

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9189A	29BDR-BJR-1	ST CLAIR	16	1
		ILLINOIS	CONTRACT NO. 76M04	

D-98-009-19

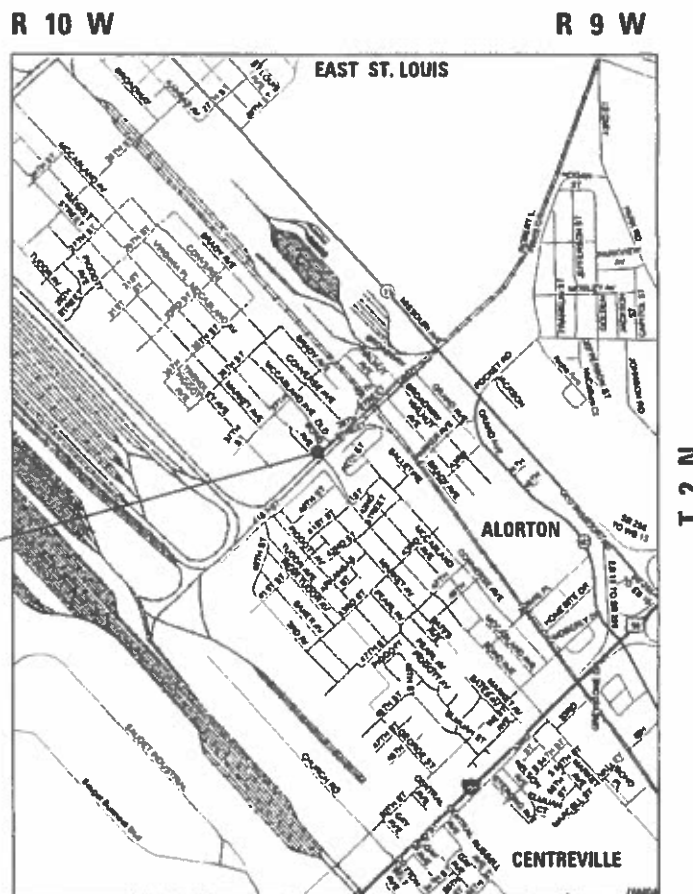
FOR INDEX OF SHEETS, SEE SHEET NO. 2

2018 ADT = 4000 (ACTUAL)  
2019 ADT = 4050 (ESTIMATED)  
2039 ADT = 4600 (ESTIMATED)  
SU = 3.5% MU = 3.3%

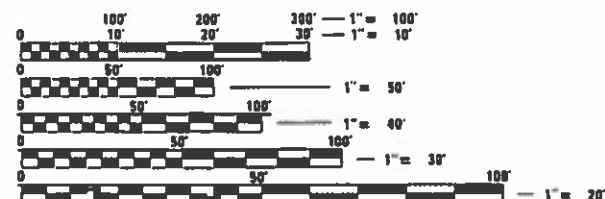
# PROPOSED HIGHWAY PLANS

FAU ROUTE 9189A (BOND AVE.)  
SECTION 29BDR-BJR-1  
BRIDGE & JOINT REPAIR - CM  
ST. CLAIR COUNTY

C-98-012-19



PROJECT LOCATION:  
BOND AVE OVER ALTON  
& SOUTHERN RR  
SN 082-0267  
STA 150+00  
LATITUDE: 38.58908  
LONGITUDE: -90.12758



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

PROJECT ENGINEER HERVE GELIN 618-346-3179  
PROJECT MANAGER BILLIE OWEN 618-346-3209

CONTRACT NO. 76M04

NOT TO SCALE  
GROSS LENGTH = 275.08 FT. = 0.052 MILE  
NET LENGTH = 275.08 FT. = 0.052 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED Oct 11 20 18  
Jeffrey Z. K... REGIONAL ENGINEER  
Dec 7 20 18  
Paul P. Ch... ENGINEER OF DESIGN AND ENVIRONMENT  
Dec 7 20 18  
Paul P. Ch... DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
- 3-5 SUMMARY OF QUANTITIES
- 6 TYPICAL SECTION
- 7 SCHEDULES
- 8-16 BRIDGE DETAILS

## HIGHWAY STANDARDS

- 000001-07
- 001001-02
- 001006
- 701006-05
- 701311-03
- 701801-06
- 701901-08
- 780001-05
- B.L.R. 21-9

## GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

UTILITY	ABOVE GROUND	BELOW GROUND
*AMEREN ILLINOIS (GAS & ELECTRIC)	X	X
*AT&T ILLINOIS (COMMUNICATIONS)	X	X
*BUCKEYE PARTNERS L.P. - WOOD RIVER PIPELINE (PIPELINE)		X
*COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT (WATER & SANITARY SEWER)		X
*ENABLE MIDSTREAM PARTNERS		X
*ILLINOIS AMERICAN WATER COMPANY (WATER)		X

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY \*. NON- J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

2. THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING SHOWN IN THE PLAN SHEETS WAS CREATED USING MICROFILM. IT SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
3. THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.
4. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
5. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE	SURFACE
AC/PG	PG 64-22
RAP % (MAX)	SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=70
MIX COMPOSITION (Gradation)	IL 9.5
FRICTION AGG	MIXTURE "D"
QUALITY MGMT PROGRAM	QC/QA

PLAN QUANTITIES FOR HOT-MIX ASPHALT ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.

## COMMITMENTS

NO TREE CLEARING FROM APRIL 1ST TO SEPTEMBER 30TH OF ANY YEAR

## PERTINENT INFORMATION

THE FOLLOWING SHALL BE NOTIFIED OF THE ROAD CLOSURE TWO WEEKS PRIOR TO CLOSURE:  
 - EAST ST. LOUIS SCHOOL DISTRICT: NORQUISE COOPER 618-646-3051  
 - FIRST STUDENT - 618-332-3704

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PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -			9189A	29BDR-BJR-1	ST. CLAIR	16	2	
PLOT DATE = 11/7/2018	CHECKED -	REVISED -			CONTRACT NO. 76M04					
	DATE -	REVISED -			SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				100% STATE
				BRIDGE
				0047
				082-0267
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	409	409
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQYD	200	200
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	72	72
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQFT	206	206
44000600	SIDEWALK REMOVAL	SQFT	216	216
50102400	CONCRETE REMOVAL	CUYD	13.4	13.4
50300100	FLOOR DRAINS	EACH	16	16
50300255	CONCRETE SUPERSTRUCTURE	CUYD	16.8	16.8
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3050	3050
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3180	3180
52000110	PREFORMED JOINT STRIP SEAL	FOOT	79	79
58100200	WATERPROOFING MEMBRANE SYSTEM	SQYD	644	644
58700300	CONCRETE SEALER	SQFT	444	444
67100100	MOBILIZATION	LSUM	1	1

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USER NAME = leej	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 10/25/2018	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9189A	29BDR-BJR-1	ST. CLAIR	16	3
CONTRACT NO. 76M04			ILLINOIS FED. AID PROJECT	

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				100% STATE
				BRIDGE 0047 082-0267
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	LSUM	1	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	28	28
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQFT	9.3	9.3
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	2	2
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	5	5
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQFT	347	347
X2010507	CLEARING, SPECIAL	ACRE	0.1	0.1
* X2700006	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 4"	FOOT	1041	1041
X5870015	BRIDGE DECK CONCRETE SEALER	SQFT	2774	2774
* X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	1041	1041
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	2830	2830
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQFT	9	9
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQYD	5	5

\* SPECIALTY ITEM

USER NAME = leej	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 10/25/2018	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9189A	29BDR-BJR-1	ST. CLAIR	16	4
CONTRACT NO. 76M04			ILLINOIS FED. AID PROJECT	









Existing Structure: 082-0267 was built in 1980 under contract 34470, FAU Route 9189 Sec 23VB.  
It is a 3 span continuous wide flange supported on pile bent abutments and pile supported multi-column piers.

The deck ends, hatchblocks, and 1' of approach pavement shall be replaced with strip seal joints.  
The deck shall be patched, and overlaid with waterproofing membrane system and hot-mix asphalt.  
The road shall be closed to traffic and detoured.

### SHEET INDEX

- 1) General Plan and Elevation
- 2) Deck Section & Drain Details
- 3) Abutment Elevation
- 3) Abutment Details
- 4) Steel Details
- 5) Preformed Joint Strip Seal
- 7) Wingwall Pictures
- 8) For Information Only - West Abutment
- 9) For Information Only - East Abutment

### GENERAL NOTES

Fasteners shall be high strength bolts. Bolts  $\frac{3}{4}"\phi$ , holes  $\frac{13}{16}"\phi$ , unless otherwise noted.

All structural steel shall be AASHTO M 270 Grade 36.

All structural steel shall be hot-dip galvanized. See Special Provision for "Hot Dip Galvanizing For Structural Steel".

No field welding is permitted except as specified in the contract documents.

All reinforcement bars shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding  $\frac{1}{4}$  inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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.

Cleaning and field painting of structural steel shall be done under a separate painting contract. Existing structural steel that will be in contact with new structural steel shall only be cleaned and painted prior to erection as required by the Special Provision for "Cleaning & Painting Contact Surface Areas of Existing Steel Structures".

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

Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with "Concrete Removal".

The HMA quantities are shown for the bridge only. The quantity is calculated excluding an assumed  $\frac{1}{2}"$  sand &  $\frac{1}{4}"$  waterproofing membrane, for an HMA thickness of  $1\frac{1}{4}"$  thickness.

The joints shall be adjusted according to Article 520.04 of the Standard Specs.

The quantity for "Bridge Deck Concrete Sealer" is for the top and inside parapet surfaces, wingwalls, sidewalks, and all new concrete.

The quantity for "Concrete Sealer" is for the 2' vertical surface of backwalls, 2'-9" wide abutment seats, and 1' vertical surface of front of abutment caps. The sealer in these areas shall be a plural component.

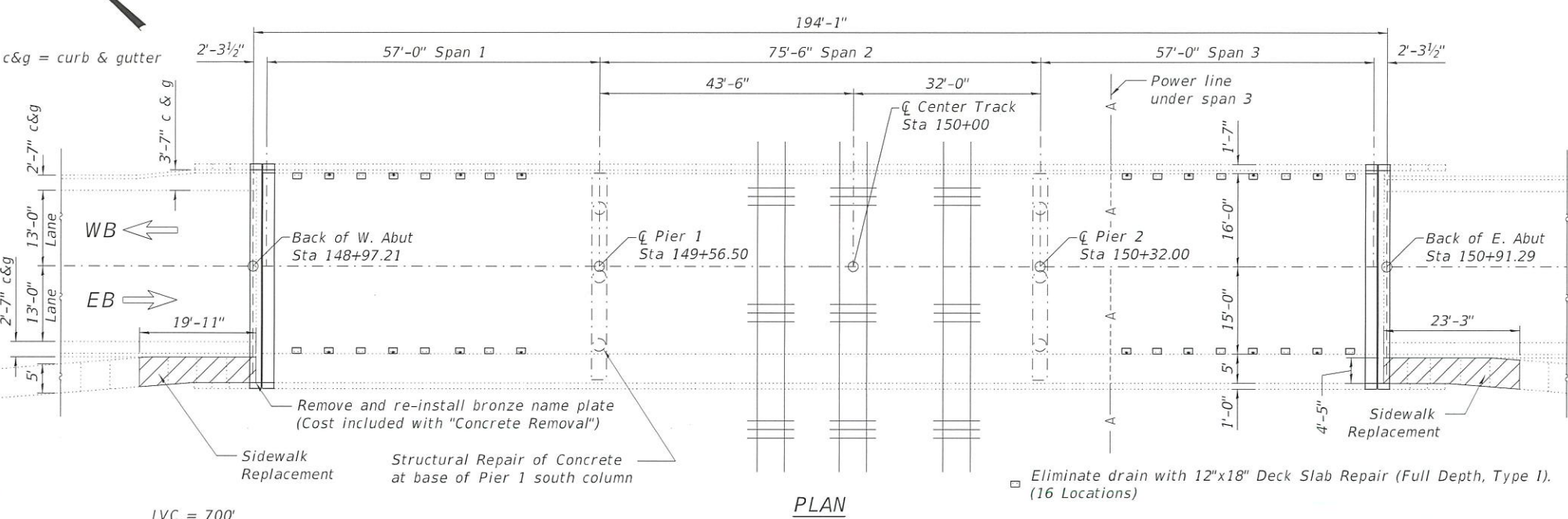
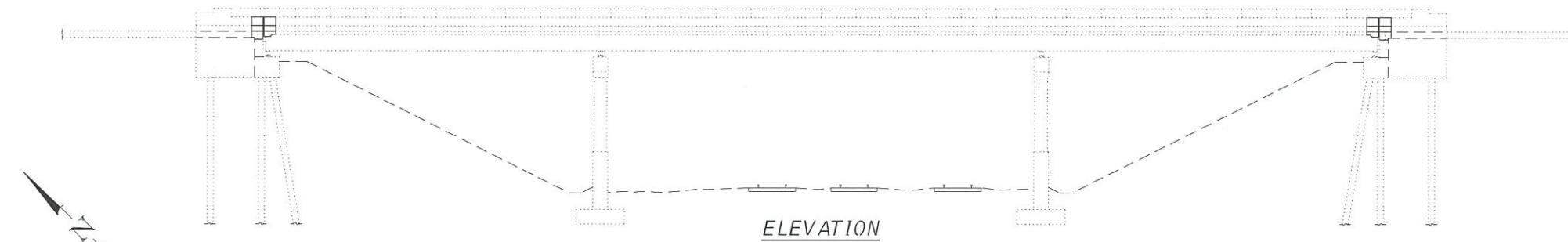
The quantity for "Deck Slab Repair (Partial)" is estimated. The location and sizes of repairs are to be determined by the Engineer in the field.

The cost for removal of the drains and drain brackets is included with "Deck Slab Repair (Full Depth, Type I)".

The quantity for "Clearing, Special" is for removal of three 20' x 80' areas of brush along slopewalls on the SW, NW, and NE quadrants.

### DESIGN STRESSES

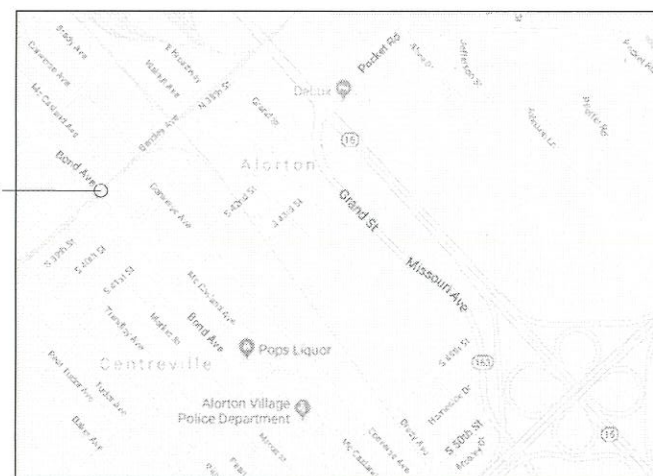
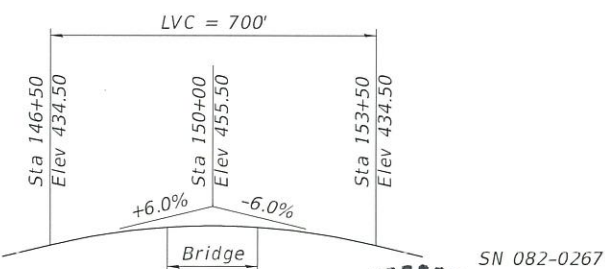
FIELD UNITS  
 $f'c = 4,000$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (M270 Grade 36)



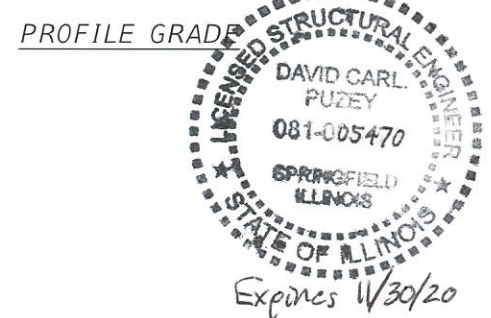
- Eliminate drain with 12"x18" Deck Slab Repair (Full Depth, Type I). (16 Locations)
- Eliminate drain with 12"x18" Deck Slab Repair (Full Depth, Type I) and install 6"Ø floordrain (16 Locations)

### TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
HMA Surface Course, Mix "D", N70	Ton	45
Portland Cement Sidewalk, 5"	Sq. Ft.	206
Sidewalk Removal	Sq. Ft.	216
Concrete Removal	Cu. Yd.	13.4
Floor Drains	Each	16
Concrete Superstructure	Cu. Yd.	16.8
Furnishing and Erecting Structural Steel	Pound	3050
Reinforcement Bars, Epoxy Coated	Pound	3180
Preformed Joint Strip Seal	Foot	79.0
Waterproofing Membrane System	Sq. Yd.	644
Concrete Sealer	Sq. Ft.	444
Clearing, Special	Acre	0.1
Bridge Deck Concrete Sealer	Sq. Ft.	2774
Structural Steel Removal	Pound	2830
Structural Repair of Concrete (Depth <= 5")	Sq. Ft.	9
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	5
Deck Slab Repair (Partial)	Sq. Yd.	10



LOCATION SKETCH



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DESIGNED - J. Uehle	EXAMINED - <i>Tug A. Alst</i>	DATE - OCTOBER 30, 2018
CHECKED - JOV	REGISTERED ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED - <i>Shawn R. Kasper</i>	REVISED -
CHECKED - JOV	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

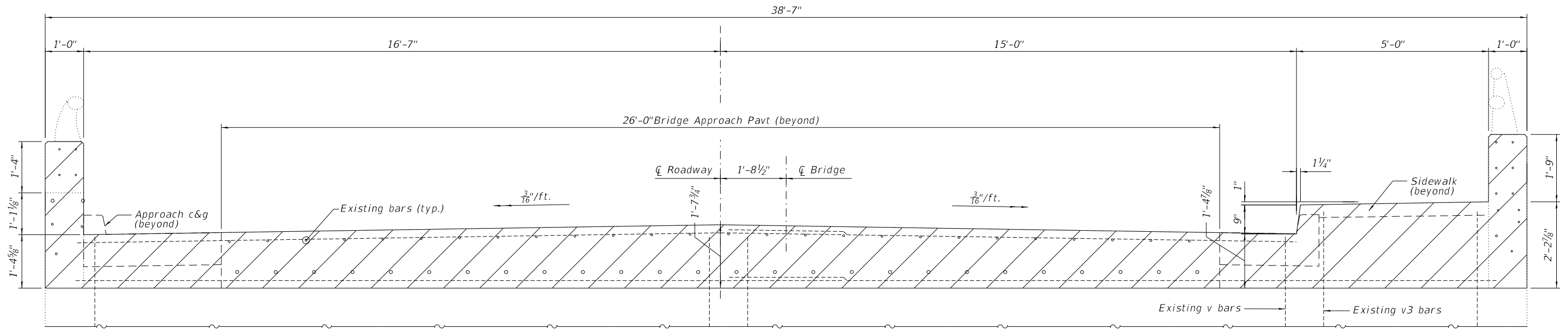
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
SN 082-0267 (BOND AVE OVER A&S RR)  
SHEET 1 OF 9 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9189A	29BDR-BJR-1	ST. CLAIR	16	8
CONTRACT NO. 76M04				
ILLINOIS FED. AID PROJECT				

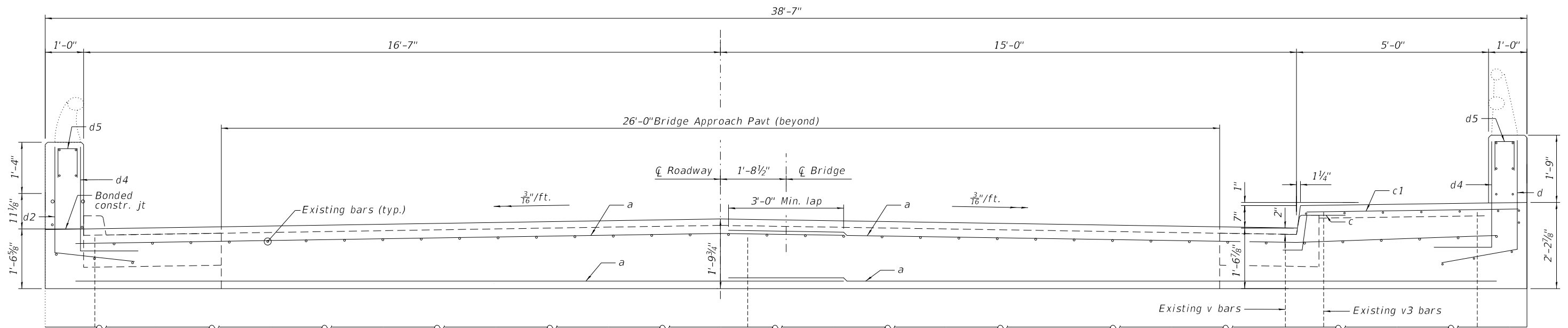






**ABUTMENT ELEVATION - REMOVAL**

(E. Abut Looking E. - W. Abut similar by rotation)



**ABUTMENT ELEVATION - REPLACEMENT**

(E. Abut Looking E. - W. Abut similar by rotation)

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DESIGNED - J. Uehle	EXAMINED	DATE - OCTOBER 30, 2018
CHECKED - JOV	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED	REVISED -
CHECKED - JOV	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**ABUTMENT ELEVATION**  
**SN 082-0267**

SHEET 3 OF 9 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9189A	29BDR-BJR-1	ST. CLAIR	16	10
CONTRACT NO. 76M04				
ILLINOIS FED. AID PROJECT				

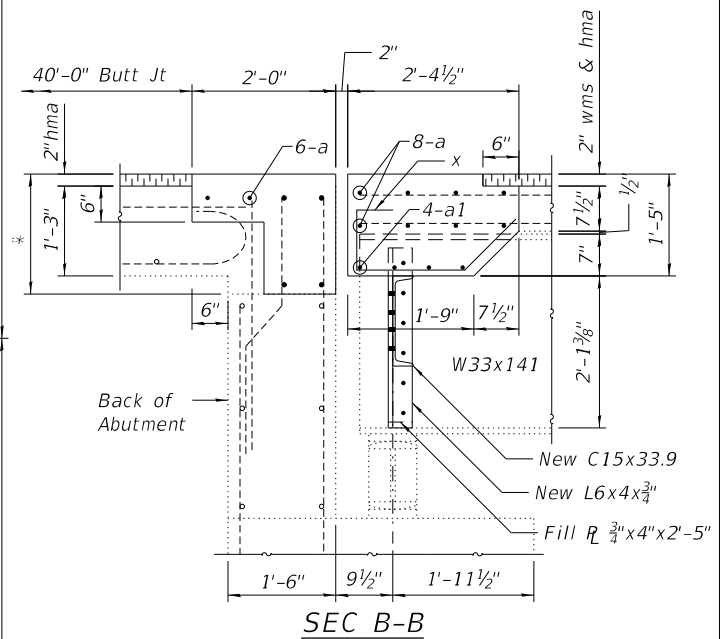
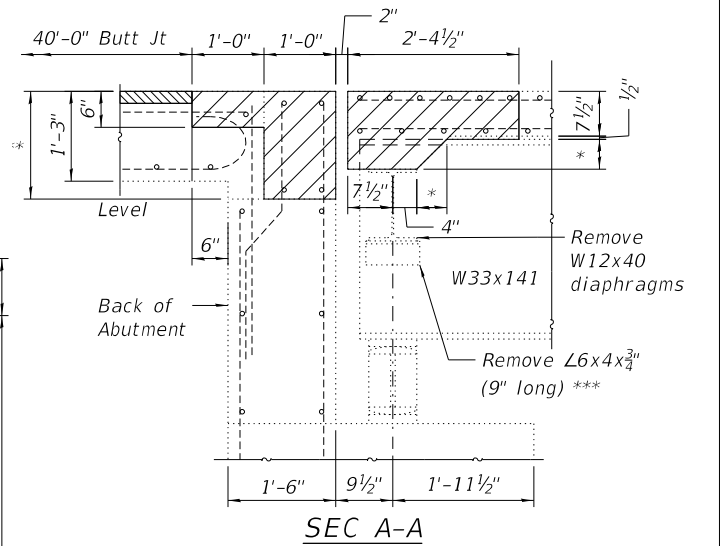
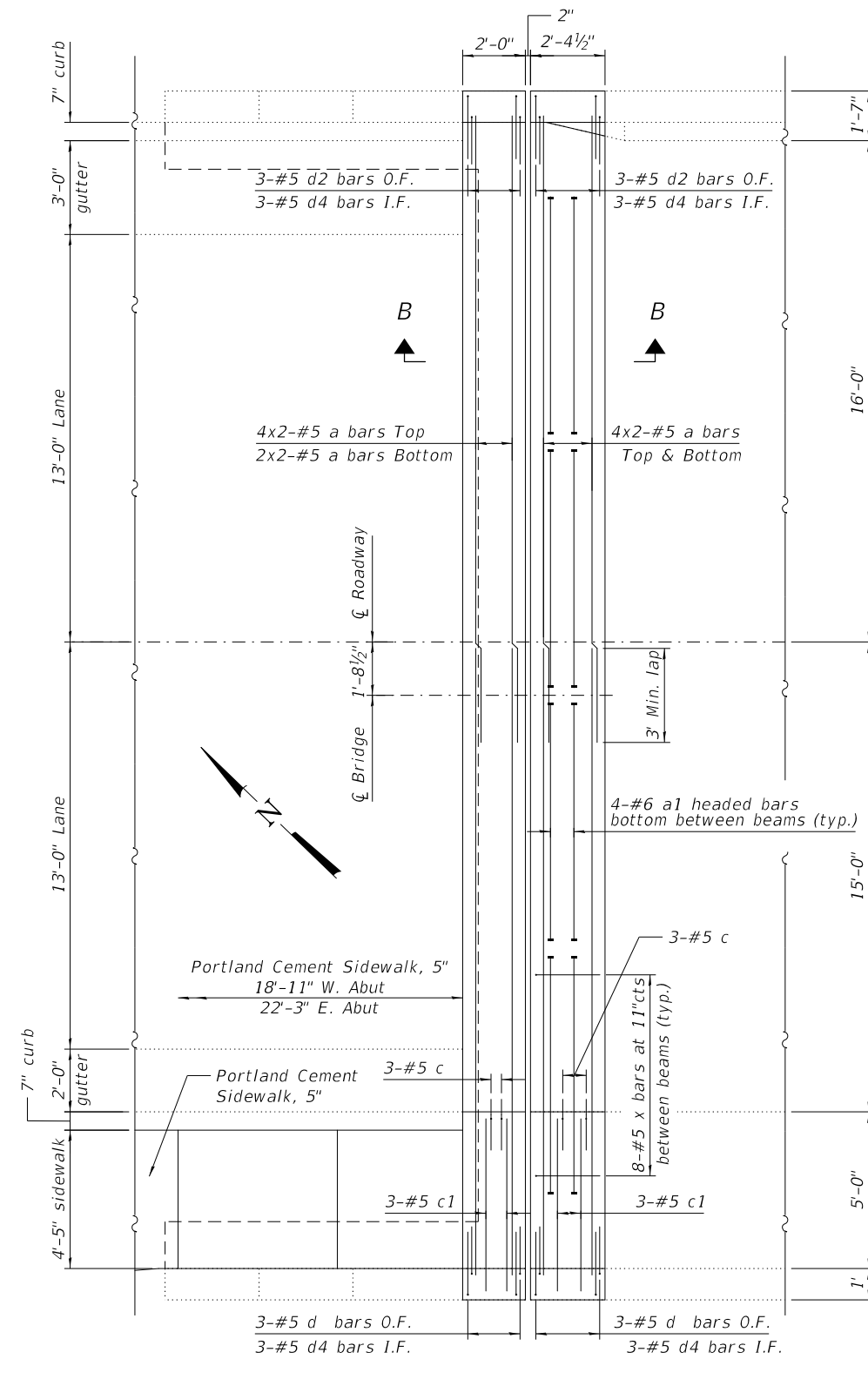
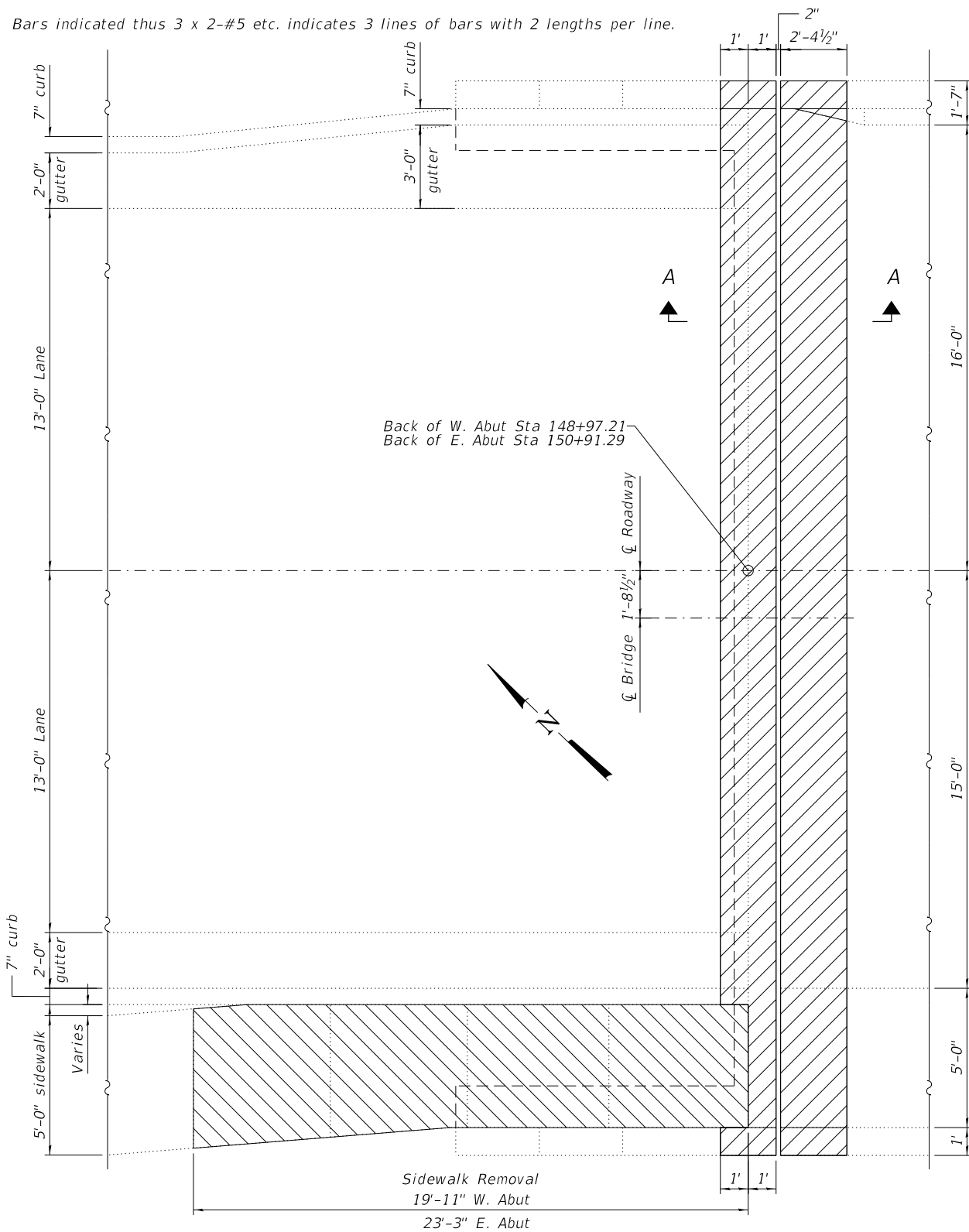
**NOTES**

\* Varies 3" (Beams 1 & 3) to 6" (C)

\*\* Sidewalk varies 26 $\frac{7}{8}$ " to 25 $\frac{1}{8}$ ". Roadway varies 16 $\frac{7}{8}$ " (S gutter) to 19 $\frac{3}{4}$ " C to 16 $\frac{3}{8}$ " (N gutter). See sheets 3 of 9.

\*\*\* The 16 existing diaphragm shelf angles shall be removed using the air-arc method and grind smooth all weld material remaining on the web. Cost included with "structural Steel Removal".

Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a	56	#5	20'-0"	—
a1	32	#6	7'-9"	—
c	12	#5	2'-5"	┌
c1	12	#5	5'-6"	—
d	12	#5	4'-10"	└
d2	12	#5	4'-10"	L
d4	24	#5	4'-3"	L
d5	24	#5	2'-0"	□
x	64	#5	3'-10"	└┘

Reinforcement Bars, Epoxy Coated	Lbs.	3180
Concrete Superstructure	Cu. Yds.	16.8
Concrete Removal	Cu. Yds.	13.4

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DESIGNED - J. Uehle	EXAMINED	DATE - OCTOBER 30, 2018
CHECKED - JOV	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED	REVISED -
CHECKED - JOV	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

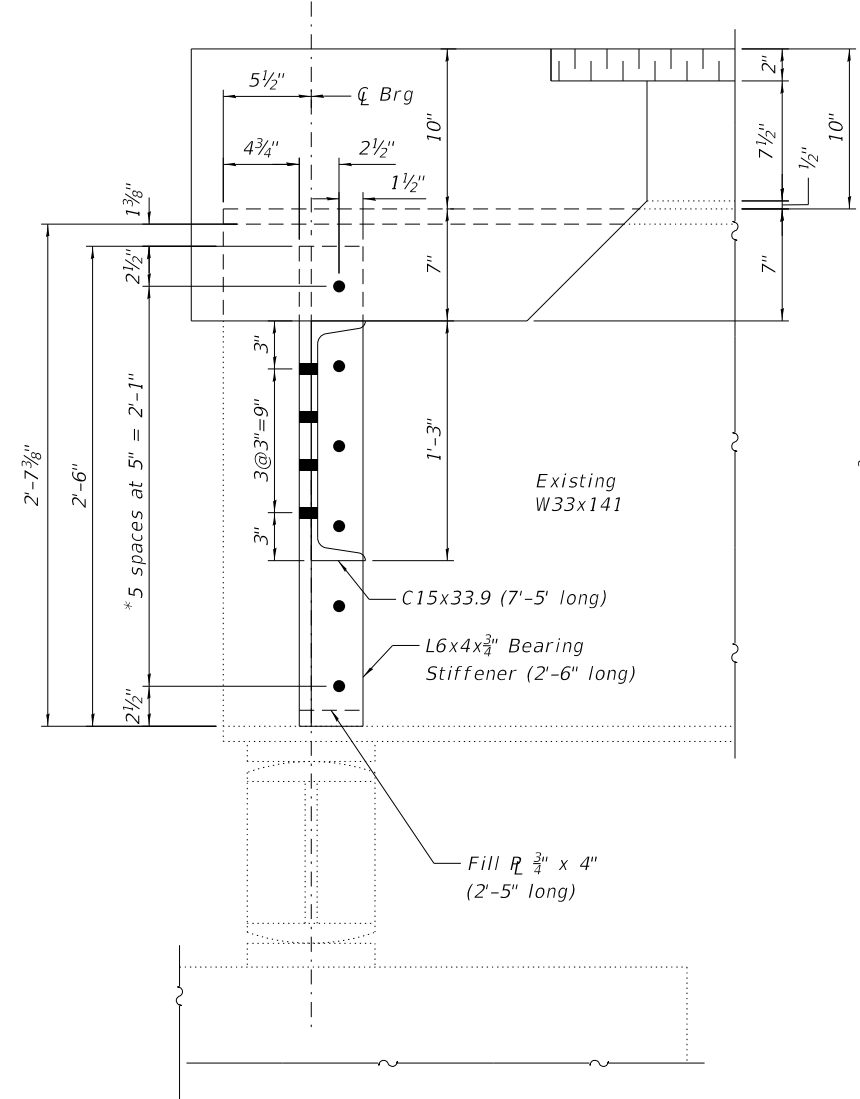
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS**  
**SN 082-0267**

SHEET 4 OF 9 SHEETS

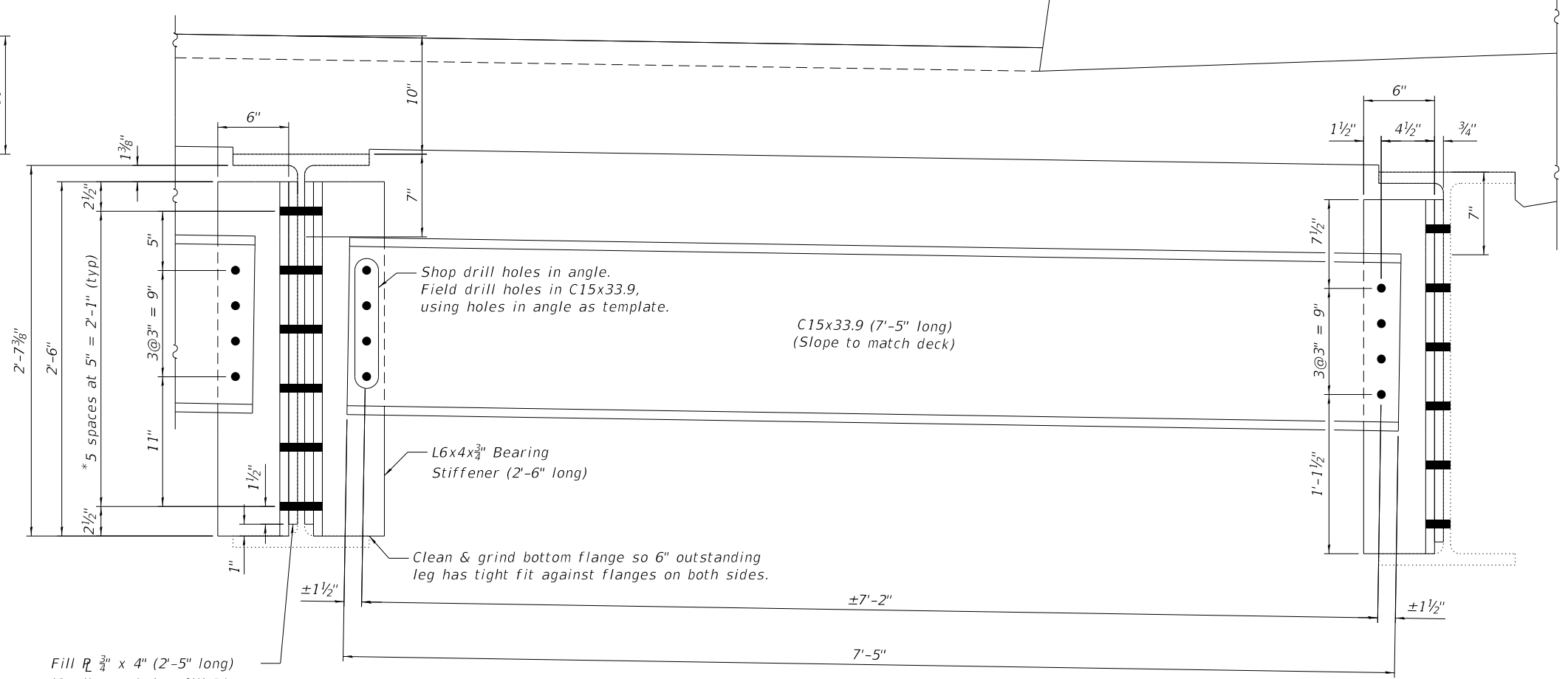
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CONTRACT NO. 76M04				
ILLINOIS FED. AID PROJECT				

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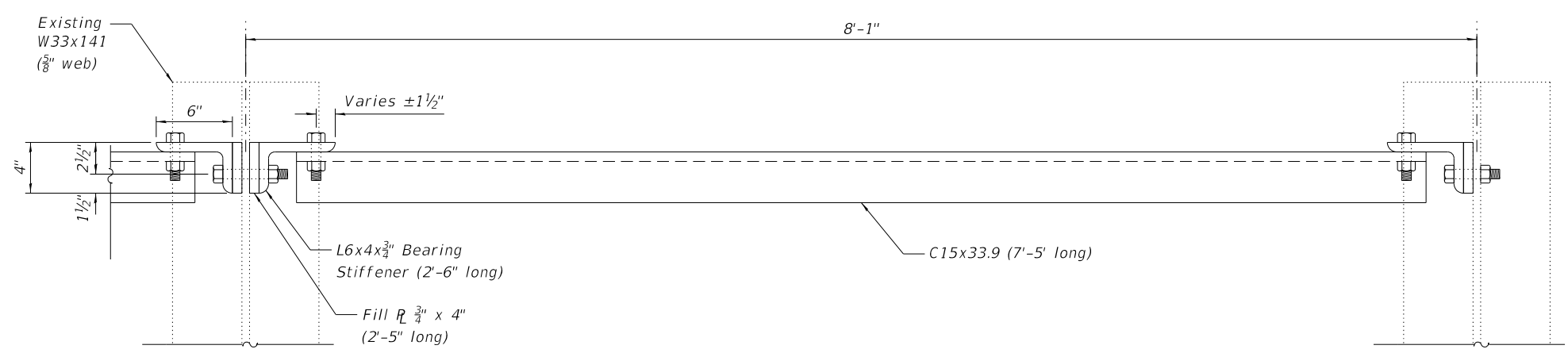


ABUTMENT SECTION

\* Oversized 1 1/8" holes in angles with plate washers.



ELEVATION



PLAN

DESIGNED - J. Uehle	EXAMINED	DATE - OCTOBER 30, 2018
CHECKED - JOV	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED	REVISED -
CHECKED - JOV	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

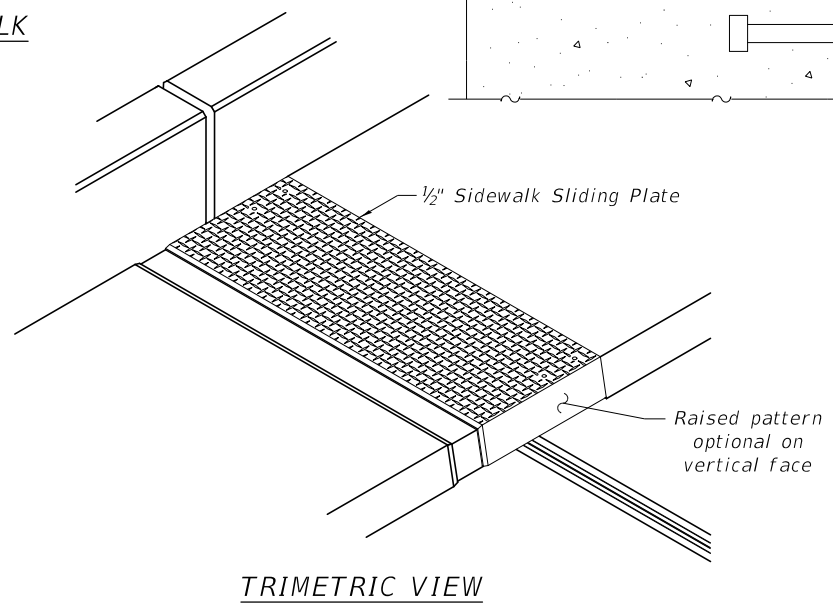
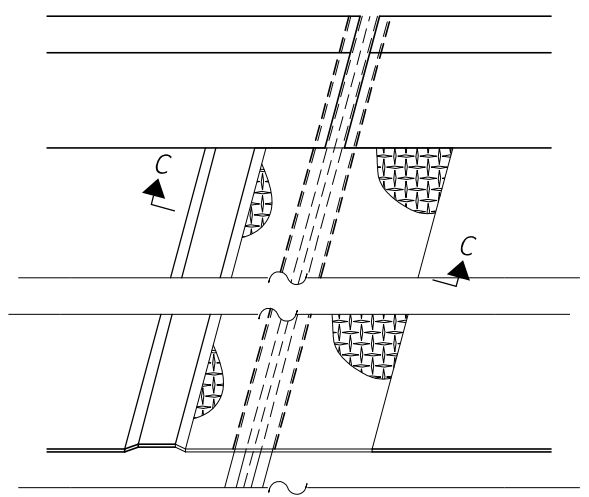
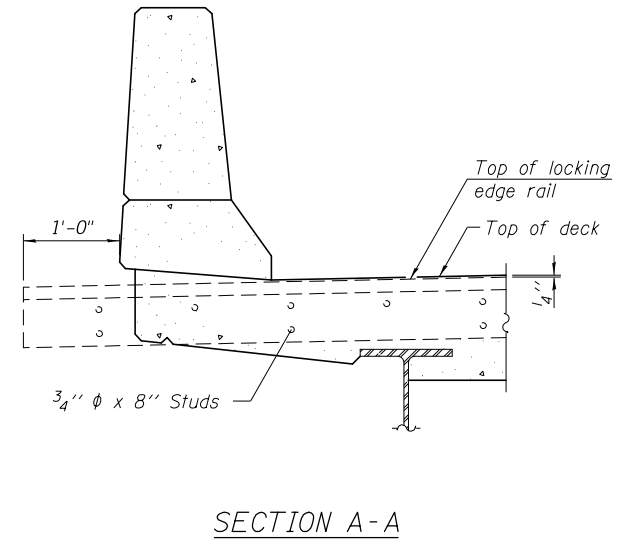
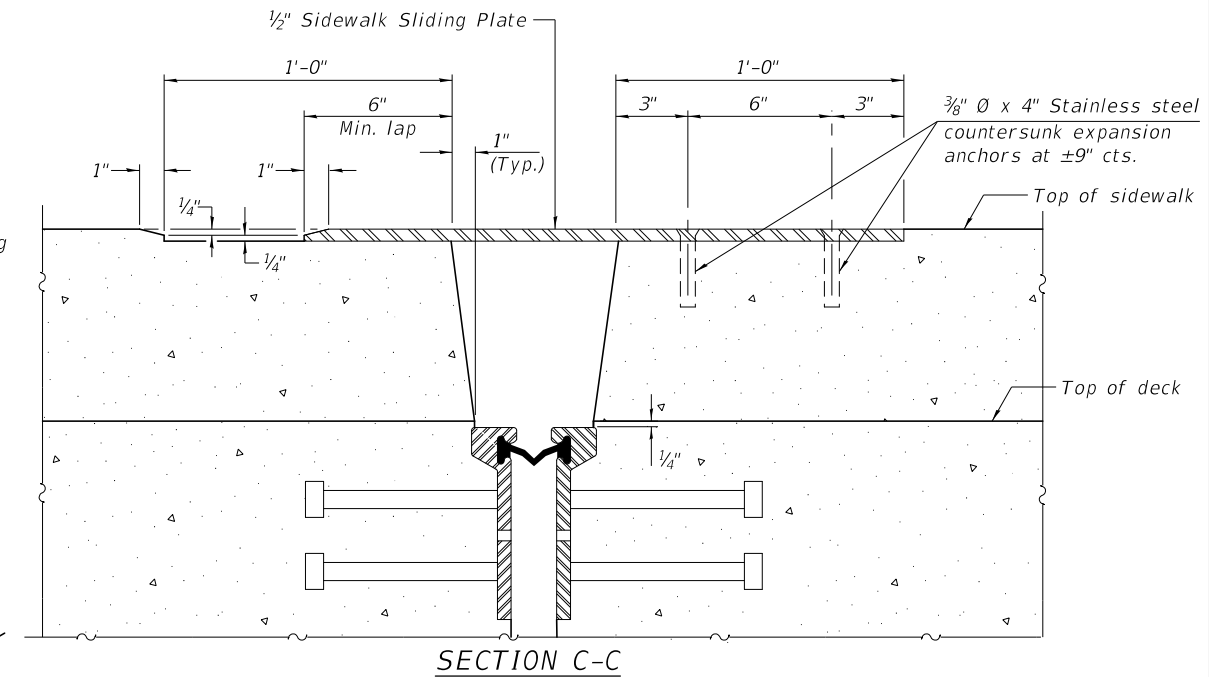
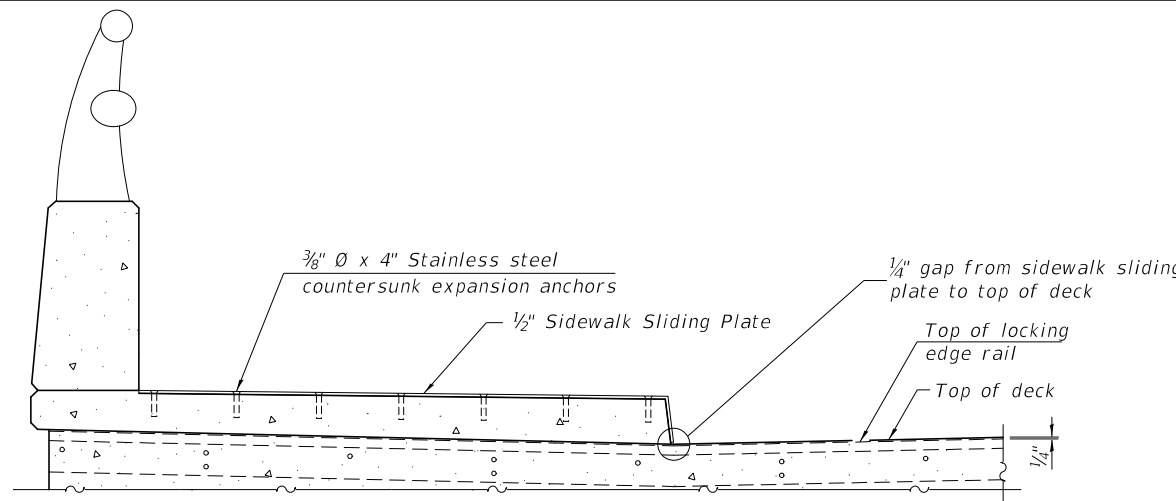
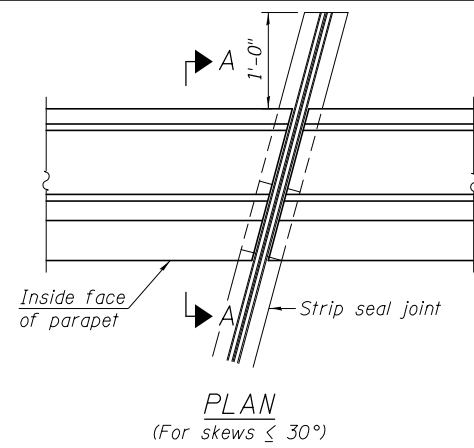
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

STEEL DETAILS  
 SN 082-0267

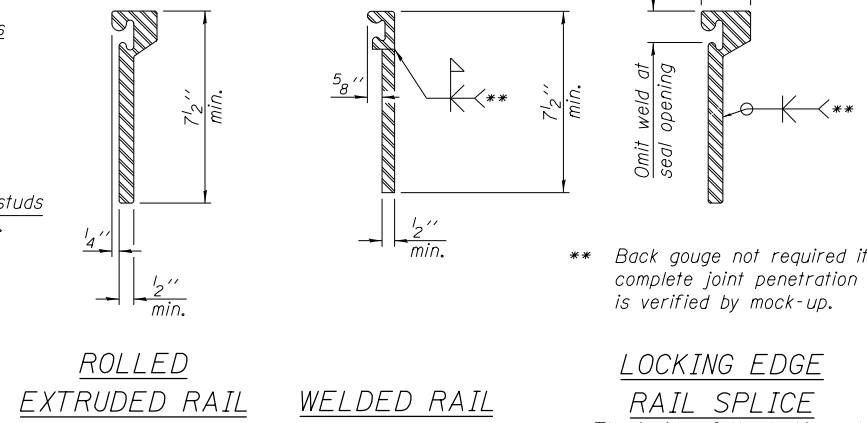
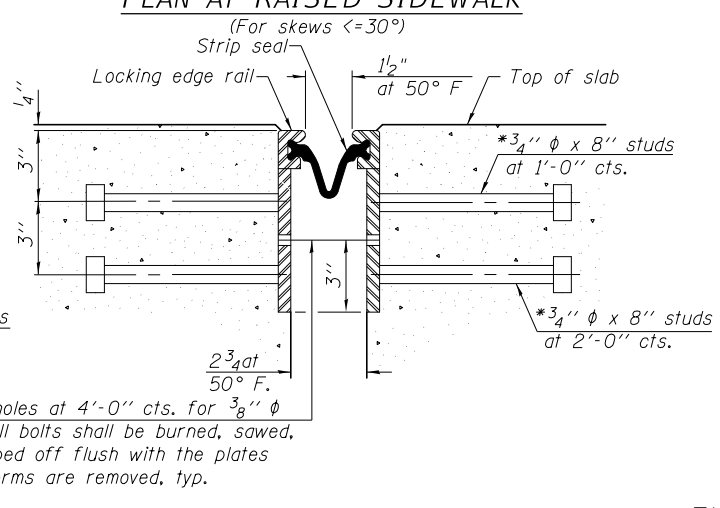
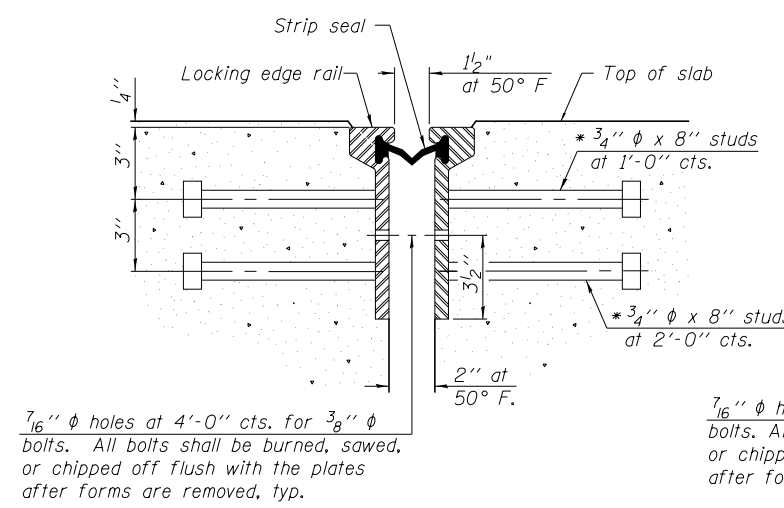
SHEET 5 OF 9 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9189A	29BDR-BJR-1	ST. CLAIR	16	12
CONTRACT NO. 76M04				
ILLINOIS FED. AID PROJECT				





Notes:  
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.  
 The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.  
 The manufacturer's recommended installation methods shall be followed.



All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.  
 The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.  
 The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.  
 Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.  
 34" F-shape barrier shown, 42" F-shape similar as noted.  
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	79.0

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DESIGNED - J. Uehle	EXAMINED	DATE - OCTOBER 30, 2018
CHECKED - JOV	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED	REVISED -
CHECKED - JOV	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
 SN 082-0267

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9189A	29BDR-BJR-1	ST. CLAIR	16	13
CONTRACT NO. 76M04				
ILLINOIS FED. AID PROJECT				

SHEET 6 OF 9 SHEETS





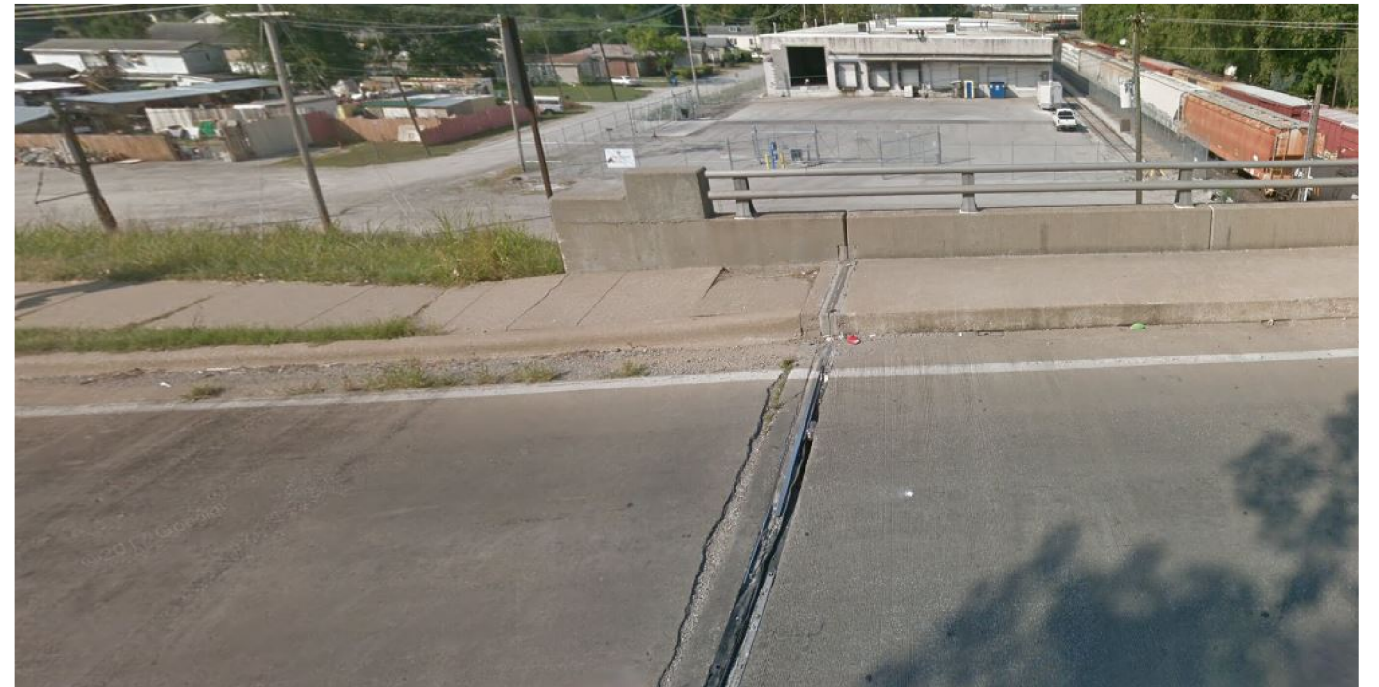
WEST ABUTMENT  
NORTH WINGWALL



EAST ABUTMENT  
NORTH WINGWALL



WEST ABUTMENT  
SOUTH WINGWALL



EAST ABUTMENT  
SOUTH WINGWALL

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DESIGNED - J. Uehle	EXAMINED	DATE - OCTOBER 30, 2018
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DRAWN - J. Uehle	PASSED	REVISED -
CHECKED - JOV	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

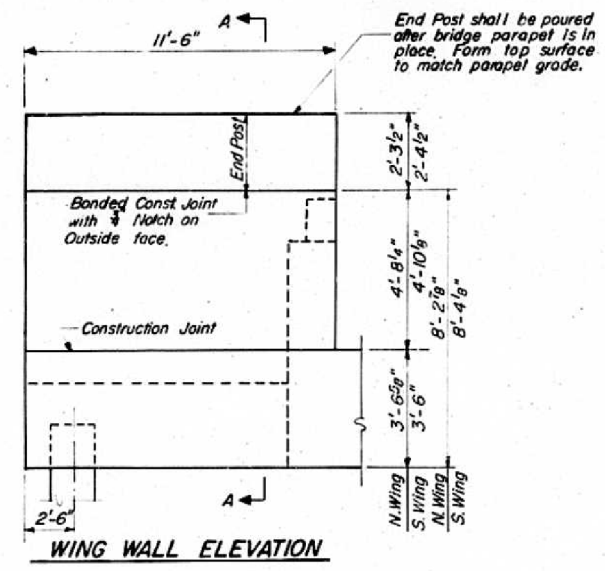
**WINGWALL PICTURES**  
**SN 082-0267**

SHEET 7 OF 9 SHEETS

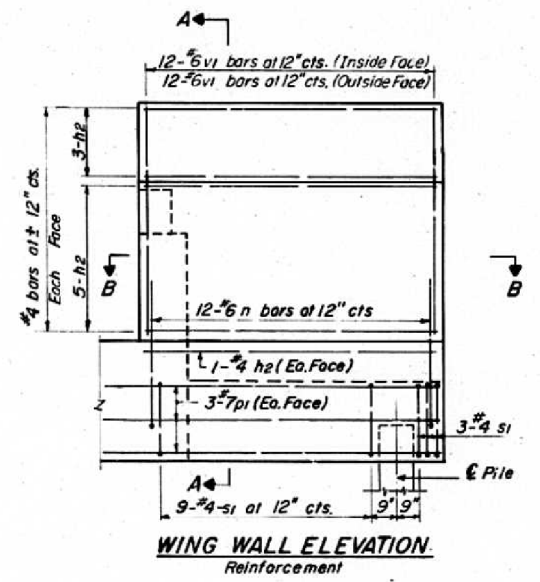
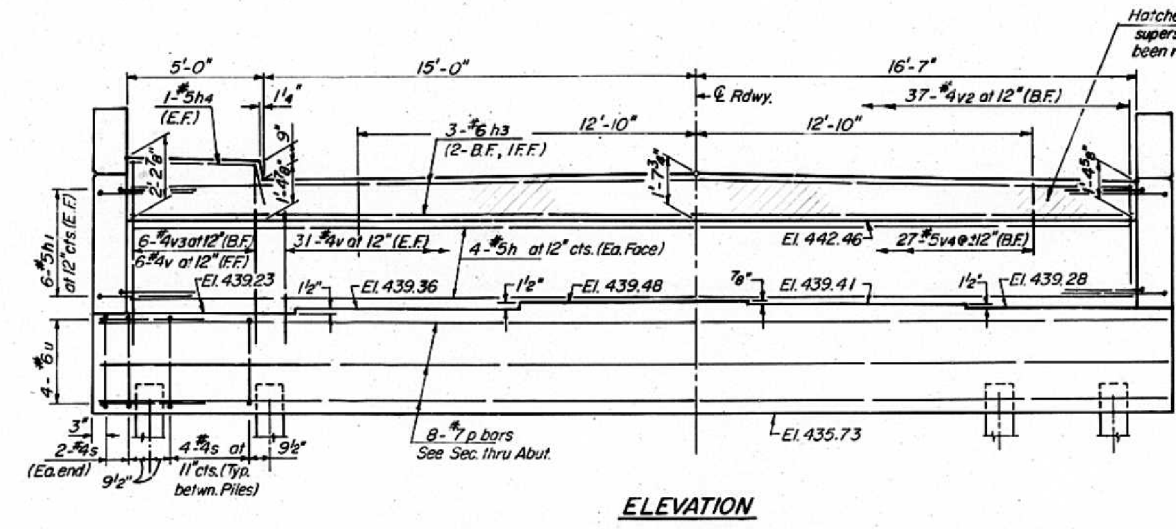
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CONTRACT NO. 76M04				
ILLINOIS FED. AID PROJECT				



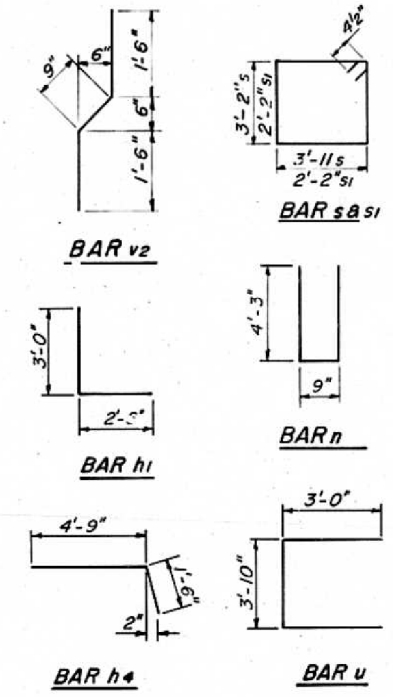
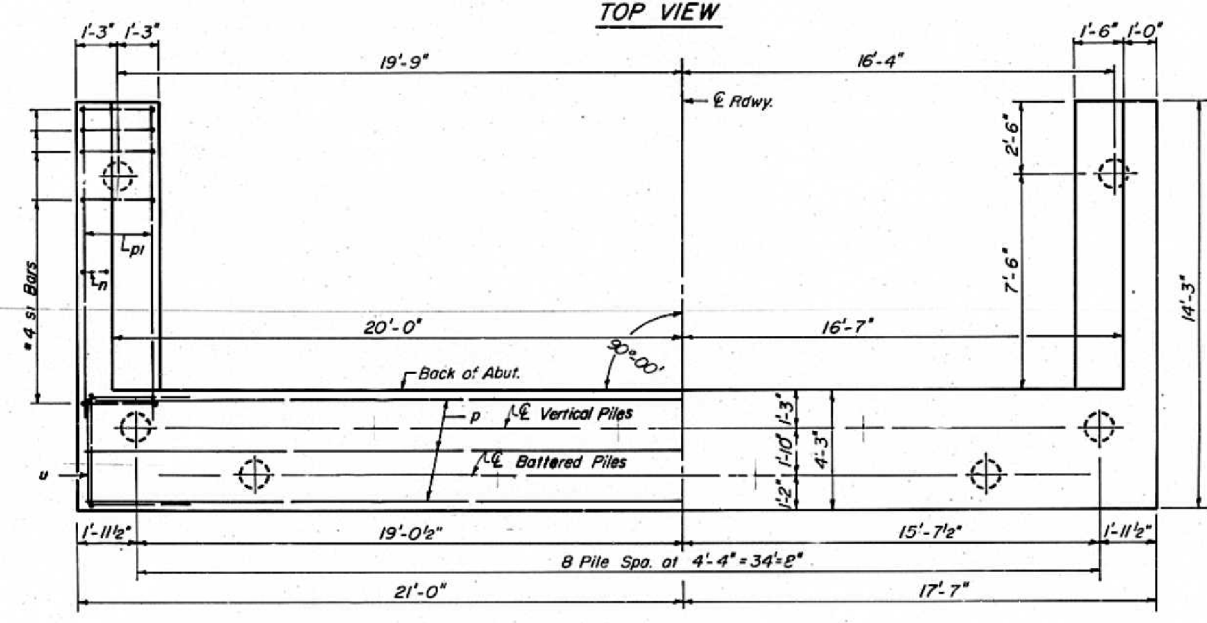
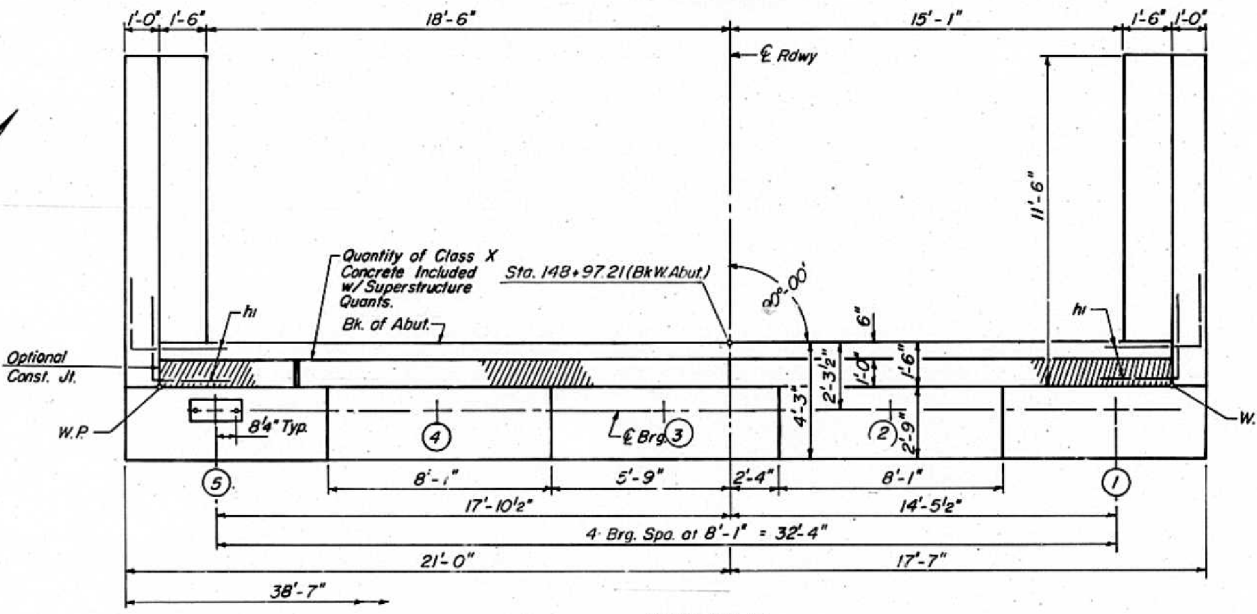
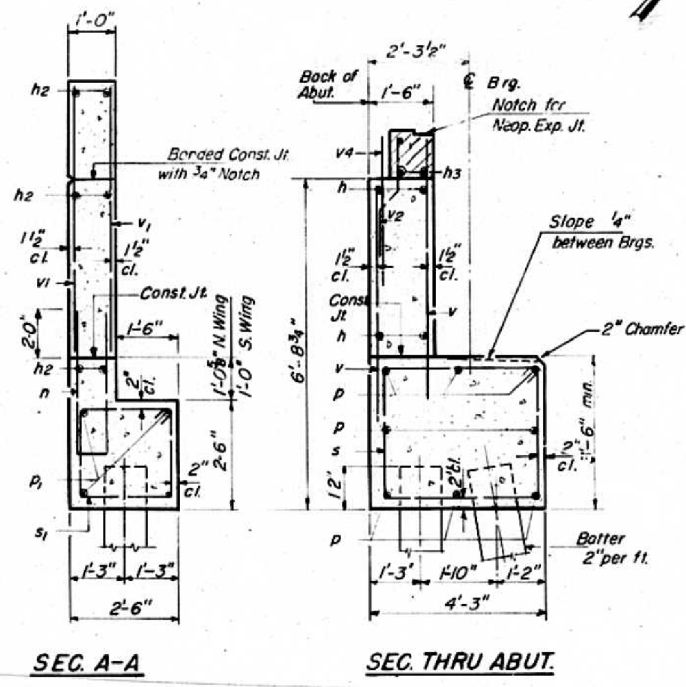
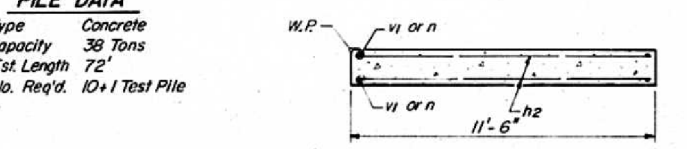
Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Four steps monolithically with cap.



Note:  
 See Std. 2344 for Guard Rail Attachment.



**PILE DATA**  
 Type Concrete  
 Capacity 38 Tons  
 Est. Length 72'  
 No. Req'd. 10 + 1 Test Pile



**WEST ABUTMENT BILL OF MATERIAL**

Bar No	Size	Length	Shape
h	8 #5	35'-4"	—
h1	24 #5	5'-6"	—
h2	36 #4	11'-3"	—
h3	3 #6	38'-4"	—
h4	2 #5	16'-3"	—
n	24 #6	9'-3"	U
p	8 #7	38'-3"	—
pi	12 #7	13'-0"	—
s	36 #4	14'-11"	□
si	24 #4	9'-5"	□
u	8 #6	9'-10"	—
v	68 #4	5'-9"	—
v1	48 #5	6'-9"	—
v2	37 #4	3'-9"	—
v3	6 #4	6'-3"	—
v4	27 #5	3'-6"	—
Class X Concrete		Cu Yds.	402
Reinforcement Bars		Lbs.	3760
Concrete Piles		Lin Ft.	720
Test Piles		Co.	1

**WEST ABUTMENT**  
 F.A.U. 9189A (RELOC. BOND AVE.)  
 OVER A&S R.R.  
 ST. CLAIR COUNTY  
 SEC. 29VB  
 STA. 150+00

DESIGNED	D.V.K.
CHECKED	G.E.P.
DRAWN	J.T.
CHECKED	G.E.P.

FOR INFORMATION ONLY

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DESIGNED - J. Uehle	EXAMINED	DATE - OCTOBER 30, 2018
CHECKED - JOV	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED	REVISED -
CHECKED - JOV	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

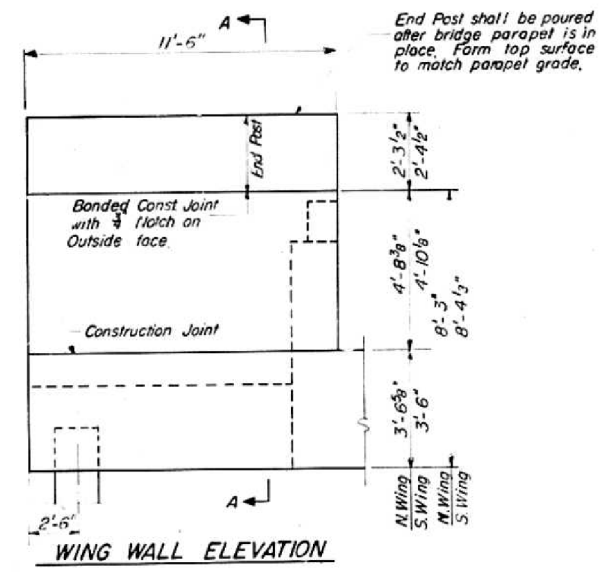
STATE OF ILLINOIS  
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FOR INFORMATION ONLY - WEST ABUTMENT  
 SN 082-0267

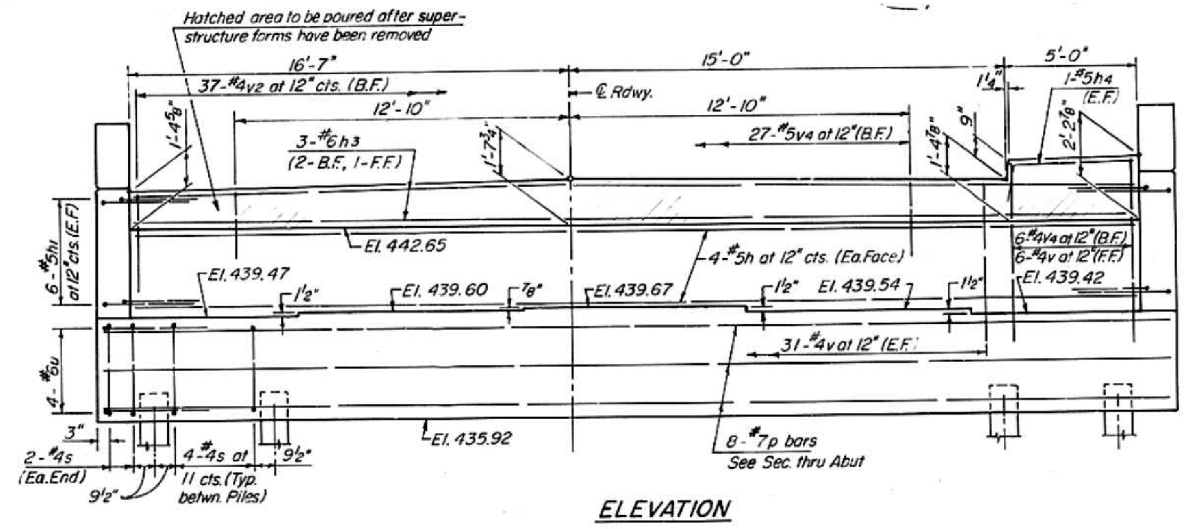
SHEET 8 OF 9 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9189A	29BDR-BJR-1	ST. CLAIR	16	15
CONTRACT NO. 76M04				
ILLINOIS		FED. AID PROJECT		

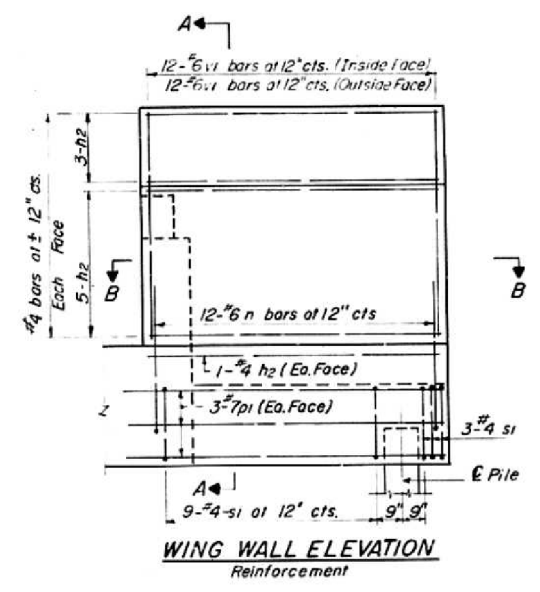
**NOTES:**  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.



Note:  
See Std. 2344 for Guard Rail Attachment

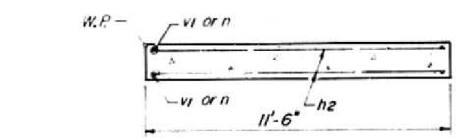


ELEVATION

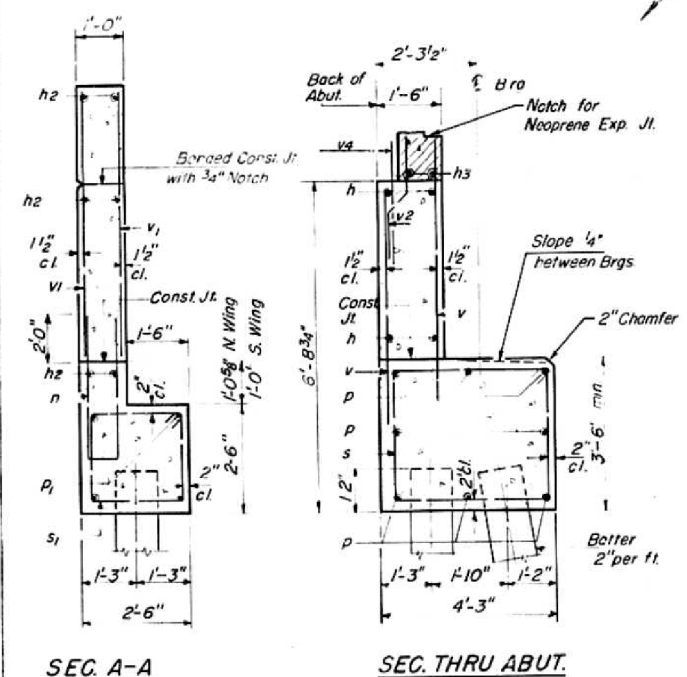


WING WALL ELEVATION Reinforcement

**PILE DATA**  
 Type Concrete  
 Capacity 38 Tons  
 Est Length 72'  
 No. Req'd 11 Test Pile

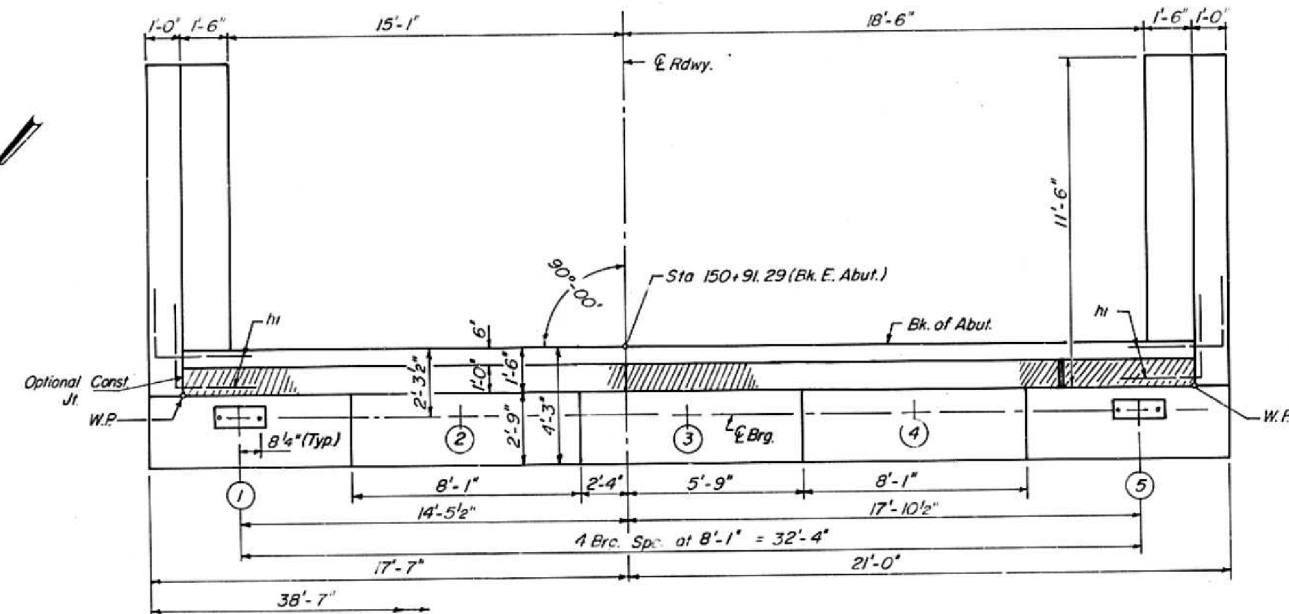


SEC. B-B

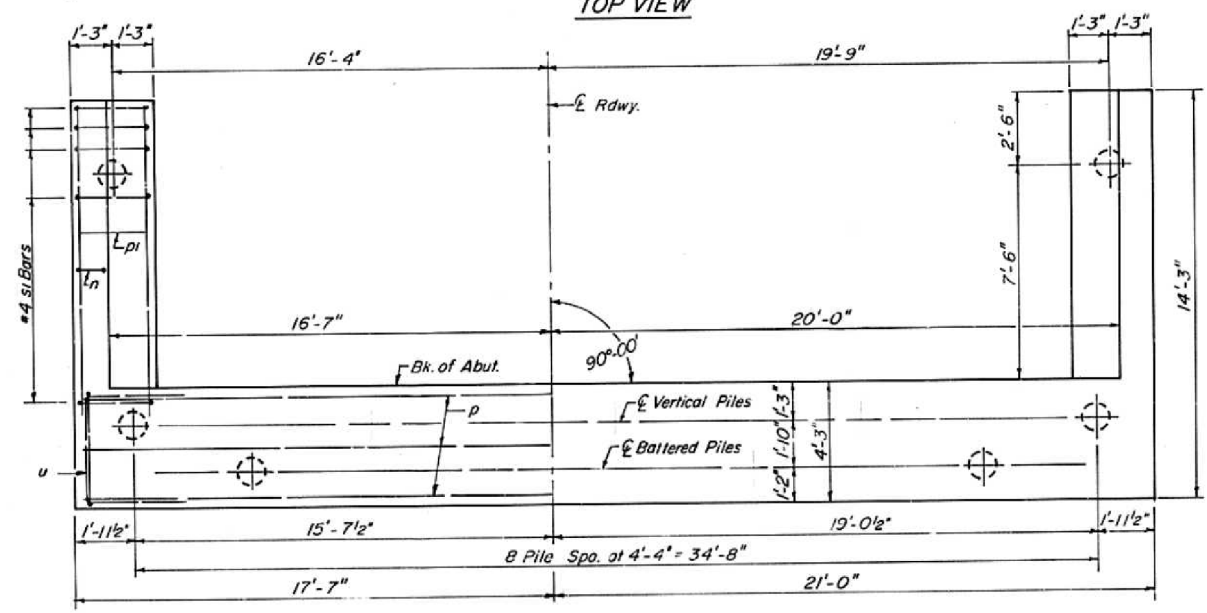


SEC. A-A

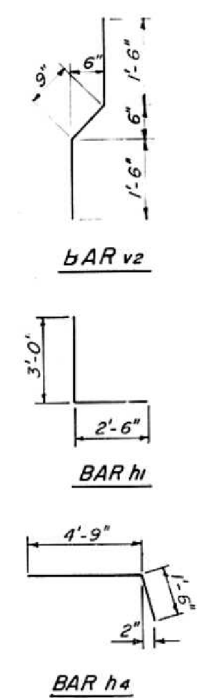
SEC. THRU ABUT.



TOP VIEW



PLAN - PILE CAP



**EAST ABUTMENT/ BILL OF MATERIAL**

Bar	No	Size	Length	Shape
v1	8	#5	36'-4"	U
n	24	#5	5'-6"	U
h2	36	#4	11'-5"	U
h3	3	#6	36'-4"	U
h4	2	#5	6'-3"	U
n	24	#6	9'-3"	U
p	8	#7	38'-3"	U
pi	12	#7	13'-0"	U
s	36	#4	14'-11"	U
si	24	#4	9'-5"	U
u	8	#6	9'-10"	U
v	68	#2	5'-9"	U
v1	48	#6	6'-9"	U
v2	37	#4	3'-9"	U
v3	5	#4	6'-3"	U
v4	27	#5	3'-6"	U
Class X Concrete		Cu. Yds.	40.2	
Reinforcement Bars		Lbs.	3760	
Concrete Piles		1 in Ft.	792	

**EAST ABUTMENT  
 FAU 9189 (RELOC. BOND AVE.)  
 OVER A&S R.R.  
 ST. CLAIR COUNTY  
 SEC. 29VB  
 STA. 150+00**

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MODEL: 0820267-76M04-009  
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DESIGNED D.V.K.  
 CHECKED G.E.P.  
 DRAWN J.T.  
 CHECKED JOV  
 GEP

EXAMINED  
 ACTING ENGINEER OF STRUCTURAL SERVICES  
 PASSED  
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 30, 2018  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

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 SN 082-0267

SHEET 9 OF 9 SHEETS