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HIGHWAY STANDARDS

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' AWAY
- 701006-05 OFF-ROAD OPERATIONS 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
- 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701901-10 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 782006-01 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

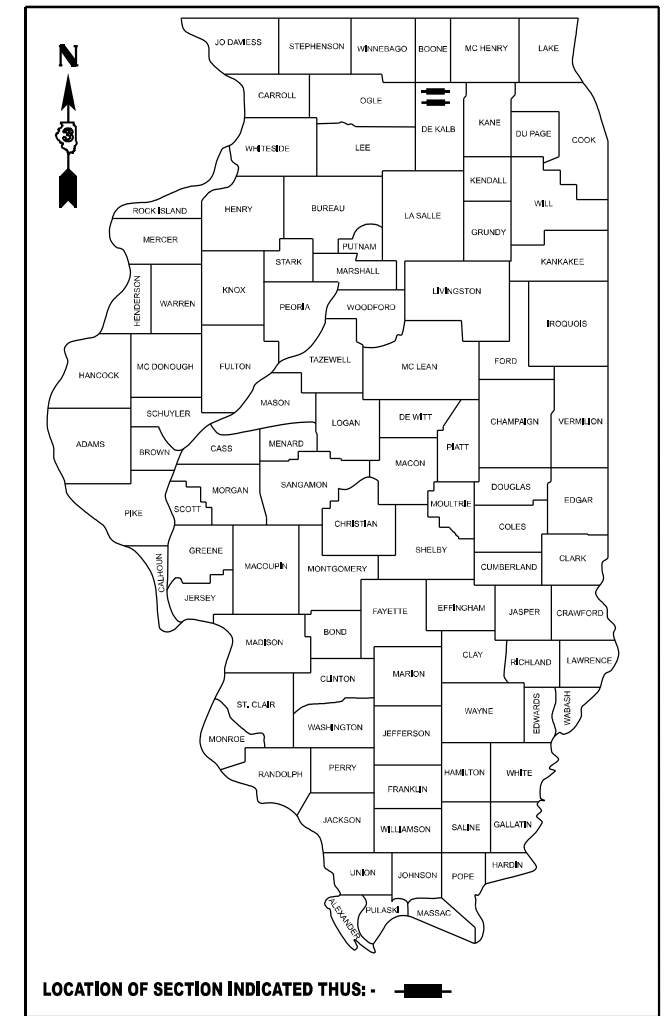
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED
HIGHWAY PLANS**

**F.A.P. ROUTES 553, 17 (IL 72, IL 64)
SECTION (125BR-3)BP, (124A-BR)BP
PROJECT STP-Y0LM(918)
BRIDGE PAINTING
DEKALB
C-93-025-25**

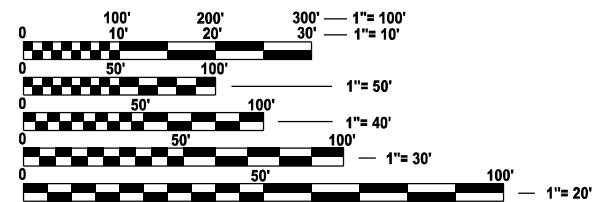
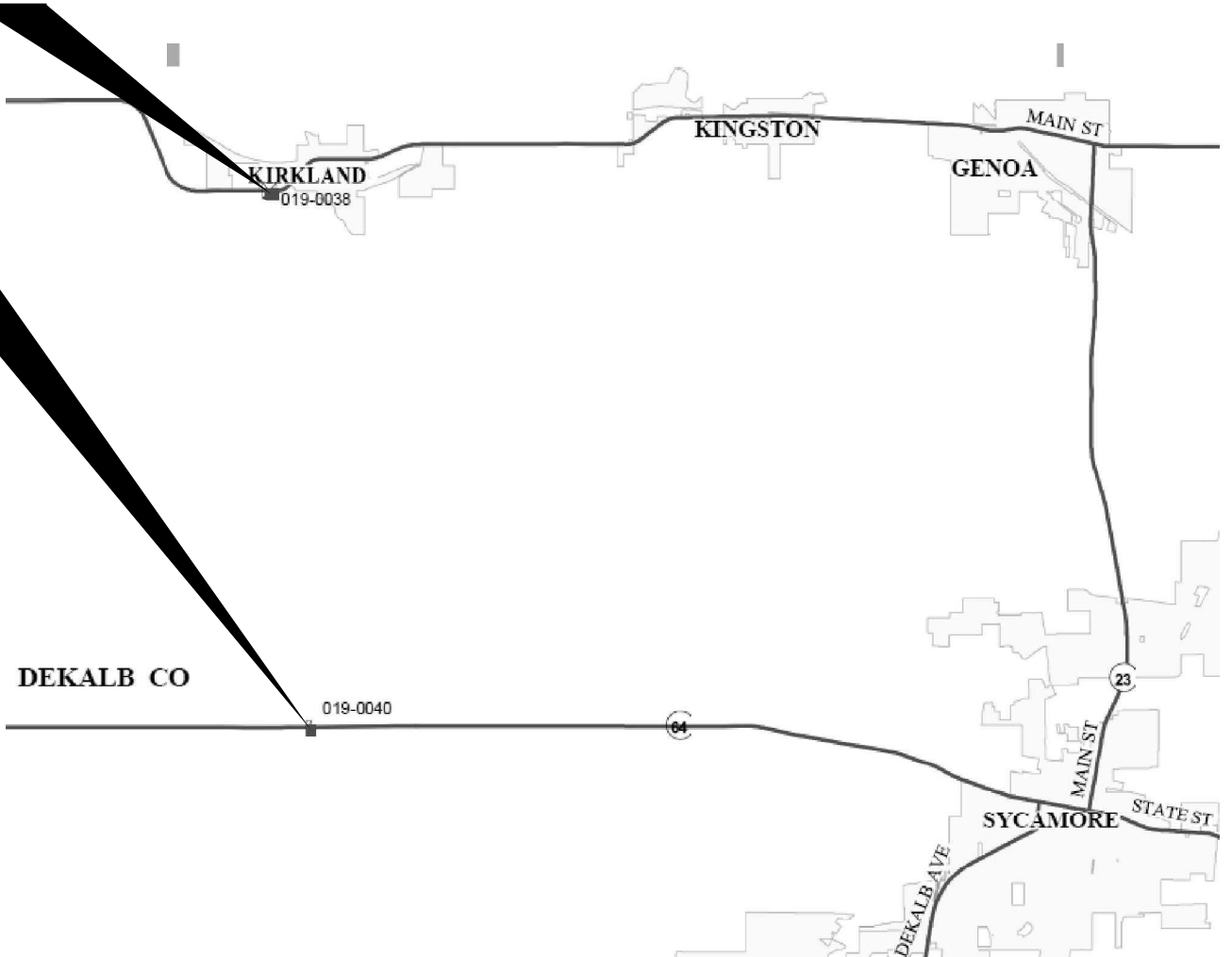
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
553, 17	(125BR-3)BP, (124A-BR)BP	DEKALB	20	1
		ILLINOIS	CONTRACT NO. 66P82	

D-93-005-25



PROJECT LOCATION 1
STRUCTURE NO. 019-0038
SECTION (125BR-3)BP
STATION 356+29
F.A.P. ROUTE 553 (IL ROUTE 72) OVER
UNNAMED CREEK
0.3 MI. WEST OF KIRKLAND

PROJECT LOCATION 2
STRUCTURE NO. 019-0040
SECTION (124A-BR)BP
STATION 608+92
F.A.P. ROUTE 17 (IL ROUTE 64) OVER
OWENS CREEK
8.2 MI. WEST OF IL ROUTE 23



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

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

PROJECT ENGINEER: YOGESH PATEL P.E.
UNIT CHIEF: RON WOODSHANK
DISTRICT 3 (815) 434-6131
CONTRACT NO. 66P82

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED October 16, 2024

Trisha Thompson REGIONAL ENGINEER
December 6, 2024

Scott A. Elk ENGINEER OF DESIGN AND ENVIRONMENT
December 6, 2024

James J. Gu DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

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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 WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE CONTRACTOR SHALL BE REQUIRED TO SECURE WASTE CONTAINERS THAT REMAIN ON THE JOB SITE. THIS WILL ENTAIL THAT ALL WASTE CONTAINERS CANNOT BE MOVED OR OPENED DURING NON-WORKING HOURS.

WORKING DAYS SHALL BE CHARGED UNTIL THE CONTRACTOR OR SUBCONTRACTOR LICENSED T O DISPOSE OF LEAD OR NON-LEAD PAINT CLEANING RESIDUES HAS REMOVED THE WASTE MATERIAL FROM THE JOB SITE ACCORDING TO ALL FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES. IF THE LICENSED CONTRACTOR OR SUBCONTRACTOR FAILS TO DISPOSE OF THE LEAD OR NON-LEAD PAINT CLEANING RESIDUES ON OR BEFORE THE SPECIFIED NUMBER OF WORKING DAYS, LIQUATED DAMAGES SHALL BE CHARGED PER CALENDAR DAY ACCORDING TO ARTICLE 108.09 OF THE STANDARD SPECIFICATIONS UNTIL SUB TIME THAT ALL PAINT RESIDUE MATERIALS HAVE BEEN REMOVED OFF THE SITE AND DISPOSED OF.

Containment of cleaning residue is required to control nuisance dust. See special provisions.

STRUCTURE NOTES

STRUCTURE NO. 019-0038 SHALL BE CONSIDERED AS "LOCATION 1".

EXISTING STRUCTURAL STEEL COATING(S) ON STRUCTURE NO. 019-0038 ARE **NON-LEAD BASED COATINGS**, CLEANING AND PAINTING OF EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES" AND THE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES" AND AS SPECIFIED BELOW.

SSPC-QP1 "PAINTING CONTRACTOR CERTIFICATIONS" SHALL BE REQUIRED FOR THIS STRUCTURE.

CLEANING AND PAINTING EXISTING STRUCTURAL STEEL

(a) ALL EXISTING STRUCTURAL STEEL, INCLUDING I-BEAMS, BOX BEAMS, GIRDERS, DIAPHRAGMS, CROSS/LATERAL FRAMING, STEEL COMPONENTS OF EXISTING BEARINGS, STEEL FLOOR DRAINS (WHEN PRESENT), STEEL HANDRAILS (WHEN PRESENT) SHALL BE CLEANED PER THE REQUIREMENTS OF "**NEAR WHITE BLAST CLEANING - SSPC-SP-10**".

ALUMINUM HANDRAILS, WHEN PRESENT SHALL NOT BE CLEANED AND PAINTED.

(b) ALL EXISTING STRUCTURAL STEEL, INCLUDING I-BEAMS, BOX BEAMS, GIRDERS, DIAPHRAGMS, CROSS/LATERAL FRAMING, STEEL COMPONENTS OF EXISTING BEARINGS, STEEL FLOOR DRAINS (WHEN PRESENT), STEEL HANDRAILS (WHEN PRESENT) SHALL BE PAINTED PER THE REQUIREMENTS OF "**PAINT SYSTEM 1-OZ/E/U**".

1) THE FINAL FINISH COAT FOR ALL INTERIOR STRUCTURAL STEEL SHALL BE "**GRAY, MUNSELL O. 5B 7/1**".

2) THE FINAL FINISH COAT FOR THE EXTERIOR FACE, BOTTOM FLANGE AND BEARING ASSEMBLIES OF THE FASCIA BEAMS SHALL BE "**GREEN, MUNSELL NO. 7.5G 1/2**".

STRUCTURE NOTES

STRUCTURE NO. 019-0040 SHALL BE CONSIDERED AS "LOCATION 2".

EXISTING STRUCTURAL STEEL COATING(S) ON STRUCTURE NO. 019-0040 ARE **NON-LEAD BASED COATINGS**, CLEANING AND PAINTING OF EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES" AND THE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES" AND AS SPECIFIED BELOW.

SSPC-QP1 "PAINTING CONTRACTOR CERTIFICATIONS" SHALL BE REQUIRED FOR THIS STRUCTURE.

CLEANING AND PAINTING EXISTING STRUCTURAL STEEL

(a) ALL EXISTING STRUCTURAL STEEL, INCLUDING I-BEAMS, BOX BEAMS, GIRDERS, DIAPHRAGMS, CROSS/LATERAL FRAMING, STEEL COMPONENTS OF EXISTING BEARINGS, STEEL FLOOR DRAINS (WHEN PRESENT), STEEL HANDRAILS (WHEN PRESENT) SHALL BE CLEANED PER THE REQUIREMENTS OF "**NEAR WHITE BLAST CLEANING - SSPC-SP-10**".

ALUMINUM HANDRAILS, WHEN PRESENT SHALL NOT BE CLEANED AND PAINTED.

(b) ALL EXISTING STRUCTURAL STEEL, INCLUDING I-BEAMS, BOX BEAMS, GIRDERS, DIAPHRAGMS, CROSS/LATERAL FRAMING, STEEL COMPONENTS OF EXISTING BEARINGS, STEEL FLOOR DRAINS (WHEN PRESENT), STEEL HANDRAILS (WHEN PRESENT) SHALL BE PAINTED PER THE REQUIREMENTS OF "**PAINT SYSTEM 1-OZ/E/U**".

1) THE FINAL FINISH COAT FOR ALL INTERIOR STRUCTURAL STEEL SHALL BE "**GRAY, MUNSELL O. 5B 7/1**".

2) THE FINAL FINISH COAT FOR THE EXTERIOR FACE, BOTTOM FLANGE AND BEARING ASSEMBLIES OF THE FASCIA BEAMS SHALL BE "**GREEN, MUNSELL NO. 7.5G 1/2**".

COMITTMENTS

NONE

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION**

SUPERVISING CONSTRUCTION FIELD ENGINEER

RESIDENT ENGINEER / TECHNICIAN

**START & END DATES
OF CONSTRUCTION:**

INSPECTORS:

FUNCTIONAL CLASSIFICATION

STRUCTURE NO. 019-0038	STRUCTURE NO. 019-0040
RURAL	RURAL
RURAL - MINOR ARTERIAL	RURAL - MINOR ARTERIAL
F.A.P. ROUTE 553 (IL ROUTE 72)	F.A.P. ROUTE 17 (IL 64)
2021 ADT = 2,550	2021 ADT = 4,200
P.V. 84.4 % S.U. 8.9 % M.U. 6.7 %	P.V. 81.0 % S.U. 8.9 % M.U. 10.1 %

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	DRAWN - RW	REVISED -			553, 17	(125BR-3)BP, 124A-BR)BP	DEKALB	20	2	
	CHECKED - YP	REVISED -			CONTRACT NO. 66P82					
PLOT DATE = 7/24/2024	DATE = 6/7/2024	REVISED -			ILLINOIS FED. AID PROJECT					
				SCALE:	SHEET 1	OF 1	SHEETS	STA.	TO STA.	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				BRIDGE PAINTING	BRIDGE PAINTING
				80% FED 20% STATE	80% FED 20% STATE
				BRIDGE 0047	BRIDGE 0047
				S.N. 019-0038	S.N. 019-0040
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	124	62	62
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	40	20	20
70400100	TEMPORARY CONCRETE BARRIER	FOOT	525	250	275
70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	1	1
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	560	280	280
* 78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	320	160	160
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	344	172	172
X5060601	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1	
X5060602	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1		1
X5067501	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1	L SUM	1	1	
X5067502	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 2	L SUM	1		1
X7010101	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 (SPECIAL)	EACH	2	1	1

*SPECIALITY ITEMS

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	DRAWN - RW	REVISED -
	CHECKED - YP	REVISED -
PLOT DATE = 8/21/2024	DATE - 6/7/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
553, 17	(125BR-3)BP, 124A-BR)BP	DEKALB	20	3
CONTRACT NO. 66P82				
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				BRIDGE PAINTING 80% FED 20% STATE	BRIDGE PAINTING 80% FED 20% STATE
				BRIDGE 0047	BRIDGE 0047
				S.N. 019-0038	S.N. 019-0040
X7010118	TEMPORARY RUMBLE STRIPS (SPECIAL)	EACH	12	6	6
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	2	1	1
X7200061	TEMPORARY INFORMATION SIGNING	SQ FT	84	42	42
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1	
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1		1

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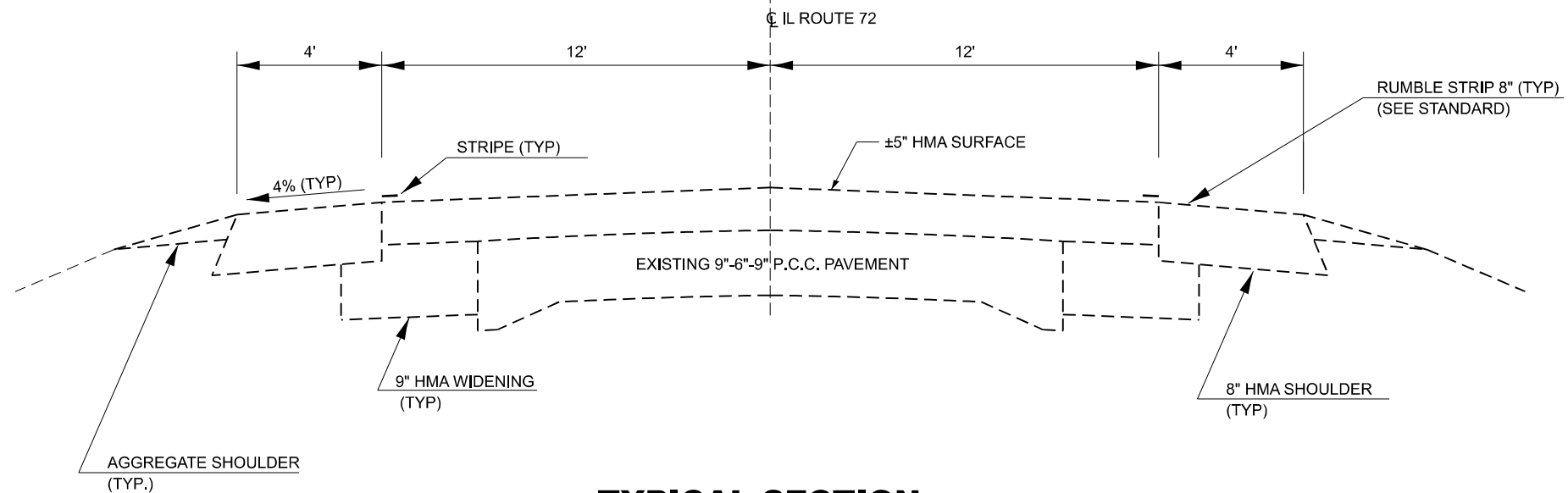
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

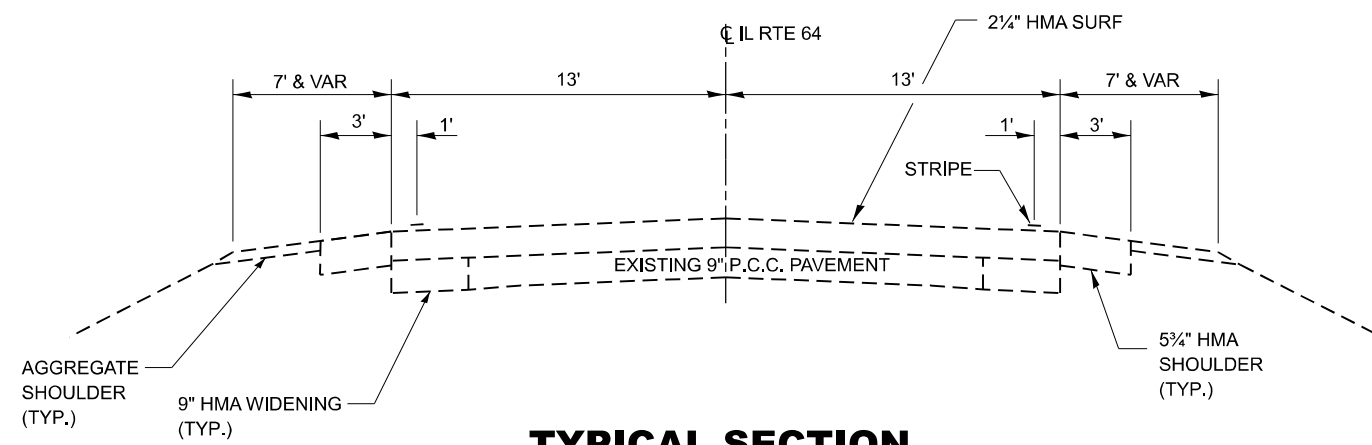
SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 553, 17	SECTION (125BR-3)BP, 124A-BR)BP	COUNTY DEKALB	TOTAL SHEETS 20	SHEET NO. 4
CONTRACT NO. 66P82			ILLINOIS FED. AID PROJECT	



**TYPICAL SECTION
LOCATION 1 - IL ROUTE 72**



**TYPICAL SECTION
LOCATION 2 - IL ROUTE 64**

STA 164+92 TO STA 261+00

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PLOT DATE = 7/24/2024	DATE - 6/7/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS			
SCALE:	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
553, 17	(125BR-3)BP, 124A-BR)BP	DEKALB	20	5
CONTRACT NO. 66P82				
ILLINOIS FED. AID PROJECT				

SCHEDULE - TRAFFIC CONTROL AND PROTECTION

LOCATION	TRAFFIC CONTROL AND PROTECTION STANDARD 701201 (SPECIAL)	TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL)	TEMPORARY BRIDGE TRAFFIC SIGNALS	TEMPORARY INFORMATION SIGN	TEMPORARY RUMBLE STRIPS (SPECIAL)	TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY NON-REDIRECTIVE, NARROW TEST LEVEL 3
SN 019-0038	EACH	EACH	EACH	SQ FT	EACH	FOOT	EACH
PROJECT	1	1	1	42	6	225	2
TOTAL	1	1	1	42	6	225	2

SCHEDULE - PAVEMENT MARKING

LOCATION	SHORT TERM PAVEMENT MARKING	MODIFIED URETHANE PAVEMENT MARKING LINE 4"		MODIFIED URETHANE PAVEMENT MARKING LINE 6"	PAVEMENT MARKING REMOVAL WATERBLASTING		SHORT TERM PAVEMENT MARKING REMOVAL
	FOOT	FOOT		FOOT	SQ FT		SQ FT
SN 019-0038	YELLOW	WHITE	WHITE	YELLOW	LINE 4"	LINE 6"	
PROJECT	62	280	0	160	92	80	20
TOTAL	62	280		160	172		20

SCHEDULE - CLEANING AND PAINTING

LOCATION	CONTAINMENT AND DISPOSAL NON-LEAD PAINT CLEANING RESIDUES NO. 1	CLEANING AND PAINTING STEEL BRIDGE NO. 1	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1
SN 019-0038	L SUM	L SUM	EACH
TOTAL	1	1	1

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PLOT DATE = 8/26/2024	DATE - 6/7/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULES
FOR LOCATION 1 - STRUCTURE NO. 019-0038**

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
553, 17	(125BR-3)BP, 124A-BR)BP	DEKALB	20	6
CONTRACT NO. 66P82				
ILLINOIS FED. AID PROJECT				

SCHEDULE - TRAFFIC CONTROL AND PROTECTION

LOCATION	TRAFFIC CONTROL AND PROTECTION STANDARD 701201 (SPECIAL)	TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL)	TEMPORARY BRIDGE TRAFFIC SIGNALS	TEMPORARY INFORMATION SIGN	TEMPORARY RUMBLE STRIPS (SPECIAL)	TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY NON-REDIRECTIVE, NARROW TEST LEVEL 3
SN 019-0040	EACH	EACH	EACH	SQ FT	EACH	FOOT	EACH
PROJECT	1	1	1	42	6	275	2
TOTAL	1	1	1	42	6	275	2

SCHEDULE - PAVEMENT MARKING

LOCATION	SHORT TERM PAVEMENT MARKING	MODIFIED URETHANE PAVEMENT MARKING LINE 4"		MODIFIED URETHANE PAVEMENT MARKING LINE 6"	PAVEMENT MARKING REMOVAL WATERBLASTING		SHORT TERM PAVEMENT MARKING REMOVAL
	FOOT	FOOT	FOOT	FOOT	SQ FT	SQ FT	SQ FT
SN 019-0040	YELLOW	WHITE	WHITE	YELLOW	LINE 4"	LINE 6"	
PROJECT	62	280	0	160	92	80	20
TOTAL	62	280		160	172		20

SCHEDULE - CLEANING AND PAINTING

LOCATION	CONTAINMENT AND DISPOSAL NON-LEAD PAINT CLEANING RESIDUES NO. 2	CLEANING AND PAINTING STEEL BRIDGE NO. 2	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 2
SN 019-0040	L SUM	L SUM	EACH
PROJECT	1	1	1
TOTAL	1	1	1

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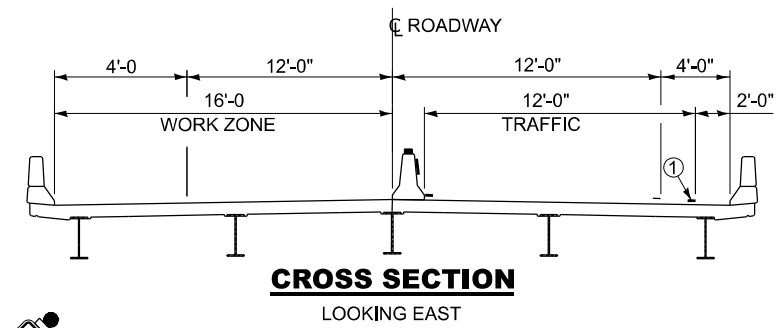
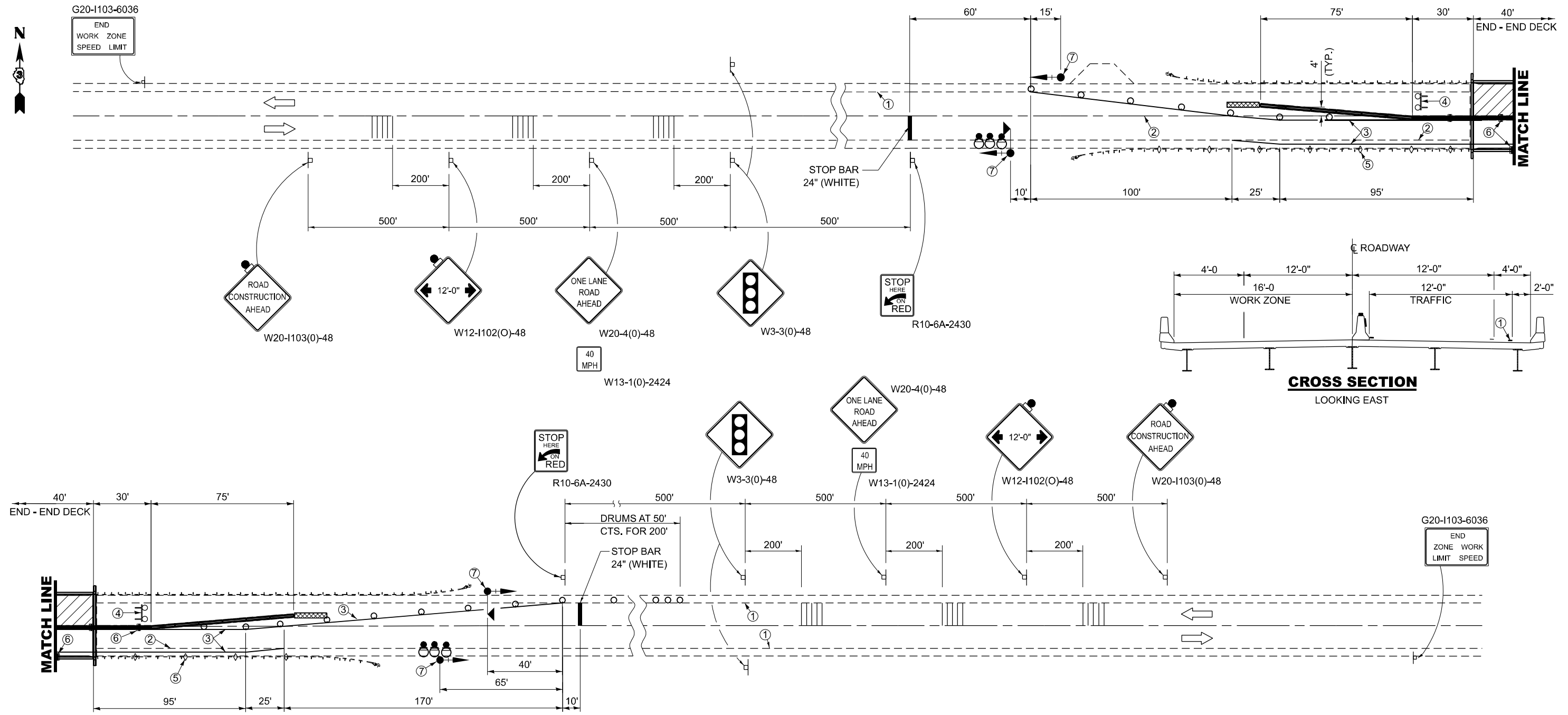
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULES
FOR LOCATION 2 - STRUCTURE NO. 019-0040**

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 553, 17	SECTION (125BR-3)BP, 124A-BR)BP	COUNTY DEKALB	TOTAL SHEETS 20	SHEET NO. 7
			CONTRACT NO. 66P82	
ILLINOIS FED. AID PROJECT				



GENERAL NOTES

THIS STANDARD IS USED WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES WILL ENCROACH ON ONE LANE OF A BRIDGE. TRAFFIC SIGNALS AND A POSITIVE BARRIER ARE REQUIRED.

TRAFFIC SIGNALS SHALL BE OPERATIONAL ONLY WHEN ALL TRAFFIC CONTROLS ARE IN PLACE. WHEN TRAFFIC SIGNALS ARE NOT IN OPERATION, FLAGGERS SHALL BE USED AND TRAFFIC CONTROL SHALL CONFORM TO STANDARD 701201 OR 701206.

TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF OPEN LANE FROM STOP BAR TO STOP BAR.

- SYMBOLS**
- WORK AREA
 - SIGN
 - TYPE III BARRICADE WITH FLASHING LIGHTS
 - IMPACT ATTENUATOR
 - DRUM (TANGENT ONLY)
 - TRAFFIC SIGNAL WITH BACK PLATE AND MICROWAVE DETECTOR
 - DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT (TAPER ONLY)
 - TEMPORARY CONCRETE BARRIER
 - TEMPORARY RUMBLE STRIP (SPECIAL)
 - BARRIER WALL REFLECTOR, TYPE "C"
 - CRYSTAL, BIDIRECTIONAL GUARDRAIL REFLECTOR
 - FLASHING BI-DIRECTIONAL LIGHT
 - TRAFFIC SIGNAL WITH BACK PLATE

- ① EXISTING PAVEMENT MARKING (EDGE LINE)
- ② PAVEMENT MARKING REMOVAL (☉ STRIPE STOP BAR TO STOP BAR)
- ③ TEMPORARY PAVEMENT MARKING
- ④ TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- ⑤ GUARDRAIL REFLECTORS, TYPE "A" AT 25' CTS. SEE STANDARD 782006 AND GUARDRAIL / BARRIER WALL DELINEATION DETAIL SHEET 11 OF 20
- ⑥ BARRIER WALL REFLECTORS TYPE "C" AT 25' CTS. SEE TEMPORARY CONCRETE BARRIER WALL DETAILS AND STANDARDS 704001 & 782006.
- ⑦ THE EDGE OF THE POST MOUNTED SIGNAL HEAD SHALL BE BETWEEN 24" AND 6" FROM EDGE OF SHOULDER.
- ⑧ VERTICAL PANELS AT 25' CTS. THROUGHOUT LANE SHIFT. THESE DEVICES MAY BE OMITTED WHEN THE GUARDRAIL WITH REFLECTORS EXTENDS TO AT LEAST THIS POINT ON THE TAPER.

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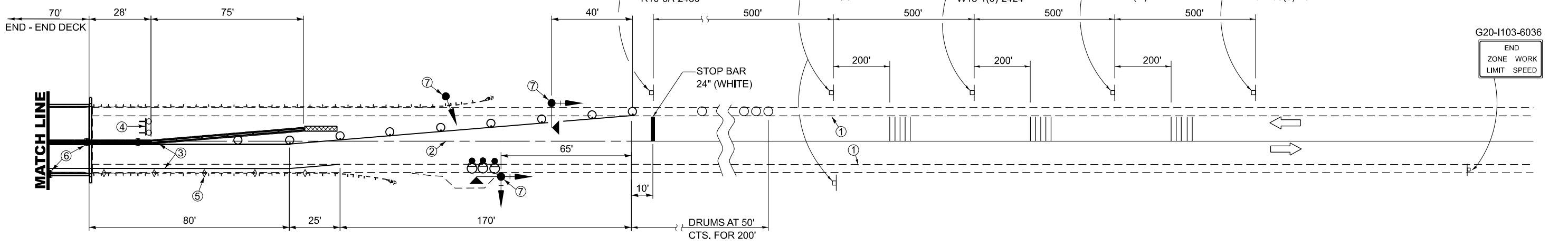
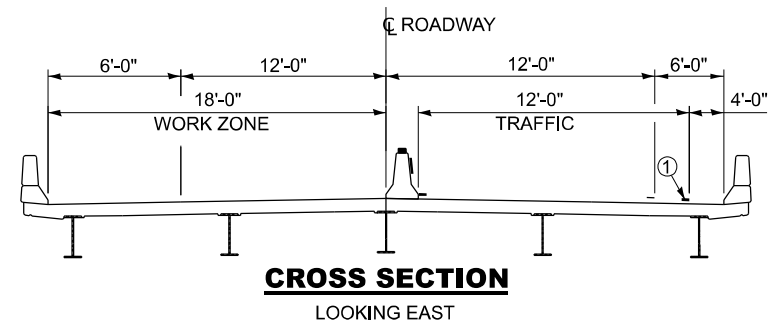
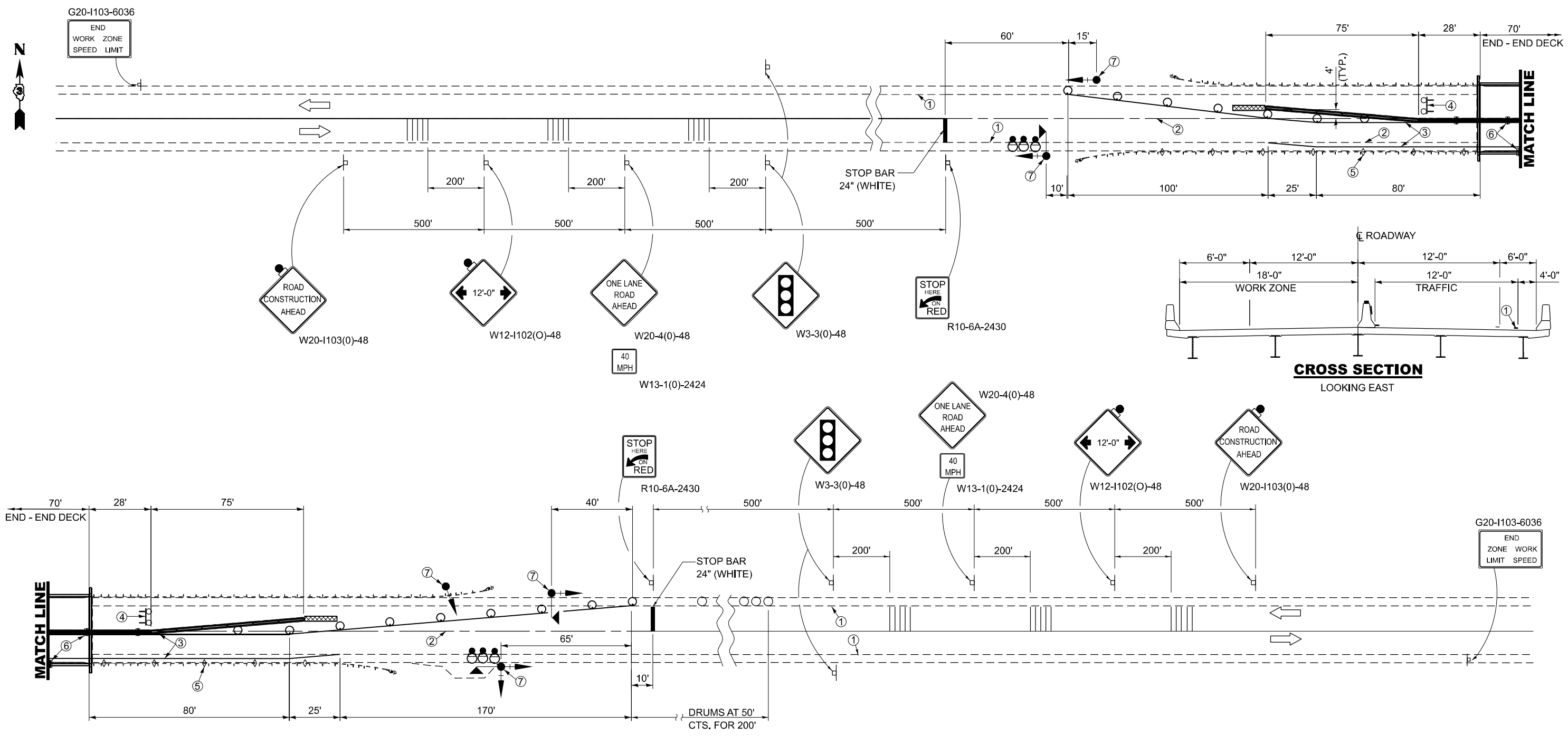
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	CHECKED - YP	REVISED -
PLOT DATE = 7/24/2024	DATE - 6/7/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)
FOR STRUCTURE NO. 019-0038**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 553, 17	SECTION (125BR-3)BP, 124A-BR)BP	COUNTY DEKALB	TOTAL SHEETS 20	SHEET NO. 8
CONTRACT NO. 66P82			ILLINOIS FED. AID PROJECT	



SYMBOLS

WORK AREA	DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT (TAPER ONLY)
SIGN	TEMPORARY CONCRETE BARRIER
TYPE III BARRICADE WITH FLASHING LIGHTS	TEMPORARY RUMBLE STRIP (SPECIAL)
IMPACT ATTENUATOR	BARRIER WALL REFLECTOR, TYPE "C"
DRUM (TANGENT ONLY)	CRYSTAL, BIDIRECTIONAL GUARDRAIL REFLECTOR
TRAFFIC SIGNAL WITH BACK PLATE AND MICROWAVE DETECTOR	FLASHING BI-DIRECTIONAL LIGHT
	TRAFFIC SIGNAL WITH BACK PLATE

- ① EXISTING PAVEMENT MARKING (EDGE LINE)
- ② PAVEMENT MARKING REMOVAL (STOP BAR TO STOP BAR)
- ③ TEMPORARY PAVEMENT MARKING
- ④ TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- ⑤ GUARDRAIL REFLECTORS, TYPE "A" AT 25' CTS. SEE STANDARD 782006 AND GUARDRAIL / BARRIER WALL DELINEATION DETAIL SHEET 11 OF 20
- ⑥ BARRIER WALL REFLECTORS TYPE "C" AT 25' CTS. SEE TEMPORARY CONCRETE BARRIER WALL DETAILS AND STANDARDS 704001 & 782006.
- ⑦ THE EDGE OF THE POST MOUNTED SIGNAL HEAD SHALL BE BETWEEN 24" AND 6" FROM EDGE OF SHOULDER.
- ⑧ VERTICAL PANELS AT 25' CTS. THROUGHOUT LANE SHIFT. THESE DEVICES MAY BE OMITTED WHEN THE GUARDRAIL WITH REFLECTORS EXTENDS TO AT LEAST THIS POINT ON THE TAPER.

GENERAL NOTES

THIS STANDARD IS USED WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES WILL ENCROACH ON ONE LANE OF A BRIDGE. TRAFFIC SIGNALS AND A POSITIVE BARRIER ARE REQUIRED.

TRAFFIC SIGNALS SHALL BE OPERATIONAL ONLY WHEN ALL TRAFFIC CONTROLS ARE IN PLACE. WHEN TRAFFIC SIGNALS ARE NOT IN OPERATION, FLAGGERS SHALL BE USED AND TRAFFIC CONTROL SHALL CONFORM TO STANDARD 701201 OR 701206.

TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF OPEN LANE FROM STOP BAR TO STOP BAR.

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	DRAWN - RW	REVISED -
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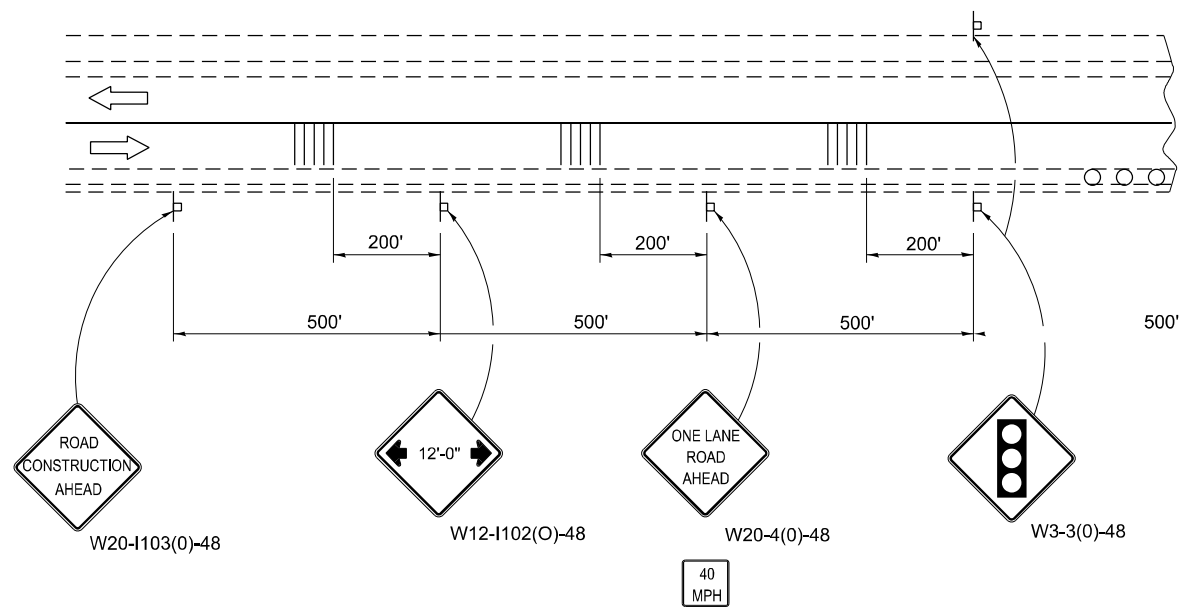
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)
FOR STRUCTURE NO. 019-0040**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 553, 17	SECTION (125BR-3)BP, 124A-BR)BP	COUNTY DEKALB	TOTAL SHEETS 20	SHEET NO. 9
CONTRACT NO. 66P82			ILLINOIS FED. AID PROJECT	

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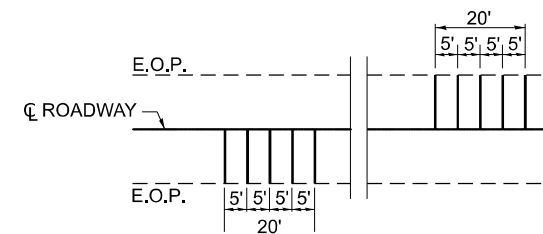
SYMBOLS

- ➡ TRAFFIC
- ⊥ SIGN
- DRUM WITH MONODIRECTIONAL FLASHING LIGHT
- ▨ TEMPORARY RUMBLE STRIPS (SEE SPECIAL PROVISION)

GENERAL NOTES

THIS DETAIL MUST BE USED IN COMBINATION WITH TRAFFIC CONTROL AND PROTECTION, STANDARD 701400 WHENEVER TEMPORARY RUMBLE STRIPS ARE REQUIRED.

FOR PAYMENT PURPOSES, EACH LANE OF TRAFFIC SHALL BE CONSIDERED AS "ONE EACH".



TEMPORARY RUMBLE STRIP (SPECIAL)

FOR PAYMENT PURPOSES, EACH LANE OF TRAFFIC SHALL BE CONSIDERED "ONE EACH".

2L, 2W ROADWAYS

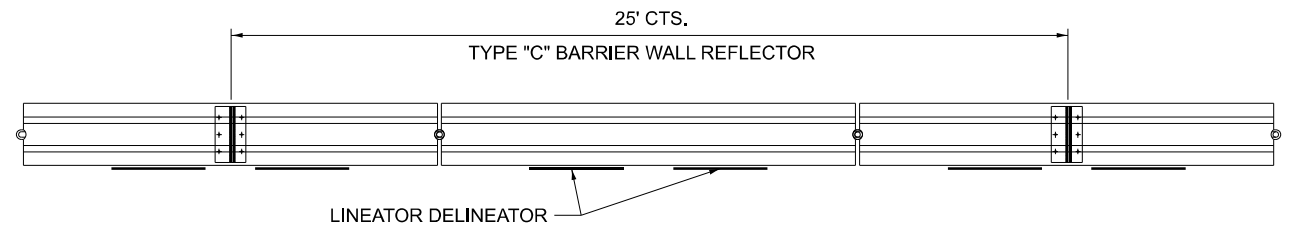
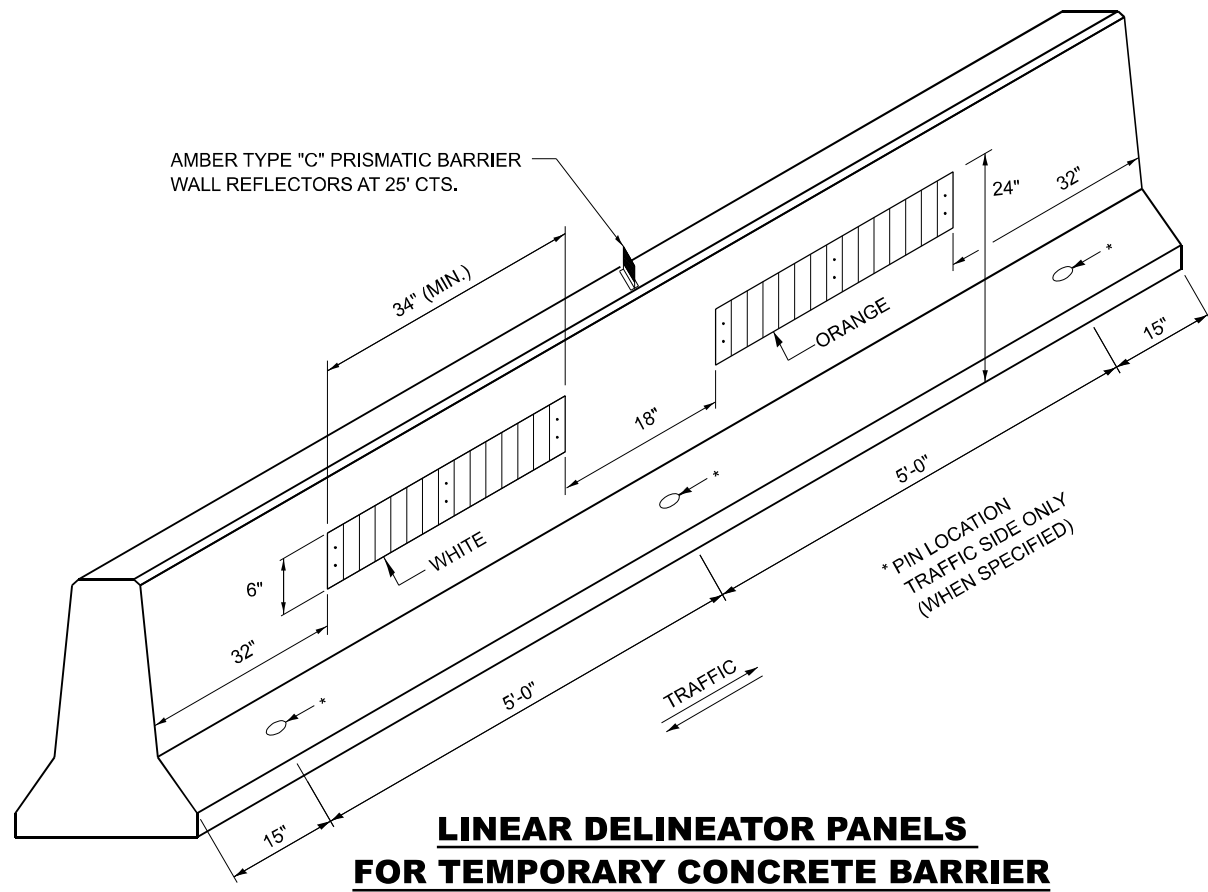
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PLOT DATE = 7/24/2024	DATE - 6/7/2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

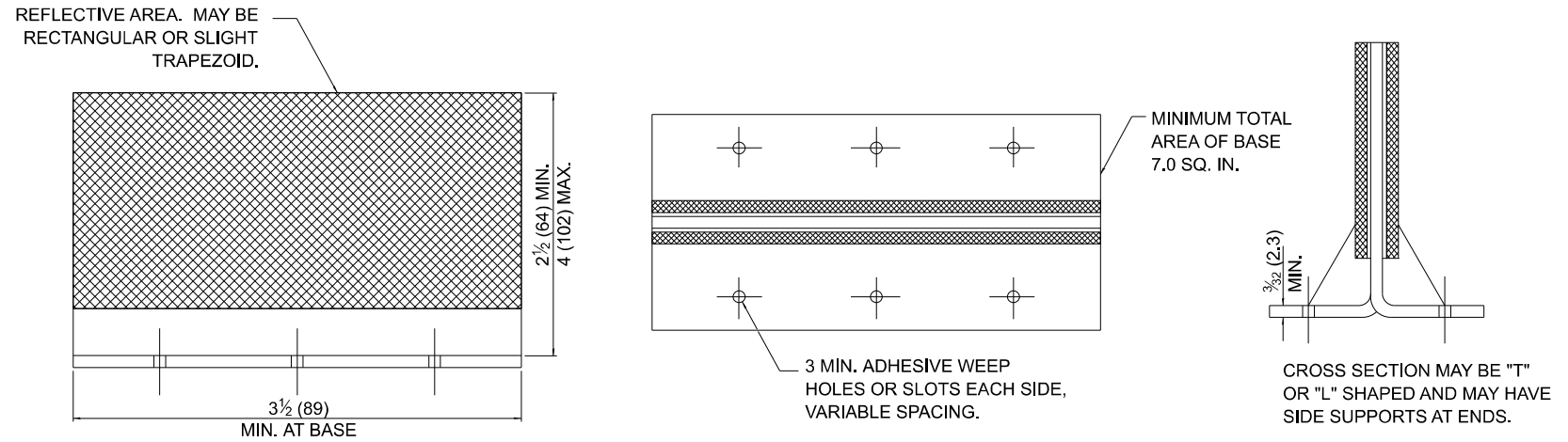
TEMPORARY RUMBLE STRIPS (SPECIAL)

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
553, 17	(125BR-3)BP, 124A-BR)BP	DEKALB	20	10
CONTRACT NO. 66P82				
ILLINOIS FED. AID PROJECT				

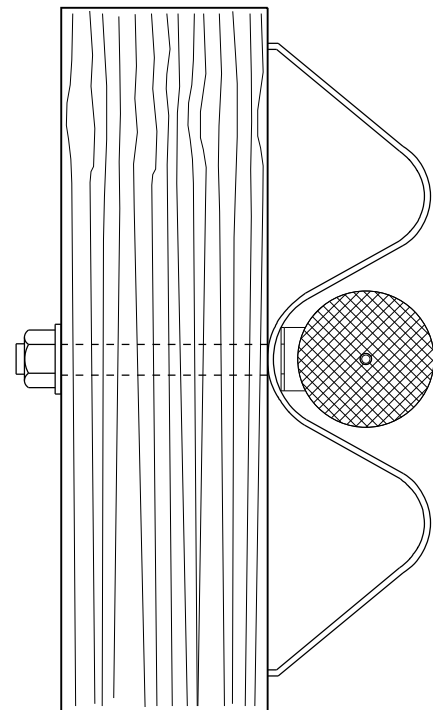


TYPE "C" REFLECTOR FOR TEMPORARY CONCRETE BARRIER

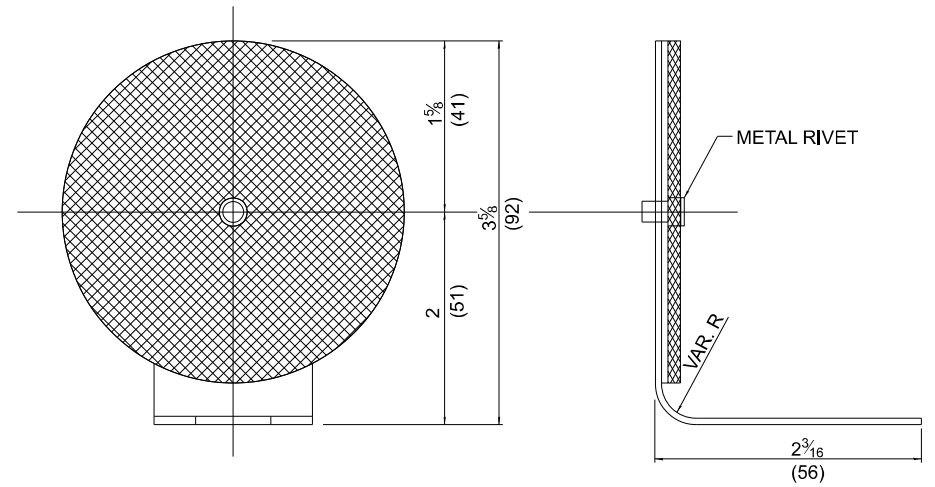
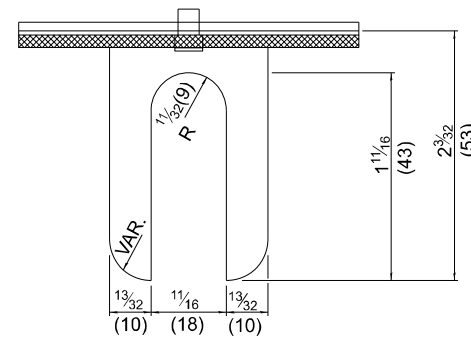


REFLECTOR TYPE C

TEMPORARY CONCRETE BARRAIER WALL



TYPICAL MOUNTING DETAIL FOR GUARDRAIL TYPE "A" REFLECTOR



REFLECTOR TYPE A

(MONODIRECTIONAL SHOWN)
STEEL PLATE BEAM GUARDRAIL

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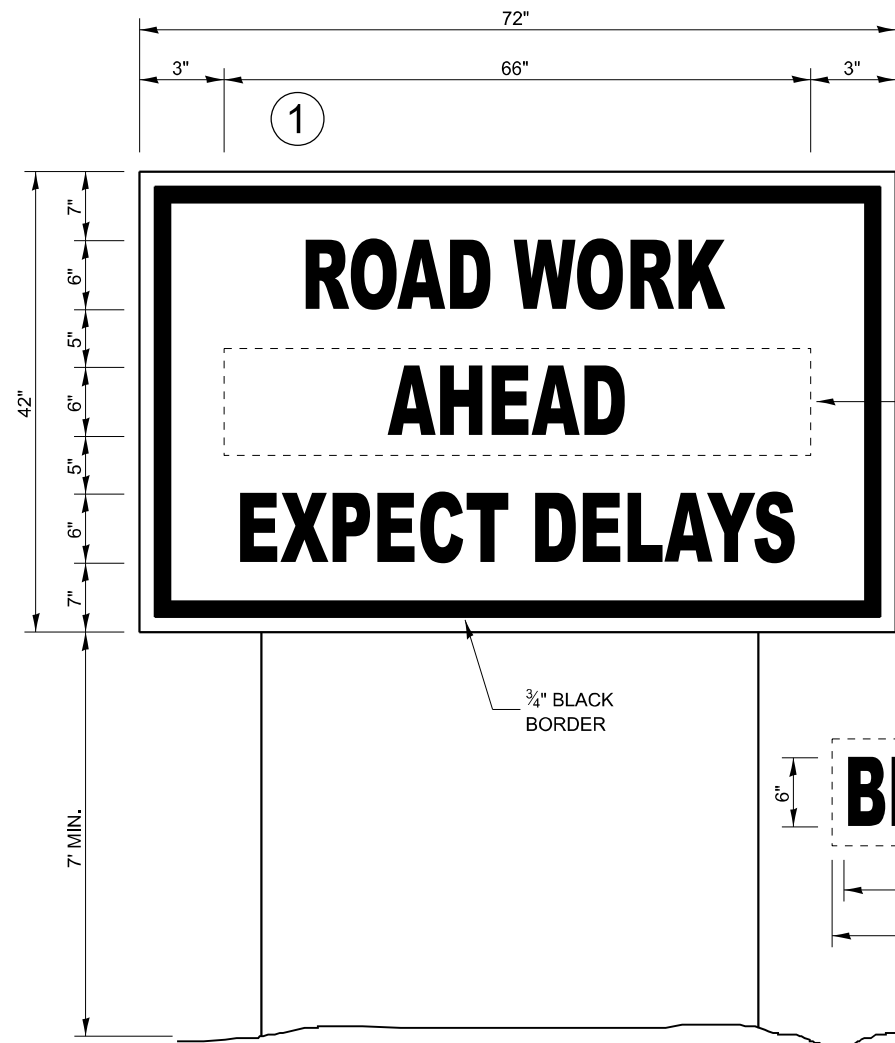
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	CHECKED - YP	REVISED -
PLOT DATE = 7/24/2024	DATE - 6/7/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL / BARRIER WALL DELINEATION DETAILS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

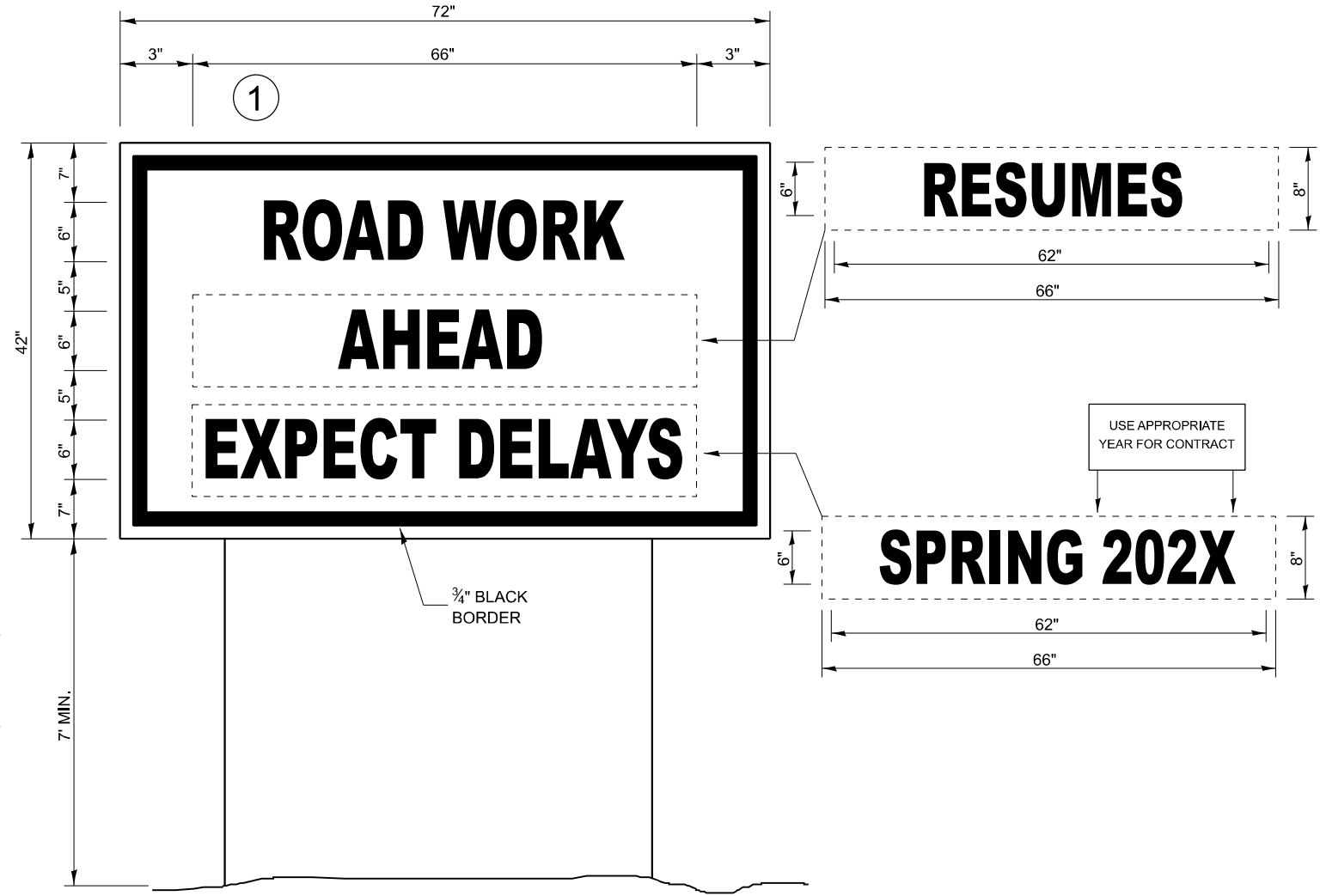
F.A.P. RTE. 553, 17	SECTION (125BR-3)BP, 124A-BR)BP	COUNTY DEKALB	TOTAL SHEETS 20	SHEET NO. 11
			CONTRACT NO. 66P82	
			ILLINOIS FED. AID PROJECT	



TEMPORARY INFORMATION SIGNING

NOTES:

1. USE 6" D BLACK LETTERING ON FLOURESENT ORANGE BACKGROUND.
2. ERECT SIGNS AT LOCATIONS IN ADVANCE OF THE "ROAD CONSTRUCTION AHEAD" SIGNS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE LANE CLOSURE.
4. REMOVE PANEL ② ON THAT DATE.
5. SEE SPECIAL PROVISION "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. WILL BE PAID FOR PER SQ FT AS "TEMPORARY INFORMATION SIGNING". EACH SIGN = 21 SQ FT AND THE DATE PANEL ② WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.



WINTER SHUT DOWN SIGNING

MODEL: Default
FILE NAME: c:\pwworkspace\woodshank\1021719\66P82.dgn

USER NAME = ronald.woodshank	DESIGNED - RW	REVISED -
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PLOT DATE = 7/24/2024	DATE - 6/7/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY INFORMATION SIGNING DETAILS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
553, 17	(125BR-3)BP, 124A-BR)BP	DEKALB	20	12
CONTRACT NO. 66P82				
ILLINOIS FED. AID PROJECT				

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A. 553	125 BR-3	DE KALB	26	7	11 SHEETS

GENERAL NOTES

See Special Provisions for boring data.
 Class X Concrete shall be used throughout.
 Fasteners shall be high strength bolts. Bolts 3/4" Ø, open-holes 13/16" Ø, unless otherwise noted.
 The zinc-silicate and vinyl paint system shall be used for shop and field painting of structural steel except where otherwise noted. The color of the final finish coat shall be Munsell 7.5B4/6 Interstate Green.
 Bridge Seat Sealer shall be applied to the seat area of the abutments. Est. quantity = 23.4 sq.ft.
 Calculated weight of structural steel AASHTO M223, Grade 50 = 12,120 Lbs.
 Calculated weight of structural steel AASHTO M183 = 6,740 Lbs.
 Field welding of construction accessories will not be permitted to the bottom flange of beams. Field welding in other areas will be permitted only when approved by the Engineer.
 Anchor bolts shall be set before bolting diaphragms over supports.
 The Contractor shall drive one test pile as specified, in a permanent location at each abutment as directed by the engineer before ordering the remaining piles.
 The main load carrying member components subject to tensile stress shall conform to the supplemental requirements for notch toughness zone 2. These components are the wide flange beams.
 Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31, M-42 or M-53 Grade 60.
 Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.

B.M. #1
 ELEV. 760.17
 TOP OF CONCRETE R.O.W. MONUMENT,
 STA. 357 + 86.5, 40.2' LEFT.

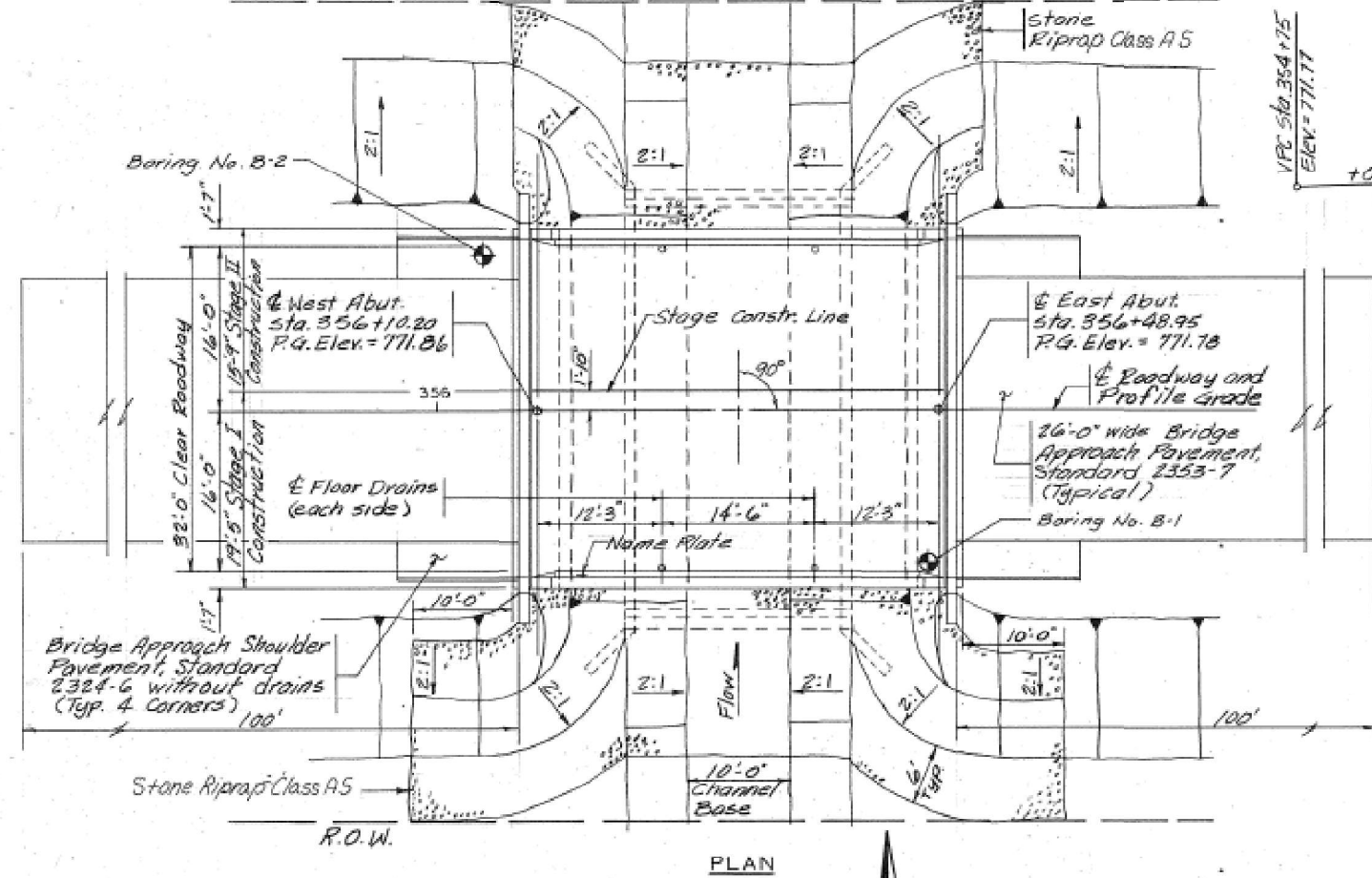
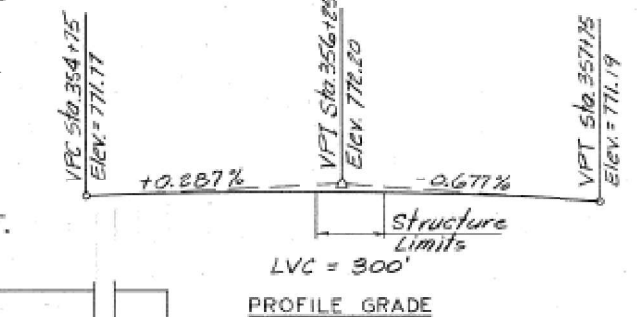
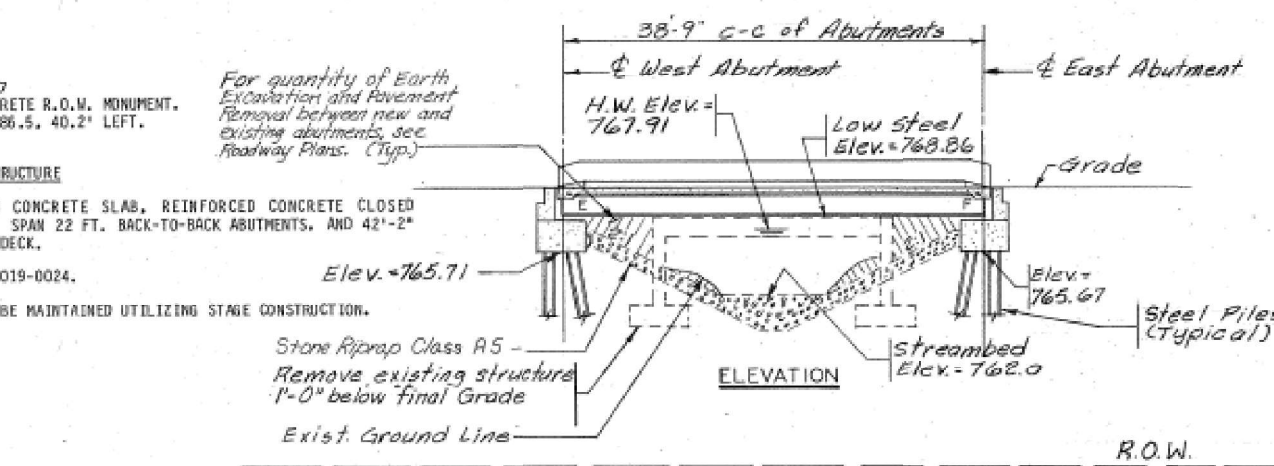
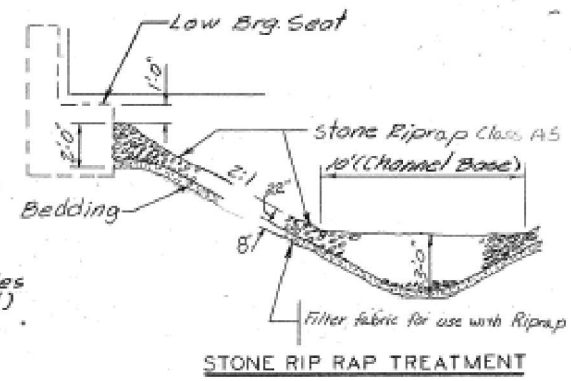
EXISTING STRUCTURE
 REINFORCED CONCRETE SLAB, REINFORCED CONCRETE CLOSED ABUTMENTS. SPAN 22 FT. BACK-TO-BACK ABUTMENTS, AND 42'-2" OUT-TO-OUT DECK.

STRUC. NO. 019-0024.
 TRAFFIC TO BE MAINTAINED UTILIZING STAGE CONSTRUCTION.

SALVAGE
 NONE

For quantity of Earth Excavation and Pavement Removal between new and existing abutments, see Roadway Plans. (Typ.)

Stone Riprap Class A5 - Remove existing structure 1'-0" below Final Grade
 Exist. Ground Line



- INDEX OF SHEETS**
1. General Plan & Elevations
 2. Staging Plan
 3. Temp. Conc. Barrier
 4. Top of Slab Elevations
 5. Superstructure
 6. Steel Beam Details
 7. Expansion & Fixed Bearings
 8. Anchor Bolt Details
 9. West Abutment
 10. East Abutment

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB.	TOTAL
Removal of Existing Structure	Each	—	—	1
Floor Drains	Each	4	—	4
Protective Coat	Sq. Yd.	34	—	34
Class X Concrete Superstructure	Cu. Yd.	50.1	—	50.1
Class X Concrete	Cu. Yd.	—	41.2	41.2
Preformed Joint Seal 1/4"	Lin. Ft.	35	—	35
F & E Structural Steel	L. Sum	1	—	1
Stud Shear Connectors	Each	650	—	650
Elast. Bearing Assy. T1	Each	—	5	5
Bridge Sealer	L. Sum	—	1	1
Reinf. Bars (Spary Coated)	Lbs.	10,480	4,560	15,040
Steel Piles (HP10x42)	Lin. Ft.	—	270	270
Test Pile-Steel (HP10x42)	Each	—	2	2
Name Plates	Each	1	—	1
Structure Excavation	Cu. Yd.	—	55	55
Stone Rip Rap, Class A5	Sq. Yd.	—	350	350
Preformed Joint Seal 2 1/4"	Lin. Ft.	35	—	35
Temporary Sheet Piling	Sq. Ft.	—	512	512
Filter fabric for use with Riprap	Sq. Yd.	—	350	350

* Quantity does not include the bridge deck surface.

WATERWAY INFORMATION

Drainage Area = 1.08 Sq. Mi. Prop Low Grade Elev. 770.37 at Sta. 360+76

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural Head-Ft.		Headwater-El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	50	505	89	129	767.91	0.76	0.64	768.68	768.55
Base	100	580	89	133	768.04	1.02	0.78	769.06	768.82
Overlapping	—	—	—	—	—	—	—	—	—
Max. Calc.	500	765	141	141	768.25	1.26	—	769.51	—

DESIGN SPECIFICATIONS

AASHTO (1983) with 1984, thru 1988 Interims.
 LOADINGS HS 20
 (Load Factor Design)
 Allow 250/sq. ft. For future wearing surface.

DESIGN STRESSES

f'c = 3,500 psi
 fy = 60,000 psi (Reinf.)
 fy = 50,000 psi (Struct.) (M223, Gr. 50)
 fy = 36,000 psi (Struct.) (M183)

STATION 356+29.00
 BUILT 1930 BY
 STATE OF ILLINOIS
 F.A. RT. 553 SEC. 125 BR-3
 LOADING HS 20
 STR. NO. 019-0038

NAME PLATE
 See Standard 2113

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Robert E. O'Brien
 Engineer of Bridges and Structures



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
GENERAL PLAN & ELEVATION
 ILLINOIS ROUTE 72 OVER DRAINAGE DITCH
 F.A. RTE. 553 SECTION 125 BR-3
 DE KALB COUNTY
 STA. 356+29.00

DESIGN J.L.C.
 CHECKED K.V.M.
 DATE JAN. 1988

REVISIONS

DATE	DESCRIPTION

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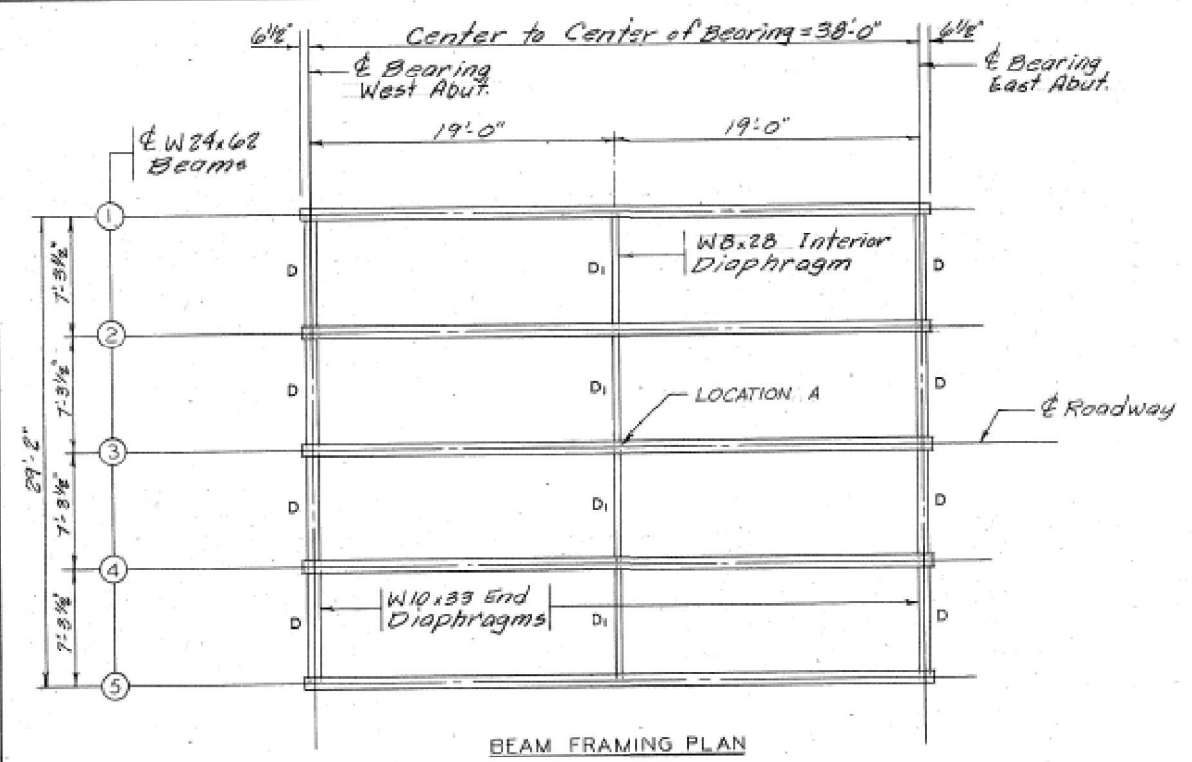
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

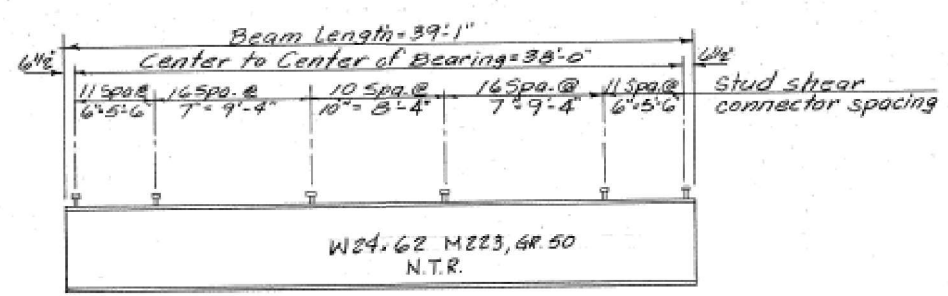
EXISTING STRUCTURE PLANS FOR STRUCTURE NO. 019-0038
 FOR INFORMATION ONLY

F.A. RTE. 553, 17	SECTION (125BR-3)BP, 124A-BR)BP	COUNTY DEKALB	TOTAL SHEETS 20	SHEET NO. 13
CONTRACT NO. 66P82				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET 1 OF 4 SHEETS STA. 356+10 TO STA. 356+48



BEAM FRAMING PLAN



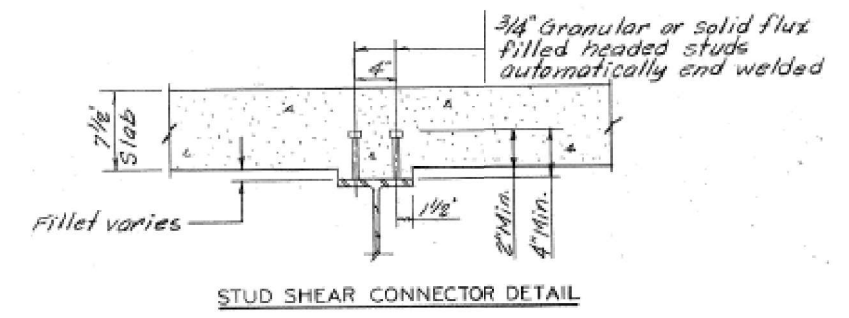
BEAM ELEVATION

N.T.R. Indicates notch toughness requirement.

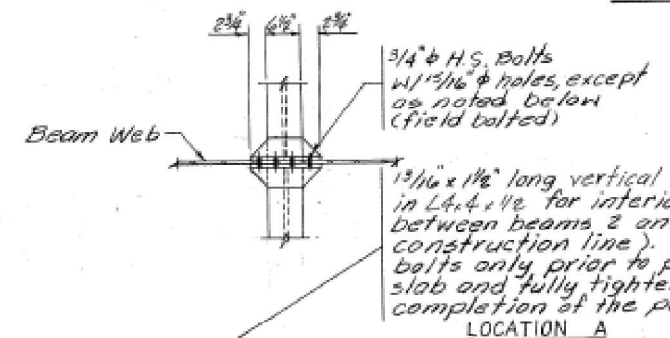
	ABUT.
R _φ (K)	22.4
R _L (K)	36.0
Imp. (K)	10.8
R _{Total} (K)	69.2

	0.5 SPAN
I _s (in. ⁴)	1550
I _c (in. ⁴)	5680
S _s (in. ³)	131
S _c (in. ³)	230
φ (K/I)	0.80
M _φ (K)	144
s _φ (K/I)	0.32
M _s φ (K)	58
M _L (K)	275
M _{imp.} (K)	82
1/2(M _L + I) (K)	595
M _a (K)	1036
M _u (K)	1414
f _s φ non-comp (k.s.i.)	13.2
f _s φ (comp) (k.s.i.)	3.0
f _s φ ₃ (L+I) (k.s.i.)	31.0
f _s (Overload) (k.s.i.)	47.2
VR (K)	46.8

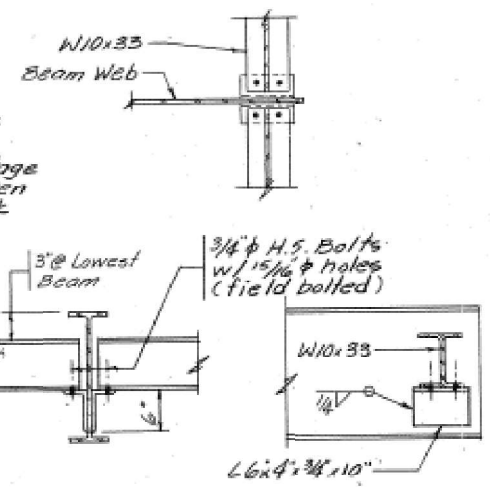
M_a (Applied Moment) = 1.3 [M_φ + M_s φ + 1/2 (M_L + I)]



STUD SHEAR CONNECTOR DETAIL



INTERIOR DIAPHRAGM DETAILS



END DIAPHRAGM DETAILS

NOTE: Hardened washers shall be required over all 1 1/2 inch holes and 1 3/16 x 1 1/2 inch long slotted holes. Two washers per bolt.

BEAM LINE	TOP OF BEAM ELEV.	
	WEST ABUT.	EAST ABUT.
1	770.95	770.87
2	771.08	771.00
3	771.19	771.11
4	771.08	771.00
5	770.95	770.87

I_s and S_s ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE STEEL SECTION USED IN COMPUTING f_s (NON-COMPOSITE).
 I_c AND S_c ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE COMPOSITE SECTION USED IN COMPUTING f_s (TOTAL AND OVERLOAD).
 VR IS THE MAXIMUM L + IMPACT SHEAR RANGE IN SPAN.
 THE FULLY PLASTIC MOMENT CAPACITY (M_u) IS COMPUTED ACCORDING TO AASHTO 10.48.1 & 10.50.1.1.
 f_s (OVERLOAD) IS THE SUM OF THE STRESSES DUE TO M_φ + M_s φ + 1/3 (M_L + I).
 M_φ - MOMENT DUE TO DEAD LOADS ON NON-COMPOSITE SECTION.
 M_s φ - MOMENT DUE TO DEAD LOADS ON COMPOSITE SECTION.
 M_L - MOMENT DUE TO LIVE LOAD ON COMPOSITE SECTION.
 I - LIVE LOAD IMPACT

DATE	DESCRIPTION

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
STEEL BEAM DETAILS
 ILLINOIS ROUTE 72 OVER DRAINAGE DITCH
 F.A. RTE. 553 SECTION 125 BR-3
 DE KALB COUNTY
 STA. 356+29.60

DESIGN J.L.C.
 DETAILED R.J.L.
 CHECKED K.Y.M.
 DATE JAN. 1988

THE SCHEMME ASSOCIATES INC.
 ARCHITECTS - ENGINEERS - PLANNERS

MODEL: Default FILE NAME: C:\pwwork\woodshank\102171968P82.dgn

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

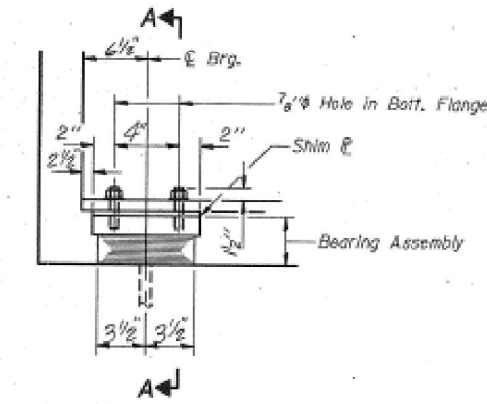
EXISTING STRUCTURE PLANS FOR STRUCTURE NO. 019-0038
 FOR INFORMATION ONLY

SCALE: SHEET 3 OF 4 SHEETS STA. 356+10 TO STA. 356+48

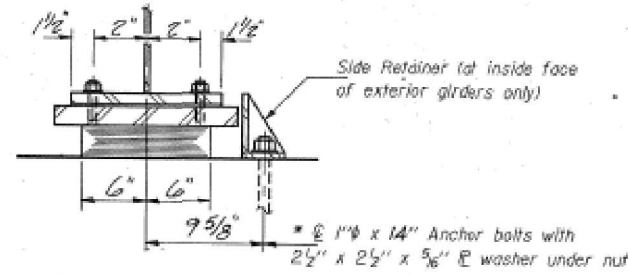
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553, 17	(125BR-3)BP, 124A-BR)BP	DEKALB	20	15
CONTRACT NO. 66P82				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

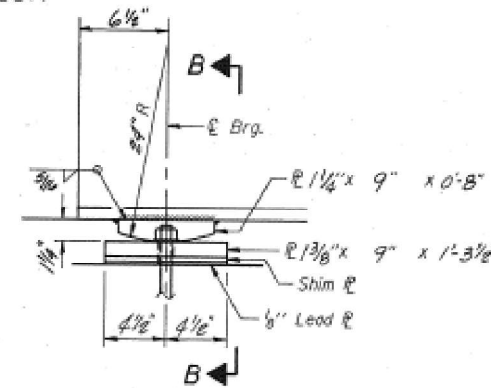
ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS	SHEET NO.
F.A. 553	125 BR-3	DE KALB	26	13	7
F.A. PROJECT NO.		F.A. PROJECT NO.		F.A. PROJECT NO.	
F.A. PROJECT NO.		F.A. PROJECT NO.		F.A. PROJECT NO.	



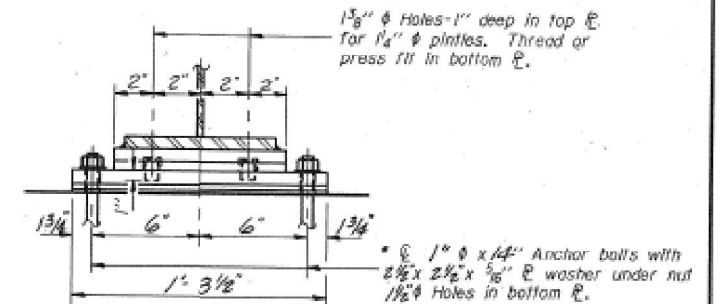
ELEVATION AT WEST ABUT.



SECTION A-A

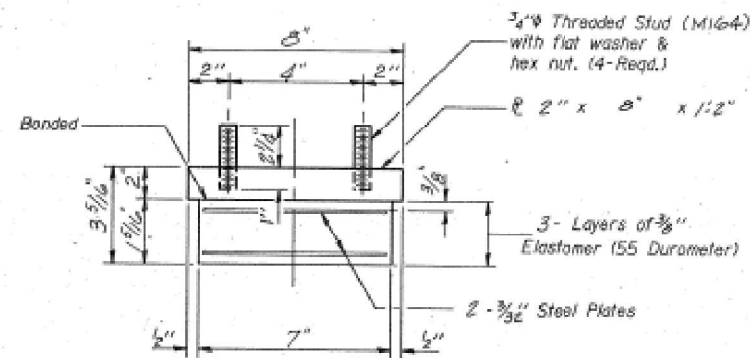


ELEVATION AT EAST ABUT.



SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.

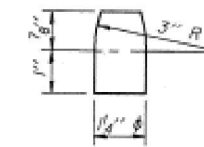


BEARING ASSEMBLY

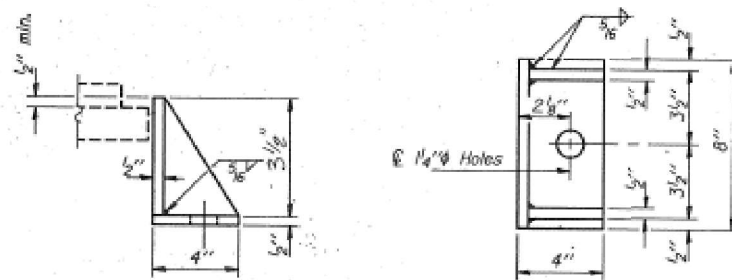
Note: Shim plates shall not be placed under Bearing Assembly.

* Notes: Anchor bolts at fixed bearings may be built into the masonry. See sheet #10 for Anchor Bolt Installation.

FIXED BEARING



PINTLE



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	5

EXPANSION AND FIXED BEARINGS

ILLINOIS ROUTE 72 OVER DRAINAGE DITCH
F.A. RTE. 553 SECTION 125 BR-3
DE KALB COUNTY
STA. 356+29.00

JAN 1988

DESIGNED
CHECKED
DRAWN
CHECKED

I-2-EI 12-1-83

USER NAME = ronald.woodshank	DESIGNED - RW	REVISED -
	DRAWN - RW	REVISED -
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PLOT DATE = 7/24/2024	DATE - 6/7/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS FOR STRUCTURE NO. 019-0038
FOR INFORMATION ONLY

SCALE: SHEET 4 OF 4 SHEETS STA. 356+10 TO STA. 356+48

F.A.P. RTE. 553, 17	SECTION (125BR-3)BP, 124A-BR)BP	COUNTY DEKALB	TOTAL SHEETS 20	SHEET NO. 16
			CONTRACT NO. 66P82	
			ILLINOIS FED. AID PROJECT	

BENCH MARK: CHISELED "□" TOP OF
NE MINGHALL ELEVATION 850.12 (USGS)

EXISTING STRUCTURE: SINGLE SPAN REINFORCED
CONCRETE RIGID FRAME
BRIDGE WITH CONCRETE
WINGS AND ABUTMENTS. BUILT
IN 1936 AS FA 17, SEC.
124A-NPH. 44 FEET FACE
TO FACE OF CURBS. 44 FEET
BACK TO BACK ABUTMENTS.
EXISTING STRUCTURE TO BE
REMOVED. EXISTING STRUCTURE
NUMBER 019-0011. NO SALVAGE.
TRAFFIC TO BE MAINTAINED
UTILIZING STAGE CONSTRUCTION.

F.A.P. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
17	124A-BR	DEKALB	23	6

BRIDGE SHEET 1 OF 13 SHEETS

GENERAL NOTES

SEE PROPOSAL FOR BORING DATA.
CALCULATED WEIGHT OF STRUCTURAL STEEL: 50590 LBS. M223, CR. 50.
CALCULATED WEIGHT OF STRUCTURAL STEEL: 4700 LBS. M183

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8" DIAMETER,
OPEN HOLES 15/16" DIAMETER UNLESS OTHERWISE NOTED.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER PIERS.

THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE
STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH
TOUGHNESS ZONE 2. THESE COMPONENTS ARE THE W30 X 124 WIDE FLANGE
BEAMS.

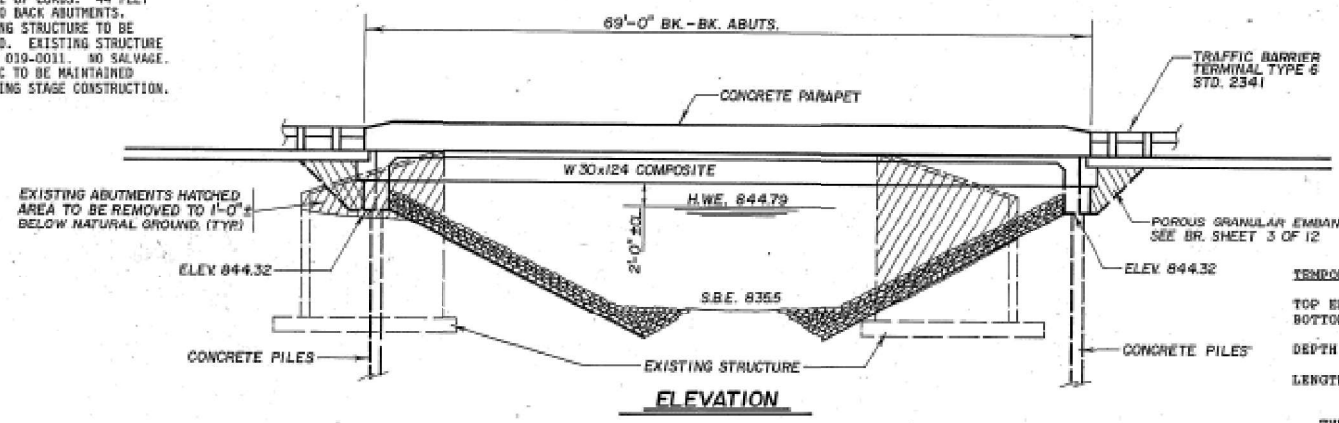
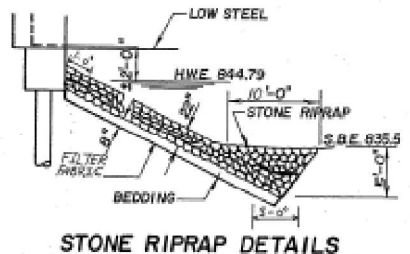
THE CONTRACTOR SHALL DRIVE A CONCRETE TEST PILE IN A PERMANENT
LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE
ORDERING THE REMAINDER OF THE PILES.

REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31,
M 42 OR M53, GRADE 60.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED
TO THE BOTTOM FLANGE OF BEAMS. FIELD WELDING IN OTHER AREAS WILL
BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP
AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE
NOTED. THE COLOR OF THE VINYL FINISH COAT SHALL BE MURSEL NO.
7.5G 4/8, INTERSTATE GREEN.

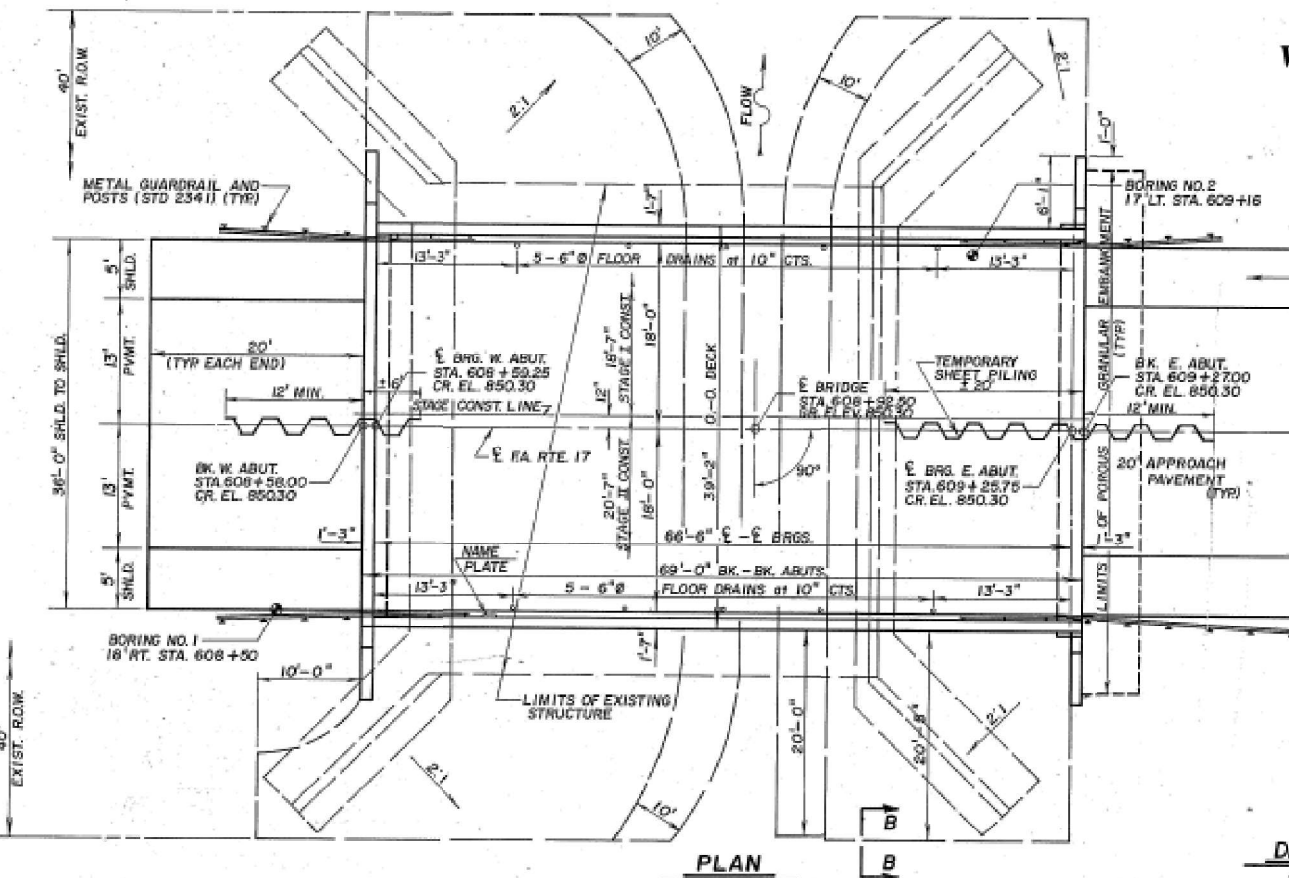
LAYOUT OF STONE RIPRAP MAY BE VARIED IN THE FIELD TO SUIT GROUND
CONDITIONS AS DIRECTED BY THE ENGINEER.



TEMPORARY SHEET PILING DATA

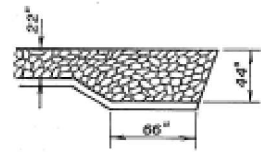
TOP ELEV.	850.50
BOTTOM ELEV.	+/- 834.5 (TOP OF EXIST. PTD.)
DEPTH	16'
LENGTH	+/- 32' EAST ABUT. +/- 18' WEST ABUT.

THE INFORMATION SHOWN FOR THE TEMPORARY SHEET PILING IS
ESTIMATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A
DESIGN OF THE TEMPORARY SHEET PILING AND ASSOCIATED MEMBERS, IF
REQUIRED, SUBJECT TO THE APPROVAL OF THE ENGINEER.



STATION 608+92.50
BUILT 1991 BY
STATE OF ILLINOIS
FA. RTE. 17 SEC. 124A-BR
LOADING HS 20
STRUCTURE NO. 019-0040

NAME PLATE
SEE STD. 2113



BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUPER	SUB	TOTAL
STRUCTURE EXCAVATION	CU. YD.		177	177
CLASS X CONCRETE	CU. YD.		24.1	24.1
STRUCTURAL STEEL	L. SUM		1	1
STUD SHEAR CONNECTORS	EACH	1052		1052
REINFORCEMENT BARS (EPOXY COATED)	LBS.	20580	3640	24220
FURNISHING CONCRETE PILE	LIN. FT.		372	372
DRIVING CONCRETE PILE	LIN. FT.		372	372
TEST PILE - CONCRETE	EACH		2	2
FLOOR DRAINS - 6" DIA.	EACH	10		10
PROTECTIVE COAT	SQ. YD.	331		331
NAME PLATE	EACH		1	1
STONE RIPRAP CLASS A5	SQ. YD.		615	615
REMOVAL OF EXISTING STRUCTURE	EACH		1	1
TEMPORARY SHEET PILING	SQ. FT.		800	800
CLASS X CONCRETE SUPERSTRUCTURE	CU. YD.	102.5		102.5
FILTER FABRIC FOR USE WITH RIPRAP	SQ. YD.		815	815
POROUS GRANULAR EMBANKMENT	CU. YD.		152	152
BRIDGE DECK GROOVING	SQ. YD.	275		275

* INCLUDES DECK SURFACE

DESIGN STRESSES

$f_c = 3500$ PSI
 $f_y = 60000$ PSI (REINFORCEMENT)
 $f_y = 50000$ PSI (STRUCTURAL STEEL M223, GRADE 50)
 $f_y = 36000$ PSI (STRUCTURAL STEEL M 183)

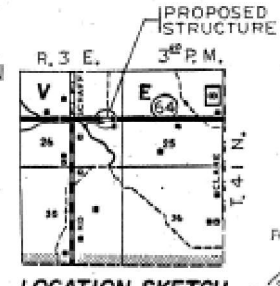
DESIGN SPECIFICATIONS

1989 AASHTO, 1990 INTERIMS AND 1983
GUIDE SPECIFICATIONS FOR SEISMIC
DESIGN OF HIGHWAY BRIDGES.

LOADING HS 20-44
(ALLOW 25 LBS./SQ. FT. FOR FUTURE
WEARING SURFACE)

PLANS PREPARED BY:
Wondler Engineering
& Surveying

DIXON, ILLINOIS
DEKALB, ILLINOIS
CORNINGTON, ILLINOIS



LOCATION SKETCH



APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph S. Anderson
Director of Design and Structures

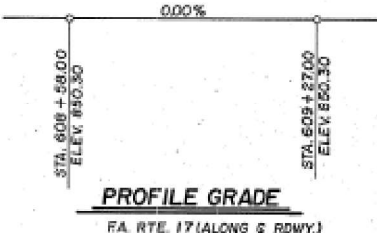
I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE,
INFORMATION AND BELIEF, THIS STRUCTURE DESIGN
IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING
SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMIC
ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH
REQUIREMENTS OF THE CURRENT AASHTO STANDARD
SPECIFICATIONS FOR HIGHWAY BRIDGES.

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 64
OVER OWENS CREEK
FA. ROUTE 17 SECTION 124 A-BR
DEKALB COUNTY
STA. 608+92.50
STR. NO. 019-0040

WATERWAY INFORMATION

DRAINAGE AREA = 20.0 SQ. MI. LOW GRADE ELEV. 850.06 @ STA. 609+00

FLOOD	FREQ. YR.	Q. C.F.S.	OPENING SQ. FT.		NAT. H.W.E.	HEAD - FT.		HEADWATER EL.	
			EXIST.	PROP.		EXIST.	PROP.	EXIST.	PROP.
DESIGN	50	1810	280	353	844.79	0.04	0.03	844.83	844.82
BASE	100	2040	285	356	844.90	0.35	0.32	845.25	845.22
OVERTOPPING									
MAX. CALC.	500	2560	305	383	848.40	0.77	0.60	846.17	846.00



PROFILE GRADE
FA. RTE. 17 (ALONG & RDWY.)

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USER NAME = ronald.woodshank	DESIGNED - RW	REVISED -
	DRAWN - RW	REVISED -
	CHECKED - YP	REVISED -
PLOT DATE = 7/24/2024	DATE - 6/7/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS FOR STRUCTURE NO. 019-0040
FOR INFORMATION ONLY

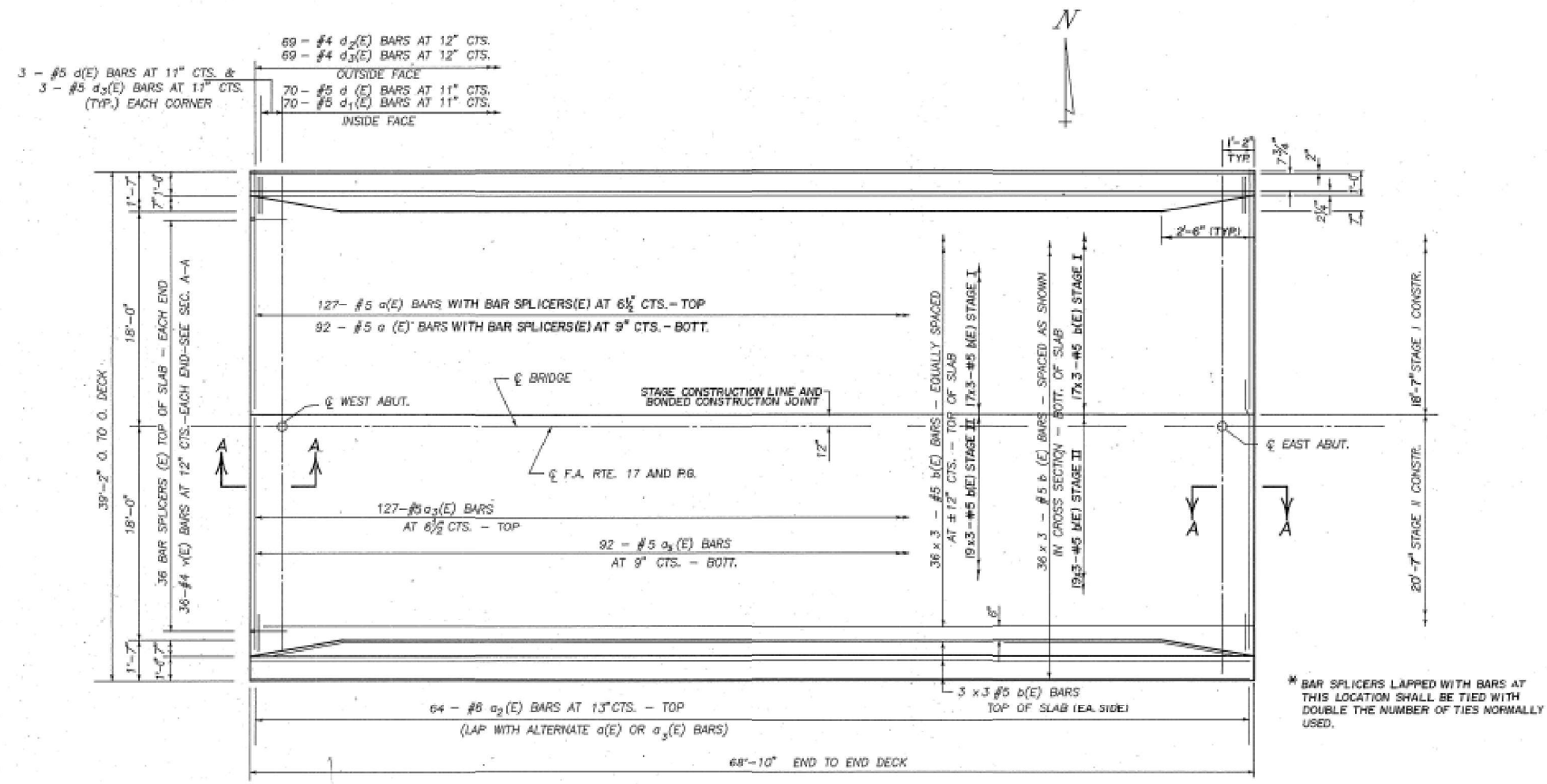
F.A.P. RTE. 553, 17	SECTION (125BR-3)BP, 124A-BR)BP	COUNTY DEKALB	TOTAL SHEETS 20	SHEET NO. 17
CONTRACT NO. 66P82				

SCALE: SHEET 1 OF 4 SHEETS STA. 608+59 TO STA. 609+27

ILLINOIS FED. AID PROJECT

PA ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
17	124A-BR	DEKALB	23	10

ILLINOIS PROJECT
BRIDGE SHEET 5 OF 13 SHEETS



PLAN

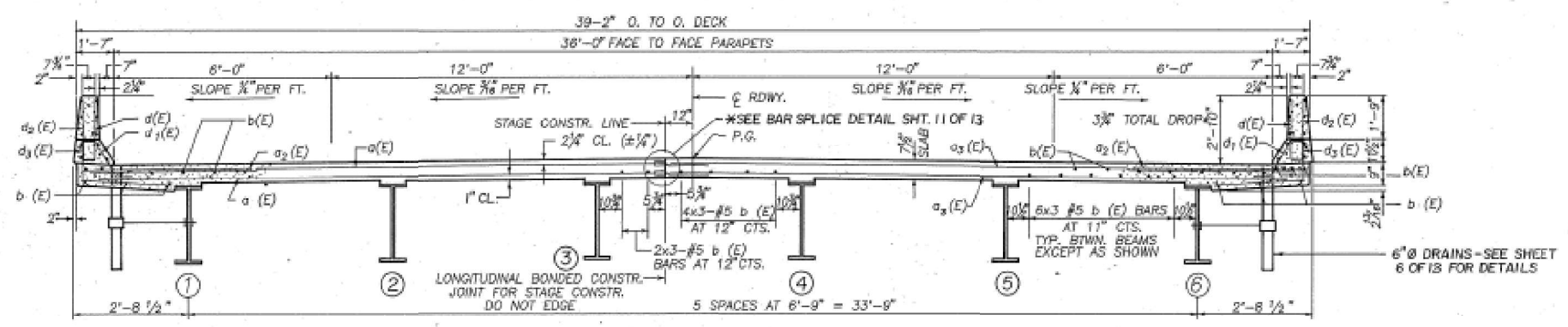
BILL OF MATERIAL - SUPERSTRUCTURE

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	219	#5	18'-3"	—
a ₂ (E)	128	#6	4'-0"	—
a ₃ (E)	219	#5	20'-3"	—
a ₅ (E)	12	#6	18'-5"	—
a ₆ (E)	12	#6	20'-5"	—
a ₇ (E)	8	#6	8'-8"	—
a ₈ (E)	4	#6	2'-8"	—
a ₉ (E)	2	#6	2'-3"	—
a ₁₀ (E)	2	#6	4'-3"	—
b(E)	234	#5	24'-3"	—
d(E)	152	#5	3'-0"	L
d ₁ (E)	140	#5	2'-7"	L
d ₂ (E)	138	#4	3'-0"	L
d ₃ (E)	138	#4	3'-3"	L
d ₄ (E)	12	#5	2'-4"	L
e(E)	48	#4	18'-10"	—
e ₁ (E)	12	#5	24'-3"	—
e ₂ (E)	12	#8	26'-0"	—
f(E)	72	#5	6'-0"	—
f ₁ (E)	72	#4	8'-5"	□
v(E)	72	#5	4'-0"	┌
CLASS X CONCRETE SUPERSTR.			CU. YD.	102.5
REINFORCEMENT BARS EPOXY COATED			LBS.	20980

* BAR SPLICERS LAPPED WITH BARS AT THIS LOCATION SHALL BE TIED WITH DOUBLE THE NUMBER OF TIES NORMALLY USED.

MIN. LAP SPLICE

#5	2'-2"
#6	2'-7"



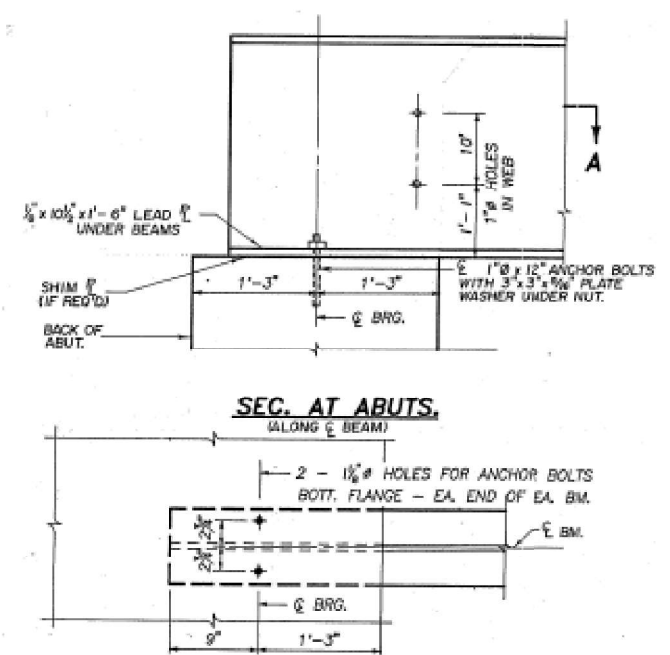
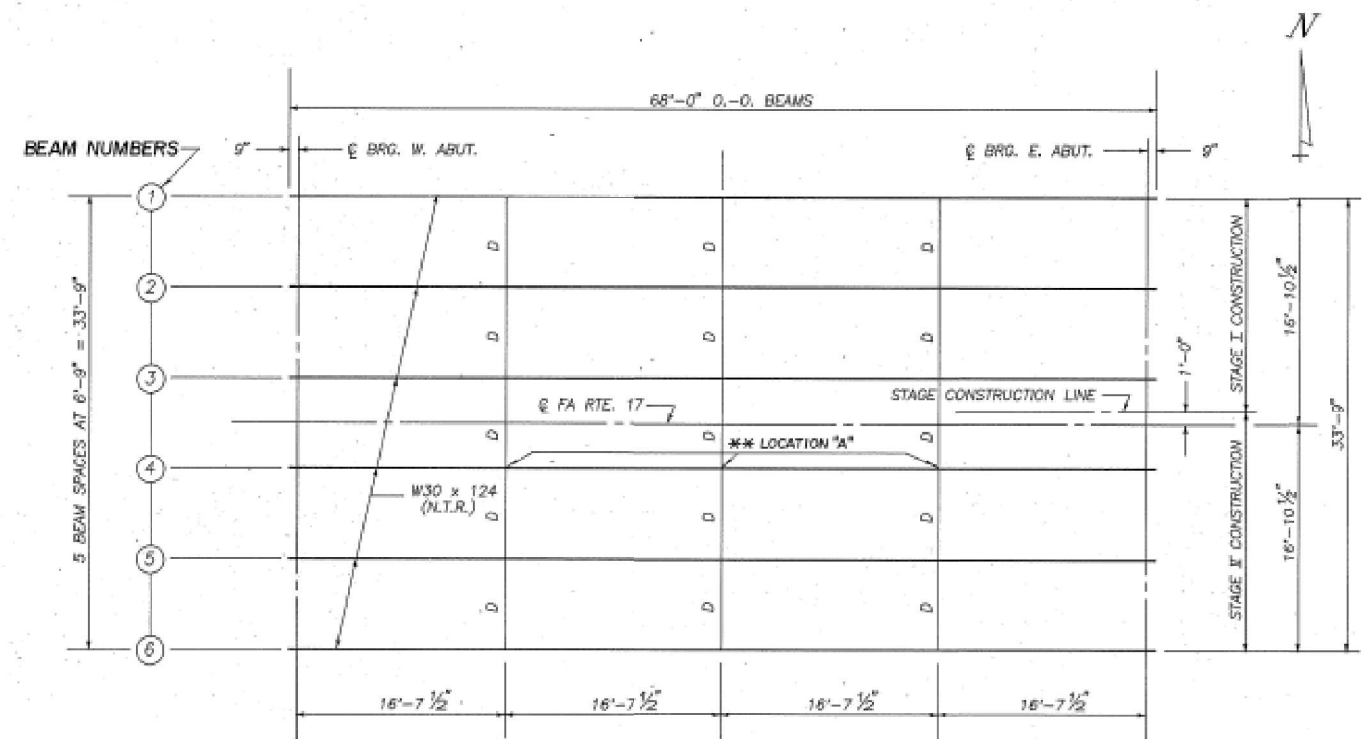
CROSS SECTION
(LOOKING EAST)

NOTES: SEE BR. SHEET 6 OF 13 FOR SUPERSTRUCTURE DETAILS AND SECTION A-A.
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
BARS INDICATED THUS 36 x 3 - #5 ETC. INDICATES 36 LINES OF BARS WITH 3 LENGTHS PER LINE.
SEE BR. SHEET 6 OF 13 FOR PARAPET REINFORCEMENT.

SUPERSTRUCTURE DETAILS
F.A. RTE. 17 SECTION 124A-BR
DEKALB COUNTY
STA. 608 + 92.50

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DRAWN - RW	REVISED -	CONTRACT NO. 66P82								
CHECKED - YP	REVISED -	ILLINOIS FED. AID PROJECT								
REVISIONS	REVISED -									
DATE - 6/7/2024	DATE -	REVISED -	SCALE:	SHEET 2 OF 4 SHEETS	STA. 608+59 TO STA. 609+27					



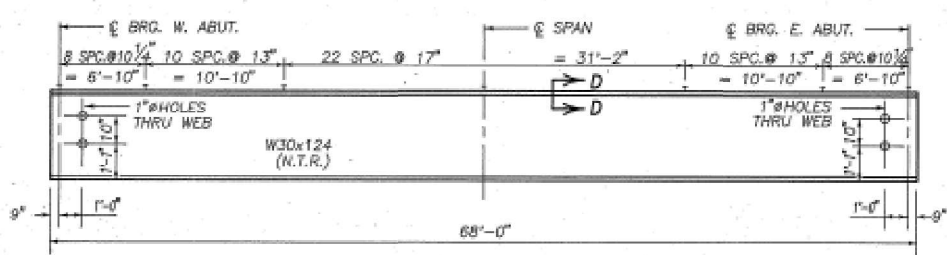
INTERIOR BEAM MOMENT TABLE

	0.5 SPAN 1'
I_x (in)	5360
I_y (in)	15233
S_x (in)	355
S_y (in)	542
Q (k/ft)	0.782
* $M \ell$ (ft.-k)	432
* $s \ell$ (k/ft.)	0.302
* $M_a \ell$ (ft.-k)	167
* M_{LL} (ft.-k)	560
* M_{IMP} (ft.-k)	146
* $\frac{1}{2}(M_{LL} + M_{IMP})$ (k)	1176
M_a (ft.-k)	2308
M_u (ft.-k)	3055
* $f_c \ell$ (non-comp) (ksi)	14.6
* $f_s \ell$ (comp) (ksi)	3.7
$f_s \ell (L+1)$ (ksi)	26.0
f_c (overload) (ksi)	44.3
* VR (k)	54.2

INTERIOR BEAM REACTION TABLE

	W. ABUT. & E. ABUT.
* $R \ell$ (k)	35.7
* R_{LL} (k)	36.5
* R_{IMP} (k)	9.5
* R_{TOTAL} (k)	81.7

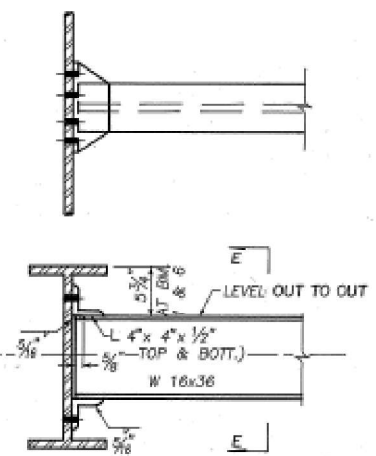
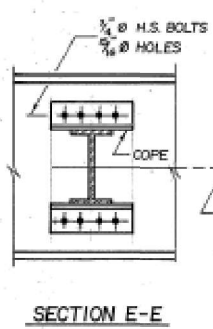
M_u = FULL PLASTIC MOMENT CAPACITY FOR COMPACT, BRACED SECTION.
 M_a = (APPLIED MOMENT) = $1.3 [M \ell + M_a \ell + \frac{1}{3} (M \ell + 0)]$
 I_x AND S_x ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE STEEL SECTION USED IN COMPUTING f_s (TOTAL AND OVERLOAD).
 I_c AND S_c ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE COMPOSITE SECTION USED IN COMPUTING f_s (TOTAL AND OVERLOAD).
 VR IS THE MAXIMUM Q + IMPACT SHEAR RANGE IN SPAN.
 Z IS THE PLASTIC SECTION MODULUS USED TO DETERMINE THE FULLY PLASTIC MOMENTS IN THE NON-COMPOSITE AREAS.
 THE FULLY PLASTIC MOMENT CAPACITY (M_u) IS COMPUTED ACCORDING TO AASHTO 10.48.1 & 10.50.1.1.
 f_s (TOTAL) IS THE SUM OF THE STRESSES DUE TO $1.3 [M \ell + M_a \ell + \frac{1}{3} (M \ell + 0)]$.
 f_s (OVERLOAD) IS THE SUM OF THE STRESSES DUE TO $M_a \ell + M_u \ell + \frac{1}{3} (M \ell + 0)$.
 * SERVICE LOAD VALUES



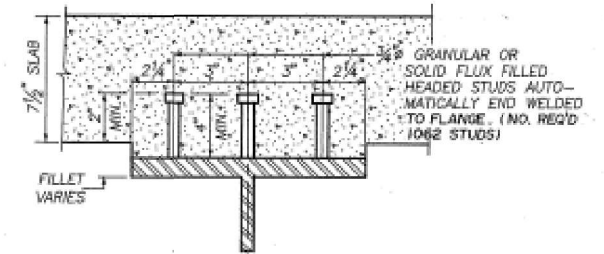
BEAM ELEVATION

PROPOSED TOP OF BEAM ELEVATIONS

LOCATION \ BEAM No.	1	2	3	4	5	6
BRG. W. ABUT.	849.344	849.475	849.580	849.580	849.475	849.344
BRG. E. ABUT.	849.344	849.475	849.580	849.580	849.475	849.344



NOTE: TWO HARDENED WASHERS SHALL BE REQUIRED OVER 1 5/8" HOLES IN DIAPHRAGM CONNECTION.

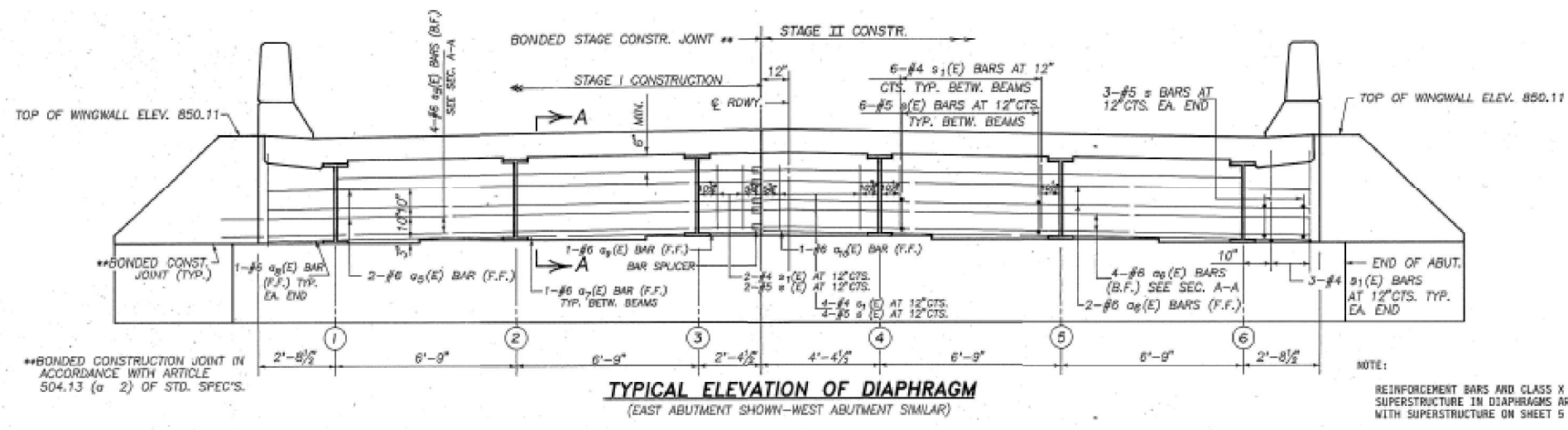


STRUCTURAL STEEL DETAILS
FA. RTE. 17 SECTION 124A-BP
DEKALB COUNTY
STA. 608 + 92.50

MODEL: Default
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FA ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
17	124A-BR	DEKALB	23	11

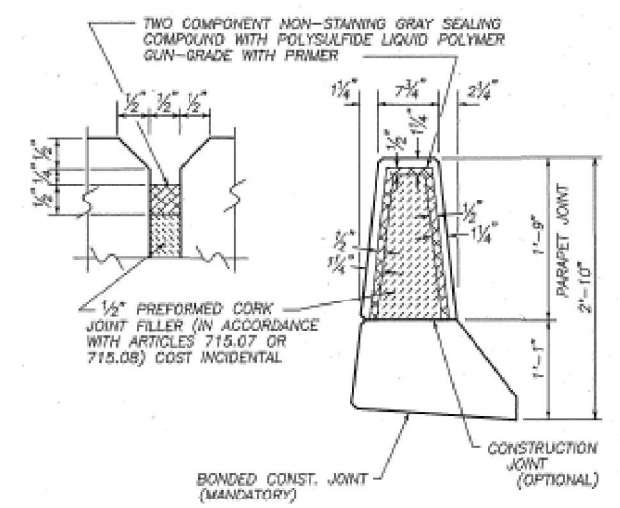
ILLINOIS PROJECT
BRIDGE SHEET 6 OF 13 SHEETS



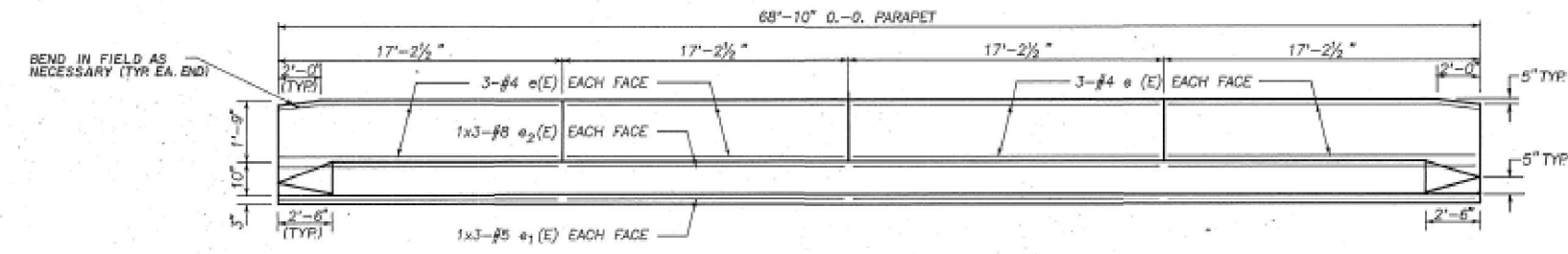
**BONDED CONSTRUCTION JOINT IN ACCORDANCE WITH ARTICLE 504.13 (a 2) OF STD. SPEC'S.

TYPICAL ELEVATION OF DIAPHRAGM
(EAST ABUTMENT SHOWN—WEST ABUTMENT SIMILAR)

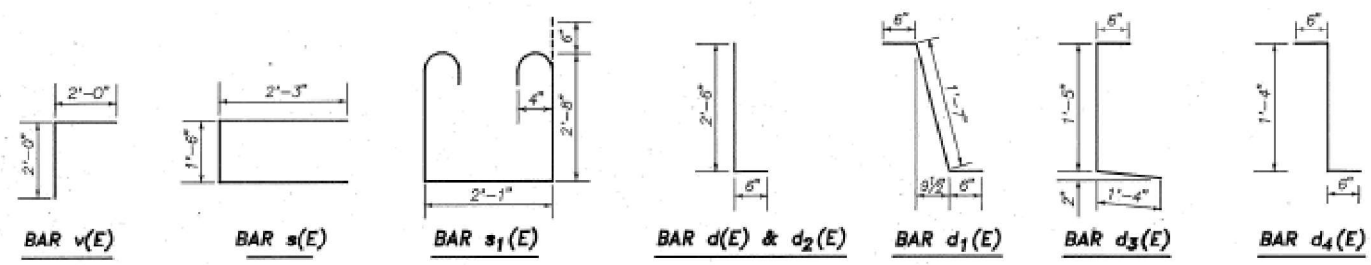
NOTE:
REINFORCEMENT BARS AND CLASS X CONCRETE SUPERSTRUCTURE IN DIAPHRAGMS ARE BILLED WITH SUPERSTRUCTURE ON SHEET 5 OF 13.
FOR BAR SPLICER DETAILS, SEE SHEET 11 OF 13.



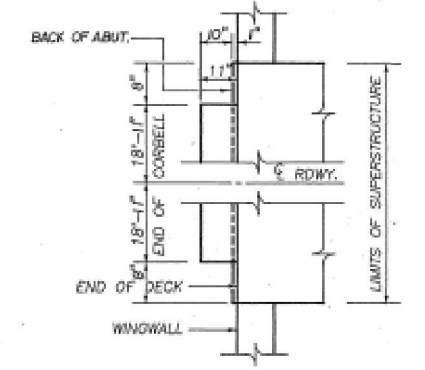
DETAILS OF PARAPET JOINT



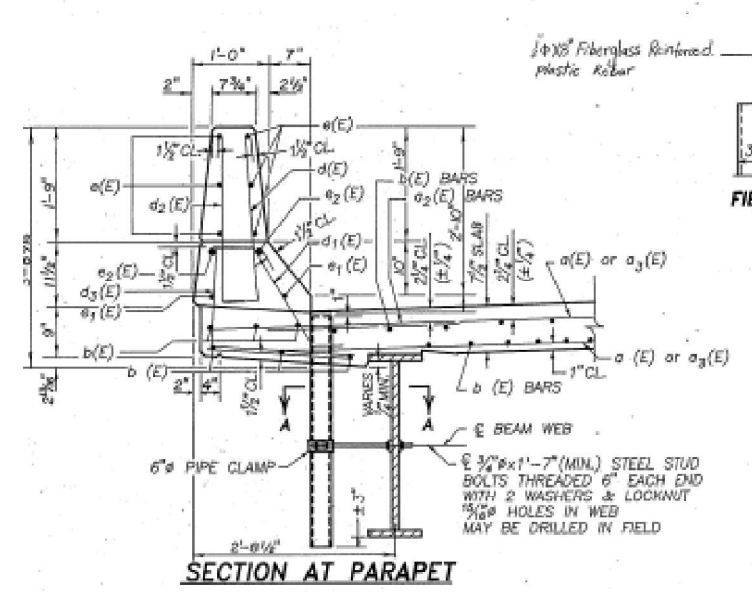
ELEVATION OF PARAPET



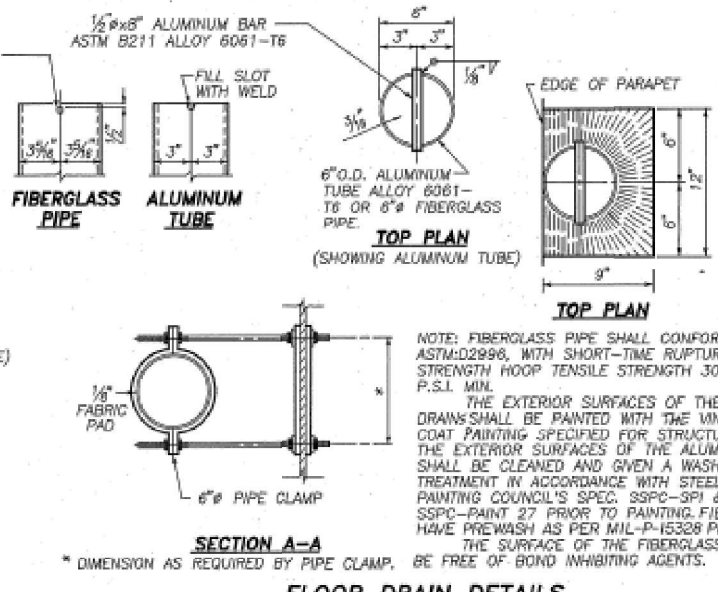
MIN. BAR SPLICE



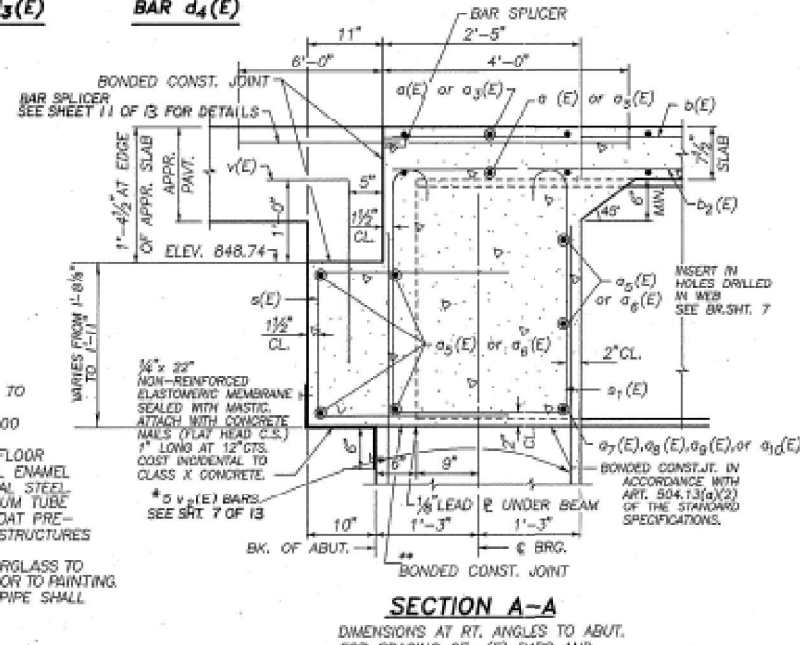
PLAN VIEW AT CORNERS



SECTION AT PARAPET



FLOOR DRAIN DETAILS



SECTION A-A

DIMENSIONS AT RT. ANGLES TO ABUT. FOR SPACING OF v(E) BARS AND SPLICER RODS SEE SUPERSTRUCTURE SHEET.

SUPERSTRUCTURE DETAILS
FA. RTE. 17 SECTION 124 A-BR
DEKALB COUNTY
STA. 608 + 92.50

MODEL: Default
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USER NAME = ronald.woodshank	DESIGNED - RW	REVISED -
	DRAWN - RW	REVISED -
	CHECKED - YP	REVISED -
PLOT DATE = 7/24/2024	DATE - 6/7/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS FOR STRUCTURE NO. 019-0040
FOR INFORMATION ONLY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
553, 17	(125BR-3)BP, 124A-BR)BP	DEKALB	20	20

CONTRACT NO. 66P82

SCALE: SHEET 4 OF 4 SHEETS STA. 608+59 TO STA. 609+27

ILLINOIS FED. AID PROJECT