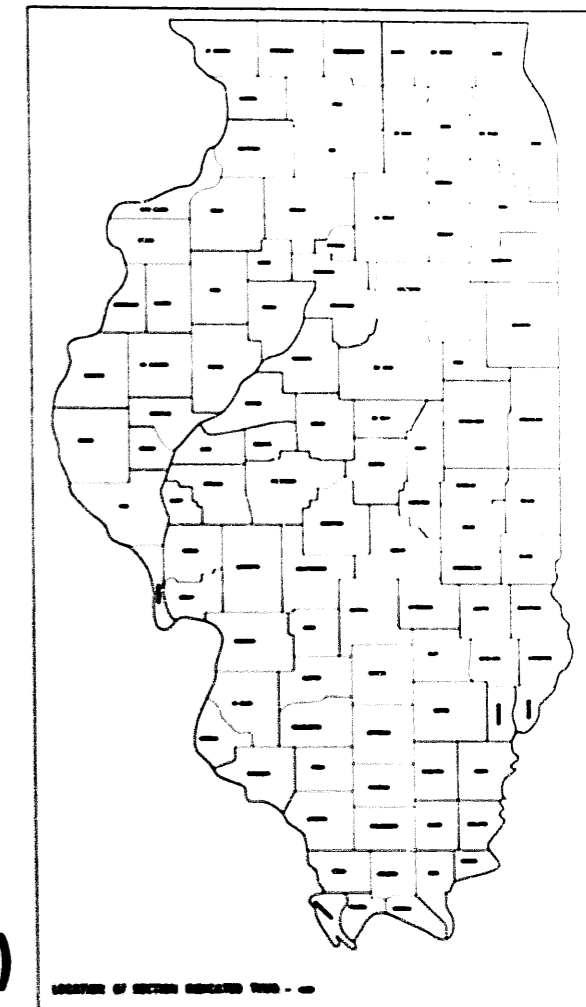


STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

F.A.P.	SECTION	COUNTY	TOTAL SHEETS
VAR.	1995-1131	VAR.	51
			1

D-91-166-95



INDEX OF SHEETS

1. TITLE SHEET
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GENERAL NOTES
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- 8-11. U.S. 20 OVER ST. CHARLES ST. PLAN SHEETS
- 12-14. U.S. 20 OVER McLEAN BLVD. PLAN SHEETS
- 15-18. IL. 43 / HARLEM AVE. OVER I-55 PLAN SHEETS
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- 38-41. I-80 OVER I-55 PLAN SHEETS
- 42-47. IL. 171 SB RAMP TO I-55 PLAN SHEETS
48. TEMPORARY INFORMATION SIGNING
FOR LANE CLOSURES DETAIL
49. DISTRICT ONE FREEWAY STANDARD
- ONE LANE CLOSURE
50. DISTRICT ONE FREEWAY STANDARD
- TWO LANE CLOSURE
51. TRAFFIC CONTROL DETAILS FOR SHOULDER
CLOSURES AND PARTIAL RAMP CLOSURES

**PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY**

**VARIOUS DISTRICT ONE
 SECTION: 1995-1131**

1. U.S. 20 OVER IL. 25 (SN:045-0007)
2. U.S. 20 OVER ST. CHARLES ST. (SN:045-0006)
3. U.S. 20 OVER McLEAN BLVD. (SN:045-0003 EB, 045-0002 WB)
4. IL. 43 OVER I-55 (SN:016-0316)
5. THORNDALE AVE. OVER I-290 (SN:022-0108)
6. 111th ST. OVER I-94 (BISHOP FORD) (SN:016-0992)
7. 115th ST. OVER I-94 (BISHOP FORD) (SN:016-2042 EB, 016-2043 WB)
8. I-80 OVER I-55 (SN:099-0044 EB, 099-0045 WB)
9. IL. 171 SB RAMP TO I-55 (SN:016-1026)

STATE STANDARDS

701401	701406	701411
701601	701606	701801
	702001	

THIS IMPROVEMENT IS LOCATED IN THE MUNICIPALITIES OF ELGIN, SUMMIT, ITASCA, CHICAGO AND UNINCORPORATED WILL COUNTY.

**BRIDGE PIN & LINK CONNECTORS
 VARIOUS COUNTIES
 C-91-166-95**

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

DESIGNED *John L. ...* IN 1998

DATE *August 14, 1998*

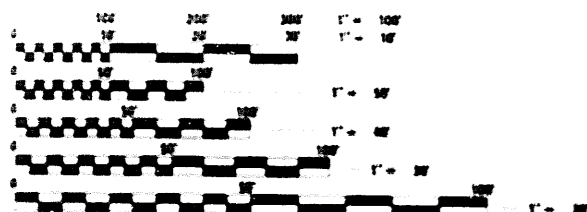
BY *Paul ...*

DATE *August 14, 1998*

BY *James P. ...*

PRINTED BY AUTHORITY OF THE
 STATE OF ILLINOIS

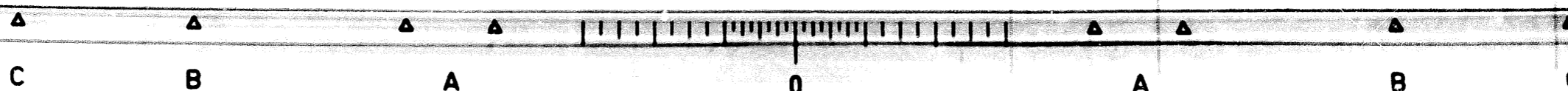
FOR UTILITY INFORMATION
 CALL J.U.L.E. 1-800-892-0123
 C.U.A.N. (312)-744-7000



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

FOR LOCATION MAPS,
 SEE PLAN SHEET NO. 2

CONTRACT NO. 82943



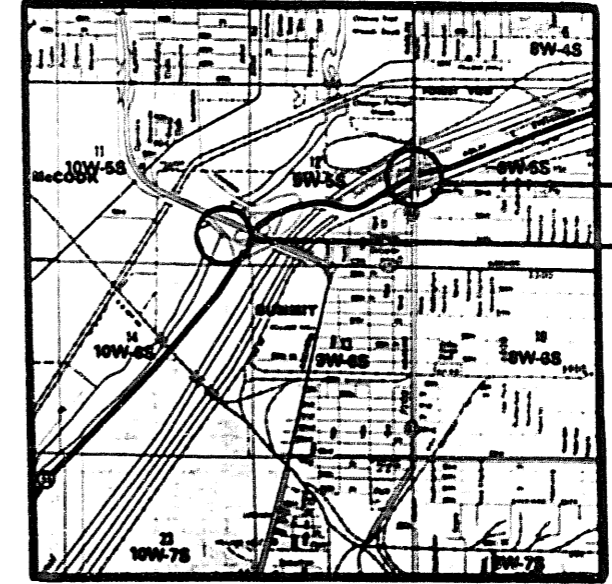
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR 1995-1131	VAR	51	2
STA		TO STA	
FED. ROAD DIST. NO.		CONTRACT NO.	



LOCATION #1
LOCATION #2



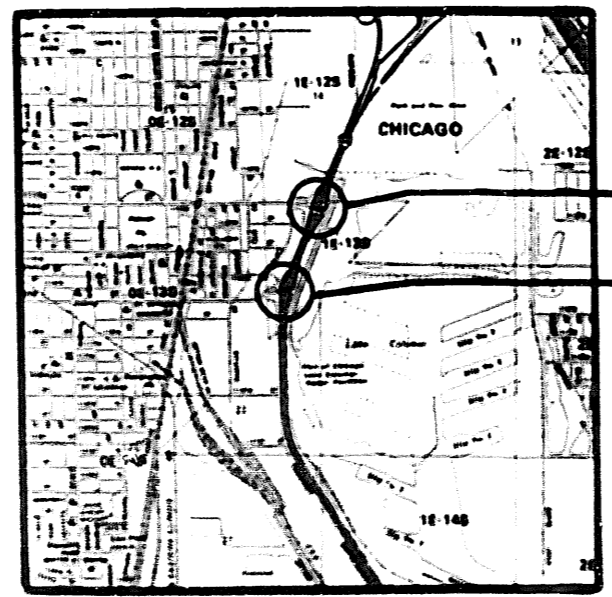
LOCATION #3



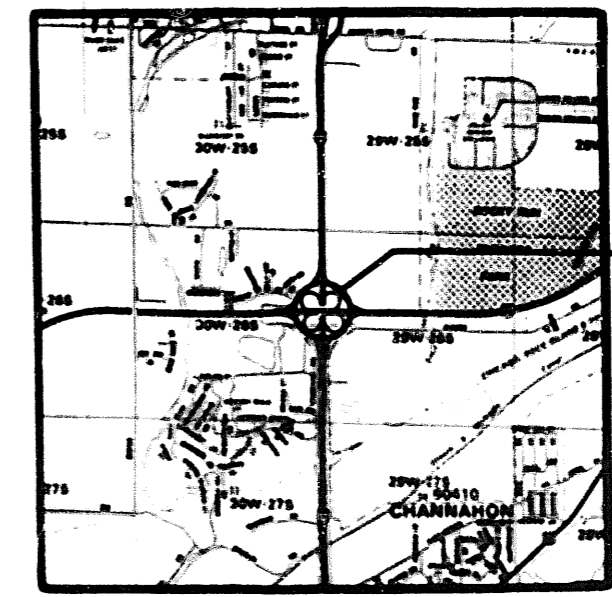
LOCATION #4
LOCATION #9



LOCATION #5



LOCATION #6
LOCATION #7



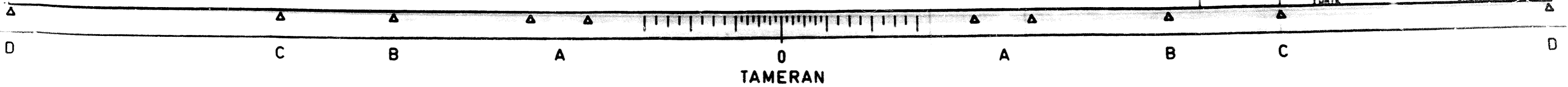
LOCATION #8

LOCATION #1 - U.S. 20 OVER IL. 25 / LIBERTY ST. (SN: 045-0007)
 LOCATION #2 - U.S. 20 OVER ST. CHARLES ST. (SN: 045-0006)
 LOCATION #3 - U.S. 20 OVER McLEAN BLVD. (SN: 045-0003 EB, 045-0002 WB)
 LOCATION #4 - IL. 43 / HARLEM AVE. OVER I-55 (SN: 016-0316)
 LOCATION #5 - THORNDALE AVE. OVER I-290 (SN: 022-0108)

LOCATION #6 - 11th ST. OVER I-94 (SN: 016-0992)
 LOCATION #7 - 118th ST. OVER I-94 (SN: 016-2042 EB, 016-2043 WB)
 LOCATION #8 - I-80 OVER I-55 (SN: 099-0044 EB, 099-0046 WB)
 LOCATION #9 - IL. 171 SB RAMP TO I-55 (SN: 016-1026)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LOCATION MAPS
 SCALE: 1" = 1/2" (1:1200)
 DATE: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 CHECKED BY: _____



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR 8995-1131	VAR	51	3
STA TO STA			
FED ROAD DIST NO - ILLINOIS		FED AID PROJ. NO.	

URBAN
100% STATE
SFTY-2A

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITY	KANE LOC 1 045-0007	KANE LOC 2 045-0006	KANE LOC 3 045-0003 045-0002	COOK LOC 4 018-0318	DUPAGE LOC 5 022-0108	COOK LOC 6 018-0982	COOK LOC 7 018-2042 018-2043	WILL LOC 8 089-0044 089-0045	COOK LOC 9 018-1028
50500405	FURNISHING & ERECTING STRUCTURAL STEEL	LB	250	250								
70100420	TRAFFIC CONTROL & PROTECTION, STANDARD 701411	EACH	2		1			1				
70100700	TRAFFIC CONTROL & PROTECTION, STANDARD 701406	L	1				0.80	0.40				
70100800	TRAFFIC CONTROL & PROTECTION, STANDARD 701401	L	1	0.35	0.35	0.30						
70102625	TRAFFIC CONTROL & PROTECTION, STANDARD 701606	L	1	0.50	0.50							
70102630	TRAFFIC CONTROL & PROTECTION, STANDARD 701601	L	1			0.50		0.20	0.30			
70102840	TRAFFIC CONTROL & PROTECTION, STANDARD 701801	L	1	0.35	0.35	0.30						
X0322467	TEMPORARY INFORMATION SIGNING FOR LANE CLOSURES	SQ FT	240	48	48	48		48	48			
X0985400	PIN REPLACEMENT	EACH	28					11	15			
X7011015	TRAFFIC CONTROL & PROTECTION (EXPRESSWAYS)	L	1						0.20	0.70	0.10	
X7015000	CHANGEABLE MESSAGE SIGN	2AL MO	1							1		
Z0003600	BEAM STRAIGHTENING	L	1	1								
Z0040330	PIN & LINK PLATE REPLACEMENT	EACH	214	30	30	28	48	33		5	38	4
Z0073400	TEMPORARY SUPPORT SYSTEM	EACH	240	30	30	28	48	33	11	20	38	4

TRAFFIC CONTROL PLAN

LOCATION	TRAFFIC CONTROL REQUIREMENTS	TRAFFIC ALLOWED ON PORTION OF STRUCTURE SUPPORTED BY TEMPORARY SUPPORT SYSTEM	REMARKS
1. US 20 over ILL 25/ Liberty St SN: 045-0007	US 20 - Standard 701401 ILL 25 Standards 701801 & 701806	No	May combine closures for US 20 over ILL 25 & US 20 over St Charles
2. US 20 over St. Charles SN: 045-0006	US 20 - Standards 701401 & 701411 St. Charles - Standards 701801 & 701806	No	
3. US 20 over McLean Blvd SN: 045-0003, 045-0002	US 20 - Standard 701401 McLean Blvd - Standards 701801 & 701801	No	
4. ILL 43 over I 85 SN: 018-0318	ILL 43 - Standard 701408 I 85 - Partial ramp closure & shoulder closure	*Yes	Lane closures allowed only during off-peak hours on Harlem Ave. See special provision "Keeping the Arterial Open to Traffic"
5. Thorndale over I 290 SN: 022-0108	Thorndale - Standards 701406 & 701411 I 290 - Shoulder closure	*Yes	Lane closures allowed only during off-peak hours on Thorndale Ave. See special provision "Keeping the Arterial Open to Traffic"
6. 111th St over I 94 SN: 018-0882	111th St - Standard 701801 I 94 - Shoulder closure	No	
7. 115th St over I 94 SN: 018-2042, 018-2043	115th St - Standard 701801 I 94 - District One standard one lane closure, changeable message sign	No	Weekend work only. See special provision "Keeping the Expressway Open to Traffic"
8. I 80 over I 85 SN: 089-0044, 089-0045	I 80 - Standard 701411 & District One standard one lane closure I 85 - Shoulder closure	*Yes	Lane closures allowed only during off-peak hours on I 80. See special provision "Keeping the Expressway Open to Traffic"
9. ILL 171 SB to I 85 over crash SN: 018-1028	ILL 171 Ramp - Partial ramp closure	No	

* The Contractor shall design the temporary support system for live loads at these locations. Traffic shall be removed from that portion of the structure during the jacking and pin boring operations.

- LOCATION #1 - U.S. 20 OVER ILL. 25 / LIBERTY ST. (SN: 045-0007)
- LOCATION #2 - U.S. 20 OVER ST. CHARLES ST. (SN: 045-0006)
- LOCATION #3 - U.S. 20 OVER McLEAN BLVD. (SN: 045-0003 EB, 045-0002 WB)
- LOCATION #4 - ILL. 43 / HARLEM AVE. OVER I-85 (SN: 018-0318)
- LOCATION #5 - THORNDALE AVE. OVER I-290 (SN: 022-0108)
- LOCATION #6 - 111th ST. OVER I-94 (SN: 018-0882)
- LOCATION #7 - 115th ST. OVER I-94 (SN: 018-2042 EB, 018-2043 WB)
- LOCATION #8 - I-80 OVER I-85 (SN: 089-0044 EB, 089-0045 WB)
- LOCATION #9 - ILL. 171 SB RAMP TO I-85 (SN: 018-1028)

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800)882-0123 OR "C.U.A.N." (CHICAGO UTILITY ALERT NETWORK) AT (312)744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED. (ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL).
- WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJACENT RESIDENTIAL AREAS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)708-4185 FOR EXPRESSWAYS AND (847)708-4470 FOR ARTERIALS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

NOTE:

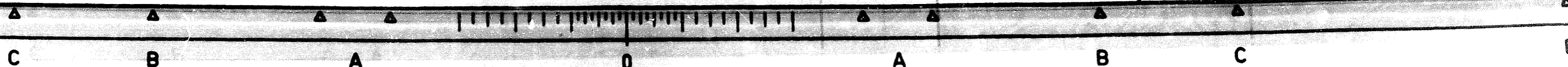
ALL EXPRESSWAY SHOULDER CLOSURES SHALL NOT BE PAID FOR SEPARATELY, BUT THE COSTS SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICES FOR THE CONSTRUCTION ITEMS INVOLVED, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

REVISIONS	
NO.	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
GENERAL NOTES
TRAFFIC CONTROL PLAN

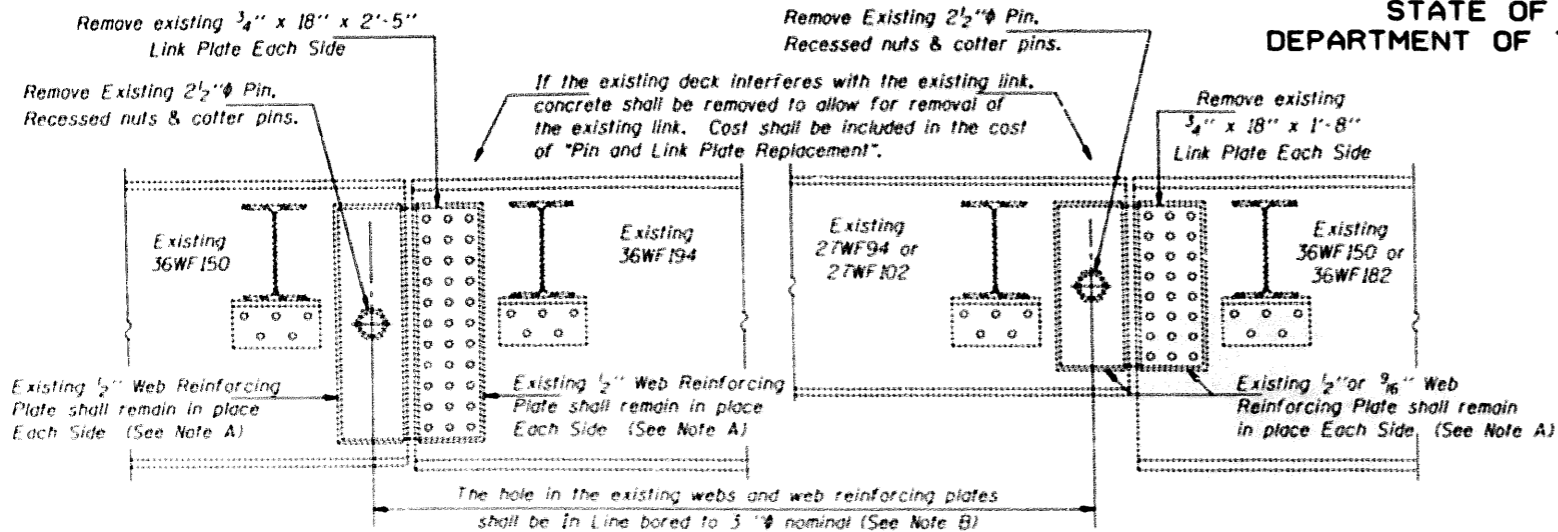
SCALE: VERT
HORIZ

DRAWN BY
DESIGNED BY
CHECKED BY



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

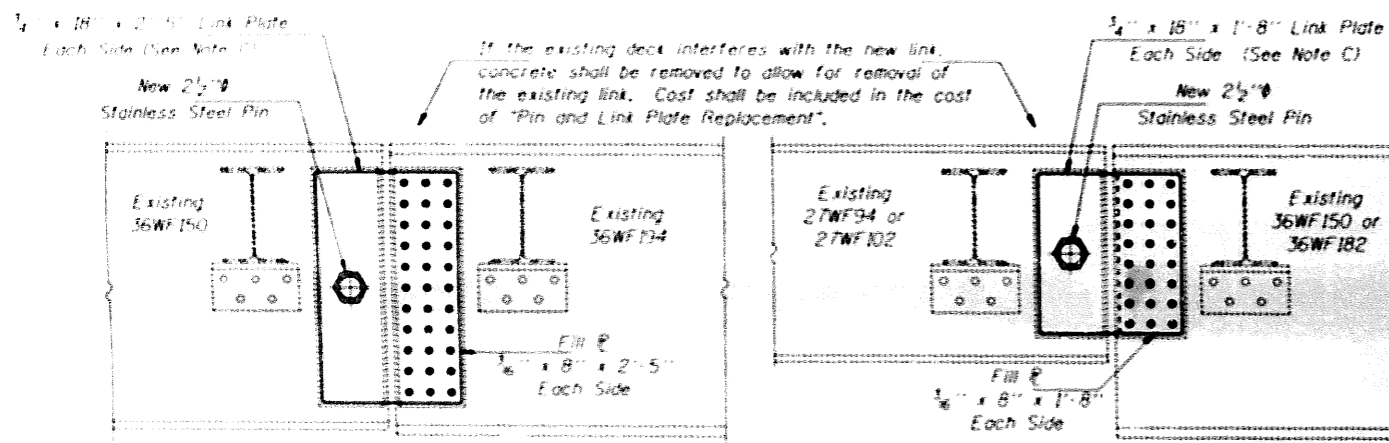
ROUTE NO.	SECTION	COUNTY	DATE	SCALE	SHEET NO. 1
FAI 80		WILL	5/98	1/8"	4 SHEETS
* 1995 IJ31					



**ELEVATION AT EXISTING PIN ASSEMBLY
FOR EXTERIOR BEAMS**

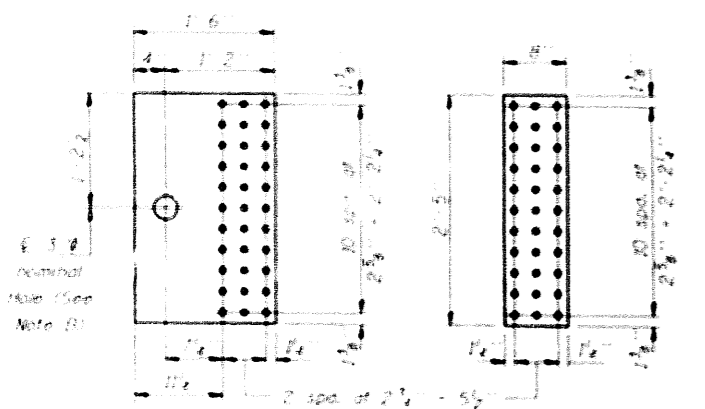
**ELEVATION AT EXISTING PIN ASSEMBLY
FOR INTERIOR BEAMS**

Any Pins that can be easily removed without damage to the pin shall be salvaged and the Bridge Engineer shall be contacted for disposition. Cost of salvage is included in "Pin and Link Plate Replacement".

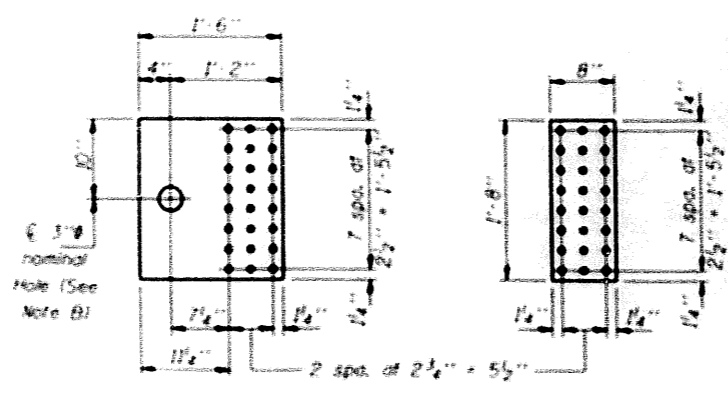


**ELEVATION AT NEW PIN ASSEMBLY
FOR EXTERIOR BEAMS**

**ELEVATION AT NEW PIN ASSEMBLY
FOR INTERIOR BEAMS**



LINK PLATE DETAIL (16 Required)
FILL PLATE DETAIL (16 Required)



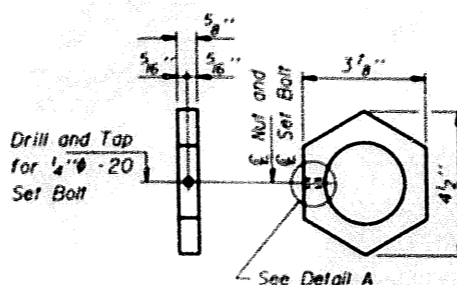
LINK PLATE DETAIL (16 Required)
FILL PLATE DETAIL (16 Required)

MAXIMUM REACTIONS AT PIN

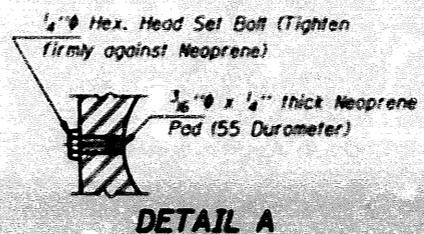
H _V	(K)	17.6
H _H	(K)	30.8
H _{imp}	(K)	9.3
H (Total)	(K)	57.7



INTERIOR NUT DETAIL
(72 Required)



EXTERIOR NUT DETAIL
(72 Required)



DETAIL A

Set Bolts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Note A: Existing welds shall be inspected for cracks using liquid dye penetrant or magnetic particle testing. Any cracks that are found shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Clean and paint before installing new pins.

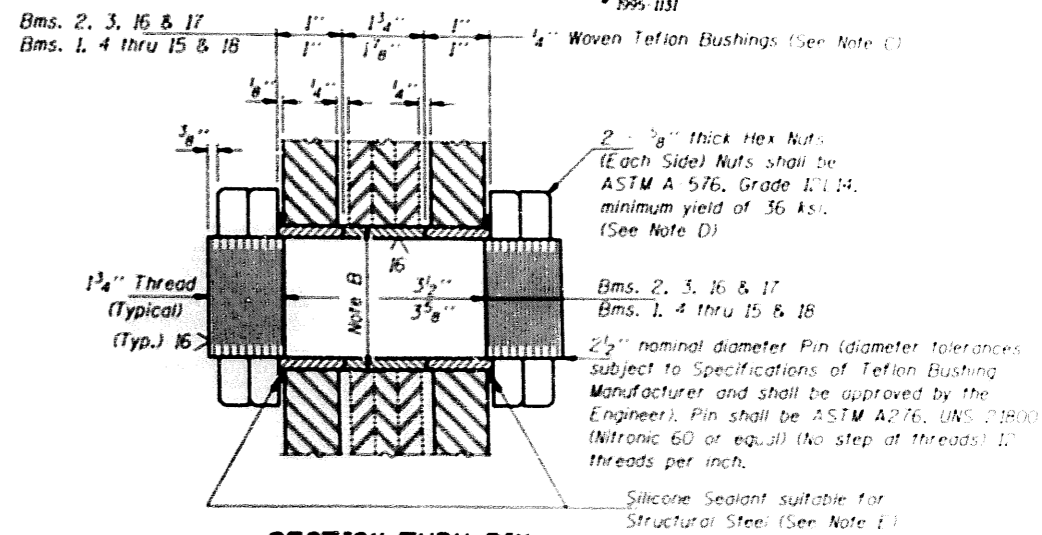
Note B: Bore diameter for bushing in existing link plates, webs and web reinforcement plates shall correspond to bushing manufacturer's allowable tolerances for proper functioning. Hole diameter may be adjusted to allow use of stock bushings.

Note C: Actual bushing thickness per manufacturer's specifications, 1/4 inch is approximate. Bushings shall be a self lubricating filament wound epoxy matrix backed Duralon Bearing, metal backed Fiber Glide Bearing or equivalent. No primer or grease shall be allowed on bushings. Bushings shall be suitable for dynamic loads of 20,000 psi.

Note D: Tighten inside nuts to bring all bushings into firm contact, then back off 1/4 turn and tighten outer nuts.

Note E: Place sealant around nuts after installation. Sealant shall be suitable for prolonged exterior exposure without losing flexibility or adhesion to painted steel surfaces. Proposed products shall be subject to Department's acceptance based on documented testing or other evidence.

Note F: Inside face of new link plates shall receive first field coat in shop. The primer shall pass the M.E.K. Rub Test before the first field coat is applied.



SECTION THRU PIN

(8 Required 2 1/2 inch x 7 inch Bms. 2, 3, 16 & 17)
(28 Required 2 1/2 inch x 7 1/8 inch Bms. 1, 4 thru 15 & 18)

GENERAL NOTES

All new structural steel shall conform to AASHTO Classification M 270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts 3/4 inch, open holes 1/8 inch, unless otherwise noted.

The Contractor shall provide support and/or shoring systems for the beam in the area of existing pin replacement. See Special Provision "Temporary Support System."

The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/B. See Special Provisions "Cleaning and Painting New Metal Structures". Cost shall be included in the cost of "Pin and Link Plate Replacement".

Existing Structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures". Cost shall be included in the cost of "Pin and Link Plate Replacement".

Pin dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field, except the pin diameters, and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Pins shall conform to the minimum Charpy V-Notch Toughness of 25 ft.-lbs. at 40° F.

The pins, link plates, bushings, nuts, Set Bolts, Neoprene Pad, silicone sealant, fill plates and high strength bolts are the items included in "Pin and Link Plate Replacement".

The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Temporary Support System	Each	36
Pin and Link Plate Replacement	Each	36

PIN REPLACEMENT

FAI ROUTE 80 SEC 99-IHB-2

WILL COUNTY

STA. 1949+18.37

S.N. 099-0044 & 099-0045

DESIGNED	Victor H. Velja	AUGUST 5, 1998
CHECKED	Chris M. [Signature]	ENGINEER
DRAWN	Diana [Signature]	PASSED
CHECKED	VHV LWE	MEMBER OF BRIDGES AND STRUCTURES

DATE	REV.	BY	CHKD.
FAT:BO			
STA			
114 500-241-10-11 1022-1			

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	GENERAL PLAN AND ELEVATION
3	BORINGS, NAME PLATES, GENERAL NOTES & QUANTITIES
4	DECK REINFORCEMENT PLAN
5	DECK CROSS SECTIONS AND DETAILS
6	STEEL FRAMING PLAN
7	BEARING DETAILS
8	DIAPHRAGM DETAILS
9	WALLS
10	CONNECTION DETAILS FOR BEAT PLATE WALL PANELS
11	EAST ABUTMENT - SOUTH BRIDGE AND WEST ABUTMENT - NORTH BRIDGE
12	EAST ABUTMENT - NORTH BRIDGE AND WEST ABUTMENT - SOUTH BRIDGE
13	ABUTMENT DETAILS
14	PIER 3 - SOUTH BRIDGE AND PIER 1 - NORTH BRIDGE
15	PIER 3 - NORTH BRIDGE AND PIER 1 - SOUTH BRIDGE
16	PIER 2 - NORTH AND SOUTH BRIDGE
17	REINFORCEMENT BAR LIST
18	ROAD PLAN
19	SPECIAL ROADWAYS AT STA. 1928+25
20	STANDARDS 1686R AND 2115
21	STANDARDS 2128-2, 1974R, 2114, (Special Drawing)

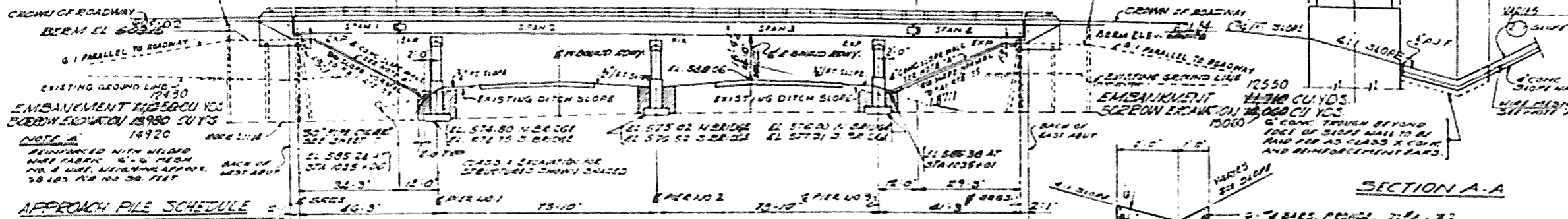
- FILE NOTES:
1. DRIVE A STEEL TEST PILE AT EACH ABUTMENT TO ROCK.
 2. CONSTRUCT EMBANKMENT AS SHOWN.
 3. DRIVE THE REMAINDER OF STEEL PILES TO ROCK.
 4. DRIVE THE TIMBER PILES FOR THE ABUTMENT WINGS AND THE APPROACH SLABS TO REFUSAL.

NOTE: THE NAME PLATE READING OF SHEETS 2 & 4

C.M. # 32 - ELEV. 547.25
 C.M. SPIKE IN 25' OAK TREE
 AT STA. 1941+63 P.A. 1.80
 C.M. # 33 - ELEV. 578.43
 C.M. SPIKE IN 25' OAK TREE
 AT STA. 1960+50 P.A. 1.80
 C.M. # 34 - ELEV. 542.23
 C.M. SPIKE IN 25' OAK TREE
 AT STA. 1972+03 P.A. 1.80

607.38
 FILE CUTOFF
 EL. 607.38
 EL. 607.38
 EL. 607.38
 EL. 607.38

604.65
 FILE CUTOFF
 EL. 604.65
 EL. 604.65
 EL. 604.65



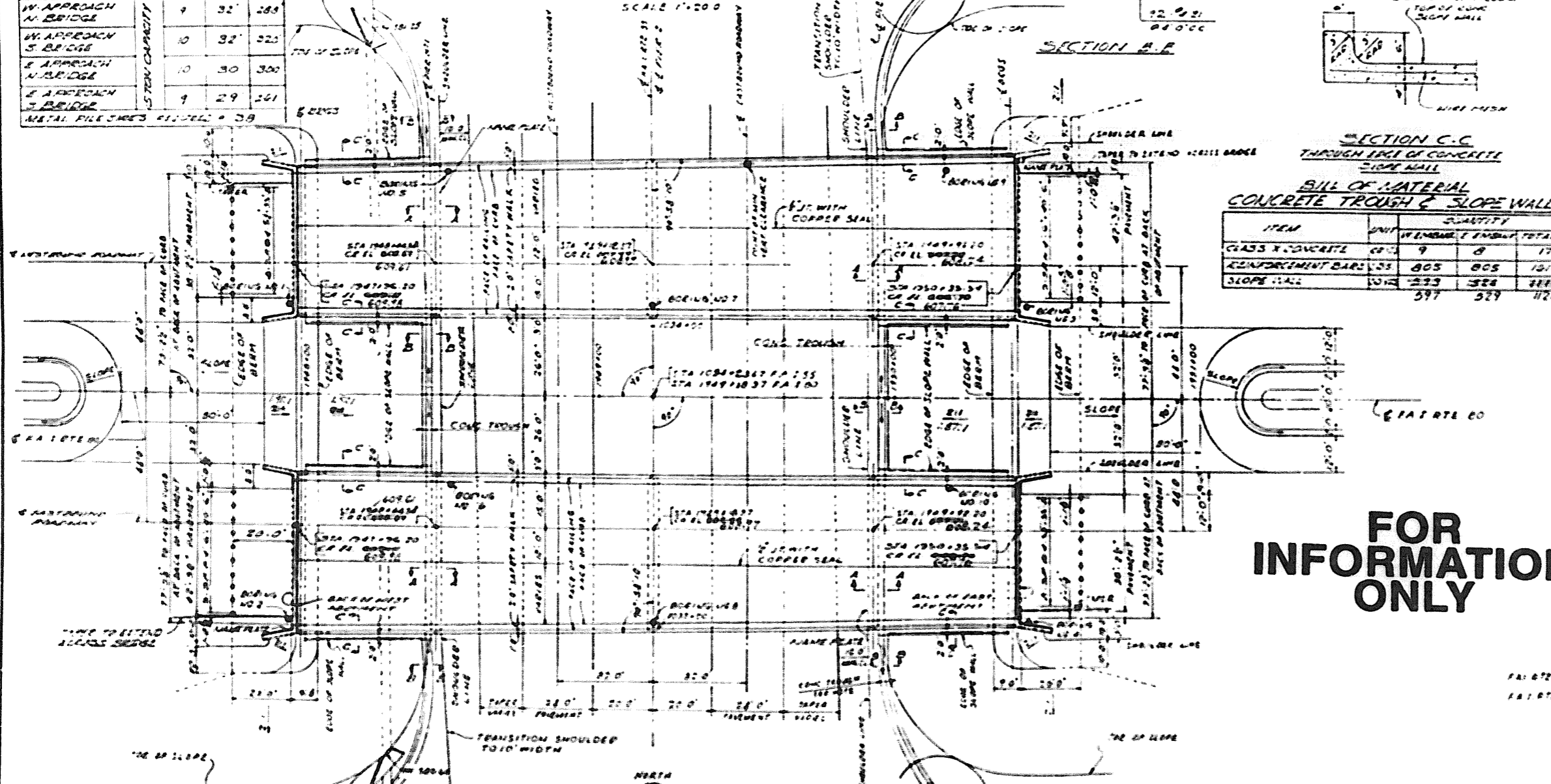
APPROACH PILE SCHEDULE

LOCATION	NO	LENGTH	AREA
W. APPROACH N. BRIDGE	9	32'	288
W. APPROACH S. BRIDGE	10	32'	320
E. APPROACH N. BRIDGE	10	30'	300
E. APPROACH S. BRIDGE	9	29'	261

METAL PILE CAPS 4" DIA. x 3/8"

ELEVATION

SCALE 1"=20'



BILL OF MATERIAL CONCRETE TROUGH & SLOPE WALL

ITEM	UNIT	QUANTITY	AMOUNT	TOTAL
CLASS X CONCRETE	CU YD	9	8	17
REINFORCEMENT BARS	SS	805	805	1610
SLOPE WALL	LINE	535	535	1070
		597	597	1186

FOR INFORMATION ONLY

DESIGN LOADS
 1. H 20-34.4 & ALTERNATE
 2. FUTURE WEARING SURFACE
DESIGN STRESSES
CONCRETE
 FC = 3500 P.S.I.
 FC = 1800 P.S.I.
 FC = 1800 P.S.I. (WITH EARTH PRESSURE)
 FT = 75 P.S.I. (PER FOOTING)
 FT = 10
REINFORCING STEEL
 FS = 20,000 P.S.I.
STRUCTURAL STEEL
 FS = 18,000 P.S.I.
PILE LOADS
 ABUTMENTS - 35 TONS (WITH OVERHEAD)
 WALLS - 10 TONS (TIMBER)
 APPROACH SLAB - 25 TONS (TIMBER)
SOIL PRESSURES
 PIERS - SPEEDS LISTED ON ROCK, MAX ALLOWABLE PRESSURE 8000 PSF
TRAFFIC VOLUME
 30TH YEAR 1964 CLASSIFICATION DESIGN
 2134 INTERSTATE 'A' 70
 2025 INTERSTATE 'A' 70

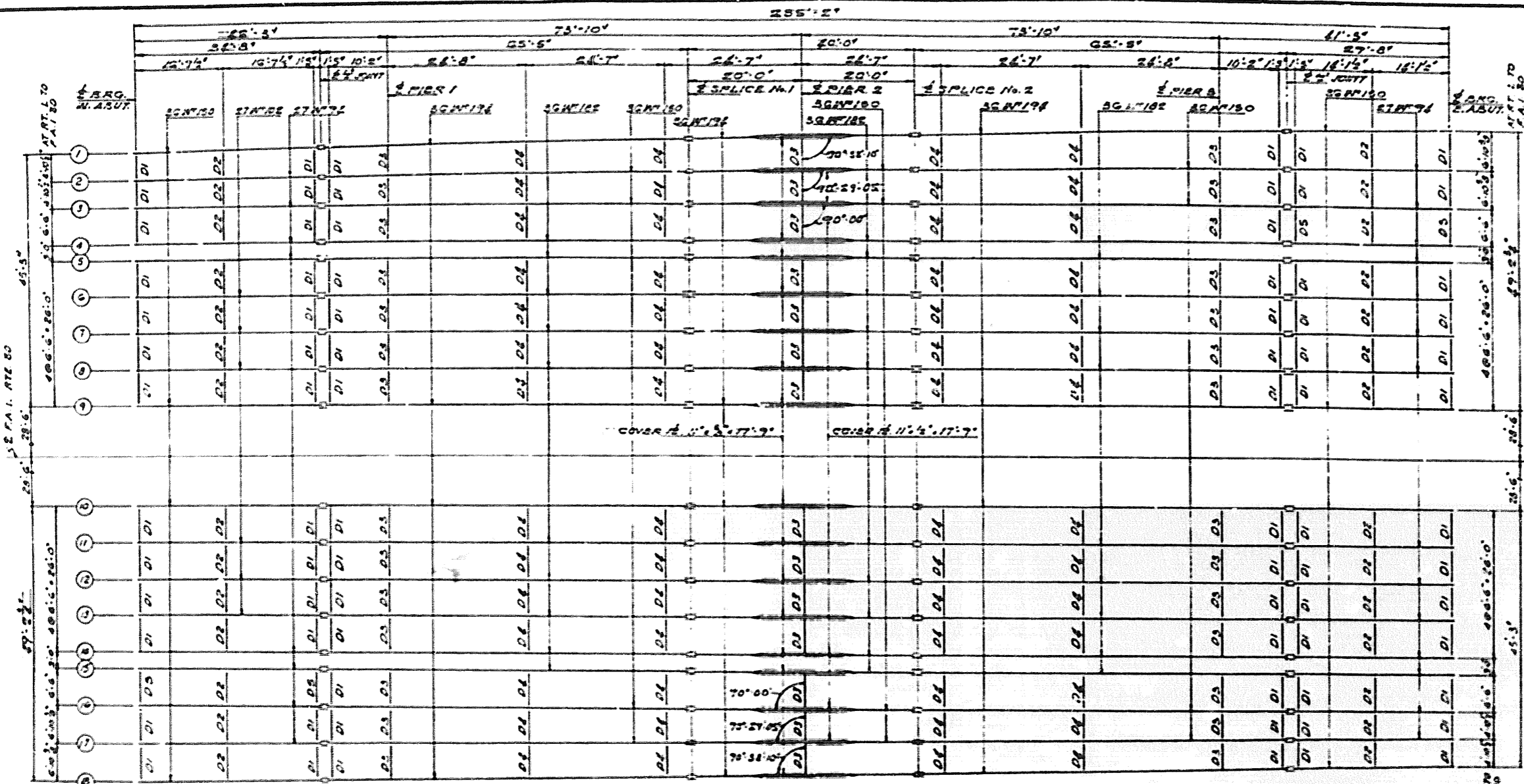
GENERAL PLAN & ELEVATION
 GRADE SEPARATION
 P.A. ROUTE 80
 OVER P.A. ROUTE 30
 P.A. PROJECT 1-80 & (7) IN 1
 P.A. ROUTE 80 SECTION 14+00 TO 19+25
 WILL COUNTY
 STATION 1928+03

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS
 10 SOUTH WABASH AVENUE 612 CHICAGO, ILLINOIS



NOTE:
 CONCRETE TROUGH TO HAVE MIN 6" PER FT SLOPE EACH DIRECTION FROM P.A. 1 ROUTE 80 AND SHALL TERMINATE IN MAIN DITCH.

SHEET 3 OF 4



PLAN OF STRUCTURAL STEEL
SCALE 3/8" = 1'-0"

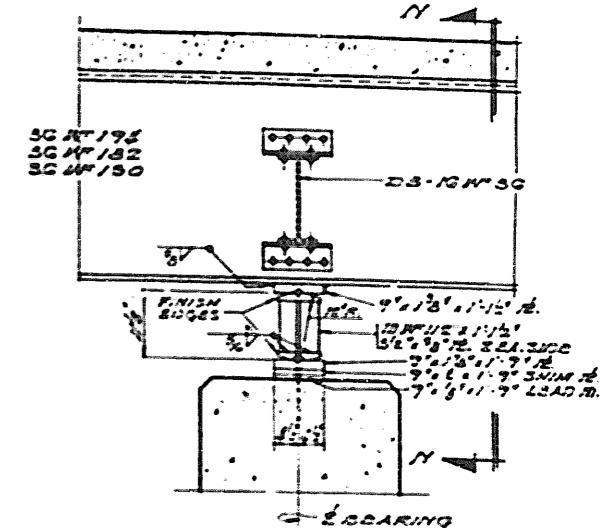


SEE SHEET 10
FOR REVISED SCHEDULE

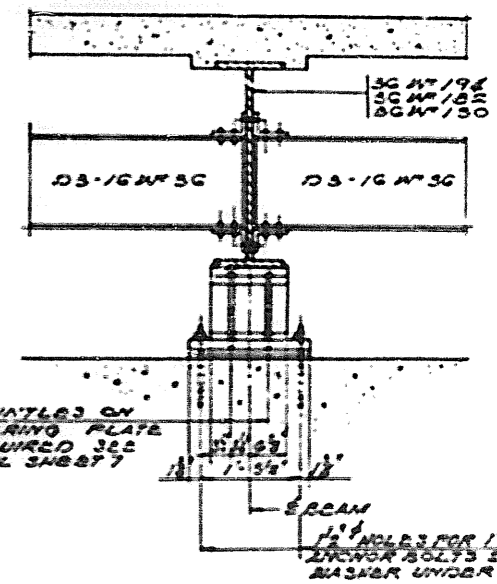
**TOP OF BEAM ELEVATIONS
FOR FABRICATION ONLY**

BEAM LOCATION	1	2	3, 16	4, 15	5, 14	6, 13	7, 12	8, 11	9, 10	17
E BRG. W. ABUT.	607.971	608.271	608.457	608.373	608.370	608.457	608.400	608.400	608.473	608.250
E PIN NO. 1	607.640	607.710	607.803	608.000	608.000	608.100	608.100	608.100	607.971	607.740
E PIER NO. 1	607.152	607.601	608.221	607.900	607.907	608.000	608.000	607.971	607.800	607.621
E SPICE NO. 1	607.000	607.140	607.247	607.200	607.400	607.540	607.571	607.600	607.700	607.841
E PIER NO. 2	606.819	606.940	607.040	607.100	607.200	607.340	607.371	607.400	607.500	607.641
E SPICE NO. 2	606.800	606.900	607.000	607.100	607.200	607.300	607.400	607.500	607.600	607.700
E PIER NO. 3	606.000	606.100	606.200	606.300	606.400	606.500	606.600	606.700	606.800	606.900
E PIN NO. 3	605.800	606.000	606.100	606.200	606.300	606.400	606.500	606.600	606.700	606.800
E BRG. E. ABUT.	605.501	605.400	605.200	605.100	605.000	604.900	604.800	604.700	604.600	604.500

NOTE: ELEVATIONS ARE BASED ON A DIMENSION OF 75' FROM THE THEORETICAL TOP OF SLAB TO TOP OF BEAMS AT E OF ABUTMENT BEARINGS, E OF PINS AND AT E OF SPLICES. THE TOP FLANGE IS CONSIDERED A STRAIGHT LINE BETWEEN THESE POINTS.



SECTION AT PIERS 1 & 3
FOR 3GWF194, 3GWF182 & 3GWF150
SCALE 3/8" = 1'-0"

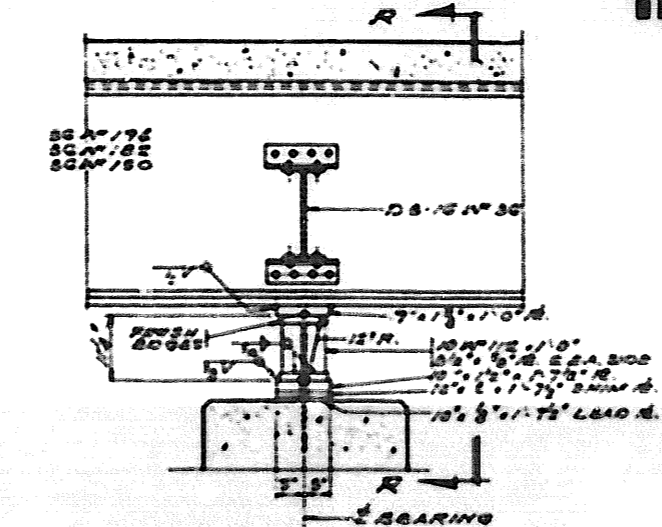


SECTION 'N-N'
SCALE 3/8" = 1'-0"

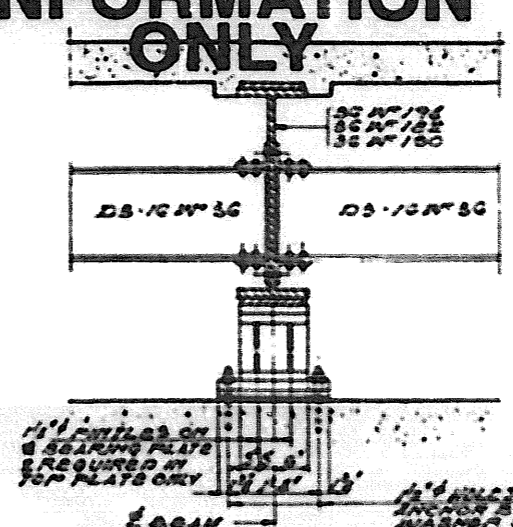
1/2" PINTLES ON BEARING PLATE AS REQUIRED SEE DETAIL SHEET 7

DIAPHRAGM SIZES

DIAPHRAGM	SIZE
D1/D5	12" x 20"
D2	12" x 20"
D3/D6	12" x 20"



SECTION AT PIER 2
FOR 3GWF194, 3GWF182 & 3GWF150
SCALE 3/8" = 1'-0"



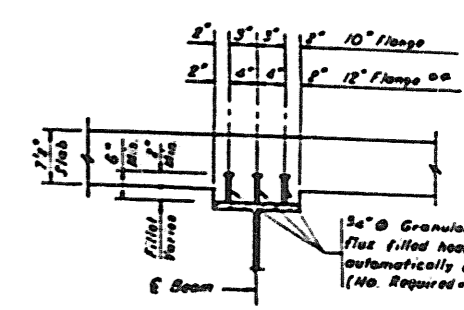
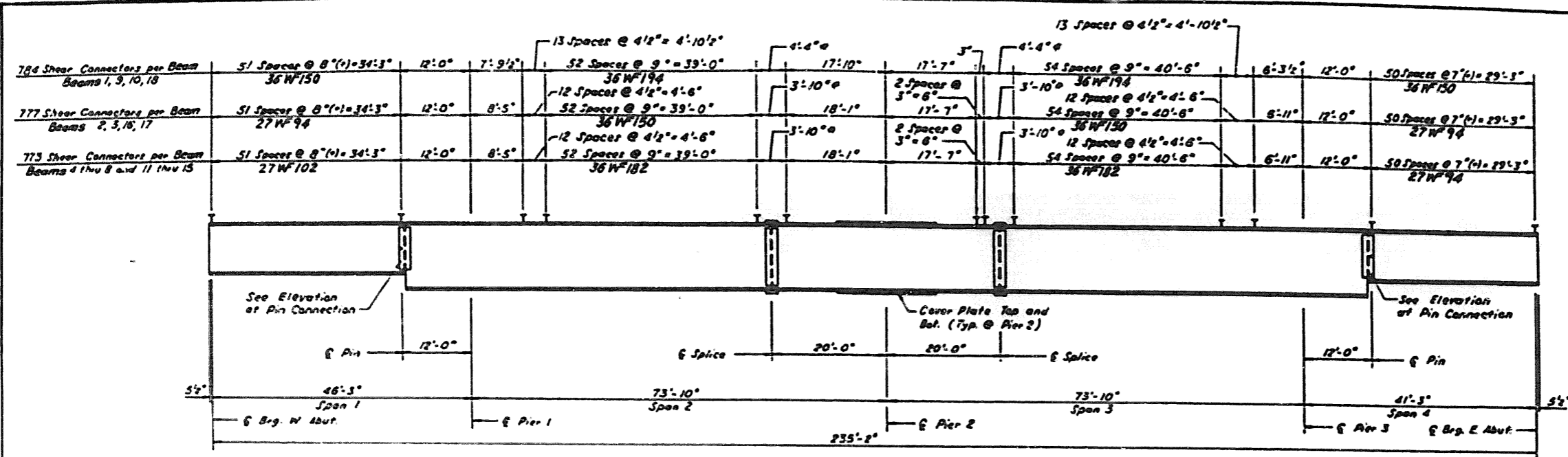
SECTION 'P-R'
SCALE 3/8" = 1'-0"

1/2" PINTLES ON BEARING PLATE AS REQUIRED IN TOP PLATE ONLY

ALFRED PENECH & ASSOCIATES CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE 6/3 CHICAGO, ILLINOIS

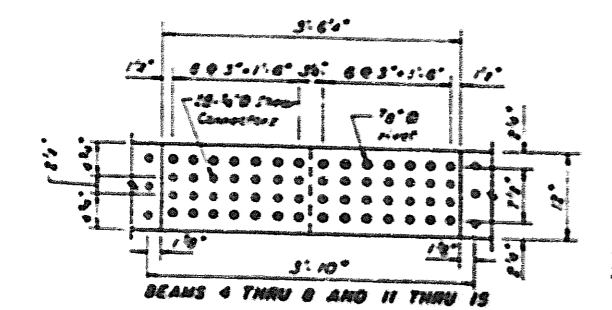
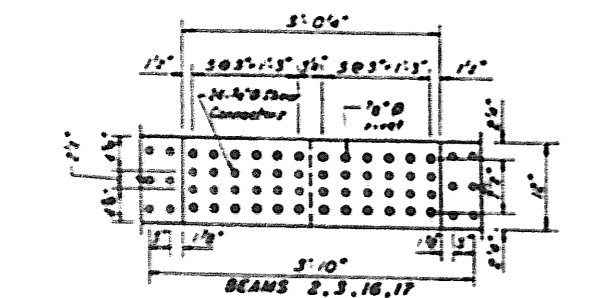
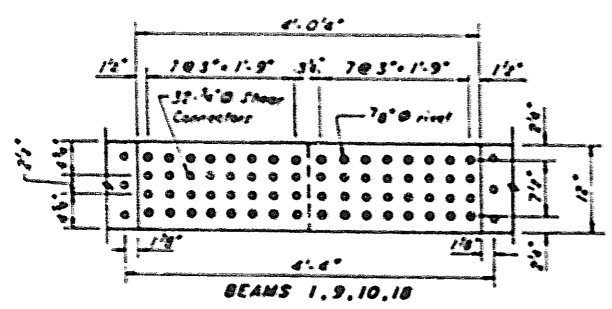
STEEL FRAMING PLAN
GRADE SEPARATION
FAI ROUTE 20
OVER FAI ROUTE 53
FA PROJECT
FAI ROUTE 20 SECTION 99-112 (1) 99-112
WILL COUNTY
STATION 1424+18.87

NO.	DATE	BY	CHKD.	APP'D.
55,00		WILL		
TAMERAN				

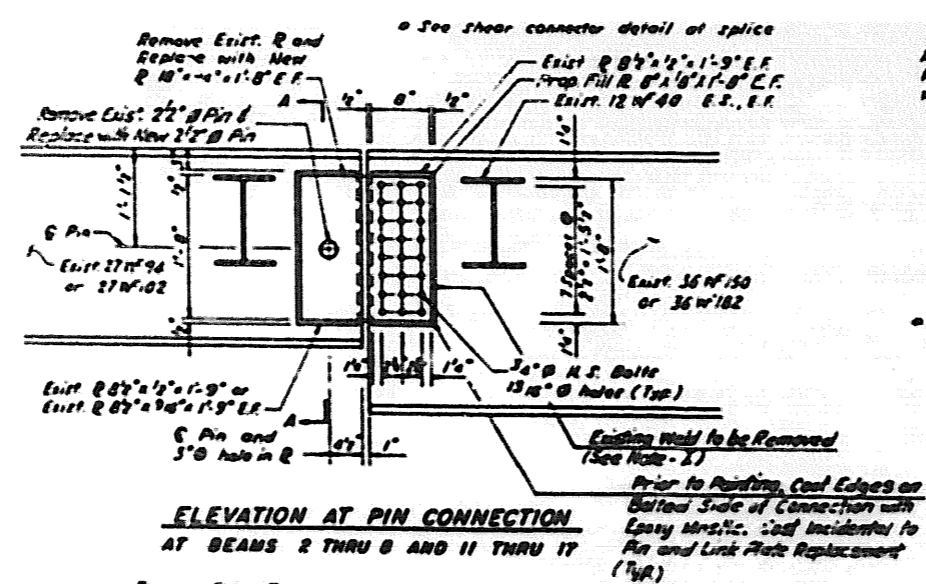


SHEAR CONNECTOR DETAIL
 For shear connector spacing at splice see detail.

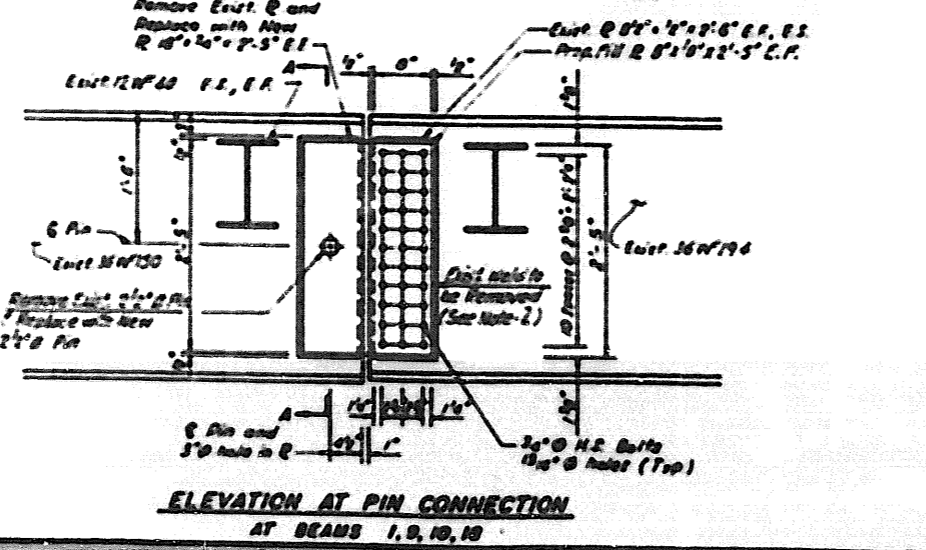
BILL OF MATERIAL		
ITEM	UNIT	QTY.
Stud Shear Connector	Each	13,974
Pin & Link Plate Replacement	Each	36
Jacking Existing Structure	L. Sum	1
Rivet Removal and Replacement	Each	612



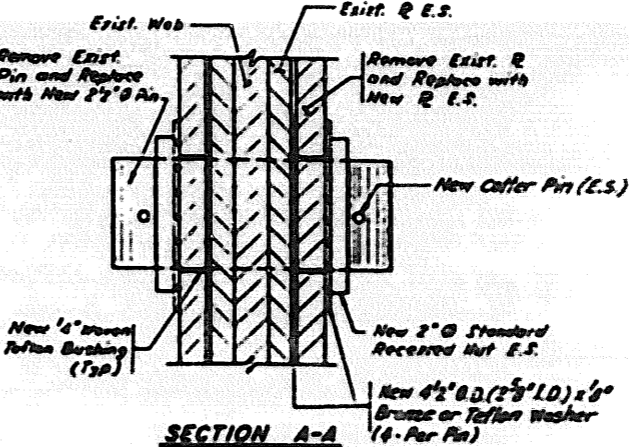
SHEAR CONNECTOR DETAIL AT SPLICE



ELEVATION AT PIN CONNECTION AT BEAMS 2 THRU 8 AND 11 THRU 17

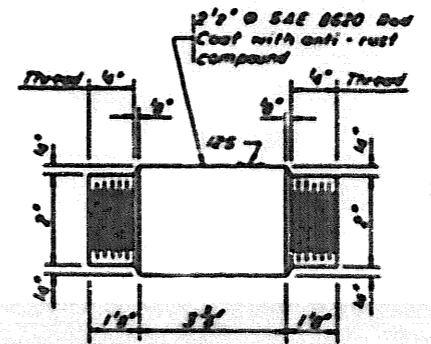


ELEVATION AT PIN CONNECTION AT BEAMS 1, 9, 10, 18



SECTION A-A

Self lubricating filament wound epoxy matrix barbed Duralon bearing or metal barbed Fiber Glass bearing or equivalent. Coat incidental to Pin & Link Plate Replacement. The actual bearing thickness at manufacturer's specified ins. 5/16 is approximate.



PIN DETAIL

- PIN NOTES:**
- CALCULATED WEIGHT OF NEW STRUCTURAL STEEL FOR PIN AND LINK PLATE REPLACEMENT = 1,300 LB. WASHERS, FILL PLATES, SPECIAL COATINGS AND DIMENSIONAL CHECKS ARE INCIDENTAL TO PIN AND LINK PLATE REPLACEMENT.
 - CONTRACTOR SHALL NOT DAMAGE THE EXISTING WELD. IF THE PLATE IS DAMAGED DURING CONSTRUCTION, THE ENGINEER SHALL DIRECT THE CONTRACTOR TO REPLACE THE PLATE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
 - THE EXISTING STIFFENER PLATES SHALL BE PRIMED INCLUDING THE AREA BEHIND THE WASHERS. NO PRIMER SHALL BE ALLOWED ON THE WASHERS OR THE TEFLON BUSHING.
 - THE PIN SHALL BE PROTECTED FROM CORROSION UNTIL INSTALLATION.
 - BOSS DIAMETER THROUGH WEB PER AASHTO 10.10 (DIVISION II) (NOT ART. 107.04). INSIDE OF BOSS AND PIN SURFACE SHALL BE PROTECTED FROM CORROSION UNTIL ERECTION BY GREASE OR OTHER TEMPORARY COATINGS. THE COATING MUST NOT DEGRADE DEBRIS OR INTERFERE WITH SHOP OR FIELD PAINT ADHESION.
 - BOSS DIAMETER FOR BUSHING AND LINK PLATE SHALL CORRESPOND TO BUSHING MANUFACTURER'S ALLOWABLE TOLERANCES FOR PROPER FUNCTIONING. PIN Ø MAY BE ADJUSTED ± 0.02" TO ALLOW USE OF STOCK BUSHING. BOSS HOLE IN WEB SHALL BE ADJUSTED ACCORDINGLY IF REQUIRED.
 - PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NORMAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE

FOR INFORMATION ONLY

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 FAI 80 OVER FAI 55
 BEAM DETAILS
 FAI 80 STA. 19+49+18.73
 SECTION 90-NR-10R-0 NO-2-01 STRUCTURE NO. 099-0044
 WILL COUNTY NO. 099-0040
 SCALE NOT TO SCALE DESIGNED BY GBT
 DATE 08-19-97 CHECKED BY LJS
 PUP

