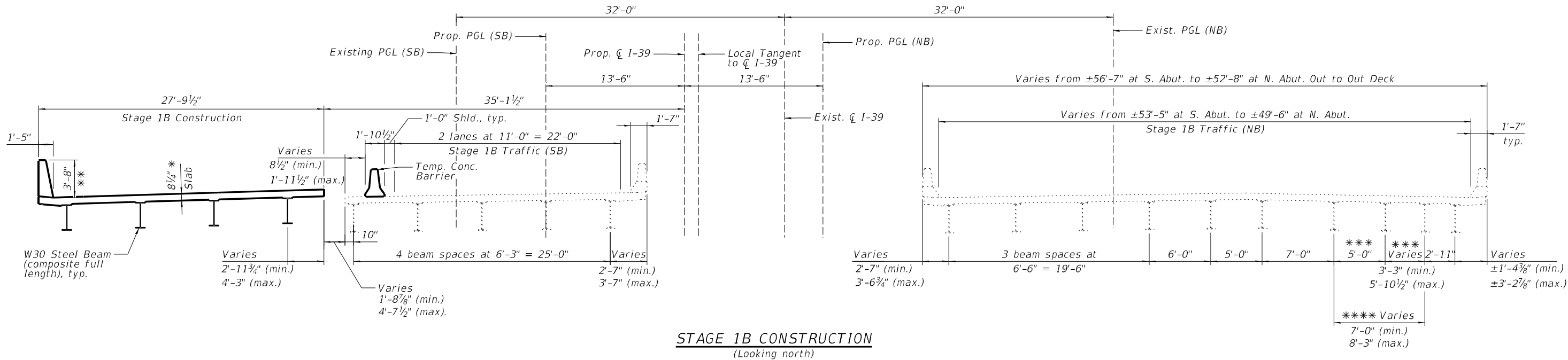
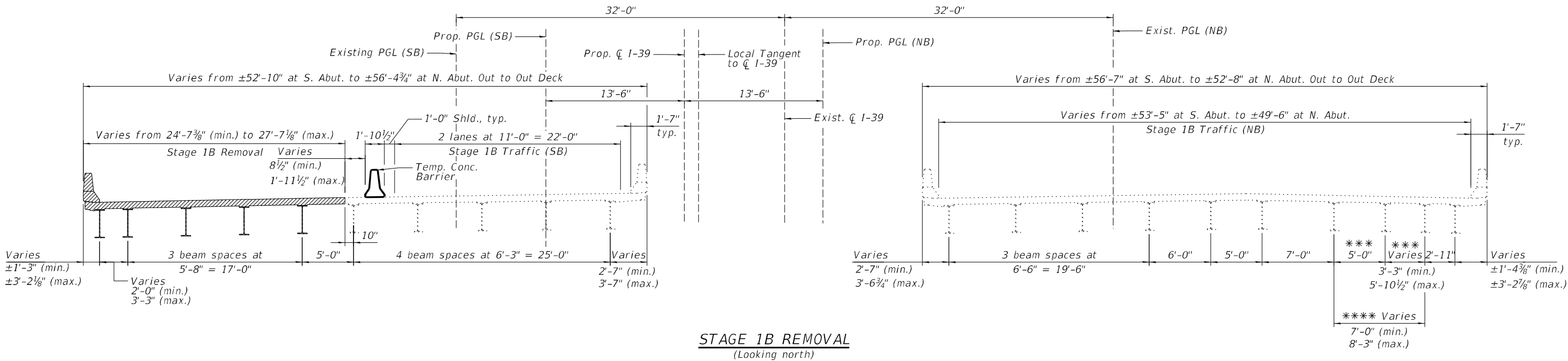


MODEL: sMODELNAME5
FILE NAME: c:\pwworkdir\benesch_projects\projects\dms65240\1010213_0214-shi-staging-001.dgn



* Prior to grinding
** After grinding

*** From S. Abut. to Pier 2.
**** From Pier 2 to N. Abut.

NOTES:

1. All dimensions shown are radial except those to existing/proposed beams or Stage Removal Lines, which are normal to the existing/proposed local tangents.
2. See Sheets 11 and 12 of 81 for substructure removal lines.
3. For quantity of Temporary Concrete Barrier, see Roadway Plans.
4. Hatched area indicates Removal of Existing Structures No. 5 or No. 6.
5. See Sheet 10 of 81 for Temporary Concrete Barrier details.

benesch

Alfred Benesch & Company
35 W Wacker Drive, Suite 3300
Chicago, Illinois 60601
312.465.4150 Job No. 10800

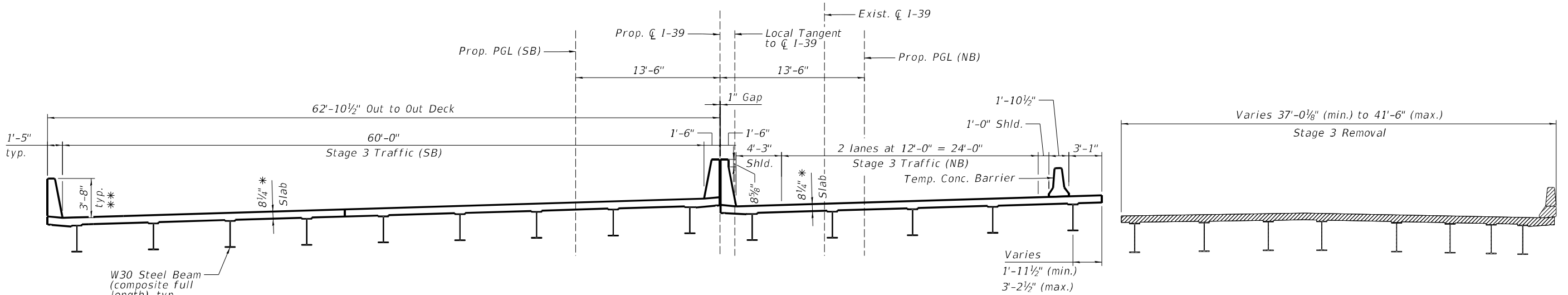
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		CHECKED	-	JLS	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JLS	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

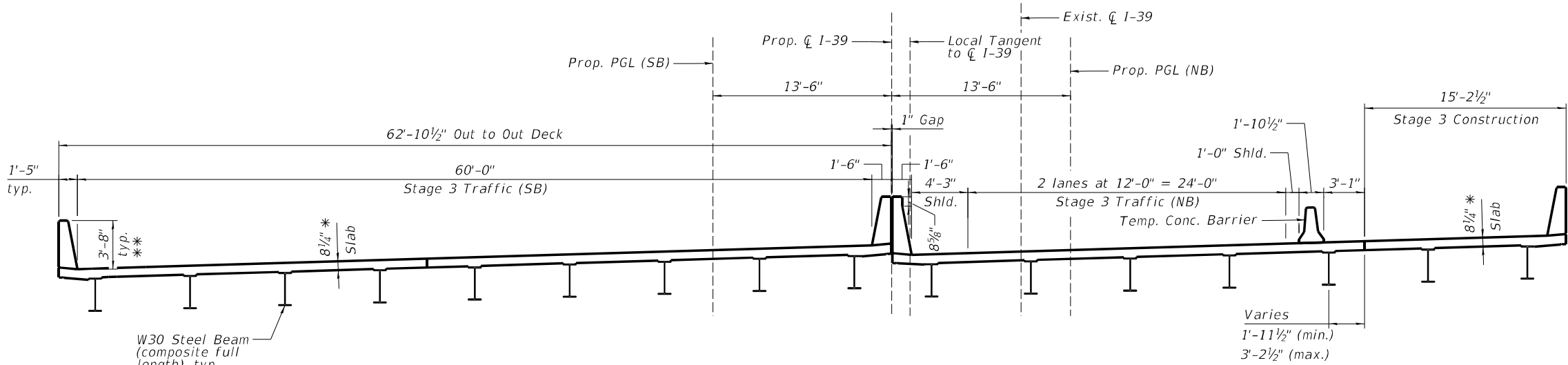
**STAGING DETAILS (1 OF 4)
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 6 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	701
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



STAGE 3 REMOVAL
(Looking north)



STAGE 3 CONSTRUCTION
(Looking north)

* Prior to grinding
** After grinding

NOTES:

1. All dimensions shown are radial except those to existing/proposed beams or Stage Removal Lines, which are normal to the existing/proposed local tangents.
2. See Sheets 11 and 12 of 81 for substructure removal lines.
3. For quantity of Temporary Concrete Barrier, see Roadway Plans.
4. Hatched area indicates Removal of Existing Structures No. 5 or No. 6.
5. See Sheet 10 of 81 for Temporary Concrete Barrier details.

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms55240\1010213_0214-shi-staging-003.dgn



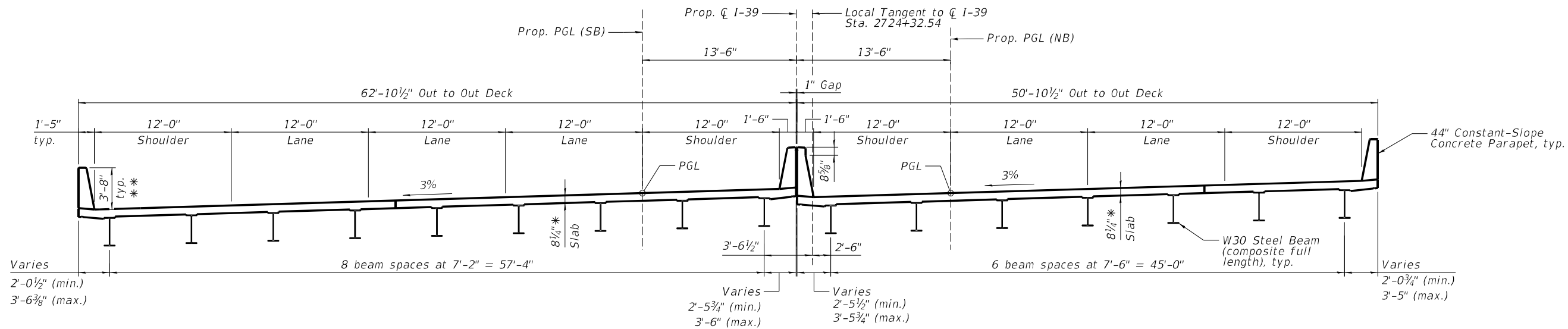
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		CHECKED	-	JLS	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JLS	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING DETAILS (3 OF 4)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 8 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	703
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



CROSS SECTION (FINAL CONDITION)
(Looking north)

* Prior to grinding
** After grinding

NOTES:

- All dimensions shown are radial except those to existing/proposed beams or Stage Removal Lines, which are normal to the existing/proposed local tangents.
- See Sheets 11 and 12 of 81 for substructure removal lines.

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\ID264C24-1010213_0214-shi-staging-004.dgn



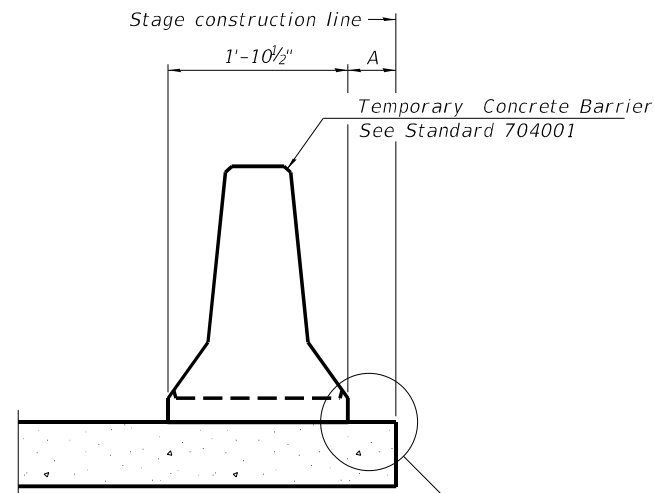
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		CHECKED	-	JLS	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JLS	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING DETAILS (4 OF 4)
STRUCTURE NO. 101-0213 & 101-0214

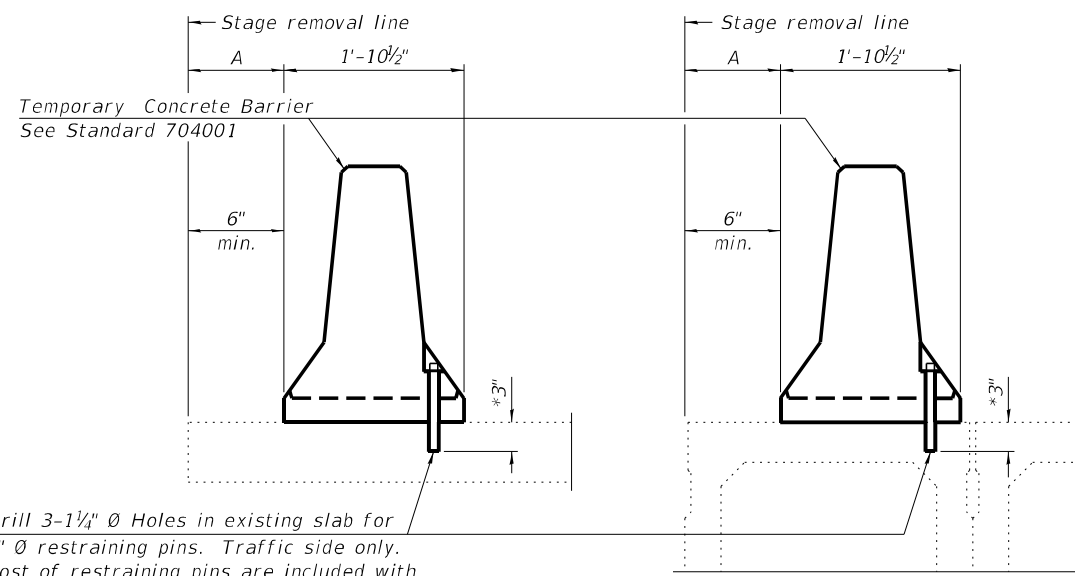
SHEET 9 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	704
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



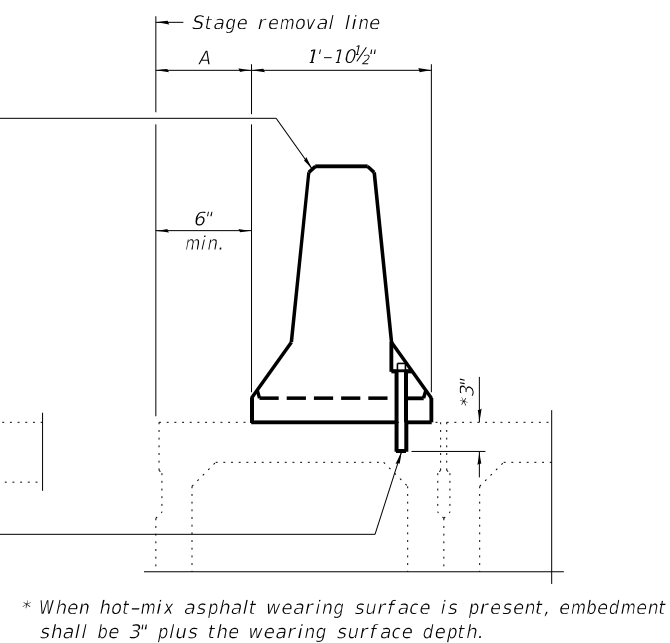
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



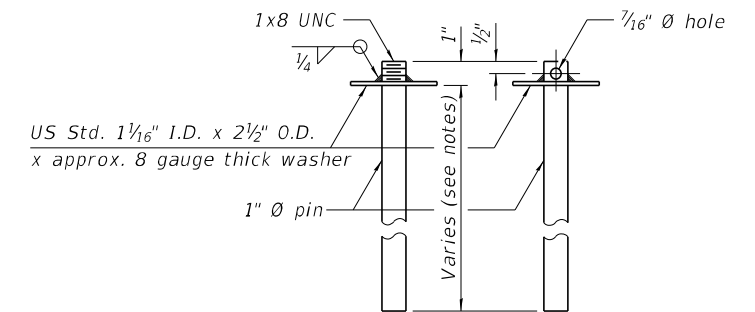
Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

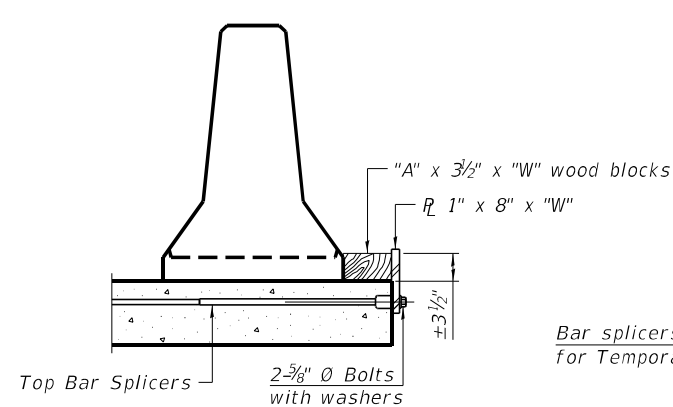


* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

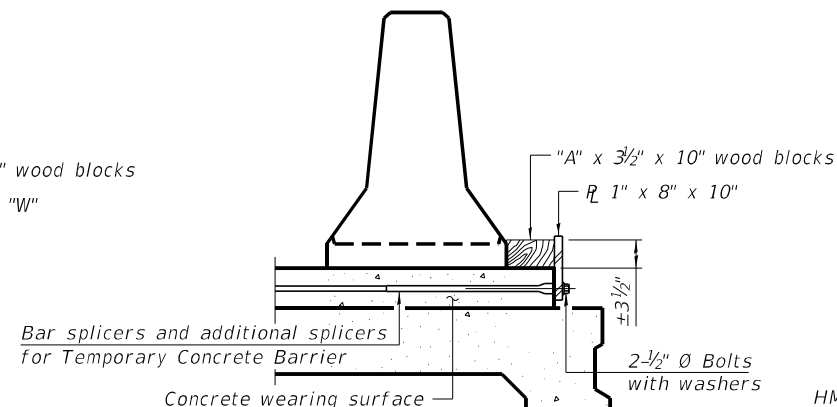
EXISTING DECK BEAM



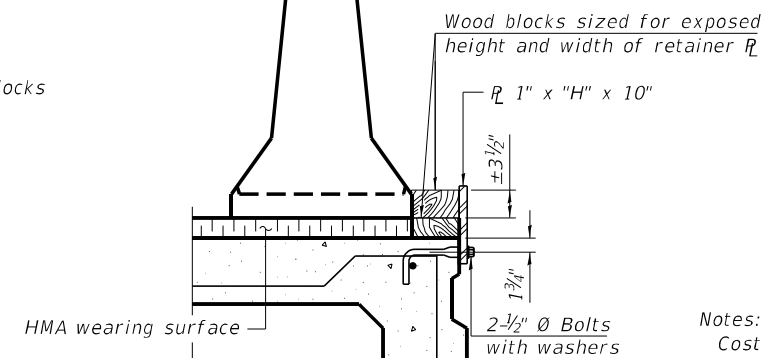
RESTRAINING PIN



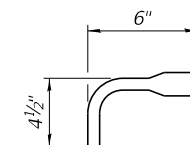
DETAIL I



DETAIL II



DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.
A retainer assembly shall be located at the approximate C 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.

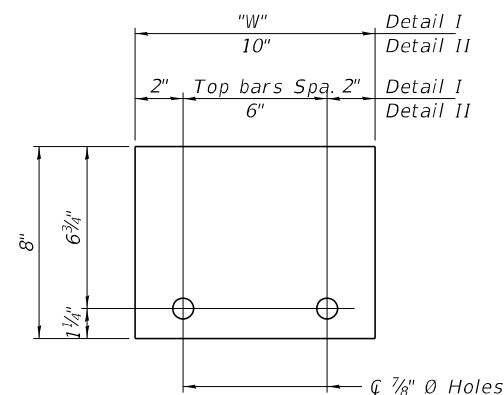
Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate 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

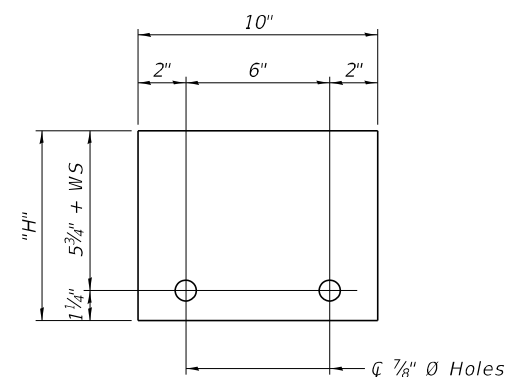
NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

5-15-2023



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



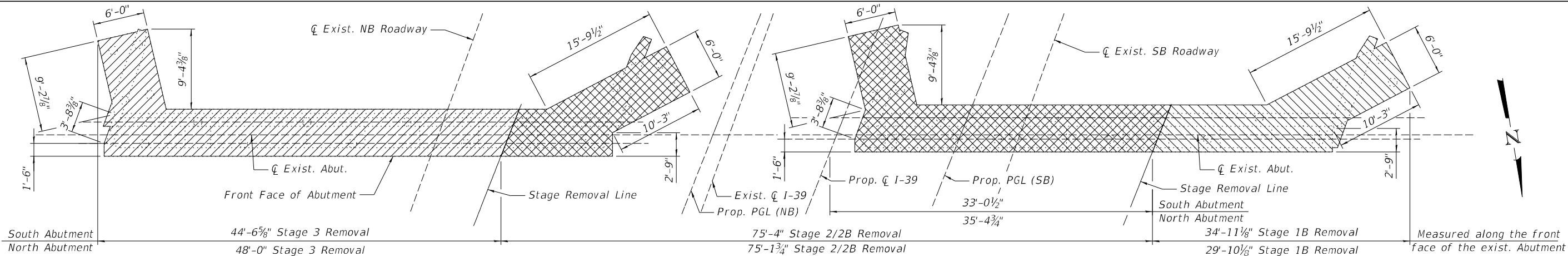
STEEL RETAINER PL 1" x "H" x 10"
(Detail III)

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 10 OF 81 SHEETS

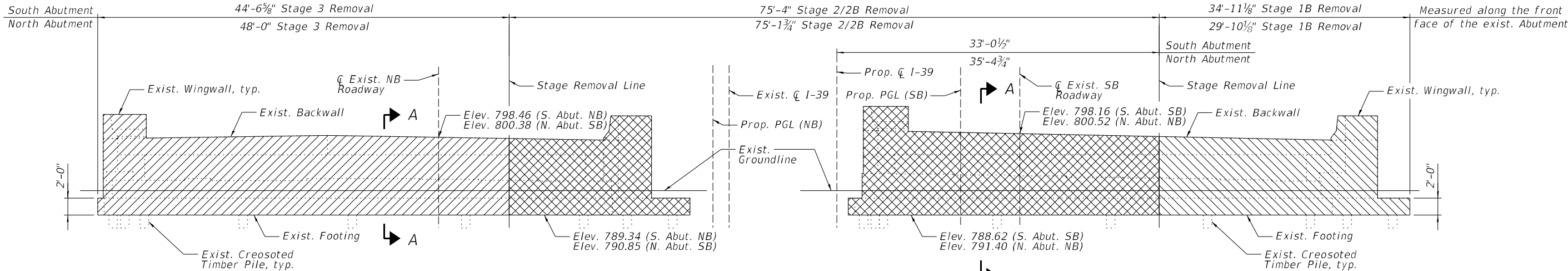
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	705
		CONTRACT NO. 64C24		
ILLINOIS		FED. AID PROJECT		



EXISTING SOUTH ABUTMENT (NB)
(Existing North Abutment (SB) similar)

EXISTING SOUTH ABUTMENT (SB)
(Existing North Abutment (NB) similar)

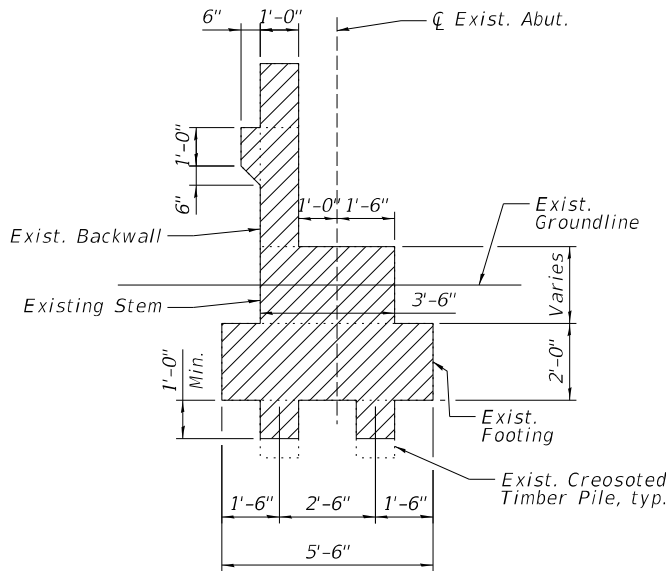
PLAN



EXISTING SOUTH ABUTMENT (NB)
(Existing North Abutment (SB) similar)

EXISTING SOUTH ABUTMENT (SB)
(Existing North Abutment (NB) similar)

ELEVATION



SECTION A-A

LEGEND

- Stage 1B Removal
- Stage 2/2B Removal
- Stage 3 Removal

NOTES:

- All removal dimensions and details are approximate based on the existing plans and shall be confirmed by the Contractor prior to beginning removal.
- Payment for substructure removal, as shown herein, and backfilling to bottom of proposed footing shall be included in the cost for Removal of Existing Structures No. 5 for NB (SN 101-0213) and Removal of Existing Structures No. 6 for SB (SN 101-0214).
- Removal limits of the superstructure and substructure differ. Work this sheet with superstructure removal limits and staging shown on Sheets 6 to 9 of 81.

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch\projects\projects\dms65240\ID264C24-1010213_0214-shl-removal\abut.dgn



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PLOT DATE	=	CHECKED	-	JLS	REVISED	-

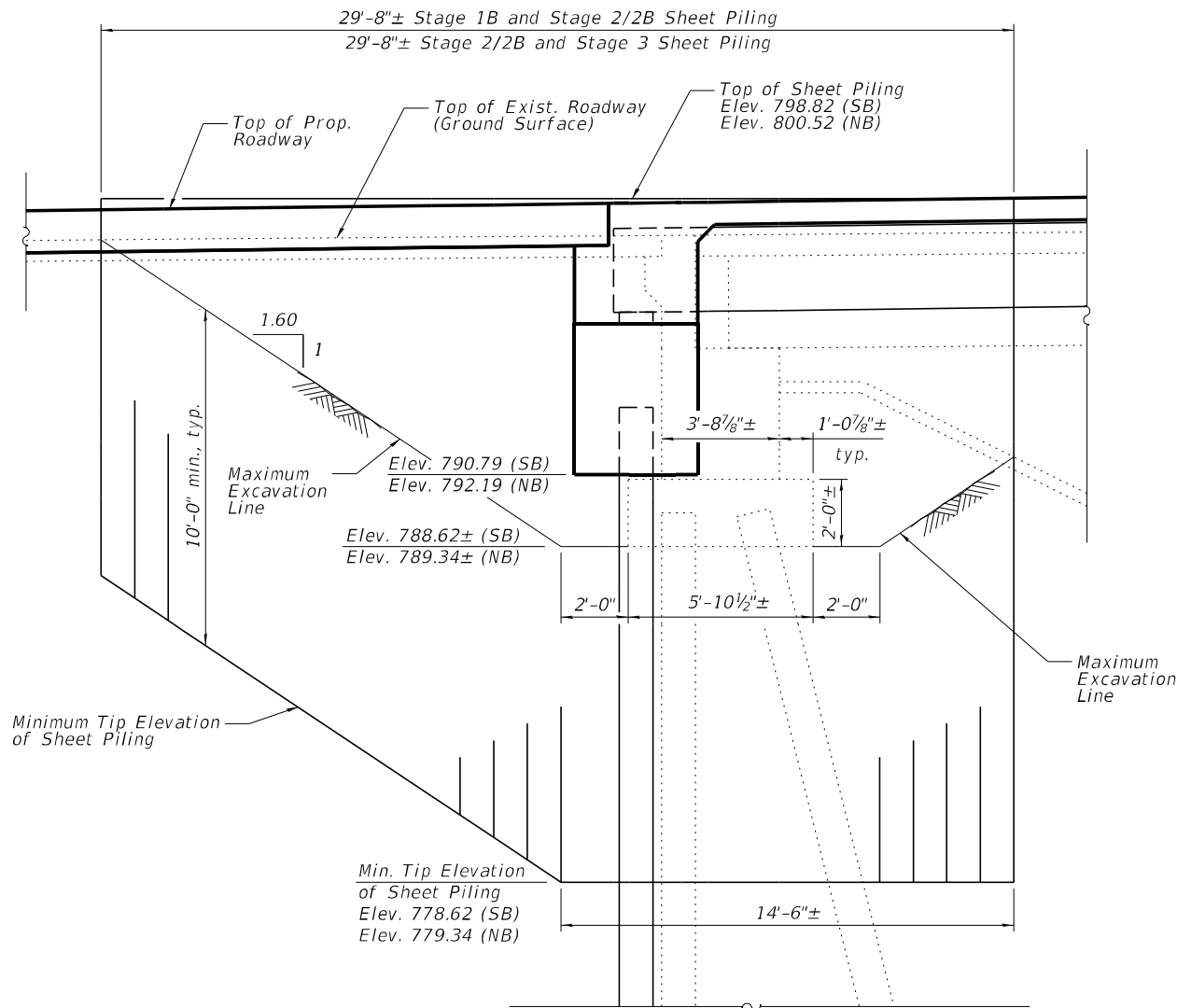
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT REMOVAL DETAILS
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 11 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	706
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

MODEL: sMODELNAME\$
FILE NAME: c:\pwwork\benesch_projects\projects\dms55240\0214-shl-temp-sheetpile.dgn



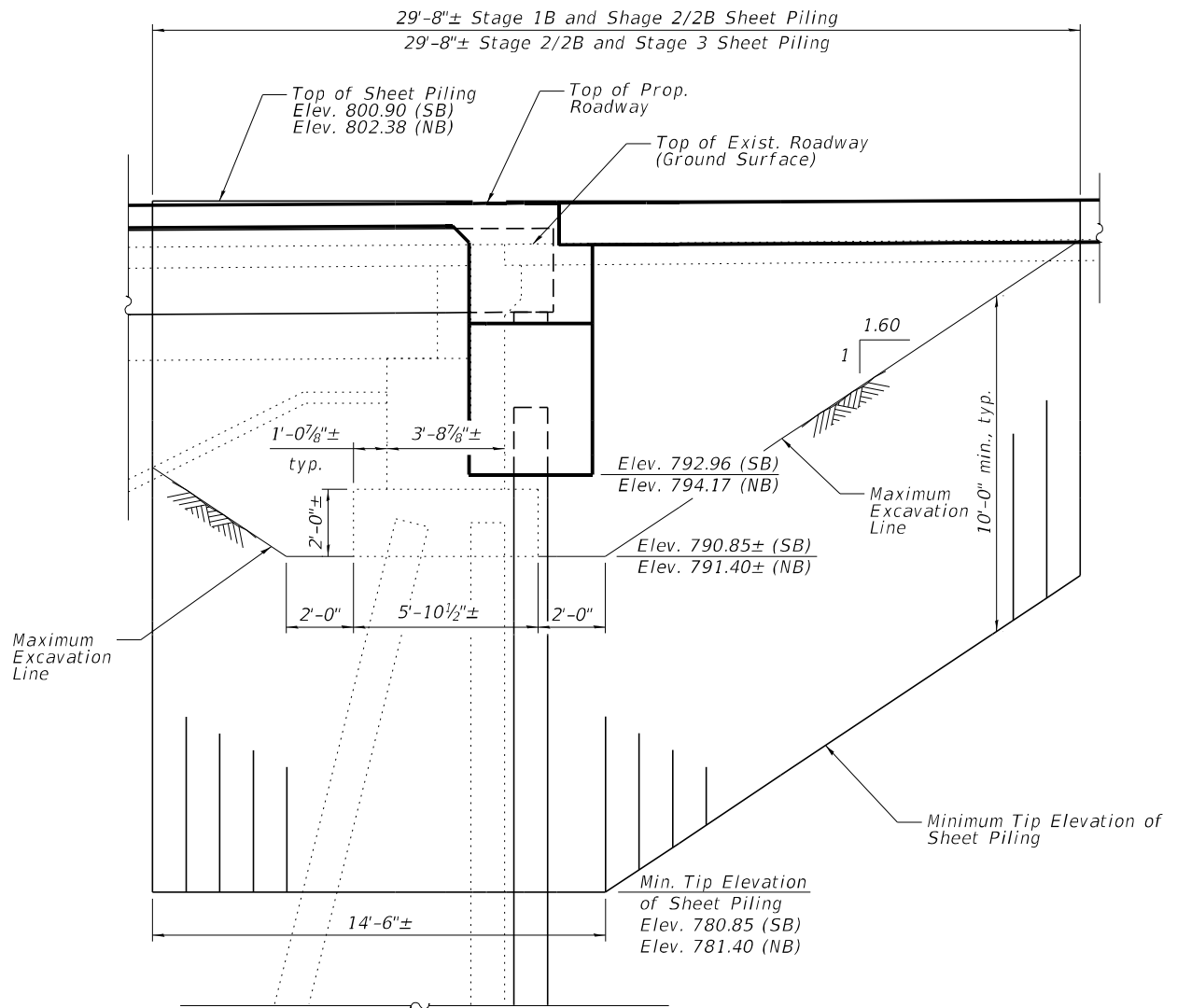
TEMPORARY SHEET PILING – SOUTH ABUTMENT
(Looking west)
(Horizontal dimensions given along the skew)

BILL OF MATERIAL
SB (SN 101-0214)

ITEM	UNIT	TOTAL
Temporary Sheet Piling	Sq. Ft.	1,052

BILL OF MATERIAL
NB (SN 101-0213)

ITEM	UNIT	TOTAL
Temporary Sheet Piling	Sq. Ft.	1,110



TEMPORARY SHEET PILING – NORTH ABUTMENT
(Looking west)
(Horizontal dimensions given along the skew)

NOTES:

- See Sheet 1 of 81 for plan view of Temporary Sheet Piling.
- Temporary Sheet Piling left in place for re-use in later stages will only be measured for payment once.
- If the Contractor chooses to alter the temporary cantilevered 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.
- The Contractor shall connect the first sheet sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.
- The minimum section modulus for the Temporary Sheet Piling shall be 18.1 in.³/ft.



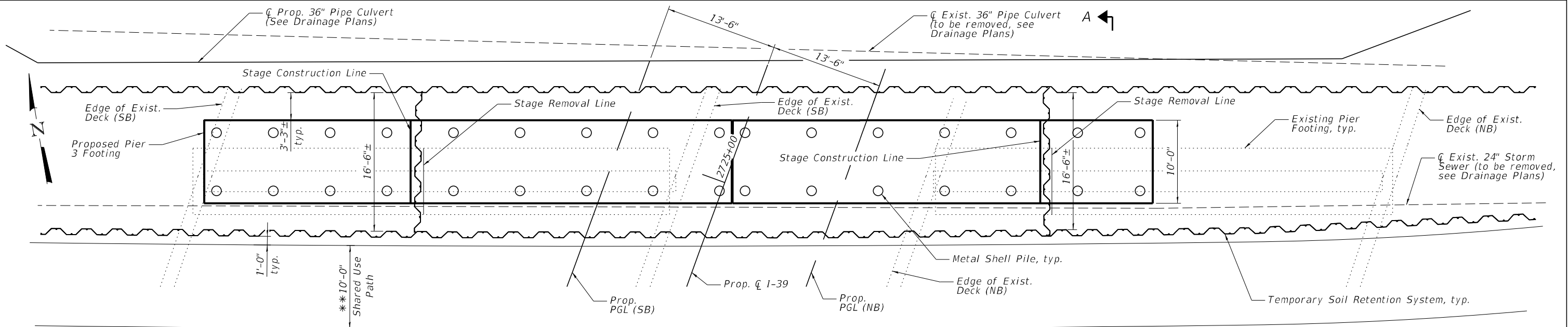
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	CHECKED - JLS	REVISED -
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PLOT DATE =	CHECKED - JLS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

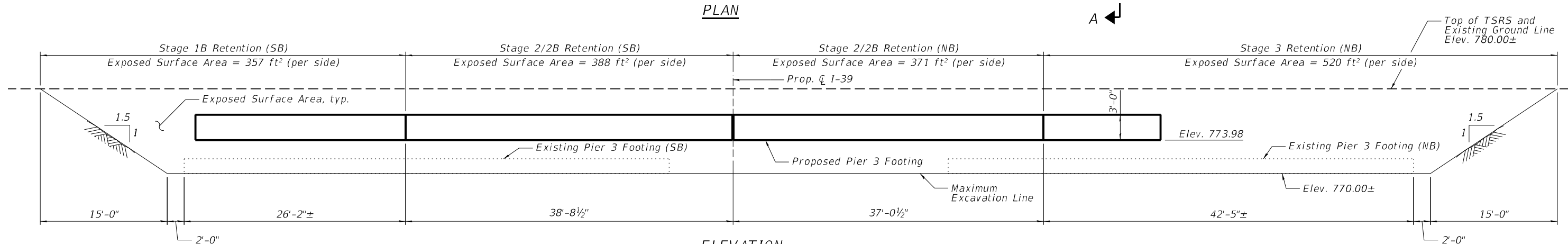
TEMPORARY SHEET PILING DETAILS
STRUCTURE NO. 101-0213 & 101-0214

SHEET 13 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	708
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



PLAN



ELEVATION

(Looking north; pier piles, crashwall, columns, and cap not shown for clarity)

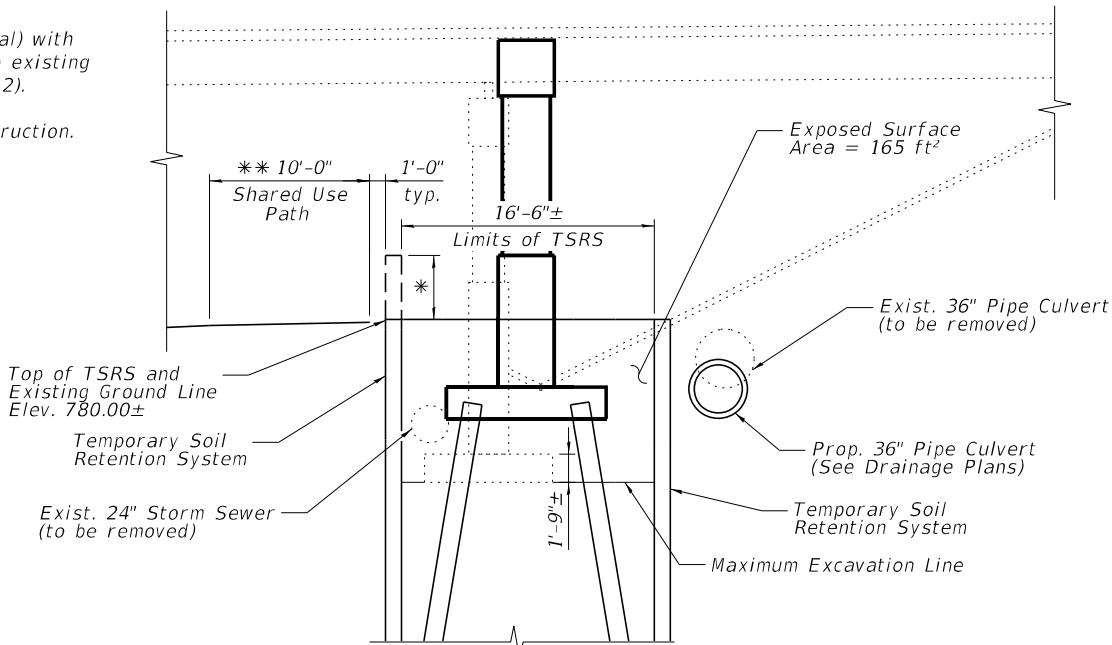
BILL OF MATERIAL
SB (SN 101-0214)

ITEM	UNIT	TOTAL
Temporary Soil Retention System	Sq. Ft.	1,655
Pedestrian Rail (Special)	Foot	82

BILL OF MATERIAL
NB (SN 101-0213)

ITEM	UNIT	TOTAL
Temporary Soil Retention System	Sq. Ft.	1,947
Pedestrian Rail (Special)	Foot	97

- * Pedestrian Rail (Special) with 4'-0" min. height above existing ground line (See Note 2).
- ** 8'-0" min. during construction.



SECTION A-A

NOTES:

- A cantilevered sheet piling design does not appear feasible in certain areas and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
- See Special Provision for Pedestrian Rail (Special).
- See Drainage Plans for additional pipe culvert details.

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FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-shr-tsrs.dgn



USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - JLS	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JLS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NO. 101-0213 & 101-0214

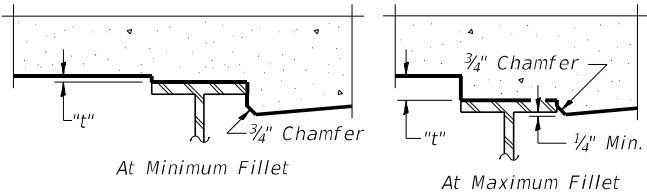
SHEET 14 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	709
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

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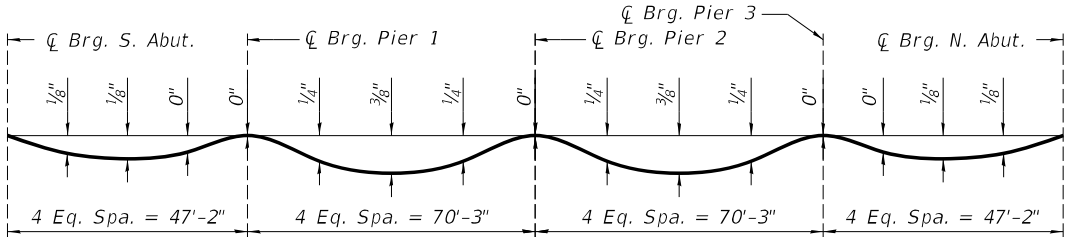
FACE OF SB W. PARAPET				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2722+88.14	-61.50	797.69	797.71
CL. BRG. S. ABUT.	2722+90.14	-61.50	797.72	797.74
A	2723+00.31	-61.50	797.85	797.88
B	2723+10.47	-61.50	797.98	798.01
C	2723+20.62	-61.50	798.11	798.14
D	2723+30.78	-61.50	798.24	798.26
CL. BRG. PIER 1	2723+38.05	-61.50	798.32	798.34
E	2723+48.19	-61.50	798.44	798.47
F	2723+58.32	-61.50	798.56	798.60
G	2723+68.45	-61.50	798.67	798.72
H	2723+78.57	-61.50	798.77	798.83
I	2723+88.69	-61.50	798.88	798.92
J	2723+98.80	-61.50	798.98	799.01
CL. BRG. PIER 2	2724+09.16	-61.50	799.07	799.10
K	2724+19.26	-61.50	799.17	799.20
L	2724+29.36	-61.50	799.25	799.30
M	2724+39.45	-61.50	799.34	799.39
N	2724+49.53	-61.50	799.42	799.48
O	2724+59.61	-61.50	799.50	799.54
P	2724+69.68	-61.50	799.57	799.60
CL. BRG. PIER 3	2724+80.00	-61.50	799.64	799.66
Q	2724+90.06	-61.50	799.71	799.73
R	2725+00.12	-61.50	799.77	799.80
S	2725+10.17	-61.50	799.83	799.86
T	2725+20.22	-61.50	799.88	799.91
CL. BRG. N. ABUT.	2725+27.41	-61.50	799.92	799.94
BK. N. ABUT.	2725+29.38	-61.50	799.93	799.95

BEAM 1				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2722+89.00	-59.39	797.76	797.78
CL. BRG. S. ABUT.	2722+90.97	-59.43	797.79	797.81
A	2723+01.06	-59.63	797.92	797.94
B	2723+11.14	-59.81	798.04	798.07
C	2723+21.23	-59.98	798.17	798.19
D	2723+31.32	-60.14	798.28	798.30
CL. BRG. PIER 1	2723+38.55	-60.24	798.37	798.39
E	2723+48.63	-60.37	798.48	798.51
F	2723+58.72	-60.48	798.59	798.64
G	2723+68.81	-60.58	798.70	798.75
H	2723+78.90	-60.67	798.80	798.86
I	2723+88.99	-60.74	798.90	798.95
J	2723+99.08	-60.79	799.00	799.03
CL. BRG. PIER 2	2724+09.42	-60.84	799.10	799.12
K	2724+19.51	-60.86	799.19	799.22
L	2724+29.60	-60.87	799.28	799.32
M	2724+39.69	-60.87	799.36	799.41
N	2724+49.77	-60.85	799.44	799.50
O	2724+59.86	-60.82	799.52	799.57
P	2724+69.95	-60.77	799.59	799.63
CL. BRG. PIER 3	2724+80.29	-60.71	799.67	799.69
Q	2724+90.38	-60.63	799.74	799.76
R	2725+00.47	-60.54	799.80	799.83
S	2725+10.56	-60.44	799.86	799.89
T	2725+20.65	-60.32	799.92	799.95
CL. BRG. N. ABUT.	2725+27.88	-60.22	799.96	799.98
BK. N. ABUT.	2725+29.85	-60.19	799.97	799.99

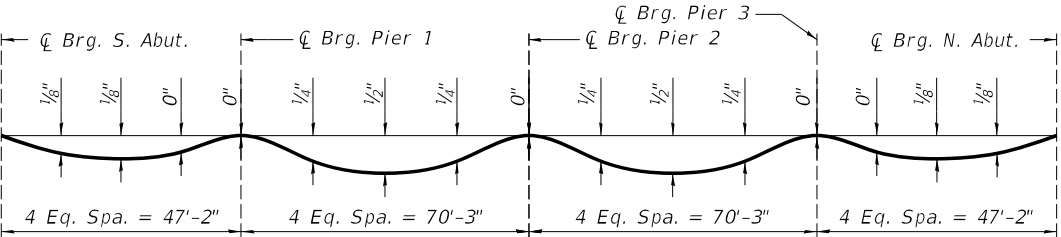


To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sheet 15 of 81. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" as shown on Sheets 16 to 24 of 81, 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 on Sheets 16 to 24 of 81. For grinding the deck, see Special Provisions.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM – SB (SN 101-0214)
(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM – NB (SN 101-0213)
(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 on Sheets 16 to 24 of 81.



USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - KMP	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - KMP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (1 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 16 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	711
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

MODEL: sMODELNAME5
FILE NAME: c:\pwword\benesch_projects\projects\dms65240\ID264C24-1010213_0214-shi-slabelev-003.dgn

BEAM 2				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2722+91.87	-52.28	798.02	798.04
CL. BRG. S. ABUT.	2722+93.84	-52.32	798.04	798.06
A	2723+03.91	-52.51	798.17	798.20
B	2723+13.99	-52.69	798.29	798.32
C	2723+24.07	-52.86	798.41	798.44
D	2723+34.14	-53.01	798.53	798.55
CL. BRG. PIER 1	2723+41.36	-53.11	798.61	798.64
E	2723+51.44	-53.23	798.73	798.76
F	2723+61.52	-53.34	798.84	798.88
G	2723+71.60	-53.44	798.94	799.00
H	2723+81.67	-53.52	799.05	799.10
I	2723+91.75	-53.59	799.14	799.19
J	2724+01.83	-53.64	799.24	799.27
CL. BRG. PIER 2	2724+12.16	-53.68	799.34	799.36
K	2724+22.24	-53.70	799.43	799.46
L	2724+32.32	-53.71	799.51	799.56
M	2724+42.40	-53.70	799.60	799.65
N	2724+52.48	-53.68	799.68	799.73
O	2724+62.55	-53.64	799.75	799.80
P	2724+72.63	-53.59	799.83	799.86
CL. BRG. PIER 3	2724+82.96	-53.53	799.90	799.92
Q	2724+93.04	-53.44	799.97	799.99
R	2725+03.12	-53.35	800.03	800.06
S	2725+13.20	-53.24	800.09	800.12
T	2725+23.27	-53.11	800.15	800.18
CL. BRG. N. ABUT.	2725+30.50	-53.02	800.19	800.21
BK. N. ABUT.	2725+32.47	-52.99	800.20	800.22

BEAM 3				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2722+94.73	-45.17	798.27	798.29
CL. BRG. S. ABUT.	2722+96.70	-45.21	798.29	798.31
A	2723+06.76	-45.40	798.42	798.45
B	2723+16.83	-45.58	798.54	798.57
C	2723+26.89	-45.74	798.66	798.69
D	2723+36.96	-45.88	798.78	798.80
CL. BRG. PIER 1	2723+44.17	-45.98	798.86	798.88
E	2723+54.24	-46.10	798.97	799.01
F	2723+64.31	-46.21	799.08	799.13
G	2723+74.38	-46.30	799.19	799.24
H	2723+84.44	-46.38	799.29	799.34
I	2723+94.51	-46.44	799.39	799.43
J	2724+04.58	-46.49	799.48	799.51
CL. BRG. PIER 2	2724+14.90	-46.52	799.58	799.60
K	2724+24.97	-46.54	799.67	799.69
L	2724+35.03	-46.54	799.75	799.80
M	2724+45.10	-46.53	799.83	799.89
N	2724+55.17	-46.51	799.91	799.97
O	2724+65.24	-46.46	799.99	800.04
P	2724+75.31	-46.41	800.06	800.10
CL. BRG. PIER 3	2724+85.63	-46.34	800.13	800.16
Q	2724+95.69	-46.25	800.20	800.22
R	2725+05.76	-46.15	800.26	800.29
S	2725+15.83	-46.04	800.32	800.35
T	2725+25.89	-45.91	800.38	800.41
CL. BRG. N. ABUT.	2725+33.11	-45.81	800.42	800.44
BK. N. ABUT.	2725+35.08	-45.78	800.43	800.45

BEAM 4				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2722+97.58	-38.06	798.52	798.54
CL. BRG. S. ABUT.	2722+99.55	-38.10	798.54	798.57
A	2723+09.61	-38.28	798.67	798.70
B	2723+19.66	-38.45	798.79	798.82
C	2723+29.72	-38.61	798.91	798.94
D	2723+39.77	-38.75	799.03	799.05
CL. BRG. PIER 1	2723+46.98	-38.85	799.11	799.13
E	2723+57.04	-38.96	799.22	799.25
F	2723+67.09	-39.07	799.33	799.37
G	2723+77.15	-39.15	799.43	799.49
H	2723+87.21	-39.23	799.53	799.58
I	2723+97.26	-39.29	799.63	799.67
J	2724+07.32	-39.33	799.72	799.75
CL. BRG. PIER 2	2724+17.63	-39.36	799.82	799.84
K	2724+27.69	-39.37	799.90	799.93
L	2724+37.75	-39.37	799.99	800.03
M	2724+47.80	-39.36	800.07	800.12
N	2724+57.86	-39.33	800.15	800.20
O	2724+67.92	-39.28	800.22	800.27
P	2724+77.98	-39.23	800.30	800.33
CL. BRG. PIER 3	2724+88.28	-39.15	800.37	800.39
Q	2724+98.34	-39.06	800.43	800.45
R	2725+08.40	-38.96	800.50	800.52
S	2725+18.45	-38.84	800.55	800.58
T	2725+28.51	-38.71	800.61	800.64
CL. BRG. N. ABUT.	2725+35.72	-38.61	800.65	800.67
BK. N. ABUT.	2725+37.69	-38.58	800.66	800.68



Alfred Benesch & Company

35 W Wacker Drive, Suite 3300

Chicago, Illinois 60601

312.465.4150 Job No. 10800

USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - KMP	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - KMP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (2 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	712
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\ID264C24-1010213_0214-shi-slabelev-004.dgn

SB STAGE CONSTRUCTION LINE				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2722+98.76	-35.13	798.62	798.64
CL. BRG. S. ABUT.	2723+00.74	-35.13	798.65	798.67
A	2723+10.87	-35.13	798.78	798.81
B	2723+20.99	-35.13	798.91	798.94
C	2723+31.10	-35.13	799.03	799.06
D	2723+41.20	-35.13	799.15	799.17
CL. BRG. PIER 1	2723+48.44	-35.13	799.24	799.26
E	2723+58.54	-35.13	799.35	799.38
F	2723+68.63	-35.13	799.46	799.51
G	2723+78.71	-35.13	799.57	799.62
H	2723+88.79	-35.13	799.67	799.72
I	2723+98.86	-35.13	799.77	799.81
J	2724+08.93	-35.13	799.86	799.89
CL. BRG. PIER 2	2724+19.24	-35.13	799.96	799.98
K	2724+29.30	-35.13	800.05	800.07
L	2724+39.35	-35.13	800.13	800.17
M	2724+49.39	-35.13	800.21	800.26
N	2724+59.43	-35.13	800.29	800.34
O	2724+69.47	-35.13	800.36	800.41
P	2724+79.50	-35.13	800.43	800.46
CL. BRG. PIER 3	2724+89.77	-35.13	800.50	800.52
Q	2724+99.79	-35.13	800.56	800.58
R	2725+09.80	-35.13	800.62	800.65
S	2725+19.81	-35.13	800.67	800.70
T	2725+29.81	-35.13	800.72	800.75
CL. BRG. N. ABUT.	2725+36.97	-35.13	800.76	800.78
BK. N. ABUT.	2725+38.93	-35.13	800.77	800.79

BEAM 5				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+00.44	-30.95	798.77	798.79
CL. BRG. S. ABUT.	2723+02.40	-30.98	798.80	798.82
A	2723+12.45	-31.16	798.92	798.95
B	2723+22.49	-31.33	799.04	799.07
C	2723+32.54	-31.48	799.16	799.18
D	2723+42.58	-31.62	799.27	799.29
CL. BRG. PIER 1	2723+49.78	-31.71	799.35	799.37
E	2723+59.83	-31.83	799.46	799.50
F	2723+69.87	-31.92	799.57	799.62
G	2723+79.92	-32.01	799.67	799.73
H	2723+89.96	-32.08	799.77	799.83
I	2724+00.01	-32.13	799.87	799.91
J	2724+10.06	-32.17	799.96	799.99
CL. BRG. PIER 2	2724+20.36	-32.20	800.06	800.08
K	2724+30.40	-32.21	800.14	800.17
L	2724+40.45	-32.20	800.23	800.27
M	2724+50.50	-32.19	800.31	800.36
N	2724+60.54	-32.15	800.38	800.44
O	2724+70.59	-32.10	800.46	800.51
P	2724+80.64	-32.04	800.53	800.56
CL. BRG. PIER 3	2724+90.94	-31.96	800.60	800.62
Q	2725+00.98	-31.87	800.66	800.69
R	2725+11.03	-31.76	800.73	800.75
S	2725+21.07	-31.64	800.78	800.81
T	2725+31.12	-31.51	800.84	800.87
CL. BRG. N. ABUT.	2725+38.32	-31.40	800.88	800.90
BK. N. ABUT.	2725+40.29	-31.37	800.89	800.91

BEAM 6				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+03.28	-23.83	799.02	799.04
CL. BRG. S. ABUT.	2723+05.25	-23.87	799.05	799.07
A	2723+15.28	-24.05	799.17	799.20
B	2723+25.31	-24.21	799.29	799.32
C	2723+35.35	-24.36	799.41	799.43
D	2723+45.38	-24.49	799.52	799.54
CL. BRG. PIER 1	2723+52.57	-24.58	799.60	799.62
E	2723+62.61	-24.69	799.71	799.74
F	2723+72.64	-24.78	799.81	799.86
G	2723+82.68	-24.86	799.92	799.97
H	2723+92.72	-24.93	800.01	800.07
I	2724+02.75	-24.98	800.11	800.15
J	2724+12.79	-25.01	800.20	800.23
CL. BRG. PIER 2	2724+23.08	-25.04	800.29	800.31
K	2724+33.11	-25.04	800.38	800.41
L	2724+43.15	-25.03	800.46	800.51
M	2724+53.19	-25.01	800.54	800.60
N	2724+63.22	-24.97	800.62	800.68
O	2724+73.26	-24.92	800.69	800.74
P	2724+83.30	-24.86	800.76	800.80
CL. BRG. PIER 3	2724+93.58	-24.77	800.83	800.85
Q	2725+03.62	-24.68	800.90	800.92
R	2725+13.65	-24.57	800.96	800.98
S	2725+23.69	-24.44	801.01	801.04
T	2725+33.72	-24.30	801.07	801.09
CL. BRG. N. ABUT.	2725+40.91	-24.19	801.11	801.13
BK. N. ABUT.	2725+42.88	-24.16	801.12	801.14



Alfred Benesch & Company

35 W Wacker Drive, Suite 3300

Chicago, Illinois 60601

312.465.4150 Job No. 10800

USER NAME	=	DESIGNED	-	JPM	REVISED	-
		CHECKED	-	KMP	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	KMP	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (3 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	713
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	

MODEL: sMODELNAME5
FILE NAME: c:\pwword\benesch_projects\projects\dms65240\ID264C24-1010213_0214-shi-slabelev-005.dgn

BEAM 7				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+06.12	-16.72	799.27	799.29
CL. BRG. S. ABUT.	2723+08.08	-16.75	799.30	799.32
A	2723+18.11	-16.93	799.42	799.45
B	2723+28.13	-17.08	799.54	799.57
C	2723+38.15	-17.23	799.65	799.68
D	2723+48.18	-17.36	799.77	799.79
CL. BRG. PIER 1	2723+55.36	-17.44	799.85	799.87
E	2723+65.39	-17.55	799.95	799.98
F	2723+75.41	-17.64	800.06	800.10
G	2723+85.44	-17.71	800.16	800.21
H	2723+95.46	-17.78	800.26	800.31
I	2724+05.49	-17.82	800.35	800.39
J	2724+15.51	-17.85	800.44	800.47
CL. BRG. PIER 2	2724+25.79	-17.87	800.53	800.55
K	2724+35.82	-17.87	800.62	800.65
L	2724+45.84	-17.86	800.70	800.74
M	2724+55.87	-17.84	800.78	800.83
N	2724+65.90	-17.79	800.85	800.91
O	2724+75.92	-17.74	800.93	800.97
P	2724+85.95	-17.67	801.00	801.03
CL. BRG. PIER 3	2724+96.22	-17.58	801.06	801.09
Q	2725+06.25	-17.48	801.13	801.15
R	2725+16.27	-17.37	801.19	801.21
S	2725+26.30	-17.24	801.24	801.27
T	2725+36.32	-17.09	801.30	801.32
CL. BRG. N. ABUT.	2725+43.50	-16.98	801.33	801.35
BK. N. ABUT.	2725+45.47	-16.95	801.34	801.36

PROP. PGL (SB)				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+07.40	-13.50	799.38	799.41
CL. BRG. S. ABUT.	2723+09.38	-13.50	799.41	799.43
A	2723+19.46	-13.50	799.54	799.57
B	2723+29.54	-13.50	799.66	799.69
C	2723+39.62	-13.50	799.78	799.81
D	2723+49.69	-13.50	799.90	799.92
CL. BRG. PIER 1	2723+56.90	-13.50	799.98	800.00
E	2723+66.96	-13.50	800.09	800.12
F	2723+77.01	-13.50	800.20	800.24
G	2723+87.06	-13.50	800.30	800.36
H	2723+97.10	-13.50	800.40	800.45
I	2724+07.14	-13.50	800.50	800.54
J	2724+17.17	-13.50	800.59	800.62
CL. BRG. PIER 2	2724+27.45	-13.50	800.68	800.70
K	2724+37.46	-13.50	800.76	800.79
L	2724+47.48	-13.50	800.84	800.89
M	2724+57.49	-13.50	800.92	800.98
N	2724+67.49	-13.50	800.99	801.05
O	2724+77.49	-13.50	801.07	801.11
P	2724+87.48	-13.50	801.13	801.16
CL. BRG. PIER 3	2724+97.72	-13.50	801.20	801.22
Q	2725+07.70	-13.50	801.26	801.28
R	2725+17.68	-13.50	801.31	801.34
S	2725+27.65	-13.50	801.36	801.39
T	2725+37.61	-13.50	801.41	801.44
CL. BRG. N. ABUT.	2725+44.75	-13.50	801.44	801.46
BK. N. ABUT.	2725+46.70	-13.50	801.45	801.47

BEAM 8				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+08.95	-9.60	799.52	799.54
CL. BRG. S. ABUT.	2723+10.91	-9.63	799.55	799.57
A	2723+20.93	-9.80	799.67	799.69
B	2723+30.94	-9.96	799.79	799.81
C	2723+40.95	-10.10	799.90	799.93
D	2723+50.97	-10.23	800.01	800.03
CL. BRG. PIER 1	2723+58.14	-10.31	800.09	800.11
E	2723+68.16	-10.41	800.20	800.23
F	2723+78.17	-10.49	800.30	800.35
G	2723+88.19	-10.57	800.40	800.46
H	2723+98.20	-10.62	800.50	800.55
I	2724+08.22	-10.67	800.59	800.63
J	2724+18.23	-10.69	800.68	800.71
CL. BRG. PIER 2	2724+28.50	-10.71	800.77	800.79
K	2724+38.52	-10.71	800.86	800.88
L	2724+48.53	-10.69	800.94	800.98
M	2724+58.55	-10.66	801.01	801.07
N	2724+68.56	-10.61	801.09	801.14
O	2724+78.58	-10.55	801.16	801.21
P	2724+88.59	-10.48	801.23	801.26
CL. BRG. PIER 3	2724+98.86	-10.39	801.30	801.32
Q	2725+08.87	-10.29	801.36	801.38
R	2725+18.89	-10.17	801.42	801.44
S	2725+28.90	-10.03	801.47	801.50
T	2725+38.91	-9.89	801.53	801.55
CL. BRG. N. ABUT.	2725+46.09	-9.77	801.56	801.58
BK. N. ABUT.	2725+48.05	-9.74	801.57	801.59



Alfred Benesch & Company
35 W Wacker Drive, Suite 3300
Chicago, Illinois 60601
312.465.4150 Job No. 10800

USER NAME	=
PLOT SCALE	=
PLOT DATE	=

DESIGNED	-	JPM
CHECKED	-	KMP
DRAWN	-	KMS
CHECKED	-	KMP

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (4 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 19 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	714
CONTRACT NO. 64C24				
ILLINOIS		FED. AID PROJECT		

MODEL: sMODELNAME5
FILE NAME: c:\pwword\benesch_projects\projects\dms65240\ID264C24-1010213_0214-shi-slabelev-006.dgn

BEAM 9				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+11.78	-2.48	799.77	799.79
CL. BRG. S. ABUT.	2723+13.74	-2.52	799.80	799.82
A	2723+23.74	-2.68	799.92	799.94
B	2723+33.74	-2.83	800.03	800.06
C	2723+43.75	-2.97	800.15	800.17
D	2723+53.75	-3.09	800.26	800.28
CL. BRG. PIER 1	2723+60.92	-3.17	800.34	800.36
E	2723+70.92	-3.27	800.44	800.47
F	2723+80.93	-3.35	800.54	800.59
G	2723+90.93	-3.42	800.64	800.70
H	2724+00.94	-3.47	800.74	800.79
I	2724+10.94	-3.51	800.83	800.87
J	2724+20.95	-3.53	800.92	800.95
CL. BRG. PIER 2	2724+31.20	-3.54	801.01	801.03
K	2724+41.21	-3.54	801.09	801.12
L	2724+51.21	-3.52	801.17	801.22
M	2724+61.22	-3.48	801.25	801.30
N	2724+71.22	-3.43	801.32	801.38
O	2724+81.23	-3.37	801.39	801.44
P	2724+91.23	-3.29	801.46	801.49
CL. BRG. PIER 3	2725+01.49	-3.20	801.53	801.55
Q	2725+11.49	-3.09	801.59	801.61
R	2725+21.50	-2.97	801.65	801.67
S	2725+31.50	-2.83	801.70	801.73
T	2725+41.50	-2.68	801.75	801.78
CL. BRG. N. ABUT.	2725+48.67	-2.56	801.79	801.81
BK. N. ABUT.	2725+50.63	-2.53	801.80	801.82

FACE OF SB E. PARAPET				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+12.17	-1.50	799.81	799.83
CL. BRG. S. ABUT.	2723+14.14	-1.50	799.83	799.85
A	2723+24.21	-1.50	799.96	799.98
B	2723+34.27	-1.50	800.08	800.11
C	2723+44.32	-1.50	800.20	800.22
D	2723+54.37	-1.50	800.31	800.33
CL. BRG. PIER 1	2723+61.57	-1.50	800.39	800.41
E	2723+71.61	-1.50	800.50	800.53
F	2723+81.64	-1.50	800.61	800.65
G	2723+91.67	-1.50	800.71	800.76
H	2724+01.69	-1.50	800.80	800.86
I	2724+11.71	-1.50	800.90	800.94
J	2724+21.72	-1.50	800.99	801.02
CL. BRG. PIER 2	2724+31.97	-1.50	801.08	801.10
K	2724+41.97	-1.50	801.16	801.19
L	2724+51.97	-1.50	801.24	801.28
M	2724+61.96	-1.50	801.31	801.37
N	2724+71.94	-1.50	801.39	801.44
O	2724+81.92	-1.50	801.46	801.50
P	2724+91.89	-1.50	801.52	801.55
CL. BRG. PIER 3	2725+02.11	-1.50	801.58	801.60
Q	2725+12.07	-1.50	801.64	801.66
R	2725+22.03	-1.50	801.69	801.72
S	2725+31.98	-1.50	801.74	801.77
T	2725+41.92	-1.50	801.79	801.82
CL. BRG. N. ABUT.	2725+49.05	-1.50	801.82	801.84
BK. N. ABUT.	2725+51.00	-1.50	801.83	801.85

FACE OF NB W. PARAPET				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+13.36	1.50	799.10	799.12
CL. BRG. S. ABUT.	2723+15.33	1.50	799.13	799.15
A	2723+25.39	1.50	799.25	799.28
B	2723+35.45	1.50	799.37	799.40
C	2723+45.50	1.50	799.49	799.52
D	2723+55.54	1.50	799.61	799.63
CL. BRG. PIER 1	2723+62.73	1.50	799.69	799.71
E	2723+72.77	1.50	799.79	799.83
F	2723+82.80	1.50	799.90	799.95
G	2723+92.82	1.50	800.00	800.06
H	2724+02.83	1.50	800.10	800.15
I	2724+12.85	1.50	800.19	800.23
J	2724+22.85	1.50	800.28	800.31
CL. BRG. PIER 2	2724+33.10	1.50	800.37	800.39
K	2724+43.10	1.50	800.45	800.48
L	2724+53.09	1.50	800.53	800.57
M	2724+63.07	1.50	800.60	800.66
N	2724+73.05	1.50	800.67	800.73
O	2724+83.02	1.50	800.74	800.79
P	2724+92.99	1.50	800.81	800.84
CL. BRG. PIER 3	2725+03.20	1.50	800.87	800.89
Q	2725+13.16	1.50	800.93	800.95
R	2725+23.11	1.50	800.98	801.01
S	2725+33.06	1.50	801.03	801.06
T	2725+43.00	1.50	801.08	801.10
CL. BRG. N. ABUT.	2725+50.12	1.50	801.11	801.13
BK. N. ABUT.	2725+52.07	1.50	801.12	801.14



Alfred Benesch & Company

35 W Wacker Drive, Suite 3300

Chicago, Illinois 60601

312.465.4150 Job No. 10800

USER NAME	=	DESIGNED	-	JPM	REVISED	-
		CHECKED	-	KMP	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	KMP	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (5 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 20 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	715
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\ID264C24-1010213_0214-shi-slabelev-007.dgn

BEAM 10				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+14.16	3.52	799.17	799.19
CL. BRG. S. ABUT.	2723+16.12	3.49	799.20	799.22
A	2723+26.11	3.32	799.31	799.34
B	2723+36.10	3.18	799.43	799.46
C	2723+46.10	3.04	799.54	799.57
D	2723+56.09	2.93	799.65	799.67
CL. BRG. PIER 1	2723+63.26	2.85	799.73	799.75
E	2723+73.25	2.76	799.84	799.87
F	2723+83.25	2.68	799.94	799.99
G	2723+93.24	2.61	800.04	800.09
H	2724+03.24	2.56	800.13	800.19
I	2724+13.24	2.53	800.22	800.27
J	2724+23.23	2.51	800.31	800.34
CL. BRG. PIER 2	2724+33.48	2.50	800.40	800.42
K	2724+43.47	2.51	800.48	800.51
L	2724+53.47	2.53	800.56	800.61
M	2724+63.47	2.57	800.64	800.69
N	2724+73.46	2.62	800.71	800.77
O	2724+83.46	2.69	800.78	800.83
P	2724+93.45	2.77	800.85	800.88
CL. BRG. PIER 3	2725+03.70	2.87	800.91	800.93
Q	2725+13.70	2.98	800.97	800.99
R	2725+23.69	3.10	801.03	801.06
S	2725+33.68	3.24	801.09	801.11
T	2725+43.68	3.40	801.14	801.16
CL. BRG. N. ABUT.	2725+50.84	3.52	801.17	801.19
BK. N. ABUT.	2725+52.80	3.55	801.18	801.20

BEAM 11				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+17.10	10.97	799.43	799.45
CL. BRG. S. ABUT.	2723+19.06	10.94	799.46	799.48
A	2723+29.04	10.78	799.57	799.60
B	2723+39.03	10.64	799.69	799.72
C	2723+49.01	10.51	799.80	799.83
D	2723+58.99	10.39	799.91	799.93
CL. BRG. PIER 1	2723+66.15	10.32	799.99	800.01
E	2723+76.14	10.23	800.09	800.12
F	2723+86.12	10.16	800.19	800.24
G	2723+96.11	10.10	800.29	800.35
H	2724+06.09	10.05	800.38	800.44
I	2724+16.08	10.02	800.47	800.52
J	2724+26.06	10.00	800.56	800.59
CL. BRG. PIER 2	2724+36.30	10.00	800.65	800.67
K	2724+46.28	10.01	800.73	800.76
L	2724+56.27	10.04	800.81	800.85
M	2724+66.25	10.08	800.88	800.94
N	2724+76.24	10.14	800.96	801.01
O	2724+86.22	10.21	801.02	801.07
P	2724+96.21	10.30	801.09	801.12
CL. BRG. PIER 3	2725+06.44	10.40	801.15	801.18
Q	2725+16.43	10.51	801.21	801.24
R	2725+26.41	10.64	801.27	801.30
S	2725+36.39	10.79	801.32	801.35
T	2725+46.38	10.94	801.37	801.40
CL. BRG. N. ABUT.	2725+53.53	11.07	801.41	801.43
BK. N. ABUT.	2725+55.49	11.10	801.42	801.44

PROP. PGL (NB)				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+18.10	13.50	799.52	799.54
CL. BRG. S. ABUT.	2723+20.07	13.50	799.55	799.57
A	2723+30.11	13.50	799.67	799.70
B	2723+40.15	13.50	799.79	799.82
C	2723+50.18	13.50	799.90	799.93
D	2723+60.20	13.50	800.02	800.04
CL. BRG. PIER 1	2723+67.38	13.50	800.10	800.12
E	2723+77.39	13.50	800.20	800.23
F	2723+87.40	13.50	800.30	800.35
G	2723+97.40	13.50	800.40	800.46
H	2724+07.40	13.50	800.50	800.55
I	2724+17.39	13.50	800.59	800.64
J	2724+27.38	13.50	800.68	800.71
CL. BRG. PIER 2	2724+37.61	13.50	800.76	800.78
K	2724+47.58	13.50	800.84	800.87
L	2724+57.55	13.50	800.92	800.97
M	2724+67.52	13.50	801.00	801.05
N	2724+77.48	13.50	801.07	801.12
O	2724+87.43	13.50	801.13	801.18
P	2724+97.38	13.50	801.19	801.23
CL. BRG. PIER 3	2725+07.57	13.50	801.25	801.28
Q	2725+17.51	13.50	801.31	801.33
R	2725+27.44	13.50	801.36	801.39
S	2725+37.37	13.50	801.41	801.44
T	2725+47.29	13.50	801.45	801.48
CL. BRG. N. ABUT.	2725+54.40	13.50	801.48	801.51
BK. N. ABUT.	2725+56.34	13.50	801.49	801.51



Alfred Benesch & Company

35 W Wacker Drive, Suite 3300

Chicago, Illinois 60601

312.465.4150 Job No. 10800

USER NAME	=	DESIGNED	-	JPM	REVISED	-
		CHECKED	-	KMP	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	KMP	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (6 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	716
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	

MODEL: sMODELNAME5
FILE NAME: c:\pwword\benesch_projects\projects\dms65240\ID264C24-1010213_0214-shi-slabelev-008.dgn

BEAM 12				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+20.05	18.42	799.69	799.71
CL. BRG. S. ABUT.	2723+22.00	18.39	799.72	799.74
A	2723+31.97	18.24	799.83	799.86
B	2723+41.94	18.10	799.95	799.98
C	2723+51.92	17.97	800.06	800.08
D	2723+61.89	17.86	800.17	800.19
CL. BRG. PIER 1	2723+69.04	17.79	800.24	800.26
E	2723+79.01	17.71	800.34	800.38
F	2723+88.99	17.64	800.44	800.49
G	2723+98.96	17.58	800.54	800.60
H	2724+08.94	17.54	800.63	800.69
I	2724+18.91	17.51	800.72	800.77
J	2724+28.88	17.50	800.81	800.84
CL. BRG. PIER 2	2724+39.11	17.50	800.90	800.92
K	2724+49.08	17.52	800.98	801.01
L	2724+59.06	17.55	801.05	801.10
M	2724+69.03	17.60	801.13	801.19
N	2724+79.01	17.66	801.20	801.26
O	2724+88.98	17.73	801.27	801.32
P	2724+98.95	17.82	801.33	801.37
CL. BRG. PIER 3	2725+09.18	17.93	801.40	801.42
Q	2725+19.15	18.05	801.46	801.48
R	2725+29.12	18.18	801.51	801.54
S	2725+39.10	18.33	801.56	801.59
T	2725+49.07	18.49	801.61	801.64
CL. BRG. N. ABUT.	2725+56.21	18.62	801.65	801.67
BK. N. ABUT.	2725+58.17	18.65	801.65	801.68

BEAM 13				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+22.98	25.88	799.95	799.97
CL. BRG. S. ABUT.	2723+24.93	25.85	799.98	800.00
A	2723+34.89	25.70	800.09	800.12
B	2723+44.86	25.56	800.21	800.24
C	2723+54.82	25.44	800.32	800.34
D	2723+64.78	25.34	800.42	800.44
CL. BRG. PIER 1	2723+71.92	25.27	800.50	800.52
E	2723+81.88	25.19	800.60	800.63
F	2723+91.85	25.12	800.70	800.75
G	2724+01.81	25.07	800.79	800.85
H	2724+11.77	25.03	800.88	800.94
I	2724+21.74	25.01	800.97	801.02
J	2724+31.70	25.00	801.06	801.09
CL. BRG. PIER 2	2724+41.91	25.01	801.14	801.17
K	2724+51.88	25.03	801.22	801.25
L	2724+61.84	25.06	801.30	801.35
M	2724+71.81	25.11	801.37	801.43
N	2724+81.77	25.18	801.44	801.50
O	2724+91.73	25.26	801.51	801.56
P	2725+01.69	25.35	801.58	801.61
CL. BRG. PIER 3	2725+11.91	25.46	801.64	801.66
Q	2725+21.87	25.58	801.70	801.72
R	2725+31.83	25.72	801.75	801.78
S	2725+41.79	25.87	801.80	801.83
T	2725+51.75	26.04	801.85	801.88
CL. BRG. N. ABUT.	2725+58.89	26.17	801.88	801.90
BK. N. ABUT.	2725+60.84	26.20	801.89	801.91

BEAM 14				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+25.91	33.33	800.21	800.23
CL. BRG. S. ABUT.	2723+27.86	33.30	800.24	800.26
A	2723+37.81	33.16	800.35	800.38
B	2723+47.76	33.03	800.46	800.49
C	2723+57.71	32.91	800.57	800.60
D	2723+67.66	32.81	800.68	800.70
CL. BRG. PIER 1	2723+74.80	32.74	800.75	800.77
E	2723+84.75	32.67	800.85	800.89
F	2723+94.70	32.60	800.95	801.00
G	2724+04.65	32.56	801.04	801.10
H	2724+14.61	32.52	801.14	801.19
I	2724+24.56	32.50	801.22	801.27
J	2724+34.51	32.50	801.31	801.34
CL. BRG. PIER 2	2724+44.71	32.51	801.39	801.41
K	2724+54.67	32.54	801.47	801.50
L	2724+64.62	32.58	801.55	801.59
M	2724+74.57	32.63	801.62	801.68
N	2724+84.52	32.70	801.69	801.75
O	2724+94.48	32.78	801.75	801.80
P	2725+04.43	32.88	801.82	801.85
CL. BRG. PIER 3	2725+14.63	32.99	801.88	801.90
Q	2725+24.58	33.12	801.94	801.96
R	2725+34.53	33.26	801.99	802.02
S	2725+44.48	33.42	802.04	802.07
T	2725+54.43	33.59	802.09	802.11
CL. BRG. N. ABUT.	2725+61.56	33.72	802.12	802.14
BK. N. ABUT.	2725+63.51	33.75	802.13	802.15



Alfred Benesch & Company

35 W Wacker Drive, Suite 3300

Chicago, Illinois 60601

312.465.4150 Job No. 10800

USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - KMP	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - KMP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (7 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	717
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\ID264C24-1010213_0214-shi-slabelev-009.dgn
4/22/2025 12:40:05 PM

NB STAGE CONSTRUCTION LINE				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+26.84	35.71	800.30	800.32
CL. BRG. S. ABUT.	2723+28.80	35.71	800.32	800.34
A	2723+38.80	35.71	800.44	800.47
B	2723+48.80	35.71	800.56	800.59
C	2723+58.79	35.71	800.67	800.69
D	2723+68.78	35.71	800.78	800.80
CL. BRG. PIER 1	2723+75.93	35.71	800.85	800.87
E	2723+85.91	35.71	800.96	800.99
F	2723+95.88	35.71	801.05	801.10
G	2724+05.85	35.71	801.15	801.21
H	2724+15.81	35.71	801.24	801.30
I	2724+25.76	35.71	801.33	801.38
J	2724+35.71	35.71	801.41	801.44
CL. BRG. PIER 2	2724+45.91	35.71	801.50	801.52
K	2724+55.84	35.71	801.58	801.60
L	2724+65.78	35.71	801.65	801.69
M	2724+75.70	35.71	801.72	801.78
N	2724+85.63	35.71	801.79	801.84
O	2724+95.54	35.71	801.85	801.90
P	2725+05.46	35.71	801.91	801.94
CL. BRG. PIER 3	2725+15.61	35.71	801.97	801.99
Q	2725+25.51	35.71	802.02	802.04
R	2725+35.41	35.71	802.07	802.09
S	2725+45.30	35.71	802.11	802.14
T	2725+55.19	35.71	802.15	802.18
CL. BRG. N. ABUT.	2725+62.27	35.71	802.18	802.20
BK. N. ABUT.	2725+64.20	35.71	802.19	802.21

BEAM 15				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+28.83	40.79	800.47	800.49
CL. BRG. S. ABUT.	2723+30.78	40.76	800.49	800.52
A	2723+40.72	40.62	800.61	800.64
B	2723+50.66	40.49	800.72	800.75
C	2723+60.60	40.38	800.83	800.85
D	2723+70.54	40.28	800.93	800.95
CL. BRG. PIER 1	2723+77.67	40.22	801.01	801.03
E	2723+87.61	40.15	801.11	801.14
F	2723+97.55	40.09	801.20	801.25
G	2724+07.49	40.05	801.30	801.35
H	2724+17.43	40.02	801.39	801.44
I	2724+27.37	40.00	801.47	801.52
J	2724+37.32	40.00	801.56	801.59
CL. BRG. PIER 2	2724+47.51	40.02	801.64	801.66
K	2724+57.45	40.05	801.72	801.75
L	2724+67.39	40.09	801.79	801.84
M	2724+77.33	40.15	801.86	801.92
N	2724+87.28	40.22	801.93	801.99
O	2724+97.22	40.31	802.00	802.05
P	2725+07.16	40.41	802.06	802.09
CL. BRG. PIER 3	2725+17.35	40.53	802.12	802.14
Q	2725+27.29	40.66	802.18	802.20
R	2725+37.23	40.80	802.23	802.26
S	2725+47.17	40.96	802.28	802.31
T	2725+57.11	41.14	802.32	802.35
CL. BRG. N. ABUT.	2725+64.23	41.27	802.36	802.38
BK. N. ABUT.	2725+66.18	41.31	802.36	802.39

BEAM 16				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+31.75	48.24	800.73	800.75
CL. BRG. S. ABUT.	2723+33.69	48.22	800.75	800.77
A	2723+43.62	48.08	800.87	800.89
B	2723+53.55	47.96	800.98	801.01
C	2723+63.48	47.85	801.08	801.11
D	2723+73.41	47.76	801.19	801.21
CL. BRG. PIER 1	2723+80.53	47.70	801.26	801.28
E	2723+90.46	47.63	801.36	801.39
F	2724+00.39	47.58	801.45	801.50
G	2724+10.32	47.54	801.55	801.60
H	2724+20.25	47.51	801.64	801.69
I	2724+30.18	47.50	801.72	801.77
J	2724+40.12	47.50	801.80	801.83
CL. BRG. PIER 2	2724+50.30	47.52	801.89	801.91
K	2724+60.23	47.56	801.96	801.99
L	2724+70.16	47.60	802.04	802.08
M	2724+80.09	47.67	802.11	802.16
N	2724+90.02	47.74	802.18	802.23
O	2724+99.95	47.83	802.24	802.29
P	2725+09.88	47.94	802.30	802.33
CL. BRG. PIER 3	2725+20.06	48.06	802.36	802.38
Q	2725+29.99	48.20	802.42	802.44
R	2725+39.92	48.34	802.47	802.49
S	2725+49.85	48.51	802.52	802.54
T	2725+59.77	48.69	802.56	802.59
CL. BRG. N. ABUT.	2725+66.89	48.82	802.59	802.61
BK. N. ABUT.	2725+68.83	48.86	802.60	802.62



Alfred Benesch & Company

35 W Wacker Drive, Suite 3300

Chicago, Illinois 60601

312.465.4150 Job No. 10800

USER NAME	=	DESIGNED	-	JPM	REVISED	-
		CHECKED	-	KMP	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	KMP	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (8 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	718
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	

MODEL: sMODELNAME5
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FACE OF NB E. PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Grinding
BK. S. ABUT.	2723+32.24	49.50	800.77	800.80
CL. BRG. S. ABUT.	2723+34.19	49.50	800.80	800.82
A	2723+44.17	49.50	800.92	800.94
B	2723+54.15	49.50	801.03	801.06
C	2723+64.12	49.50	801.14	801.16
D	2723+74.08	49.50	801.25	801.27
CL. BRG. PIER 1	2723+81.22	49.50	801.32	801.34
E	2723+91.17	49.50	801.42	801.45
F	2724+01.12	49.50	801.52	801.57
G	2724+11.06	49.50	801.61	801.67
H	2724+21.00	49.50	801.70	801.76
I	2724+30.93	49.50	801.79	801.83
J	2724+40.86	49.50	801.87	801.90
CL. BRG. PIER 2	2724+51.03	49.50	801.95	801.97
K	2724+60.94	49.50	802.03	802.06
L	2724+70.86	49.50	802.10	802.14
M	2724+80.76	49.50	802.17	802.22
N	2724+90.66	49.50	802.23	802.29
O	2725+00.56	49.50	802.29	802.34
P	2725+10.44	49.50	802.35	802.38
CL. BRG. PIER 3	2725+20.58	49.50	802.41	802.43
Q	2725+30.46	49.50	802.46	802.48
R	2725+40.33	49.50	802.50	802.53
S	2725+50.20	49.50	802.55	802.58
T	2725+60.06	49.50	802.59	802.61
CL. BRG. N. ABUT.	2725+67.13	49.50	802.61	802.63
BK. N. ABUT.	2725+69.06	49.50	802.62	802.64



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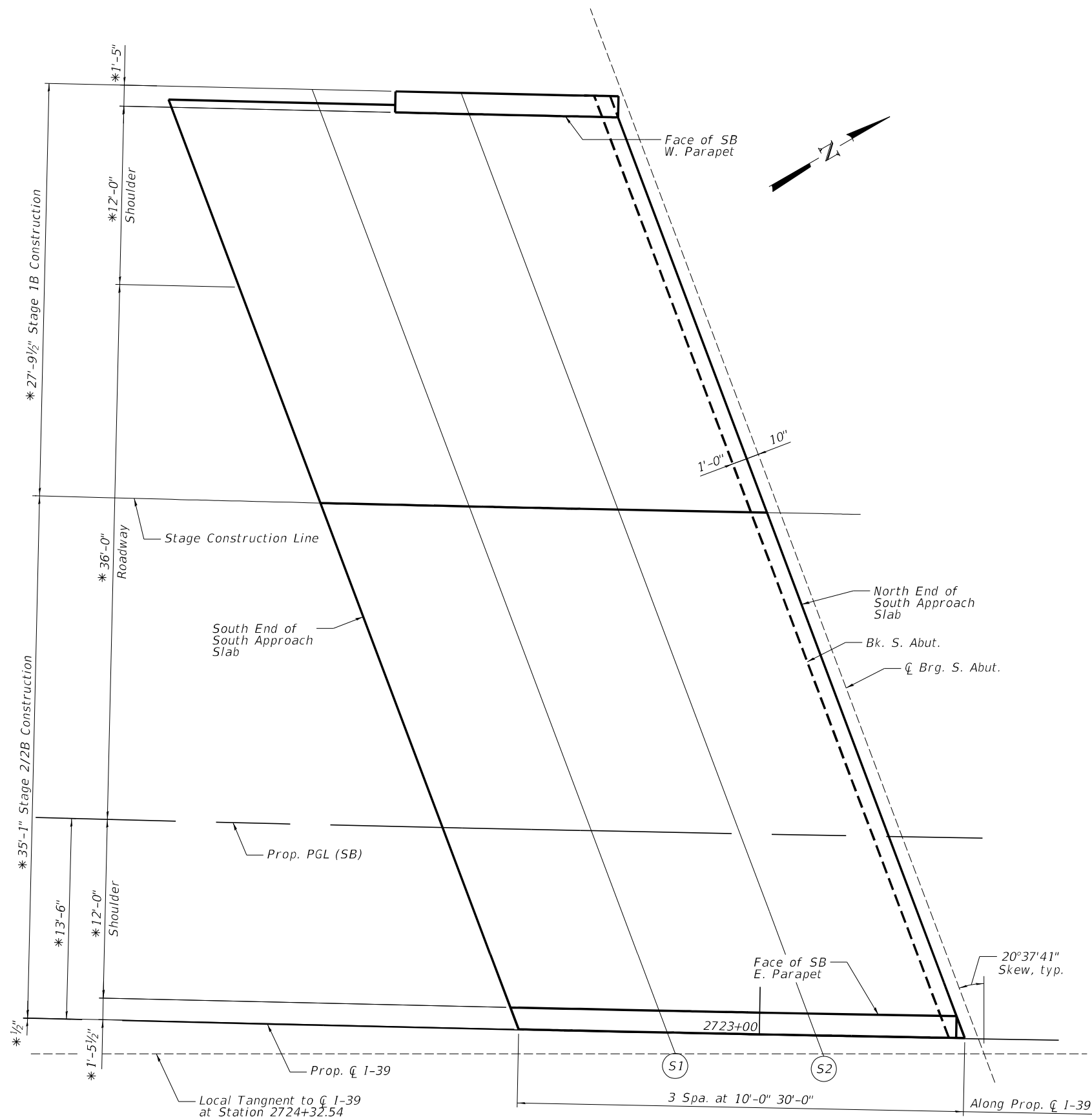
312.465.4150 Job No. 10800

USER NAME	=	DESIGNED	-	JPM	REVISED	-
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PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	KMP	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (9 OF 9)
STRUCTURE NO. 101-0213 & 101-0214

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	719
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	



PLAN - SOUTHBOUND TOP OF SOUTH APPROACH SLAB ELEVATIONS

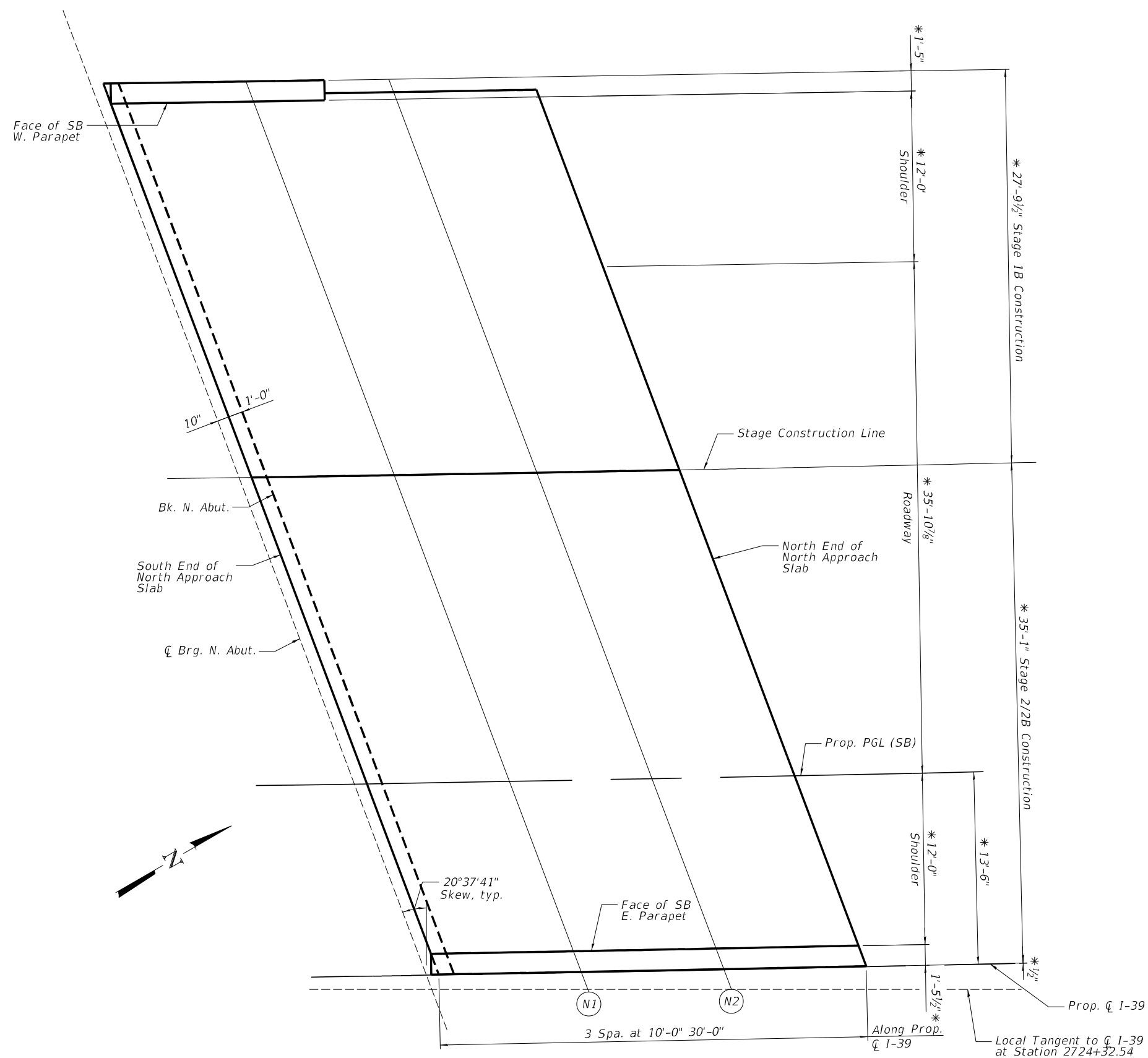
<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted for Grinding</i>
<i>S. END OF S. APPR. SLAB</i>	<i>2722+58.92</i>	<i>-61.50</i>	<i>797.28</i>	<i>797.30</i>
<i>S1</i>	<i>2722+69.02</i>	<i>-61.50</i>	<i>797.42</i>	<i>797.44</i>
<i>S2</i>	<i>2722+79.12</i>	<i>-61.50</i>	<i>797.56</i>	<i>797.59</i>
<i>N. END OF S. APPR. SLAB</i>	<i>2722+89.23</i>	<i>-61.50</i>	<i>797.70</i>	<i>797.72</i>

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted for Grinding</i>
<i>S. END OF S. APPR. SLAB</i>	<i>2722+69.66</i>	<i>-35.13</i>	<i>798.22</i>	<i>798.24</i>
<i>S1</i>	<i>2722+79.72</i>	<i>-35.13</i>	<i>798.36</i>	<i>798.39</i>
<i>S2</i>	<i>2722+89.78</i>	<i>-35.13</i>	<i>798.50</i>	<i>798.52</i>
<i>N. END OF S. APPR. SLAB</i>	<i>2722+99.84</i>	<i>-35.13</i>	<i>798.64</i>	<i>798.66</i>

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF S. APPR. SLAB	2722+78.41	-13.50	798.99	799.02
S1	2722+88.43	-13.50	799.13	799.15
S2	2722+98.45	-13.50	799.27	799.29
N. END OF S. APPR. SLAB	2723+08.48	-13.50	799.40	799.42

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted for Grinding</i>
<i>S. END OF S. APPR. SLAB</i>	<i>2722+83.24</i>	<i>-1.50</i>	<i>799.42</i>	<i>799.44</i>
<i>S1</i>	<i>2722+93.24</i>	<i>-1.50</i>	<i>799.56</i>	<i>799.58</i>
<i>S2</i>	<i>2723+03.24</i>	<i>-1.50</i>	<i>799.69</i>	<i>799.71</i>
<i>N. END OF S. APPR. SLAB</i>	<i>2723+13.25</i>	<i>-1.50</i>	<i>799.82</i>	<i>799.84</i>

* Radial dimension



PLAN - SOUTHBOUND TOP OF NORTH APPROACH SLAB ELEVATIONS

FACE OF SB W. PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF N. APPR. SLAB	2725+28.30	-61.50	799.93	799.95
N1	2725+38.41	-61.50	799.98	800.00
N2	2725+48.51	-61.50	800.02	800.04
N. END OF N. APPR. SLAB	2725+58.61	-61.50	800.06	800.08

SB STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF N. APPR. SLAB	2725+37.86	-35.13	800.76	800.78
N1	2725+47.92	-35.13	800.81	800.83
N2	2725+57.98	-35.13	800.85	800.87
N. END OF N. APPR. SLAB	2725+68.04	-35.13	800.89	800.91

PROP. PGL (SB)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF N. APPR. SLAB	2725+45.64	-13.50	801.45	801.47
N1	2725+55.66	-13.50	801.49	801.51
N2	2725+65.68	-13.50	801.53	801.55
N. END OF N. APPR. SLAB	2725+75.71	-13.50	801.56	801.58

FACE OF SB E. PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF N. APPR. SLAB	2725+49.93	-1.50	801.83	801.85
N1	2725+59.94	-1.50	801.87	801.89
N2	2725+69.94	-1.50	801.90	801.92
N. END OF N. APPR. SLAB	2725+79.94	-1.50	801.94	801.96

* Radial dimension

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTHBOUND TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 101-0213 & 101-0214

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	721
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

SHEET 26 OF 81 SHEETS

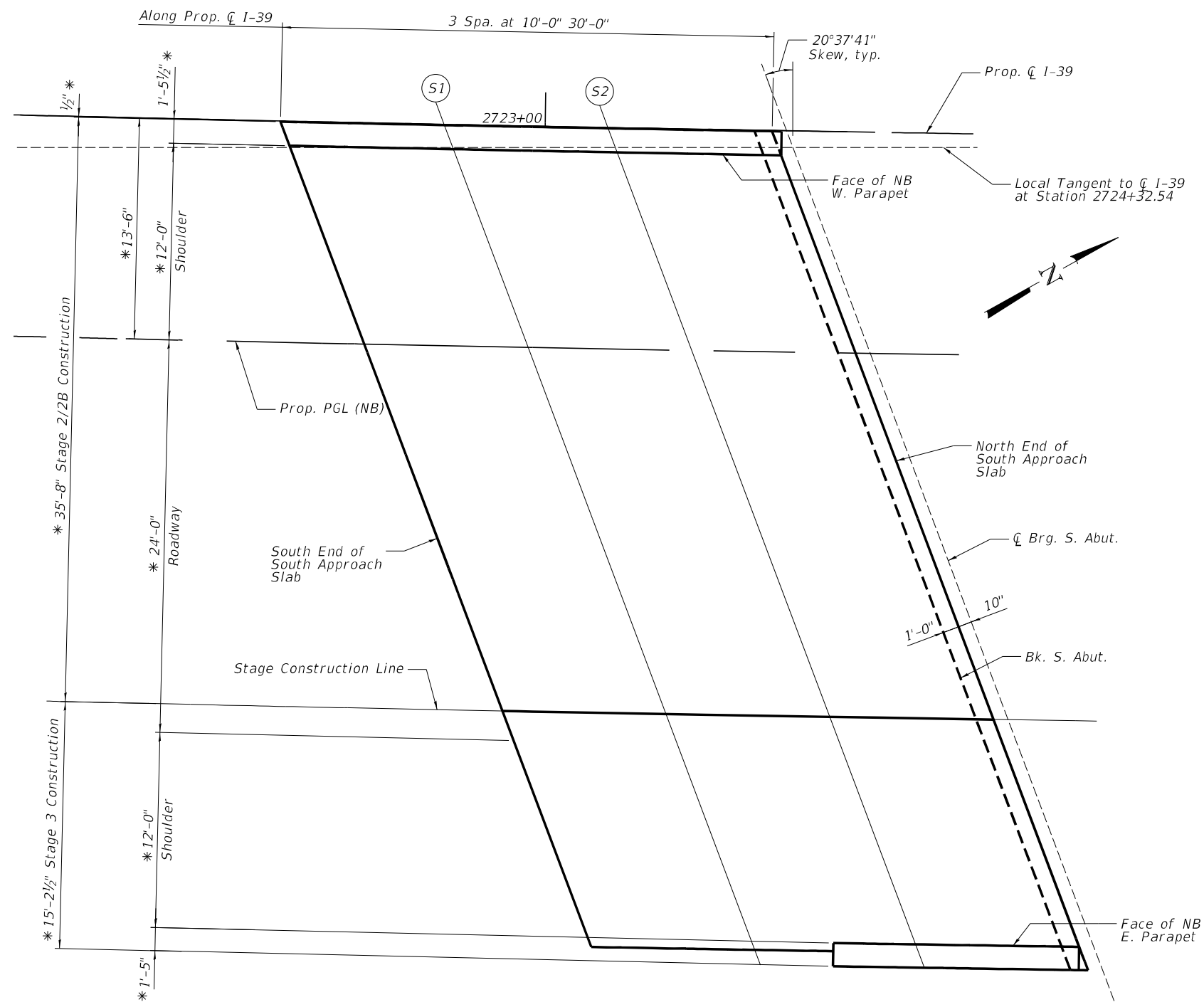


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USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - KMP	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - KMP	REVISED -

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FACE OF NB W. PARAPET

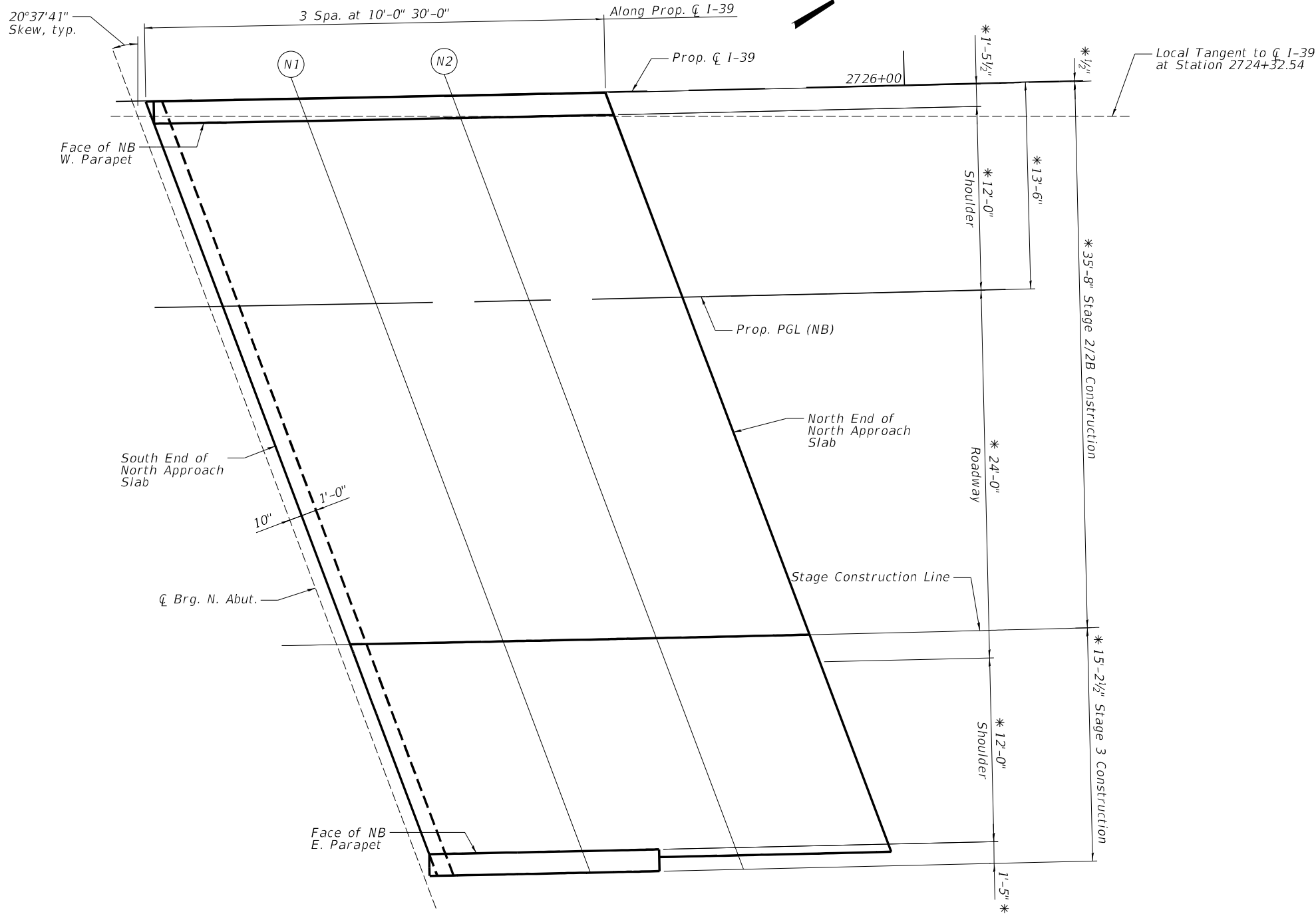
PROP. PGL (NB)

NB STAGE CONSTRUCTION LINE

FACE OF NB E. PARAPET

* Radial dimension

MODEL: sMODELNAME\$
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PLAN - NORTHBOUND TOP OF NORTH APPROACH SLAB ELEVATIONS

FACE OF NB W. PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF N. APPR. SLAB	2725+51.00	1.50	801.11	801.13
N1	2725+61.00	1.50	801.15	801.17
N2	2725+71.00	1.50	801.19	801.21
N. END OF N. APPR. SLAB	2725+81.00	1.50	801.22	801.24

PROP. PGL (NB)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF N. APPR. SLAB	2725+55.28	13.50	801.49	801.51
N1	2725+65.26	13.50	801.53	801.55
N2	2725+75.23	13.50	801.56	801.58
N. END OF N. APPR. SLAB	2725+85.21	13.50	801.59	801.61

NB STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF N. APPR. SLAB	2725+63.15	35.71	802.19	802.21
N1	2725+73.09	35.71	802.22	802.24
N2	2725+83.03	35.71	802.25	802.27
N. END OF N. APPR. SLAB	2725+92.97	35.71	802.28	802.30

FACE OF NB E. PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. END OF N. APPR. SLAB	2725+68.01	49.50	802.62	802.64
N1	2725+77.93	49.50	802.65	802.67
N2	2725+87.84	49.50	802.68	802.70
N. END OF N. APPR. SLAB	2725+97.76	49.50	802.71	802.73

* Radial dimension



USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - KMP	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - KMP	REVISED -

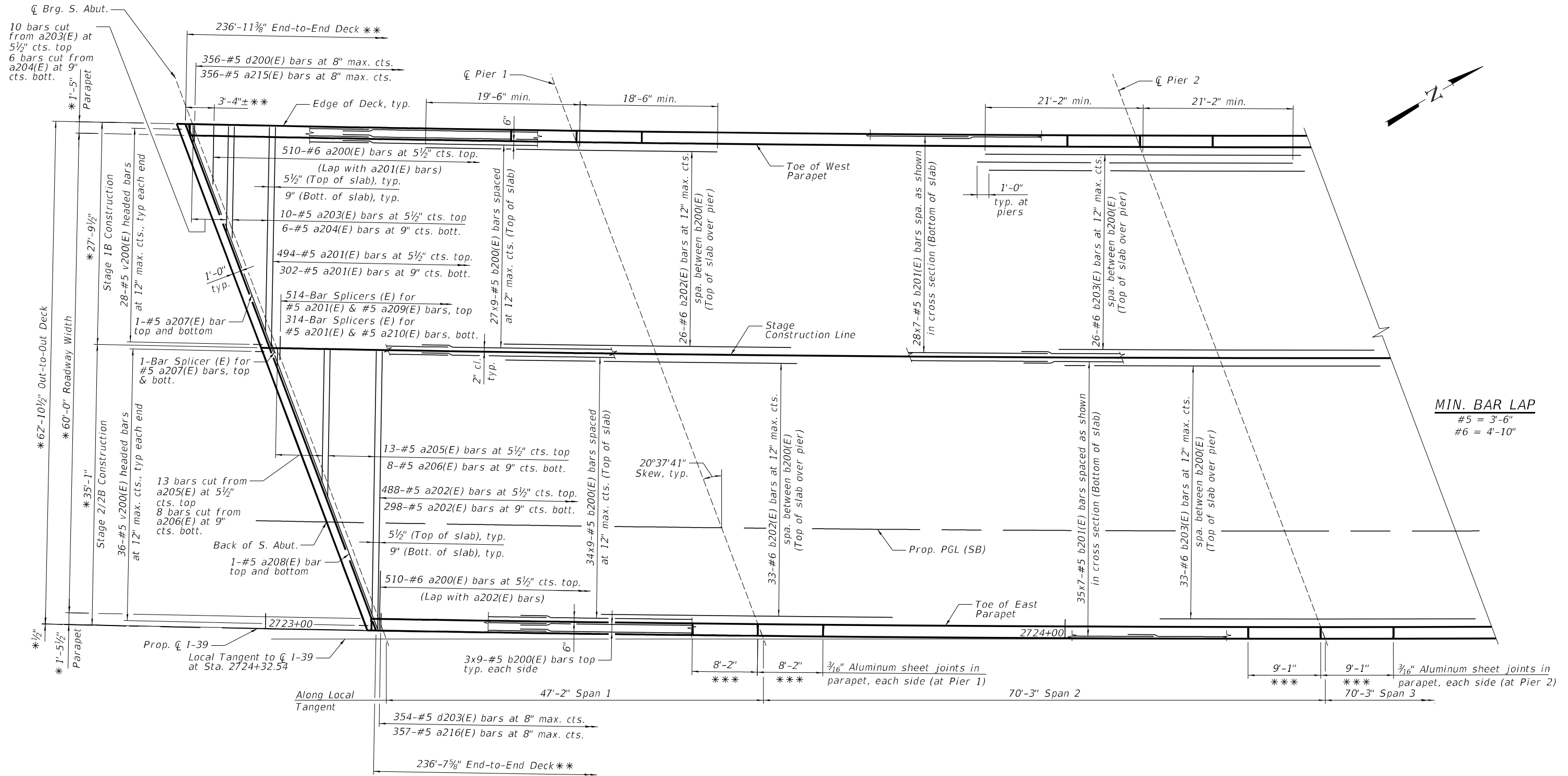
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTHBOUND TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 101-0213 & 101-0214

SHEET 28 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	723
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

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PARTIAL DECK PLAN - SOUTHBOUND

- * Radial dimension
** Measured along outside edge of deck
*** Measured along toe of parapet

NOTES:

- See Sheet 33 of 81 for deck cross section.
- See Sheet 40 of 81 for field cutting diagram for cut bars details, superstructure details, and Bill of Material.
- Bars indicated thus 27x9-#5 etc. indicates 27 lines of bars with 9 lengths per line.



USER NAME	=	DESIGNED	-	JPM	REVISED	-
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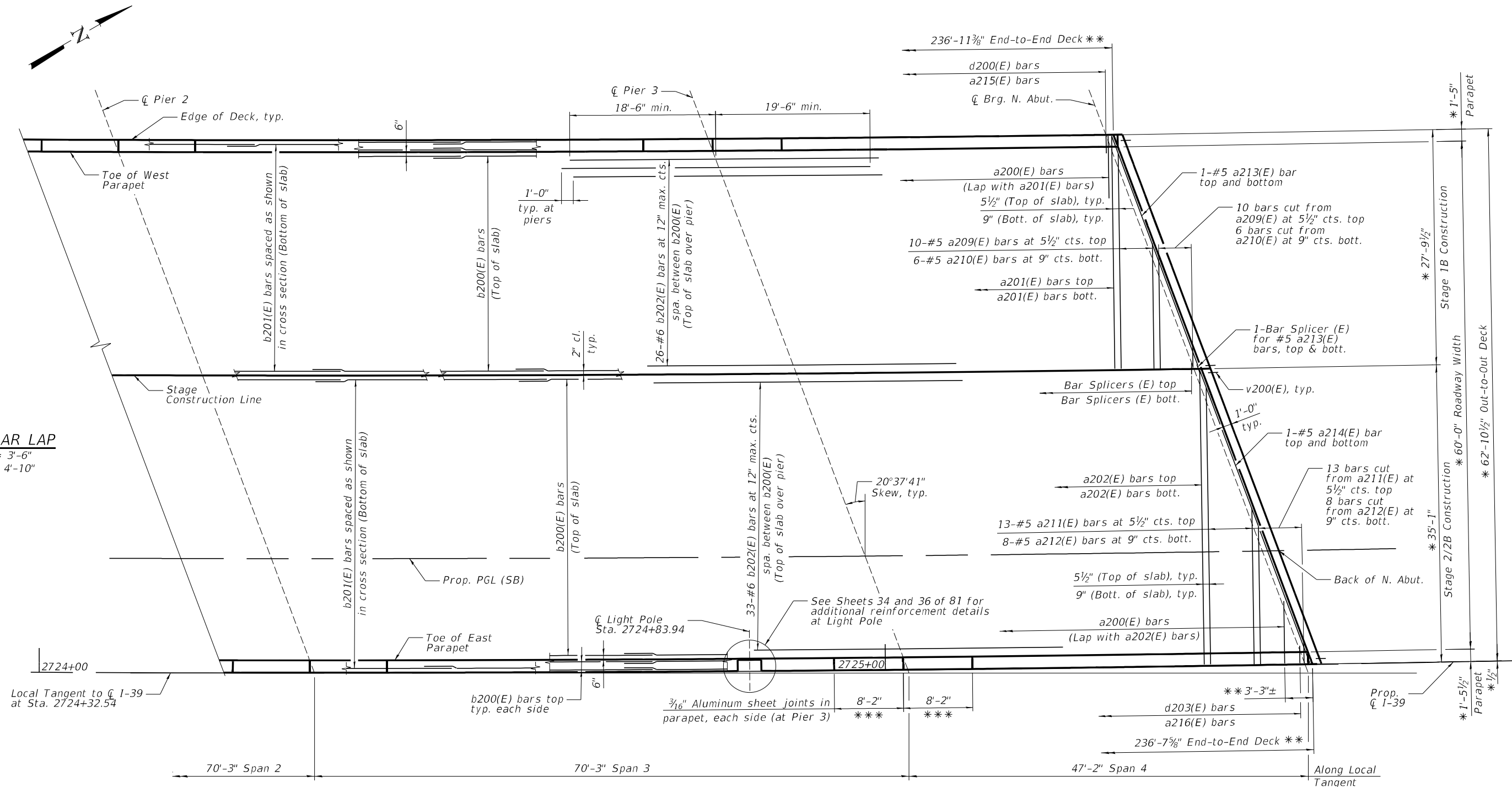
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTHBOUND DECK PLAN (1 OF 2)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 29 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	724
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

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PARTIAL DECK PLAN - SOUTHBOUND

- * Radial dimension
** Measured along outside edge of deck
*** Measured along toe of parapet

NOTES:

1. See Sheet 33 of 81 for deck cross section.
2. See Sheet 40 of 81 for field cutting diagram for cut bars details, superstructure details, and Bill of Material.
3. Bars indicated thus 27x9-#5 etc. indicates 27 lines of bars with 9 lengths per line.



USER NAME	=	DESIGNED	-	JPM	REVISED	-
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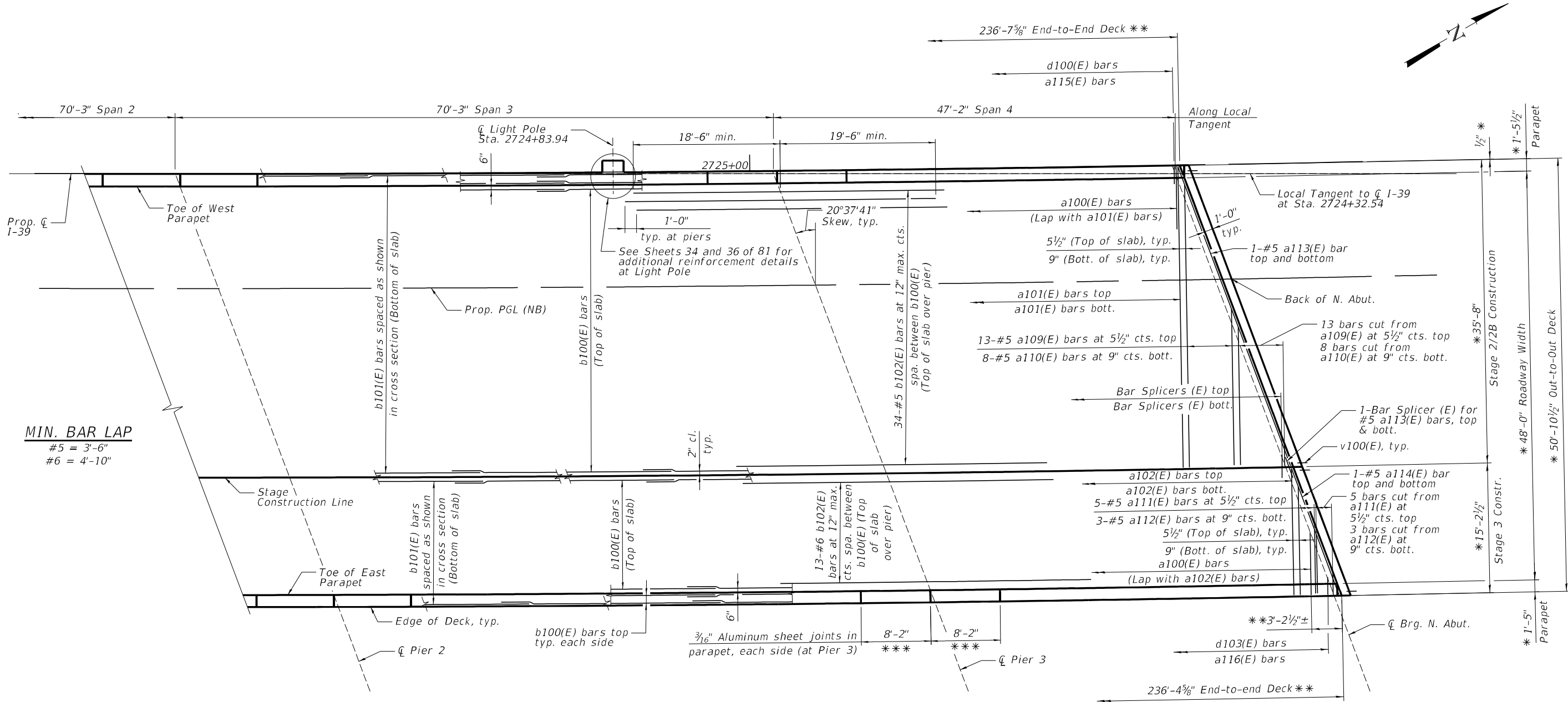
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOUTHBOUND DECK PLAN (2 OF 2)
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 30 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	725
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

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PARTIAL DECK PLAN - NORTHBOUND

- * Radial dimension
** Measured along outside edge of deck
*** Measured along toe of parapet

NOTES:

- See Sheet 33 of 81 for deck cross section.
- See Sheet 40 of 81 for field cutting diagram for cut bars details, superstructure details, and Bill of Material.
- Bars indicated thus 27x9-#5 etc. indicates 27 lines of bars with 9 lengths per line.



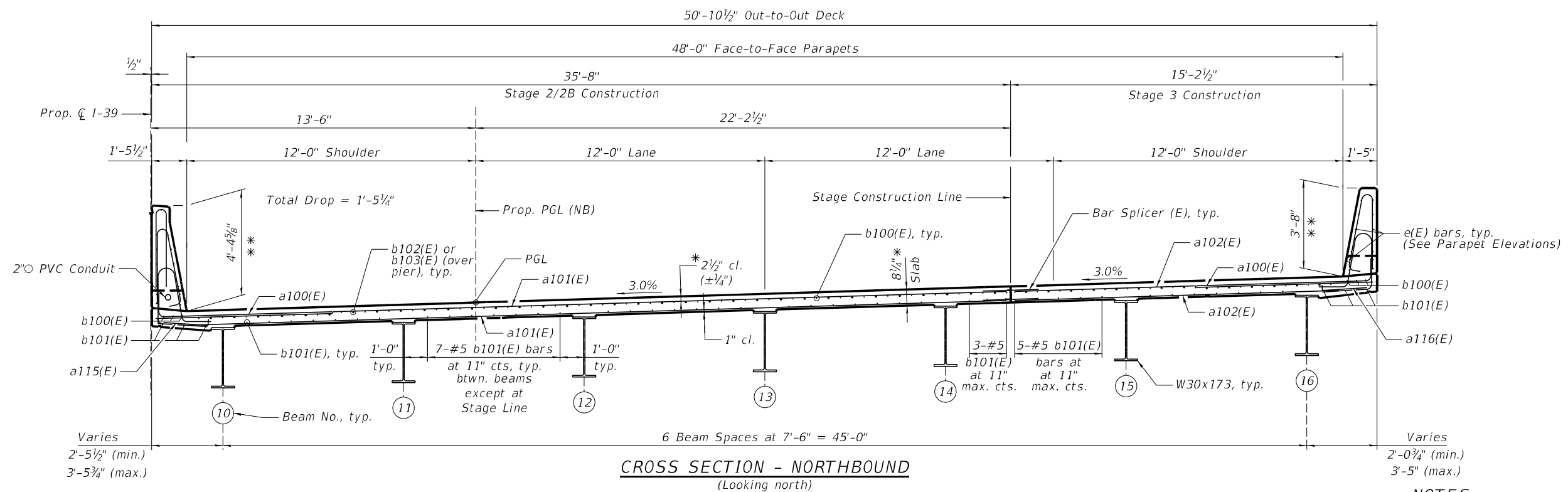
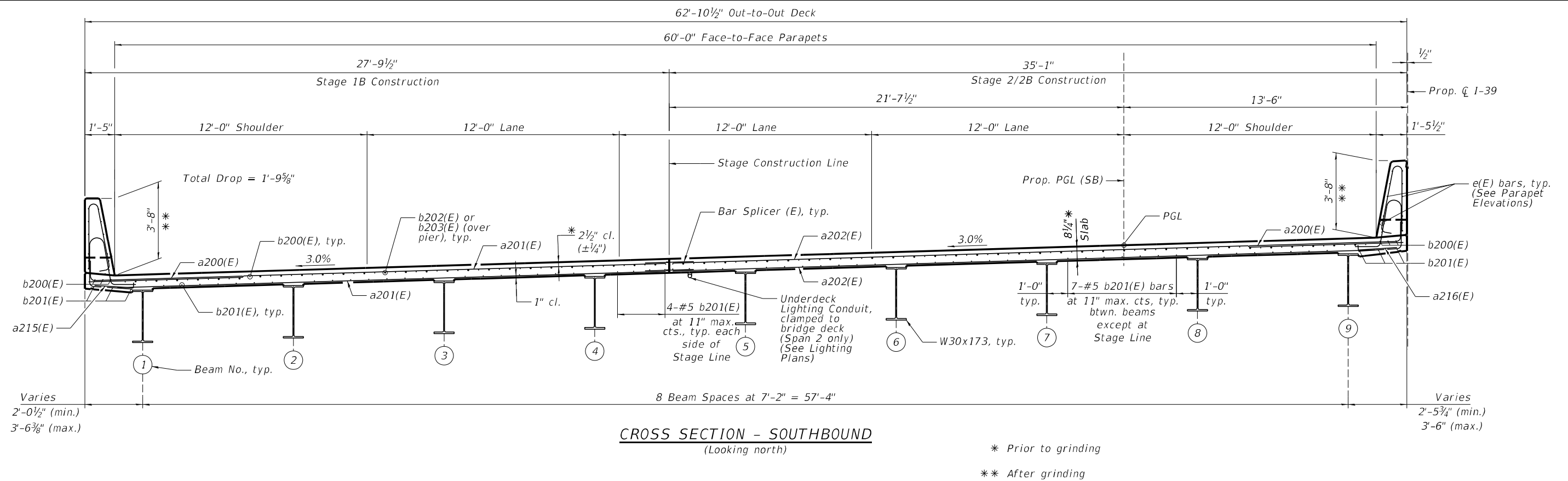
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTHBOUND DECK PLAN (2 OF 2)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 32 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	727
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



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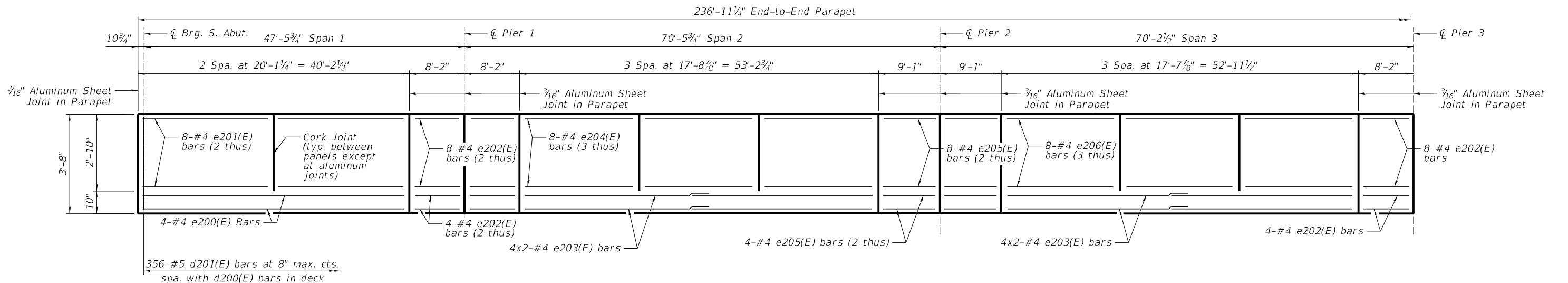
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

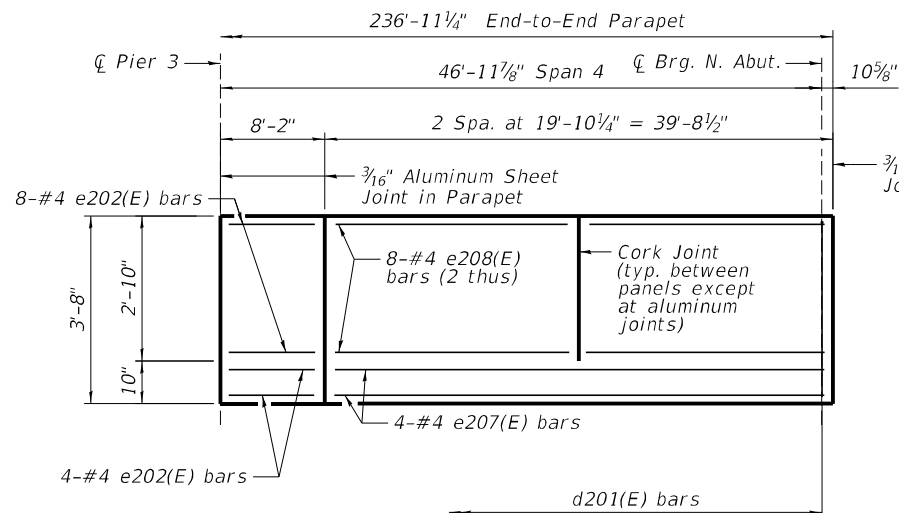
SOUTHBOUND PARAPET ELEVATIONS
STRUCTURE NO. 101-0213 & 101-0214

SHEET 34 OF 81 SHEETS

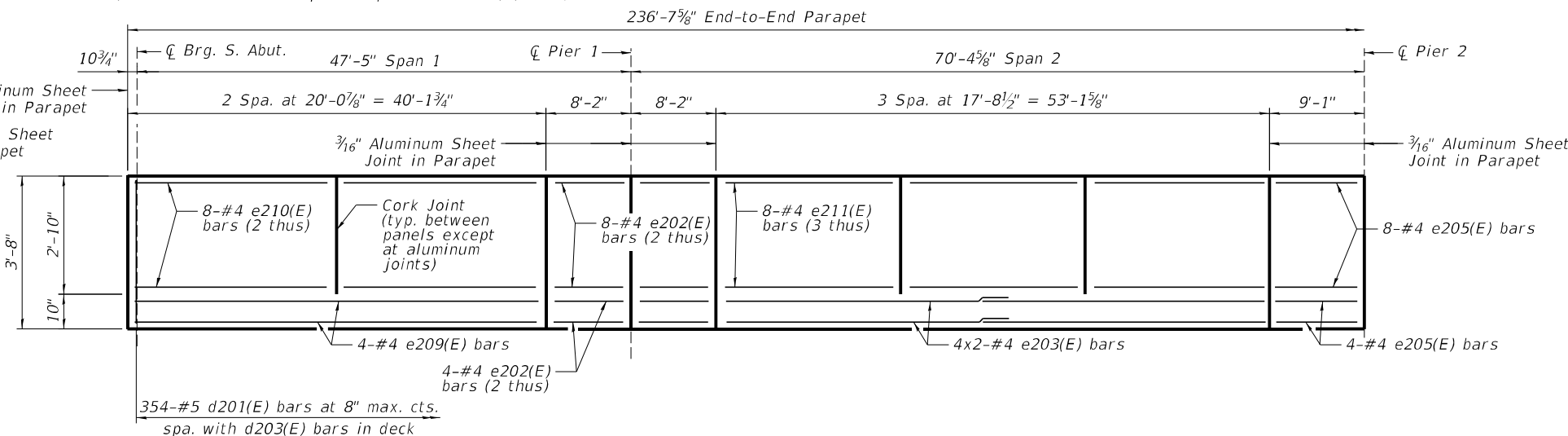
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39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	729
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



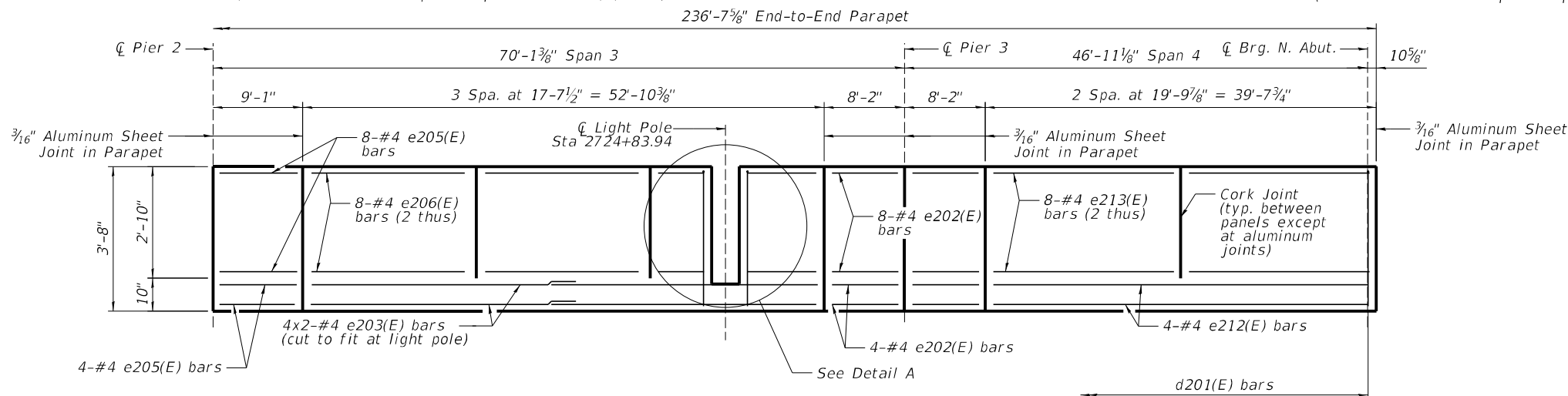
INSIDE ELEVATION OF SB WEST PARAPET
(See Section Thru Parapet for placement of e(E) bars)



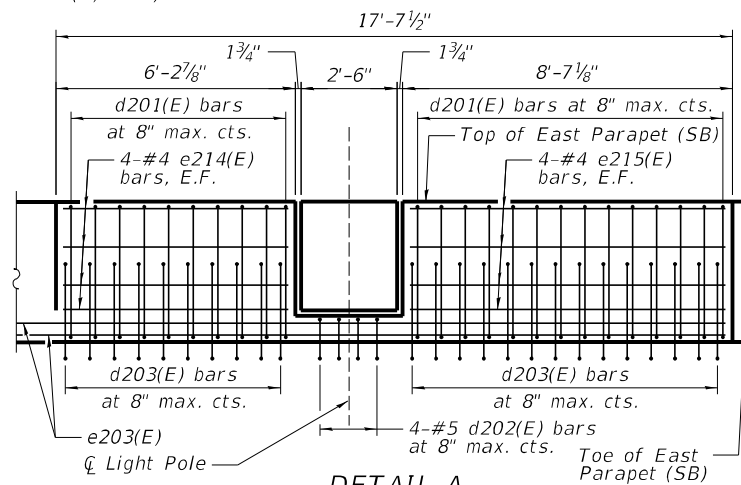
INSIDE ELEVATION OF SB WEST PARAPET
(See Section Thru Parapet for placement of e(E) bars)



REFLECTED INSIDE ELEVATION OF SB EAST PARAPET
(See Section Thru Parapet for placement of e(E) bars)



REFLECTED INSIDE ELEVATION OF SB EAST PARAPET
(See Section Thru Parapet for placement of e(E) bars)

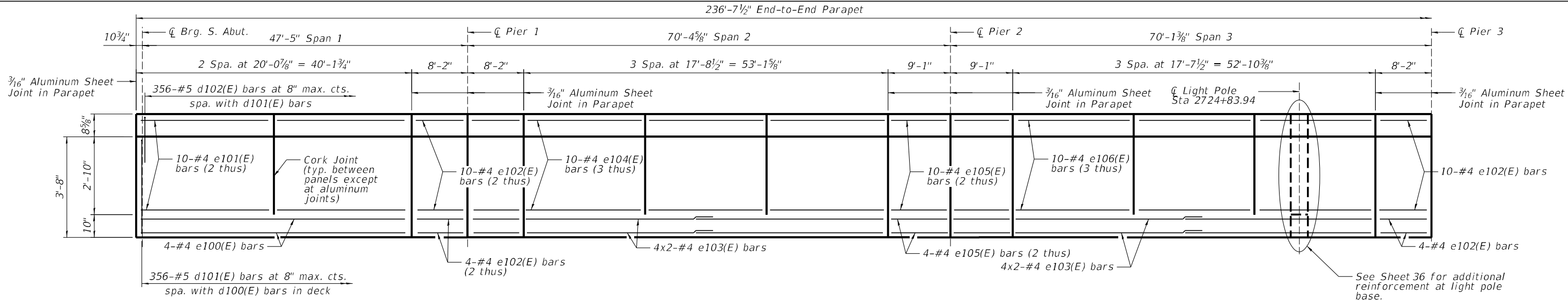


DETAIL A

NOTES:

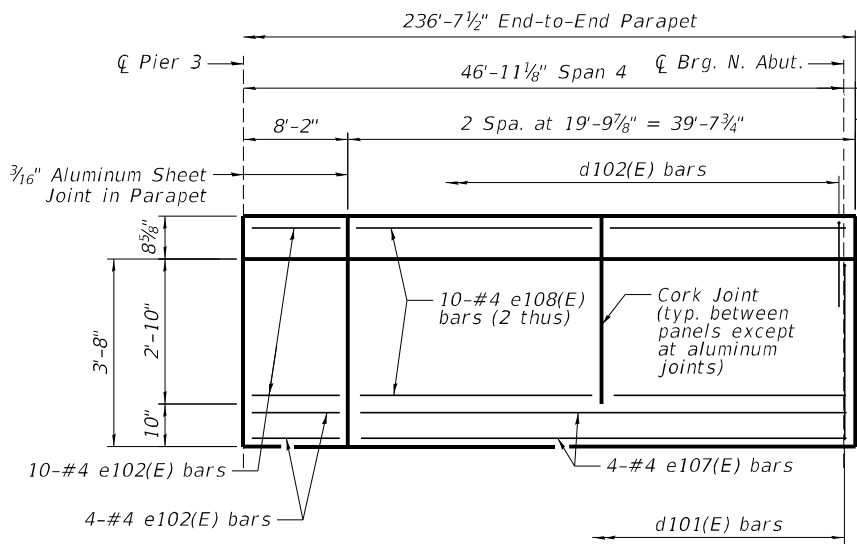
- See Sheets 36 and 37 of 81 for sections thru parapet and additional notes.
- All horizontal dimensions shown are taken at the toe of the parapet.
- All vertical dimensions are taken at the face of the parapet.
- E.F. denotes Each Face.

MINIMUM BAR LAP
#4 bar = 2'-5"



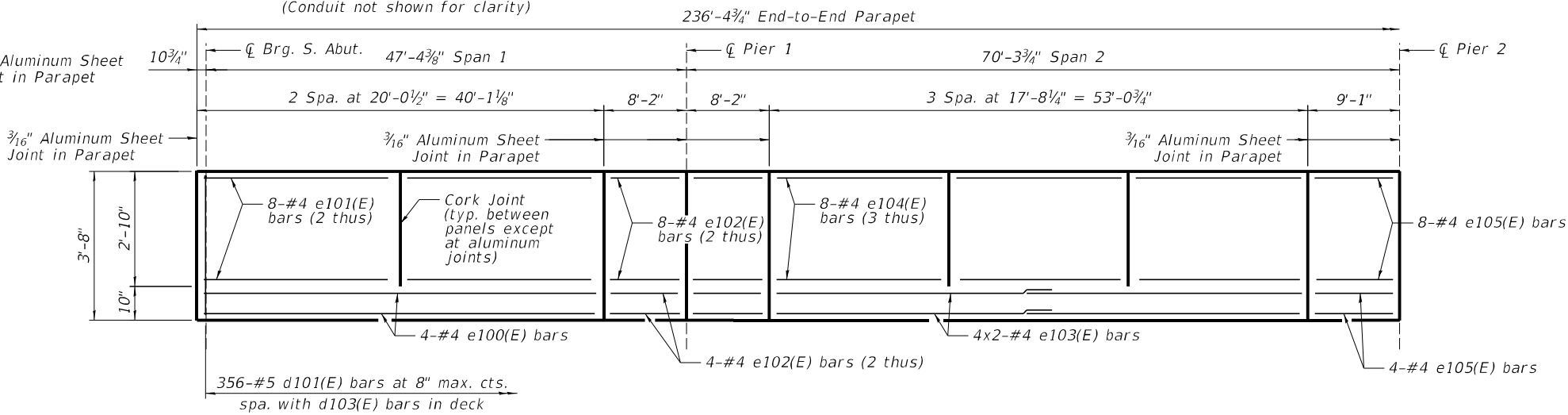
INSIDE ELEVATION OF NB WEST PARAPET

(See Section Thru Parapet for placement of e(E) bars)
(Conduit not shown for clarity)



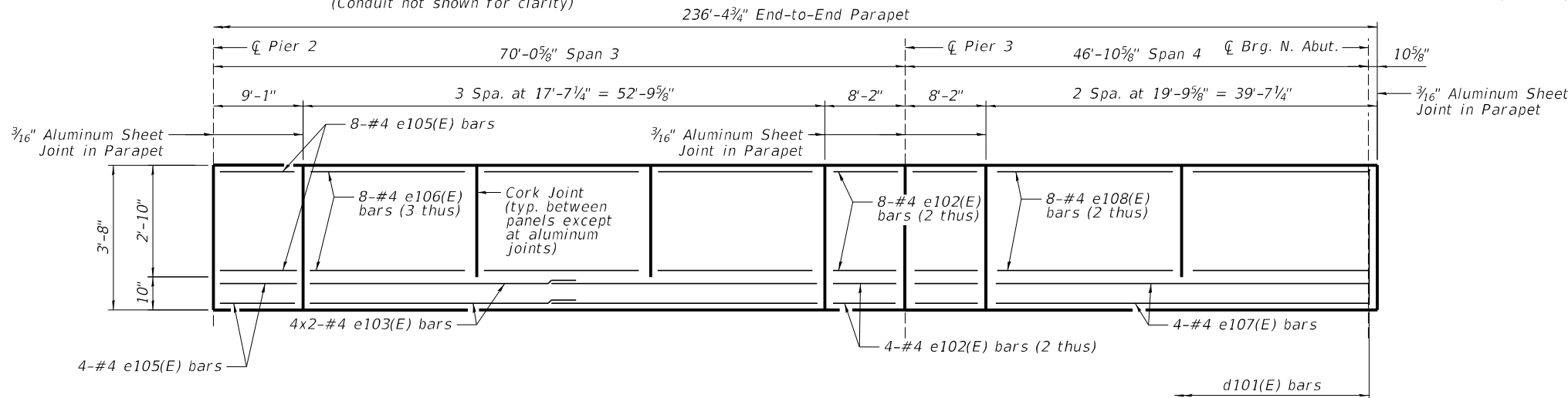
INSIDE ELEVATION OF NB WEST PARAPET

(See Section Thru Parapet for placement of e(E) bars)
(Conduit not shown for clarity)



REFLECTED INSIDE ELEVATION OF NB EAST PARAPET

(See Section Thru Parapet for placement of e(E) bars)



REFLECTED INSIDE ELEVATION OF NB EAST PARAPET

(See Section Thru Parapet for placement of e(E) bars)

MINIMUM BAR LAP
#4 bar = 2'-5"

NOTES:

- See Sheets 36 and 37 of 81 for sections thru parapet and additional notes.
- All horizontal dimensions shown are taken at the toe of the parapet.
- All vertical dimensions are taken at the face of the parapet.
- E.F. denotes Each Face.

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

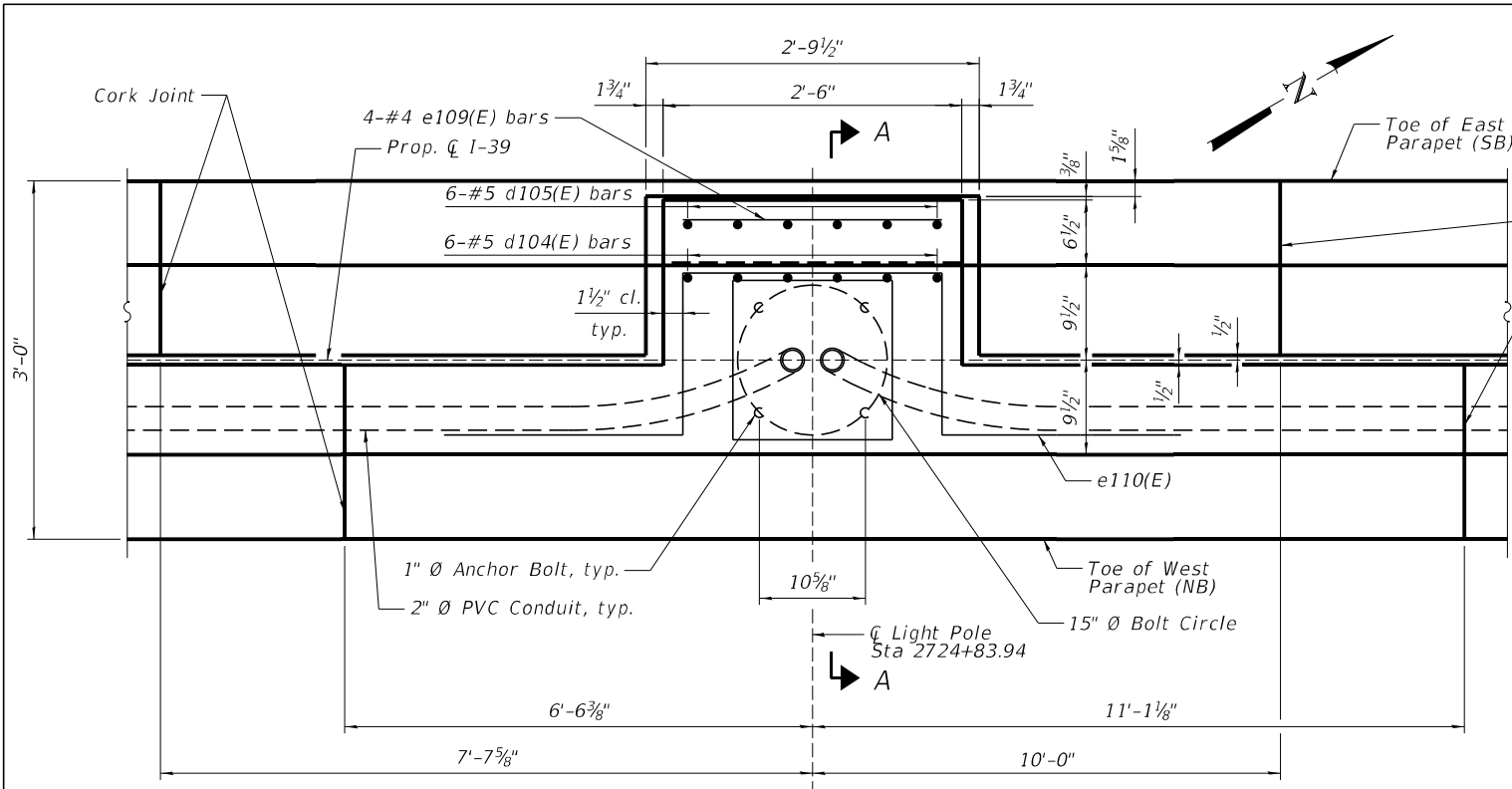
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTHBOUND PARAPET ELEVATIONS
STRUCTURE NO. 101-0213 & 101-0214

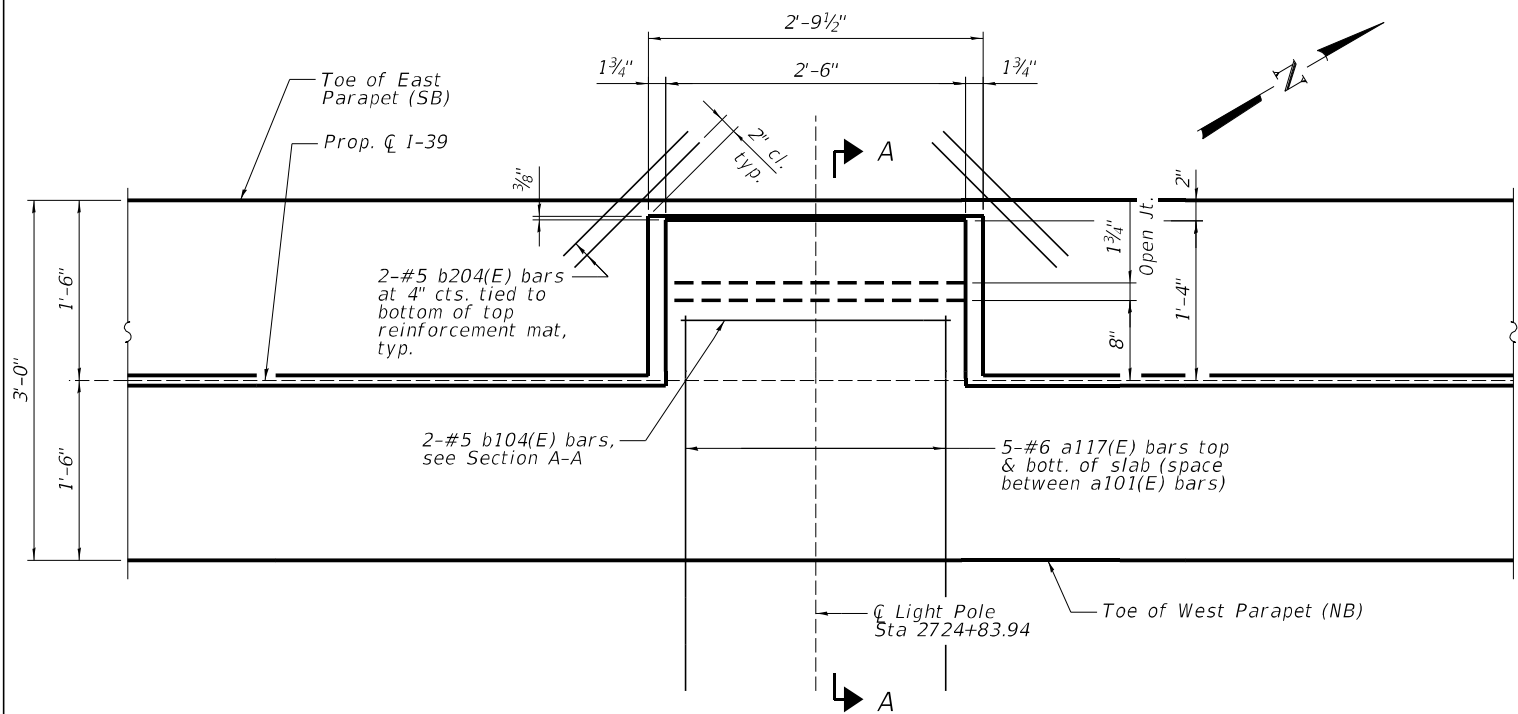
SHEET 35 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	730
CONTRACT NO. 64C24				
ILLINOIS		FED. AID PROJECT		

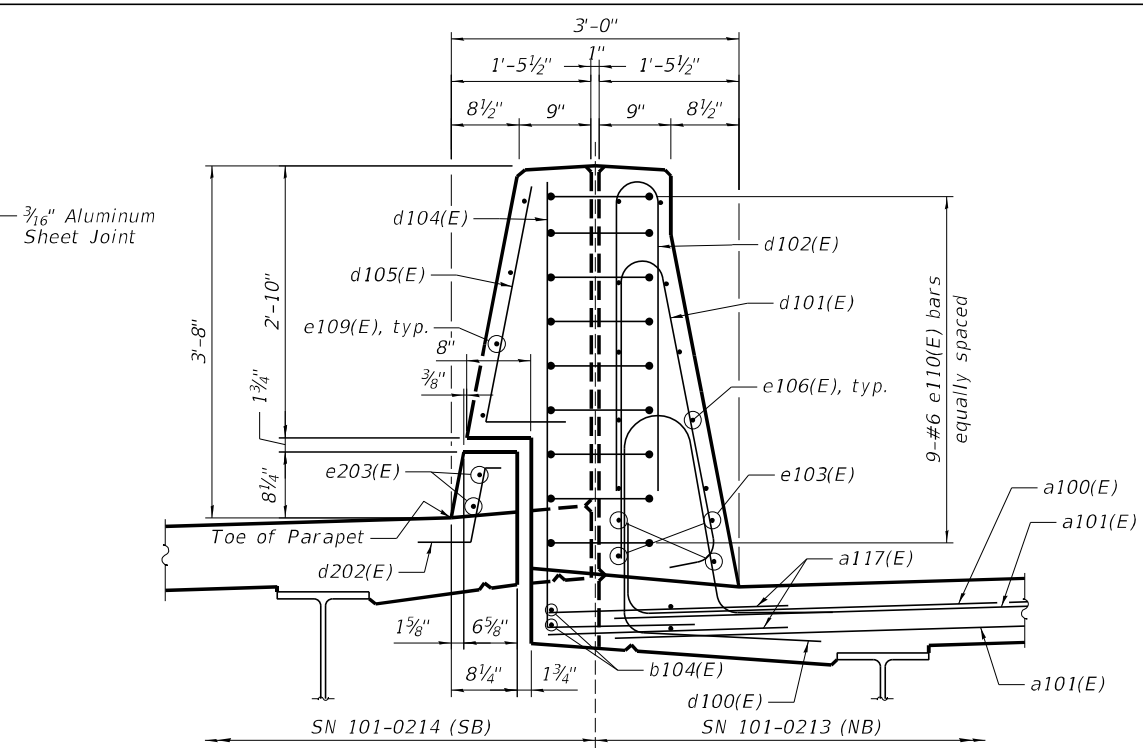
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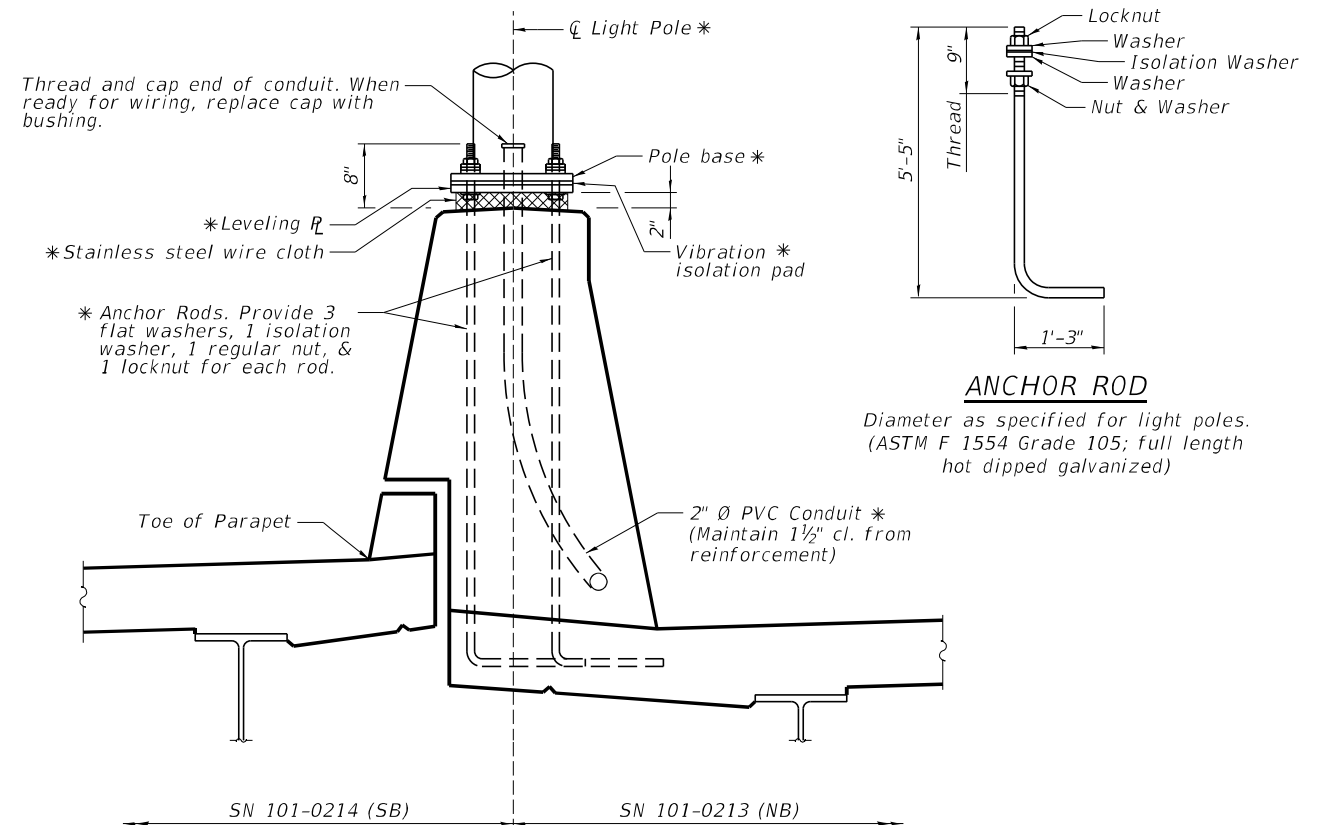
TOP PLAN



BOTTOM PLAN
(Parapet joints not shown for clarity)



SECTION A-A
(Looking upstation)
(Light Pole and Conduit not shown for clarity)



ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105; full length
hot dipped galvanized)

* See Lighting Plans for additional
light pole details and pay items.

SECTION A-A
(Looking upstation)
(Showing Light Pole, Anchor Bolts and Conduit)

NOTES:

1. See Highway Standard 812001.
2. Cost of anchor rods is included with Concrete Superstructure.



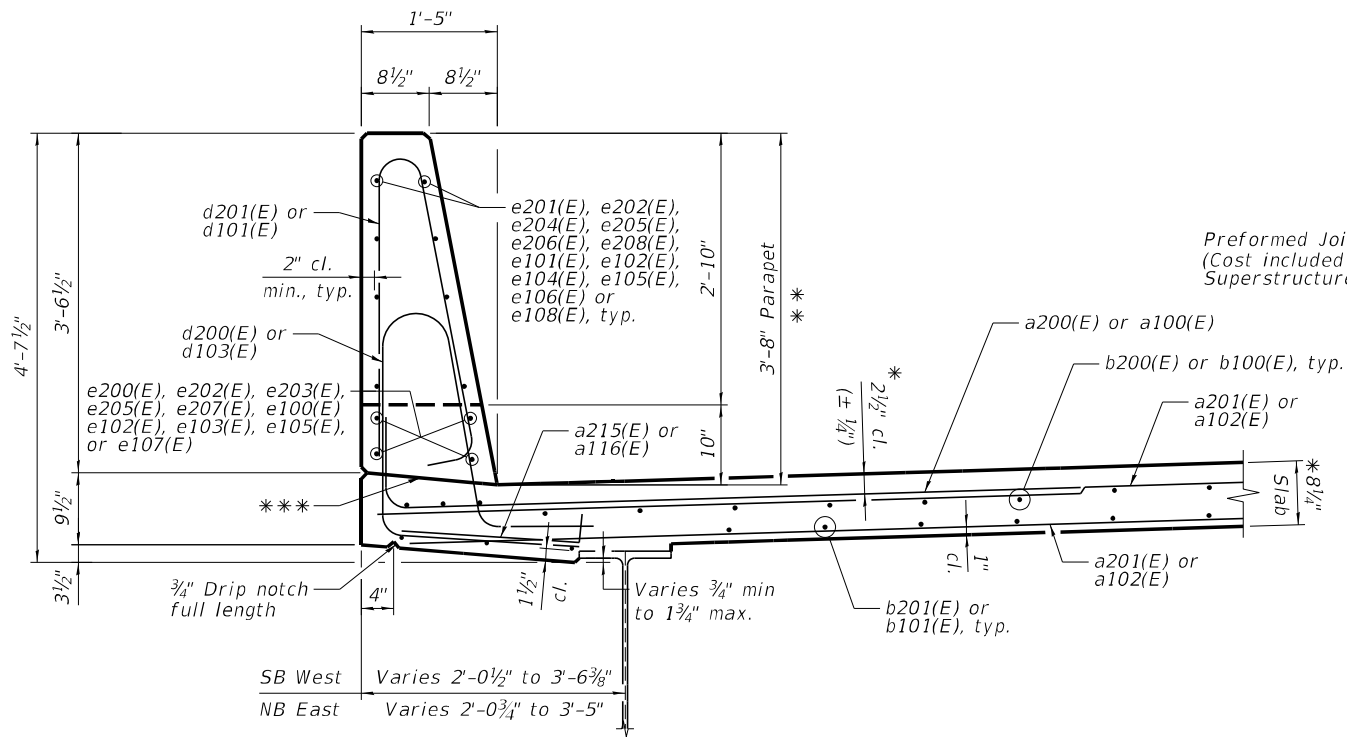
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PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JLS	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

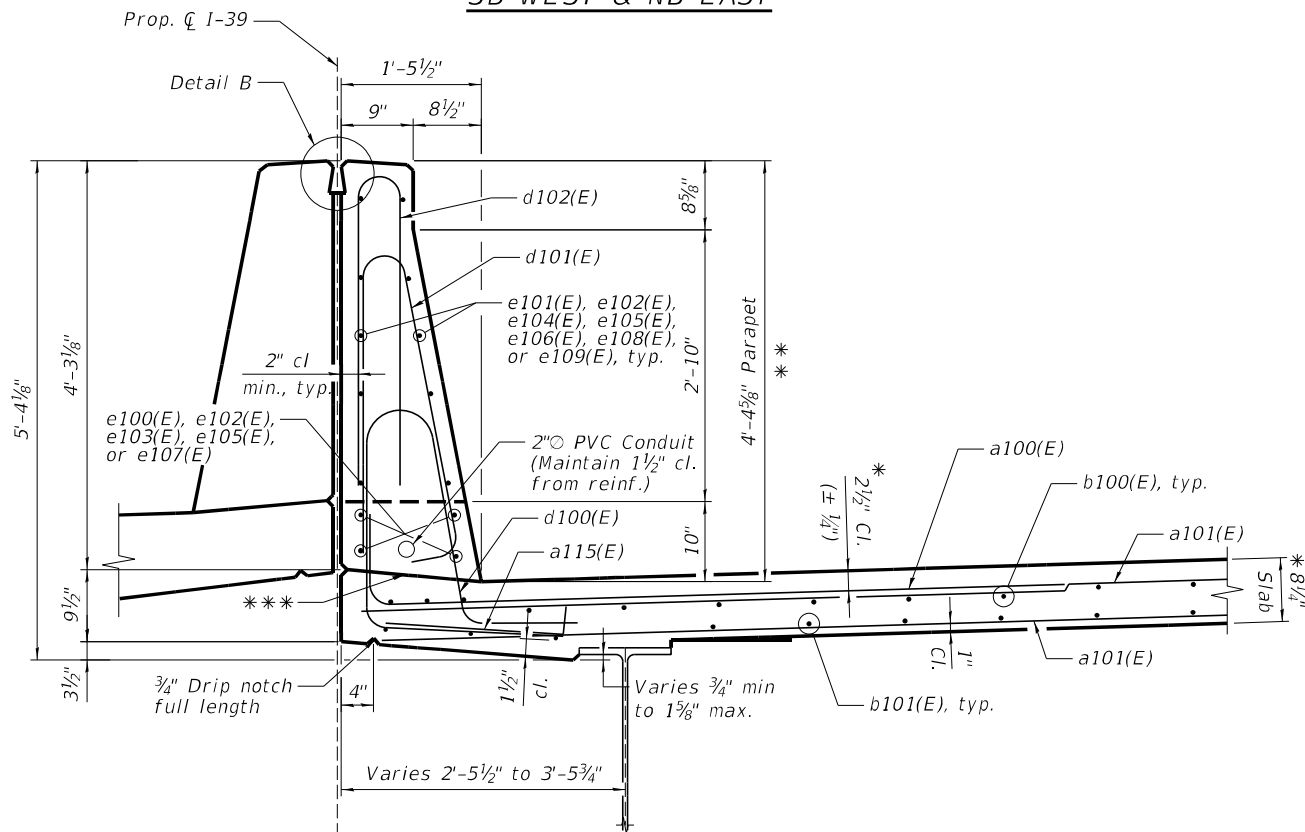
**PARAPET DETAILS (1 OF 2)
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 36 OF 81 SHEETS

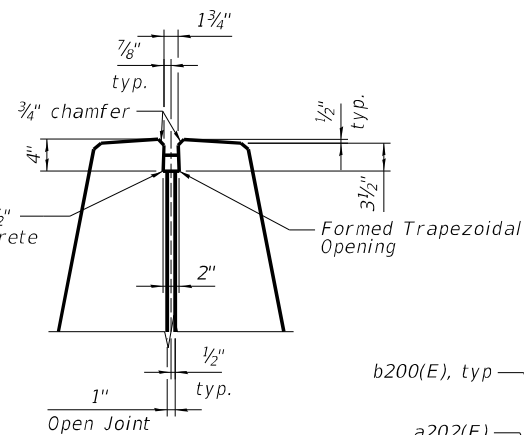
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



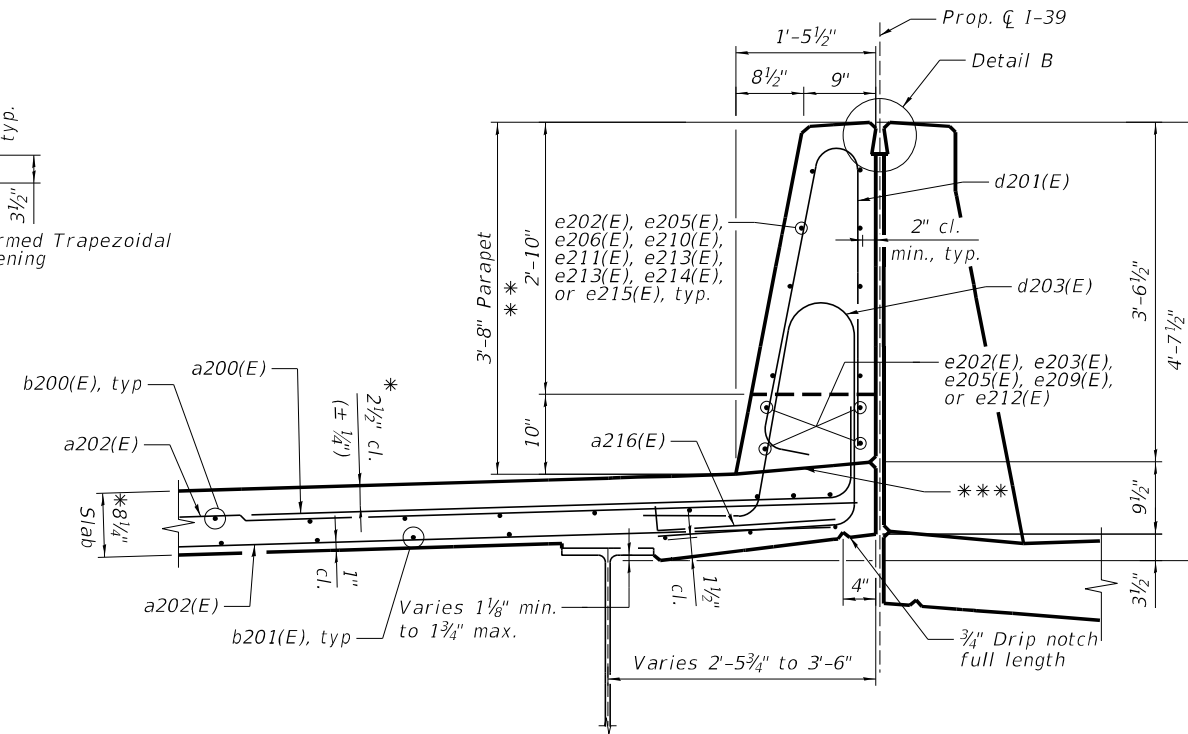
SECTION THRU PARAPET
SB WEST & NB EAST



SECTION THRU PARAPET
NB WEST

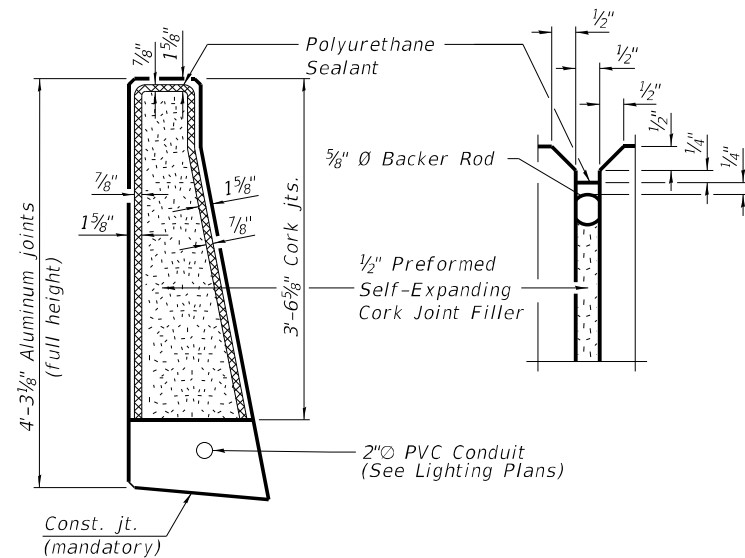


DETAIL B

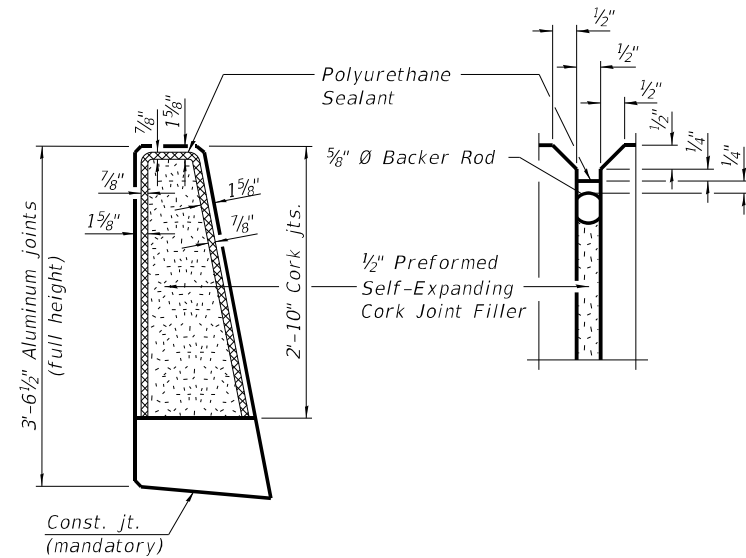


SECTION THRU PARAPET
SB EAST

- * Prior to grinding
** After grinding
*** Construction joint (mandatory)



NB WEST PARAPET



SB WEST, SB EAST, AND NB EAST PARAPET

PARAPET JOINT DETAILS

NOTES:

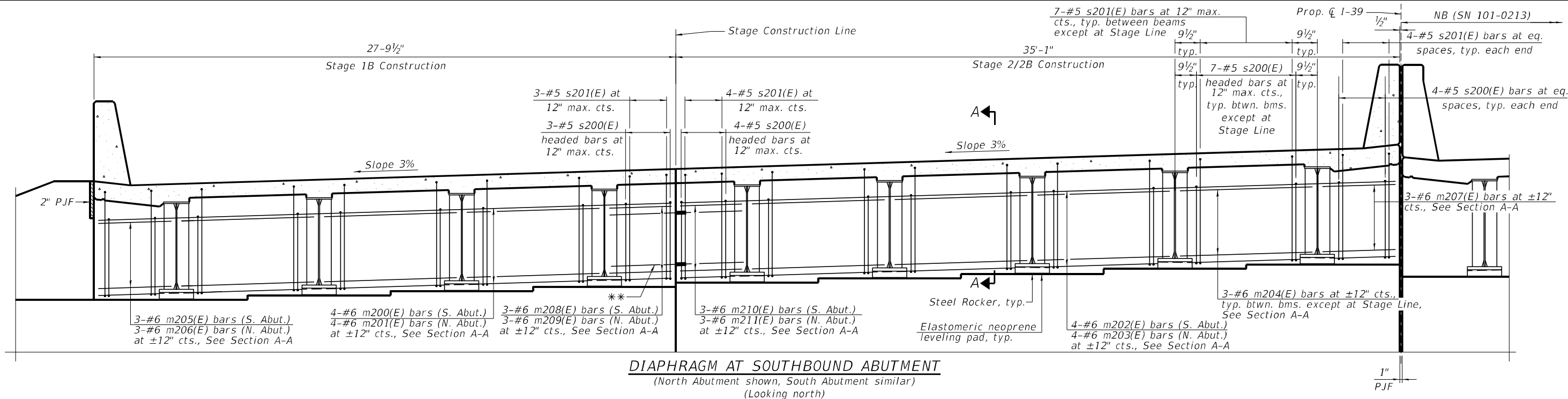
- The 3/16" aluminum sheet shall be ASTM B209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
- The polyurethane sealant shall be according to Article 1050.04 of the Std. Specs. and the color shall be gray.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

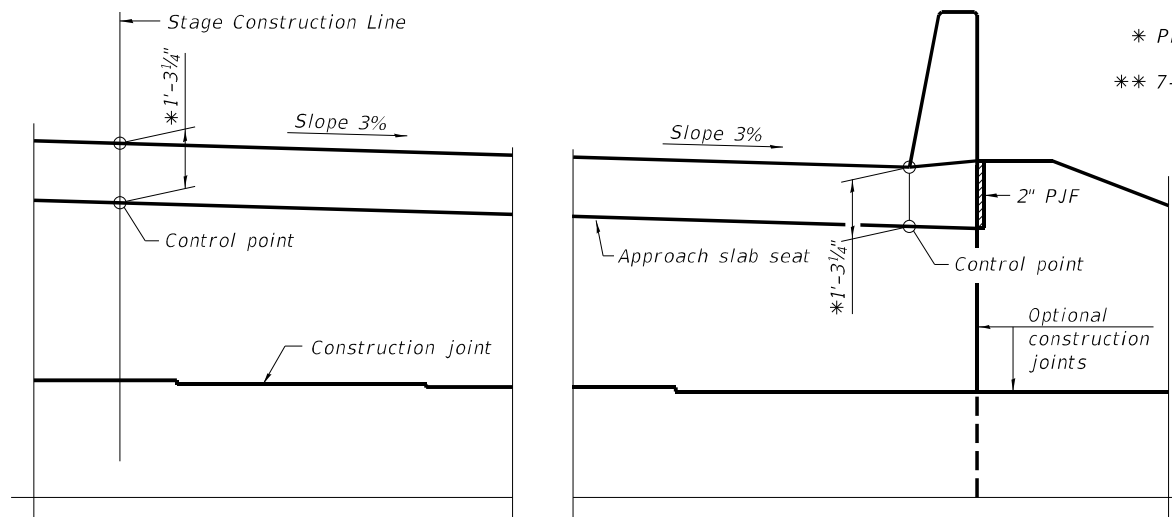
PARAPET DETAILS (2 OF 2)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 37 OF 81 SHEETS

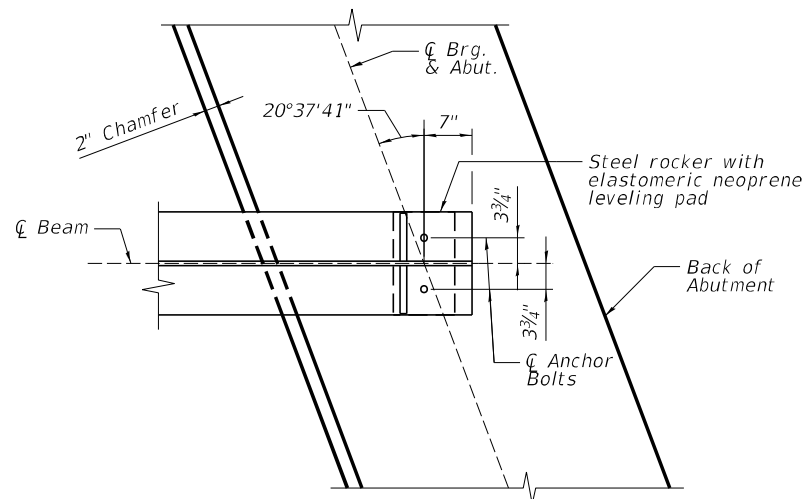
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	732
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



DIAPHRAGM AT SOUTHBOUND ABUTMENT
(North Abutment shown, South Abutment similar)
(Looking north)

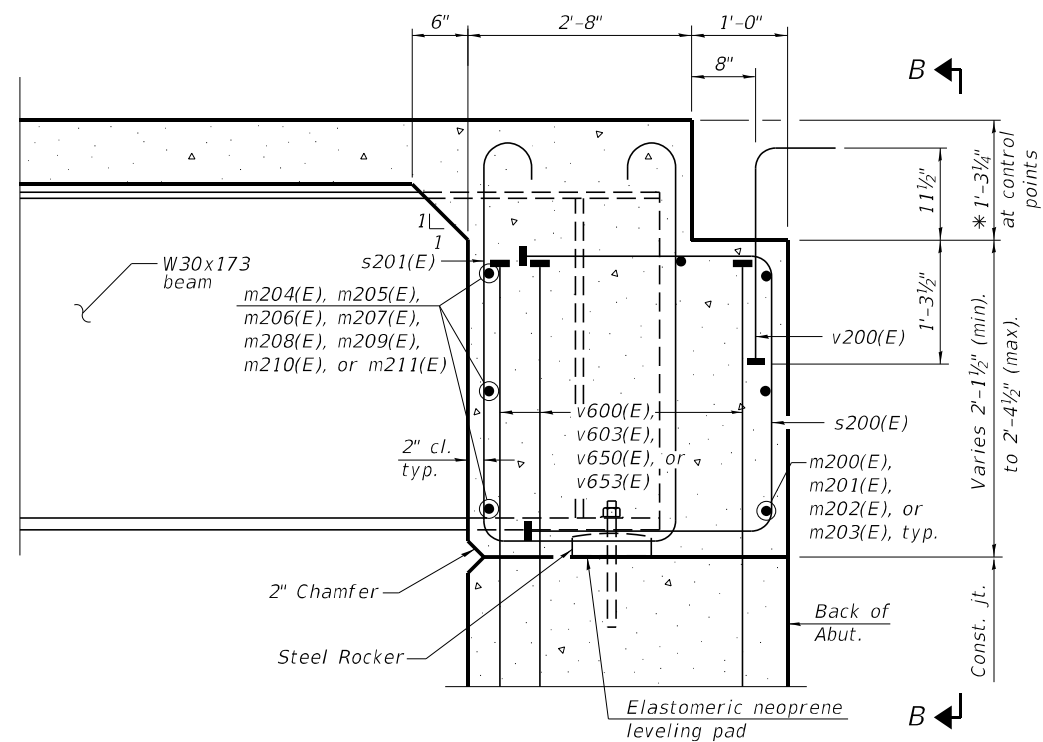


VIEW B-B



PLAN AT ABUTMENT

(Showing bottom flange of beam)



SECTION A-A
(at Rt. E's)

NOTES:

- See Sheet 40 of 81 for superstructure details and Bill of Material.
- See Sheet 45 of 81 for P.J.F. details.
- The s200(E) and s201(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
- The approach slab seat shall have a constant slope determined from the control points shown.

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USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - JLS	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JLS	REVISED -

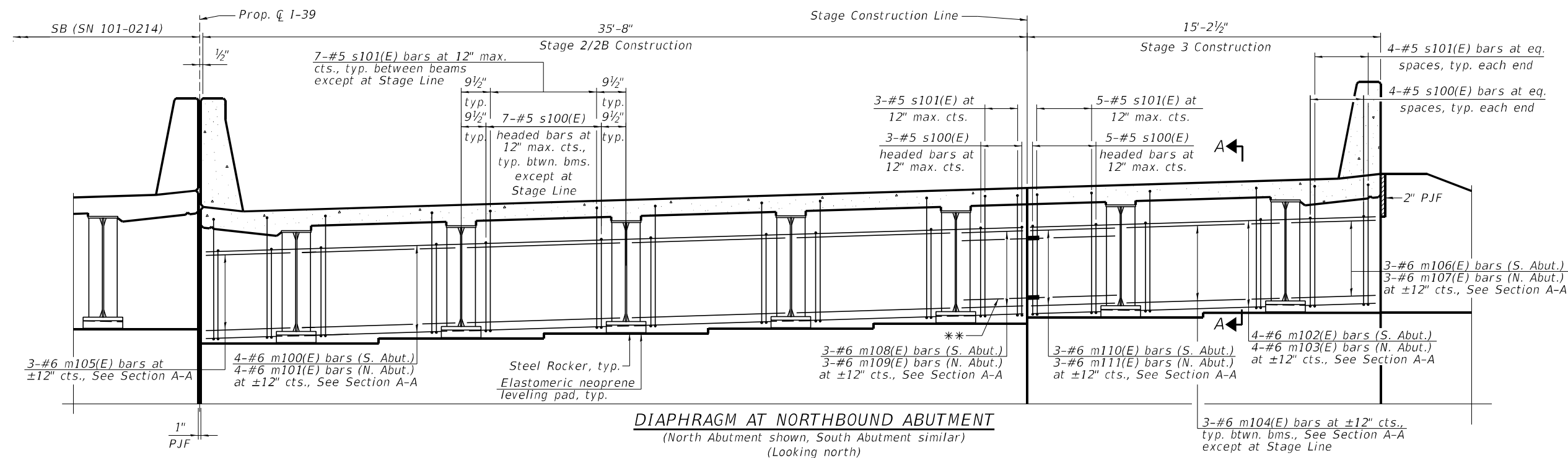
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOUTHBOUND ABUTMENT DIAPHRAGM
STRUCTURE NO. 101-0213 & 101-0214**

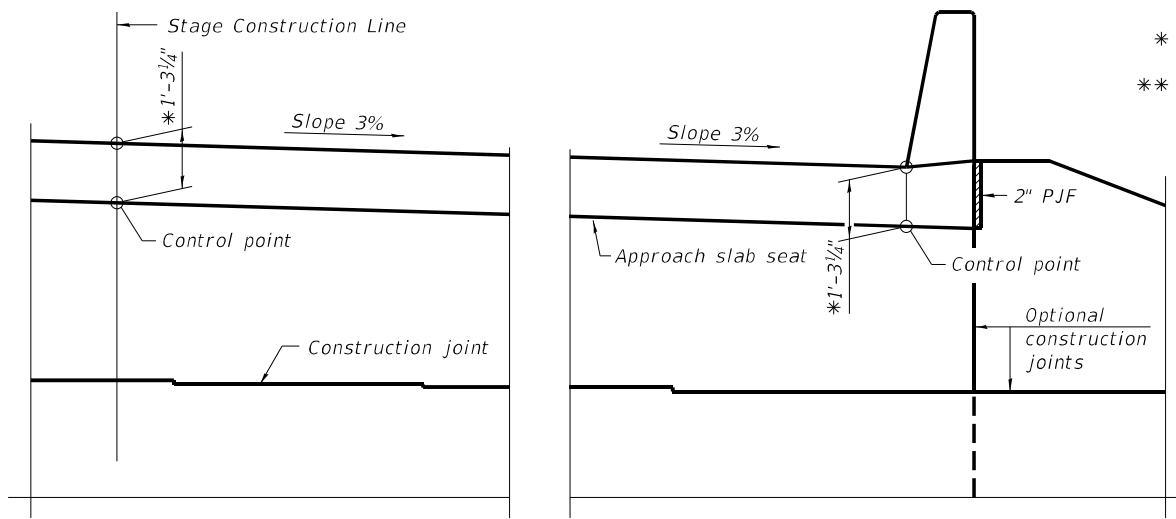
SHEET 38 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	733
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

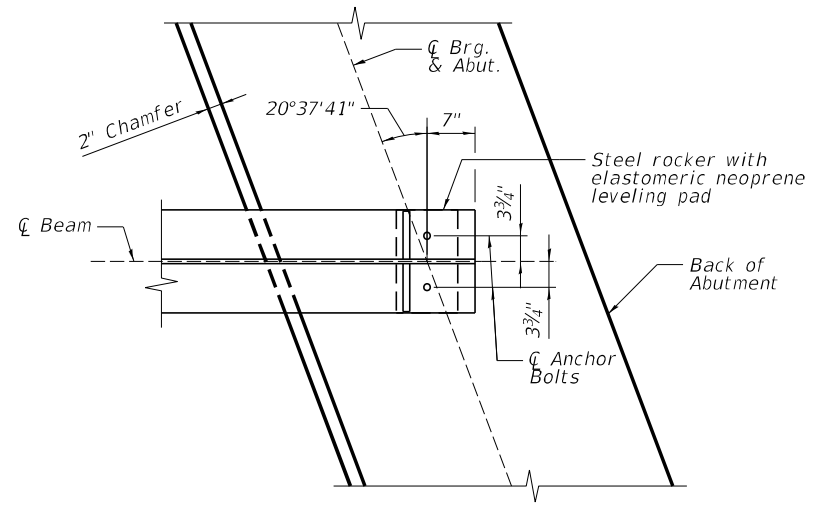
4/22/2025 12:41:15 PM



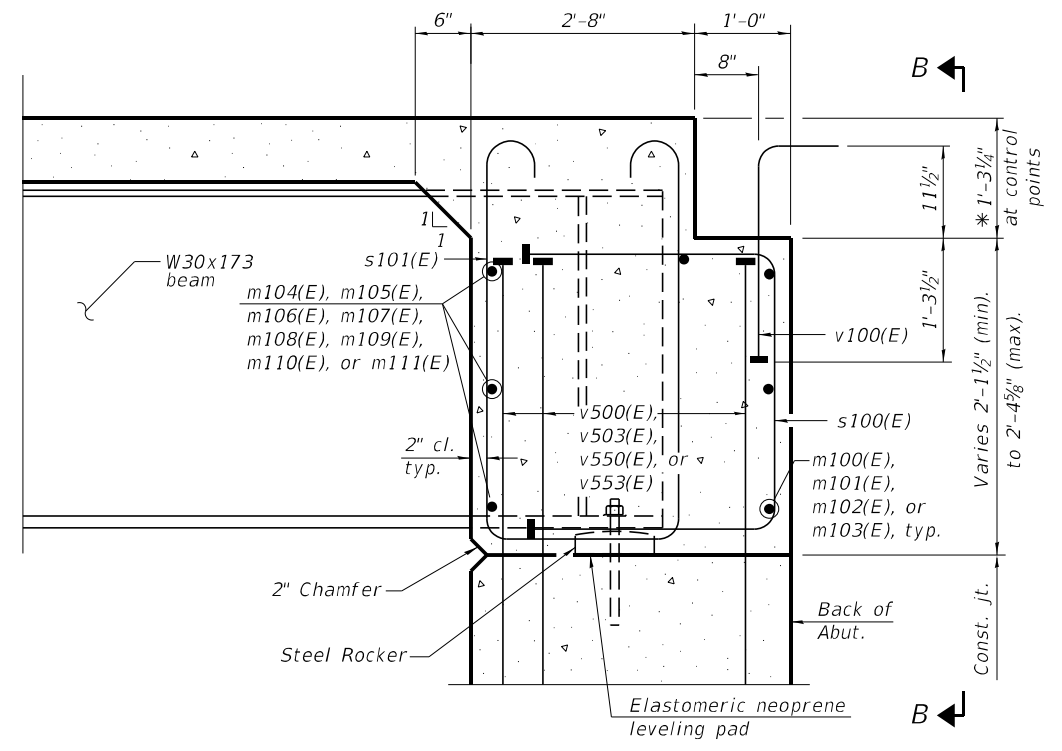
DIAPHRAGM AT NORTHBOUND ABUTMENT
(North Abutment shown, South Abutment similar)
(Looking north)



VIEW B-B



PLAN AT ABUTMENT
(Showing bottom flange of beam)



SECTION A-A
(at Rt. L's)

NOTES:

1. See Sheet 40 of 81 for superstructure details and Bill of Material.
2. See Sheet 45 of 81 for PJP details.
3. The s200(E) and s201(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
4. The approach slab seat shall have a constant slope determined from the control points shown.

MODEL: sMODELNAME5
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USER NAME	=	DESIGNED	-	JPM	REVISED	-
		CHECKED	-	JLS	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JLS	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**NORTHBOUND ABUTMENT DIAPHRAGM
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 39 OF 81 SHEETS

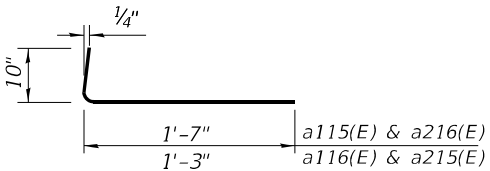
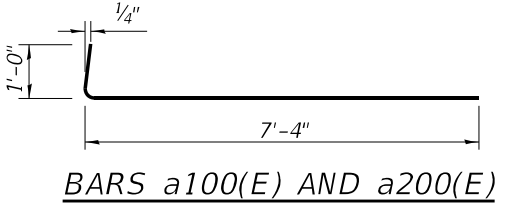
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	734
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

SUPERSTRUCTURE BILL OF MATERIAL
SB (SN 101-0214)

Bar	No.	Size	Length	Shape
a200(E)	1020	#6	8'-4"	
a201(E)	796	#5	27'-6"	
a202(E)	786	#5	34'-9"	
a203(E)	10	#5	29'-7"	
a204(E)	6	#5	29'-3"	
a205(E)	13	#5	36'-11"	
a206(E)	8	#5	37'-0"	
a207(E)	2	#5	29'-7"	
a208(E)	2	#5	37'-5"	
a209(E)	10	#5	30'-3"	
a210(E)	6	#5	31'-0"	
a211(E)	13	#5	36'-8"	
a212(E)	8	#5	36'-11"	
a213(E)	2	#5	29'-2"	
a214(E)	2	#5	36'-11"	
a215(E)	356	#5	2'-1"	
a216(E)	357	#5	2'-5"	
b200(E)	603	#5	30'-0"	
b201(E)	441	#5	37'-6"	
b202(E)	118	#6	39'-6"	
b203(E)	59	#6	43'-10"	
b204(E)	4	#5	2'-0"	
d200(E)	356	#5	7'-5"	
d201(E)	710	#5	7'-0"	
d202(E)	4	#5	1'-10"	
d203(E)	354	#5	7'-9"	
e200(E)	4	#4	39'-11"	
e201(E)	16	#4	19'-9"	
e202(E)	96	#4	7'-10"	
e203(E)	32	#4	27'-9"	
e204(E)	24	#4	17'-5"	
e205(E)	48	#4	8'-9"	
e206(E)	40	#4	17'-4"	
e207(E)	4	#4	39'-5"	
e208(E)	16	#4	19'-6"	
e209(E)	4	#4	39'-10"	
e210(E)	16	#4	19'-9"	
e211(E)	24	#4	17'-5"	
e212(E)	4	#4	39'-4"	
e213(E)	16	#4	19'-6"	
e214(E)	8	#4	5'-11"	
e215(E)	8	#4	8'-3"	

SUPERSTRUCTURE BILL OF MATERIAL
SB (SN 101-0214) (CONT.)

Bar	No.	Size	Length	Shape
m200(E)	4	#6	30'-0"	
m201(E)	4	#6	29'-7"	
m202(E)	4	#6	37'-4"	
m203(E)	4	#6	36'-10"	
m204(E)	42	#6	7'-2"	
m205(E)	3	#6	3'-3"	
m206(E)	3	#6	2'-5"	
m207(E)	6	#6	2'-3"	
m208(E)	3	#6	3'-3"	
m209(E)	3	#6	3'-9"	
m210(E)	3	#6	3'-11"	
m211(E)	3	#6	3'-5"	
s200(E)	128	#5	6'-10"	
s201(E)	128	#5	9'-4"	
v200(E)	128	#5	3'-1"	
Concrete Superstructure			Cu. Yd.	497.6
Protective Coat			Sq. Yd.	1,810
Reinforcement Bars, Epoxy Coated			Pound	134,150
Bridge Deck Grooving (Longitudinal)			Sq. Yd.	948
Diamond Grinding (Bridge Section)			Sq. Yd.	1,474



BARS a115(E), a116(E),
a215(E), AND a216(E)

FIELD CUTTING DIAGRAM TABLE

Bar	No.	Size	A	B	C	D
a103(E)	13	#5	3'-11"	34'-2"	18'-5"	19'-8"
a104(E)	8	#5	3'-8"	33'-4"	17'-6"	19'-6"
a105(E)	5	#5	3'-4"	14'-3"	8'-2"	9'-5"
a106(E)	3	#5	3'-8"	13'-7"	7'-8"	9'-7"
a109(E)	13	#5	3'-9"	34'-5"	18'-6"	19'-8"
a110(E)	8	#5	3'-7"	33'-8"	17'-7"	19'-8"
a111(E)	5	#5	3'-0"	14'-0"	7'-11"	9'-1"
a112(E)	3	#5	4'-8"	14'-9"	8'-8"	10'-9"

Bar	No.	Size	A	B	C	D
a203(E)	10	#5	3'-4"	26'-3"	14'-2"	15'-5"
a204(E)	6	#5	3'-9"	25'-6"	13'-8"	15'-7"
a205(E)	13	#5	3'-4"	33'-7"	17'-10"	19'-1"
a206(E)	8	#5	3'-8"	33'-4"	17'-6"	19'-6"
a209(E)	10	#5	3'-6"	26'-9"	14'-6"	15'-9"
a210(E)	6	#5	4'-6"	26'-6"	14'-6"	16'-6"
a211(E)	13	#5	3'-0"	33'-8"	17'-9"	18'-11"
a212(E)	8	#5	3'-5"	33'-6"	17'-5"	19'-6"

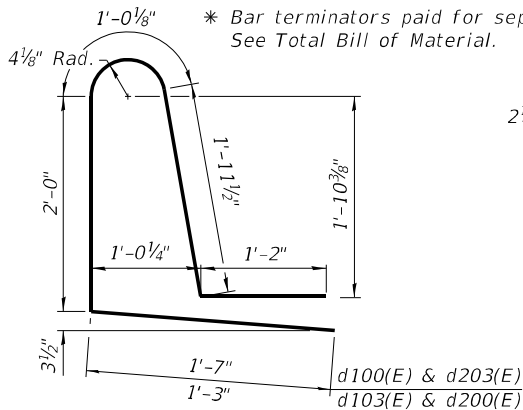
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE BILL OF MATERIAL
NB (SN 101-0213)

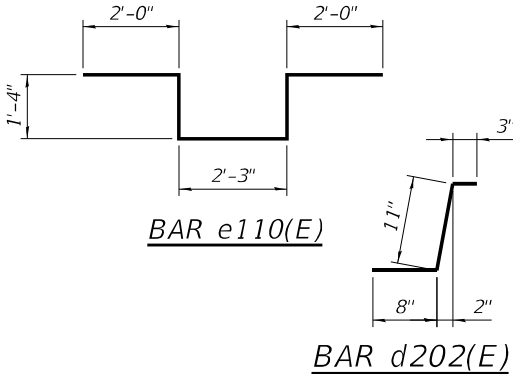
Bar	No.	Size	Length	Shape
a100(E)	1020	#6	8'-4"	
a101(E)	785	#5	35'-4"	
a102(E)	810	#5	14'-11"	
a103(E)	13	#5	38'-1"	
a104(E)	8	#5	37'-0"	
a105(E)	5	#5	17'-7"	
a106(E)	3	#5	17'-3"	
a107(E)	2	#5	38'-0"	
a108(E)	2	#5	16'-0"	
a109(E)	13	#5	38'-2"	
a110(E)	8	#5	37'-3"	
a111(E)	5	#5	17'-0"	
a112(E)	3	#5	19'-5"	
a113(E)	2	#5	37'-6"	
a114(E)	2	#5	15'-10"	
a115(E)	356	#5	2'-5"	
a116(E)	356	#5	2'-1"	
a117(E)	10	#6	5'-6"	
b100(E)	495	#5	30'-0"	
b101(E)	343	#5	37'-6"	
b102(E)	94	#6	39'-6"	
b103(E)	47	#6	43'-10"	
b104(E)	2	#5	2'-2"	
d100(E)	356	#5	7'-9"	
d101(E)	712	#5	7'-0"	
d102(E)	356	#5	6'-8"	
d103(E)	356	#5	7'-5"	
d104(E)	6	#5	6'-7"	
d105(E)	6	#5	3'-4"	
e100(E)	8	#4	39'-10"	
e101(E)	36	#4	19'-9"	
e102(E)	104	#4	7'-10"	
e103(E)	32	#4	27'-9"	
e104(E)	54	#4	17'-5"	
e105(E)	52	#4	8'-9"	
e106(E)	54	#4	17'-4"	
e107(E)	8	#4	39'-4"	
e108(E)	36	#4	19'-6"	
e109(E)	4	#4	2'-2"	
e110(E)	9	#6	8'-11"	

SUPERSTRUCTURE BILL OF MATERIAL
NB (SN 101-0213) (CONT.)

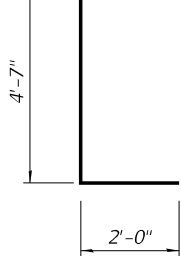
Bar	No.	Size	Length	Shape
m100(E)	4	#6	38'-5"	
m101(E)	4	#6	37'-11"	
m102(E)	4	#6	15'-11"	
m103(E)	4	#6	15'-9"	
m104(E)	30	#6	7'-6"	
m105(E)	6	#6	3'-3"	
m106(E)	3	#6	2'-6"	
m107(E)	3	#6	1'-10"	
m108(E)	3	#6	2'-8"	
m109(E)	3	#6	2'-2"	
m110(E)	3	#6	4'-11"	
m111(E)	3	#6	5'-5"	
s100(E)	102	#5	6'-10"	
s101(E)	102	#5	9'-4"	
v100(E)	102	#5	3'-1"	
Concrete Superstructure			Cu. Yd.	430.6
Protective Coat			Sq. Yd.	1,511
Reinforcement Bars, Epoxy Coated			Pound	116,520
Bridge Deck Grooving (Longitudinal)			Sq. Yd.	631
Diamond Grinding (Bridge Section)			Sq. Yd.	1,157



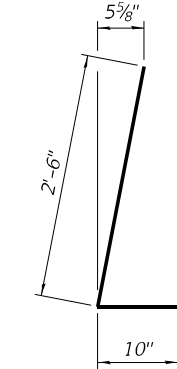
BARS d100(E), d103(E)
d200(E), AND d203(E)



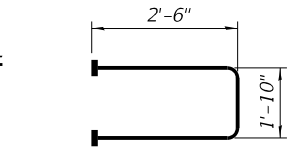
BARS d101(E)
AND d201(E)



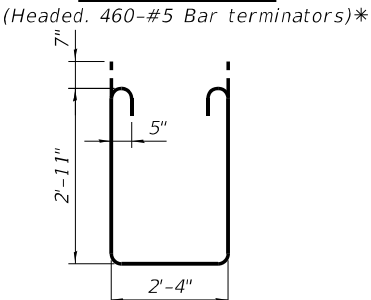
BAR d104(E)



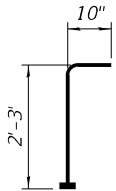
BAR d105(E)



BARS s100(E)
AND s200(E)

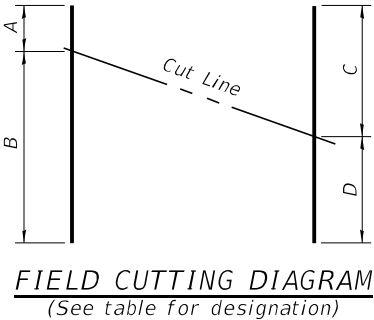


BARS s101(E)
AND s201(E)



BARS v100(E)
AND v200(E)

(Headed. 230-#5 Bar terminators)*



FIELD CUTTING DIAGRAM
(See table for designation)



USER NAME	=	DESIGNED	-	JPM	REVISED	-
		CHECKED	-	JLS	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JLS	REVISED	-

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 101-0213 & 101-0214

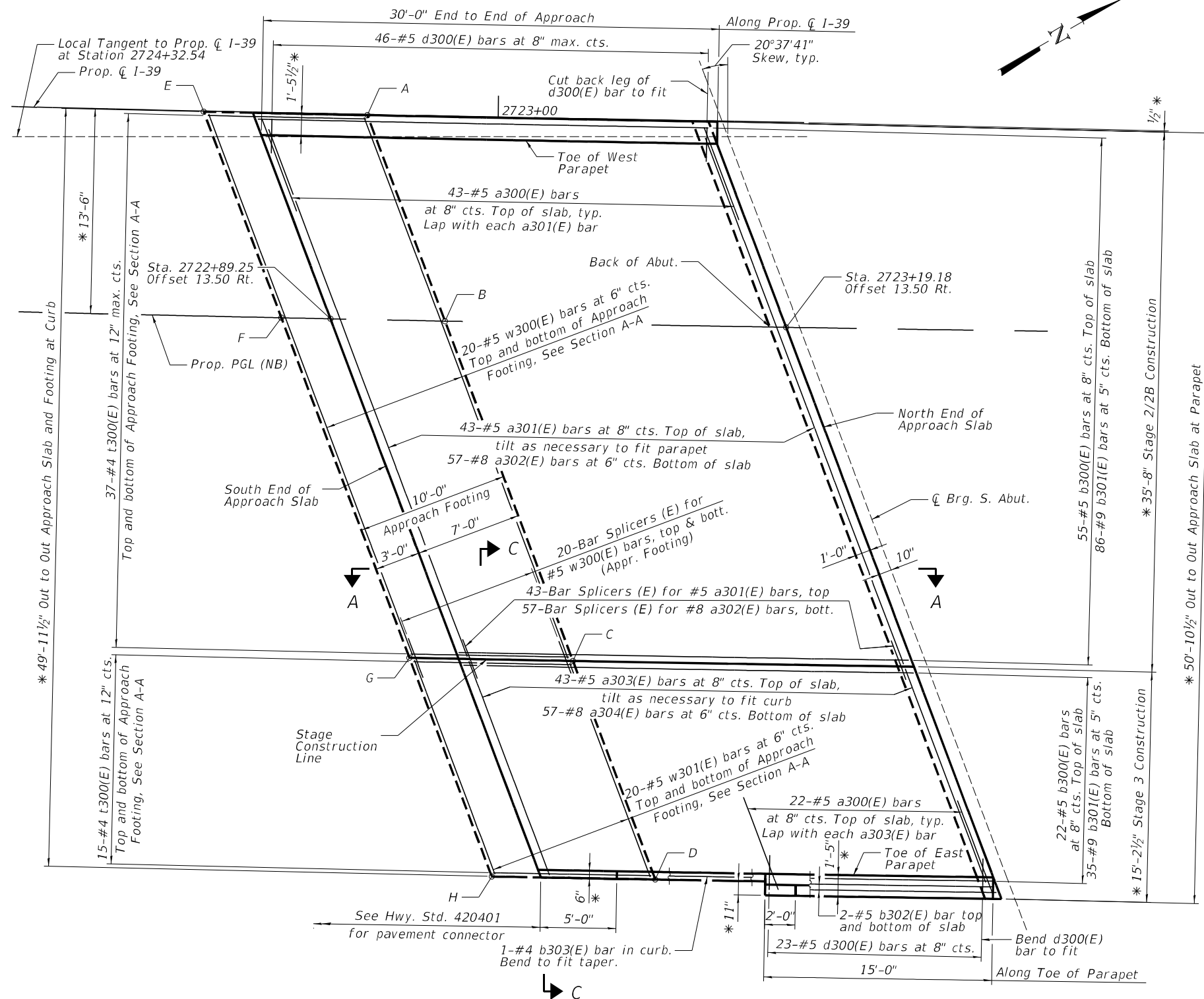
SHEET 40 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	735
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

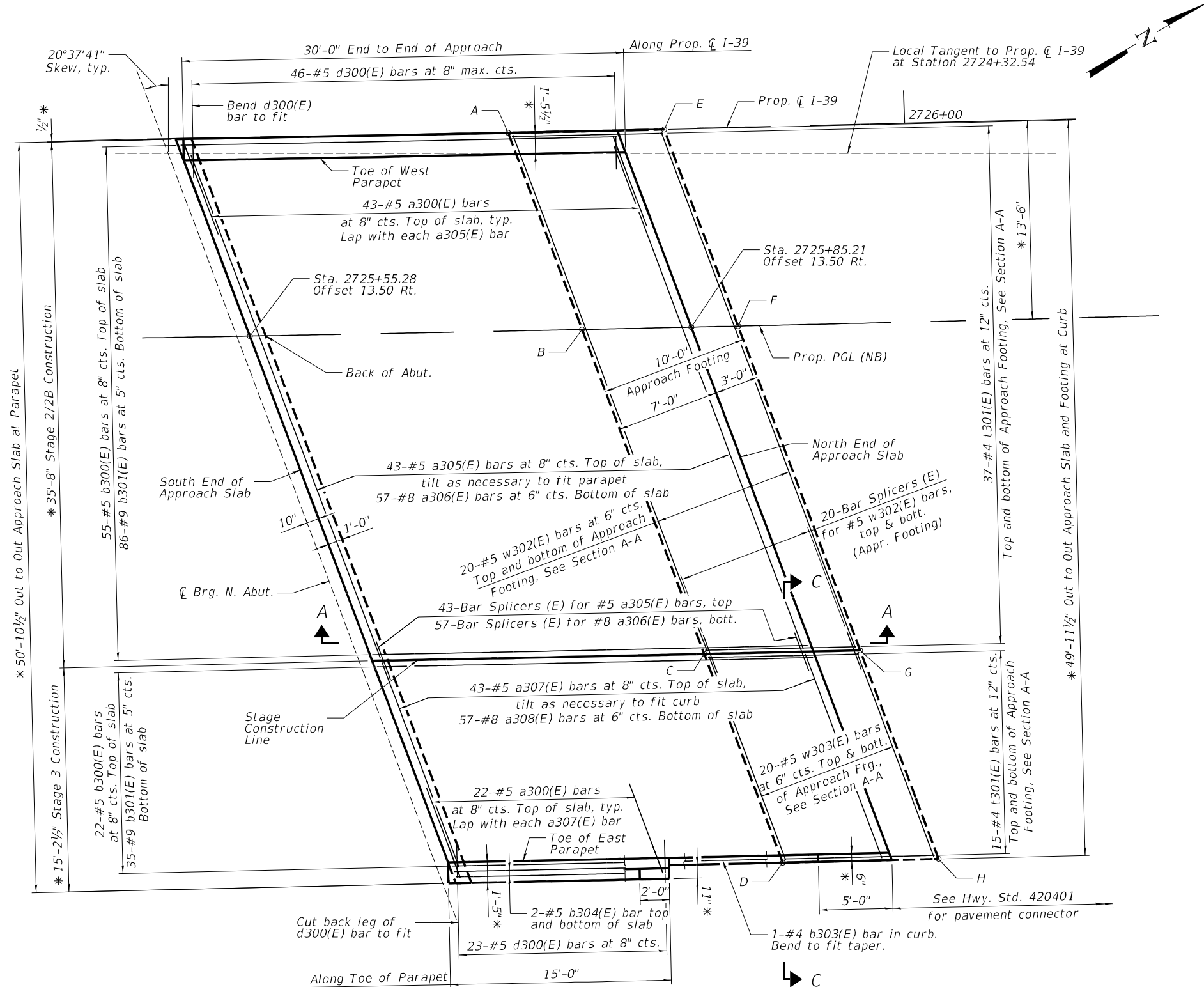


S. Approach (SB)				
Point/ Location	Station	Offset	Top	Bottom
A	2722+66.30	-62.08	796.12	795.28
B	2722+77.25	-35.13	797.08	796.25
C	2722+85.97	-13.50	797.85	797.02
D	2722+91.36	-0.04	798.33	797.49
E	2722+55.41	-62.08	795.96	795.12
F	2722+66.41	-35.13	796.93	796.09
G	2722+75.17	-13.50	797.70	796.87
H	2722+80.59	-0.04	798.18	797.35

NOTE:
See Sheet 76 of 81 for bar splicer details.



MODEL: smodelnames
FILE NAME: c:\pwworking\benesch\projects\101-0213_0214-sht-appro-004.dgn



PLAN - NORTH BRIDGE APPROACH SLAB (NORTHBOUND)

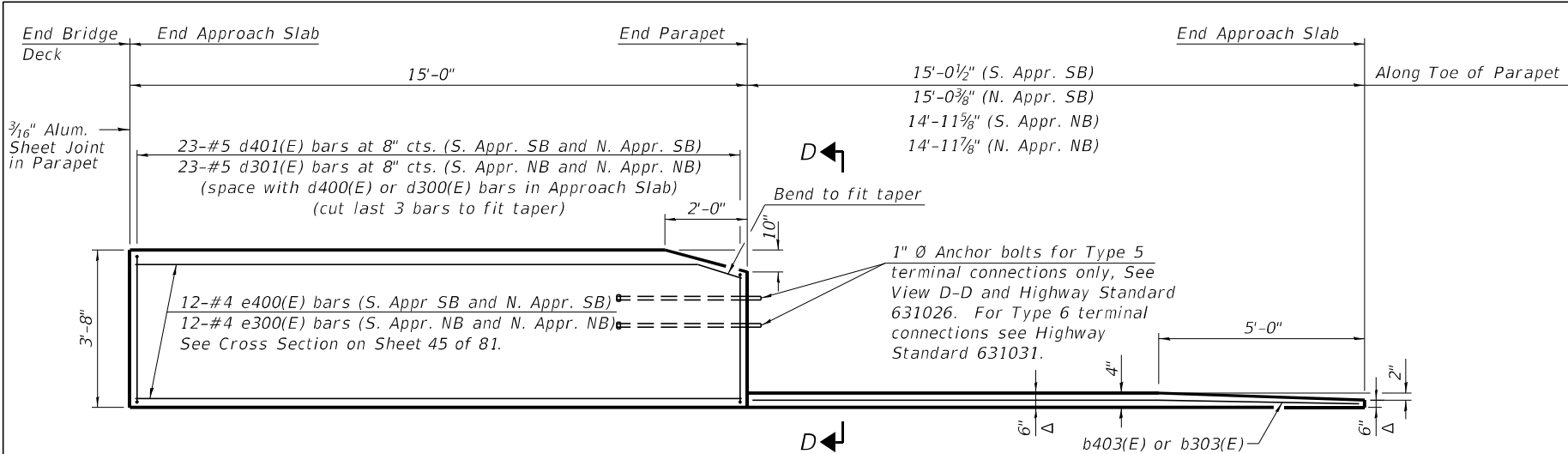
TOP AND BOTTOM ELEVATIONS
FOR APPROACH FOOTING

N. Approach (NB)				
Point/ Location	Station	Offset	Top	Bottom
A	2725+73.06	0.04	799.90	799.07
B	2725+77.81	13.50	800.32	799.49
C	2725+85.59	35.71	801.01	800.18
D	2725+90.58	50.00	801.45	800.62
E	2725+83.66	0.04	799.94	799.10
F	2725+88.39	13.50	800.35	799.52
G	2725+96.13	35.71	801.04	800.21
H	2726+01.09	50.00	801.48	800.65

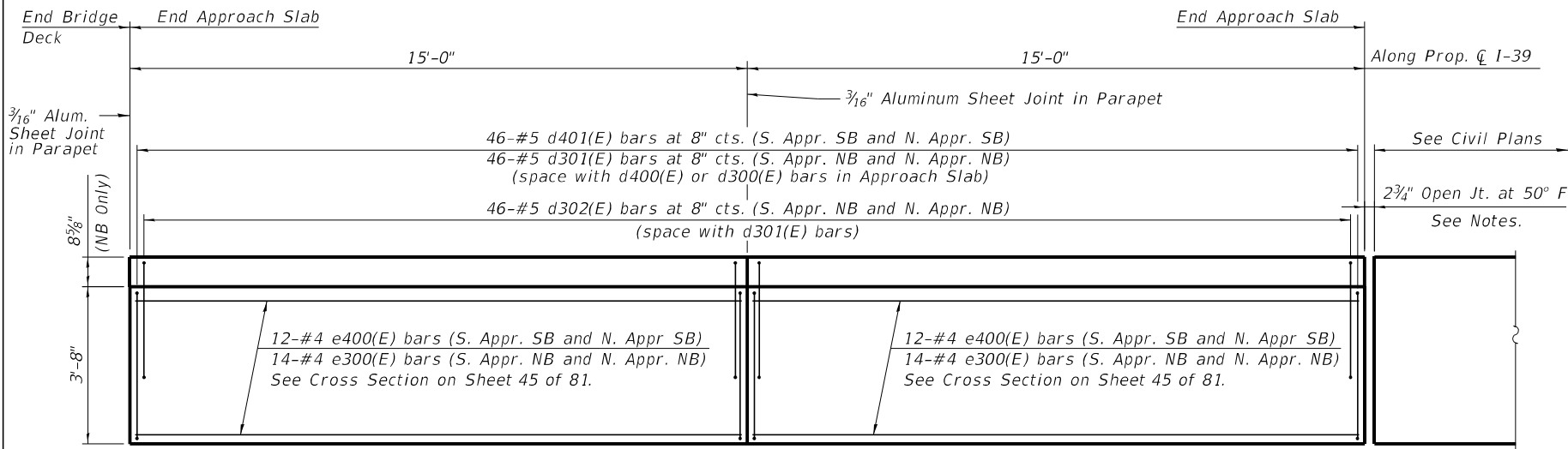
* Radial dimension

NOTE:
See Sheet 76 of 81 for bar splicer details.

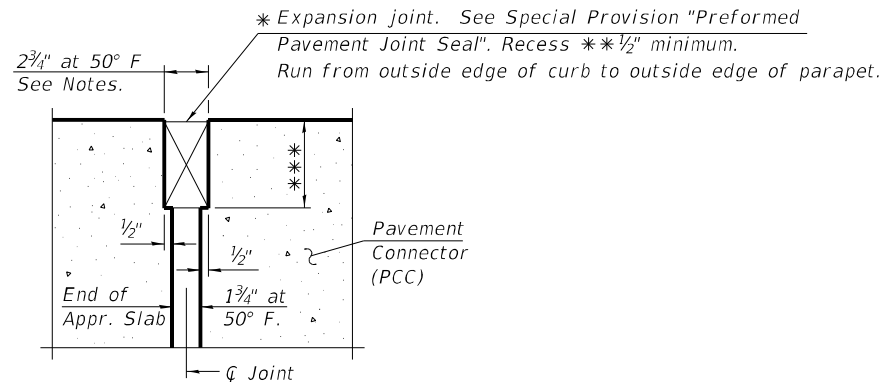
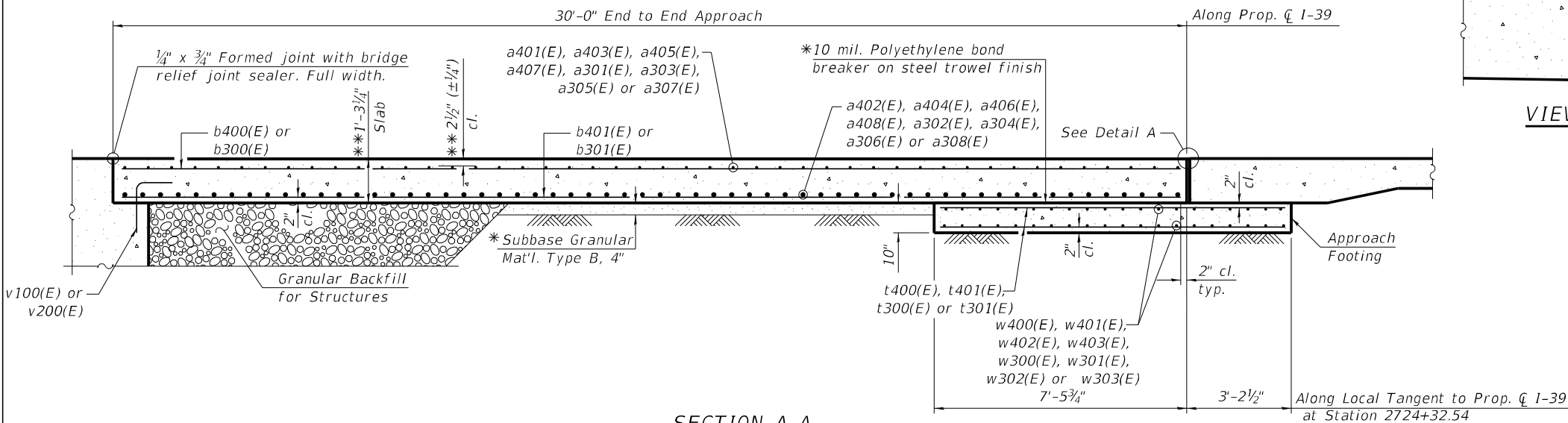
MODEL: sMODELNAME\$
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INSIDE ELEVATION OF PARAPET AND CURB
(Outside Parapet Elevation)



INSIDE ELEVATION OF PARAPET
(Median Parapet Elevation)



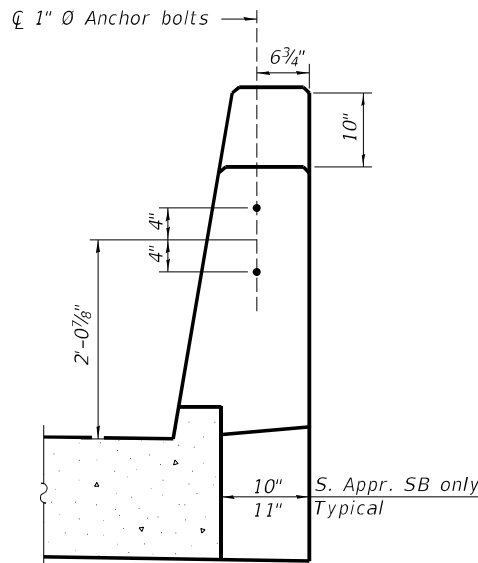
DETAIL A
(at Rt. L's)

* Cost included with Concrete Superstructure (Approach Slab).

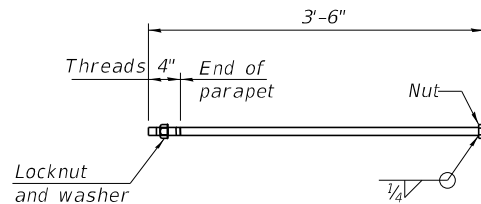
** Prior to grinding.

*** Per manufacturer recommendations.

Δ No curb taper at South Approach SB only.



VIEW D-D



***1" Ø ANCHOR BOLT**
(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)

NOTES:

1. 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.
2. Parapet concrete shall be paid for as Concrete Superstructure.
3. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
4. Approach footing concrete shall be paid for as Concrete Structures.
5. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
6. Cost of excavation for approach footing included with Concrete Structures.
7. For Granular Backfill for Structures and drainage treatment details, see Sheet 3 of 81.
8. All vertical dimensions shown are after grinding unless noted otherwise.



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Chicago, Illinois 60601
312.465.4050 Job No. 10800

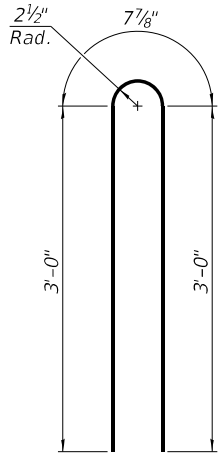
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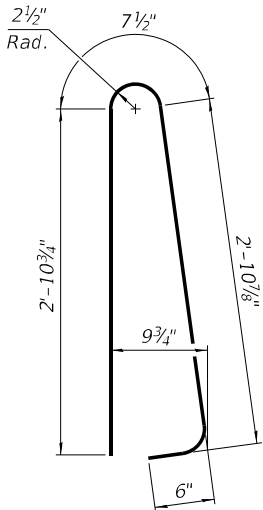
**BRIDGE APPROACH SLAB DETAILS (2 OF 3)
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 46 OF 81 SHEETS

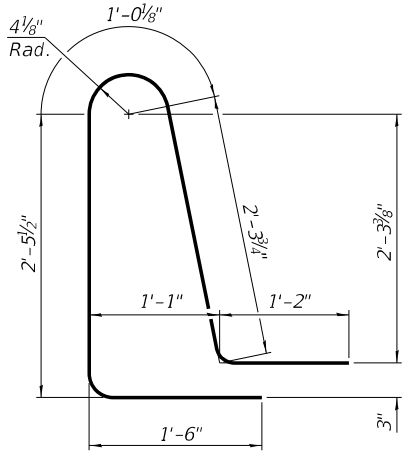
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CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



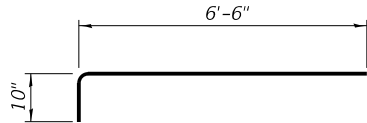
BAR d302(E)



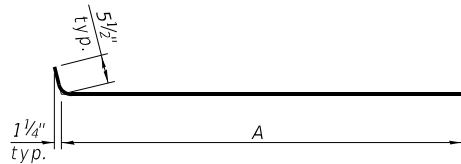
BARS d401(E) AND d301(E)



BARS d400(E) AND d300(E)



BARS a400(E) AND a300(E)



BARS a401(E), a403(E), a405(E), a407(E), a301(E), a303(E), a305(E), AND a307(E)

Bar	A
a401(E)	28'-6"
a403(E)	36'-4"
a405(E)	28'-1"
a407(E)	35'-8"
a301(E)	36'-11"
a303(E)	14'-11"
a305(E)	36'-5"
a307(E)	14'-8"

BILL OF MATERIAL
SOUTH APPROACH
SB (SN 101-0214)

Bar	No.	Size	Length	Shape
a400(E)	65	#5	7'-4"	
a401(E)	43	#5	29'-0"	
a402(E)	57	#8	28'-8"	
a403(E)	43	#5	36'-10"	
a404(E)	57	#8	37'-5"	
b400(E)	95	#5	29'-8"	
b401(E)	150	#9	29'-8"	
b402(E)	4	#5	14'-2"	
b403(E)	1	#4	14'-8"	
d400(E)	69	#5	8'-6"	
d401(E)	69	#5	7'-0"	
e400(E)	36	#4	14'-8"	
t400(E)	128	#4	10'-5"	
w400(E)	40	#5	28'-9"	
w401(E)	40	#5	37'-6"	
Concrete Superstructure				Cu. Yd. 6.4
Protective Coat				Sq. Yd. 222
Concrete Superstructure (Approach Slab)				Cu. Yd. 89.0
Concrete Structures				Cu. Yd. 20.7
Reinforcement Bars, Epoxy Coated				Pound 36,770
Bridge Deck Grooving (Longitudinal)				Sq. Yd. 120
Diamond Grinding (Bridge Section)				Sq. Yd. 361

BILL OF MATERIAL
NORTH APPROACH
SB (SN 101-0214)

Bar	No.	Size	Length	Shape
a400(E)	65	#5	7'-4"	
a405(E)	43	#5	28'-7"	
a406(E)	57	#8	28'-2"	
a407(E)	43	#5	36'-2"	
a408(E)	57	#8	36'-10"	
b400(E)	95	#5	29'-8"	
b401(E)	150	#9	29'-8"	
b403(E)	1	#4	14'-8"	
b404(E)	4	#5	14'-8"	
d400(E)	69	#5	8'-6"	
d401(E)	69	#5	7'-0"	
e400(E)	36	#4	14'-8"	
t401(E)	128	#4	10'-3"	
w402(E)	40	#5	28'-2"	
w403(E)	40	#5	36'-10"	
Concrete Superstructure				Cu. Yd. 6.4
Protective Coat				Sq. Yd. 222
Concrete Superstructure (Approach Slab)				Cu. Yd. 88.9
Concrete Structures				Cu. Yd. 20.3
Reinforcement Bars, Epoxy Coated				Pound 36,500
Bridge Deck Grooving (Longitudinal)				Sq. Yd. 120
Diamond Grinding (Bridge Section)				Sq. Yd. 350

BILL OF MATERIAL
SOUTH APPROACH
NB (SN 101-0213)

Bar	No.	Size	Length	Shape
a300(E)	65	#5	7'-4"	
a301(E)	43	#5	37'-5"	
a302(E)	57	#8	38'-0"	
a303(E)	43	#5	15'-5"	
a304(E)	57	#8	15'-0"	
b300(E)	77	#5	29'-8"	
b301(E)	121	#9	29'-8"	
b302(E)	4	#5	14'-8"	
b303(E)	1	#4	14'-8"	
d300(E)	69	#5	8'-6"	
d301(E)	69	#5	7'-0"	
d302(E)	46	#5	6'-9"	
e300(E)	40	#4	14'-8"	
t300(E)	104	#4	10'-5"	
w300(E)	40	#5	38'-0"	
w301(E)	40	#5	15'-0"	
Concrete Superstructure				Cu. Yd. 7.0
Protective Coat				Sq. Yd. 185
Concrete Superstructure (Approach Slab)				Cu. Yd. 72.0
Concrete Structures				Cu. Yd. 16.7
Reinforcement Bars, Epoxy Coated				Pound 30,360
Bridge Deck Grooving (Longitudinal)				Sq. Yd. 80
Diamond Grinding (Bridge Section)				Sq. Yd. 270

BILL OF MATERIAL
NORTH APPROACH
NB (SN 101-0213)

Bar	No.	Size	Length	Shape
a300(E)	65	#5	7'-4"	
a305(E)	43	#5	36'-11"	
a306(E)	57	#8	37'-6"	
a307(E)	43	#5	15'-2"	
a308(E)	57	#8	14'-10"	
b300(E)	77	#5	29'-8"	
b301(E)	121	#9	29'-8"	
b303(E)	1	#4	14'-8"	
b304(E)	4	#5	14'-2"	
d300(E)	69	#5	8'-6"	
d301(E)	69	#5	7'-0"	
d302(E)	46	#5	6'-9"	
e300(E)	40	#4	14'-8"	
t301(E)	104	#4	10'-3"	
w302(E)	40	#5	37'-6"	
w303(E)	40	#5	14'-10"	
Concrete Superstructure				Cu. Yd. 7.0
Protective Coat				Sq. Yd. 185
Concrete Superstructure (Approach Slab)				Cu. Yd. 72.0
Concrete Structures				Cu. Yd. 16.4
Reinforcement Bars, Epoxy Coated				Pound 30,190
Bridge Deck Grooving (Longitudinal)				Sq. Yd. 80
Diamond Grinding (Bridge Section)				Sq. Yd. 265

* Includes quantity for approach slab and pavement connector.

STATE OF ILLINOIS
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BRIDGE APPROACH SLAB DETAILS (3 OF 3)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 47 OF 81 SHEETS

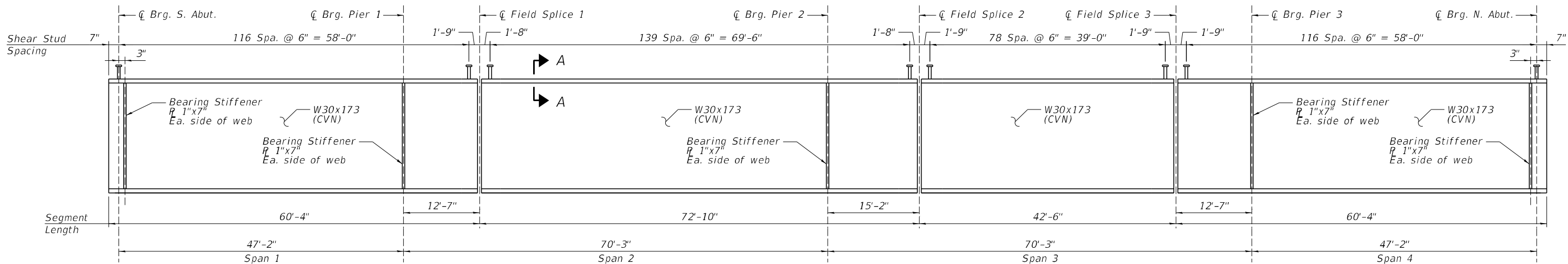
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	742
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

benesch
Alfred Benesch & Company
35 W Wacker Drive, Suite 3300
Chicago, Illinois 60601
312.465.4150 Job No. 10800

USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - JLS	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
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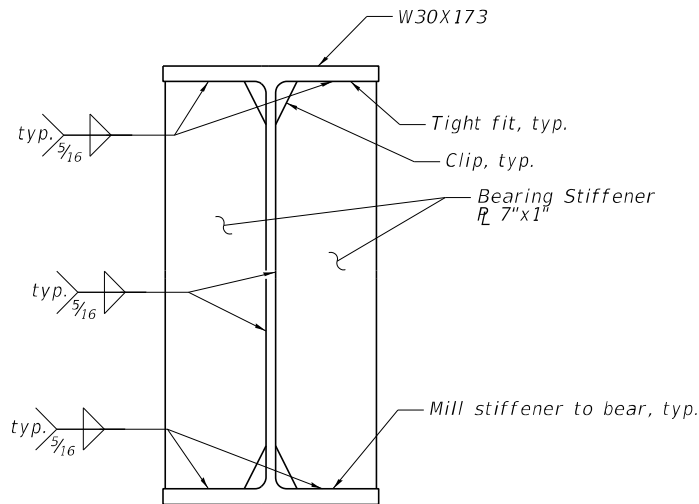
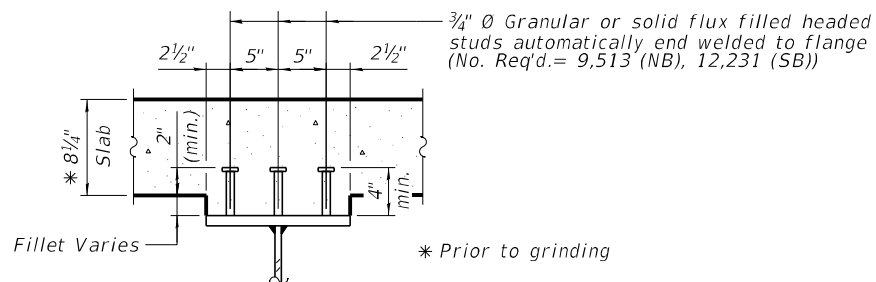
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BEAM ELEVATION

(Looking west)
(Diaphragm connections plates not shown for clarity)



BEARING STIFFENER

(See Sheet 53 of 81 for weld limits and clip details)

NOTES:

- Structural steel for the rolled W beams and bearing stiffeners shall be AASHTO M270 Grade 50.
- Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.
- See Sheet 48 of 81 for framing plan.
- See Sheet 53 of 81 for steel diaphragm details.
- See Sheet 52 of 81 for field splice details.



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312.465.4150 Job No. 10800

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM ELEVATION
STRUCTURE NO. 101-0213 & 101-0214

SHEET 49 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

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INTERIOR GIRDER MOMENT TABLE (SOUTHBOUND)							
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.6 Sp. 4
Is	(in ⁴) 8,230	8,230	8,230	8,230	8,230	8,230	8,230
Ic(n)	(in ⁴) 20,425	----	20,425	----	20,425	----	20,425
Ic(3n)	(in ⁴) 15,159	----	15,159	----	15,159	----	15,159
Ic(cr)	(in ⁴) -----	10,863	-----	10,863	-----	10,863	-----
Ss	(in ³) 541	541	541	541	541	541	541
Sc(n)	(in ³) 749	-----	749	-----	749	-----	749
Sc(3n)	(in ³) 684	-----	684	-----	684	-----	684
Sc(cr)	(in ³) -----	611	-----	611	-----	611	-----
Sx	(in ³) 733	598	721	595	721	598	733
DC1	(k/')	0.917	0.917	0.917	0.917	0.917	0.917
MDC1	('k)	122	326	212	414	212	326
DC2	(k/')	0.127	0.127	0.127	0.127	0.127	0.127
MDC2	('k)	16	44	28	56	28	44
DW	(k/')	0.358	0.358	0.358	0.358	0.358	0.358
MDW	('k)	46	125	79	158	79	125
LLDF		0.666	0.641	0.621	0.621	0.621	0.641
M _ℓ + IM	('k)	526	547	639	664	639	547
fl (Strength I)	(ksi)	0.0	0.0	0.0	0.0	0.0	0.0
Mu + 1/3 fl Sxc	('k)	1,161	1,607	1,538	1,987	1,538	1,607
Øf Mn	('k)	3,667	-----	3,667	-----	3,667	-----
fs DC1	(ksi)	2.7	7.2	4.7	9.2	4.7	7.2
fs DC2	(ksi)	0.3	0.9	0.5	1.1	0.5	0.9
fs DW	(ksi)	0.8	2.5	1.4	3.1	1.4	2.5
fs (ℓ+IM)	(ksi)	8.4	10.7	10.2	13.0	10.2	10.7
fl (Service II)	(ksi)	0.0	0.0	0.0	0.0	0.0	0.0
fs+ ^{fl} /2 (Service II)	(ksi)	14.8	24.5	19.9	30.3	19.9	24.5
Service II Resistance(ksi)		47.5	47.5	47.5	47.5	47.5	47.5
fs + ^{fl} /3 (Strength I)	(ksi)	19.7	32.6	26.5	40.3	26.5	32.6
Øf Fn	(ksi)	-----	50.0	-----	50.0	-----	50.0
Vf	(k)	55.1	219.9	63.3	227.2	64.9	219.8
							60.7

EXTERIOR GIRDER MOMENT TABLE (SOUTHBOUND)							
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.6 Sp. 4
Is	(in ⁴) 8,230	8,230	8,230	8,230	8,230	8,230	8,230
Ic(n)	(in ⁴) 19,852	----	20,304	----	20,313	----	19,880
Ic(3n)	(in ⁴) 14,636	----	15,046	----	15,055	----	14,661
Ic(cr)	(in ⁴) -----	10,545	-----	10,647	-----	10,553	-----
Ss	(in ³) 541	541	541	541	541	541	541
Sc(n)	(in ³) 742	-----	747	-----	747	-----	743
Sc(3n)	(in ³) 676	-----	682	-----	682	-----	676
Sc(cr)	(in ³) -----	603	-----	605	-----	603	-----
Sx	(in ³) 729	592	720	591	720	592	729
DC1	(k/')	0.834	0.870	0.899	0.909	0.900	0.873
MDC1	('k)	106	308	208	406	208	309
DC2	(k/')	0.127	0.127	0.127	0.127	0.127	0.127
MDC2	('k)	16	44	28	56	28	44
DW	(k/')	0.334	0.334	0.334	0.334	0.334	0.334
MDW	('k)	43	116	74	149	74	116
LLDF		0.666	0.641	0.621	0.621	0.641	0.666
M _ℓ + IM	('k)	525	544	640	666	641	544
fl (Strength I)	(ksi)	0.0	0.0	0.0	0.0	0.0	0.0
Mu + 1/3 fl Sxc	('k)	1,136	1,567	1,526	1,966	1,527	1,569
Øf Mn	('k)	3,573	-----	3,646	-----	3,648	-----
fs DC1	(ksi)	2.3	6.8	4.6	9.0	4.6	6.8
fs DC2	(ksi)	0.3	0.9	0.5	1.1	0.5	0.9
fs DW	(ksi)	0.8	2.3	1.3	3.0	1.3	2.3
fs (ℓ+IM)	(ksi)	8.5	10.8	10.3	13.2	10.3	10.8
fl (Service II)	(ksi)	0.0	0.0	0.0	0.0	0.0	0.0
fs+ ^{fl} /2 (Service II)	(ksi)	14.4	24.1	19.8	30.2	19.8	24.1
Service II Resistance(ksi)		47.5	47.5	47.5	47.5	47.5	47.5
fs + ^{fl} /3 (Strength I)	(ksi)	19.3	32.0	26.3	40.2	26.3	32.1
Øf Fn	(ksi)	-----	50.0	-----	50.0	-----	50.0
Vf	(k)	41.4	180.1	50.9	194.1	52.1	181.0
							45.6

INTERIOR GIRDER REACTION TABLE (SOUTHBOUND)					
	S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
LLDF	0.813	0.813	0.813	0.813	0.813
OCF	1.075	1.075	1.075	1.075	1.075
RDC1	(k) 15.9	61.3	69.0	61.3	15.9
RDC2	(k) 2.1	8.2	9.3	8.2	2.1
RDW	(k) 5.8	23.2	26.1	23.2	5.8
R _ℓ	(k) 56.7	93.4	97.1	93.4	56.6
R _{IM}	(k) 14.8	18.7	18.6	18.7	14.8
RTotal (Strength I) (Impact)	(k) 156.3	317.8	339.5	317.8	156.2
RTotal (Strength I) (No Impact)	(k) 130.3	285.2	307.0	285.2	130.2

EXTERIOR GIRDER REACTION TABLE (SOUTHBOUND)					
	S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
LLDF	0.570	0.623	0.654	0.626	0.574
OCF	1.075	1.075	1.075	1.075	1.075
RDC1	(k) 14.0	57.7	67.6	57.9	14.0
RDC2	(k) 2.1	8.2	9.3	8.2	2.1
RDW	(k) 5.4	21.6	24.4	21.6	5.4
R _ℓ	(k) 39.7	71.6	78.2	71.9	40.0
R _{IM}	(k) 10.4	14.3	14.9	14.4	10.5
RTotal (Strength I) (Impact)	(k) 115.8	265.0	295.6	265.9	116.5
RTotal (Strength I) (No Impact)	(k) 97.6	240.0	269.5	240.8	98.2

- OCF: Obtuse Correction Factor according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.
- R_{DC1}: Un-factored reaction due to non-composite dead load (kip).
- R_{DC2}: Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).
- R_{DW}: Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).
- R_ℓ: Un-factored live load reaction (kip).
- R_{IM}: Un-factored dynamic load allowance (impact) (kip).
- R_{TOTAL} (Strength I) (Impact): Strength I load combination of factored design reactions (kip).
- 1.25 (R_{DC1} + R_{DC2}) + 1.5 R_{DW} + 1.75 (R_ℓ + R_{IM})
- R_{TOTAL} (Strength I) (No Impact): Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).
- 1.25 (R_{DC1} + R_{DC2}) + 1.5 R_{DW} + 1.75 (R_ℓ)

- 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).
- Sx: Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (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.).
- LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and other IDOT provisions.
- M_ℓ + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- Mu: Strength I load combination of factored design moments (kip-ft.).
- 1.25 (MDC1+ MDC2) + 1.5 MDW + 1.75 M_ℓ + IM
- fl: Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).
- Øf Mn: Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (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 / Ss
- 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 (ℓ+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_ℓ + IM / Sc(n) or M_ℓ + IM / Sc(cr) as applicable.
- fs + ^{fl}/2 (Service II): Sum of stresses as computed below (ksi).
- fsDC1 + fsDC2 + fsDW + 1.3 fs(ℓ+ IM) + ^{fl}/2
- Service II Resistance: Composite (0.95RhFyf) or noncomposite (0.80RhFyf) stress capacity according to Article 6.10.4.2 (ksi).
- fs + ^{fl}/3 (Strength I): Sum of stresses as computed below on non-compact section (ksi).
- 1.25 (fsDC1 + fsDC2) + 1.5 fsDW + 1.75 fs(ℓ+ IM) + ^{fl}/3
- Øf Fn: Factored nominal flexural resistance of the section a specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).
- Vf: Maximum factored shear range in span computed according to Article 6.10.10.

<div><div>Alfred Benesch & Company 35 W Wacker Drive, Suite 3300 Chicago, Illinois 60601 312.465.4050 Joe No, 10800</div></div>	USER NAME =	DESIGNED - JPM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEAM MOMENT AND REACTION TABLES (SOUTHBOUND) STRUCTURE NO. 101-0213 & 101-0214	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WKK	REVISED -			39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	745
	PLOT SCALE =	DRAWN - KMS	REVISED -			CONTRACT NO. 64C24				
	PLOT DATE =	CHECKED - WKK	REVISED -			ILLINOIS FED. AID PROJECT				

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\0264C24-1010213_0214-sht-mtbl-002.dgn

INTERIOR GIRDER MOMENT TABLE (NORTHBOUND)							
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.6 Sp. 4
Is	(in ⁴) 8,230	8,230	8,230	8,230	8,230	8,230	8,230
Ic(n)	(in ⁴) 20,640	----	20,640	----	20,640	----	20,640
Ic(3n)	(in ⁴) 15,362	----	15,362	----	15,362	----	15,362
Ic(cr)	(in ⁴) -----	11,027	-----	11,027	-----	11,027	-----
Ss	(in ³) 541	541	541	541	541	541	541
Sc(n)	(in ³) 751	-----	751	-----	751	-----	751
Sc(3n)	(in ³) 687	-----	687	-----	687	-----	687
Sc(cr)	(in ³) -----	614	-----	614	-----	614	-----
Sx	(in ³) 734	601	722	597	722	601	734
DC1	(k/')	0.952	0.952	0.952	0.952	0.952	0.952
MDC1	('k)	126	337	220	428	220	337
DC2	(k/')	0.174	0.174	0.174	0.174	0.174	0.174
MDC2	('k)	22	61	39	77	39	61
DW	(k/')	0.375	0.375	0.375	0.375	0.375	0.375
MDW	('k)	48	131	83	166	83	131
LLDF		0.688	0.662	0.641	0.641	0.641	0.662
M _ℓ + IM	('k)	543	565	660	685	660	565
fl (Strength I)	(ksi)	0.0	0.0	0.0	0.0	0.0	0.0
Mu + 1/3 fl Sxc	('k)	1,208	1,683	1,602	2,080	1,602	1,683
Øf Mn	('k)	3,705	-----	3,705	-----	3,705	-----
fs DC1	(ksi)	2.8	7.5	4.9	9.5	4.9	7.5
fs DC2	(ksi)	0.4	1.2	0.7	1.5	0.7	1.2
fs DW	(ksi)	0.8	2.6	1.5	3.2	1.5	2.6
fs (ℓ+IM)	(ksi)	8.7	11.0	10.5	13.4	10.5	11.0
fl (Service II)	(ksi)	0.0	0.0	0.0	0.0	0.0	0.0
fs+ ^{fl} /2 (Service II)	(ksi)	15.3	25.6	20.7	31.6	20.7	25.6
Service II Resistance(ksi)		47.5	47.5	47.5	47.5	47.5	47.5
fs + ^{fl} /3 (Strength I)	(ksi)	20.4	34.0	27.6	42.0	27.6	34.0
Øf Fn	(ksi)	-----	50.0	-----	50.0	-----	50.0
Vf	(k)	56.9	229.0	65.3	236.7	67.0	229.0

EXTERIOR GIRDER MOMENT TABLE (NORTHBOUND)							
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.6 Sp. 4
Is	(in ⁴) 8,230	8,230	8,230	8,230	8,230	8,230	8,230
Ic(n)	(in ⁴) 20,102	----	20,411	----	20,288	----	19,721
Ic(3n)	(in ⁴) 14,860	----	15,145	----	15,032	----	14,520
Ic(cr)	(in ⁴) -----	10,625	-----	10,672	-----	10,526	-----
Ss	(in ³) 541	541	541	541	541	541	541
Sc(n)	(in ³) 745	-----	748	-----	747	-----	741
Sc(3n)	(in ³) 680	-----	683	-----	682	-----	674
Sc(cr)	(in ³) -----	605	-----	606	-----	602	-----
Sx	(in ³) 730	594	721	591	720	592	727
DC1	(k/')	0.869	0.897	0.915	0.915	0.896	0.859
MDC1	('k)	111	317	212	409	207	305
DC2	(k/')	0.174	0.174	0.174	0.174	0.174	0.174
MDC2	('k)	22	60	38	77	39	60
DW	(k/')	0.337	0.337	0.337	0.337	0.337	0.337
MDW	('k)	43	117	74	150	75	117
LLDF		0.688	0.662	0.641	0.641	0.641	0.662
M _ℓ + IM	('k)	542	563	661	687	661	562
fl (Strength I)	(ksi)	0.0	0.0	0.0	0.0	0.0	0.0
Mu + 1/3 fl Sxc	('k)	1,181	1,633	1,581	2,035	1,575	1,615
Øf Mn	('k)	3,613	-----	3,664	-----	3,644	-----
fs DC1	(ksi)	2.5	7.0	4.7	9.1	4.6	6.8
fs DC2	(ksi)	0.4	1.2	0.7	1.5	0.7	1.2
fs DW	(ksi)	0.8	2.3	1.3	3.0	1.3	2.3
fs (ℓ+IM)	(ksi)	8.7	11.2	10.6	13.6	10.6	11.2
fl (Service II)	(ksi)	0.0	0.0	0.0	0.0	0.0	0.0
fs+ ^{fl} /2 (Service II)	(ksi)	15.0	25.1	20.4	31.3	20.4	24.8
Service II Resistance(ksi)		47.5	47.5	47.5	47.5	47.5	47.5
fs + ^{fl} /3 (Strength I)	(ksi)	20.0	33.3	27.2	41.5	27.1	33.0
Øf Fn	(ksi)	-----	50.0	-----	50.0	-----	50.0
Vf	(k)	43.9	189.2	52.6	199.5	52.7	182.1

INTERIOR GIRDER REACTION TABLE (NORTHBOUND)					
	S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
LLDF	0.838	0.838	0.838	0.838	0.838
OCF	1.075	1.075	1.075	1.075	1.075
RDC1	(k) 16.5	63.5	71.5	63.5	16.5
RDC2	(k) 2.8	11.3	12.7	11.3	2.8
RDW	(k) 6.1	24.3	27.4	24.3	6.1
R _ℓ	(k) 58.4	96.3	100.1	96.3	58.4
R _{IM}	(k) 15.3	19.2	19.2	19.2	15.3
RTotal (Strength I) (Impact)	(k) 162.2	332.1	355.0	332.1	162.1
RTotal (Strength I) (No Impact)	(k) 135.5	298.4	321.5	298.5	135.4

EXTERIOR GIRDER REACTION TABLE (NORTHBOUND)					
	S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
LLDF	0.610	0.654	0.668	0.623	0.560
OCF	1.075	1.075	1.075	1.075	1.075
RDC1	(k) 14.6	59.4	68.1	57.1	13.6
RDC2	(k) 2.8	11.3	12.7	11.3	2.8
RDW	(k) 5.5	21.8	24.6	21.8	5.5
R _ℓ	(k) 42.5	75.1	79.9	71.5	39.0
R _{IM}	(k) 11.1	15.0	15.3	14.3	10.2
RTotal (Strength I) (Impact)	(k) 123.8	278.7	304.3	268.2	114.8
RTotal (Strength I) (No Impact)	(k) 104.4	252.5	277.6	243.3	96.9

- OCF: Obtuse Correction Factor according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.
- R_{DC1} : Un-factored reaction due to non-composite dead load (kip).
- R_{DC2} : Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).
- R_{DW} : Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).
- R_ℓ : Un-factored live load reaction (kip).
- R_{IM} : Un-factored dynamic load allowance (impact) (kip).
- R_{TOTAL} (Strength I) (Impact) : Strength I load combination of factored design reactions (kip).
- 1.25 (R_{DC1} + R_{DC2}) + 1.5 R_{DW} + 1.75 (R_ℓ + R_{IM})
- R_{TOTAL} (Strength I) (No Impact) : Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).
- 1.25 (R_{DC1} + R_{DC2}) + 1.5 R_{DW} + 1.75 (R_ℓ)

- 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).
- Sx: Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (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.).
- LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and other IDOT provisions.
- M_ℓ + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- Mu: Strength I load combination of factored design moments (kip-ft.).
- 1.25 (MDC1+ MDC2) + 1.5 MDW + 1.75 M_ℓ + IM
- fl: Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).
- Øf Mn: Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (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 / Ss
- 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 (ℓ+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_ℓ + IM / Sc(n) or M_ℓ + IM / Sc(cr) as applicable.
- fs + ^{fl}/2 (Service II): Sum of stresses as computed below (ksi).
- fsDC1 + fsDC2 + fsDW + 1.3 fs(ℓ+ IM) + ^{fl}/2
- Service II Resistance: Composite (0.95RhFyf) or noncomposite (0.80RhFyf) stress capacity according to Article 6.10.4.2 (ksi).
- fs + ^{fl}/3 (Strength I): Sum of stresses as computed below on non-compact section (ksi).
- 1.25 (fsDC1 + fsDC2) + 1.5 fsDW + 1.75 fs(ℓ+ IM) + ^{fl}/3
- Øf Fn: Factored nominal flexural resistance of the section a specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).
- Vf: Maximum factored shear range in span computed according to Article 6.10.10.

 <div>Alfred Benesch & Company 35 W Wacker Drive, Suite 3300 Chicago, Illinois 60601 312.465.4050 Joe No, 10800</div>	USER NAME =	DESIGNED - JPM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEAM MOMENT AND REACTION TABLES (NORTHBOUND) STRUCTURE NO. 101-0213 & 101-0214	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WKK	REVISED -			39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	746
	PLOT SCALE =	DRAWN - KMS	REVISED -			CONTRACT NO. 64C24				
	PLOT DATE =	CHECKED - WKK	REVISED -			ILLINOIS FED. AID PROJECT				
	SHEET 51 OF 81 SHEETS									

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Alfred Benesch & Company
35 W Wacker Drive, Suite 3300
Chicago, Illinois 60601
312.465.4150 Job No. 10800

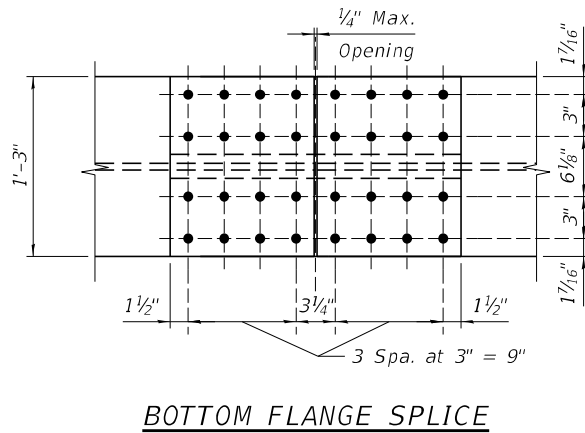
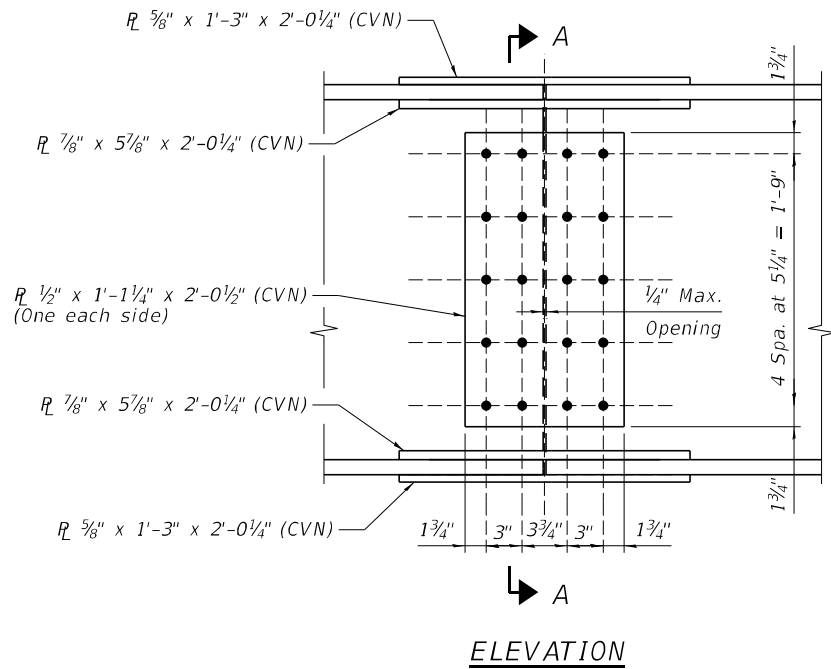
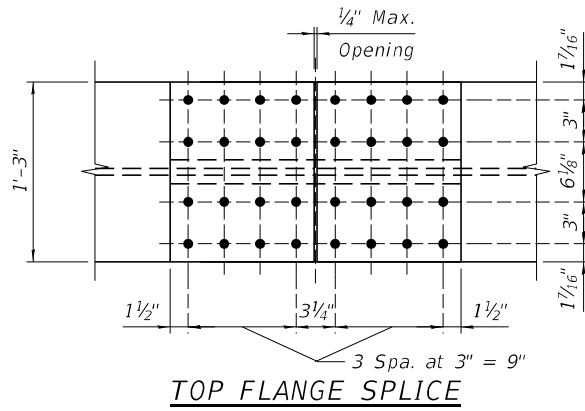
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

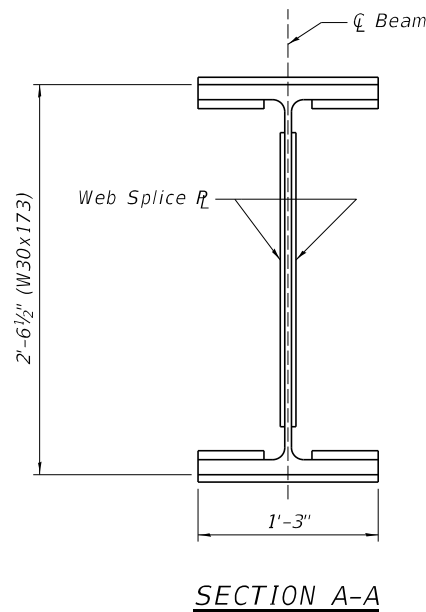
SPLICE DETAILS
STRUCTURE NO. 101-0213 & 101-0214

SHEET 52 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	

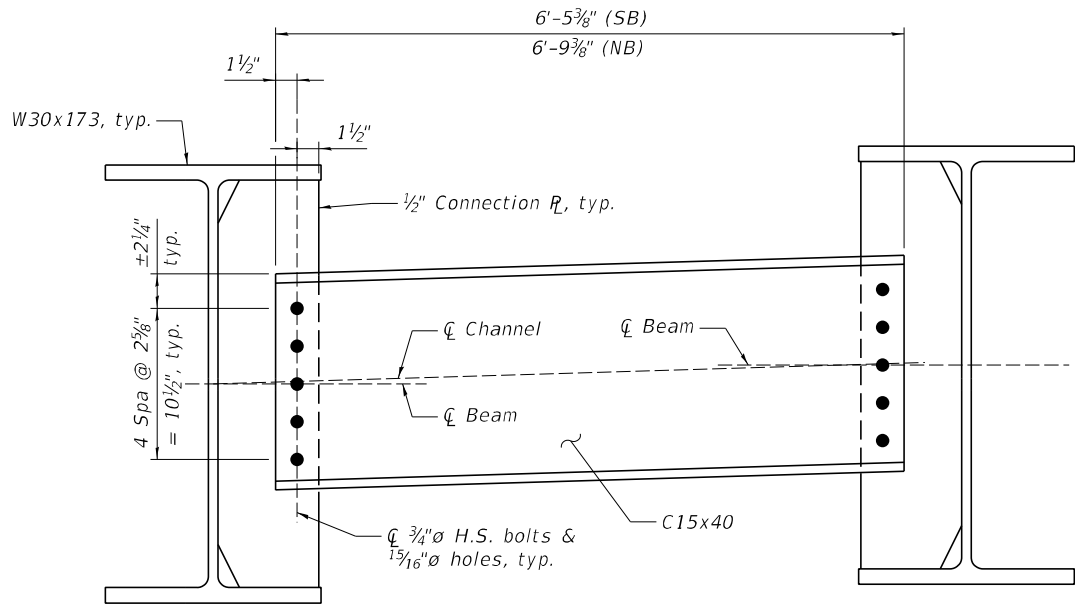


FIELD SPLICE 1, 2 & 3
(No. Req'd. = 21 (NB), 27 (SB))

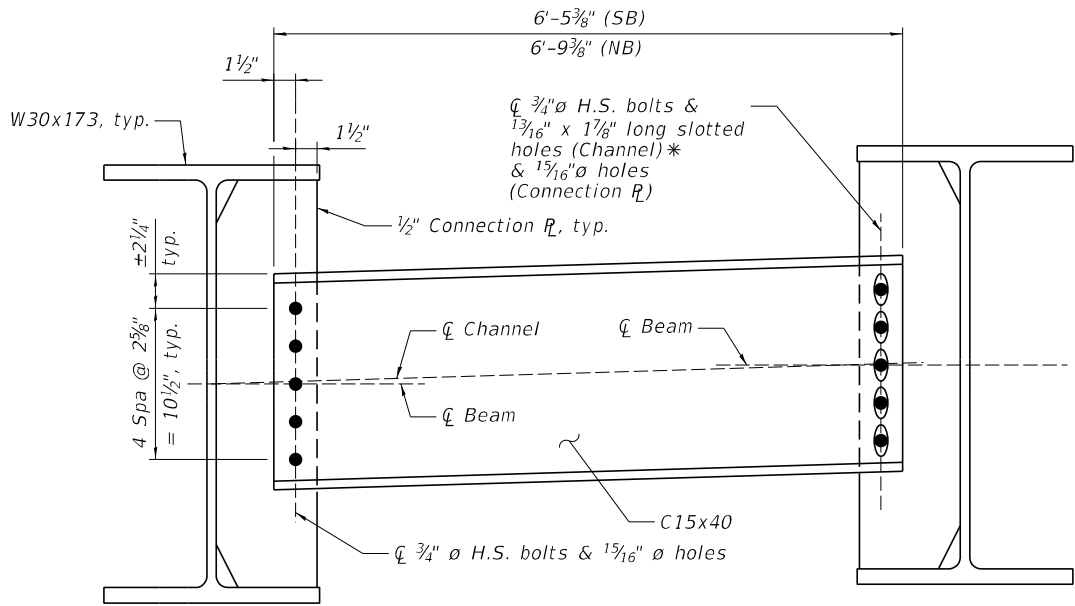


NOTES:

- All splice plates shall be AASHTO M270 Grade 50.
- Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.
- Fasteners shall be ASTM F3125 Grade A325 Type 1, hot dipped galvanized bolts. Bolts 7/8" diameter, holes 15/16" diameter. See Special Provision for "Metallizing of Structural Steel".

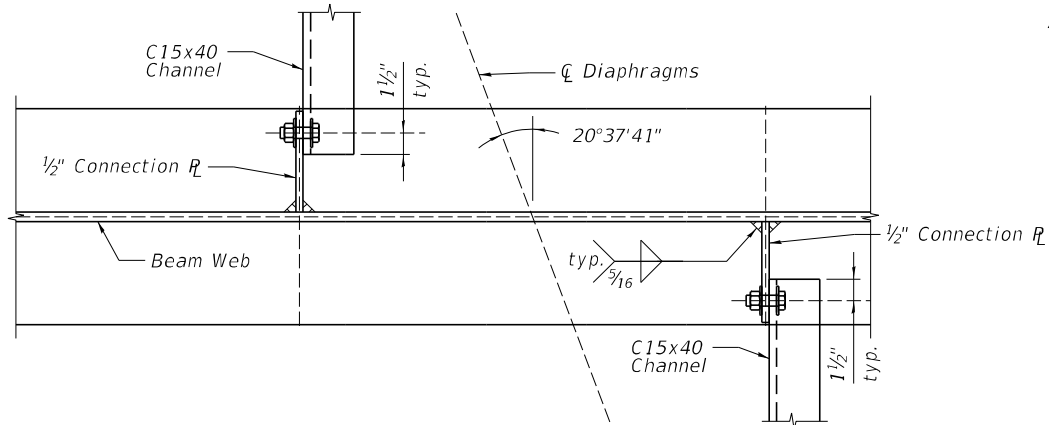


DIAPHRAGM D1
(Looking north)
(No. Req'd. = 85 (NB), 119 (SB))

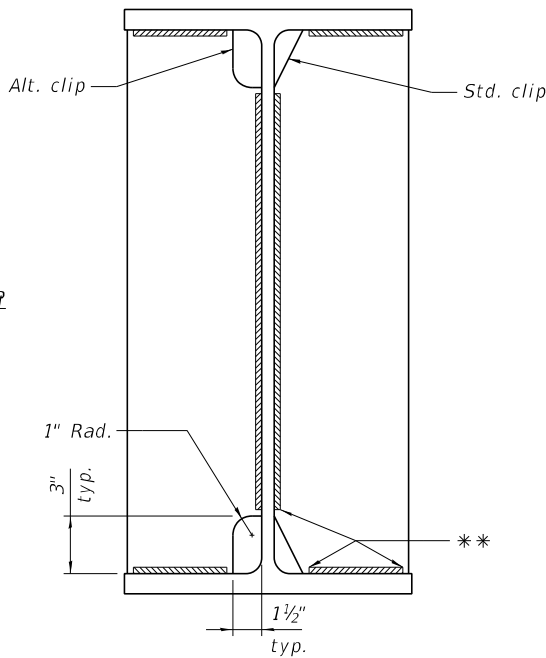


DIAPHRAGM D2
AT STAGE CONSTRUCTION LINE
(Looking north)
(No. Req'd. = 17 (NB), 17 (SB))

* Long slotted holes shall be at Beam 5 (SB Stage Line) and Beam 15 (NB Stage Line).

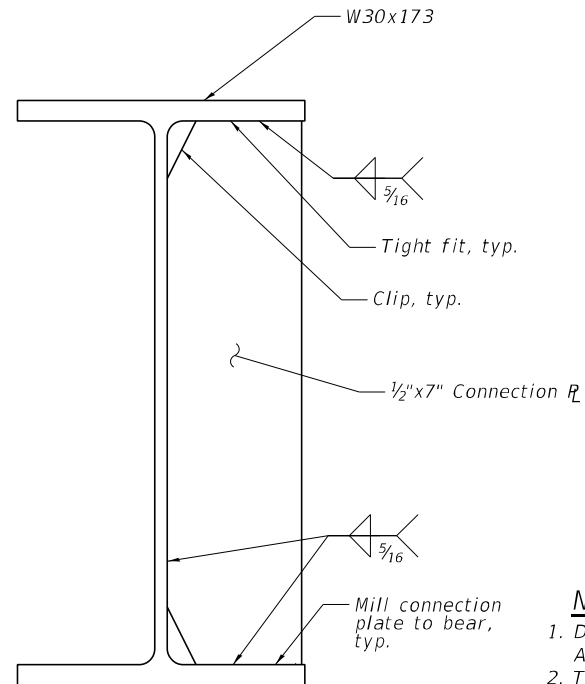


DETAIL A
(Bearing stiffener not shown for Pier locations)



WELD LIMITS AND CLIP DETAILS

** Stop welds 1/4" ($\pm 1/8$ ") from edges as shown, typ.



CONNECTION PLATE

(Plate on east side shown, plate on west side opposite hand)
(No. Req'd. = 204 (NB), 272 (SB))

NOTES:

1. Diaphragm channels and connection plates shall be AASHTO M270 Grade 36 minimum.
2. Two hardened washers required for each set of oversized and slotted holes.
3. 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.
4. Bolts in long-slots shall be finger tight until the subsequent stage pour for the adjacent beams is complete.
5. See Sheet 48 of 81 for location of diaphragms.

MODEL: sMODELNAME5
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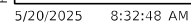
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	CHECKED - WKK	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - WKK	REVISED -

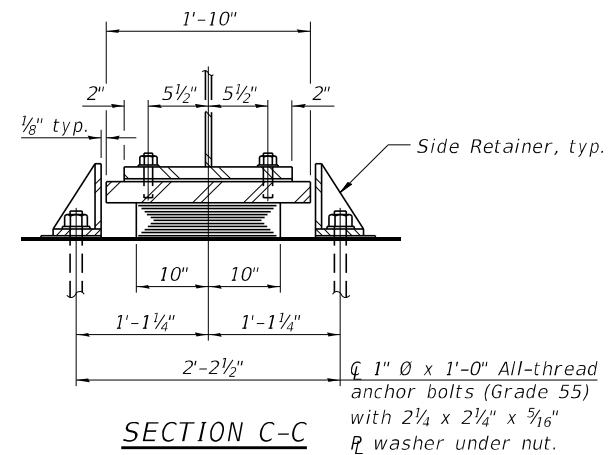
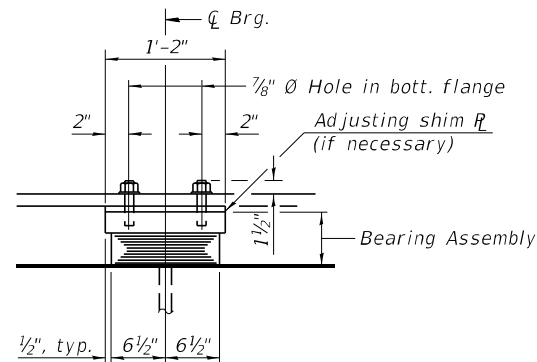
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL DIAPHRAGM DETAILS
STRUCTURE NO. 101-0213 & 101-0214

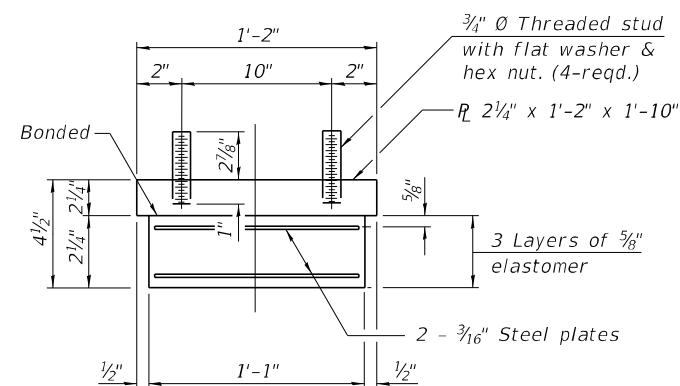
SHEET 53 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	748
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

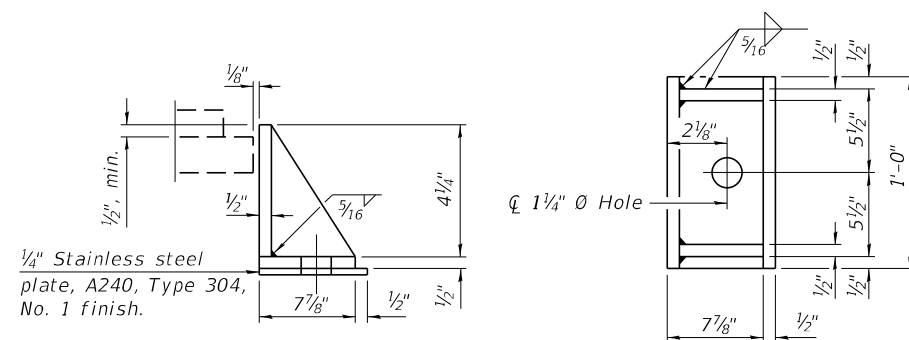




TYPE I ELASTOMERIC EXP. BRG. - PIER 1 & 3



Note:
Shim plates shall not be placed
under bearing assembly.



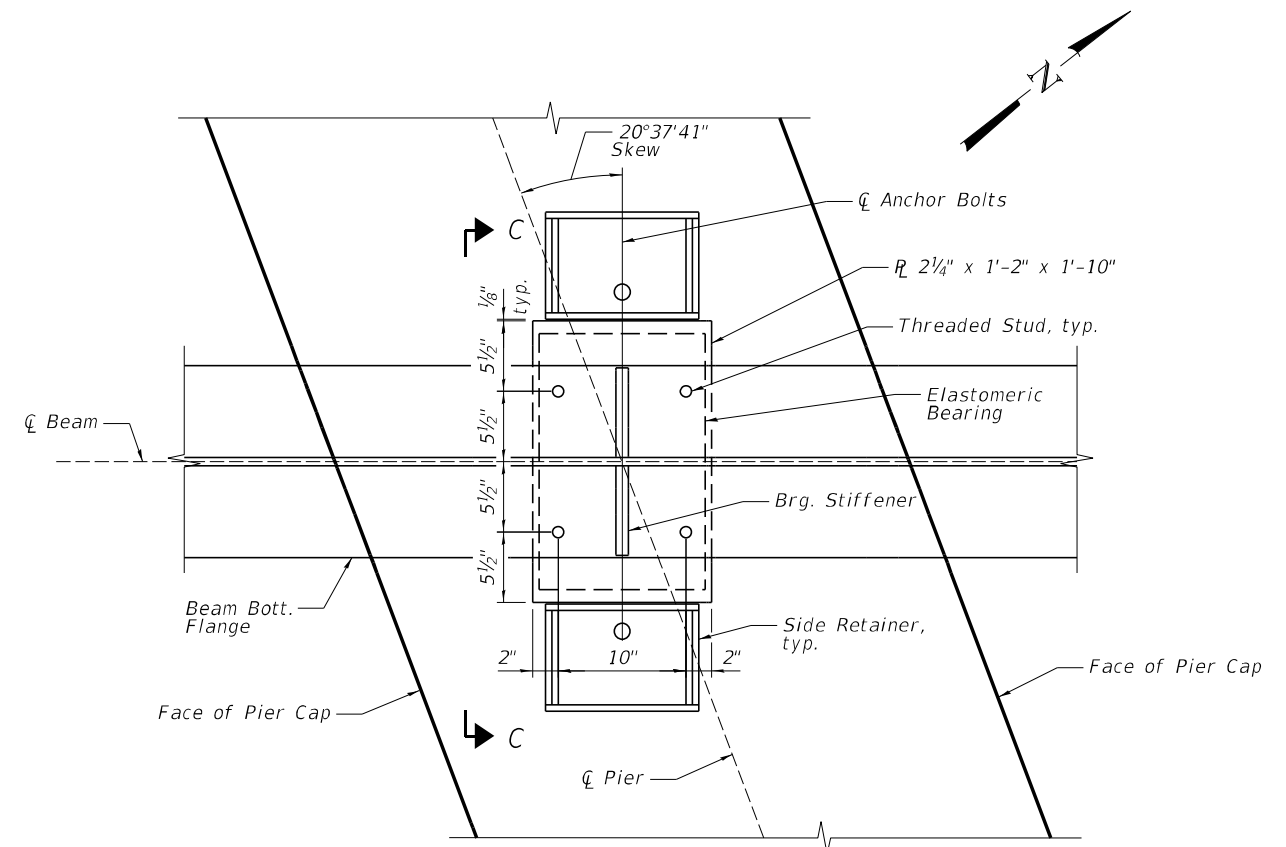
SIDE RETAINER
Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.

BILL OF MATERIAL NB (SN 101-0213)

<i>Item</i>	<i>Unit</i>	<i>Total</i>
<i>Erecting Elastomeric Bearing Assembly, Type I</i>	<i>Each</i>	<i>14</i>
<i>Anchor Bolts, 1"</i>	<i>Each</i>	<i>28</i>

BILL OF MATERIAL SB (SN 101-0214)

Item	Unit	Total
Erecting Elastomeric Bearing Assembly, Type I	Each	18
Anchor Bolts, 1"	Each	36

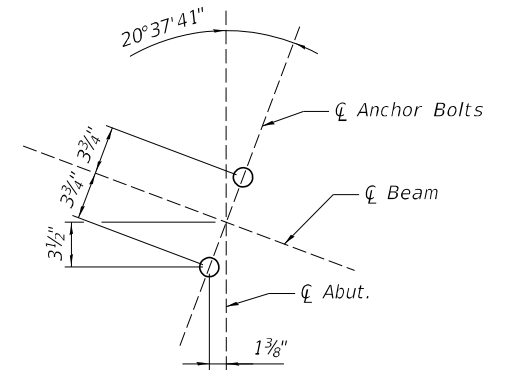


PLAN VIEW - PIER 1 & 3
(Diaphragms and Connection Plates not shown for clarity)

NOTES:

1. Installation of side retainers, shims, and stainless steel plates shall be included in the cost of Erecting Elastomeric Bearing Assembly, Type I.
2. The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50.
3. Two 1/8" in. adjusting shims shall be furnished as part of Contract 64U51 for each bearing in addition to all other plates or shims and placed as shown on bearing details.
4. All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.
5. Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

<i>Beam</i>	<i>Elev.</i>	<i>Y</i>
1	794.29	---
2	794.54	3"
3	794.79	3"
4	795.04	3"



63'-2 $\frac{7}{8}$ "

23'-1 $\frac{3}{4}$ "

40'-1 $\frac{1}{8}$ " Stage 1B Construction

30'-1 $\frac{1}{8}$ "

1'-1 $\frac{3}{4}$ "

8'-10 $\frac{1}{4}$ "

Seat Spacing

6'-5 $\frac{1}{8}$ "

2 Spa. at 7'-7 $\frac{7}{8}$ " = 15'-3 $\frac{3}{4}$ "

8'-4 $\frac{1}{4}$ "

34-#8 v600(E) headed bars at 11" cts.

1-#8 v600(E) headed bar each side of beam, typ.

Back of Abutment

s603(E)

s602(E)

u600(E)

v601(E)

v602(E)

2" cl. typ.

1'-0"

h600(E), h601(E) or h602(E)

20°37'41" (typ.)

Bk. S. Abut. Sta. 2723+07.40

1-#8 v600(E) headed bar each end, typ.

Bar Splicers(E), typ.

3'-8"

1'-10" 1'-10"

s602(E)

Prop. PGL (SB)

4

3

2

1

Beam No., typ.

4-#8 v600(E) headed bars at $\pm 8"$ cts.

s600(E)

3'-2 $\frac{3}{8}$ "

3 Beam and Pile Spa. at 7'-7 $\frac{7}{8}$ " = 22'-11 $\frac{1}{8}$ "

3'-9 $\frac{1}{8}$ " typ.

29'-11 $\frac{1}{8}$ "

8-#8 v600(E) headed bars at $\pm 11"$ cts., typ. btwn bms.

Limits of bottom beam flange

4-#8 v600(E) headed bars at $\pm 9"$ cts.

3 $\frac{1}{2}$ "

5" typ.

3" typ.

3" typ.

p600(E)

s603(E)

s600(E)

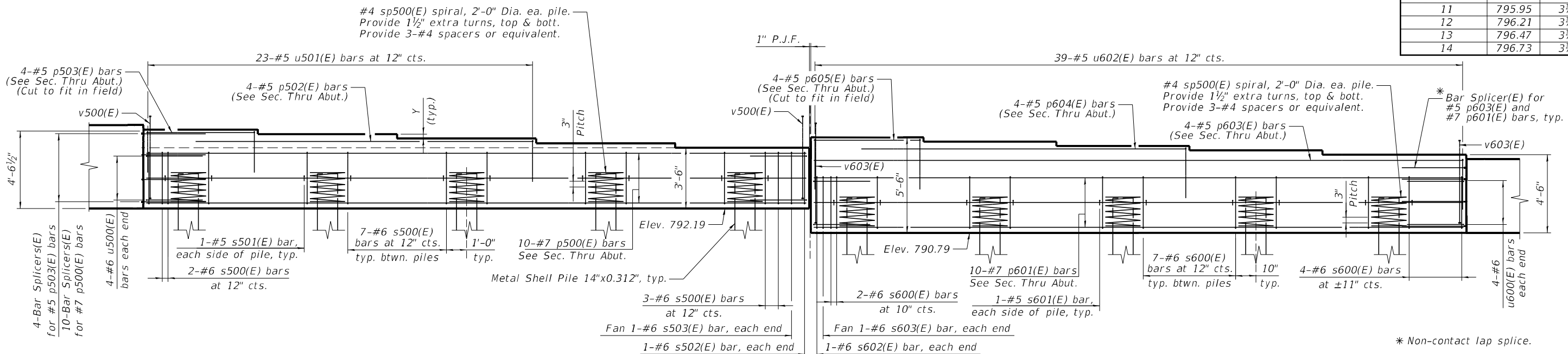
CL S. Abut., Brgs. and Piles

PLAN

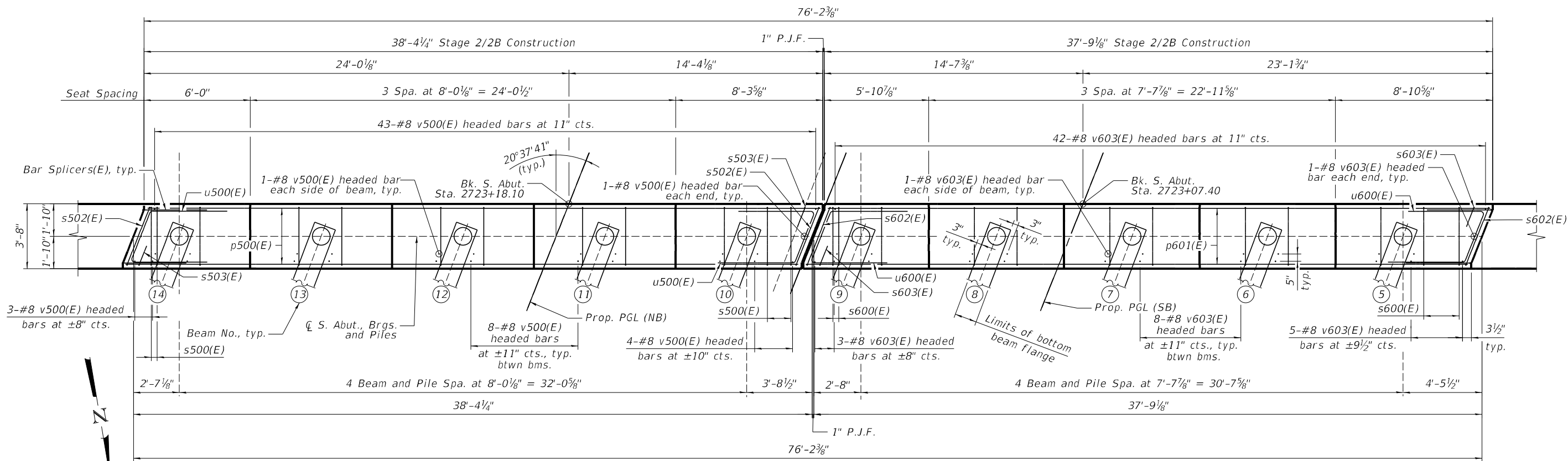
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SEAT ELEVATIONS
& STEP HEIGHTS

Beam	Elev.	Y
5	795.29	3"
6	795.54	3"
7	795.79	3"
8	796.04	3"
9	796.29	3"
10	795.69	---
11	795.95	3 1/8"
12	796.21	3 1/8"
13	796.47	3 1/8"
14	796.73	3 1/8"



ELEVATION
(Looking South)



PLAN

NOTE:
See anchor bolt detail on Sheet 54 of 81 .

MODEL: sMODELNAME5
FILE NAME: c:\pwworking\benesch projects\projects\dms65240\1010213_0214-shl-sabut-002.dgn



USER NAME =	DESIGNED - WKK	REVISED -
	CHECKED - MFH	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JHG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

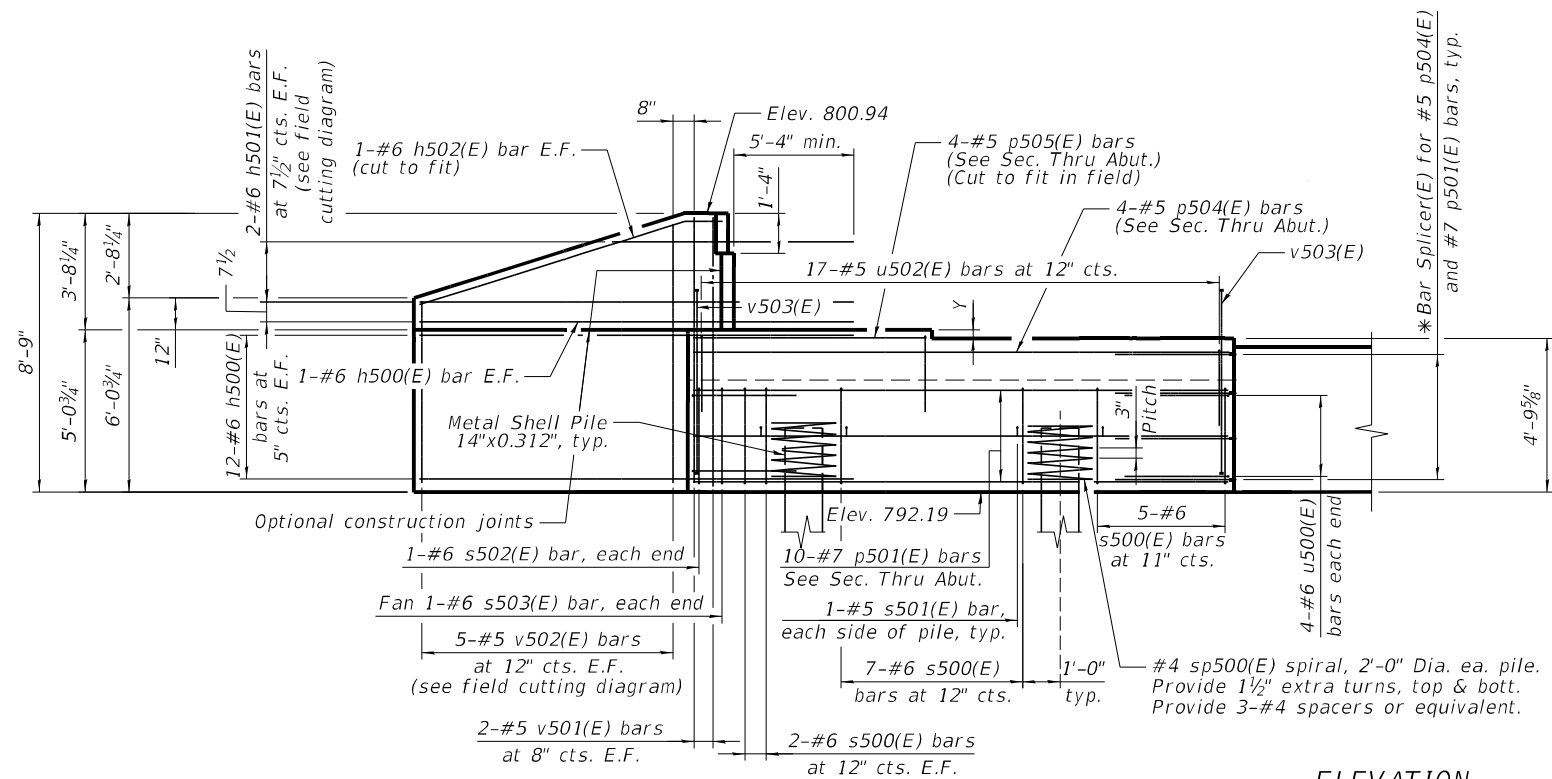
SOUTH ABUTMENT DETAILS (STAGE 2/2B)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 57 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	752
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

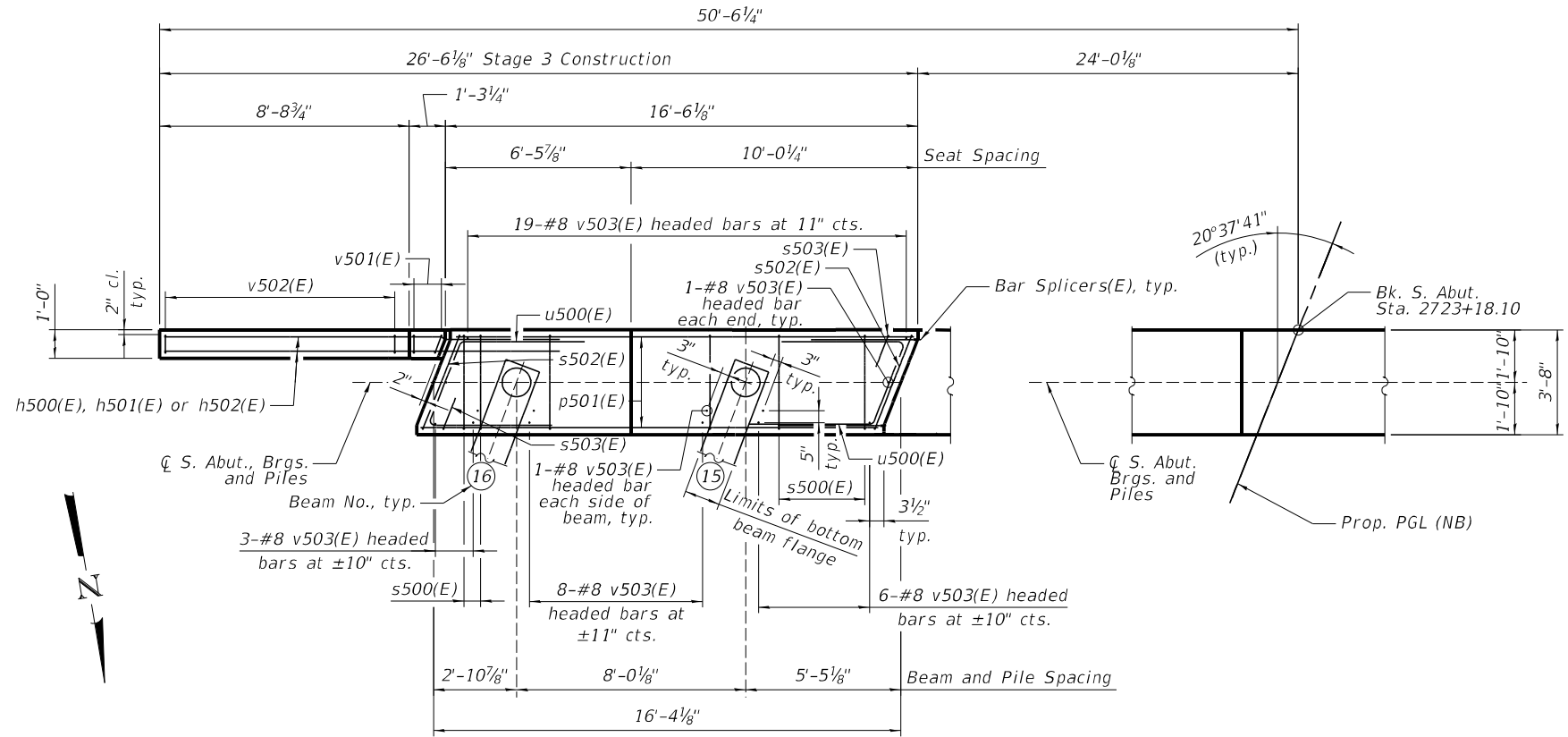
SEAT ELEVATIONS
& STEP HEIGHTS

Beam	Elev.	Y
15	796.99	3 1/8"
16	797.25	3 1/8"



* Non-contact lap splice.

ELEVATION
(Looking South)



PLAN

NOTE:
See anchor bolt detail on Sheet 54 of 81 .

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-shl-sabut-003.dgn



USER NAME =	DESIGNED - WKK	REVISED -
	CHECKED - MFH	REVISED -
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PLOT DATE =	CHECKED - JHG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

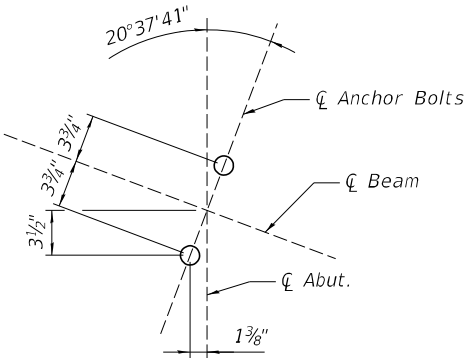
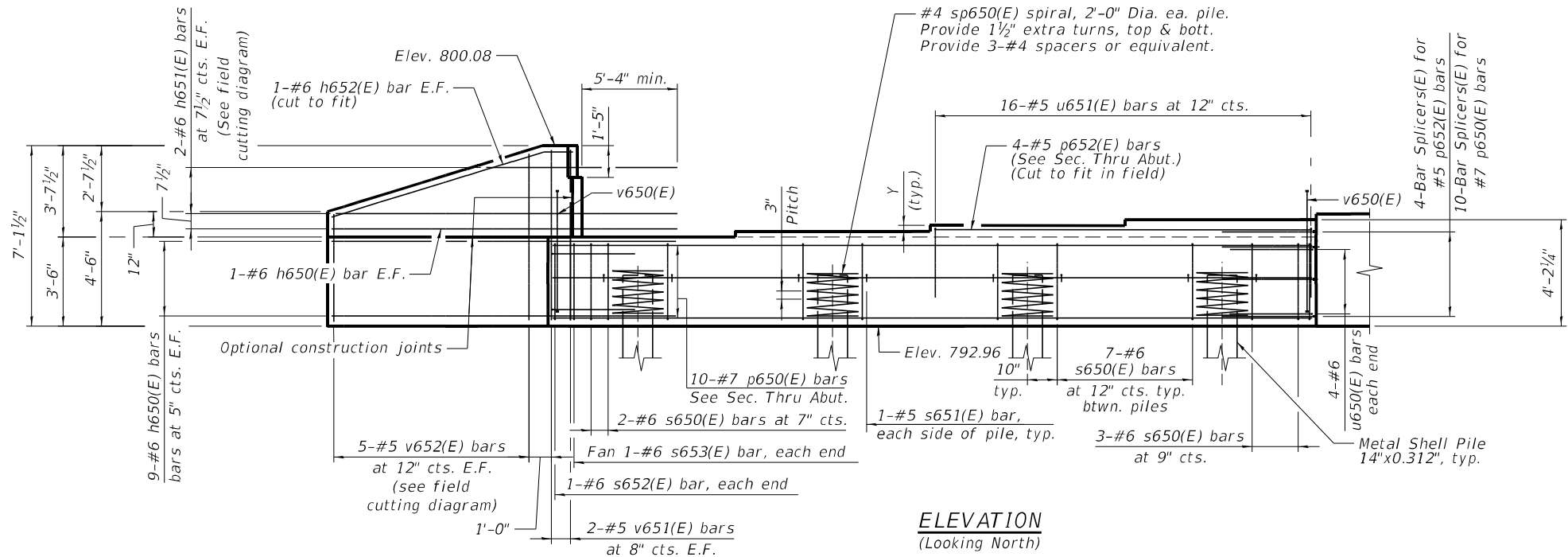
SOUTH ABUTMENT DETAILS (STAGE 3)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 58 OF 81 SHEETS

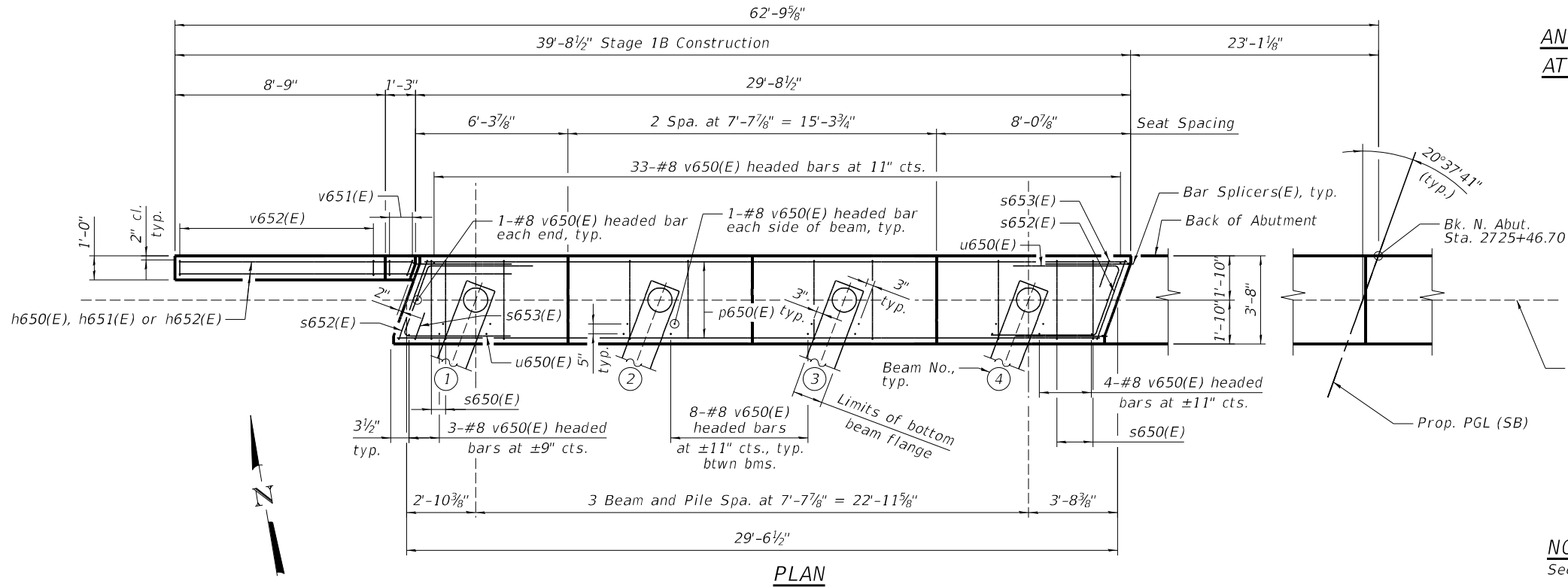
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39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	753
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

SEAT ELEVATIONS
& STEP HEIGHTS

Beam	Elev.	Y
1	796.46	---
2	796.69	2¾"
3	796.92	2¾"
4	797.15	2¾"



ANCHOR BOLT LAYOUT
AT NORTH ABUTMENT



NOTE:
See anchor bolt detail on Sheet 54 of 81 .

MODEL: sMODELNAME\$
FILE NAME: c:\pwworkdir\benesch_projects\projects\dms65240\1010213_0214-shl-nabur-001.dgn



USER NAME	=	DESIGNED - WKK	REVISED -
		CHECKED - MFH	REVISED -
PLOT SCALE	=	DRAWN - KMS	REVISED -
PLOT DATE	=	CHECKED - JHG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT DETAILS (STAGE 1B)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 59 OF 81 SHEETS

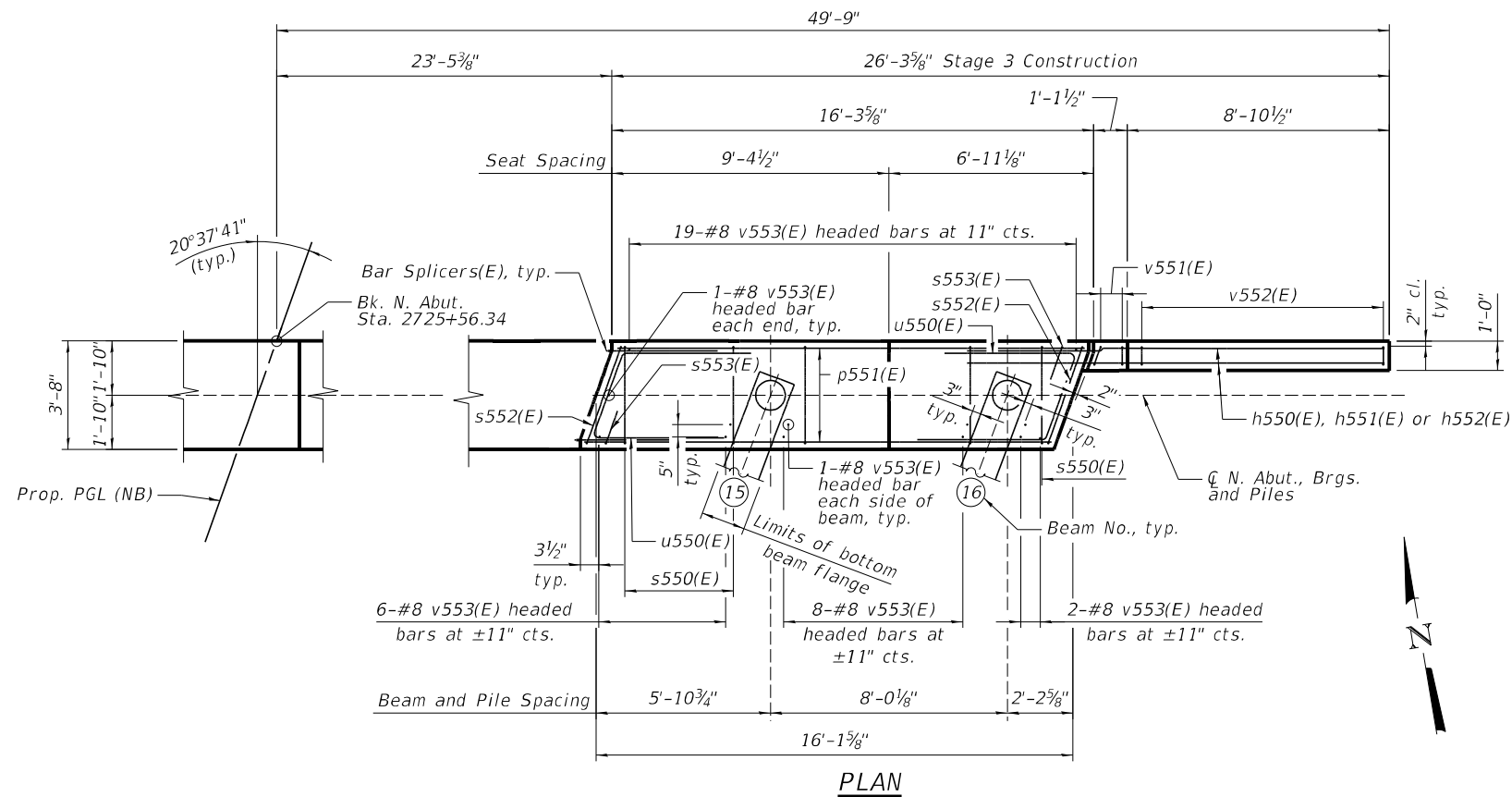
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39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	754
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

Beam	Elev.	Y
5	797.38	2 $\frac{3}{4}$ "
6	797.60	2 $\frac{5}{8}$ "
7	797.83	2 $\frac{3}{4}$ "
8	798.06	2 $\frac{3}{4}$ "
9	798.29	2 $\frac{3}{4}$ "
10	797.67	---
11	797.91	2' $\frac{6}{8}$ "
12	798.14	2 $\frac{3}{4}$ "
13	798.38	2' $\frac{6}{8}$ "
14	798.62	2' $\frac{8}{8}$ "



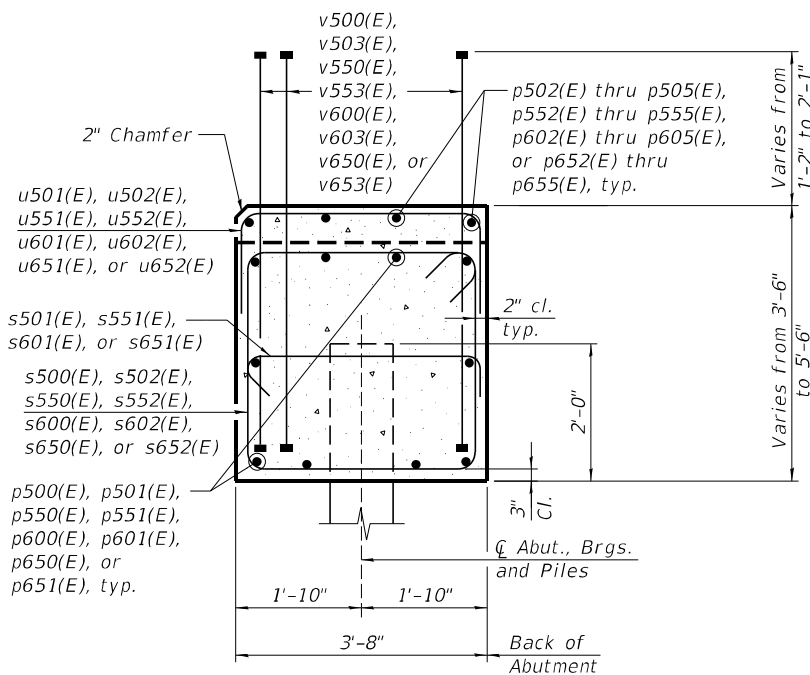
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MODEL: $MODELNAME$
FILE NAME: c:\pwwordin\benesch_projects\projects\dms65240\D264C24-1010213_0214-sht-nabut-002.dgn
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<i>Beam</i>	<i>Elev.</i>	<i>Y</i>
15	798.85	2 $\frac{3}{4}$ "
16	799.09	2 $\frac{7}{8}$ "

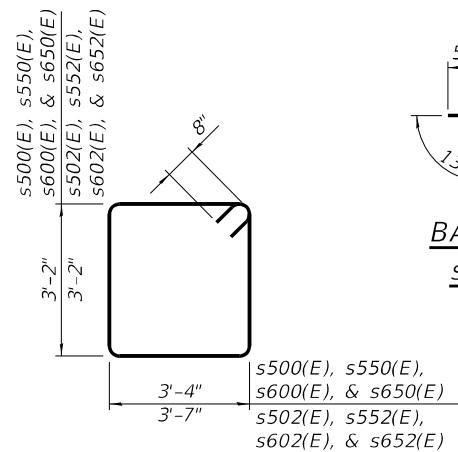


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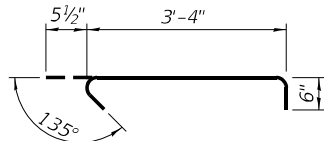
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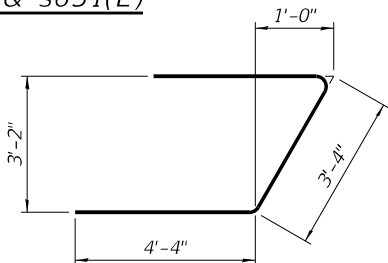
SEC. THRU ABUT.
(Dimensions at right angles to abutment.)



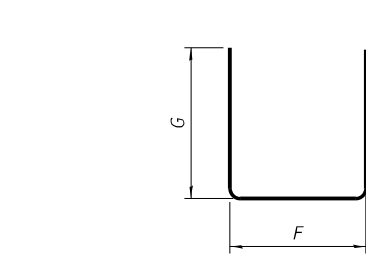
BAR s500(E), s502(E), s550(E), s552(E), s600(E), s602(E), s650(E), & s652(E)



BAR s501(E), s551(E), s601(E), & s651(E)



BAR u500(E), u550(E), u600(E), & u650(E)



BAR s503(E), s553(E), s603(E), s653(E) u501(E), u502(E), u551(E), u552(E) u601(E), u602(E), u651(E), or u652(E)

Bar	No.	Size	A	B	C	D	E
h501(E)	4	#6	9'-2"	15'-2"	15'-2"	9'-2"	24'-4"
h551(E)	4	#6	9'-2"	15'-2"	15'-2"	9'-2"	24'-4"
h601(E)	4	#6	9'-2"	15'-2"	15'-2"	9'-2"	24'-4"
h651(E)	4	#6	9'-2"	15'-2"	15'-2"	9'-2"	24'-4"
v502(E)	10	#5	5'-9"	8'-2"	8'-2"	5'-9"	13'-11"
v552(E)	10	#5	5'-8"	8'-0"	8'-0"	5'-8"	13'-8"
v602(E)	10	#5	4'-2"	6'-7"	6'-7"	4'-2"	10'-9"
v652(E)	10	#5	4'-2"	6'-7"	6'-7"	4'-2"	10'-9"

FIELD CUTTING DIAGRAM

Order h501(E), h551(E), h601(E), h651(E), v502(E), v552(E), v602(E), and v652(E) full length. Cut as shown and use remainder of bars on the opposite face of the wingwall.

**SOUTH ABUTMENT
BILL OF MATERIAL
SB (SN 101-0214)**

Bar	No.	Size	Length	Shape
h600(E)	20	#6	15'-4"	—
h601(E)	4	#6	24'-4"	—
h602(E)	2	#6	9'-10"	—
p600(E)	10	#7	29'-9"	—
p601(E)	10	#7	37'-5"	—
p602(E)	4	#5	14'-11"	—
p603(E)	4	#5	37'-5"	—
p604(E)	4	#5	18'-11"	—
p605(E)	4	#5	6'-9"	—
s600(E)	61	#6	14'-4"	—
s601(E)	18	#5	4'-4"	—
s602(E)	4	#6	14'-10"	—
s603(E)	4	#6	7'-2"	—
*sp600(E)	9	#4	2'-0"	—
u600(E)	16	#6	12'-0"	—
u601(E)	15	#5	6'-4"	—
u602(E)	39	#5	9'-4"	—
v600(E)	76	#8	5'-4"	—
v601(E)	4	#5	6'-7"	—
v602(E)	10	#5	10'-9"	—
v603(E)	94	#8	6'-4"	—
Structure Excavation	Cu. Yd.	159		
Concrete Structures	Cu. Yd.	43.6		
Reinforcement Bars, Epoxy Coated	Pound	7,890		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	160		
Driving Piles	Foot	160		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	9		

**SOUTH ABUTMENT
BILL OF MATERIAL
NB (SN 101-0213)**

Bar	No.	Size	Length	Shape
h500(E)	26	#6	15'-4"	—
h501(E)	4	#6	24'-4"	—
h502(E)	2	#6	9'-10"	—
p500(E)	10	#7	38'-0"	—
p501(E)	10	#7	16'-0"	—
p502(E)	4	#5	19'-7"	—
p503(E)	4	#5	6'-10"	—
p504(E)	4	#5	16'-0"	—
p505(E)	4	#5	7'-2"	—
s500(E)	47	#6	14'-4"	—
s501(E)	14	#5	4'-4"	—
s502(E)	4	#6	14'-10"	—
s503(E)	4	#6	7'-2"	—
*sp500(E)	7	#4	2'-0"	—
u500(E)	16	#6	12'-0"	—
u501(E)	23	#5	7'-6"	—
u502(E)	17	#5	8'-6"	—
v500(E)	94	#8	5'-4"	—
v501(E)	4	#5	8'-3"	—
v502(E)	10	#5	13'-11"	—
v503(E)	42	#8	6'-8"	—
Structure Excavation	Cu. Yd.	102		
Concrete Structures	Cu. Yd.	34.6		
Reinforcement Bars, Epoxy Coated	Pound	6,530		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	126		
Driving Piles	Foot	126		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	7		

* Length is height of spiral

**NORTH ABUTMENT
BILL OF MATERIAL
SB (SN 101-0214)**

Bar	No.	Size	Length	Shape
h650(E)	20	#6	15'-4"	—
h651(E)	4	#6	24'-4"	—
h652(E)	2	#6	9'-10"	—
p650(E)	10	#7	29'-2"	—
p651(E)	10	#7	36'-11"	—
p652(E)	4	#5	15'-4"	—
p653(E)	4	#5	36'-11"	—
p654(E)	4	#5	15'-11"	—
p655(E)	4	#5	6'-8"	—
s650(E)	59	#6	14'-4"	—
s651(E)	18	#5	4'-4"	—
s652(E)	4	#6	14'-10"	—
s653(E)	4	#6	7'-2"	—
*sp650(E)	9	#4	2'-0"	—
u650(E)	16	#6	12'-0"	—
u651(E)	16	#5	6'-4"	—
u652(E)	38	#5	9'-0"	—
v650(E)	74	#8	5'-4"	—
v651(E)	4	#5	6'-7"	—
v652(E)	10	#5	10'-9"	—
v653(E)	92	#8	6'-3"	—
Structure Excavation	Cu. Yd.	159		
Concrete Structures	Cu. Yd.	42.2		
Reinforcement Bars, Epoxy Coated	Pound	7,730		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	224		
Driving Piles	Foot	224		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	9		

**NORTH ABUTMENT
BILL OF MATERIAL
NB (SN 101-0213)**

Bar	No.	Size	Length	Shape
h550(E)	26	#6	15'-4"	—
h551(E)	4	#6	24'-4"	—
h552(E)	2	#6	9'-10"	—
p550(E)	10	#7	37'-6"	—
p551(E)	10	#7	15'-11"	—
p552(E)	4	#5	19'-7"	—
p553(E)	4	#5	6'-3"	—
p554(E)	4	#5	15'-11"	—
p555(E)	4	#5	6'-5"	—
s550(E)	45	#6	14'-4"	—
s551(E)	14	#5	4'-4"	—
s552(E)	4	#6	14'-10"	—
s553(E)	4	#6	7'-2"	—
*sp550(E)	7	#4	2'-0"	—
u550(E)	16	#6	12'-0"	—
u551(E)	22	#5	7'-4"	—
u552(E)	15	#5	8'-4"	—
v550(E)	92	#8	5'-4"	—
v551(E)	4	#5	8'-1"	—
v552(E)	10	#5	13'-8"	—
v553(E)	41	#8	6'-6"	—
Structure Excavation	Cu. Yd.	103		
Concrete Structures	Cu. Yd.	33.6		
Reinforcement Bars, Epoxy Coated	Pound	6,370		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	174		
Driving Piles	Foot	174		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	7		

PILE DATA - S. ABUT. - NORTHBOUND

Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 21 feet
No. Production Piles: 6
No. Test Piles: 1

PILE DATA - N. ABUT. - NORTHBOUND

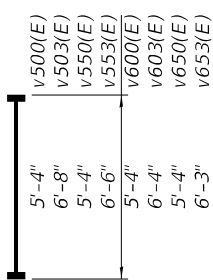
Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 29 feet
No. Production Piles: 6
No. Test Piles: 1

PILE DATA - S. ABUT. - SOUTHBOUND

Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 20 feet
No. Production Piles: 8
No. Test Piles: 1

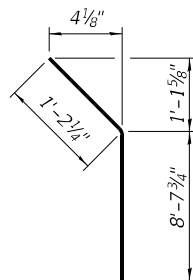
PILE DATA - N. ABUT. - SOUTHBOUND

Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 28 feet
No. Production Piles: 8
No. Test Piles: 1



BAR v500(E), v503(E), v550(E), v553(E) v600(E), v603(E), v650(E) & v653(E)

(Headed. 1210-#8 Bar Terminators)



BAR h502(E), h552(E), h602(E), & h652(E)

NOTES:

1. Pour steps monolithically with cap.
2. Bar terminators, paid for separately. See Total Bill of Materials.
3. For details of piles see Sheet 74 of 81.



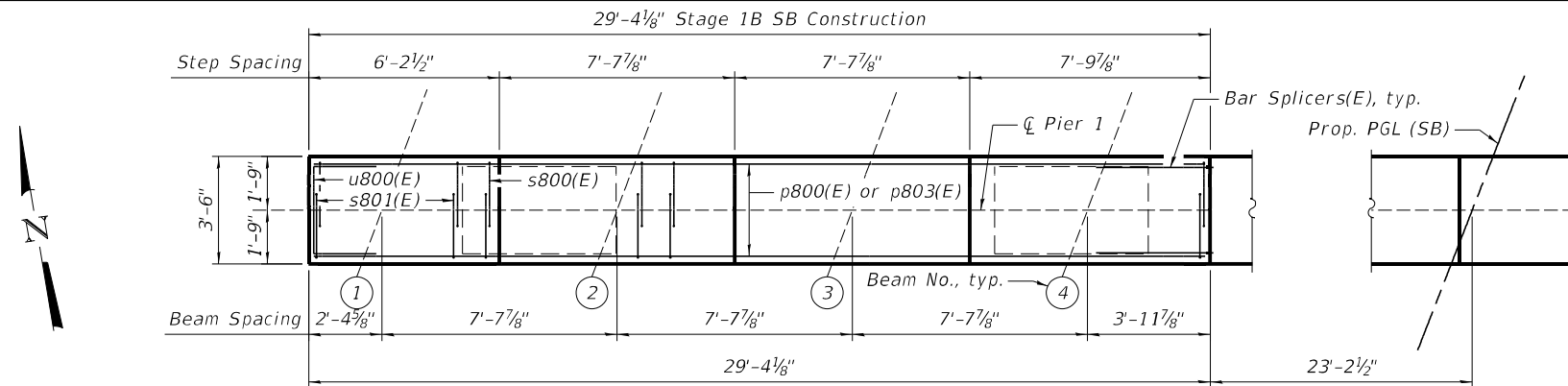
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DEPARTMENT OF TRANSPORTATION**

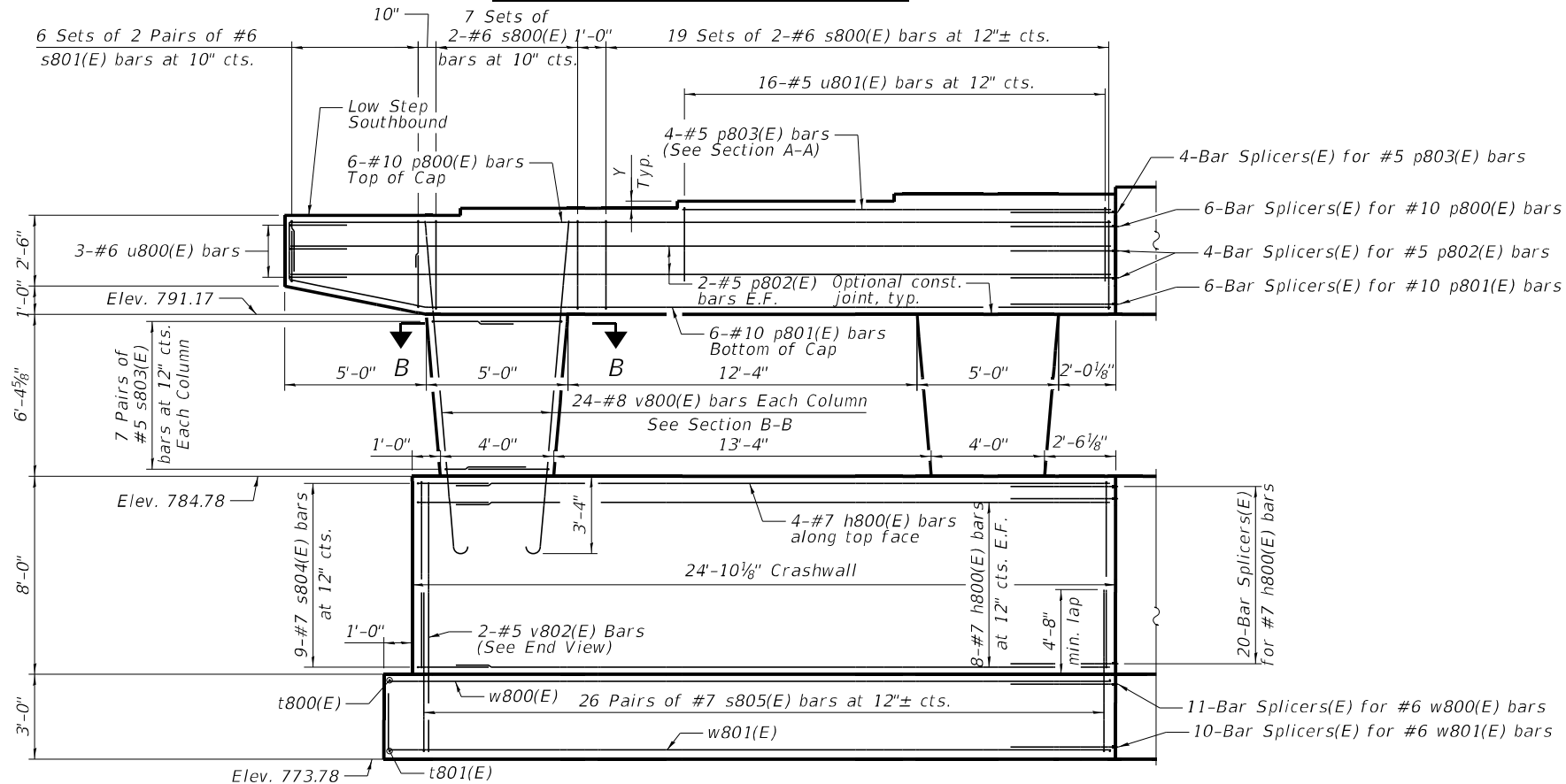
**ABUTMENT DETAILS
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 62 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	757
CONTRACT NO. 64C24				
ILLINOIS / FED. AID PROJECT				

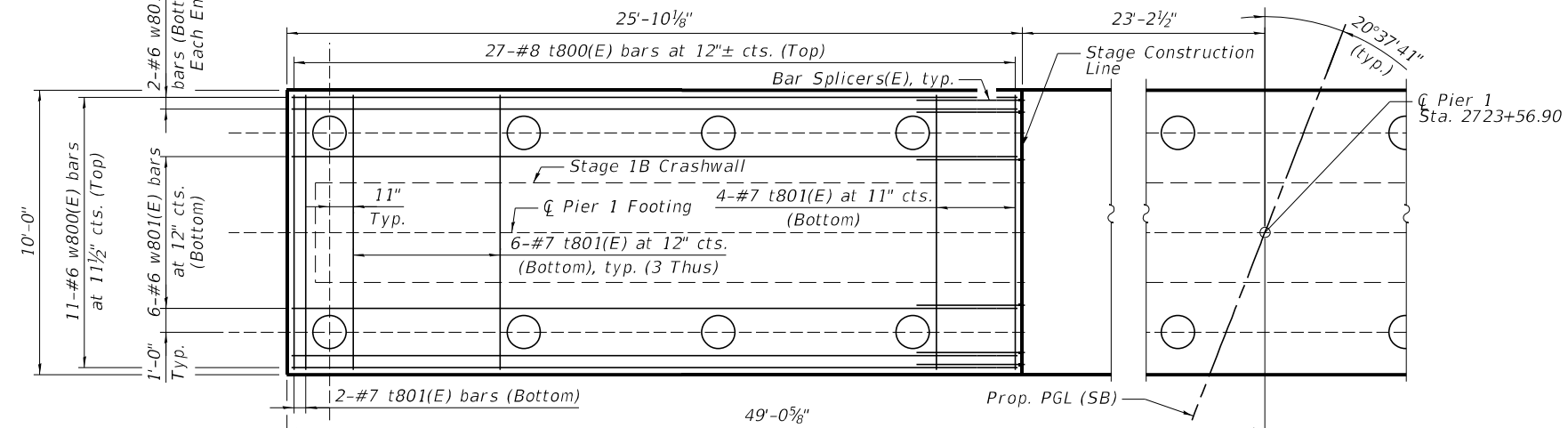


PIER CAP TOP PLAN - STAGE 1B



PIER ELEVATION - STAGE 1B

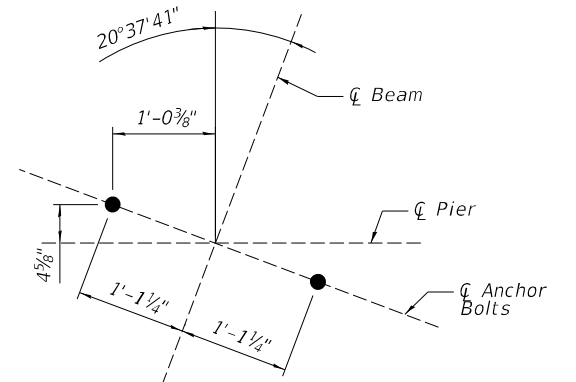
(Looking North)



FOOTING PLAN - STAGE 1B

SEAT ELEVATIONS
& STEP HEIGHTS

Beam	Elev.	Y
1	794.67	---
2	794.92	3"
3	795.17	3"
4	795.41	2 7/8"



ANCHOR BOLT LAYOUT
AT PIER 1

NOTES:

- See Sheet 72 of 81 for End View and Sections A-A and B-B.
- See Sheet 4 and 5 of 81 for pile spacings.

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-shi-pier-001.dgn



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	CHECKED - JHG	REVISED -
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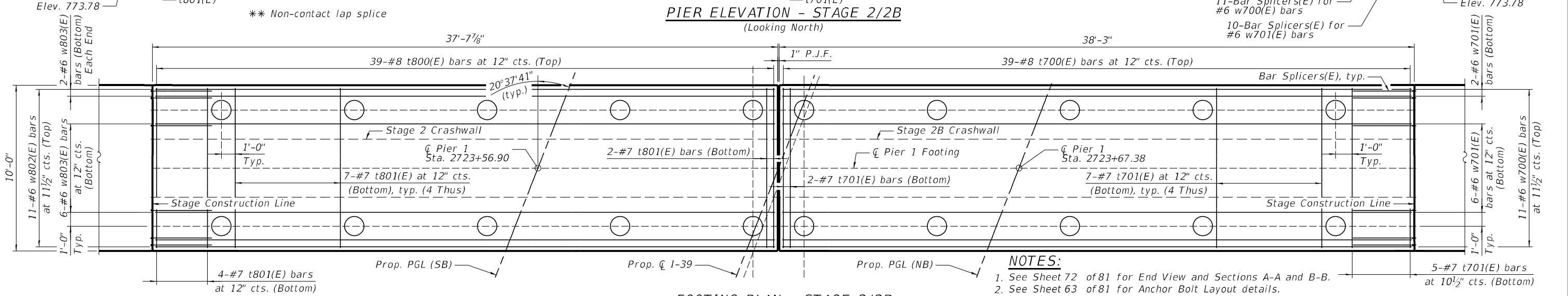
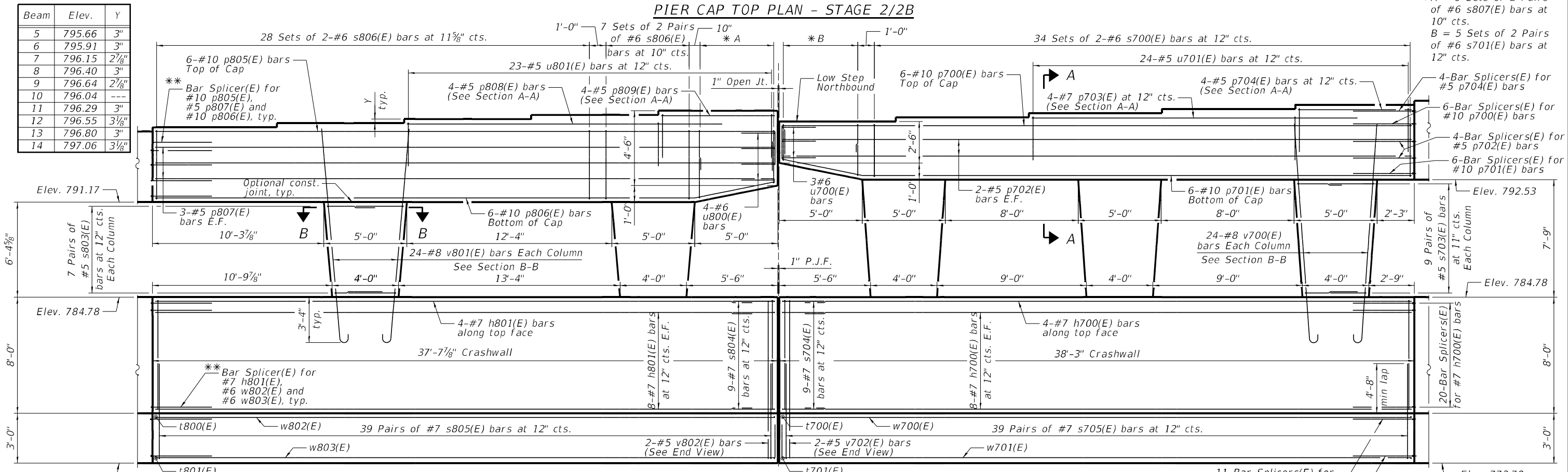
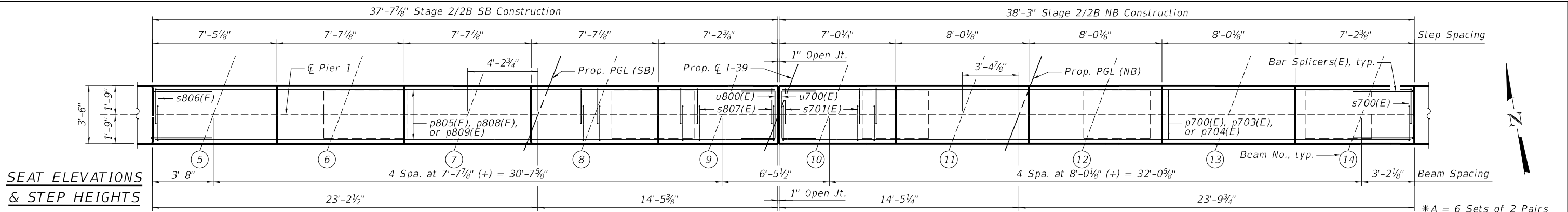
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS (STAGE 1B)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 63 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	758
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

4/22/2025 12:42:51 PM



- NOTES:**
1. See Sheet 72 of 81 for End View and Sections A-A and B-B.
 2. See Sheet 63 of 81 for Anchor Bolt Layout details.
 3. See Sheets 4 and 5 of 81 for pile spacing.

MODEL: sMODELNAME5
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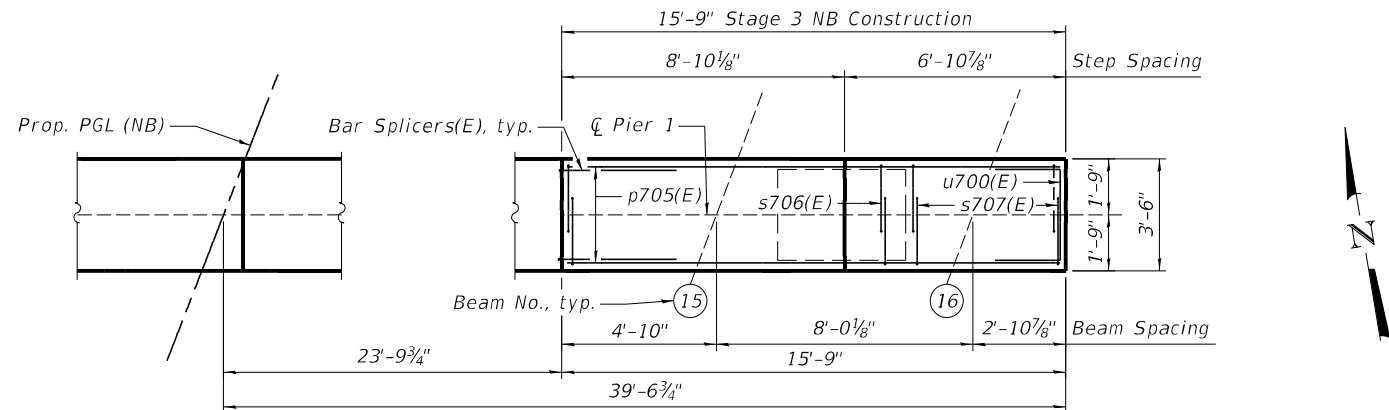
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PLOT DATE	=	DRAWN	-	KMS	REVISED	-
		CHECKED	-	JHG	REVISED	-

STATE OF ILLINOIS
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PIER 1 DETAILS (2/2B)
STRUCTURE NO. 101-0213 & 101-0214

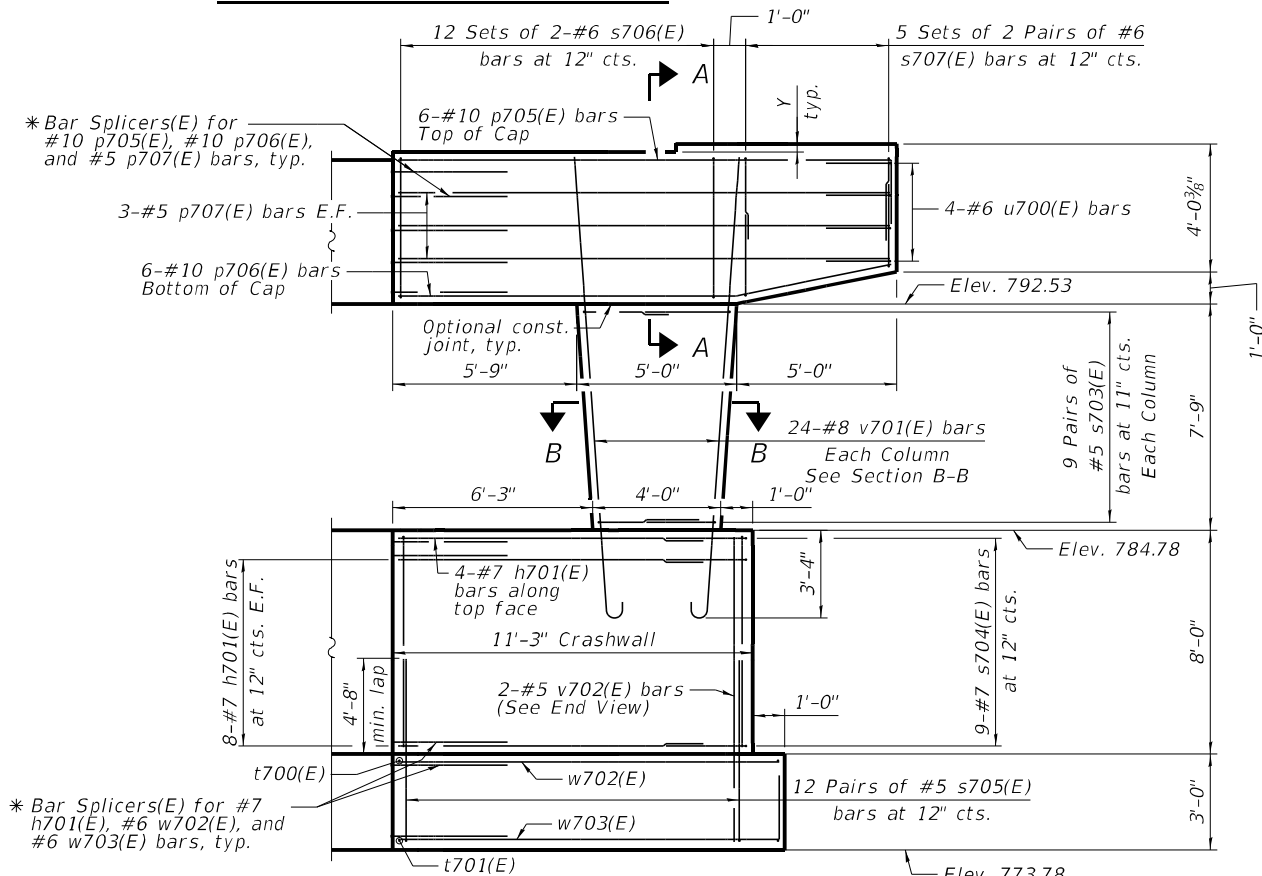
SHEET 64 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	759
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

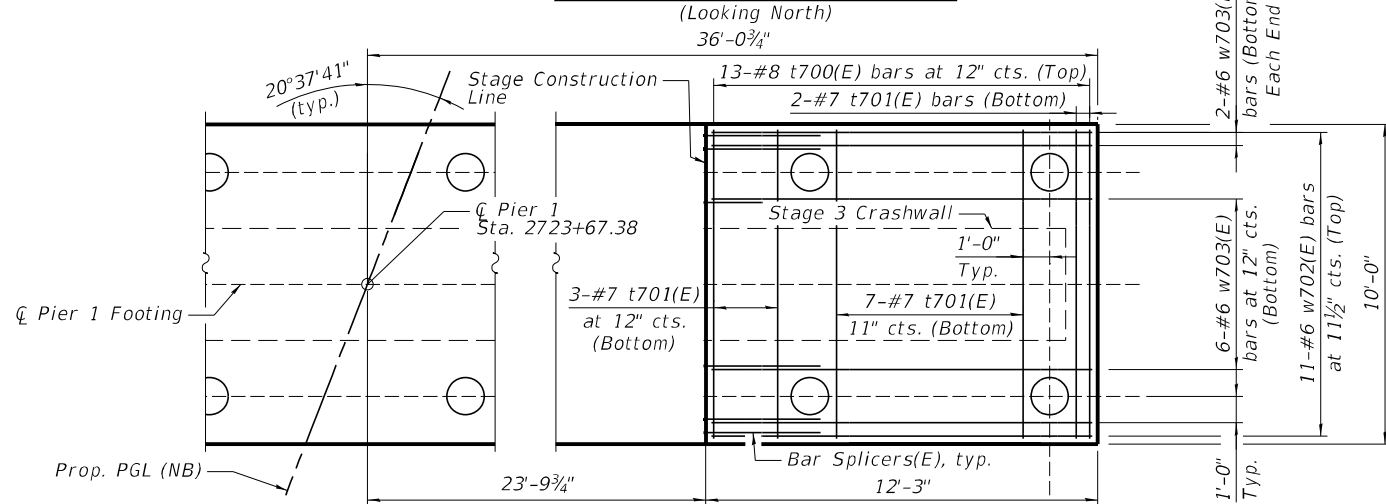


PIER CAP TOP PLAN - STAGE 3

* Non-contact lap splice.



PIER ELEVATION - STAGE 3



FOOTING PLAN - STAGE 3

**SEAT ELEVATIONS
& STEP HEIGHTS**

Beam	Elev.	Y
15	797.31	3"
16	797.57	3 1/8"

NOTES:

1. See Sheet 72 of 81 for End View and Sections A-A and B-B.
2. See Sheet 63 of 81 for Anchor Bolt Layout details.
3. See Sheets 4 and 5 of 81 for pile spacing.

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-sht-pier-003.dgn



Alfred Benesch & Company
35 W Wacker Drive, Suite 3300
Chicago, Illinois 60601
312.465.4150 Job No. 10800

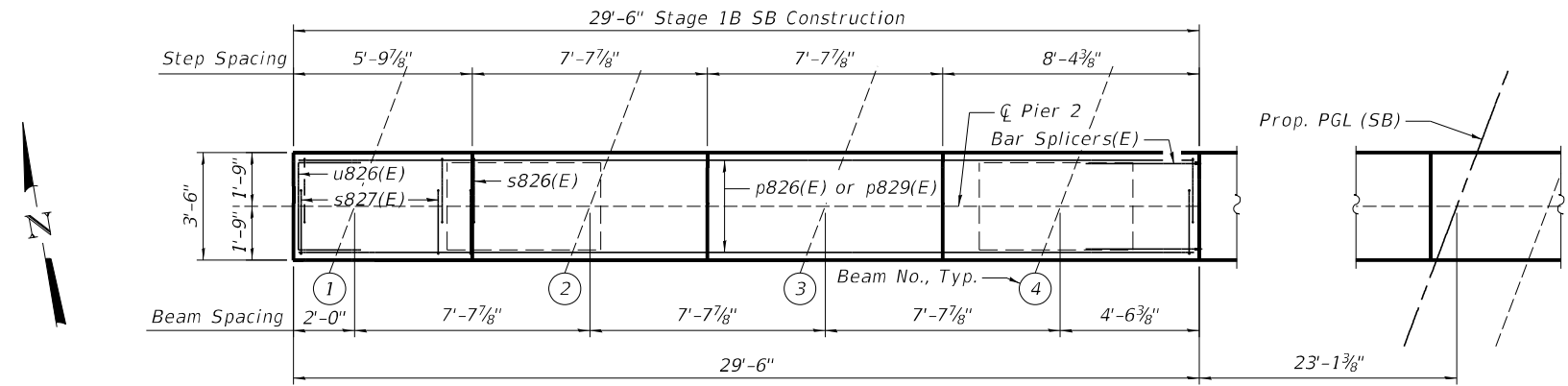
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	CHECKED - JHG	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JHG	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 1 DETAILS (STAGE 3)
STRUCTURE NO. 101-0213 & 101-0214**

SHEET 65 OF 81 SHEETS

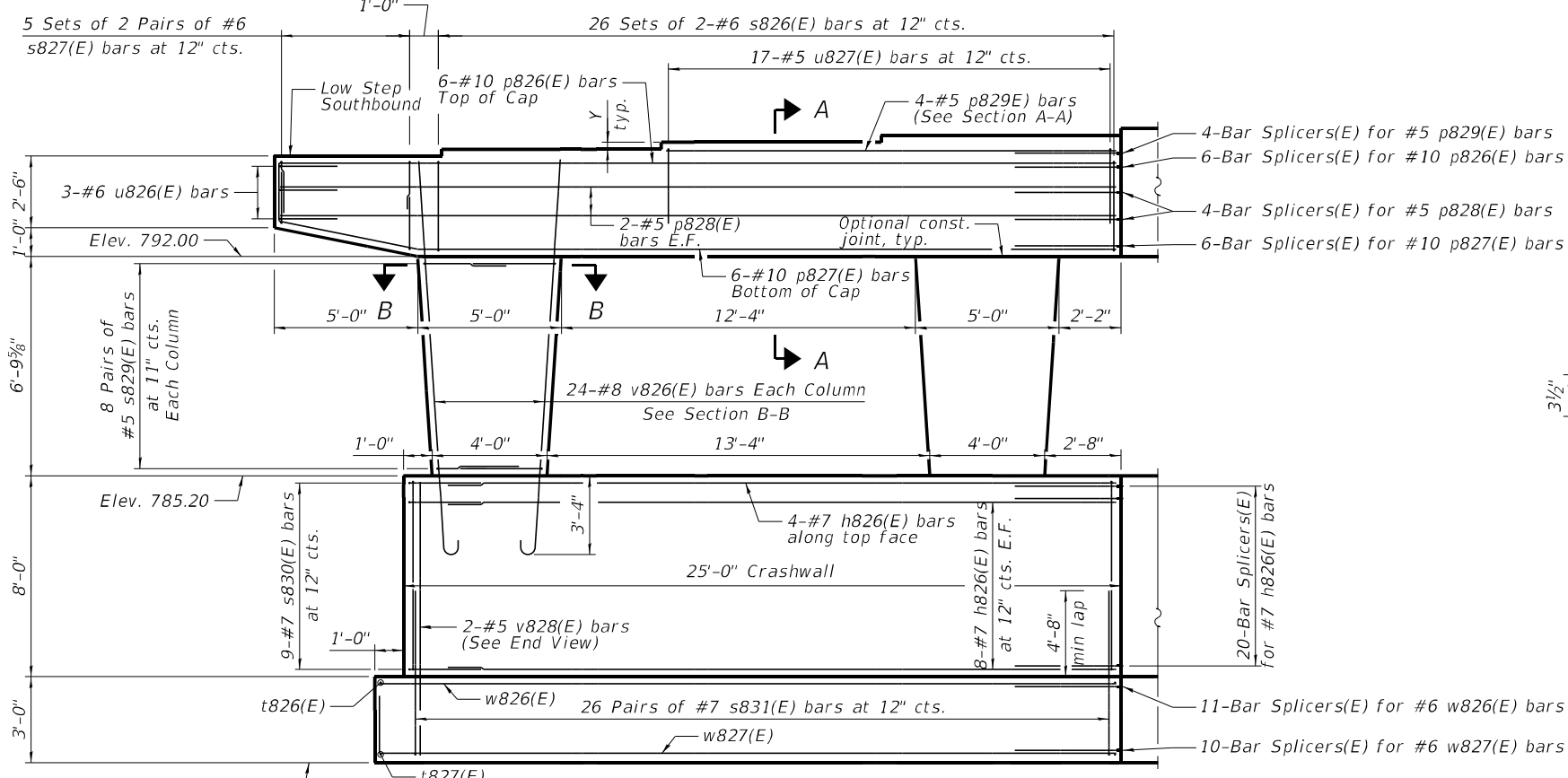
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	760
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	



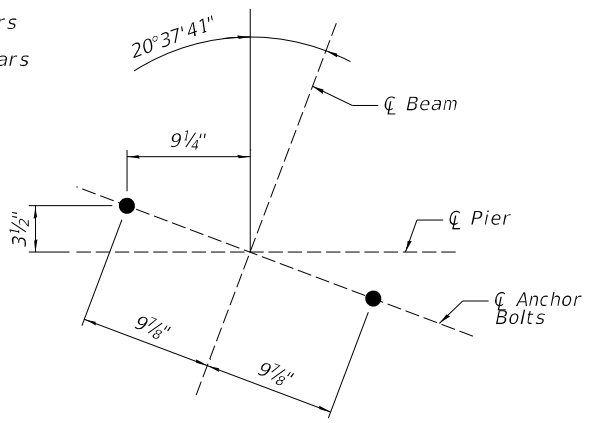
PIER CAP TOP PLAN - STAGE 1B

SEAT ELEVATIONS & STEP HEIGHTS

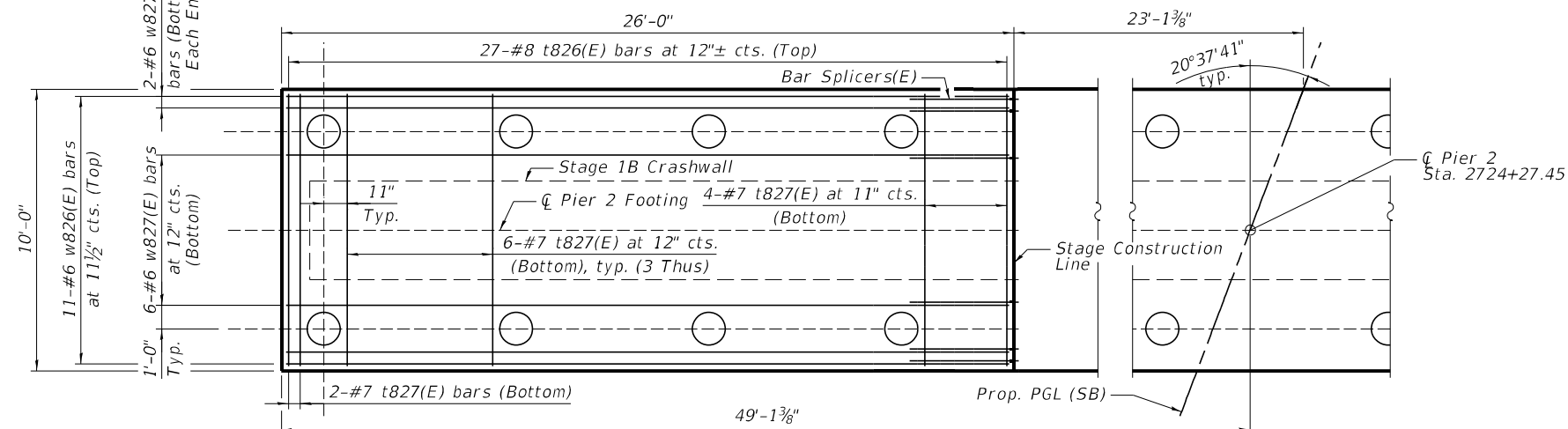
Beam	Elev.	Y
1	795.50	---
2	795.74	2 7/8"
3	795.98	2 7/8"
4	796.22	2 7/8"



PIER ELEVATION - STAGE 1B
(Looking North)



ANCHOR BOLT LAYOUT
AT PIER 2



FOOTING PLAN - STAGE 1B

- NOTES:**
- See Sheet 72 of 81 for End View and Sections A-A and B-B.
 - See Sheets 4 and 5 of 81 for pile spacing.

MODEL: sMODELNAME5
FILE NAME: c:\pwworking\benesch_projects\projects\dms65240\1010213_0214-shi-pier-004.dgn

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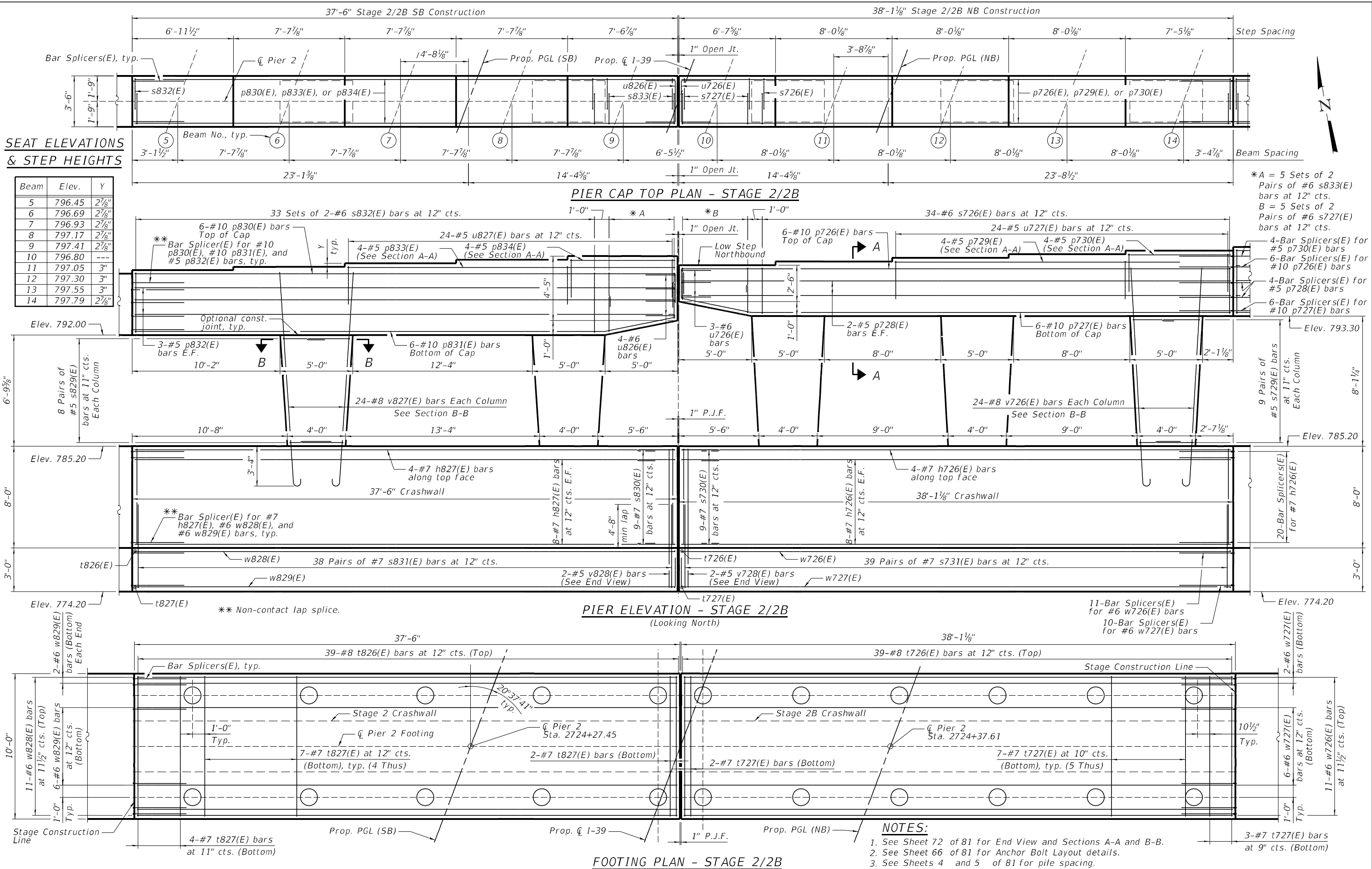
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		CHECKED	-	JHG	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JHG	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS (STAGE 1B)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 66 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	761
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



Beam	Elev.	Y
5	796.45	27/8"
6	796.69	27/8"
7	796.93	27/8"
8	797.17	27/8"
9	797.41	27/8"
10	796.80	---
11	797.05	3"
12	797.30	3"
13	797.55	3"
14	797.79	27/8"

MODEL: sMODELNAME5
FILE NAME: c:\pwworking\benesch_projects\projects\dms65240\1010213_0214-shi-pier-005.dgn



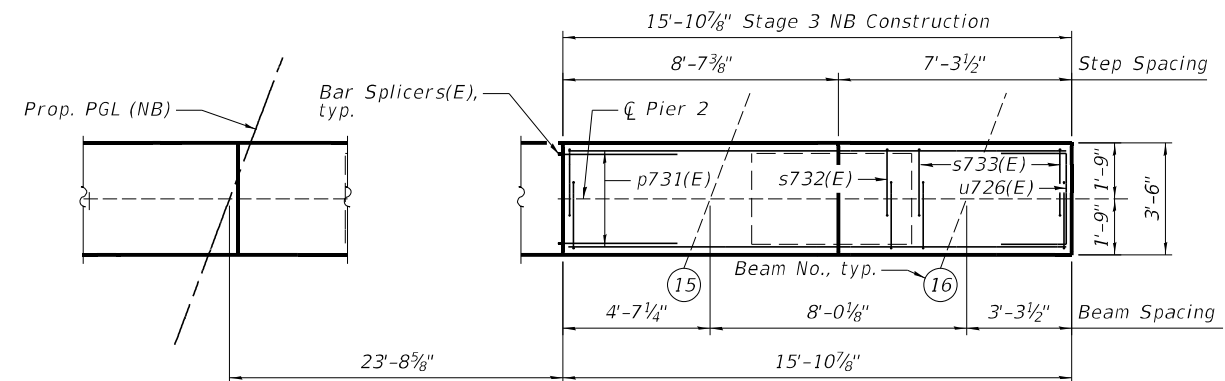
USER NAME	=	DESIGNED	-	WKK	REVISED	-
PLOT SCALE	=	CHECKED	-	JHG	REVISED	-
PLOT DATE	=	DRAWN	-	KMS	REVISED	-
		CHECKED	-	JHG	REVISED	-

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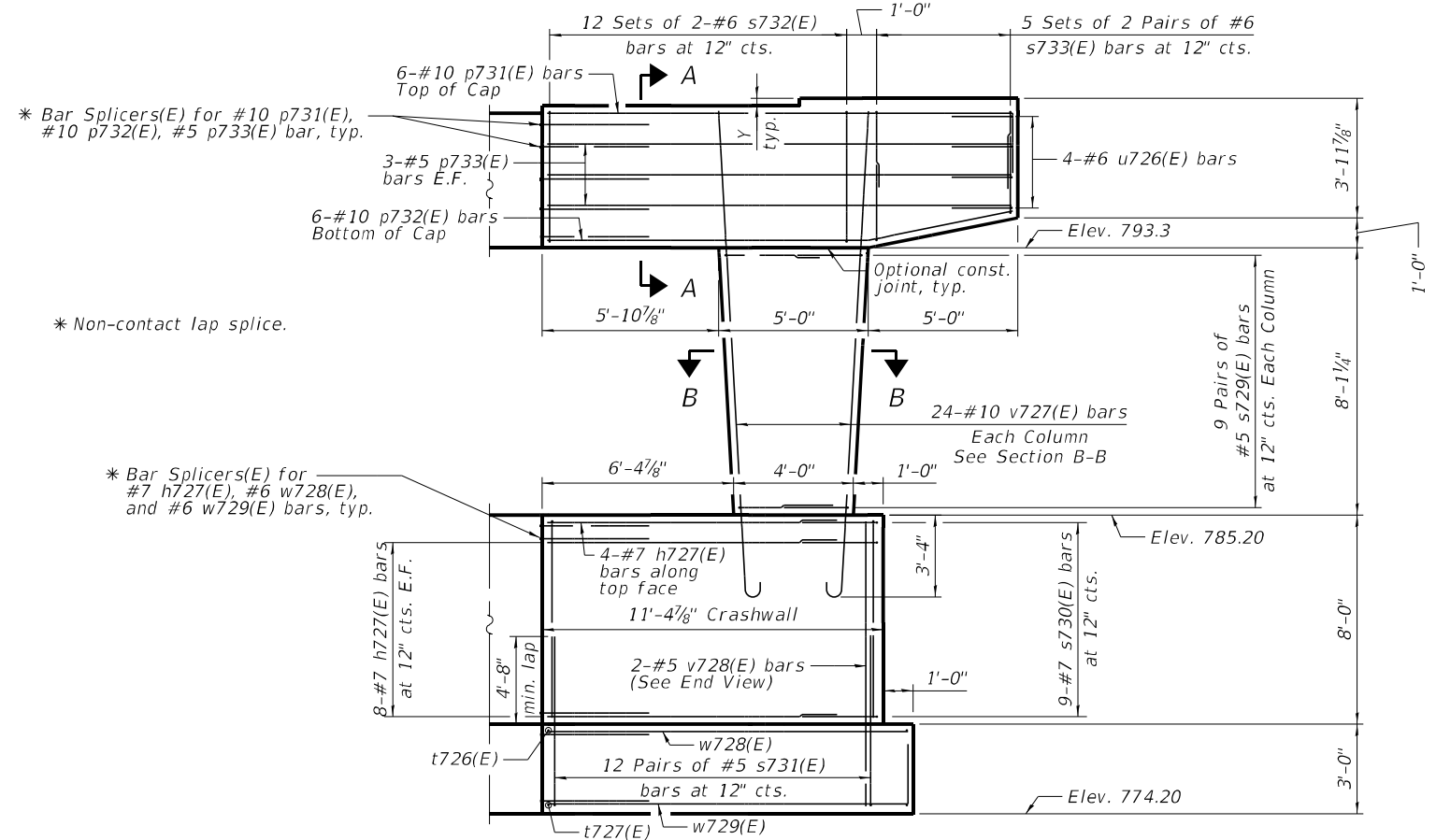
PIER 2 DETAILS (2/2B)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 67 OF 81 SHEETS

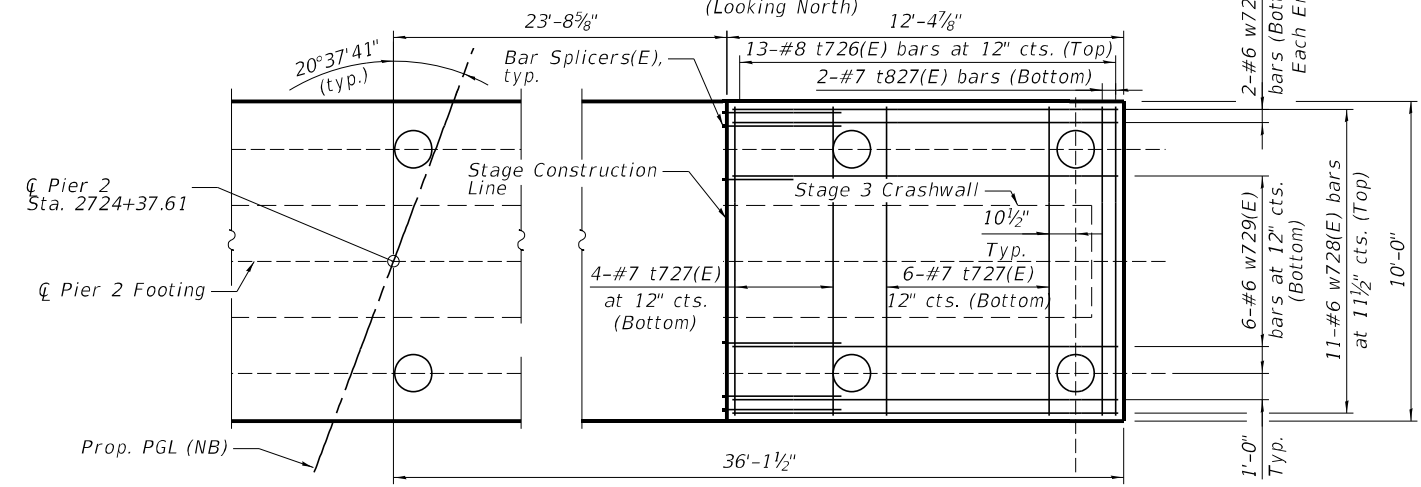
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	762
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



PIER CAP TOP PLAN - STAGE 3



PIER ELEVATION - STAGE 3
(Looking North)



FOOTING PLAN - STAGE 3

SEAT ELEVATIONS
& STEP HEIGHTS

Beam	Elev.	Y
15	798.04	3"
16	798.29	3"

NOTES:

1. See Sheet 72 of 81 for End View and Sections A-A and B-B.
2. See Sheet 66 of 81 for Anchor Bolt Layout details.
3. See Sheets 4 and 5 of 81 for pile spacing.

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-sht-pier-006.dgn



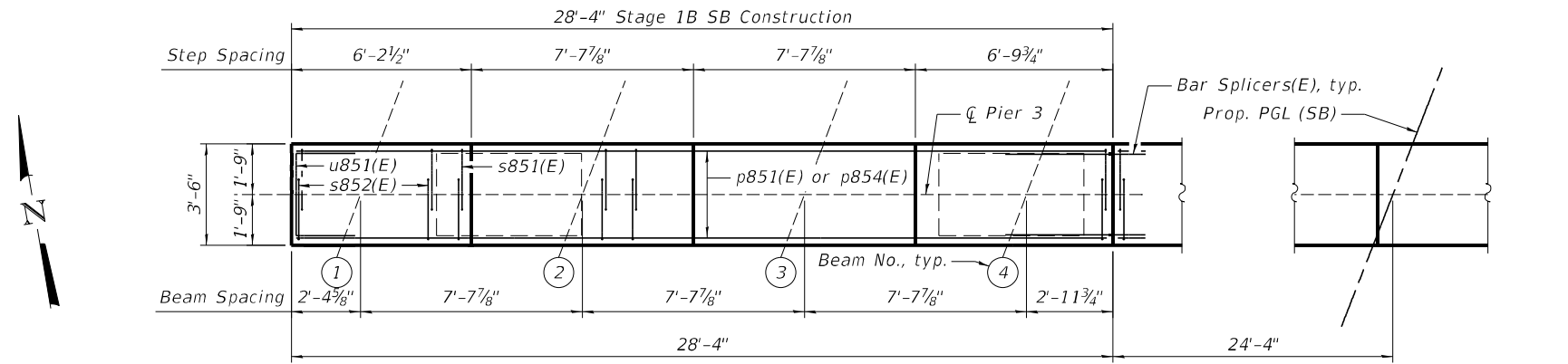
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	CHECKED - JHG	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JHG	REVISED -

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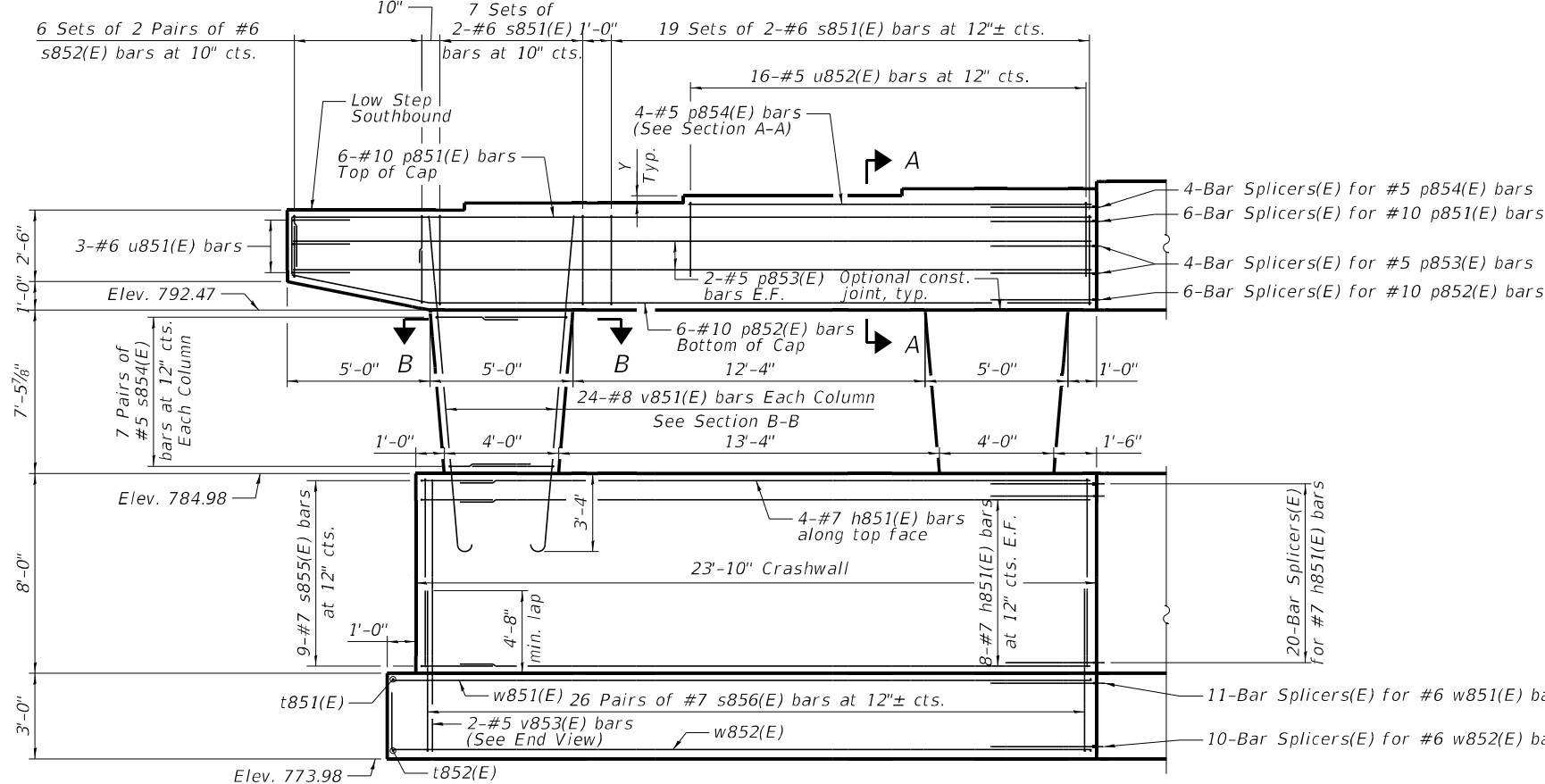
PIER 2 DETAILS (STAGE 3)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 68 OF 81 SHEETS

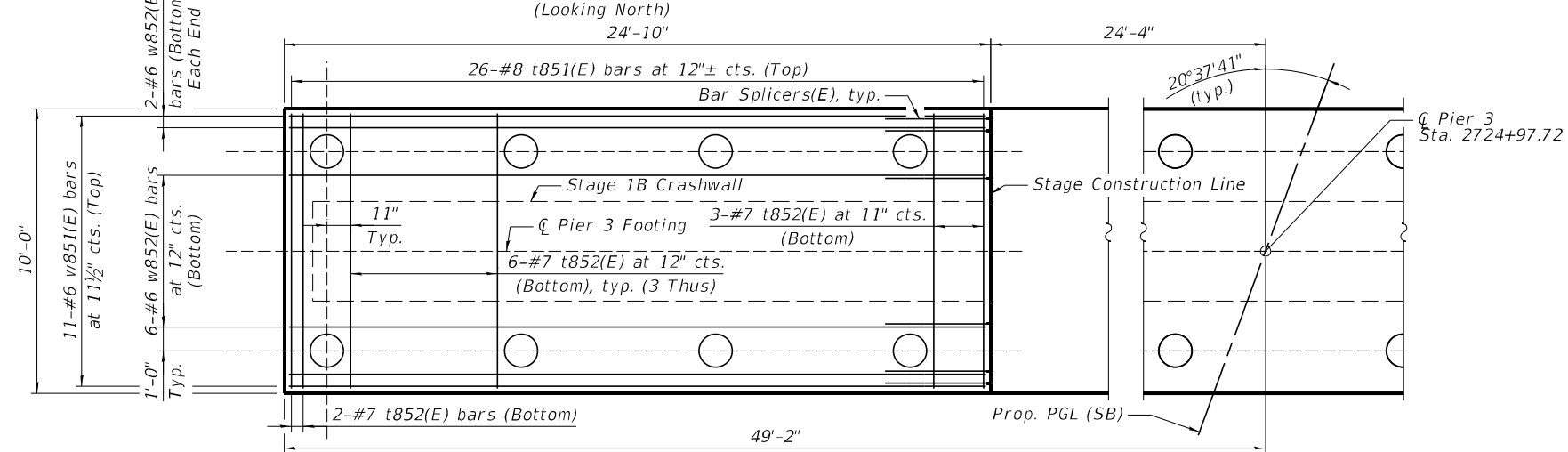
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	763
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



PIER CAP TOP PLAN - STAGE 1B



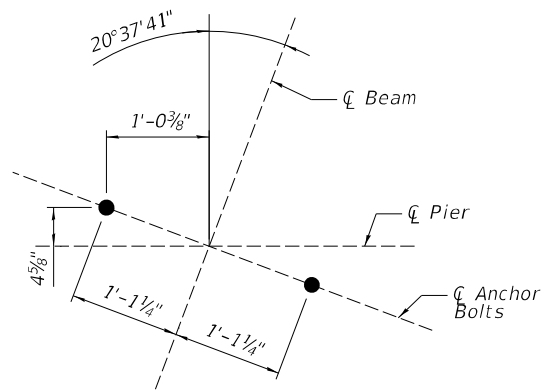
PIER ELEVATION - STAGE 1B
(Looking North)



FOOTING PLAN - STAGE 1B

SEAT ELEVATIONS
& STEP HEIGHTS

Beam	Elev.	Y
1	795.97	---
2	796.21	2 7/8"
3	796.44	2 3/4"
4	796.67	2 3/4"



ANCHOR BOLT LAYOUT
AT PIER 3

NOTES:

- See Sheet 72 of 81 for End View and Sections A-A and B-B.
- See Sheets 4 and 5 of 81 for pile spacing.

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-shi-pier-007.dgn



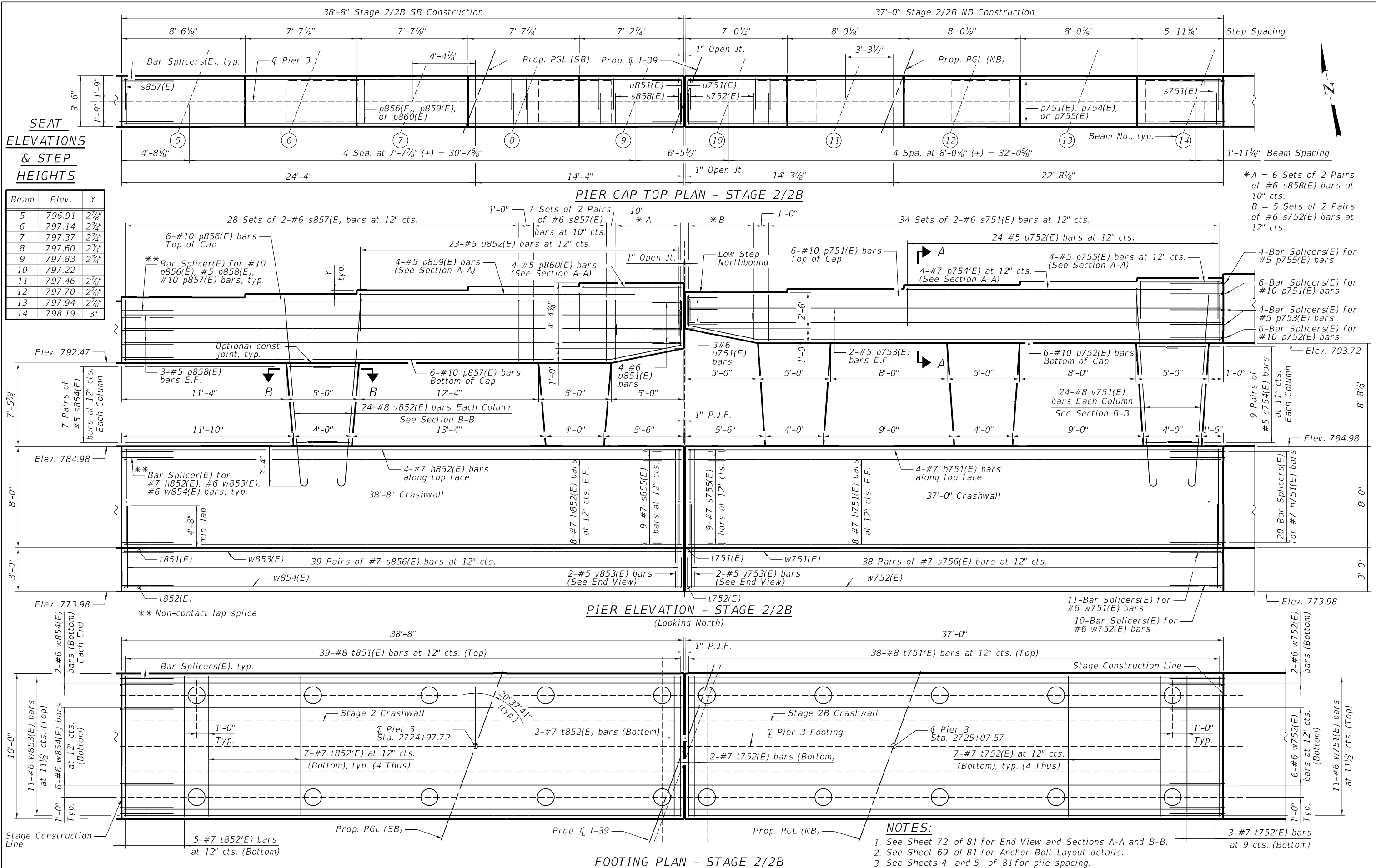
USER NAME =	DESIGNED - WKK	REVISED -
	CHECKED - JHG	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JHG	REVISED -

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PIER 3 DETAILS (STAGE 1B)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 69 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	764
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



MODEL: sMODELNAME5
FILE NAME: c:\pwworking\benesch\projects\projects\dms65240\1010213_0214-shi-pier-008.dgn
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USER NAME	=	DESIGNED	-	WKK	REVISED	-
		CHECKED	-	JHG	REVISED	-
PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JHG	REVISED	-

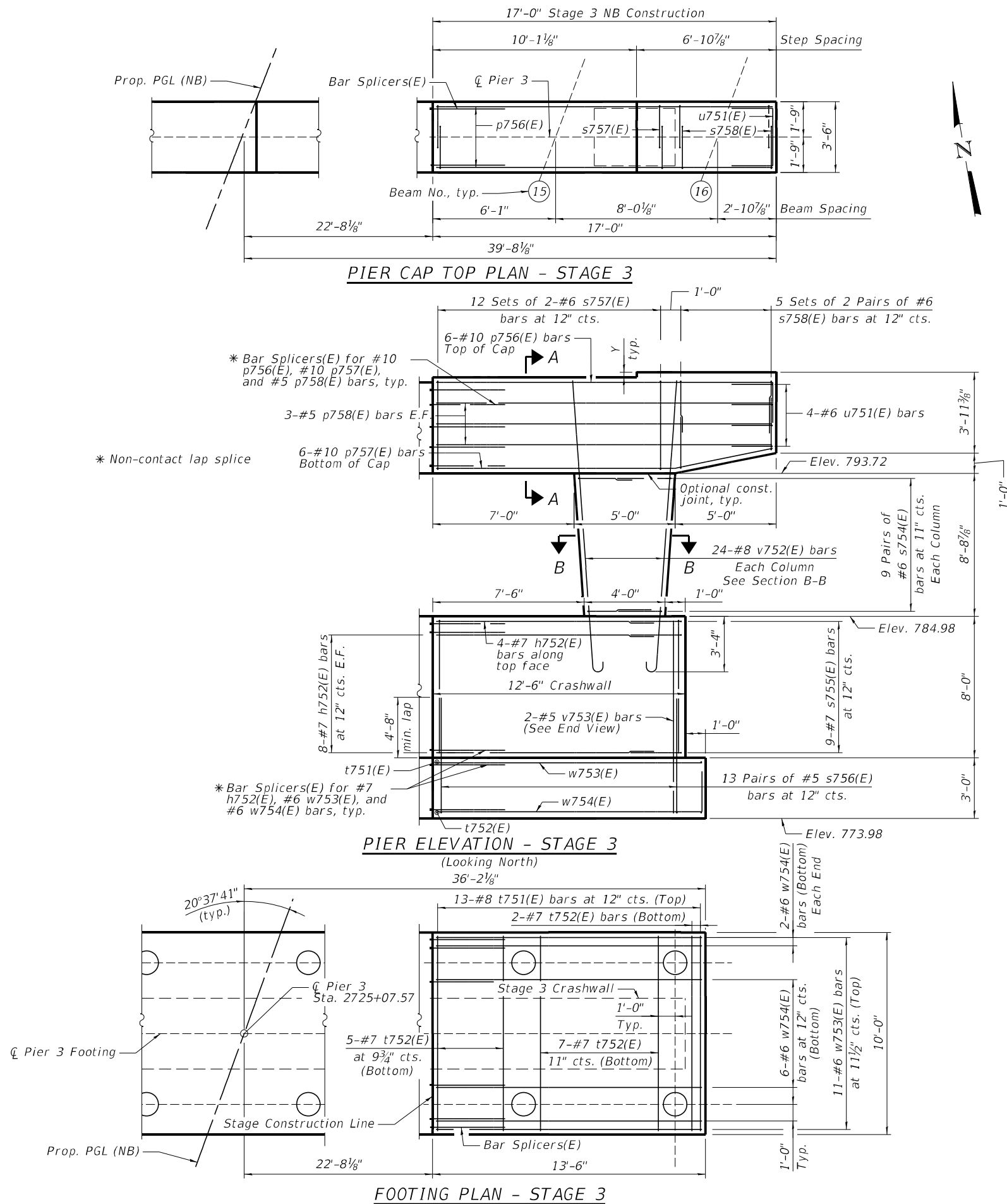
STATE OF ILLINOIS
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PIER 3 DETAILS (STAGE 2/2B)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 70 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	765
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

MODEL: sMODELNAME\$
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-sht-pier-009.dgn



SEAT ELEVATIONS & STEP HEIGHTS

Beam	Elev.	Y
15	798.43	2 7/8"
16	798.67	2 7/8"

NOTES:

- See Sheet 72 of 81 for End View and Sections A-A and B-B.
- See Sheet 69 of 81 for Anchor Bolt Layout details.
- See Sheets 4 and 5 of 81 for pile spacing.



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

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DEPARTMENT OF TRANSPORTATION

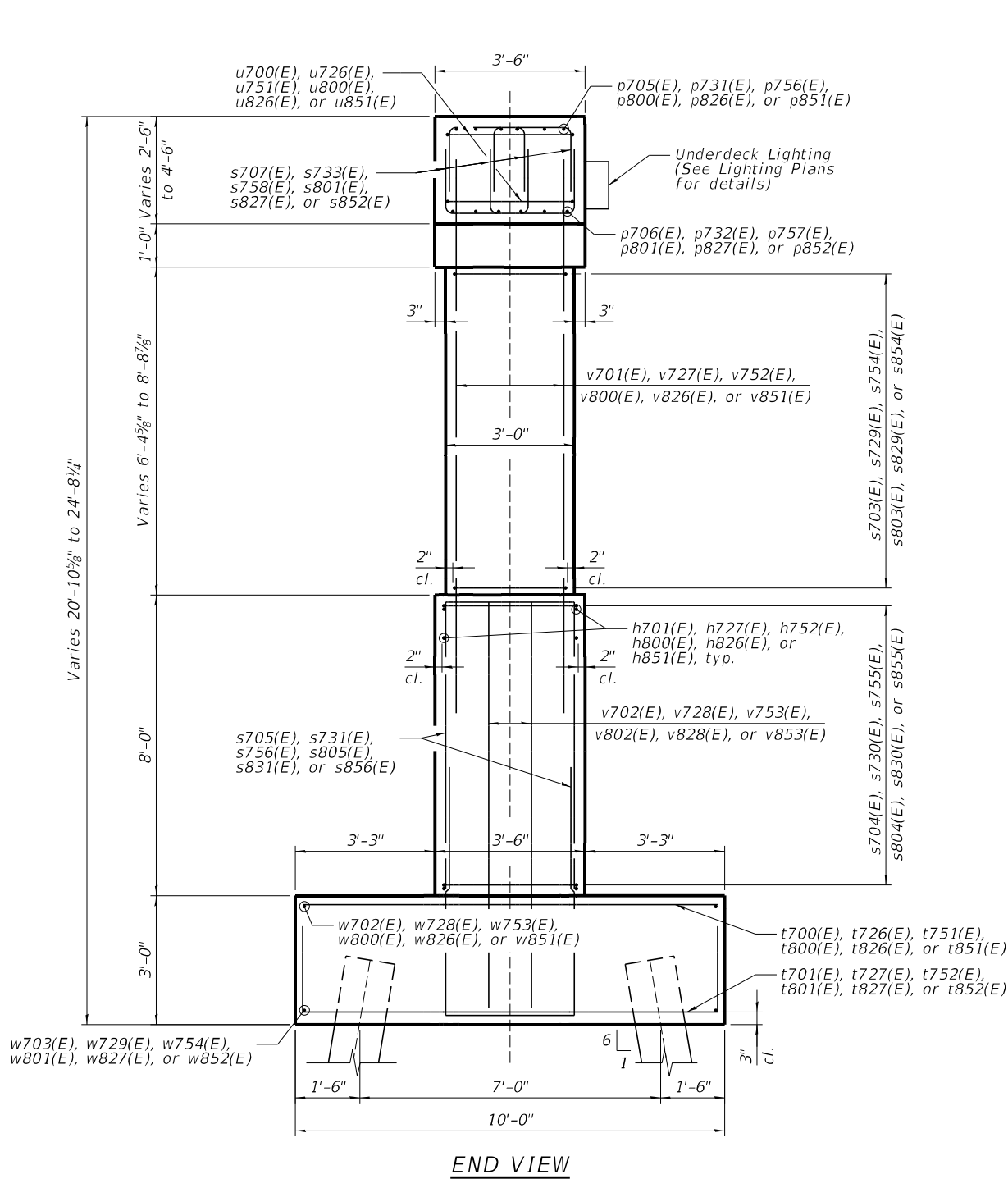
PIER 3 DETAILS (STAGE 3)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 71 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	766
CONTRACT NO. 64C24				

ILLINOIS FED. AID PROJECT

MODEL: sMODELNAME\$
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-shi-pier-010.dgn



NOTES:

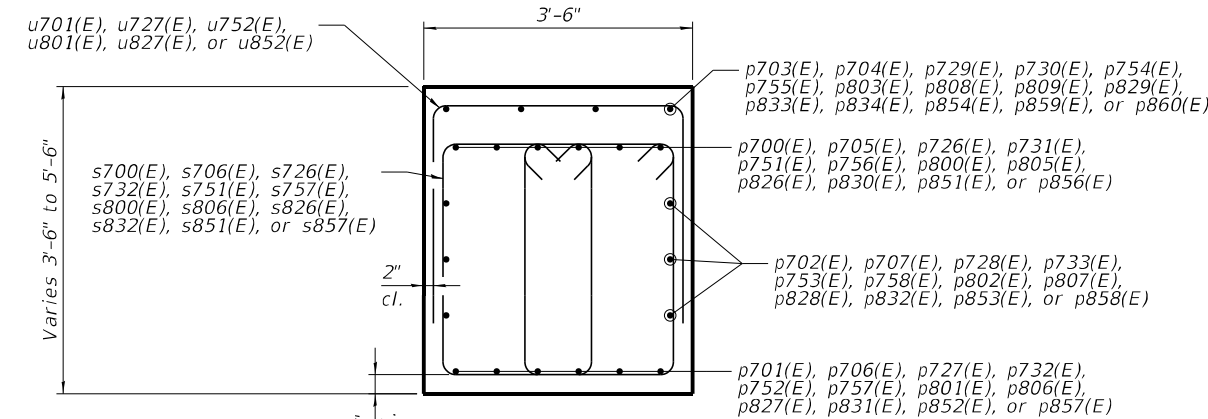
- Space Reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.
- For details of metal shell piles, see Sheet 74 of 81.
- Concrete Sealer shall be applied to the exposed surface areas of Pier 2.
- See Sheet 73 of 81 for bar lists.

PILE DATA - PIER 1 - NORTHBOUND

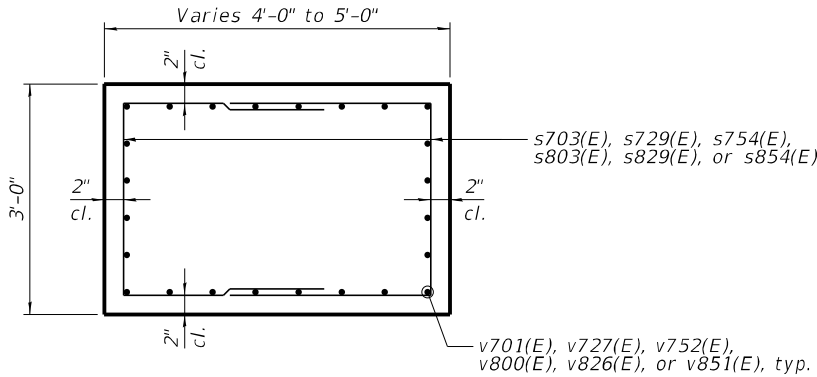
Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 20 feet
No. Production Piles: 13
No. Test Piles: 1

PILE DATA - PIER 1 - SOUTHBOUND

Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 11 feet
No. Production Piles: 17
No. Test Piles: 1



SECTION A-A



SECTION B-B

BAR p700(E), p705(E), p726(E), p731(E), p751(E), p756(E), p800(E), p805(E), p826(E), p830(E), p851(E), or p856(E)

J DIMENSIONS

Bar	J
p700(E)	37'-11"
p705(E)	15'-5"
p726(E)	37'-9"
p731(E)	15'-7"
p751(E)	36'-8"
p756(E)	16'-8"
p800(E)	29'-0"
p805(E)	37'-4"
p826(E)	29'-2"
p830(E)	37'-2"
p851(E)	28'-0"
p856(E)	38'-4"

PILE DATA - PIER 2 - NORTHBOUND

Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 12 feet
No. Production Piles: 15
No. Test Piles: 1

PILE DATA - PIER 2 - SOUTHBOUND

Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 12 feet
No. Production Piles: 17
No. Test Piles: 1

PILE DATA - PIER 3 - NORTHBOUND

Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 41 feet
No. Production Piles: 13
No. Test Piles: 1

PILE DATA - PIER 3 - SOUTHBOUND

Type: Metal Shell Piles 14"x0.312" w/ Pile Shoes
Nominal Required Bearing: 513 kips
Factored Resistance Available: 282 kips
Est. Length: 41 feet
No. Production Piles: 17
No. Test Piles: 1



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USER NAME	=	DESIGNED	-	WKK	REVISED	-
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PLOT SCALE	=	DRAWN	-	KMS	REVISED	-
PLOT DATE	=	CHECKED	-	JHG	REVISED	-

STATE OF ILLINOIS
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PIER DETAILS (1 OF 2)
STRUCTURE NO. 101-0213 & 101-0214

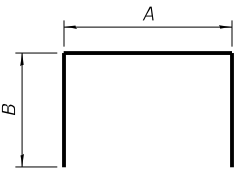
SHEET 72 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	767
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

MODEL: S\MODEL\NAMES
FILE NAME: c:\pwword\it\benesch_projects\projects\dms5240\02\264C24-1010213_0214-shi-pier-011.dgn

PIER 1 BILL OF MATERIAL
SB (SN 101-0213)

Bar	No.	Size	Length	Shape
h800(E)	20	#7	24'-6"	_____
h801(E)	20	#7	37'-4"	_____
p800(E)	6	#10	31'-0"	_____
p801(E)	6	#10	29'-1"	_____
p802(E)	4	#5	29'-0"	_____
p803(E)	4	#5	15'-1"	_____
p805(E)	6	#10	39'-4"	_____
p806(E)	6	#10	37'-5"	_____
p807(E)	6	#5	37'-4"	_____
p808(E)	4	#5	18'-11"	_____
p809(E)	4	#5	6'-10"	_____
s800(E)	52	#6	11'-5"	_____
s801(E)	24	#6	6'-5"	_____
s803(E)	56	#5	10'-0"	_____
s804(E)	18	#7	13'-2"	_____
s805(E)	130	#7	18'-6"	_____
s806(E)	70	#6	13'-5"	_____
s807(E)	24	#6	8'-5"	_____
t800(E)	66	#8	9'-8"	_____
t801(E)	58	#7	13'-8"	_____
u800(E)	7	#6	13'-2"	_____
u801(E)	39	#5	7'-2"	_____
v800(E)	48	#8	14'-0"	_____
v801(E)	48	#8	14'-10"	_____
v802(E)	4	#5	10'-8"	_____
w800(E)	11	#6	25'-6"	_____
w801(E)	10	#6	27'-6"	_____
w802(E)	11	#6	37'-3"	_____
w803(E)	10	#6	39'-3"	_____
Structure Excavation	Cu. Yd.	175		
Concrete Structures	Cu. Yd.	186.6		
Reinforcement Bars, Epoxy Coated	Pound	24,940		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	187		
Driving Piles	Foot	187		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	18		



BAR s701(E), s703(E)-s705(E), s707(E), s727(E), s729(E)-s731(E) s733(E), s752(E), s754(E)-s756(E) s758(E), s801(E), s803(E)-s805(E) s807(E), s827(E), s829(E)-s831(E) s833(E), s852(E), s854(E)-s856(E) s858(E), u700(E), u701(E), u726(E), u727(E), u751(E), u752(E), u800(E), u801(E), u826(E), u827(E), u851(E), or u852(E)

NOTE:
See Sheet 72 of 81 for additional bar bend details.

PIER 2 BILL OF MATERIAL
SB (SN 101-0213)

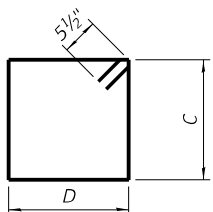
Bar	No.	Size	Length	Shape
h826(E)	20	#7	24'-8"	_____
h827(E)	20	#7	37'-2"	_____
p826(E)	6	#10	31'-2"	_____
p827(E)	6	#10	29'-3"	_____
p828(E)	4	#5	29'-2"	_____
p829(E)	4	#5	15'-8"	_____
p830(E)	6	#10	39'-2"	_____
p831(E)	6	#10	37'-3"	_____
p832(E)	6	#5	37'-2"	_____
p833(E)	4	#5	18'-11"	_____
p834(E)	4	#5	7'-3"	_____
s826(E)	52	#6	11'-5"	_____
s827(E)	20	#6	6'-5"	_____
s829(E)	64	#5	10'-0"	_____
s830(E)	18	#7	13'-2"	_____
s831(E)	128	#7	18'-6"	_____
s832(E)	66	#6	13'-4"	_____
s833(E)	20	#6	8'-4"	_____
t826(E)	66	#8	9'-8"	_____
t827(E)	58	#7	13'-8"	_____
u826(E)	7	#6	13'-2"	_____
u827(E)	41	#5	7'-1"	_____
v826(E)	48	#8	14'-5"	_____
v827(E)	48	#8	15'-4"	_____
v828(E)	4	#5	10'-8"	_____
w826(E)	11	#6	25'-8"	_____
w827(E)	10	#6	27'-8"	_____
w828(E)	11	#6	37'-2"	_____
w829(E)	10	#6	39'-2"	_____
Structure Excavation	Cu. Yd.	206		
Concrete Structures	Cu. Yd.	187.1		
Reinforcement Bars, Epoxy Coated	Pound	24,910		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	204		
Driving Piles	Foot	204		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	18		
Concrete Sealer	Sq. Ft.	2,392		

A & B DIMENSIONS

Bar	A	B
s701(E), s727(E), s752(E)	2'-1"	2'-2"
s703(E), s729(E), s754(E)	2'-8"	3'-8"
s704(E), s730(E), s755(E)	3'-2"	5'-0"
s705(E), s731(E), s756(E)	3'-2"	7'-8"
s707(E)	2'-1"	3'-8"
s733(E)	2'-1"	3'-8"
s758(E)	2'-1"	3'-4½"
s801(E), s827(E), s852(E)	2'-1"	2'-2"
s803(E), s829(E), s854(E)	2'-8"	3'-8"
s804(E), s830(E), s855(E)	3'-2"	5'-0"
s805(E), s831(E), s856(E)	3'-2"	7'-8"
s807(E)	2'-1"	3'-2"
s833(E)	2'-1"	3'-1½"
s858(E)	2'-1"	4'-0½"
u700(E), u726(E), u751(E)	3'-2"	5'-0"
u701(E)	3'-2"	2'-0½"
u727(E)	3'-2"	2'-0"
u752(E)	3'-2"	2'-0"
u800(E), u826(E), u851(E)	3'-2"	5'-0"
u801(E)	3'-2"	2'-0"
u827(E)	3'-2"	1'-11½"
u852(E)	3'-2"	1'-11"

PIER 3 BILL OF MATERIAL
SB (SN 101-0213)

Bar	No.	Size	Length	Shape
h851(E)	20	#7	23'-6"	_____
h852(E)	20	#7	38'-4"	_____
p851(E)	6	#10	30'-0"	_____
p852(E)	6	#10	28'-1"	_____
p853(E)	4	#5	28'-0"	_____
p854(E)	4	#5	14'-1"	_____
p856(E)	6	#10	40'-4"	_____
p857(E)	6	#10	38'-5"	_____
p858(E)	6	#5	38'-4"	_____
p859(E)	4	#5	18'-11"	_____
p860(E)	4	#5	6'-10"	_____
s851(E)	52	#6	11'-5"	_____
s852(E)	24	#6	6'-5"	_____
s854(E)	56	#5	10'-0"	_____
s855(E)	18	#7	13'-2"	_____
s856(E)	130	#7	18'-6"	_____
s857(E)	70	#6	13'-3"	_____
s858(E)	24	#6	10'-2"	_____
t851(E)	65	#8	9'-8"	_____
t852(E)	58	#7	13'-8"	_____
u851(E)	7	#6	13'-2"	_____
u852(E)	39	#5	7'-0"	_____
v851(E)	48	#8	15'-1"	_____
v852(E)	48	#8	16'-0"	_____
v853(E)	4	#5	10'-8"	_____
w851(E)	11	#6	24'-6"	_____
w852(E)	10	#6	26'-6"	_____
w853(E)	11	#6	38'-4"	_____
w854(E)	10	#6	40'-4"	_____
Structure Excavation	Cu. Yd.	175		
Concrete Structures	Cu. Yd.	188.2		
Reinforcement Bars, Epoxy Coated	Pound	25,250		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	697		
Driving Piles	Foot	697		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	18		



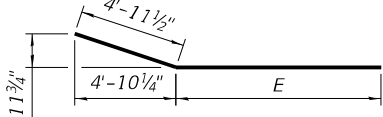
BAR s700(E), s726(E), s751(E), s706(E), s732(E), s757(E), s800(E), s806(E), s826(E), s832(E), s851(E), or s857(E)

C & D DIMENSIONS

Bar	C	D
s700(E), s726(E), s751(E)	3'-2"	2'-1"
s706(E)	4'-5"	2'-1"
s732(E)	4'-5"	2'-1"
s757(E)	4'-4½"	2'-1"
s800(E), s826(E), s851(E)	3'-2"	2'-1"
s806(E)	4'-2"	2'-1"
s832(E)	4'-1½"	2'-1"
s857(E)	4'-1"	2'-1"

PIER 1 BILL OF MATERIAL
NB (SN 101-0214)

Bar	No.	Size	Length	Shape
h700(E)	20	#7	37'-11"	_____
h701(E)	20	#7	10'-11"	_____
p700(E)	6	#10	39'-11"	_____
p701(E)	6	#10	38'-0"	_____
p702(E)	4	#5	37'-11"	_____
p703(E)	4	#5	19'-7"	_____
p704(E)	4	#5	6'-10"	_____
p705(E)	6	#10	17'-5"	_____
p706(E)	6	#10	15'-6"	_____
p707(E)	6	#5	15'-5"	_____
s700(E)	68	#6	11'-5"	_____
s701(E)	20	#6	6'-5"	_____
s703(E)	72	#5	10'-0"	_____
s704(E)	18	#7	13'-2"	_____
s705(E)	102	#7	18'-6"	_____
s706(E)	24	#6	13'-11"	_____
s707(E)	20	#6	9'-5"	_____
t700(E)	52	#8	9'-8"	_____
t701(E)	47	#7	13'-8"	_____
u700(E)	7	#6	13'-2"	_____
u701(E)	24	#5	7'-3"	_____
v700(E)	72	#8	15'-4"	_____
v701(E)	24	#8	16'-7"	_____
v702(E)	4	#5	10'-8"	_____
w700(E)	11	#6	37'-11"	_____
w701(E)	10	#6	39'-11"	_____
w702(E)	11	#6	11'-11"	_____
w703(E)	10	#6	13'-11"	_____
Structure Excavation	Cu. Yd.	170		
Concrete Structures	Cu. Yd.	152.2		
Reinforcement Bars, Epoxy Coated	Pound	21,130		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	260		
Driving Piles	Foot	260		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	14		



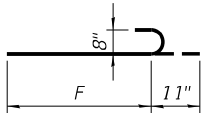
BAR p701(E), p706(E), p727(E), p732(E), p752(E), p757(E), p801(E), p806(E), p827(E), p831(E), p852(E), or p857(E)

E DIMENSIONS

Bar	E
p701(E)	33'-0½"
p706(E)	10'-6½"
p727(E)	32'-10½"
p732(E)	10'-8½"
p752(E)	31'-9½"
p757(E)	11'-9½"
p801(E)	24'-1½"
p806(E)	32'-5½"
p827(E)	24'-3½"
p831(E)	32'-3½"
p852(E)	23'-1½"
p857(E)	33'-5½"

PIER 2 BILL OF MATERIAL
NB (SN 101-0214)

Bar	No.	Size	Length	Shape
h726(E)	20	#7	37'-9"	_____
h727(E)	20	#7	11'-1"	_____
p726(E)	6	#10	39'-9"	_____
p727(E)	6	#10	37'-10"	_____
p728(E)	4	#5	37'-9"	_____
p729(E)	4	#5	19'-7"	_____
p730(E)	4	#5	7'-1"	_____
p731(E)	6	#10	17'-7"	_____
p732(E)	6	#10	15'-8"	_____
p733(E)	6	#5	15'-7"	_____
s726(E)	68	#6	11'-5"	_____
s727(E)	20	#6	6'-5"	_____
s729(E)	72	#5	10'-0"	_____
s730(E)	18	#7	13'-2"	_____
s731(E)	102	#7	18'-6"	_____
s732(E)	24	#6	13'-11"	_____
s733(E)	20	#6	9'-5"	_____
t726(E)	52	#8	9'-8"	_____
t727(E)	47	#7	13'-8"	_____
u726(E)	7	#6	13'-2"	_____
u727(E)	24	#5	7'-2"	_____
v726(E)	72	#8	15'-8"	_____
v727(E)	24	#8	16'-11"	_____
v728(E)	4	#5	10'-8"	_____
w726(E)	11	#6	37'-9"	_____
w727(E)	10	#6	39'-9"	_____
w728(E)	11	#6	12'-1"	_____
w729(E)	10	#6	14'-1"	_____
Structure Excavation	Cu. Yd.	184		
Concrete Structures	Cu. Yd.	152.8		
Reinforcement Bars, Epoxy Coated	Pound	21,210		
Furnishing Metal Shell Piles, 14"x0.312"	Foot	180		
Driving Piles	Foot	180		
Test Pile Metal Shells	Each	1		
Pile Shoes	Each	16		
Concrete Sealer	Sq. Ft.	2,015		



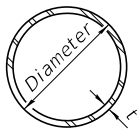
BAR v700(E), v701(E), v726(E), v727(E), v751(E), v752(E), v800(E), v801(E), v826(E), v827(E), v851(E), or v852(E)

F DIMENSIONS

Bar	F
v700(E)	14'-5"
v701(E)	15'-8"
v726(E)	14'-9"
v727(E)	16'-0"
v751(E)	15'-5"
v752(E)	16'-7"
v800(E)	13'-1"
v801(E)	13'-11"
v826(E)	13'-6"
v827(E)	14'-5"
v851(E)	14'-2"
v852(E)	15'-1"

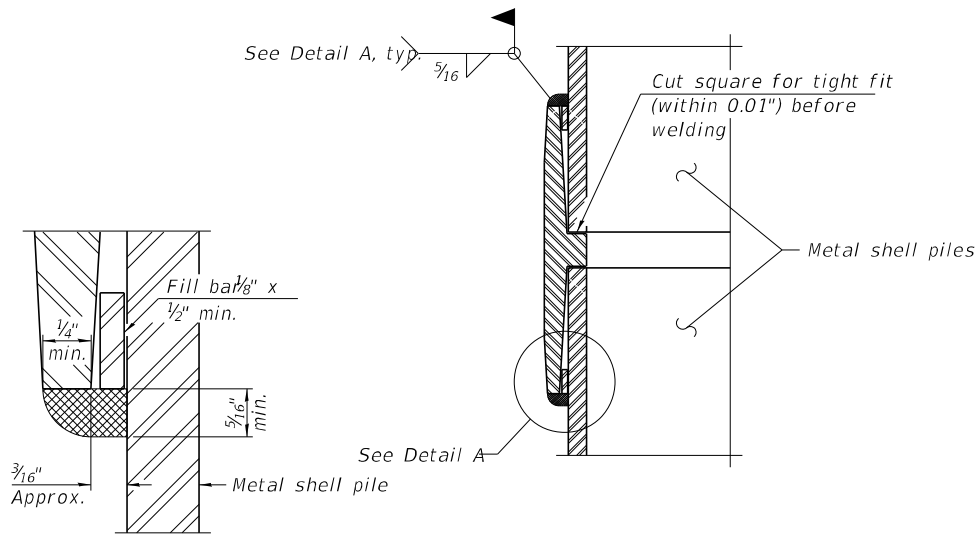
PIER 3 BILL OF MATERIAL
NB (SN 101-0214)

Bar	No.	Size	Length	Shape
h751(E)	20	#7	36'-8"	_____
h752(E)	20	#7	12'-2"	_____
p751(E)	6	#10	38'-8"	└──┐
p752(E)	6	#10	36'-9"	└──┐
p753(E)	4	#5	36'-8"	_____
p754(E)	4	#5	19'-7"	_____
p755(E)	4	#5	5'-7"	_____
p756(E)	6	#10	18'-8"	└──┐
p757(E)	6	#10	16'-9"	└──┐
p758(E)	6	#5	16'-8"	_____
s751(E)	68	#6	11'-5"	┐┌
s752(E)	20	#6	6'-5"	┐┌
s754(E)	72	#5	10'-0"	┐┌
s755(E)	18	#7	13'-2"	┐┌
s756(E)	102	#7	18'-6"	┐┌
s757(E)	24	#6	13'-10"	┐┌
s758(E)	20	#6	8'-10"	┐┌
t751(E)	51	#8	9'-8"	_____
t752(E)	47	#7	13'-8"	└──┐
u751(E)	7	#6	13'-2"	┐┌
u752(E)	24	#5	7'-2"	┐┌
v751(E)	72	#8	16'-4"	┐┌
v752(E)	24	#8	17'-6"	┐┌
v753(E)	4	#5	10'-8"	_____
w751(E)	11	#6	36'-8"	_____
w752(E)	10	#6	38'-8"	_____
w753(E)	11	#6	13'-2"	_____
w754(E)	10	#6	15'-2"	└──┐
Structure Excavation			Cu. Yd.	156
Concrete Structures			Cu. Yd.	153.9
Reinforcement Bars, Epoxy Coated			Pound	21,320
Furnishing Metal Shell Piles, 14"x0.312"			Foot	533
Driving Piles			Foot	533
Test Pile Metal Shells			Each	1
Pile Shoes			Each	14

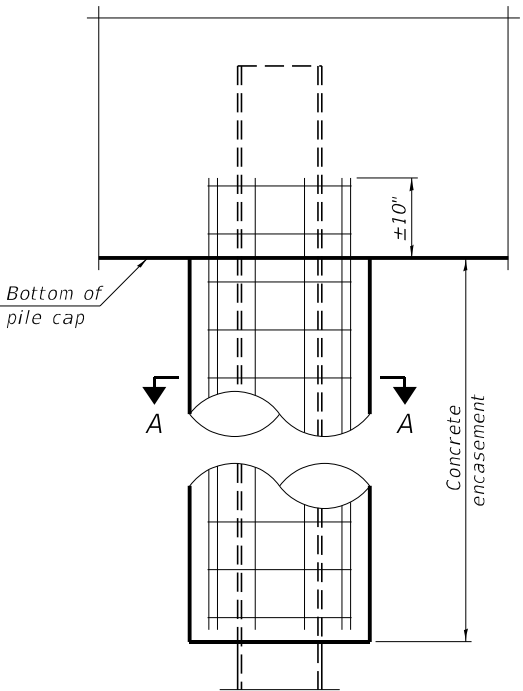


METAL SHELL PILE TABLE

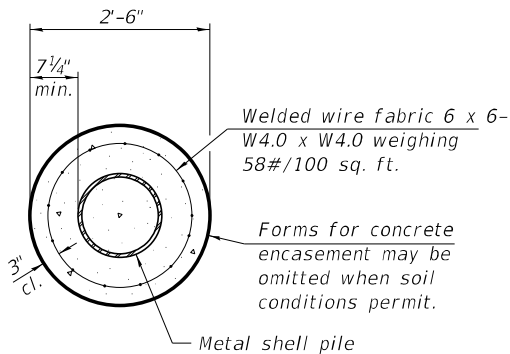
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.250"	31.40	0.0267
PP14	0.250"	36.75	0.0368
PP14	0.312"	45.65	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



DETAIL A

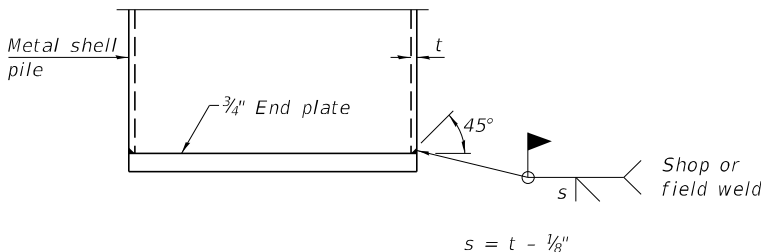


ELEVATION



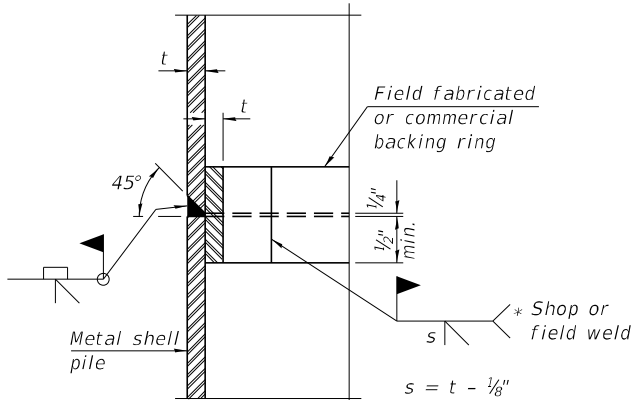
SECTION A-A

INDIVIDUAL PILE
CONCRETE ENCASEMENT
(When specified)

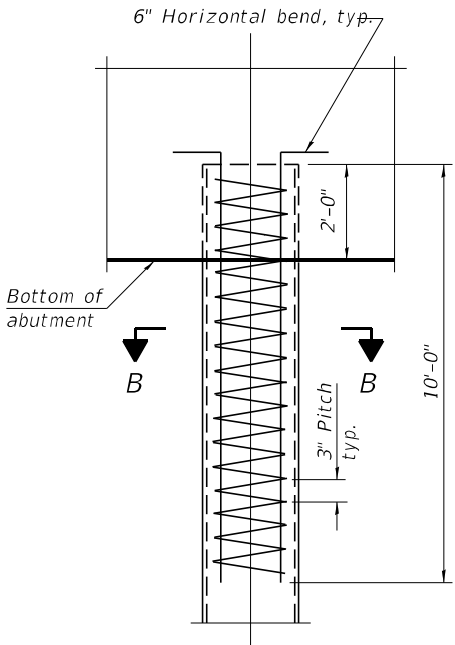


END PLATE ATTACHMENT

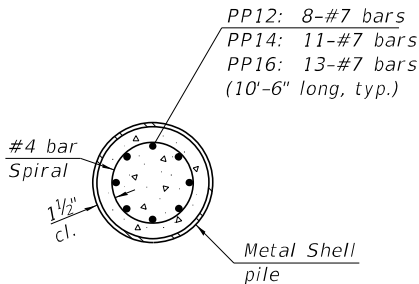
WELDED COMMERCIAL SPLICE
Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.



COMPLETE PENETRATION WELD SPLICE
* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

REINFORCEMENT AT ABUTMENTS
(Omit when concrete encasement is specified)

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

MODEL: sMODELNAME5
FILE NAME: c:\pword\in\benesch projects\projects\dms65240\1010213_0214-shl-pilecd15.dgn

F-MS

5-15-2023



USER NAME	=	DESIGNED	-	WKK	REVISED	-
PLOT SCALE	=	CHECKED	-	JHG	REVISED	-
PLOT DATE	=	DRAWN	-	KMS	REVISED	-
		CHECKED	-	JHG	REVISED	-

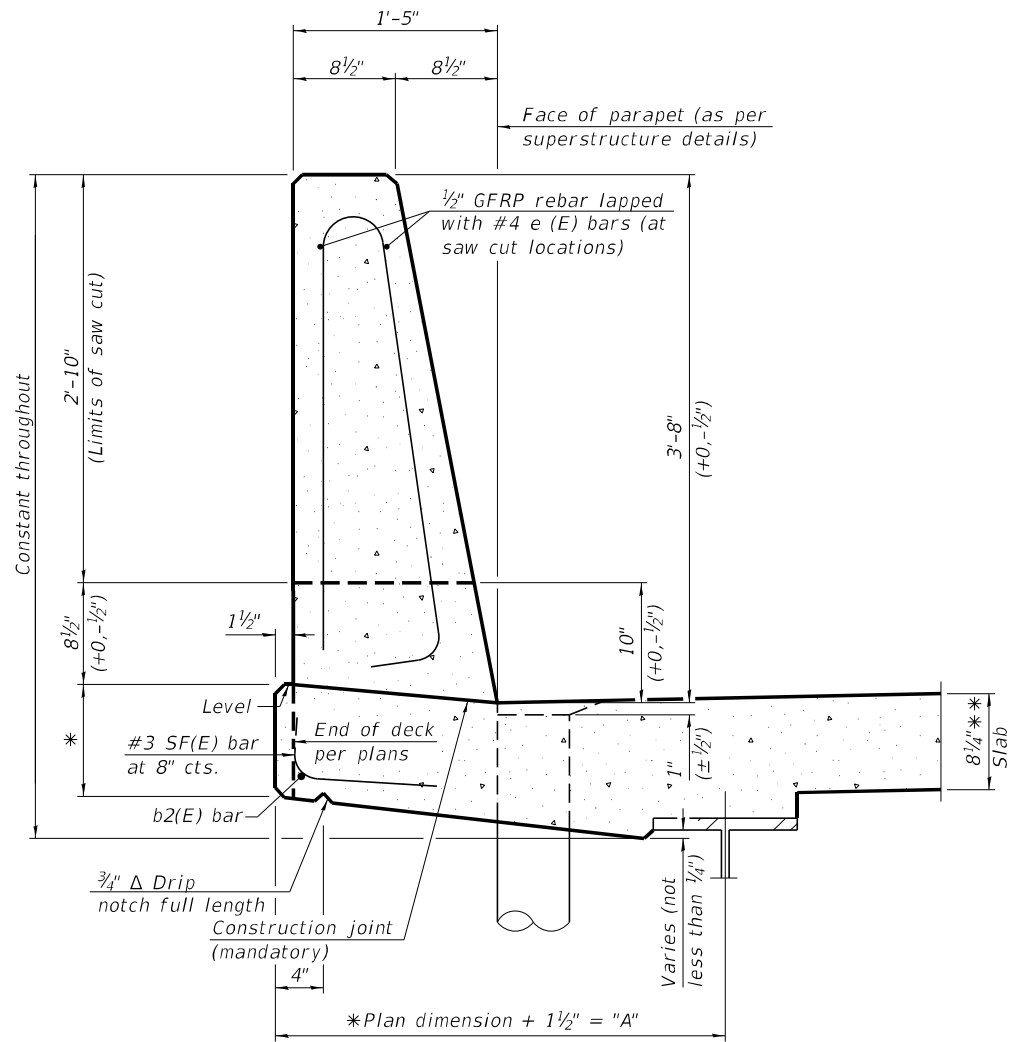
DESIGNED	-	WKK	REVISED	-
CHECKED	-	JHG	REVISED	-
DRAWN	-	KMS	REVISED	-
CHECKED	-	JHG	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO. 101-0213 & 101-0214

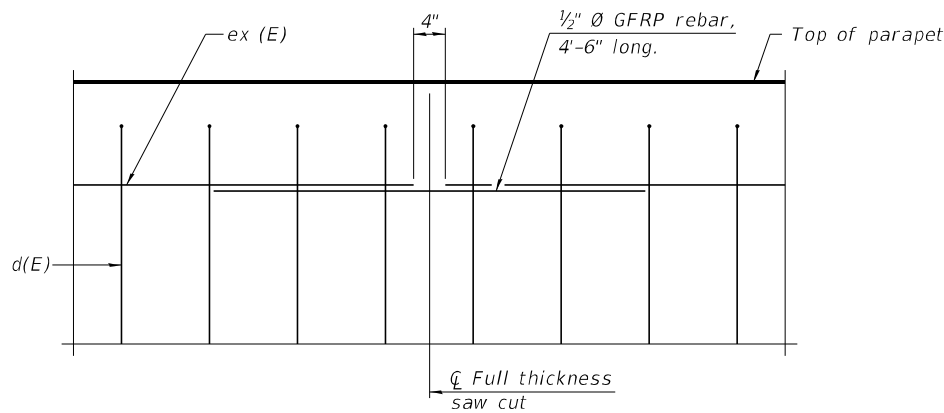
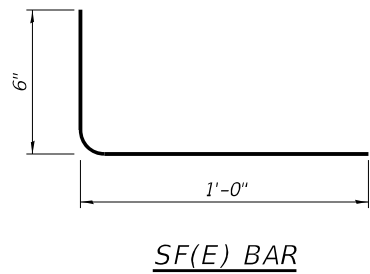
SHEET 74 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	769
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



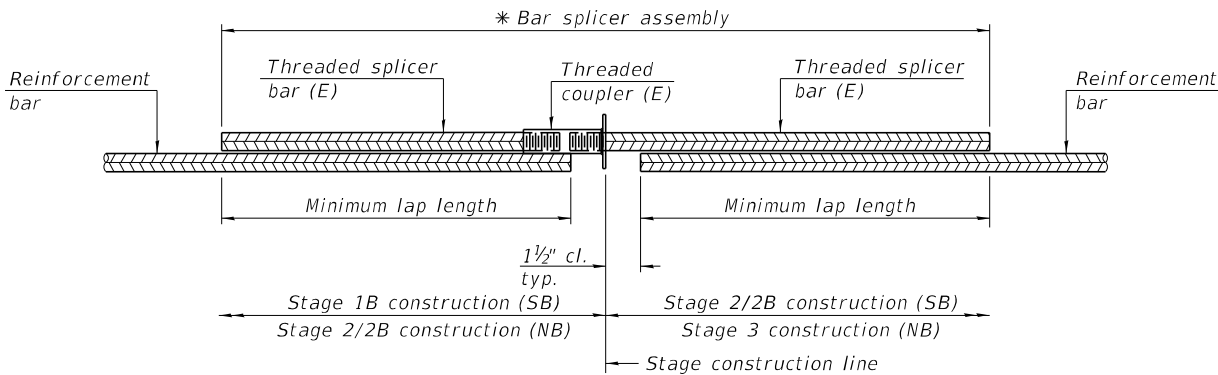
Notes:
All dimensions shall remain the same as shown on superstructure details, except dimension "A" which is to be revised as shown. Additional concrete needed to revise dimension "A" = 0.00348 cu. yds./ft.
Place full depth aluminum sheets as shown on superstructure details.
Replace all cork joint filler locations with a full thickness saw cut.

* See Superstructure Details
** Prior to grinding
**44" CONSTANT-SLOPE
PARAPET SECTION**
(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section at each parapet joint location.)

MODEL: sMODELNAME5
FILE NAME: c:\pwwork\benesch_projects\projects\dms65240\1010213_0214-shi-slipform.dgn



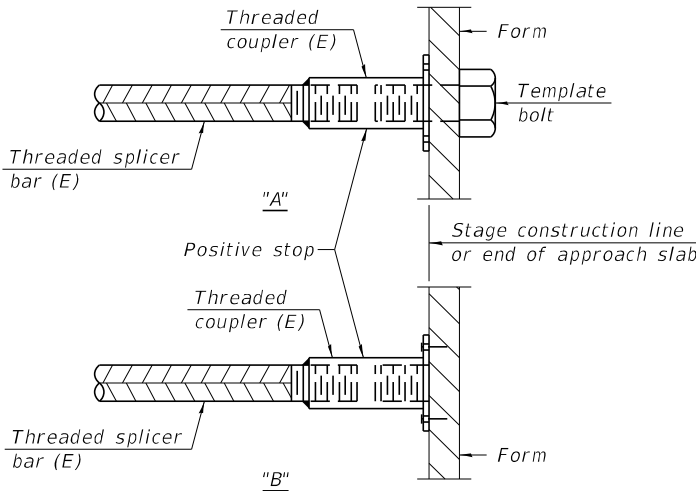
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

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

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

Location	Bar size	No. assemblies required	Minimum lap length
SB Deck	#5	832	3'-6"
NB Deck	#5	831	3'-6"
SB S. Approach	#5	83	3'-4"
SB S. Approach	#8	57	4'-9"
SB N. Approach	#5	83	3'-4"
SB N. Approach	#8	57	4'-9"
NB S. Approach	#5	83	3'-4"
NB S. Approach	#8	57	4'-9"
NB N. Approach	#5	83	3'-4"
NB N. Approach	#8	57	4'-9"
SB S. Abut.	#5	4	3'-7"
SB S. Abut.	#7	10	5'-0"
NB S. Abut.	#5	4	3'-7"
NB S. Abut.	#7	10	5'-0"
SB N. Abut.	#5	4	3'-7"
SB N. Abut.	#7	10	5'-0"
NB N. Abut.	#5	4	3'-7"
NB N. Abut.	#7	10	5'-0"
NB Pier 1 Cap	#5	8	3'-7"
NB Pier 1 Cap	#10	12	8'-9"
NB Pier 1 Crashwall	#7	20	5'-0"
NB Pier 1 Footing	#6	21	4'-4"
NB Pier 2 Cap	#5	8	3'-7"
NB Pier 2 Cap	#10	12	8'-9"
NB Pier 2 Crashwall	#7	20	5'-0"
NB Pier 2 Footing	#6	21	4'-4"
NB Pier 3 Cap	#5	8	3'-7"
NB Pier 3 Cap	#10	12	8'-9"
NB Pier 3 Crashwall	#7	20	5'-0"
NB Pier 3 Footing	#6	21	4'-4"
SB Pier 1 Cap	#5	8	3'-7"
SB Pier 1 Cap	#10	12	8'-9"
SB Pier 1 Crashwall	#7	20	5'-0"
SB Pier 1 Footing	#6	21	4'-4"
SB Pier 2 Cap	#5	8	3'-7"
SB Pier 2 Cap	#10	12	8'-9"
SB Pier 2 Crashwall	#7	20	5'-0"
SB Pier 2 Footing	#6	21	4'-4"
SB Pier 3 Cap	#5	8	3'-7"
SB Pier 3 Cap	#10	12	8'-9"
SB Pier 3 Crashwall	#7	20	5'-0"
SB Pier 3 Footing	#6	21	4'-4"

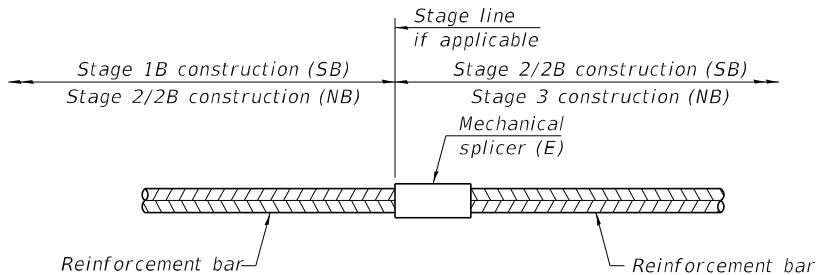


INSTALLATION AND SETTING METHODS

"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
SB S. Abut. Diaphragm	#6	7
SB N. Abut. Diaphragm	#6	7
NB S. Abut. Diaphragm	#6	7
NB N. Abut. Diaphragm	#6	7

Notes:

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

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

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

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

MODEL: sMODELNAME5
FILE NAME: c:\pwworking\benesch_projects\projects\dms65240\1010213_0214-shl-barspl.dgn

BSD-1 5-15-2023



USER NAME =	DESIGNED - JPM/WKK	REVISED -
	CHECKED - JLS/JHG	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JLS/JHG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 101-0213 & 101-0214

SHEET 76 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	771
CONTRACT NO. 64C24				
		ILLINOIS	FED. AID PROJECT	



Page 1 of 2

Date 1/24/12

SECTION (201-3) K (4-1, 5) K LOCATION Rockford Twp. - 35SE, SEC. , TWP. 44N, RNG. 2E

STRUCT. NO. 101-0071/0072
Station _____

D E P T H	B L O W S	U C S Qu	M O I S T
(ft)	(/6")	(tsf)	(%)

D E P T H	B L O W S	U C S Qu	M O I S T
(ft)	(/6")	(tsf)	(%)

**Illinois Department
of Transportation**
Division of Highways
Illinois Department of Transportation/D-2

Page 2 of 2

Date 1/24/12

SECTION (201-3) K (4-1, 5) K LOCATION Rockford Twp. - 35SE, SEC. , TWP. 44N, RNG. 2E

STRUCT. NO. 101-0071/0072
Station

D E P T H	B L O W S	U C S Qu	M O I S T
(ft)	((6"))	(tsf)	(%)

BBS, from 137 (Rev. 8-99)

Along Prop. ζ I-39, Boring B-1 is located at Sta. 2723+87.66, 127.19' Rt.



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SHEET 77 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	772
		CONTRACT NO. 64C24		
ILLINOIS		FED. AID PROJECT		



Illinois Department
of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 1 of 1

Date 1/26/12

ROUTE FAP 301 DESCRIPTION 101-0071 0072 I-39 Bridge over Harrison Road,
6 miles west of Mill Road LOGGED BY W. Garza

SECTION (201-3) K (4-1, 5) K LOCATION Rockford Twp. - 35SE, SEC. , TWP. 44N, RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 101-0071/0072	D	B	U	M	Surface Water Elev. _____ ft	D	B	U	M
Station _____	E	L	C	O	Stream Bed Elev. _____ ft	E	L	C	O
	P	O	S	I		P	O	S	I
BORING NO. B-2	T	W	Qu	S	Groundwater Elev.: _____ ft	T	W	Qu	S
Station 871+05 - I-39	H	S		T	First Encounter _____ ft	H	S		T
Offset 5.00ft R/L CL					Upon Completion _____ ft				
Ground Surface Elev. 797.00 ft	(ft)	(/6")	(tsf)	(%)	After _____ Hrs. _____ ft	(ft)	(/6")	(tsf)	(%)
MEDIUM brown SILTY CLAY LOAM			0.6 P	15.0	VERY DENSE tan LOAM TILL				
					775.50				7.0
SOFT tan SANDY LOAM	794.50	6							
		4	0.3	13.0	VERY DENSE tan SANDY LOAM TILL with GRAVEL				
	793.00	6	B						7.0
					773.00				
STIFF tan SANDY LOAM with GRAVEL	-5	4			VERY DENSE tan SANDY LOAM TILL with GRAVEL	-25			
		5	1.5	10.0					
	790.50	8	P						
					770.50				
STIFF gray LOAM with GRAVEL		4							
	788.00	4	1.1	17.0	VERY DENSE tan SANDY LOAM TILL with big GRAVEL	100/6"			
		5	P						
					768.00				
STIFF gray SILTY CLAY LOAM with medium GRAVEL	-10	4			Same as above	100/1"			
		3	1.7	15.0					
		4	B						
	785.00								
No Recovery		6			VERY DENSE tan SANDY LOAM TILL	100/4"			
		8							
	783.00	8							
					763.00				
STIFF gray LOAM with GRAVEL	-15	6			VERY DENSE tan SANDY LOAM TILL	100/5.5"			
		6	1.1	14.0					
	780.50	7	B						
					End of Boring				
STIFF gray LOAM with GRAVEL		8							
		8	1.9	11.0					
	778.00	12	S						
	-20								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 1 of 2

Date 1/27/12

ROUTE FAP 301 DESCRIPTION 101-0071 0072 I-39 Bridge over Harrison Road,
6 miles west of Mill Road LOGGED BY W. Garza

SECTION (201-3) K (4-1, 5) K LOCATION Rockford Twp. - 35SE, SEC. , TWP. 44N, RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 101-0071/0072	D	B	U	M	Surface Water Elev. _____ ft	D	B	U	M
Station _____	E	L	C	O	Stream Bed Elev. _____ ft	E	L	C	O
	P	O	S	I		P	O	S	I
BORING NO. B-3	T	W	Qu	S	Groundwater Elev.: _____ ft	T	W	Qu	S
Station 49+03 - Harrison Avenue	H	S		T	First Encounter 757.5 ft	H	S		T
Offset 98.00ft Lt CL					Upon Completion 734.0 ft				
Ground Surface Elev. 775.00 ft	(ft)	(/6")	(tsf)	(%)	After _____ Hrs. _____ ft	(ft)	(/6")	(tsf)	(%)
MEDIUM brown SILTY CLAY LOAM			0.6 P	35.0	VERY DENSE tan SANDY LOAM TILL with GRAVEL Hard Drilling				
					753.50				8.0
MEDIUM light brown SILTY CLAY LOAM	772.50	3			DENSE gray SANDY LOAM TILL				
		4	0.7	27.0					
		5	B						
	770.50								
					751.00				8.0
MEDIUM tan dirty SAND with medium GRAVEL	-5	6			VERY STIFF gray SANDY LOAM TILL	-25			
		7		14.0					
		10							
	768.00								
SOFT tan SANDY LOAM TILL		4			VERY STIFF gray SANDY LOAM TILL				
		5	0.4	10.0					
	766.00	7	B						
					746.00				7.0
STIFF tan SANDY LOAM TILL	-10	5			HARD gray SANDY LOAM TILL	-30			
		8	1.4	10.0					
		8	P						
	763.50								
MEDIUM tan SANDY LOAM TILL		3			HARD gray SANDY LOAM TILL				
		5	0.6	10.0					
		8	B						
	761.00								
					741.00				8.0
SOFT tan SANDY LOAM TILL	-15	3			DENSE gray SANDY LOAM TILL	-35			
		7	0.4	10.0					
		11	S						
	758.50								
					738.50				
VERY DENSE tan SANDY LOAM TILL with GRAVEL		38			VERY STIFF gray SANDY LOAM TILL				
		40	4.5	8.0					
		35	P						
	756.00								
	-20								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

NOTES:

- Along Prop. \varnothing I-39, Boring B-2 is located at Sta. 2723+04.77, 15.95' Rt.
- Along Prop. \varnothing I-39, Boring B-3 is located at Sta. 2724+94.26, 115.81' Lt.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS (2 OF 5)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 78 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	773
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



Alfred Benesch & Company
35 W Wacker Drive, Suite 3300
Chicago, Illinois 60601
312.465.4150 Job No. 10800

USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - JHG	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JHG	REVISED -

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Page 2 of 2

Date 1/27/12

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 757.5 ft
Upon Completion 734.0 ft
After _____ Hrs. _____ ft

[illegible]

BBS, from 137 (Rev. 8-99)

Page 1 of 2

Date 1/30/12

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

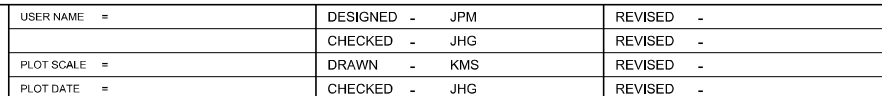
Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After Hrs. _____ ft

VERY STIFF gray SILTY CLAY	4		
	5	2.9	25.0
	7	S	
777.60			
MEDIUM tan SAND	6		
	8		
	9		
775.10			
STIFF tan SANDY LOAM TILL with GRAVEL	-25	6	
	10	1.5	8.0
773.10	9	P	
STIFF tan SANDY LOAM TILL	5		
Added water, hard drilling	8	1.2	8.0
770.60	8	S	
STIFF tan SANDY LOAM TILL	-30	5	
	8	1.6	9.0
768.10	14	S	
VERY DENSE tan SANDY LOAM TILL with GRAVEL	17		
	30		8.0
765.60	54		
VERY DENSE tan SANDY LOAM TILL with GRAVEL	-35	29	
	36		
763.10	41		
VERY DENSE tan SANDY LOAM TILL with medium GRAVEL	25		
	28		8.0
760.60	30		

BBS, from 137 (Rev. 8-99)

1. Along Prop. ζ I-39, Boring B-3 is located at Sta. 2724+94.26, 115.81' Lt.
2. Along Prop. ζ I-39, Boring B-4 is located at Sta. 2725+73.34, 9.47' Rt.



SOIL BORING LOGS (3 OF 5)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 79 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	774
CONTRACT NO. 64C24				
ILLINOIS		FED. AID PROJECT		



**Illinois Department
of Transportation**
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 2 of 2

Date 1/30/12

ROUTE FAP 301 DESCRIPTION 101-0071 0072 I-39 Bridge over Harrison Road,
6 miles west of Mill Road LOGGED BY W. Garza
SECTION (201-3) K (4-1, 5) K LOCATION Rockford Twp. - 35SE, SEC. , TWP. 44N, RNG. 2E
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. <u>101-0071/0072</u> Station _____	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft Groundwater Elev.: First Encounter _____ ft Upon Completion _____ ft After _____ Hrs. _____ ft
BORING NO. <u>B-4</u> Station <u>873+74 - I-39</u> Offset <u>1.00ft RI CL</u> Ground Surface Elev. <u>799.60</u> ft					
VERY DENSE tan SANDY LOAM TILL with medium GRAVEL 758.10	25 32		4.6 S	8.0	
VERY DENSE tan SANDY LOAM TILL with medium GRAVEL 755.60	25 34 52		3.5 S	8.0	
VERY DENSE tan SANDY LOAM TILL with GRAVEL 753.10	32 36 37		4.4 S	7.0	
DENSE tan SANDY LOAM TILL with GRAVEL 750.60	21 21 23				
DENSE tan SANDY LOAM TLIL with SAND lens 748.10	15 19 25		5.5 S	9.0	
VERY STIFF gray SANDY CLAY LOAM TILL 745.60	8 12 16		3.9 B	9.0	
VERY STIFF gray SANDY CLAY LOAM TILL 743.10	23 16 20		3.5 S	9.0	
VERY STIFF gray SANDY CLAY TILL 740.60	10 13 20		3.9 B	9.0	
End of Boring					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
IDOT

SOIL BORING LOG

Page 1 of 2

Date 8/2/16

ROUTE FAI 39 & FAP 301 DESCRIPTION P92-111-06 NB & SB Bridge - I-39 over Harrison
Avenue LOGGED BY W. Garza
SECTION (201-3)K & 4-1.5)K LOCATION Rockford N.E. Twp. - SE, SEC. 35, TWP. 44N, RNG. 2E
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CMF-55

STRUCT. NO. <u>101-0213</u> Station <u>153+19</u> Elevation Conversion: 99.80 = El. 780	Latitude <u>42° 14' 23.03"</u> Longitude <u>-88° 57' 58.86"</u>	Northing <u>2,032,170.6978</u> Easting <u>2,621,608.6896</u>	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft Groundwater Elev.: First Encounter <u>62.3</u> ft Upon Completion <u>59.8</u> ft After _____ Hrs. _____ ft	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)
BORING NO. <u>B-5J</u> Station <u>153+28</u> Offset <u>10.00ft Rt Median CL</u> Ground Surface Elev. <u>99.80</u> ft											
9" Asphalt Shoulder	79.30							53			
VERY STIFF gray CLAY LOAM	98.30	2 3 4		2.7 B	18.0			22 33 29			
MEDIUM brown SANDY LOAM	96.80										
MEDIUM tan SANDY LOAM TILL	94.30	2 4 5		0.5 S	12.0			7 13 14	2.1 P	10.0	
MEDIUM tan SANDY LOAM TILL	91.80	3 3 4		0.9 P	9.0			14 35 38		8.0	
No Recovery	89.30	6 8 9						11 17 22	4.5 P	7.0	
MEDIUM tan SANDY GRAY TILL	86.80	0 3 5		0.8 B	11.0			18 28 33			
STIFF tan SANDY LOAM TILL	83.80	4 11 20		1.6 S	9.0			7 11 13	2.9 S	9.0	
VERY DENSE tan SANDY LOAM TILL	81.80	27 100/8"						10 15 29	3.4 P	9.0	
VERY DENSE tan SANDY LOAM TILL		30 39						5 7	3.5	9.0	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

NOTES:

- Along Prop. ϕ I-39, Boring B-4 is located at Sta. 2725+73.34, 9.47' Rt.
- Along Prop. ϕ I-39, Boring B-5j is located at Sta. 2724+29.64, 21.80 Rt.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS (4 OF 5)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 80 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	775
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

benesch
Alfred Benesch & Company
35 W Wacker Drive, Suite 3300
Chicago, Illinois 60601
312.465.4150 Job No. 10800

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Page 2 of 2

Date 8/2/16

SECTION (201-3)K & 4-1,5)K LOCATION Rockford N.E. Twp. - SE, SEC. 35, TWP. 44N, RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-55

STRUCT. NO. 101-0213 Latitude 42° 14' 23.03" Northing 2,032,170.6978
 Station 153+19 Longitude -88° 57' 58.86" Easting 2,621,608.6896

BORING NO.	B-5J
Station	153+28
Offset	10.00ft Rt Median CL
Ground Surface Elev.	99.80

Northings and Eastings were calculated using the ILHP-WF coordinate system

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

NOTE:

Along Prop. C I-39, Boring B-5j is located at Sta. 2724+29.64, 21.80 Rt.



USER NAME =	DESIGNED - JPM	REVISED -
	CHECKED - JHG	REVISED -
PLOT SCALE =	DRAWN - KMS	REVISED -
PLOT DATE =	CHECKED - JHG	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

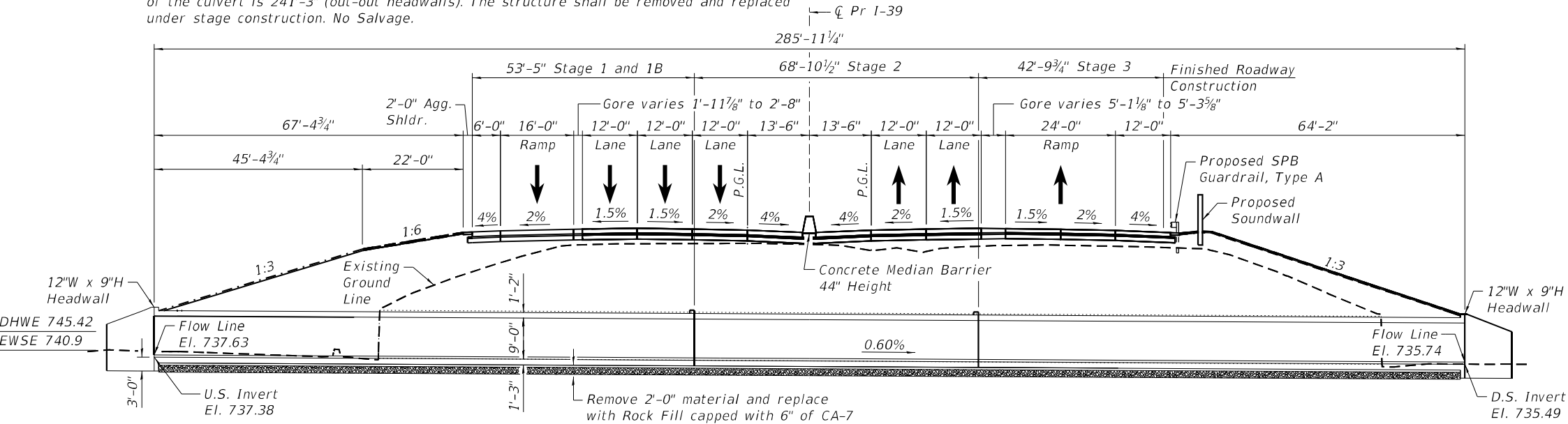
SOIL BORING LOGS (5 OF 5)
STRUCTURE NO. 101-0213 & 101-0214

SHEET 81 OF 81 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1, 5)R	WINNEBAGO	1685	776
		CONTRACT NO. 64C24		
ILLINOIS		FED. AID PROJECT		

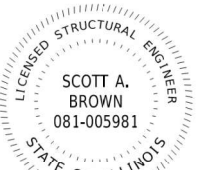
Existing Structure: The existing culvert S.N. 101-2025 was constructed in 1963 as a 12'-0"x10'-0" (WxH) double barrel reinforced concrete box culvert at Sta. 2708+77. Skewed 25° Left Ahead. The culvert consists of a 12" thick top slab, 13" bottom slab, 10" sidewalls with horizontal cantilever wingwalls and maximum fill height of approximately 16 feet. The overall length of the culvert is 241'-3" (out-out headwalls). The structure shall be removed and replaced under stage construction. No Salvage.

Bench Mark: #405 Found cut "X" on the northwest bolt of east end of the overhead sign for "Belvidere Exit 122A" on exit ramp on I39 North. 42°14'10.2"N 88°58'06.7"W, El. 770.67



STATION 2708+77.50
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. I-39
SECTION (201-3)R & (4-1,5)R
LOADING HL-93
STRUCTURE NO. 101-2053

NAME PLATE
See Std. 515001



DATE 5/9/2025
SCOTT A. BROWN
DIXON, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-005981
EXPIRES 11-30-2026

WATERWAY INFORMATION

Drainage Area = 5.8 Sq. Mi.		Exist. Overtopping El. = 756.6 at Sta. 2706+00		Prop. Overtopping El. = 756.6 at Sta. 2706+00	
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.
	10	994	158	172	
Design	50	1,382	196	212	
Base	100	1,518	207	224	
Max. Calc.	500	1,903	235	243	
					Exist. Prop.
					743.86 743.74
					745.42 745.24
					745.87 745.66
					747.03 746.73

Existing 10-year outlet Velocity = 5.8 ft./s.
Proposed 10-year outlet Velocity = 5.1 ft./s.

LONGITUDINAL SECTION

Looking North
(Dimensions shown are at
Right Angles to C Pr. I-39)

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

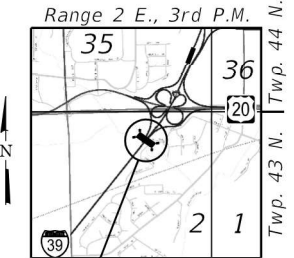
DESIGN STRESSES

FIELD UNITS

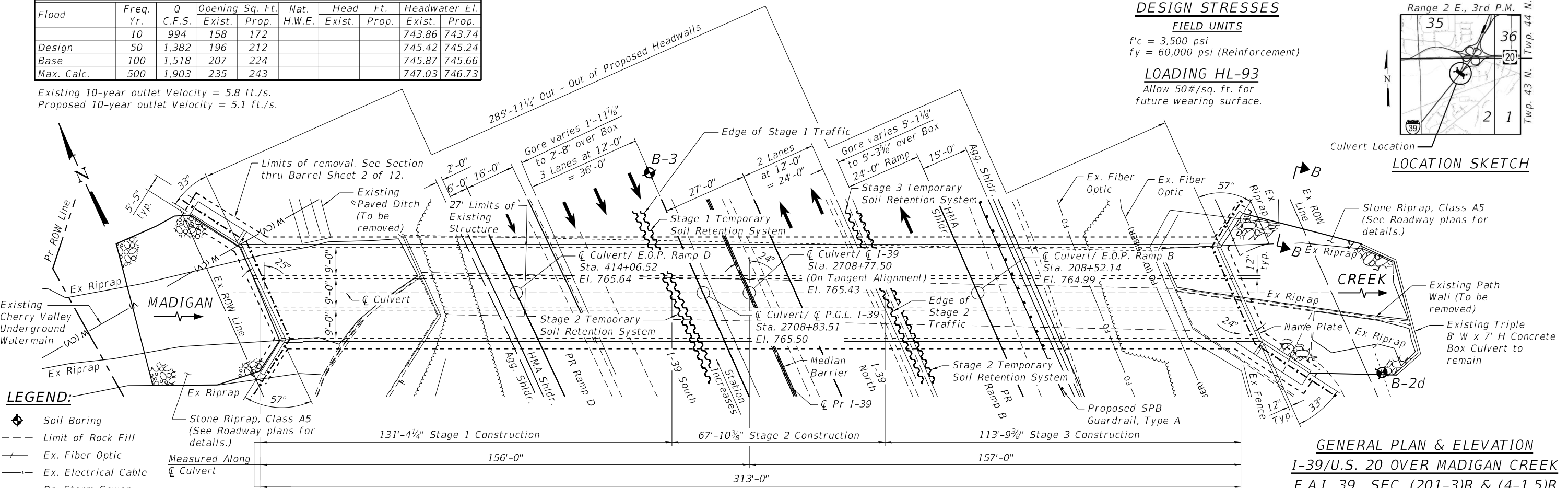
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

LOADING HL-93

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



LOCATION SKETCH



LEGEND:

- Soil Boring
- Limit of Rock Fill
- Ex. Fiber Optic
- Ex. Electrical Cable
- Pr. Storm Sewer
- Underground Watermain
- Pr. Access Control
- Ex. Access Control
- Stone Riprap
- Rock Fill

GENERAL PLAN & ELEVATION

I-39/U.S. 20 OVER MADIGAN CREEK

F.A.I. 39 SEC. (201-3)R & (4-1,5)R

WINNEBAGO COUNTY

STATION 2708+77.50

STRUCTURE NO. 101-2053

GENERAL NOTES

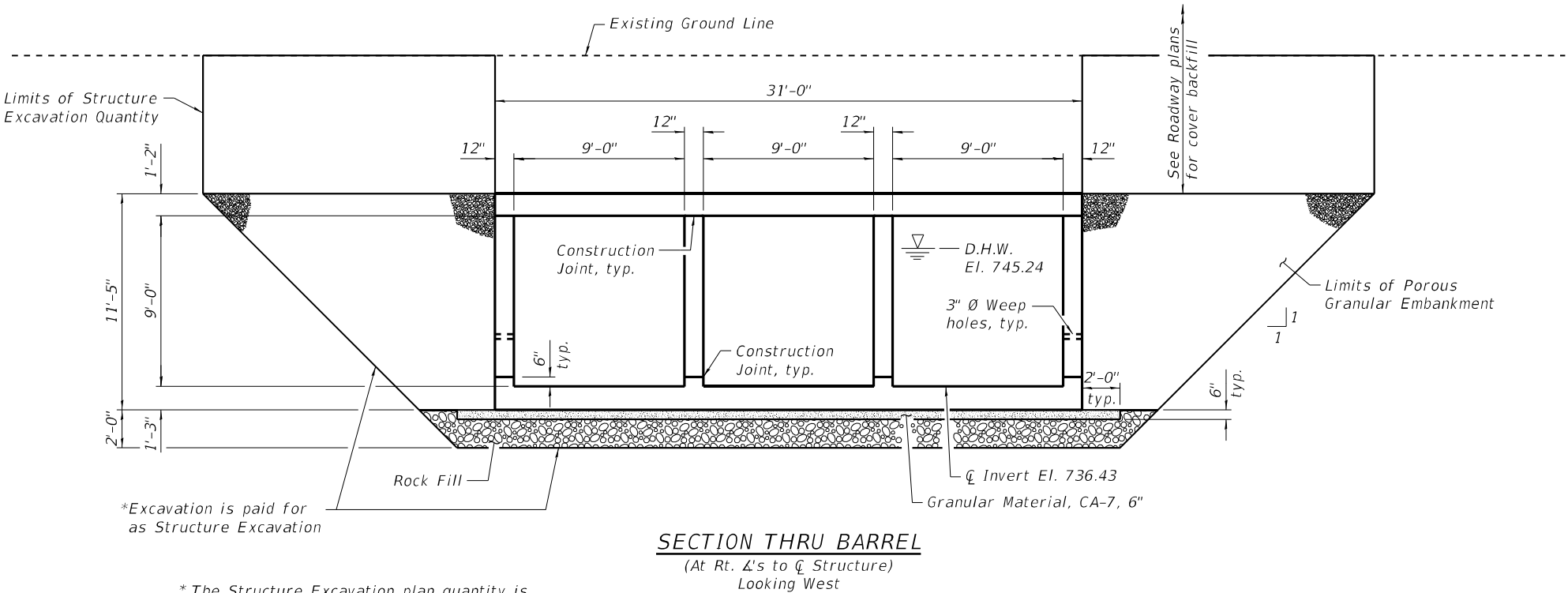
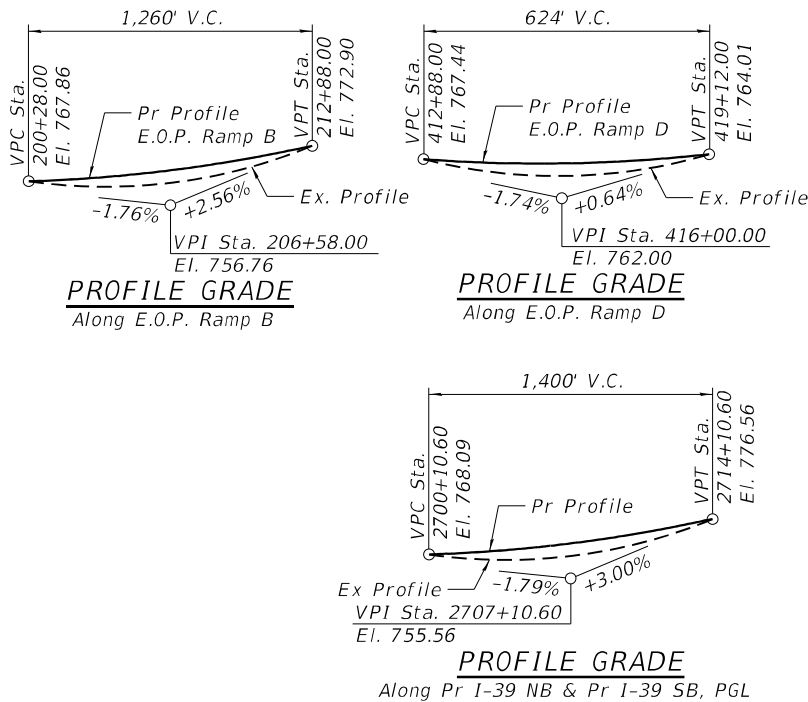
- 1.) A distance of half the length of the wingwall but not less than 6'-0" of the barrel shall be poured monolithically with the wingwalls.
- 2.) It will be the responsibility of the Contractor to direct the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and cost shall be included with the cost of the Concrete Box Culverts.
- 3.) Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 4.) The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
- 5.) The Rock Fill shall be capped with 6" of CA-7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost and quantity of the capping material shall be included in the pay item for Rock Fill. See Special Provisions.
- 6.) Precast culvert alternate is not allowed.
- 7.) Reinforcement bars designated (E) shall be epoxy coated.
- 8.) See drainage sheets for riprap details and quantities.
- 9.) Removal of Existing Structures No. 7 shall include removal and disposal of the box culvert, wingwalls, path inside the box, and the modular block retaining wall extension on the southeast wing.
- 10.) Confined space access and protective measures between stages shall be included in the Contractor's design of the temporary soil retention system. The cost shall be included with the Temporary Soil Retention System.
- 11.) The Contractor shall block the ends of the existing and proposed culverts to prevent unauthorized access during construction stages. The cost shall be included with the cost of the Concrete Box Culvert.

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Data
- 3 Culvert Layout and Grading Plan
- 4 Stage Removal and Construction Details
- 5 Stage Removal and Construction Details
- 6 Culvert Stage I Details
- 7 Culvert Stage II Details
- 8 Culvert Stage III Details
- 9 Culvert Details - Cross Section and Details
- 10 Bar Splicer Assembly and Mechanical Splicer Details
- 11-12 Soil Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	2,771
Removal of Existing Structures No. 7	Each	1
Structure Excavation	Cu. Yd.	7,868
Reinforcement Bars	Pound	400,470
Reinforcement Bars, Epoxy Coated	Pound	1,980
Bar Splicers	Each	412
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	7,216
Concrete Box Culverts	Cu. Yd.	1,332.7
Rock Fill	Ton	1,339
Temporary Support System	Each	2



MODEL: SMODELNAMES
FILE NAME: \$FILES



WILLETTS HOFMANN
ASSOCIATES INC.
UNINCORPORATED FIRM OF ARCHITECTS AND ENGINEERS
809 EAST 2ND STREET, DECATUR, IL 62521-0367
TEL: 309-284-3331 FAX: 309-284-3332

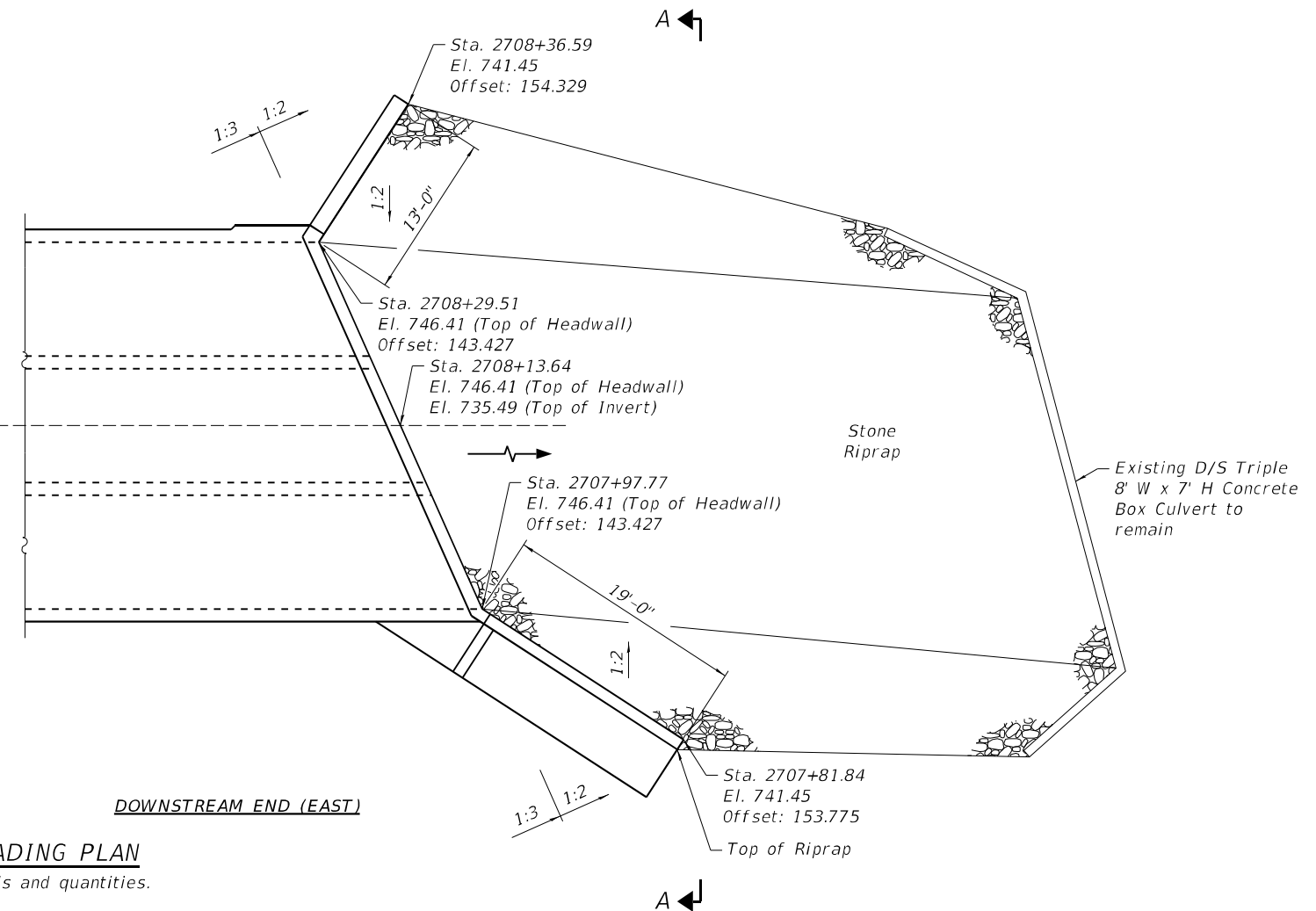
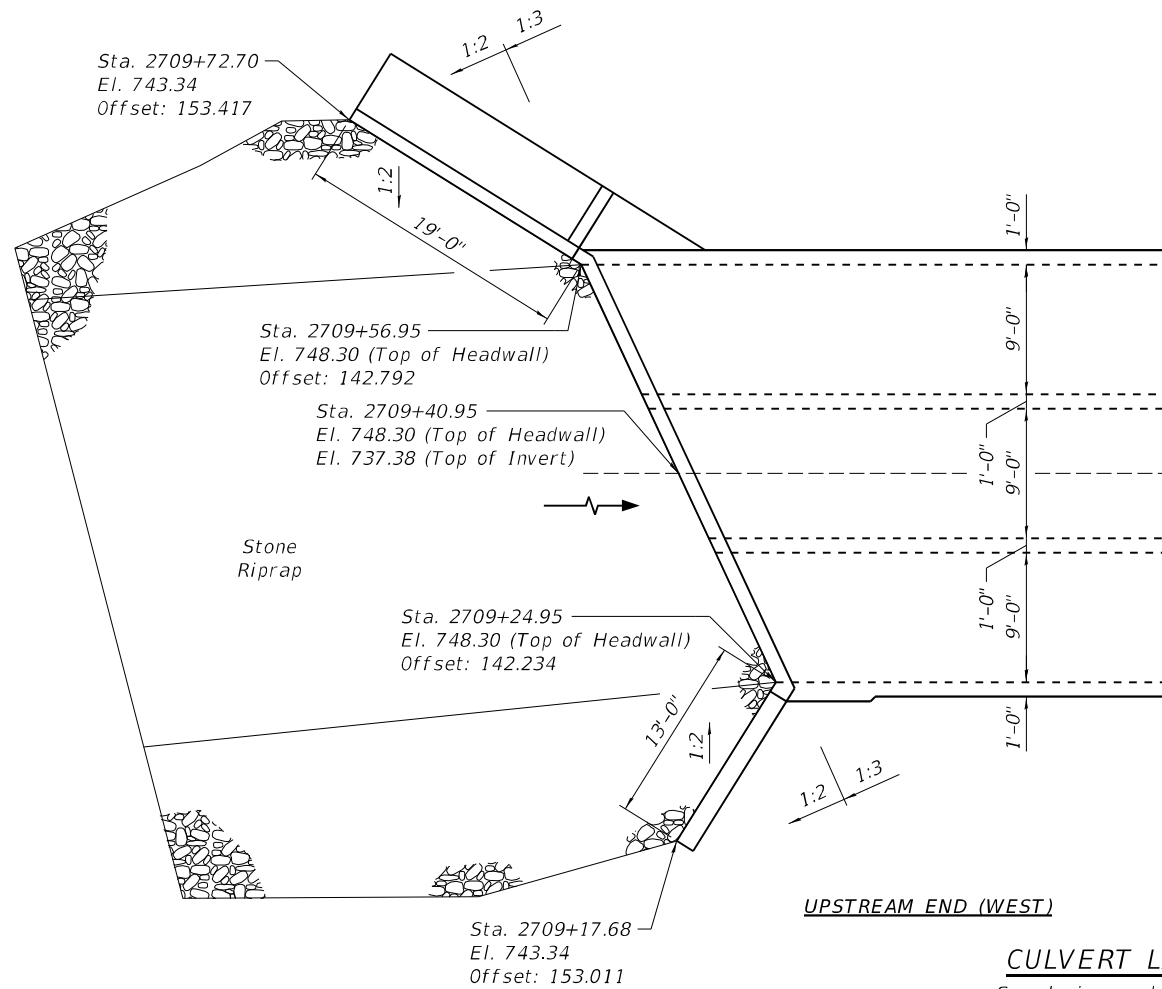
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

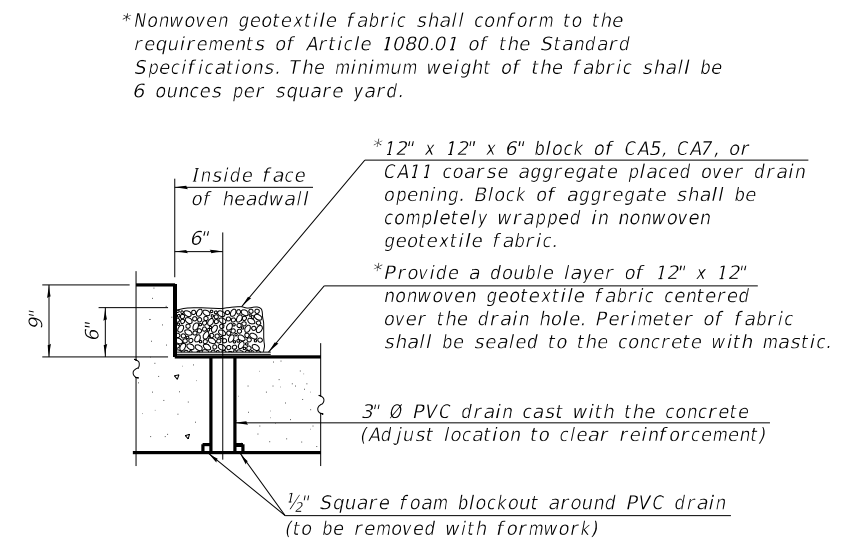
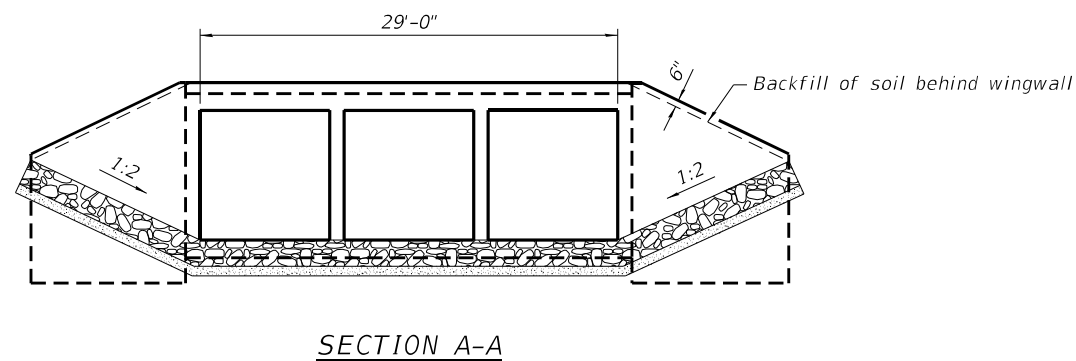
GENERAL DATA

SHEET 2 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1,5)R	WINNEBAGO	1685	778
WHA # 1390D19		CONTRACT NO. 64C24		
		ILLINOIS	FED. AID PROJECT	



CULVERT LAYOUT AND GRADING PLAN
See drainage sheets for riprap details and quantities.



DRAIN DETAIL - CENTER OF EACH CELL
(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)
(6 Required)

MODEL: SMOELNAMES
FILE NAME: \$FILES



**WILLETT HOFMANN
ASSOCIATES, INC.**
ENGINEERING, ARCHITECTURE, LANDSCAPE ARCHITECTURE
809 EAST 2ND STREET, DODON, IL 61021-0367
T 815-584-3331 FAX 815-584-3331

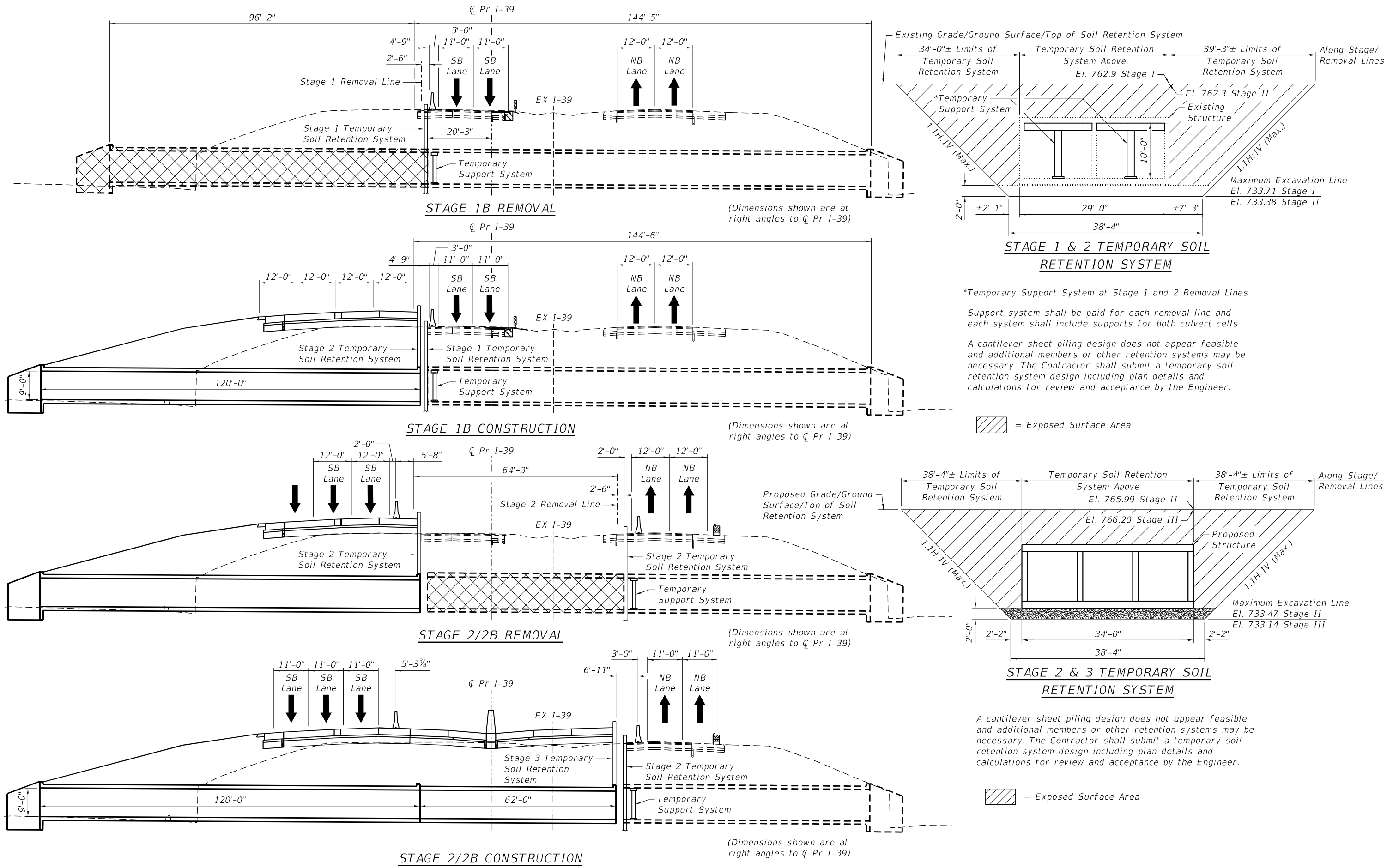
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PLOT DATE = \$DATE\$	CHECKED - SAB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CULVERT LAYOUT AND GRADING PLAN
STRUCTURE NO. 101-2053**

SHEET 3 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1.5)R	WINNEBAGO	1685	779
WHA # 1390D19		CONTRACT NO. 64C24		
		ILLINOIS	FED. AID PROJECT	



*Temporary Support System at Stage 1 and 2 Removal Lines

Support system shall be paid for each removal line and each system shall include supports for both culvert cells.

A cantilever sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

= Exposed Surface Area

A cantilever sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

= Exposed Surface Area

MODEL: SMOELNAMES
FILE NAME: \$FILES



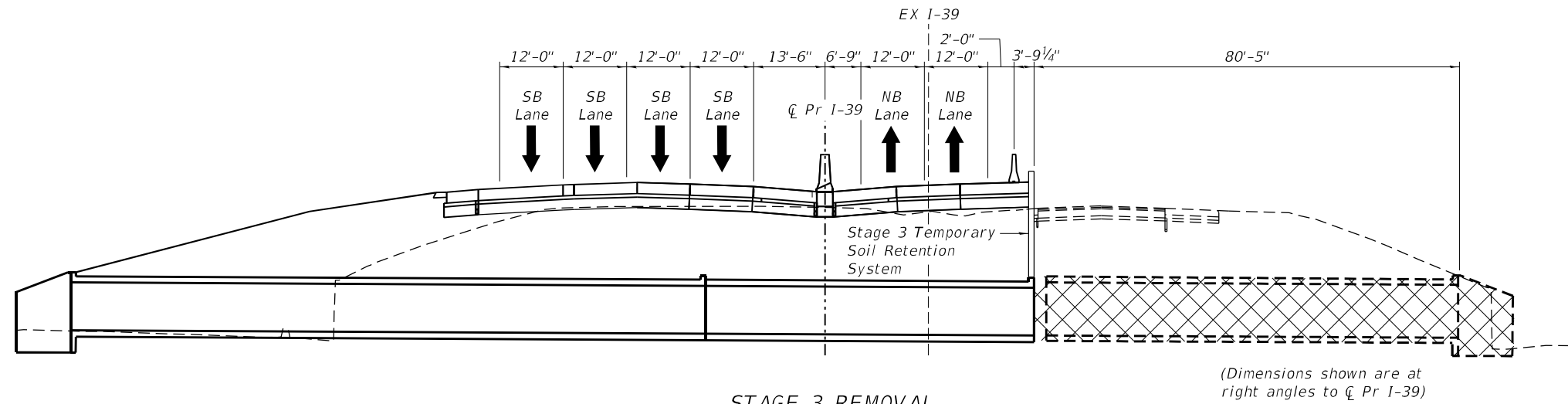
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

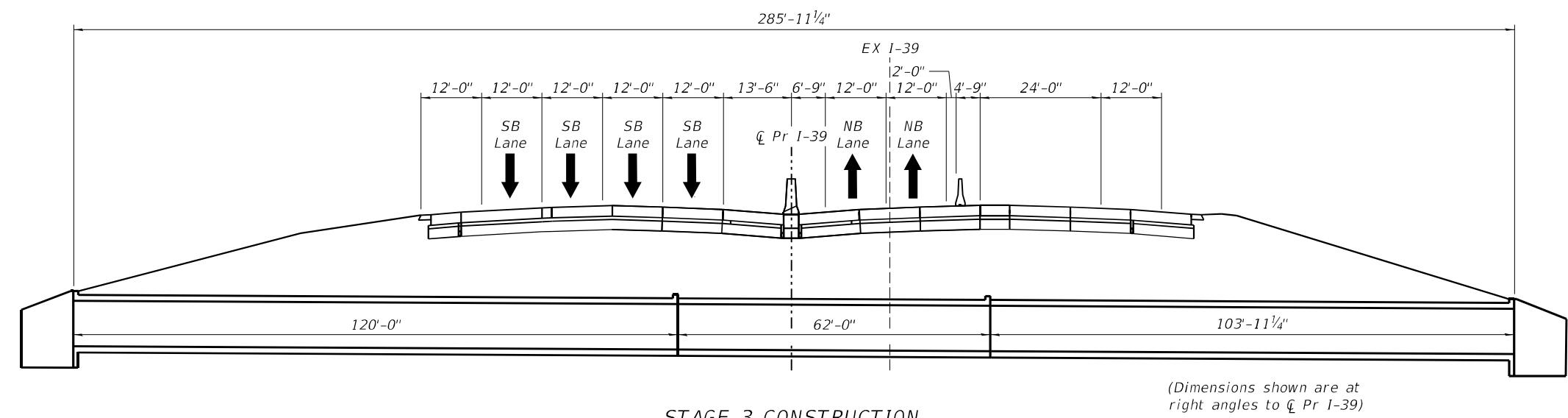
STAGE REMOVAL AND CONSTRUCTION DETAILS
STRUCTURE NO. 101-2053

SHEET 4 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1.5)R	WINNEBAGO	1685	780
WHA # 1390D19		CONTRACT NO. 64C24		
ILLINOIS		FED. AID PROJECT		



STAGE 3 REMOVAL



STAGE 3 CONSTRUCTION

MODEL: SMODELNAMES
FILE NAME: \$FILES



WILLET HOFMANN
ASSOCIATES INC.
ENGINEERING AND ARCHITECTURE
809 EAST 2ND STREET, DECATUR, IL 62521-0367
T 815-284-2551 FAX 815-284-0895

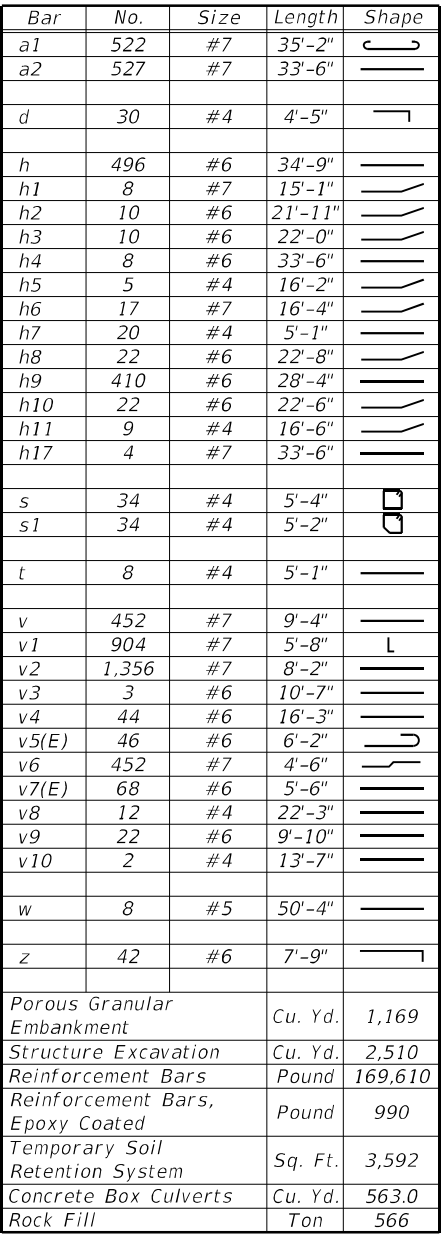
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































STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE REMOVAL AND CONSTRUCTION DETAILS
STRUCTURE NO. 101-2053

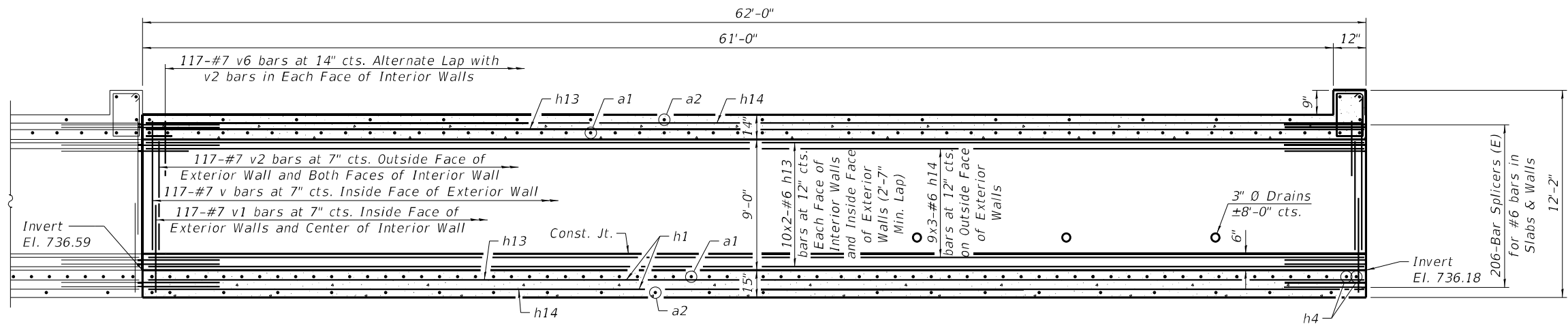
SHEET 5 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1,5)R	WINNEBAGO	1685	781
WHA # 1390D19		CONTRACT NO. 64C24		
		ILLINOIS	FED. AID PROJECT	

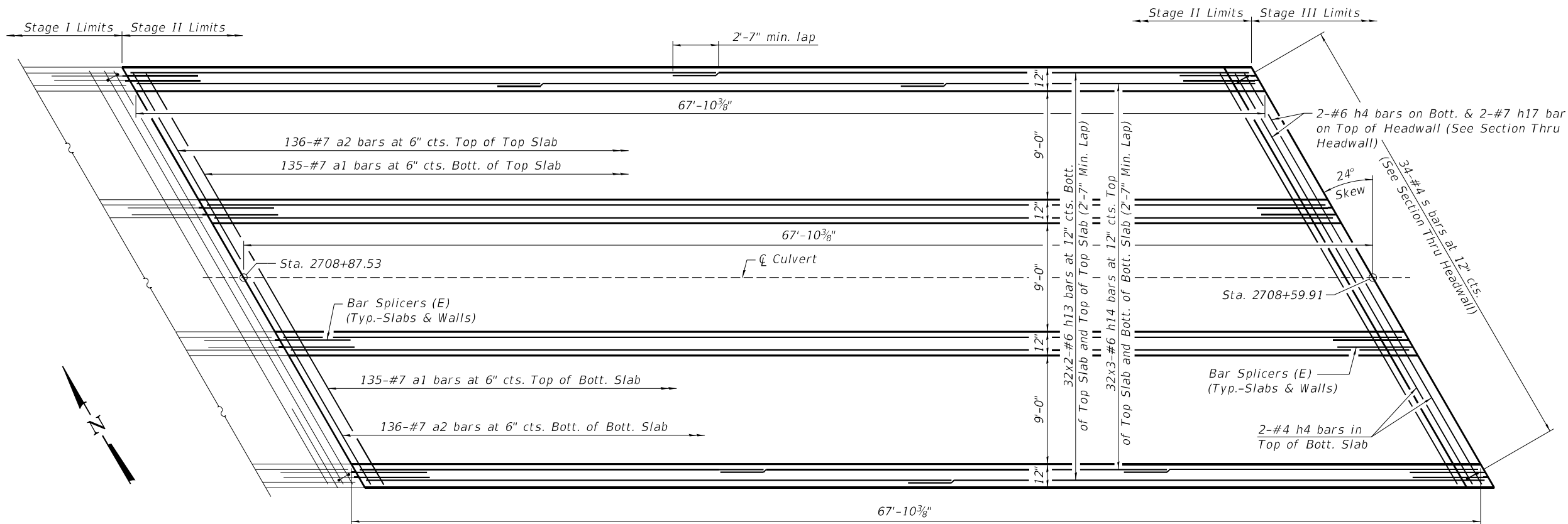


Bar	No.	Size	Length	Shape
a1	522	#7	35'-2"	
a2	527	#7	33'-6"	
d	30	#4	4'-5"	
h	496	#6	34'-9"	
h1	8	#7	15'-1"	
h2	10	#6	21'-11"	
h3	10	#6	22'-0"	
h4	8	#6	33'-6"	
h5	5	#4	16'-2"	
h6	17	#7	16'-4"	
h7	20	#4	5'-1"	
h8	22	#6	22'-8"	
h9	410	#6	28'-4"	
h10	22	#6	22'-6"	
h11	9	#4	16'-6"	
h17	4	#7	33'-6"	
s	34	#4	5'-4"	
s1	34	#4	5'-2"	
t	8	#4	5'-1"	
v	452	#7	9'-4"	
v1	904	#7	5'-8"	
v2	1,356	#7	8'-2"	
v3	3	#6	10'-7"	
v4	44	#6	16'-3"	
v5(E)	46	#6	6'-2"	
v6	452	#7	4'-6"	
v7(E)	68	#6	5'-6"	
v8	12	#4	22'-3"	
v9	22	#6	9'-10"	
v10	2	#4	13'-7"	
w	8	#5	50'-4"	
z	42	#6	7'-9"	
Porous Granular Embankment			Cu. Yd.	1,169
Structure Excavation			Cu. Yd.	2,510
Reinforcement Bars			Pound	169,610
Reinforcement Bars, Epoxy Coated			Pound	990
Temporary Soil Retention System			Sq. Ft.	3,592
Concrete Box Culverts			Cu. Yd.	563.0
Rock Fill			Ton	566

<i>Porous Granular Embankment</i>	<i>Cu. Yd.</i>	<i>1,169</i>
<i>Structure Excavation</i>	<i>Cu. Yd.</i>	<i>2,510</i>
<i>Reinforcement Bars</i>	<i>Pound</i>	<i>169,610</i>
<i>Reinforcement Bars, Epoxy Coated</i>	<i>Pound</i>	<i>990</i>
<i>Temporary Soil Retention System</i>	<i>Sq. Ft.</i>	<i>3,592</i>
<i>Concrete Box Culverts</i>	<i>Cu. Yd.</i>	<i>563.0</i>
<i>Rock Fill</i>	<i>Ton</i>	<i>566</i>



LONGITUDINAL SECTION - STAGE II
(Dimensions at Rt. L's to C/L Roadway)



PLAN - STAGE II

STAGE II & III CONSTRUCTION LINE
SECTION THRU HEADWALL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	270	#7	35'-2"	
a2	272	#7	33'-6"	
h4	4	#6	33'-6"	
h13	248	#6	35'-1"	
h14	246	#6	24'-3"	
h17	2	#7	33'-6"	
s	34	#4	5'-4"	
v	234	#7	9'-4"	
v1	468	#7	5'-8"	
v2	702	#7	8'-2"	
v6	234	#7	4'-6"	
Porous Granular Embankment			Cu. Yd.	558
Structure Excavation			Cu. Yd.	2,415
Reinforcement Bars			Pound	84,280
Reinforcement Bars, Epoxy Coated			Pound	0
Temporary Soil Retention System			Sq. Ft.	3,624
Concrete Box Culverts			Cu. Yd.	279.8
Rock Fill			Ton	279

NOTES:

Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

At the Contractor's option, a longer v1 bar may be ordered to replace the v bar. No reduction in quantities shall be made for this substitution.

MODEL: SMOELNAMES
FILE NAME: \$FILES



USER NAME = \$USERS
PLOT SCALE =
PLOT DATE = \$DATES

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CHECKED - SAB
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CHECKED - SAB

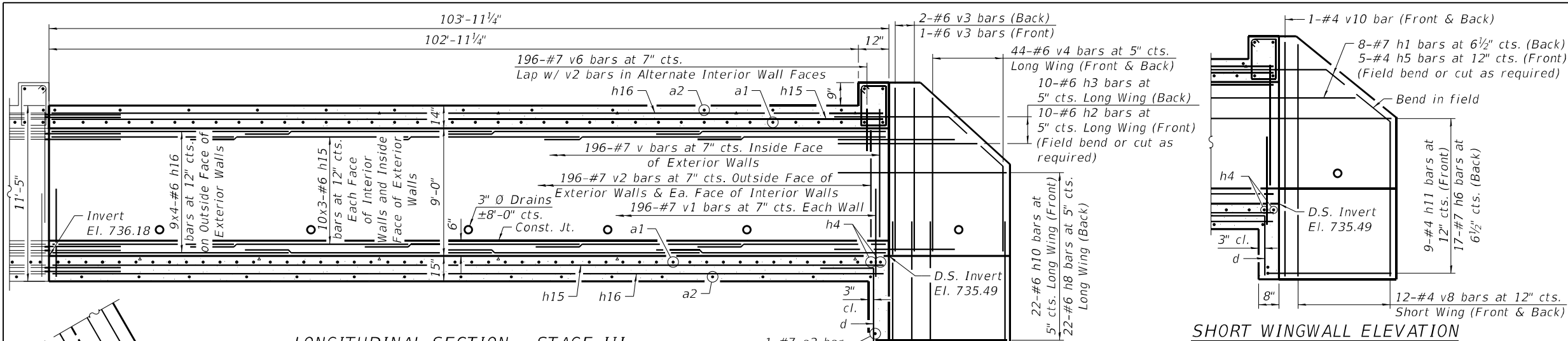
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

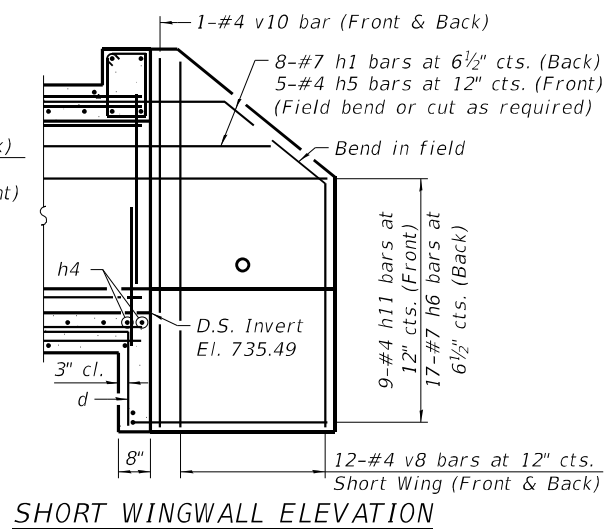
CULVERT DETAILS - STAGE II
STRUCTURE NO. 101-2053

SHEET 7 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1,5)R	WINNEBAGO	1685	783
WHA # 1390D19		CONTRACT NO. 64C24		
ILLINOIS		FED. AID PROJECT		



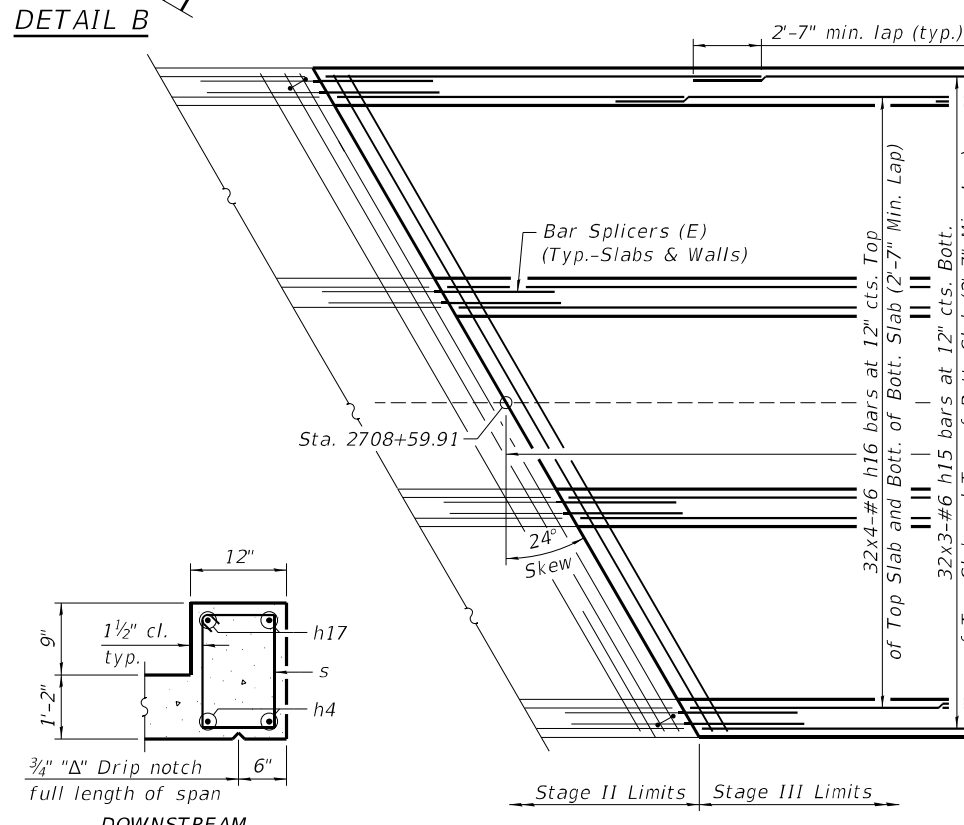
LONGITUDINAL SECTION - STAGE III
(Dimensions at Rt. L's to C Roadway)
(Long Wingwall Elevation Shown)



SHORT WINGWALL ELEVATION

BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
a1	452	#7	35'-2"	
a2	457	#7	33'-6"	
d	30	#4	4'-5"	
h1	8	#7	15'-1"	
h2	10	#6	21'-11"	
h3	10	#6	22'-0"	
h4	4	#6	33'-6"	
h5	5	#4	16'-2"	
h6	17	#7	16'-4"	
h7	20	#4	5'-1"	
h8	22	#6	22'-8"	
h10	22	#6	22'-6"	
h11	9	#4	16'-6"	
h15	372	#6	39'-8"	
h16	328	#6	30'-4"	
h17	2	#7	33'-6"	
s	34	#4	5'-4"	
t	8	#4	5'-1"	
v	392	#7	9'-4"	
v1	784	#7	5'-8"	
v2	1,176	#7	8'-2"	
v3	3	#6	10'-7"	
v4	44	#6	16'-3"	
v5(E)	46	#6	6'-2"	
v6	392	#7	4'-6"	
v7(E)	68	#6	5'-6"	
v8	12	#4	22'-3"	
v9	22	#6	9'-10"	
v10	2	#4	13'-7"	
z	42	#6	7'-9"	
Porous Granular Embankment			Cu. Yd.	1,044
Structure Excavation			Cu. Yd.	2,943
Reinforcement Bars			Pound	146,580
Reinforcement Bars, Epoxy Coated			Pound	990
Concrete Box Culverts			Cu. Yd.	489.9
Rock Fill			Ton	494

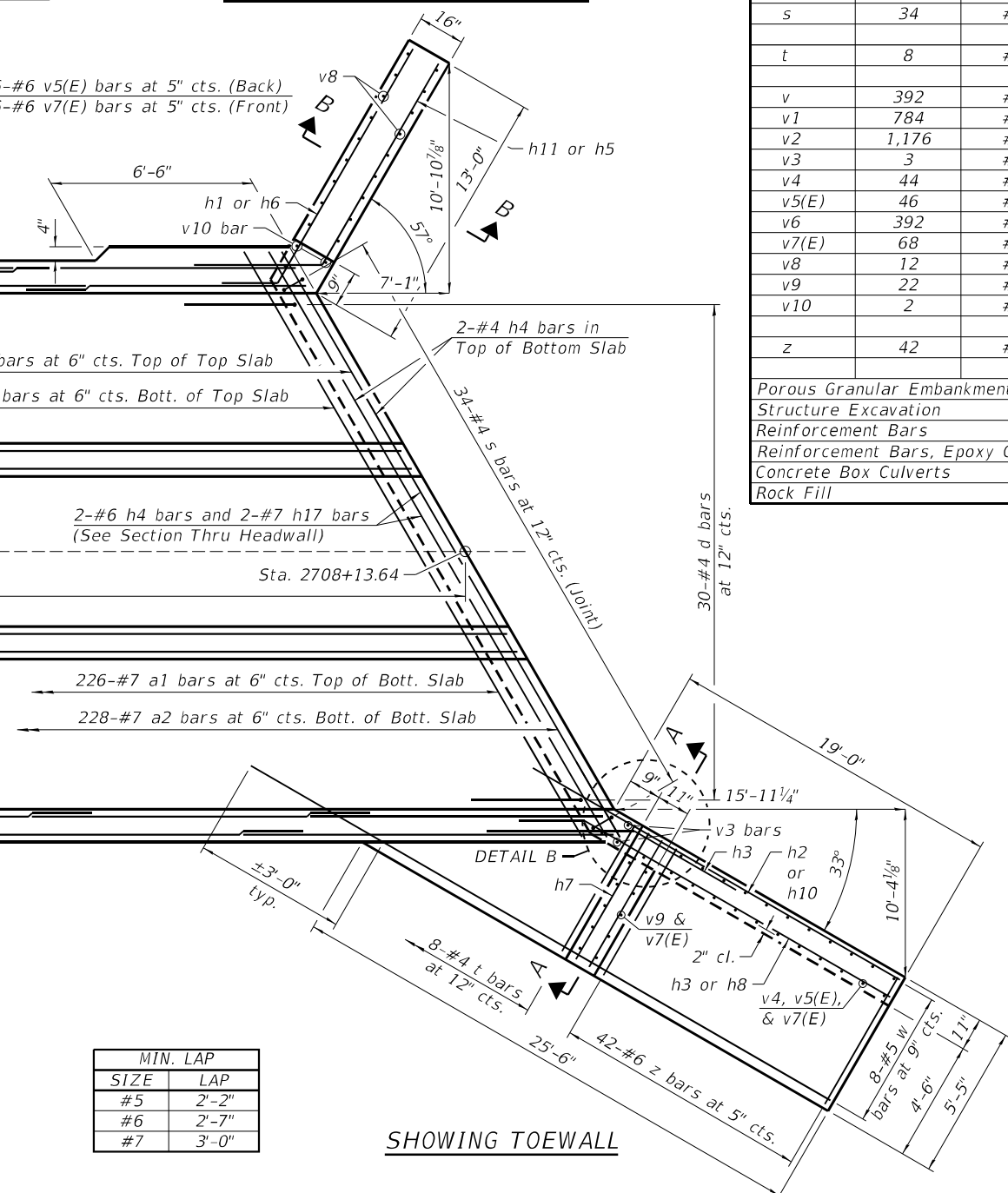
DETAIL B



SECTION THRU HEADWALL

DOWNSTREAM

PLAN - STAGE III

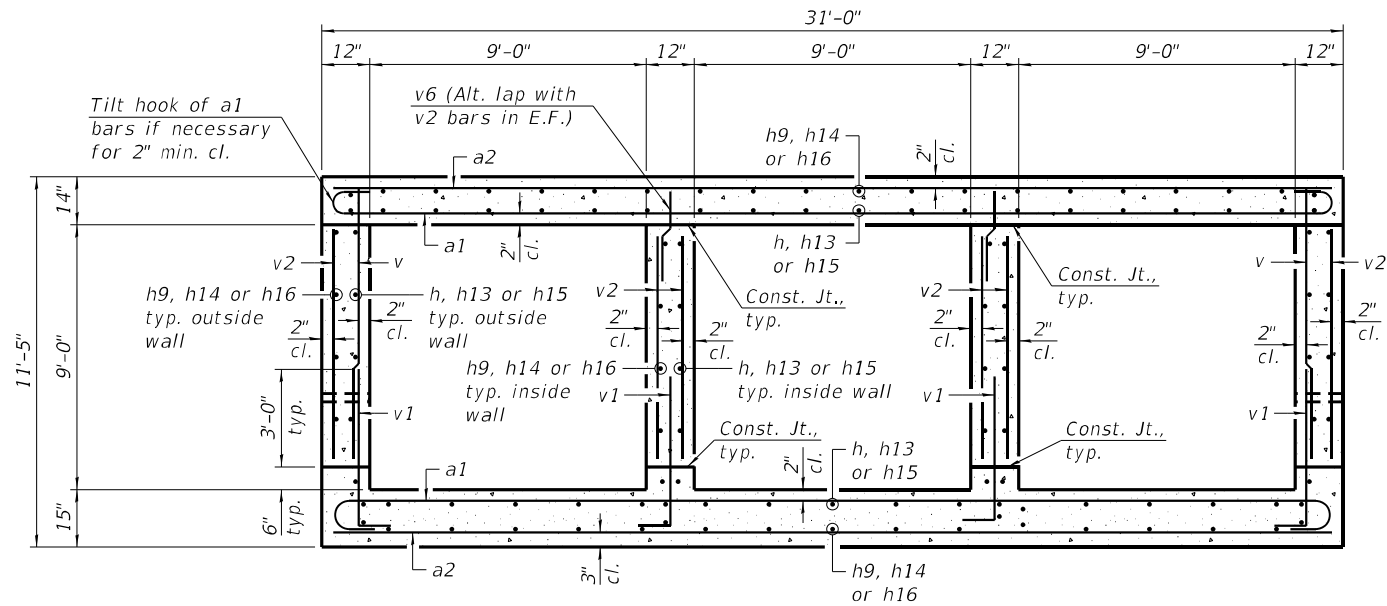


SHOWING TOEWALL

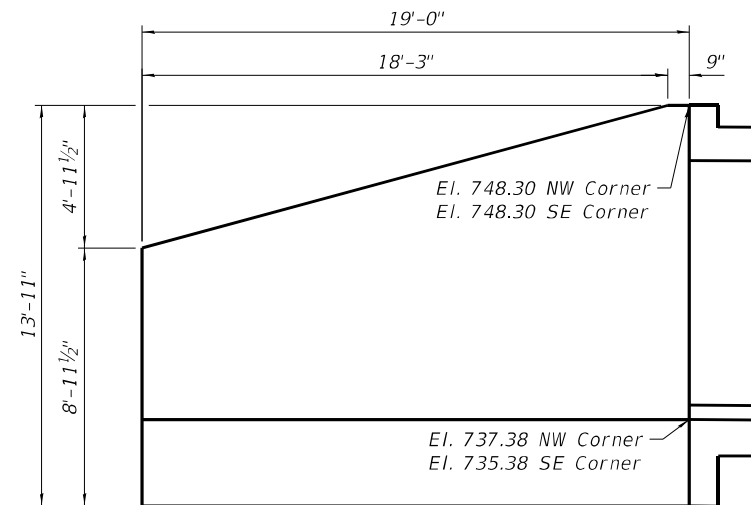
NOTES:
Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
At the Contractor's option, a longer v1 bar may be ordered to replace the v bar. No reduction in quantities shall be made for this substitution.

MIN. LAP	
SIZE	LAP
#5	2'-2"
#6	2'-7"
#7	3'-0"

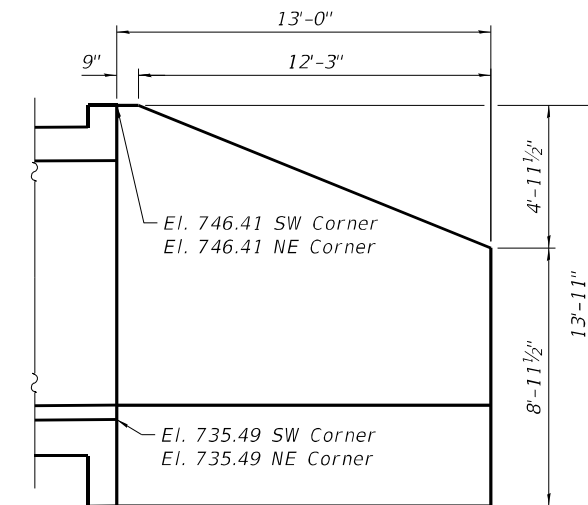
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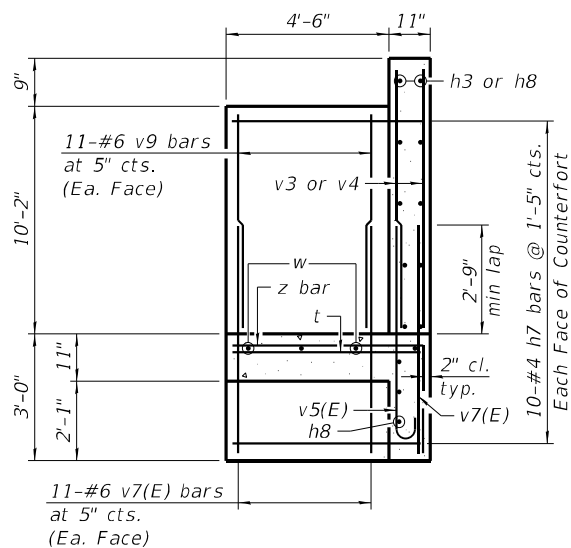
SECTION THRU BARREL



LONG WING

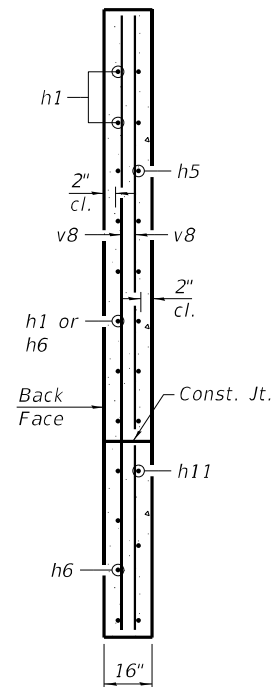


SHORT WING

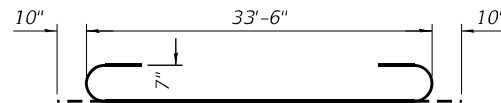


SECTION A-A

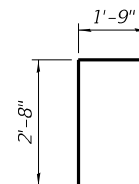
Showing long wing with counterfort.



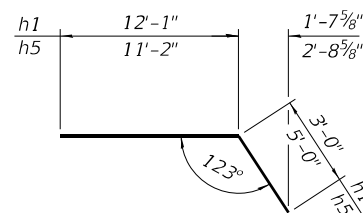
SECTION B-B



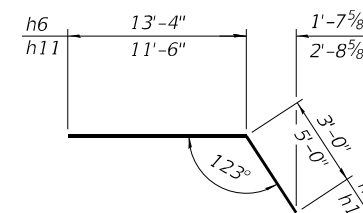
BAR a1



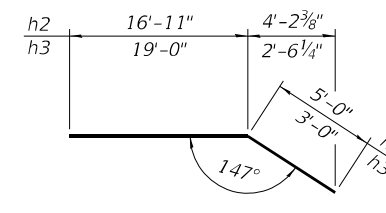
BAR d



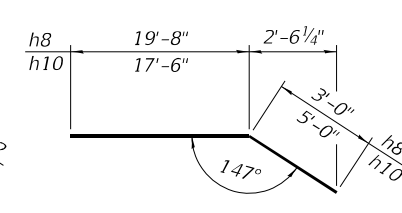
BAR h1 & h5



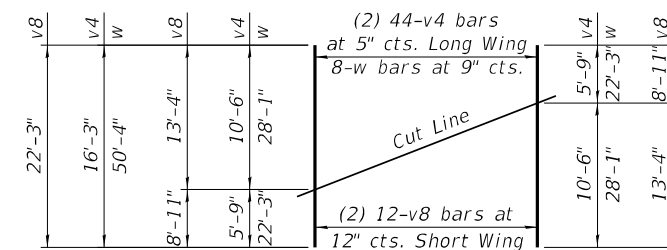
BAR h6 & h11



BAR h2 & h3

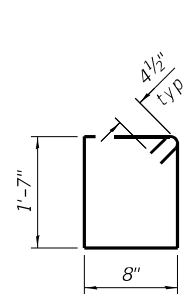


BAR h8 & h10

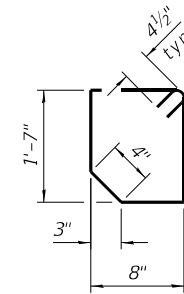


FIELD CUTTING DIAGRAM

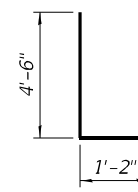
Order bars shown full length. Cut as shown and use remainder of bars in opposite face/end.



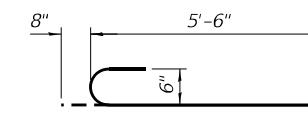
BAR s



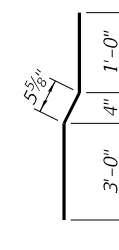
BAR s1



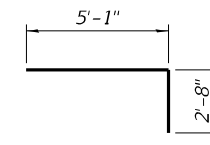
BAR v1



BAR v5(E)



BAR v6



BAR z

NOTES:

Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

At the Contractor's option, a longer v1 bar may be ordered to replace the v bar. No reduction in quantities shall be made for this substitution.

MODEL: SMOELNAMES
FILE NAME: \$FILES



WILLET HOFMANN
ASSOCIATES, INC.
UNINCORPORATED FISCAL YEAR ENDING
809 EAST 2ND STREET, DECATUR, IL 62521-0367
T 815-384-3331 FAX 815-384-0895

USER NAME	= \$USERS\$
DESIGNED	- RB
CHECKED	- SAB
PLOT SCALE	=
PLOT DATE	= \$DATES\$
DRAWN	- RDA
CHECKED	- SAB

DESIGNED	- RB
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REVISED	-
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REVISED	-

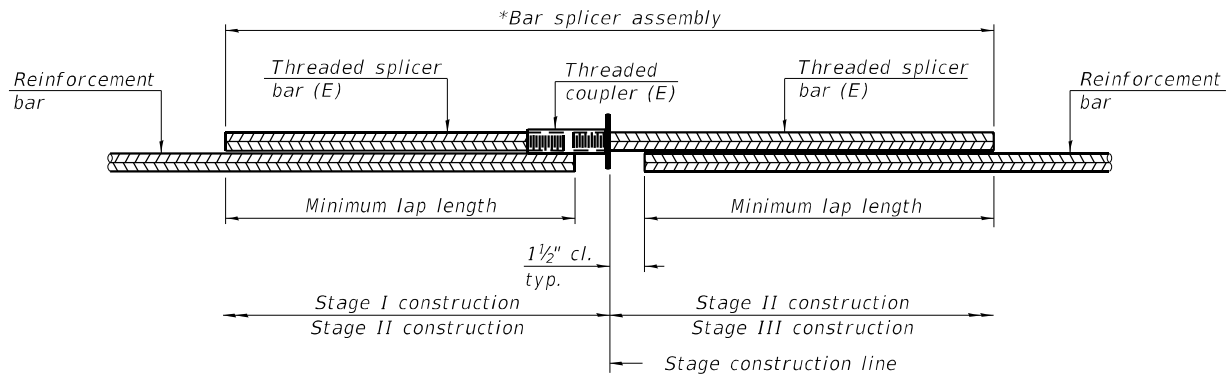
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS - CROSS SECTION AND DETAILS
STRUCTURE NO. 101-2053

SHEET 9 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1,5)R	WINNEBAGO	1685	785
WHA # 1390D19		CONTRACT NO. 64C24		
		ILLINOIS	FED. AID PROJECT	

MODEL: SMODELNAMES
FILE NAME: \$FILES



STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

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

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

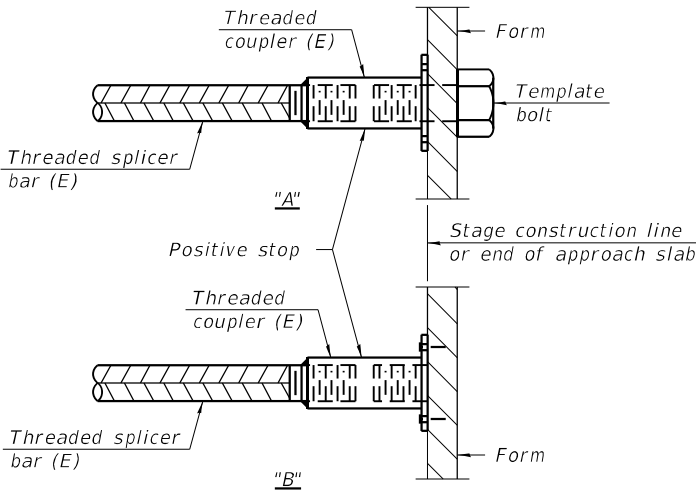
STAGE 1

Location	Bar size	No. assemblies required	Minimum lap length
Top Slab	#6	64	3'-10"
Bottom Slab	#6	64	3'-10"
Side Walls	#6	38	3'-10"
Center Walls	#6	40	3'-10"
SUBTOTAL		206	

STAGE 2

Location	Bar size	No. assemblies required	Minimum lap length
Top Slab	#6	64	3'-10"
Bottom Slab	#6	64	3'-10"
Side Walls	#6	38	3'-10"
Center Walls	#6	40	3'-10"
SUBTOTAL		206	

TOTAL	412
-------	-----

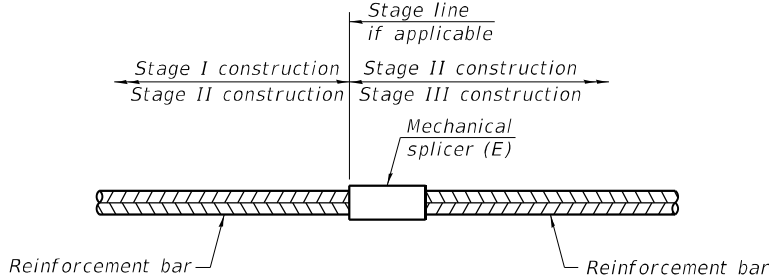


INSTALLATION AND SETTING METHODS

"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.



**WILLETT HOFMANN
ASSOCIATES, INC.**
ENGINEERING, ARCHITECTURE, LANDSCAPE ARCHITECTURE
809 EAST 2ND STREET, DECATUR, IL 61021-0367
TEL: 312-251-2551 FAX: 312-251-0895

USER NAME = \$USERS\$
DESIGNED - RB
CHECKED - SAB
PLOT SCALE =
PLOT DATE = \$DATES\$

DESIGNED - RB
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DRAWN - RDA
CHECKED - SAB

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 101-2053**

SHEET 10 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1,5)R	WINNEBAGO	1685	786
WHA # 1390D19		CONTRACT NO. 64C24		
		ILLINOIS	FED. AID PROJECT	



SOIL BORING LOG

Page 1 of 1

Date 4/23/08

ROUTE Bypass 20/I-39 DESCRIPTION P-92-111-06 Box Culvert over Madigan Creek on Bypass 20 LOGGED BY W. Garza

SECTION (201-3)K &(4-1,5)R LOCATION Cherry Valley, 2 NW. SEC., TWP. 43N RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	D	B	U	M	Surface Water Elev.	ft	D	B	U	M
Station	E	L	C	O	Stream Bed Elev.	ft	E	L	C	O
	P	O	S	I			P	O	S	I
BORING NO.	T	W	Qu	T	Groundwater Elev.:		H	S		T
Station	H	S			First Encounter	ft				
Offset					Upon Completion	ft				
Ground Surface Elev.	ft	(ft)	(/6")	(tsf)	After	ft	(ft)	(/6")	(tsf)	(%)
SOFT dark gray LOAM					MEDIUM gray SILT with fine SAND lens (continued)	718.5		3	0.8	19
			0.4	22	STIFF gray SILTY CLAY TILL			4	P	
MEDIUM dark gray SANDY LOAM	737.5	2						13		
		2	0.6	20				11	1.1	18
		4	P					8	P	
MEDIUM tan SAND with medium GRAVEL	735.5				VERY DENSE tan weathered LIMESTONE	715.5				
		5						21		
		9						25		
		8						22		
LOOSE/MEDIUM tan SAND					Wash VERY DENSE tan weathered LIMESTONE			100/5"		
		5								
		6								
		4			End of Boring	711.0				
Wash LOOSE tan dirty SAND	731.0									
		3								
		4								
		8								
STIFF tan/gray SILT	728.0									
		6								
		9	1.4	21						
		7	S							
MEDIUM gray SILT	726.0									
		3								
		4	0.7	17						
		6	B							
MEDIUM gray SILT	723.5									
		3								
		4	0.6	16						
		5	B							
MEDIUM gray SILT with fine SAND lens	721.0									
		2								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

Date 4/23/08

ROUTE Bypass 20/I-39 DESCRIPTION P-92-111-06 Box Culvert over Madigan Creek on Bypass 20 LOGGED BY W. Garza

SECTION (201-3)K &(4-1,5)R LOCATION Cherry Valley, 2 NW. SEC., TWP. 43N RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	D	B	U	M	Surface Water Elev.	ft	D	B	U	M
Station	E	L	C	O	Stream Bed Elev.	ft	E	L	C	O
	P	O	S	I			P	O	S	I
BORING NO.	T	W	Qu	T	Groundwater Elev.:		H	S		T
Station	H	S			First Encounter	ft				
Offset					Upon Completion	ft				
Ground Surface Elev.	ft	(ft)	(/6")	(tsf)	After	ft	(ft)	(/6")	(tsf)	(%)
MEDIUM dark gray LOAM					MEDIUM gray clean medium coarse SAND (continued)			10		
								12		
			0.5	13						
			P							
MEDIUM dark gray dirt SAND & GRAVEL	735.6	2						12		
		13						17	4.6	8
		10						18	S	
STIFF tan SANDY LOAM TILL	733.6	2								
		9	1.4	10				11		
		6	P					18	6.3	8
								19	S	
STIFF tan SANDY LOAM TILL	731.6									
		6								
		11	1.0	9						
		15	S							
STIFF tan SANDY LOAM TILL	729.1									
		5	1.7	8						
		7	S							
		8								
VERY STIFF gray LOAM TILL	726.6									
		3								
		5	2.7	8						
		9	B							
STIFF gray LOAM TILL	724.1									
		5								
		9	1.8	8						
		11	S							
HARD gray LOAM TILL	721.6									
		8								
		10	4.6	8						
		17	S							
MEDIUM gray clean medium coarse SAND	718.6									
		4								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

(SHEET 1 OF 2 SHEETS)

MODEL: SMODELNAMES
FILE NAME: \$FILES



WILLET HOFMANN
ASSOCIATES INC.
UNDEVELOPED AND UNAPPROVED
809 EAST 2ND STREET, DECATUR, IL 62521-0367
T 815-354-3331 / 815-354-0805

USER NAME = \$USERS	DESIGNED - RB	REVISED -
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PLOT SCALE =	DRAWN - RDA	REVISED -
PLOT DATE = \$DATE\$	CHECKED - SAB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 101-2053

SHEET 11 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1,5)R	WINNEBAGO	1685	787
WHA # 1390D19		CONTRACT NO. 64C24		
		ILLINOIS	FED. AID PROJECT	

Page 1 of 2

Date 8/3/20

ROUTE	Bypass 20/I-39	DESCRIPTION	P-92-111-06- Box Culvert carrying US Bypass 20 over Madigan Creek	LOGGED BY	W. Garza
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SECTION	(201-3)K &(4-1,5)R	LOCATION	Cherry Valley, 2 NW. SEC., TWP. 43N RNG. 2E
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COUNTY Winnebago **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** CME-45 Automatic

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Page 2 of 2

Date 8/3/20

ROUTE	Bypass 20/I-39	DESCRIPTION	P-92-111-06- Box Culvert carrying US Bypass 20 over Madigan Creek	LOGGED BY	W. Garza
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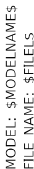
SECTION (201-3)K &(4-1,5)R **LOCATION** Cherry Valley, 2 NW. SEC., TWP. 43N RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

(SHEET 2 OF 2 SHEETS)



USER NAME = \$USER\$	DESIGNED - RB	REVISED -
	CHECKED - SA\$	REVISED -
PLOT SCALE =	DRAWN - RDA	REVISED -
PLOT DATE = \$DATE\$	CHECKED - SA\$	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 101-2053

SHEET 12 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	(201-3)R & (4-1.5)R	WINNEBAGO	1685	788
WHA # 1390D19		CONTRACT NO. 64C24		
ILLINOIS		FED. AID PROJECT		

Benchmark: BM #402 - Cut square in southeast wingwall of S.N. 101-0070. Elevation 796.69.

Existing structure: None

Structure to be constructed under stage construction. See Roadway plans for traffic staging.

No salvage.

INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data & Bill of Material
- 3. Staging Diagrams
- 4. Temporary Shoring
- 5.-6. Single Cell Precast Box Culvert Tapered End Sections
- 7. Boring Logs

DESIGN STRESSES

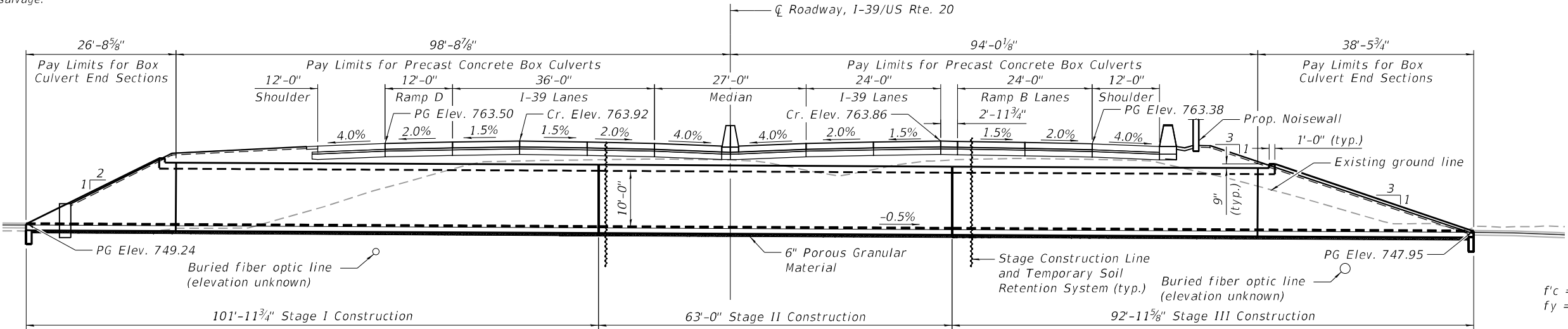
PRECAST UNITS

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fy = 65,000 psi (Welded Wire Reinforcement)

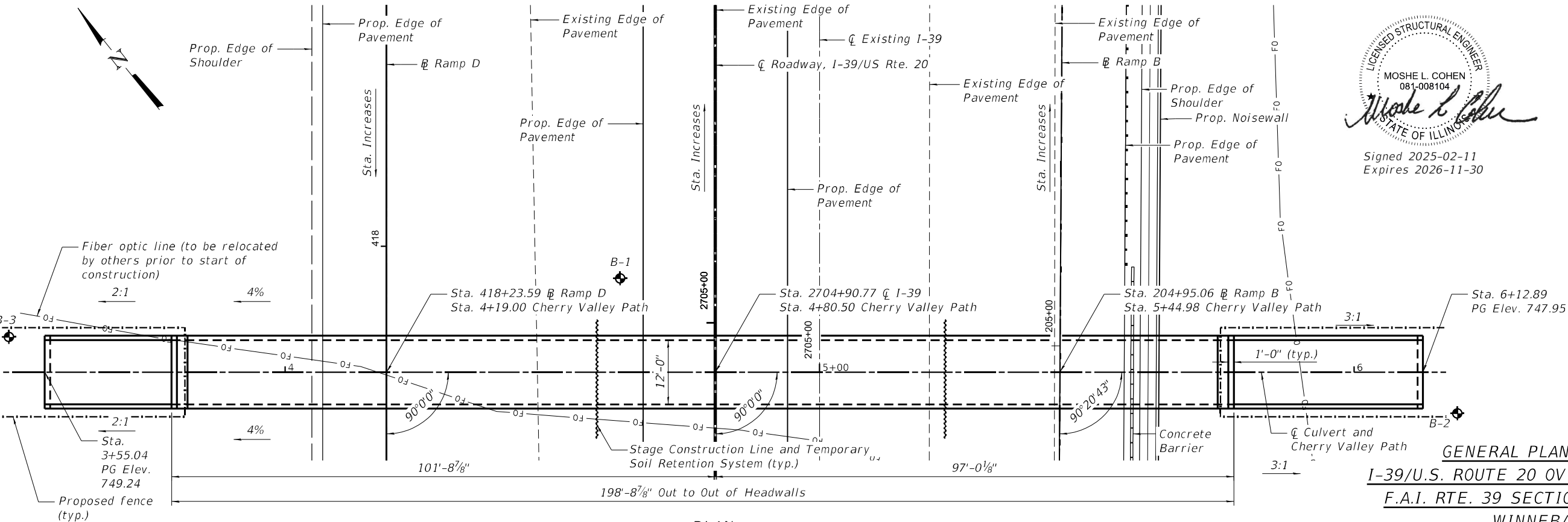
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DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

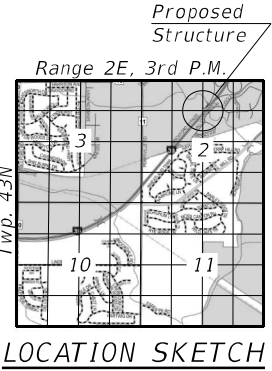


ELEVATION



PLAN

LICENSED STRUCTURAL ENGINEER
MOSHE L. COHEN
081-008104
STATE OF ILLINOIS
Signed 2025-02-11
Expires 2026-11-30



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
I-39/U.S. ROUTE 20 OVER CHERRY VALLEY PATH
F.A.I. RTE. 39 SECTIONS (201-3)K & (4-1,5)R
WINNEBAGO COUNTY
STATION 2704+90.77
S.N. 101-1360

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				

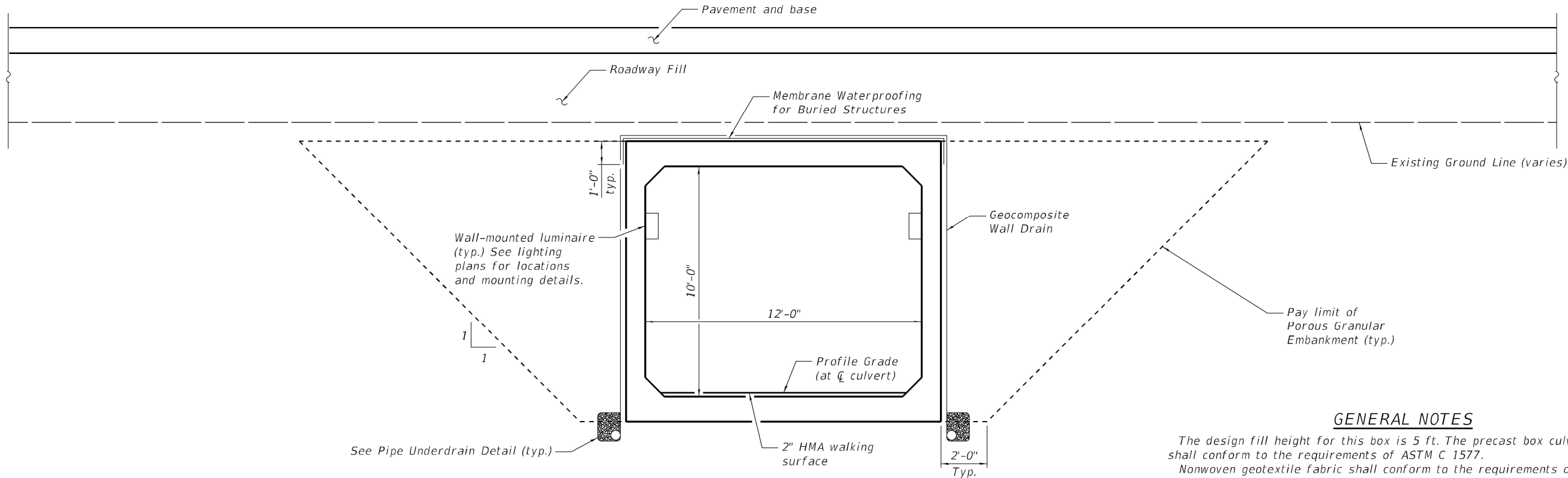
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Kaskaskia
Engineering Group, LLC
Professional Engineering Group

200 E. Main St., Suite 100
Bellaire, Illinois 62229
618.233.2877 (office)
618.233.2877 (fax)
www.kaskaskiaengineering.com

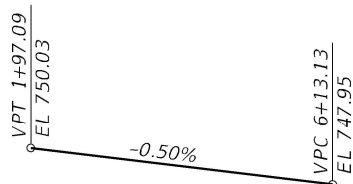
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081-007013
20-088055

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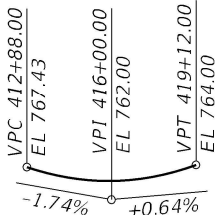
SECTION THRU BARREL

Showing limits of Membrane Waterproofing System for Buried Structures and Geocomposite Wall Drain and pay limits for Porous Granular Embankment.



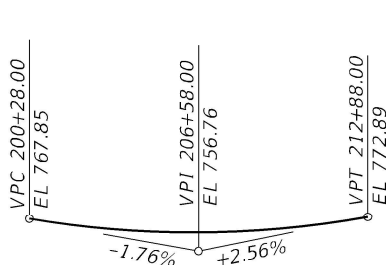
PROPOSED PROFILE

Along CL Cherry Valley Path



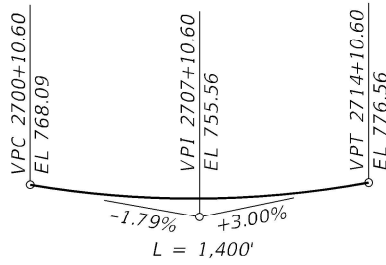
PROPOSED PROFILE

Along CL Ramp D



PROPOSED PROFILE

Along CL Ramp B



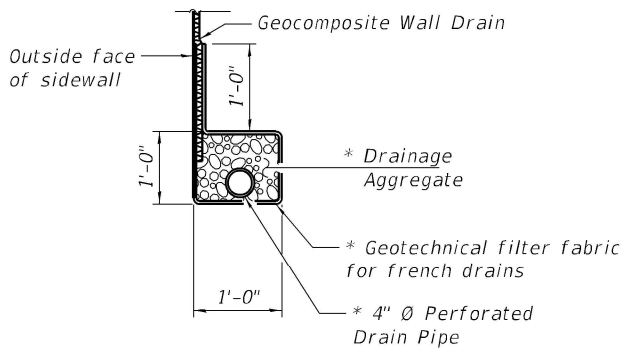
PROPOSED PROFILE

Along 1-39/U.S. Route 20

STATION 2704+90.77
BUILT 202_ BY
STATE OF ILLINOIS
F.A.I. RT. 39
SEC. (201-3)K & (4-1.5)R
LOADING HL-93
STR. NO. 101-1360

NAME PLATE

See Std. 515001



PIPE UNDERDRAIN DETAIL

* Cost Included with Pipe Underdrains for Structures 4". All draiange components shall extend to 2'-0" from the end of each wingwall, except an outlet pipe shall extend until interesecting with side slopes. The pipes shall drain into concrete headwalls. See Highway Standard 601101.

GENERAL NOTES

The design fill height for this box is 5 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.

Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.

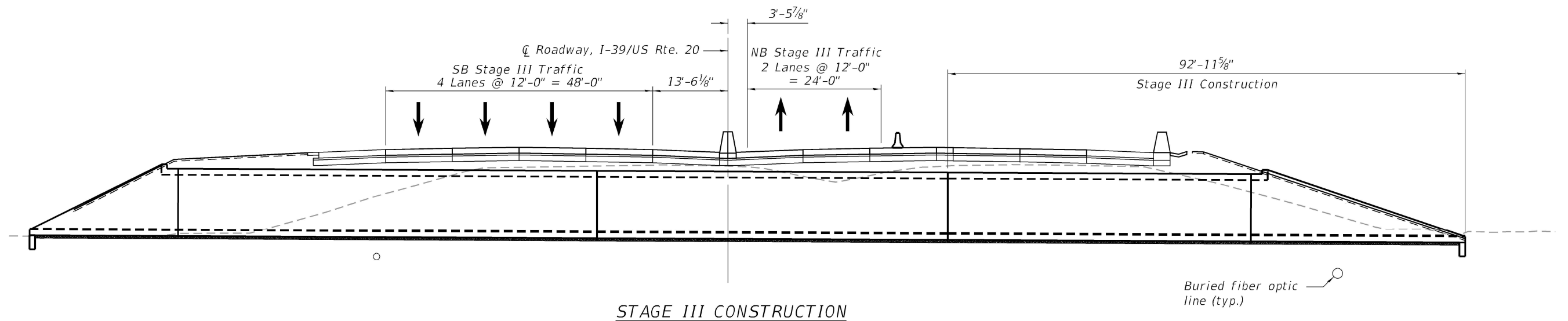
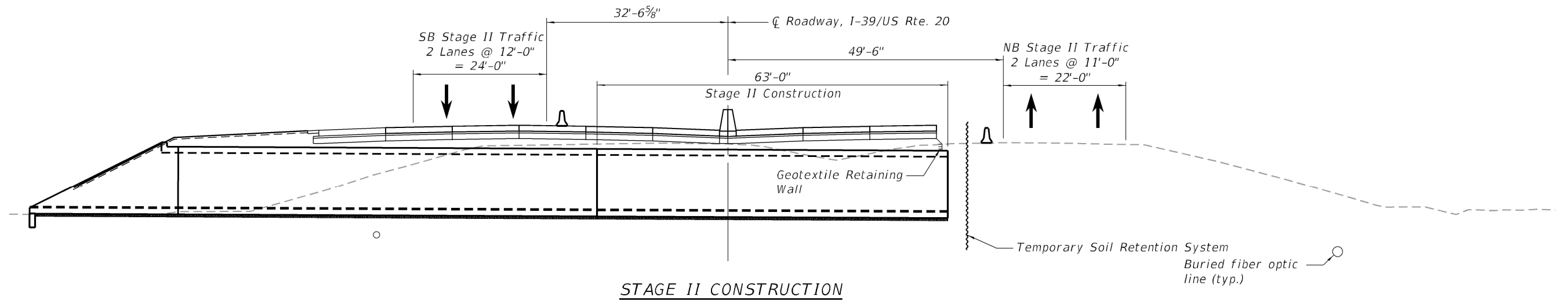
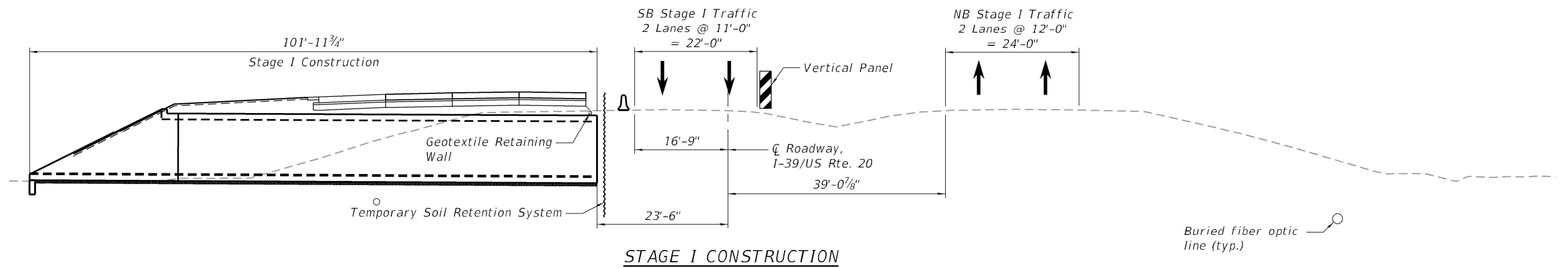
Confined space access and protective measures between stages shall be included in the Contractor's design of the Temporary Soil Retention System. The cost shall be included with the Temporary Soil Retention System.

The Contractor shall block the ends of the existing and proposed culverts to prevent unauthorized access during construction stages. The cost shall be included with the cost of Precast Concrete Box Culvert 12' X 10'.

Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.

TOTAL BILL OF MATERIAL

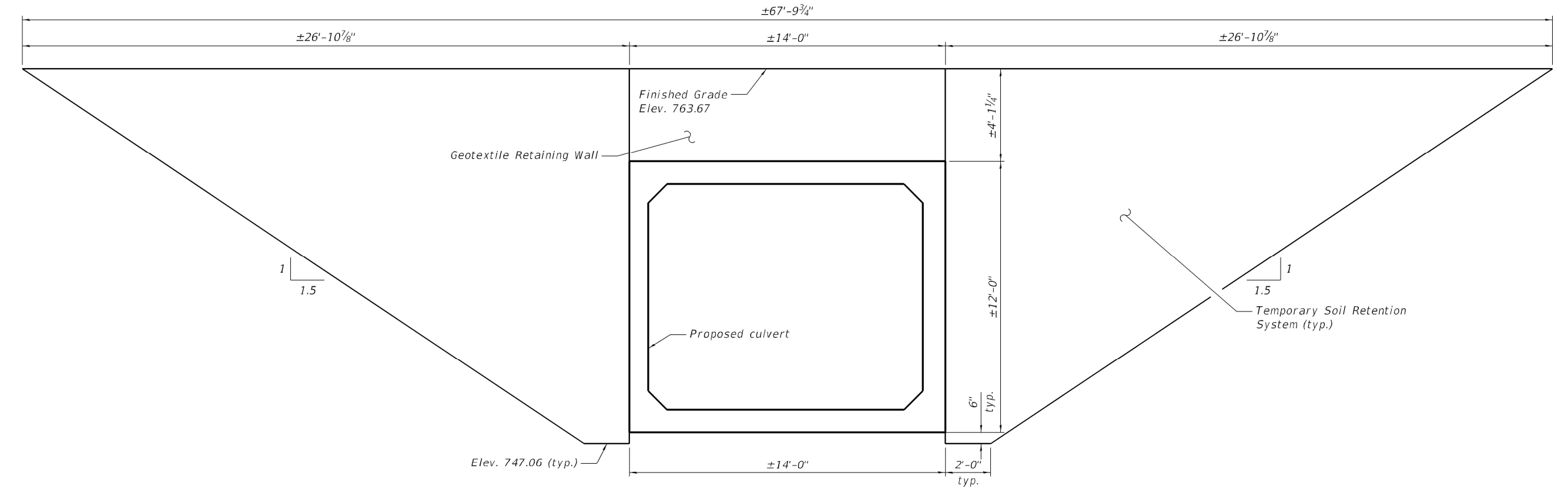
ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	1,557
Bituminous Materials (Tack Coat)	Pound	78
Hot-Mix Asphalt Surface Course, IL-9.5FG, N50	Ton	41
Structure Excavation	Cu. Yd.	1,440
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	990
Geotextile Retaining Wall	Sq. Ft.	125
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culverts 12' X 10'	Foot	193
Geocomposite Wall Drain	Sq. Yd.	910
Pipe Underdrains for Structures 4"	Foot	536
Membrane Waterproofing System for Buried Structures	Sq. Yd.	349



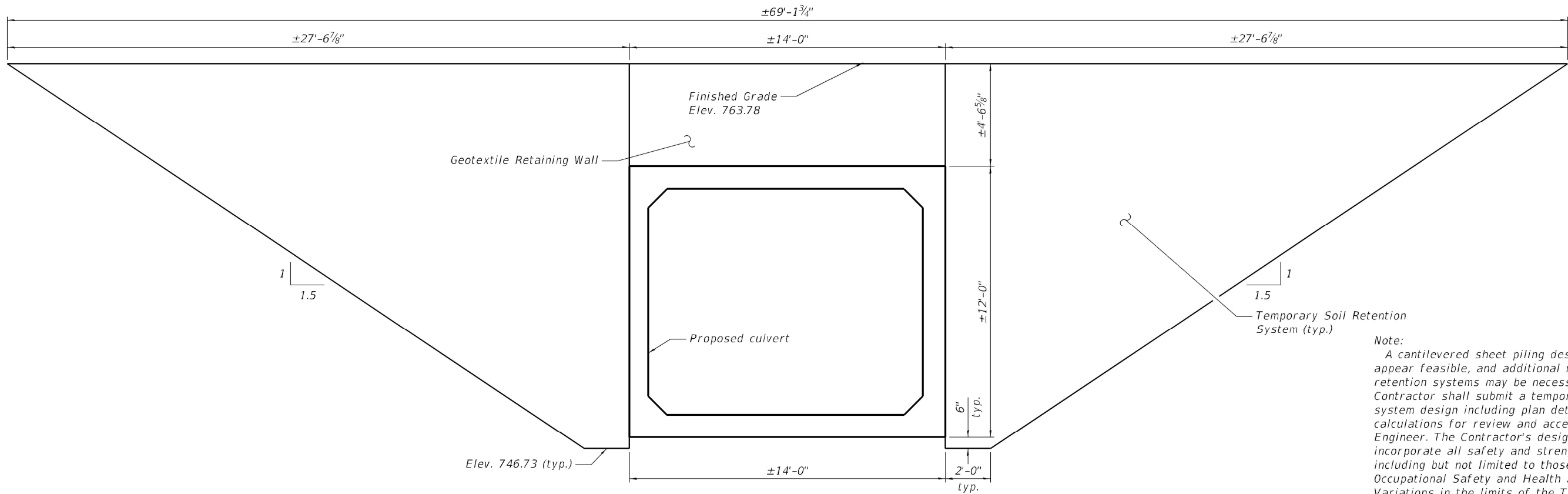
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2/11/2025 9:22:17 AM

 <div>Kaskaskia Engineering Group, LLC <small>Professional Engineering Group</small></div> <div><small>1827 N. Main St., Suite 100 Bellaire, Illinois 62223 618.553.2877 phone 618.553.2877 fax www.kaskaskiaeng.com PROJECT NO. 101-1360 1827 N. Main St. Bellaire, Illinois 62223 618.553.2877</small></div>	USER NAME =	DESIGNED - MLC	REVISED -	<div>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</div>	<div>STAGING DIAGRAM STRUCTURE NO. 101-1360</div>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE =	CHECKED - MMC	REVISED -			ILLINOIS FED. AID PROJECT				
	SHEET 3 OF 7 SHEETS									

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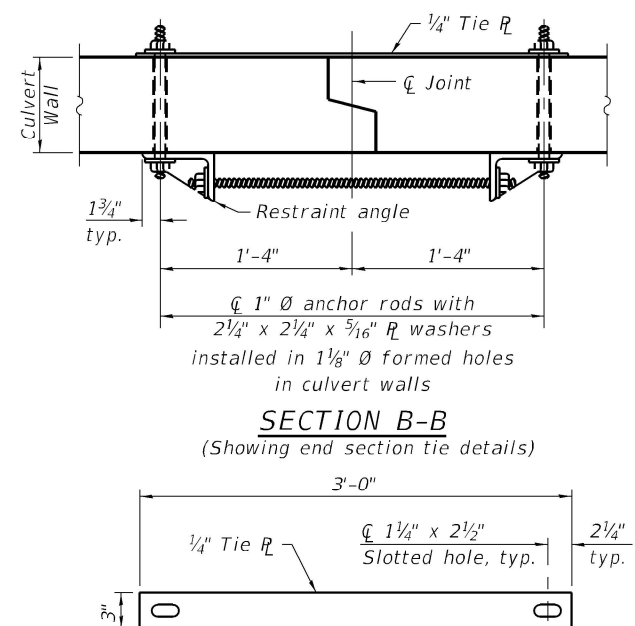
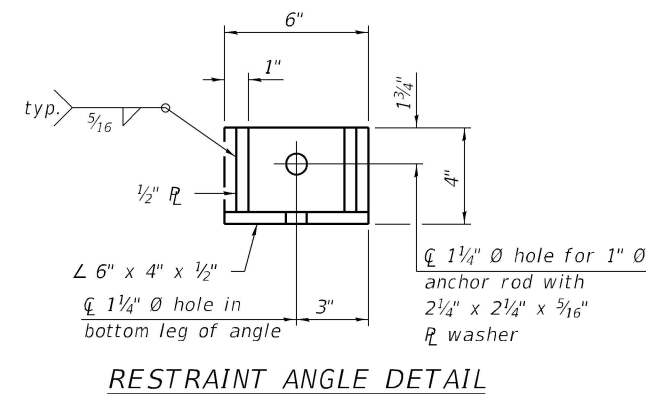
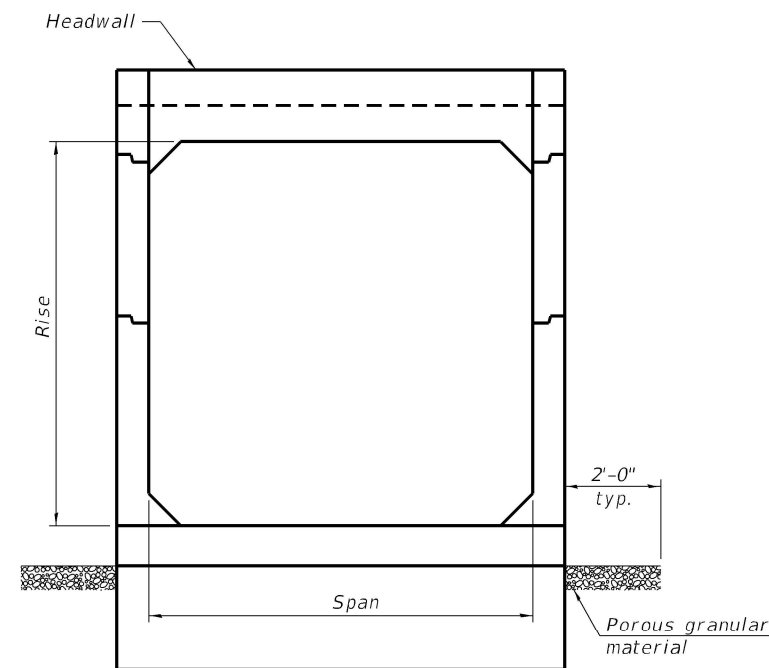
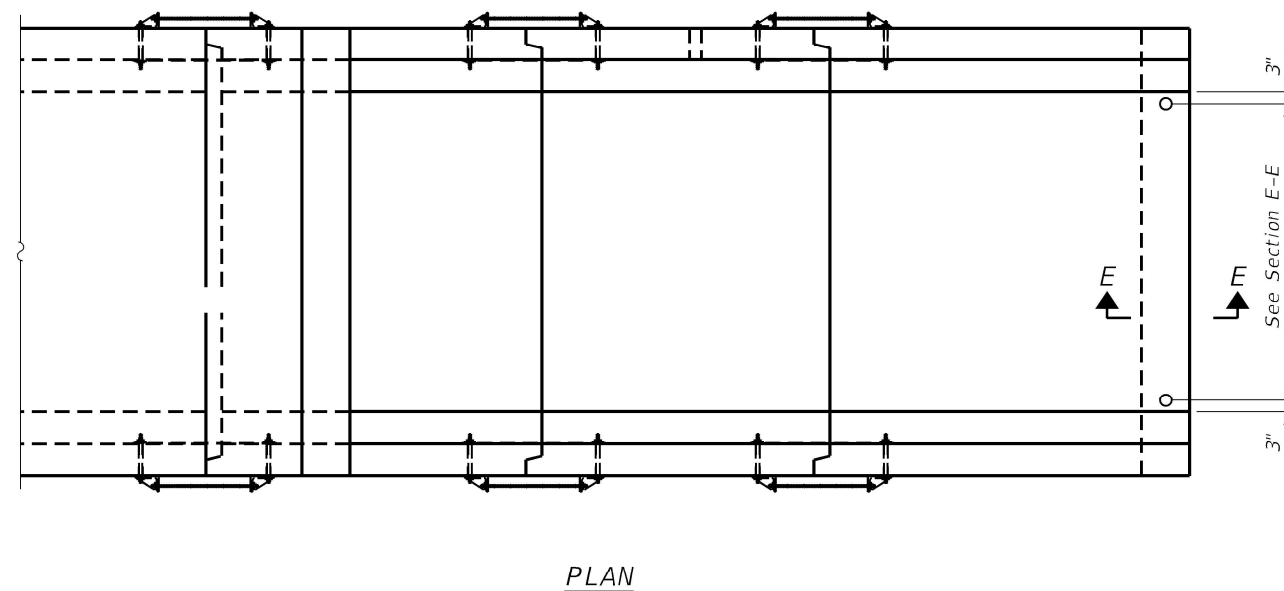
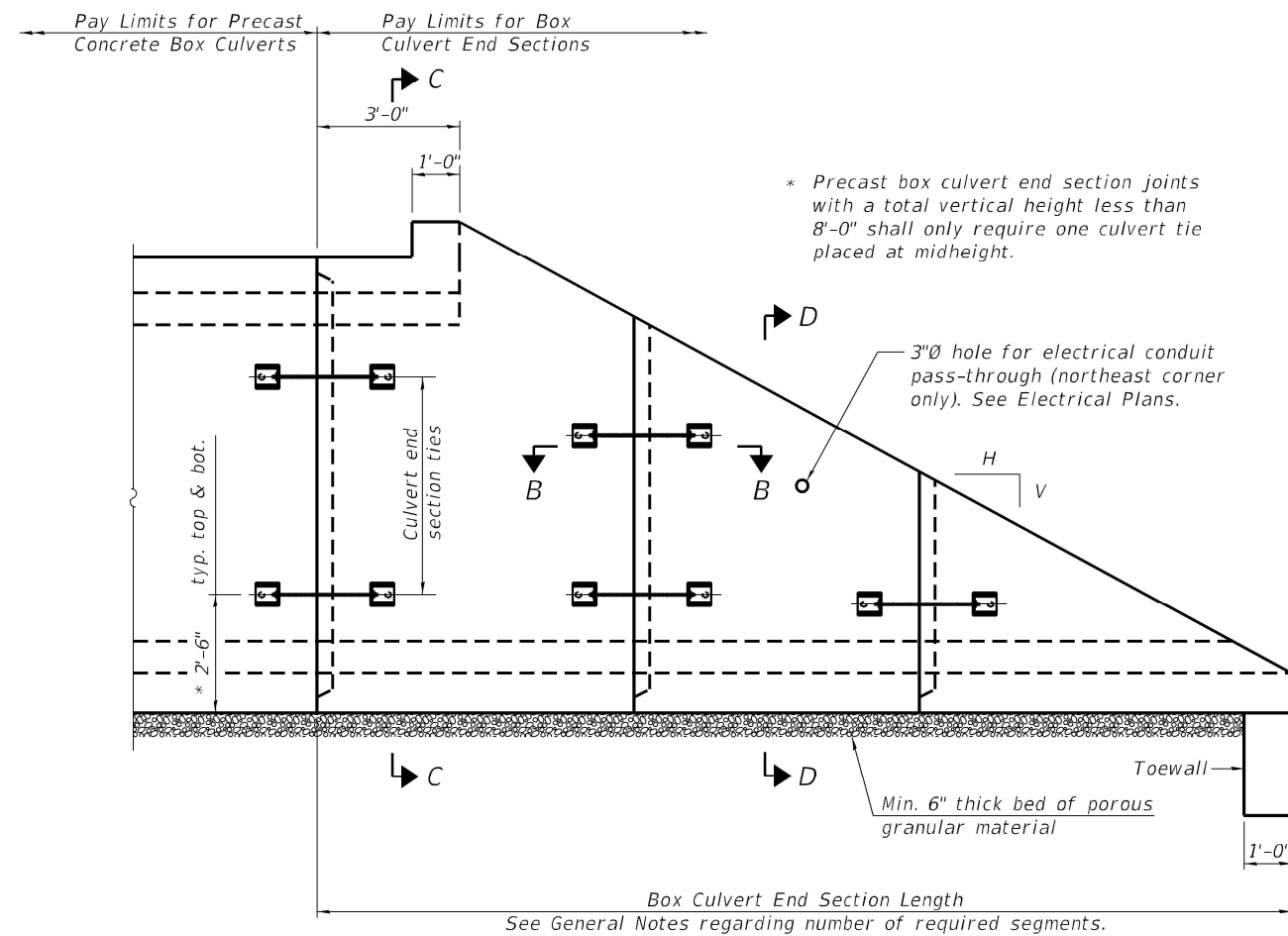
TEMPORARY SHORING - STAGES I & II CONSTRUCTION (CVP STA. ±4+58)
(Showing Pay Limits)



TEMPORARY SHORING - STAGES II & III CONSTRUCTION (CVP STA. ±5+23)
(Showing Pay Limits)

Note:
A cantilevered sheet piling design does not appear feasible, and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer. The Contractor's design shall incorporate all safety and strength requirements, including but not limited to those of IDOT and the Occupational Safety and Health Administration. Variations in the limits of the Temporary Soil Retention System from those shown shall not be paid; plan quantity will be considered total compensation for the amount actually furnished.

<div><div>201 E. Main St., Suite 100 Bella Vista, Illinois 62220 618.353.2877 phone 618.353.2877 fax www.kaskaskiaeng.com</div><div>PROFESSIONAL ENGINEERING Firm Professional Engineering Group 01.000113 20-080050</div></div>	USER NAME =	DESIGNED - MLC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY SHORING STRUCTURE NO. 101-1360	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE =	CHECKED - MMC	REVISED -			ILLINOIS FED. AID PROJECT				
	SHEET 4 OF 7 SHEETS									



GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

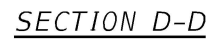
Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



(Design Earth Cover ≥ 2 ft) (Design Earth Cover < 2 ft)

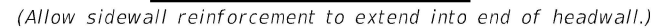


(As1m reinforcement based upon welded wire reinforcement conforming to AASHTO M 55 or M 221).

Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

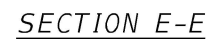
Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

#3 bar = 2'-0"
#4 bar = 2'-8"
#5 bar = 3'-4"
#6 bar = 3'-11"



1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

*** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.*



**SINGLE CELL PRECAST BOX CULVERT TAPERED END SECTIONS
STRUCTURE NO. 101-1360**

ILLINOIS	FED. AID PROJECT
----------	------------------

Illinois Department of Transportation

Division of Highways
DOT

SOIL BORING LOG

Page 1 of 1

Date 8/13/20

ROUTE I-39/US Bypass 20

DESCRIPTION P92-111-06 - Proposed bike path under US 20, W of Madigan Creek

LOGGED BY W. Garza

SECTION (201-3)K & (4-1.5)R

LOCATION Cherry Valley, NW2, SEC., TWP. 43N, RNG. 2E

COUNTY Winnebago

DRILLING METHOD Hollow Stem Auger

HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0215

Station _____

Latitude 42° 14' 05.22"

Longitude -88° 58' 11.63"

Northing 2,030,354.7913

Easting 2,620,673.5201

BORING NO. B-2

Station 2704+95

Offset 110.00 ft Rt of CL

Ground Surface Elev. 749.04 ft

D E P T H H	B L O W S Qu	U C S Qu	M O I S T
(ft)	(/6")	(tsf)	(%)

Surface Water Elev. _____ ft

Stream Bed Elev. _____ ft

Groundwater Elev.: _____ ft

First Encounter _____ ft

Upon Completion _____ ft

After _____ Hrs. _____ ft

D E P T H H	B L O W S Qu	U C S Qu	M O I S T
(ft)	(/6")	(tsf)	(%)

HARD light brown SANDY LOAM

_____ 4.0 9.0

_____ 6 P

747.04 _____ 12.0

_____ 6

_____ 5 4.0

_____ 7 P

744.54 _____

MEDIUM tan dirty MEDIUM SAND

MEDIUM GRAVEL _____ -5 5

743.04 _____ 14

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

_____ 7

740.54 _____ 10

_____ 4

DENSE tan SAND with MEDIUM GRAVEL

_____ 15

728.04 _____ 16

5' Run (continued)

[illegible]











Note:
For location of soil borings, see Sheet 1 of 7.

 <div> <div> <div>200 E. Main St., Suite 100, Burlington, Illinois 62220</div> <div>414.333.9977 phone 414.333.9977 fax info@kaskaskiaeng.com</div> </div> <div> <div>Professional Engineer Illinois Professional Design Firm Professional Engineering Company</div> <div>043.043113 20-088656</div> </div> </div>	USER NAME = DESIGNED - MLC CHECKED - MMC DRAWN - MLC CHECKED - MMC	REVISED - REVISED - REVISED - REVISED -	<div>STATE OF ILLINOIS</div> <div>DEPARTMENT OF TRANSPORTATION</div>					<div>BORING LOGS</div> <div>STRUCTURE NO. 101-1360</div>					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = DRAWN - MLC CHECKED - MMC	REVISED - REVISED -						39	(201-3)K & (4-1.5)R	WINNEBAGO	1685	795					
	CONTRACT NO. 64C24																
	SHEET 7 OF 7 SHEETS							ILLINOIS	FED. AID PROJECT								

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1. General Plan and Elevation I
2. General Plan and Elevation II
3. General Details
4. Typical Sections
- 5-9. Boring Logs



	Noise Abatement Wall
	Soil Boring
	Existing Fence
	Access Control
	Fiber Optic
	Frontier Fiber Optic
	Frontier Underground Telephone
	Underground Electric
	Nicor Gas Line
	Comcast Aerial Line

NOISE ABATEMENT WALL GENERAL PLAN AND ELEVATION I
STRUCTURE NO. 101-N7009

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1,5)R	WINNEBAGO	1685	796
		CONTRACT NO. 64C24		
		UNITS	FEED AND PROJECT	

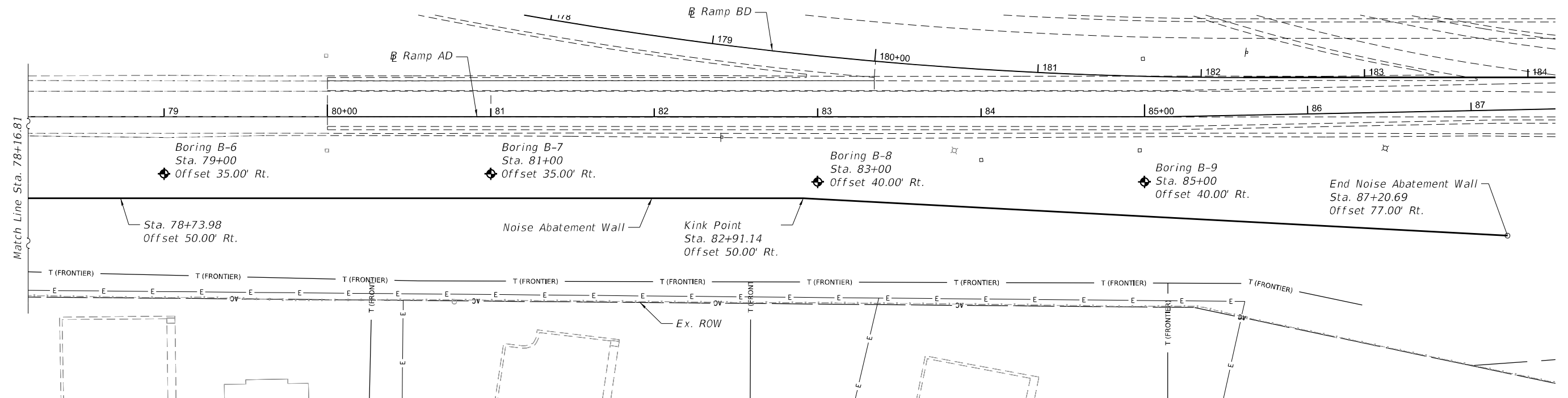
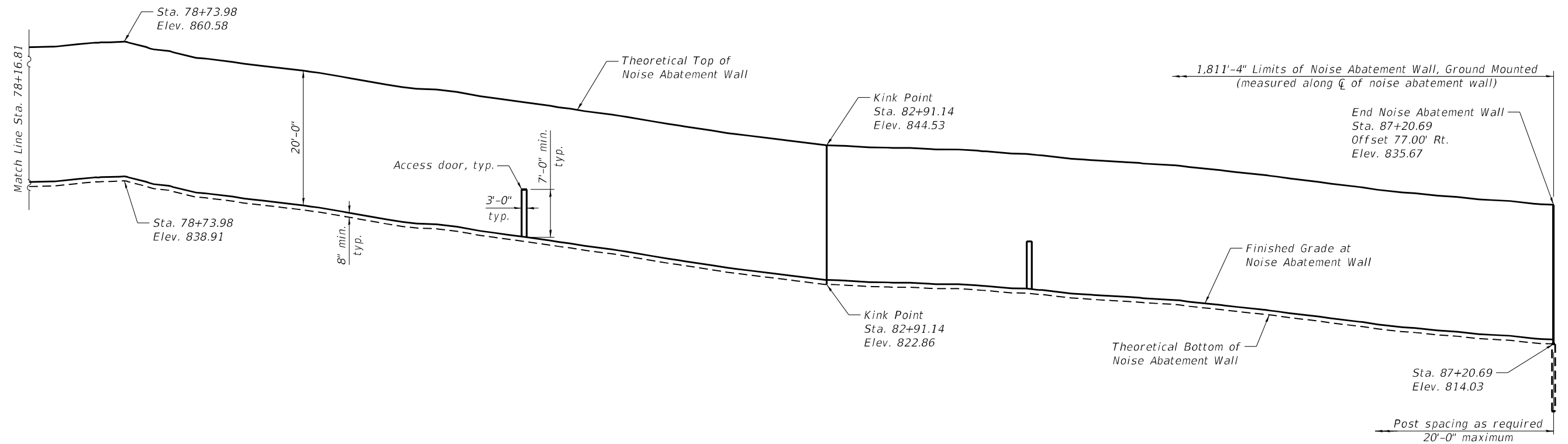


QUIGG ENGINEERING INC

REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SHEET 1 OF 9 SHEETS



Notes:



Offsets are measured from B Ramp AD to C Noise Abatement Wall or Boring location.

See Data Table on sheet 3 of 9 for Offsets and Theoretical Elevations along the Noise Abatement Wall.

Theoretical Top of NAW Elev., Theoretical Bottom of NAW Elev., and Finished Grade Elev. along the Noise Abatement Wall shall be taken as straight lines in the segments between each pair of stations shown in the Data Table on sheet 3 of 9.

Access doors are to be spaced at 300' maximum intervals.

LEGEND

Noise Abatement Wall
 Soil Boring
 Existing Fence
 Access Control
 Frontier Underground Telephone
 Underground Electric



USER NAME	=	zdavidson
101W7009-64C24-002-GPE2.dgn		
PLOT SCALE	=	
PLOT DATE	=	2/10/2025

DESIGNED - ZLD	REVISED -
CHECKED - KWB	REVISED -
DRAWN - ZLD	REVISED -
CHECKED - MDC	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

NOISE ABATEMENT WALL GENERAL PLAN AND ELEVATION II
STRUCTURE NO. 101-N7009

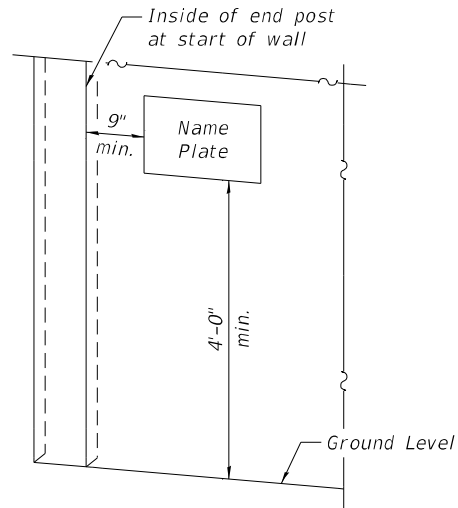
SHEET 2 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1,5)R	WINNEBAGO	1685	797
		CONTRACT NO. 64C24		
ILLINOIS		FED. AID PROJECT		

1. All excavation and grading below the finished grade elevation required for installation of the Noise Abatement Wall elements shall be included in the cost of Noise Abatement Wall, Ground Mounted.
2. Contractor shall follow requirements of Guide Bridge Special Provision "Noise Abatement Wall, Ground Mounted" for material, design, fabrication, construction and erection requirements of the proposed Noise Abatement Wall.
3. The Contractor shall field verify location of the existing utilities prior to construction. The Contractor shall take precautions not to damage existing utilities. Any such damage shall be repaired by the Contractor at no additional cost. All adjacent utilities shall be shown on the shop drawings.
4. Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor.
5. Precast panels for the Ground Mounted Noise Abatement Walls shall be cast using form liners with a simulated limestone surface. Form liners shall be used on both faces of the panels. The form liner shall match the exact size of each panel such that there are no joints crossing the stone modules. The relief shall be an average of 1½" deep and no greater than 2½" deep at any point. The desired appearance is as follows:



6. Form liners shall be made from high-strength elastomeric urethane and be removable without causing concrete surface damage or weakness in the substrate. Form release agents shall be non-staining, non-residual, non-reactive, and shall not contribute to the degradation of the form liner material.
 7. The following form liner manufacturers have been pre-approved to provide the listed pattern for the simulated limestone surface:
 - a. Custom Rock International, St. Paul, MN (Jim Rogers; 800-637-2447)
#1104-R2 14½" Random Cut Stone or #11016 16" Random Cut Stone
 - b. Milestones Incorporated, Hudson, WI (Paul Nasvik; 715-381-9660)
#MS-1018 16" Weathered Limestone
 - c. Architectural Polymers, New Ringgold, PA (Rick Fasching; 610-824-3322)
#893 14" Quarry Stone or #894 16" Quarry Stone
- Other products will be considered, provided sufficient information is submitted 30-days prior to use to allow the Engineer to determine that products proposed are equivalent to those named.
8. Form liners shall be used in accordance with the manufacturer's recommendations, including, but not limited to, installation and removal methods, form release agents, cleaning procedures, inspection procedures, repair procedures, curing methods, concrete slump requirements, and consolidation methods to achieve the highest quality concrete appearance possible. Manufacturer recommendations shall not supplant requirements listed elsewhere in the Contract Documents without prior approval from the Engineer.
 9. The finished exposed formed concrete surfaces shall be free of visible vertical seams, horizontal seams, and butt joint marks after removing the form liners. Grinding and chipping of finished formed surfaces shall be avoided.
 10. The Contractor shall provide a full-size precast panel mockup containing the form liner surface. Upon receipt of comments from inspection of the mockup, adjustments or corrections shall be made where imperfections are found. If required, additional mockups shall be prepared when the initial mockup is found to be unsatisfactory.
 11. All work and materials associated with form liners and mockups, including adjustments or corrections needed to address mockup comments and additional mockups, if required, will not be paid for separately but shall be included in the cost of Noise Abatement Wall, Ground Mounted.



NAME PLATE LOCATION

NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.I. RT. 39
SEC. (201-3)R & (4-1,5)R
FROM STA. 69+11.46 TO STA. 87+20.69
STR. NO. 101-N7009

NAME PLATE

See Std. 515001

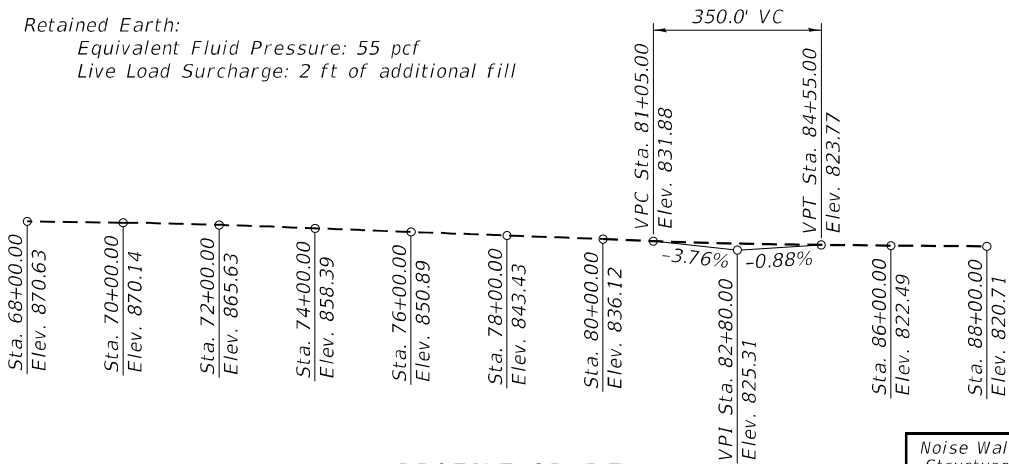
DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

DESIGN LOADS

Wind Loads:
Strength III or V: 35 psf
Service I: 15 psf

Retained Earth:
Equivalent Fluid Pressure: 55 pcf
Live Load Surcharge: 2 ft of additional fill



PROFILE GRADE

(Along B Ramp AD)

DATA TABLE

Station	Offset to C Wall (ft.)	Theor. Top of NAW Elev.	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Theor. Bottom of NAW Elev.	Maximum Retained Height (ft.)
69+11.46	50.00	878.19	858.19	857.19	856.52	1.67
69+50.00	50.00	883.79	863.79	862.78	862.11	1.68
69+65.61	50.00	884.43	864.43	863.43	862.76	1.67
70+00.00	50.00	884.04	864.04	863.04	862.37	1.67
70+50.00	50.00	883.13	863.13	862.13	861.46	1.67
71+00.00	50.00	882.20	862.20	861.20	860.53	1.67
71+50.00	50.00	881.01	861.01	860.01	859.34	1.67
72+00.00	50.00	879.65	859.65	858.65	857.98	1.67
72+50.00	50.00	878.20	858.20	857.20	856.53	1.67
73+00.00	50.00	876.31	856.31	855.31	854.64	1.67
73+50.00	50.00	874.26	854.26	853.26	852.59	1.67
74+00.00	50.00	872.06	852.06	851.06	850.39	1.67
74+50.00	50.00	869.93	849.93	848.93	848.26	1.67
75+00.00	50.00	867.74	847.74	846.74	846.07	1.67
75+50.00	50.00	865.65	845.65	844.65	843.98	1.67
76+00.00	50.00	863.61	843.61	842.61	841.94	1.67
76+50.00	50.00	862.37	842.37	841.37	840.70	1.67
77+00.00	50.00	860.91	840.91	839.91	839.24	1.67
77+50.00	50.00	859.65	839.65	838.65	837.98	1.67
77+51.27	50.00	859.65	839.65	838.65	837.98	1.67
78+00.00	50.00	859.77	839.77	838.77	838.10	1.67
78+50.00	50.00	860.47	840.47	839.47	838.80	1.67
78+73.98	50.00	860.58	840.58	839.58	838.91	1.67
79+00.00	50.00	859.54	839.54	838.54	837.87	1.67
79+50.00	50.00	857.51	837.51	836.51	835.84	1.67
80+00.00	50.00	855.85	835.85	834.85	834.18	1.67
80+50.00	50.00	852.96	831.96	832.96	831.29	1.67
81+00.00	50.00	851.32	830.32	831.32	829.65	1.67
81+50.00	50.00	849.57	828.57	829.57	827.90	1.67
82+00.00	50.00	847.59	826.59	827.59	825.92	1.67
82+50.00	50.00	845.79	824.79	825.79	824.12	1.67
82+91.14	50.00	844.53	823.53	824.53	822.86	1.67
83+00.00	50.47	844.47	823.47	824.47	822.80	1.67
83+50.00	53.12	844.03	823.03	824.03	822.36	1.67
84+00.00	55.78	843.33	822.33	823.33	821.66	1.67
84+50.00	58.43	842.29	821.29	822.29	820.62	1.67
85+00.00	61.09	841.51	820.01	821.51	819.34	2.17
85+50.00	64.52	840.10	818.60	820.10	817.93	2.17
86+00.00	68.17	838.52	817.52	818.52	816.85	1.67
86+50.00	71.83	837.16	816.16	817.16	815.49	1.67
87+00.00	75.48	836.10	815.10	816.10	814.43	1.67
87+20.69	77.00	835.67	814.70	815.67	814.03	1.64

DESIGN STRESSES

FIELD UNITS

$f'_c = 4,000 \text{ psi}$
 $f_y = 60,000 \text{ psi}$ (Reinforcement)
 $f_y = 50,000 \text{ psi}$ (Struct. Steel, M270 Grade 50, posts)
 $f_y = 36,000 \text{ psi}$ (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

$f'_c = 4,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinforcement)}$
 $f_y = 65,000 \text{ psi (Welded Wire Reinforcement)}$

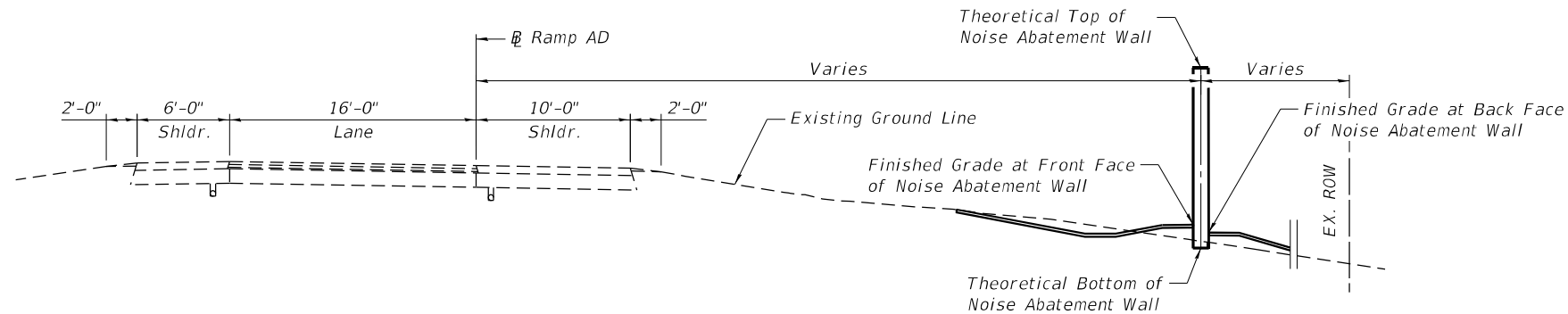
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	37,435

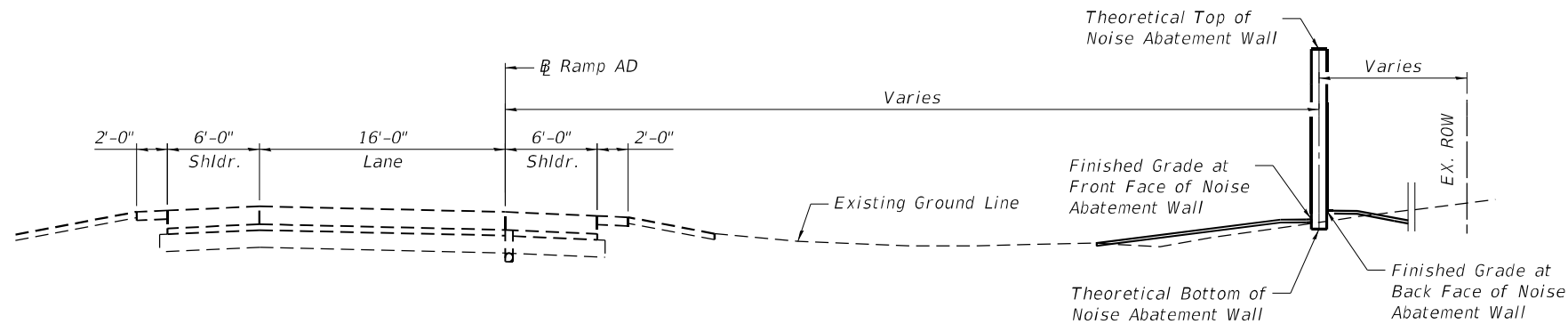
NOISE REDUCTION DATA TABLE

Noise Wall Structure Number	Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
101-N7009	Ramp AD Face	69+11.46	87+20.69	Reflective	-
	Residential Face	69+11.46	87+20.69	Reflective	-

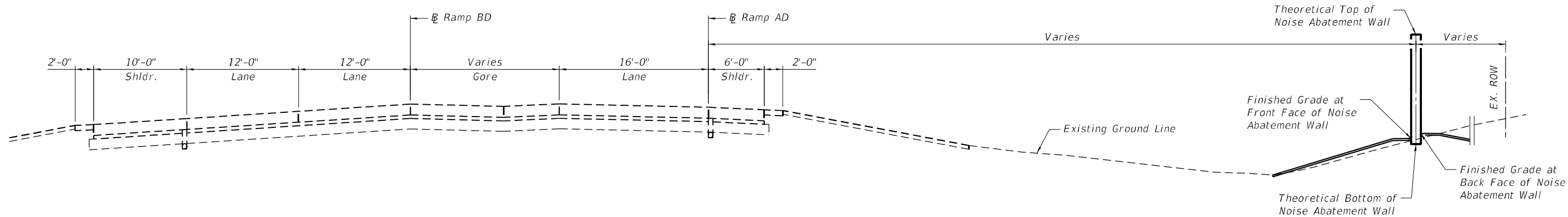
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TYPICAL SECTION THRU WALL
(Sta. 69+11.46 to Sta. 80+00.00)
(Wall stations are measured along \overline{B} Ramp AD)



TYPICAL SECTION THRU WALL
(Sta. 80+00.00 to Sta. 83+34.57)
(Wall stations are measured along \overline{B} Ramp AD)



TYPICAL SECTION THRU WALL
(Sta. 83+34.57 to Sta. 87+20.69)
(Wall stations are measured along \overline{B} Ramp AD)



QUIGG ENGINEERING INC

USER NAME =	zdaivison	DESIGNED -	ZLD	REVISED -	
101W7009-64C24-004-Typical Sections.dgn		CHECKED -	KWB	REVISED -	
PLOT SCALE =		DRAWN -	ZLD	REVISED -	
PLOT DATE =	2/10/2025	CHECKED -	MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
STRUCTURE NO. 101-N7009

SHEET 4 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1.5)R	WINNEBAGO	1685	799
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Page 1 of 1

Date 5/22/23

ROUTE FAI 39 DESCRIPTION P92-111-08 - Noise Wall from Linden Road S, 0.35 mi. LOGGED BY W. Garza
SECTION (201-3)K LOCATION Cherry Valley, NE 1/4 9
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev.	ft	D E P T H	B L O W S	U C S Qu	M O I S T
Station					Stream Bed Elev.	ft				
BORING NO. B-1					Groundwater Elev.:					
Station 89+50					First Encounter	ft				
Offset 22.0 ft RT					Upon Completion	ft				
Ground Surface Elev. 889.84	ft	(ft)	(/6")	(tsf)	After	ft	(ft)	(/6")	(tsf)	(%)
MEDIUM brown SILTY CLAY LOAM			0.8 P	18	STIFF light brown CLAY LOAM TILL (continued)	848.6	7	11	1.9 B	18
					End of Boring					
887.8		2								
VERY STIFF light brown SITLY CLAY LOAM		3	2.3 B	15						
		7								
885.1		3								
STIFF light brown CLAY LOAM		3	1.3 P	16						
		5								
882.6		2								
STIFF light brown CLAY LOAM with SAND		5	1.7 B	19						
		6								
880.1		2								
STIFF light brown SANDY LOAM with GRAVEL		10	1.7 B	16						
		9								
887.6		3								
STIFF light brown SANDY LOAM		10	1.4 B	16						
		12								
885.1		4								
STIFF light brown SANDY CLAY LOAM with DRY SANDY GRAVEL LENS		8	1.2 B	16						
		7								
882.6		3								
VERY STIFF gray CLAY LOAM		6	2.7 B	18						
		10								
880.1										
		4								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

Date 5/22/23

ROUTE FAI 39 DESCRIPTION P92-111-08 - Noise Wall from Linden Road S, 0.35 mi. LOGGED BY W. Garza
SECTION (201-3)K LOCATION Cherry Valley, NE 1/4 9
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev.	ft	D E P T H	B L O W S	U C S Qu	M O I S T
Station					Stream Bed Elev.	ft				
BORING NO. B-2					Groundwater Elev.:					
Station 71+00					First Encounter	ft				
Offset 23.0 ft RT					Upon Completion	ft				
Ground Surface Elev. 888.57	ft	(ft)	(/6")	(tsf)	After	ft	(ft)	(/6")	(tsf)	(%)
MEDIUM brown LOAM			0.8 P	15	VERY STIFF gray SANDY CLAY LOAM with FINE SAND LENS (continued)	845.6	10	16	2.3 S	11
					End of Boring					
884.6		15								
MEDIUM tan WEATHERED LIMESTONE		11								
		9								
882.1		6								
MEDIUM tan WEATHERED LIMESTONE FILL		7	6							
880.6		6								
STIFF light brown SANDY CLAY LOAM TILL		5	1.3 B	12						
		6								
887.1		6								
VERY STIFF light brown SANDY CLAY LOAM		9	2.7 B	15						
		14								
884.6		5								
VERY STIFF light brown SANDY CLAY LOAM		7	3.9 B	13						
		10								
882.1		5								
VERY STIFF light brown SANDY CLAY LOAM		8	2.9 B	14						
		13								
849.6		5								
STIFF brown SANDY CLAY LOAM		7	1.2 B	17						
		10								
847.1										
		5								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
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QUIGG ENGINEERING INC

USER NAME = zdavidson	DESIGNED - ZLD	REVISED -
101W7009-64C24-005-Boring_Logs.dgn	CHECKED - KWB	REVISED -
PLOT SCALE =	DRAWN - ZLD	REVISED -
PLOT DATE = 2/10/2025	CHECKED - MDC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 101-N7009

SHEET 5 OF 9 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)R & (4-1.5)R	WINNEBAGO	1685	800
CONTRACT NO. 64C24				
ILLINOIS FED. AID PROJECT				