

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	1
		ILLINOIS	CONTRACT NO. 70C98	

# PROPOSED HIGHWAY PLANS

FAP ROUTE 760 (IL-48)  
SECTION (125)BJR  
PROJECT  
BRIDGE DECK REPAIRS FRIENDS CREEK  
DITCH SOUTH OF WELDON  
PIATT COUNTY

C-95-022-18

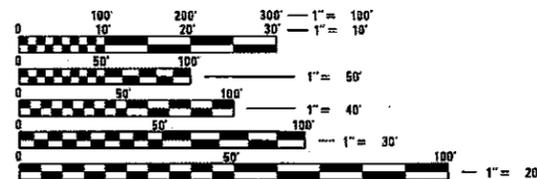
FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-5

IL-48

CURRENT TRAFFIC DATA	
STR. 074-0015	
2017 ADT	= 1,300
2037 ADT	= 1,550
PU+PC %	= 73.1
SU %	= 7.7
MU%	= 19.2

**DESIGN DESIGNATION**  
MINOR ARTERIAL

TOWNSHIP: PIATT



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

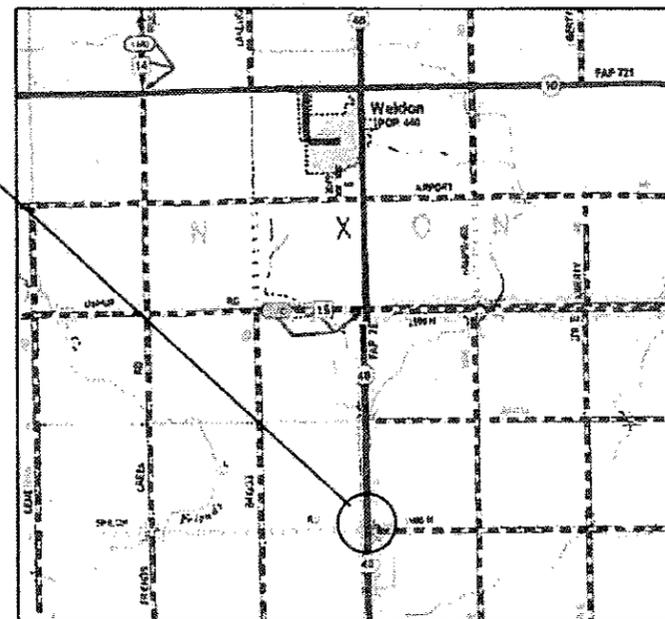
TOWNSHIP: GOOSE CREEK

PROJECT ENGINEER: TIM BRADENBURG  
PROJECT MANAGER: ERIC SHAWLER

1-217-465-4181

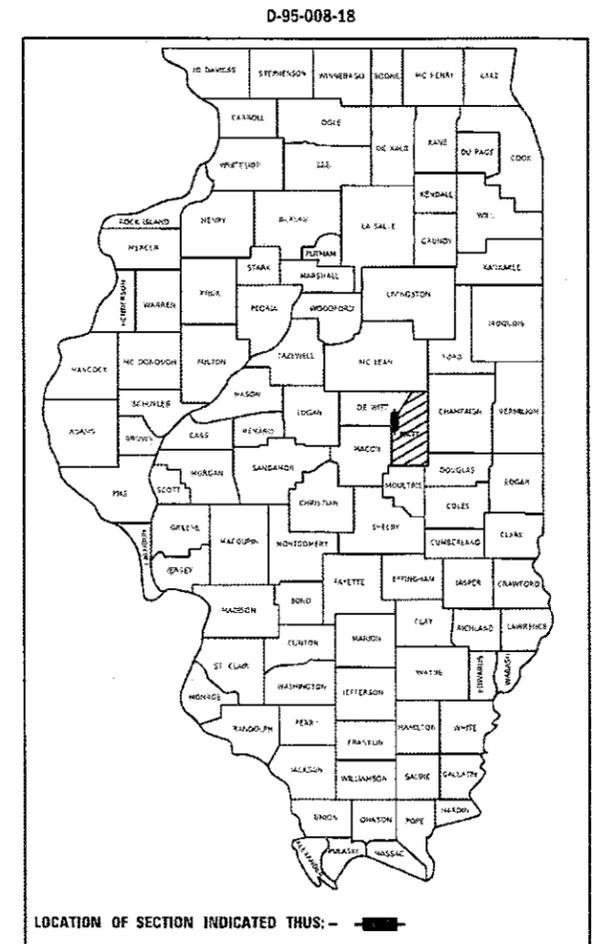
CONTRACT NO. 70C98

EXISTING S.N. 074-0015  
F.A.P. 760 (IL-48)  
OVER FRIENDS CREEK DITCH  
STATION 1030+89.60  
BRIDGE DECK REPAIRS



R 4 E

GROSS LENGTH = 150.00 FT. = 0.028 MILE  
NET LENGTH = 150.00 FT. = 0.028 MILE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED January 11, 2018  
Paula Jones  
REGIONAL ENGINEER

Mac 23, 2018  
Paul P. Jones  
ENGINEER OF DESIGN AND ENVIRONMENT

Mac 23, 2018  
Paul P. Jones  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS
2	LIST OF STANDARDS
2	GENERAL NOTES
3-5	SUMMARY OF QUANTITIES
6-7	STAGE CONSTRUCTION DETAILS
8-9	DETAILS FOR MILLING & PAVING TRANSITIONS
10-32	STRUCTURE PLANS S.N. 074-0015
33	RIPRAP LOCATION SHEET
34-35	DETAILS FOR WIDTH RESTRICTION SIGNING
36	TRAFFIC CONTROL & PROTECTION DEVICES (ROAD & SIDEROAD/STREET CLOSURES)

## LIST OF HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND FOOT
701006-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM EDGE OF PAVEMENT
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > = 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701321-17	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER

## GENERAL NOTES

G.N.-100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-105.09A

ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G.N.-406

THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N.-406H

MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

Location	IL 48	IL 48
Mixture Use	Surface & Top lift of Shoulders	Shoulders (Bottom 4 1/2")
AC/PG	PG 64-22	PG 64-22
Design Air Voids	4.0% @ Ndes=50	4.0% @ Ndes=50
Mix Comp(Gradation)	IL 9.5	IL 19.0
Friction Aggregate	Mix D	N.A.
Mixture Weight	112	112
Quality Management Program	QC/QA	QC/QA
Sublot Size	N.A.	N.A.

G.N.-482

ALL LOW ESAL MIXTURE PLACED AS HOT-MIX ASPHALT SHOULDERS SHALL BE COMPACTED TO 94.0 - 98.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY. THIS REQUIREMENT SHALL APPLY TO IL 9.5L GRADATION MIXES. THIS MAXIMUM DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE OF FOUR TESTS AS IN OTHER QC/QA TESTING. A NUCLEAR GAUGE DENSITY/CORE CORRELATION SHALL BE PERFORMED FOR THE IL 9.5L USING STANDARD CORRELATION PROCEDURES WHEN MORE THAN 3,000 TONS ARE TO BE PLACED.

G.N.-609

PRIOR TO ROUTING TRAFFIC ONTO THE SHOULDERS AS SHOWN IN THE STAGING PLANS, THE CONTRACTOR SHALL SECURE THE GRATINGS ON SHOULDER INLETS AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

THE DEPARTMENT HAS ELECTED TO ACCOMPLISH THE FINAL PAVEMENT MARKINGS WITH ITS OWN FORCES. THE RESIDENT ENGINEER SHALL NOTIFY THE TRAFFIC OPERATIONS SUPERVISOR GARY SIMS (251-4859) AS SOON AS ALL WORK HAS BEEN COMPLETED AND THE ROADWAY HAS BEEN REOPENED TO COORDINATED STRIPING.

SEE R.E. FILE FOR CALCULATIONS AND SCHEDULES.

THERE ARE NO COMMITMENTS ASSOCIATED WITH THIS PROJECT.

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	DRAWN -	REVISED -
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PLOT DATE = 12/21/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, STANDARDS, GENERAL NOTES  
S.N. 074-0015**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)B/R	PIATT	36	2
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				







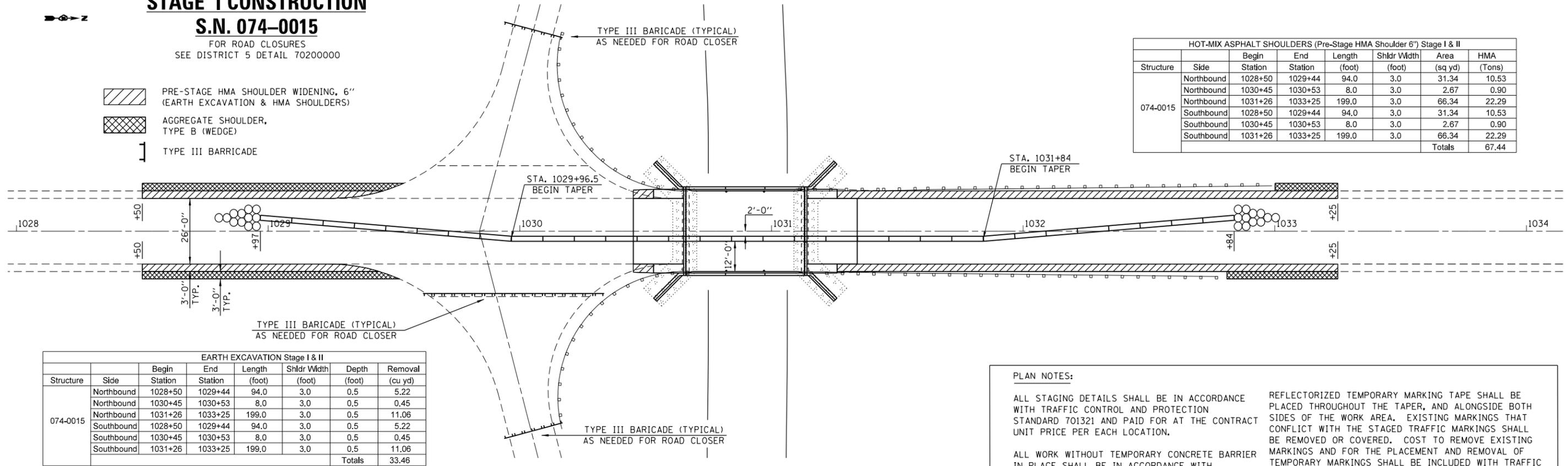
# STAGE I CONSTRUCTION

## S.N. 074-0015

FOR ROAD CLOSURES  
SEE DISTRICT 5 DETAIL 70200000

-  PRE-STAGE HMA SHOULDER WIDENING, 6" (EARTH EXCAVATION & HMA SHOULDERS)
-  AGGREGATE SHOULDER, TYPE B (WEDGE)
-  TYPE III BARRICADE

HOT-MIX ASPHALT SHOULDERS (Pre-Stage HMA Shoulder 6") Stage I & II							
Structure	Side	Begin Station	End Station	Length (foot)	Shldr Width (foot)	Area (sq yd)	HMA (Tons)
074-0015	Northbound	1028+50	1029+44	94.0	3.0	31.34	10.53
	Northbound	1030+45	1030+53	8.0	3.0	2.67	0.90
	Northbound	1031+26	1033+25	199.0	3.0	66.34	22.29
	Southbound	1028+50	1029+44	94.0	3.0	31.34	10.53
	Southbound	1030+45	1030+53	8.0	3.0	2.67	0.90
						Totals	67.44



EARTH EXCAVATION Stage I & II								
Structure	Side	Begin Station	End Station	Length (foot)	Shldr Width (foot)	Depth (foot)	Removal (cu yd)	
074-0015	Northbound	1028+50	1029+44	94.0	3.0	0.5	5.22	
	Northbound	1030+45	1030+53	8.0	3.0	0.5	0.45	
	Northbound	1031+26	1033+25	199.0	3.0	0.5	11.06	
	Southbound	1028+50	1029+44	94.0	3.0	0.5	5.22	
	Southbound	1030+45	1030+53	8.0	3.0	0.5	0.45	
	Southbound	1031+26	1033+25	199.0	3.0	0.5	11.06	
							Totals	33.46

**PLAN NOTES:**

ALL STAGING DETAILS SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321 AND PAID FOR AT THE CONTRACT UNIT PRICE PER EACH LOCATION.

ALL WORK WITHOUT TEMPORARY CONCRETE BARRIER IN PLACE SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARDS 701201 AND 701206.

FOR ADDITIONAL DETAILS ASSOCIATED WITH TEMPORARY CONCRETE BARRIER, SEE HIGHWAY STANDARD 704001.

REFLECTORIZED TEMPORARY MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER, AND ALONGSIDE BOTH SIDES OF THE WORK AREA. EXISTING MARKINGS THAT CONFLICT WITH THE STAGED TRAFFIC MARKINGS SHALL BE REMOVED OR COVERED. COST TO REMOVE EXISTING MARKINGS AND FOR THE PLACEMENT AND REMOVAL OF TEMPORARY MARKINGS SHALL BE INCLUDED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

PRIOR TO ROUTING TRAFFIC ONTO THE SHOULDERS, THE CONTRACTOR SHALL SECURE ANY GRATES ON SHOULDER INLETS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

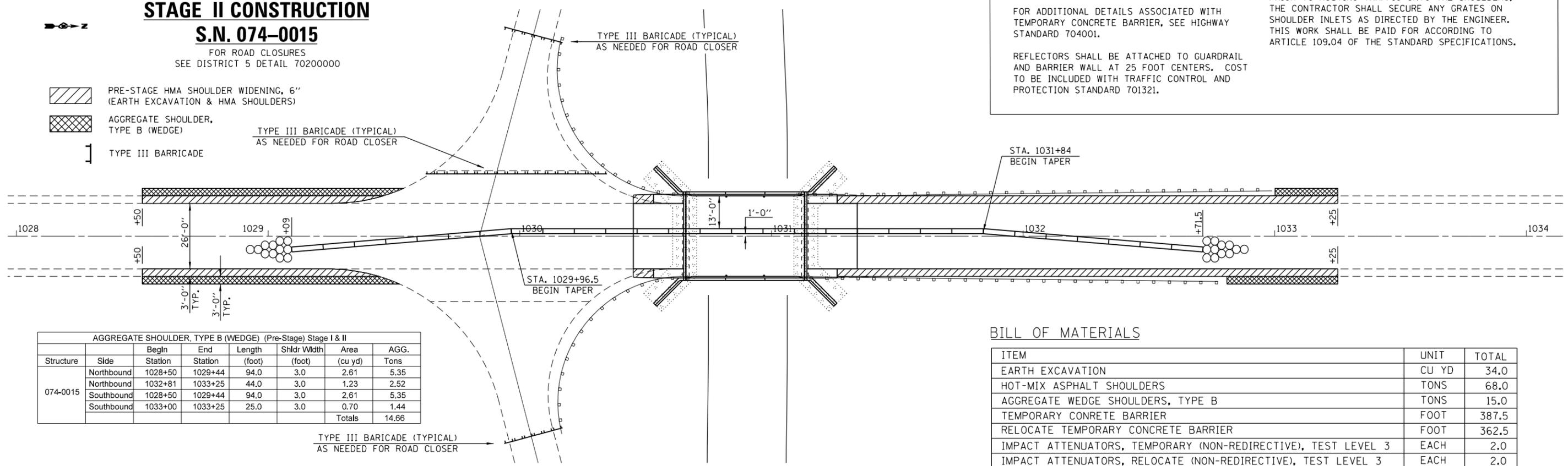
REFLECTORS SHALL BE ATTACHED TO GUARDRAIL AND BARRIER WALL AT 25 FOOT CENTERS. COST TO BE INCLUDED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

# STAGE II CONSTRUCTION

## S.N. 074-0015

FOR ROAD CLOSURES  
SEE DISTRICT 5 DETAIL 70200000

-  PRE-STAGE HMA SHOULDER WIDENING, 6" (EARTH EXCAVATION & HMA SHOULDERS)
-  AGGREGATE SHOULDER, TYPE B (WEDGE)
-  TYPE III BARRICADE



AGGREGATE SHOULDER, TYPE B (WEDGE) (Pre-Stage) Stage I & II								
Structure	Side	Begin Station	End Station	Length (foot)	Shldr Width (foot)	Area (cu yd)	AGG. Tons	
074-0015	Northbound	1028+50	1029+44	94.0	3.0	2.61	5.35	
	Northbound	1032+81	1033+25	44.0	3.0	1.23	2.52	
	Southbound	1028+50	1029+44	94.0	3.0	2.61	5.35	
	Southbound	1033+00	1033+25	25.0	3.0	0.70	1.44	
							Totals	14.66

### BILL OF MATERIALS

ITEM	UNIT	TOTAL
EARTH EXCAVATION	CU YD	34.0
HOT-MIX ASPHALT SHOULDERS	TONS	68.0
AGGREGATE WEDGE SHOULDERS, TYPE B	TONS	15.0
TEMPORARY CONCRETE BARRIER	FOOT	387.5
RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	362.5
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0
IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0

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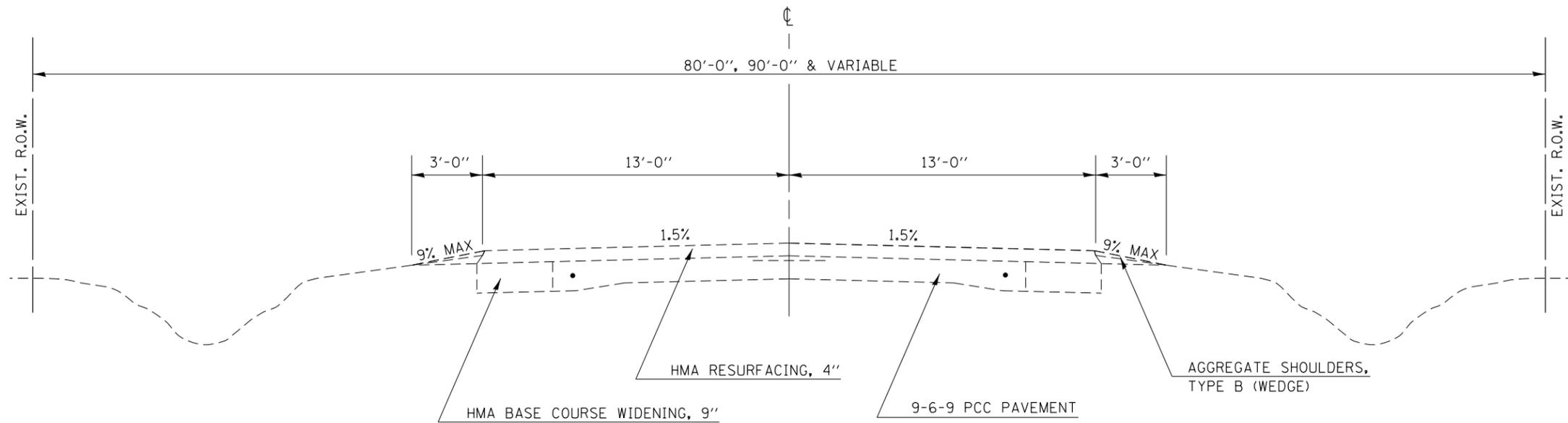
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER DETAILS	
S.N. 074-0015	
SCALE:	SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	6
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				

# EXISTING TYPICAL CROSS SECTION

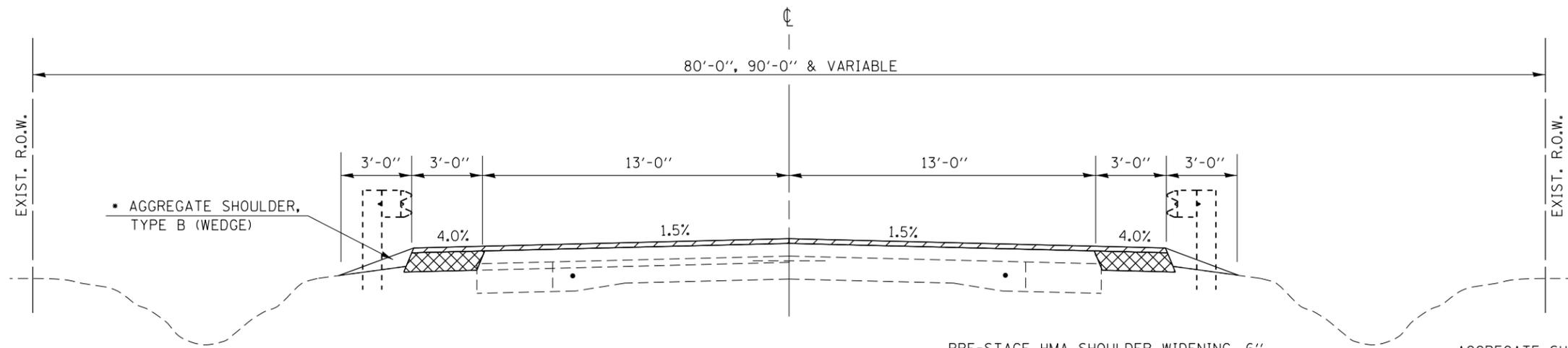
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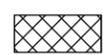
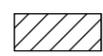


# PROPOSED TYPICAL CROSS SECTION

\* AGGREGATE SHOULDER, TYPE B (WEDGE)  
NOT REQUIRED AT GUARDRAIL LOCATIONS

STATION	TO	STATION	
1030 + 15.13		1030 + 45.13	SOUTH APPROACH TRANSITION
1031 + 34.07		1031 + 64.07	NORTH APPROACH TRANSITION



-  PRE-STAGE HMA SHOULDER WIDENING, 6" (EARTH EXCAVATION & HMA SHOULDERS)
-  HMA SURFACE REMOVAL, VARIABLE DEPTH & HMA SURFACE COURSE, IL 9.5 FG, N50 (1 1/2")

PRE-STAGE HMA SHOULDER WIDENING, 6" (EARTH EXCAVATION & HMA SHOULDERS)

STATION	TO	STATION
1028+50		1029+44
1030+45		1030+53
1031+26		1033+25

AGGREGATE SHOULDER, TYPE B (WEDGE)

STATION	TO	STATION
1028+50		1029+44
1031+26		1033+25

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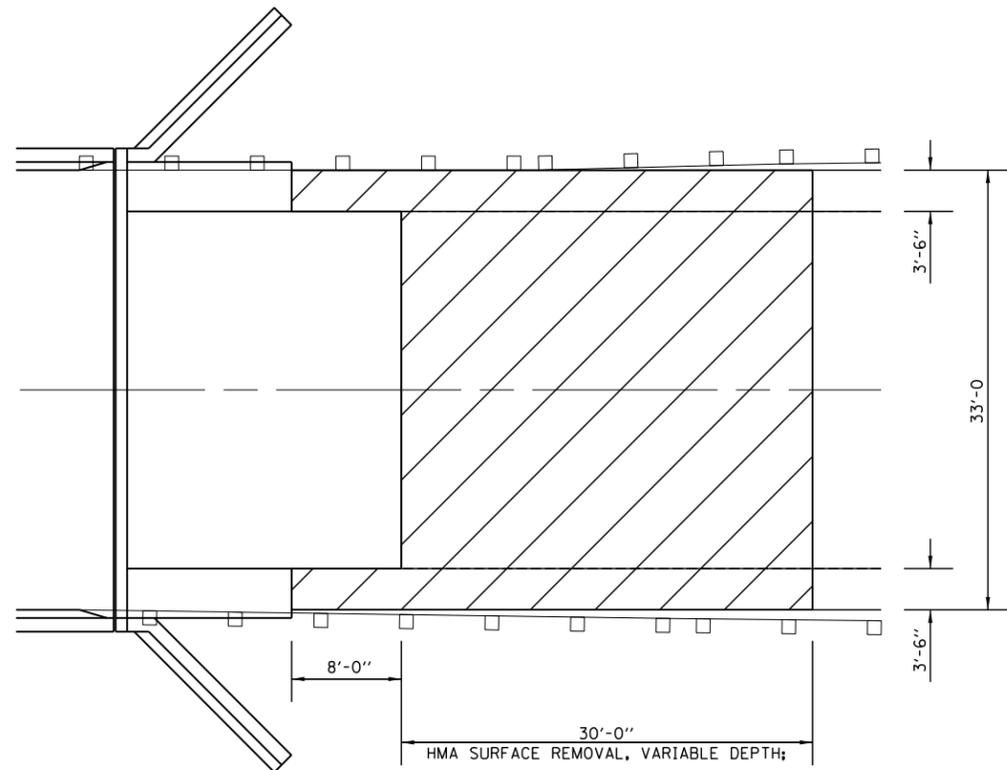
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTION  
S.N. 074-0015

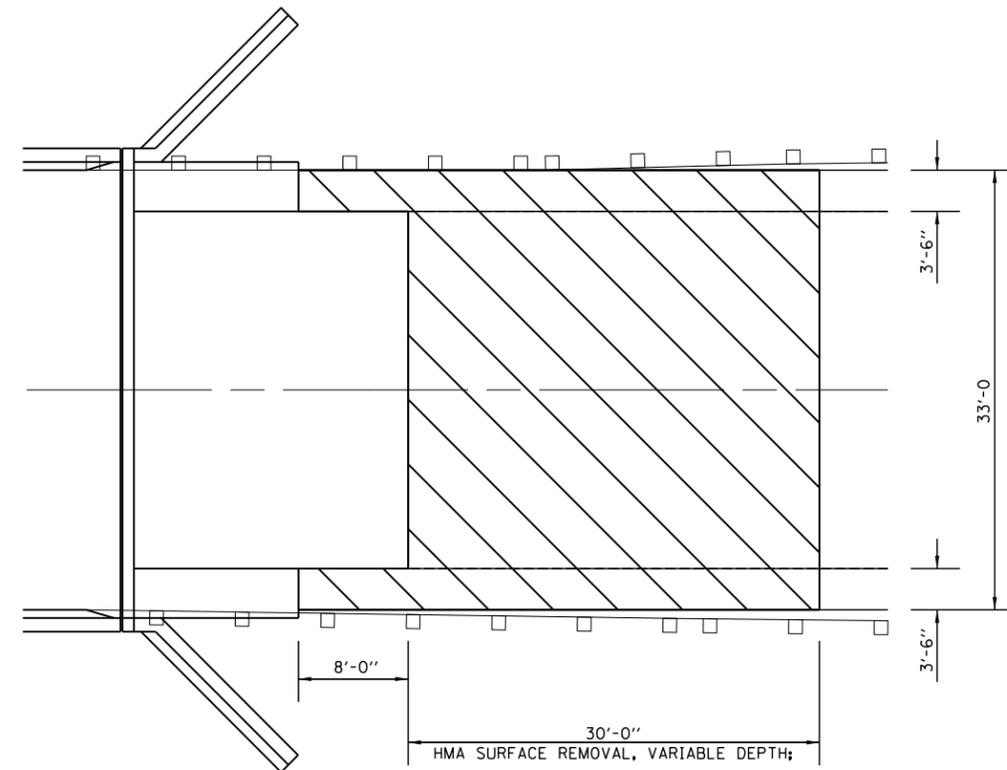
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	7
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				





EXISTING PLAN

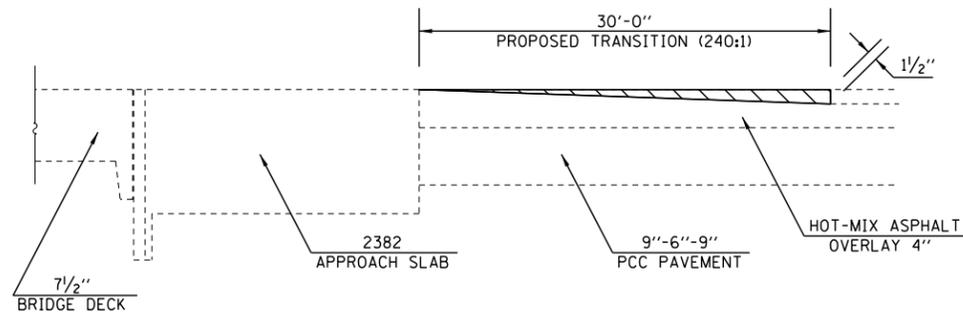


PROPOSED PLAN

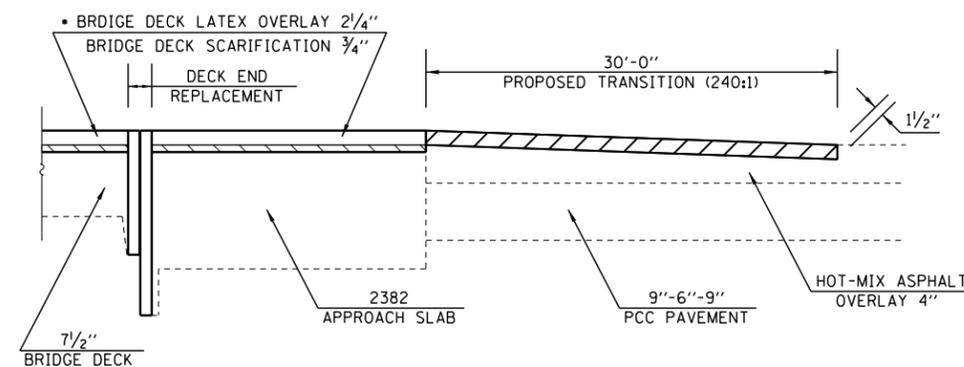
LEGEND:

HMA SURFACE REMOVAL, VARIABLE DEPTH

HMA SURFACE COURSE, IL 9.5 FG, N50 (168 LBS/SQ YD)



EXISTING ELEVATION



PROPOSED ELEVATION

NOTE

• PRIOR TO 1/4" DIAMOND GRINDING

PAVER ELECTRONIC GRADE CONTROL SHALL BE OPERATED FROM A PRESET GRADE CONTROL STRINGLINE, SEE ARTICLE 406.06(e)

PART OF THE PRE-STAGE SHOULDER RESURFACING MAY BE REMOVED DURING FINAL PAVING TRANSITIONS THAT ARE REQUIRED TO MATCH PROPOSED DECK ELEVATIONS.

BILL OF MATERIALS

ITEM	UNIT	TOTAL
HMA ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	139.8
HMA ASPHALT SURFACE COURSE, IL 9.5 FG, N50	TON	11.8

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH APPROACH TRANSITION DETAILS  
S.N. 074-0015

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

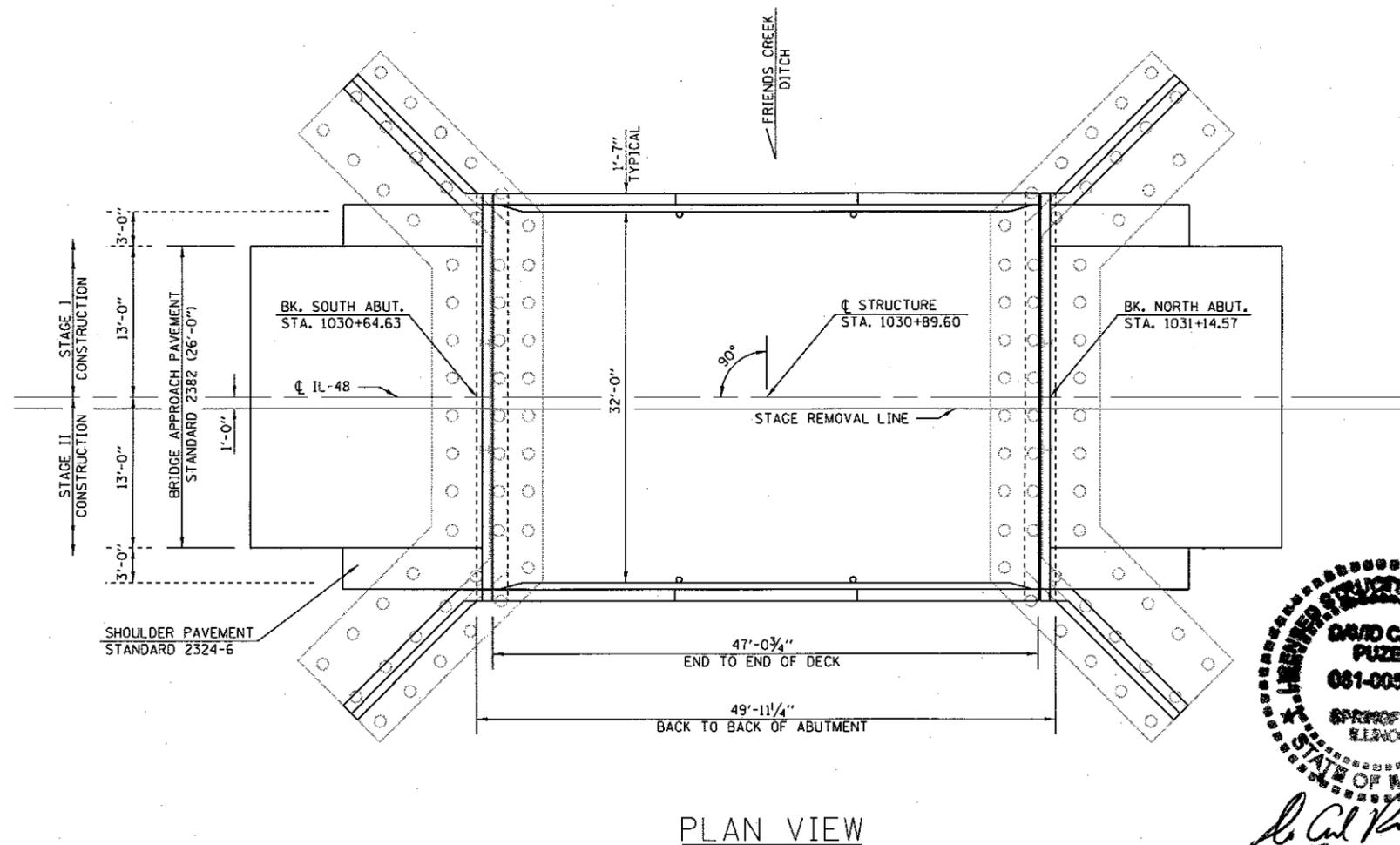
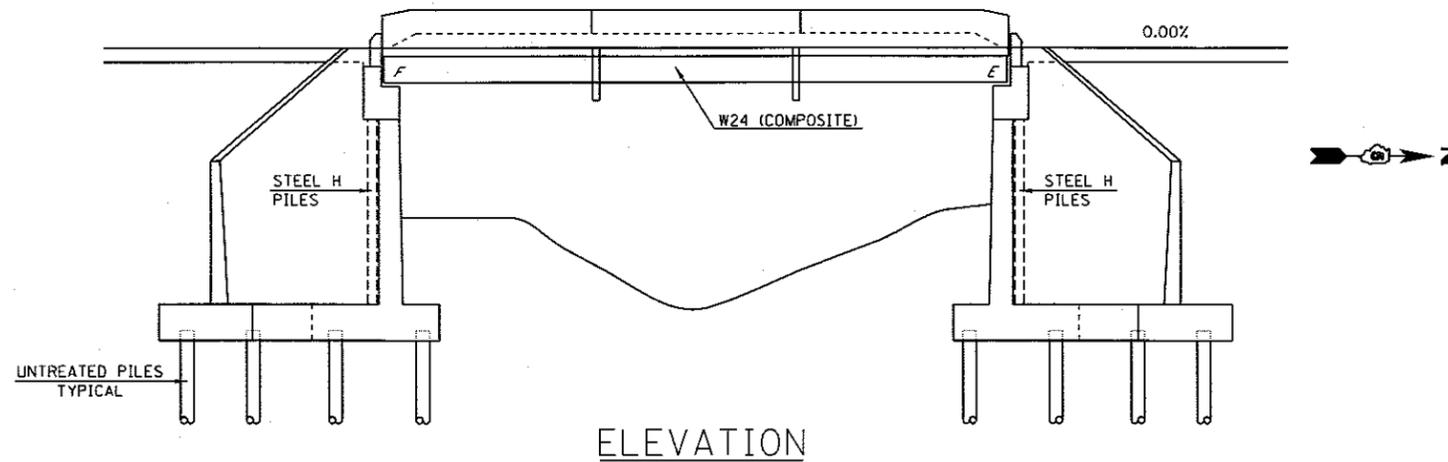
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760	(125)BJR	PIATT	36	9
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				

STRUCTURE NO. 074-0015 WAS ORIGINALLY BUILT AS SEC. 125B IN 1931 AT STATION 1030+92. A SINGLE SPAN REINFORCED CONCRETE DECK GIRDER ON CLOSED ABUTMENTS WITH SPREAD FOOTINGS SUPPORTED BY PILES. IN 1987 THE DECK AND SUPERSTRUCTURE WAS REMOVED AND REPLACED AS CONTRACT 40086, FA 760 SEC. 125BR-1 AT STATION 1030+89.60. THE ABUTMENTS WERE MODIFIED TO ACCOMMODATE THE NEW STEEL BEAM SUPERSTRUCTURE THAT SUPPORTS A 7 1/2" CONCRETE DECK. THE EXISTING STRUCTURE HAS A BACK TO BACK ABUTMENT LENGTH OF 49'-11 1/4" AN OUT TO OUT WIDTH OF 35'-2" AND A ROADWAY WIDTH OF 32'-0". THE EXISTING STRUCTURE IS NOT SKEWED.

METHOD OF CONSTRUCTION IS STAGE CONSTRUCTION.

# GENERAL PLAN & ELEVATION

## S.N. 074-0015



### GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE 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.

JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STANDARD SPECIFICATIONS WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50° F.

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 36, UNLESS OTHERWISE NOTED.

REINFORCEMENT BARS DESIGNATED (e) SHALL BE EPOXY COATED.

EXISTING STRUCTURAL STEEL THAT WILL BE IN CONTACT WITH NEW STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED PRIOR TO ERECTION AS REQUIRED BY THE GBSP "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 I. COST INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

SYNTHETIC FIBERS SHALL BE ADDED TO THE BRIDGE DECK LATEX CONCRETE OVERLAY, SEE SPECIAL PROVISIONS.

A VISUAL DECK SURVEY WAS PERFORMED ON AUGUST 25, 2017, DETERMINED FULL DEPTH PATCHING WOULD NOT BE REQUIRED. SHOULD AREAS FOR FULL-DEPTH PATCHING BE IDENTIFIED AFTER BRIDGE DECK SCARIFICATION, THE R.E. SHALL PLOT THEM ON THE BRIDGE DECK PATCHING SHEET PROVIDED.

### TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU YD	8.7
CONCRETE SUPERSTRUCTURE	CU YD	10.0
PROTECTIVE COAT	SQ YD	312.0
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	2,320.0
REINFORCEMENT BARS, EPOXY COATED	POUND	1,140.0
ELASTOMERIC BEARING ASSEMBLY, TYPE 1	EACH	6.0
ANCHOR BOLTS, 1"	EACH	12.0
BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	250.0
JACK AND REMOVE EXISTING BEARINGS	EACH	6.0
STRUCTURAL STEEL REMOVAL	POUND	2,250.0
STRUCTURAL STEEL REPAIR	POUND	2,580.0
BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"	SQ YD	288.0
BRIDGE DECK SCARIFICATION 3/4"	SQ YD	288.0
STRUCTURAL REPAIR OF CONCRETE (DEPTH = TO OR < 5 INCH)	SQ YD	311.5
SILICONE JOINT SEALER, 1.5"	FOOT	36.0
SILICONE JOINT SEALER, 2"	FOOT	36.0
DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	270.0
POLYMER CONCRETE	CU FT	8.1

\* PRIOR TO 1/4" DIAMOND GRINDING



*David Carl Puzey* 3/23/18  
Expires 1/30/18

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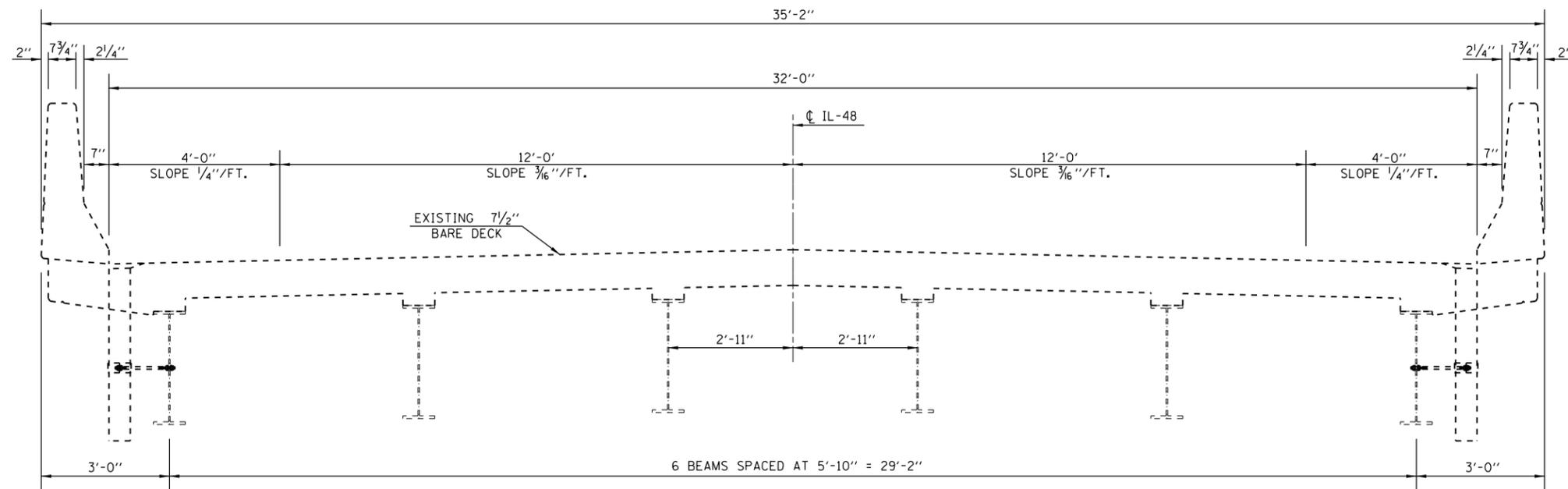
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
S.N. 074-0015

SCALE: SHEET 1 OF 23 SHEETS STA. TO STA.

F.A.P. RTE. 760	SECTION (125)BIR	COUNTY PIATT	TOTAL SHEETS 36	SHEET NO. 10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70C98	

# EXISTING DECK CROSS SECTION S.N. 074-0015

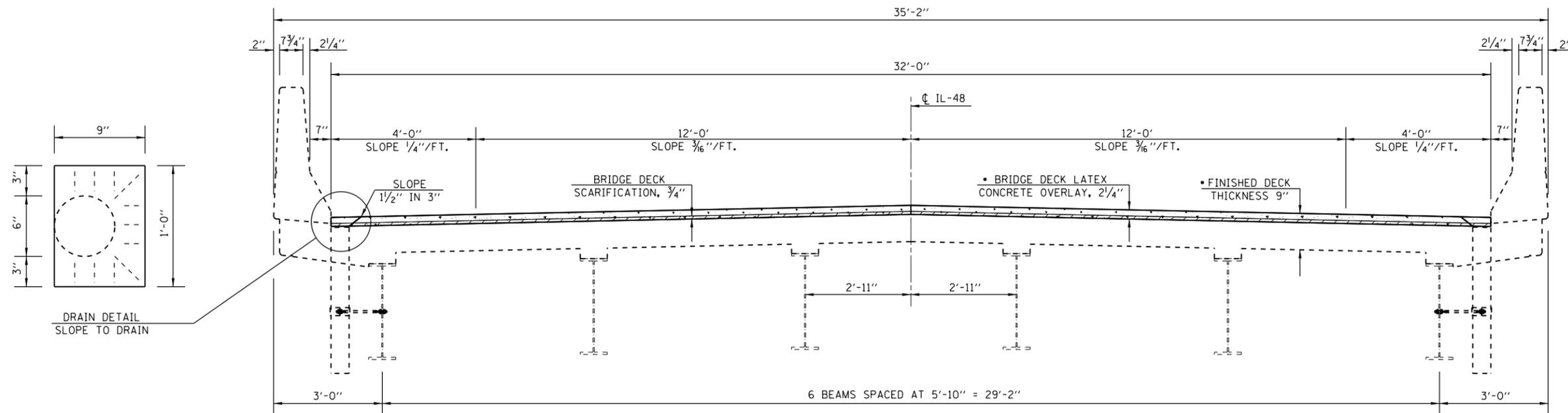


LOOKING NORTH

# PROPOSED DECK CROSS SECTION S.N. 074-0015

NOTE

- PRIOR TO 1/4" DIAMOND GRINDING
- FIBER IS REQUIRED FOR BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"



LOOKING NORTH

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PLOT DATE = 12/13/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BRIDGE DECK CROSS SECTION  
S.N. 074-0015**

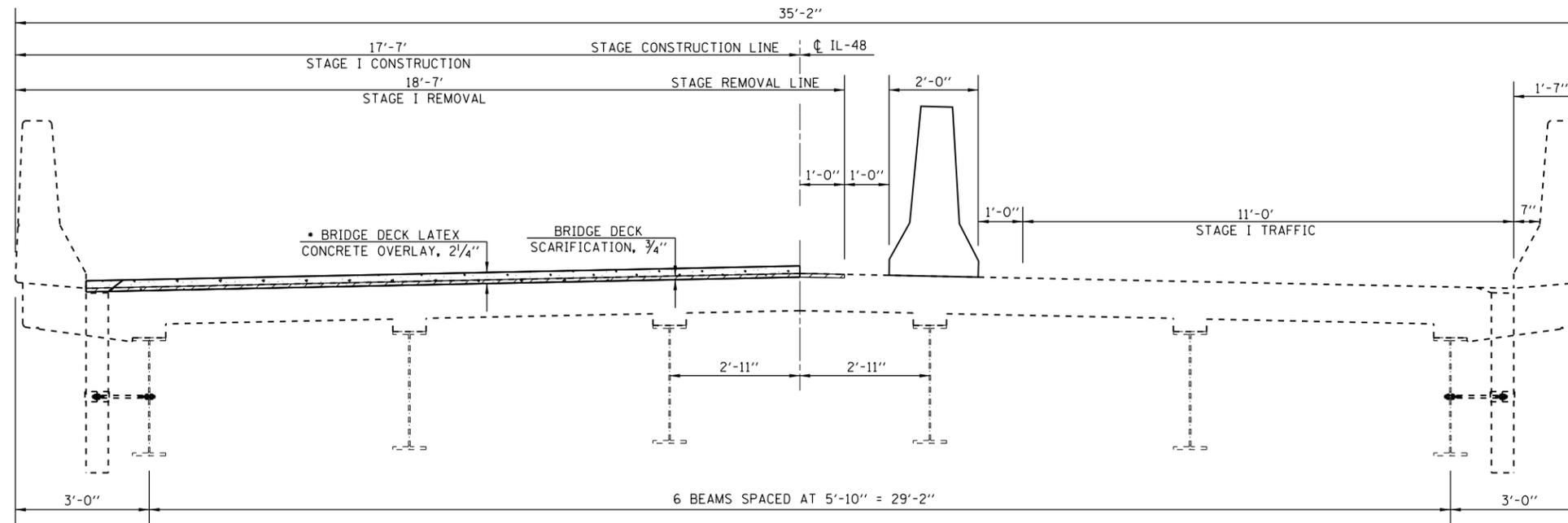
SCALE: SHEET 2 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	11
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				

# STAGE I CONSTRUCTION DETAIL

## S.N. 074-0015

• PRIOR TO 1/4" DIAMOND GRINDING

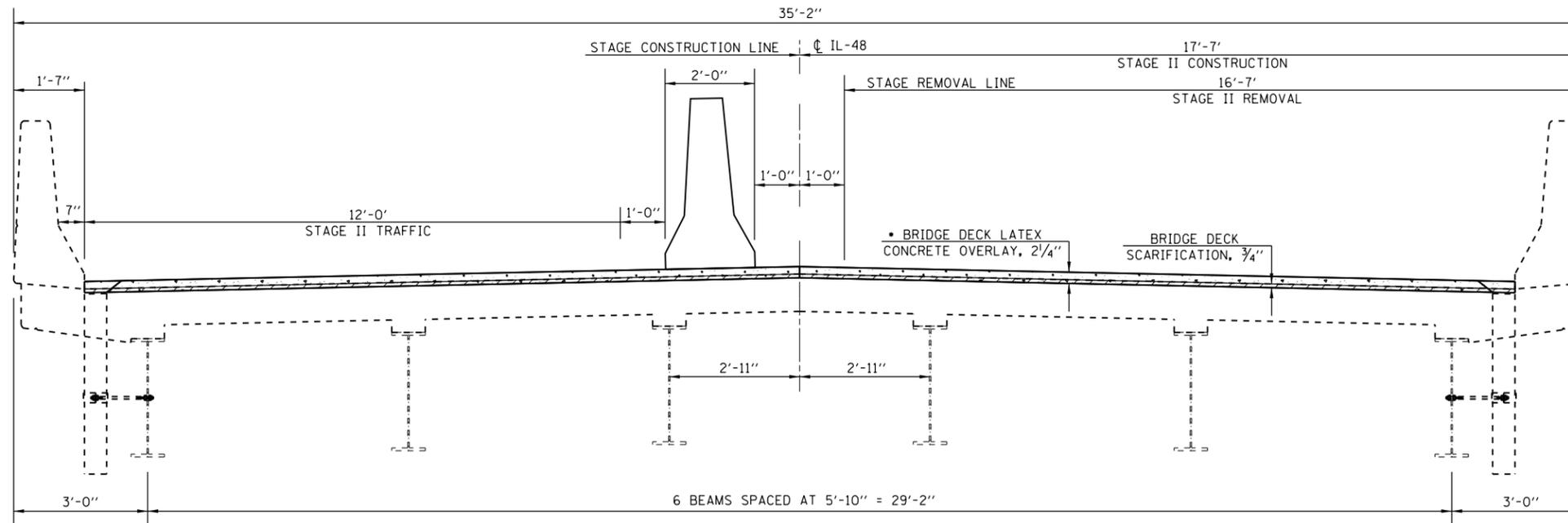


LOOKING NORTH

# STAGE II CONSTRUCTION DETAIL

## S.N. 074-0015

• PRIOR TO 1/4" DIAMOND GRINDING



LOOKING NORTH

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FILE NAME: \\P:\ILLINOIS\BIDDING\TEC\Illinois.gov\PIWDOT\Documents\DOT Office\Illinois\Projects\0740015\CADD\Bridges\Structures\0740015\_Sht\_Bridge\_Repair.dgn

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PLOT DATE = 12/13/2017	DATE -	REVISED -

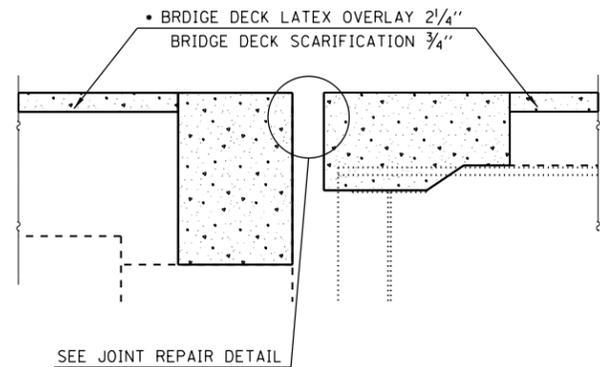
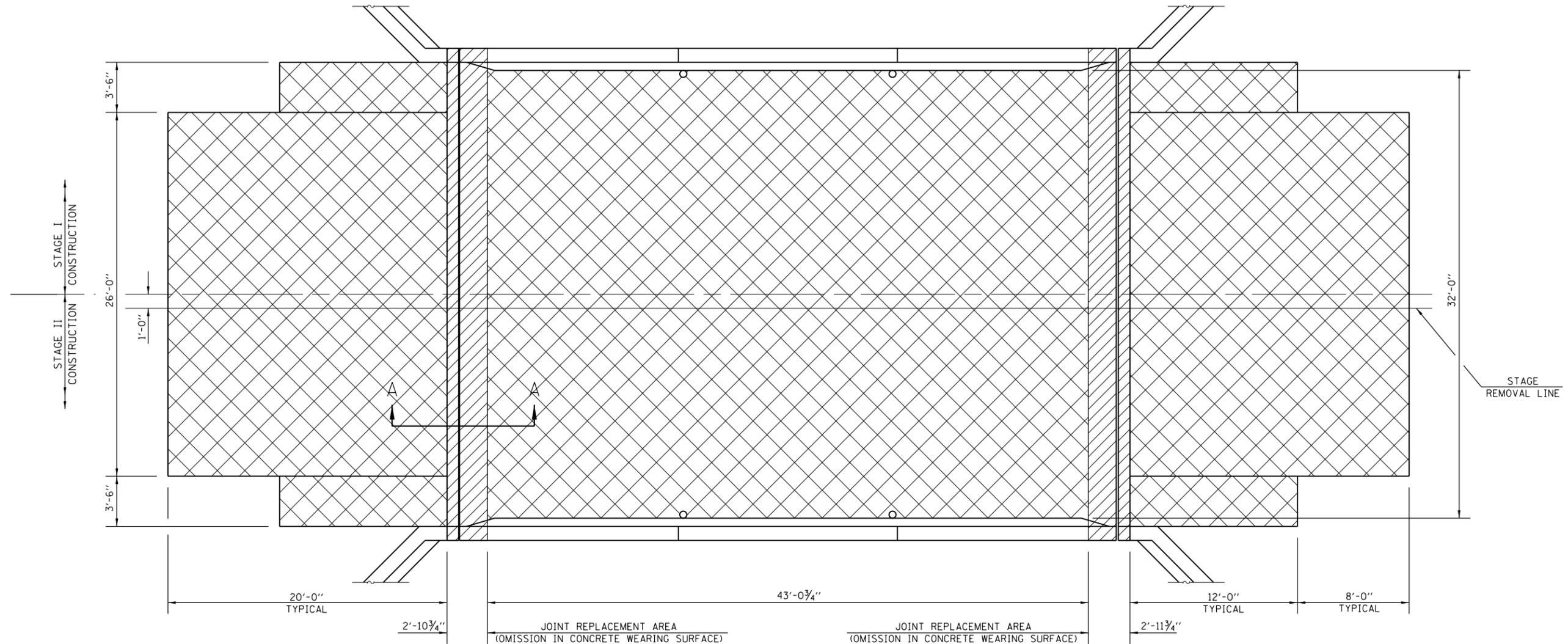
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
S.N. 074-0015**

SCALE: SHEET 3 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	12
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				

WEARING SURFACE PLAN  
S.N. 074-0015



SECTION A-A

LEGEND:

-  BRIDGE DECK SCARIFICATION 3/4" & BRIDGE DECK LATEX CONCRETE OVERLAY 2 1/4" & PROTECTIVE COAT
-  CONCRETE REMOVAL & CONCRETE SUPERSTRUCTURE & PROTECTIVE COAT

NOTE

- PRIOR TO 1/4" DIAMOND GRINDING
- SYNTHETIC FIBERS SHALL BE ADDED TO THE BRIDGE DECK LATEX CONCRETE OVERLAY, SEE SPECIAL PROVISIONS.

BILL OF MATERIALS

ITEM	UNIT	TOTAL
BRIDGE DECK SCARIFICATION 3/4"	SQ YD	288.0
BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"	SQ YD	288.0
DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	270.0
BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	250.0
PROTECTIVE COAT	SQ YD	312.0

MODEL: \\MODELNAME  
FILE NAME: \\PIATT\BID\NTEC\Illinois\gov\PIATT\DOT\Documents\DOT\_Offices\PIATT\DOT\Projects\0740015\CADD\Bridges\Structures\0740015\_Sht\_04\Wearing\_Surface.dgn

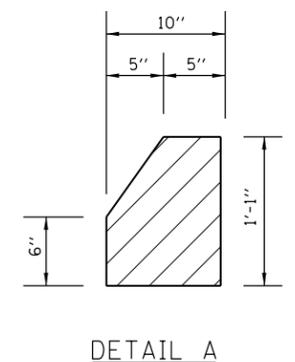
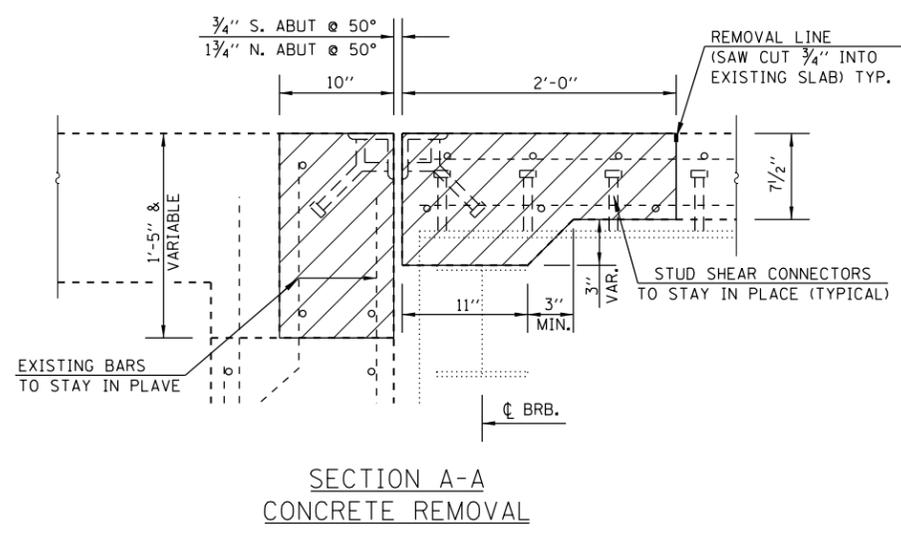
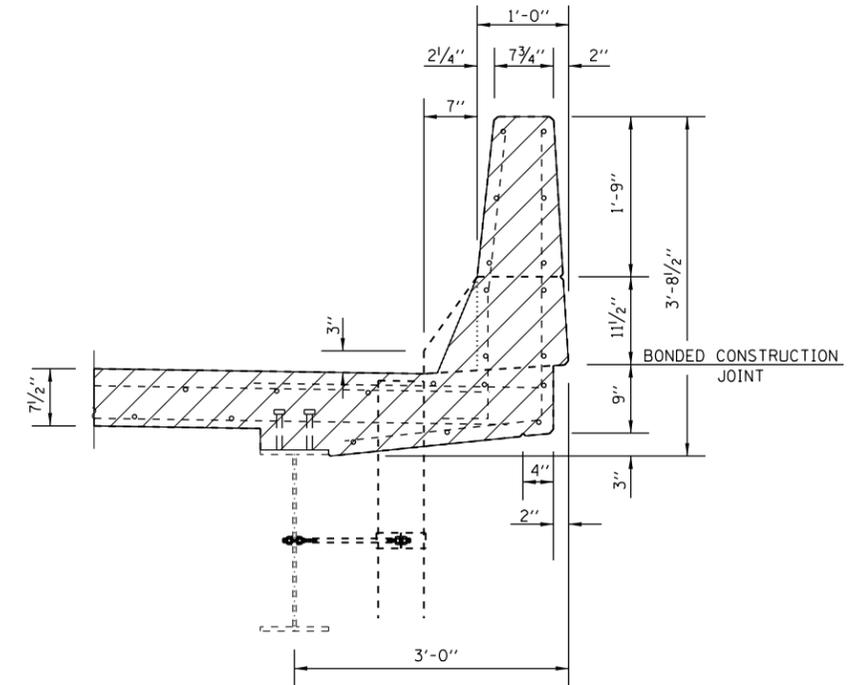
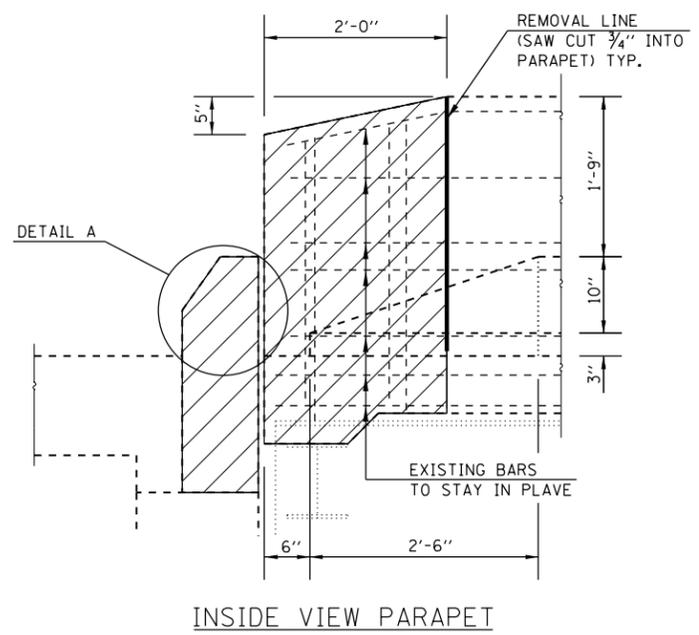
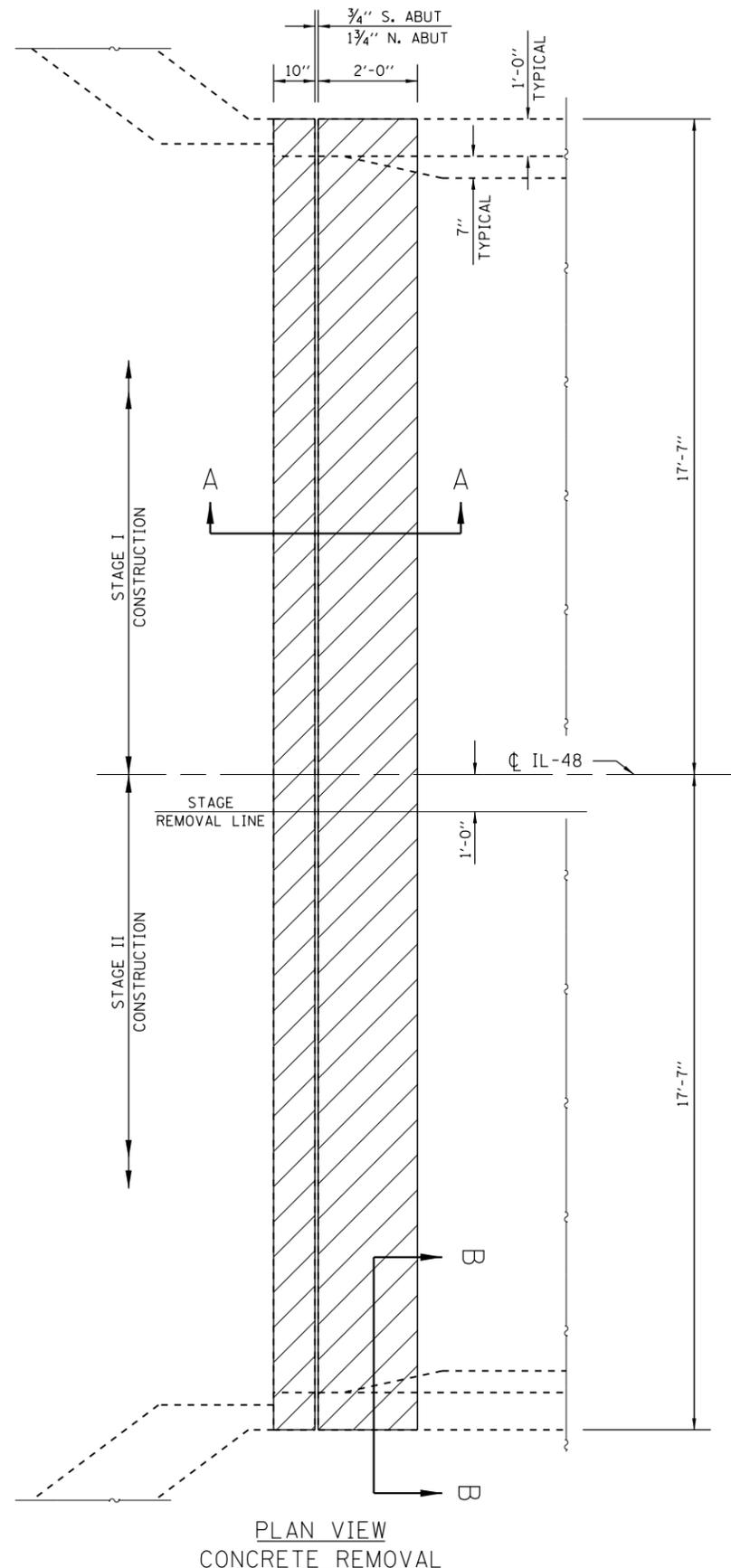
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PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/13/2017	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WEARING SURFACE PLAN  
S.N. 074-0015

SCALE: SHEET 4 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	13
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				



**NOTE**

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

THE EXISTING EXPANSION JOINT SYSTEM SHALL BE REMOVED COMPLETELY, AS WELL AS ANY FOREIGN MATERIAL THAT HAS ACCUMULATED OR BEEN PLACED IN THE JOINT OPENINGS. THE COST OF THIS WORK IS INCLUDED IN CONCRETE REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE GUARDRAIL WITHIN THE PARAPET REPAIR AND REMOVAL AND REPLACEMENT LIMITS SHALL BE REMOVED TO ALLOW FOR THE REPAIR WORK TO BE COMPLETED. THE CONTRACTOR IS TO SAFELY STORE REMOVED MATERIAL. FOLLOWING COMPLETION OF REPAIR WORK THE CONTRACTOR TO EITHER SAVE AND RE-USE THE EXISTING CAST-IN-PLACE ANCHOR SYSTEM OR USE EPOXY-GROUTED THREADED RODS TO RE-ATTACH THE EXISTING GUARDRAIL. THE COST OF THIS WORK IS INCLUDED IN CONCRETE REMOVAL & CONCRETE SUPERSTRUCTURE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CONCRETE REMOVAL

**BILL OF MATERIALS**

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU YD	8.2

MODEL: \\MODELNAME; FILE NAME: P:\PROJECTS\70C98\CADD\DATA\Structures\70C98\_Sht\_Eridge\_Repair.dgn

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	DATE -	REVISED -

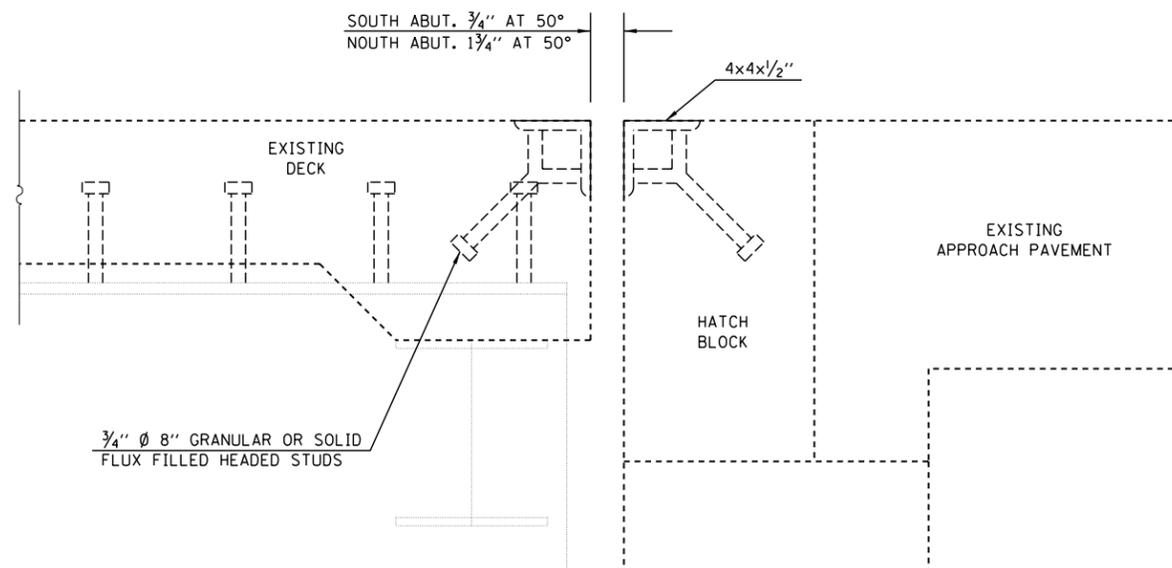
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONCRETE REMOVAL DETAILS - JOINTS  
074-0015**

SCALE: SHEET 5 OF 23 SHEETS STA. TO STA.

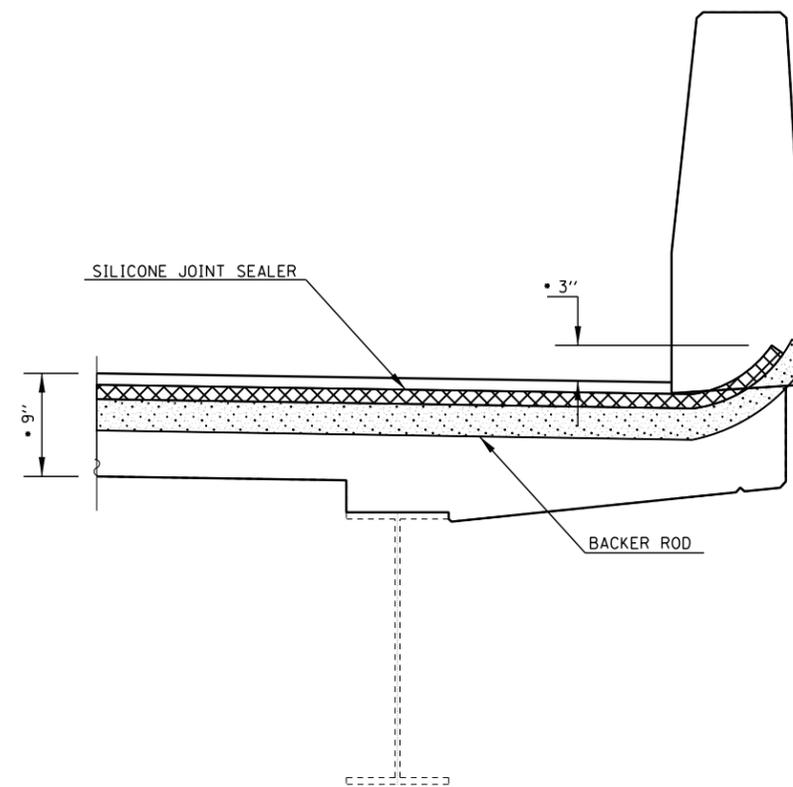
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	14
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				



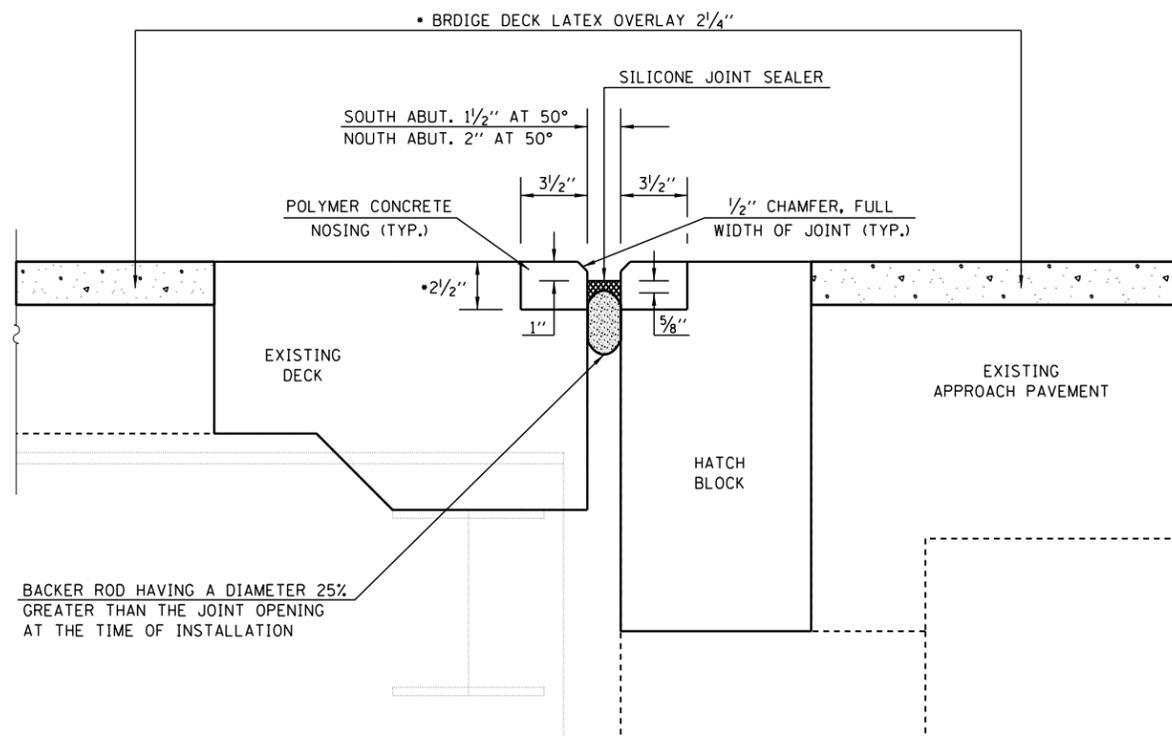


SECTION AT EXISTING JOINT

• PRIOR TO 1/4" DIAMOND GRINDING



SECTION AT PARAPET



SECTION AT PROPOSED JOINT

BILL OF MATERIALS

ITEM	UNIT	TOTAL
SILICONE JOINT SEALER, 1 1/2"	FOOT	36.0
SILICONE JOINT SEALER, 2"	FOOT	36.0
POLYMER CONCRETE	CU. FT.	8.1

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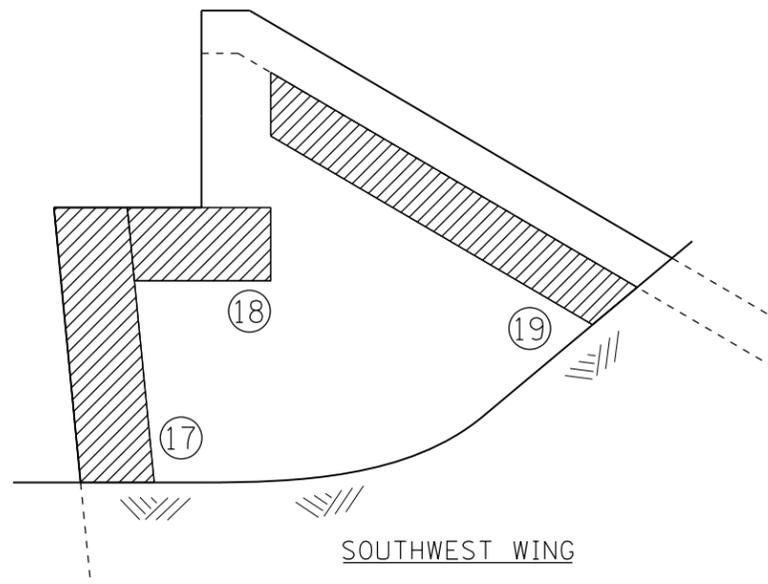
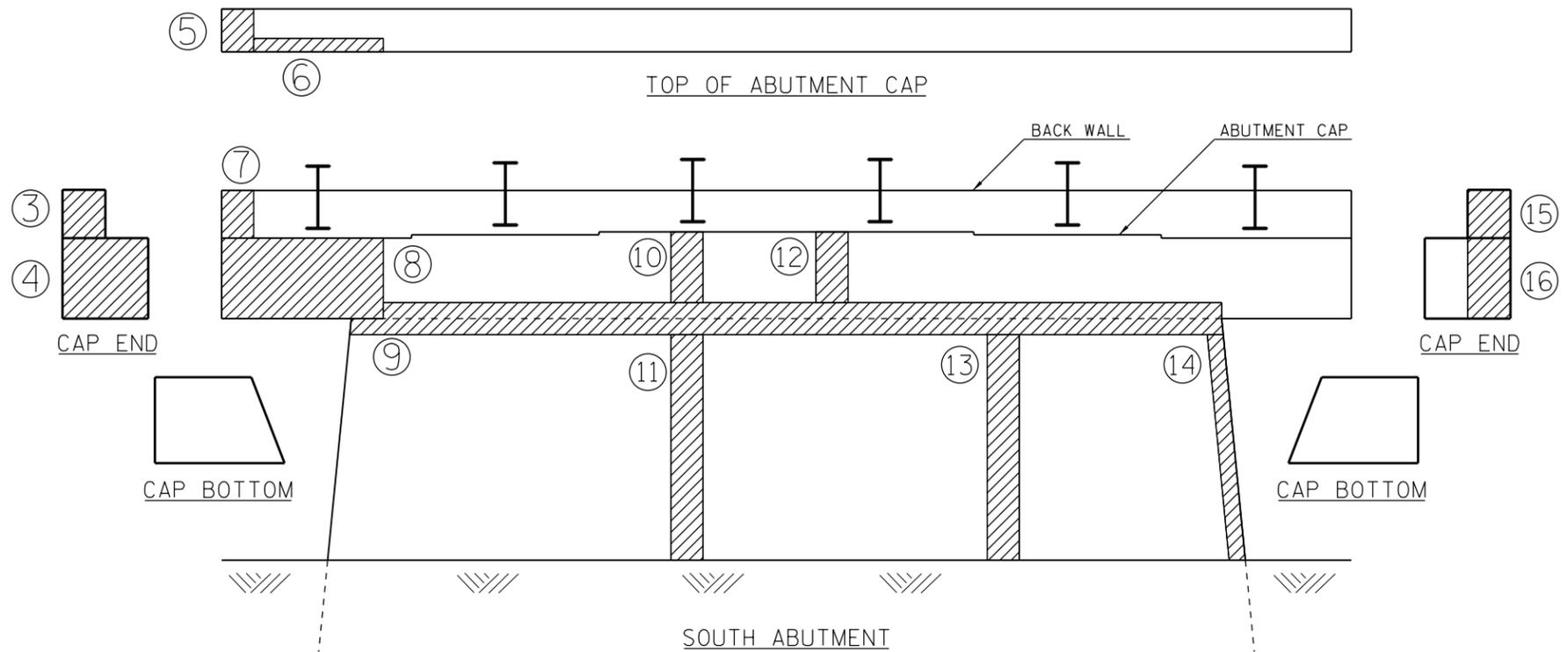
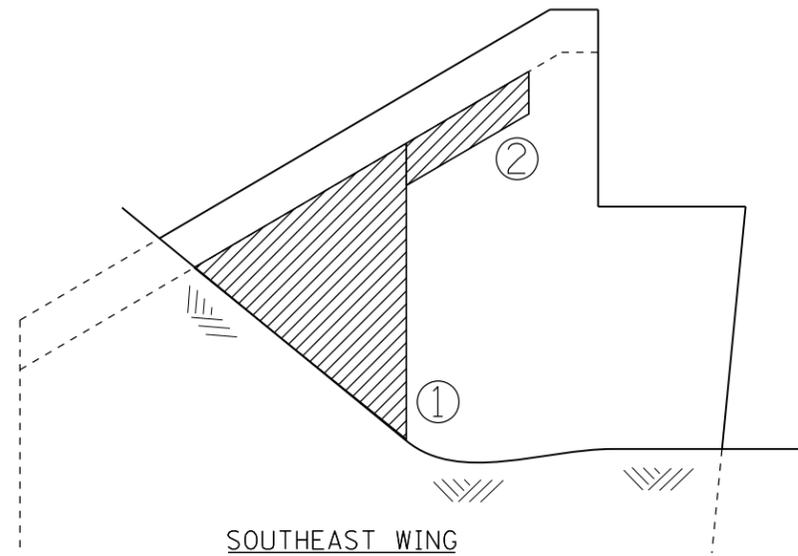
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

JOINT REPLACEMENT DETAILS  
S.N. 074-0015

SCALE: SHEET 7 OF 23 SHEETS STA. TO STA.

F.A.P. RTE. 760	SECTION (125)BJR	COUNTY PIATT	TOTAL SHEETS 36	SHEET NO. 16
			CONTRACT NO. 70C98	
ILLINOIS FED. AID PROJECT				

SOUTH ABUTMENT



NOTE  
SEE SPECIAL PROVISION FOR  
STRUCTURAL REPAIR OF CONCRETE.

STRUCTURE REPAIR OF CONCRETE  
DEPTH = OR < 5 INCH

BILL OF MATERIALS

ITEM	UNIT	TOTAL
STRUCTURE REPAIR OF CONCRETE (DEPTH LESS THAN OR = TO 5")	SQ FT	146.8

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FILE: \\NAME.PLOT  
C:\Users\BENJAMIN\Documents\DOT Office\Drawings\Project\70C98\CADD\Struct\70C98\_Sht\_Ebridge\_Repair.dgn

PATCH NO.	SIZE	SQ FT	PATCH NO.	SIZE	SQ FT	PATCH NO.	SIZE	SQ FT
1	5.75 * 8 / 2	23	10	2.2 * 1	2.2	19	11 * 1.5	16.5
2	4 * 1	4	11	7 * 1	7			
3	1.3 * 1.5	2	12	2.2 * 1	2.2			
4	2.7 * 2.5	6.8	13	7 * 1	7			
5	1.3 * 1.0	1.3	14	7 * 0.5	3.5			
6	4 * 0.5	2	15	1.3 * 1.5	2			
7	1.5 * 1	1.5	16	1.3 * 2.5	3.3			
8	5 * 2.5	12.5	17	7.5 * 2	15			
9	27 * 1	27	18	4 * 2	8			
			Total = 146.3 SQ FT					

USER NAME = shawleres	DESIGNED - ESS	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - ESS	REVISED -
PLOT DATE = 12/13/2017	CHECKED -	REVISED -
	DATE -	REVISED -

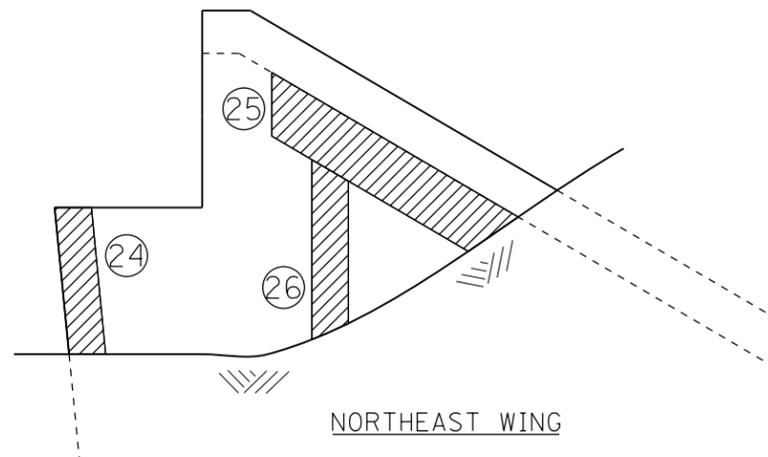
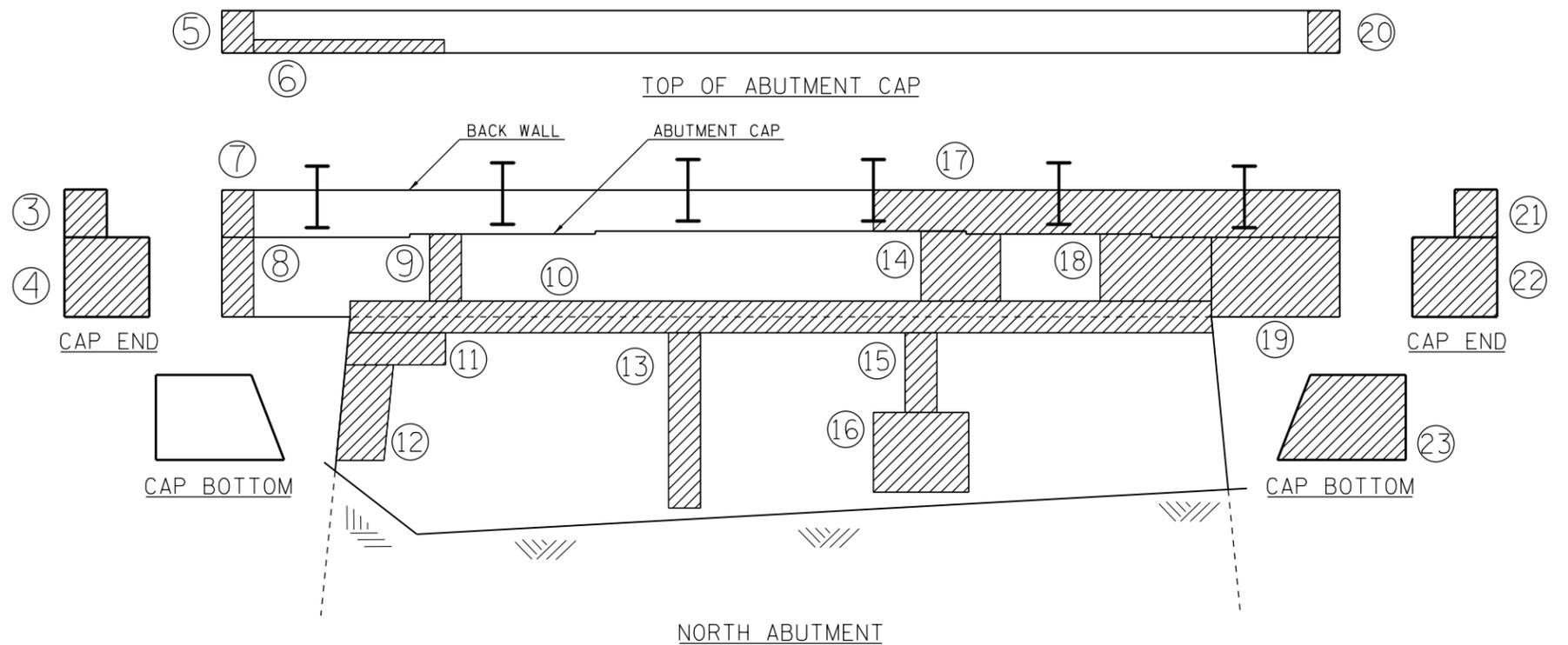
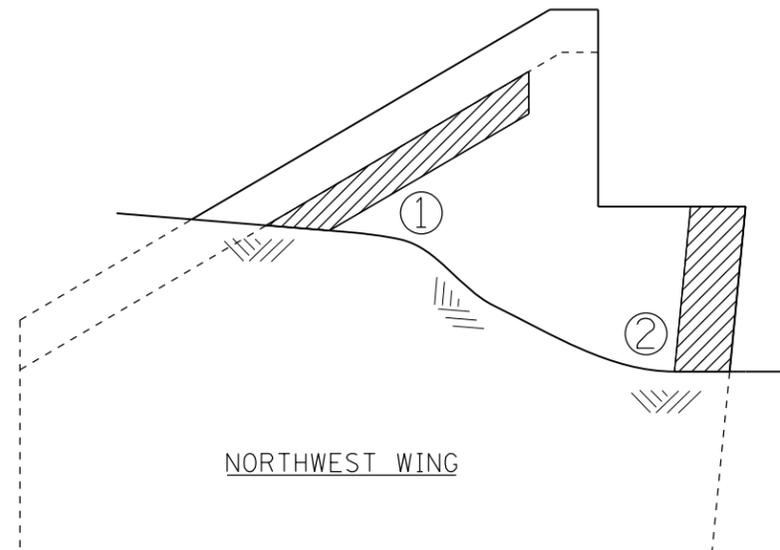
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURAL REPAIR OF CONCRETE - SOUTH ABUTMENT  
S.N. 074-0015

SCALE: SHEET 8 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	17
CONTRACT NO. 70C98			ILLINOIS FED. AID PROJECT	

NORTH ABUTMENT



NOTE  
SEE SPECIAL PROVISION FOR  
STRUCTURAL REPAIR OF CONCRETE.

STRUCTURE REPAIR OF CONCRETE  
DEPTH = OR < 5 INCH

BILL OF MATERIALS

ITEM	UNIT	TOTAL
STRUCTURE REPAIR OF CONCRETE (DEPTH LESS THAN OR = TO 5")	SO FT	164.7

MODEL: \\MODELNAME  
FILE: \\NAME.PLOT  
PROJECT: \\PROJECTNAME  
OFFICE: \\OFFICE  
DATE: 12/13/2017

PATCH NO.	SIZE	SO FT	PATCH NO.	SIZE	SO FT	PATCH NO.	SIZE	SO FT
1	7 * 1	7	10	27 * 1	27	19	4 * 2.5	10
2	4.5 * 1.5	6.8	11	3 * 1	3	20	1.3 * 1.0	1.3
3	1.3 * 1.5	2	12	1.5 * 3	4.5	21	1.3 * 1.5	2
4	2.7 * 2.5	6.8	13	5.5 * 1	5.5	22	2.7 * 2.5	6.8
5	1.3 * 1.0	1.3	14	2.5 * 2.1	5.3	23	4+3 /2 * 2.7	9.5
6	6 * 0.5	3	15	2.5 * 1	2.5	24	4 * 1	4
7	1.5 * 1	1.5	16	3 * 2.5	7.5	25	7 * 1.5	10.5
8	1 * 2.5	2.5	17	14 * 1.5	21	26	4 * 1	4
9	2 * 1	2	18	3.5 * 2.1	7.4			
Total = 162.2 SQ FT								

USER NAME = shawleres	DESIGNED - ESS	REVISED -
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	DATE -	REVISED -

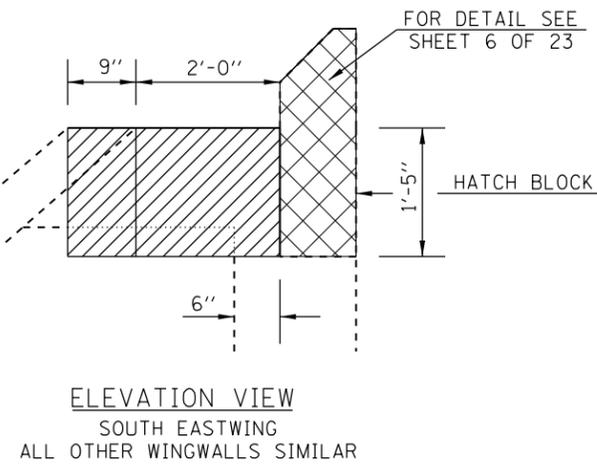
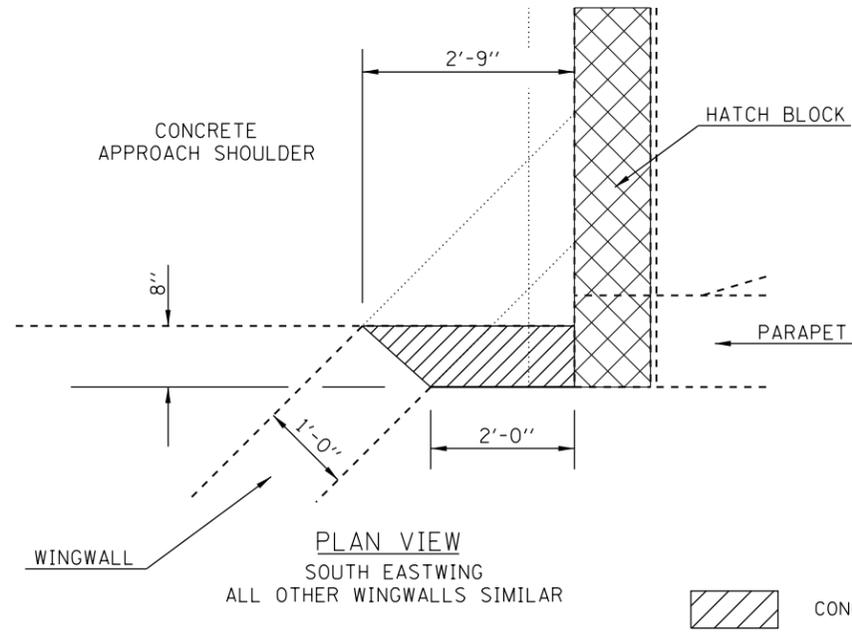
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURAL REPAIR OF CONCRETE - NORTH ABUTMENT  
S.N. 074-0015

SCALE: SHEET 9 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	18
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				

## CONCRETE REMOVAL



EXISTING VIEW  
SOUTH EASTWING  
ALL OTHER WINGWALLS SIMILAR

**NOTE**

THE GUARDRAIL POSTS WITHIN THE REMOVAL AND REPAIR LIMITS SHALL BE REMOVED TO ALLOW FOR THE REPAIR WORK TO BE COMPLETED. THE CONTRACTOR IS TO USE EPOXY-GROUTED THREADED RODS TO RE-ATTACH THE GUARDRAIL POSTS. THE COST OF THIS WORK SHALL BE INCLUDED IN CONCRETE SUPERSTRUCTURE. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

e(e) BARS TO BE DRILLED AND EPOXY GROUTED PER ARTICLE 584 OF THE STANDARD SPECIFICATIONS IF REQUIRED. COST INCLUDED WITH REINFORCEMENT BARS, EPOXY COATED.

REINFORCEMENT BARS DESIGNATED (e) SHALL BE EPOXY COATED.

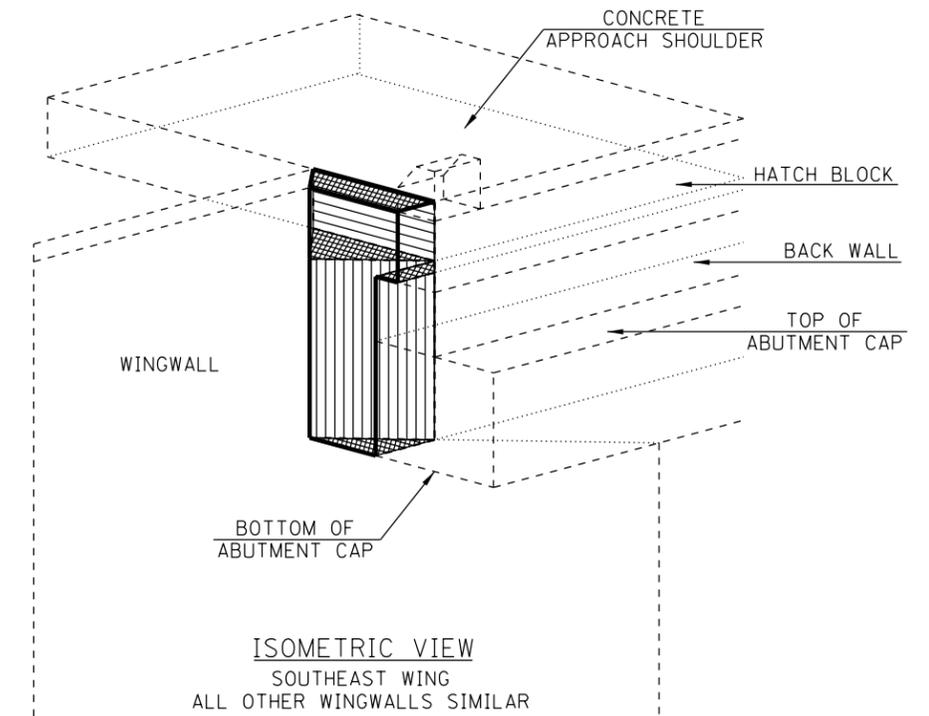
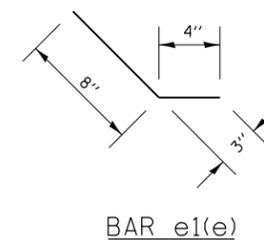
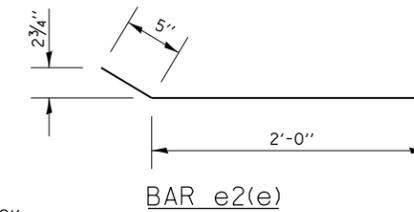
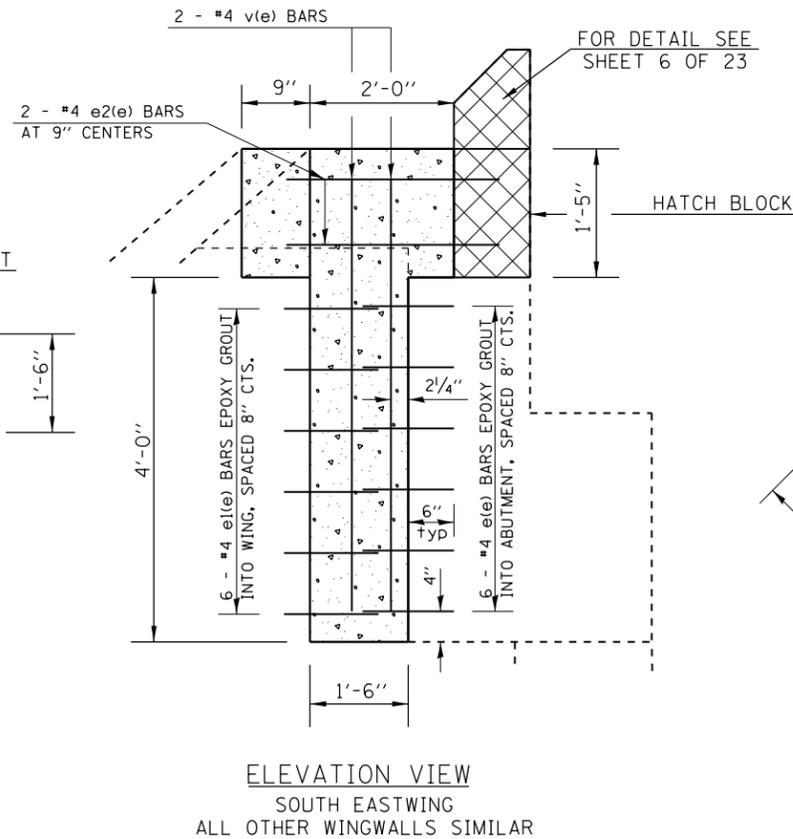
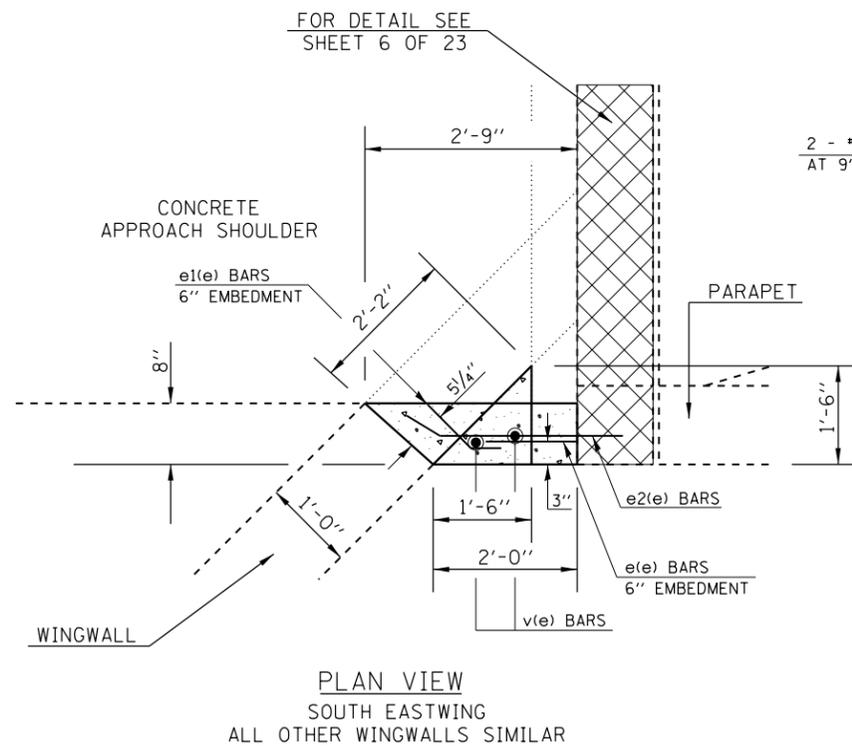
### BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
e(e)	24	#4	1'-0"	—
e1(e)	24	#4	1'-0"	—
e2(e)	8	#4	2'-5"	—
v(e)	8	#4	4'-9"	—

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU YD	0.50
REINFORCEMENT BARS (EPOXY)	POUND	75.0
CONCRETE SUPERSTRUCTURE	CU YD	1.90

## CONCRETE SUPERSTRUCTURE



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WINGWALL REPAIR  
S.N. 074-0015**

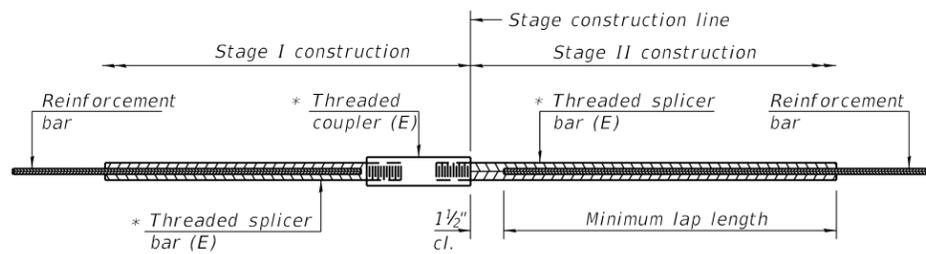
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	19

CONTRACT NO. 70C98

SCALE: SHEET 10 OF 23 SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT

MODEL: \\MODELNAME  
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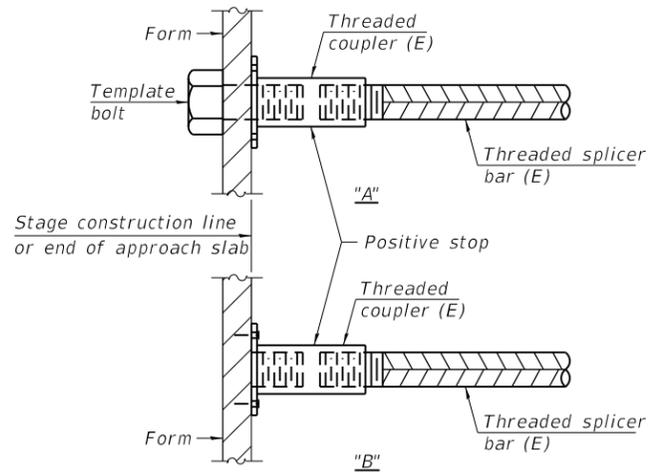


**STANDARD BAR SPLICER ASSEMBLY**

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Hatch Blocks	#6	16	4'-0"
Deck Ends	#5	8	3'-6"

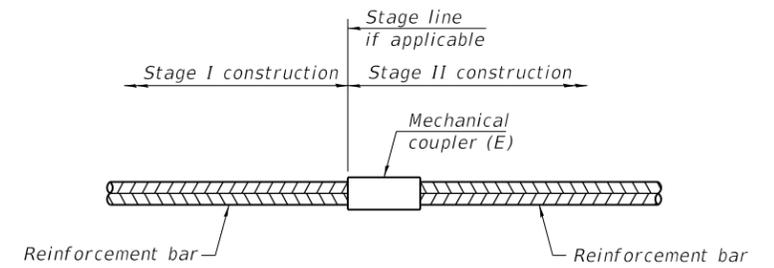


**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.

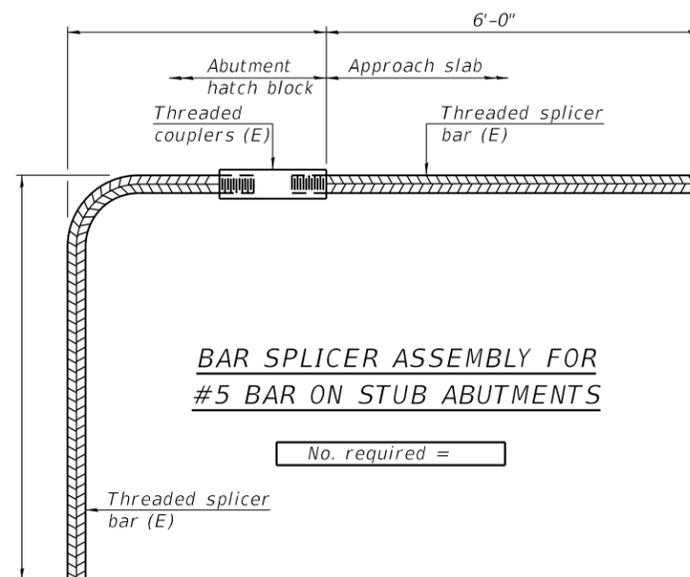
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

MODEL: \\MODELNAME; FILE NAME: \\P\ILLINOIS\BID\BIDDING\TECH\Illinois.gov\PI\DOT\Documents\BIDD\Office\BIDD\BIDD\Structures\0570C98\_Sht\_Edging\_Rebar.dgn

BSD-1

2-17-2017

USER NAME = shawleres	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/13/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO.**

SCALE: SHEET 11 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	20
CONTRACT NO. 70C98			ILLINOIS FED. AID PROJECT	

**NOTES**

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

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.

Diaphragm connection holes shall be  $\frac{15}{16}$ "  $\phi$  for  $\frac{3}{4}$ "  $\phi$  bolts. Two hardened washers shall be required at diaphragm connections.

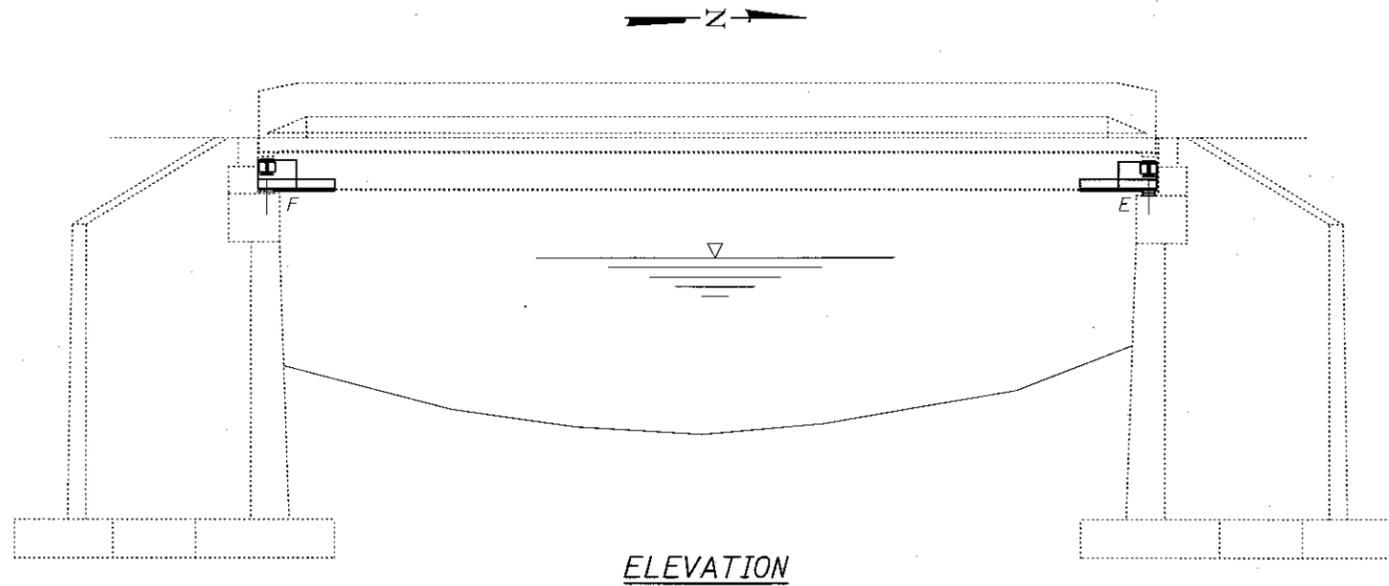
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

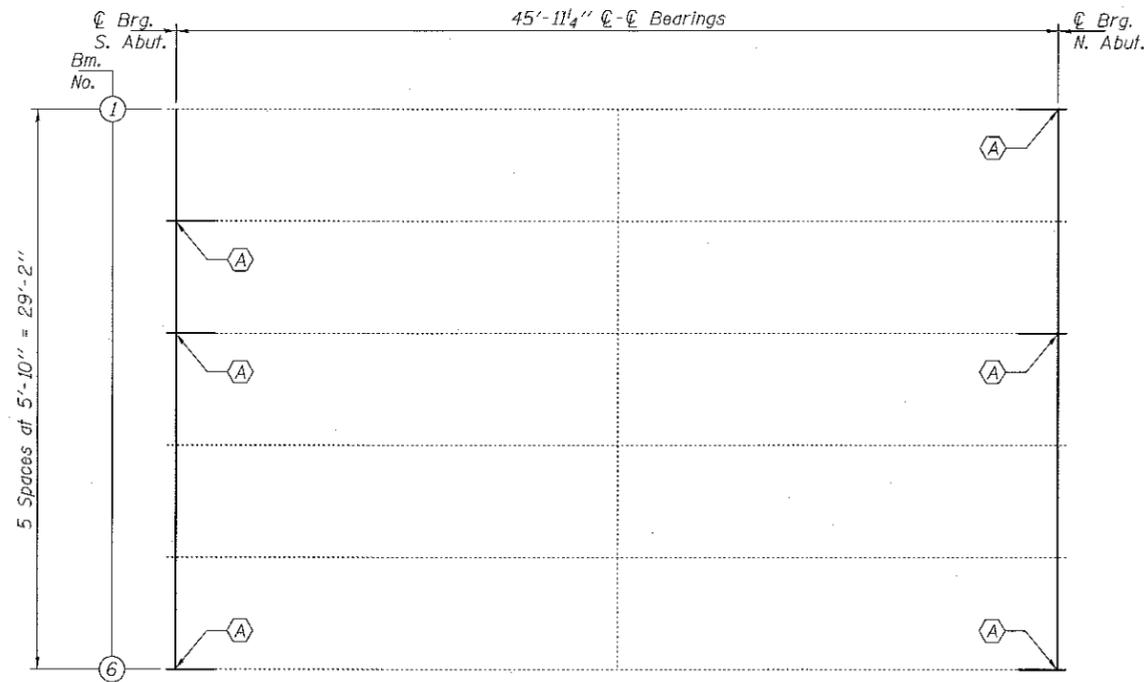
All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type I. Cost included with Structural Steel Repair.

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.

Fasteners shall be high strength bolts. Bolts  $\frac{3}{4}$ "  $\phi$ , open holes  $\frac{15}{16}$ "  $\phi$ , unless otherwise noted.



**ELEVATION**



**PLAN**

(A) - Repair end of beam  
 Replace all diaphragms  
 Replace all bearings at North abutment

**BILL OF MATERIAL**

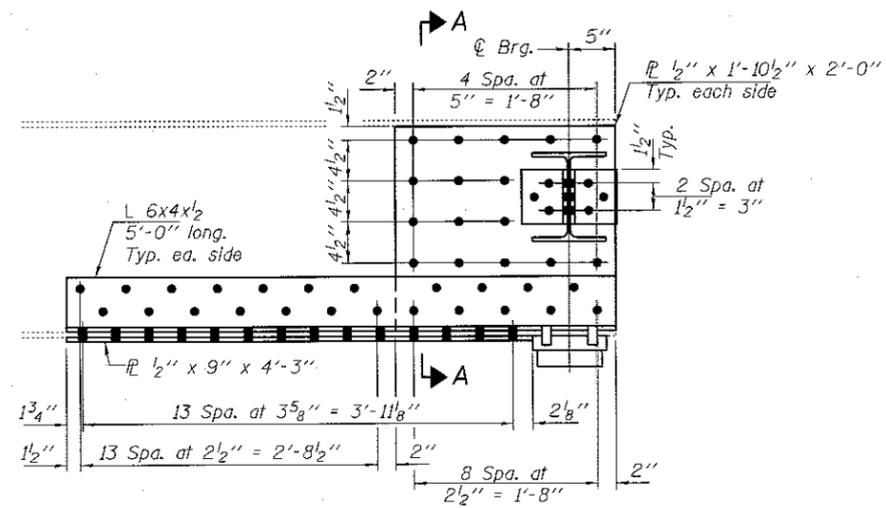
ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	2580
Structural Steel Removal	Pound	2250
Furnishing and Erecting Structural Steel	Pound	2320
Jack and Remove Existing Bearings	Each	6
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts 1" $\phi$	Each	12

DESIGNED <i>MLD</i>	EXAMINED <i>Timothy A. A. [Signature]</i>	DATE <i>MARCH 16, 2018</i>
CHECKED <i>ATH</i>	ENGINEER OF STRUCTURAL SERVICES	
DRAWN <i>baliva</i>	PASSED <i>[Signature]</i>	REVISOR
CHECKED <i>MLD ATH</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISION

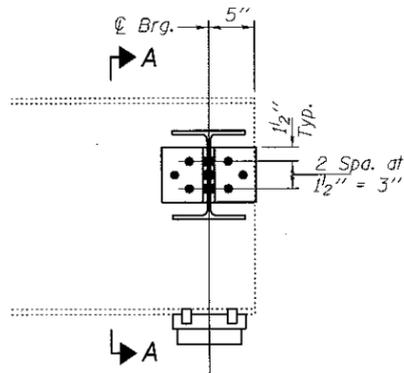
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PLAN AND ELEVATION  
 FAP 760 (IL 48) OVER CREEK  
 SN 074-0015**

F.A.P. RTE. 760	SECTION (125)BJR	COUNTY PIATT	TOTAL SHEETS 36	SHEET NO. 21
SHEET NO. 1 OF 4 SHEETS			CONTRACT NO. 70C98	
ILLINOIS FED. AID PROJECT				

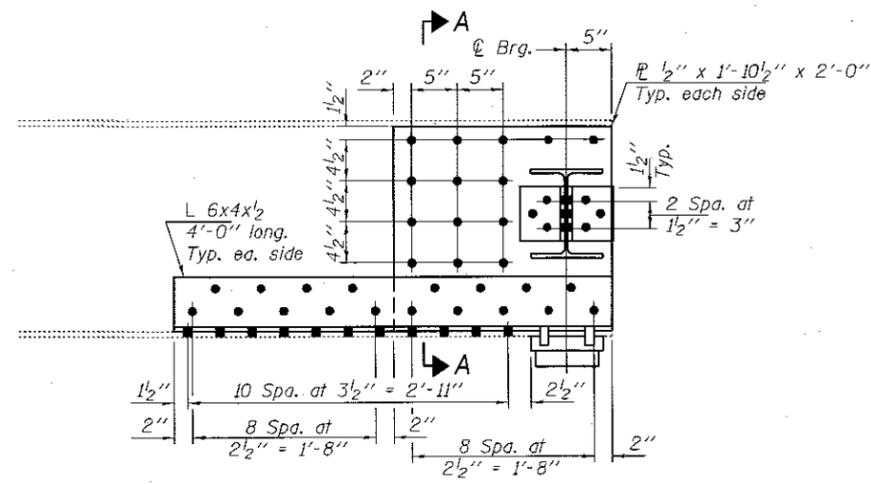


**\*\* ELEVATION BEAM 1**

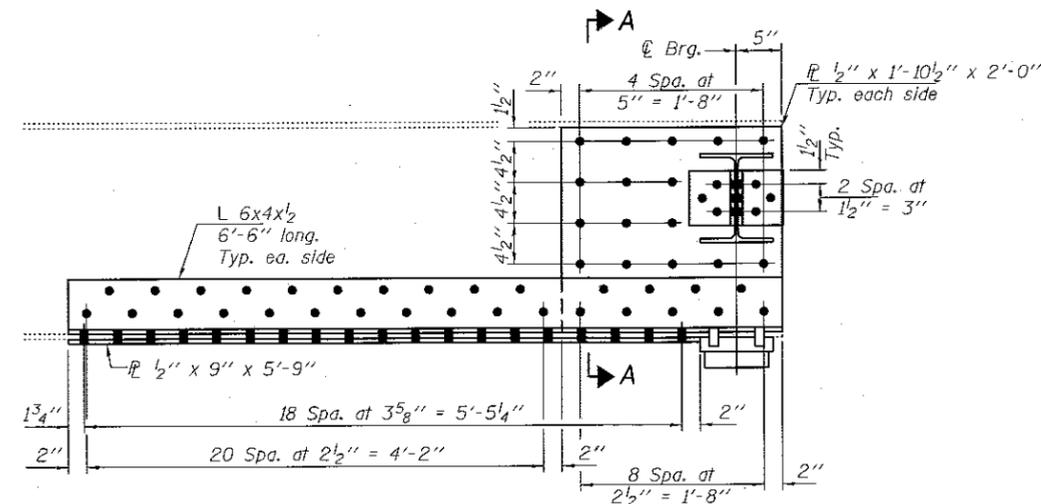


**ELEVATION BEAM 2, 4 & 5**

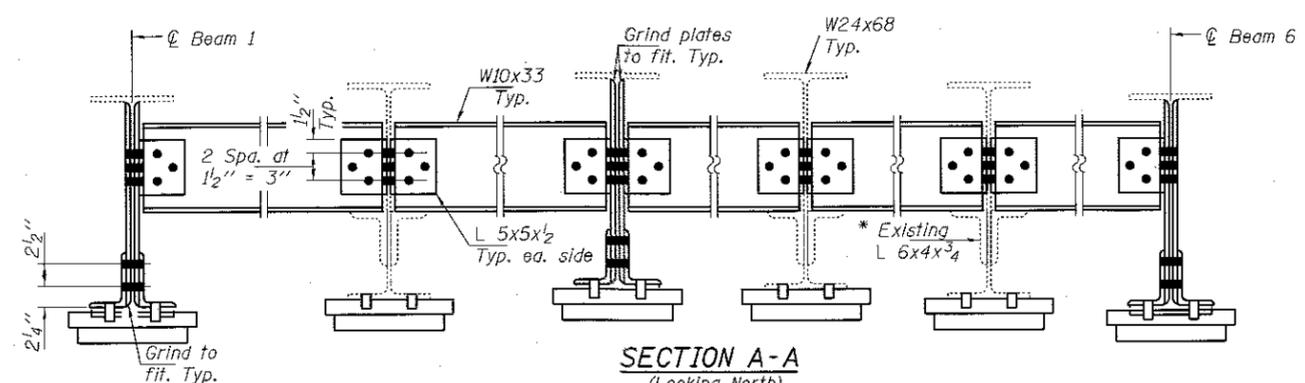
See sheet 4 of 4 for bearing replacement details.



**\*\* ELEVATION BEAM 3**



**\*\* ELEVATION BEAM 6**



**SECTION A-A**  
(Looking North)

\* Existing clip L to be removed using the air-arc method and grind smooth all weld material remaining on the web. Cost included with Structural Steel Removal

\*\* Cleaning and painting of this connection shall meet the requirements for Primary Connections as specified in the special provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

- Holes to be field drilled in existing  $\bar{R}$  using new  $\bar{R}$  as template.
- Holes to be field drilled in new  $\bar{R}$  & L using existing holes as template.

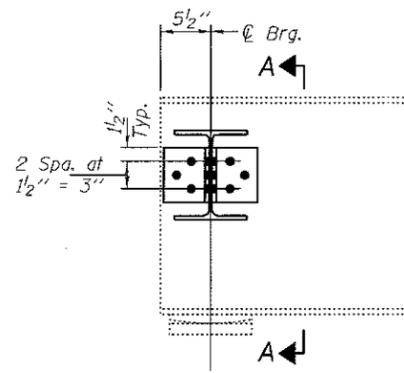
DESIGNED <i>MLD</i>	EXAMINED <i>[Signature]</i>	DATE <i>MARCH 16, 2018</i>
CHECKED <i>ATH</i>	PASSED <i>[Signature]</i>	REVISOR
DRAWN <i>baliva</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR
CHECKED <i>MLD ATH</i>		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

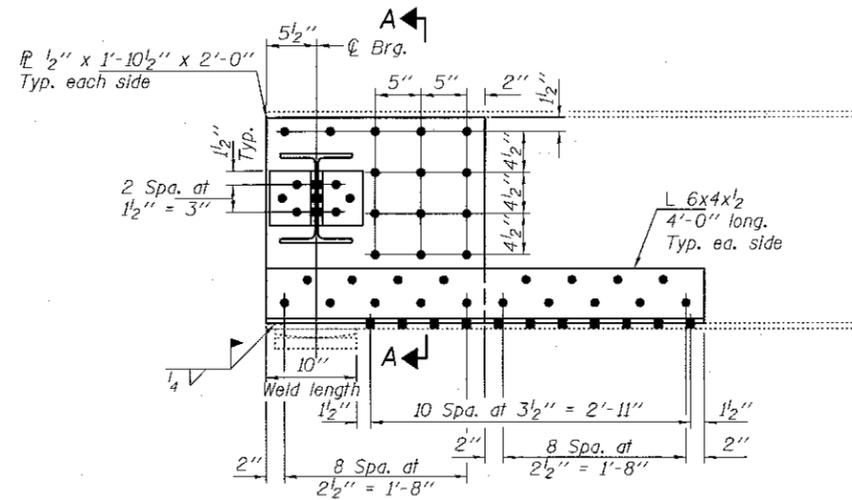
REPAIR A DETAILS AT NORTH ABUTMENT  
SN 074-0015

SHEET NO. 2 OF 4 SHEETS

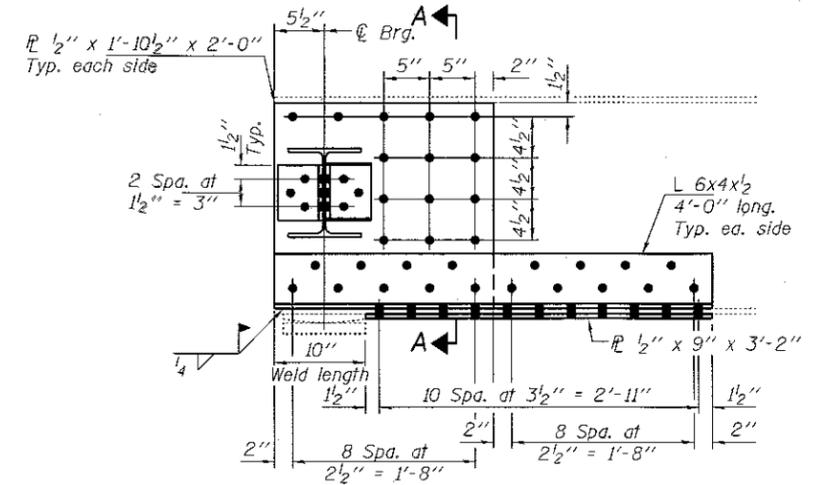
F.A.P. RTE. 760	SECTION 0259BJR	COUNTY PIATT	TOTAL SHEETS 36	SHEET NO. 22
				CONTRACT NO. 70C98
ILLINOIS FED. AID PROJECT				



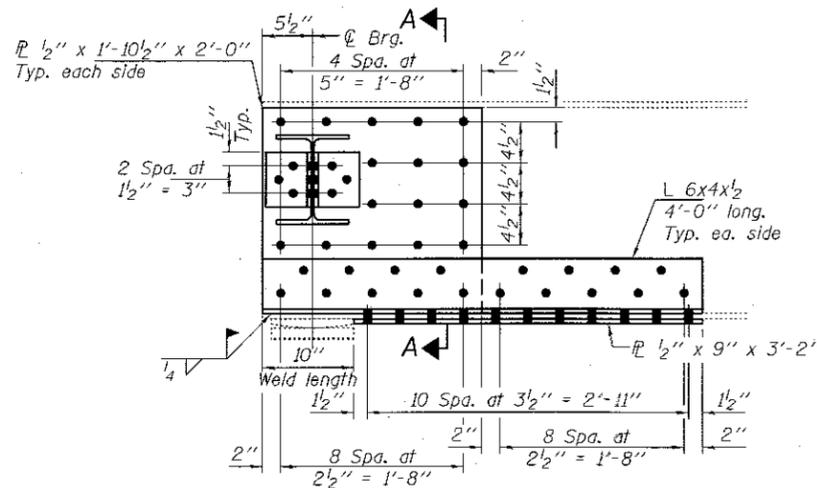
ELEVATION BEAM 1, 4 & 5



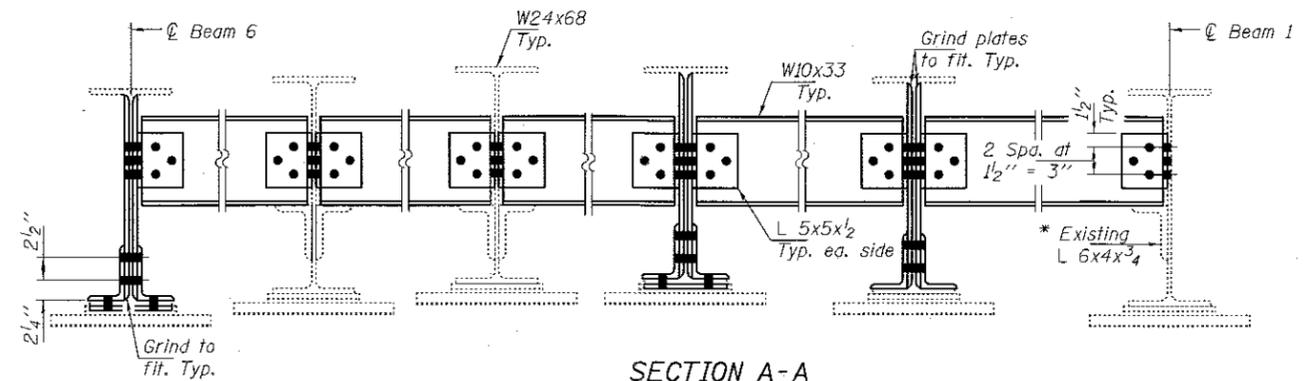
\*\* ELEVATION BEAM 2



\*\* ELEVATION BEAM 3



\*\* ELEVATION BEAM 6



SECTION A-A  
(Looking South)

\* Existing clip L to be removed using the air-arc method and grind smooth all weld material remaining on the web. Cost included with Structural Steel Removal

\*\* Cleaning and painting of this connection shall meet the requirements for Primary Connections as specified in the special provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

- Holes to be field drilled in existing  $\bar{L}$  using new  $\bar{L}$  as template.
- Holes to be field drilled in new  $\bar{L}$  & L using existing holes as template.

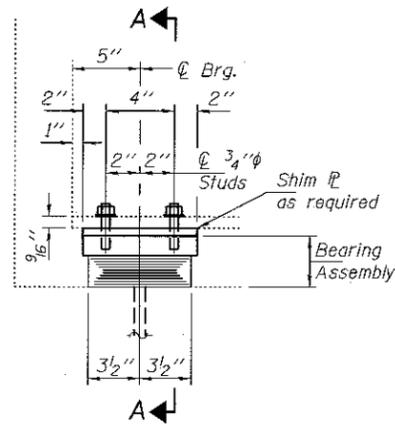
DESIGNED <i>MLD</i>	EXAMINED <i>Timothy A. Miller</i>	DATE MARCH 16, 2018
CHECKED <i>ATH</i>	ENGINEER OF STRUCTURAL SERVICES	
DRAWN <i>baliva</i>	PASSED <i>Carl Perry</i>	REVISOR
CHECKED <i>MLD ATH</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REPAIR A DETAILS AT SOUTH ABUTMENT  
SN 074-0015

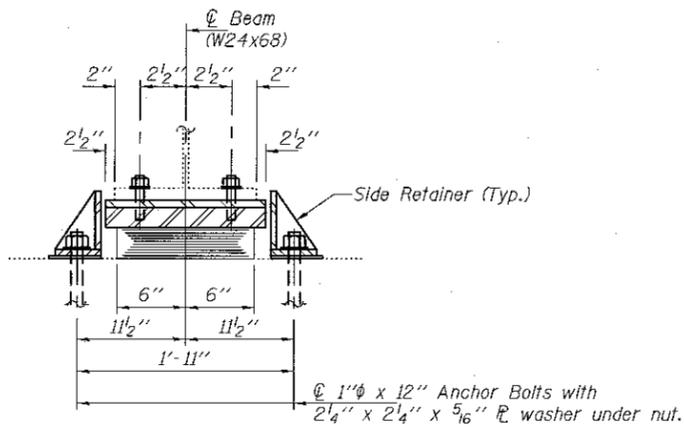
SHEET NO. 3 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	025B/R	PIATT	36	23
CONTRACT NO. 70C98			ILLINOIS FED. AID PROJECT	



**ELEVATION AT ABUTMENT**

**TYPE I ELASTOMERIC EXP. BRG.**



**SECTION A-A**

**BEAM REACTIONS**

RP	(K)	21.4
Rt	(K)	36.3
Imp.	(K)	10.6
R (Total)	(K)	68.3

**Notes:**

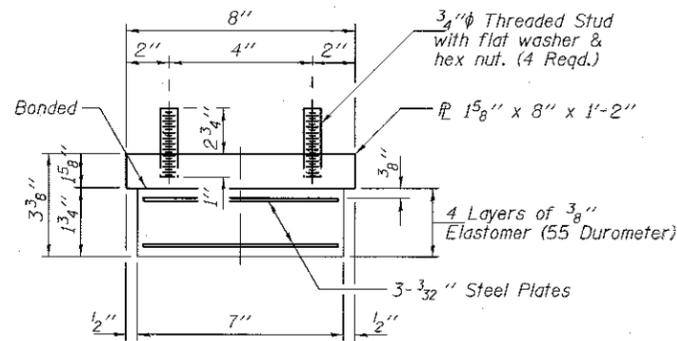
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 35 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.

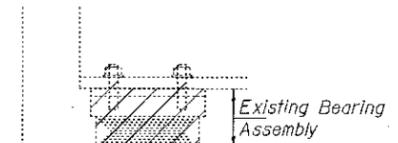
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



**BEARING ASSEMBLY**

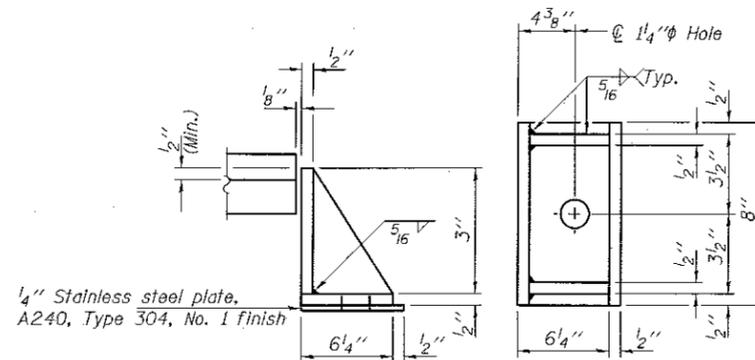
Note:  
Shim plates shall not be placed under Bearing Assembly.



Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

**EXISTING BEARING REMOVAL DETAIL**

Cost included with Jack and Remove Existing Bearings.



**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
Jack and Remove Existing Bearings	Each	6
Anchor Bolts 1"φ	Each	12

TYI/REPS 1-18-2017

DESIGNED MLD	EXAMINED	DATE MARCH 16, 2018	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NORTH ABUTMENT BEARING REPLACEMENT SN 074-0015	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED ATH	PASSED	REVISOR			760	02518JR	PIATT	36	24	
DRAWN balva	REVISOR	REVISOR			CONTRACT NO. 70C98					
CHECKED MLD ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR			SHEET NO. 4 OF 4 SHEETS					

ILLINOIS FED. AID PROJECT





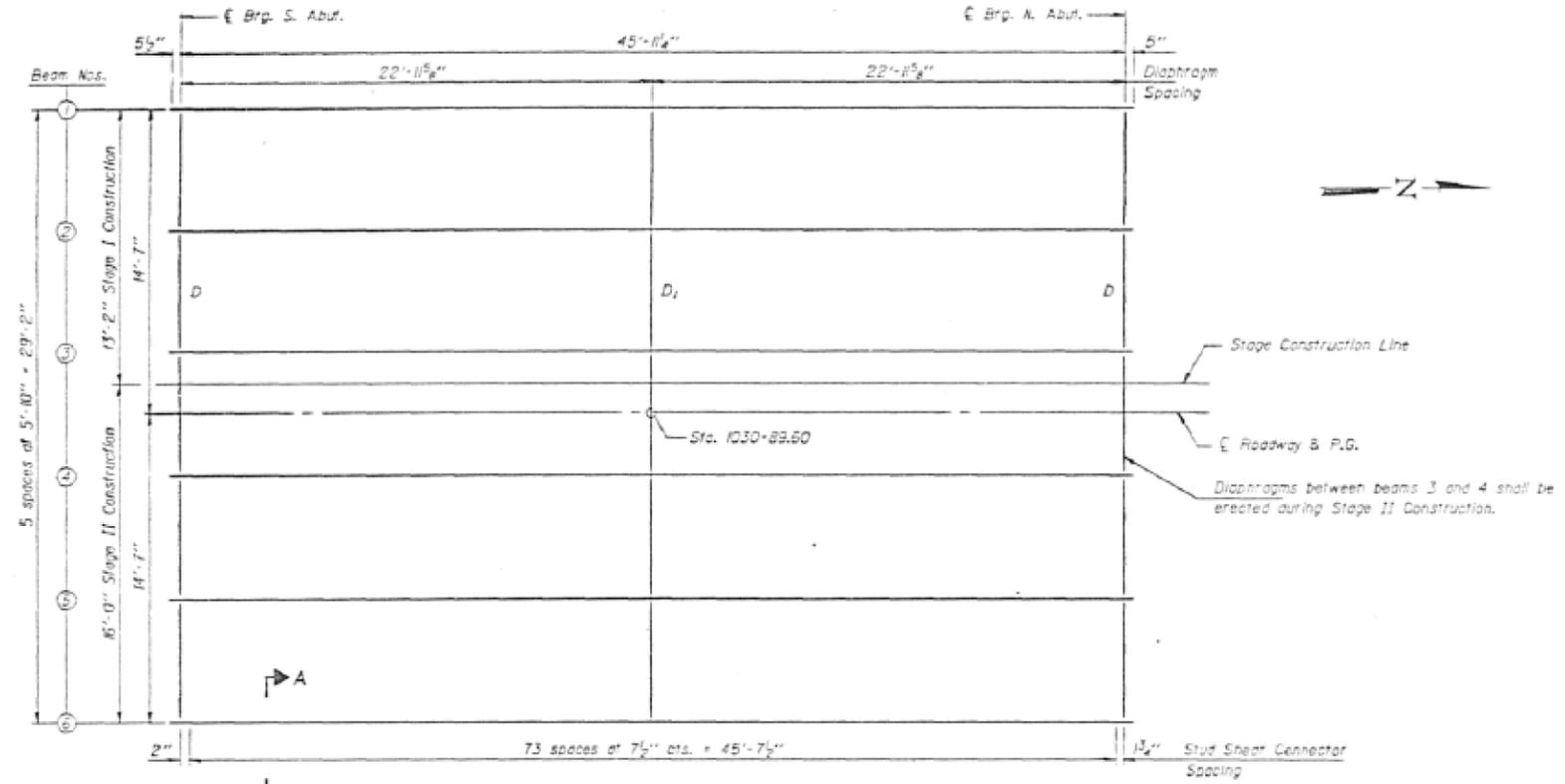




# AS-BUILT PLANS FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DATE	1/15	73	12 SHEETS
SHEET NO. 7			



**INTERIOR BEAM MOMENT TABLE**  
0.5 Span

$I_s$	(in <sup>4</sup> )	1830
$I_c$	(in <sup>4</sup> )	5985
$S_s$	(in <sup>3</sup> )	104
$S_c$	(in <sup>3</sup> )	251
$M$	(K/ft)	639
$M_F$	(K)	69
$M_F$	(K/ft)	283
$M_F$	(K)	75
$M_F$	(K)	295
$M$	(K)	86
$S_y(M_F + I)$	(K)	636
$M_o$	(K)	1143
$M_u$	(K)	1488
$f_s$ (non-comp. s.l.)	(K.s.l.)	13.2
$f_s$ (comp)	(K.s.l.)	3.6
$f_s$ (k + j)	(K.s.l.)	30.4
$f_s$ (Overload)	(K.s.l.)	47.2
$V_R$	(K)	33.2

**INTERIOR BEAM REACTION TABLE**

ADULTS		
$R_1$	(K)	21.2
$R_2$	(K)	30.3
$R$	(K)	5.5
$R$ (Total)	(K)	51.4

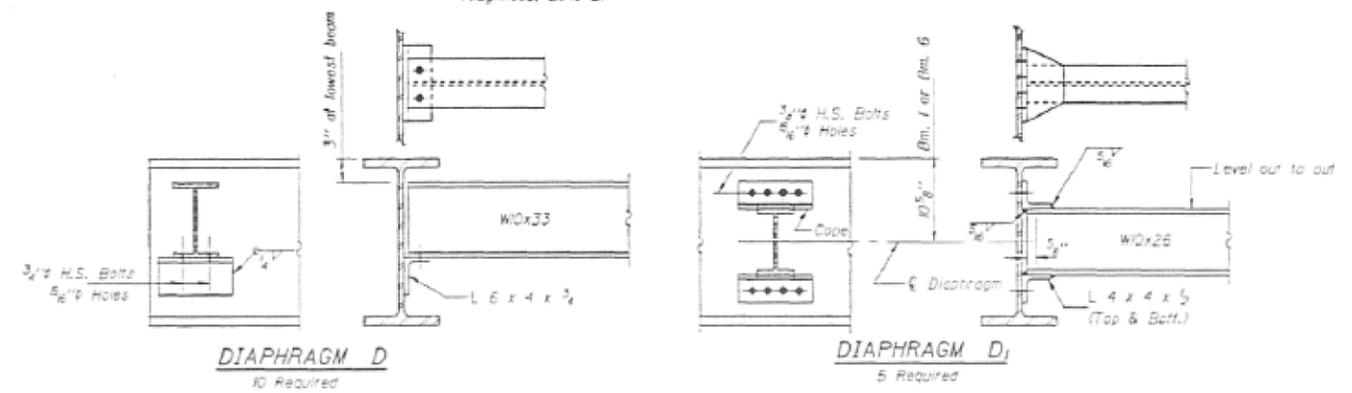
$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Overload).  
 $I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$  (Overload).  
 $V_R$  is the maximum Live Load + Impact shear range in span.  
 $M_o$  (Applied Moment) =  $1.3M_F + M_sR + S_y(M_F + I)$ .  
 $M_u$  is the Full Plastic Moment Capacity for Compact section.  
 $f_s$  (Overload) is the sum of the stresses due to  $M_F + M_sR + S_y(M_F + I)$ .

Top of Beam Elevations

	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
Brig. S. Abut.	690.29	690.40	690.49	690.49	690.40	690.29
Brig. N. Abut.	690.29	690.40	690.49	690.49	690.40	690.29

(For Fabrication Only)

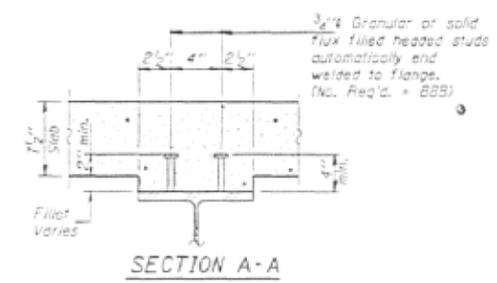
**FRAMING PLAN**  
 Note: All beams shall be W24x65 AASHTO M 222 and shall conform to the Supplemental Requirement for Notch Toughness, Zone 2.



DESIGNED	JIM KOHEUT	EXAMINED	James J. [Signature]
CHECKED	[Signature]	PASSED	James J. [Signature]
DRAWN	R. Doty	APPROVED	[Signature]
CHECKED	[Signature]		

DATE: 12/13/2017

Note: Two hardened washers shall be required over all 5/8" holes.



**STRUCTURAL STEEL**  
 F.A.P. RT. 760 SEC. 125BR-1  
 PIATT COUNTY  
 STA. 1030+89.60

MODEL: ST001NAME: FILE NAME: PROJECT: D:\Projects\70C98\CADD\Structures\70C98\_Sht\_Edges\_Rebar.dgn

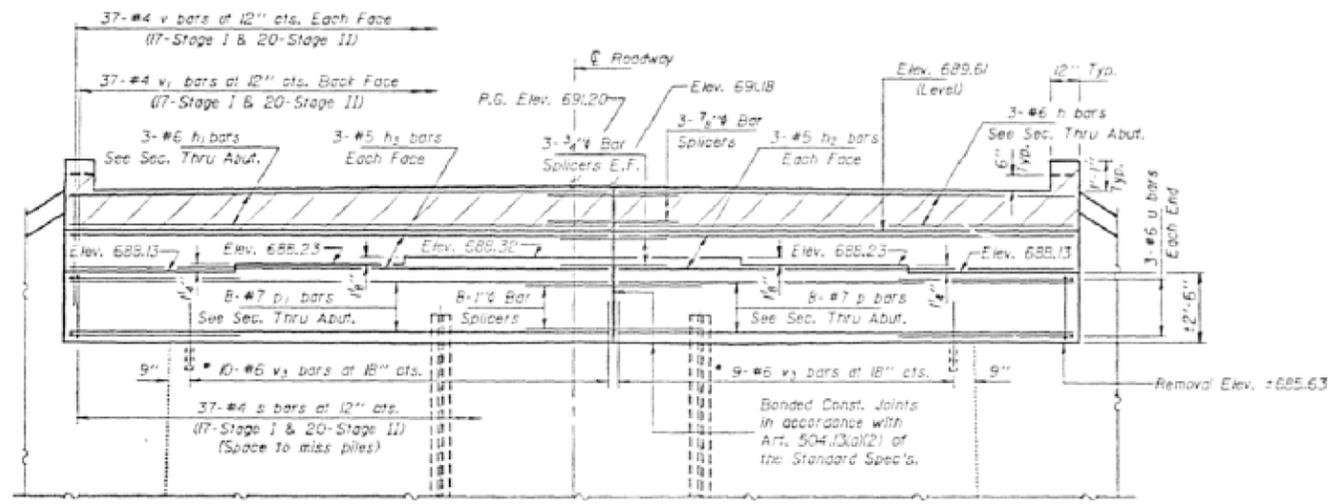
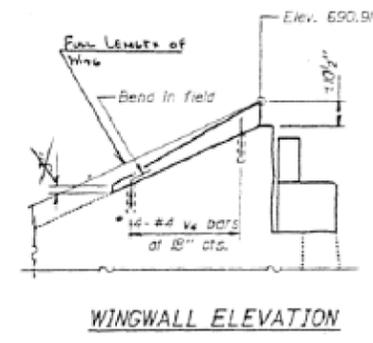
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PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -			SCALE:	SHEET 20	OF 23 SHEETS	STA.	TO STA.	CONTRACT NO. 70C98
PLOT DATE = 12/13/2017	CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					
	DATE -	REVISED -								



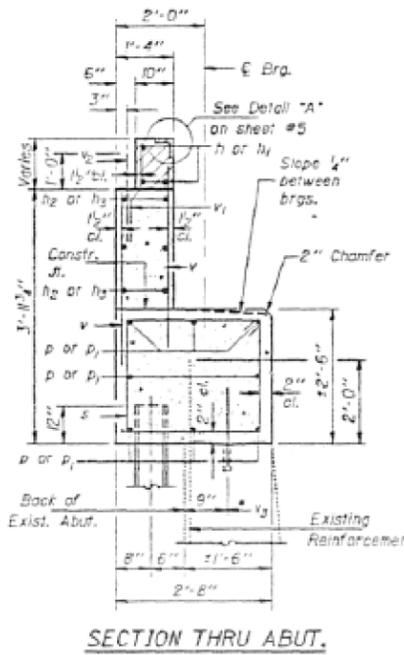
# AS-BUILT PLANS FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET NO.	10	DATE	11/5	7/6	12 SHEETS
-----------	----	------	------	-----	-----------



- Drill 1" x 1'-0" holes. Epoxy grout v\_bars.
- Drill 3/4" x 1'-0" holes. Epoxy grout v\_bars.
- See Special Provisions.

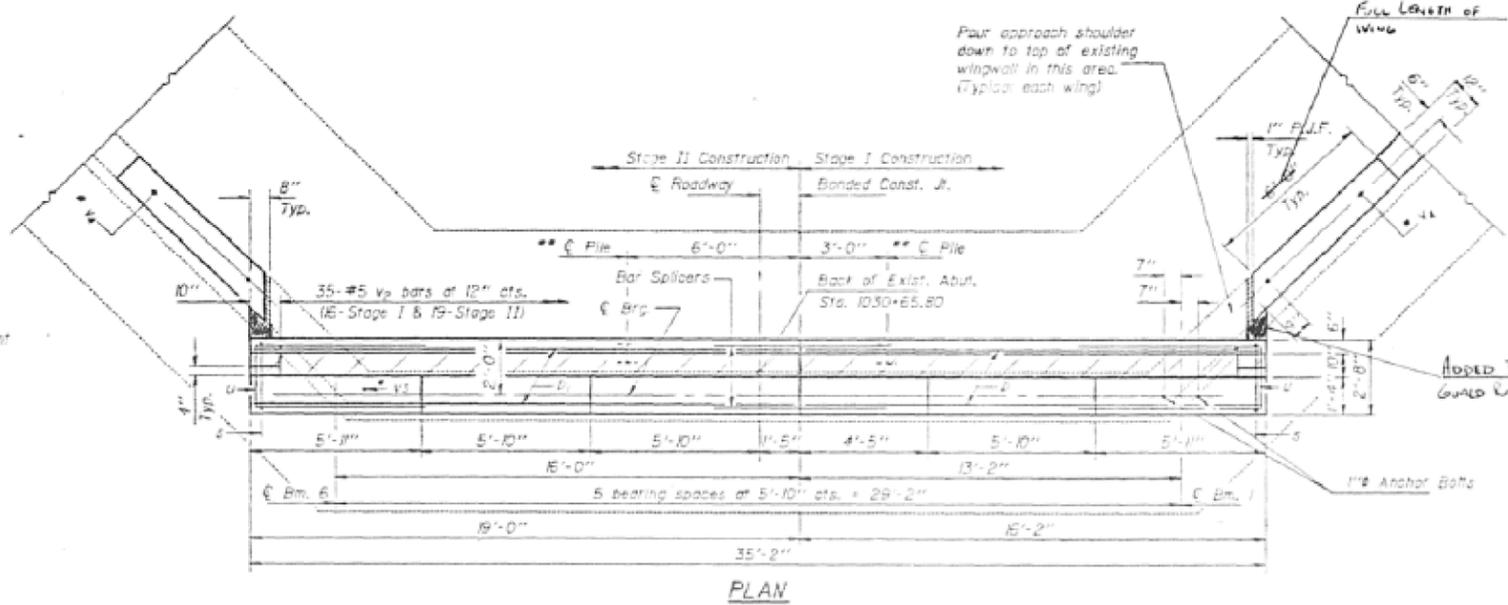


**PILE DATA**

Type: Steel HP8x36  
Est. Length: 41'  
No. Required: 2

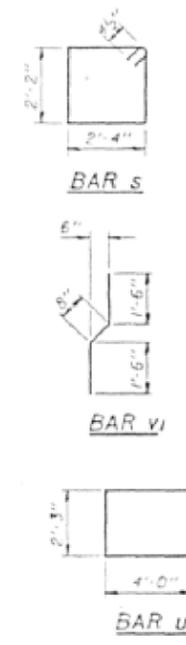
DESIGNED	NAM KANGUT
CHECKED	A. S. E.
DRAWN	R. Doty
CHECKED	A. S. E.

EXAMINED *James J. Robinson*  
 PASSED *James J. Robinson*  
 APPROVED *James J. Robinson*



- Notes:
- Space reinforcement in cap to miss anchor bolts.
  - Pour steps monolithically with cap.
  - Hatched area to be poured after superstructure forms have been removed.
  - Quantity of Class X Concrete included with superstructure.
  - For concrete removal details see sheet #2.
  - All edges shall have standard 3/4" chamfers except as noted.
  - For details of bar splicers see sheet #10.

\*\* The pile shall be placed in a prepared hole with the pile tip in full contact with the existing footing. The hole shall be backfilled with sand. Cost of placing pile shall be incidental to "Furnishing Steel Piles HP8x36."



Bar No.	Size	Length	Shape
n	3	#6	15'-8"
n <sub>1</sub>	3	#6	18'-8"
n <sub>2</sub>	6	#5	15'-8"
n <sub>3</sub>	6	#5	18'-8"
p	6	#7	15'-8"
p <sub>1</sub>	8	#7	18'-8"
s	37	#4	9'-9"
u	6	#6	10'-3"
v	74	#4	3'-10"
v <sub>1</sub>	37	#4	3'-8"
v <sub>2</sub>	35	#5	2'-3"
v <sub>3</sub>	19	#6	2'-6"
v <sub>4</sub>	8	#4	1'-8"
Class X Concrete		Cu. Yd.	8.7
Reinforcement Bars		Pound	170
Concrete Removal		Cu. Yd.	5
Furnishing Steel Piles HP8x36		Lin. Ft.	28

**SOUTH ABUTMENT**  
 F.A.P. RT. 760 SEC. 125BR-1  
 PIATT COUNTY  
 STA. 1030+89.60

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	DRAWN -	REVISED -
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PLOT DATE = 12/13/2017	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

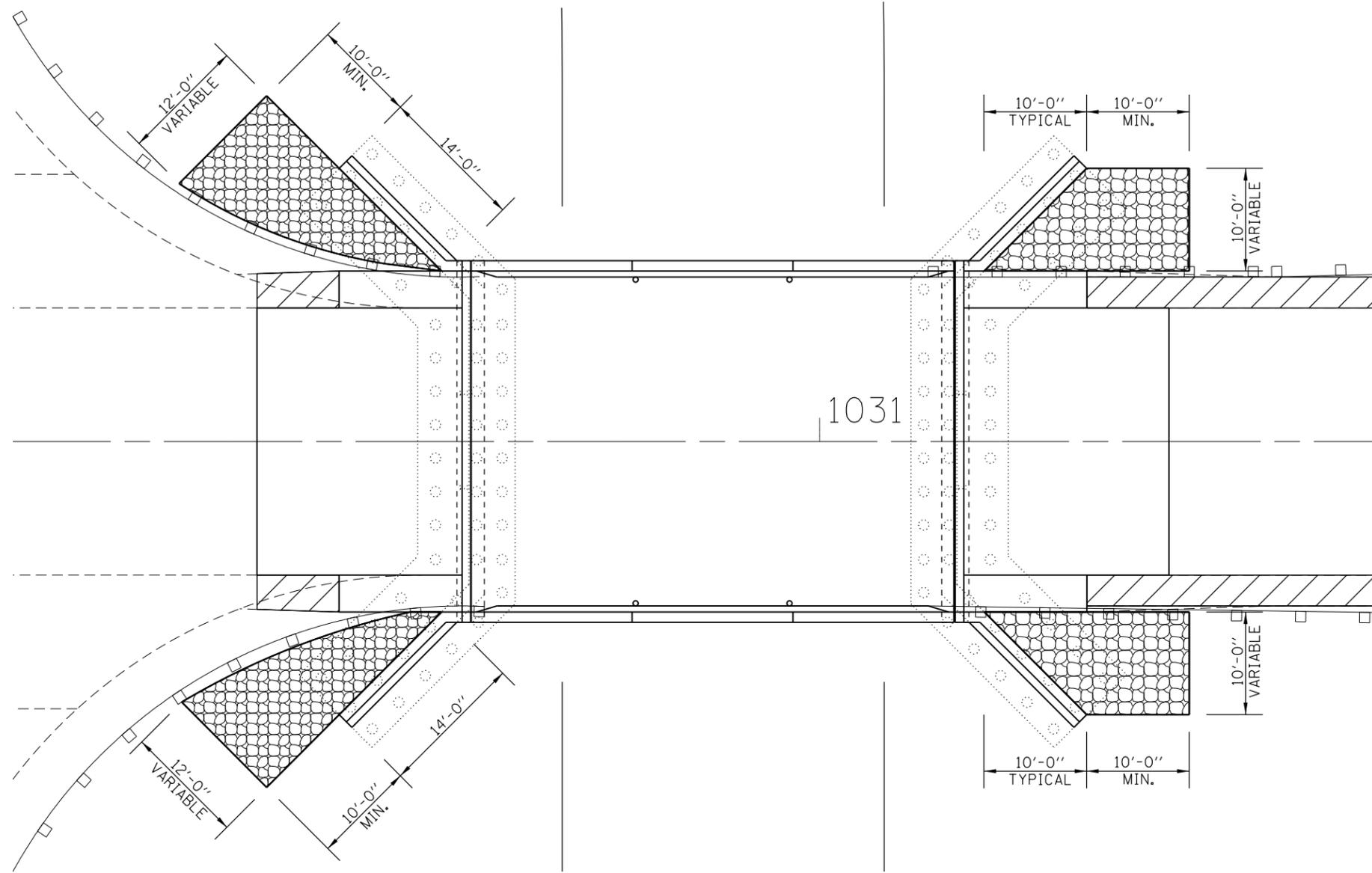
AS-BUILT PLANS  
FOR INFORMATION ONLY

SCALE: SHEET 22 OF 23 SHEETS STA. TO STA.

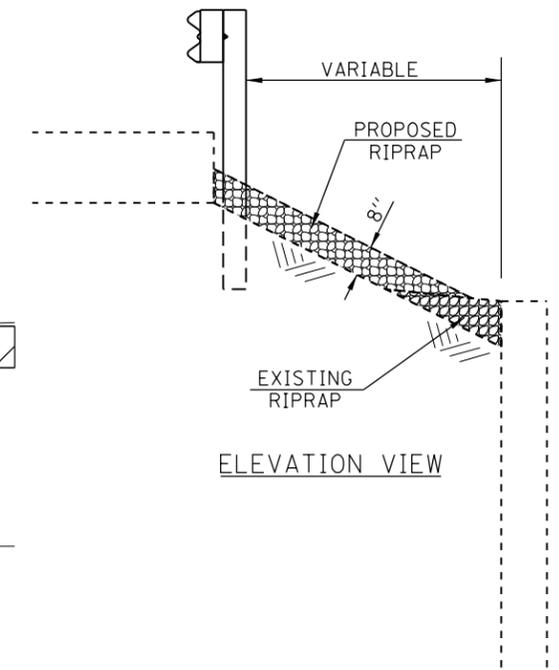
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BR	PIATT	36	31
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				



# RIPRAP S.N. 074-0015



PLAN VIEW



ELEVATION VIEW

### BILL OF MATERIALS

ITEM	UNIT	TOTAL
STONE RIPRAP, CLASS A3	TON	25.0

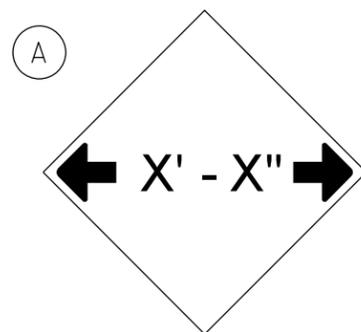
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USER NAME = shawleres	DESIGNED - ESS	REVISED -
	DRAWN - ESS	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/13/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

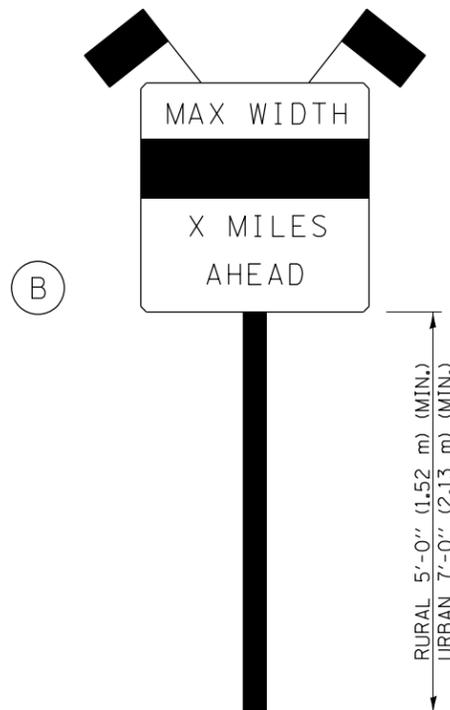
<b>RIPRAP LOCATION SHEET S.N. 074-0015</b>	
SCALE:	SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	33
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				

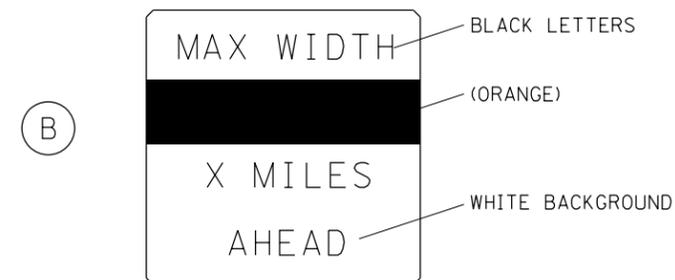


W12-2(0)-48"x48" (1200x1200)

SIGN (A) 2 SIGNS - W12-2(0)-48"x48" (1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.



SIGN PANEL, TYPE II



W12-I103(0)-48"x48" (1200x1200)  
"D" LETTERS/NUMBERS

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

STAGE WIDTHS:

STAGE 1 WIDTH = 12'-0" ACTUAL; 10'-6" POSTED; REQUIRED

STAGE 2 WIDTH = 13'-0" ACTUAL; 11'-6" POSTED; REQUIRED

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS BOOK.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = showleres	DESIGNED -	REVISED - 03/11 - KJT
pw:\IL\084EBIDINTEG\Illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0579\Drawings\Structures\0579C98.Sht.Details		REVISED - 05/08	
*MODELNAME*	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED - 10/08 - KJT
	PLOT DATE = 12/13/2017	DATE -	REVISED - 07/09 - KJT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING

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

DISTRICT 5 DETAIL NO. X7200201				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	34
			CONTRACT NO. 70C98	
ILLINOIS FED. AID PROJECT				

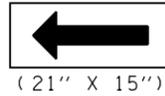
# S.N. 074-0015

## WIDTH RESTRICTION SIGNINGS FOR IL-48 TRAFFIC

**B1** IL-48 NORTHBOUND  
ERECT BY JUCTION I-72 SIGN  
4 MILES AHEAD

**A1** I-72 EASTBOUND EXIT RAMP  
ERECT BY LEFT SIDE DO NOT ENTER SIGN  
INCLUDE DIRECTION ARROW SIGN (LEFT)

**A2** IL-48 NORTHBOUND  
ERECT 75' PAST RAMP  
INCLUDE 4 MILES AHEAD SIGN

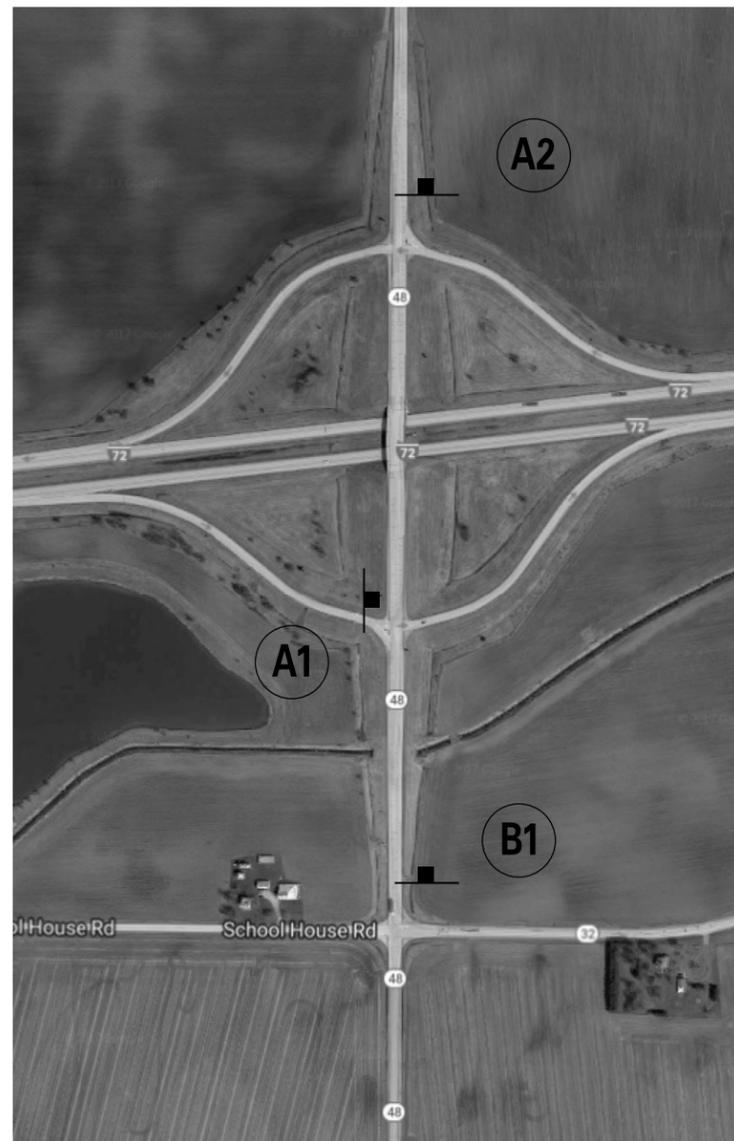


**B2** IL-48 SOUTHBOUND  
ERECT BY CHAMPAIGN/CLINTON ARROW SIGN  
4 MILES AHEAD

**A3** IL-48 SOUTHBOUND  
ERECT BY SOUTH IL-48, NO PARKING SIGN  
INCLUDE 4 MILES AHEAD SIGN



### NORTHWEST OF CISCO INTERCHANGE OF IL-48 & I-72



### WELDON INTERSECTION OF IL-48 & IL-10



MODEL: \\MODELNAME  
FILE NAME: \\PROJECTS\0570C98\CADD\DATA\STRUCTURES\0570C98\_Sht\_Details.dgn

USER NAME = shawleres	DESIGNED - ESS	REVISED -
	DRAWN - ESS	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/13/2017	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING  
S.N. 074-0015

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
760	(125)BJR	PIATT	36	35
CONTRACT NO. 70C98				
ILLINOIS FED. AID PROJECT				

