SUMMARY OF QUANTITIES - CONT

					COUNTY:	JEFFERSON CO			
					ROUTE:	FAI 57			
					FUNDING:	80% FEDERAL 20% STATE			
					LOCATION:	INTERSTATE			
	CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QTY 1,2,3 & ALT A	TOTAL QTY 1,2,3 & ALT B	ROADWAY (1) 0001	SN 041-0119/0120 (2) 0010	SN 041-0005/0006 (3) 0013	ALTERNATE A 0001	ALTERNATE B 0001
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8	8	8				
	63200310	GUARDRAIL REMOVAL	FOOT	6094	6094	6,094				
	63500105	DELINEATORS	EACH	231	231	231				
	63700280	CONCRETE BARRIER, DOUBLE FACE, 44 INCH HEIGHT	FOOT	17434	17434	17,434				
	63700380	CONCRETE BARRIER, VARIABLE CROSS SECTION 44 INCH HEIGHT	FOOT	13466	13466	13,466				
	64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	48021	48021	48,021				
	64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	130350	130350	130,350				
	64300260	IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	5	5	5				
*	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	100	100	100				
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	4	4	4				
*	66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1	1				
*	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1	1				
*	66901006	REGULATED SUBSTANCES MONITORING	CAL DA	10	10	10	△1			
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	38	38	38				

* SPECIALTY ITEM

△1 REVISED 5-28-2024

REV. - MS

MODEL: SOQ-7 [Sheet1]
FILE NAME: pw://idot-pw.bentley.com:PWIDOT/Documents/IDOT Offices/District 9/Projects/78885/ORD-CADData/CADsheets/D978885_Cvr_Sig_Index_SOQ.dgn

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	DRAWN -	REVISED -	
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PLOT DATE = 5/10/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	JEFFERSON	336	13
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

*D9 I-57 ADD LANE 6; (41-2)B-3;(41-2)BR-2

GENERAL NOTES

1. Fasteners shall be ASTM F3125 Grade A325 Type 1, mechanically galvanized bolts in painted or metallized areas and ASTM F3125 Grade A325 Type 3 weathering steel bolts in unpainted areas. Bolts $\frac{7}{8}$ in. dia., holes $\frac{15}{16}$ in. dia., unless otherwise noted.

2. Calculated weight of Structural Steel:
   M 270 Grade 50W = 376,510 lbs
   M 270 Grade 50 = 8,490 lbs

3. All structural steel shall be AASHTO M 270 Grade 50W (except bearings which shall be AASHTO M270 Grade 50).

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

5. Reinforcement bars designated (E) shall be epoxy coated.

6. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

7. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

8. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 18 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

9. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

10. Slipforming of parapets is not allowed.

11. The finishing machine rails shall be placed on the top of the top flange of the exterior beams within the deck pour. Beam blocks shall be placed between beams at all tie locations in each bay for the full width of the deck pour.

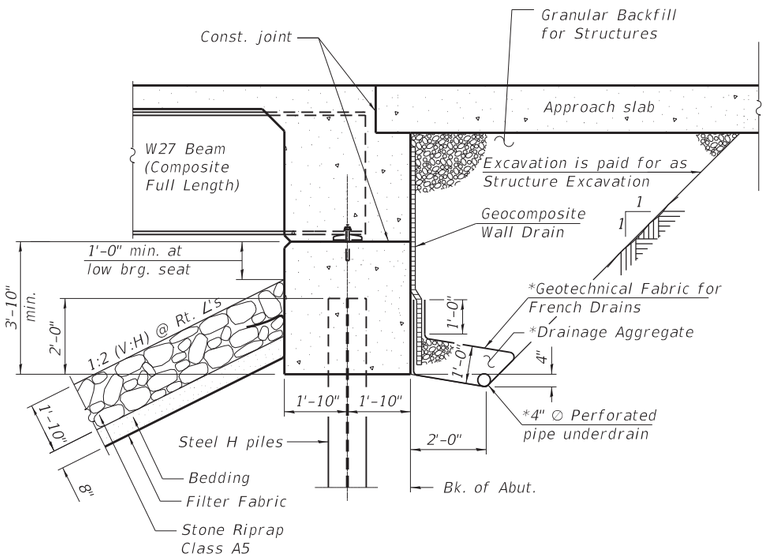
12. Removal of existing concrete slope walls shall be included in the cost of Removal of Existing Structures. 1

STATION 463+54.21 BUILT BY STATE OF ILLINOIS F.A.I. RTE. 57 - SEC. (41-2)B-2 LOADING HL-93 STRUCTURE NO. 041-0119

STATION 463+54.21 BUILT BY STATE OF ILLINOIS F.A.I. RTE. 57 - SEC. (41-2)B-2 LOADING HL-93 STRUCTURE NO. 041-0120

NAME PLATES
See Std. 515001

INDEX OF SHEETS



SECTION THRU INTEGRAL ABUTMENT

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

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).

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		3378	3378
Filter Fabric	Sq. Yd.		3378	3378
Removal of Existing Structures No. 1	Each			1
Removal of Existing Structures No. 2	Each			1
Structure Excavation	Cu. Yd.		669	669
Cofferdam Excavation	Cu. Yd.		320	320
Cofferdam (Type 2) (Location - 1)	Each		1	1
Floor Drains	Each	16		16
Concrete Structures	Cu. Yd.		665.8	665.8
Concrete Superstructure	Cu. Yd.	655.4		655.4
Protective Coat	Sq. Yd.	3102		3102
Concrete Superstructure (Approach Slab)	Cu. Yd.	393.2		393.2
Furnishing and Erecting Structural Steel	L Sum	1		1
Stud Shear Connectors	Each	15360		15360
Reinforcement Bars, Epoxy Coated	Pound	302600	72270	374870
Bar Splicers	Each	1388	344	1732
Furnishing Steel Piles HP14x89	Foot		5600	5600
Driving Piles	Foot		5600	5600
Test Pile Steel HP14x89	Each		6	6
Pile Shoes	Each		86	86
Name Plates	Each	2		2
Anchor Bolts, 1"	Each	96		96
Temporary Sheet Piling	Sq. Ft.		754	754
Granular Backfill for Structures	Cu. Yd.		453	453
Geocomposite Wall Drain	Sq. Yd.		229	229
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1480		1480
Diamond Grinding (Bridge Section)	Sq. Yd.	3018		3018
Pipe Underdrains for Structures 4"	Foot		350	350
Bar Terminator	Each	792	1328	2120

1 REVISED 5-28-2024

TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - JM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL DATA STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
		CHECKED - BWP	REVISED -		
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PLOT DATE = 3/1/2024		CHECKED - BWP	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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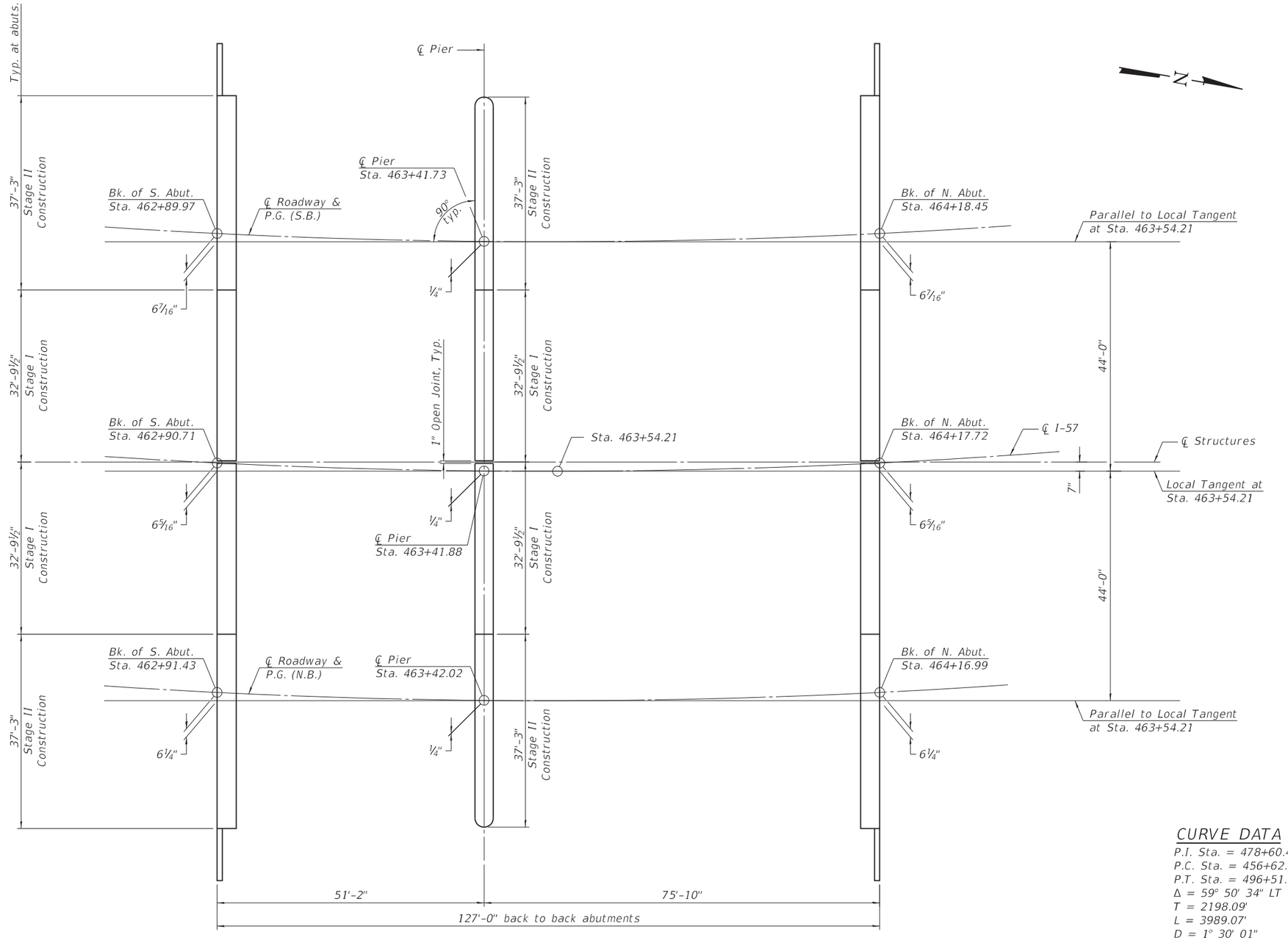
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			



SUBSTRUCTURE LAYOUT AND OFFSET SKETCH

CURVE DATA

P.I. Sta. = 478+60.47
P.C. Sta. = 456+62.38
P.T. Sta. = 496+51.45
Δ = 59° 50' 34" LT
T = 2198.09'
L = 3989.07'
D = 1° 30' 01"
E = 587.36'
R = 3819.30'
S.E. = 0.03'/ft.

⚠1 REVISED SHEET 5-28-2024

MODEL: Default
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3/1/2024 10:14:52 AM

TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

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PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 3 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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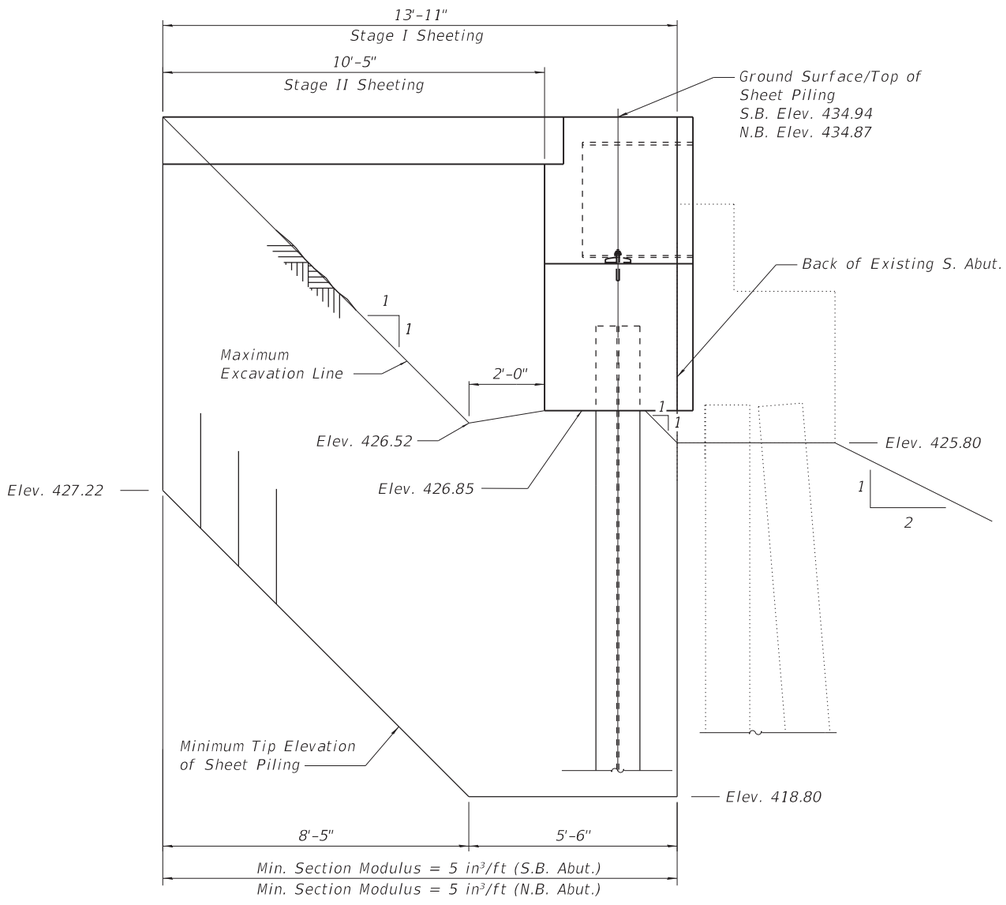
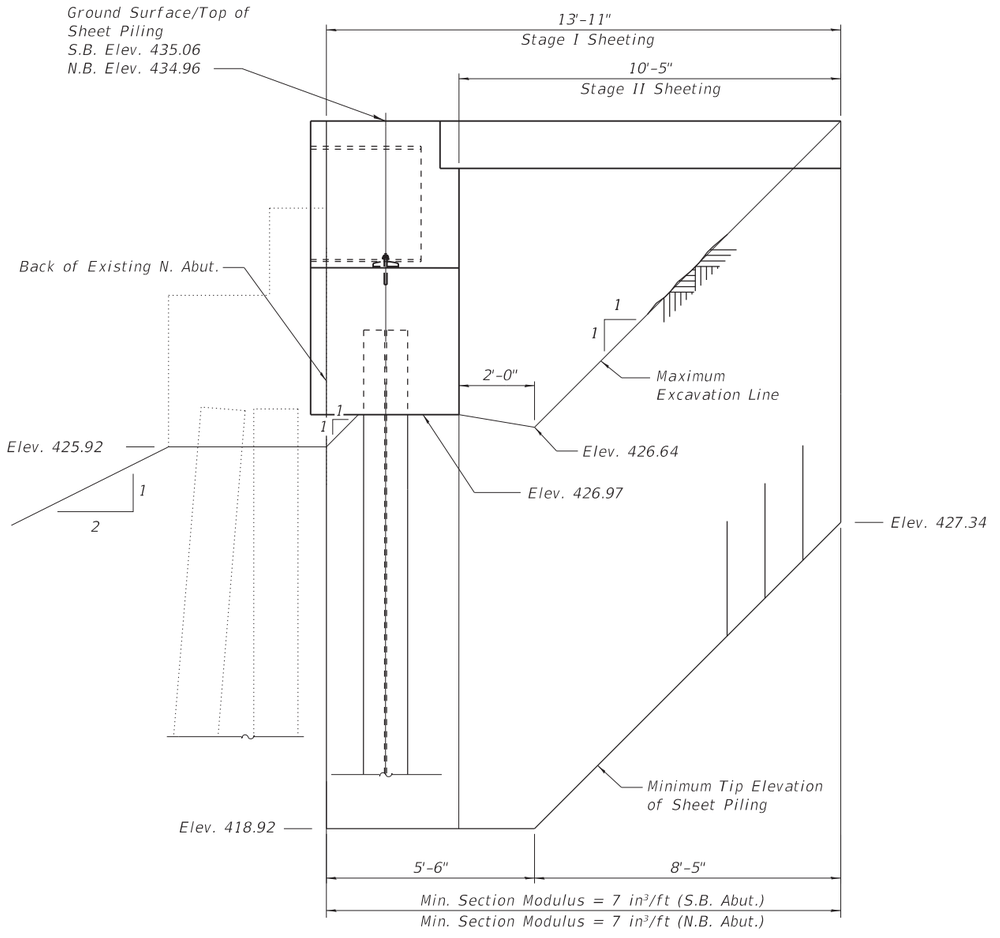
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



SOUTH ABUTMENT
TEMPORARY SHEET PILING
(Looking West)



NORTH ABUTMENT
TEMPORARY SHEET PILING
(Looking West)

⚠1 REVISED SHEET 5-28-2024

Note:
If the Contractor chooses to alter the temporary cantilever sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer

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	PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	SHEET NO. 4 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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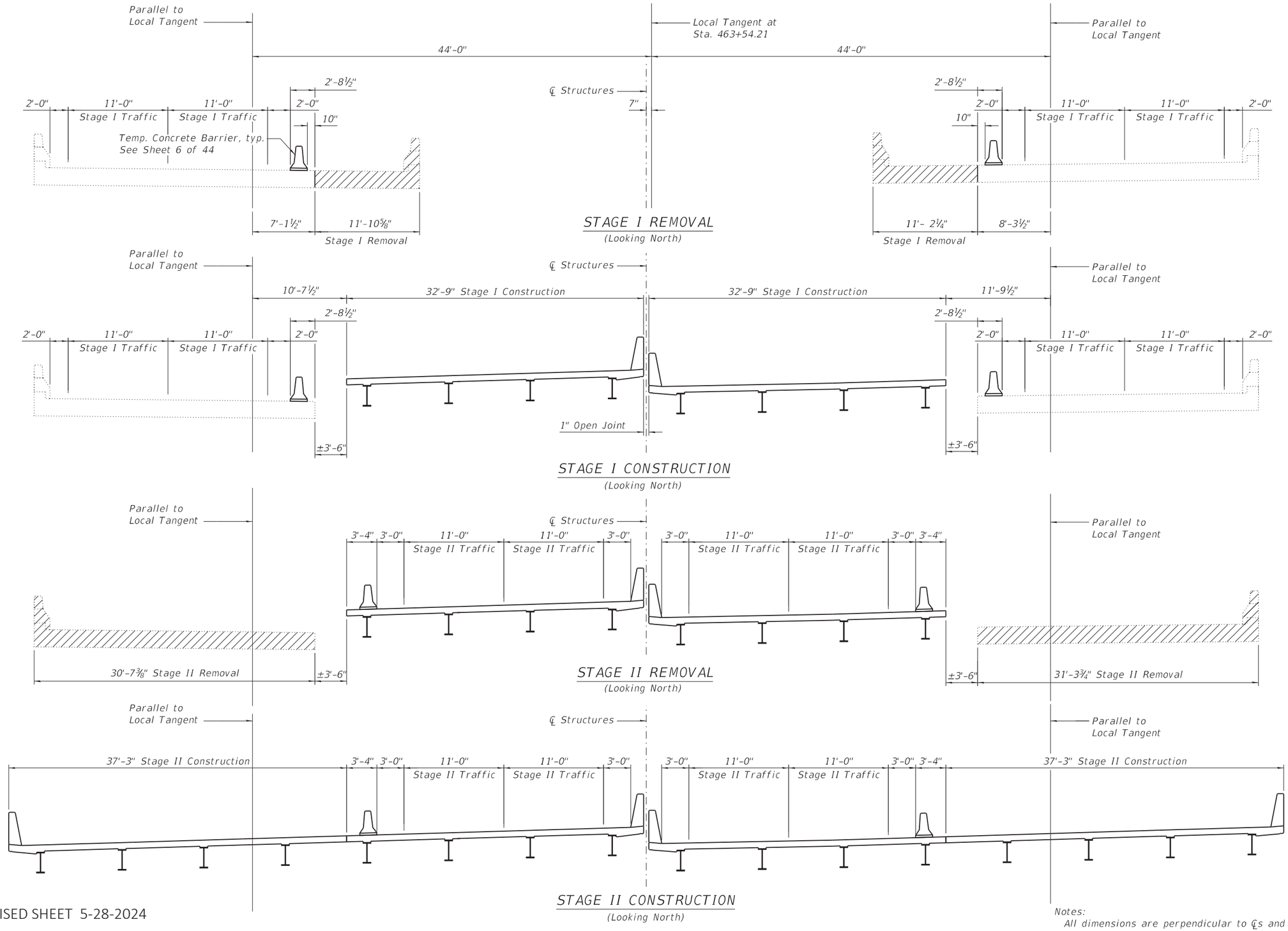
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



1 REVISED SHEET 5-28-2024

Notes:
All dimensions are perpendicular to ℄s and Local Tangent.
Hatched area indicates Removal of Existing Structures No. 1 or No. 2.
For quantities of Temporary Concrete Barrier, see roadway plans.

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ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

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PLOT DATE = 3/1/2024		CHECKED - BWP		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 041-0119 (N.B.) & 041-120 (S.B.)
SHEET NO. 5 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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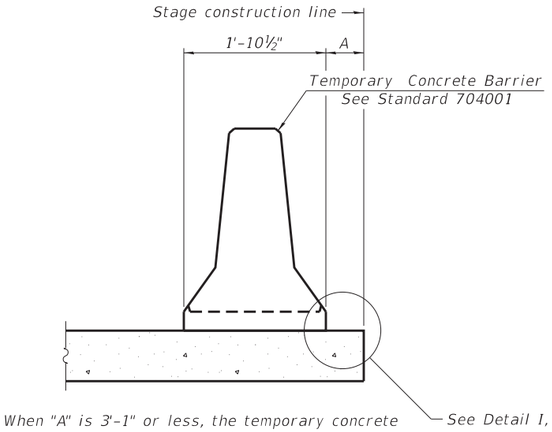
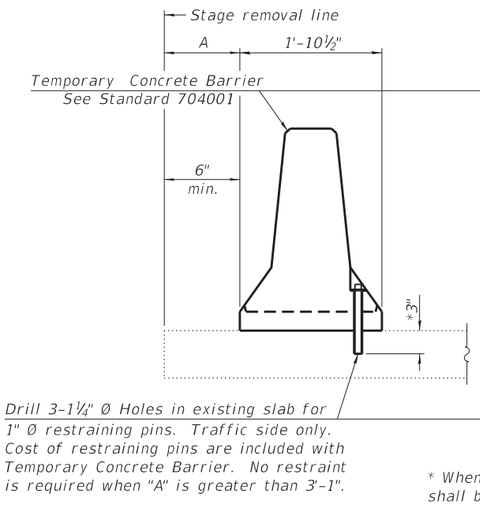
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



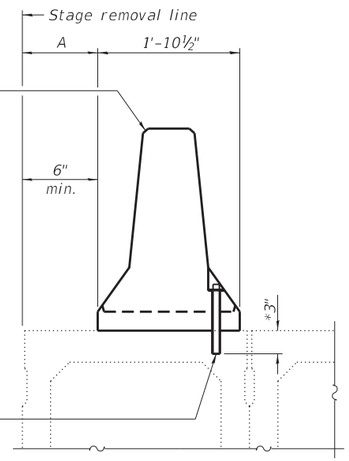
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

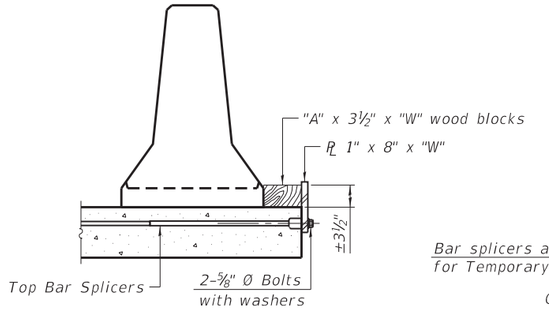
EXISTING SLAB



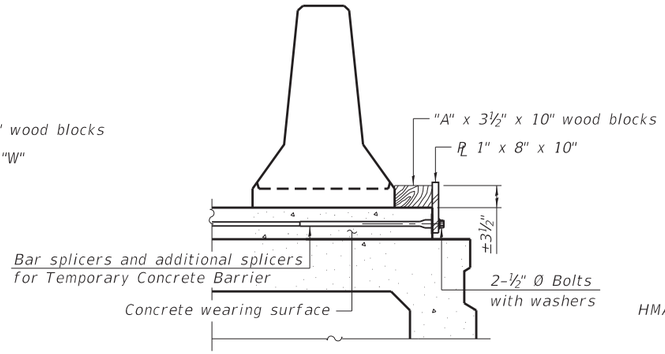
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

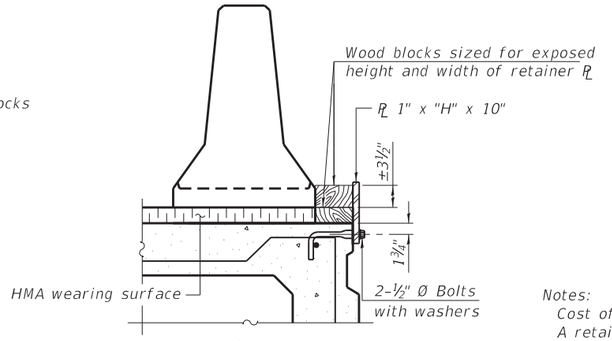
SECTIONS THRU SLAB OR DECK BEAM



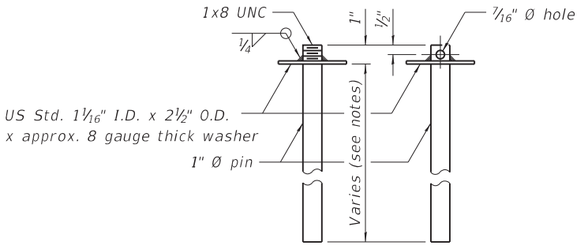
DETAIL I



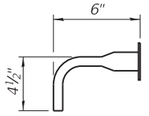
DETAIL II



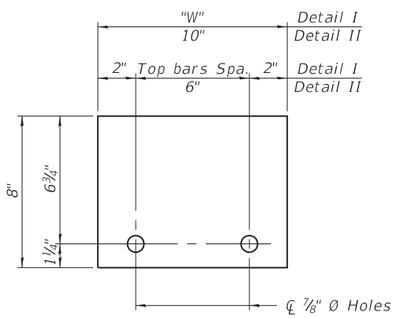
DETAIL III



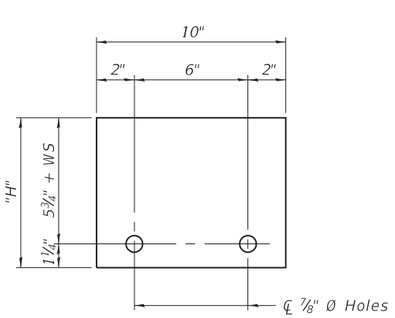
RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER PL 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER PL 1" x "H" x 10"
(Detail III)

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

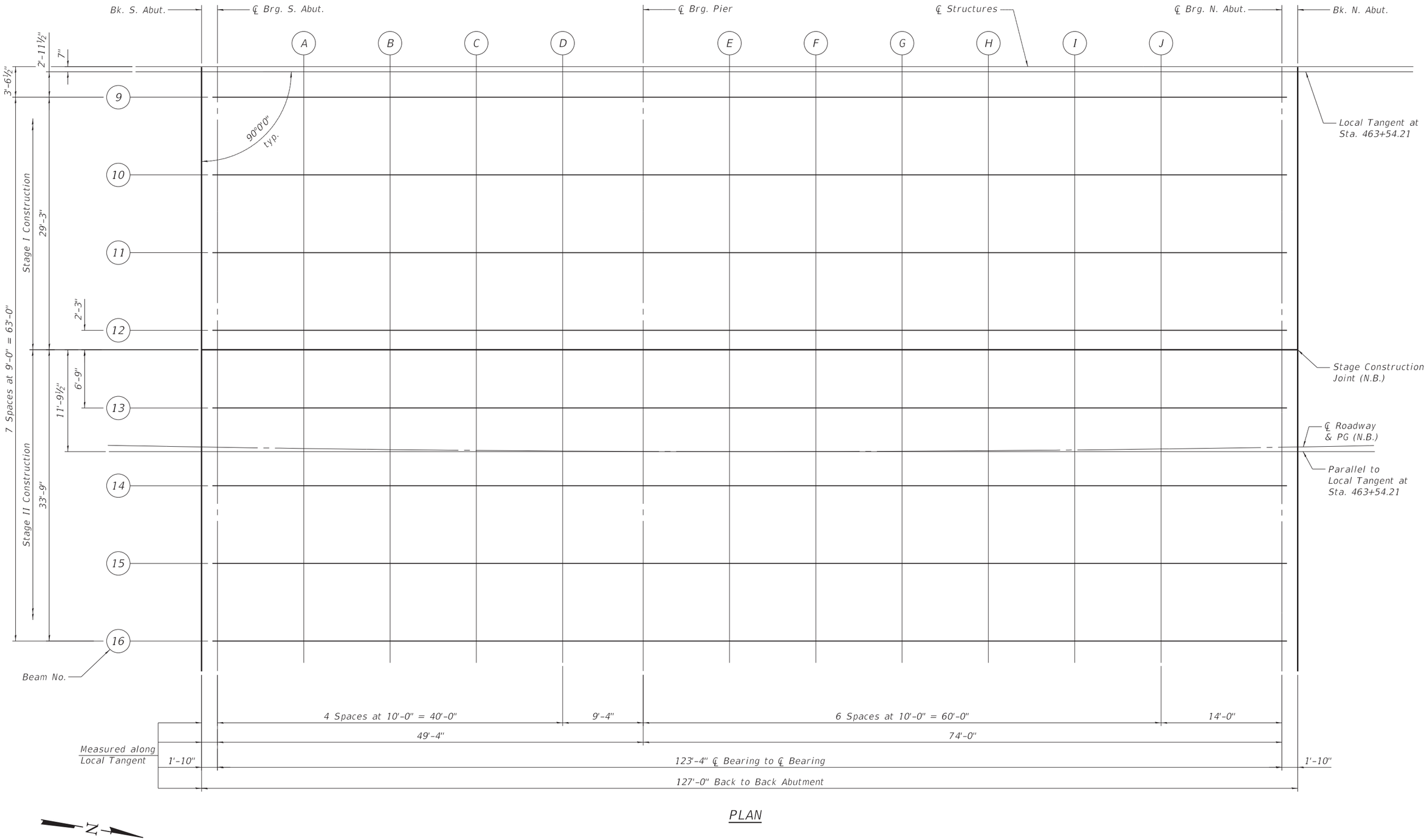
RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

10-12-2021

1 REVISED SHEET 5-28-2024



PLAN

1 REVISED SHEET 5-28-2024

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		CHECKED - BWP	REVISED -	
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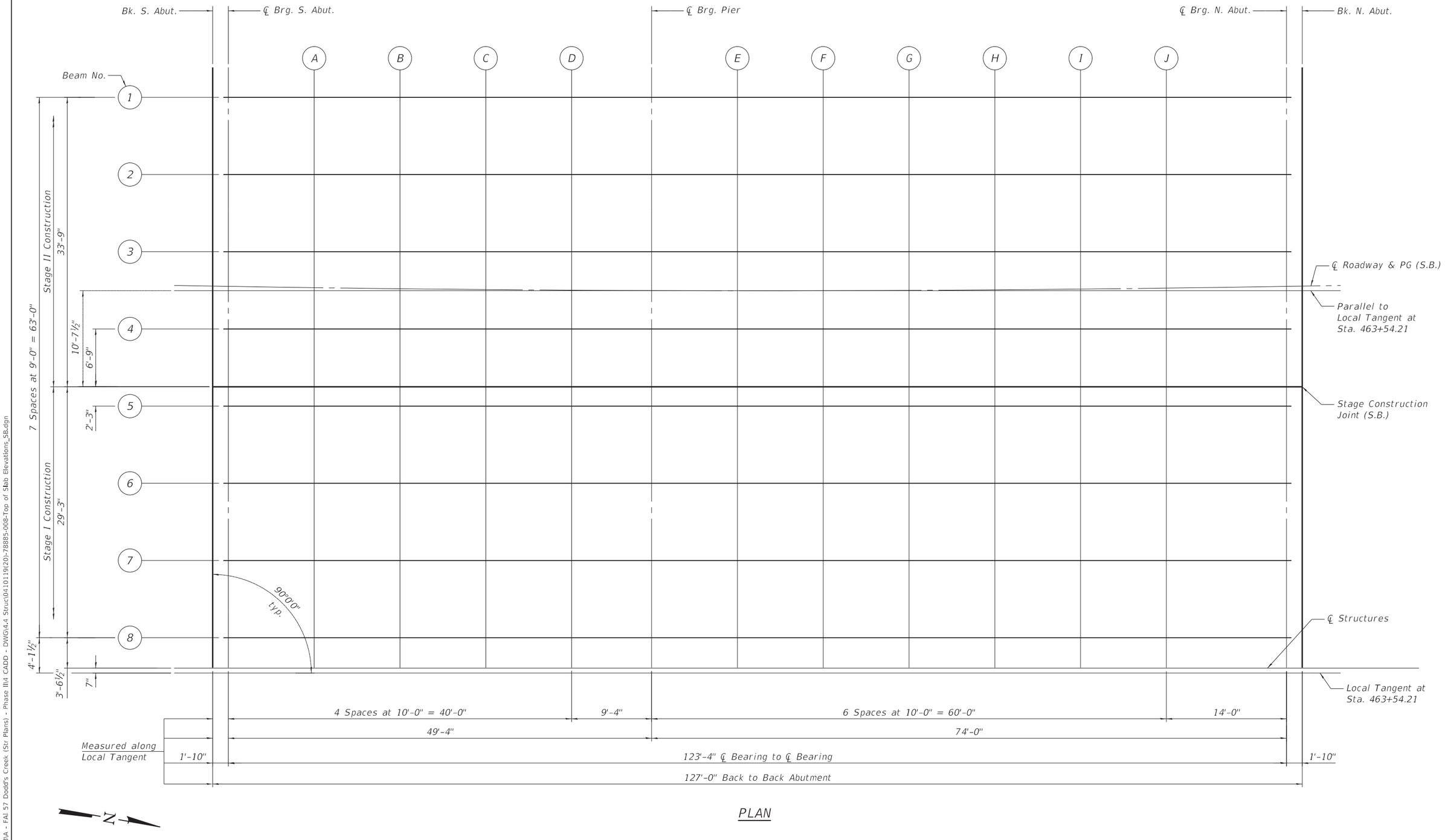
	PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 7 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	151
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



PLAN

1 REVISED SHEET 5-28-2024

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3/1/2024 10:22:44 AM

TWM, INC. WWW.TWM-INC.COM
ENGINEERING GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

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	CHECKED - BWP	REVISED -	
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PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 8 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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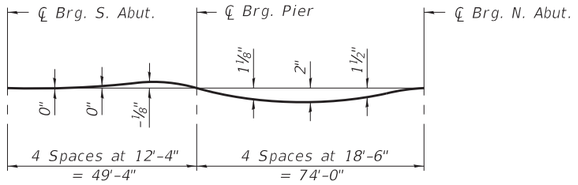
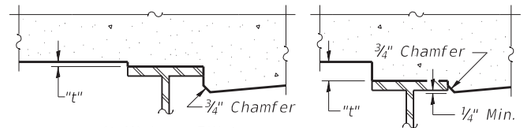
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

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 and grinding as shown below and on sheets 10 and 11 of 44.



To determine "t": After all structural steel has 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 Deflection and Grinding" shown below, minus the initial slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.
The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown below and on sheets 10 and 11 of 44. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+89.58	-66.59	433.88	433.90
℄ Brg. S. Abut.	462+91.45	-66.62	433.88	433.90
A	463+01.62	-66.77	433.91	433.94
B	463+11.80	-66.89	433.94	433.96
C	463+21.98	-66.99	433.96	433.97
D	463+32.16	-67.06	433.98	433.98
℄ Brg. Pier	463+41.66	-67.10	433.99	434.01
E	463+51.84	-67.12	434.00	434.07
F	463+62.02	-67.12	434.01	434.14
G	463+72.19	-67.08	434.02	434.19
H	463+82.37	-67.02	434.02	434.21
I	463+92.55	-66.94	434.02	434.19
J	464+02.73	-66.82	434.02	434.14
℄ Brg. N. Abut.	464+16.98	-66.62	434.01	434.03
Bk. N. Abut.	464+18.84	-66.59	434.00	434.02

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+89.74	-57.59	434.15	434.17
℄ Brg. S. Abut.	462+91.60	-57.62	434.15	434.17
A	463+01.75	-57.77	434.18	434.21
B	463+11.90	-57.89	434.21	434.23
C	463+22.06	-57.99	434.23	434.24
D	463+32.21	-58.06	434.25	434.26
℄ Brg. Pier	463+41.69	-58.10	434.26	434.28
E	463+51.84	-58.12	434.27	434.34
F	463+62.00	-58.12	434.28	434.41
G	463+72.15	-58.08	434.29	434.46
H	463+82.31	-58.02	434.29	434.48
I	463+92.46	-57.94	434.29	434.46
J	464+02.61	-57.82	434.29	434.41
℄ Brg. N. Abut.	464+16.83	-57.62	434.28	434.30
Bk. N. Abut.	464+18.69	-57.59	434.27	434.29

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+89.89	-48.59	434.42	434.44
℄ Brg. S. Abut.	462+91.75	-48.62	434.42	434.44
A	463+01.88	-48.77	434.45	434.48
B	463+12.00	-48.89	434.48	434.50
C	463+22.13	-48.99	434.50	434.51
D	463+32.26	-49.06	434.52	434.53
℄ Brg. Pier	463+41.72	-49.10	434.53	434.55
E	463+51.85	-49.12	434.54	434.61
F	463+61.98	-49.12	434.55	434.68
G	463+72.11	-49.08	434.56	434.73
H	463+82.24	-49.02	434.56	434.75
I	463+92.37	-48.94	434.56	434.73
J	464+02.50	-48.82	434.56	434.68
℄ Brg. N. Abut.	464+16.68	-48.62	434.55	434.57
Bk. N. Abut.	464+18.53	-48.59	434.54	434.57

STAGE CONSTRUCTION JOINT (S.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+90.16	-32.84	434.89	434.91
℄ Brg. S. Abut.	462+92.01	-32.87	434.90	434.92
A	463+02.09	-33.02	434.92	434.95
B	463+12.18	-33.15	434.95	434.97
C	463+22.27	-33.24	434.97	434.98
D	463+32.35	-33.31	434.99	435.00
℄ Brg. Pier	463+41.77	-33.35	435.00	435.02
E	463+51.86	-33.37	435.02	435.08
F	463+61.95	-33.37	435.03	435.15
G	463+72.03	-33.33	435.03	435.20
H	463+82.12	-33.27	435.03	435.22
I	463+92.21	-33.19	435.03	435.21
J	464+02.30	-33.07	435.03	435.15
℄ Brg. N. Abut.	464+16.42	-32.87	435.02	435.04
Bk. N. Abut.	464+18.27	-32.84	435.02	435.04

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+90.04	-39.59	434.69	434.71
℄ Brg. S. Abut.	462+91.90	-39.62	434.69	434.71
A	463+02.00	-39.77	434.72	434.75
B	463+12.11	-39.90	434.75	434.77
C	463+22.21	-39.99	434.77	434.78
D	463+32.32	-40.06	434.79	434.80
℄ Brg. Pier	463+41.75	-40.10	434.80	434.82
E	463+51.85	-40.12	434.81	434.88
F	463+61.96	-40.12	434.82	434.95
G	463+72.07	-40.08	434.83	435.00
H	463+82.17	-40.02	434.83	435.02
I	463+92.28	-39.94	434.83	435.00
J	464+02.38	-39.82	434.83	434.95
℄ Brg. N. Abut.	464+16.53	-39.62	434.82	434.84
Bk. N. Abut.	464+18.38	-39.59	434.81	434.84

℄ ROADWAY & PG (S.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+89.97	-44.00	434.56	434.58
℄ Brg. S. Abut.	462+91.82	-44.00	434.56	434.58
A	463+01.94	-44.00	434.60	434.62
B	463+12.06	-44.00	434.62	434.65
C	463+22.18	-44.00	434.65	434.66
D	463+32.29	-44.00	434.67	434.68
℄ Brg. Pier	463+41.74	-44.00	434.68	434.71
E	463+51.85	-44.00	434.70	434.76
F	463+61.97	-44.00	434.71	434.83
G	463+72.09	-44.00	434.71	434.88
H	463+82.20	-44.00	434.71	434.90
I	463+92.32	-44.00	434.71	434.88
J	464+02.44	-44.00	434.70	434.83
℄ Brg. N. Abut.	464+16.60	-44.00	434.68	434.71
Bk. N. Abut.	464+18.46	-44.00	434.68	434.70

⚠1 REVISED SHEET 5-28-2024

Note:
Offsets measured from ℄ I-57

TWM, INC.
WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - MAL	REVISED -	
		CHECKED - BWP	REVISED -	
PLOT SCALE = 0.166667 ' / In.		DRAWN - MAL	REVISED -	
PLOT DATE = 3/1/2024		CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 9 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	153
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+90.20	-30.59	434.96	434.98
℄ Brg. S. Abut.	462+92.04	-30.62	434.96	434.99
A	463+02.12	-30.77	434.99	435.02
B	463+12.21	-30.90	435.02	435.04
C	463+22.29	-30.99	435.04	435.05
D	463+32.37	-31.06	435.06	435.07
℄ Brg. Pier	463+41.78	-31.10	435.07	435.09
E	463+51.86	-31.12	435.08	435.15
F	463+61.94	-31.12	435.09	435.22
G	463+72.02	-31.08	435.10	435.27
H	463+82.11	-31.02	435.10	435.29
I	463+92.19	-30.94	435.10	435.27
J	464+02.27	-30.83	435.10	435.22
℄ Brg. N. Abut.	464+16.38	-30.62	435.09	435.11
Bk. N. Abut.	464+18.23	-30.59	435.08	435.11

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+90.35	-21.59	435.23	435.25
℄ Brg. S. Abut.	462+92.19	-21.62	435.24	435.26
A	463+02.25	-21.77	435.26	435.29
B	463+12.30	-21.90	435.29	435.31
C	463+22.36	-21.99	435.31	435.32
D	463+32.42	-22.06	435.33	435.34
℄ Brg. Pier	463+41.81	-22.10	435.34	435.36
E	463+51.87	-22.12	435.35	435.42
F	463+61.92	-22.12	435.36	435.49
G	463+71.98	-22.08	435.37	435.54
H	463+82.04	-22.02	435.37	435.56
I	463+92.10	-21.94	435.37	435.54
J	464+02.15	-21.83	435.37	435.49
℄ Brg. N. Abut.	464+16.23	-21.62	435.36	435.38
Bk. N. Abut.	464+18.08	-21.59	435.35	435.38

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+90.50	-12.60	435.50	435.52
℄ Brg. S. Abut.	462+92.34	-12.63	435.51	435.53
A	463+02.37	-12.77	435.53	435.56
B	463+12.40	-12.90	435.56	435.58
C	463+22.44	-12.99	435.58	435.59
D	463+32.47	-13.06	435.60	435.61
℄ Brg. Pier	463+41.84	-13.11	435.61	435.63
E	463+51.87	-13.12	435.62	435.69
F	463+61.91	-13.12	435.63	435.75
G	463+71.94	-13.08	435.64	435.81
H	463+81.97	-13.02	435.64	435.83
I	463+92.01	-12.94	435.64	435.81
J	464+02.04	-12.83	435.64	435.76
℄ Brg. N. Abut.	464+16.09	-12.63	435.63	435.65
Bk. N. Abut.	464+17.93	-12.60	435.63	435.65

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+90.65	-3.60	435.77	435.79
℄ Brg. S. Abut.	462+92.48	-3.63	435.78	435.80
A	463+02.49	-3.78	435.80	435.83
B	463+12.50	-3.90	435.83	435.85
C	463+22.51	-3.99	435.85	435.86
D	463+32.52	-4.06	435.87	435.88
℄ Brg. Pier	463+41.87	-4.11	435.88	435.90
E	463+51.88	-4.12	435.89	435.96
F	463+61.89	-4.12	435.90	436.02
G	463+71.90	-4.08	435.91	436.08
H	463+81.91	-4.02	435.91	436.10
I	463+91.92	-3.94	435.91	436.08
J	464+01.93	-3.83	435.91	436.03
℄ Brg. N. Abut.	464+15.94	-3.63	435.90	435.92
Bk. N. Abut.	464+17.78	-3.60	435.90	435.92

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+90.77	3.49	433.95	433.97
℄ Brg. S. Abut.	462+92.60	3.46	433.95	433.97
A	463+02.59	3.31	433.98	434.00
B	463+12.58	3.19	434.00	434.02
C	463+22.57	3.09	434.02	434.03
D	463+32.56	3.02	434.03	434.04
℄ Brg. Pier	463+41.89	2.98	434.05	434.07
E	463+51.88	2.96	434.06	434.12
F	463+61.87	2.97	434.06	434.19
G	463+71.87	3.00	434.07	434.24
H	463+81.86	3.06	434.07	434.25
I	463+91.85	3.14	434.06	434.24
J	464+01.84	3.26	434.06	434.18
℄ Brg. N. Abut.	464+15.83	3.46	434.05	434.07
Bk. N. Abut.	464+17.66	3.49	434.04	434.06

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+90.92	12.48	434.22	434.24
℄ Brg. S. Abut.	462+92.74	12.45	434.22	434.24
A	463+02.71	12.31	434.25	434.27
B	463+12.68	12.18	434.27	434.29
C	463+22.65	12.09	434.29	434.30
D	463+32.61	12.02	434.30	434.31
℄ Brg. Pier	463+41.92	11.98	434.32	434.34
E	463+51.89	11.96	434.33	434.39
F	463+61.86	11.97	434.33	434.46
G	463+71.82	12.00	434.34	434.51
H	463+81.79	12.06	434.34	434.52
I	463+91.76	12.14	434.33	434.51
J	464+01.73	12.25	434.33	434.45
℄ Brg. N. Abut.	464+15.68	12.45	434.32	434.34
Bk. N. Abut.	464+17.51	12.48	434.31	434.33

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+91.06	21.48	434.49	434.51
℄ Brg. S. Abut.	462+92.89	21.45	434.49	434.51
A	463+02.83	21.31	434.52	434.54
B	463+12.77	21.18	434.54	434.56
C	463+22.72	21.09	434.56	434.57
D	463+32.66	21.02	434.57	434.58
℄ Brg. Pier	463+41.95	20.98	434.59	434.61
E	463+51.89	20.96	434.60	434.66
F	463+61.84	20.97	434.60	434.73
G	463+71.78	21.00	434.61	434.78
H	463+81.73	21.06	434.61	434.79
I	463+91.67	21.14	434.61	434.78
J	464+01.62	21.25	434.60	434.72
℄ Brg. N. Abut.	464+15.54	21.45	434.59	434.61
Bk. N. Abut.	464+17.36	21.48	434.58	434.60

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+91.21	30.48	434.76	434.78
℄ Brg. S. Abut.	462+93.03	30.45	434.76	434.78
A	463+02.95	30.31	434.79	434.81
B	463+12.87	30.18	434.81	434.83
C	463+22.79	30.09	434.83	434.84
D	463+32.71	30.02	434.84	434.85
℄ Brg. Pier	463+41.98	29.98	434.86	434.88
E	463+51.90	29.96	434.87	434.93
F	463+61.82	29.97	434.87	435.00
G	463+71.74	30.00	434.88	435.05
H	463+81.66	30.06	434.88	435.06
I	463+91.58	30.14	434.88	435.05
J	464+01.51	30.25	434.87	434.99
℄ Brg. N. Abut.	464+15.39	30.45	434.86	434.88
Bk. N. Abut.	464+17.21	30.48	434.85	434.87

STAGE CONSTRUCTION JOINT (N.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+91.25	32.73	434.82	434.85
℄ Brg. S. Abut.	462+93.07	32.70	434.83	434.85
A	463+02.98	32.55	434.86	434.88
B	463+12.90	32.43	434.88	434.90
C	463+22.81	32.34	434.90	434.91
D	463+32.73	32.27	434.91	434.92
℄ Brg. Pier	463+41.98	32.23	434.92	434.95
E	463+51.90	32.21	434.93	435.00
F	463+61.81	32.22	434.94	435.06
G	463+71.73	32.25	434.94	435.11
H	463+81.65	32.31	434.95	435.13
I	463+91.56	32.39	434.94	435.11
J	464+01.48	32.50	434.94	435.06
℄ Brg. N. Abut.	464+15.36	32.70	434.92	434.94
Bk. N. Abut.	464+17.18	32.73	434.92	434.94

Note:
Offsets measured from ℄ I-57

⚠ REVISED SHEET 5-28-2024

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+91.36	39.48	435.03	435.05
℄ Brg. S. Abut.	462+93.17	39.45	435.03	435.05
A	463+03.07	39.30	435.06	435.08
B	463+12.97	39.18	435.08	435.10
C	463+22.87	39.09	435.10	435.11
D	463+32.76	39.02	435.11	435.12
℄ Brg. Pier	463+42.00	38.98	435.13	435.15
E	463+51.90	38.96	435.14	435.20
F	463+61.80	38.97	435.14	435.27
G	463+71.70	39.00	435.15	435.32
H	463+81.60	39.06	435.15	435.33
I	463+91.50	39.14	435.15	435.32
J	464+01.40	39.25	435.14	435.26
℄ Brg. N. Abut.	464+15.25	39.45	435.13	435.15
Bk. N. Abut.	464+17.07	39.48	435.12	435.14

℄ ROADWAY & PG (N.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+91.43	44.00	435.16	435.18
℄ Brg. S. Abut.	462+93.25	44.00	435.17	435.19
A	463+03.13	44.00	435.20	435.22
B	463+13.02	44.00	435.22	435.25
C	463+22.91	44.00	435.25	435.26
D	463+32.79	44.00	435.26	435.27
℄ Brg. Pier	463+42.02	44.00	435.28	435.30
E	463+51.91	44.00	435.29	435.35
F	463+61.79	44.00	435.29	435.42
G	463+71.68	44.00	435.30	435.47
H	463+81.56	44.00	435.30	435.48
I	463+91.45	44.00	435.29	435.46
J	464+01.34	44.00	435.28	435.41
℄ Brg. N. Abut.	464+15.18	44.00	435.26	435.28
Bk. N. Abut.	464+16.99	44.00	435.26	435.28

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+91.51	48.48	435.30	435.32
℄ Brg. S. Abut.	462+93.32	48.45	435.30	435.32
A	463+03.19	48.30	435.33	435.35
B	463+13.06	48.18	435.35	435.37
C	463+22.94	48.09	435.37	435.38
D	463+32.81	48.02	435.39	435.39
℄ Brg. Pier	463+42.03	47.98	435.40	435.42
E	463+51.91	47.96	435.41	435.47
F	463+61.78	47.97	435.41	435.54
G	463+71.66	48.00	435.42	435.59
H	463+81.54	48.06	435.42	435.60
I	463+91.41	48.14	435.42	435.59
J	464+01.29	48.25	435.41	435.53
℄ Brg. N. Abut.	464+15.11	48.45	435.40	435.42
Bk. N. Abut.	464+16.92	48.48	435.39	435.41

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+91.65	57.48	435.57	435.59
℄ Brg. S. Abut.	462+93.46	57.45	435.57	435.59
A	463+03.31	57.30	435.60	435.62
B	463+13.16	57.18	435.62	435.64
C	463+23.01	57.09	435.64	435.65
D	463+32.86	57.02	435.66	435.66
℄ Brg. Pier	463+42.06	56.98	435.67	435.69
E	463+51.91	56.96	435.68	435.74
F	463+61.77	56.97	435.68	435.81
G	463+71.62	57.00	435.69	435.86
H	463+81.47	57.06	435.69	435.87
I	463+91.32	57.14	435.69	435.86
J	464+01.18	57.25	435.68	435.80
℄ Brg. N. Abut.	464+14.97	57.45	435.67	435.69
Bk. N. Abut.	464+16.77	57.48	435.66	435.69

BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	462+91.80	66.48	435.84	435.86
℄ Brg. S. Abut.	462+93.60	66.45	435.84	435.86
A	463+03.43	66.30	435.87	435.89
B	463+13.25	66.18	435.89	435.91
C	463+23.08	66.09	435.91	435.92
D	463+32.91	66.02	435.93	435.93
℄ Brg. Pier	463+42.09	65.98	435.94	435.96
E	463+51.92	65.96	435.95	436.01
F	463+61.75	65.97	435.95	436.08
G	463+71.58	66.00	435.96	436.13
H	463+81.41	66.06	435.96	436.14
I	463+91.24	66.14	435.96	436.13
J	464+01.07	66.25	435.95	436.07
℄ Brg. N. Abut.	464+14.83	66.45	435.94	435.96
Bk. N. Abut.	464+16.63	66.48	435.93	435.96

⚠1 REVISED SHEET 5-28-2024

Note:
Offsets measured from ℄ I-57

MODEL: Default
FILE NAME: P:\2021\210593\A - FAI 57 Dodd's Creek (Str Plans) - Phase II\4 CADD - DWG\4.4 Struc\041011911\20-78885-011-Top of Slab Elevations.dgn
3/1/2024 10:29:59 AM

TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - MAL	REVISED -	
		CHECKED - BWP	REVISED -	
PLOT SCALE = 0.166667 ' / In.		DRAWN - MAL	REVISED -	
PLOT DATE = 3/1/2024		CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 11 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	155
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SHOULDER

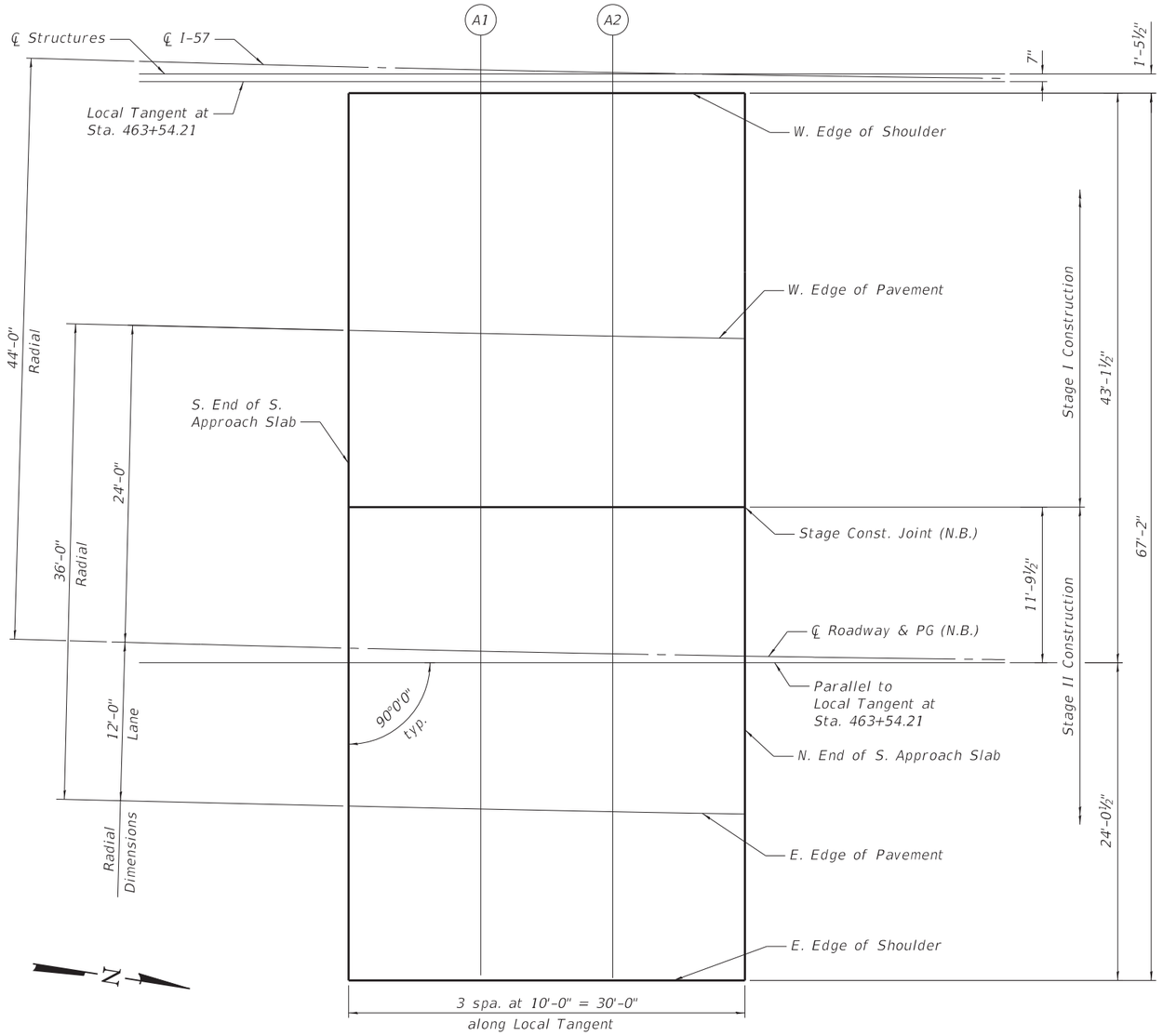
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+61.75	1.99	433.79	433.81
A1	462+71.74	1.77	433.82	433.85
A2	462+81.74	1.56	433.86	433.88
N. End of S. Approach	462+91.73	1.39	433.89	433.91

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+62.19	20.00	434.33	434.35
A1	462+72.14	20.00	434.37	434.39
A2	462+82.09	20.00	434.41	434.43
N. End of S. Approach	462+92.04	20.00	434.45	434.47

STAGE CONSTRUCTION JOINT (N.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+62.50	33.32	434.73	434.75
A1	462+72.42	33.09	434.77	434.79
A2	462+82.33	32.89	434.80	434.82
N. End of S. Approach	462+92.24	32.72	434.83	434.85



PLAN

℄ ROADWAY AND PG (N.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+62.76	44.00	435.05	435.07
A1	462+72.65	44.00	435.10	435.12
A2	462+82.53	44.00	435.13	435.15
N. End of S. Approach	462+92.42	44.00	435.17	435.19

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+63.04	56.00	435.41	435.44
A1	462+72.90	56.00	435.46	435.48
A2	462+82.76	56.00	435.49	435.51
N. End of S. Approach	462+92.61	56.00	435.53	435.55

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+63.35	69.14	435.81	435.83
A1	462+73.17	68.92	435.84	435.87
A2	462+82.99	68.72	435.88	435.90
N. End of S. Approach	462+92.81	68.54	435.90	435.93

1 REVISED SHEET 5-28-2024

Note:
Offsets measured from ℄ I-57

MODEL: Default
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TWM, INC. WWW.TWM-INC.COM
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IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - MAL		REVISED -	
		CHECKED - BWP		REVISED -	
PLOT SCALE = 0.166667 ' / In.		DRAWN - MAL		REVISED -	
PLOT DATE = 3/1/2024		CHECKED - BWP		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 12 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	156
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SHOULDER

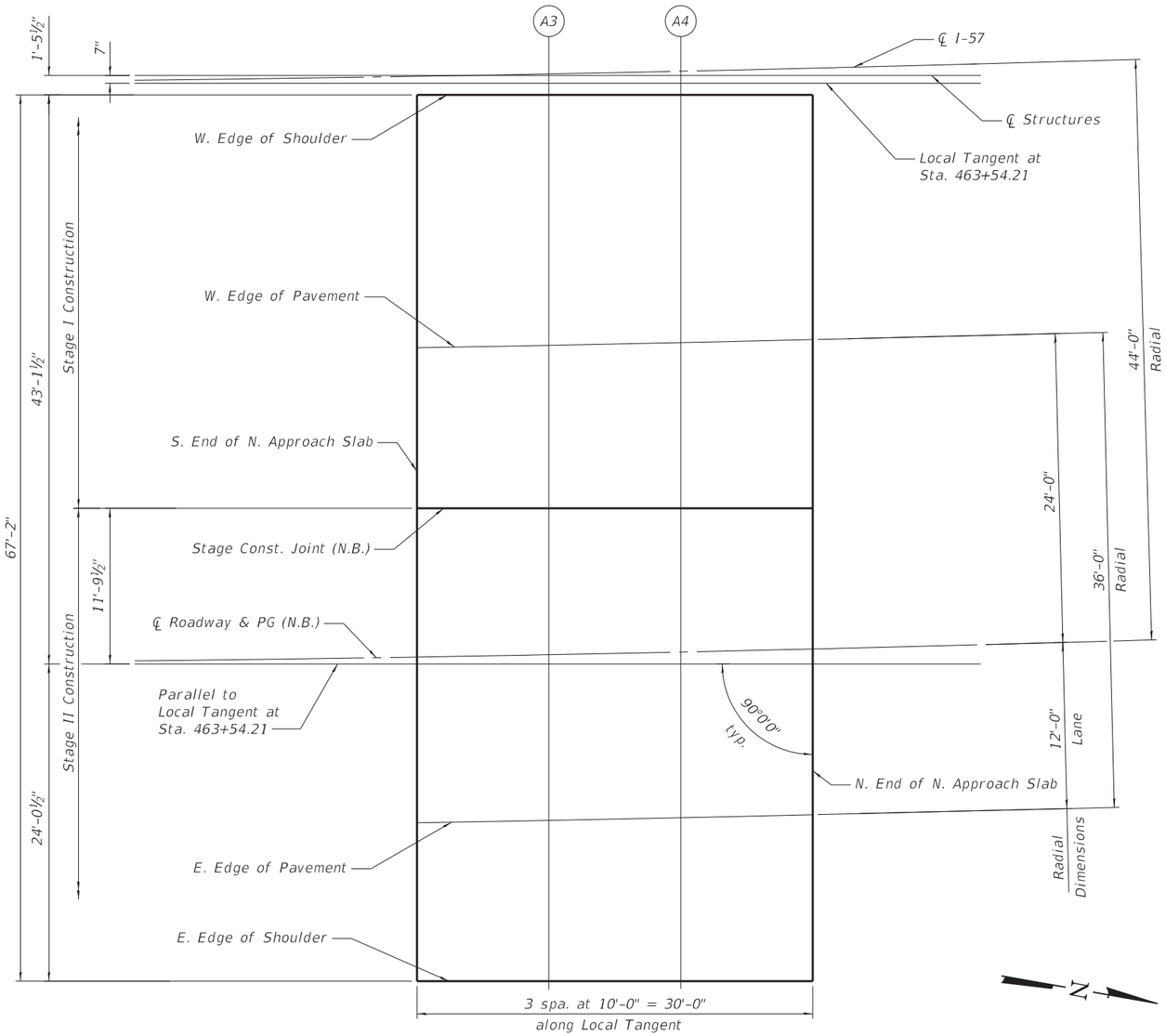
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+16.69	1.39	433.98	434.00
A3	464+26.69	1.56	433.97	433.99
A4	464+36.68	1.77	433.95	433.97
N. End of N. Approach	464+46.67	1.99	433.93	433.95

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+16.39	20.00	434.54	434.56
A3	464+26.34	20.00	434.52	434.54
A4	464+36.29	20.00	434.50	434.52
N. End of N. Approach	464+46.24	20.00	434.47	434.49

STAGE CONSTRUCTION JOINT (N.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+16.18	32.72	434.92	434.94
A3	464+26.10	32.89	434.91	434.93
A4	464+36.01	33.09	434.89	434.91
N. End of N. Approach	464+45.92	33.32	434.87	434.89



PLAN

℄ ROADWAY & PG (N.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+16.00	44.00	435.26	435.28
A3	464+25.89	44.00	435.24	435.26
A4	464+35.78	44.00	435.22	435.24
N. End of N. Approach	464+45.67	44.00	435.19	435.21

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+15.81	56.00	435.62	435.64
A3	464+25.67	56.00	435.60	435.62
A4	464+35.53	56.00	435.58	435.60
N. End of N. Approach	464+45.38	56.00	435.55	435.58

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+15.61	68.54	436.00	436.02
A3	464+25.44	68.72	435.99	436.01
A4	464+35.26	68.92	435.97	435.99
N. End of N. Approach	464+45.08	69.14	435.95	435.97

⚠1 REVISED SHEET 5-28-2024

Note:
Offsets measured from ℄ I-57

MODEL: Default
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3/1/2024 10:32:14 AM

TWM ENGINEERING & GEOSPATIAL SERVICES
TWM, INC. WWW.TWM-INC.COM
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson	DESIGNED - MAL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF NORTH APPROACH SLAB ELEVATIONS STRUCTURE NO. 041-0119 (N.B.)
	CHECKED - BWP	REVISED -		
PLOT SCALE = 0.166667 ' / In.	DRAWN - MAL	REVISED -		SHEET NO. 13 OF 44 SHEETS
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	157
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SHOULDER

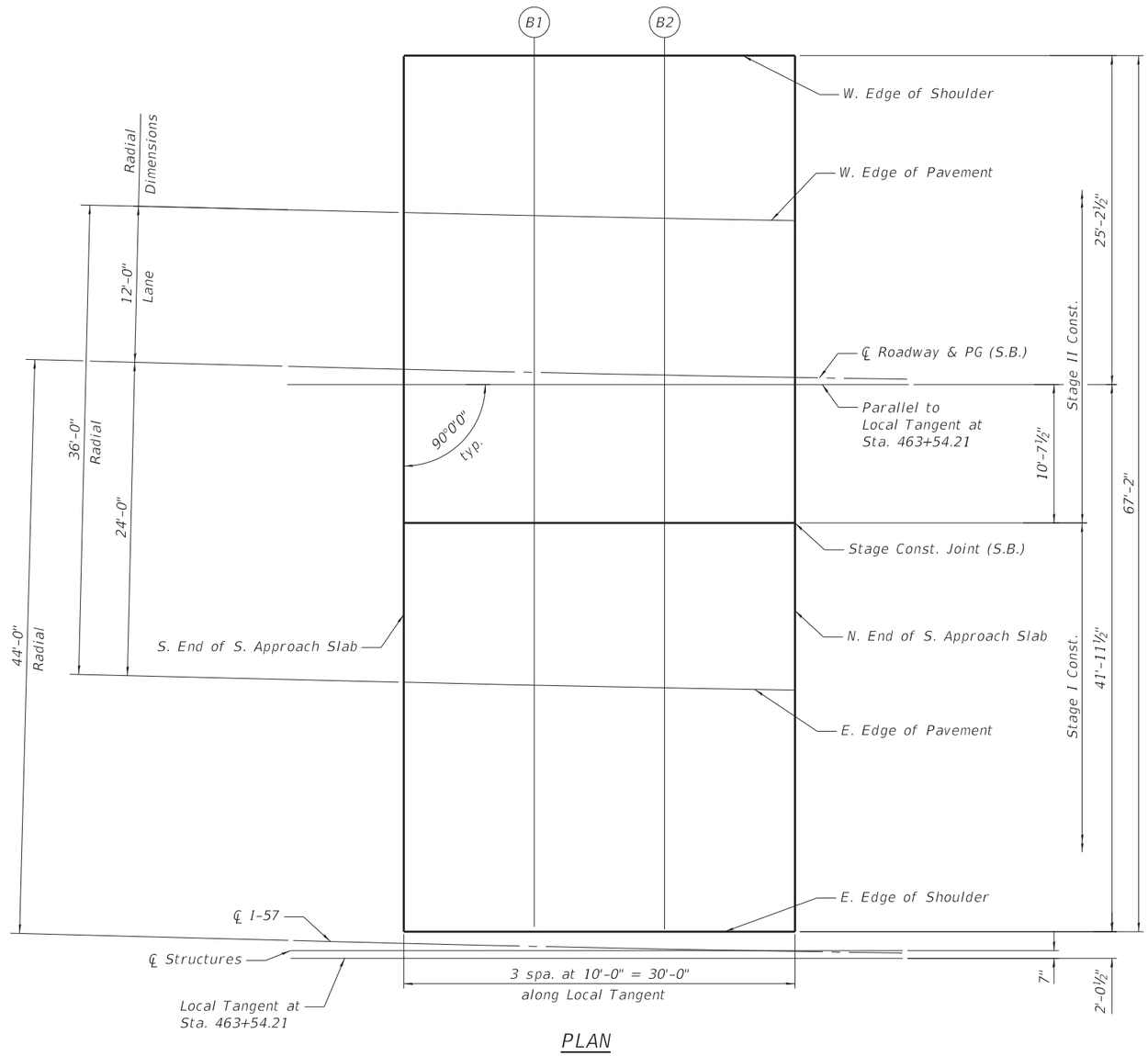
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+60.02	-68.07	433.71	433.73
B1	462+70.20	-68.30	433.75	433.77
B2	462+80.38	-68.51	433.79	433.81
N. End of S. Approach	462+90.57	-68.69	433.82	433.84

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+60.33	-56.00	434.08	434.10
B1	462+70.48	-56.00	434.12	434.14
B2	462+80.63	-56.00	434.16	434.18
N. End of S. Approach	462+90.78	-56.00	434.20	434.22

℄ ROADWAY & PG (S.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+60.63	-44.00	434.44	434.46
B1	462+70.74	-44.00	434.48	434.50
B2	462+80.86	-44.00	434.52	434.54
N. End of S. Approach	462+90.98	-44.00	434.56	434.58



PLAN

STAGE CONSTRUCTION JOINT (S.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+60.92	-32.25	434.79	434.81
B1	462+71.00	-32.48	434.83	434.85
B2	462+81.08	-32.68	434.86	434.88
N. End of S. Approach	462+91.17	-32.86	434.89	434.91

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+61.22	-20.00	435.16	435.18
B1	462+71.27	-20.00	435.20	435.22
B2	462+81.33	-20.00	435.24	435.27
N. End of S. Approach	462+91.38	-20.00	435.28	435.30

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	462+61.68	-0.92	435.73	435.75
B1	462+71.68	-1.15	435.77	435.79
B2	462+81.68	-1.35	435.81	435.83
N. End of S. Approach	462+91.69	-1.53	435.84	435.86

⚠1 REVISED SHEET 5-28-2024

Note:
Offsets measured from ℄ I-57

TWM ENGINEERING GEOSPATIAL SERVICES
TWM, INC.
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IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson	DESIGNED - MAL	REVISED -		
	CHECKED - BWP	REVISED -		
PLOT SCALE = 0.166667 ' / In.	DRAWN - MAL	REVISED -		
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 14 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	158
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SHOULDER

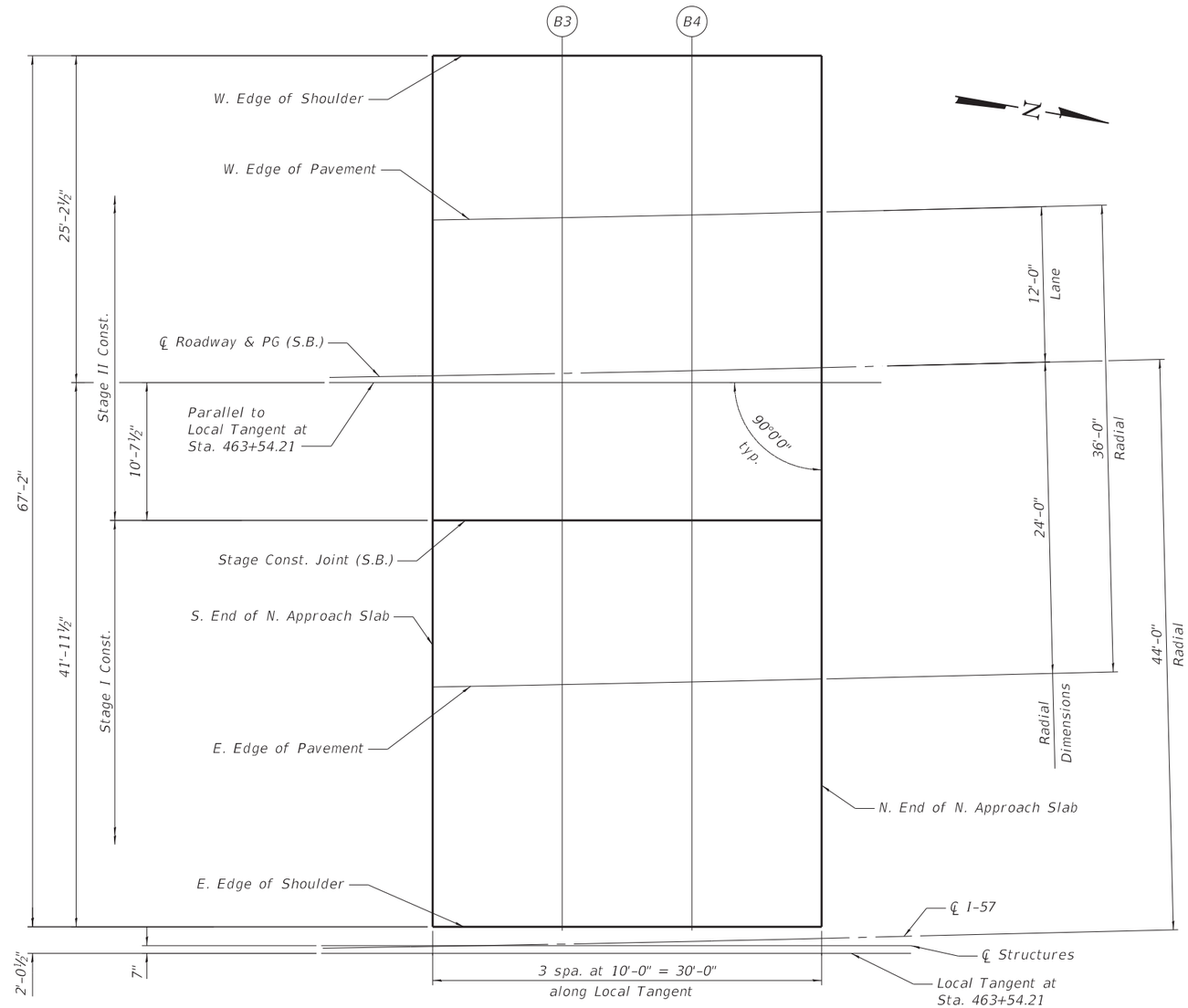
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+17.86	-68.69	433.94	433.96
B3	464+28.04	-68.51	433.93	433.95
B4	464+38.22	-68.30	433.92	433.94
N. End of N. Approach	464+48.40	-68.07	433.90	433.92

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+17.65	-56.00	434.32	434.34
B3	464+27.80	-56.00	434.31	434.33
B4	464+37.95	-56.00	434.28	434.31
N. End of N. Approach	464+48.10	-56.00	434.26	434.28

℄ ROADWAY & PG (S.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+17.44	-44.00	434.68	434.70
B3	464+27.56	-44.00	434.67	434.69
B4	464+37.68	-44.00	434.65	434.67
N. End of N. Approach	464+47.80	-44.00	434.62	434.64



PLAN

STAGE CONSTRUCTION JOINT (S.B.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+17.26	-32.86	435.02	435.04
B3	464+27.34	-32.68	435.01	435.03
B4	464+37.43	-32.48	434.99	435.01
N. End of N. Approach	464+47.51	-32.25	434.97	434.99

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+17.04	-20.00	435.40	435.43
B3	464+27.10	-20.00	435.39	435.41
B4	464+37.15	-20.00	435.37	435.39
N. End of N. Approach	464+47.21	-20.00	435.34	435.36

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	464+16.74	-1.53	435.96	435.98
B3	464+26.74	-1.35	435.95	435.97
B4	464+36.74	-1.15	435.93	435.95
N. End of N. Approach	464+46.74	-0.92	435.92	435.94

⚠1 REVISED SHEET 5-28-2024

Note:
Offsets measured from ℄ I-57

MODEL: Default
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3/1/2024 10:34:29 AM

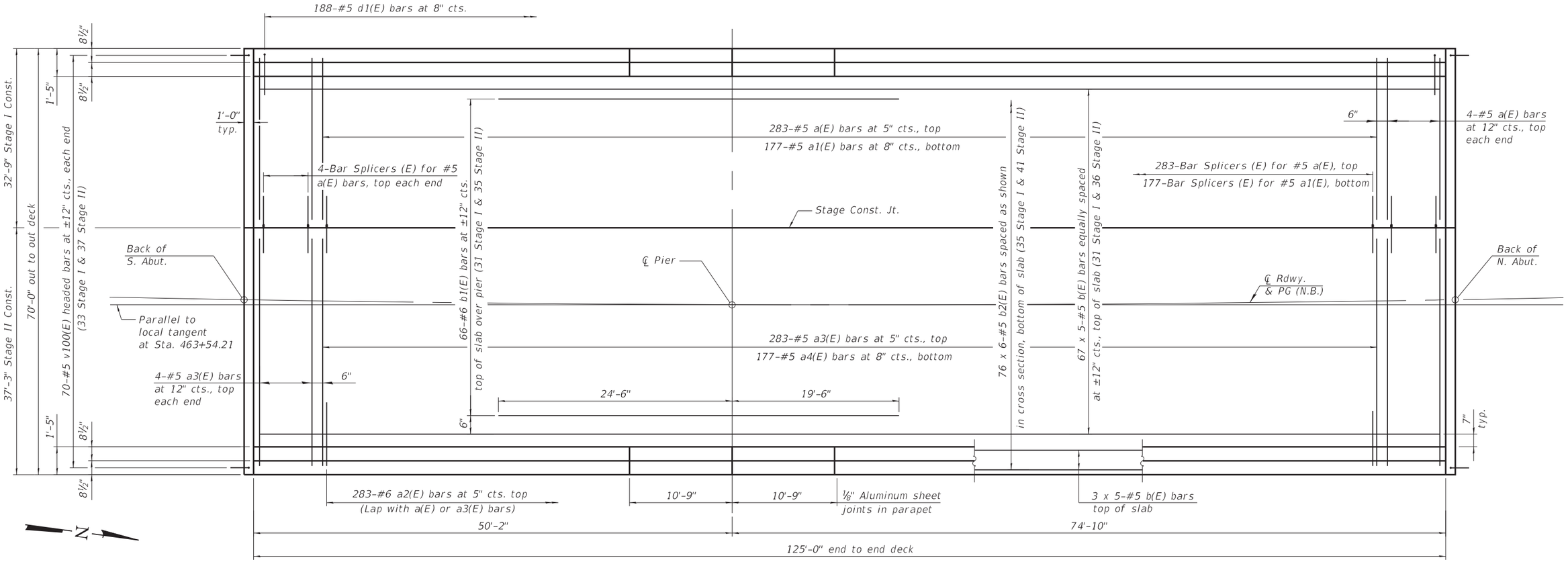
TWM ENGINEERING GEOSPATIAL SERVICES — TWM, INC. WWW.TWM-INC.COM — IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson	DESIGNED - MAL	REVISED -		
	CHECKED - BWP	REVISED -		
PLOT SCALE = 0.166667 ' / In.	DRAWN - MAL	REVISED -		
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 15 OF 44 SHEETS

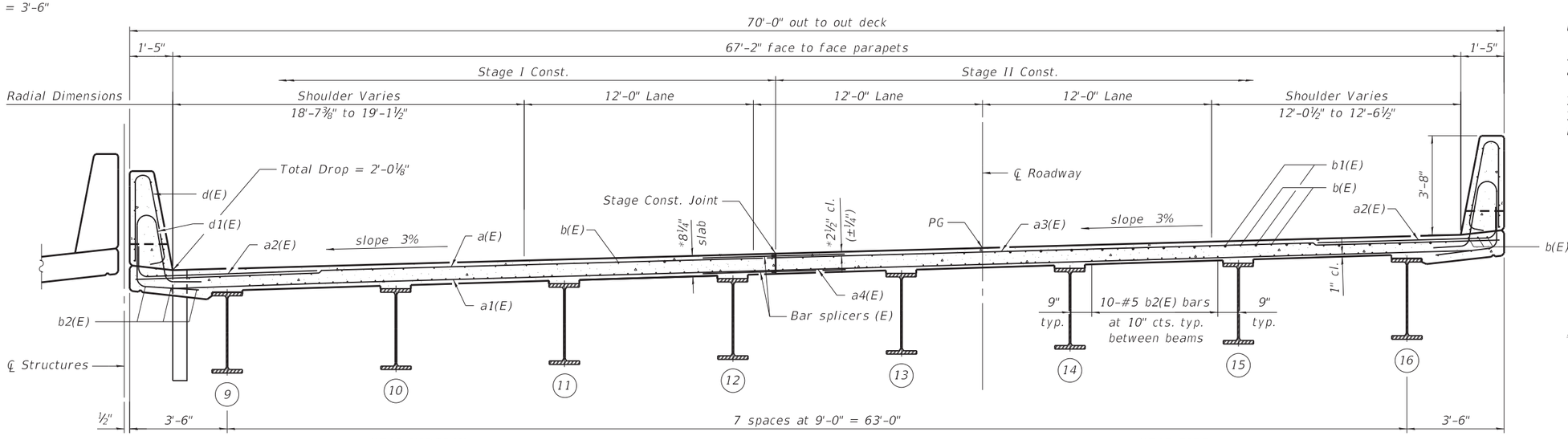
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	159
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



MINIMUM BAR LAP

#5 bar = 3'–6"

PLAN



NEAR MIDSPAN — NEAR PIER

CROSS SECTION

(Looking North)

Notes:
See sheet 17 of 44 for superstructure details and Bill of Material.
Bars indicated thus 76 x 6–#5 etc. indicates 76 lines of bars with 6 lengths per line.

* Prior to Grinding

1 REVISED SHEET 5-28-2024

TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - MAL	REVISED -		
		CHECKED - ALN	REVISED -		
PLOT SCALE = 0.166667 ' / In.		DRAWN - MAL	REVISED -		
PLOT DATE = 3/1/2024		CHECKED - ALN	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 16 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	160
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

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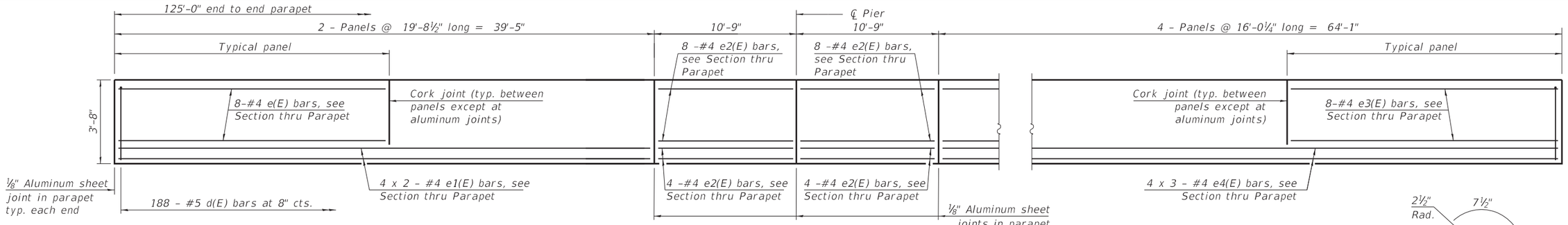
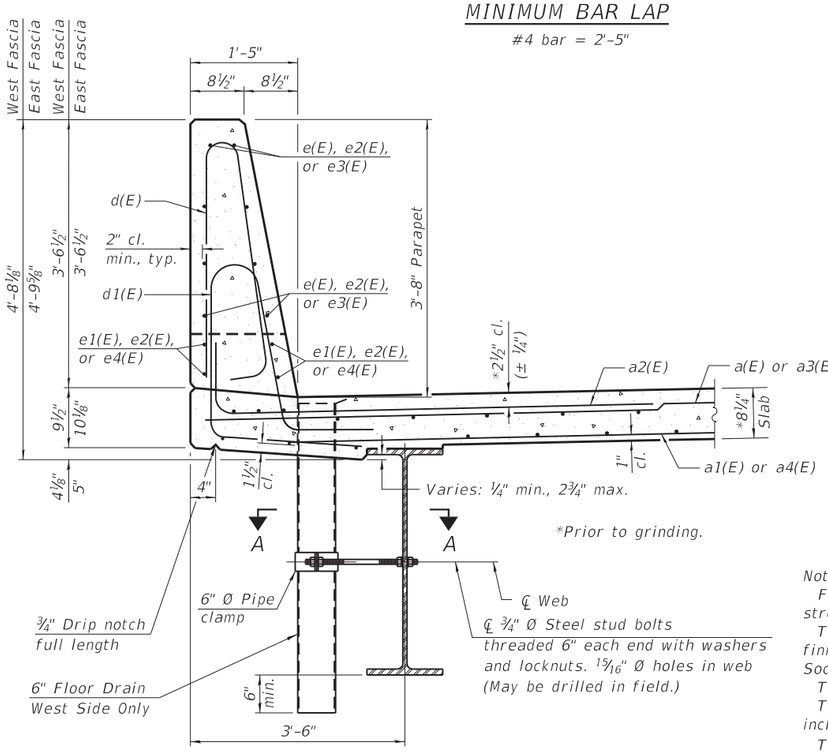


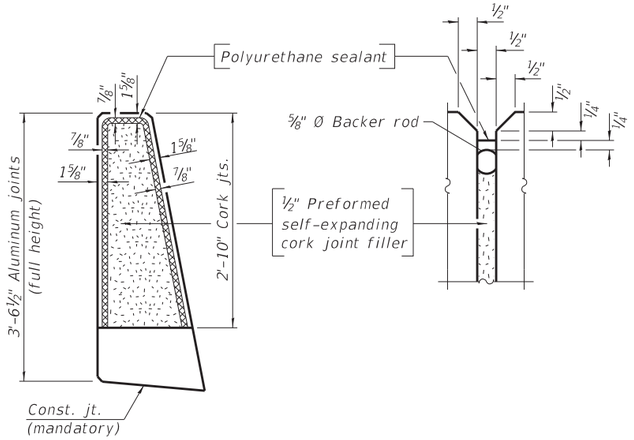
INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"



SECTION THRU PARAPET



PARAPET JOINT DETAILS

Notes:

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

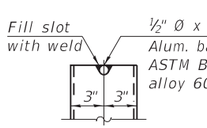
The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.

The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.

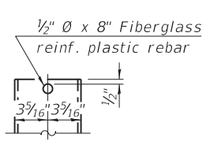
The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.

The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

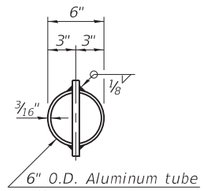
The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.



ALUMINUM TUBE

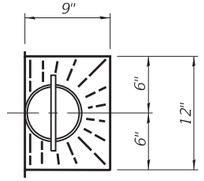


FIBERGLASS PIPE

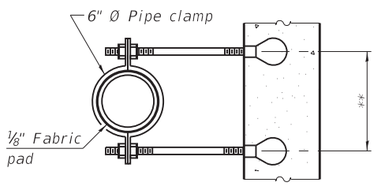


TOP PLAN

(Showing aluminum tube)

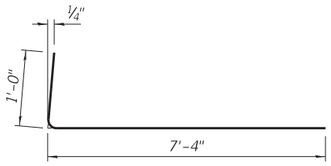


TOP PLAN

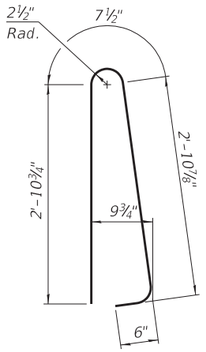


SECTION A-A

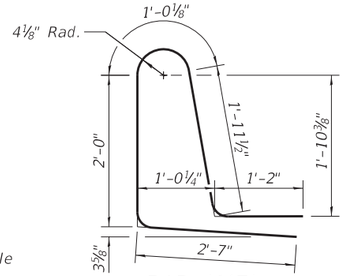
**Dimension as required by pipe clamp



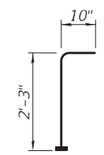
BAR a2(E)



BAR d(E)

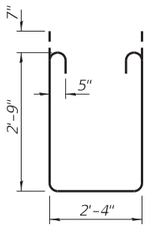


BAR d1(E)

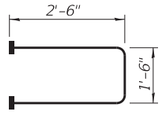


BAR v100(E)

(Headed, 140 #5 Bar Terminators Required)



BAR s11(E)



BAR s10(E)

(Headed, 256 #5 Bar Terminators Required)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	291	#5	32'-5"	
a1(E)	177	#5	31'-7"	
a2(E)	566	#6	8'-4"	
a3(E)	291	#5	36'-11"	
a4(E)	177	#5	36'-1"	
b(E)	365	#5	27'-10"	
b1(E)	66	#6	44'-0"	
b2(E)	456	#5	23'-9"	
d(E)	376	#5	7'-0"	
d1(E)	376	#5	8'-9"	
e(E)	32	#4	19'-4"	
e1(E)	16	#4	20'-9"	
e2(E)	48	#4	10'-5"	
e3(E)	64	#4	15'-8"	
e4(E)	24	#4	22'-11"	
m10(E)	8	#6	32'-5"	
m11(E)	36	#6	8'-8"	
m12(E)	12	#6	3'-2"	
m13(E)	6	#6	6'-5"	
m14(E)	8	#6	36'-11"	
s10(E)	128	#5	6'-6"	
s11(E)	128	#5	9'-0"	
v100(E)	140	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Lbs.	79,000
Concrete Superstructure			Cu. Yds.	315.0
Bar Terminator			Each	396

1 REVISED SHEET 5-28-2024

Bars indicated thus 4 x 2-#4 etc. indicates 4 lines of bars with 2 lengths per line.

TWM ENGINEERING GEOSPATIAL SERVICES — TWM, INC. WWW.TWM-INC.COM — IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - MAL		REVISED -	
		CHECKED - ALN		REVISED -	
PLOT SCALE = 0.166667 ' / In.		DRAWN - MAL		REVISED -	
PLOT DATE = 3/1/2024		CHECKED - ALN		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 17 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	161
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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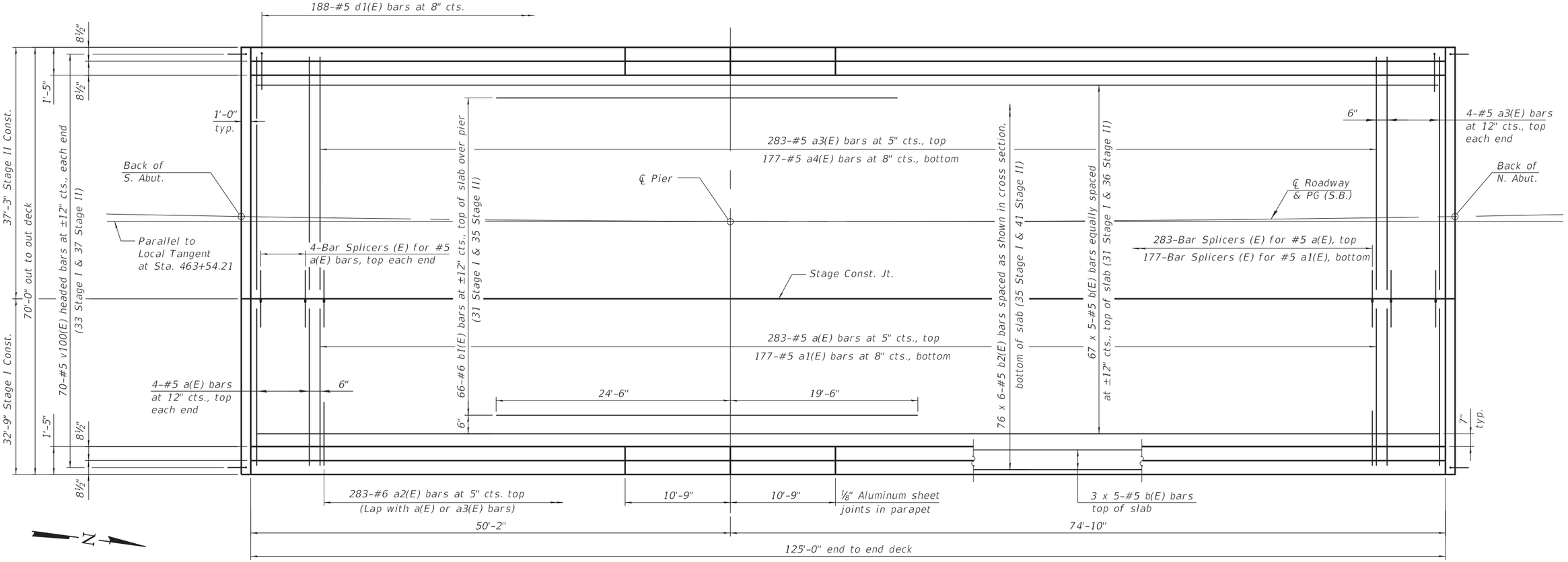
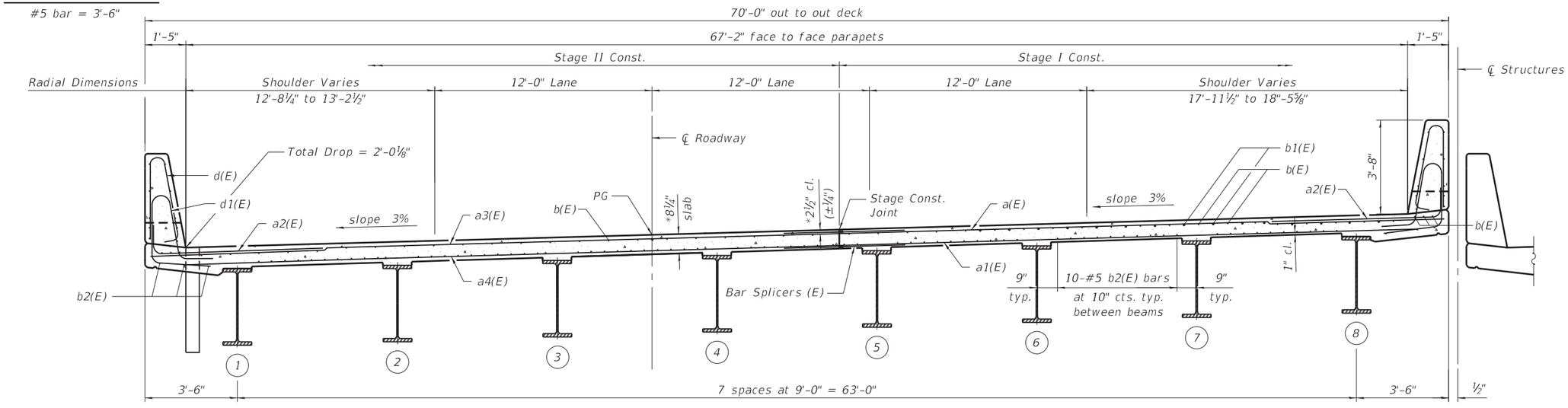


MINIMUM BAR LAP

#5 bar = 3'-6"

PLAN



NEAR MIDSPAN NEAR PIER

CROSS SECTION

(Looking North)

* Prior to Grinding

Notes:
See sheet 19 of 44 for superstructure details and Bill of Material.
Bars indicated thus 76 x 6-#5 etc. indicates 76 lines of bars with 6 lengths per line.

1 REVISED SHEET 5-28-2024

TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - MAL		REVISED -	
		CHECKED - ALN		REVISED -	
PLOT SCALE = 0.166667 ' / In.		DRAWN - MAL		REVISED -	
PLOT DATE = 3/1/2024		CHECKED - ALN		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 18 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	162
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: P:\2021\210593\A - FAI 57 Dodd's Creek (Str Plans) - Phase II\4 CADD - DWG\4.4 Struc\041019\20\-78885-018-Superstructure_SB.dgn
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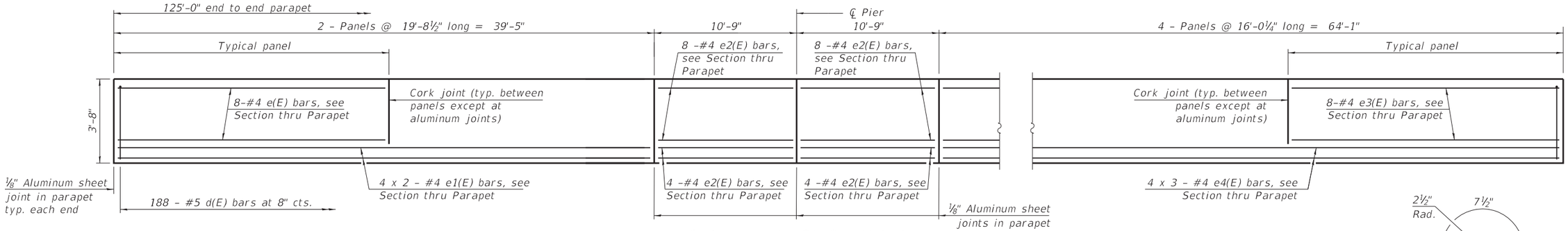
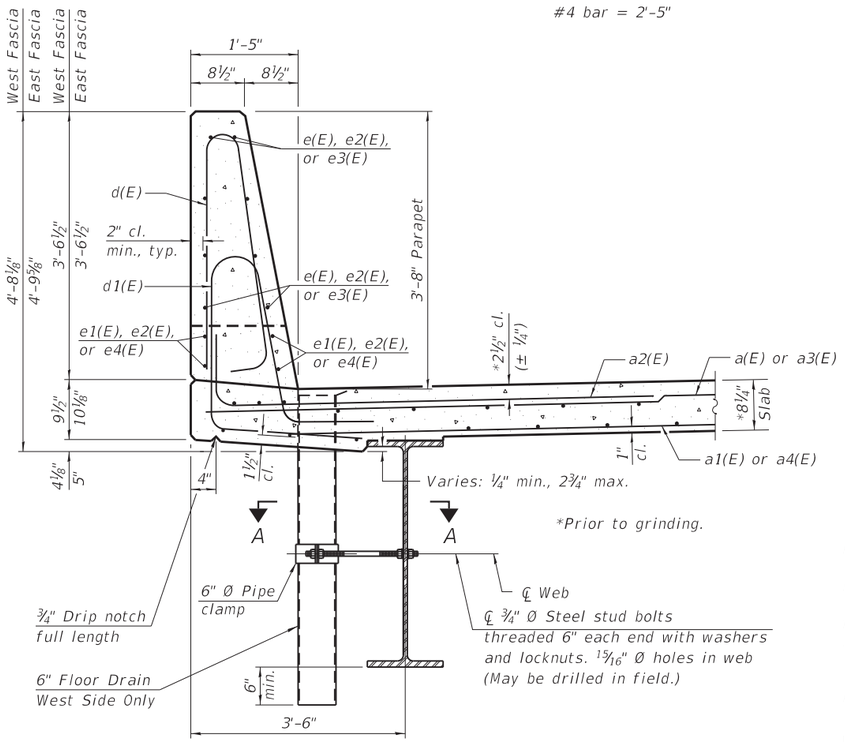


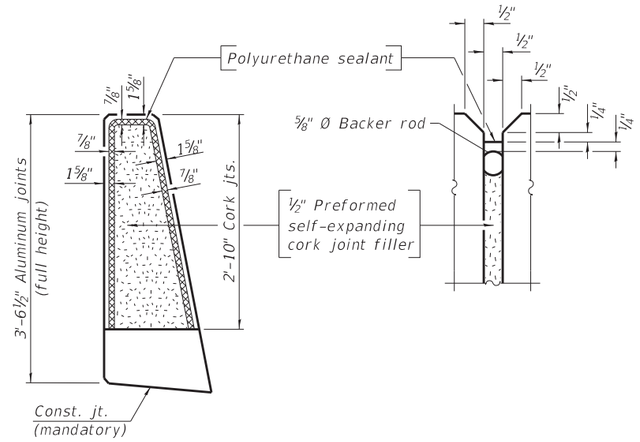
INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP

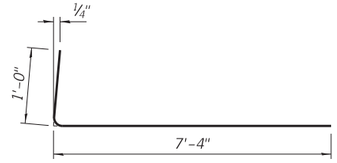
#4 bar = 2'-5"



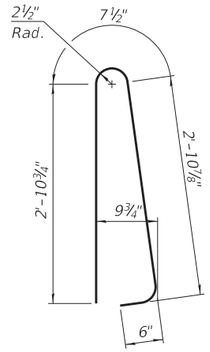
SECTION THRU PARAPET



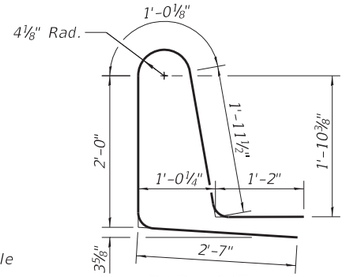
PARAPET JOINT DETAILS



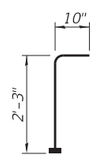
BAR a2(E)



BAR d(E)

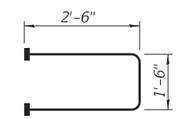


BAR d1(E)



BAR v100(E)

(Headed, 140 #5 Bar Terminators Required)

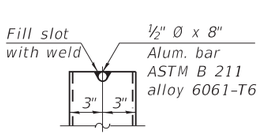


BAR s10(E)

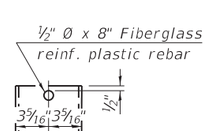
(Headed, 256 #5 Bar Terminators Required)

SUPERSTRUCTURE BILL OF MATERIAL

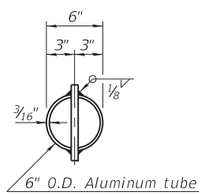
Bar	No.	Size	Length	Shape
a(E)	291	#5	32'-5"	
a1(E)	177	#5	31'-7"	
a2(E)	566	#6	8'-4"	
a3(E)	291	#5	36'-11"	
a4(E)	177	#5	36'-1"	
b(E)	365	#5	27'-10"	
b1(E)	66	#6	44'-0"	
b2(E)	456	#5	23'-9"	
d(E)	376	#5	7'-0"	
d1(E)	376	#5	8'-9"	
e(E)	32	#4	19'-4"	
e1(E)	16	#4	20'-9"	
e2(E)	48	#4	10'-5"	
e3(E)	64	#4	15'-8"	
e4(E)	24	#4	22'-11"	
m10(E)	8	#6	32'-5"	
m11(E)	36	#6	8'-8"	
m12(E)	12	#6	3'-2"	
m13(E)	6	#6	6'-5"	
m14(E)	8	#6	36'-11"	
s10(E)	128	#5	6'-6"	
s11(E)	128	#5	9'-0"	
v100(E)	140	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Lbs.	79,000
Concrete Superstructure			Cu. Yds.	315.0
Bar Terminator			Each	396



ALUMINUM TUBE

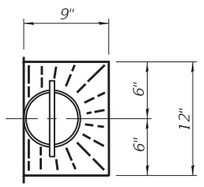


FIBERGLASS PIPE

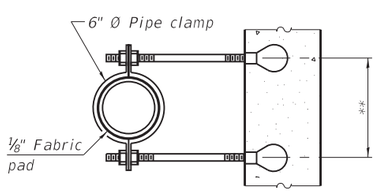


TOP PLAN

(Showing aluminum tube)

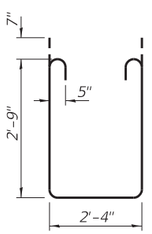


TOP PLAN



SECTION A-A

**Dimension as required by pipe clamp



BAR s11(E)

1 REVISED SHEET 5-28-2024

Bars indicated thus 4 x 2-#4 etc. indicates 4 lines of bars with 2 lengths per line.

Notes:

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

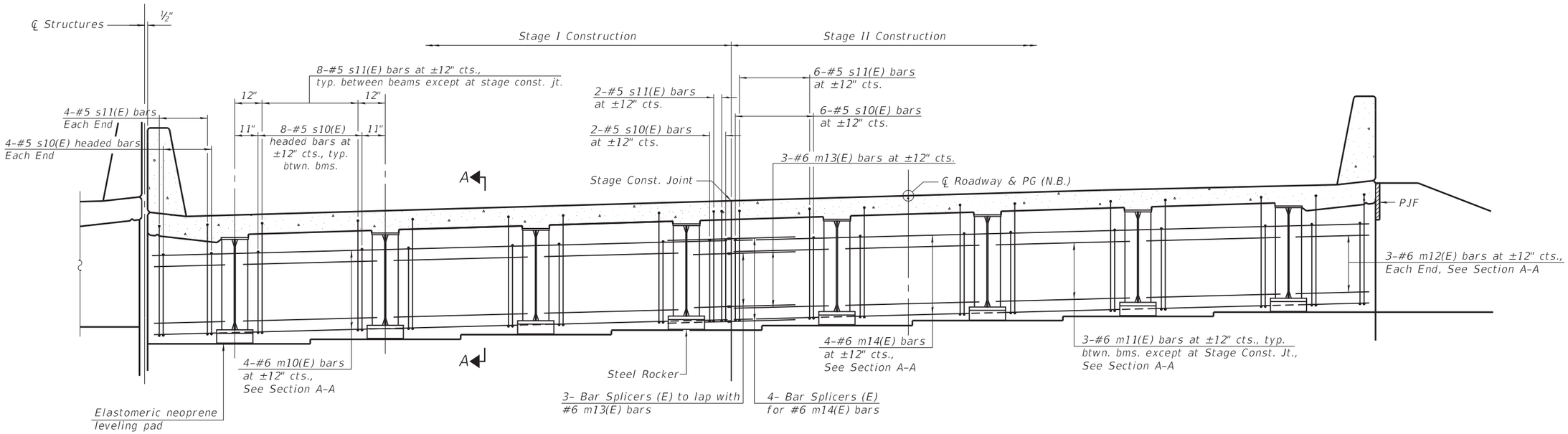
The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.

The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.

The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.

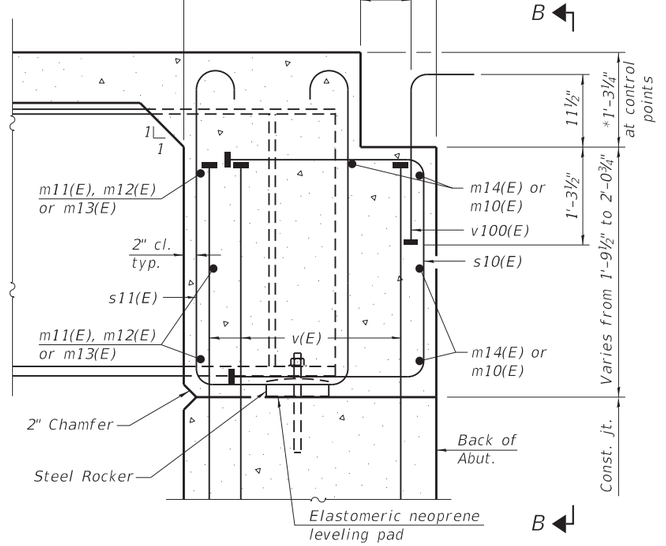
The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

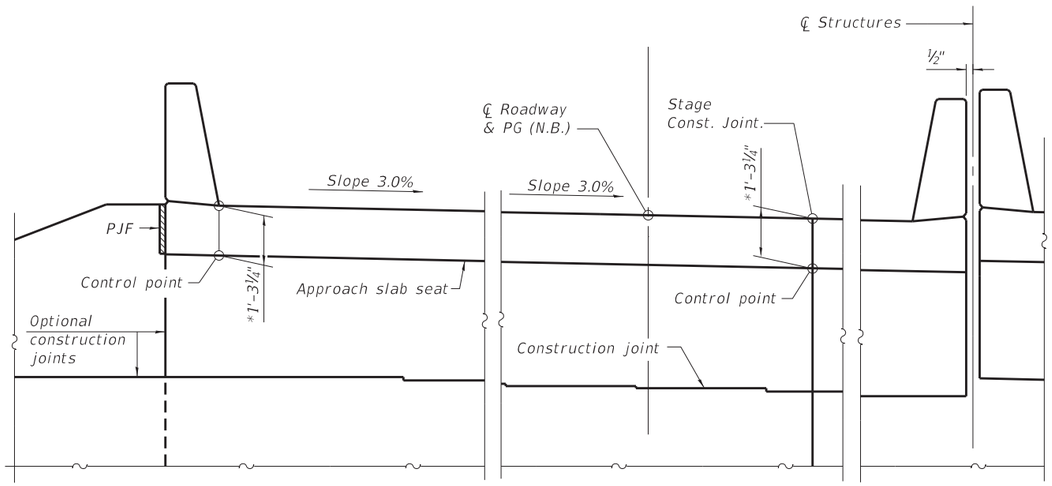


DIAPHRAGM AT ABUTMENT

(Showing N. Abutment, Looking North; S. Abutment Similar)

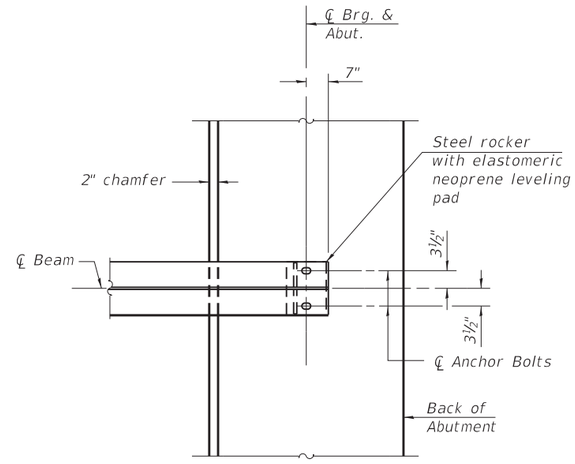


SECTION A-A



VIEW B-B

*Prior to Grinding



PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:

See sheet 17 of 44 for superstructure details and Bill of Material.

See sheet 23 of 44 for PJF details.

The approach slab seat shall have a constant slope determined from the control points shown.

See sheet 40 of 44 for Bar Splicer Details

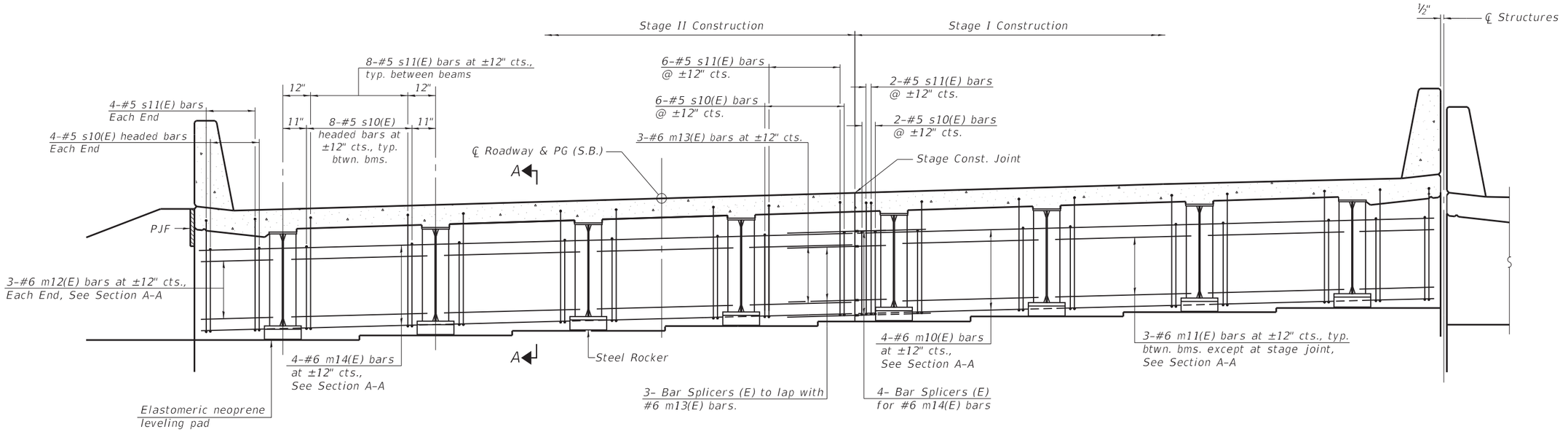
1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021\210593\A - FAI 57 Dodd's Creek (Str Plans) - Phase II\4 CADD - DWG\4.4 Struc\041019\(20)-78885-020-Diaphragm Details_NB.dgn
3/1/2024 10:43:43 AM

TWM, INC. WWW.TWM-INC.COM ENGINEERING & GEOSPATIAL SERVICES — IL DESIGN FIRM LICENSE NO: 184-001220	USER NAME = cjohnson	DESIGNED - MAL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - ALN	REVISED -	
	PLOT SCALE = 0.166667 ' / In.	DRAWN - MAL	REVISED -	
	PLOT DATE = 3/1/2024	CHECKED - ALN	REVISED -	

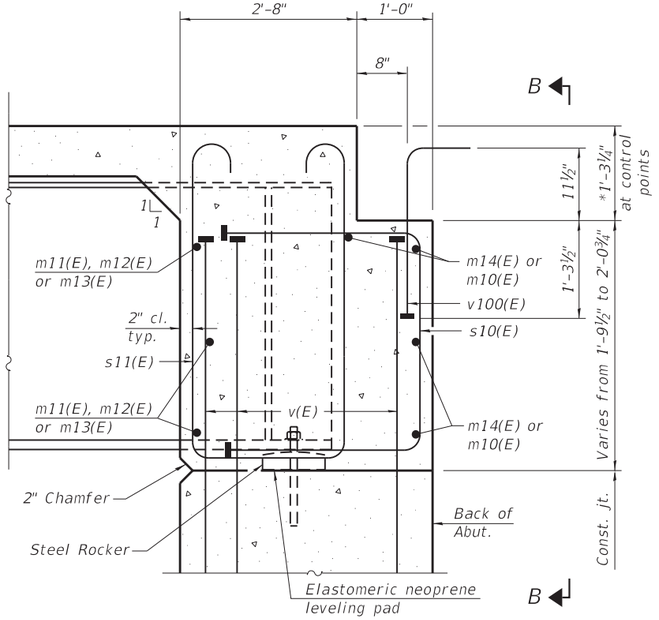
DIAPHRAGM DETAILS
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 20 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	164
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

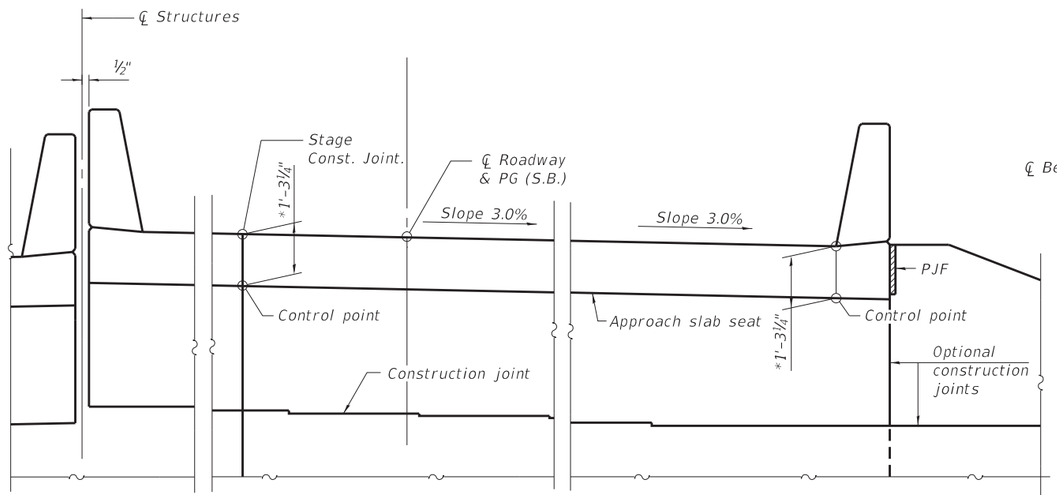


DIAPHRAGM AT ABUTMENT

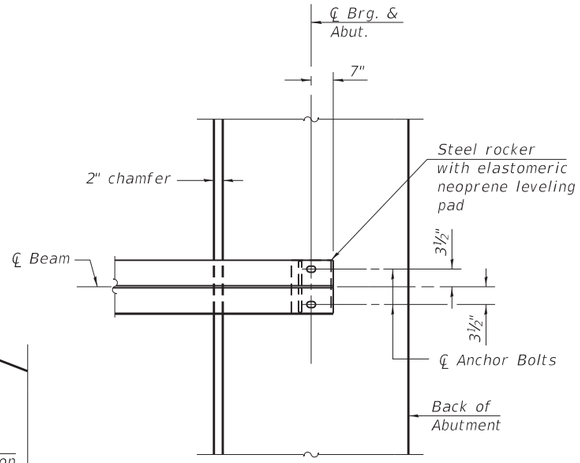
(Showing N. Abutment, Looking North; S. Abutment Similar)



SECTION A-A



VIEW B-B



PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:

See sheet 19 of 44 for superstructure details and Bill of Material.

See sheet 26 of 44 for PJF details.

The approach slab seat shall have a constant slope determined from the control points shown.

See sheet 40 of 44 for Bar Splicer Details.

1 REVISED SHEET 5-28-2024

MODEL: Default
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3/1/2024 11:08:29 AM

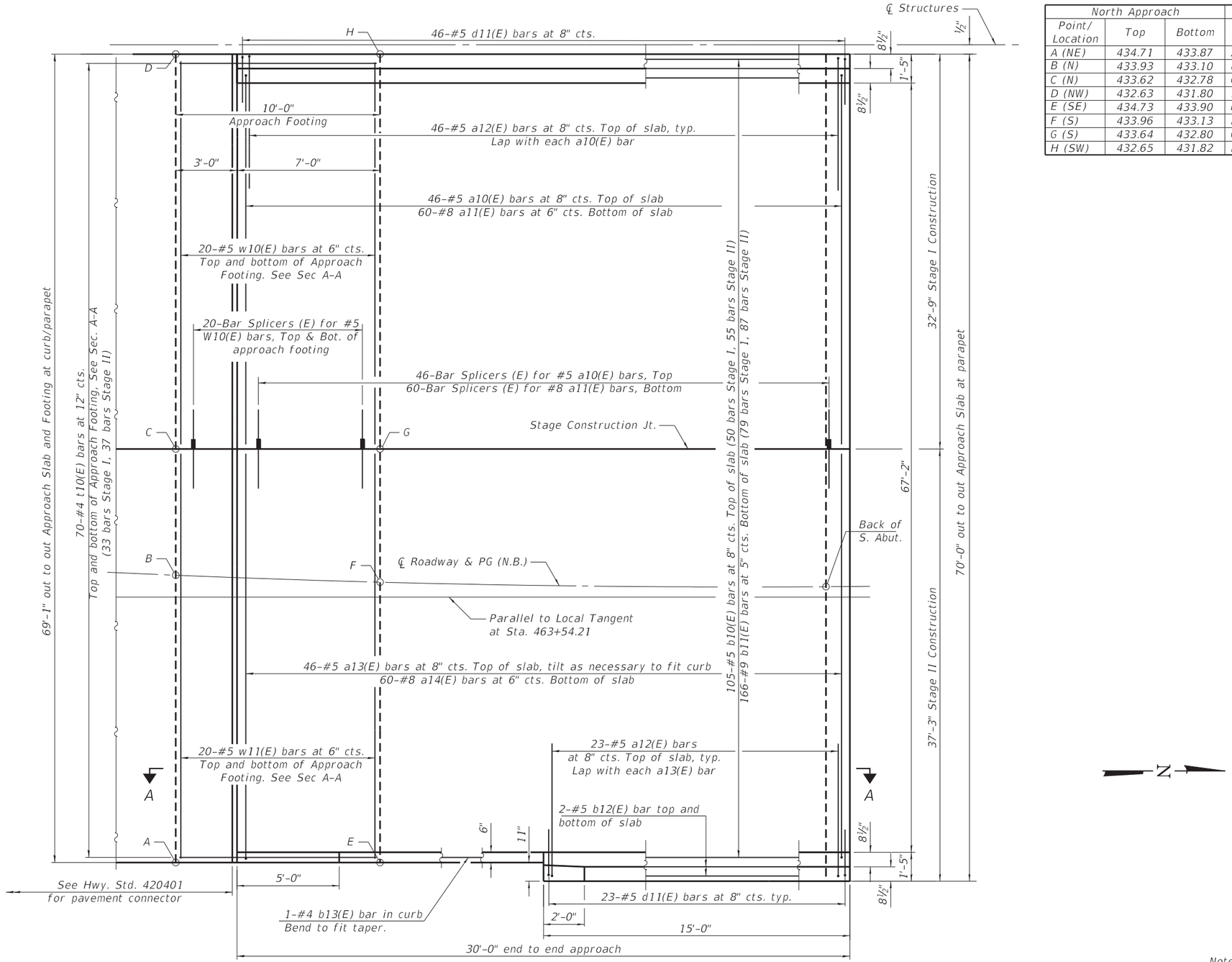
TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - MAL		REVISED -			
		CHECKED - ALN		REVISED -			
PLOT SCALE = 0.166667 ' / In.		DRAWN - MAL		REVISED -			
PLOT DATE = 3/1/2024		CHECKED - ALN		REVISED -			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 21 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	165
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



PLAN

(South Approach Slab Shown;
North Approach Slab Similar by Mirror Image)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

North Approach			South Approach		
Point/ Location	Top	Bottom	Point/ Location	Top	Bottom
A (NE)	434.71	433.87	A (SE)	434.56	433.73
B (N)	433.93	433.10	B (S)	433.79	432.96
C (N)	433.62	432.78	C (S)	433.47	432.64
D (NW)	432.63	431.80	D (SW)	432.48	431.65
E (SE)	434.73	433.90	E (NE)	434.60	433.77
F (S)	433.96	433.13	F (N)	433.83	433.00
G (S)	433.64	432.80	G (N)	433.51	432.67
H (SW)	432.65	431.82	H (NW)	432.52	431.69

Notes:
See sheet 24 of 44 for Section A-A.

1 REVISED SHEET 5-28-2024

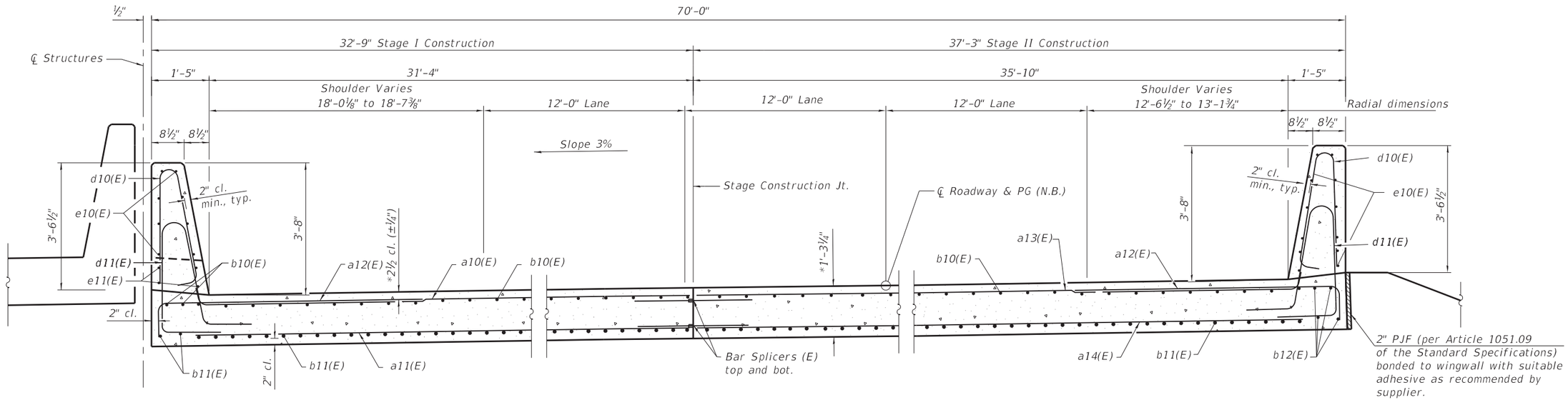
TWM, INC.
WWW.TWM-INC.COM
IL DESIGN FIRM LICENSE NO: 184-001220
ENGINEERING & GEOSPATIAL SERVICES

USER NAME = cjohnson		DESIGNED - CAJ		REVISED -	
		CHECKED - ALN		REVISED -	
PLOT SCALE = 0.166667 ' / In.		DRAWN - CAJ		REVISED -	
PLOT DATE = 3/1/2024		CHECKED - ALN		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

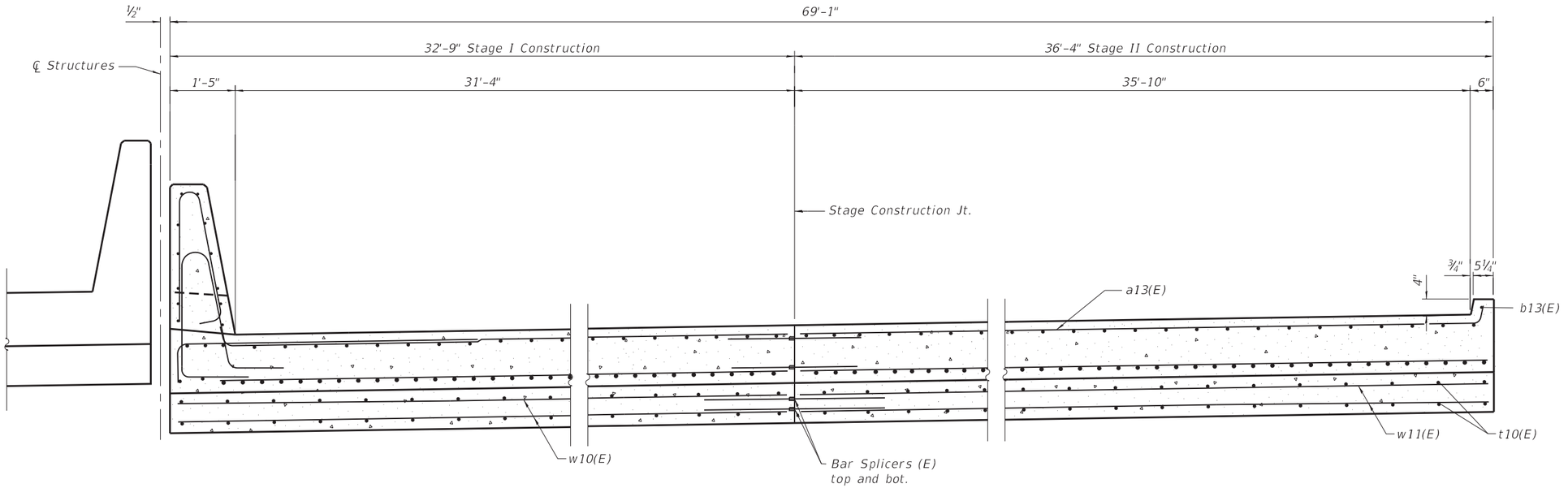
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 22 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	166
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			



CROSS SECTION NEAR ABUTMENT

(Looking North)
* Prior to grinding



CROSS SECTION AT APPROACH FOOTING

(Looking North. See Cross Section Near Abutment for information not shown)

⚠1 REVISED SHEET 5-28-2024

MODEL: Default
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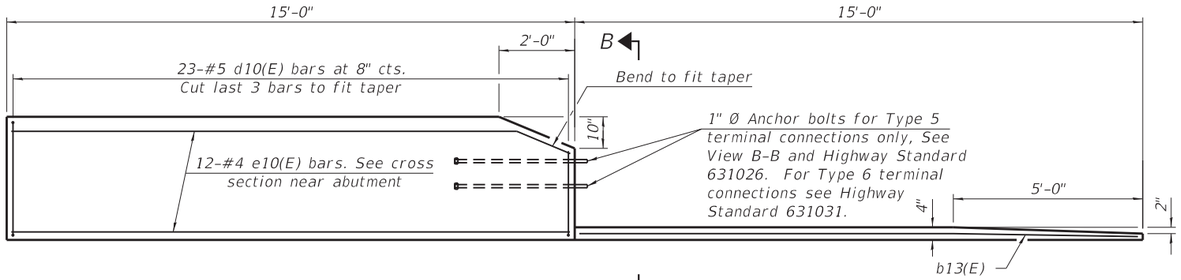
	PLOT DATE = 3/1/2024	CHECKED - ALN	REVISED -

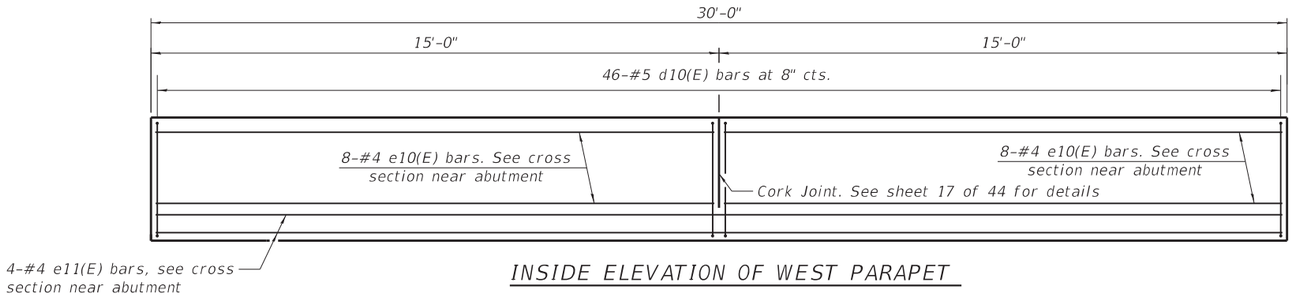
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 23 OF 44 SHEETS

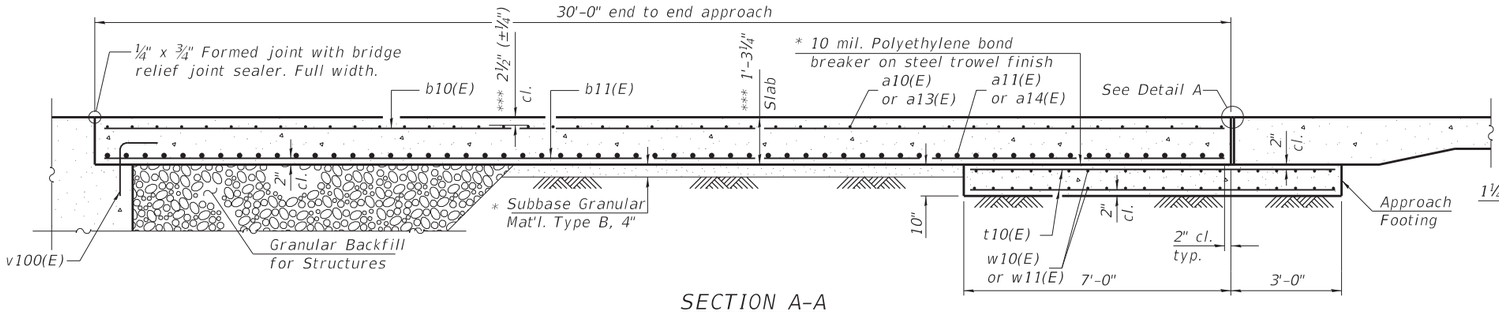
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	167
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF EAST PARAPET AND CURB

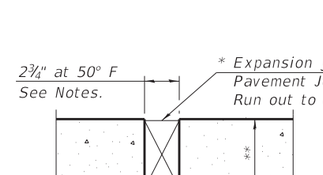


INSIDE ELEVATION OF WEST PARAPET



SECTION A-A

BAR a10(E) & BAR a13(E)

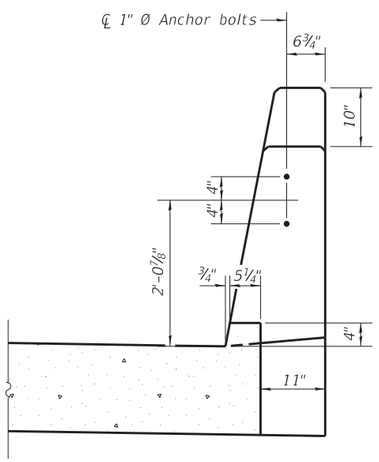


DETAIL A

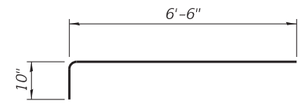
* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

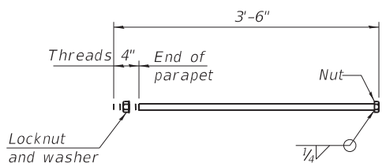
*** Prior to grinding



VIEW B-B



BAR a12(E)



*1" Ø ANCHOR BOLT

(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Parapet concrete shall be paid for as Concrete Superstructure.

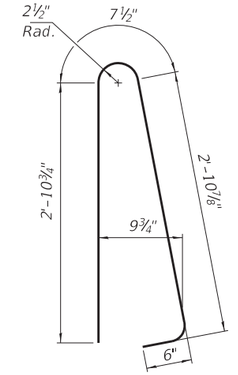
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

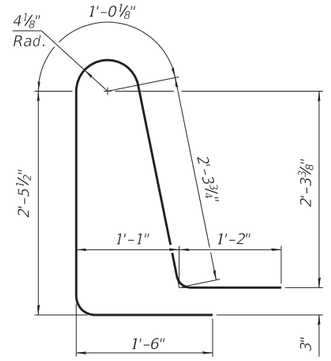
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 44.



BAR d10(E)



BAR d11(E)

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	31'-11"	
a11(E)	120	#8	31'-6"	
a12(E)	138	#5	7'-4"	
a13(E)	92	#5	36'-5"	
a14(E)	120	#8	36'-0"	
b10(E)	210	#5	29'-8"	
b11(E)	332	#9	29'-8"	
b12(E)	8	#5	14'-8"	
b13(E)	2	#4	14'-8"	
d10(E)	138	#5	7'-0"	
d11(E)	138	#5	8'-6"	
e10(E)	56	#4	14'-8"	
e11(E)	8	#4	29'-8"	
t10(E)	280	#4	9'-8"	
w10(E)	80	#5	32'-5"	
w11(E)	80	#5	36'-0"	
Concrete Superstructure		Cu. Yd.	12.7	
Concrete Superstructure (Approach Slab)		Cu. Yd.	196.6	
Concrete Structures		Cu. Yd.	42.8	
Reinforcement Bars, Epoxy Coated		Pound	79,820	

1 REVISED SHEET 5-28-2024

TWM ENGINEERING & GEOSPATIAL SERVICES
TWM, INC. WWW.TWM-INC.COM
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - CAJ	REVISED -		
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PLOT SCALE = 0.166667 ' / In.		DRAWN - CAJ	REVISED -		
PLOT DATE = 3/1/2024		CHECKED - ALN	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 24 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	168
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			

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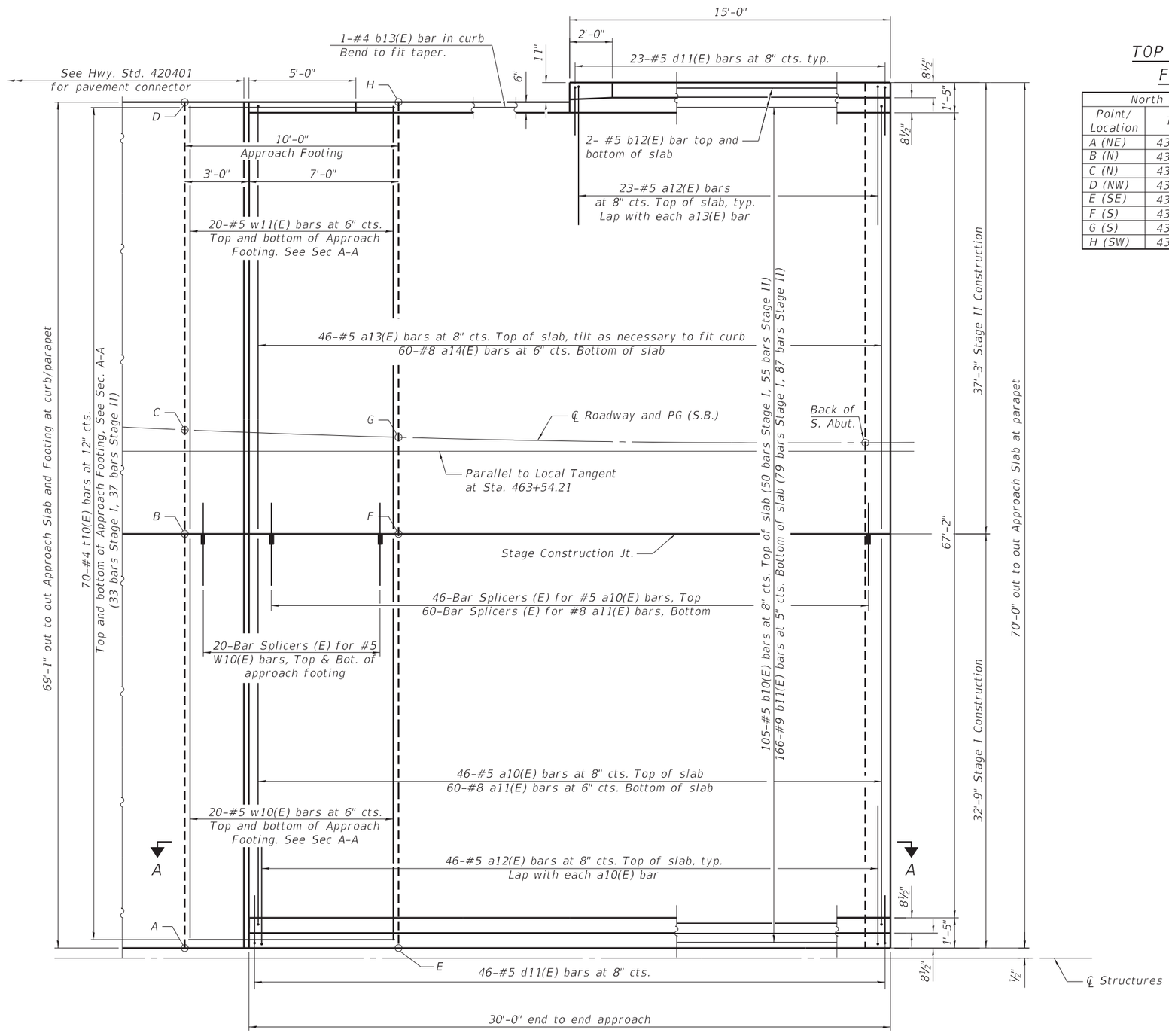

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

North Approach			South Approach		
Point/ Location	Top	Bottom	Point/ Location	Top	Bottom
A (NE)	434.70	433.87	A (SE)	434.51	433.68
B (N)	433.72	432.88	B (S)	433.53	432.70
C (N)	433.36	432.53	C (S)	433.17	432.34
D (NW)	432.63	431.79	D (SW)	432.43	431.60
E (SE)	434.72	433.89	E (NE)	434.55	433.72
F (S)	433.74	432.90	F (N)	433.57	432.73
G (S)	433.39	432.55	G (N)	433.22	432.39
H (SW)	432.64	431.81	H (NW)	432.47	431.64

PLAN

(South Approach Shown;
North Approach Slab Similar by Mirror Image)

Notes:
See sheet 27 of 44 for Section A-A.

1 REVISED SHEET 5-28-2024

TWM, INC.
WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

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	CHECKED - ALN	REVISED -	
PLOT SCALE = 0.166667 ' / In.	DRAWN - CAJ	REVISED -	
PLOT DATE = 3/1/2024	CHECKED - ALN	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 25 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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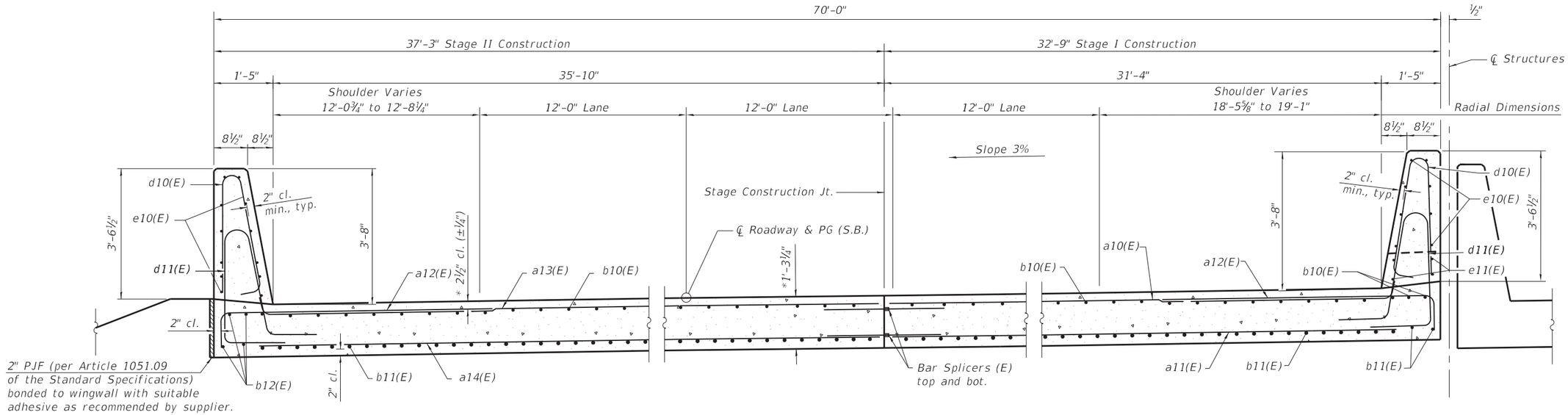
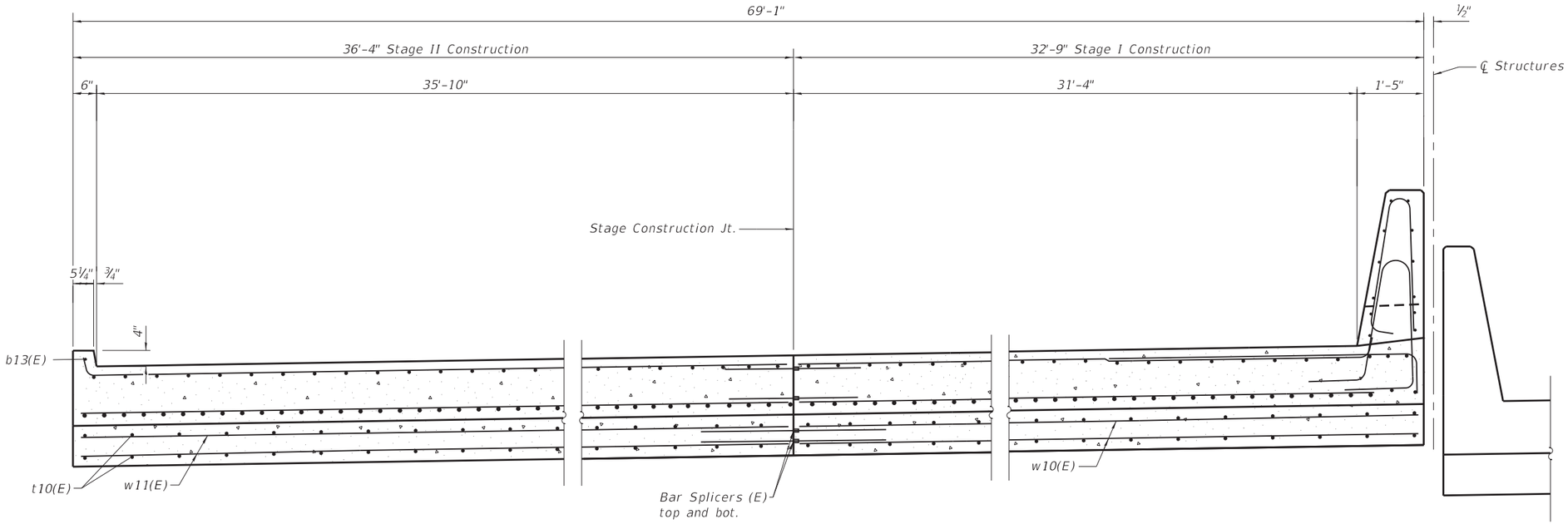
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



CROSS SECTION NEAR ABUTMENT

(Looking North)

* Prior to grinding



CROSS SECTION AT APPROACH FOOTING

(Looking North. See Cross Section Near Abutment for information not shown)

REVISED SHEET 5-28-2024

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TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

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PLOT DATE = 3/1/2024	CHECKED - ALN	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 26 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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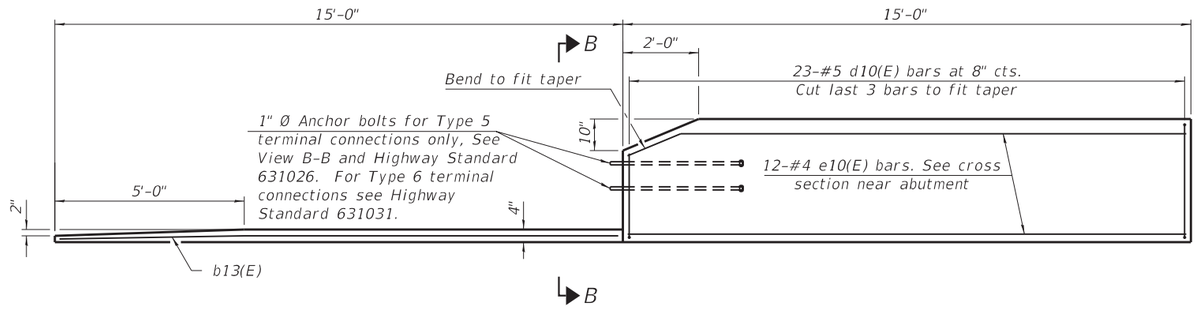
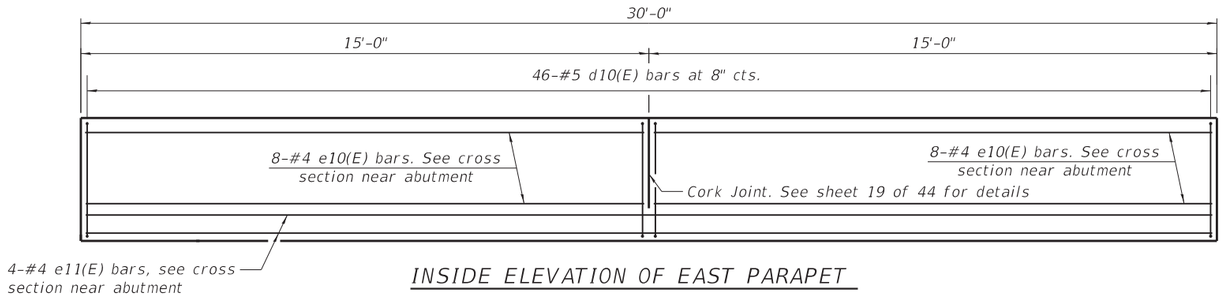
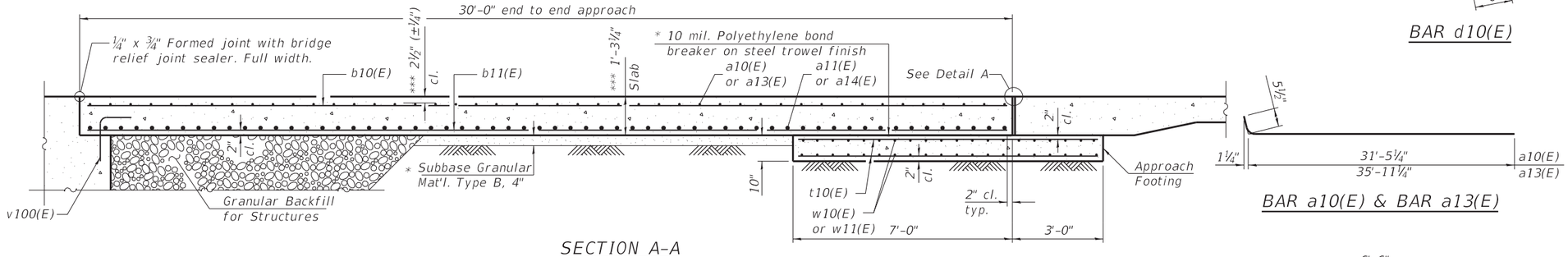
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			



INSIDE ELEVATION OF WEST PARAPET AND CURB

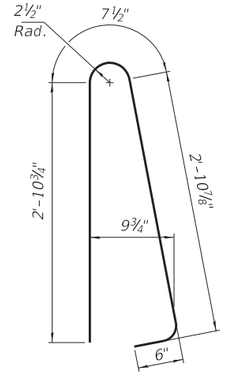


INSIDE ELEVATION OF EAST PARAPET

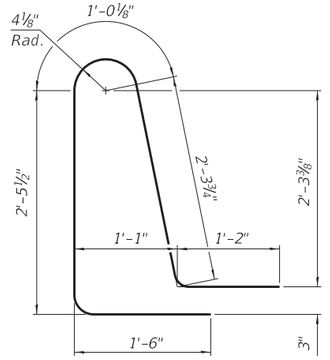


SECTION A-A

BAR a10(E) & BAR a13(E)



BAR d10(E)



BAR d11(E)

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Parapet concrete shall be paid for as Concrete Superstructure.

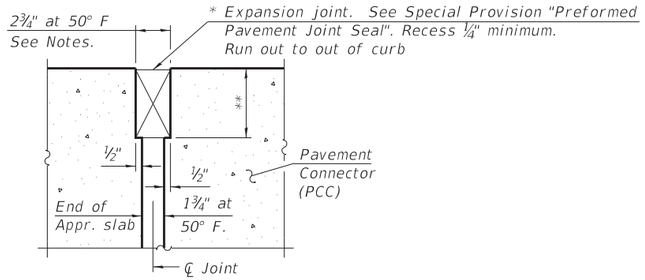
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

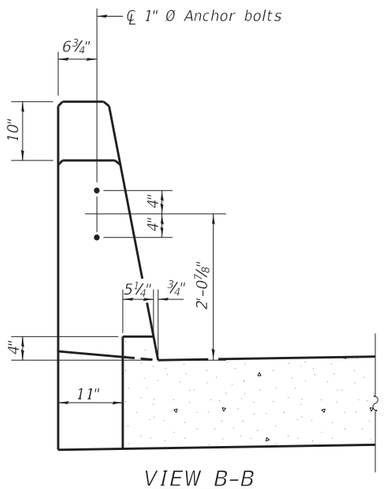
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

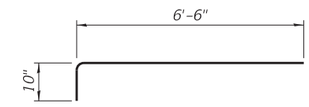
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 44.



DETAIL A



VIEW B-B



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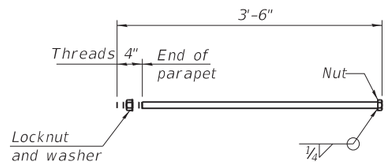

*1" Ø ANCHOR BOLT

(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	31'-11"	
a11(E)	120	#8	31'-6"	
a12(E)	138	#5	7'-4"	
a13(E)	92	#5	36'-5"	
a14(E)	120	#8	36'-0"	
b10(E)	210	#5	29'-8"	
b11(E)	332	#9	29'-8"	
b12(E)	8	#5	14'-8"	
b13(E)	2	#4	14'-8"	
d10(E)	138	#5	7'-0"	
d11(E)	138	#5	8'-6"	
e10(E)	56	#4	14'-8"	
e11(E)	8	#4	29'-8"	
t10(E)	280	#4	9'-8"	
w10(E)	80	#5	32'-5"	
w11(E)	80	#5	36'-0"	
Concrete Superstructure		Cu. Yd.	12.7	
Concrete Superstructure (Approach Slab)		Cu. Yd.	196.6	
Concrete Structures		Cu. Yd.	42.8	
Reinforcement Bars, Epoxy Coated		Pound	79,820	

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

*** Prior to grinding

1 REVISED SHEET 5-28-2024

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TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 27 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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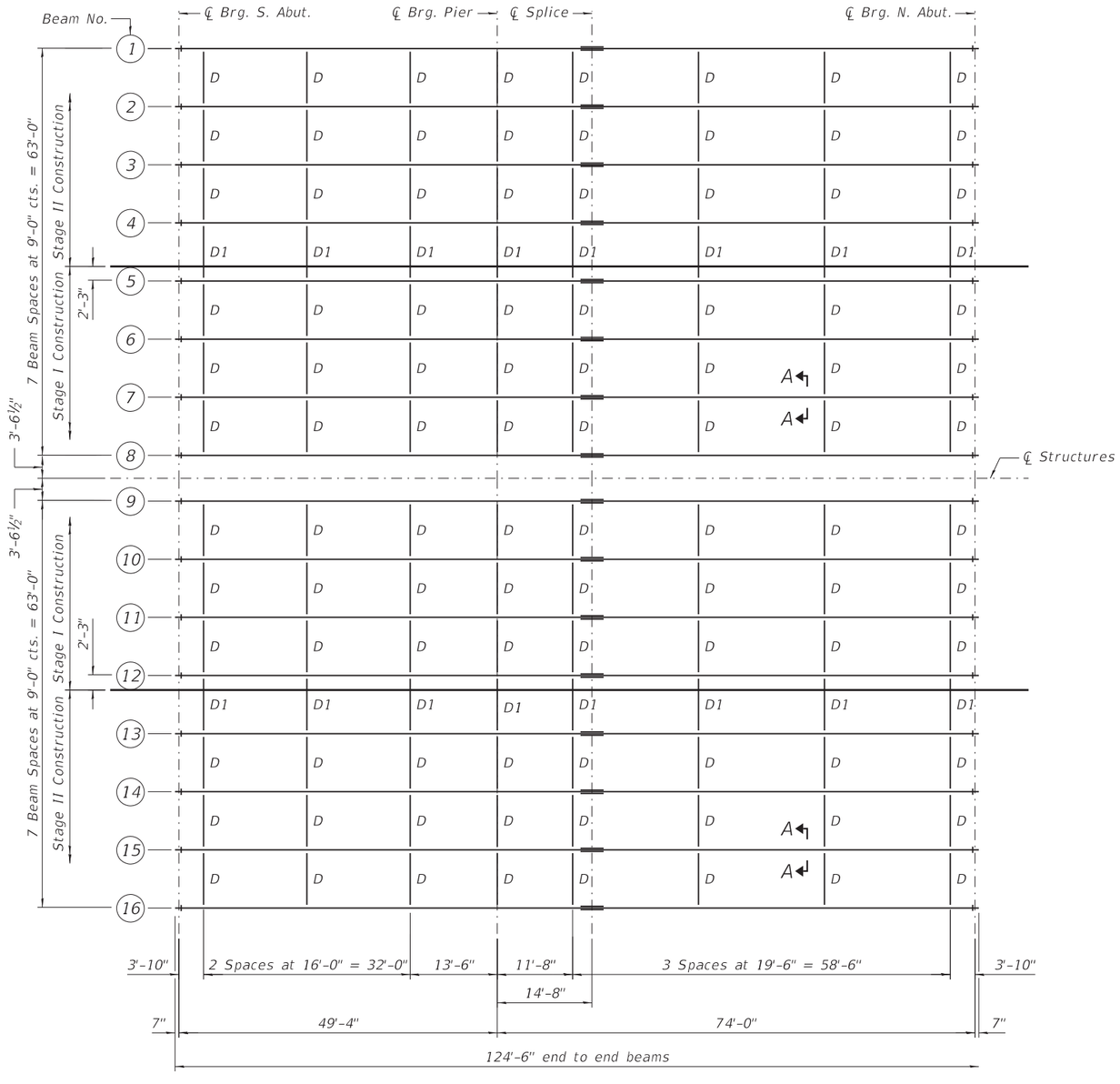
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			



FRAMING PLAN

All beams are W27x161, AASHTO M270, Grade 50W, CVN

**TOP OF BEAM ELEVATIONS SOUTHBOUND

	℄ Brg. S. Abut.	℄ Brg. Pier	℄ Splice	℄ Brg. N. Abut.
Beam 1	433.16	433.25	433.28	433.28
Beam 2	433.43	433.52	433.55	433.55
Beam 3	433.70	433.79	433.82	433.82
Beam 4	433.97	434.06	434.09	434.09
Beam 5	434.24	434.33	434.36	434.36
Beam 6	434.51	434.60	434.63	434.63
Beam 7	434.78	434.87	434.90	434.90
Beam 8	435.05	435.14	435.17	435.17

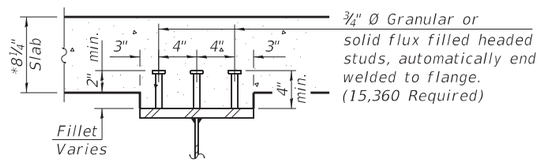
** For Fabrication Only

**TOP OF BEAM ELEVATIONS NORTHBOUND

	℄ Brg. S. Abut.	℄ Brg. Pier	℄ Splice	℄ Brg. N. Abut.
Beam 9	433.23	433.31	433.33	433.32
Beam 10	433.50	433.58	433.60	433.59
Beam 11	433.77	433.85	433.87	433.86
Beam 12	434.04	434.12	434.14	434.13
Beam 13	434.31	434.39	434.41	434.40
Beam 14	434.58	434.66	434.68	434.67
Beam 15	434.85	434.93	434.95	434.94
Beam 16	435.12	435.20	435.22	435.21

** For Fabrication Only

Note:
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
"CVN" denotes Charpy-V-notch Impact energy requirements, Zone 2.
All diaphragms, connection plates and bearing stiffeners shall be AASHTO M270, Grade 50W.



SECTION A-A

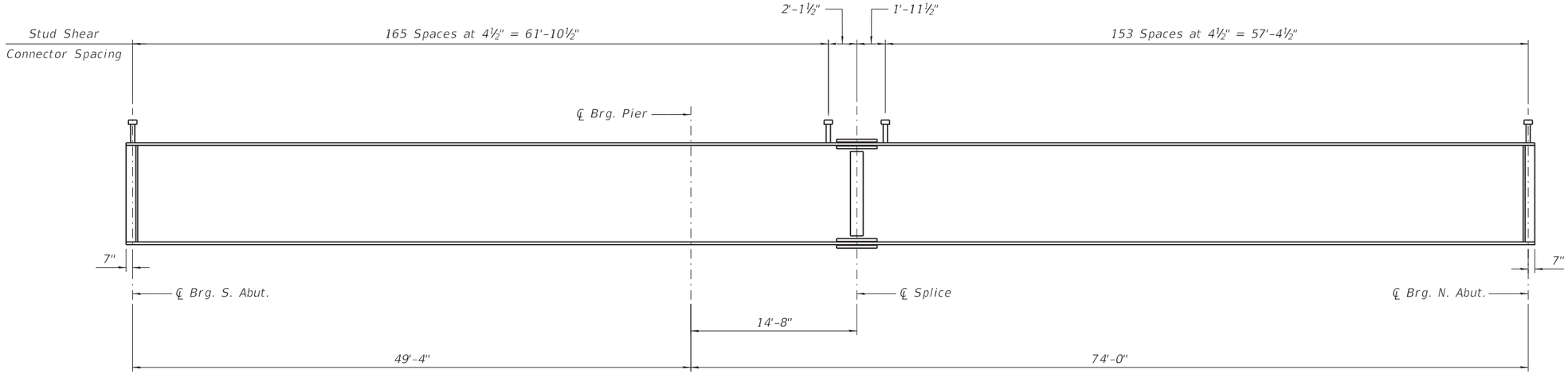
*Prior to grinding

⚠1 REVISED SHEET 5-28-2024

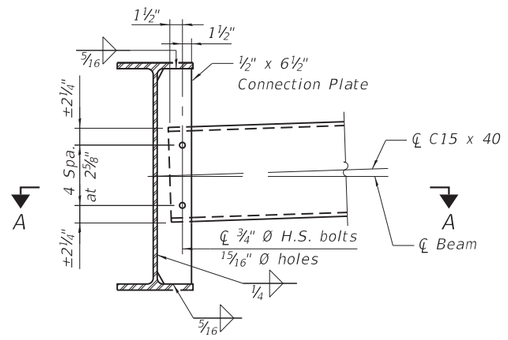
TWM, INC. WWW.TWM-INC.COM ENGINEERING & GEOSPATIAL SERVICES — IL DESIGN FIRM LICENSE NO: 184-001220	USER NAME = cjohnson	DESIGNED - MAL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - BWP	REVISED -	
	PLOT SCALE = 0.166667 ' / In.	DRAWN - MAL	REVISED -	
	PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

STRUCTURAL STEEL
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 28 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	172
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



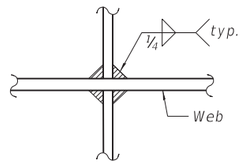
BEAM ELEVATION



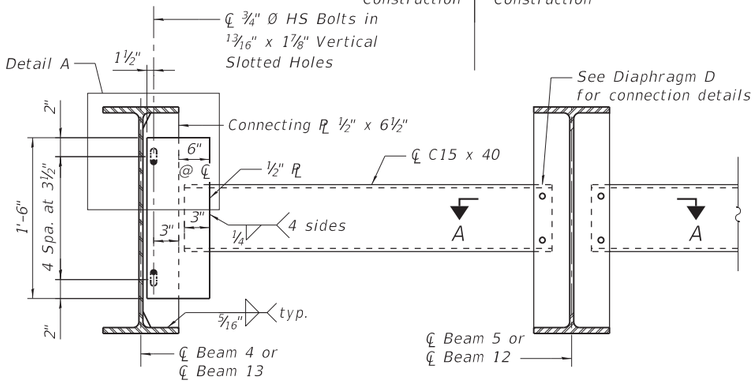
INTERIOR DIAPHRAGM D

(96 required)

See Weld Limits and Clip Details for information not shown



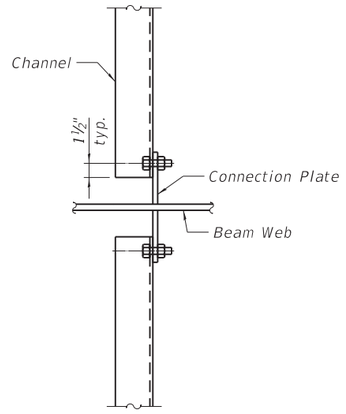
WEB WELD DETAIL



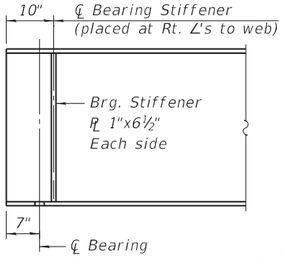
INTERIOR DIAPHRAGM D1

(16 required)

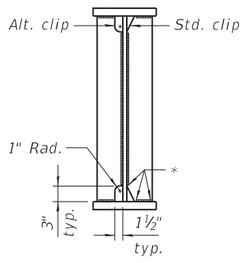
See Weld Limits and Clip Details for information not shown



SECTION A-A

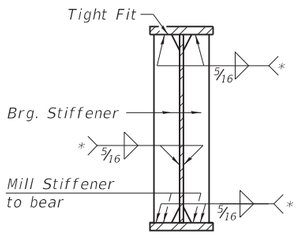


TYPICAL END OF BEAM ELEVATION



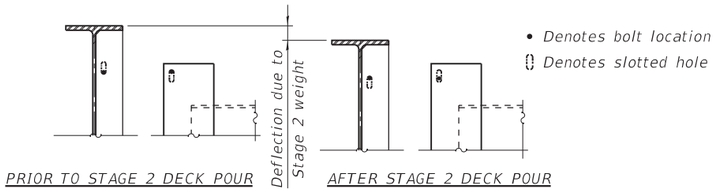
WELD LIMITS AND CLIP DETAIL

* Stop welds ¼" (±⅛") from edges as shown, typ.



SECTION AT ABUTMENT

See Weld Limits and Clip Details for information not shown



DETAIL A

Notes:

Two hardened washers required for each set of oversized holes.

Alternate channels of equal depth and larger weight are permitted to facilitate material acquisition. Alternate channels, if utilized, shall be provided at no additional cost to the Department.

The Fabricator shall detail connection plate locations on channel to allow for differential deflection during Stage II deck pour. The bolts shall be finger tight until the Stage II deck concrete is poured, allowing the Stage II girders to deflect vertically without stressing the D1 diaphragms or Stage I girders. The bolts shall be fully tightened after the Stage II deck concrete is poured.

The D1 diaphragm connection shall be detailed so that the centerline of girder web and centerline of diaphragm channel align in their final position.

All diaphragms, connection plates and bearing stiffeners shall be AASHTO M270, Grade 50W.

⚠1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021\210593\A - FAI 57 Dodd's Creek (Str Plans) - Phase II\d CADD - DWG\4.4 Struc\041019\(20)-78885-029-Structural Steel Details.dgn
3/1/2024 12:37:20 PM

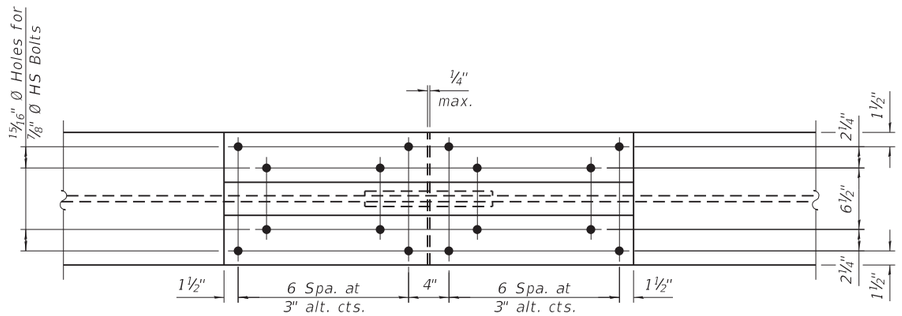
TWM ENGINEERING GEOSPATIAL SERVICES — TWM, INC. WWW.TWM-INC.COM — IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson	DESIGNED - MAL	REVISED -	
	CHECKED - BWP	REVISED -	
PLOT SCALE = 0.166667 ' / In.	DRAWN - MAL	REVISED -	
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

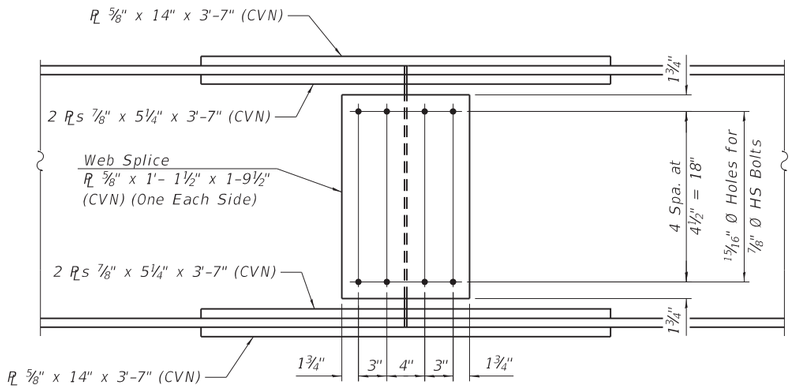
STRUCTURAL STEEL DETAILS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 29 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	173
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



PLAN

(Top and Bottom Flange)



ELEVATION

FIELD SPLICE DETAIL

Note:
All splice plates shall be AASHTO M270, Grade 50W.
"CVN" denotes Charpy-V-notch Impact energy requirements, Zone 2.

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in^4)	6310	6310	6310
$I_c(n)$	(in^4)	18326	18326	18326
$I_c(3n)$	(in^4)	13762	13762	13762
$I_c(cr)$	(in^4)	–	8846	–
S_s	(in^3)	458	458	458
$S_c(n)$	(in^3)	682	682	682
$S_c(3n)$	(in^3)	622	622	622
$S_c(cr)$	(in^3)	–	528	–
DC1	(k/ft)	1.136	1.136	1.136
MDC1	(ft-k)	92	595	504
DC2	(k/ft)	0.190	0.190	0.190
MDC2	(ft-k)	15	101	84
DW	(k/ft)	0.420	0.420	0.420
MDW	(ft-k)	33	224	187
LLDF		0.722	0.680	0.648
M_{LL+IM}	(ft-k)	607	764	906
M_U (Strength I)	(ft-k)	1246	2543	2601
$\varphi_f M_n$	(ft-k)	3613	2730	3246
f_s DC1	(ksi)	2.41	15.59	13.21
f_s DC2	(ksi)	0.29	2.29	1.62
f_s DW	(ksi)	0.64	5.09	3.61
$f_{s\ (LL+IM)}$	(ksi)	10.68	17.35	15.94
f_s (Service II)	(ksi)	17.22	45.53	39.15
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	–	–	–
$\varphi_f F_n$	(ksi)	–	–	–
Vf	(k)	59.5	57.5	58.4

BEAM REACTION TABLE							
		S. Abut.		Pier		N. Abut.	
		Interior	Exterior	Interior	Exterior	Interior	Exterior
LLDF		0.884	0.881	0.884	0.881	0.884	0.881
OCF		–	1	–	–	–	1
R_{DC1}	(k)	16.9	17.1	89.7	91.1	34.8	35.4
R_{DC2}	(k)	2.6	2.6	15.1	15.1	5.7	5.7
R_{DW}	(k)	5.8	5.8	33.5	33.5	12.5	12.5
R_{LL}	(k)	62.1	61.9	108.4	108.0	71.2	71.0
R_{Im}	(k)	16.4	16.3	20.9	20.9	17.6	17.6
RTotal	(k)	103.8	103.7	267.6	268.6	141.8	142.2

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs (Total-Strength I, and Service II) due to non-composite dead loads (in.^{4} and in.^{3}).

Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.^{4} and in.^{3}).

Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).

Ic(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing fs (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).

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.).

M_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

Mu (Strength I): Factored design moment (kip-ft.).
$1.25\ (MDC1 + MDC2) + 1.5\ MDW + 1.75\ M_{LL+IM}$

Øf Mn: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

fs DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1/ Snc

fs DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2/ Sc(3n) or MDC2/ Sc(cr) as applicable.

fs DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW/ Sc(3n) or MDW/ Sc(cr) as applicable.

$fs_{(LL+IM)}$: Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
M_{LL+IM} / Sc(n) or M_{LL+IM} / Sc(cr) as applicable.

fs (Service II): Sum of stresses as computed below (ksi).
fsDC1 + fsDC2 + fsDW + 1.3 $fs_{(LL+IM)}$

0.95RhFyf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

fs (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (fsDC1 + fsDC2) + 1.5\ fsDW + 1.75\ fs_{(LL+IM)}$

Øf Fn: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

Vf: Maximum factored shear range in span computed according to Article 6.10.10.

LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.

OCF: Obtuse Correction Factor applied to non-continuous exterior beam ends and computed according to Article 4.6.2.2.3c-1 or as further simplified by IDOT.

1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021\210593\A - FAI 57 Dodd's Creek (Str Plans) - Phase II\41 CADD - DWG\4.4 Struc\041019\(20)-78885-030-Structural Steel Details.dgn
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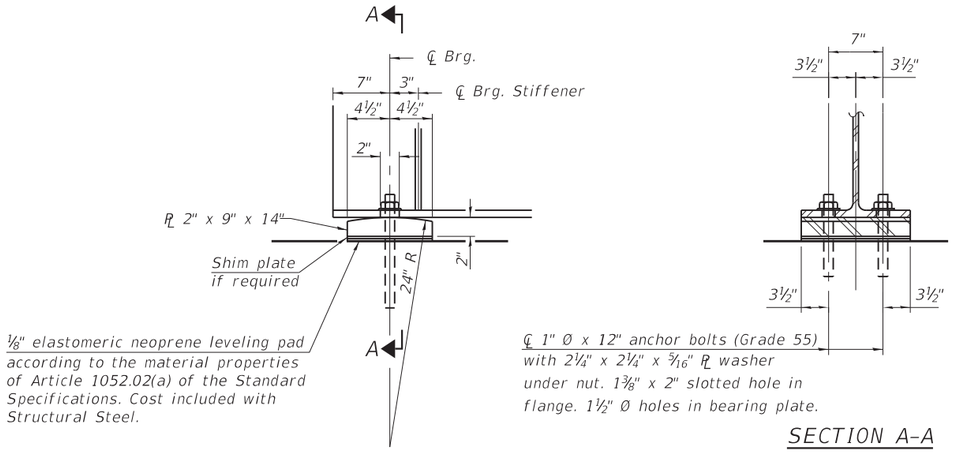
TWM, INC. WWW.TWM-INC.COM
ENGINEERING GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson | DESIGNED - MAL | REVISED -
CHECKED - BWP | REVISED -
PLOT SCALE = 0.166667 ' / In. | DRAWN - MAL | REVISED -
PLOT DATE = 3/1/2024 | CHECKED - BWP | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 30 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	174
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

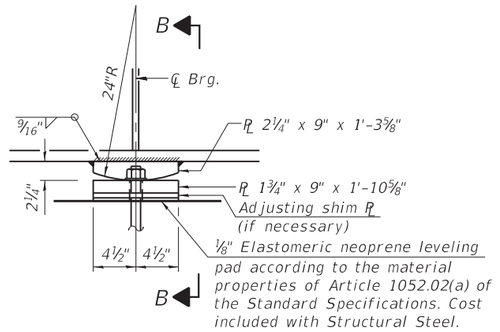


ELEVATION AT ABUTMENT

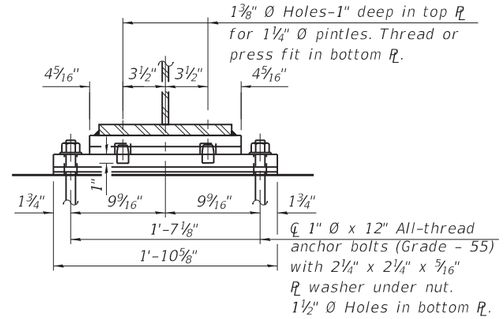
SECTION A-A

FIXED BEARING AT ABUTMENT

(32 Required)



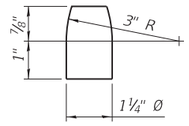
ELEVATION AT PIER



SECTION B-B

FIXED BEARING AT PIER

(16 Required)



PINTLE

Notes:

All bearing plates and pintles shall be AASHTO M270 Grade 50.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

Anchor bolts shall be according to Article 521.06 of the Standard Specifications.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	96

1 REVISED SHEET 5-28-2024

TWM, INC.
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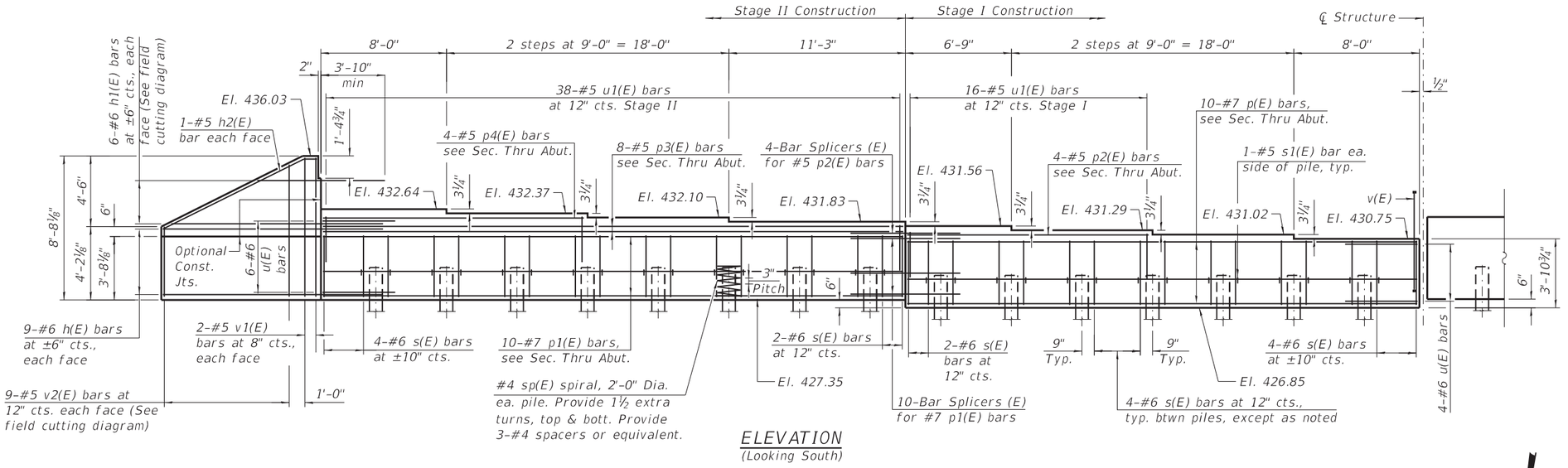
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - MAL		REVISED -	
		CHECKED - BWP		REVISED -	
PLOT SCALE = 0.166667 ' / In.		DRAWN - MAL		REVISED -	
PLOT DATE = 3/1/2024		CHECKED - BWP		REVISED -	

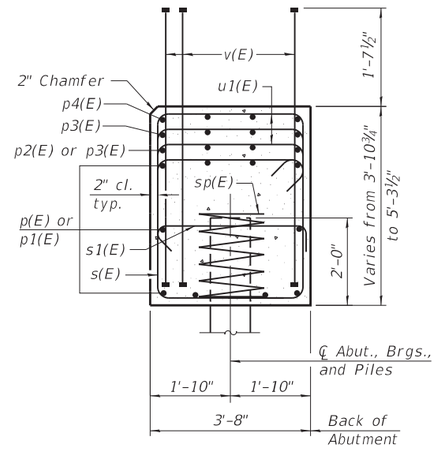
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 31 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	175
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



ELEVATION
(Looking South)



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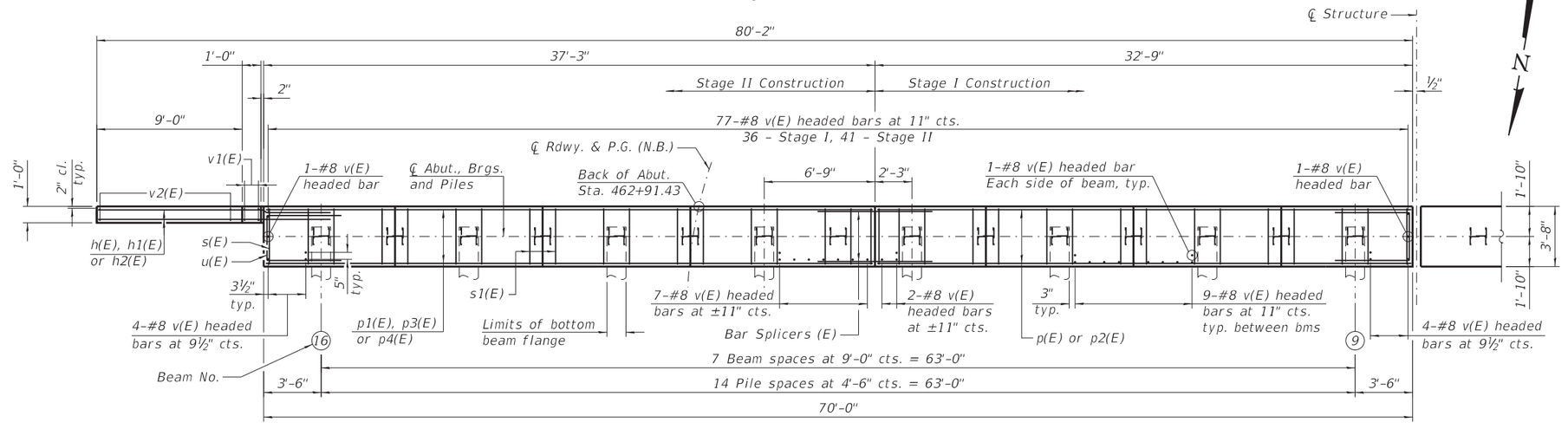
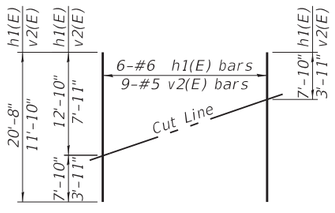


PLAN

BILL OF MATERIAL

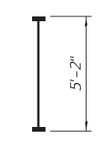
Bar	No.	Size	Length	Shape
h(E)	18	#6	13'-10"	
h1(E)	6	#6	20'-8"	
h2(E)	2	#5	10'-8"	
p(E)	10	#7	32'-5"	
p1(E)	10	#7	36'-11"	
p2(E)	4	#5	15'-5"	
p3(E)	8	#5	36'-11"	
p4(E)	4	#5	16'-8"	
s(E)	64	#6	15'-0"	
s1(E)	30	#5	4'-4"	
sp(E) *	15	#4	2'-0"	
u(E)	10	#6	11'-10"	
u1(E)	54	#5	8'-6"	
v(E)	166	#8	5'-2"	
v1(E)	4	#5	8'-4"	
v2(E)	9	#5	11'-10"	
Structure Excavation		Cu. Yd.	171	
Concrete Structures		Cu. Yd.	46.0	
Reinforcement Bars, Epoxy Coated		Pound	7,800	
Furnishing Steel Piles, HP 14x89		Foot	966	
Driving Piles		Foot	966	
Test Pile Steel, HP 14x89		Each	1	
Pile Shoes		Each	15	
Bar Terminator		Each	332	

* Length is height of spiral.

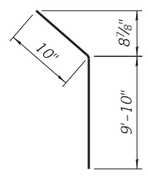


FIELD CUTTING DIAGRAM

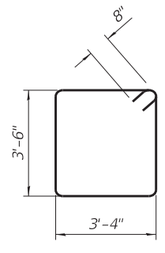
Order h1(E) and v2(E) full length.
Cut as shown and use remainder of bars in opposite face.



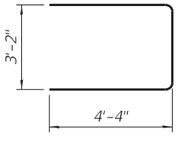
BAR v(E)
(Headed, 1328 #8 Bar Terminators Required)



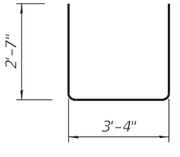
BAR h2(E)



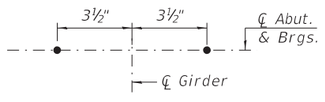
BAR s(E)



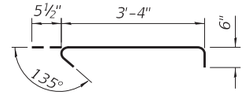
BAR u(E)



BAR u1(E)



ANCHOR BOLT LAYOUT
(See sheet 31 of 44)



BAR s1(E)

PILE DATA

Type: HP 14x89 with Pile Shoes
Nominal Required Bearing: 705 kips
Factored Resistance Available: 388 kips
Est. Length: 69
No. Production Piles: 14
No. Test Piles: 1

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles see sheet 39 of 44.
For bar splicer details, see Sheet 40 of 44.

1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021210593\A - FAI 57 Dodd's Creek (Str Plans) - Phase III\4 CADD - DWG\4.4 Struct\041019(20)-78885-032-South Abutment_NB.dgn
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TWM ENGINEERING GEOSPATIAL SERVICES
TWM, INC. WWW.TWM-INC.COM
IL DESIGN FIRM LICENSE NO: 184-001220

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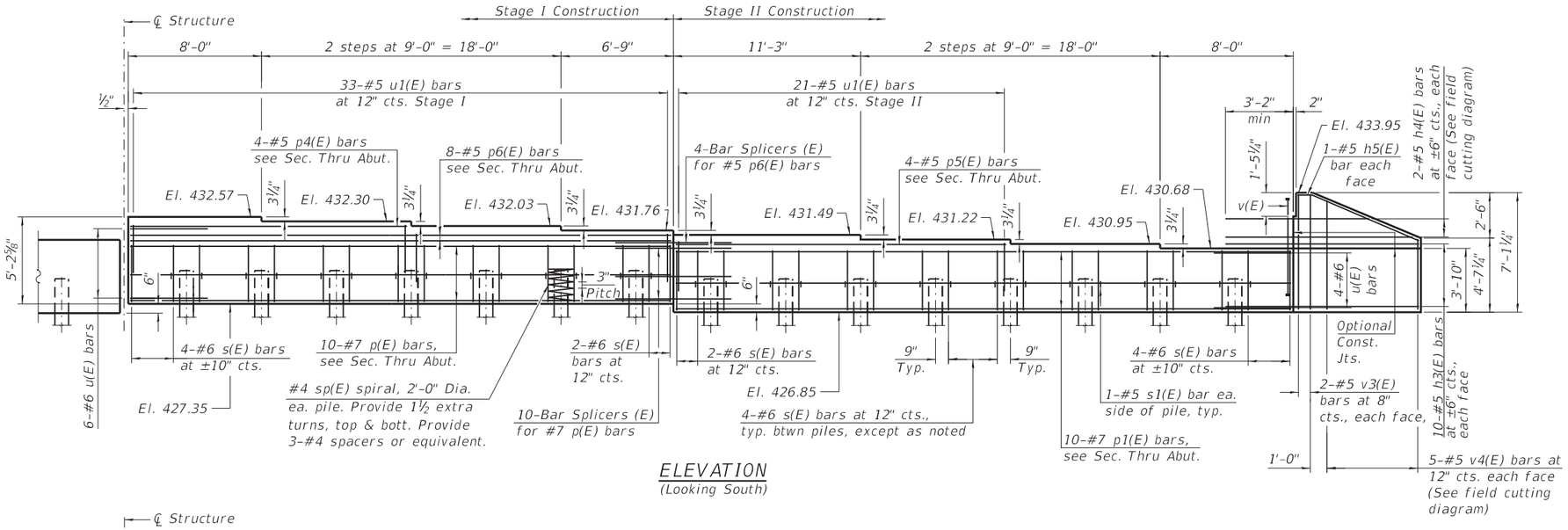
		CHECKED - BWP		REVISED -	
PLOT SCALE = 0.166667 ' / In.		DRAWN - JBE		REVISED -	
PLOT DATE = 3/1/2024		CHECKED - ALN		REVISED -	

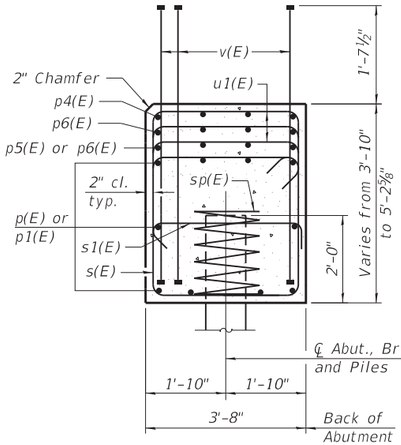
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 32 OF 44 SHEETS

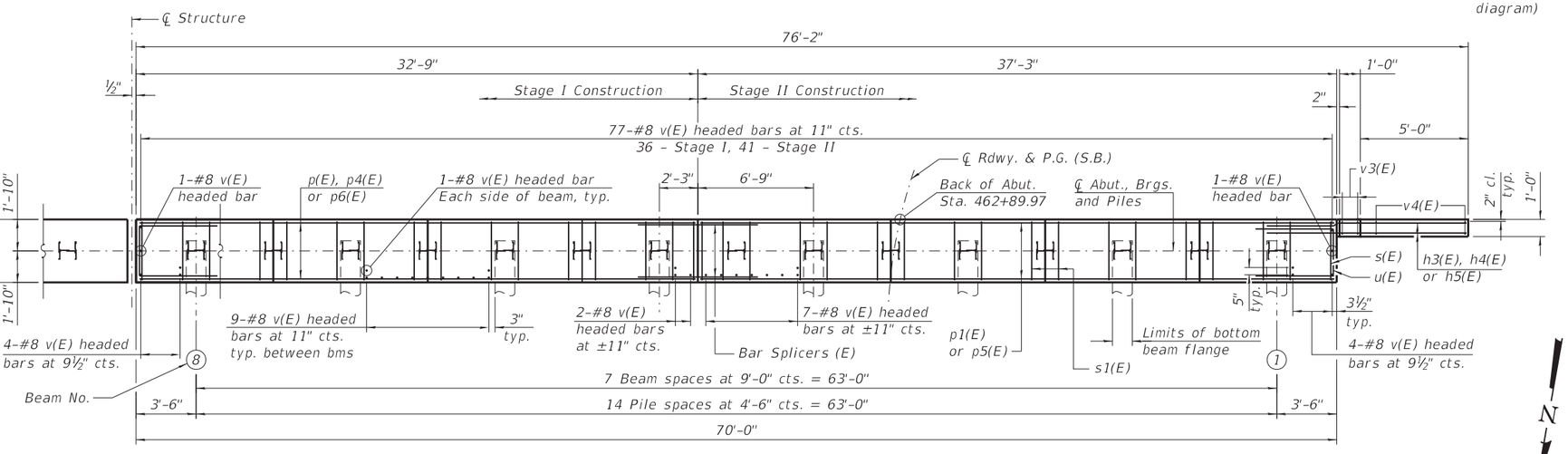
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	176
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			



ELEVATION
(Looking South)



SEC. THRU ABUT.

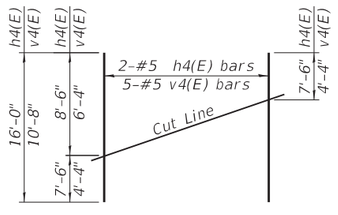


PLAN

BILL OF MATERIAL

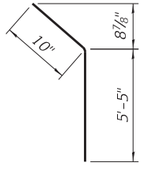
Bar	No.	Size	Length	Shape
h3(E)	20	#5	9'-2"	
h4(E)	2	#5	16'-0"	
h5(E)	2	#5	6'-3"	
p(E)	10	#7	32'-5"	
p1(E)	10	#7	36'-11"	
p4(E)	4	#5	16'-8"	
p5(E)	4	#5	19'-11"	
p6(E)	8	#5	32'-5"	
s(E)	64	#6	15'-0"	
s1(E)	30	#5	4'-4"	
* sp(E)	15	#4	2'-0"	
u(E)	10	#6	11'-10"	
u1(E)	54	#5	8'-6"	
v(E)	166	#8	5'-2"	
v3(E)	4	#5	6'-9"	
v4(E)	5	#5	10'-8"	
Structure Excavation	Cu. Yd.	160		
Concrete Structures	Cu. Yd.	44.5		
Reinforcement Bars, Epoxy Coated	Pound	7,370		
Furnishing Steel Piles, HP 14x89	Foot	966		
Driving Piles	Foot	966		
Test Pile Steel, HP 14x89	Each	1		
Pile Shoes	Each	15		
Bar Terminator	Each	332		

* Length is height of spiral.

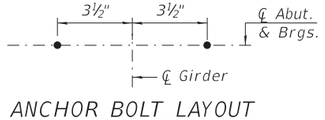


FIELD CUTTING DIAGRAM

Order h4(E) and v4(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR h5(E)



ANCHOR BOLT LAYOUT

(See sheet 31 of 44)

PILE DATA

Type: HP 14x89 with Pile Shoes
Nominal Required Bearing: 705 kips
Factored Resistance Available: 388 kips
Est. Length: 69
No. Production Piles: 14
No. Test Piles: 1

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles see sheet 39 of 44.
For bar splicer details, see sheet 40 of 44.
See sheet 32 of 44 for reinforcement details not shown.

1 REVISED SHEET 5-28-2024

MODEL: Default
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TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - NP	REVISED -		
		CHECKED - BWP	REVISED -		
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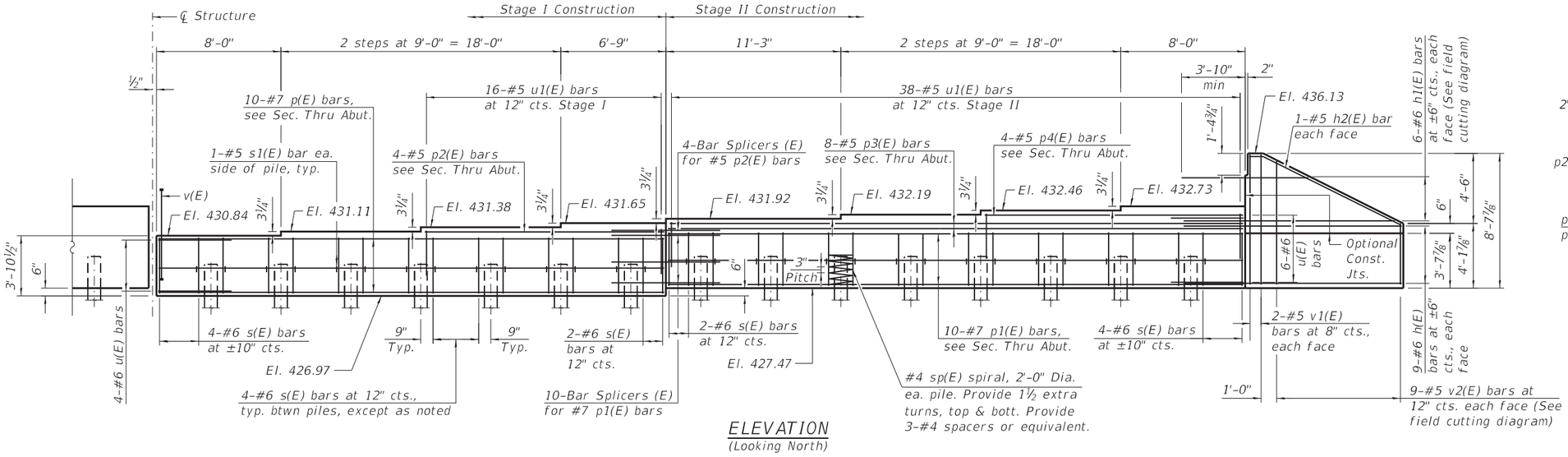
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

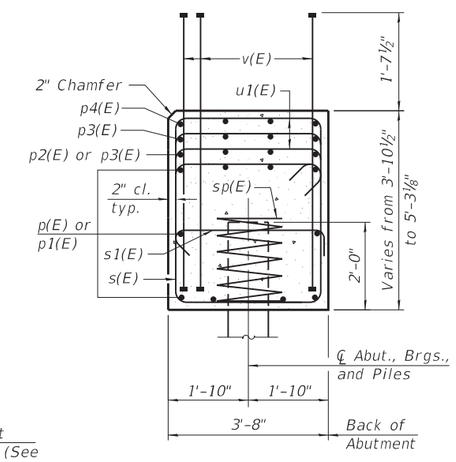
SOUTH ABUTMENT
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 33 OF 44 SHEETS

F.A.I. RTE.	PROJECT	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	177
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			

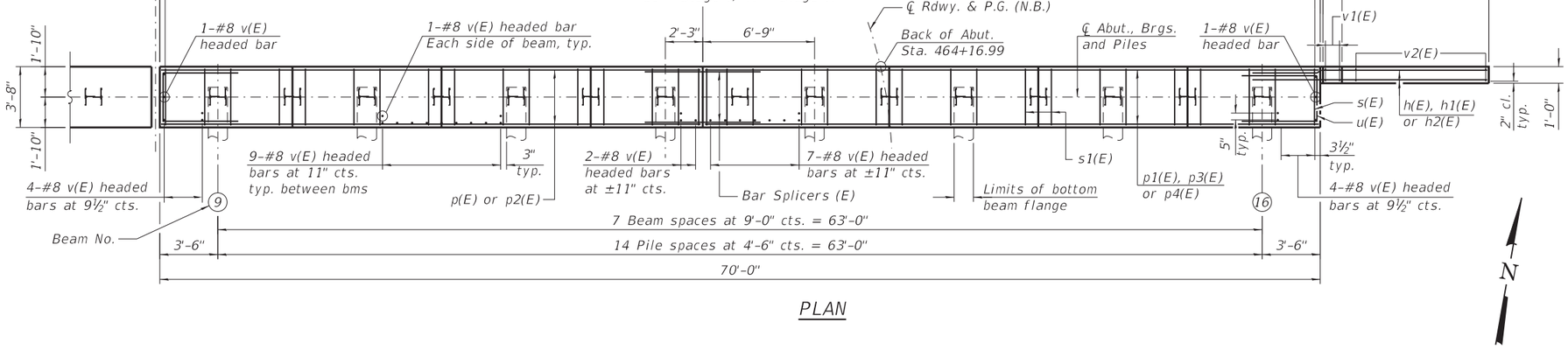
3/1/2024 1:18:32 PM



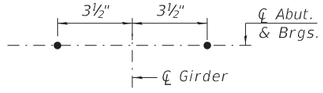
ELEVATION
(Looking North)



SEC. THRU ABUT.



PLAN



ANCHOR BOLT LAYOUT
(See sheet 31 of 44)

PILE DATA

Type: HP 14x89 with Pile Shoes
Nominal Required Bearing: 705 kips
Factored Resistance Available: 388 kips
Est. Length: 71
No. Production Piles: 14
No. Test Piles: 1

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles see sheet 39 of 44.
For bar splicer details, see sheet 40 of 44.
See sheet 32 of 44 for reinforcement bar details not shown.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	18	#6	13'-10"	
h1(E)	6	#6	20'-8"	
h2(E)	2	#5	10'-8"	
p(E)	10	#7	32'-5"	
p1(E)	10	#7	36'-11"	
p2(E)	4	#5	15'-5"	
p3(E)	8	#5	36'-11"	
p4(E)	4	#5	16'-8"	
s(E)	64	#6	15'-0"	
s1(E)	30	#5	4'-4"	
* sp(E)	15	#4	2'-0"	
u(E)	10	#6	11'-10"	
u1(E)	54	#5	8'-6"	
v(E)	166	#8	5'-2"	
v1(E)	4	#5	8'-4"	
v2(E)	9	#5	11'-10"	
Structure Excavation		Cu. Yd.	174	
Concrete Structures		Cu. Yd.	46.0	
Reinforcement Bars, Epoxy Coated		Pound	7,800	
Furnishing Steel Piles, HP 14x89		Foot	994	
Driving Piles		Foot	994	
Test Pile Steel, HP 14x89		Each	1	
Pile Shoes		Each	15	
Bar Terminator		Each	332	

* Length is height of spiral.

⚠1 REVISED SHEET 5-28-2024

MODEL: Default
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TWM ENGINEERING GEOSPATIAL SERVICES
TWM, INC. WWW.TWM-INC.COM
IL DESIGN FIRM LICENSE NO: 184-001220

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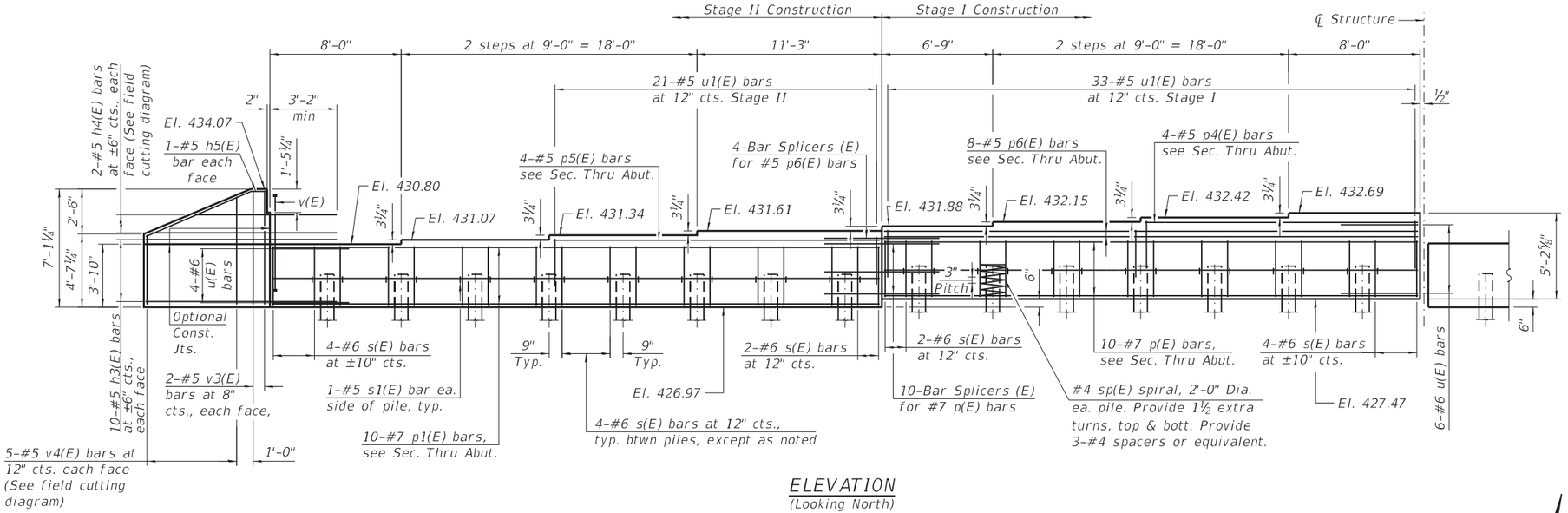
		CHECKED -	BWP	REVISED -	
PLOT SCALE =	0.166667 ' / In.	DRAWN -	JBE	REVISED -	
PLOT DATE =	3/1/2024	CHECKED -	ALN	REVISED -	

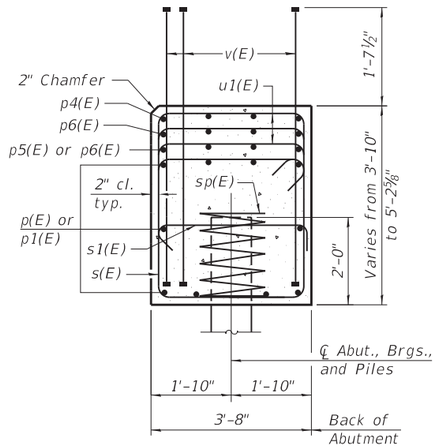
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 34 OF 44 SHEETS

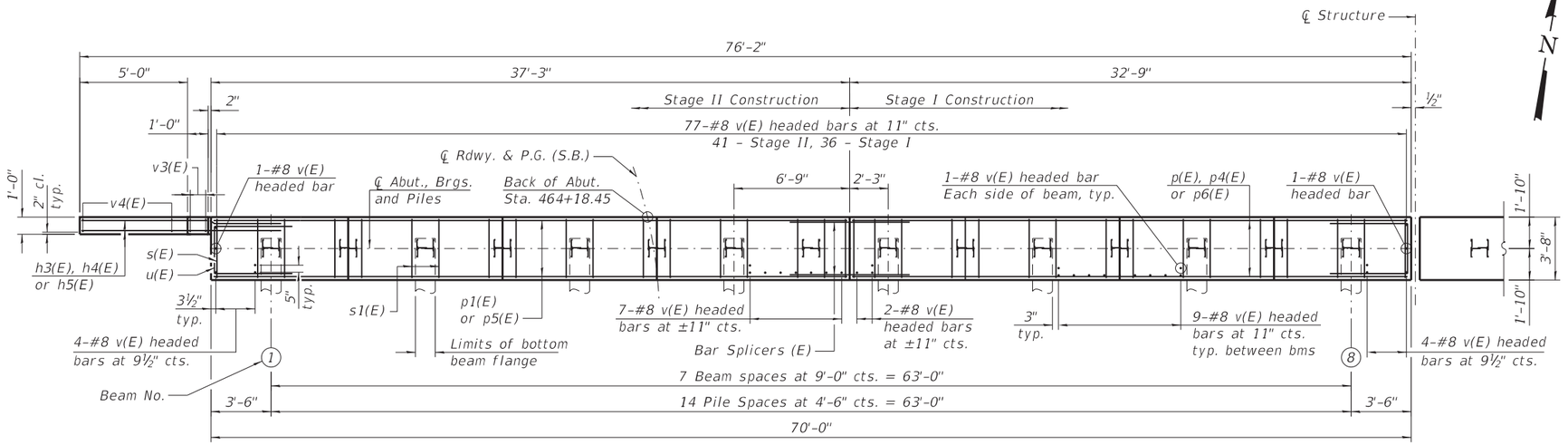
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	178
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		



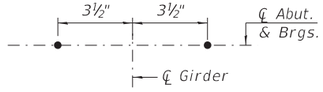
ELEVATION
(Looking North)



SEC. THRU ABUT.



PLAN



ANCHOR BOLT LAYOUT
(See sheet 31 of 44)

PILE DATA

Type: HP 14x89 with Pile Shoes
Nominal Required Bearing: 705 kips
Factored Resistance Available: 388 kips
Est. Length: 71
No. Production Piles: 14
No. Test Piles: 1

Notes:
- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.
- For details of piles see sheet 39 of 44.
- For bar splicer details, see sheet 40 of 44.
- See sheets 32 and 33 of 44 for reinforcement bar details not shown.

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h3(E)	20	#5	9'-2"	
	h4(E)	2	#5	16'-0"	
	h5(E)	2	#5	6'-3"	
	p(E)	10	#7	32'-5"	
	p1(E)	10	#7	36'-11"	
	p4(E)	4	#5	16'-8"	
	p5(E)	4	#5	19'-11"	
	p6(E)	8	#5	32'-5"	
	s(E)	64	#6	15'-0"	
	s1(E)	30	#5	4'-4"	
*	sp(E)	15	#4	2'-0"	
	u(E)	10	#6	11'-10"	
	u1(E)	54	#5	8'-6"	
	v(E)	166	#8	5'-2"	
	v3(E)	4	#5	6'-9"	
	v4(E)	5	#5	10'-8"	
	Structure Excavation		Cu. Yd.	164	
	Concrete Structures		Cu. Yd.	44.5	
	Reinforcement Bars, Epoxy Coated		Pound	7,370	
	Furnishing Steel Piles, HP 14x89		Foot	994	
	Driving Piles		Foot	994	
	Test Pile, Steel HP 14x89		Each	1	
	Pile Shoes		Each	15	
	Bar Terminator		Each	332	

* Length is height of spiral.

⚠1 REVISED SHEET 5-28-2024

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TWM ENGINEERING & GEOSPATIAL SERVICES — TWM, INC. WWW.TWM-INC.COM — IL DESIGN FIRM LICENSE NO: 184-001220

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PLOT DATE = 3/1/2024		CHECKED - ALN		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 35 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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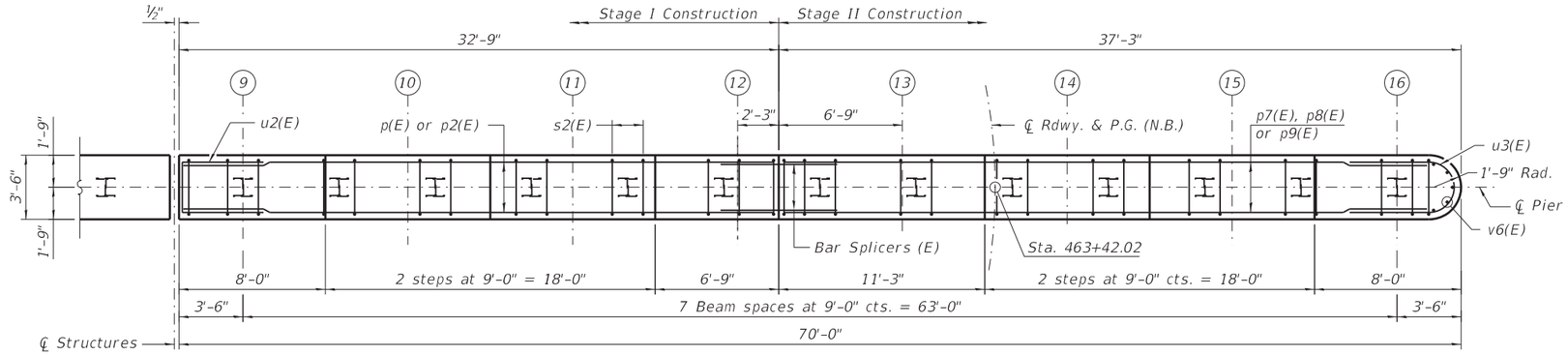
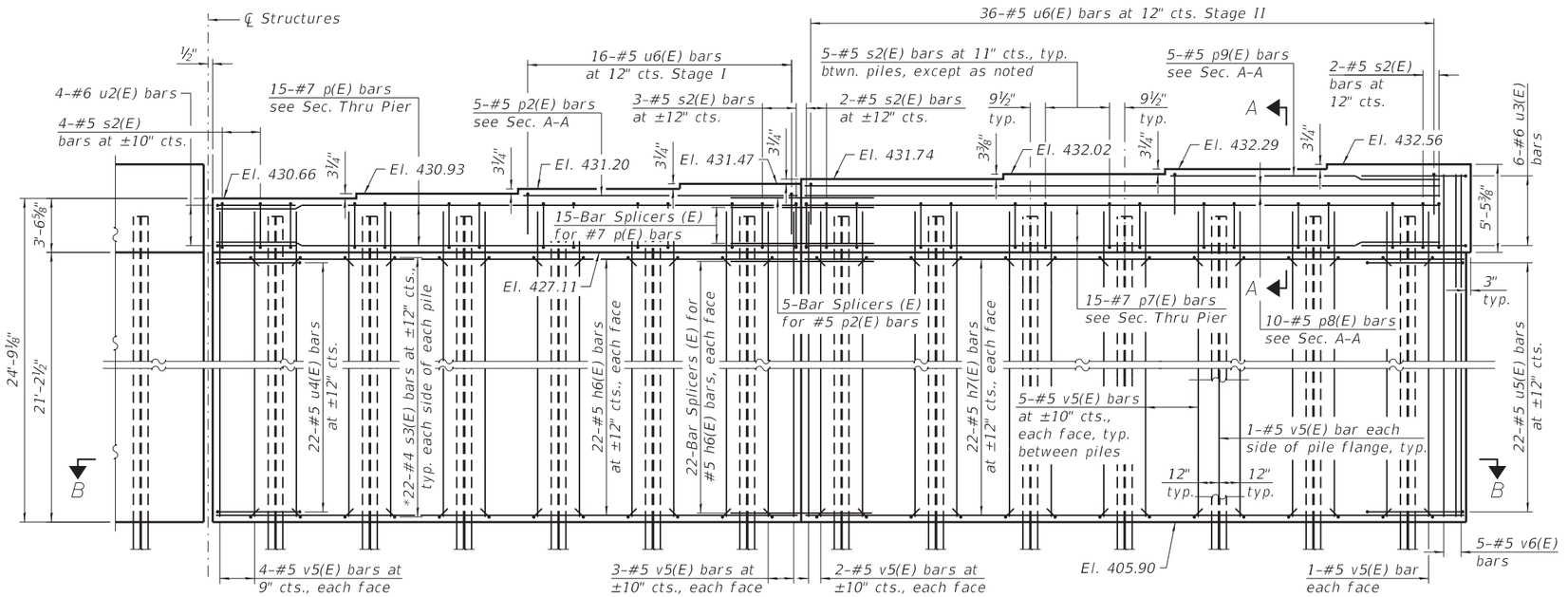
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			

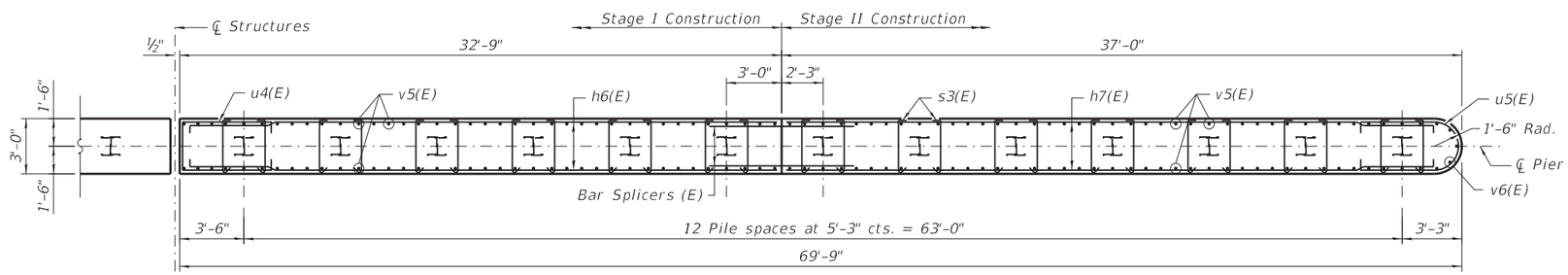


TOP PLAN



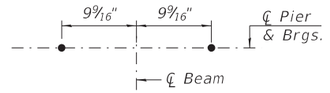
*Hook s3(E) bars around h6(E) or h7(E) and v5(E) bars. Clear cover for s3(E) bars will be 1½".

ELEVATION
(Looking North)

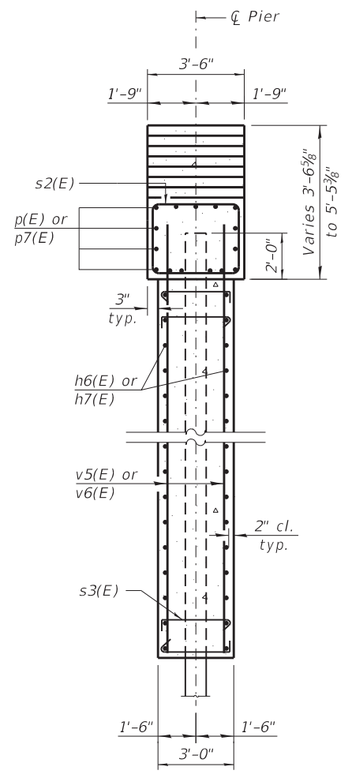


SECTION B-B

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
See sheet 38 of 44 for additional pier details, Section A-A, and Bill of Material.
For details of piles, see sheet 39 of 44.
For bar splicer details, see sheet 40 of 44.
For cofferdam limits, see sheet 38 of 44.



ANCHOR BOLT LAYOUT
(See sheet 31 of 44)



SECTION THRU PIER

PILE DATA

Type: HP 14x89 with Pile Shoes
Nominal Required Bearing: 705 kips
Factored Resistance Available: 388 kips
Est. Length: 70 ft.
No. Production Piles: 12
No. Test Piles: 1

⚠1 REVISED SHEET 5-28-2024

MODEL: Default
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TWM, INC. WWW.TWM-INC.COM
ENGINEERING GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

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	CHECKED - BWP	REVISED -	
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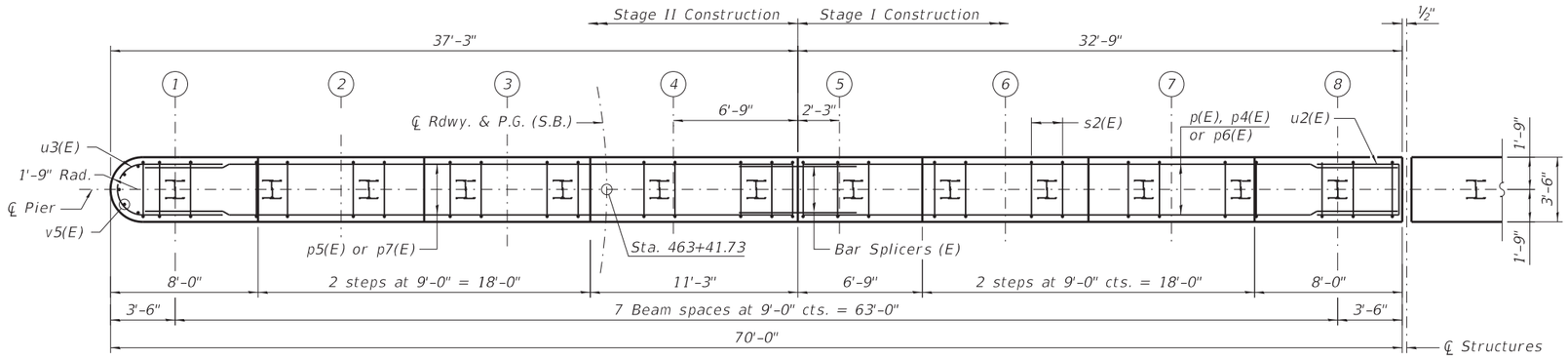
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

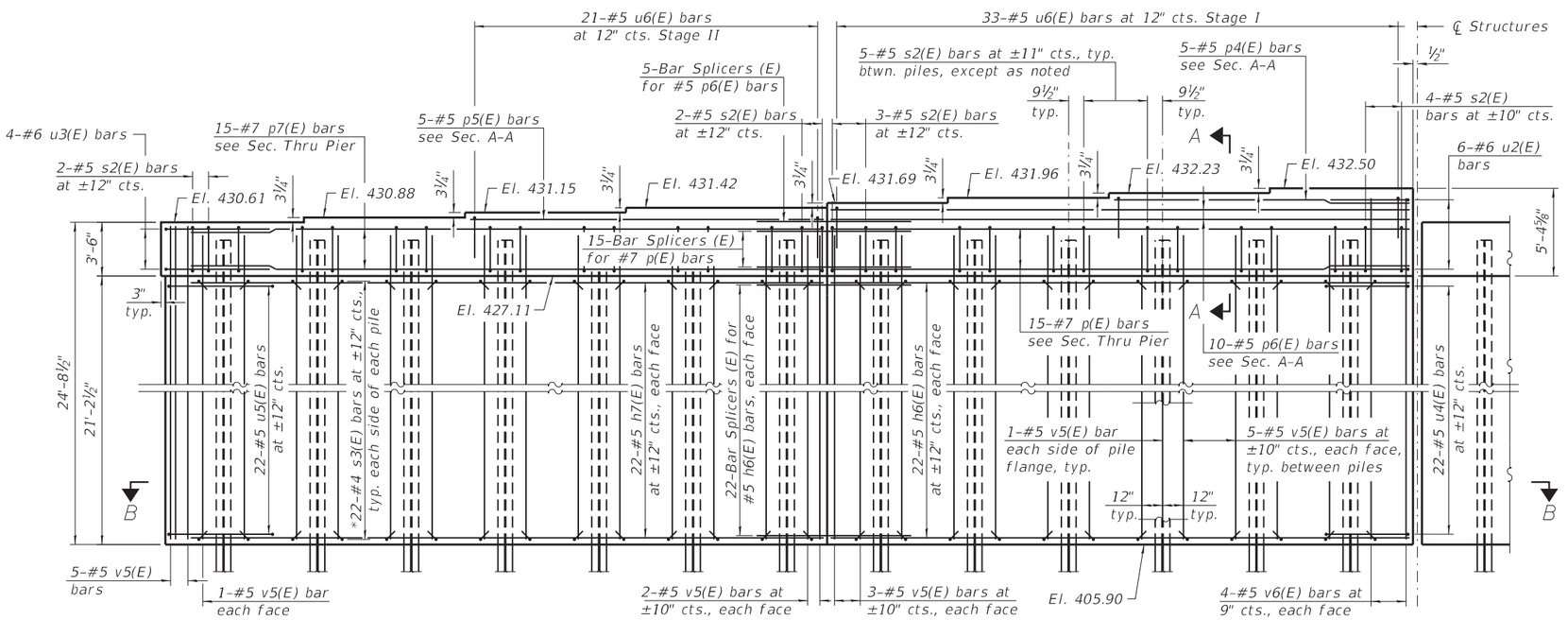
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER
STRUCTURE NO. 041-0119 (N.B.)
SHEET NO. 36 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	180
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			



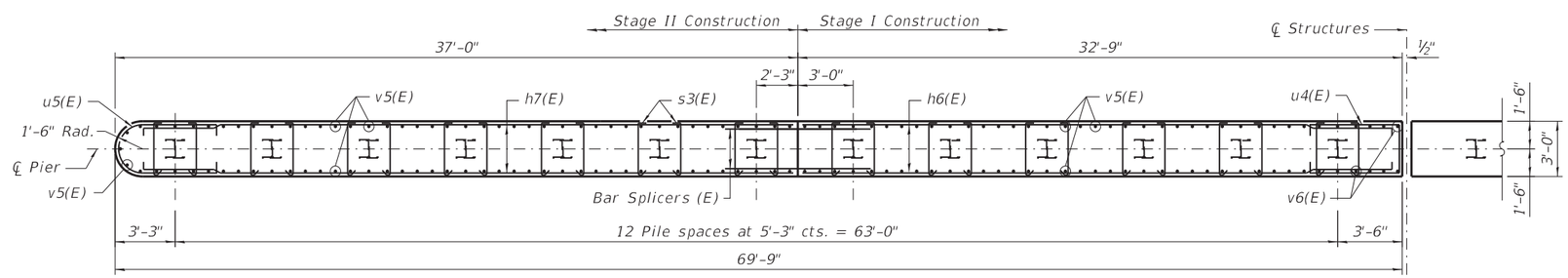
TOP PLAN



*Hook s3(E) bars around h6(E) or h7(E) and v5(E) bars. Clear cover for s3(E) bars will be 1½".

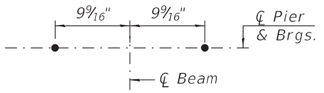
ELEVATION

(Looking North)



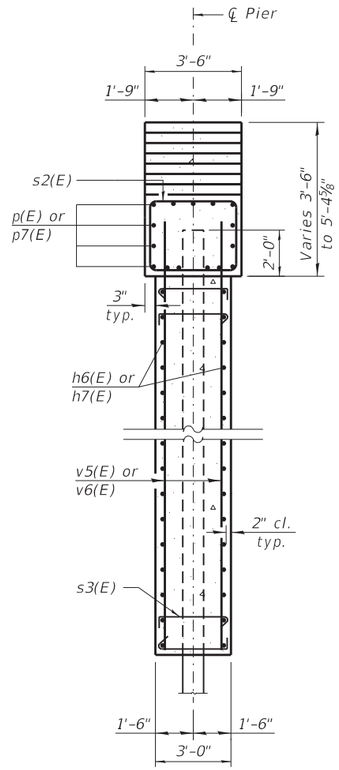
SECTION B-B

Notes:
- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.
- See sheet 38 of 44 for additional pier details, Section A-A, and Bill of Material.
- For details of piles, see sheet 39 of 44.
- For bar splicer details, see sheet 40 of 44.
- For cofferdam limits, see sheet 38 of 44.



ANCHOR BOLT LAYOUT

(See sheet 31 of 44)



SECTION THRU PIER

PILE DATA

Type: HP 14x89 with Pile Shoes
Nominal Required Bearing: 705 kips
Factored Resistance Available: 388 kips
Est. Length: 70 ft.
No. Production Piles: 12
No. Test Piles: 1

1 REVISED SHEET 5-28-2024

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TWM, INC. WWW.TWM-INC.COM
IL DESIGN FIRM LICENSE NO: 184-001220
ENGINEERING GEOSPATIAL SERVICES

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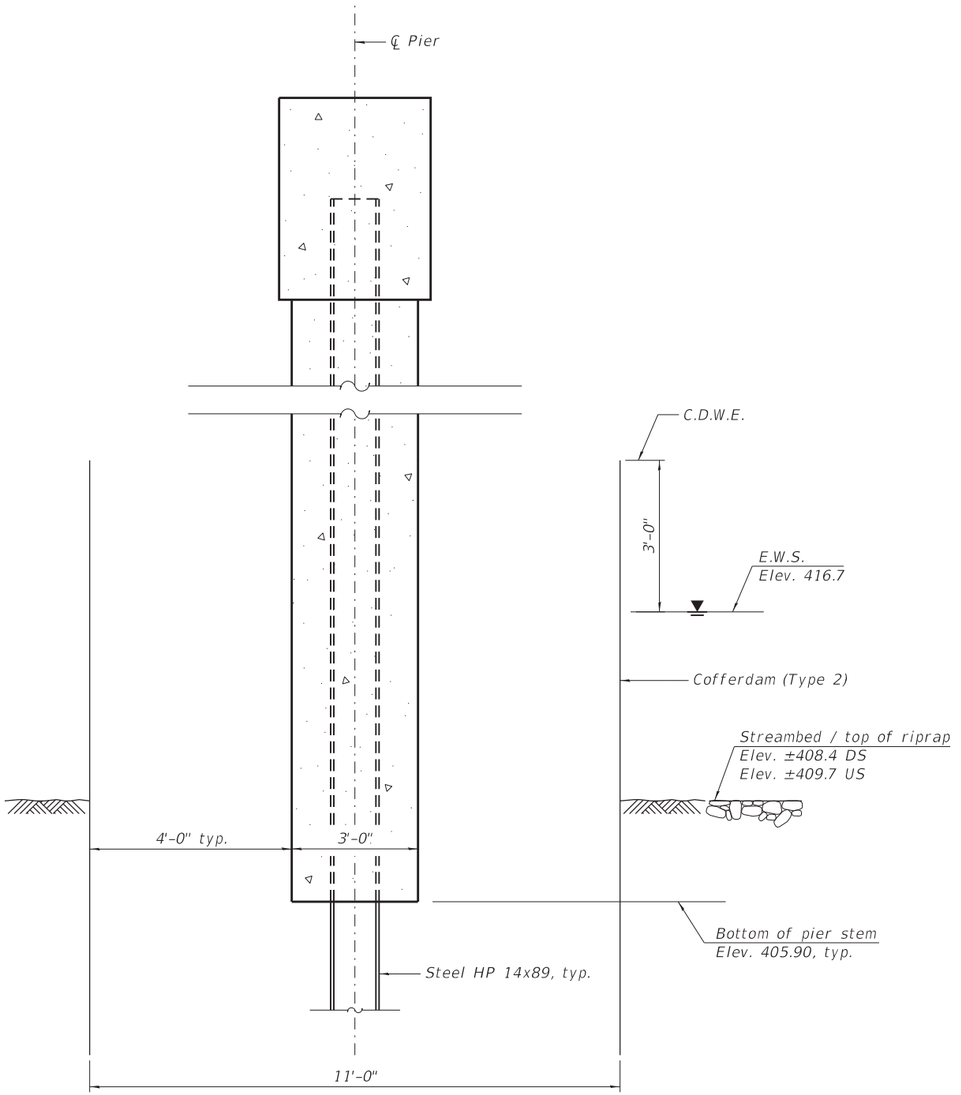
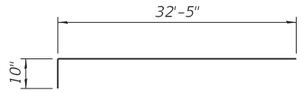
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER
STRUCTURE NO. 041-0120 (S.B.)
SHEET NO. 37 OF 44 SHEETS

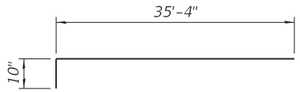
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	181
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			



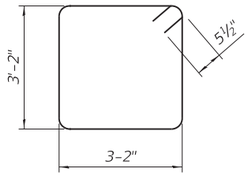
COFFERDAM



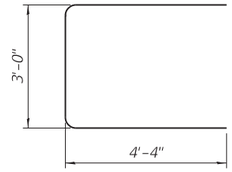
BAR h6(E)



BAR h7(E)



BAR s2(E)



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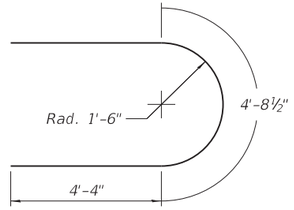

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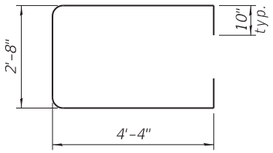

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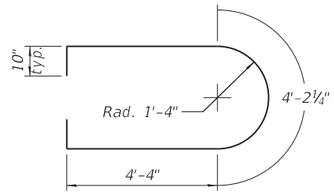

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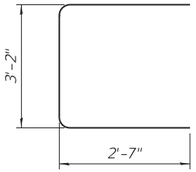

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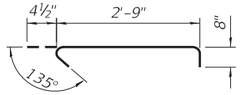
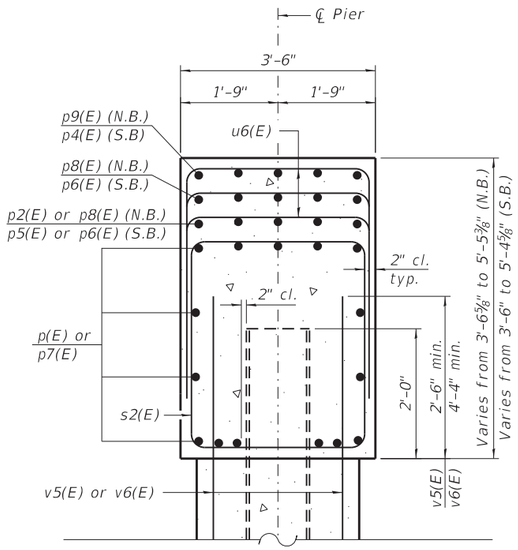


BAR s3(E)



SECTION A-A

NORTHBOUND & SOUTHBOUND PIER - BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h6(E)	88	#5	33'-3"	
h7(E)	88	#5	36'-2"	
p(E)	30	#7	32'-5"	
p2(E)	5	#5	15'-5"	
p4(E)	5	#5	16'-8"	
p5(E)	5	#5	19'-11"	
p6(E)	10	#5	32'-5"	
p7(E)	30	#7	35'-4"	
p8(E)	10	#5	35'-4"	
p9(E)	5	#5	15'-1"	
s2(E)	132	#5	13'-7"	
s3(E)	1144	#4	3'-10"	
u2(E)	10	#6	11'-8"	
u3(E)	10	#6	13'-5"	
u4(E)	44	#5	13'-0"	
u5(E)	44	#5	14'-6"	
u6(E)	106	#5	8'-4"	
v5(E)	309	#5	23'-7"	
v6(E)	13	#5	25'-5"	
Cofferdam Excavation		Cu. Yd.	320	
Concrete Structures		Cu. Yd.	399.2	
Reinforcement Bars, Epoxy Coated		Pound	26,890	
Furnishing Steel Piles, HP 14x89		Foot	1,680	
Driving Piles		Foot	1,680	
Test Pile Steel, HP 14x89		Each	2	
Pile Shoes		Each	26	

1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021\210593\A - FAI 57 Dodd's Creek (Str Plans) - Phase II\4 CADD - DWG\4.4 Struc\041011920-78885-038_Pier Details.dgn
3/1/2024 1:01:13 PM

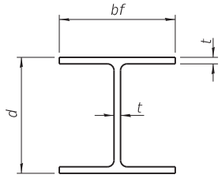
TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson	DESIGNED - JBE	REVISED -	
	CHECKED - BWP	REVISED -	
PLOT SCALE = 0.166667 ' / In.	DRAWN - JBE	REVISED -	
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

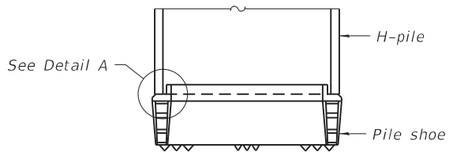
PIER DETAILS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 38 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	182
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			

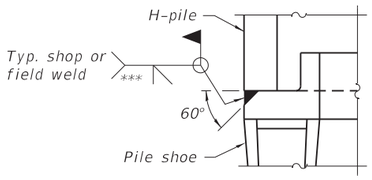


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	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"



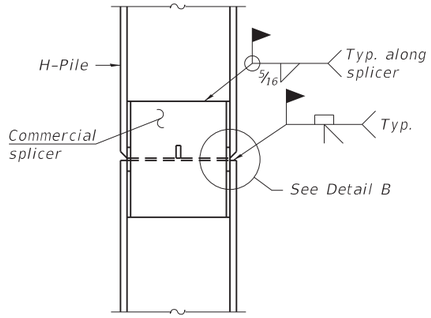
ELEVATION



DETAIL A

SHOE ATTACHMENT

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



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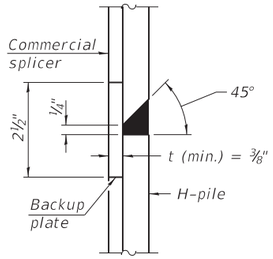
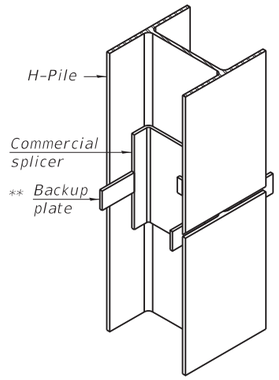
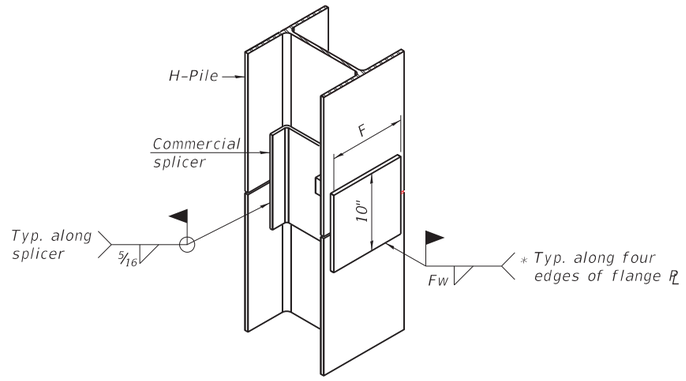


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



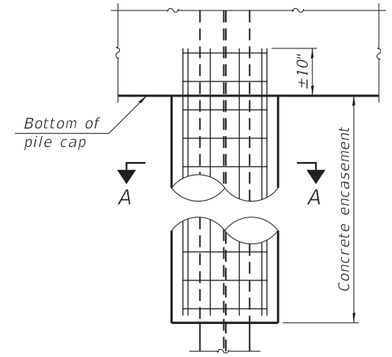
ISOMETRIC VIEW

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.).



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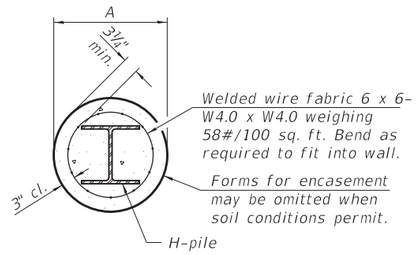
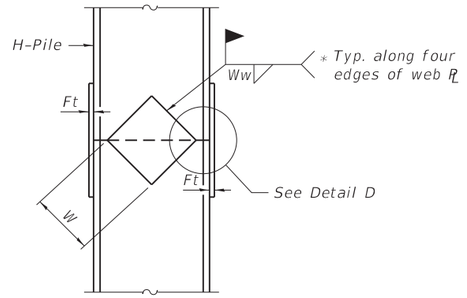


SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

(when specified)



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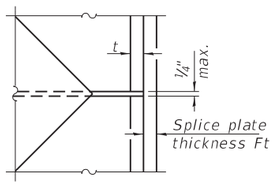
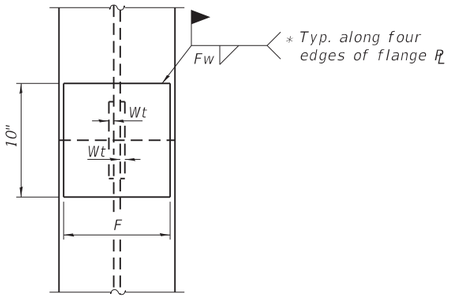


DETAIL D



END VIEW

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"	11/16"	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"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	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"

WELDED PLATE FIELD SPLICE

1 REVISED SHEET 5-28-2024

F-HP 1-1-2020

TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson	DESIGNED - JBE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HP PILE DETAILS STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)	F.A.I. RTE. 57
	CHECKED - BWP	REVISED -		SHEET NO. 39 OF 44 SHEETS	SECTION (41-2) B-2
PLOT SCALE = 0.166667 ' / In.	DRAWN - JBE	REVISED -			COUNTY JEFFERSON
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -			TOTAL SHEETS 336
					SHEET NO. 183
					CONTRACT NO. 78885
					ILLINOIS FED. AID PROJECT

MODEL: Default
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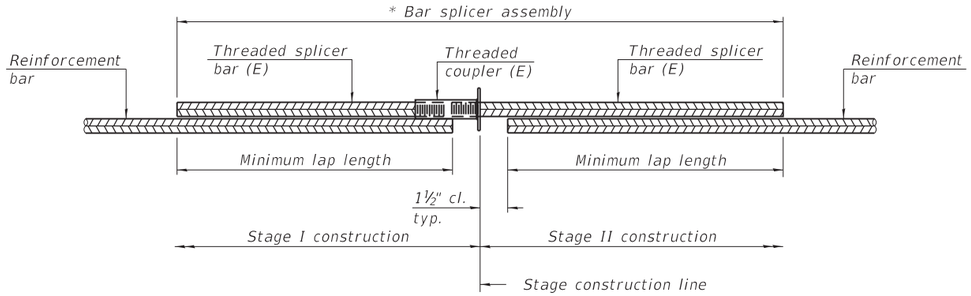


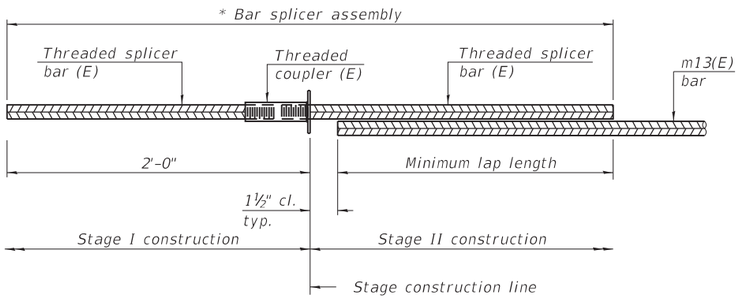
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1½" + thread length

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

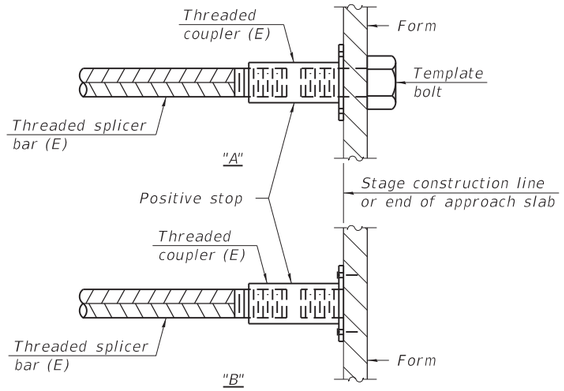
Location	Bar size	No. assemblies required	Minimum lap length	
Slab	#5	936	3'-6"	
Approach Slab Top	#5	184	3'-4"	
Approach Slab Bottom	#8	240	4'-9"	
Approach Slab Footing	#5	160	3'-2"	
Abutment Diaphragms	#6	16	4'-0"	(for m14(E) bars)
Abutment Caps	#7	40	5'-0"	
Abutment Cap Steps	#5	16	3'-7"	
Pier Caps	#7	30	5'-6"	
Pier Cap Steps	#5	10	3'-7"	
Pier Walls	#5	88	3'-7"	



BAR SPLICER ASSEMBLY PLAN FOR m13(E) BARS

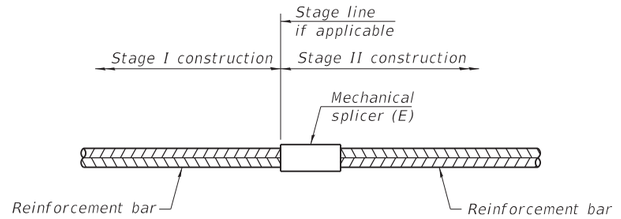
(All components shall be provided from one supplier)

Location	Bar size	No. assemblies required	Minimum lap length
Abutment Diaphragms	#6	12	4'-0"



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-1-2020

1 REVISED SHEET 5-28-2024

TWM, INC. WWW.TWM-INC.COM
ENGINEERING & GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson		DESIGNED - JBE	REVISED -		
		CHECKED - ALN	REVISED -		
PLOT SCALE = 0.166667 ' / In.		DRAWN - JBE	REVISED -		
PLOT DATE = 3/1/2024		CHECKED - ALN	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 40 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	184
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 4/2/19

ROUTE I-57 DESCRIPTION Structure over Dodds Creek LOGGED BY L. ESTEL

SECTION (41-2)B-2 LOCATION Mile Post 89.3 (N Abut.), SEC. 20, TWP. 3S, RNG. 3E, PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

STRUCT. NO. 041-0003 & 041-0004
Station 463+57

BORING NO. 1-S
Station 464+14
Offset 32.0ft LT of CL NB Lanes
Ground Surface Elev. 430.5 ft

Surface Water Elev. 414.4 ft
Stream Bed Elev. 409.9 ft

Groundwater Elev.:
▽ First Encounter 406.0 ft
▼ Upon Completion ft
▼ After ____ Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
M. Stiff Brown with specks of Grey, Moist SILTY CLAY	1			M. Stiff Brown with specks of Grey, Moist SILTY CLAY *(continued)*	1 2	0.7 B	26
	3 4	0.7 B	23	408.50 Soft Brown, Moist SILTY LOAM % Fines < #200: 69%, PI = 8, LL = 27 (Est. based on visual ID and historical data)	WOH 2 1	0.4 B	27
426.00 M. Stiff Grey with specks of Brown, Moist SILTY CLAY	-5 1 2 3	0.6 B	26	▽ 406.00 -25 Soft Brown with pockets of dark Brown, Moist SILTY LOAM % Fines < #200: 69%, PI = 8, LL = 27 (Est. based on visual ID and historical data)	1 1 1	0.5 B	24
423.50 V. Stiff Grey and mottled Brown, Moist SILTY LOAM	1 3 4	2.7 B	21	403.50 Soft Brown, Moist to Wet SILTY LOAM 31% SAND, 53% SILT, 16% CLAY (Lab 12B) PI = 8, LL = 27 (Est. based on historical data)	WOH WOH WOH	0.2 B	26
421.00 -10 Stiff dark Grey/Black, Moist SILTY LOAM with some ORGANICS	1 2 3	1.2 B	26	-30 Brownish Grey and Red, Moist	WOH WOH 1	0.2 B	26
418.50 Stiff Brown, Moist SILTY LOAM	2 4 4	1.6 B	21	396.00 Soft Brownish Grey, Moist to Wet SILTY LOAM % Fines < #200: 69%, PI = 8, LL = 27 (Est. based on visual ID and historical data)	1 1 2	0.3 B	25
416.00 -15 M. Stiff Grey, Moist SILTY LOAM with some ORGANICS	1 4 3	0.7 B	28	-35 393.50 M. Stiff Grey, Moist SILTY CLAY LOAM % Fines < #200: 80%, PI = 16, LL = 34 (Est. based on visual ID and historical data)	1 2 1	0.2 e	26
413.50 Stiff Grey, Moist SILTY CLAY	WOH 1 2	1.3 B	27	WOH WOH WOH		0.8 B	30
411.00 -20	WOH			-40	WOH		

File Name S:\MATERIALS GEOTECHNICAL UNIT\BORING LOGS USING GINT\STATE STRUCTURES\JEFFERSON\041.0003 & 0004 I57 OVER DODDS CREEK 2019.GPJ Data Template D5TEMPLT.GDT Date Printed 7/19/19
Latitude 38.2473125 Longitude -88.9064490 Datum NAD83 Job Number

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 4/2/19

ROUTE I-57 DESCRIPTION Structure over Dodds Creek LOGGED BY L. ESTEL

SECTION (41-2)B-2 LOCATION Mile Post 89.3 (N Abut.), SEC. 20, TWP. 3S, RNG. 3E, PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

STRUCT. NO. 041-0003 & 041-0004
Station 463+57

BORING NO. 1-S
Station 464+14
Offset 32.0ft LT of CL NB Lanes
Ground Surface Elev. 430.5 ft

Surface Water Elev. 414.4 ft
Stream Bed Elev. 409.9 ft

Groundwater Elev.:
▽ First Encounter 406.0 ft
▼ Upon Completion ft
▼ After ____ Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
M. Stiff Grey, Moist SILTY CLAY LOAM % Fines < #200: 80%, PI = 16, LL = 34 (Est. based on visual ID and historical data) *(continued)*	WOH WOH	0.5 B	31	M. Stiff Grey, Dry to Moist SILTY LOAM with fine GRAVEL *(continued)*			
				367.00 Hard Grey, Dry to Moist SILTY LOAM with fine GRAVEL	9 30 40	7.6 S	13
385.00 M. Stiff Grey, Moist SILTY LOAM % Fines < #200: 69%, PI = 8, LL = 27 (Est. based on visual ID and historical data)	-45 1 1 2	0.7 B	32	-65			
				361.00 Hard Grey, Dry LIMESTONE	-70 100/2"		
	-50			(Borehole continued with rock coring.)			
379.00 Loose light Grey, Moist fine SANDY LOAM and fine GRAVEL (non-plastic) % Fines < #200: 35% (Est. based on visual ID)	3 3 3			Bottom of hole @ 69.5 ft Elevation referenced to BM 41-0003B, Cut Square on NE Parapet of SN 041-0003; EL. 433.22 To convert "N" values to "N60", multiply by 1.5			
	-55			-75			
373.00 M. Stiff Grey, Dry to Moist SILTY LOAM with fine GRAVEL	21 31 30	0.7 S	15				
	-60			-80			

File Name S:\MATERIALS GEOTECHNICAL UNIT\BORING LOGS USING GINT\STATE STRUCTURES\JEFFERSON\041.0003 & 0004 I57 OVER DODDS CREEK 2019.GPJ Data Template D5TEMPLT.GDT Date Printed 7/19/19
Latitude 38.2473125 Longitude -88.9064490 Datum NAD83 Job Number

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021\210593\A - FAI 57 Dodd's Creek (Str Plans) - Phase II\4 CADD - DWG\4.4 Struc\041019\20-78885-041_Soil Boring Logs.dgn
3/1/2024 1:06:11 PM

TWM ENGINEERING GEOSPATIAL SERVICES — TWM, INC. WWW.TWM-INC.COM — IL DESIGN FIRM LICENSE NO: 184-001220	USER NAME = cjohnson	DESIGNED - JBE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
		CHECKED - BWP	REVISED -		SHEET NO. 41 OF 44 SHEETS
	PLOT SCALE = 0.166667 ' / In.	DRAWN - JBE	REVISED -		
	PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	185
		CONTRACT NO. 78885		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
District 9

ROCK CORE LOG

Date 4/2/19

ROUTE I-57 DESCRIPTION Structure over Dodds Creek LOGGED BY L. ESTEL

SECTION (41-2)B-2 LOCATION Mile Post 89.3 (N Abut.), SEC. 20, TWP. 3S, RNG. 3E, PM

COUNTY Jefferson CORING METHOD Conventional rotary with water

STRUCT. NO. 041-0003 & 041-0004
Station 463+57

CORING BARREL TYPE & SIZE NV3 5FT NWJ

Core Diameter 2 in
Top of Rock Elev. 361.00 ft
Begin Core Elev. 361.00 ft

BORING NO. 1-S
Station 464+14
Offset 32.0ft LT of CL NB Lanes
Ground Surface Elev. 430.5 ft

		DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Hard Grey, Dry LIMESTONE (No samples long enough for unconfined compression test)	361.00	-70	1-S	98	13	4.8	
	356.00						
Hard Grey, Dry LIMESTONE		-75	1-S	78	8	9	166.3
	351.00						
		-80					
		-85					

Color pictures of the cores Yes, On File
Cores will be stored for examination until 5 Years after Construction
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
RQD is the ratio of the total length of sound core specimens >4" to total length of core run

BBS, form 138 (Rev. 8-99)

ROCK CORE 041-0003 & 0004 I57 OVER DODDS CREEK 2019.GPJ D6TEMPLT.GDT 7/19/19

Illinois Department of Transportation
District Nine Materials
Unconfined Compressive Strength

I-57
Structure 041-0003/4 (Boring 1-S)
Jefferson County

79.5' →

← 69.5'

Boring #	Specimen#	Depth	Unconfined Compression
1-S	1	76'0"	2310 psi

⚠1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021\10593A - FAI 57 Dodd's Creek (Str Plans) - Phase II\4 CADD - DWG\4.4 Struct\041019\20\-78885-042_Soil Boring Logs.dgn
3/1/2024 1:11:19 PM

Illinois Department of Transportation
Division of Highways
District 9

SOIL BORING LOG

Date 4/3/19

ROUTE I-57 DESCRIPTION Structure over Dodd Creek LOGGED BY L. ESTEL

SECTION (41-2)B-2 LOCATION Mile Post 89.3 (S Abut.), SEC. 20, TWP. 3S, RNG. 3E, PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

STRUCT. NO. 041-0003 & 041-0004
Station 463+57

BORING NO. 2-S
Station 462+79
Offset 30.0ft LT of CL SB Lanes
Ground Surface Elev. 430.8 ft

Surface Water Elev. 414.4 ft
Stream Bed Elev. 409.9 ft

Groundwater Elev.:
▽ First Encounter 402.3 ft
▼ Upon Completion ft
▼ After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
	1			M. Stiff Brown, Moist SILTY CLAY
	3	1.0	20	
	3	B		
	1			Brown and Red
-5	3	0.6	18	
	4	B		
424.80				
	1			V. Stiff Brown and Grey, Moist SILTY CLAY
	4	3.0	21	
	6	S		
422.30				
	1			Stiff Brown, Moist SILTY CLAY with pockets of soft CLAY
	3	2.0	23	
-10	3	B		
419.80				
	1			Stiff dark Brown and Grey, Moist SILTY CLAY
	4	1.8	19	
	5	B		
417.30				
	1			Stiff dark Grey to Black, Moist SILTY CLAY with ORGANICS
	6	1.5	28	
-15	6	B		
414.80				
	1			Stiff dark Grey, Moist SILTY LOAM with ORGANICS
	4	1.5	26	
	4	B		
412.30				
	1			Stiff Grey, Moist SILTY CLAY
	2	1.9	24	
-20	3	B		
				Stiff Grey, Moist SILTY CLAY *(continued)*
409.80				
	1			M. Stiff Brown and Grey with specks of dark Brown, Moist SILTY CLAY LOAM
	2	0.8	30	
	2	B		
407.30				
	1			Stiff Brown with specks of Red, Moist SILTY CLAY LOAM
	3	1.4	25	
-25	3	B		
404.80				
	1			Soft Brown and Grey, Moist to Wet SILTY LOAM
	1	0.4	28	
▽ 402.30	1	B		
	1			Soft Brown, Moist to Wet SANDY LOAM (non-plastic) 65% SAND, 25% SILT, 10% CLAY (Lab 15)
	2	0.3	29	
-30	2	B		
399.80				
	1			Soft Brown and Red, Moist to Wet SILTY LOAM % FINES < #200: 75%, PI = 11, LL = 27 (Est. based on visual ID and historical data)
	1	0.2	28	
	2	B		
	1			
	2	0.4	24	
-35	3	B		
394.80				
	1			Soft Grey, Moist SILTY LOAM % Fines < #200: 91%, PI = 11, LL = 31 (Est. based on visual ID and Lab 16)
	1	0.4	29	
	2	B		
	WOH			
	1	0.4	30	
-40	2	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\MATERIALS GEOTECHNICAL UNIT\BORING LOGS USING GINT\STATE STRUCTURES\JEFFERSON\041-0003 & 0004 I57 OVER DODDS CREEK 2019.GPJ Data Template D8TEMPLT.GDT Date Printed 7/19/19
Latitude 38.2469365 Longitude -88.9064671 Datum NAD83 Job Number

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 4/3/19

ROUTE I-57 DESCRIPTION Structure over Dodd Creek LOGGED BY L. ESTEL

SECTION (41-2)B-2 LOCATION Mile Post 89.3 (S Abut.), SEC. 20, TWP. 3S, RNG. 3E, PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

STRUCT. NO. 041-0003 & 041-0004
Station 463+57

BORING NO. 2-S
Station 462+79
Offset 30.0ft LT of CL SB Lanes
Ground Surface Elev. 430.8 ft

Surface Water Elev. 414.4 ft
Stream Bed Elev. 409.9 ft

Groundwater Elev.:
▽ First Encounter 402.3 ft
▼ Upon Completion ft
▼ After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	Description
				Soft Grey, Moist SILTY LOAM % Fines < #200: 91%, PI = 11, LL = 31 (Est. based on visual ID and Lab 16) *(continued)*
386.30				
-45	1			Stiff Grey, Moist SILTY LOAM 9% SAND, 71% SILT, 20% CLAY, PI = 11, LL = 31 (Lab 16) with a layer of Loose Grey, SANDY LOAM
	2	1.2	22	
	3	B		
-50				
380.30				
	1			Stiff Grey, Moist SILTY LOAM with fine GRAVEL % Fines < #200: 91%, PI = 11, LL = 31 (Est. based on visual ID and Lab 16)
	6	1.0	19	
	9	e		
-55				
374.30				
	1			Hard Grey, Dry to Moist SILTY LOAM with fine GRAVEL and ORGANICS
	12	7.8	15	
	25	S		
-60				
				Hard Grey, Dry to Moist SILTY LOAM with fine GRAVEL and ORGANICS *(continued)*
	6			
	21	6.8	14	
	25	S		
-65				
362.80				
	100/1/2"			Hard Grey, Dry LIMESTONE
-70				
				Bottom of hole @ 68 ft. 1/2 in.
				Elevation referenced to BM 41-0003B, Cut Square on NE Parapet SN 041-0003; EL. 433.22
				To convert "N" values to "N60", multiply by 1.5
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\MATERIALS GEOTECHNICAL UNIT\BORING LOGS USING GINT\STATE STRUCTURES\JEFFERSON\041-0003 & 0004 I57 OVER DODDS CREEK 2019.GPJ Data Template D8TEMPLT.GDT Date Printed 7/19/19
Latitude 38.2469365 Longitude -88.9064671 Datum NAD83 Job Number

⚠1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021\21059\3A - FAI 57 Dodd's Creek (Str Plans) - Phase III\4 CADD - DWG\4.4 Struc\041019\20-78885-043_Soil Boring Logs.dgn
3/1/2024 1:10:02 PM

TWM, INC. WWW.TWM-INC.COM
ENGINEERING GEOSPATIAL SERVICES
IL DESIGN FIRM LICENSE NO: 184-001220

USER NAME = cjohnson	DESIGNED - JBE	REVISED -	
	CHECKED - BWP	REVISED -	
PLOT SCALE = 0.166667 ' / In.	DRAWN - JBE	REVISED -	
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 43 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	187
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			

PROJECT I-57-2( )
ROUTE FAI 57
SEC 41-2B-1
COUNTY Jefferson
Boring No 1
Station 464+15
Offset 60' Lt. ℄

BRIDGE Dodd's Creek
STA 463+57
Date May 22, 1962
Bored By F. H. Beck
Checked By J. J. Kley

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 417.70			
Medium, grey brown mottled, SILTY CLAY LOAM	5	0.8 B	28
413.7			
Medium, grey mottled brown, SILTY CLAY LOAM	6	0.6 B	23
-5			
411.7	6	0.6 B	25
Stiff, grey mottled brown, SILTY CLAY LOAM to SILTY CLAY	10	1.3 S	24
	7	1.1 B	23
407.7-10			
Soft to medium, grey mottled brown, SILTY CLAY LOAM	6	0.3 B	25
	7	0.6 B	23
402.2 -15			
Soft, brown streaked grey, SILTY CLAY LOAM to LOAM	6	0.3 B	26
399.7	7	0.4 B	23
Stiff, brown mottled grey, CLAY LOAM to SANDY CLAY LOAM	11	1.3 S	22
397.7-20			
Medium, grey, SILTY CLAY and 2" pockets of fine, brown, SANDY CLAY LOAM	7	0.5 B	23
395.2			
Medium, blue grey, SILTY CLAY to CLAY	5	0.6 B	27
-25			
392.2	6	1.0 B	26
Soft, blue grey, SILTY CLAY	5	0.3 B	28
-30			
	6	0.5 S	23
385.7			
Medium, grey, water bearing, SANDY LOAM and one 4" streak of grey, SILTY LOAM	16		25
382.7-33			
Dense, grey, water bearing, SANDY LOAM	32		21
	32		18
378.2 -40			
Dense, grey, water bearing, SANDY LOAM, and an estimated 15% Gravel 376.2	33		14

Boring No. 1 continued

Surface Water El			
Groundwater El at Completion After Hours	411.4		
376.2			
Very dense, grey SANDY LOAM	52		18
-45			
	52		15
	51		13
368.2 -50			
Very dense, grey, water bearing, GRAVELLY LOAM	52		10
	50		9
-55			
361.2	58		9
Hard, grey, SANDSTONE 360.2	*		8
Extent of Exploration			

*110 blows for ½ foot only

Note: Shelby Tubes taken at Station 464+00 for stability analysis. For information contact Bureau of Materials.

PROJECT I-57-2(2)
ROUTE FAI 57
SEC 41-2B-1
COUNTY Jefferson
Boring No 2
Station 464+30
Offset 64' Rt. ℄

BRIDGE Dodds Creek
STA 463+57
Date May 24, 1962
Bored By F. H. Beck
Checked By G. M. Broom

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 417.3 0			
Soft, grey mottled brown, SILTY CLAY LOAM	4	0.4 B	26
415.3			
Medium, grey mottled brown, SILTY CLAY LOAM	4	0.5 S	23
-5			
411.3	6	0.7 S	24
Stiff, grey mottled brown, SILTY CLAY LOAM to SILTY CLAY	10	1.5 S	23
409.3			
Medium, grey mottled brown, SILTY CLAY LOAM to SILTY CLAY -10	7	0.8 B	24
WET	6	0.6 S	25
404.8			
Soft, wet, brown mottled grey, SILTY CLAY LOAM to LOAM	6	0.5 B	28
402.3-15			
Very soft, wet, grey mottled brown, SILTY LOAM to SILTY CLAY LOAM	3	0.2 B	25
399.3			
Medium, brown mottled grey, SANDY CLAY LOAM	16		25
397.3-20			
Medium, grey, SILTY CLAY to SILTY CLAY LOAM and 2" pockets of SANDY LOAM 395.3	7	0.5 B	21
Soft, grey blue, SILTY CLAY to CLAY	4	0.4 B	26
-25			
391.3	6	0.5 B	26
Loose or soft, ½" to 1" alternate layers of grey blue, SILTY CLAY and SANDY CLAY LOAM	8	0.4 B	21
388.3			
Medium, grey blue, SANDY CLAY LOAM and two 1" streaks of SILTY CLAY and ORGANICS -30	12		20
385.8			
Soft, blue grey SILTY CLAY LOAM and ORGANICS	8	0.5 B	21
383.8			
Soft to medium, wet, grey, alternate 6" layer of SILTY CLAY LOAM and 1" layers of SANDY LOAM and SEAMS of ORGANICS -35	10	0.9 B	21
	13		53
379.3			
Medium, grey, wet, fine SANDY LOAM and a 3" GRAVEL SEAM 377.3-40	26		20
Medium to dense, grey, water bearing, SANDY LOAM	24		23
	32		21
372.3-45			

Surface Water El			
Groundwater El at Completion After Hours	409.0		
372.3*			
Medium, grey, water bearing, SANDY LOAM and ORGANICS	27		37
370.3			
Dense, grey, water bearing SANDY LOAM and some GRAVEL 368.8	33		20
-50	104	10.2 **	12
Hard, grey, CLAY LOAM TILL	128	10.2 **	11
**No failure in test specimen			
Core recovery - 73%			
-55			
361.3			
Extent of Exploration			

*These samples contained organic material resulting in high moisture contents

PROJECT I-57-2( )
ROUTE FAI 57
SEC 41-2B-1
COUNTY Jefferson
Boring No 3
Station 463+35
Offset 60' Lt. ℄

BRIDGE Dodd's Creek
STA 463+57
Date June 4, 1962
Bored By F. H. Beck
Checked By G. M. Broom

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 417.00			
Medium, grey mottled brown, SILTY CLAY LOAM	6	0.7 B	25
	4	0.6 B	24
-5			
411.0	6	0.7 B	28
Stiff, grey mottled brown, SILTY CLAY LOAM to SILTY CLAY	10	1.2 S	24
409.0			
Medium, grey mottled brown, SILTY CLAY LOAM -10	9	0.8 B	25
	8	0.8 B	24
404.0			
Medium, grey mottled brown, SILTY CLAY LOAM to SILTY CLAY	12	1.0 B	25
402.0			
Soft, brown streaked grey, SILTY CLAY LOAM to LOAM -15	7	0.3 B	27
	7	0.3 B	26
398.0			
Medium, grey blue, GILTY CLAY and a 2" streak of SANDY LOAM -20	5	0.6 B	22

Surface Water El			
Groundwater El at Completion After 24 Hours	410.0 411.0		
391.5	5	0.5 B	27
Loose, blue grey, water bearing, SANDY LOAM -25	8		19
	8		21
-30			
385.5			
Medium, blue grey, water bearing, GRAVELLY SAND	16		16
-35	19		16
381.0			
Soft, blue grey, LOAM to SILTY CLAY LOAM 380.0	8	0.4 B	21
Medium, blue grey, water bearing, SANDY LOAM and some GRAVEL -40	15		16
377.0			
Medium, grey blue, LOAM to SILTY CLAY LOAM 375.5	14	0.5 S	17
Dense, grey, SANDY LOAM	45		13
-45			

Boring No. 3 cont'd			
Station 463+35			
Offset 60' Lt. ℄			
-45 0			
Dense, grey, SANDY LOAM	44		17
370.0			
Very dense, grey, GRAVELLY LOAM	71		9
368.0 -50			
Hard, greenish grey, CLAY LOAM TILL and fragments of SANDSTONE	144	10.2 *	13
363.5			
Hard, greenish grey, CLAY LOAM TILL 362.0 -57	160	10.2 *	12
Extent of Exploration	148	10.2 *	12

*No failure in test specimen

PROJECT I-57-2( )
ROUTE FAI 57
SEC 41-2B-1
COUNTY Jefferson
Boring No 4
Station 463+47
Offset 64' Rt. ℄

BRIDGE Dodd's Creek
STA 463+57
Date June 5, 1962
Bored By F. H. Beck
Checked By G. M. Broom

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 417.50			
Soft, grey mottled brown, SILTY CLAY LOAM	5	0.5 B	29
	5	0.5 B	28
413.0			
Stiff, mottled grey brown, SILTY CLAY LOAM to SILTY CLAY -5	10	1.5 S	23
	14	1.5 S	23
	13	1.3 S	23
407.0 -10			
Soft to very soft, wet, brown streaked grey, SILTY CLAY LOAM to LOAM	9	0.3 B	26
	4	0.2 B	26
-15			
402.0			
Very soft, grey streaked brown, SILTY CLAY to SILTY CLAY LOAM 400.5	4	0.2 B	27
Stiff, brown mottled grey, CLAY LOAM to SILTY CLAY LOAM	9	1.4 S	23
397.5-20			
Medium, greenish grey, SILTY CLAY 395.5	4	0.6 S	28

Surface Water El			
Groundwater El at Completion After Hours	409.0		
Medium, grey blue, SILTY CLAY to CLAY 393.5	5	0.7 B	26
Very soft to soft, grey blue, SILTY CLAY to CLAY -25	4	0.3 B	27
	3	0.2 B	26
387.5-30	4	0.2 B	24
Soft, alternate layers of 6" grey, SILTY CLAY LOAM and 6" SANDY LOAM	7	0.4 B	26
384.5			
Soft, grey, SILTY CLAY LOAM -35	6	0.3 B	27
Medium to dense, grey, wet SAND	25		21
-40			
377.0			
Very dense, grey, SANDY CLAY LOAM and GRAVEL 375.5	64		11
Dense, grey, SANDY LOAM and traces of CHARCOAL	37		16
-45			

Boring No. 4 cont'd			
Station 463+47			
Offset 64' Rt. ℄			
-45			
Dense, grey, SANDY LOAM and traces of CHARCOAL	46		12
369.0			
Hard, grey, CLAY LOAM TILL -50	103	5.2 S	13
365.0	122	5.3 S	13
Hard, blue grey, CLAY LOAM TILL 363.5	146	8.2 S	12
Extent of Exploration -10			
-15			
-20			

NOTE:

N – Standard Penetration Test – Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".

Qu – Unconfined Compressive Strength – t/sf

w – Water Content – percentage of oven dry weight – %.

Type failure: B – Bulge Failure S – Shear Failure E – Estimated Value

1 REVISED SHEET 5-28-2024

MODEL: Default
FILE NAME: P:\2021\210593A - FAI 57 Dodd's Creek (Str Plans) - Phase II\4 CADD - DWG\4.4 Struc\04101191201-78885-044_Soil Boring Logs.dgn
3/1/2024 1:08:02 PM

TWM ENGINEERING GEOSPATIAL SERVICES
TWM, INC. WWW.TWM-INC.COM
IL DESIGN FIRM LICENSE NO: 184-001220

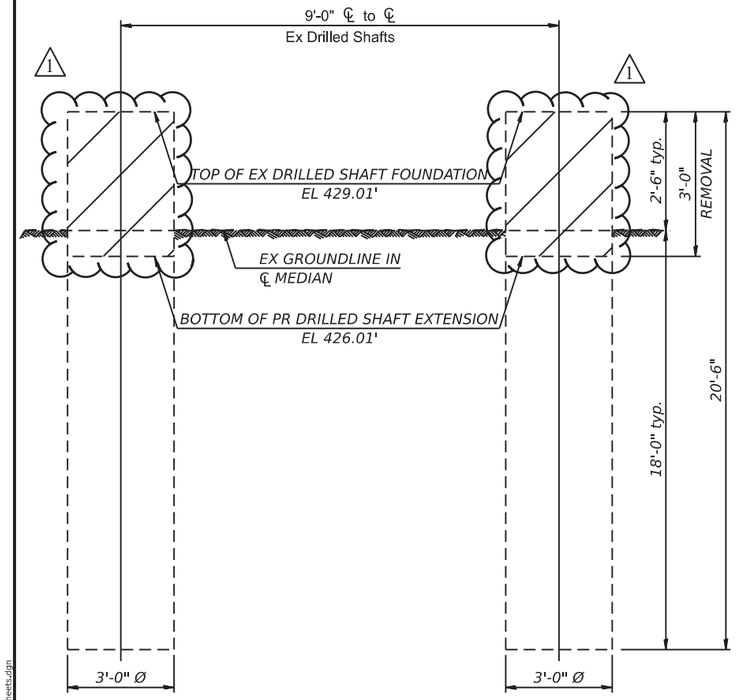
USER NAME = cjohnson	DESIGNED - JBE	REVISED -	
	CHECKED - BWP	REVISED -	
PLOT SCALE = 0.166667 ' / In.	DRAWN - JBE	REVISED -	
PLOT DATE = 3/1/2024	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

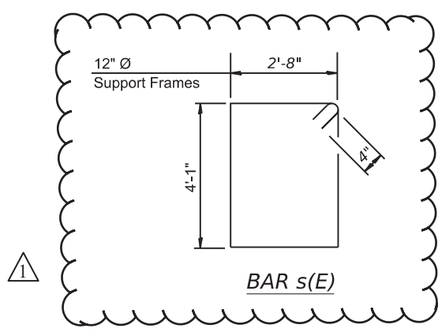
SOIL BORING LOGS
STRUCTURE NO. 041-0119 (N.B.) & 041-0120 (S.B.)
SHEET NO. 44 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(41-2) B-2	JEFFERSON	336	188
		CONTRACT NO. 78885		
	ILLINOIS FED. AID PROJECT			

The Contractor shall use extreme caution during removal of existing concrete. The existing reinforcement shall be cleaned, straightened to its original configuration, and incorporated into the new construction. The existing anchor rods shall be cut to allow the installation of the new 5'-1" anchor rods. Cost included with OVERHEAD SIGN STRUCTURE - SPAN, TYPE III-A (5'-0" X 7'-0") (SPECIAL).

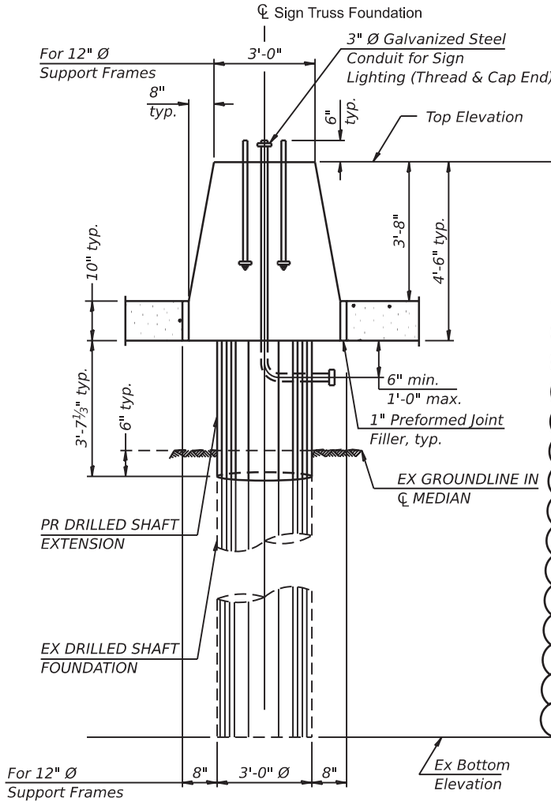


SIDE ELEVATION OF EX DRILLED SHAFTS SHOWING PARTIAL REMOVAL LIMITS

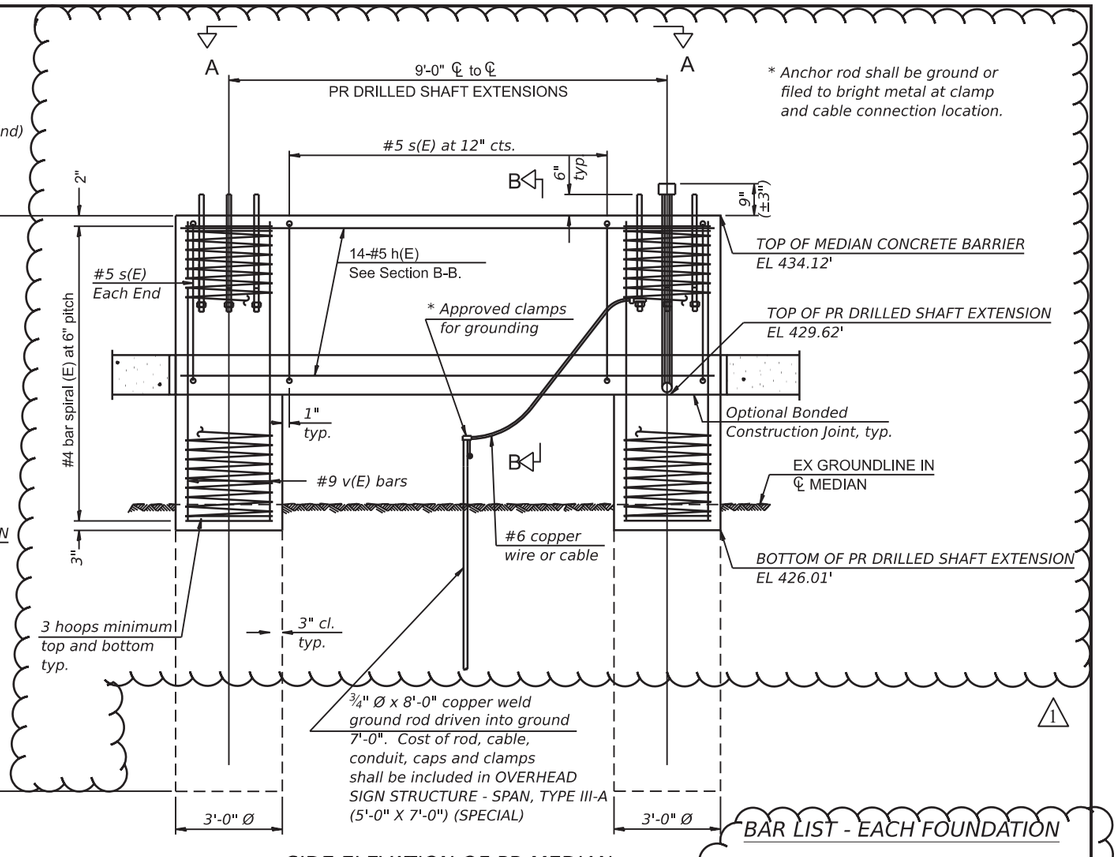


BAR s(E)

NOTE: See base sheet OS4-F4 for additional details of existing drilled shafts, see base sheet OS4-MED for proposed drilled shaft extensions, median concrete barrier, and other details, including, the ground rod and conduit for the sign lighting, and see base sheet OS4-A-8aA for the 12" ∅ pipe support frame details, including the new anchor rods.



END VIEW OF PR MEDIAN CONCRETE BARRIER SUPPORTED BY EX DRILLED SHAFTS

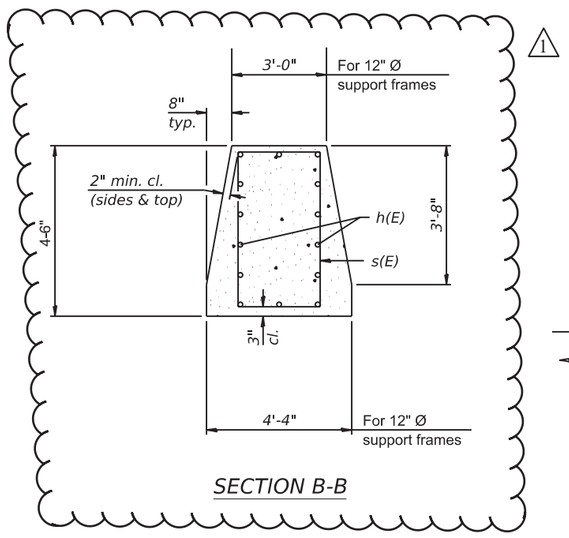


* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

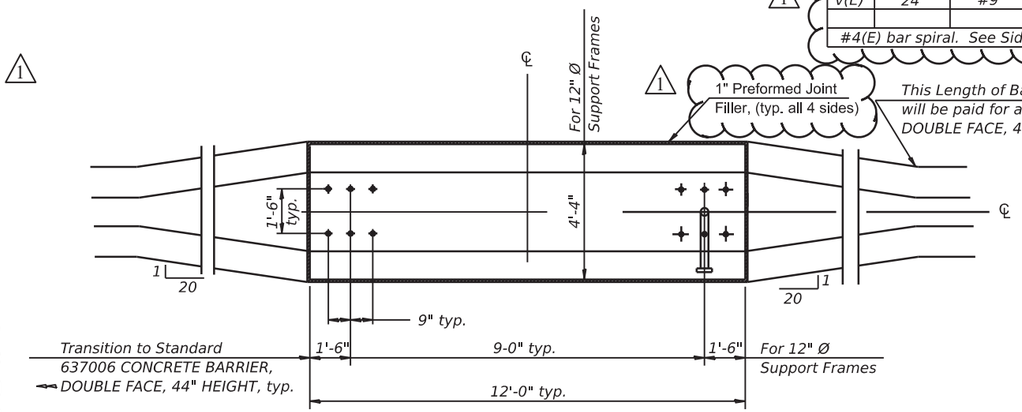
SIDE ELEVATION OF PR MEDIAN CONCRETE BARRIER SUPPORTED BY EX DRILLED SHAFTS

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	14	#5	11'-8"	
s(E)	7	#5	14'-2"	
v(E)	24	#9	7'-8 1/3"	
#4(E) bar spiral. See Side Elevation				



SECTION B-B



PLAN VIEW A-A OF PR MEDIAN CONCRETE BARRIER SUPPORTED BY EX DRILLED SHAFTS

1 REVISED 5-28-2024

MODIFICATION OF EXISTING TYPE III-A SIGN STRUCTURE DRILLED SHAFTS TO ACCOMMODATE MEDIAN CONCRETE BARRIER

MODEL: SPECIAL - Barrier Fnd [Sheet]
FILE NAME: pw:\\Bidcow.bentley.com:PWIDOT\Documents\IDOT Offices\District 9\Projects\78885\ORD-CADData\CADSheets\D978885_SignStructSheets.dgn

USER NAME = Alicia.fowler-steves	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	9S041I057I088.6 - OVERHEAD DMS TRUSS FOUNDATION MODIFICATION DETAIL	
	DRAWN - _____	REVISED - _____			
PLOT SCALE = 0.16666633 ' / in.	CHECKED - _____	REVISED - _____			
PLOT DATE = 5/24/2024	DATE - _____	REVISED - _____		SCALE: SHEET OF SHEETS STA. TO STA.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	JEFFERSON	336	213
		CONTRACT NO. 78885		
ILLINOIS	FED. AID PROJECT			

*D9 I-57 ADD LANE 6; (41-2)B-3;(41-2)BR-2