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**STANDARDS**  
SEE PAGE 4

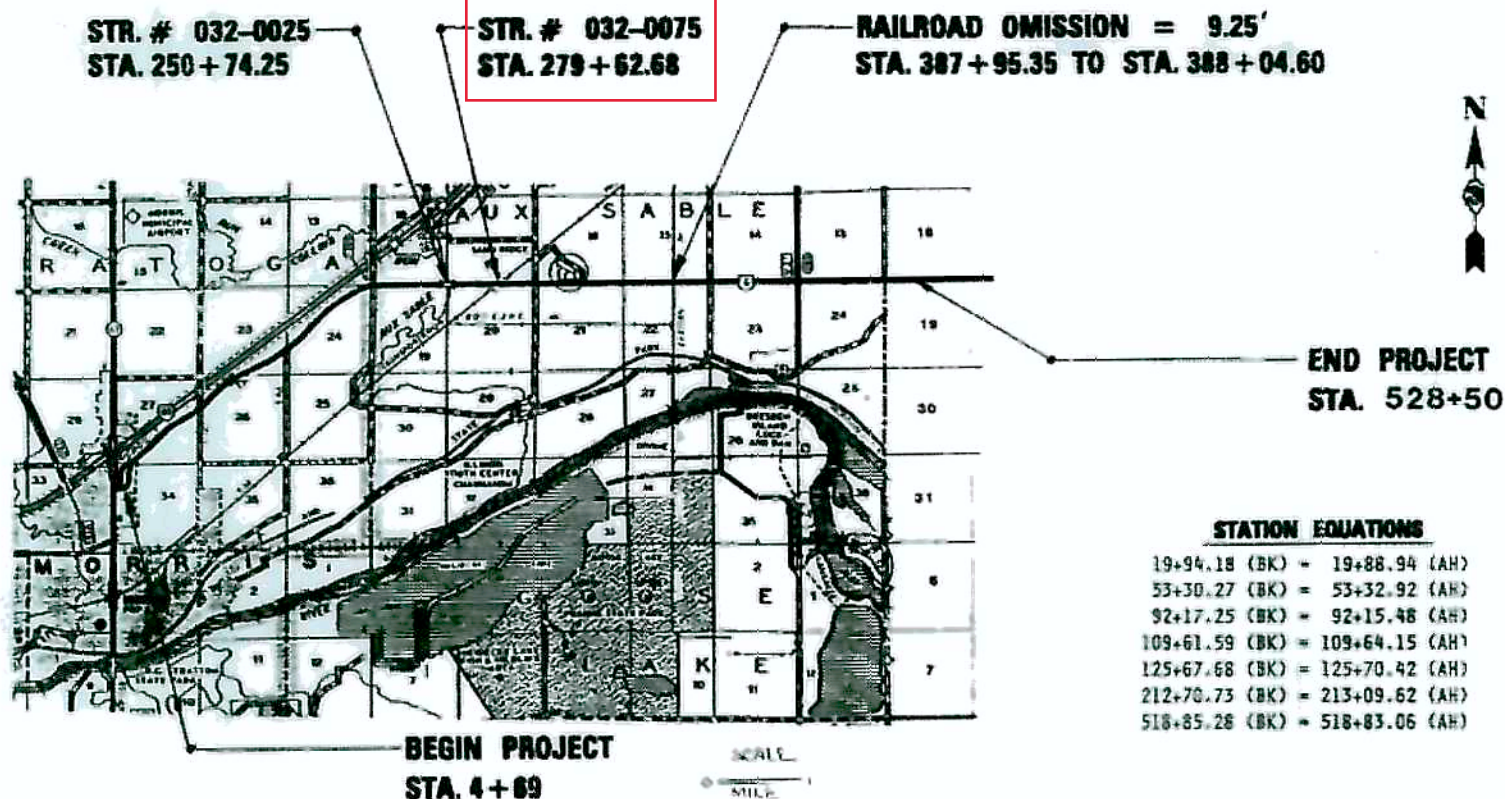
MICROFILMED \_\_\_\_\_  
 REEL NUMBER \_\_\_\_\_  
 AWARDED \_\_\_\_\_  
 RESIDENT ENGINEER \_\_\_\_\_  
 AS BUILT CHANGES WERE MADE  
 ON THE FOLLOWING SHEETS \_\_\_\_\_

PROJECT ENGINEER: LYLE SCHAUB  
 SQUAD LEADER: PAT GUYON  
 TOWNSHIPS: SARATOGA, AUX SABLE

CONTRACT NO. 86245

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISIONS OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**FEDERAL AID HIGHWAY**  
**F.A.U. 5951 & S.B.I. 7 (U.S. 6)**  
**SECTION (G)RS-4, (G,F)RS-1, (GR,FR)RS**  
**GRUNDY COUNTY**

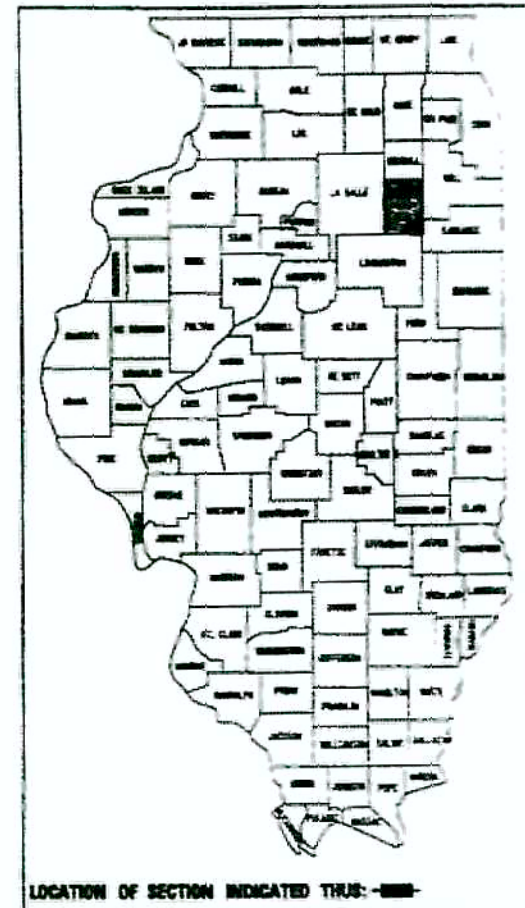
C-43-864-01



**STATION EQUATIONS**

19+94.18 (BK)	=	19+88.94 (AH)
53+30.27 (BK)	=	53+32.92 (AH)
92+17.25 (BK)	=	92+15.48 (AH)
109+61.59 (BK)	=	109+64.15 (AH)
125+67.68 (BK)	=	125+70.42 (AH)
212+70.73 (BK)	=	213+09.62 (AH)
518+85.28 (BK)	=	518+83.06 (AH)

S.B.I. RTE.	SECTION	COUNTY	TOTAL SHEETS
7	6	GRUNDY	12
D-83-862-01			
P-83-838-89			



615 (D1) MAJOR COLLECTOR 2.00 (BIT-3)  
 ADT = 6150 MU = 307

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

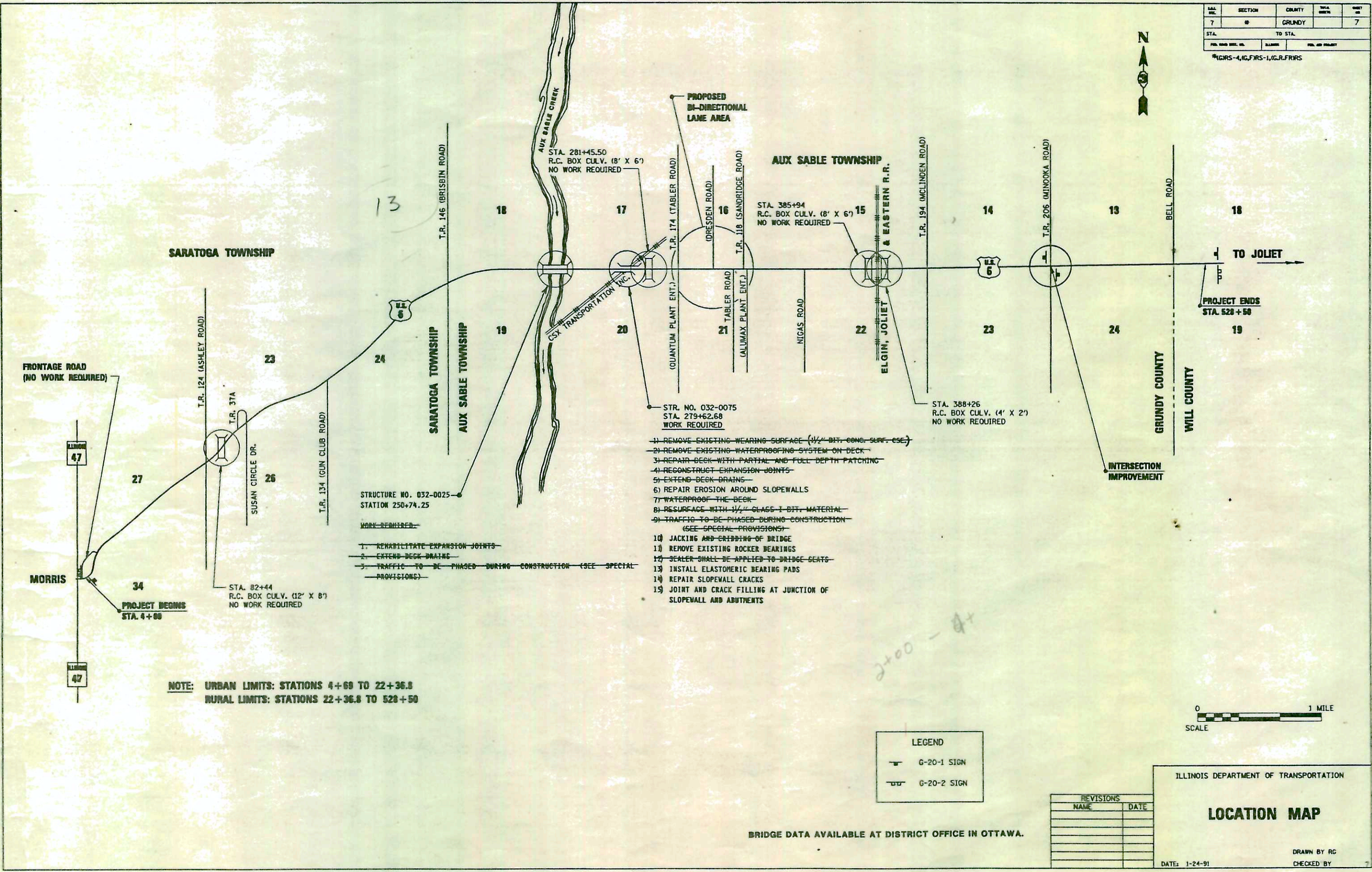
SUBMITTED: 3/6 19 91  
 EXAMINED: 3-20 19 91  
 PASSED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_

DISTRICT ENGINEER  
 ENGINEER OF PLANS AND CONTRACTS  
 ENGINEER OF DESIGN  
 DIRECTOR, DIVISION OF HIGHWAYS

GROSS LENGTH OF IMPROVEMENT = 52,343.45 FEET = 9.914 MILES  
 RAILROAD OMISSION = 9.25 FEET  
 NET LENGTH OF IMPROVEMENT = 52,334.20 FEET = 9.912 MILES

SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	#	GRUNDY		7
STA.	TO STA.			
POL. AND PROJ. NO.	DATE	POL. AND PROJ.		

IGRS-4,IG,FRS-1,IG,R,FRS



- STRUCTURE NO. 032-0025  
STATION 250+74.25
- WORK REQUIRED:
1. REHABILITATE EXPANSION JOINTS
  2. EXTEND DECK DRAINS
  3. TRAFFIC TO BE PHASED DURING CONSTRUCTION (SEE SPECIAL PROVISIONS)

- 1) REMOVE EXISTING WEARING SURFACE (1/2" BIT. CONC. SURF. CSC)
- 2) REMOVE EXISTING WATERPROOFING SYSTEM ON DECK
- 3) REPAIR DECK WITH PARTIAL AND FULL DEPTH PATCHING
- 4) RECONSTRUCT EXPANSION JOINTS
- 5) EXTEND DECK DRAINS
- 6) REPAIR EROSION AROUND SLOPEWALLS
- 7) WATERPROOF THE DECK
- 8) RESURFACE WITH 1/2" CLASS I BIT. MATERIAL
- 9) TRAFFIC TO BE PHASED DURING CONSTRUCTION (SEE SPECIAL PROVISIONS)
- 10) JACKING AND CRIBBING OF BRIDGE
- 11) REMOVE EXISTING ROCKER BEARINGS
- 12) SEALER SHALL BE APPLIED TO BRIDGE SEATS
- 13) INSTALL ELASTOMERIC BEARING PADS
- 14) REPAIR SLOPEWALL CRACKS
- 15) JOINT AND CRACK FILLING AT JUNCTION OF SLOPEWALL AND ABUTMENTS

**NOTE:** URBAN LIMITS: STATIONS 4+69 TO 22+36.8  
RURAL LIMITS: STATIONS 22+36.8 TO 528+50

2+00 - 4+

LEGEND

	G-20-1 SIGN
	G-20-2 SIGN



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

## LOCATION MAP

DRAWN BY RC  
CHECKED BY

DATE: 1-24-91

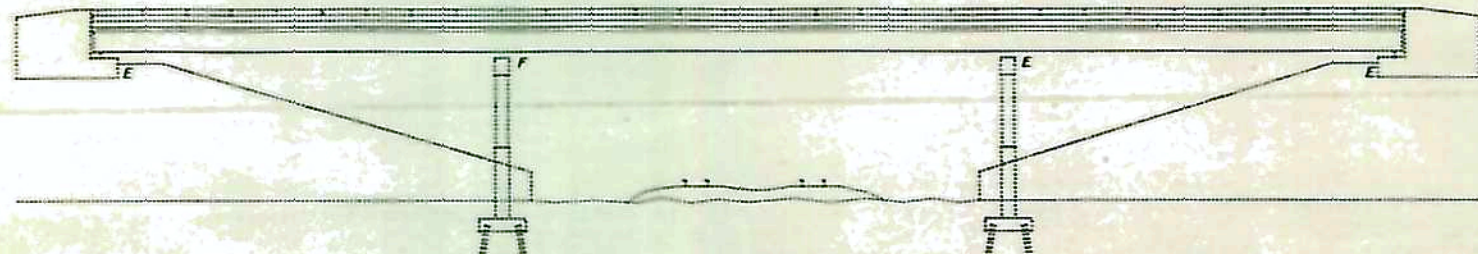
BRIDGE DATA AVAILABLE AT DISTRICT OFFICE IN OTTAWA.

15-FEB-91 ZF2112.0021039904C.DGN

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	MILE	POST	SHEET NO. 1
7	GRUNDY		57	4 SHEETS
STA.	TO STA.			
NO. AND SIZE OF	NUMBER	NO. OF PAGES		

IGURS-4,IGFIRS-1,IGR,FURS



ELEVATION

GENERAL NOTES

All new structural steel shall conform to AASHTO Classification M-183. Fasteners shall be high strength bolts - Bolts 3/4", open holes 7/8", unless otherwise noted.

All areas of paint damage in the repair areas shall be cleaned by Method B prior to painting as specified.

The three coat lead and chromate free alkylid point system shall be used for shop and field painting of New and Existing Structural Steel. The color of the final finish coat shall be Interstate Green.

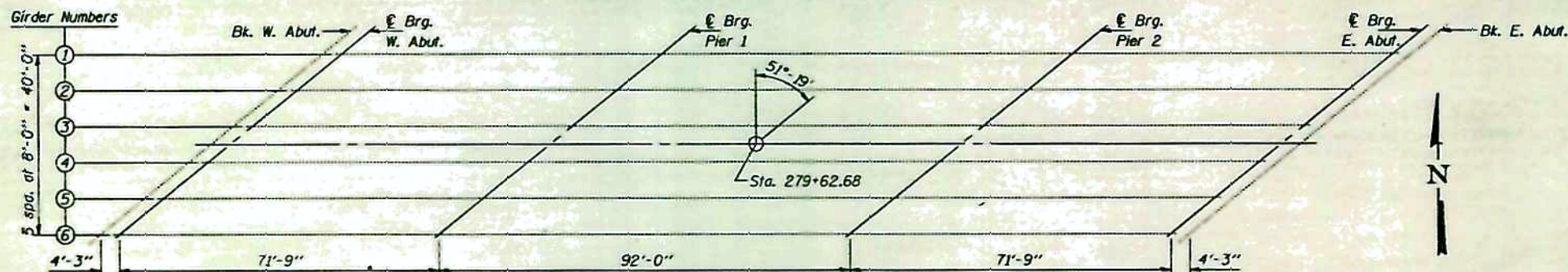
All costs associated with painting shall be incidental to "Furnishing and Erecting Structural Steel".

Jacking and cribbing shall be approved by the Engineer prior to commencing bridge raising operations.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

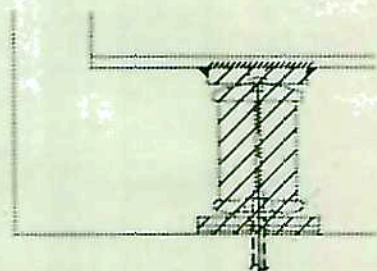
Traffic control shall be determined by the District.

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



PLAN

Diaphragm removal and replacement may be required to facilitate drilling holes in bottom flange for bearing attachment. Cost is incidental to "F & E. Struct. Steel".



EXISTING BEARING REMOVAL DETAIL

AT ABUTMENTS

Before installing the new bearings, remove the top plate of the existing bearing assembly from the bottom flange of the girders and grind smooth all weld material remaining on the bottom flange. Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost is incidental to "F. & E."

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	2400
Elastomeric Bearing Assembly Type I	Each	6
Elastomeric Bearing Assembly Type II	Each	6
Jack and Remove Existing Bearings	Each	1
Traffic Control	L.S.	1

New steel extensions, side retainers, lead plates, shim plates, connection bolts and anchor bolts are included in "Furnishing and Erecting Structural Steel".

DESIGNED	7 P 2115
CHECKED	BKT
DRAWN	Paul Sumner
CHECKED	Y.F.

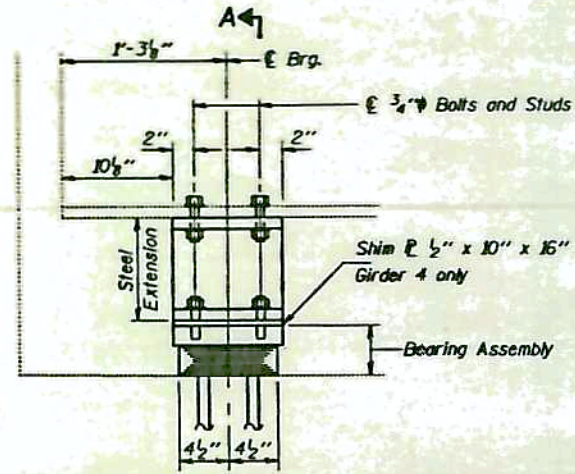
EXAMINED	February 28 1991	J. E. Adams
PASSED		ENGINEER OF STRUCTURAL SERVICES
APPROVED		DIRECTOR OF HIGHWAYS

BEARING REPLACEMENT  
S.B.I. RT. 7 SEC. G-VB-1  
GRUNDY COUNTY  
STA. 279+62.68

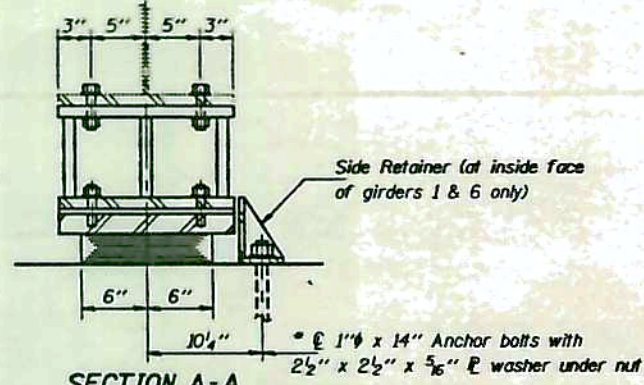
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	BRIDGE NO.	SHEET NO.
7	GRUNDY	58	4 SHEETS
STA. TO STA.			
DES. AND CON. BY			
REV. AND REVISION			

© IGRS-4, IGRS-1, IGRS, FRRS



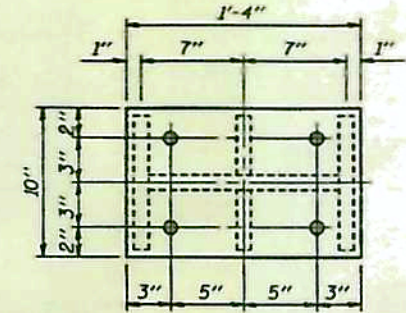
ELEVATION AT WEST ABUTMENT



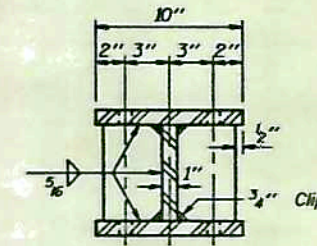
SECTION A-A

GIRDER REACTIONS

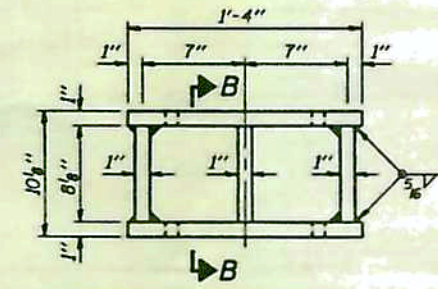
RE	(K)	33.08
RL	(K)	44.22
Imp.	(K)	11.22
R (Total)	(K)	88.53



PLAN TOP & BOTTOM PLATE



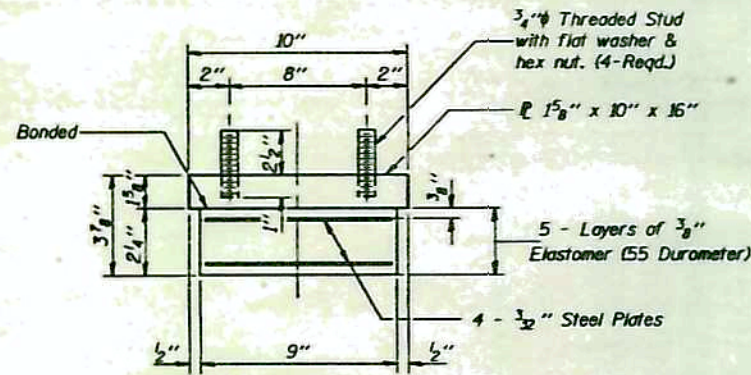
SECTION B-B



STEEL EXTENSION DETAIL

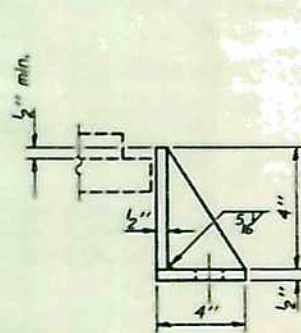
TYPE I ELASTOMERIC EXP. BRG.

\* See sheet 4 of 4 for Anchor Bolt installation.



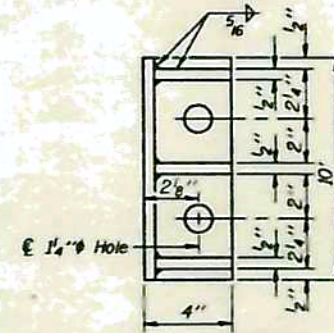
BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6

WEST ABUTMENT  
BEARING REPLACEMENT  
S.B.I. RT. 7 SEC. G-VB-1  
GRUNDY COUNTY  
STA. 279+62.68

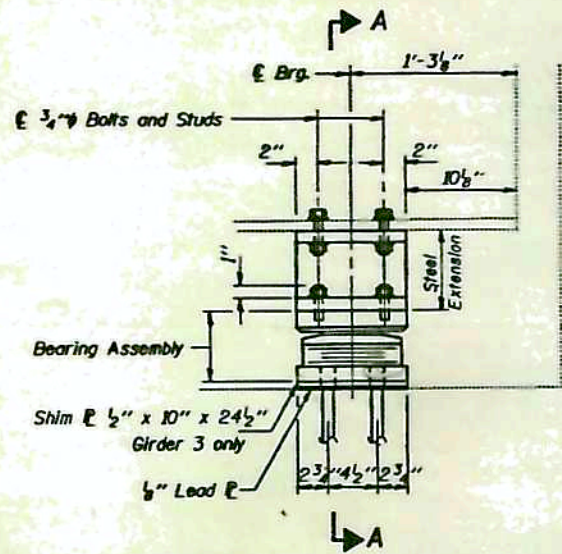
STR. No. 032-0075

DESIGNED	Kenneth P. Stults
CHECKED	BRT
DRAWN	Paul Summer
CHECKED	KP

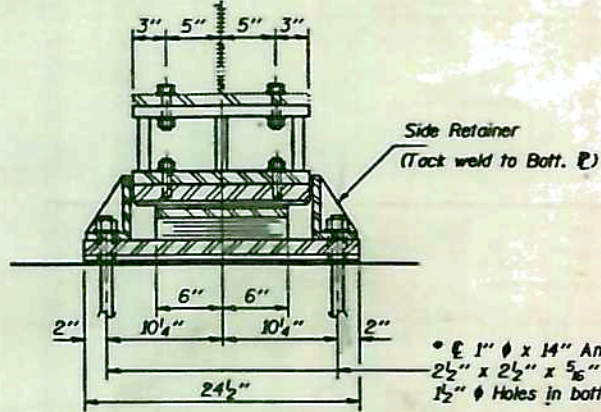
February 28 1991	
EXAMINED	John E. Hoffman
ENGINEER OF STRUCTURAL SERVICES	
PASSED	
ENGINEER OF BRIDGES AND STRUCTURES	
APPROVED	
DIRECTOR OF HIGHWAYS	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	GRUNDY	59	3
STA. TO STA.		4 SHEETS	
* ICFRS-4, ICFRS-1, ICFRS-2, ICFRS-3			



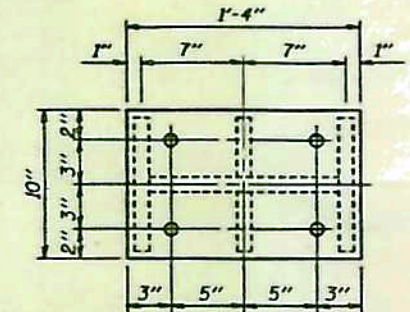
ELEVATION AT EAST ABUTMENT



SECTION A-A

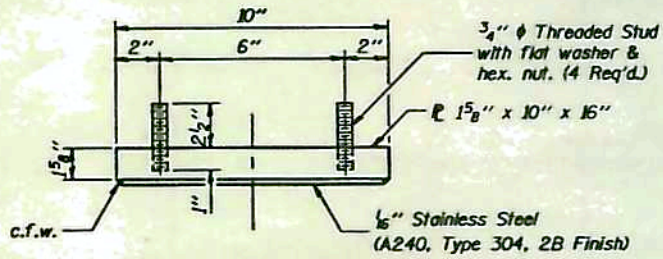
GIRDER REACTIONS

R <sub>P</sub>	(K)	33.08
R <sub>L</sub>	(K)	44.22
Imp.	(K)	11.22
R (Total)	(K)	88.53

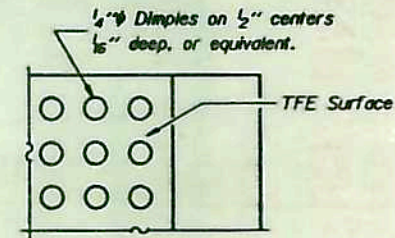


PLAN TOP & BOTTOM PLATE

TYPE II TFE ELASTOMERIC EXP. BRG.

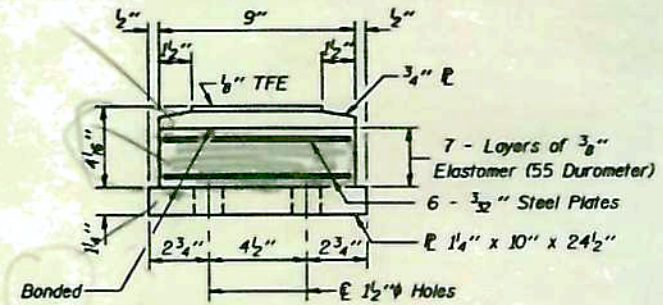


TOP BEARING ASSEMBLY

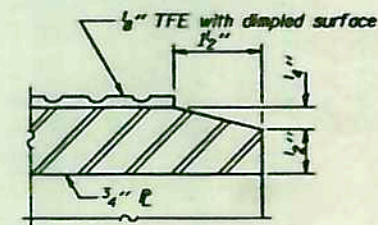


PLAN-TFE SURFACE

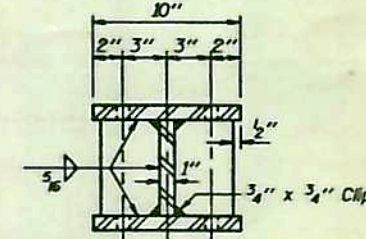
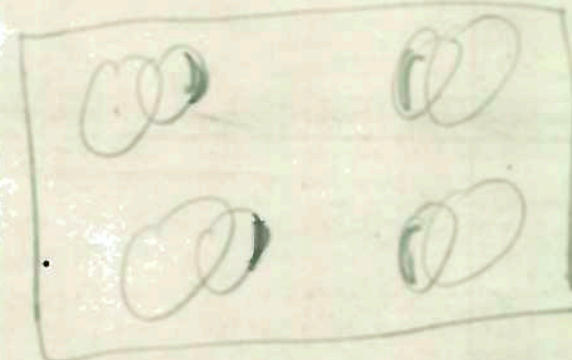
\* See sheet 4 of 4 for Anchor Bolt Installation.



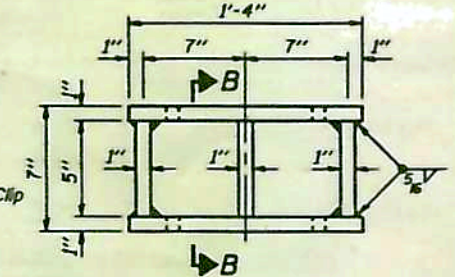
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE



SECTION B-B



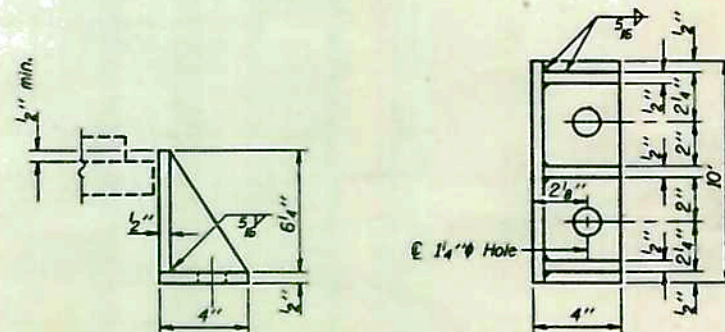
STEEL EXTENSION DETAIL

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 surfaces.

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.

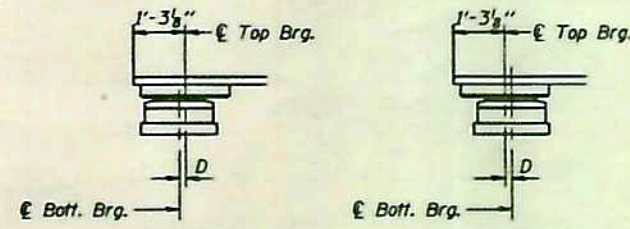
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	6



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

EAST ABUTMENT  
BEARING REPLACEMENT  
S.B.I. RT. 7 SEC. G-VB-1  
GRUNDY COUNTY  
STA. 279+62.68

STR. No. 032-0075

DESIGNED	Kenneth P. Stultz
CHECKED	ART
DRAWN	Paul Summer
CHECKED	Y.P.

DATE	February 28 1971
DESIGNED	John E. Adams
ENGINEER	CHIEF OF STRUCTURAL SERVICES
APPROVED	Director of Bridges and Structures
DIRECTOR OF HIGHWAYS	

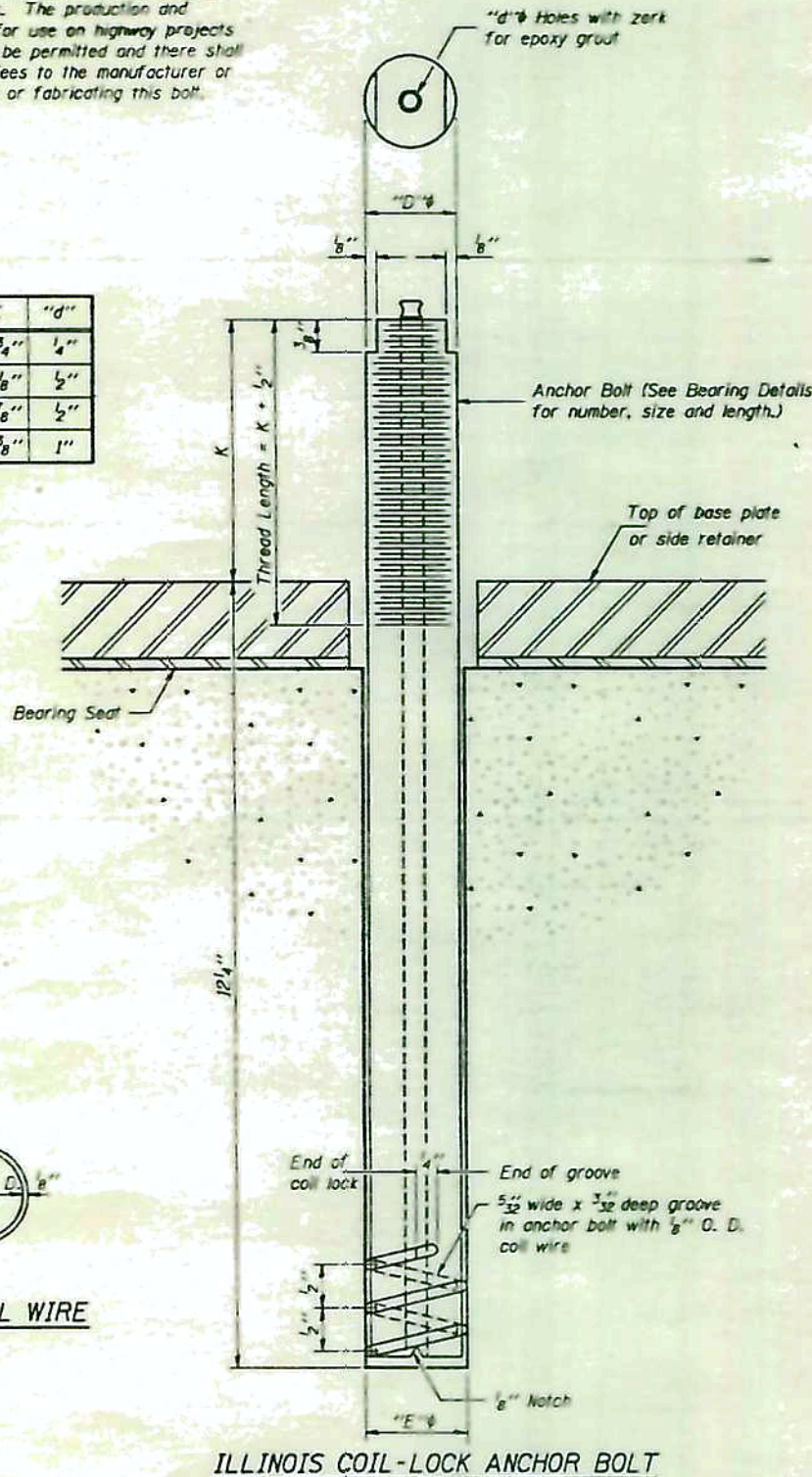
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	NO.	SHEET NO.
7	GRUNDY	60	1
STA. TO STA.		4 SHEETS	
* IGRS-4, IGRS-1, IGRS, IGRS			

1000 20 000

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"	5/16"	1 3/4"	1/4"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 1/4"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



**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 A519, Grade 1026 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 C881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

**INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT**

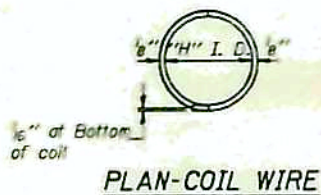
1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through 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 in accordance with 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 conforming to ASTM A307.  
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

**GENERAL NOTES**

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with 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 not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".



PLAN-COIL WIRE

DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN Paul Sumner	APPROVED
CHECKED	

ABB-1 12-1-87

ANCHOR BOLT  
FOR BEARINGS  
S.B.I. RT. 7 SEC. G-VB-1  
GRUNDY COUNTY  
STA. 279+62.68

STR. No. 032-0075