STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

THE PROJECT IS LOCATED IN THE VILLAGE OF LOMBARD

F.A.P ROUTE 870: IL 53 (COLUMBINE AVE.)

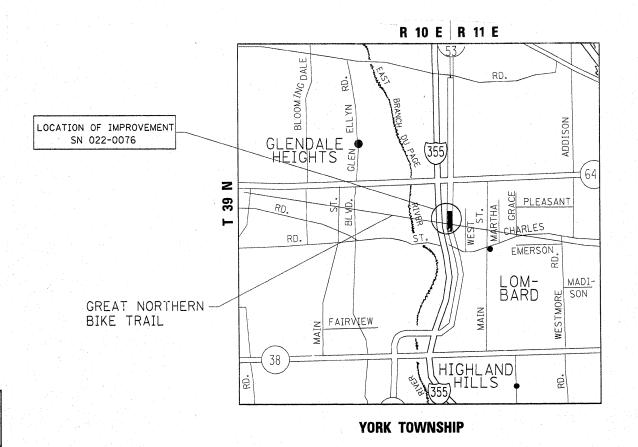
OVER GREAT NORTHERN BIKE TRAIL

SECTION: 2008–044 I

BRIDGE JOINT REPAIR AND BEARING REPLACEMENT

DUPAGE COUNTY

C-91-534-08



TRAFFIC DATA

2006 ADT = 15400 POSTED SPEED LIMIT = 40 MPH

D-91-534-08



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED

OCTOBER 27, 20 OB

DIAM M. O'Harde OF

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Pleanber 5, 20 OS

Frain E. Harnelto

Director OF DESIGN AND ENVIRONMENT

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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

PROJECT ENGINEER ROBERT BORO
PROJECT MANAGER KEN ENG (847) 705-4247

CONTRACT NO. 60E88

 \bigcirc

INDEX OF SHEETS

SHEET NO.	DESCRIPTION	
1	COVER SHEET	
2	INDEX OF SHEETS, STANDARDS AND GENERAL NOTES	
3	SUMMARY OF QUANTITIES	
4-7	BRIDGE REPAIRS	
8	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECT AND DRIVEWAYS (TC-10)	TIONS

LIST OF STATE STANDARDS

STANDARD NO.	DESCRIPTION		
701426 <i>-0</i> 3	LANE CLOSURE, MULTI-LANE, INTERMITTENT OR MOVING OPE	ERATION, FOR	SPEED > 45 MPH
701606 <i>-06</i>	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE ME	EDIAN	
701801 - <i>04</i>	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEW	ALK CLOSURE	
701901 <i>-01</i>	TRAFFIC CONTROL DEVICES		

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND VILLAGE OF LOMBARD.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT 847-705-4151. A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM BRIDGE INSPECTORS

DO NOT SCALE PLAN FOR CONSTRUCTION DIMENSIONS

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

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INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	870 2008-044 I	DUPAGE	8 2
		CONTRACT N	0. 60E88
SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. A	D PROJECT	

CONSTRUCTION TYPE CODE

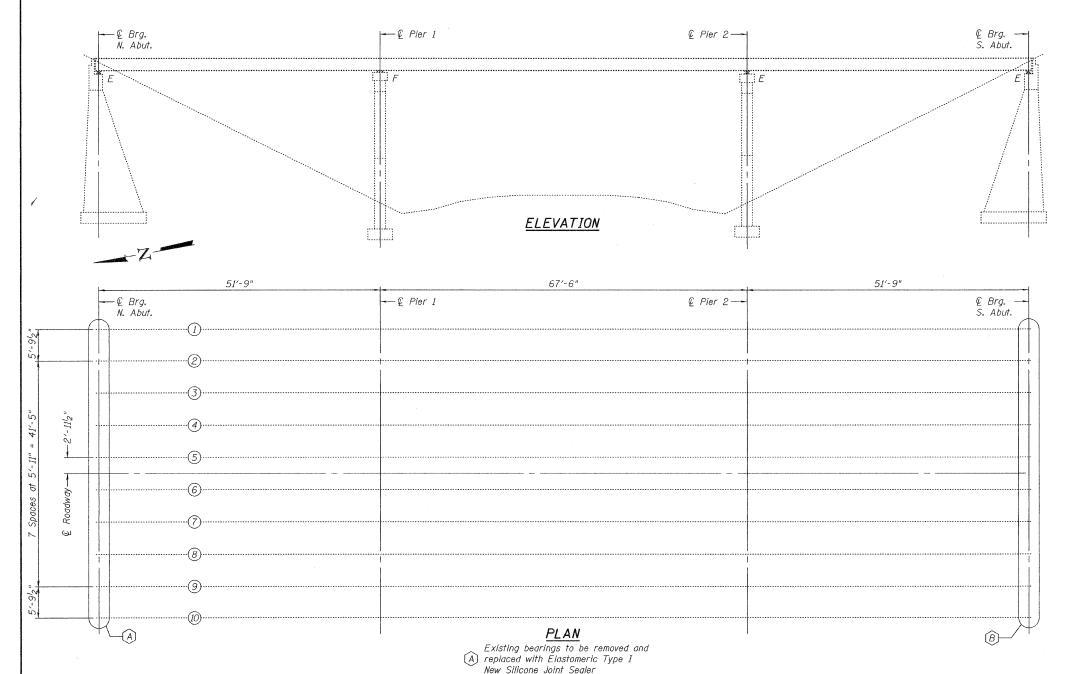
	SUMMARY OF QUANTITIES		URBAN	CONSTRUCT	ION TYPE (CODE			SUI	MMARY OF QUANTITI	ES			-		CONSTRUCTIO	N TYPE CC	DDE	
CODE NO	ITEM UNI	TOTAL						CODE NO		ITEM	U	INIT	TOTAL QUANTITIES						
50500405	FURNISHING AND ERECTING STRUCTURAL POUR	D 2460	2460																
50500715	JACK AND REMOVE EXISTING BEARINGS EAC	20	20													l'ann			
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I EAC	10	10																
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II EAC	10	10																
52100520	ANCHOR BOLTS, 1" EAC	1 40	40	era var de															
67100100	MOBILIZATION L S	M 1	1																
70102625	TRAFFIC CONTROL AND PROTECTION, L STANDARD 701606	M - 1	1																
70102640	TRAFFIC CONTROL AND PROTECTION, LSTANDARD 701801	M	4																
X0322467	TEMPORARY INFORMATION SIGNING FOR LANE SQ I	Т 48	48																
X0323076	SILICONE JOINT SEALER, 1 3/4" FOO	55	55																
X0323077	SILICONE JOINT SEALER, 2 3/4" FOO	55	55																
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728/2008

REVISIONS ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

PLOT DATE: 10/28/2008

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



(B) Existing bearings to be removed and replaced with Elastomeric Type II New Silicone Joint Sealer

All structural steel shall conform to AASHTO Classification $\emph{M-}270$ Gr. 36, unless otherwise noted.

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision

"Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

All structural steel shall be shop painted with the Inorganic zinc rich primer per
AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural
Steel.

If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Jack and Remove Existing Bearings	Each	20
Elastomeric Bearing Assembly Type I	Each	10
Elastomeric Bearing Assembly Type II	Each	10
Furnishing and Erecting Structural Steel	Pound	2,460
Anchor Bolts, 1"\$	Each	40
Silicone Joint Sealer, 1 ³ 4"	Foot	55
Silicone Joint Sealer, 2 ³ 4"	Foot	55

For Joint details see Sheets 3 and 4 of 4.

PLAN AND ELEVATION SN 022-0076

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STE OF MAN

Nalph E. Underson
Engineer of Bridges and Structures

NOVEMBER 19, 2008

Expires: November 30, 2010

SLT-91-001-08

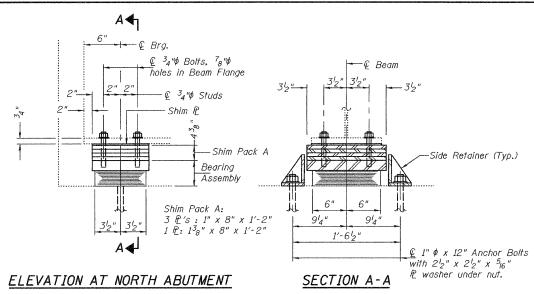
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DRAWN Drew Christopher

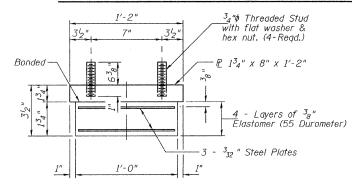
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NORTH ABUTMENT TYPE I ELASTOMERIC EXP. BRG.

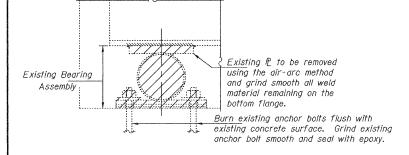


NORTH ABUTMENT BEARING ASSEMBLY

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

NORTH ABUTMENT BEAM REACTIONS

R₽	(K)	17
R4	(K)	30.3
Imp.	(K)	8,6
R (Total)	(K)	55.9



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

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DRAWN Drew Christopher	PASSED Religion of STRUCTURAL SERVICES PASSED Religion From Passed Reli
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. m^T

Min. jack capacity = 30 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed

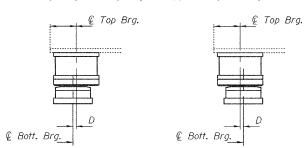
after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. Side retainers for Type I bearings shall be included in

the cost of Elastomeric Bearing Assembly, Type I. Side retainers for Type II bearings shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The '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.

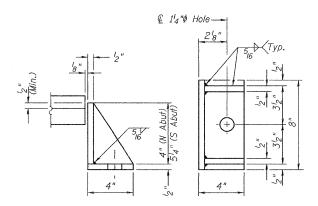
Bonding of 18" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



BELOW 50° F. ABOVE 50° F. (Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

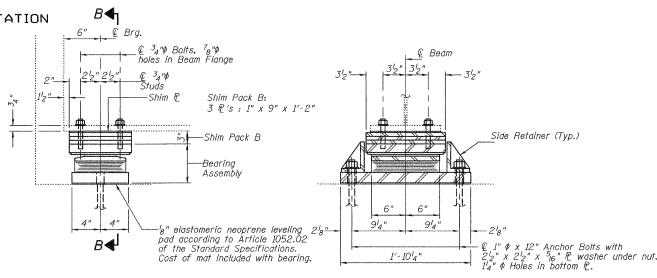
SETTING ANCHOR BOLTS AT EXP. BRG.

 $D = {}^{l}_{8}$ " per each 100' of expansion for every 15° temp change from the normal temp. of 50°F.



SIDE RETAINER

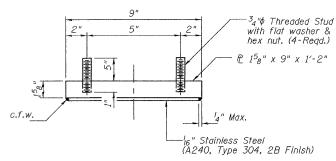
Equivalent rolled anale with stiffeners will be allowed in lieu of welded plates.

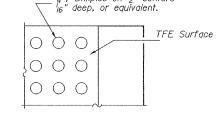


ELEVATION AT SOUTH ABUTMENT

SECTION B-B

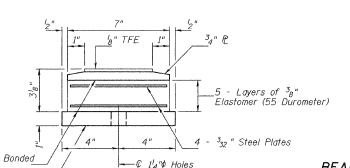
SOUTH ABUTMENT TYPE II TFE ELASTOMERIC EXP. BRG.





4"\$ Dimples on 5" centers

PLAN-TFE SURFACE TOP BEARING ASSEMBLY



BOTTOM BEARING ASSEMBLY

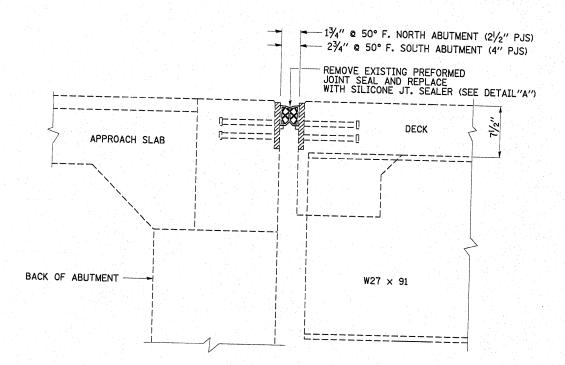
SECTION THRU TFE

8" TFE with dimpled surface 34" P

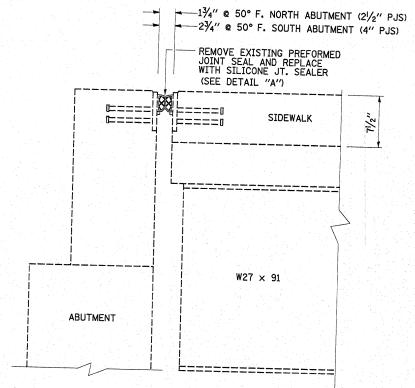
BEAM REACTIONS (K) 30.3 (K) 8.6 (K)

BEARING DETAILS SN 022-0076

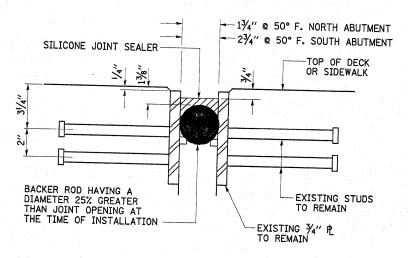
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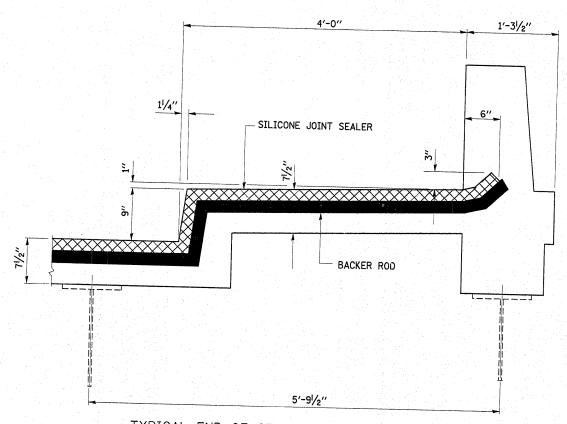
SECTION A-A
EXISING TRANSVERSE JOINT THRU DECK
(NORTH AND SOUTH ABUTMENT)



SECTION B-B
EXISTING EXPANSION JOINT THRU SIDEWALK
(NORTH AND SOUTH ABUTMENTS)



DETAIL "A"



TYPICAL END OF SEAL TREATMENT AT SIDEWALK

BILL OF MATERIAL

ITEM		UNIT	TOTAL
SILICONE JOINT SEALER, 13	4"	FOOT	55
SILICONE JOINT SEALER, 2	3/4"	FOOT	55

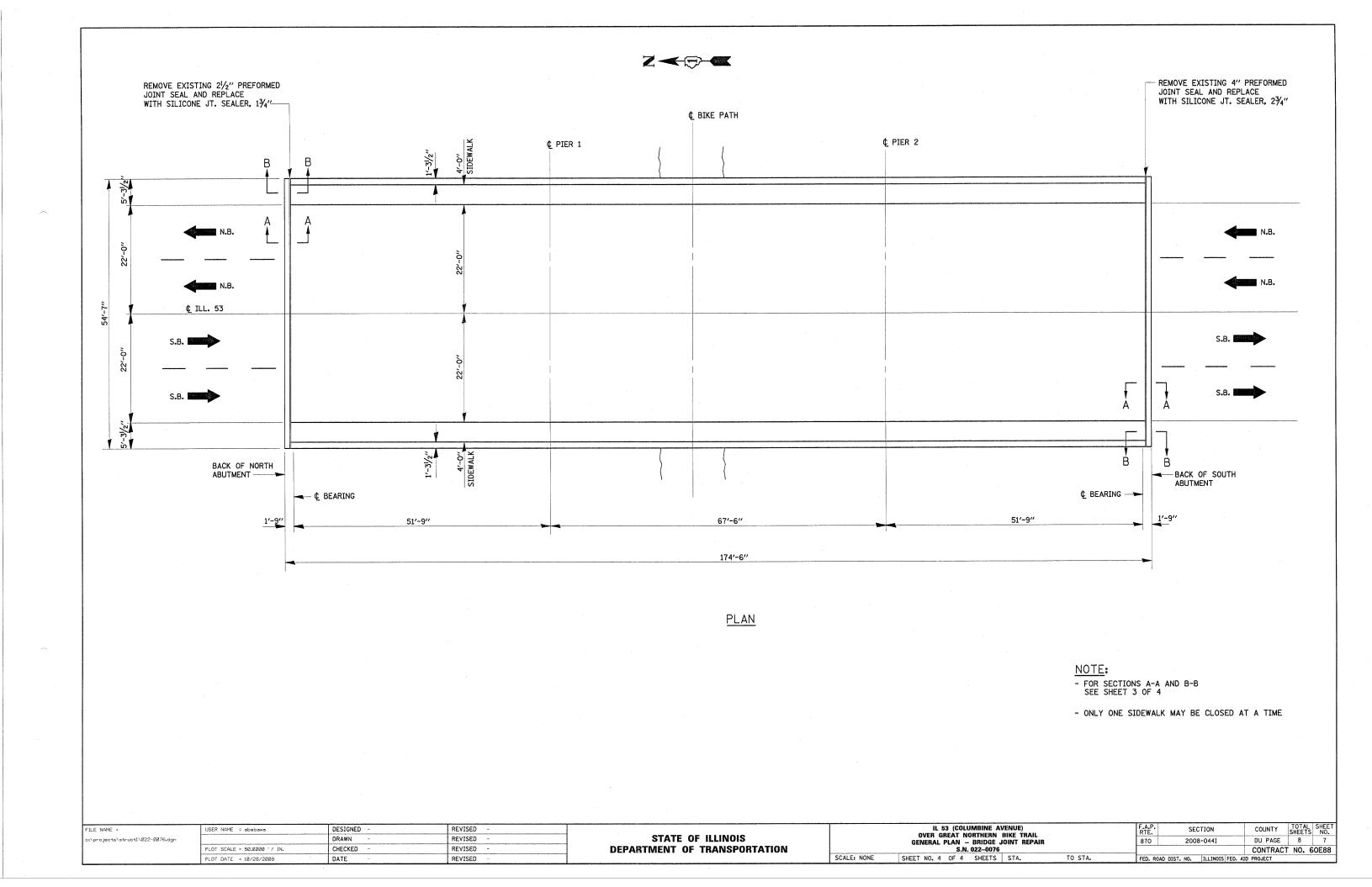
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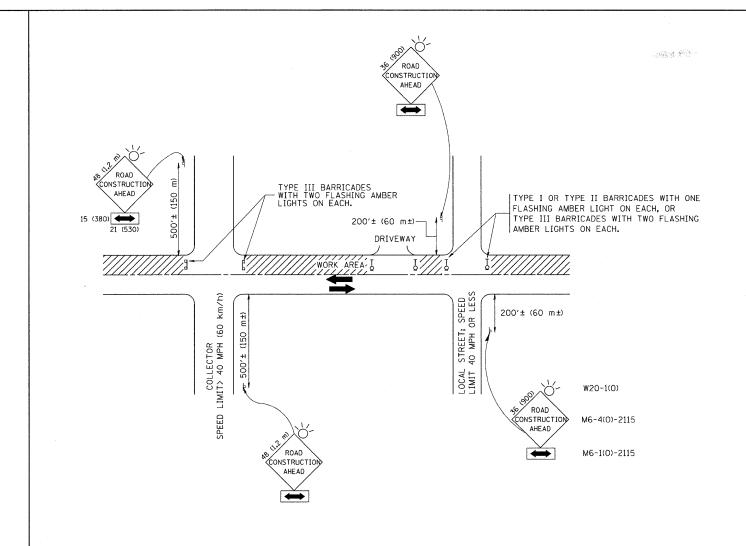
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TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN 36 \times 36 (900 \times 900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- d) ONE ROAD CONSTRUCTION AHEAD SIGN 48 \times 48 (1.2 m \times 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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