

141

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FT MASSAC 2019	MASSAC	32	1
		ILLINOIS		CONTRACT NO. 46908

D-9

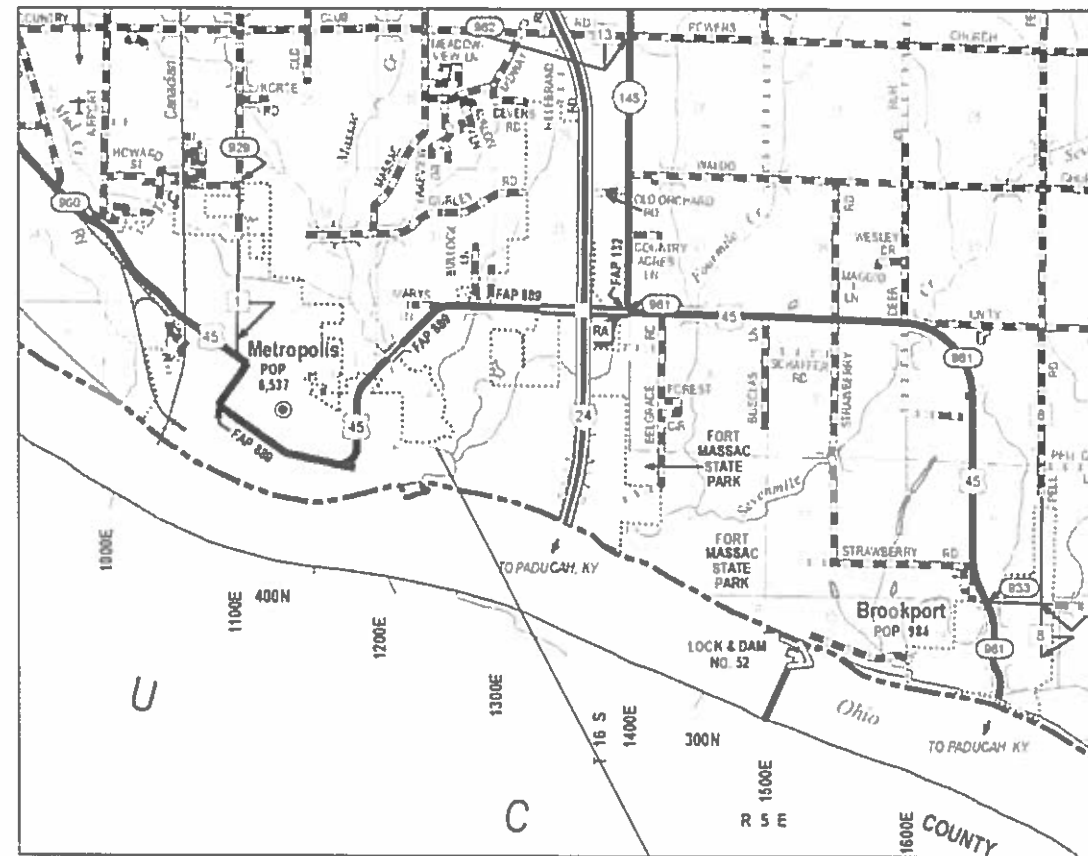
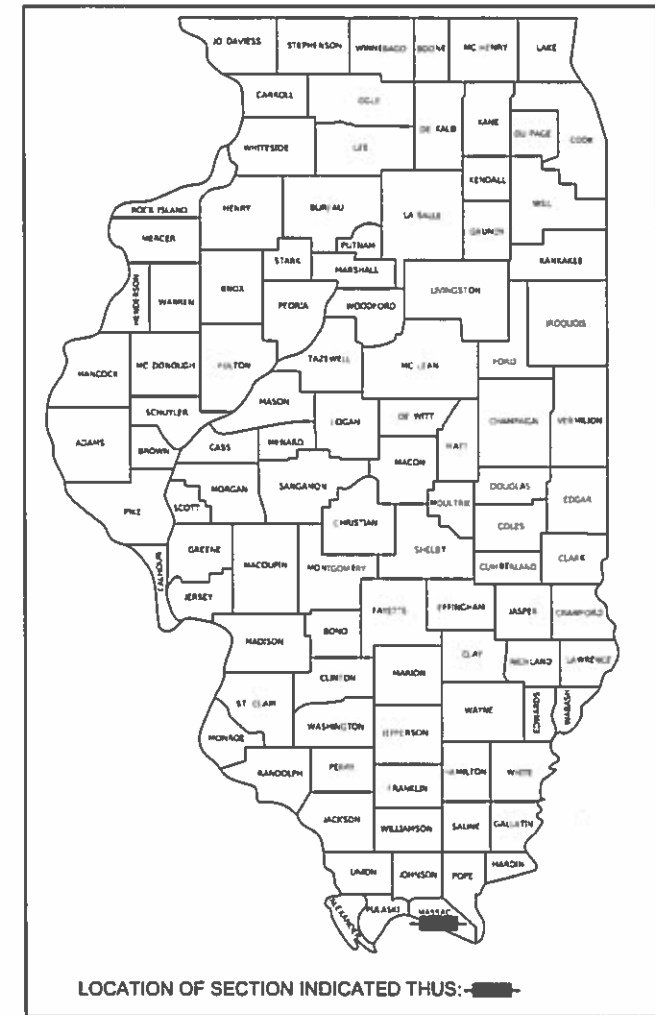
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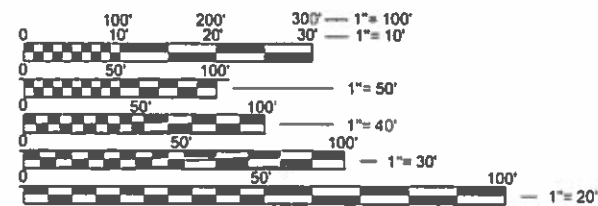
# PROPOSED HIGHWAY PLANS

## IDOT/IDNR STATEWIDE FORT MASSAC STATE PARK FT MASSAC 2019 BRIDGE REPLACEMENT MASSAC COUNTY

C-30-023-18  
5-17-016



PROJECT LOCATION  
STA 106+00.00 TO  
STA 109+70.00



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

DATE: 01/21/2020  
  
 ROBERT H. DALTON  
 ILLINOIS PROFESSIONAL ENGINEER  
 NO. 062-033925  
 EXPIRATION DATE 11/30/2021

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED: *March 20, 2020*  
*EA, ETK*  
 REGIONAL ENGINEER

*March 20, 2020*  
*EA, ETK*  
 ENGINEER OF DESIGN AND ENVIRONMENT

*March 20, 2020*  
*Jammi, Jim*  
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION





























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OF THE STATE OF ILLINOIS

FOR NO. 230-141 P. VASCONCELES ENGINEERING CORP. DESIGN FIRM REGISTRATION NUMBER 104-0013107

## GENERAL NOTES

- 1) SPECIFICATIONS SHALL BE THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016.
- 2) ALL ELEVATIONS ARE REFERENCED TO ELEVATIONS ESTABLISHED BY OTHERS.
- 3) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. IF THE ENGINEER DECIDES TO HAVE THE CONTRACTOR RESET THE MONUMENT, THIS WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION.
- 4) THE CONTRACTOR SHALL CONTACT J.U.L.I.E. TO HAVE PUBLIC AND PRIVATE UTILITIES LOCATED PRIOR TO ANY CONSTRUCTION.
- 5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.26 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS (800) 892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
- 6) ANY REFERENCE TO THE STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT AS INCLUDED IN THESE PLANS.
- 7) ALL DETAILS IN THE PLANS SHALL GOVERN CONSTRUCTION OF THIS PROJECT, AND IN CASE OF CONFLICT WITH ANY STANDARD DRAWINGS INCLUDED, THE SAID DETAILS SHALL TAKE PRECEDENCE AND GOVERN.
- 8) THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, IDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR THE LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- 9) ALL CONSTRUCTION LAYOUT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 10) ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.
- 11) THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING MIX SHALL BE 6 PLS PER ACRE OF LITTLE BLUESTEM, 5 PLS PER ACRE OF BIG BLUESTEM, AND 5 PLS PER ACRE OF INDIANGRASS. OTHER LEGUMES THAT MAY BE INCORPORATED INTO THE SEEDING MIX INCLUDE PARTRIDGE PEA AND CLOVERS (RED, CRIMSON, LADINO). FERTILIZER AND CLASS 7 SEEDING SHALL BE APPLIED TO ALL DISTURBED AREAS AND INCORPORATED INTO THE SEEDBED PRIOR TO SEEDING OR PLACEMENT OF SOD AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST OF "TOPSOIL, FURNISH AND PLACE, 4" (SPECIAL). MULCH METHOD II SHALL BE APPLIED OVER ALL SEEDED AREAS. THIS SHALL BE INCLUDED IN THE COST OF "TOPSOIL, FURNISH AND PLACE, VARIABLE 4" (SPECIAL).
- 12) THE BASELINES SHOWN THROUGHOUT THE PLANS ARE A "BEST FIT" ALIGNMENT OF THE CENTER OF THE EXISTING ROADWAYS FOR THE PURPOSE OF STATIONING AND DETERMINATION OF OFFSETS. IN MOST CASES, IT DOES NOT REPRESENT THE PHYSICAL CENTER OF THE EXISTING ROADWAY SURFACE.
- 13) THE REMOVAL OF BITUMINOUS SURFACING LESS THAN 6 INCH THICKNESS NOT ON A RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE REMOVED AS EARTH EXCAVATION.

## LEGEND

-  - EXISTING POWER POLE
-  - EXISTING GUY WIRE
-  - EXISTING SIGN
-  - EXISTING WOOD POST
-  - EXISTING FENCE POST
-  - EXISTING MAILBOX
-  - EXISTING DECIDUOUS TREE
-  - EXISTING EVERGREEN TREE
-  - EXISTING BUSH
-  - EXISTING JUNCTION BOX
-  - EXISTING ELECTRIC SPLICE BOX
-  - EXISTING TELEPHONE SPLICE BOX
-  - EXISTING WATER VALVE
-  - EXISTING CATCH BASIN
-  - EXISTING MANHOLE
-  - EXISTING END SECTION
-  - EXISTING PARKING BLOCK
-  - EXISTING A.D.A. PARKING SYMBOL
-  - EXISTING RIPRAP
-  - EXISTING FENCE LINE
-  - EXISTING DITCH LINE
-  - EXISTING GUARD RAIL
-  - EXISTING CONTOURS
-  - EXISTING TREE LINE
-  - EXISTING BUILDING LIMITS
-  - EXISTING CULVERT
-  - SOIL BORINGS
-  - PROPOSED SILT FENCE

## LIST OF STANDARDS

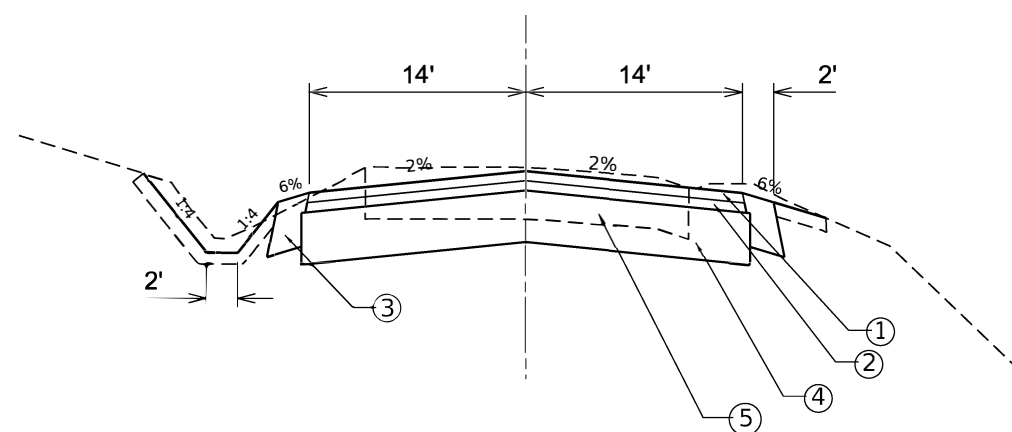
000001-07	STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
001006	DECIMAL OF AN INCH & FOOT
515001-04	NAME PLATE FOR BRIDGES
631031-16	TRAFFIC BARRIER TERMINAL, TYPE 6
701901-08	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
BLR 17-4	TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE THE PLAN QUANTITIES

BITUMINOUS CONCRETE SURFACE/BINDER	0.056 TON/SQ YD PER 1-INCH
BITUMINOUS MATERIALS (TACK COAT)	0.05 LB/SQ FT
BITUMINOUS MATERIALS (PRIME COAT)	0.25 LB/SQ FT

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT

MIX USE	BINDER	SURFACE
PG	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 9.5	IL 9.5
FRICTION AGGREGATE	N/A	MIX "C"
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA
SUBLOT SIZE	N/A	N/A



**TYPICAL SECTION FORT MASSAC STATE PARK ROAD**

STA. 106+00 TO 106+93.34  
STA. 108+21.67 TO 108+46.67

- ① NEW HMA SURFACE COURSE, MIX "C", N50 - 1½"
- ② NEW HMA BINDER COURSE, IL-9.5, N50 - 1½"
- ③ NEW AGGREGATE SHOULDER, TYPE A 4"
- ④ NEW AGGREGATE BASE COURSE, TYPE A 8"
- ⑤ EXISTING AGGREGATE BASE WITH HMA SURFACE

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, STANDARDS, AND TYPICAL SECTION  
FORT MASSAC STATE PARK**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	STRATTON 2019	MASSAC	32	2
CONTRACT NO. 46908				

ILLINOIS FED. AID PROJECT

REV. - MS

100%  
STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0010
				URBAN	064-9902
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	202	202	
20200100	EARTH EXCAVATION	CU YD	177	177	
20300100	CHANNEL EXCAVATION	CU YD	848		848
20400800	FURNISHED EXCAVATION	CU YD	105	105	
28000305	TEMPORARY DITCH CHECKS	FOOT	9	9	
28000400	PERIMETER EROSION BARRIER	FOOT	404	404	
28100109	STONE RIPRAP, CLASS A5	SQ YD	794	794	
28200200	FILTER FABRIC	SQ YD	794	794	
35100700	AGGREGATE BASE COURSE, TYPE A 8"	SQ YD	658	658	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	1481	1481	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	297	297	
40602978	HOT-MIX ASPHALT BINDER COURSE, IL- 9.5, N50	TON	64	64	
40604000	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N50	TON	64	64	
42001300	PROTECTIVE COAT	SQ YD	452		452

100%  
STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0010
				URBAN	064-9902
48100300	AGGREGATE SHOULDERS, TYPE A 4"	SQ YD	108	108	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	29		29
50200300	COFFERDAM EXCAVATION	CU YD	104		104
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1		1
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1		1
50300225	CONCRETE STRUCTURES	CU YD	148		148
50300255	CONCRETE SUPERSTRUCTURE	CU YD	127		127
50300260	BRIDGE DECK GROOVING	SQ YD	371		371
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	626		626
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	45540		45540
51201800	FURNISHING STEEL PILES HP14X73	FOOT	1700		1700
51202305	DRIVING PILES	FOOT	1700		1700
51203800	TEST PILE STEEL HP14X73	EACH	4		4

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REV. - MS

USER NAME = Connor Bell	DESIGNED - R.H.D.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES FORT MASSAC STATE PARK</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN - C.A.B.	REVISIONS -	SCALE:						SHEET	OF	SHEETS	STA.	TO
PLOT SCALE = 40.0000 ' / in.	CHECKED - R.H.D.	REVISED -						STRATTON 2019		MASSAC	32	3
PLOT DATE = 1/24/2020	DATE - 1/14/20	REVISED -								CONTRACT NO. 46908		



**ROADWORK ITEMS SCHEDULE**

STA.		STA.	TOPSOIL FURNISH&PLACE 4" (SQ YD)	TREE REMOVAL (OVER 15 UNITS) (UNIT)	TEMPORARY DITCH CHECKS (FOOT)	PERIMETER EROSION BARRIER (FOOT)	STONE RIPRAP CLASS A5 (SQ YD)	FILTER FABRIC (SQ YD)	AGG. BASE COURSE TYPE A 8" (SQ YD)	AGG. SHLD. TY. A 4" (SQ YD)	BIT. MATERIALS PRIME COAT (POUND)	BIT. MATERIALS TACK COAT (POUND)	HMA ASPHALT BINDER IL-9.5, N50 (TON)	HMA ASPHALT SURFACE MIX C, N50 (TON)	TRAFFIC BARRIER TERM. TYPE 6 (EACH)	GUARDRAIL REMOVAL (FOOT)	PAINT PVMT MARK 4" (FOOT)	TRAFFIC BARRIER TERM. TY. 1 (SPEC.) (EACH)
106+00	TO	106+93.34	236						270	42	608	122	25	25				
106+24.59, 14' LT	TO	106+49.59, 14' LT																1
106+24.59, 14' RT	TO	106+49.59, 14' RT																1
106+00, 18' RT	TO	106+70.33, 37.8' RT				73												
106+00	TO	106+50.60			6													
106+49.59, 14' LT	TO	106+93.34, 14' LT													1			
106+49.59, 14' RT	TO	106+93.34, 14' RT													1			
106+51.68, 8' LT	TO	106+68.07, 6' LT														16		
106+51.68, 8' RT	TO	106+68.07, 6' RT														16		
106+48.57, 14' LT	TO	108+66.37, 14' LT															218	
106+48.57, 14' RT	TO	108+66.37, 14' RT															218	
106+68.34	TO	107+43.33					367	367										
107+69.00	TO	108+47.27					427	427										
108+21.67, 14' LT	TO	108+62.30, 14' LT													1			
108+21.67, 14' RT	TO	108+62.30, 14' RT													1			
108+21.67	TO	109+70	301						388	66	873	175	39	39				
108+32.56, 9' LT	TO	108+50.27, 6' LT														16		
108+32.56, 9' RT	TO	108+50.27, 6' RT														16		
108+44, 11' RT				22														
108+46.31, 50.5' RT	TO	109+70.00, 30.0' RT				142												
108+52.18					3													
108+54, 15' LT				30														
108+62.30, 14' LT	TO	108+87.30, 14' LT																1
108+62.30, 14' RT	TO	108+87.30, 14' RT																1
108+70.65, 17.5' LT	TO	109+70.00, 17.5' LT				95												
108+71, 14' LT				16														
108+80, 16' LT				28														
108+91, 11' LT				38														
108+95, 15' RT				32														
108+98, 13' RT				16														
109+09, 11' RT				20														
			537	202	9	310	794	794	658	108	1481	297	64	64	4	64	436	4

**EARTHWORK SCHEDULE**

1 Location	2 Earth Excavation 20200100 Cubic Yard	3 Earth Excavation Adjusted for Shrinkage Cubic Yard	4 Embankment Cubic Yard	5 Furnished Excavation 20400800 Cubic Yard
<b>Fort Massac State Park Road</b>				
Sta. 100+11 to 214+77	177	133	238	-105
<b>TOTAL</b>	177	133	238	-105
Columns 1, 2, & 4	Location and Quantities from Cross Sections: Cut = Earth Excavation    Fill = Embankment			
Column 3	Quantity of Earth Excavation (Cut) Adjusted for a Shrinkage Factor of 25%			
Column 5	Earthwork Required: (-) = Quantity of Fill or Embankment needed (Furnished or Borrow Excavation) (+) = Quantity to be Wasted			

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES  
FORT MASSAC STATE PARK**

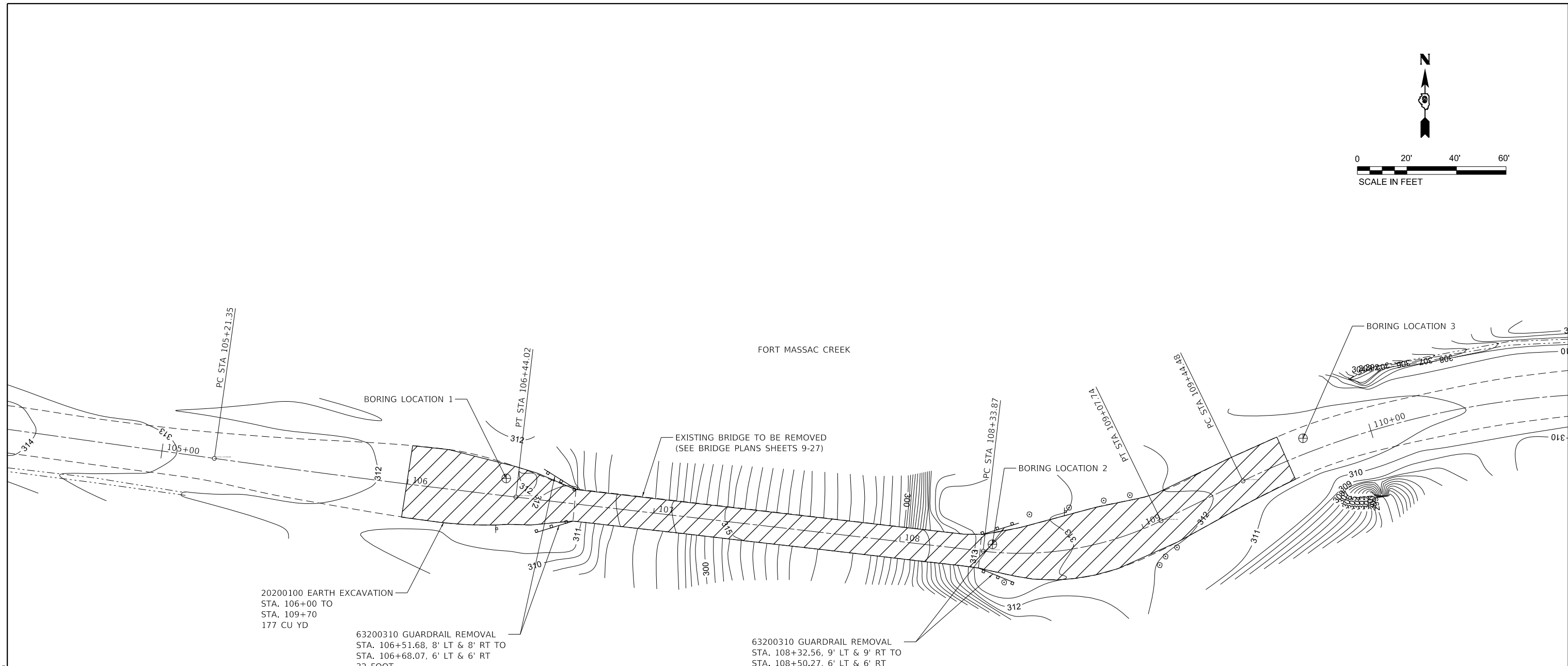
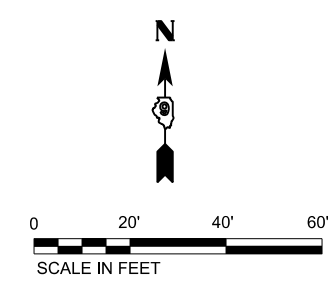
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PLOT DATE = 2/10/2020		

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	STRATTON 2019	MASSAC	32	5
			CONTRACT NO. 46908	
		ILLINOIS	FED. AID PROJECT	

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JOB NO. 250-141-P VASCONCELLES ENGINEERING CORP. DESIGN FIRM REGISTRATION NUMBER 184-002107



20200100 EARTH EXCAVATION  
 STA. 106+00 TO  
 STA. 109+70  
 177 CU YD

63200310 GUARDRAIL REMOVAL  
 STA. 106+51.68, 8' LT & 8' RT TO  
 STA. 106+68.07, 6' LT & 6' RT  
 32 FOOT

63200310 GUARDRAIL REMOVAL  
 STA. 108+32.56, 9' LT & 9' RT TO  
 STA. 108+50.27, 6' LT & 6' RT  
 32 FOOT

20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)		
108+44, 11' RT		22 UNIT
108+54, 15' LT		30 UNIT
108+71, 14' LT		16 UNIT
108+80, 16' LT		28 UNIT
108+91, 11' LT		38 UNIT
108+95, 15' RT		32 UNIT
108+98, 13' RT		16 UNIT
109+09, 11' RT		20 UNIT

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	DRAWN - C.A.B.	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - R.H.D.	REVISED -
PLOT DATE = 1/24/2020	DATE - 1/14/20	REVISED -

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

**EXISTING SITE & ALIGNMENT**  
**FORT MASSAC STATE PARK**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FT MASSAC 2019	MASSAC	32	6
			CONTRACT NO. 46908	
		ILLINOIS	FED. AID PROJECT	

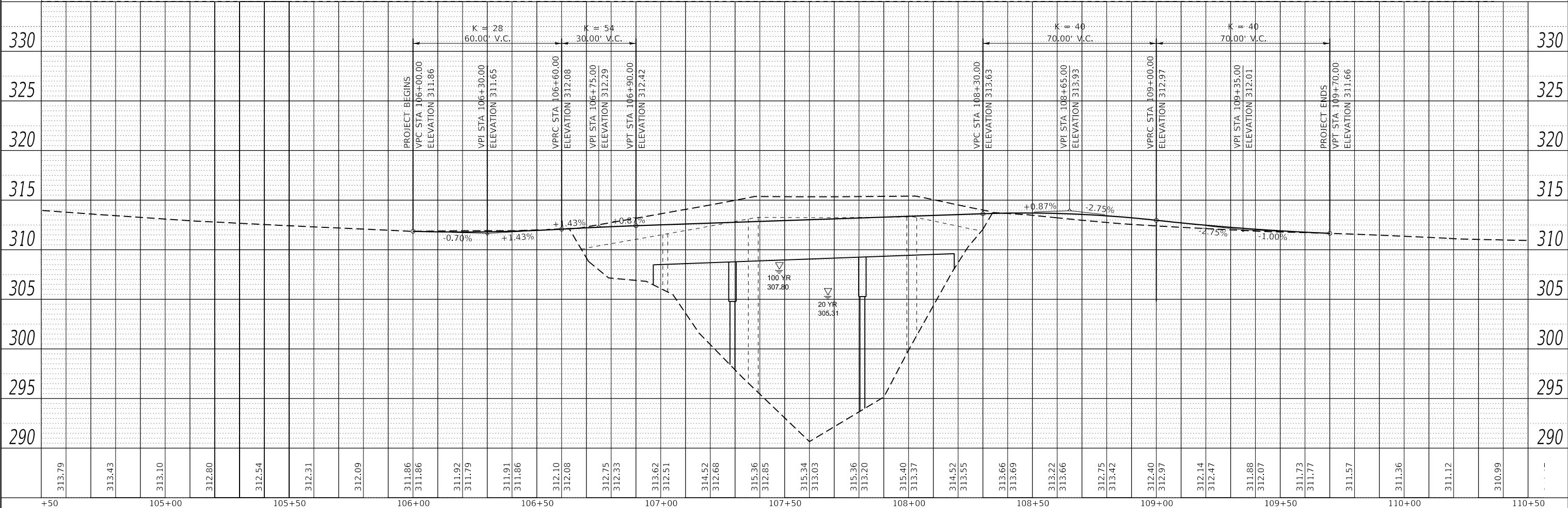
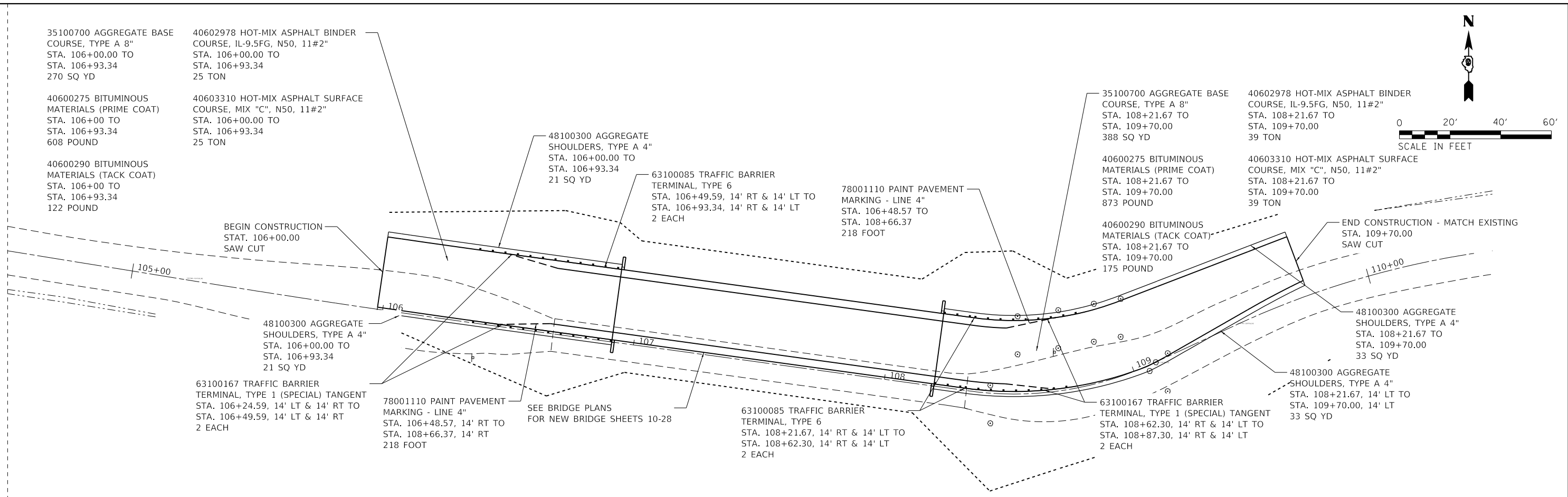
SCALE: SHEET OF SHEETS STA. TO STA.



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	BY	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	BY	
	NO.	

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		DRAWN	- C.A.B.	REVISED	-
PLOT SCALE	= 40.0000' / in.	CHECKED	- R.H.D.	REVISED	-
PLOT DATE	= 2/10/2020	DATE	- 1/14/20	REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

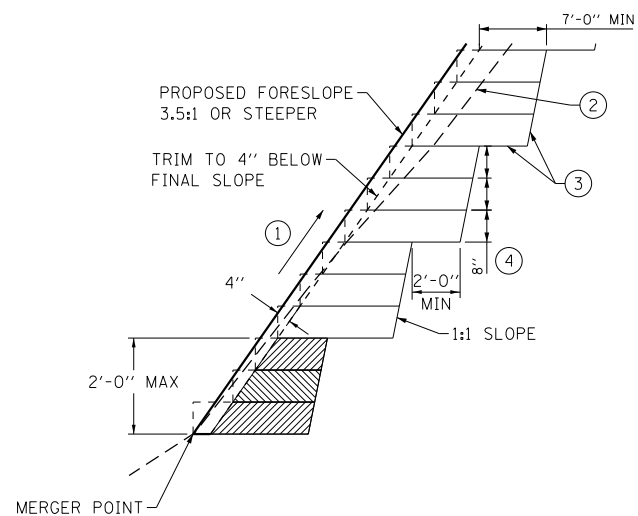
**PLAN AND PROFILE  
FORT MASSAC STATE PARK**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FT MASSAC 2019	MASSAC	32	7
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

SCALE: 1"=20'      SHEET      OF      SHEETS      STA.      TO STA.







TYPICAL BENCHING DETAIL FOR EMBANKMENT  
NOT TO SCALE

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.

EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5'.

MODEL: D:\a\h\... FILE NAME: S:\CAD Drawings\CAD Drawings\2501250-141\250-141-P Fort Massac\Construction Drawings\0946908-sht 005 Detail.dgn

USER NAME = Connor Bell	DESIGNED - R.H.D.	REVISED -
	DRAWN - C.A.B.	REVISED -
PLOT SCALE = 40.00' / in.	CHECKED - R.H.D.	REVISED -
PLOT DATE = 1/20/2020	DATE - 1/14/20	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS  
FORT MASSAC STATE PARK

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FT MASSAC 2019	MASSAC	32	9
			CONTRACT NO. 46908	
		ILLINOIS	FED. AID PROJECT	

B.M. - NGS X111 Reset 1959 - Brass disk in concrete in NE quadrant of entrance to Fort Massac State Park and IL 45. +/- 15' SE of EOP of IL 45, +/- 1' north of "Fort Massac State Park" sign, +/- 18' NE of "Stop" sign. Elev. = 339.768 .

Existing Structure- Structure Number 064-9900, built in 1960 under Illinois Department of Conservation file #5-90-29. The structure is a 4-span bridge having a back to back abutment length of 165'-0", clear roadway width of 13'-0" and an out-out bridge deck width of 14'-0". The superstructure consists of a timber deck supported by 4-steel I-beams. The substructure consists of timber pile bent abutments and timber pile bent piers. 0° skew. The bridge will be constructed under road closure.

Salvage - No Salvage.

**INDEX OF SHEETS**

- 1 - General Plan & Elevation
- 2 - General Data
- 3 & 4 - Top of Slab Elevations
- 5 - Superstructure
- 6 - Abutment Diaphragm Details
- 7 - Pier Diaphragm Details
- 8 - Framing Plan and Beam Details
- 9 - 36" PPC I Beam (Spans 1 & 3)
- 10 - 36" PPC I Beam (Span 2)
- 11 - 36" PPC I Beam Details
- 12 & 13 - Timber Railing
- 14 - Abutments
- 15 - Pier 1
- 16 - Pier 2
- 17 - HP Pile Details
- 18 - Boring Data - 1
- 19 - Boring Data - 2

**LOADING HL-93**

Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition with 2018 Interims

**DESIGN STRESSES**

**FIELD UNITS**

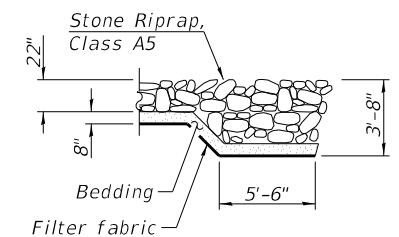
$f'_c = 3,500$  psi (Substructure)  
 $f'_c = 4,000$  psi (Superstructure)  
 $f_y = 60,000$  psi (Reinforcement)

**PRECAST PRESTRESSED UNITS**

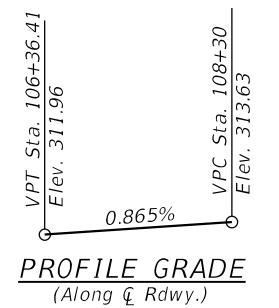
$f'_c = 6000$  psi  
 $f'_{ci} = 5000$  psi  
 $f_{pu} = 270000$  psi ( $1/2"$   $\phi$  low lax strands)  
 $f_{pbt} = 201960$  psi ( $1/2"$   $\phi$  low lax strands)

**SEISMIC DATA**

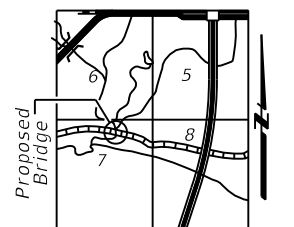
Seismic Performance Zone (SPZ) = 4  
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.51 g  
 Design Spectral Acceleration at 0.2 sec. (SDS) = 1.17 g  
 Soil Site Class = D



**SECTION A-A**



**PROFILE GRADE**  
(Along  $\bar{C}$  Rdwy.)

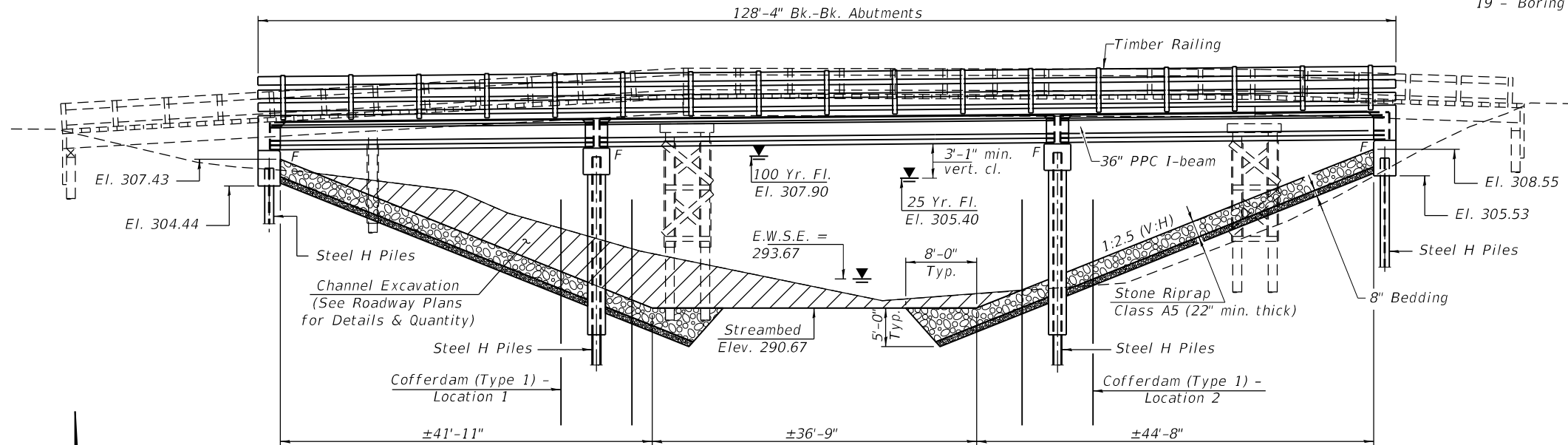


**LOCATION SKETCH**

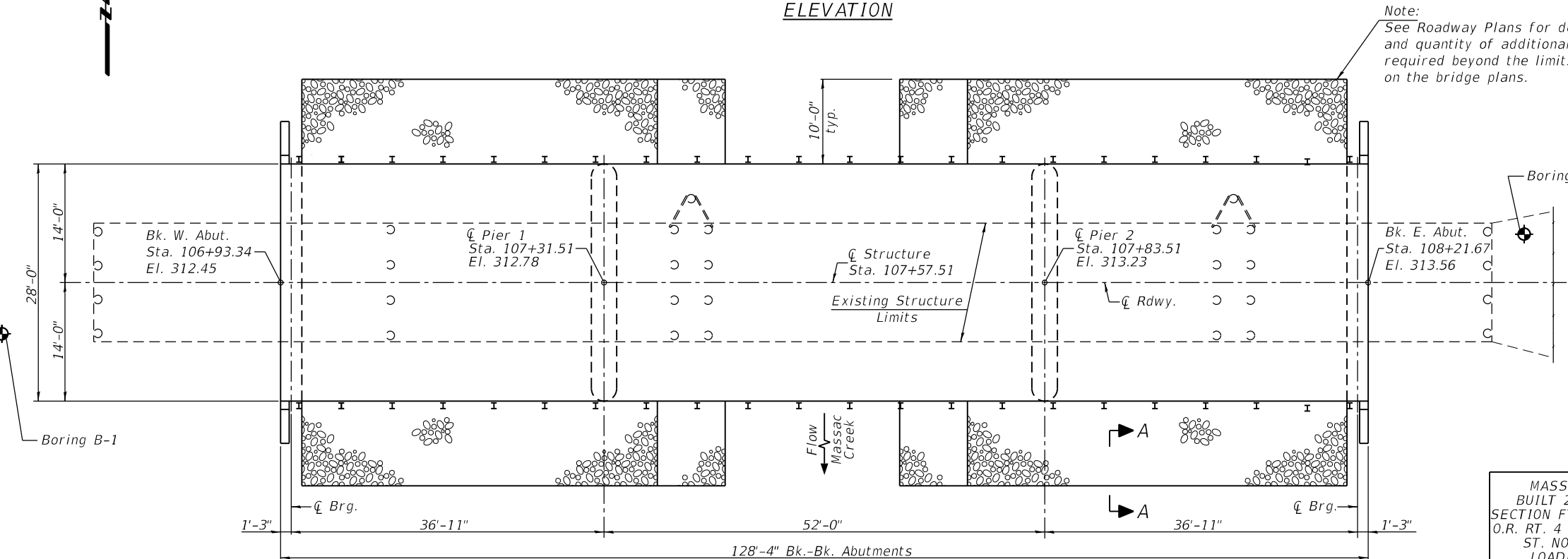
MASSAC CREEK  
 BUILT 20 BY IDNR  
 SECTION FT MASSAC 2019  
 O.R. RT. 4 STA. 107+57.51  
 ST. NO. 064-9902  
 LOADING HL-93

**NAME PLATE**  
(Standard 515001)

**GENERAL PLAN & ELEVATION**  
**FORT MASSAC PARK ROAD**  
**OVER MASSAC CREEK**  
**SECTION (FT MASSAC 2019)**  
**MASSAC COUNTY**  
**STRUCTURE NO. 064-9902**



**ELEVATION**



**PLAN**

Note:  
 See Roadway Plans for details and quantity of additional riprap required beyond the limits shown on the bridge plans.

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

**GENERAL PLAN & ELEVATION**  
**STRUCTURE NO. 064-9902**  
 SHEET 1 OF 19 SHEETS

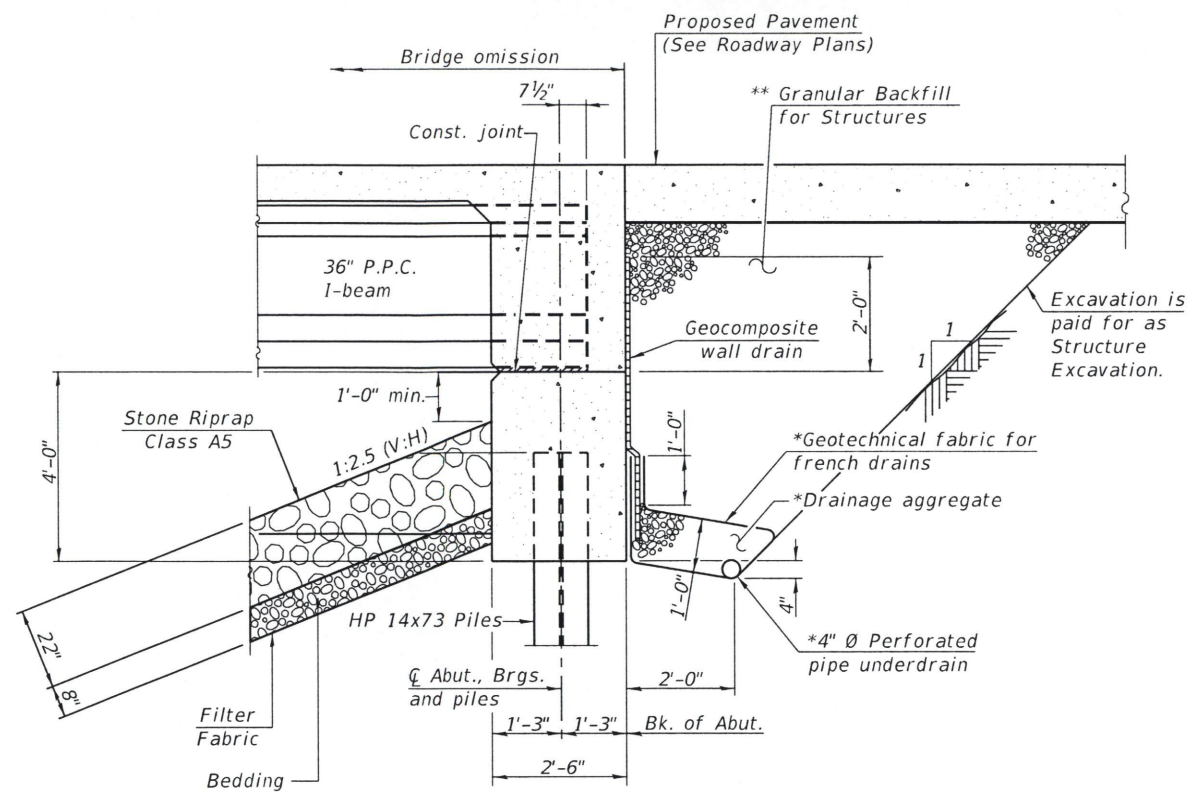
O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	10
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.	-	-	848
Granular Backfill for Structure	Cu. Yd.	-	104	104
Protective Coat	Sq. Yd.	452	-	452
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	29	29
Cofferdam Excavation	Cu. Yd.	-	104	104
Cofferdam (Type 1), Location 1	Each	-	1	1
Cofferdam (Type 1), Location 2	Each	-	1	1
Concrete Structures	Cu. Yd.	-	148.3	148.3
Concrete Superstructure	Cu. Yd.	126.5	-	126.5
Bridge Deck Grooving	Sq. Yd.	371	-	371
Furnishing & Erecting PPC I Beams, 36"	Foot	626	-	626
Reinforcement Bars, Epoxy Coated	Pound	30490	15050	45540
Timber Railing	Foot	257	-	257
Furnishing Steel Piles HP14x73	Foot	-	1700	1700
Driving Piles	Foot	-	1700	1700
Test Pile Steel HP14x73	Each	-	4	4
Pile Shoes	Each	-	26	26
Name Plates	Each	-	1	1
Geocomposite Wall Drain	Sq. Yd.	-	36	36
Pipe Underdrains for Structures 4"	Foot	-	136	136

GENERAL NOTES

See Sheets 18 and 19 of 19 for Boring Data.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.  
 The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of abutments.  
 The site is often inundated by backwater from the Ohio River between the months of January and June. If the Contractor erects the beams and flooding is expected that would impact the beams at any time prior to pouring the concrete deck, the Contractor shall provide for stabilization of the beams as required to protect them from the flood waters. A stage of 17.8 at the Paducah gage is approximately Elev. 302.0 at the construction site.



SECTION THRU INTEGRAL ABUTMENT

Note:  
 All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

- \* Included in the cost of pipe underdraining for Structures. (See Special Provisions)
- \*\* Granular backfill behind the abutments shall be compacted according to Article 205.06 of the Standard Specifications.

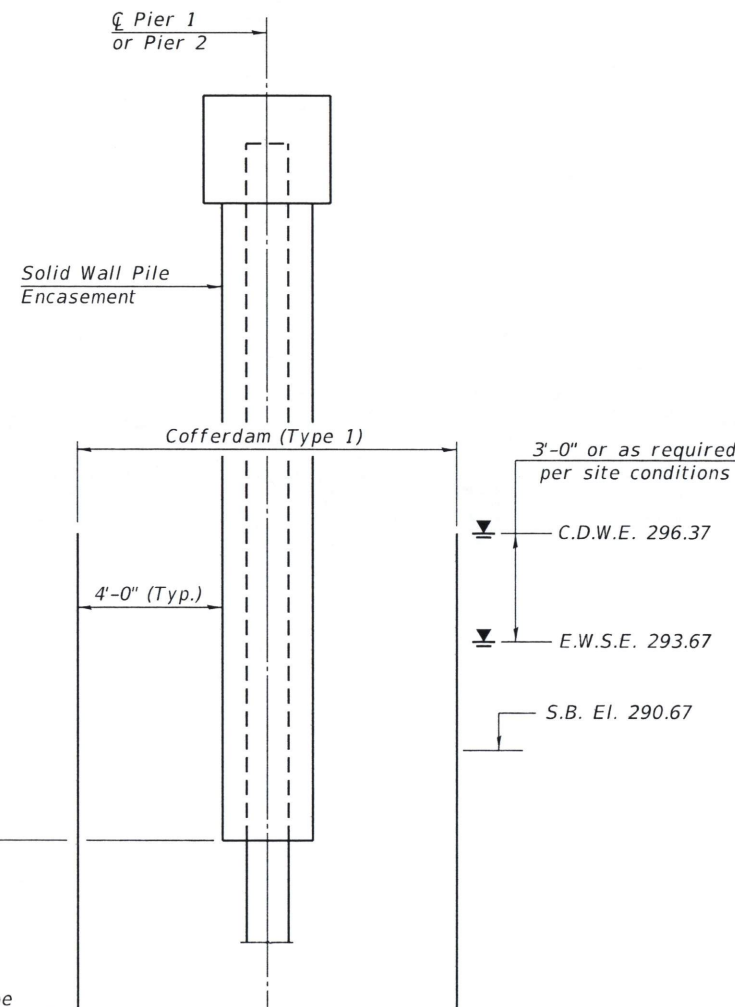
WATERWAY INFORMATION

Pr. Low Grade Elev. 310.80 @ Sta. 106+16.58  
 Drainage Area = 39.6 sq. mi. Ex. Low Grade Elev. 310.80 @ Sta. 106+16.58

Flood	Freq. Yr.	Q C.F.S.	Opening Ft <sup>2</sup>		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	5820	670	660	303.7	0.6	0.6	304.4	304.3
Base	25	7330	818	816	305.4	0.7	0.2	306.1	305.6
Overtopping	50	8560	947	949	306.7	0.7	0.2	307.4	306.9
Max. Calc.	100	9730	1094	1076	307.9	0.7	0.2	308.7	308.1
	200	11000	1226	1179	308.9	0.6	0.3	309.5	309.2

DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)				Item 113
	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100	304.43	284.7	284.7	305.55	5
Q200	304.43	284.7	284.7	305.55	
Design	304.43	284.7	284.7	305.55	
Check	304.43	284.7	284.7	305.55	



COFFERDAM DETAIL

Bottom of Wall El.  
 = 288.08 (Pier 1)  
 = 288.12 (Pier 2)

Tip elevation to be determined during construction



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "A.A.S.H.T.O. LRFD Bridge Design Specifications".

Mary A. Henderson 3/27/2020  
 Expiration Date 11/30/2020

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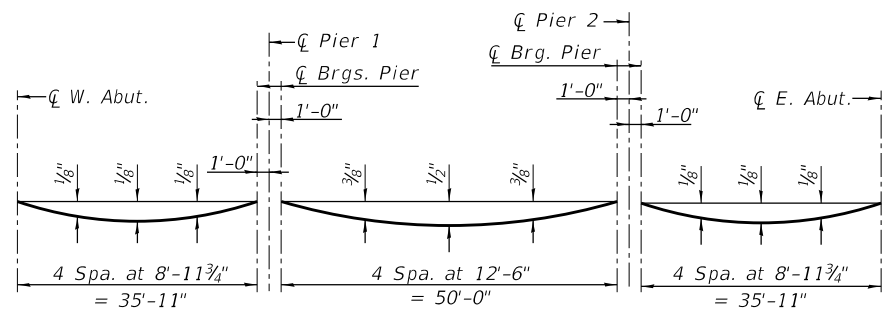
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GENERAL DATA  
 STRUCTURE NO. 064-9902

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	11
CONTRACT NO. 46908				

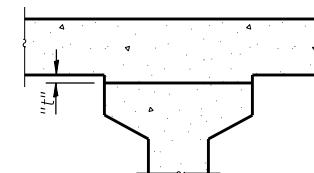
SHEET 2 OF 19 SHEETS

ILLINOIS FED. AID PROJECT



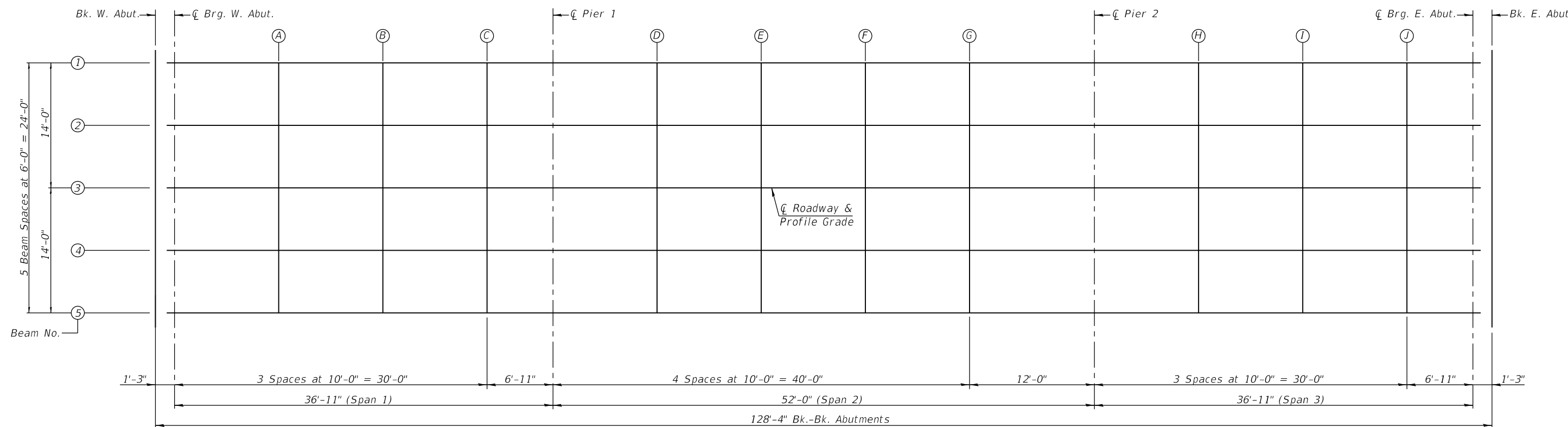
**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete, excluding beams).

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 4 of 19.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheet 4 of 19, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

**FILLET HEIGHTS**



**PLAN**

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PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 064-9902**

SHEET 3 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	12
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

Beam 1				
Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut	106+93.34	-12.00	312.27	312.27
CL Brg. W. Abut.	106+94.59	-12.00	312.28	312.28
A	107+04.59	-12.00	312.37	312.38
B	107+14.59	-12.00	312.46	312.47
C	107+24.59	-12.00	312.54	312.55
CL Pier 1	107+31.51	-12.00	312.60	312.60
D	107+41.51	-12.00	312.69	312.71
E	107+51.51	-12.00	312.78	312.82
F	107+61.51	-12.00	312.86	312.90
G	107+71.51	-12.00	312.95	312.98
CL Pier 2	107+83.51	-12.00	313.05	313.05
H	107+93.51	-12.00	313.14	313.15
I	108+03.51	-12.00	313.23	313.24
J	108+13.51	-12.00	313.31	313.32
CL Brg. E. Abut.	108+20.43	-12.00	313.37	313.37
Bk. East Abut.	108+21.68	-12.00	313.38	313.38

Beam 2				
Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut	106+93.34	-6.00	312.36	312.36
CL Brg. W. Abut.	106+94.59	-6.00	312.37	312.37
A	107+04.59	-6.00	312.46	312.47
B	107+14.59	-6.00	312.55	312.56
C	107+24.59	-6.00	312.63	312.64
CL Pier 1	107+31.51	-6.00	312.69	312.69
D	107+41.51	-6.00	312.78	312.80
E	107+51.51	-6.00	312.87	312.91
F	107+61.51	-6.00	312.95	312.99
G	107+71.51	-6.00	313.04	313.07
CL Pier 2	107+83.51	-6.00	313.14	313.14
H	107+93.51	-6.00	313.23	313.24
I	108+03.51	-6.00	313.32	313.33
J	108+13.51	-6.00	313.40	313.41
CL Brg. E. Abut.	108+20.43	-6.00	313.46	313.46
Bk. East Abut.	108+21.68	-6.00	313.47	313.47

CL Rdwy., Profile Grade, & Beam 3				
Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut	106+93.34	0.00	312.45	312.45
CL Brg. W. Abut.	106+94.59	0.00	312.46	312.46
A	107+04.59	0.00	312.55	312.56
B	107+14.59	0.00	312.64	312.65
C	107+24.59	0.00	312.72	312.73
CL Pier 1	107+31.51	0.00	312.78	312.78
D	107+41.51	0.00	312.87	312.89
E	107+51.51	0.00	312.96	313.00
F	107+61.51	0.00	313.04	313.08
G	107+71.51	0.00	313.13	313.16
CL Pier 2	107+83.51	0.00	313.23	313.23
H	107+93.51	0.00	313.32	313.33
I	108+03.51	0.00	313.41	313.42
J	108+13.51	0.00	313.49	313.50
CL Brg. E. Abut.	108+20.43	0.00	313.55	313.55
Bk. East Abut.	108+21.68	0.00	313.56	313.56

Beam 4				
Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut	106+93.34	6.00	312.36	312.36
CL Brg. W. Abut.	106+94.59	6.00	312.37	312.37
A	107+04.59	6.00	312.46	312.47
B	107+14.59	6.00	312.55	312.56
C	107+24.59	6.00	312.63	312.64
CL Pier 1	107+31.51	6.00	312.69	312.69
D	107+41.51	6.00	312.78	312.80
E	107+51.51	6.00	312.87	312.91
F	107+61.51	6.00	312.95	312.99
G	107+71.51	6.00	313.04	313.07
CL Pier 2	107+83.51	6.00	313.14	313.14
H	107+93.51	6.00	313.23	313.24
I	108+03.51	6.00	313.32	313.33
J	108+13.51	6.00	313.40	313.41
CL Brg. E. Abut.	108+20.43	6.00	313.46	313.46
Bk. East Abut.	108+21.68	6.00	313.47	313.47

Beam 5				
Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut	106+93.34	12.00	312.27	312.27
CL Brg. W. Abut.	106+94.59	12.00	312.28	312.28
A	107+04.59	12.00	312.37	312.38
B	107+14.59	12.00	312.46	312.47
C	107+24.59	12.00	312.54	312.55
CL Pier 1	107+31.51	12.00	312.60	312.60
D	107+41.51	12.00	312.69	312.71
E	107+51.51	12.00	312.78	312.82
F	107+61.51	12.00	312.86	312.90
G	107+71.51	12.00	312.95	312.98
CL Pier 2	107+83.51	12.00	313.05	313.05
H	107+93.51	12.00	313.14	313.15
I	108+03.51	12.00	313.23	313.24
J	108+13.51	12.00	313.31	313.32
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Bk. East Abut.	108+21.68	12.00	313.38	313.38

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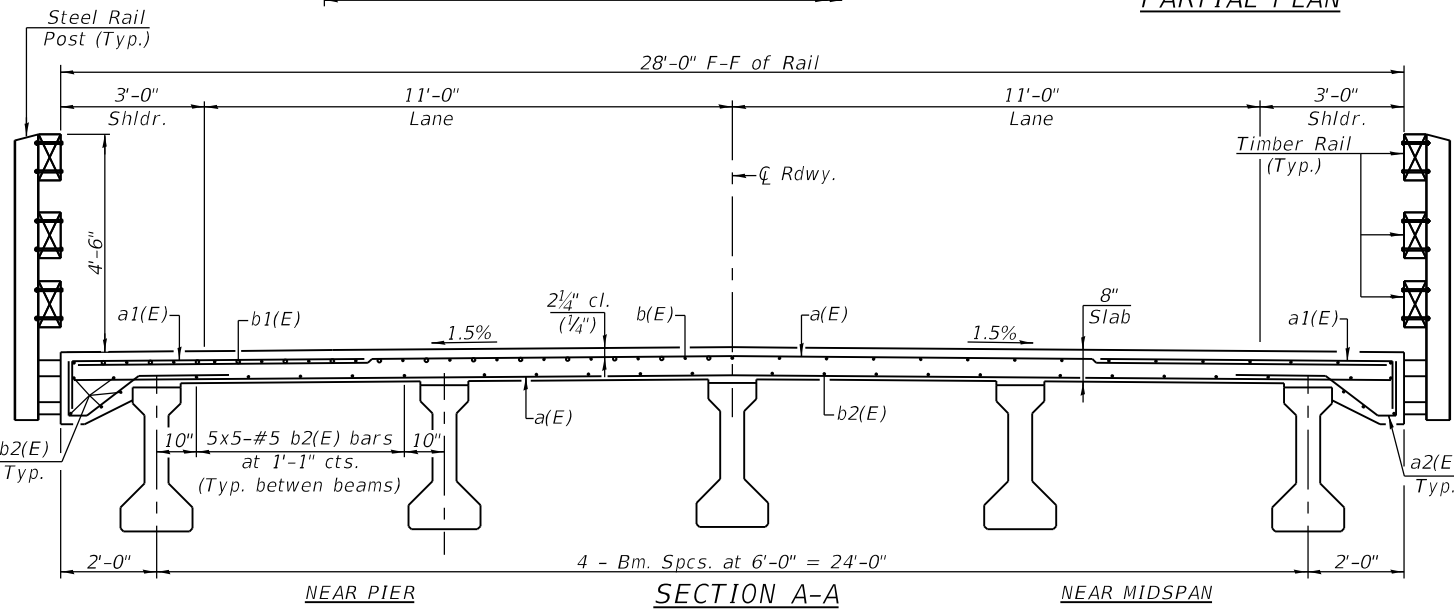
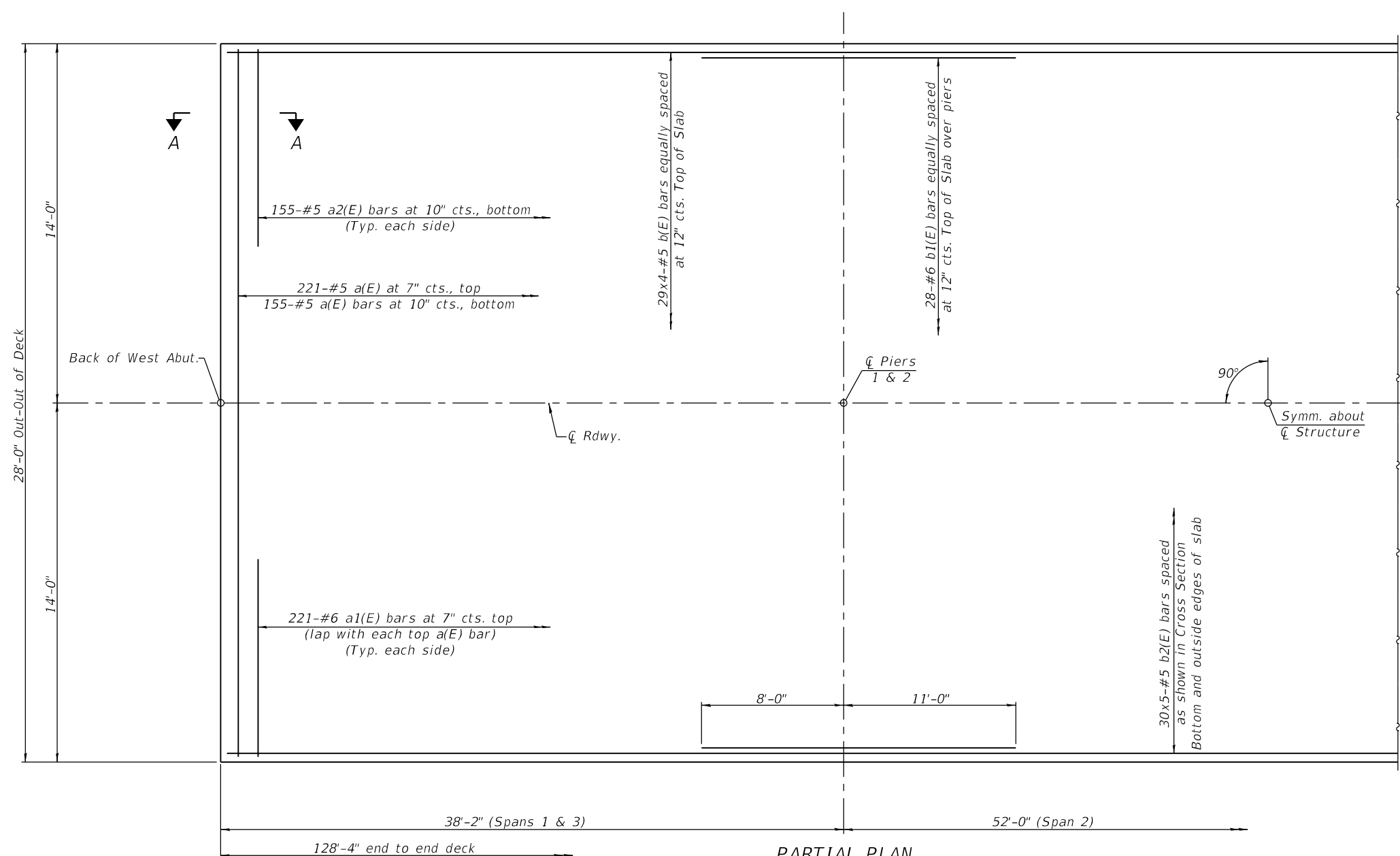


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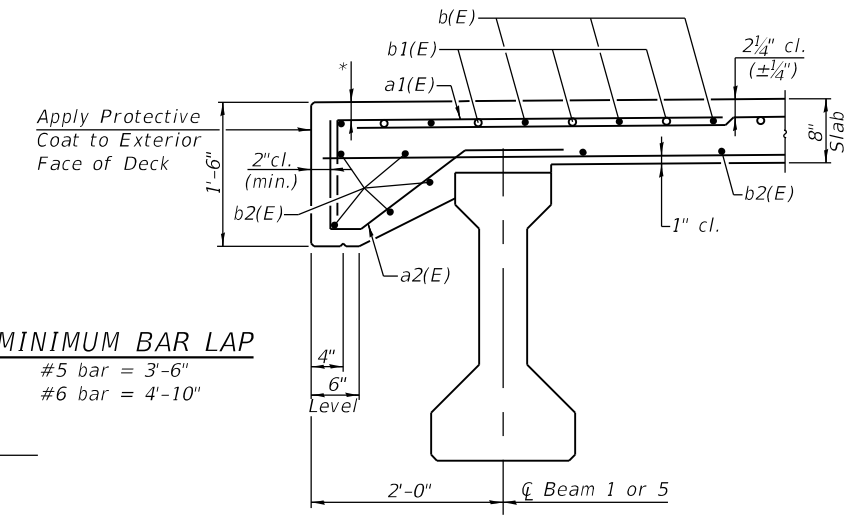
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DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 064-9902

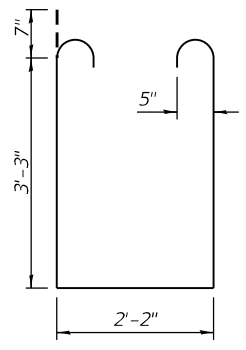
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CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				



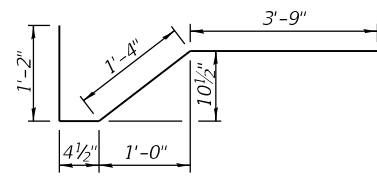
\* Reinforcement bars in the deck shall be placed with a 2" minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and outermost longitudinal reinforcement bar and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



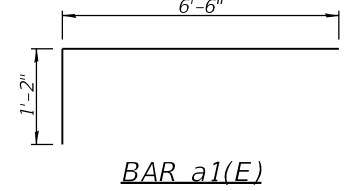
**MINIMUM BAR LAP**  
 #5 bar = 3'-6"  
 #6 bar = 4'-10"



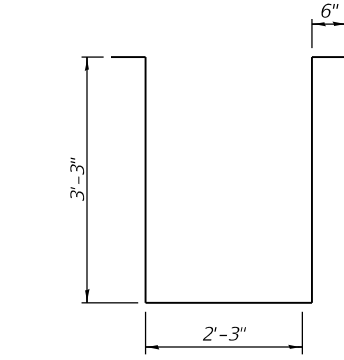
BAR s4(E)



BAR a2(E)



BAR a1(E)



BAR s5(E)

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	376	#5	27'-8"	—
a1(E)	442	#6	7'-8"	—
a2(E)	310	#5	6'-8"	—
b(E)	116	#5	34'-8"	—
b1(E)	56	#6	19'-0"	—
b2(E)	150	#5	28'-5"	—
m(E)	8	#6	27'-8"	—
m1(E)	16	#6	5'-3"	—
m2(E)	8	#6	1'-5"	—
m3(E)	8	#6	4'-3"	—
m4(E)	4	#6	1'-0"	—
m5(E)	20	#5	4'-0"	—
m6(E)	32	#6	5'-3"	—
m7(E)	16	#6	4'-3"	—
m8(E)	20	#8	5'-6"	—
s4(E)	48	#5	9'-10"	—
s5(E)	40	#5	9'-9"	—

Reinforcement Bars, Epoxy Coated	Lbs.	30,490
Concrete Superstructure	Cu. Yds.	126.5

Notes:  
 See sheets 6 and 7 of 19 for diaphragm details.  
 Bars indicated thus 1 x 2-#8 etc. indicates  
 1 line of bars with 2 lengths per line.

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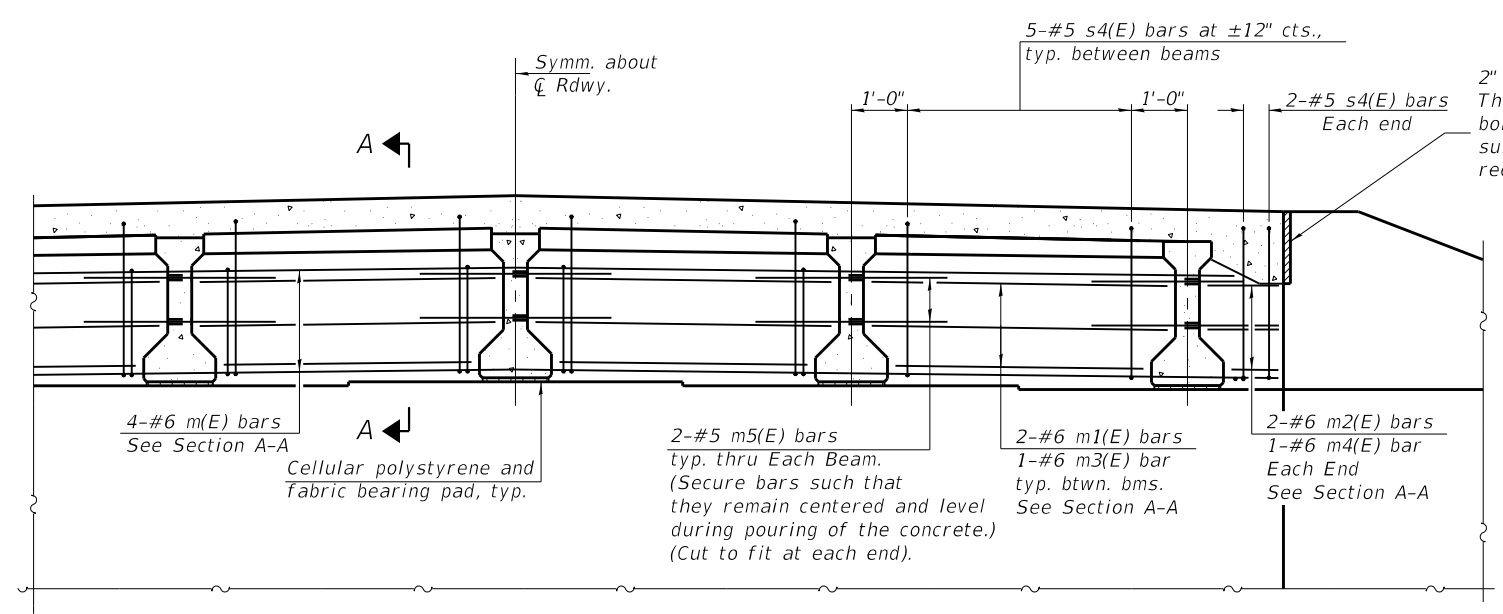
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE  
STRUCTURE NO. 064-9902**

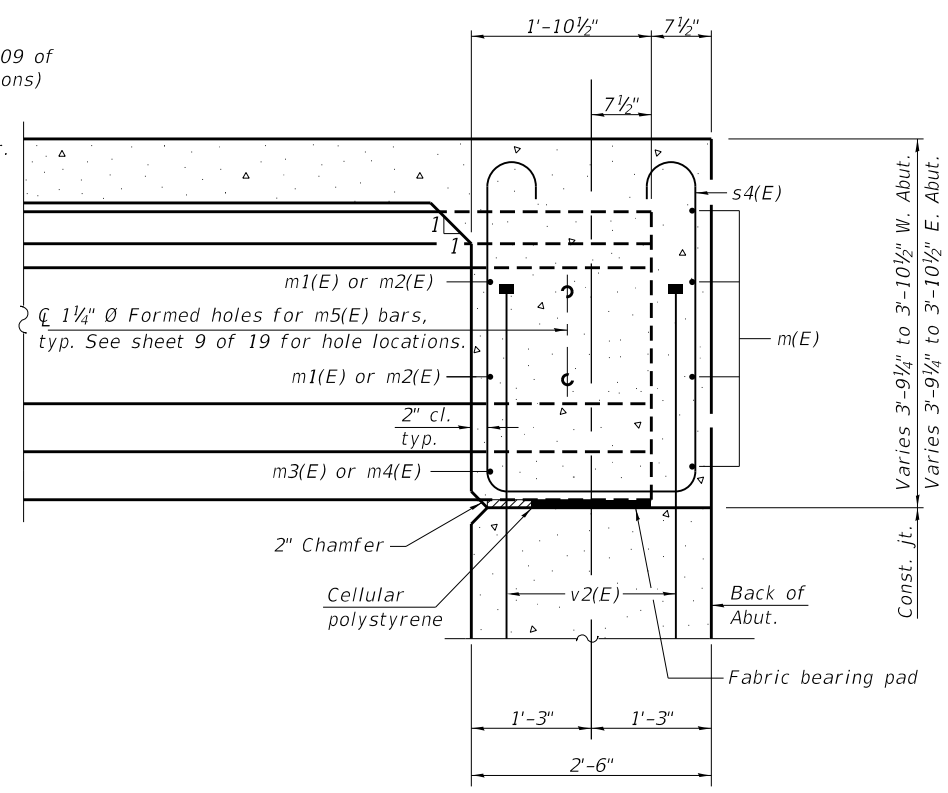
SHEET 5 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	14
CONTRACT NO. 46908				
		ILLINOIS	FED. AID PROJECT	

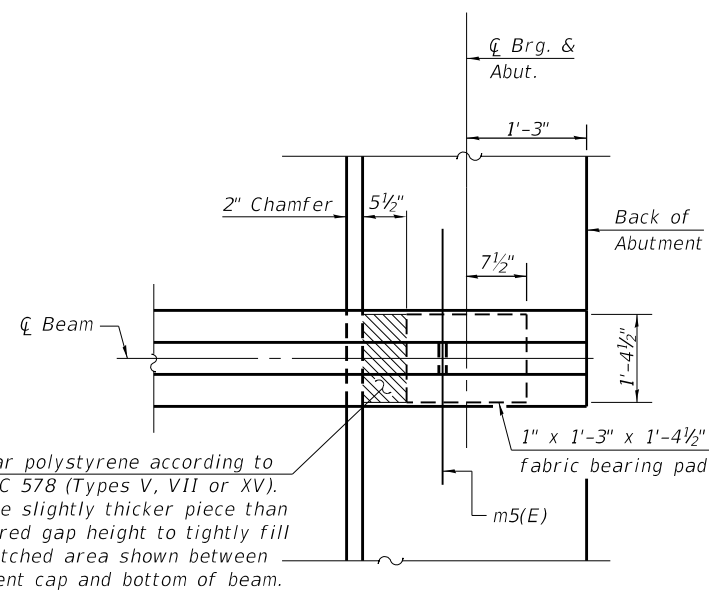
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**DIAPHRAGM AT ABUTMENT**



**SECTION A-A**



**PLAN AT ABUTMENT**  
 (Showing bottom flange of beam)

Notes:  
 See sheet 5 of 19 for superstructure details and Bill of Material.  
 Cost of cellular polystyrene is included with Concrete Superstructure.

DIA-13642-0

6-15-2019



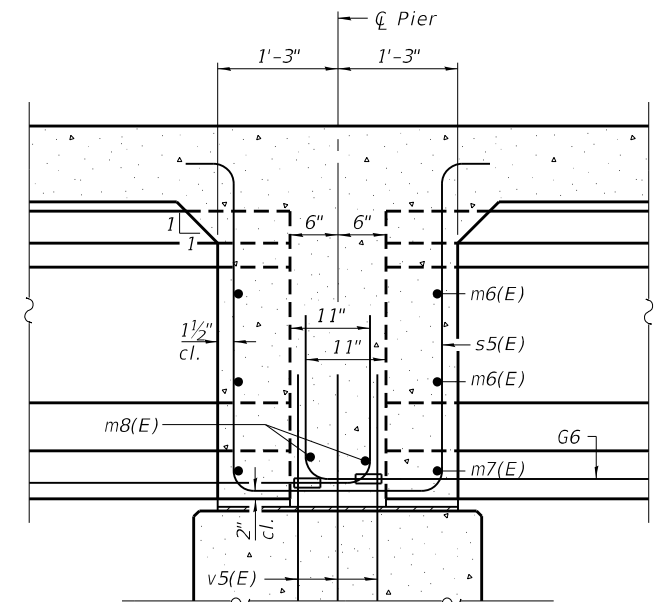
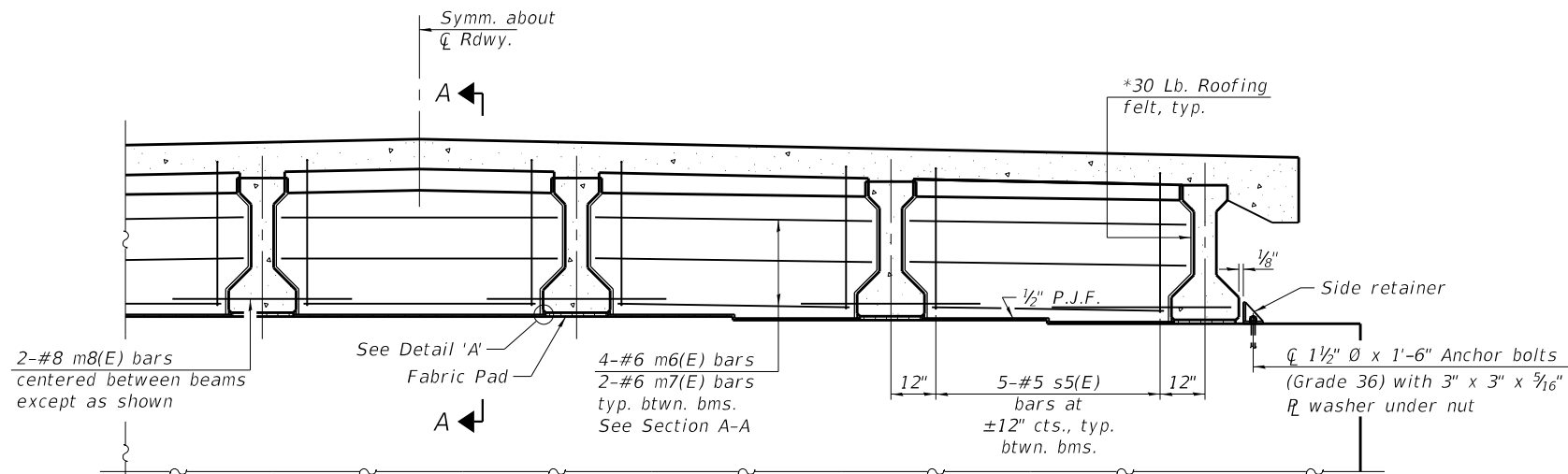
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DIAPHRAGM DETAILS**  
**STRUCTURE NO. 064-9902**

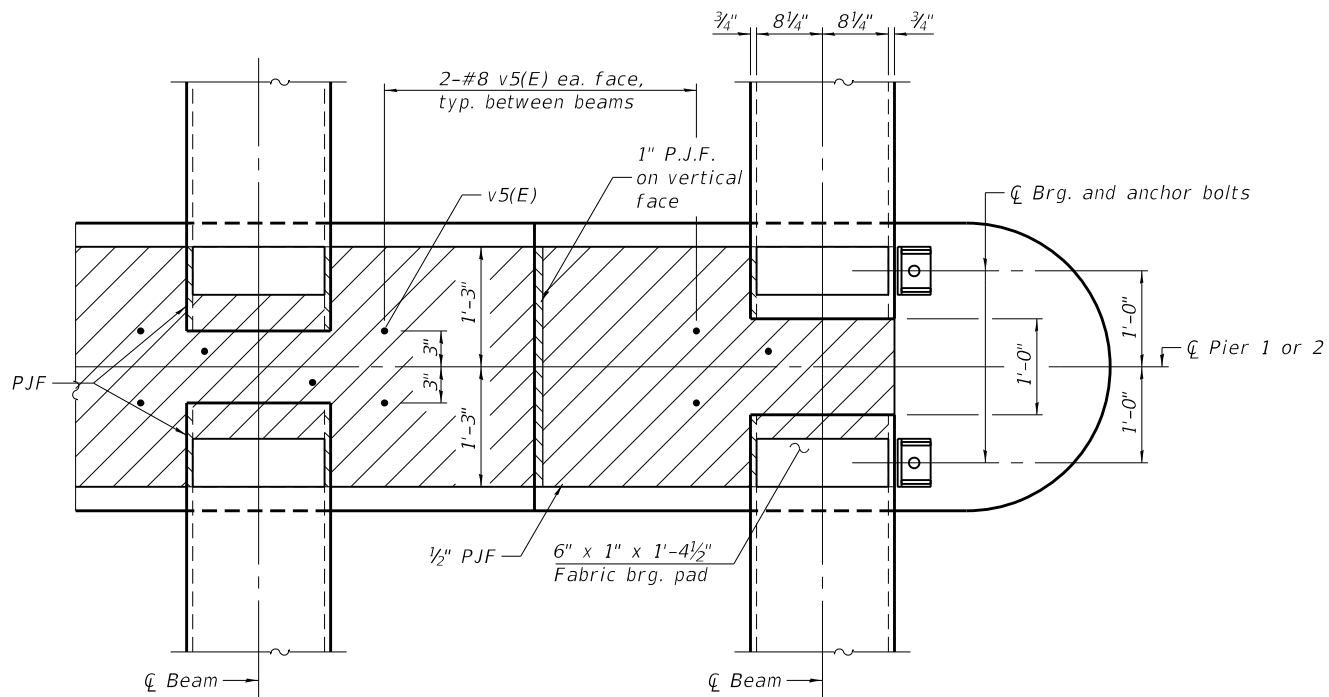
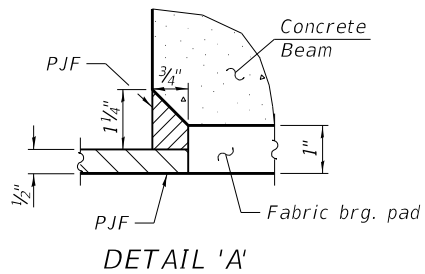
SHEET 6 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

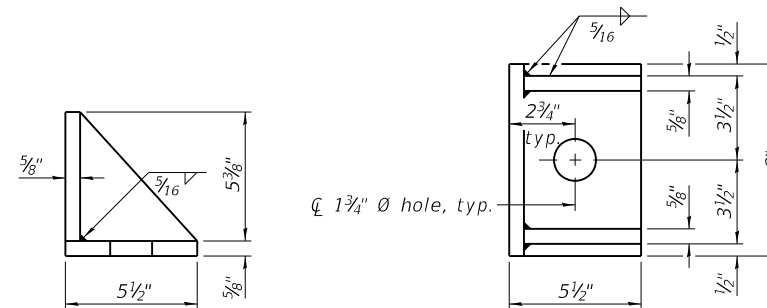


**DIAPHRAGM AT PIER**

\*Bonded to sides of beams embedded into diaphragm.



**PLAN AT PIER**  
(Showing bearing pads and P.J.F details)



**SIDE RETAINER**  
(2 required each side of pier each end).  
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:  
See sheet 5 of 19 for superstructure details and Bill of Material.  
Cost of 30 Lb. roofing felt is included with Concrete Superstructure.  
Cost of side retainer and anchor bolts shall be included with Concrete Structures.  
Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.  
Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.

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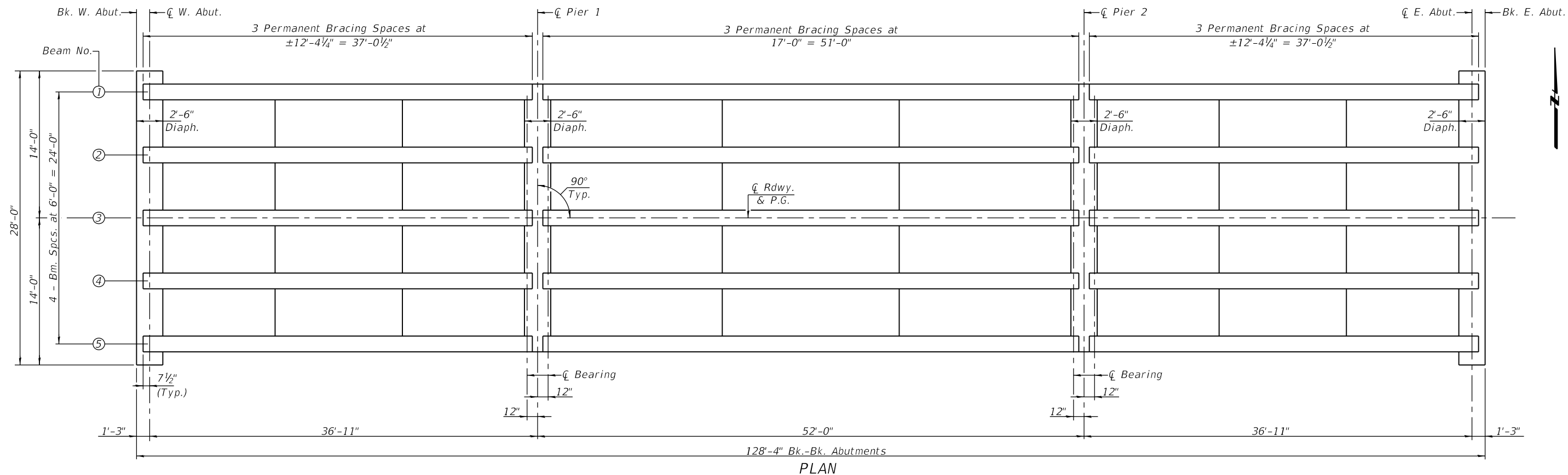
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIER DIAPHRAGM DETAILS  
STRUCTURE NO. 064-9902

SHEET 7 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	16
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				





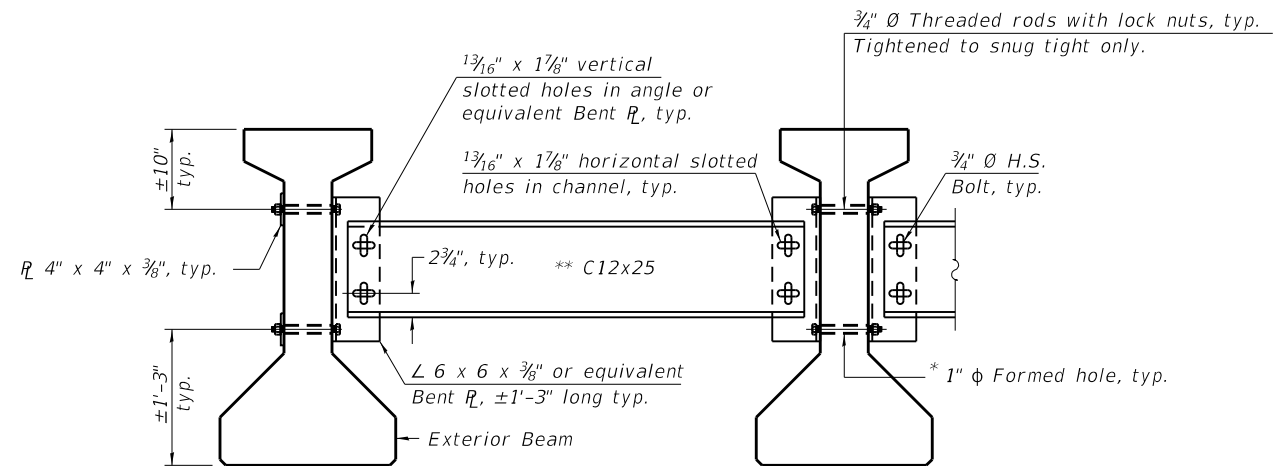
PLAN

		0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I	(in <sup>4</sup> )	48,648	-	48,648
I'	(in <sup>4</sup> )	174,520	-	174,520
Sb	(in <sup>3</sup> )	3,165.1	-	3,165.1
Sb'	(in <sup>3</sup> )	5,936.0	-	5,936.0
St	(in <sup>3</sup> )	2,358.1	-	2,358.1
St'	(in <sup>3</sup> )	26,442.0	-	26,442.0
DC1	(k/')	0.988	-	0.988
MDC1	(k)	153	-	309
DC2	(k/')	0.032	0.032	0.032
MDC2	(k)	3	-7	4
DW	(k/')	0.300	0.300	0.300
MDW	(k)	25	-62	40
LLDF		.622	.592	.568
M <sub>L</sub> + IM	(k)	340	-316	362

		Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
LLDF		.670	.670	.670
RDC1	(k)	18.3	18.3	25.2
* RDC2	(k)	0.4	0.8	0.8
* RDW	(k)	3.9	7.5	7.5
* R <sub>L</sub>	(k)	41.4	33.8	33.8
R <sub>IM</sub>	(k)	11.3	7.5	7.5
RTotal	(k)	75.3	67.9	74.8

\* At continuous piers, reactions from composite loads are assumed to be equally distributed to each bearing line.

- I: Non-composite moment of inertia of beam section (in<sup>4</sup>).
- I': Composite moment of inertia of beam section (in<sup>4</sup>).
- Sb: Non-composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).
- Sb': Composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).
- St: Non-composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).
- St': Composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).
- DC1: Un-factored non-composite dead load (kips/ft.).
- MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- LLDF: Live Load Distribution Factor
- M<sub>L</sub> + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).



- Notes:
- All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
  - Two hardened washers are required for each set of oversized holes.
  - All holes shall be 15/16" Ø unless otherwise noted.
  - 5/16" x 3" x 3" plate washers are required over all slotted holes.
  - All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.
  - Threaded rods shall be ASTM F 1554 Grade 55.
  - Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
  - Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.
  - \* Fabricator shall locate to miss strands within permissible tolerances.
  - \*\* Alternate C12x30 channels are permitted to facilitate material acquisition.

PERMANENT BRACING DETAILS FOR  
36" AND 42" PPC I-BEAMS

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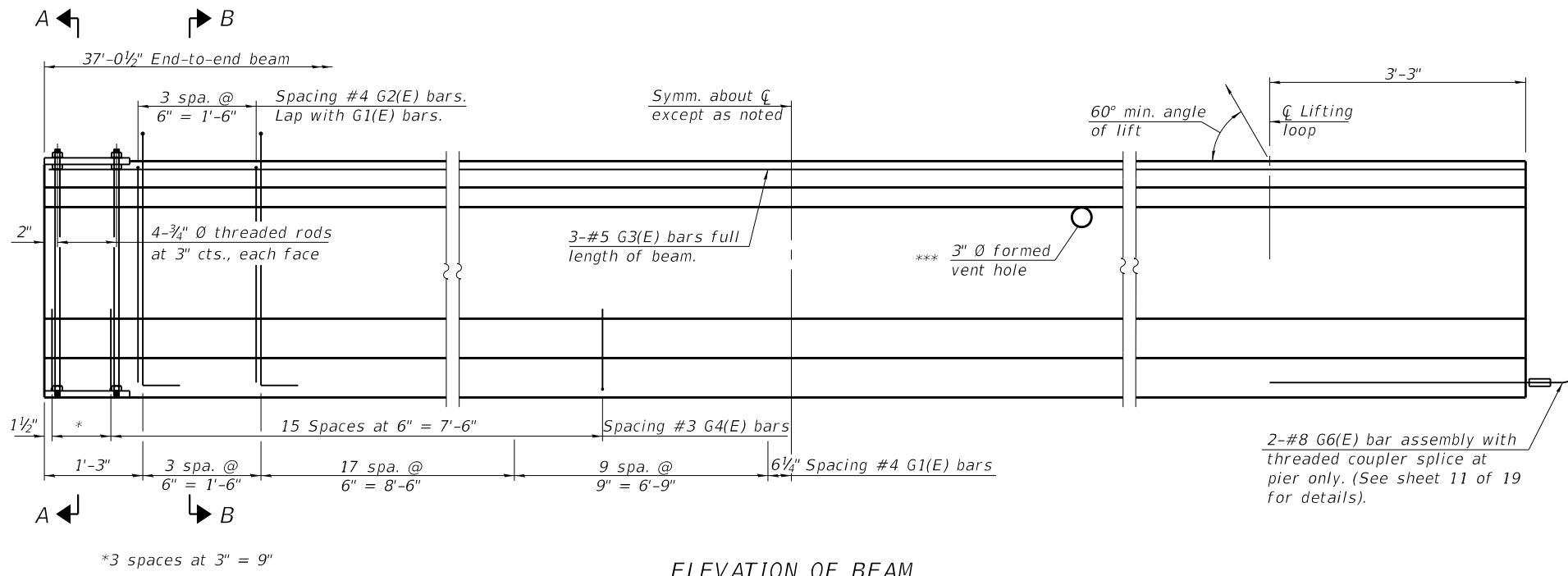
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN  
STRUCTURE NO. 064-9902

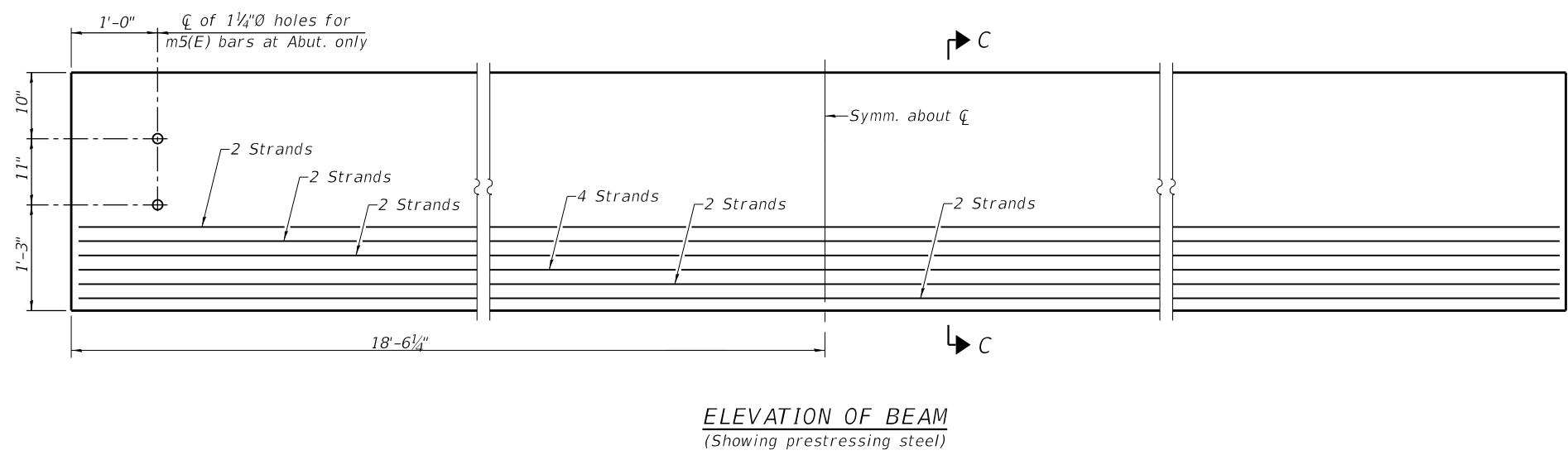
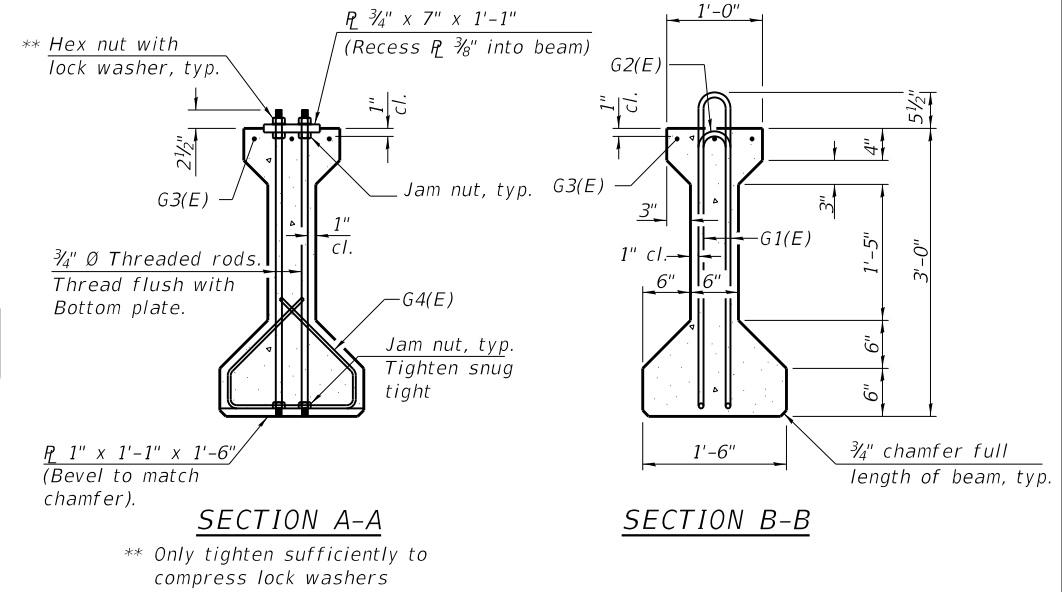
SHEET 8 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	17
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				



**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

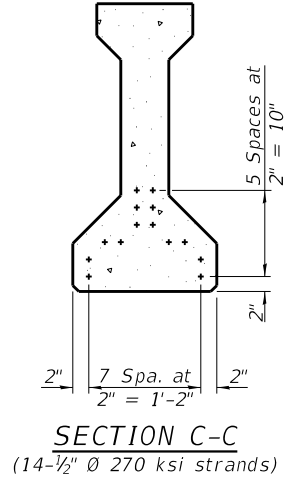
\*\*\* Locate vent hole near 1/2 point (upstation end) of girders and 1 1/2" clear of reinforcing steel or strands and 1'-0" min clear of diaphragm bolts.



**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

Bar	No.	Size	Length	Shape
G1(E)	61	#4	7'-7"	⌒
G2(E)	8	#4	5'-8"	⌒
G3(E)	3	#5	36'-8"	—
G4(E)	38	#3	4'-1"	⌒
G6(E)	2	#8	6'-6"	⌒

Notes:  
See sheet 11 of 19 for additional details and Bill of Material.



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PI-4-36

2-17-2017



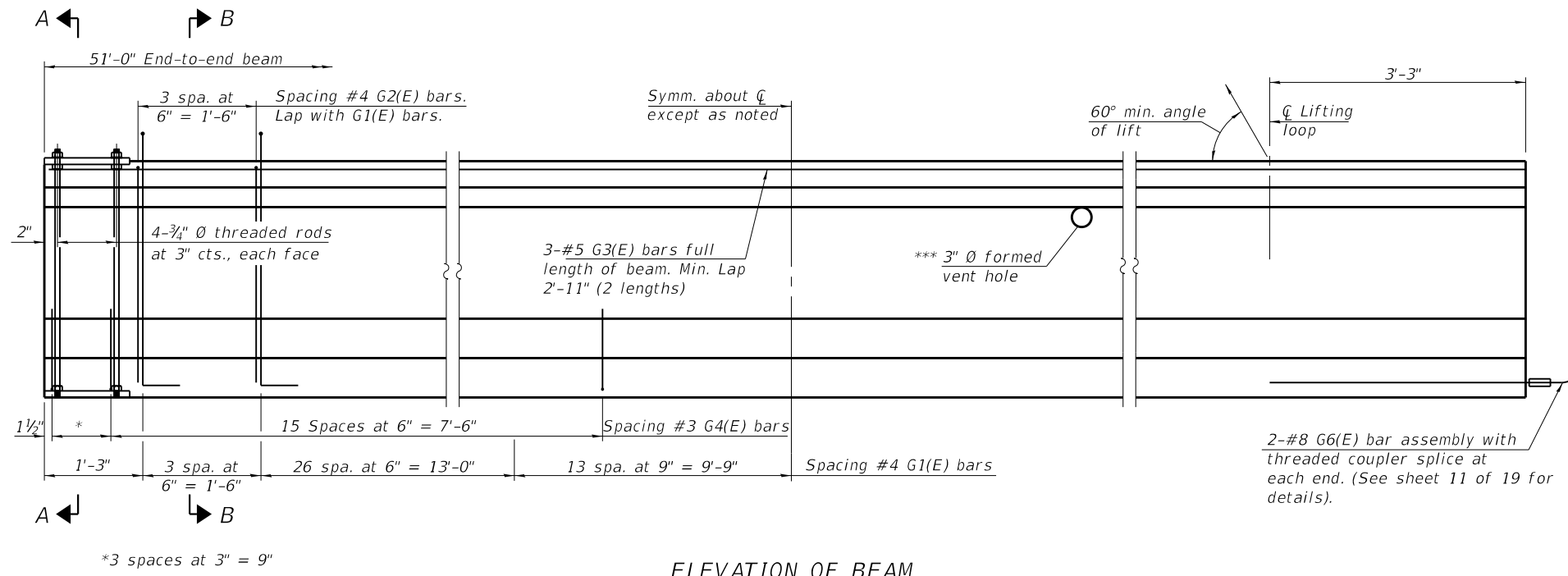
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

36" PPC I-BEAM (SPANS 1 & 3)  
STRUCTURE NO. 064-9902

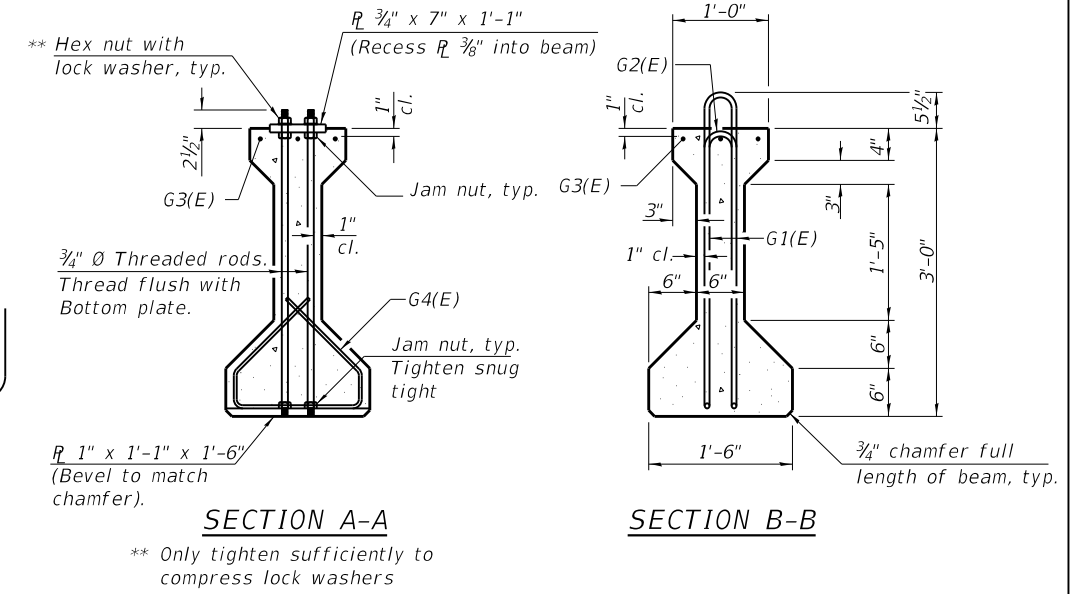
SHEET 9 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	18
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				



**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

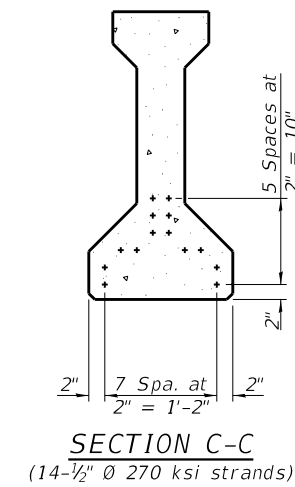
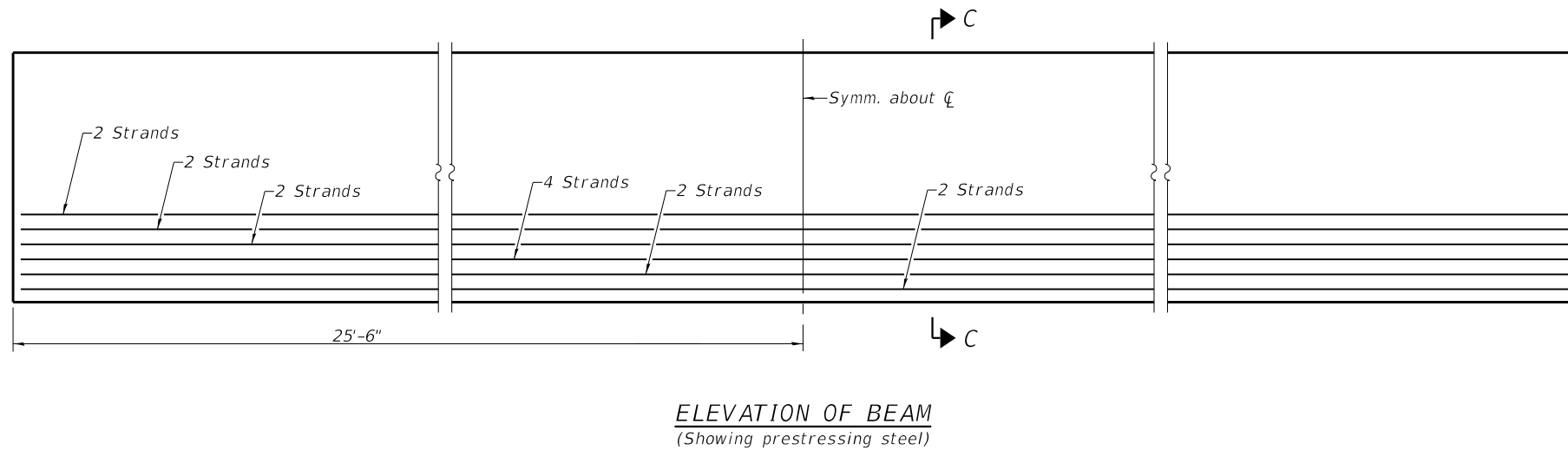
\*\*\* Locate vent hole near 1/2 point (upstation end) of girders and 1 1/2' clear of reinforcing steel or strands and 1'-0" min clear of diaphragm bolts.



**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

Bar	No.	Size	Length	Shape
G1(E)	85	#4	7'-7"	
G2(E)	8	#4	5'-8"	
G3(E)	6	#5	26'-10"	
G4(E)	38	#3	4'-1"	
G6(E)	4	#8	6'-6"	

Notes:  
See sheet 11 of 19 for additional details and Bill of Material.



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PI-4-36

2-17-2017

**V&K**  
Veenstra & Kimm, Inc.  
Springfield, IL. Phone: (217)544-8033

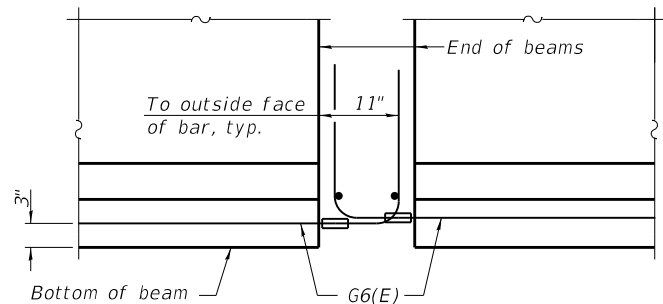
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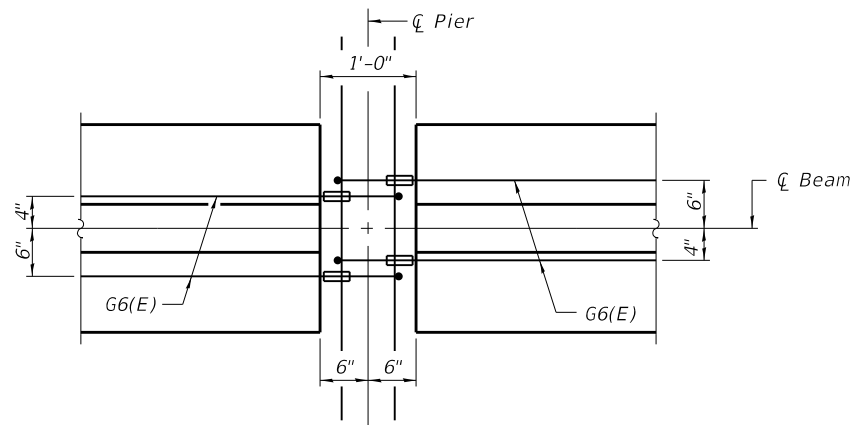
36" PPC I-BEAM (SPAN 2)  
STRUCTURE NO. 064-9902

SHEET 10 OF 19 SHEETS

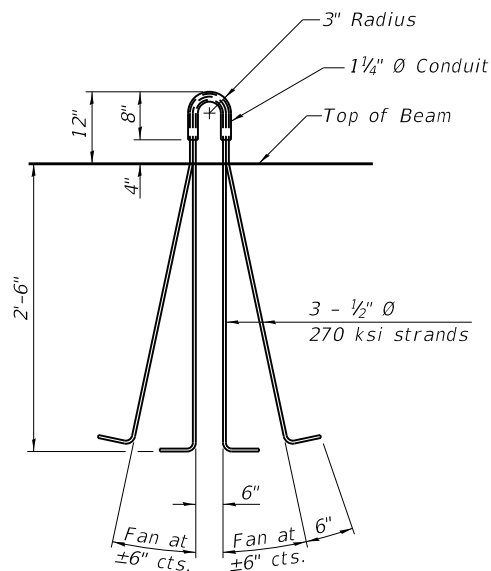
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CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				



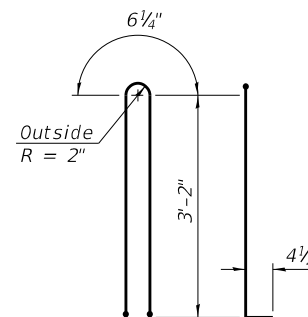
ELEVATION OF BEAM AT PIER



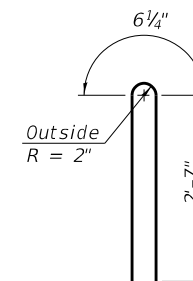
PLAN OF BEAM AT PIER



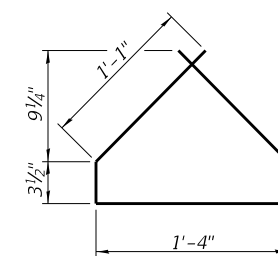
LIFTING LOOP DETAIL



BAR G1(E)



BAR G2(E)



BAR G4(E)

NOTES

Inserts for 3/4" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 6,000 psi and a release concrete compressive strength, f'ci, of 5,000 psi.

A minimum 2 1/2" Ø lifting pin shall be used to engage the lifting loops during handling.

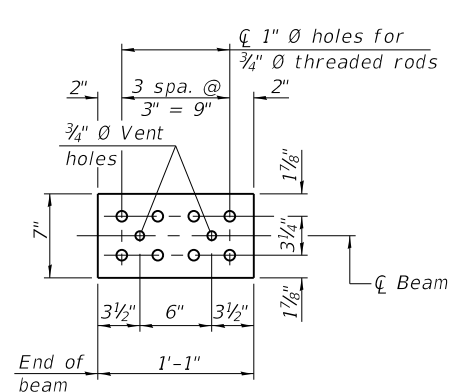
Tilt G6(E) bars when necessary to maintain 1 1/2" clearance.

The top and bottom plates shall be AASHTO M270 Grade 50.

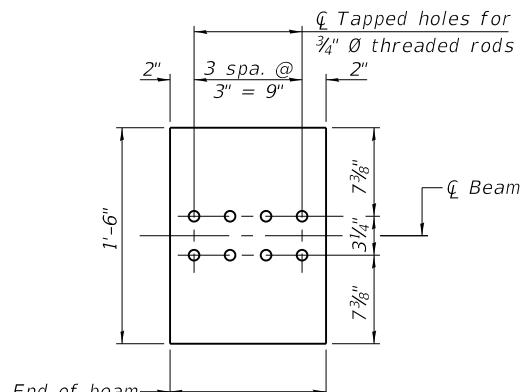
The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

The G6(E) bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

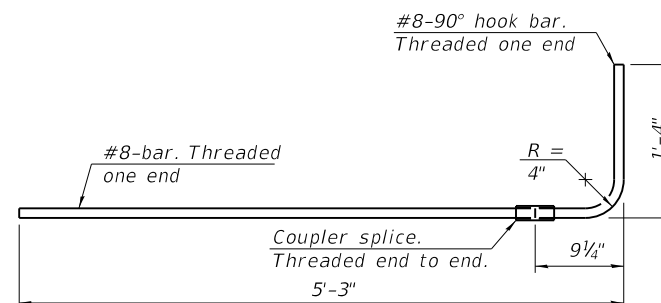


TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.



G6(E) BAR ASSEMBLY

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete 1-Beams, 36"	Ft.	626

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2-25-2019

**V&K**  
Veenstra & Kimm, Inc.  
Springfield, IL Phone: (217)544-8033

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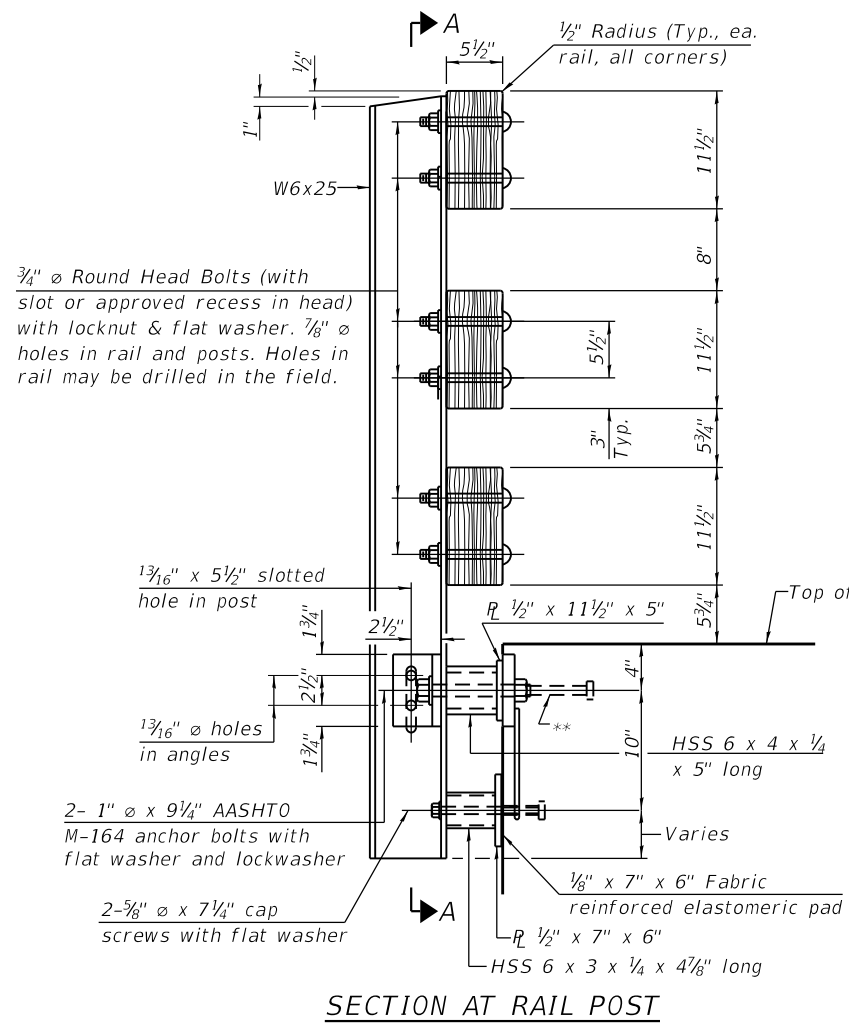
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

36" PPC I-BEAM DETAILS  
STRUCTURE NO. 064-9902

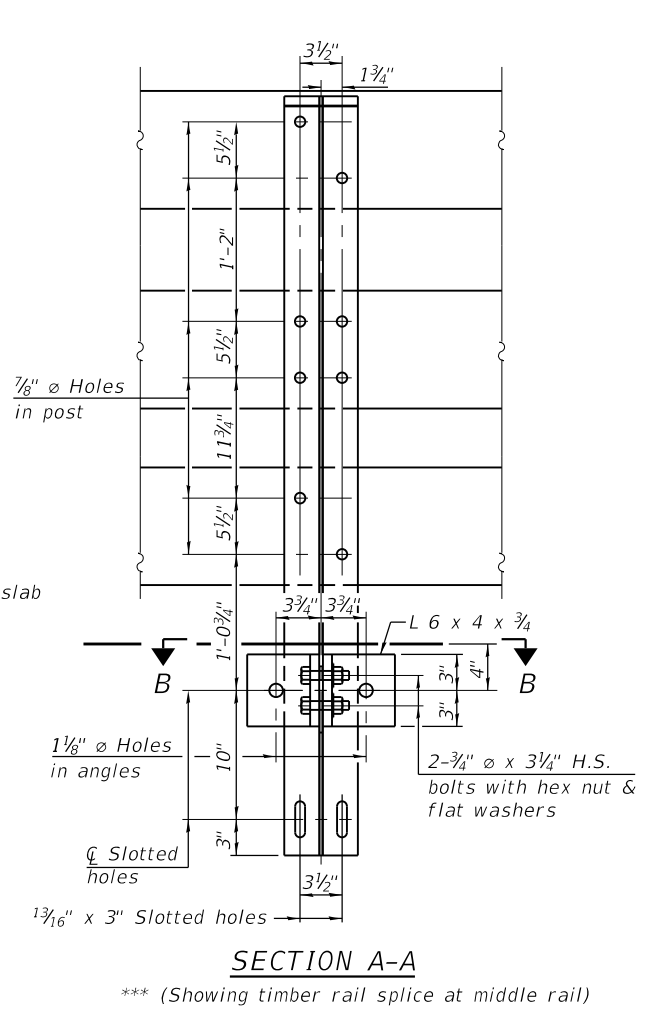
SHEET 11 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

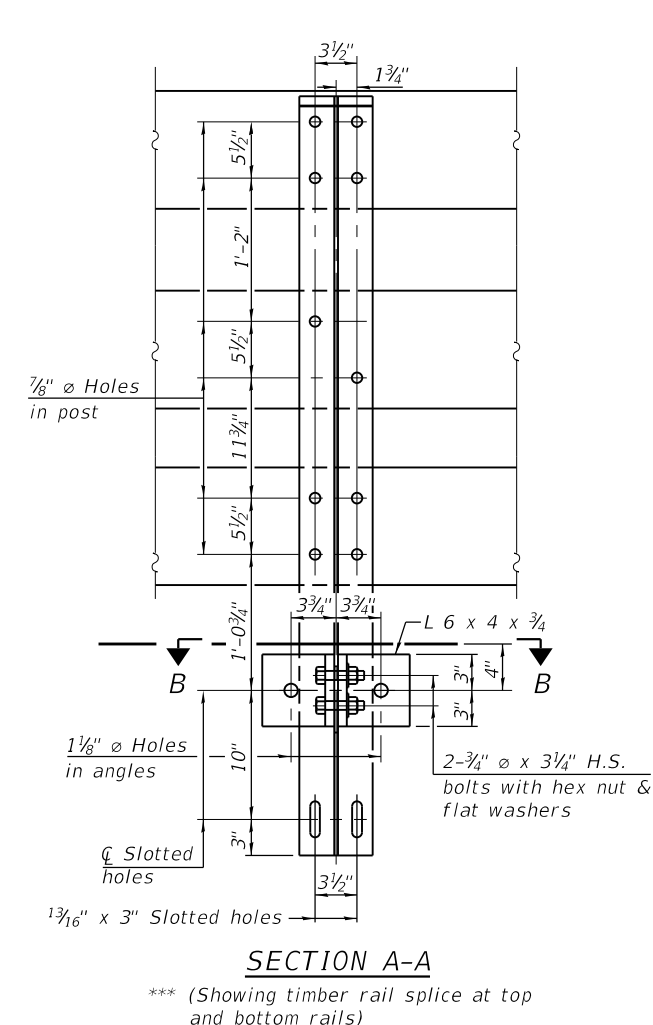
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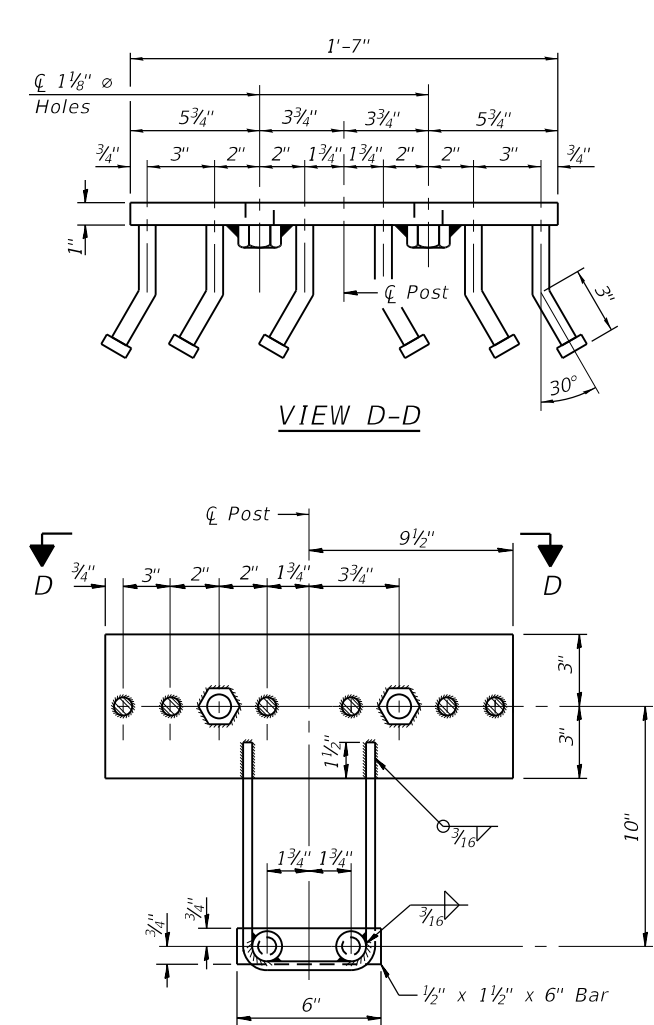
**SECTION AT RAIL POST**



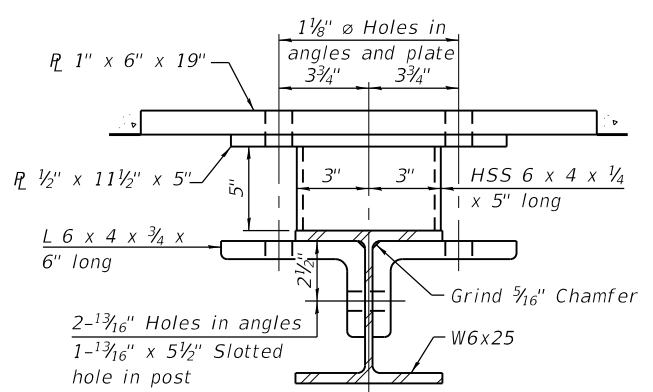
**SECTION A-A**  
 \*\*\* (Showing timber rail splice at middle rail)



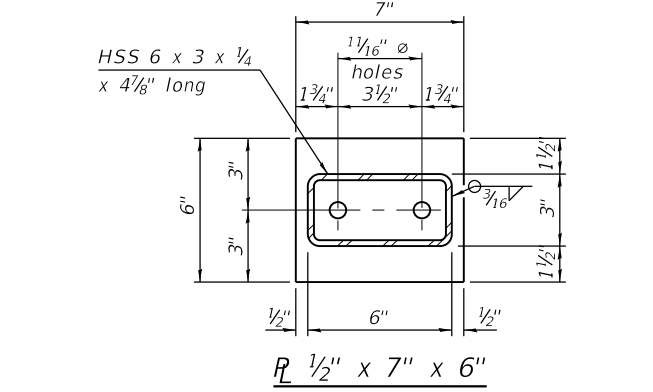
**SECTION A-A**  
 \*\*\* (Showing timber rail splice at top and bottom rails)



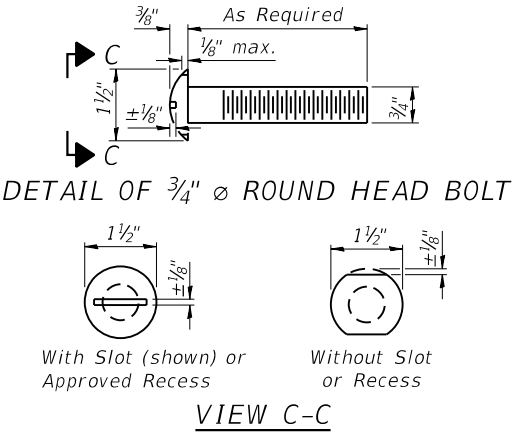
**VIEW D-D**



**SECTION B-B**



**DETAIL OF 3/4" Ø ROUND HEAD BOLT**

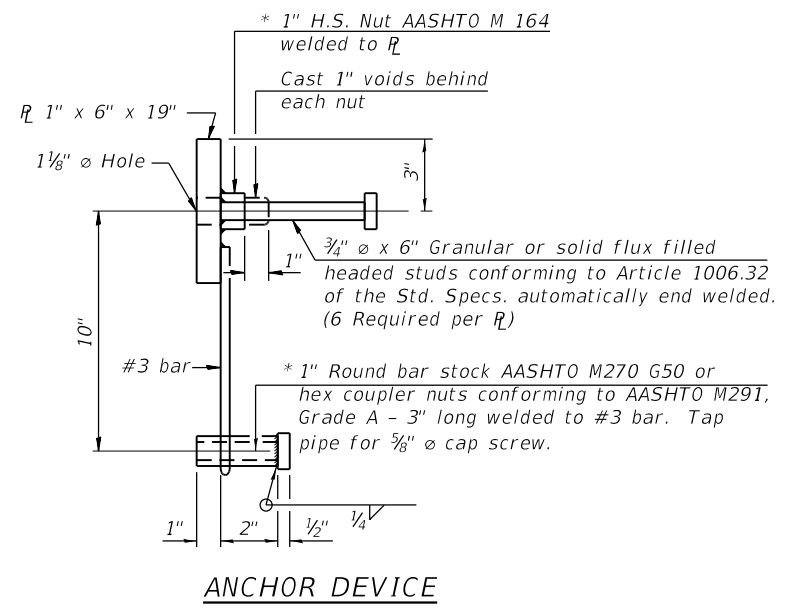


**VIEW C-C**

**Notes:**  
 All wood rails shall comply with Article 1007.03 of the Standard Specifications and shall have a commercial grade of No. 1 or better. All rails shall be rough cut. Dimensions of rails are net, not nominal dimensions.  
 All rails shall be treated in accordance with Article 1007.12.  
 All steel posts shall be according to the requirements of AASHTO M-270, Grade 50.  
 All steel angles shall be according to the requirements of AASHTO M 270, Grade 50, and all other steel shapes and plates shall conform to the requirements of AASHTO M-270, Grade 36.  
 All posts shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385.  
 All bolts, nuts, washers, and lock washers shall be galvanized in accordance with AASHTO M-232 in accordance with article 1007.12.  
 All rail posts and post anchoring accessories shall be primed and painted with two coats of finish paint gloss black in color. Paint shall be in accordance with Section 1008 of the Standard Specifications.  
 All bolts and nuts shall conform to the requirements of ASTM designation A-307.

\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

See Sheet 13 of 19 for Rail Post spacing.



**ANCHOR DEVICE**

**BILL OF MATERIAL**

Item	Unit	Quantity
Timber Railing	Foot	257



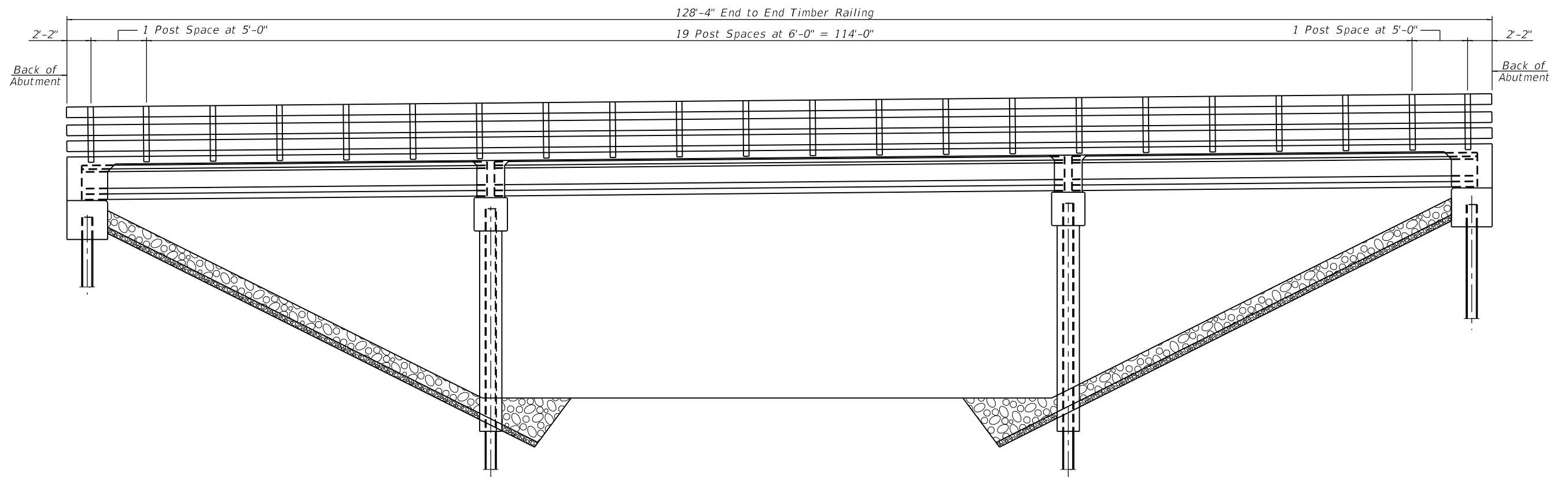
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TIMBER RAILING  
 STRUCTURE NO. 064-9902**

SHEET 12 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	21
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				



RAIL POST SPACING

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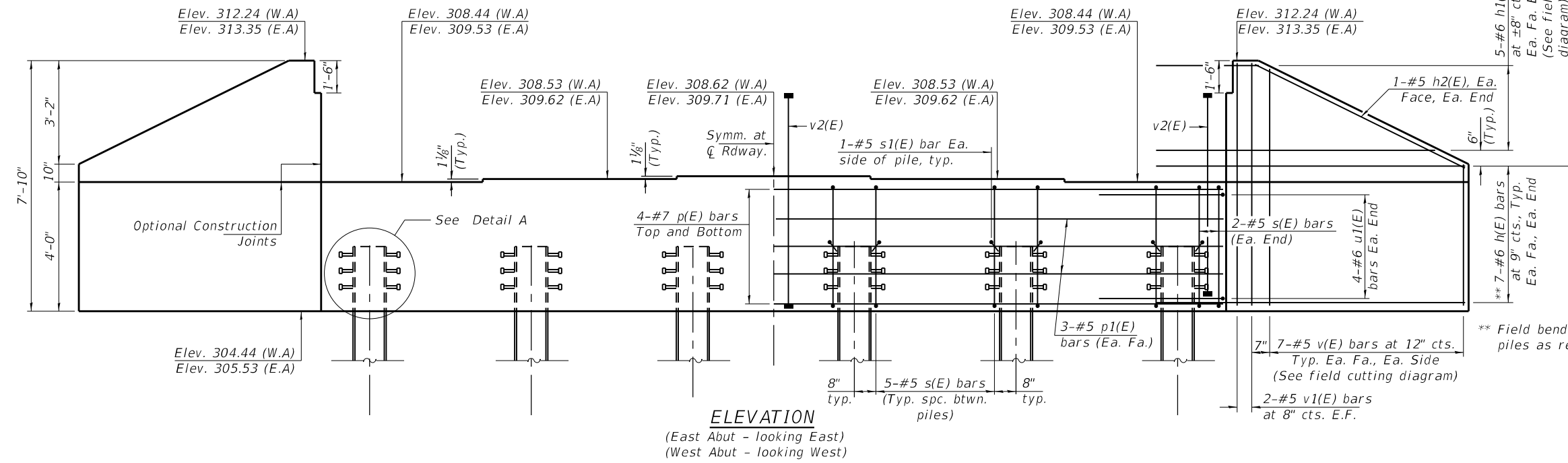
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TIMBER RAILING  
STRUCTURE NO. 064-9902

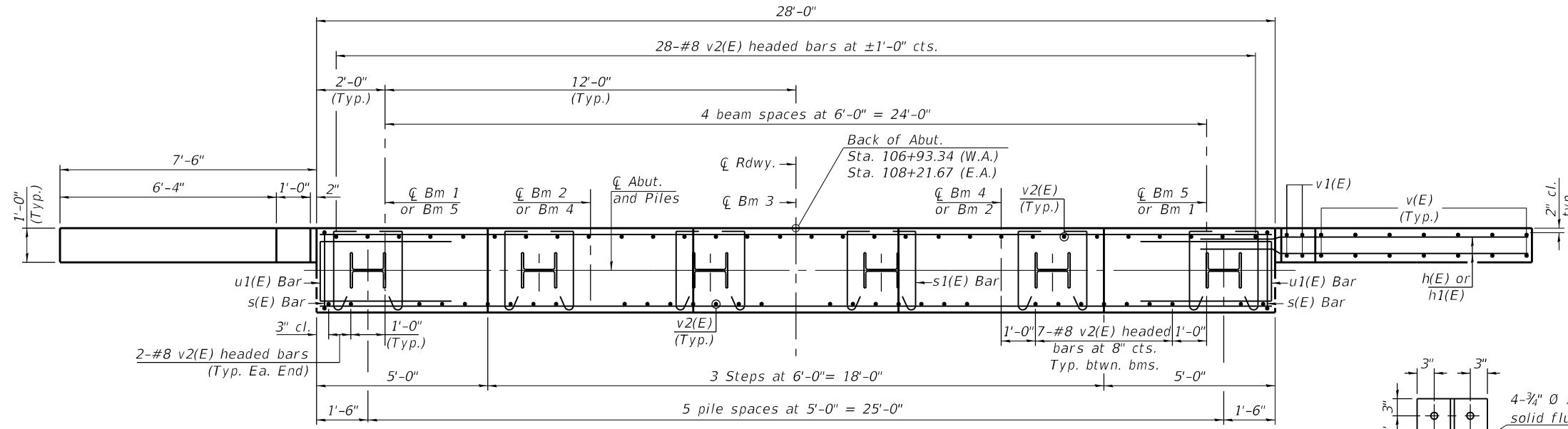
SHEET 13 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	22
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

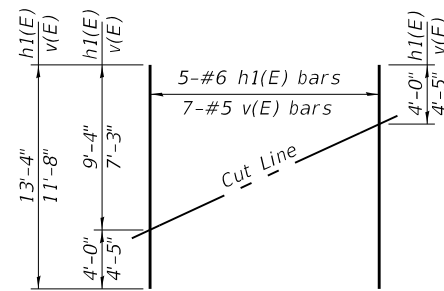
Notes:  
Pour steps monolithically with cap.



**ELEVATION**  
(East Abut - looking East)  
(West Abut - looking West)

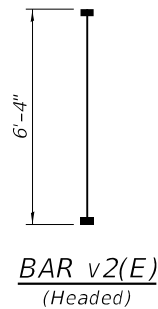


**PLAN**

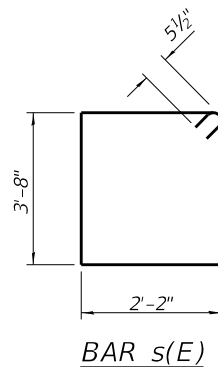


**FIELD CUTTING DIAGRAM**

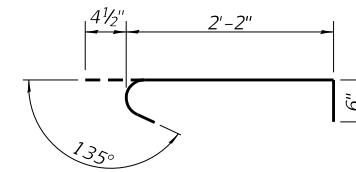
Order h1(E) and v(E) full length. Cut as shown and use remainder of bars in opposite face.



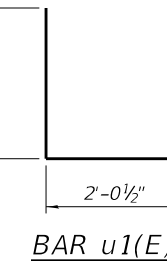
**BAR v2(E)**  
(Headed)



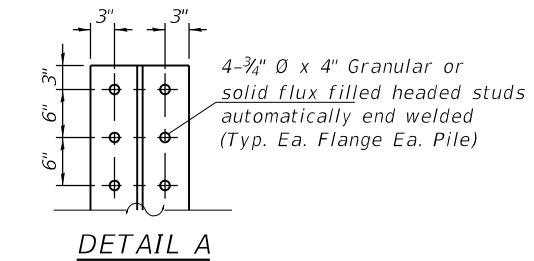
**BAR s(E)**



**BAR s1(E)**



**BAR u1(E)**

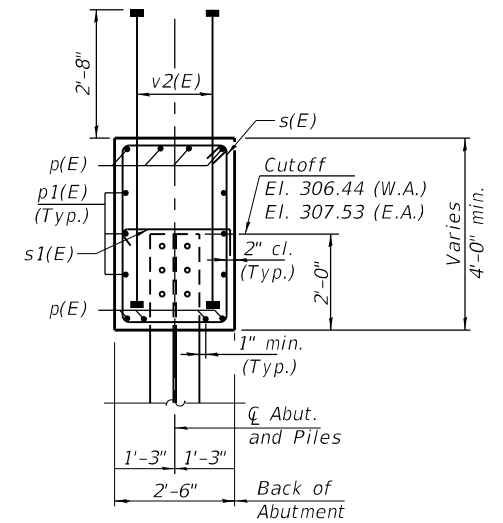


**DETAIL A**  
Cost included in Furnishing Steel Piles HP 12x84

**PILE DATA**

	W. Abut.	E. Abut.
Type:	* HP14x73	* HP14x73
Nominal Required Bearing:	289 kips	289 kips
Factored Resistance Available:	155 kips	159 kips
Est. Length:	62 ft.	68 ft.
No. Production Piles:	5	5
No. Test Piles:	1	1

\* With pile shoes



**SEC. THRU ABUT.**

**BILL OF MATERIAL ABUTMENTS**

Bar	No.	Size	Length	Shape
h(E)	56	#6	10'-4"	—
h1(E)	20	#6	13'-4"	—
h2(E)	8	#5	6'-10"	—
p(E)	8	#7	27'-8"	—
p1(E)	12	#5	27'-8"	—
s(E)	58	#5	12'-7"	┌
s1(E)	24	#4	3'-1"	┌
u1(E)	16	#6	8'-1"	┌
v(E)	28	#5	11'-8"	—
v1(E)	16	#5	7'-6"	—
v2(E)	120	#8	6'-4"	—
Structure Excavation		Cu. Yd.		29
Concrete Structures		Cu. Yd.		28.4
Reinforcement Bars, Epoxy Coated		Pound		5630
Furnishing Steel Piles HP14x73		Foot		650
Driving Piles		Foot		650
Test Piles Steel HP14x73		Each		1
Pile Shoes		Each		12

For details of piles see sheet 17 of 19.

AI-2440-0

2-17-2017



USER NAME =	DESIGNED -	REVISIONS -
	CHECKED -	REVISIONS -
PLOT SCALE =	DRAWN -	REVISIONS -
PLOT DATE =	CHECKED -	REVISIONS -

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

**ABUTMENTS**  
**STRUCTURE NO. 064-9902**

SHEET 14 OF 19 SHEETS

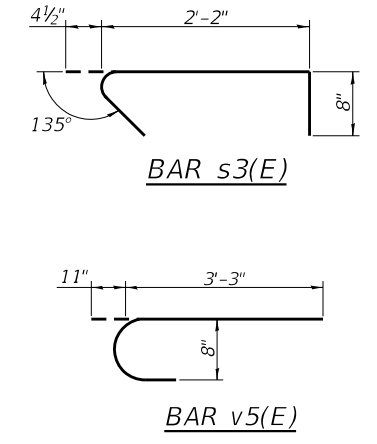
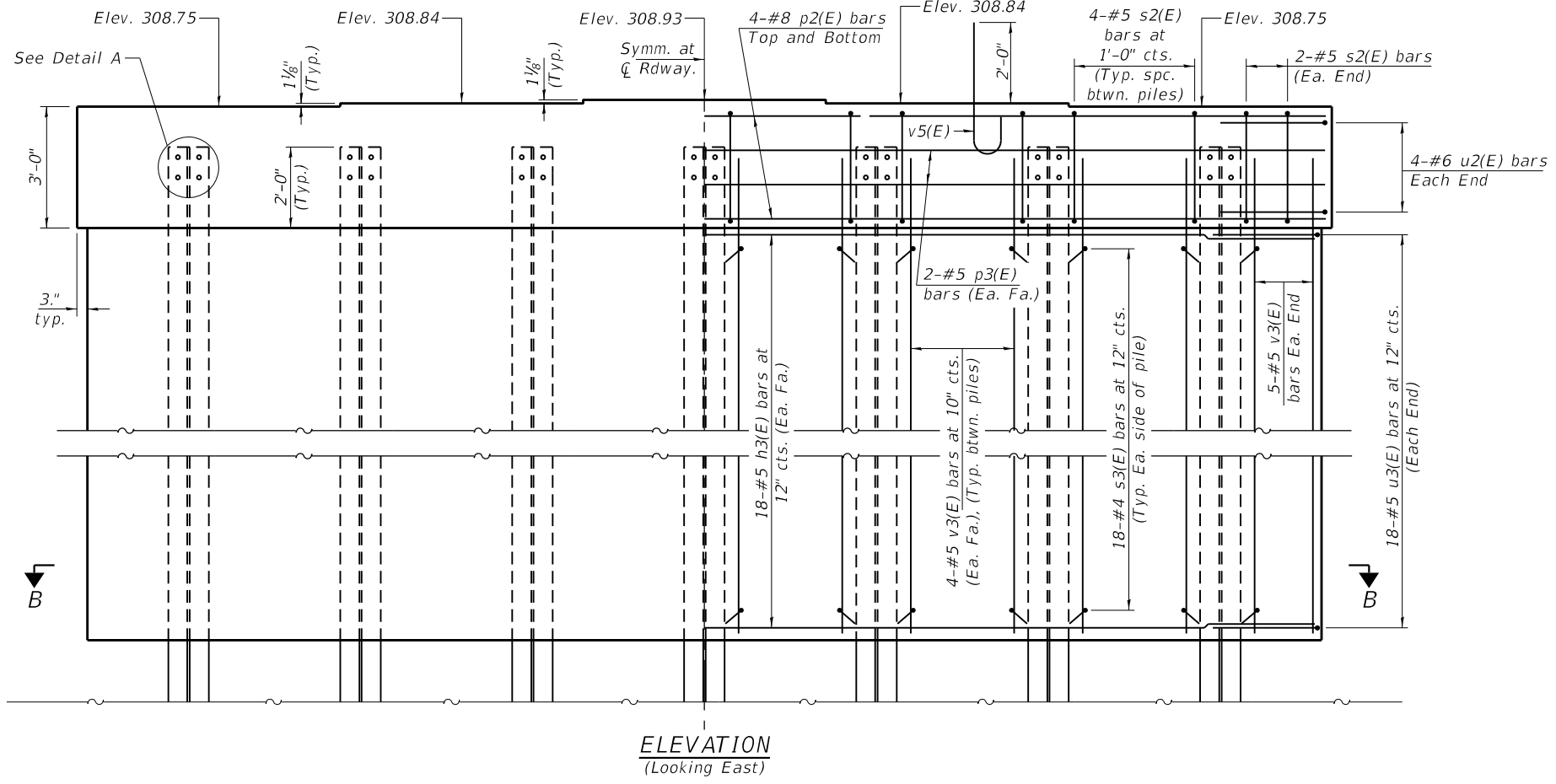
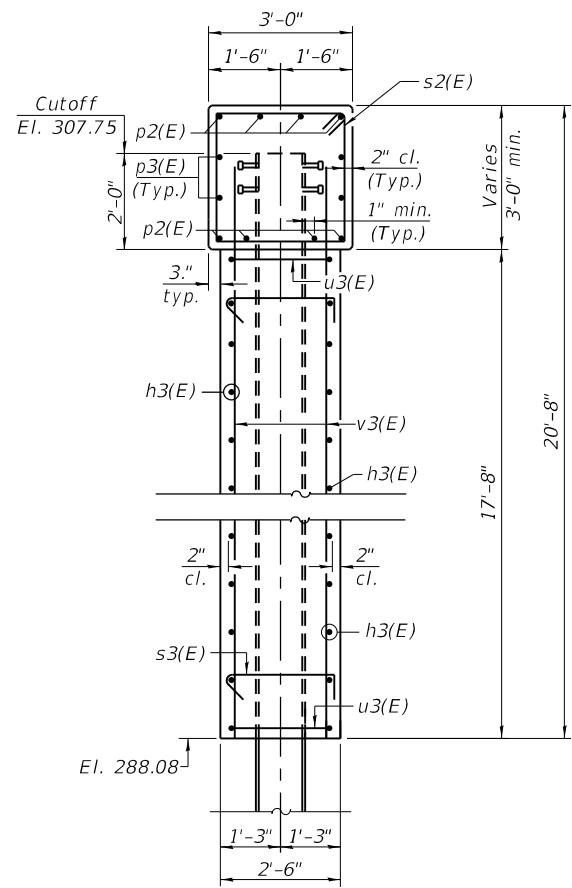
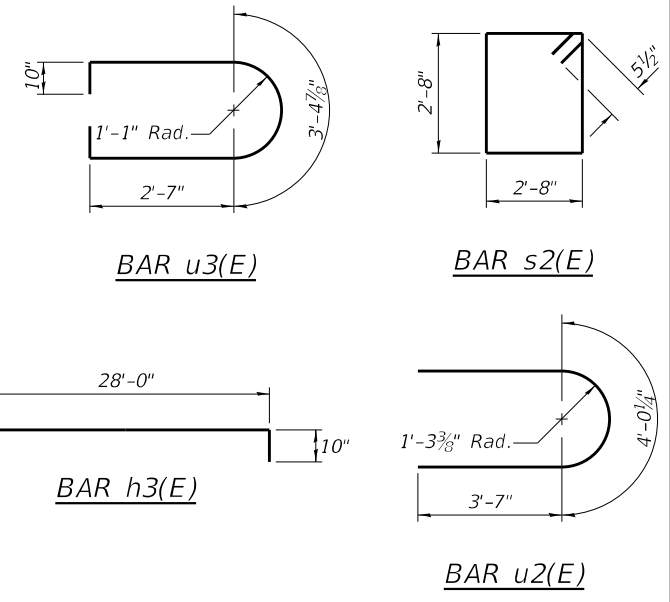
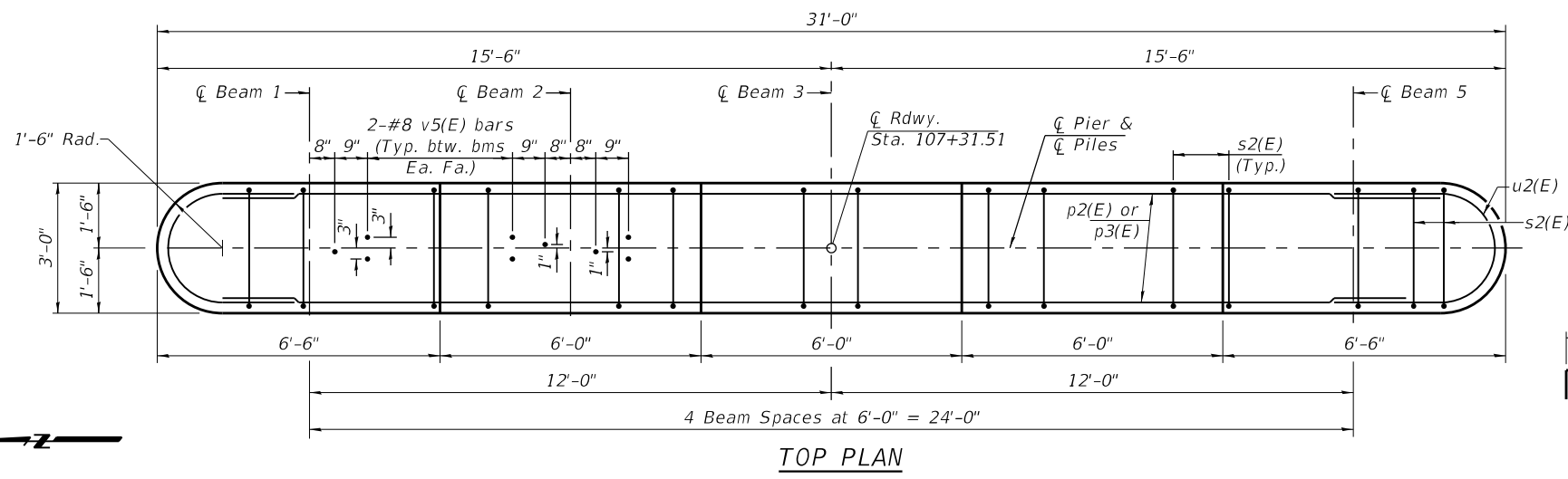
O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	23
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

MODEL: 014  
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3/27/2020 11:33:33 AM

Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 17 of 19.

**PILE DATA**

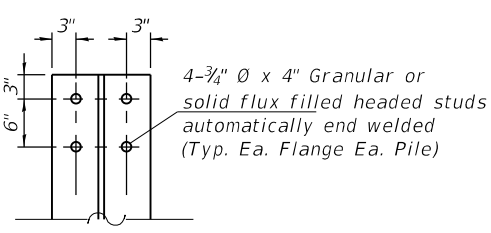
Type: HP14x73 with pile shoes  
 Nominal Required Bearing: 308 kips  
 Factored Resistance Available: 168 kips  
 Est. Length: 85 ft  
 No. Production Piles: 6  
 No. Test Piles: 1



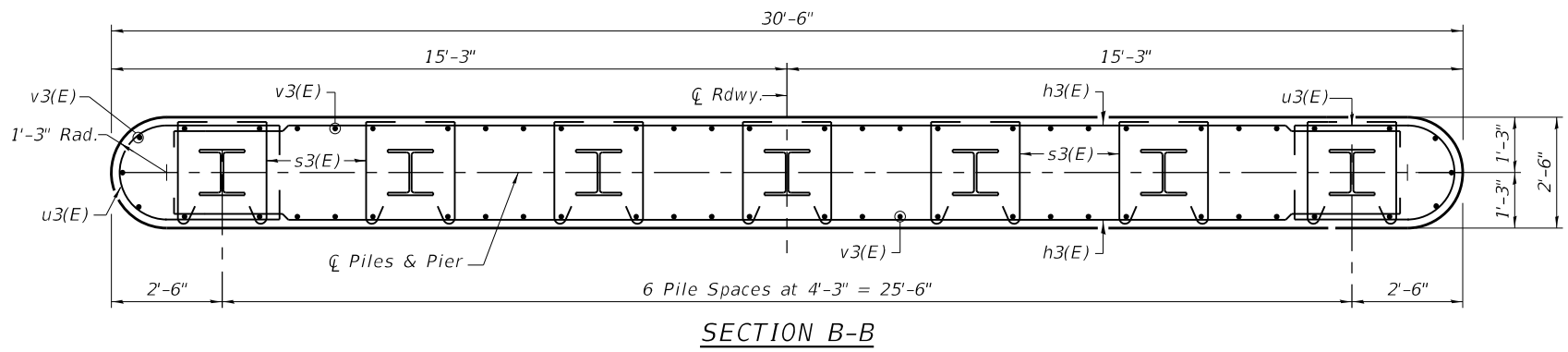
**BILL OF MATERIAL PIER 1**

Bar	No.	Size	Length	Shape
h3(E)	36	#5	29'-8"	U
p2(E)	8	#8	28'-0"	—
p3(E)	4	#5	28'-0"	—
s2(E)	28	#5	11'-7"	U
s3(E)	252	#4	3'-3"	U
u2(E)	8	#6	11'-3"	U
u3(E)	36	#5	10'-3"	U
v3(E)	58	#5	19'-8"	—
v5(E)	24	#8	4'-2"	U
Cofferdam Excavation		Cu. Yd.	45	
Concrete Structures		Cu. Yd.	59.4	
Reinforcement Bars, Epoxy Coated		Pound	4700	
Cofferdam (Type 1) (Location - 1)		Each	1	
Furnishing Steel Piles HP14x73		Foot	510	
Driving Piles		Foot	510	
Test Pile Steel HP14x73		Each	1	
Pile Shoes		Each	7	

**SECTION THRU PIER**



Cost included in Furnishing  
 Steel Piles HP14x73



STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 1  
 STRUCTURE NO. 064-9902

SHEET 15 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	24
CONTRACT NO. 46908				

MODEL: 015  
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CHECKED -	REVISIONS -	
PLOT SCALE =	DRAWN -	REVISED -
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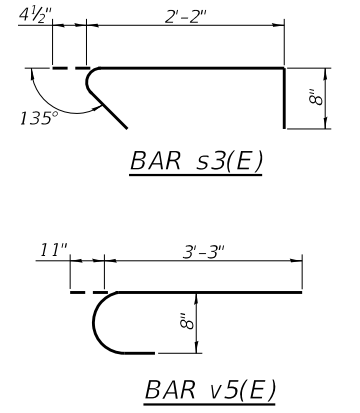
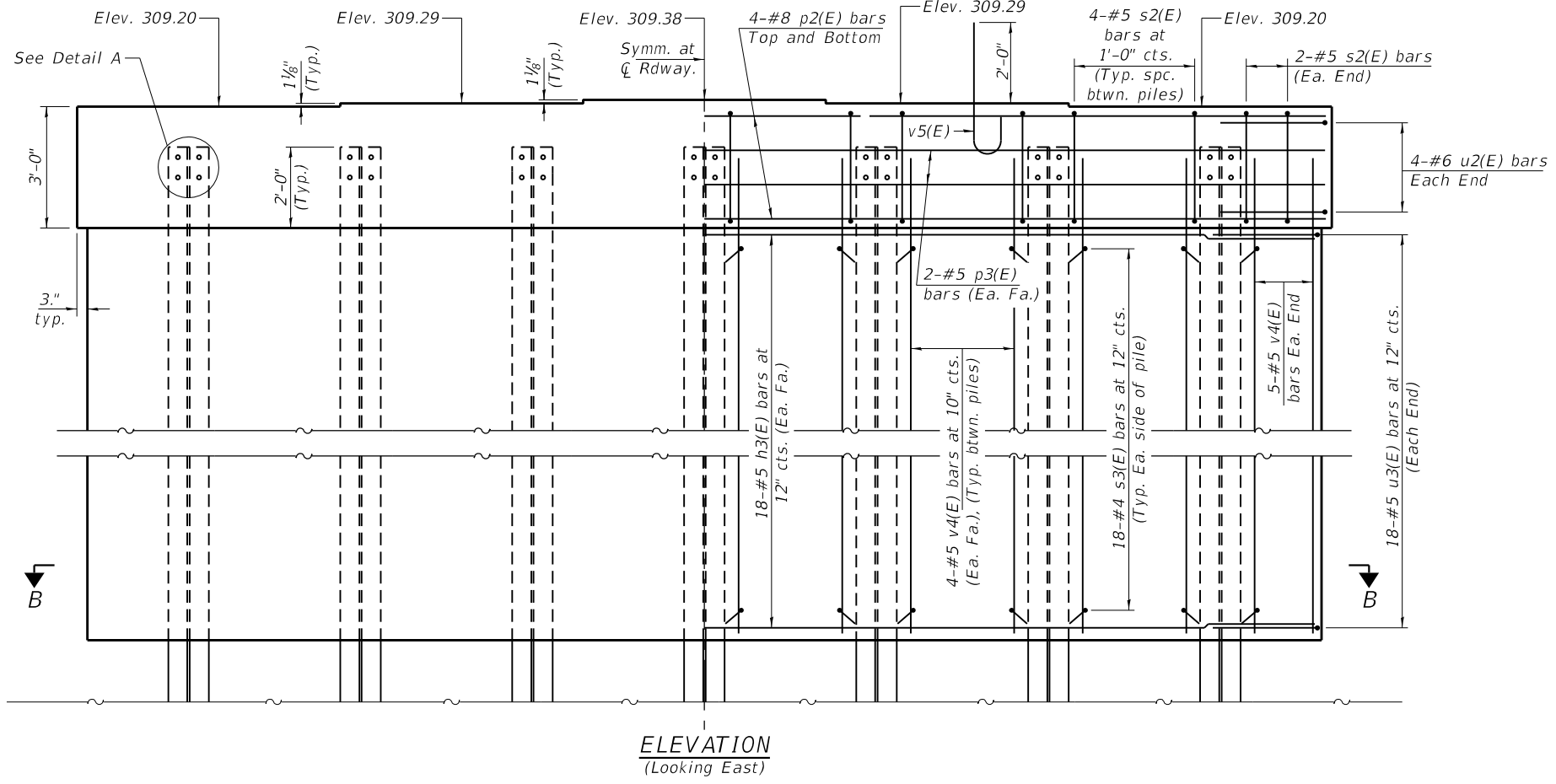
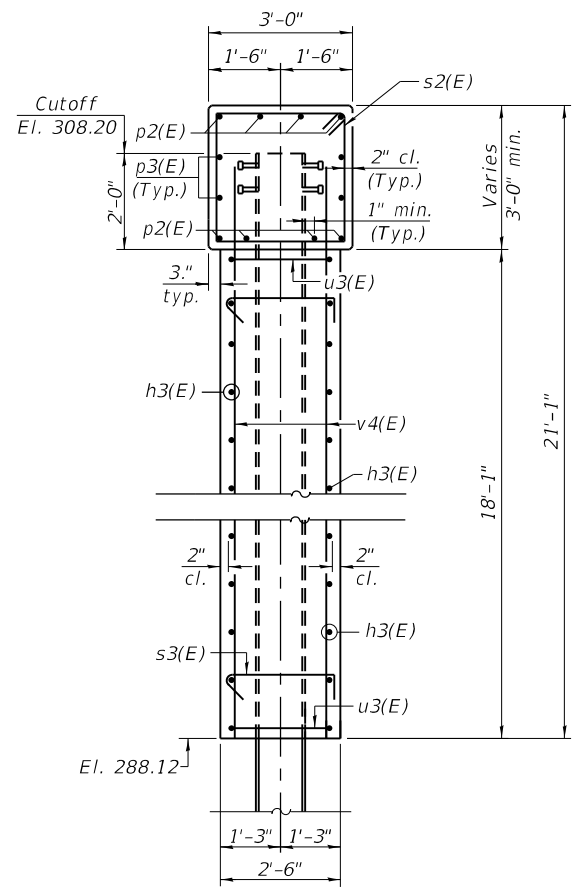
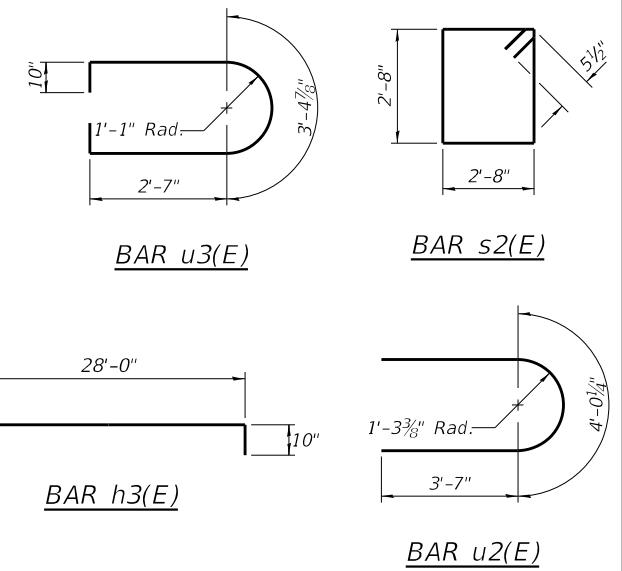
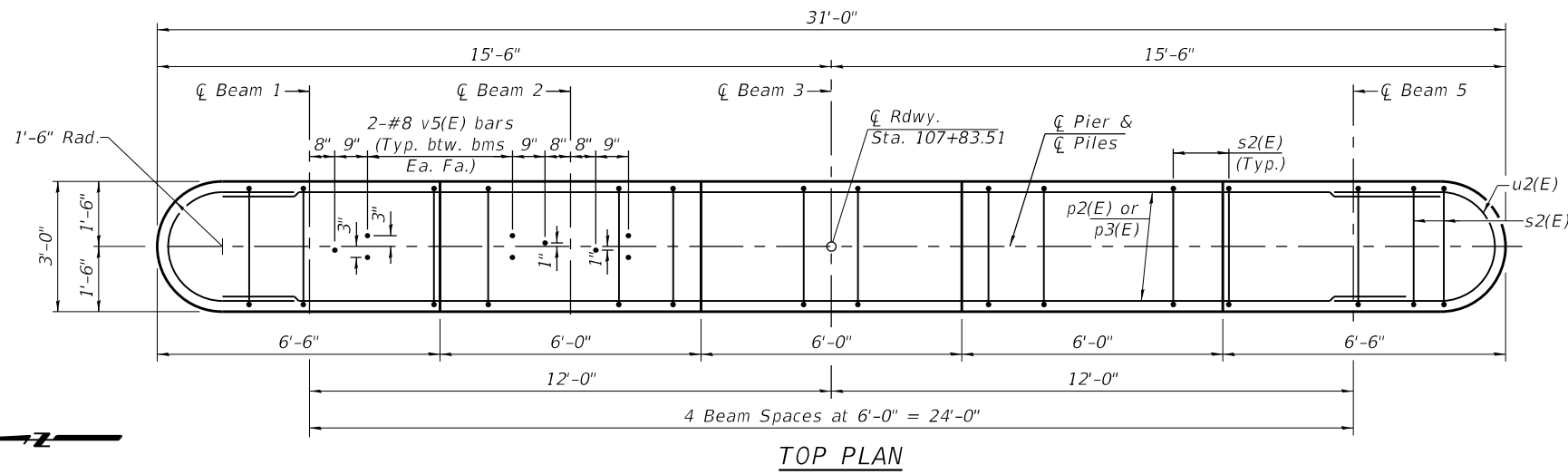
ILLINOIS FED. AID PROJECT



Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 17 of 19.

**PILE DATA**

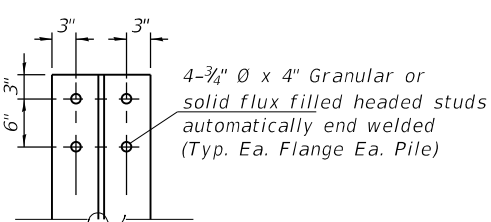
Type: HP14x73 with pile shoes  
 Nominal Required Bearing: 308 kips  
 Factored Resistance Available: 168 kips  
 Est. Length: 90 ft  
 No. Production Piles: 6  
 No. Test Piles: 1



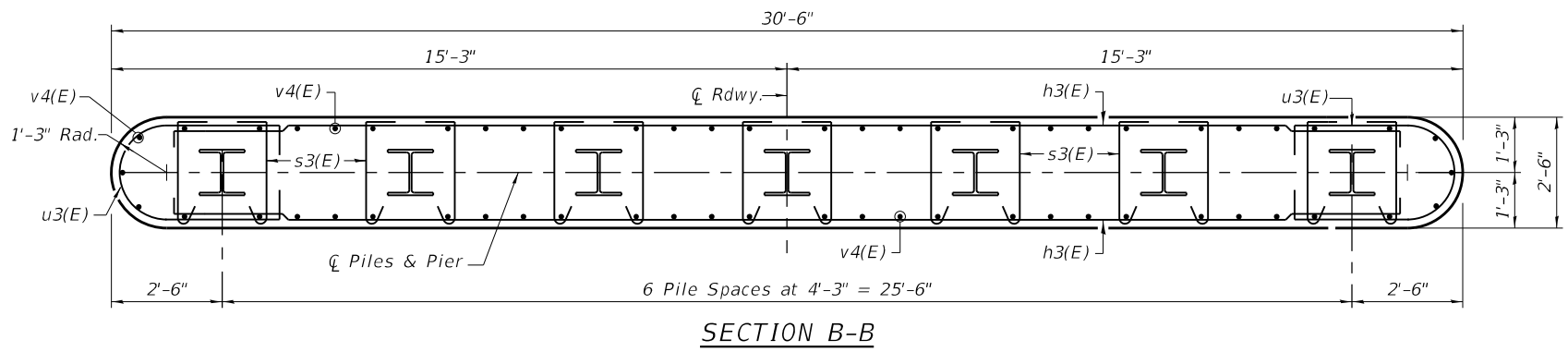
**BILL OF MATERIAL PIER 2**

Bar	No.	Size	Length	Shape
h3(E)	36	#5	29'-8"	U
p2(E)	8	#8	28'-0"	—
p3(E)	4	#5	28'-0"	—
s2(E)	28	#5	11'-7"	U
s3(E)	252	#4	3'-3"	U
u2(E)	8	#6	11'-3"	U
u3(E)	36	#5	10'-3"	U
v4(E)	58	#5	20'-1"	—
v5(E)	24	#8	4'-2"	U
Cofferdam				
Excavation		Cu. Yd.	59	
Concrete Structures		Cu. Yd.	60.5	
Reinforcement Bars, Epoxy Coated		Pound	4720	
Cofferdam (Type 1) (Location - 2)		Each	1	
Furnishing Steel Piles HP14x73		Foot	540	
Driving Piles		Foot	540	
Test Pile Steel HP14x73		Each	1	
Pile Shoes		Each	7	

**SECTION THRU PIER**



Cost included in Furnishing Steel Piles HP14x73



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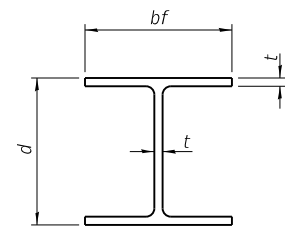
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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PIER 2  
 STRUCTURE NO. 064-9902**

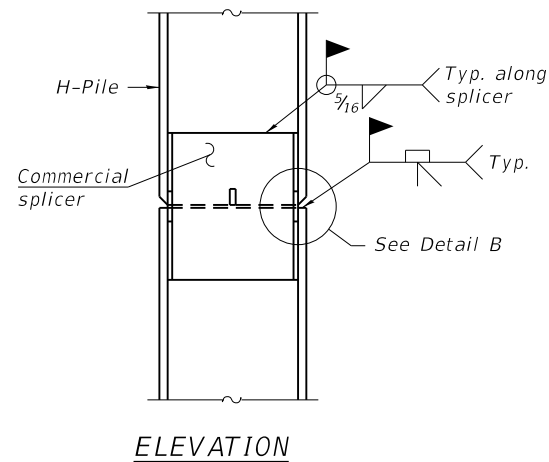
SHEET 16 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	25
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

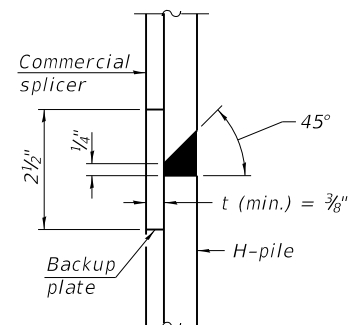


**STEEL PILE TABLE**

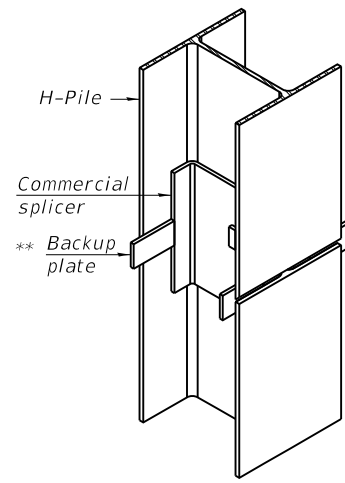
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 3/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



**ELEVATION**

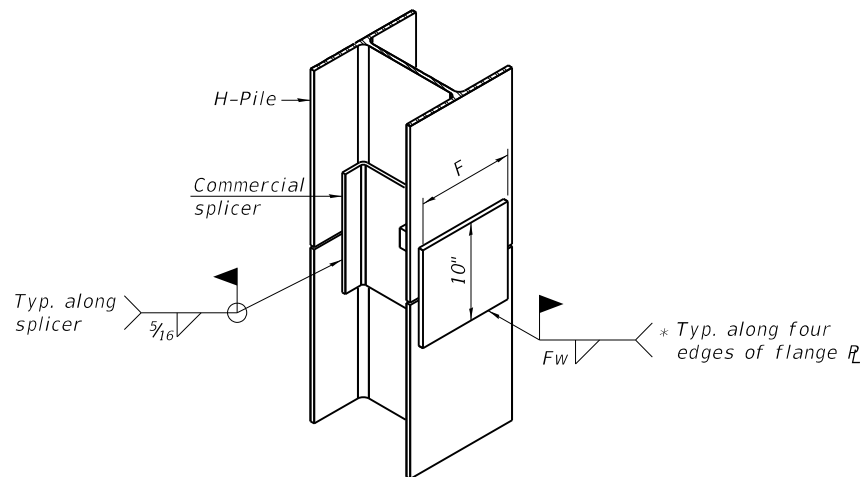


**DETAIL "B"**



**ISOMETRIC VIEW**

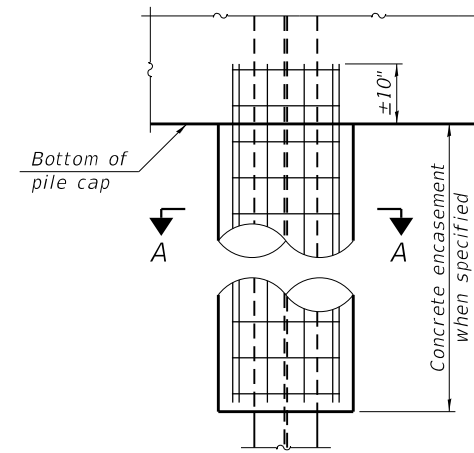
**WELDED COMMERCIAL SPLICE**



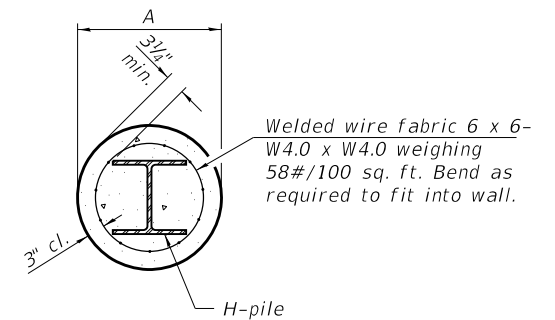
**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**

- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).

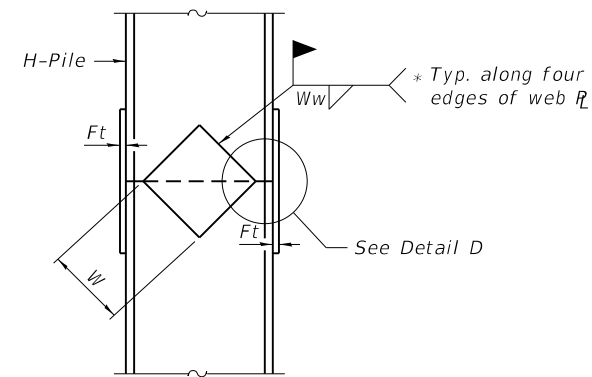


**ELEVATION**

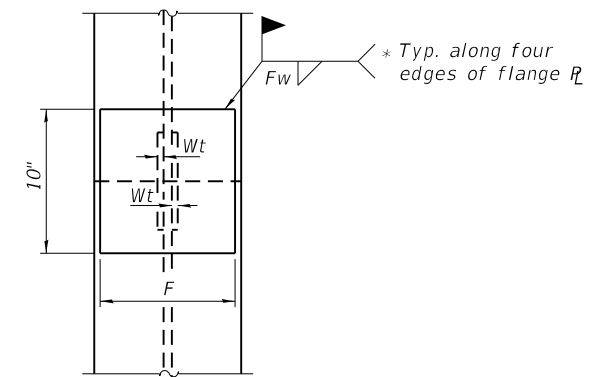


**SECTION A-A**

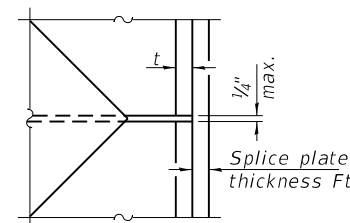
**INDIVIDUAL PILE CONCRETE ENCASUREMENT**  
 (Forms for encasement may be omitted when soil conditions permit).



**ELEVATION**



**END VIEW**



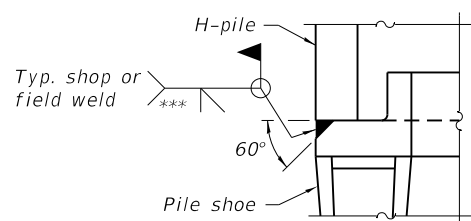
**DETAIL D**

**WELDED PLATE FIELD SPLICE**

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

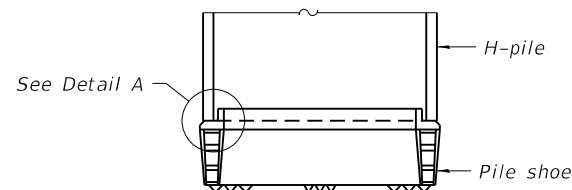
Note:  
 The steel H-piles shall be according to AASHTO M270 Grade 50.

**SHOE ATTACHMENT**



**DETAIL A**

**ELEVATION**



MODEL: 017  
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F-HP 8-11-2017



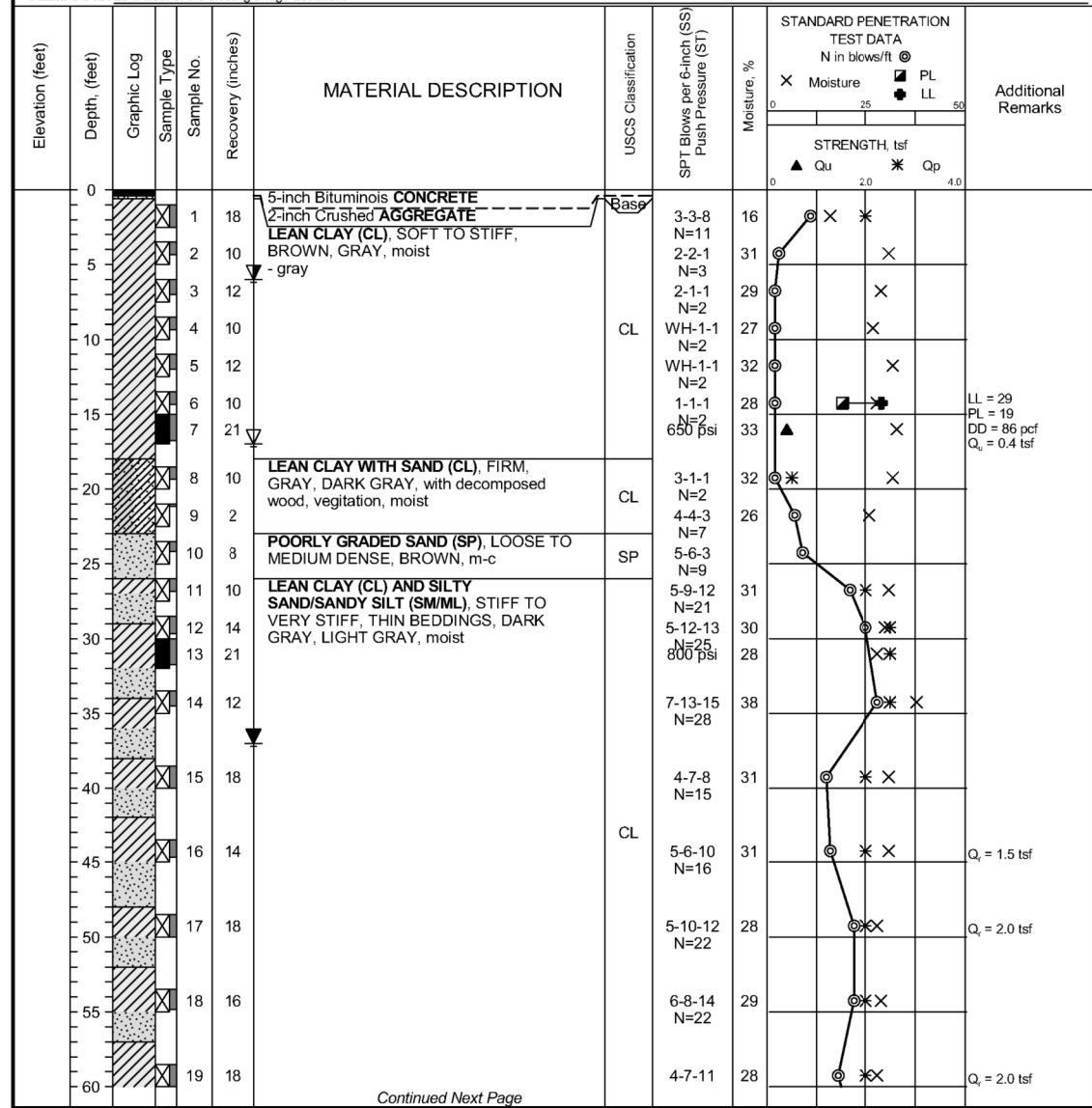
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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS  
 STRUCTURE NO. 064-9900**

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	26
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

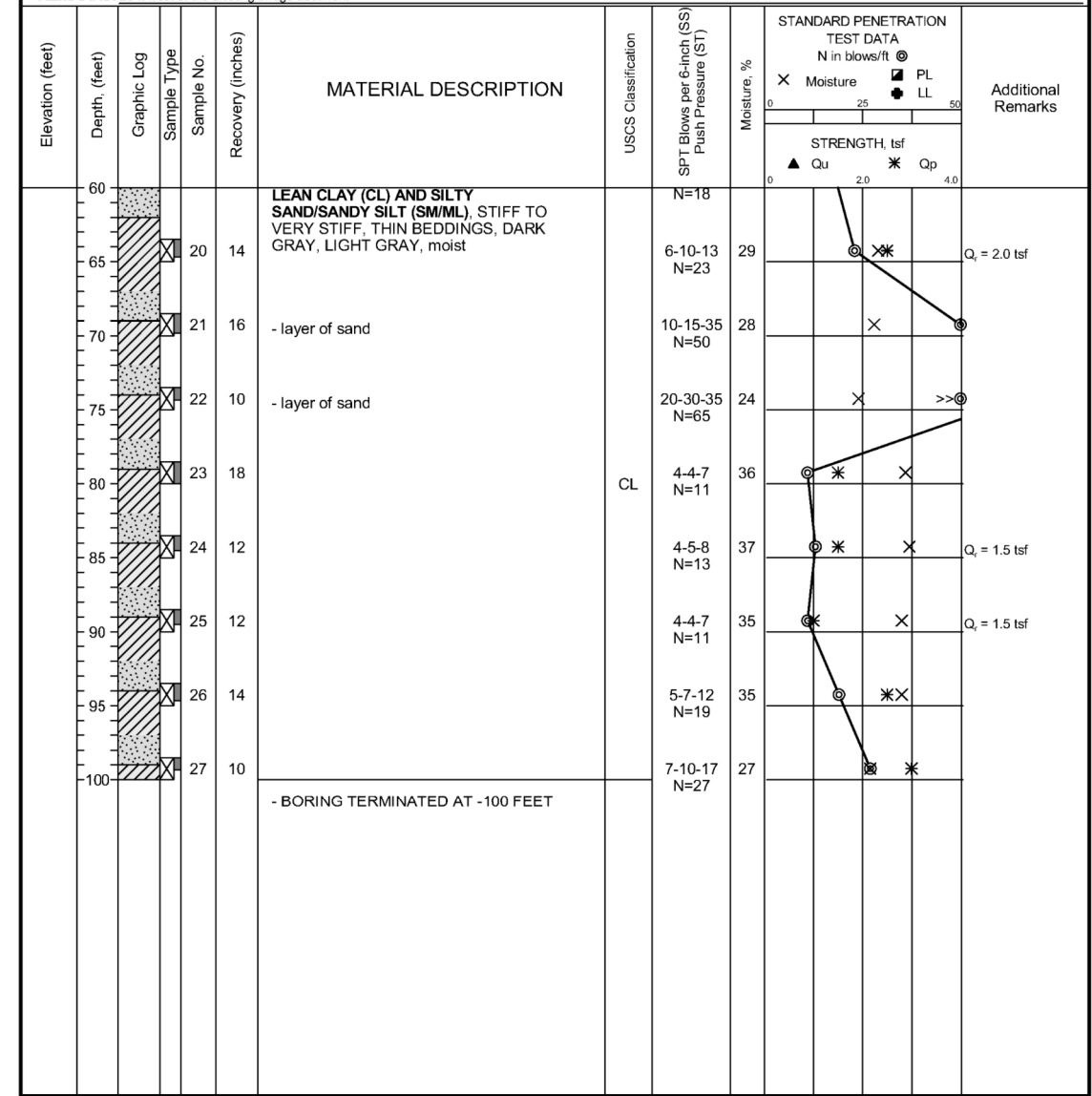
DATE STARTED: 12/4/17	DRILL COMPANY: PSI, Inc.	<b>BORING B-1</b>
DATE COMPLETED: 12/5/17	DRILLER: R. Tomlin LOGGED BY: K. Antonacci	
COMPLETION DEPTH: 100.0 ft	DRILL RIG: CME-55	Water: While Drilling 17 feet
BENCHMARK: N/A	DRILLING METHOD: Hollow Stem Auger	Upon Completion 37 feet
ELEVATION: N/A	SAMPLING METHOD: 2-in SS/3-in ST	24-Hr Delay 6 feet
LATITUDE:	HAMMER TYPE: Automatic	BORING LOCATION: Western Abutment
LONGITUDE:	EFFICIENCY: N/A	
STATION: N/A OFFSET: N/A	REVIEWED BY: EI	
REMARKS: 23-ft west of the existing bridge abutment		



	Professional Service Industries, Inc. 480 North Street Springfield, IL 62704 Telephone: (217) 544-6663	PROJECT NO.: 0026196-1
		PROJECT: Fort Massac State Park Bridge
		LOCATION: Metropolis, IL

The stratification lines represent approximate boundaries. The transition may be gradual. Sheet 1 of 2

DATE STARTED: 12/4/17	DRILL COMPANY: PSI, Inc.	<b>BORING B-1</b>
DATE COMPLETED: 12/5/17	DRILLER: R. Tomlin LOGGED BY: K. Antonacci	
COMPLETION DEPTH: 100.0 ft	DRILL RIG: CME-55	Water: While Drilling 17 feet
BENCHMARK: N/A	DRILLING METHOD: Hollow Stem Auger	Upon Completion 37 feet
ELEVATION: N/A	SAMPLING METHOD: 2-in SS/3-in ST	24-Hr Delay 6 feet
LATITUDE:	HAMMER TYPE: Automatic	BORING LOCATION: Western Abutment
LONGITUDE:	EFFICIENCY: N/A	
STATION: N/A OFFSET: N/A	REVIEWED BY: EI	
REMARKS: 23-ft west of the existing bridge abutment		



	Professional Service Industries, Inc. 480 North Street Springfield, IL 62704 Telephone: (217) 544-6663	PROJECT NO.: 0026196-1
		PROJECT: Fort Massac State Park Bridge
		LOCATION: Metropolis, IL

The stratification lines represent approximate boundaries. The transition may be gradual. Sheet 2 of 2

MODEL: 018  
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1/20/2020 1:21:50 PM



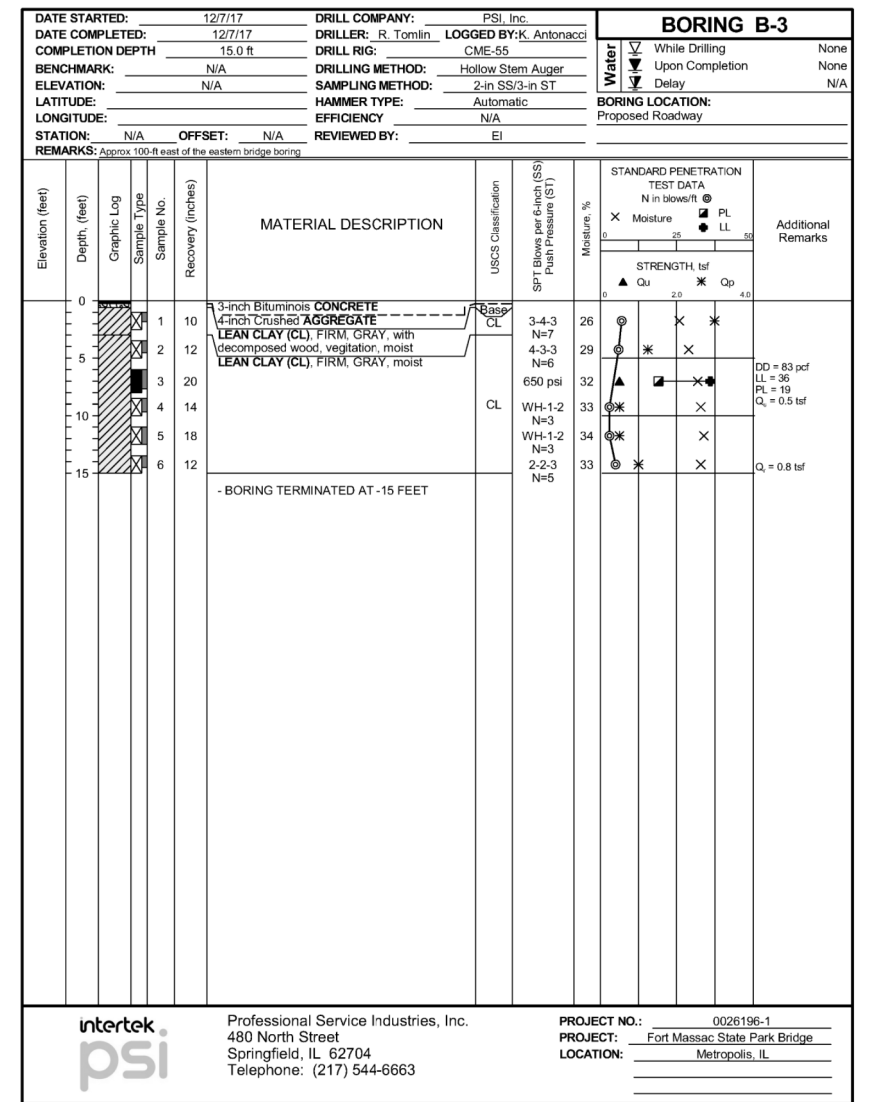
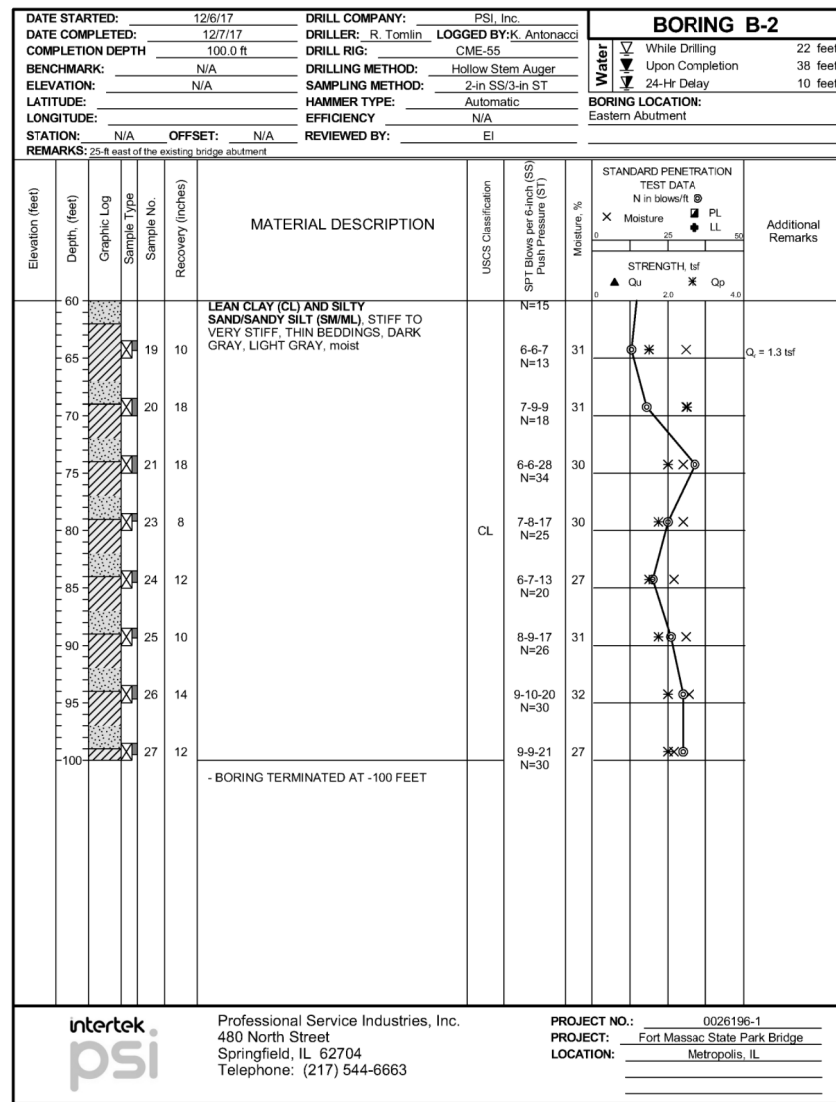
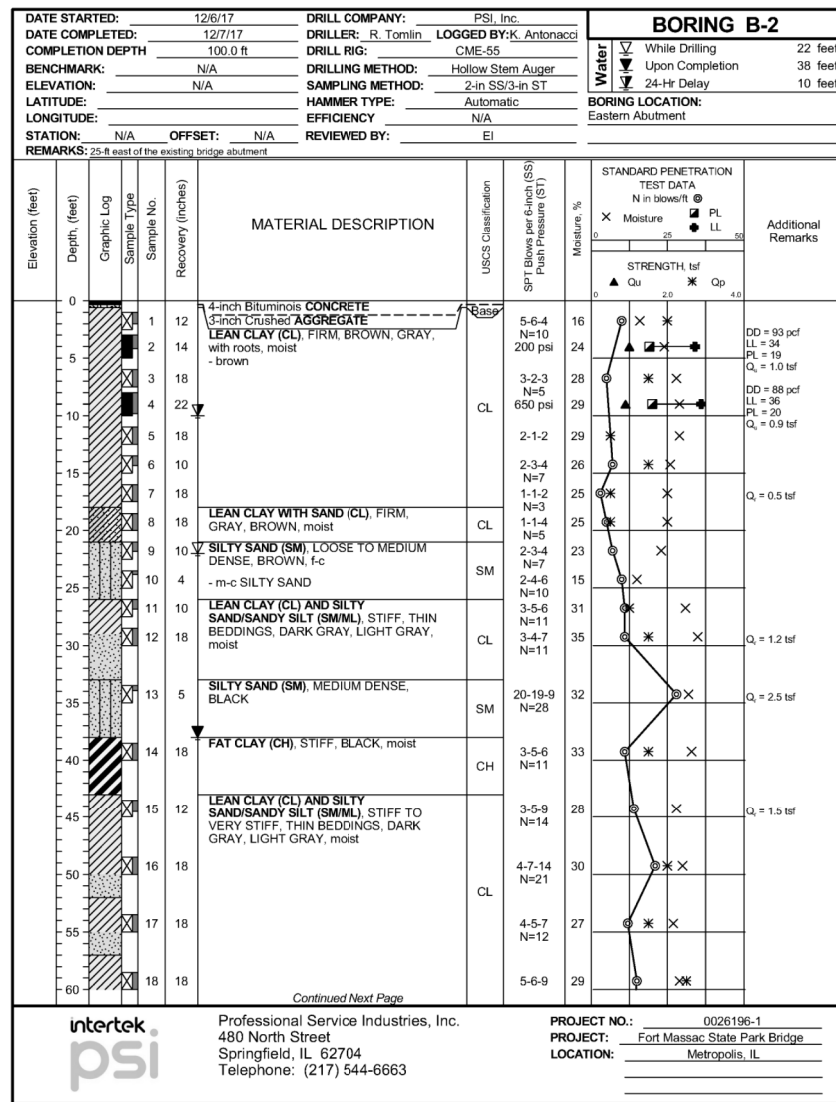
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CHECKED -	REVISOR -	
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BORING LOG - I**  
**STRUCTURE NO. 064-9902**  
SHEET 18 OF 19 SHEETS

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	27
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

MODEL: 019  
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The stratification lines represent approximate boundaries. The transition may be gradual. Sheet 1 of 2

The stratification lines represent approximate boundaries. The transition may be gradual. Sheet 2 of 2

The stratification lines represent approximate boundaries. The transition may be gradual. Sheet 1 of 1

**intertek** Professional Service Industries, Inc.  
 480 North Street  
 Springfield, IL 62704  
 Telephone: (217) 544-6663

PROJECT NO.: 0026196-1  
 PROJECT: Fort Massac State Park Bridge  
 LOCATION: Metropolis, IL

**intertek** Professional Service Industries, Inc.  
 480 North Street  
 Springfield, IL 62704  
 Telephone: (217) 544-6663

PROJECT NO.: 0026196-1  
 PROJECT: Fort Massac State Park Bridge  
 LOCATION: Metropolis, IL

**intertek** Professional Service Industries, Inc.  
 480 North Street  
 Springfield, IL 62704  
 Telephone: (217) 544-6663

PROJECT NO.: 0026196-1  
 PROJECT: Fort Massac State Park Bridge  
 LOCATION: Metropolis, IL



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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

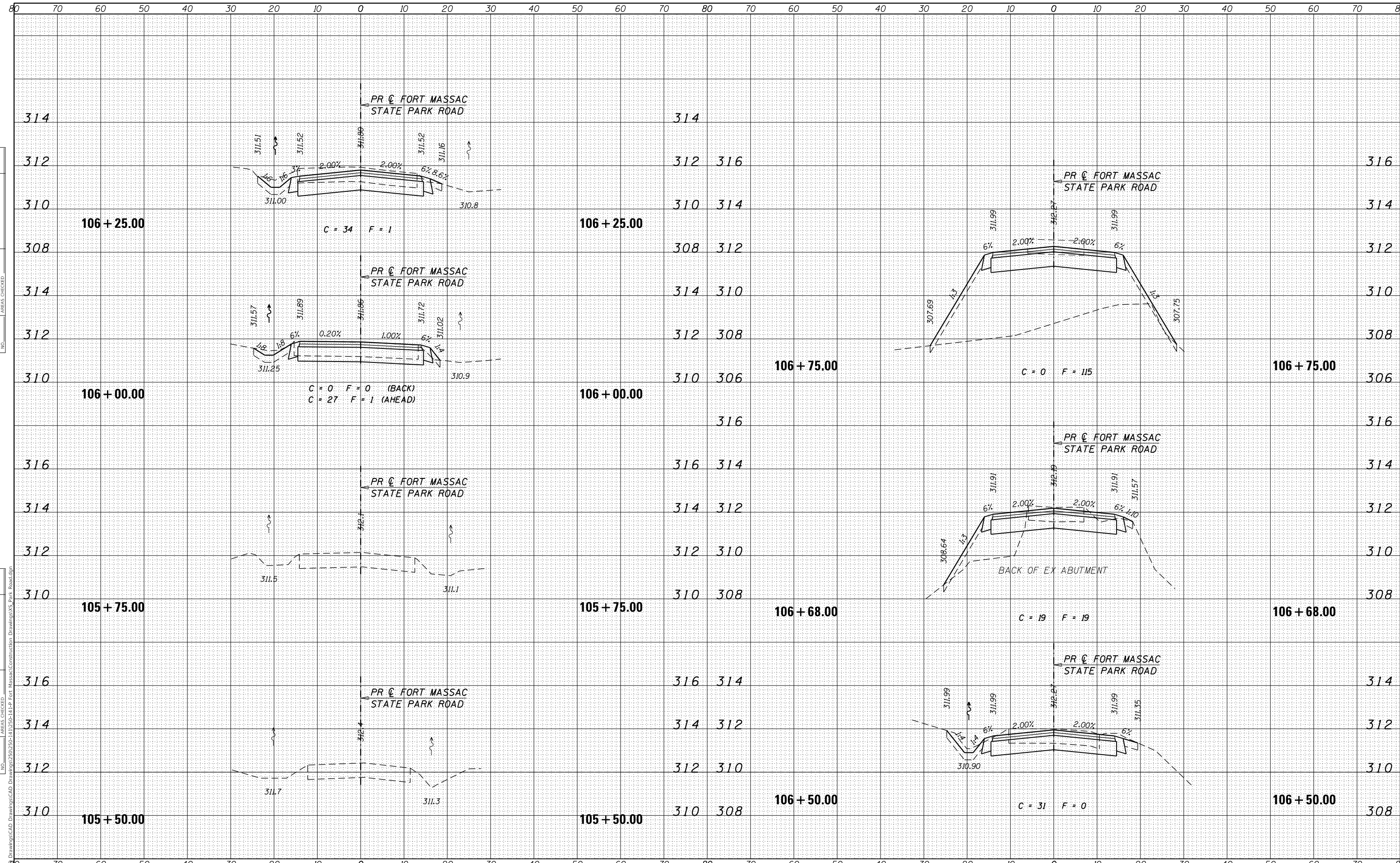
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BORING LOGS - II & III  
 STRUCTURE NO. 064-9902

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	FT MASSAC 2019	MASSAC	32	28
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINISHED	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL	
SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



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USER NAME = Connor Bell	DESIGNED - R.H.D.	REVISED -
	DRAWN - J.E.B.	REVISED -
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PLOT DATE = 1/20/2020	DATE - 1/14/20	REVISED -

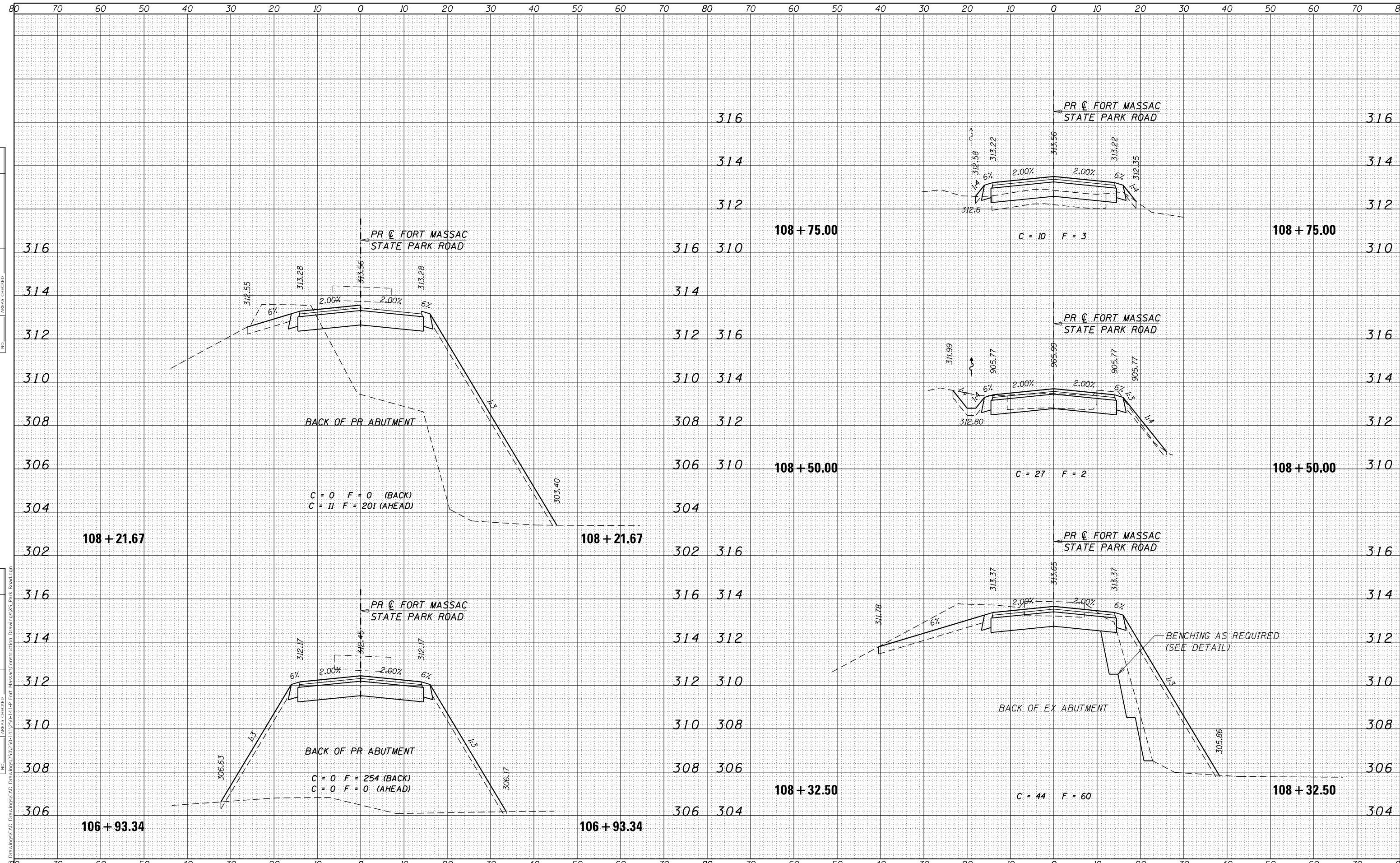
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS FORT MASSAC STATE PARK ROAD</b>			
SCALE:	SHEET	OF	SHEETS
	STA. 105+50.00	TO	STA. 106+75.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FORT MASSAC 2019	MASSAC	32	29
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

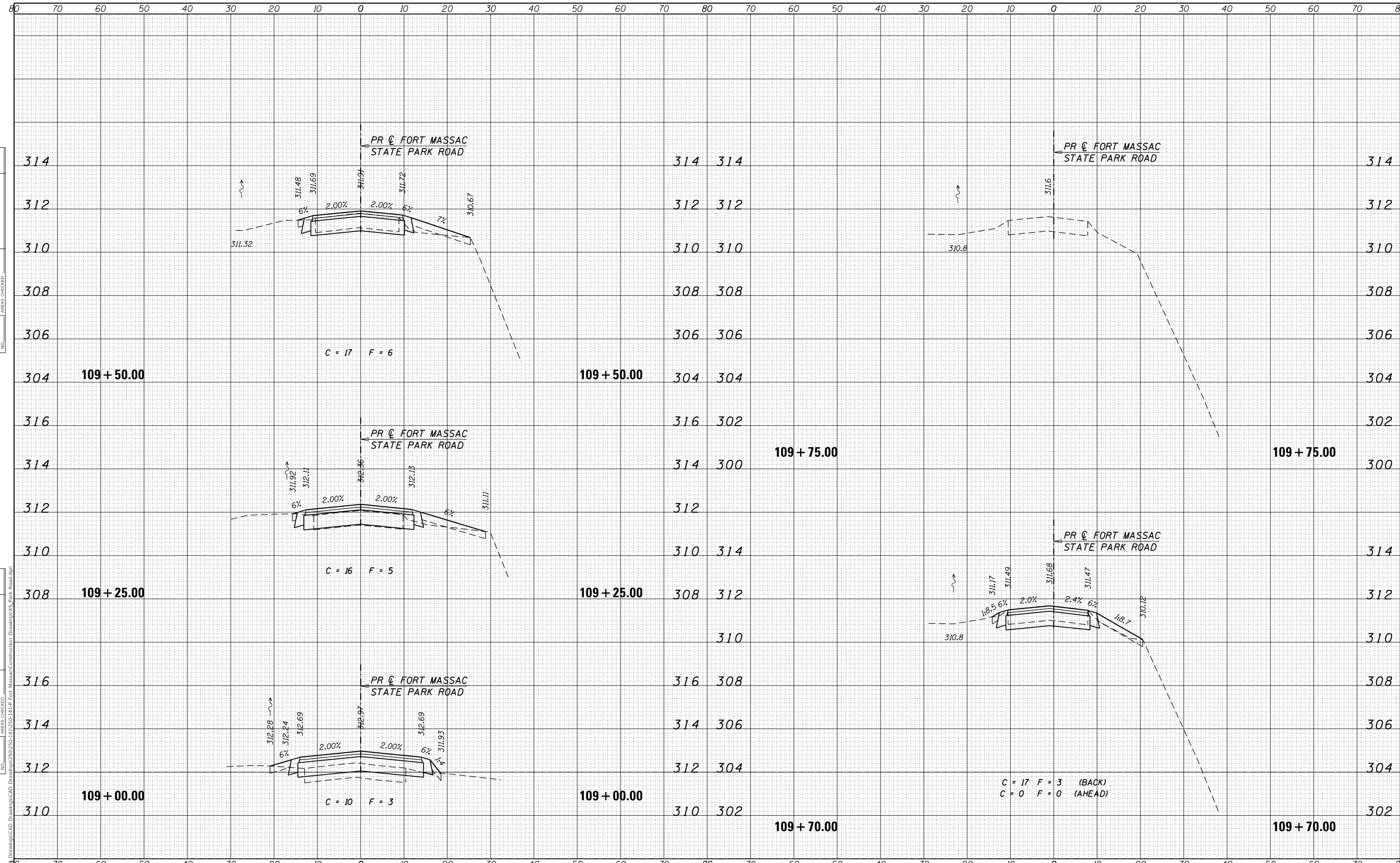
DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED



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		DRAWN - J.E.B.	REvised -		SCALE: SHEET OF SHEETS STA. 106+93.34 TO STA. 108+75.00				FORT MASSAC 2019		MASSAC	32	30	
		CHECKED - R.H.D.	REvised -										CONTRACT NO. 46908	
		DATE - 1/14/20	REvised -										ILLINOIS	FED. AID PROJECT

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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PLOT DATE = 1/20/2020	DATE - 1/14/20	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET	OF	SHEETS	STA. 109+00.00	TO STA. 109+75.00
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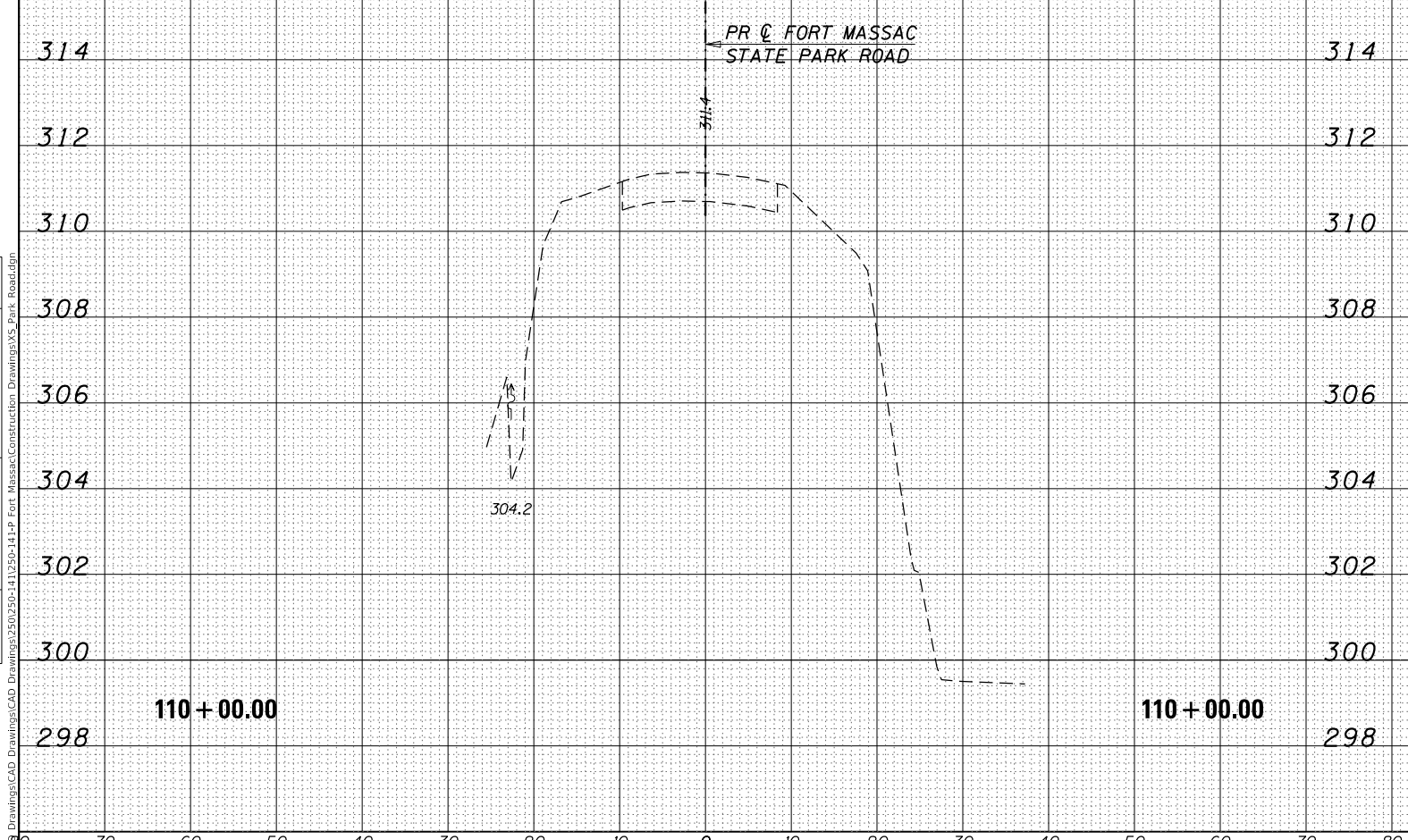
**CROSS SECTIONS  
 FORT MASSAC STATE PARK ROAD**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FORT MASSAC 2019	MASSAC	32	31
CONTRACT NO. 46908				
ILLINOIS FED. AID PROJECT				

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINISH SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

USER NAME = Connor Bell	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/20/2020	DATE - 1/14/20	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET	OF	SHEETS	STA. 110+00.00	TO STA. 110+00.00
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**CROSS SECTIONS  
FORT MASSAC STATE PARK ROAD**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FORT MASSAC 2019	MASSAC	32	32
			CONTRACT NO. 46908	
		ILLINOIS	FED. AID PROJECT	

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