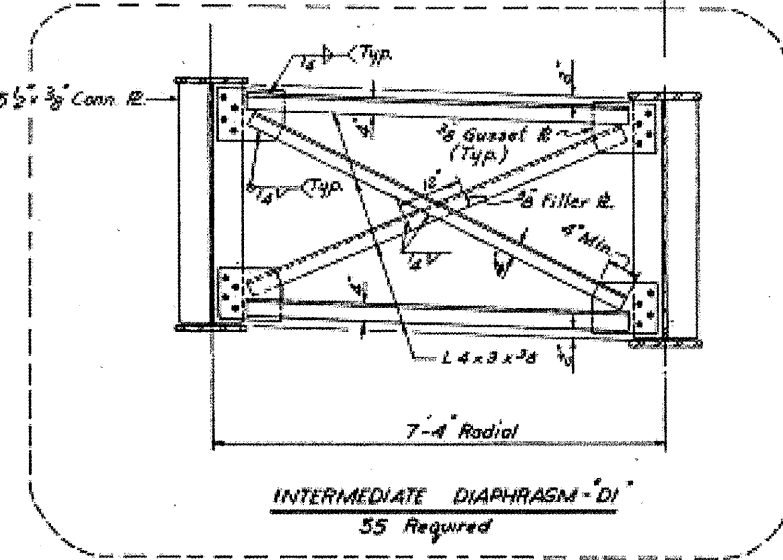
DETAIL AT END DIAPHRAGM



FIELD SPICE DETAIL



END DIAPHRAGM 'D'



INTERMEDIATE DIAPHRAGM 'DI'

Note:  
 Rivet Spacing in Flange Splices to be increased as required where stiffener occurs.  
 3/4" R.S. Bolts in all web splices.  
 7/8" R.S. Bolts in all Flange splices.  
 For Sections A-A & B-B see Sheet 4

BRIDGE NO. 8  
 STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BLDGS.  
 DIVISION OF HIGHWAYS  
 STEEL DETAILS  
 ROADWAY "F" OVER ROADWAY "G"  
 STATION 652+47.92  
 F. A. I. RT. 180 BUREAU COUNTY SECTION 06-2NB-4  
 H. W. LOCKNER, INC.  
 ENGINEERS  
 CHICAGO, ILLINOIS  
 SHEET NO. 13  
 SA 18

**FOR INFORMATION ONLY**

DESIGNED BY: R.X.  
 DRAWN BY: R.A.  
 CHECKED BY: R.B.  
 APPROVED BY: K.A.

Revision 11-2-67 A.J.C.

