

06-15-12 LETTING ITEM 012

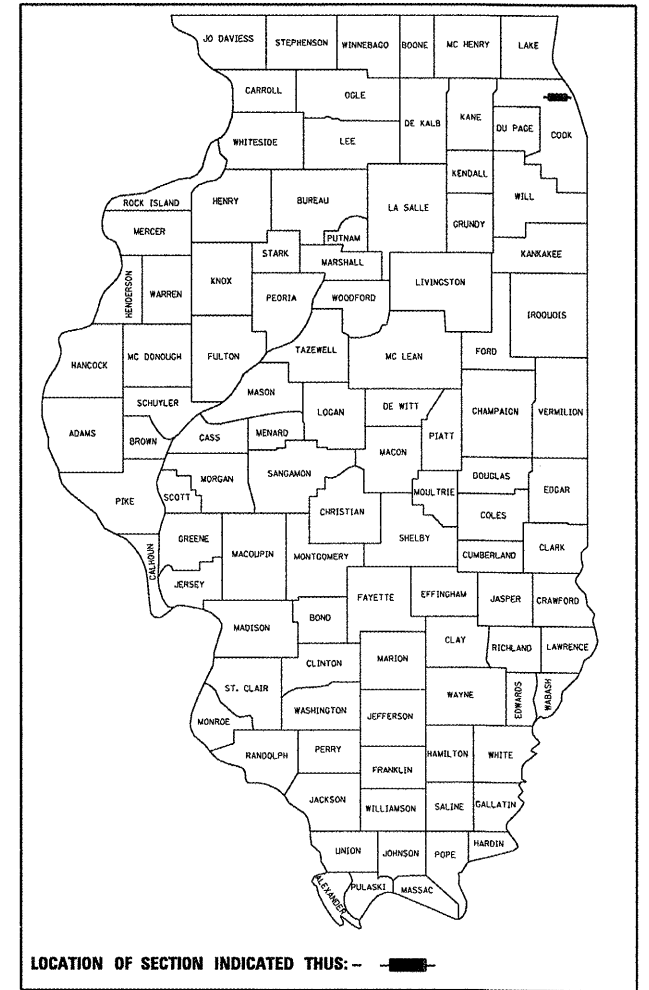
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAI 90/94 (DAN RYAN EXPRESSWAY)
SECTION 2011-057-BP
CANAL STREET TO 28TH STREET
BRIDGE PAINTING
COOK COUNTY
PROJECT: IM-0005 (892)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2011-057-BP	COOK	98	1
		ILLINOIS	CONTRACT NO. 60P73	

D-91-609-11

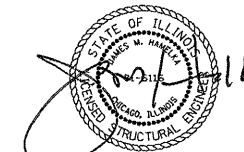
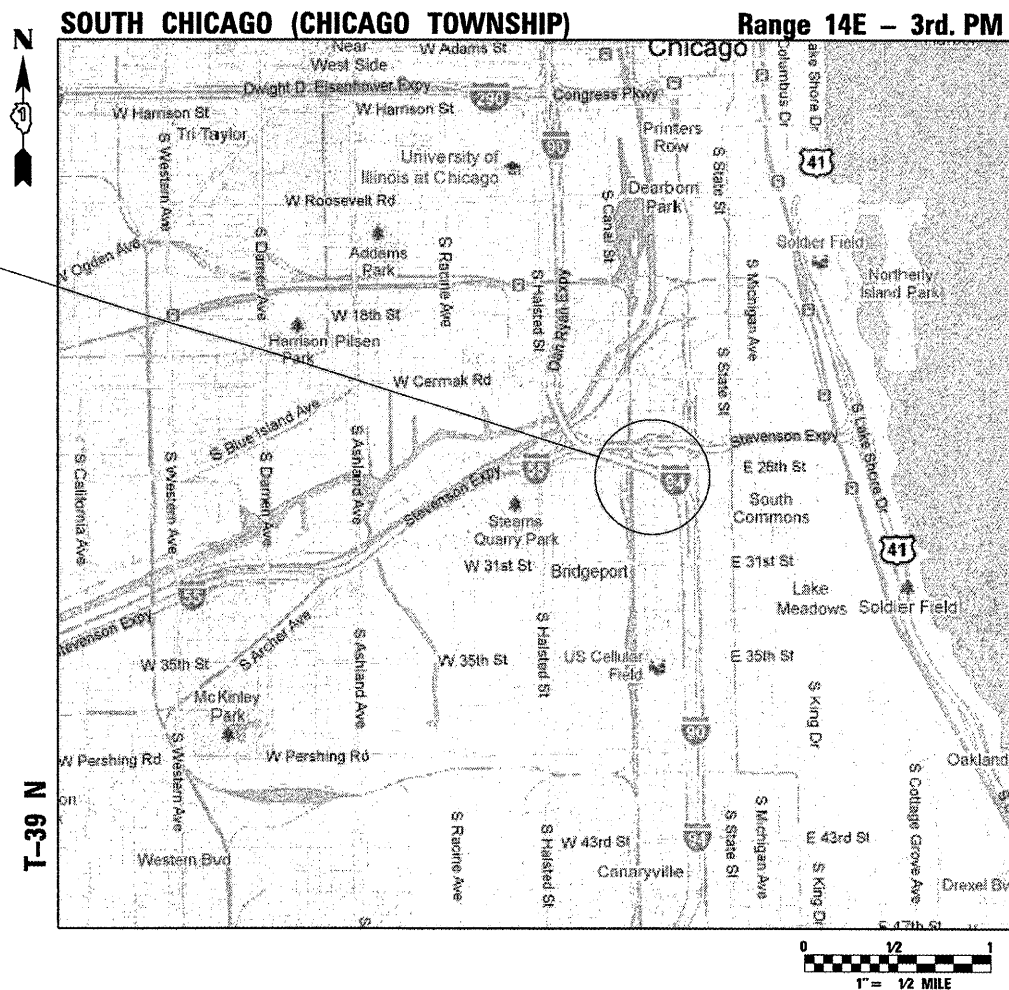


FOR INDEX OF SHEETS, SEE SHEET NO. 2

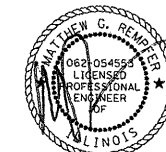
IMPROVEMENT LOCATED IN THE CITY OF CHICAGO

C-91-609-11

IMPROVEMENT LOCATION I-90/94 (DAN RYAN EXPY.) FROM CANAL ST. TO 28TH ST. VARIOUS STRUCTURES



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 81-6116
EXPIRES 11-30-2012



COLLINS ENGINEERS, INC.
MATTHEW G. REMPPER
NO. 062-054553
EXPIRES 11-30-2013

COLLINS ENGINEERS
123 N. WACKER DR., SUITE 900
CHICAGO, IL 60606
(312) 704-9300

ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED APRIL 3 20 12
Diane O'Keefe /ASQ
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11 20 12
John D. Baramelli, P.E. /br
ENGINEER OF DESIGN AND ENVIRONMENT

May 11 20 12
William R. Frey /br
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

C.U.A.N.
(312) 744-7000

PROJECT MANAGER: MR. ISSAM RAYYAN, P.E. (847) 705-4178
PROJECT ENGINEER: MR. ROBERT T. BORO, P.E. (847) 705-4237

CONTRACT NO. 60P73

INDEX OF SHEETS

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2	INDEX OF SHEETS AND STATE STANDARDS
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701101-02	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-06	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701400-05	FREEWAY/EXPRESSWAY, APPROACH TO LANE CLOSURE
701401-06	FREEWAY/EXPRESSWAY, LANE CLOSURE
701411-08	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45 MPH
701446-03	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701601-07	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-08	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701801-05	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-02	TRAFFIC CONTROL DEVICES

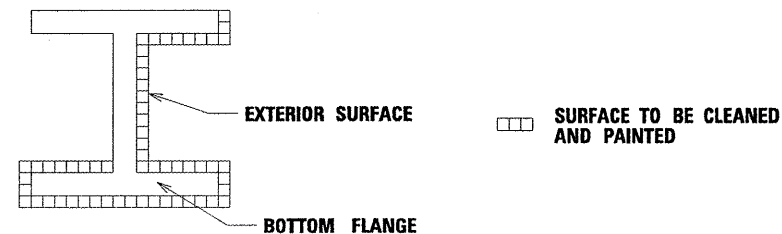
SHEET NO.	FILE NAME :	USER NAME : aroad	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS AND STATE STANDARDS		F.A.I. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		PLOT SCALE = 2.0000" / IN.	DRAWN - AMR	REVISED -		90/94	2011-057-BP	COOK	98	2			
		PLOT DATE = 3/29/2012	CHECKED - JMH	REVISED -		SCALE: NTS		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60P73		
			DATE - MARCH, 2012	REVISED -		ILLINOIS FED. AID PROJECT							

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION IN THE CITY OF CHICAGO, THE CONTRACTOR SHALL CALL "C.U.A.N." AT 312) 744-7000 OR FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES FOR THE CITY OF CHICAGO.
3. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS & CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND BEFORE ORDERING OF MATERIALS.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 FOR ARTERIALS OR (847) 705-4151 FOR EXPRESSWAYS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
7. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
8. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT, PRESERVE, AND MAINTAIN THE EXISTING BRIDGE LIGHTING AT ANY LOCATIONS THAT LIGHTING IS ENCOUNTERED ADJACENT TO AN AREA TO BE CLEANED AND PAINTED.
10. THE "ARTERIAL ROAD INFORMATION SIGN (TC-22)" IS APPLICABLE ONLY TO ARTERIAL ROADS AND SHALL NOT BE APPLIED TO EXPRESSWAYS.
11. ALL BRIDGE PLAN SHEETS EXCERPTED FROM EXISTING PLANS. INFORMATION THAT DOES NOT PERTAIN TO THIS CONTRACT (E.G. STEEL REPAIRS, MEMBER REPLACEMENT) MAY BE SHOWN ON THE EXISTING PLAN SHEETS.
12. THE CONTRACTOR IS REQUIRED TO PERFORM NECESSARY WORK CONCURRENTLY AT TWO RAMPS WHEN THE CTA LINE IS SHUT DOWN AT A GIVEN TIME TO MINIMIZE DISRUPTION TO CTA.

GENERAL NOTES FOR PAINT

1. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES".
2. A MINIMUM OF SEVEN (7) AIR MONITORS WILL BE REQUIRED THROUGHOUT THE PROJECT LOCATIONS, TO MONITOR ABRASIVE BLASTING OPERATIONS FOR ALL STRUCTURES. SEE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUE." SEE LOCATION MAP FOR POTENTIAL LOCATIONS.
3. THE AREAS DESIGNATED SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 AND 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.
4. ALL ITEMS (SUCH AS, BUT NOT LIMITED TO: CONDUITS, BRACKETS AND DECK DRAINS) ATTACHED TO THE OUTSIDE OF THE FASCIA BEAMS SHALL BE CLEANED AND PAINTED.
5. LOCATION 1 (016-1116):
 - ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL WITHIN FIVE (5) FT. (MEASURED ALONG THE BEAM) OF EITHER SIDE OF THE EXPANSION JOINTS AT PIERS 26, 1, AND 2, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL WITHIN FIVE (5) FT. (MEASURED ALONG THE BEAM) OF THE WEST SIDE OF THE EXPANSION JOINT AT PIER 3 SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - THE EXTERIOR SURFACES AND TOP AND BOTTOM OF THE BOTTOM FLANGE OF THE FASCIA BEAMS (SEE FIGURE 1) SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - PIER 2 IS A STEEL PIER. FROM GROUND TO DECK, PLUS FIVE (5) FT. OF STEEL EITHER SIDE OF PIER 2, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - AT PIER 2, ALL STEEL WITHIN FIVE (5) FT. OF THE THREE (3) ACCESS DOORS AND THE INSIDE OF THE ACCESS DOORS SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - AFTER THE PAINTING OF PIER 2 IS COMPLETE, "016-1116" AND "PIER 2" SHOULD BE STENCILED ON TWO FACES OF THE END COLUMNS.
6. LOCATION 2 (016-1117):
 - ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL WITHIN FIVE (5) FT. (MEASURED ALONG THE BEAM) OF EITHER SIDE OF ALL EXPANSION JOINTS, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - THE EXTERIOR SURFACES AND TOP AND BOTTOM OF THE BOTTOM FLANGE OF THE FASCIA BEAMS (SEE FIGURE 1) SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - PIERS 1 THROUGH 7 AND 19 THROUGH 23 ARE STEEL PIERS. ALL STEEL PIERS FROM GROUND TO DECK, PLUS FIVE (5) FT. OF STEEL EITHER SIDE OF EACH STEEL PIER, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - AFTER PAINTING IS COMPLETE, "016-1117" AND "PIER #" SHOULD BE STENCILED ON TWO FACES OF THE END COLUMNS OF THE STEEL PIERS.
7. LOCATIONS 3 (016-1118):
 - ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL WITHIN FIVE (5) FT. (MEASURED ALONG THE BEAM) OF EITHER SIDE OF ALL EXPANSION JOINTS, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - THE EXTERIOR SURFACES AND TOP AND BOTTOM OF THE BOTTOM FLANGE OF THE FASCIA BEAMS (SEE FIGURE 1) SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - PIERS H1 THROUGH H4 ARE STEEL PIERS. ALL STEEL PIERS FROM GROUND TO DECK, PLUS FIVE (5) FT. OF STEEL EITHER SIDE OF EACH STEEL PIER, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - AFTER PAINTING IS COMPLETE, "016-1118" AND "PIER #" SHOULD BE STENCILED ON TWO FACES OF THE END COLUMNS OF THE STEEL PIERS.
8. LOCATION 4 (016-1067):
 - ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL WITHIN FIVE (5) FT. (MEASURED ALONG THE BEAM) OF EITHER SIDE OF ALL EXPANSION JOINTS, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - THE EXTERIOR SURFACES AND TOP AND BOTTOM OF THE BOTTOM FLANGE OF THE FASCIA BEAMS (SEE FIGURE 1) SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - PIERS A4 AND A5 ARE STEEL PIERS. ALL STEEL PIERS FROM GROUND TO DECK, PLUS FIVE (5) FT. OF STEEL EITHER SIDE OF EACH STEEL PIER, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.
 - AFTER PAINTING IS COMPLETE, "016-1067" AND "PIER #" SHOULD BE STENCILED ON TWO FACES OF THE END COLUMNS OF THE STEEL PIERS.



FASCIA BEAM PAINTING DETAIL

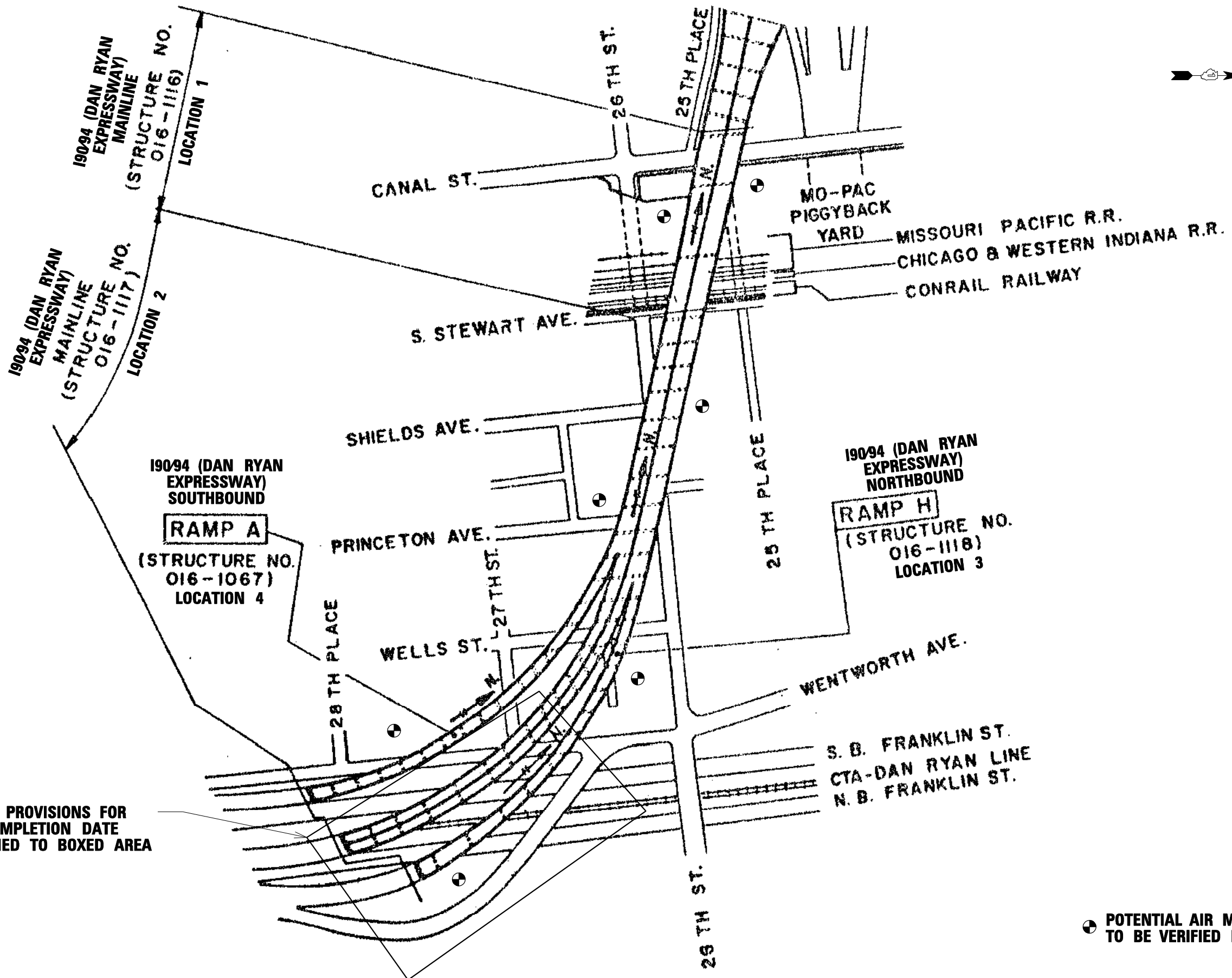
FIGURE 1

FILE NAME	USER NAME : oroad	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES AND GENERAL NOTES FOR PAINT			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE : 2.0000 "/ IN.	DRAWN - AMR	REVISED -					90/94	2011-057-BP	COOK	98	3
	PLOT DATE : 3/29/2012	CHECKED - JMH	REVISED -		SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60P73			
		DATE - MARCH, 2012	REVISED -							ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

*URBAN
90% FED.
10% STATE*

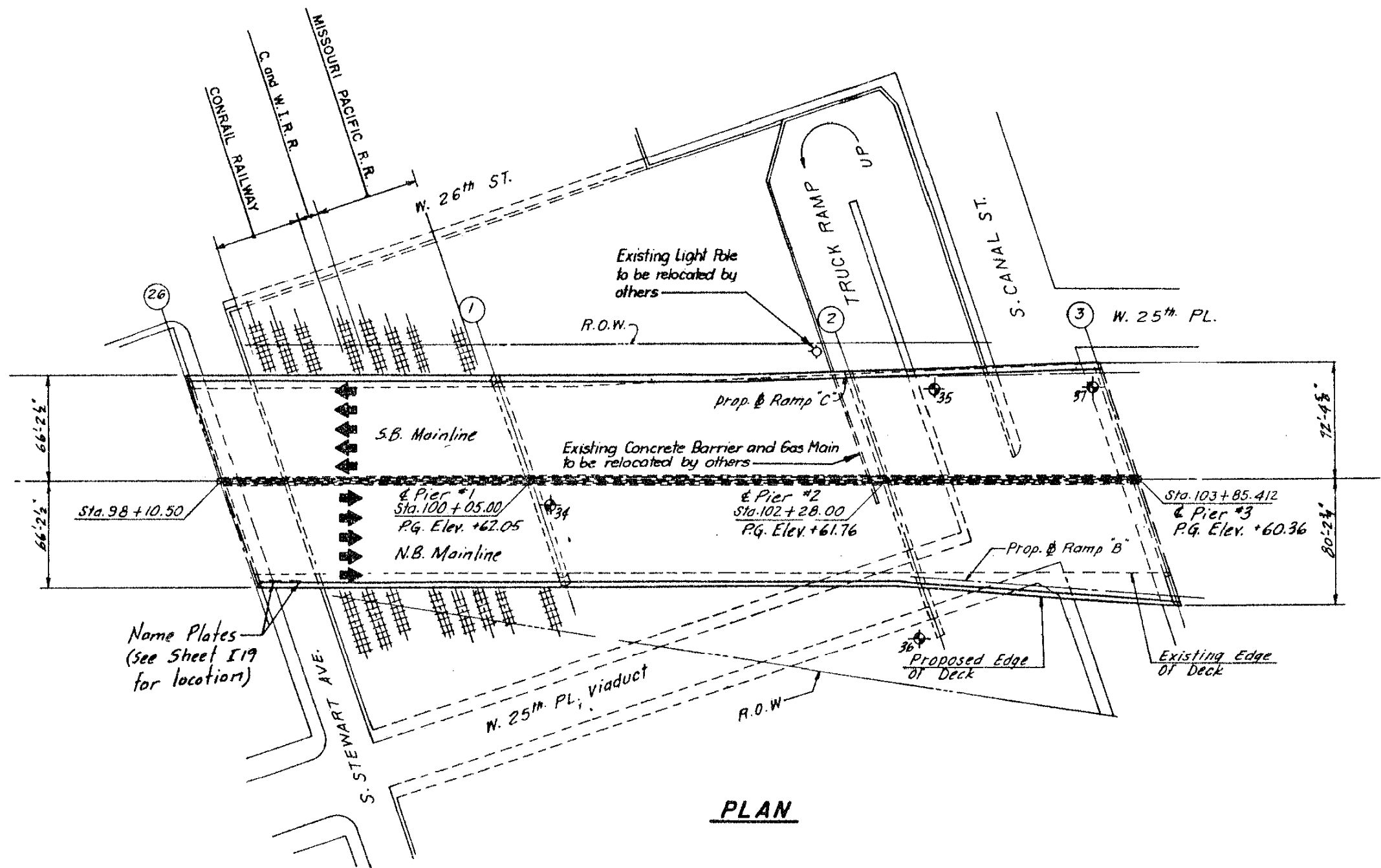
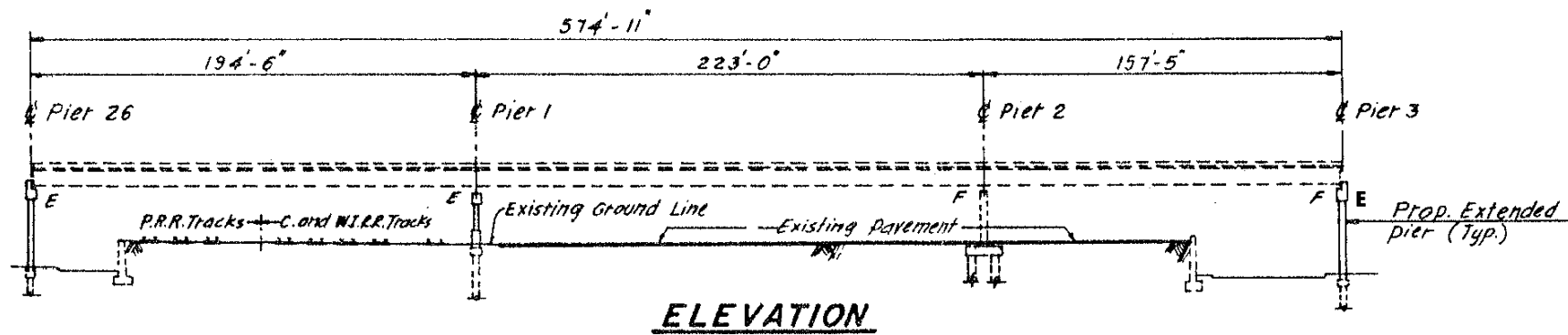
CODE	ITEM	UNIT	TOTAL QUANTITY	CONSTR. TYPE CODE BRIDGE REHAB. NO CAPACITY ADDED - 0014
50606701	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 1	L SUM	1	1
50606702	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 2	L SUM	1	1
50606703	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 3	L SUM	1	1
50606704	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 4	L SUM	1	1
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1	1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	13	13
67100100	MOBILIZATION	L SUM	1	1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	128.5	128.5
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1



SEE SPECIAL PROVISIONS FOR INTERIM COMPLETION DATE TO BE APPLIED TO BOXED AREA

⊕ POTENTIAL AIR MONITOR LOCATION TO BE VERIFIED BY ENGINEER IN FIELD

FILE NO. 8	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION MAP			F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 6	
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	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -		ILLINOIS FED. AID PROJECT								



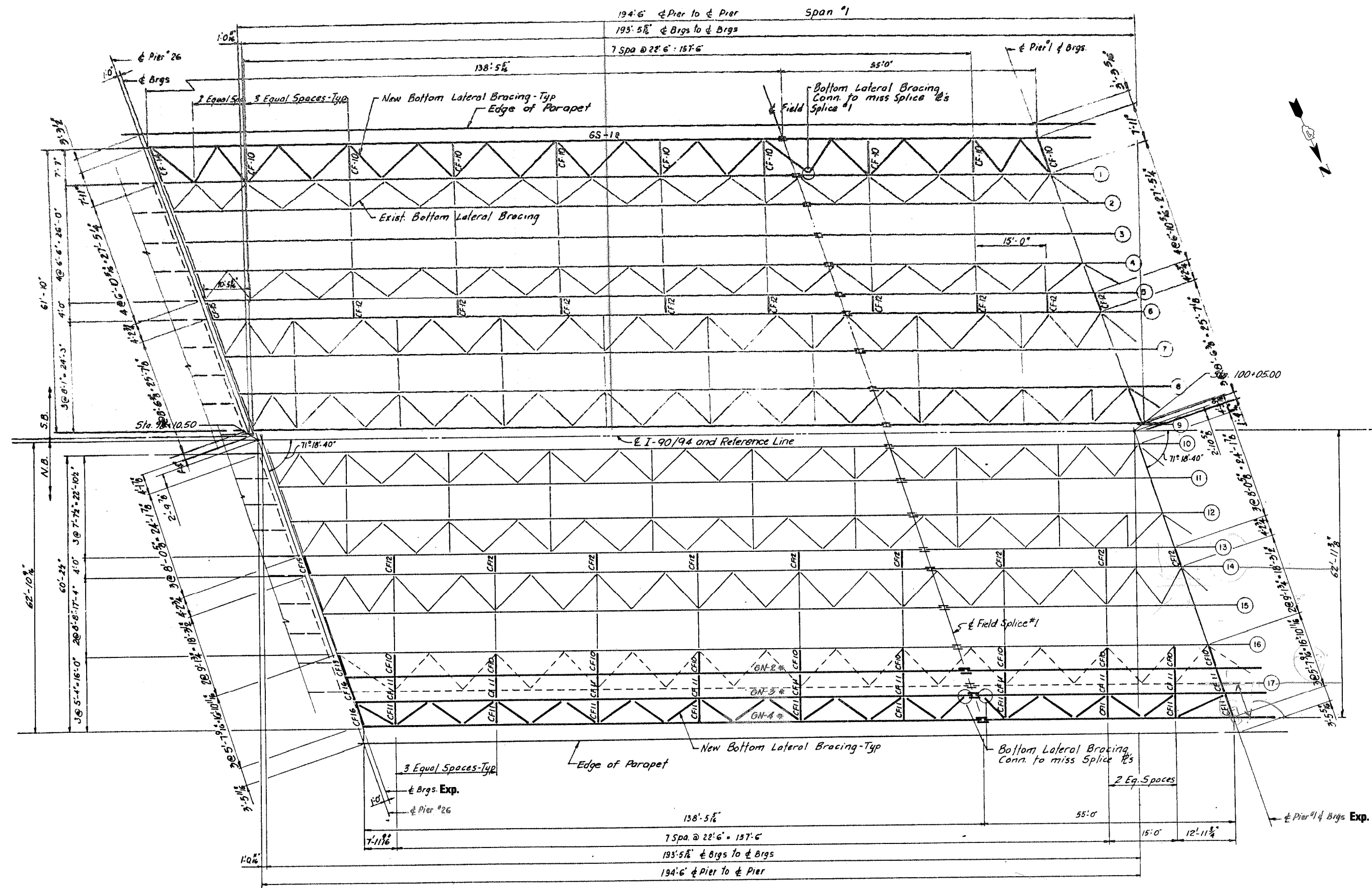
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		CHECKED - JMH	REVISED -
		DATE - MARCH, 2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION - LOCATION 1
STRUCTURE NO. 016-1116**

SCALE: NTS SHEET NO. 1 OF 15 SHEETS STA. TO STA.

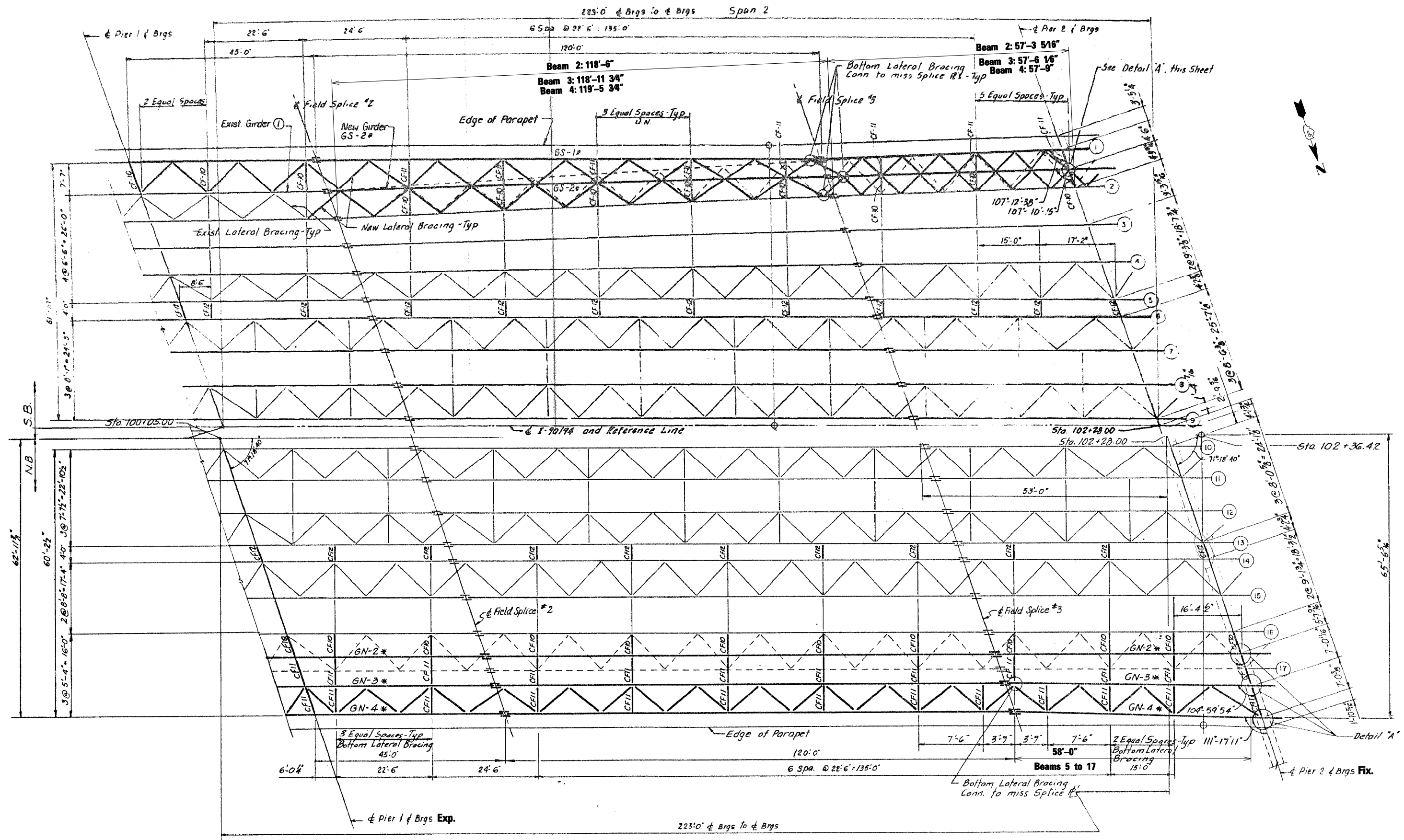
F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 7
CONTRACT NO. 60P73				
ILLINOIS FED. AID PROJECT				



PLAN - SPAN - 1

LEGEND
 ----- removed

FILE NAME = USER NAME = aread PLOT SCALE = 2.0000' / IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN SPAN 1 - LOCATION 1 STRUCTURE NO. 016-1116			F.A.I. R.E. 90/94 SECTION 2011-057-BP COUNTY COOK TOTAL SHEETS 98 SHEET NO. 8	
				SCALE: NTS SHEET NO. 2 OF 15 SHEETS STA. TO STA.	CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT			



LEGEND
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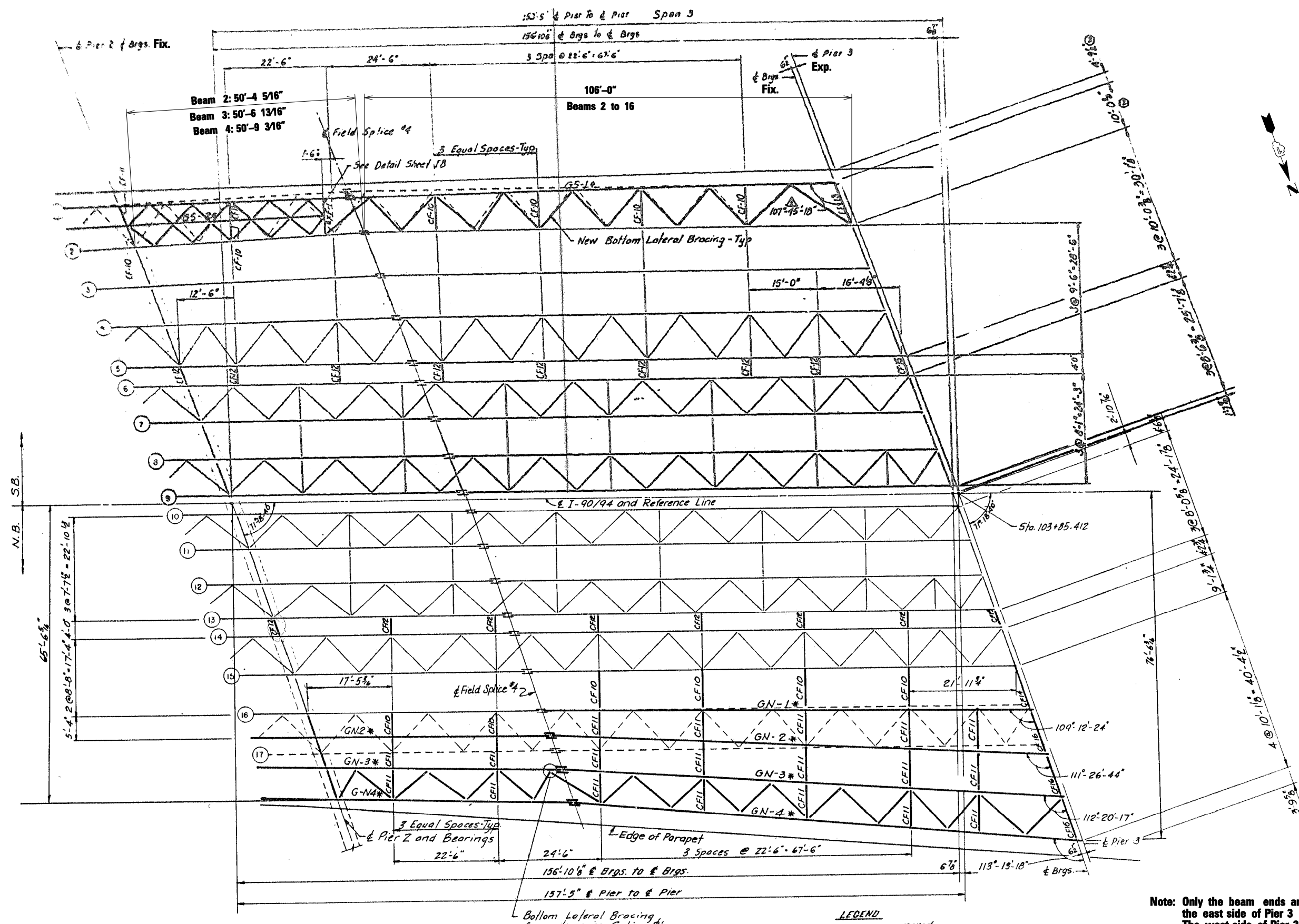
PLAN - SPAN-2

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	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

FRAMING PLAN SPAN 2 - LOCATION 1			
STRUCTURE NO. 016-1116			
SCALE: NTS	SHEET NO. 3 OF 15 SHEETS	STA.	TO STA.

F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 9
CONTRACT NO. 60P73				
ILLINOIS FED. AID PROJECT				



Note: Only the beam ends and bearings on the east side of Pier 3 need to be painted. The west side of Pier 3 was painted under a previous contract.

PLAN - SPAN 3

LEGEND
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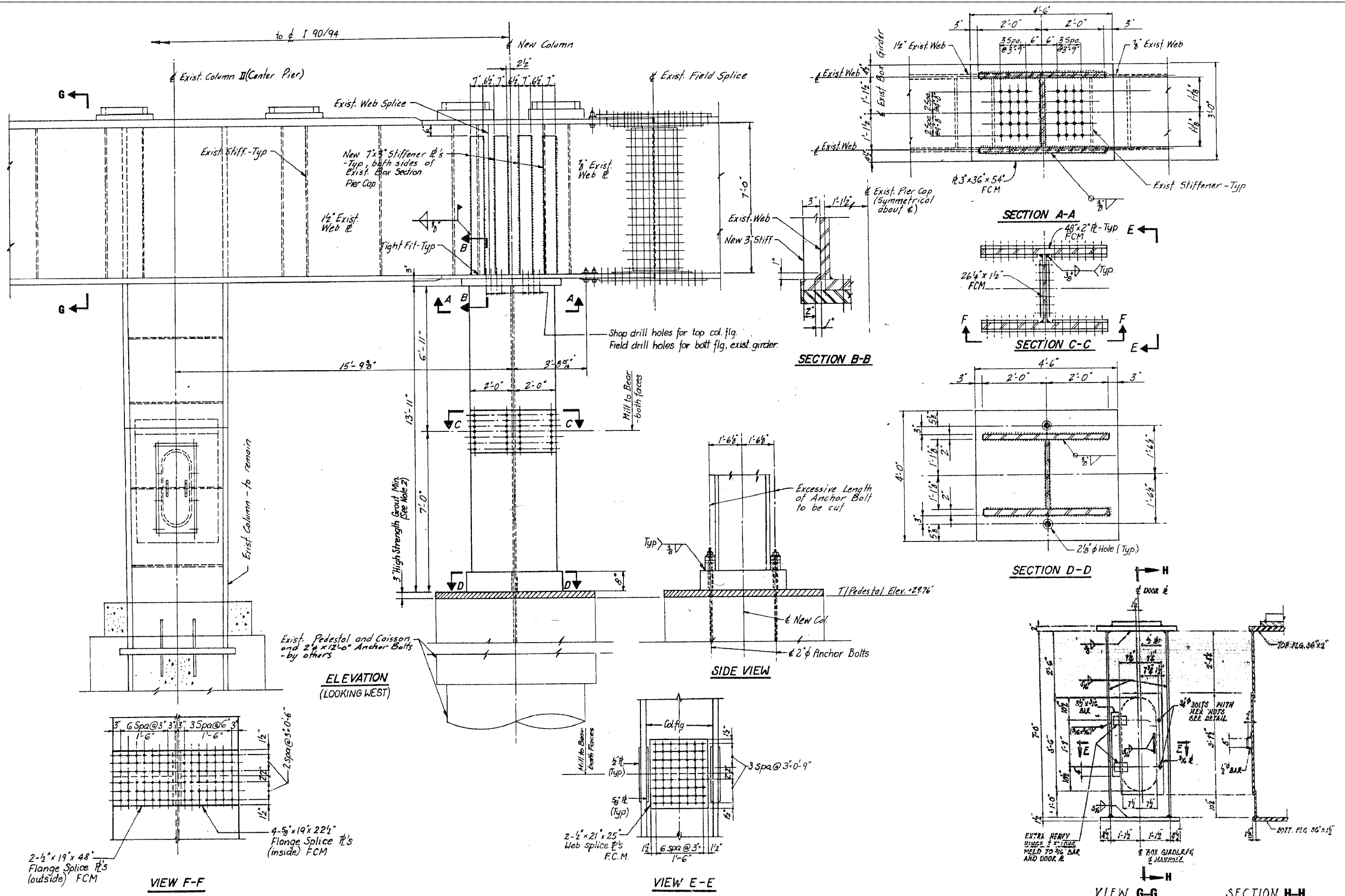
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CHECKED - JMH	REVISED -
DATE - MARCH, 2012	REVISED -

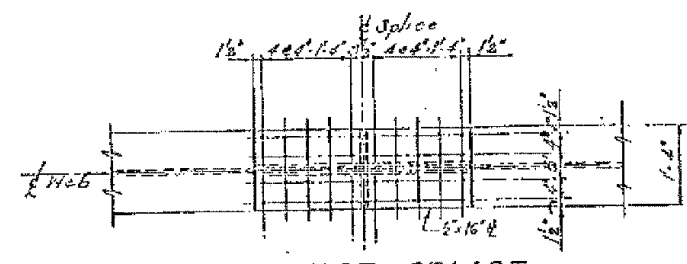
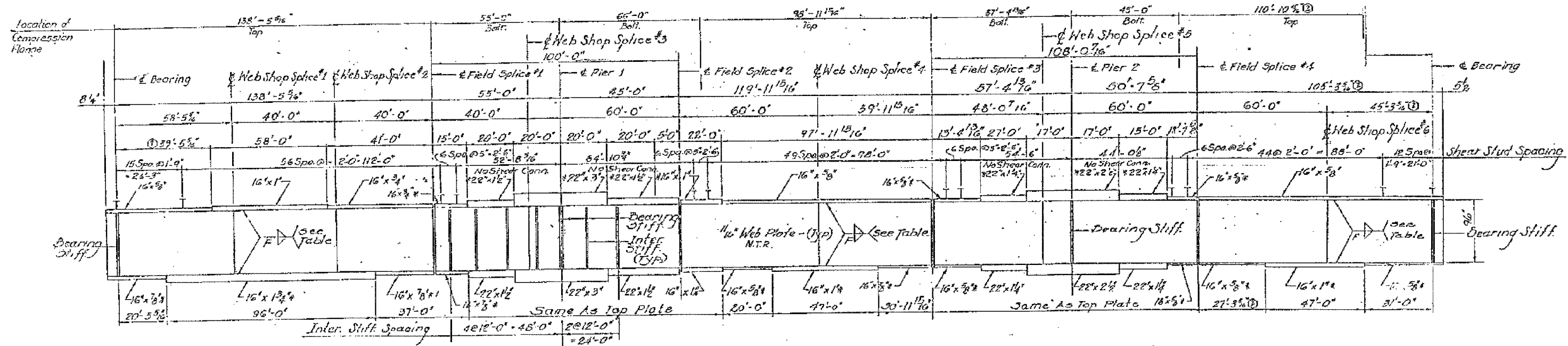
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FRAMING PLAN SPAN 3 - LOCATION 1
 STRUCTURE NO. 016-1116
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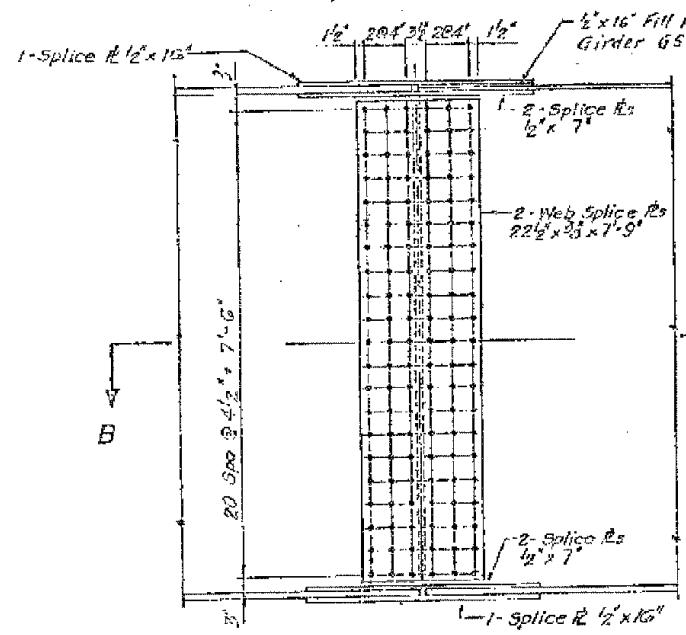
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CONTRACT NO. 60P73			ILLINOIS FED. AID PROJECT	



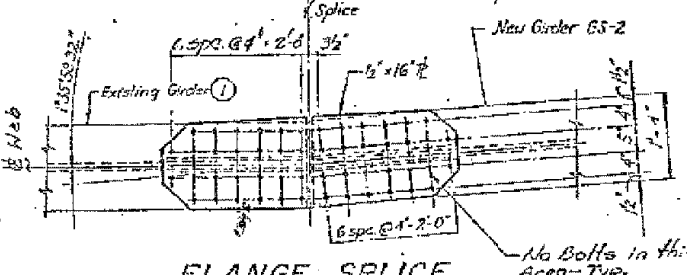
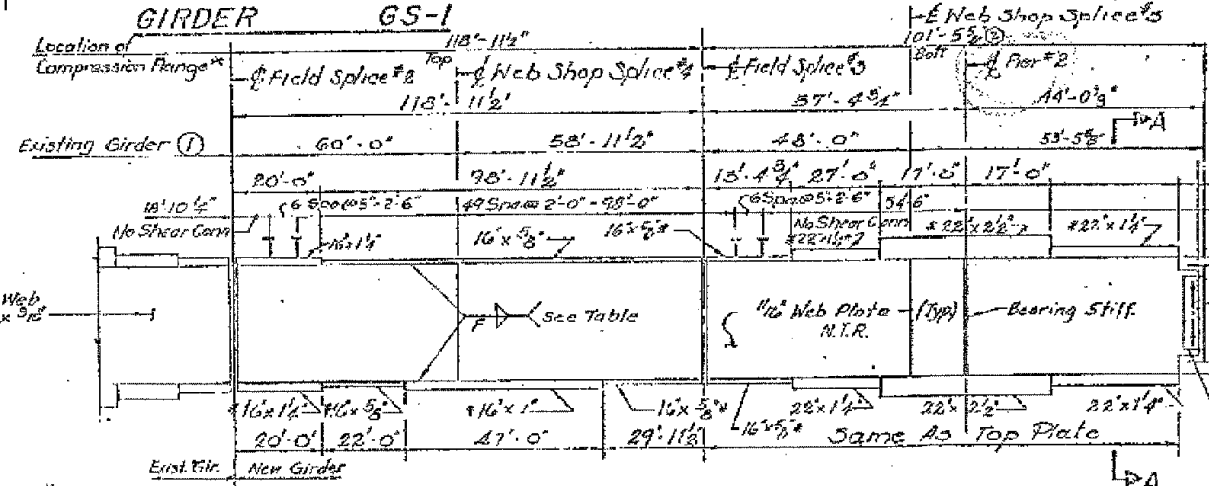
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				SCALE: NTS	SHEET NO. 5 OF 15 SHEETS	STA. TO STA.	



FLANGE SPLICE
GS-1, SPLICE #1
GS-2, SPLICE #3



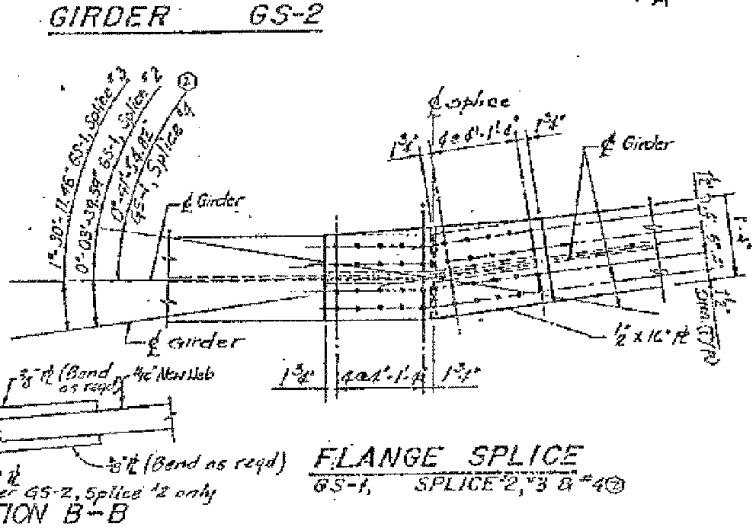
TYPICAL FIELD SPLICE ELEVATION
(N.T.R. ALL SPLICE PLATES)



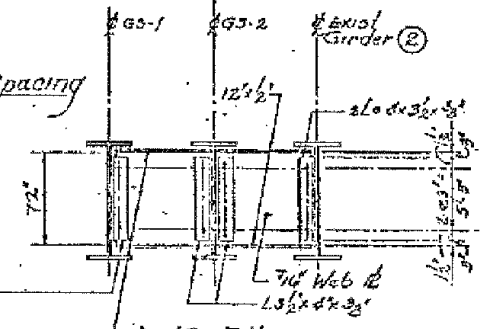
FLANGE SPLICE
GIRDER GS-2, SPLICE #2

FLANGE R THICKNESS	WELD SIZE "F"
1/2" thru 3/4"	1/4"
3/4" thru 1 1/4"	3/8"
1 1/4" thru 2 1/4"	5/8"
2 1/4" thru 3"	1 1/8"

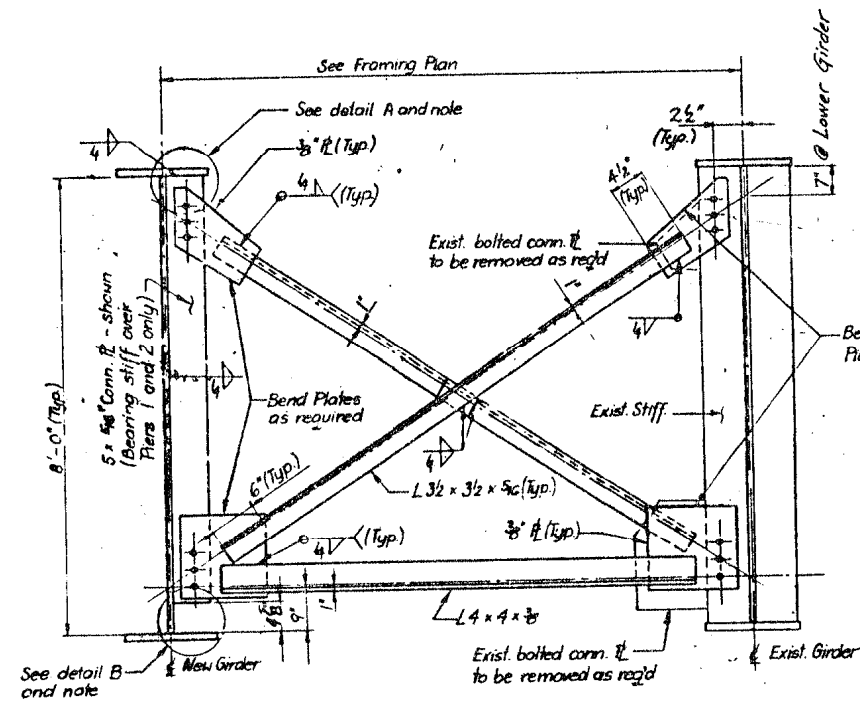
Note: Extend larger fillet weld 1'-0" beyond flange splice.



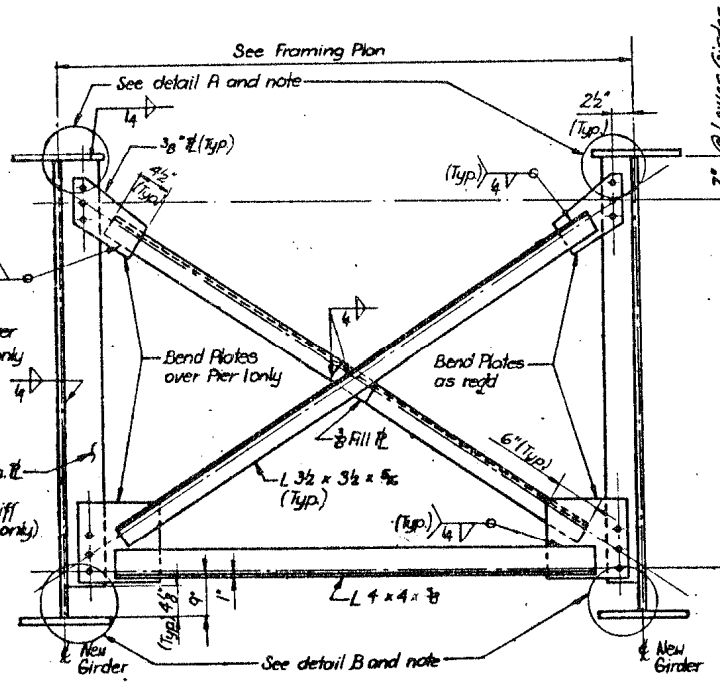
SECTION B-B



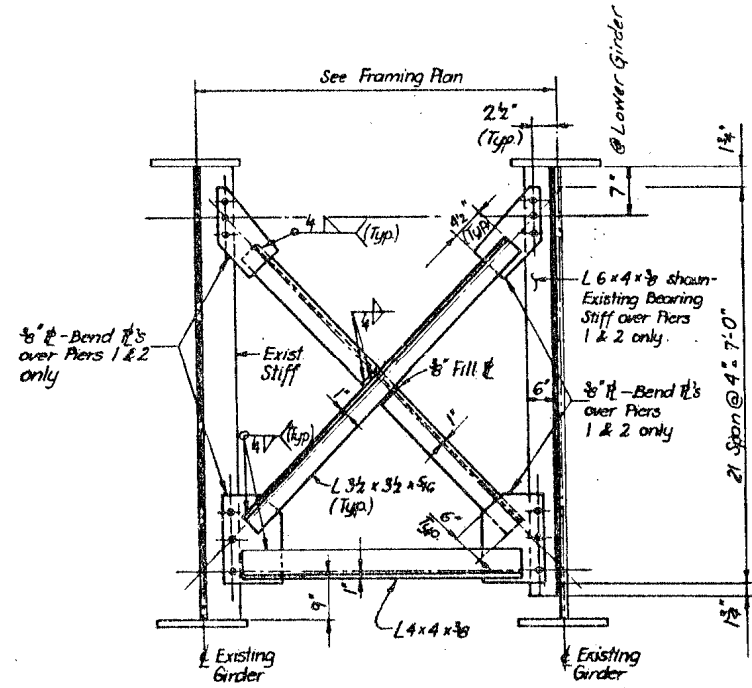
SECTION A-A



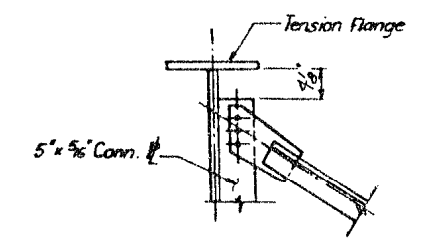
CF 10
INTERIOR CROSS FRAME



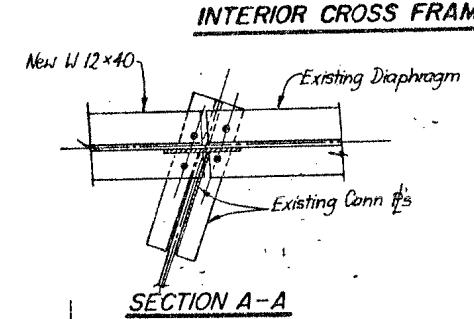
CF 11
INTERIOR CROSS FRAME



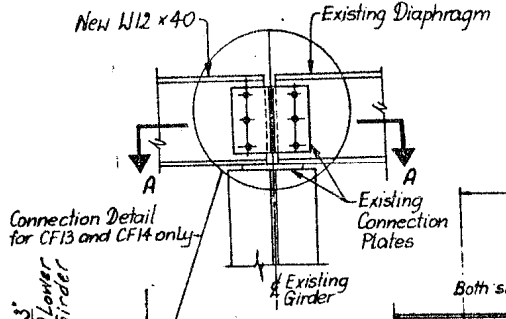
CF 12
INTERIOR CROSS FRAME
LOOKING SOUTHBOUND



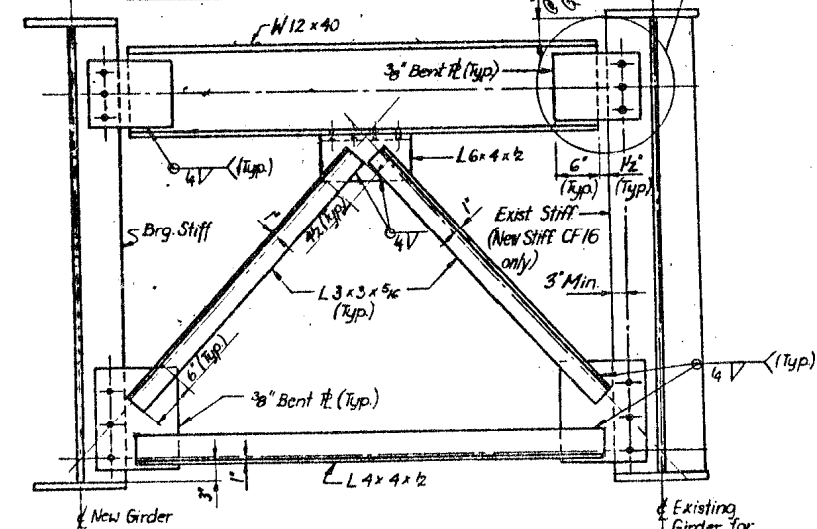
DETAIL A
(See note)



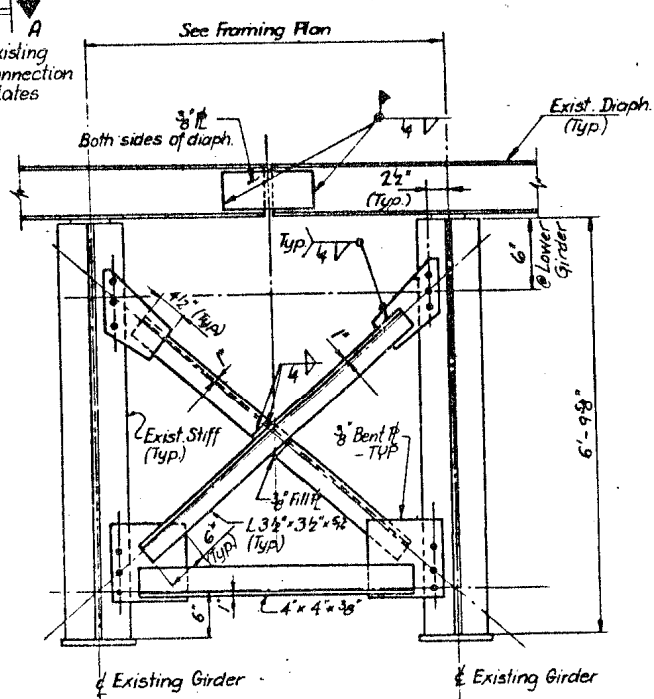
SECTION A-A



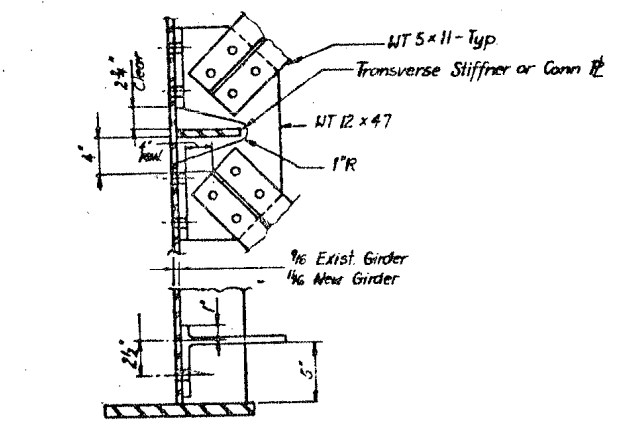
Connection Detail for CF 13 and CF 14 only



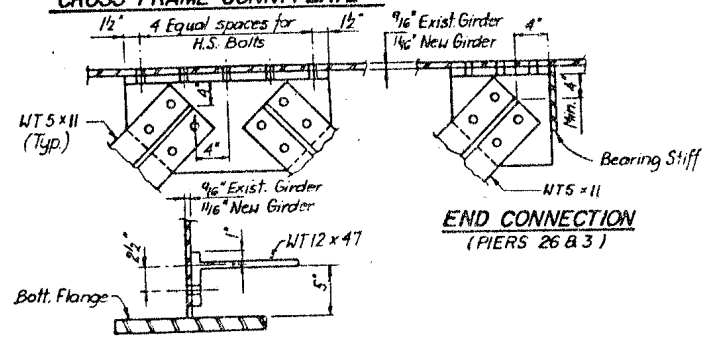
CF 16
CF 13
CF 14 (OPP. HAND)
END CROSS FRAME
LOOKING TOWARD PIER



CF 15
END CROSS FRAME
LOOKING TOWARD PIER

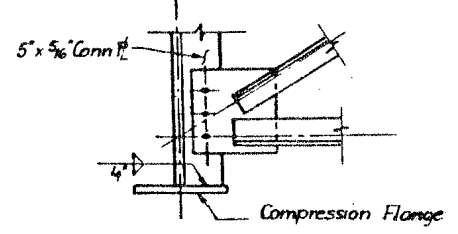


WITH TRANSVERSE STIFFENER
CROSS FRAME CONN. PLATE



END CONNECTION
(PIERS 26 & 3)

BOTTOM LATERAL CONNECTIONS
(All bolts to be 3/4" H.S.)



DETAIL B
(See note)

Note: Details A and B are for cross frames in the compression flange bottom regions only. See girder elevations for location of compression flanges.

FILE NAME =
USER NAME = aread
DESIGNED - AMR
DRAWN - AMR
PLOT SCALE = 2.0000' / IN.
PLOT DATE = 3/29/2012

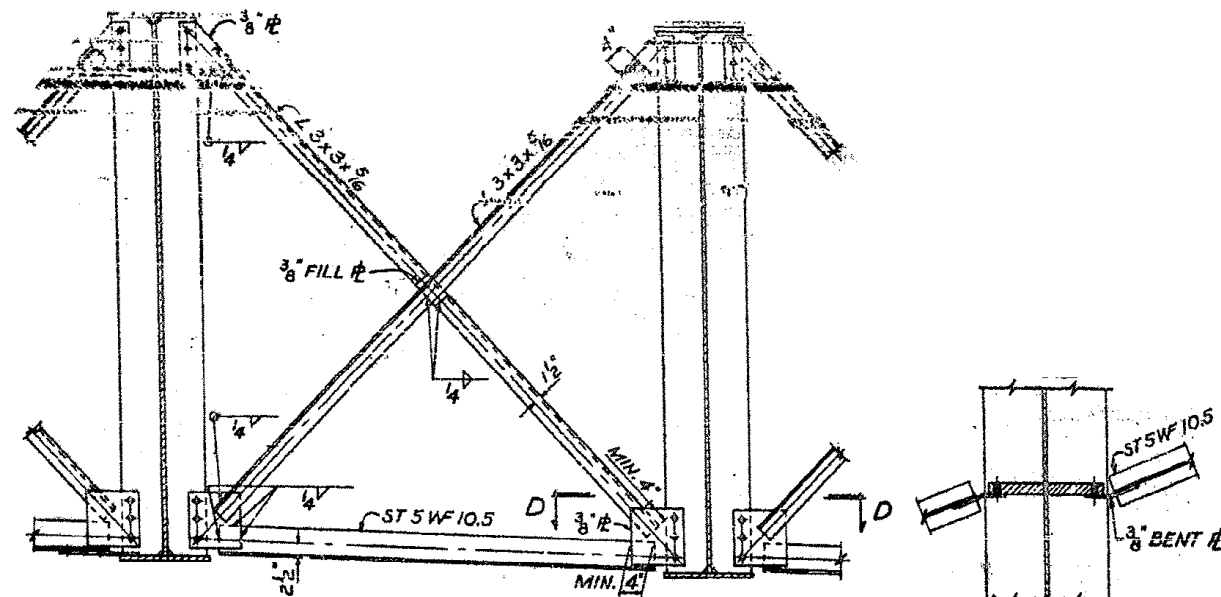
DESIGNED - AMR
DRAWN - AMR
CHECKED - JMH
DATE - MARCH, 2012
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS FRAME DETAILS - LOCATION 1
STRUCTURE NO. 016-1116

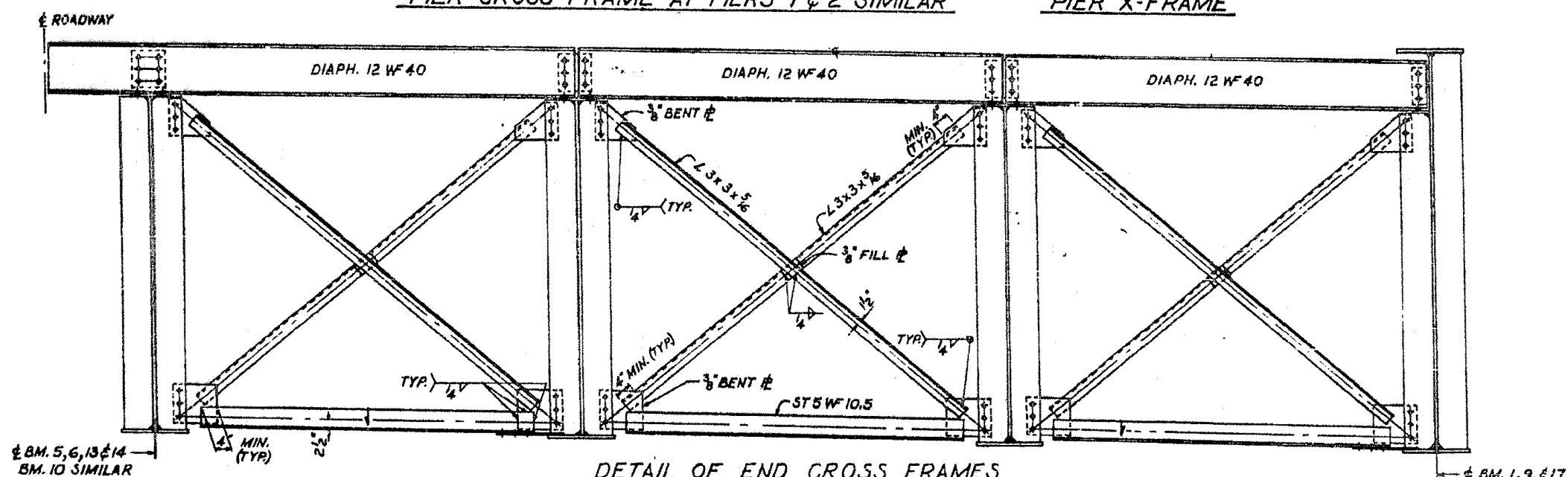
SCALE: NTS SHEET NO. 8 OF 15 SHEETS STA. TO STA.

F.A.I. R.E. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 14
CONTRACT NO. 60P73			ILLINOIS FED. AID PROJECT	

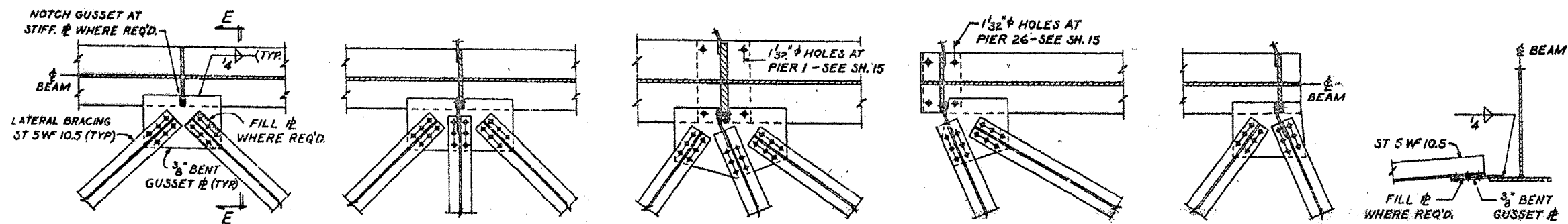


PIER CROSS FRAME AT PIERS 1 & 2 SIMILAR

SECTION D-D
PIER X-FRAME



DETAIL OF END CROSS FRAMES
PIER 26 AND PIER 3



BETWEEN X-FRAMES

INTERMEDIATE X-FRAME

PIER X-FRAME

END X-FRAME

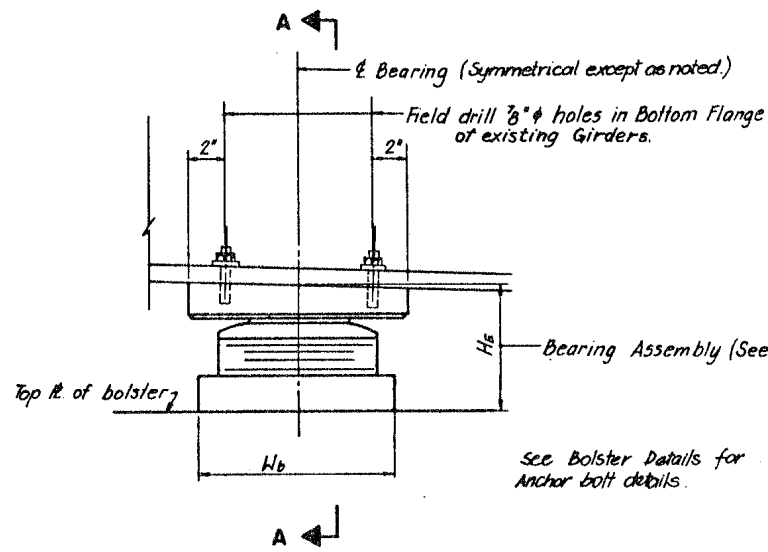
END X-FRAME

SECTION E-E

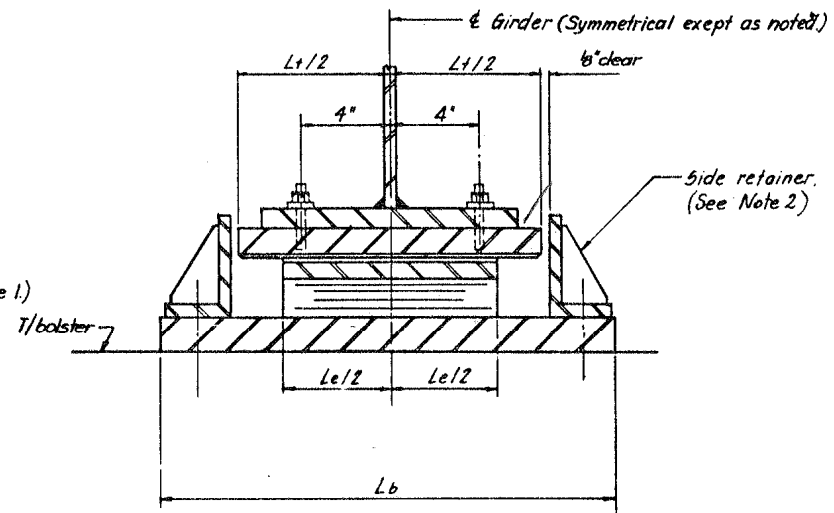
PIER 1 SHOWN - PIER 2 SIMILAR PIER 26 SHOWN - PIER 3 SIMILAR PIER 3 SHOWN - PIER 26 SIMILAR

LATERAL BRACING CONNECTIONS

FILE NAME = USER NAME = aread PLOT SCALE = 2.0000 "/>	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		CROSS FRAME DETAILS - LOCATION 1 STRUCTURE NO. 016-1116			F.A.I. RTE. 90/94 SECTION 2011-057-BP COUNTY COOK CONTRACT NO. 60P73	TOTAL SHEETS 98 SHEET NO. 15
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -	SCALE: NTS	SHEET NO. 9 OF 15 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	



TYPICAL ELEVATION



SECTION A - A

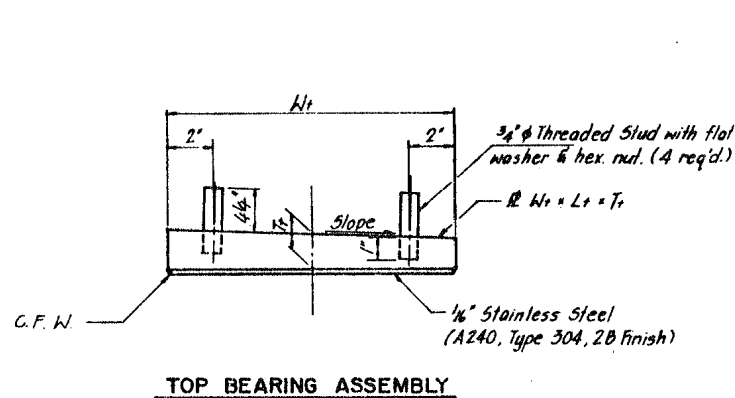
TYPE II TFE ELASTOMERIC EXPANSION BEARING

TYPE II ELASTOMERIC EXPANSION BEARING SCHEDULE

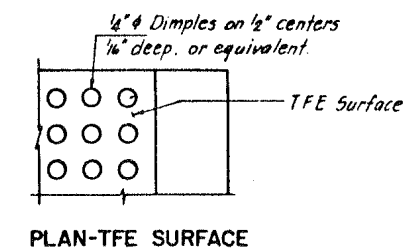
STRUCTURE NO.	PIER LOCATION	GIRDER NO.	We	Le	SERIES	TOP PLATE				BOTTOM PLATE			NO. REQ'D.	HE	REMARKS
						Tt	Wt	Lt	SLOPE	Tb	Wb	Lb			
016-1116	1	GN-2 thru GN-4 GS-1	20	30	a	4 1/2	22	32	0.0	1	21	40 1/2	4	-	N, B, ●

Remarks:

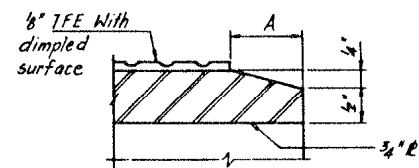
- B - Bolster required - See bolster details.
- N - New bearings for roadway widening.
- - See bolster schedule for HE dimension.



TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



SECTION THRU TFE

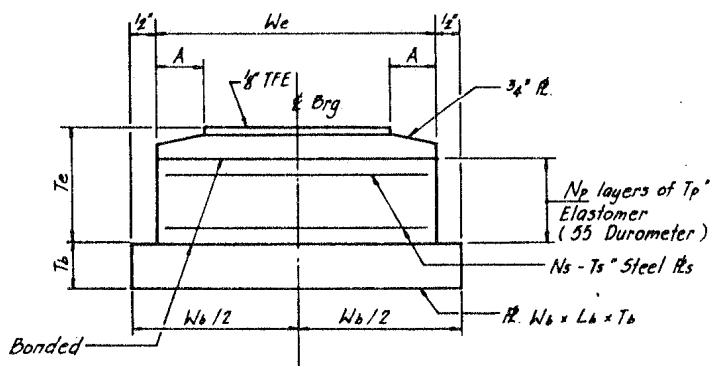
Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surface.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

TABLE OF DIMENSIONS - TYPE II ELASTOMERIC EXPANSION BEARINGS

We	Le	Series	Tp	Np	Ts	Ns	Te
20"	30"	a	3/4"	4"	1/4"	3"	4 5/8"

- Tp - denotes thickness of each elastomeric layer
- Np - denotes number of elastomeric layers
- Ts - denotes thickness of each steel plate
- Ns - denotes number of steel plates

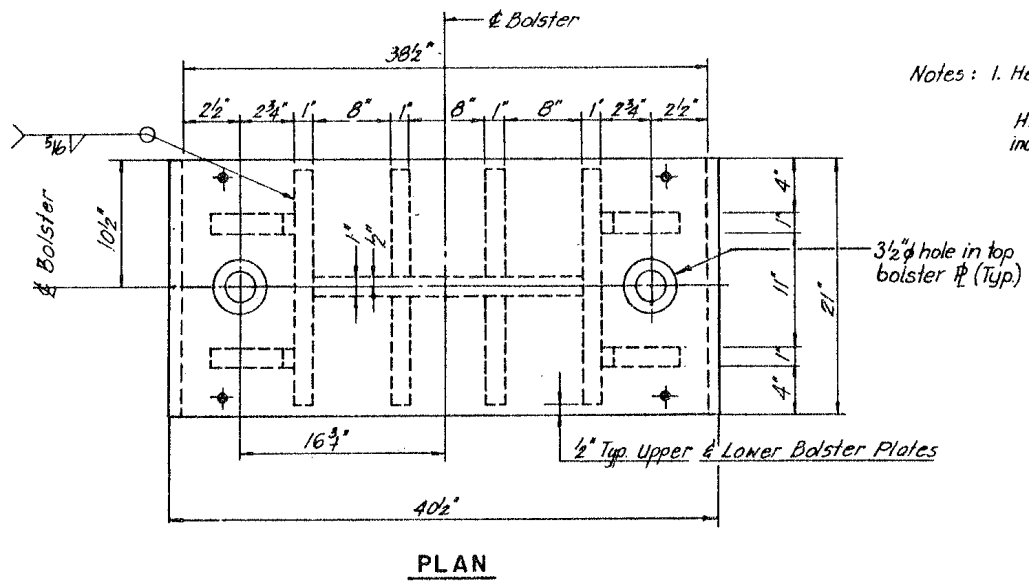
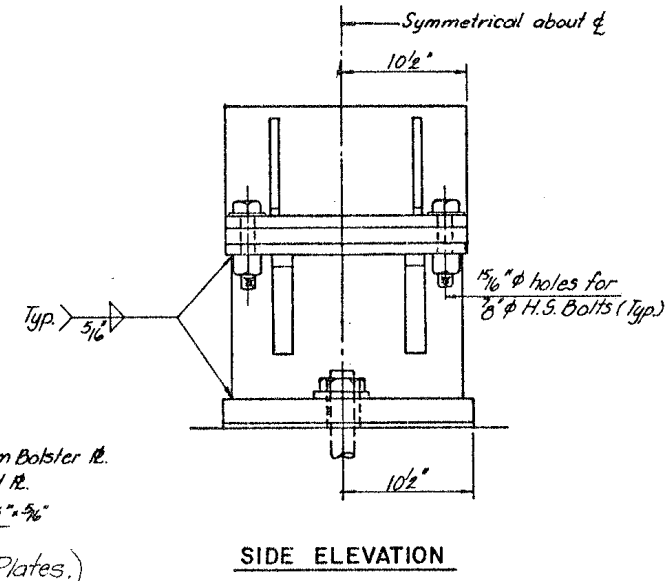
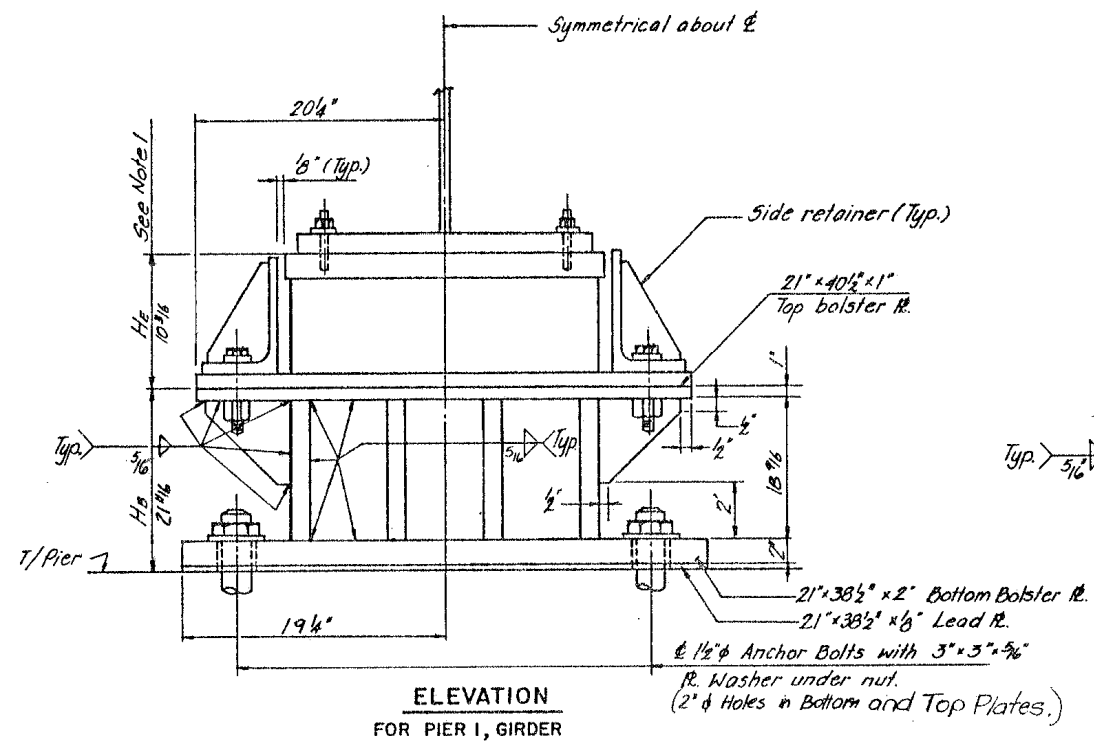


BOTTOM BEARING ASSEMBLY

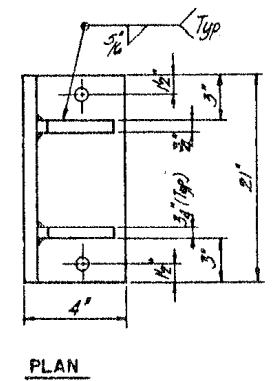
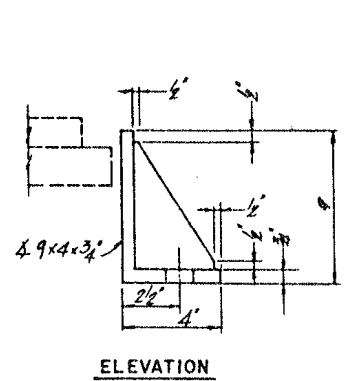
We	6"	7"	9"	10"	11"	12"
A	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"

NOTES:

- Height of bearing assembly, HE, includes top plate, elastomeric ass'y. and bottom plate. HE does not include shim plate.
- Side retainer details for bearings located on top of pier are shown on this sheet. For bearings requiring a bolster, see bolster details for side retainer details.
- See Shim thickness schedule for required shims.



Notes: 1. He - Height of Bearing Assembly
 Ha - Height of Bolster Assembly including 1/8" Lead Plate.



SIDE RETAINER

BOLSTER SCHEDULE

STRUCTURE NO.	PIER LOCATION	GIRDER NO.	NO. REQ'D	BRG. TYPE	REMARKS
016-1116	1	GN-2, GN-3, GN-4	5	II	

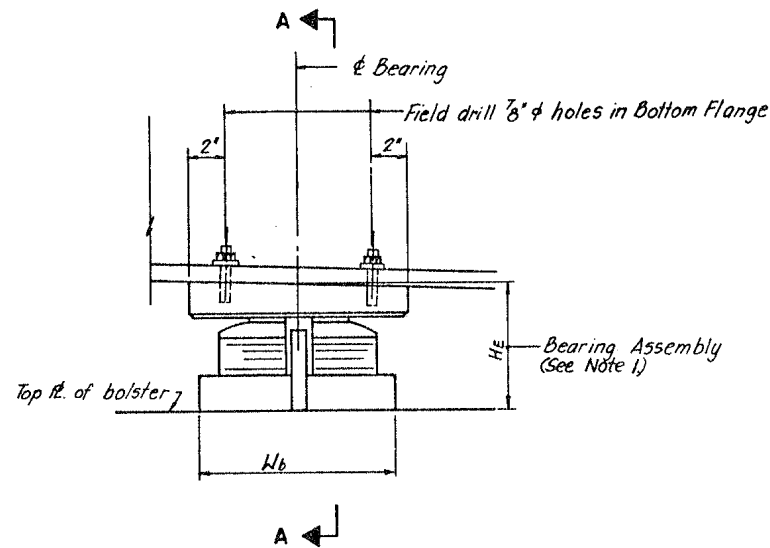
FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -
		DRAWN - AMR	REVISED -
		CHECKED - JMH	REVISED -
		DATE - MARCH, 2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

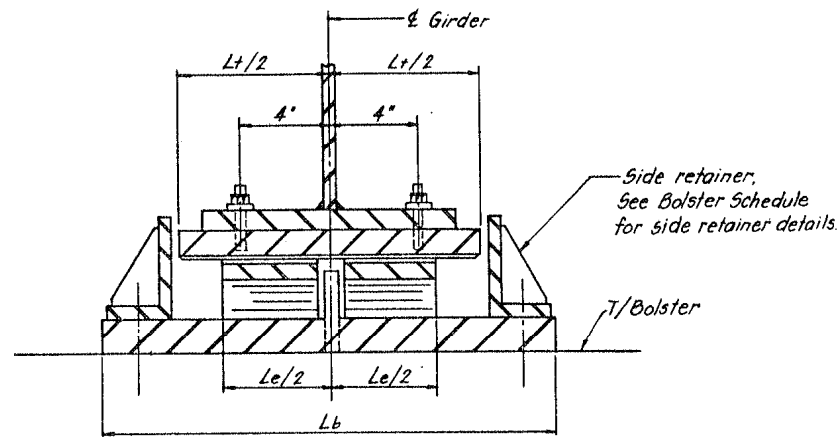
**TYPE II BEARING BOLSTER DETAILS - LOCATION 1
STRUCTURE NO. 016-1116**

F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 17
			CONTRACT NO. 60P73	
ILLINOIS FED. AID PROJECT				

SCALE: NTS SHEET NO. 11 OF 15 SHEETS STA. TO STA.



TYPICAL ELEVATION



SECTION A-A

TYPE III TFE ELASTOMERIC EXPANSION BEARING

TABLE OF DIMENSIONS - TYPE III ELASTOMERIC EXPANSION BEARINGS

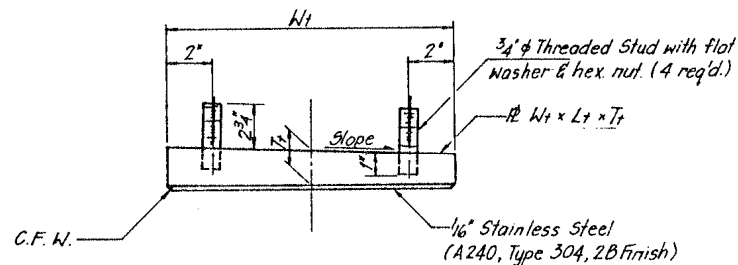
W_e	L_e	Series	T_p	N_p	T_s	N_s	T_e
12	18	a	$\frac{1}{16}$	5	$\frac{3}{16}$	2	$2\frac{15}{16}$

T_p - denotes thickness of each elastomeric layer
 N_p - denotes number of elastomeric layers
 T_s - denotes thickness of each steel plate
 N_s - denotes number of steel plates

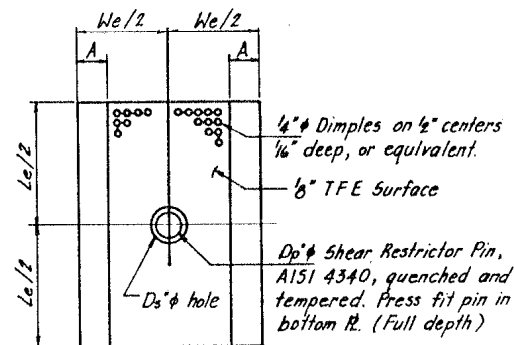
TYPE III ELASTOMERIC EXPANSION BEARING SCHEDULE

STRUCTURE NO.	PIER LOCATION	GIRDER NO.	W_e	L_e	SERIES	TOP PLATE				BOTTOM PLATE			RESTRICTOR PIN		D_s	NO. REQ'D	REMARKS
						T_t	W_t	L_t	SLOPE %	T_b	W_b	L_b	D_p	H_p			
016-1116	26(N)	GN-2-GN-4	12	18	a	24	16 1/2	20	0.0	1 1/2	13	28 1/2	1 1/2	2 1/2	2	3	N, B, ⊕

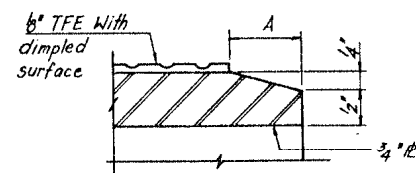
Remarks: N - New bearings for roadway widening.
 B - Bolster required, see Bolster Details.
 ⊕ - Pier No. 26 is from Structure No. 016-1117.



TOP BEARING ASSEMBLY



PLAN-TFE ELASTOMERIC BRG.



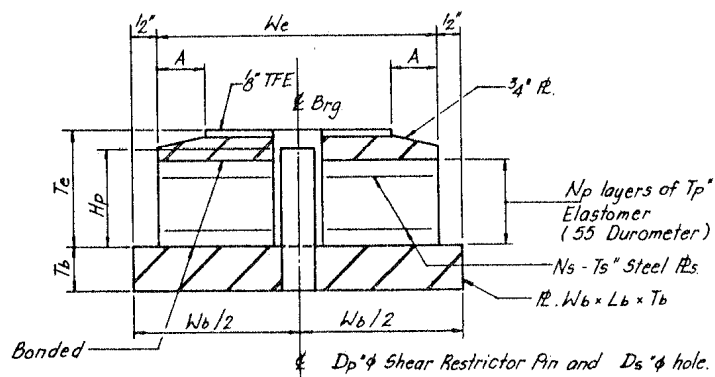
SECTION THRU TFE

Note: The $\frac{1}{8}$ " TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surface.

Bonding of $\frac{1}{8}$ " TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

Notes:

- Height of Bearing Assembly, H_E , is located on Bolster Details.
- See Bolster Details for anchor bolt details.



BOTTOM BEARING ASSEMBLY

W_e	6"	7"	9"	10"	11"	12"
A	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"

8FILES

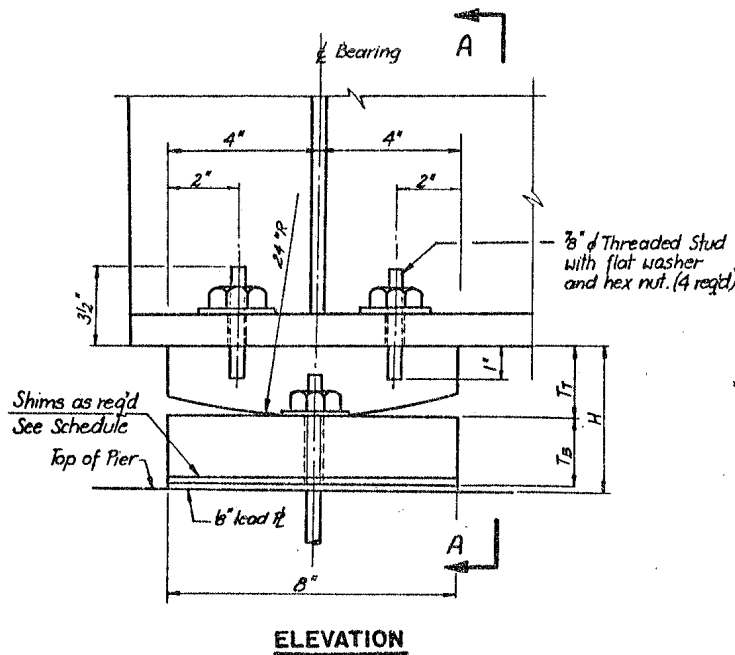
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		DRAWN - AMR	REVISED -
		CHECKED - JMH	REVISED -
		DATE - MARCH, 2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

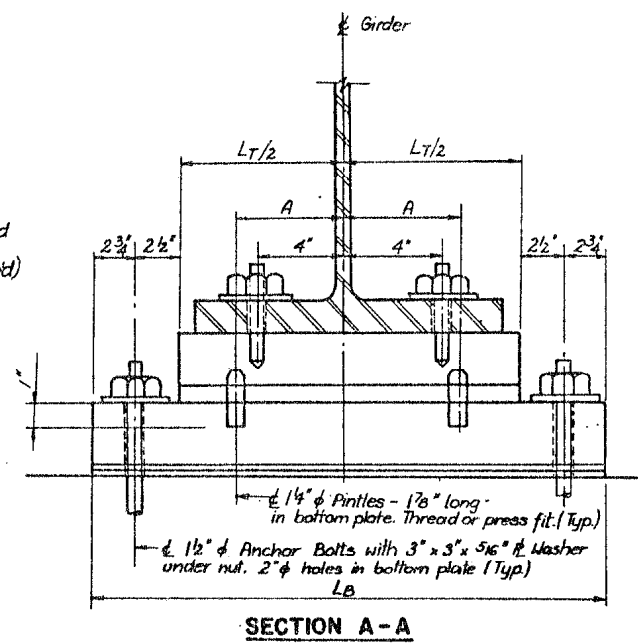
TYPE III ELASTOMERIC EXPANSION BEARING DETAILS - LOCATION 1
STRUCTURE NO. 016-1116

SCALE: NTS SHEET NO. 12 OF 15 SHEETS STA. TO STA.

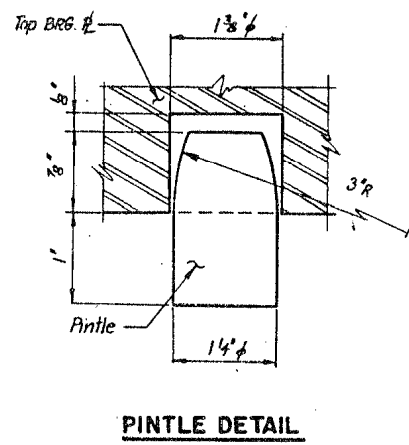
F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 18
CONTRACT NO. 60P73			ILLINOIS FED. AID PROJECT	



ELEVATION



SECTION A-A



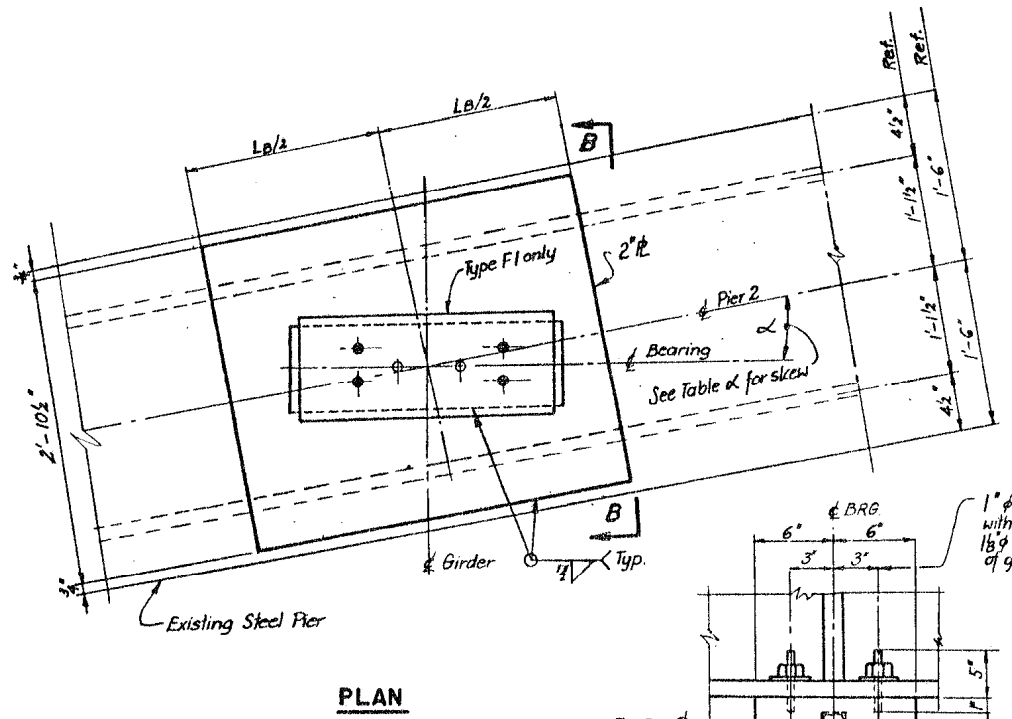
PIN DETAIL

FIXED BEARING SCHEDULE

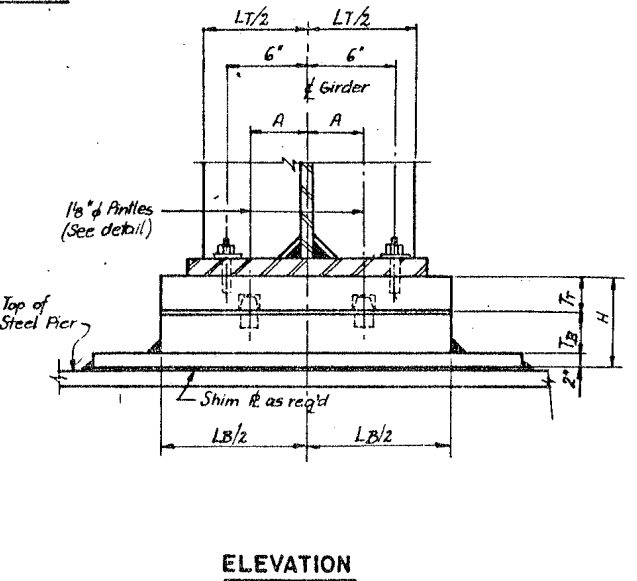
STRUCTURE NO.	PIER LOCATION	GIRDER NO.	BRG. TYPE	NO. REQ'D.	T _T "	L _T "	T _B "	L _B "	A"	H"	REMARKS
016-1116	2	GN2	F5	1	4 3/8	22 1/2	2 1/2	26	5	8 1/8	N
	2	GN3	F5	1	2 1/2	22 1/2	2 1/2	26	5	7	N
	2	GN4	F6	1	-	22 1/2	-	26	5	5 3/16	N
	3(S)	GN1 - GN4	F1	4	9	16 1/2	1 1/2	27	5	4 5/8	N
		B - 15	F1	3	3	16 1/2	1 1/2	27	5	4 5/8	R

Note: Assume remaining fixed bearings are type F1.

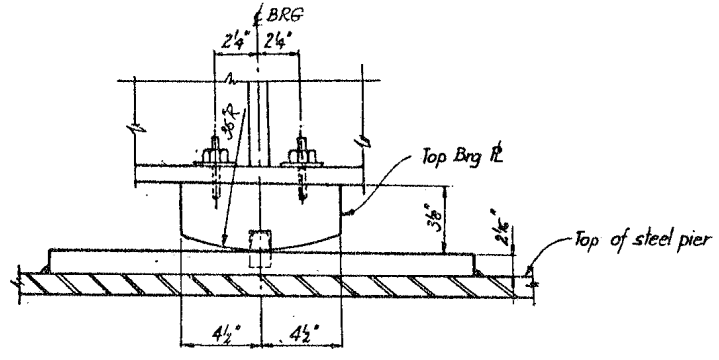
FIXED BEARING - TYPE F1



PLAN

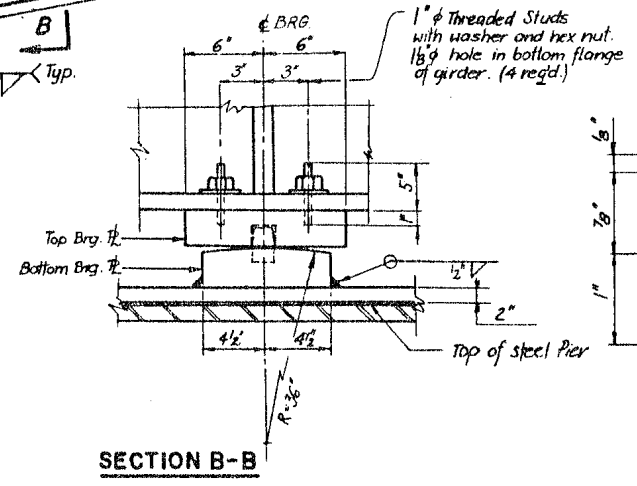


ELEVATION



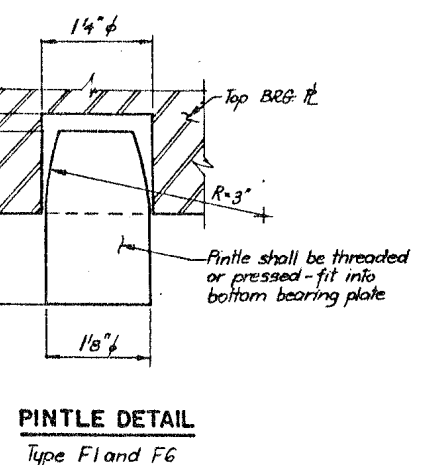
SECTION B-B

FIXED BEARING - TYPE F6



SECTION B-B

FIXED BEARING - TYPE F5

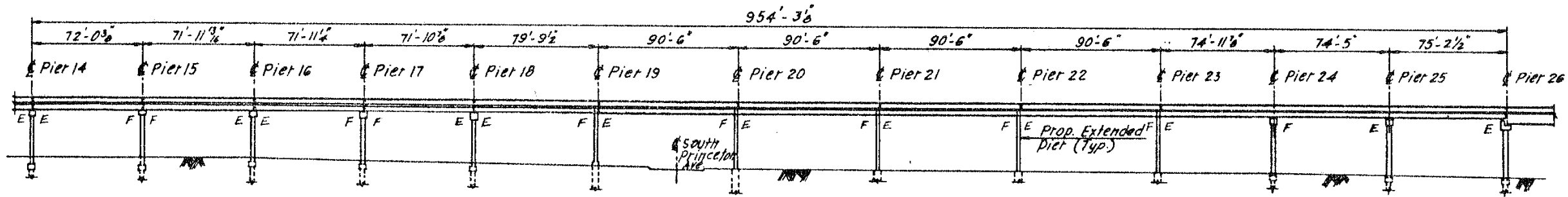


PIN DETAIL
Type F1 and F6

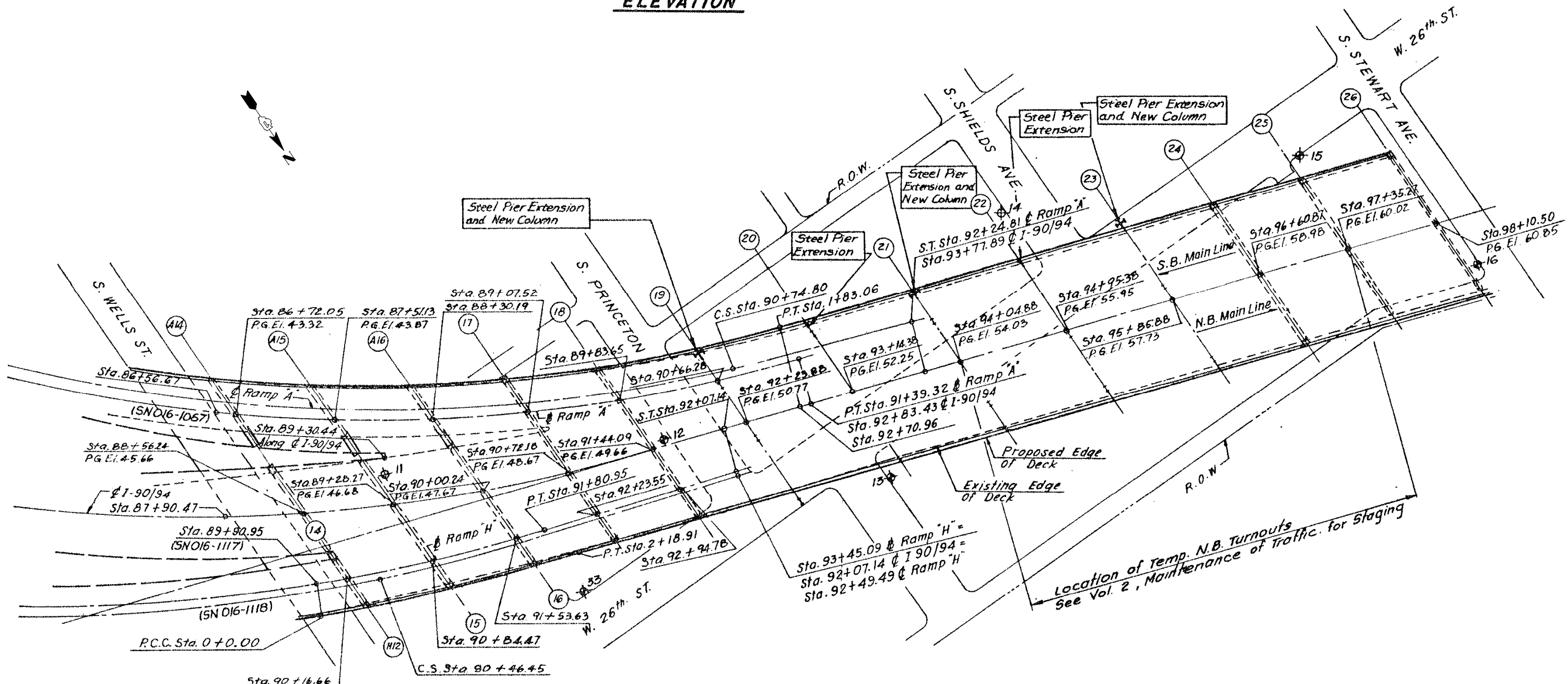
Remarks: N - New bearings for Roadway Widening.
R - Replacement bearings.

TABLE alpha - SKEW ANGLE

GIRDER NO.	alpha
GN-2	18°-41'-20"
GN-3	19°-59'-54"
GN-4	21°-17'-11"

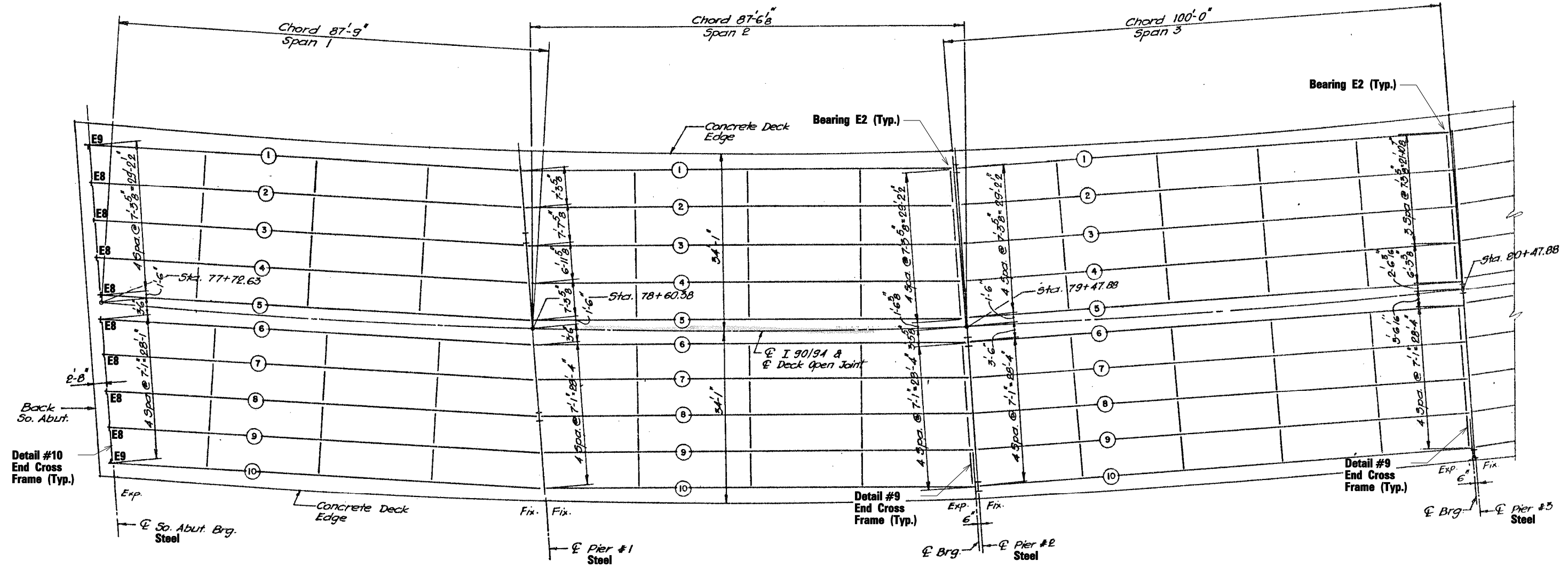


ELEVATION



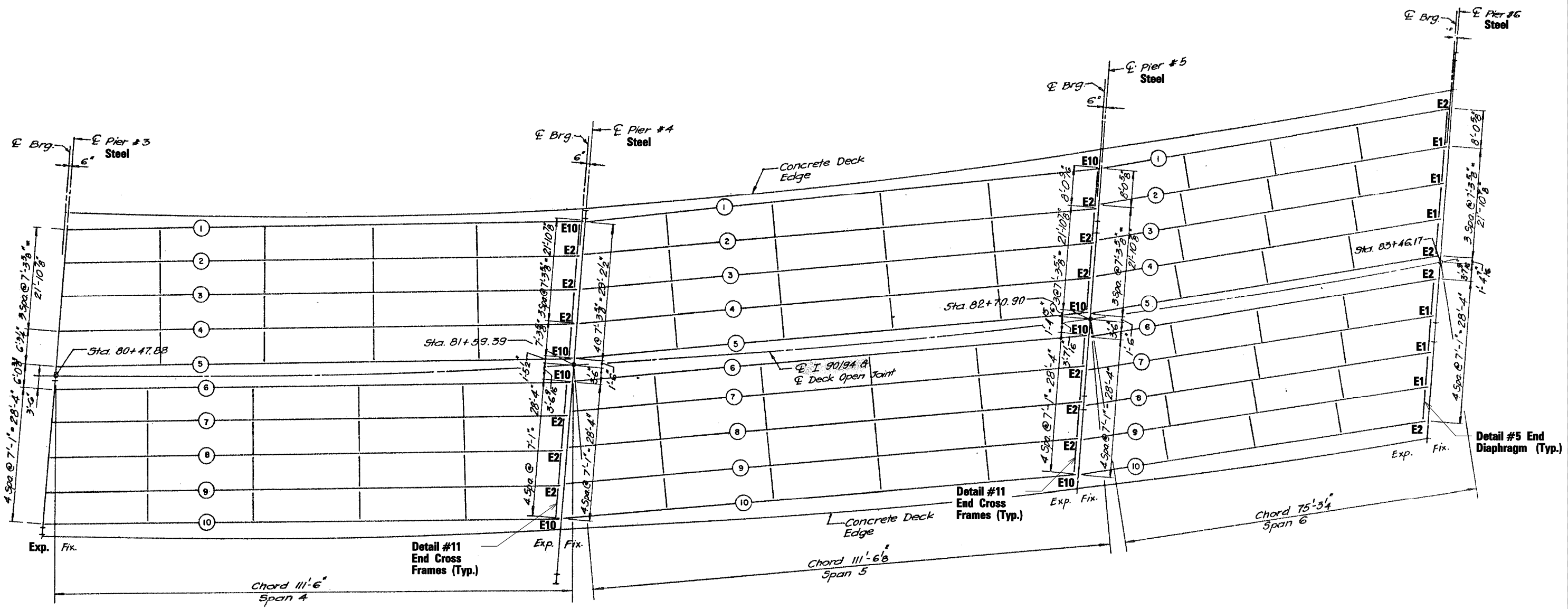
PLAN

FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION 2 - LOCATION 2 STRUCTURE NO. 016-1117			F.A.I. R.T.E. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 23
	PLOT SCALE = 2.0000' / IN.	DRAWN - AMR	REVISED -		SCALE: NTS	SHEET NO. 2 OF 39 SHEETS	STA.	TO STA.	CONTRACT NO. 60P73			
	PLOT DATE = 3/29/2012	CHECKED - JMH	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE - MARCH, 2012	REVISED -									

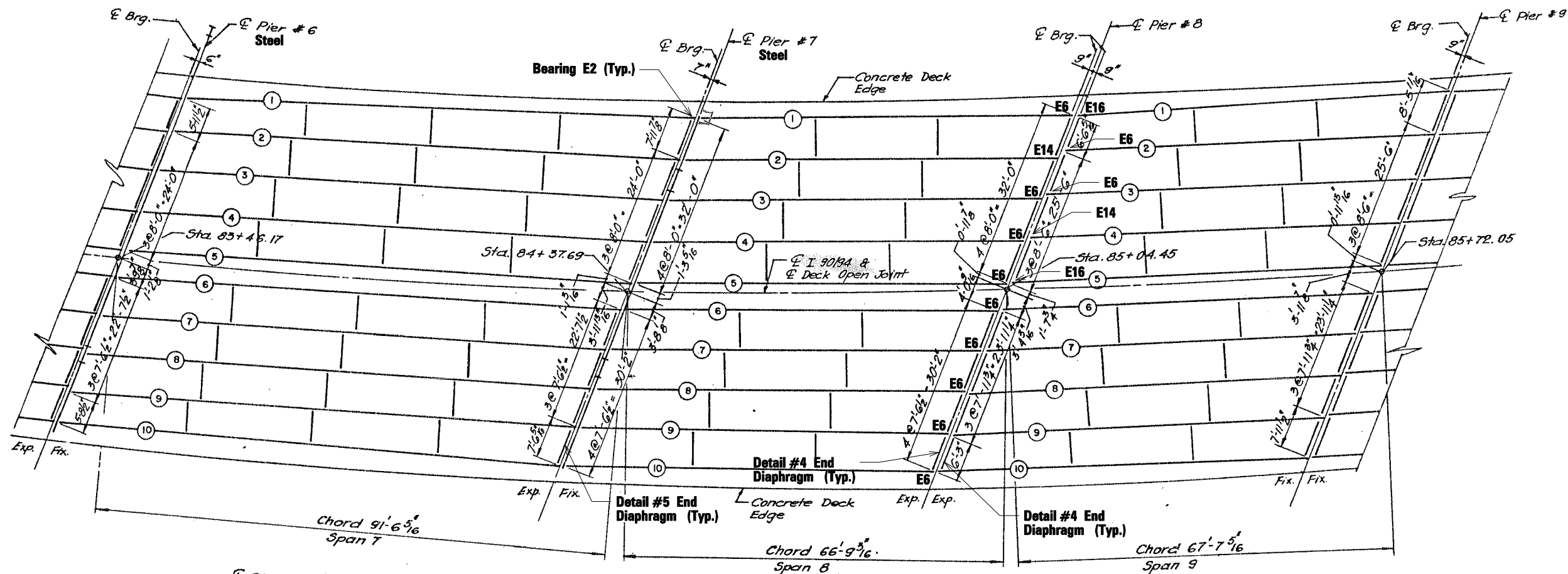


PLAN - SPANS 1, 2 & 3

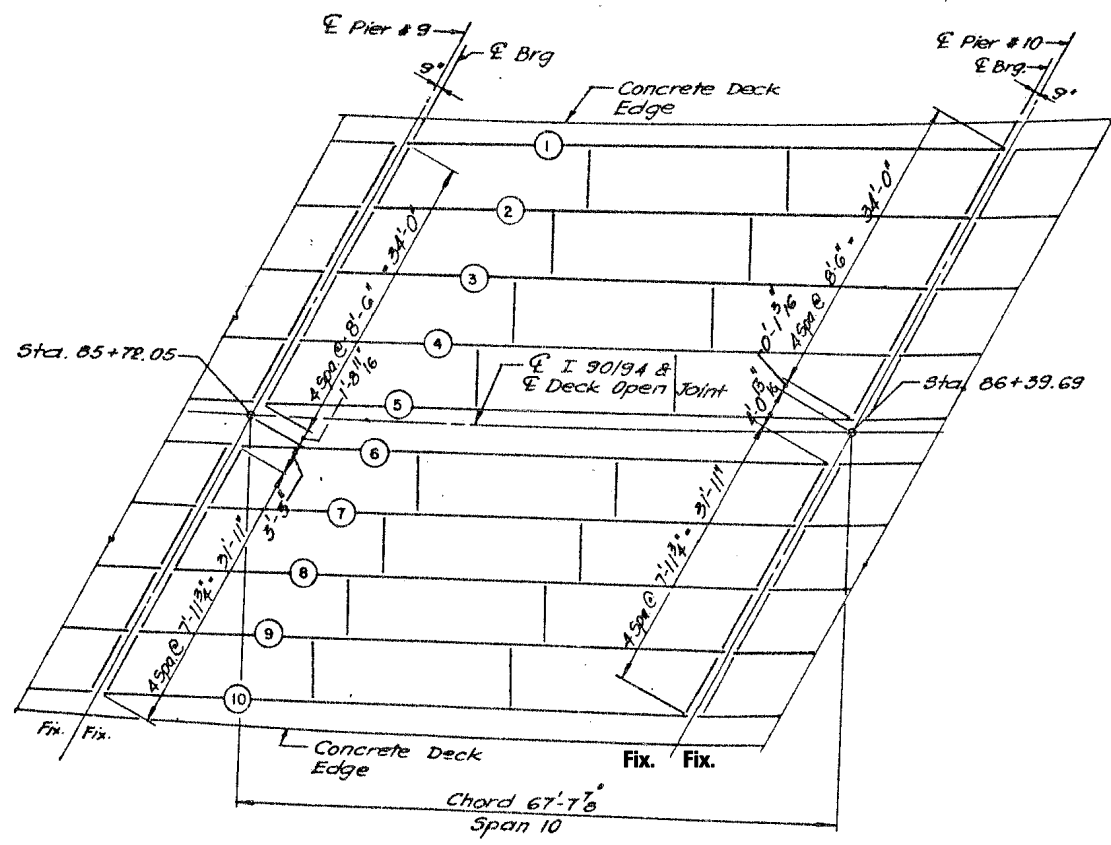
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	CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED -		SCALE: NTS SHEET NO. 3 OF 39 SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT			



FILE NAME = USER NAME = aread PLOT SCALE = 2.0000' / IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN SPANS 4, 5 & 6 - LOCATION 2 STRUCTURE NO. 016-1117			F.A.I. R.T.E. 90/94 SECTION 2011-057-BP COUNTY COOK TOTAL SHEETS 98 SHEET NO. 25	
				SCALE: NTS SHEET NO. 4 OF 39 SHEETS STA. TO STA.	CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT			



PLAN-SPANS 7, 8 & 9



PLAN-SPAN 10

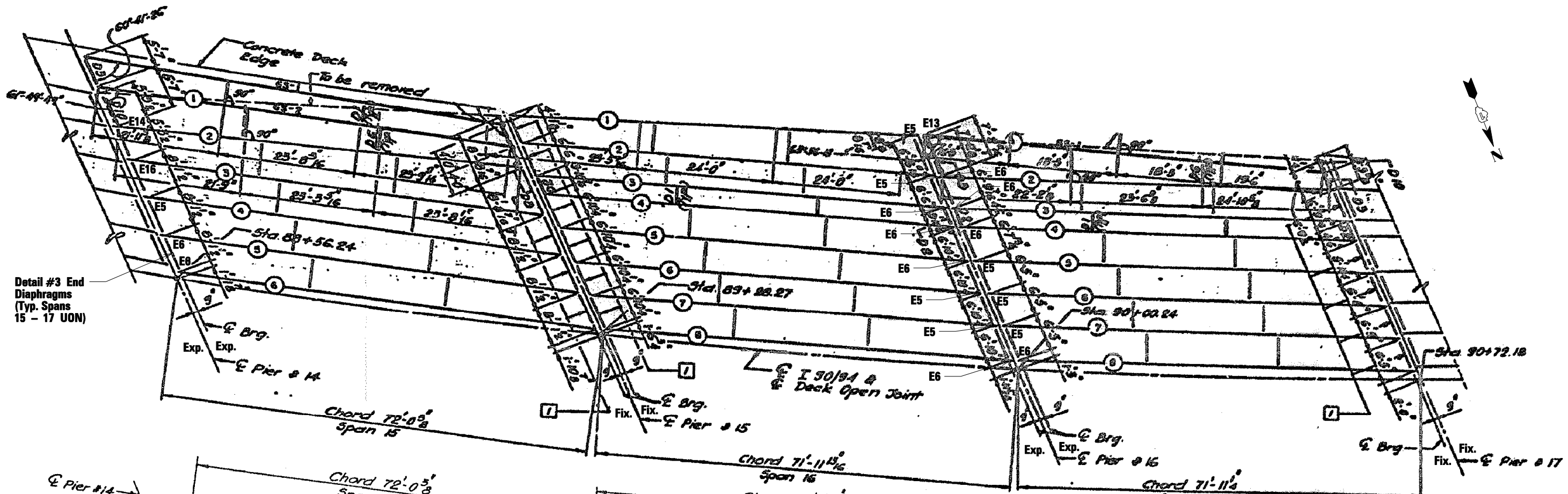
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	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

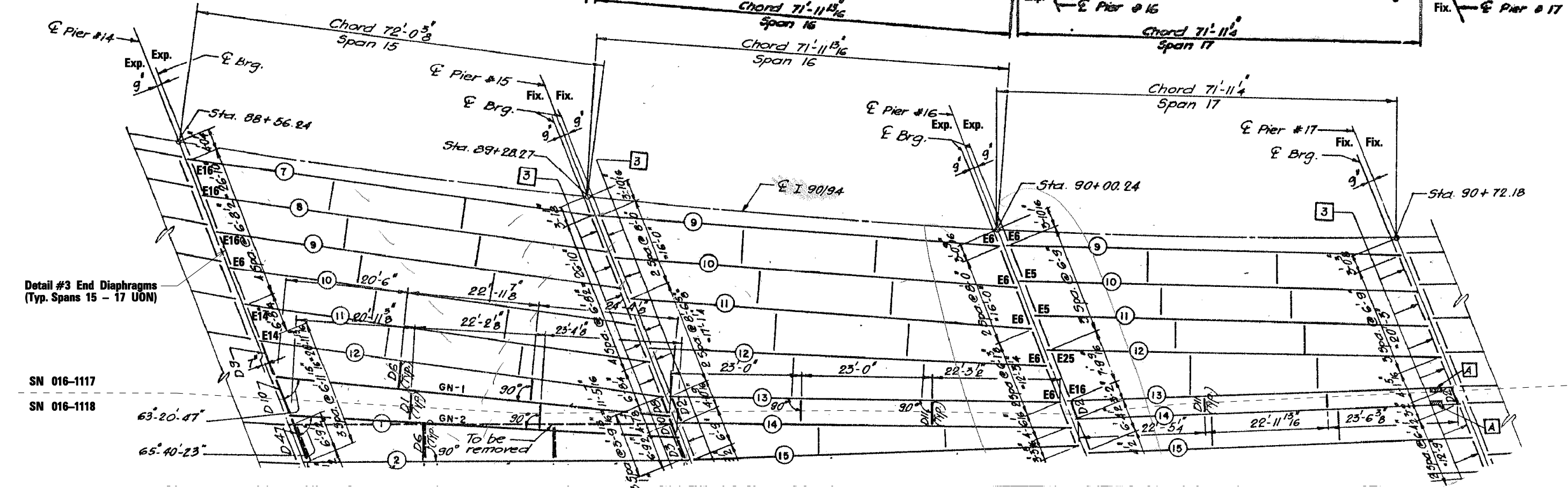
**FRAMING PLAN SPANS 7, 8, 9 & 10 - LOCATION 2
STRUCTURE NO. 016-1117**

SCALE: NTS SHEET NO. 5 OF 39 SHEETS STA. TO STA.

F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 26
CONTRACT NO. 60P73				ILLINOIS FED. AID PROJECT



Detail #3 End Diaphragms (Typ. Spans 15 - 17 UON)

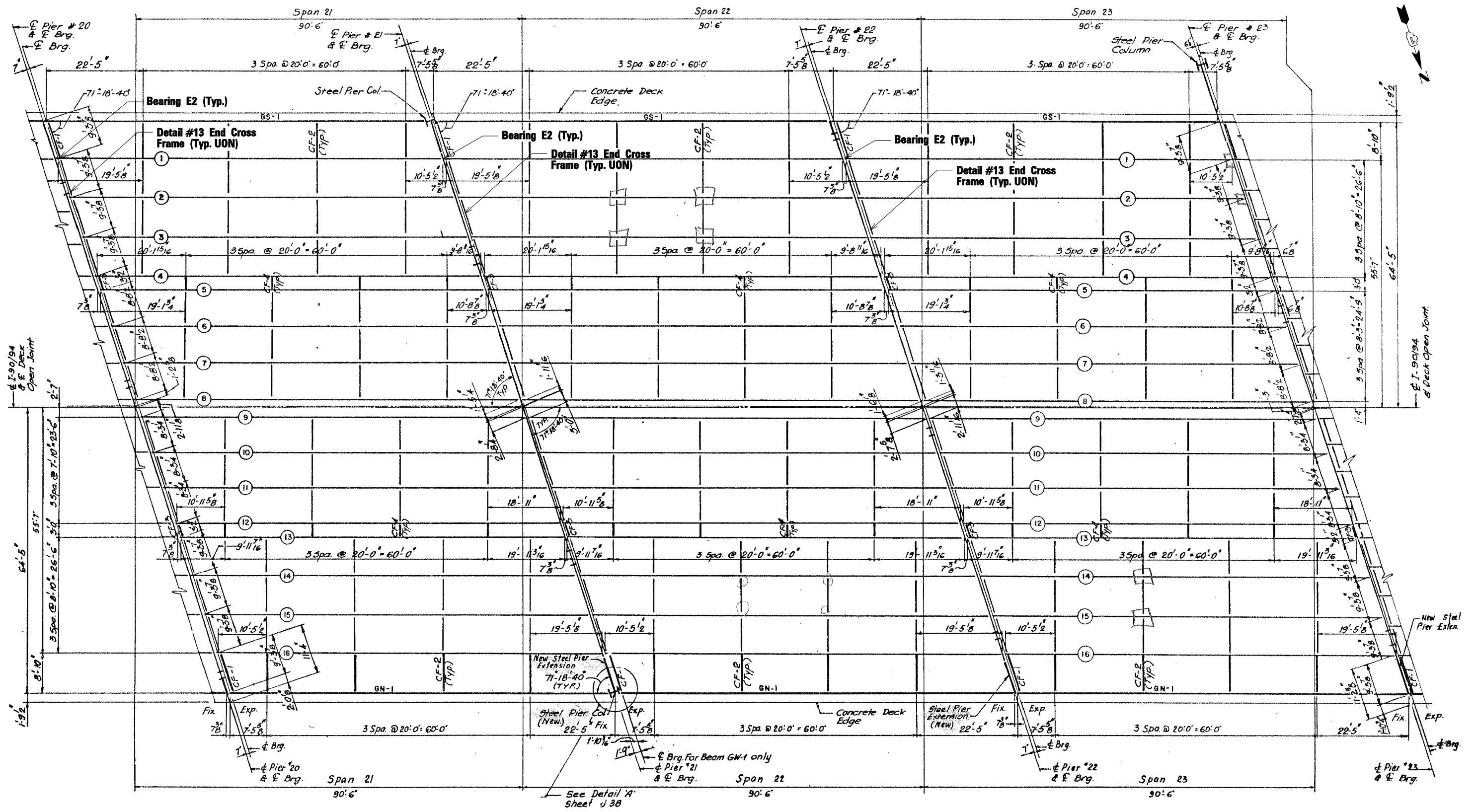


Detail #3 End Diaphragms (Typ. Spans 15 - 17 UON)

SN 016-1117
SN 016-1118

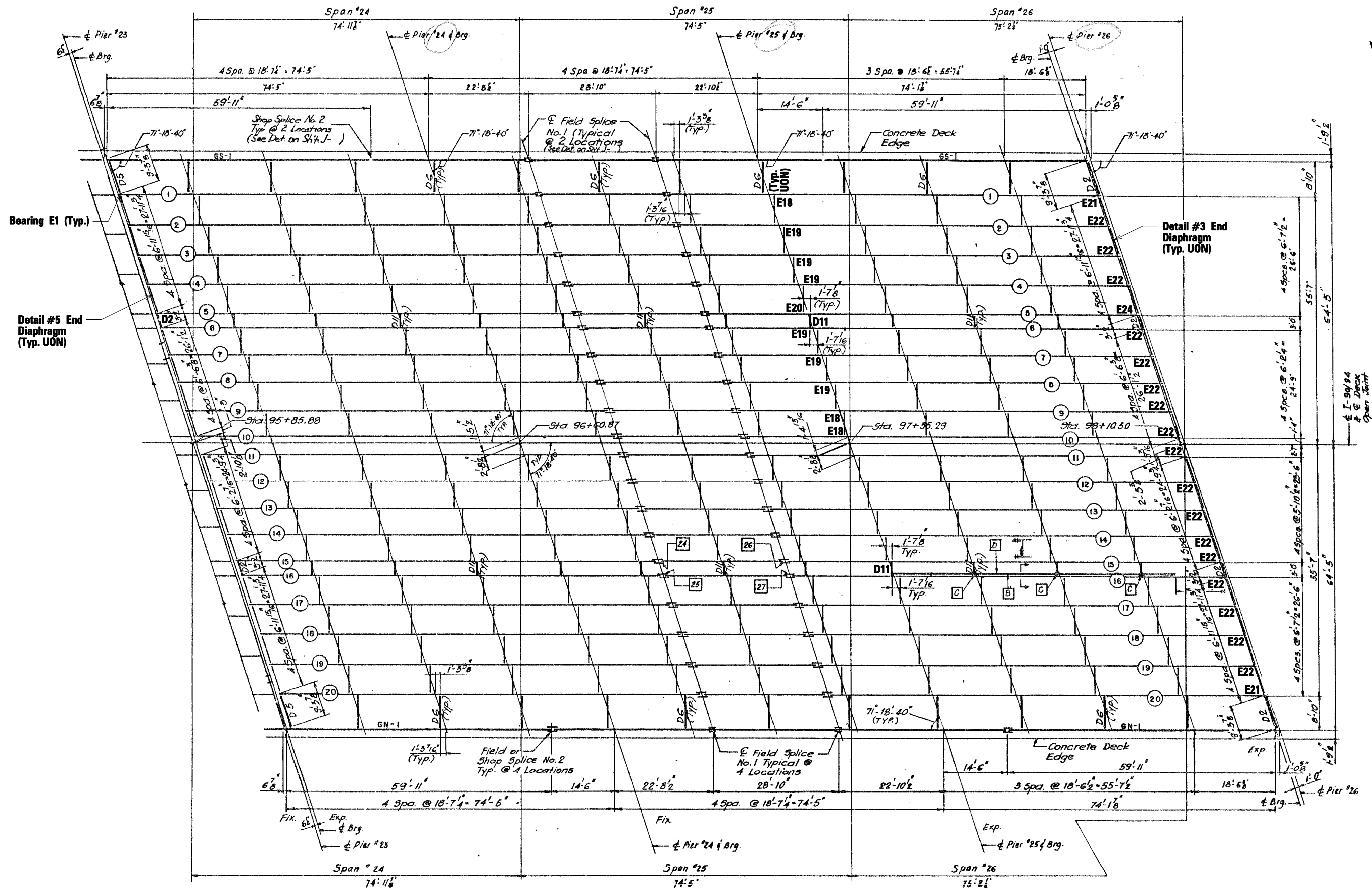
PLAN - SPANS 15, 16 & 17

FILE NAME :	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN SPANS 15, 16 & 17 - LOCATION 2 STRUCTURE NO. 016-1117			F.A.I. R.E. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 28
	PLOT SCALE = 2.0000' / IN.	CHECKED - JMH	REVISED -		SCALE: NTS	SHEET NO. 7 OF 39 SHEETS	STA.	TO STA.	CONTRACT NO. 60P73			
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -					ILLINOIS FED. AID PROJECT				



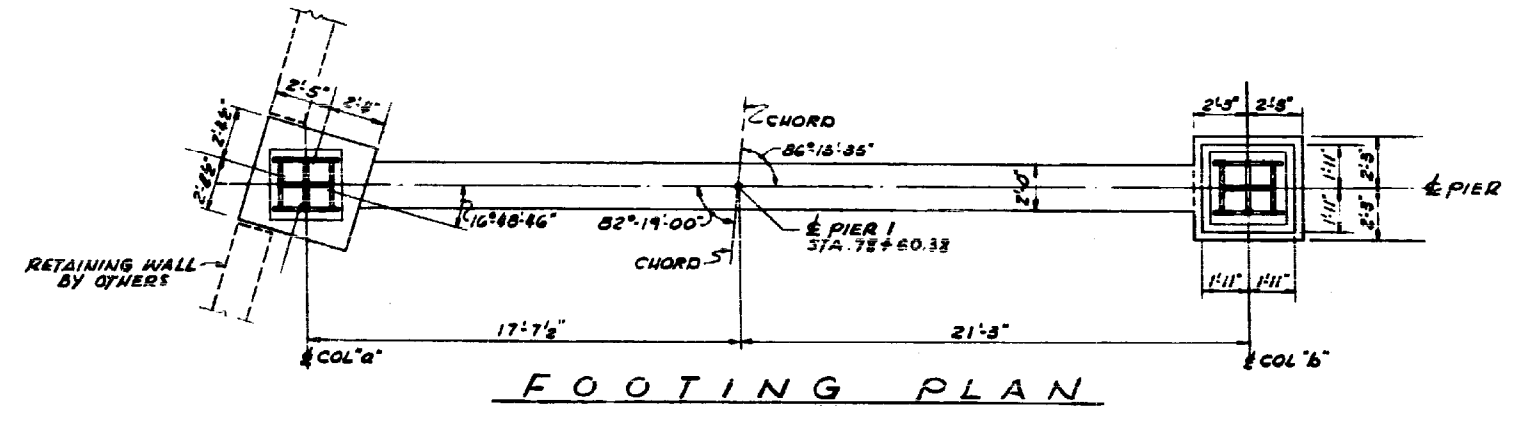
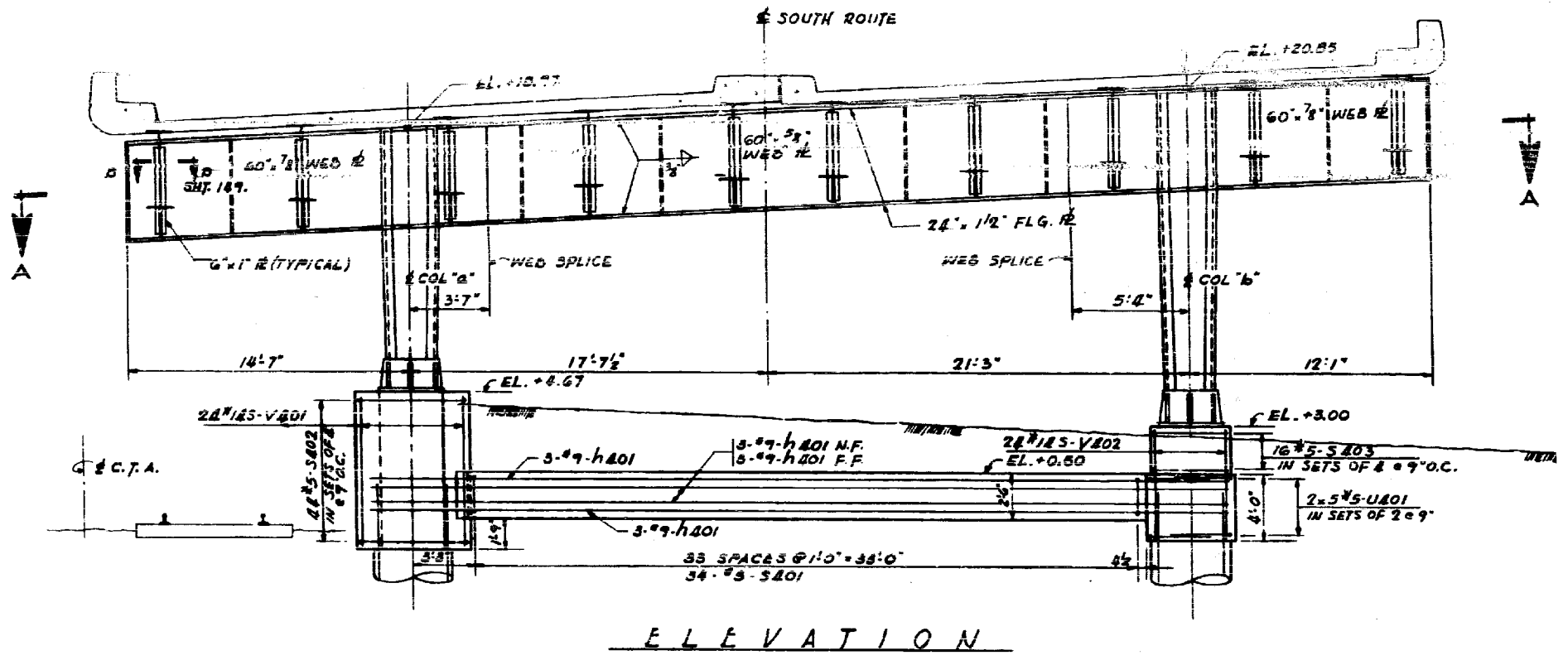
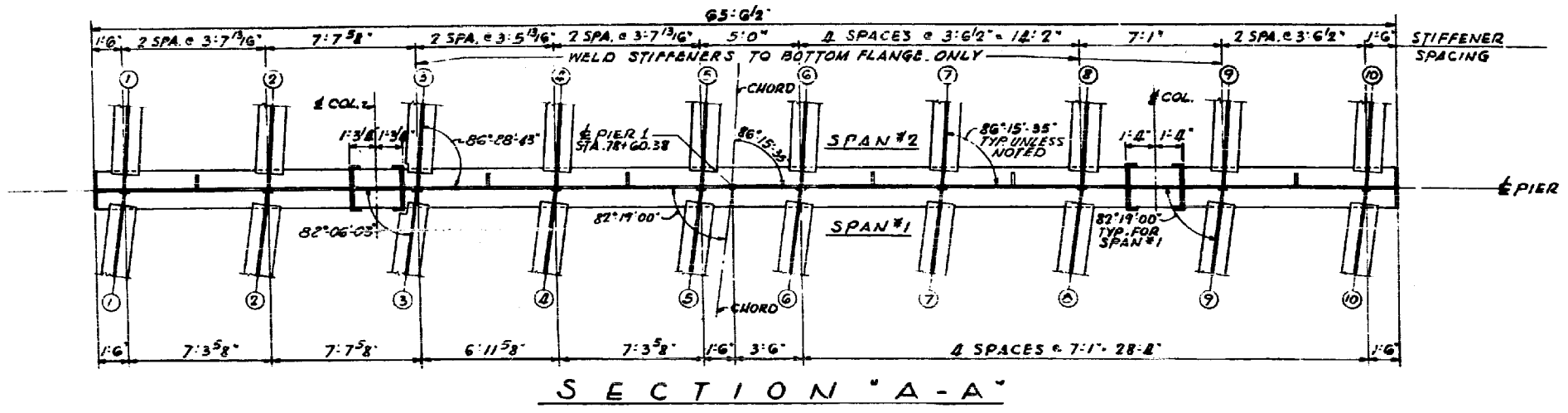
PLAN - SPANS 21, 22 & 23

FILE NAME = USER NAME = aread PLOT SCALE = 2.0000' / IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN SPANS 21, 22 & 23 - LOCATION 2 STRUCTURE NO. 016-1117			F.A.I. R.E. 90/94 SECTION 2011-057-BP COUNTY COOK TOTAL SHEETS 98 SHEET NO. 30 CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT
	SCALE: NTS SHEET NO. 9 OF 39 SHEETS STA. TO STA.						
	See Detail A' Sheet J 38						
	New Steel Pier Extension						



PLAN- SPANS 24, 25 & 26

FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN SPANS 24, 25 & 26 - LOCATION 2 STRUCTURE NO. 016-1117			F.A.I. R.E. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 2.0000' / IN.	CHECKED - JMH	REVISED -					90/94	2011-057-BP	COOK	98	31
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -					CONTRACT NO. 60P73				
								ILLINOIS FED. AID PROJECT				
				SCALE: NTS	SHEET NO. 10 OF 39 SHEETS	STA.	TO STA.					



FILE NAME =
 USER NAME = aread
 PLOT SCALE = 2.0000 "/>

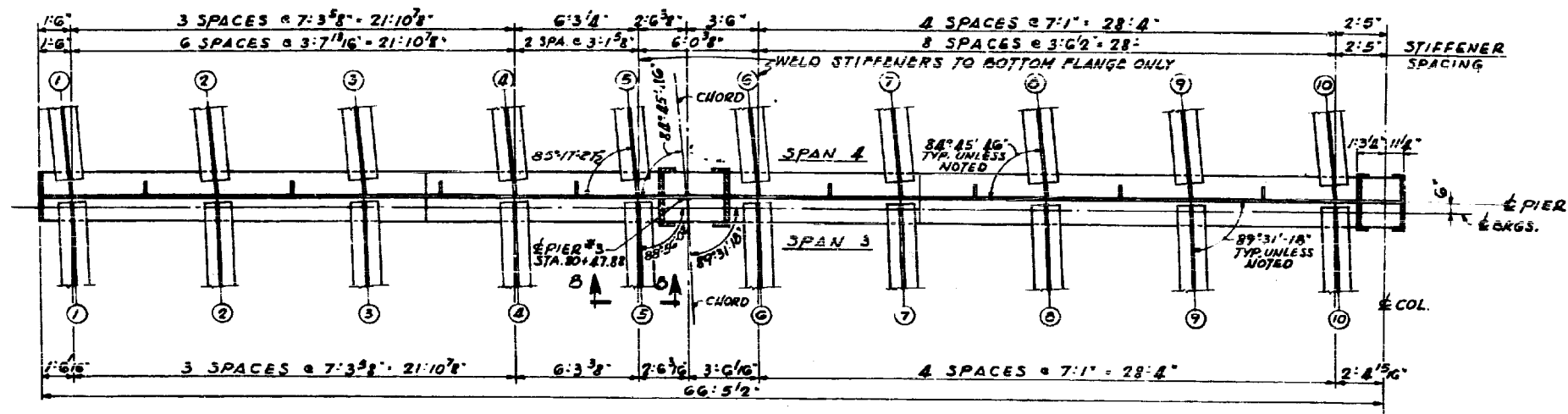
DESIGNED - AMR	REVISED -
DRAWN - AMR	REVISED -
CHECKED - JMH	REVISED -
DATE - MARCH, 2012	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

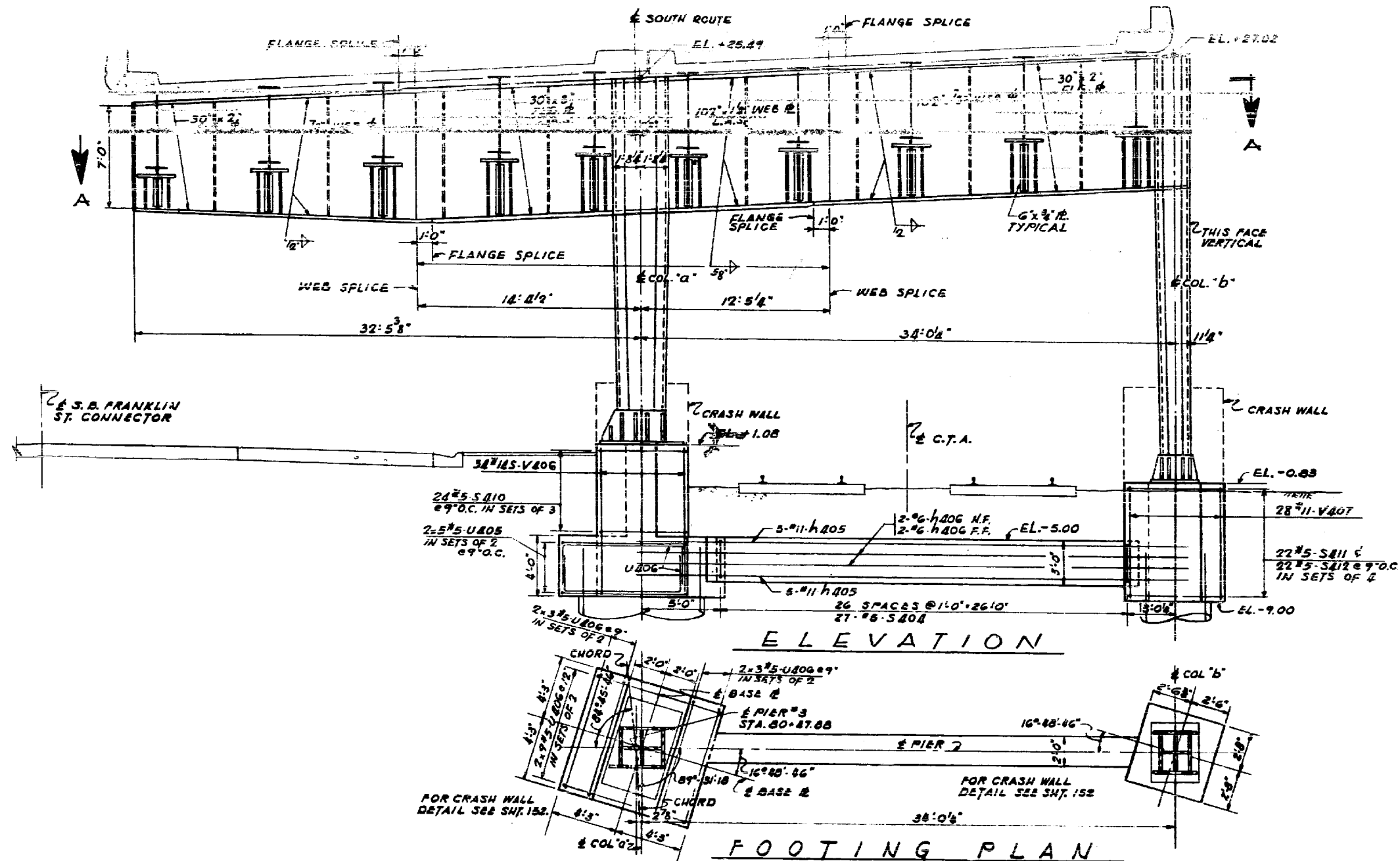
**PIER 1 - LOCATION 2
 STRUCTURE NO. 016-1117**

SCALE: NTS SHEET NO. 11 OF 39 SHEETS STA. TO STA.

F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 32
CONTRACT NO. 60P73				ILLINOIS FED. AID PROJECT



SECTION A-A



ELEVATION

FOOTING PLAN

FILE NAME =
 USER NAME = aread
 PLOT SCALE = 2.0000" / IN.
 PLOT DATE = 3/29/2012

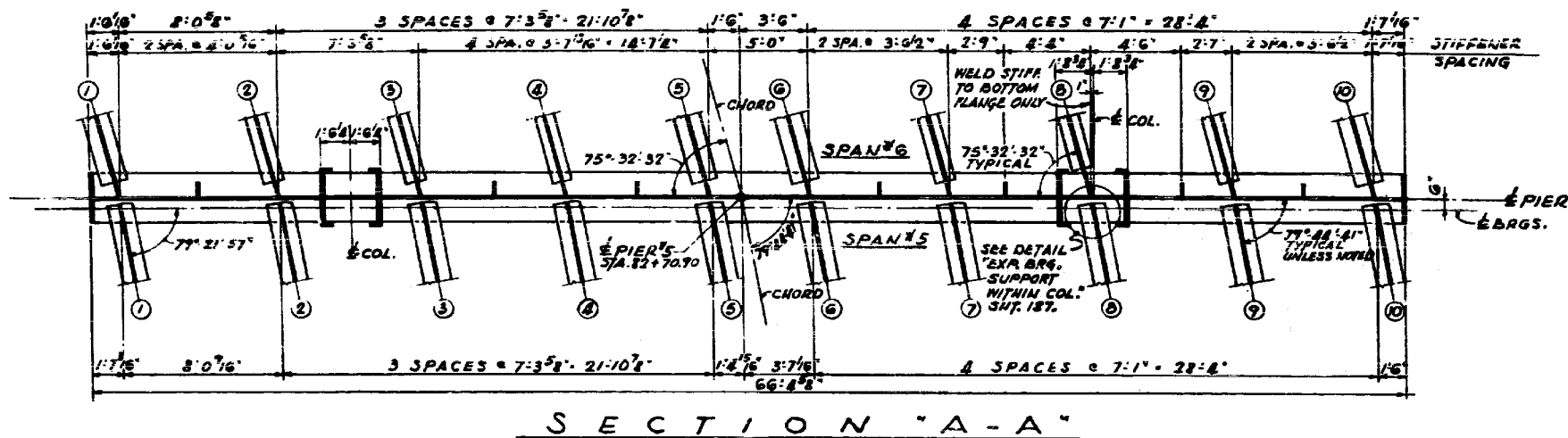
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DRAWN - AMR	REVISED -
CHECKED - JMH	REVISED -
DATE - MARCH, 2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

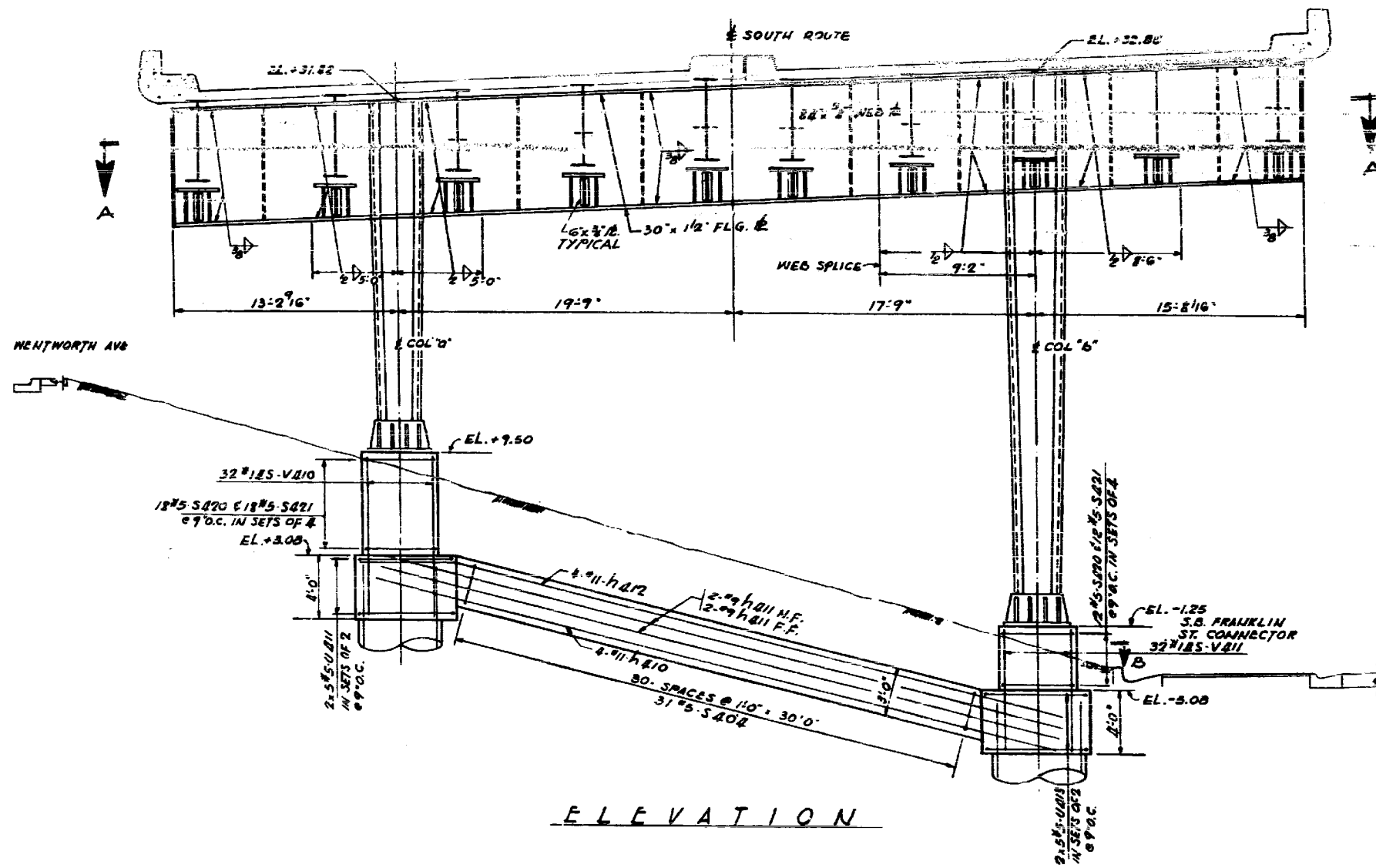
PIER 3 - LOCATION 2
 STRUCTURE NO. 016-1117

SCALE: NTS SHEET NO. 13 OF 39 SHEETS STA. TO STA.

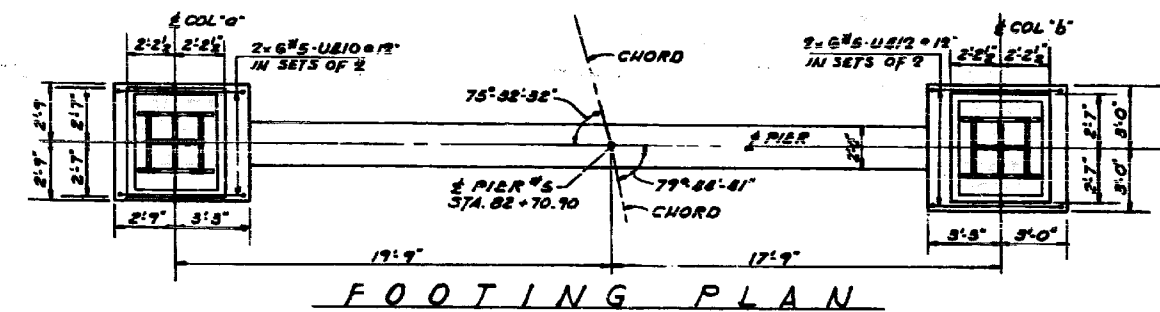
F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 34
CONTRACT NO. 60P73			ILLINOIS FED. AID PROJECT	



SECTION "A-A"

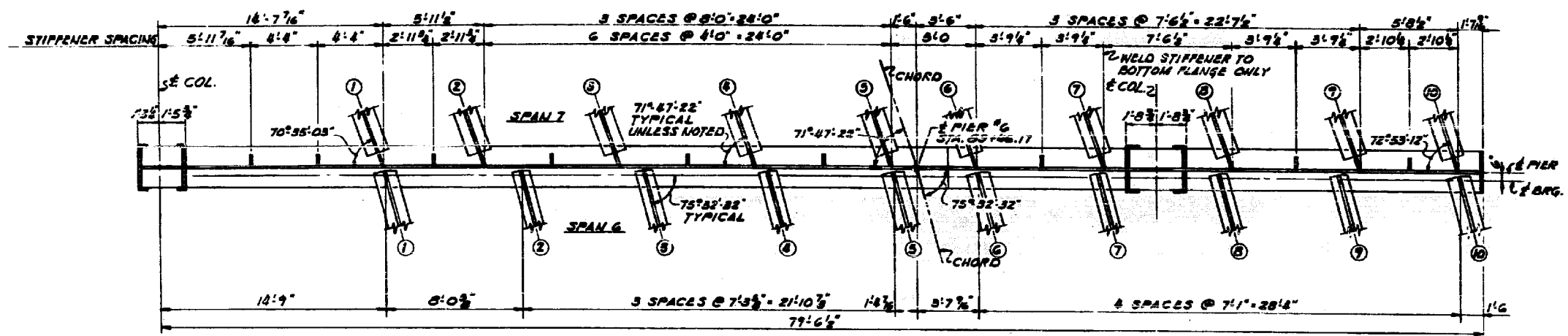


ELEVATION

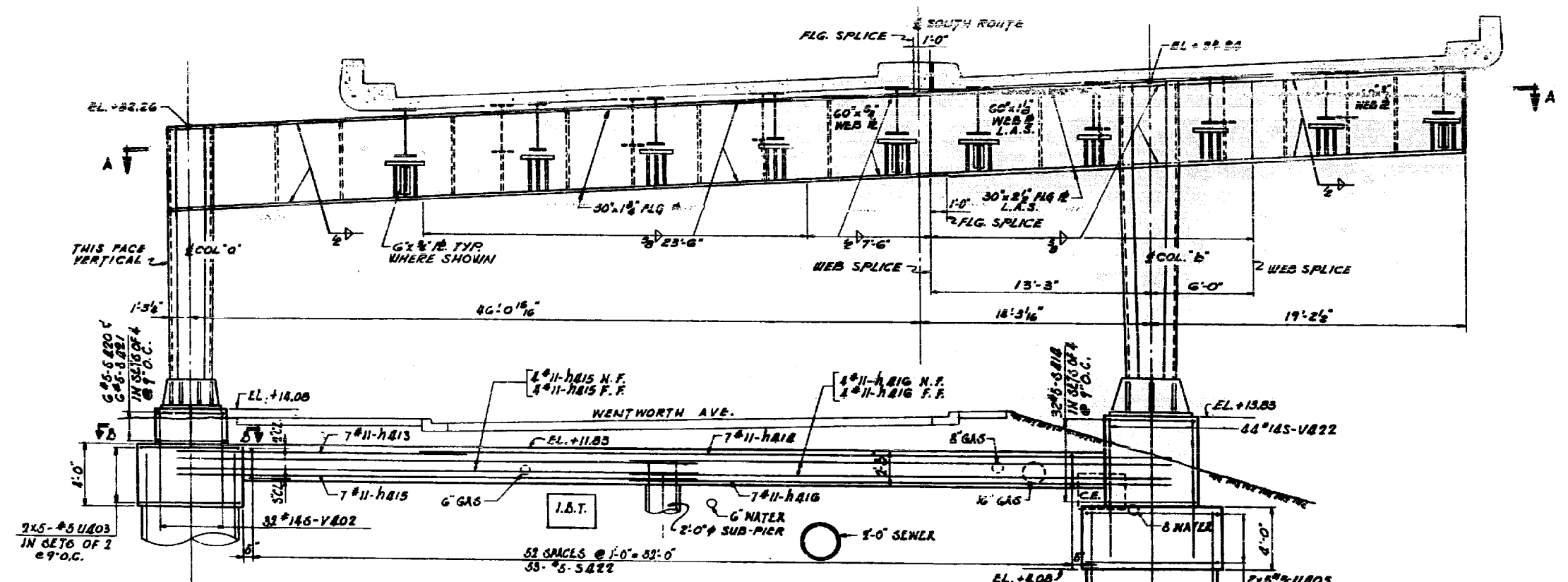


FOOTING PLAN

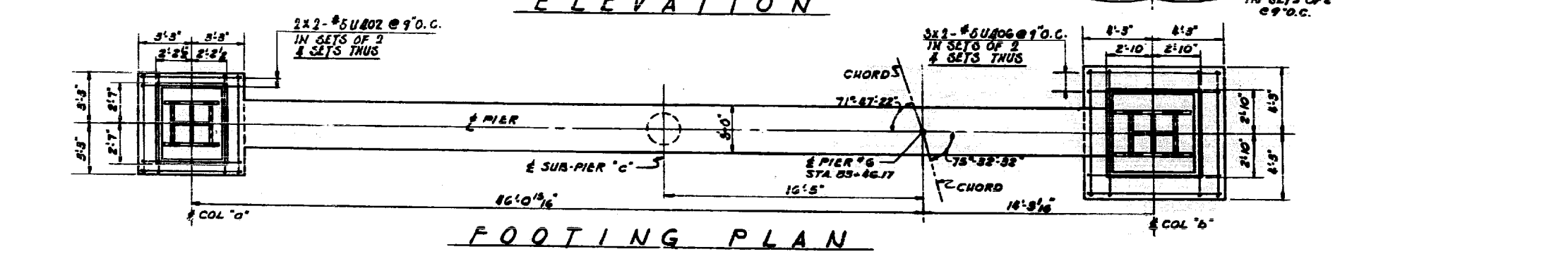
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	PLOT DATE = 3/29/2012			SCALE: NTS SHEET NO. 15 OF 39 SHEETS STA. TO STA.	CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT		
						ILLINOIS FED. AID PROJECT	



SECTION A-A



ELEVATION



FOOTING PLAN

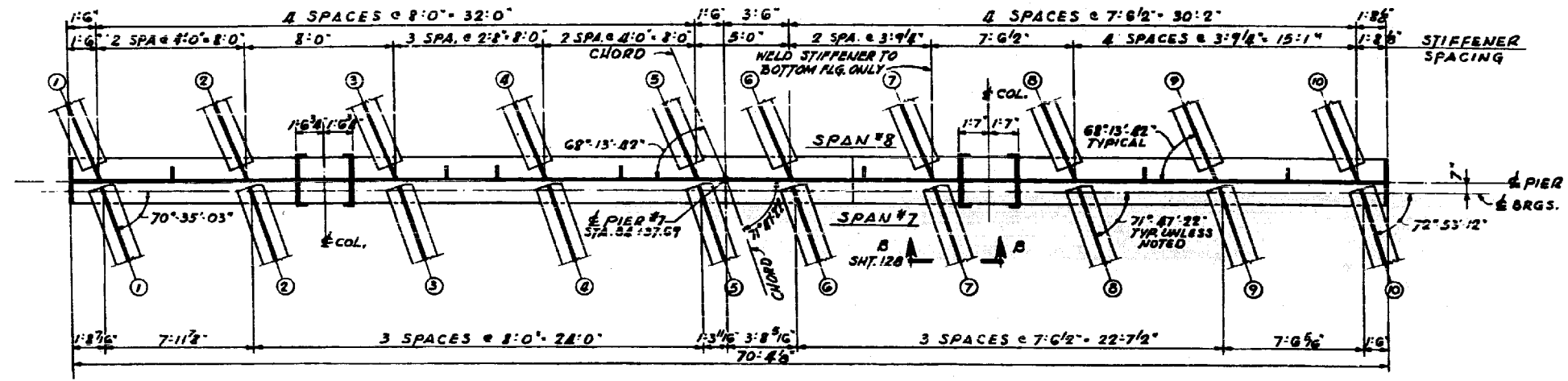
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 PLOT SCALE = 2.0000' / IN.
 PLOT DATE = 3/29/2012

DESIGNED - AMR	REVISED -
DRAWN - AMR	REVISED -
CHECKED - JMH	REVISED -
DATE - MARCH, 2012	REVISED -

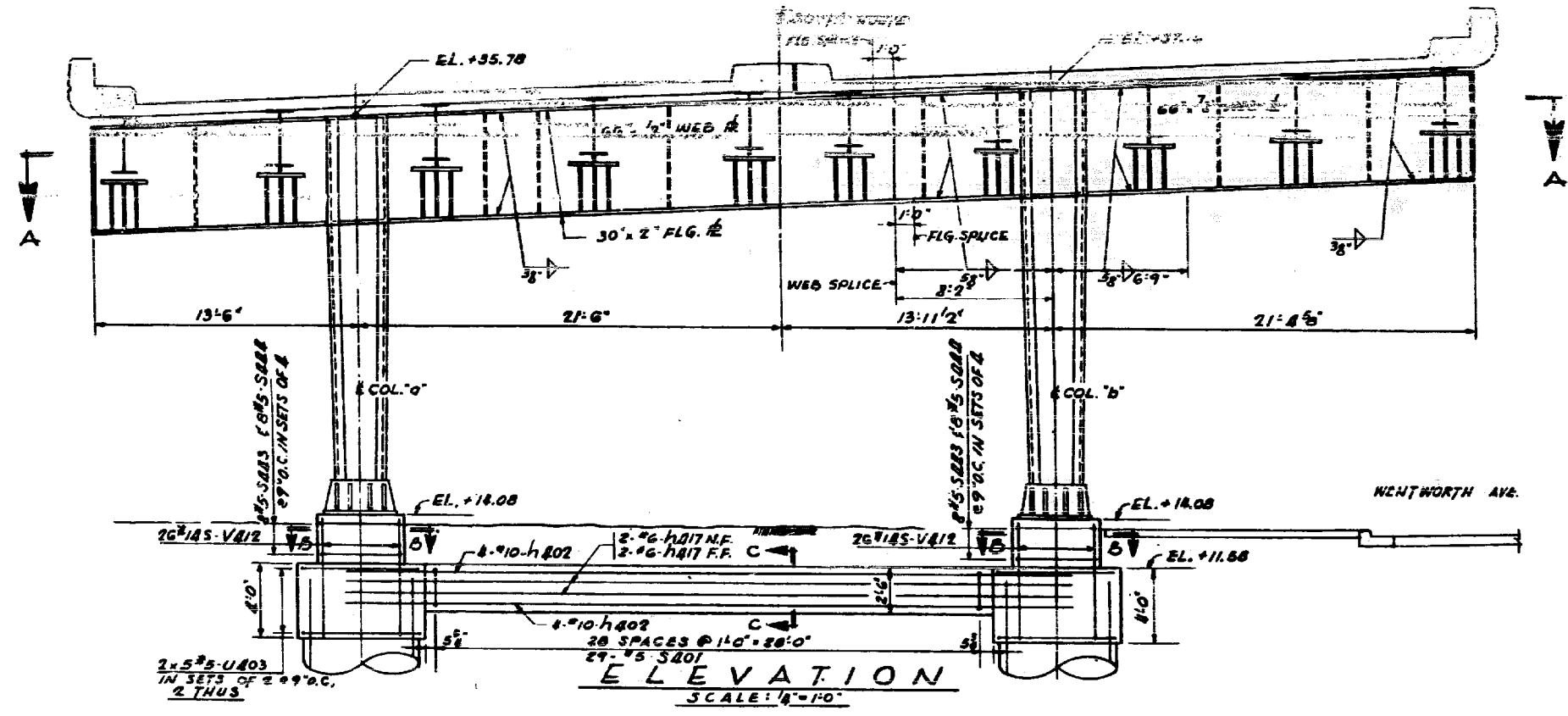
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 6 - LOCATION 2
 STRUCTURE NO. 016-1117
 SCALE: NTS SHEET NO. 16 OF 39 SHEETS STA. TO STA.

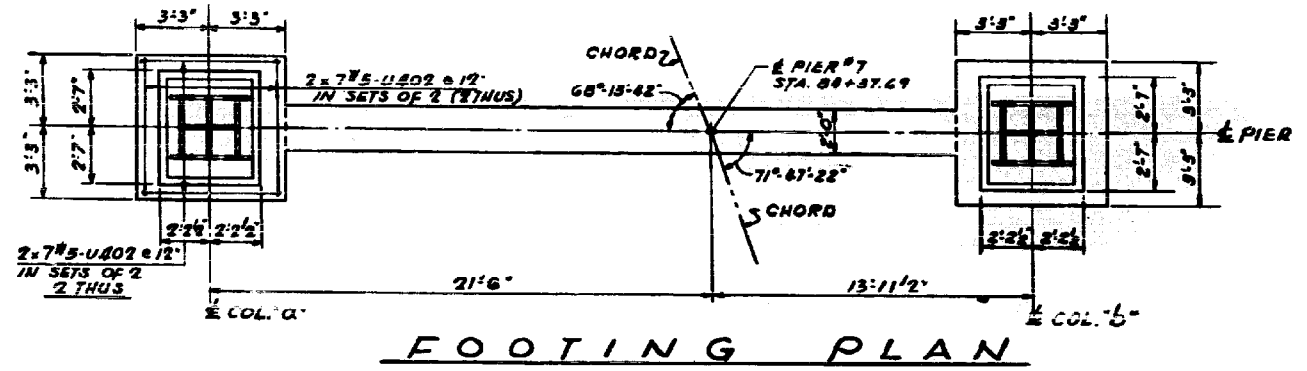
F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 37
CONTRACT NO. 60P73				
ILLINOIS FED. AID PROJECT				



SECTION "A-A"



ELEVATION
SCALE: 1/4"=1'-0"



FOOTING PLAN

FILE NAME =
USER NAME = aread
PLOT SCALE = 2,0000' / IN.
PLOT DATE = 3/29/2012

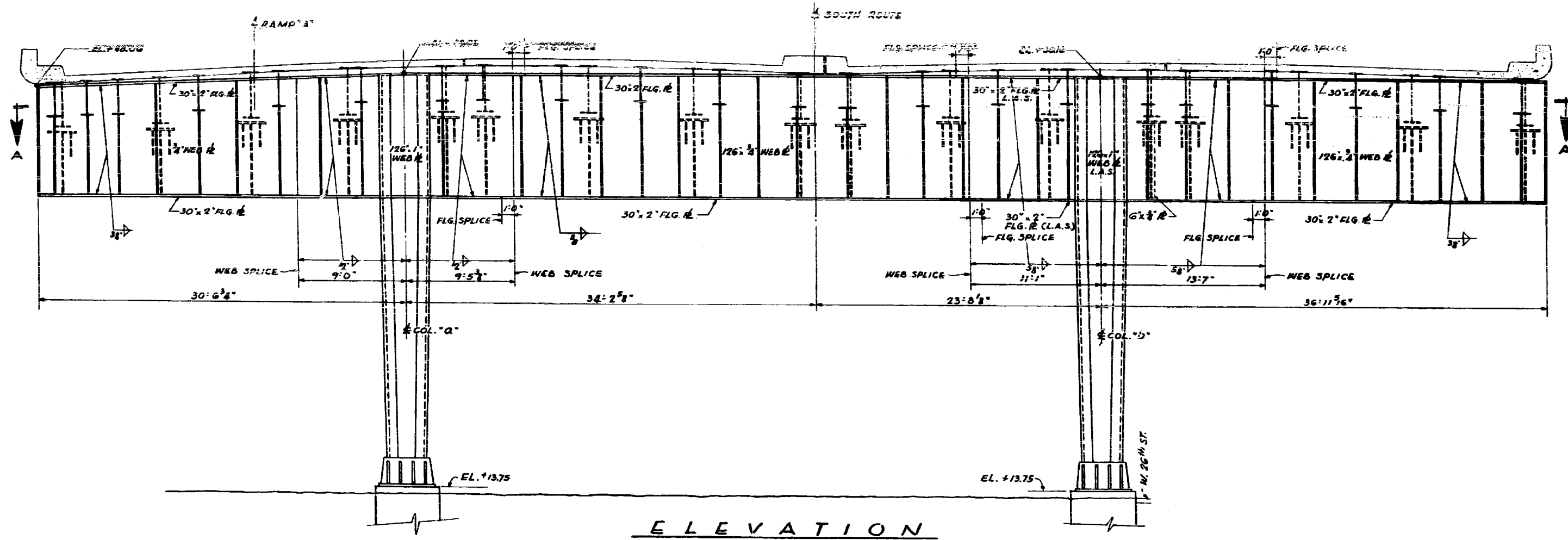
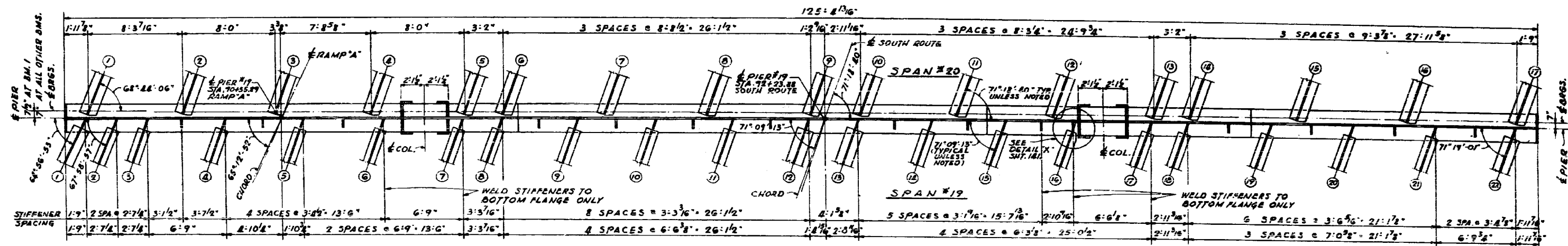
DESIGNED - AMR	REVISED -
DRAWN - AMR	REVISED -
CHECKED - JMH	REVISED -
DATE - MARCH, 2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

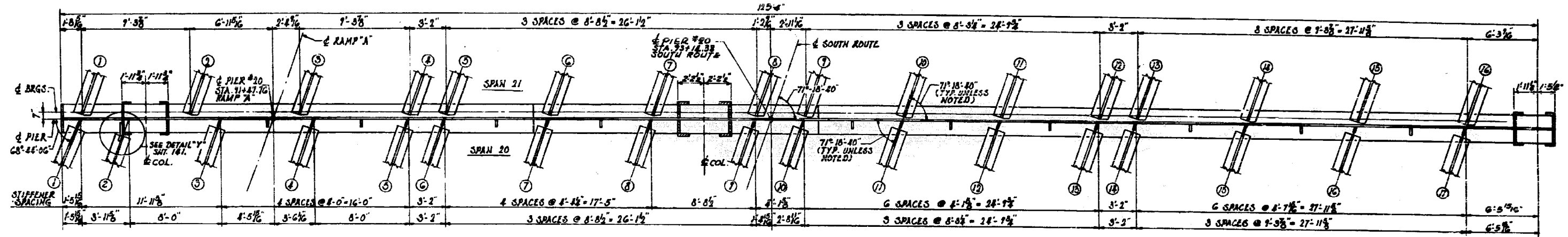
PIER 7 - LOCATION 2
STRUCTURE NO. 016-1117

SCALE: NTS SHEET NO. 17 OF 39 SHEETS STA. TO STA.

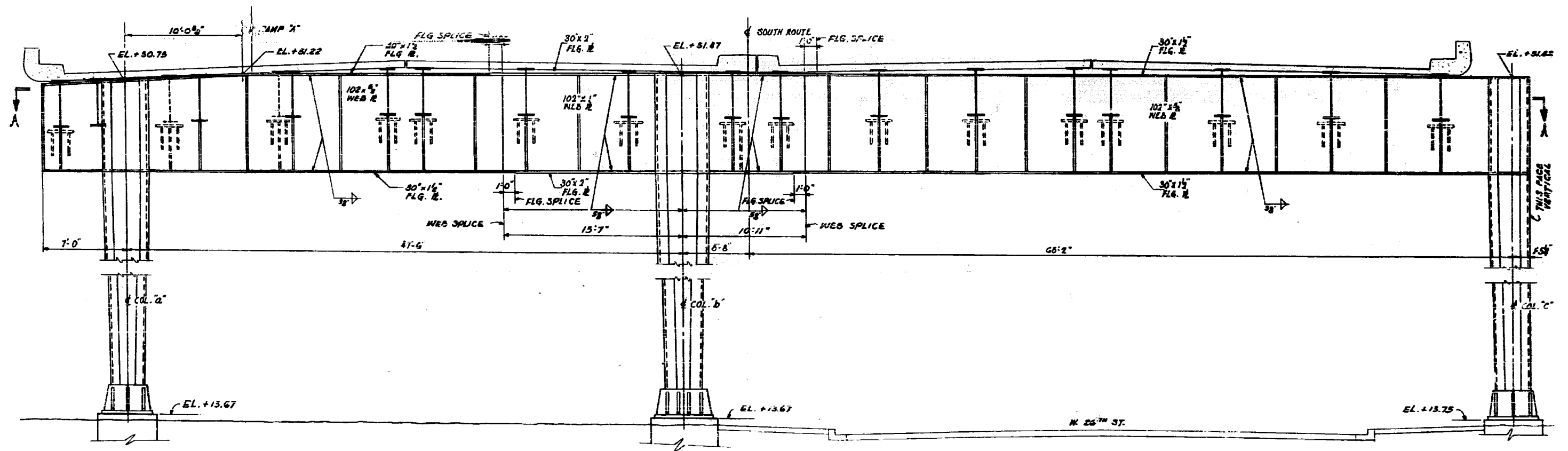
F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 38
CONTRACT NO. 60P73				ILLINOIS FED. AID PROJECT



FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 19 - LOCATION 2 STRUCTURE NO. 016-1117		F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 39	
	PLOT SCALE = 2,0000' / IN.	CHECKED - JMH	REVISED -				CONTRACT NO. 60P73					
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -				ILLINOIS FED. AID PROJECT					
							SCALE: NTS	SHEET NO. 18 OF 39 SHEETS	STA.	TO STA.		

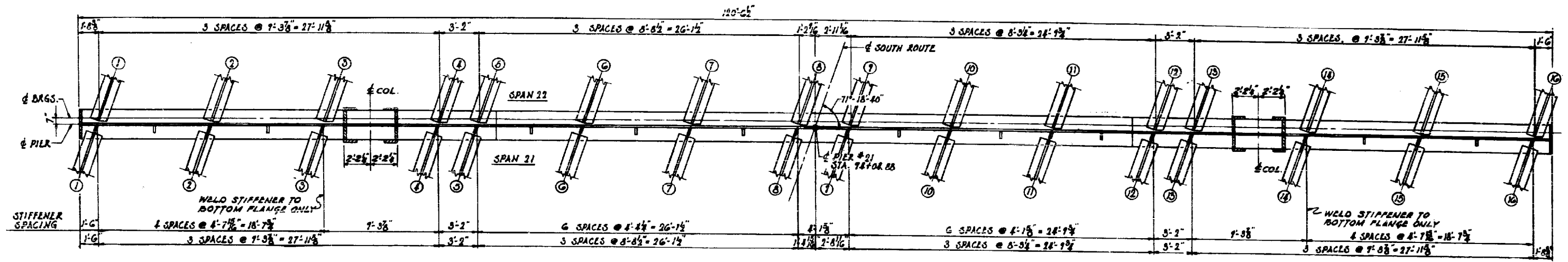


SECTION A-A

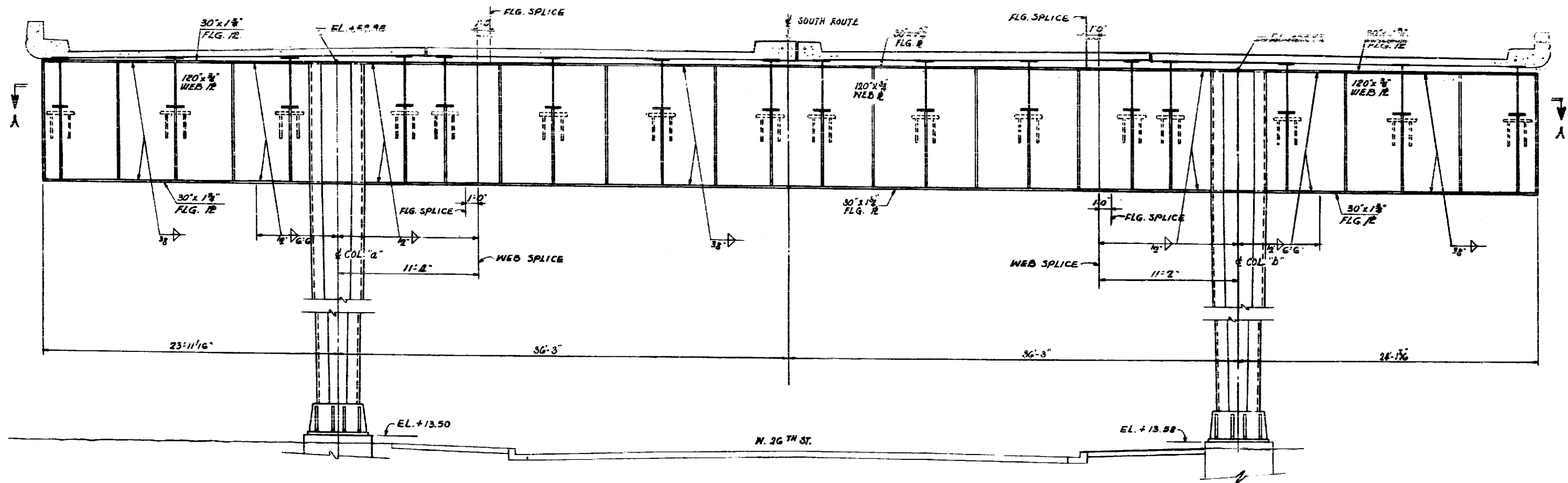


ELEVATION

FILE NAME :	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 20 - LOCATION 2 STRUCTURE NO. 016-1117		F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 40
	PLOT SCALE = 2.0000' / IN.	CHECKED - JMH	REVISED -		SCALE: NTS	SHEET NO. 19 OF 39 SHEETS	STA.	TO STA.	CONTRACT NO. 60P73		
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -		ILLINOIS FED. AID PROJECT						

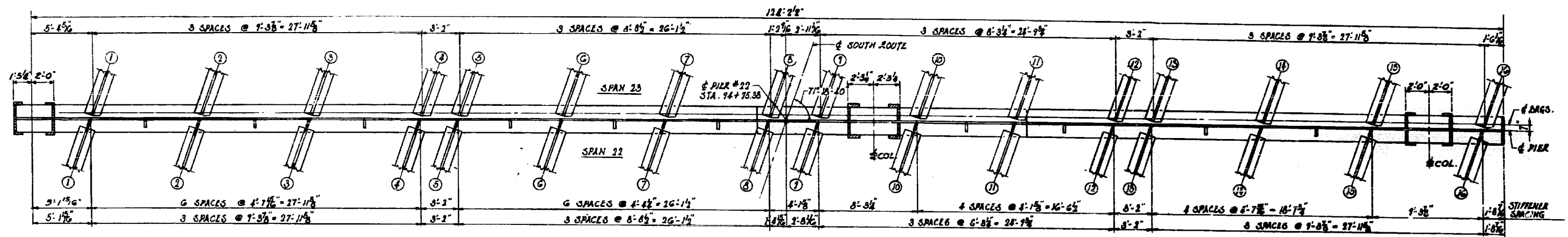


SECTION A-A

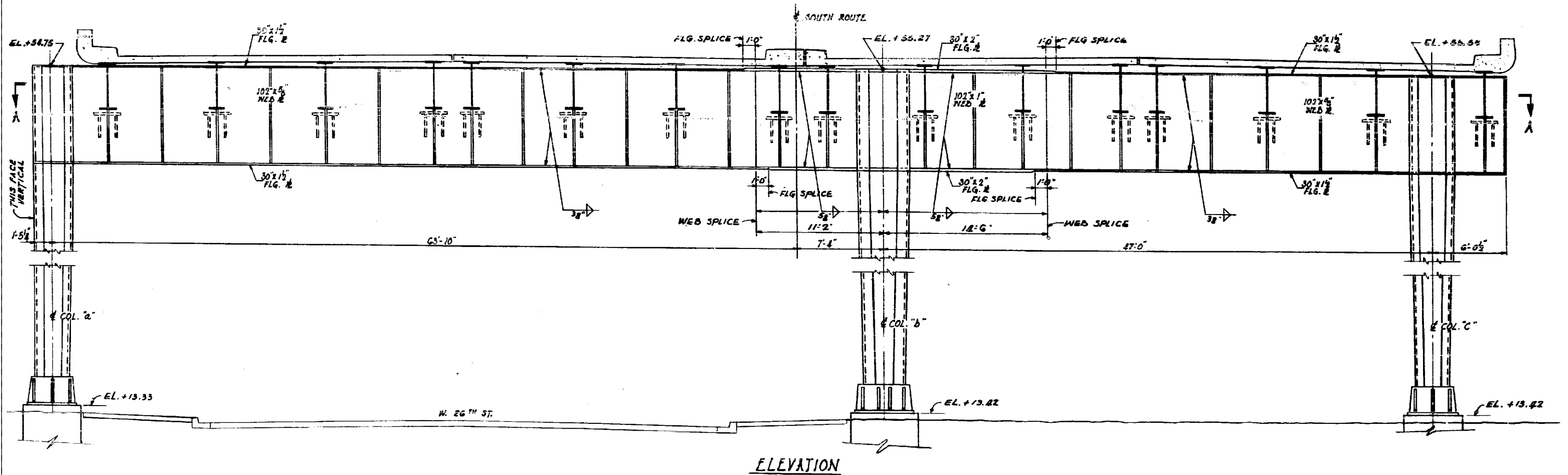


ELEVATION

FILE NAME = USER NAME = aread PLOT SCALE = 2.0000' / IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 21 - LOCATION 2 STRUCTURE NO. 016-1117		F.A.I. RTE. 90/94 SECTION 2011-057-BP COUNTY COOK CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT	
				SCALE: NTS	SHEET NO. 20 OF 39 SHEETS	STA. TO STA.	
						TOTAL SHEETS 98	
						SHEET NO. 41	

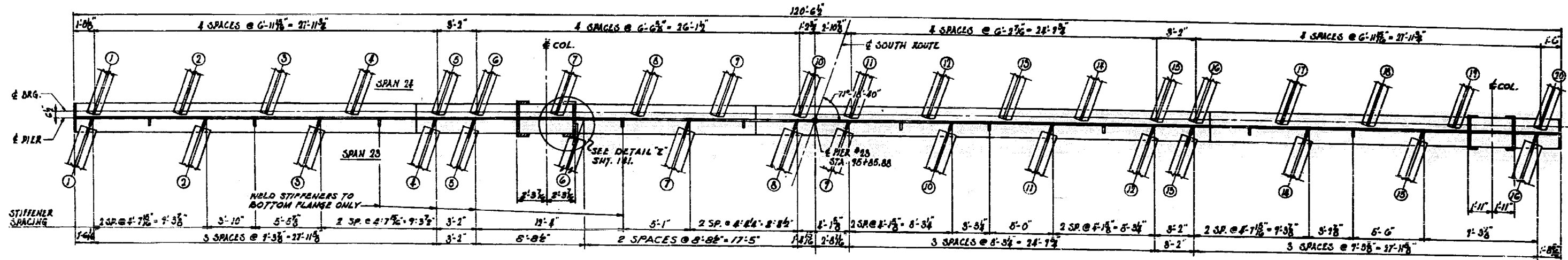


SECTION A-A

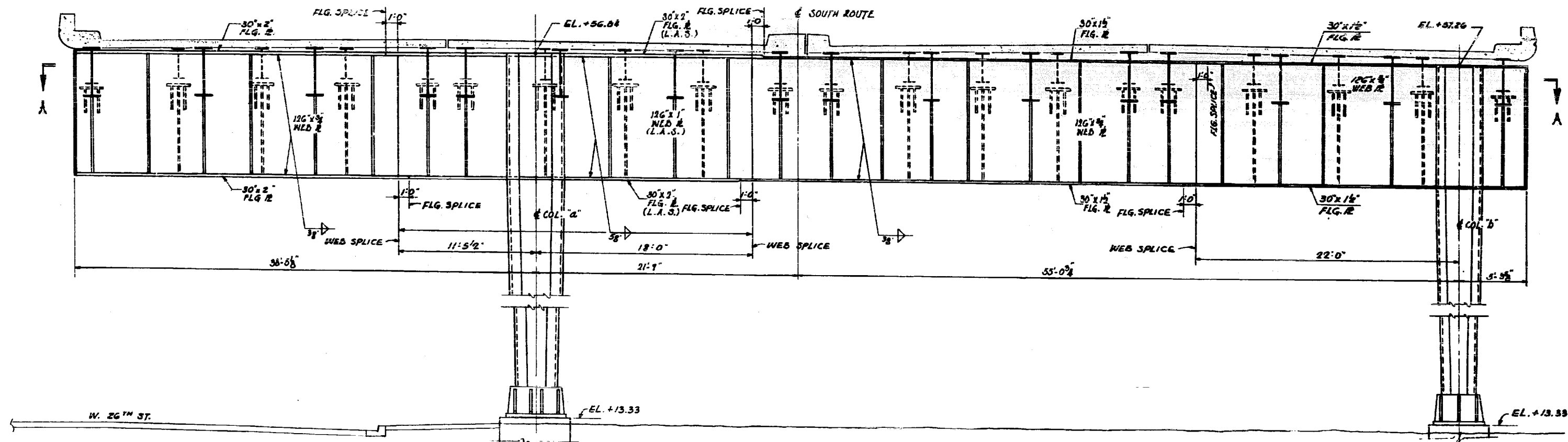


ELEVATION

FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 22 - LOCATION 2 STRUCTURE NO. 016-1117			F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 42	
	PLOT SCALE = 2,0000' / IN.	CHECKED - JMH	REVISED -		SCALE: NTS	SHEET NO. 21 OF 39 SHEETS	STA.	TO STA.	CONTRACT NO. 60P73				
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -		ILLINOIS FED. AID PROJECT								

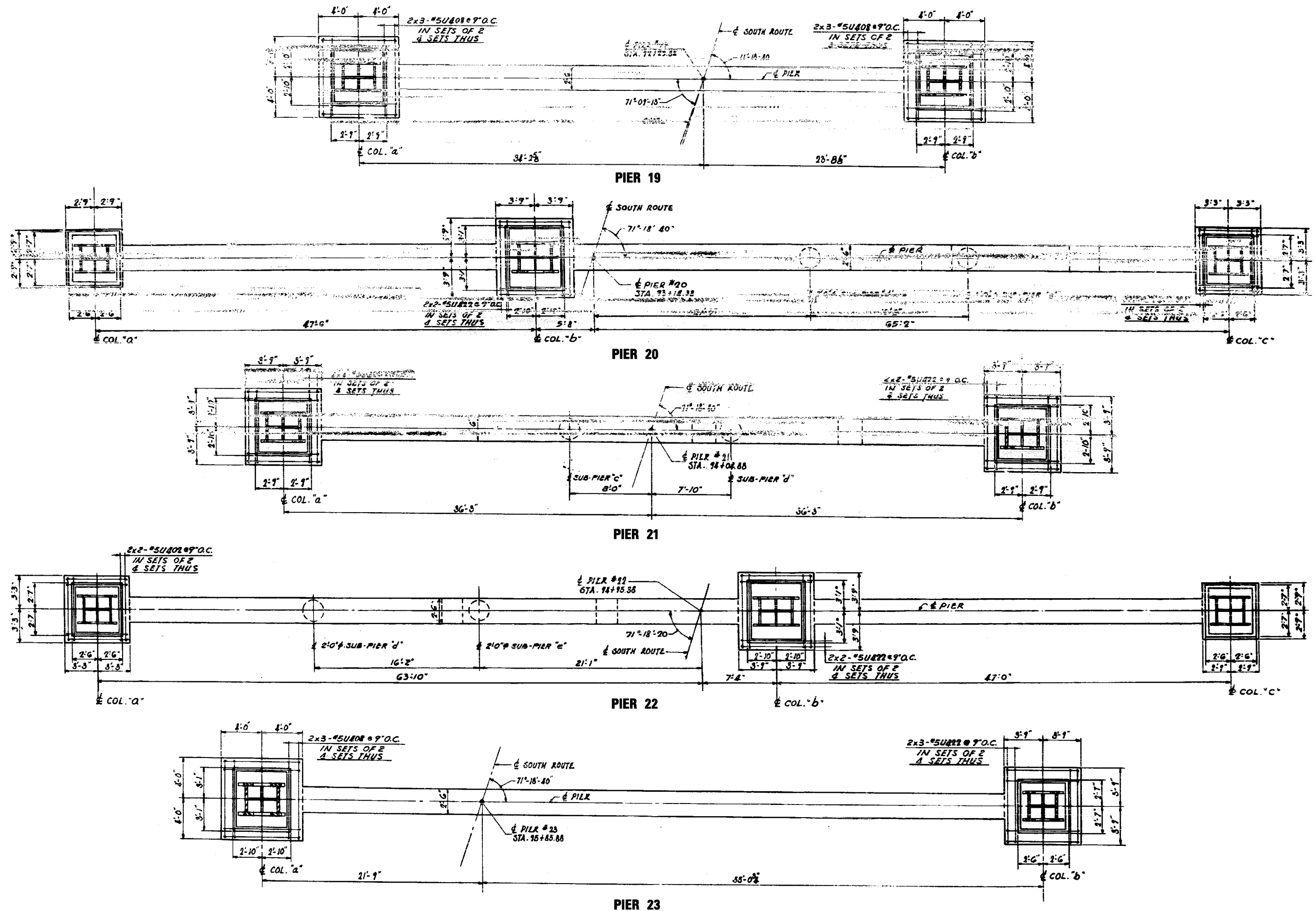


SECTION A-A



ELEVATION

FILE NAME: USER NAME: aread PLOT SCALE: 2.0000' / IN. PLOT DATE: 3/29/2012	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 23 - LOCATION 2 STRUCTURE NO. 016-1117		F.A.I. RTE.: 90/94 SECTION: 2011-057-BP COUNTY: COOK CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT
				SCALE: NTS SHEET NO. 22 OF 39 SHEETS STA. TO STA.	TOTAL SHEETS: 98 SHEET NO.: 43	

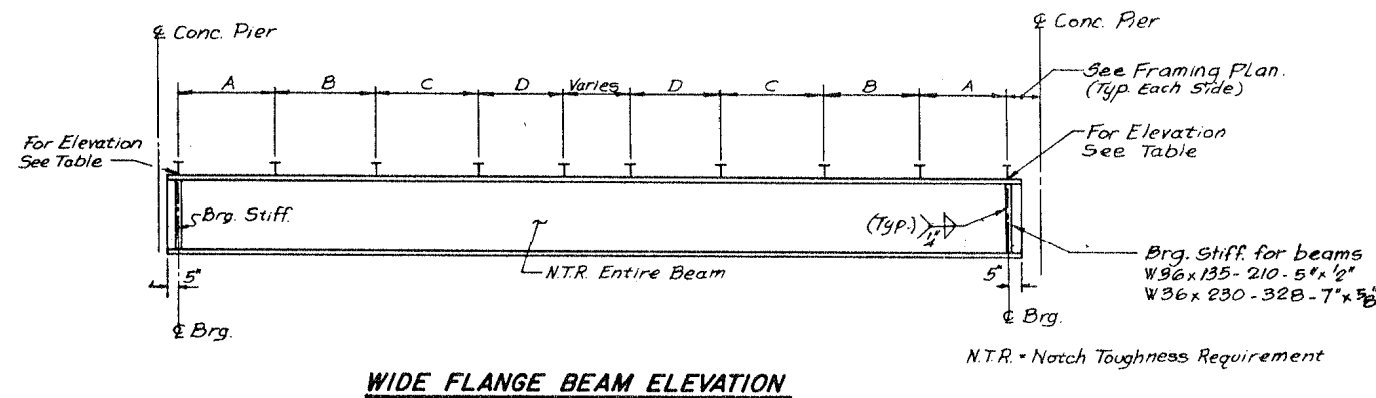


FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FOOTING PLANS PIERS 19 THRU 23 - LOCATION 2 STRUCTURE NO. 016-1117			F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 44
	PLOT SCALE = 2.0000' / IN.	CHECKED - JMH	REVISED -					SCALE: NTS	SHEET NO. 23 OF 39 SHEETS	STA.	TO STA.	CONTRACT NO. 60P73
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -						ILLINOIS FED. AID PROJECT			

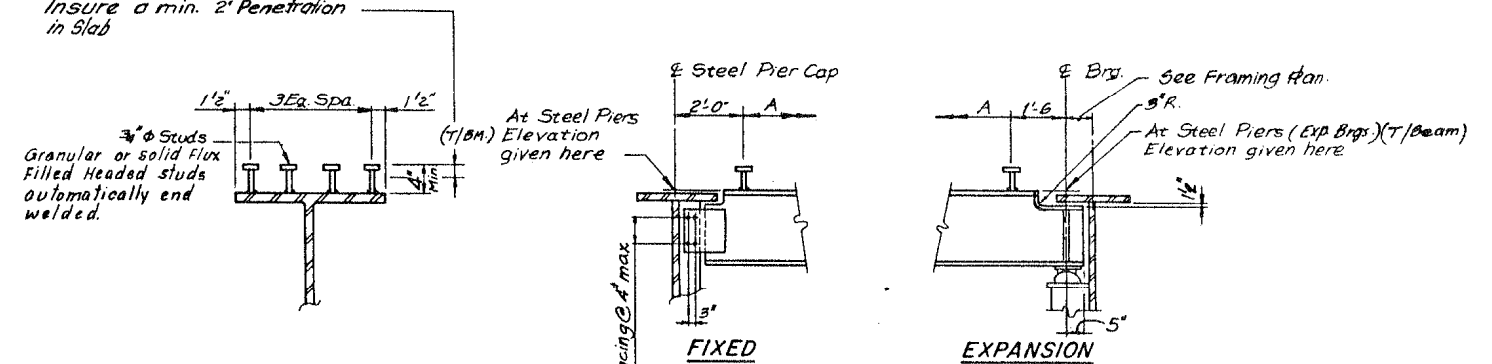
WIDE FLANGE BEAM SCHEDULE															
SPAN	BEAM	BEAM SIZE	L (¢ BRG. TO ¢ BRG.)	TOP OF BEAM ELEV. AT BEARINGS				STUDS PER ROW	SHEAR STUD SPACINGS				STUDS PER BEAM	DEFLECTION	
				PIER NO.	ELEV.	PIER NO.	ELEV.		A	B	C	D		Δ E	Δ L
15	GN-1	W36x170	67'-10"	14(H12)	46.483	15	47.444	4	15Sp@12"	15Sp@15"	—	—	248	3/4	9/16
18	GN-1	W36x230	69'-7 3/4"	17	51.031	18	51.526	4	18Sp@9"	21Sp@12"	—	—	320	1/2	1/2
19	GN-1	W36x260	78'-11 1/8"	18	51.542	19	51.866	4	16Sp@9"	27Sp@12"	—	—	352	1	1/16

Note:
Shear Stud Spacing Starts 2'-0" From ¢ Bearing at Pier 19 for Beam GN-1, Span 19.

WIDE FLANGE BEAM SCHEDULE															
SPAN	BEAM	BEAM SIZE	L (¢ BRG. TO ¢ BRG.)	TOP OF BEAM ELEV. AT BEARINGS				STUDS PER ROW	SHEAR STUD SPACINGS				STUDS PER BEAM	DEFLECTION	
				PIER NO.	ELEV.	PIER NO.	ELEV.		A	B	C	D		Δ E	Δ L
14	G5-1	W36x328	80'-7 1/8"	13	41.600	14	43.012	4	60@4"	40@6"	—	—	808	1 1/2	13/16
14	G5-2	W36x194	81'-7 7/8"	13	41.916	14	43.115	4	16@15"	8@21"	—	—	400	1 1/8	3/4
15	G5-1	W36x230	70'-2 5/8"	14	43.255	15	44.436	4	13@15"	11@21"	—	—	200	1/2	3/8
15	G5-2	W36x160	69'-5 1/8"	14	43.177	15	44.189	4	13@15"	14@18"	—	—	224	3/4	1/2
17	G5-1	W36x194	72'-3"	16	44.531	17	45.806	4	15@9"	24@12"	—	—	320	3/4	9/16
18	G5-1	W36x260	75'-2 1/8"	17	43.576	18	45.407	4	20@9"	22@12"	—	—	344	9/16	5/8
19	G5-1	W36x245	82'-3 3/8"	18	45.457	19	47.455	4	20@9"	25@12"	—	—	368	1 1/8	3/4



Length of Stud Shear Connector to be determined by the Contractor in the field to insure a min. 2" Penetration in Slab

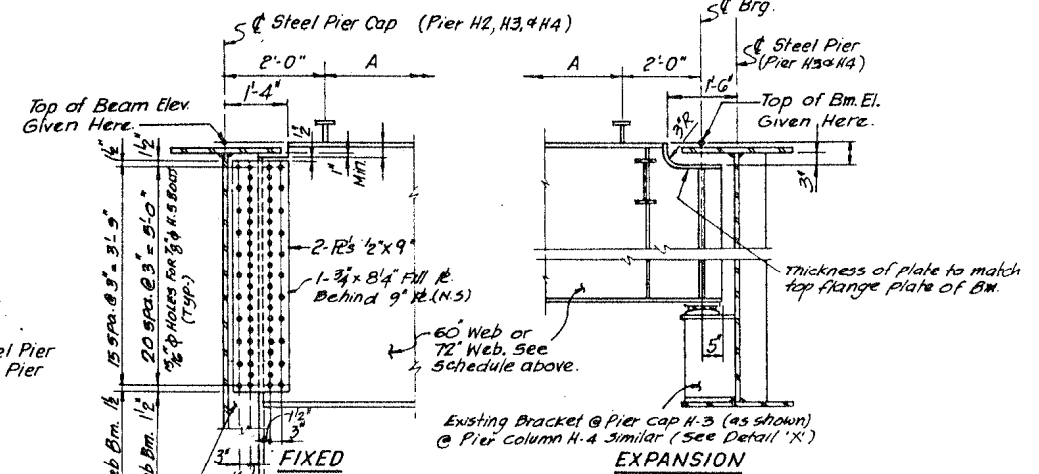
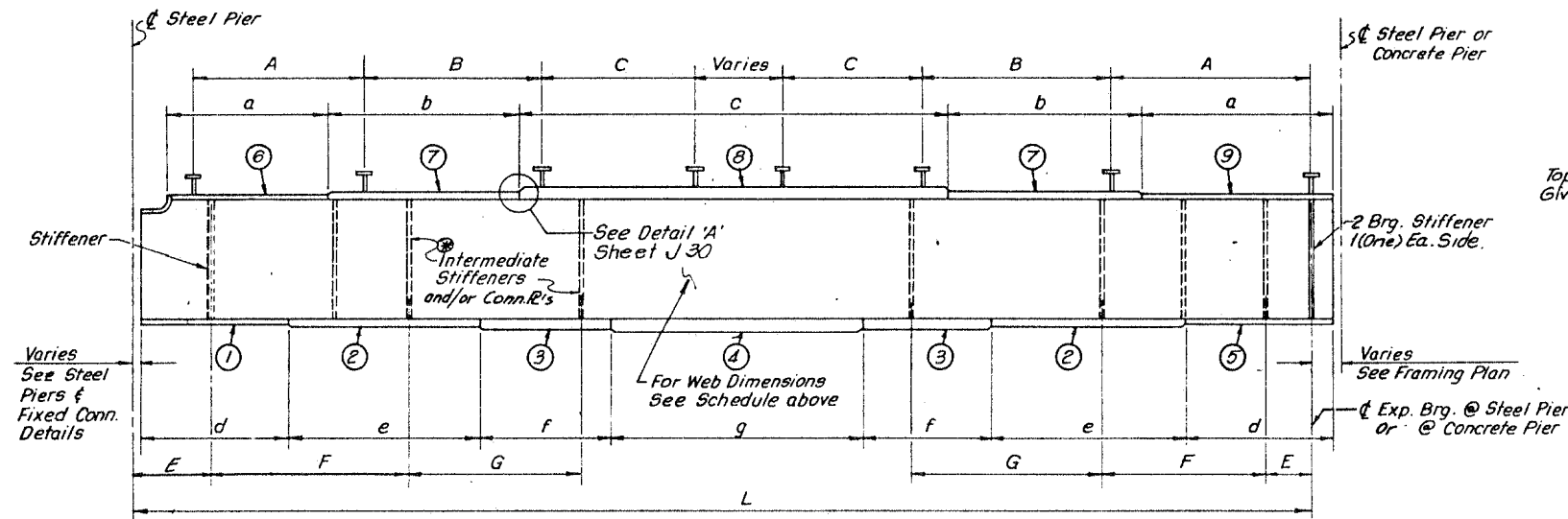


TYPICAL SECTION AT BEARING STIFFENERS

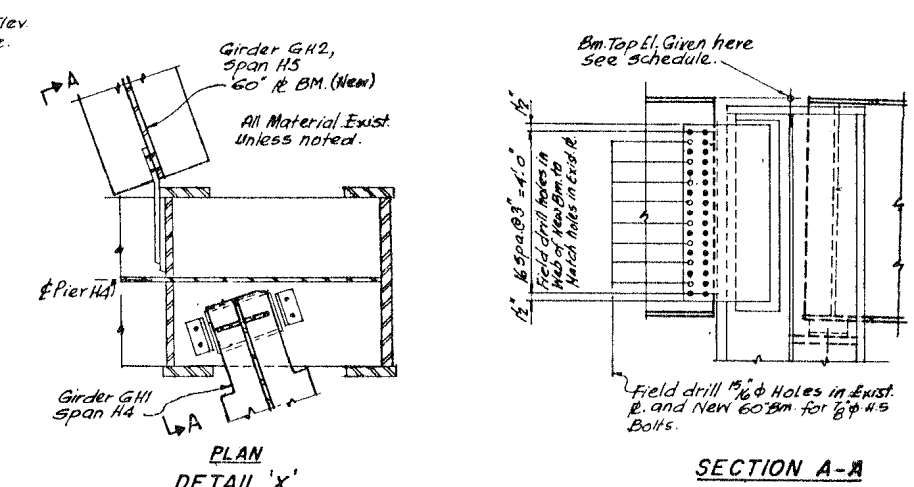
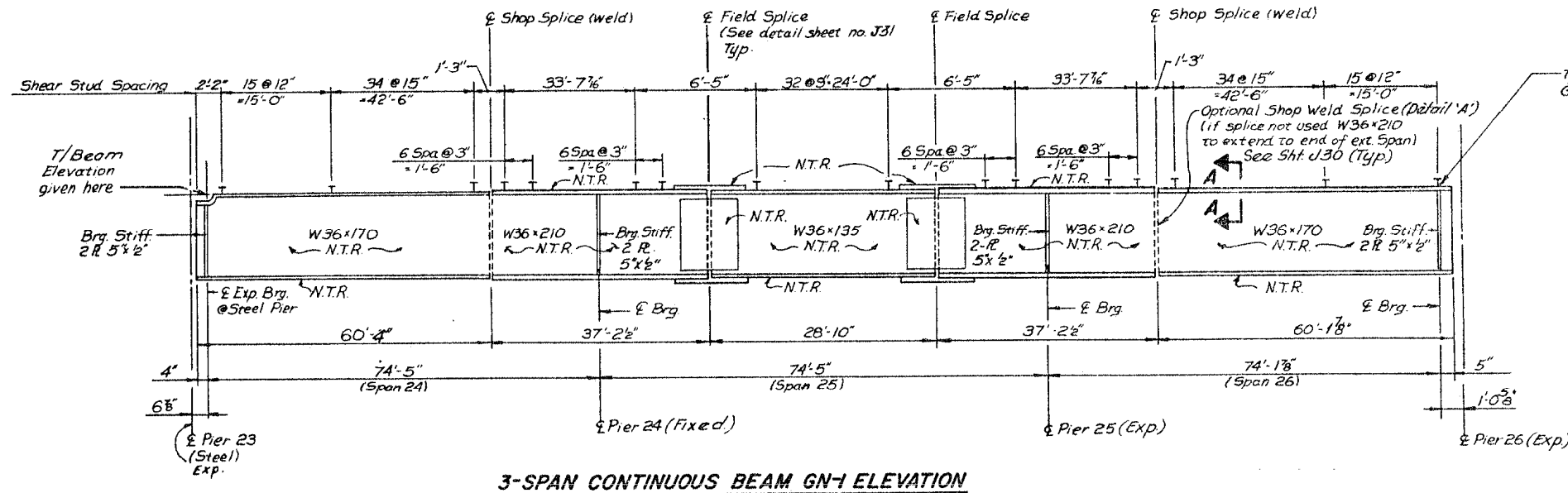
WELDED PLATE BEAM SCHEDULE

SPAN	BEAM	L (# BRG. TO # BRG.)	TOP OF BEAM ELEVATIONS AT # BEARINGS		WEB	FLANGE PLATES									THICKNESS OF FILLET WELD							BRG. STIFF.	INTERMEDIATE STIFFENERS			SHEAR STUD SPACINGS			STUDS PER BEAM	DEFLECTION						
			PIER NO.	ELEV.		PIER NO.	ELEV.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	a	b	c	d	e		f	g	SIZE	SPACING				A	B	C	Δ	Δ/4		
			E	F		G	E	F	G	E	F	G	E	F	G	E	F	G	E	F	G		E	F	G	E	F	G		E	F	G				
MAINLINE	20	GN-1	89'-10 ⁵ / ₈ "	19	51.855	20	52.688	7/16" x 48"	16 ⁵ / ₈ " x 12'-6 ³ / ₈ "	16 ⁵ / ₈ " x 12'-0"	16 ⁵ / ₈ " x 2'-20'-0"	—	16 ⁵ / ₈ " x 11'-9 ³ / ₈ "	16 ⁵ / ₈ " x 14'-6 ³ / ₈ "	16 ⁵ / ₈ " x 1'-30'-0"	—	16 ⁵ / ₈ " x 13'-9 ³ / ₈ "	5/16"	5/16"	—	5/16"	5/16"	3/8"	—	7 ¹ / ₂ " x 5/8"	5 ¹ / ₂ " x 5/8"	2'-0"	3@6'-0"	—	4	14@12"	14@15"	7@18"	288	1 ³ / ₁₆ "	7/8"
	21	GN-1	89'-10 ⁵ / ₈ "	20	52.711	21	53.899	7/16" x 48"	16 ⁵ / ₈ " x 12'-6 ³ / ₈ "	16 ⁵ / ₈ " x 12'-0"	16 ⁵ / ₈ " x 2'-20'-0"	—	16 ⁵ / ₈ " x 13'-0 ³ / ₈ "	16 ⁵ / ₈ " x 14'-6 ³ / ₈ "	16 ⁵ / ₈ " x 1'-30'-0"	—	16 ⁵ / ₈ " x 15'-0 ³ / ₈ "	5/16"	5/16"	—	5/16"	5/16"	3/8"	—	7 ¹ / ₂ " x 5/8"	5 ¹ / ₂ " x 5/8"	2'-0"	3@6'-0"	—	4	16@12"	13@15"	7@18"	296	1 ³ / ₁₆ "	7/8"
	22	GN-1	88'-7 ³ / ₈ "	21	53.911	22	55.686	7/16" x 48"	16 ⁵ / ₈ " x 12'-6 ³ / ₈ "	16 ⁵ / ₈ " x 12'-0"	16 ⁵ / ₈ " x 2'-20'-0"	—	16 ⁵ / ₈ " x 11'-9 ³ / ₈ "	16 ⁵ / ₈ " x 14'-6 ³ / ₈ "	16 ⁵ / ₈ " x 1'-30'-0"	—	16 ⁵ / ₈ " x 13'-9 ³ / ₈ "	5/16"	5/16"	—	5/16"	5/16"	3/8"	—	7 ¹ / ₂ " x 5/8"	5 ¹ / ₂ " x 5/8"	2'-0"	3@6'-0"	—	4	14@12"	14@15"	7@18"	288	1 ³ / ₁₆ "	7/8"
	23	GN-1	89'-10 ⁵ / ₈ "	22	55.698	23	57.168	7/16" x 48"	16 ⁵ / ₈ " x 12'-6 ³ / ₈ "	16 ⁵ / ₈ " x 12'-0"	16 ⁵ / ₈ " x 2'-20'-0"	—	16 ⁵ / ₈ " x 13'-0 ³ / ₈ "	16 ⁵ / ₈ " x 14'-6 ³ / ₈ "	16 ⁵ / ₈ " x 1'-30'-0"	—	16 ⁵ / ₈ " x 15'-0 ³ / ₈ "	5/16"	5/16"	—	5/16"	5/16"	3/8"	—	7 ¹ / ₂ " x 5/8"	5 ¹ / ₂ " x 5/8"	2'-0"	3@6'-0"	—	4	16@12"	13@15"	7@18"	296	1 ³ / ₁₆ "	7/8"

All Webs & Plates ① ② ③ ④ ⑤ to be N.T.R.

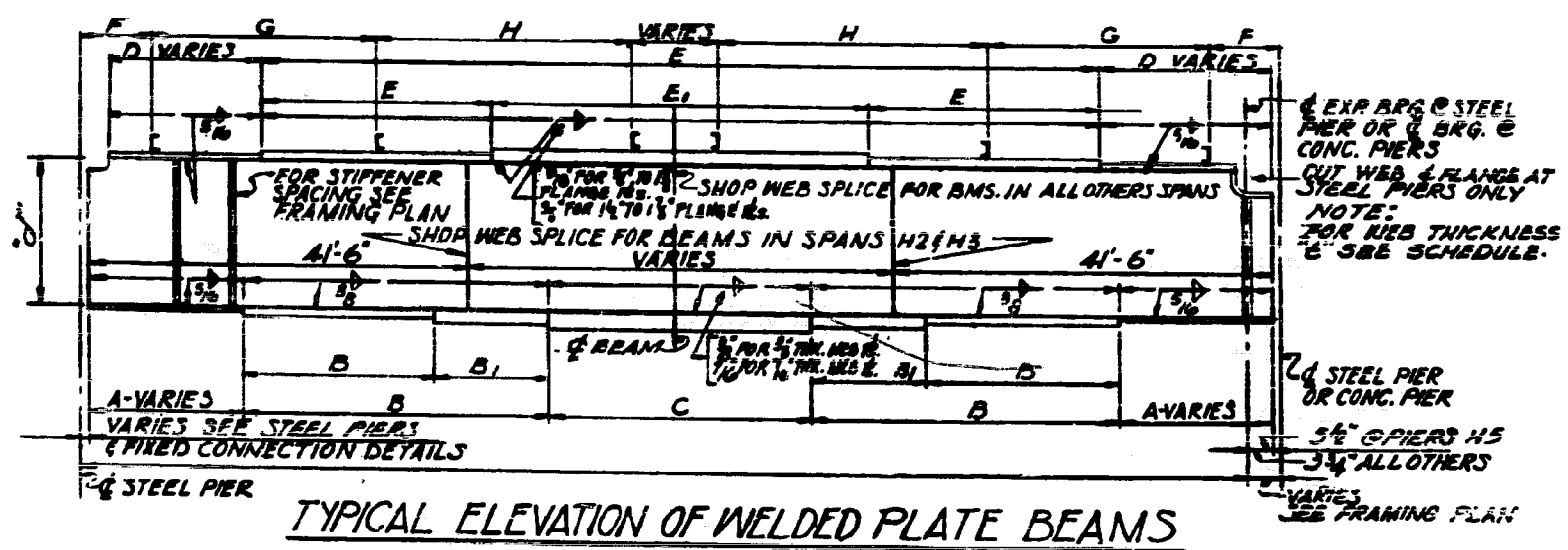
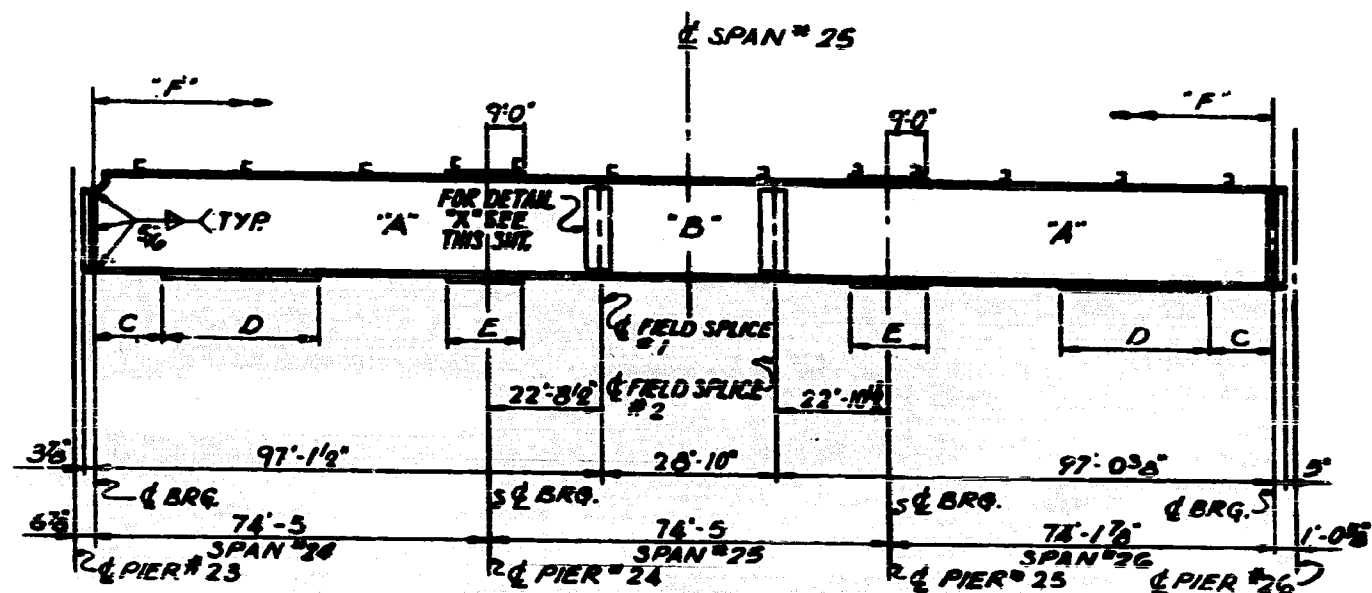


CONNECTION PLATE
 For GH-1 span H3 (Exist.)
 For GH-1 span H4 (Exist.)
 For GH-1 span H5 with bevelled 3/4" Fill Plate (New) see detail. (Exist.)
 New 9" x 8" Connection R. for relocated in spans 5
 Girder ①. 3/8" Fillet weld each side of new
 connection plate. Weld plate to top flange
 tight fit @ bottom.
 For GH-2 in span H5 (Exist.)
 In this case connection R.
 connected to Pier column
 (See Detail 'X')



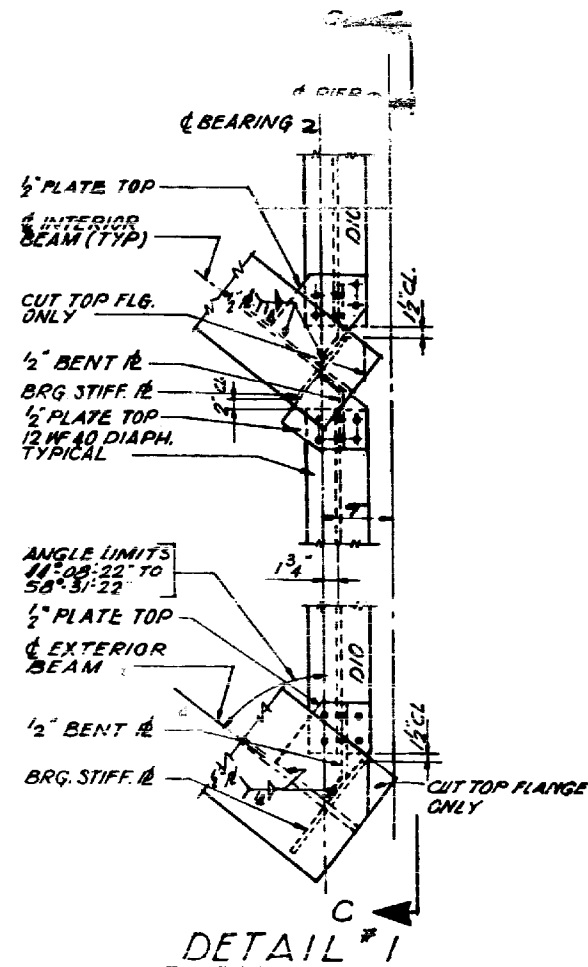
WELDED PLATE BEAM SCHEDULE

SPAN	BEAM	L	D	BOTTOM FLANGE PLATES			TOP FLANGE PLATES			SHEAR CONNECTOR SPACING		STIFFENERS		R F Y DIMENSIONS		
				A	B OR B1	C	D	E OR E1	F	G	H	BRG	INZ	IDL	YDL	XVC
1	1110	87-9	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 37'-0"	16-3/4	16-1 1/2 = 60'-0"	2'-0"	10 @ 18	15 @ 24	7-3/8	6-1/2	1 5/8	2 3/16	
	2704 7709	87-9	48 3/8	16-1	16-1 1/2 = 12'-0"	16-1 1/2 = 37'-0"	16-3/4	---	2'-0"	10 @ 18	15 @ 24			1 5/8		
	516	87-9	48 3/8	16-1	16-1 1/2 = 12'-0"	16-1 1/2 = 37'-0"	16-3/4	16-1 = 56'-0"	2'-0"	10 @ 18	15 @ 24			1 9/16	2 1/16	
2	1110	87-0 1/8	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 37'-0"	16-3/4	16-1 1/2 = 60'-0"	2'-0"	10 @ 18	15 @ 24			1 5/8	2 3/16	
	2704 7709	87-0 1/8	48 3/8	16-1	16-1 1/2 = 12'-0"	16-1 1/2 = 37'-0"	16-3/4	---	2'-0"	10 @ 18	15 @ 24			1 5/8		
	516	87-0 1/8	48 3/8	16-1	16-1 1/2 = 12'-0"	16-1 1/2 = 37'-0"	16-3/4	16-1 = 56'-0"	2'-0"	10 @ 18	15 @ 24			1 9/16	2 1/16	
3	1110	99-6	56 3/8	16-1	16-1 1/2 = 14'-0"	16-2 1/4 = 42'-0"	16-3/4	16-1 1/2 = 64'-0"	2'-0"	14 @ 18	13 @ 24			1 7/8	2 1/2	
	2704 7709	99-6	56 3/8	16-1	16-1 1/2 = 15'-0"	16-1 1/2 = 32'-0"	16-3/4	16-2 = 32'-0"	2'-0"	14 @ 18	13 @ 24			1 3/8	1 9/16	
	516	99-6	56 3/8	16-1	16-1 1/2 = 17'-0"	16-2 = 34'-0"	16-3/4	16-1 1/2 = 60'-0"	2'-0"	14 @ 18	13 @ 24			1 11/16	2 1/8	
4	1110	111-0	60 3/8	16-1	16-1 1/2 = 15'-0"	16-2 1/4 = 36'-0"	16-3/4	16-1 1/2 = 54'-0"	2'-0"	11 @ 18	18 @ 24			2 1/8	2 7/8	
	2704 7709	111-0	60 3/8	16-1	16-1 1/2 = 15'-0"	16-2 1/4 = 36'-0"	16-3/4	16-1 1/2 = 54'-0"	2'-0"	11 @ 18	18 @ 24			1 7/8	1 7/8	
	516	111-0	60 3/8	16-1	16-1 1/2 = 15'-0"	16-2 1/4 = 36'-0"	16-3/4	16-1 1/2 = 54'-0"	2'-0"	11 @ 18	18 @ 24			1 15/16	2 9/16	5/16
5	1110	111-0	60 3/8	16-1	16-1 1/2 = 15'-0"	16-2 1/4 = 36'-0"	16-3/4	16-1 1/2 = 54'-0"	2'-0"	11 @ 18	18 @ 24			2 1/8	2 7/8	7/16
	2704 7709	111-0	60 3/8	16-1	16-1 1/2 = 15'-0"	16-2 1/4 = 36'-0"	16-3/4	16-1 1/2 = 54'-0"	2'-0"	11 @ 18	18 @ 24			1 7/8	1 7/8	1/4
	516	111-0	60 3/8	16-1	16-1 1/2 = 15'-0"	16-2 1/4 = 36'-0"	16-3/4	16-1 1/2 = 54'-0"	2'-0"	11 @ 18	18 @ 24			1 15/16	2 9/16	5/16
20	1110	87-0 1/8	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 37'-0"	16-3/4	16-1 1/2 = 60'-0"	2'-0"	10 @ 18	15 @ 24			1 5/8	2 3/16	
	2704 7709	87-0 1/8	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 37'-0"	16-3/4	---	2'-0"	10 @ 18	15 @ 24			1 5/8		
	516	87-0 1/8	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 37'-0"	16-3/4	16-1 = 56'-0"	2'-0"	10 @ 18	15 @ 24			1 9/16	2 1/16	
21	1110	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	16-1 1/2 = 56'-0"	2'-0"	8 @ 18	15 @ 25			1 3/8	1 1/8	
	2704 7709	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	---	2'-0"	8 @ 18	15 @ 25			1 3/8		
	516	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	16-1 1/2 = 56'-0"	2'-0"	8 @ 18	15 @ 25			1 11/16	2 1/8	5/16
22	1110	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	16-1 1/2 = 56'-0"	2'-0"	8 @ 18	15 @ 25			1 3/8	1 1/8	
	2704 7709	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	---	2'-0"	8 @ 18	15 @ 25			1 3/8		
	516	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	16-1 1/2 = 56'-0"	2'-0"	8 @ 18	15 @ 25			1 11/16	2 1/8	5/16
25	1110	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	16-1 1/2 = 56'-0"	2'-0"	8 @ 18	15 @ 25			1 3/8	1 1/8	
	2704 7709	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	---	2'-0"	8 @ 18	15 @ 25			1 3/8		
	516	89-10 1/2	48 3/8	16-1	16-1 1/2 = 12'-0"	16-2 1/4 = 40'-0"	16-3/4	16-1 1/2 = 56'-0"	2'-0"	8 @ 18	15 @ 25			1 11/16	2 1/8	5/16

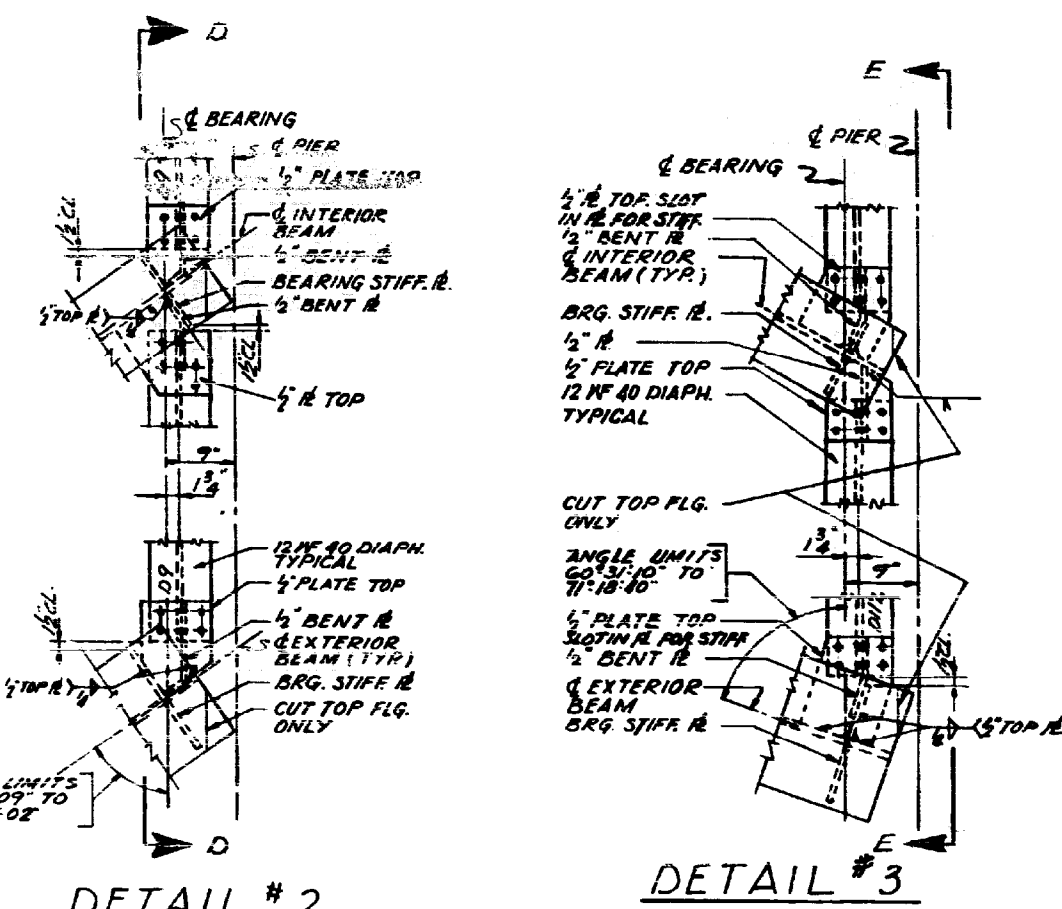


WF BEAM SCHEDULE														
SPAN	BEAM No.	L	BEAM SIZE	BOTTOM COVER PLATE	TOP COVER PLATE	SHEAR CONN. SPACING					X-Y DIMENSIONS			
						A	B	C	D	E	XDL	YDL	XVC	YVC
6	1 F 10	74'-9"	36WF230	15'-0" x 42'-6"	---	2'-0"	10@12	---	9@18	10@24	13/16	17/16	7/16	1/4
	2,3,4	74'-7 1/2"	36WF194	11'-1/4" x 46'-6"	---	2'-0"	21@9	6@12	3@15	6@18	3/4	1	---	---
	5 F 6	74'-9"	36WF230	12'-3/4" x 56'-0"	---	2'-0"	10@12	---	7@18	7@24	13/16	17/16	---	---
	7,8,9	74'-9"	36WF194	11'-1/4" x 46'-6"	---	2'-0"	21@9	6@12	3@15	6@18	3/4	1	---	---
7	1	91'-6"	36WF300	15'-1/2" x 56'-0"	15' x 5' x 27'-0"	2'-0"	4@12	5@15	7@18	11@24	13/16	2 3/16	1/4	3/16
	2,3,4	90'-10"	36WF280	15'-1/4" x 54'-0"	---	2'-0"	7@12	5@15	5@18	9@24	13/16	17/16	1/4	3/16
	5	90'-0"	36WF300	15'-3/8" x 54'-0"	---	2'-0"	4@12	6@15	7@18	9@24	13/16	2 3/16	1/4	3/16
	6	90'-0"	36WF300	15'-3/8" x 45'-0"	---	2'-0"	4@12	6@15	7@18	9@24	13/16	2 3/16	1/4	3/16
8	10,5,6	70'-3 1/2"	36WF300	15'-1/2" x 56'-0"	15' x 5' x 27'-0"	2'-0"	4@12	5@15	8@18	10@24	13/16	2 3/16	1/4	5/16
	7,8,9	65'-11 1/2"	36WF182	11'-1" x 39'-9"	---	1'-6"	13@6	10@9	9@12	5@18	1/16	2 1/16	3/16	1/4
	1	66'-9 1/2"	36WF182	11'-1" x 39'-9"	---	6"	13@6	11@9	10@12	5@18	13/16	1/8	3/8	1/4
	2,3,4	65'-11 1/2"	36WF170	11'-1" x 41'-0"	---	6"	13@6	10@9	10@12	5@18	5/8	1 1/8	---	---
9	5,6	65'-11 1/2"	36WF182	11'-1" x 39'-9"	---	6"	13@6	10@9	10@12	5@18	1	1 3/8	---	---
	10	63'-3 1/2"	36WF182	11'-1" x 39'-9"	---	6"	13@6	10@9	10@12	5@18	1	1 3/8	7/16	1/4
	1	66'-9 1/2"	36WF182	11'-1" x 39'-9"	---	6"	13@6	11@9	10@12	5@18	7/8	1 3/8	3/16	1/4
	2,3,4	65'-11 1/2"	36WF170	11'-1" x 41'-0"	---	6"	13@6	10@9	10@12	5@18	5/8	1 3/8	---	---
11	5,6	65'-11 1/2"	36WF182	11'-1" x 39'-9"	---	6"	13@6	10@9	10@12	5@18	1	1 3/8	---	---
	10	64'-11"	36WF182	11'-1" x 39'-9"	---	6"	13@6	10@9	11@12	4@18	13/16	1 1/4	3/16	1/4
	1	19'-2 1/2"	36WF150	---	---	9"	2@12	---	---	3@24	1/16	1/8	2 1/2	1/16
	2	27'-6 1/2"	24WF76	8'-3" x 17'-3"	---	4"	7@4	11@6	---	6@12	3/16	1/4	---	---
12	3	39'-11 1/2"	30WF108	9'-5" x 20'-0"	---	6"	15@6	---	8@9	4@12	1/4	5/16	---	---
	4	50'-4 1/2"	33WF130	10'-8" x 31'-0"	---	6"	15@6	8@9	5@12	4@15	5/16	7/16	---	---
	5	60'-8 1/2"	33WF141	10'-1" x 38'-8"	---	6"	15@6	8@9	5@12	---	---	---	---	---
	6	54'-11 1/2"	33WF130	10'-8" x 29'-6"	---	6"	15@6	11@9	10@12	1@18	1/2	5/8	---	---
13	7,8,9	54'-5 1/2"	36WF150	11'-5" x 18'-6"	---	9"	4@9	13@12	5@18	1@24	7/16	3/4	3/16	1/4
	1	77'-10 1/2"	36WF150	16'-8" x 17'-3"	---	4"	14@4	15@6	---	2@12	3/16	1/8	---	---
	9	59'-11 1/2"	30WF108	9'-5" x 20'-0"	---	6"	15@6	---	8@9	4@12	1/4	5/16	---	---
	10	50'-1 1/2"	36WF150	9'-4" x 13'-0"	---	9"	10@9	10@12	---	4@12	1/2	5/8	3/16	1/4
14	2,3,5	82'-9 1/2"	36WF194	11'-1/4" x 51'-0"	---	9"	8@9	16@12	5@18	5@24	1/4	1 1/16	3/16	1/4
	6	82'-9 1/2"	36WF245	15'-3/4" x 44'-6"	---	9"	4@15	---	11@18	9@24	13/16	2 3/8	3/16	1/4
	12	81'-1/4"	36WF245	15'-0" x 46'-6"	---	9"	9@18	---	---	13@24	1 7/16	2 1/8	3/16	1/4
15	2	68'-8 1/2"	36WF170	11'-1" x 44'-0"	---	9"	16@9	6@12	7@18	2@24	7/16	3/4	---	---
	3,4,5	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	16@9	7@12	7@18	2@24	7/16	15/16	---	---
	6,7	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	12@9	9@12	9@15	2@24	13/16	1 1/16	---	---
	8,10,11	70'-3 1/2"	36WF150	11'-5" x 41'-0"	---	9"	7@9	13@12	5@18	4@24	3/4	1	---	---
16	12	70'-3 1/2"	36WF170	11'-1" x 42'-0"	---	9"	7@9	13@12	5@18	4@24	11/16	1 1/16	---	---
	1	69'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	12@9	9@12	9@15	2@24	1 3/8	1 1/16	---	---
17	2	70'-7 1/2"	36WF150	11'-1" x 44'-0"	---	9"	7@9	13@12	5@18	4@24	1/16	1 1/16	---	---
	3,4	70'-7 1/2"	36WF182	11'-1" x 44'-0"	---	9"	20@9	---	11@12	5@18	9/16	3/4	---	---
	5,6,7	70'-3 1/2"	36WF150	11'-5" x 41'-0"	---	9"	7@9	13@12	5@18	4@24	3/4	1 1/16	---	---
	8,9	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	12@9	9@12	9@15	2@24	1 1/8	1 1/8	---	---
18	10,11,12	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	7@9	13@12	5@18	4@24	3/4	1	---	---
	13,14	68'-1 1/2"	36WF182	11'-1" x 42'-6"	---	9"	19@9	---	11@12	5@18	7/16	9/16	---	---
	15,16,17	68'-1 1/2"	36WF150	11'-3" x 41'-0"	---	9"	7@9	12@12	5@18	4@24	1 1/16	1 1/16	---	---
	18	68'-5 1/2"	36WF170	11'-3" x 37'-6"	---	9"	7@9	12@12	5@18	4@24	1	1 1/16	---	---
19	1	75'-2 1/2"	36WF230	15'-2" x 42'-0"	---	9"	5@12	8@15	6@18	6@24	1/4	1 1/16	---	---
	2	74'-4 1/2"	36WF194	11'-1/4" x 47'-0"	---	8"	7@8	12@9	13@12	6@18	3/4	1 1/16	---	---
	3,4	73'-6 1/2"	36WF194	11'-1/4" x 47'-0"	---	8"	8@8	12@9	12@12	6@18	13/16	1 1/8	---	---
	5	73'-6 1/2"	36WF194	11'-1" x 44'-0"	---	9"	16@9	11@12	---	8@18	3/8	1 3/16	---	---
20	6	73'-6 1/2"	36WF150	11'-5" x 41'-0"	---	9"	---	19@12	4@18	5@24	1/16	7/8	---	---
	7	71'-10 1/2"	36WF150	11'-2" x 20'-6"	---	9"	7@9	14@12	5@18	4@24	3/4	1	---	---
	8	70'-5 1/2"	36WF150	11'-2" x 37'-0"	---	9"	---	18@12	5@18	4@24	1/2	1 1/16	---	---
	9	70'-3 1/2"	36WF182	11'-1" x 42'-6"	---	9"	20@9	---	11@12	5@18	5/8	1 3/16	---	---
21	10,11,12	70'-3 1/2"	36WF150	11'-5" x 41'-0"	---	9"	7@9	13@12	5@18	4@24	3/4	1	---	---
	13,14	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	12@9	9@12	9@15	2@24	1 3/8	1 1/16	---	---
	15,16,17	70'-3 1/2"	36WF182	11'-5" x 38'-0"	---	9"	12@9	13@12	5@18	2@24	1 1/2	1 1/16	---	---
	18,19	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	16@9	7@12	7@18	2@24	1 1/16	1 1/16	---	---
22	20,21,22	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	16@9	7@12	7@18	2@24	1 1/16	1 1/16	---	---
	23	67'-7 1/2"	36WF182	11'-1/8" x 44'-0"	---	9"	7@9	13@12	5@18	4@24	1	1 3/8	---	---
	1	67'-5 1/2"	36WF150	11'-5" x 41'-0"	---	1'-6"	13@9	---	7@18	10@24	2 3/16	2 3/16	---	---
	2	67'-7 1/2"	36WF194	11'-2" x 37'-0"	---	1'-6"	13@9	11@12	6@18	3@24	3/4	1 1/16	---	---
23	3,4,5,6,7,8,9,10,11,12	79'-0"	36WF194	11'-1" x 49'-0"	---	1'-6"	13@9	10@12	7@18	3@24	13/16	1 1/4	---	---
	13,14,15	79'-0"	36WF194	11'-1" x 45'-0"	---	1'-6"	13@9	10@12	7@18	3@24	13/16	1 1/4	---	---
	12,13	79'-0"	36WF230	15'-8" x 38'-0"	---	1'-6"	4@12	---	8@18	10@24	1 1/16	2/8	---	---
	22	78'-11 1/2"	36WF230	15'-1" x 47'-0"	---	1'-6"	9@12	---	6@18	9@24	13/16	1 3/8	---	---

WF BEAM SCHEDULE														
SPAN	BEAM No.	L	BEAM SIZE	BOTTOM COVER PLATE	TOP COVER PLATE	SHEAR CONN. SPACING					X-Y DIMENSIONS			
						A	B	C	D	E	XDL	YDL	XVC	YVC
6	1	69'-3 1/2"	36WF170	11'-2" x 32'-3"	---	9"	6@18	---	---	12@24	13/16	17/16	---	---
	2	70'-3 1/2"	36WF150	11'-5" x 38'-6"	---	9"	7@9	13@12	5@18	4@24	1 1/16	7/8	---	---
	3,4	70'-3 1/2"	36WF182	11'-1" x 42'-6"	---	9"	17@9	6@12	7@18	2@24	1 1/2	1 1/16	---	---
	5,6,7	70'-3 1/2"	36WF150	11'-5" x 41'-0"	---	9"	7@9	13@12	5@18	4@24	1 1/16	1 1/16	---	---
16	8,9	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	12@9	9@12	9@15	2@24	1 3/8	1 1/16	---	---
	10,11	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	17@9	6@12	7@18	2@24	1 1/16	1 1/16	---	---
	12	69'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	17@9	6@12	7@18	2@24	5/8	1 3/16	---	---
	13	68'-3 1/2"	36WF170	11'-1/8" x 42'-6"	---	9"	10@9	10@12	5@18	4@24	9/16	3/4	---	---
17	14	68'-1 1/2"	36WF150	11'-3" x 38'-6"	---	9"	11@12	---	5@18	7@24	5/8	1 3/16	---	---
	15,16,17	66'-10 1/2"	36WF150	11'-5" x 35'-6"	---	9"	17@9	6@12	---	8@18	1 1/16	7/8	---	---
	19	66'-10 1/2"	36WF170	11'-1" x 42'-0"	---	9"	6@9	12@12	5@18	4@24	1 1/16	1 1/16	---	---
	2	70'-7 1/2"	36WF150	11'-1" x 44'-0"	---	9"	7@9	13@12	5@18	4@24	1/16	1 1/16	---	---
18	3,4	70'-7 1/2"	36WF182	11'-1" x 44'-0"	---	9"	20@9	---	11@12	5@18	9/16	3/4	---	---
	5,6,7	70'-3 1/2"	36WF150	11'-5" x 41'-0"	---	9"	7@9	13@12	5@18	4@24	3/4	1 1/16	---	---
	8,9	70'-3 1/2"	36WF170	11'-1" x 44'-0"	---	9"	12@9	9@12	9@15	2@24	1 1/8	1 1/8		

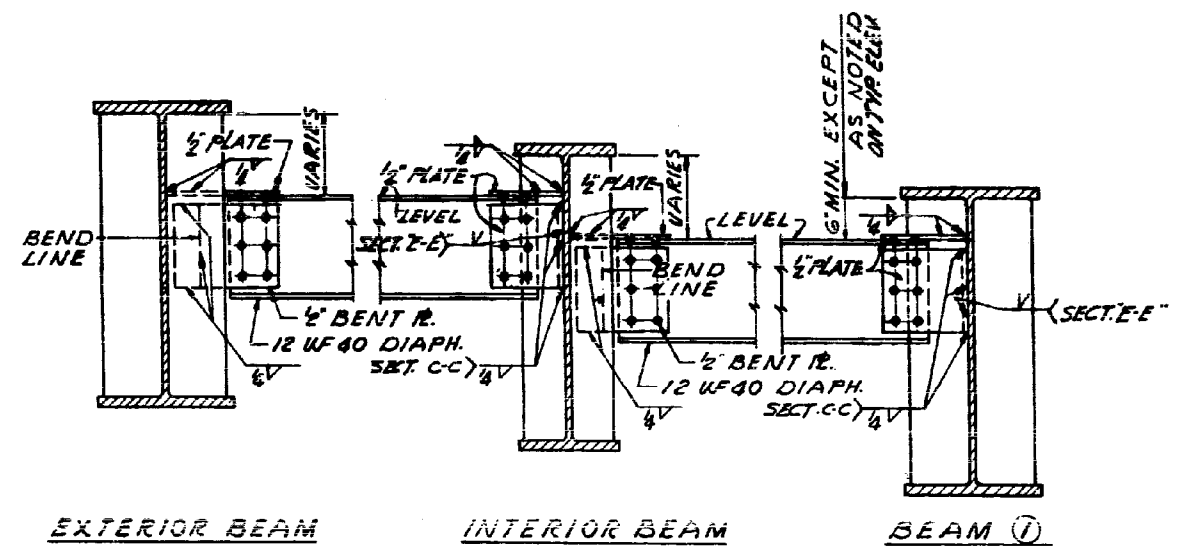


DETAIL #1

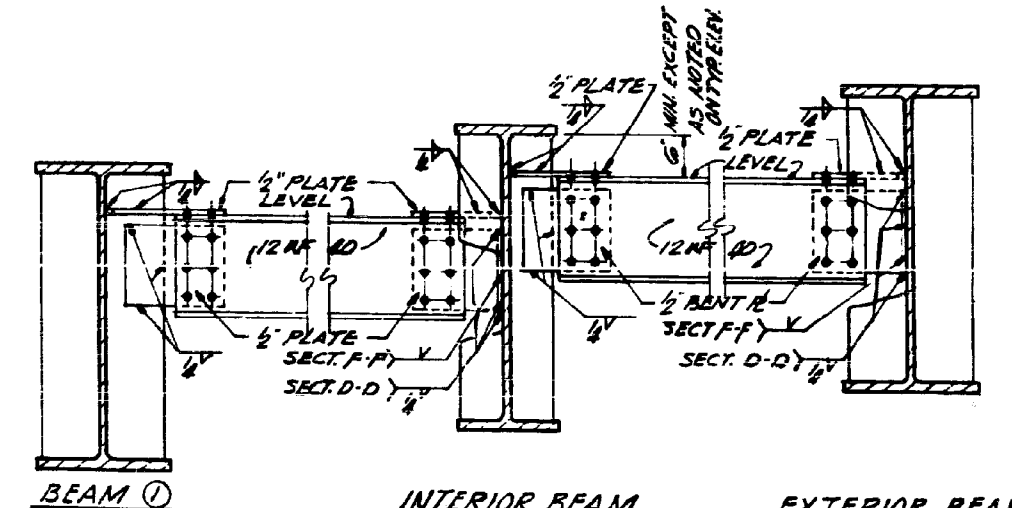


DETAIL #2

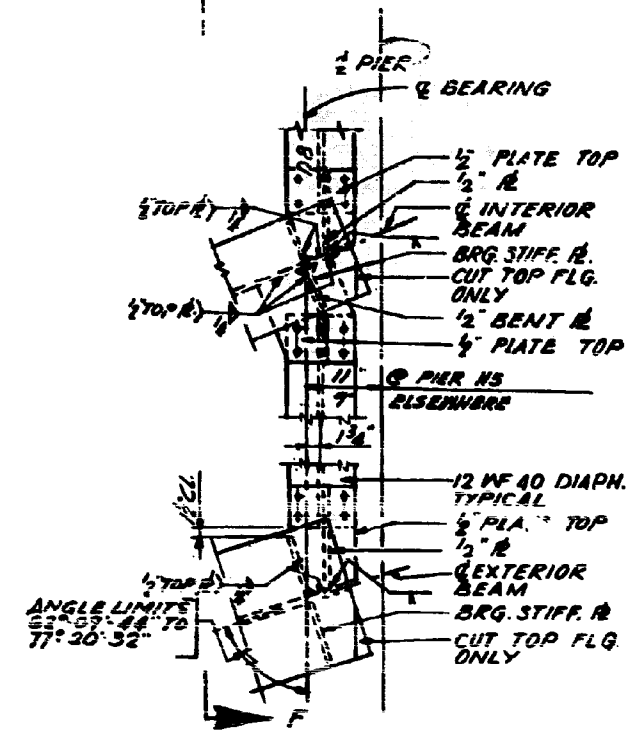
DETAIL #3



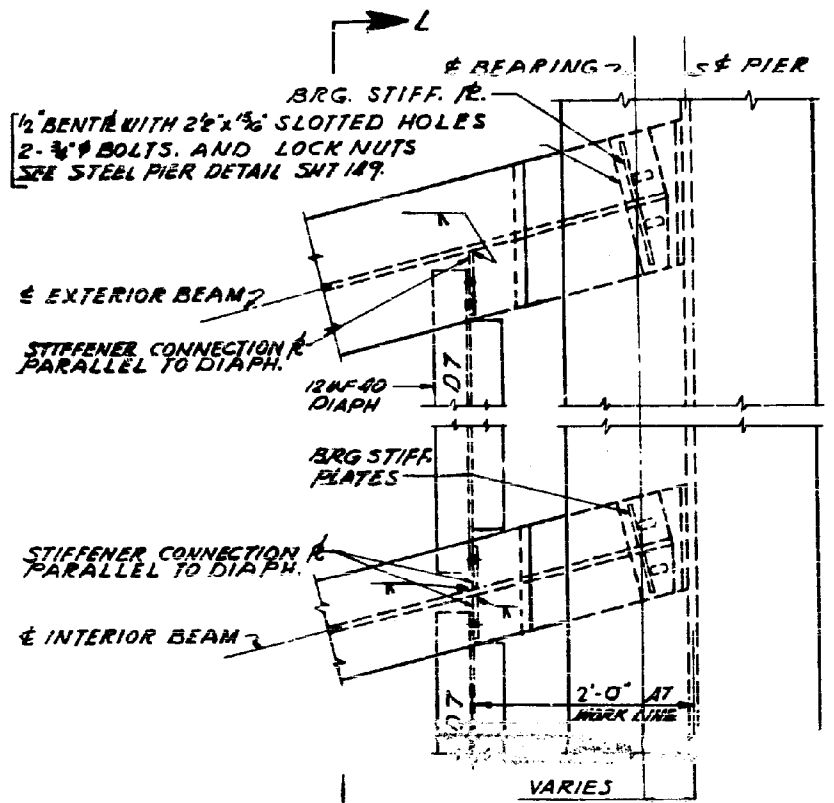
SECTION C-C SHOWN
SECTION E-E SIMILAR



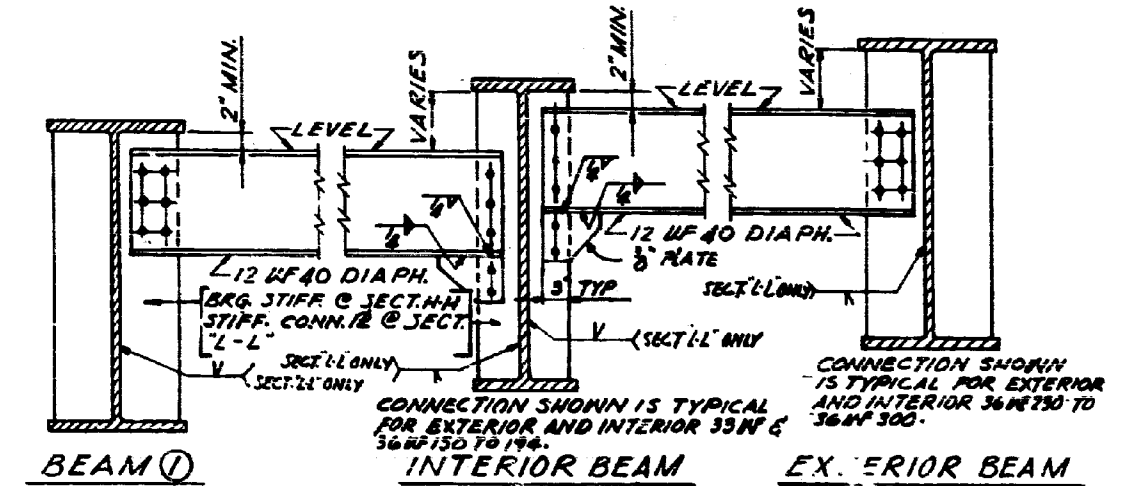
SECTION D-D SHOWN
SECTION F-F SIMILAR



DETAIL #4



DETAIL #5
PIER #2 & #7 SHOWN
& #3 SIMILAR



SECTION H-H SHOWN
SECTION L-L SIMILAR

FILE NAME = USER NAME = aread PLOT SCALE = 2.0000' / IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DIAPHRAGM ELEVATIONS AND DETAILS - LOCATION 2 STRUCTURE NO. 016-1117		F.A.I. R.E. = 90/94 SECTION = 2011-057-BP COUNTY = COOK ILLINOIS FED. AID PROJECT	TOTAL SHEETS = 98 SHEET NO. = 54 CONTRACT NO. = 60P73
				SCALE: NTS	SHEET NO. 33 OF 39 SHEETS	STA. TO STA.		

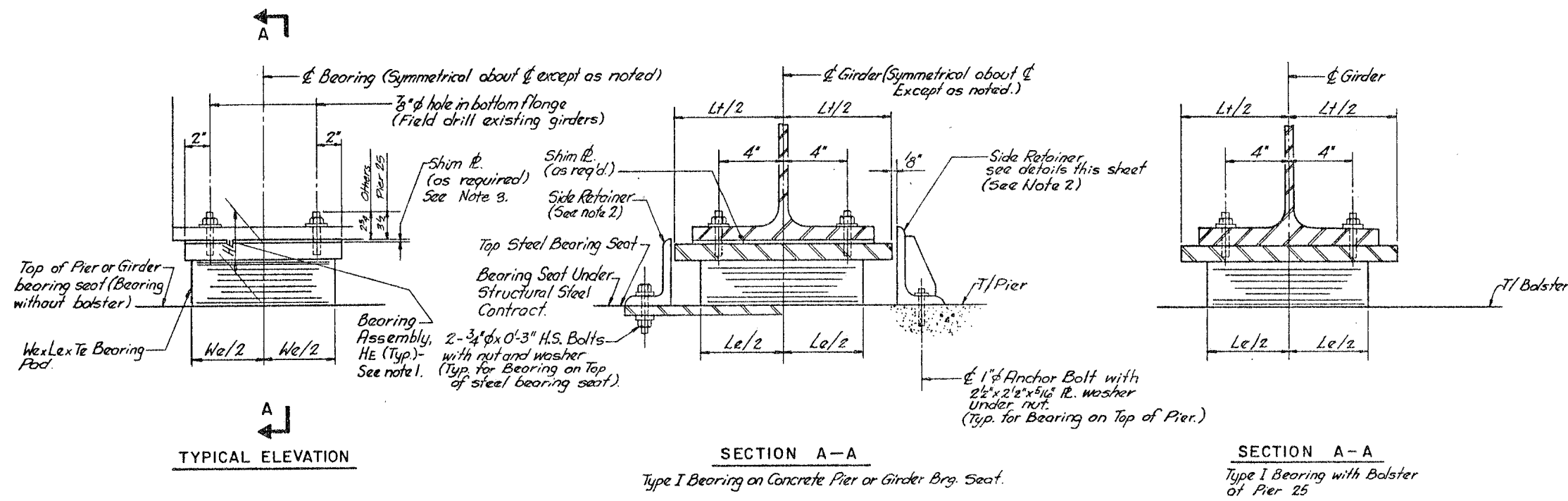


TABLE OF DIMENSIONS — TYPE I ELASTOMERIC EXPANSION BEARINGS

WE	LE	SERIES	TP	NP	TS	NS	TE
6	10	a	5/16	3	14/16	2	1 1/16
9	12	a	5/8	5	3/32	4	2 1/4
9	12	b	5/8	7	3/32	6	3 3/16
9	12	c	5/8	8	3/32	7	3 5/8
10	14	a	7/16	5	1/8	4	2 1/16
11	16	b	1/2	5	1/8	4	3
12	18	b	9/16	4	3/16	3	2 13/16
12	18	d	9/16	6	3/16	5	4 5/16
12	18	c	9/16	5	3/16	4	3 9/16

TP - denotes thickness of each elastomeric layer.
 NP - denotes number of elastomeric layers.
 TS - denotes thickness of each steel plate.
 NS - denotes number of steel plates.

TYPE I ELASTOMERIC EXPANSION BEARING

TYPE I ELASTOMERIC EXPANSION BEARING SCHEDULE

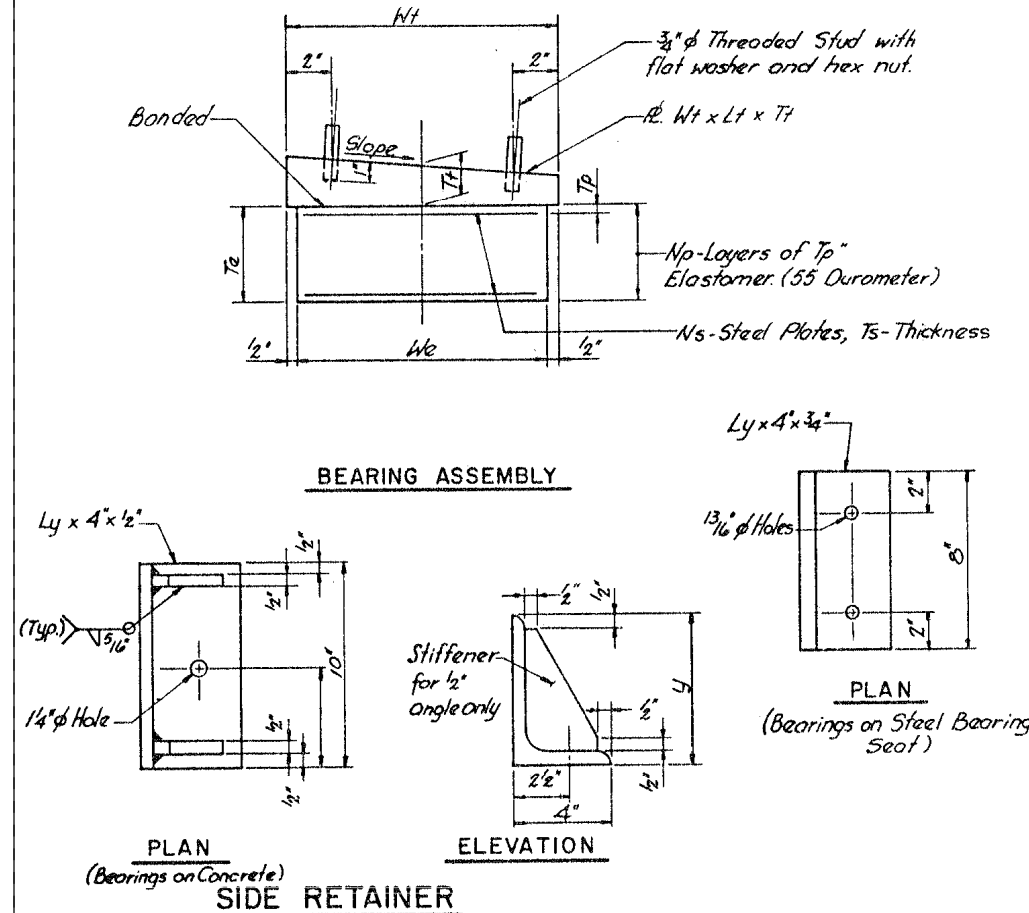
STRUCTURE	PIER LOCATION	GIRDER NO.	WE	LE	SERIES	TOP PLATE				Y	HE	NO. REQ'D.	REMARKS
						TT	WT	LT	SLOPE%				
016-1117	2(N)	6-10	9	12	b	1 5/8	10	14	2.2	6	4 1/2	5	R, E (6, 10)
	13(S)	6-10	9	12	a	1 1/2	10	14	1.6	4	5 3/4	5	R, E (6, 10)
	14(N)	GN-1	9	12	a	1 1/2	10	14	1.6	4	3 3/4	1	N
	16(S)	GN-1	10	14	a	1 3/4	11	16	2.1	6	4 7/8	1	N, E
	16(N)	GN-1	9	12	a	1 3/4	10	14	2.1	6	4	1	N, E
	18(S)	GN-1	10	14	a	1 3/4	11	16	2.4	6	4 7/8	1	N, E
	18(N)	GN-1	10	14	a	1 3/4	11	16	2.7	6	4 7/8	1	N, E
	19(N)	GN-1	11	16	b	2	12	18	2.7	6	5	1	N, E
	20(N)	GN-1	11	16	b	2	12	18	2.9	6	5	1	N, E
	21(N)	GN-1	11	16	b	2	12	18	2.3	6	5	1	N, E
	22(N)	GN-1	11	16	b	2	12	18	2.1	6	5	1	N, E
	23(N)	GN-1	10	14	a	1 3/4	11	16	1.8	6	4 7/8	1	N, E
	25	11-20	12	18	b	2 1/2	13	20	1.5	6	6	10	R, B
		GN-1	12	18	b	2 1/2	13	20	1.5	6	6	1	N, B

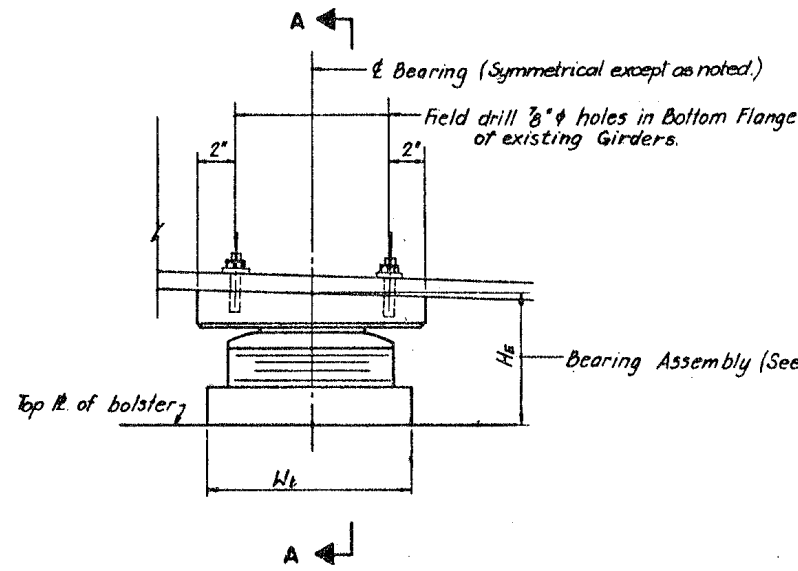
Notes:

- Height of Bearing Assembly, HE, includes top plate and Elastomeric Pad and does not include shim plate.
- Side Retainers for bearing requiring a bolster are detailed on the Bolster Detail Sheet.
 For Bearings located on top of concrete pier, provide side retainer at inside face of exterior girder only, as noted in Bearing Schedule.
 For Bearings located on top of steel bearing seat, provide side retainer on both sides of each bearing. See details this sheet.
- Shim plates shall be placed between the bottom flange of girder and the top plate of the bearing (as shown) for bearings without bolsters only.

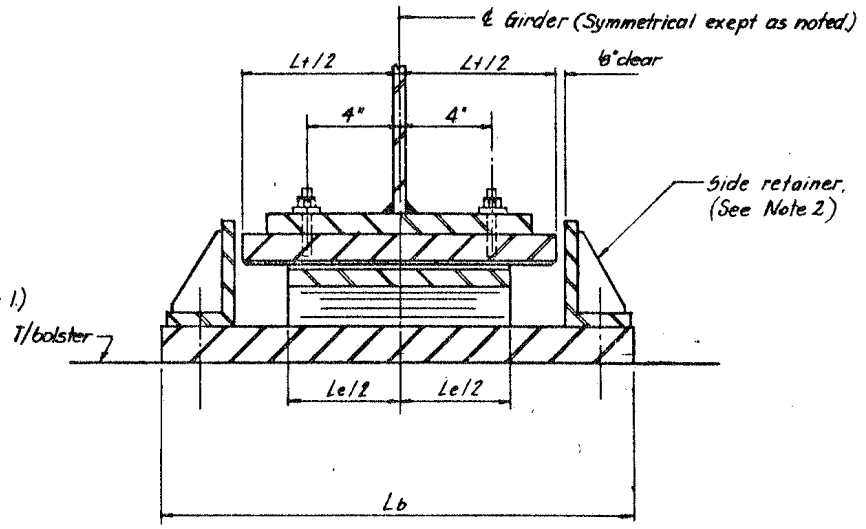
Remarks:

- B - Bolster required, see Bolster Details.
- E - Exterior Girder. Provide Side Retainer of inside face.
- N - New bearings, roadway widening.
- R - Replacement bearings.
- ⊗ - See Bolster Schedule for HE and y dimensions.





TYPICAL ELEVATION



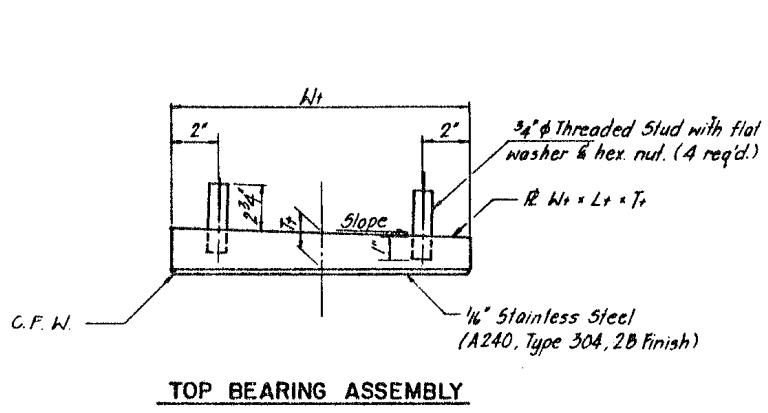
SECTION A - A

TYPE II TFE ELASTOMERIC EXPANSION BEARING

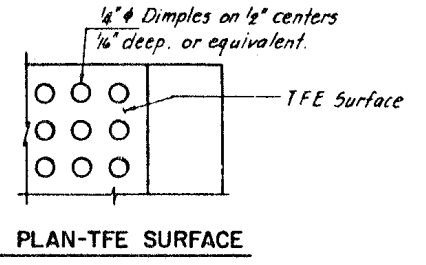
TYPE II ELASTOMERIC EXPANSION BEARING SCHEDULE

STRUCTURE NO.	PIER LOCATION	GIRDER	We	Le	SERIES	TOP PLATE				BOTTOM PLATE			NO. REQ'D.	REMARKS
						Tt	Wt	Lt	SLOPE	Tb	Wb	Lb		
016-1117	26(S)	GN-1	10	14	a	2	11	16	1:2	1	11	24 1/2	1	N, B

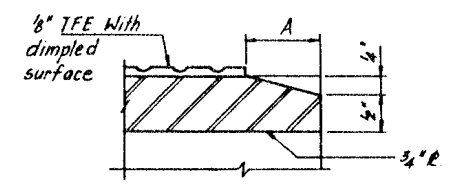
Remarks: N - New bearing for roadway widening.
B - Bolster required - See bolster details



TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



SECTION THRU TFE

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surface.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

TABLE OF DIMENSIONS - TYPE II ELASTOMERIC EXPANSION BEARINGS

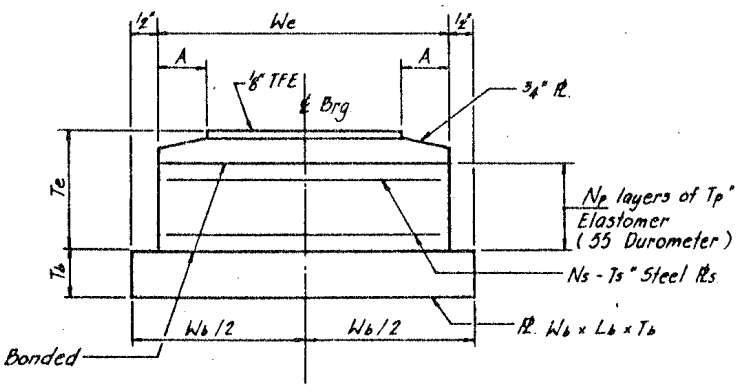
We	Le	Series	Tp	Np	Ts	Ns	Te
10	14	a	7/16	5	1/8	4	3 9/16

Tp - denotes thickness of each elastomeric layer
Np - denotes number of elastomeric layers
Ts - denotes thickness of each steel plate
Ns - denotes number of steel plates

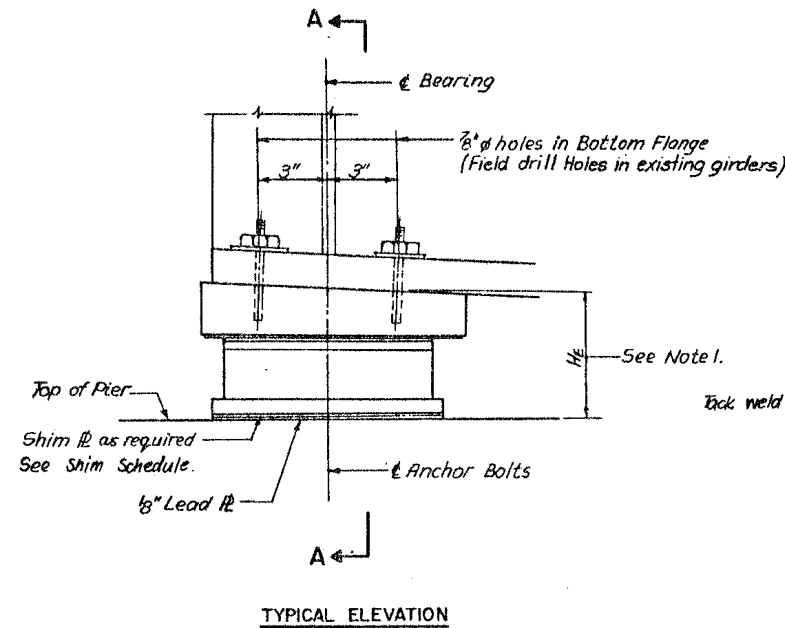
We	6"	7"	9"	10"	11"	12"
A	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"

NOTES:

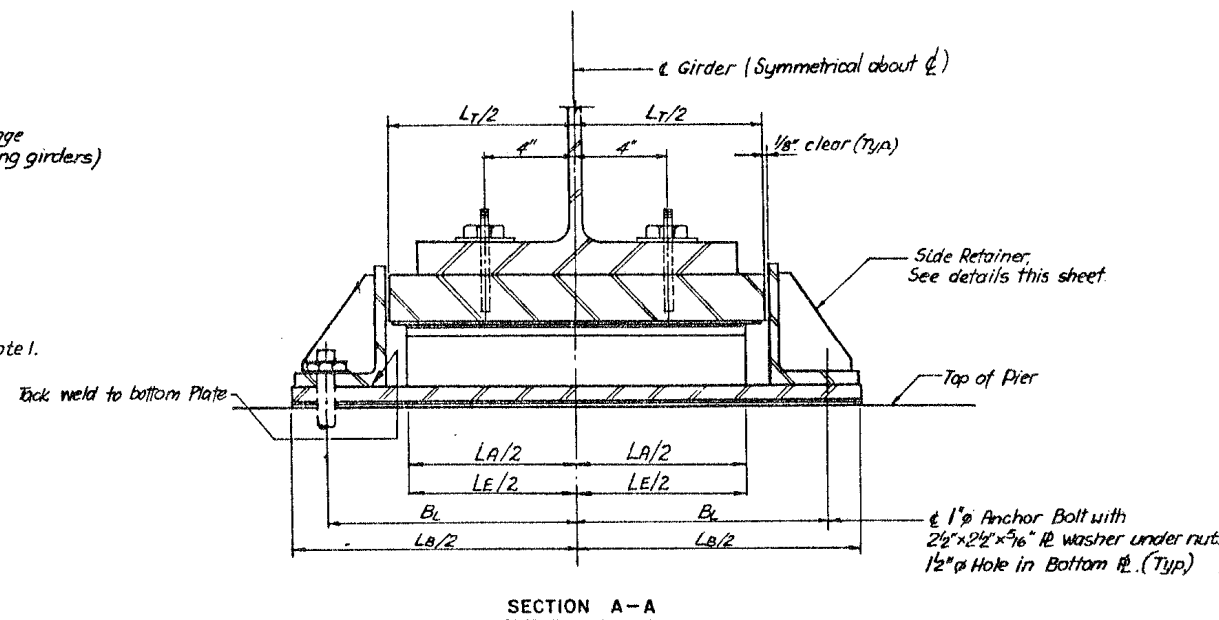
- Height of bearing assembly, He, includes top plate, elastomeric assy., and bottom plate. He does not include shim plate.
- Side retainer details for bearings requiring a bolster; see bolster details.
- See Shim thickness schedule for required shims.



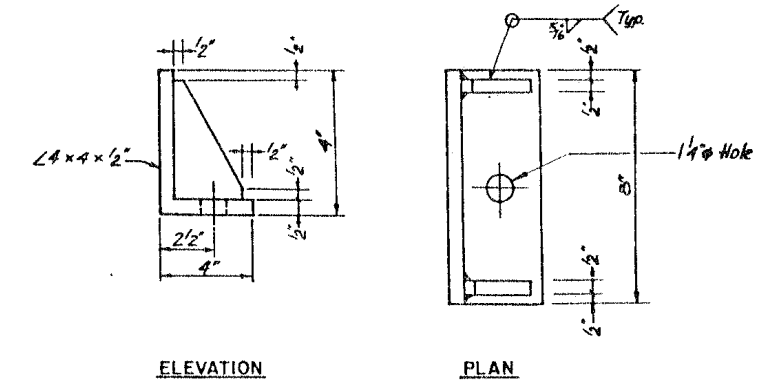
BOTTOM BEARING ASSEMBLY



TYPICAL ELEVATION



SECTION A-A

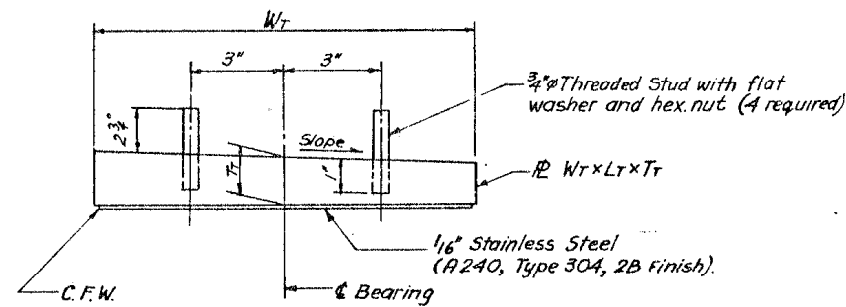


ELEVATION
PLAN
SIDE RETAINER DETAILS

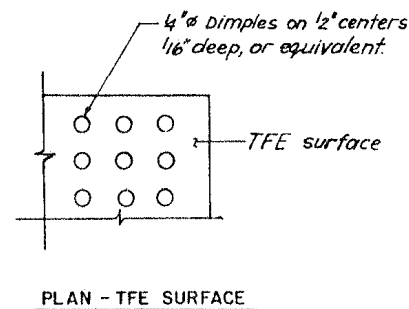
TYPE IV TFE ELASTOMERIC EXPANSION BEARING

TYPE IV ELASTOMERIC EXPANSION BEARING SCHEDULE

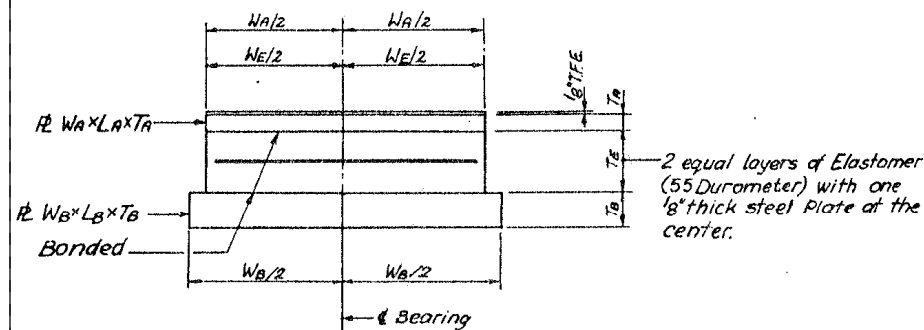
STRUCTURE NO.	PIER LOCATION	GIRDER NO.	NO. REQ'D	ELASTOMER			TOP PLATE			BOTTOM BEARING ASSEMBLY								H _E	REMARKS
				T _E	W _E	L _E	T _T	W _T	L _T	SLOPE	T _A	W _A	L _A	T _B	W _B	L _B	B _L		
016-1117	11(5)	6-10	5	7B	9	12	15B	11 1/4	14	1.9	14	9	12	1/2	10	22 1/2	9 5/8	3 3/4	R



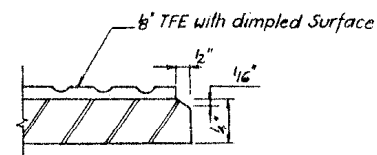
TOP BEARING ASSEMBLY



PLAN - TFE SURFACE



BOTTOM BEARING ASSEMBLY

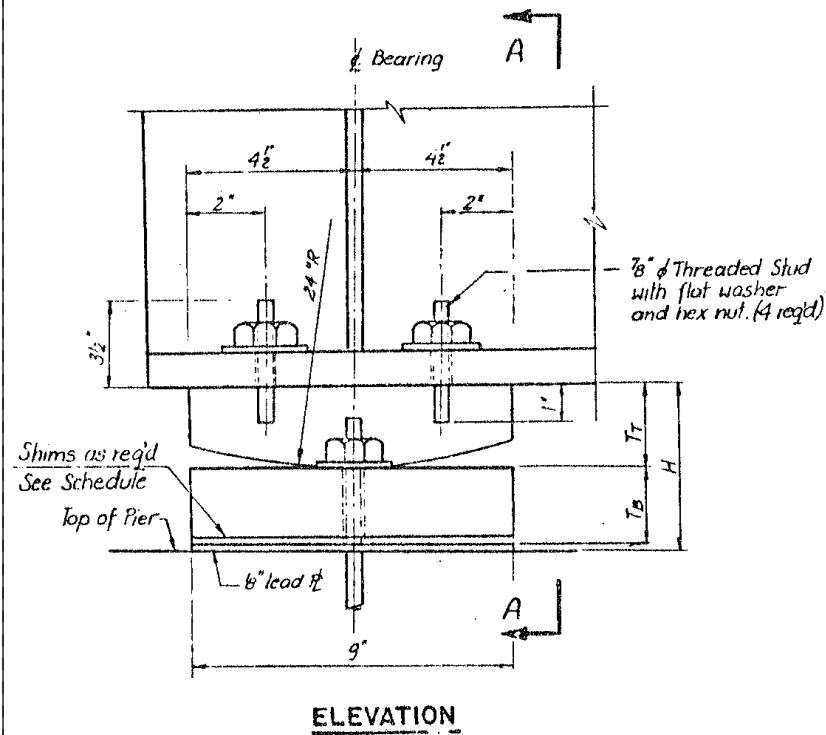


SECTION THRU TFE

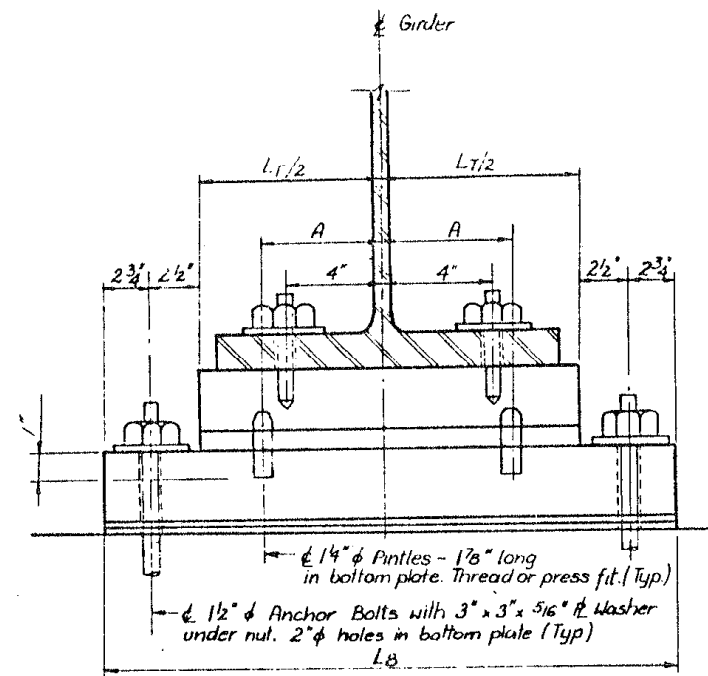
Note:
The 1/8" TFE sheet shall be bonded directly to the top Steel Plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMN-A-134, Type I. The bond agent shall be applied on the full area of the contact surface.
Bonding of 1/8" TFE sheet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

Remarks: R - Replacement Bearings.
N - New Bearings for roadway widening

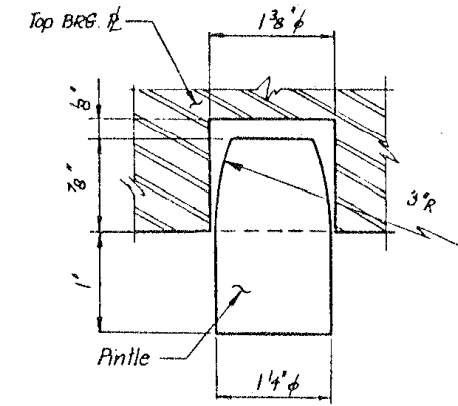
- Notes:**
- Height of Bearing Assembly, H_E, includes 1/8" lead Plate. (Does not include Shims if required.)
 - For Bearings without Bolsters, the Side Retainer shall be tack welded as shown after the Girder and Bearing assembly have been set into their final position.



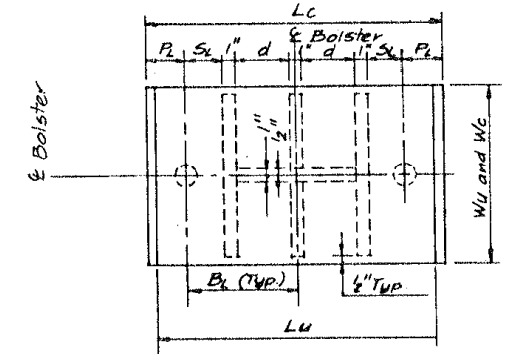
ELEVATION



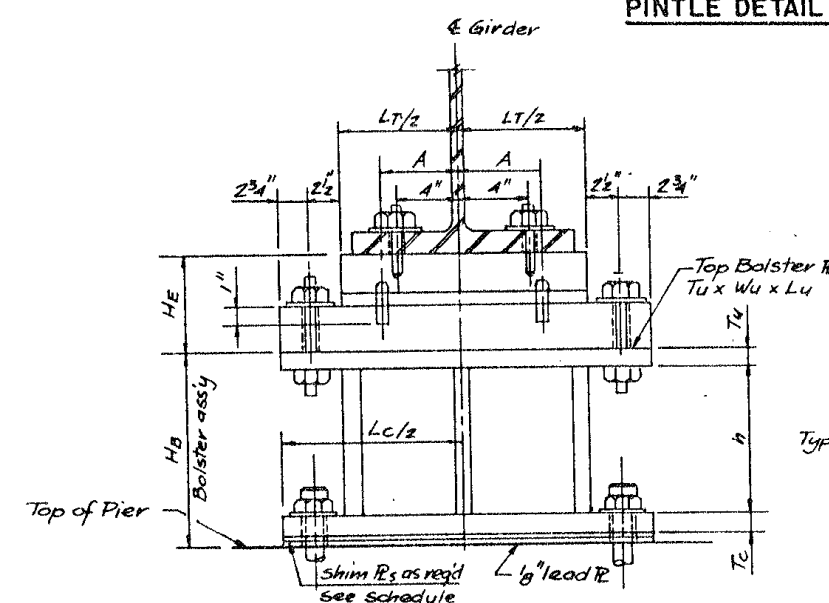
SECTION A-A



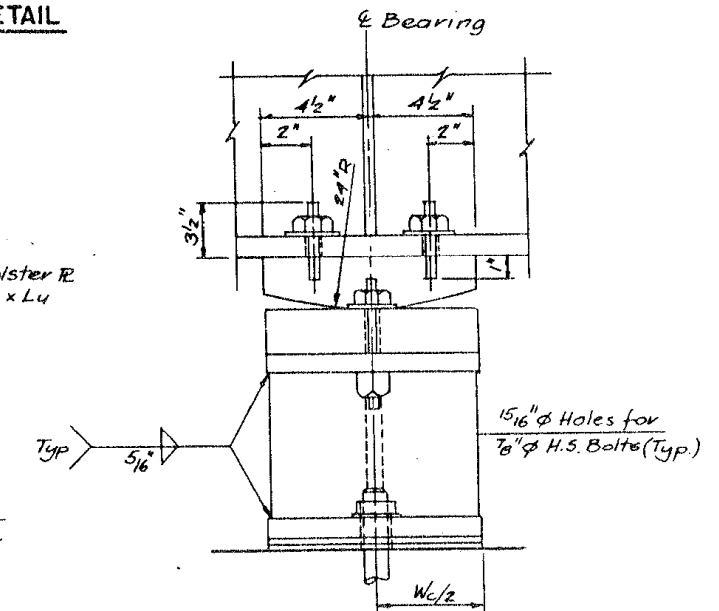
PINTLE DETAIL



PLAN



ELEVATION FOR FIXED BEARING



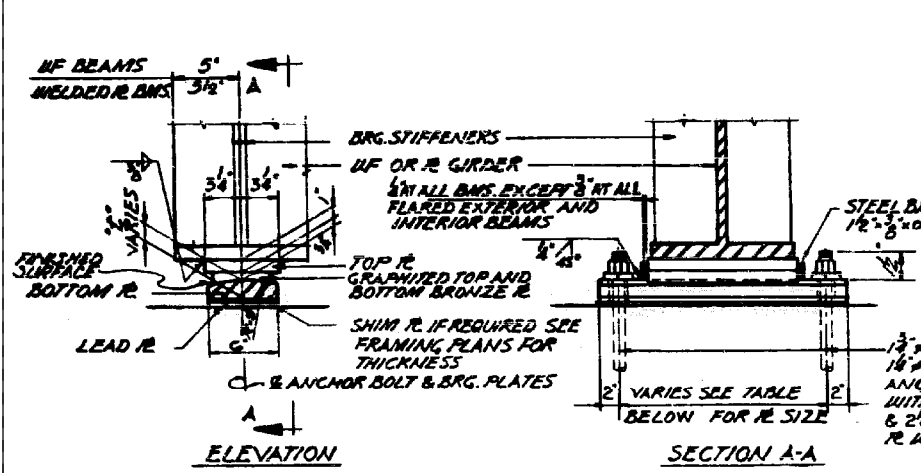
SIDE ELEVATION

FIXED BEARING SCHEDULE FOR ROADWAY WIDENING

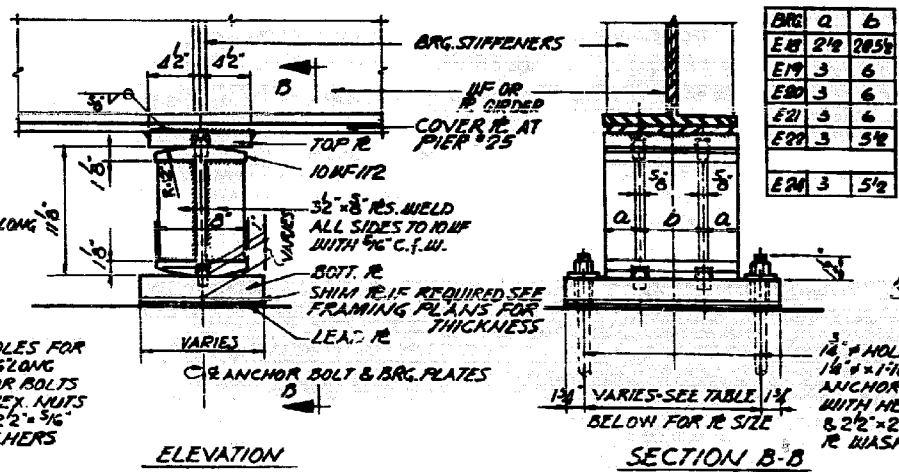
STRUCTURE NO.	PIER LOCATION	GIRDER NO.	BRG. TYPE	NO. REQ'D.	T _T "	L _T "	T _B "	L _B "	A"	H"	REMARKS
016-1117	15(S)	GN-1, GN-2, GN-3	F1	3	2	12 1/2	1 1/2	23	3	3 5/8	N, B (GN-3)
	15(N)	GN-1	F1	1	2	12 1/2	1 1/2	23	3	3 5/8	N, B
	17(S)	GN-1	F1	1	2	12 1/2	1 1/2	23	3	3 5/8	N
	17(N)	GN-1	F1	1	2	17	1 1/2	27 1/2	5	3 5/8	N
	24	GN-1	F1	1	2 1/2	12 1/2	1 3/4	23	3	3 5/8	N

BOLSTER SCHEDULE FOR FIXED BEARINGS

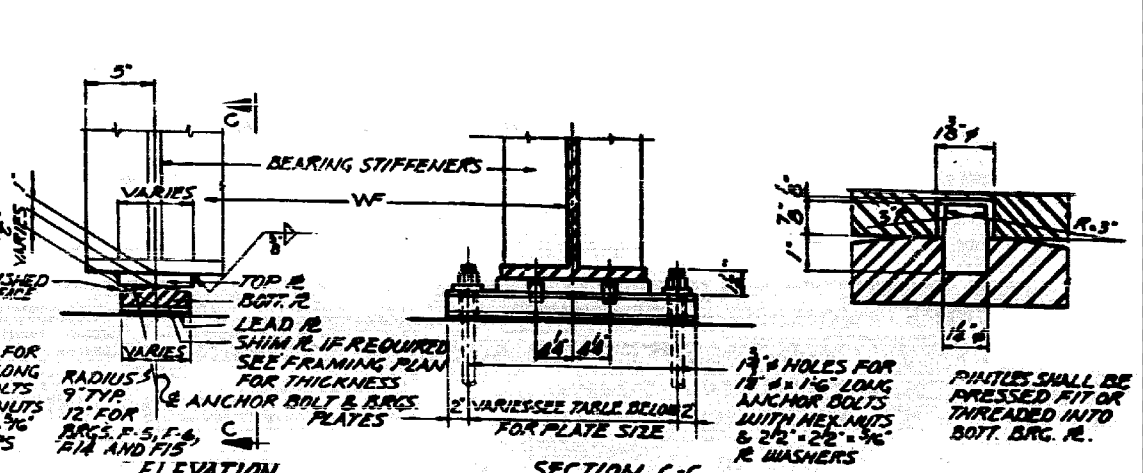
STRUCTURE NO.	PIER LOCATION	GIRDER NO.	NO. REQ'D.	TOP BOLSTER R.			BOT. BOLSTER R.			ANCHOR BOLTS			d	P _L	S _L	h	H _B	H _E	REMARKS
				T _T	W _T	L _T	T _C	W _C	L _C	B _W	B _L	Ø							
016-1117	15(S)	GN-3	1	1	9	23	1	9	23	-	9 1/4	1 1/4	5 1/4	2 1/2	2 3/4	6 3/8	8 1/4	3 5/8	
016-1118	H10(N)	GH-1	1	1	9	27 1/2	1	9	27 1/2	-	11 1/4	1 1/4	7	2 1/2	2 3/4	4 1/6	6 3/8	3 5/8	
016-1117	H8(S)	GH-1	1	1	9	27 1/2	1	9	27 1/2	-	11 1/4	1 1/4	7	2 1/2	2 3/4	4 1/6	6 3/8	3 5/8	



TYPICAL EXPANSION BEARING FOR CONCRETE PIERS AND ABUTMENTS

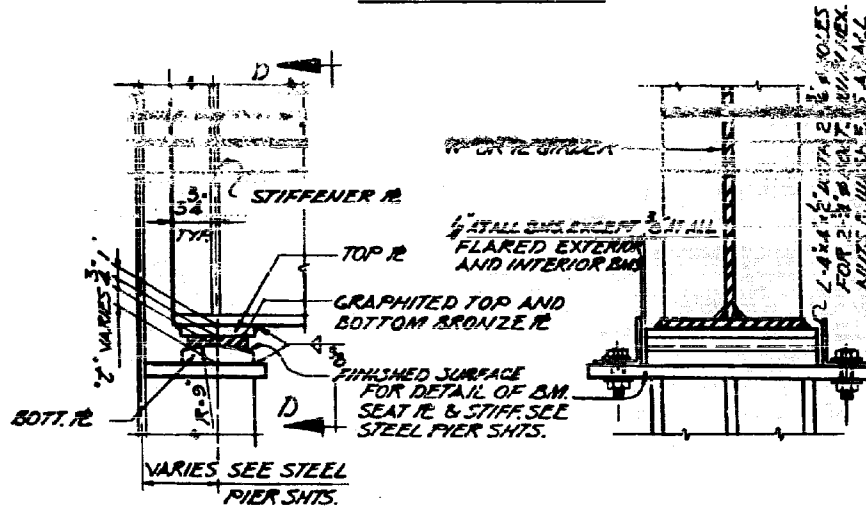


TYPICAL EXPANSION ROCKER BEARING AT PIERS 25, 26

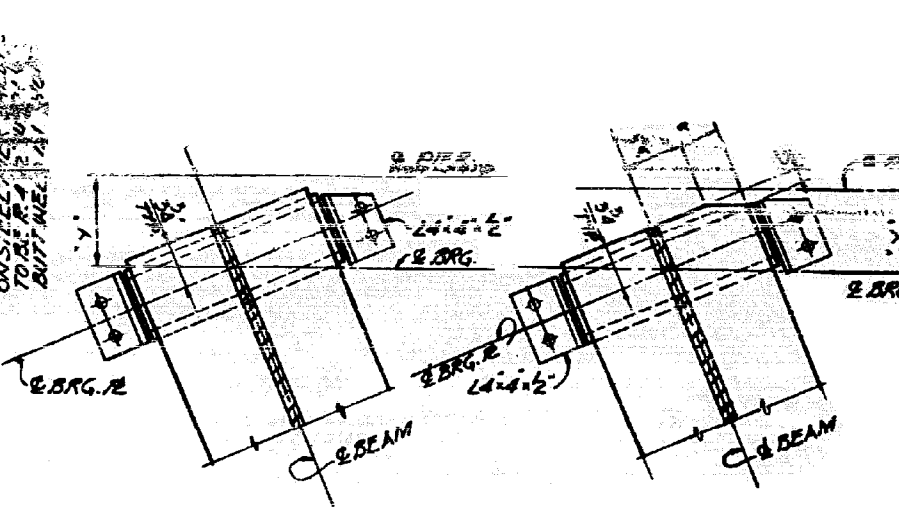


TYPICAL FIXED BEARING FOR CONCRETE PIERS PINTLE DETAIL

BRG. Q	6
E19	2 1/2
E19	3
E20	3
E21	3
E22	3
E23	3
E24	3
E25	3
E26	3
E27	3
E28	3
E29	3
E30	3
E31	3
E32	3
E33	3
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E97	3
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E99	3
E100	3

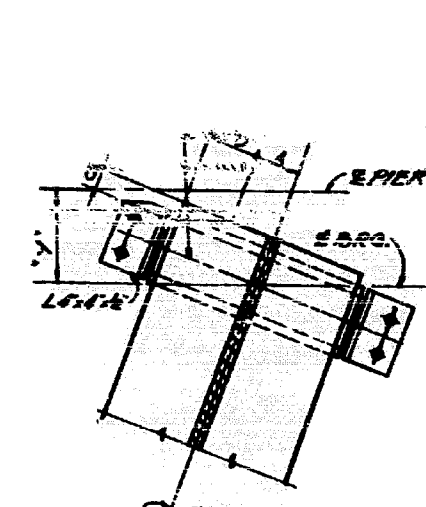


EXPANSION BEARING ON STEEL PIERS



TYPE 1 NO CUTS

TYPE 2



TYPE 4

TABLE U BOTTOM PLATE CUTS AT STEEL PIERS

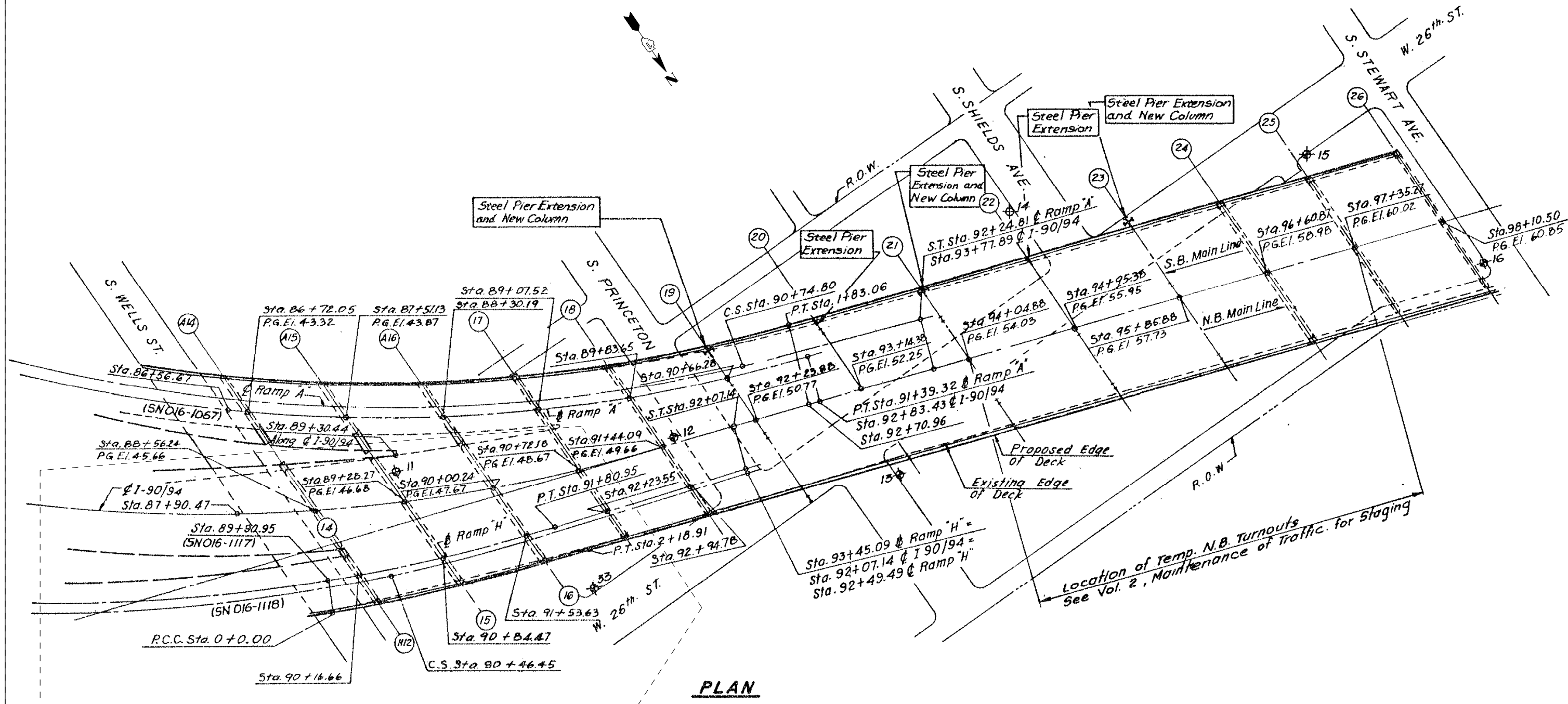
PIER BEAMS	Y	BRG. TYPE	A	B	C	REMARKS	
1	15.610	6	E10	2	0	-	6"
2	15.610	6	E2	2	0	-	1/8"
3	15.610	6	E10	2	0	-	1/8"
4	15.610	6	E2	2	1	7	1/8"
5	15.610	6	E2	2	1	7	1/8"
6	15.610	6	E2	2	1	7	1/8"
7	15.610	6	E1	2	2	4	1/8"
8	15.610	6	E1	2	3	5	1/8"
9	15.610	6	E2	2	3	5	1/8"
10	15.610	6	E2	2	3	5	1/8"
11	15.610	6	E2	2	3	5	1/8"
12	15.610	6	E2	2	3	5	1/8"
13	15.610	6	E2	2	3	5	1/8"
14	15.610	6	E2	2	3	5	1/8"
15	15.610	6	E2	2	3	5	1/8"
16	15.610	6	E2	2	3	5	1/8"
17	15.610	6	E2	2	3	5	1/8"
18	15.610	6	E2	2	3	5	1/8"
19	15.610	6	E2	2	3	5	1/8"
20	15.610	6	E2	2	3	5	1/8"
21	15.610	6	E2	2	3	5	1/8"
22	15.610	6	E2	2	3	5	1/8"
23	15.610	6	E2	2	3	5	1/8"
24	15.610	6	E2	2	3	5	1/8"
25	15.610	6	E2	2	3	5	1/8"
26	15.610	6	E2	2	3	5	1/8"
27	15.610	6	E2	2	3	5	1/8"
28	15.610	6	E2	2	3	5	1/8"
29	15.610	6	E2	2	3	5	1/8"
30	15.610	6	E2	2	3	5	1/8"
31	15.610	6	E2	2	3	5	1/8"
32	15.610	6	E2	2	3	5	1/8"
33	15.610	6	E2	2	3	5	1/8"
34	15.610	6	E2	2	3	5	1/8"
35	15.610	6	E2	2	3	5	1/8"
36	15.610	6	E2	2	3	5	1/8"
37	15.610	6	E2	2	3	5	1/8"
38	15.610	6	E2	2	3	5	1/8"
39	15.610	6	E2	2	3	5	1/8"
40	15.610	6	E2	2	3	5	1/8"
41	15.610	6	E2	2	3	5	1/8"
42	15.610	6	E2	2	3	5	1/8"
43	15.610	6	E2	2	3	5	1/8"
44	15.610	6	E2	2	3	5	1/8"
45	15.610	6	E2	2	3	5	1/8"
46	15.610	6	E2	2	3	5	1/8"
47	15.610	6	E2	2	3	5	1/8"
48	15.610	6	E2	2	3	5	1/8"
49	15.610	6	E2	2	3	5	1/8"
50	15.610	6	E2	2	3	5	1/8"
51	15.610	6	E2	2	3	5	1/8"
52	15.610	6	E2	2	3	5	1/8"
53	15.610	6	E2	2	3	5	1/8"
54	15.610	6	E2	2	3	5	1/8"
55	15.610	6	E2	2	3	5	1/8"
56	15.610	6	E2	2	3	5	1/8"
57	15.610	6	E2	2	3	5	1/8"
58	15.610	6	E2	2	3	5	1/8"
59	15.610	6	E2	2	3	5	1/8"
60	15.610	6	E2	2	3	5	1/8"
61	15.610	6	E2	2	3	5	1/8"
62	15.610	6	E2	2	3	5	1/8"
63	15.610	6	E2	2	3	5	1/8"
64	15.610	6	E2	2	3	5	1/8"
65	15.610	6	E2	2	3	5	1/8"
66	15.610	6	E2	2	3	5	1/8"
67	15.610	6	E2	2	3	5	1/8"
68	15.610	6	E2	2	3	5	1/8"
69	15.610	6	E2	2	3	5	1/8"
70	15.610	6	E2	2	3	5	1/8"
71	15.610	6	E2	2	3	5	1/8"
72	15.610	6	E2	2	3	5	1/8"
73	15.610	6	E2	2	3	5	1/8"
74	15.610	6	E2	2	3	5	1/8"
75	15.610	6	E2	2	3	5	1/8"
76	15.610	6	E2	2	3	5	1/8"
77	15.610	6	E2	2	3	5	1/8"
78	15.610	6	E2	2	3	5	1/8"
79	15.610	6	E2	2	3	5	1/8"
80	15.610	6	E2	2	3	5	1/8"
81	15.610	6	E2	2	3	5	1/8"
82	15.610	6	E2	2	3	5	1/8"
83	15.610	6	E2	2	3	5	1/8"
84	15.610	6	E2	2	3	5	1/8"
85	15.610	6	E2	2	3	5	1/8"
86	15.610	6	E2	2	3	5	1/8"
87	15.610	6	E2	2	3	5	1/8"
88	15.610	6	E2	2	3	5	1/8"
89	15.610	6	E2	2	3	5	1/8"
90	15.610	6	E2	2	3	5	1/8"
91	15.610	6	E2	2	3	5	1/8"
92	15.610	6	E2	2	3	5	1/8"
93	15.610	6	E2	2	3	5	1/8"
94	15.610	6	E2	2	3	5	1/8"
95	15.610	6	E2	2	3	5	1/8"
96	15.610	6	E2	2	3	5	1/8"
97	15.610	6	E2	2	3	5	1/8"
98	15.610	6	E2	2	3	5	1/8"
99	15.610	6	E2	2	3	5	1/8"
100	15.610	6	E2	2	3	5	1/8"

EXPANSION BEARING TABLE

MARK	TOTAL	TOP R.	BRONZE R.	BOTT. R.	LEAD R.
E1	26	6x1'x1'1"	4x1/4x1'1"	6x1/8x1'1"	6x3/8x1'1"
E2	111	6x1'x1'3/2"	4x1/4x1'3/2"	6x1/8x1'3/2"	6x3/8x1'3/2"
E4	1	6x1'x0'11/8"	4x1/4x0'11/8"	6x1/8x1'0"	6x3/8x1'0"
E5	21	6x1'x1'1"	5x1/4x1'1"	6x2/8x1'10"	6x3/8x1'10"
E6	63	6x1'x1'1"	5x1/4x1'1"	6x2/8x1'10"	6x3/8x1'10"
E8	13	6x1'x1'0 1/2"	5x1/4x1'0 1/2"	6x2/8x1'10"	6x3/8x1'10"
E9	3	6x1'x1'3/4"	5x1/4x1'3/4"	6x2/8x1'10"	6x3/8x1'10"
E10	8	6x1'x1'6/8"	5x1/4x1'6/8"	6x2/8x1'10"	6x3/8x1'10"
E13	1	6x1'x1'3/2"	5x1/4x1'3/2"	6x2/8x1'10"	6x3/8x1'10"
E14	15	6x1'x1'1"	5x1/4x1'1"	6x2/8x1'10"	6x3/8x1'10"
E15	1	6x1'x1'1"	5x1/4x1'1"	6x2/8x1'10"	6x3/8x1'10"
E16	8	6x1'x1'1"	5x1/4x1'1"	6x2/8x1'10"	6x3/8x1'10"
E18	3	9x1 1/2x1'4"	ROCKER	10x2'x1'11/2"	10x6x1'11/2"
E19	6	9x1 1/4x1'0"	ROCKER	10x1'6x1'7 1/2"	10x6x1'7 1/2"
E20	1	9x1 1/4x1'0"	ROCKER	10x2'x1'7 1/2"	10x6x1'7 1/2"

FIXED BEARING TABLE

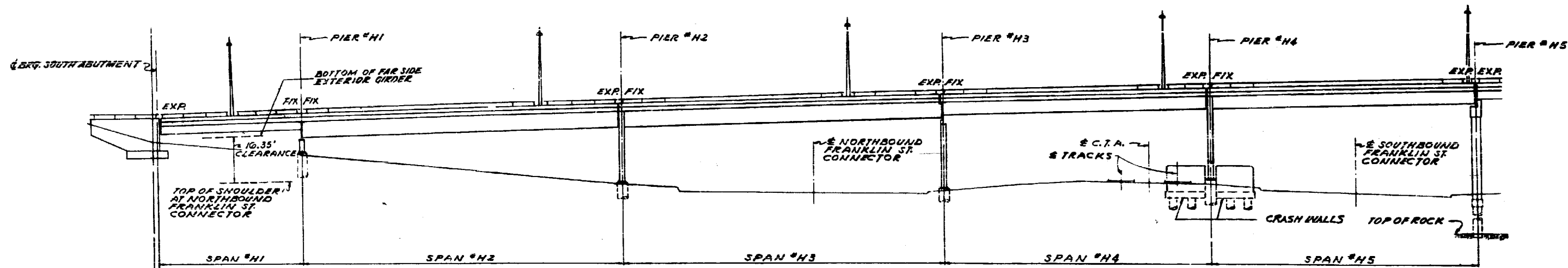
MARK	TOTAL	TOP R.	B. T. R.	LEAD R.	CUT TYPE
F	4	6x1'x0'10"	6x1'6x1'3/8"	6x6x1'5 1/2"	
F2	2	6x1'x0'11/8"	6x1'6x1'7"	6x6x1'7"	
F3	21	6x1'x1'1"	6x2'6x1'8"	6x6x1'8 1/2"	
F7	1	6x1'x1'3/2"	6x2'6x1'8"	6x6x1'8 1/2"	
F8	3	6x1'x1'1"	6x2'6x1'8"	6x6x1'8 1/2"	
F13	1	6x1'x1'3/2"	6x2'6x1'8"	6x6x1'8 1/2"	



PLAN

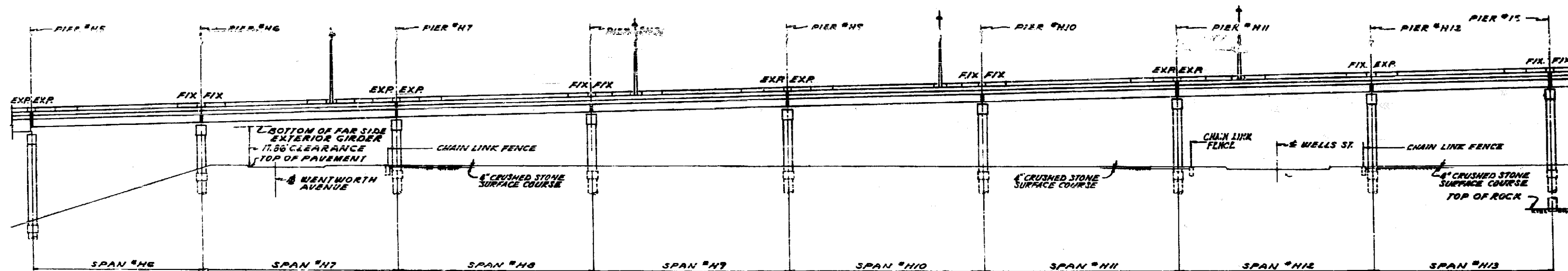
LOCATION 3

FILE NAME = USER NAME = aread PLOT SCALE = 2,000' / IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN 2 - LOCATION 3 STRUCTURE NO. 016-1117			F.A.I. RTE. 90/94 SECTION 2011-057-BP COUNTY COOK TOTAL SHEETS 98 SHEET NO. 62
	CHECKED - JMH DATE - MARCH, 2012	SCALE: NTS SHEET NO. 2 OF 21 SHEETS STA. TO STA.		CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT			

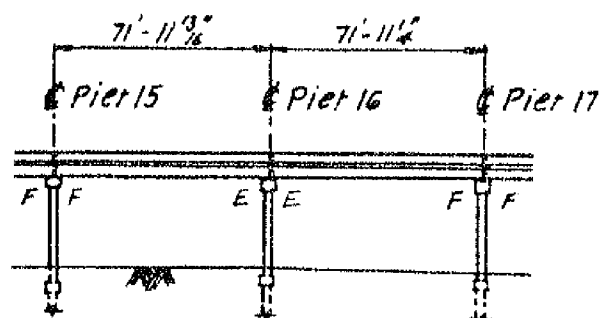


END OF SECTION S-2328.6-1P
 START OF SECTION S-2424.3-4H

NORTH ELEVATION OF SPANS #H1 TO #H5

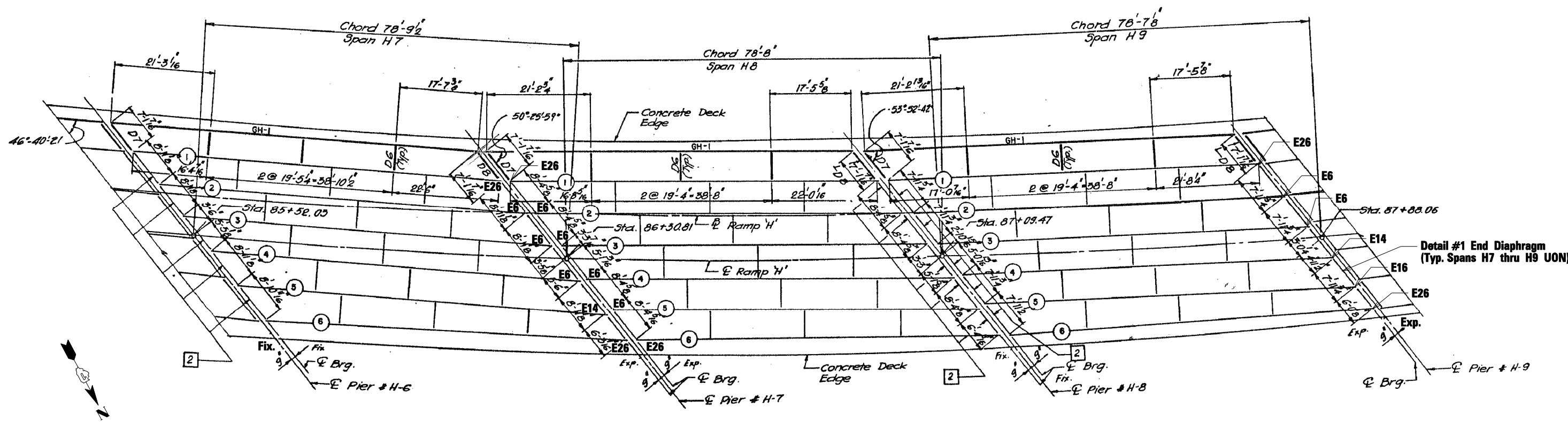


NORTH ELEVATION OF SPANS #H6 TO #H13

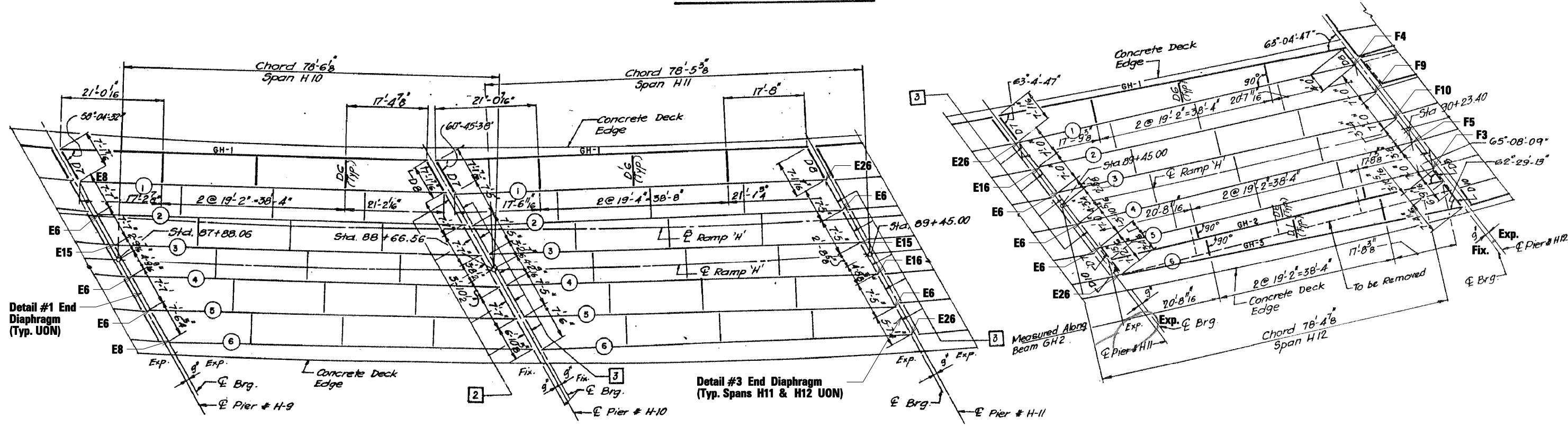


ELEVATION

FILE NAME :	USER NAME : aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL ELEVATION - LOCATION 3 STRUCTURE NO. 016-1118			F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 63	
	PLOT SCALE : 2.0000' / IN.	CHECKED - JMH	REVISED -		SCALE: NTS	SHEET NO. 3 OF 21 SHEETS	STA.	TO STA.	CONTRACT NO. 60P73				
	PLOT DATE : 3/29/2012	DATE - MARCH, 2012	REVISED -		ILLINOIS FED. AID PROJECT								

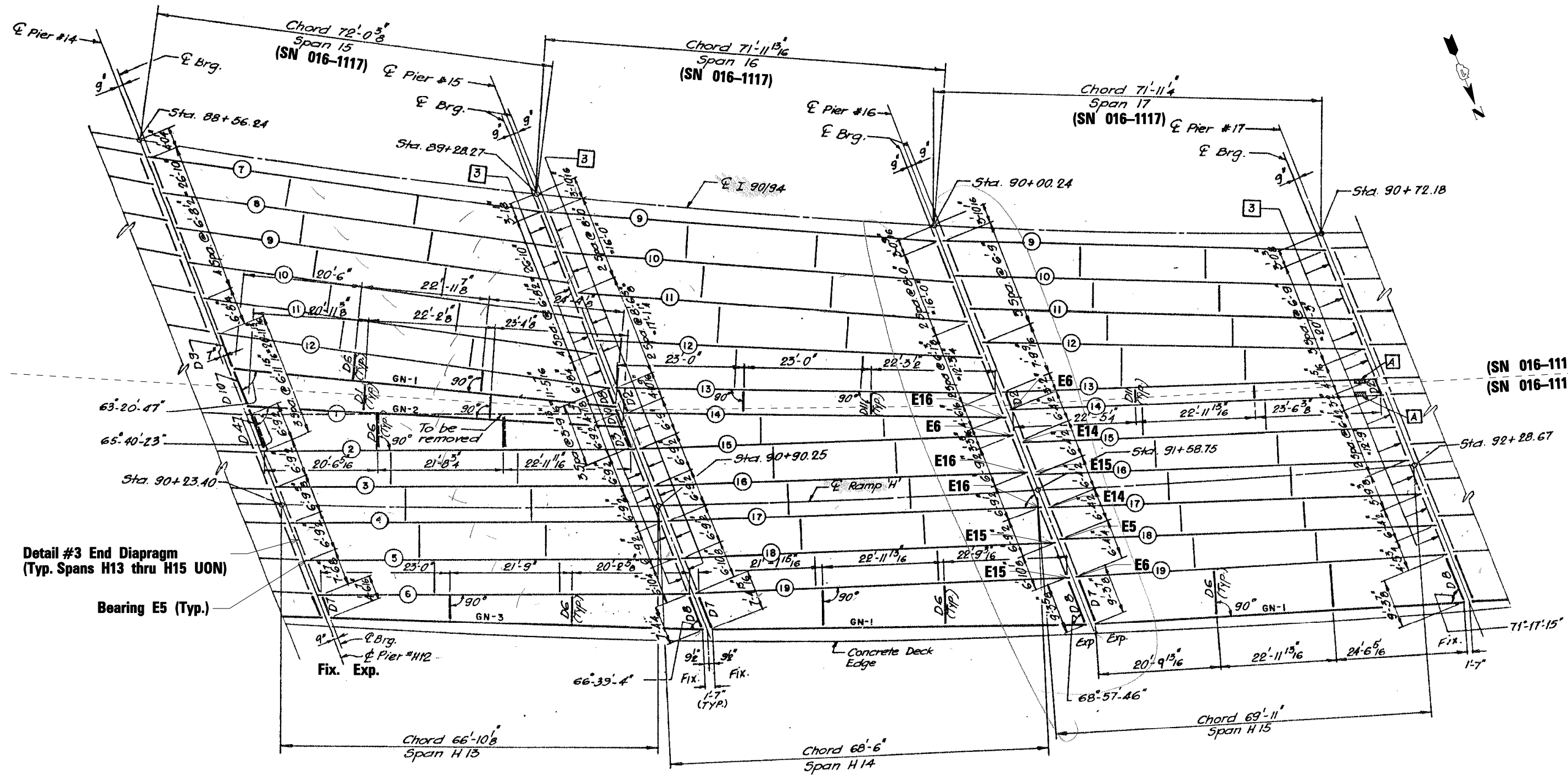


PLAN - SPANS H7, H8 & H9



PLAN - SPANS H10, H11 & H12

FILE NAME = USER NAME = aread PLOT SCALE = 2.0000' / IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN SPANS H7, H8, H9, H10, H11 & H12 - LOCATION 3 STRUCTURE NO. 016-1118				F.A.I. R.E. = 90/94 SECTION = 2011-057-BP COUNTY = COOK TOTAL SHEETS = 98 SHEET NO. = 65 CONTRACT NO. = 60P73 ILLINOIS FED. AID PROJECT
				SCALE: NTS SHEET NO. 5 OF 21 SHEETS STA. TO STA.				

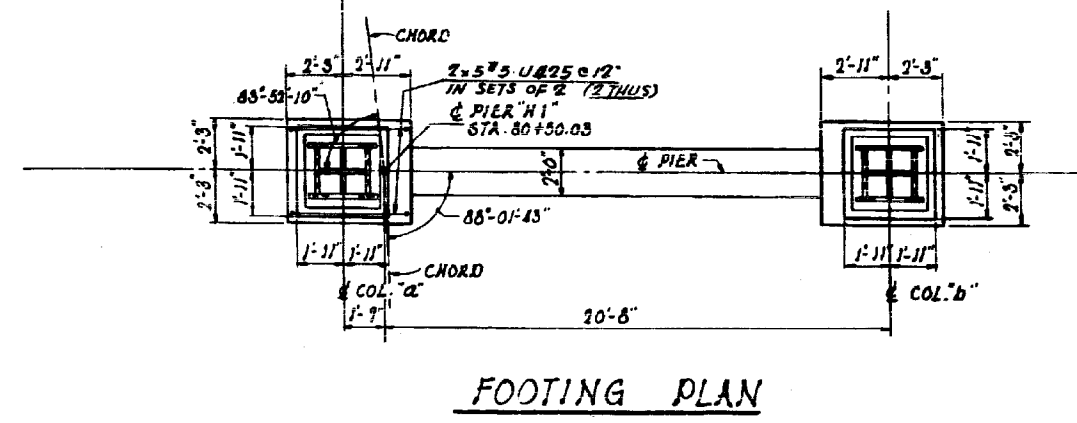
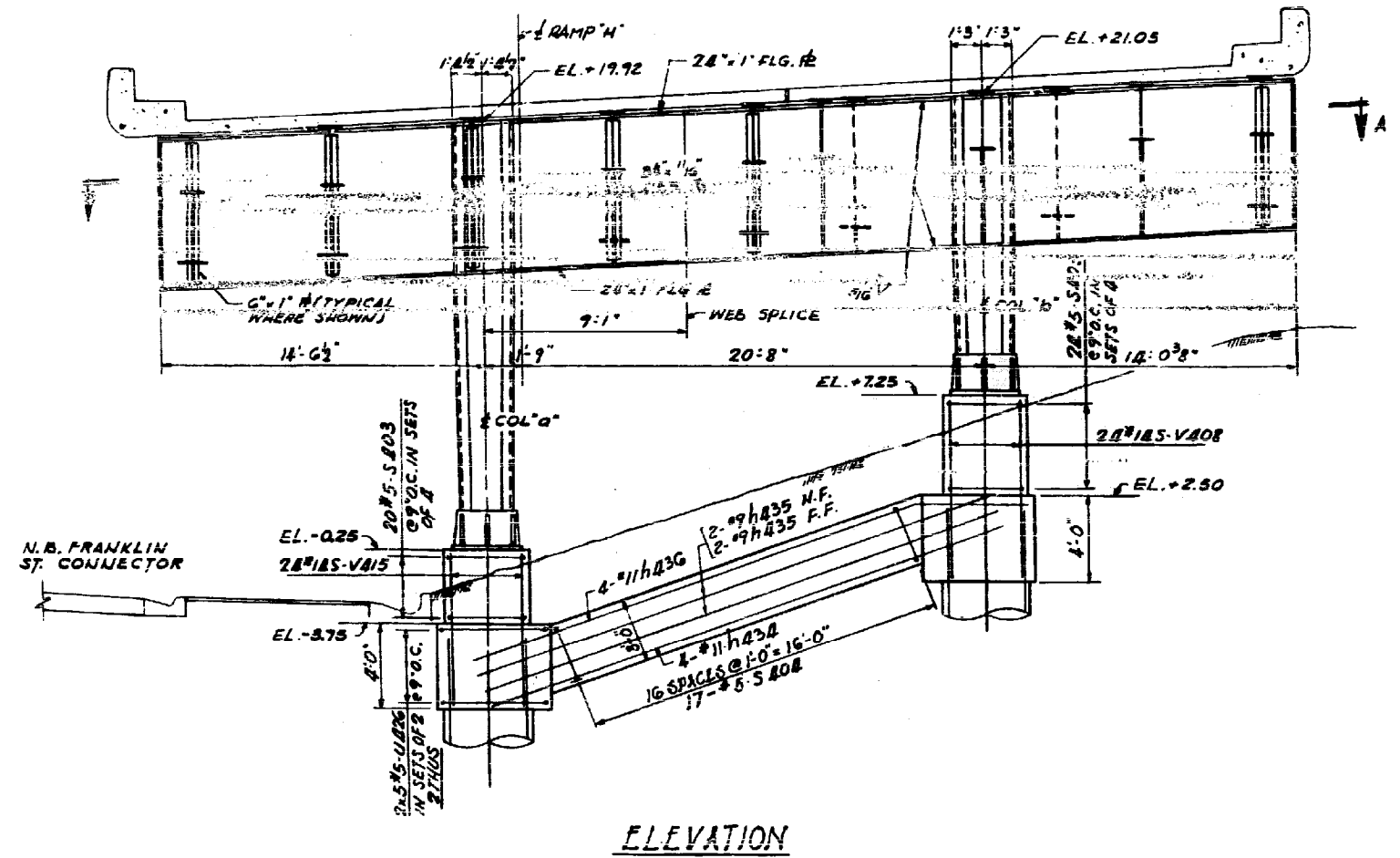
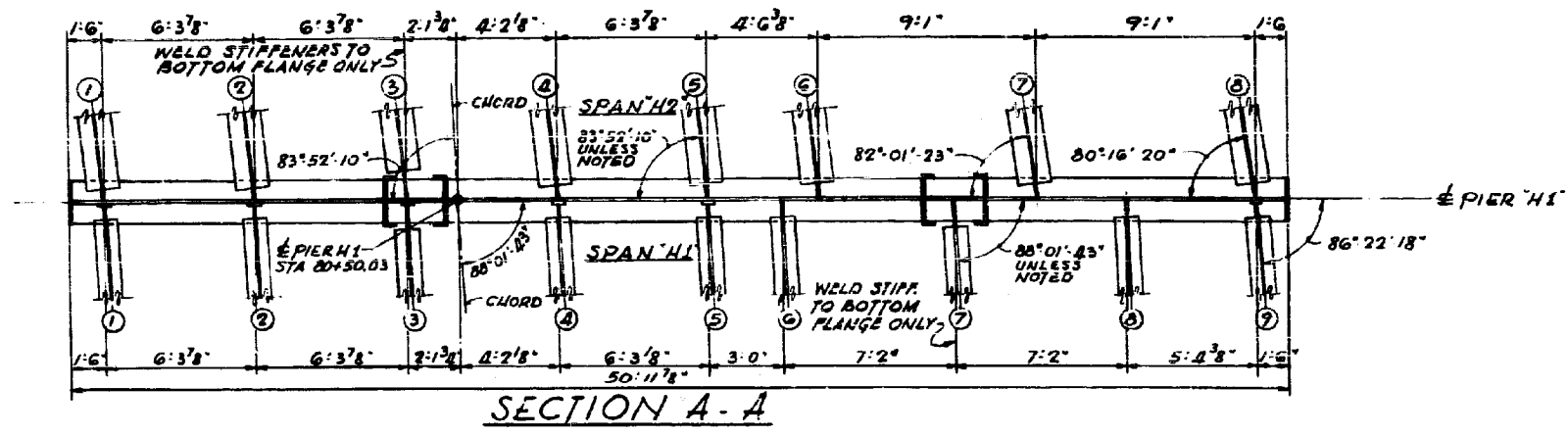


Detail #3 End Diaphragm
(Typ. Spans H13 thru H15 UON)

Bearing E5 (Typ.)

PLAN - SPANS H13, H14 & H15

FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN SPANS H13, H14 & H15 - LOCATION 3 STRUCTURE NO. 016-1118			F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 66
	PLOT SCALE = 2,0000' / IN.	CHECKED - JMH	REVISED -		SCALE: NTS	SHEET NO. 6 OF 21 SHEETS	STA. TO STA.	CONTRACT NO. 60P73				
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -		ILLINOIS FED. AID PROJECT							



FILE NAME =
 USER NAME = aread
 PLOT SCALE = 2.0000" / 1"
 PLOT DATE = 3/29/2012

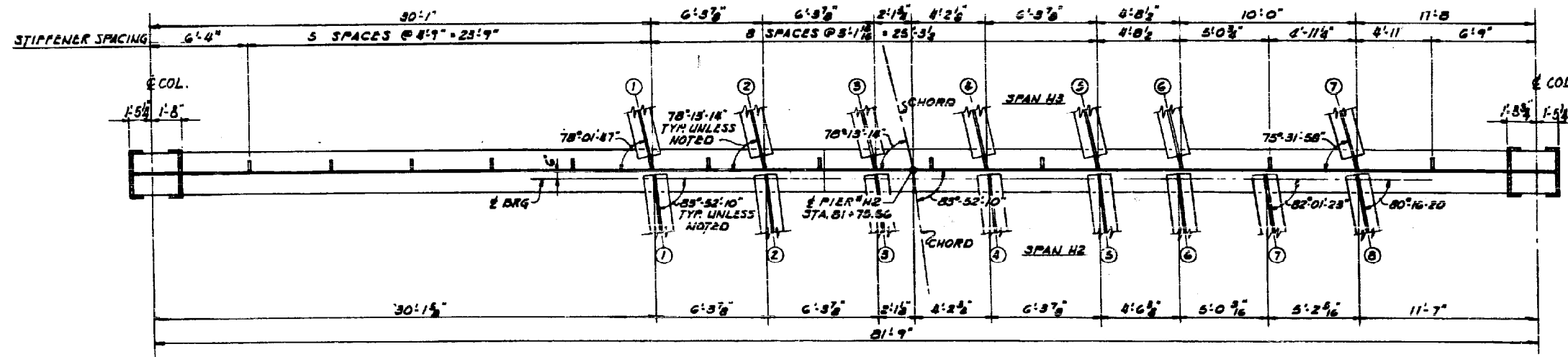
DESIGNED - AMR	REVISED -
DRAWN - AMR	REVISED -
CHECKED - JMH	REVISED -
DATE - MARCH, 2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

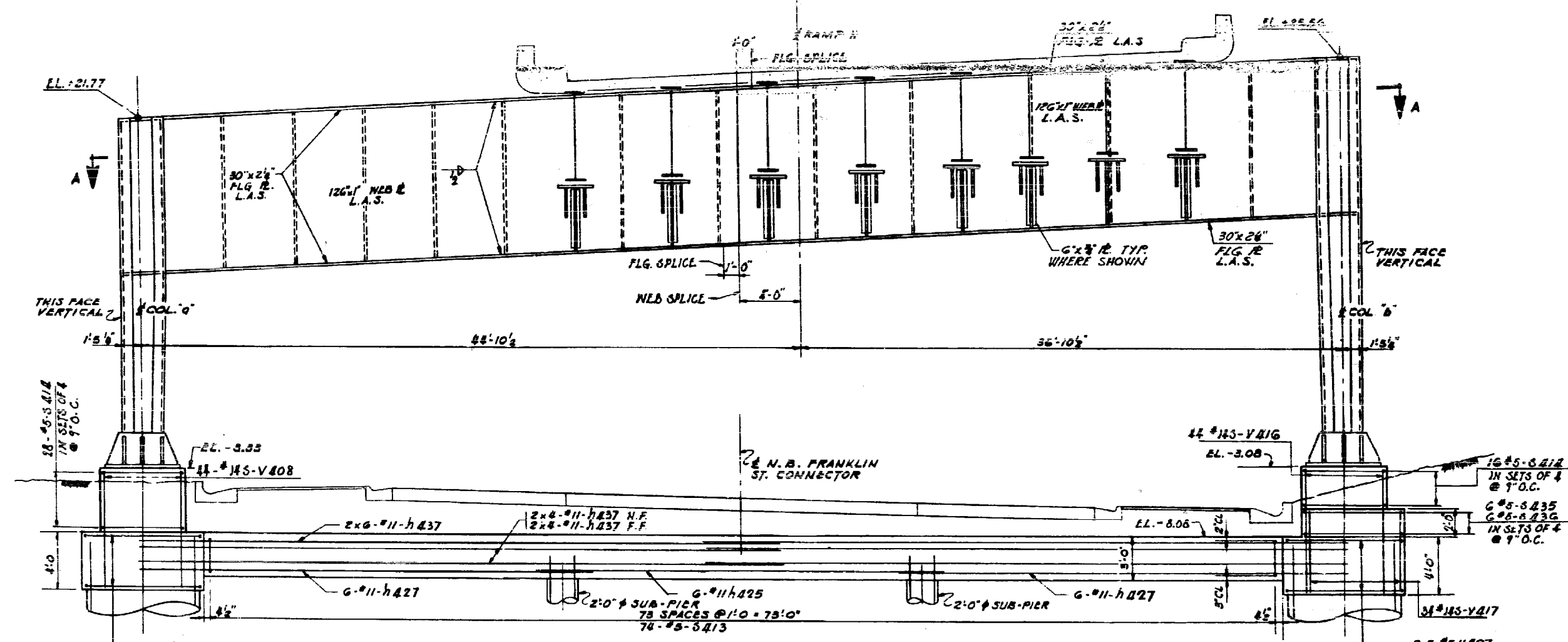
PIER H1 - LOCATION 3
 STRUCTURE NO. 016-1118

SCALE: NTS SHEET NO. 7 OF 21 SHEETS STA. TO STA.

F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 67
CONTRACT NO. 60P73				
ILLINOIS FED. AID PROJECT				

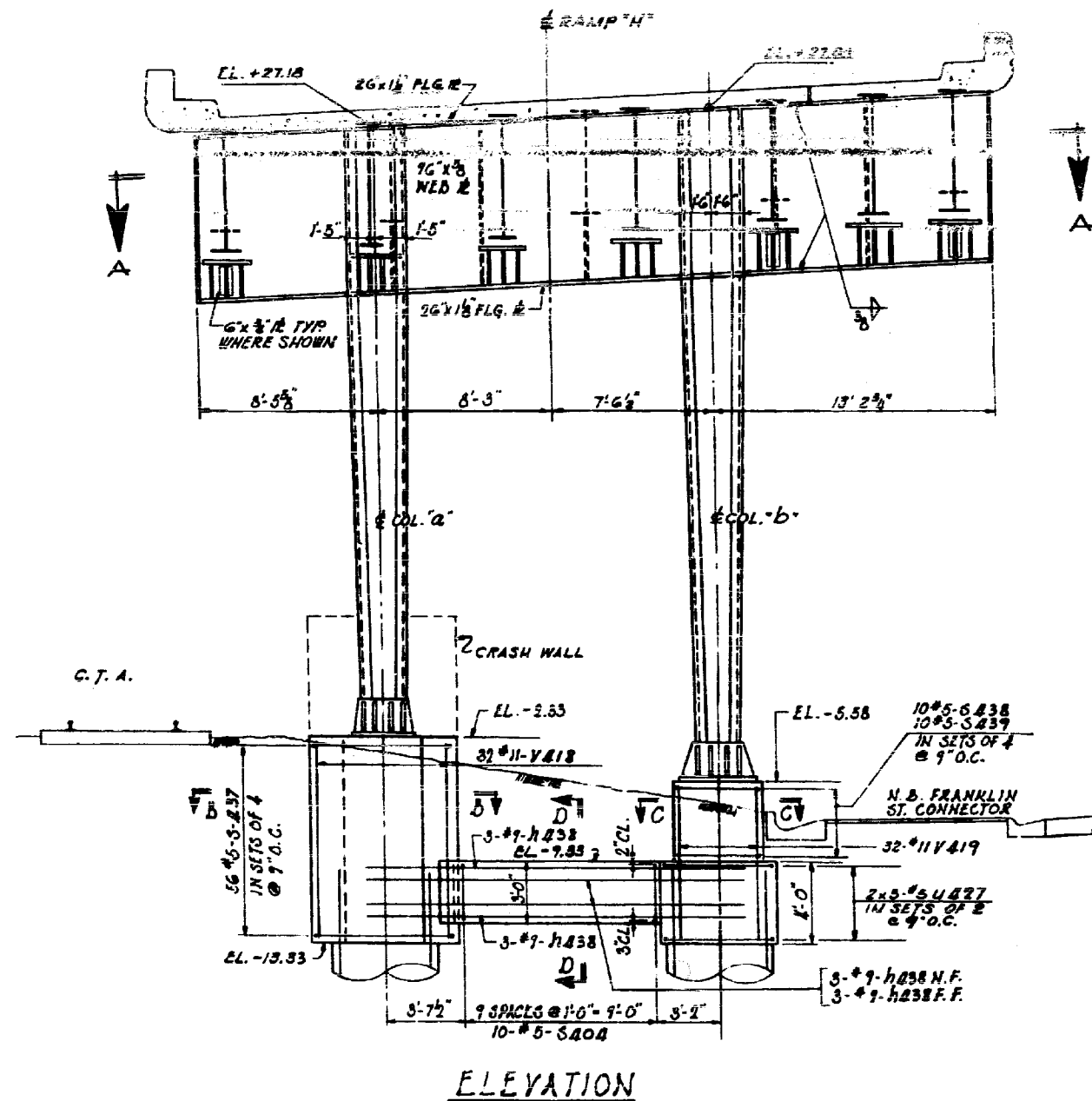
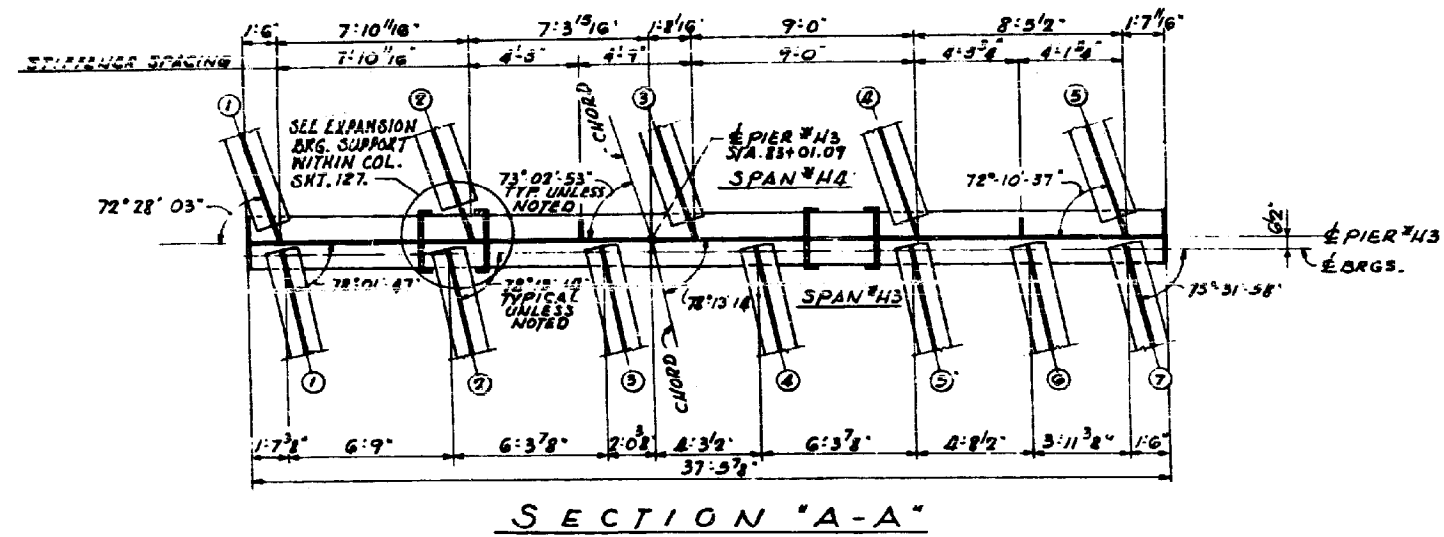


SECTION A - A



ELEVATION

FILE NAME = USER NAME = aread PLOT SCALE = 2.0000 "/ IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER H2 - LOCATION 3 STRUCTURE NO. 016-1118			F.A.I. RTE. 90/94 SECTION 2011-057-BP COUNTY COOK TOTAL SHEETS 98 SHEET NO. 68	
				SCALE: NTS SHEET NO. 8 OF 21 SHEETS STA. TO STA.	CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT			



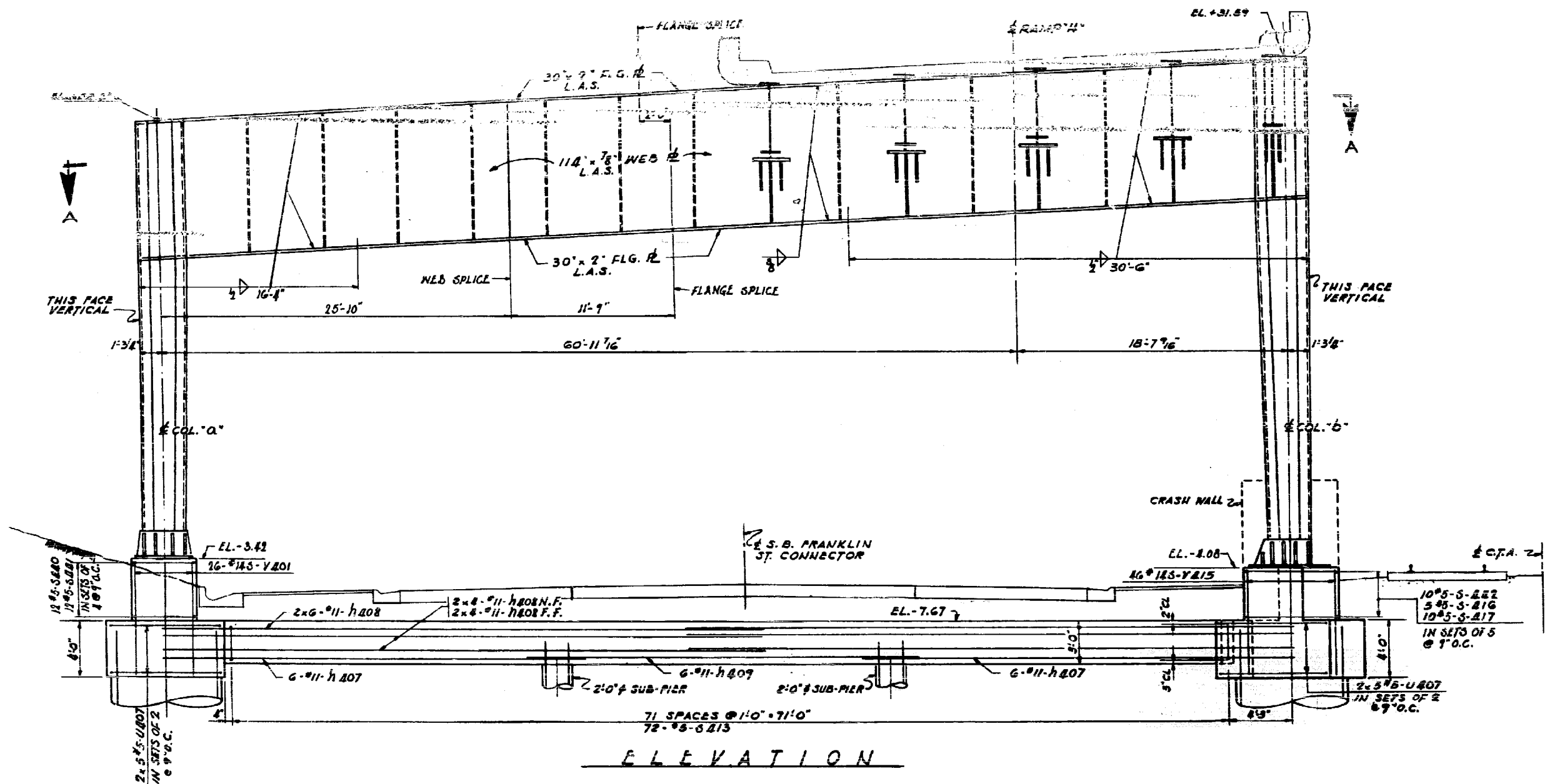
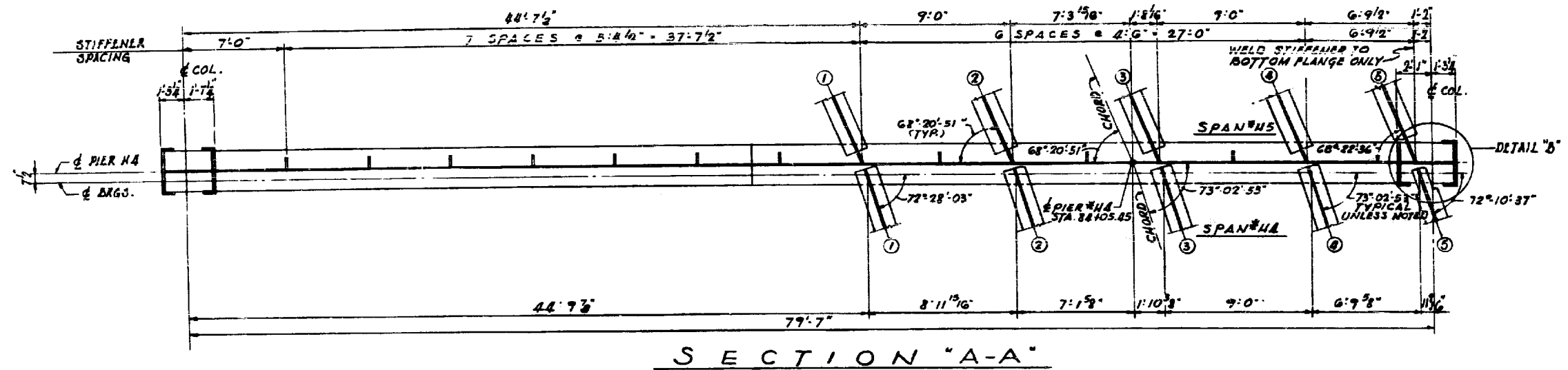
FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -
		DRAWN - AMR	REVISED -
	PLOT SCALE = 2.0000' / IN.	CHECKED - JMH	REVISED -
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

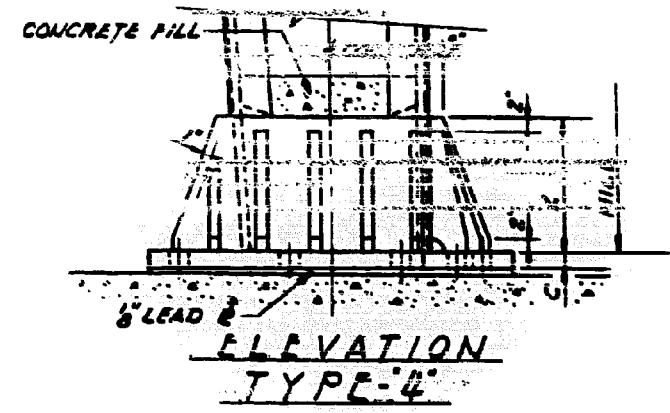
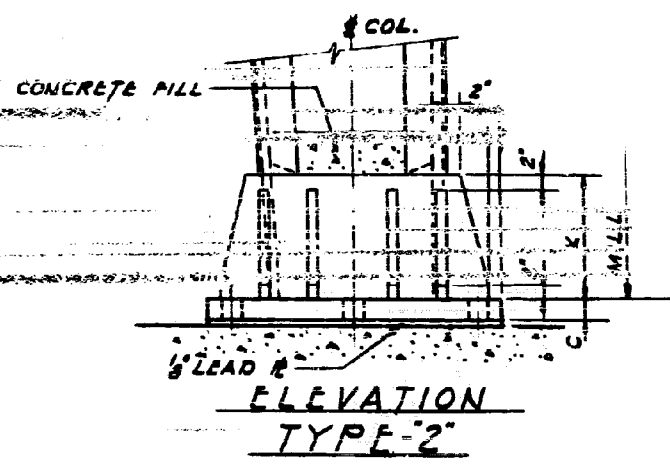
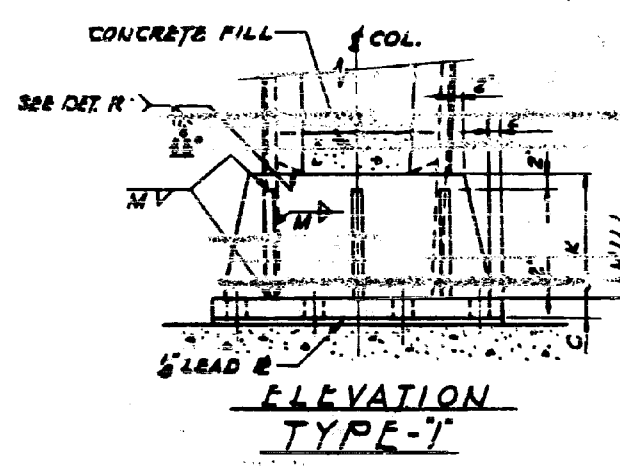
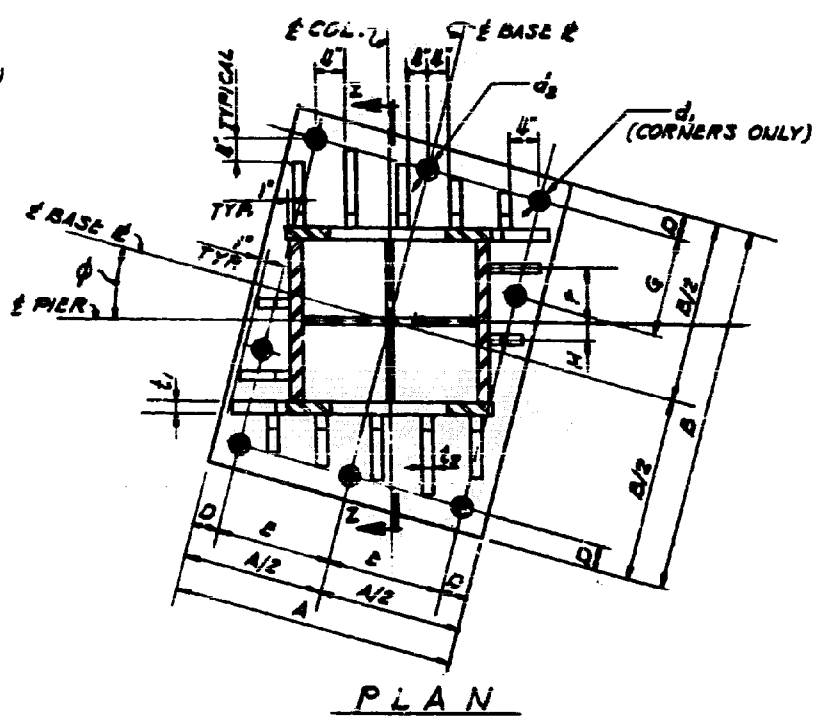
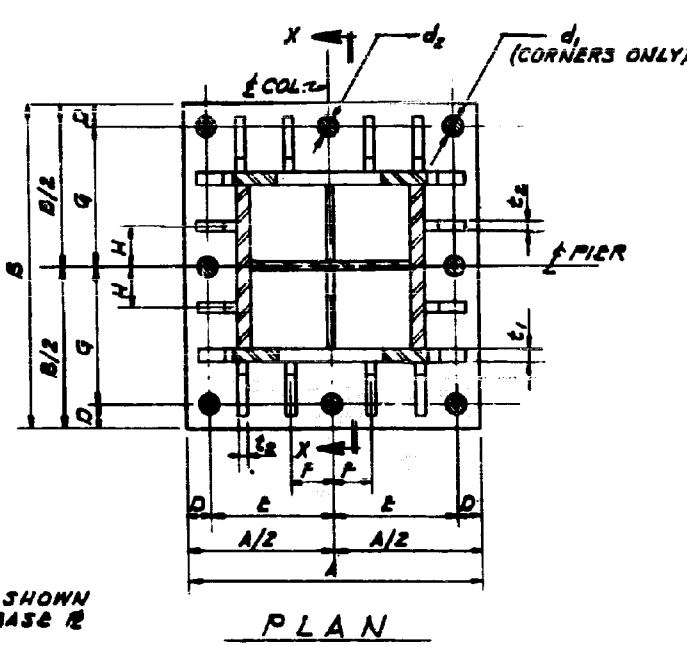
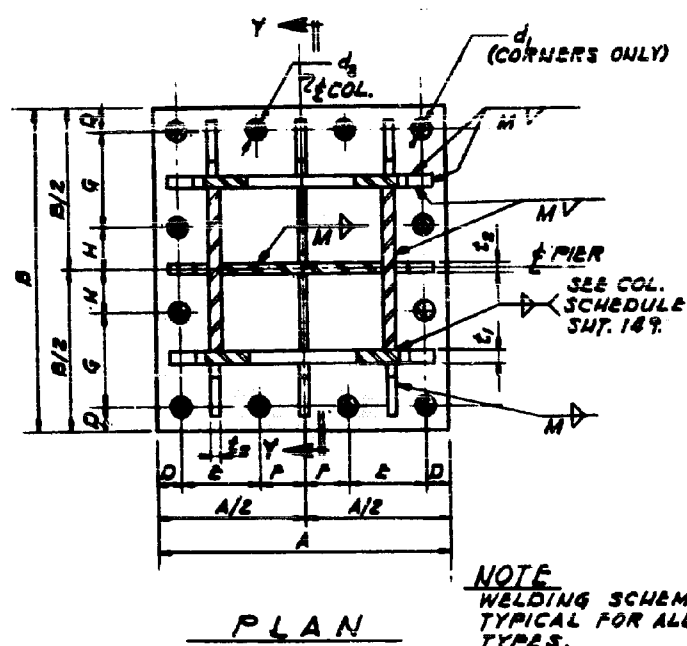
**PIER H3 - LOCATION 3
STRUCTURE NO. 016-1118**

SCALE: NTS SHEET NO. 9 OF 21 SHEETS STA. TO STA.

F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 69
CONTRACT NO. 60P73			ILLINOIS FED. AID PROJECT	



FILE NAME = USER NAME = aread PLOT SCALE = 2.0000 "/>	DESIGNED - AMR DRAWN - AMR CHECKED - JMH DATE - MARCH, 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER H4 - LOCATION 3 STRUCTURE NO. 016-1118		F.A.I. R.T.E. 90/94 SECTION 2011-057-BP COUNTY COOK TOTAL SHEETS 98 SHEET NO. 70	
	PLOT DATE = 3/29/2012	DATE - MARCH, 2012		SCALE: NTS SHEET NO. 10 OF 21 SHEETS STA. TO STA.	CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT		



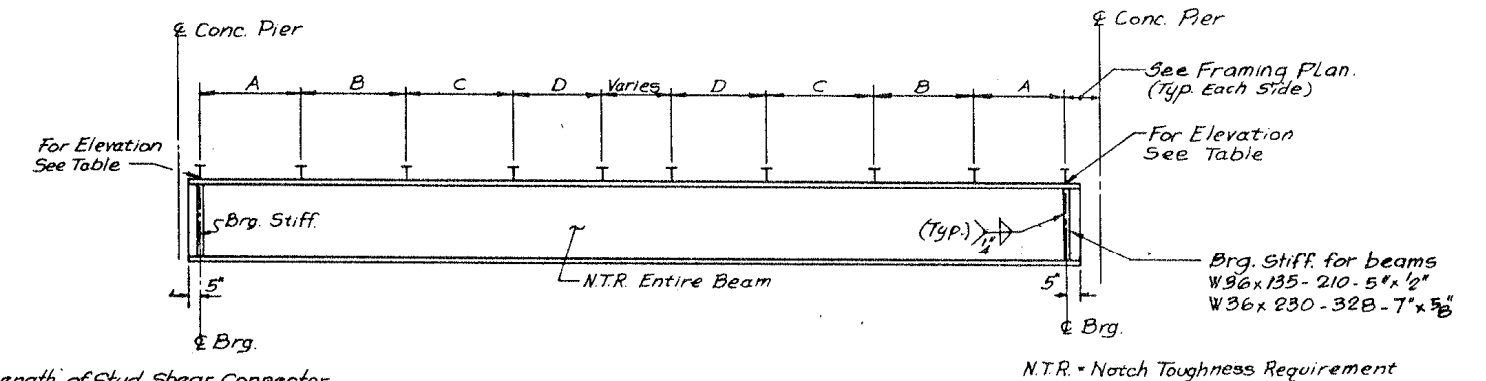
B A S E R D E T A I L S F O R S T E E L P I E R S
NO SCALE
B A S E R S C H E D U L E

PIER NR	COL	BASE TYPE	DIMENSIONS										HOLES		WELD		ANCHOR BOLTS		
			A	B	C	D	E	F	G	H	K	t ₁	t ₂	d ₁	d ₂	M	d' ₁	d' ₂	L
H1	a	1	3'-2"	3'-2"	2'-2"	2'-3"	-	-	-	-	1'-8"	1'-2"	1'-2"	2'-2"	-	1'-2"	2'-4"	-	2'-6"
	b	1	3'-2"	3'-2"	2'-2"	2'-3"	-	-	-	-	1'-8"	1'-2"	1'-2"	2'-2"	-	1'-2"	2'-4"	-	2'-6"
H2	a	1	5'-0"	5'-0"	3'	3'-3"	1'-5 1/2"	8 3/4"	1'-9 1/2"	8 3/4"	2'-2"	2"	2"	3'-2"	3'-4"	5/8"	3'-1/2" H.S.	2'-3/4" H.S.	3'-9"
	b	1	5'-0"	5'-0"	3'	3'-3"	1'-8 1/2"	8 3/4"	1'-5 1/2"	8 3/4"	2'-2"	2"	2"	3'-2"	3'-4"	5/8"	3'-1/2" H.S.	2'-3/4" H.S.	3'-9"
H3	a	2	3'-0"	4'-0"	2'-2"	3'-2"	1'-2 1/2"	4"	1'-8 1/2"	4 1/2"	1'-8"	2"	1'-2"	3'-2"	3'-4"	5/8"	3"	2'-3/4"	2'-6"
	b	2	3'-8"	4'-0"	2'-2"	3'-2"	1'-6 1/2"	4 1/2"	1'-8 1/2"	4 1/2"	1'-8"	2"	1'-2"	3'-2"	3'-4"	5/8"	3"	2'-3/4"	2'-6"
H4	a	2	3'-9"	4'-6"	2'-2"	3'-2"	1'-7"	5"	1'-11 1/2"	5 1/2"	1'-8"	1'-2"	1'-2"	3'-2"	3'-4"	5/8"	3'-1/2"	2'-3/4"	3'-3"
	b	4	3'-6"	5'-0"	2'-2"	3'-2"	1'-5 1/2"	-	1'-4"	0"	1'-8"	1'-2"	1'-2"	3'-2"	3'-4"	1/2"	3'-1/2"	2'-3/4"	2'-6"

WIDE FLANGE BEAM SCHEDULE

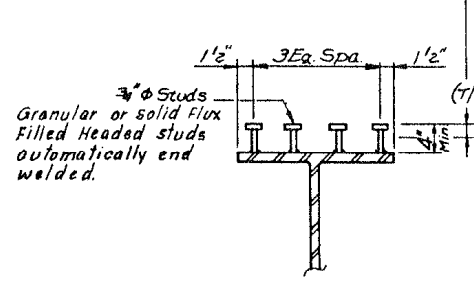
SPAN	BEAM	BEAM SIZE	L (¢ BRG. TO ¢ BRG.)	TOP OF BEAM ELEV. AT ¢ BEARINGS				STUDS PER ROW	SHEAR STUD SPACINGS				STUDS PER BEAM	DEFLECTION		
				PIER NO.	ELEV.	PIER NO.	ELEV.		A	B	C	D		Δ ¢	Δ ¼	
RAMP 'H'	H6	GH-1	W36x135	8'-10 1/8"	H5	33.410	H6	33.732	4	25pa@24"	—	—	—	24	0	0
	H7	GH-1	W36x245	77'-8 1/8"	H6	33.790	H7	36.140	4	175pa@12"	175pa@15"	—	—	280	13/16	5/8
	H8	GH-1	W36x245	77'-4 3/8"	H7	36.221	H8	38.517	4	175pa@12"	175pa@15"	—	—	280	15/16	11/16
	H9	GH-1	W36x245	77'-4 1/8"	H8	38.573	H9	40.888	4	175pa@12"	175pa@15"	—	—	280	1	11/16
	H10	GH-1	W36x245	76'-8 1/8"	H9	40.942	H10	43.014	4	175pa@12"	175pa@15"	—	—	280	15/16	5/8
	H11	GH-1	W36x245	77'-4 7/8"	H10	43.054	H11	44.804	4	175pa@12"	175pa@15"	—	—	280	7/8	5/8
	H12	GH-1	W36x245	78'-14"	H11	44.844	H12	46.294	4	205pa@12"	155pa@15"	—	—	288	3/4	9/16
	H12	GH-2	W36x245	76'-9 1/8"	H11	47.004	H12	48.224	4	155pa@15"	135pa@18"	—	—	232	1	11/16
	H12	GH-3	W36x245	78'-6 1/4"	H11	47.174	H12	48.575	4	205pa@12"	155pa@15"	—	—	288	13/16	9/16

NORTHBOUND MAINLINE	WIDE FLANGE BEAM SCHEDULE																
	SPAN	BEAM	BEAM SIZE	L (¢ BRG. TO ¢ BRG.)	TOP OF BEAM ELEV. AT ¢ BEARINGS				STUDS PER ROW	SHEAR STUD SPACINGS				STUDS PER BEAM	DEFLECTION		
					PIER NO.	ELEV.	PIER NO.	ELEV.		A	B	C	D		Δ ¢	Δ ¼	
		H13	GN-2	W36x170	66'-5 3/8"	14 (H12)	46.499	15	47.653	4	145pa@12"	155pa@15"	—	—	240	3/4	9/16
		H13	GN-3	W36x182	66'-0 3/8"	14 (H12)	48.662	15	49.747	4	145pa@12"	155pa@15"	—	—	240	1/2	3/8
	H14	GN-1	W36x210	67'-6 1/8"	15	49.773	16	50.457	4	185pa@9"	205pa@12"	—	—	312	5/8	7/16	
	H15	GN-1	W36x210	68'-3 1/8"	16	50.471	17	51.010	4	175pa@9"	215pa@12"	—	—	312	3/4	1/2	

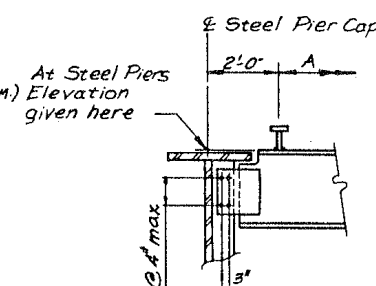


Length of Stud Shear Connector to be determined by the contractor in the field to insure a min. 2' Penetration in Slab

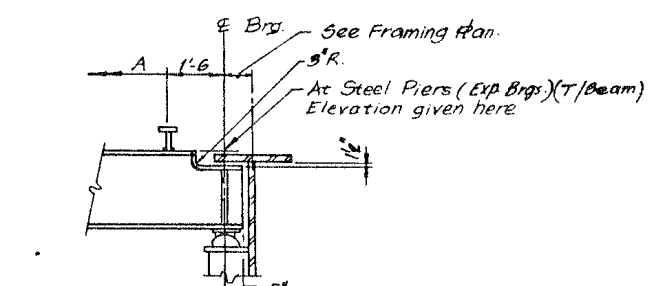
WIDE FLANGE BEAM ELEVATION



TYPICAL SECTION (SHOWING STUD PLACEMENT)

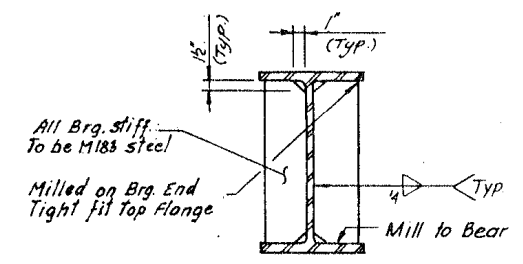


FIXED



EXPANSION

END DETAIL AT STEEL PIERS (TYPICAL)



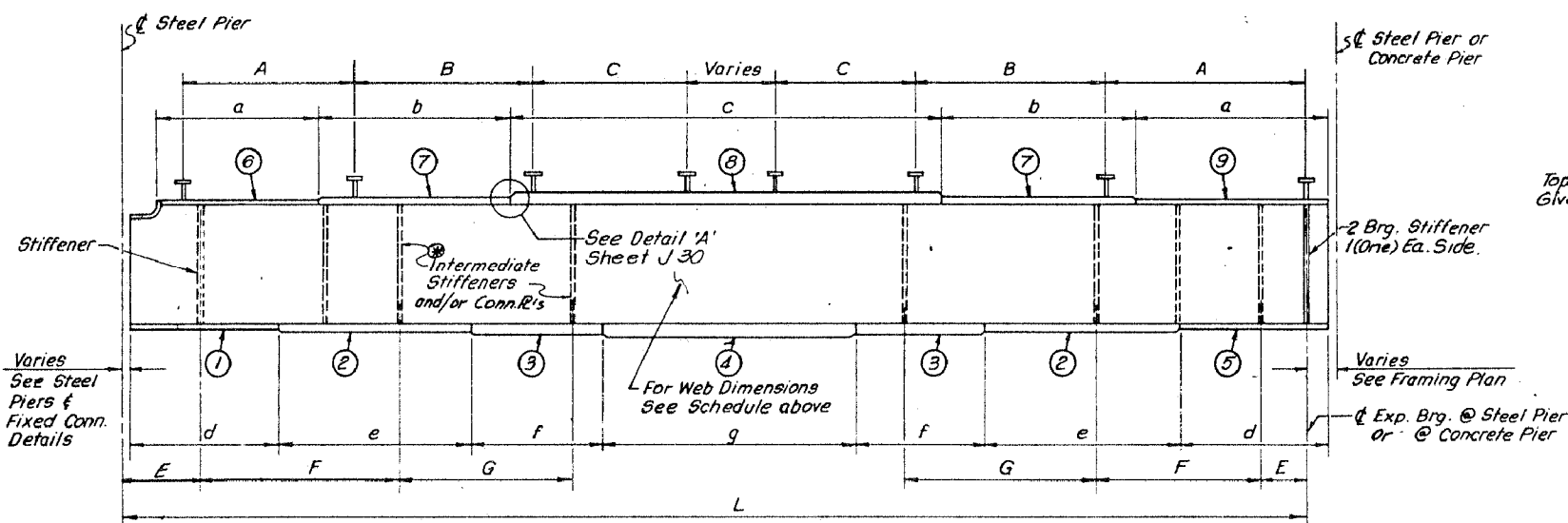
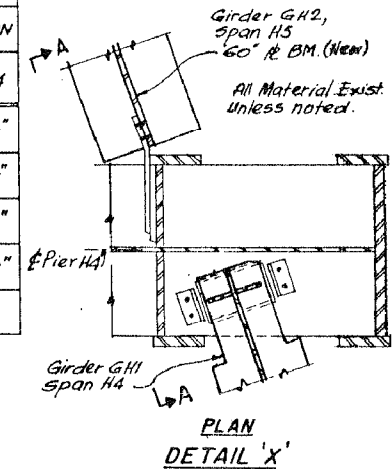
TYPICAL SECTION AT BEARING STIFFENERS

WELDED PLATE BEAM SCHEDULE

SPAN	BEAM	L (# BRG. TO # BRG.)	TOP OF BEAM ELEVATIONS AT # BEARINGS				WEB	FLANGE PLATES									THICKNESS OF FILLET WELD									BRG. STIFF.	INTERMEDIATE STIFFENERS			SHEAR STUD SPACINGS			STUDS PER BEAM	DEFLECTION		
			PIER NO.	ELEV.	PIER NO.	ELEV.		①	②	③	④	⑤	⑥	⑦	⑧	⑨	a	b	c	d	e	f	g	SIZE	SPACING			A	B	C	Δ ₁	Δ ₄				
																									E		F							G		
RAMP 'H'	H-3	GH-1	126'-4"	H2	25.004	H3	28.437	1/2" x 72"	16" x 1/8" x 15'-9"	16" x 1/8" x 8'-6"	16" x 2 1/2" x 17'-6"	16" x 2 1/2" x 41'-6"	16" x 3/8" x 16'-10"	16" x 3/8" x 15'-9"	16" x 1 1/2" x 27'-9"	16" x 1 1/2" x 30'-0"	16" x 3/8" x 16'-10"	5/16"	5/16"	3/8"	5/16"	5/16"	3/8"	1/2"	7" x 5/8"	5" x 5/8"	2'-0"	4 @ 9'-0"	—	4	10 @ 15"	12 @ 18"	17 @ 21"	320	2"	1 1/8"
	H-4	GH-1	104'-2 1/2"	H3	28.469	H4	31.653	7/16" x 60"	16" x 1/8" x 14'-10 1/2"	16" x 2 1/2" x 15'-0"	16" x 2 3/4" x 20'-6"	—	16" x 1 1/2" x 16'-0"	16" x 3/8" x 20'-4 1/2"	16" x 1 1/2" x 31'-0"	—	16" x 3/8" x 21'-6 1/2"	5/16"	5/16"	—	5/16"	3/8"	1/2"	7" x 5/8"	5" x 5/8"	2'-6"	3 @ 5'-0"	3 @ 7'-6"	4	25 @ 9"	12 @ 12"	15 @ 15"	424	2 1/8"	1 1/8"	
	H-5	GH-1	105'-10 1/2"	H4	30.167	H5	33.101	7/16" x 60"	16" x 1" x 17'-2 1/2"	16" x 1 1/2" x 17'-0"	16" x 1 3/4" x 18'-0"	—	16" x 1" x 18'-4 1/2"	16" x 3/8" x 21'-2 1/2"	16" x 1" x 31'-0"	—	16" x 3/8" x 22'-4 1/2"	5/16"	5/16"	—	5/16"	3/8"	1/2"	7" x 5/8"	5" x 5/8"	2'-6"	3 @ 5'-0"	3 @ 7'-6"	4	25 @ 9"	13 @ 12"	15 @ 15"	432	1 13/16"	1 1/4"	
	H-5	GH-2	103'-4 1/2"	H4	31.489	H5	34.567	7/16" x 60"	16" x 1 1/8" x 14'-11 1/2"	16" x 2" x 14'-0"	16" x 2 1/2" x 22'-0"	—	16" x 1 1/8" x 15'-1 1/2"	16" x 3/8" x 18'-11 1/2"	16" x 1 1/8" x 32'-0"	—	16" x 3/8" x 20'-1 1/2"	5/16"	5/16"	—	5/16"	3/8"	1/2"	7" x 5/8"	5" x 5/8"	2'-6"	3 @ 5'-0"	3 @ 7'-6"	4	23 @ 12"	21 @ 15"	—	376	2 1/8"	1 1/2"	
	H-5	I*	103'-6 1/2"	H4	30.280	H5	33.430	3/8" x 60"	16" x 1" x 15'-3 3/8"	16" x 2" x 16'-0"	16" x 2 1/4" x 41'-0"	—	16" x 1"	16" x 3/8" x 20'-9 1/2"	16" x 1 1/8" x 62'-0"	—	16" x 3/8" x 20'-9 1/2"	5/16"	5/16"	—	5/16"	3/8"	1/2"	7" x 5/8"	5" x 5/8"	2'-6"	3 @ 5'-0"	3 @ 7'-6"	4	23 @ 12"	21 @ 15"	—	376	2 1/8"	1 1/2"	

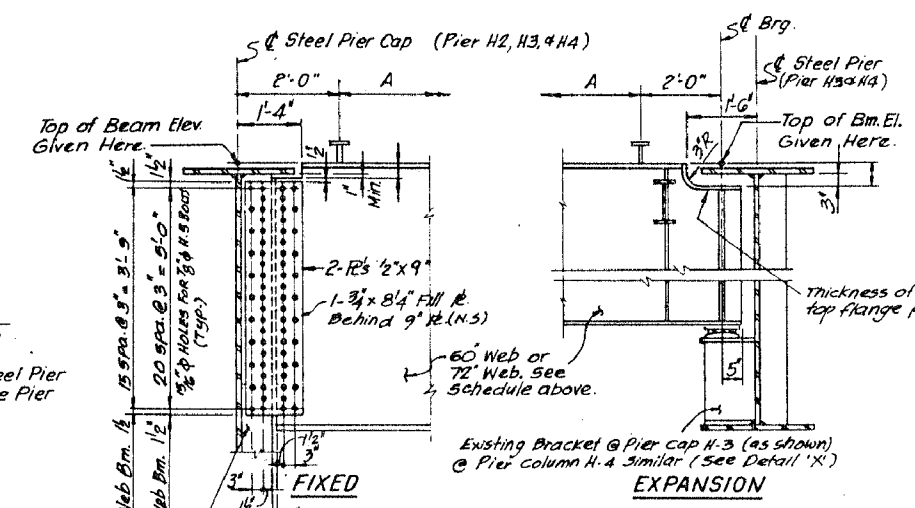
All Webs & Plates ① ② ③ ④ & ⑤ to be N.T.R.

* Existing; Relocated.



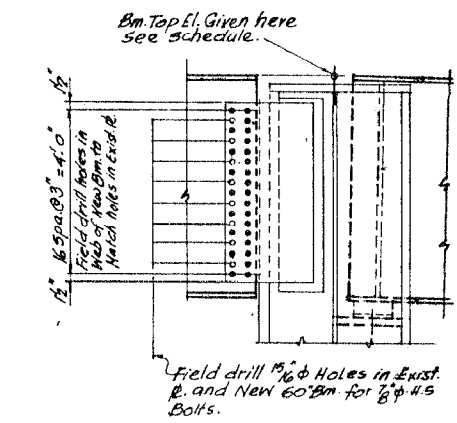
TYPICAL ELEVATION OF WELDED PLATE GIRDER

(For Connection R Location See Framing Plans)

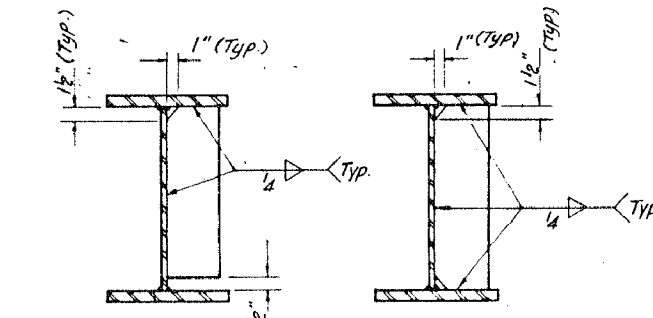
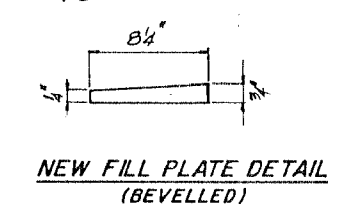


CONNECTION DETAIL PLATE GIRDER TO STEEL PIER CAP

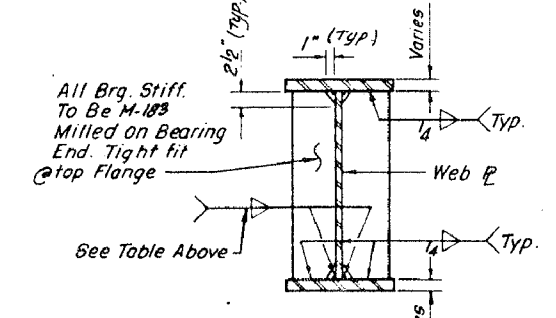
CONNECTION PLATE
 For GH-1 span H3 (Exist.)
 For GH-1 span H4 (Exist.)
 For GH-1 span H5 with bevelled 3/8" Fill Plate (New) see detail. (Exist.)
 New 9" x 8" connection R for relocated in span H5
 Girder ①. 3/8" Fillet weld each side of new connection plate. Weld plate to top flange tight fit @ bottom.
 For GH-2 in span H5 (Exist.)
 In this case connection R connected to Pier column (see Detail 'X')



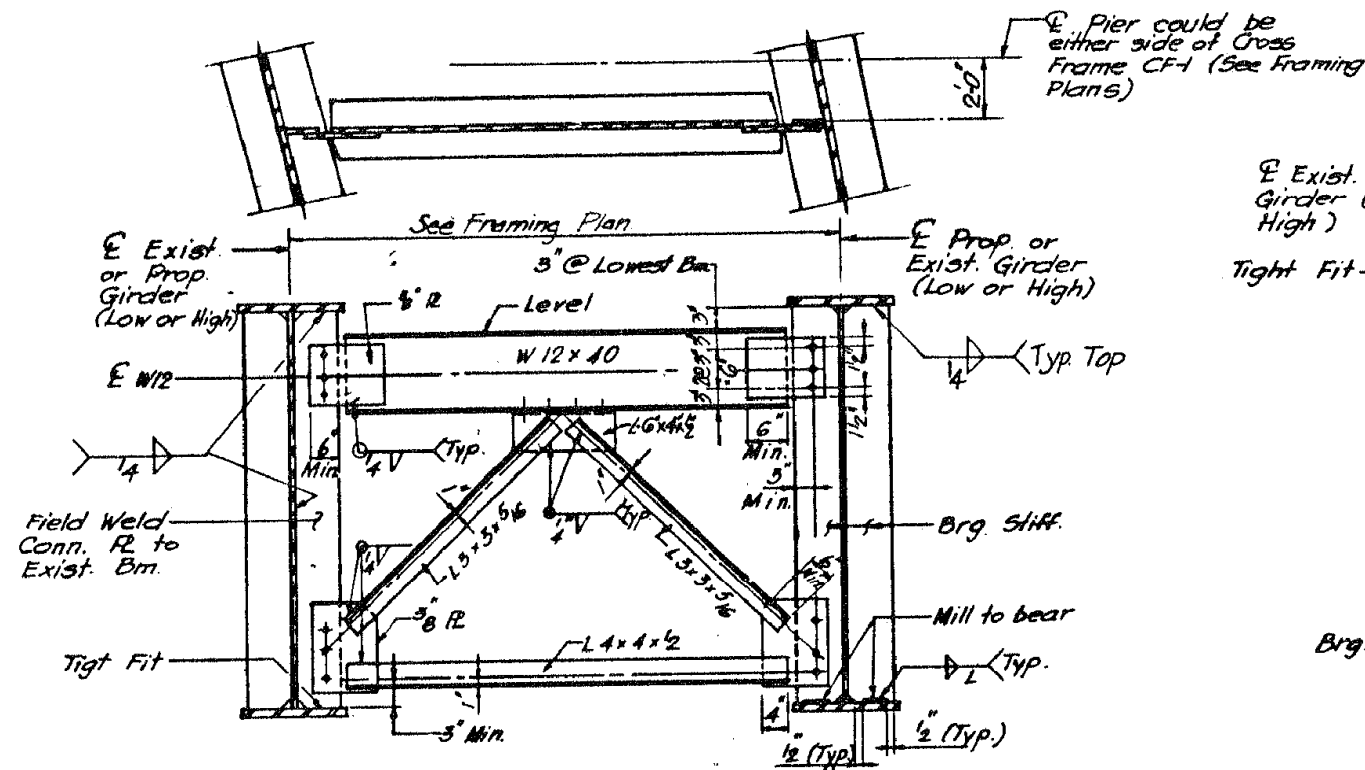
SECTION A-A



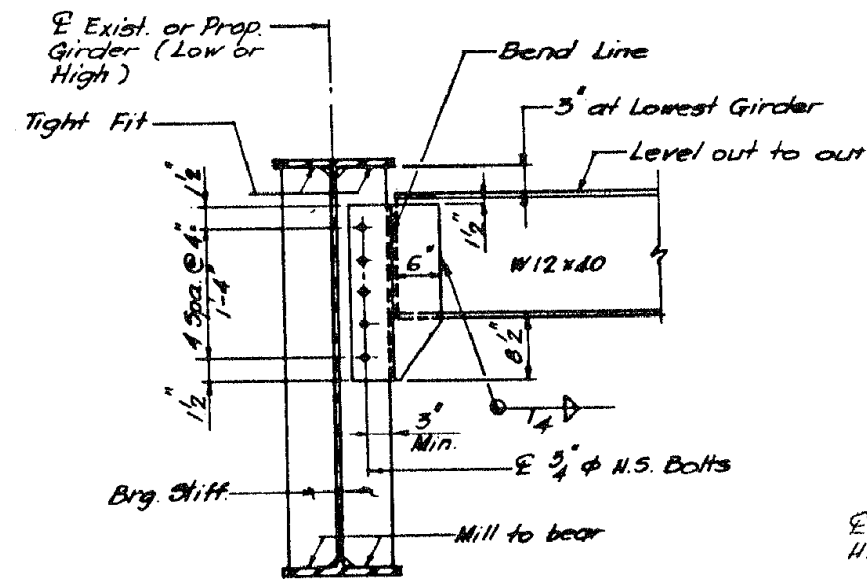
SECTION AT INTERMED. STIFFENER



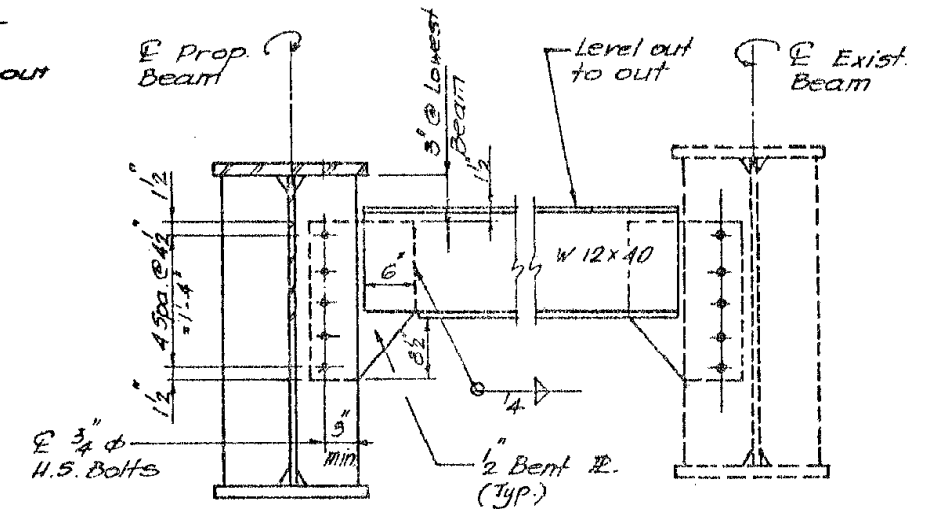
SECTION AT BEARING STIFFENER



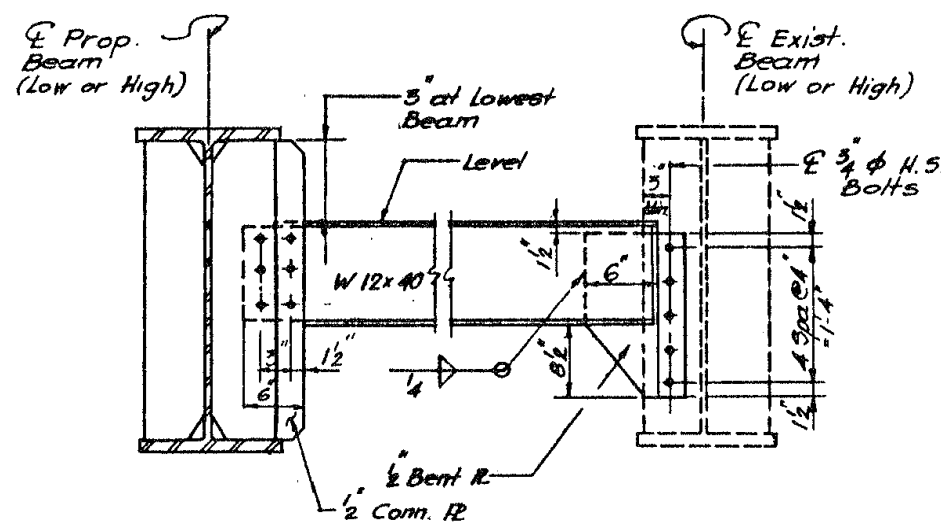
CF 1
TYPICAL END CROSS FRAME



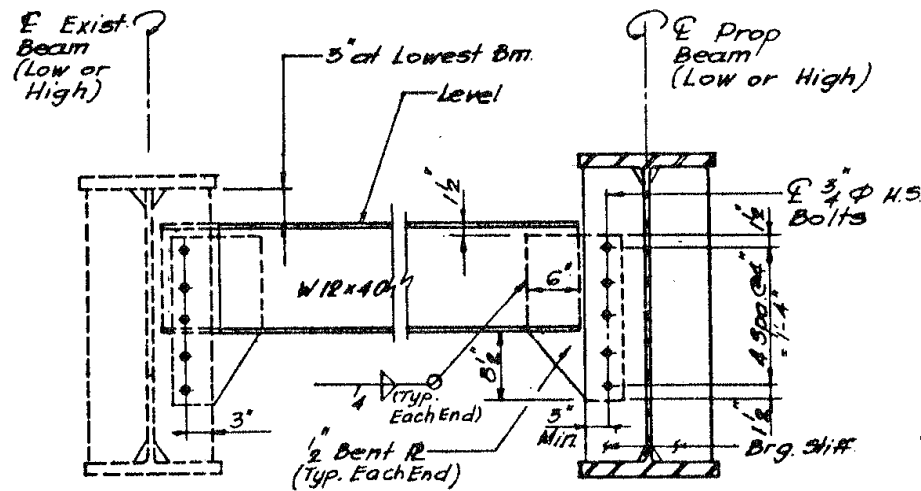
D 2
END DIAPHRAGM



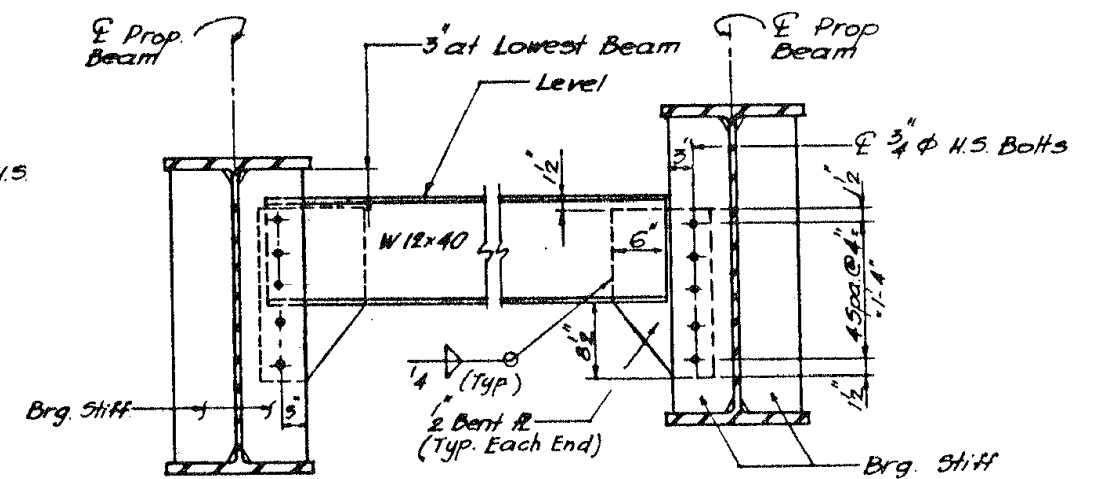
D 4
END DIAPHRAGM



D 7
END DIAPHRAGM



D 8
END DIAPHRAGM



D 10
END DIAPHRAGM

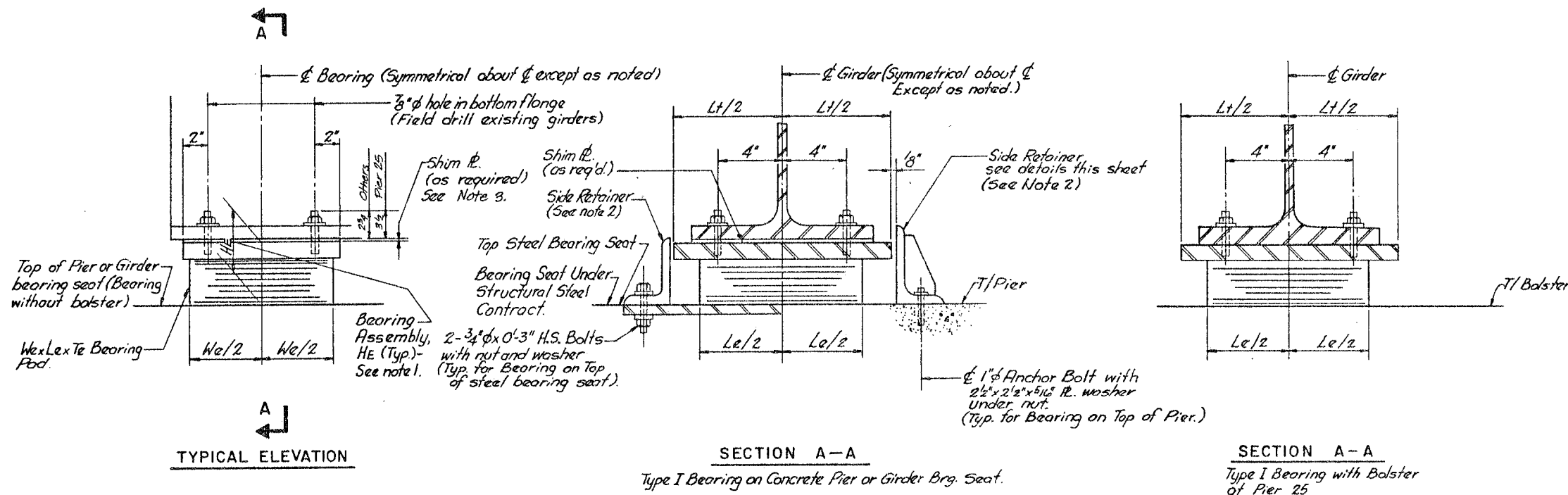


TABLE OF DIMENSIONS — TYPE I ELASTOMERIC EXPANSION BEARINGS

WE	LE	SERIES	TP	NP	TS	NS	TE
6	10	a	5/16	3	14/16	2	1 1/16
9	12	a	5/8	5	3/32	4	2 1/4
9	12	b	3/8	7	3/32	6	3 3/16
9	12	c	5/8	8	3/32	7	5 5/8
10	14	a	7/16	5	1/8	4	2 1/16
11	16	b	1/2	5	1/8	4	3
12	18	b	9/16	4	3/16	3	2 1/16
12	18	d	9/16	6	3/16	5	4 5/16
12	18	c	9/16	5	3/16	4	3 9/16

TP - denotes thickness of each elastomeric layer.
 NP - denotes number of elastomeric layers.
 TS - denotes thickness of each steel plate.
 NS - denotes number of steel plates.

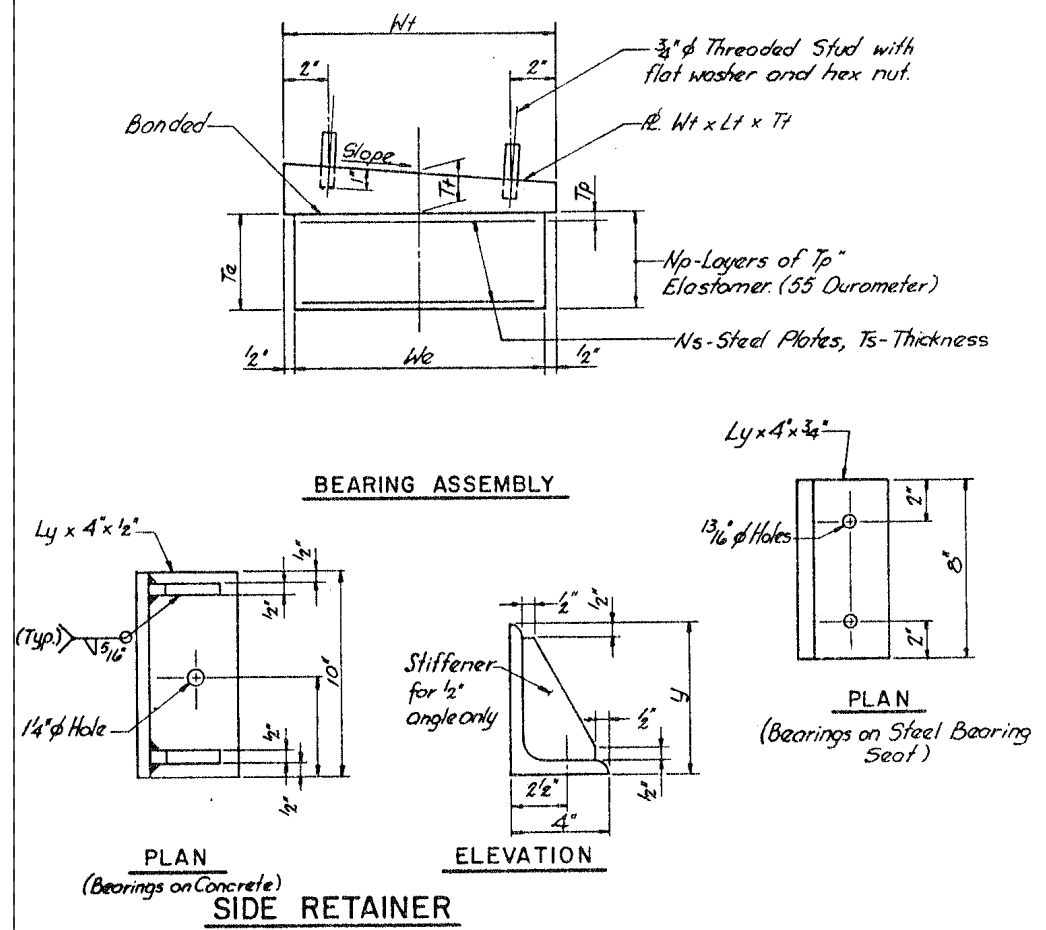
TYPE I ELASTOMERIC EXPANSION BEARING

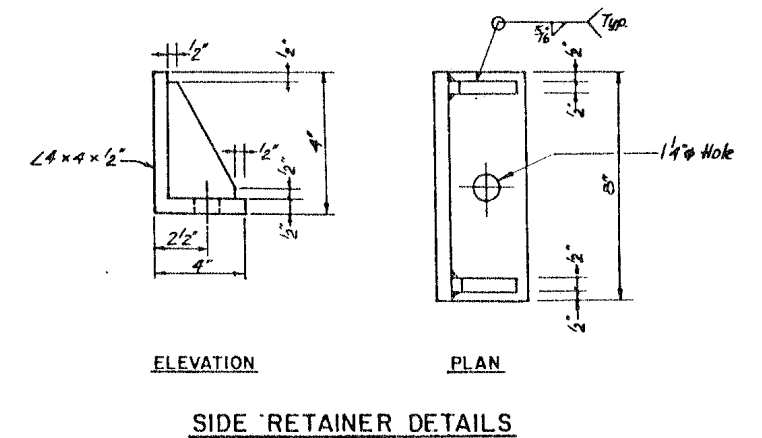
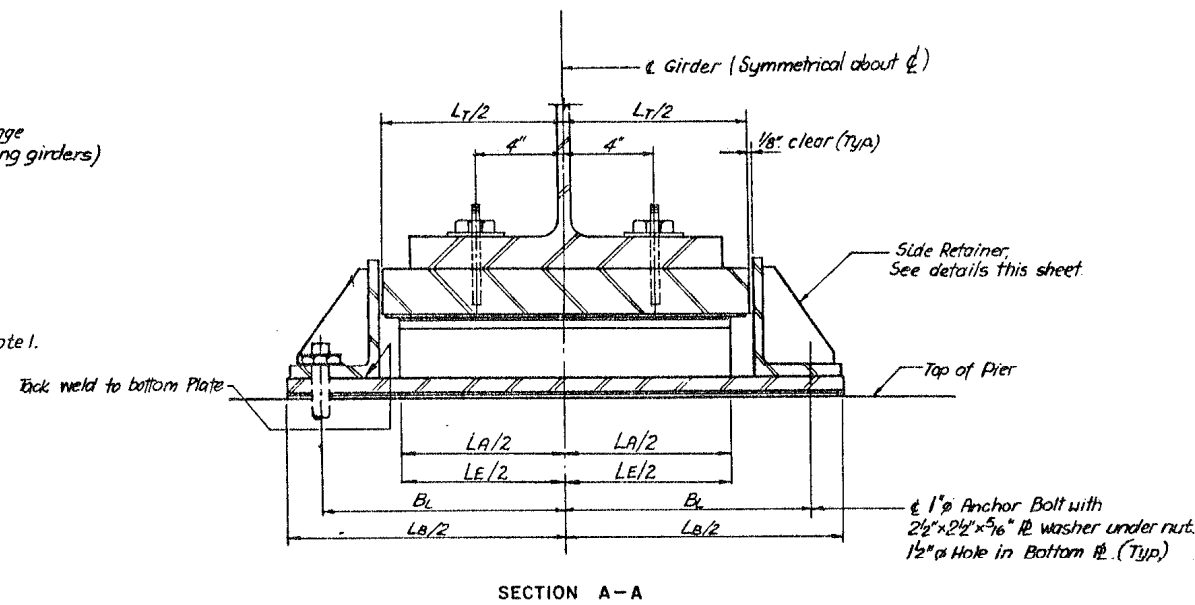
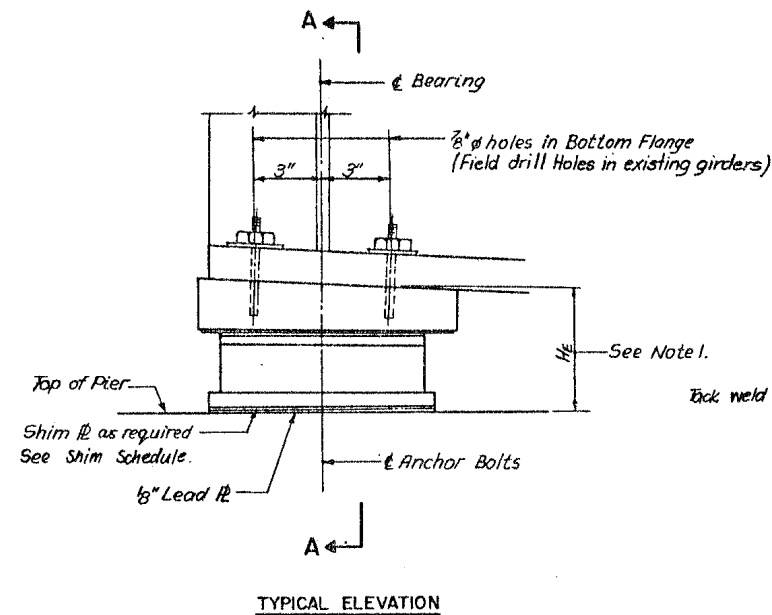
TYPE I ELASTOMERIC EXPANSION BEARING SCHEDULE

STRUCTURE	PIER LOCATION	GIRDER NO.	WE	LE	SERIES	TOP PLATE				Y	HE	NO. REQ'D.	REMARKS
						TT	WT	LT	SLOPE%				
016-1110	H3(S)	6H-1	12	18	d	2 1/2	13	20	3.0	6	4 5/16	1	N, E
	H4(S)	6H-1	12	18	c	2 1/2	13	20	3.0	6	5 5/8	1	N, E
	H5(S)	1-4	10	14	a	1 3/4	11	16	3.0	⊗	⊗	4	R, B
		6H-1, 6H-2	12	18	c	2 1/2	13	20	3.0	⊗	⊗	2	N, B
	H5(N)	6H-1	6	10	a	1 1/2	7	12	3.0	9	2 9/16	1	N, E
	H9(S)	6H-1	9	12	c	1 5/8	10	17	4.0	6	6 5/8	1	N, E
	H12(N)	6N-2, 6N-3	9	12	a	1 1/2	10	17	1.4	4	3 3/4	2	N, E (6N-3)

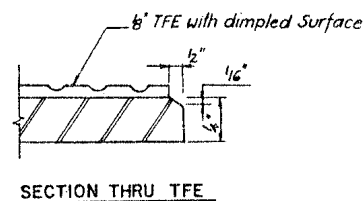
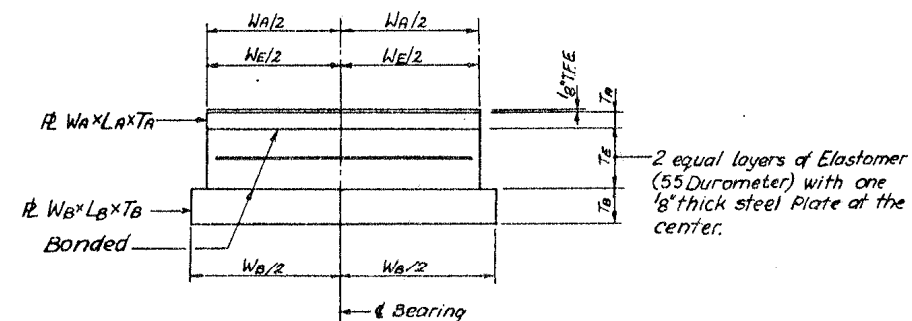
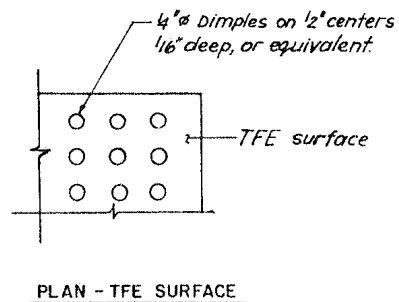
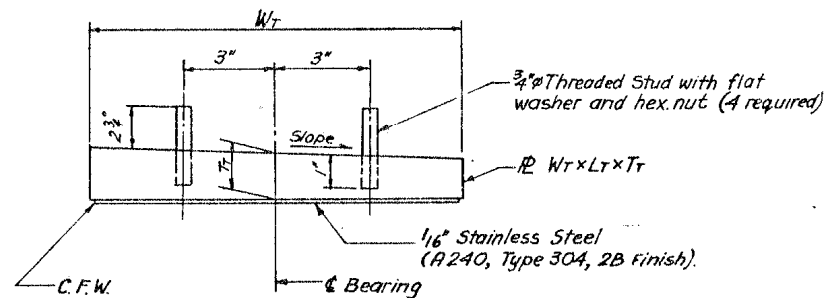
- Notes:**
- Height of Bearing Assembly, HE, includes top plate and Elastomeric Pad and does not include shim plate.
 - Side Retainers for bearing requiring a bolster are detailed on the Bolster Detail Sheet. For Bearings located on top of concrete pier, provide side retainer at inside face of exterior girder only, as noted in Bearing Schedule. For Bearings located on top of steel bearing seat, provide side retainer on both sides of each bearing. See details this sheet.
 - Shim plates shall be placed between the bottom flange of girder and the top plate of the bearing (as shown) for bearings without bolsters only.

- Remarks:**
- B - Bolster required, see Bolster Details.
 - E - Exterior Girder. Provide Side Retainer of inside face.
 - N - New bearings, roadway widening.
 - R - Replacement bearings.
 - ⊗ - See Bolster Schedule for HE and y dimensions.





TYPE IV TFE ELASTOMERIC EXPANSION BEARING



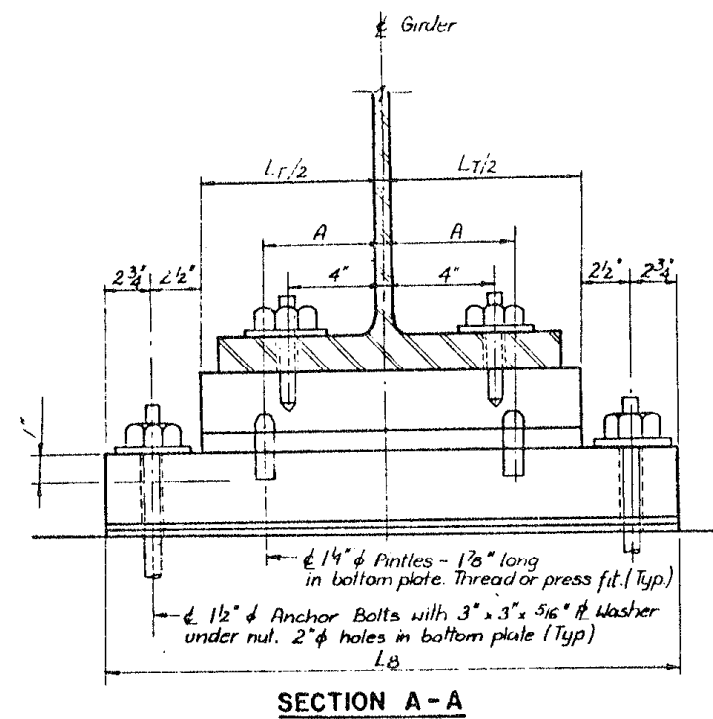
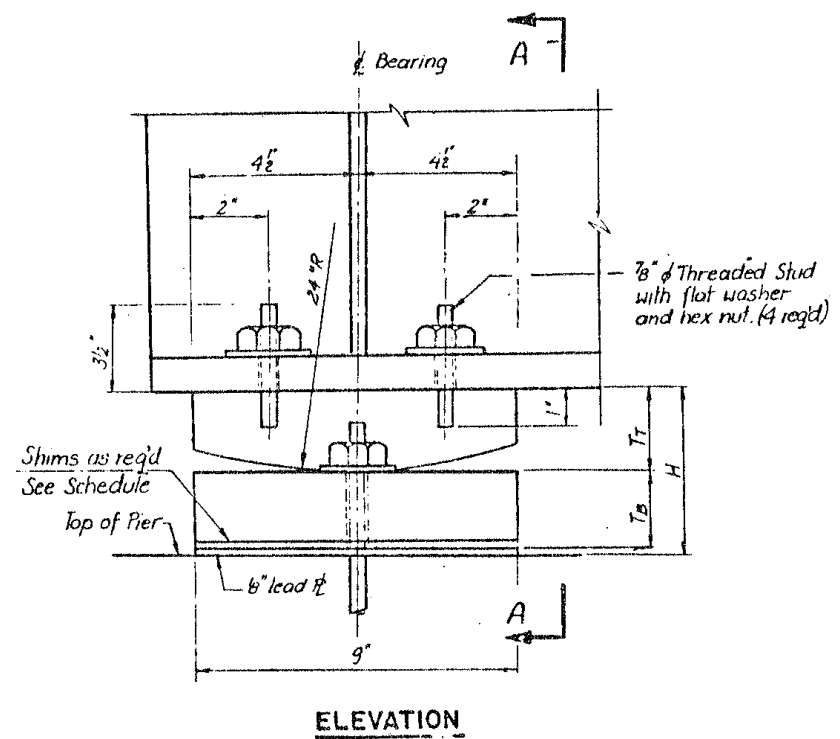
Note:
 The 1/8" TFE sheet shall be bonded directly to the top Steel Plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMN-A-13A, Type I. The bond agent shall be applied on the full area of the contact surface.
 Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

- Notes:**
1. Height of Bearing Assembly, H_E , includes 1/8" lead Plate. (Does not include Shims if required)
 2. For Bearings without Bolsters, the Side Retainer shall be tack welded as shown after the Girder and Bearing assembly have been set into their final position.

TYPE IV ELASTOMERIC EXPANSION BEARING SCHEDULE

STRUCTURE NO.	PIER LOCATION	GIRDER NO.	NO. REQ'D	ELASTOMER			TOP PLATE			BOTTOM BEARING ASSEMBLY								H_E	REMARKS
				T_E	W_E	L_E	T_T	W_T	L_T	$\%$ SLOPE	T_A	W_A	L_A	T_B	W_B	L_B	B_L		
016-1118	H9(N)	1-6	6	1	9	12	1 1/2	1 1/2	16 1/2	3.0	4	9	12	1 1/2	10	25	10 1/2	3 3/4	R
			GH-1	1	1	9	12	1 1/2	1 1/2	16 1/2	3.0	4	9	12	1 1/2	10	25	10 1/2	5 3/4
	H12(W)	1-6	6	7	9	12	1 1/2	1 1/2	16 1/2	3.0	4	9	12	1 1/2	10	25	10 1/2	5 3/4	R
			GH2,3	2	7	9	12	1 1/2	1 1/2	16 1/2	3.0	4	9	12	1 1/2	10	25	10 1/2	3 3/4

Remarks: R - Replacement Bearings.
 N - New Bearings for roadway widening

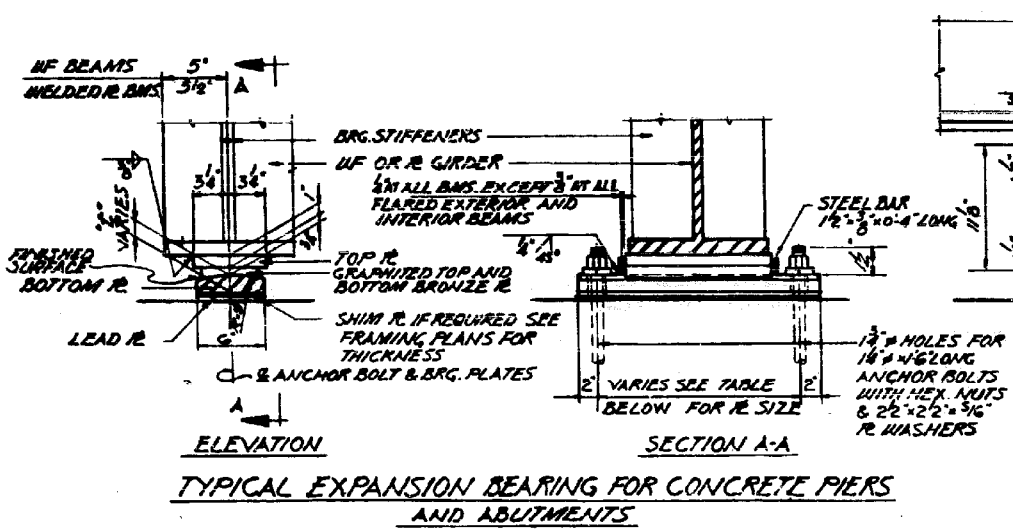


FIXED BEARING - TYPE FI

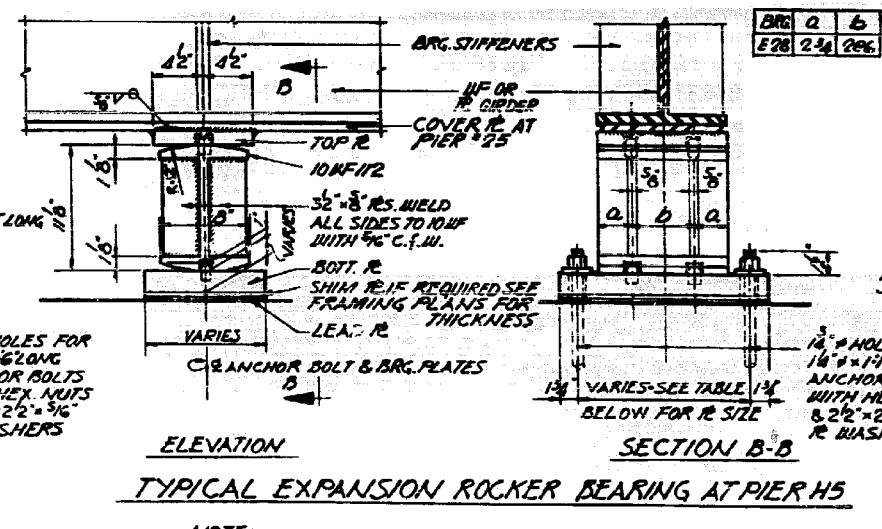
FIXED BEARING SCHEDULE FOR ROADWAY WIDENING

STRUCTURE NO.	PIER LOCATION	GIRDER NO.	BRG. TYPE	NO. REQ'D.	T _T "	L _T "	T _B "	L _B "	A"	H"	REMARKS
	H12(S)	GH1, GH2, GH3	F1	3	2	17	1 1/2	27 1/2	5	3 1/2	N

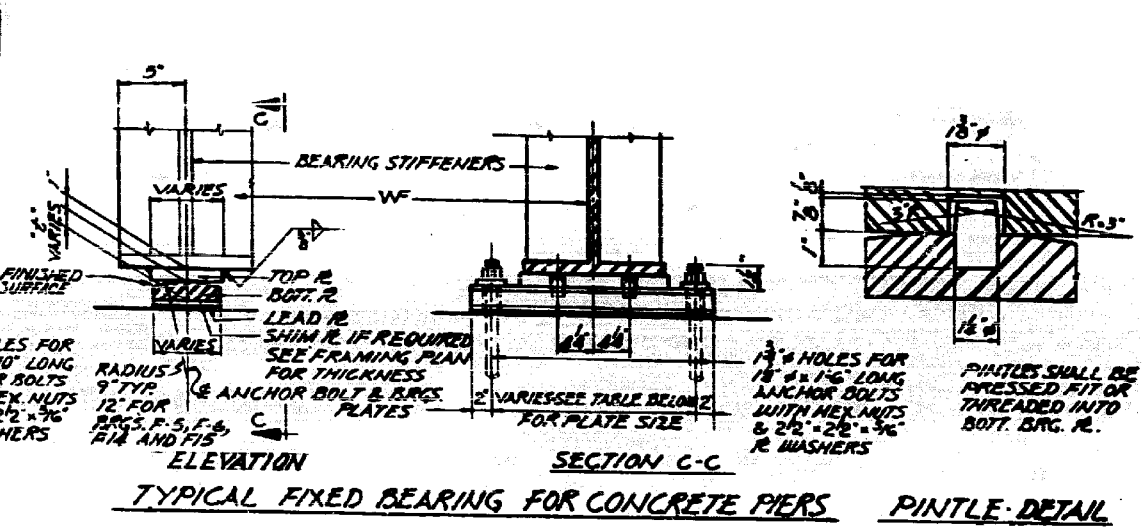
Remarks: N - New bearings for roadway widening.



TYPICAL EXPANSION BEARING FOR CONCRETE PIERS AND ABUTMENTS

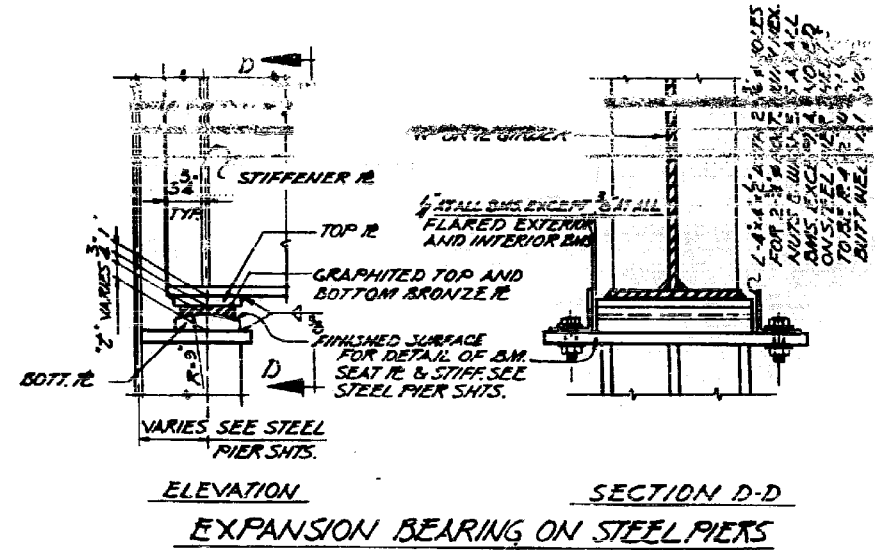


TYPICAL EXPANSION ROCKER BEARING AT PIER H5

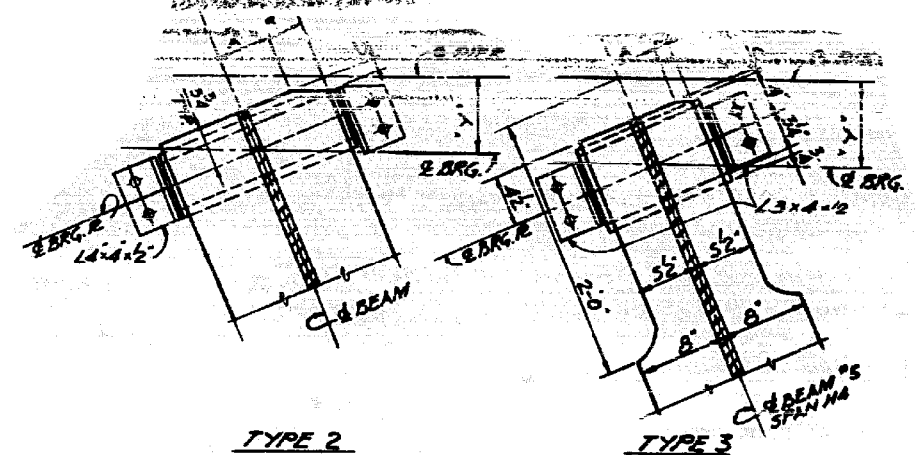


TYPICAL FIXED BEARING FOR CONCRETE PIERS PINTLE DETAIL

NOTE:
SEE TABLES BELOW FOR ALL BEARINGS AND PLATE SIZES
SHIM PLATES TO BE SAME WIDTH AND LENGTH AS BOTTOM PLATES
ALL ANCHOR BOLTS SHALL BE FURNISHED AND INSTALLED
FOR SECTION 3-24.3.2



EXPANSION BEARING ON STEEL PIERS



FLANGE AND TOP PLATE CUTS AT STEEL PIERS

TABLE U DUTUM LLAISE CUTS AT STEEL PIERS

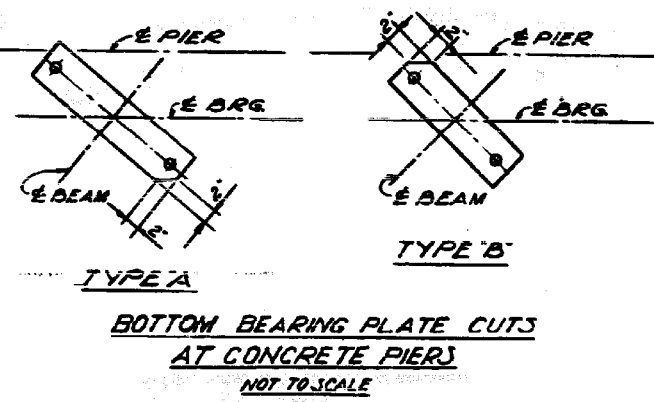
PIER BEAM	Y	BRG. GROUP	A	B	C	REMARKS	
H2	23450	6"	E1	2	14"	66"	
	6	6"	E1	2	14"	66"	1'
H3	23450	6"	E7	2	14"	66"	1'
	7	6"	E11	2	34"	66"	1'
H4	1234	7"	E2	2	4"	4"	14"
	5	7"	E2	3	4"	14"	CUT TOP R.

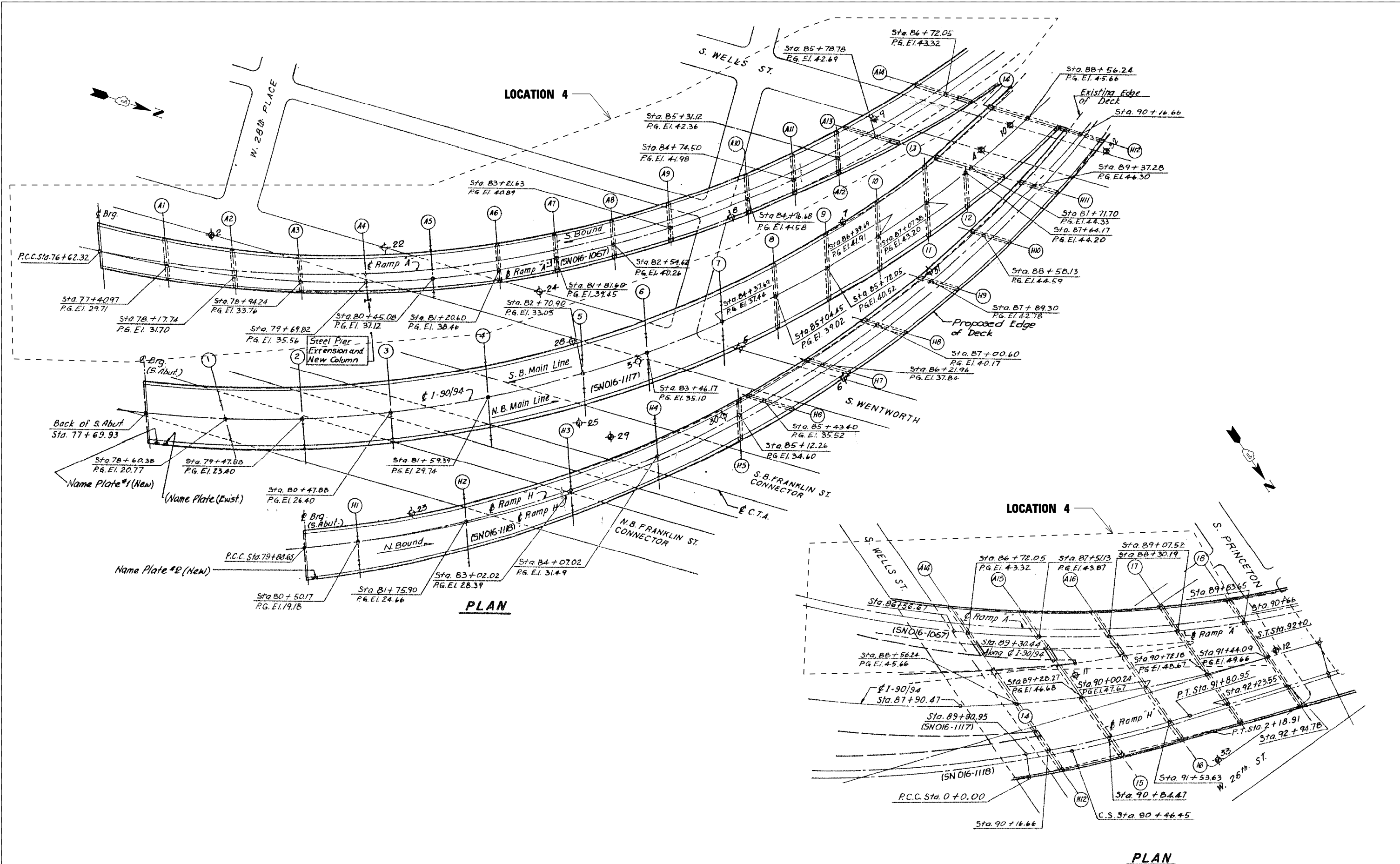
EXPANSION BEARING TABLE

MARK	TOTAL	TOP R.	BRONZE R.	BOTT. R.	LEAD R.	MARK	TOTAL	TOP R.	BRONZE R.	BOTT. R.	LEAD R.	CUT TYPE
E2	3	6x1'x1'5"	4x1'x1'5"	6x1'x1'5"	6x1'x1'5"	E2G	10	6x1'x1'5"	5x1'x1'5"	6x2'x2'5"	6x1'x1'5"	A
E3	1	6x1'x0'10"	4x1'x0'10"	6x1'x1'7"	6x1'x1'7"							
E4	1	6x1'x0'10"	4x1'x0'10"	6x2'x1'0"	6x1'x1'0"							
E5	12	6x1'x1'1"	5x1'x1'1"	6x2'x1'10"	6x1'x1'10"							
E6	18	6x1'x1'1"	5x1'x1'1"	6x2'x1'10"	6x1'x1'10"							
E7	12	6x1'x1'5"	5x1'x1'5"	6x2'x1'5"	6x1'x1'5"							
E11	4	7x1'x1'5"	5x1'x1'5"	7x1'x1'5"	7x1'x1'5"							
E12	1	8x1'x1'0"	6x1'x1'0"	8x1'x1'0"	8x1'x1'0"							
E14	4	6x1'x1'1"	5x1'x1'1"	6x2'x1'10"	6x1'x1'10"							
E15	4	6x1'x1'1"	5x1'x1'1"	6x2'x1'10"	6x1'x1'10"							
E16	6	6x1'x1'1"	5x1'x1'1"	6x2'x1'10"	6x1'x1'10"							

FIXED BEARING TABLE

MARK	TOTAL	TOP R.	BOTT. R.	LEAD R.	CUT TYPE
F3	1	6x1'x1'1"	6x2'x1'5"	6x1'x1'5"	
F4	1	6x1'x1'5"	6x2'x1'5"	6x1'x1'5"	
F5	1	9x1'x1'0"	8x2'x1'5"	8x1'x1'5"	
F9	1	6x1'x1'1"	6x2'x1'5"	6x1'x1'5"	
F10	1	6x1'x1'1"	6x2'x1'5"	6x1'x1'5"	





PLAN

PLAN

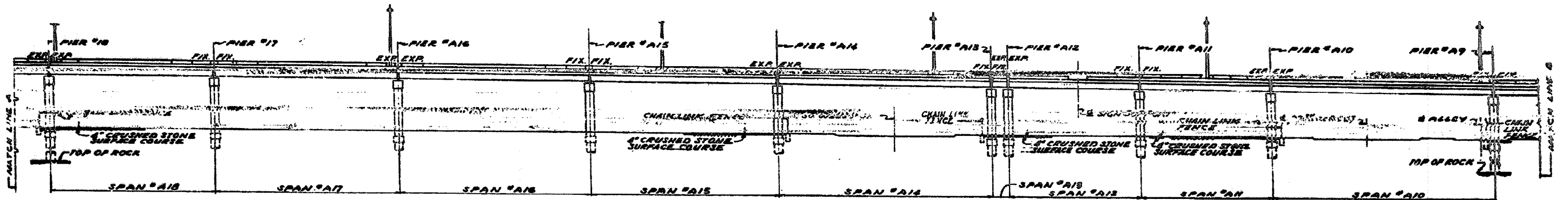
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		DATE - MARCH, 2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

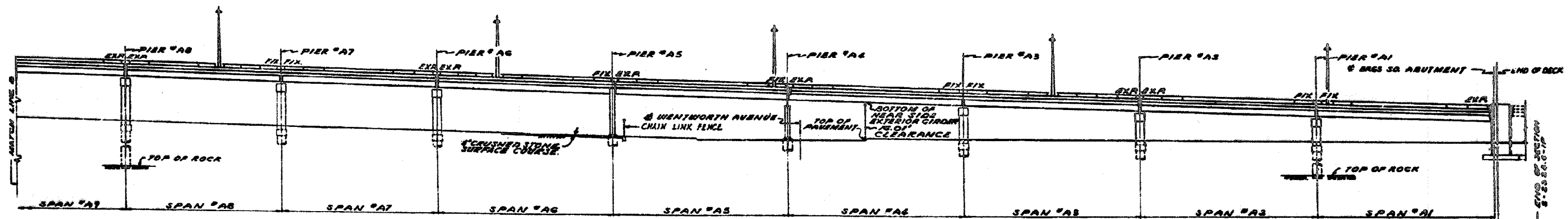
**GENERAL PLAN - LOCATION 4
STRUCTURE NO. 016-1067**

SCALE: NTS SHEET NO. 1 OF 12 SHEETS STA. TO STA.

F.A.I. R.E. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 82
CONTRACT NO. 60P73				ILLINOIS FED. AID PROJECT

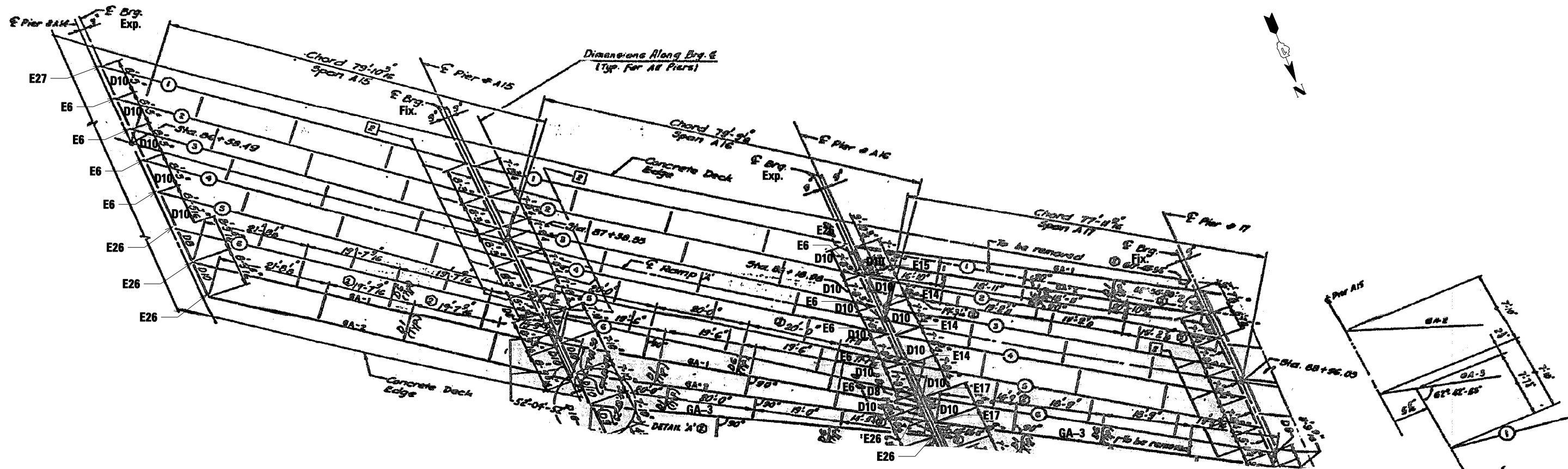


SOUTH ELEVATION OF SPANS #18 TO #10



SOUTH ELEVATION OF SPANS #9 TO #1

FILE NAME = USER NAME = aread PLOT SCALE = 2.0000 "/ IN. PLOT DATE = 3/29/2012	DESIGNED - AMR DRAWN - AMR	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL ELEVATION - LOCATION 4 STRUCTURE NO. 016-1067			F.A.I. RTE. 90/94 SECTION 2011-057-BP COUNTY COOK TOTAL SHEETS 98 SHEET NO. 83
	CHECKED - JMH DATE - MARCH, 2012	SCALE: NTS SHEET NO. 2 OF 12 SHEETS STA. TO STA.		CONTRACT NO. 60P73 ILLINOIS FED. AID PROJECT			



PLAN - SPANS A15, A16 & A17

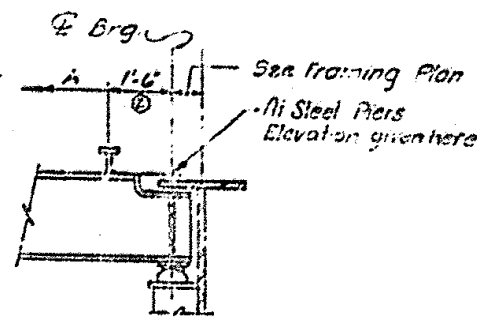
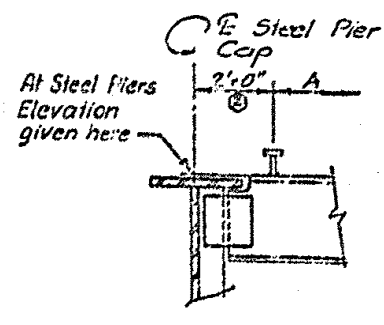
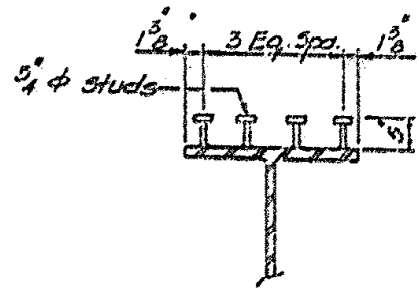
DETAIL 'A'

FILE NAME =	USER NAME = aread	DESIGNED - AMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN SPANS A15 TO A17 - LOCATION 4 STRUCTURE NO. 016-1067			F.A.I. RTE. 90/94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 86
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	PLOT DATE = 3/29/2012	DATE - MARCH, 2012	REVISED -					ILLINOIS FED. AID PROJECT				
					SCALE: NTS	SHEET NO. 5 OF 12 SHEETS	STA.	TO STA.				

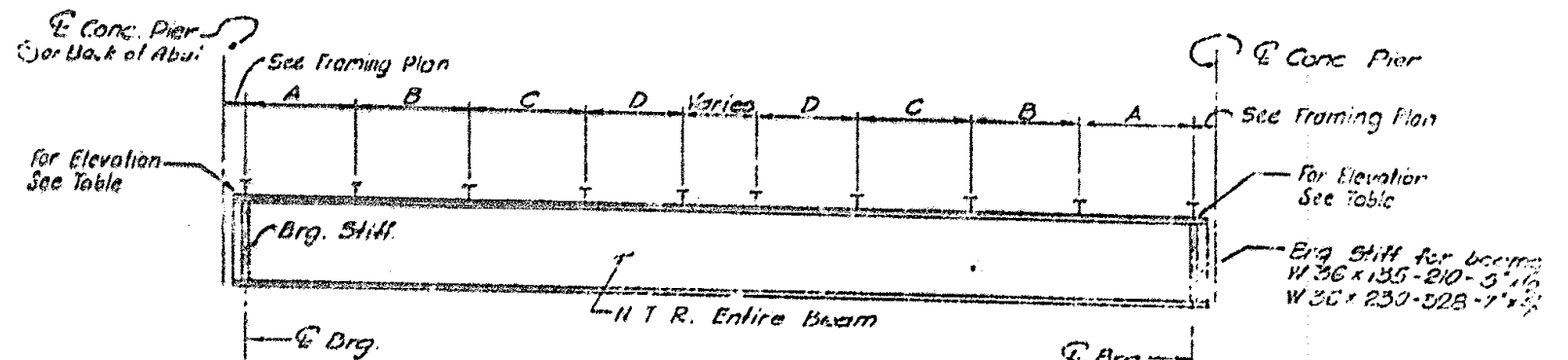
8FILES

WIDE FLANGE BEAM SCHEDULE

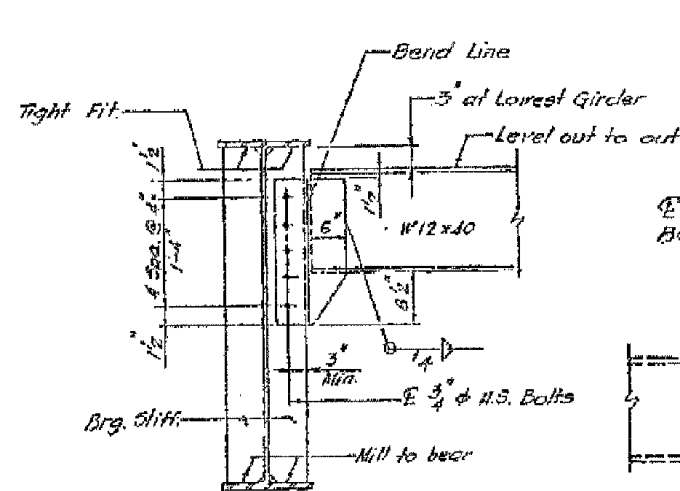
SPAN	BEAM	BEAM SIZE	L (E BRG. TO E BRG.)	TOP OF BEAM ELEV. AT BEARINGS			STUDS PER ROW	SHEAR STUD SPACINGS				STUDS PER BEAM	DEFLECTION		
				PIER NO	ELEV. (1)	PIER NO		ELEV. (2)	A	B	C		D	ΔE	ΔL
A-1	GA-1	W36x300	77'-0 1/4"	So. Abut	25.533	A-1	27.291	4	19@12"	16@15"	-	-	258	1 3/8"	5/8"
A-1	GA-2	W36x210	75'-11 3/8"	So. Abut	25.836	A-1	27.469	4	19@12"	16@15"	-	-	280	1 3/8"	5/8"
A-3	GA-1	W36x280	75'-3 1/8"	A-2	31.779	A-3	33.837	4	24@9"	20@12"	-	-	360	1"	1 1/16"
A-4	GA-1	W36x230	74'-3"	A-3	33.664	A-4	35.671	4	13@15"	11@21"	-	-	200	3/4"	9/16"
A-5	GA-1	W36x230	74'-9 3/8"	A-4	35.672	A-5	37.169	4	13@15"	11@21"	-	-	200	1 5/16"	7/16"
A-6	GA-1	W36x230	74'-9"	A-5	37.169	A-6	38.143	4	13@15"	11@21"	-	-	200	1 5/16"	7/16"
A-7	GA-1	W36x230	65'-6"	A-6	38.166	A-7	39.436	4	12@15"	10@21"	-	-	184	1 1/2"	3/8"
A-8	GA-1	W36x230	65'-6"	A-7	39.456	A-8	40.235	4	12@15"	10@21"	-	-	184	1 1/2"	3/8"
A-9	GA-1	W36x230	65'-5 5/8"	A-8	40.250	A-9	40.979	4	12@15"	10@21"	-	-	184	9/16"	3/8"
A-10	GA-1	W36x300	93'-3 3/8"	A-9	41.005	A-10	41.677	4	11@18"	19@21"	-	-	248	1 7/16"	1 1/8"
A-11	GA-1	W36x182	56'-1 3/4"	A-10	41.683	A-11	41.992	4	10@15"	9@21"	-	-	160	5/8"	1/4"
A-12	GA-1	W36x182	54'-11 3/4"	A-11	42.001	A-12	42.402	4	10@15"	9@21"	-	-	160	5/16"	1/4"
A-13	GA-1	W36x135	63'-5 3/8"	A-12	42.240	A-13	42.681	4	12@15"	9@21"	-	-	176	7/16"	5/16"
A-13	GA-2	W36x194	70'-3 1/2"	A-12	42.425	A-13	42.889	4	14@15"	9@21"	-	-	192	1 3/16"	7/16"
A-14	GA-1	W36x300	91'-11 3/8"	A-13	42.718	A-14	43.504	4	15@12"	12@15"	12@18"	-	320	1 1/4"	7/8"
A-14	GA-2	W36x328	92'-8 5/16"	A-13	42.996	A-14	43.535	4	11@18"	8@21"	10@21"	-	240	2 3/16"	1 7/16"
A-15	GA-1	W36x245	76'-9 1/16"	A-14	43.516	A-15	43.995	4	25@9"	20@12"	-	-	368	1 1/8"	1 1/16"
A-15	GA-2	W36x215	76'-9 1/16"	A-14	43.546	A-15	43.938	4	25@9"	20@12"	-	-	360	1 1/8"	1 1/16"
A-16	GA-1	W36x182	75'-7 1/16"	A-15	44.042	A-16	44.469	4	15@9"	26@12"	-	-	336	1"	3/4"
A-16	GA-2	W36x182	73'-5 1/4"	A-15	43.993	A-16	44.651	4	15@9"	25@12"	-	-	328	1 5/16"	1/2"
A-16	GA-3	W36x170	71'-5 7/16"	A-15	44.262	A-16	44.834	4	15@9"	24@12"	-	-	320	1 5/16"	1/2"
A-17	GA-1	W36x245	74'-2 5/16"	A-16	42.643	A-17	43.418	4	15@9"	25@12"	-	-	328	7/8"	5/8"
A-17	GA-2	W36x182	75'-6 9/16"	A-16	42.534	A-17	43.593	4	15@9"	26@12"	-	-	336	1"	1/2"
A-17	GA-3	W36x194	74'-0 1/16"	A-16	44.583	17	45.752	4	15@9"	25@12"	-	-	328	1 3/16"	5/8"



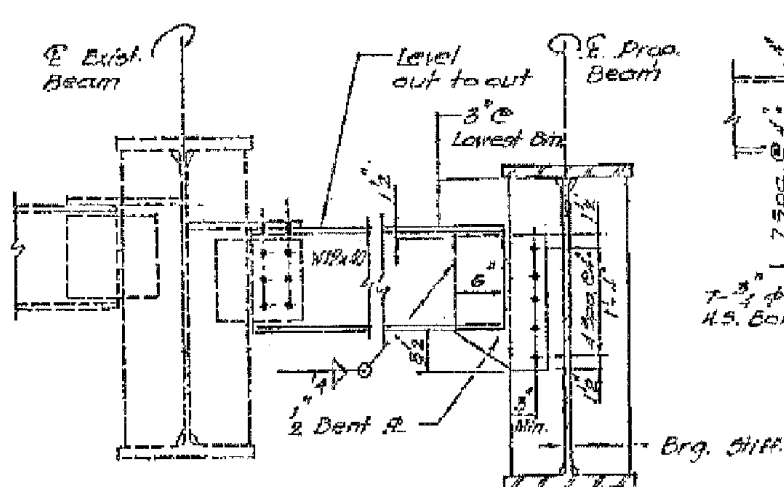
END DETAIL AT STEEL PIERS



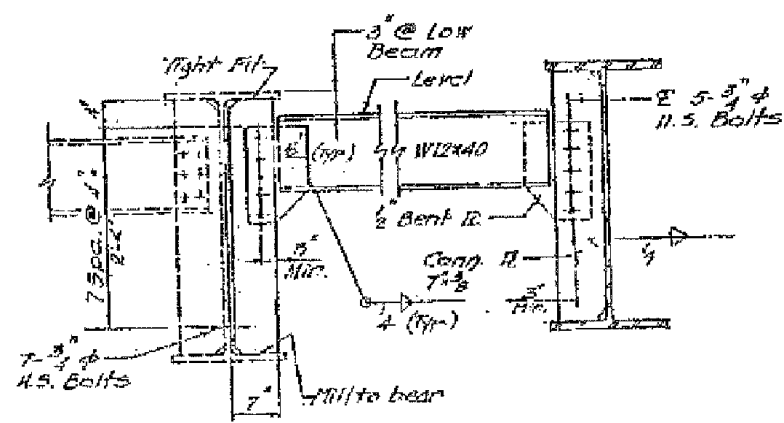
N.T.R. = Notch Toughness Requirement



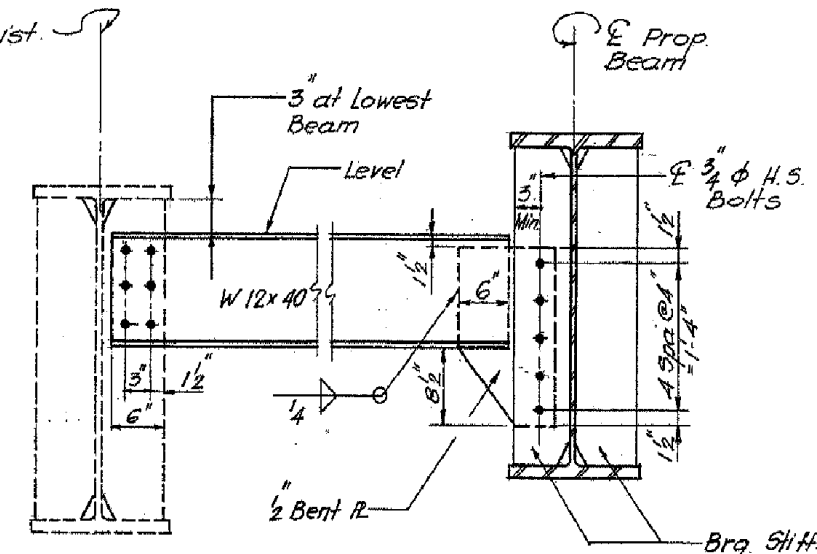
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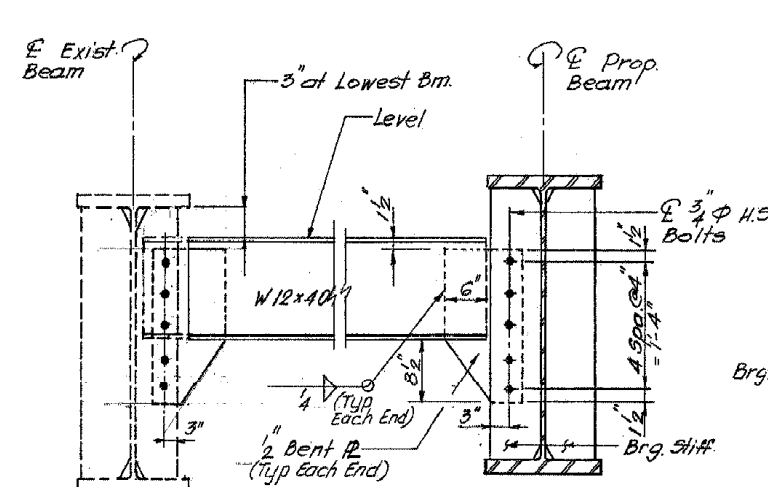
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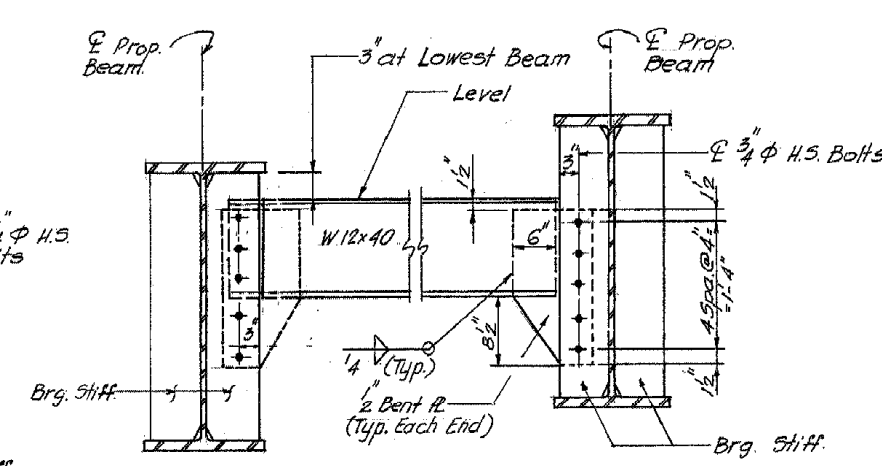
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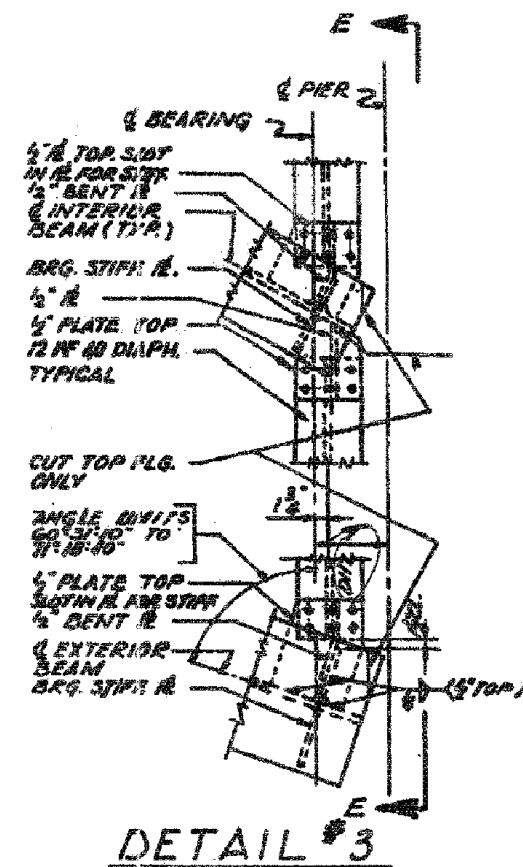
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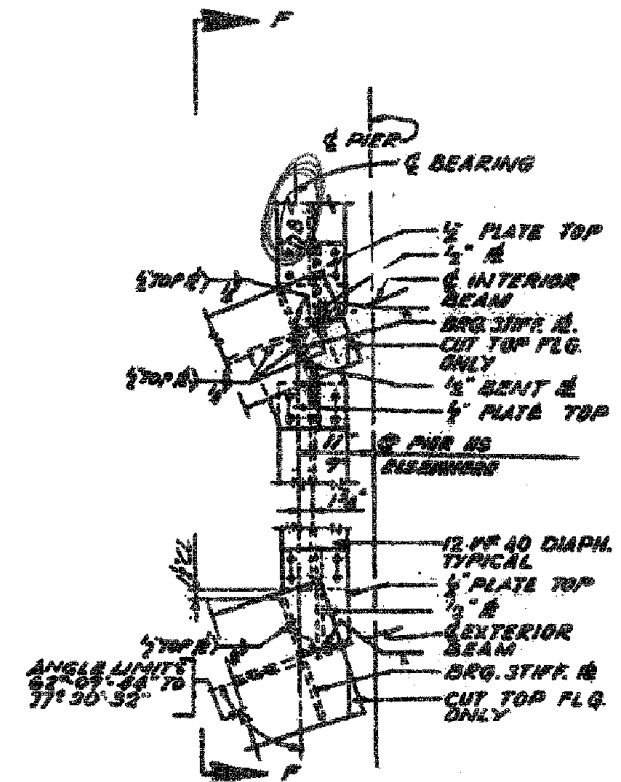
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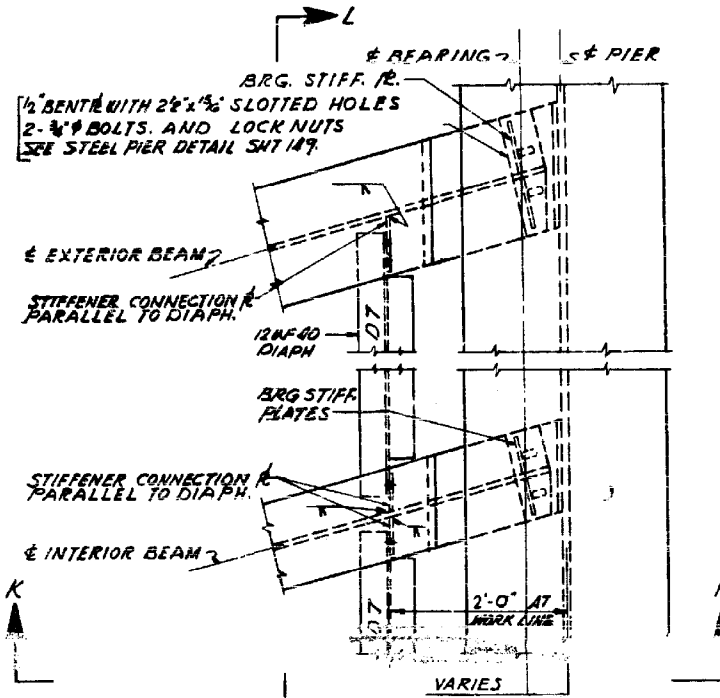
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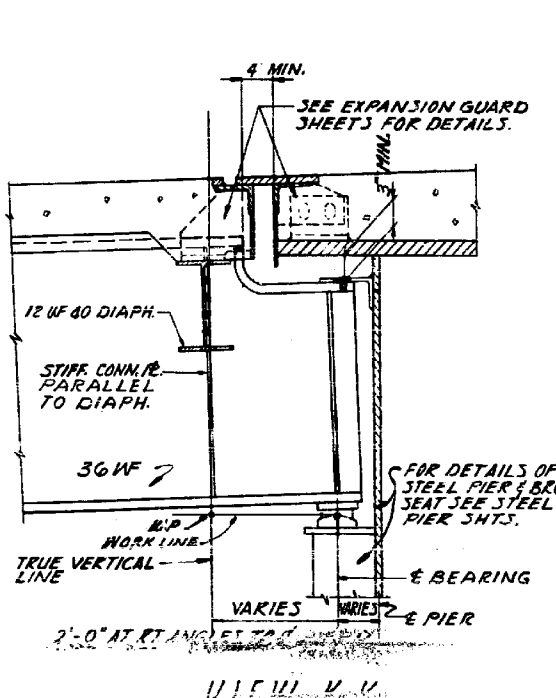
DETAIL 3



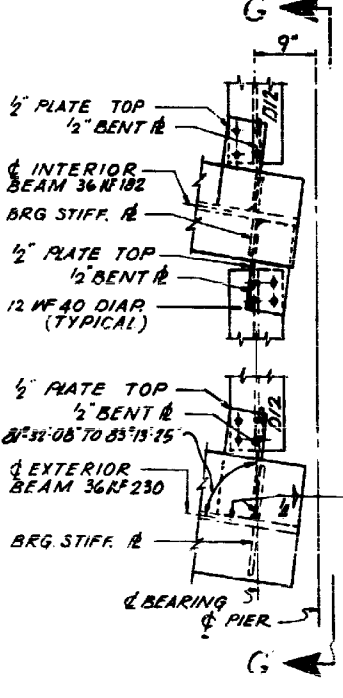
DETAIL 4



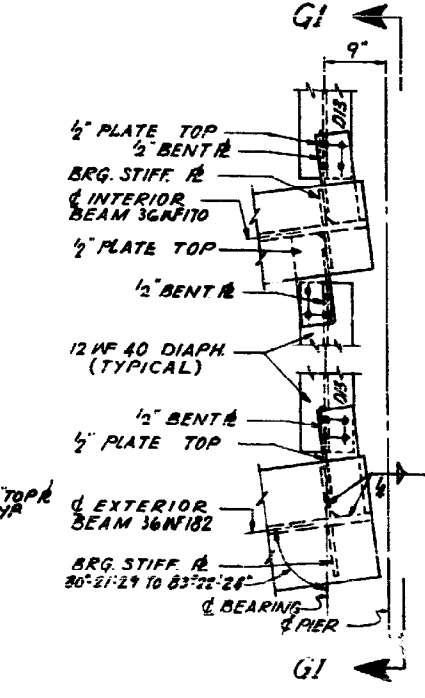
DETAIL #5
PIER #6 & #7 SHOWN
PIER #4, #5 & #3 SIMILAR



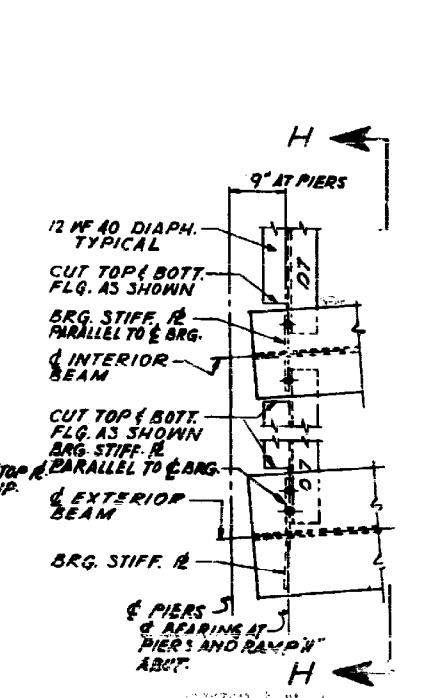
VIEW V-V



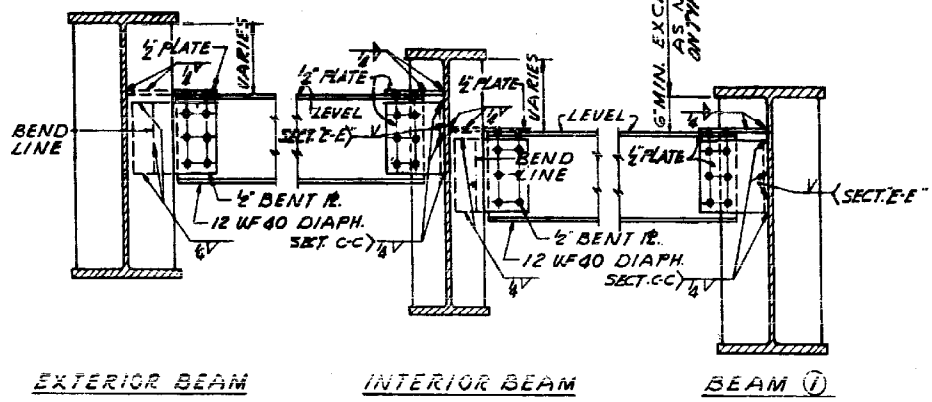
DETAIL #6
PIER #3 SHOWN
PIER #2 SIMILAR



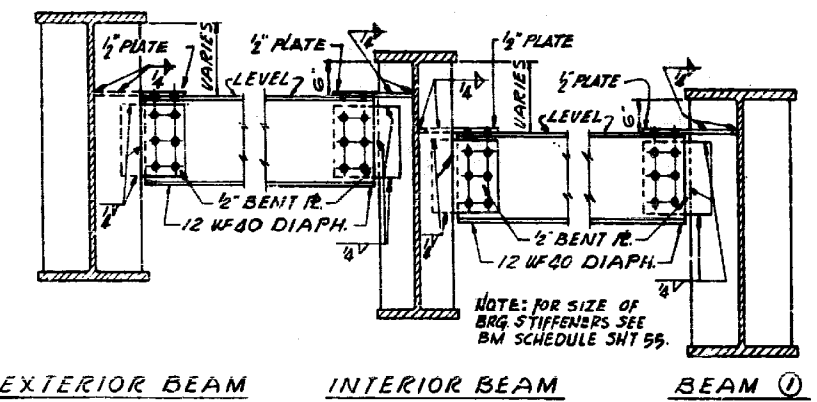
DETAIL #7
PIER #6 & #8 SIMILAR



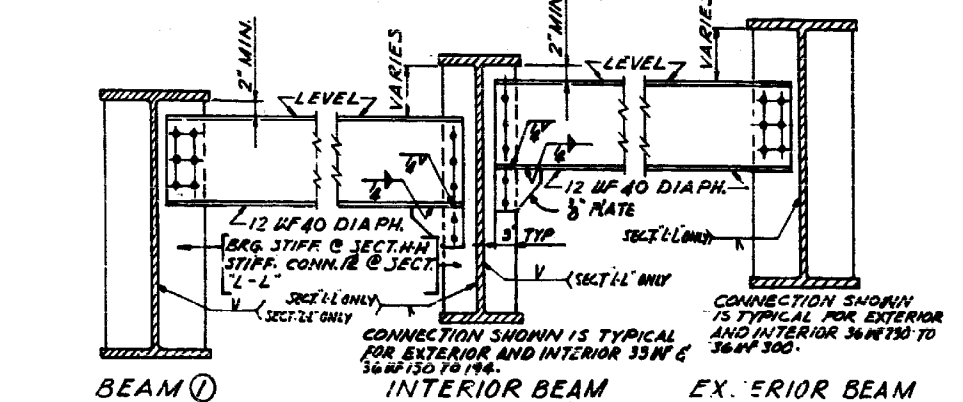
DETAIL #8
PIER #9 SHOWN. PIER #5
AND RAMP #1 AS WELL AS SIMILAR



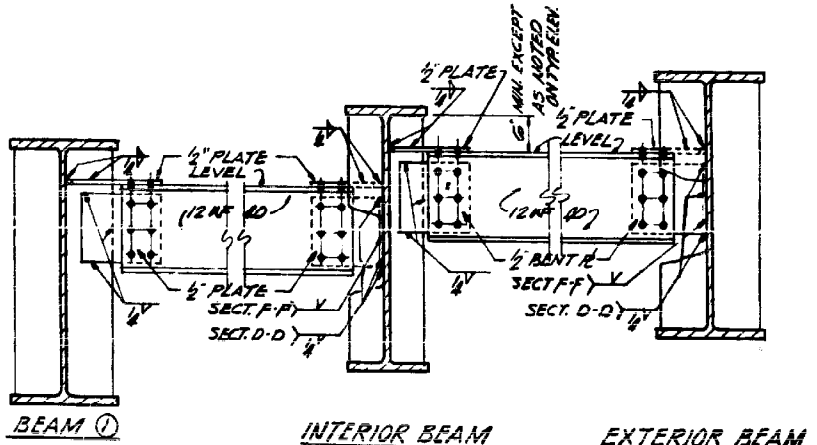
SECTION C-C SHOWN
SECTION E-E SIMILAR



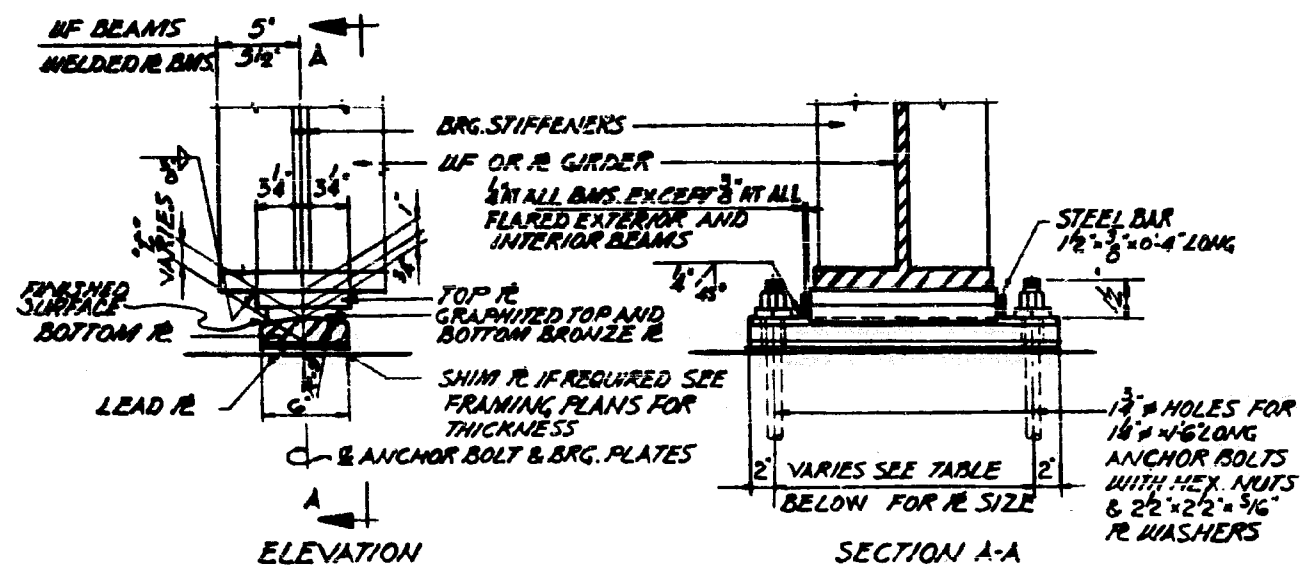
SECTION G-G
SECTION G1-G1 SIMILAR



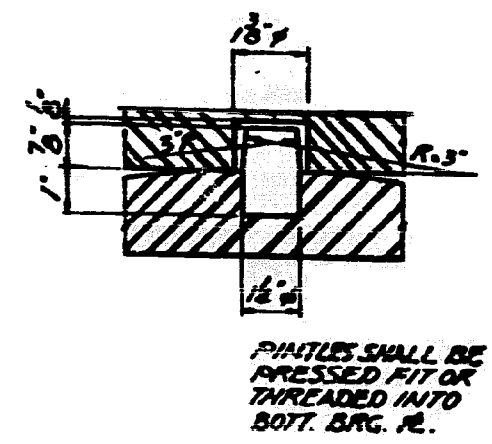
SECTION H-H SHOWN
SECTION L-L SIMILAR



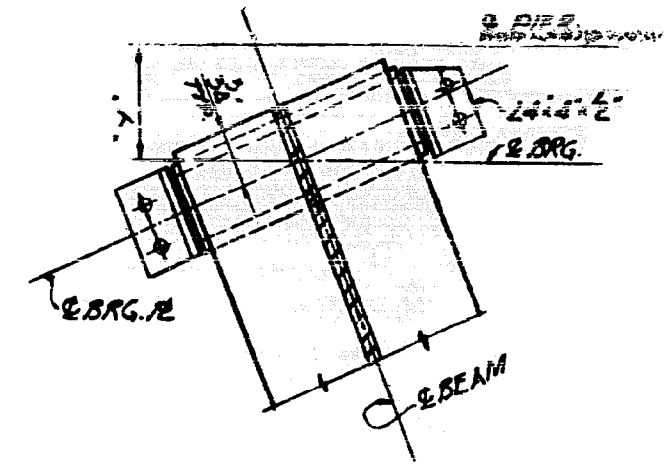
SECTION D-D SHOWN
SECTION F-F SIMILAR



TYPICAL EXPANSION BEARING FOR CONCRETE PIERS AND ABUTMENTS

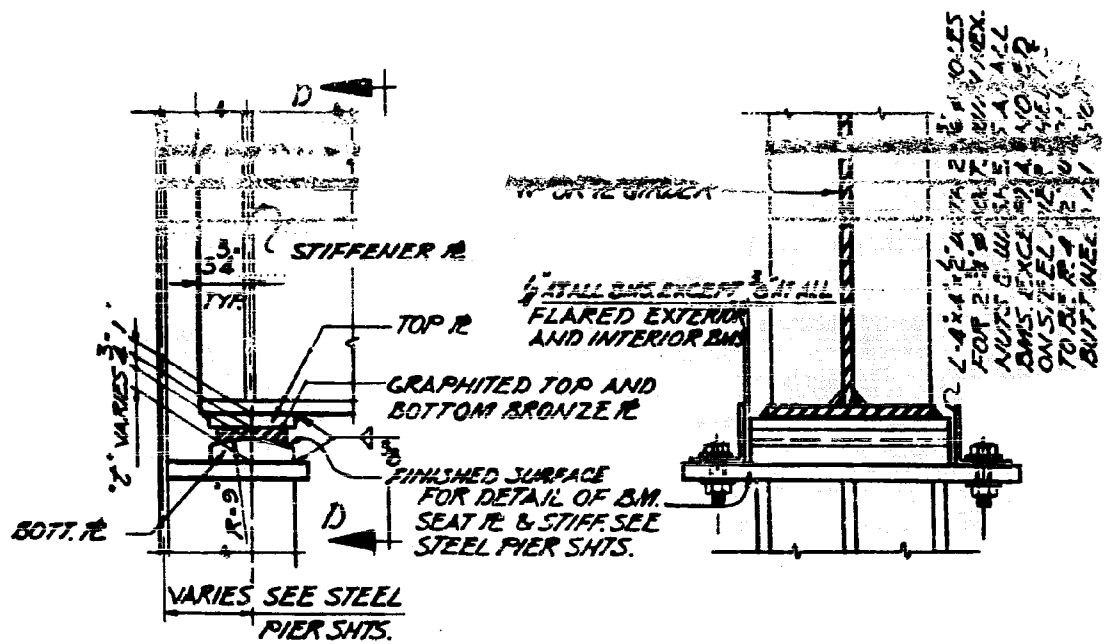


PINTLE DETAIL

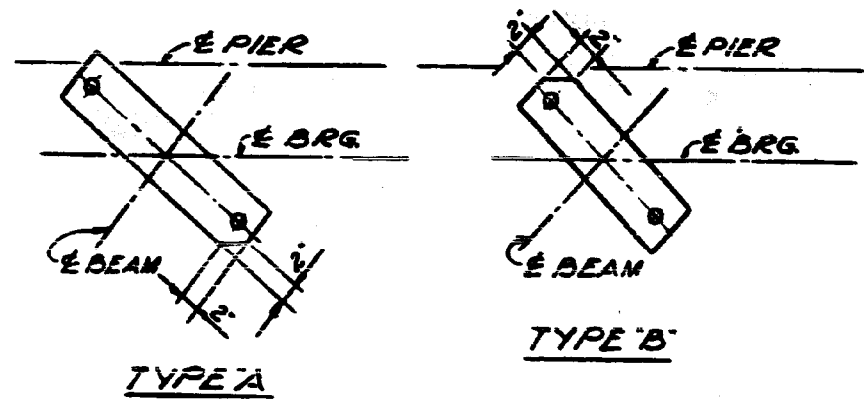


TYPE I NO CUTS

FLANGE AND TOP PLATE CUTS AT STEEL PIERS



EXPANSION BEARING ON STEEL PIERS



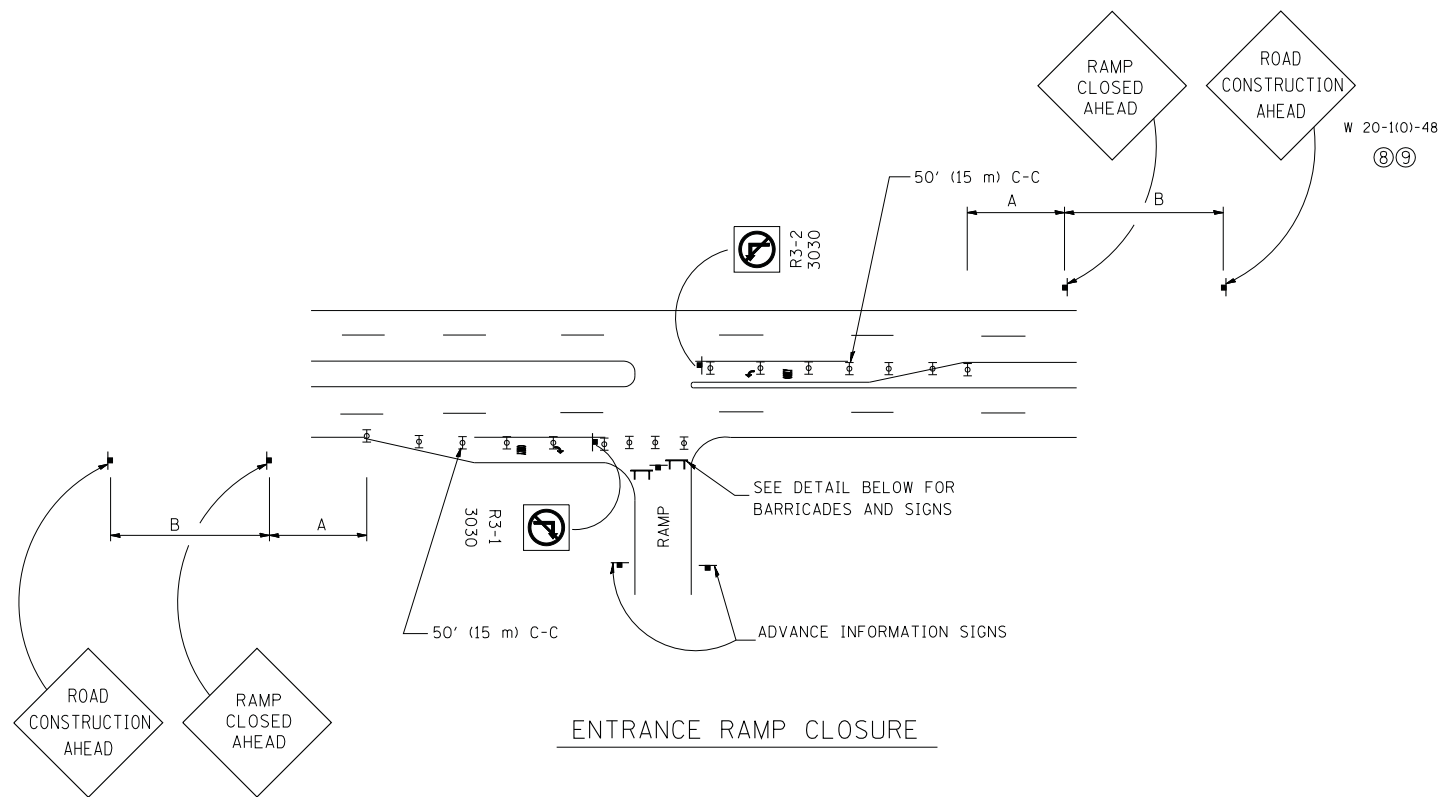
BOTTOM BEARING PLATE CUTS AT CONCRETE PIERS NOT TO SCALE

MODEL BOTTOM BEARING CUTS AT STEEL PIERS

PIER BEAM	PIER	BRG. GIRDER	a	b	c	REMARKS
A	106	6	1	-	-	
B	215	6	1	-	-	

EXPANSION BEARING TABLE

MARK	TOTAL	TOP IR	BRONZE IR	BOTT. IR	LEAD IR	MARK	TOTAL	TOP IR	BRONZE IR	BOTT. IR	LEAD IR	CUT TYPE
E1	8	6x1'x1'1"	4 1/2 x 1 1/4 x 1 1/4"	6x1 1/2 x 1 1/4"	6x6'x1'1"	E26	14	6 1/2 x 1' x 1 1/2"	5 x 1 1/2 x 1 1/2"	6 x 2 1/2 x 2'3"	6 x 6' x 2'3"	A
E2	6	6x1'x1'3 1/2"	4 1/2 x 1 1/4 x 1 1/2"	6x1 7/8 x 1 1/2"	6x6'x1'3 1/2"	E27	1	6 1/2 x 1' x 1 1/2"	5 x 1 1/2 x 1 1/2"	6 x 2 1/2 x 2'3"	6 x 6' x 2'3"	A
E3	11	6 1/2 x 1' x 1'1"	5 x 1 1/2 x 1 1/4"	6 x 2 1/8 x 1 1/4"	6 x 6' x 1'10"							
E4	38	6 1/2 x 1' x 1'1"	5 x 1 1/2 x 1 1/4"	6 x 2 1/8 x 1 1/4"	6 x 6' x 1'10"							
E5	13	6 1/2 x 1' x 1'3 1/2"	5 x 1 1/2 x 1 1/2"	6 x 2 1/8 x 2'3"	6 x 6' x 2'3"							
E14	11	6 1/2 x 1' x 1'1"	5 x 1 1/2 x 1 1/4"	6 x 2 1/8 x 1 1/4"	6 x 6' x 1'10"							
E15	7	6 1/2 x 1' x 1'1"	5 x 1 1/2 x 1 1/4"	6 x 2 1/8 x 1 1/4"	6 x 6' x 1'10"							
E16	1	6 1/2 x 1' x 1'1"	5 x 1 1/2 x 1 1/4"	6 x 2 1/8 x 1 1/4"	6 x 6' x 1'10"							
E17	5	6 1/2 x 1' x 1'3 1/2"	5 x 1 1/2 x 1 1/2"	6 x 2 1/8 x 2'3"	6 x 6' x 2'3"							



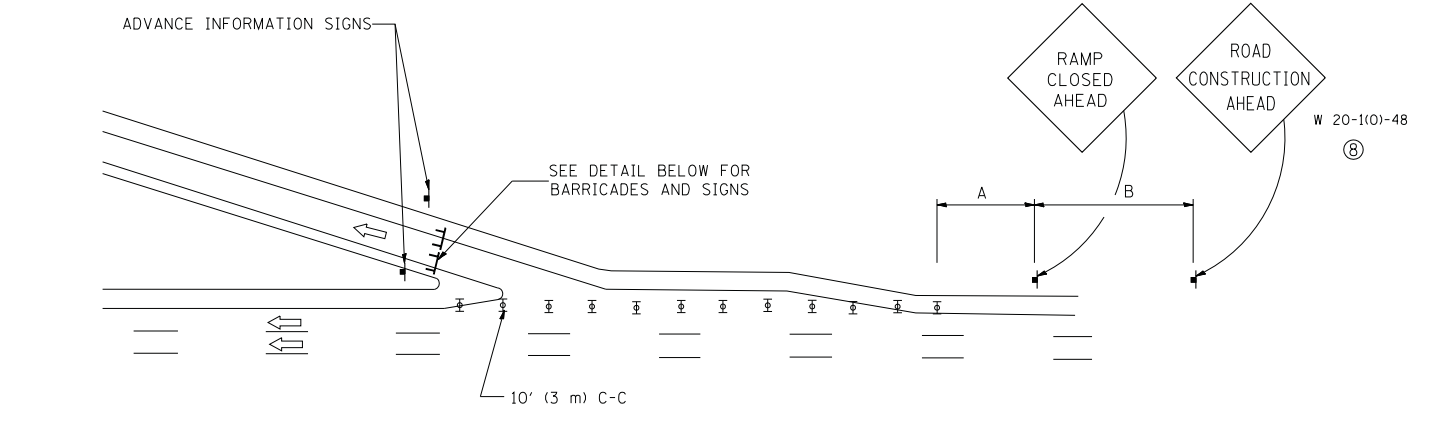
ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY <24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL ≥45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	150' (45 m)	150' (45 m)

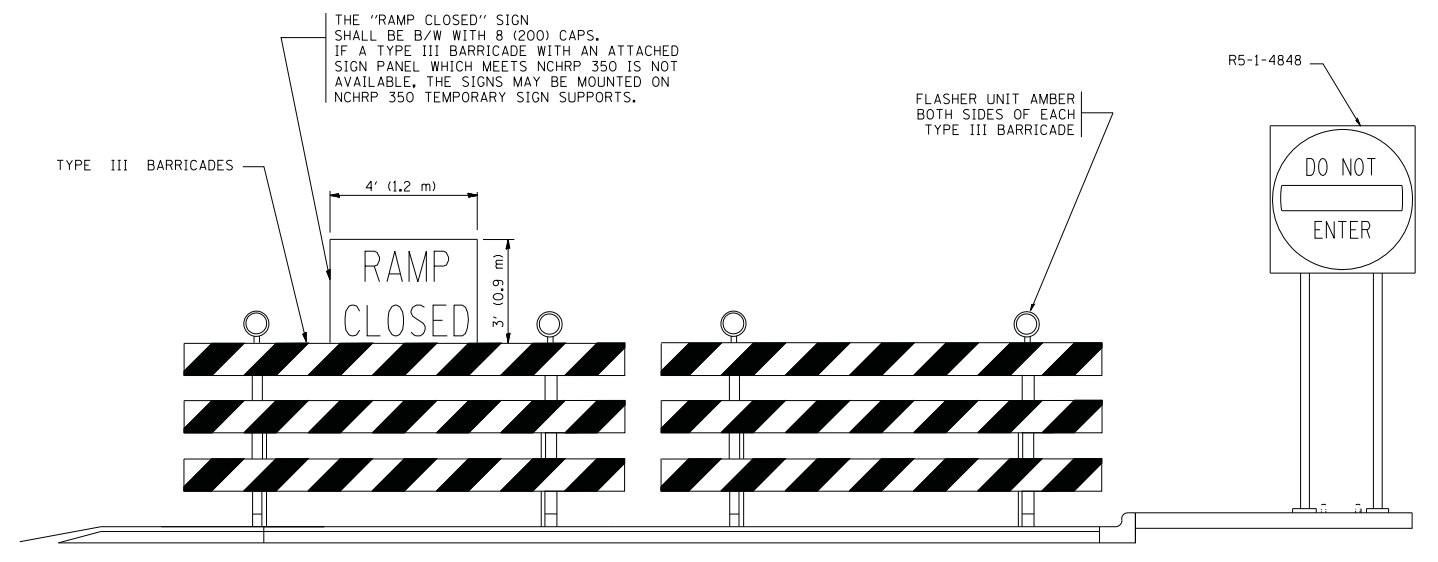
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

W 20-1(0)-48
⑧⑨



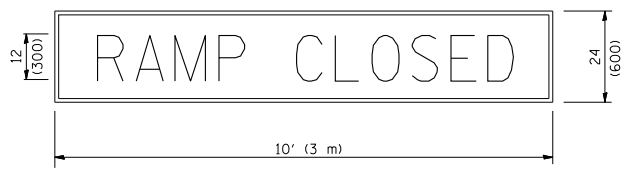
EXIT RAMP CLOSURE

- SYMBOLS**
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
 - ⊥ TYPE III BARRICADE WITH FLASHING LIGHT



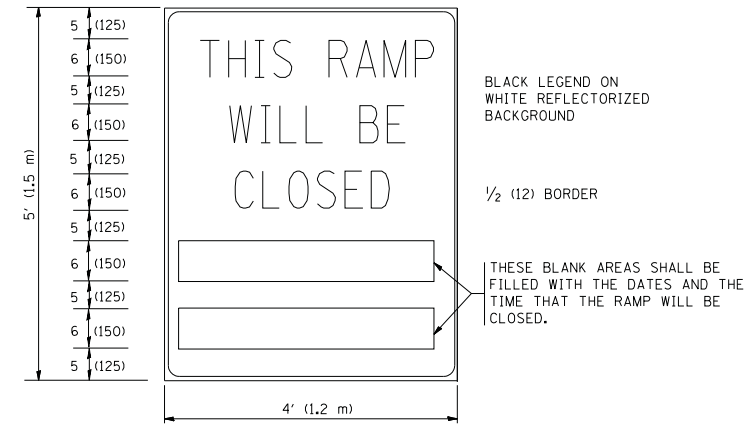
DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND
1 (25) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY-FOUR (24) HOURS IN LENGTH.
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED ON CLOSURES LESS THAN 24 HOURS IN DURATION.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\tc08.dgn	USER NAME = lqjso	DESIGNED - DWS	REVISED - DWS/JAF 12-02
		DRAWN -	REVISED - JAF 02-06
		CHECKED -	REVISED - SPB 01-07
		DATE - 02-83	REVISED - SPB 12-09

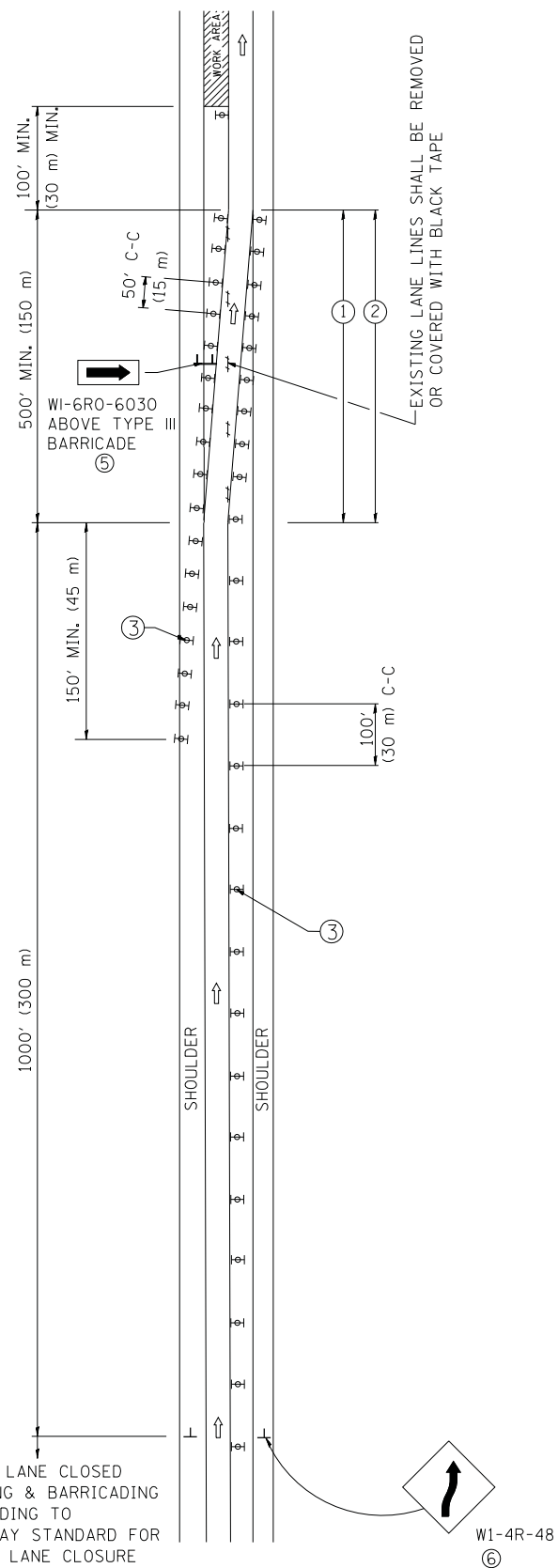
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FREEWAY ENTRANCE AND EXIT RAMP
CLOSURE DETAILS**

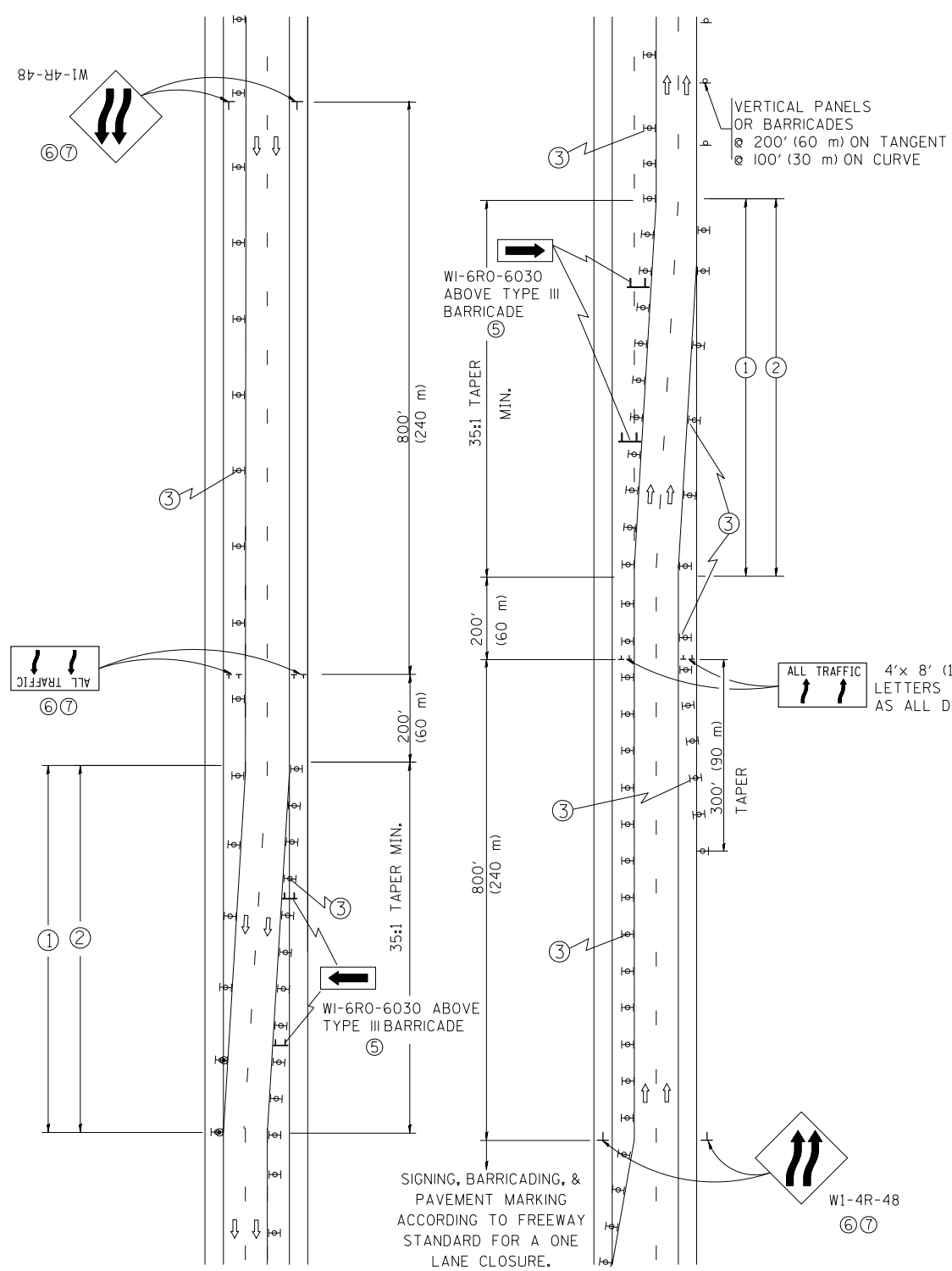
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2011-057-BP	COOK	98	94
TC-08		CONTRACT NO. 60P73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SINGLE LANE WEAVE



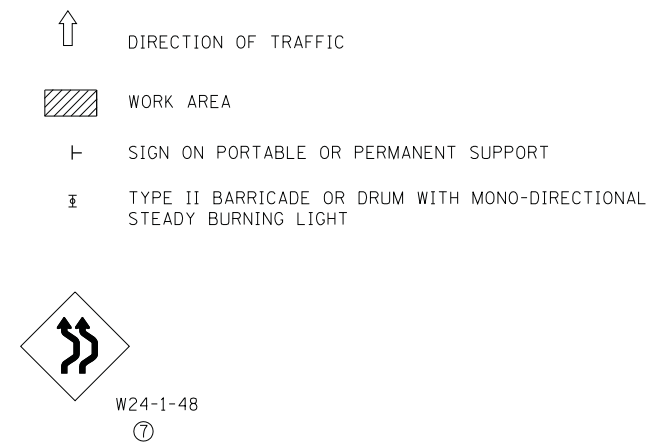
MULTI-LANE WEAVE



GENERAL NOTES

- ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 24 HOURS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS. TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. WI-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- ⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- ⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

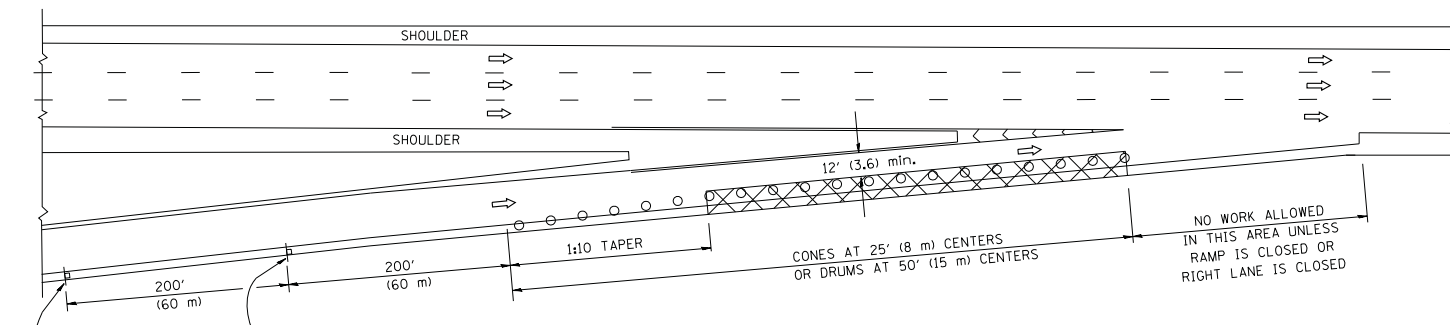
SYMBOLS



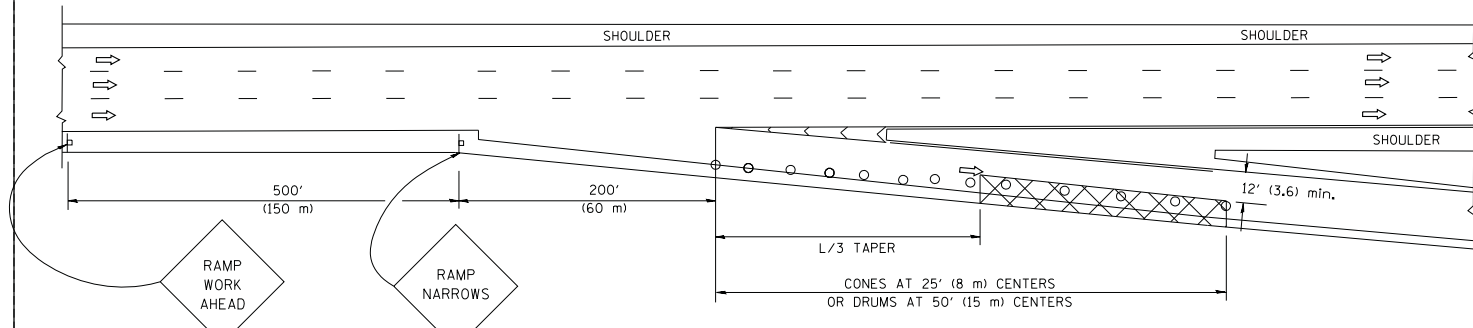
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\diststd\22x34\tc09.dgn	USER NAME = leuss	DESIGNED - DWS	REVISED - JAF 01-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE			F.A.I. RTE. 94	SECTION 2011-057-BP	COUNTY COOK	TOTAL SHEETS 98	SHEET NO. 95
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - SPB 01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	TC-09		CONTRACT NO. 60P73		
	PLOT DATE = 1/26/2010	DATE - 02-87	REVISED - SPB 12-09		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

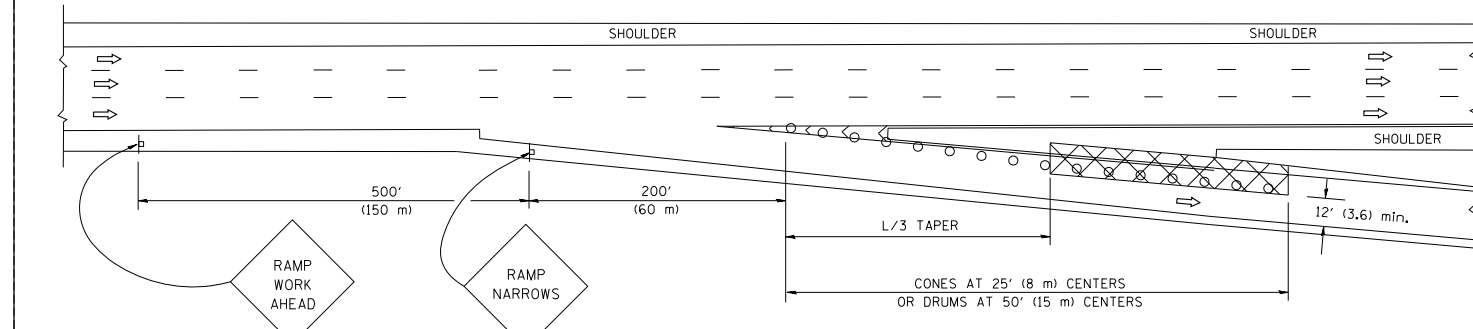
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

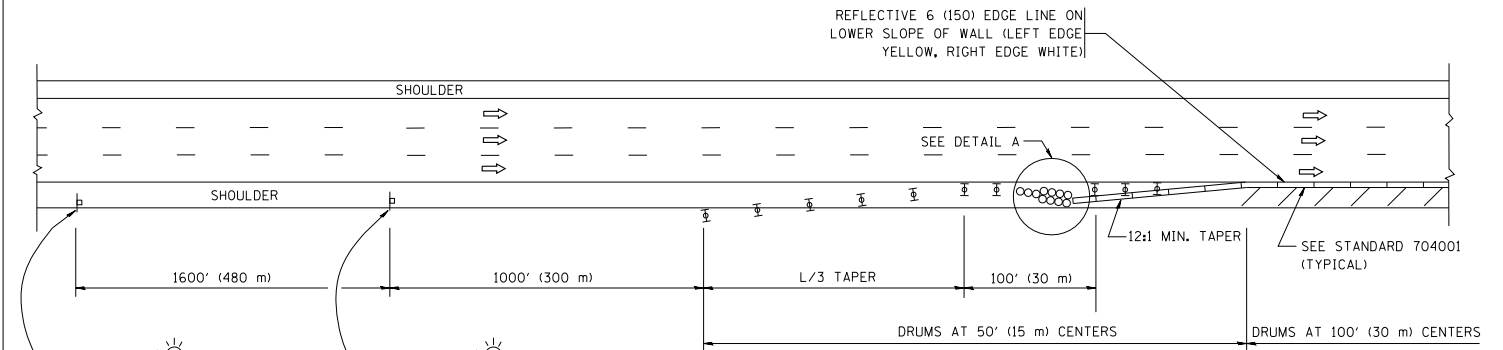
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

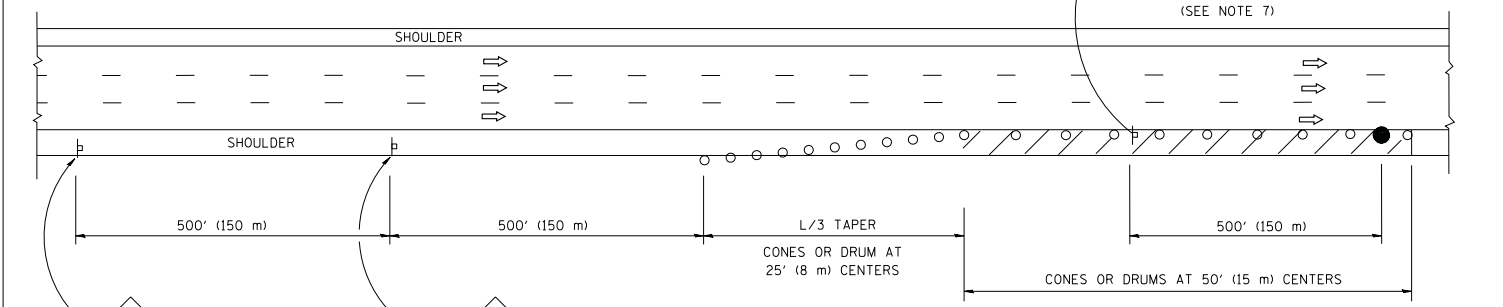
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS) S = NORMAL POSTED SPEED MPH (KM/H)	
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS

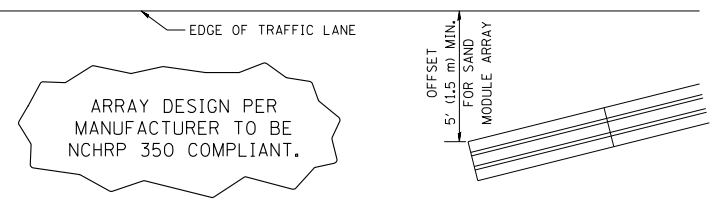


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

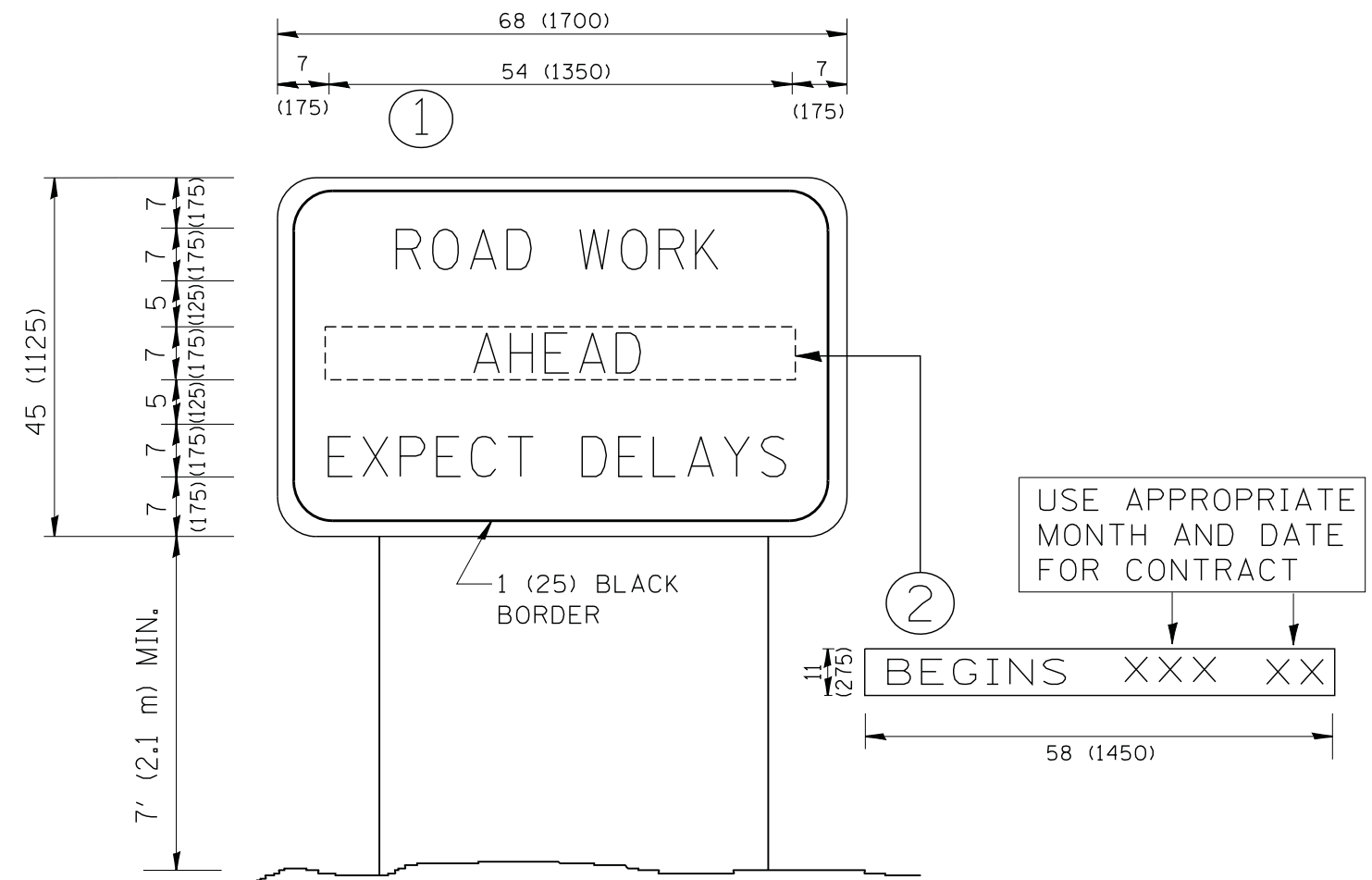
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\17.dgn	USER NAME = leuss	DESIGNED -	REVISED - 04-03
		DRAWN - D.W.S.	REVISED - J.A.F. 12-06
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 1/26/2010	DATE - 11-96	REVISED - S.P.B. 12-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2011-057-BP	COOK	98	96
TC-17		CONTRACT NO. 60P73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegl@nbt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

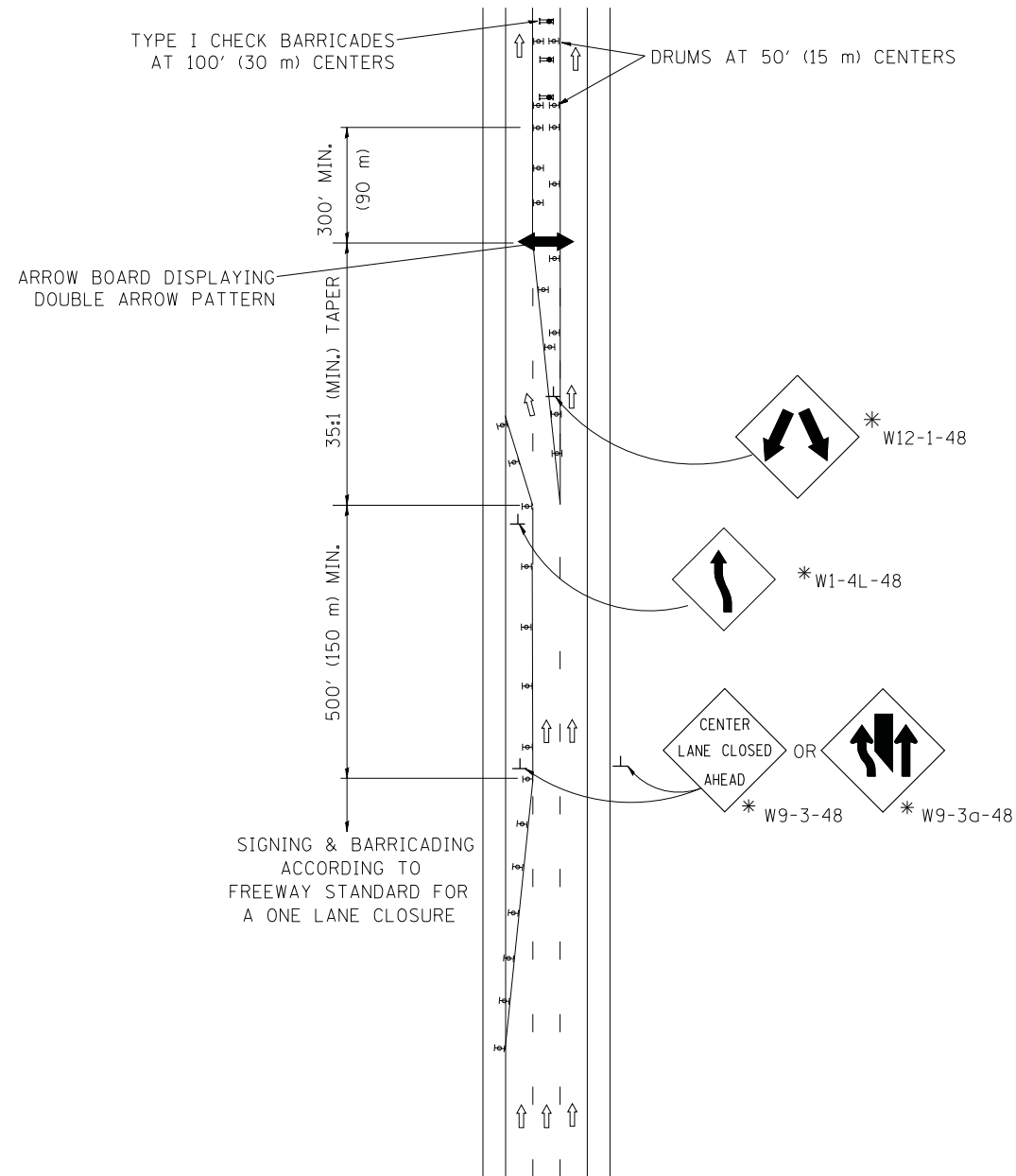
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

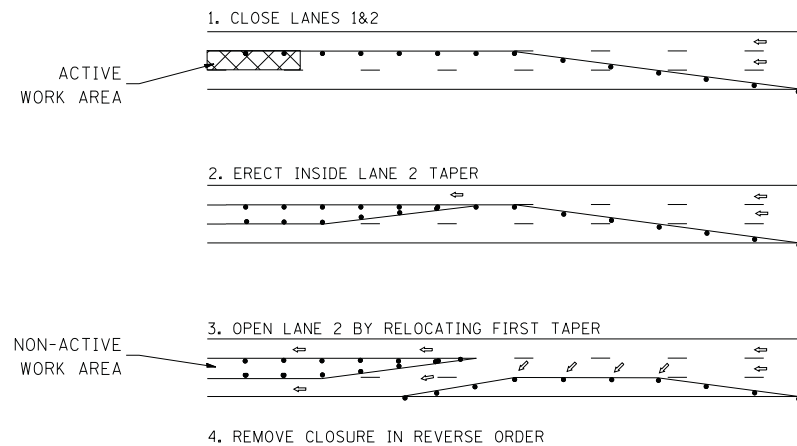
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2011-057-BP	COOK	98	97
TC-22		CONTRACT NO. 60P73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

CENTER LANE CLOSURE



INSTALLATION SEQUENCE

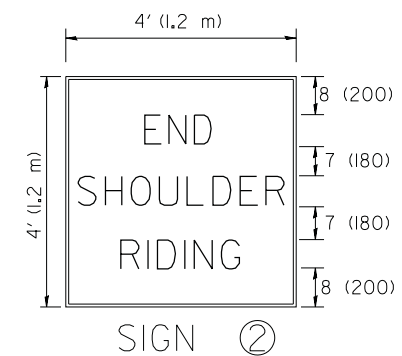
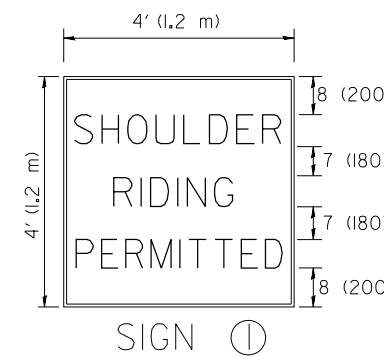
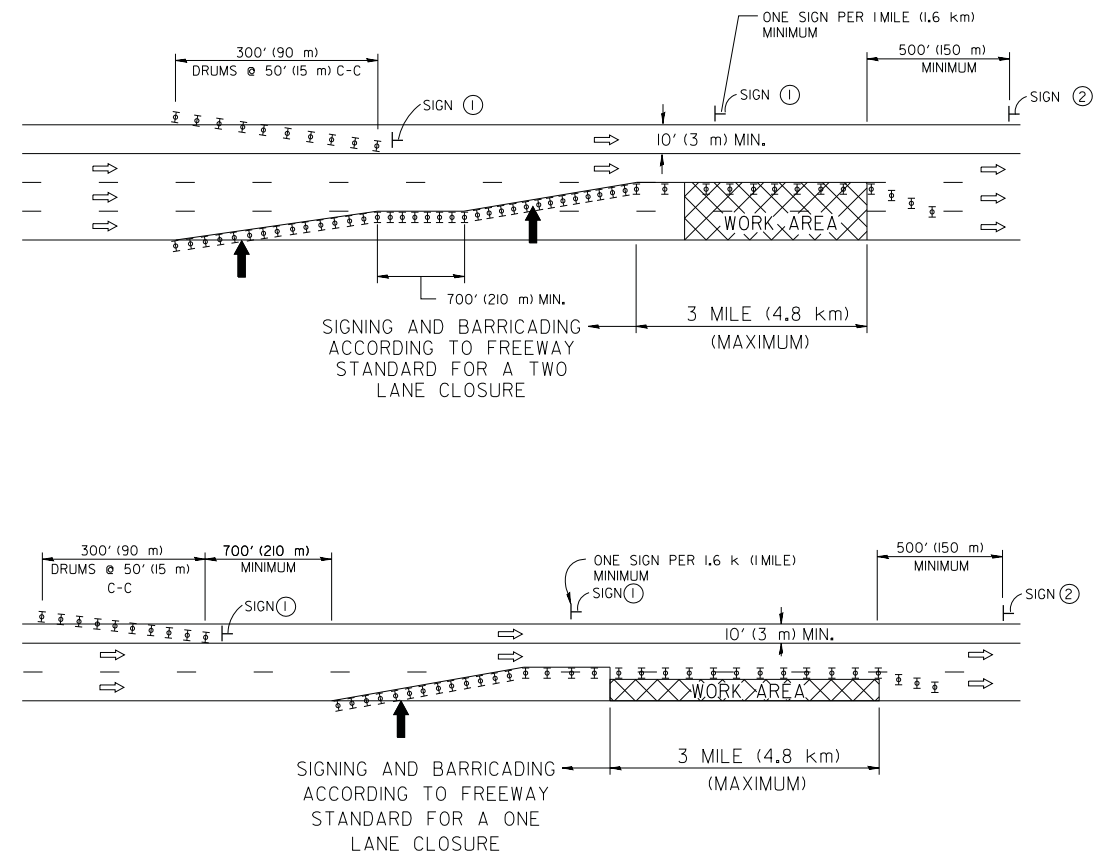


NOTES

1. DRUMS WITH STEADY BURN LIGHTS SHALL BE USED AT 50' (15 m) CENTERS ON ALL TAPERS AND TANGENTS IN ADVANCE OF WORK AREA.
2. CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.
3. CENTER LANE CLOSURE CONFIGURATION IS NOT TO BE USED WITH WORKERS PRESENT.

SHOULDER LANE

NOTE: CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.



6 (150) SERIES "C" LEGEND
BLACK LEGEND
WHITE REFLECT. BACKGROUND
1 (25) BORDER

SYMBOLS

- ↑ DIRECTION OF TRAFFIC
- ➔ ARROWBOARD
- ▣ ACTIVE WORK AREA
- ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT *
- ⊥ TYPE II BARRICADE, OR DRUM WITH MONO-DIRECTIONAL STEADY BURN LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

* ALL SIGNS SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).

FILE NAME = W:\diststd\22x34\tc25.dgn	USER NAME = leuss	DESIGNED -	REVISED - J.A.F. 04-03
		DRAWN -	REVISED - S.P.B. 01-07
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - S.P.B. 12-09
	PLOT DATE = 1/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY
CENTER LANE CLOSURE SHOULDER LANE

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2011-057-BP	COOK	98	98
TC-25		CONTRACT NO. 60P73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				