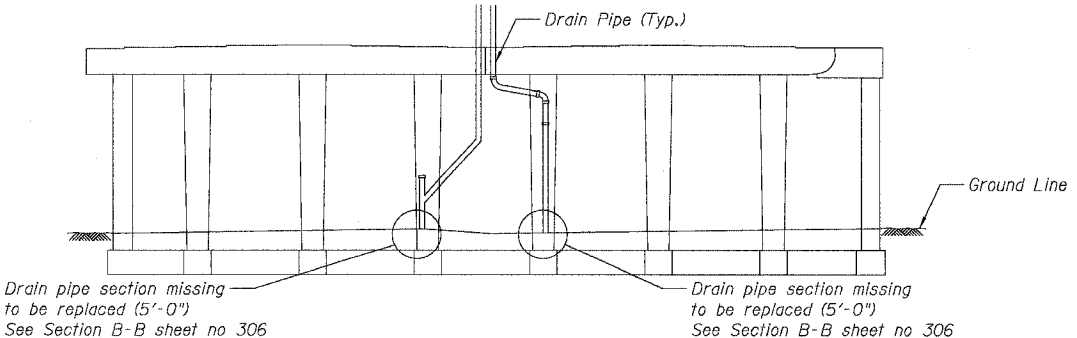
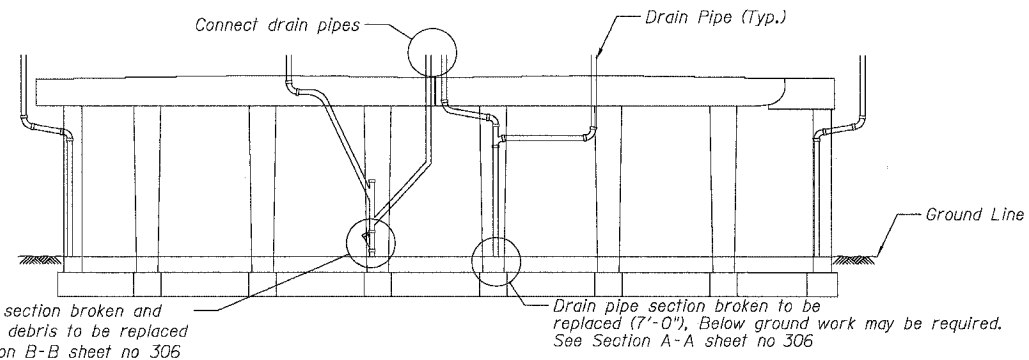


F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62580				

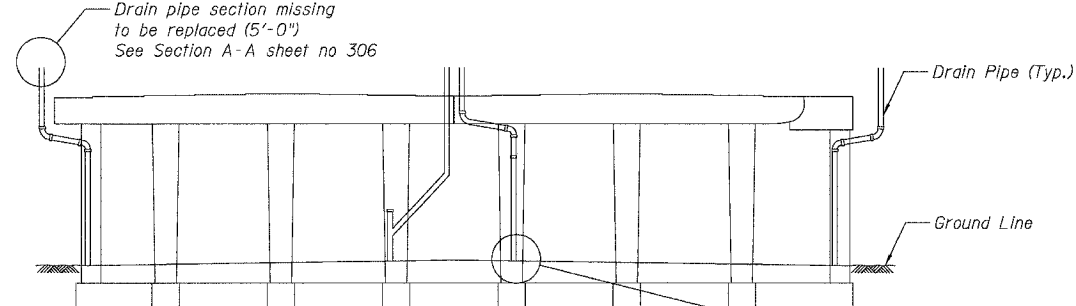
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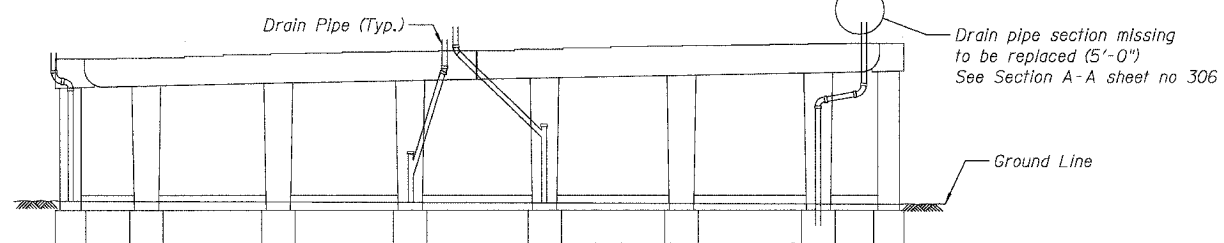
SN 016-1111 - PIER 8 - NORTH ELEVATION
(Looking South)



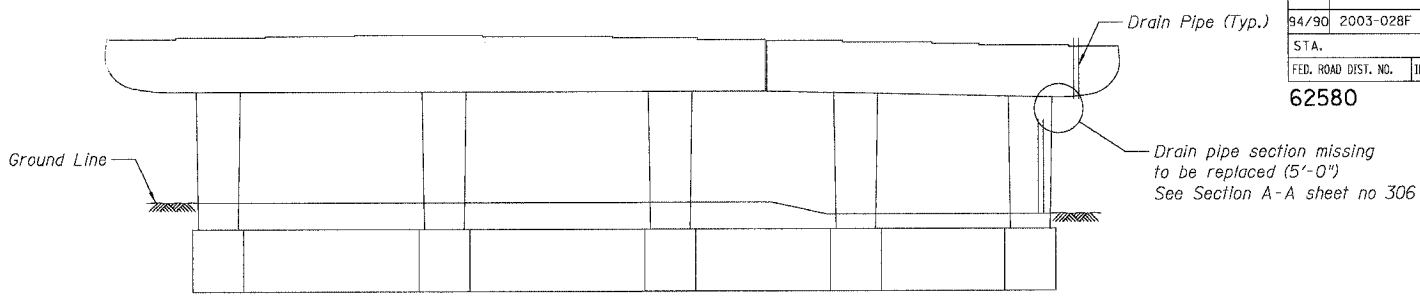
SN 016-1111 - PIER 7 - NORTH ELEVATION
(Looking South)



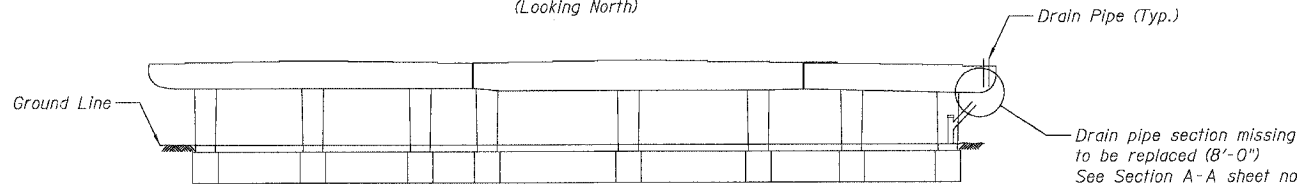
SN 016-1111 - PIER 6 - NORTH ELEVATION
(Looking South)



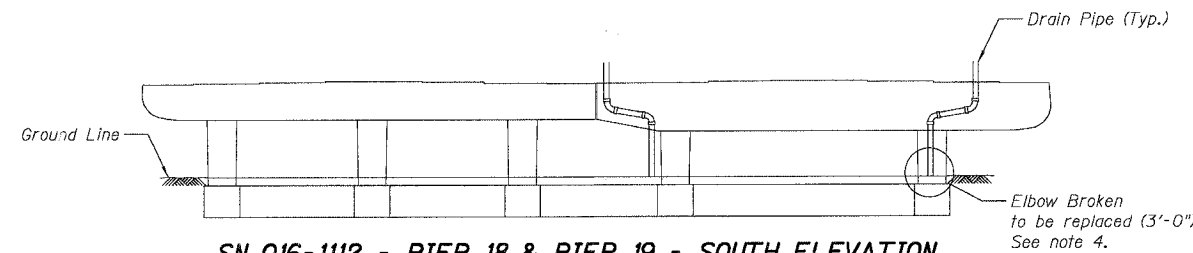
SN 016-1111 - PIER 1 - SOUTH ELEVATION
(Looking North)



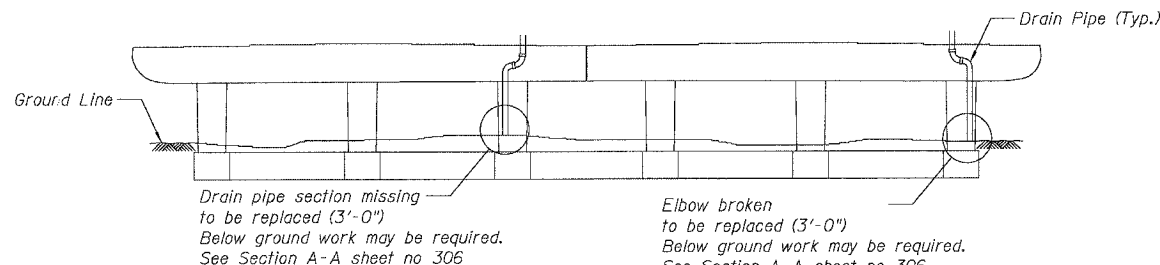
SN 016-1112 - PIER 21 - SOUTH ELEVATION
(Looking North)



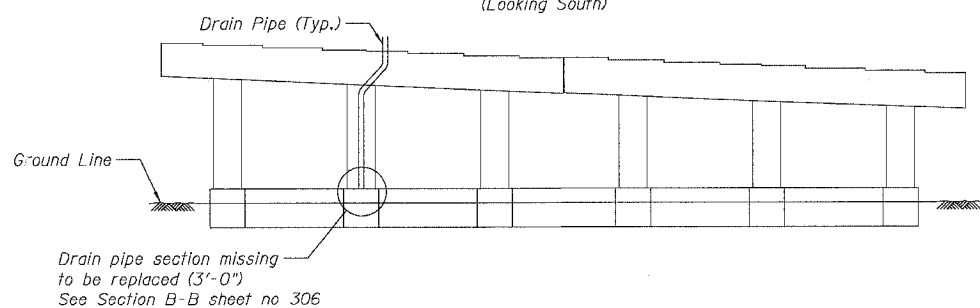
SN 016-1112 - PIER 20 - SOUTH ELEVATION
(Looking North)



SN 016-1112 - PIER 18 & PIER 19 - SOUTH ELEVATION
(Looking North)



SN 016-1112 - PIER 17 - NORTH ELEVATION
(Looking South)



SN 016-1112 - PIER 13 - SOUTH ELEVATION
(Looking North)

- Notes:
- See Drainage Repair Notes on sheet 300
 - For pier locations see General Plan & Elevation Sheets.
 - SN 016-1112, Span 17
Drain pipe section outside of west beam missing to be replaced. Estimated Length of 50'-0". Exact length to be verified by Contractor.
 - Contractor shall clean-up sediment build-up around catch basin and re-set lid at this location. Cost included in "Catch Basins to be Cleaned".

BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	QUANTITY	
		SN 016-1111	SN 016-1112
Bridge Drainage System Repairs	FOOT	32	78

REVISIONS	
NAME	DATE

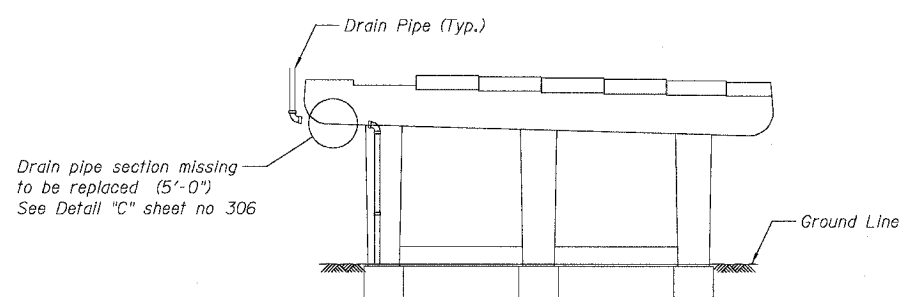
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
DRAINAGE REPAIRS
SN 016-1111 & 016-1112

SCALE: NTS
DATE: 8/12/2005

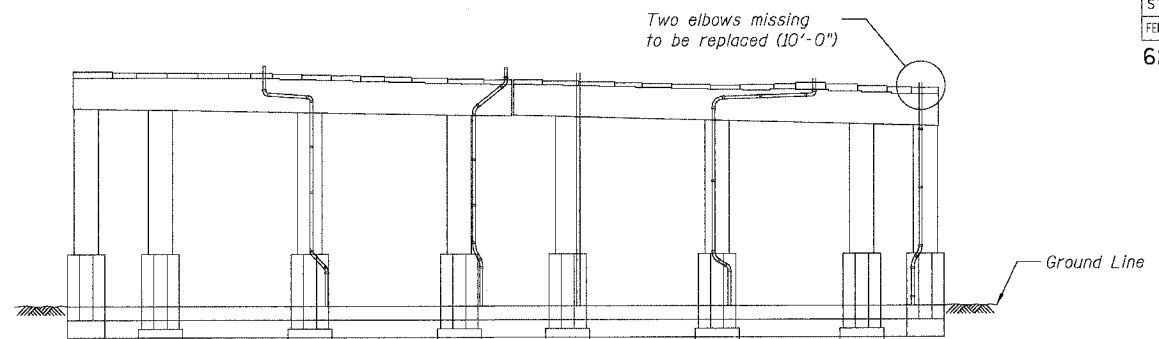
DRAWN BY: BDC
CHECKED BY: BLU

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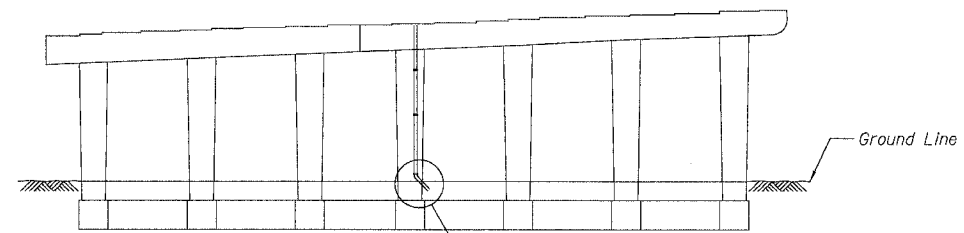
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	302
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



SN 016-1113 - PIER D-10 - SOUTH ELEVATION
(Looking North)

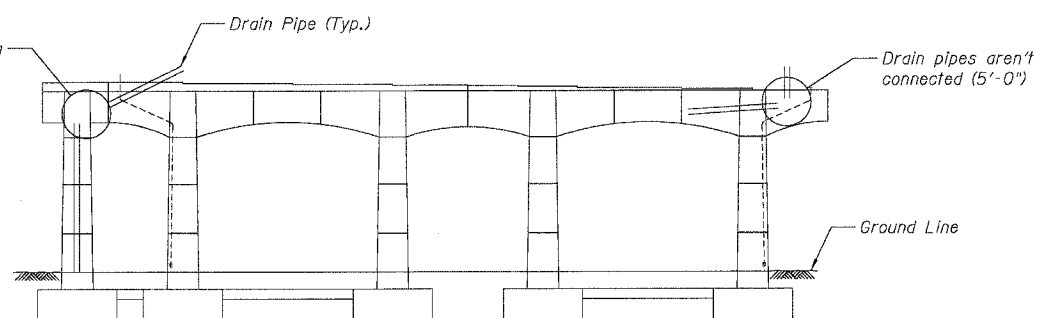


SN 016-1113 - PIER 1 - SOUTH ELEVATION
(Looking North)

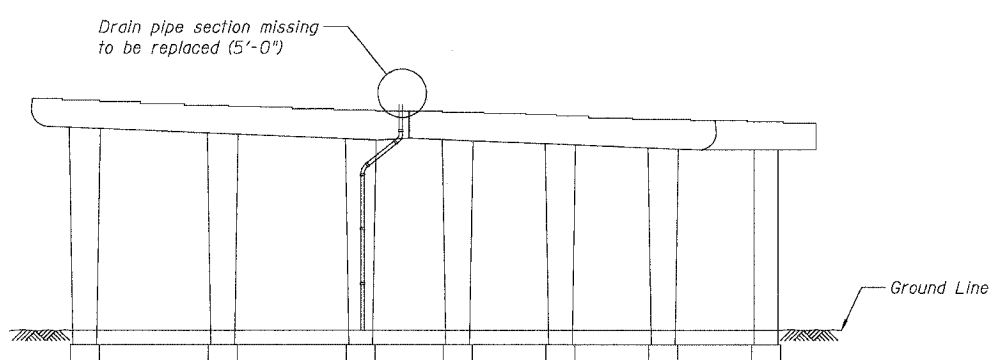


SN 016-1113 - PIER 9 - NORTH ELEVATION
(Looking South)

Drain pipe section missing along east side of beam under the deck to be replaced (10'-0")



SN 016-1114 - PIER 1 - SOUTH ELEVATION
(Looking North)



SN 016-1113 - PIER 5 - SOUTH ELEVATION
(Looking North)

- Notes:
1. See Drainage Repair Notes on sheet 300
 2. For pier locations see General Plan & Elevation Sheets.

BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	QUANTITY	
		SN 016-1113	SN 016-1114
Bridge Drainage System Repairs	FOOT	23	15

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
DRAINAGE REPAIRS
SN 016-1113 & 016-1114

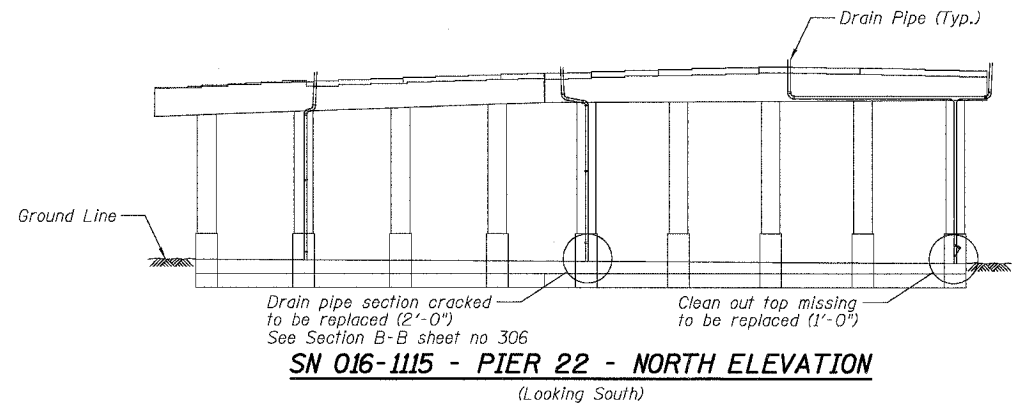
SCALE: NTS
DATE: 8/12/2005

DRAWN BY: BDC
CHECKED BY: BLU

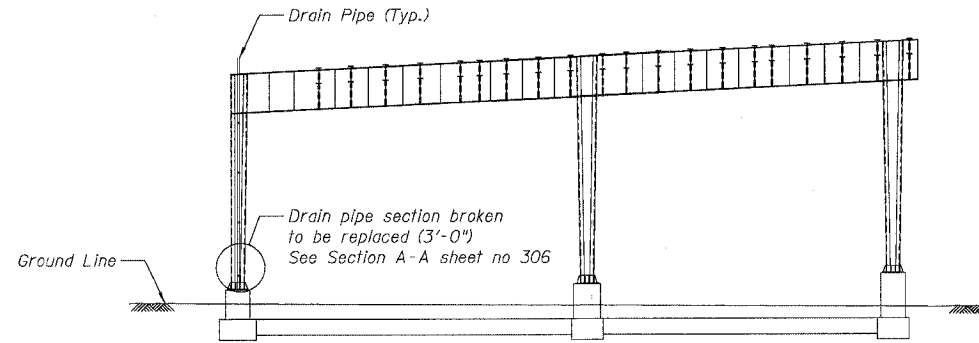
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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8/11/2005 11:54:30 AM

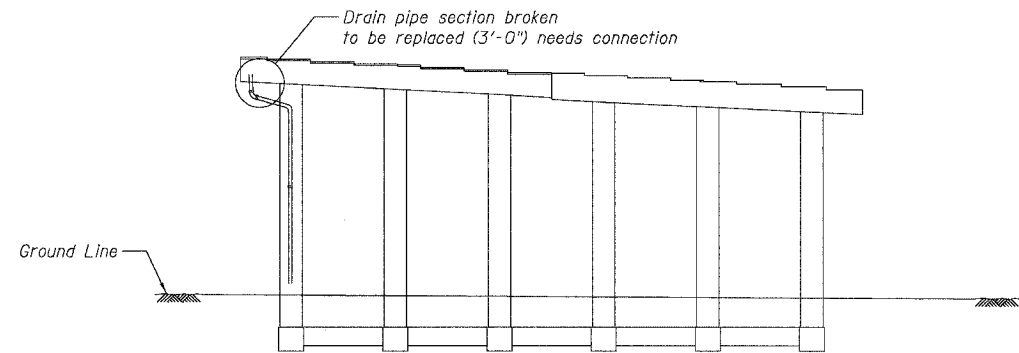
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62580				



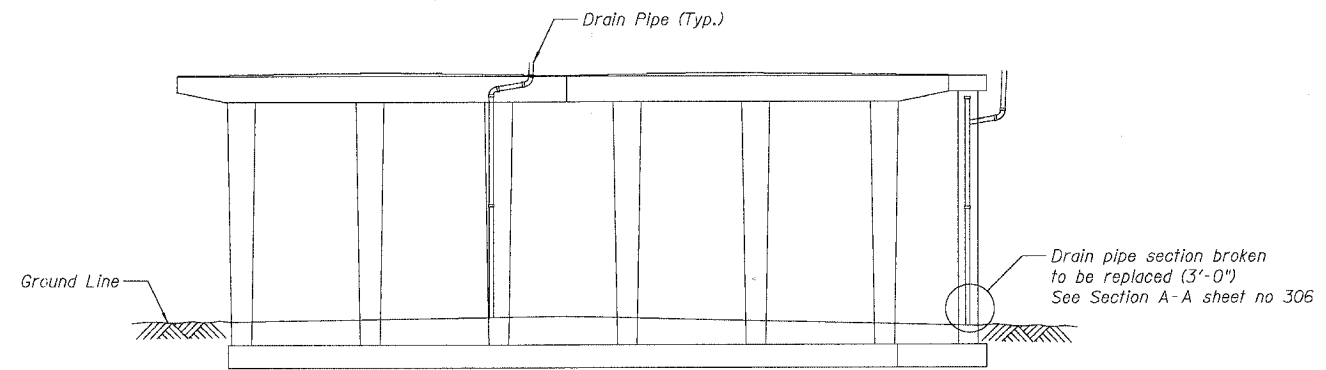
SN 016-1115 - PIER 22 - NORTH ELEVATION
(Looking South)



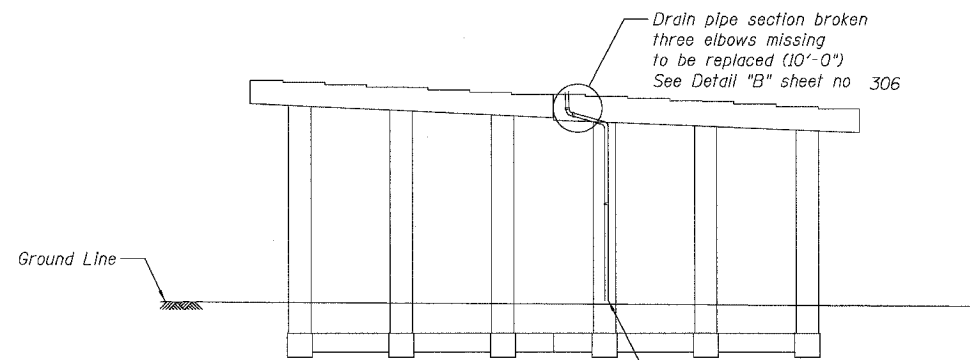
SN 016-1115 - PIER 11 - NORTH ELEVATION
(Looking South)



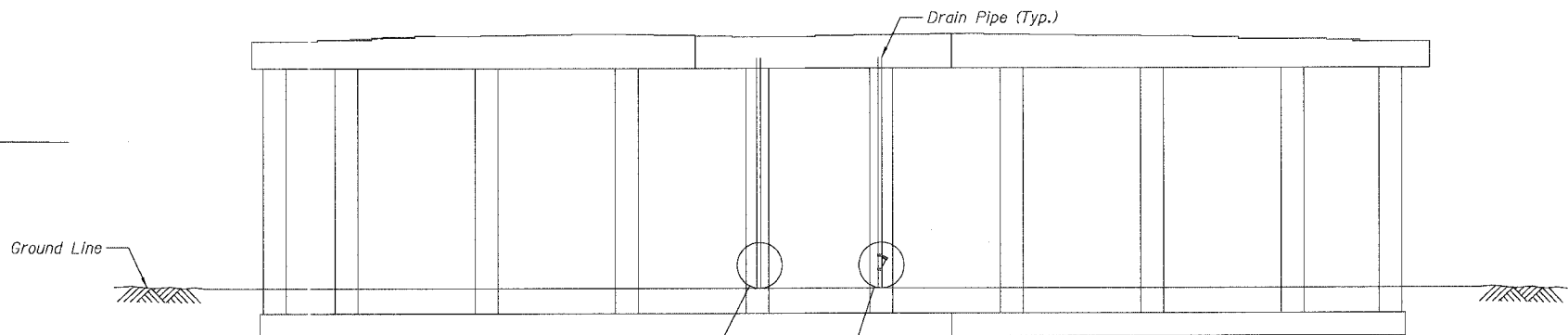
SN 016-1115 - PIER 20 - SOUTH ELEVATION
(Looking North)



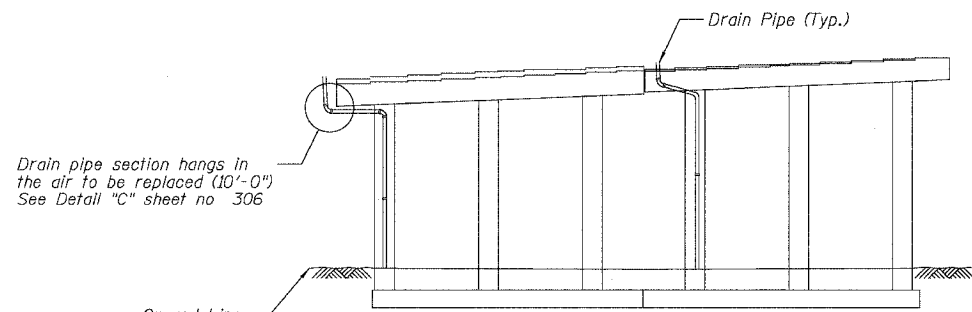
SN 016-1115 - PIER 6 - SOUTH ELEVATION
(Looking North)



SN 016-1115 - PIER 18 - SOUTH ELEVATION
(Looking North)



SN 016-1115 - PIER 4 - SOUTH ELEVATION
(Looking North)



SN 016-1115 - PIER 15 - NORTH ELEVATION
(Looking South)

- Notes:
1. See Drainage Repair Notes on sheet 300
 2. For pier locations see General Plan & Elevation Sheets.
 3. SN 016-1116, Span 2
Drain pipe cleanout cap missing along the north facia to be replaced (1'-0")

BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	QUANTITY	QUANTITY
		SN 016-1115	SN 016-1116
Bridge Drainage System Repairs	FOOT	38	1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
DRAINAGE REPAIRS
SN 016-1115

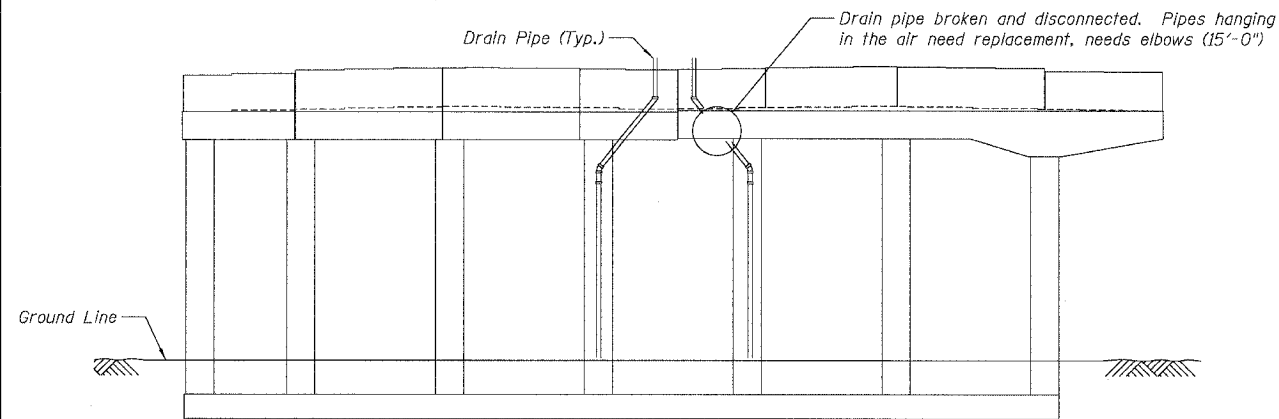
SCALE: NTS
DATE: 8/12/2005
DRAWN BY: BDC
CHECKED BY: BLU

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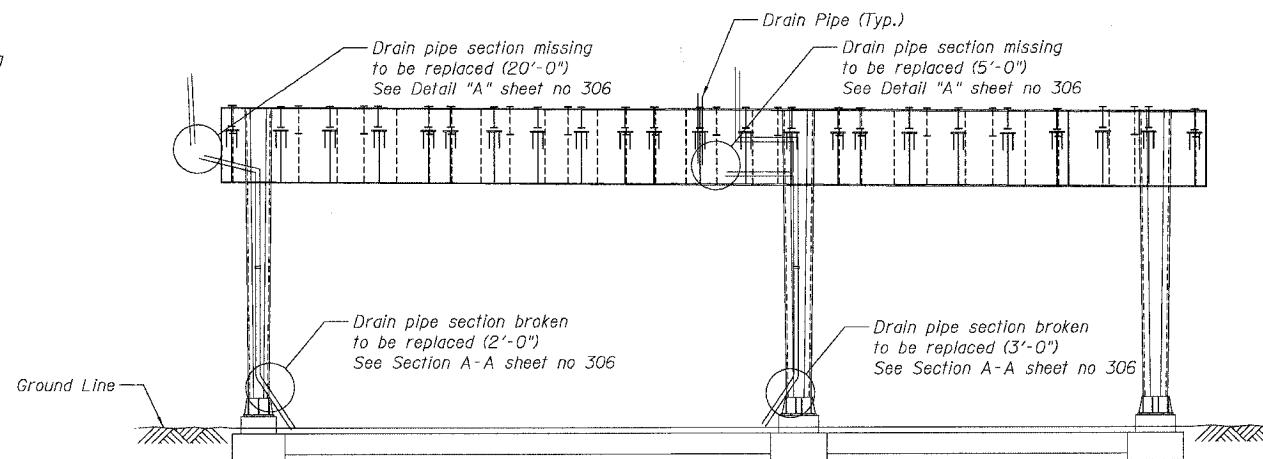


8/11/2005 11:54:51 AM

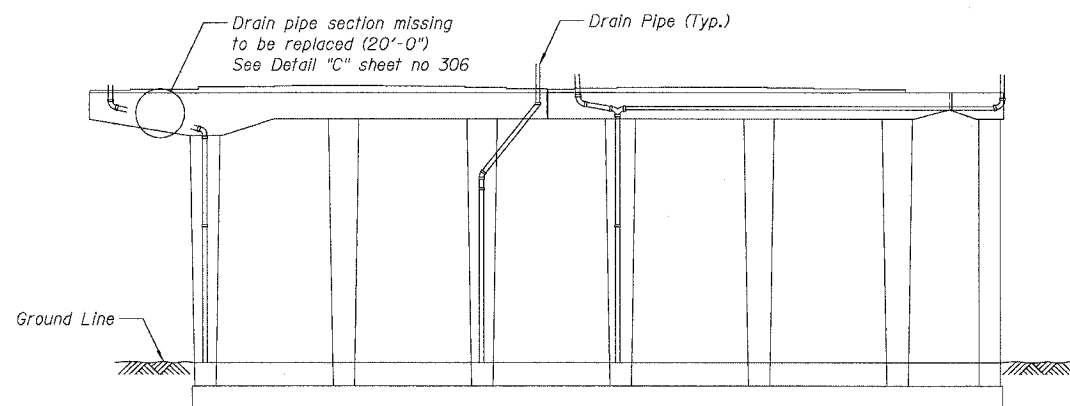
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
62580				



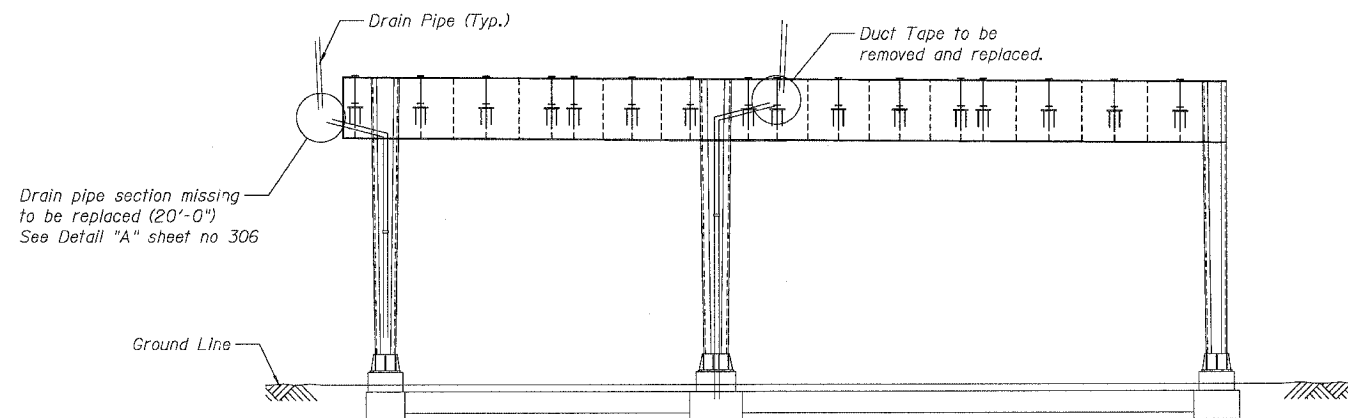
SN 016-1117 - PIER 26 - SOUTH ELEVATION
(Looking North)



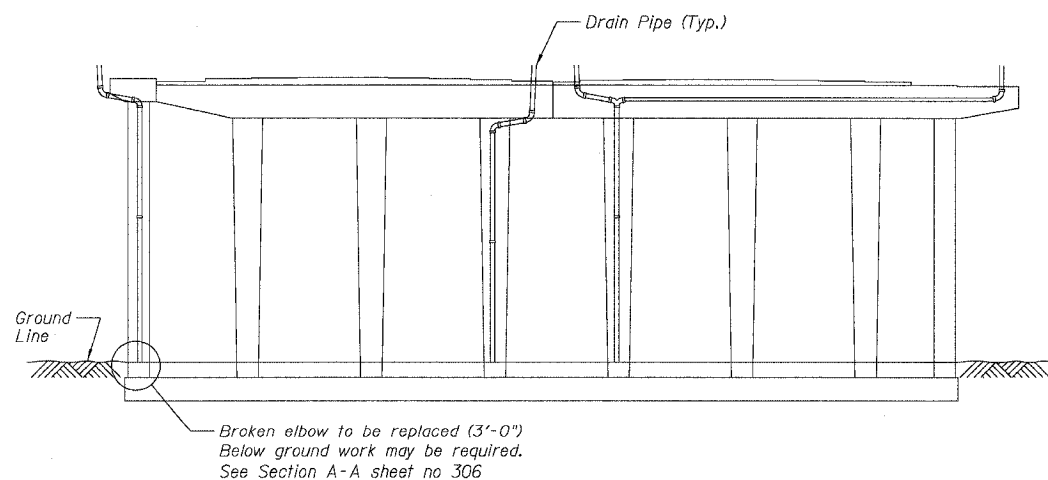
SN 016-1117 - PIER 23 - NORTH ELEVATION
(Looking South)



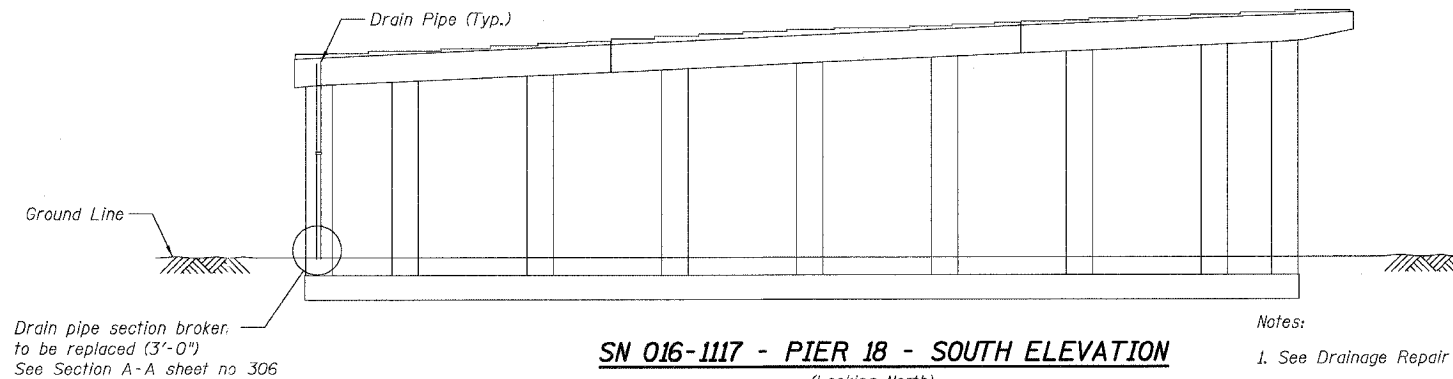
SN 016-1117 - PIER 25 - NORTH ELEVATION
(Looking South)



SN 016-1117 - PIER 22 - NORTH ELEVATION
(Looking South)



SN 016-1117 - PIER 24 - NORTH ELEVATION
(Looking South)



SN 016-1117 - PIER 18 - SOUTH ELEVATION
(Looking North)

- Notes:
1. See Drainage Repair Notes on sheet 300
 2. For pier locations see General Plan & Elevation Sheets.

BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	QUANTITY
Bridge Drainage System Repairs	FOOT	91

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
DRAINAGE REPAIRS
SN 016-1117

SCALE: NTS
DATE: 8/12/2005
DRAWN BY: BDC
CHECKED BY: BLU

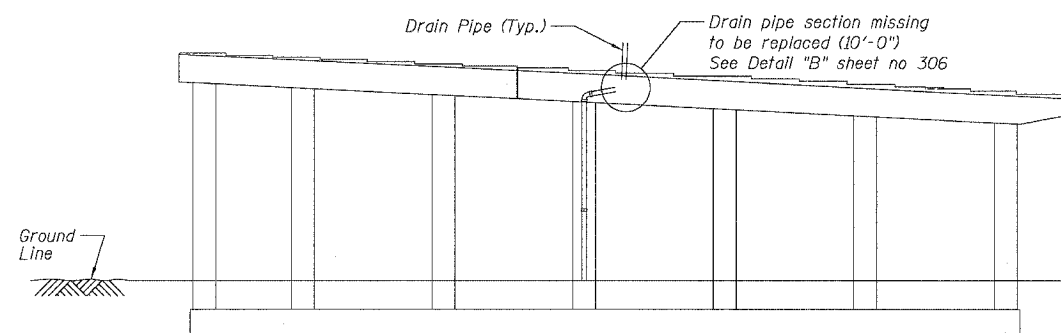
BOWMAN, BARRETT & ASSOCIATES INC.
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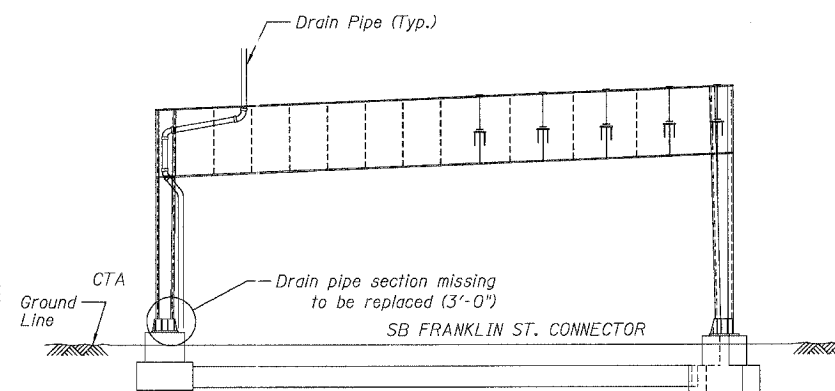
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8/11/2005

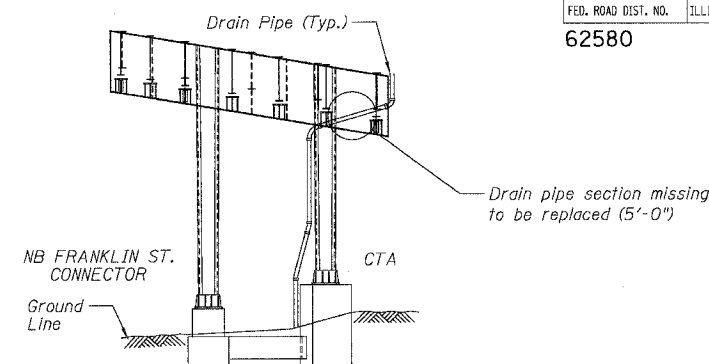
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	305
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62580				



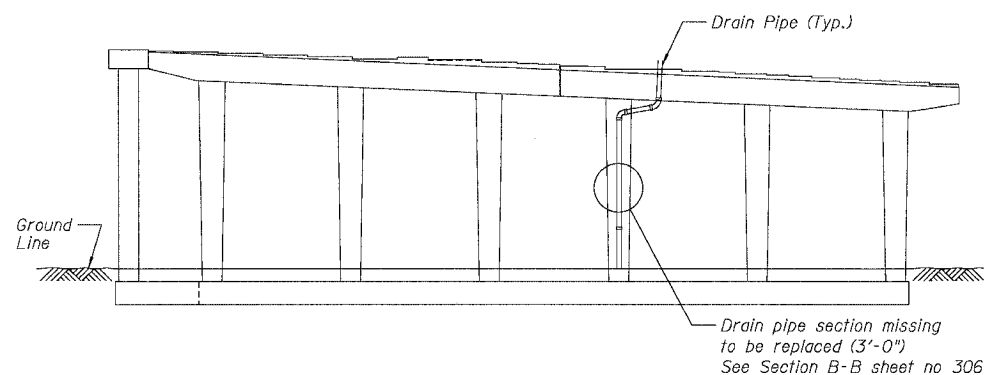
SN 016-1117 - PIER 16 - NORTH ELEVATION
(Looking South)



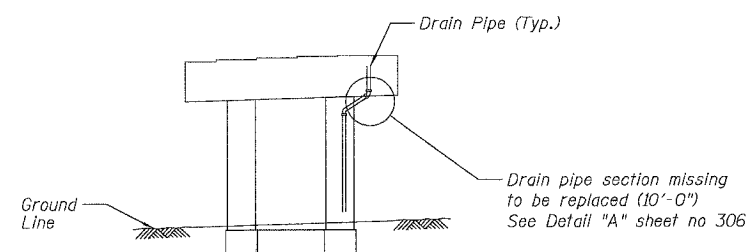
SN 016-1118 - PIER H4 - NORTH ELEVATION
(Looking South)



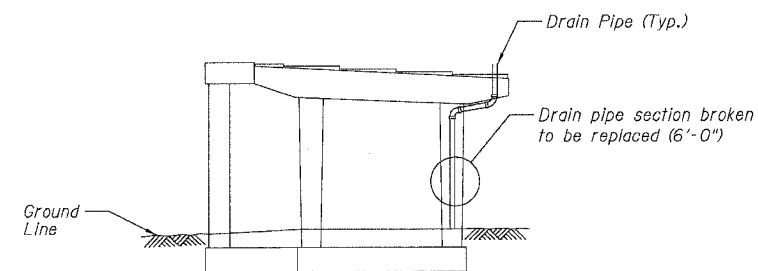
SN 016-1118 - PIER H3 - NORTH ELEVATION
(Looking South)



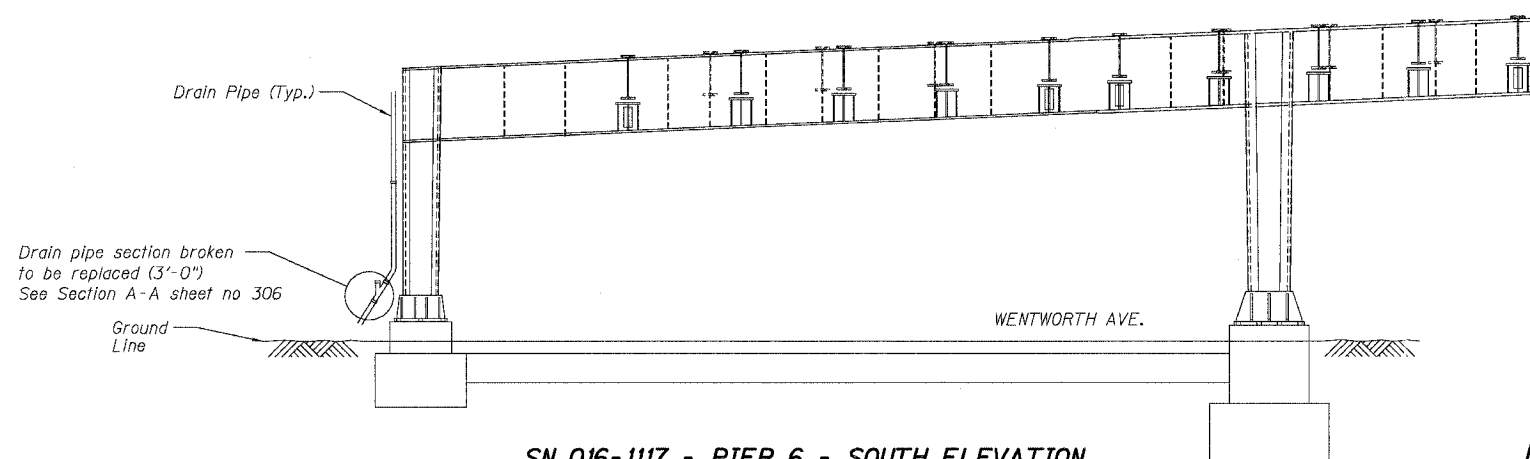
SN 016-1117 - PIER 15 - NORTH ELEVATION
(Looking South)



SN 016-1047 - PIER 24 - NORTH ELEVATION
(Looking South)



SN 016-1067 - PIER A8 - NORTH ELEVATION
(Looking South)



SN 016-1117 - PIER 6 - SOUTH ELEVATION
(Looking North)

- Notes:
1. See Drainage Repair Notes on sheet 300
 2. For pier locations see General Plan & Elevation Sheets.

BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	QUANTITY			
		SN 016-1117	SN 016-1118	SN 016-1047	SN 016-1067
Bridge Drainage System Repairs	FOOT	16	8	10	6

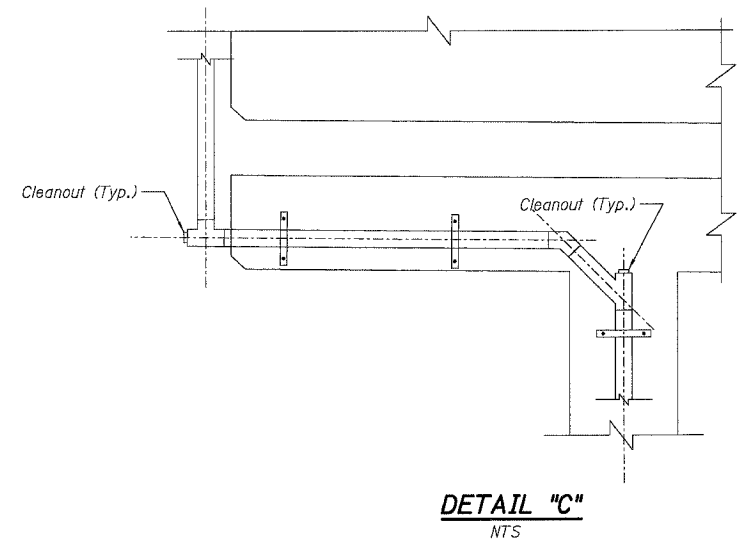
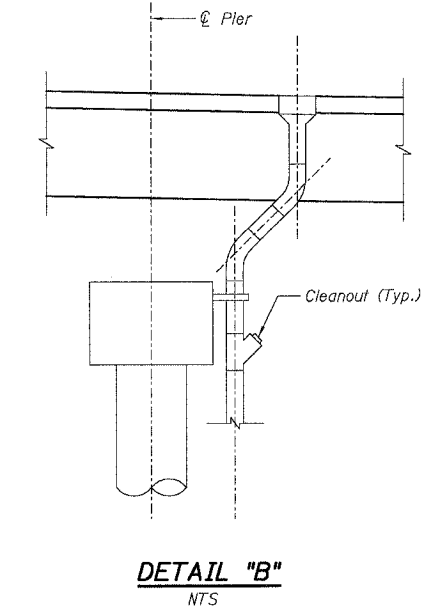
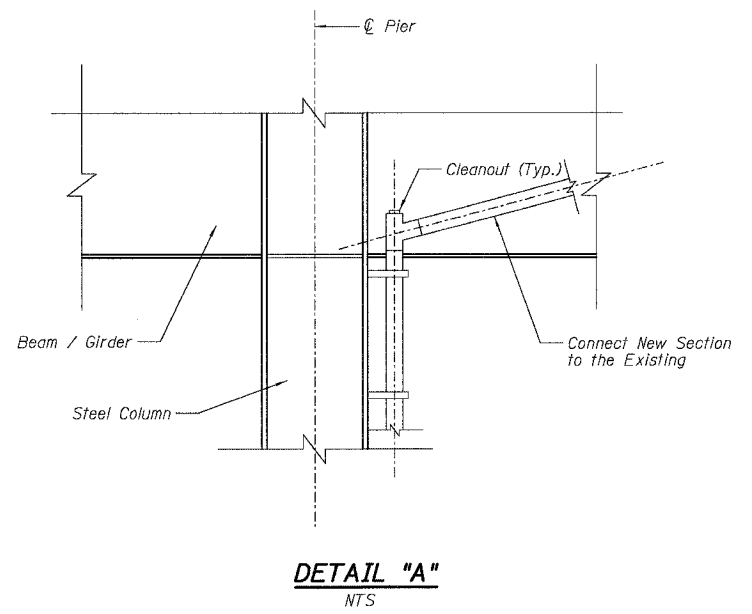
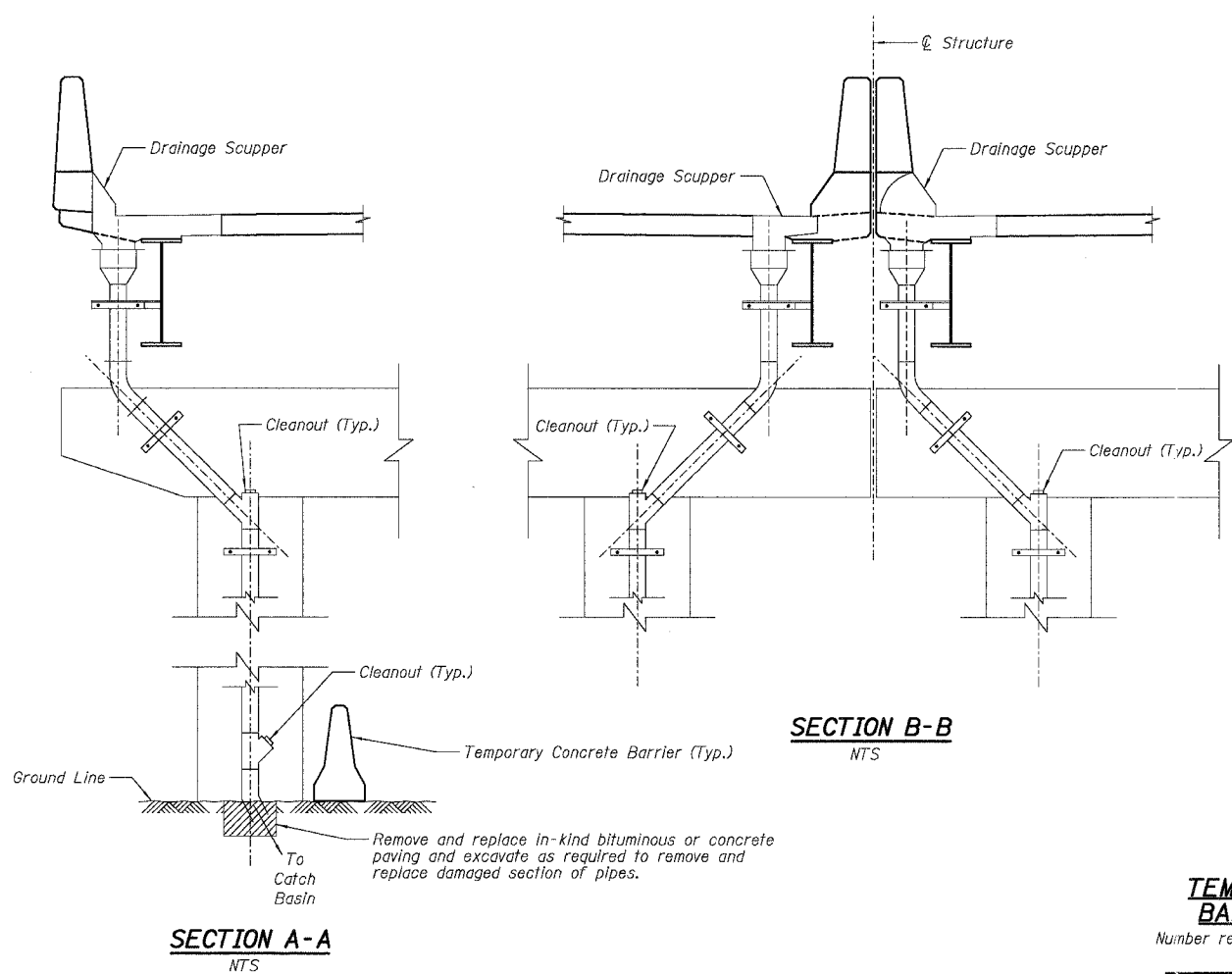
REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
DRAINAGE REPAIRS
SN 016-1117 , 016-1118 & 016-1047
SCALE: NTS
DATE: 8/12/2005
DRAWN BY: BDC
CHECKED BY: BLU

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8/11/2005 11:54:52 AM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	306
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62580				



TEMPORARY CONCRETE BARRIER LOCATIONS
Number required for downspout protection (10'-0" Segments)

STRUCTURE NUMBER	PIER	NUMBER REQUIRED
016-0137	9	4
016-1110	7	3
016-1111	2	2
	3	2
	4	2
	5	2
	6	2
	7	2
	8	2
	9	2
016-1112	12	4
	13	3
	14	2
	15	1
016-1113	10	2
	9	2
	5	2
	3	3
	8	2
016-1117	9	1
	10	2
	11	1
	12	1
	13	2
	A12	1
016-1067	11	1
	10	1
	8	1
	7	1
	6	1
TOTAL		57

Notes:

- The removal and in-kind replacement of areas of bituminous or concrete paving and necessary excavation required for the replacement of damaged pipes at ground level shall be included in "Bridge Drainage System Repairs".
- An estimated quantity of 570 L.F. (57 - 10'-0" Segments) of temporary concrete barrier is provided. These barriers are required for the protection of the drain pipes from vehicles at locations under the structures used as parking lots or material storage areas (Locations shown in table).
- The Contractor shall verify the exact locations where the temporary concrete barriers are required. Location of barrier shall be approved by the Engineer. Place barrier to ensure adequate access to clean-outs and catch basins. The work and the material (furnishing and placing) will be paid at the contract unit price for "Furnishing Temporary Concrete Barrier".
- See Drainage Repair Notes on sheet 300
- An estimated quantity of 60' is provided for SN 016-1067 (S.B.). This quantity is included in the quantity of 150' for SN 016-1117.
- The details provided on this sheet show a schematic representation of the Existing Drainage System. Contractor shall provide all elbows, tees, couplings and cleanouts necessary to complete the work.

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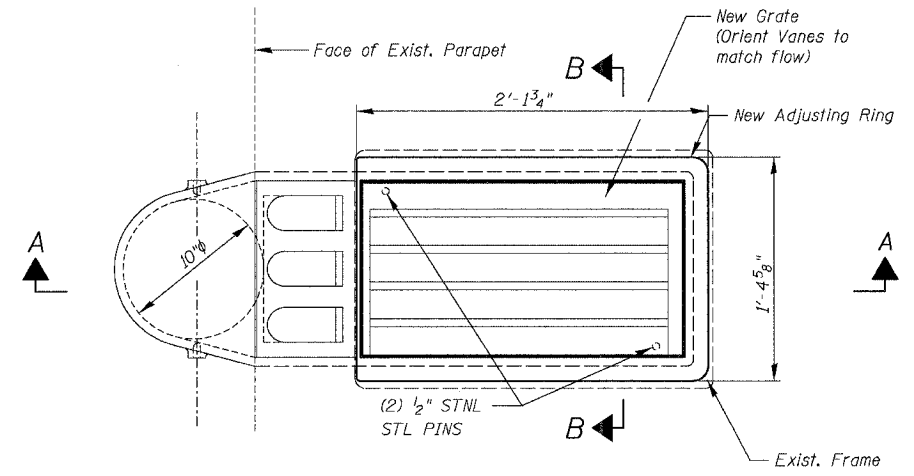
BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	QUANTITY
Furnishing Temporary Concrete Barrier	FOOT	570

REVISIONS	NAME	DATE

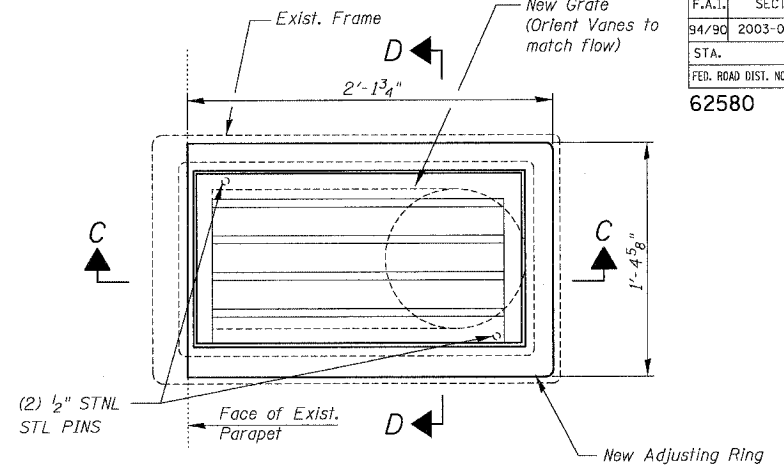
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
DRAINAGE REPAIRS
DETAILS AND TYPICAL SECTIONS
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	307
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				

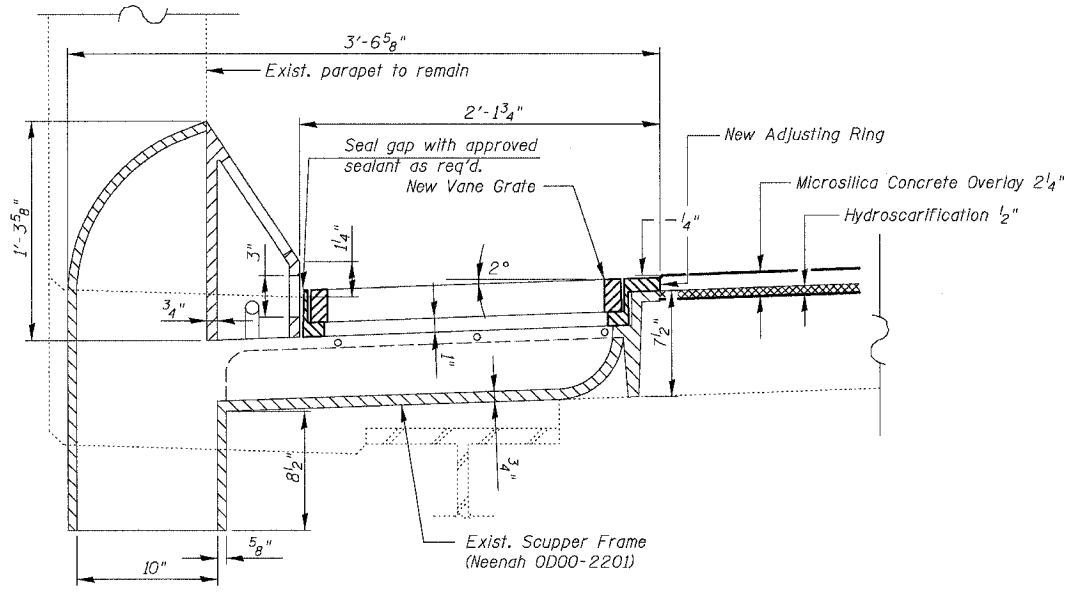


PLAN TYPE A SCUPPER

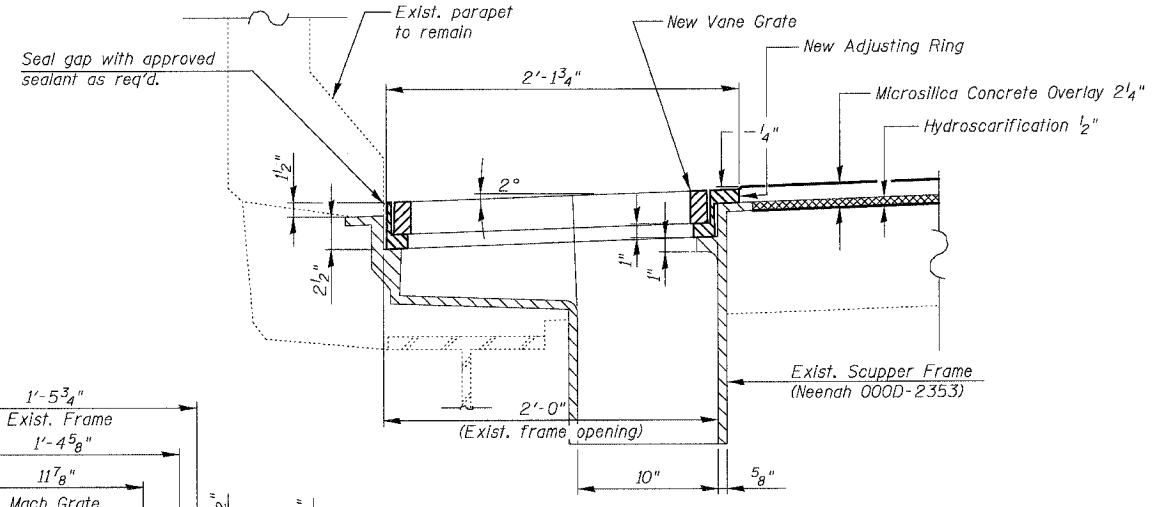
Notes:
 For additional notes and Bill of Material, see Sheet 308.
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Cast iron parts shall be unfinished.
 The Contractor Shall take appropriate measures to assure that Protective Coat is not applied to the scuppers.
 For scupper locations, see Partial Deck Plans.
 Adjusting ring and grates shall be from Neenah or approved equal. Structural steel weldments or equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds may be used for weldments. Details shall be submitted to the Engineer for approval.
 Provide a 1/8\"/>



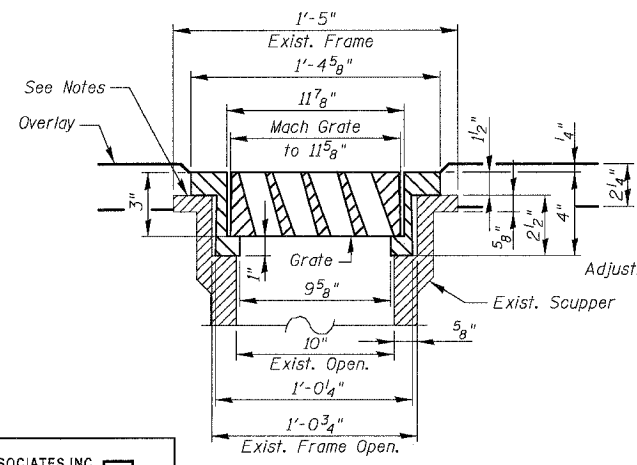
PLAN TYPE B SCUPPER



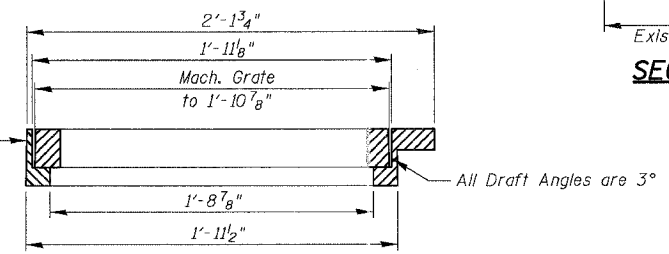
SECTION THRU TYPE A SCUPPER



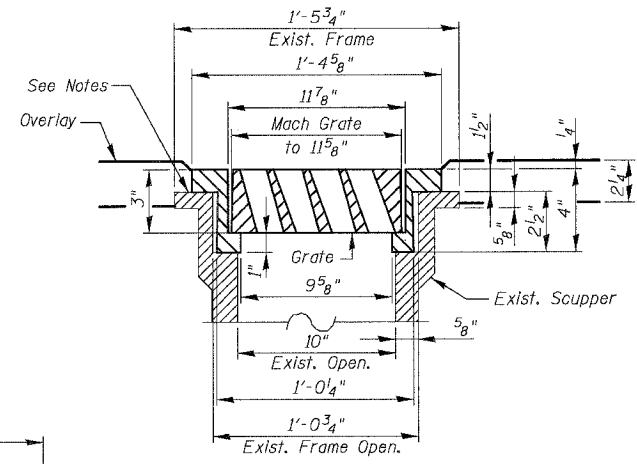
SECTION THRU TYPE B SCUPPER



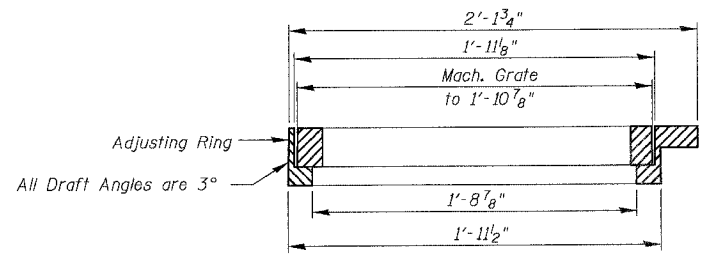
SECTION B-B



SECTION A-A



SECTION D-D



SECTION C-C

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DRAINAGE SCUPPER DETAILS - TYPE A
 Vane Grate 3922-0006 machined to fit

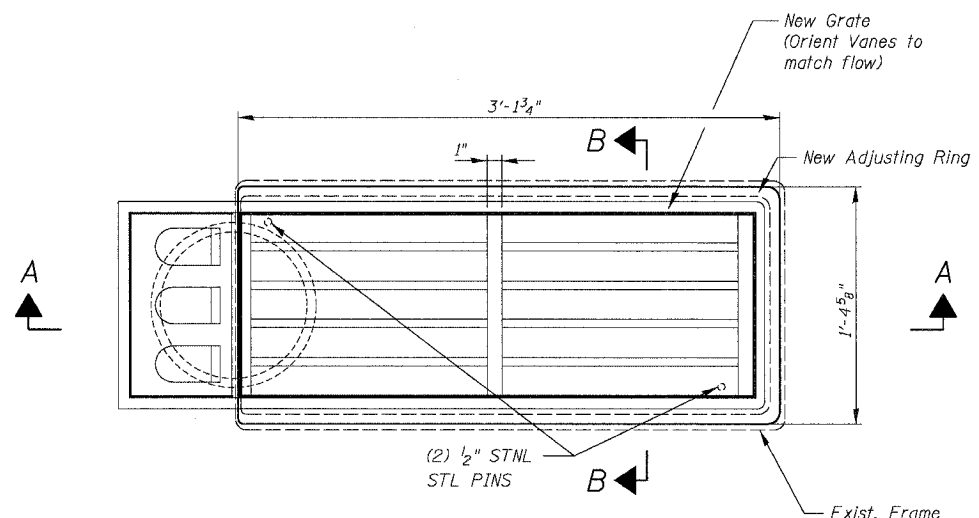
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 ADJUSTING DRAINAGE SCUPPER
 DETAILS
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BOC
 CHECKED BY: BLU

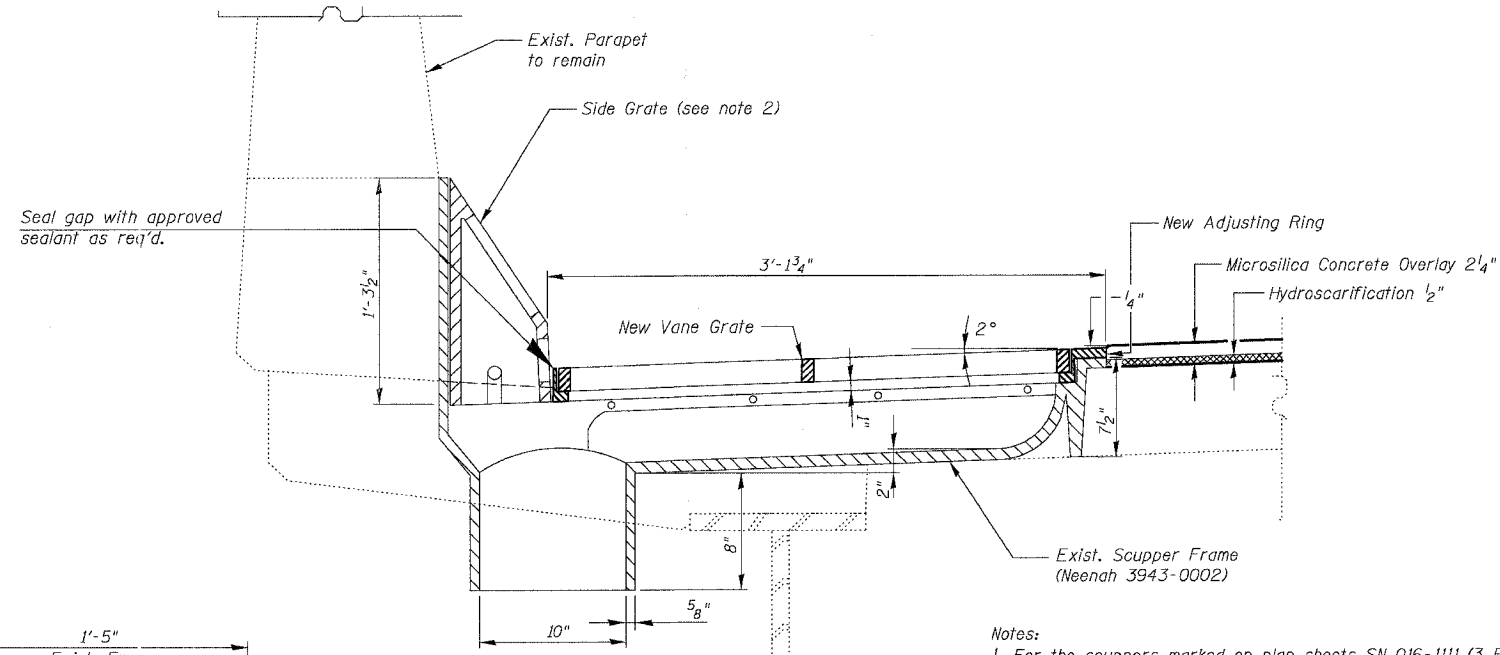
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	308
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				

BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	TOTAL	SN 016-0137	SN 016-1110	SN 016-1111	SN 016-1112	SN 016-1113	SN 016-1114	SN 016-1115	SN 016-1116	SN 016-1117	SN 016-1118	SN 016-1047	SN 016-1059	SN 016-1070	SN 016-1140
ADJUSTING DRAINAGE SCUPPERS, TYPE A	EACH	107	10	8	11	26	3	-	8	8	27	2	2	-	-	2
ADJUSTING DRAINAGE SCUPPERS, TYPE B	EACH	26	-	-	-	1	2	10	3	-	7	3	-	-	-	-
ADJUSTING DRAINAGE SCUPPERS, TYPE C	EACH	109	11	11	12	12	12	-	20	8	-	16	1	-	4	2

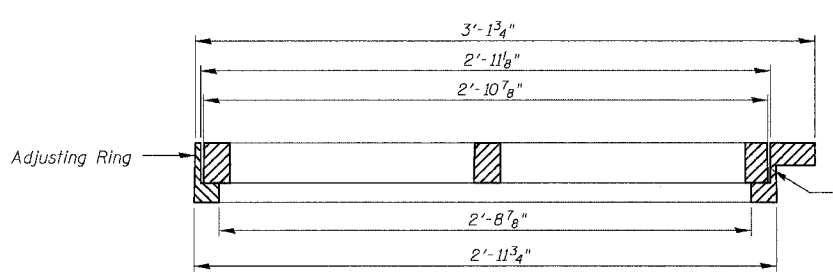


PLAN TYPE C SCUPPER

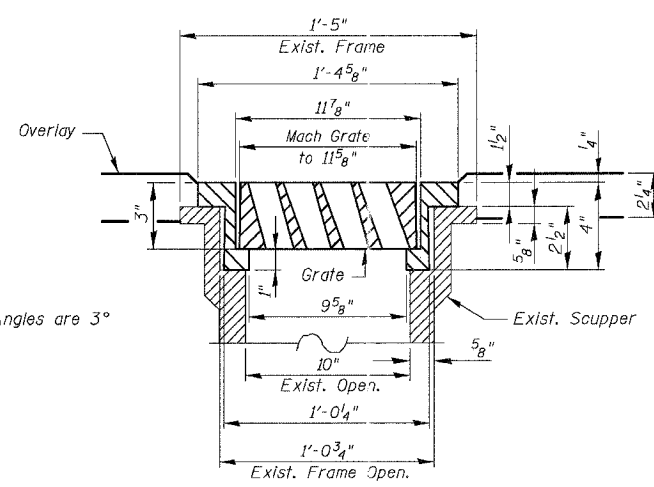


SECTION THRU TYPE C SCUPPER

- Notes:
- For the scuppers marked on plan sheets SN 016-1111 (3 Req'd) as \square , the contractor shall verify the exact location, type and dimensions before he orders the material. The quantity and pay item is included in "Adjust Drainage Scuppers, Type A".
 - At SN 016-1070 (Ramp D), scupper plates (side grates) at the side of the parapet are missing. The contractor shall verify location, type and dimensions for these side plates before ordering the material. The cost for furnishing and installing these grates shall be included in "Adjusting Drainage Scuppers" of the type specified. [Estimated No. Required: Three (3) Type C].
 - For scupper locations, see Partial Deck Plan Sheets.
 - A paint stripe shall be applied over the existing stripe to the face of the Concrete Barrier Wall at all drainage scupper locations. The stripe shall be 4" wide x 12" long and extend vertically at 90 degrees from the top edge of the barrier. The paint color shall be specified by the Engineer. Cost of the strip is to be included in "Adjusting Drainage Scuppers" of the type specified.



SECTION A-A



SECTION B-B

DRAINAGE SCUPPER DETAILS - TYPE C
Vane Grate 3943-0002 machined to fit

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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) NB DAN RYAN ELEVATED BRIDGE REPAIR FROM 15TH TO 28TH STREETS ADJUSTING DRAINAGE SCUPPER DETAILS
NAME	DATE	
		SCALE: N/A
		DATE: 8/12/2005
		DRAWN BY: BDC
		CHECKED BY: BLU

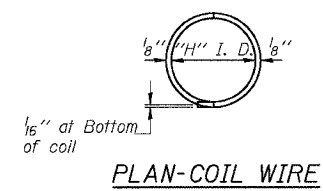
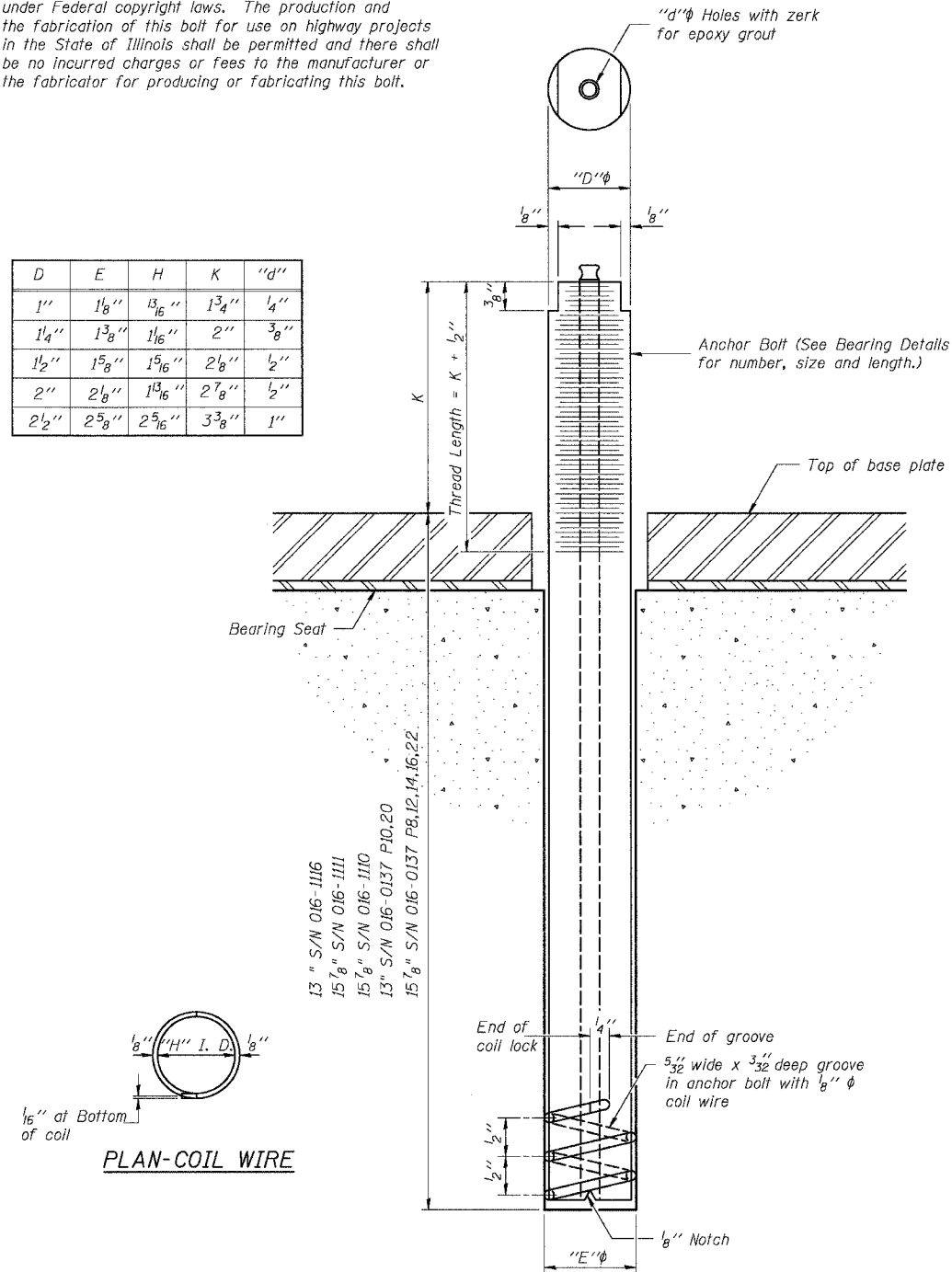
16:660,000,001,010,011,012,013,014,015,016,017,018,019,020,021,022,023,024,025,026,027,028,029,030,031,032,033,034,035,036,037,038,039,040,041,042,043,044,045,046,047,048,049,050,051,052,053,054,055,056,057,058,059,060,061,062,063,064,065,066,067,068,069,070,071,072,073,074,075,076,077,078,079,080,081,082,083,084,085,086,087,088,089,090,091,092,093,094,095,096,097,098,099,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,194,195,196,197,198,199,200

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	309
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/8"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 3/8"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



13" S/N 016-1116
 15 1/8" S/N 016-1111
 15 1/8" S/N 016-1110
 13" S/N 016-0137 P10,20
 15 1/8" S/N 016-0137 P8,12,14,16,22

ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.
 The coil wire shall be made of any suitable soft steel wire.
 The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
 The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.
 The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
 1. A threaded rod stud with nut and washer of the type specified.
 2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
S/N 016-0137 P8	A307
S/N 016-0137 P10	A307
S/N 016-0137 P12	A307
S/N 016-0137 P14	A307
S/N 016-0137 P16	A307
S/N 016-0137 P20	A307
S/N 016-0137 P22	A307
S/N 016-1110 P2	A325
S/N 016-1110 P5	A325
S/N 016-1111 P3	A307
S/N 016-1111 P4	A307
S/N 016-1111 P6	A307
S/N 016-1111 P8	A307
S/N 016-1111 P9	A307
S/N 016-1111 P11	A307
S/N 016-1116 P1	A325

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

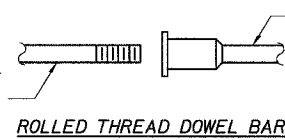
Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
 Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
 The anchor bolts, furnished and installed and including the epoxy grout or capsules shall be paid for per unit price each for Anchor Bolts.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 ANCHOR BOLT DETAILS FOR BEARINGS
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: LM
 CHECKED BY: BLU

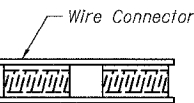
The diameter of this part is the same as the diameter of the bar spliced.



ROLLED THREAD DOWEL BAR



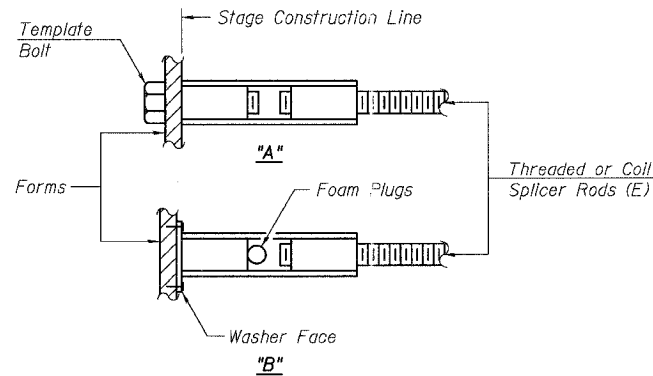
** ONE PIECE



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

NOTES

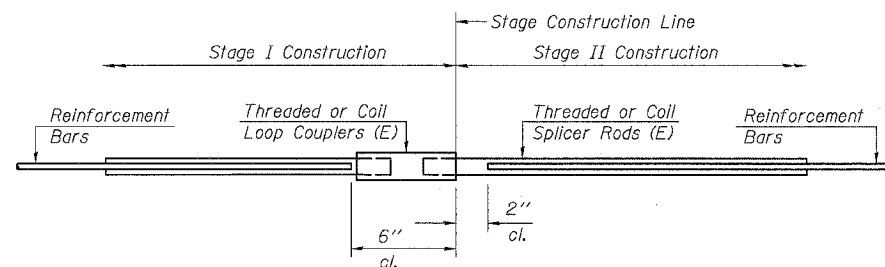
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times f_{s,allow} \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s,allow}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



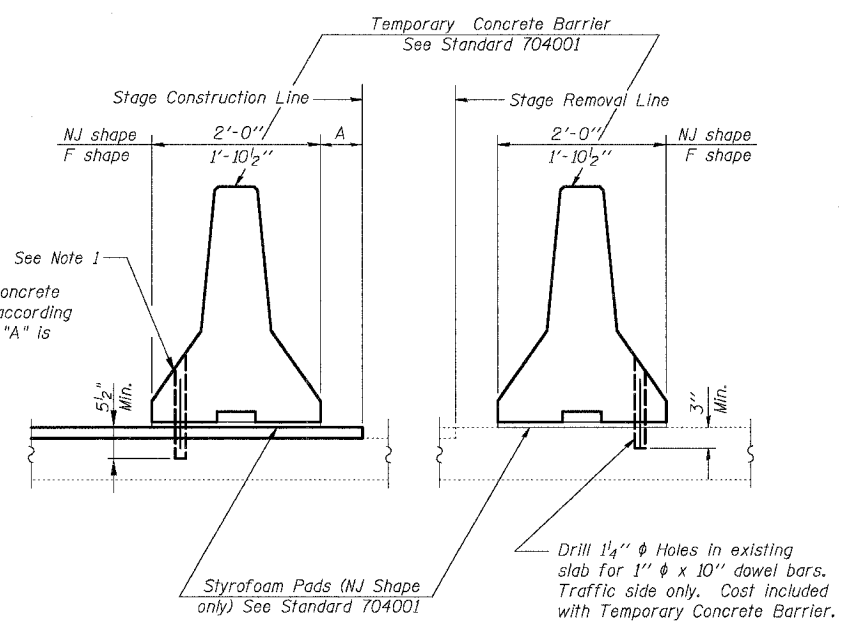
STANDARD

Bar Size	No. Assemblies Required	Location
#5	962	*
#6	200	SN 016-1112
Total	1162	

* See Table "TOTAL BILL OF MATERIAL" SHEET 131

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	311
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according as shown. No anchorage is required when "A" is greater than 3'-6".

NOTE:

1. Drill 1 1/4" ϕ Holes through new overlay into slab for 1" ϕ x 12" dowel bars. Traffic side only as directed by Engineer. Repair hole with non-shrink epoxy grout as directed by the Engineer. Cost of anchorage and repair included with Temporary Concrete Barrier.

NEW OVERLAYED SLAB **EXISTING SLAB**

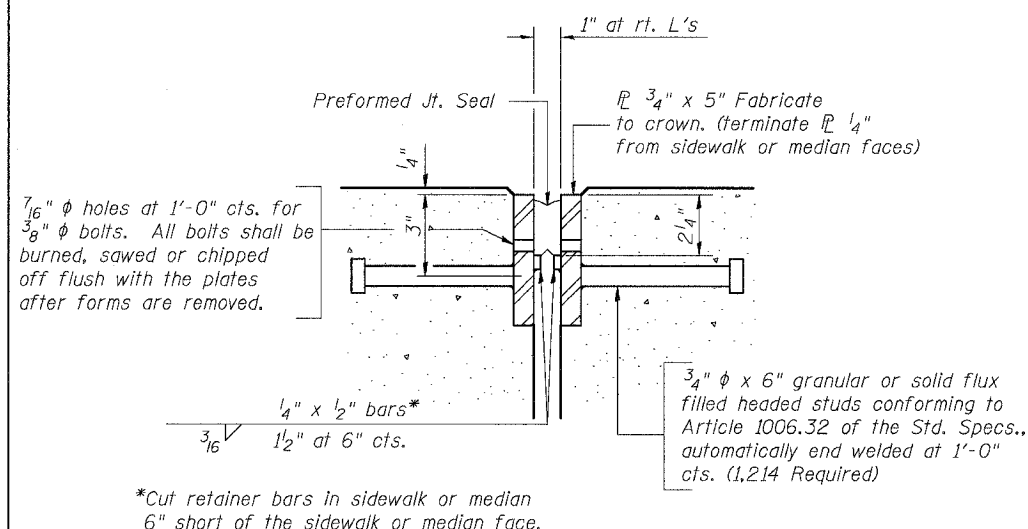
SECTIONS THRU SLAB

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	F.A.I. 94/90 (DAN RYAN EXPRESSWAY)	
		NB DAN RYAN ELEVATED BRIDGE	
		REPAIR FROM 15TH TO 28TH STREETS	
		TEMPORARY CONCRETE BARRIER	
		FOR STAGE CONSTRUCTION	
		SCALE: NTS	DRAWN BY: LM
		DATE: 7/22/2005	CHECKED BY: BLU

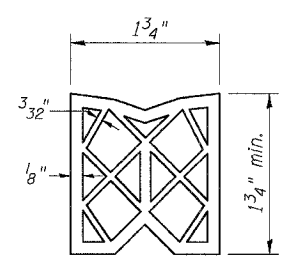
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	312
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

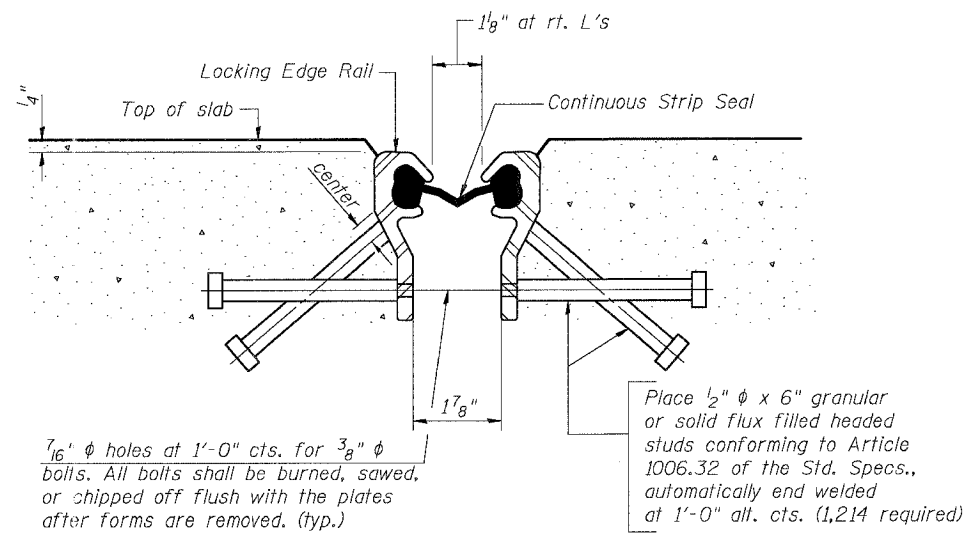
62580



SECTION THRU FIXED PREFORMED JOINT SEAL



PREFORMED JOINT SEAL



SECTION THRU FIXED STRIP SEAL JOINT

GENERAL NOTES

Furnish PJS steel plates in segments of 20 feet maximum length. Maximum space between installed segments shall be $\frac{3}{16}$ ". Seal space with silicone sealant suitable for structural steel.

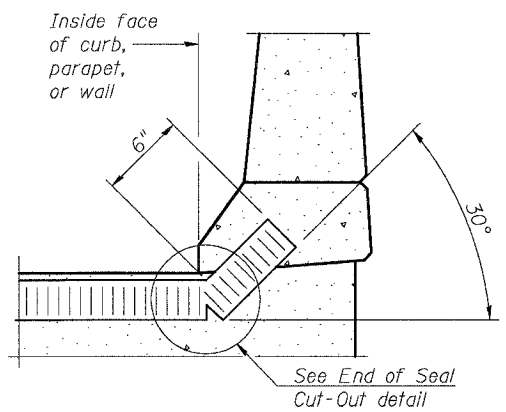
The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

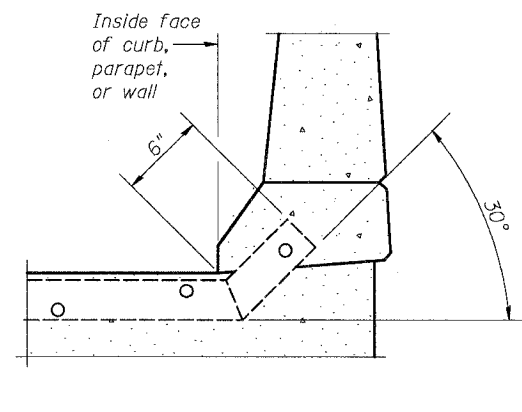
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

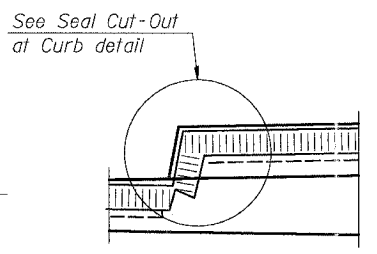
The joint opening and deck dimensions detailed on the superstructure are based on a preformed joint seal. If the contractor elects to use the alternate strip seal joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.



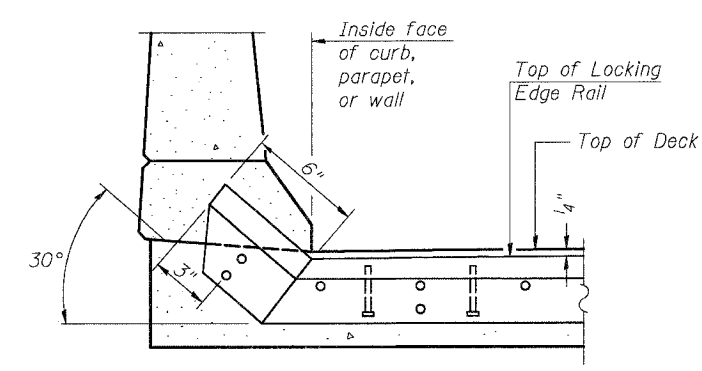
AT CURB, PARAPET, OR WALL (Showing seal)



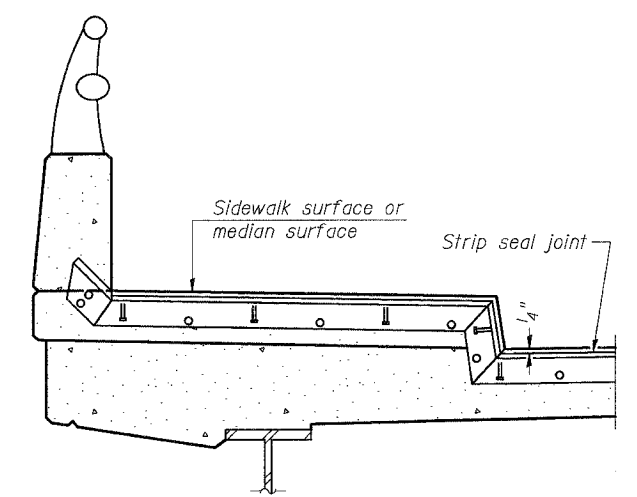
AT CURB, PARAPET, OR WALL (Showing plate)



AT SIDEWALK OR MEDIAN

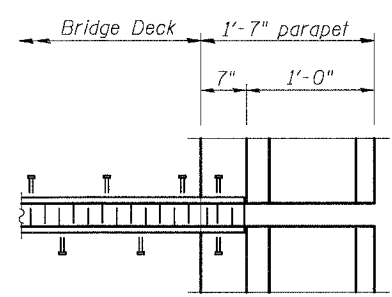


AT CURB, PARAPET, OR WALL

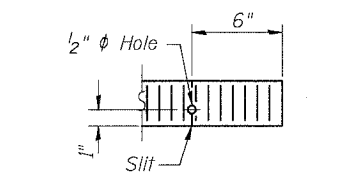


AT SIDEWALK OR MEDIAN

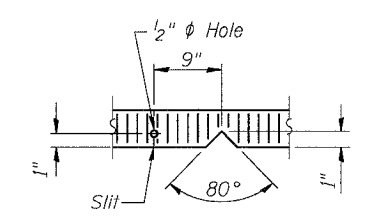
TYPICAL END TREATMENTS FOR PREFORMED JOINT SEAL



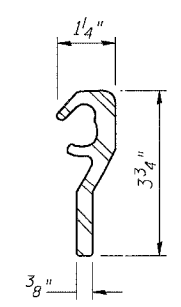
PLAN AT PARAPET



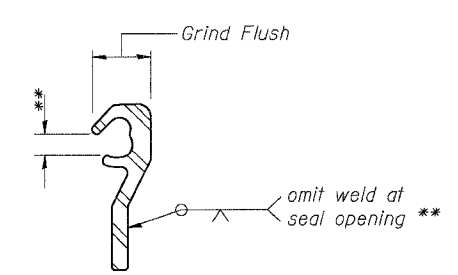
END OF SEAL CUT-OUT



SEAL CUT-OUT AT CURB



LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

The inside of the Locking Edge Rail groove shall be free of weld residue.

TYPICAL END TREATMENTS FOR STRIP SEAL

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FJ-BJS 9-01-03

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
BRIDGE JOINT SYSTEM - FIXED

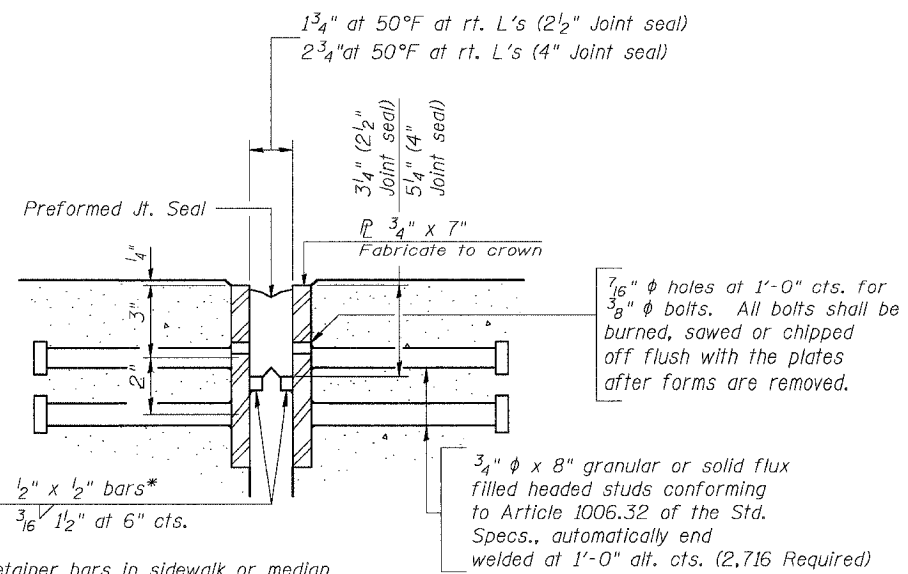
SCALE: NTS
DATE: 8/12/2005

DRAWN BY: BDC
CHECKED BY: BLU

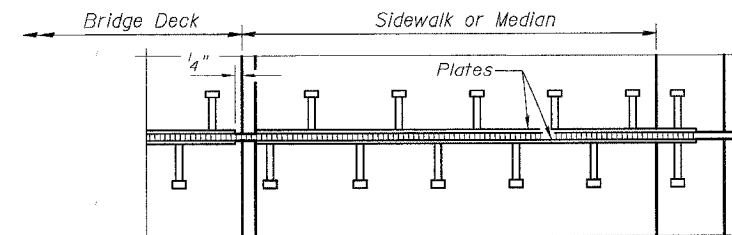
I:\660\cadd\bridge\2003\94\90\62580.dwg 7/15/2005 11:54:53 AM

GENERAL NOTES

Furnish steel plates in segments of 20 feet maximum length. Maximum space between installed segments shall be $\frac{3}{16}$ ". Seal space with silicone sealant suitable for structural steel.



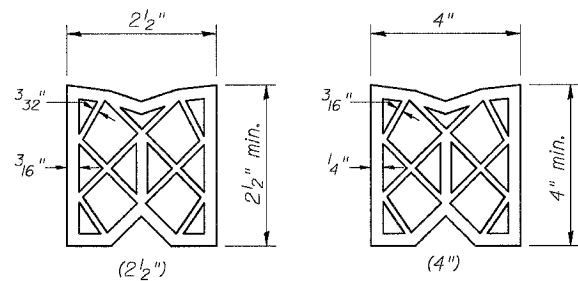
Bridge Joint System (Expansion)		
Design Movement	Required Preformed Joint Seal Size	Required Strip Seal Rated movement
1"	2 1/2"	1"
1 5/8"	4"	2"



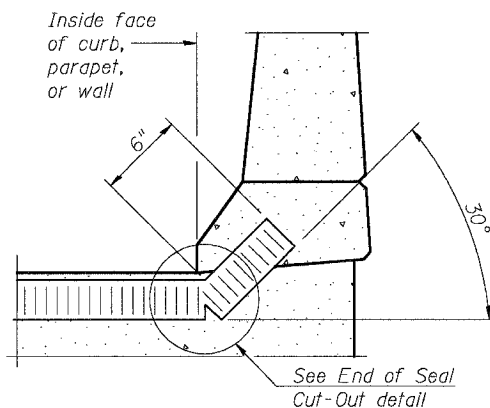
PLAN AT SIDEWALK OR MEDIAN

*Cut retainer bars in sidewalk or median 6" short of the sidewalk or median face.

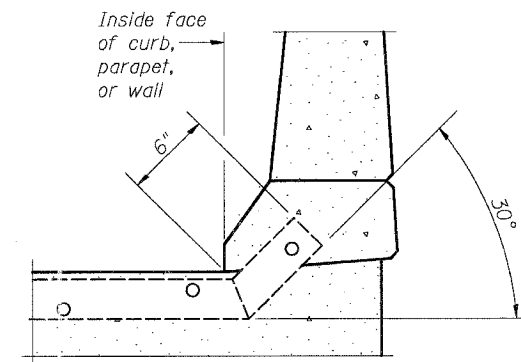
SECTION THRU EXPANSION JOINT
(2 1/2" and 4" joint seals)



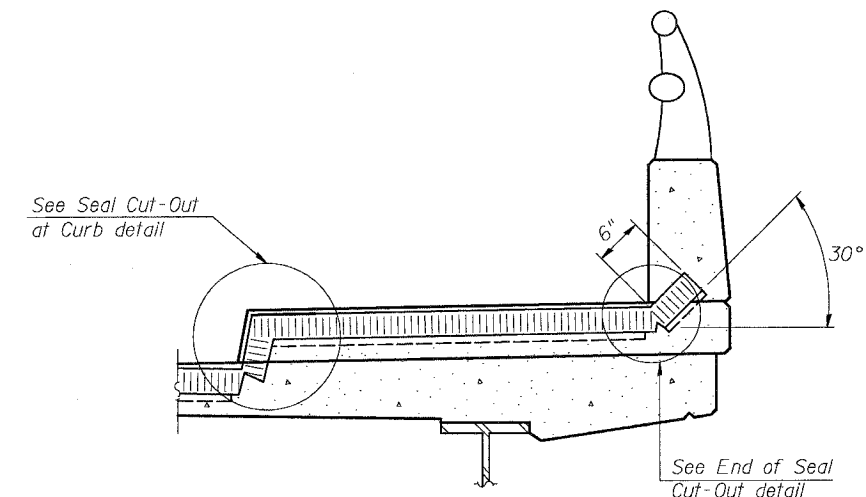
PREFORMED JOINT SEAL



AT CURB, PARAPET, OR WALL
(Showing seal)



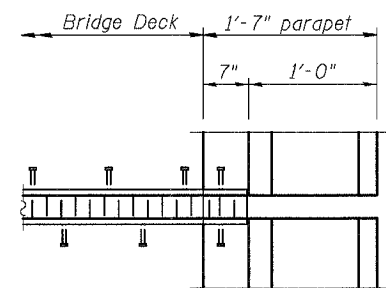
AT CURB, PARAPET, OR WALL
(Showing plate)



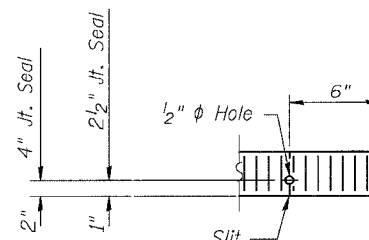
AT SIDEWALK OR MEDIAN**
(Showing plate and seal)

** Shorter plates with a single row of studs at 12" centers may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

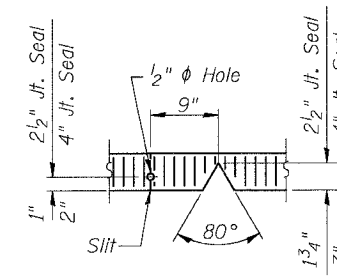
TYPICAL END TREATMENTS



PLAN AT PARAPET



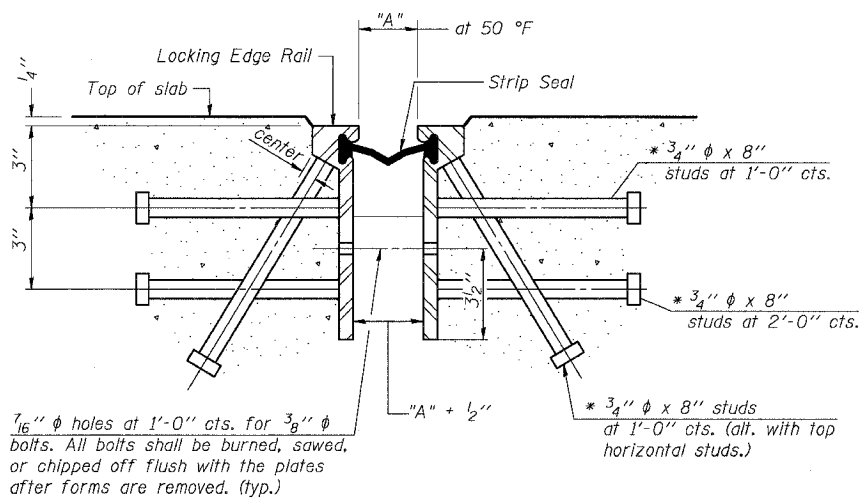
END OF SEAL CUT-OUT



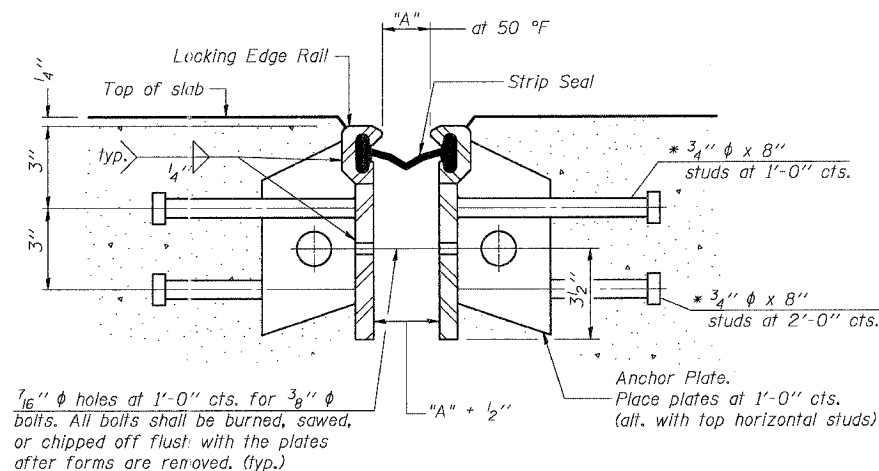
SEAL CUT-OUT AT CURB

REVISIONS	
NAME	DATE

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	439	314
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



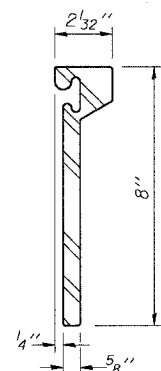
Required Strip Seal rated movement	"A"
1"	1 1/8"
2"	1 3/4"



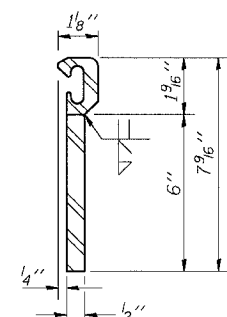
SECTION THRU ROLLED RAIL EXP. JOINT
(11,198 Studs Required)

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

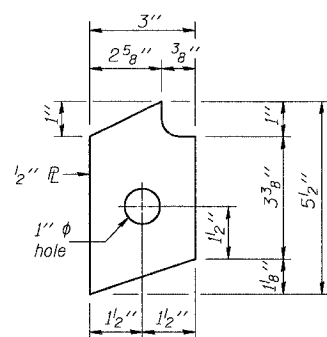
SECTION THRU WELDED RAIL EXP. JOINT
(7,514 Studs Required)
(3,684 Anchor Plates Required)



ROLLED (EXTRUDED) RAIL

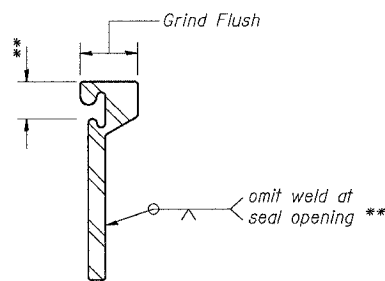


WELDED RAIL



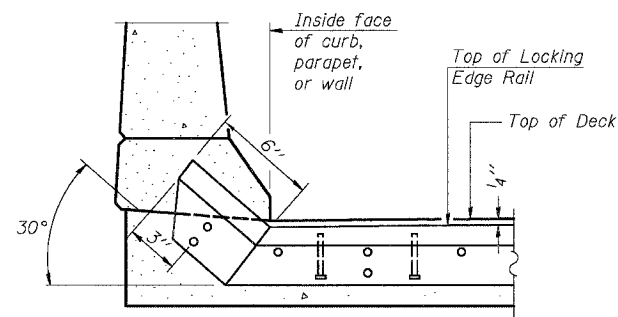
ANCHOR PLATE
(for welded rail)

LOCKING EDGE RAILS

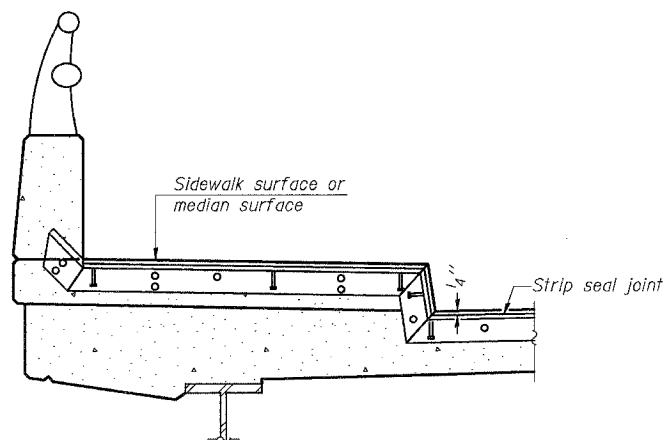


LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.



AT CURB, PARAPET, OR WALL



AT SIDEWALK OR MEDIAN***

*** Shorter plates with a single row of studs at 12" centers may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

TYPICAL END TREATMENTS

GENERAL NOTES

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a preformed joint seal. If the contractor elects to use the alternate strip seal joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

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EJ-BJS 9-01-03

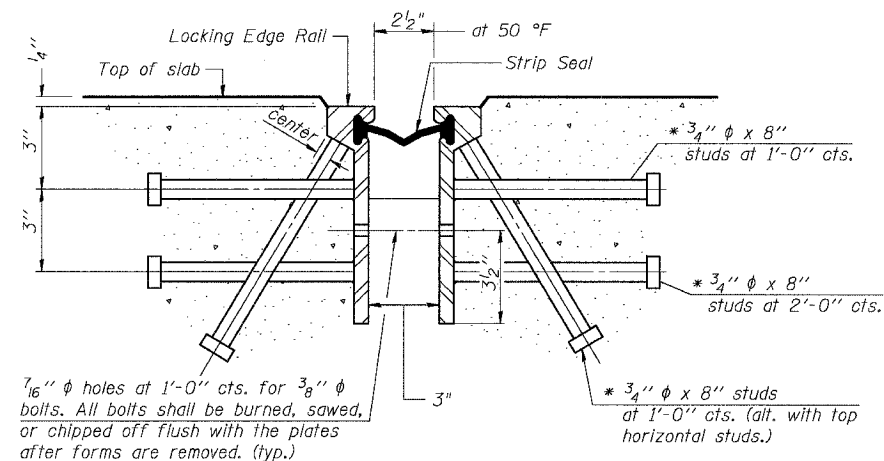
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	F.A.I. 94/90 (DAN RYAN EXPRESSWAY)	
		NB DAN RYAN ELEVATED BRIDGE	
		REPAIR FROM 15TH TO 28TH STREETS	
		BRIDGE JOINT SYSTEM - EXPANSION	
		(ALTERNATE - STRIP SEAL)	
		SCALE: NTS	DRAWN BY: BDC
		DATE: 8/12/2005	CHECKED BY: BLU

(Sheet 2 of 2)

9435625 AM 8/11/2005

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	314A
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

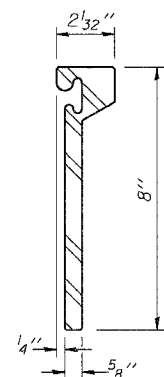
62580



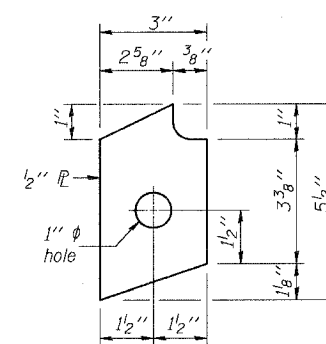
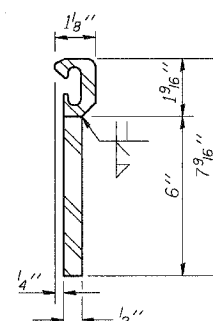
SECTION THRU ROLLED RAIL EXP. JOINT

(11,198 Studs Required)

ROLLED (EXTRUDED) RAIL



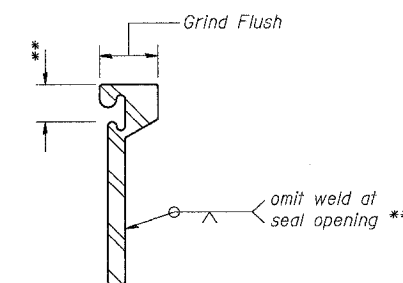
WELDED RAIL



ANCHOR PLATE

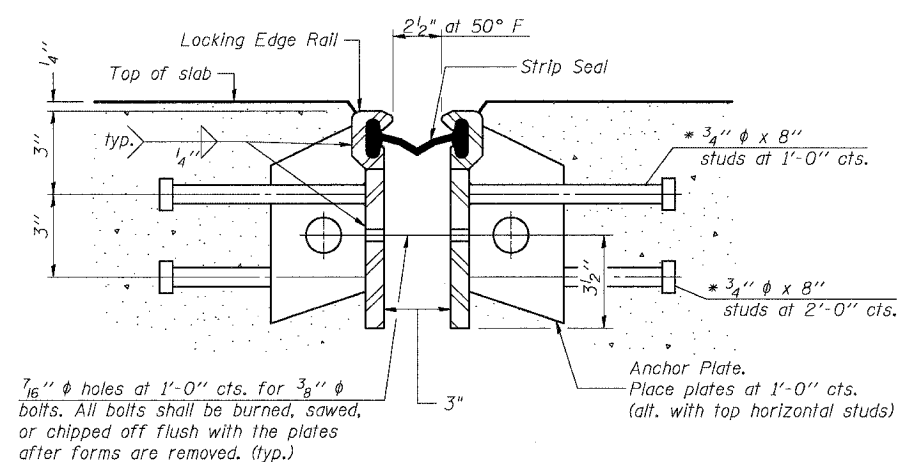
(For welded rail)

LOCKING EDGE RAIL SPLICE



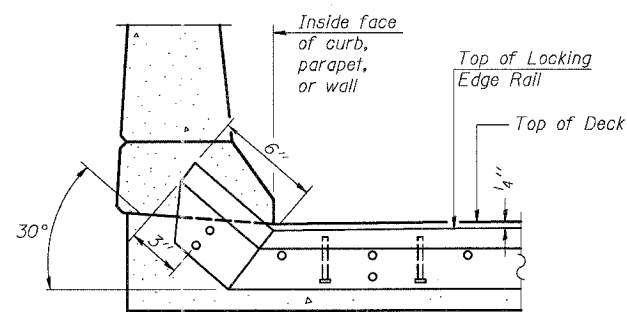
The inside of the locking edge rail groove shall be free of weld residue.

EXPANSION JOINT LOCKING EDGE RAIL DETAILS

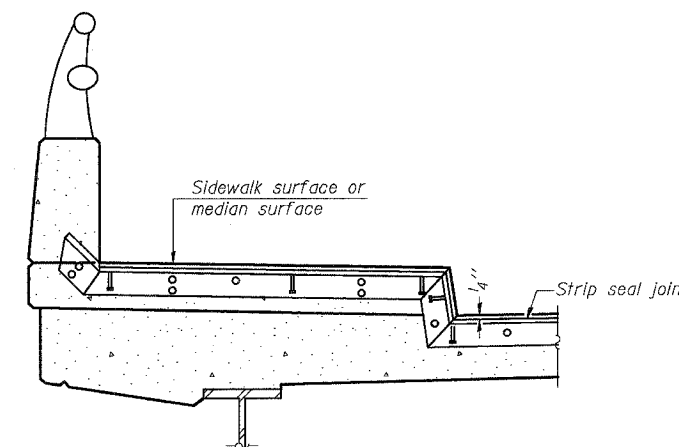


SECTION THRU WELDED RAIL EXP. JOINT

(7,514 Studs Required)
(3,684 Anchor Plates Required)



AT CURB, PARAPET, OR WALL



AT SIDEWALK OR MEDIAN*

* Shorter plates with a single row of studs at 12" centers may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

TYPICAL END TREATMENTS

GENERAL NOTES

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints. The manufacturer's recommended installation methods shall be followed.

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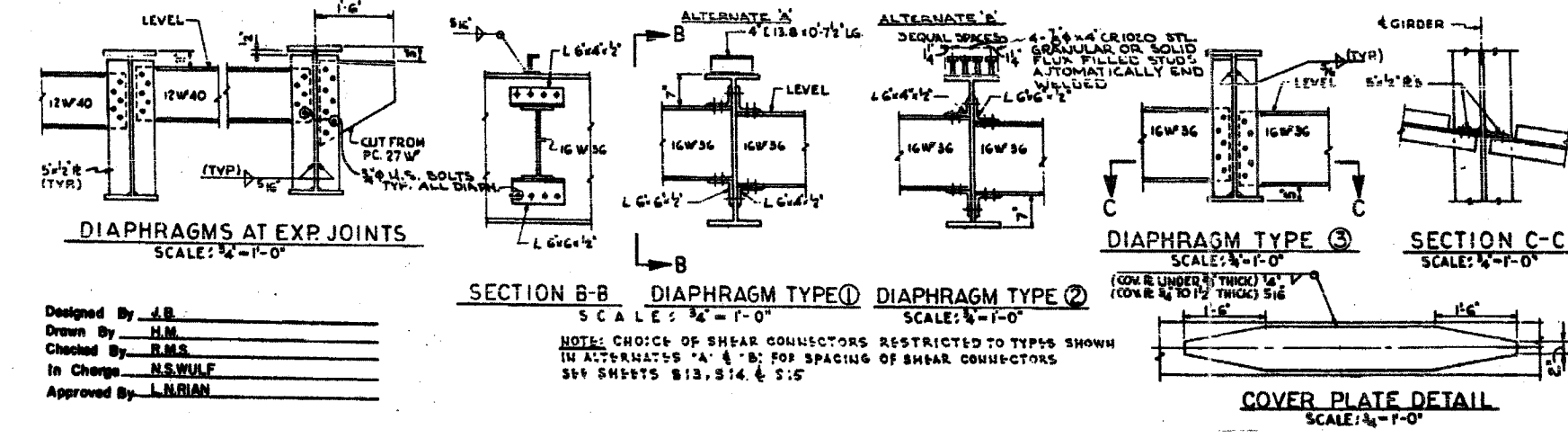
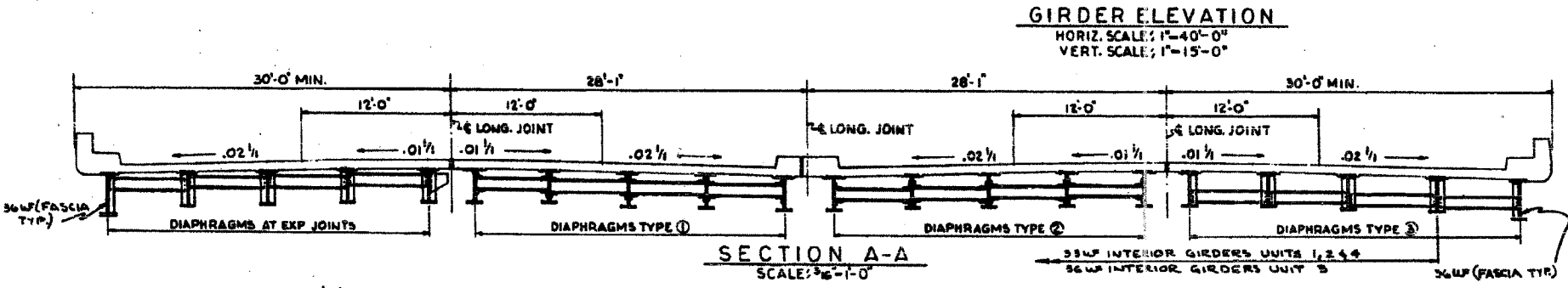
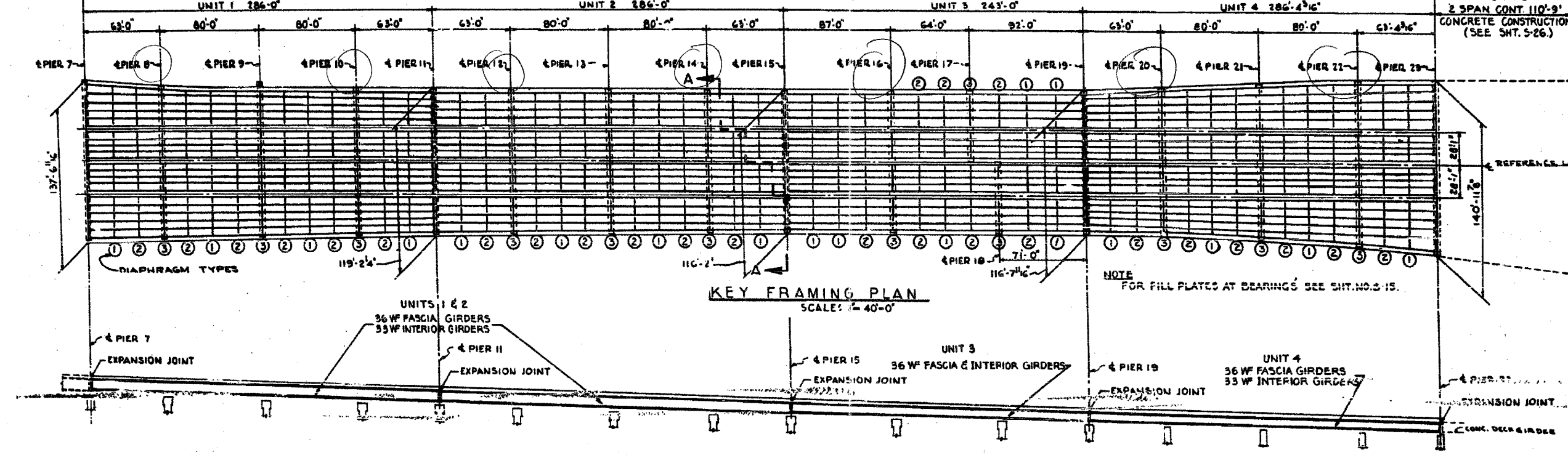
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) NB DAN RYAN ELEVATED BRIDGE REPAIR FROM 15TH TO 28TH STREETS STRIP SEAL EXPANSION JOINT ASSEMBLY DETAILS
NAME	DATE	
		SCALE: NTS
		DATE: 8/12/2005
		DRAWN BY: BDC
		CHECKED BY: BLU

9-3625-AM 8/17/2005

CONTRACT S2525.3-2H
STA. 111+33.0

CONTRACT S2525.3-1H
STA. 111+33.0



STRUCTURAL STEEL NOTES

ALL FURNISHING, FABRICATING, TRANSPORTING, ERECTING AND PAINTING OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH SECTION 04 AND 06 OF THE STANDARD SPECIFICATIONS.

EXCEPT WHERE OTHERWISE NOTED, ALL STRUCTURAL STEEL SHALL CONFORM TO SPECIFICATIONS FOR STEEL FOR BRIDGES AND BUILDINGS ASTM DESIGNATION A-7 AND ASTM DESIGNATION A-363 AND WHERE APPLICABLE, TO THE REQUIREMENTS OF ARTICLE 124.2, AND 124.3 (a) OF THE STANDARD SPECIFICATIONS.

BEARING AND SPLICE NOTES:-

ALL GIRDER FIELD SPLICES SHALL BE END-PINCHED, BEAMED AND MATCH-MARKED FOR SHIPMENT WHILE THE MEMBERS ARE SHOP ARRANGED IN PROPER ALIGNMENT, WITH OR WITHOUT DIAPHRAGMS. ALL GIRDER FIELD SPLICES SHALL BE END-PINCHED 1 1/16" Ø, BEAMED TO 1 1/16" Ø FOR 3/4" Ø BOLTS AND BEAMED TO 1 1/8" Ø FOR 7/8" Ø BOLTS.

ALL GIRDERS SHALL BE ERECTED FULL LENGTH IN THE SHOP BEFORE BEARING AND INSPECTION.

STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT. PARTS INACCESSIBLE AFTER ERECTION SHALL HAVE TWO SHOP COATS OF RED LEAD PAINT. FOR ADDITIONAL SHOP AND FIELD PAINT COATS, SEE THE SPECIAL PROVISIONS.

ALL ROLLERS, ROCKERS, BOLSTERS, BEARING PLATES, LEAD PLATES, FINISHES, ANCHOR BOLTS AND SPLICES SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLES 06.5 OF THE STANDARD SPECIFICATIONS AND SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 06.3 (a). THESE ITEMS ARE INCLUDED IN THE WEIGHT OF STRUCTURAL STEEL.

SPLICE PLATES TO BE MATCH-MARKED FOR SHIPMENT.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER PIERS AND ABUTMENTS.

FINISHED SURFACES OF BEARINGS AND ROLLERS SHALL BE TREATED WITH ANTI-RUST COMPOUND BEFORE SHIPMENT AS STATED IN ARTICLE 06.3 OF THE STANDARD SPECIFICATIONS.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" Ø OR 7/8" Ø HIGH STRENGTH BOLTS AS INDICATED.

ALL RIVETS, UNLESS OTHERWISE SHOWN OR NOTED, SHALL BE 3/4" Ø, OPEN HOLES 1 1/16" Ø.

SUMMARY OF STRUCTURAL STEEL UNITS 1, 2, 3, 4 & 5

ITEM	UNIT	QUANTITY	WEIGHT AT ESTIMATE
GIRDERS	POUND	3,724,446	83160
FILL PLATES & SPLICE PLATES	POUND	126,399	
DIAPHRAGMS	POUND	284,229	
GIRDER BEARINGS	POUND	190,319	
EXPANSION GUARD	POUND	135,250	
TOTAL	POUND	4,460,643	83160

INCLUDED IN SUMMARY ON SMT. 32

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
W. 15 TH ST TO W. MAXWELL ST
SECTION 2-2525.3-1H

STEEL FRAMING PLAN
DE LEUW, CATHERS & COMPANY
CONSULTING ENGINEERS
CHICAGO
DATE: JUNE 1991
SCALE: AS NOTED
SHEET 312 OF 341 SHEETS

Designed By: J.B.
Drawn By: H.M.
Checked By: R.M.S.
In Charge: N.S.WULF
Approved By: L.M.RIAN

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CONSULTING ENGINEERS
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Sheet S12 of 64

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-0137

SCALE: NTS
DATE: 7/22/2005

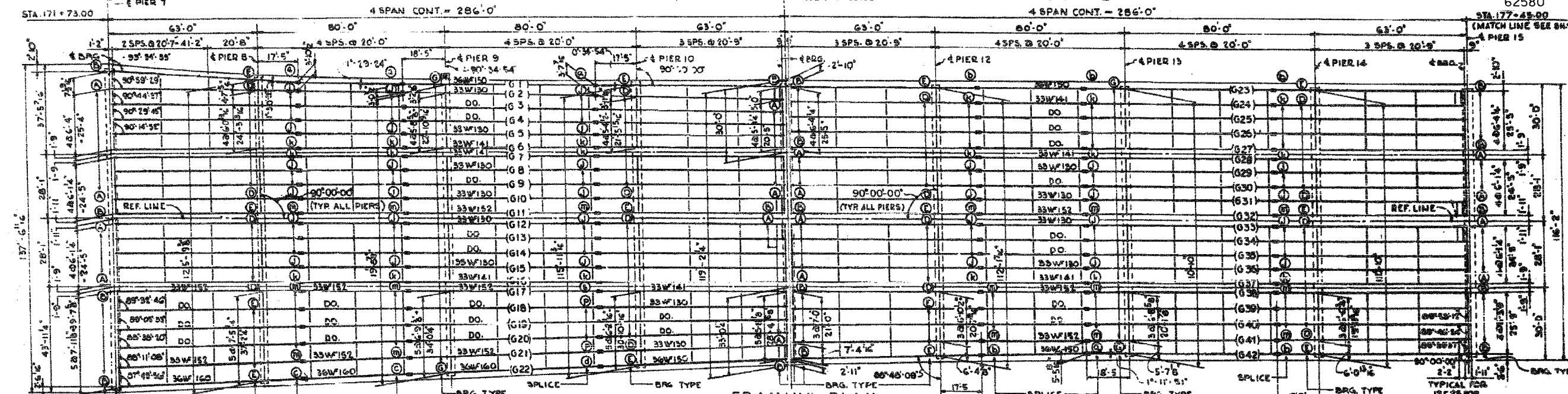
DRAWN BY: BDC
CHECKED BY: BLU

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	316
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

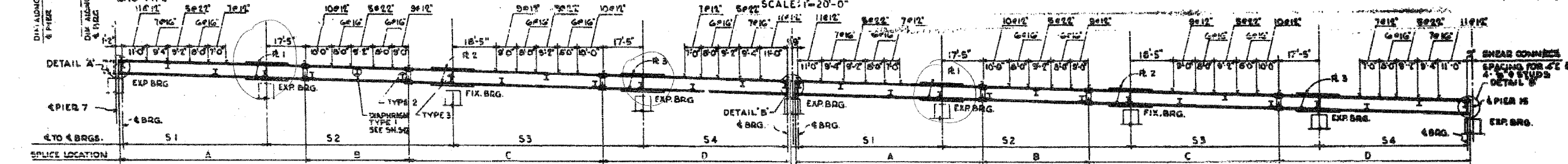
CONTRACT 2525.3-2H CONTRACT 2525.3-1H
BY OTHERS

UNIT 1

UNIT 2



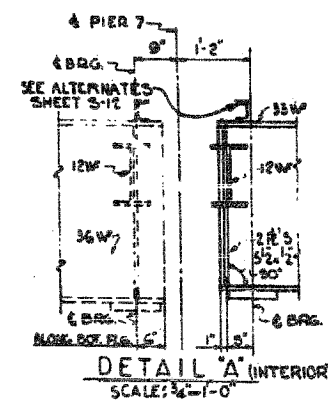
FRAMING PLAN



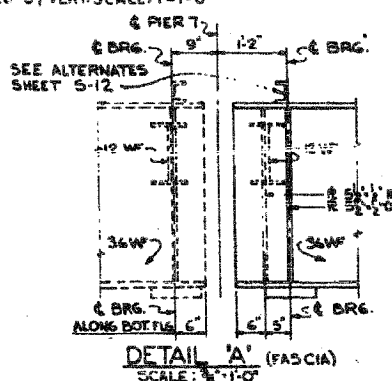
GIRDER ELEVATION

NOTE: ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE AND ALONG THE C OF THE GIRDER WEB.

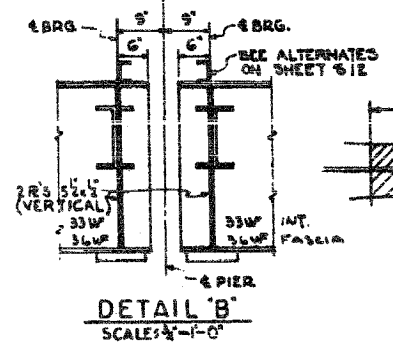
GIRDER	A	B	C	D	S-1	S-2	S-3	S-4	R-1	R-2	R-3
1	80'-3"	44'-2"	81'-0"	80'-2"	61'-11"	80'-0"	80'-0"	62'-3"	11'-5"	11'-0"	11'-10"
2	79'-9"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	10'-7"	10'-11"	10'-13"
3	79'-9"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	10'-7"	10'-11"	10'-13"
4	79'-9"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	10'-7"	10'-11"	10'-13"
5	79'-9"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	10'-7"	10'-11"	10'-13"
6									10'-7"	10'-11"	10'-13"
7, 16									10'-7"	10'-11"	10'-13"
8, 10, 13, 15									10'-7"	10'-11"	10'-13"
11									10'-7"	10'-11"	10'-13"
12									10'-7"	10'-11"	10'-13"
17									10'-7"	10'-11"	10'-13"
18	79'-9"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	10'-7"	10'-11"	10'-13"
19	79'-9"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	10'-7"	10'-11"	10'-13"
20	79'-9"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	10'-7"	10'-11"	10'-13"
21	79'-9"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	10'-7"	10'-11"	10'-13"
22	80'-2"	44'-2"	81'-0"	80'-2"	61'-10"	80'-0"	80'-0"	62'-3"	11'-5"	11'-0"	11'-10"
23	80'-2"	44'-2"	81'-0"	80'-2"	62'-3"	80'-0"	80'-0"	62'-3"	11'-5"	11'-0"	11'-10"
24, 25, 26									10'-7"	10'-11"	10'-13"
27									10'-7"	10'-11"	10'-13"
28, 37									10'-7"	10'-11"	10'-13"
29, 30, 34, 36									10'-7"	10'-11"	10'-13"
32									10'-7"	10'-11"	10'-13"
33									10'-7"	10'-11"	10'-13"
38									10'-7"	10'-11"	10'-13"
39									10'-7"	10'-11"	10'-13"
40									10'-7"	10'-11"	10'-13"
41	80'-2"	44'-2"	81'-0"	80'-2"	62'-3"	80'-0"	80'-0"	62'-3"	11'-5"	11'-0"	11'-10"
42	80'-2"	44'-2"	81'-0"	80'-2"	62'-3"	80'-0"	80'-0"	62'-3"	11'-5"	11'-0"	11'-10"



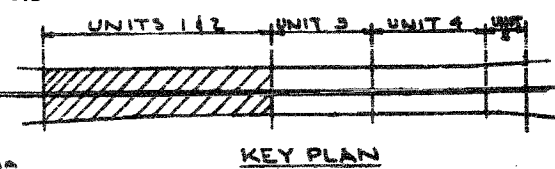
DETAIL A (INTERIOR)
SCALE: 3/4"=1'-0"



DETAIL A (FASCIA)
SCALE: 3/4"=1'-0"



DETAIL B
SCALE: 3/4"=1'-0"



KEY PLAN

SPlice PLATES (FILL PLATES BILLED ON S-14 S-15 BEARINGS ON SHEET 518)

ITEM	UNIT	QUANTITY
GIRDERS	POUND	11,845,575
DIAPHRAGMS	POUND	1,648,825

ASTM A7
INCLUDED IN WEIGHT ON SHEET 518

REVISIONS	NAME	DATE

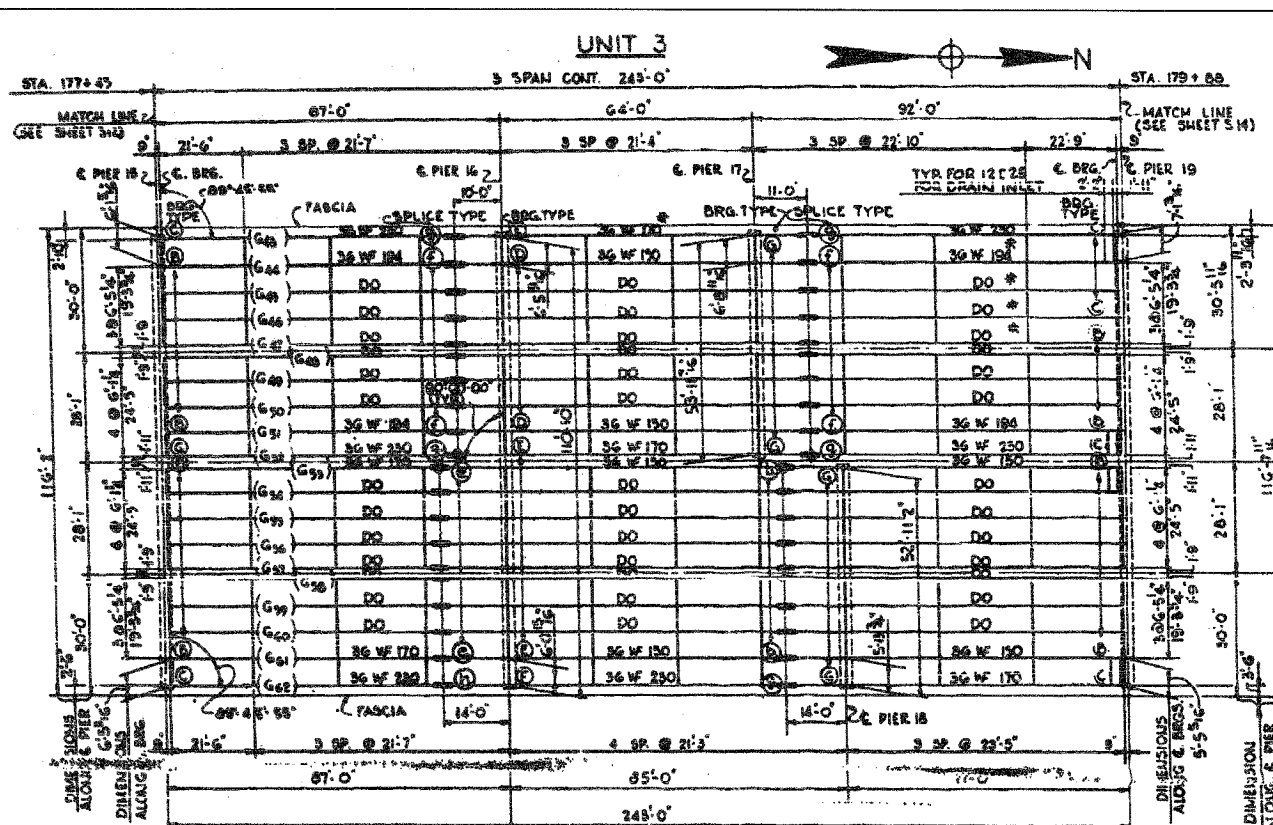
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
W. 15 TH ST. TO W. MAXWELL ST
SECTION 8-2888.3-1H
STEEL FRAMING PLAN
UNITS 1 & 2
DE LEIVE, GATHER & COMPANY
CONSULTING ENGINEERS CHICAGO
SCALE: AS NOTED
DATE: JUNE 1981
SHEET 518 OF 64 SHEETS

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-0137
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

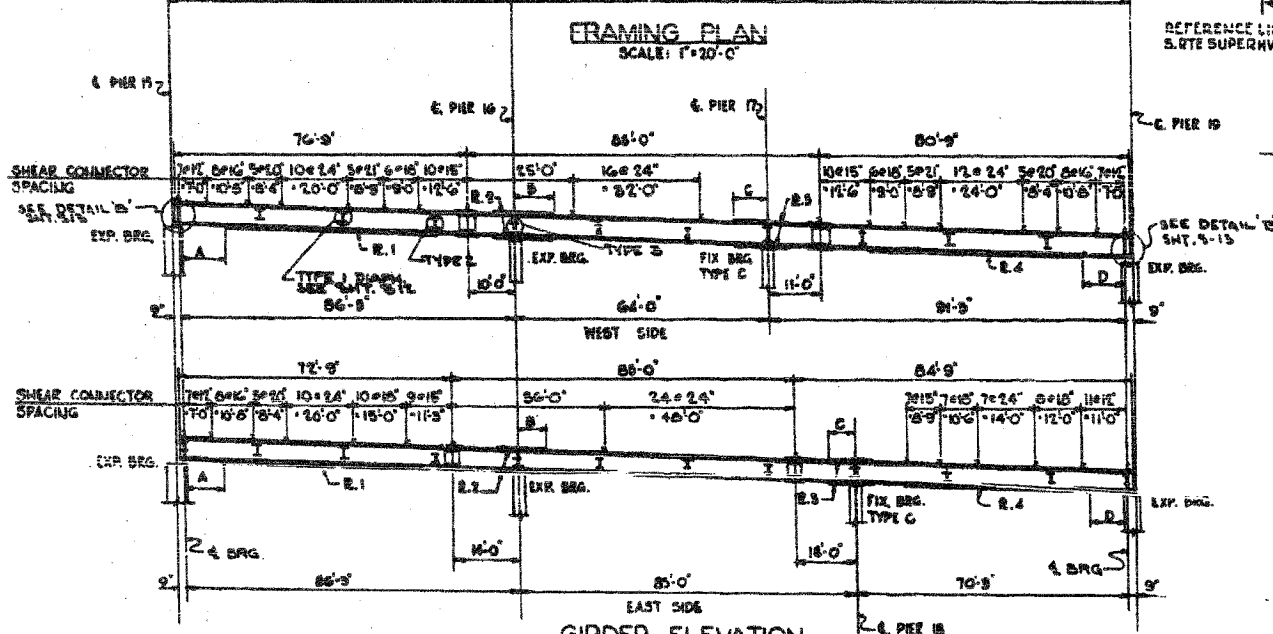
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CONSULTING ENGINEERS
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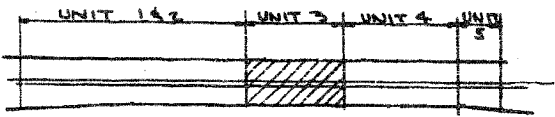
7/19/2005 10:44:3 AM



FRAMING PLAN
SCALE: 1"=20'-0"



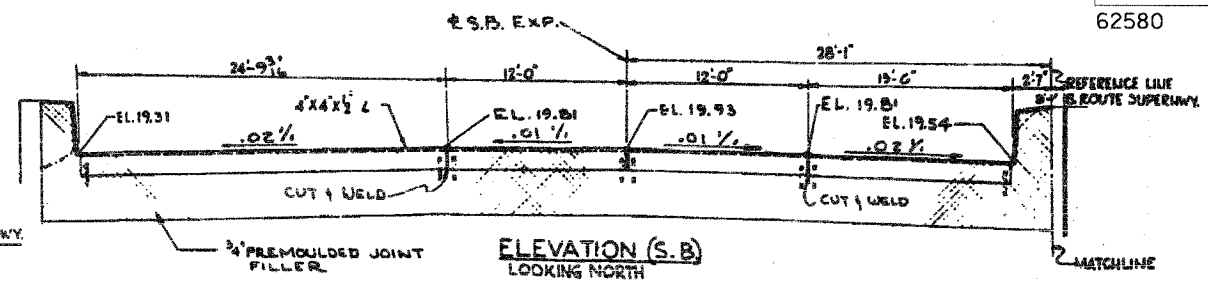
GIRDER ELEVATION
HOR. SCALE: 1"=20'-0"
VER. SCALE: 1"=10'-0"



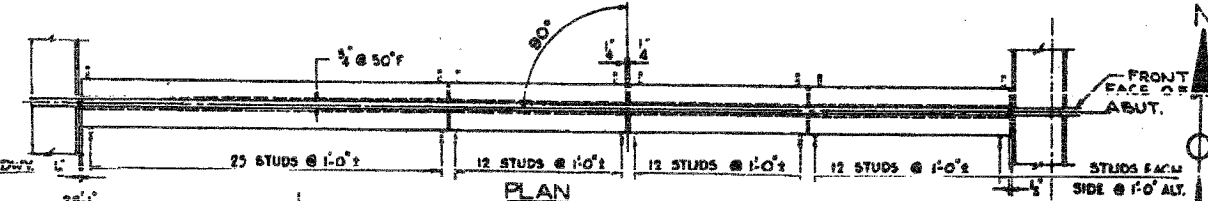
KEY PLAN

Designed By: J.E.
 Drawn By: P.R.T.
 Checked By: R.M.S.
 In Charge: H.S.WLF
 Approved By: L.N.RIAN

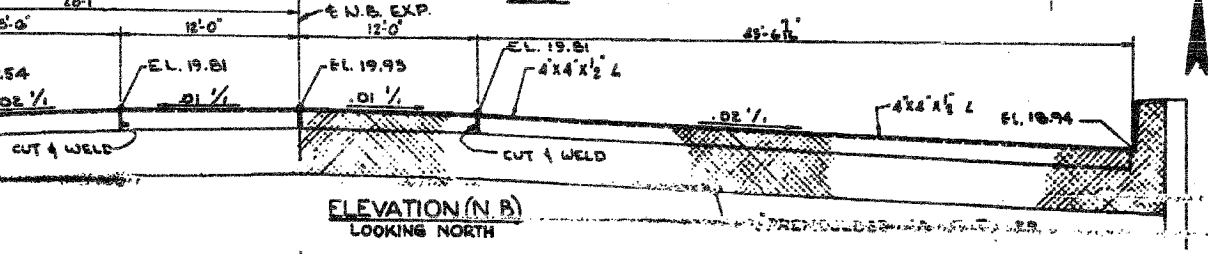
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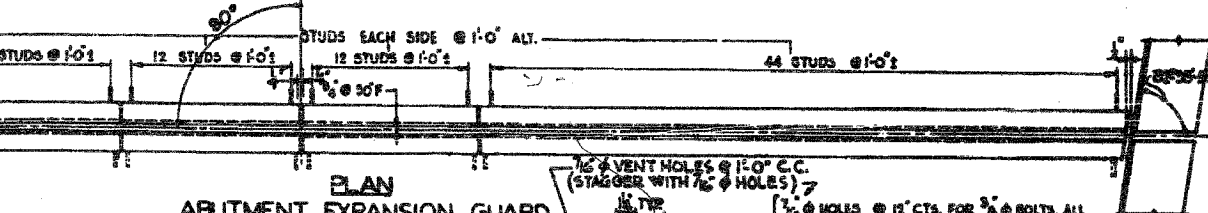
ELEVATION (S.B)
LOOKING NORTH



PLAN
ABUTMENT EXPANSION GUARD



ELEVATION (N.B)
LOOKING NORTH



PLAN
BRIDGE SIDE



JOINT DETAIL
SCALE: 1/2"=1'-0"

GIRDER	COVER PLATE OFFSETS				COVER R.1	1-PLATES COVER R.2	2-PLATES COVER R.3	COVER R.4
	A	B	C	D				
43	8'-0"	8'-0"	11'-0"	8'-0"	15x1/2x16	10x1/2x16	10x1/2x16	15x1/2x16
44	8'-0"	7'-0"	8'-0"	8'-0"	10x1/2x16	10x1/2x16	10x1/2x16	10x1/2x16
47	8'-0"	7'-0"	8'-0"	8'-0"	10x1/2x16	10x1/2x16	10x1/2x16	10x1/2x16
48	8'-0"	7'-0"	8'-0"	8'-0"	10x1/2x16	10x1/2x16	10x1/2x16	10x1/2x16
49	8'-0"	8'-0"	11'-0"	8'-0"	15x1/2x16	10x1/2x16	10x1/2x16	15x1/2x16
53	7'-0"	11'-0"	7'-0"	7'-0"	10x1/2x16	10x1/2x16	10x1/2x16	10x1/2x16
55	7'-0"	11'-0"	7'-0"	7'-0"	10x1/2x16	10x1/2x16	10x1/2x16	10x1/2x16
62	7'-0"	8'-0"	8'-0"	7'-0"	15x1/2x16	10x1/2x16	10x1/2x16	10x1/2x16

* NOTE: ALL COVER PLATES OVER 1" THICK + ALL W BEAMS WITH COVER PLATES OVER 1" THICK ARE TO BE TYPE-A375 STRUCTURAL STEEL, ALL OTHERS TO BE TYPE-A7 STRUCTURAL STEEL.

BILL OF MATERIAL			
ITEM	UNIT	A7	A375
GIRDERS	POUND	890,825	89,160
DIAPHRAGMS	POUND	36,945	
ABUT. EXP. GUARD	POUND	3,955	

* SPlice plates + bearings billed on sheet 3-18, fill plates + bearings on 3-15, included in weight on SMT 312

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
 ELEVATED HIGHWAY
 W. 15TH ST. TO W. MAXWELL ST.
 SECTION 8-2885.3 - 11

STEEL FRAMING PLAN UNIT 3
& ABUTMENT EXPANSION GUARD

DE LEUNIGER & COMPANY
 CONSULTING ENGINEERS CHICAGO
 DATE: JUNE 1991
 SHEET 314 OF 64 SHEETS

Sheet S14 of 64

REVISIONS	
NAME	DATE

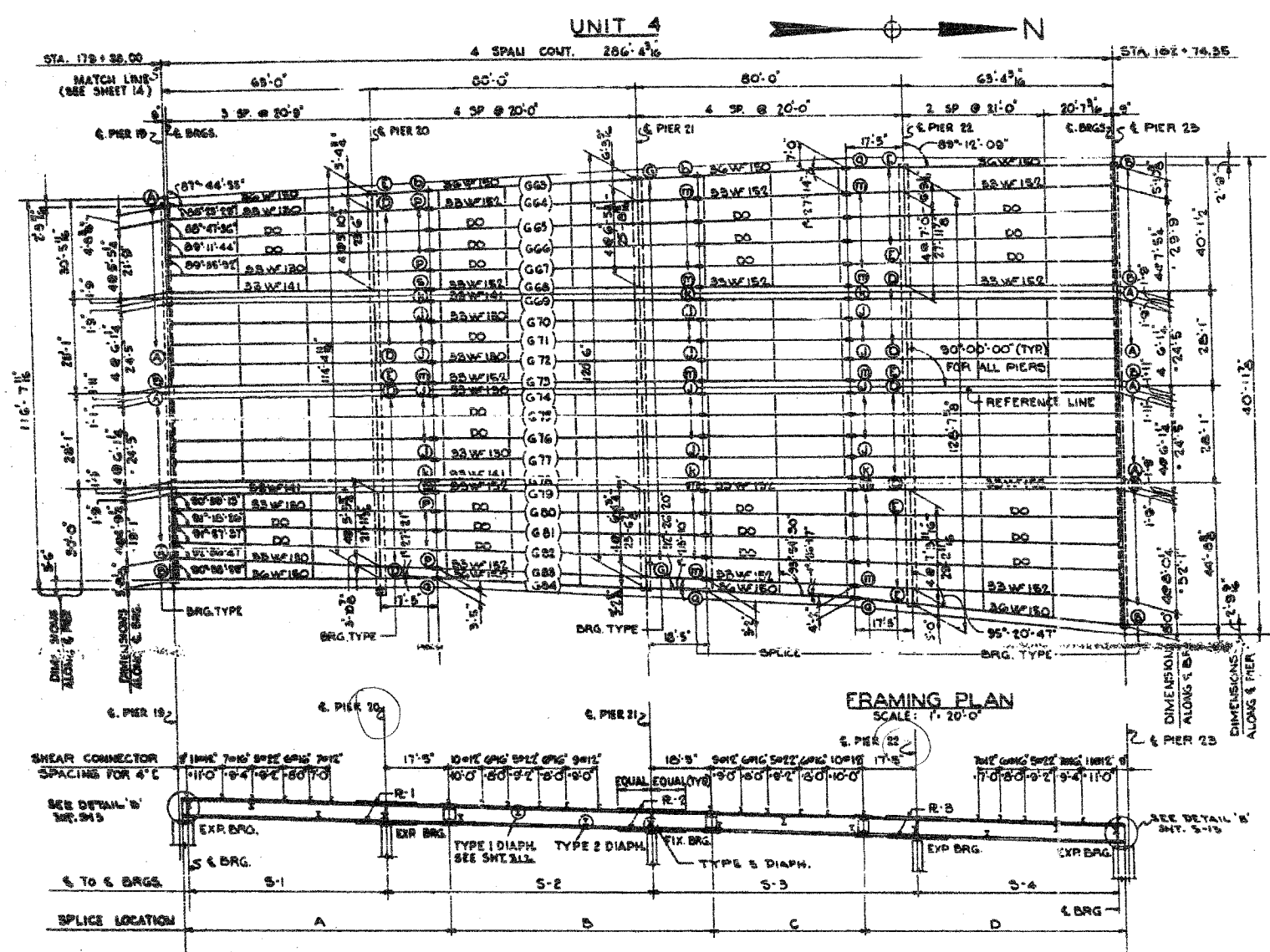
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-0137

SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

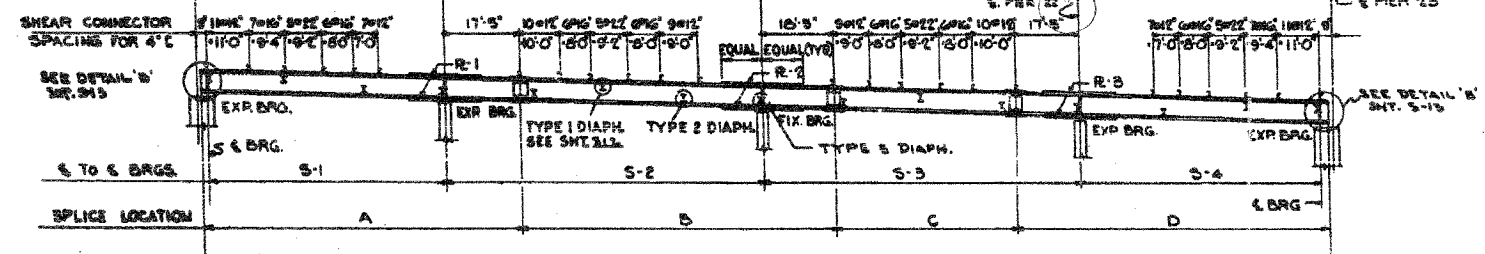
FOR INFORMATION ONLY

11/4/95 AM 7/19/2005

62580



FRAMING PLAN
SCALE: 1" = 20'-0"



GIRDER ELEVATION
HOR. SCALE: 1" = 20'-0"
VER. SCALE: 1" = 10'-0"

NOTE:
ALL COVER PLATES
SYMM. ABOUT G PIER

GIRDER	A	B	C	D	S-1	S-2	S-3	S-4	COVER R1	COVER R2	COVER R3
G3	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G4	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G5	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G6	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G7	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G8	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G9,78	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G10	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G11	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G12	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G13	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G14	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G15	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G16	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G17	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G18	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G19	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G20	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G21	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"
G22	80'-2"	81'-0"	44'-2"	80'-6"	62'-3"	80'-0"	80'-0"	62'-7"	10'-4"x17'-0"	10'-4"x17'-0"	10'-4"x17'-0"

NOTE: ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE AND ALONG THE G OF THE GIRDER WEB.
DIMENSIONS MARKED THUS (Ø) ARE NOT STRAIGHT LINES BETWEEN BEARINGS.

TABLE OF FILL PLATES AT BEARINGS							
UNIT 1							
LOCATION	G4	G5	G6	G7	G15	G16	G17
PIER 7	-	-	14'-2"x11'	14'-2"x11'	-	14'-2"x11'	14'-2"x11'
PIER 8	-	-	9'-4"x10'	9'-4"x10'	-	9'-4"x10'	9'-4"x10'
PIER 9	-	-	11'-2"x10'	11'-2"x10'	-	11'-2"x10'	11'-2"x10'
PIER 10	9'-4"x10'	9'-4"x10'	9'-4"x10'	9'-4"x10'	9'-4"x10'	9'-4"x10'	9'-4"x10'
PIER 11	G1	G2	G3	G4	G5	G6	G7
	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'
	G9	G10	G11	G12	G13	G14	G15
	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'
G17	G18	G19	G20	G21	G22	-	-
14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	-	-

UNIT 2							
LOCATION	G23	G24	G25	G26	G27	G42	-
PIER 11	-	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	-	-
PIER 12	-	9'-4"x10'	9'-4"x10'	9'-4"x10'	9'-4"x10'	-	-
PIER 13	-	11'-2"x10'	11'-2"x10'	11'-2"x10'	11'-2"x10'	-	-
PIER 14	-	9'-4"x10'	9'-4"x10'	9'-4"x10'	9'-4"x10'	-	-
PIER 15	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	-

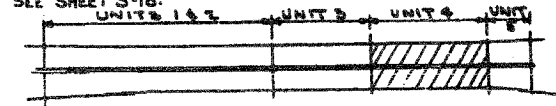
UNIT 3 56 G57 58 G2							
LOCATION	G43	G44	G55	G56	G57	G58	G59
PIER 15	-	-	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	-
PIER 16	-	-	11'-2"x10'	11'-2"x10'	11'-2"x10'	11'-2"x10'	-
PIER 17	11'-2"x10'	11'-2"x10'	-	-	-	-	-
PIER 18	-	-	11'-2"x10'	11'-2"x10'	11'-2"x10'	11'-2"x10'	-
PIER 19	-	-	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	-

UNIT 4							
LOCATION	G67	G68	G70	G75	G77	G79	G80
PIER 19	14'-2"x11'	-	14'-2"x11'	14'-2"x11'	14'-2"x11'	-	14'-2"x11'
PIER 20	-	9'-4"x10'	-	-	-	9'-4"x10'	-
PIER 21	-	11'-2"x10'	-	-	-	11'-2"x10'	-
PIER 22	11'-2"x10'	9'-4"x10'	-	-	-	9'-4"x10'	11'-2"x10'
PIER 23	G69	G70	G71	G75	G76	G77	G78
	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'	14'-2"x11'

TOTAL WEIGHT OF FILL PLATES = 2,685 POUNDS.

TABLE OF BEVELS OF SOLE PLATES				
	UNIT #1	UNIT #2	UNIT #3	UNIT #4
	PIER 7	PIER 11	PIER 15	PIER 19
G1 TO G22	7/8"	5/8"	-	-
G23 TO G42	-	5/8"	5/8"	-
G43 & G44	-	-	5/8"	5/8"
G44 TO G61	-	-	5/8"	5/8"
G63 TO G84	-	-	-	5/8"

NOTE:
FOR BEARINGS SEE SHT. S18 & S19
FOR LOCATION OF BEVELS SEE SHEET S-18.



KEY PLAN

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
GIRDERS	POUND	588,205
DIAPHRAGMS	POUND	78,465
FILL PLATES	POUND	2,685

ASTM TYPE A7
INCLUDED IN WEIGHT ON SHT. S12

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
W. 15TH ST. TO W. MAXWELL ST.
SECTION 8-1883.3-1H
STEEL FRAMING PLAN
UNIT 4
DE LEW, GATNER & COMPANY
CONSULTING ENGINEERS CHICAGO, ILL. DATE: JUNE 1991
SCALE: AS NOTED SHEET S15 OF 64 SHEETS

REVISIONS	
NAME	DATE

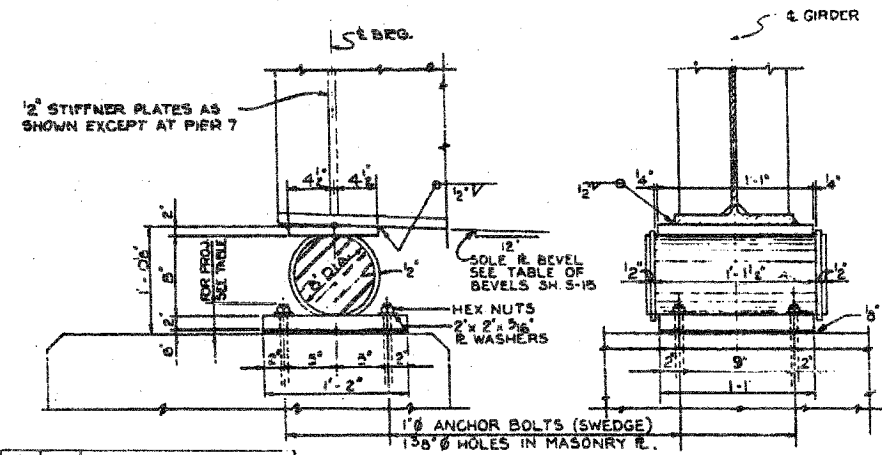
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-0137
SCALE: NTS DRAWN BY: BDC
DATE: 7/22/2005 CHECKED BY: BLU

Designed By: J.B.
Drawn By: P.B.T.
Checked By: P.M.A.
In Charge: R.S.W.P.
Approved By: L.H.W.H.

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
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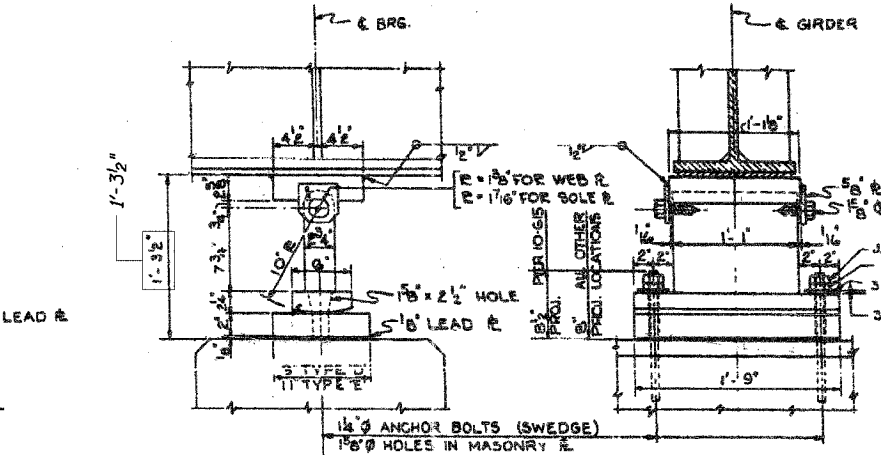
EXPANSION BEARING TYPE 'A'
SCALE: 1/2" = 1'-0"

MATERIAL	TYPE 'A' (80 REQ'D)
SOLE PL.	9" x 2" x 1'-1"
MASONRY PL.	14" x 2" x 1'-1"
ROLLER	8" x 1'-3 1/2"
2 - BARS	2" x 2" x 2'-5"
6" LEAD PL.	14" x 10" x 1'-5"
4 - ANCHOR BOLTS	1" x 1'-6"
4 - R. WASHERS	2" x 2" x 3/8"

PROJ.	PIER	GIRDER
52	11	G 4 & 15
5	11	G 5, 10 & 19
11	11	G 2, 6, 8-10, 12-14, 16, 17 & 36
42	15	G 29 & 36
4	ALL OTHER LOCATIONS	

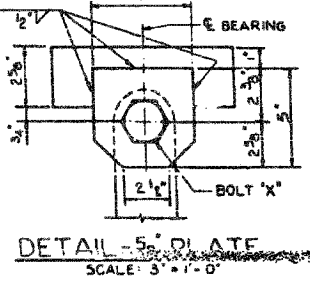


DETAIL - BOLT 'X'
SCALE: 3" = 1'-0"

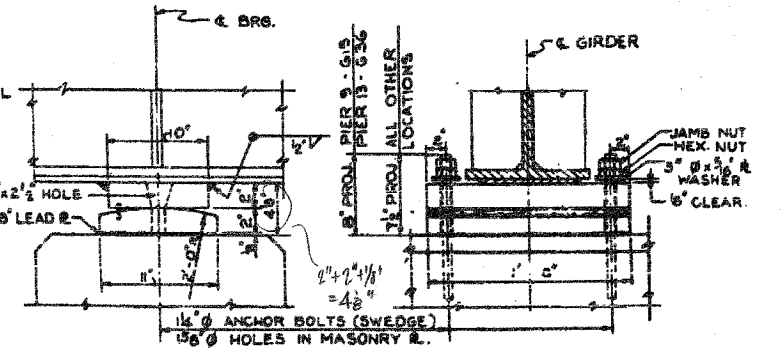


EXPANSION BEARING TYPES 'D' & 'E'
SCALE: 1/2" = 1'-0"

MATERIAL	TYPE 'D' (104 REQ'D)	TYPE 'E' (43 REQ'D)
SOLE PL.	9" x 2 1/2" x 1'-11"	9" x 2 1/2" x 1'-11"
MASONRY PL.	9" x 2" x 1'-9"	11" x 2" x 1'-9"
WEB PL.	9 1/2" x 2 3/4" x 1'-1"	9 1/2" x 2 3/4" x 1'-1"
ROCKER PL.	6" x 2 1/4" x 1'-9"	6" x 2 1/4" x 1'-9"
6" LEAD PL.	11" x 10" x 1'-9"	11" x 10" x 1'-9"
2 - ANCHOR BOLTS	1 1/4" x 1'-9"	1 1/4" x 1'-9"
2 - R. WASHERS	3" x 3" x 3/8"	3" x 3" x 3/8"
2 - BOLTS 'X'	1 1/2" x 3 1/2"	1 1/2" x 3 1/2"
2 - 3/8" R.	5" x 3/8" x 0'-5"	5" x 3/8" x 0'-5"

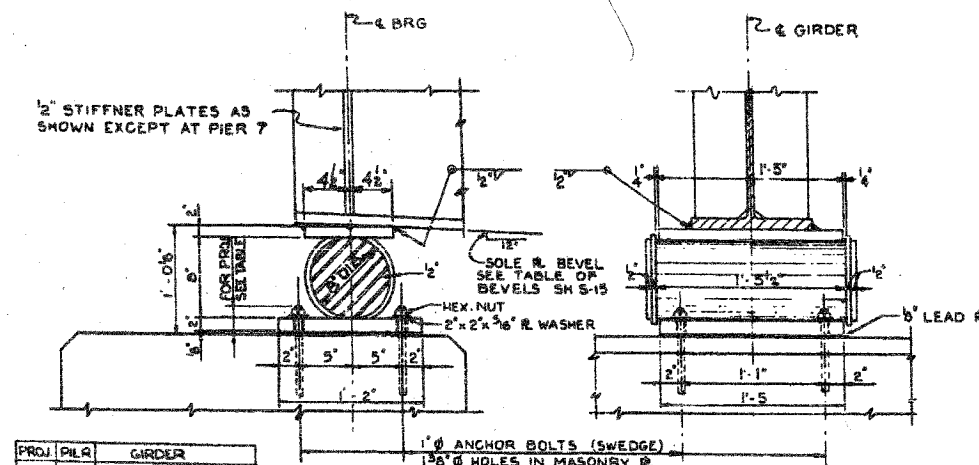


DETAIL - 5/8" PLATE
SCALE: 3" = 1'-0"



FIXED BEARING TYPE 'G'
SCALE: 1/2" = 1'-0"

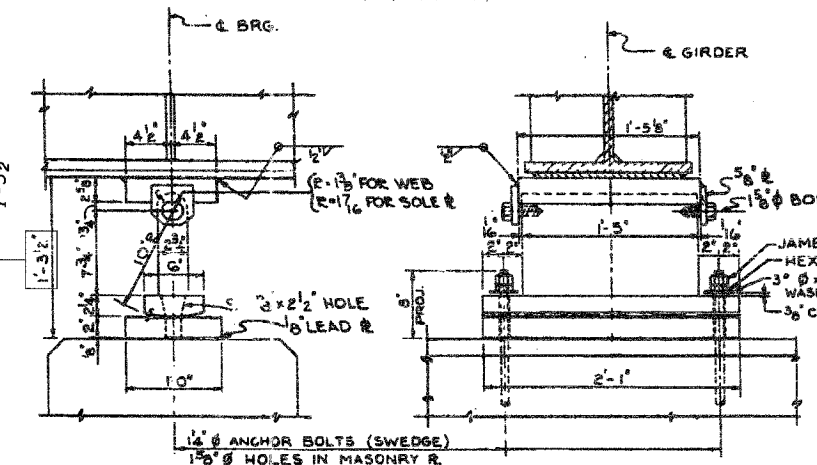
MATERIAL	TYPE 'G' (84 REQ'D)
SOLE PL.	10" x 2" x 1'-8"
MASONRY PL.	11" x 2" x 1'-8"
6" LEAD PL.	11" x 10" x 1'-8"
2 - ANCHOR BOLTS	1 1/4" x 1'-9"
2 - R. WASHERS	3" x 3" x 3/8"



EXPANSION BEARING TYPE 'B'
SCALE: 1/2" = 1'-0"

MATERIAL	TYPE 'B' (79 REQ'D)
SOLE PL.	9" x 2" x 1'-5"
MASONRY PL.	14" x 2" x 1'-5"
ROLLER	8" x 1'-7 1/2"
2 - BARS	2" x 2" x 2'-5"
6" LEAD PL.	14" x 10" x 1'-5"
4 - ANCHOR BOLTS	1" x 1'-6"
4 - R. WASHERS	2" x 2" x 3/8"

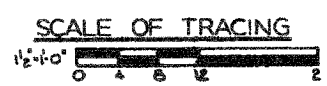
PROJ.	PIER	GIRDER
11	11	G 1 & 11
42	15	G 23, 27 & 38
19	19	G 67
4	ALL OTHER LOCATIONS	



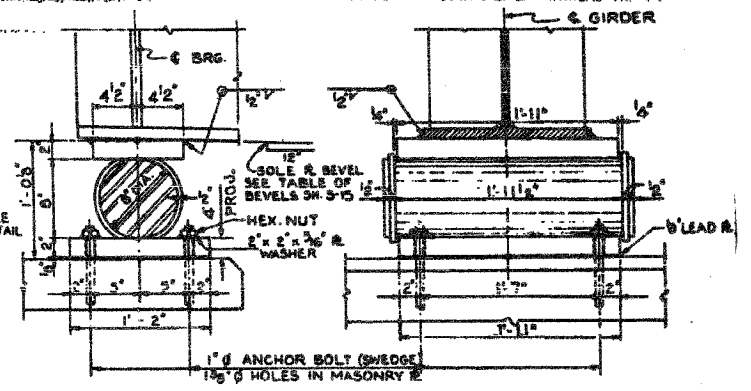
EXPANSION BEARING TYPE 'F'
SCALE: 1/2" = 1'-0"

MATERIAL	TYPE 'F' (1 REQ'D)
SOLE PL.	9" x 2 1/2" x 1'-5 1/2"
MASONRY PL.	12" x 2" x 2'-1"
WEB PL.	9 1/2" x 2 3/4" x 1'-5"
ROCKER PL.	6" x 2 1/4" x 2'-1"
6" LEAD PL.	12" x 10" x 2'-1"
2 - ANCHOR BOLTS	1 1/4" x 1'-9"
2 - R. WASHERS	3" x 3" x 3/8"
2 - BOLTS 'X'	1 1/2" x 3 1/2"
2 - 3/8" R.	5" x 3/8" x 0'-5"

FOR LOCATION OF BEARINGS SEE FRAMING PLANS SHT. 5-13, 5-14 & 5-15.



NOTE: ROCKER PL. AND WEB PL. FOR EXPANSION BEARING TYPES 'D' & 'F' CAN BE GRADE 65-35 CARBON STEEL CASTING. QUANTITIES INCLUDED IN BILL OF MATERIAL SHEET 5-19 FOR FILL PLATES AT BEARINGS, SEE SHEET 5-15 FOR ADDITIONAL DETAILS SEE SHEET 5-19



EXPANSION BEARING TYPE 'C'
SCALE: 1/2" = 1'-0"

MATERIAL	TYPE 'C' (9 REQ'D)
SOLE PL.	9" x 2" x 1'-11"
MASONRY PL.	14" x 2" x 1'-11"
ROLLER	8" x 1'-2 1/2"
2 - BARS	2" x 2" x 2'-5"
6" LEAD PL.	14" x 10" x 1'-11"
4 - ANCHOR BOLTS	1" x 1'-6"
4 - R. WASHERS	2" x 2" x 3/8"

Designed By: N.S.W.
 Drawn By: M.M.M.
 Checked By: W.J.C.
 In Charge: N.S.WULF
 Approved By: L.N.RIAN

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Sheet S18 of 64

REVISIONS	NAME	DATE

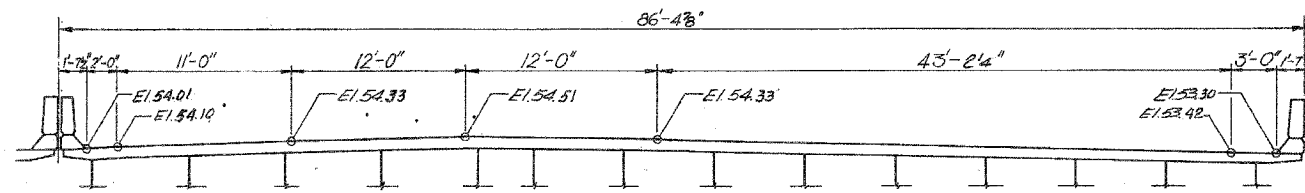
CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
**SOUTH ROUTE SUPERHIGHWAY
 ELEVATED HIGHWAY**
 W. 15TH ST. TO W. MAXWELL ST.
 SECTION 8-288.3-11
**BEARINGS
 UNITS 1, 2, 3 & 4**
 DE LEUW, CATHIER & COMPANY
 CONSULTING ENGINEERS CHICAGO
 SCALE: AS NOTED DATE: JUNE 1961
 SHEET S18 OF 64 SHEETS

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-0137
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

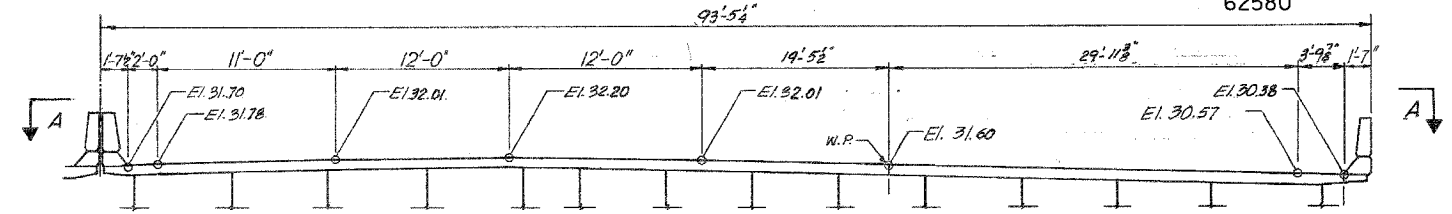
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	320
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

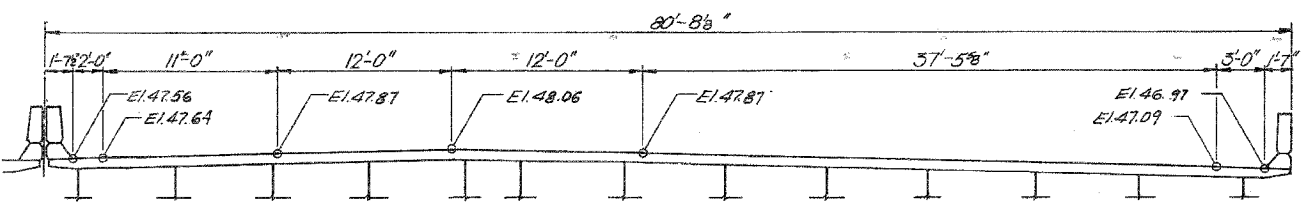
62580



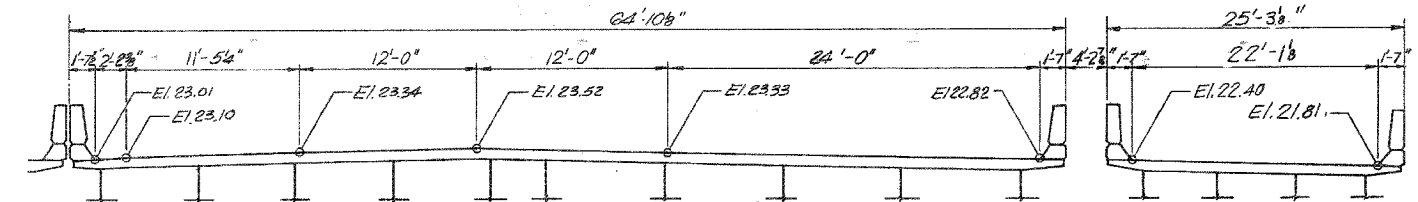
EXPANSION JOINT AT PIER No. 7
4 in. NEOPRENE



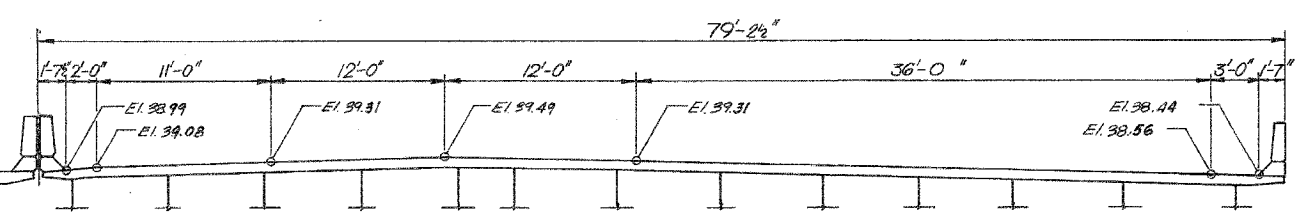
EXPANSION JOINT AT PIER No. 19
4 in. NEOPRENE



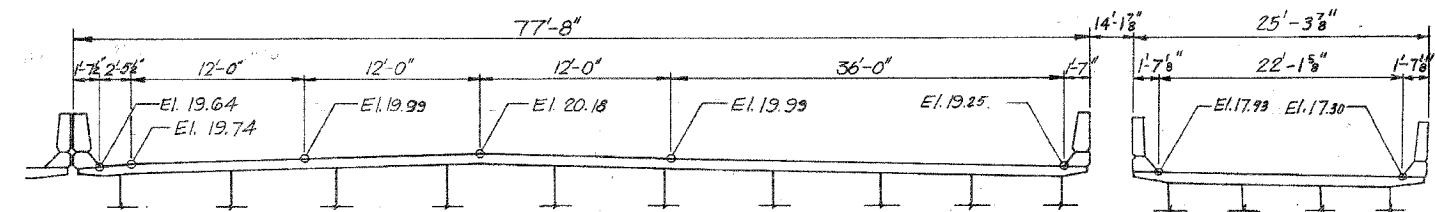
EXPANSION JOINT AT PIER No. 11
4 in. NEOPRENE



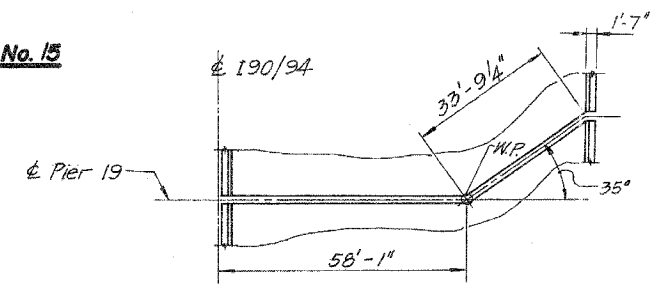
EXPANSION JOINT AT PIER No. 23
2 1/2 in. NEOPRENE



EXPANSION JOINT AT PIER No. 15
4 in. NEOPRENE



EXPANSION JOINT AT NORTH ABUTMENT
2 1/2 in. PREFORMED JOINT SEAL



SECTION A-A
Plan @ Pier 19

- Notes:
1. All dimensions are along Centerline of Joint.
 2. For details see sheets TJ1, TJ2 & TJ3.
 3. All Sections looking up-station.

12-1-88

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985 - 0778R - COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016 - 0137
TRANSVERSE DECK JOINT ELEVATION
Scale: NONE
Date: AUG., 1988
Drawn By: CAD
Checked By: MEM
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

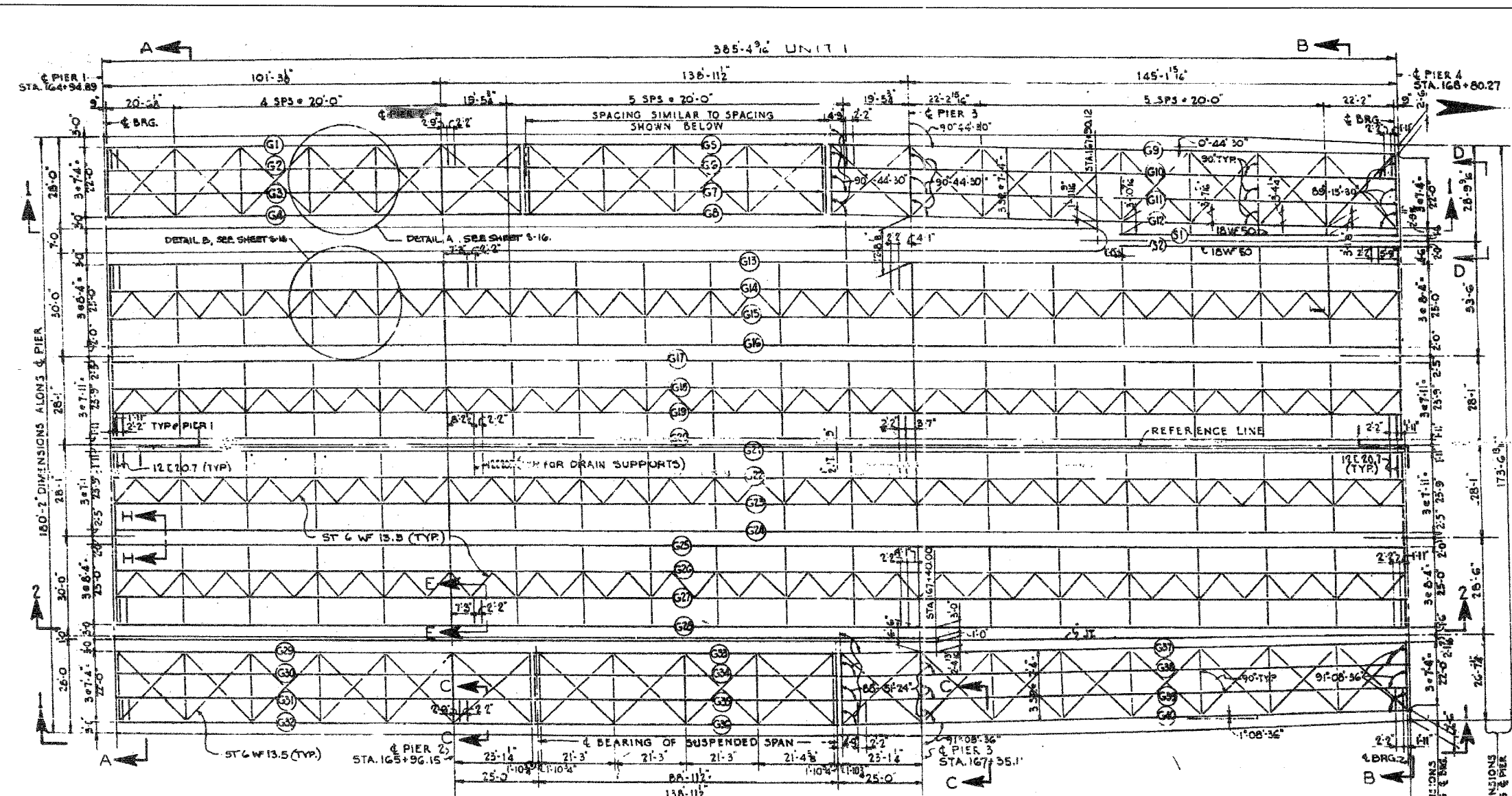
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-0137
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	321
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	62580	



STRUCTURAL STEEL NOTES

ALL FURNISHING, FABRICATING, TRANSPORTING, ERECTING AND PAINTING OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH SECTION 54 AND 55 OF THE STANDARD SPECIFICATIONS.

EXCEPT WHERE OTHERWISE NOTED, ALL STRUCTURAL STEEL SHALL CONFORM TO SPECIFICATIONS FOR STEEL FOR BRIDGES AND BUILDINGS ASTM DESIGNATION A-7 AND ASTM DESIGNATION A-373 AND WHERE APPLICABLE, TO THE REQUIREMENTS OF ARTICLE 124.2, AND 124.3 (a) OF THE STANDARD SPECIFICATIONS.

BEARING AND SPLICE NOTES:-

ALL GIRDER FIELD SPLICES SHALL BE SUB-PUNCHED, REAMED AND MATCH-MARKED FOR SHIPMENT WHILE THE MEMBERS ARE SHOP ASSEMBLED IN PROPER ALIGNMENT, WITH OR WITHOUT DIAPHRAGMS. ALL GIRDER FIELD SPLICES SHALL BE SUB-PUNCHED 1/16" Ø, REAMED TO 13/16" Ø FOR 3/4" Ø BOLTS AND REAMED TO 15/16" Ø FOR 7/8" Ø BOLTS.

ALL GIRDERS SHALL BE ERECTED FULL LENGTH IN THE SHOP BEFORE REAMING AND INSPECTION.

STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT. PARTS INACCESSIBLE AFTER ERECTION SHALL HAVE TWO SHOP COATS OF RED LEAD PAINT. FOR ADDITIONAL SHOP AND FIELD PAINT LOGS, SEE THE SPECIAL PROVISIONS.

ALL ROLLERS, ROCKERS, BOLSTERS, BEARING PLATES, LEAD PLATES, PINTLES, ANCHOR BOLTS AND SPLICES SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLES 54.5 OF THE STANDARD SPECIFICATIONS AND SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 54.5(i). THESE ITEMS ARE INCLUDED IN THE WEIGHT OF STRUCTURAL STEEL.

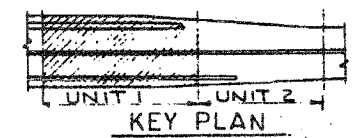
SPLICE PLATES TO BE MATCH-MARKED FOR SHIPMENT.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER PIERS AND ABUTMENTS.

FINISHED SURFACES OF BEARINGS AND ROLLERS SHALL BE TREATED WITH ANTI-RUST COMPOUND BEFORE SHIPMENT AS STATED IN ARTICLE 50.4 OF THE STANDARD SPECIFICATIONS.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" Ø OR 7/8" Ø HIGH STRENGTH BOLTS AS INDICATED.

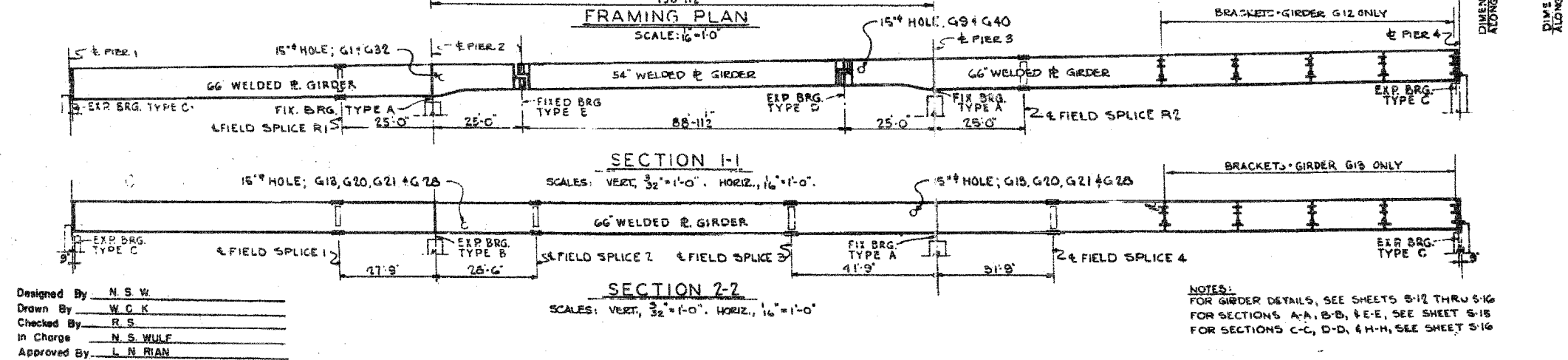
ALL RIVETS, UNLESS OTHERWISE SHOWN OR NOTED, SHALL BE 3/4" Ø, OPEN HOLES 13/16" Ø.



SUMMARY OF STRUCTURAL STEEL UNIT 1

ITEM	UNIT	QUANTITY	
		ASTM A7	ASTM A572
GIRDERS	POUND		2,634,487
CROSS FRAMES	POUND	126,864	
LATERAL BRACING	POUND	108,325	
GIRDER BEARINGS	POUND	87,800	
EXPANSION GUARDS	POUND	81,032	
TOTAL	POUND	399,011	2,634,367

INCLUDED IN SUMMARY ON SHEET 31



Designed By N.S.W.
 Drawn By W.C.K.
 Checked By R.S.
 In Charge N.S.WULF
 Approved By L.N.RIAN

NOTES:
 FOR GIRDER DETAILS, SEE SHEETS 3-12 THRU 3-16
 FOR SECTIONS A-A, B-B, & E-E, SEE SHEET 3-15
 FOR SECTIONS C-C, D-D, & H-H, SEE SHEET 3-16

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Sheet S11 of 56

REVISIONS	
NAME	DATE

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE SUPERHIGHWAY
 ELEVATED HIGHWAY
 W. 16 TH. ST. TO W. 15 TH. ST.
 8" x 11" JUN 8-2524.3-2 H

STEEL FRAMING PLAN
 UNIT 1

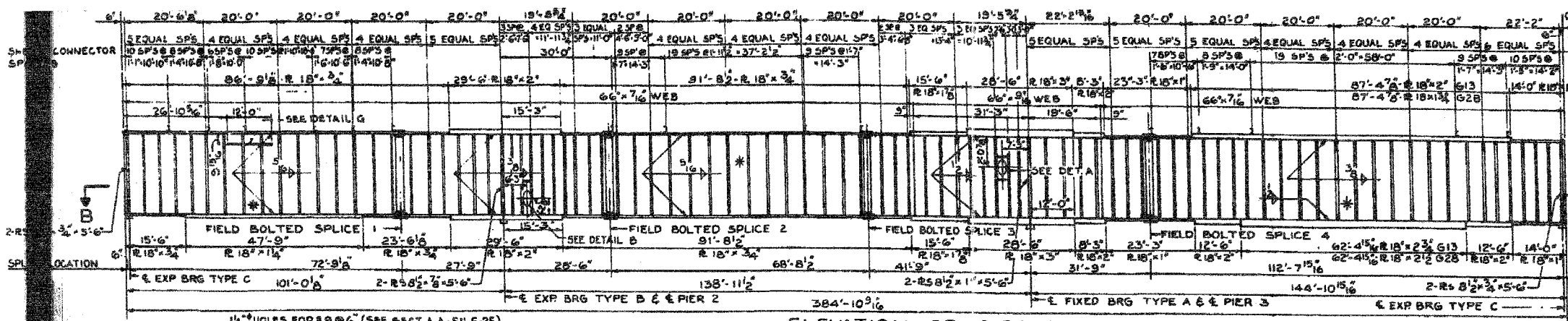
DE LEUW, CATHAR & COMPANY
 CONSULTING ENGINEERS CHICAGO
 DATE: AUGUST, 1961
 SCALE: AS NOTED SHEET 5 II OF 56 SHEETS

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1110

SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

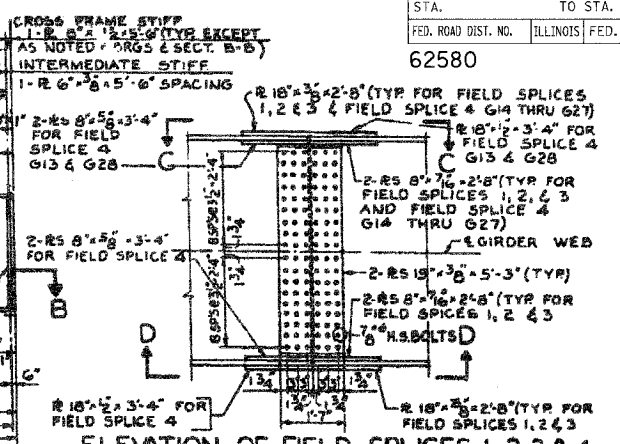
7/19/2005 11:44 AM

62580



ELEVATION OF GIRDER G13

(GIRDER G28 SIMILAR EXCEPT AS NOTED)
SCALE: HORIZ. 1/8" = 1'-0"
VERT. 1/4" = 1'-0"



ELEVATION OF FIELD SPLICES 1, 2, 3 & 4

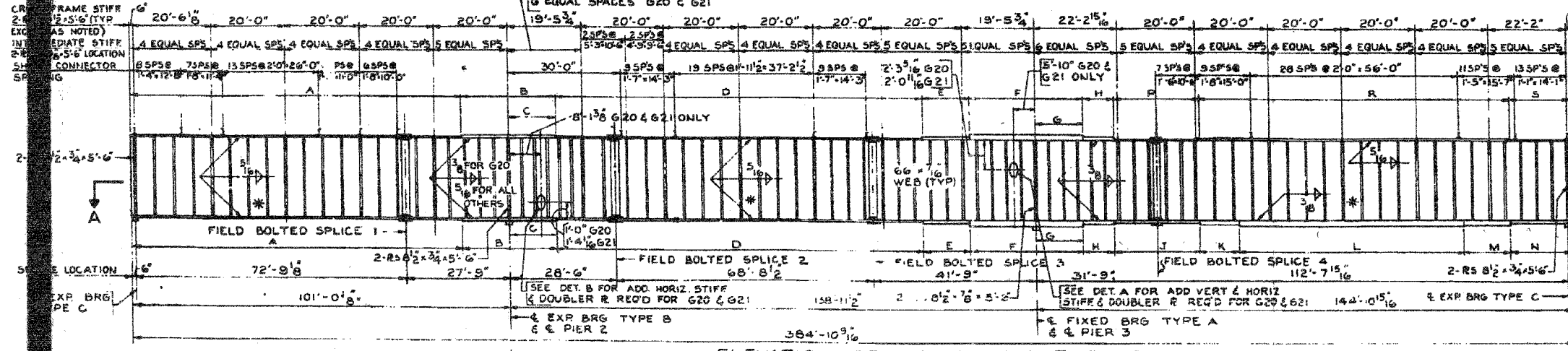
(SPLICE DETAILS APPLY TO ROWDY GIRDERS G13 THRU G28 ONLY)
SCALE: 1/2" = 1'-0"

DETAIL G

1/4" HOLES FOR 3/8" (SEE SECT. A-A SH. 5-26)
WELD 6" x 3/8" x 8" x 1/2" STIFF. TO TOP FLG. SEE DETAIL D SH. 5-16
WELD 6" x 3/8" x 8" x 1/2" STIFF. TO BOT. FLG. SEE DET. E SH. 5-16
WELD 6" x 3/8" x 8" x 1/2" STIFF. TO TOP FLG. SEE DET. D SH. 5-16
WELD 6" x 3/8" x 8" x 1/2" STIFF. TO BOT. FLG. SEE DET. E SH. 5-16

SECTION B-B

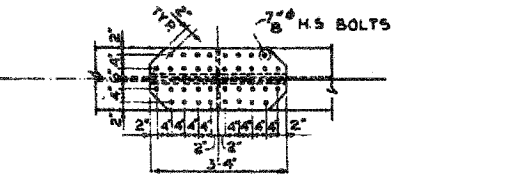
SCALE: HORIZ. 1/8" = 1'-0"
VERT. 1/4" = 1'-0"



ELEVATION OF GIRDERS G14 THRU G27

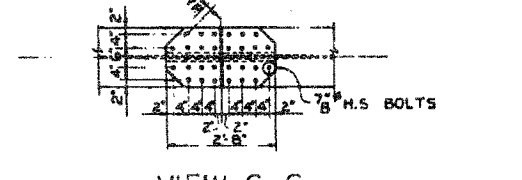
SCALE: HORIZ. 1/8" = 1'-0"
VERT. 1/4" = 1'-0"

SECTION A-A



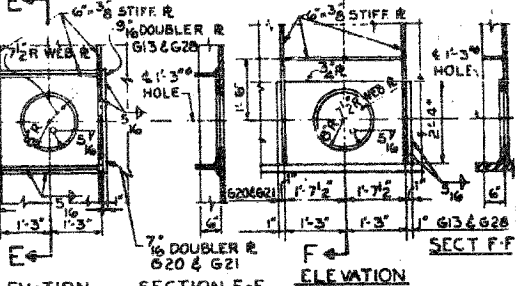
VIEW D-D

(FOR FIELD SPLICE 4 BOT. FLANGES OF ALL GIRDERS & TOP FLANGES OF G13 & G28)



VIEW C-C

(TYPICAL FOR FIELD SPLICES 1, 2, 3 TOP & BOTTOM FLANGES AND FIELD SPLICE 4 TOP FLANGES OF G14 THRU G27)



DETAIL A

(G13 & G21 AS SHOWN G20 & G28 SIMILAR)
SCALE: 1/2" = 1'-0"

DETAIL B

(G13 & G21 AS SHOWN G20 & G28 SIMILAR)
SCALE: 1/2" = 1'-0"

NOTE:
FOR GIRDERS G16, G17, G20, G21, G24 & G25
USE 1-8" x 12-5/8" STIFFENER R AT CROSSFRAME CONNECTIONS AND 1-6" x 3/8" x 5-6" STIFFENER R WHERE NO CROSSFRAME CONNECTIONS ARE MADE.

WELDED PLATE GIRDER SCHEDULE

GIRDER	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
G15, G26 & G27	18" x 3/4" x 89" x 3/8"	18" x 3/4" x 89" x 3/8"	11" x 6"	18" x 3/4" x 101" x 5/8"	18" x 3/4" x 12" x 6"	18" x 2" x 24" x 6"	11" x 0"	18" x 1" x 10" x 0"	18" x 1" x 21" x 0"	18" x 1" x 9" x 0"	18" x 2" x 66" x 10"	18" x 1" x 2" x 9" x 6"	18" x 1" x 17" x 6"	18" x 3/4" x 21" x 0"	18" x 1" x 85" x 4"	18" x 3/4" x 117" x 6"
G17, G18 & G19	18" x 3/4" x 90" x 6"	18" x 3/4" x 21" x 0"	10" x 6"	18" x 3/4" x 103" x 11/2"	18" x 1" x 21" x 6"	18" x 2" x 23" x 9"	10" x 9"	18" x 1" x 2" x 9" x 3"	18" x 1" x 23" x 0"	18" x 1" x 10" x 0"	18" x 1" x 62" x 8"	18" x 1" x 2" x 10" x 0"	18" x 1" x 19" x 6"	18" x 3/4" x 23" x 0"	18" x 5/8" x 82" x 4"	18" x 3/4" x 119" x 6"
G22, G23, G24 & G25	18" x 3/4" x 87" x 6"	18" x 1" x 27" x 0"	13" x 6"	18" x 3/4" x 96" x 11/2"	18" x 1" x 18" x 6"	18" x 2" x 28" x 9"	12" x 9"	18" x 1" x 8" x 3"	18" x 1" x 21" x 0"	18" x 1" x 8" x 9"	18" x 2" x 67" x 7"	18" x 1" x 2" x 8" x 9"	18" x 1" x 16" x 9"	18" x 3/4" x 21" x 0"	18" x 5/8" x 85" x 4"	18" x 3/4" x 116" x 9"

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REVISIONS	NAME	DATE

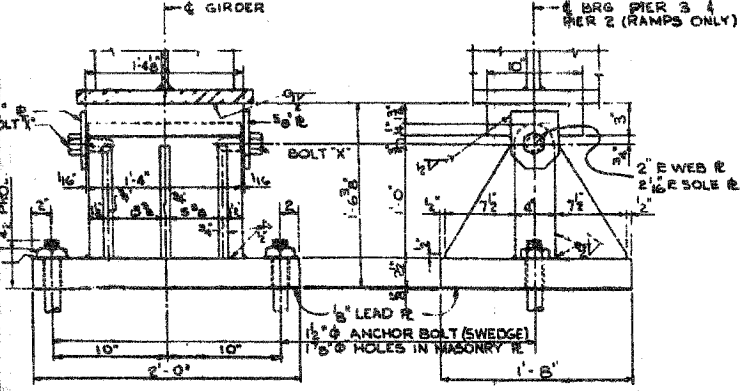
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1110

SCALE: NTS
DATE: 7/22/2005
DRAWN BY:
CHECKED BY:

11/19/2005 11:44:49 AM

MATERIAL - TYPE 'A'

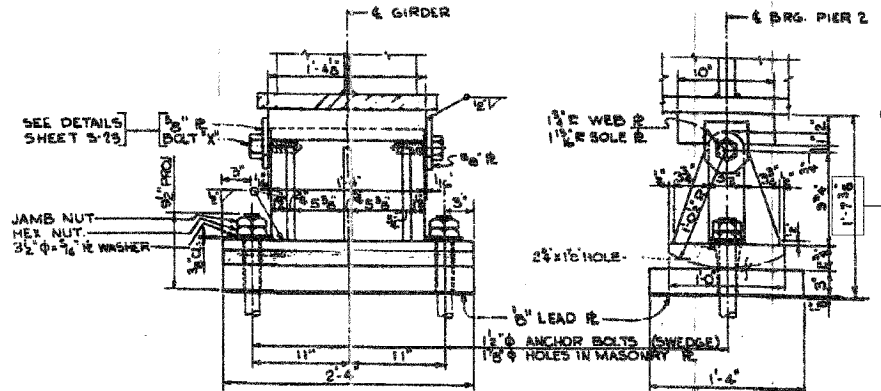
SOLE R	10" x 3" x 1/4"	2-5/8" R	5" x 5" x 5/16"
MASONRY R	20" x 2" x 2-1/2"	2-BOLT X	1/2" x 3/4"
WEB R	14" x 3" x 1/4"	2-ANCHOR BOLTS	1/2" x 2-1/2"
ROCKER R	7" x 3" x 1-1/2"	2-R WASHERS	2" x 2" x 5/16"
8" LEAD R	20" x 6" x 2-1/2"		



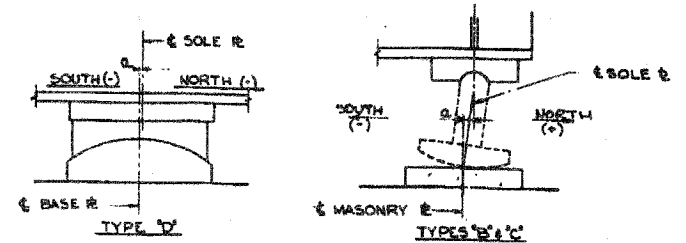
FIXED BRG. TYPE 'A' (32 REQ.)
SCALE: 1/2"=1'-0"

MATERIAL - TYPE 'B'

SOLE R	10" x 3" x 1/4"	5" LEAD R	14" x 3" x 1/4"
MASONRY R	16" x 3" x 2-1/4"	2-5/8" R	5" x 5" x 5/16"
WEB R	14" x 3" x 1/4"	2-BOLT X	1/2" x 3/4"
ROCKER R	12" x 2 1/2" x 2-1/4"	2-ANCHOR BOLTS	1/2" x 2-1/2"
6" STIFFENER R	23" x 3" x 1/2"	2-R WASHERS	2" x 2" x 5/16"



EXPANSION BEARING TYPE 'B' (16 REQ.)
SCALE: 1/2"=1'-0"



SOLE PLATE SETTING DIAGRAM

TABLE OF SETTINGS (a)

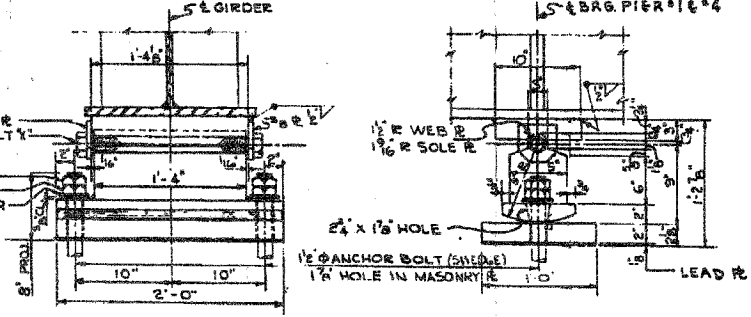
TEMPERATURE	110°	70°	50°	30°	10°
LOCATION OF BEARINGS					
PIER #1 (NORTH)	C	-1/16"	-3/16"	0	+3/16"
PIER #2	B	-1/8"	-3/16"	0	+3/16"
PIER #3 (FIXED)	A	0	0	0	0
PIER #4 (SOUTH)	C	+1/16"	+1/16"	0	-1/16"
LOCATION OF BEARINGS					
PIER #1 (NORTH)	C	-1/16"	-3/16"	0	+3/16"
PIER #2 (FIXED)	A	0	0	0	0
SUSPENDED SPAN					
SOUTH END (FIXED)	E	0	0	0	0
NORTH END	D	+3/16"	+3/16"	0	-3/16"
PIER #3 (FIXED)	A	0	0	0	0
PIER #4 (SOUTH)	C	+1/16"	+1/16"	0	-1/16"

SCHEDULE OF BEARINGS

BEARING TYPE	NUMBER REQUIRED	WEIGHT OF STEEL PER BRG. (LBS)	TOTAL STEEL (LBS)
A	32	871	27,872
B	16	1,070	17,120
C	48	646	31,008
D	8	703	5,624
E	8	772	6,176
TOTAL			87,800

MATERIAL - TYPE 'C'

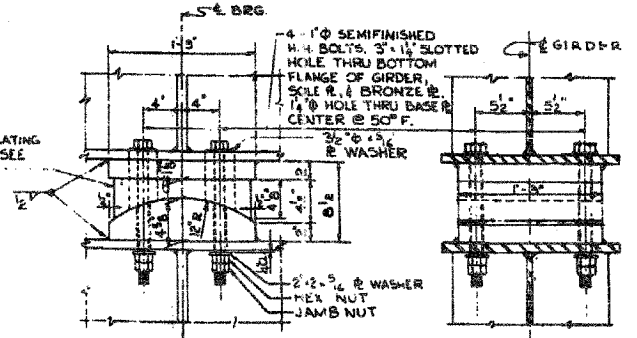
SOLE R	10" x 3" x 1/4"	2-5/8" R	5" x 5" x 5/16"
MASONRY R	12" x 2" x 2-1/2"	2-BOLT X	1/2" x 3/4"
WEB R	8 1/2" x 5" x 1/4"	2-ANCHOR BOLTS	1/2" x 2-1/2"
ROCKER R	6" x 2" x 2-1/2"	2-R WASHERS	2" x 2" x 5/16"
8" LEAD R	12" x 6" x 2-1/2"		



EXPANSION BRG. TYPE 'C' (48 REQ.)
SCALE: 1/2"=1'-0"

MATERIAL - TYPE 'D'

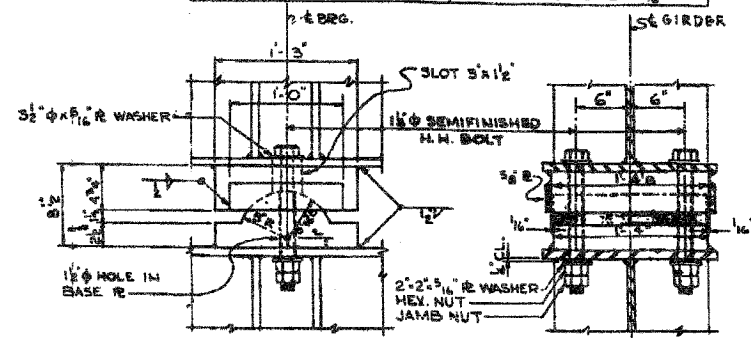
SOLE R	15" x 2" x 1/2"	4-BOLTS	1" x 1" x 3/4"
BRONZE R	14" x 4" x 1" x 3/4"	4-R WASHERS	3/2" x 5/4"
BASE R	15" x 4" x 1" x 3/4"	4-R WASHERS	2" x 2" x 5/16"



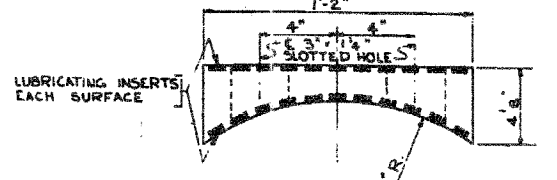
EXPANSION BRG. TYPE 'D' (8 REQ.)
SCALE: 1/2"=1'-0"

MATERIAL - TYPE 'E'

SOLE R	15" x 4" x 1" x 3/4"	2-BOLTS	1" x 1" x 3/4"
BASE R	15" x 4" x 1" x 3/4"	2-R WASHERS	3/2" x 5/4"
2-5/8" R	5" x 5" x 5/16"	2-R WASHERS	2" x 2" x 5/16"



FIXED BRG. TYPE 'E' (8 REQ.)
SCALE: 1/2"=1'-0"



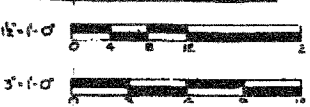
DETAIL OF SELF LUBRICATING BRONZE R
SCALE: 3"=1'-0"

NOTE: SEE ANCHOR BOLT SETTING DETAIL SHT. 523
 * ALL WELDED PLATES TO BE A-7 STEEL
 * ROCKER R (WEB R FOR EXPANSION BRG. TYPES B, C) CAN BE GRADE 65-35 CARBON STEEL CASTING.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
STRUCTURAL STEEL	LBS.	87,800

INCLUDED IN WT. SHOWN SHT. 511



Designed: H.S.W.
 Drawn: H.M.M.
 Checked: P.J.V.
 In Charge: H.S. WULF
 Approve: L.N. RIAN

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE SUPERHIGHWAY
 ELEVATED HIGHWAY
 W. 16 TH. ST. TO W. 15 TH. ST.
 SECTION 5-2525.3-2H
 BEARINGS UNIT I
 DE LEUW, CATHNER & COMPANY
 CONSULTING ENGINEERS CHICAGO
 SCALE: AS NOTED DATE: AUGUST, 1961

Sheet < > of < >

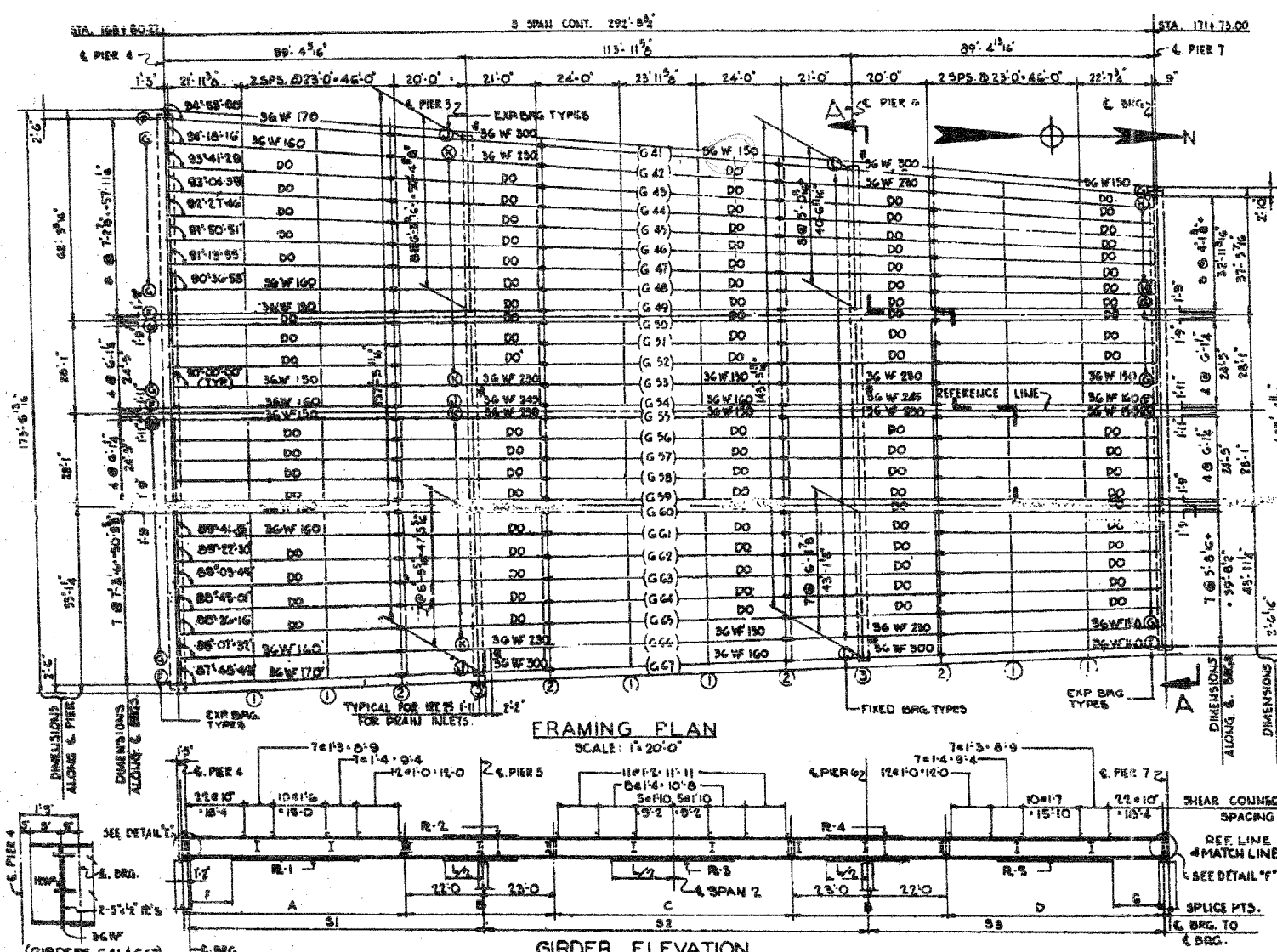
REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1110
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

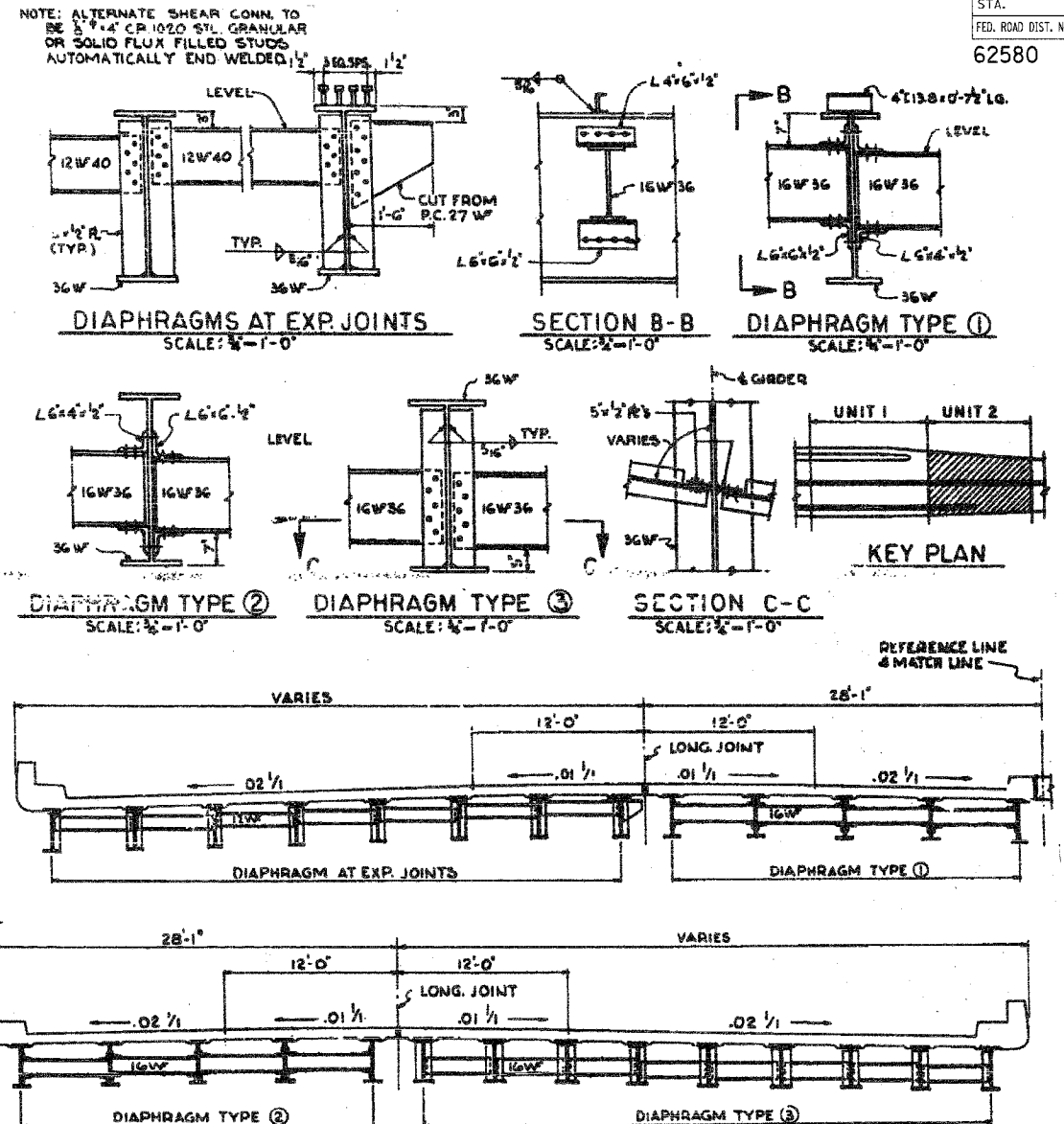
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NOTE: ALL DIMENSIONS ARE HORIZONTAL AND ALONG THE CENTERLINE OF BEAM.

GIRDER	A	B	C	D	S1	S2	S3	F	G	R-1	2 PLATES R-2	R-3	2 PLATES R-4	R-5
41	67'-4"	45'-2"	68'-2"	67'-4"	88'-2"	114'-4"	88'-11"	11'-0"	12'-0"	11'-1'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"
42	66'-7"	45'-1 1/2"	68'-1 1/2"	67'-3 1/2"	88'-1 1/2"	114'-3 1/2"	88'-10"	12'-0"	14'-0"	10'-1'-4 7/8"	15'-1'-2 1/2"	10'-3'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"
43	66'-6"	45'-1 1/2"	68'-1 1/2"	67'-3 1/2"	88'-1 1/2"	114'-2 1/2"	88'-10"	DO	DO	DO	DO	DO	DO	DO
44	66'-6"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	88'-0 1/2"	114'-1 1/2"	88'-9 1/2"	DO	DO	DO	DO	DO	DO	DO
45	66'-6"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	88'-0 1/2"	114'-0 1/2"	88'-8 1/2"	DO	DO	DO	DO	DO	DO	DO
46	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	114'-0 1/2"	88'-8 1/2"	DO	DO	DO	DO	DO	DO	DO
47	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	113'-11 1/2"	88'-7 1/2"	DO	DO	DO	DO	DO	DO	DO
48	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	113'-11 1/2"	88'-7 1/2"	12'-0"	14'-0"	10'-1'-4 7/8"	15'-1'-2 1/2"	10'-3'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"
49	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	113'-11 1/2"	88'-7 1/2"	13'-0"	13'-4 1/2"	10'-1'-4 7/8"	15'-1'-2 1/2"	10'-3'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"
50	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
51	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
52	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
53	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
54	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
55	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
56	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
57	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
58	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
59	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO	DO
60	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	113'-11 1/2"	88'-7 1/2"	13'-0"	13'-4 1/2"	10'-1'-4 7/8"	15'-1'-2 1/2"	10'-3'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"
61	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	113'-11 1/2"	88'-7 1/2"	12'-0"	14'-0"	10'-1'-4 7/8"	15'-1'-2 1/2"	10'-3'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"
62	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	113'-11 1/2"	88'-7 1/2"	DO	DO	DO	DO	DO	DO	DO
63	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	113'-11 1/2"	88'-7 1/2"	DO	DO	DO	DO	DO	DO	DO
64	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	113'-11 1/2"	88'-7 1/2"	DO	DO	DO	DO	DO	DO	DO
65	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	114'-0 1/2"	88'-8 1/2"	DO	DO	DO	DO	DO	DO	DO
66	66'-5 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	87'-11 1/2"	114'-0 1/2"	88'-8 1/2"	12'-0"	14'-0"	10'-1'-4 7/8"	15'-1'-2 1/2"	10'-3'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"
67	67'-1 1/2"	45'-0 1/2"	68'-0 1/2"	67'-2 1/2"	88'-0 1/2"	114'-0 1/2"	88'-8 1/2"	11'-0"	12'-0"	11'-1'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"	15'-1'-2 1/2"	10'-3'-4 1/2"



GENERAL NOTES

SEE SHEET S15 FOR BEARING DETAILS, SPICE DETAILS, DEAD LOAD DEFLECTIONS AND CAMBER DIAGRAM. SEE SHEET S24 FOR HIGH STRENGTH BOLTS FOR ALL DIAPHRAGM CONNECTIONS.

*NOTE: ALL COVER PLATES OVER 1" THICK & ALL W/ BEAMS WITH COVER PLATES OVER 1" THICK ARE TO BE TYP-A-B79 STRUCTURAL STEEL, ALL OTHERS A-7.

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
W. 16TH ST. TO W. 15TH ST.
SECTION 8-2828.3-2H

STEEL FRAMING PLAN UNIT 2

DE LEUW, CATHNER & COMPANY
CONSULTING ENGINEERS CHICAGO
SCALE: AS NOTED SHEET S22 OF 56 SHEETS

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1110

SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

SUMMARY OF STRUCTURAL STEEL UNIT 2

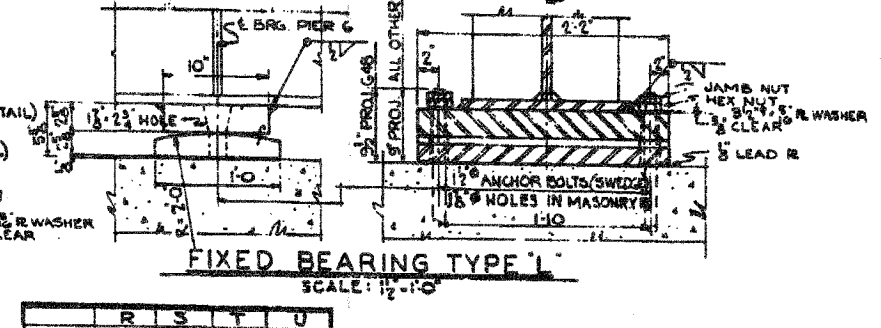
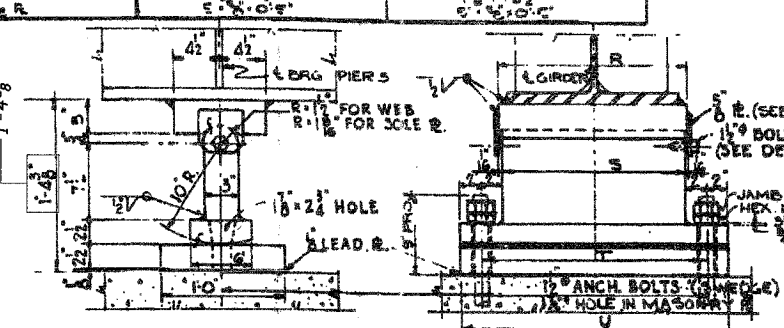
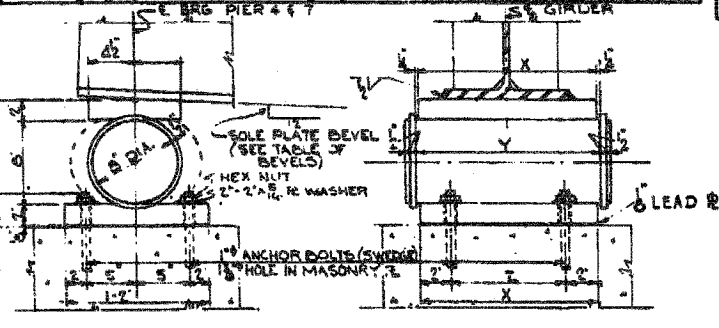
ITEM	UNIT	QUANTITY	QUANTITY
		NET WT	GROSS WT
GIRDERS	POUND	1,539,558	96,513
FILL PLATES & SPLICE PLATES	POUND	10,705	
DIAPHRAGMS	POUND	94,741	
GIRDER BEARINGS	POUND	60,782	
TOTAL		1,605,786	96,513

FOR INFORMATION ONLY

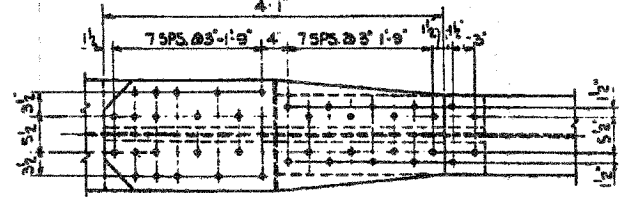
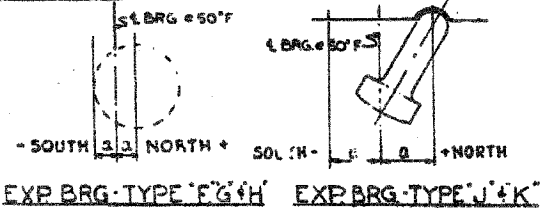
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

Designed By: BNV
Drawn By: H.M.
Checked By: R.F.P.
In Charge: N.S. WOLF
Approved By: L.H. RIAN

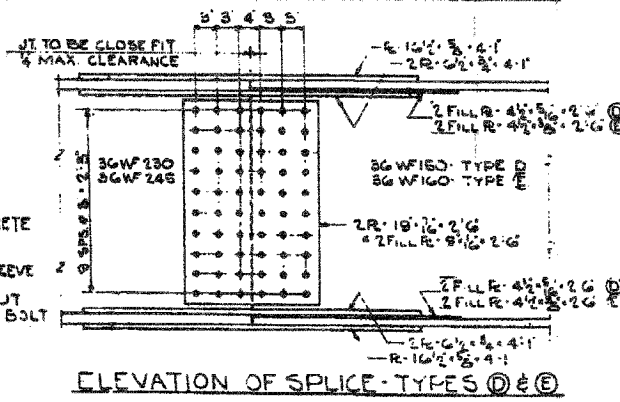
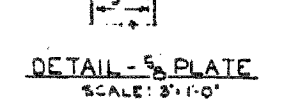
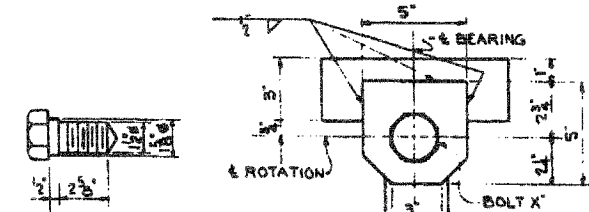
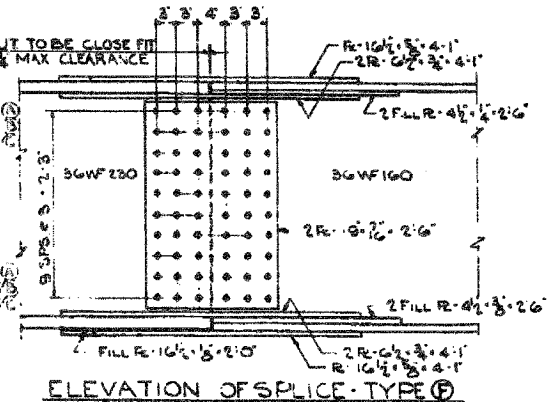
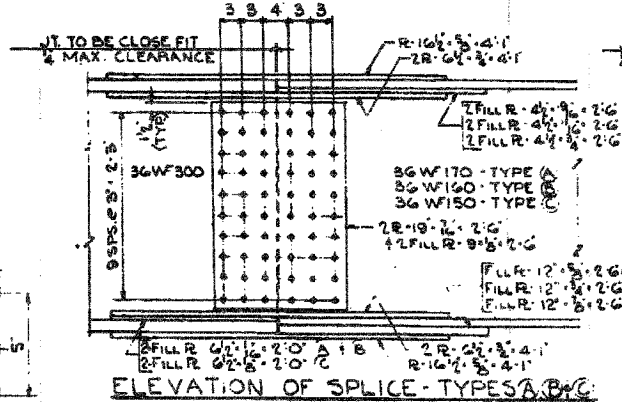
MATERIAL	TYPE F (6-REQD)	TYPE G (41-REQD)	TYPE H (7-REQD)	MATERIAL	TYPE J (3-REQD)	TYPE K (24-REQD)	MATERIAL	TYPE L (27-REQD)
SOLE PLATE MASONRY R ROCKER R LEAD R ANCHOR BOLTS R W BANK	9" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2"	9" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2"	9" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2"	SOLE PLATE MASONRY R ROCKER R LEAD R ANCHOR BOLTS R W BANK	9" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2"	9" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2"	SOLE PLATE MASONRY R ROCKER R LEAD R ANCHOR BOLTS R W BANK	10" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2" 14" x 25" x 1/2"



TYPE F	Y	Z
TYPE G	3 1/2	1 1/2
TYPE H	3 1/2	1 1/2
TYPE J	1 1/2	10 1/2



EXP BRG TYPE	TEMPERATURE	110°	90°	70°	50°	30°	10°
EXP BRG TYPE F, G, H	PIER #4	0	0	0	0	0	0
	PIER #7	0	0	0	0	0	0
EXP BRG TYPE J, K	PIER #5	0	0	0	0	0	0



SPLICE TYPE	NUMBER REQUIRED	WT. OF STEEL PER SPLICE, LBS.	TOTAL STEEL LBS.
A	2	997	1,994
B	3	1,020	3,060
C	3	1,043	3,129
D	83	922	76,526
E	4	931	3,724
F	13	926	12,038
TOTAL WEIGHT OF SPLICES		100,471 LBS.	

LOCATION	GIRDER NUMBER					
	41	48	50	55	59	67
PIER NO. 4						
PIER NO. 6						
PIER NO. 7						
TOTAL WEIGHT OF FILL PLATES = 234 LBS.						

LOCATION	GIRDER NUMBER				
	41	42 to 55	64	58 to 66	67
PIER NO. 4	0	32	5	32	32
PIER NO. 7	0	5	32	5	16

BEARING TYPE	NUMBER REQUIRED	WT. OF STEEL PER BEARING, LBS.	TOTAL STEEL LBS.
F	6	648	3,888
G	41	560	22,960
H	7	476	3,326
J	3	790	2,370
K	24	676	16,224
L	27	465	12,555
LESS ANCHOR BOLTS AT PIER 7		- 540 LBS.	
TOTAL WEIGHT OF BEARINGS		60,782 LBS.	

NOTE:
MATERIAL INCLUDED IN WEIGHT ON SMT. 522
ROCKER R AND WEB R FOR EXPANSION BRG TYPES J, K CAN BE GRADE 65-35 CARBON STEEL CASTING.
FLANGE SPLICES — 5/8" HIGH STRENGTH BOLTS.
WEB SPLICES — 3/4" HIGH STRENGTH BOLTS.
ANCHOR BOLTS AT PIER 7 PROVIDED IN CONTRACT S 2825.3-1 H.

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
W. 16 TH ST. TO W. 15 TH ST.
SECTION 5-2825.3-2H
BEARINGS & SPLICE DETAILS
UNIT 2

DE LEUW, GATHER & COMPANY
CONSULTING ENGINEERS

Des. By N.S.W.
Drawn By W.C.K.
Checked By R.S.
In Charge N.S.W.U.F.
Approved By L.N.RIAN

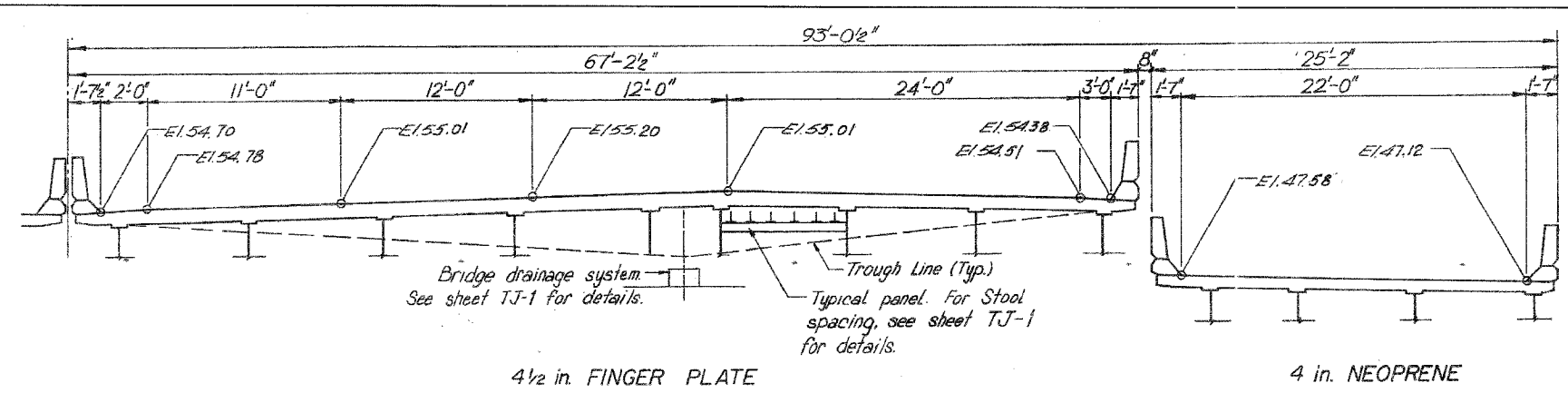
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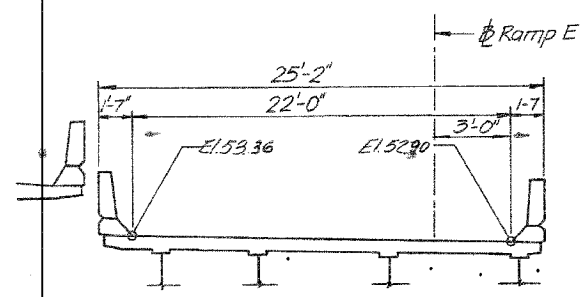
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REVISIONS	NAME	DATE			

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1110
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

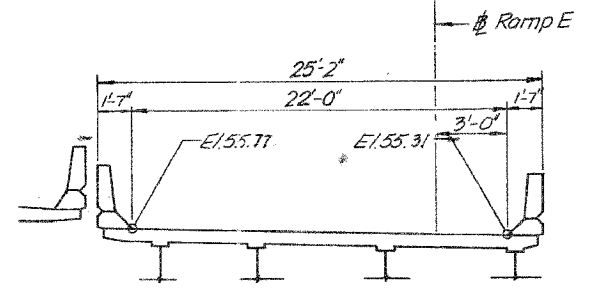
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	326
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



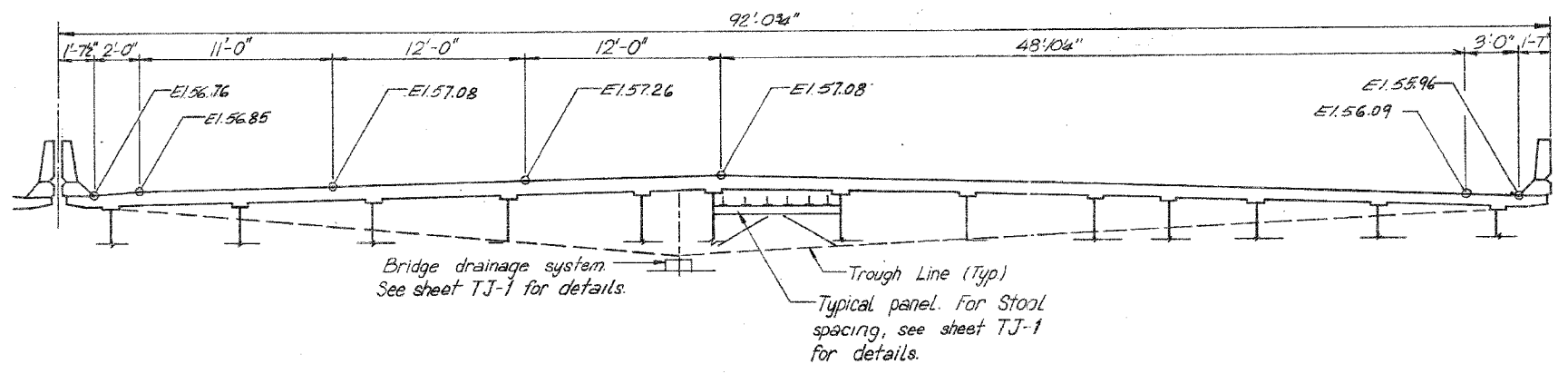
EXPANSION JOINTS AT PIER No. 1



EXPANSION JOINT 'A' SPAN 2
2 1/2 in. PREFORMED JOINT SEAL



EXPANSION JOINT 'B' SPAN 2
2 in. NEOPRENE



EXPANSION JOINT AT PIER No. 4
4 1/2 in. FINGER PLATE

- Notes:
1. All Dimensions are along Centerline of Joint.
 2. For details see sheets TJ1, TJ2 & TJ3.
 3. All Sections looking up-station.

12-1-88

SHEET 018 OF 035

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-077-BR-COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1110
TRANSVERSE DECK JT. ELEVATION

Scale: NONE
Date: AUG., 1988

Drawn By: J.G.
Checked By: M.E.M.

ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	
Name	Date

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1110

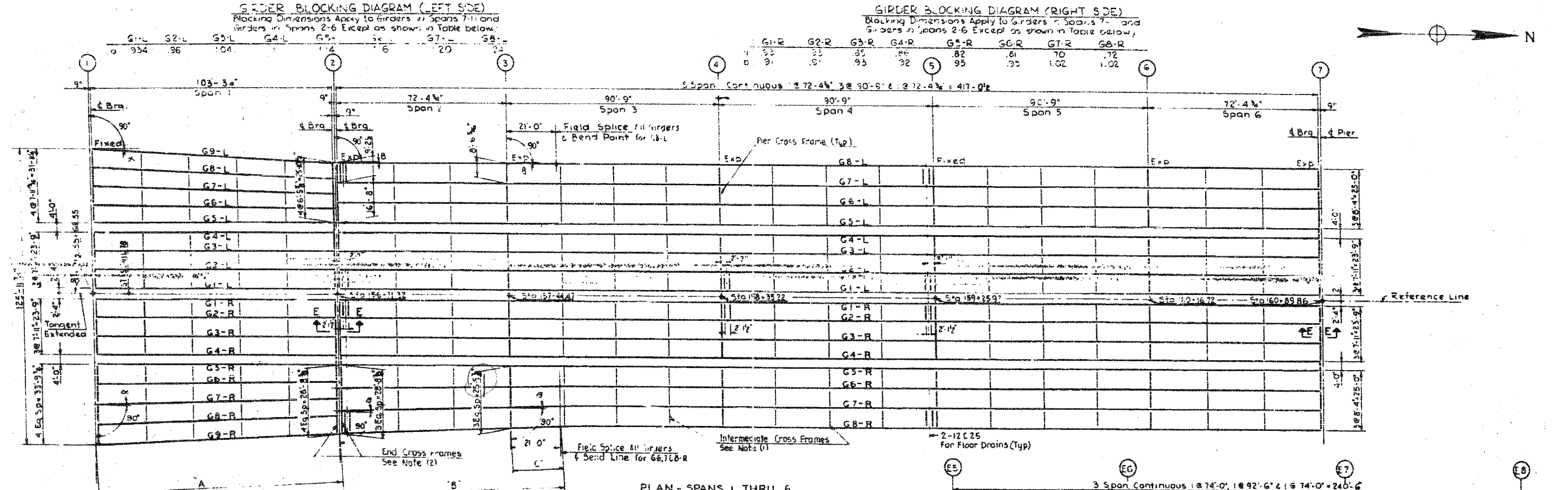
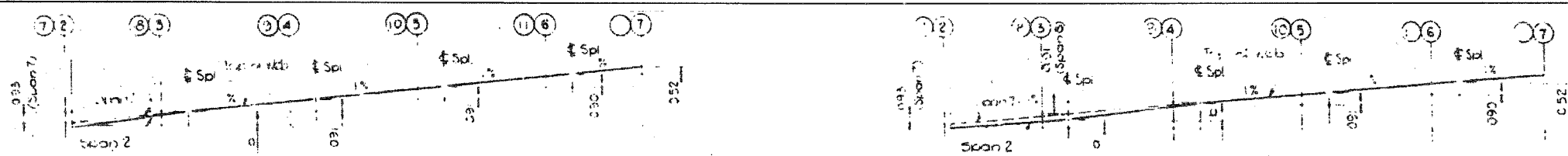
SCALE: NTS
DATE: 7/22/2005

DRAWN BY: BDC
CHECKED BY: BLU

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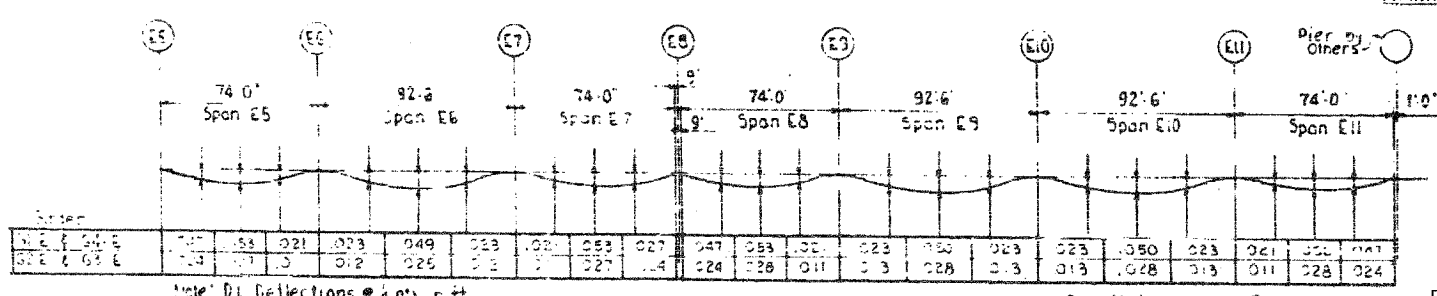
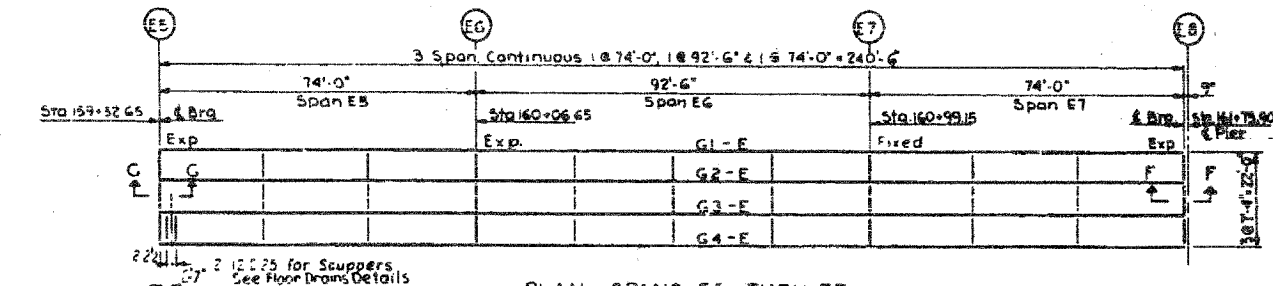
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- NOTES**
- Intermediate cross frames to be located above Piers for continuous spans & between piers of all spans at approximate 3/4 or 5 points as indicated in plan. Maximum spacing to be 25'-0". See Stiffener spacing dimensions.
 - End cross frames to be located at free ends of all girders, simple & continuous spans.
- See Expansion Guard Details Sheets for Sections E, F & G

DIMENSIONS OF FANNED GIRDERS						
(All girders not in schedule are parallel to Ref Line)						
Girder	SPAN 1		SPANS 2 & 3			
	Distance A	Angle α	Girder	Distance B	Distance C	Angle β
G5-L	104-9 1/2	0°-00'-00"	G7-L	94-1 1/2	21'-0"	0°-00'-00"
G6-L	104-9 1/2	0°-49'-42"	G8-L	94-1 1/2	21'-0"	0°-32'-01"
G7-L	104-9 1/2	1°-39'-24"	G5-R	94-1 1/2	21'-0"	0°-00'-00"
G8-L	104-10 1/2	2°-29'-02"	G6-R	94-1 1/2	21'-0"	0°-44'-59"
G9-L	104-11 1/2	3°-18'-37"	G7-R	94-2 1/2	21'-0"	0°-23'-57"
G5-R	104-9 1/2	0°-00'-00"	G8-R	94-2 1/2	21'-0"	2°-14'-53"
G6-R	104-9 1/2	0°-47'-05"				
G7-R	104-9 1/2	1°-24'-10"				
G8-R	104-10 1/2	2°-26'-13"				
G9-R	104-10 1/2	2°-48'-13"				



CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
SECTION NO. 18-2823-SHP
W 166 STREET TO W 286 STREET

FRAMING PLAN

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

DESIGNED BY RLF
DRAWN BY M.L.
SCALE: NTS

CHECKED BY HSM
IN CHARGE OF HSM
DATE: AUG. 1961
SHEET NO. 5-20 OF 82

REVISIONS	NAME	DATE

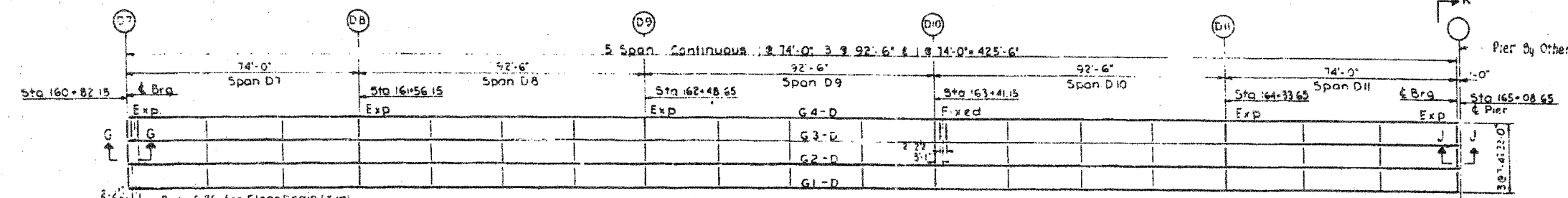
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1111

SCALE: NTS
DATE: 7/22/2005

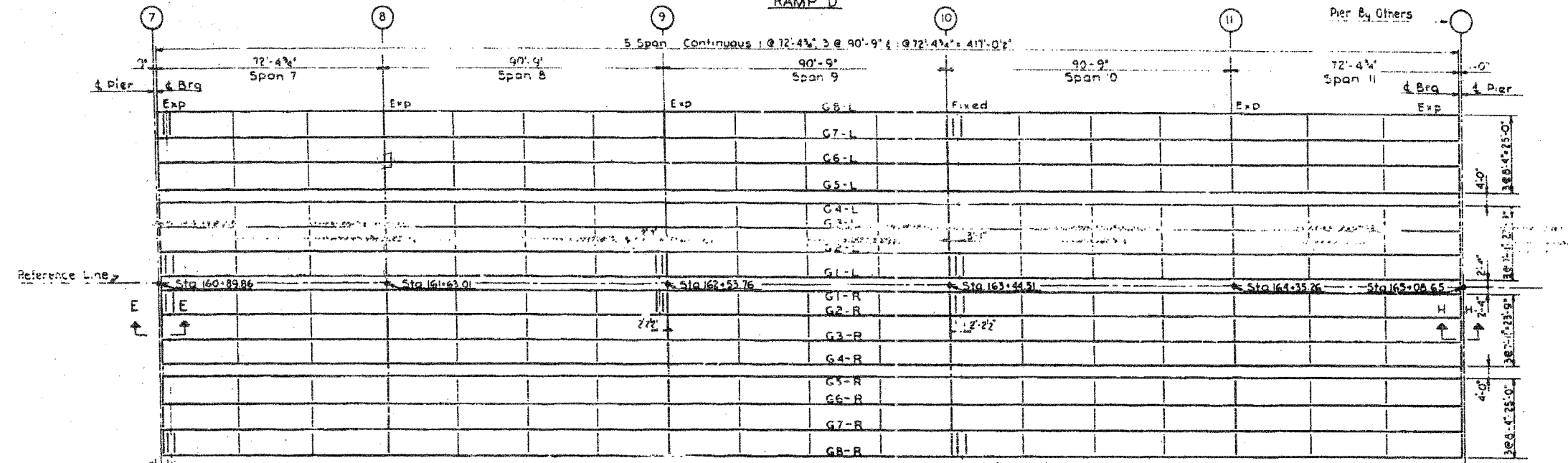
DRAWN BY: BDC
CHECKED BY: BLU

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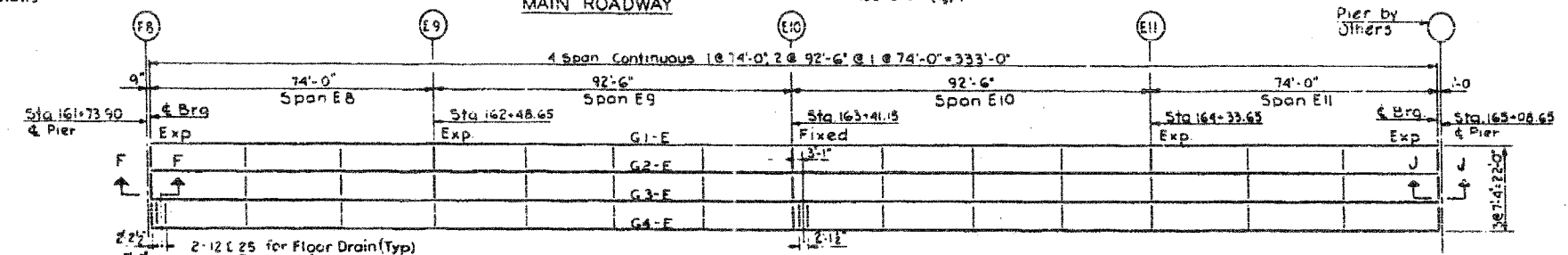
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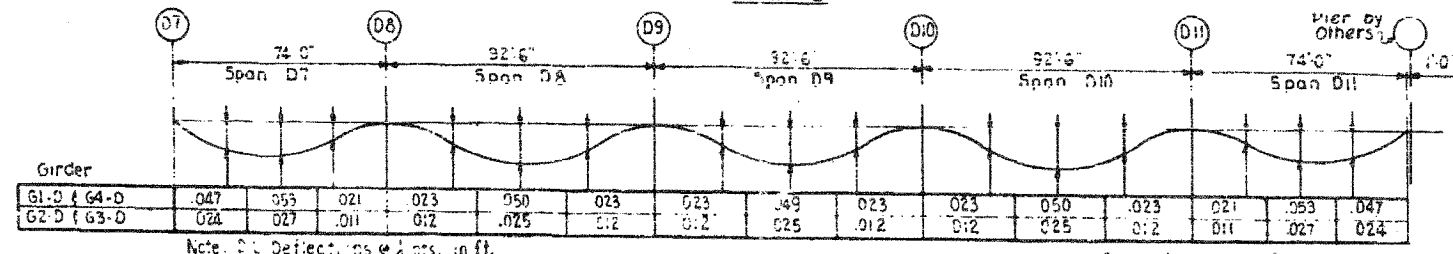
PLAN-SPANS D7 THRU D11
RAMP D



PLAN-SPANS 7 THRU 11
MAIN ROADWAY



PLAN-SPANS EB THRU E11
RAMP E



SPANS D7 THRU D11
RAMP D DEAD LOAD DEFLECTIONS
Includes Weight of Concrete only

STRUCTURAL STEEL NOTES

- STEEL**
Structural Steel ASTM Designation A-373 shall be used throughout except as noted below.
ASTM Designation A-7 steel to be used for cross frames, masonry plates, anchor bolts, field splice plates, expansion guards, channel shear connectors, and scupper channels.
- FIELD CONNECTIONS**
Cross Frames - 2 @ High-Strength Bolts A.S.T.M. A-325
Girder Splices - 2 @ High-Strength Bolts A.S.T.M. A-325
Expansion Guard Brackets - 2 @ Ribbed bolts
Scupper Channels - 2" MS P.L. See Sheet S-30
- FIELD CONNECTIONS - WELDS**
Flanges to web with continuous fillet welds. Fillet welds to web, use 1/2" fillet welds for flange plates up to and including 1/2" thickness. Use 3/8" fillet welds for flange plates up to and including 1/2" thickness. Use 1/2" fillet welds for flange plates up to and including 2" thickness.
- SPICES**
Field splices may be vertical or normal to the girders at the option of the fabricator. Holes for field splices shall be reamed with the girders assembled in position in accordance with the Blocking Diagrams.
Shop web splices shall be made vertical.
- PAINTING**
The Contractor for Section S-2525-3HF shall furnish and apply 1 shop coat of red lead paint and 2 field coats of paint to all structural steel except as noted below. The tops of girder top flanges will not be painted except for a distance of 5 feet each way from interior piers & abutments.

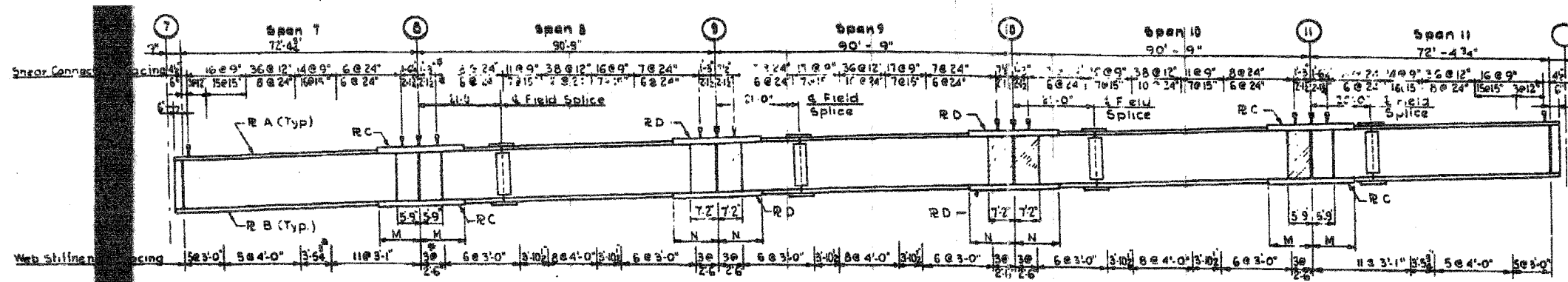
See Expansion Guard Detail Sheets S-25, S-26, S-27 for Sections E, F, G, H, J & K

CITY OF CHICAGO
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BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
SECTION NO. 15-1525-3H
W. 156 STREET TO W. 166 STREET
FRAMING PLAN
CONOVER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS
DESIGNED BY RLF
DRAWN BY M.L.
SCALE
CHECKED BY IN CHARGE OF HSM
DATE: AUG. 1991
SHEET NO. S-21 OF 82

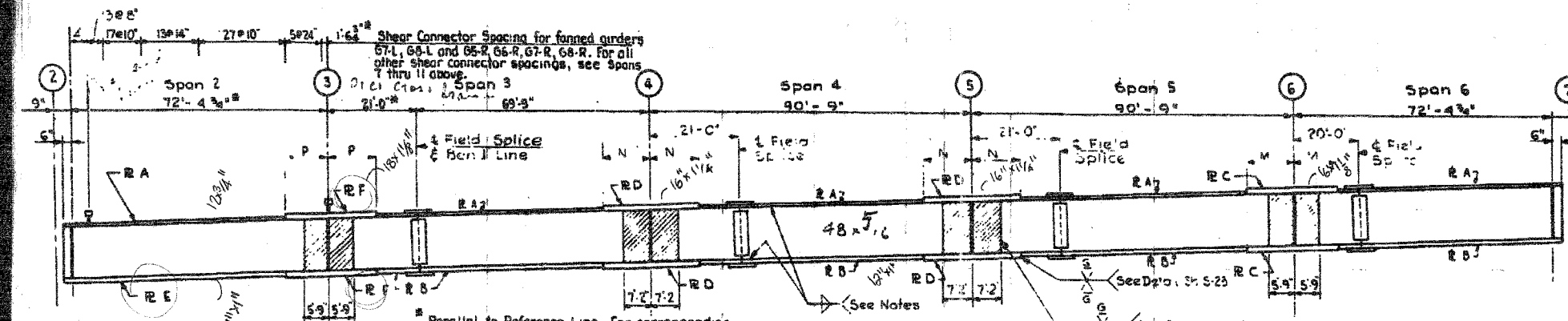
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1111
SCALE: NTS
DATE: 7/22/2005
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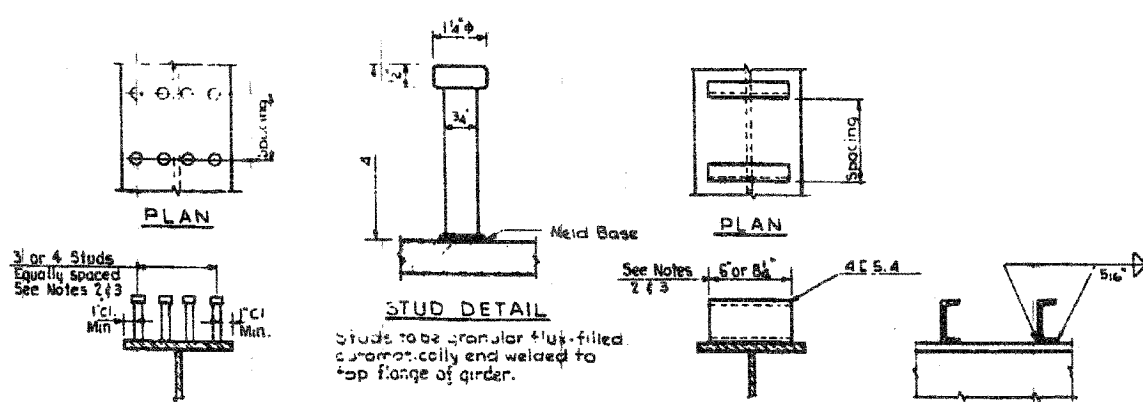
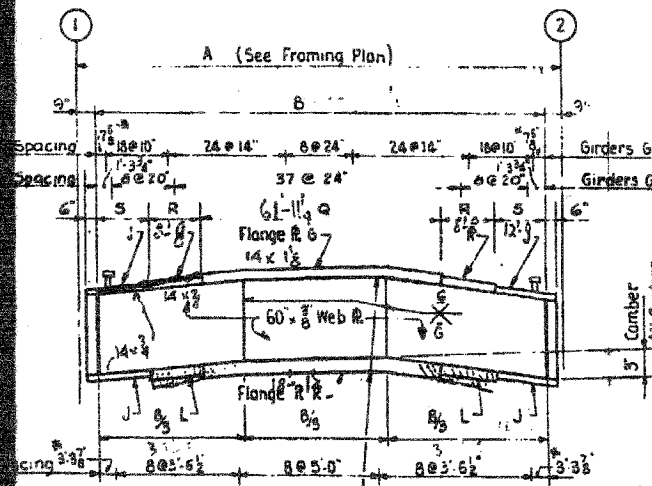


GIRDER	B	DIMENSION				PLATE SIZE					
		Q	R	S	G	H	J	K	L		
G1-L	103-3	61-11 1/2	8-8	12-0	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G2,3-(L&R)	103-3	63-11 1/2	10-5	9-3	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G4,5-(L&R)	103-3	61-11 1/2	10-5	10-3	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G6-L	103-3	65-11 1/2	10-4	9-4	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G7-L	103-3	63-11 1/2	10-4	9-4	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G8-L	103-4	64-0	10-4	9-4	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G9-L	103-5	64-1	9-8	10-0	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G6-R	103-3	63-11 1/2	11-0	8-8	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G7-R	103-3	63-11 1/2	11-0	8-8	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G8-R	103-4	64-0	11-0	8-8	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G9-R	103-4	64-0	9-8	10-0	14-1 1/2	14-3/4	14-3/4	18-1 1/2	18-1 1/2		
G1-R	103-3	61-11 1/2	7-8	13-0	14-3/4	14-3/4	14-3/4	18-1 1/2	18-1 1/2		



UNIT	GIRDER	PLATE A		PLATE B		PLATE C		PLATE D		PLATE E		PLATE F	
		SIZE	M	SIZE	N	SIZE	N	SIZE	P	SIZE	P	SIZE	P
SPANS 7 THRU 11	G1-L	10-3	12-3	16-3	10-2	16-1	11-2						
	G2,3-(R&L)	12-3	12-1	16-1	10-8	16-1 1/2	12-0						
	G4,5-(R&L)	12-3	12-1	16-1	9-9	16-1	11-2						
SPANS 2 THRU 6	G6,7,8-(R&L)	12-3	12-1	16-1 1/2	11-4	16-1 1/2	12-6						
	G1-R	10-3	12-3	16-3	8-9	16-3	10-0						
	G1-L	10-3	12-3	16-3	8-9	16-3	10-0	12-3	16-3	8-9			
	G2,3-(R&L)	12-3	12-1	16-1	10-8	16-1 1/2	12-0	12-3	16-1	10-2			
	G4-(R&L)	12-3	12-1	16-1	9-9	16-1	11-2	12-1	16-1	9-9			
	G5-L	12-3	12-1	16-1	11-4	16-1 1/2	11-2	12-1	16-1	9-9			
G6-L	12-3	12-1	16-1 1/2	11-4	16-1 1/2	12-6	12-1	16-1 1/2	11-4				
G7,8-L	12-3	12-1	16-1 1/2	11-4	16-1 1/2	12-6	12-1	16-1 1/2	11-4				
G5-R	12-3	12-1	16-1	9-9	16-1	11-2	12-1	16-1	10-3				
G6,7,8-R	12-3	12-1	16-1 1/2	11-4	16-1 1/2	12-6	14-1	18-1 1/2	11-9				

Continuous Span Web Plates - Spans (2 thru 11)
 Positive Moment Areas all Girders - 48 x 3/4"
 Negative Moment Areas (Shown Cross-Hatched)
 Girders G2 thru G8 (L&R) - 48 x 3/4"
 Girders G1-(L&R) - 48 x 3/8"



- NOTES**
- Studs or channels may be used at the option of the contractor.
 - Shear Connector locations at flange splice plates

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Sheet < > of < >

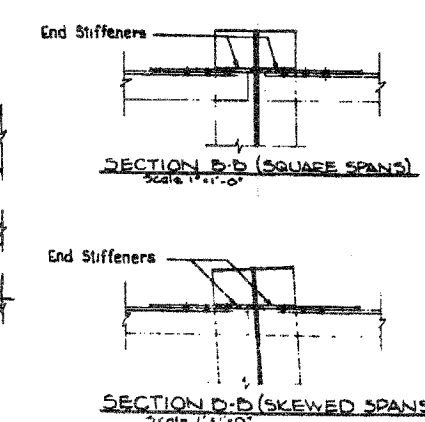
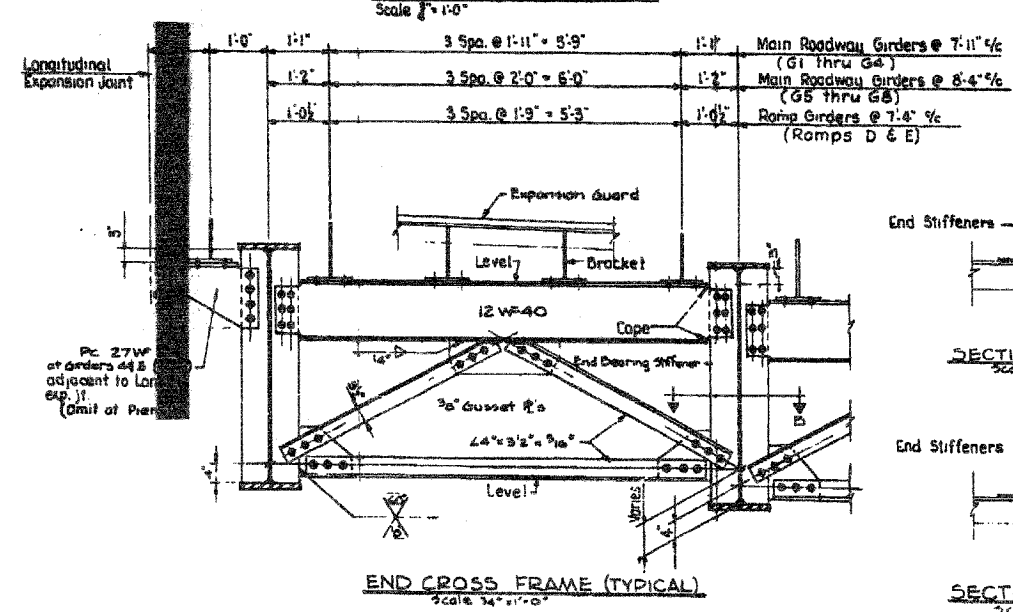
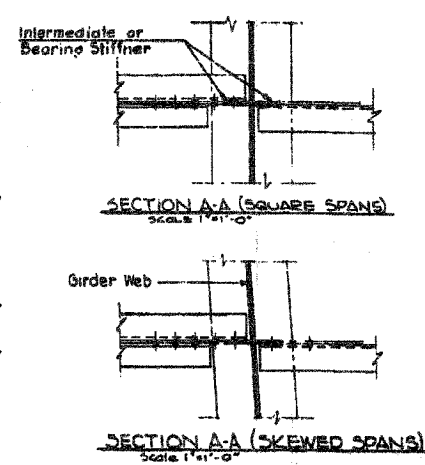
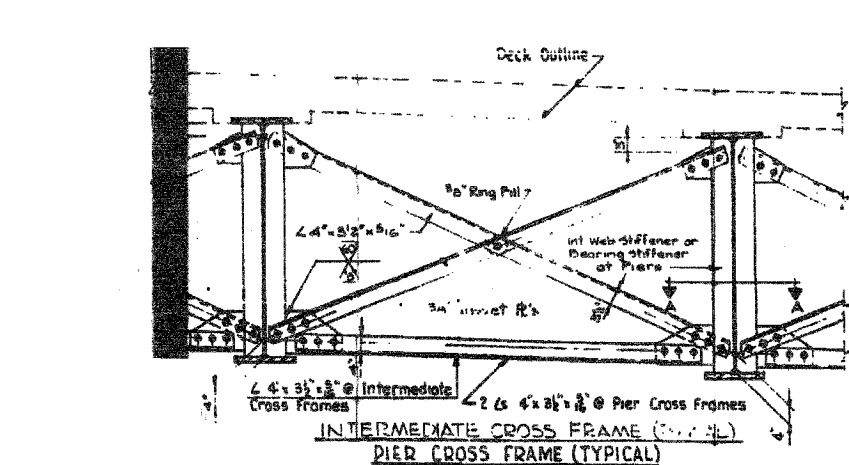
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1111

SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: BDC
 CHECKED BY: BLU

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE SUPERHIGHWAY
 SECTION NO. 18-2525.3-2H
 18-2525.3-2HW
 W. 106 STREET TO W. 146 STREET
GIRDER DETAILS
 CONSOBER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS
 CHICAGO, ILLINOIS
 DESIGNED BY E.L.F. CHECKED BY



CROSS FRAME DETAILS

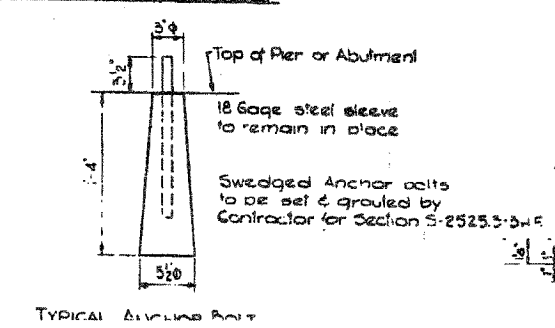
NOTES

Expansion Guard bracket spacings shown are typical at locations where girders are parallel.

Dimensions to be adjusted by detailer where girders are formed. Hold bracket spacings to 2'3" max. See Framing Plans for 1/2" dimensions of laminated girders.

Special bracket spacing dimensions to be used at north end of contract to meet expansion guard supplied by others. See Expansion Guard Details Sheet 5-27.

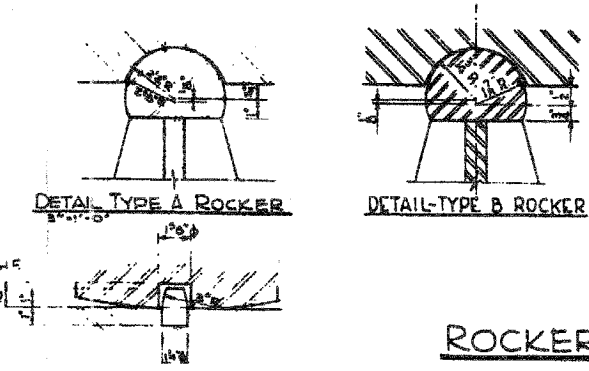
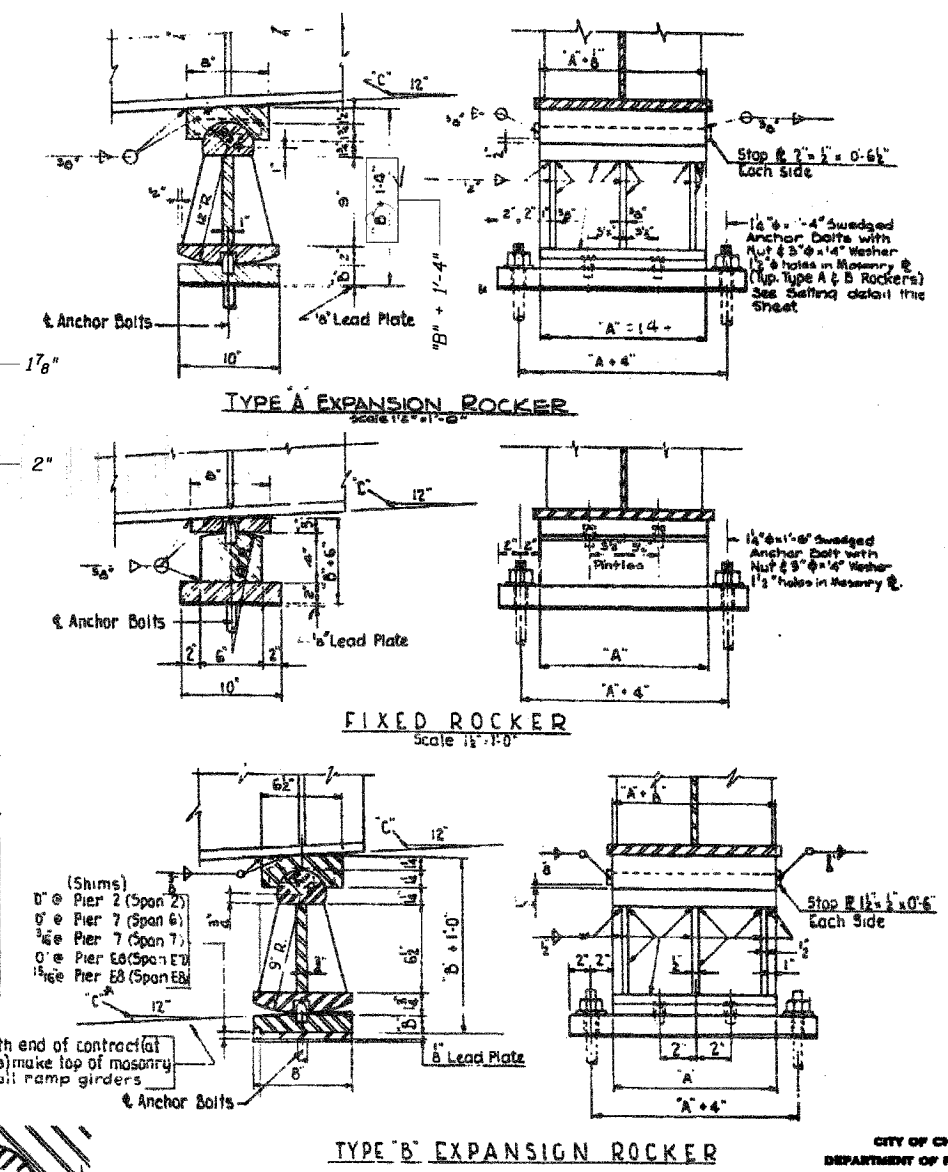
Intermediate Cross Frames and End Cross Frames shown are typical for simple spans & continuous spans. Pier cross frames typical are at interior piers of continuous spans. See Framing Plans & Girder Details for girder dimensions & spacings.



ROCKER SCHEDULE

Girder	Type	A'	B'	C'
PIER 1- SPAN 1				
G1 - L&R	Fixed	10'	1 1/2'	1 1/2'
G2,3, L&R	Fixed	10'	1 1/2'	1 1/2'
G4,5, L&R	Fixed	10'	1 1/2'	1 1/2'
G6-9, L&R	Fixed	10'	1 1/2'	1 1/2'
PIER 2- SPAN 2				
G1 - L&R	B	11'	1 1/2'	1 1/2'
G2,3, L&R	B	11'	1 1/2'	1 1/2'
G4,5, L&R	B	11'	1 1/2'	1 1/2'
G6-9, L&R	B	11'	1 1/2'	1 1/2'
PIER 2 SPAN 2				
G1 - L&R	B	10'	1 1/2'	1 1/2'
G2,3, L&R	B	10'	1 1/2'	1 1/2'
G4,5, L&R	B	10'	1 1/2'	1 1/2'
G6-9, L&R	B	10'	1 1/2'	1 1/2'
PIERS 3,4,6,8,9 & 11				
G1 - L&R	A	11'	1 1/2'	1 1/2'
G2,3, L&R	A	11'	1 1/2'	1 1/2'
G4,5, L&R	A	11'	1 1/2'	1 1/2'
G6-9, L&R	A	11'	1 1/2'	1 1/2'
PIER 7 & PIER BY OTHERS				
G1 - L&R	B	10'	1 1/2'	1 1/2'
G2,3, L&R	B	10'	1 1/2'	1 1/2'
G4,5, L&R	B	10'	1 1/2'	1 1/2'
G6-9, L&R	B	10'	1 1/2'	1 1/2'
PIERS 5 & 10				
G1 - L&R	Fixed	11'	1 1/2'	1 1/2'
G2,3, L&R	Fixed	13'	1 1/2'	1 1/2'
G4,5, L&R	Fixed	12'	1 1/2'	1 1/2'
G6-9, L&R	Fixed	14'	1 1/2'	1 1/2'
RAMP E				
All Girders	B	10'	1 1/2'	1 1/2'
PIERS 6,8,9, & 11				
All Girders	A	14'	2'	1 1/2'
PIERS 7 & 10				
All Girders	Fixed	14'	1 1/2'	1 1/2'
PIER E0				
All Girders	B	10'	1 1/2'	1 1/2'
RAMP D				
ABUTMENT D7 & PIER BY OTHERS				
All Girders	B	10'	1 1/2'	1 1/2'
PIER: D8, D9 & D11				
All Girders	A	14'	2'	1 1/2'
PIER D10				
All Girders	Fixed	14'	1 1/2'	1 1/2'

Note: At North end of contract (at Pier by Others) make top of masonry plate level, all ramp girders



ROCKER DETAILS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
SECTION NO. 13-1525.3-BH
13-1525.3-BH
W. 15th STREET TO W. 28th STREET
CROSS FRAMES & ROCKERS
CONSEOR, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS
DESIGNED BY RLF CHECKED BY
DRAWN BY IN CHARGE OF H.S.M.

Sheet < > of < >

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1111

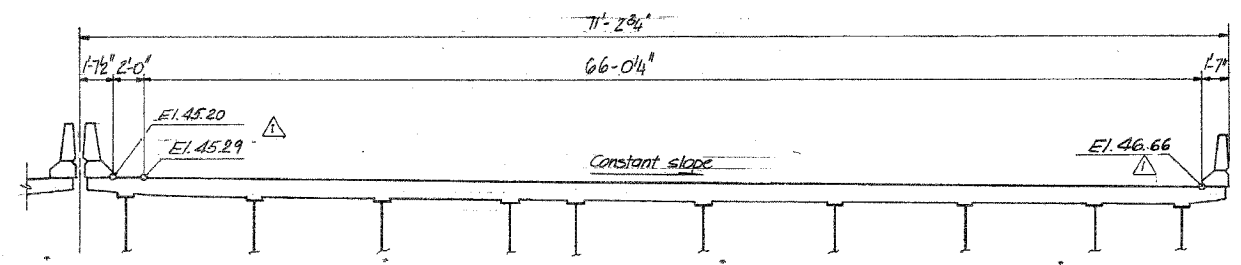
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DATE: 7/22/2005

DRAWN BY: BDC
CHECKED BY: BLU

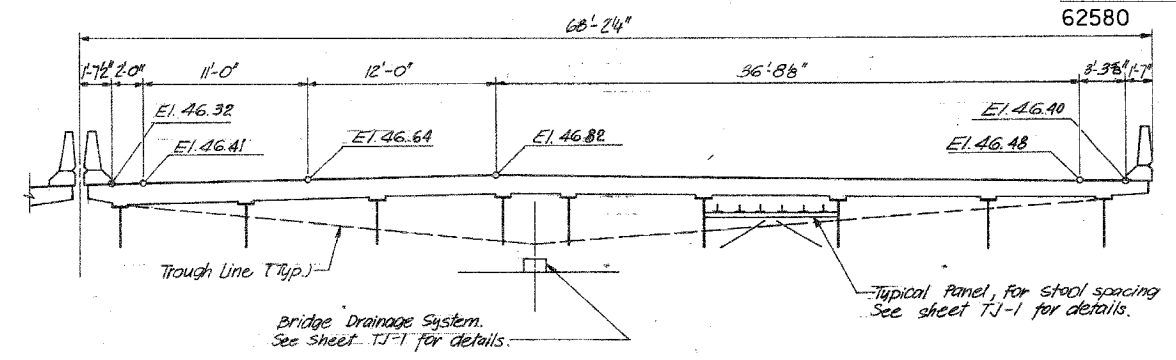
FOR INFORMATION ONLY

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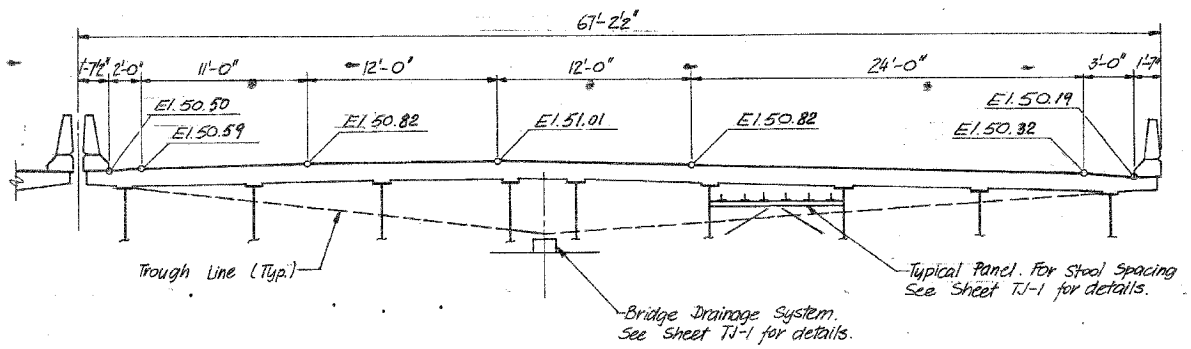
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	331
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



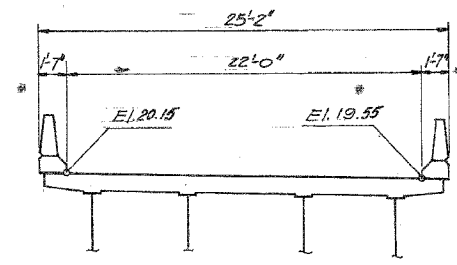
EXPANSION JOINT AT PIER No. 1
2 1/2 in. PREFORMED JOINT SEAL



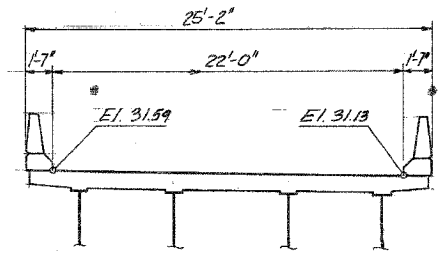
EXPANSION JOINT AT PIER No. 2
4 1/2 in. FINGER PLATE



EXPANSION JOINT AT PIER No. 7
4 1/2 in. FINGER PLATE



EXPANSION JOINT AT PIER No. E5
2 in. NEOPRENE EXP. JOINT



EXPANSION JOINT AT PIER No. E8
2 1/2 in. NEOPRENE EXP. JOINT

- Notes:
1. All dimensions are along Centerline of Joint.
 2. For details see sheets TJ1, TJ2 & TJ3.
 3. All Sections looking up-station.

SHEET C 28 OF C 51

REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1885 - 07188 - COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1111
TRANSVERSE DECK JOINT ELEVATION
Scale: NONE
Date: AUG., 1988
Drawn By:
Checked By:
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1111
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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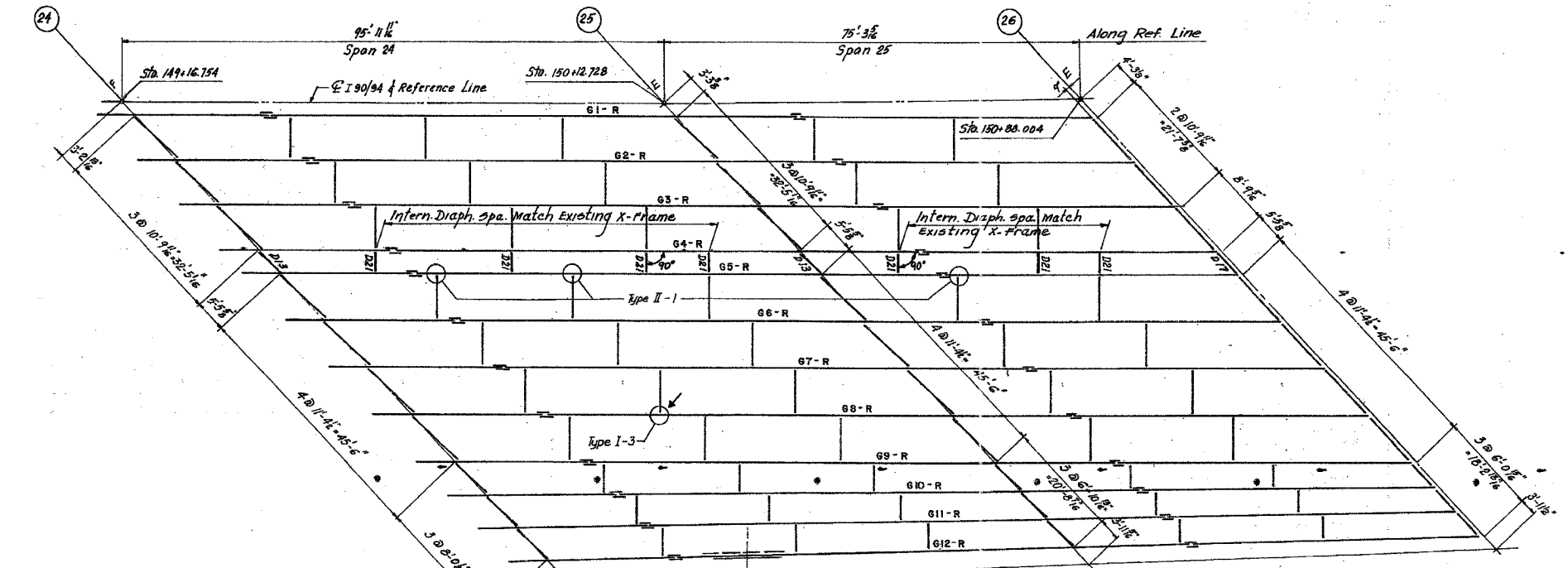
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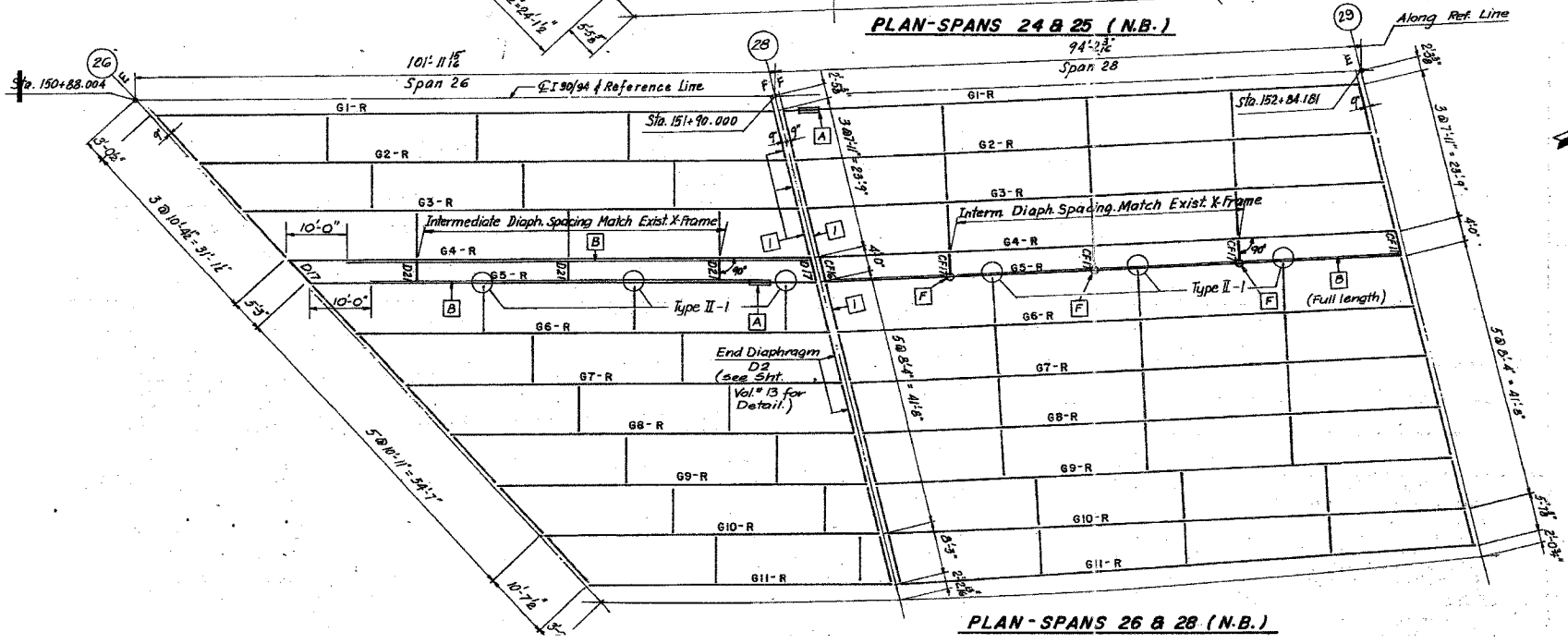
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	332
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580



- [A] - For Repair, Girder Web near Bearing Stiffener, see Sht. SR5, Vol. #13 for Detail.
- [B] - Longitudinal Reinforcing Repair (side indicated), see Sht. SR5, Vol. #13 for Detail.
- [F] - Special Cross Frame Connection of longitudinal Reinforcing, see Sht. SR6, Vol. #13 for Detail.



- LEGEND:**
- Denotes Existing Cracked Weld location at transverse stiffener to underside of top Flange (typ)
 - TYPE I** - Detail Number
Fatigue Retrofit Repair, Cross-Frame at top Flange (See sheet D38)
 - TYPE II** - Detail Number
Retrofit, Cross-Frame at Bottom Flange (See sheet D38)
 - [I] - End Cross Frame - Type 2, see Sht. SR3, Vol. #13 for Detail.

ALL NEW MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE STEEL FABRICATION CONTRACT (SECTION 1988-003F), UNLESS NOTED OTHERWISE.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985-077 B-R-COOK COUNTY
 N.B. MAINLINE RECONSTRUCTION
 STRUCTURE 016-1112(MAINLINE)
 FRAMING PLAN SPANS 26 TO 28

Scale: NONE
 Date: AUGUST, 1988
 Drawn By: J.G.
 Checked By: M.M.
ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1112

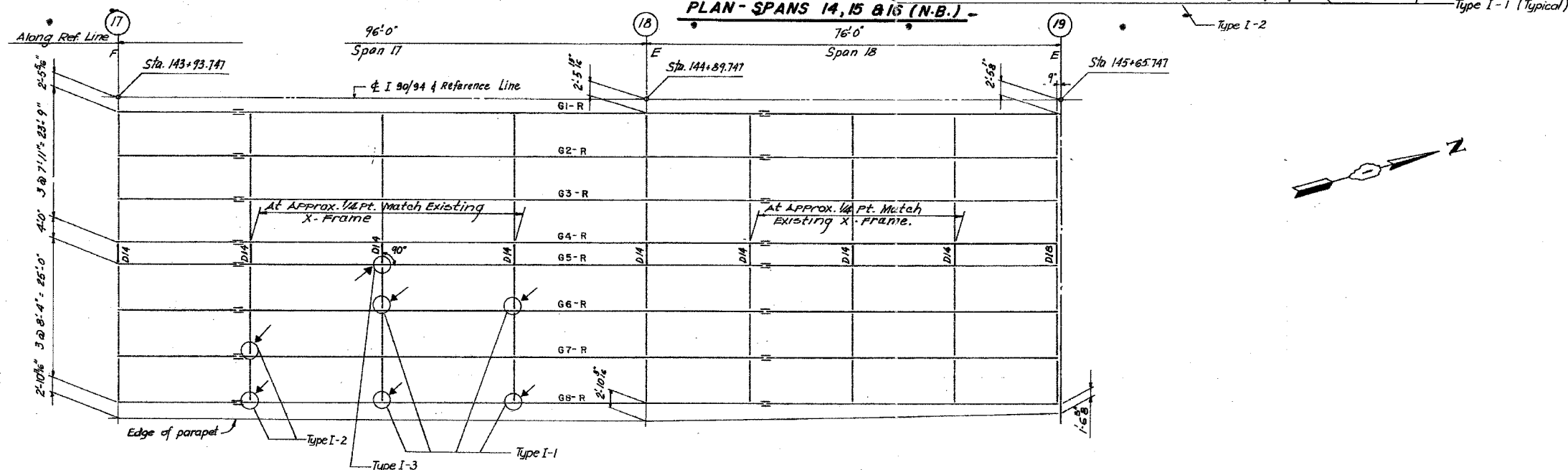
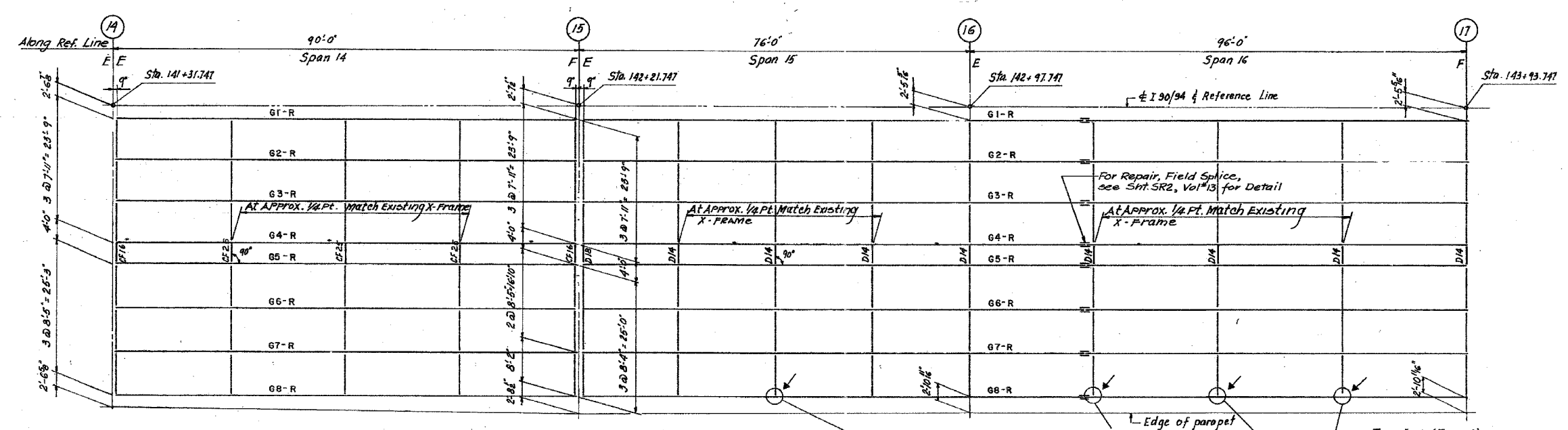
SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	333
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62580				



PLAN - SPANS 17 & 18 (N.B.)

LEGEND:

- Denotes Existing Cracked Weld location of transverse stiffener to underside of top Flange (typ)
- TYPE I-1** - Detail Number
- Fatigue Retrofit Repair, Cross-Frame of top Flange (See sheet D30)

ALL NEW MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE STEEL FABRICATION CONTRACT (SECTION 1988-003F), UNLESS NOTED OTHERWISE.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-077 B-R- COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1112 (MAINLINE)
FRAMING PLAN SPANS 14 TO 18
Scale: NONE Date: AUGUST, 1988 Drawn By: J.G. Checked By: M.M.
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1112
SCALE: NTS DATE: 7/22/2005 DRAWN BY: BDC CHECKED BY: BLU

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62580

SPAN	GIRDER	SOUTH END DATA				NORTH END DATA				GIRDER DIMENSIONS					WEB PLATE	FLANGE PLATES						SHEAR CONNECTOR SPACINGS				INTERIOR WEB STIFFENER SPACINGS			GIRDER	REMARKS		
		ELEVATION	SHIM	ANGLE	Δ	ELEVATION	SHIM	ANGLE	Δ	LENGTH % BRGS.	A	B	C	Δ (1/2) CONCRETE		Δ (1/2) CONCRETE	1	2	3	4	5	6	CAMBER	a	b	c	d	e			f	g
21	91-2	31.17	1/8	90°-00'-00"	0	31.20	0	97°-00'-00"	0	11-4 1/2"			0	0									0	3 1/2"	3010"	1010"	3020"				01-2	
		31.22	1/8		0	31.25	0		0	10-0 1/2"			0	0									0	3 1/2"	3012"	1010"	3020"				02-2	
		31.26	1/8		0	31.29	0		0	20-1 1/2"			0	0									0	3 1/2"	3012"	3017"	3020"				03-2	
		31.30	1/8		0	31.33	0		0	20-5 1/2"			-.008	-.008									5/8	1-1 1/2"	3010"	3017"	3020"				04-2	
		31.34	1/8		0	31.37	0		0	27-2 1/2"			-.010	-.010	90°-00'-00"								1 1/2	1-1 1/2"		3015"	3020"	2-7 1/2"			0	05-2
		31.38	1/8		0	31.41	0		0	40-10 1/2"														1 1/2	1 1/2"		3015 1/2"	3020"	2-2 1/2"	2010"	0	06-2
		31.42	1/8		0	31.45	0		0	52-4 1/2"														1 1/2	1-1 1/2"	3012 1/2"	3015"	7020"	2-2 1/2"	3010"	0	07-2
		31.46	1/8		0	31.49	0		0	60-0 1/2"	0-0			-.020	-.020									1 1/2	1 1/2"	3012	3015"	7020"	2-1 1/2"	3010"	0	08-2
		31.50	1/8		0	31.53	0		0	67-10 1/2"	0-0			-.040	-.040									2	7 1/2"	3012	3015"	7020"	2-1 1/2"	3010"	0	09-2
		31.54	1/8		0	31.57	0		0	75-0 1/2"	7-0	7-2		-.047	-.077									2 1/2	8 1/2"	3011 1/2"	3015"		1-0 1/2"	3010"	0	10-2
		31.58	1/8		0	31.61	0		0	85-2 1/2"	7-0	0-0		-.082	-.082									2 1/2	10 1/2"	3012	3015 1/2"	15020"	2-1 1/2"	10020"	0	11-2
		31.62	1/8		0	31.65	0		0	90-10 1/2"	0-0	10-0		-.110	-.102									3 1/2	8 1/2"	3012	3015 1/2"	15020"	2-2 1/2"	11020"	0	12-2
26	11-0	35.20	0	90-00-00	0	35.21	0	90-00-00	0-0	5-0	15-0	50-0 1/2"	.110	.105	40x 5/16	12x 3/4	10x 3/4	12x 1 1/2	10x 1 1/2	12x 2 1/2	10x 2 1/2	3 1/2	0 1/2	3011	17015	10020	1-7 1/2"	10020	0	00-1		
		35.20	0		0	35.20	0		0				-.003	-.000									2 1/2							01-1		
		35.20	0		0	35.20	0		0																						02-1	
		35.20	0		0	35.20	0		0	0-0	10-0	50-0 1/2"	.073	-.004									2 1/2								03-1	
		35.20	0		0	35.20	0		0	7-0	0-10	50-0 1/2"											2 1/2								04-1	
		35.20	0		0	35.20	0		0	0-0														2 1/2								05-1
		35.20	0		0	35.20	0		0	0-0														2 1/2								06-1
		35.20	0		0	35.20	0		0	0-0														2 1/2								07-1
		35.20	0		0	35.20	0		0	0-0														2 1/2								08-1
		35.20	0		0	35.20	0		0	0-0														2 1/2								09-1
		35.20	0		0	35.20	0		0	0-0														2 1/2								10-1
		35.20	0		0	35.20	0		0	0-0														2 1/2								11-1
35.20	0		0	35.20	0		0	0-0														2 1/2								12-1		
27	11-0	35.20	0	90-00-00	0	35.20	0	90-00-00	0-0	0-0	0-0	50-0 1/2"	.127	.126	40x 5/16	12x 3/4	10x 3/4	12x 1 1/2	10x 1 1/2	12x 2 1/2	10x 2 1/2	3 1/2	1 1/2	3012	10015	11020	2-0	10020	0	010-1		
		35.20	0		0	35.20	0		0	7-0	7-0	40-2 1/2"	.074	-.085									2 1/2	7 1/2"	3012	10015		1-10 1/2"	3020		010-1	
		35.20	0		0	35.20	0		0	73-1 1/2"			-.004	-.002									3	0 1/2"	3010	10015	3020				010-1	
		35.20	0		0	35.20	0		0	68-0 1/2"			-.040	-.020									3	7 1/2"		11015					012-1	
		35.20	0		0	35.20	0		0	74-00-00	02-0 1/2"			-.020	-.020									1 1/2	4 1/2"	3005		3200			011-1	
		35.20	0		0	35.20	0		0	74-00-00	05-1 1/2"			-.020	-.020									1 1/2	5 1/2"	3005		3005			010-1	
		35.20	0		0	35.20	0		0	75-00-00	03-0 1/2"			-.020	-.020									1 1/2	5 1/2"	3007		3007			009-1	
		35.20	0		0	35.20	0		0	75-00-00	05-0 1/2"			-.020	-.020									1 1/2	5 1/2"	3007		3007			009-1	
		35.20	0		0	35.20	0		0	77-00-00	01-7 1/2"			-.010	-.020									1	8 1/2"	3010	3015	3020				007-1
		35.20	0		0	35.20	0		0	76-00-00	00-0 1/2"			-.010	-.010									5/8	7 1/2"	3011		3020				006-1
		35.20	0		0	35.20	0		0	70-00-00	00-0 1/2"			0	0									2	0 1/2"	300	3005	3020				005-1
		35.20	0		0	35.20	0		0	70-00-00	07-0 1/2"			0	0									0	0 1/2"	700		3020				004-1
35.20	0		0	35.20	0		0	70-00-00	22-1 1/2"			0	0									0	0 1/2"	3012	3015	3020				003-1		
35.20	0		0	35.20	0		0	70-00-00	17-0 1/2"			0	0									0	0 1/2"	3011		3020				002-1		
35.20	0		0	35.20	0		0	70-00-00	12-0 1/2"			0	0									0	0 1/2"	3012		3020				001-1		

* DIMENSION MEASURED ALONG CENTER LINE FROM GIRDER 01-L TO INTERSECTION WITH TARGET LINE.

NOTE "A": GIRDERS 01-L THRU 00-L OF SPAN 26, NORTH END SUPPORTED BY PIER 27.

SECTION NO. 2-2023-08

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
SECTION NO. 18-2325.3-4H
18-2325.3-4HP
W. CERMAK RD. TO W. 18th STREET
STRUCTURAL STEEL DETAILS
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

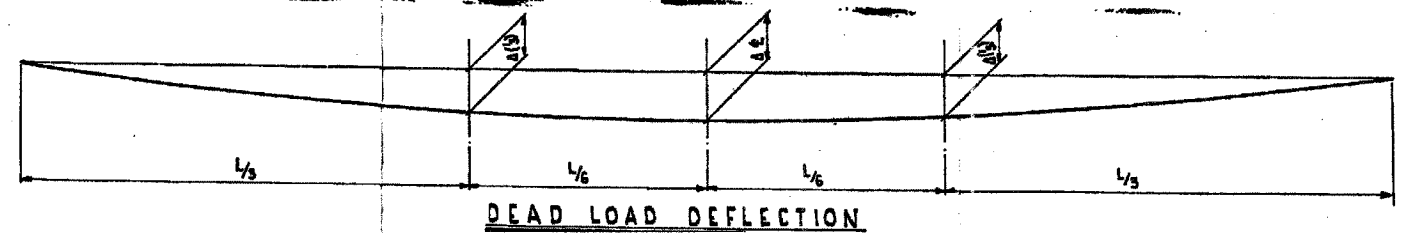
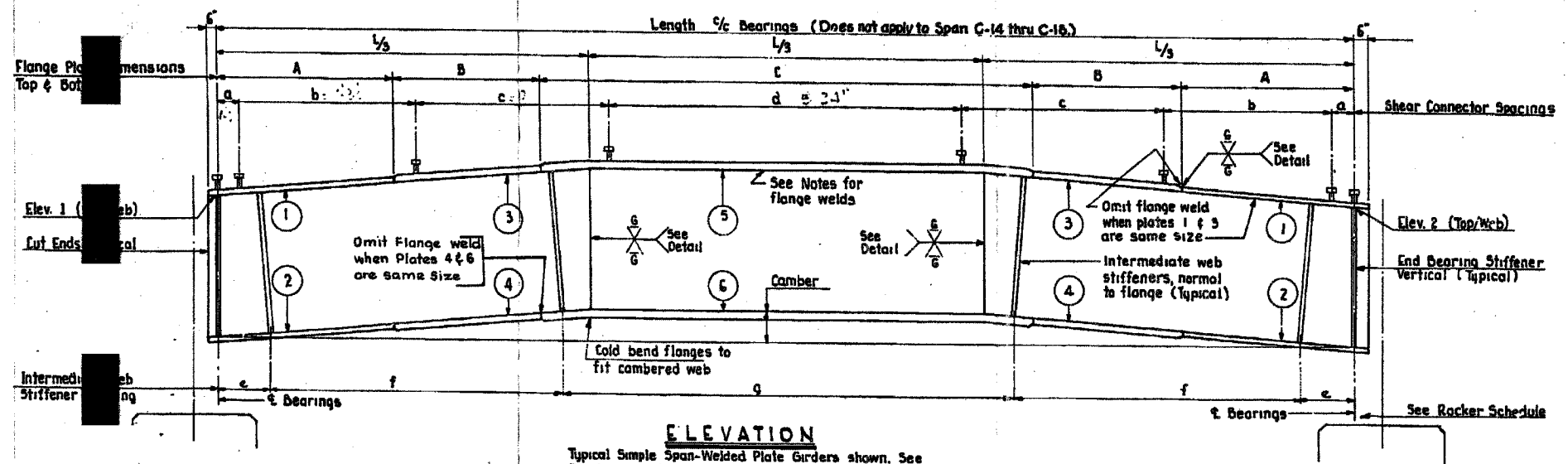
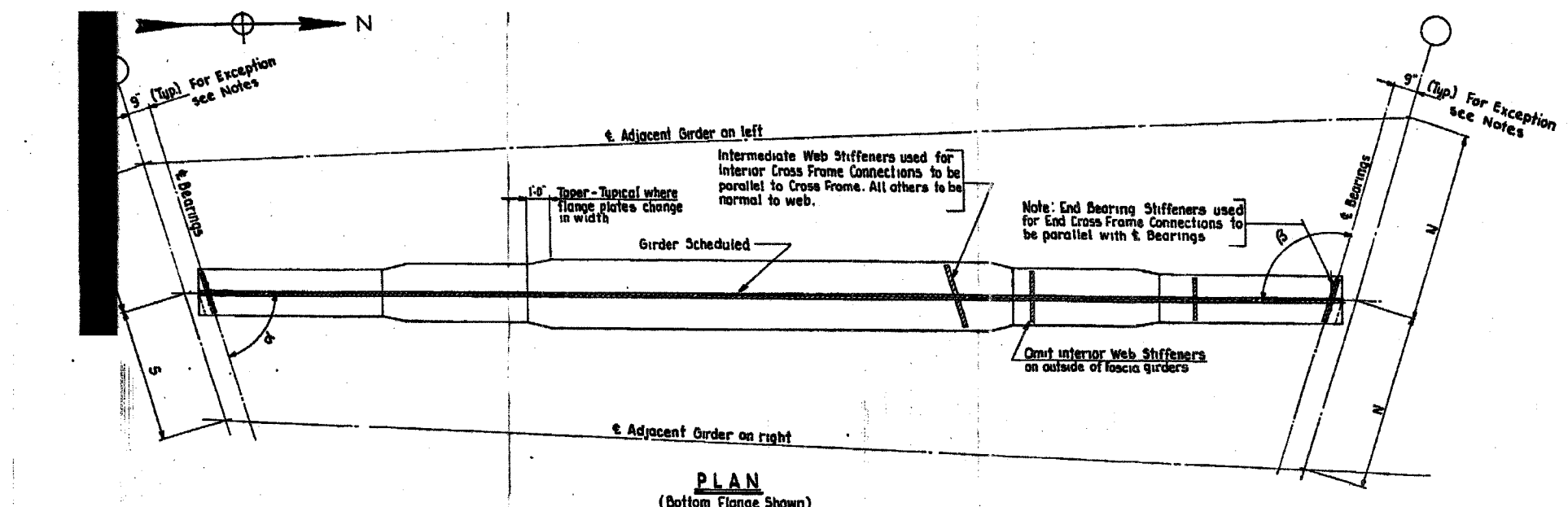
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1112
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

FOR INFORMATION ONLY

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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Notes:
 See Simple Span Girder Schedules for Dimensions and Sizes illustrated here.
 For End Detail of Girders in Spans C14, C15, C16, C17 & C18 see Sht. S-49.
 For these Group of Girders the Shear Connector End spacing "a" should be as shown on Sht. S-49 and the dimensions "b" should be adjusted. 9" dimension & Pier to t. Bearings does not apply in Ramp C where Steel Pier Cross Beams are used.
 Elev. 1 and 2 for W Beams are at top of Flanges.
 Camber shown for W Beams is Simple Curve Camber and is measured at midspan.

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE SUPERHIGHWAY
 SECTION NO. 2-213-21
 W CERMAK ROAD TO W 18th STREET
SIMPLE SPAN GIRDER DETAILS
 CONSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS
 CHICAGO, ILLINOIS

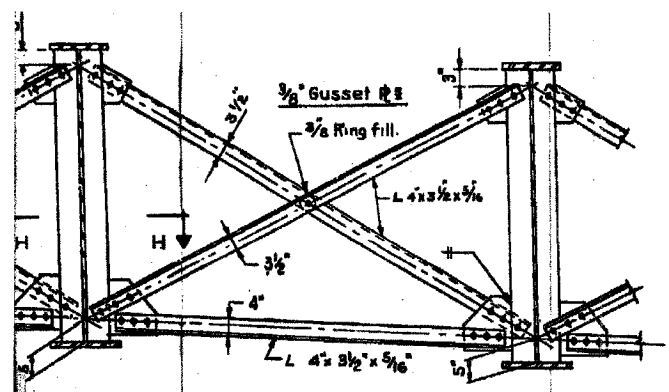
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1112
 SCALE: NTS
 DATE: 1/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

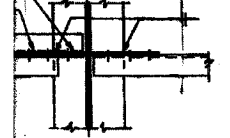
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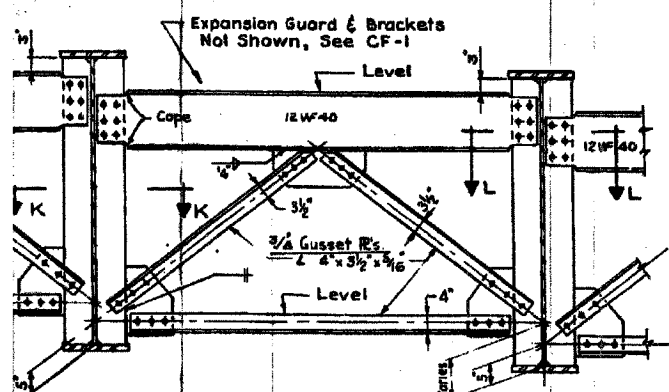
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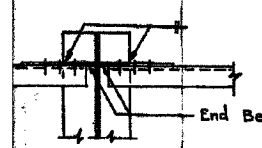
INTERMEDIATE CROSS FRAME CF-6
(Square or slightly skewed connections 54" or 60" web girders)



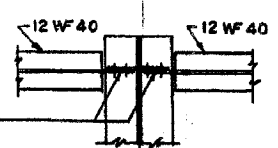
SECTION H-H



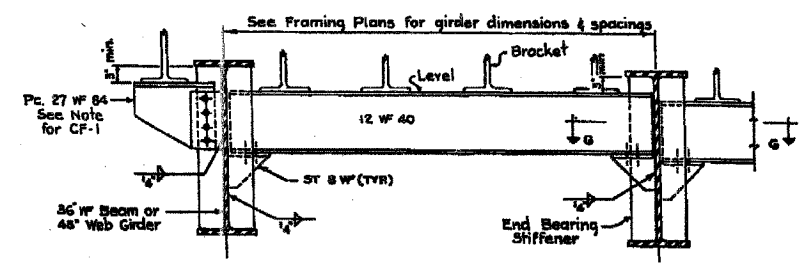
END CROSS FRAME CF-7
(Square or slightly skewed connections 54" or 60" web girders)



SECTION K-K

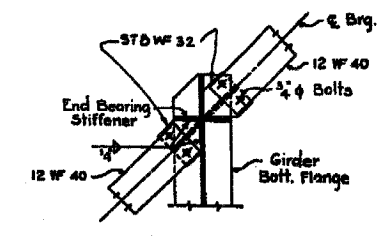


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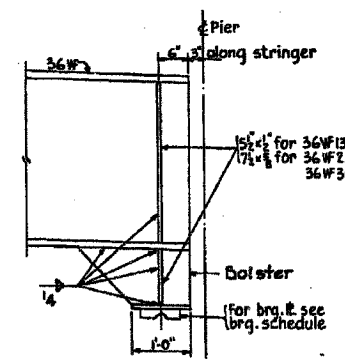


END DIAPHRAGMS D1
(Skewed connection to 36 W beams & 48" web girders)

Note: Special 5/8" x 1/2" End Bearing Stiffeners shall be provided at skewed ends of 36 W Beams for end diaphragm connections.

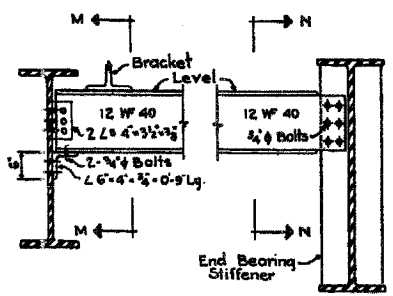


SECTION G-G
(Skew connections)

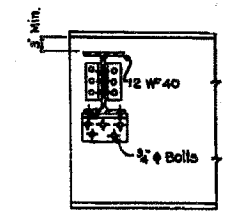


Span	Stringer	Size	Bolster
27	G1-L thru G8-L	36 W 135	ST16 W 65
27	G9-L	36 W 230	ST12 W 65
27	G10-L thru G13-L	36 W 300	ST12 W 65
26	G6-R, G7-R, G8-R	36 W 300	ST12 W 65
26	G9-R, G10-R	36 W 230	ST12 W 65
21	G1-R thru G4-R (North End)	36 W 135	ST12 W 50
21	G1-R thru G4-R (South End)	36 W 135	ST15 W 56

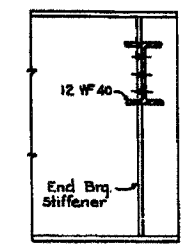
BEAM BOLSTER DETAIL



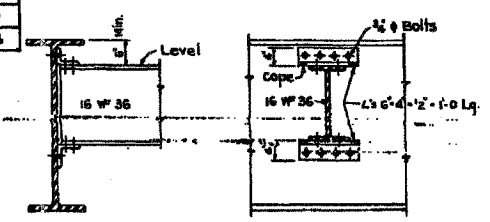
END DIAPHRAGMS D2
(Square or slightly skewed connection to 36 W beams & 48" web girders)



SECTION M-M



SECTION N-N



INTERIOR DIAPHRAGMS D3
(Square or slightly skewed connection to 36 W beams & 48" web girders)

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
SECTION NO. 15-2825.3-4H
15-2825.3-4HF
W. CERMAK RD. TO W. 18th STREET
STRUCTURAL STEEL DETAILS
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbndainc.com

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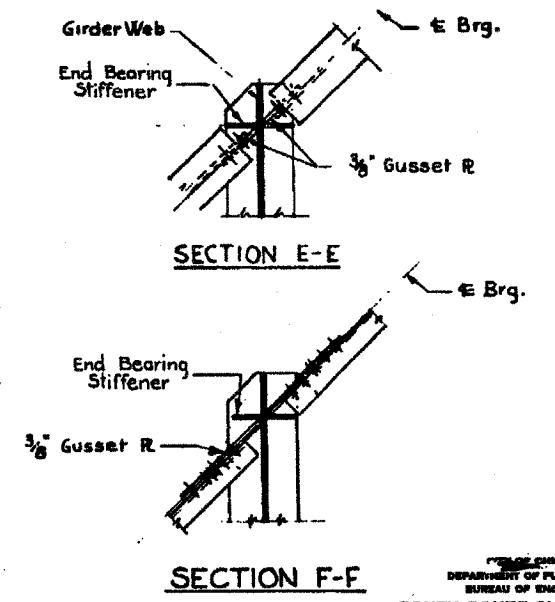
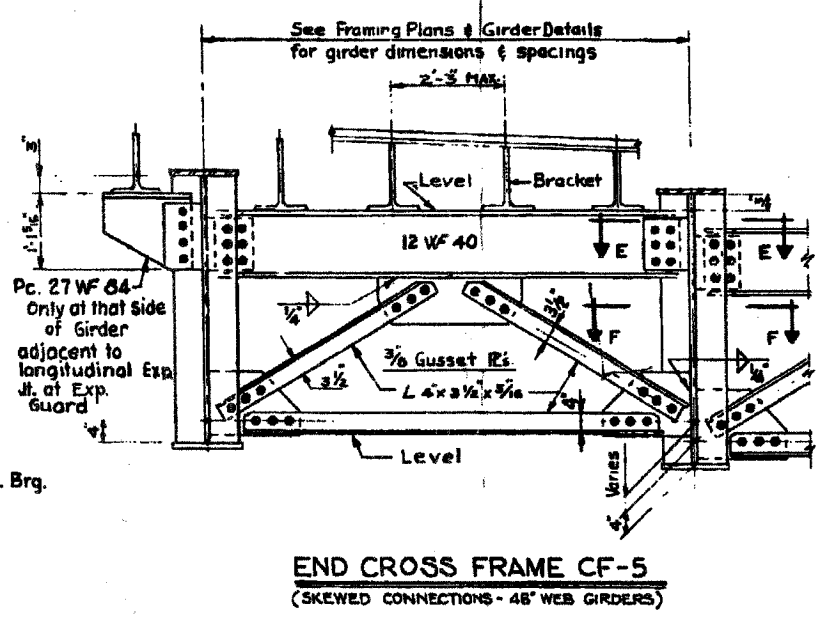
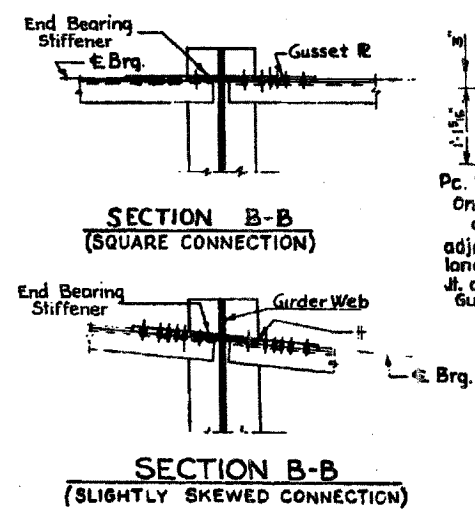
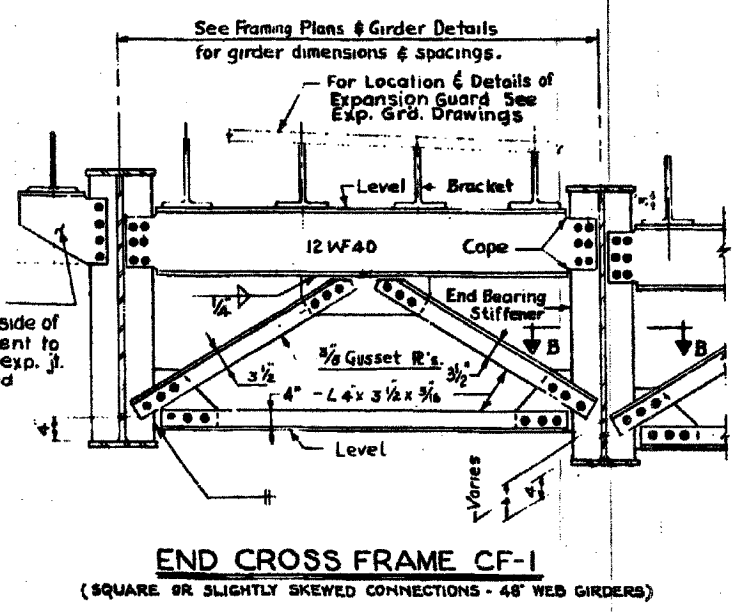
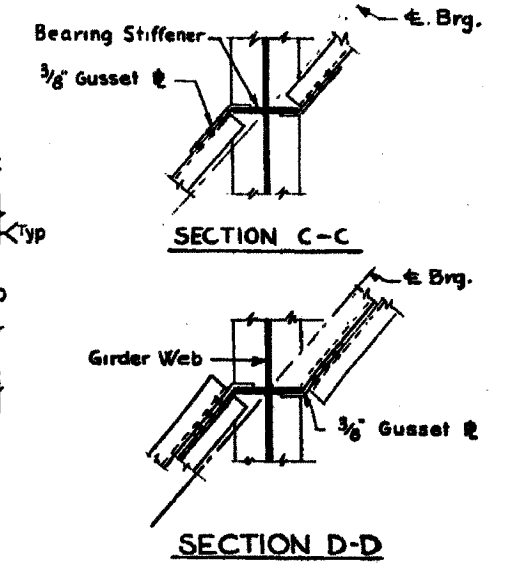
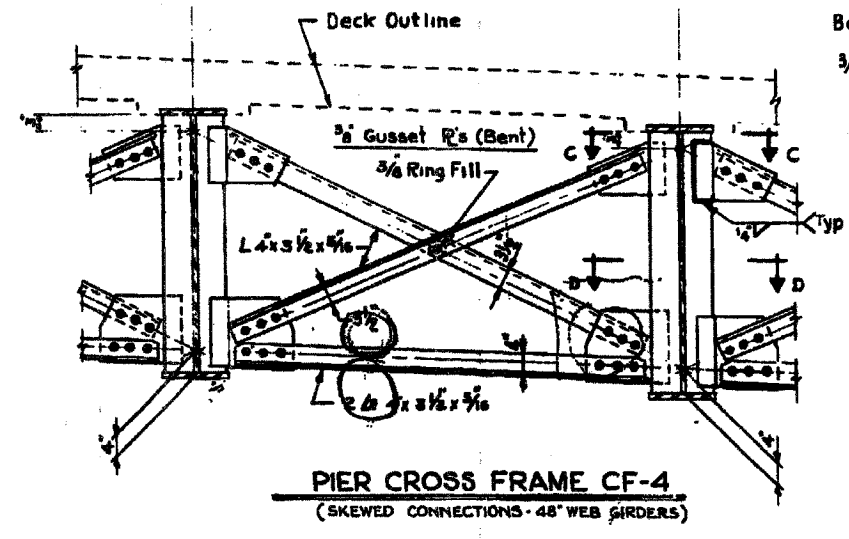
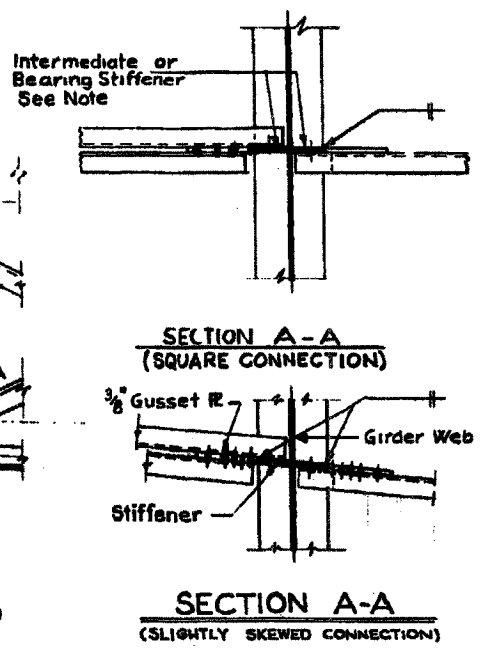
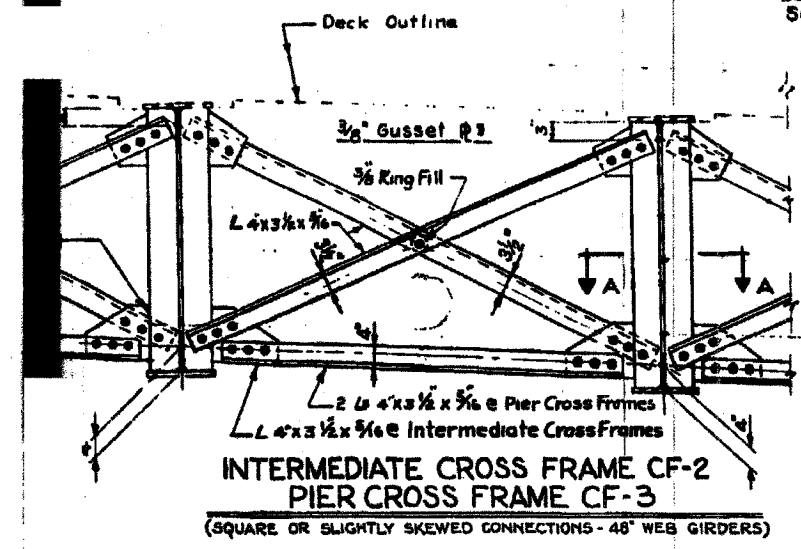
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1112
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	337
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580

Intermediate Cross Frames shall be connected to bearing stiffeners, relocated to suit. Where a relocation in excess of 6" is required, additional stiffeners shall be provided for cross frame connections.



Pc. 27 WF 84 only at that side of girder adjacent to longitudinal Exp. Grd. at exp. guard

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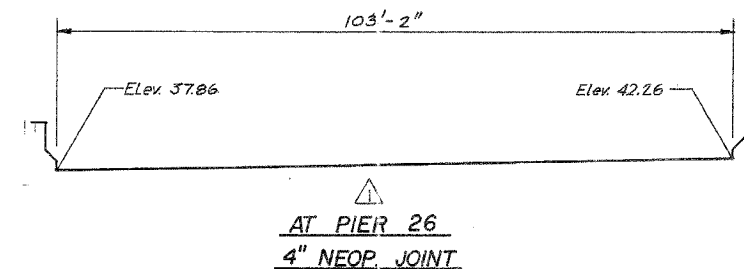
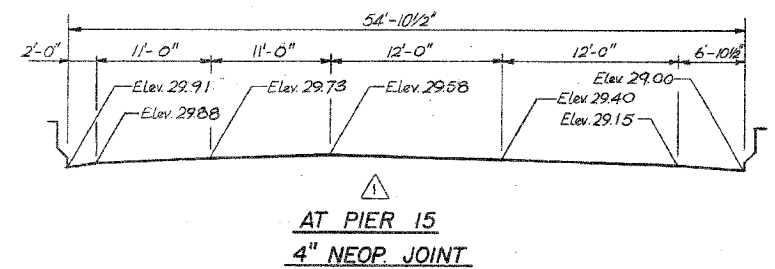
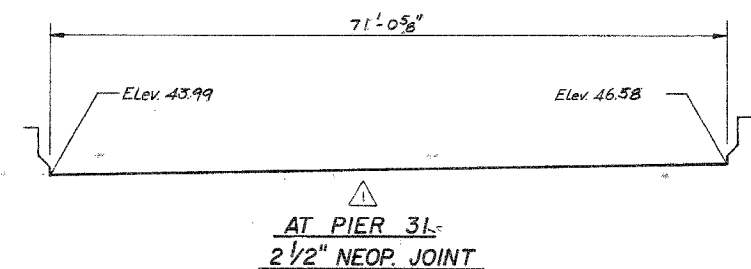
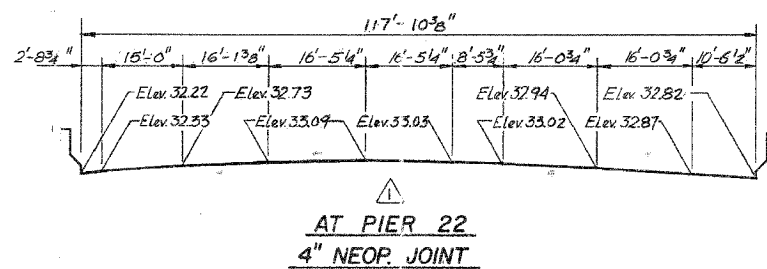
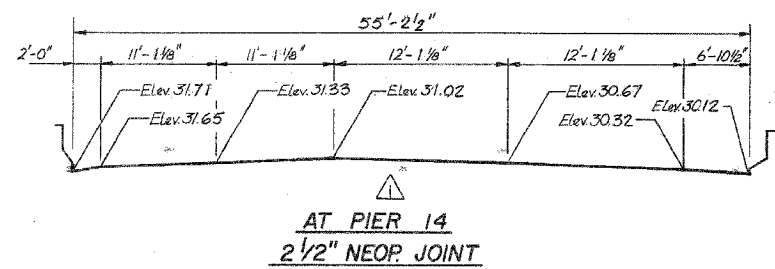
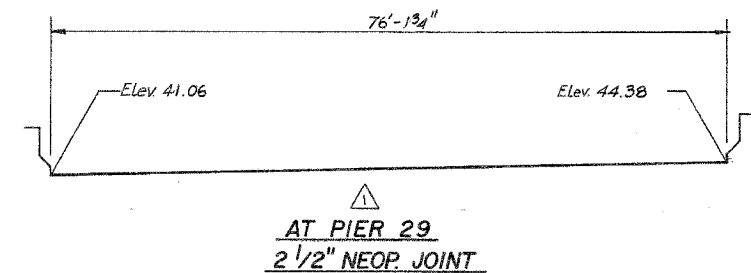
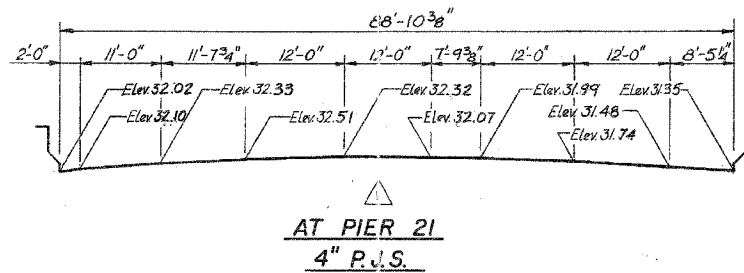
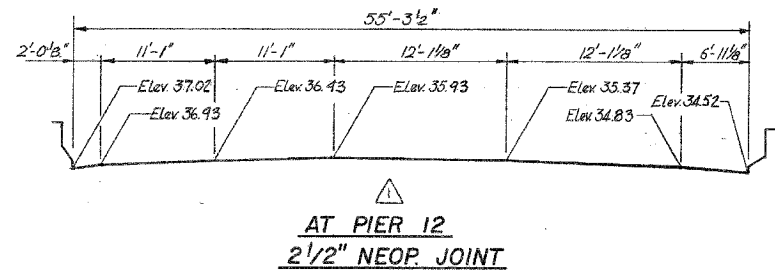
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1112
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

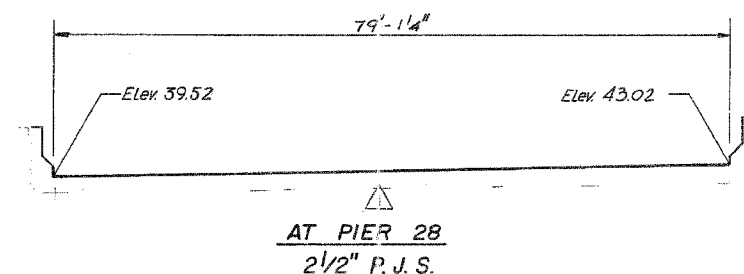
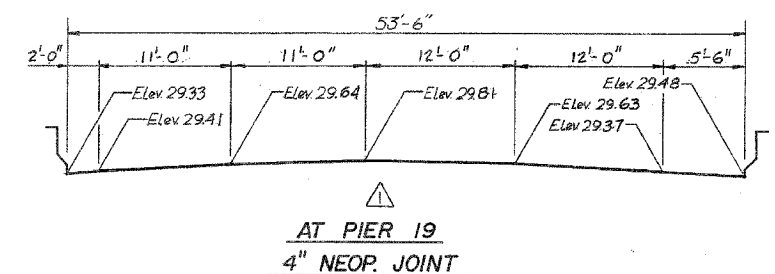
OFFICE OF CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
SECTION NO. 03-282.3-4H
06-282.3-4HF
W. CERMAK RD. TO W. 15th STREET
STRUCTURAL STEEL DETAILS
CONNER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS

MAINLINE NO 1112

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	338
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



Notes:
All X-Sections are looking North.
All joints are looking north.



SHEET D 39 OF 91

REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-077 BR-COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1112
TRANSVERSE DECK JOINT ELEVATION
Scale: NONE
Date: AUGUST, 1988
Drawn By: O.O.
Checked By: T.V.
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1112
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

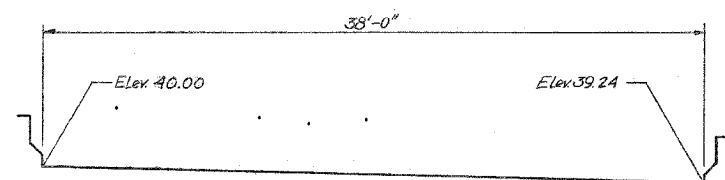
BOWMAN, BARRETT & ASSOCIATES INC.
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7/19/2005 10:43:03 AM

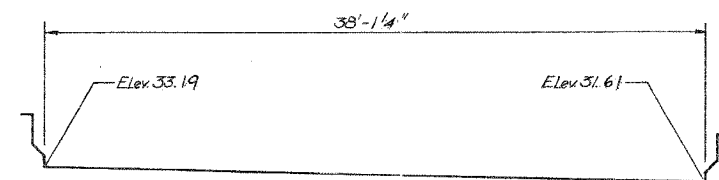
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	339
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				

RAMP - C



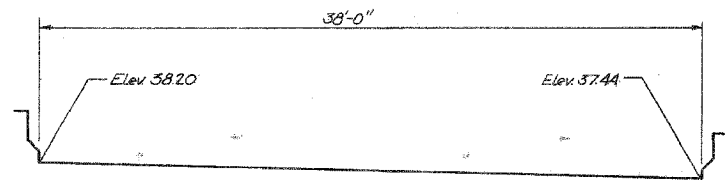
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AT PIER C13
2" NEOP. JOINT

RAMP - C (CONT.)

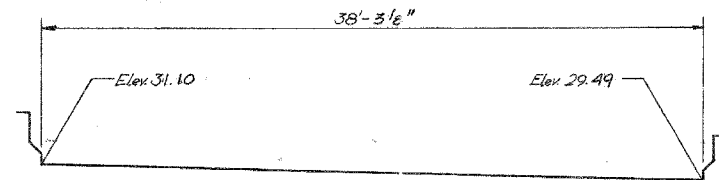


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AT PIER C17
2 1/2" P.J.S.

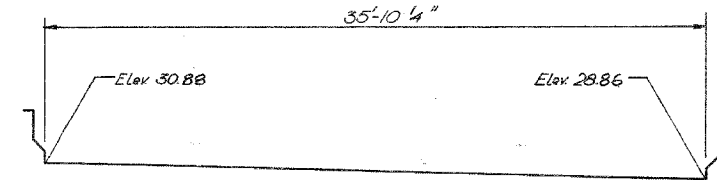
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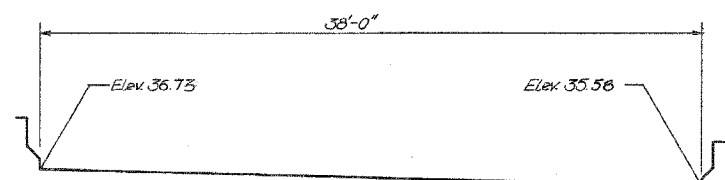
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AT PIER C14
2 1/2" P.J.S.



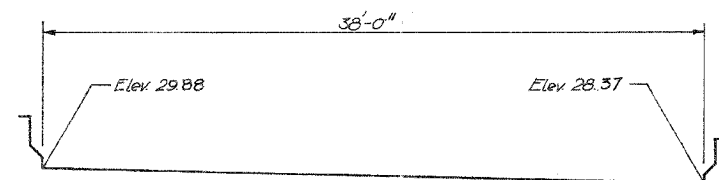
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AT PIER C18
4" P.J.S.



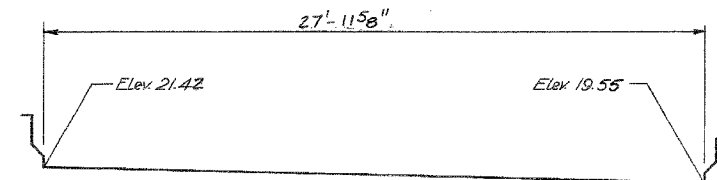
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AT PIER D12
2 1/2" NEOP. JOINT



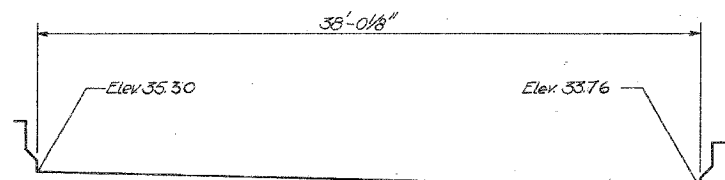
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AT PIER C15
2 1/2" P.J.S.



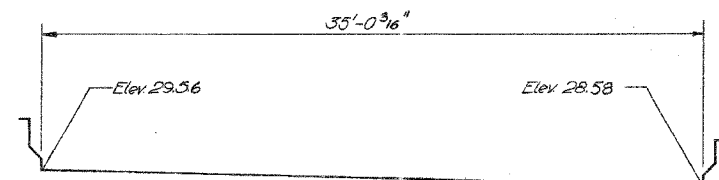
△
AT PIER C19
4" P.J.S.



△
AT PIER D14
2 1/2" P.J.S.



△
AT PIER C16
4" P.J.S.



△
AT PIER C20
4" NEOP. JOINT

Notes:
All X-Sections are looking
All joints are looking north.

SHEET D40 OF 91

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-077 B-R-COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1112
TRANSVERSE DECK JOINT ELEVATION
Scale: NONE
Date: AUGUST, 1988
Drawn By: O.O.
Checked By: T.V.
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	
Name	Date

REVISIONS	
NAME	DATE

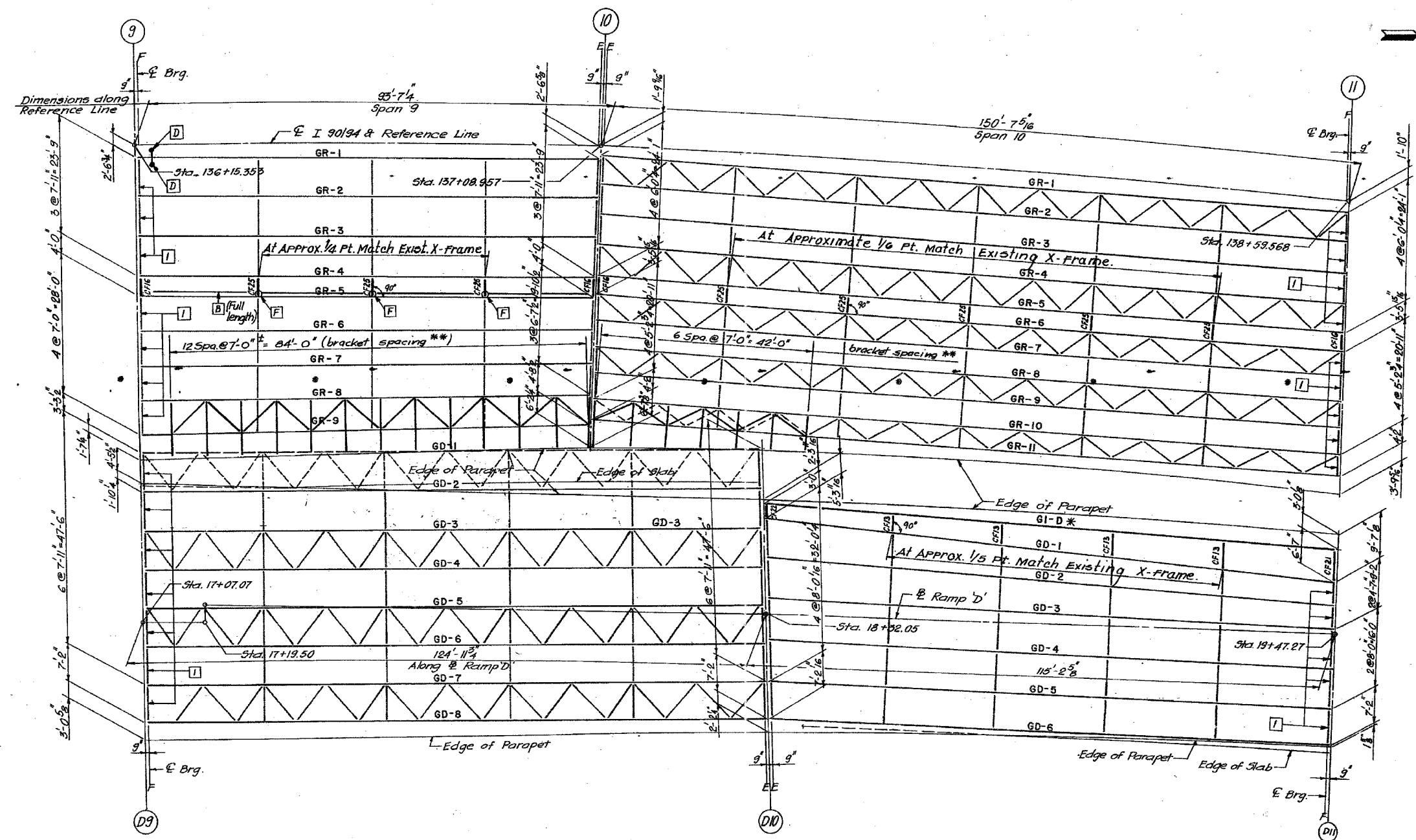
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1112
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

△ 12-1-88

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7/19/2005 11:03 AM



- [I] End X-Frame, Type 2, See Sht. SR4, Vol. #13 for detail.
- [B] Longitudinal Reinforcing Repair (side indicated). See Sht. SR5, Vol. #13 for detail.
- [D] For Repair, End Bearing Stiffener (side(s) indicated). See Sht. SR5, Vol. #13 for detail.
- [F] Special Cross Frame Connection at longitudinal Reinforcing. See Sht. SR6, Vol. #13 for detail.

Legend:
 --- To be Removed
 * New Girder (For size and length see sheet E29) ** {Space brackets so as not to interfere with exist. int. Stiffeners. For bracket details, see sheet BR1, Vol. #13. (See Bevelled Shim Detail on Sht. E33.)

**PLAN - SPANS 9 & 10 (N.B.)
 SPANS D9 & D10 (N.B.)**

ALL NEW MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE STEEL FABRICATION CONTRACT (SECTION 1988-003F), UNLESS NOTED OTHERWISE.

SHEET E25 OF 88

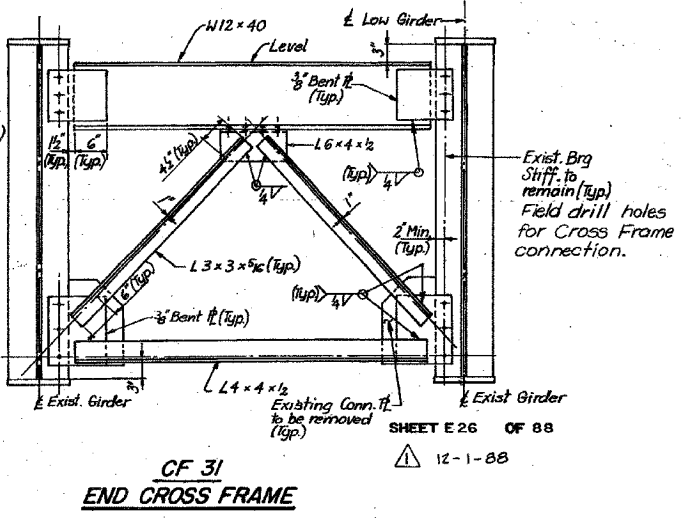
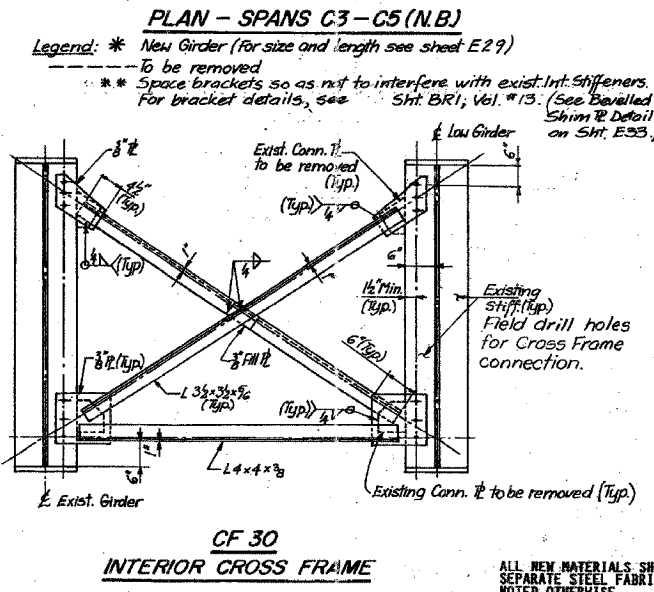
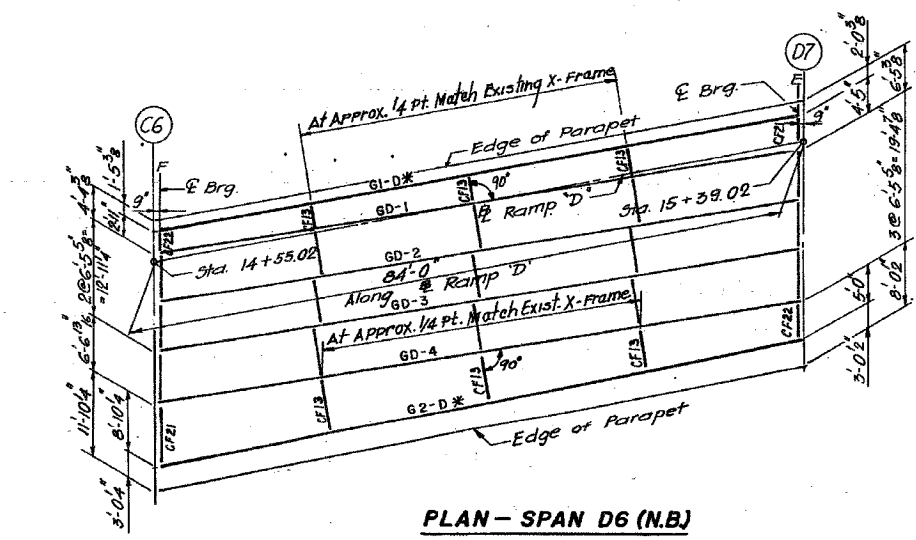
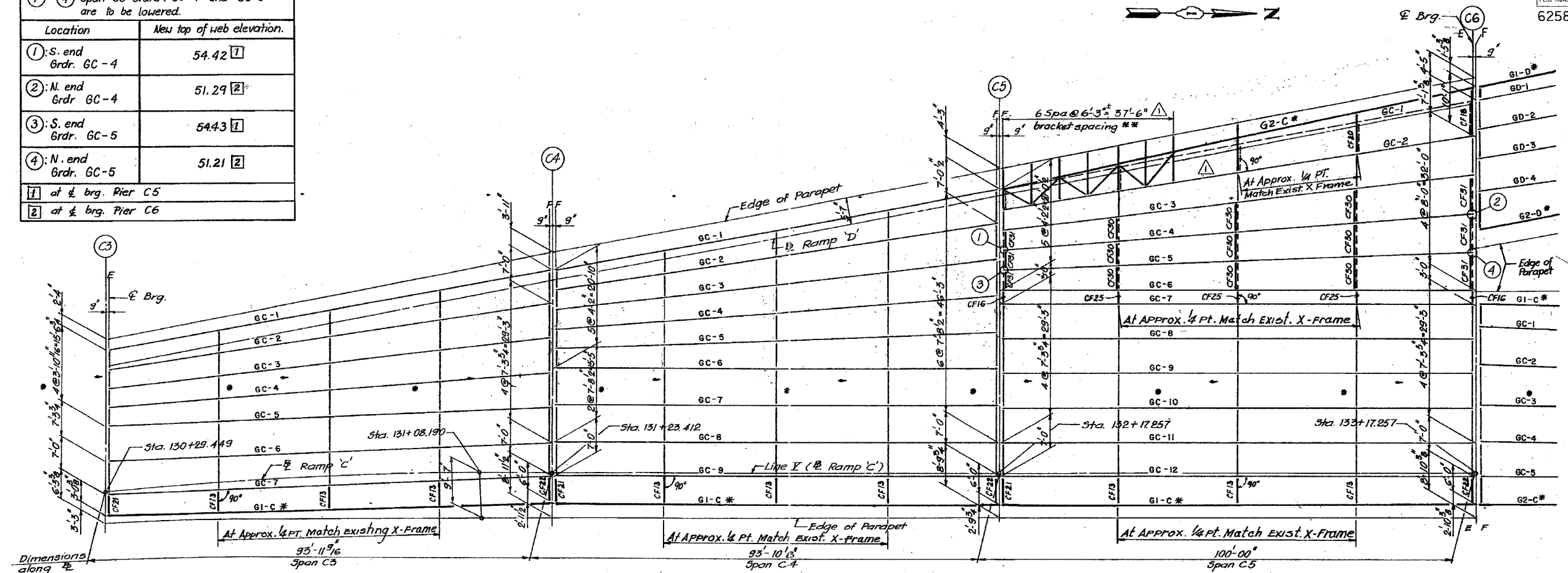
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985-077 BR-COOK COUNTY
 NB MAINLINE RECONSTRUCTION
 STRUCTURE 016-1113 (RAMP D & MAINLINE)
 FRAMING PLAN SPANS 9 & 10, D9 & D10
 Scale: NONE Drawn By: J.G.
 Date: AUGUST, 1988 Checked By: M.M.
 ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1113
 SCALE: NTS DRAWN BY: BDC
 DATE: 7/22/2005 CHECKED BY: BLU

FOR INFORMATION ONLY

①-④ Span C5 Grdrs. GC-4 and GC-5 are to be lowered.	
Location	New top of web elevation.
①: S. end Grdr. GC-4	54.42 [1]
②: N. end Grdr. GC-4	51.29 [2]
③: S. end Grdr. GC-5	54.43 [1]
④: N. end Grdr. GC-5	51.21 [2]
[1]	at & brg. Pier C5
[2]	at & brg. Pier C6



Legend: * New Girder (For size and length see sheet E29)
 - to be removed
 ** Space brackets so as not to interfere with exist. Int. Stiffeners. For bracket details, see Sht. BR1, Vol. #13. (See Bevelled Shim Detail on Sht. E33.)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 E.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985-077 B-R-COOK COUNTY
 N.B. MAINLINE RECONSTRUCTION
 STRUCTURE 016-1113 (RAMP C & RAMP D)
 FRAMING PLAN SPANS C3 TO C5 & D6
 Scale: NONE Date: AUGUST, 1988 Drawn By: J.G. Checked By: M.M.
 ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

REVISIONS	NAME	DATE

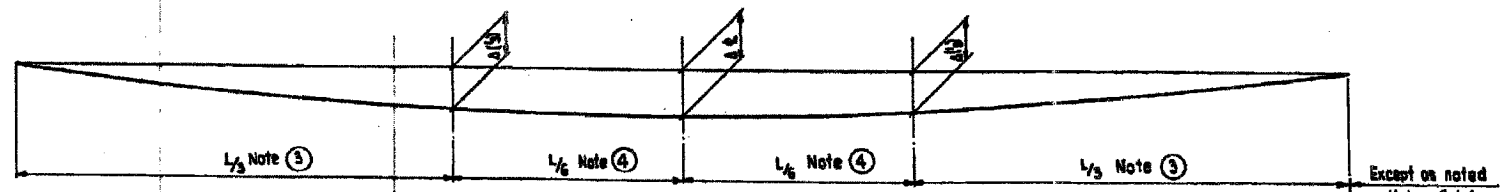
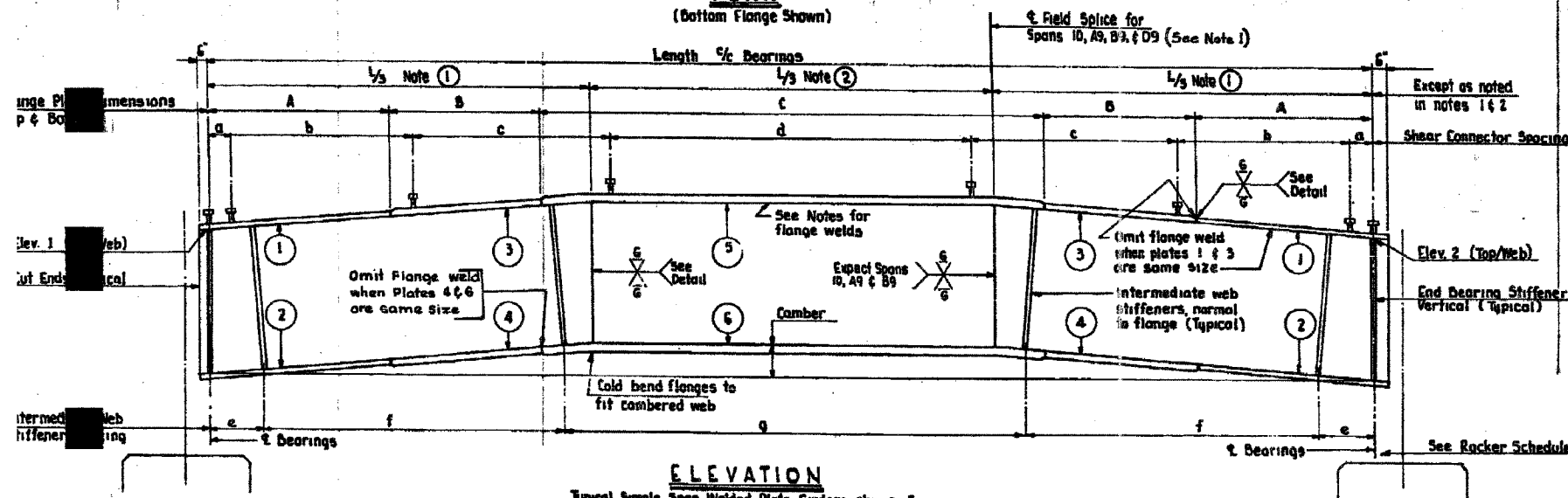
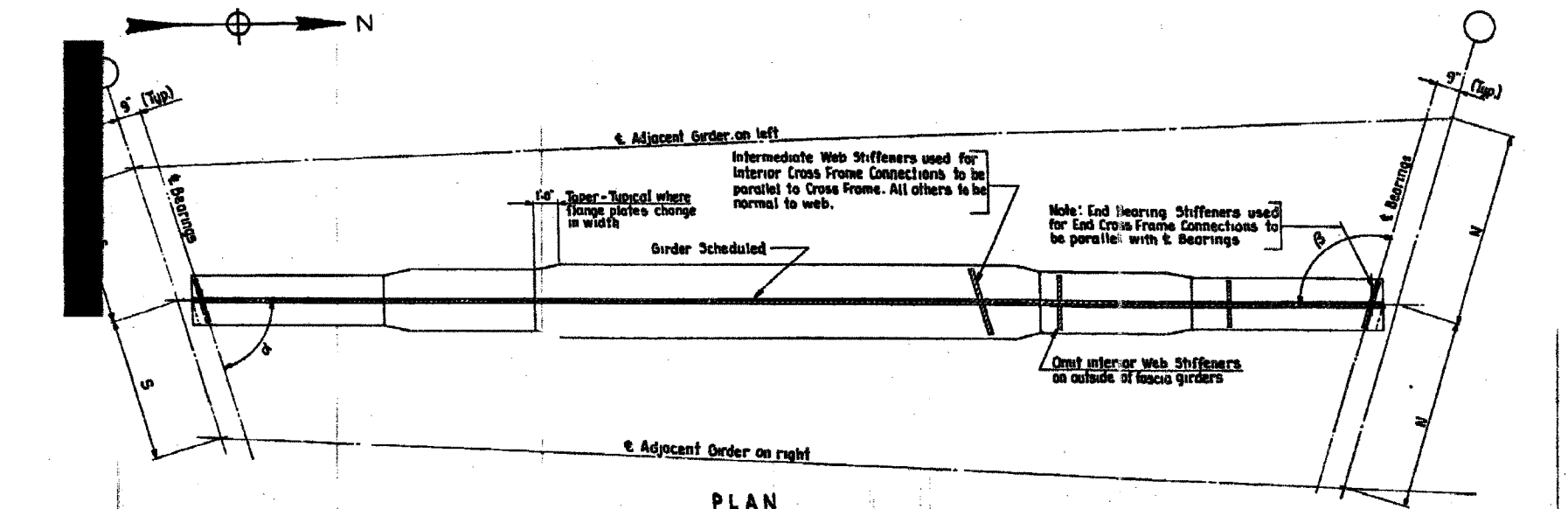
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1113
 SCALE: NTS DATE: 7/22/2005 DRAWN BY: BDC CHECKED BY: BLU

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BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	342
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580



Note: See Simple Span Girder Schedules for Dimensions & Sizes illustrated here.

In Spans 10, A9, B3, & D9 the following dimensions shall replace those shown at left.

Note 1 1/4
 Note 2 1/2
 Note 3 1/4
 Note 4 1/8

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE SUPERHIGHWAY
 SECTION NO. 3-22-1-14
 CHICAGO RIVER TO W. CERMAK RD.
SIMPLE SPAN GIRDER DETAILS
 GUNSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS
 CHICAGO, ILLINOIS
 DESIGNED BY: A.L.F. CHECKED BY: M.L.
 DRAWN BY: E.H. IN CHARGE OF: H.S.M.
 SCALE: NONE DATE: SEP. 1961
 SHEET NO. 3-91 OF 152

BOWMAN, BARRETT & ASSOCIATES INC.
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1113

SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: BDC
 CHECKED BY: BLU

SPAN	GIRDER	SOUTH END DATA		NORTH END DATA		GIRDER DIMENSIONS						WEB PLATE	FLANGE PLATES						SHEAR CONNECTOR SPACINGS				INTERIOR WEB STIFFENER SPACINGS				GIBBER	REMARKS	
		ELEVATION	ANGLE	ELEVATION	ANGLE	LENGTH	A	B	C	Δ (S)	Δ (N)		1	2	3	4	5	6	CAMBER	a	b	c	d	e	f	g			
C-1	GC-1	88.77	68°-01'-18"	67-9"	65.94	104'-24'-00"	90'-0 1/2"	8'-0"	8'-7"	86'-6 15/16"	.118	.133	80x3/8"	14x3/4"	14x3/4"	14x3/4"	14x1 1/4"	14x1 3/8"	3 1/2"	1'-2 3/8"	10x14"	6x10"	22x24"	2'-4 1/2"	6x10"	6x10"	GC-1		
	GC-2	88.90	68-28-51	7-3 1/2	65.93	104-28-50	90-1 1/8	8-0	8-8	86-8 1/4	.087	.077	"	"	"	"	"	"	"	1'-10 3/8"	10x14"	6x10"	22x24"	2'-4 1/8"	6x10"	6x10"	GC-2		
	GC-3	89.19	68-09-13	7-3 1/2	65.71	104-09-13	89-5	"	"	85-1	"	"	"	"	"	"	"	"	"	1'-8 1/2"	10x15	"	22x24	2'-8 1/2"	"	"	GC-3		
	GC-4	89.78	68-09-41	8-3	65.20	104-09-41	89-8 13/16	"	"	84-4 13/16	"	"	"	"	"	"	"	"	"	1-2 7/16	10x16	"	"	2'-4 7/16	"	"	GC-4		
	GC-5	89.48	68-18-25	8-3	64.88	104-18-25	88-1 1/8	"	6-7	83-1 3/4	.108	.022	"	"	"	"	"	14x7/8	"	3 1/2	1'-10 7/8	"	"	2'-4 7/8	"	"	GC-5		
C-2	GC-1	89.30	68-25-57	7-8	65.88	104-25-57	88-7 7/8	8'-3	9-7	81-11 7/8	.110	.134	80x3/8	14x3/4	14x3/4	14x1 1/4	14x1 3/8	14x1 3/8	3 1/2	1'-4 15/16	10x13	11x17	22x24	2'-8 15/16	6x10	7x10	GC-1		
	GC-2	89.19	68-55-13	7-8 1/4	65.95	104-55-14	88-2 3/8	8-3	9-7	81-6 3/8	.080	.104	"	"	"	"	"	"	"	1'-0 3/16	10x12	"	"	2'-1 3/16	"	"	GC-2		
	GC-3	89.70	"	7-8 1/4	65.01	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	GC-3		
	GC-4	89.29	"	7-3 1/4	65.61	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	GC-4		
	GC-5	89.72	68-53-13	7-3	65.27	104-53-14	88-2 3/8	"	"	"	.118	.134	"	"	"	"	"	14x1 1/8	"	3 3/8	"	"	"	"	"	"	GC-5		
C-3	GC-1	89.71	68-10-09	7-8	65.88	104-09-09	89-8 7/8	8'-0	7-8	88-3 7/8	.124	.042	80x3/8	14x3/4	14x1/4	14x7/8	14x1	14x1 1/8	14x1 1/8	3 1/2	1'-10 15/16	10x10	"	22x24	2'-2 15/16	6x10	6x10	GC-1	
	GC-2	89.55	68-18-12	7-3 3/4	65.67	104-18-12	89-8 15/16	8'-0	6-8	87-7 15/16	.071	.081	"	"	"	"	"	"	"	1'-8	"	"	"	2'-5	3x10	"	GC-2		
	GC-3	89.34	68-15-59	"	65.48	104-15-59	89-10 13/16	"	"	87-2 13/16	"	"	"	"	"	"	"	"	"	1'-2 7/16	8x10	"	"	2'-2 7/16	"	"	GC-3		
	GC-4	89.16	68-11-35	"	65.22	104-11-35	89-7 1/8	"	"	84-11 1/8	"	"	"	"	"	"	"	"	"	1'-0 9/16	"	"	"	2'-0 9/16	"	"	GC-4		
	GC-5	89.66	68-06-38	7-8 3/8	65.01	104-06-38	89-8 15/16	"	"	84-8 15/16	"	"	"	"	"	"	"	"	"	1'-10 7/16	"	"	"	2'-10 7/16	"	"	GC-5		
	GC-6	89.63	"	7-8	65.78	"	89-1	8-3	88-6 15/16	.077	.088	"	"	"	"	"	"	"	"	1'-8 7/16	10x14	7x10	22x24	2'-8 7/16	6x10	6x10	GC-6		
	GC-7	89.28	68-06-38	7-8	65.56	104-06-38	89-1 15/16	8'-1	7-8	84-10 15/16	.126	.182	"	"	"	"	"	14x7/8	"	3 3/8	"	"	"	"	"	"	GC-7		
C-4	GC-1	89.94	68-09-58	7-8 1/2	65.91	104-09-58	89-8 13/16	8'-0	7-8	84-3 13/16	.128	.042	80x3/8	14x3/4	14x3/4	14x7/8	14x1	14x1 1/8	14x1 1/8	3 1/2	1'-10 15/16	10x10	"	22x24	2'-2 15/16	6x10	12x10	GC-1	
	GC-2	89.17	68-27-24	7-8 1/2	65.24	104-27-24	89-1 15/16	8'-0	6-8	82-8 15/16	.074	.061	"	"	"	"	"	"	"	1'-8 3/16	"	"	"	2'-5 3/16	3x10	"	GC-2		
	GC-3	89.36	68-18-53	"	64.28	104-18-53	89-10 13/16	"	"	82-2 13/16	"	"	"	"	"	"	"	"	"	1'-2 1/2	8x10	"	"	2'-2 1/2	"	"	GC-3		
	GC-4	89.27	68-11-12	"	64.95	104-11-12	89-7 1/8	"	"	81-11 1/8	"	"	"	"	"	"	"	"	"	1'-0 9/16	"	"	"	2'-0 9/16	"	"	GC-4		
	GC-5	89.38	68-01-52	"	63.80	104-01-52	89-8 13/16	"	"	82-8 13/16	"	"	"	"	"	"	"	"	"	1'-11 7/16	"	"	"	2'-11 7/16	"	"	GC-5		
	GC-6	89.07	68-52-11	"	63.78	104-52-11	89-4 1/8	8'-1	6-3	85-8 1/8	.077	.088	"	"	"	"	"	"	"	1'-8 1/16	10x16	7x10	22x24	2'-8 1/16	6x10	6x10	GC-6		
	GC-7	89.80	"	"	63.82	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	GC-7	
	GC-8	89.74	"	7-8 1/2	63.46	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	GC-8	
	GC-9	89.28	68-53-11	7-8	63.00	104-53-11	89-4 1/8	"	7-4	87-4 1/8	.118	.134	"	"	"	"	"	14x7/8	"	3 1/4	"	"	"	"	"	"	GC-9		
C-5	GC-1	89.70	68-18-50	7-1 1/8	64.80	104-18-50	89-1 1/8	8'-10	8'-1	82-1 1/8	.113	.120	80x3/8	14x3/4	14x3/4	14x1 1/4	14x1 3/8	14x1 1/2	14x1 3/8	3 1/4	1'-10 9/16	10x10	8x10	22x24	2'-4 9/16	6x10	11x10	GC-1	
	GC-2	89.64	68-27-27	8-0	64.78	104-27-27	89-7 1/2	10'-0	8'-11	81-8 1/2	.083	.095	"	"	"	"	"	"	"	1'-8 3/4	8x15	"	"	2'-1 3/4	"	"	GC-2		
	GC-3	89.57	68-29-22	"	64.30	104-29-22	89-1 1/8	"	"	84-3 1/8	"	"	"	"	"	"	"	"	"	1'-8 13/16	"	"	"	2'-10 13/16	"	"	GC-3		
	GC-4	89.00	68-20-12	"	64.87	104-20-12	89-8 1/8	"	"	80-11 1/8	"	"	"	"	"	"	"	"	"	1'-7 11/16	"	"	"	2'-8 11/16	"	"	GC-4		
	GC-5	89.43	68-10-17	"	64.52	104-10-17	89-6 7/8	"	"	80-8 7/8	"	"	"	"	"	"	"	"	"	1'-8 7/16	"	"	"	2'-7 7/16	"	"	GC-5		
	GC-6	89.38	68-00-00	8-0	64.65	104-00-00	89-8	7'-6	"	83-6	.080	.103	"	"	"	"	"	"	"	1'-8 3/4	10x13	10x13	22x24	1'-8	"	15x10	GC-6		
	GC-7	89.48	"	3-0	64.70	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	GC-7	
	GC-8	89.52	"	7-3 1/4	64.70	"	"	8'-8	8'-8	81-2	.080	.103	"	"	"	"	"	"	"	"	1'-8	8x15	8x15	22x24	2'-5	7x10	8x10	GC-8	
	GC-9	89.77	"	"	64.55	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	GC-9	
	GC-10	89.83	"	"	64.91	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	GC-10	
	GC-11	89.48	"	7-3 3/4	64.35	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	GC-11	
	GC-12	89.30	68-00-00	7-8	64.00	104-00-00	89-6	"	"	"	.118	.130	"	"	"	"	"	"	"	"	1 1/8	"	"	"	"	"	"	GC-12	
C-6	GC-1	89.73	68-03-42	7-8	68.69	104-03-42	87-2 5/16	8'-5	6-8	84-4 5/16	.101	.116	80x3/8	14x3/4	14x3/4	14x3/4	14x1	14x1	14x1 1/4	3	1'-8 1/8	11x12	10x17	22x24	2'-7 1/8	6x10	7x10	GC-1	
	GC-2	89.60	68-23-04	7-4	68.54	104-23-04	87-2 1/8	"	"	84-4 1/8	.085	.074	"	"	"	"	"	"	"	1'-8 1/16	"	"	"	2'-7 1/16	"	"	GC-2		
	GC-3	89.43	68-01-50	7-4	68.44	104-01-50	87-1 7/8	"	"	84-8 7/8	"	"	"	"	"	"	"	"	"	1'-8 15/16	"	"	"	2'-8 15/16	"	"	GC-3		
	GC-4	89.28	68-10-27	7-4	68.20	104-10-27	87-1 3/4	"	"	84-1 3/4	"	"	"	"	"	"	"	"	"	"	1'-8 7/8	"	"	"	2'-8 7/8	"	"	GC-4	
	GC-5	89.09	68-00-00	7-8	68.11	104-00-00	87-1 1/16	"	"	84-1 1/16	.101	.118	"	"	"	"	"	"	"	"	1'-8 15/16	"	"	"	2'-8 15/16	"	"	GC-5	

BOWMAN, BARRETT & ASSOCIATES INC. CONSULTING ENGINEERS Chicago, Illinois 312.228.0100 www.bbainc.com

CITY OF CHICAGO DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING SOUTH ROUTE SUPERHIGHWAY
SECTION NO. 5-20283-10 5-20283-10F
CHICAGO RIVER TO W. CERMAK RD.
SIMPLE SPAN GIRDER SCHEDULE

FOR INFORMATION ONLY

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) NB DAN RYAN ELEVATED BRIDGE REPAIR FROM 15TH TO 28TH STREETS EXISTING PLAN INFORMATION SN 016-1113
SCALE: NTS DATE: 7/22/2005
DRAWN BY: BDC CHECKED BY: BLU

7/20/2005 7:10:27 AM

62580

RAMP D

SPAN	GIRDER	SOUTH END DATA			NORTH END DATA			GIRDER DIMENSIONS					FLANGE PLATES						SHEAR CONNECTOR SPACINGS				INTERIOR WEB STIFFENER SPACINGS			REMARKS				
		S	ELEVATION	ANGLE	N	ELEVATION	ANGLE	LENGTH % BRGS.	A	B	C	Δ (1) CONCRETE	Δ (2) CONCRETE	WEB PLATE	1	2	3	4	5	6	CAMBER	a	b	c	d		e	f	g	GIRDER
D	00-1	0'-6 1/2"	51.00	00'-22'-00"	0'-6 1/2"	50.02	00'-22'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.107	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 13/16"	10x19"	7x10"	10x20"	10x20"	0'-0 13/16"	0'-0 13/16"	0'-0 13/16"	00-1
	00-2	0'-6 1/2"	51.01	00'-22'-00"	0'-6 1/2"	50.03	00'-22'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.107	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 13/16"	10x19"	7x10"	10x20"	10x20"	0'-0 13/16"	0'-0 13/16"	0'-0 13/16"	00-2
	00-3	0'-6 1/2"	51.02	00'-22'-00"	0'-6 1/2"	50.04	00'-22'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.107	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 13/16"	10x19"	7x10"	10x20"	10x20"	0'-0 13/16"	0'-0 13/16"	0'-0 13/16"	00-3
	00-4	0'-6 1/2"	51.03	00'-22'-00"	0'-6 1/2"	50.05	00'-22'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.107	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 13/16"	10x19"	7x10"	10x20"	10x20"	0'-0 13/16"	0'-0 13/16"	0'-0 13/16"	00-4
D	00-1	0'-6 1/2"	50.50	00'-00'-00"	0'-6 1/2"	49.52	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 13/16"	10x19"	7x10"	10x20"	10x20"	0'-0 13/16"	0'-0 13/16"	0'-0 13/16"	00-1
	00-2	0'-6 1/2"	50.51	00'-00'-00"	0'-6 1/2"	49.53	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 13/16"	10x19"	7x10"	10x20"	10x20"	0'-0 13/16"	0'-0 13/16"	0'-0 13/16"	00-2
	00-3	0'-6 1/2"	50.52	00'-00'-00"	0'-6 1/2"	49.54	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 13/16"	10x19"	7x10"	10x20"	10x20"	0'-0 13/16"	0'-0 13/16"	0'-0 13/16"	00-3
	00-4	0'-6 1/2"	50.53	00'-00'-00"	0'-6 1/2"	49.55	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 13/16"	10x19"	7x10"	10x20"	10x20"	0'-0 13/16"	0'-0 13/16"	0'-0 13/16"	00-4
D	00-1	0'-6 1/2"	50.93	02'-00'-00"	0'-6 1/2"	52.37	01'-07'-17"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 7/8"	10x19"	7x10"	10x20"	10x20"	0'-0 7/8"	0'-0 7/8"	0'-0 7/8"	00-1
	00-2	0'-6 1/2"	50.94	02'-00'-00"	0'-6 1/2"	52.38	01'-07'-17"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 7/8"	10x19"	7x10"	10x20"	10x20"	0'-0 7/8"	0'-0 7/8"	0'-0 7/8"	00-2
	00-3	0'-6 1/2"	50.95	02'-00'-00"	0'-6 1/2"	52.39	01'-07'-17"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 7/8"	10x19"	7x10"	10x20"	10x20"	0'-0 7/8"	0'-0 7/8"	0'-0 7/8"	00-3
	00-4	0'-6 1/2"	50.96	02'-00'-00"	0'-6 1/2"	52.40	01'-07'-17"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	2 7/8"	0'-0 7/8"	10x19"	7x10"	10x20"	10x20"	0'-0 7/8"	0'-0 7/8"	0'-0 7/8"	00-4
D	00-1	7'-11	51.50	00'-00'-00"	7'-11	50.52	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	3 1/2"	0'-11 3/8"	10x19"	10x19"	10x20"	10x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-1
	00-2	7'-11	51.51	00'-00'-00"	7'-11	50.53	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	3 1/2"	0'-11 3/8"	10x19"	10x19"	10x20"	10x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-2
	00-3	7'-11	51.52	00'-00'-00"	7'-11	50.54	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	3 1/2"	0'-11 3/8"	10x19"	10x19"	10x20"	10x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-3
	00-4	7'-11	51.53	00'-00'-00"	7'-11	50.55	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	3 1/2"	0'-11 3/8"	10x19"	10x19"	10x20"	10x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-4
	00-5	7'-11	51.54	00'-00'-00"	7'-11	50.56	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	3 1/2"	0'-11 3/8"	10x19"	10x19"	10x20"	10x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-5
	00-6	7'-11	51.55	00'-00'-00"	7'-11	50.57	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	3 1/2"	0'-11 3/8"	10x19"	10x19"	10x20"	10x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-6
	00-7	7'-11	51.56	00'-00'-00"	7'-11	50.58	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	3 1/2"	0'-11 3/8"	10x19"	10x19"	10x20"	10x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-7
	00-8	7'-2	51.57	00'-00'-00"	7'-2	50.59	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.106	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	3 7/8"	0'-11 3/8"	10x19"	10x19"	10x20"	10x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-8
D	00-1	0'-0 1/2"	52.10	04'-00'-00"	0'-0 1/2"	52.70	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.109	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	4 1/2"	0'-11 3/8"	0x11	0x16	0x20"	0x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-1
	00-2	0'-0 1/2"	52.11	04'-00'-00"	0'-0 1/2"	52.71	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.109	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	4 1/2"	0'-11 3/8"	0x11	0x16	0x20"	0x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-2
	00-3	0'-0 1/2"	52.12	04'-00'-00"	0'-0 1/2"	52.72	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.109	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	4 1/2"	0'-11 3/8"	0x11	0x16	0x20"	0x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-3
	00-4	0'-0 1/2"	52.13	04'-00'-00"	0'-0 1/2"	52.73	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.109	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	4 1/2"	0'-11 3/8"	0x11	0x16	0x20"	0x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-4
	00-5	0'-0 1/2"	52.14	04'-00'-00"	0'-0 1/2"	52.74	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.109	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	4 1/2"	0'-11 3/8"	0x11	0x16	0x20"	0x20"	0'-11 3/8"	0'-11 3/8"	0'-11 3/8"	00-5
	00-6	7'-2 1/2"	52.15	07'-01'-00"	7'-2	52.75	00'-00'-00"	02'-6 1/2"	11'-3"	5'-0"	10'-11 1/2"	.003	.109	00'-2 1/2"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	10'-2 1/4"	4 3/8"	0'-0 7/8"	0x11	0x16	0x20"	0x20"	0'-0 7/8"	0'-0 7/8"	0'-0 7/8"	00-6

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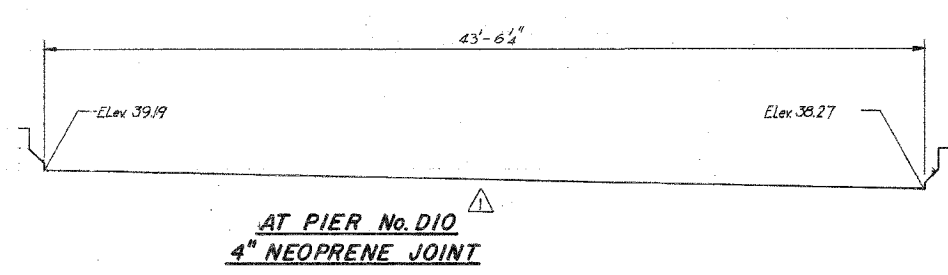
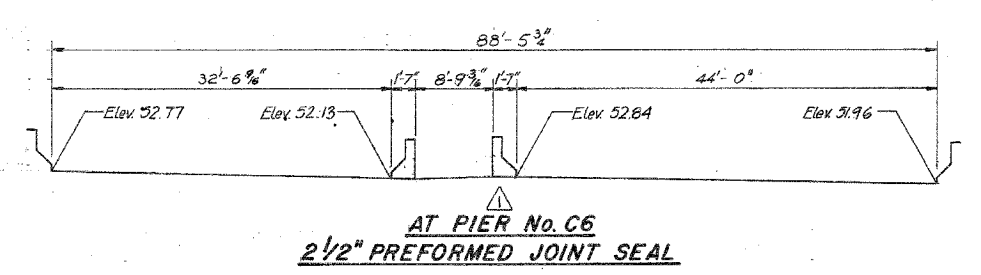
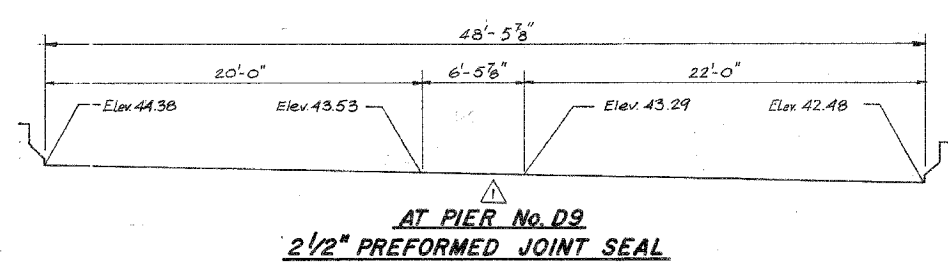
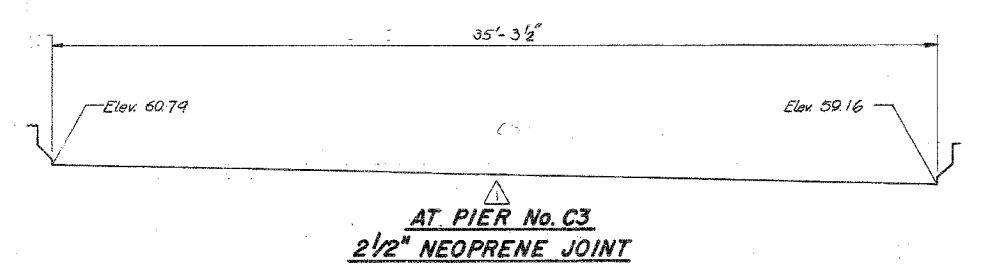
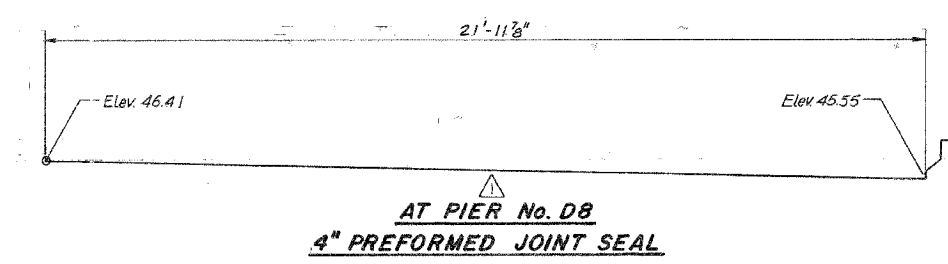
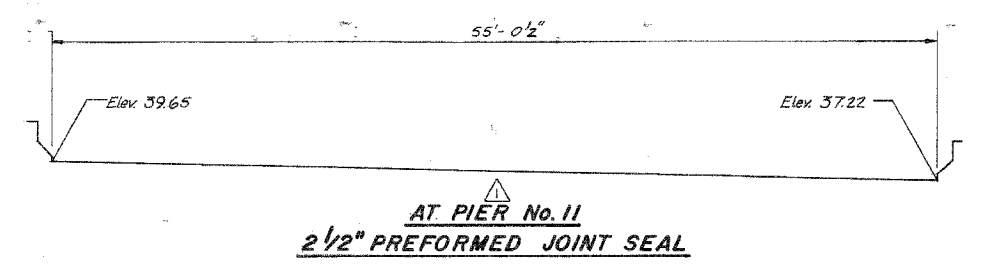
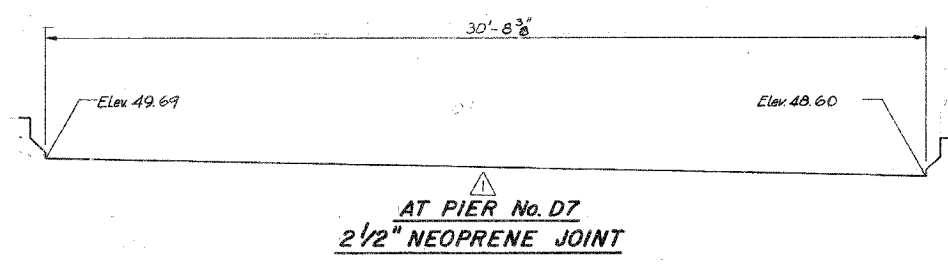
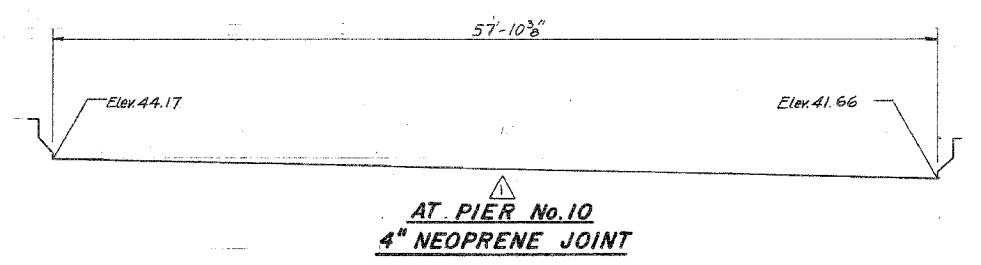
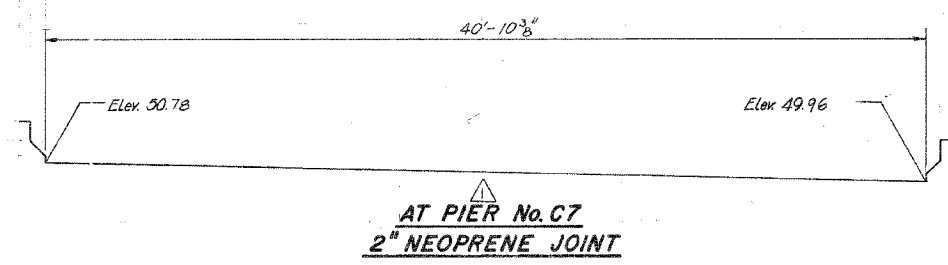
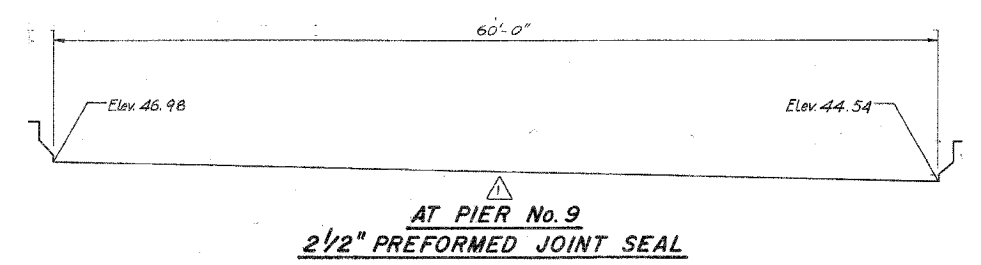
SECTION NO. S-2821-11
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE 55 HIGHWAY
CHICAGO RIVER TO W. CERMAK RD.
SIMPLE SPAN GIRDER SCHEDULE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1113
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

7/19/2005 11:59 AM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	346
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



Note:
All Joints are looking North.

12-1-88

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SHEET E36 OF 68

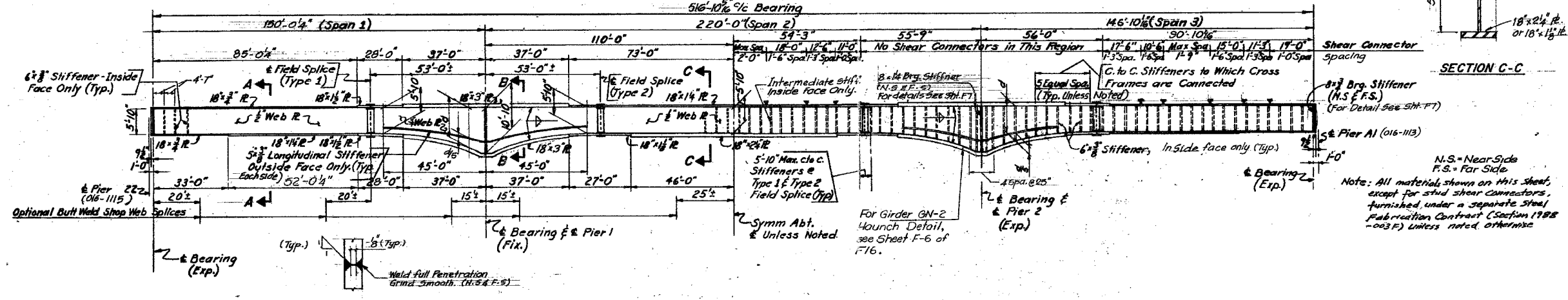
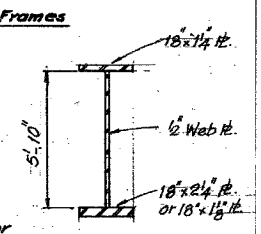
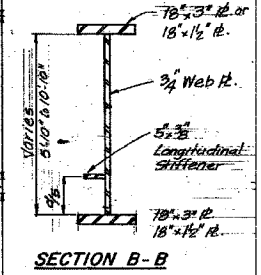
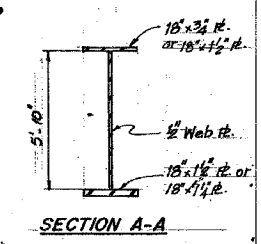
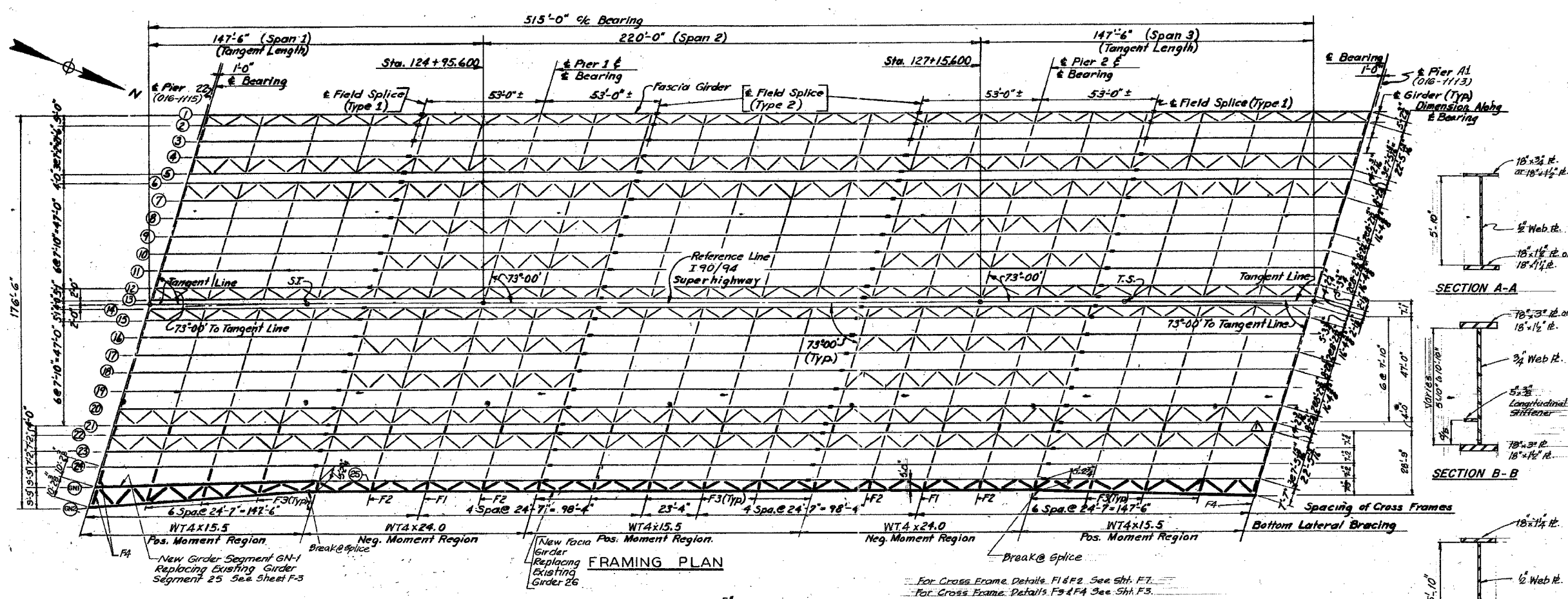
REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-077 R - COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 06-1113
TRANSVERSE DECK JOINT ELEVATION
Scale: NONE
Date: AUGUST 1988
Drawn By: O.C.
Checked By: T.V.
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1113
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

7/19/2005 11:46:25 AM



WELD SPlice DETAIL IN WEB
(FOR LOCATION SEE ELEV.)

GIRDER ELEVATION - GN-2 (NEW)
(FOR ADDITIONAL GIRDER DETAILS SEE SHEET F-5)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-0778, COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1114 & 1070
FRAMING PLAN

Scale: NONE
Date: AUG. 1988

Drawn By: S.R.
Checked By: SK

ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

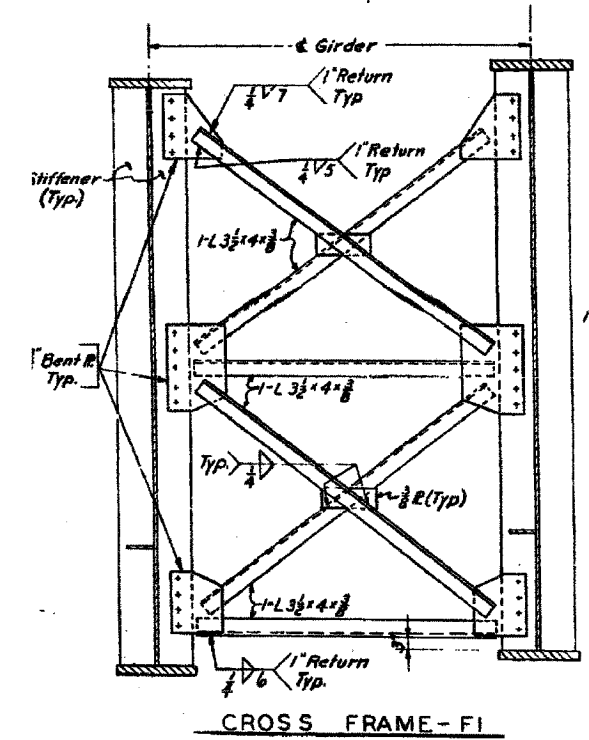
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1114 & 1070

SCALE: NTS
DATE: 7/22/2005

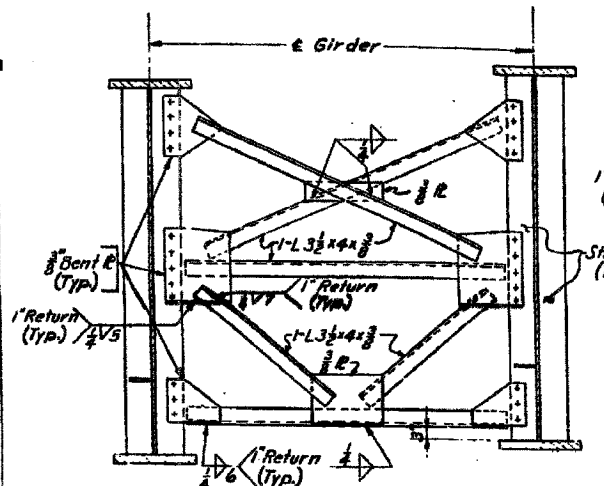
DRAWN BY: BDC
CHECKED BY: BLU

FOR INFORMATION ONLY

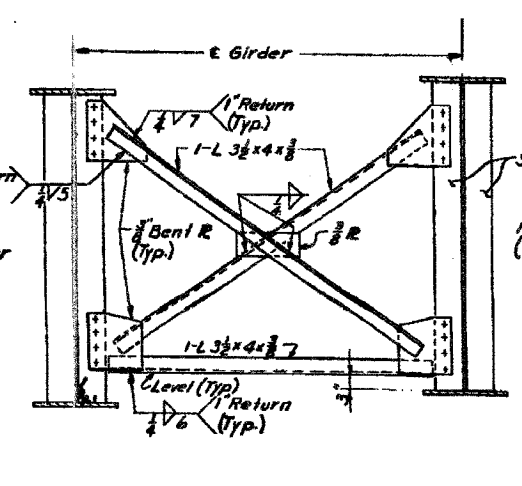
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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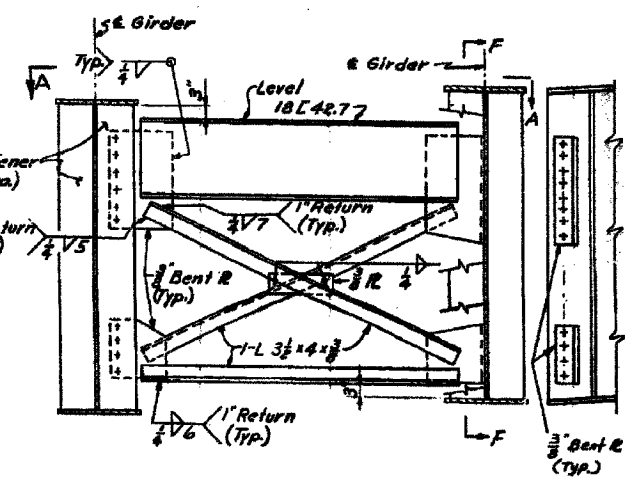
CROSS FRAME - F1



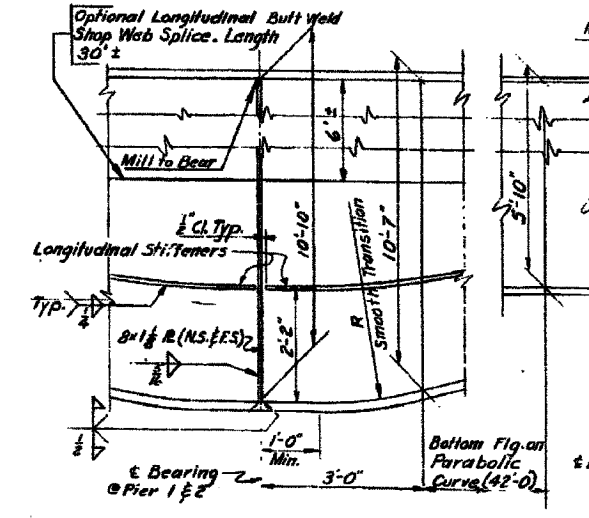
CROSS FRAME - F2



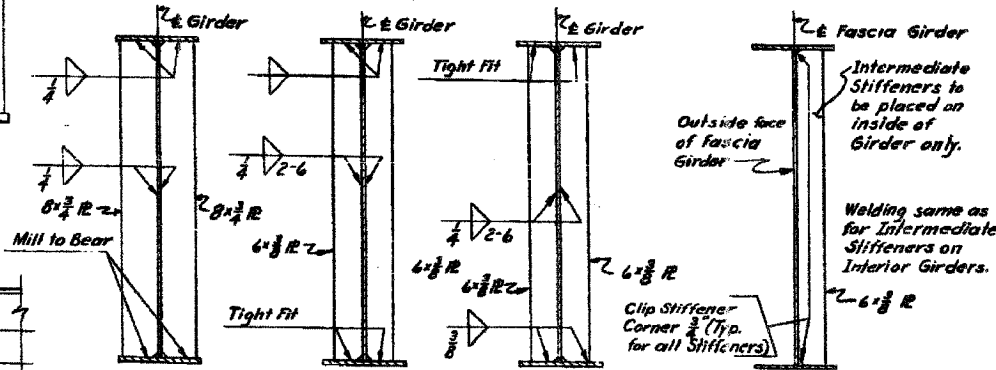
CROSS FRAME - F3



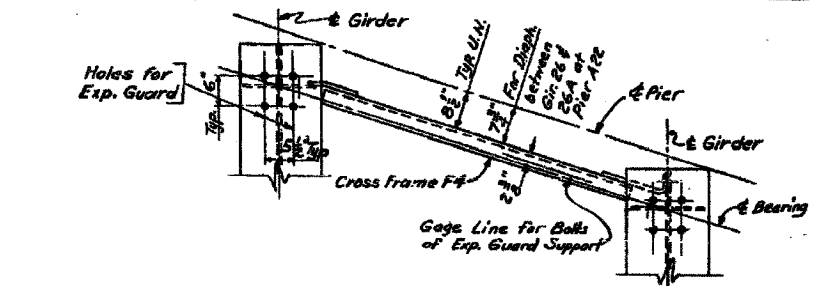
CROSS FRAME - F4 SECTION F-F



HAUNCH DETAIL

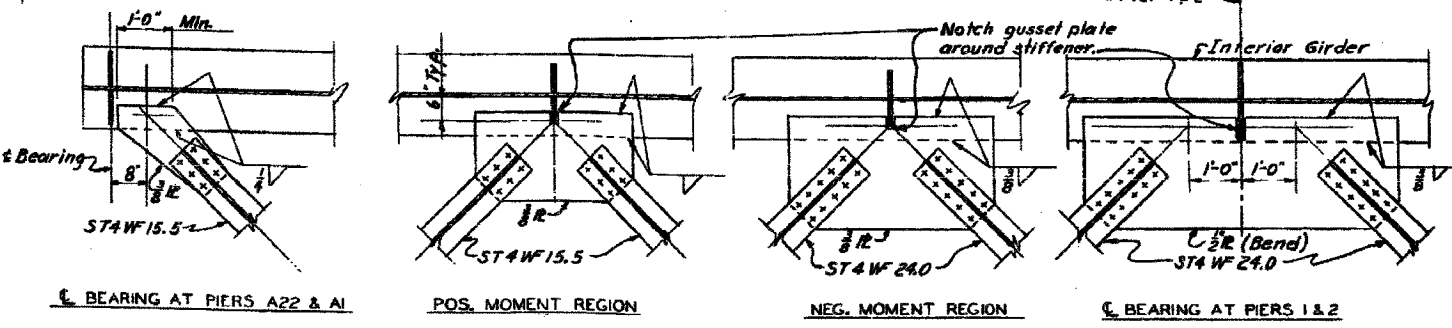


STIFFENER DETAILS



VIEW A-A

Note: All Bearing & Intermediate Stiffeners are to be Vertical & 90° to Web.



LATERAL BRACING DETAILS

Work Sheet 4 thru 8 Together.

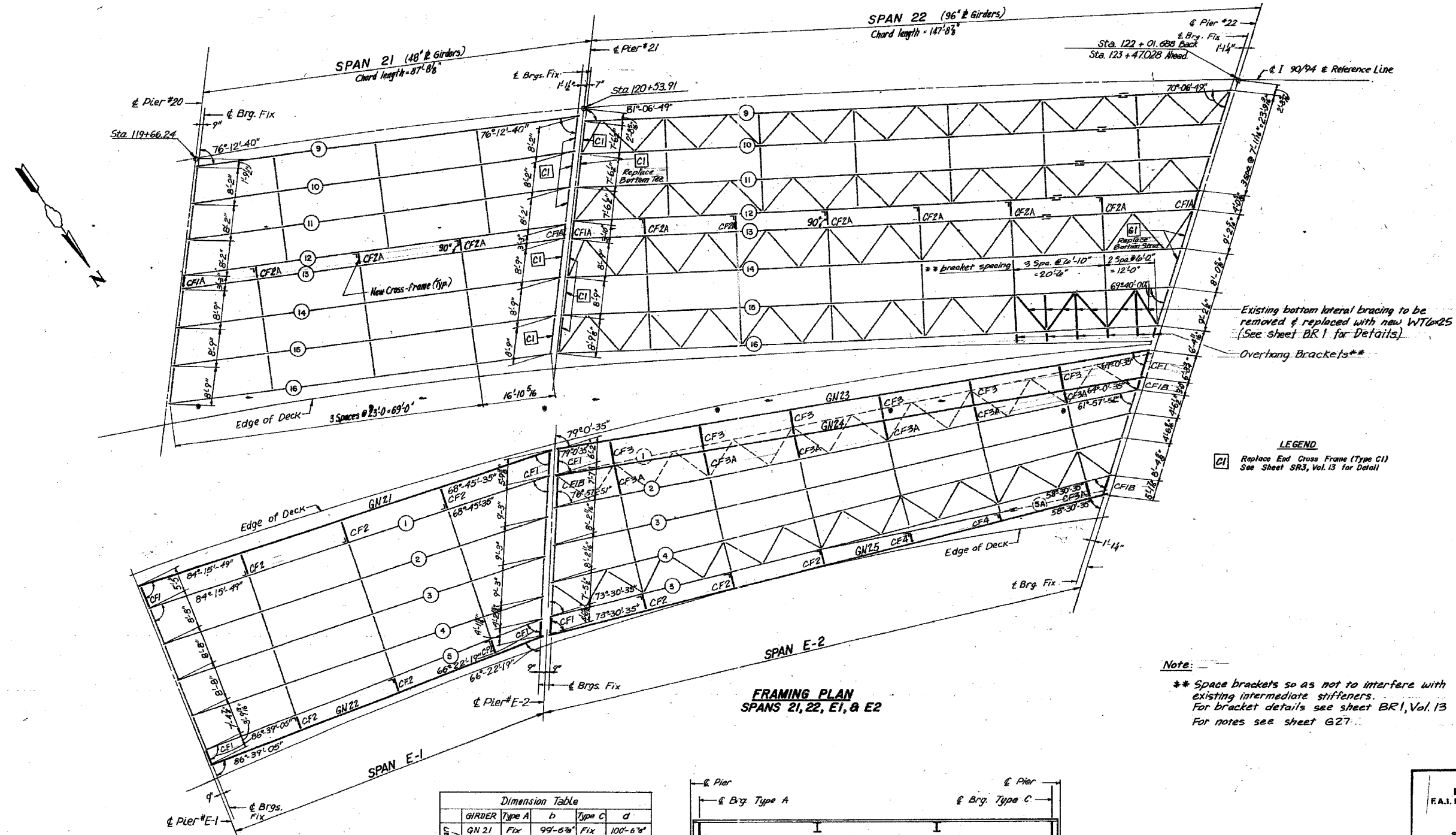
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
SECTION 5-2424.4-2 RB
CHICAGO RIVER BRIDGE
STRUCTURAL STEEL
HAZLET & BRAD - CONSULTING ENGINEERS
CHICAGO, ILLINOIS
SCALE: 3/4" = 1'-0"
DATE: 8-30-01 SHEET NO. 5 OF 27 SHEETS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1114
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

FOR INFORMATION ONLY

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CONSULTING ENGINEERS
Chicago, Illinois
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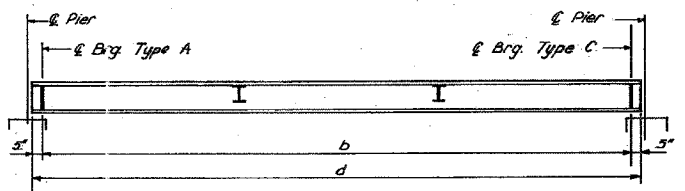


LEGEND
 [C1] Replace End Cross Frame (Type C1)
 See Sheet SR3, Vol. 13 for Detail

Note:
 ** Space brackets so as not to interfere with existing intermediate stiffeners.
 For bracket details see sheet BR1, Vol. 13
 For notes see sheet G27

FRAMING PLAN
 SPANS 21, 22, E1, & E2

Dimension Table					
GIRDER	Type	a	Type	d	
Span E-1	GN 21	Fix	99'-6 7/8"	Fix	100'-6 7/8"
	GN 22	Fix	80'-2 1/4"	Fix	81'-0 1/4"
Span E-2	GN 23	Fix	134'-8 1/2"	Fix	135'-6 1/2"
	GN 24	Fix	132'-11 1/4"	Fix	133'-9 1/4"
	GN 25	Fix	129'-2 5/8"	Fix	130'-0 5/8"



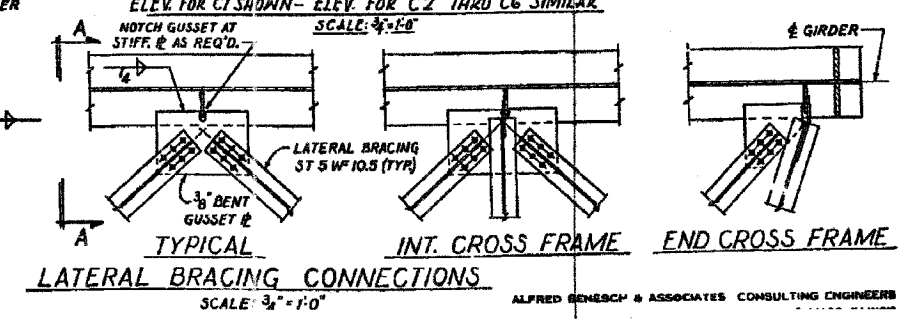
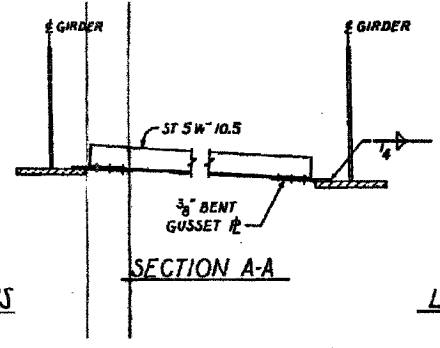
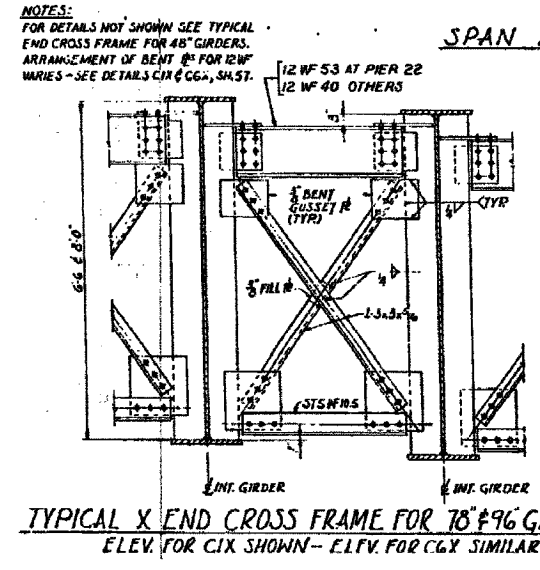
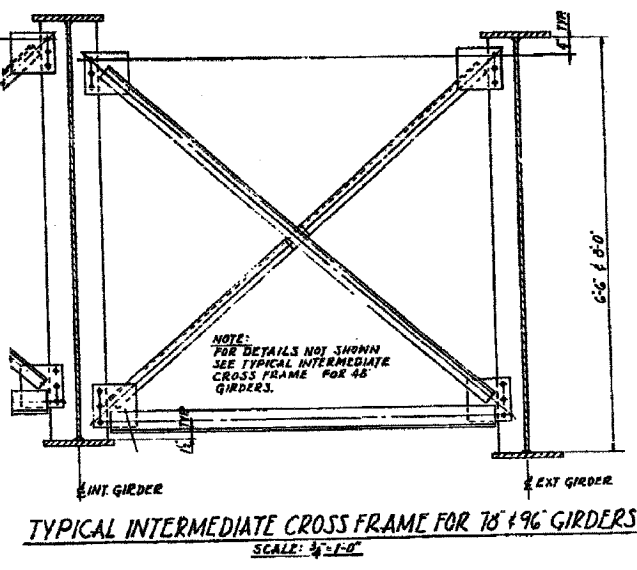
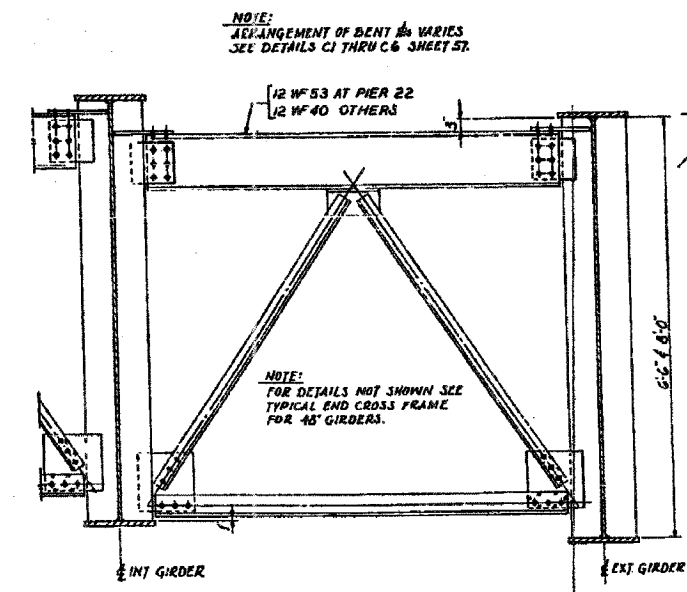
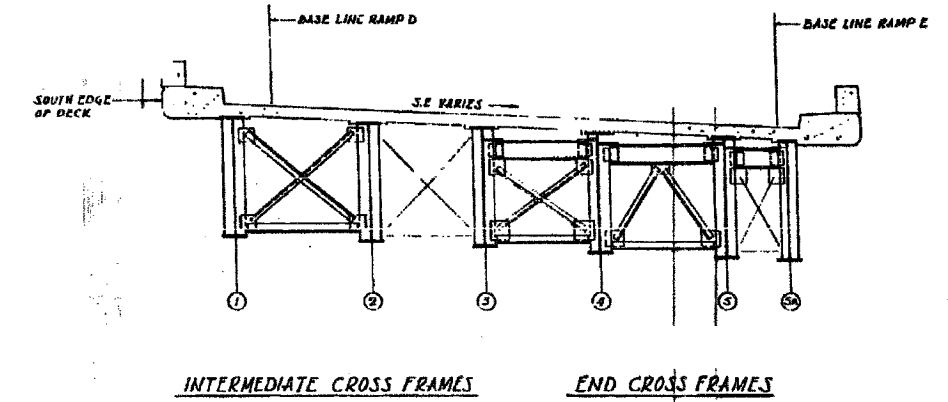
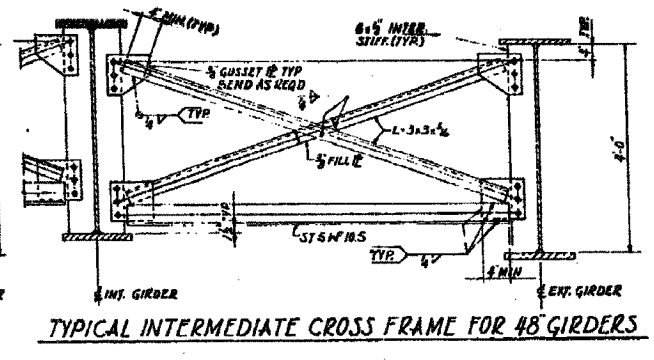
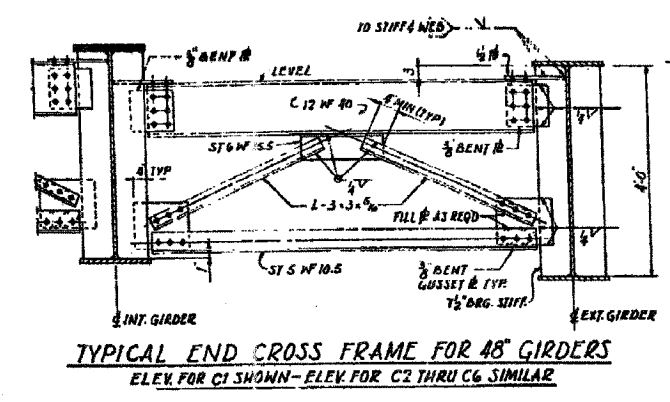
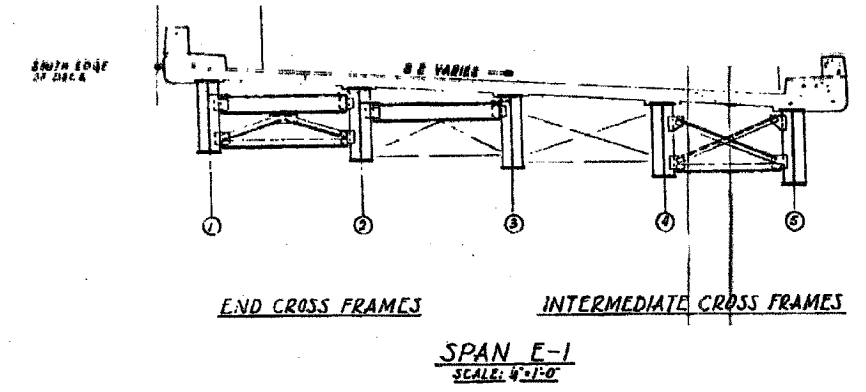
GIRDER ELEVATION
 Girders GN21 thru GN25

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985 - 0776R - COOK COUNTY
 N. B. MAINLINE RECONSTRUCTION
 STRUCTURE 016-1115
 FRAMING PLAN SPANS 21 TO E-2
 Scale: NONE
 Date: AUG. 1988
 Drawn By: MMS
 Checked By: MEM
 ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

REVISIONS	DATE
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1115
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

FOR INFORMATION ONLY



NOTES:
FOR DETAILS NOT SHOWN SEE TYPICAL END CROSS FRAME FOR 48" GIRDERS. ARRANGEMENT OF BENT # VARIES - SEE DETAILS C1X & C6X, SH. ST.

NOTE:
ARRANGEMENT OF BENT # VARIES. SEE DETAILS C1 THRU C6 SHEET 57.

NOTE:
FOR DETAILS NOT SHOWN SEE TYPICAL END CROSS FRAME FOR 48" GIRDERS.

NOTE:
FOR DETAILS NOT SHOWN SEE TYPICAL INTERMEDIATE CROSS FRAME FOR 48" GIRDERS.

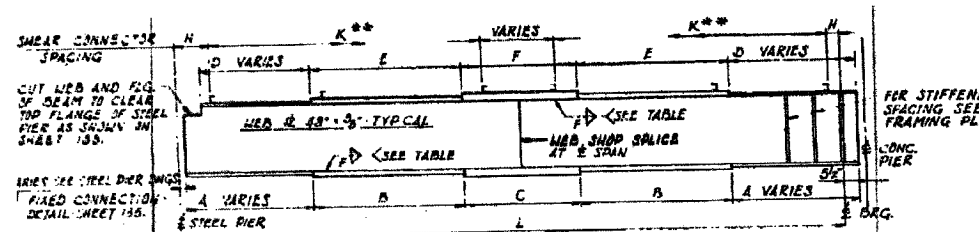
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
**SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
CANAL ST. TO CHICAGO RIVER
SECTION 5-2424.3-2H
CROSS FRAME DETAILS**
SHEET NO. 52 OF 163 SHEETS DATE: SEPT., 1901

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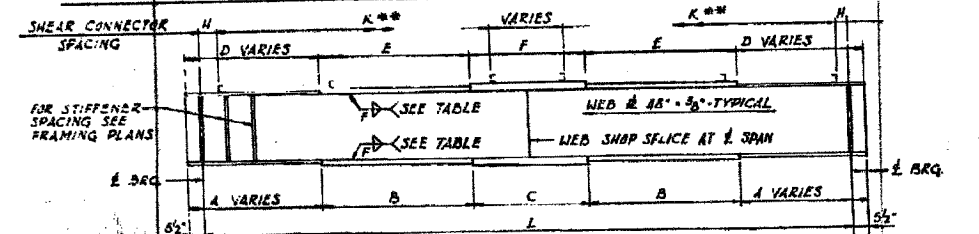
FOR INFORMATION ONLY

REVISIONS NAME	DATE

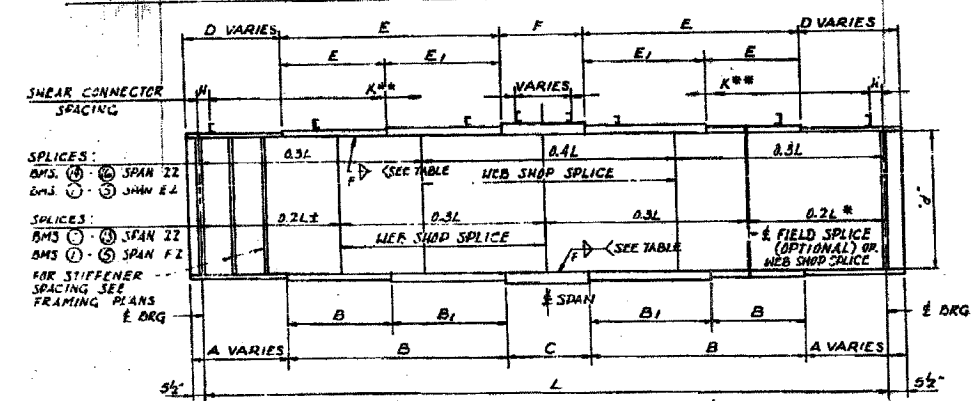
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1115
SCALE: NTS DATE: 7/22/2005 DRAWN BY: BDC CHECKED BY: BLU



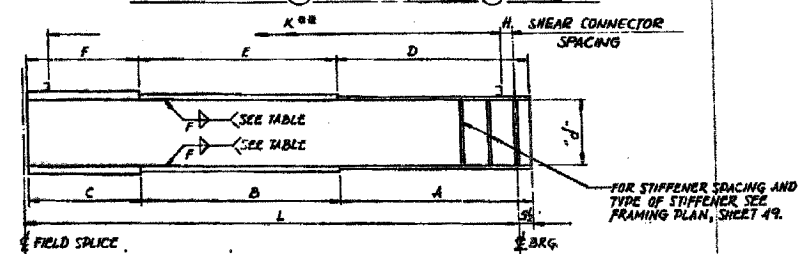
TYPICAL ELEVATION OF 48" WELDED PLATE BEAMS - SPANS 18, 19, 20



TYPICAL ELEVATION OF 48" WELDED PLATE BEAMS - SPANS 21, E, I, F-1



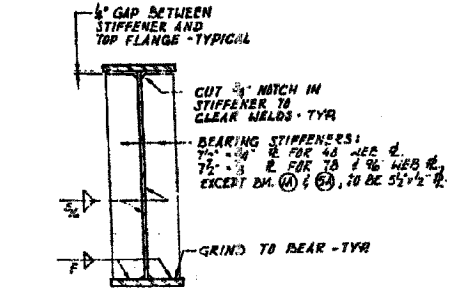
TYPICAL ELEVATION OF 78" & 96" WELDED PLATE BEAMS EXCEPT BEAM (5A) SPAN E-2 & BEAM (A) SPAN F-2



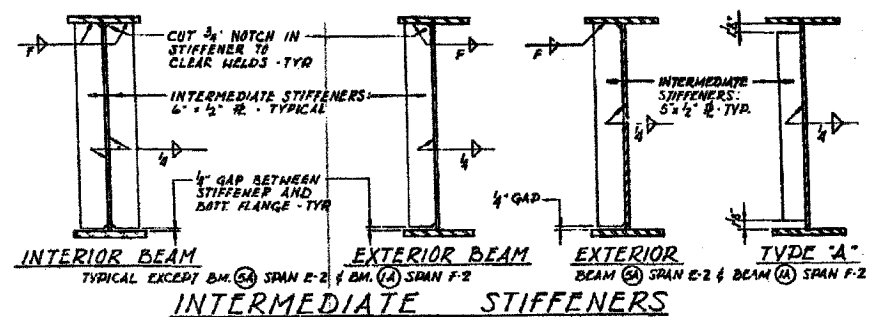
TYPICAL ELEVATION OF 78" WELDED PLATE BEAM (5A) AND 96" WELDED PLATE BEAM (A)

WELD SIZE F*TABLE

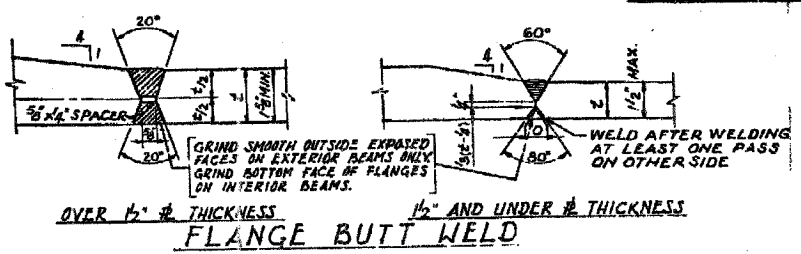
FLANGE PLATE THICKNESS	WELD SIZE "F"
3" THRU 1 1/2"	5/8"
1 1/2" THRU 2 1/4"	3/4"
2 1/4" THRU 4"	1"



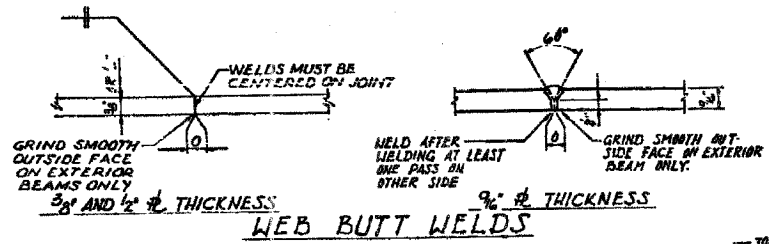
BEARING STIFFENERS



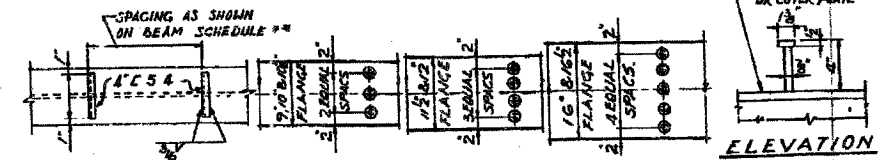
INTERMEDIATE STIFFENERS



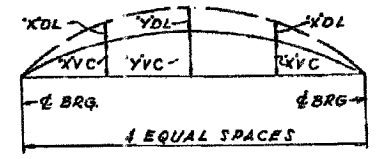
FLANGE BUTT WELD



WEB BUTT WELDS



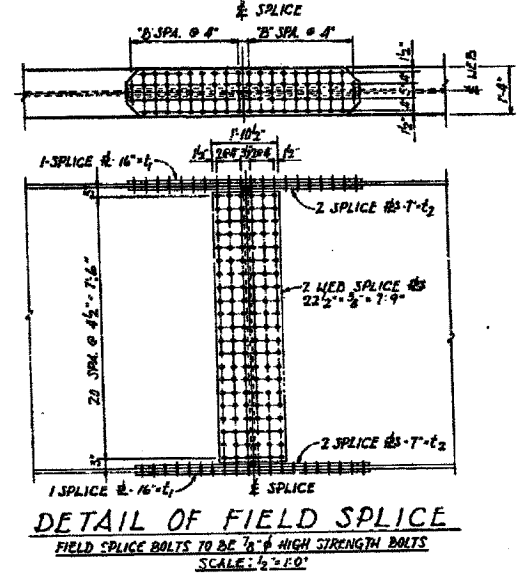
CHANNEL SHEAR CONNECTOR ALTERNATE STUD WELD SHEAR CONNECTOR



CAMBER DIAGRAM

HEIGHT OF STRUCTURAL STEEL NOT INCLUDED. ALL WELDED PLATE BEAMS SHALL BE CAMBERED FOR D.L. DEFLECTION AND VERTICAL CURVE, EXCEPT AS NOTED "DO NOT CAMBER."

*X D.L. (Y) Y D.L. ORDINATE FOR DEAD LOAD DEFLECTION DIMENSIONS
*X V.C. (Y) Y V.C. ORDINATE FOR VERTICAL CURVE DIMENSIONS.



DETAIL OF FIELD SPLICE

TABLE OF SPLICE PLATES & NO. OF SPACES

SPAN	BEAM	THICKNESS OF SPLICE PLATES	B' NO. OF HIGH STRENGTH BOLTS SPACES
22	1,2,3	1 1/2"	9
	4,5,7,8,9	1"	7
F-2	3,7,8,12,13	1"	5
	1,2,3,4,5	1 1/2"	8

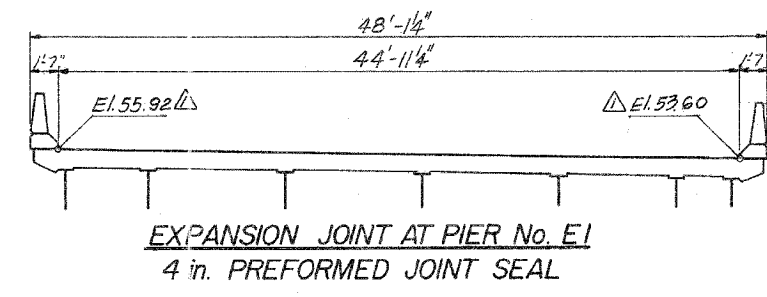
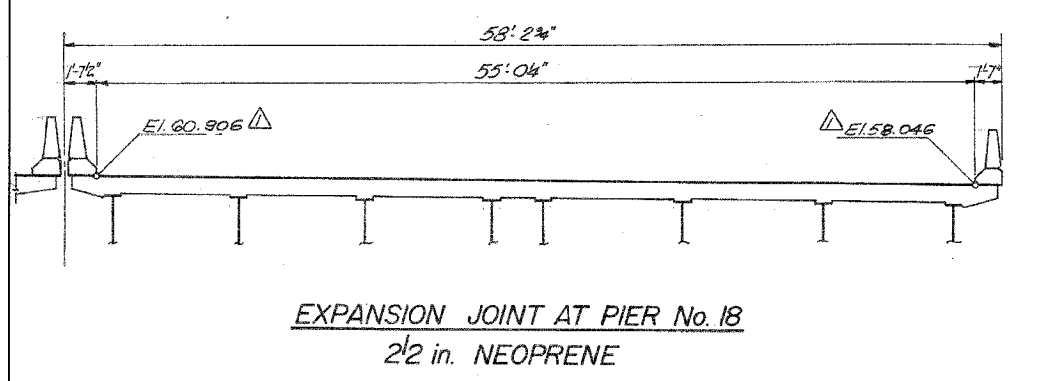
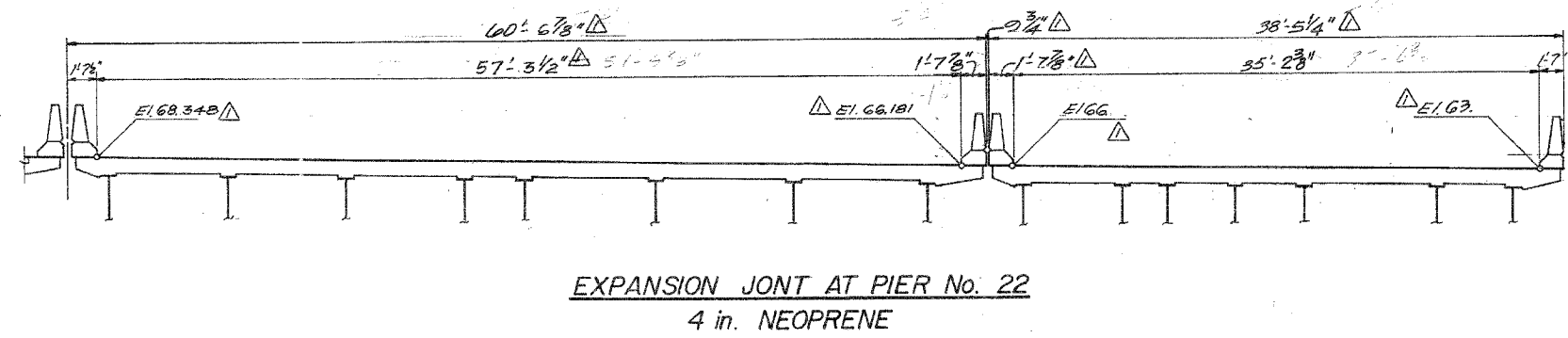
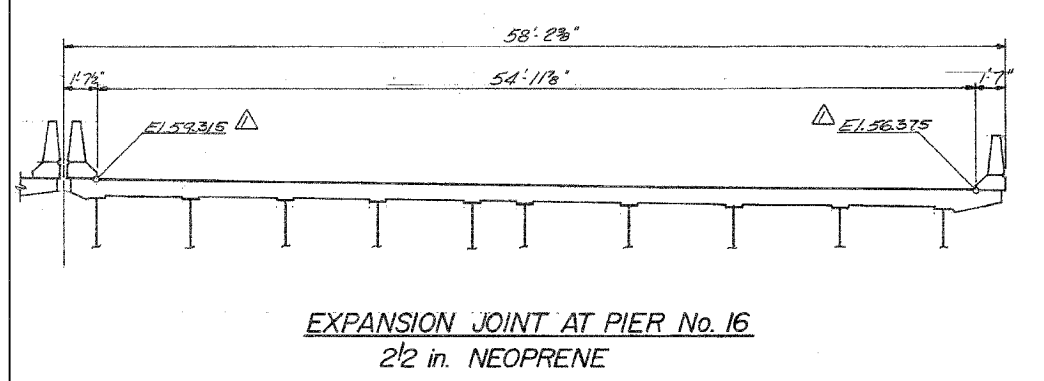
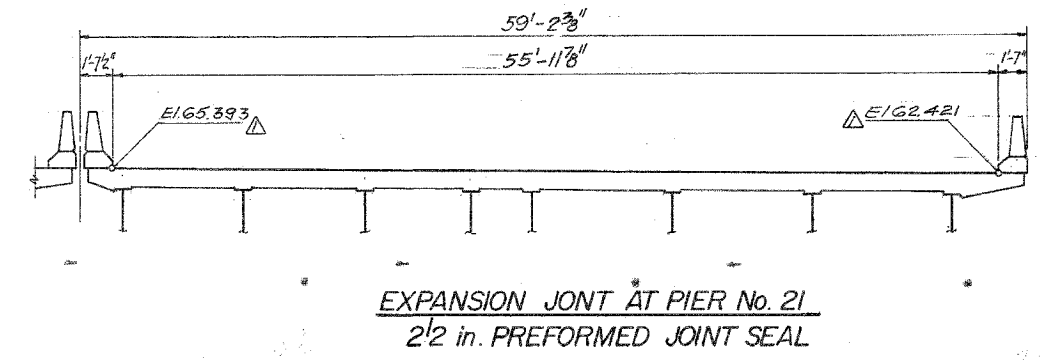
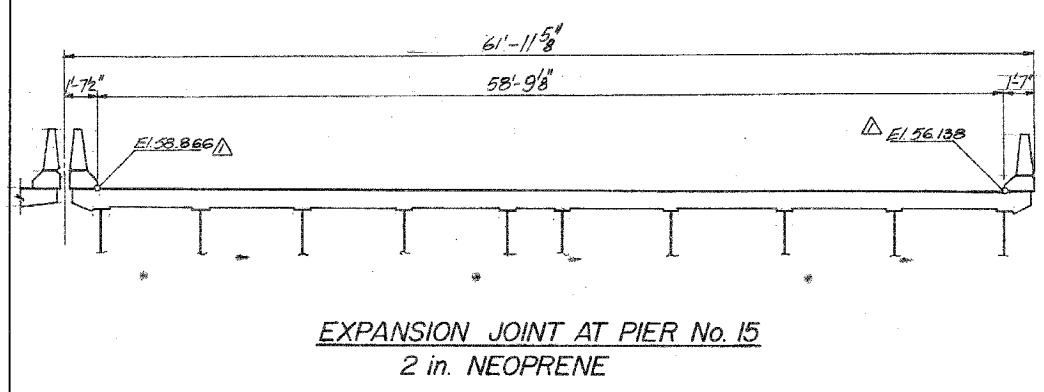
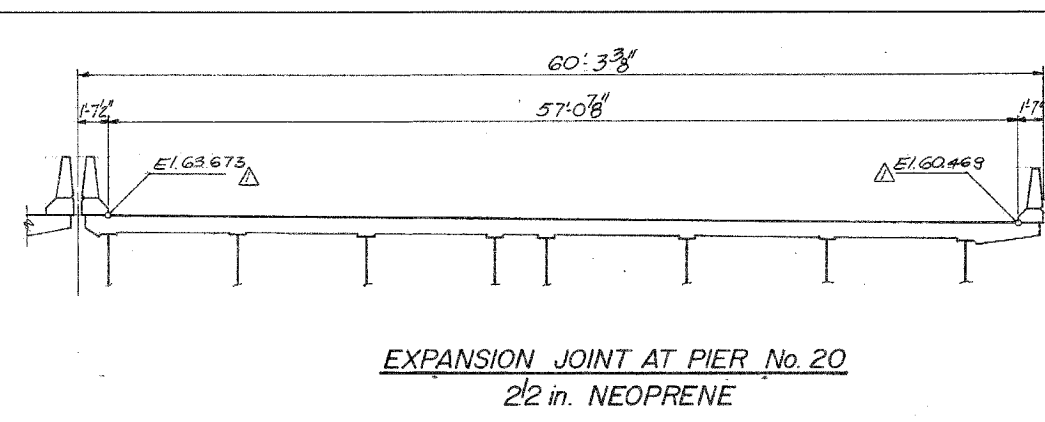
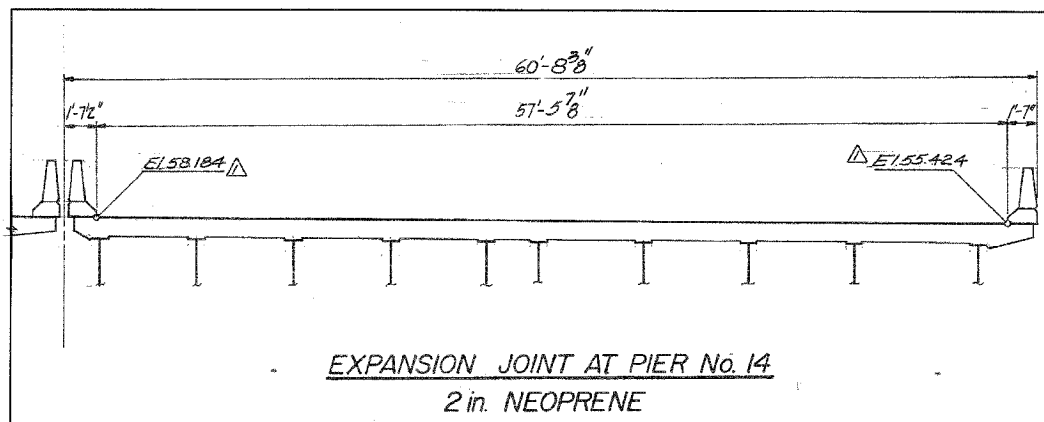
NOTES:
STUD WELDED SHEAR CONNECTORS MAY BE SUBSTITUTED FOR CHANNEL SHEAR CONNECTORS SHOWN ON THE PLANS AT THE CONTRACTOR'S OPTION. SPACING SHOWN IN SCHEDULE SHALL APPLY TO EITHER TYPE OF SHEAR CONNECTOR. ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL AND TAKEN ALONG BOTTOM OF WEB PLATE. FOR FRAMING PLANS SEE SHEETS 47 THRU 49. FOR ADDITIONAL NOTES SEE SHEET 41.
** ADJUST SHEAR CONNECTOR SPACING AT FIELD SPLICE AND FLANGE SHOD SPLICES TO AVOID INTERFERENCE WITH BOLT HEADS OR BUTT WELDS RESPECTIVELY. ALL WELDS SHALL BE MADE BY THE MERGED ARC WELDING METHOD EXCEPT THAT WELDS MAY BE MADE BY THE MANUAL SHIELDED METAL ARC METHOD PROVIDED WELDING DETAILS ARE MODIFIED AND THE MODIFIED DETAILS AND PROCEDURES ARE APPROVED BY THE ENGINEER.

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
**SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
CANAL ST. TO CHICAGO RIVER
SECTION S-2424.3-2H
WELDED PLATE BEAM DETAILS**

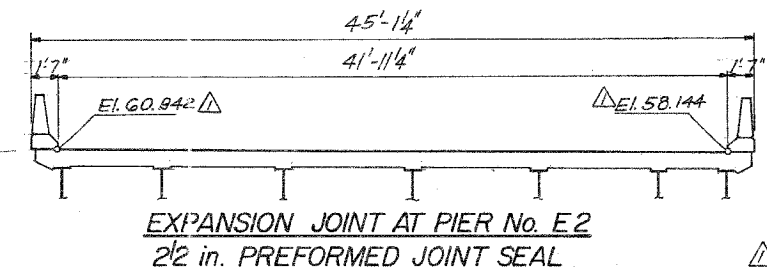
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1115
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

FOR INFORMATION ONLY

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	352
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



- Notes:
1. All dimensions are along Centerline of Joint.
 2. For details see sheet TJ2 & TJ3.
 3. All Sections looking up-station.



SHEET 645 OF 6101

REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-0773R- COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1115
TRANSVERSE DECK JOINT ELEVATION
Scale: NONE
Date: AUG. 1988
Drawn By: [blank]
Checked By: [blank]
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1115
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BOC
CHECKED BY: BLU

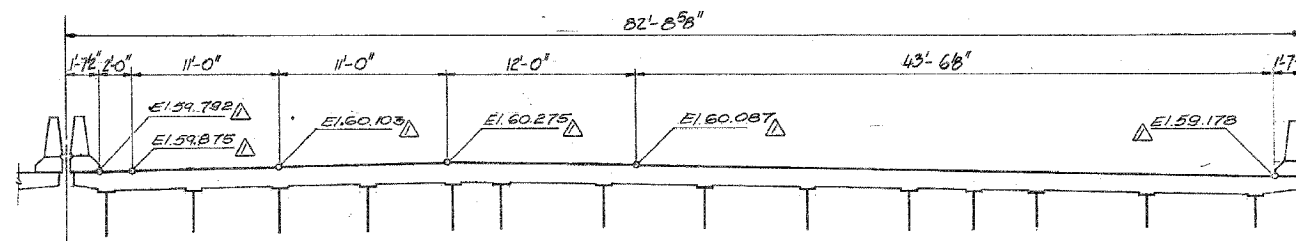
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

FOR INFORMATION ONLY

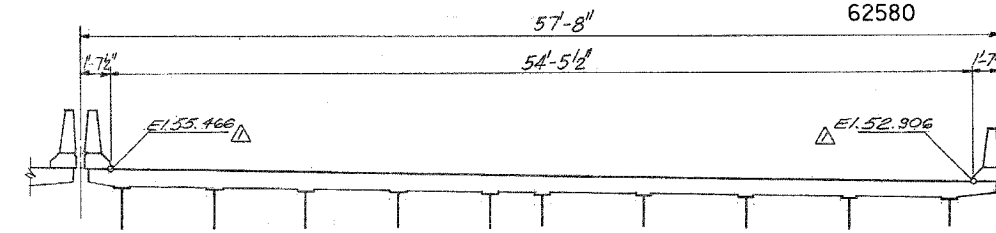
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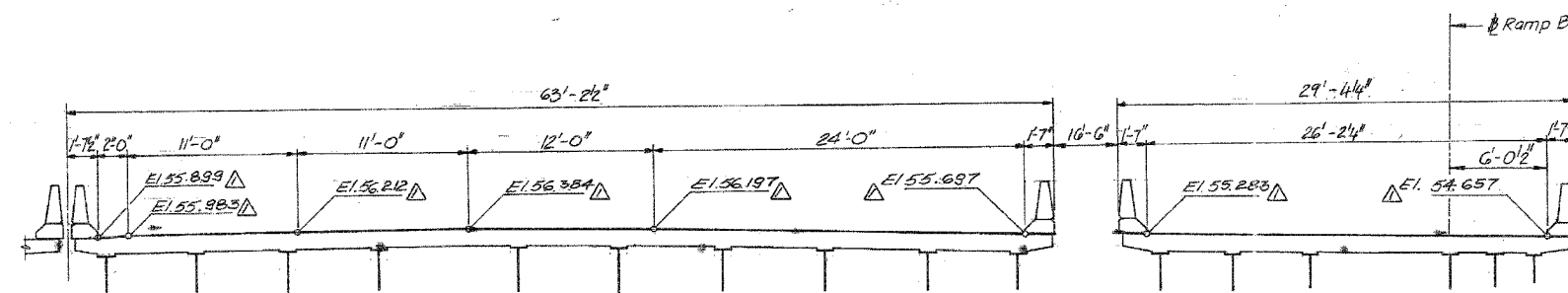
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	353
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



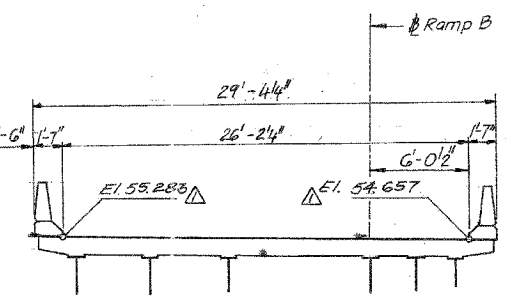
EXPANSION JOINT AT PIER No. 1
4 in. NEOPRENE



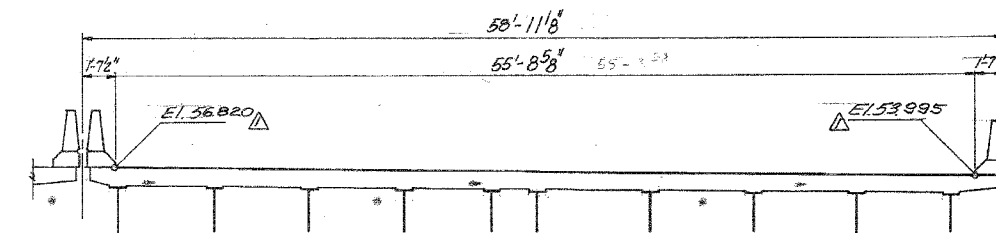
EXPANSION JOINT AT PIER No. 10
4 in. PREFORMED JOINT SEAL



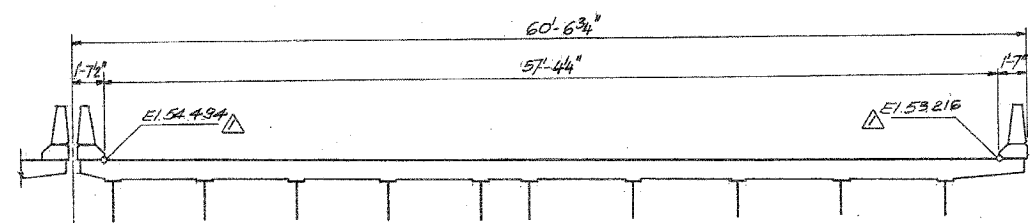
EXPANSION JOINT AT PIER No. 5
4 in. NEOPRENE



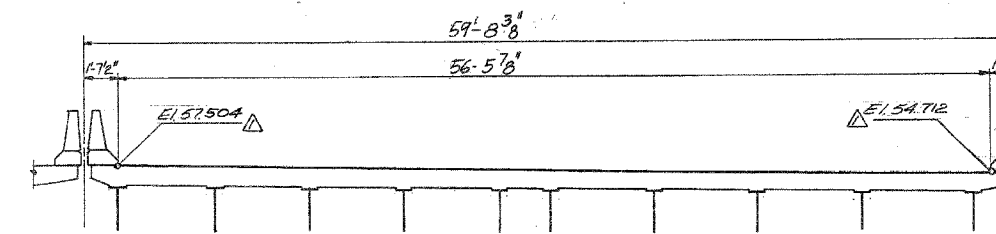
EXPANSION JOINT AT PIER No. 5 (RAMP-B)
4 in. NEOPRENE



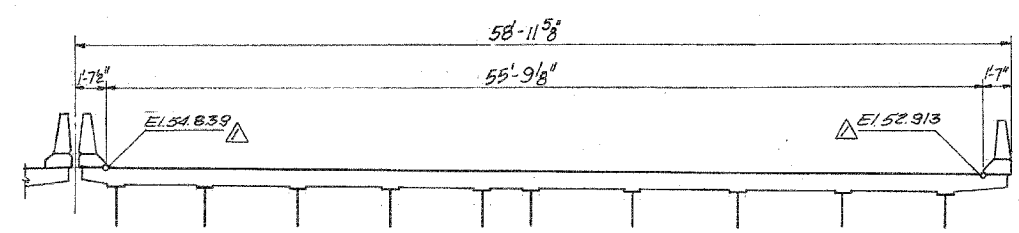
EXPANSION JOINT AT PIER No. 12
4 in. PREFORMED JOINT SEAL



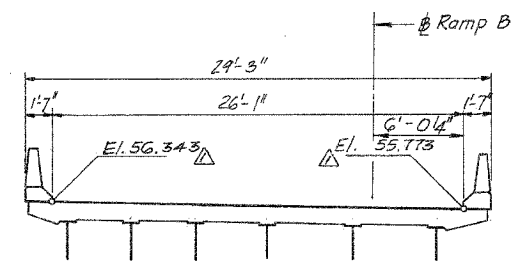
EXPANSION JOINT AT PIER No. 8
2 1/2 in. PREFORMED JOINT SEAL



EXPANSION JOINT AT PIER No. 13
2 in. NEOPRENE



EXPANSION JOINT AT PIER No. 9
2 in. NEOPRENE



EXPANSION JOINT AT PIER No. 4 (RAMP-B)
2 1/2 in. PREFORMED JOINT SEAL

- Notes:
- All dimensions are along Center line of Joint.
 - For details see sheet TJ2 & TJ3.
 - All Sections looking up-station.

SHEET G44 OF G101

REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-0778R, COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1115
TRANSVERSE DECK JOINT ELEVATION
Scale: NONE
Date: AUG., 1988
Drawn By:
Checked By:
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

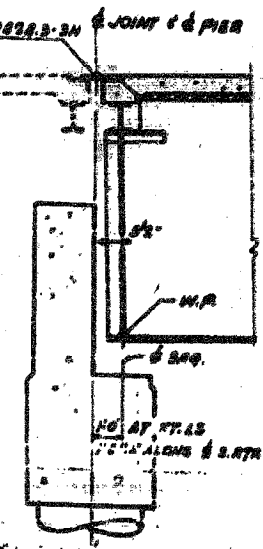
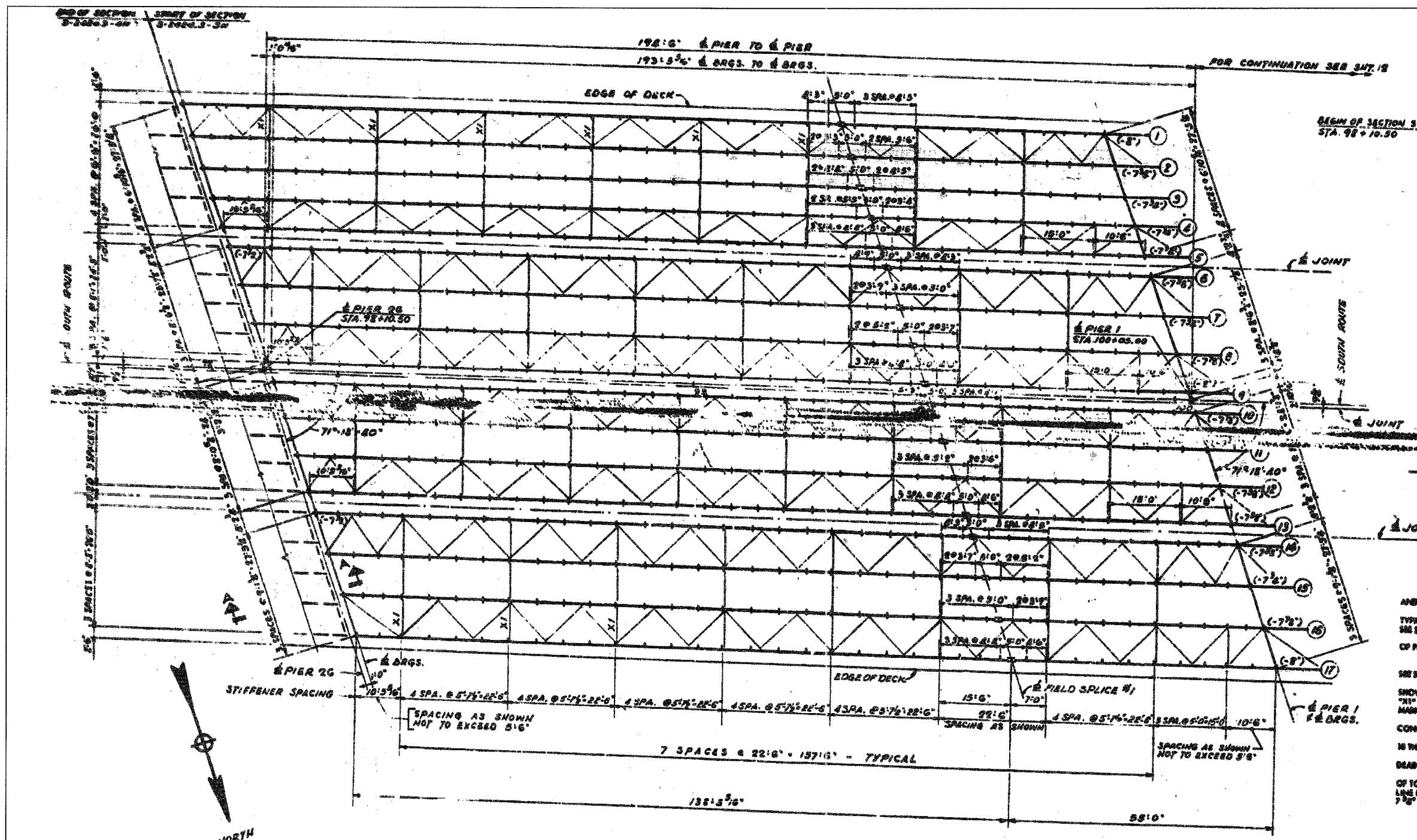
REVISIONS	DATE
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1115

SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES, INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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NOTE FOR FINISHED SLAB

ALL DIMENSIONS SHOWN ON FLANGE ARE HORIZONTAL AND TAKEN ALONG BOTTOM OF WEB FLANGE.
 FOR WELDED PLATE BEAM SCHEMAS AND DETAILS, TYPICAL ELEVATION AND IN-LINE CONNECTION SPACING SEE SHEET 14.
 FOR BEARING DETAILS AT PIER 26, 1 & 2 AND DETAIL OF FIELD SPICES SEE SHEET 15.
 FOR BEARING DETAILS AT PIER 20 SEE SHEET 21.
 FOR ROAD LOAD REDUCTION AND CAMBER DIAGRAMS SEE SHEET 16.
 ALL INTERMEDIATE CROSS FRAMES ARE TYPICAL AS SHOWN ON SHEETS 17 & 18 EXCEPT CROSS FRAMES MARKED 'X1' ON FRAMING PLANS. FOR DETAIL OF CROSS FRAMES MARKED 'X1' SEE SHEET 15.
 FOR END CROSS FRAMES AND LATERAL BRACING CONNECTIONS SEE SHEETS 17 & 18.
 FOR EXPANSION GUARDS AND DETAILS SEE SHEETS 18 THROUGH 21.
 CUT WEB FLATES OF SHEETS 9 & 10 FOR SECTION OF DEAN PIKE AS SHOWN ON BRACING DETAILS, SHEETS 20 & 21. PROVIDE IN BRACKETS (-7/8") POSITIVE ELEVATION OF TOP OF BEAM WITH REFERENCE TO TOP OF SLAB AT CENTERLINE BRACING. TOP OF ALL BEAMS NOT NOTED SHALL BE 7/8" BELOW TOP OF SLAB AT CENTERLINE BRACING.

FRAMING PLAN - SPAN 1
 SCALE: 1" = 10 FT.

BEAM	TOP OF FLANGE ELEVATIONS AT E BEAM																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
BRG. PIER 26	59.990	60.020	60.205	60.237	60.413	60.416	60.378	60.288	60.119	60.162	60.336	60.496	60.876	60.899	60.389	60.411	60.164
BRG. PIER 1	61.172	61.326	61.468	61.373	61.648	61.651	61.571	61.430	61.261	61.306	61.470	61.613	61.873	61.670	61.611	61.449	61.161
BRG. PIER 2	62.833	61.881	61.182	61.321	61.373	61.373	61.291	61.126	60.781	60.763	61.112	61.238	61.276	61.287	61.176	60.787	60.792
BRG. PIER 3	59.601	59.759	59.712	60.060	60.114	60.114	60.00	59.822	59.659	59.659	59.764	59.869	59.877	59.877	59.777	59.577	59.564

BILL OF MATERIAL

DESCRIPTION	UNIT	QUANTITY
FURNISHING & ERECTING STRUCTURAL STEEL	LBS.	4,282,000

* INCLUDES WEIGHT OF BEARINGS & EXPANSION GUARDS

ALFRED BENECH & ASSOCIATES CONSULTING ENGINEERS
 15 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

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BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
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Sheet 11 of 45 SHEET NO. 11 OF 45 SHEETS DATE: JULY 1994

REVISIONS	
NAME	DATE

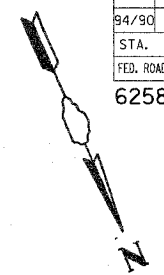
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1116

SCALE: NTS
 DATE: 7/22/2005

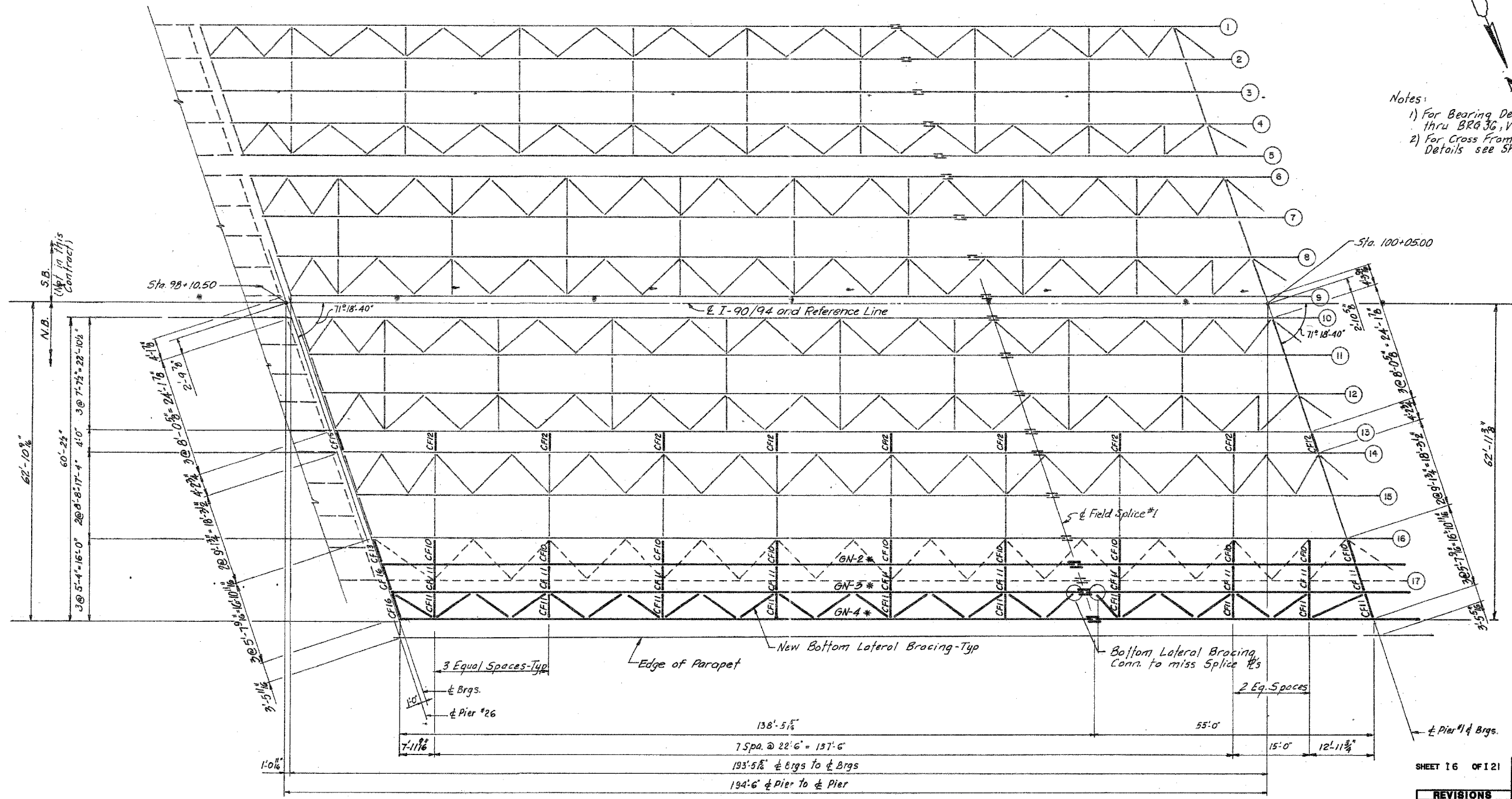
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 CHECKED BY: BLU

7/19/2005 11:53 AM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	355
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



- Notes:
- 1) For Bearing Details see Sheets BRG 32 thru BRG 36, Vol. #13
 - 2) For Cross Frame and Bottom Lateral Bracing Details see Sheet I 11.



ALL NEW MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE STEEL FABRICATION CONTRACT (SECTION 1988-003F), UNLESS NOTED OTHERWISE.

PLAN - SPAN - 1 (N. B.)

LEGEND
 - - - - - To be removed (N.B. only)
 * New Plate girder (for size & length See Sheet 19)

SHEET 16 OF 121	
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
FA I ROUTE 90/94 (DAN RYAN EXPRESSWAY) SECTION 885-0778-R COOK COUNTY N.B. MAINLINE RECONSTRUCTION STRUCTURE 016-1116 FRAMING PLAN SPAN 1	
Scale: NONE	Drawn By: Ayp
Date: AUG. 1998	Checked By: AWP
ENVIRODYNE ENGINEERS INC. Chicago, Illinois	

REVISIONS	
Name	Date

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1116

SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: BDC
 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
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 Chicago, Illinois
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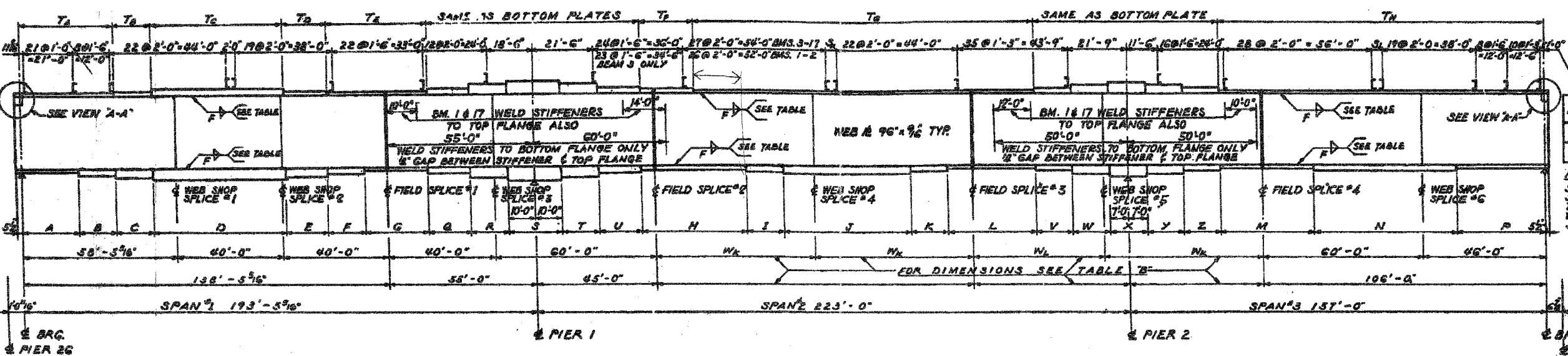
FOR INFORMATION ONLY

7/16/2005 10:58 AM

SHEAR CONNECTOR SPACING

ITEM	BEAMS				
	1	2	3	4	5-17
S ₁	1'-1 1/2"	1'-9 1/2"	1'-11 1/2"	1'-2 1/2"	2'-0"
S ₂	1'-2"	1'-6 1/2"	1'-6 1/2"	1'-9 1/2"	2'-0"

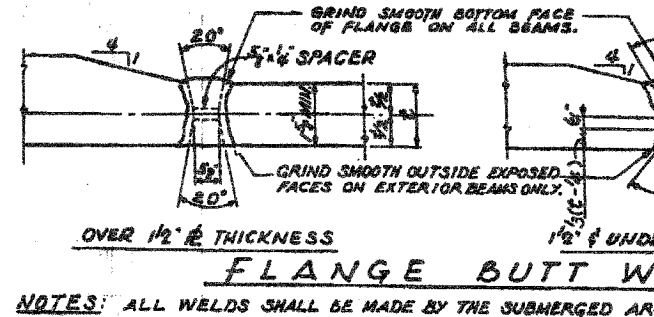
NOTES:
SHEAR CONNECTORS AT FIELD SPLICES CAN BE ADJUSTED TO AVOID INTERFERENCE WITH WASHERS ON HIGH STRENGTH BOLTS.



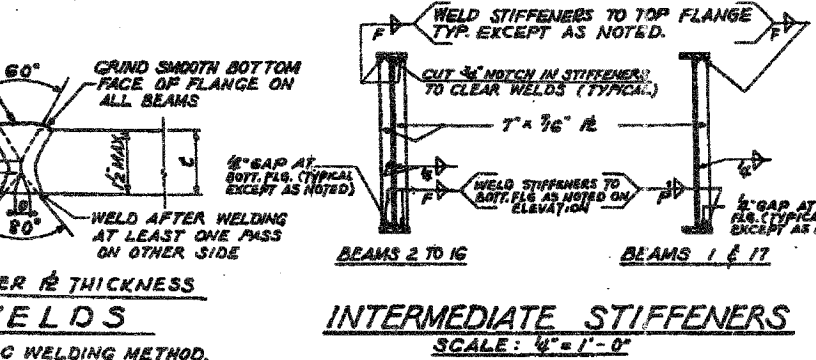
ELEVATION OF 3 SPAN CONTINUOUS BEAM

TABLE FOR 3 SPAN CONTINUOUS BEAMS

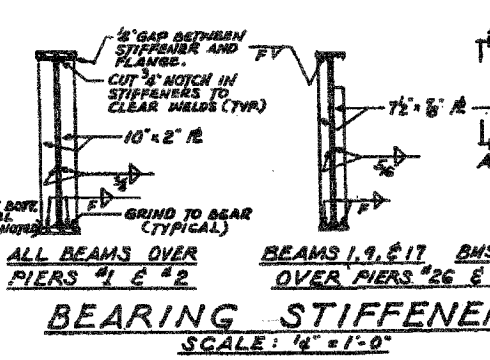
BEAM NUMBER	BOTTOM FLANGE PLATES																TOP AND BOTTOM FLANGE PLATES												TOP FLANGE PLATES								TABLE "B"		BEAM NUMBER							
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	T _A	T _B	T _C	T _D	T _E	T _F	T _G	T _H	N _K	N _L											
1, 9, 17	SIZE 16"x16"	16"x16"	16"x24"	16"x24"	16"x24"	16"x24"	16"x16"	16"x16"	16"x16"	16"x16"	16"x16"	16"x16"	16"x16"	16"x16"	16"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	16"x12"	16"x12"	16"x12"	16"x12"	16"x12"	16"x12"	16"x12"	16"x12"	16"x12"	16"x12"	SIZE	1, 9, 17		
1	LENGTH 17'-5 3/8"	14'-0"	14'-0"	14'-0"	16'-0"	16'-0"	23'-0"	21'-0"	21'-0"	21'-0"	21'-0"	21'-0"	21'-0"	21'-0"	21'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	LENGTH	1					
9, 17	LENGTH	48'-0"	24'-0"		24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	24'-0"	LENGTH	9, 17						
7, 8, 10, 15, 16	SIZE 16"x16"	16"x16"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	SIZE	7, 8, 10, 15, 16			
6, 11, 12, 13, 14	SIZE 16"x16"	16"x16"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	SIZE	6, 11, 12, 13, 14
2, 3, 4, 5	SIZE 16"x16"	16"x16"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	16"x24"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	22"x16"	SIZE	2, 3, 4, 5
2	LENGTH	25'-5 1/2"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	LENGTH	2					
3	LENGTH	25'-5 1/2"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	LENGTH	3				
4	LENGTH	25'-5 1/2"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	LENGTH	4				
5	LENGTH	25'-5 1/2"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	LENGTH	5				



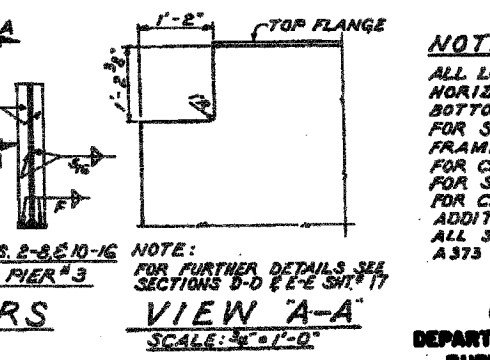
FLANGE BUTT WELDS
NOTES: ALL WELDS SHALL BE MADE BY THE SUBMERGED ARC WELDING METHOD.



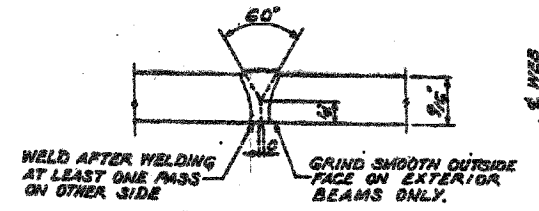
INTERMEDIATE STIFFENERS
SCALE: 1/4" = 1'-0"
INTERMEDIATE STIFFENERS WITH CROSSFRAME CONNECTIONS ARE ON SKEW FOR BEAMS 1 TO 4 BETWEEN FIELD SPLICES #2 AND #4. FOR DETAILS SEE FRAMING PLANS AND SHEET #16



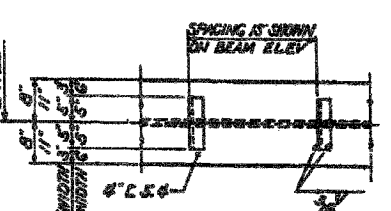
BEARING STIFFENERS
SCALE: 1/4" = 1'-0"
ALL BEAMS OVER PIERS #1 & #2



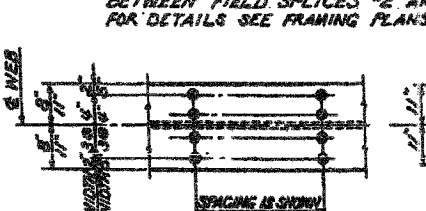
VIEW "A-A"
SCALE: 3/8" = 1'-0"
NOTE: FOR FURTHER DETAILS SEE SECTIONS D-D & E-E SHW #17



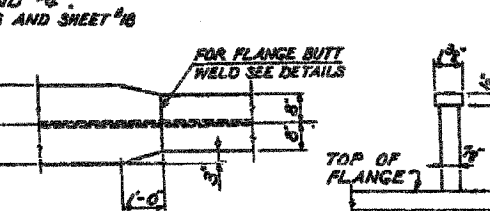
WEB BUTT WELD



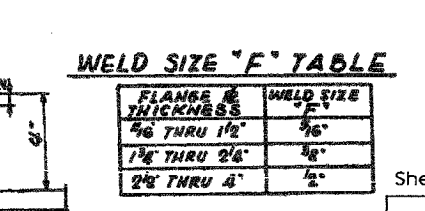
CHANNEL SHEAR



ALTERNATE STUD WELD



FLANGE



STUD DETAIL

FLANGE & THICKNESS	WELD SIZE 'F'
1/2" THRU 1 1/2"	3/8"
1 1/2" THRU 2 1/2"	1/2"
2 1/2" THRU 4"	5/8"

NOTES:
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL AND TAKEN ALONG THE BOTTOM OF WEB PLATE.
FOR STIFFENER SPACING SEE FRAMING PLANS.
FOR CAMBER DIAGRAM SEE SHEET #16
FOR SPLICE DETAILS SEE SHEET #15
FOR CROSSFRAME DETAILS AND ADDITIONAL DETAILS SEE SHTS. #17 & #18
ALL STIFFENERS TO CONFORM TO A.S.T.M. A375 STEEL.

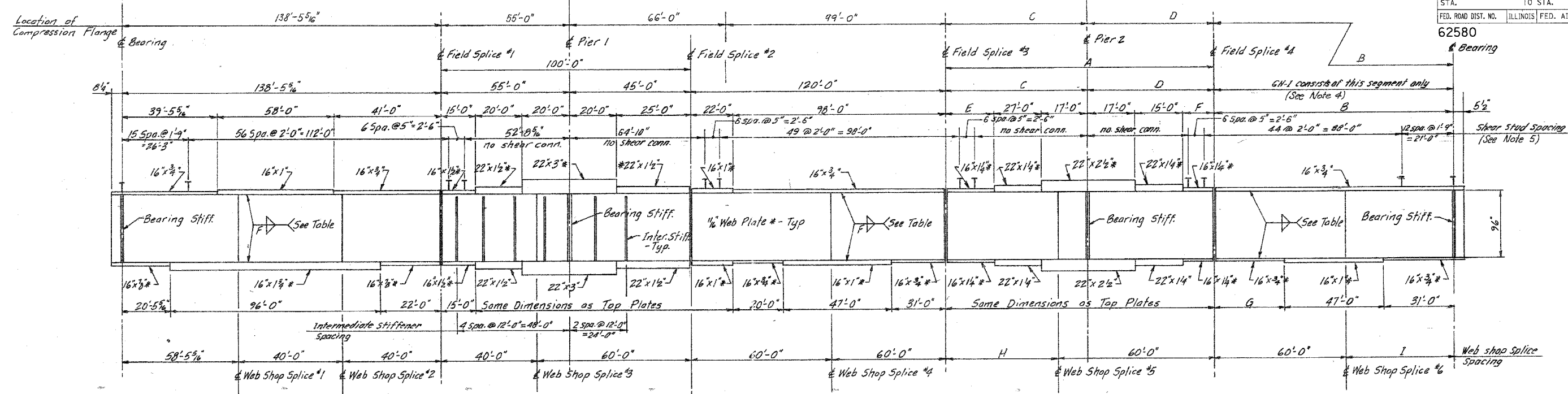
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY ELEVATED HIGHWAY
STEWART AVE. TO CANAL ST.
SECTION 9-2424.3-3H

Sheet < > of < >

REVISIONS	NAME	DATE

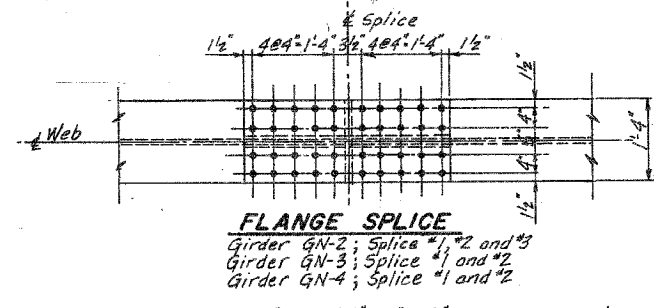
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1116
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

FOR INFORMATION ONLY



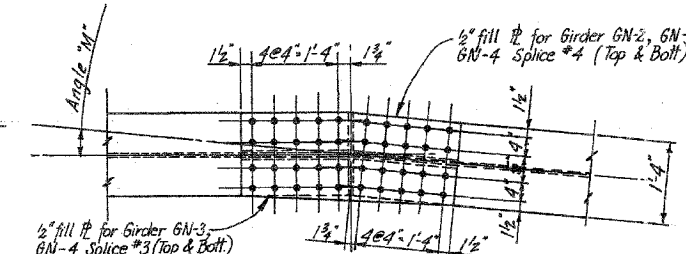
GIRDER ELEVATION - GN-1, GN-2, GN-3 & GN-4

GIRDER	A	B	C	D	E	F	G	H	I
GN-1	—	106'-0 1/8"	—	—	—	—	28'-0 1/8"	—	46'-0 1/8"
GN-2	109'-0"	107'-7 3/16"	57'-11 1/16"	51'-0 1/16"	18'-11 1/16"	19'-0 1/16"	29'-7 3/16"	49'-0"	47'-7 3/16"
GN-3	109'-10 1/2"	108'-3 3/8"	58'-4 1/8"	51'-5 3/8"	14'-4 1/8"	19'-5 3/8"	30'-3 3/8"	49'-10 1/2"	48'-3 3/8"
GN-4	110'-9 3/4"	108'-11 3/4"	58'-10 1/2"	51'-11 1/2"	14'-10 1/2"	19'-11 1/2"	30'-11 3/4"	50'-9 3/4"	48'-11 3/4"



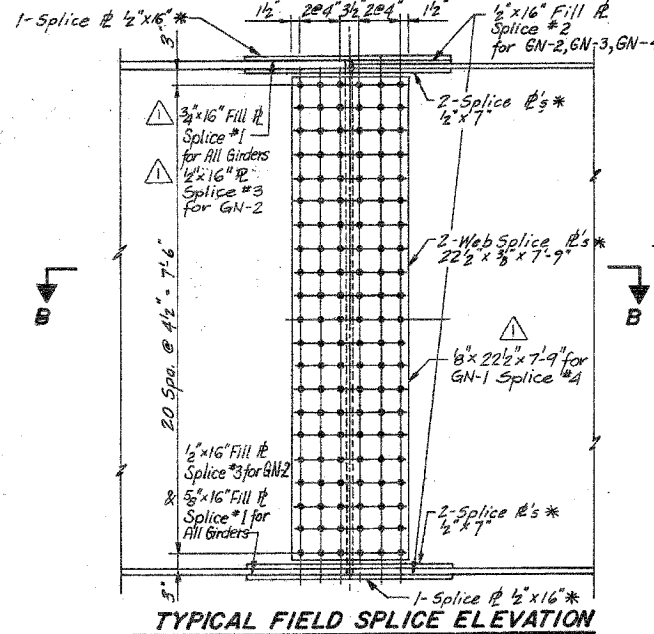
FLANGE SPLICE

Girder GN-2; Splice #1, #2 and #3
Girder GN-3; Splice #1 and #2
Girder GN-4; Splice #1 and #2

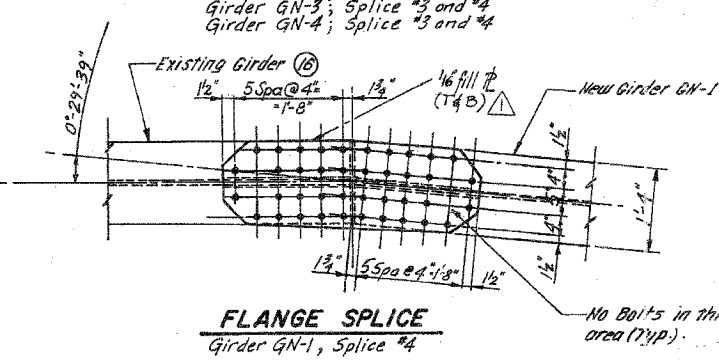


FLANGE SPLICE

Girder GN-2; Splice #3 and #4
Girder GN-3; Splice #3 and #4
Girder GN-4; Splice #3 and #4



TYPICAL FIELD SPLICE ELEVATION



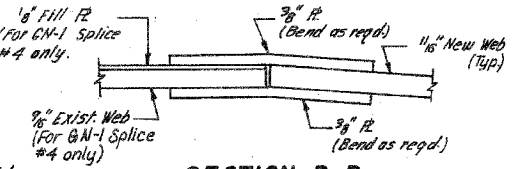
FLANGE SPLICE

Girder GN-1, Splice #4

GIRDER	SPLICE	ANGLE "M"
GN-2	#4	2'-43'-59"
GN-3	#3	1'-20'-15"
	#4	2'-20'-40"
GN-4	#3	2'-37'-58"
	#4	1'-56'-09"

FLANGER THICKNESS	WELD SIZE "F"
1/2" Thru 3/4"	1/4"
3/4" Thru 1 1/2"	3/16"
1 1/2" Thru 2 1/4"	3/8"
2 1/4" Thru 3"	1/2"

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



SECTION B-B

Splice #3, GN-3, GN-4 only
Splice #4, All Girders

- NOTES:**
- * N.T.R.
 - N.T.R. denotes Notch Toughness Requirements.
 - See Sheet I-11 for structural steel details.
 - Holes in web and flange splice plates for girders GN-1, Splice #4 to be shop drilled for connection to new material (Girder GN-1) and field drilled for connection to existing material (Girder (16)).
 - Shear connectors have to be furnished in this contract.

REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-077 B-R COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1116
NEW GIRDERS GN-1, GN-2, GN-3 & GN-4
Scale: NONE
Date: AUG. 1988
Checked By: AVF
EMVRODYNE ENGINEERS INC.
Chicago, Illinois

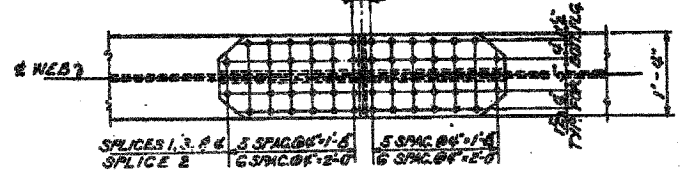
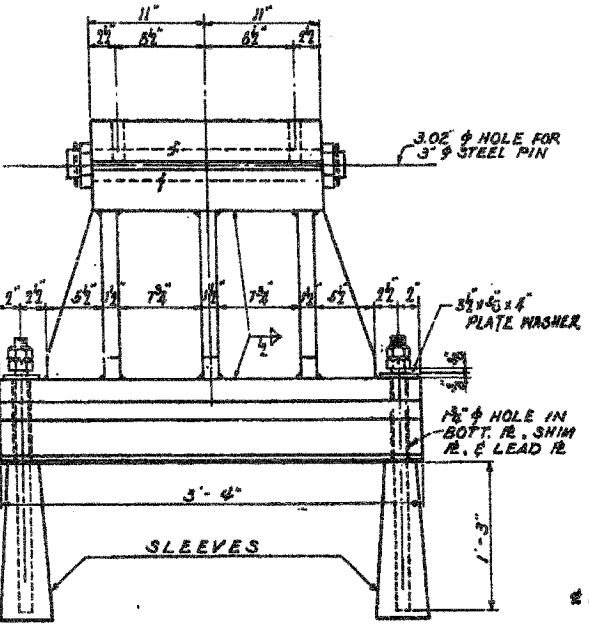
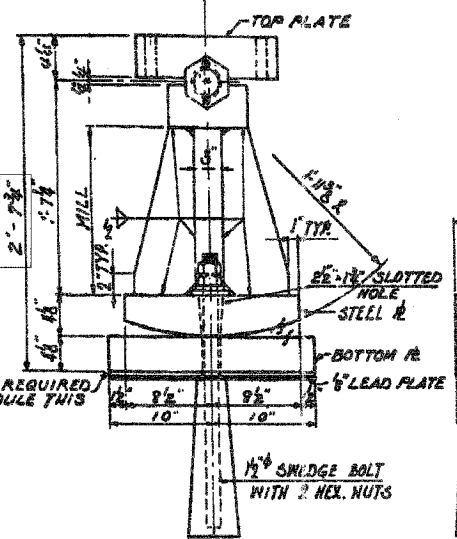
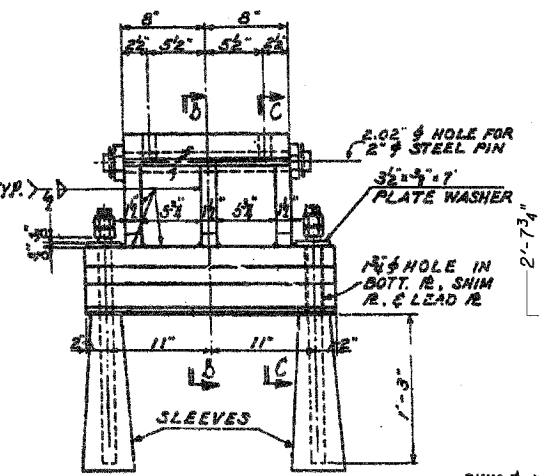
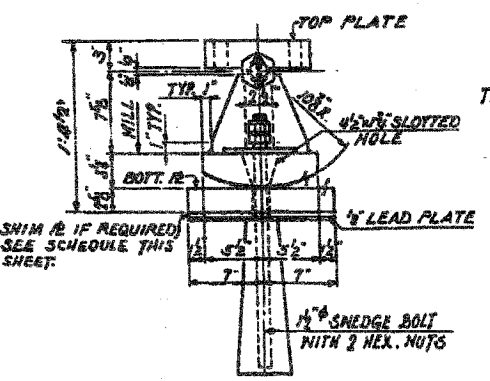
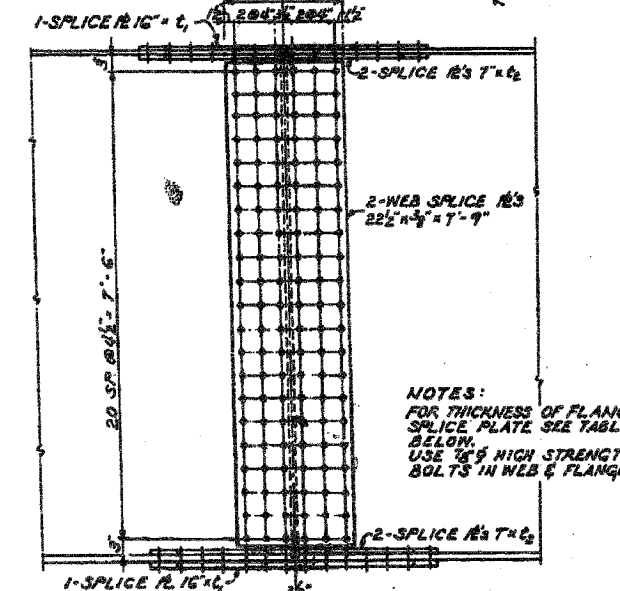
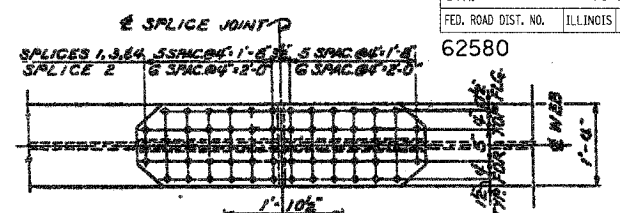
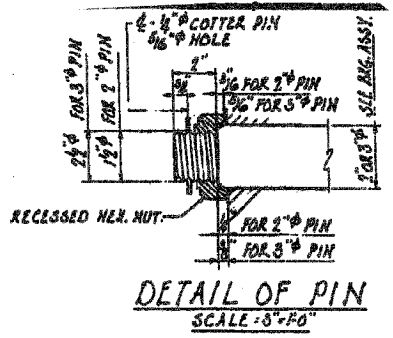
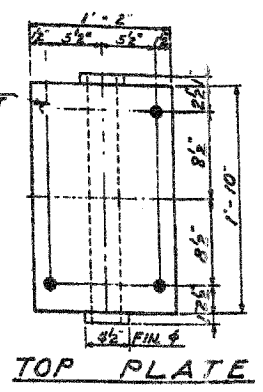
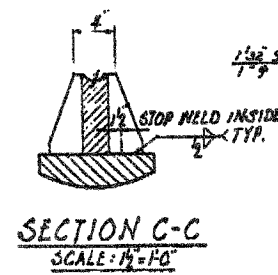
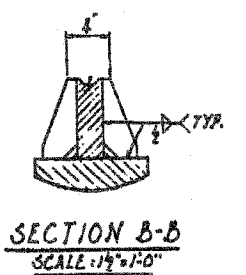
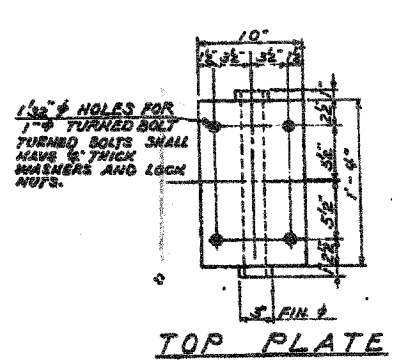
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1116

SCALE: NTS
DATE: 7/22/2005

DRAWN BY: BDC
CHECKED BY: BLU

FOR INFORMATION ONLY

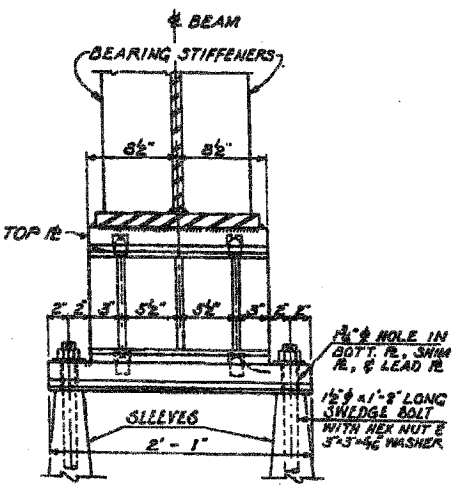
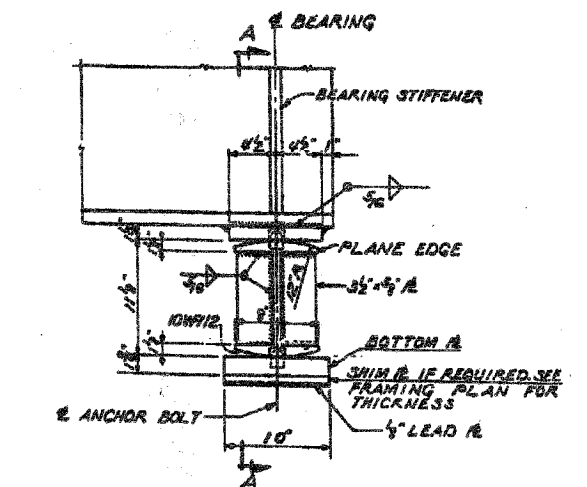
62580



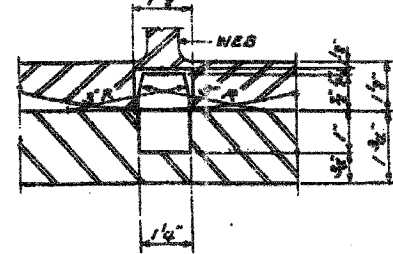
DETAILS OF EXPANSION BEARING AT PIER 26
SCALE: 1/2" = 1'-0"

DETAILS OF EXPANSION BEARING AT PIER 1
SCALE: 1/2" = 1'-0"

DETAIL OF FIELD SPLICE
SCALE: 3/4" = 1'-0"



PINTLES SHALL BE PRESSED FIT OR THREADED INTO BOTTOM BEARING PLATE OR ROCKER



BOTTOM PINTLE DETAIL
(TOP PINTLE DETAIL SIMILAR)
SCALE: 1/2" = 1'

SHIM # SCHEDULE

BEARING PIER #	4	6	7	9	12	15
26	-	-	2/8"	3/8"	-	3/8"
1	-	2/8"	-	-	-	-
3	2/8"	-	-	-	2/8"	-

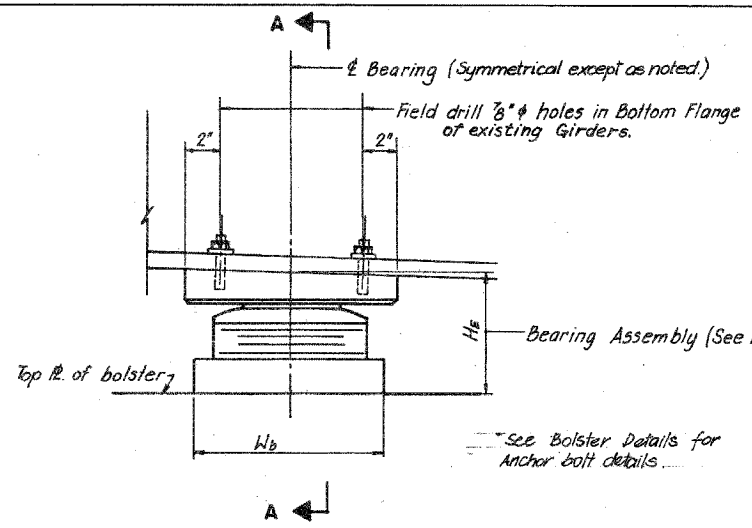
NOTE!
FOR DETAIL OF FIXED BEARING AT PIER 2 SEE SHEET 58.

TABLE OF FLANGE SPLICE PLATES

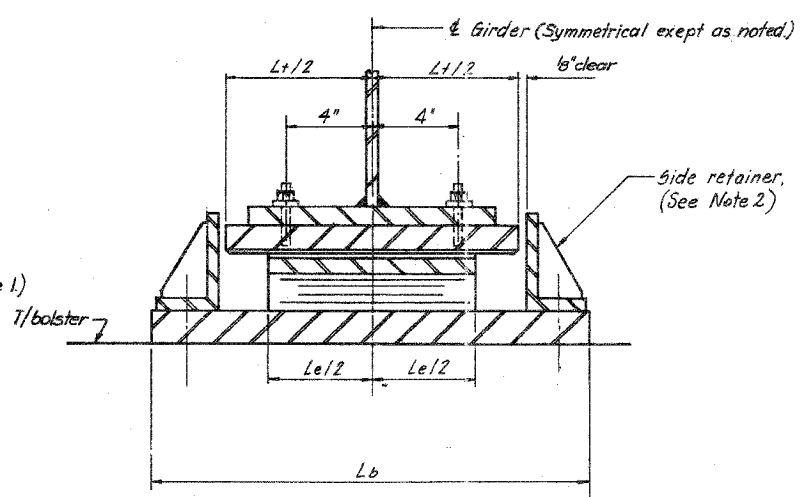
NO. OF GIRDER	LOCATION ON TOP & BOTTOM FLANGES	THICKNESS OF SPLICE PLATE	
		SPLICES 1, 3, & 4	SPLICE 2
1, 9, & 17	t ₁	3/8"	1/2"
	t ₂	7/16"	7/8"
2, 3, 4, & 5	t ₁	3/8"	7/16"
	t ₂	7/16"	1/2"
6, 11, 12, 13, & 14	t ₁	3/8"	7/16"
	t ₂	7/16"	1/2"
7, 8, 10, 15, & 16	t ₁	3/8"	7/16"
	t ₂	7/16"	1/2"

* FOR LOCATION OF SPLICES SEE FRAMING SHEETS 11, 12 & 13

REVISIONS	
NAME	DATE



TYPICAL ELEVATION



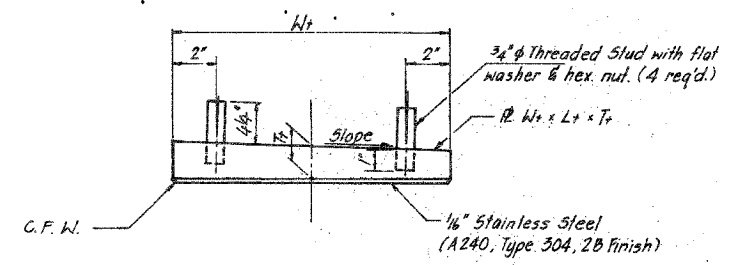
SECTION A-A

TYPE II TFE ELASTOMERIC EXPANSION BEARING

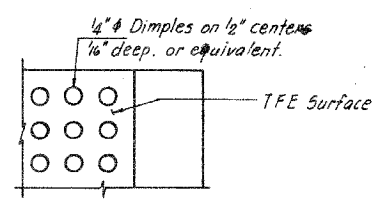
TYPE II ELASTOMERIC EXPANSION BEARING SCHEDULE

STRUCTURE NO.	PIER LOCATION	GIRDER NO.	We	Le	SERIES	TOP PLATE			BOTTOM PLATE			NO. REQ'D.	H _E	REMARKS	
						Tt	Wt	Lt	SLOPE	Tb	Wb				Lb
016-1116	1	GN-2 thru GN-4	20	30	a	4 1/2	22	32	0.0	1	21	40 1/2	3	-	N, B, ●

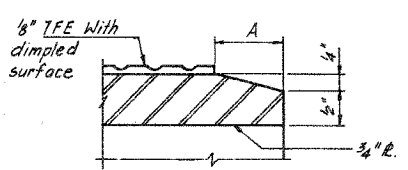
Remarks:
 B - Bolster required - See bolster details.
 N - New bearings for roadway widening.
 ● - See bolster schedule for H_E dimension.



TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



SECTION THRU TFE

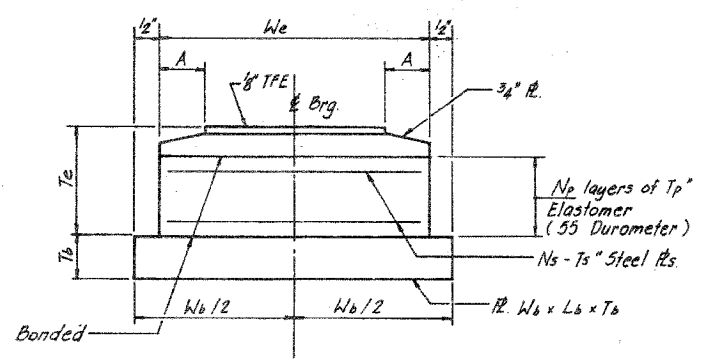
Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surface.

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 1/2"

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"	1/2"	1/2"	1/2"	1/2"

NOTES:

- Height of bearing assembly, H_E, includes top plate, elastomeric assy. and bottom plate. H_E 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.

FOR INFORMATION ONLY

ALL MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE SUPPLY CONTRACT (SECTION 1988-004 I), UNLESS NOTED OTHERWISE.

SHEET BRG 32 OF 51

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985-077 5-R - COOK COUNTY
 N.B. MAINLINE RECONSTRUCTION
 BEARINGS - STRUCTURE NO. 016-1116
 TYPE II ELASTOMERIC EXPANSION BEARING

REVISIONS	
Name	Date

Scale: NONE
 Date: AUGUST, 1988
 Drawn By: D.C.
 Checked By: W.B.
 ENVIRONMENTAL ENGINEERS INC.
 Chicago, Illinois

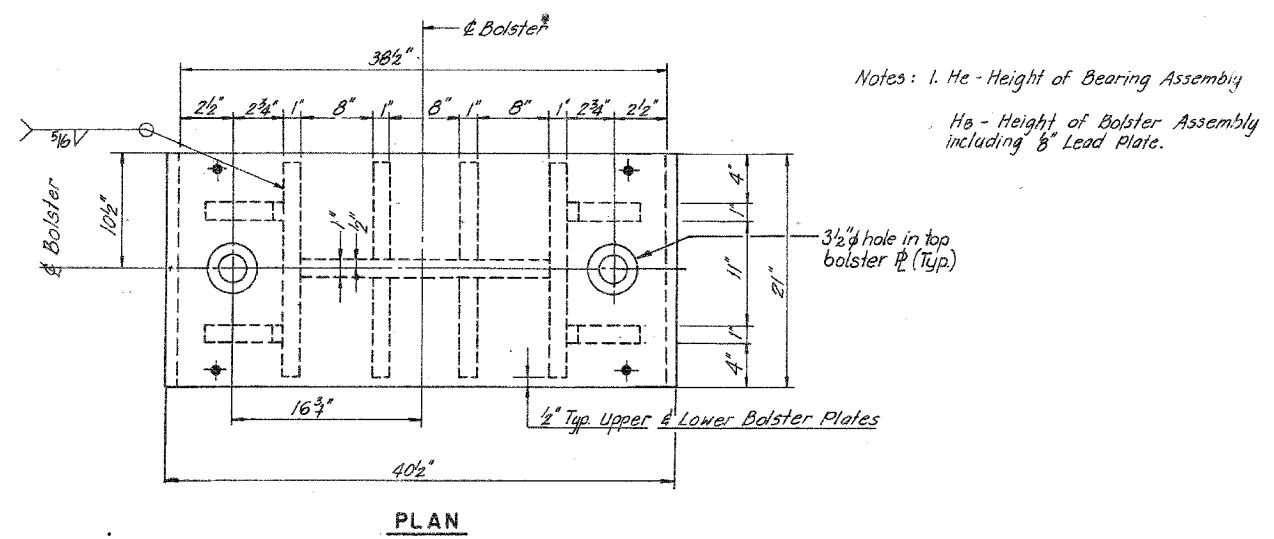
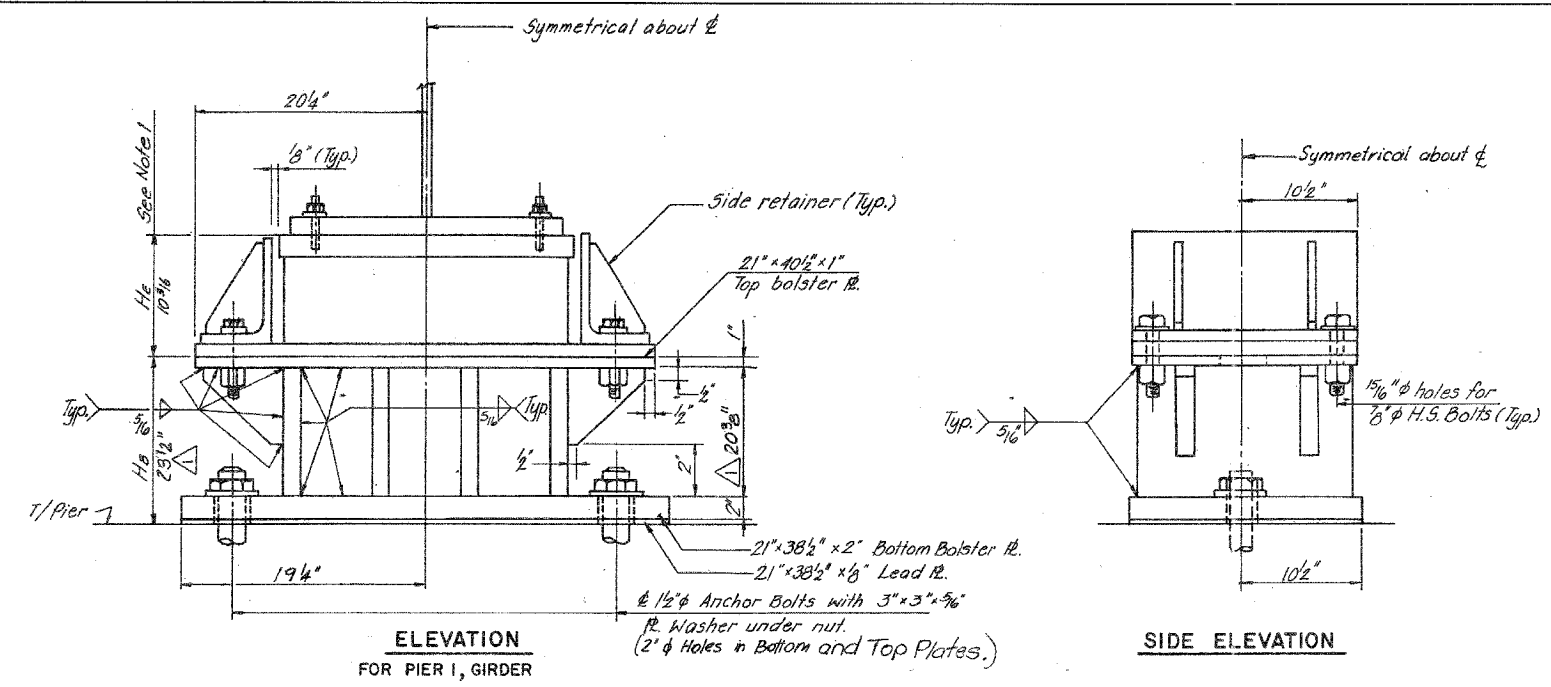
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1116

SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

7/19/2005 11:49 AM

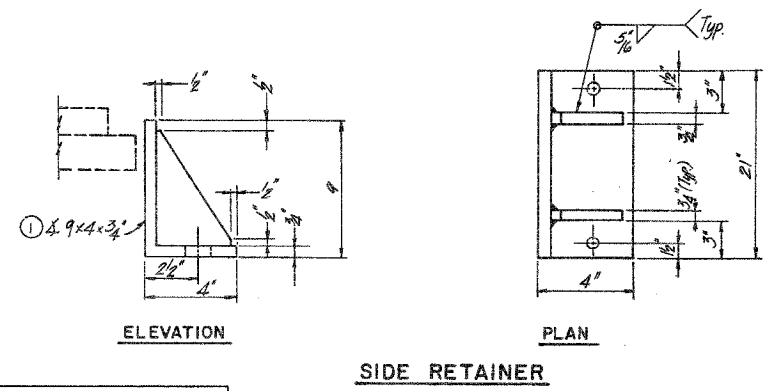
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	360
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



BOLSTER SCHEDULE

STRUCTURE NO.	PIER LOCATION	GIRDER NO.	NO. REQ'D	BRG. TYPE	REMARKS
016-1116	1	A-N-3, 6-N-3, 6-N-4	3	II	

ALL MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE SUPPLY CONTRACT (SECTION 1988-004 I), UNLESS NOTED OTHERWISE.



① Equivalent welded Plates will be allowed in lieu of rolled Angles with Stiffeners. ⚠

SHEET BRG 35 OF 51

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-077 B-R - COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
BEARINGS - STRUCTURE NO. 016-1116
BOLSTER DETAILS

Scale: None
Date: AUGUST, 1988
Drawn By: D.C.
Checked By: N.B.
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1116

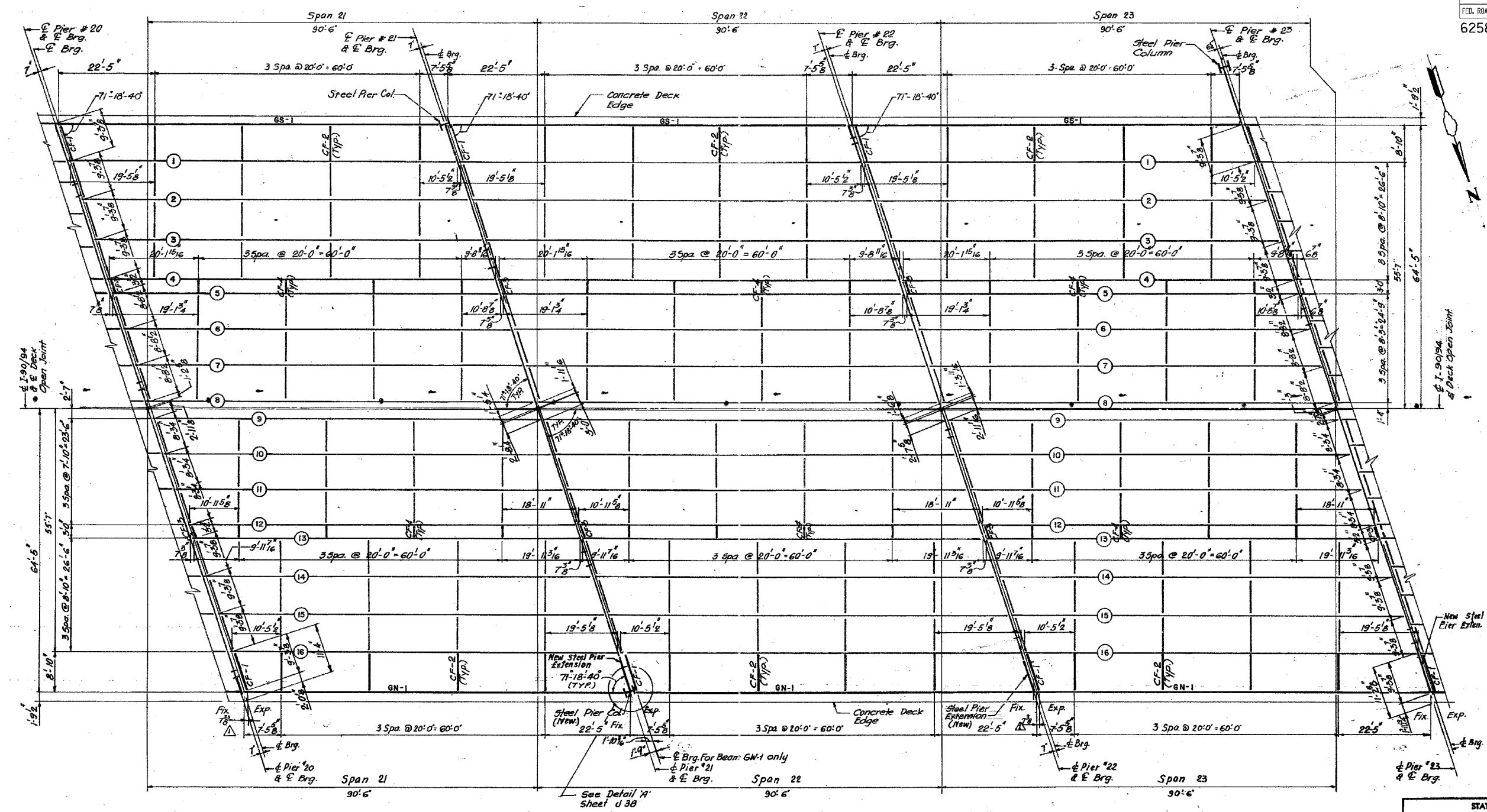
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

FOR INFORMATION ONLY

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

12-1-88

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	361
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62580				



PLAN - SPANS 21, 22 & 23

SHEET J24 OF 98

ALL NEW MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE STEEL FABRICATION CONTRACT (SECTION 1988-003F), UNLESS NOTED OTHERWISE.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1988-0773.4-COOK COUNTY
 N.B. MAINLINE RECONSTRUCTION
 STRUCTURE 016-1117
 FRAMING PLAN SPANS 21, 22, & 23
 Scale: NONE
 Date: AUGUST 1988
 Drawn By: ED
 Checked By: SK
 ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

REVISIONS	NAME	DATE

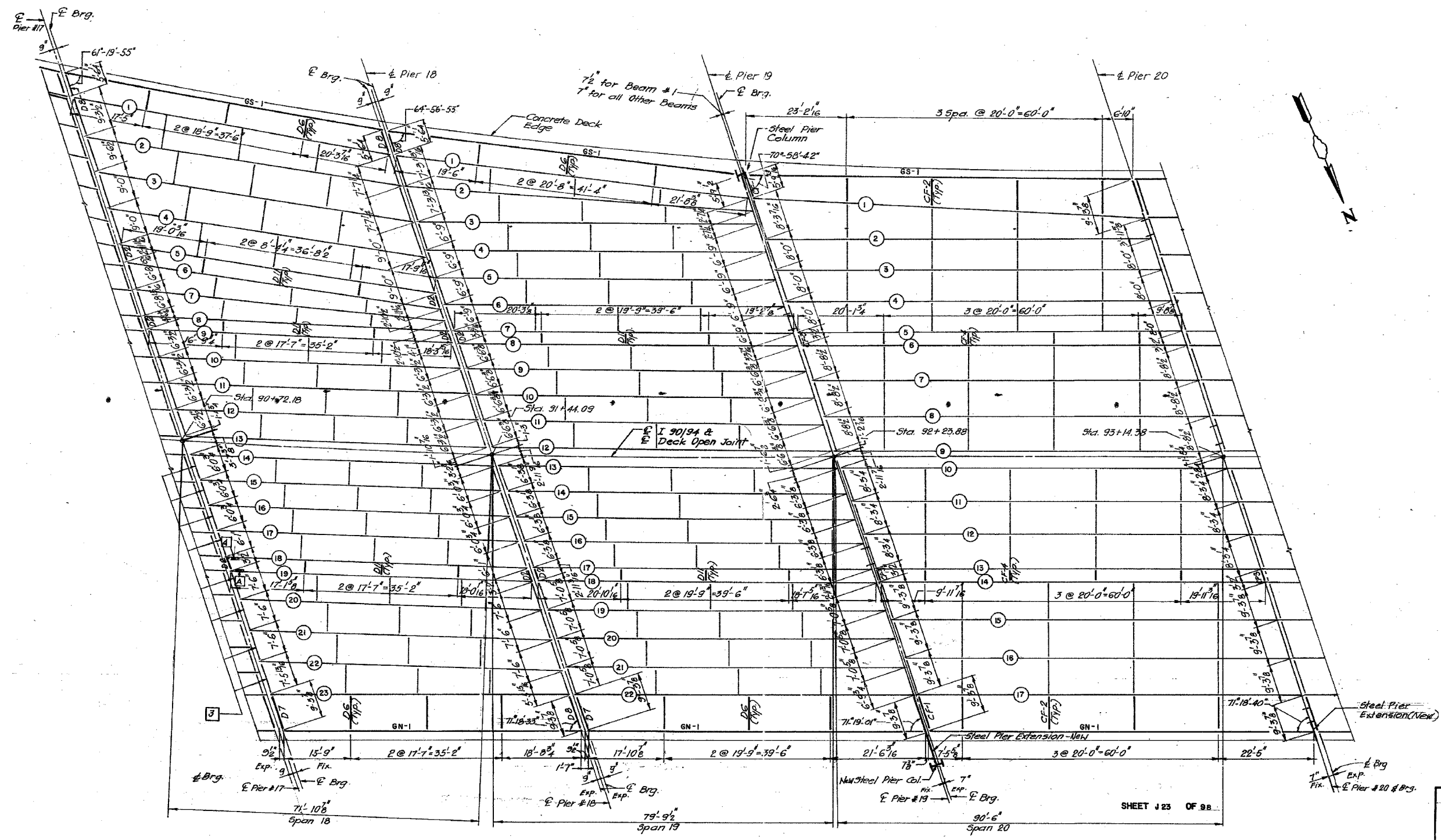
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1117 & 016-1118
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

FOR INFORMATION ONLY

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
 www.bbainc.com

7/19/2005 11:17:25 AM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-02BF	COOK	419	362
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
62580				



PLAN - SPANS 18, 19 & 20

For Repair Notes see Sheet J21
 ALL NEW MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE STEEL FABRICATION CONTRACT (SECTION 1988-003F), UNLESS NOTED OTHERWISE

SHEET J 23 OF 98

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985-0775-F-COOK COUNTY
 NB. MAINLINE RECONSTRUCTION
 STRUCTURE 016-1117
 FRAMING PLAN SPANS 18, 19, & 20
 Scale: NONE
 Date: AUGUST 1988
 Drawn By: SR
 Checked By: SK
ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
 www.bbainc.com

FOR INFORMATION ONLY

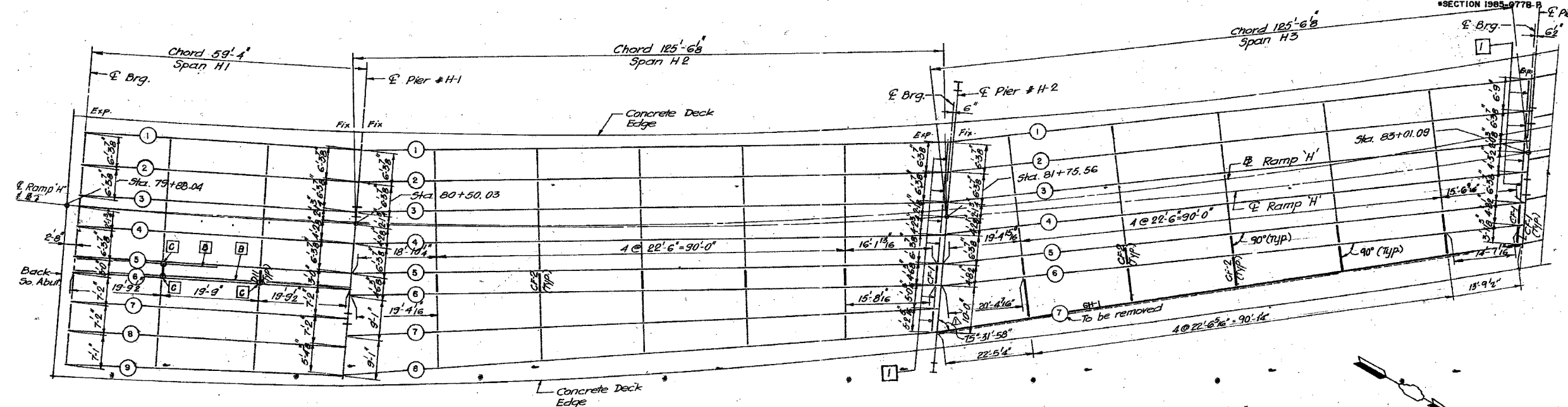
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1117 & 016-1118
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

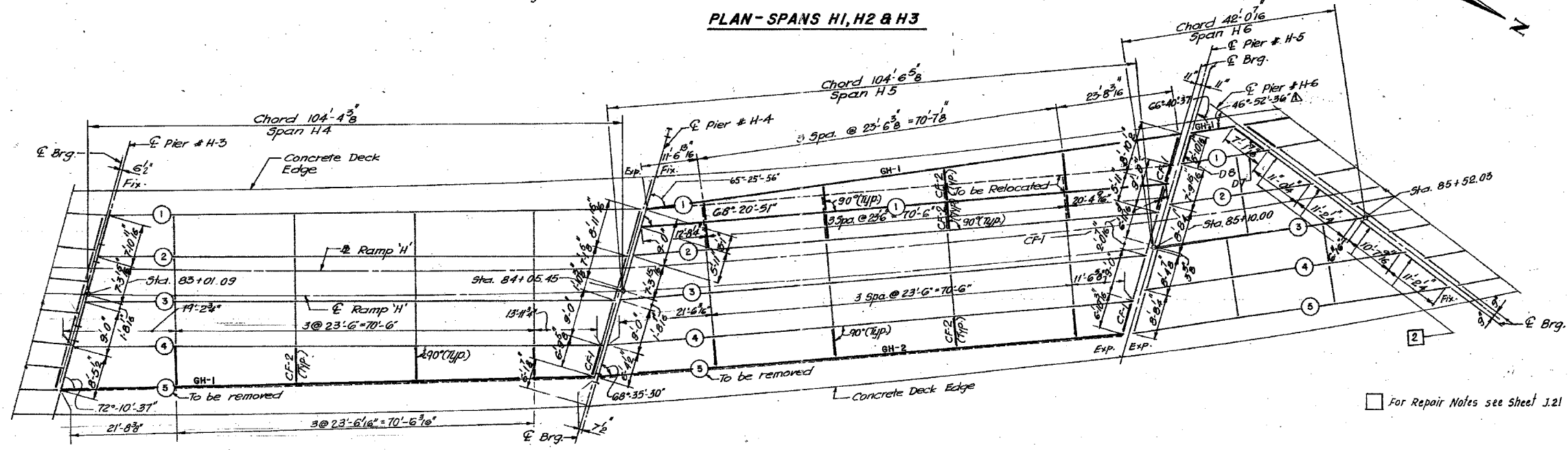
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	363
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

62580



PLAN-SPANS H1, H2 & H3



PLAN-SPANS H4, H5 & H6

For Repair Notes see Sheet J.21

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-0776-R - COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1118 (RAMP H)
FRAMING PLAN SPANS H1 TO H6
Scale: NONE Drawn By: ED
Date: AUGUST 1988 Checked By: SK
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	
NAME	DATE

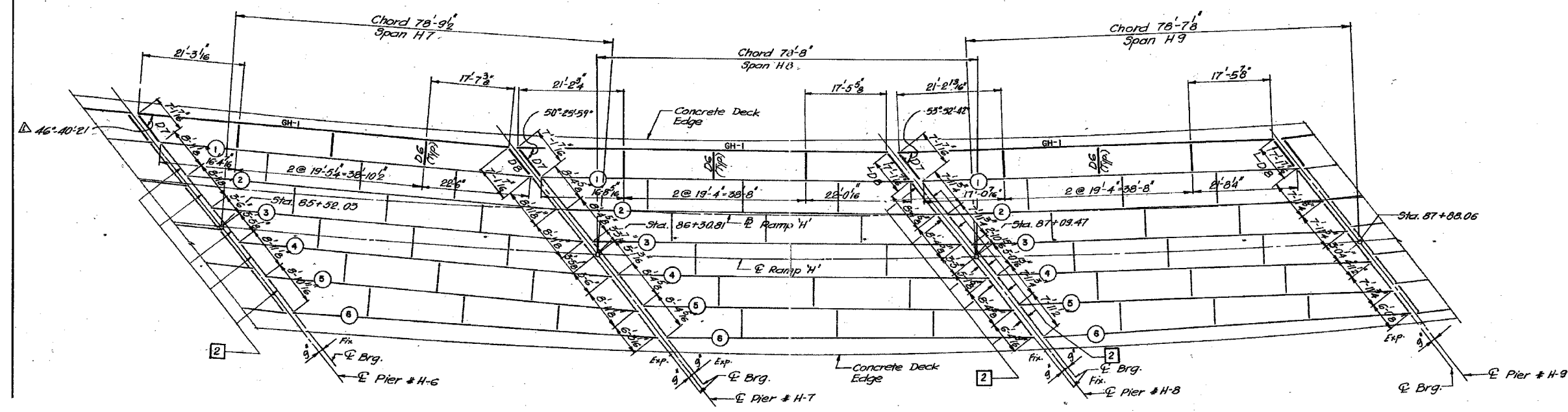
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F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1117 & 016-1118
SCALE: NTS DRAWN BY: BOC
DATE: 7/22/2005 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
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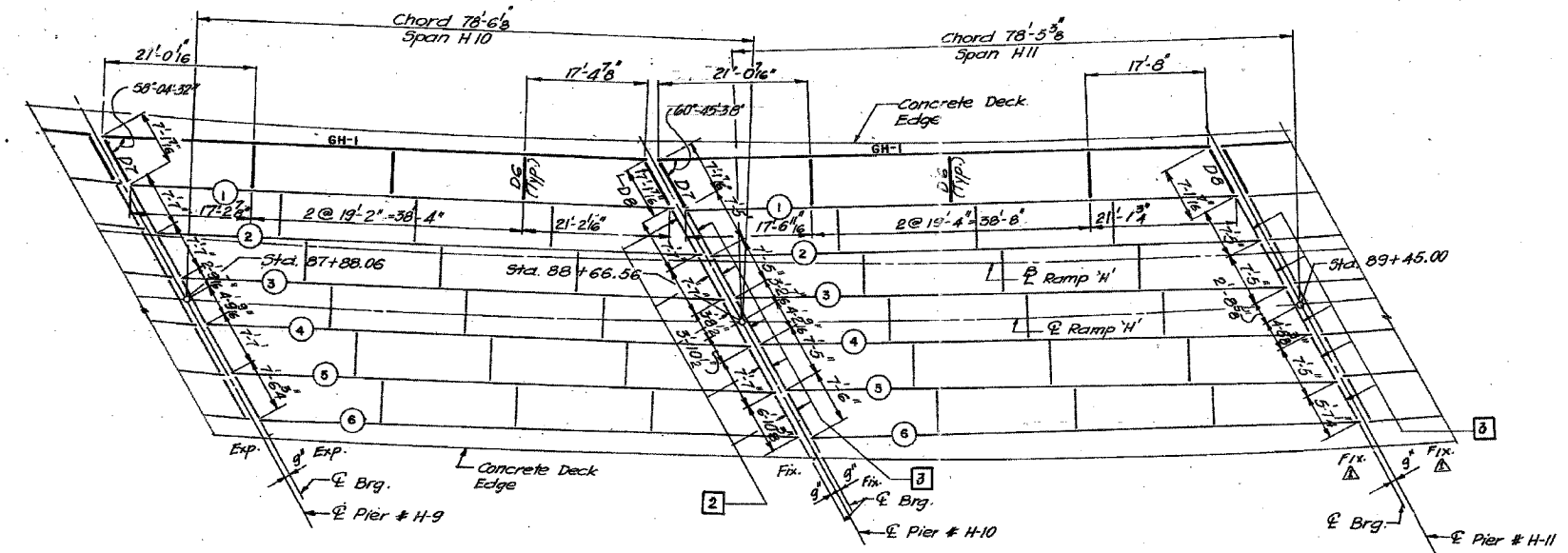
FOR INFORMATION ONLY

7/19/2005 11:47:55 AM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	364
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



PLAN - SPANS H7, H8 & H9



PLAN - SPANS H10 & H11

For Repair Notes see Sheet J.21

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985-0773-R - COOK COUNTY
 NB. MAINLINE RECONSTRUCTION
 STRUCTURE 016-1118 (RAMP H)
 FRAMING PLAN SPANS H7 TO H11
 Scale: NONE Drawn By: ED
 Date: AUGUST 1988 Checked By: SK
 ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

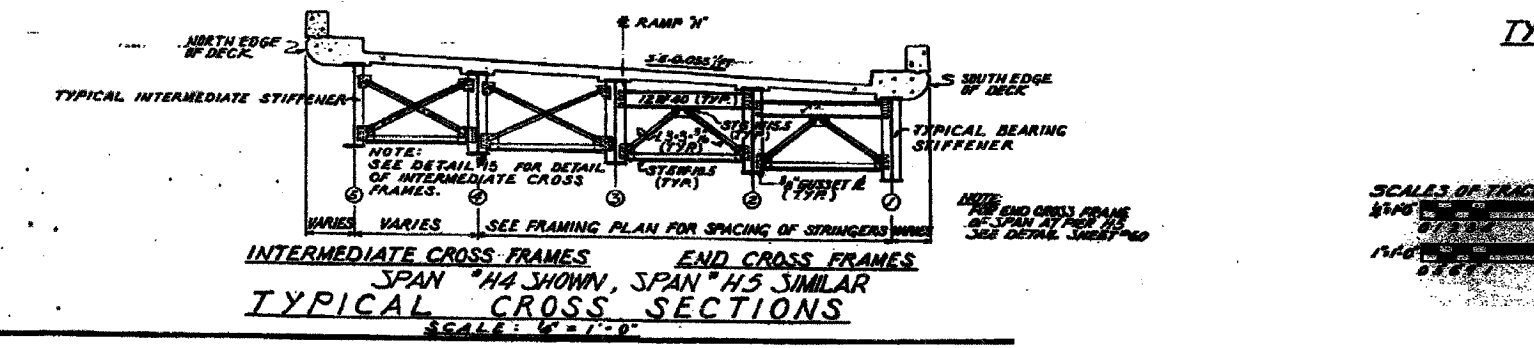
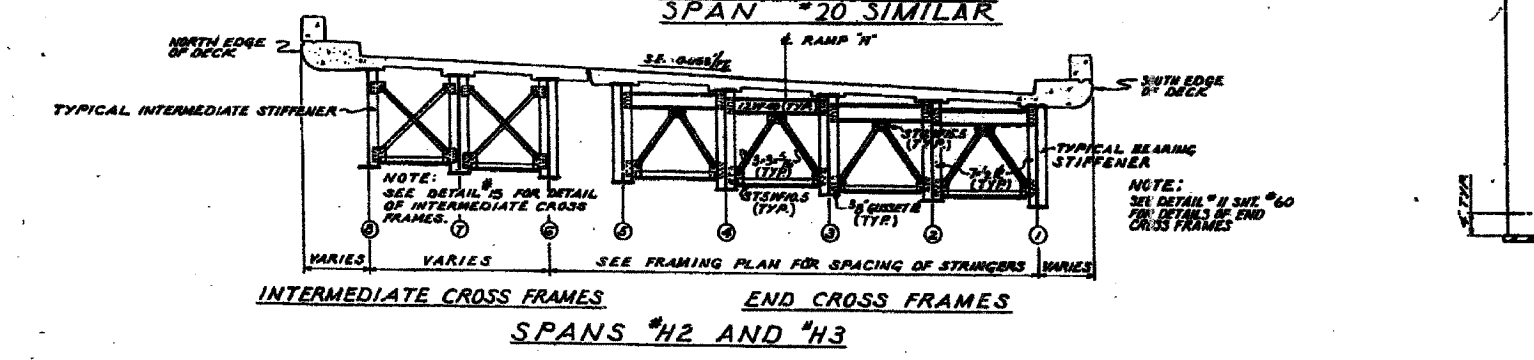
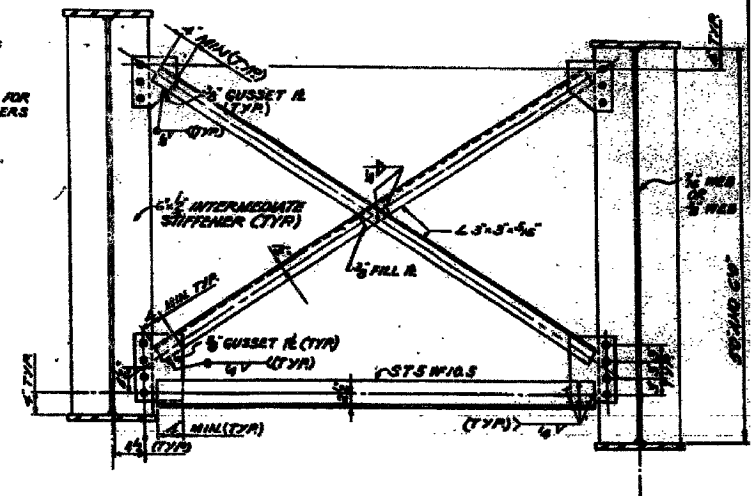
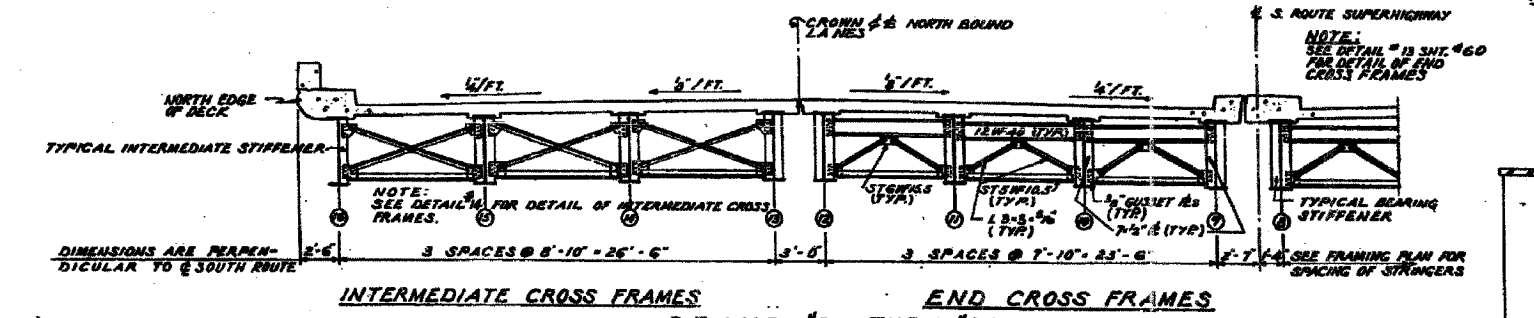
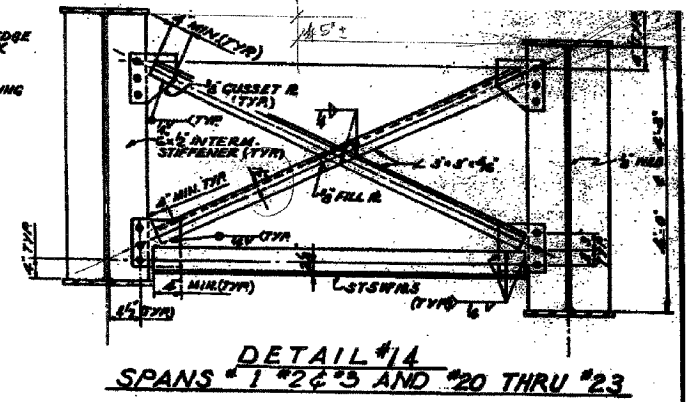
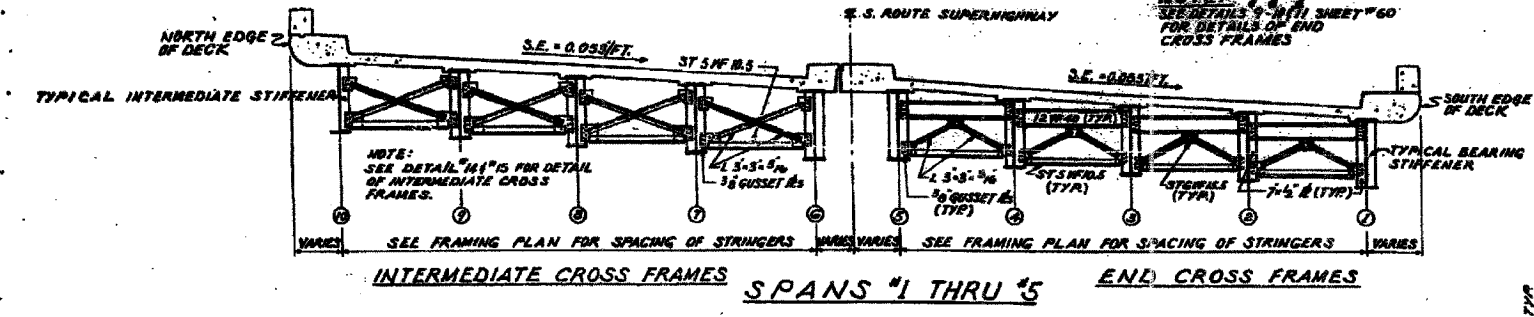
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1117 & 016-1118
 SCALE: NTS DRAWN BY: BDC
 DATE: 7/22/2005 CHECKED BY: BLU

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7/19/2005 10:35 AM



SCALES OF TRACING:
 1/4" = 1'-0"
 1/8" = 1'-0"
 1/2" = 1'-0"

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 SOUTH ROUTE SUPERHIGHWAY
 ELEVATED HIGHWAY
 28TH PLACE TO STEWART AVE.
 CROSS FRAME ELEVATIONS AND
 INTERMEDIATE CROSS FRAME DETAILS

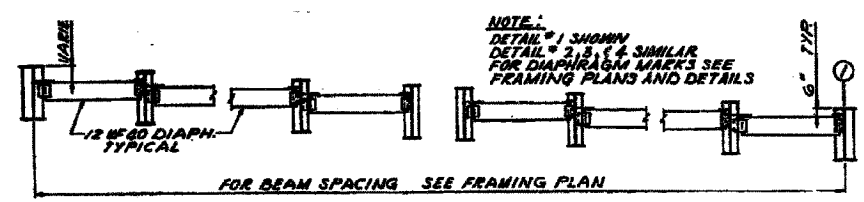
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1117 & 016-1118

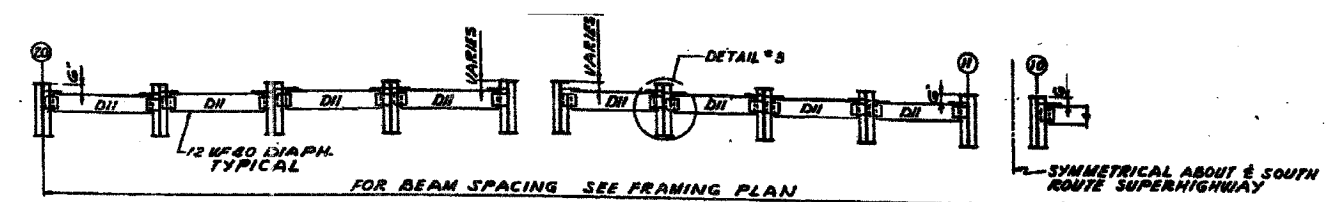
SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: BDC
 CHECKED BY: BLU

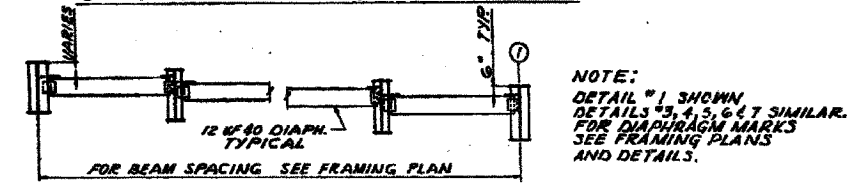
FOR INFORMATION ONLY



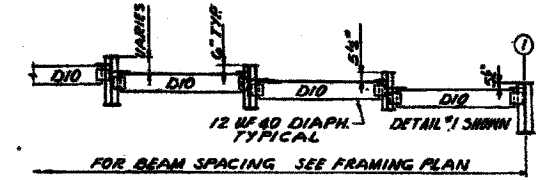
TYPICAL PARTIAL ELEVATION
SPAN #14 SHOWN SPANS #8 THRU #11.
SPANS #15 THRU #19 SIMILAR



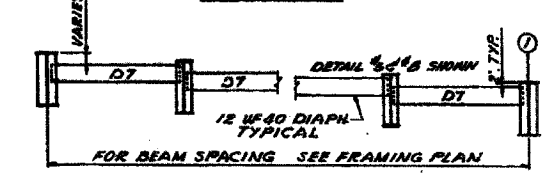
HALF ELEVATION
SPAN #26 AT PIER #26



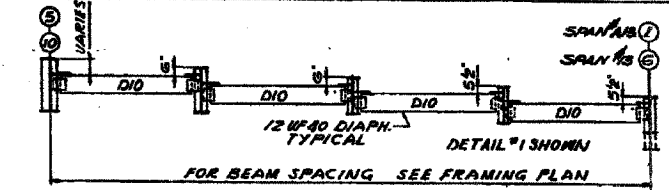
TYPICAL PARTIAL ELEVATION
SPAN #14 SHOWN SPANS #11 THRU #13, #17 THRU #19
SPANS #15 THRU #17 & SPANS #7 THRU #14 SIMILAR



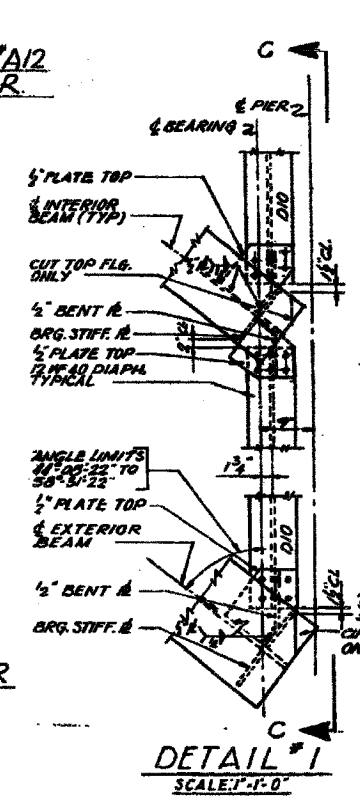
TYPICAL PARTIAL ELEVATION
SPAN #12 AT PIER #13 SHOWN
SPAN #6 AT PIER #6 SIMILAR
SCALE: 1/4" = 1'-0"



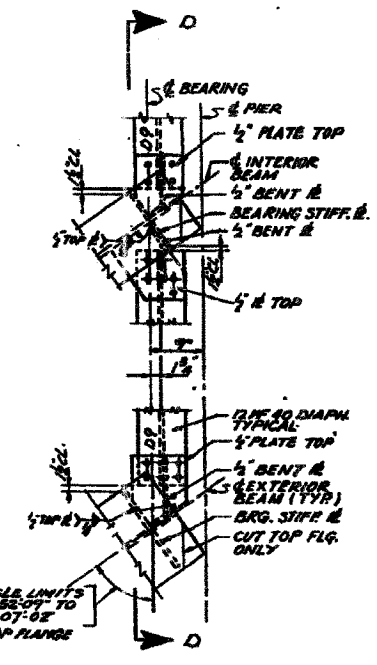
TYPICAL PARTIAL ELEVATION
SPAN #6 AT PIER #7 SHOWN SPAN #7 AT PIER #7
SPAN #4 THRU #6 AT PIER #3 THRU #6
SPAN #11 AT SOUTH ABUT. & SPAN #24 AT PIER #23 SIMILAR



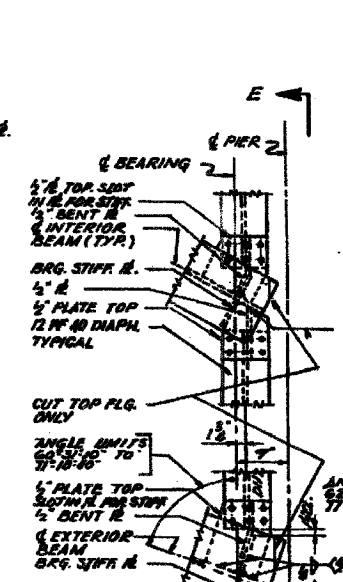
TYPICAL ELEVATION
SPAN #13 AT PIER #13 SHOWN
SPAN #13 AT PIER #13 SIMILAR



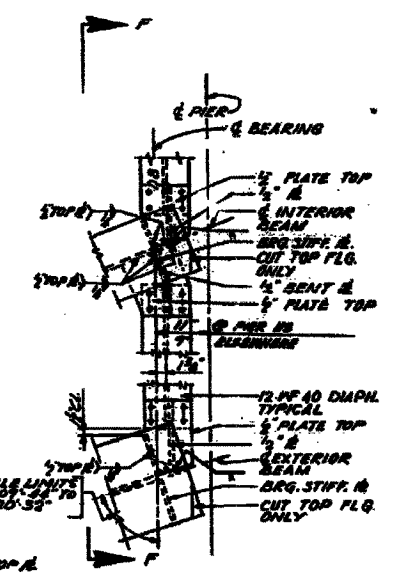
DETAIL #1
SCALE: 1" = 1'-0"



DETAIL #2
SCALE: 1" = 1'-0"

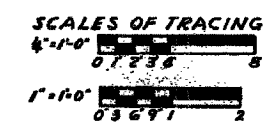


DETAIL #3
SCALE: 1" = 1'-0"



DETAIL #4
SCALE: 1" = 1'-0"

NOTES:
WORK THIS SHEET WITH SHEET 58.
WORK THIS SHEET WITH FRAMING
PLAN SHEET # 10 53



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

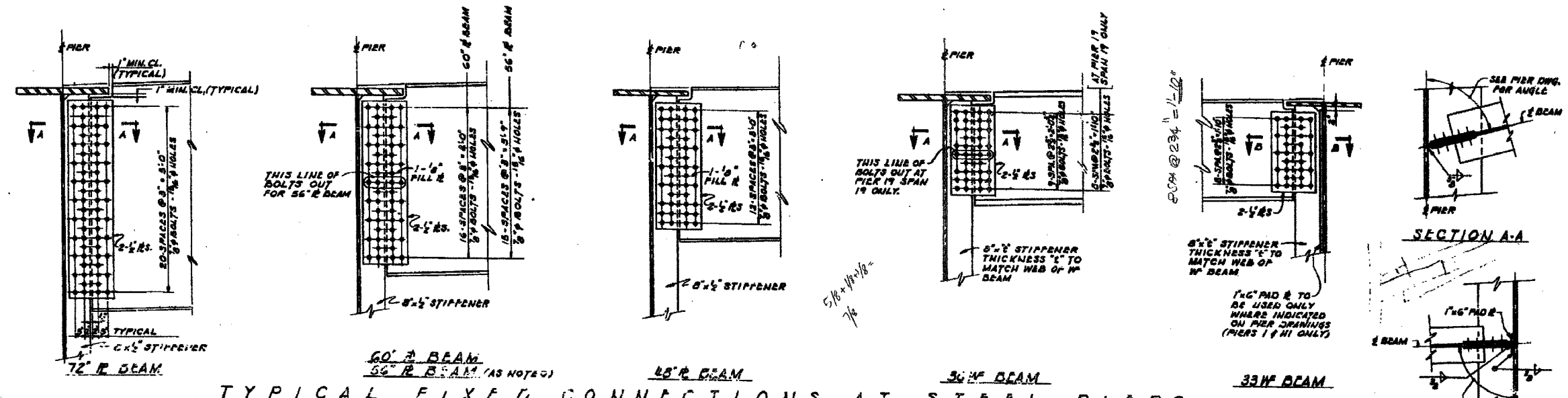
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
**SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
28TH PLACE TO STEWART AVE.
SECTION 9-2424.3-01
END DIAPHRAGM DETAILS**
SHEET NO. 47 OF 114 SHEETS DATE: MARCH, 1991

REVISIONS	
NAME	DATE

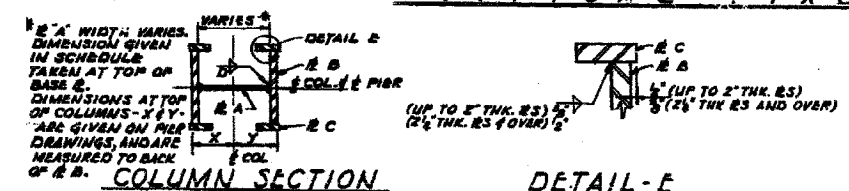
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1117 & 016-1118
SCALE: NTS DRAWN BY: BDC
DATE: 7/22/2005 CHECKED BY: BLU

FOR INFORMATION ONLY

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CONSULTING ENGINEERS
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TYPICAL FIXED CONNECTIONS AT STEEL PIERS
SCALE: 3/4\"/>

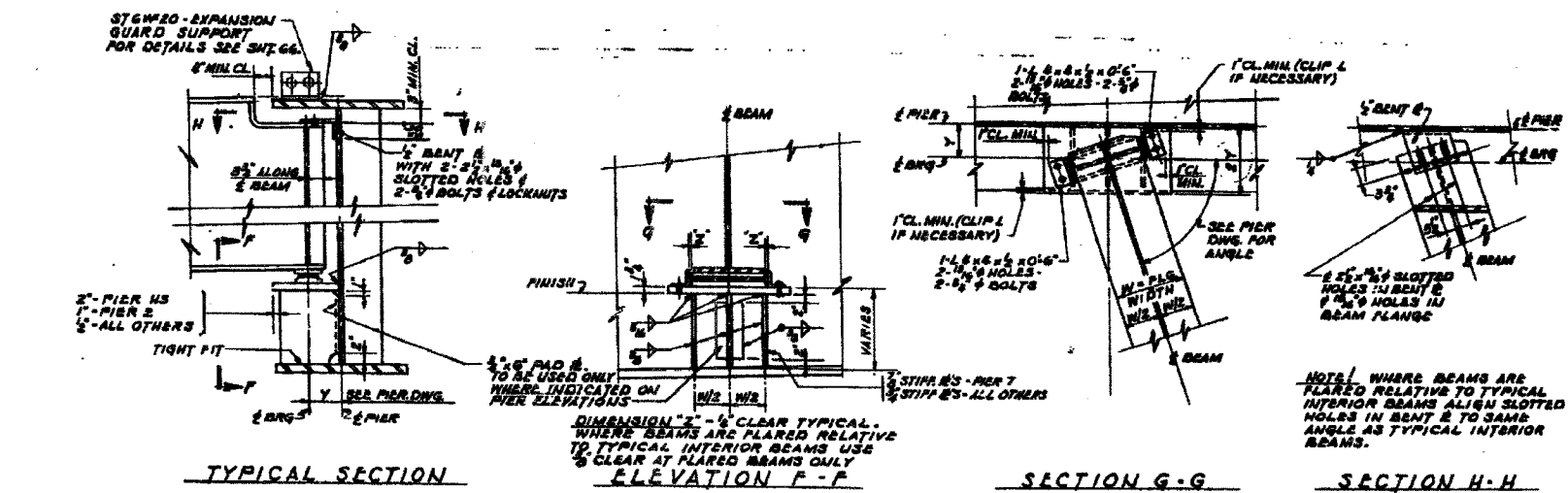


COLUMN SECTION
SCALE: 1/2\"/>

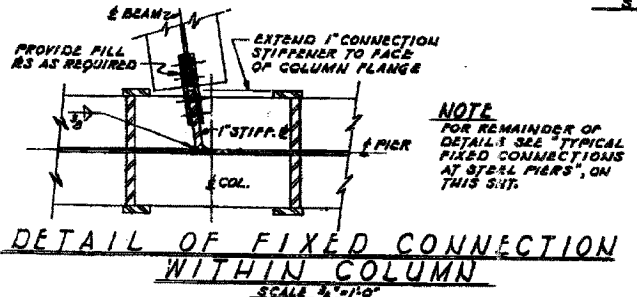
DETAIL E
SCALE: 1/2\"/>

PIER MEMBER	COL. a			COL. b			COL. c		
	WELD D	MATERIAL	WELD D	MATERIAL	WELD D	MATERIAL	WELD D	MATERIAL	
A4	30x2	L.A.S.	30x2	L.A.S.	30x2	L.A.S.	30x2	L.A.S.	
A5	27x1	L.A.S.	27x1	L.A.S.	27x1	L.A.S.	27x1	L.A.S.	
H1	28x1	L.A.S.	28x1	L.A.S.	28x1	L.A.S.	28x1	L.A.S.	
H2	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	
H3	21x1	L.A.S.	21x1	L.A.S.	21x1	L.A.S.	21x1	L.A.S.	
H4	27x1	L.A.S.	27x1	L.A.S.	27x1	L.A.S.	27x1	L.A.S.	
1	28x1	L.A.S.	28x1	L.A.S.	28x1	L.A.S.	28x1	L.A.S.	
2	26x1	L.A.S.	26x1	L.A.S.	26x1	L.A.S.	26x1	L.A.S.	
3	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	
4	30x2 1/4	L.A.S.	30x2 1/4	L.A.S.	30x2 1/4	L.A.S.	30x2 1/4	L.A.S.	
5	27x1 1/2	L.A.S.	27x1 1/2	L.A.S.	27x1 1/2	L.A.S.	27x1 1/2	L.A.S.	
6	27x1 1/2	L.A.S.	27x1 1/2	L.A.S.	27x1 1/2	L.A.S.	27x1 1/2	L.A.S.	
7	27x1	L.A.S.	27x1	L.A.S.	27x1	L.A.S.	27x1	L.A.S.	
19	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	
20	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	
21	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	
22	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	30x1 1/2	L.A.S.	
23	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	36x1 1/2	L.A.S.	

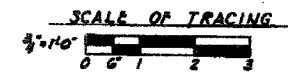
NOTE: C.S. INDICATES CARBON STEEL ; L.A.S. INDICATES LOW ALLOY STEEL.



TYPICAL SECTION
EXPANSION BEARING SUPPORT AT STEEL PIERS
SCALE: 3/4\"/>



DETAIL OF FIXED CONNECTION WITHIN COLUMN
SCALE: 3/4\"/>



ALFRED BENECH & ASSOCIATES CONSULTING ENGINEERS
19 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

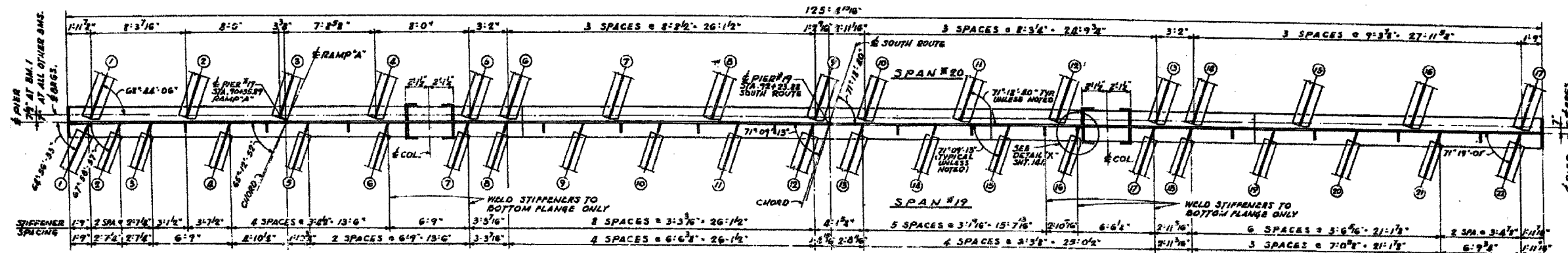
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
28TH PLACE TO STEWART AVE.
SECTION 5-2424.3-01
STEEL PIER DETAILS
AND COLUMN SCHEDULE
SHEET NO. 145 OF 184 SHEETS DATE: MARCH, 1981

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1117 & 016-1118
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

FOR INFORMATION ONLY

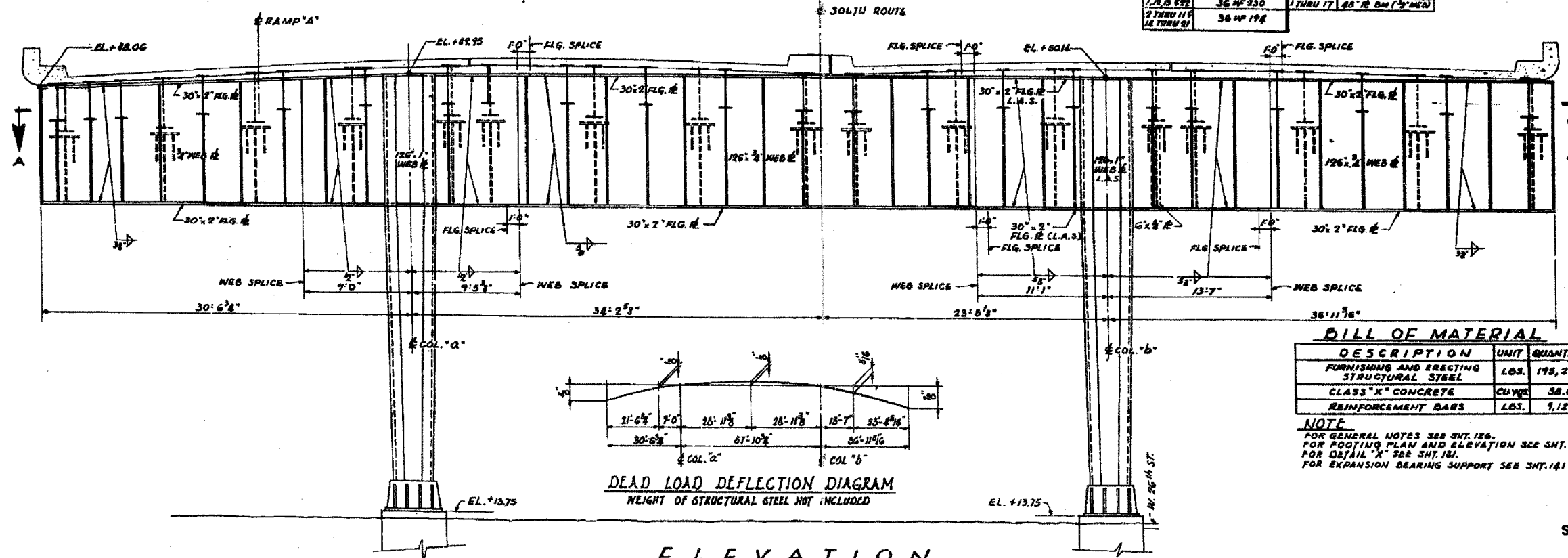
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CONSULTING ENGINEERS
Chicago, Illinois
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SECTION A-A
SCALE: 1/4" = 1'-0"

BEAM TABLE

SPAN #19 (FIXED)		SPAN #20 (EXR)	
BEAM NO.	SIZE	BEAM NO.	SIZE
17, 18, 672	36" HP 230	17, 18, 19	48" HP 230 (2" MEN)
17, 18, 119	36" HP 198		



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

BILL OF MATERIAL

DESCRIPTION	UNIT	QUANTITY
FURNISHING AND ERECTING STRUCTURAL STEEL	LBS.	175,270
CLASS "K" CONCRETE	CU YDS	58.6
REINFORCEMENT BARS	LBS.	9,120

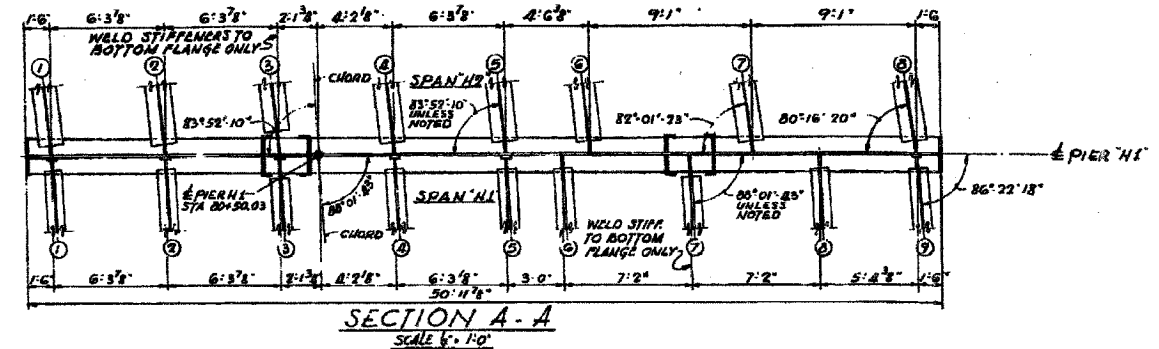
NOTE
FOR GENERAL NOTES SEE SHT. 126.
FOR FOOTING PLAN AND ELEVATION SEE SHT. 140.
FOR DETAIL "X" SEE SHT. 181.
FOR EXPANSION BEARING SUPPORT SEE SHT. 141.

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
**SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY**
28TH PLACE TO STEWART AVE.
SECTION 3-2424.3-4H
PIER 19
SHEET NO. 133 OF 184 SHEETS DATE: MARCH, 1961

FOR INFORMATION ONLY

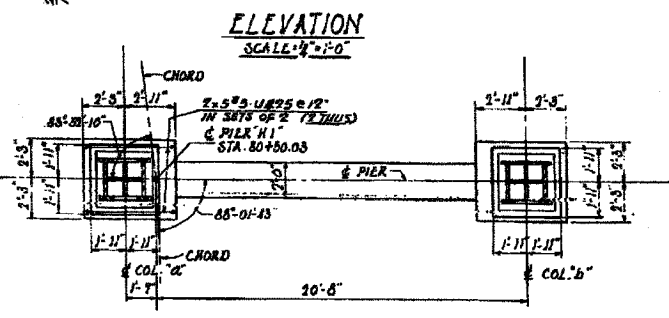
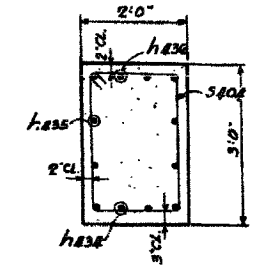
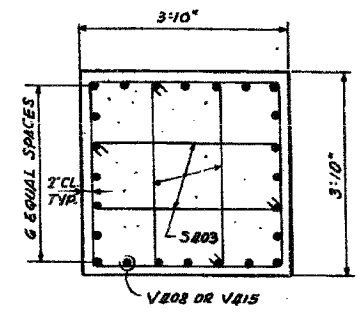
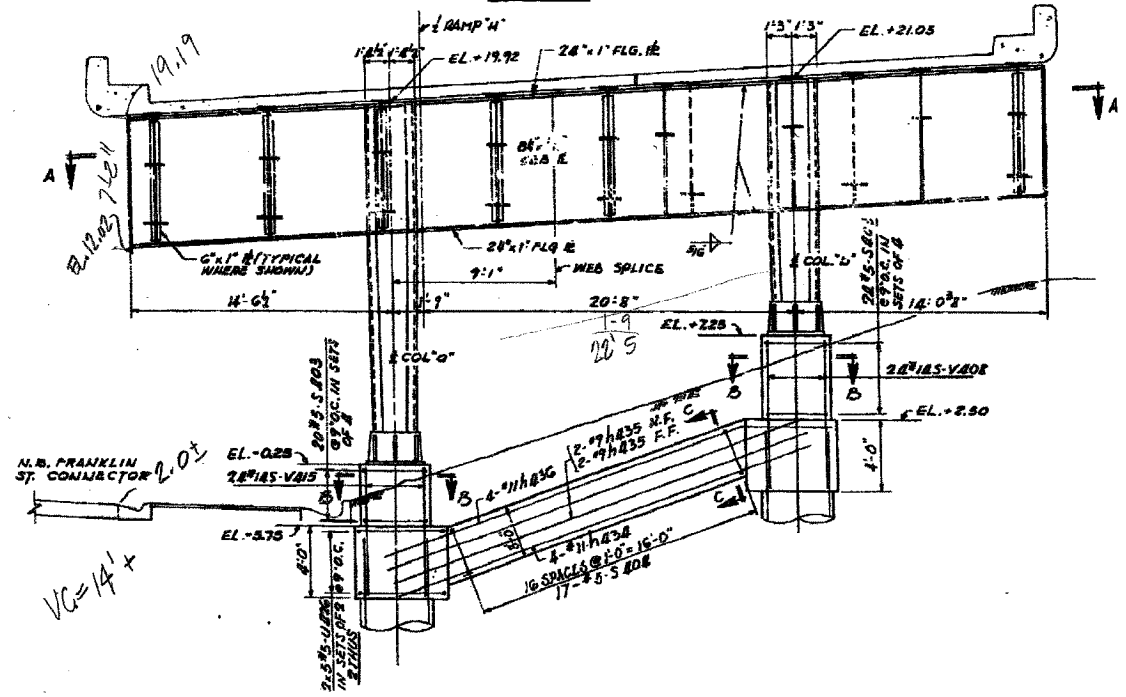
REVISIONS	DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME		F.A.I. 94/90 (DAN RYAN EXPRESSWAY) NB DAN RYAN ELEVATED BRIDGE REPAIR FROM 15TH TO 28TH STREETS EXISTING PLAN INFORMATION SN 016-1117 & 016-1118
		SCALE: NTS DATE: 7/22/2005
		DRAWN BY: BDC CHECKED BY: BLU

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CONSULTING ENGINEERS
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BEAM TABLE

SPAN #H1 (FIXED)		SPAN #H2 (FIXED)	
BEAM N°	SIZE	BEAM N°	SIZE
1 & 2	33 WF152	1 THRU 3	72 WF16WB
7 & 8	33 WF141		
2 THRU 6	33 WF130		



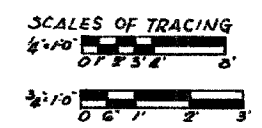
SECTION "B-B"
SCALE: 3/8" = 1'-0"

SECTION "C-C"
SCALE: 3/8" = 1'-0"

BILL OF MATERIAL

DESCRIPTION	UNIT	QUANTITY
FURNISHING AND ERECTING STRUCTURAL STEEL	LBS.	40,980
CLASS "X" CONCRETE	CU. YRD.	18.0
REINFORCEMENT BARS	LBS.	8,460

NOTE
FOR GENERAL NOTES SEE SHY. 126.



CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
**SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
28TH PLACE TO STEWART AVE.**
SECTION 5-2424.3-4H
PIER #1
SHEET NO. 144 OF 184 SHEETS DATE: MARCH, 1961

REVISIONS	NAME	DATE

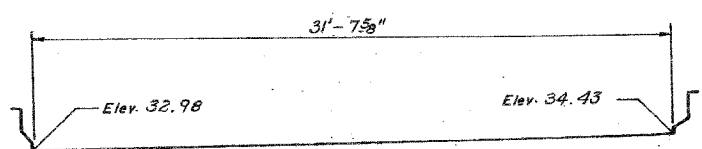
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1117 & 016-1118
SCALE: NTS DRAWN BY: BDC
DATE: 7/22/2005 CHECKED BY: BLU

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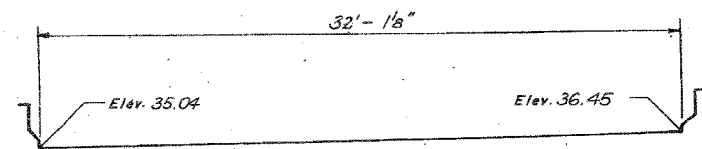
FOR INFORMATION ONLY

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-02BF	COOK	419	370
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	62580	

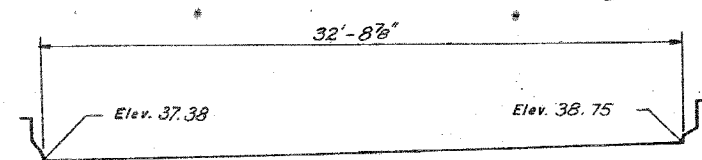
MAIN LINE (CONT.)



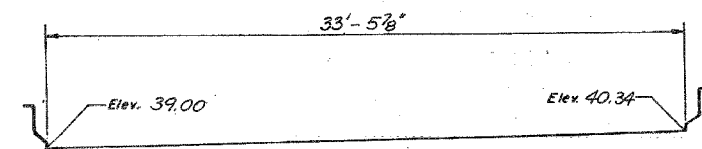
AT PIER 5
P.J.S. 4"



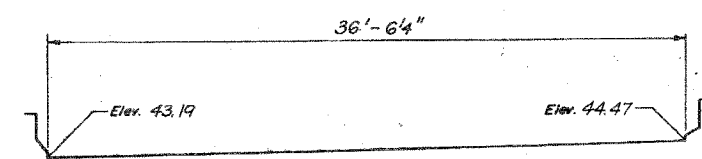
AT PIER 6
N.E.J. 2"



AT PIER 7
N.E.J. 2"

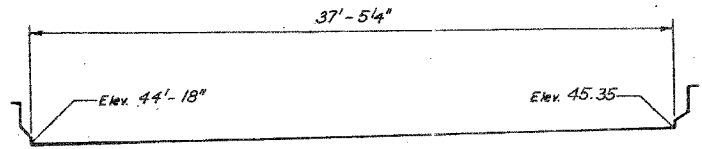


AT PIER 8
N.E.J. 2 1/2"

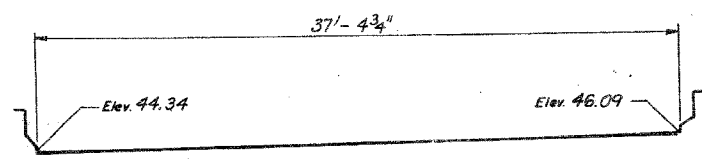


AT PIER 11
N.E.J. 2"

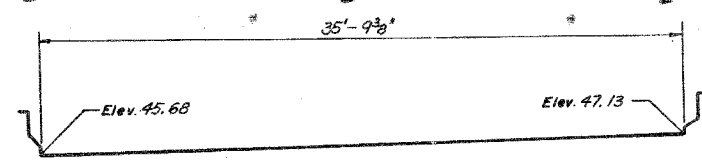
MAIN LINE (CONT.)



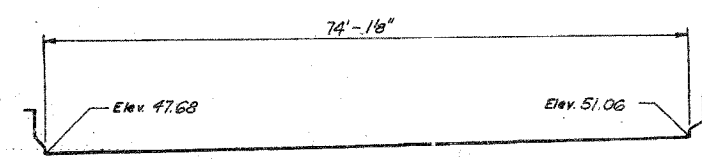
AT PIER 12
N.E.J. 2"



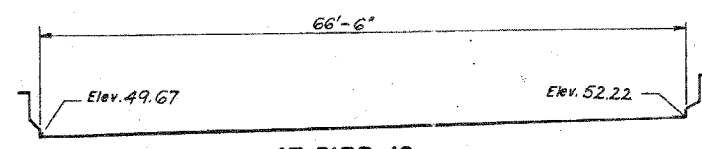
AT PIER 13
N.E.J. 2"



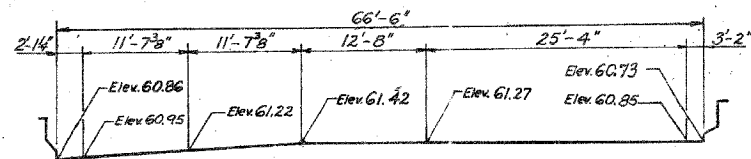
AT PIER 14
N.E.J. 2 1/2"



AT PIER 16
N.E.J. 2"

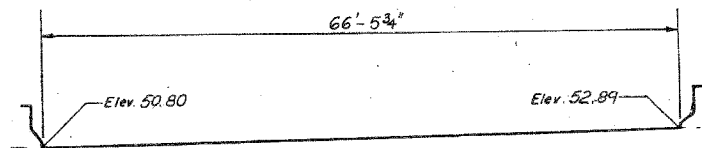


AT PIER 18
N.E.J. 2"

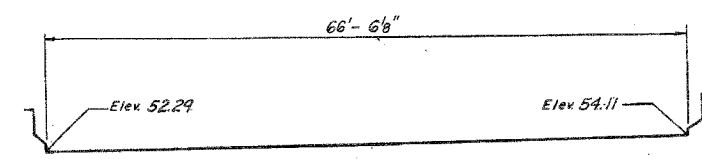


AT PIER 26 (FINGER PLATE JOINT)

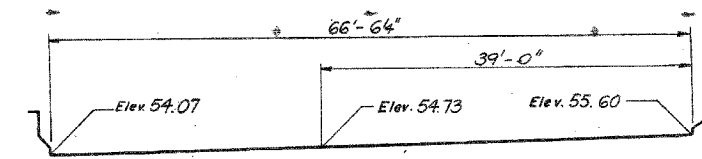
MAIN LINE (CONT.)



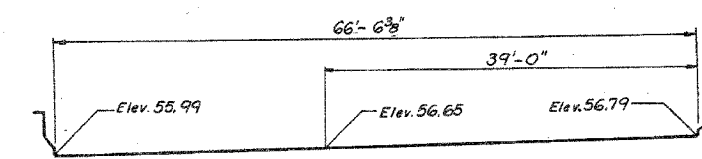
AT PIER 19
N.E.J. 2"



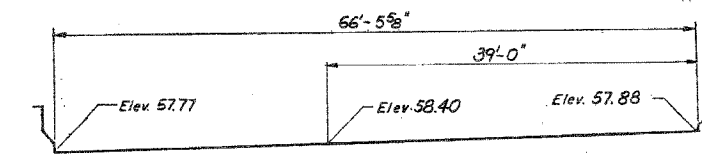
AT PIER 20
N.E.J. 2"



AT PIER 21
N.E.J. 2"



AT PIER 22
N.E.J. 2"



AT PIER 23
N.E.J. 2"

ALL PROFILES DRAWN
LOOKING UPSTATION

- NOTES:**
- For Steel Finger Plate Jt. See Sheet TJ1, Vol. 13
 - For P.J.S. Detail See Sheet TJ3, Vol. 13.
 - For N.E.J. Detail See Sheet TJ2, Vol. 13.

SHEET J36 OF 98

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-0778-R-COOK COUNTY
NB MAINLINE RECONSTRUCTION
STRUCTURE 016-1117 & 1118 MAINLINE & RAMP 'H'
TRANSVERSE DECK JOINT ELEVATIONS
Scale: NONE
Date: AUGUST 1988
Drawn By: B.R.
Checked By: SK
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

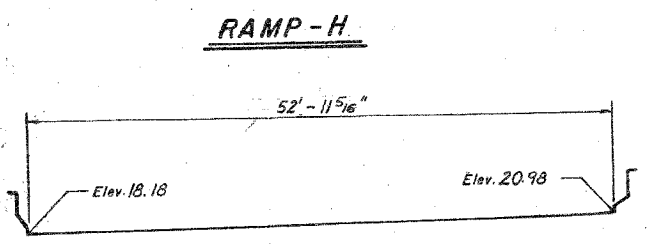
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1117 & 016-1118
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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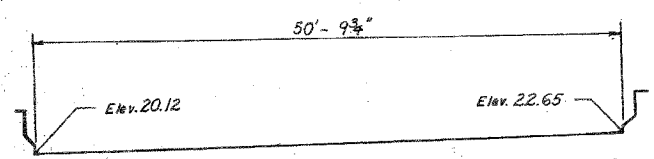
FOR INFORMATION ONLY

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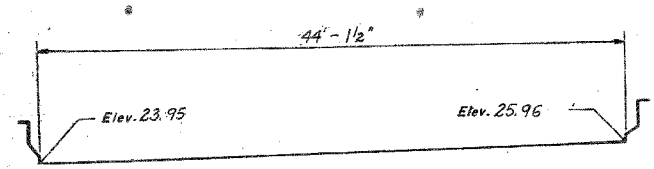
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	371
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62580				



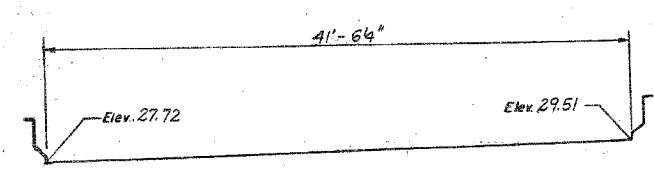
AT SOUTH ABUTMENT
P.J.S. 2 1/2"



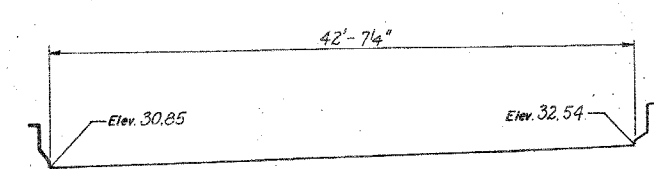
AT PIER H1
P.J.S. 2 1/2"



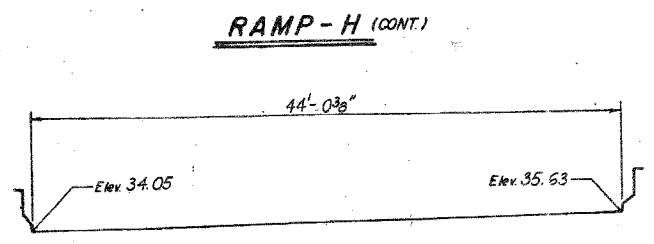
AT PIER H2
P.J.S. 4"



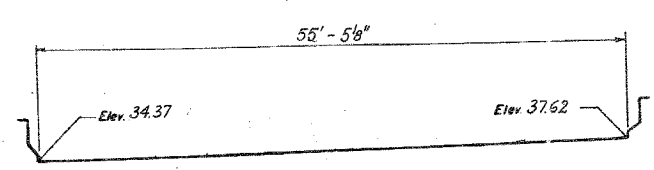
AT PIER H3
P.J.S. 4"



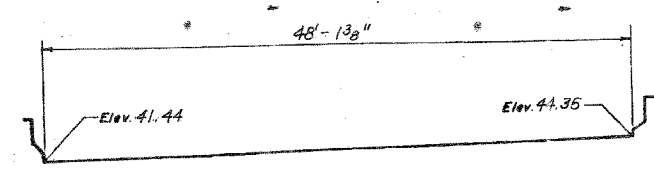
AT PIER H4
N.E.J. 2"



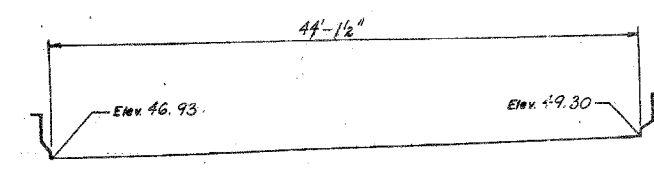
AT PIER H5
N.E.J. 2 1/2"



AT PIER H6
N.E.J. 2"



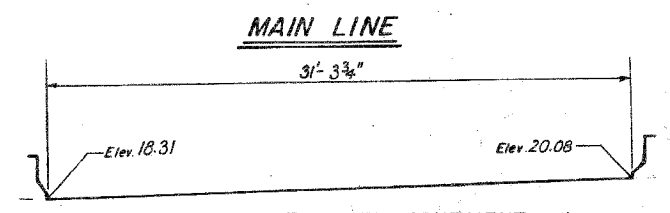
AT PIER H9
N.E.J. 4"



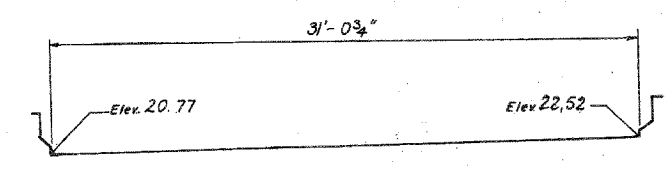
AT PIER H12
N.E.J. 2 1/2"

ALL PROFILES DRAWN
LOOKING UPSTATION.

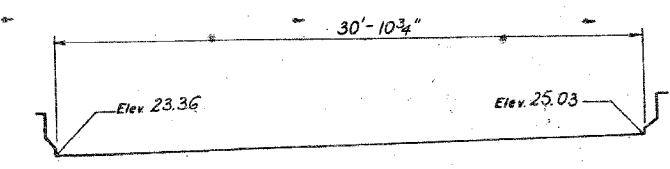
DIMENSIONS ARE ALONG
JOINT PROFILES.



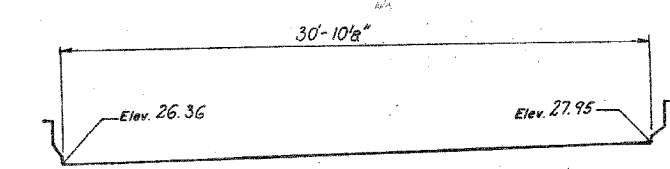
AT SOUTH ABUTMENT
P.J.S. 4"



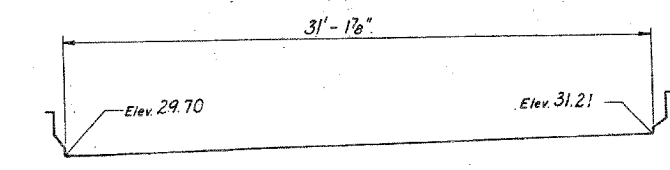
AT PIER 1
P.J.S. 2 1/2"



AT PIER 2
P.J.S. 4"



AT PIER 3
P.J.S. 4"



AT PIER 4
P.J.S. 4"

NOTES :

- For Steel Finger Plate Jt. See Sheet TJ1, Vol. 13.
- For PJS Detail See Sheet TJ3, Vol. 13.
- For NEJ Detail See Sheet TJ2, Vol. 13.

SHEET J35 OF 98

SHEET J35 OF 98

REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 DAN RYAN EXPRESSWAY
SECTION 1985-077B-A-COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1117 & 1118 (MAINLINE & RAMP 'H')
TRANSVERSE DECK JOINT ELEVATIONS
Scale: NONE
Date: AUGUST 1988
Drawn By: S.R.
Checked By: S.K.
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
TRANSVERSE DECK JOINT ELEVATION
SN 016-1117 & 016-1118
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BOC
CHECKED BY: BLU

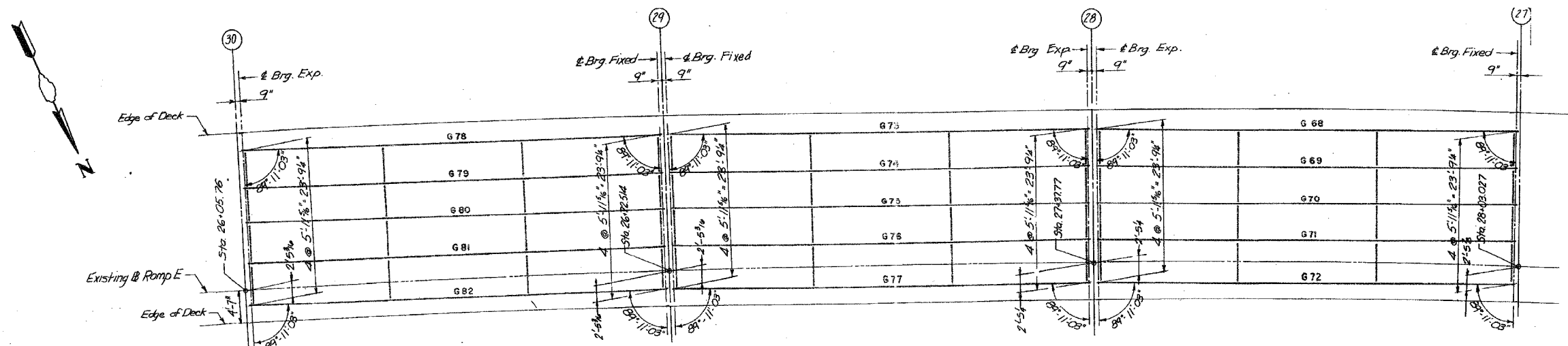
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

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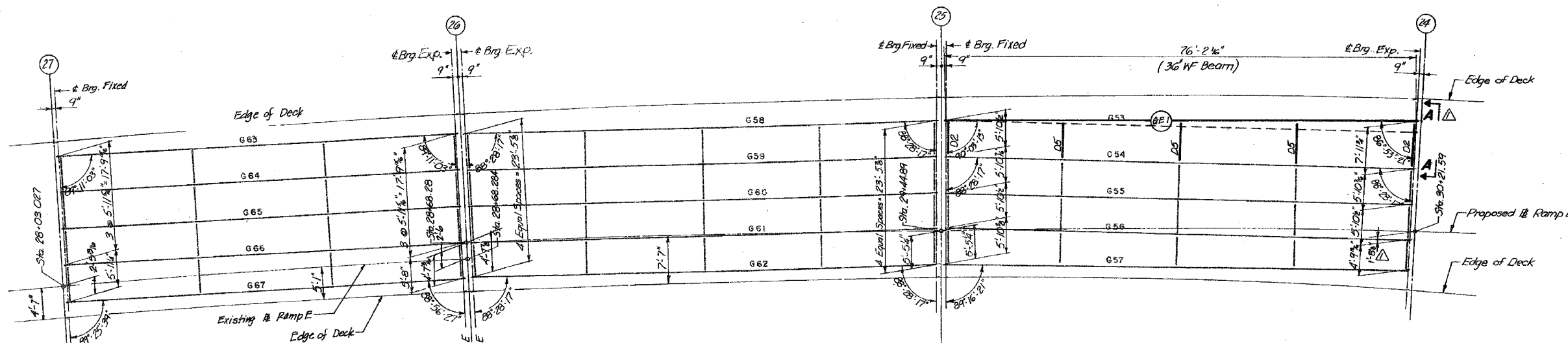
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

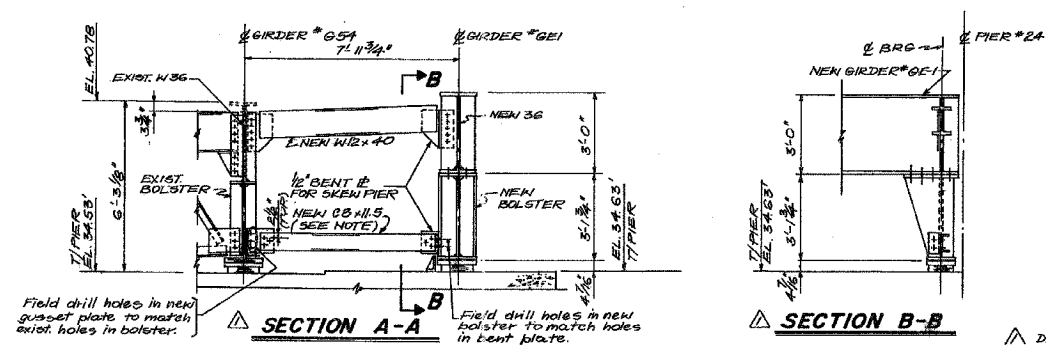
62580



FRAMING PLAN - SPANS E1, E2 & E3



FRAMING PLAN - SPANS E4, E5 & E6



Note:
Furnish & Erect New CB #11.5 and end connection plate (to be provided for under Northbound Mainline Contract).

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985 - 077 R - COOK COUNTY
 N. B. MAINLINE RECONSTRUCTION
 STRUCTURE 016-1047 (RAMP E)
 FRAMING PLAN SPANS 1 TO 6

Scale: NONE
 Date: AUG. 1988

Drawn By: MMS
 Checked By: MEM

ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1117 & 016-1118

SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: BDC
 CHECKED BY: BLU

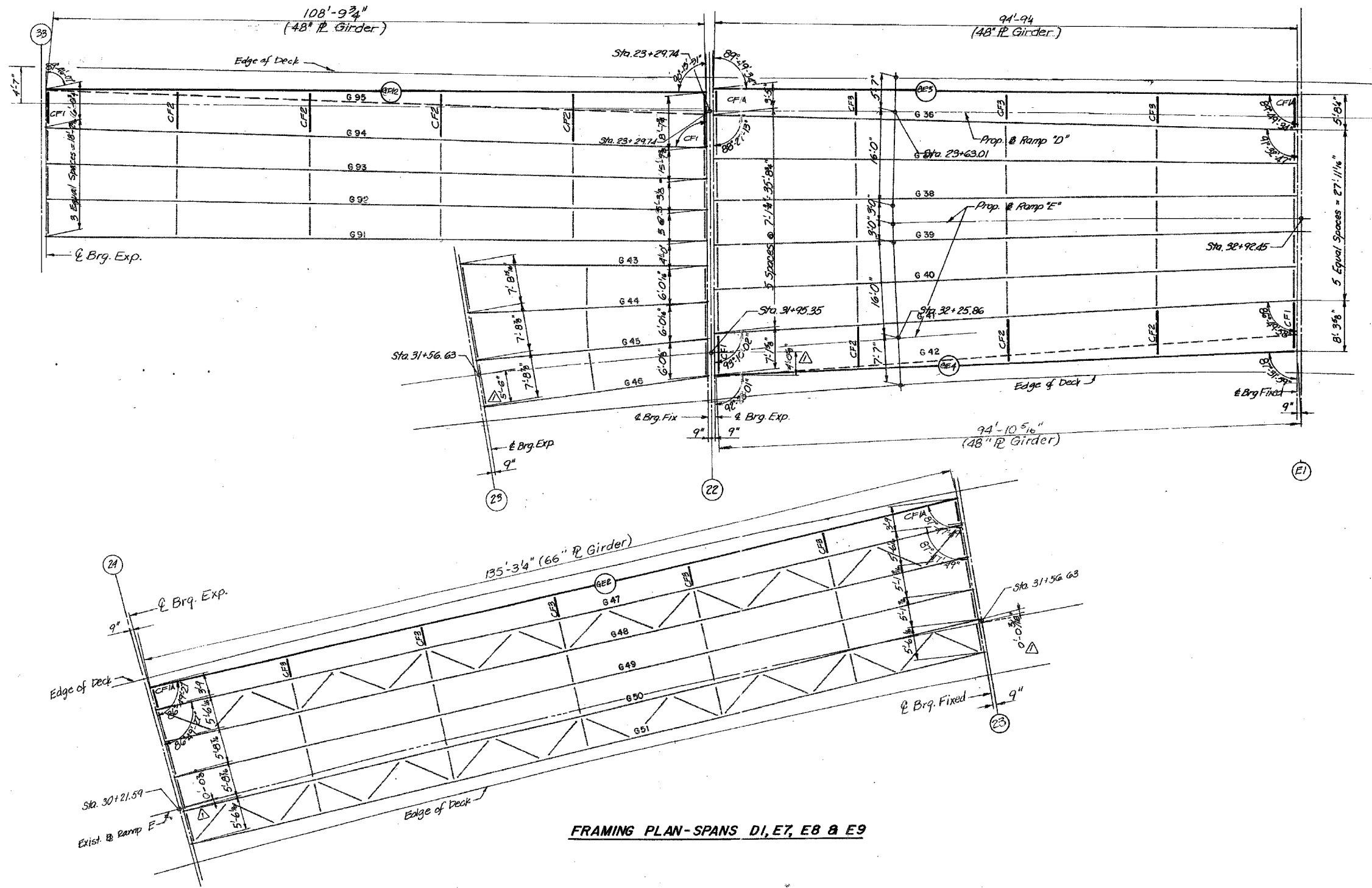
BOWMAN, BARRETT & ASSOCIATES INC.
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 312.228.0100
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FOR INFORMATION ONLY

11/19/2005 11:01:58 AM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	373
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580



FRAMING PLAN-SPANS DI, E7, E8 & E9

12-1-1988

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CONSULTING ENGINEERS
Chicago, Illinois
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-077-BR - COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1047 (RAMP E)
FRAMING PLAN SPANS E7 THRU E9 & DI

Scale: NONE
Date: AUG. 1988

Drawn By: MMS
Checked By: MEM

ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

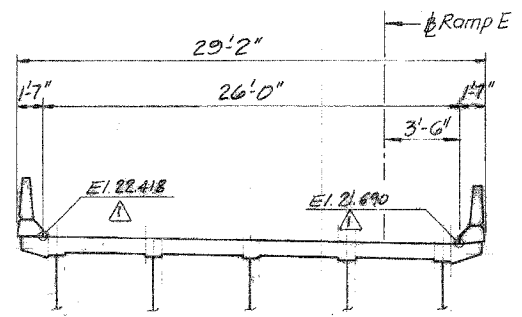
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1117 & 016-1118

SCALE: NTS
DATE: 7/22/2005

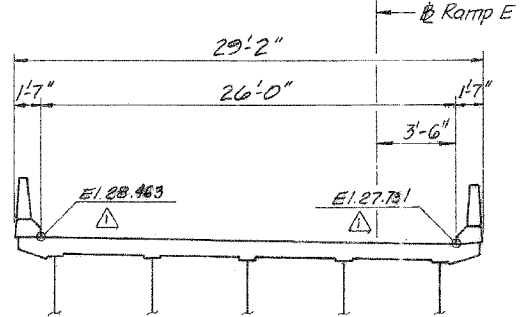
DRAWN BY: BDC
CHECKED BY: BLU

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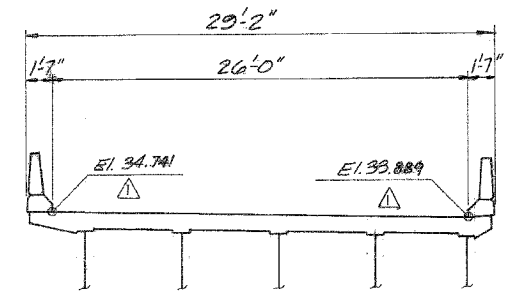
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



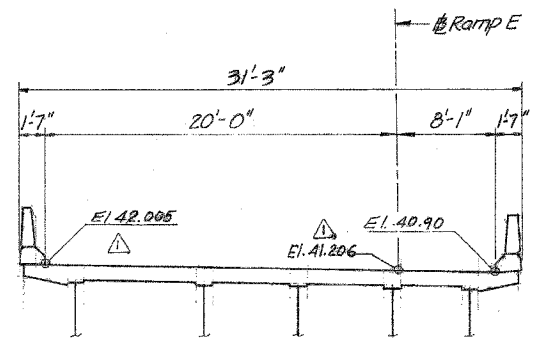
EXPANSION JOINT AT ABUTMENT No. E30
2 1/2 in. PREFORMED JOINT SEAL



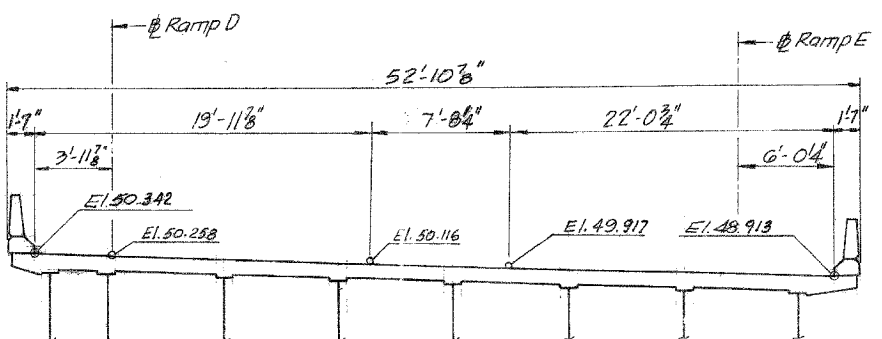
EXPANSION JOINT AT PIER No. E28
2 1/2 in. PREFORMED JOINT SEAL



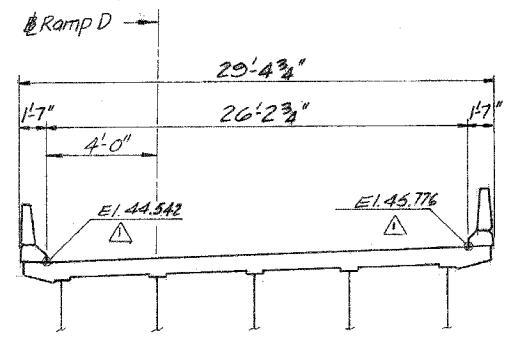
EXPANSION JOINT AT PIER No. E26
2 1/2 in. PREFORMED JOINT SEAL



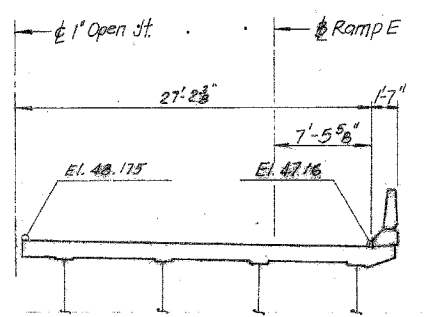
EXPANSION JOINT AT PIER No. E24
2 in. NEOPRENE EXP. JOINT



EXPANSION JOINT AT PIER No. E22
4 in. PREFORMED JOINT SEAL



EXPANSION JOINT AT PIER No. D33
2 1/2 in. NEOPRENE EXP. JOINT



EXPANSION JOINT AT PIER No. E23
2 1/2 in. PREFORMED JOINT SEAL

Notes:
 1. All Dimensions are along Centerline of Joint.
 2. For Details see sheet TJ2 & TJ3.
 3. All Sections looking up-station.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1905-077 BR- COOK COUNTY
 N.B. MAINLINE RECONSTRUCTION
 STRUCTURE 016-1047 (RAMP E)
 TRANSVERSE DECK JOINT ELEVATION
 Scale: NONE
 Date: AUG. 1998
 Drawn By: K.W.T.
 Checked By: M.E.M.
ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

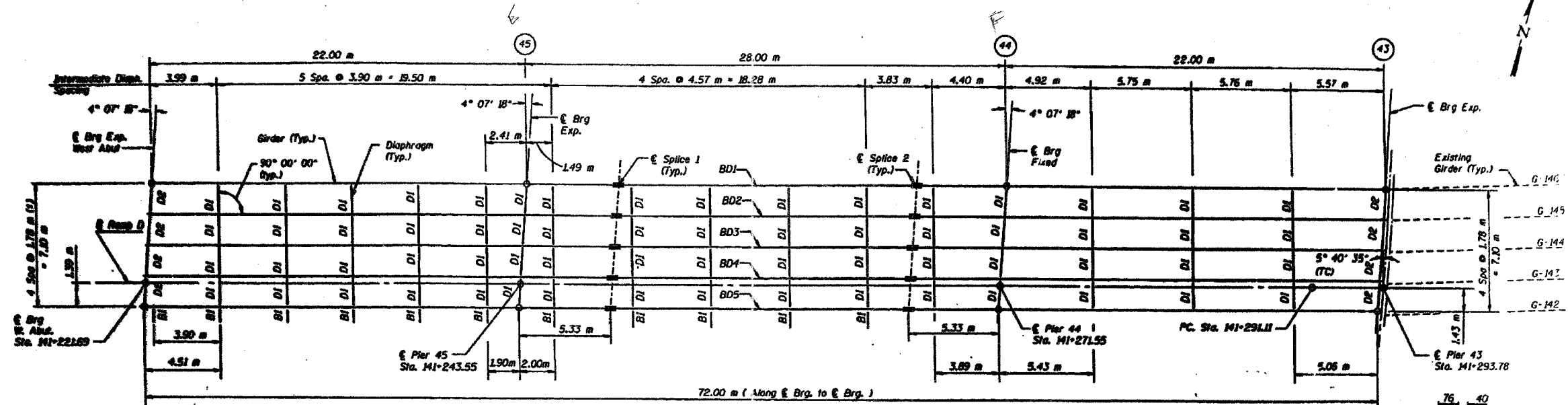
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1047 (RAMP E)
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

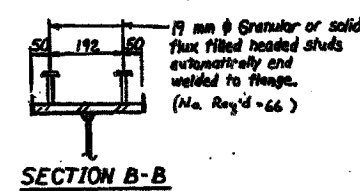
BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
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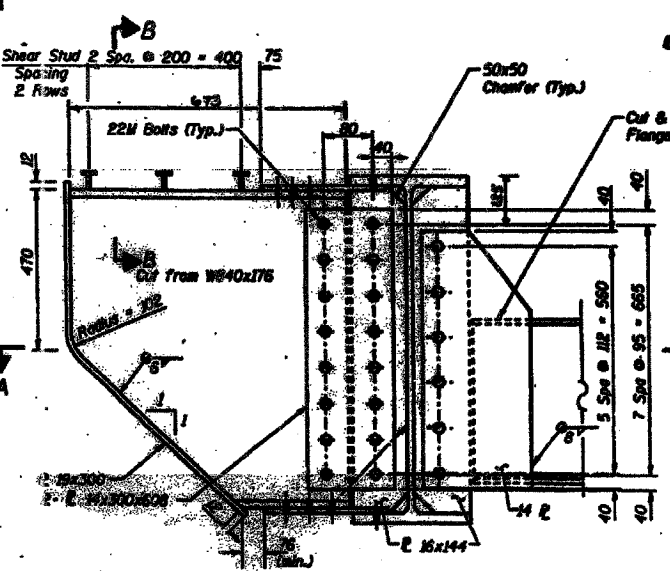
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PLAN



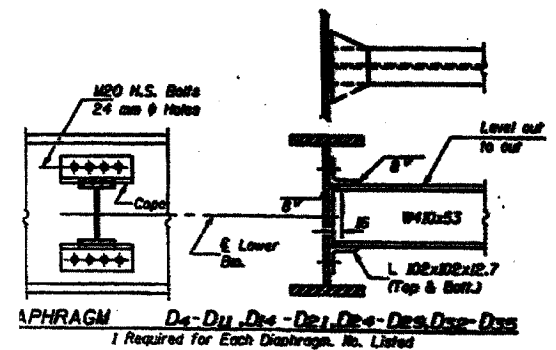
SECTION B-B



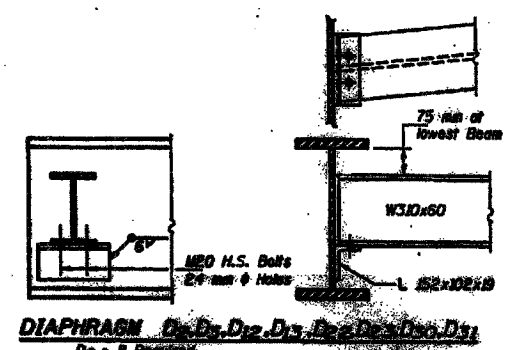
DIAPHRAGM D₁ & BRACKET B₁
B₁ - 11 Required
D₁ - 84 Required

NOTES:

- All dimensions are in millimeters (mm) except as noted.
- For Splice Details see sheet S27.
- For Bearing Details see sheets S30 & S31.
- BDx = Denotes New Beams
- D1 and D2 are New Diaphragms.
- TC denotes Tangent To Curve.
- For Girder Elevation, see sheet S27.
- For Top of beam elevations, see sheet S28.
- For diaphragm connections to existing beam, see S28.



DIAPHRAGM D₂-D₁₁
1 Required For Each Diaphragm No. Listed



DIAPHRAGM D₁₂-D₃₁
D₁₂ - 8 Required
D₁₃, D₁₄, D₁₅, D₁₆, D₁₇, D₁₈, D₁₉, D₂₀, D₂₁ - 2 Required Each
D₃₀ - 1 Required

Note: Two hardened washers shall be required over all oversize holes for diaphragms.
All dimensions are in millimeters (mm) except as noted.

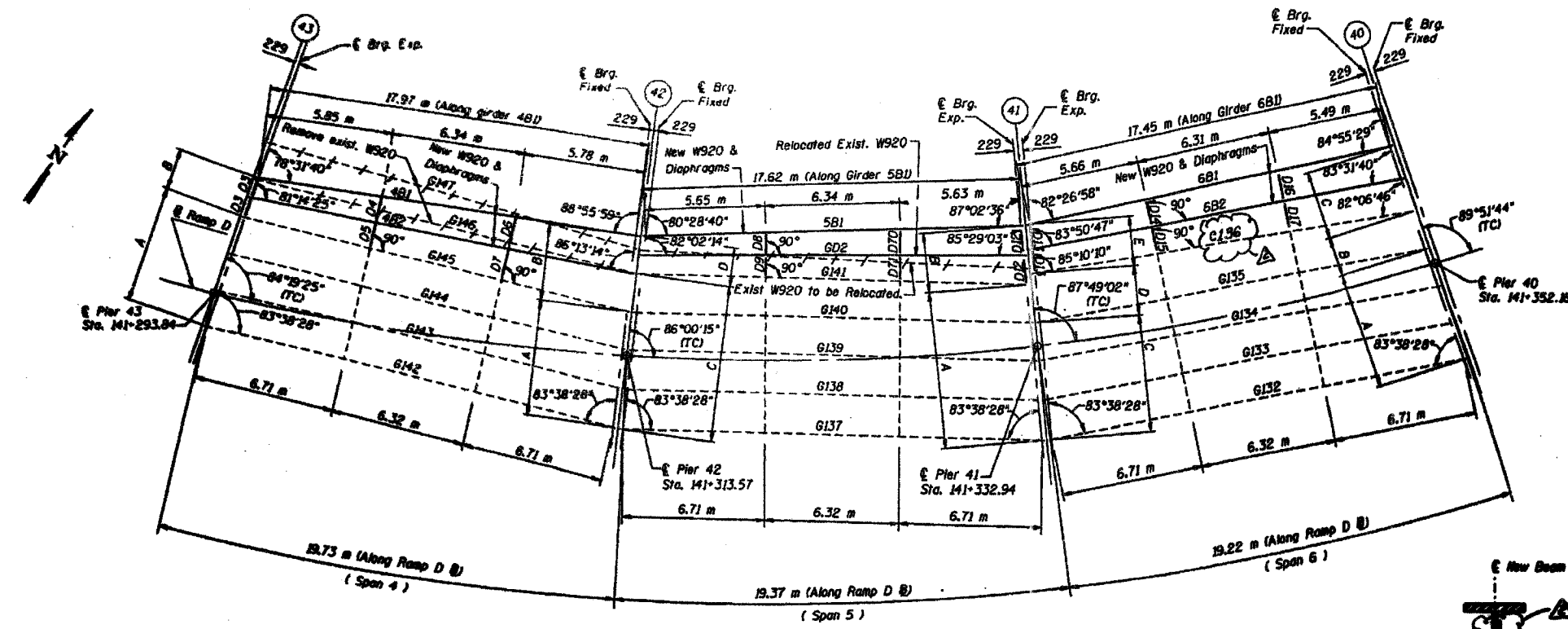
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1059 (RAMP D)
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

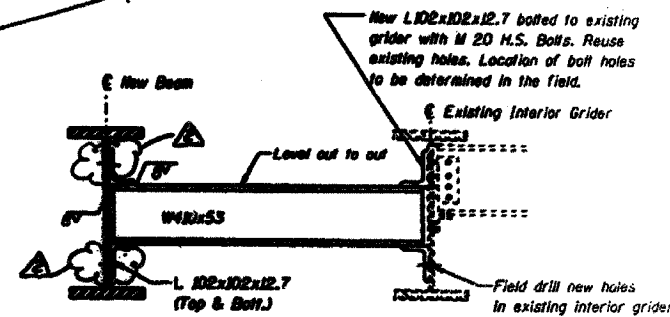
BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
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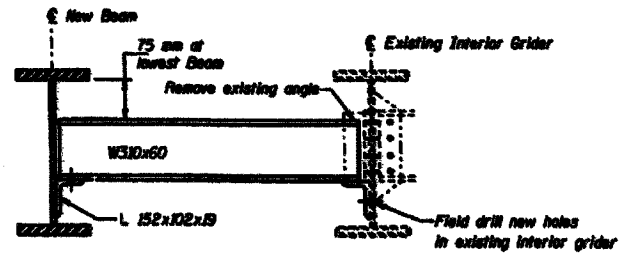
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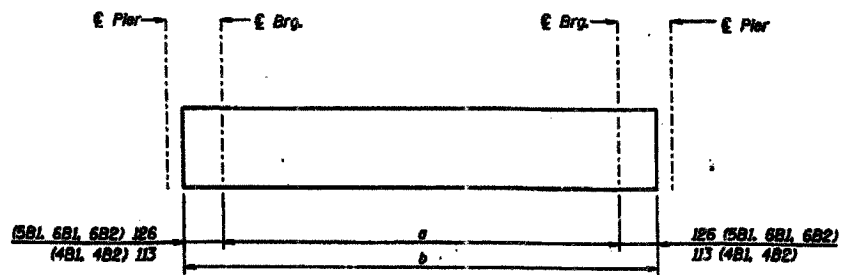
FRAMING PLAN SPANS 4, 5 & 6



INTERIOR DIAPHRAGM DETAIL
(Showing connection to existing beam)



END DIAPHRAGM DETAIL
(Showing connection to existing beam)



NOTES:

- Diaphragms designated D3 thru D17 are new diaphragms.
- Span 4 to be temporary supported during reconstruction of pier 42.
- See pier drawings for other beams that must be temporarily supported during reconstruction.
- xBx = Denotes New Beams
Gxxx = Denotes Existing Beams
GD2 = Denotes Relocated Beam
- TC denotes Tangent To Curve.
- For girder elevation and top of beam elevation, see sheet 324.
- For diaphragm connection, see sheet 324.

BEAM SPACING ALONG THE € BEARING

	Pier 43	Pier 42	Pier 41	Pier 40
A	3 Spa. @ 1.85 m (-) = 5.56 m	3 Spa. @ 1.85 m (-) = 5.56 m	4 Spa. @ 1.85 (-) = 7.40 m	3 Spa. @ 1.85 m (-) = 5.56 m
B	2 Spa. @ 975 = 1.95 m	2 Spa. @ 1.82 m = 3.64 m	2 Spa. @ 1.40 m = 2.80 m	1.85 m
C	-	4 Spa. @ 1.85 m = 7.40 m	3 Spa. @ 1.85 m (-) = 5.56 m	2 Spa. @ 1.60 m = 3.20 m
D	-	2 Spa. @ 925 = 1.85 m	2.34 m	-
E	-	-	2 Spa. @ 1.17 m = 2.34 m	-

DIMENSION TABLE			
Span	Beam	a	b
4	481	17.97	19.20
	482	19.22	19.45
5	581	17.62	17.87
6	681	17.45	17.70
	682	17.75	18.00

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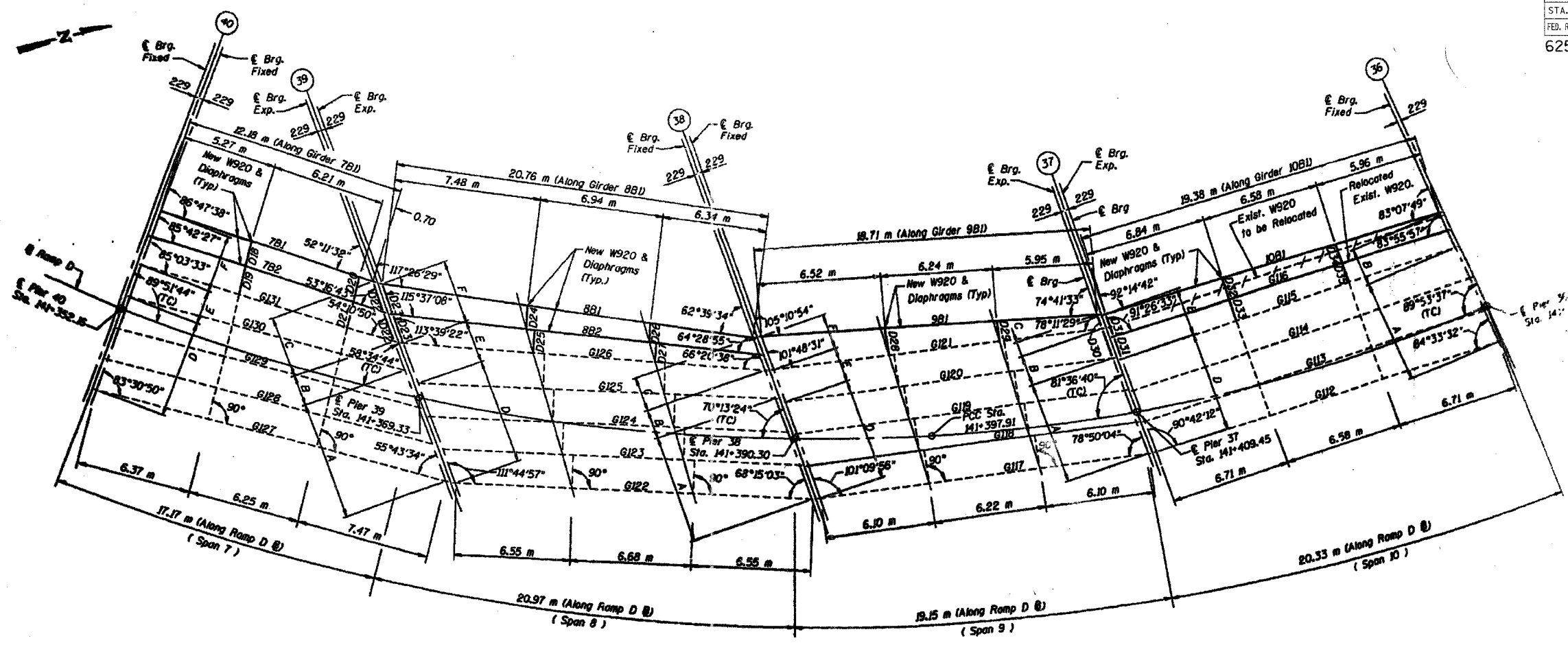
FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1059 (RAMP D)

SCALE: NTS
DATE: 7/22/2005

DRAWN BY: BDC
CHECKED BY: BLU



FRAMING PLAN SPANS 7, 8, 9 & 10

BEAM SPACING ALONG THE E BEARING

	Pier 40	Pier 39	Pier 38	Pier 37	Pier 36
A	-	3 Spa. @ 2.22 m = 6.66 m	3 Spa. @ 2.00 m = 6.00 m	3 Spa. @ 1.91 m (+) = 5.74 m	3 Spa. @ 1.87 m = 5.61 m
B	-	1.74 m	1.67 m	1.70 m	2 Spa. @ 1.04 m = 2.08 m
C	-	2 Spa. @ 1.72 m = 3.44 m	2 Spa. @ 963 = 1.93 m	820	-
D	3 Spa. @ 1.85 m = 5.56 m	3 Spa. @ 2.00 m = 6.00 m	3 Spa. @ 1.91 m (+) = 5.74 m	3 Spa. @ 1.86 m = 5.58 m	-
E	1.84 m	2.39 m	1.93 m	2 Spa. @ 1.31 m = 2.62 m	-
F	2 Spa. @ 1.62 m = 3.24 m	2 Spa. @ 1.70 m = 3.40 m	1.95 m	-	-



DIMENSION TABLE

Span	Beam	a	b
7	7B1 7B2	12.18 13.33	12.43 13.58
8	8B1 8B2	20.76 20.43	21.01 20.68
9	9B1	18.71	18.94
10	10B1	19.38	19.63

NOTES:

1. Diaphragms designated D18 or D35 are new diaphragms.
2. See pier drawings for existing beams that need to be replaced during reconstruction.
3. xBx = Denotes New Beams
Gxxx = Denotes Existing Beams
4. TC denotes Tangent To Curve.
5. For girder elevation and top of beam elevations.
6. For diaphragm connection to existing beams, see sheet 224.
7. For diaphragm connection See Sheet 224.

BOWMAN, BARRETT & ASSOCIATES INC.
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Chicago, Illinois
312.228.0100
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FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

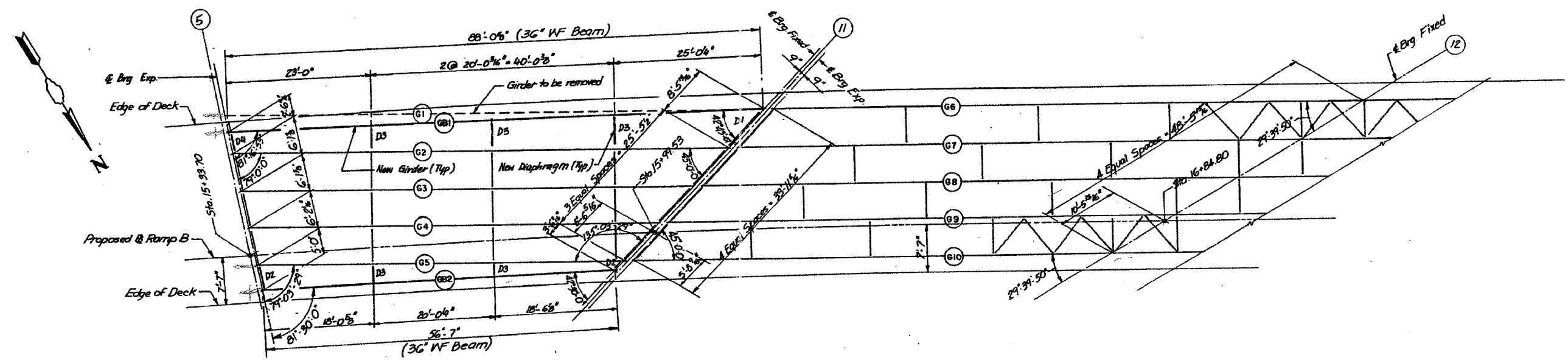
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1059 (RAMP D)

SCALE: NTS
DATE: 7/22/2005

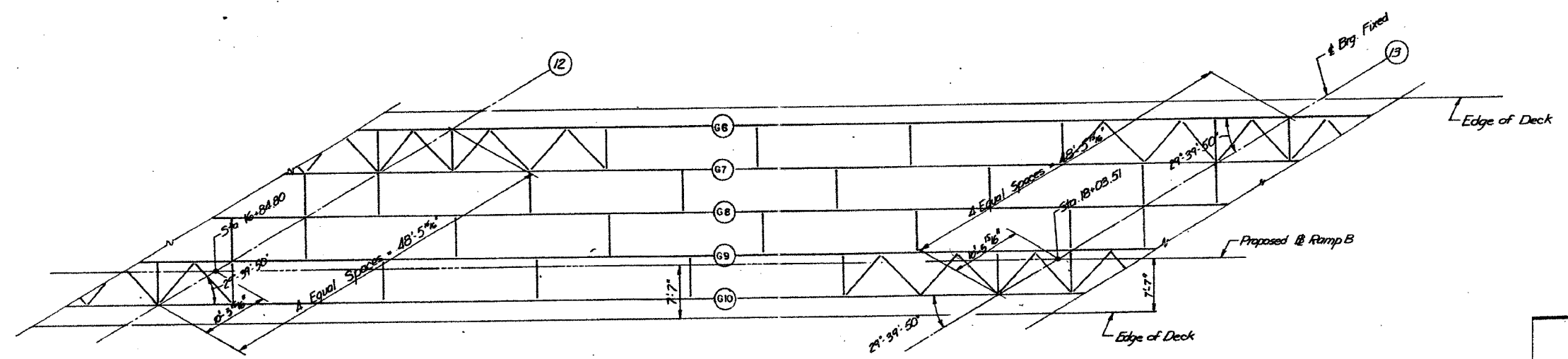
DRAWN BY: BDC
CHECKED BY: BLU

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	378
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580



FRAMING PLAN - SPANS B1 & B2



FRAMING PLAN - SPAN B3

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985 - 0778R - COOK COUNTY
 N. B. MAINLINE RECONSTRUCTION
 STRUCTURE 016-R40 (RAMP B)
 FRAMING PLAN SPANS 1 TO 3
 Scale: NONE
 Date: AUG. 1988
 Drawn By: MMS
 Checked By: MEM
 ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

REVISIONS	NAME	DATE

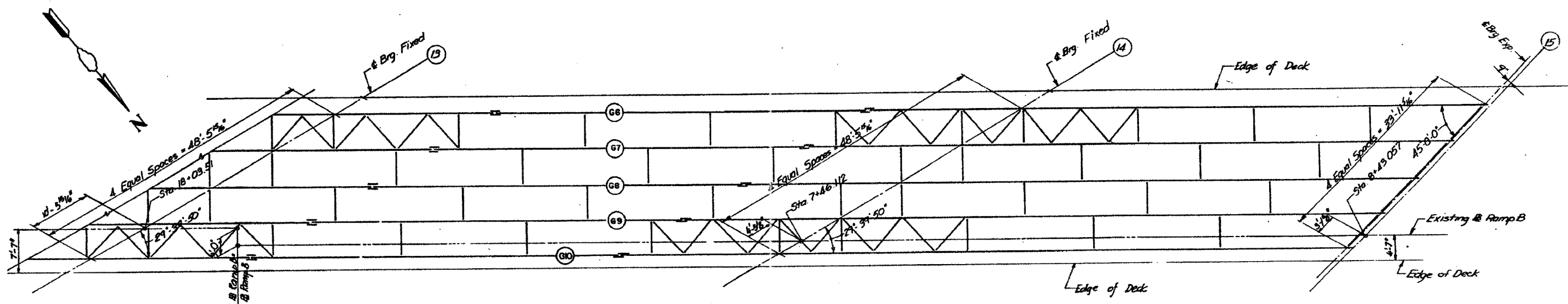
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SN 016-1140
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BOC
 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312 228 0100
 www.bbainc.com

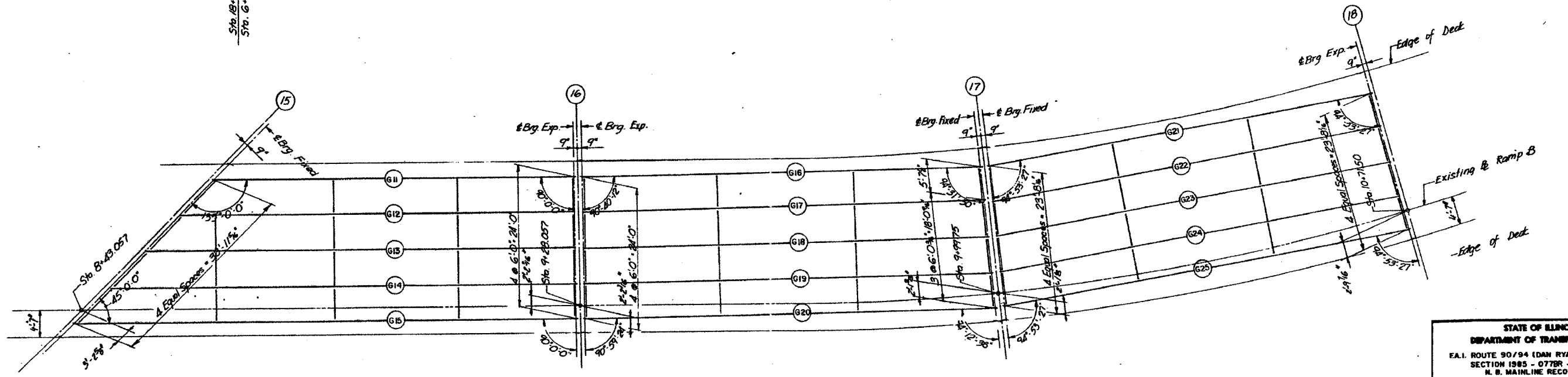
FOR INFORMATION ONLY

7/29/2005 11:09 AM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	379
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62580				



FRAMING PLAN - SPANS B4 & B5



FRAMING PLAN - SPANS B6, B7 & B8

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985 - OTTER - COOK COUNTY
N. B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1140 (RAMP B)
FRAMING PLAN SPANS 4 TO 8
Scale: NONE
Date: AUG. 1998
Drawn By: 6045
Checked By: MCM
ENGINEERS INC.
Chicago, Illinois

REVISIONS	
NAME	DATE

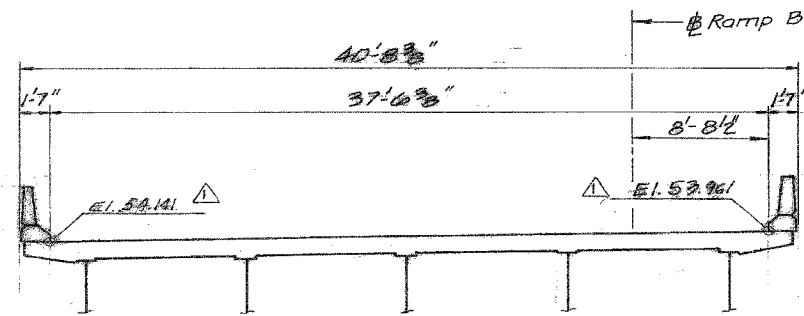
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1140
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BDC
CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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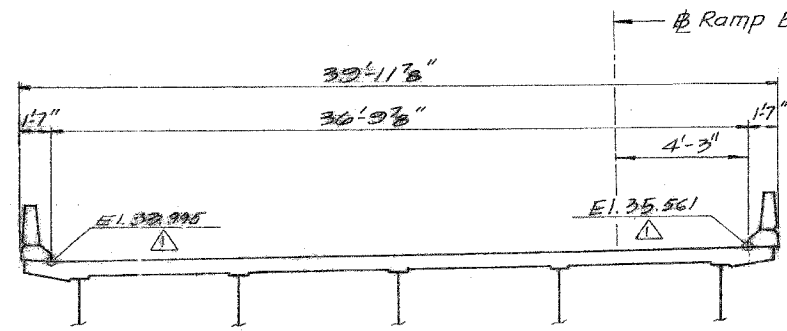
FOR INFORMATION ONLY

1660\cadd\bridge\13\chassis\620_13.rvt

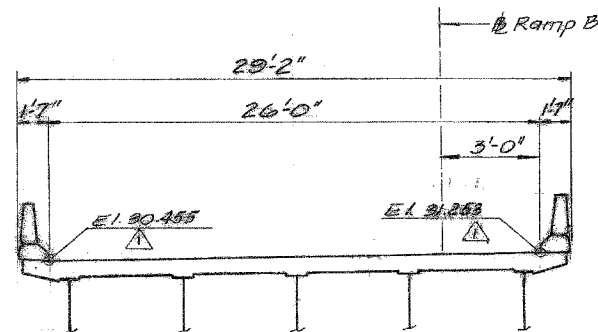
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



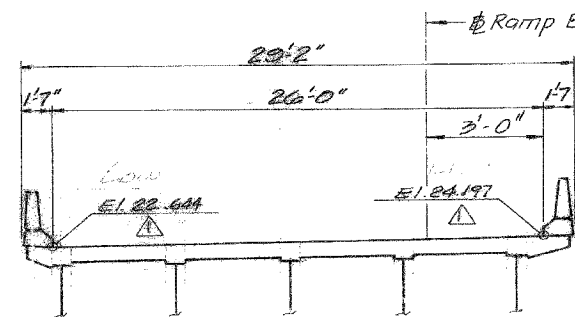
EXPANSION JOINT AT PIER No. B11
4 in. NEOPRENE EXP. JOINT



EXPANSION JOINT AT PIER No. B15
4 in. NEOPRENE EXP. JOINT



EXPANSION JOINT AT PIER No. B16
4 in. PREFORMED JOINT SEAL



EXPANSION JOINT AT ABUTMENT No. B16
2 1/2 in. PREFORMED JOINT SEAL

- Notes:
1. All dimensions are along Centerline of Joint.
 2. For Details see sheet TJ2 & TJ3.
 3. All sections looking up station.

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SHEET H26 OF H53

REVISIONS	NAME	DATE

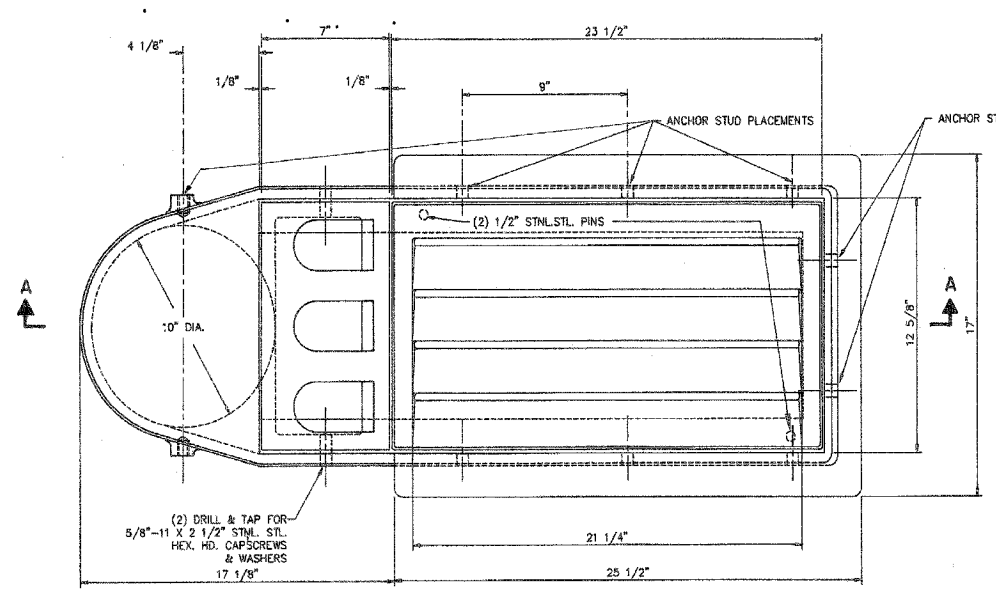
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1965-077 BR - COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
STRUCTURE 016-1140 (RAMP B)
TRANSVERSE DECK JOINT ELEVATION
Scale: NONE
Date: AUG. 1998
Drawn By: K.W.T.
Checked By: M.E.H.
ENVIRONMENTAL ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

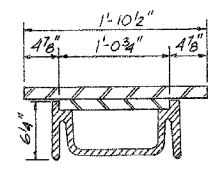
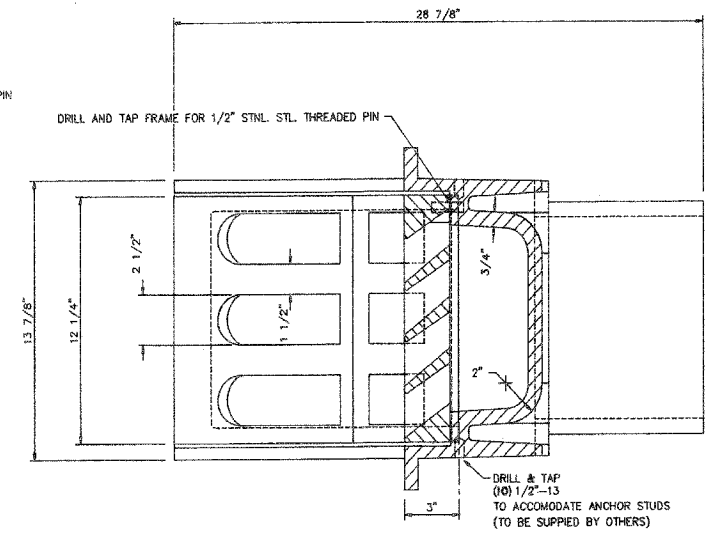
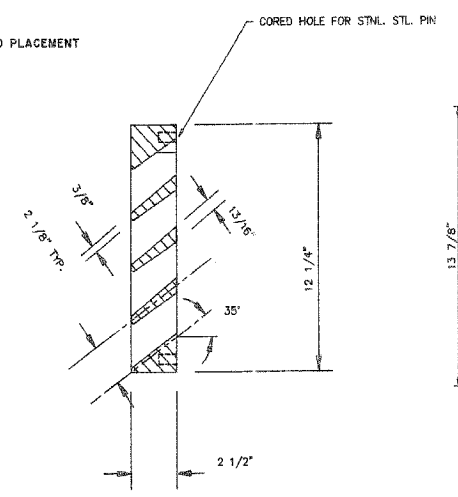
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SN 016-1140

SCALE: NTS
DATE: 7/22/2005
DRAWN BY: BOC
CHECKED BY: BLU

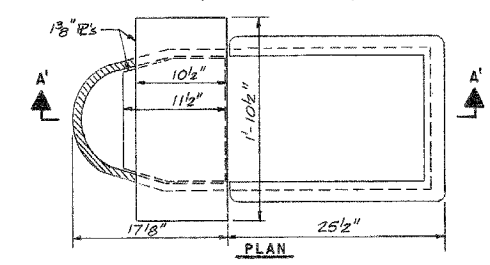
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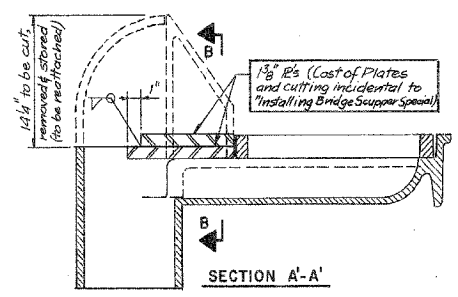
PLAN



SECTION B-B



PLAN



SECTION A-A

BRIDGE SCUPPER - SPECIAL

ALL MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE SUPPLY CONTRACT (SECTION 1988-004 I), UNLESS NOTED OTHERWISE.

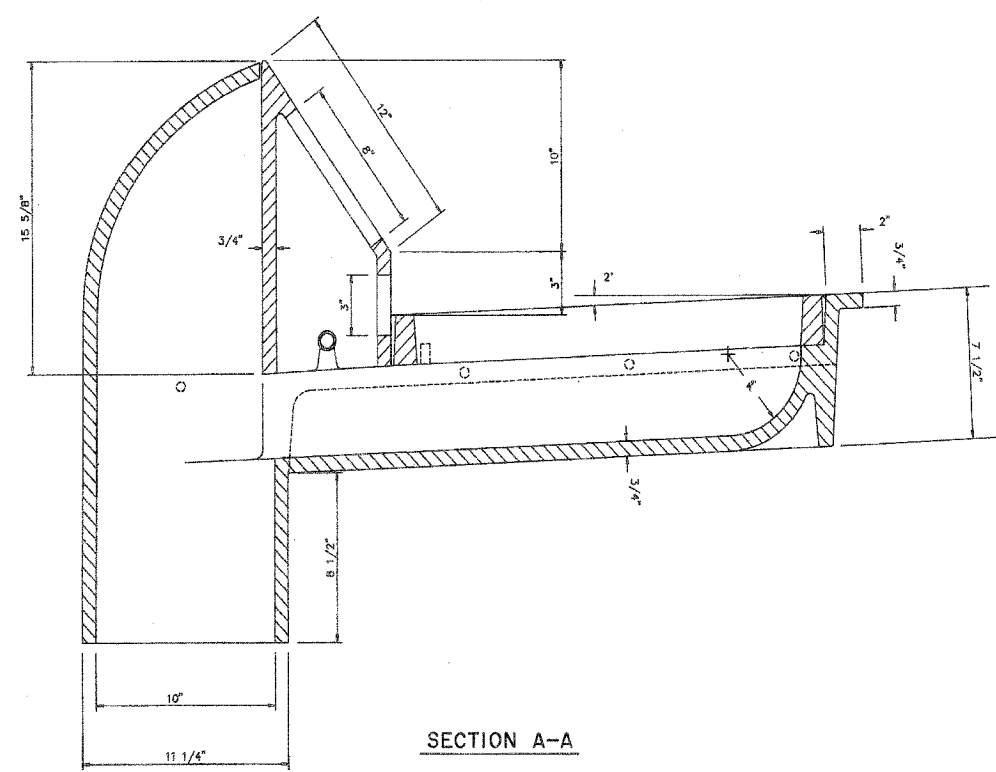
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NONE

SHEET BS 4 OF BS 6

BRIDGE SCUPPER - TYPE "A"

NF-0332 445
ESTIMATED WEIGHT 512 #

SCHEDULE OF QUANTITIES	
STRUCTURE	No. REQUIRED
01E-0137	10
01E-1110	8
01E-1111	11
01E-1112	26
01E-1113	3
01E-1114	0
01E-1070	0
01E-1115	8
01E-1140	2
01E-1047	2
01E-1116	8
01E-1117	27
01E-1118	2
TOTAL	107



SECTION A-A

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY) SECTION 1985-077 B-R - COOK COUNTY N.B. MAINLINE RECONSTRUCTION SCUPPERS - ALL STRUCTURES BRIDGE SCUPPER TYPE A Scale: NONE Date: AUGUST 1998 Drawn By: R.E.P. Checked By: W.R.K. ENVIRONMENTAL ENGINEERS INC. Chicago, Illinois
Name	Date	

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SCUPPER DETAILS - TYPE A
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

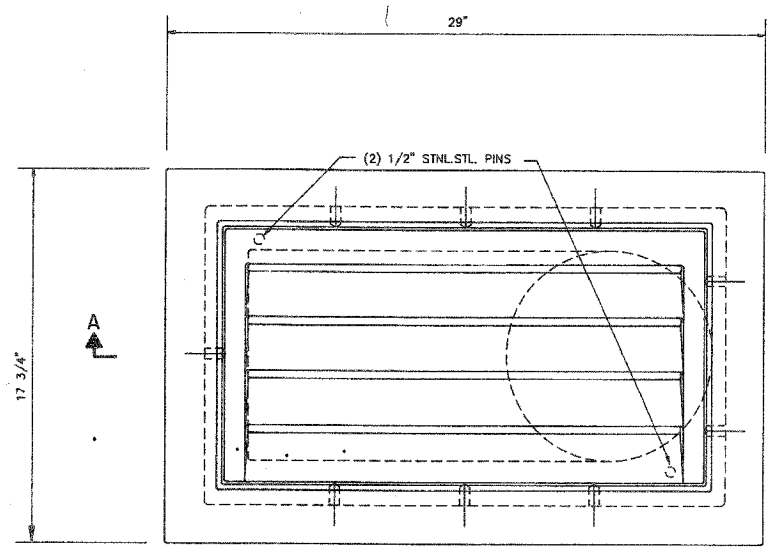
FOR INFORMATION ONLY

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 CONSULTING ENGINEERS
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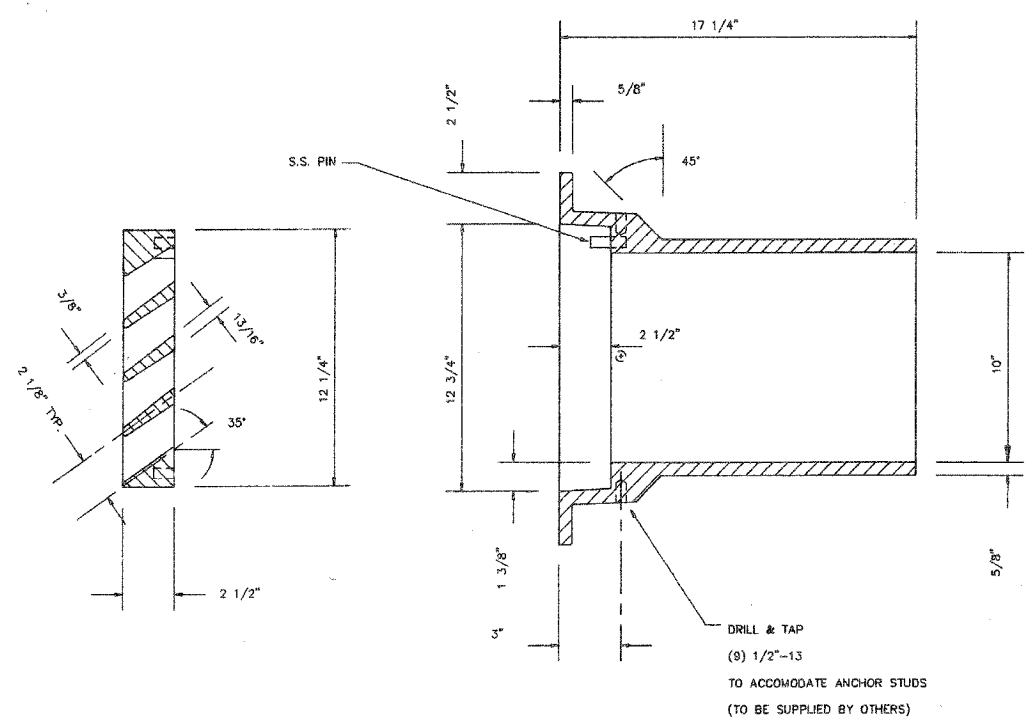
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	382
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580



PLAN

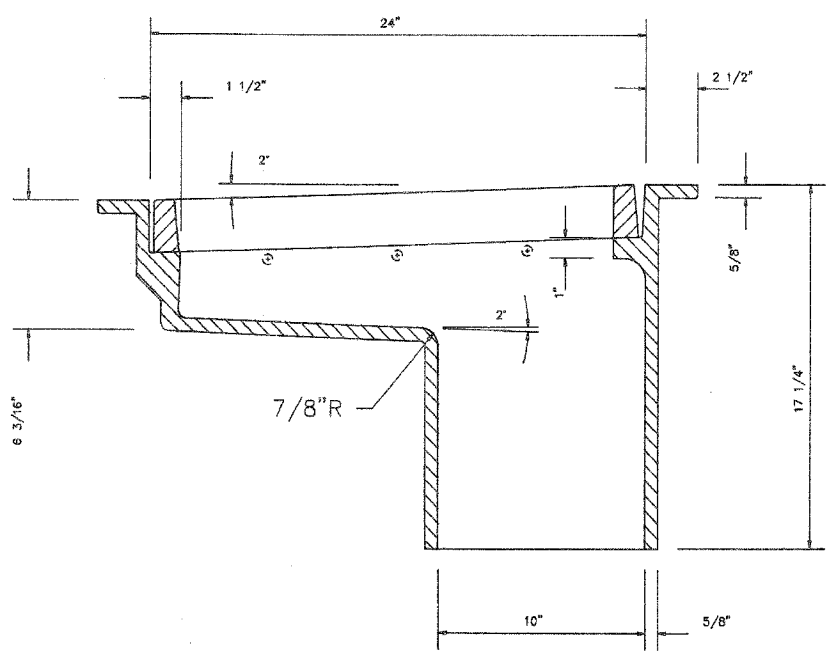


BRIDGE SCUPPER - TYPE "B"
NF-0332 435
ESTIMATED WEIGHT 235 #

SCHEDULE OF QUANTITIES	
STRUCTURE	No. REQUIRED
016-C137	0
016-I-10	0
016-I-11	0
016-I-12	1
016-I-13	2
016-I-14	10
016-1070	0
016-I-15	3
016-I-140	0
016-I-147	0
016-I-116	0
016-I-117	7
016-I-118	3
TOTAL	26

ALL MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE SUPPLY CONTRACT (SECTION 1988-004 I), UNLESS NOTED OTHERWISE.

MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NONE



SECTION A-A

SHEET B55 OF B56

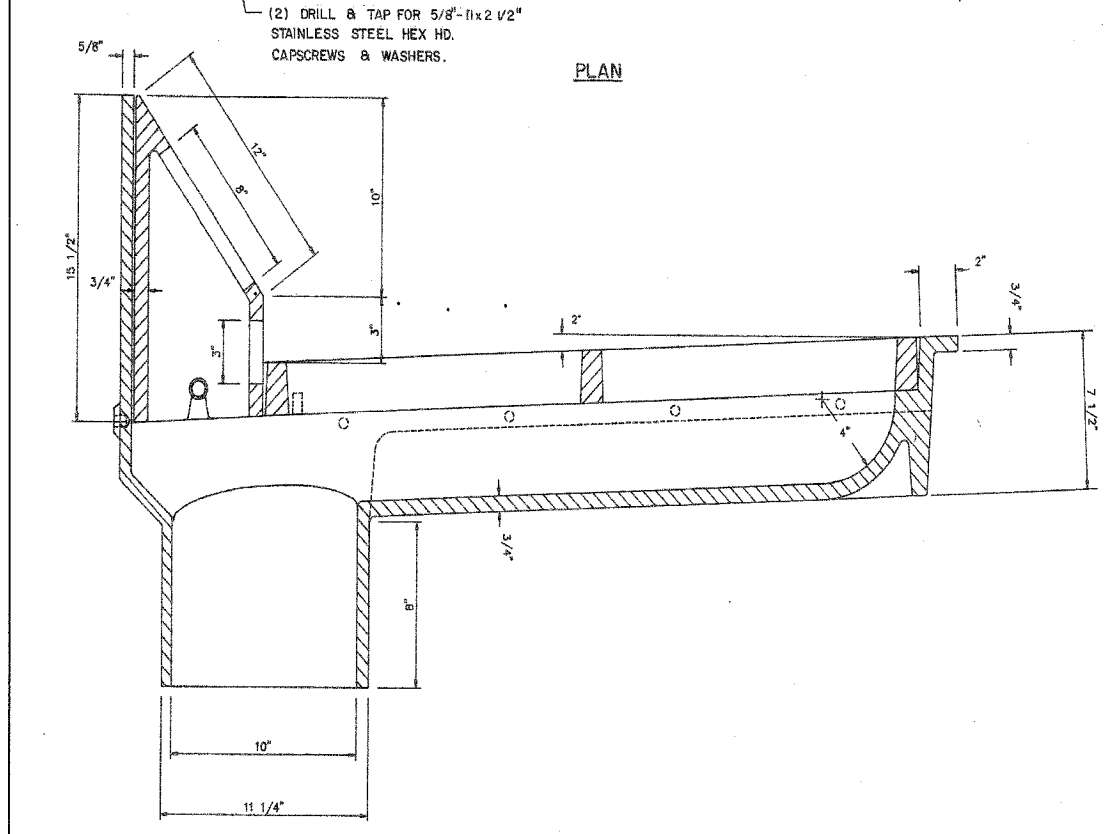
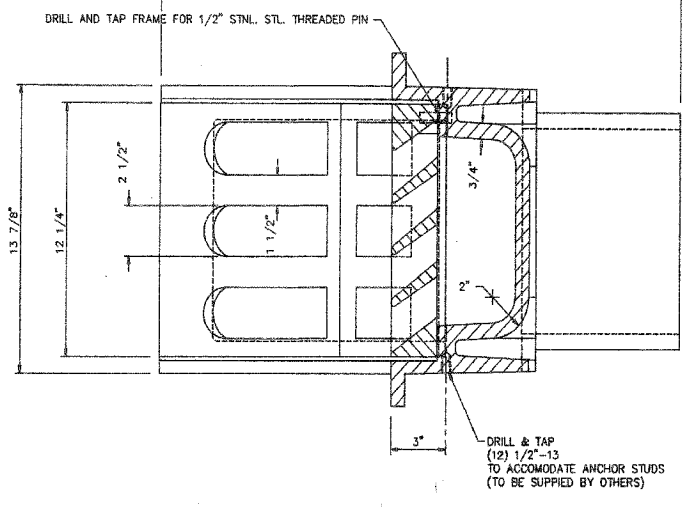
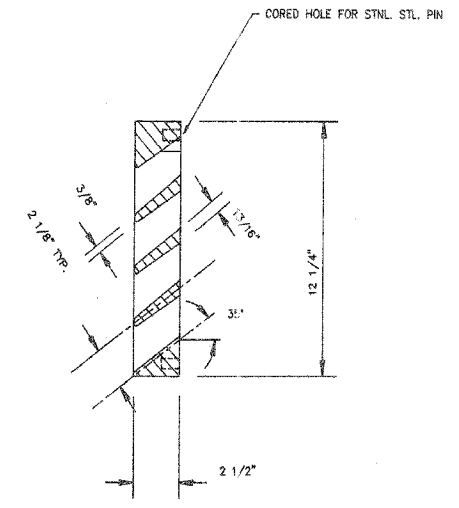
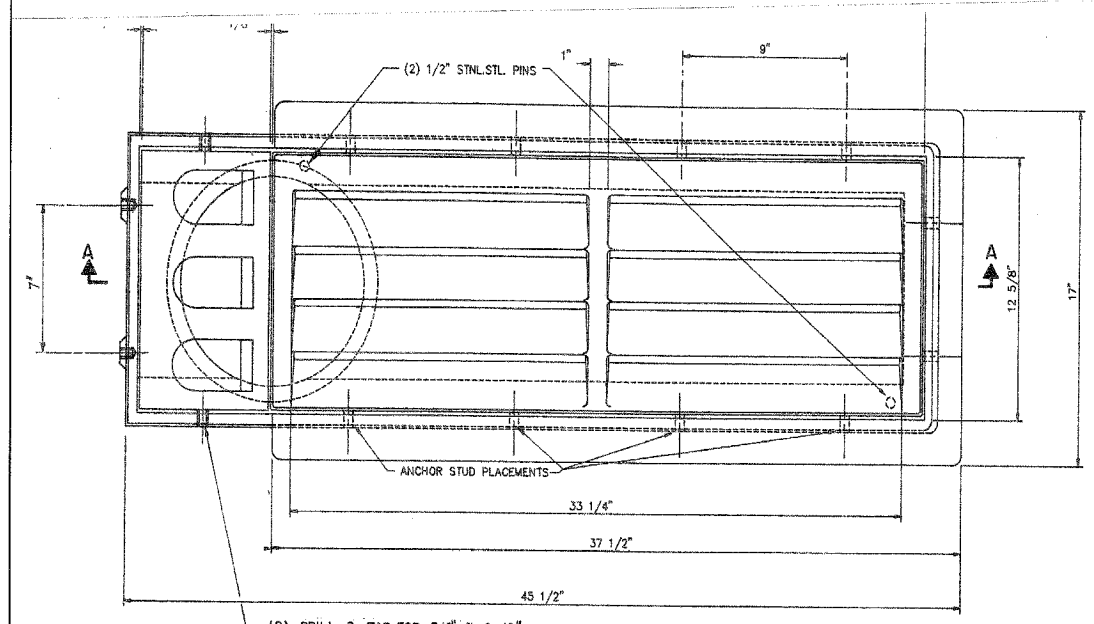
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
SECTION 1985-0779-R - COOK COUNTY
N.B. MAINLINE RECONSTRUCTION
SCUPPERS - ALL STRUCTURES
BRIDGE SCUPPER TYPE B
Scale: NONE Drawn By: R.E.P.
Date: AUGUST, 1988 Checked By: W.P.K.
ENVIRODINE ENGINEERS INC.
Chicago, Illinois

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
EXISTING PLAN INFORMATION
SCUPPER DETAILS - TYPE B
SCALE: NTS DRAWN BY: BDC
DATE: 7/22/2005 CHECKED BY: BLU

FOR INFORMATION ONLY

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com



PLAN

SECTION A-A

BRIDGE SCUPPER - TYPE "C"
 NF - 0332 440
 ESTIMATED WEIGHT 623*

SCHEDULE OF QUANTITIES	
STRUCTURE	No. REQUIRED
016 - 0137	11
016 - 1110	11
016 - 1111	12
016 - 1112	12
016 - 1113	12
016 - 1114	0
016 - 1070	4
016 - 1115	20
016 - 1140	2
016 - 1047	1
016 - 1116	8
016 - 1117	0
016 - 1118	16
TOTAL	109

ALL MATERIALS SHOWN ON THIS SHEET ARE FURNISHED UNDER A SEPARATE SUPPLY CONTRACT (SECTION 1968-004 1), UNLESS NOTED OTHERWISE.

MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
 FINISH: NONE

SHEET BS6 OF BS6

REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)
 SECTION 1985-077 B-R — COOK COUNTY
 N.B. MAINLINE RECONSTRUCTION
 SCUPPERS - ALL STRUCTURES
 BRIDGE SCUPPER TYPE C
 Scale: NONE
 Date: AUGUST, 1988
 Drawn By: R.E.P.
 Checked By: W.R.K.
ENVIRODYNE ENGINEERS INC.
 Chicago, Illinois

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 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.9100
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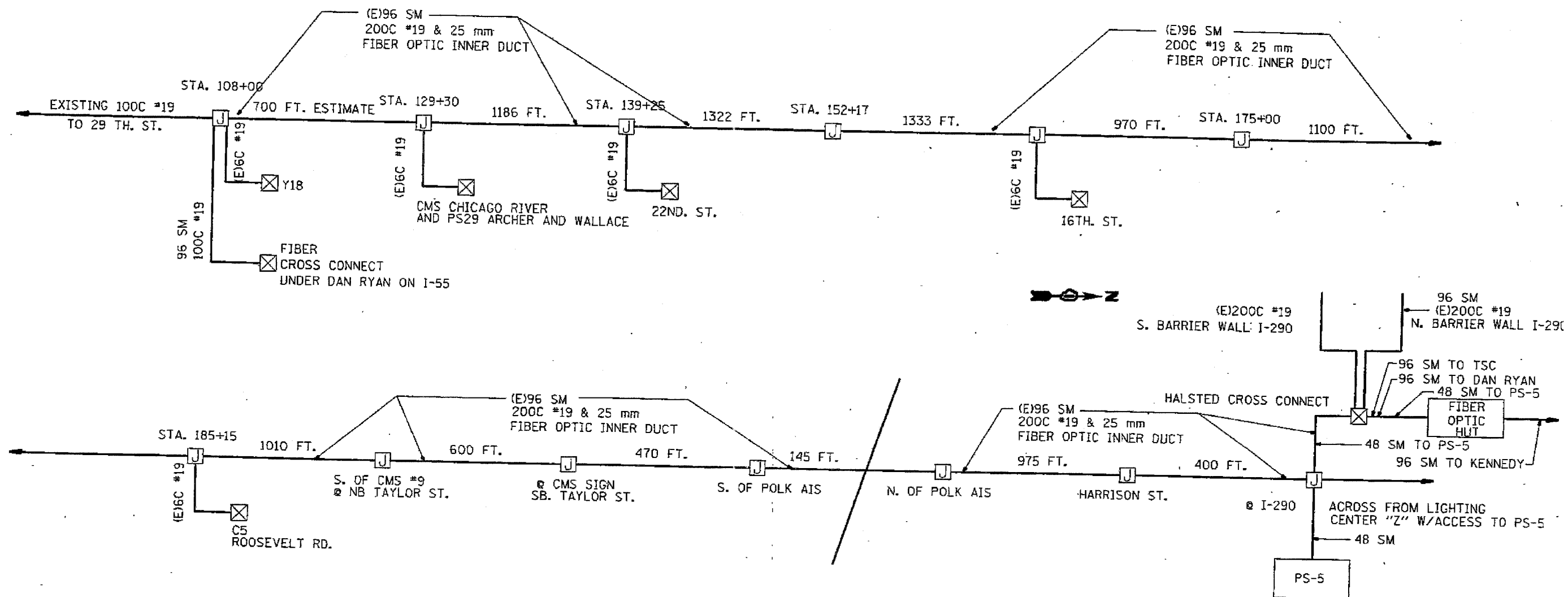
FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING PLAN INFORMATION
 SCUPPER DETAILS - TYPE C
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: BDC
 CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	384
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



- NOTES:**
- 1.- DIMENSIONS TAKEN W/WHEEL IN LANE CLOSURE W/CITY LIGHTS FOR I-55 4P CONTRACT.
 - 2.- 4 " PVC WILL BE POPULATED W/200C #19 AND 1-EMPTY 1" FIBER INNERDUCTS AND 96 SM FIBER TO I-55.

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FOR INFORMATION ONLY

REVISIONS	NAME	DATE

TSC1

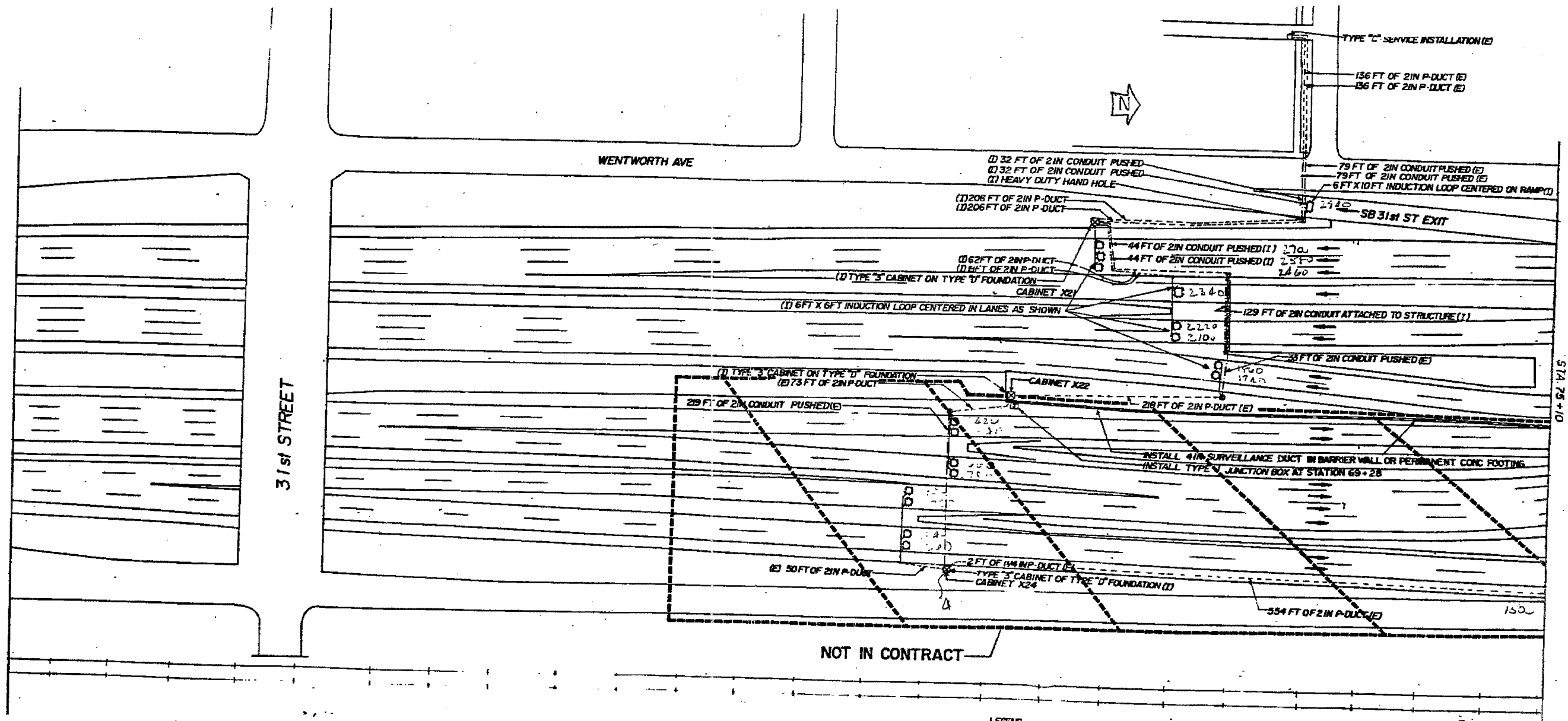
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
TRAFFIC SURVEILLANCE
LINE DIAGRAM

SCALE: NTS
DATE: 7/22/2005

DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	365
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62580				



PLAN

- LEGEND**
- ☒ TSC CABINET
 - INDUCTION LOOP
 - POLYETHYLENE DUCT
 - G S CONDUIT
 - HANDHOLE
 - HEAVY DUTY HANDHOLE
 - PULL POINT
 - (E) EXISTING
 - (I) INSTALL

FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

TSC2

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH STREET TO 28TH STREETS
 29TH STREET
 INSTALLATION

SCALE: NTS
 DATE: 7/22/2005

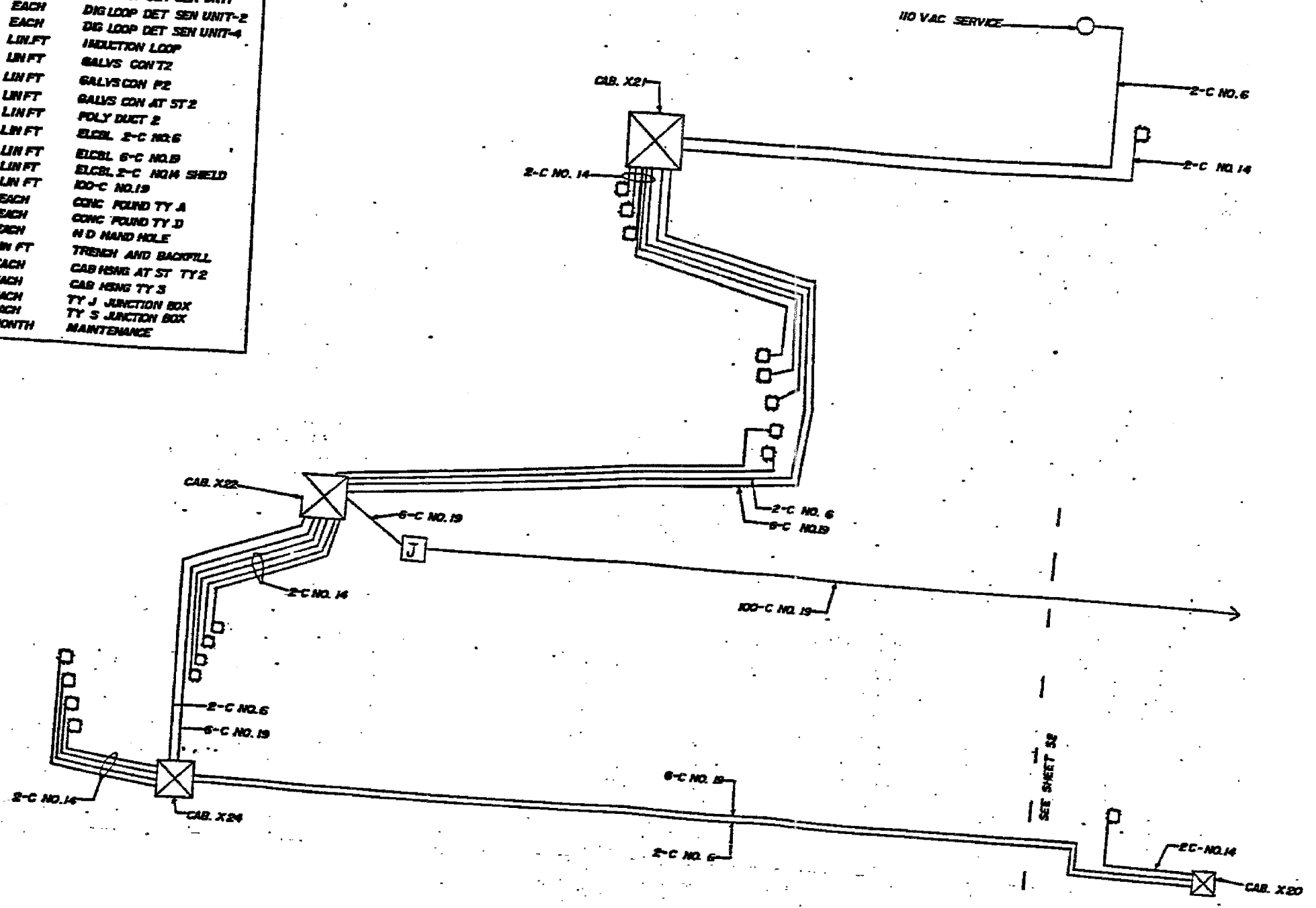
DRAWN BY: MR
 CHECKED BY: BLU

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TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	386
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				

- EACH TONE EQ 3 FRED MIN TRANS
- EACH TONE EQ 3 FRED TRANS
- EACH TONE EQ 3 FRED REC
- EACH TONE EQ 3 POWER SUPPLY
- EACH TONE EQ MOUNT FRAME
- EACH IND LOOP DET SEN UNIT
- EACH DIG LOOP DET SEN UNIT-2
- EACH DIG LOOP DET SEN UNIT-4
- LN FT INDUCTION LOOP
- LN FT GALVS CON T2
- LN FT GALVS CON P2
- LN FT GALVS CON AT ST 2
- LN FT POLY DUCT 2
- LN FT ELCBL 2-C NO.6
- LN FT ELCBL 6-C NO.19
- LN FT ELCBL 2-C NO.14 SHIELD
- LN FT 100-C NO.19
- EACH CONC FOUND TY A
- EACH CONC FOUND TY D
- EACH HD HAND HOLE
- LN FT TRENCH AND BACKFILL
- EACH CAB HNG AT ST TY 2
- EACH CAB HNG TY 3
- EACH TY J JUNCTION BOX
- EACH TY S JUNCTION BOX
- MONTH MAINTENANCE



FOR INFORMATION ONLY

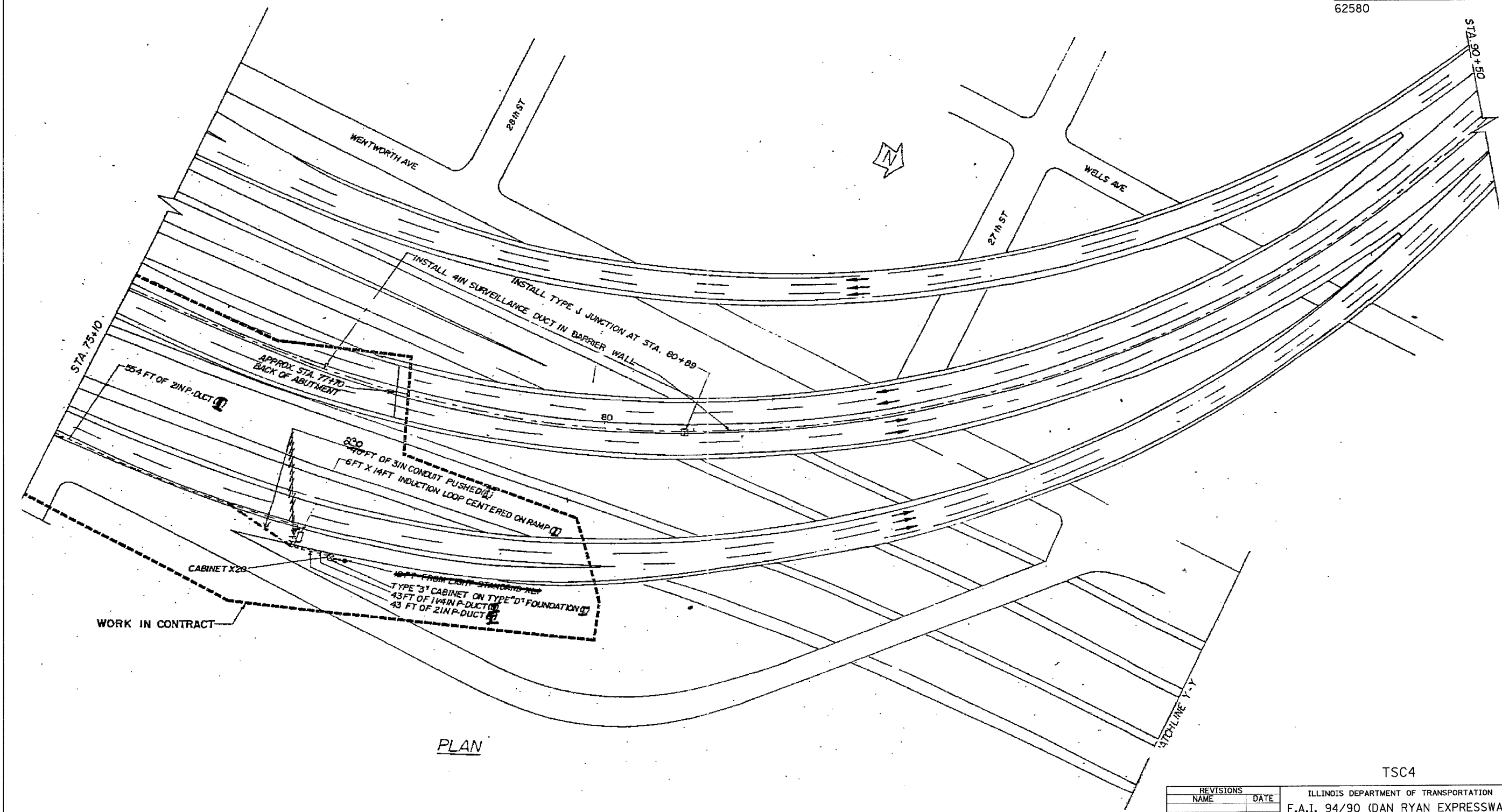
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
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REVISIONS	
NAME	DATE

TSC3
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
29TH STREET INSTALLATION
WIRE DIAGRAM
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	387
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



PLAN

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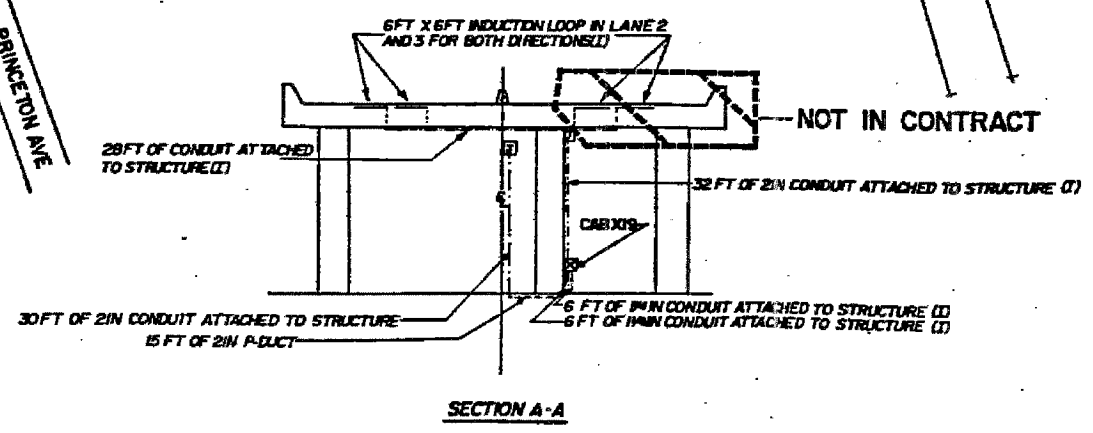
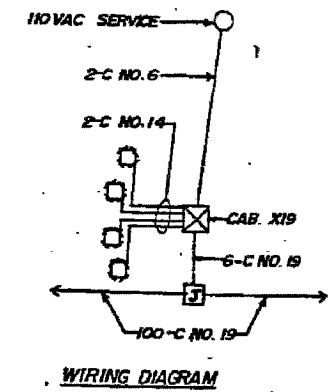
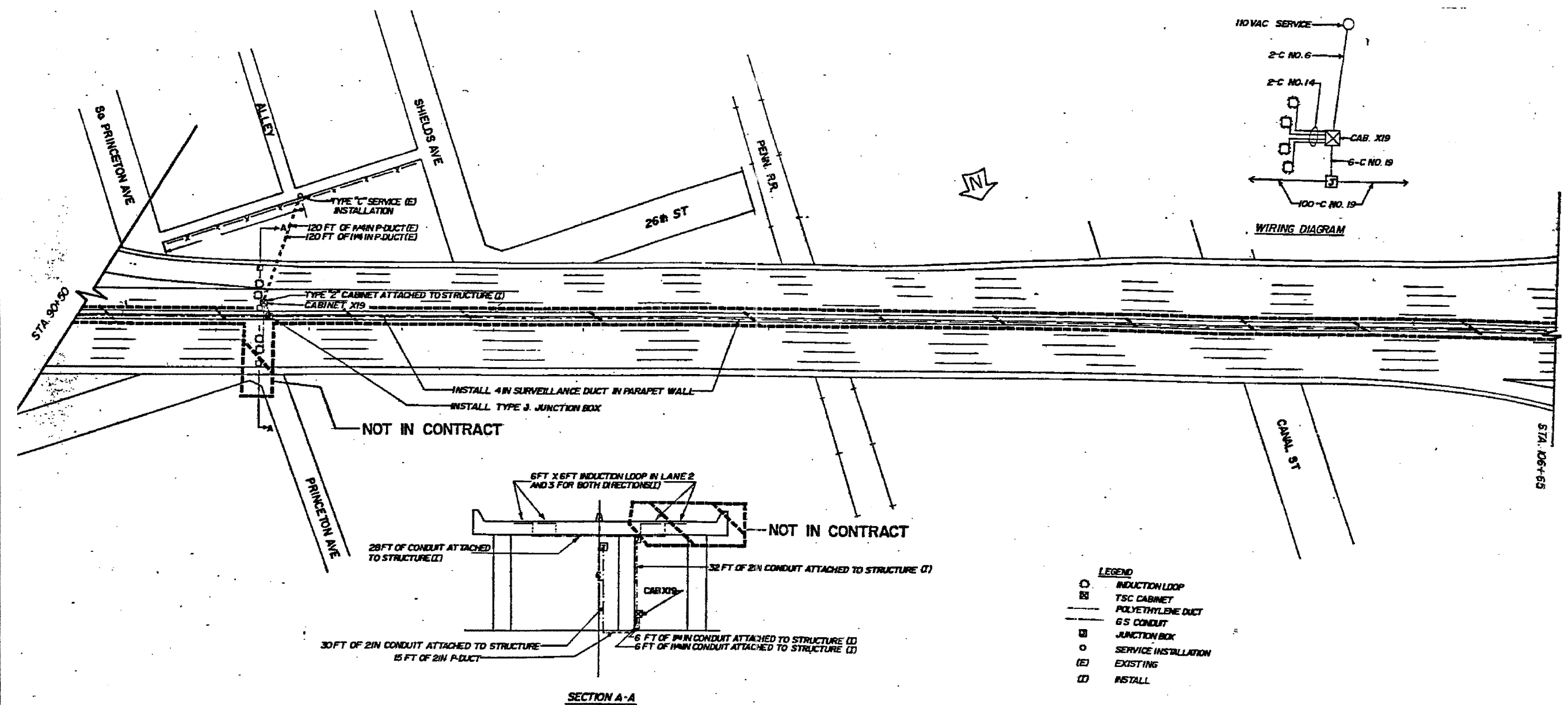
REVISIONS	NAME	DATE

TSC4
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 27th STREET
 INSTALLATION
 SCALE: N15
 DATE: 7/22/2005
 DRAWN BY: MR
 CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	388
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

62580



- LEGEND**
- INDUCTION LOOP
 - ⊞ TSC CABINET
 - POLYETHYLENE DUCT
 - GS CONDUIT
 - ⊞ JUNCTION BOX
 - SERVICE INSTALLATION
 - (E) EXISTING
 - (I) INSTALL

FOR INFORMATION ONLY

REVISIONS	NAME	DATE

TSC5

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 26th STREET
 INSTALLATION

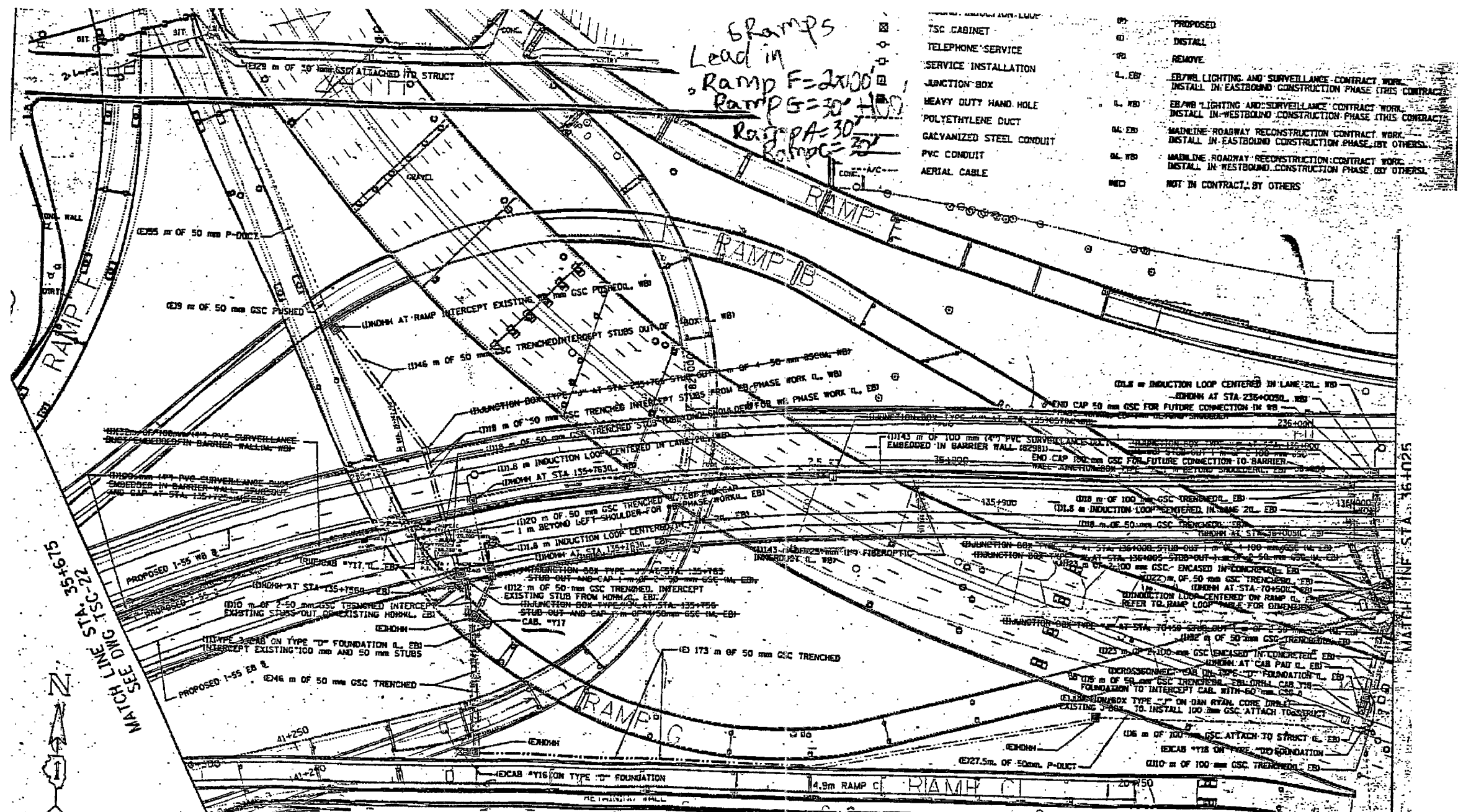
SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: MR
 CHECKED BY: BLU

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TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	369
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



TSC CABINET	PROPOSED
TELEPHONE SERVICE	INSTALL
SERVICE INSTALLATION	REMOVE
JUNCTION BOX	EB/WB LIGHTING AND SURVEILLANCE CONTRACT WORK INSTALL IN EASTBOUND CONSTRUCTION PHASE (THIS CONTRACT)
HEAVY DUTY HAND HOLE	EB/WB LIGHTING AND SURVEILLANCE CONTRACT WORK INSTALL IN WESTBOUND CONSTRUCTION PHASE (THIS CONTRACT)
POLYETHYLENE DUCT	MAINLINE ROADWAY RECONSTRUCTION CONTRACT WORK INSTALL IN EASTBOUND CONSTRUCTION PHASE BY OTHERS
GALVANIZED STEEL CONDUIT	MAINLINE ROADWAY RECONSTRUCTION CONTRACT WORK INSTALL IN WESTBOUND CONSTRUCTION PHASE BY OTHERS
PVC CONDUIT	NOT IN CONTRACT BY OTHERS
AERIAL CABLE	

- NOTES:**
1. ALL DAN RYAN BARRIER WALL JUNCTION BOXES HAVE ACCESS FROM NB LANES.
 2. REMOVE DAN RYAN 100C #19 TELE COM CABLE FROM JUNCTION BOX AT CAB #18 TO CROSSCONNECT AT HALSTED AND I-290 (L, EB).
 3. REMOVE TYPE 66 CONNECTION BLOCKS FROM DAN RYAN J-BOXES FROM J-BOX AT #18 TO LAST J-BOX AT I-290 AND RYAN INTERCHANGE (L, EB).
 4. REMOVE EXISTING CAB. #17 AND RETURN TO STATE ELECTRICAL MAINTENANCE CONTRACTOR (L, EB).
 5. INSTALL 200C #19 TELECOM CABLE FROM J-BOX AT #18 TO CROSSCONNECT AT HALSTED AND I-290 (L, EB). MAKE CONNECTIONS ON TYPE 66 CONNECTION BLOCKS IN CROSSCONNECT AT HALSTED AND I-290 (L, EB).
 6. SPLICE 200C #19 TO 6C #19'S AT EXISTING DAN RYAN J-BOXES W/LIB AND ULY SCOTH LOK CONNECTORS (L, EB).
 7. 50 mm AND 100 mm GSS STUBS OUT OF J-BOXES SHALL BE INCLUDED IN UNIT PRICE FOR JUNCTION BOX TYPE 141 (L, EB, M, WB).
 8. REFER TO NOTES 1 THROUGH 8 ON DRAWING TSC-24.

FOR INFORMATION ONLY

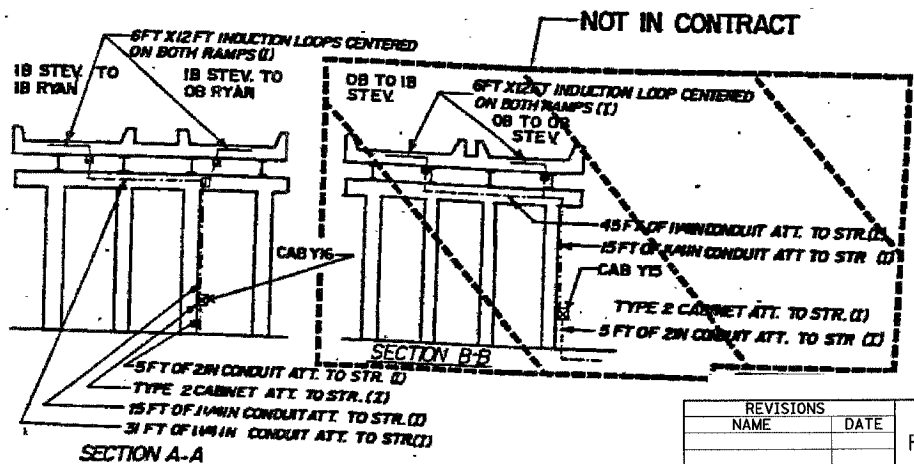
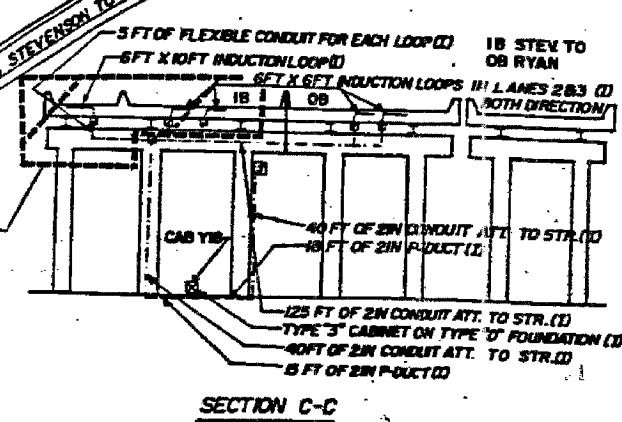
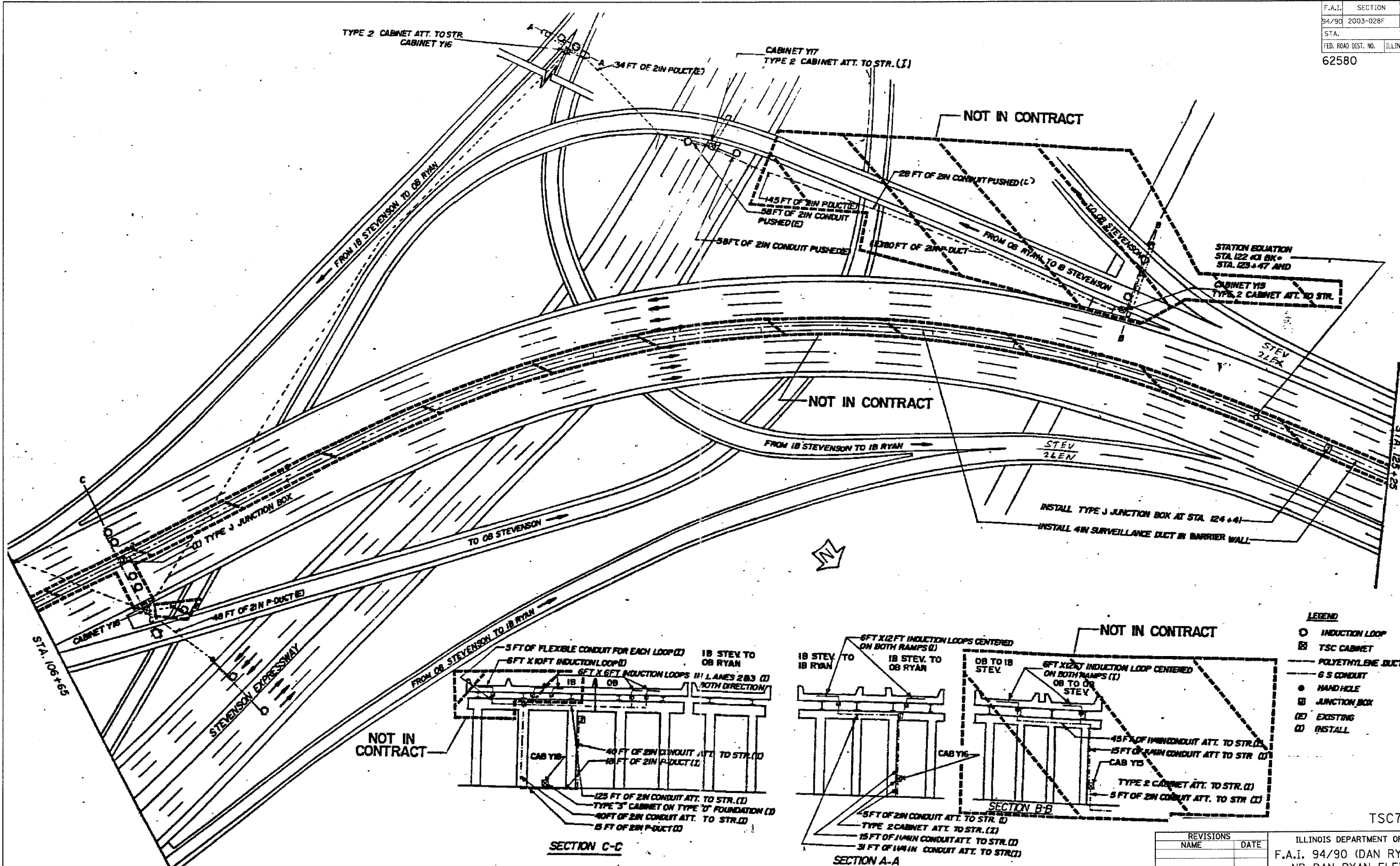
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REVISIONS	
NAME	DATE

TSC6
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
STA. 35+675 TO 35+025
TRAFFIC SURVEILLANCE PLAN
SCALE: NTS DRAWN BY: MR
DATE: 7/22/2005 CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	390
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



- LEGEND**
- INDUCTION LOOP
 - ⊠ TSC CABINET
 - POLYETHYLENE DUCT
 - 6 S CONDUIT
 - HAND HOLE
 - ⊠ JUNCTION BOX
 - (E) EXISTING
 - (I) INSTALL

TSC7

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 STEVENSON-RYAN INTERCHANGE

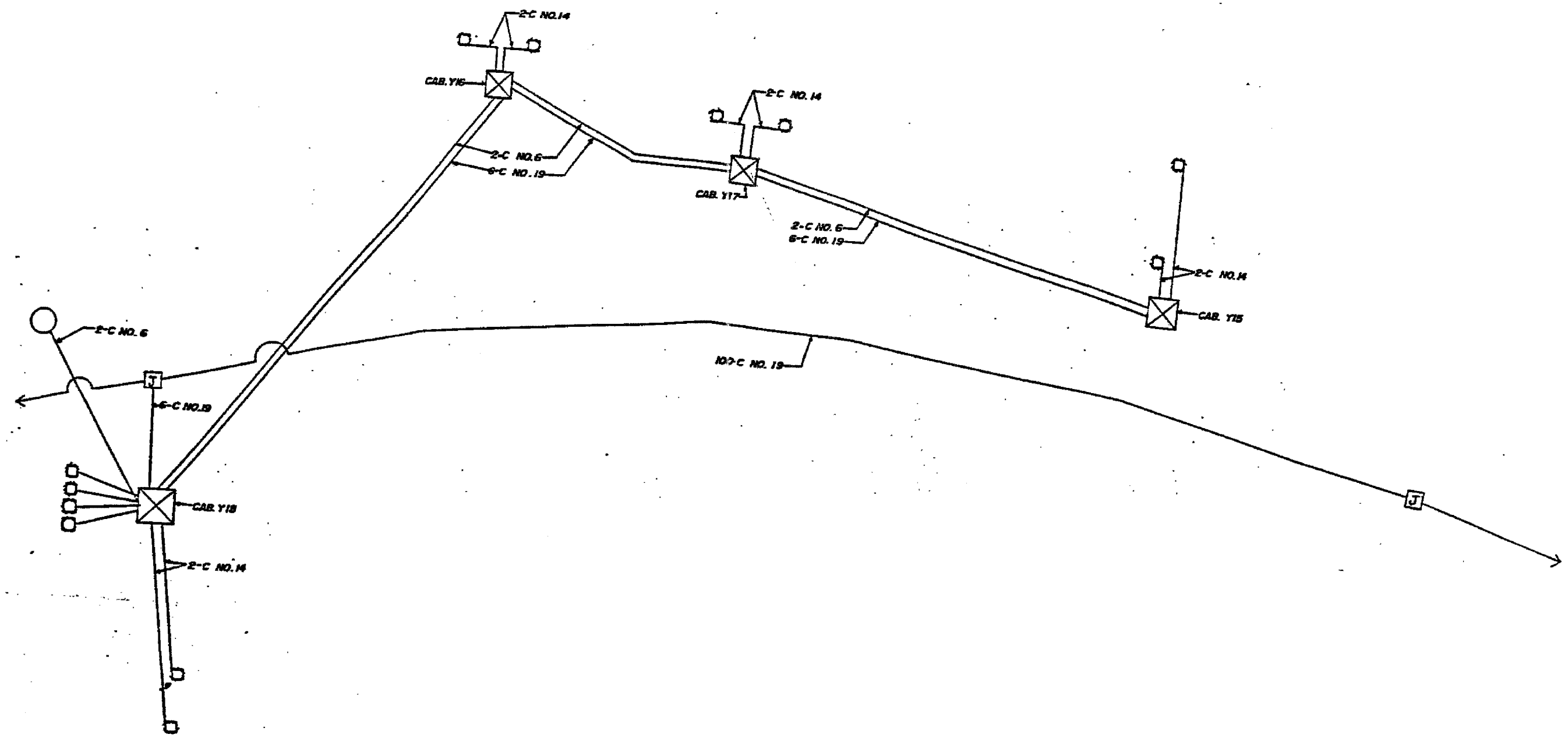
SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: MR
 CHECKED BY: BLU

FOR INFORMATION ONLY

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	391
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62580				



TSC8

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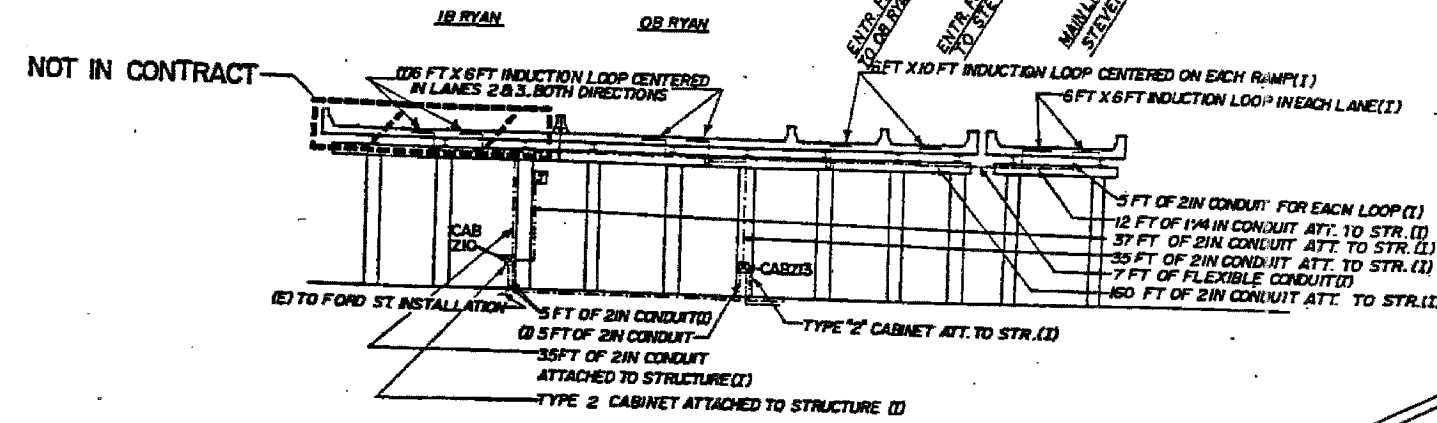
FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

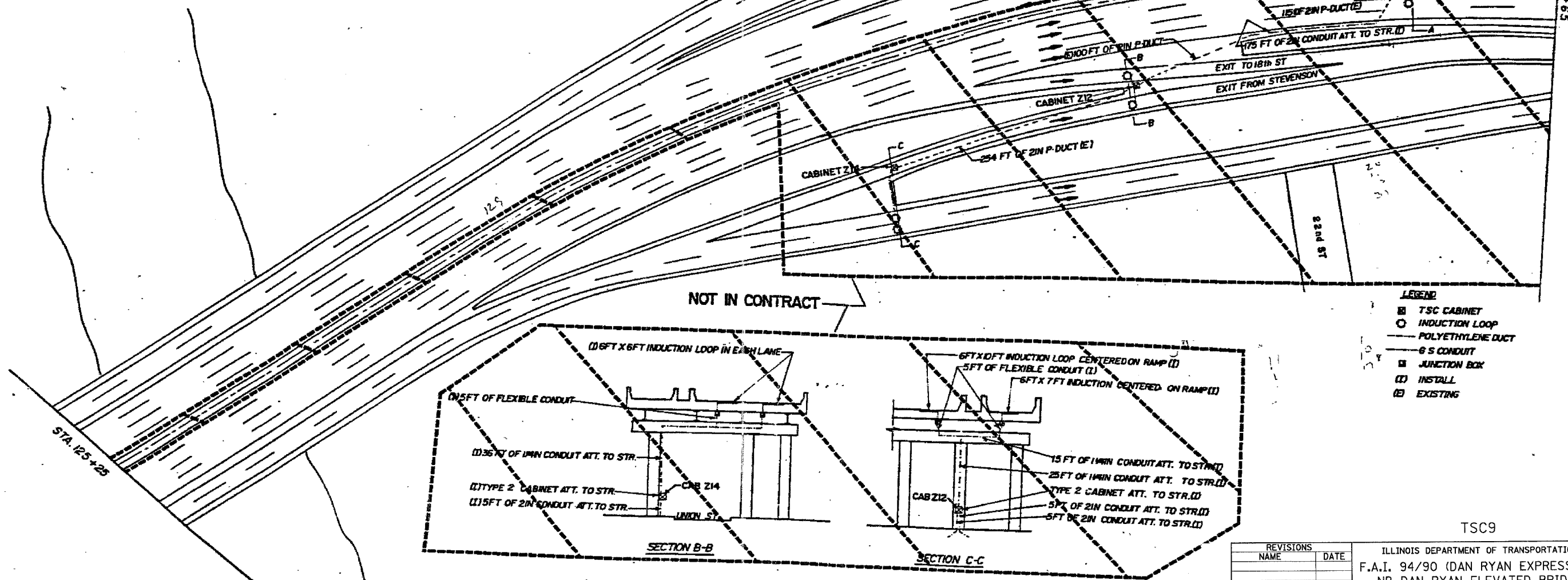
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
STEVENSON-RYAN
INTERCHANGE WIRE DIAGRAM
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	392
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62580				



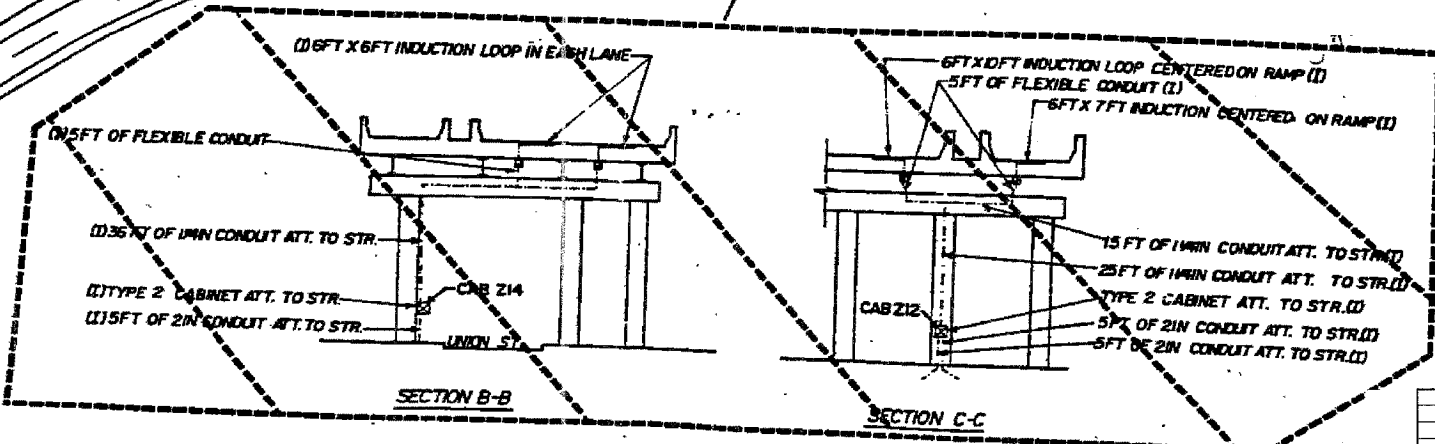
SECTION A-A



NOT IN CONTRACT

LEGEND

■	TSC CABINET
○	INDUCTION LOOP
—	POLYETHYLENE DUCT
—	6 S CONDUIT
□	JUNCTION BOX
(I)	INSTALL
(E)	EXISTING



SECTION B-B

SECTION C-C

FOR INFORMATION ONLY

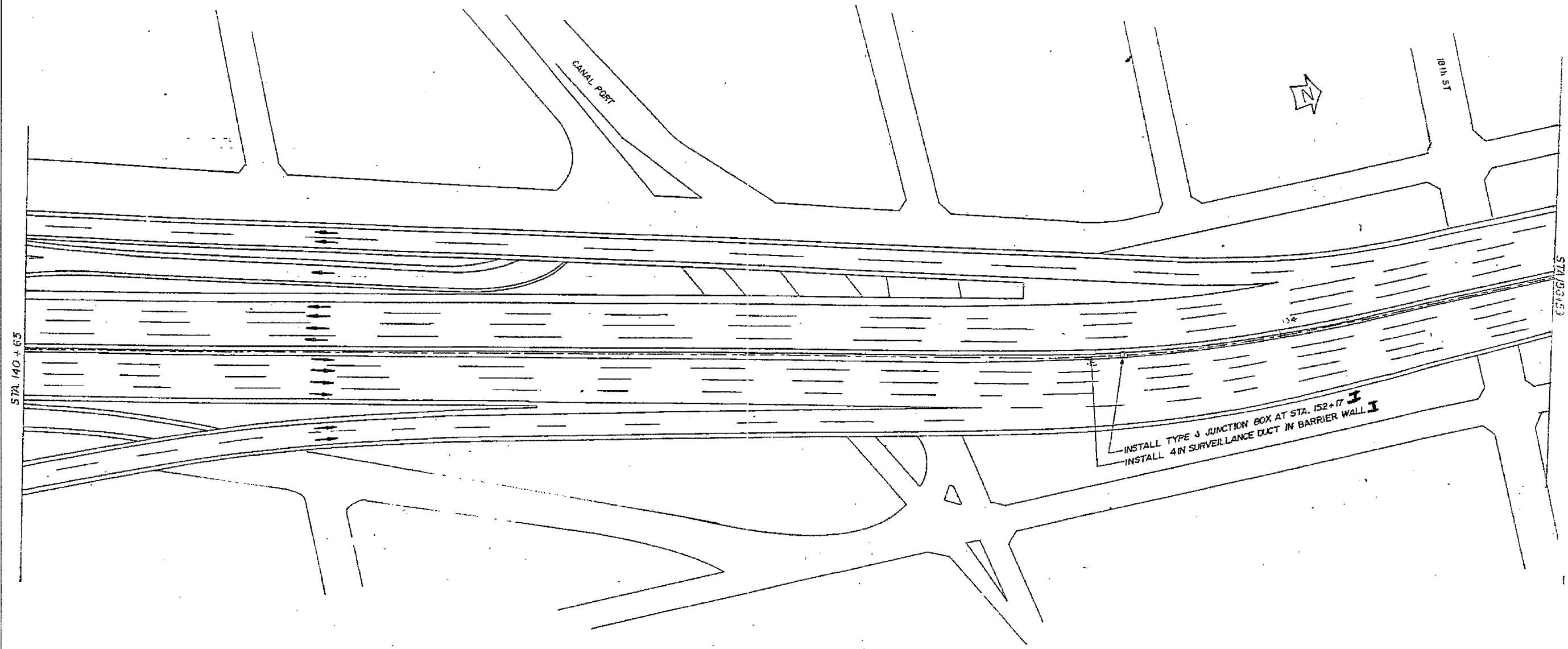
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REVISIONS	
NAME	DATE

TSC9
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
22nd STREET
INSTALLATION
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	393
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



STA 140 + 65

STA 153 + 53

INSTALL TYPE 3 JUNCTION BOX AT STA. 152+17
 INSTALL 4IN SURVEILLANCE DUCT IN BARRIER WALL

TSC10

FOR INFORMATION ONLY

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 CANALL PORT

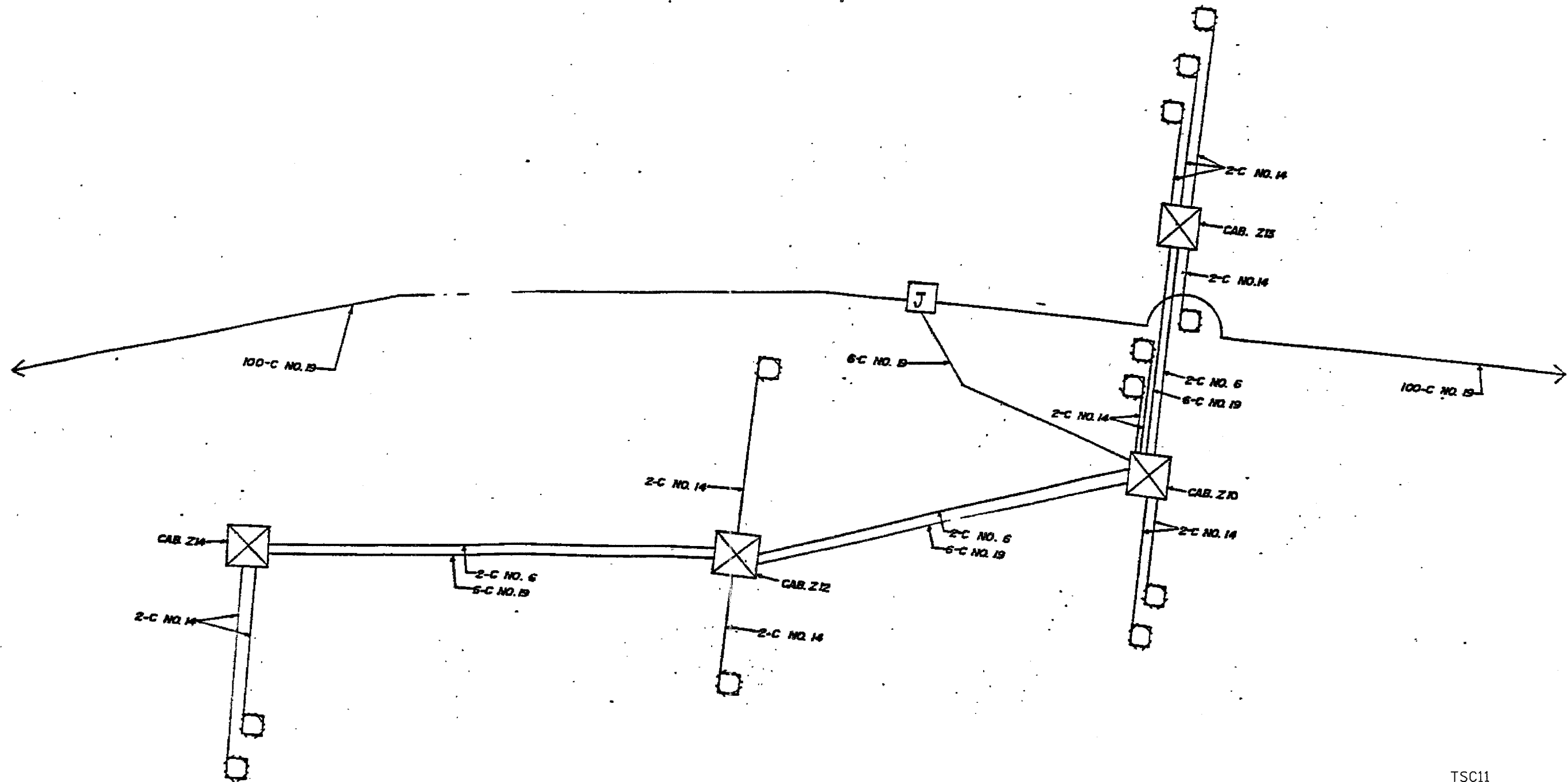
SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: MR
 CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	394
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62580



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REVISIONS	
NAME	DATE

TSC11

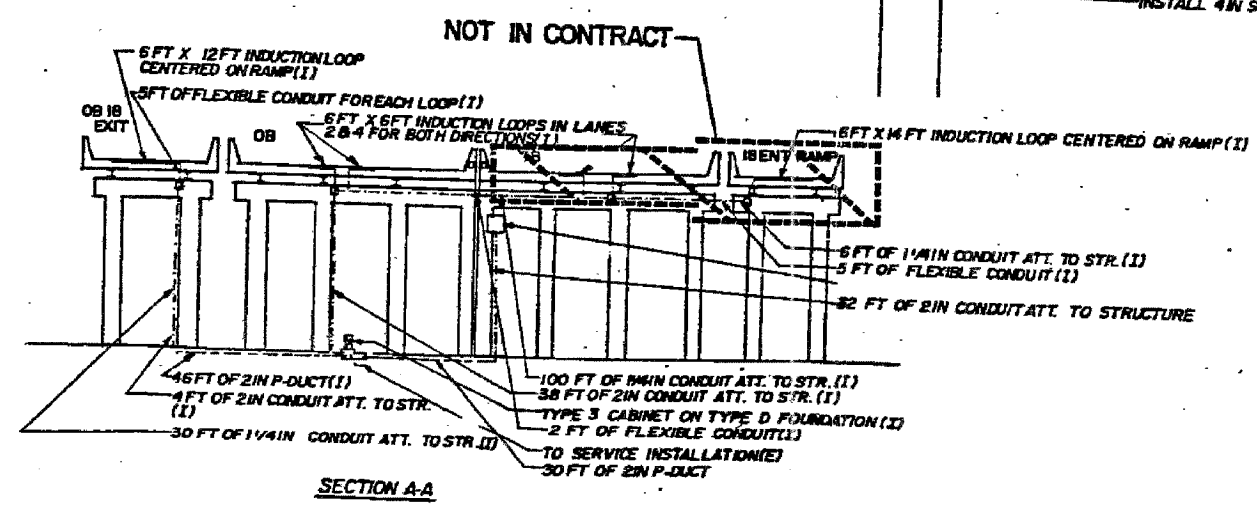
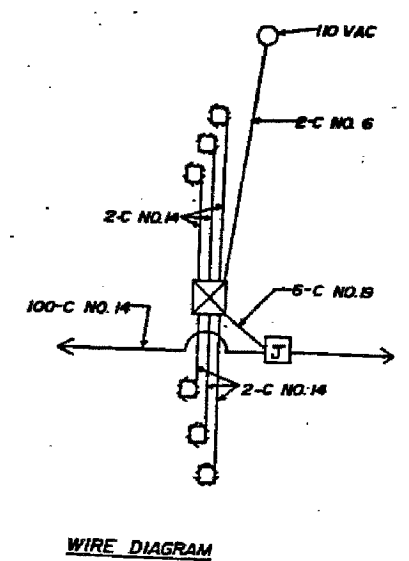
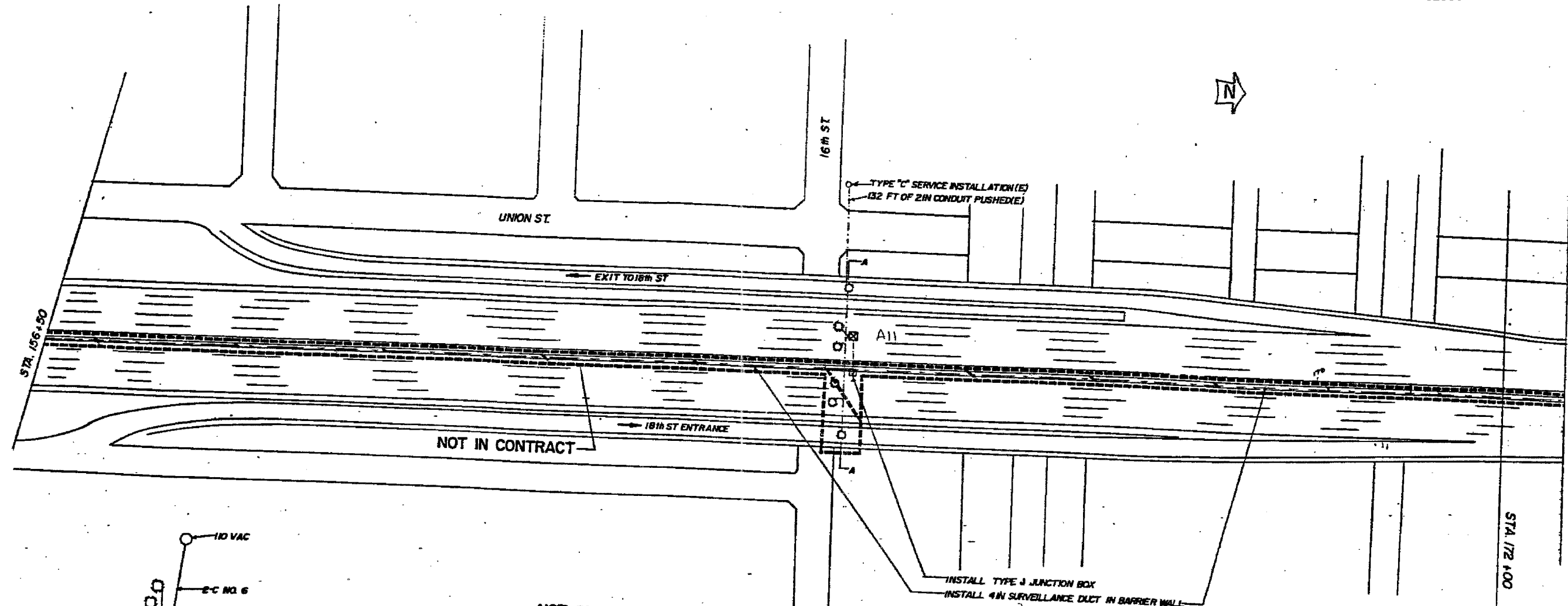
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
22nd ST. INSTALLATION
WIRE DIAGRAM

SCALE: NTS
DATE: 7/22/2005

DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	395
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62580				



- LEGEND**
- INDUCTION LOOP
 - T 3C CABINET
 - POLYETHYLENE DUCT
 - 6 S CONDUIT
 - JUNCTION BOX
 - SERVICE INSTALLATION
 - (I) INSTALL
 - (E) EXISTING

TSC12

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 16th STREET
 INSTALLATION

SCALE: NTS
 DATE: 7/22/2005

DRAWN BY: MR
 CHECKED BY: BLU

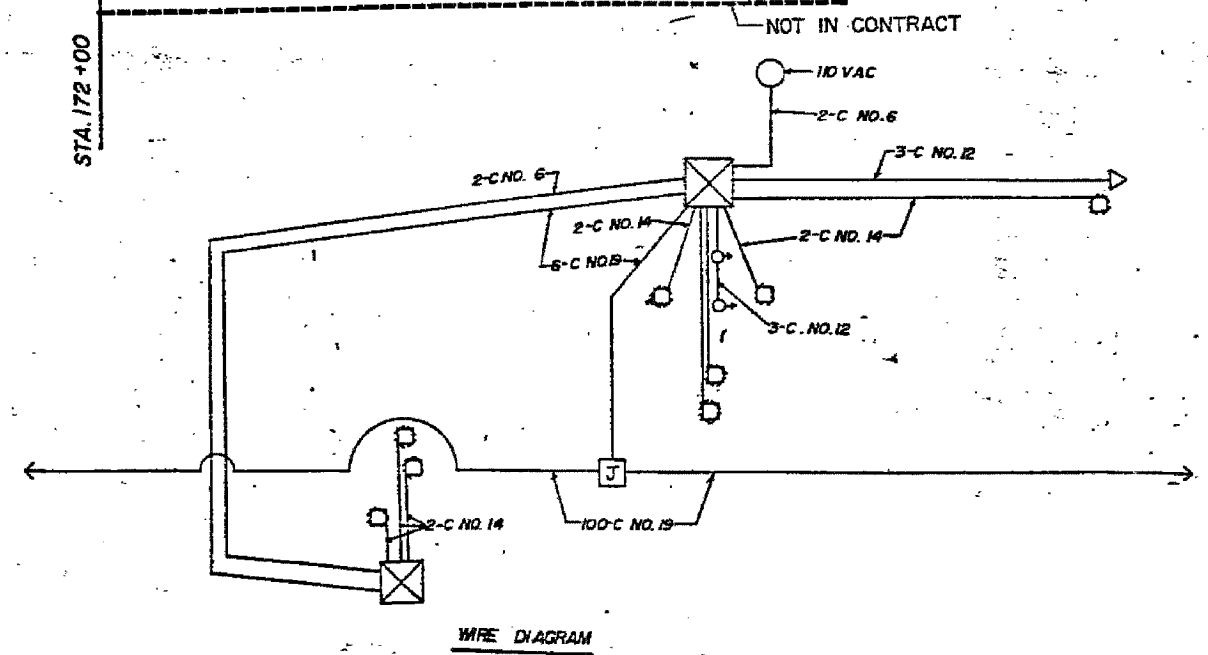
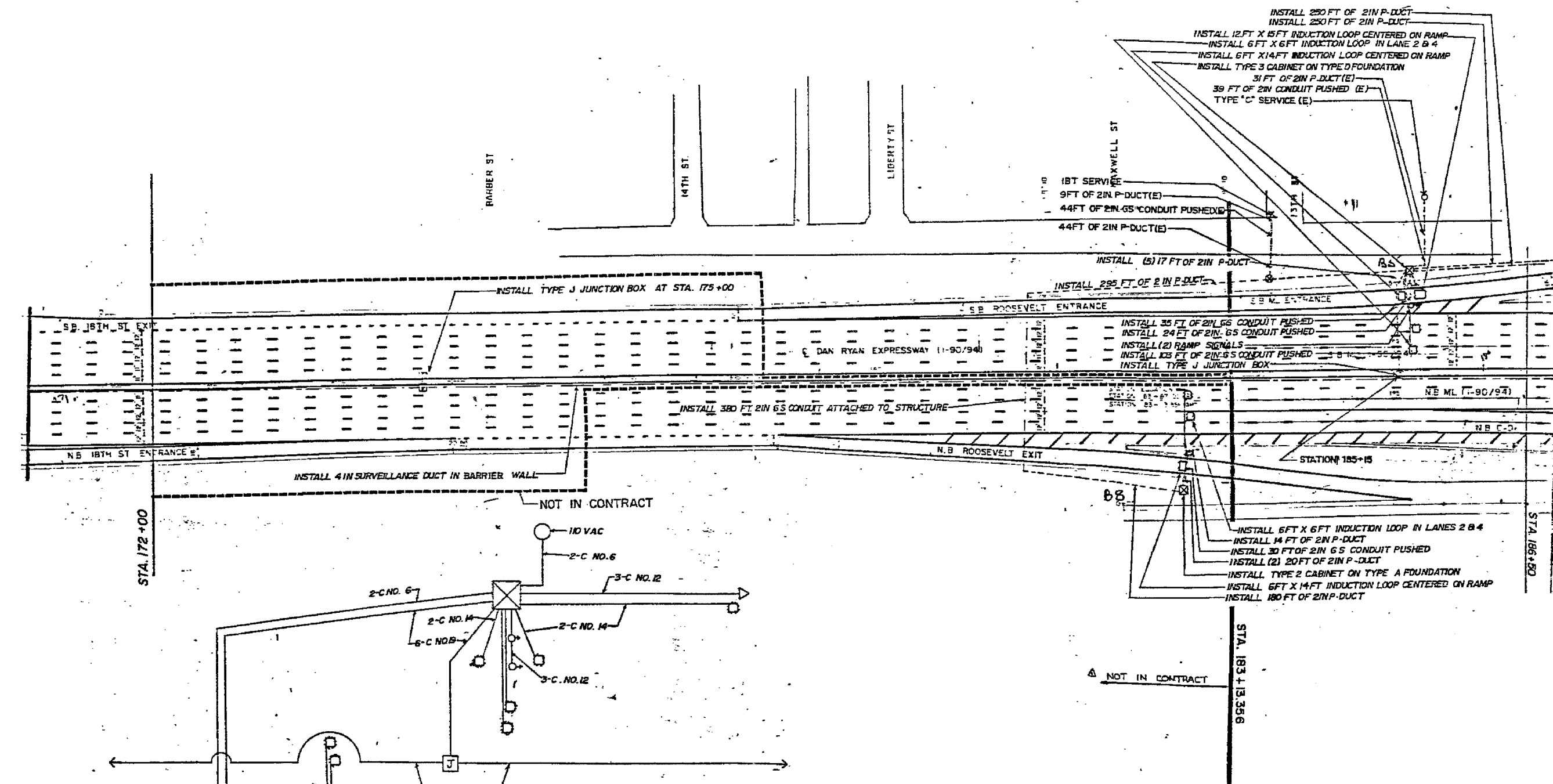
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TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	396
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

62580



WIRE DIAGRAM

FOR INFORMATION ONLY

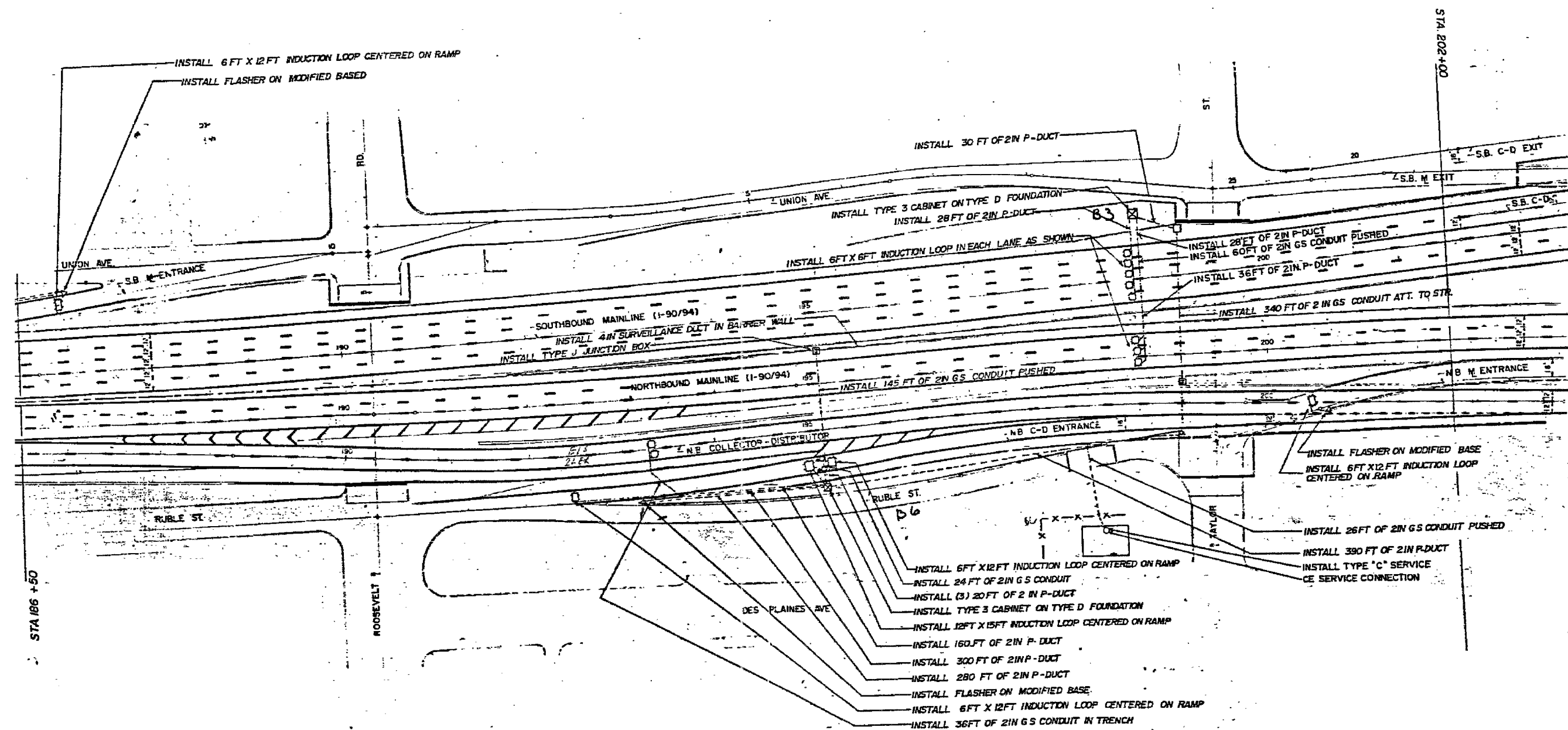
REVISIONS	
NAME	DATE

TSC13
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 ROOSEVELT ROAD
 INSTALLATION
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: MR
 CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	397
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62580				



TSC14

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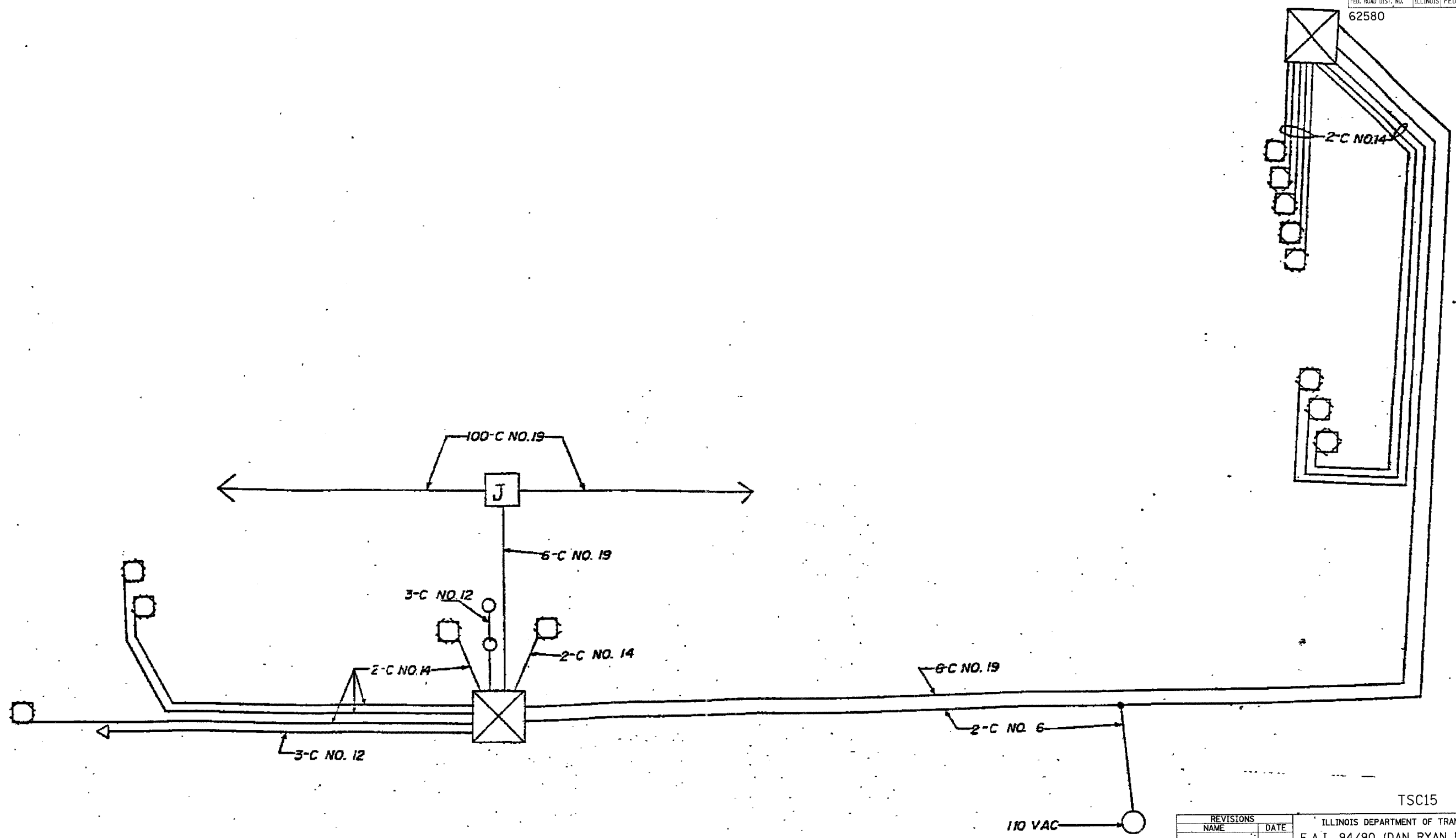
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
ROOSEVELT AND TAYLOR ST
INSTALLATION
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	398
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

62580



TSC15

FOR INFORMATION ONLY

REVISIONS	NAME	DATE

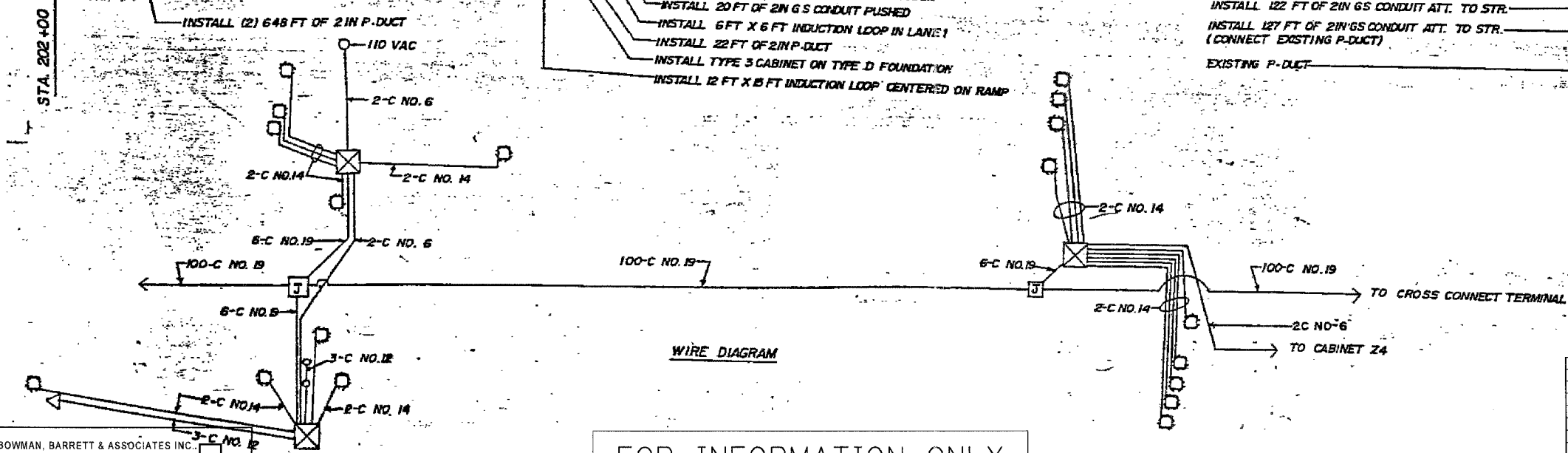
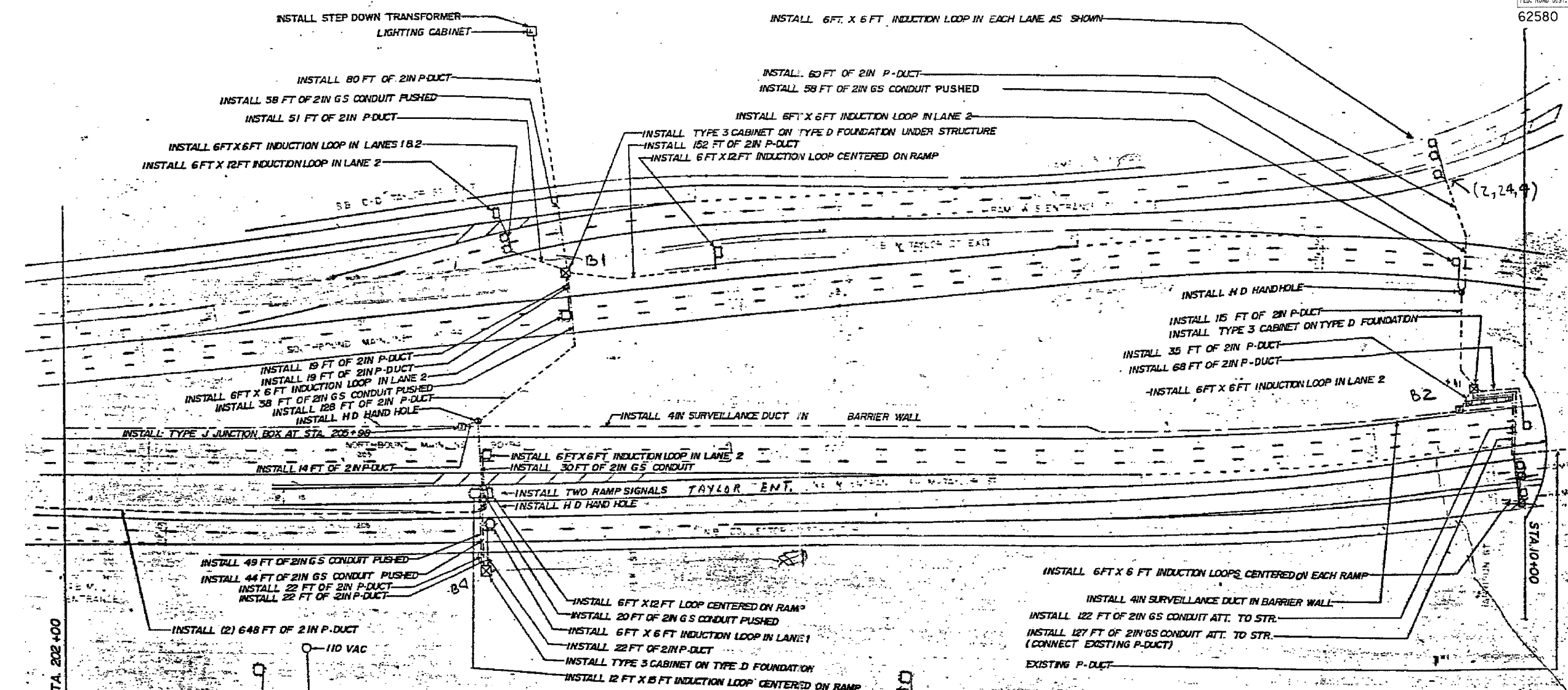
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 ROOSEVELT RD. AND TAYLOR ST.
 WIRE DIAGRAM
 SCALE: NTS
 DATE: 7/22/2005
 DRAWN BY: MR
 CHECKED BY: BLU

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TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	399
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

62580



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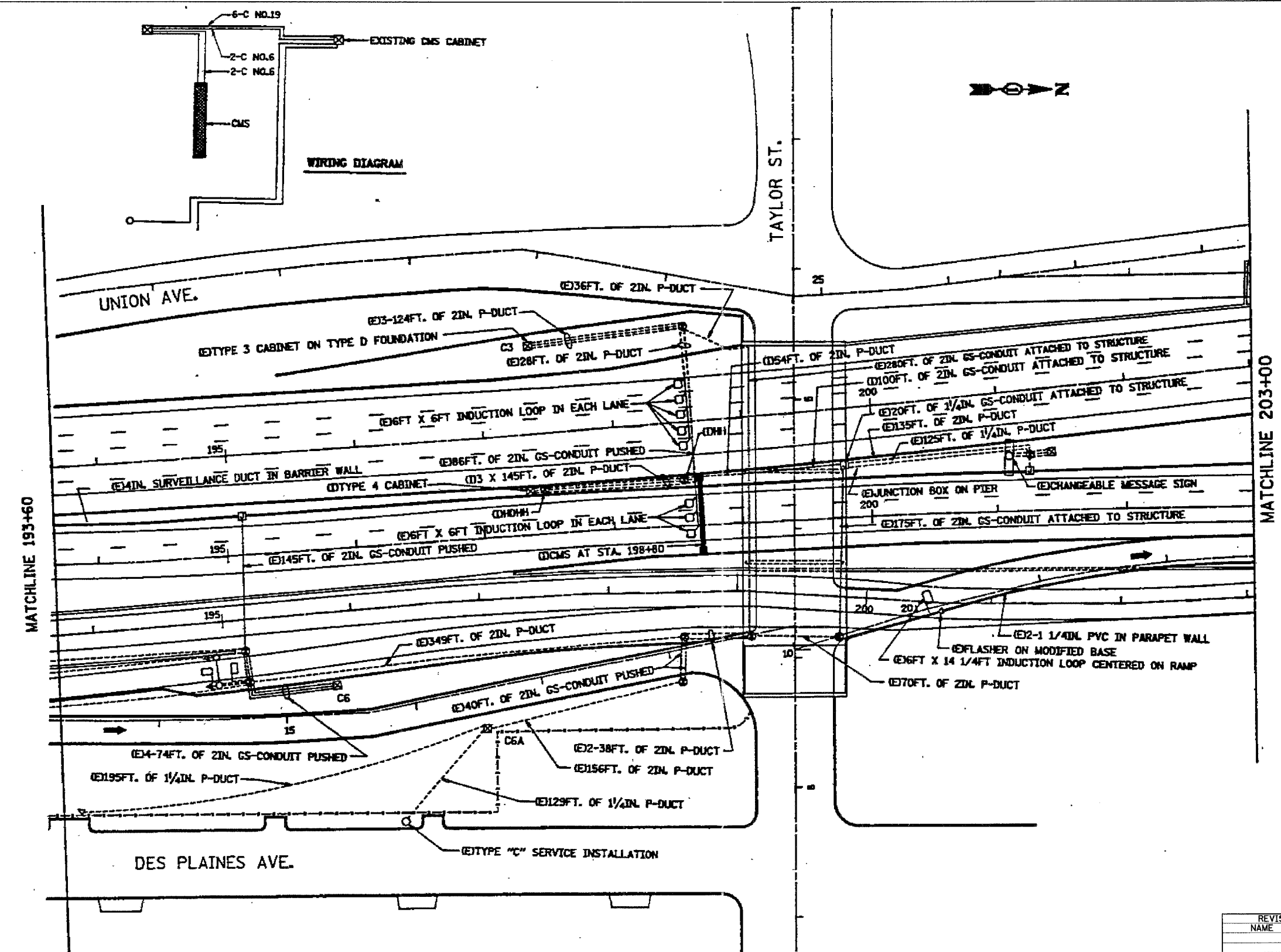
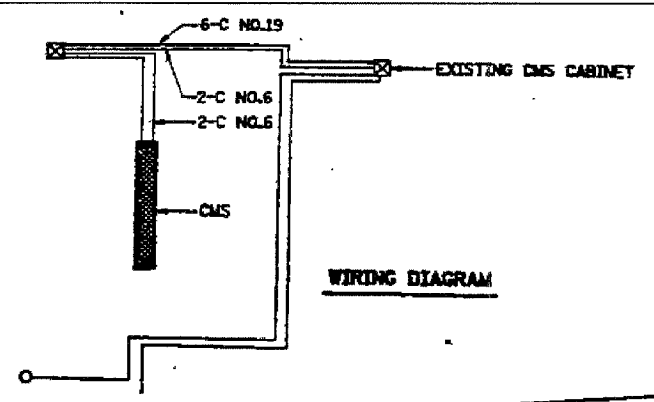
FOR INFORMATION ONLY

REVISIONS	NAME	DATE

TSC16
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
SURVEILLANCE INSTALLATION
AT POLK STREET
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	400
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62580				



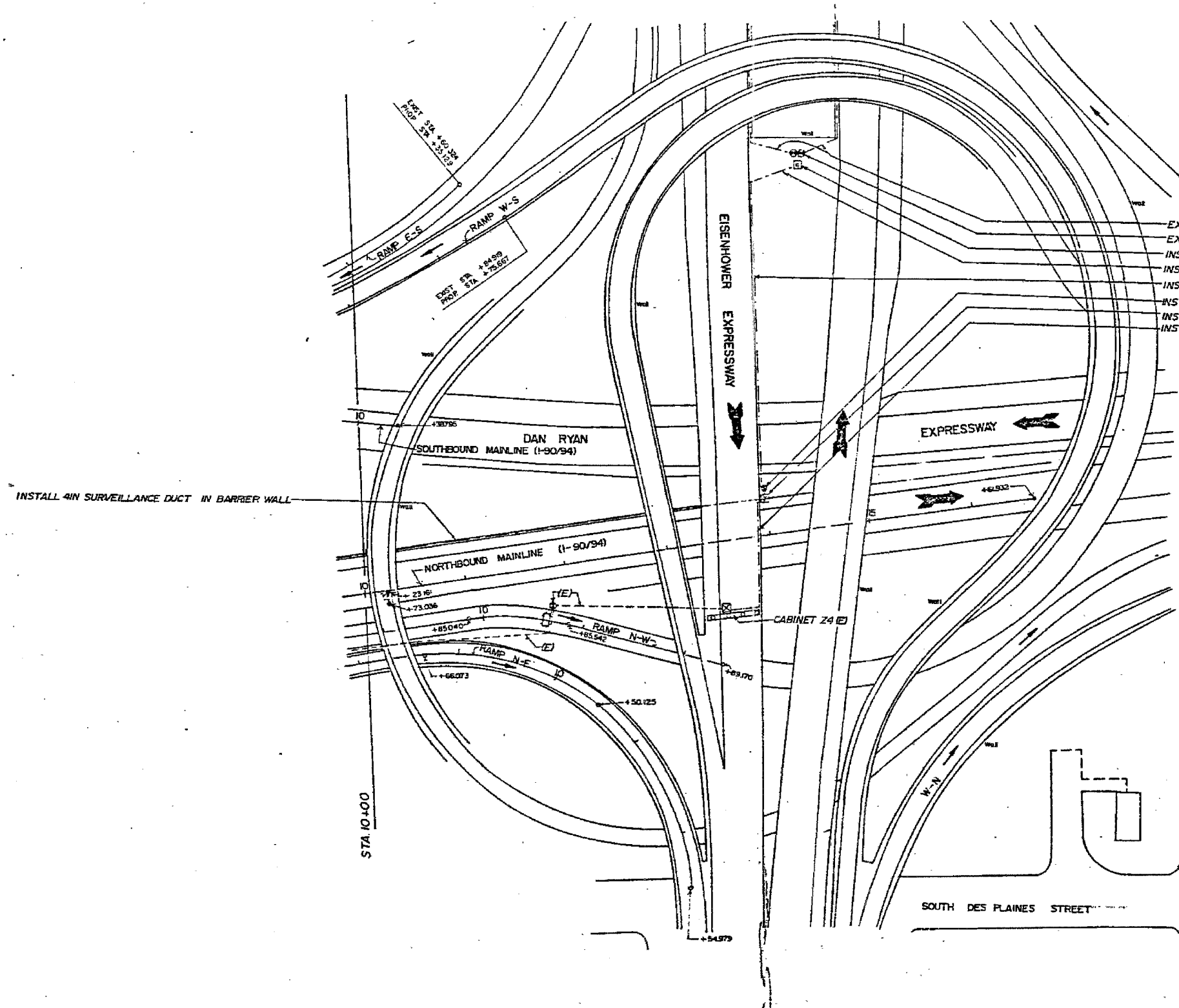
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REVISIONS	
NAME	DATE

TSC17
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
IB TAYLOR ST. CMS
CMS-5
SCALE: NTS
DATE: 7/22/2005
DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	401
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	62580	



- EXISTING 4IN SURVEILLANCE DUCT
- EXISTING DOUBLE HANDHOLE
- INSTALL CROSS CONNECT TERMINAL
- INSTALL 60 FT OF 4IN PVC ENCASED IN CONCRETE
- INSTALL 334 FT OF 4IN CONDUIT ATT. TO STRUCTURE
- INSTALL HEAVY DUTY HAND HOLE
- INSTALL TYPE J JUNCTION BOX
- INSTALL 148 FT OF 2IN G S CONDUIT ATT. TO STR.

INSTALL 4IN SURVEILLANCE DUCT IN BARRIER WALL

ESTIMATE OF QUANTITIES

EACH	TONE ED 3 FREQ MIN TRANS
EACH	TONE ED 3 FREQ TRANS
EACH	TONE ED 3 FREQ REC
EACH	TONE ED 3 POWER SUPPLY
EACH	TONE ED MOUNT FRAME
EACH	IND LOOP DET SEN UNIT
EACH	DIG LOOP DET SEN UNIT-2
EACH	DS LOOP DET SEN UNIT-4
LIN FT	INDUCTION LOOP
LIN FT	GALVS CON T2
LIN FT	GALVS CON P2
LIN FT	GALVS CON AT ST 2
LIN FT	GALVS CON AT ST 4
LIN FT	POLY DUCT 2
LIN FT	ELCBL 2-C NO. 6
LIN FT	ELCBL 3-C NO. 12
LIN FT	ELCBL 6-C NO. 18
LIN FT	ELCBL 2-C NO. 14 SHIELD
LIN FT	ELCBL 100-C NO. 18
EACH	CONC FOUND TY A
EACH	CONC FOUND TY D
EACH	HD HAND HOLE
LIN FT	TRENCH & BACKFILL
EACH	CAB HSNP PED MT TY 2
EACH	CAB HSNP AT ST TY 2
EACH	CAB HSNP TY 3
EACH	FL BEACON & FL CONTR
EACH	TRAFFIC CONT SIGN HDB PED
LIN FT	THPL PVT MK LINE 8
LIN FT	THPL PVT MK LINE 12
LIN FT	THPL PVT MK LINE 18
EACH	TY J JUNCTION BOX
EACH	TY S JUNCTION BOX
EACH	CROSS CONNECT TERMINAL
LIN FT	4IN PVC ENCASED
MONTH	MAINTENANCE

TSC18

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REVISIONS	
NAME	DATE

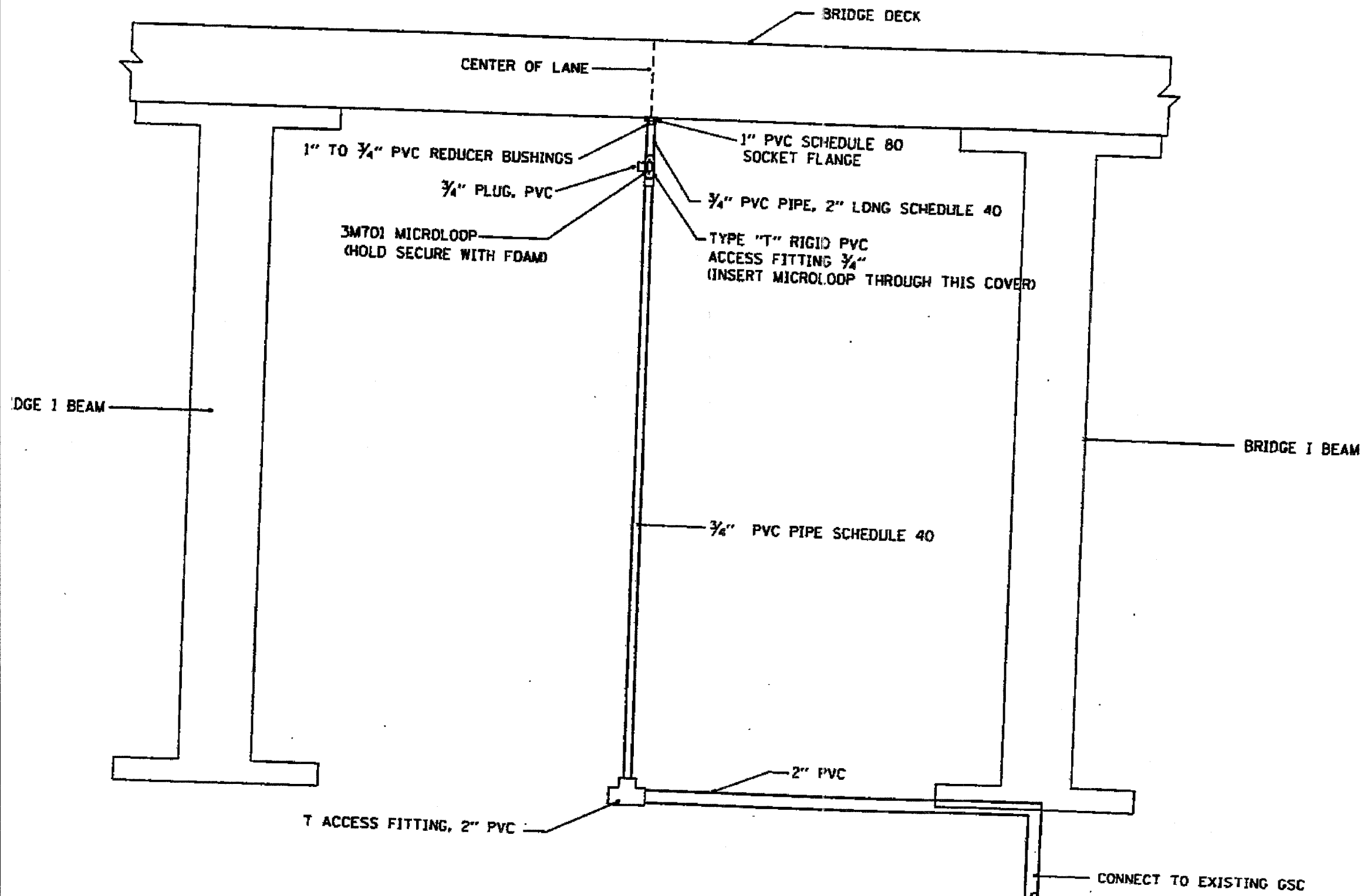
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
CIRCLE INTERCHANGE

SCALE: NTS
DATE: 7/22/2005

DRAWN BY: MR
CHECKED BY: BLU

TRAFFIC SYSTEMS CENTER

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	402
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				

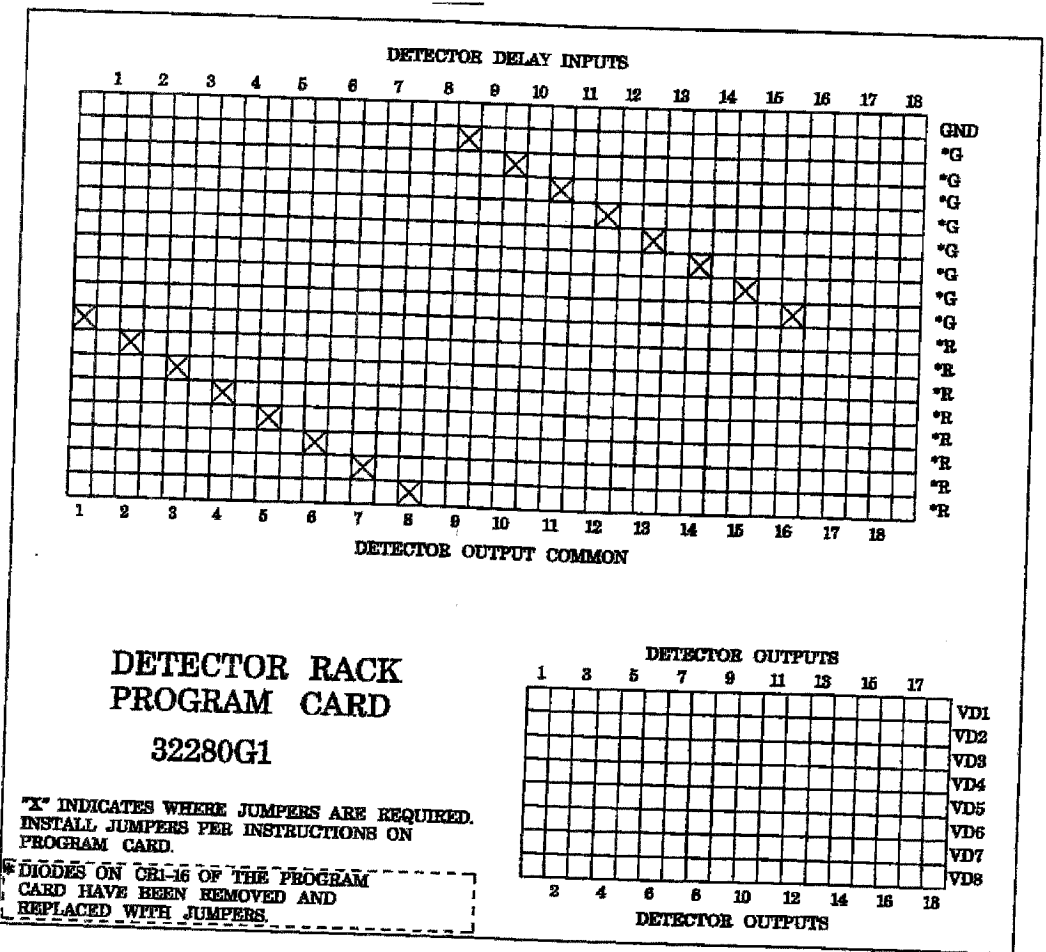
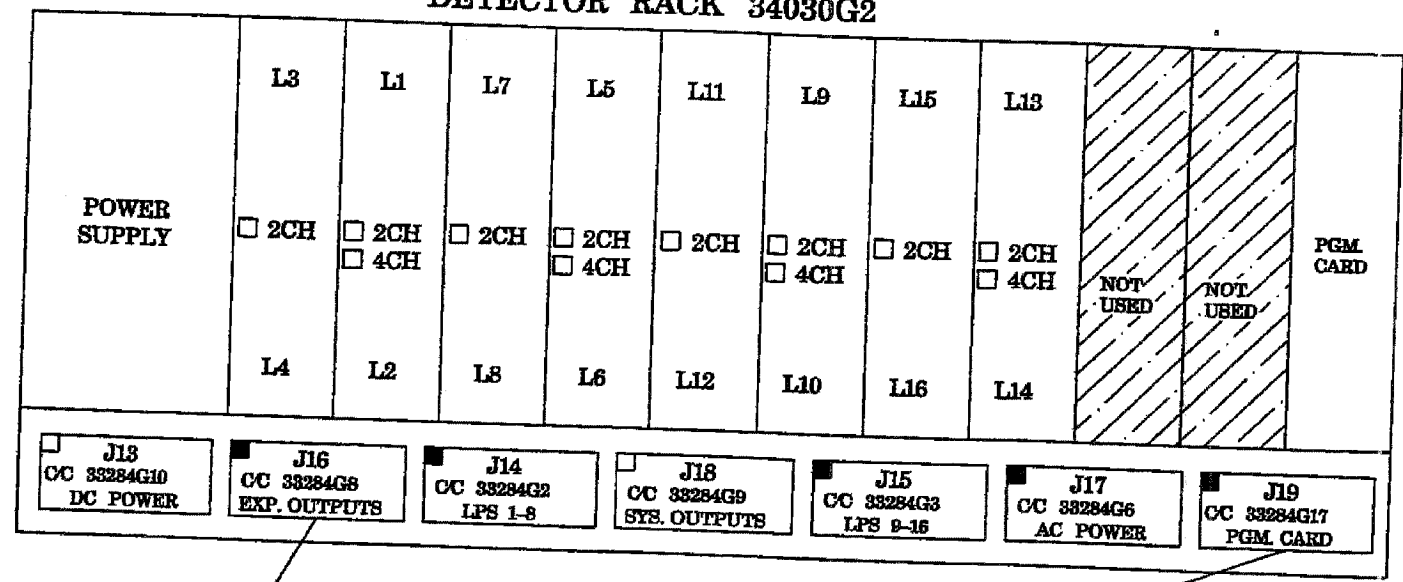


TSC19

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 MICRO LOOP UNDER BRIDGE
 DECK APPLICATION (TYPICAL)
 SCALE: NTS
 DATE: 8/12/2005
 DRAWN BY:
 CHECKED BY:

DETECTOR RACK 34030G2



WIRING ASSIGNMENTS

LOOP POS.	COLLECTOR WIRE
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16

WIRING ASSIGNMENTS

LOOP POS.	EMITTER WIRE
1	9
2	10
3	11
4	12
5	13
6	14
7	15
8	16
9	18
10	19
11	20
12	21
13	22
14	23
15	24
16	25

DETECTOR RACK PROGRAMMING JUMPERS

DET. TYPE	SLOT 12 (1)		SLOT 34 (1)								SLOT 56 (1)								SLOT 78 (1)											
	JP1	JP2	JP3	JP4	JP5	JP6	JP7	JP8	JP9	JP10	JP11	JP12	JP13	JP14	JP15	JP16	JP17	JP18	JP19	JP20	JP21	JP22	JP23	JP24	JP25	JP26	JP27	JP28	JP29	JP30
① TS-1	NO	NO	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
② TS-2	YES	YES	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
③ LM-682T 262-FC	NO	NO	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
④ MAG.	NO	NO	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

⊗ DENOTES DETECTOR RACK CONFIGURATION BY SLOT PAIR.
 ② INSTALL JUMPERS ON TP1, TP2 AND JP31 THRU JP34 FOR TS-2 CONFIGURATION.

TSC20
 DETECTOR RACK SHEET 1 OF 2

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 TRAFFIC SYSTEMS CENTER
 DETAILS

SCALE: NTS
 DATE: 8/12/2005

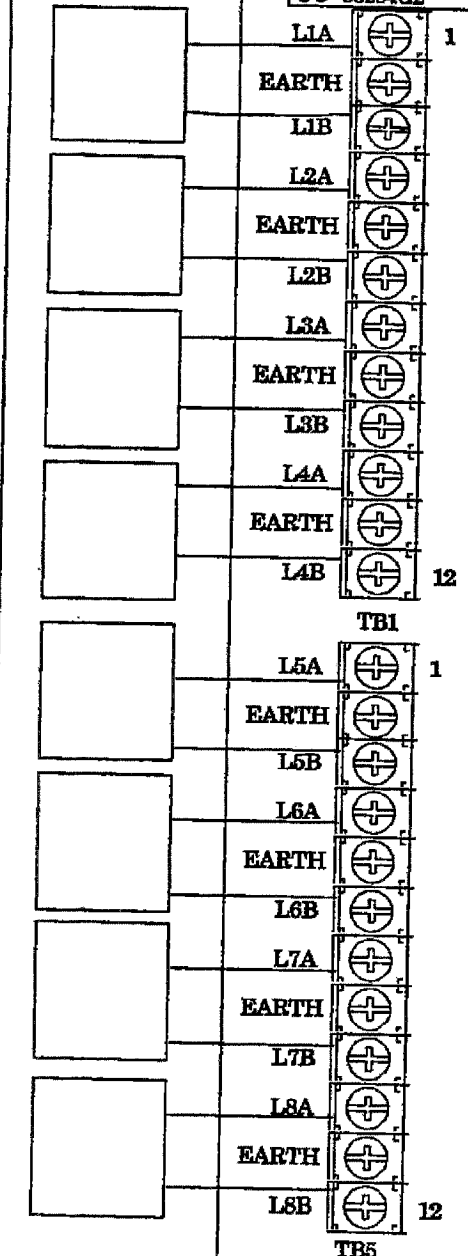
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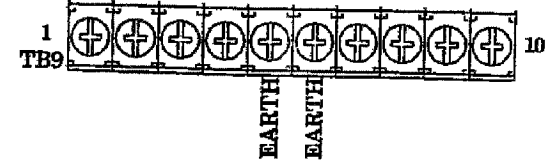
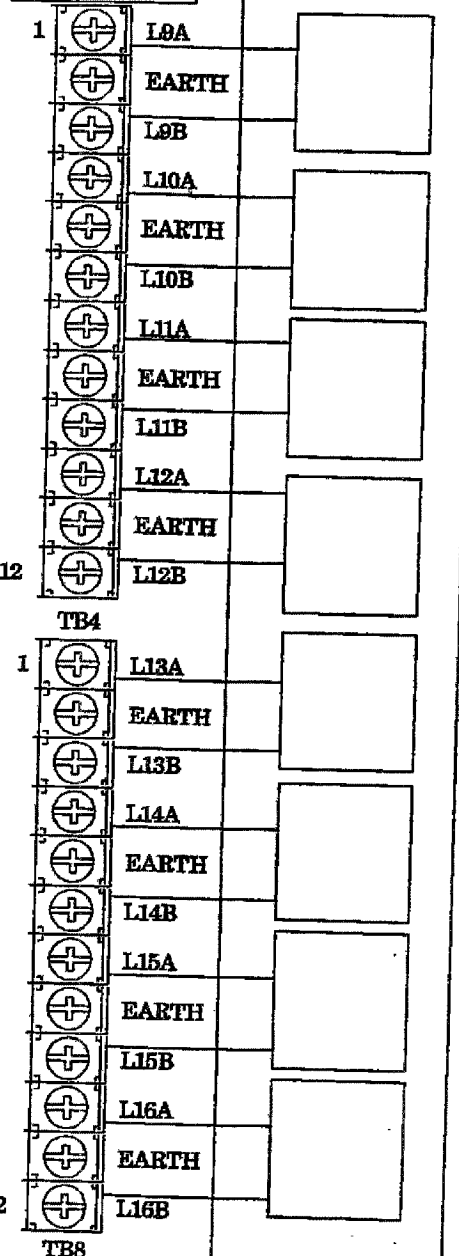
62580

DETECTOR LOOP INTERFACE ASSY. 34040G1

J1 TO DRLJ14 CC 33284G2



J2 TO DRLJ15 CC 33284G3



DET. LOOPS 1-8, 17-18 (J14) CC 33284G2

PIN	FUNCTION	TO
1	LOOP 1+	LP1L:TB1-1
2	LOOP 1-	LP1L:TB1-3
3	LOOP 2+	LP1L:TB1-4
4	LOOP 2-	LP1L:TB1-6
5	LOOP 3+	LP1L:TB1-7
6	LOOP 3-	LP1L:TB1-9
7	LOOP 4+	LP1L:TB1-10
8	LOOP 4-	LP1L:TB1-12
9	LOOP 5+	LP1L:TB5-1
10	LOOP 5-	LP1L:TB5-3
11	LOOP 6+	LP1L:TB5-4
12	LOOP 6-	LP1L:TB5-6
13	LOOP 7+	LP1L:TB5-7
14	LOOP 7-	LP1L:TB5-9
15	LOOP 8+	LP1L:TB5-10
16	LOOP 8-	LP1L:TB5-12
17	NOT USED	
18	NOT USED	
19	NOT USED	
20	NOT USED	
21	NOT USED	
22	NOT USED	
23	NOT USED	
24	NOT USED	
25	NOT USED	
26	NOT USED	

DET. LOOPS 9-16 (J15) CC 33284G3

PIN	FUNCTION	TO
1	LOOP 9+	LP12:TB4-1
2	LOOP 9-	LP12:TB4-3
3	LOOP 10+	LP12:TB4-4
4	LOOP 10-	LP12:TB4-6
5	LOOP 11+	LP12:TB4-7
6	LOOP 11-	LP12:TB4-9
7	LOOP 12+	LP12:TB4-10
8	LOOP 12-	LP12:TB4-12
9	LOOP 13+	LP12:TB8-1
10	LOOP 13-	LP12:TB8-3
11	LOOP 14+	LP12:TB8-4
12	LOOP 14-	LP12:TB8-6
13	LOOP 15+	LP12:TB8-7
14	LOOP 15-	LP12:TB8-9
15	LOOP 16+	LP12:TB8-10
16	LOOP 16-	LP12:TB8-12
17	NOT USED	
18	NOT USED	
19	NOT USED	
20	NOT USED	

EXPANSION OUTPUT GND CC 33284G8

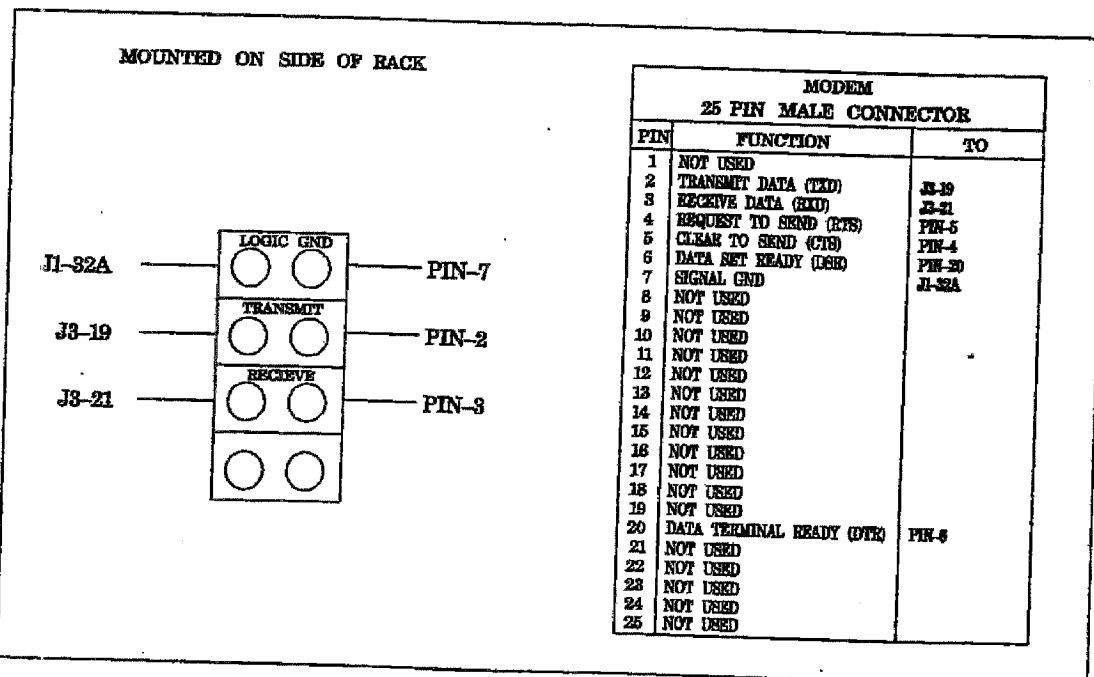
PIN	FUNCTION	TO
1	DET.1+ OUT	
2	DET.2+ OUT	
3	DET.3+ OUT	
4	DET.4+ OUT	
5	DET.5+ OUT	
6	DET.6+ OUT	
7	DET.7+ OUT	
8	DET.8+ OUT	
9	DET.9+ OUT	
10	DET.10+ OUT	
11	DET.11+ OUT	
12	DET.12+ OUT	
13	DET.13+ OUT	
14	DET.14+ OUT	
15	DET.15+ OUT	
16	DET.16+ OUT	
17	NOT USED	
18	NOT USED	
19	NOT USED	
20	NOT USED	
21	NOT USED	
22	NOT USED	
23	NOT USED	
24	NOT USED	
25	NOT USED	
26	NOT USED	

PROGRAM CARD (J19) CC 33284G17

PIN	FUNCTION	TO
1	NOT USED	
2	NOT USED	
3	NOT USED	
4	NOT USED	
5	NOT USED	
6	NOT USED	
7	NOT USED	
8	NOT USED	
9	DET.1- OUT	
10	DET.2- OUT	
11	DET.3- OUT	
12	DET.4- OUT	
13	DET.5- OUT	
14	DET.6- OUT	
15	DET.7- OUT	
16	DET.8- OUT	
17	NOT USED	
18	DET.9- OUT	
19	DET.10- OUT	
20	DET.11- OUT	
21	DET.12- OUT	
22	DET.13- OUT	
23	DET.14- OUT	
24	DET.15- OUT	
25	DET.16- OUT	
26	NOT USED	

AC POWER (J17) CC 33284G6

PIN	FUNCTION	TO
1	EARTH GND.(GREEN)	
2	AC LINE(BLACK)	
3	AC NEUTRAL(WHITE)	
4	LOGIC GND.(GREY)	



TSC21
DETECTOR RACK SHEET 2 OF 2

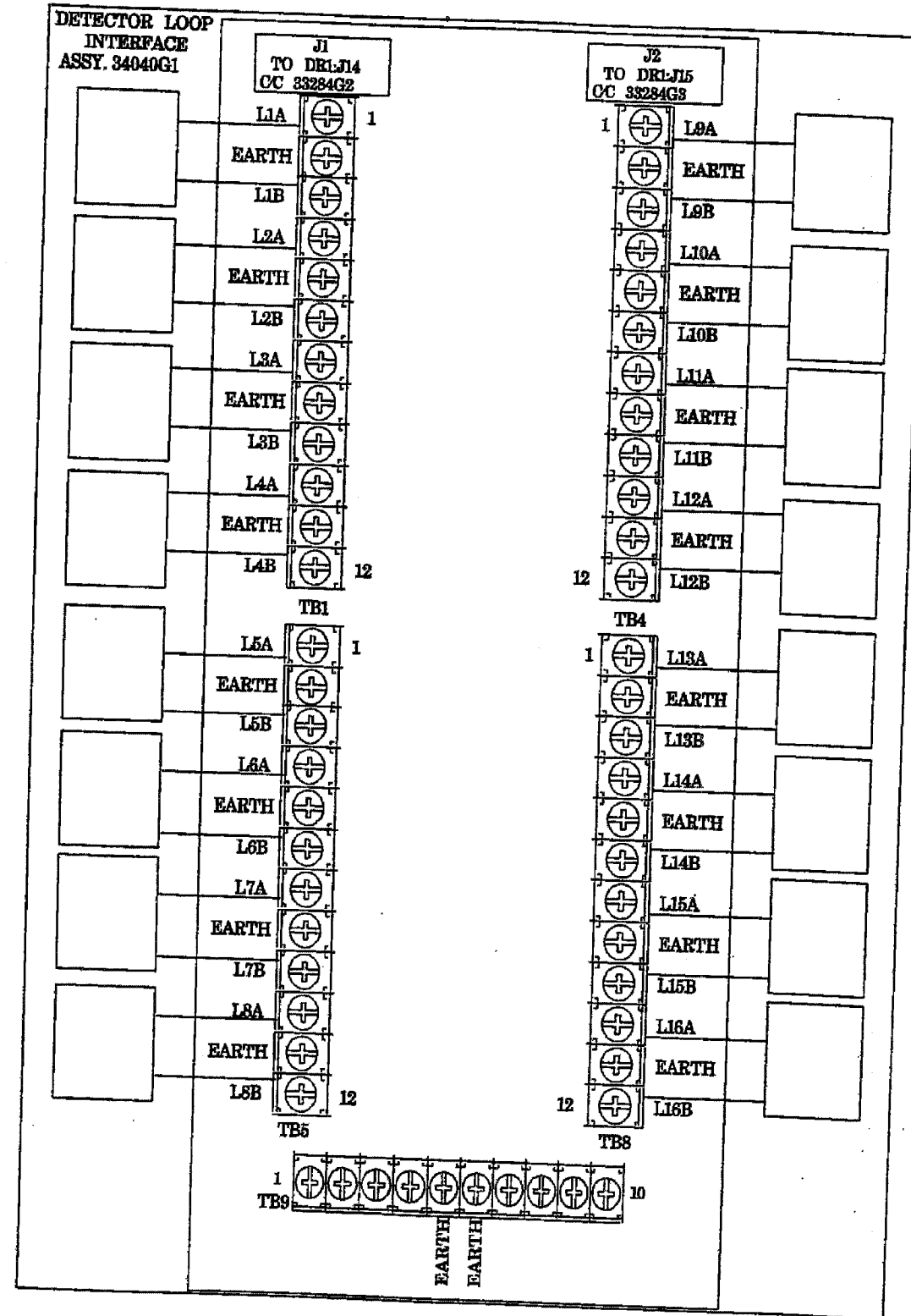
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
TRAFFIC SYSTEMS CENTER
DETAILS

SCALE: NTS
DATE: 8/12/2005

DRAWN BY:
CHECKED BY:

9/30/2005 9:36:37 AM



DET. LOOPS 1-8, 17-18 (J14) CC 33284G2

PIN	FUNCTION	TO
1	LOOP 1+	LP1L:TB1-1
2	LOOP 1-	LP1L:TB1-3
3	LOOP 2+	LP1L:TB1-4
4	LOOP 2-	LP1L:TB1-6
5	LOOP 3+	LP1L:TB1-7
6	LOOP 3-	LP1L:TB1-9
7	LOOP 4+	LP1L:TB1-10
8	LOOP 4-	LP1L:TB1-12
9	LOOP 5+	LP1L:TB5-1
10	LOOP 5-	LP1L:TB5-3
11	LOOP 6+	LP1L:TB5-4
12	LOOP 6-	LP1L:TB5-6
13	LOOP 7+	LP1L:TB5-7
14	LOOP 7-	LP1L:TB5-9
15	LOOP 8+	LP1L:TB5-10
16	LOOP 8-	LP1L:TB5-12
17	NOT USED	
18	NOT USED	
19	NOT USED	
20	NOT USED	
21	NOT USED	
22	NOT USED	
23	NOT USED	
24	NOT USED	
25	NOT USED	
26	NOT USED	

DET. LOOPS 9-16 (J15) CC 33284G3

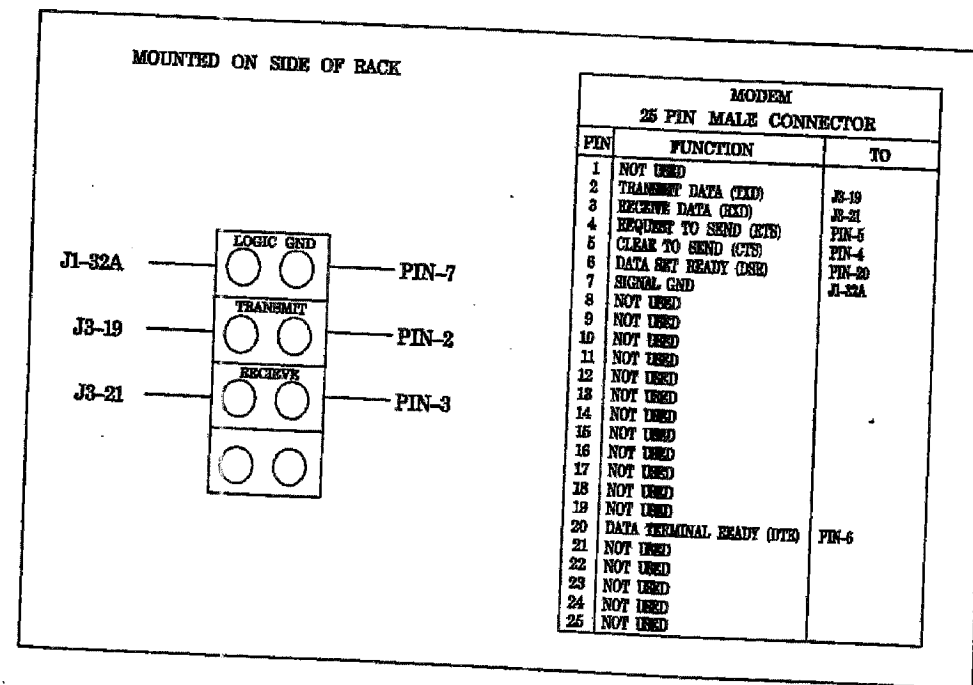
PIN	FUNCTION	TO
1	LOOP 9+	LP12:TB4-1
2	LOOP 9-	LP12:TB4-3
3	LOOP 10+	LP12:TB4-4
4	LOOP 10-	LP12:TB4-6
5	LOOP 11+	LP12:TB4-7
6	LOOP 11-	LP12:TB4-9
7	LOOP 12+	LP12:TB4-10
8	LOOP 12-	LP12:TB4-12
9	LOOP 13+	LP12:TB8-1
10	LOOP 13-	LP12:TB8-3
11	LOOP 14+	LP12:TB8-4
12	LOOP 14-	LP12:TB8-6
13	LOOP 15+	LP12:TB8-7
14	LOOP 15-	LP12:TB8-9
15	LOOP 16+	LP12:TB8-10
16	LOOP 16-	LP12:TB8-12
17	NOT USED	
18	NOT USED	
19	NOT USED	
20	NOT USED	

PROGRAM CARD (J16) CC 33284G6

PIN	FUNCTION	TO
1	DET. 1+ OUT	
2	DET. 2+ OUT	
3	DET. 3+ OUT	
4	DET. 4+ OUT	
5	DET. 5+ OUT	
6	DET. 6+ OUT	
7	DET. 7+ OUT	
8	DET. 8+ OUT	
9	DET. 1- OUT	
10	DET. 2- OUT	
11	DET. 3- OUT	
12	DET. 4- OUT	
13	DET. 5- OUT	
14	DET. 6- OUT	
15	DET. 7- OUT	
16	DET. 8- OUT	
17	NOT USED	
18	NOT USED	
19	NOT USED	
20	NOT USED	
21	NOT USED	
22	NOT USED	
23	NOT USED	
24	NOT USED	
25	NOT USED	
26	NOT USED	

AC POWER (J17) CC 33284G6

PIN	FUNCTION	TO
1	EARTH GND.(GREEN)	
2	AC LINE(BLACK)	
3	AC NEUTRAL(WHITE)	
4	LOGIC GND.(GREY)	



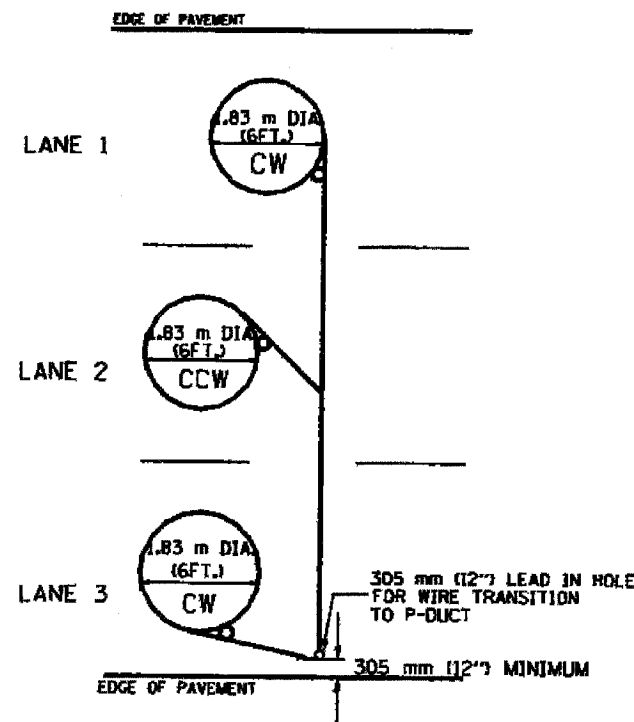
TSC23
DETECTOR PANEL SHEET 2 OF 2

REVISIONS	
NAME	DATE

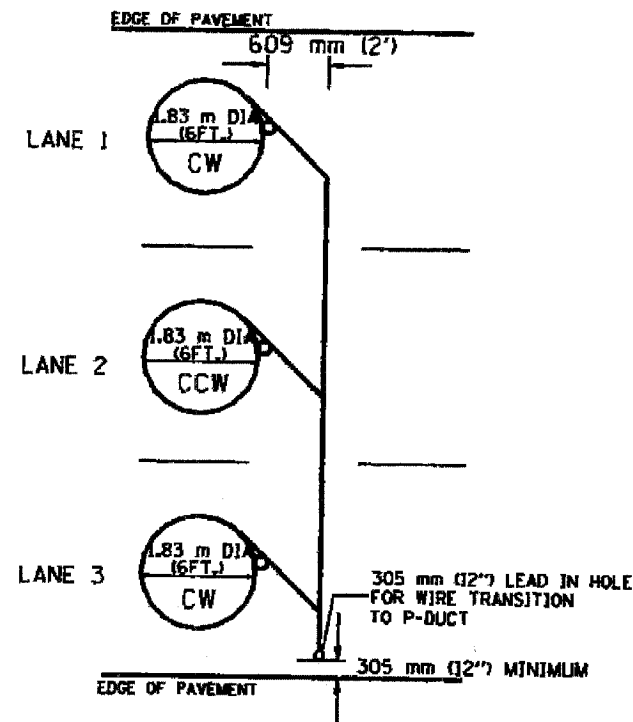
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
NB DAN RYAN ELEVATED BRIDGE
REPAIR FROM 15TH TO 28TH STREETS
TRAFFIC SYSTEMS CENTER
DETAILS

SCALE: NTS
DATE: 8/12/2005
DRAWN BY:
CHECKED BY:

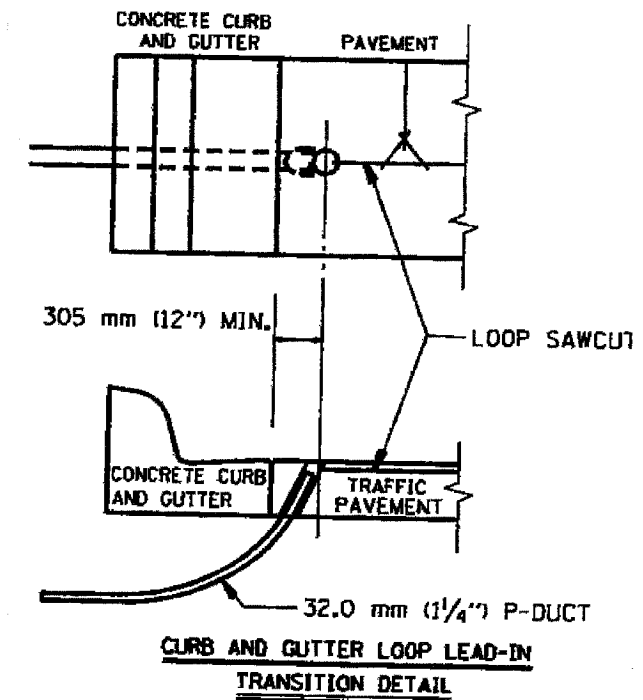
9:38:45 AM 8/17/2005



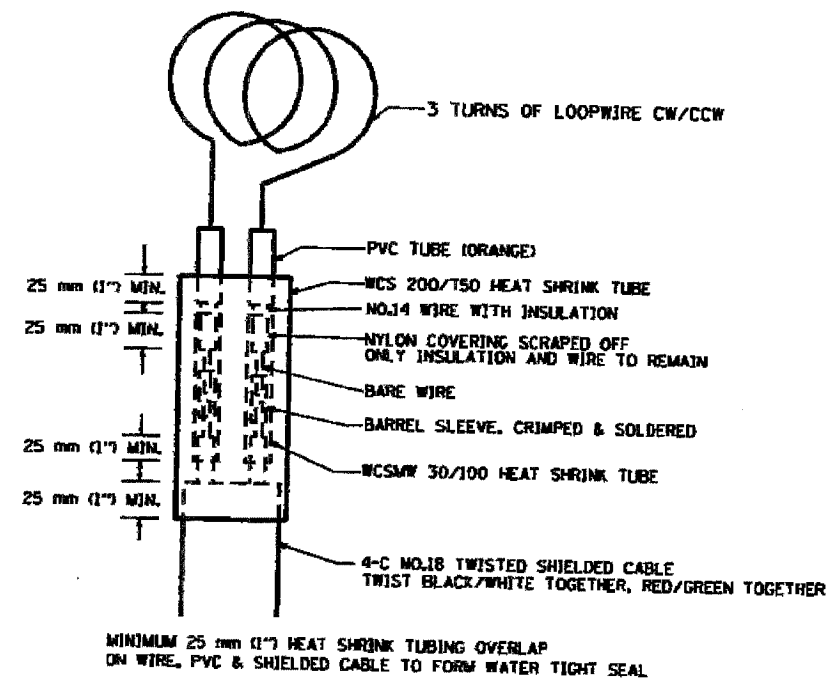
TYPICAL 1.83 m (6FT.) DIA. INDUCTION LOOP CORE DRILL LAYOUT FOR MULTIPLE LANE ROADWAY



TYPICAL 1.83 m (6FT.) DIA. INDUCTION LOOP CORE DRILL LAYOUT FOR MULTIPLE LANE ROADWAY



CURB AND GUTTER LOOP LEAD-IN TRANSITION DETAIL



LOOP SPLICING REQUIREMENTS

NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

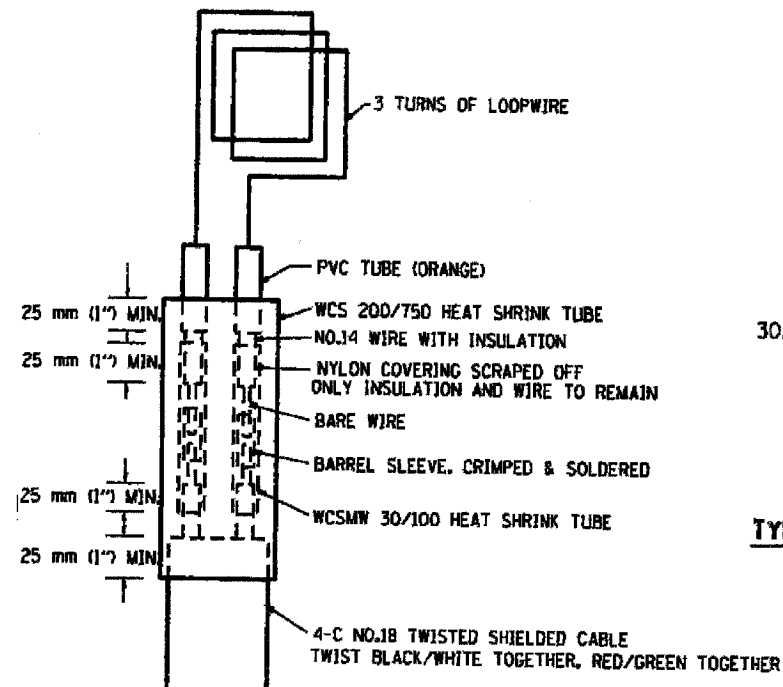
TSC24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 EXISTING ROUND
 INDUCTION LOOP TYPICALS

SCALE: NTS
 DATE: 8/12/2005

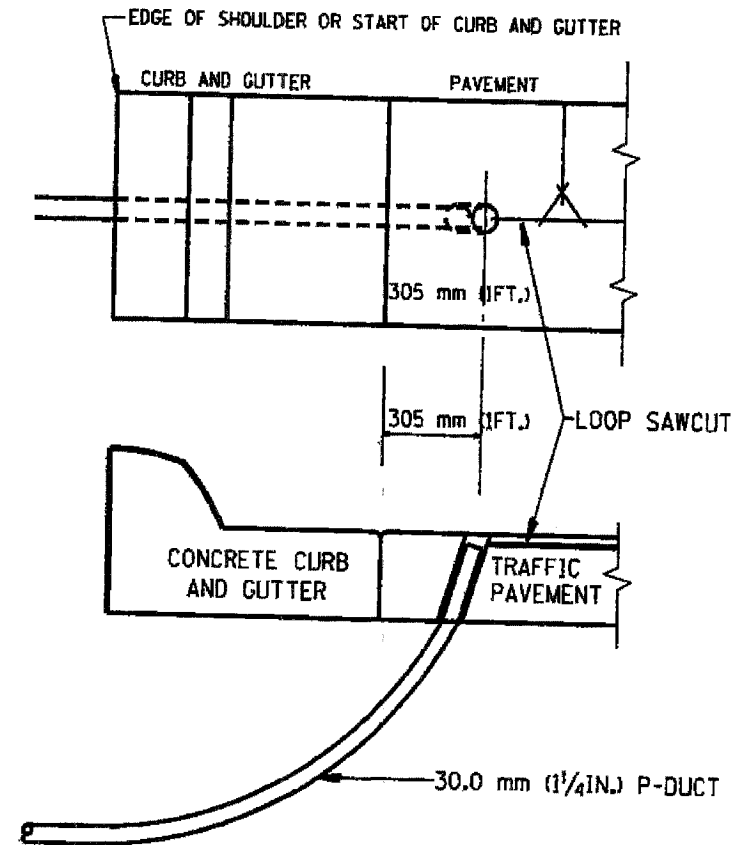
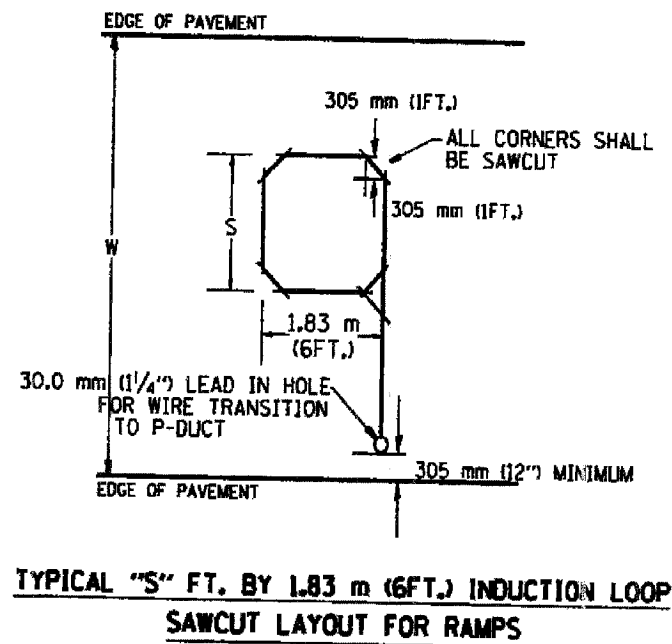
DRAWN BY:
 CHECKED BY:



MINIMUM 25 mm (1") HEAT SHRINK TUBING OVERLAP ON WIRE, PVC & SHIELDED CABLE TO FORM WATER TIGHT SEAL

LOOP SPLICING REQUIREMENTS

WIDTH (W)	WIDTH (S)
3.7 m (12')	2.5 m (8')
4.0 m (13')	2.8 m (9')
4.3 m (14')	3.1 m (10')
4.6 m (15')	3.4 m (11')
4.9 m (16')	3.7 m (12')
5.2 m (17')	4.0 m (13')
5.5 m (18')	4.3 m (14')
5.8 m (19')	4.6 m (15')
6.1 m (20')	4.9 m (16')
6.4 m (21')	5.2 m (17')
6.7 m (22')	5.5 m (18')
7.0 m (23')	5.8 m (19')
7.3 m (24')	6.1 m (20')
7.6 m (25')	6.4 m (21')



CURB AND GUTTER LOOP LEAD-IN TRANSITION DETAIL

NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

TSC25

REVISIONS	
NAME	DATE

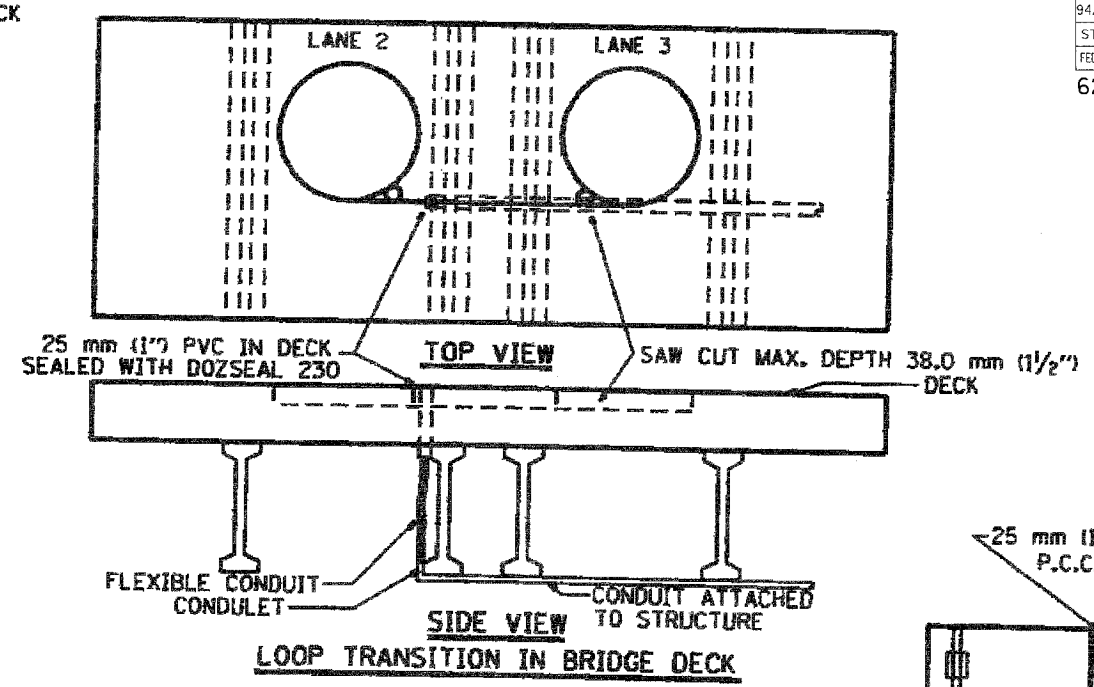
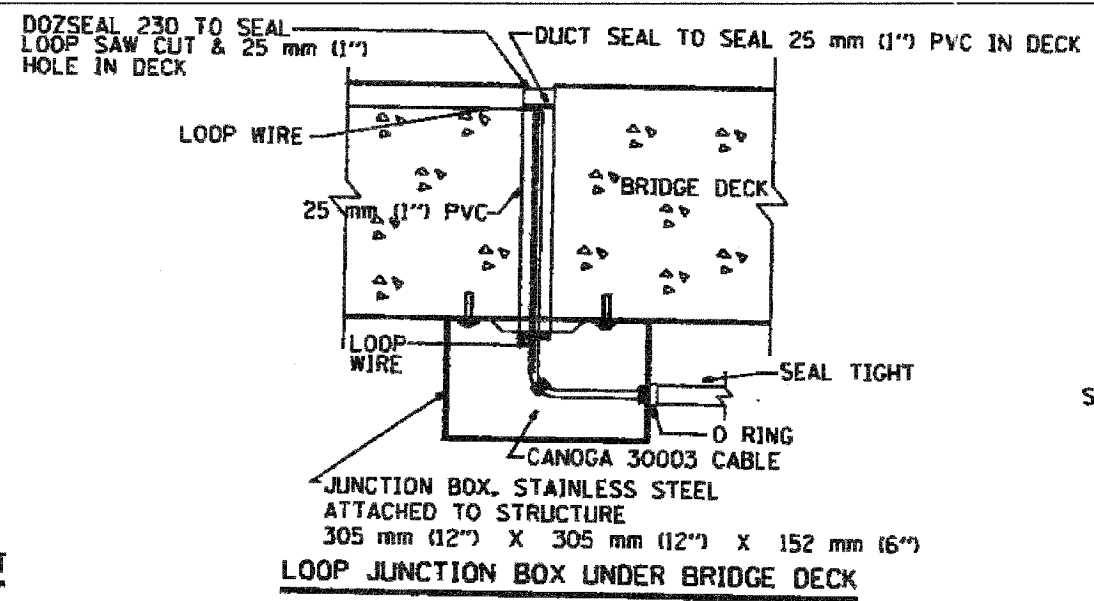
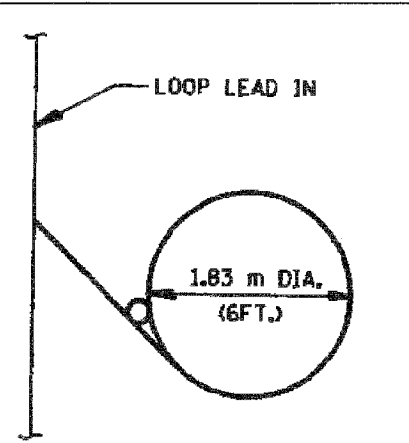
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 RECTANGULAR INDUCTION LOOP (TYPICAL)

SCALE: NTS
 DATE: 8/12/2005

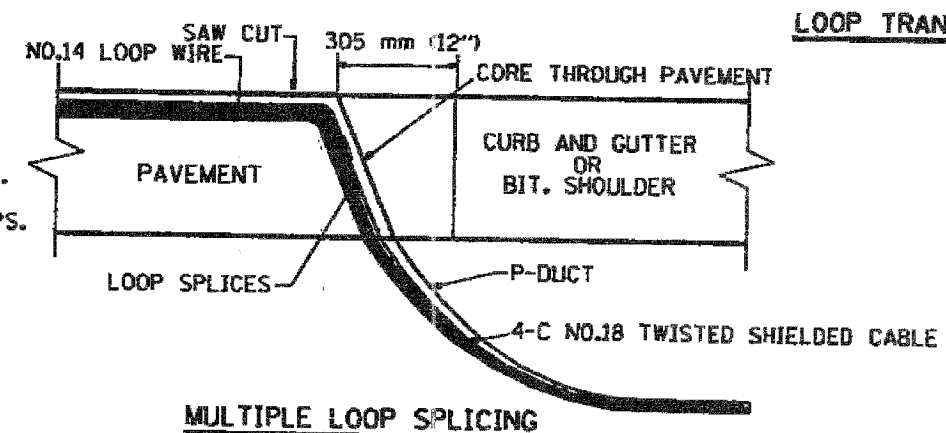
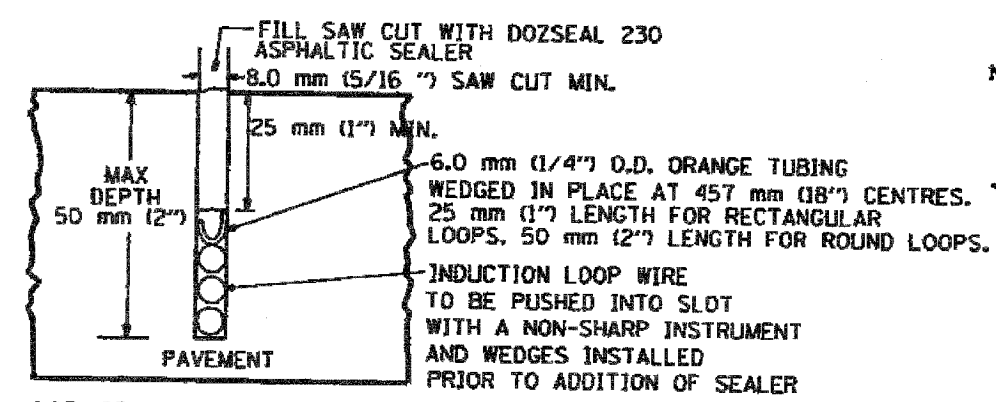
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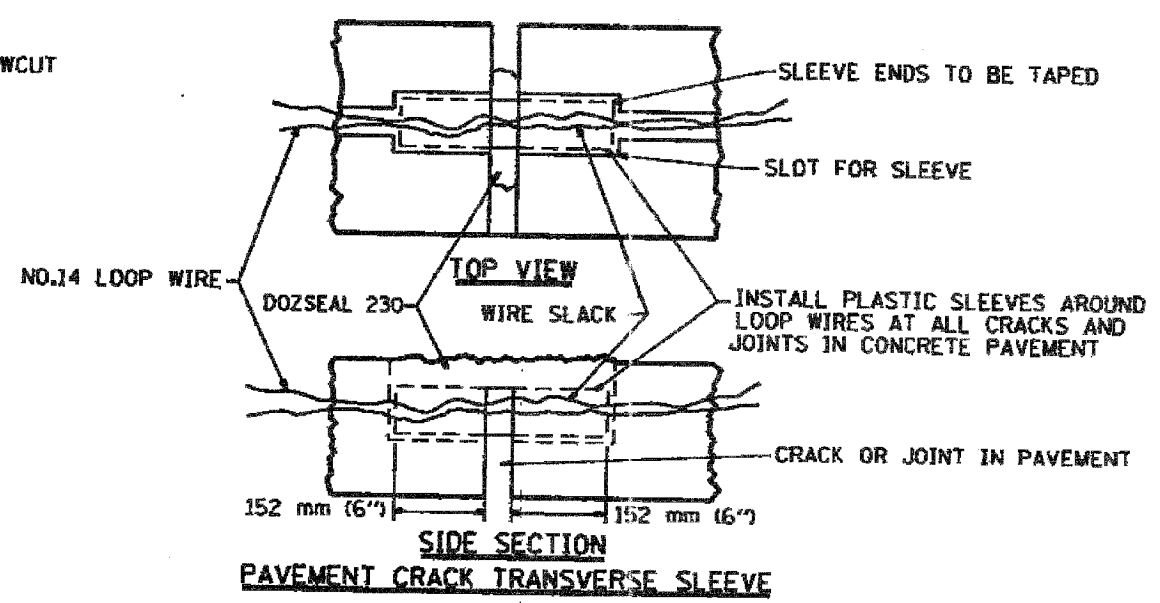
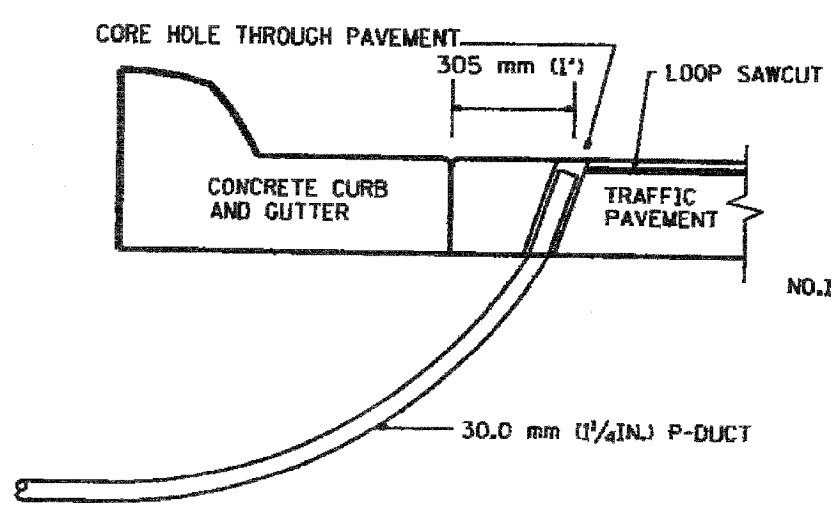
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-028F	COOK	419	409
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62580				



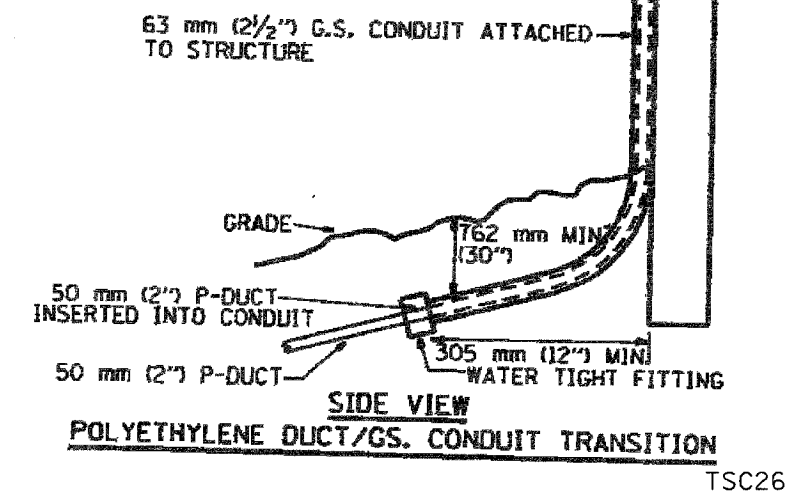
TYPICAL LOOP SAWCUT LAYOUT



LOOP CROSS SECTION IN PAVEMENT



SIDE SECTION LOOP LEAD-IN TRANSITION DETAIL

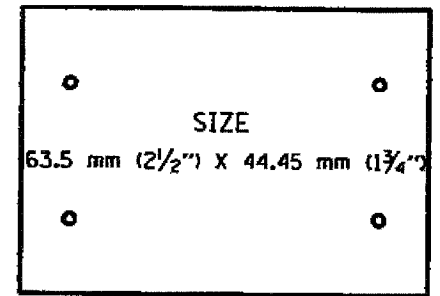
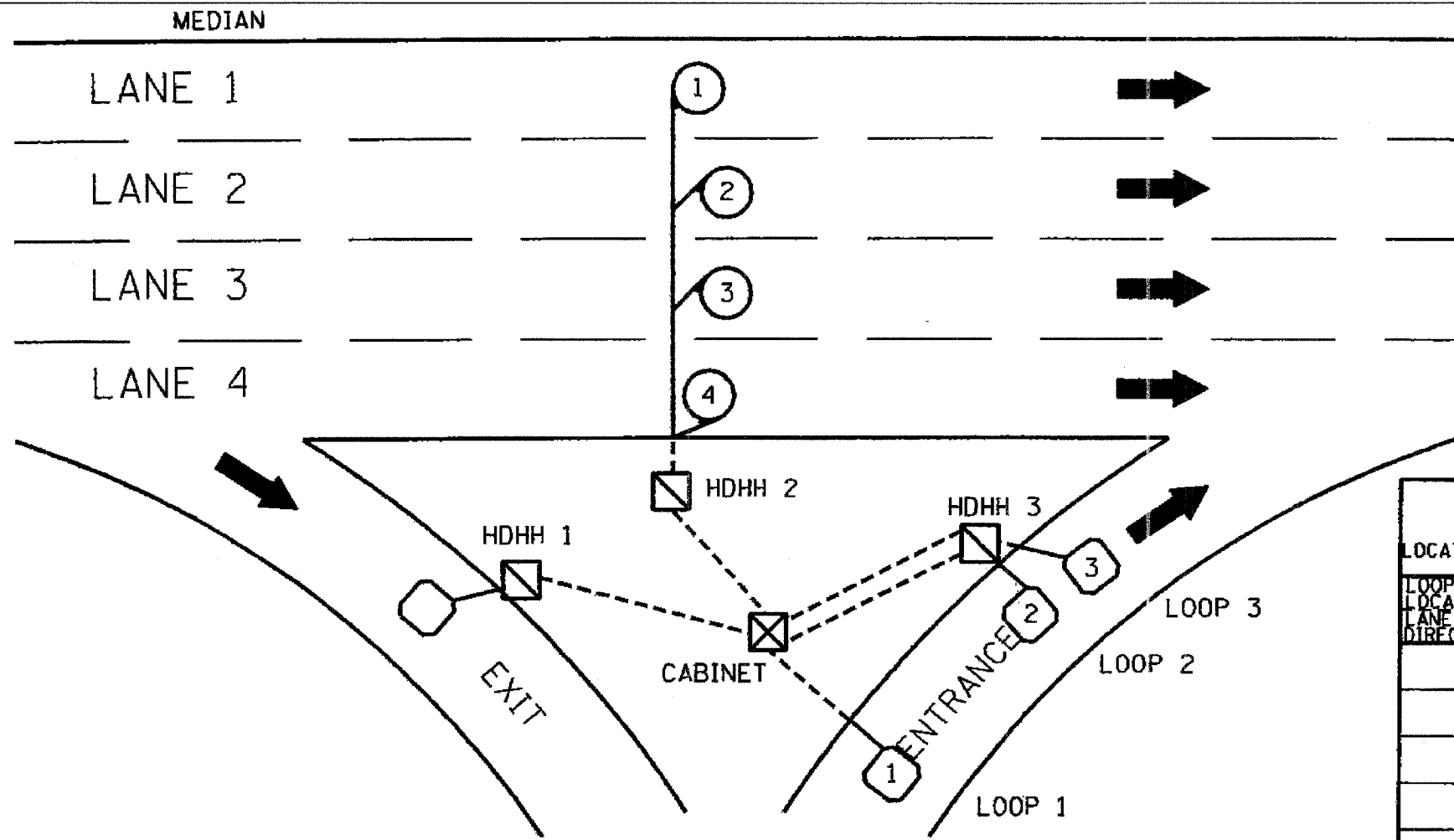


REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 LOOP, CONDUIT & DUCT
 INSTALLATION DETAILS

SCALE: NTS
 DATE: 8/12/2005

DRAWN BY:
 CHECKED BY:



SIZE
63.5 mm (2½") X 44.45 mm (1¾")
SUGGESTED TAG
PANDUIT
*MP250W175-C
OR EQUIVALENT

LOOP ANALYZER					
LOCATION _____				DATE _____	
LOOP LOCATION LANE DIRECTION	LOOP WIRE MARKED AND CODED	LOOP SIZE	FREQ. INDUCTANCE	INSULATION	LOOP RESISTANCE

HDHH 1 EXAMPLE

IB-EB EXIT
 CCW IN/
 TO CABINET # _____

HDHH 2 EXAMPLE

IB (OB) LANE # ___
 CCW /OUT
 TO CABINET # _____

HDHH 3 EXAMPLE

IB-EB ENT.
 LOOP #2
 CW IN/

NOTE:
 EACH LOOP WIRE SHALL BE TAGGED AS "IN" OR "OUT" AND "CW" OR "CCW". SHIELDED CABLE WILL BE TAGGED IN EACH HANDHOLE AND CABINET TO MATCH THE CABLE LOG.

TSC27

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 NB DAN RYAN ELEVATED BRIDGE
 REPAIR FROM 15TH TO 28TH STREETS
 LOOP STATUS REPORT

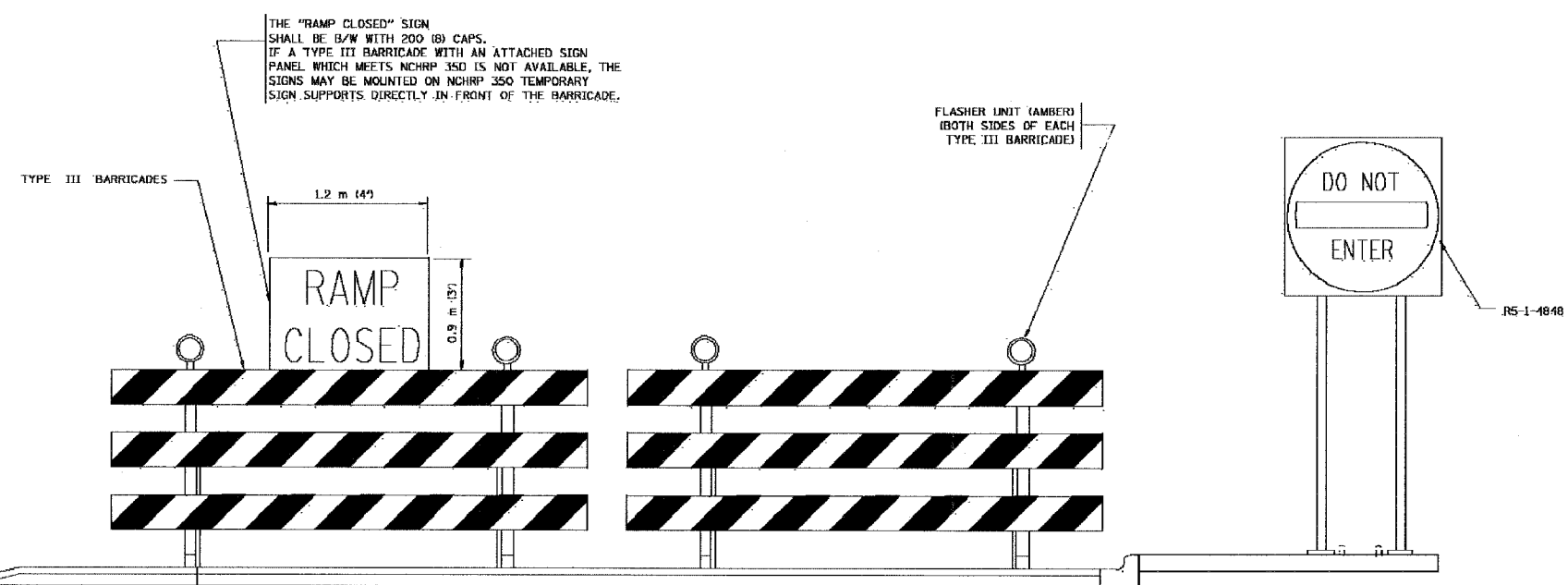
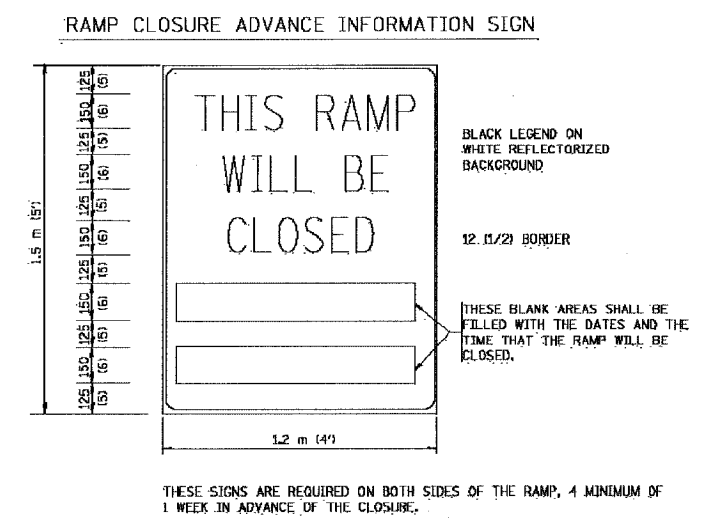
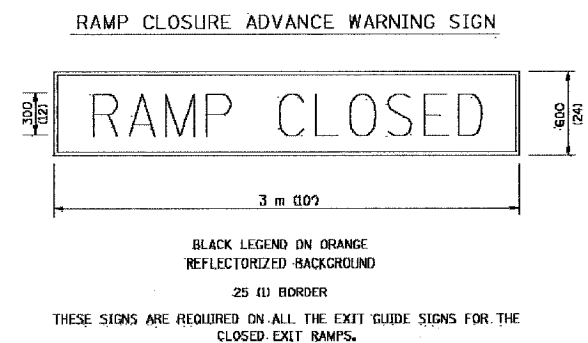
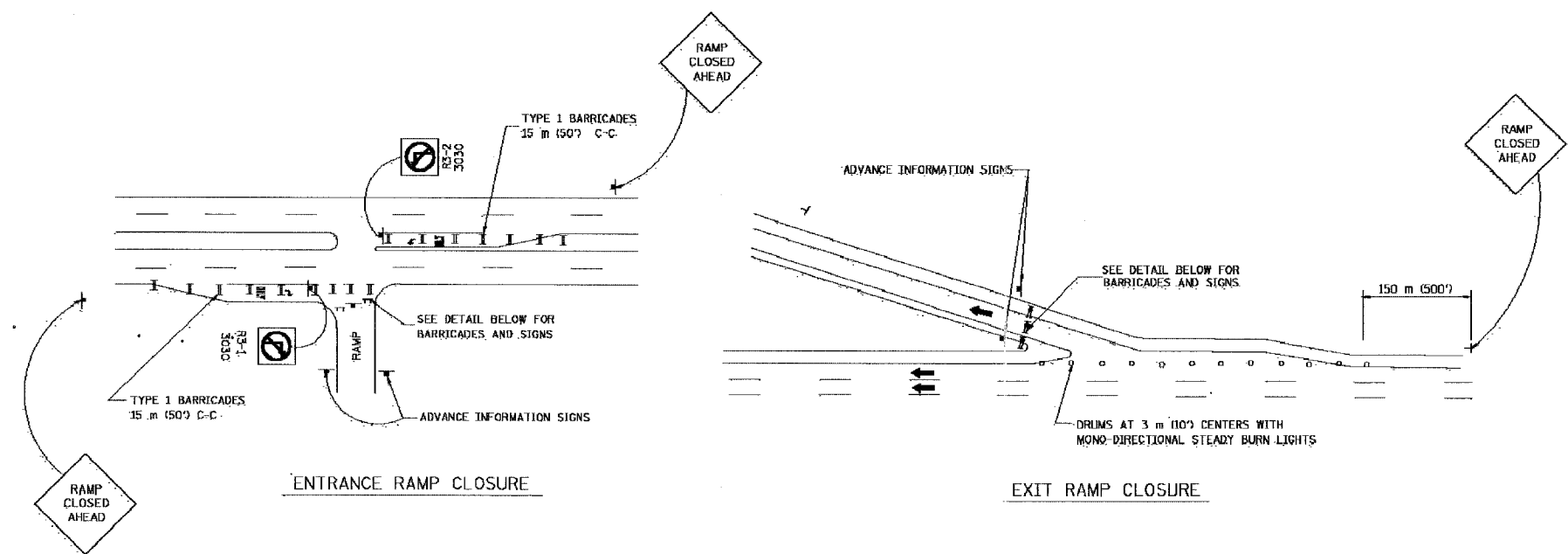
REVISIONS	NAME	DATE

SCALE: NTS DATE: 8/12/2005 DRAWN BY: _____ CHECKED BY: _____

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 9/29/05 9:59:57 AM
 8/11/2005

62580

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			419	411
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



THE "RAMP CLOSED" SIGN SHALL BE B/W WITH 200 (8) CAPS. 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 DIRECTLY IN FRONT OF THE BARRICADE.

FLASHER UNIT (AMBER) (BOTH SIDES OF EACH TYPE III BARRICADE)

RS-1-1040

- GENERAL NOTES:
1. CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 700 (28) 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. FOR DAYTIME RAMP CLOSURES, LASTING 6 HOURS OR LESS, THE CONTRACTOR MAY ELIMINATE THE ADVANCE WARNING SIGNS ON THE EXIT GUIDE SIGNS.
 5. ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
 6. THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL AND PROTECTION.
 7. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.

- NOTES:
1. CONES MAY BE SUBSTITUTED FOR TYPE I AND TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28" IN HEIGHT.
 2. STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
 3. THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS.
 4. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY-FOUR (24) HOURS IN LENGTH.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

FREWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS

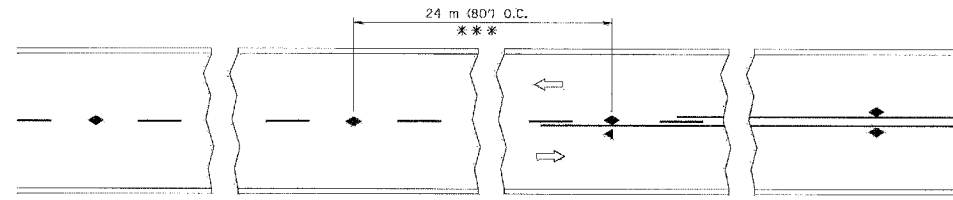
REVISIONS	
NAME	DATE
DWS	2-83
DWS	1/90
DWS	9/94
DWS	12/94
DWS/JAF	12/02
Revise devices to meet NCHRP 350	4/03

SCALE: NONE
DATE 05/06/2003
DRAWN BY
CHECKED BY
T.C.B.

REVISION DATE: 01/03/03

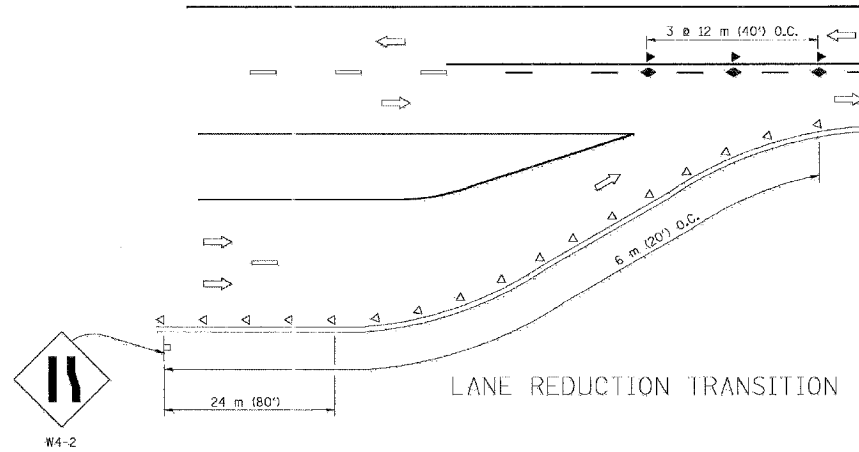
62580

F. & B. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			419	412
STA.		TO STA.		
FED. ROAD DIST. NO.		ROUTE	FED. AID PROJECT	

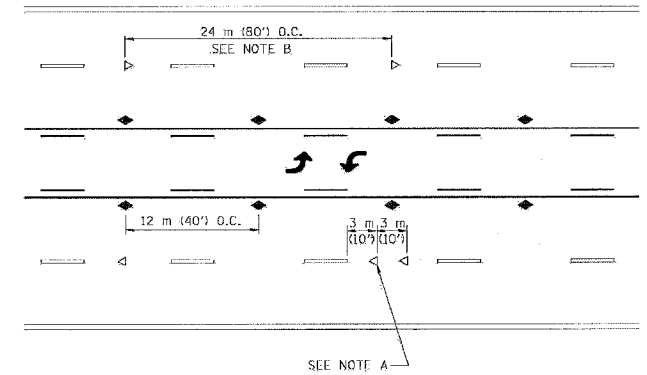


*** REDUCE TO 12 m (40') O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 70 km/h (45 M.P.H.) OR LESS.

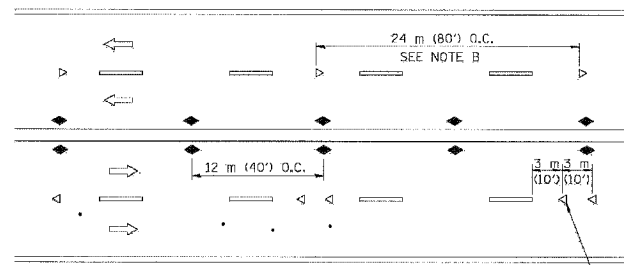
TWO-LANE/TWO-WAY



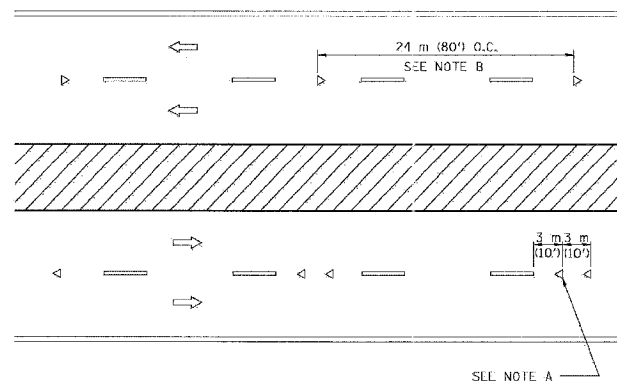
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

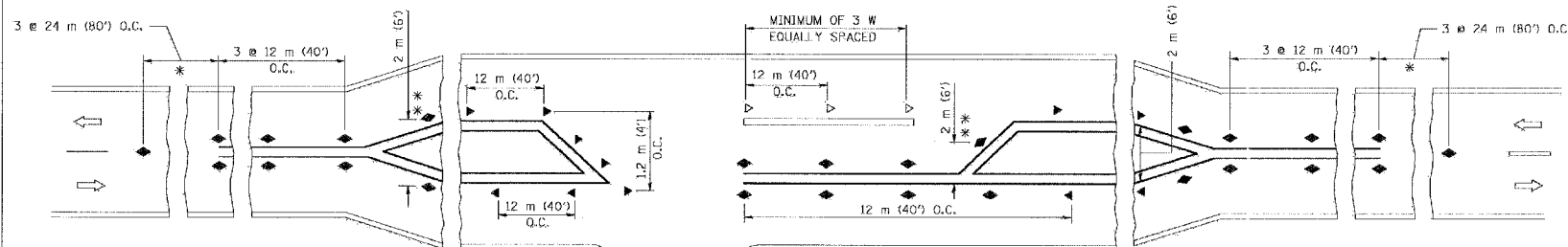
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 50 TO 75 (2 TO 3) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 150 m (500') IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/D)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 12 m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 20 km/h (10 M.P.H.) LOWER THAN POSTED SPEEDS.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 2 m (6') OR LESS USE TWO-WAY MARKERS.

LEFT TURN

All dimensions are in millimeters (inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT MARKERS
 (SNOW-PLOW RESISTANT)

REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

SCALE: NONE
 DATE: 10/18/2002

DRAWN BY CADD
 CHECKED BY TC-11

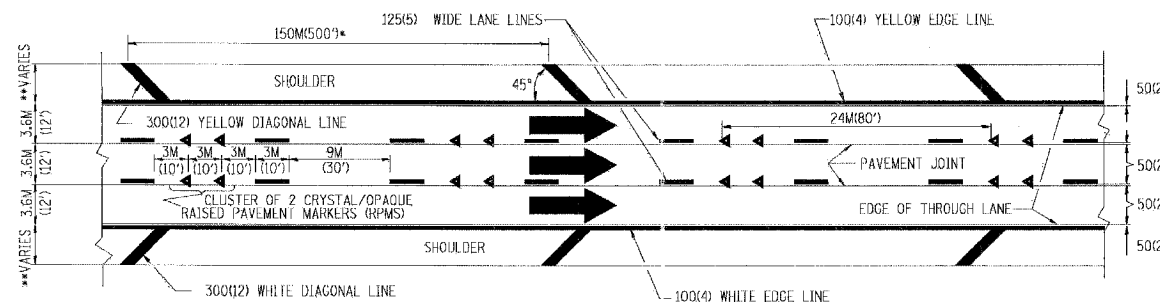
REVISION DATE: 01/06/00

DATE-TIME
 DOWN-SPEED
 V-F-101

62580

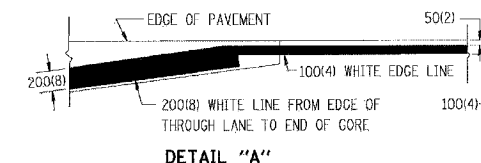
F.A. DIST.	SECTION	COUNTY	TOTL SHEETS	SHEET NO
			419	413
STA.		TO STA.		
FED. AID DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

- * THE DIAGONAL LINES SHALL BE SPACED AT 12M (40') C-C ACROSS ALL STRUCTURES WHICH ARE 150M (500') OR LESS IN LENGTH
- **THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 1.8M (6') OR LESS IN WIDTH

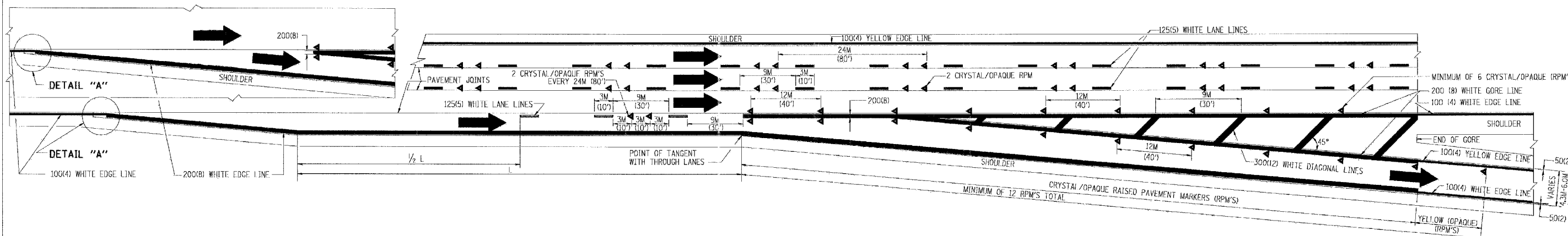


NOTES:

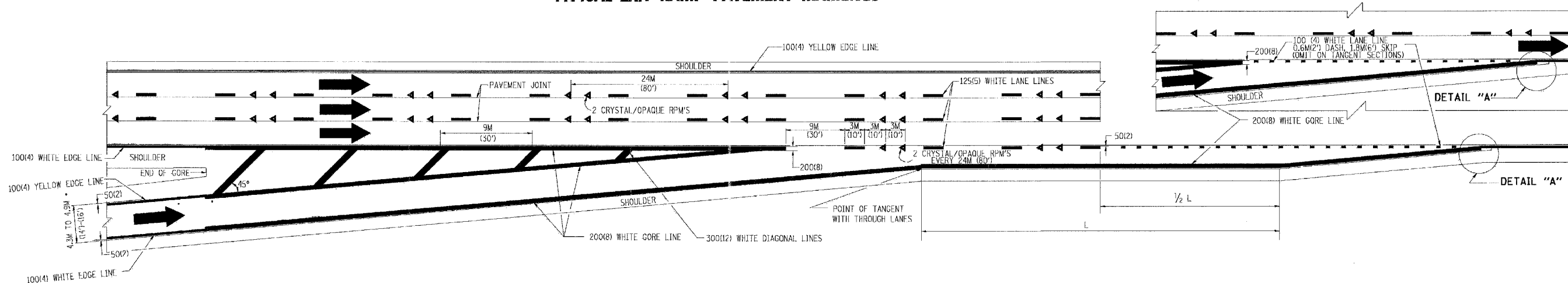
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES
3. PREFORMED PLASTIC PAVEMENT MARKING LINE SHALL BE USED ON PCC PAVEMENT.



TYPICAL EDGE LINES & LANE LINES



TYPICAL EXIT RAMP PAVEMENT MARKINGS



TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS

REVISIONS	
NAME	DATE
DWS	1/90
DWS	5/91
AH	3/96
DWS	7/96

ILLINOIS DEPARTMENT OF TRANSPORTATION

**MULTI-LANE FREEWAY
PAVEMENT MARKING
DETAILS**

SCALE: NONE
DATE: 10/18/2002

DRAWN BY C.A.D.D.

CHECKED BY

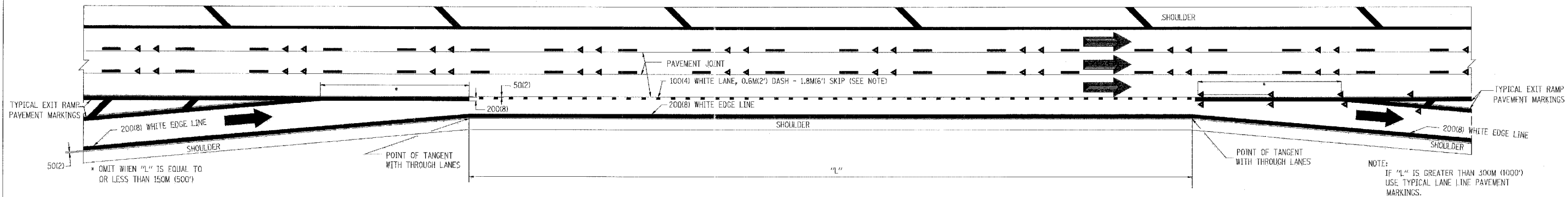
TC12 SHEET 1 OF 2

REVISION DATE: 01/01/96

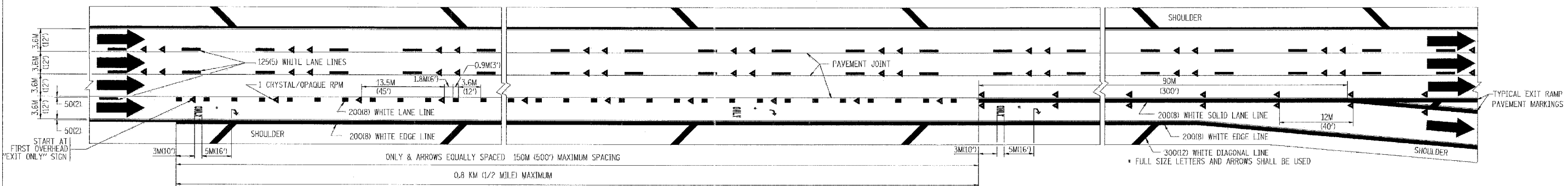
DATE-TIME
DOW-SPEC
VPI-C2

62580

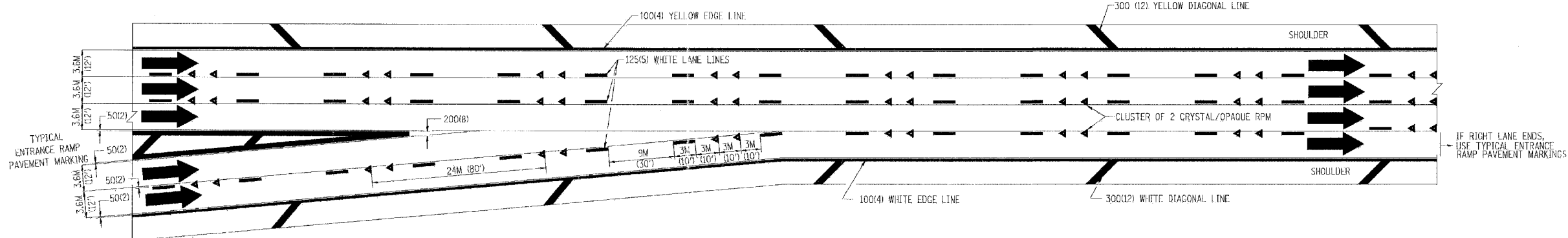
F.A. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			419	414
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS



TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS



TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS

REVISIONS	
NAME	DATE
DWS	1/90
DWS	5/91

ILLINOIS DEPARTMENT OF TRANSPORTATION

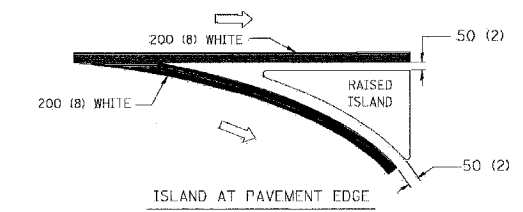
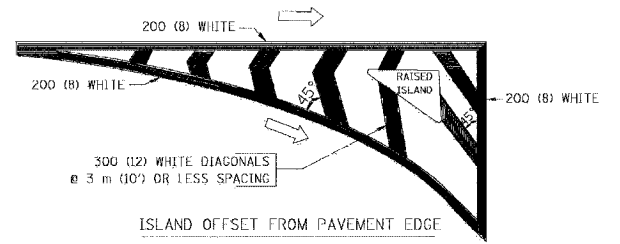
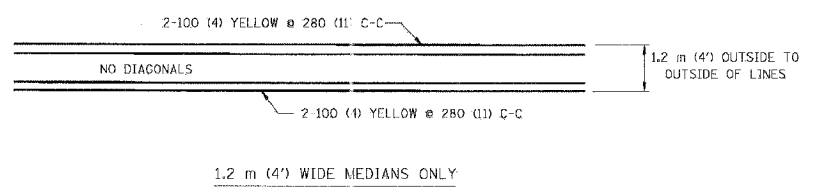
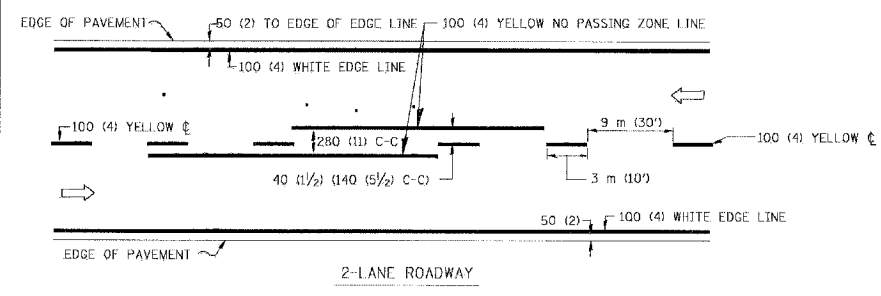
MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS

SCALE: NONE
DATE: 10/18/2002

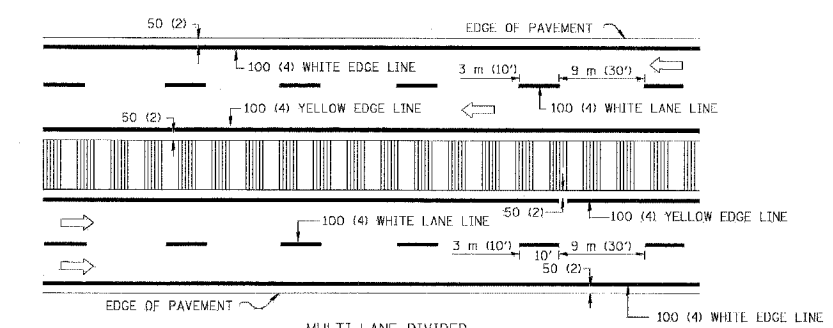
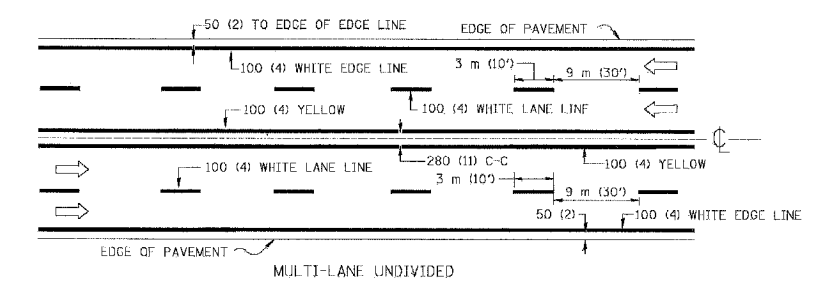
DRAWN BY C.A.D.D.
CHECKED BY
TC12 SHEET 2 OF 2
REVISION DATE: 01/01/96

DATE TIME
IGN SPEC
VH-C12

F.A. NO.	SECTION	COUNTY	SYMBOLS	SHEET NO.
				419 415
STA.	TO STA.			
FED. ROAD DIST. NO.	BLINDS	FED. AID PROJECT		

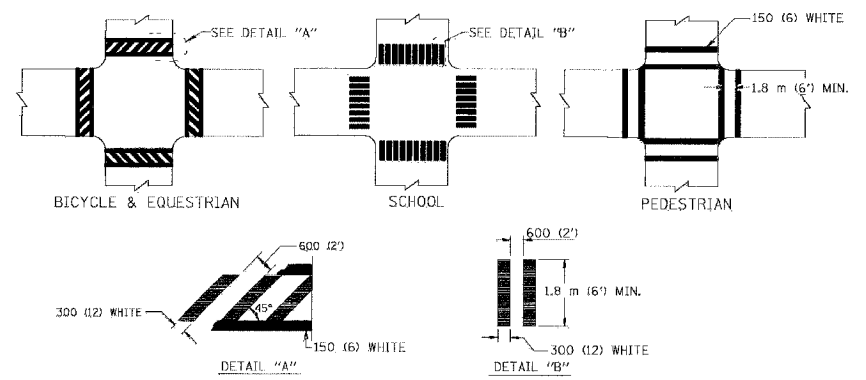


TYPICAL ISLAND MARKING

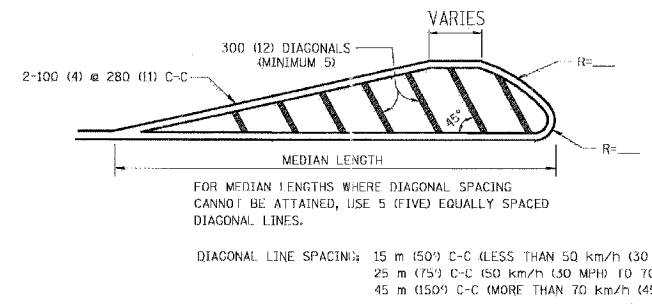


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

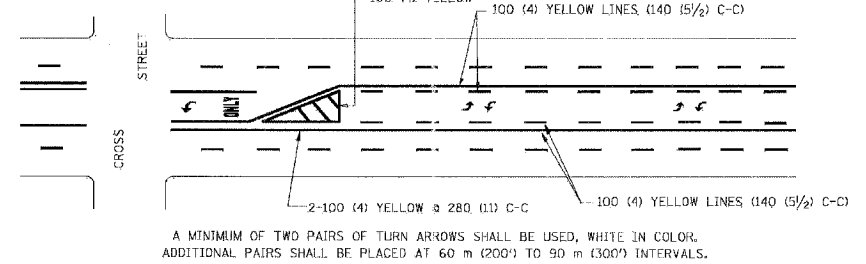
TYPICAL LANE AND EDGE LINE MARKING



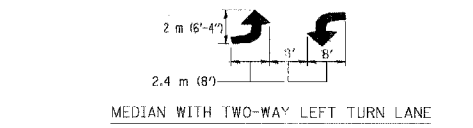
TYPICAL CROSSWALK MARKING



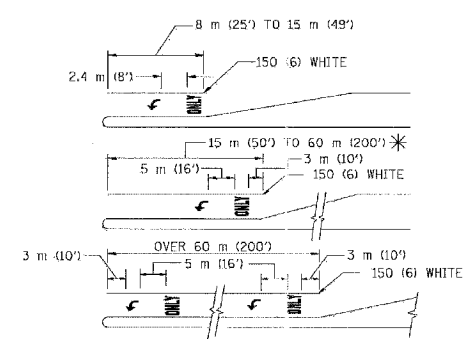
MEDIANS OVER 1.2 m (4') WIDE



TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE



FULL SIZE LETTERS 2.4 m (8') AND ARROWS SHALL BE USED.

AREA = 1.5 m² (15.6 SQ. FT.) ONLY AREA = 1.9 m² (20.8 SQ. FT.)

* TURN LANES IN EXCESS OF 120 m (400') IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL TURN LANE MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	100 (4)	SKIP-DASH	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	100 (4) 2 @ 100 (4)	SOLID SOLID	YELLOW YELLOW	140 (5 1/2) C-C FROM SKIP-DASH CENTERLINE 280 (11) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	100 (4) 125 (5) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	3 m (10') LINE WITH 9 m (30') SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	600 (2') LINE WITH 1.8 m (6') SPACE
EDGE LINES	100 (4)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	150 (6) LINE; FULL SIZE LETTERS & SYMBOLS (2.4 m (8'))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 100 (4) EACH DIRECTION 2.4 m (8') LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	3 m (10') LINE WITH 9 m (30') SPACE FOR SKIP-DASH; 140 (5 1/2) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 150 (6) 300 (12) @ 45° 300 (12) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 1.8 m (6') APART 600 (2') APART 600 (2') APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	600 (24)	SOLID	WHITE	PLACE 1.2 m (4') IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 100 (4) WITH 300 (12) DIAGONALS @ 45° NO DIAGONALS USED FOR 1.2 m (4') WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	280 (11) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	200 (8) WITH 300 (12) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 4.5 m (15') C-C (LESS THAN 50 km/h (30 MPH)) 6 m (20') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 9 m (30') C-C (OVER 70 km/h (45 MPH))
RAILROAD CROSSING	600 (24) TRANSVERSE LINES; "RR" IS 1.8 m (6') LETTERS; 400 (16) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=0.33m ² (3.6 SQ. FT.) EACH "X"=5.0 m ² (54.0 SQ. FT.)
SHOULDER DIAGONALS	300 (12) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	15 m (50') C-C (LESS THAN 50 km/h (30 MPH)) 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 45 m (150') C-C (OVER 70 km/h (45 MPH))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE

TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DATE: 10/18/2002

DRAWN BY: CADD

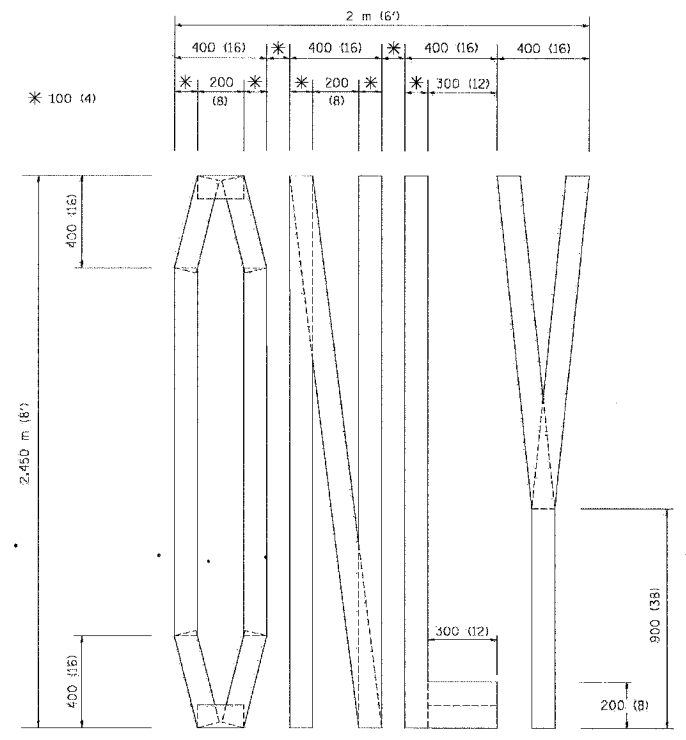
CHECKED BY:

TC-13

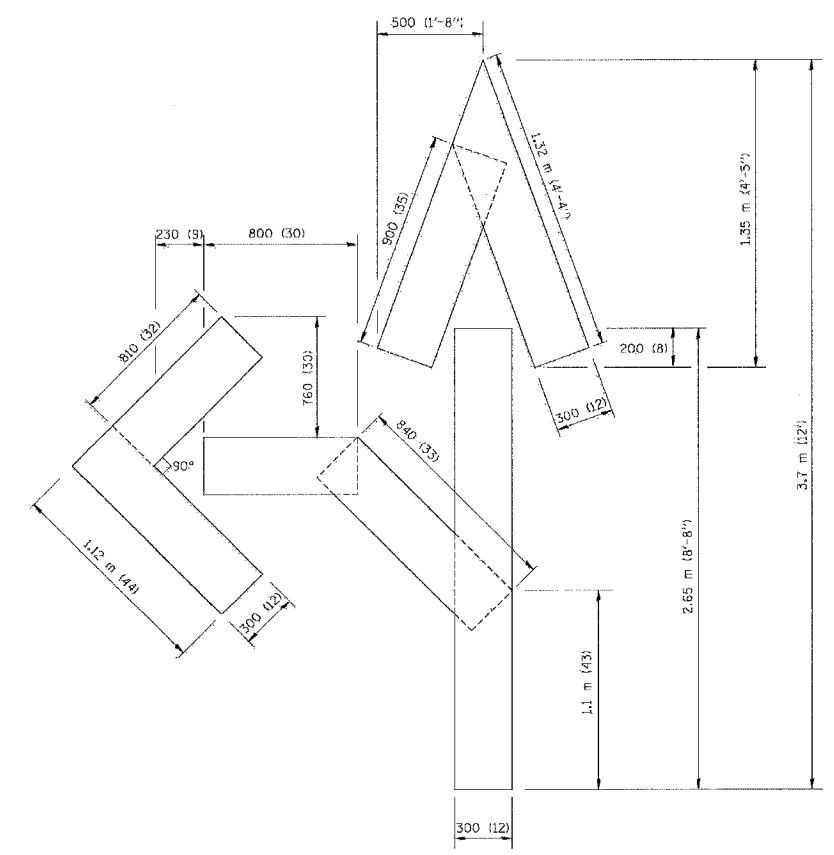
REVISION DATE: 01/06/00

62580

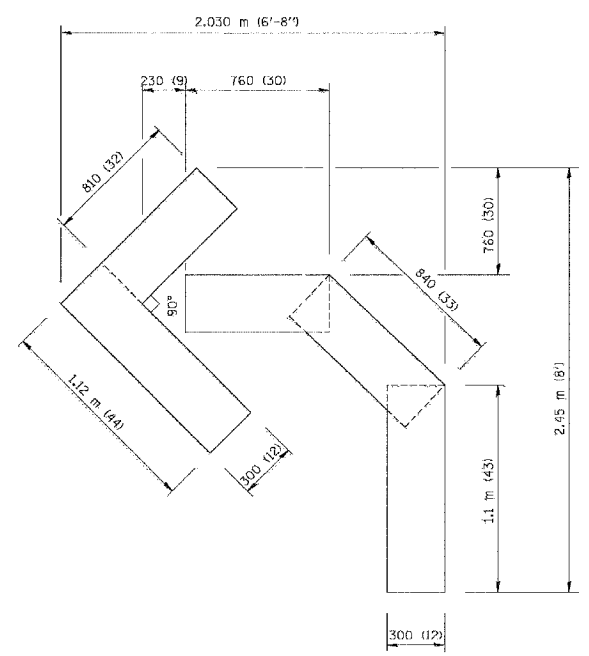
F. & REC.	SECTION	COUNTY	TOWNSHIP	SHEET NO.
				419 416
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



QUANTITY
 100 (4) LINE = 19.7 m (64.1 ft.)
 1.97 sq. m (21.1 sq. ft.)



QUANTITY
 100 (4) LINE = 25.3 m (82.5 ft.)
 2.53 sq. m (27.5 sq. ft.)



QUANTITY
 100 (4) LINE = 13.9 m (45.5 ft.)
 1.39 sq. m (15.2 sq. ft.)

All dimensions are in millimeters (inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING
 LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

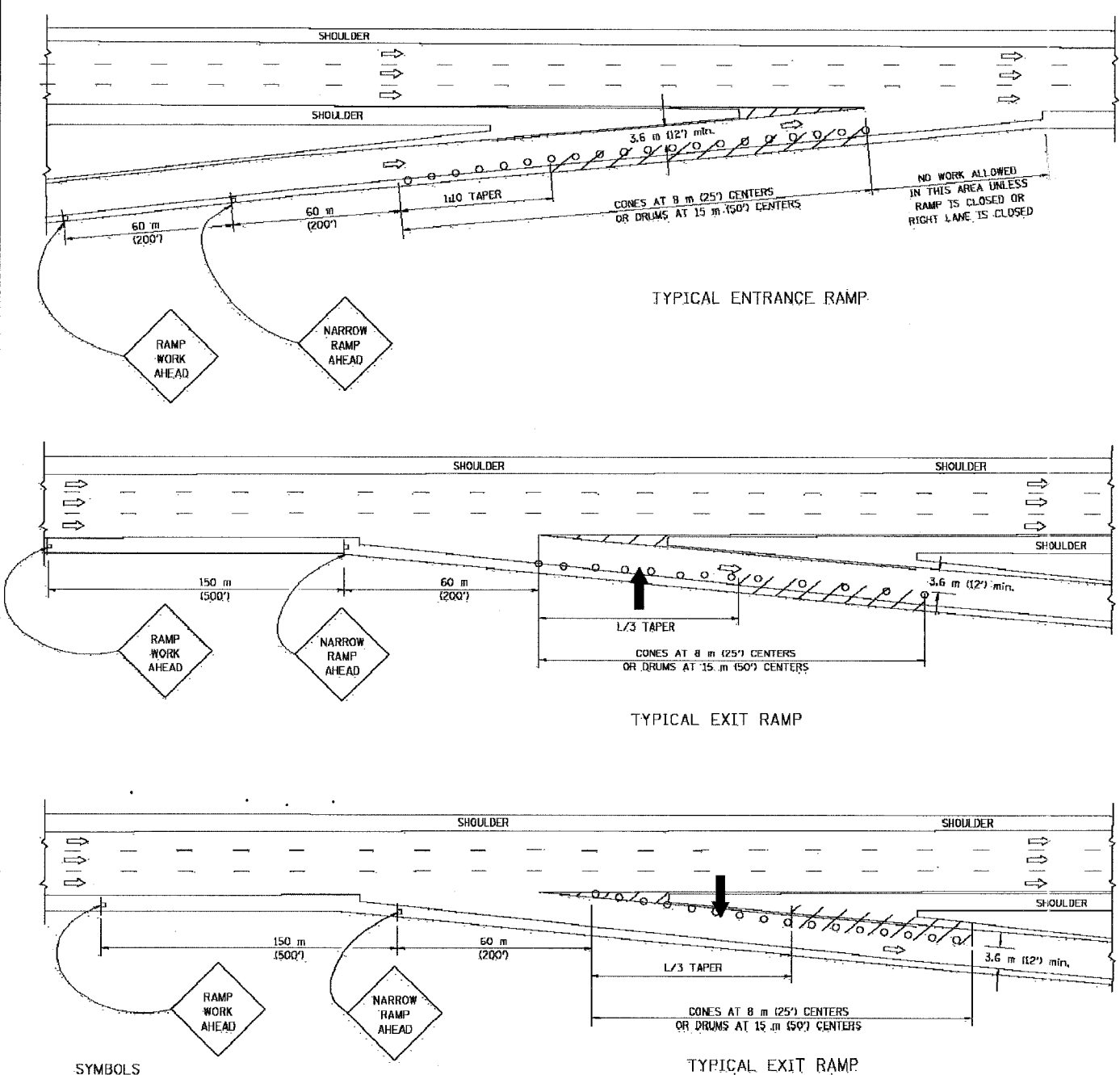
REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

SCALE: NONE
 DATE: 10/18/2002

DRAWN BY: CADD
 CHECKED BY: TC-16

REVISION DATE: 08/28/00

PARTIAL RAMP CLOSURE DETAILS



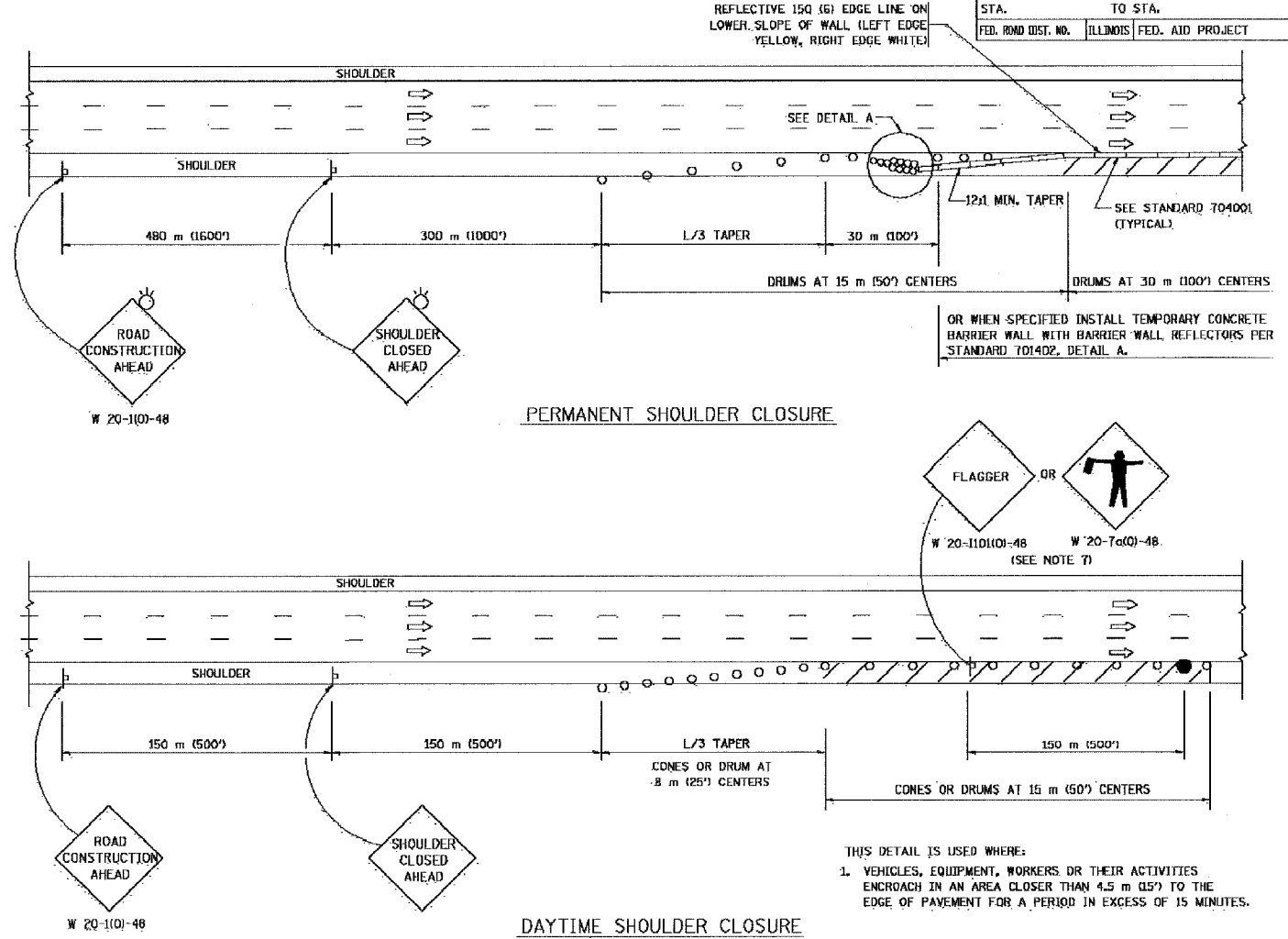
- SYMBOLS**
- ARROWBOARD
 - WORK AREA
 - SIGN ON PORTABLE OR PERMANENT SUPPORT
 - FLAGGER WITH CONTROL SIGN
 - DRUM WITH MONO-DIRECTIONAL STEADY-BURNING LIGHT
 - CONES - 700 (28) IN HEIGHT

GENERAL NOTES

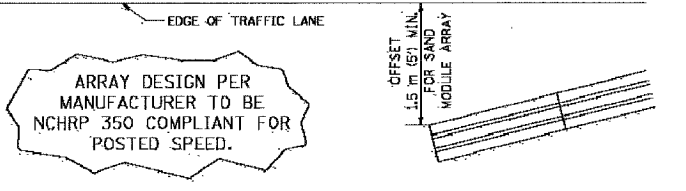
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
80 km/h (45 mph) OR GREATER:	METRIC: $L = 0.65(W/S)$
	ENGLISH: $L = (W/S)$
	W = WIDTH OF OFFSET IN METERS (FEET)
	S = NORMAL POSTED SPEED (KM/H (MPH))
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



THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENDOUCH IN AN AREA CLOSER THAN 4.5 m (15') 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 OUTSIDE THE CLEAR ZONE OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP350 FOR POSTED SPEED.
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 ACTIVITY REQUIRES FREQUENT ENDOUCHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 30 m (100') TO 60 m (200') IN ADVANCE OF THE WORKERS.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES

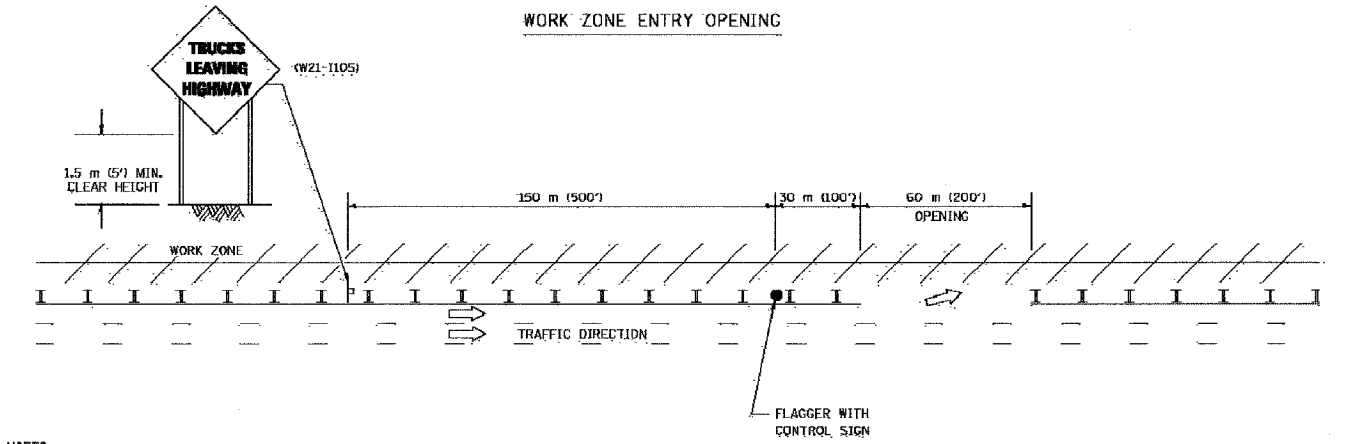
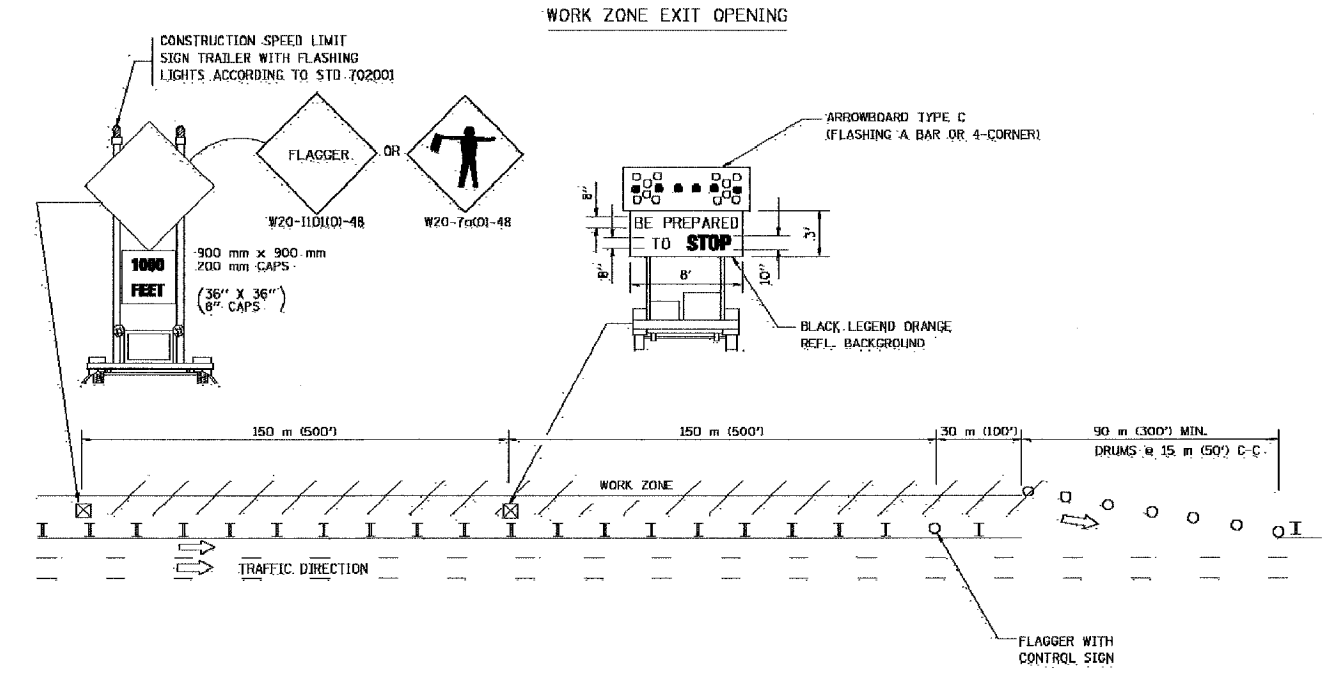
REVISIONS	
NAME	DATE
DWS	11/96
JAF	12/02
NCHRP 350	04/03

SCALE: NONE
 DATE: 05/06/2003
 DRAWN BY: DWS
 DESIGNED BY: DWS
 CHECKED BY: TC-17

62580

F.A. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			419	418
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS.



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN

ILLINOIS DEPARTMENT OF TRANSPORTATION

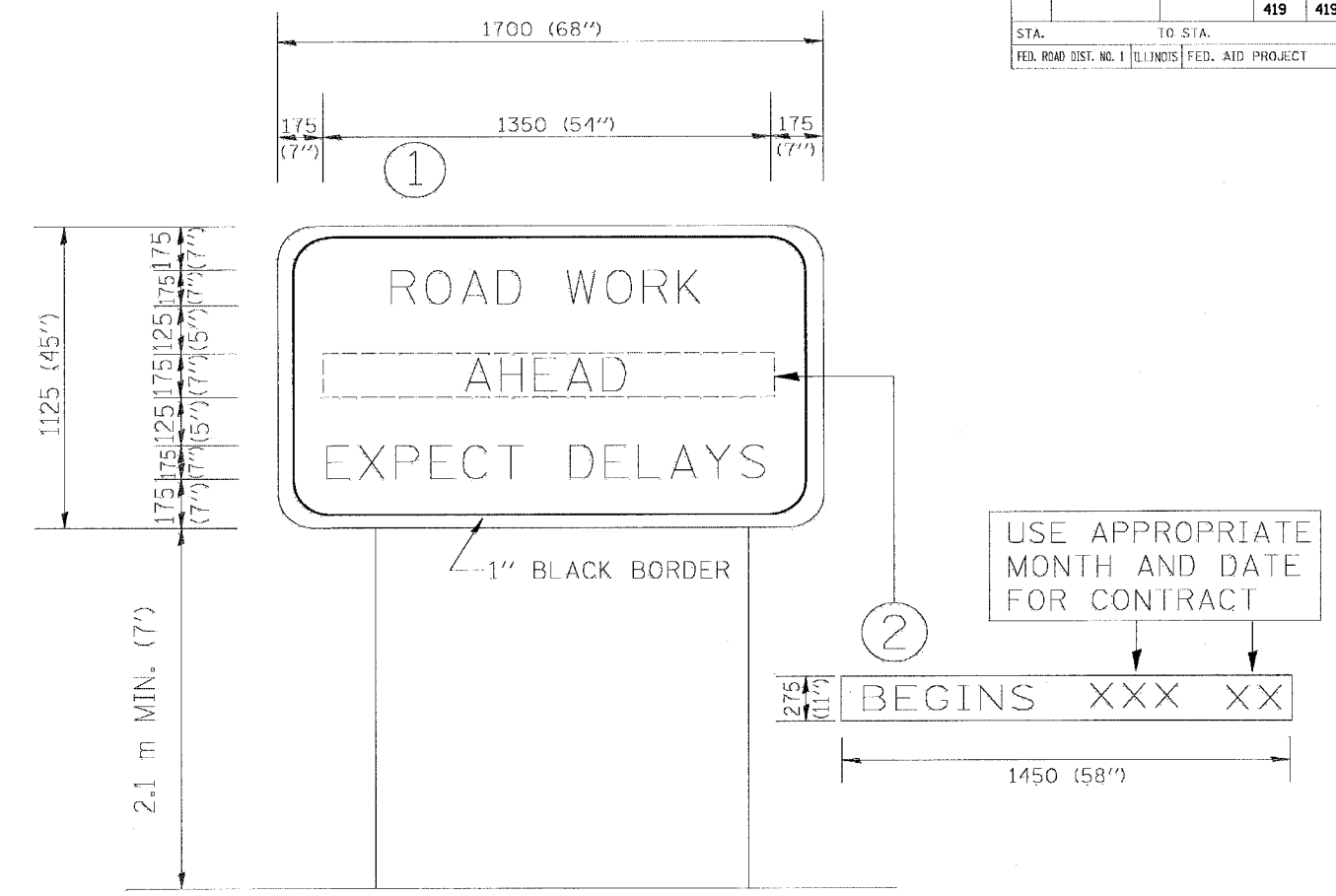
SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS.

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03

SCALE: NONE
 DATE 05/05/2003
 DRAWN BY CADD
 CHECKED BY TC-18

62580

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			419	419
STA.		TO STA.		
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 2.3 SQ. M. (25.70 SQ. FT.)

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

REVISIONS	NAME	DATE
	R. MIRS	9-15-97
	R. MIRS	2-11-97
	T. RAMMACHER	2-2-99

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY INFORMATION SIGNING
 SCALE: DATE 10/18/2002
 DRAWN BY: BJR. OF DESIGN
 CHECKED BY: