



SOIL BORING LOG

Date 4/21/22

ROUTE I-80 DESCRIPTION I-80 at Center Street LOGGED BY DD

SECTION I-80 over Des Plaines River LOCATION SEC. 16, TWP. 35 N, RNG. 10 E

Latitude Longitude

COUNTY Will DRILLING METHOD HSA DRILLING RIG CME-75 HAMMER TYPE AUTO HAMMER EFF (%) 91

STRUCT. NO. 099-8332 Station DEPTH (ft) BLOW (ft) UCS (tsf) M O I S T Surface Water Elev. N/A ft Stream Bed Elev. N/A ft BORING NO. BSB-67 Station 28+3.85' Offset 46.48ft RT Ground Surface Elev. 593.57 ft Groundwater Elev.: First Encounter None ft Upon Completion N/A ft After Hrs. N/A ft

Table with columns for depth, blow count, UCS, and soil description. Includes entries for asphalt, silty clay, sand with limestone, and limestone runs.

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)

NOTE:

- 1. The location of Boring Log BSB-67 is at Sta. 28+97.91 (Center St.) Offset: 61.65' Rt. Elev. 593.57



SOIL BORING LOG

Date 4/21/22

ROUTE I-80 DESCRIPTION I-80 at Center Street LOGGED BY MH

SECTION I-80 over Des Plaines River LOCATION SEC. 16, TWP. 35 N, RNG. 10 E

Latitude Longitude

COUNTY Will DRILLING METHOD HSA DRILLING RIG Diedrich D-50 HAMMER TYPE AUTO HAMMER EFF (%) 98

STRUCT. NO. 099-8332 Station DEPTH (ft) BLOW (ft) UCS (tsf) M O I S T Surface Water Elev. N/A ft Stream Bed Elev. N/A ft BORING NO. BSB-68 Station 27+05.61' Offset 174.55ft RT Ground Surface Elev. 575.39 ft Groundwater Elev.: First Encounter None ft Upon Completion N/A ft After Hrs. N/A ft

Table with columns for depth, blow count, UCS, and soil description. Includes entries for asphalt, aggregate base, sand and gravel, and limestone runs.

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)

NOTE:

- 1. The location of Boring Log BSB-68 is at Sta. 27+48.14 (Center St.) Offset: 21.69' Rt. Elev. 575.39

MODEL: Default FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 [Center]/Sheets/Structure/ISN-099-8332/0998332-52R22-5B-46-Boring_Logs (Sheet 2 of 4)



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, and their respective values/roles.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 2 OF 4) STRUCTURE NO. 099-8332

SHEET SB-46 OF SB-48 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.



SOIL BORING LOG

ROUTE I-80 DESCRIPTION I-80 at Center Street LOGGED BY AA

SECTION I-80 over Des Plaines River LOCATION SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG CME-75 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 79.8

STRUCT. NO. 099-8332 Station _____
BORING NO. BSB-303 Station 25+96.54' Offset 150.34ft RT
Ground Surface Elev. 593.14 ft

D E P T H S	B L O W S	U C S Qu	M O I S T %	Surface Water Elev. N/A ft Stream Bed Elev. N/A ft Groundwater Elev.: First Encounter Dry ft Upon Completion N/A ft After Hrs. N/A ft
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4 inches of Topsoil	592.81			
Dark Brown, Moist FILL: SILTY CLAY				
Auger refusal at 2 feet	591.14			
Light Gray LIMESTONE, slightly weathered				
Run 1: 2' - 7' Recovery: 100% RQD: 0% (Very Poor)				
	586.14			
Light Gray LIMESTONE, slightly weathered				
Run 2: 7' - 12' Recovery: 100% RQD: 0% (Very Poor)				
	581.14			
Light Gray LIMESTONE, slightly weathered				
Run 3: 12' - 17' Recovery: 100% RQD: 0% (Very Poor)				
	576.14			
End of Boring				
	-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, form 137 (Rev. 8-99)

NOTE:

1. The location of Boring Log BSB-303 is at Sta. 27+19.74 (Center St.) Offset: 79.03' Lt. Elev. 593.14

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USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS (SHEET 4 OF 4)
STRUCTURE NO. 099-8332**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	703
			CONTRACT NO. 62R22	
		ILLINOIS FED. AID PROJECT		

Benchmark: Chiseled "X" on top of SE bolt of Fire Hydrant at south ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.

Existing Structure: None.

Traffic Control: Entrance ramp traffic from SB Center St. to WB I-80 will be detoured to the west at Larkin Ave.

Salvage: None.

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50) Soldier Piles

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

APPROVED

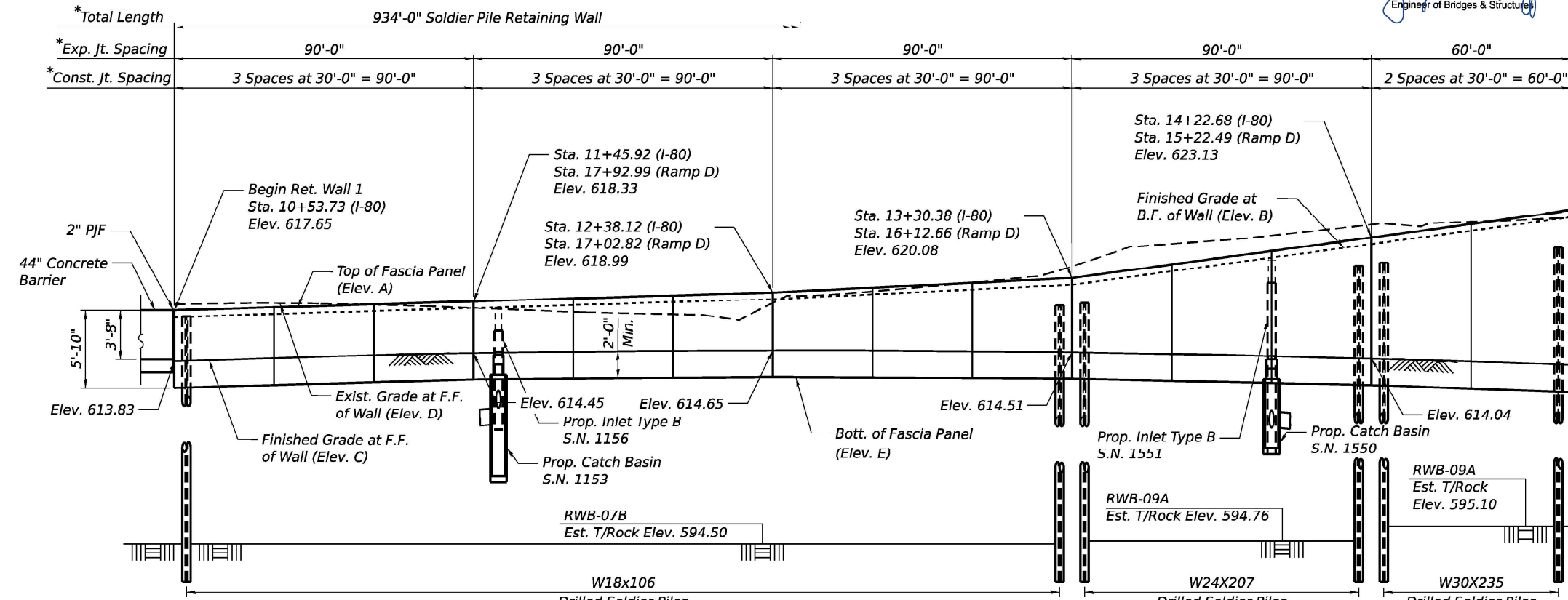
For Structural Adequacy Only

James F. [Signature]
 Engineer of Bridges & Structures



Signed Moussa A. Issa
 Dr. Moussa A. Issa, S.E. IL Lic. No. 081-005738
 Expires 11-30-2026

Date 4/22/2025 For Sheets SC-01 Thru SC-31.

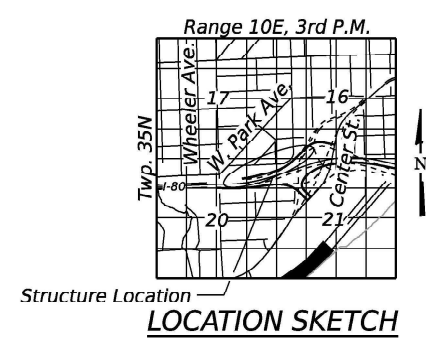
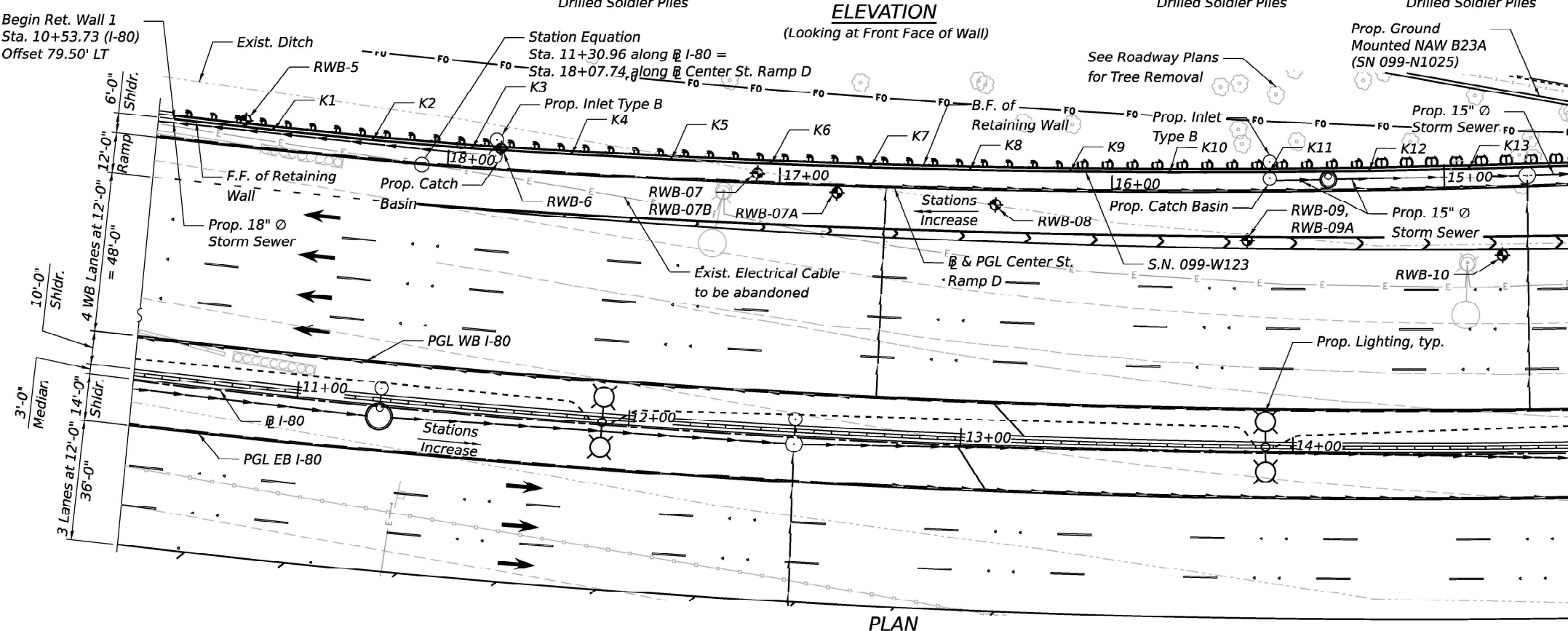


LEGEND

—E—	Exist. Electrical Cable	○	Prop. Lighting
—G—	Exist. Gas line	○	Inlet / Catch Basin
—A—	Exist. Aerial line	○	Boring
—S—	Exist. Storm sewer	□	Traffic Sign
—SS—	Exist. Sanitary Sewer	—AC—	ROW
—G—	Guardrail	—F—	Fence
—EOP—	EOP	—FF—	F.F. Front Face
—B.F.—	B.F. Back Face	—	Prop. Storm Sewer
—	Prop. Pipe underdrain	—	Prop. Fiber Optics
—	Prop. Catch Basin	—	Exist. Lighting
—	Prop. Inlet Type B	—	NAW Noise Abatement Wall

* Measured along F.F. of Wall.

- NOTES:**
- Stations and offsets are measured from the @ I-80 and @ Center St. Ramp D to the front face of the cast-in-place concrete facing.
 - "K1" denotes wall Kink Point - Number 1, at the Front Face of wall.
 - Space soldier piles to miss Pipe underdrains. For Drainage Structures to Pipe Underdrain connection details, see Roadway Plans.
 - For Proposed Inlets Type B and Catch basins Details and quantities, see Roadway Plans.



**GENERAL PLAN & ELEVATION I
 RETAINING WALL 1
 ALONG I-80 & CENTER ST. RAMP D
 F.A.I. ROUTE 80
 SECTION- FAI 80 21 INTERCHANGE
 WILL COUNTY
 STA. 10+53.73 TO STA. 20+03.46
 STRUCTURE NO. 099-W123**

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PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - JMI, LR	REVISED -
	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STRUCTURE NO. 099-W123

SHEET SC-01 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	704
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

- Reinforcement bars designated (E) shall be epoxy coated.
- Concrete Sealer shall be applied to exposed surfaces of the panels.
- The Contractor shall take all necessary precautions not to contaminate groundwater during the drilled soldier pile shaft construction operation. Contractor is responsible for the proper containment and disposal of the contaminated groundwater and spoils resulting from Contractor's means and methods. No additional cost will be paid for this effort.
- The Contractor shall field-verify locations of existing underground utilities prior to beginning work. Existing utilities in conflict with retaining wall construction shall be abandoned or relocated according to directions given on the Civil Plans. The Contractor shall take all necessary precautions to protect existing utilities to remain during all stages of construction. Any damage to existing utilities to remain caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
- Wall to be built along straight Chords between kink points ("K_"), construction and expansion joints. See Wall Elevation table and Sheets SC-04 thru SC-16 for the locations for the construction joints, expansion joints and kink points.
- Limited groundwater elevation data is available in the boring logs. In addition, groundwater may also be present in deeper granular layers. The groundwater may rise in the shafts to an elevation above the top of granular layers. The Contractor shall consider this information when choosing construction methods. The Contractor will not be compensated for issues related to the groundwater elevation.
- Any storage of construction equipment and material behind wall is not allowed.
- The Contractor shall exercise extreme caution in drilling and setting the soldier piles under Aerial Power Lines. The Contractor is responsible to coordinate with the utilities to de-energize these lines if required. The Contractor shall make necessary adjustments to the lengths of the soldier piles and to the auguring equipment to maintain adequate clearance to the Aerial Power Lines as specified in OSHA safety requirements. Lengths of soldier piles and any necessary splice details shall be approved by the Engineer prior to the start of work.

INDEX OF SHEETS

- SC-01 General Plan & Elevation I
- SC-02 General Plan & Elevation II
- SC-03 General Notes, Index of Sheets & Total Bill of Material
- SC-04 Plan and Elevation (Sheet 1 of 13)
- SC-05 Plan and Elevation (Sheet 2 of 13)
- SC-06 Plan and Elevation (Sheet 3 of 13)
- SC-07 Plan and Elevation (Sheet 4 of 13)
- SC-08 Plan and Elevation (Sheet 5 of 13)
- SC-09 Plan and Elevation (Sheet 6 of 13)
- SC-10 Plan and Elevation (Sheet 7 of 13)
- SC-11 Plan and Elevation (Sheet 8 of 13)
- SC-12 Plan and Elevation (Sheet 9 of 13)
- SC-13 Plan and Elevation (Sheet 10 of 13)
- SC-14 Plan and Elevation (Sheet 11 of 13)
- SC-15 Plan and Elevation (Sheet 12 of 13)
- SC-16 Plan and Elevation (Sheet 13 of 13)
- SC-17 Wall Cross Sections and Details (Sheet 1 of 5)
- SC-18 Wall Cross Sections and Details (Sheet 2 of 5)
- SC-19 Wall Cross Sections and Details (Sheet 3 of 5)
- SC-20 Wall Cross Sections and Details (Sheet 4 of 5)
- SC-21 Wall Cross Sections and Details (Sheet 5 of 5)
- SC-22 Boring Logs (Sheet 1 of 10)
- SC-23 Boring Logs (Sheet 2 of 10)
- SC-24 Boring Logs (Sheet 3 of 10)
- SC-25 Boring Logs (Sheet 4 of 10)
- SC-26 Boring Logs (Sheet 5 of 10)
- SC-27 Boring Logs (Sheet 6 of 10)
- SC-28 Boring Logs (Sheet 7 of 10)
- SC-29 Boring Logs (Sheet 8 of 10)
- SC-30 Boring Logs (Sheet 9 of 10)
- SC-31 Boring Logs (Sheet 10 of 10)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd	-	1,235	1,235
Concrete Structures	Cu Yd	-	374	374
Stud Shear Connectors	Each	-	2,316	2,316
Reinforcement Bars, Epoxy Coated	Pound	-	47,730	47,730
Name Plates	Each	-	1	1
Furnishing Soldier Piles (W Section)	Foot	-	4,151	4,151
Drilling And Setting Soldier Piles (In Soil)	Cu Ft	-	23,302	23,302
Drilling And Setting Soldier Piles (In Rock)	Cu Ft	-	10,878	10,878
Untreated Timber Lagging	Sq Ft	-	10,851	10,851
Concrete Sealer	Sq Ft	-	12,301	12,301
Geocomposite Wall Drain	Sq Yd	-	924	924
Pipe Underdrains For Structures 4"	Foot	-	938	938

STA. 10+53.73 TO STA. 20+03.46
 BUILT 20-- BY
 STATE OF ILLINOIS
 F.A.I. Rte. 80
 Sec. FAI 80 21 Interchange
 LOADING HL-93
 STR. NO. 099-W123

NAME PLATE

See Std. 515001

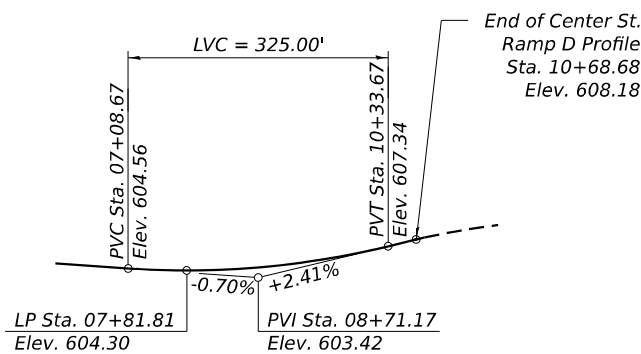
WALL ELEVATION TABLE

Location	I-80		Ramp D		Elevation A	Elevation B	Elevation C	Elevation D	Elevation E	Elevation F
	Station	Offset	Station	Offset						
Begin Wall	10+53.73	79.50' Lt.	-	-	617.65	617.15	613.83	618.12	611.83	-
K1	10+84.46	79.50' Lt.	-	-	617.87	617.37	614.08	618.18	612.04	-
K2	11+15.19	79.50' Lt.	-	-	618.10	617.60	614.29	618.07	612.25	-
K3	11+45.92	79.79' Lt.	17+92.99	6.00' Rt.	618.33	617.83	614.45	617.83	612.45	-
K4	11+76.65	80.39' Lt.	17+62.93	6.00' Rt.	618.55	618.05	614.55	617.54	612.52	-
K5	12+07.38	80.99' Lt.	17+32.88	6.00' Rt.	618.77	618.27	614.62	617.36	612.58	-
K6	12+38.12	81.58' Lt.	17+02.82	6.00' Rt.	618.99	618.49	614.65	618.21	612.65	-
K7	12+68.87	82.18' Lt.	16+72.77	6.00' Rt.	619.36	618.86	614.64	619.08	612.60	-
K8	12+99.62	82.78' Lt.	16+42.71	6.00' Rt.	619.72	619.22	614.60	619.73	612.56	-
K9	13+30.38	83.39' Lt.	16+12.66	6.00' Rt.	620.08	619.58	614.51	620.96	612.51	-
K10	13+61.14	83.99' Lt.	15+82.60	6.00' Rt.	621.12	620.62	614.39	622.65	612.35	-
K11	13+91.91	84.59' Lt.	15+52.55	6.00' Rt.	622.12	621.62	614.23	623.29	612.20	-
K12	14+22.68	85.19' Lt.	15+22.49	6.00' Rt.	623.13	622.63	614.04	624.10	612.05	-
K13	14+53.46	85.80' Lt.	14+92.44	6.00' Rt.	624.15	623.65	613.81	624.31	611.77	-
K14	14+84.24	86.40' Lt.	14+62.38	6.00' Rt.	625.17	624.67	613.54	624.63	611.50	632.19
K15	15+15.04	87.00' Lt.	14+32.32	6.00' Rt.	626.18	625.68	613.23	625.03	611.23	631.91
K16	15+45.83	87.61' Lt.	14+02.27	6.00' Rt.	626.05	625.55	612.89	624.81	610.85	631.60
K17	15+76.62	88.21' Lt.	13+72.22	6.00' Rt.	625.30	624.80	612.57	624.71	610.53	631.31
K18	15+97.17	88.82' Lt.	13+52.18	6.00' Rt.	624.54	624.04	612.23	623.87	610.21	630.99
K19	16+22.85	89.12' Lt.	13+22.13	6.00' Rt.	623.79	623.29	611.86	623.10	609.82	630.66
K20	16+48.53	89.63' Lt.	13+02.09	6.00' Rt.	623.04	622.54	611.47	621.99	609.38	-
K21	16+74.21	90.23' Lt.	12+77.04	6.10' Rt.	622.29	621.79	610.91	620.78	608.94	-
K22	16+99.81	92.52' Lt.	12+52.05	7.89' Rt.	621.54	621.04	610.54	620.23	608.50	-
K23	17+30.55	95.27' Lt.	12+22.04	10.03' Rt.	620.64	620.14	610.09	619.62	607.97	-
K24	17+61.31	98.02' Lt.	11+92.01	12.17' Rt.	619.74	619.24	609.43	618.40	607.43	-
K25	17+92.06	101.17' Lt.	11+61.62	14.35' Rt.	618.25	617.75	608.67	617.10	606.59	-
K26	18+22.74	105.14' Lt.	11+31.14	16.52' Rt.	616.76	616.26	607.97	615.79	605.74	-
K27	18+52.78	109.77' Lt.	11+00.56	18.50' Rt.	615.27	614.77	607.37	613.97	605.24	-
K28	18+82.54	113.51' Lt.	10+69.88	18.50' Rt.	613.79	613.29	607.08	612.02	604.74	-
K29	19+12.15	118.34' Lt.	10+39.20	18.50' Rt.	612.30	611.80	606.36	610.46	604.14	-
K30	19+41.56	124.26' Lt.	10+08.51	18.50' Rt.	610.81	610.31	605.65	609.18	603.54	-
K31	19+72.69	131.67' Lt.	9+75.79	18.50' Rt.	609.49	608.99	604.99	607.64	602.90	-
End Wall	20+03.46	140.47' Lt.	9+43.06	18.50' Rt.	608.16	607.66	604.44	606.76	602.26	-

Elevation A - Top of Fascia Panel
 Elevation B - Finished Grade at B.F. of Wall
 Elevation C - Finished Grade at F.F. of Wall
 Elevation D - Exist. Grade at F.F. of Wall
 Elevation E - Bott. of Fascia Panel
 Elevation F - Top of Extended Fascia Panels

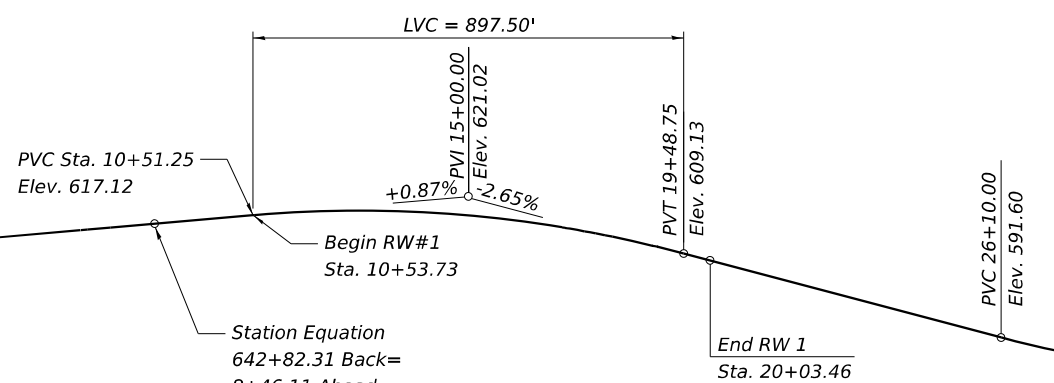
SUGGESTED SEQUENCE OF CONSTRUCTION

- Locate all existing utilities that are to remain. The Contractor shall coordinate any required improvements to, or removals of, existing utilities with utility owner(s), CDOT and IDOT.
- Install drilled shafts for the Proposed Noise Abatement Wall NAW B23A (SN 099-N1025) and NAW B23B (SN 099-N1026) along their full lengths in areas adjacent to the proposed RW1 Retaining Wall (SN 099-W123).
- Install Drilled Soldier Piles throughout the full length of proposed retaining wall.
- Excavate for proposed RW1 Retaining Wall (SN 099-W123) and proposed 15" Ø storm sewer as required and install untreated timber lagging for drilled soldier piles from top down as excavation proceeds.
- Construct the Catch Basin and proposed 15" Ø storm sewer located in front of the wall.
- Construct the proposed inlet structures 1156, 1551 and 1070 and connect them with a 15" Ø storm sewer to the new Catch Basin located in front of the wall.
- Back fill above storm sewer to the bottom of the 4" Ø pipe underdrain.
- Install Geocomposite Wall Drain, pipe underdrain for structures and associated drainage elements.
- Construct reinforced concrete facing for proposed RW1 Retaining Wall (SN 099-W123).
- Backfill to proposed grade at front face of retaining and at concrete curb (back face of retaining wall).
- Construct Type B Concrete Gutter.
- Apply protective concrete sealer, install light poles.
- Construct proposed sidewalk, curb wall and roadway elements at front face of retaining wall. See Roadway Plans.



CENTER ST. RAMP D PROFILE GRADE

(Along Center St. Ramp D)



I-80 PROFILE GRADE

(Along I-80)

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USER NAME =	DESIGNED - AGJ, JMI	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - JMI, LR	REVISED -
	CHECKED - MI	REVISED -

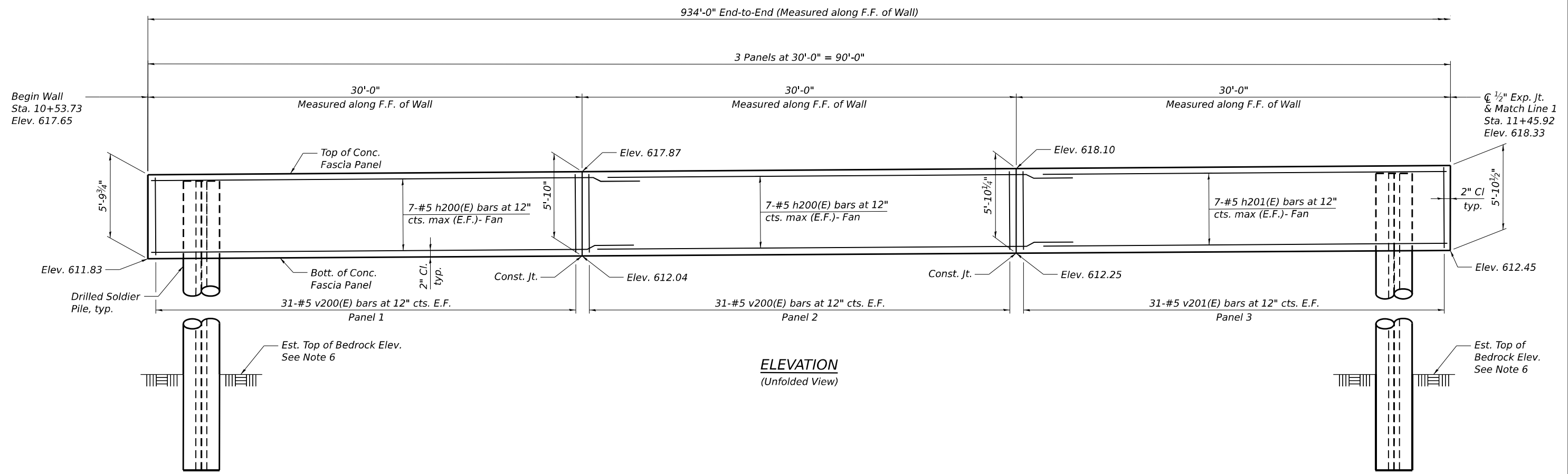
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL
 STRUCTURE NO. 099-W123

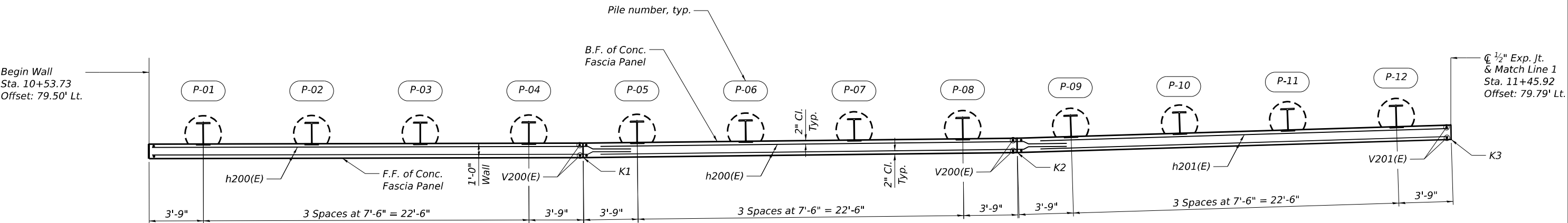
SHEET SC-03 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	706
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

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ELEVATION
(Unfolded View)



PLAN

NOTES:

- All dimensions are along F.F. of wall.
- For typical wall cross sections and details, see Sheets SC-17 thru SC-20.
- For Bill of Material, minimum Bar Laps and bar diagrams and details see Sheet SC-20.
- For Soldier Pile Layout Table, minimum bar laps, section details, and Bill of Material, see Sheet SC-21.
- Stations and Offsets are measured along the F.F. of the wall from the C of I-80.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

E.F. - Each Face
 F.F. - Front Face
 B.F. - Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

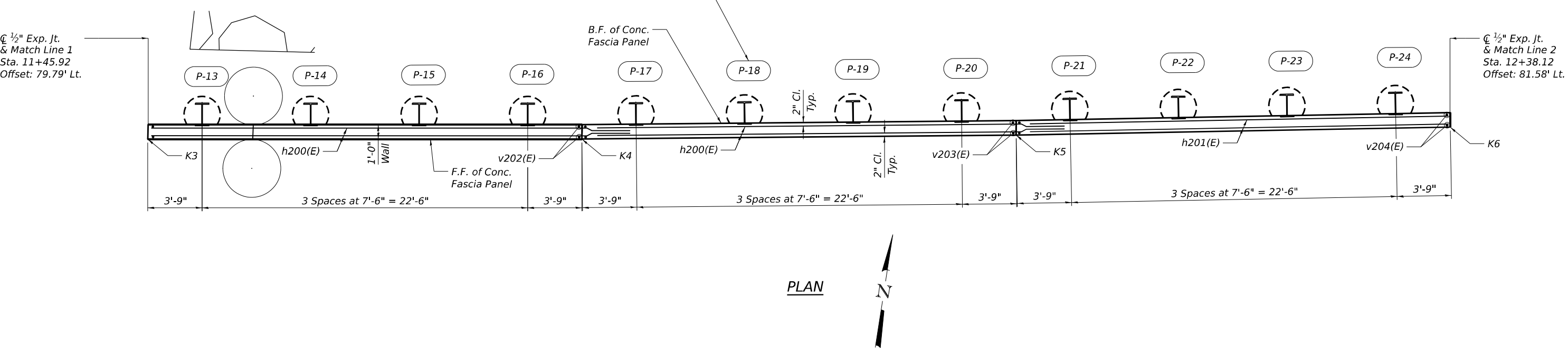
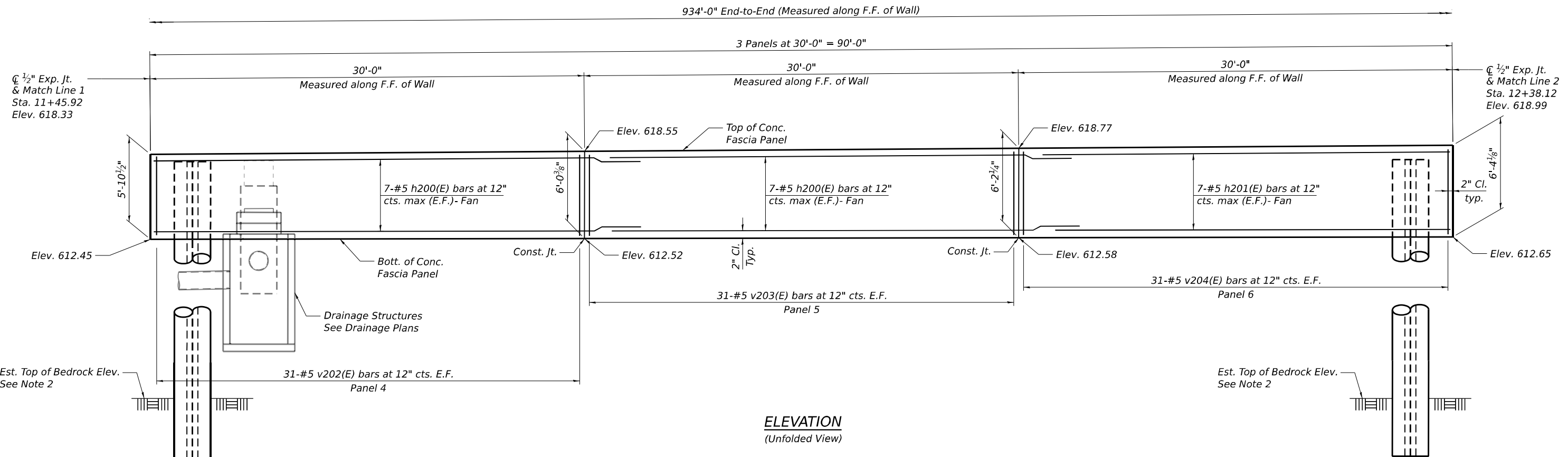
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 1 OF 13)
 STRUCTURE NO. 099-W123

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	707
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SC-04 OF SC-31 SHEETS

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- NOTE:**
- For Notes, see Sheet SC-04.
 - For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

E.F. - Each Face
 F.F. - Front Face
 B.F. - Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
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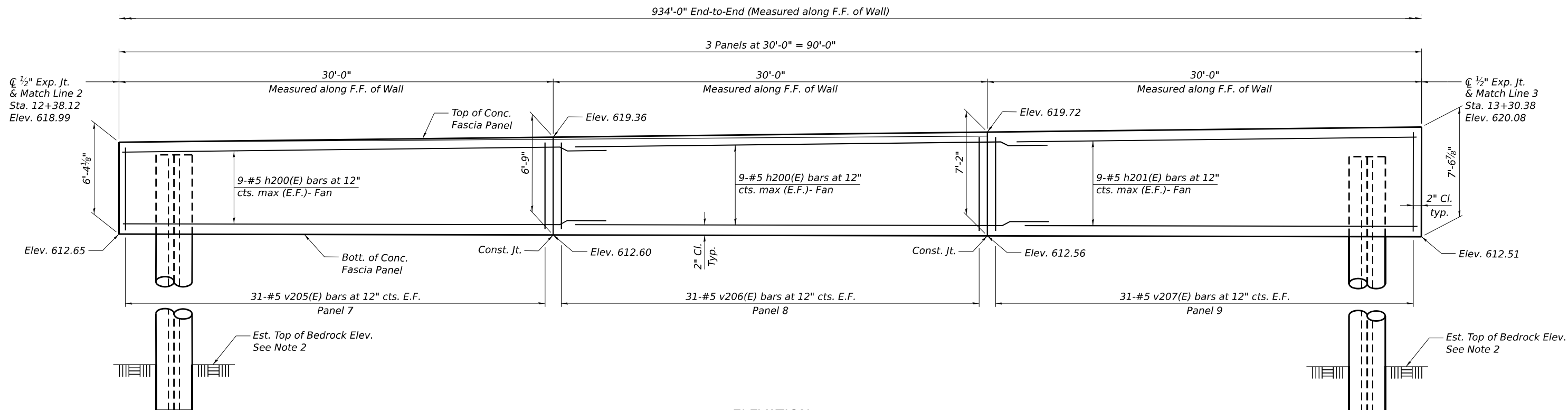
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PLAN AND ELEVATION (SHEET 2 OF 13)
 STRUCTURE NO. 099-W123**

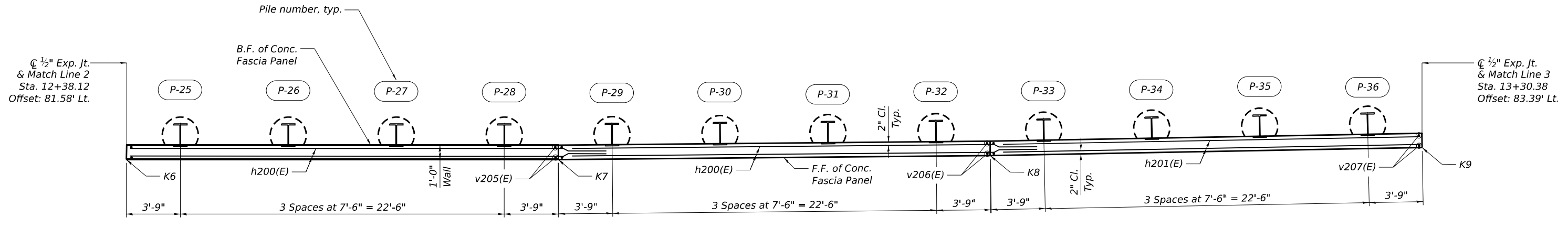
SHEET SC-05 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	708
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

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ELEVATION
 (Unfolded View)



PLAN

NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

- E.F. - Each Face
- F.F. - Front Face
- B.F. - Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JML, LR	REVISED -
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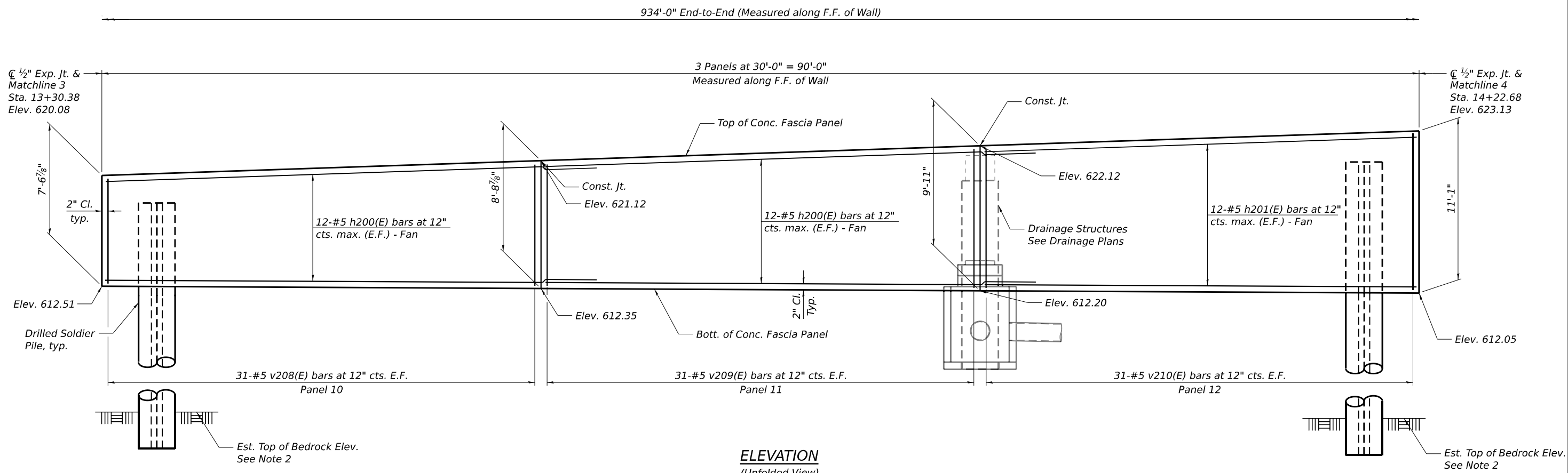
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 3 OF 13)
 STRUCTURE NO. 099-W123

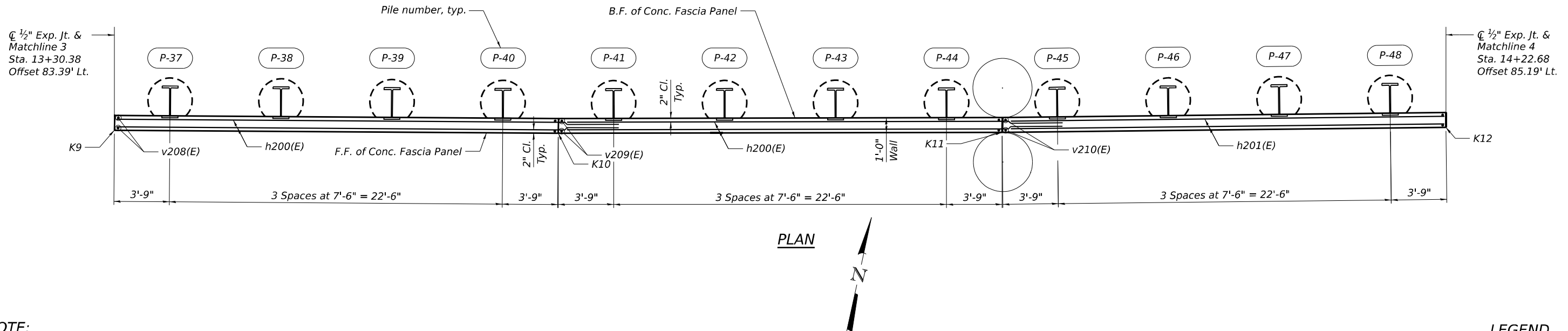
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	709
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SC-06 OF SC-31 SHEETS

MODEL: Default
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ELEVATION
(Unfolded View)



- NOTE:**
- For Notes, see Sheet SC-04.
 - For Est. Top of Bedrock Elev., see sheet SC-21.

- LEGEND**
- E.F. - Each Face
 - F.F. - Front Face
 - B.F. - Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

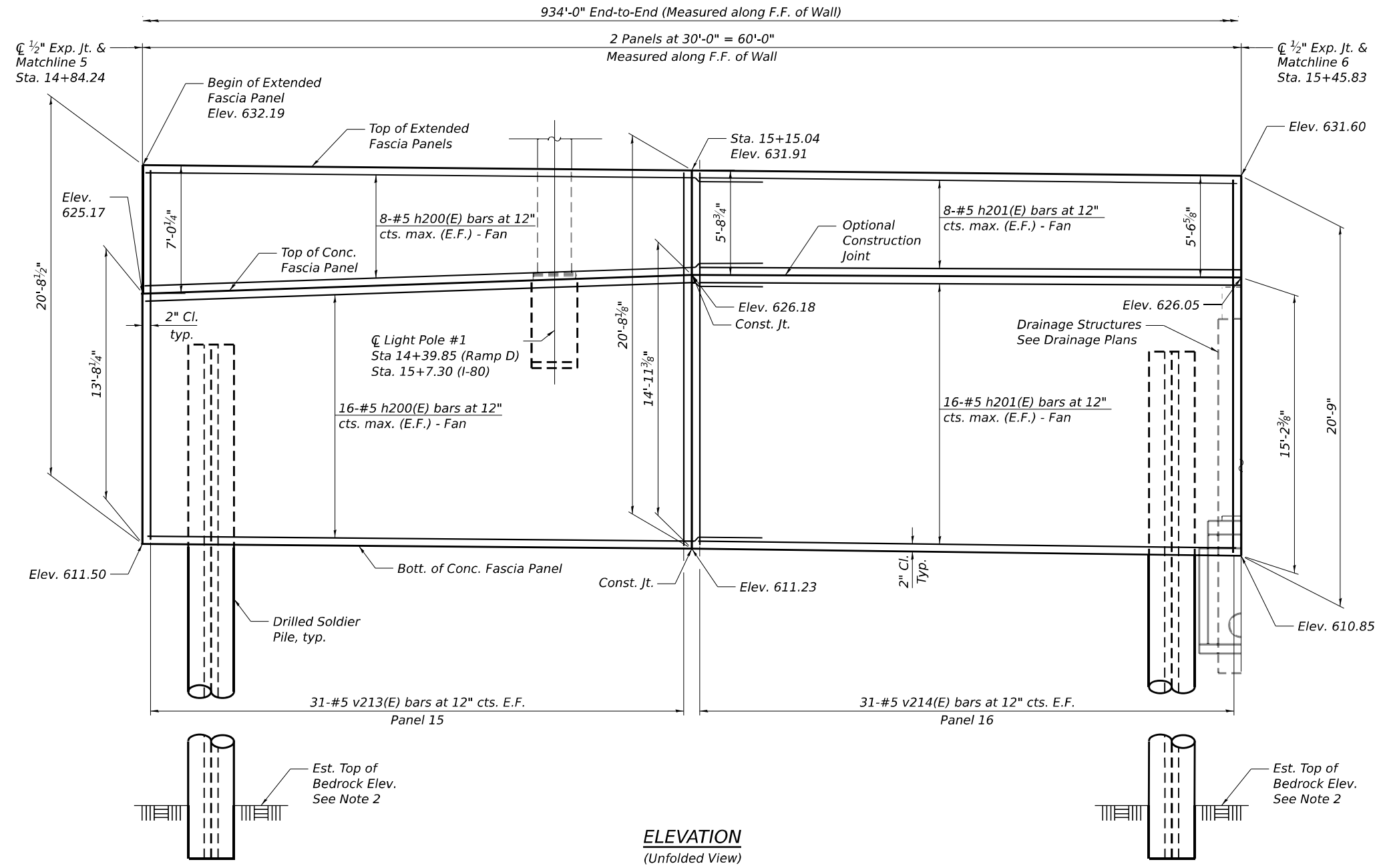
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 4 OF 13)
STRUCTURE NO. 099-W123

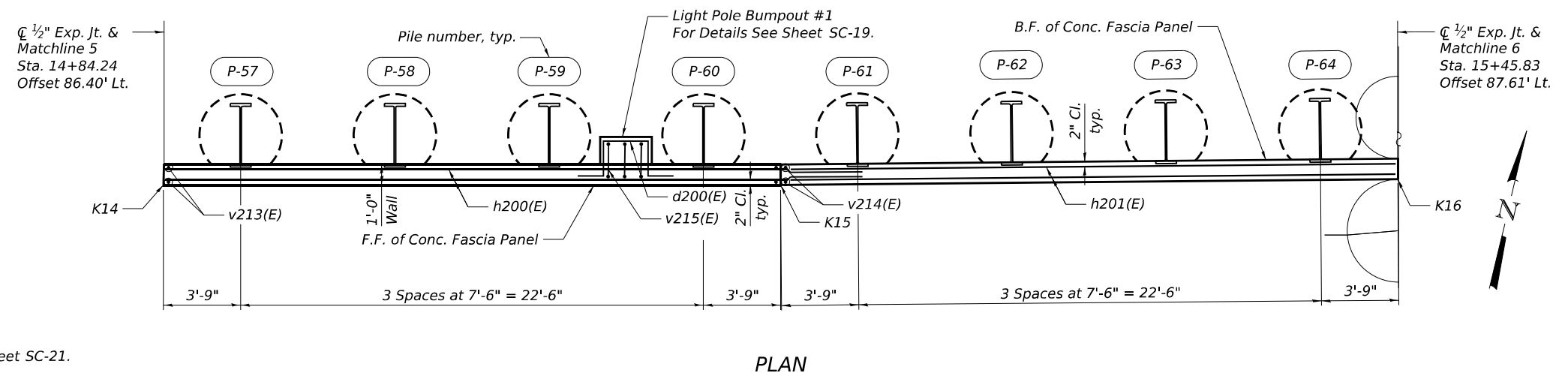
SHEET SC-07 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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ELEVATION
(Unfolded View)



PLAN

- NOTE:**
- For Notes, see Sheet SC-04.
 - For Est. Top of Bedrock Elev., see sheet SC-21.

- LEGEND**
- E.F. - Each Face
 - F.F. - Front Face
 - B.F. - Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 6 OF 13)
 STRUCTURE NO. 099-W123

SHEET SC-09 OF SC-31 SHEETS

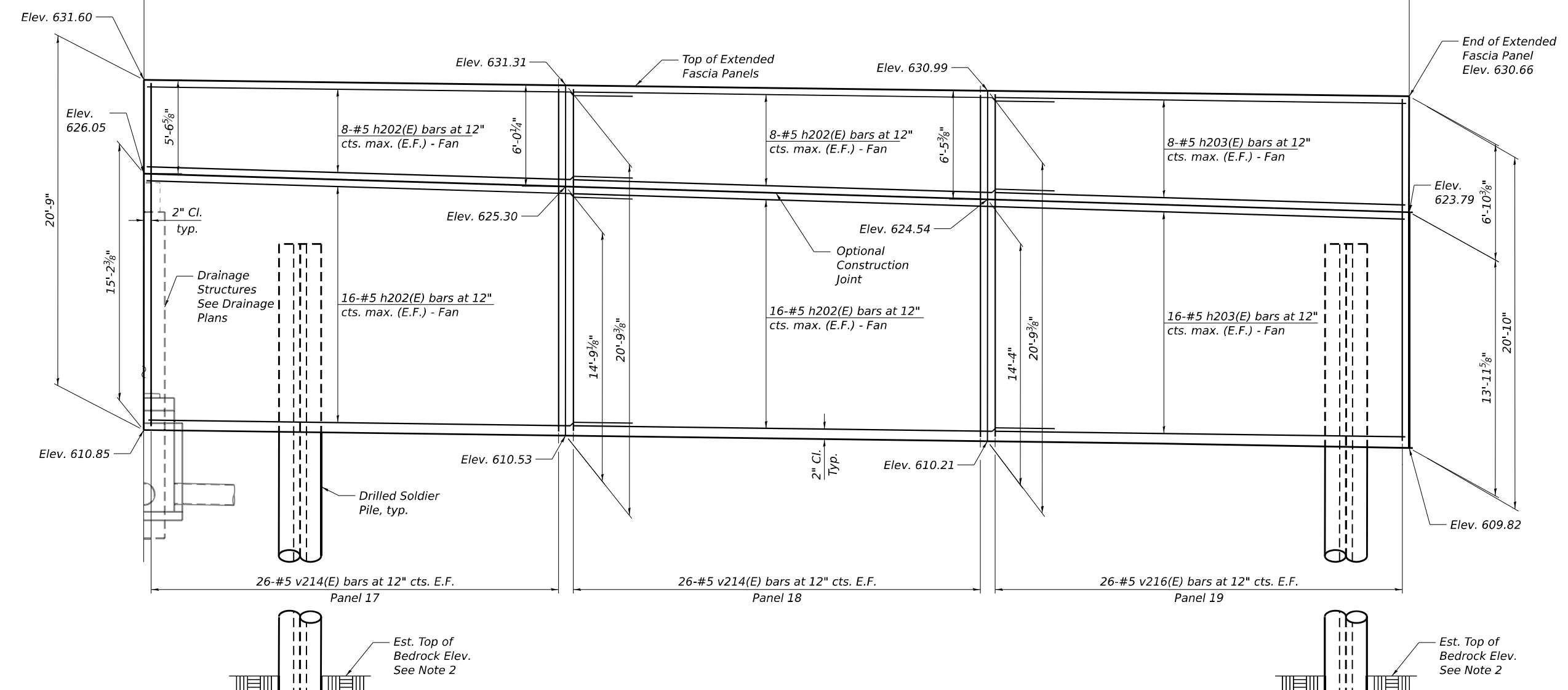
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	712
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

934'-0" (Measured along F.F. of Wall)

1/2" Exp. Jt. & Matchline 6
Sta. 15+45.83

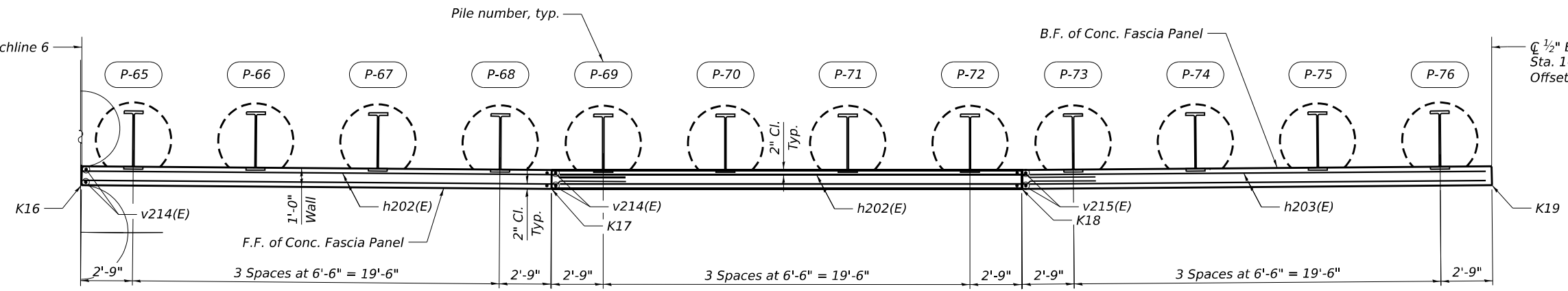
3 Panels at 25'-0" = 75'-0"
Measured along F.F. of Wall

1/2" Exp. Jt. & Matchline 7
Sta. 16+22.85



ELEVATION
(Unfolded View)

1/2" Exp. Jt. & Matchline 6
Sta. 15+45.83
Offset 87.61' Lt.



PLAN

- NOTE:**
- For Notes, see Sheet SC-04.
 - For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND
E.F. - Each Face
F.F. - Front Face
B.F. - Back Face

MODEL: Default
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USER NAME =	DESIGNED - AGJ, JMI	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - JMI, LR	REVISED -
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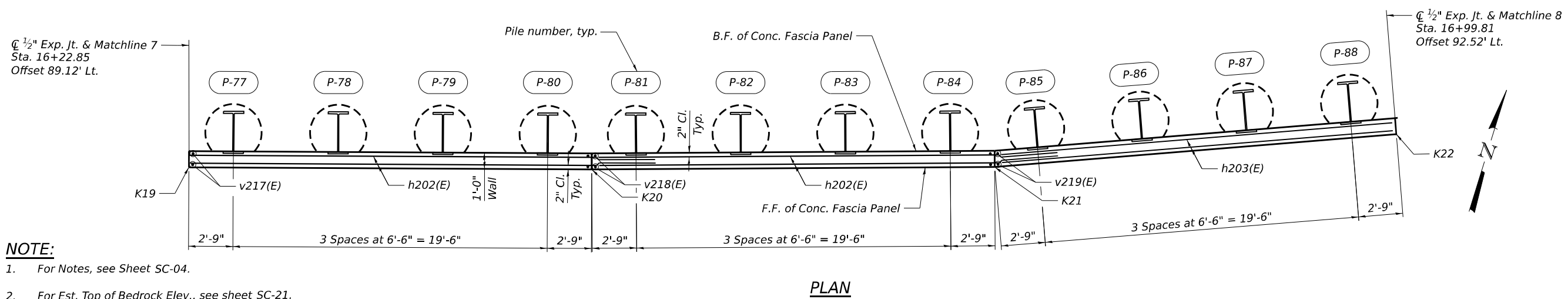
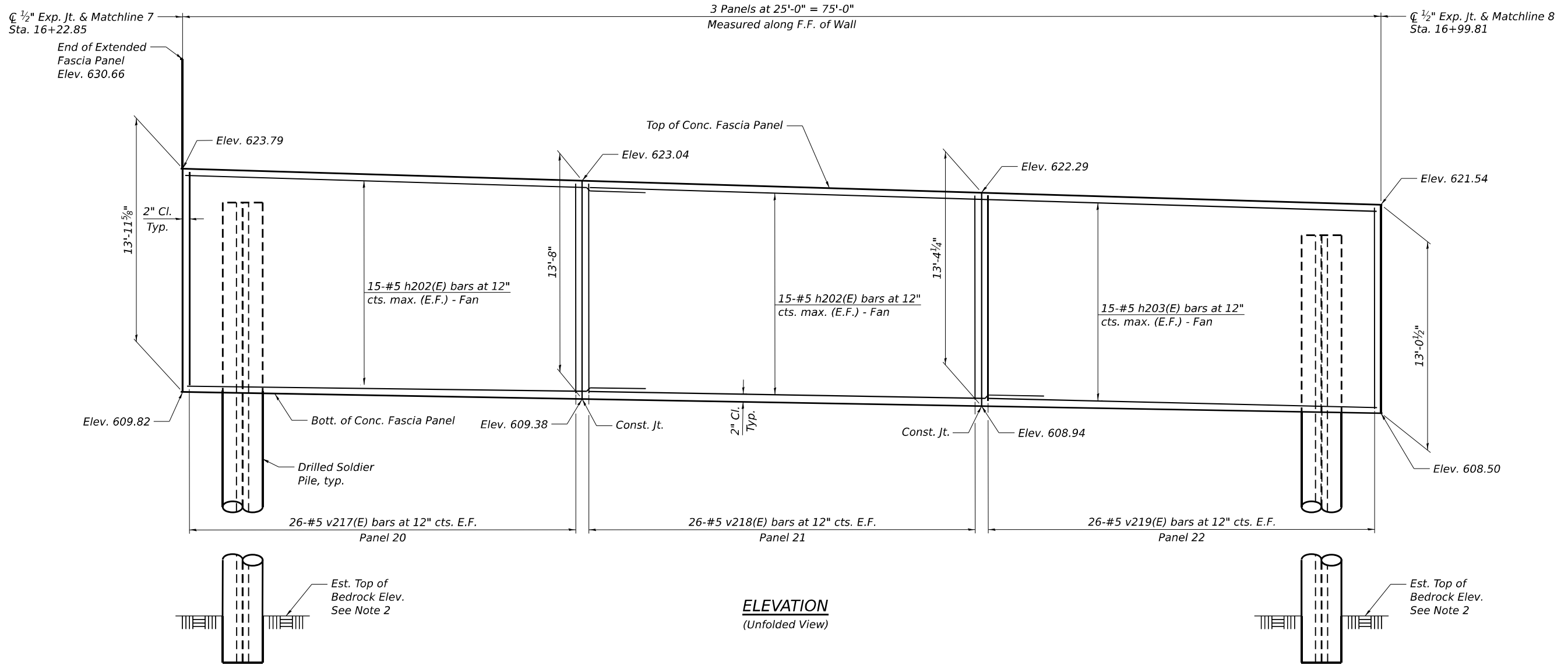
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 7 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-10 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	713
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

934'-0" End-to-End (Measured along F.F. of Wall)



NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

E.F. - Each Face
F.F. - Front Face
B.F. - Back Face

MODEL: Default
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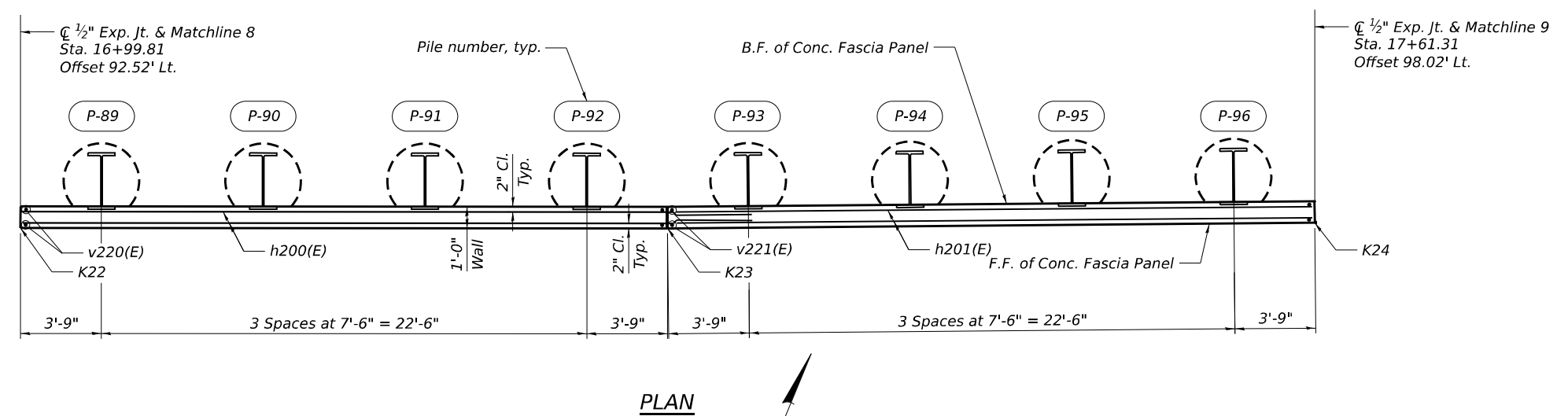
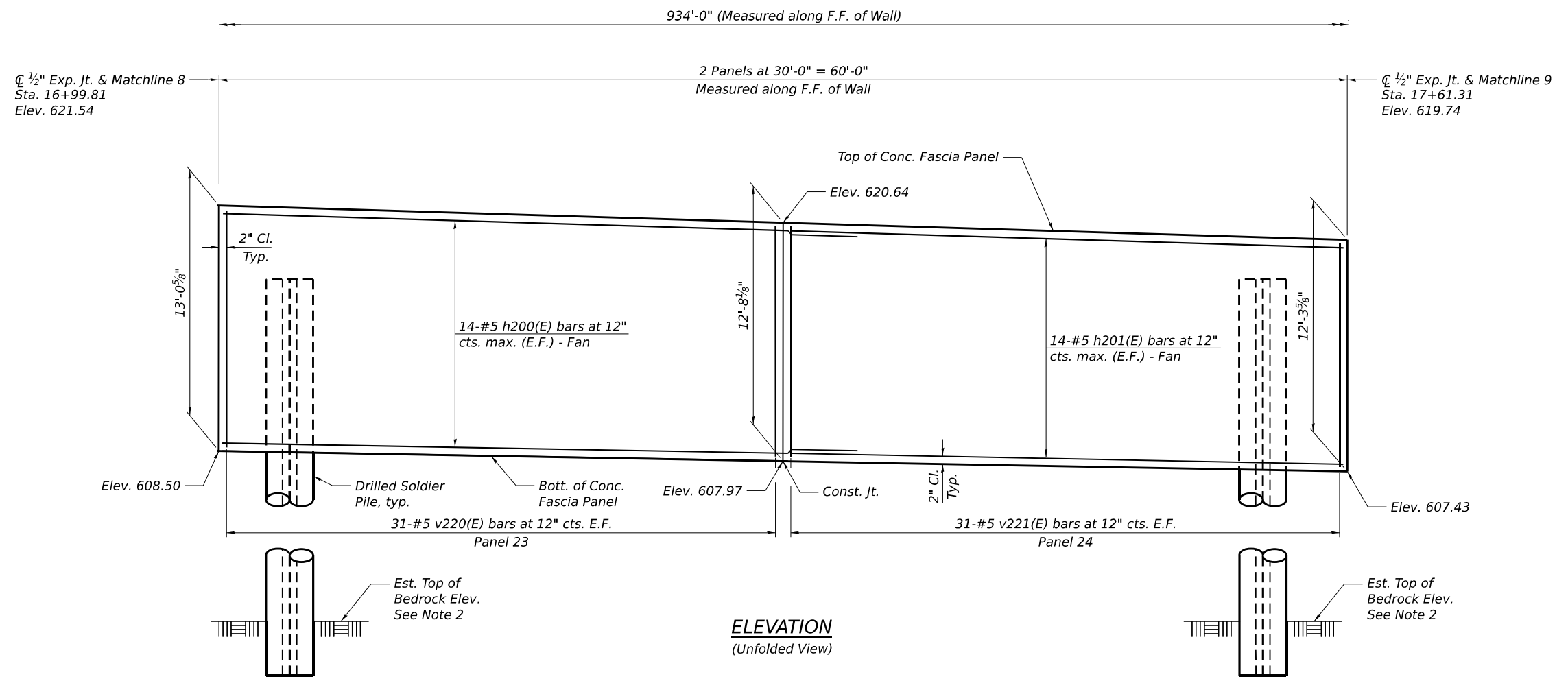
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PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - JMI, LR	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 8 OF 13)
STRUCTURE NO. 099-W123

SHEET SC-11 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	714
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



NOTE:

1. For Notes, see Sheet SC-04.
2. For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

- E.F. - Each Face
- F.F. - Front Face
- B.F. - Back Face

MODEL: Default
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USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

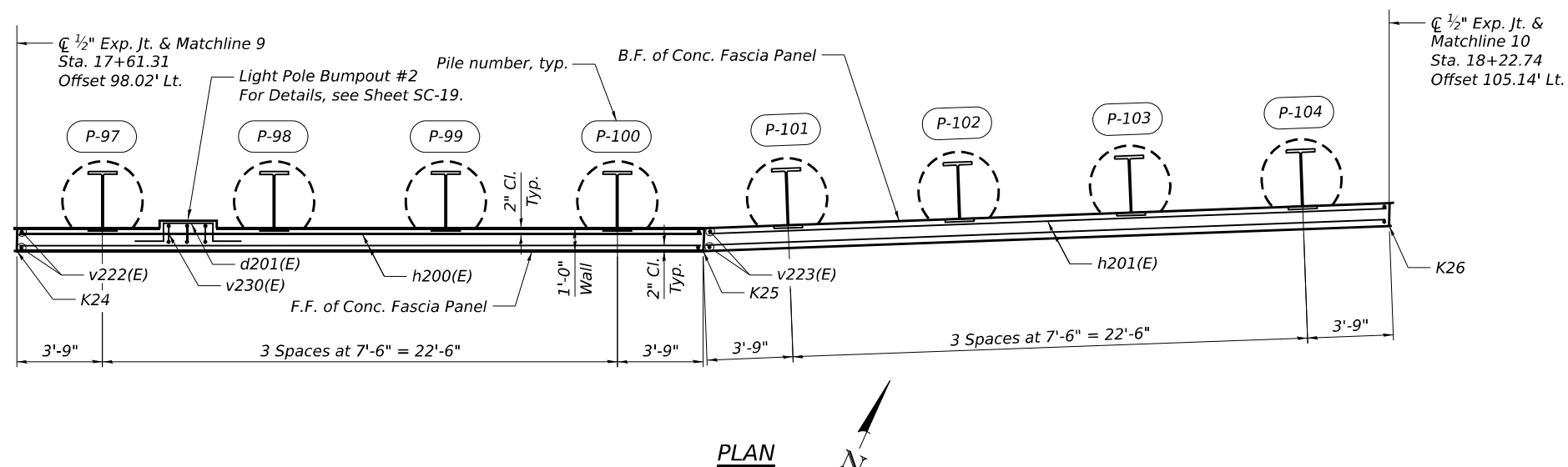
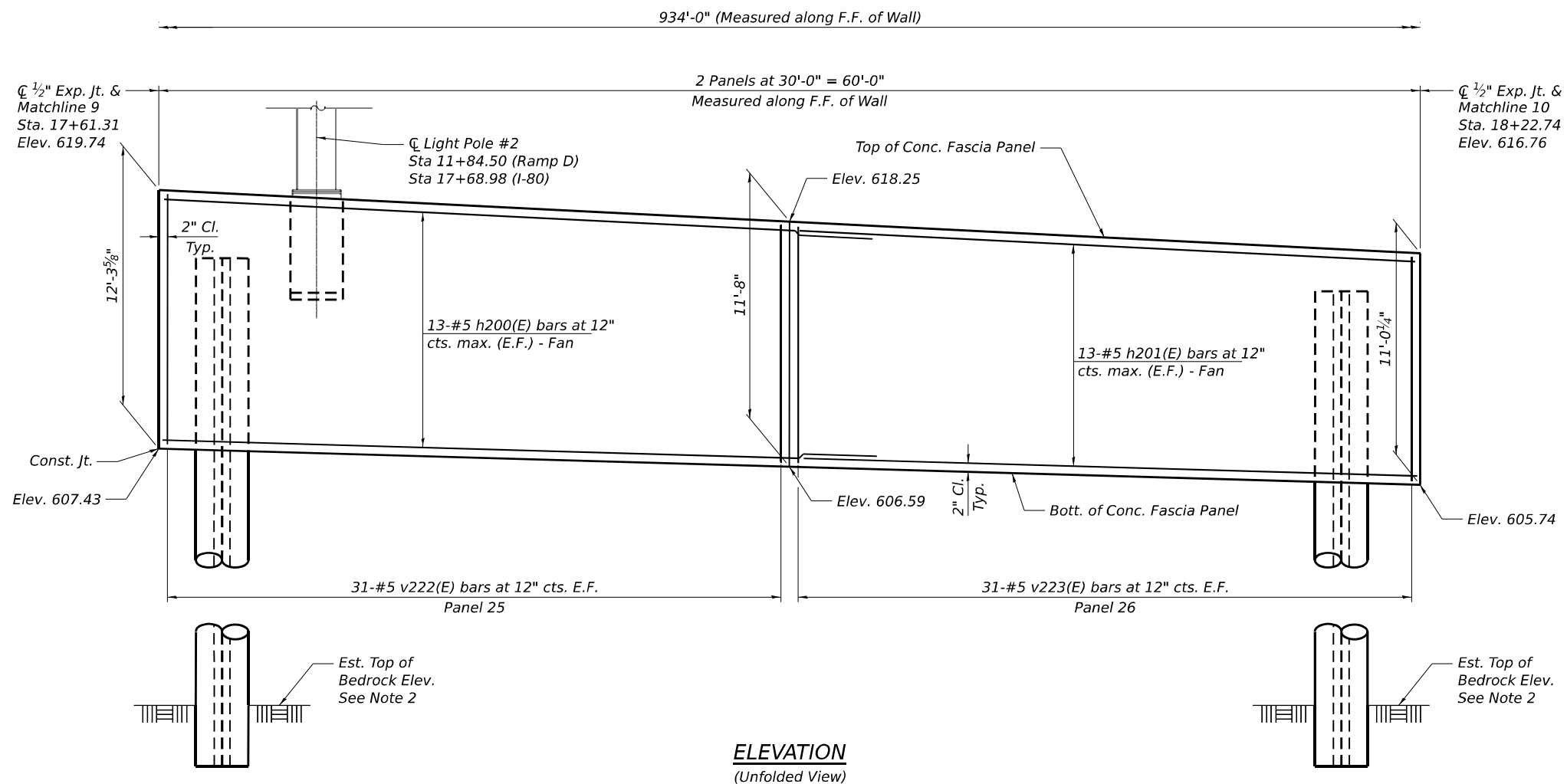
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PLAN AND ELEVATION (SHEET 9 OF 13)
STRUCTURE NO. 099-W123**

SHEET SC-12 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	715
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

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 (Center)\Sheets\Structural\SN-099-W123-RW1\099W123-62R22-5C-13-Plan&Elev.X



NOTE:
 1. For Notes, see Sheet SC-04.
 2. For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND
 E.F. - Each Face
 F.F. - Front Face
 B.F. - Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

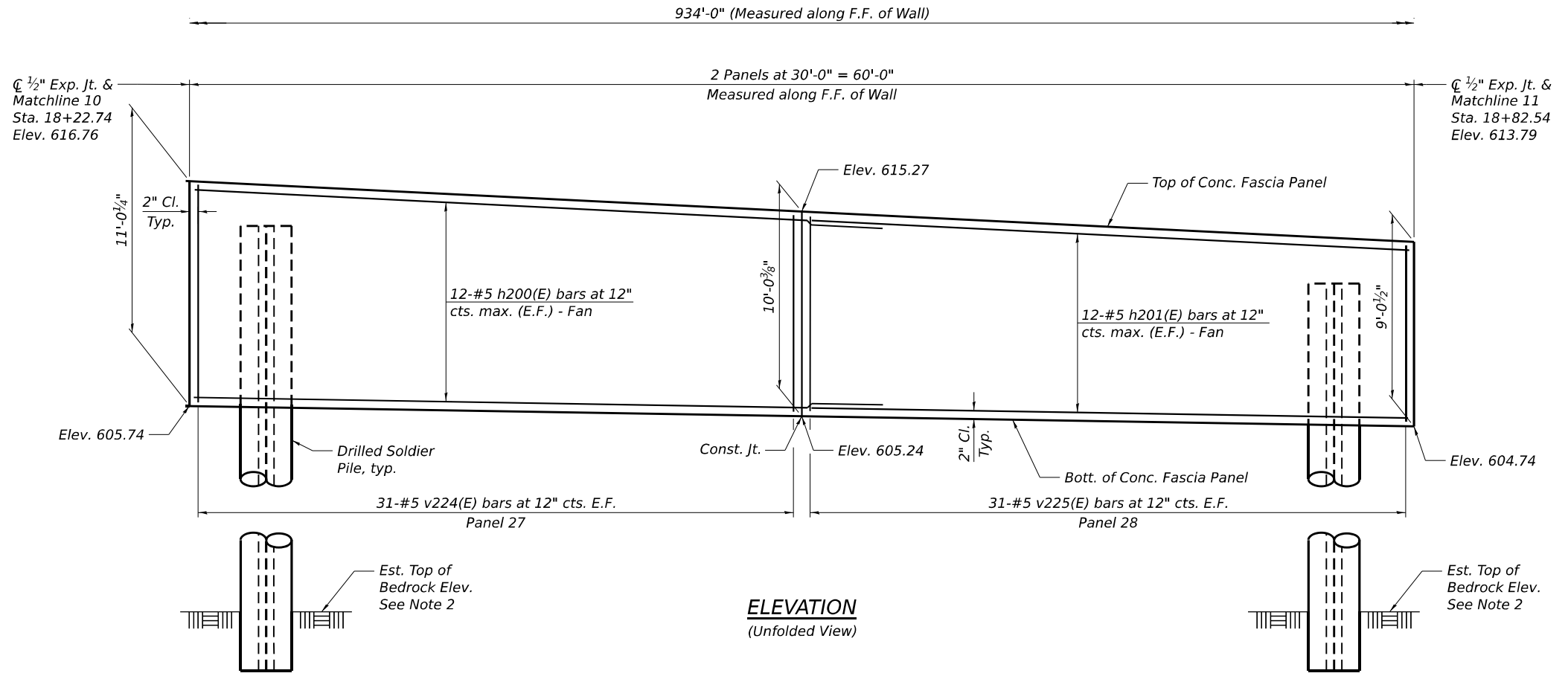
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION (SHEET 10 OF 13)
 STRUCTURE NO. 099-W123

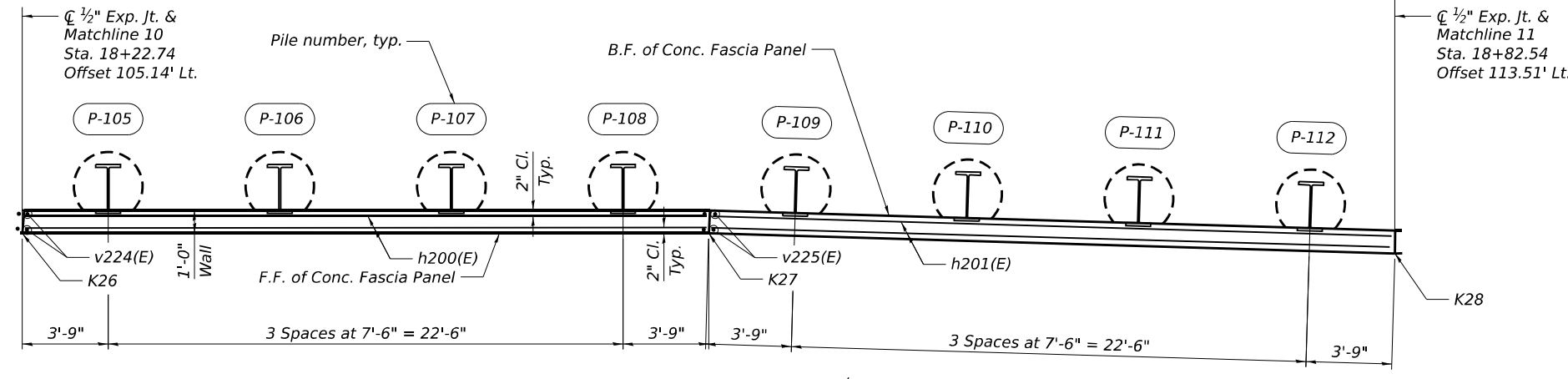
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	716
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SC-13 OF SC-31 SHEETS

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ELEVATION
(Unfolded View)



PLAN

NOTE:

- For Notes, see Sheet SC-04.
- For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

- E.F. - Each Face
- F.F. - Front Face
- B.F. - Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

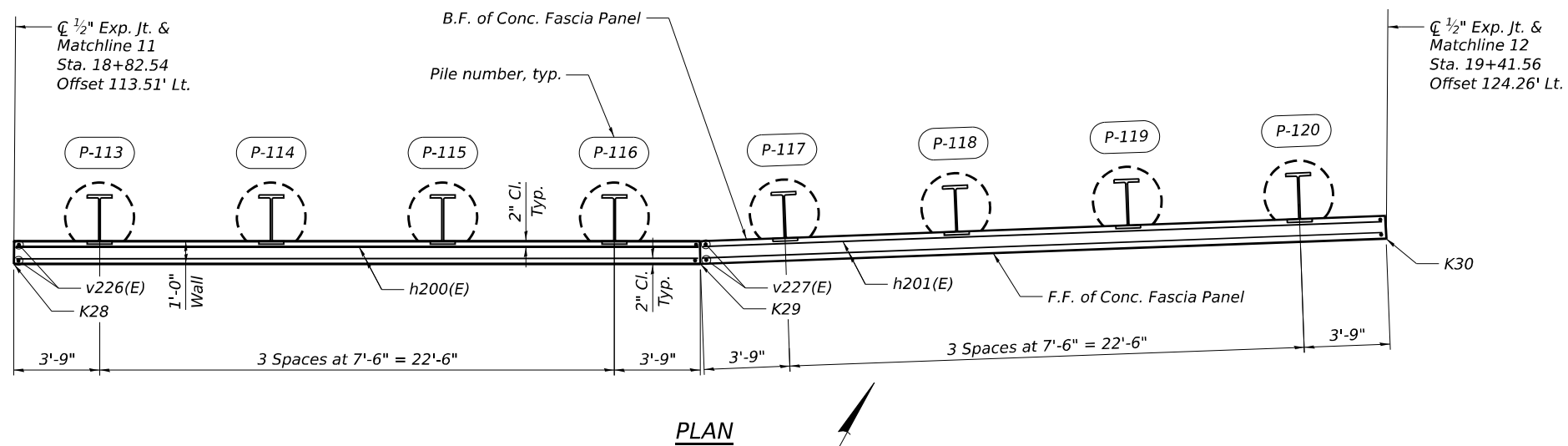
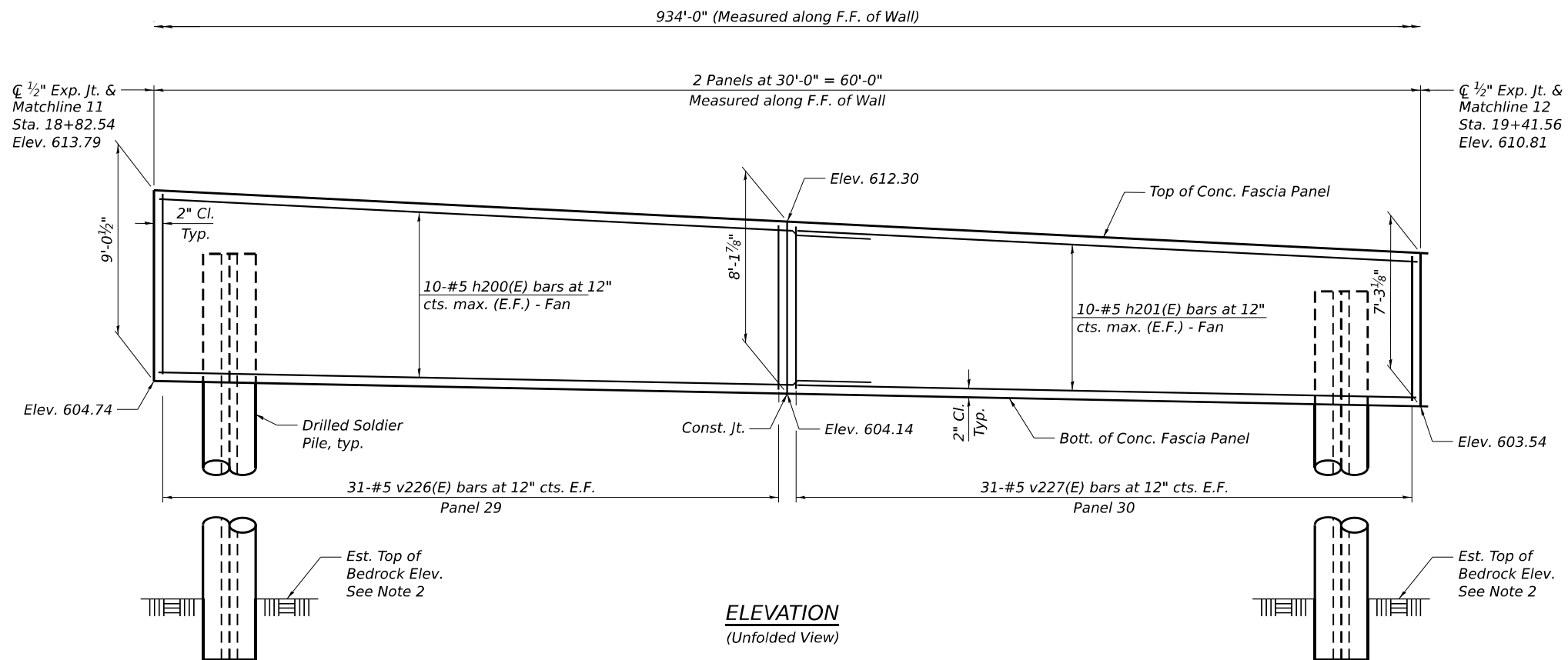
PLAN AND ELEVATION (SHEET 11 OF 13)
STRUCTURE NO. 099-W123

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	717
CONTRACT NO. 62R22				

SHEET SC-14 OF SC-31 SHEETS

ILLINOIS FED. AID PROJECT

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NOTE:

1. For Notes, see Sheet SC-04.
2. For Est. Top of Bedrock Elev., see sheet SC-21.

LEGEND

- E.F. - Each Face
- F.F. - Front Face
- B.F. - Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

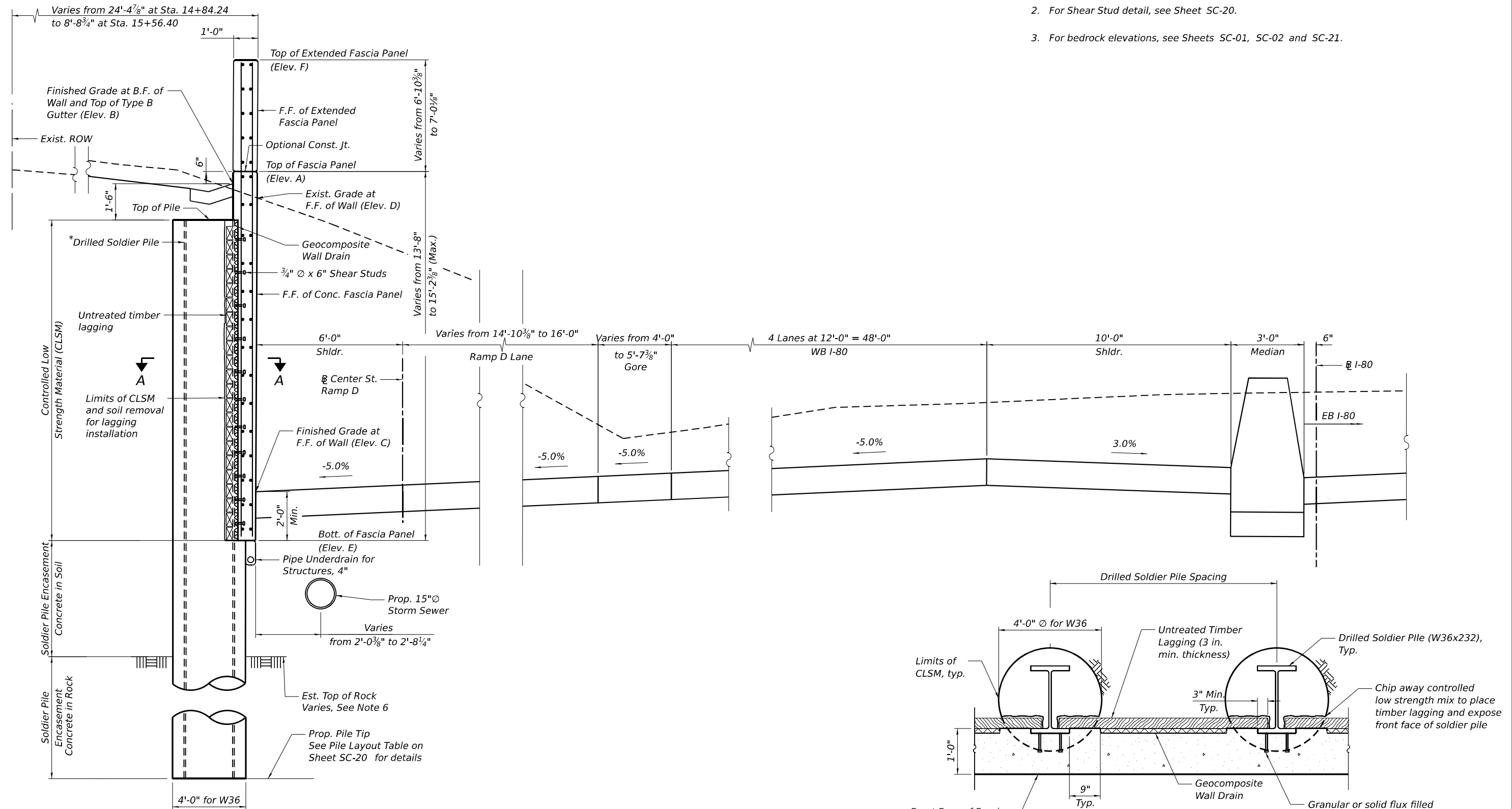
**PLAN AND ELEVATION (SHEET 12 OF 13)
 STRUCTURE NO. 099-W123**

SHEET SC-15 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	718
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

NOTES:

1. The Contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.
2. For Shear Stud detail, see Sheet SC-20.
3. For bedrock elevations, see Sheets SC-01, SC-02 and SC-21.



LEGEND
 F.F. - Front Face
 B.F. - Back Face

TYPICAL CROSS SECTION
 (Looking East)
 (Sta. 14+84.24 to Sta. 16+22.85) I-80

SECTION A-A

MODEL: Default
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USER NAME =	DESIGNED - AGJ, JMI	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WALL CROSS SECTIONS AND DETAILS (SHEET 1 OF 5)
 STRUCTURE NO. 099-W123**

SHEET SC-17 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	720
CONTRACT NO. 62R22				

ILLINOIS FED. AID PROJECT

LEGEND

B.F. - Back Face
 F.F. - Front Face
 NAW - Noise Abatement Wall

NOTES:

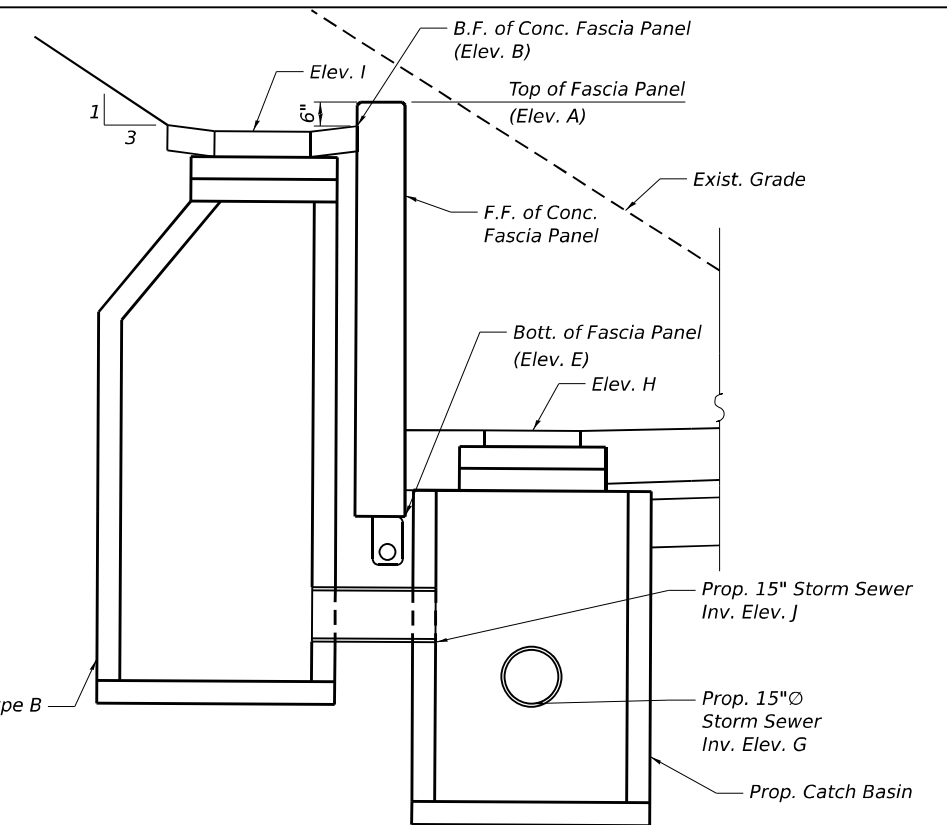
1. Stations for location of catch basins are given to Front Face of Retaining Wall #1 and along I-80.
2. For Bedrock Elevations, see Sheets SC-01, SC-02, and SC-21.
3. The Pile shall be drilled to the pile tip elevations regardless of the estimated rock elevations.

DRAINAGE STRUCTURES DATA

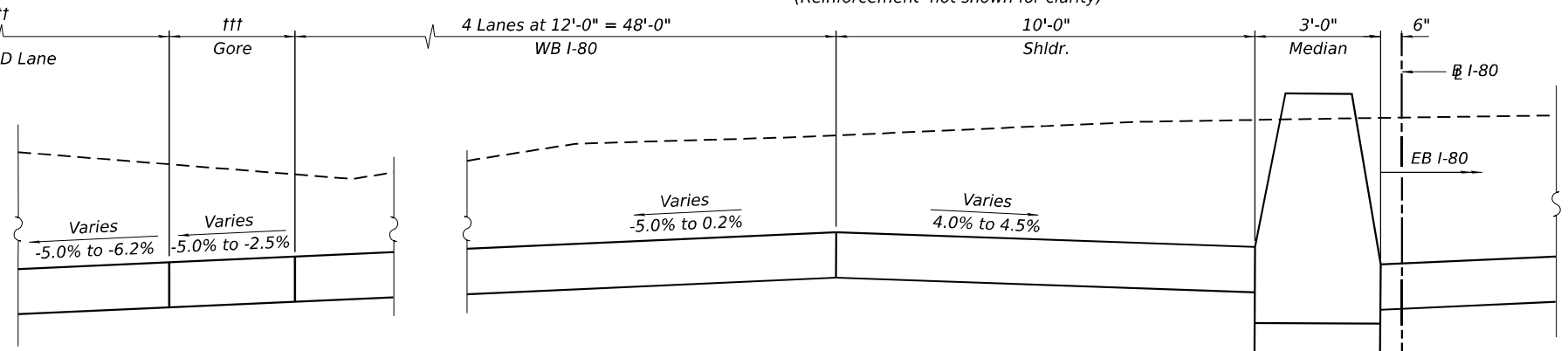
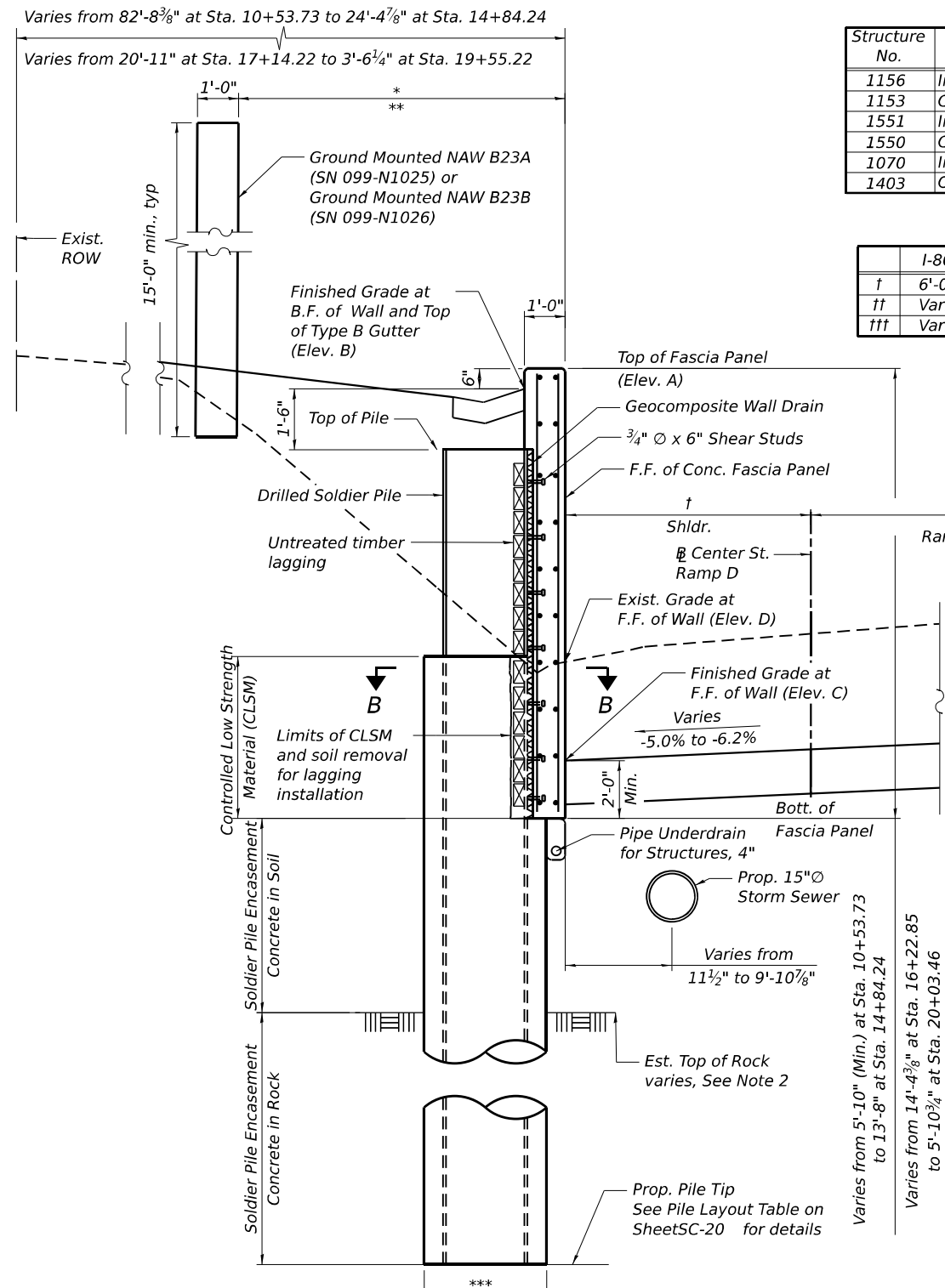
Structure No.	Structure Type	I-80 Sta.	Elev. J		Elev. G		Elev. H	Elev. I
			NORTH	SOUTH	WEST	EAST		
1156	Inlet Type B	11+53.34	610.35	-	-	-	-	617.80
1153	Catch Basin	11+53.34	-	610.33	609.07	-	614.58	-
1551	Inlet Type B	13+91.96	606.84	-	-	-	-	621.45
1550	Catch Basin	13+91.96	-	606.83	-	608.83	614.35	-
1070	Inlet Type B	15+45.80	604.44	-	-	-	-	625.50
1403	Catch Basin	15+45.80	-	605.51	606.50	605.03	-	613.03

VARIABLE DIMENSIONS TABLE

	I-80 Sta. 10+53.73 to Sta. 14+84.24	I-80 Sta. 16+22.85 to Sta. 20+03.46
†	6'-0"	Varies from 6'-0" to 18'-6"
††	Varies from 12'-0" to 14'-10 ³ / ₈ "	16'-0"
†††	Varies from 0'-0" to 4'-0"	Varies from 5'-7 ³ / ₈ " to 42'-11 ⁵ / ₈ "



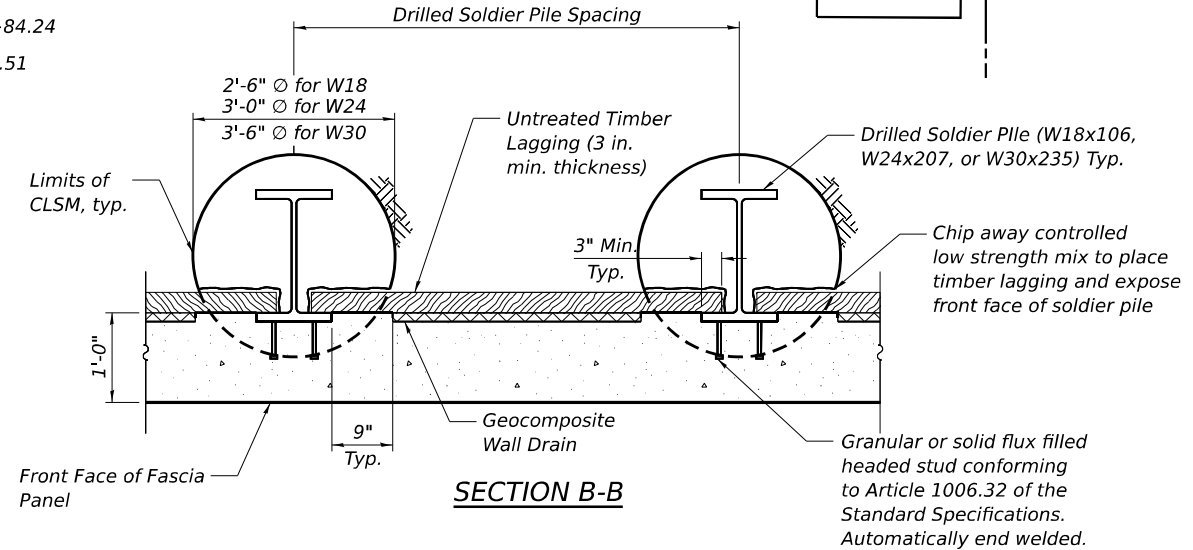
CROSS SECTION THRU TYPE B GUTTER AND CATCH BASIN
 (Looking East)
 (Reinforcement not shown for clarity)



* Varies from 76'-8¹/₄" at Sta. 10+53.73 to 11'-11³/₈" at Sta. 14+84.24
 ** Varies from 14'-7" at Sta. 16+74.21 to 7'-11¹/₈" at Sta. 18+83.51
 *** 2'-6" for W18
 3'-0" for W27
 3'-6" for W30

TYPICAL CROSS SECTION

(Looking East)
 (Sta. 10+53.73 to Sta. 14+84.24) I-80
 (Sta. 16+22.85 to Sta. 20+03.46) I-80



SECTION B-B

MODEL: Default
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USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

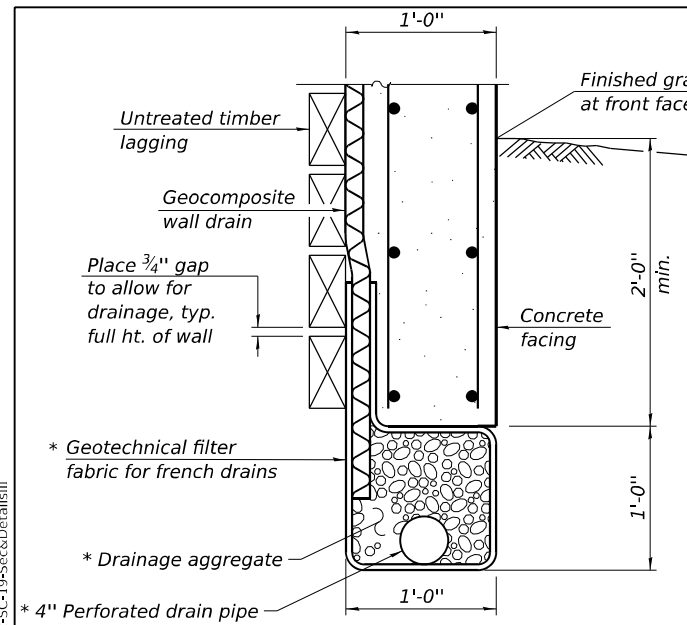
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WALL CROSS SECTIONS AND DETAILS (SHEET 2 OF 5)
 STRUCTURE NO. 099-W123**

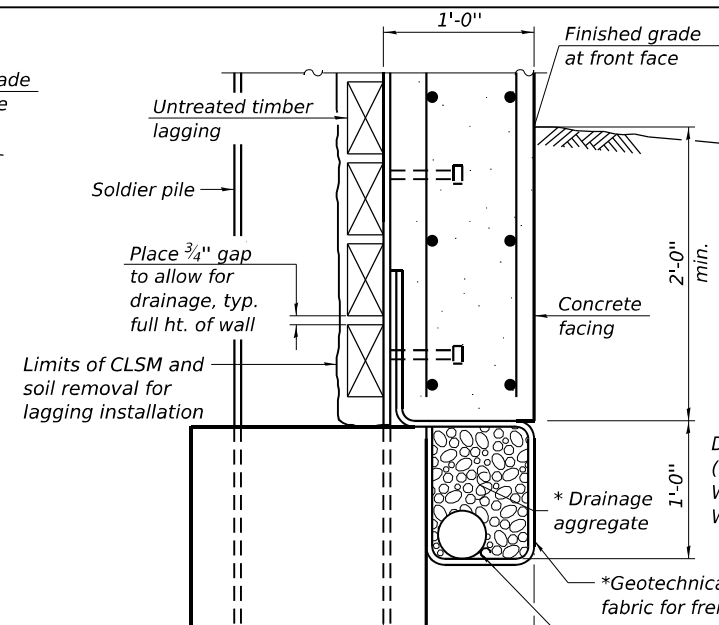
SHEET SC-18 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	721
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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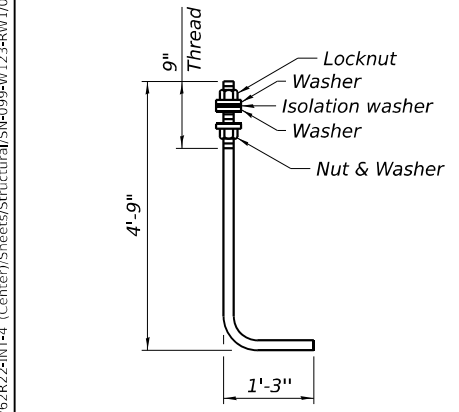
BETWEEN SOLDIER PILES



AT SOLDIER PILES

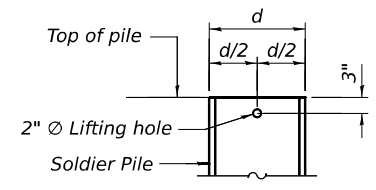
UNDERDRAIN DETAILS FOR SOLDIER PILE WALLS

* Included in the cost of Pipe Underdrains for Structures



ANCHOR ROD DETAIL

(4 Required per Light Pole)
 Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized.



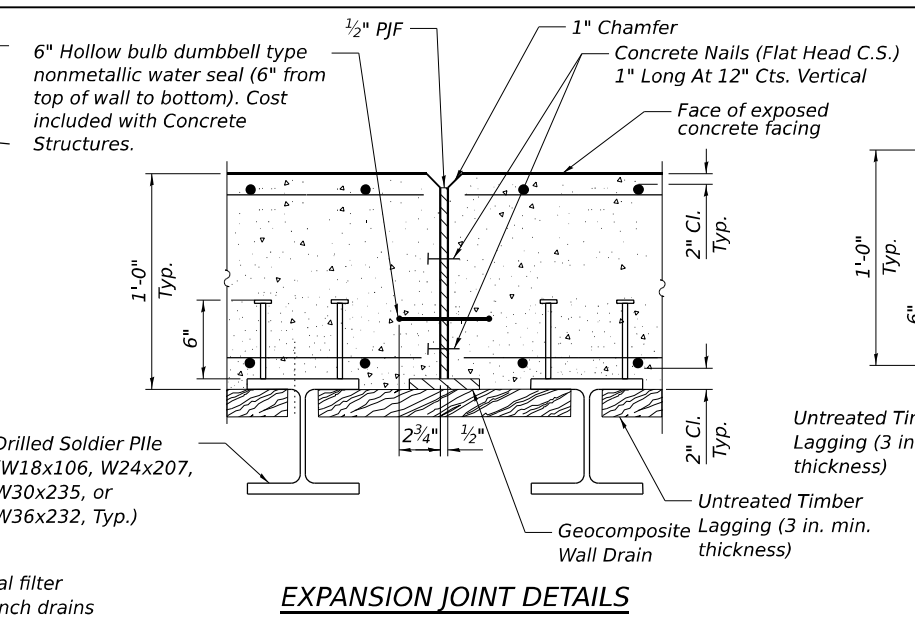
LIFTING HOLE DETAIL

LEGEND

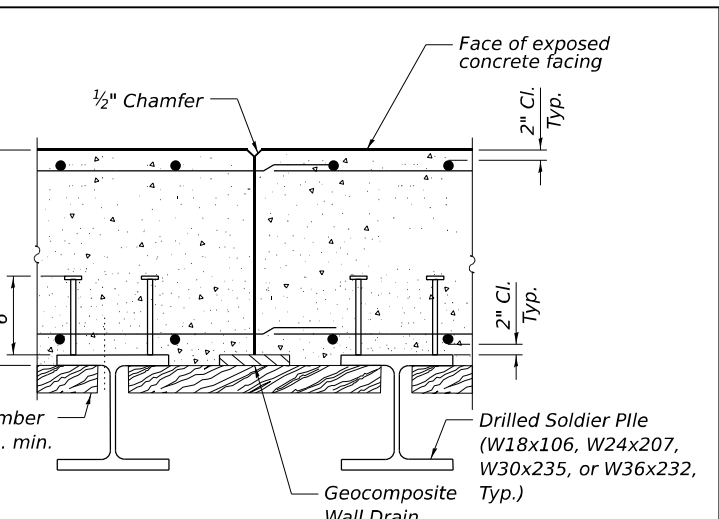
- F.F. Front Face
- B.F. Back Face
- CSLM Controlled Low-Strength Material

NOTES:

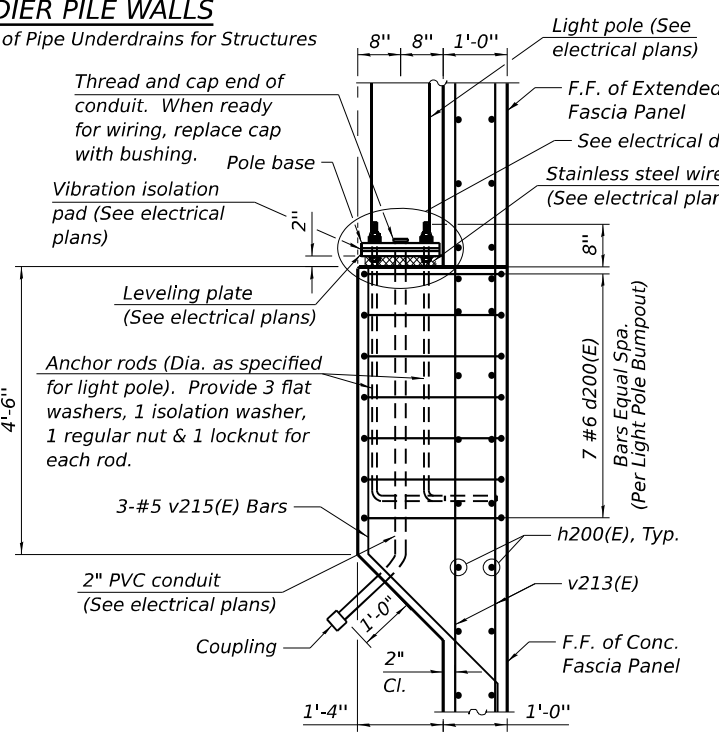
1. For additional Notes, see Sheet SC-17.
2. Cost of anchor bolts is included with Concrete Structures.
3. For Bedrock Elevations, see Sheets SC-01, SC-02 and SC-21.



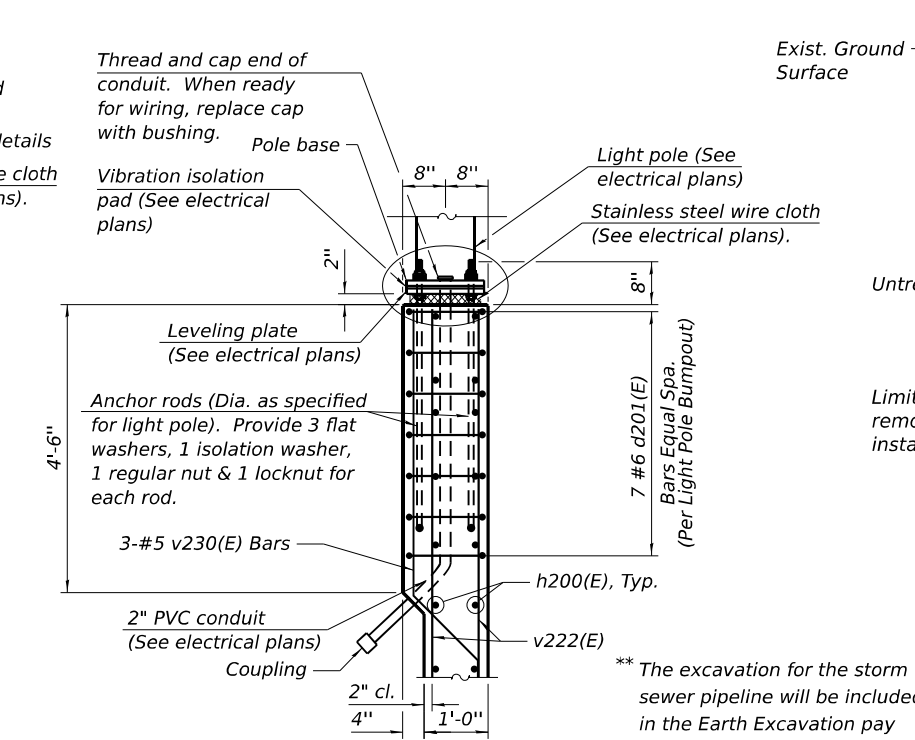
EXPANSION JOINT DETAILS



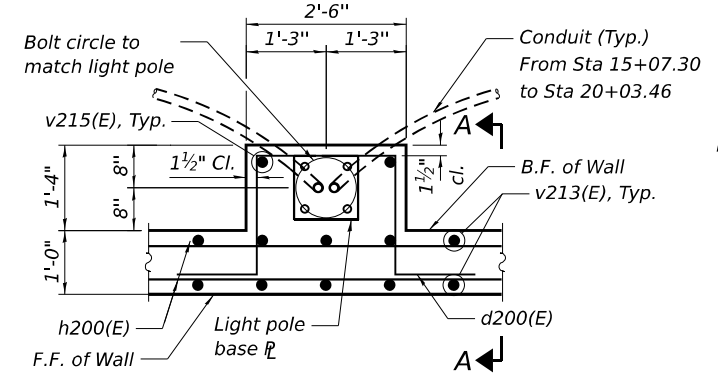
CONSTRUCTION JOINT DETAILS



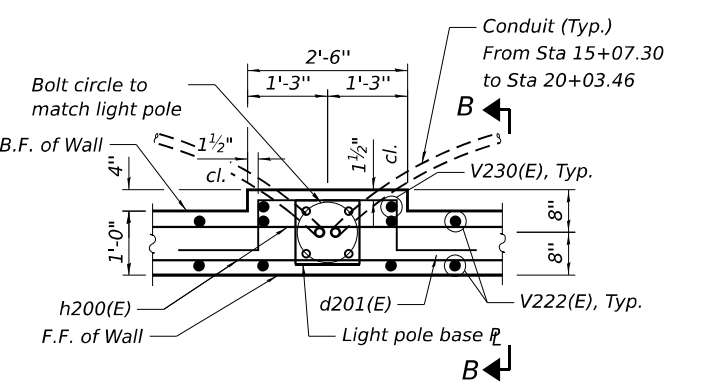
SECTION A-A



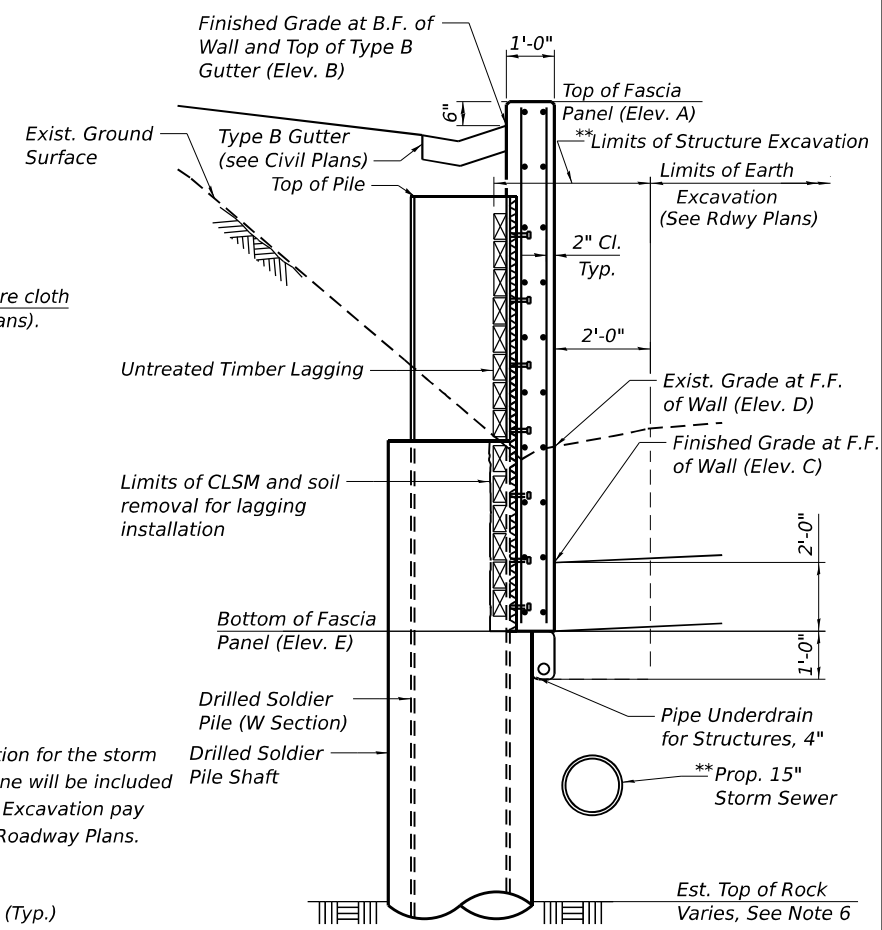
SECTION B-B



LIGHT POLE BUMPOUT #1 PLAN



LIGHT POLE BUMPOUT #2 PLAN



STRUCTURE EXCAVATION

- t 2'-6" Ø for W18
- 3'-0" Ø for W24
- 3'-6" Ø for W30
- 4'-0" Ø for W36



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - JMI, LR	REVISED -
	CHECKED - MI, KJD	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

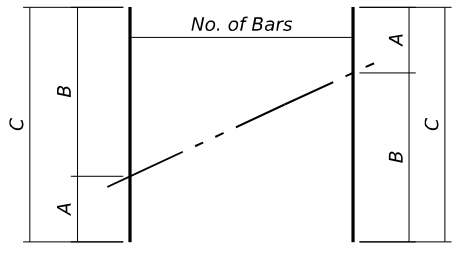
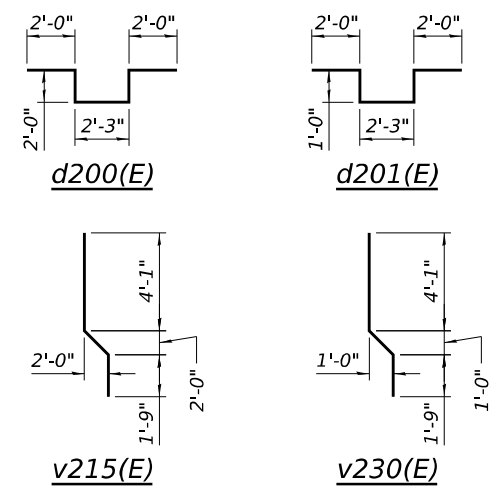
**WALL CROSS SECTIONS AND DETAILS (SHEET 3 OF 5)
 STRUCTURE NO. 099-W123**

SHEET SC-19 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	722
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
 FILE NAME: p:\projects\transystems\ppw1\hosted\Documents\Projects_2018\CH40\401180022\03-WSP\CAD\62R22-INT-4 (Center)\Sheets\Structural\SN-099-W-123-RV1\099W123-62R22-5C-20-Sec&Details\IV

Minimum Bar Lap	
Bar	Lap
#5	3'-7"



FIELD CUTTING DIAGRAM

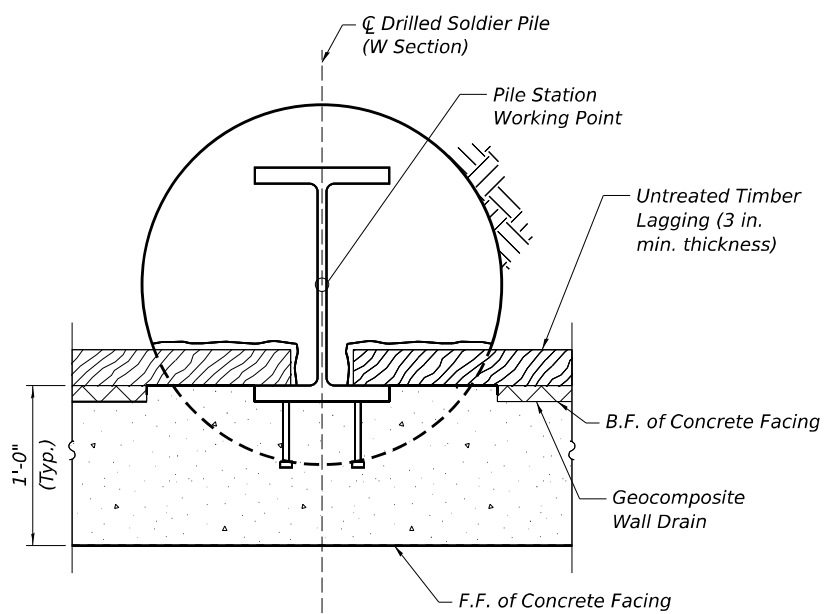
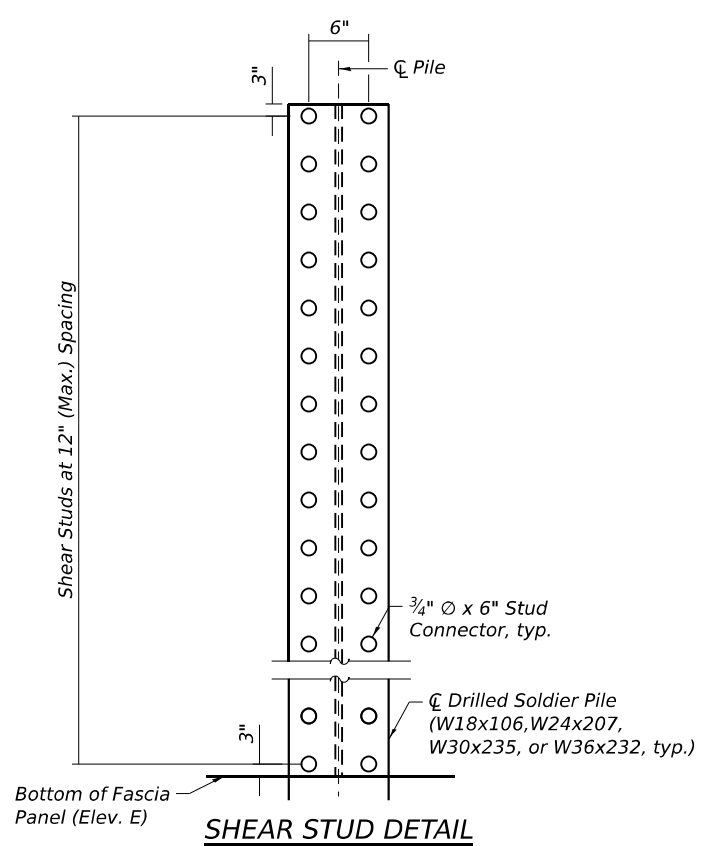
See Bar Table Schedule for dimensions
 Make all cuts normal to bar axis

BAR TABLE SCHEDULE

Bar	No. of Sets Req'd	Bar No.	No. of Bars Per Set	A	B	C
v202(E)	1	#5	31	5'-7"	5'-8"	11'-3"
v203(E)	1	#5	31	5'-8"	5'-10"	11'-6"
v204(E)	1	#5	31	5'-10"	6'-0"	11'-10"
v205(E)	1	#5	31	6'-0"	6'-5"	12'-5"
v206(E)	1	#5	31	6'-5"	6'-10"	13'-3"
v207(E)	1	#5	31	6'-10"	7'-3"	14'-1"
v208(E)	1	#5	31	7'-3"	8'-5"	15'-8"
v209(E)	1	#5	31	8'-5"	9'-7"	18'-0"
v210(E)	1	#5	31	9'-7"	10'-9"	20'-4"
v211(E)	1	#5	31	10'-9"	12'-1"	22'-10"
v212(E)	1	#5	31	12'-1"	13'-4"	25'-5"
v217(E)	1	#5	26	13'-8"	13'-4"	27'-0"
v218(E)	1	#5	26	13'-4"	13'-0"	26'-4"
v219(E)	1	#5	26	13'-0"	12'-9"	25'-9"
v220(E)	1	#5	31	12'-9"	12'-4"	25'-1"
v221(E)	1	#5	31	12'-4"	12'-0"	24'-4"
v222(E)	1	#5	31	12'-0"	11'-4"	23'-4"
v223(E)	1	#5	31	11'-4"	10'-8"	22'-0"
v224(E)	1	#5	31	10'-8"	9'-8"	20'-4"
v225(E)	1	#5	31	9'-8"	8'-9"	18'-5"
v226(E)	1	#5	31	8'-9"	7'-10"	16'-7"
v227(E)	1	#5	31	7'-10"	6'-11"	14'-9"
v228(E)	1	#5	33	6'-11"	6'-3"	13'-2"
v229(E)	1	#5	33	6'-3"	5'-7"	11'-10"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h200(E)	316	#5	33'-7"	=====
h201(E)	246	#5	29'-8"	=====
h202(E)	156	#5	28'-7"	=====
h203(E)	78	#5	24'-8"	=====
h204(E)	16	#5	35'-7"	=====
h205(E)	16	#5	31'-8"	=====
v200(E)	124	#5	5'-6"	=====
v201(E)	62	#5	5'-7"	=====
v202(E)	31	#5	11'-3"	=====
v203(E)	31	#5	11'-6"	=====
v204(E)	31	#5	11'-10"	=====
v205(E)	31	#5	12'-5"	=====
v206(E)	31	#5	13'-3"	=====
v207(E)	31	#5	14'-1"	=====
v208(E)	31	#5	15'-8"	=====
v209(E)	31	#5	18'-0"	=====
v210(E)	31	#5	20'-4"	=====
v211(E)	31	#5	22'-10"	=====
v212(E)	31	#5	25'-5"	=====
v213(E)	62	#5	20'-4"	=====
v214(E)	166	#5	20'-5"	=====
v215(E)	3	#5	8'-8"	=====
v216(E)	52	#5	20'-6"	=====
v217(E)	26	#5	27'-0"	=====
v218(E)	26	#5	26'-4"	=====
v219(E)	26	#5	25'-9"	=====
v220(E)	31	#5	25'-1"	=====
v221(E)	31	#5	24'-4"	=====
v222(E)	31	#5	23'-4"	=====
v223(E)	31	#5	22'-0"	=====
v224(E)	31	#5	20'-4"	=====
v225(E)	31	#5	18'-5"	=====
v226(E)	31	#5	16'-7"	=====
v227(E)	31	#5	14'-9"	=====
v228(E)	33	#5	13'-2"	=====
v229(E)	33	#5	11'-10"	=====
v230(E)	3	#5	7'-3"	=====
d200(E)	7	#5	10'-3"	=====
d201(E)	7	#5	8'-3"	=====
Structure Excavation		Cu Yd	1,235	
Concrete Structures		Cu Yd	374	
Stud Shear Connectors		Each	2,316	
Reinforcement Bars, Epoxy Coated		Pound	47,730	
Furnishing Soldier Piles (W Section)		Foot	4,151	
Drilling And Setting Soldier Piles (In Soil)		Cu Ft	23,302	
Drilling And Setting Soldier Piles (In Rock)		Cu Ft	10,878	
Untreated Timber Lagging		Sq Ft	10,851	
Concrete Sealer		Sq Ft	12,301	
Geocomposite Wall Drain		Sq Yd	924	
Pipe Underdrains For Structures 4"		Foot	938	



NOTE:
 For Notes, see Sheets SC-04 and SC-17

LEGEND
 F.F.-Front Face
 B.F.-Back Face



USER NAME =	DESIGNED - AGJ, JMI	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - JMI, LR	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WALL CROSS SECTIONS AND DETAILS (SHEET 4 OF 5)
 STRUCTURE NO. 099-W123**

SHEET SC-20 OF SC-31 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	723
CONTRACT NO. 62R22				

ILLINOIS FED. AID PROJECT

PILE LAYOUT

Pile	I-80		Ramp D		Top of Pile Elevation	Top of Encasement/ Bottom of CLSM Elev.	Estimated Top of Bedrock Elevation	Boring	Section	Auger Diameter	Pile Tip Elevation	Pile Length (ft)
	Station at Working Point	Offset	Station at Working Point	Offset								
P-01	10+57.57	81.22' Lt.	-	-	615.68	611.86	594.50	RWB-07B	W18x106	2'-6"	586.50	29.18
P-02	10+65.25	81.23' Lt.	-	-	615.73	611.91	594.50	RWB-07B	W18x106	2'-6"	586.50	29.23
P-03	10+72.94	81.23' Lt.	-	-	615.79	611.96	594.50	RWB-07B	W18x106	2'-6"	586.50	29.29
P-04	10+80.63	81.22' Lt.	-	-	615.84	612.01	594.50	RWB-07B	W18x106	2'-6"	586.50	29.34
P-05	10+88.30	81.22' Lt.	-	-	615.90	612.07	594.50	RWB-07B	W18x106	2'-6"	586.50	29.40
P-06	10+95.98	81.23' Lt.	-	-	615.96	612.12	594.50	RWB-07B	W18x106	2'-6"	586.50	29.46
P-07	11+03.67	81.23' Lt.	-	-	616.01	612.17	594.50	RWB-07B	W18x106	2'-6"	586.50	29.51
P-08	11+11.36	81.22' Lt.	-	-	616.07	612.22	594.50	RWB-07B	W18x106	2'-6"	586.50	29.57
P-09	11+19.01	81.25' Lt.	-	-	616.13	612.27	594.50	RWB-07B	W18x106	2'-6"	586.50	29.63
P-10	11+26.72	81.34' Lt.	-	-	616.19	612.33	594.50	RWB-07B	W18x106	2'-6"	586.50	29.69
P-11	11+34.38	81.41' Lt.	18+04.24	7.85' Rt.	616.24	612.37	594.50	RWB-07B	W18x106	2'-6"	586.50	29.74
P-12	11+42.07	81.47' Lt.	17+96.72	7.75' Rt.	616.30	612.42	594.50	RWB-07B	W18x106	2'-6"	586.50	29.80
P-13	11+49.72	81.58' Lt.	17+89.24	7.72' Rt.	616.36	612.46	594.50	RWB-07B	W18x106	2'-6"	586.50	29.86
P-14	11+57.41	81.75' Lt.	17+81.72	7.73' Rt.	616.41	612.48	594.50	RWB-07B	W18x106	2'-6"	586.50	29.91
P-15	11+65.09	81.90' Lt.	17+74.20	7.73' Rt.	616.47	612.49	594.50	RWB-07B	W18x106	2'-6"	586.50	29.97
P-16	11+72.78	82.03' Lt.	17+66.68	7.72' Rt.	616.52	612.51	594.50	RWB-07B	W18x106	2'-6"	586.50	30.02
P-17	11+80.45	82.18' Lt.	17+59.18	7.72' Rt.	616.58	612.53	594.50	RWB-07B	W18x106	2'-6"	586.50	30.08
P-18	11+88.14	82.34' Lt.	17+51.66	7.73' Rt.	616.63	612.54	594.50	RWB-07B	W18x106	2'-6"	586.50	30.13
P-19	11+95.82	82.49' Lt.	17+44.15	7.73' Rt.	616.69	612.56	594.50	RWB-07B	W18x106	2'-6"	586.50	30.19
P-20	12+03.51	82.63' Lt.	17+36.63	7.72' Rt.	616.74	612.57	594.50	RWB-07B	W18x106	2'-6"	586.50	30.24
P-21	12+11.18	82.78' Lt.	17+29.13	7.72' Rt.	616.80	612.59	594.50	RWB-07B	W18x106	2'-6"	586.50	30.30
P-22	12+18.87	82.94' Lt.	17+21.61	7.73' Rt.	616.85	612.61	594.50	RWB-07B	W18x106	2'-6"	586.50	30.35
P-23	12+26.56	83.09' Lt.	17+14.09	7.73' Rt.	616.91	612.62	594.50	RWB-07B	W18x106	2'-6"	586.50	30.41
P-24	12+34.25	83.22' Lt.	17+06.57	7.72' Rt.	616.96	612.64	594.50	RWB-07B	W18x106	2'-6"	586.50	30.46
P-25	12+41.92	83.37' Lt.	16+99.07	7.72' Rt.	617.04	612.64	594.50	RWB-07B	W18x106	2'-6"	586.50	30.54
P-26	12+49.61	83.51' Lt.	16+91.55	7.73' Rt.	617.13	612.63	594.50	RWB-07B	W18x106	2'-6"	586.50	30.63
P-27	12+57.31	83.69' Lt.	16+84.04	7.73' Rt.	617.22	612.62	594.50	RWB-07B	W18x106	2'-6"	586.50	30.72
P-28	12+65.00	83.82' Lt.	16+76.52	7.72' Rt.	617.31	612.61	594.50	RWB-07B	W18x106	2'-6"	586.50	30.81
P-29	12+72.67	83.97' Lt.	16+69.02	7.72' Rt.	617.40	612.60	594.50	RWB-07B	W18x106	2'-6"	586.50	30.90
P-30	12+80.36	84.14' Lt.	16+61.50	7.73' Rt.	617.49	612.59	594.50	RWB-07B	W18x106	2'-6"	586.50	30.99
P-31	12+88.05	84.29' Lt.	16+53.98	7.73' Rt.	617.58	612.58	594.50	RWB-07B	W18x106	2'-6"	586.50	31.08
P-32	12+95.75	84.42' Lt.	16+46.46	7.72' Rt.	617.67	612.57	594.50	RWB-07B	W18x106	2'-6"	586.50	31.17
P-33	13+03.42	84.57' Lt.	16+38.96	7.72' Rt.	617.76	612.55	594.50	RWB-07B	W18x106	2'-6"	586.50	31.26
P-34	13+11.12	84.74' Lt.	16+31.44	7.73' Rt.	617.85	612.54	594.50	RWB-07B	W18x106	2'-6"	586.50	31.35
P-35	13+18.81	84.89' Lt.	16+23.93	7.73' Rt.	617.94	612.53	594.50	RWB-07B	W18x106	2'-6"	586.50	31.44
P-36	13+26.50	85.03' Lt.	16+16.41	7.72' Rt.	618.03	612.52	594.50	RWB-07B	W18x106	2'-6"	586.50	31.53
P-37	13+34.17	85.42' Lt.	16+08.91	7.96' Rt.	618.21	612.49	594.76	RWB-09A	W24x207	3'-0"	584.76	33.45
P-38	13+41.87	85.58' Lt.	16+01.39	7.97' Rt.	618.27	612.45	594.76	RWB-09A	W24x207	3'-0"	584.76	33.71
P-39	13+49.56	85.73' Lt.	15+93.87	7.97' Rt.	618.33	612.41	594.76	RWB-09A	W24x207	3'-0"	584.76	33.97
P-40	13+57.26	85.87' Lt.	15+85.56	8.53' Rt.	618.99	612.37	594.76	RWB-09A	W24x207	3'-0"	584.76	34.23
P-41	13+64.93	86.02' Lt.	15+78.85	7.96' Rt.	619.24	612.33	594.76	RWB-09A	W24x207	3'-0"	584.76	34.48
P-42	13+72.63	86.19' Lt.	15+71.33	7.98' Rt.	619.49	612.29	594.76	RWB-09A	W24x207	3'-0"	584.76	34.73
P-43	13+80.33	86.34' Lt.	15+63.81	7.98' Rt.	619.74	612.26	594.76	RWB-09A	W24x207	3'-0"	584.76	34.98
P-44	13+88.03	86.47' Lt.	15+56.30	7.96' Rt.	619.99	612.22	594.76	RWB-09A	W24x207	3'-0"	584.76	35.23
P-45	13+95.70	86.62' Lt.	15+48.80	7.96' Rt.	620.24	612.18	594.76	RWB-09A	W24x207	3'-0"	584.76	35.48
P-46	14+03.40	86.78' Lt.	15+41.28	7.97' Rt.	620.50	612.14	594.76	RWB-09A	W24x207	3'-0"	584.76	35.74
P-47	14+11.10	86.94' Lt.	15+33.76	7.98' Rt.	620.75	612.11	594.76	RWB-09A	W24x207	3'-0"	584.76	35.99
P-48	14+18.80	87.07' Lt.	15+26.24	7.95' Rt.	621.00	612.07	594.76	RWB-09A	W24x207	3'-0"	584.76	36.24
P-49	14+26.47	87.47' Lt.	15+18.74	8.20' Rt.	621.26	612.02	595.10	RWB-09A	W30x235	3'-6"	585.10	36.16
P-50	14+34.17	87.62' Lt.	15+11.22	8.21' Rt.	621.51	611.95	595.10	RWB-09A	W30x235	3'-6"	585.10	36.41
P-51	14+41.87	87.78' Lt.	15+03.70	8.21' Rt.	621.77	611.88	595.10	RWB-09A	W30x235	3'-6"	585.10	36.67
P-52	14+49.58	87.92' Lt.	14+96.18	8.20' Rt.	622.02	611.81	595.10	RWB-09A	W30x235	3'-6"	585.10	36.92
P-53	14+57.25	88.06' Lt.	14+88.69	8.20' Rt.	622.28	611.74	595.10	RWB-09A	W30x235	3'-6"	585.10	37.18
P-54	14+64.96	88.23' Lt.	14+81.17	8.21' Rt.	622.53	611.67	595.10	RWB-09A	W30x235	3'-6"	585.10	37.43
P-55	14+72.66	88.39' Lt.	14+73.65	8.21' Rt.	622.79	611.60	595.10	RWB-09A	W30x235	3'-6"	585.10	37.69
P-56	14+80.36	88.52' Lt.	14+66.13	8.20' Rt.	623.04	611.53	595.10	RWB-09A	W30x235	3'-6"	585.10	37.94
P-57	14+88.03	88.91' Lt.	14+58.63	8.43' Rt.	623.29	611.47	595.48	RWB-11B	W36x232	4'-0"	583.48	39.81
P-58	14+95.74	89.07' Lt.	14+51.11	8.45' Rt.	623.55	611.40	595.48	RWB-11B	W36x232	4'-0"	583.48	40.07
P-59	15+03.44	89.23' Lt.	14+43.59	8.45' Rt.	623.80	611.33	595.48	RWB-11B	W36x232	4'-0"	583.48	40.32
P-60	15+11.15	89.36' Lt.	14+36.07	8.43' Rt.	624.05	611.26	595.48	RWB-11B	W36x232	4'-0"	583.48	40.57
P-61	15+18.83	89.51' Lt.	14+28.58	8.43' Rt.	624.16	611.18	595.48	RWB-11B	W36x232	4'-0"	583.48	40.68
P-62	15+26.53	89.68' Lt.	14+21.06	8.45' Rt.	624.13	611.09	595.48	RWB-11B	W36x232	4'-0"	583.48	40.65
P-63	15+34.24	89.83' Lt.	14+13.54	8.45' Rt.	624.10	610.99	595.48	RWB-11B	W36x232	4'-0"	583.48	40.62
P-64	15+41.94	89.96' Lt.	14+06.02	8.43' Rt.	624.07	610.90	595.48	RWB-11B	W36x232	4'-0"	583.48	40.59

PILE LAYOUT CONTINUED

Pile	I-80		Ramp D		Top of Pile Elevation	Top of Encasement/ Bottom of CLSM Elev.	Estimated Top of Bedrock Elevation	Boring	Section	Auger Diameter	Pile Tip Elevation	Pile Length (ft)
	Station at Working Point	Offset	Station at Working Point	Offset								
P-65	15+48.60	90.09' Lt.	13+99.52	8.43' Rt.	623.97	610.82	595.48	RWB-11B	W36x232	4'-0"	583.48	40.49
P-66	15+55.28	90.23' Lt.	13+93.00	8.44' Rt.	623.77	610.73	595.48	RWB-11B	W36x232	4'-0"	583.48	40.29
P-67	15+61.96	90.37' Lt.	13+86.49	8.44' Rt.	623.58	610.65	595.48	RWB-11B	W36x232	4'-0"	583.48	40.10
P-68	15+68.64	90.48' Lt.	13+79.97	8.43' Rt.	623.38	610.57	595.48	RWB-11B	W36x232	4'-0"	583.48	39.90
P-69	15+74.26	90.59' Lt.	13+74.48	8.43' Rt.	623.22	610.50	595.48	RWB-11B	W36x232	4'-0"	583.48	39.74
P-70	15+80.94	90.74' Lt.	13+67.96	8.44' Rt.	623.02	610.41	595.48	RWB-11B	W36x232	4'-0"	583.48	39.54
P-71	15+87.62	90.87' Lt.	13+61.44	8.44' Rt.	622.82	610.33	595.48	RWB-11B	W36x232	4'-0"	583.48	39.34
P-72	15+94.30	90.99' Lt.	13+54.93	8.43' Rt.	622.62	610.25	595.48	RWB-11B	W36x232	4'-0"	583.48	39.14
P-73	15+99.94	91.10' Lt.	13+49.43	8.43' Rt.	622.46	610.17	595.48	RWB-11B	W36x232	4'-0"	583.48	38.98
P-74	16+06.62	91.24' Lt.	13+42.91	8.44' Rt.	622.26	610.07	595.48	RWB-11B	W36x232	4'-0"	583.48	38.78
P-75	16+13.30	91.37' Lt.	13+36.40	8.44' Rt.	622.07	609.97	595.48	RWB-11B	W36x232	4'-0"	583.48	38.59
P-76	16+19.98	91.49' Lt.	13+29.88	8.43' Rt.	621.87	609.86	595.48	RWB-11B	W36x232	4'-0"	583.48	38.39
P-77	16+25.62	91.36' Lt.	13+24.38	8.19' Rt.	621.71	609.77	595.48	RWB-13A	W30x235	3'-6"	585.48	36.23
P-78	16+32.30	91.52' Lt.	13+17.87	8.21' Rt.	621.51	609.66	595.48	RWB-13A	W30x235	3'-6"	585.48	36.03
P-79	16+38.98	91.64' Lt.	13+11.35	8.21' Rt.	621.32	609.54	595.48	RWB-13A	W30x235	3'-6"	585.48	35.84
P-80	16+45.67	91.77' Lt.	13+04.83	8.19' Rt.	621.12	609.43	595.48	RWB-13A	W30x235	3'-6"	585.48	35.64
P-81	16+51.29	91.89' Lt.	12+99.35	8.20' Rt.	620.96	609.33	595.48	RWB-13A	W30x235	3'-6"	585.48	35.48
P-82	16+57.97	92.06' Lt.	12+92.83	8.23' Rt.	620.76	609.22	595.48	RWB-13A	W30x235	3'-6"</		



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Mobile B-57 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 89

STRUCT. NO. 099-W123 Station _____
BORING NO. RWB-05 Station 10+75.6639
Offset 81.61ft LT
Ground Surface Elev. 618.29 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After _____ Hrs. N/A ft

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOISTURE (%)	DESCRIPTION
0				7 inches of Asphalt
7				Gray, Moist FILL: SILTY CLAY, trace gravel
8	2.1	14		
7	B			
2				
3	2.1	22		
5	B			
-5				
2				
2	2.1	21		
6	B			
610.29				
1				Stiff to Hard Brown, Moist SILTY CLAY (CL/ML)
2	1.0	17		
4	B			
-10				
2				
5	4.2	17		
10	B			
605.29				
2				Stiff to Very Stiff Gray, Moist SILTY CLAY (CL/ML)
5	2.1	21		
8	B			
-15				
2				
5	1.0	21		
5	B			
4				
8	2.1	23		
10	B			
598.29	-20			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, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Mobile B-57 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 89

STRUCT. NO. 099-W123 Station _____
BORING NO. RWB-06 Station 11+54.8112
Offset 80.47ft LT
Ground Surface Elev. 618.30 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After _____ Hrs. N/A ft

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOISTURE (%)	DESCRIPTION
0				6 inches of Asphalt
5				Very Stiff to Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)
7	5.2	19		
7	B			
2				
3	3.1	19		
6	B			
-5				
3				
3	2.1	21		
7	B			
3				
6	4.2	17		
9	B			
-10				
2				
7	3.1	21		
6	B			
3				
6	3.1	23		
6	B			
-15				
3				
5	3.3	23		
7	B			
5				
9	4.2	20		
12	B			
598.30	-20			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, form 137 (Rev. 8-99)

NOTE:

1. The stations are measured along I-80.

MODEL: Default FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH401/401.180022/03-WSP/CA0/62R22-INT-4 (Center)/Sheets/Structure/ISN-099-W123-RW1099W123-62R22-5C-21-Boring_Logs.1



USER NAME =	DESIGNED - JMI	REVISED -
PLOT SCALE =	CHECKED - MI	REVISED -
PLOT DATE =	DRAWN - JMI	REVISED -
	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 1 OF 10)
STRUCTURE NO. 099-W123

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	725
				CONTRACT NO. 62R22
				ILLINOIS FED. AID PROJECT

SHEET SC-22 OF SC-31 SHEETS



SOIL BORING LOG

Date 6/21/23

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E, Latitude, Longitude

COUNTY Will DRILLING RIG CME-75 HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 91

STRUCT. NO. 099-W123
Station _____
BORING NO. RWB-07B
Station 12+34.1223
Offset 78.55ft LT
Ground Surface Elev. 618.95 ft

DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)
0				12 inches of Asphalt	0			
617.95				Stiff to Hard Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)	4			
	4	6.9			5	3	2.1	
	7	B		Very Stiff Gray, Moist SILTY CLAY LOAM, trace gravel (CL/ML)	50/3"			
				Auger refusal at 23.5 feet	595.45			
	3			Gray Limestone, heavily weathered, heavily fractured				
	4	4.2			-25			
	6	B						
				Run 1: 23.5' - 33.5' Recovery: 100% RQD: 25.8% (Poor)				
	3	6.3						
	8	B						
	3							
	4	5.2						
	7	B			-30			
	3							
	5	5.2						
	8	B						
	4			End of Boring	585.45			
	6	1.8						
	9	P			-35			
	3							
	5	4.6						
	8	B						
	3							
	6	5.0						
	10	B			-40			
599.45								

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)

NOTE:

1. The stations are measured along I-80.



SOIL BORING LOG

Date 4/28/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DM

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E, Latitude, Longitude

COUNTY Will DRILLING RIG Diedrich D-50 HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 98

STRUCT. NO. 099-W123
Station _____
BORING NO. RWB-08
Station 13+7.7753
Offset 72.61ft LT
Ground Surface Elev. 618.60 ft

DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)
0				3 inches of Asphalt	0			
618.35				Very Stiff to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)	3			
	3				4	2.3	18	
	5	B						
					2			
	4	2.9			4	2.9	21	
	4	B			-5			
	2							
	3	3.1						
	7	B						
	2							
	3	2.7						
	3	B			-10			
	3							
	4	2.5						
	5	B						
	3							
	4	2.9						
	5	B			-15			
	4							
	7	5.0						
	7	B						
	4							
	5	4.0						
	8	B			-20			
598.60								

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 FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH401/401.180022/03-WSP/CA0/62R22-INT-4 [Center]/Sheets/Structure/ISN-099-W123-RW1099W123-62R22-SC-23-Boring_Logs_3

HBM ENGINEERING GROUP, LLC	USER NAME =	DESIGNED - JMI	REVISED -
	CHECKED - MI	REVISED -	
	PLOT SCALE =	DRAWN - JMI	REVISED -
	PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS (SHEET 3 OF 10)
STRUCTURE NO. 099-W123**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	727
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62R22	

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD
SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,
Latitude Longitude
COUNTY Will DRILLING RIG CME-75 HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 91

STRUCT. NO.	Station	D E P T H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
099-W123		(ft)	(/6")	(tsf)	(%)	N/A ft	N/A ft		615.0 ft	N/A ft	N/A ft
	12 inches of Asphalt	617.48									
	Brown, Moist FILL: SILTY CLAY, with gravel		6	2.9	13						
		615.48	6	B							
	Brown, Moist to Wet FILL: SAND, trace gravel		11								
			14		14						
			-5								
			6								
			13		20						
			17								
		608.98	6								
	Very Stiff Brown, Moist SILTY CLAY, trace gravel (CL/ML)		11	4.5	15						
		607.48	-10	P							
	Very Stiff to Hard Gray, Moist SILTY CLAY (CL/ML)		4								
			5	2.5	14						
			8	B							
			3								
			7	3.8	22						
			-15	B							
			2								
			5	2.5	23						
			7	B							
			3								
			7	4.2	22						
		598.48	-20	B							

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, form 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DV
SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,
Latitude Longitude
COUNTY Will DRILLING RIG CME-75 HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 91

STRUCT. NO.	Station	D E P T H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
099-W123		(ft)	(/6")	(tsf)	(%)	N/A ft	N/A ft		Dry ft	N/A ft	N/A ft
	12 inches of Asphalt	617.26									
	Hard Brown, Moist SILTY CLAY, trace gravel (CL/ML)		4	4.4							
			5	B							
			5								
			7	5.0							
			-5	B							
			5								
			7	7.3							
			11	B							
			7								
			7	6.5							
			-10	B							
			5								
			8	5.2							
			111	B							
		604.76									
	Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)		3	5.4							
			6	B							
			-15	B							
			4								
			7	5.6							
			11	B							
			4								
			7	4.6							
		598.76	-16	B							
			-20	B							

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, form 137 (Rev. 8-99)

NOTE:

1. The stations are measured along @ I-80.

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects/2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structure/ISN-099-W123-RW1099W123-62R22-5C-24-Boring_Logs_4



USER NAME =	DESIGNED - JMI	REVISED -
PLOT SCALE =	CHECKED - MI	REVISED -
PLOT DATE =	DRAWN - JMI	REVISED -
	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 4 OF 10)
STRUCTURE NO. 099-W123

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	728
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SC-25 OF SC-31 SHEETS



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DM

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 98

STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	N/A	ft	D	B	U	M
BORING NO.	Station	P	L	C	O	Stream Bed Elev.	N/A	ft	P	L	C	O
Offset	Ground Surface Elev.	T	O	S	I	Groundwater Elev.:			H	S	Qu	T
60.96ft LT	616.14	H	S	Qu	T	First Encounter	Dry	ft				
		(ft)	(/6")	(tsf)	(%)	Upon Completion	N/A	ft	(ft)	(/6")	(tsf)	(%)
						After	Hrs.	N/A				
3 inches of Asphalt	615.89					SAND (SP)						
Brown, Moist						End of Boring						
FILL: SILTY CLAY, trace sand and gravel		3										
		5	4.5	19								
		7	P									
		4										
		9	4.5	20								
		-5	P									
Hard	610.14	6										
Brown, Moist		8	6.0	21								
SILTY CLAY, trace sand and gravel (CL/ML)		9	B									
		4										
		6	5.4	21								
		7	B									
		-10										
		4										
		6	4.4	19								
		7	B									
		5										
		6	5.6	20								
		-15	B									
		7										
		9	5.2	21								
		9	B									
		6										
Medium Dense	597.14	12	4.5	23								
Light Brown, Wet	596.14	12	P									
		-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, form 137 (Rev. 8-99)

NOTE:

- The stations are measured along I-80.



SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 91

STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	N/A	ft	D	B	U	M
BORING NO.	Station	P	L	C	O	Stream Bed Elev.	N/A	ft	P	L	C	O
Offset	Ground Surface Elev.	T	O	S	I	Groundwater Elev.:			H	S	Qu	T
62.49ft LT	614.34	H	S	Qu	T	First Encounter	Dry	ft				
		(ft)	(/6")	(tsf)	(%)	Upon Completion	N/A	ft	(ft)	(/6")	(tsf)	(%)
						After	Hrs.	N/A				
6 inches of Asphalt	613.84											
Brown, Moist	613.34											
FILL: SILTY CLAY, trace sand and gravel		3										
		6	5.2	20								
Hard		7	B									
Brown, Moist												
SILTY CLAY, trace gravel (CL/ML)		4										
		8	5.2	20								
		-5	B									
		4										
		8	6.3	21								
		10	B									
		4										
		6	6.3	19								
		9	B									
		-10										
		3										
		7	7.3	20								
		8	B									
		4										
		9	6.5	21								
		-15	B									
		6										
Medium Dense	597.84	7	5.2	12								
Light Brown, Moist		20	B									
SAND, with limestone fragments (SP)												
	595.84											
Auger refusal at 18.5 feet		50/2"										
End of Boring												NR
		-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, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH401/401.180022/03-WSP(CAD)/62R22-INT-4 (Center)/Sheets/Structural/ISN-099-W123-RW1099W123-62R22-5C-27-Boring_Logs_7



USER NAME =	DESIGNED - JMI	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 7 OF 10)
STRUCTURE NO. 099-W123

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	731
			CONTRACT NO. 62R22	
			ILLINOIS FED. AID PROJECT	

SHEET SC-28 OF SC-31 SHEETS



SOIL BORING LOG

Date 6/20/23

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY EH

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Mobile B-57 HAMMER TYPE Auto DRILLING METHOD HSA HAMMER EFF (%) 89

STRUCT. NO. 099-W123 Station DEPTH (ft) BLOW (ft) UCS (tsf) M O I S T Surface Water Elev. N/A ft Stream Bed Elev. N/A ft BORING NO. RWB-13A Station 17+2.5114 Offset 62.49ft LT Ground Surface Elev. 614.34 ft

Table with columns for Depth (ft), Blow (ft), UCS (tsf), Moisture (%), and Soil Description. Includes entries for Asphalt, Limestone, and Gravel.

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

Date 4/28/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DM

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Diedrich D-50 HAMMER TYPE Auto DRILLING METHOD HSA HAMMER EFF (%) 98

STRUCT. NO. 099-W123 Station DEPTH (ft) BLOW (ft) UCS (tsf) M O I S T Surface Water Elev. N/A ft Stream Bed Elev. N/A ft BORING NO. RWB-14 Station 17+81.1885 Offset 71.19ft LT Ground Surface Elev. 612.69 ft

Table with columns for Depth (ft), Blow (ft), UCS (tsf), Moisture (%), and Soil Description. Includes entries for Asphalt, Silty Clay, and Limestone.

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 FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 [Center]/Sheets/Structure/ISN-099-W123-RW1099W123-62R22-5C-2E-Boring_Logs_8

NOTE: 1. The stations are measured along @ I-80.



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, and their corresponding values.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 8 OF 10) STRUCTURE NO. 099-W123

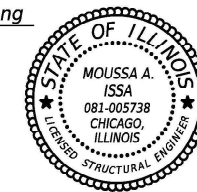
Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

Benchmark: Chiseled "x" on top of SE bolt of Fire Hydrant at south ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.

Existing Structure: None.

Traffic Control: WB I-80 traffic to Center St. will be detoured to the west at Larkin Ave.

Salvage: None.



Signed *Moussa A. Issa*
 Dr. Moussa A. Issa, S.E. IL Lic. No. 081-005738
 Expires 11-30-2026
 Date 4/22/2025 For Sheets SD-01 Thru SD-06.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

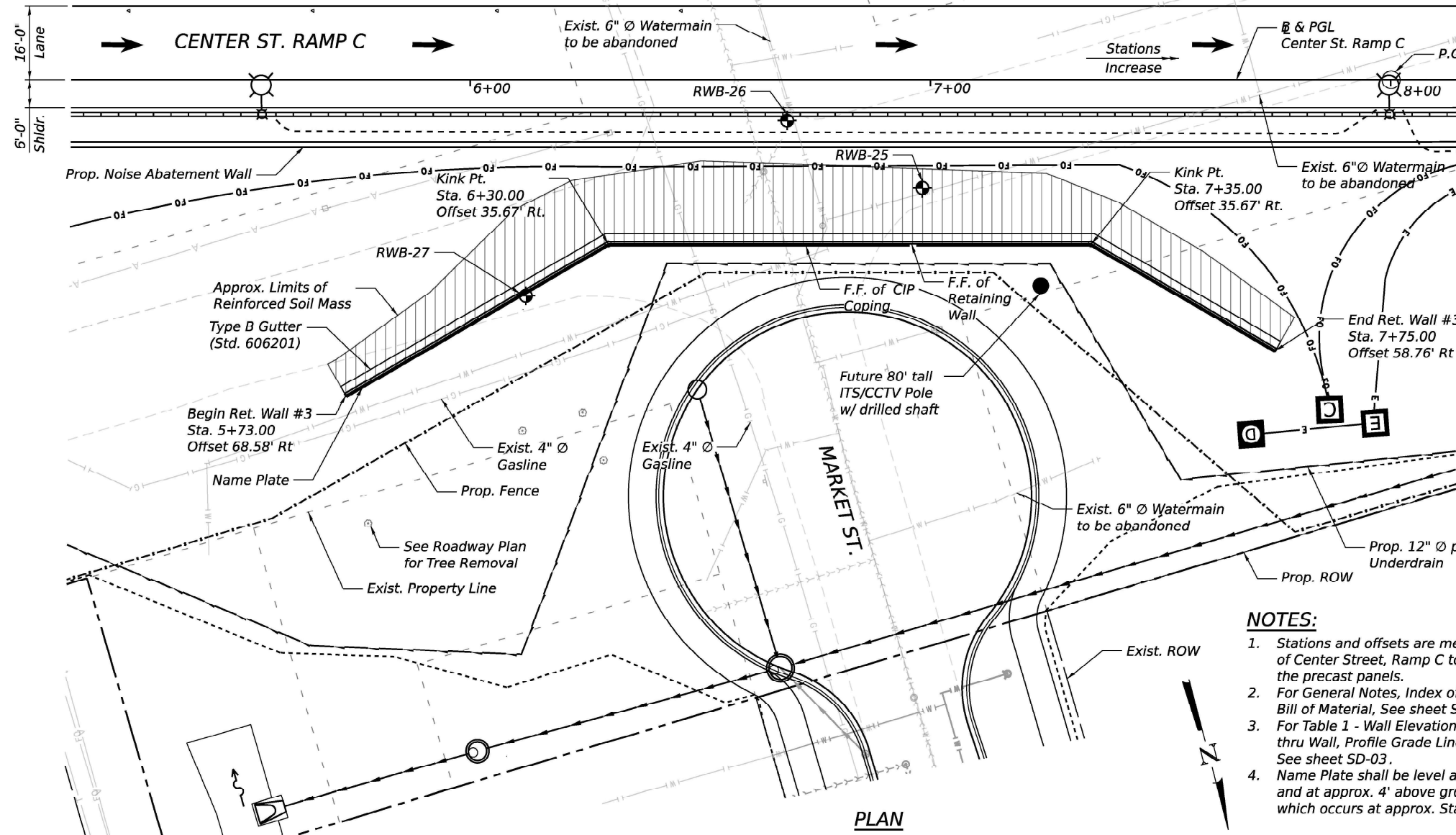
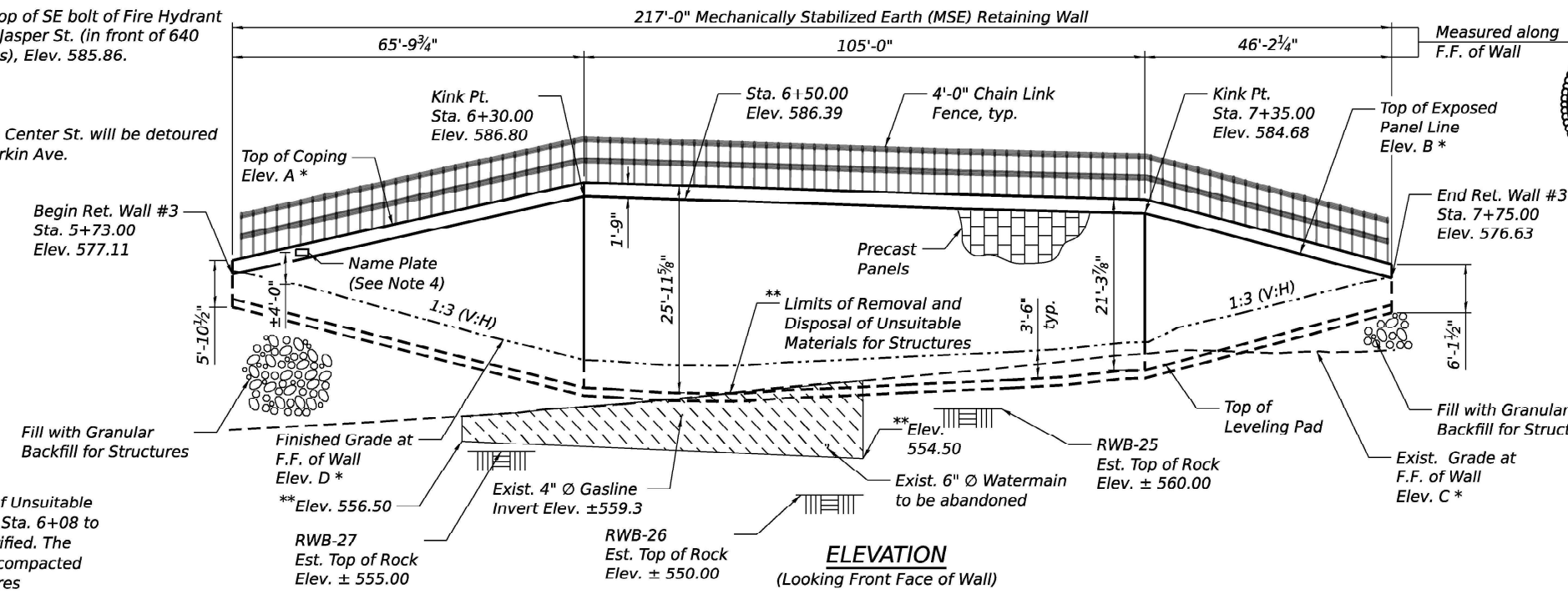
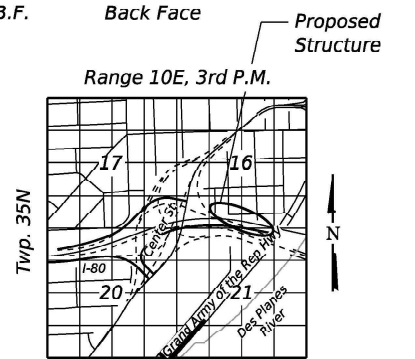
DESIGN STRESSES

FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST UNITS
 $f_c = 4,500$ psi

LEGEND

- Exist. Fence
- Exist. Storm Sewer
- ⊙ Exist. Light Pole
- Exist. Underground Gasline
- Exist. Underground Waterline
- ⊙ Tree
- ⊙ Soil Boring
- ▨ Approx. Limits of Reinforced Soil Mass
- ▨ Limits of Removal and Disposal of Unsuitable Materials for Structures
- Prop. ROW
- Prop. Pipe Underdrain
- Prop. Storm Sewer
- Prop. Conduit for Electrical Cable
- Prop. Microduct or Innerduct for Fiber Optic Cable
- F.F. Front Face
- B.F. Back Face



- NOTES:**
- Stations and offsets are measured along the F.F. of Center Street, Ramp C to the front face of the precast panels.
 - For General Notes, Index of Sheets, and Total Bill of Material, See sheet SD-02.
 - For Table 1 - Wall Elevations, Typical Sections thru Wall, Profile Grade Line and Curve Data, See sheet SD-03.
 - Name Plate shall be level across the coping and at approx. 4' above ground elevation, which occurs at approx. Sta. 5+84.35.

GENERAL PLAN & ELEVATION
RETAINING WALL 3
ALONG CENTER STREET RAMP C
F.A.I. ROUTE 80
SECTION FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 5+73.00 TO STA. 7+75.00
STRUCTURE NO. 099-W124

MODEL: Default
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USER NAME =	DESIGNED - PG, AMI	REVISIONS -
PLOT SCALE =	CHECKED - MI, KJD	REVISIONS -
PLOT DATE =	DRAWN - PG, AMI	REVISIONS -
	CHECKED - MI, KJD	REVISIONS -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-W124
 SHEET SD-01 OF SD-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	735
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

- Reinforcement bars designated (E) shall be epoxy coated.
- Protective Coat shall be applied to the exposed faces of the cast-in-place coping.
- The Contractor shall field verify locations of existing underground utilities prior to beginning work. Existing utilities in conflict with retaining wall construction shall be abandoned or relocated according to the directions given on the Civil Plans. The Contractor shall take all necessary precautions to protect existing utilities to remain during all stages of construction. Any damage to the existing utilities to remain caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
- Any storage of construction equipment and material behind the wall is not allowed.
- Stations and offsets are measured along the baseline of the Center Street Ramp C to the front face of precast panels.
- The cost of the concrete and the reinforcing steel required for the coping shall be included in the cost of "Mechanically Stabilized Earth Retaining Wall".
- All Exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below the finished ground level.
- The minimum service limit bearing resistance for fill material, at locations where the proposed theoretical top of leveling pad is above the existing ground line, shall equal or exceed 9,700 psf.

INDEX OF SHEETS

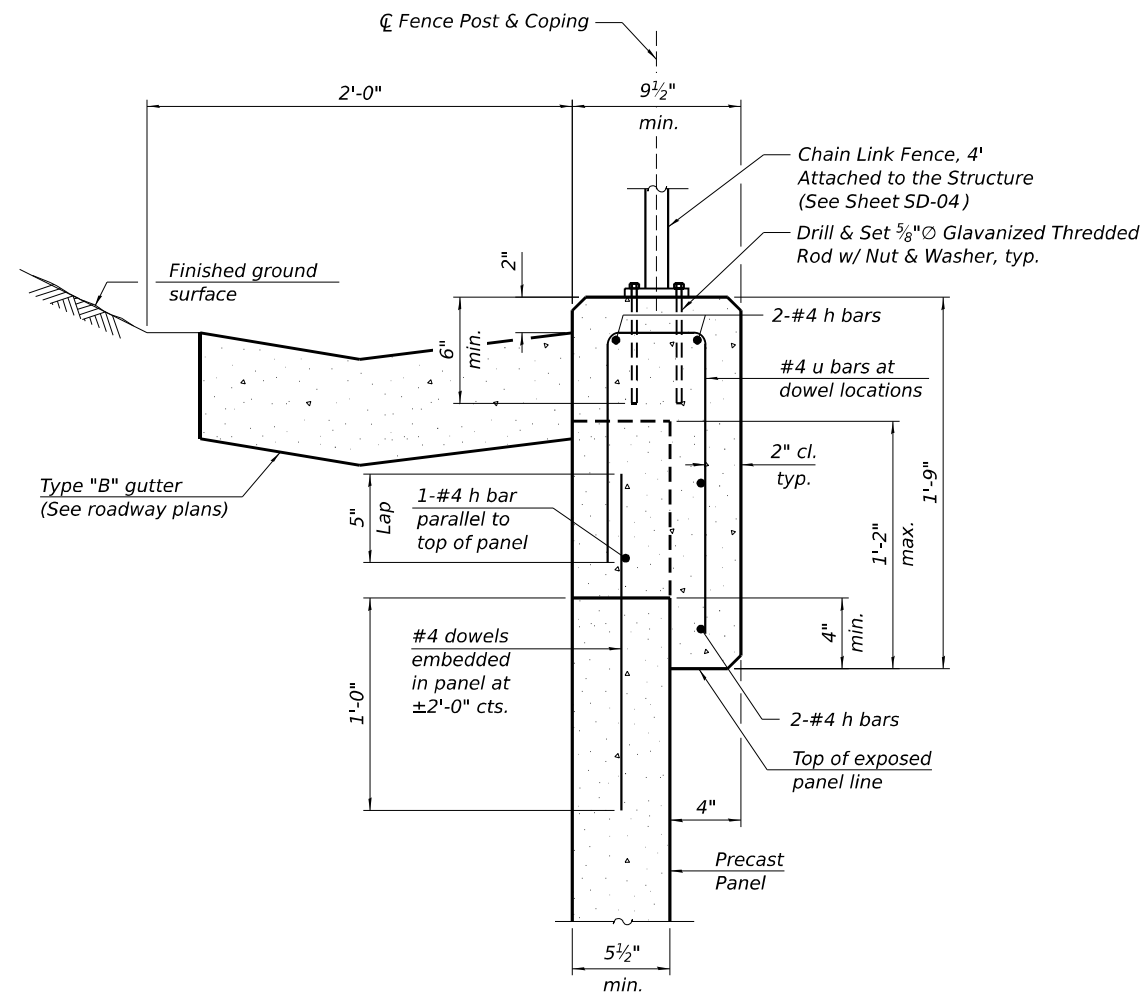
SD-01	General Plan & Elevation
SD-02	General Notes, Index of Sheets and Total Bill of Material
SD-03	MSE Wall Cross Sections and Details
SD-04	Chain Link Fence Attached to Structure
SD-05	Boring Logs (Sheet 1 of 2)
SD-06	Boring Logs (Sheet 2 of 2)

TOTAL BILL OF MATERIAL

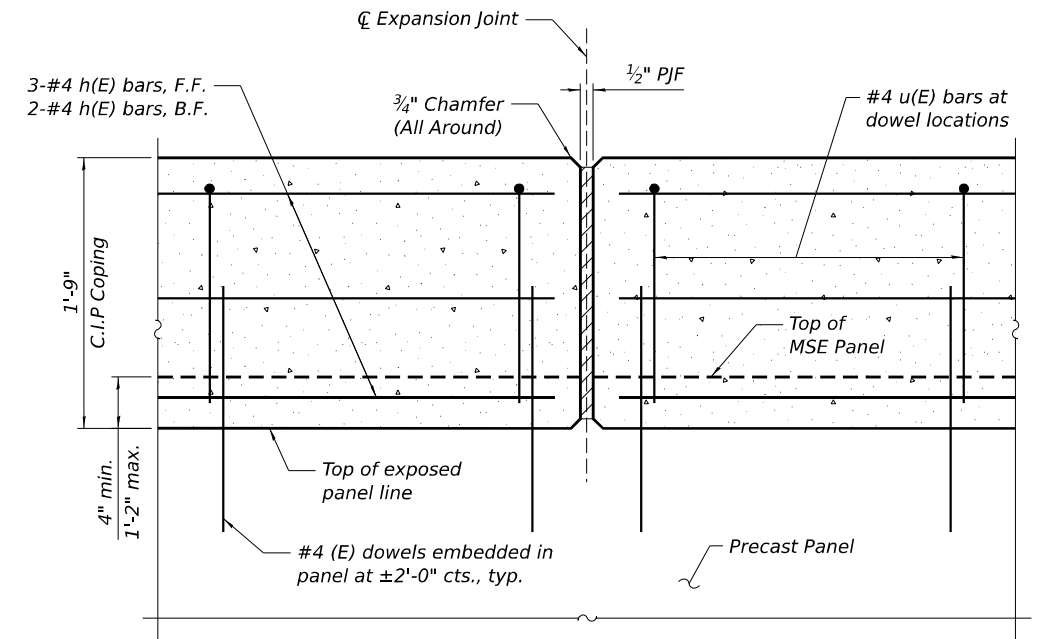
ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd	-	121	121
Removal And Disposal Of Unsuitable Material For Structures	Cu Yd	-	340	340
Protective Coat	Sq Yd	-	82	82
Name Plates	Each	1	-	1
Mechanically Stabilized Earth Retaining Wall	Sq Ft	-	3,778	3,778
Granular Backfill For Structures	Cu Yd	-	771	771
Chain Link Fence, 4' Attached To Structure	Foot	218	-	218

STA. 5+73.00 TO 7+75.00
 BUILT 20-- BY
 STATE OF ILLINOIS
 F.A.I. RTE. 80
 SEC. FAI 80 21 INTERCHANGE
 LOADING HL-93
 STR. NO. 099-W124

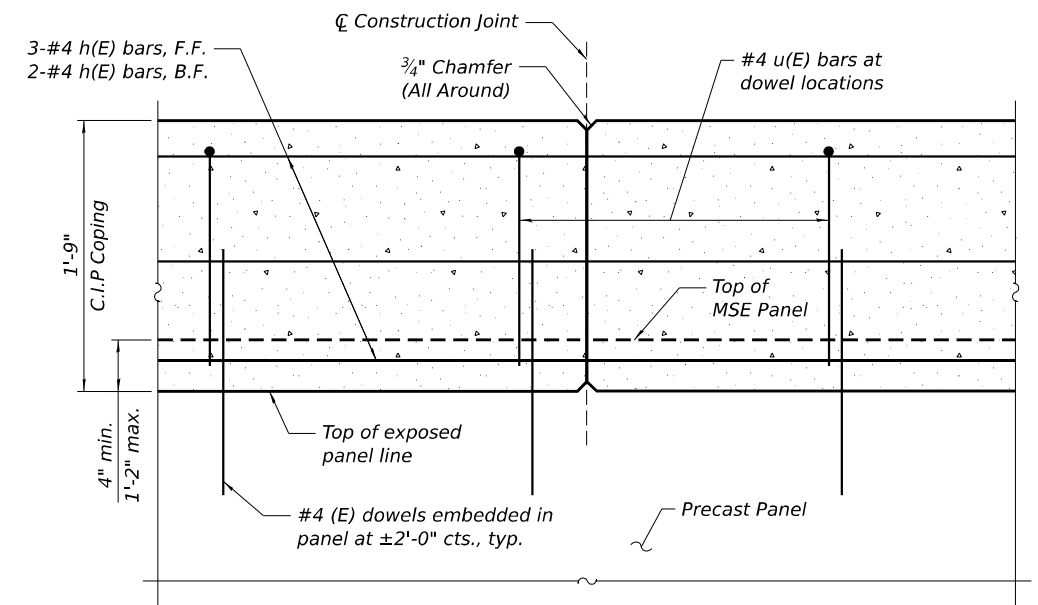
NAME PLATE
 See Std. 515001



C.I.P. COPING DETAILS



COPING EXPANSION JOINT - ELEVATION
 (Provide expansion joints at a max. spacing of 90'-0")



COPING CONSTRUCTION JOINT - ELEVATION
 (Provide construction joints at a max. spacing of 30'-0")

NOTE:

- Coping Reinforcement bars may be adjusted to miss fence base plate threaded rods.

MINIMUM BAR LAP

(Coping)
 #4 bar = 2'-11"

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS, AND TOTAL BILL OF MATERIAL
 STRUCTURE NO. 099-W124

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	736
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

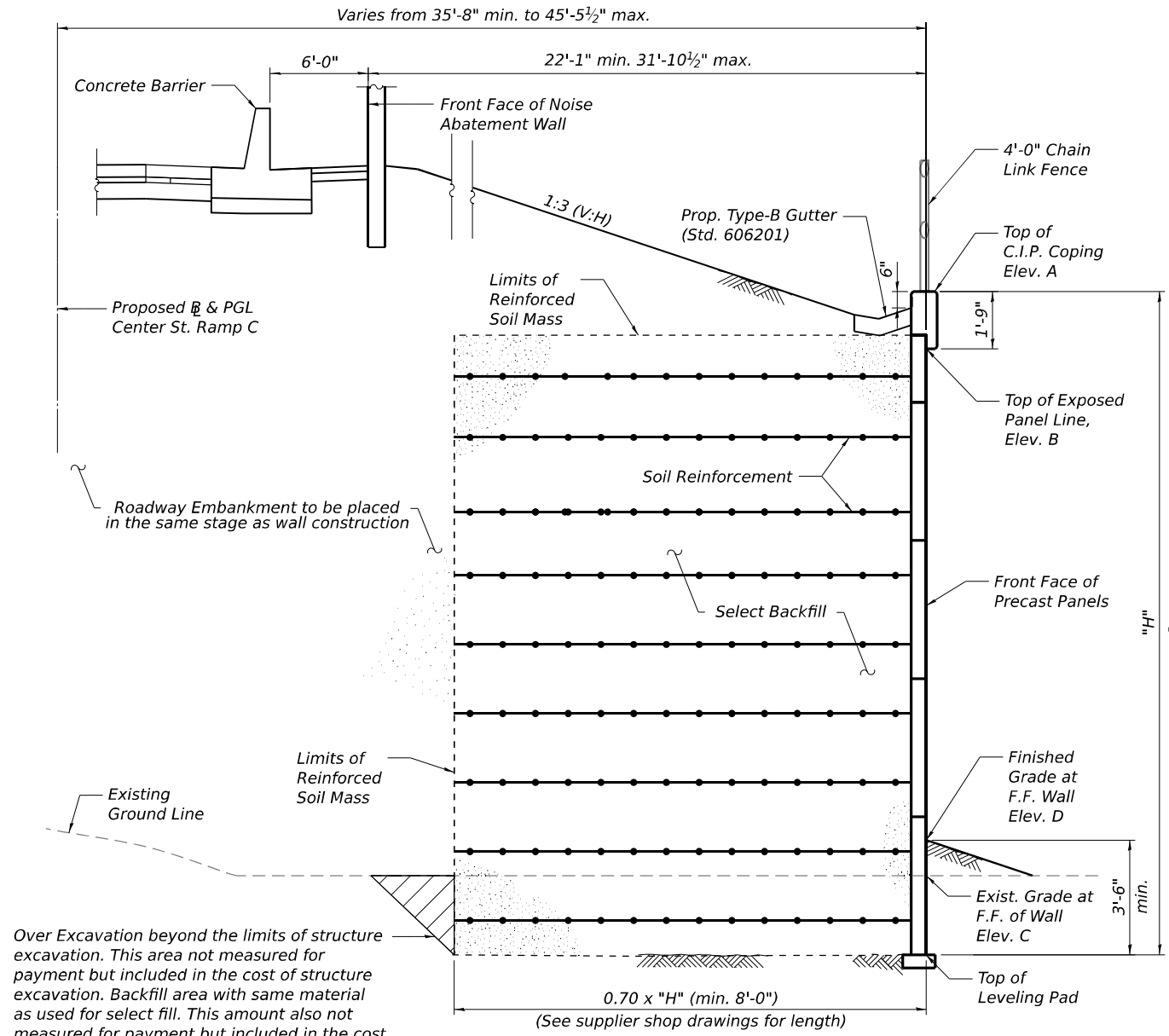
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PLOT DATE =	DRAWN - PG, AMI	REVISED -
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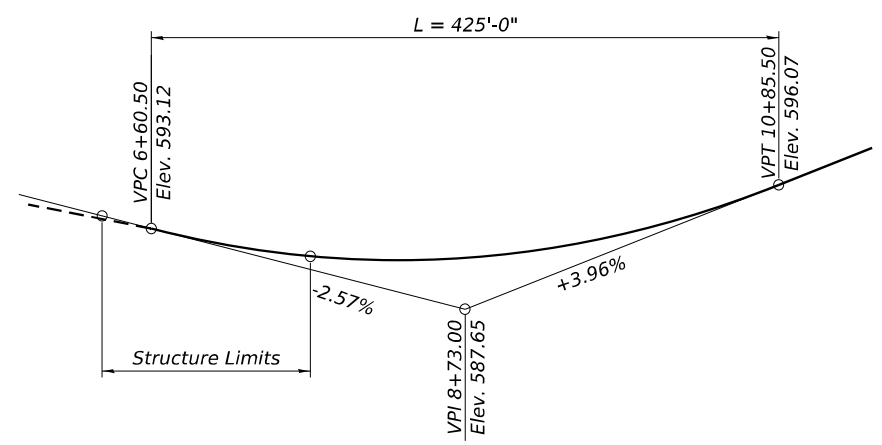
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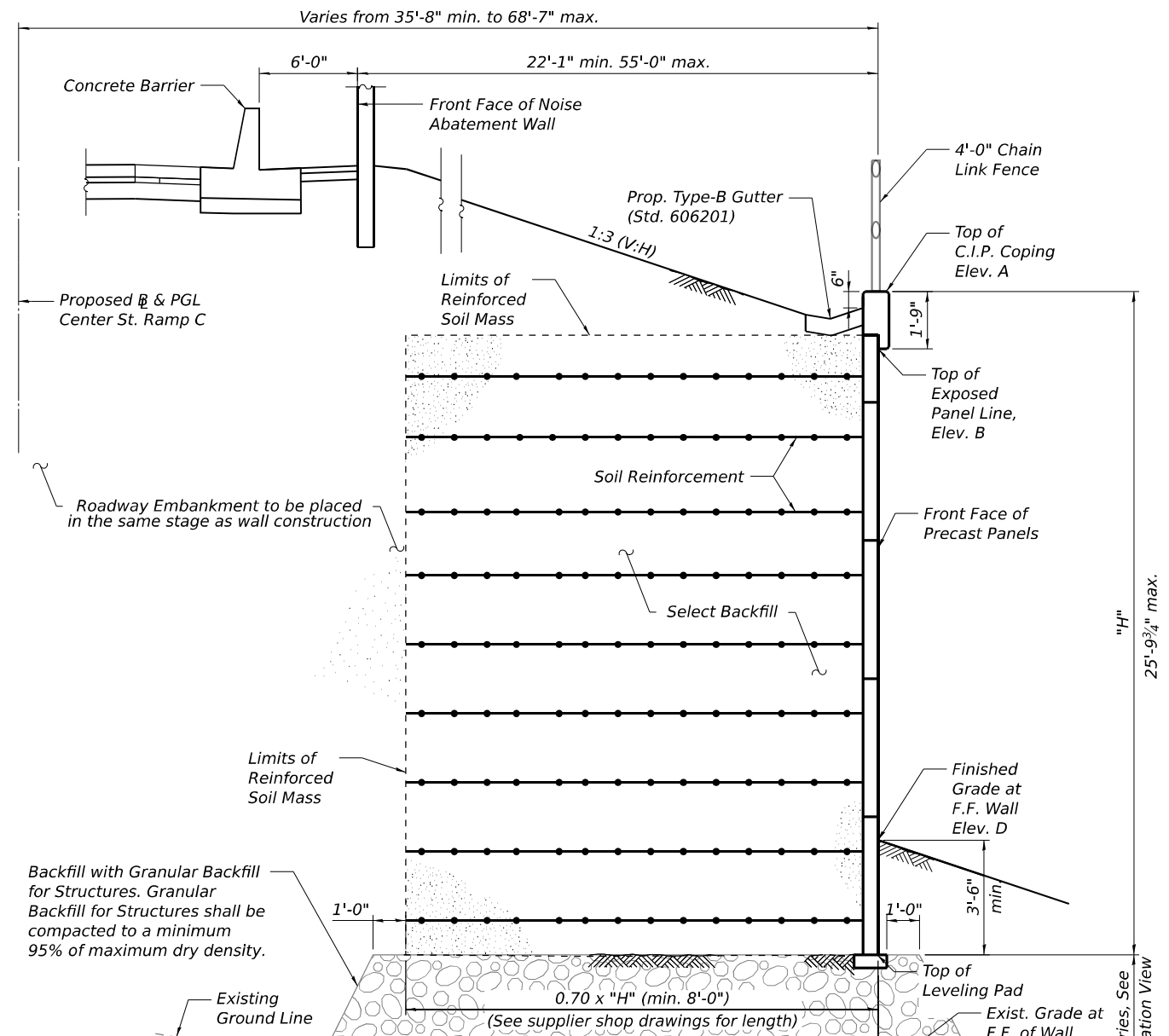
TYPICAL SECTION THRU M.S.E WALL
 Sta. 6+55.60 to Sta. 7+40.77
 (Looking West)

**PR CURVE CENTER
 RAMP C (CENTER C1)**

PI Sta. = 9+07.47
 $\Delta = 03^\circ 49' 25''$ (LT)
 $D = 01^\circ 46' 54''$
 $R = 3,216.00'$
 $T = 107.35'$
 $L = 214.63'$
 $E = 1.79'$
 $e = 3.20\%$
 $T.R. = 64.0'$
 $S.E. RUN = 102.4'$
 $P.C. STA. = 8+00.12$
 $P.T. STA. = 10+14.75$



CENTER ST. RAMP C PROFILE GRADE
 (Along & Roadway)



TYPICAL SECTION THRU M.S.E WALL
 Sta. 5+73.00 to Sta. 6+55.60
 Sta. 7+40.77 to Sta. 7+75.00
 (Looking West)

TABLE 1- WALL ELEVATIONS

Station	A Top of C.I.P. Coping	B Top of Exposed Panel Line	C Exist. Grade at FF Wall	D T/Prop Ground FF Wall
05+73.00	578.86	577.11	557.70	577.55
05+75.00	579.20	577.45	557.82	577.23
06+00.00	583.49	581.74	558.87	572.31
06+25.00	587.76	586.01	560.33	567.37
06+30.00	588.55	586.80	560.53	566.42
06+50.00	588.14	586.39	561.72	565.74
06+75.00	587.57	585.82	563.43	566.32
07+00.00	587.02	585.27	564.86	567.07
07+25.00	586.58	584.83	566.59	568.12
07+35.00	586.43	584.68	567.18	568.61
07+50.00	583.44	581.69	567.42	572.10
07+75.00	578.38	576.63	567.61	576.84



USER NAME =	DESIGNED - PG, AMI	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - PG, AMI	REVISED -
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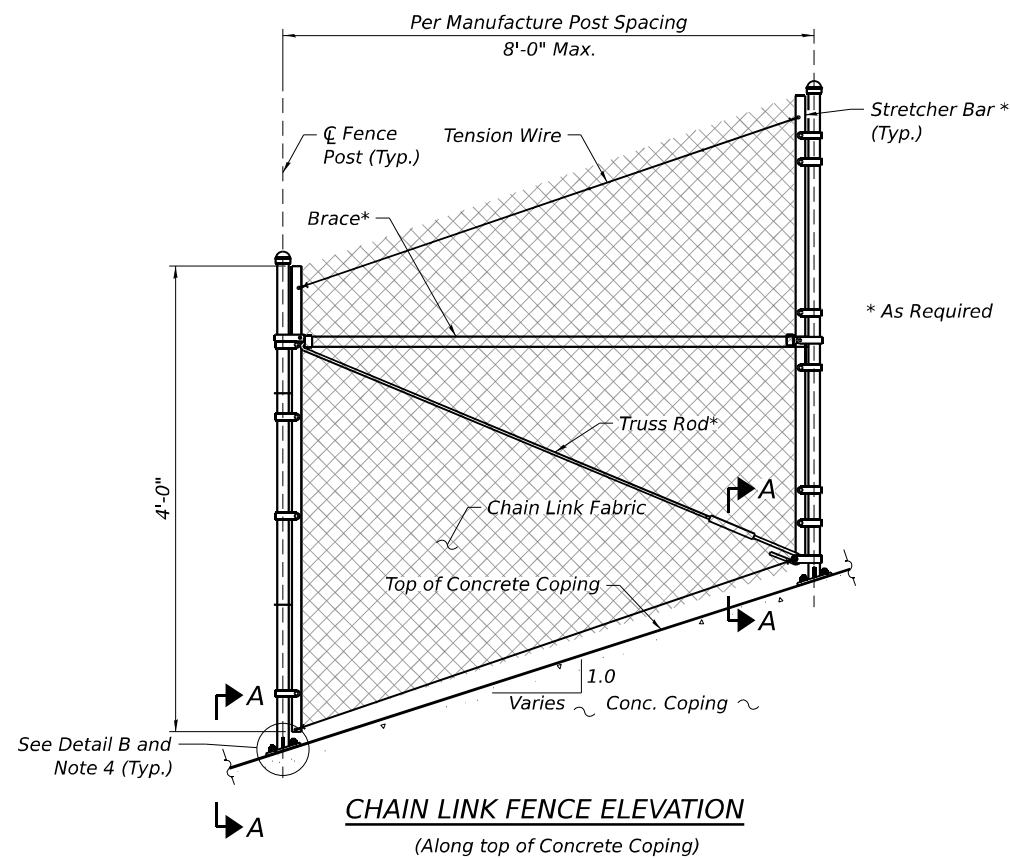
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MSE WALL CROSS SECTIONS AND DETAILS
 STRUCTURE NO. 099-W124**

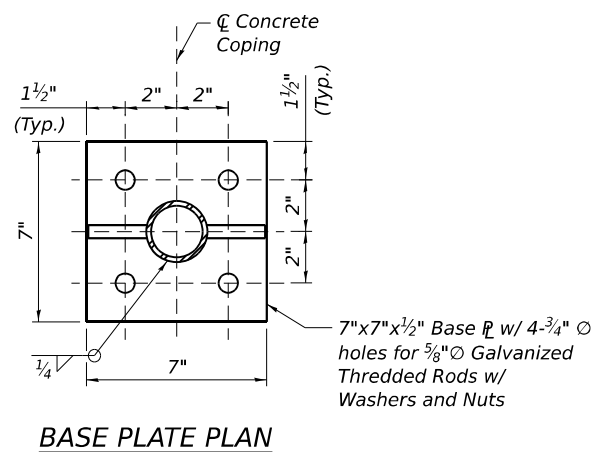
SHEET SD-03 OF SD-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	737
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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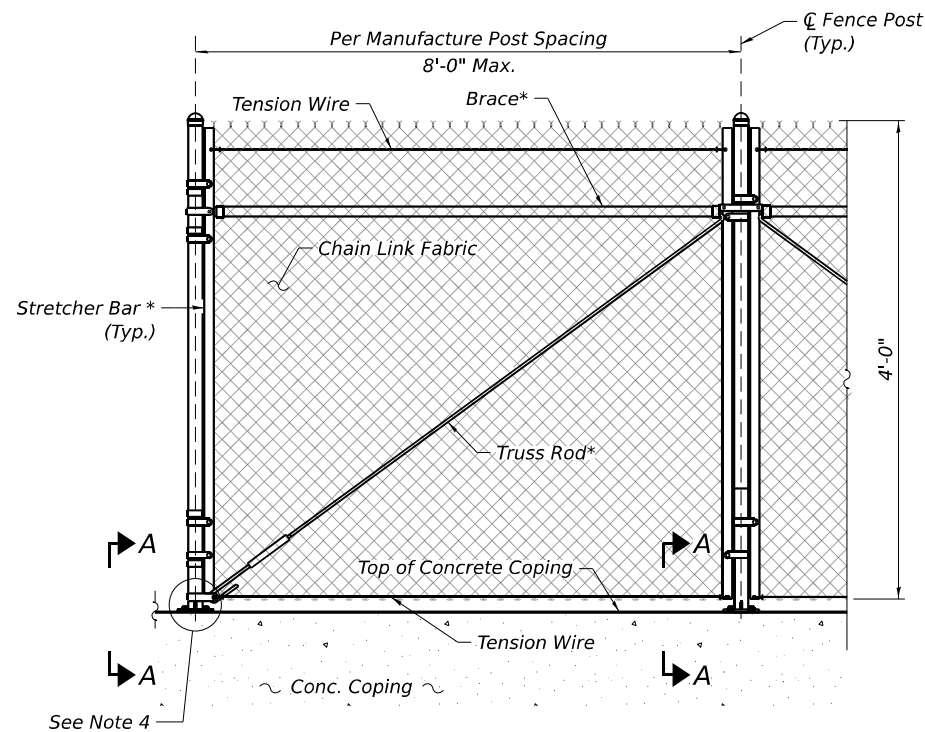
CHAIN LINK FENCE ELEVATION
 (Along top of Concrete Coping)



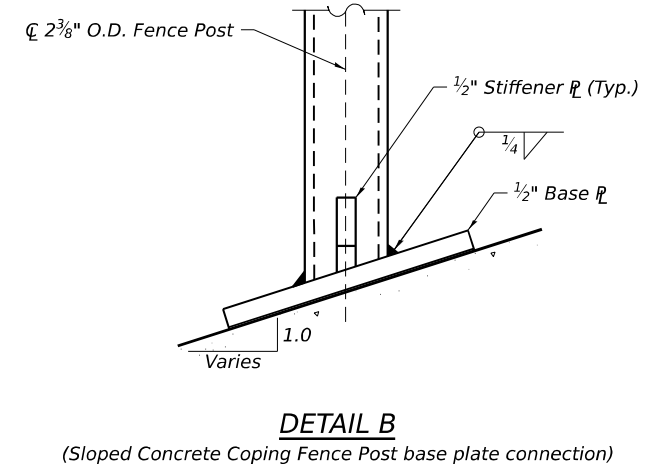
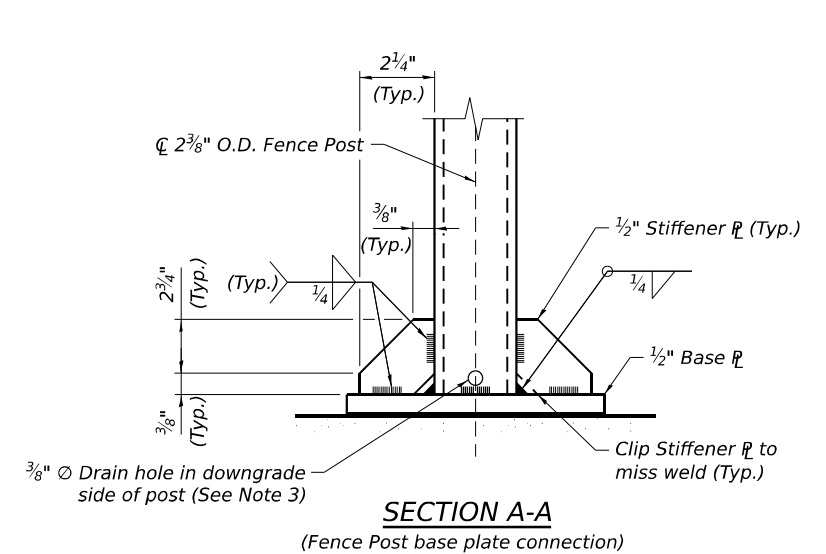
BASE PLATE PLAN

BASE PLATE NOTES:

- A. If necessary the size of the base plate and location of the expansion anchors may be adjusted to miss the concrete coping reinforcement.
- B. Base Plates and Stiffeners shall be fabricated from material meeting the requirements of AASHTO M270 Grade 36.
- C. Base Plates, Stiffeners and Posts shall be Hot Dipped Galvanized after fabrication in accordance with AASHTO.
- D. Threaded Rods shall have a minimum embedment of 6 inches and meet the requirements of ASTM F1554, Grade 36. The threaded rods shall be installed per section 584 of the Standard Specification.
- E. Threaded rods, nuts and washers shall be Hot Dipped Galvanized in accordance with AASHTO M232.



CHAIN LINK FENCE ELEVATION
 (Along top of Concrete Coping)



NOTES:

- 1. See IDOT Highway Standard Drawing 664001-02 for additional fence details.
- 2. Fence shall be continuous over concrete coping expansion joints.
- 3. Drill Drain hole to miss fillet weld and prior to galvanizing. Hole shall be drilled as close to the weld as possible.
- 4. Edge distance from a construction or expansion joint in the existing and proposed copings to an expansion anchor shall be per manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Chain Link Fence, 4' Attached to Structure	Foot	218



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE ATTACHED TO STRUCTURE
 STRUCTURE NO. 099-W124

SHEET SD-04 OF SD-06 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	738
			CONTRACT NO. 62R22	
		ILLINOIS	FED. AID PROJECT	

Benchmark: Chiseled "x" on top of SE bolt of Fire Hydrant at south ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.

Existing Structure: None.

Traffic Control: WB I-80 traffic to Center St. will be detoured to the west at Larkin Ave.

Salvage: None.

DESIGN STRESSES

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

PRECAST UNITS
 $f'c = 4,500$ psi

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

APPROVED

For Structural Adequacy Only
 [Signature]
 Engineer of Bridges & Structures

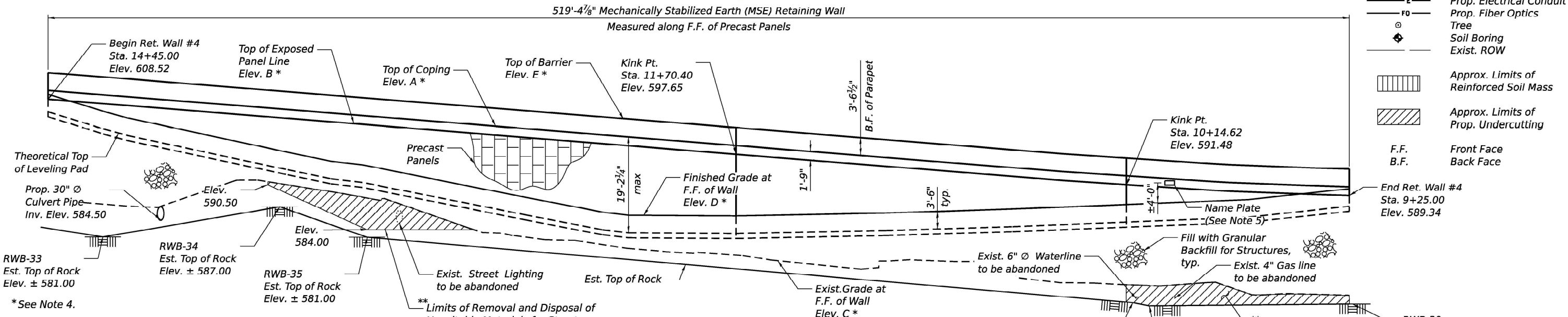


Signed Moussa A. Issa
 Dr. Moussa A. Issa, S.E. IL Lic. No. 081-005738
 Expires 11-30-2026

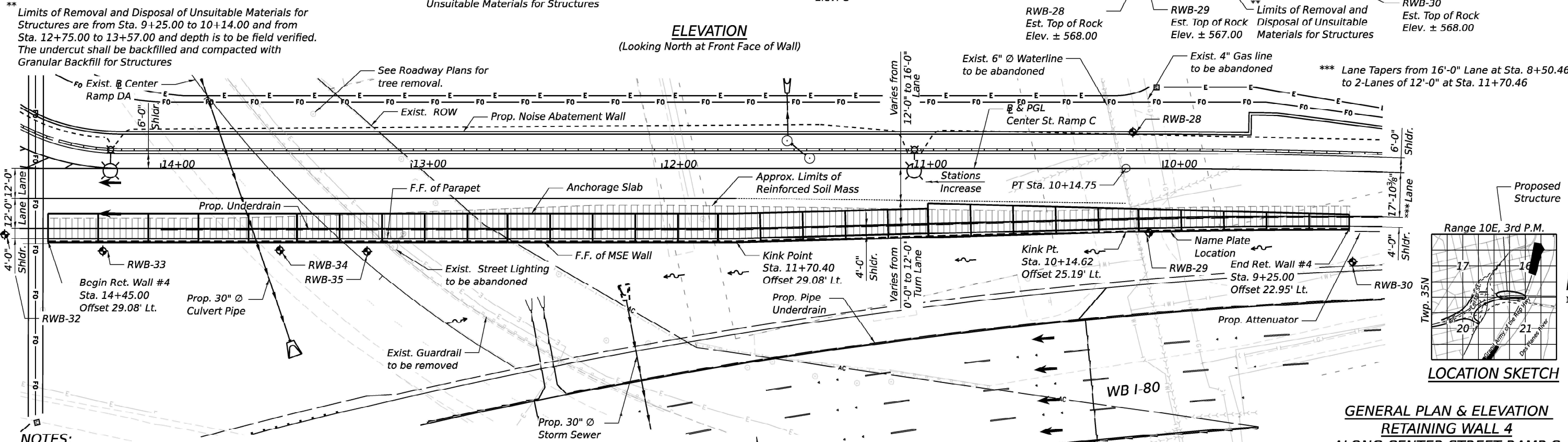
Date 4/22/2025 For Sheets SE-01 Thru SE-14

LEGEND

- Exist. Fence
- Exist. Electrical Cable
- Exist. Storm Sewer
- Exist. Watermain
- Exist. Gas line
- Exist. Light Pole
- Prop. Storm Sewer
- Prop. Electrical Conduit
- Prop. Fiber Optics
- ⊙ Tree
- ⊙ Soil Boring
- Exist. ROW
- [Hatched Box] Approx. Limits of Reinforced Soil Mass
- [Hatched Box] Approx. Limits of Prop. Undercutting
- F.F. Front Face
- B.F. Back Face

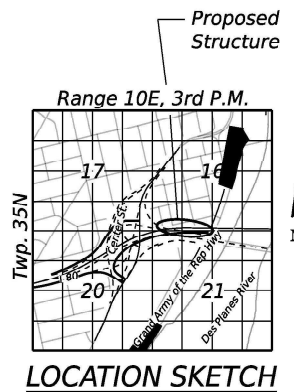


ELEVATION
 (Looking North at Front Face of Wall)



PLAN

- NOTES:**
- Stations and offsets are measured along the centerline of Center Street to the front face of the precast panels.
 - For General Notes, Index of Sheets and Bill of Material, see Sheet SE-02.
 - For Anchorage Slab Details, see sheets SE-04 thru SE-10.
 - For Table 1- Wall Elevations, Typical Section thru MSE Walls, Profile Grade Lines and Curve Data, See Sheet SE-03.
 - Name Plate shall be level across the coping and at approx. 4' above ground elevation, which occurs at approx. Sta. 9+98.00.



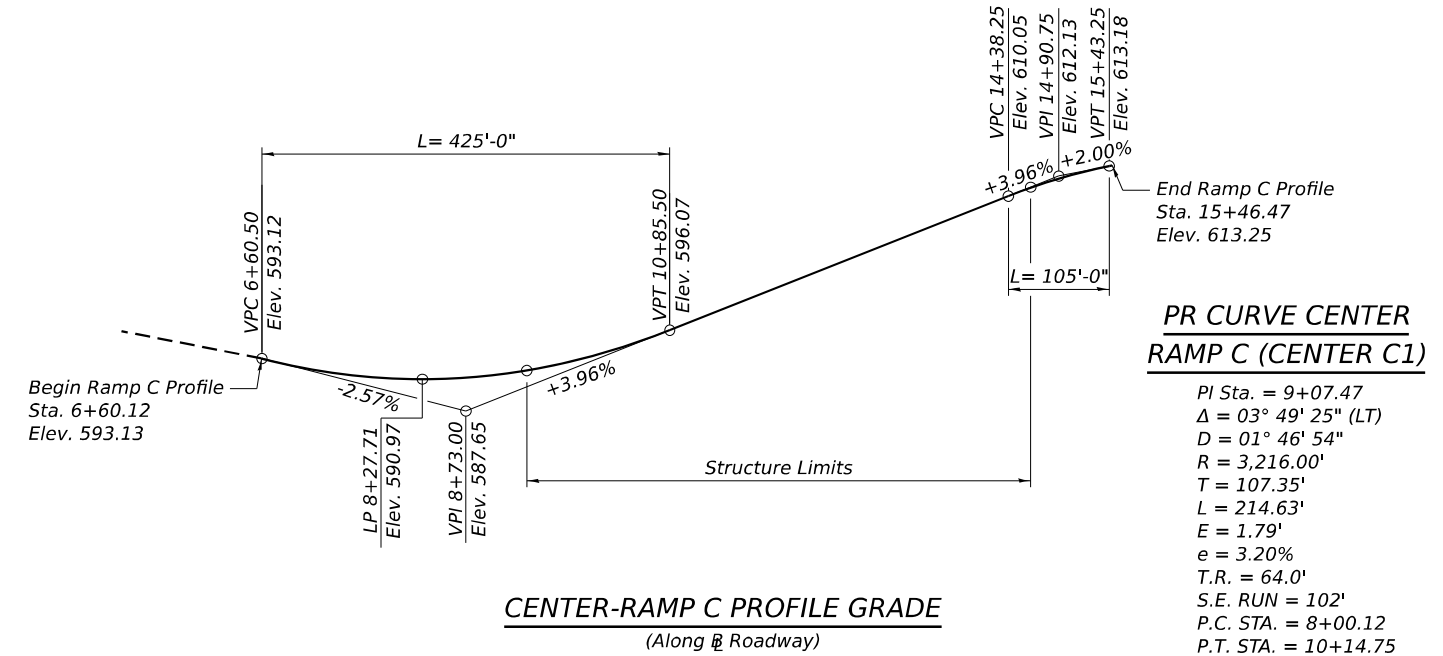
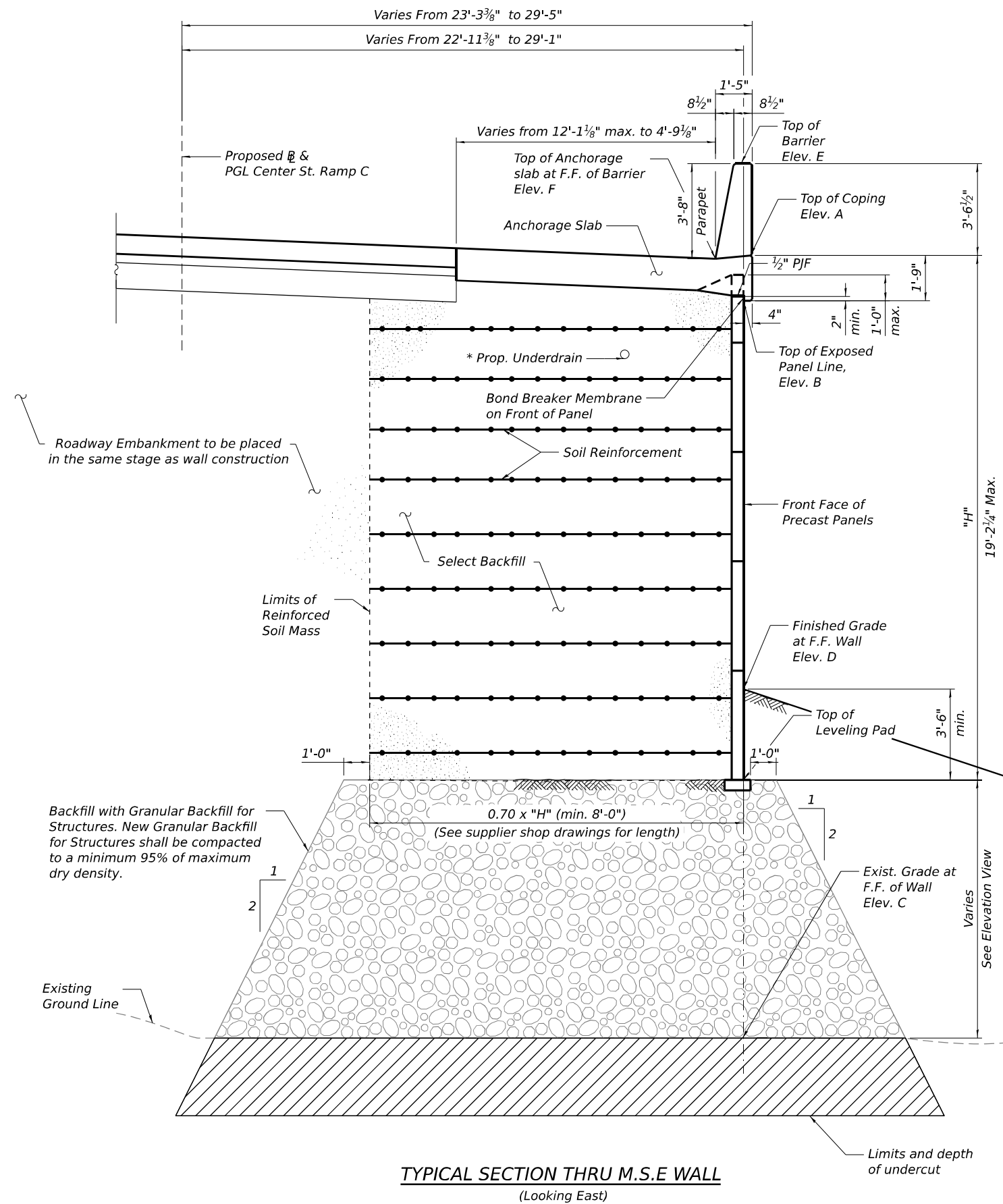
**GENERAL PLAN & ELEVATION
 RETAINING WALL 4
 ALONG CENTER STREET RAMP C
 F.A.I. ROUTE I-80
 SECTION FAI 80 21 INTERCHANGE
 WILL COUNTY
 STA. 9+25.00 TO STA. 14+45.00
 STRUCTURE NO. 099-W125**

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	PLOT DATE =	DRAWN - PG	REVISED -	SHEET SE-01 OF SE-14 SHEETS		CONTRACT NO. 62R22		ILLINOIS FED. AID PROJECT		

TABLE 1- WALL ELEVATIONS

Station	Offset	A	B	C	D	E	F
		Top of Coping	Top of Exposed Panel Line	Exist. Grade at FF Wall	Finished Grade at FF Wall	Top of Barrier	Top of Anchorage Slab at FF of Barrier
09+25.00	22.95' LT	591.09	589.34	569.45	590.70	594.63	590.96
09+50.00	23.58' LT	591.50	589.75	569.78	589.37	595.04	591.37
09+75.00	24.20' LT	592.00	590.25	571.39	588.34	595.54	591.88
10+00.00	24.83' LT	592.75	591.00	571.35	587.81	596.29	592.62
10+14.62	25.19' LT	593.23	591.48	571.56	587.51	596.77	593.10
10+25.00	25.45' LT	593.60	591.85	571.80	587.29	597.14	593.47
10+50.00	26.07' LT	594.50	592.75	572.46	586.81	598.04	594.37
10+75.00	26.70' LT	595.48	593.73	576.18	586.38	599.02	595.36
11+00.00	27.32' LT	596.54	594.79	576.50	586.01	600.08	596.42
11+25.00	27.95' LT	597.62	595.87	574.89	585.70	601.16	597.49
11+50.00	28.57' LT	598.61	596.86	576.14	585.44	602.15	598.49
11+70.40	29.08' LT	599.40	597.65	577.47	585.28	602.95	599.28
11+75.00	29.08' LT	599.59	597.84	577.63	585.28	603.13	599.46
12+00.00	29.08' LT	600.58	598.83	578.25	585.36	604.12	600.45
12+25.00	29.08' LT	601.57	599.82	579.65	586.16	605.11	601.44
12+50.00	29.08' LT	602.56	600.81	580.76	588.55	606.10	602.43
12+75.00	29.08' LT	603.55	601.80	582.54	590.99	607.09	603.42
13+00.00	29.08' LT	604.54	602.79	586.86	593.48	608.08	604.41
13+25.00	29.08' LT	605.53	603.78	589.51	595.77	609.07	605.40
13+50.00	29.08' LT	606.52	604.77	591.53	598.05	610.06	606.39
13+75.00	29.08' LT	607.51	605.76	591.52	600.69	611.05	607.38
14+00.00	29.08' LT	608.50	606.75	587.17	603.37	612.04	608.38
14+25.00	29.08' LT	609.49	607.74	587.68	606.43	613.03	609.37
14+45.00	29.08' LT	610.27	608.52	588.50	609.52	613.82	610.15



* The pipe underdrain terminates at STA. 9+00 of Ramp C where it outfalls into a ditch. The underdrain is paid for as "PIPE UNDERDRAIN, TYPE 2, 6".

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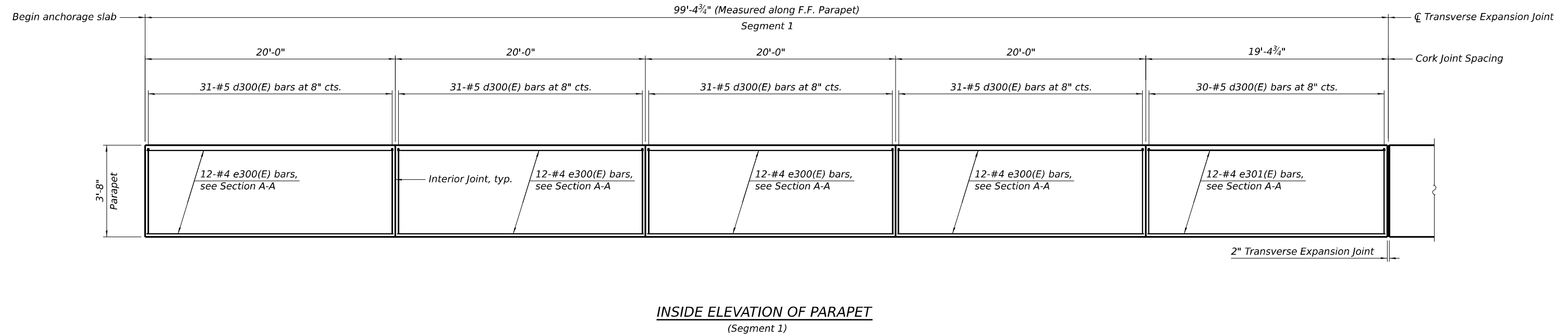
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

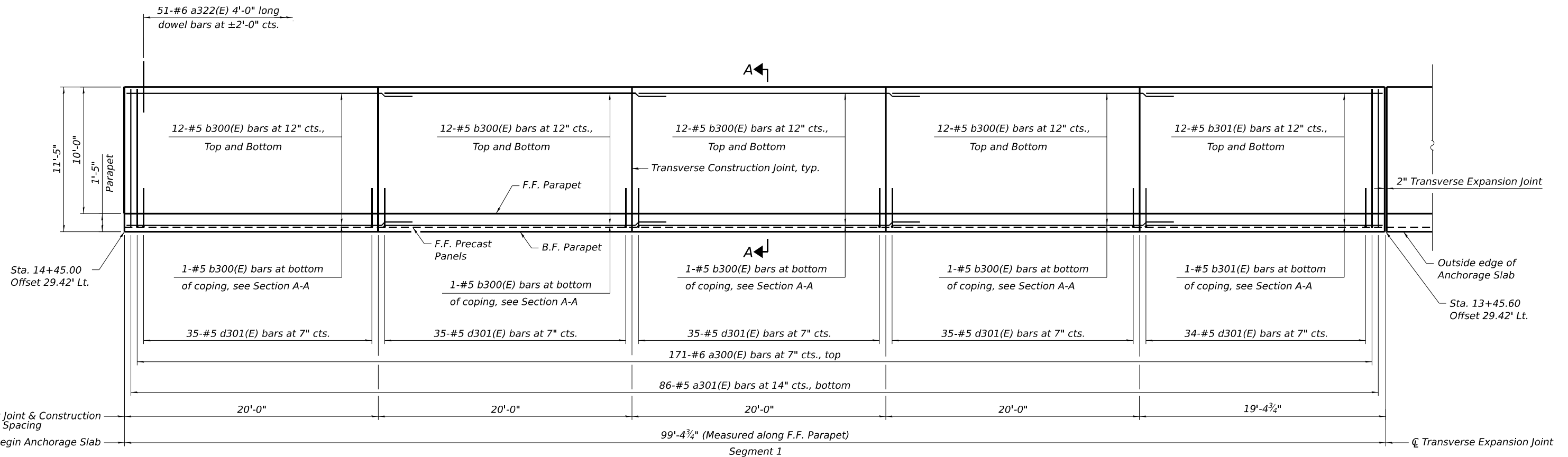
MSE WALL CROSS SECTIONS AND DETAILS
STRUCTURE NO. 099-W125
SHEET SE-03 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	743
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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INSIDE ELEVATION OF PARAPET
(Segment 1)



PLAN
(Segment 1)

NOTES

1. For Section A-A, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10.
2. Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
3. Stations and offsets are measured from B & PGL Center St. Ramp C.



USER NAME =	DESIGNED - PG, ADJ	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - CJS, GFA	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

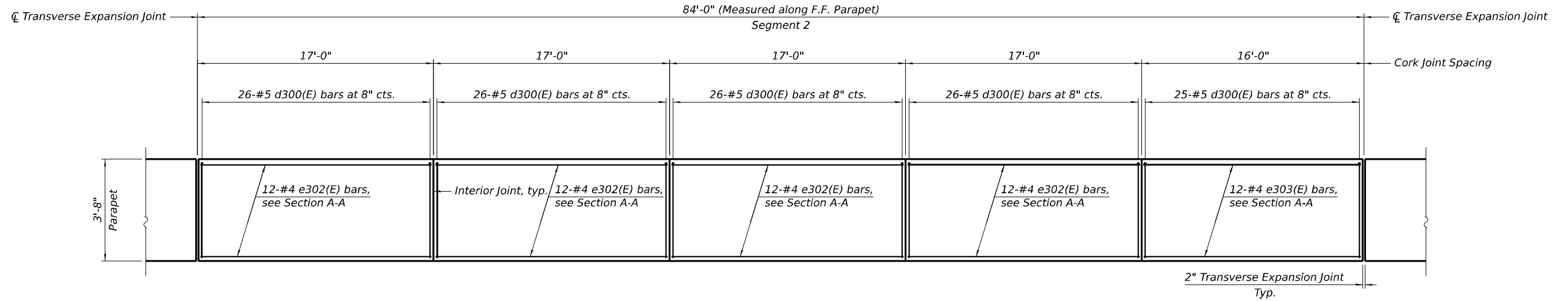
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 1 OF 6)
STRUCTURE NO. 099-W125

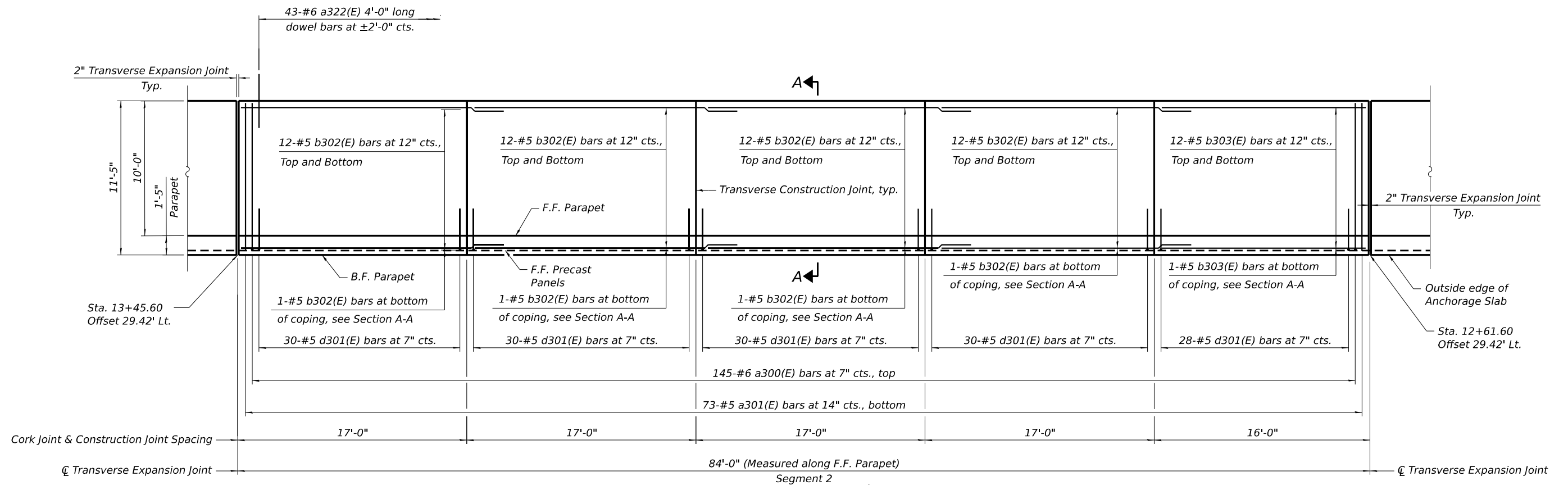
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	744
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

SHEET SE-04 OF SE-17 SHEETS

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INSIDE ELEVATION OF PARAPET
(Segment 2)



PLAN
(Segment 2)

NOTES

1. For Section A-A, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10.
2. Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
3. Stations and offsets are measured from C & PGL Center St. Ramp C.



USER NAME =	DESIGNED - PG, ADJ	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - CJS, GFA	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

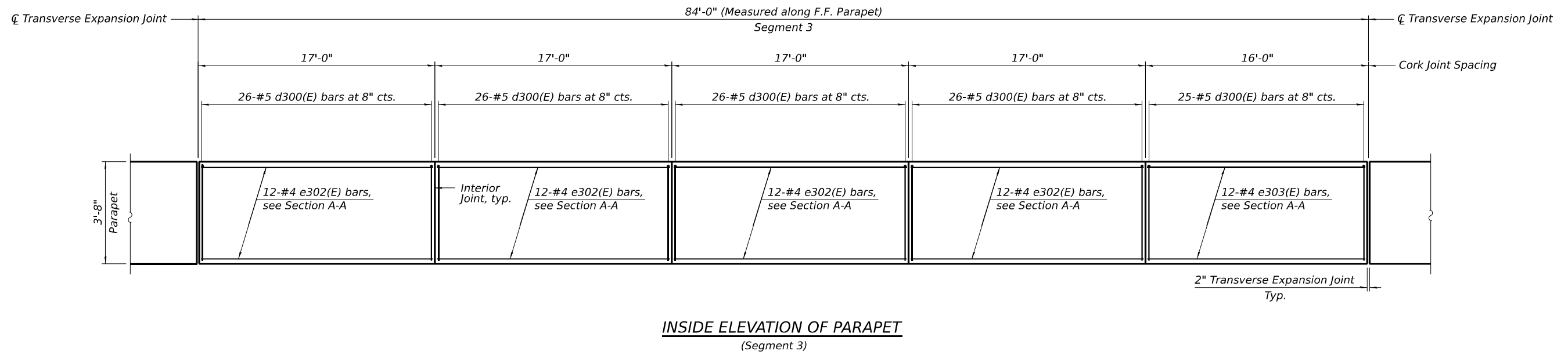
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 2 OF 6)
STRUCTURE NO. 099-W125

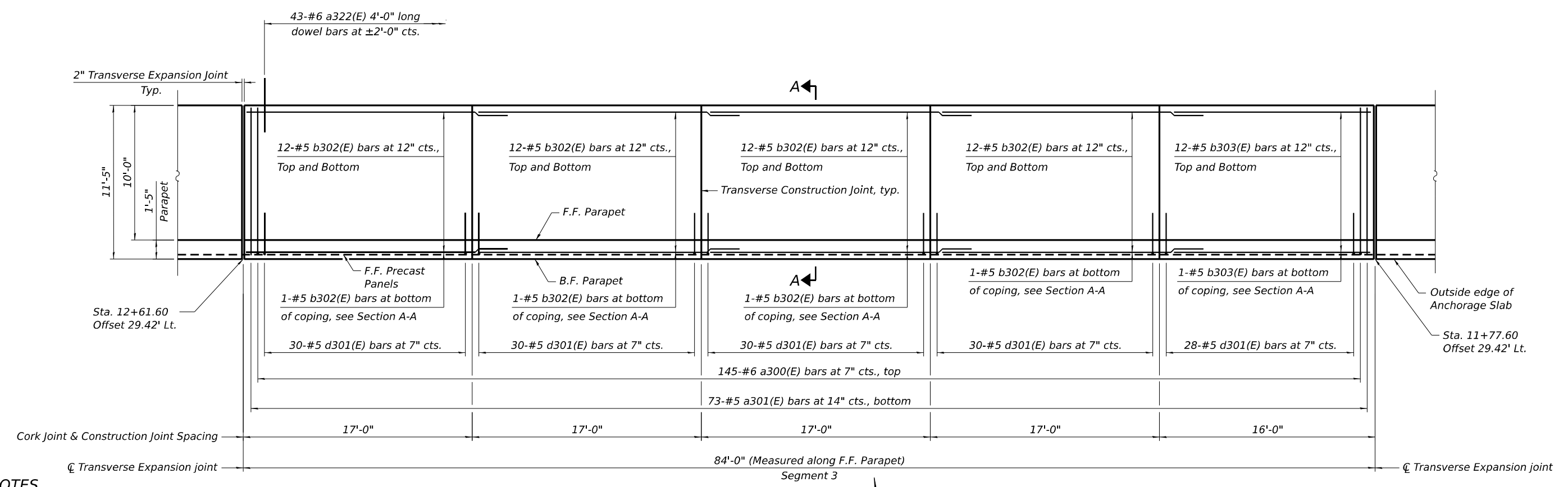
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	745
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SE-05 OF SE-17 SHEETS

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INSIDE ELEVATION OF PARAPET
(Segment 3)



PLAN
(Segment 3)

NOTES

1. For Section A-A, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10.
2. Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
3. Stations and offsets are measured from B & PGL Center St. Ramp C.



USER NAME =	DESIGNED - PG, ADJ	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - CJS, GFA	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

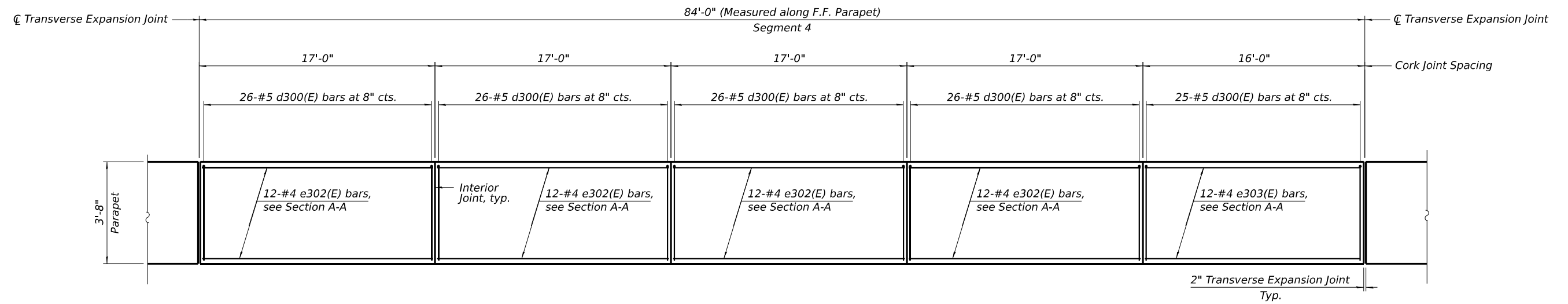
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 3 OF 6)
STRUCTURE NO. 099-W125

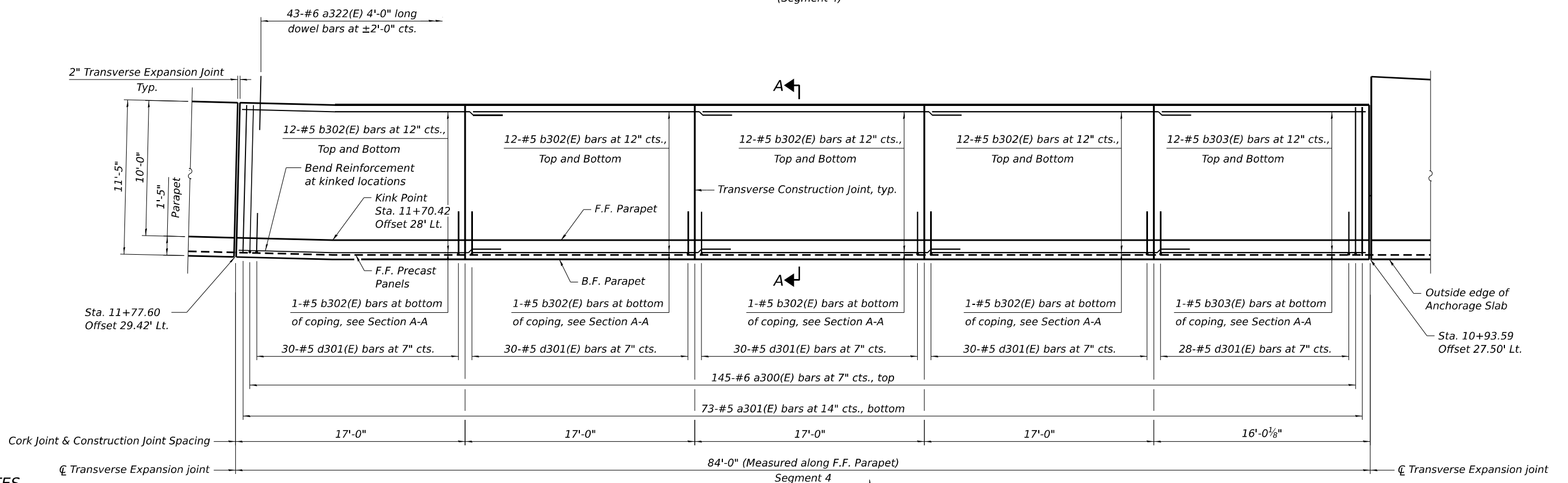
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	746
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SE-06 OF SE-17 SHEETS

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INSIDE ELEVATION OF PARAPET
 (Segment 4)



NOTES

1. For Section A-A, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10.
2. Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
3. Stations and offsets are measured from P & PGL Center St. Ramp C.

PLAN
 (Segment 4)



USER NAME =	DESIGNED - PG, ADJ	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - CJS, GFA	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

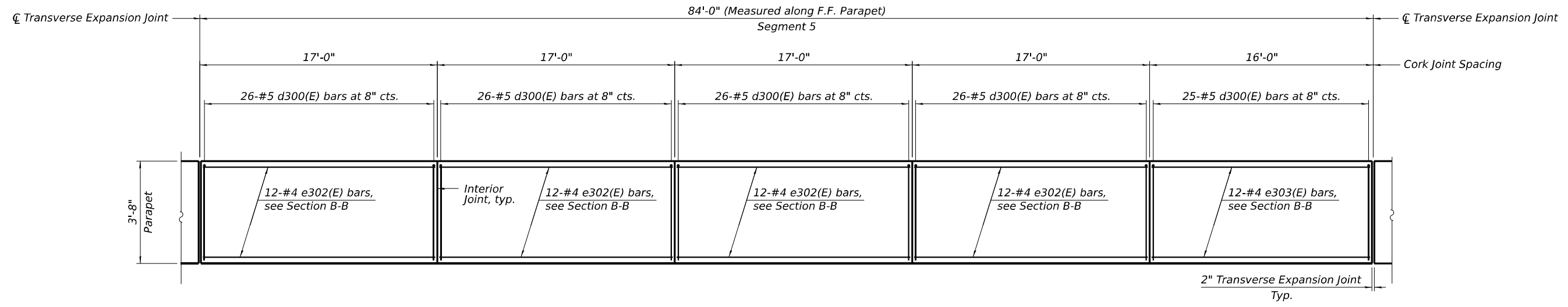
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 4 OF 6)
STRUCTURE NO. 099-W125

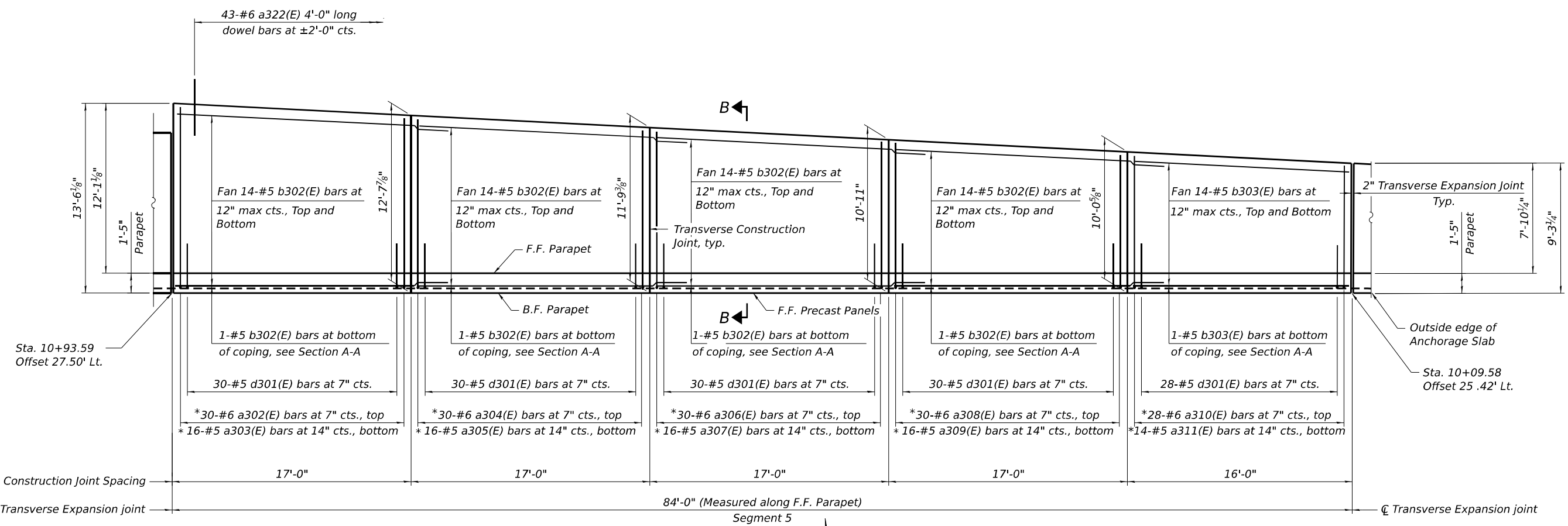
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	747
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SE-07 OF SE-17 SHEETS

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INSIDE ELEVATION OF PARAPET
(Segment 5)



NOTES

1. For Section B-B, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10 .
2. Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
3. Stations and offsets are measured from \mathbb{B} & PGL Center St. Ramp C.

* See field cutting diagrams on Sheet SE-10 .



USER NAME =	DESIGNED - PG, ADJ	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - CJS, GFA	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

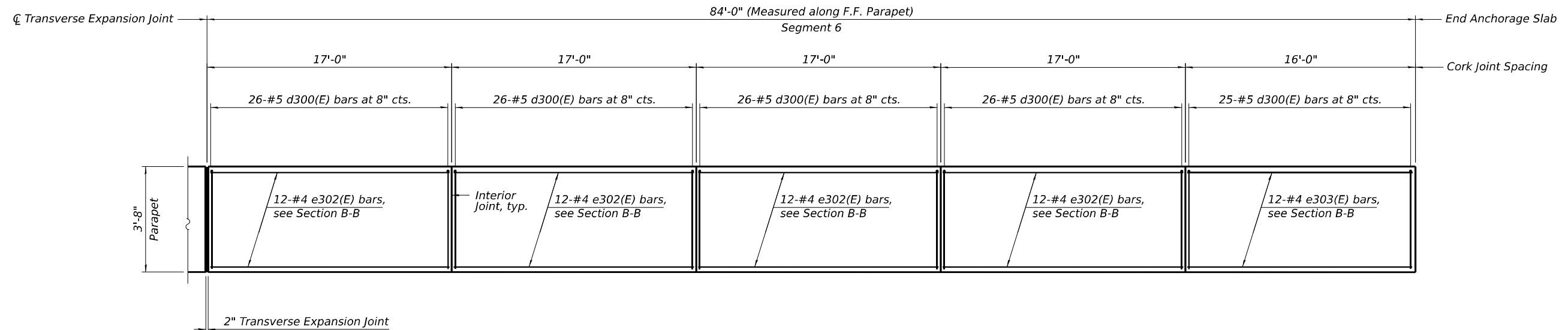
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 5 OF 6)
STRUCTURE NO. 099-W125

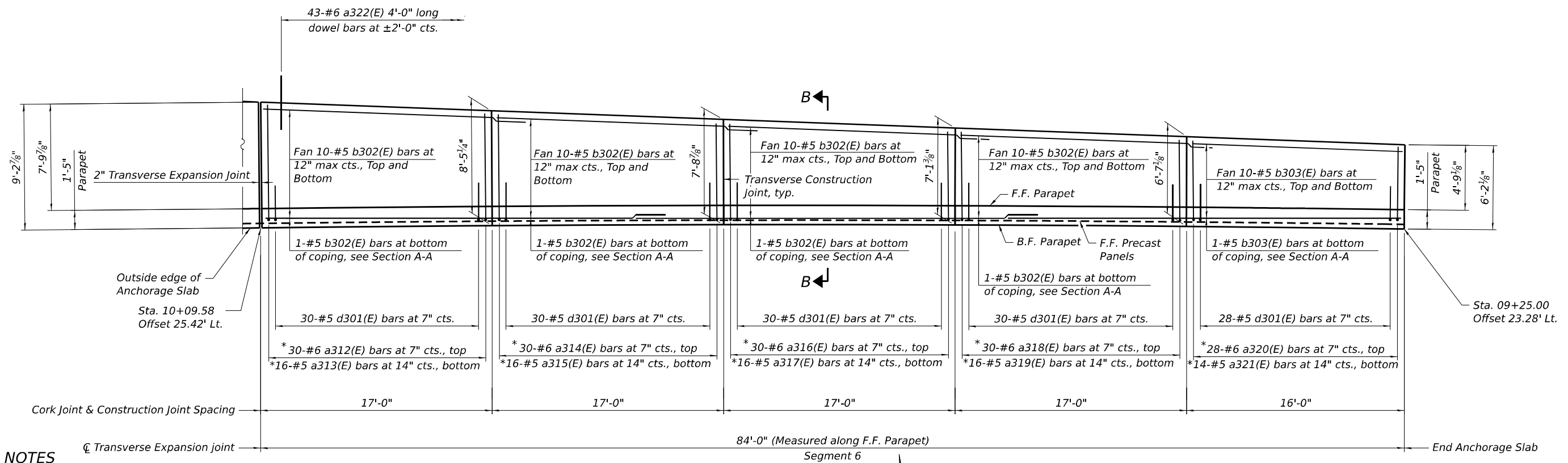
SHEET SE-08 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	748
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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INSIDE ELEVATION OF PARAPET
(Segment 6)



NOTES

1. For Section B-B, Anchorage Slab Details, parapet joint details, bar bend details and Bill of Material see Sheet SE-10.
2. Portion of Anchorage Slab within the traveled way shall be finished to match PPC pavement finish according to Section 420.09 of the Standard Specifications.
3. Stations and offsets are measured from B & PGL Center St. Ramp C.

* See field cutting diagrams on Sheet SE-10.

PLAN
(Segment 6)



USER NAME =	DESIGNED - PG, ADJ	REVISED -
	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - CJS, GFA	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

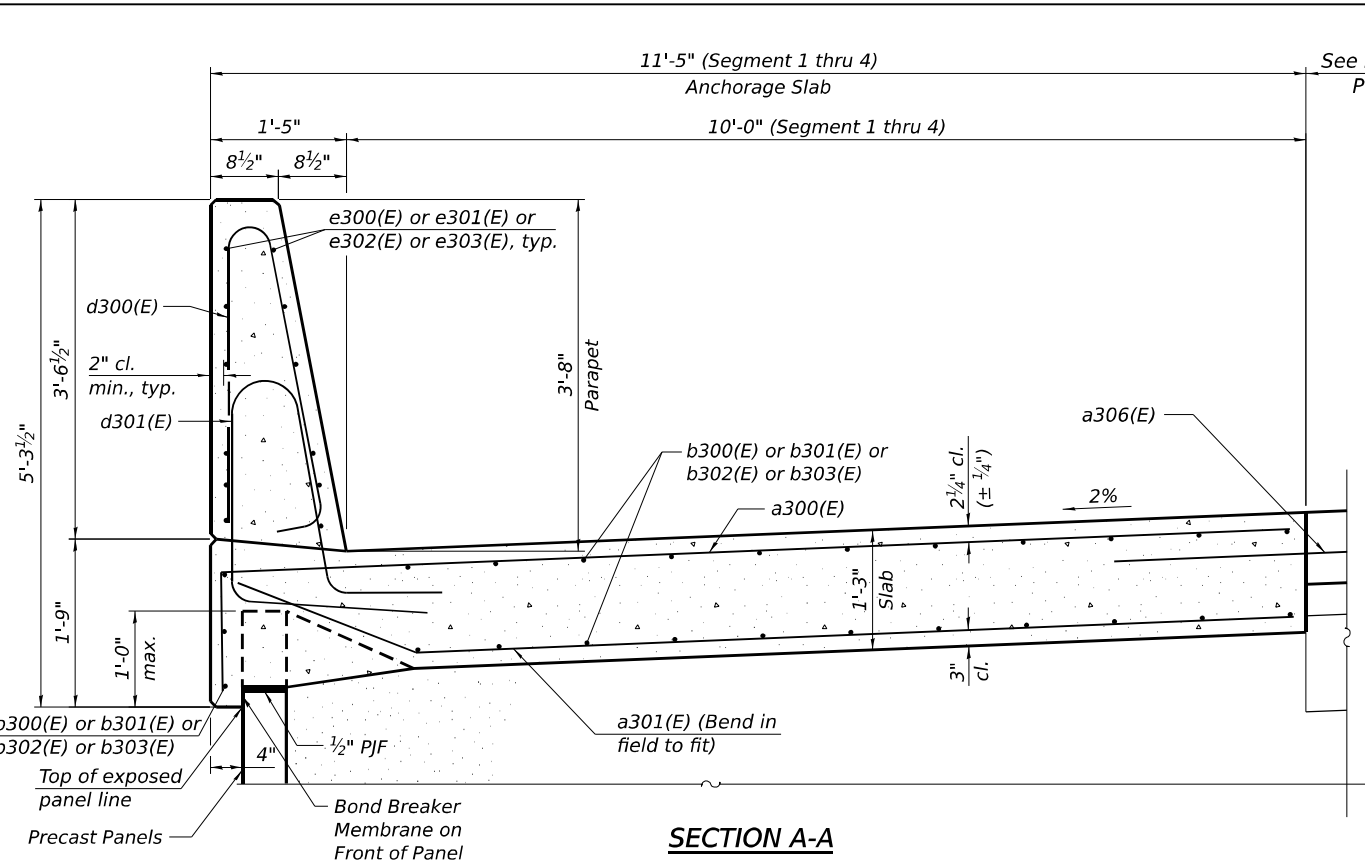
**ANCHORAGE SLAB PLAN AND ELEVATION (SHEET 6 OF 6)
STRUCTURE NO. 099-W125**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	749
CONTRACT NO. 62R22				

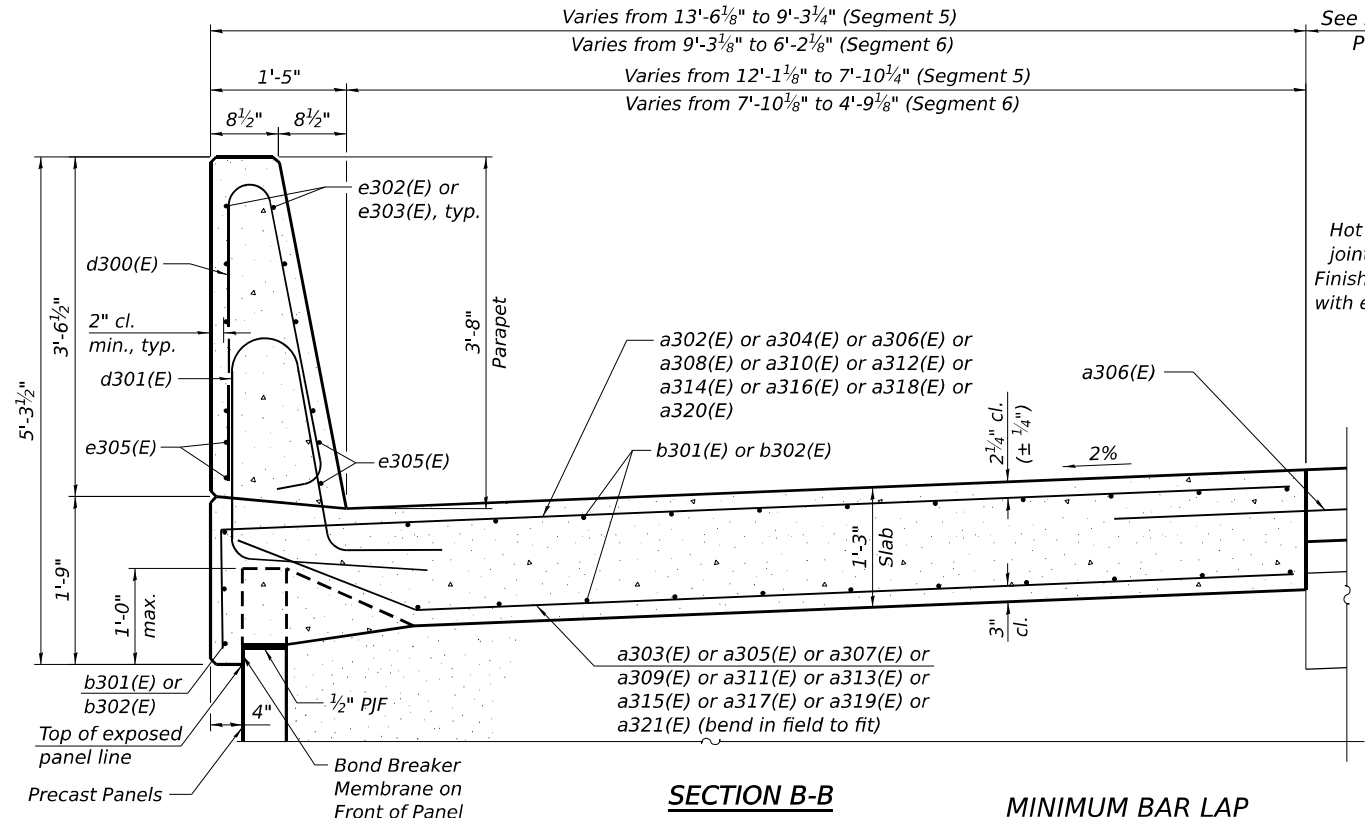
SHEET SE-09 OF SE-17 SHEETS

ILLINOIS FED. AID PROJECT

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SECTION A-A

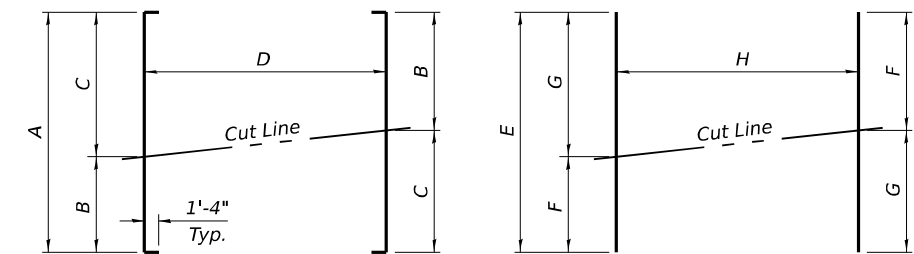


SECTION B-B

- NOTES:**
- The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.
 - The polyurethane sealant shall be according to Article 1050.04 of the Standard Specifications and the color shall be gray.

MINIMUM BAR LAP
 #4 bar = 2'-5"
 #5 bar = 3'-4"

*Expansion caps shall be installed on the exposed end of each dowel bar once the header has been removed and the joint filler material has been installed.
 **Cost included with Concrete Superstructure



FIELD CUTTING DIAGRAMS

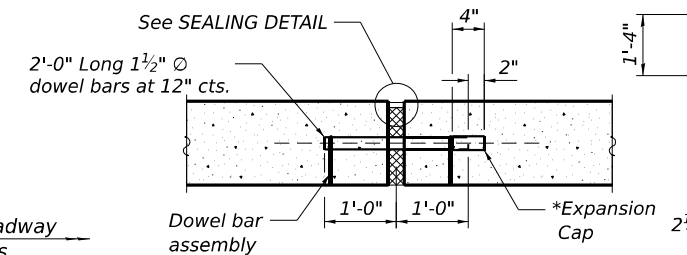
Order a302(E) thru a321(E) bars full length. Cut as shown and use remainder of bars in opposite end of anchorage slab at construction joint/expansion joint

BAR DIMENSIONS TABLES

Bar	A	B	C	D	Bar	E	F	G	H
a302(E)	25'-6"	12'-4"	13'-2"	15-#6 a302(E) bars	a303(E)	25'-6"	12'-4"	13'-2"	8-#5 a303(E) bars
a304(E)	23'-9"	11'-5"	12'-4"	15-#6 a304(E) bars	a305(E)	23'-9"	11'-5"	12'-4"	8-#5 a305(E) bars
a306(E)	22'-0"	10'-7"	11'-5"	15-#6 a306(E) bars	a307(E)	22'-0"	10'-7"	11'-5"	8-#5 a307(E) bars
a308(E)	20'-3"	9'-8"	10'-7"	15-#6 a308(E) bars	a309(E)	20'-3"	9'-8"	10'-7"	8-#5 a309(E) bars
a310(E)	18'-7"	8'-11"	9'-8"	14-#6 a310(E) bars	a311(E)	18'-7"	8'-11"	9'-8"	7-#5 a311(E) bars
a312(E)	17'-0"	8'-1"	8'-11"	15-#6 a312(E) bars	a313(E)	17'-0"	8'-1"	8'-11"	8-#5 a313(E) bars
a314(E)	15'-6"	7'-5"	8'-1"	15-#6 a314(E) bars	a315(E)	15'-6"	7'-5"	8'-1"	8-#5 a315(E) bars
a316(E)	14'-2"	6'-9"	7'-5"	15-#6 a316(E) bars	a317(E)	14'-2"	6'-9"	7'-5"	8-#5 a317(E) bars
a318(E)	13'-0"	6'-3"	6'-9"	15-#6 a318(E) bars	a319(E)	13'-0"	6'-3"	6'-9"	8-#5 a319(E) bars
a320(E)	12'-1"	5'-10"	6'-3"	14-#6 a320(E) bars	a321(E)	12'-1"	5'-10"	6'-3"	7-#5 a321(E) bars

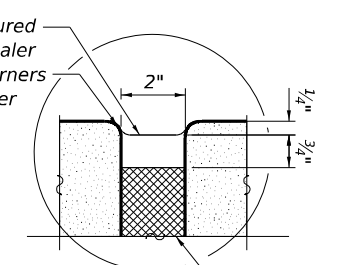
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a300(E)	606	#6	12'-5"	
a301(E)	305	#5	11'-1"	
a302(E)	15	#6	28'-2"	
a303(E)	8	#5	25'-6"	
a304(E)	15	#6	26'-5"	
a305(E)	8	#5	23'-9"	
a306(E)	15	#6	24'-8"	
a307(E)	8	#5	22'-0"	
a308(E)	15	#6	22'-11"	
a309(E)	8	#5	20'-3"	
a310(E)	14	#6	21'-3"	
a311(E)	7	#5	18'-7"	
a312(E)	15	#6	19'-8"	
a313(E)	8	#5	17'-0"	
a314(E)	15	#6	18'-2"	
a315(E)	8	#5	15'-6"	
a316(E)	15	#6	16'-10"	
a317(E)	8	#5	14'-2"	
a318(E)	15	#6	15'-8"	
a319(E)	8	#5	13'-0"	
a320(E)	14	#6	14'-9"	
a321(E)	7	#5	12'-1"	
a322(E)	266	#6	4'-0"	
b300(E)	100	#5	23'-4"	
b301(E)	25	#5	19'-2"	
b302(E)	500	#5	20'-4"	
b303(E)	125	#5	15'-8"	
d300(E)	799	#5	7'-0"	
d301(E)	914	#5	8'-3"	
e300(E)	48	#4	19'-8"	
e301(E)	12	#4	19'-0"	
e302(E)	240	#4	16'-8"	
e303(E)	60	#4	15'-8"	
Concrete Superstructure		Cu Yd	334.4	
Bridge Deck Grooving		Sq Yd	485	
Protective Coat		Sq Yd	1124	
Reinforcement Bars, Epoxy Coated		Pound	55,920	

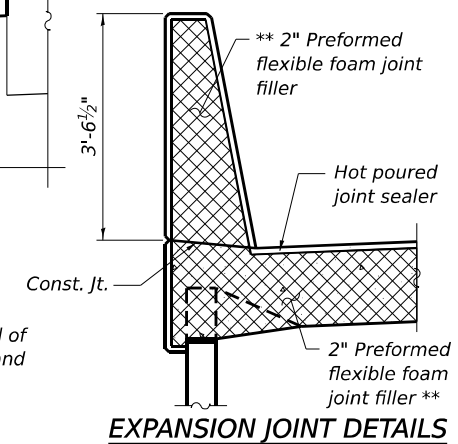


TRANSVERSE EXPANSION JOINT

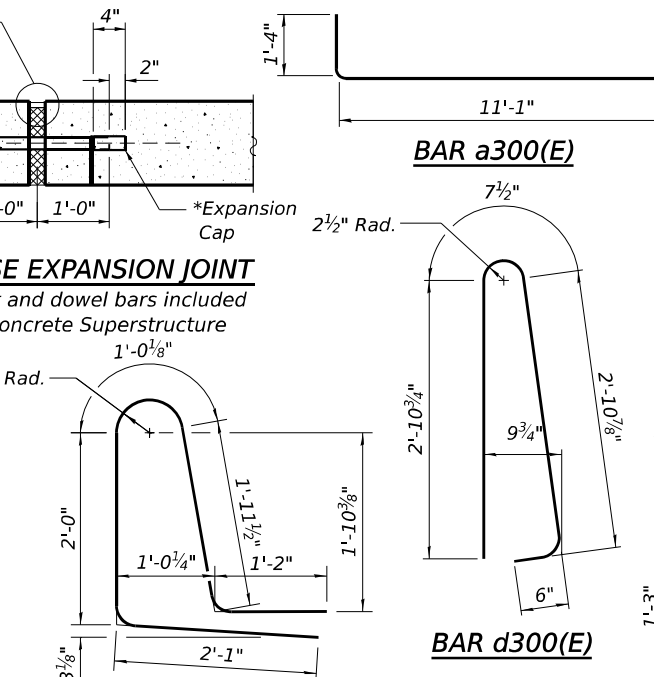
Expansion joint and dowel bars included in the cost of Concrete Superstructure



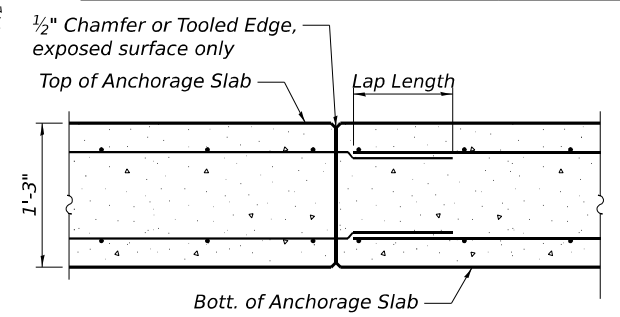
SEALING DETAIL



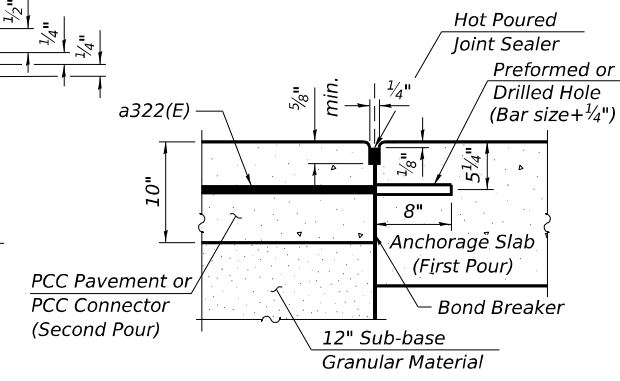
EXPANSION JOINT DETAILS



PARAPET CORK JOINT DETAILS



TRANSVERSE CONSTRUCTION JOINT DETAIL



LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR



USER NAME =	DESIGNED - PG, ADJ	REVISED -
PLOT SCALE =	CHECKED - MI, KJD	REVISED -
PLOT DATE =	DRAWN - CJS, GFA	REVISED -
	CHECKED - MI, KJD	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB DETAILS AND BILL OF MATERIAL
 STRUCTURE NO. 099-W125

SHEET SE-10 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	750
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 4 LOGGED BY AA

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E.

COUNTY Will DRILLING RIG Mobile B-57 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 89

STRUCT. NO.	Station	D E P T H S T	B L O W S Q u	U C S T	M O I S T	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
		(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	Hrs.
	571.45					3 inches of Asphalt					
	570.45					9 inches of Aggregate Subbase					
		28	50/2"		5	Very Dense, Light Brown, Moist GRAVEL, with sand (GP)					
	567.95					Light Brown, Moist WEATHERED LIMESTONE					
	566.95		50/2"			Light Brown and Light Gray LIMESTONE, Slightly Weathered, Moderately to Heavily Fractured, Trace Sand, Trace Vugs					
		-5				Run 1: 4.5' - 14.5' Recovery: 100% RQD: 42.9% (Poor)					
		-10									
	556.95					End of Boring					
		-15									
		-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, form 137 (Rev. 8-99)

NOTE:

- The Stations and offsets are measured along \varnothing & PGL Center St. Ramp C.

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 4 - Ramp C Sta 8+00 LOGGED BY AA

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E.

COUNTY Will DRILLING RIG Diedrich D-50 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 96

STRUCT. NO.	Station	D E P T H S T	B L O W S Q u	U C S T	M O I S T	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
		(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	Hrs.
	570.58					9 inches of Asphalt					
	570.33					3 inches of Aggregate Subbase					
		7				Dark Brown and Dark Gray, Moist to Very Moist					
		18	50/3"	0.8	26	FILL: SILTY CLAY, with sand and gravel					
	567.33					Gray, Moist WEATHERED LIMESTONE					
		50/5"		0.5	16						
	565.33					Auger refusal at 6 feet					
		-5				End of Boring					
		-10									
		-15									
		-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, form 137 (Rev. 8-99)

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USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOIL BORINGS (SHEET 1 OF 7)
STRUCTURE NO. 099-W125**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	751
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

Date 8/19/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 4 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 17, TWP. 35 N, RNG. 10 E.

COUNTY Will DRILLING RIG Diedrich D-50 ATV HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 91

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft
BORING NO. Station Offset Ground Surface Elev. <u>587.09</u> ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter <u>Dry</u> ft Upon Completion <u>N/A</u> ft After <u>Hrs.</u> <u>N/A</u> ft

3 inches of Topsoil	586.84				
Very Dense Light Brown, Moist SAND WITH GRAVEL, some silt, trace clay, trace roots (SPG)	50/3"	5		7	
	50/3"				
	-5				10
Auger Refusal @ 6 feet End of Boring	581.09				
	-10				
	-15				
	-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, form 137 (Rev. 8-99)

NOTE:

- The Stations and offsets are measured along § & PGL Center St. Ramp C.

SOIL BORING LOG

Date 8/25/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 4 LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E.

COUNTY Will DRILLING RIG Diedrich D-50 ATV HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 91

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft
BORING NO. Station Offset Ground Surface Elev. <u>592.09</u> ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter <u>Dry</u> ft Upon Completion <u>N/A</u> ft After <u>Hrs.</u> <u>N/A</u> ft

3 inches of Topsoil	591.84				
Dark Brown, Moist FILL: SILTY CLAY, some gravel, trace roots	590.59	16			
		32	2.5	18	
Very Dense Light Brown, Moist to Wet GRAVEL, some silt, little sand (GP)	50/2"	50	P		
	587.09				7
Light Brown LIMESTONE, Moderately to Slightly Weathered, Moderately to Heavily Fractured, Some Vertical Fractures, Trace Sand, Some Vugs					
Run 1: 5' - 15' Recovery: 100% RQD: 34% (Poor)					
	577.09				
End of Boring					
	-10				
	-15				
	-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, form 137 (Rev. 8-99)

MODEL: Default
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USER NAME =	DESIGNED - PG	REVISED -
PLOT SCALE =	CHECKED - MI	REVISED -
PLOT DATE =	DRAWN - PG	REVISED -
	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (SHEET 3 OF 7)
STRUCTURE NO. 099-W125

SHEET SE-13 OF SE-17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	753
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 3/20/25

ROUTE I-80 DESCRIPTION Retaining Wall No. 4 - Ramp C LOGGED BY SB

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Mobile B-57 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 89

STRUCT. NO. 099-W125 Station
 BORING NO. RWB-53 Station 9+75.76 Offset 39.37ft LT Ground Surface Elev. 572.70 ft
 D E P T H (ft) B L O W S (/6") U C S Qu (tsf) M O I S T (%)

3 inches of Topsoil	572.45						Surface Water Elev. N/A ft
Very Dense Light Brown, Moist GRAVEL, with sand, trace clay (GP)	571.20	50/5"					Stream Bed Elev. N/A ft
WEATHERED LIMESTONE	570.70				7		Groundwater Elev.:
Auger refusal at 2 feet Gray LIMESTONE, slightly to moderately weathered, moderately to heavily fractured, some vugs	-5						First Encounter Dry ft
Run 1: 2' - 12' Recovery: 100% RQD: 26.3% (Poor)							Upon Completion N/A ft
End of Boring	560.70						After Hrs. N/A ft

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)

NOTE:

- The Stations and offsets are measured along @ & PGL Center St. Ramp C.



SOIL BORING LOG

Date 3/20/25

ROUTE I-80 DESCRIPTION Retaining Wall No. 4 - Ramp C LOGGED BY SB

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E,

COUNTY Will DRILLING RIG Mobile B-57 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 89

STRUCT. NO. 099-W125 Station
 BORING NO. RWB-54 Station 9+22.71 Offset 25.49ft LT Ground Surface Elev. 572.26 ft
 D E P T H (ft) B L O W S (/6") U C S Qu (tsf) M O I S T (%)

4 inches of Topsoil	571.93						Surface Water Elev. N/A ft
Very Dense Brown, Wet GRAVEL, trace clay, trace roots (GP)	570.76	50/3"					Stream Bed Elev. N/A ft
WEATHERED LIMESTONE	570.26				22		Groundwater Elev.:
Auger refusal at 2 feet End of Boring	-5						First Encounter Dry ft
							Upon Completion N/A ft
							After Hrs. N/A ft

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 FILE NAME: pwr://transystems-pw.bentley.com/transystems-pw1-hostad/Projects_2018/CH401/401.180022/03-W5P/CAD/62R22-INT-4 (Center)/Sheets/Structural/ISN-099-W125-RWB-53-RWB-54-RWB-55-18-Boring_Logs 7



USER NAME =	DESIGNED - PG	REVISED -
PLOT SCALE =	CHECKED - MI	REVISED -
PLOT DATE =	DRAWN - PG	REVISED -
	CHECKED - MI	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (SHEET 7 OF 7)
 STRUCTURE NO. 099-W125

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	754C
CONTRACT NO. 62R22				

SHEET SE-17 OF SE-17 SHEETS

ILLINOIS FED. AID PROJECT

Benchmark: Chiseled "X" on top of SE bolt of Fire Hydrant at South ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.

Existing Structure: None.

Traffic Control: Entrance ramp traffic from NB Center St. to EB I-80 and exit ramp traffic from WB I-80 to SB Center St. will be detoured to the west at Larkin Ave.

Salvage: None.

DESIGN STRESSES

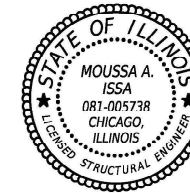
FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST UNITS
 $f_c = 4,500$ psi

DESIGN SPECIFICATIONS

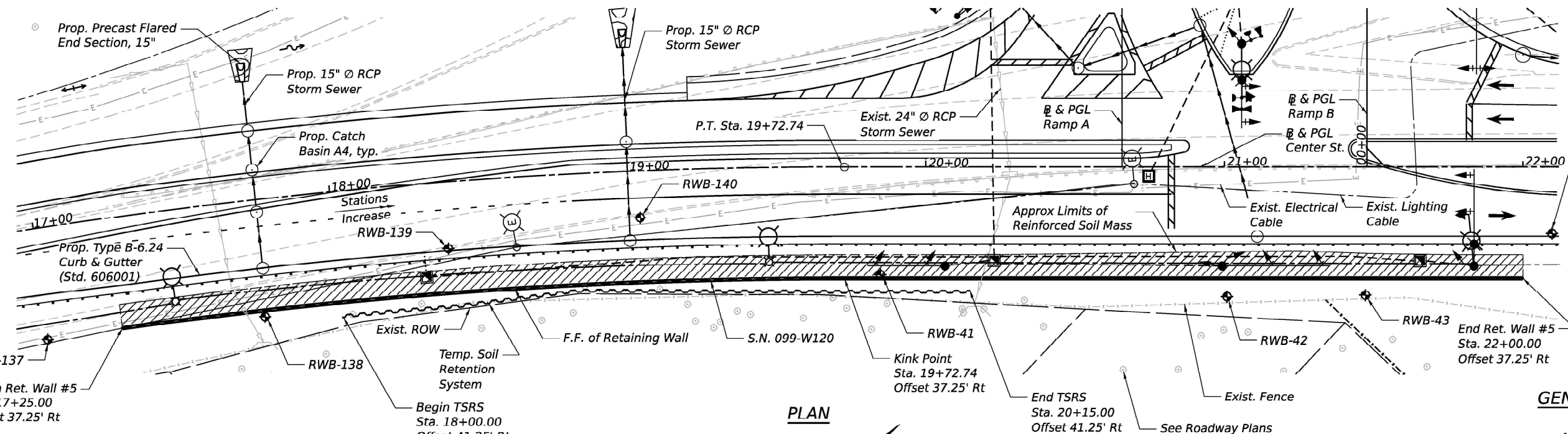
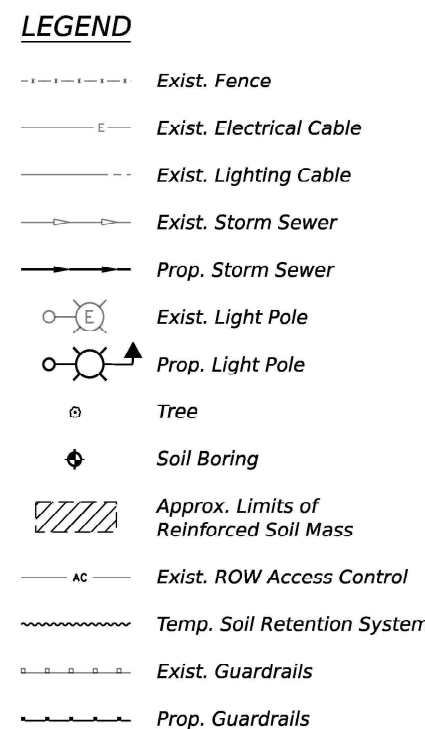
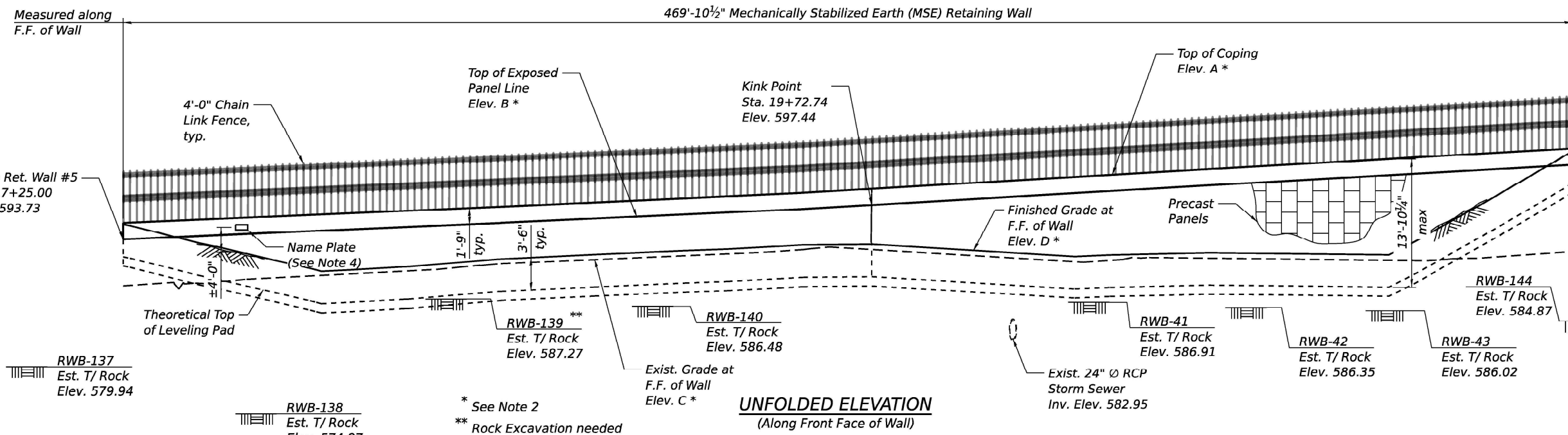
2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

APPROVED
 For Structural Adequacy Only
 [Signature]
 Engineer of Bridges & Structures



Signed Moussa A. Issa
 Dr. Moussa A. Issa, S.E. IL Lic. No. 081-005738
 Expires 11-30-2026
 Date 4/22/2025 For Sheets SF-01 Thru SF-09

MODEL: Default
 FILE NAME: pw://transsystems-pw.bentley.com/transsystems-pw1-hostead/Documents/Projects_2018/CH401/401.180022/03-WSP/CA0/62R22-INT-4 (Center)/Sheets/Structural/ISN-099-W120-RWB/099W120-RWB-22-SF-01-GPE



- NOTES:**
- Stations and offsets are measured along the centerline of Center Street to the front face of the precast panels.
 - For General Notes, Index of Sheets and Total Bill of Material, See Sheet SF-02.
 - For Table 1- Wall Elevations, Typical Section thru MSE Wall, Profile Grade Lines and Curve Data, See Sheet SF-03.
 - Name Plate shall be level across the coping and at approx. 4' above the ground elevation, which occurs at approx. Sta 17+75.

**GENERAL PLAN & ELEVATION
 RETAINING WALL 5
 ALONG CENTER STREET
 F.A.I. ROUTE 80
 SECTION FAI 80 21 INTERCHANGE
 WILL COUNTY
 STA. 17+25.00 TO STA. 22+00.00
 STRUCTURE NO. 099-W120**

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STRUCTURE NO. 099-W120

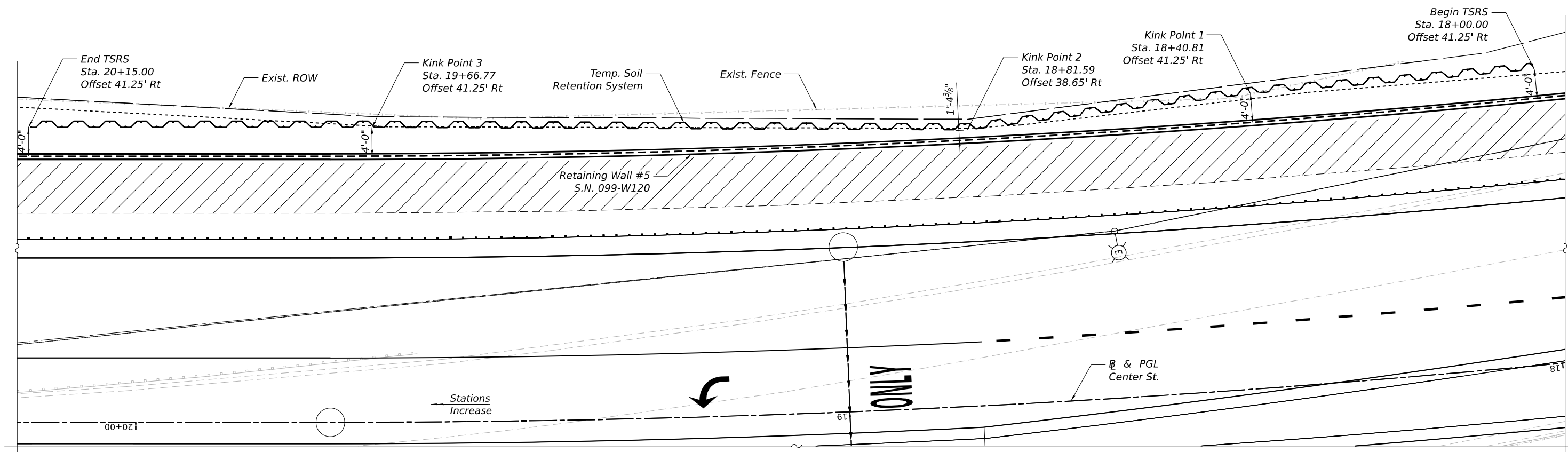
SHEET SF-01 OF SF-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

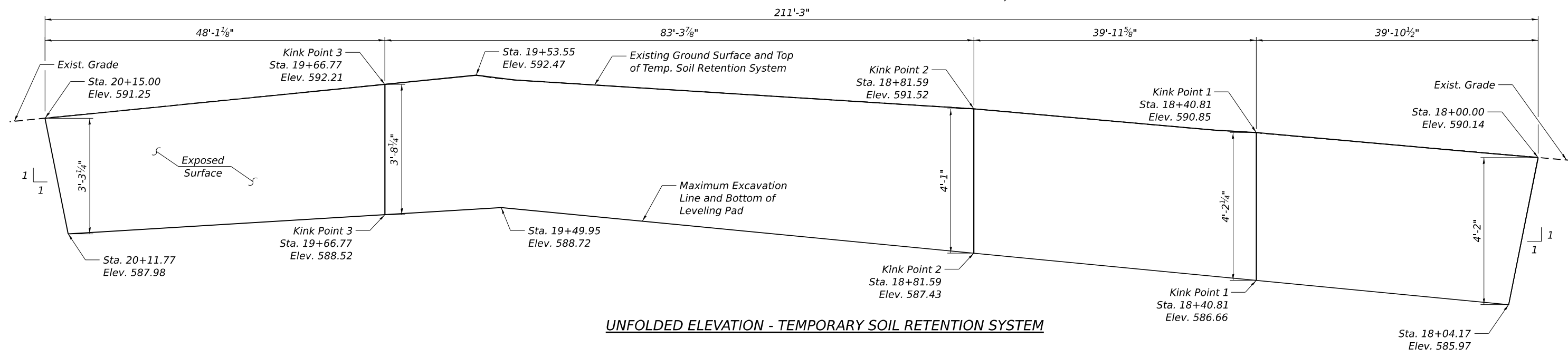


USER NAME =	DESIGNED - PG, KJD	REVISED -
PLOT SCALE =	CHECKED - MI, AMI	REVISED -
PLOT DATE =	DRAWN - PG, KJD	REVISED -
	CHECKED - MI, KJD	REVISED -

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PARTIAL PLAN AT TEMPORARY SOIL RETENTION SYSTEM



UNFOLDED ELEVATION - TEMPORARY SOIL RETENTION SYSTEM

LEGEND

- Temporary Soil Retention System
- Exist. Light Pole
- Prop. Guardrails

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Soil Retention System	Sq Ft	810



USER NAME =	DESIGNED - GFA, KJD	REVISED -
PLOT SCALE =	CHECKED - MI, AMI	REVISED -
PLOT DATE =	DRAWN - GFA, KJD	REVISED -
	CHECKED - MI	REVISED -

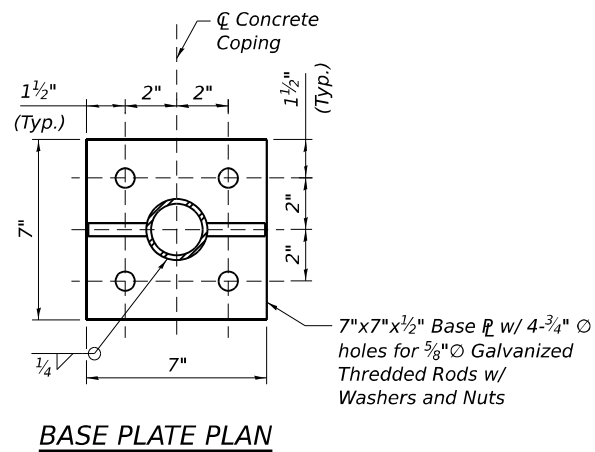
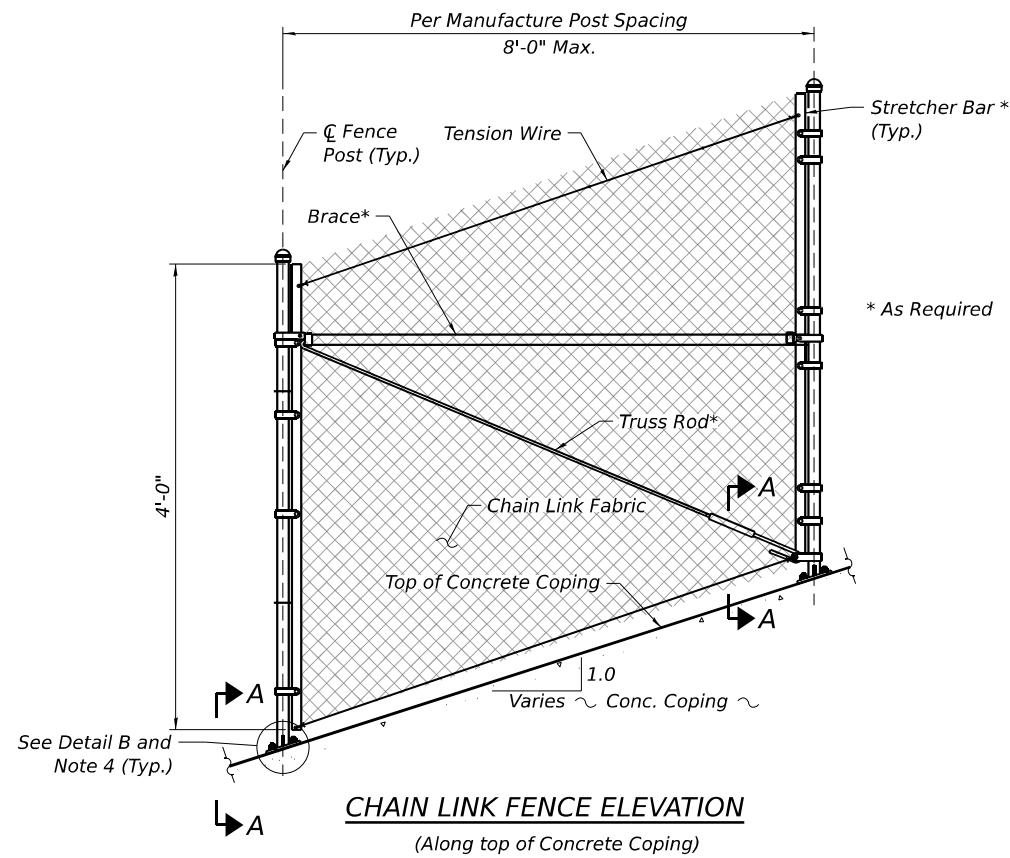
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SOIL RETENTION SYSTEM DETAILS
 STRUCTURE NO. 099-W120**

SHEET SF-04 OF SF-09 SHEETS

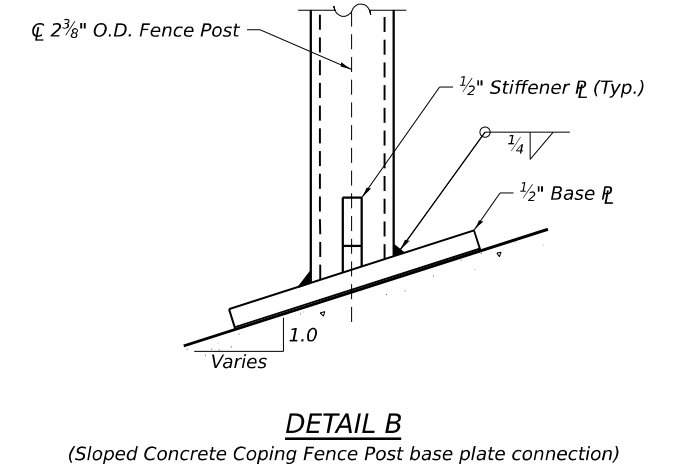
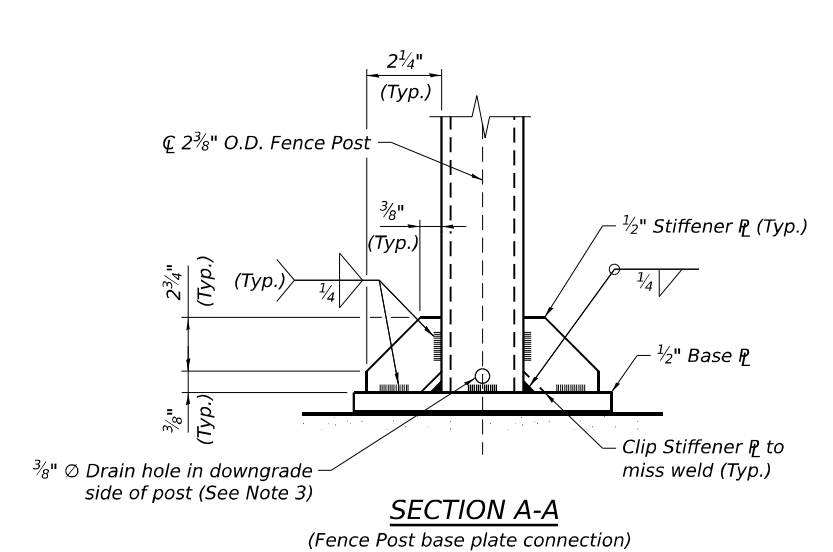
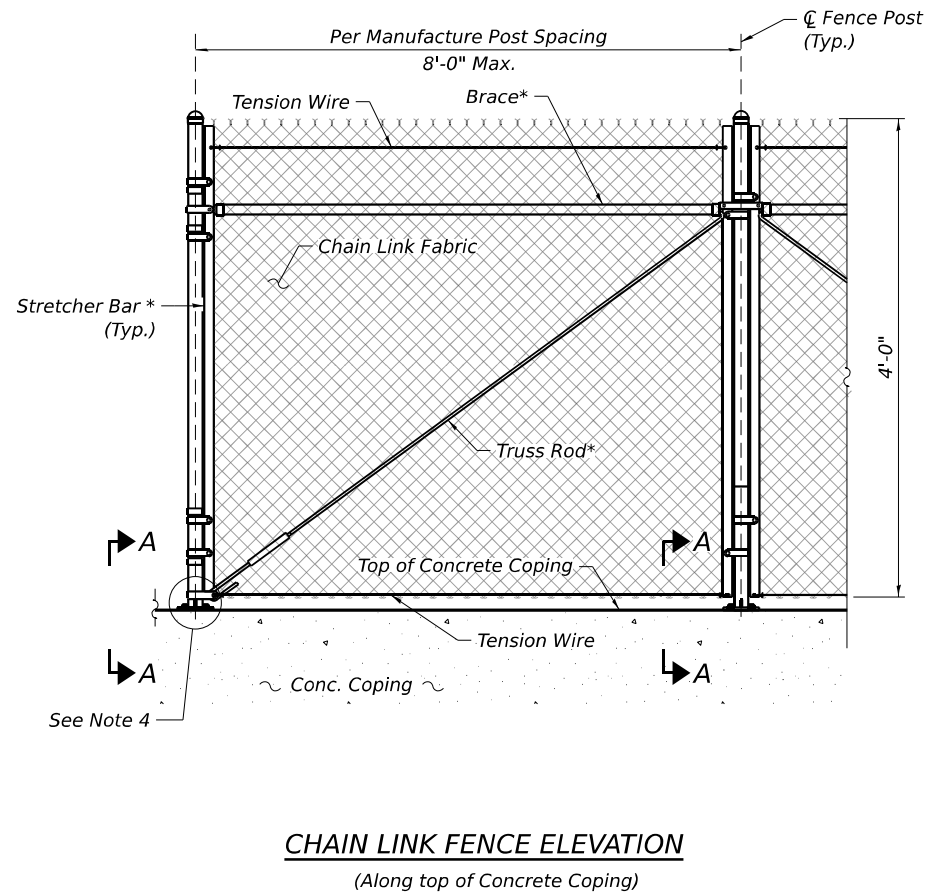
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	758
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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BASE PLATE NOTES:

- A. If necessary the size of the base plate and location of the expansion anchors may be adjusted to miss the concrete coping reinforcement.
- B. Base Plates and Stiffeners shall be fabricated from material meeting the requirements of AASHTO M270 Grade 36.
- C. Base Plates, Stiffeners and Posts shall be Hot Dipped Galvanized after fabrication in accordance with AASHTO.
- D. Thredded Rods shall have a minimum embedment of 6 inched and meet the requirements of ASTM F1554, Grade 36. The thredded rods shall be installed per section 584 of the Standard Specification.
- E. Thredded rods, nuts and washers shall be Hot Dipped Galvanized in accordance with AASHTO M232.



NOTES:

- 1. See IDOT Highway Standard Drawing 664001-02 for additional fence details.
- 2. Fence shall be continuous over concrete coping expansion joints.
- 3. Drill Drain hole to miss fillet weld and prior to galvanizing. Hole shall be drilled as close to the weld as possible.
- 4. Edge distance from a construction or expansion joint in the existing and proposed copings to an expansion anchor shall be per manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Chain Link Fence, 4' Attached to Structure	Foot	470



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG, GFA	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE ATTACHED TO STRUCTURE DETAILS
STRUCTURE NO. 099-W120

SHEET SF-05 OF SF-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	759
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 5 - Center Street Sta 20+60 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Diedrich D-50 ATV HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 102

STRUCT. NO. _____
Station _____
BORING NO. RWB-137
Station 16+99.2138
Offset 37.42ft RT
Ground Surface Elev. 587.94 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	DRILLING METHOD (ft)	BULGE (ft)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
0	587.78				2 inches of Topsoil
9					Dense to Very Dense Brown and Gray, Moist GRAVEL, with sand (GPS)
20			8		
18					
50					
582.94	-5				Very Dense Gray, Moist GRAVEL (GP)
50					
579.94					Auger refusal at 8.0 feet
					End of Boring
-10					
-15					
-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, form 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 5 - Center Street Sta 20+60 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Diedrich D-50 ATV HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 102

STRUCT. NO. _____
Station _____
BORING NO. RWB-138
Station 17+74.5358
Offset 39.27ft RT
Ground Surface Elev. 588.87 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 582.9 ft ▼
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	DRILLING METHOD (ft)	BULGE (ft)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
0	588.71				2 inches of Topsoil
3					Loose Brown, Very Moist SILTY LOAM, trace sand, gravel (ML)
4			19		
3	586.37				
11					Medium Dense Gray and Brown, Wet GRAVEL (GP) Cobble at 3.5 feet
16					
9	583.87	-5			Loose to Very Dense Brown, Moist to Wet GRAVEL, with sand (GPS)
11					
13			19		
9					
7					
5			17		
7					
-10					
3					
3			14		
4					
50	574.87				Auger refusal at 14.0 feet
					Gray LIMESTONE, moderately weathered, moderately fractured
-15					
					Run 1: 14' - 24' Recovery: 100% RQD: 91.3% (Excellent)
-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, form 137 (Rev. 8-99)

MODEL: Default FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH401/401.180022/03-W5P/CAD/62R22-INT-4 (Center)/Sheets/Structure/ra/ISN-099-W120-RW5/099W120-62R22-5F-06-Boring_Logs_1



USER NAME =	DESIGNED - PG	REVISED -
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PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 1 OF 4)
STRUCTURE NO. 099-W120

SHEET SF-06 OF SF-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	760
			CONTRACT NO. 62R22	
			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

Date 8/17/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 5 - Center Street Sta 20+60 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Diedrich D-50 ATV HAMMER TYPE Auto
 DRILLING METHOD HSA HAMMER EFF (%) 102

STRUCT. NO. _____
 Station _____
 BORING NO. RWB-139
 Station 18+47.2425
 Offset 31.37ft RT
 Ground Surface Elev. 591.27 ft

D	B	U	M	Surface Water Elev.
P	L	C	O	ft
T	O	S	I	Stream Bed Elev.
H	W	S	S	ft
S	S	Qu	T	Groundwater Elev.:
				First Encounter
				Upon Completion
				After Hrs.

3 inches of Topsoil	591.02				
Very Dense Light Brown, Dry GRAVEL, with sand (GPS)	15				2
	50				
	50				
Auger refusal at 4.0 feet	587.27				
End of Boring	-5				
	-10				
	-15				
	-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, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 8/17/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 5 - Center Street Sta 20+60 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Diedrich D-50 ATV HAMMER TYPE Auto
 DRILLING METHOD HSA HAMMER EFF (%) 102

STRUCT. NO. _____
 Station _____
 BORING NO. RWB-140
 Station 19+9.8549
 Offset 26.96ft RT
 Ground Surface Elev. 592.48 ft

D	B	U	M	Surface Water Elev.
P	L	C	O	ft
T	O	S	I	Stream Bed Elev.
H	W	S	S	ft
S	S	Qu	T	Groundwater Elev.:
				First Encounter
				Upon Completion
				After Hrs.

3 inches of Topsoil	592.23				
Hard Brown, Moist SILTY CLAY, trace sand, gravel (CL/ML)	8		4.5	17	
	7		P		
	9				
589.98					
Medium Dense Light Brown, Moist GRAVEL, with sand (GPS)	11				
	13			2	
	10				
	-5				
	-10				
	-15				
	-20				
Auger refusal at 6.0 feet	586.48				
Gray LIMESTONE, moderately weathered, heavily fractured, vertical fractures					
Run 1: 6' - 16' Recovery: 100% RQD: 3.33% (Very poor)					
	-10				
	-15				
	-20				
576.48					
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, form 137 (Rev. 8-99)

MODEL: Default
 FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structure/ra/ISN-099-W/120-RW5/099W/120-62R22-5F-07-Boring_Logs 2



USER NAME =	DESIGNED - PG	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 2 OF 4)
 STRUCTURE NO. 099-W120

SHEET SF-07 OF SF-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	761
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 5 - Center Street Sta 20+60 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E

COUNTY Will DRILLING RIG Diedrich D-50 ATV HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 102

STRUCT. NO. _____
Station _____
BORING NO. RWB-42
Station 21+0.1523
Offset 43.21ft RT
Ground Surface Elev. 589.35 ft

DEPTH (ft)	SOIL TYPE	UCS	MOISTURE (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (Hrs.)
0	3 inches of Topsoil			589.10					
17	Very Dense Light Brown and Brown, Moist GRAVEL, with sand, trace silt (GPS)		50/3"						
17	Cobbles at 1.5 feet			586.85					
17	Very Dense Light Brown, Dry SAND (SP)			586.35					
17	Auger refusal at 3.0 feet								
17	End of Boring			-5					

DEPTH (ft)	SOIL TYPE	UCS	MOISTURE (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (Hrs.)
0	3 inches of Topsoil			589.10					
17	Very Dense Light Brown and Brown, Moist GRAVEL, with sand, trace silt (GPS)		50/3"						
17	Cobbles at 1.5 feet			586.85					
17	Very Dense Light Brown, Dry SAND (SP)			586.35					
17	Auger refusal at 3.0 feet								
17	End of Boring			-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)

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 5 - Center Street Sta 20+60 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E

COUNTY Will DRILLING RIG Diedrich D-50 ATV HAMMER TYPE Auto
DRILLING METHOD HSA HAMMER EFF (%) 102

STRUCT. NO. _____
Station _____
BORING NO. RWB-43
Station 21+47.1894
Offset 42.82ft RT
Ground Surface Elev. 590.02 ft

DEPTH (ft)	SOIL TYPE	UCS	MOISTURE (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (Hrs.)
0	3 inches of Topsoil			589.77					
21	Very Dense Light Gray, Dry SAND, with gravel (SPG)		50/3"						
27	Cobbles at 2.5 feet								
27	Auger refusal at 4.0 feet			586.02					
27	Light Gray LIMESTONE, heavily weathered, moderately fractured			-5					
27	Run 1: 4' - 9' Recovery: 100% RQD: 0% (Very Poor)								
27	Run 2: 9' - 14' Recovery: 100% RQD: 14.2% (Very Poor)								
27	End of Boring			576.02					

DEPTH (ft)	SOIL TYPE	UCS	MOISTURE (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (Hrs.)
0	3 inches of Topsoil			589.77					
21	Very Dense Light Gray, Dry SAND, with gravel (SPG)		50/3"						
27	Cobbles at 2.5 feet								
27	Auger refusal at 4.0 feet			586.02					
27	Light Gray LIMESTONE, heavily weathered, moderately fractured			-5					
27	Run 1: 4' - 9' Recovery: 100% RQD: 0% (Very Poor)								
27	Run 2: 9' - 14' Recovery: 100% RQD: 14.2% (Very Poor)								
27	End of Boring			576.02					

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 FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structure/ra/ISN-099-W/120-RW5/099W/120-62R22-SF-09-Boring_Logs 4



USER NAME =	DESIGNED - PG	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 4 OF 4)
STRUCTURE NO. 099-W120

SHEET SF-09 OF SF-09 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	763

CONTRACT NO. 62R22

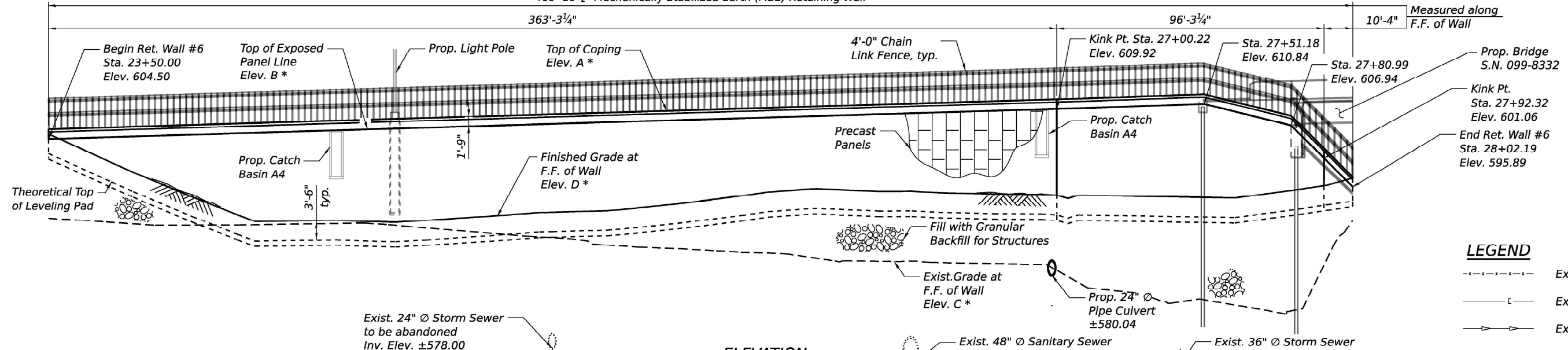
ILLINOIS FED. AID PROJECT

Benchmark: Chiseled "X" on top of SE bolt of Fire Hydrant at South ROW of Jasper St. (in front of 640 Jasper St. address), Elev. 585.86.
 Existing Structure: None.
 Traffic Control: Entrance ramp traffic from NB Center St. to EB I-80 and exit ramp traffic from WB I-80 to SB Center St. will be detoured to the west at Larkin Ave.
 Salvage: None.

DESIGN STRESSES
PRECAST UNITS
 $f_c = 4,500 \text{ psi}$
FIELD UNITS
 $f_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinforcement)}$

DESIGN SPECIFICATIONS
 2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

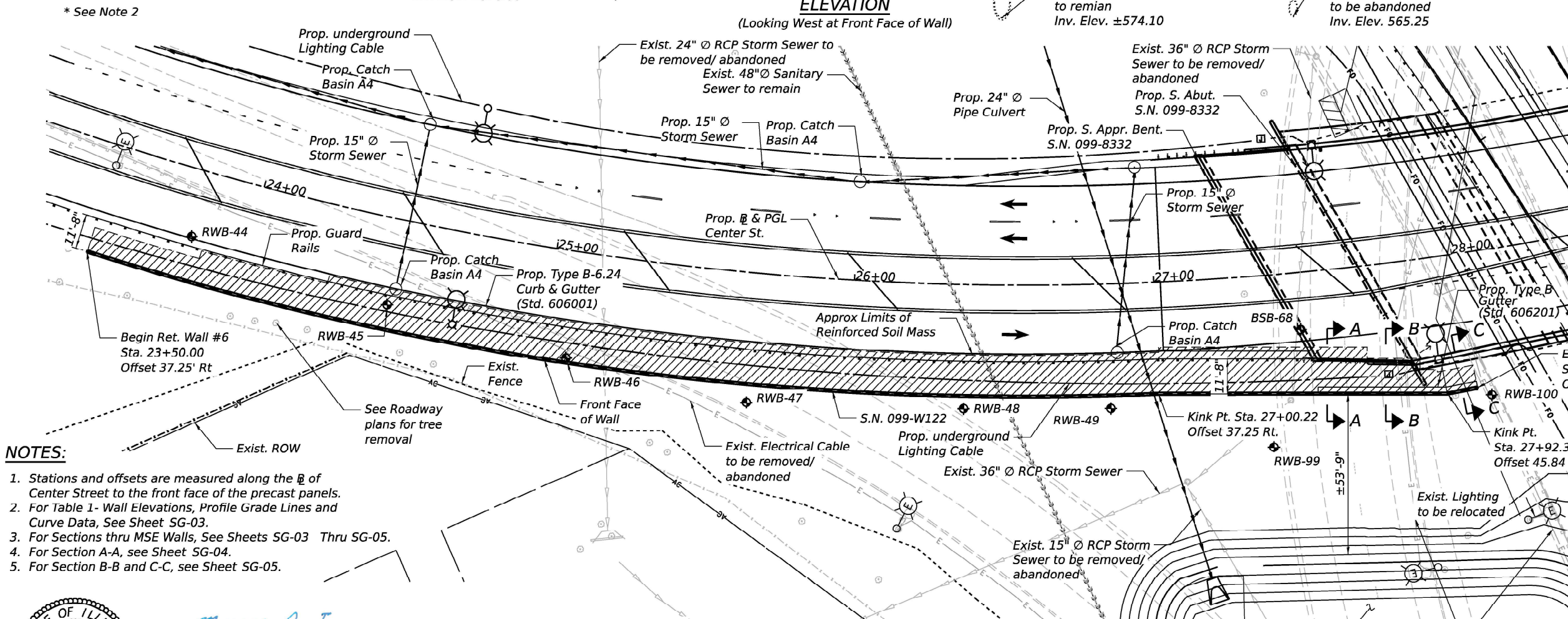
469'-10 1/2" Mechanically Stabilized Earth (MSE) Retaining Wall



ELEVATION
 (Looking West at Front Face of Wall)

LEGEND

- Exist. Fence
- - - - - Exist. Electrical Cable
- Exist. Storm Sewer
- Prop. Storm Sewer
- (E) Exist. Light Pole
- (E) Prop. Light Pole
- Prop. Guardrail
- Tree
- ◆ Soil Boring
- ▨ Approx. Limits of Reinforced Soil Mass
- AC --- Exist. ROW Access Control
- - - - - Exist. Sanitary Sewer
- Granular Backfill for Structures



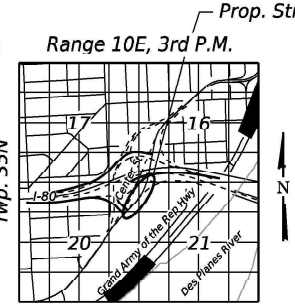
PLAN

- NOTES:**
1. Stations and offsets are measured along the center of Center Street to the front face of the precast panels.
 2. For Table 1- Wall Elevations, Profile Grade Lines and Curve Data, See Sheet SG-03.
 3. For Sections thru MSE Walls, See Sheets SG-03 Thru SG-05.
 4. For Section A-A, see Sheet SG-04.
 5. For Section B-B and C-C, see Sheet SG-05.



Signed *Moussa A. Issa*
 Dr. Moussa A. Issa, S.E. IL Lic. No. 081-005738
 Expires 11-30-2026
 Date 4/22/2025 For Sheets SG-01 Thru SG-10.

APPROVED
 For Structural Adequacy Only
[Signature]
 Engineer of Bridges & Structures



LOCATION SKETCH

GENERAL PLAN & ELEVATION
RETAINING WALL 6
ALONG CENTER STREET
F.A.I. ROUTE 80
SECTION FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 23+50.00 TO STA. 28+02.19
STRUCTURE NO. 099-W122



USER NAME =	DESIGNED - PG, KJD	REVISED -
PLOT SCALE =	CHECKED - MI, AMI	REVISED -
PLOT DATE =	DRAWN - PG, KJD	REVISED -
	CHECKED - MI, AMI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 099-W122

SHEET SG-01 OF SG-10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	764
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

- Reinforcement bars designated (E) shall be epoxy coated.
- Protective Coat shall be applied to the exposed faces of the cast-in-place coping.
- The Contractor shall field verify locations of existing underground utilities prior to beginning work. Existing utilities in conflict with retaining wall construction shall be abandoned or relocated according to the directions given on the Civil Plans. The Contractor shall take all necessary precautions to protect existing utilities to remain during all stages of construction. Any damage to the existing utilities to remain caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
- Any storage of construction equipment and material behind the wall is not allowed.
- Stations and offsets are measured along the baseline of the Center Street Ramp C to the front face of precast panels.
- The cost of the concrete and the reinforcing steel required for the coping shall be included in the cost of "Mechanically Stabilized Earth Retaining Wall".
- All Exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below the finished ground level.
- The minimum service limit bearing resistance for fill material, at locations where the proposed theoretical top of leveling pad is above the existing ground line, shall equal or exceed 6,000 psf.
- Any storage of construction equipment and material behind the wall is not allowed.
- Construction of Retaining Wall 6 shall be coordinated with construction of the adjacent Center Street Bridge over EB/WB I-80 (SN 099-8332) South Abutment and South Approach Bent. Namely, South Abutment and south Approach Bent piles within the limits of the adjacent Retaining Wall 6 Reinforced soil mass shall be driven first and sleeves (extending to the top of leveling pad elevation) shall be utilities for these piles. The remaining abutment and approach bent piles shall be driven after Retaining Wall 6 has been constructed and embankment has been backfilled to the bottom of the abutment.

INDEX OF SHEETS

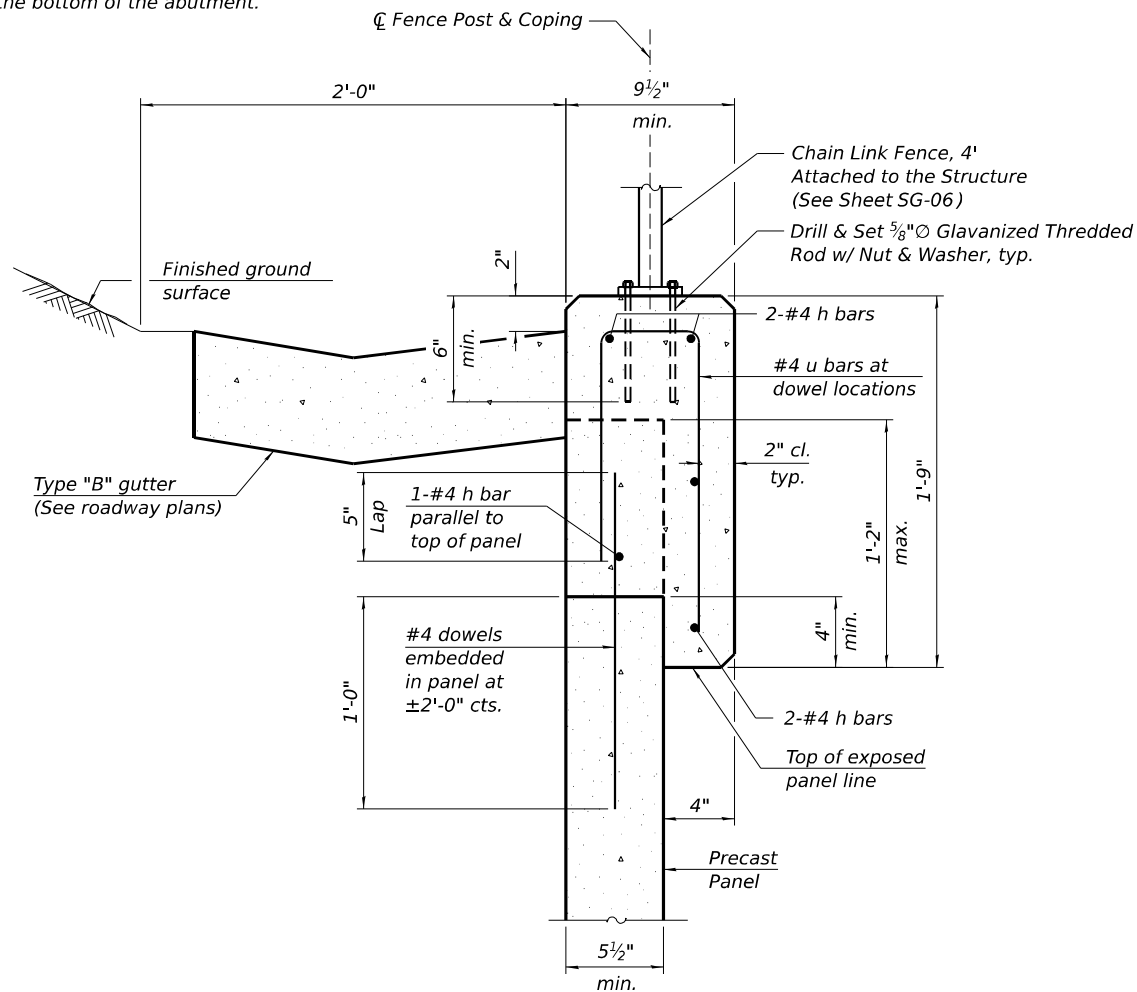
- SG-01 General Plan & Elevation
- SG-02 General Notes, Index of Sheets and Total Bill of Material
- SG-03 MSE Wall Cross Sections and Details (Sheet 1 of 3)
- SG-04 MSE Wall Cross Sections and Details (Sheet 2 of 3)
- SG-05 MSE Wall Cross Sections and Details (Sheet 3 of 3)
- SG-06 Chain Link Fence Details
- SG-07 Boring Logs (Sheet 1 of 4)
- SG-08 Boring Logs (Sheet 2 of 4)
- SG-09 Boring Logs (Sheet 3 of 4)
- SG-10 Boring Logs (Sheet 4 of 4)

TOTAL BILL OF MATERIAL

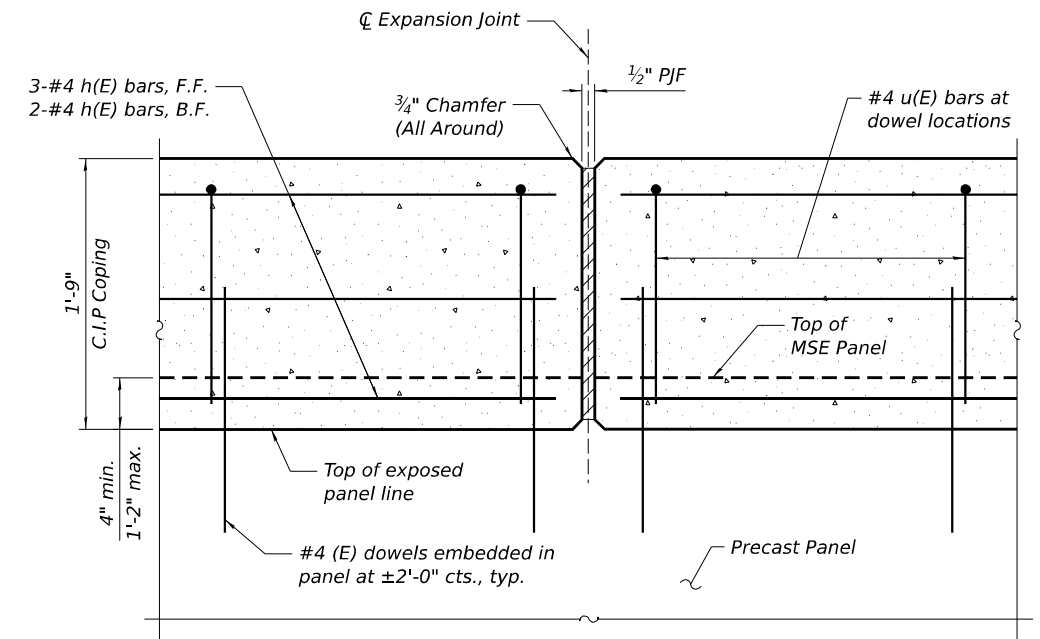
ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd	-	218	218
Protective Coat	Sq Yd	-	177	177
Name Plates	Each	1	-	1
Mechanically Stabilized Earth Retaining Wall	Sq Ft	-	8,047	8,047
Granular Backfill For Structures	Cu Yd	-	2,282	2,282
Chain Link Fence, 4' Attached To Structure	Foot	473	-	473

STA. 23+50.00 TO 28+00.00
 BUILT 20-- BY
 STATE OF ILLINOIS
 F.A.I. Rt. 80
 Sec. FAI 80 21 INTERCHANGE
 LOADING HL-93
 STR. NO. 099-W122

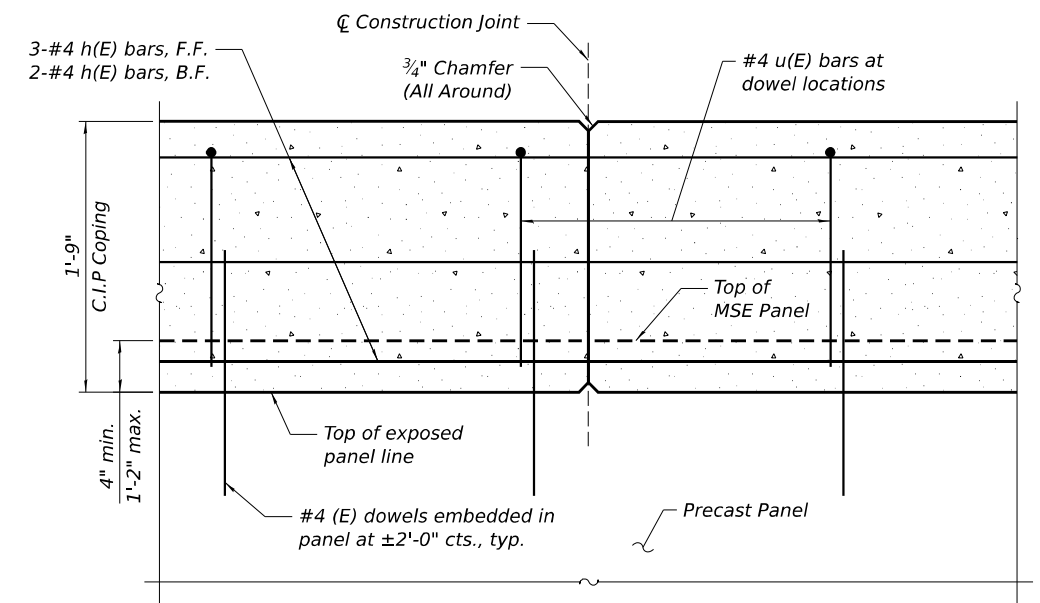
NAME PLATE
 See Std. 515001



C.I.P. COPING DETAILS



COPING EXPANSION JOINT - ELEVATION
 (Provide expansion joints at a max. spacing of 90'-0")



COPING CONSTRUCTION JOINT - ELEVATION
 (Provide construction joints at a max. spacing of 30'-0")

NOTE:

- Coping Reinforcement bars may be adjusted to miss fence base plate threaded rods.

MINIMUM BAR LAP

(Coping)
 #4 bar = 2'-11"

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
 STRUCTURE NO. 099-W122

SHEET SG-02 OF SG-10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	765
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

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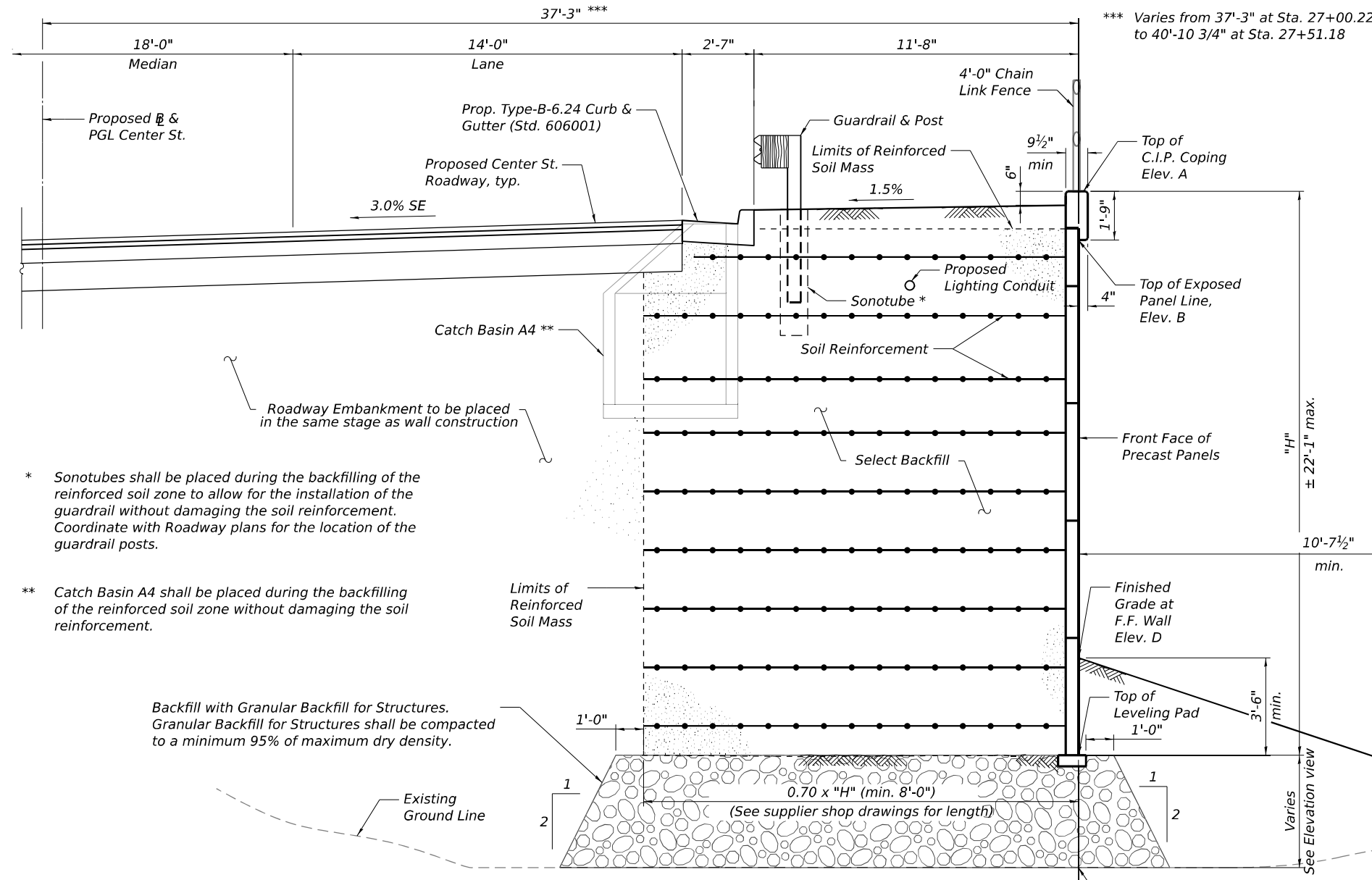


TABLE 1 - WALL ELEVATIONS

Station	Offset	A	B	C	D
		Top of Coping	Top of Exposed Panel Line	Exist. Grade at FF Wall	T/Prop Grade at FF Wall
23+50.00	37.25' RT	606.25	604.50	590.25	605.38
23+75.00	37.25' RT	606.64	604.89	589.43	599.53
24+00.00	37.25' RT	607.02	605.27	589.03	594.05
24+25.00	37.25' RT	607.41	605.66	589.12	589.71
24+50.00	37.25' RT	607.80	606.05	589.31	589.90
24+75.00	37.25' RT	608.18	606.43	588.78	589.71
25+00.00	37.25' RT	608.57	606.82	587.72	590.53
25+25.00	37.25' RT	608.96	607.21	586.79	591.34
25+50.00	37.25' RT	609.34	607.59	585.22	591.88
25+75.00	37.25' RT	609.73	607.98	584.60	593.26
26+00.00	37.25' RT	610.12	608.37	583.97	594.97
26+25.00	37.25' RT	610.50	608.75	582.48	595.37
26+50.00	37.25' RT	610.89	609.14	582.54	595.10
26+75.00	37.25' RT	611.28	609.53	582.13	594.65
27+00.00	37.25' RT	611.67	609.92	580.99	594.38
27+00.22	37.25' RT	611.67	609.92	580.92	594.35
27+25.00	38.68' RT	612.11	610.36	576.96	594.24
27+50.00	40.78' RT	612.56	610.81	575.66	594.01
27+51.18	40.89' RT	612.59	610.84	575.56	594.00
27+75.00	43.54' RT	609.47	607.72	573.46	594.83
27+80.99	44.30' RT	608.69	606.94	573.58	595.24
27+92.32	45.84' RT	602.81	601.06	581.83	596.10
28+00.00	45.40' RT	598.79	597.04	588.22	597.14
28+02.19	45.29' RT	597.64	595.89	589.82	597.46

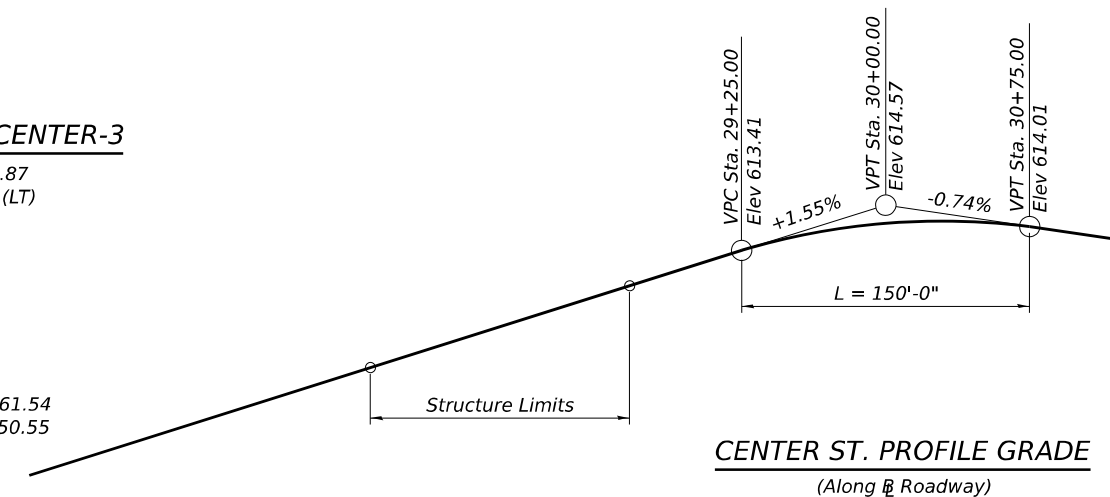
- * Sonotubes shall be placed during the backfilling of the reinforced soil zone to allow for the installation of the guardrail without damaging the soil reinforcement. Coordinate with Roadway plans for the location of the guardrail posts.
- ** Catch Basin A4 shall be placed during the backfilling of the reinforced soil zone without damaging the soil reinforcement.

Backfill with Granular Backfill for Structures. Granular Backfill for Structures shall be compacted to a minimum 95% of maximum dry density.

TYPICAL SECTION THRU M.S.E WALL
 (Sta. 23+50.00 to 24+03.51 & Sta. 25+21.44 to 27+51.18)
 (Looking North)

PR CURVE CENTER-3

PI Sta. = 25+64.87
 $\Delta = 33^\circ 44' 53''$ (LT)
 $D = 5^\circ 43' 46''$
 $R = 1,000.00'$
 $T = 303.33'$
 $L = 589.01'$
 $E = 44.99'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 22+61.54$
 $P.T. STA. = 28+50.55$



CENTER ST. PROFILE GRADE
 (Along Center Roadway)



USER NAME =	DESIGNED - PG, KJD	REVISED -
	CHECKED - MI, AMI	REVISED -
PLOT SCALE =	DRAWN - PG, KJD	REVISED -
PLOT DATE =	CHECKED - MI, AMI	REVISED -

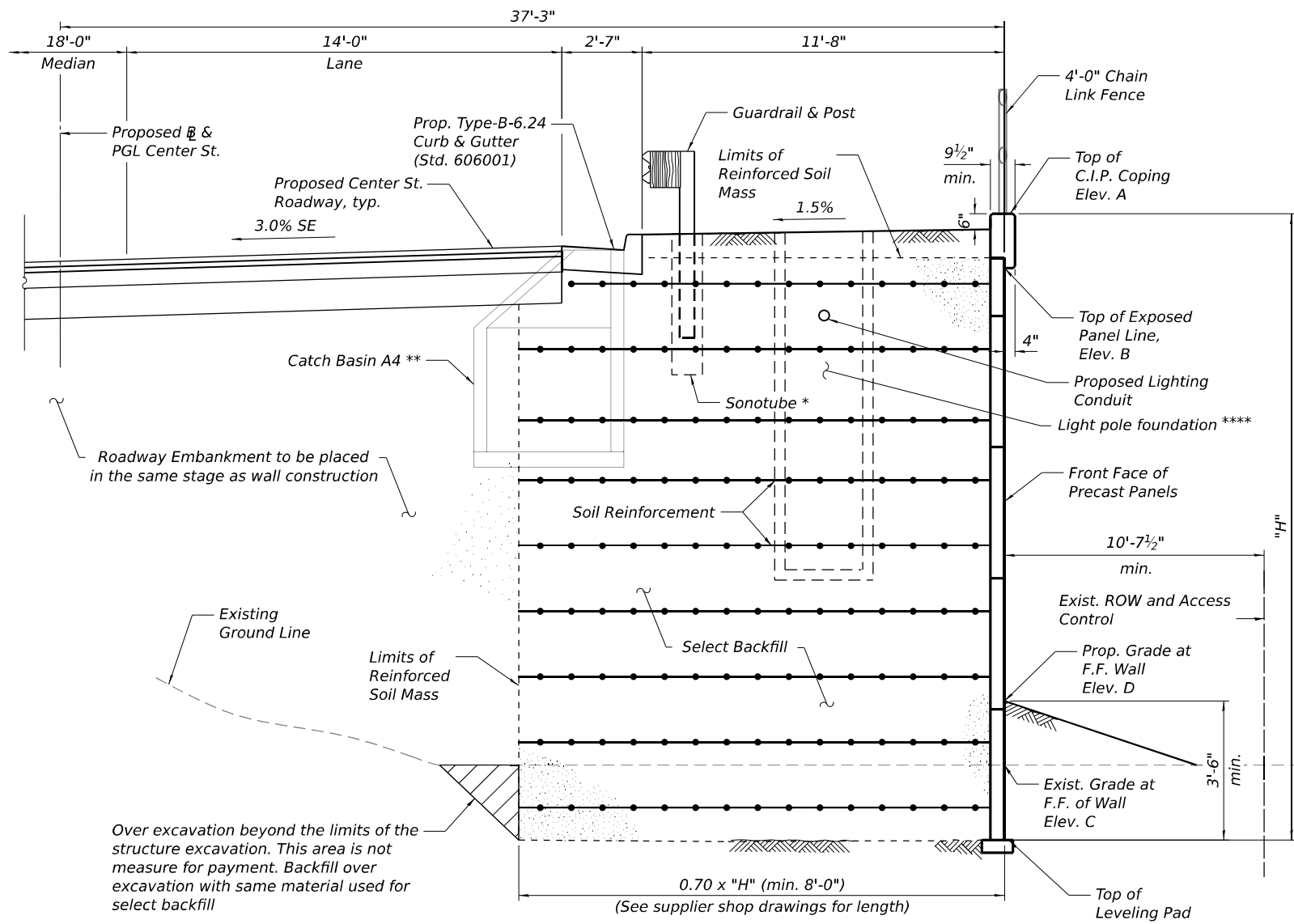
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MSE WALL CROSS SECTIONS AND DETAILS (SHEET 1 OF 3)
 STRUCTURE NO. 099-W122**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	766
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

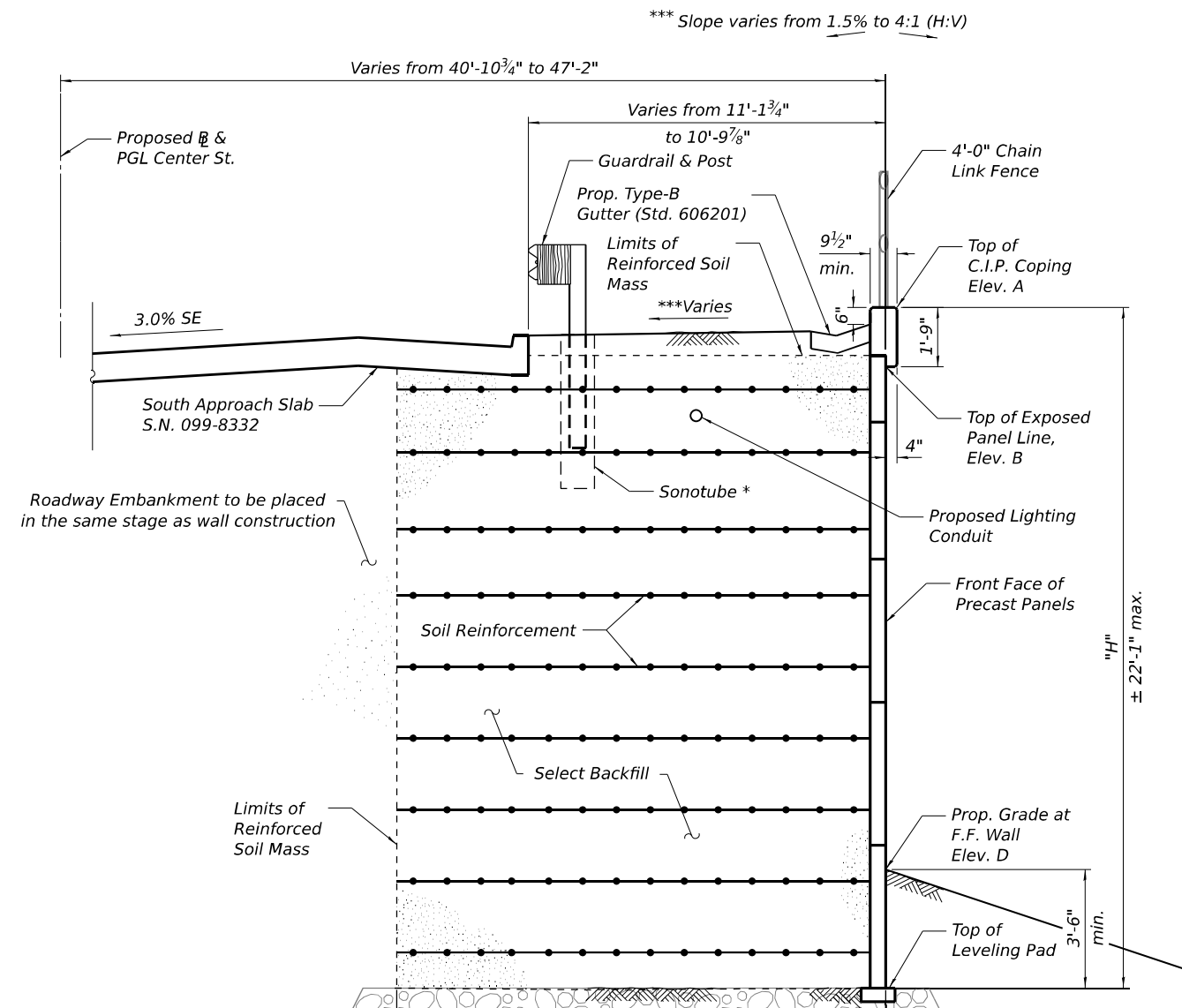
SHEET SG-03 OF SG-10 SHEETS

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TYPICAL SECTION THRU M.S.E WALL
 (Sta. 24+03.51 to 25+21.44)
 (Looking North)

- * Sonotubes shall be placed during the backfilling of the reinforced soil zone to allow for the installation of the guardrail without damaging the soil reinforcement. Coordinate with Roadway plans for the location of the guardrail posts.
- ** Catch Basin A4 shall be placed during the backfilling of the reinforced soil zone without damaging the soil reinforcement.
- **** The Contractor shall install a pile sleeve around the light pole foundation prior to select fill placement for the wall. The pile sleeve shall be provided within the proposed wall reinforced soil limits. The annulus between the sleeve and light pole foundation shall be filled with loose dry sand. Cost of pipe sleeve and filling annulus with dry loose sand shall be included with Mechanically Stabilized Earth Retaining Wall.



SECTION A-A
 (Sta. 27+51.18 to 27+67.01)
 (Looking North)



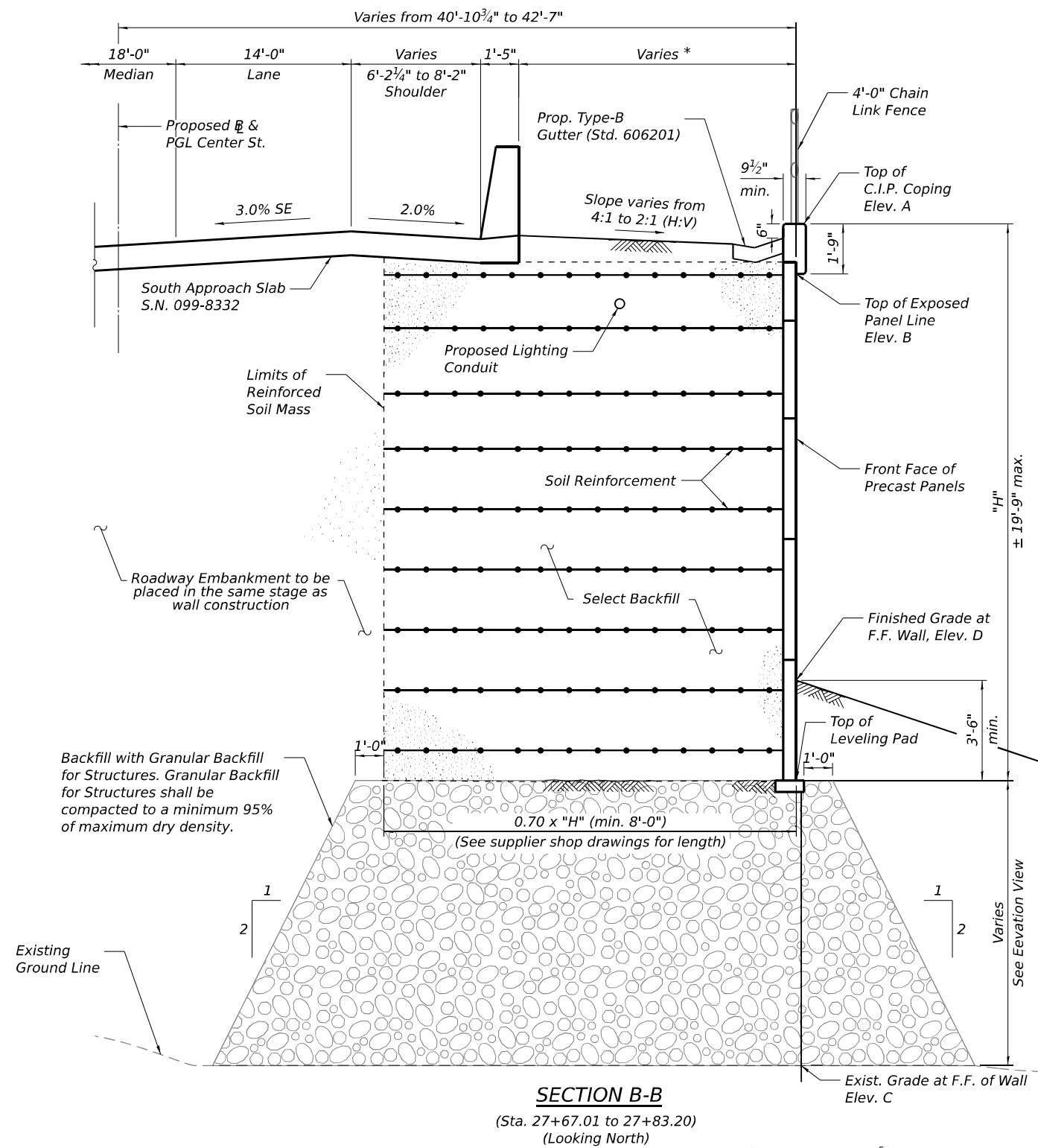
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PLOT SCALE =	DRAWN - PG, KJD	REVISED -
PLOT DATE =	CHECKED - MI, AMI	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MSE WALL CROSS SECTIONS AND DETAILS (SHEET 2 OF 3)
 STRUCTURE NO. 099-W122**

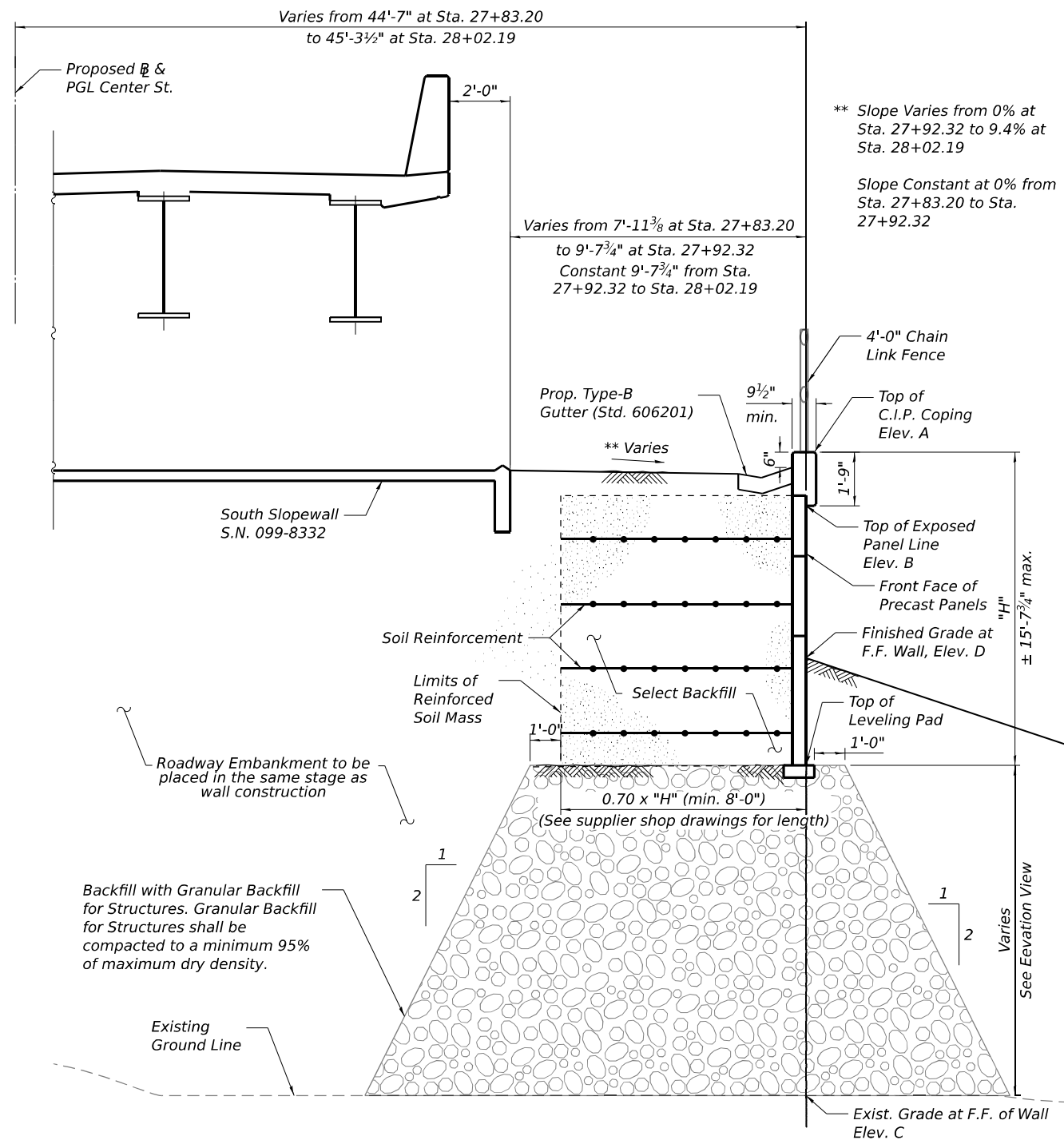
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	767
CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

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SECTION B-B
 (Sta. 27+67.01 to 27+83.20)
 (Looking North)

* Varies from 11'-1 3/8" at Sta. 27+67.01 to 11'-9 7/8" at Sta. 27+83.20



SECTION C-C
 (Sta. 27+83.20 to 28+02.19)
 (Looking North)

** Slope Varies from 0% at Sta. 27+92.32 to 9.4% at Sta. 28+02.19
 Slope Constant at 0% from Sta. 27+83.20 to Sta. 27+92.32



USER NAME =	DESIGNED - PG, KJD	REVISED -
	CHECKED - MI, AMI	REVISED -
PLOT SCALE =	DRAWN - PG, KJD	REVISED -
PLOT DATE =	CHECKED - MI, AMI	REVISED -

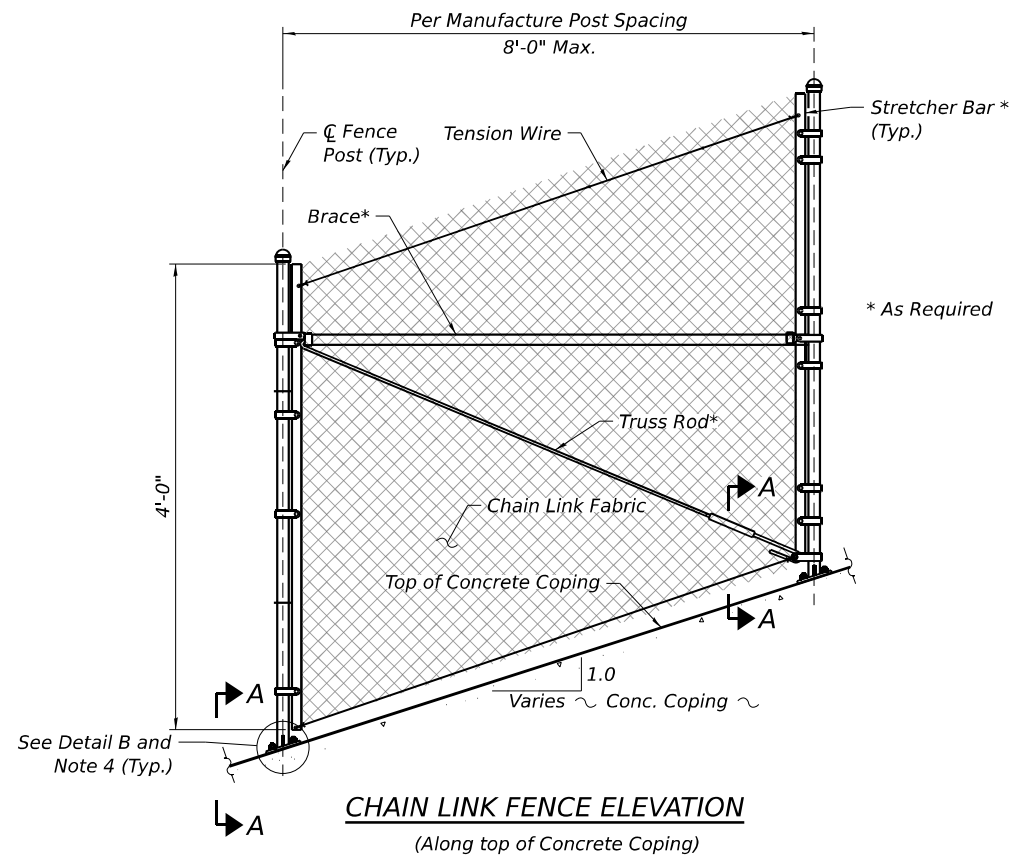
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MSE WALL CROSS SECTIONS AND DETAILS (SHEET 3 OF 3)
 STRUCTURE NO. 099-W122**

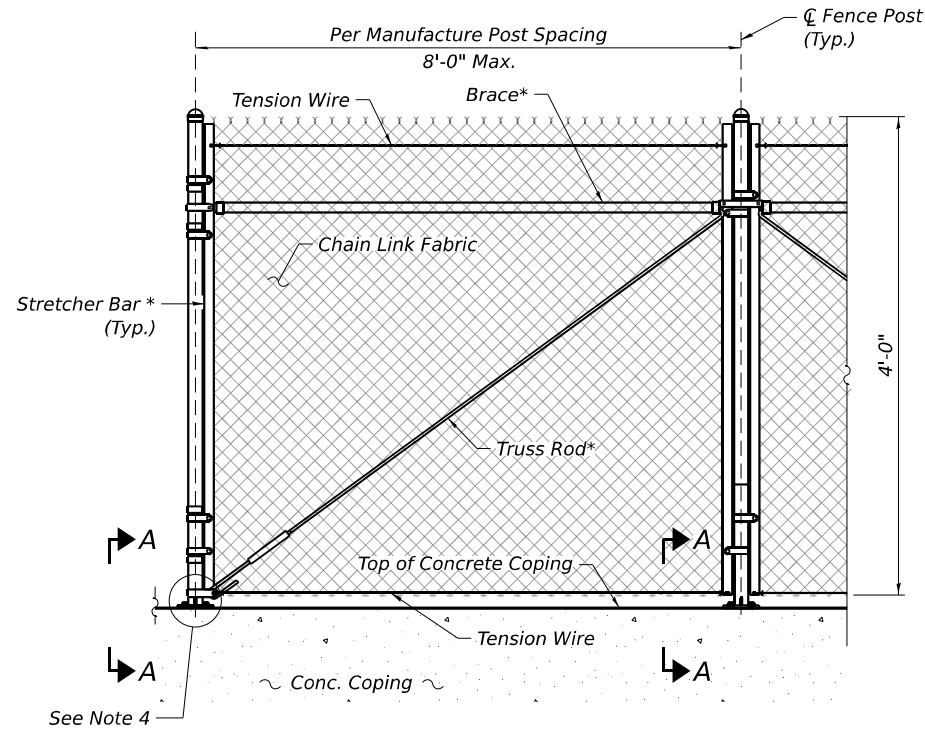
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SG-05 OF SG-10 SHEETS

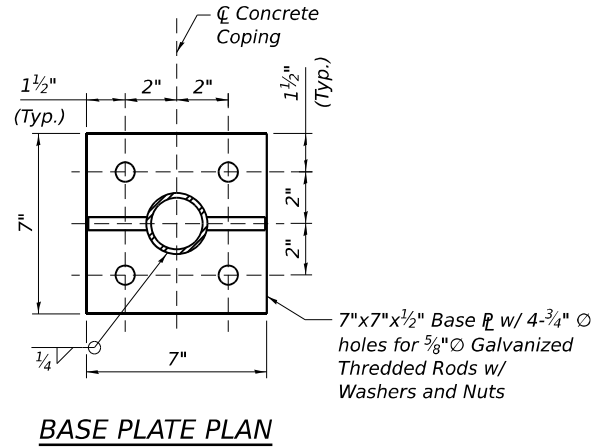
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CHAIN LINK FENCE ELEVATION
 (Along top of Concrete Coping)



CHAIN LINK FENCE ELEVATION
 (Along top of Concrete Coping)



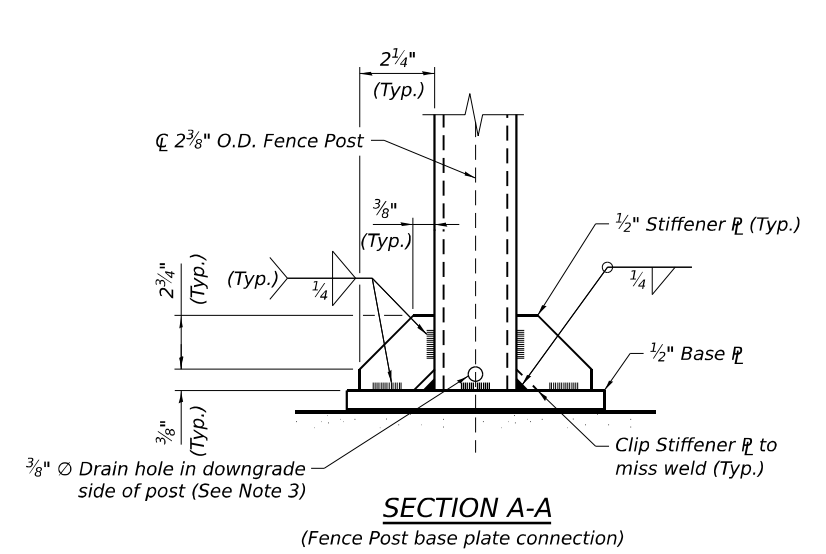
BASE PLATE PLAN

BASE PLATE NOTES:

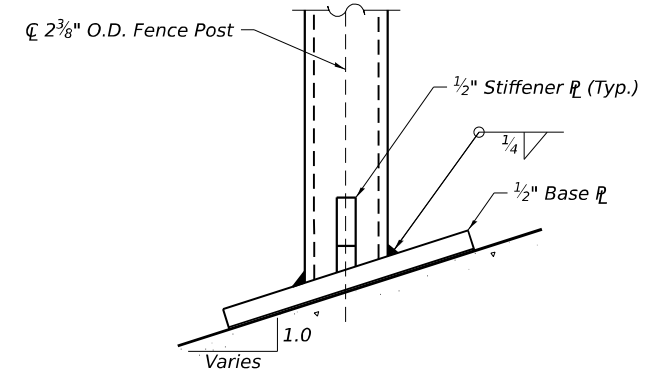
- A. If necessary the size of the base plate and location of the expansion anchors may be adjusted to miss the concrete coping reinforcement.
- B. Base Plates and Stiffeners shall be fabricated from material meeting the requirements of AASHTO M270 Grade 36.
- C. Base Plates, Stiffeners and Posts shall be Hot Dipped Galvanized after fabrication in accordance with AASHTO.
- D. Thredded Rods shall have a minimum embedment of 6 inched and meet the requirements of ASTM F1554, Grade 36. The thredded rods shall be installed per section 584 of the Standard Specification.
- E. Thredded rods, nuts and washers shall be Hot Dipped Galvanized in accordance with AASHTO M232.

NOTES:

- 1. See IDOT Highway Standard Drawing 664001-02 for additional fence details.
- 2. Fence shall be continuous over concrete coping expansion joints.
- 3. Drill Drain hole to miss fillet weld and prior to galvanizing. Hole shall be drilled as close to the weld as possible.
- 4. Edge distance from a construction or expansion joint in the existing and proposed copings to an expansion anchor shall be per manufacturer's specifications.



SECTION A-A
 (Fence Post base plate connection)



DETAIL B
 (Sloped Concrete Coping Fence Post base plate connection)

BILL OF MATERIAL

Item	Unit	Quantity
Chain Link Fence, 4' Attached to Structure	Foot	473



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE DETAILS
 STRUCTURE NO. 099-W122

SHEET SG-06 OF SG-10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	769
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 6 - Center Street Sta 23+50 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E

COUNTY Will DRILLING RIG Diedrich D-50 ATV DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 102

STRUCT. NO. Station _____
BORING NO. RWB-44 Station 23+81.1439 Offset 22.21ft RT
Ground Surface Elev. 592.90 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	DRILLING METHOD	SOIL DESCRIPTION	U (tsf)	M (SPT)
0 - 3		3 inches of Topsoil Brown, Moist FILL: SILTY CLAY LOAM, trace sand		15
3 - 7		Cobbles at 2.5 feet		
7 - 9		Hard Brown and Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)	4.0	17
9 - 19		Dense Black and Light Brown, Moist SAND, with gravel and clay (SPG) Cobbles at 6 feet		10
19 - 22		Dense Light Gray and Light Brown, Dry SAND, with gravel (SPG) Cobbles at 8.5 feet		4
22 - 25		Very Dense Light Brown, Moist GRAVEL (GP)		5
25 - 20		Auger refusal at 13.0 feet 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, form 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE I-80 DESCRIPTION Retaining Wall No. 6 - Center Street Sta 23+50 LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 16, TWP. 35 N, RNG. 10 E

COUNTY Will DRILLING RIG Diedrich D-50 ATV DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 102

STRUCT. NO. Station _____
BORING NO. RWB-44 Station 23+81.1439 Offset 22.21ft RT
Ground Surface Elev. 592.90 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	DRILLING METHOD	SOIL DESCRIPTION	U (tsf)	M (SPT)
0 - 3		3 inches of Topsoil Brown, Moist FILL: SILTY CLAY LOAM, trace sand		15
3 - 7		Cobbles at 2.5 feet		
7 - 9		Hard Brown and Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)	4.0	17
9 - 19		Dense Black and Light Brown, Moist SAND, with gravel and clay (SPG) Cobbles at 6 feet		10
19 - 22		Dense Light Gray and Light Brown, Dry SAND, with gravel (SPG) Cobbles at 8.5 feet		4
22 - 25		Very Dense Light Brown, Moist GRAVEL (GP)		5
25 - 20		Auger refusal at 13.0 feet 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, form 137 (Rev. 8-99)

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USER NAME =	DESIGNED - PG	REVISED -
PLOT SCALE =	CHECKED - MI	REVISED -
PLOT DATE =	DRAWN - PG	REVISED -
	CHECKED - MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (SHEET 1 OF 4)
STRUCTURE NO. 099-W122

SHEET SG-07 OF SG-10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	FAI 80 21 INTERCHANGE	WILL	1209	770
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

Existing Structure: SN 099-8324, built in 2024 as FAI Rte. 80, Section 80 21 Structure 9 under Contract 62R30. The structure has a total of 2 spans with continuous steel girders that support the deck. The substructure consists of cast-in-place reinforced concrete integral abutments on steel piles and a multicolumn grade separation pier on pile supported footing. The bridge measures 244'-8" back to back abutments, 56'-0" out to out with no skew at abutments and pier.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS (New Construction)

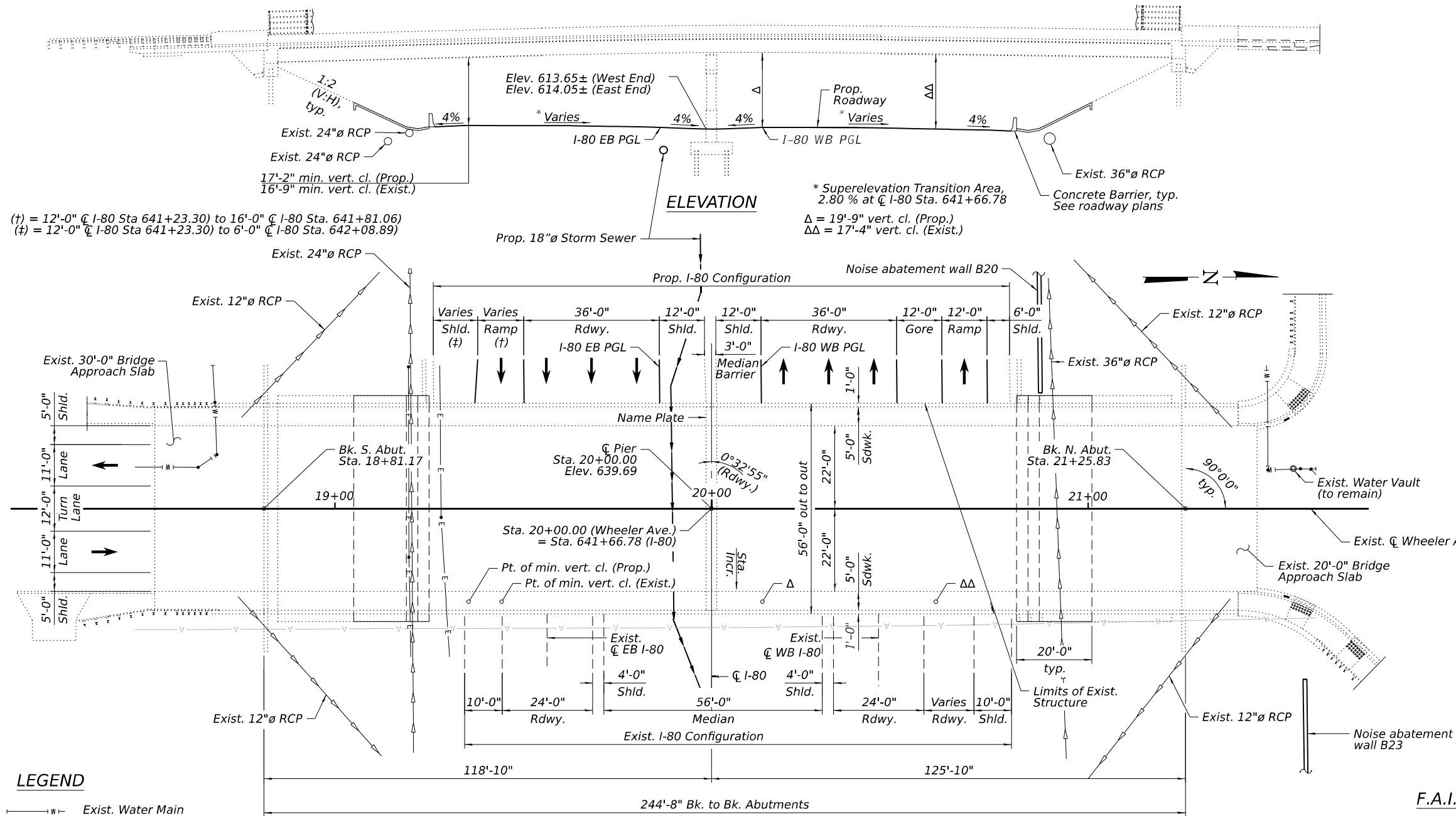
f'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)

FIELD UNITS (Exist. Construction)

f'c = 3,500 psi (Substructure)
f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

INDEX OF SHEETS

SH-1 General plan and Elevation
SH-2 General Data

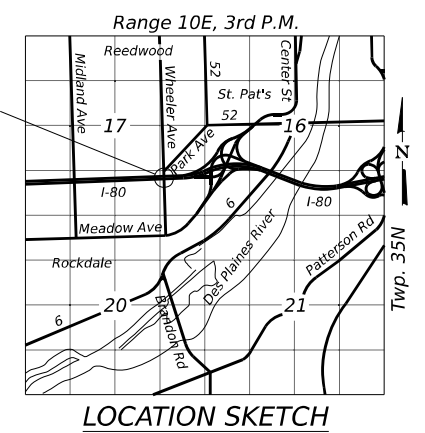


(†) = 12'-0" @ I-80 Sta 641+23.30 to 16'-0" @ I-80 Sta. 641+81.06
(‡) = 12'-0" @ I-80 Sta 641+23.30 to 6'-0" @ I-80 Sta. 642+08.89

* Superelevation Transition Area, 2.80 % at @ I-80 Sta. 641+66.78
Δ = 19'-9" vert. cl. (Prop.)
ΔΔ = 17'-4" vert. cl. (Exist.)

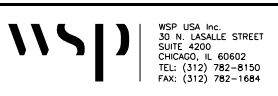
LEGEND

— W —	Exist. Water Main
— A —	Exist. Aerial Electric
— E —	Exist. Electric (Lighting)



GENERAL PLAN AND ELEVATION
WHEELER AVENUE OVER I-80
F.A.I. ROUTE 80 - SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 641+66.78
STRUCTURE NO. 099-8324

MODEL: Sheet View
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 PROJECT: 62R22-INT-1
 SHEET: SH-1 OF SH-2 SHEETS
 DATE: 10/19/2022
 USER: USSJ696614



WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1884

USER NAME = USSJ696614	DESIGNED - PJL	REVISED -
DESIGNED - PJL	DRAWN - BK	REVISED -
DRAWN - BK	CHECKED - JIG	REVISED -
CHECKED - JIG	DATE - 10/19/2022	REVISED -
DATE - 10/19/2022		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				

SHEET SH-1 OF SH-2 SHEETS

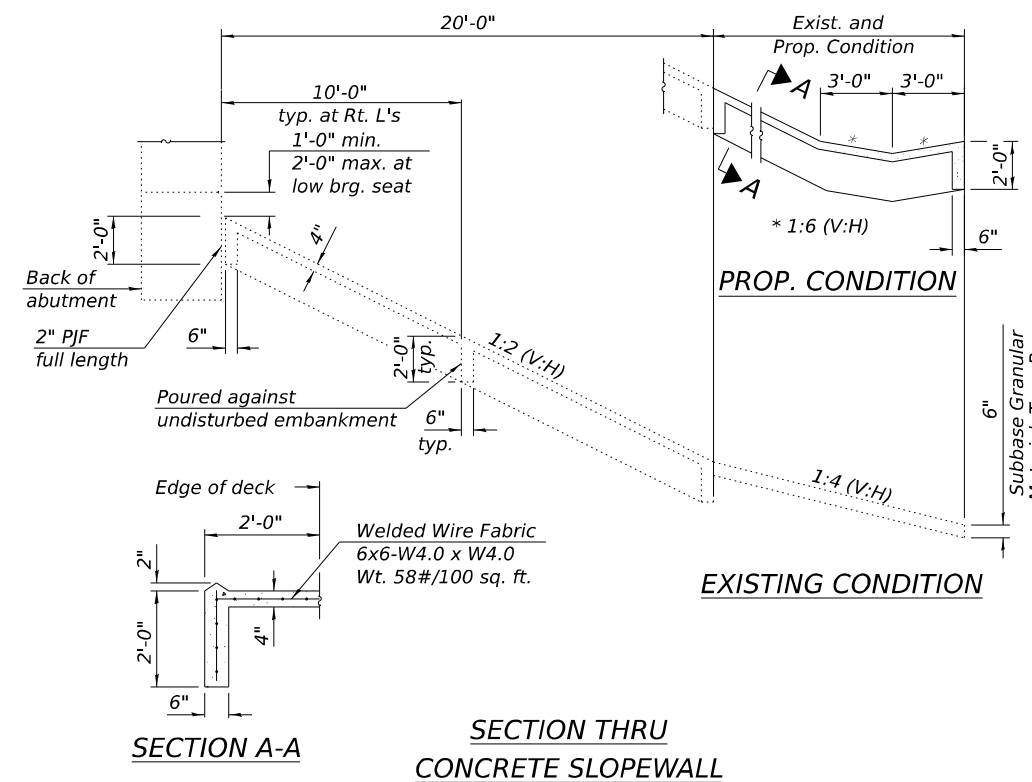
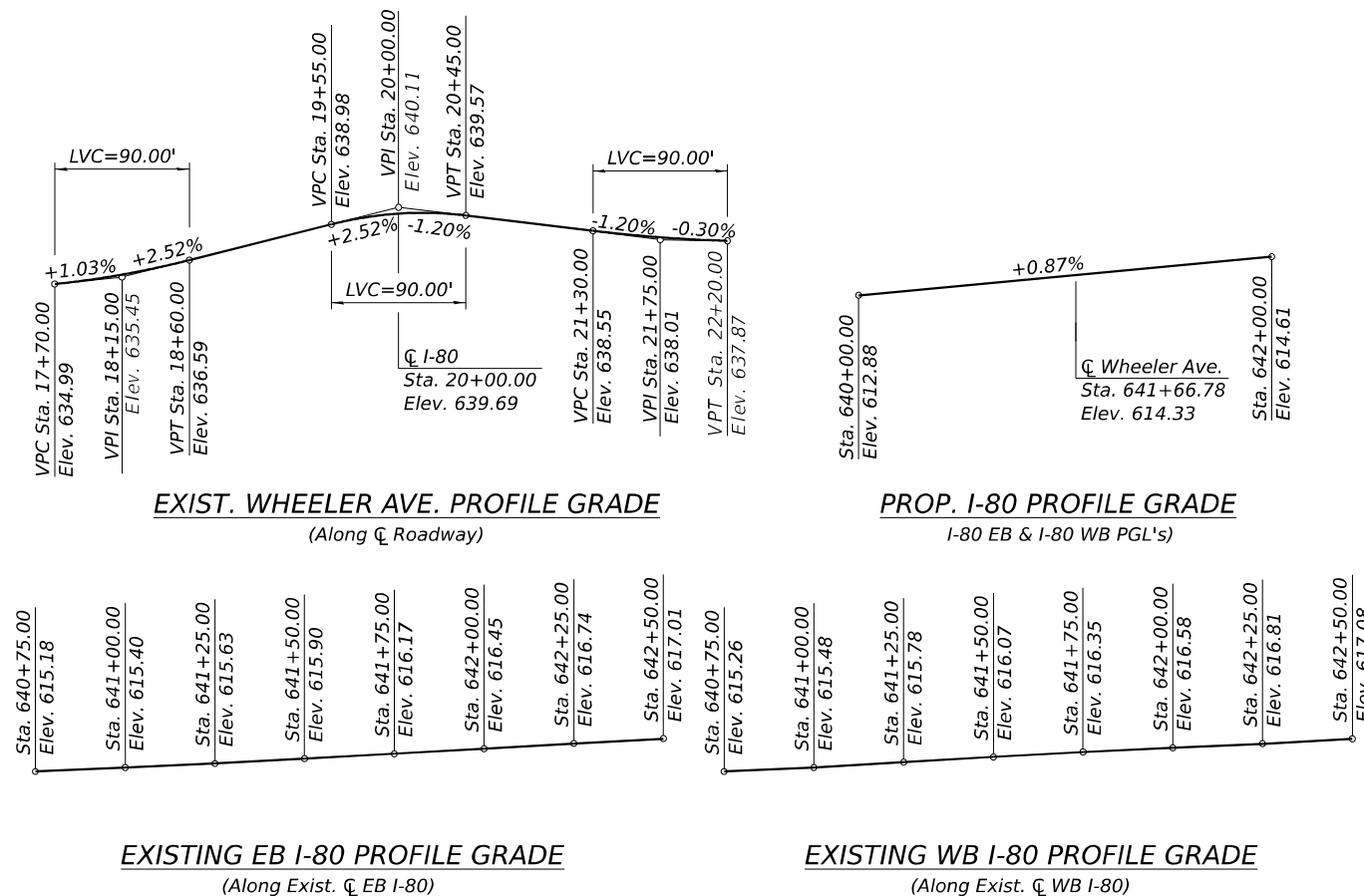
ILLINOIS FED. AID PROJECT

GENERAL NOTES

- Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Slope Wall 4 Inch	Sq Yd	-	267	267



MODEL SHEET
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 WSP USA Inc.
 30 N. LASALLE STREET
 SUITE 400
 CHICAGO, IL 60602
 TEL: (312) 782-8150
 FAX: (312) 782-1884



USER NAME = USSJ696614
 DESIGNED - PJL
 DRAWN - BK
 CHECKED - JIG
 DATE - 10/19/2022
 PLOT SCALE = 0:1.9999 "*/in.
 PLOT DATE = 4/22/2025

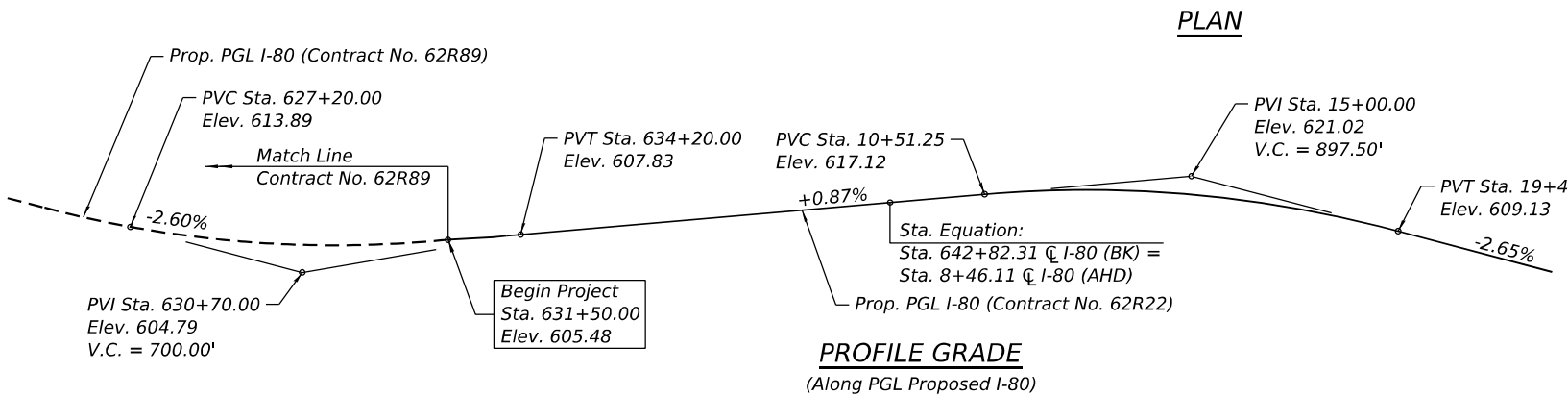
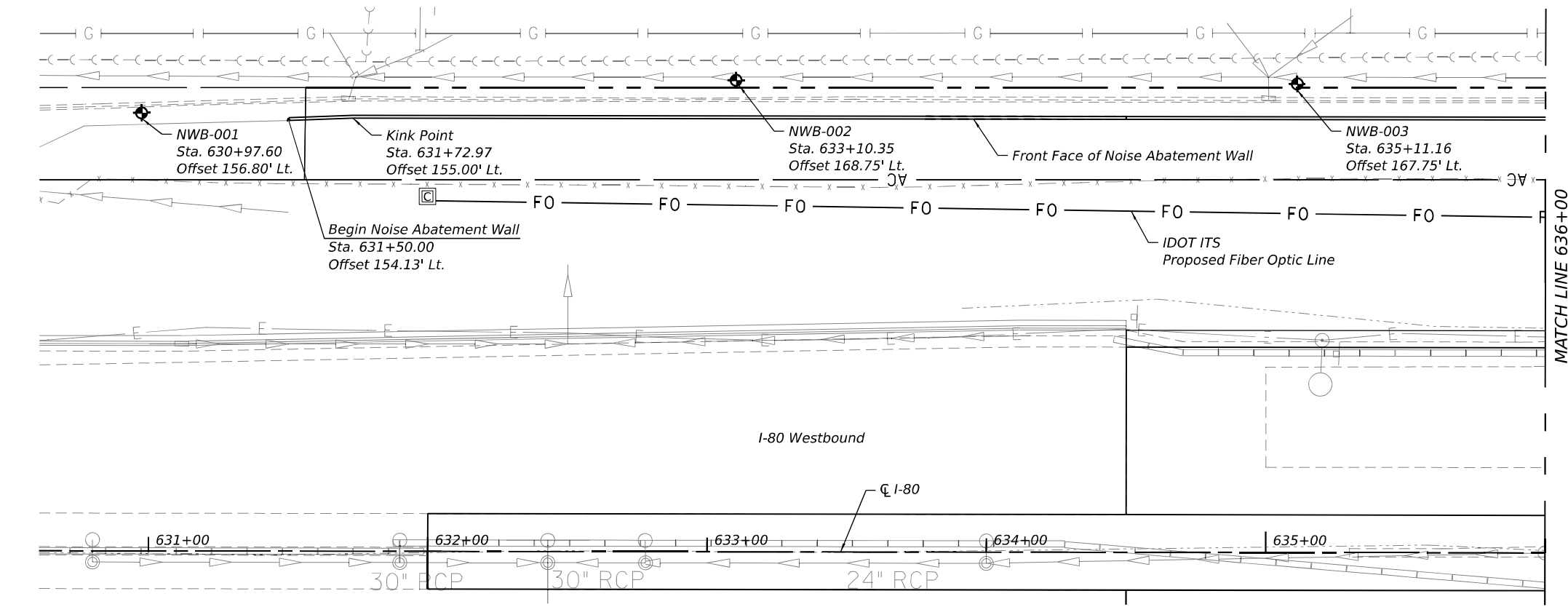
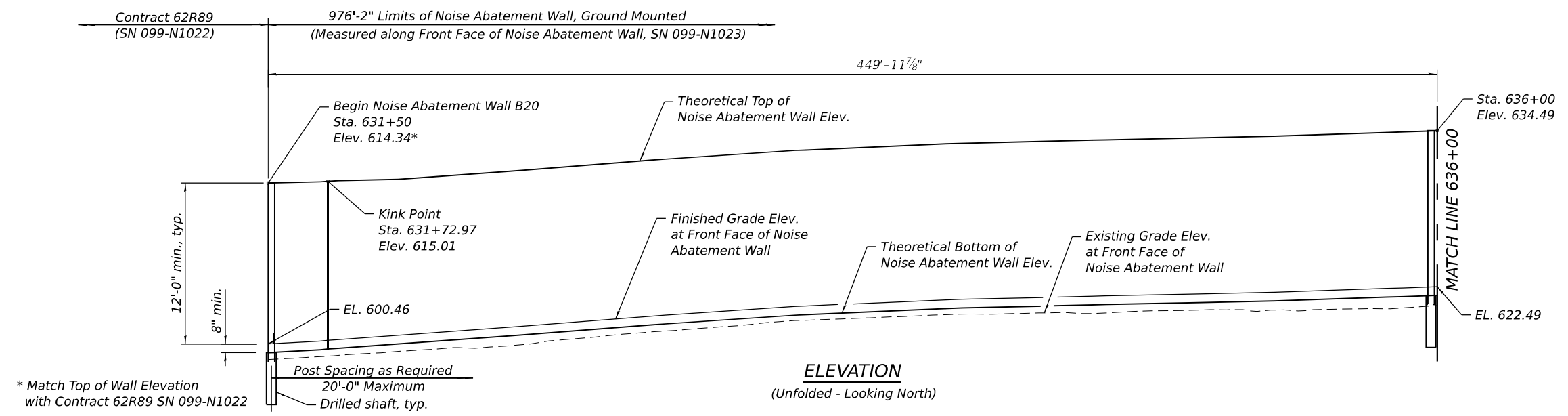
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 099-8324
 SHEET SH-2 OF SH-2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

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- NOTES:**
- For General Notes and Total Bill of Material, see Sheet SI-03.
 - Stations are measured along and Offsets are measured to Prop. C I-80 .
 - Length of ground mounted wall is measured along Front Face of Noise Abatement Wall.

INDEX OF SHEETS

- SI-01 General Plan and Elevation 1
- SI-02 General Plan and Elevation 2
- SI-03 General Notes and Total Bill of Material
- SI-04 Wall Details
- SI-05 Soil Boring Logs 1
- SI-06 Soil Boring Logs 2

DESIGN SPECIFICATIONS
 2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

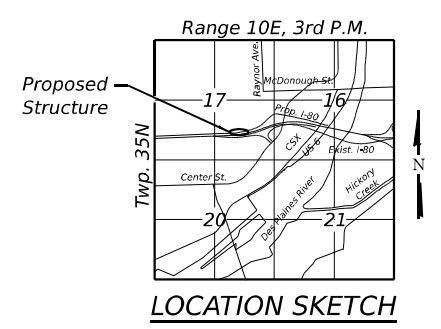
DESIGN STRESSES
FIELD UNITS
 $f'_c = 4,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Struct. Steel, M270 Grade 50, posts)
 $f_y = 36,000$ psi (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS
 $f'_c = 4,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 65,000$ psi (Welded Wire Reinforcement)

DESIGN LOADS
 Strength III or V Wind : 35 psf
 Service I Wind : 15 psf

LEGEND

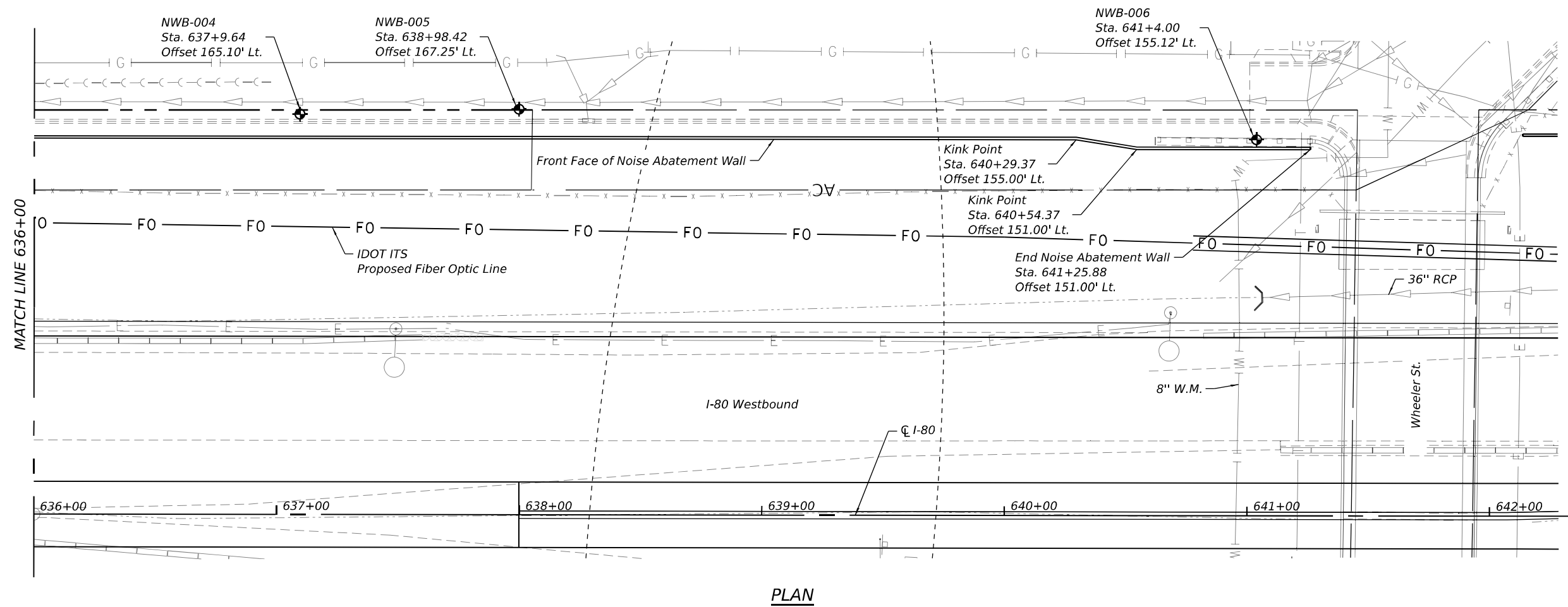
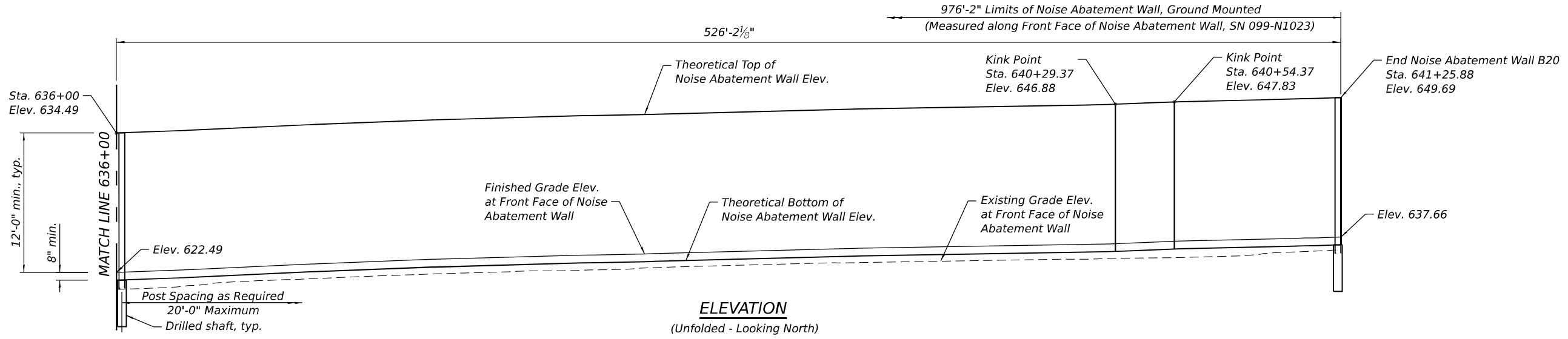
---	Proposed ROW line
— F0 —	Proposed Fiber Optic line
— T —	Existing Telephone line
— A —	Existing Aerial line
— E —	Existing Electric line
---	Existing ROW line
— G —	Existing Gas line
— C — C — C — C —	Existing Sanitary Sewer
— S —	Existing Storm Sewer
— W —	Existing Water main
— CTV —	Existing Cable TV line
◆	Soil Boring location



GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG I-80
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 631+50.00 TO STA. 641+25.88
STRUCTURE NO. 099-N1023 (NOISE WALL B20)

WSP USA Inc. 30 N. LASALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684	USER NAME = USG717780 DESIGNED - MS CHECKED - NBR/PJL DRAWN - BK/GM CHECKED - MS	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET SI-01 OF SI-06 SHEETS	F.A.U. 316 SECTION FAI 80 21 INTERCHANGE COUNTY WILL TOTAL SHEETS 1209 SHEET NO. 776
	PLOT SCALE = 50,000' / in. PLOT DATE = 4/23/2025	Sta. Equation: Sta. 642+82.31 $\text{C I-80 (BK)} =$ Sta. 8+46.11 C I-80 (AHD)			CONTRACT NO. 62R22 ILLINOIS FED. AID PROJECT

MODEL: Default
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USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
CHECKED -	NBR/PJL	REVISED -			
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION 2
NOISE ABATEMENT WALL B20 - SN 099-N1023

SHEET SI-02 OF SI-06 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

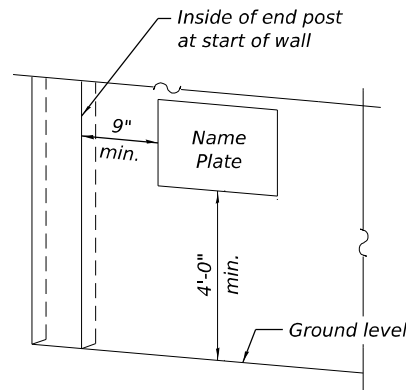
GENERAL NOTES:

- Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table.
- See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction, erection and other requirements for installation of proposed Noise Abatement Wall.
- The existing utilities will be adjusted. 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.
- Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.
- Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.
- The default color of both sides of the NAW panels, posts and other visible elements shall be Federal Standard 30279 - Sand.

NOISE ABATEMENT WALL
 BUILT 202_BY
 STATE OF ILLINOIS
 F.A.I. RTE. I-80
 SECTION FAI 80 21 INTERCHANGE
 FROM STA. 631+50.00 TO STA. 641+25.88
 STRUCTURE NO. 099-N1023

NAME PLATE

See Std. 515001



**FOR NOISE ABATEMENT WALL
 GROUND MOUNTED**

NOISE ABATEMENT WALL B20 (DATA TABLE)

Station	Offset (Lt.) to Front Face of Wall (ft.)	Theoretical Top of NAW Elev.	I-80 PGL Elev.	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)
631+50.00	154.13	614.34	607.29	600.46	600.46	599.46	599.79	12.67
631+72.97	155.00	615.01	607.20	601.84	601.84	600.81	601.17	12.67
632+00.00	155.00	615.79	607.12	603.79	603.79	602.59	603.12	12.67
632+50.00	155.00	619.44	607.07	607.44	607.44	605.39	606.77	12.67
633+00.00	155.00	623.33	607.14	611.33	611.33	610.26	610.66	12.67
633+50.00	155.00	626.68	607.34	614.68	614.68	614.24	614.01	12.67
634+00.00	155.00	628.98	607.67	616.98	616.98	616.28	616.31	12.67
634+50.00	155.00	630.40	608.09	618.40	618.40	617.41	617.73	12.67
635+00.00	155.00	631.53	608.52	619.53	619.53	618.32	618.86	12.67
635+50.00	155.00	632.79	608.96	620.79	620.79	618.33	620.12	12.67
636+00.00	155.00	634.49	609.39	622.49	622.49	620.05	621.82	12.67
636+50.00	155.00	636.53	609.83	624.53	624.53	623.35	623.86	12.67
637+00.00	155.00	638.73	610.26	626.73	626.73	625.50	626.06	12.67
637+50.00	155.00	640.51	610.70	628.51	628.51	627.24	627.84	12.67
638+00.00	155.00	641.92	611.14	629.92	629.92	628.40	629.25	12.67
638+50.00	155.00	643.03	611.57	631.03	631.03	630.13	630.36	12.67
639+00.00	155.00	644.37	612.00	632.37	632.37	631.46	631.70	12.67
639+50.00	155.00	645.41	612.44	633.41	633.41	632.25	632.74	12.67
640+00.00	155.00	646.26	612.88	634.26	634.26	633.10	633.59	12.67
640+29.37	155.00	646.88	613.13	634.88	634.88	633.58	634.21	12.67
640+50.00	151.63	647.67	613.31	635.67	635.67	633.75	635.00	12.67
640+54.37	151.00	647.83	613.35	635.83	635.83	633.79	635.16	12.67
641+00.00	151.00	648.99	613.74	636.99	636.99	636.02	636.32	12.67
641+25.88	151.00	649.69	613.97	637.66	637.66	637.19	636.99	12.67

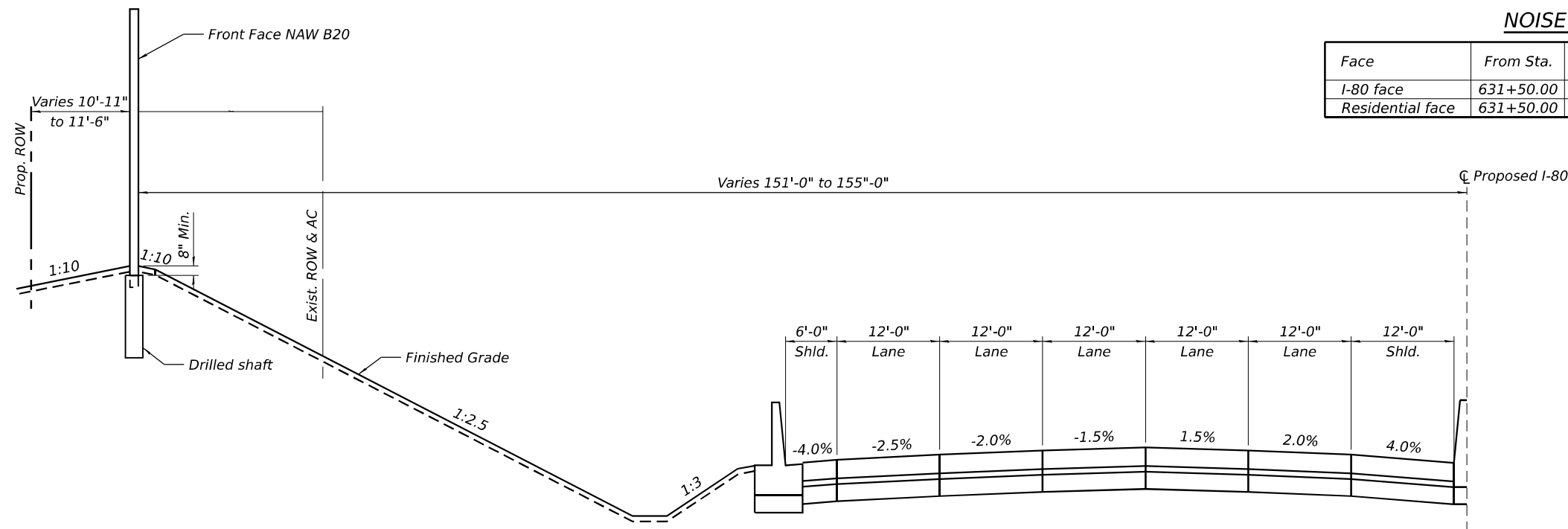
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	12,365

Name Plates

NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	631+50.00	641+25.88	Reflective	-
Residential face	631+50.00	641+25.88	Reflective	-



**WESTBOUND I-80
 TYPICAL SECTION THROUGH NAW B20**

Sta. 631+50.00 to Sta. 641+25.86
 (Looking East)

MODEL: Default
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WSP
 WSP USA Inc.
 30 N. LASALLE STREET
 SUITE 4000
 CHICAGO, IL 60602
 TEL: (312) 782-8150
 FAX: (312) 782-1884

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

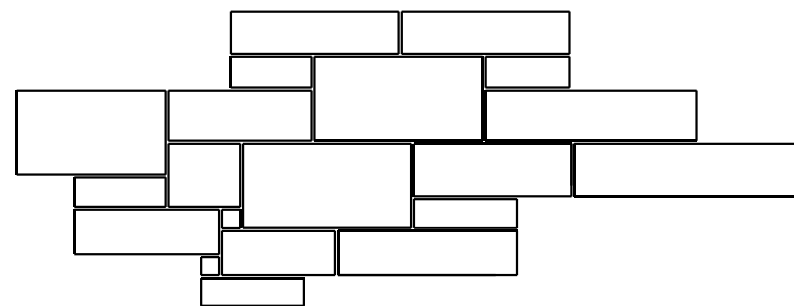
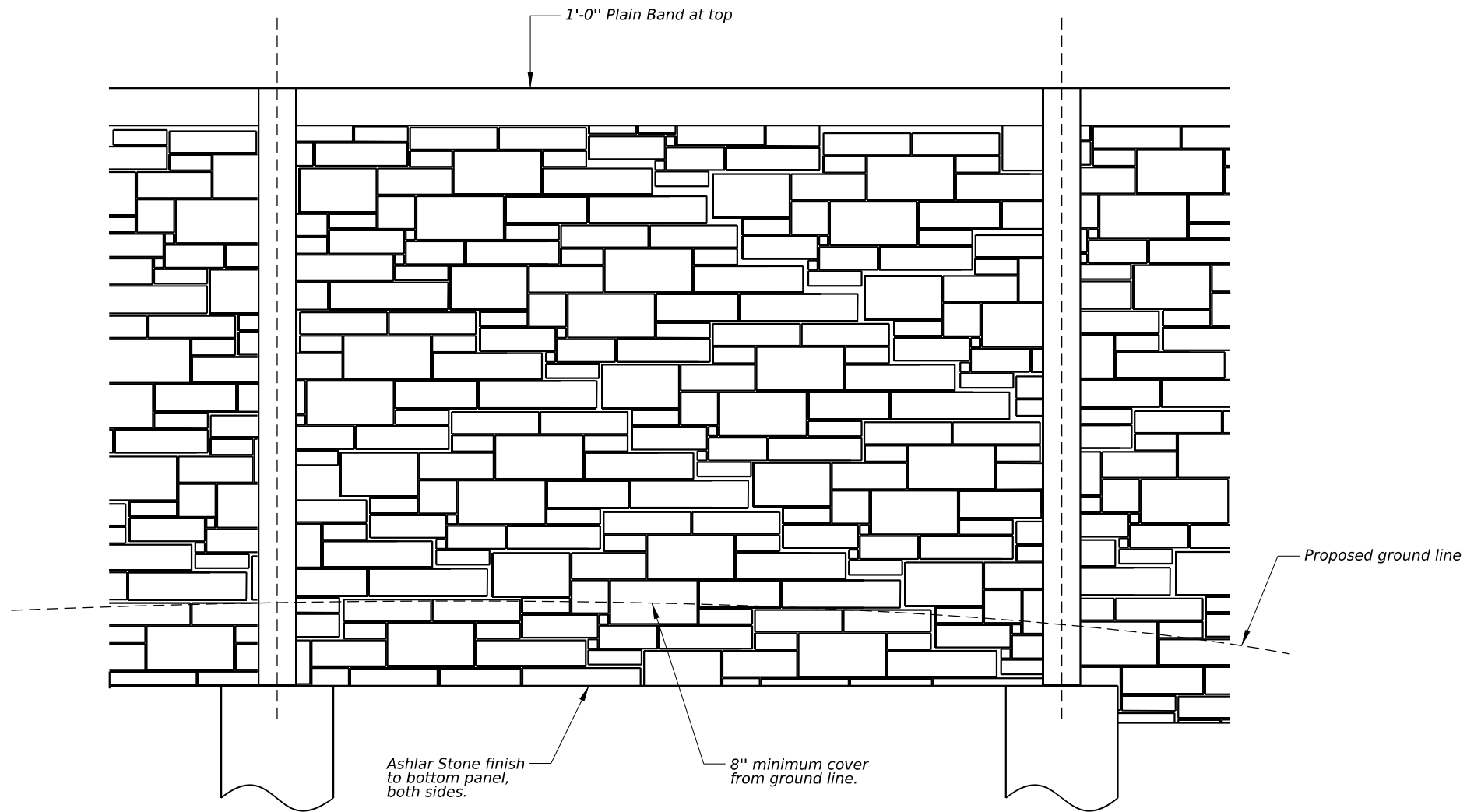
**GENERAL NOTES AND TOTAL BILL OF MATERIAL
 NOISE ABATEMENT WALL B20 - SN 099-N1023**

SHEET SI-03 OF SI-06 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R22				
ILLINOIS		FED. AID PROJECT		

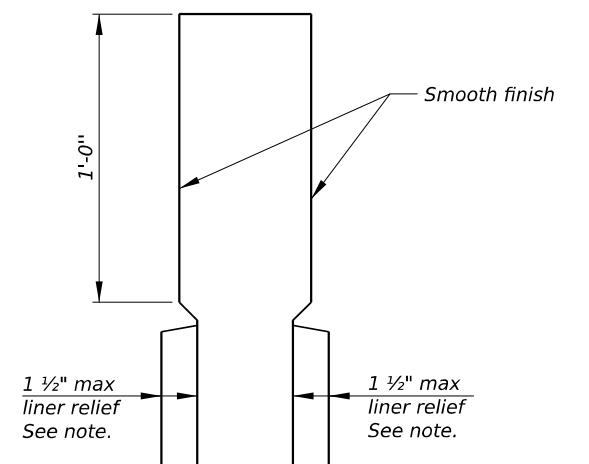
Notes:

Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 1/2" relief for noise abatement wall, ground mounted. The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.



ENLARGED PATTERN DETAIL

Stone Pattern Sizes:
3" x 3" - 14" x 28"



ENLARGED CAP DETAIL

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	WSP USA Inc. 30 N. LASALLE STREET SUITE 400 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1684
	USER NAME = USGM717780
	PLOT SCALE = 0.1666667' / in.
	PLOT DATE = 4/23/2025

DESIGNED - MS	REVISED -
CHECKED - NBR/PJL	REVISED -
DRAWN - BK/GM	REVISED -
CHECKED - MS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL DETAILS
NOISE ABATEMENT WALL B20 - SN 099-N1023

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	779
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 7/17/23

ROUTE I-80 DESCRIPTION Noise Wall LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Latitude Longitude DIEDRICH D-50 HSA HAMMER TYPE Auto 96 HAMMER EFF (%)

STRUCT. NO. N/A Station Station BORING NO. NWB-001 Station 630+97.6 Offset 156.80ft LT Ground Surface Elev. 599.22 ft (ft) (6") (tsf) (%)

Table with columns for depth (ft), blow count (6"), blow count (tsf), blow count (%), and soil description. Includes layers like '4 inches of Asphalt', 'Very Stiff Brown, Moist SILTY CLAY, trace gravel, with organics (CL/ML)', 'Hard Brown, Moist SILTY CLAY, trace gravel (CL/ML) Sand Seam from 6.5 feet to 7 feet', 'Sand Seam from 9 feet to 9.5 feet', 'Medium Dense Light Brown, Moist SAND with GRAVEL (SPG)', and '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, form 137 (Rev. 8 99)



SOIL BORING LOG

Date 7/17/23

ROUTE I-80 DESCRIPTION Noise Wall LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Latitude Longitude DIEDRICH D-50 HSA HAMMER TYPE Auto 96 HAMMER EFF (%)

STRUCT. NO. N/A Station Station BORING NO. NWB-002 Station 633+10.35 Offset 168.75ft LT Ground Surface Elev. 614.52 ft (ft) (6") (tsf) (%)

Table with columns for depth (ft), blow count (6"), blow count (tsf), blow count (%), and soil description. Includes layers like '4 inches of Asphalt', 'Dark Gray, Moist FILL: SILTY SAND, with clay, trace gravel, trace brick, trace asphalt', 'Very Stiff to Hard Brown, Moist SILTY CLAY with gravel (CL/ML) Silt seams between 6 to 9 feet', and '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, form 137 (Rev. 8 99)



SOIL BORING LOG

Date 7/17/23

ROUTE I-80 DESCRIPTION Noise Wall LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Latitude Longitude DIEDRICH D-50 HSA HAMMER TYPE Auto 96 HAMMER EFF (%)

STRUCT. NO. N/A Station Station BORING NO. NWB-003 Station 635+11.16 Offset 167.75ft LT Ground Surface Elev. 619.17 ft (ft) (6") (tsf) (%)

Table with columns for depth (ft), blow count (6"), blow count (tsf), blow count (%), and soil description. Includes layers like '4 inches of Asphalt', 'Dark Brown and Gray, Moist FILL: SILTY SAND, with clay, trace gravel, trace brick, trace asphalt', 'Stiff to Very Stiff Brown and Dark Grey, Moist SILTY CLAY, with sand, trace gravel (CL/ML)', 'Very Stiff to Very Hard Light Brown, Moist SILTY CLAY, trace gravel (CL/ML)', 'Silt seams between 11 to 15 feet', and '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, form 137 (Rev. 8 99)

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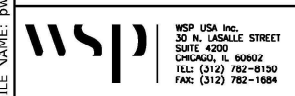


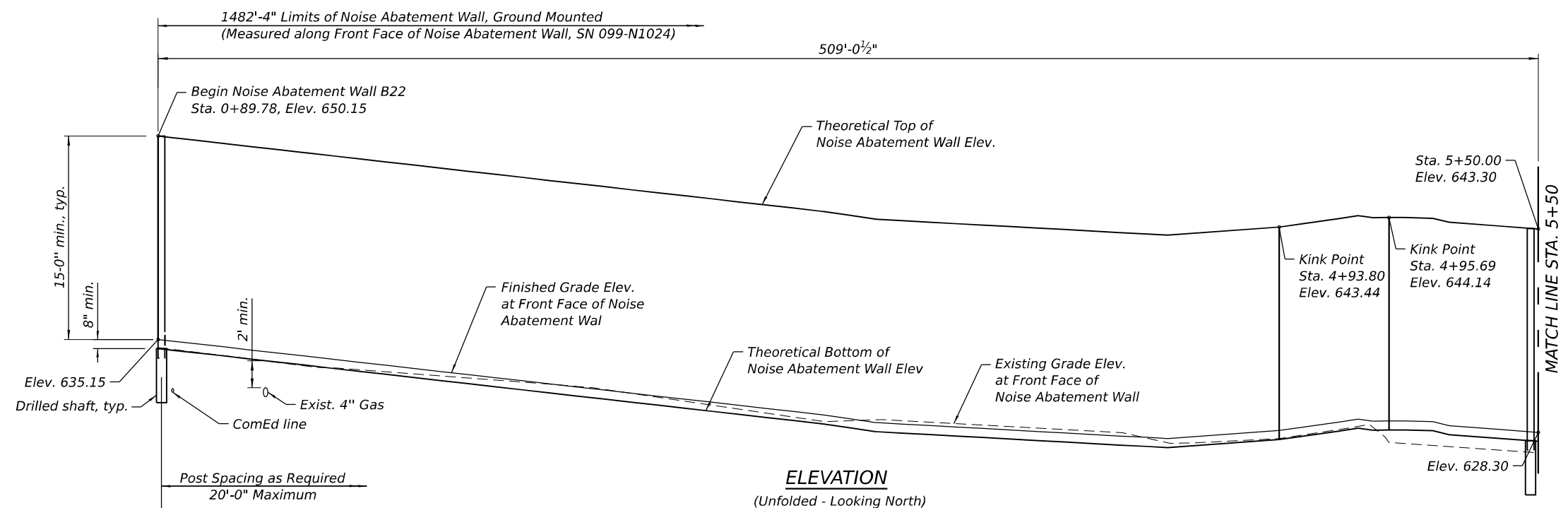
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

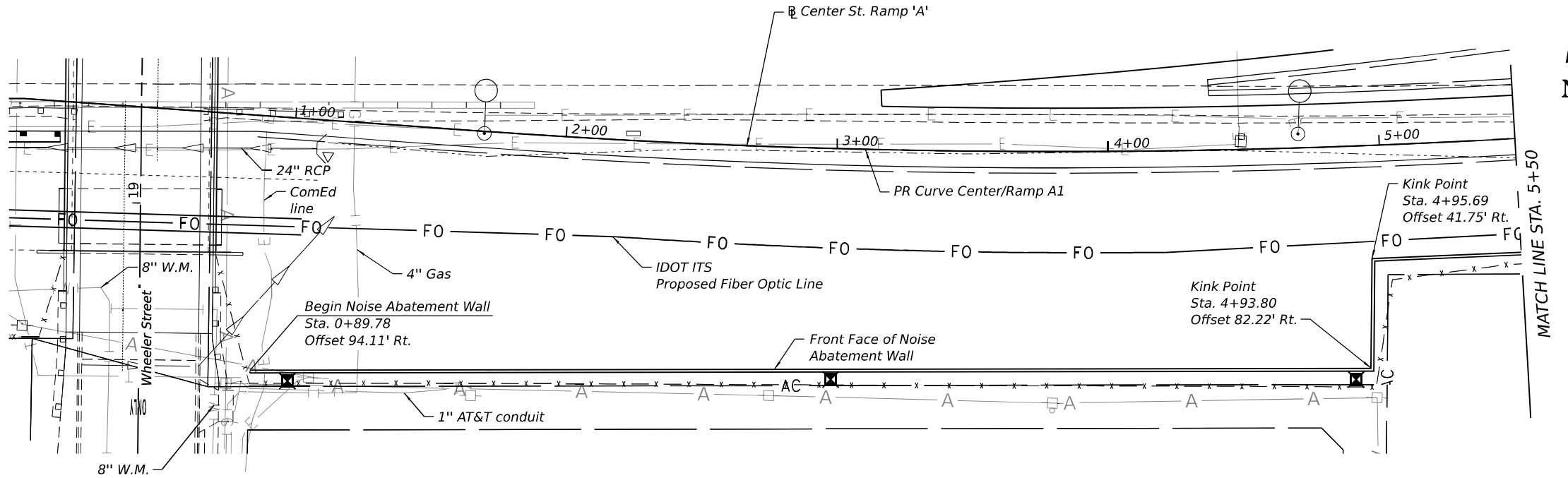
SOIL BORING LOGS 1 NOISE ABATEMENT WALL B20 - SN 099-N1023 SHEET SI-05 OF SI-06 SHEETS

Table with columns: F.A.U. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO. 62R22, ILLINOIS FED. AID PROJECT.

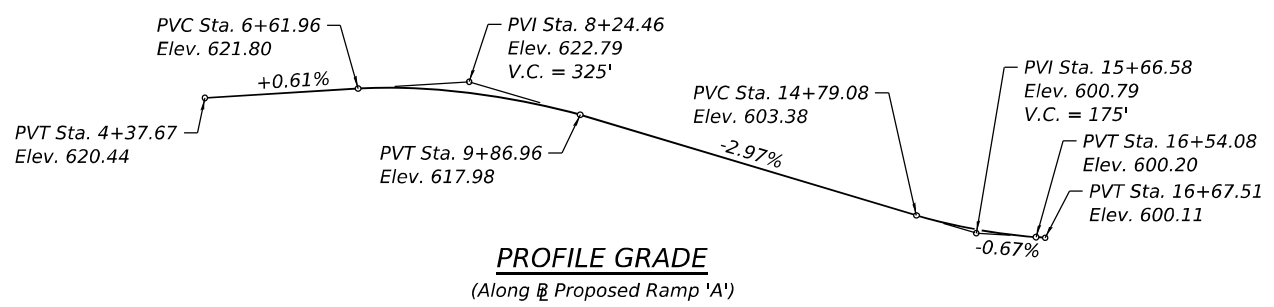
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ELEVATION
 (Unfolded - Looking North)



PLAN



PROFILE GRADE
 (Along Proposed Ramp 'A')

NOTES:

- For General Notes and Total Bill of Material, see Sheet SJ-04.
- Stations are measured along and Offsets are measured to BL Prop. Ramp A.
- Length of ground mounted wall is measured along Front Face of Noise Abatement Wall.

☒ Contractor shall perform soil borings in the area of Noise Abatement Wall B22 where soil borings could not be drilled due to inaccessibility and heavy tree growth, see Special Provision.

INDEX OF SHEETS

- SJ-01 General Plan and Elevation 1
- SJ-02 General Plan and Elevation 2
- SJ-03 General Plan and Elevation 3
- SJ-04 General Notes and Total Bill of Material
- SJ-05 Wall Details
- SJ-06 Soil Boring Logs 1
- SJ-07 Soil Boring Logs 2

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

- $f_c = 4,000$ psi
- $f_y = 60,000$ psi (Reinforcement)
- $f_y = 50,000$ psi (Struct. Steel, M270 Grade 50, posts)
- $f_y = 36,000$ psi (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

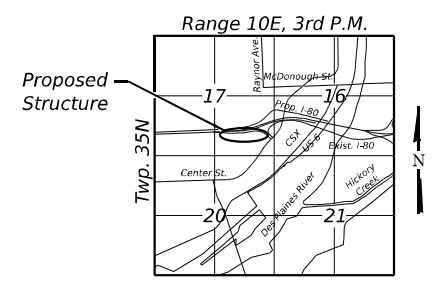
- $f_c = 4,500$ psi
- $f_y = 60,000$ psi (Reinforcement)
- $f_y = 65,000$ psi (Welded Wire Reinforcement)

DESIGN LOADS

- Strength III or V Wind : 35 psf
- Service I Wind : 15 psf
- Unfactored Design Active Earth Pressure: 55 pcf equivalent fluid pressure
- Minimum Live Load Surcharge Pressure: 2 ft. additional earth pressure

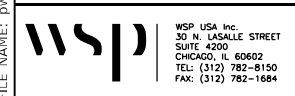
LEGEND

- Proposed ROW line
- FO Proposed Fiber Optic line
- E Proposed Electric line
- T Existing Telephone line
- A Existing Aerial line
- E Existing Electric line
- Existing ROW line
- G Existing Gas line
- Existing Sanitary Sewer
- Existing Storm Sewer
- W Existing Water main
- CTV Existing Cable TV line
- Indicates Soil Boring location
- Indicates Soil Borings by the Contractor



LOCATION SKETCH

GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG RAMP-A
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 0+89.78 TO STA. 14+94.13
STRUCTURE NO. 099-N1024 (NOISE WALL B22)



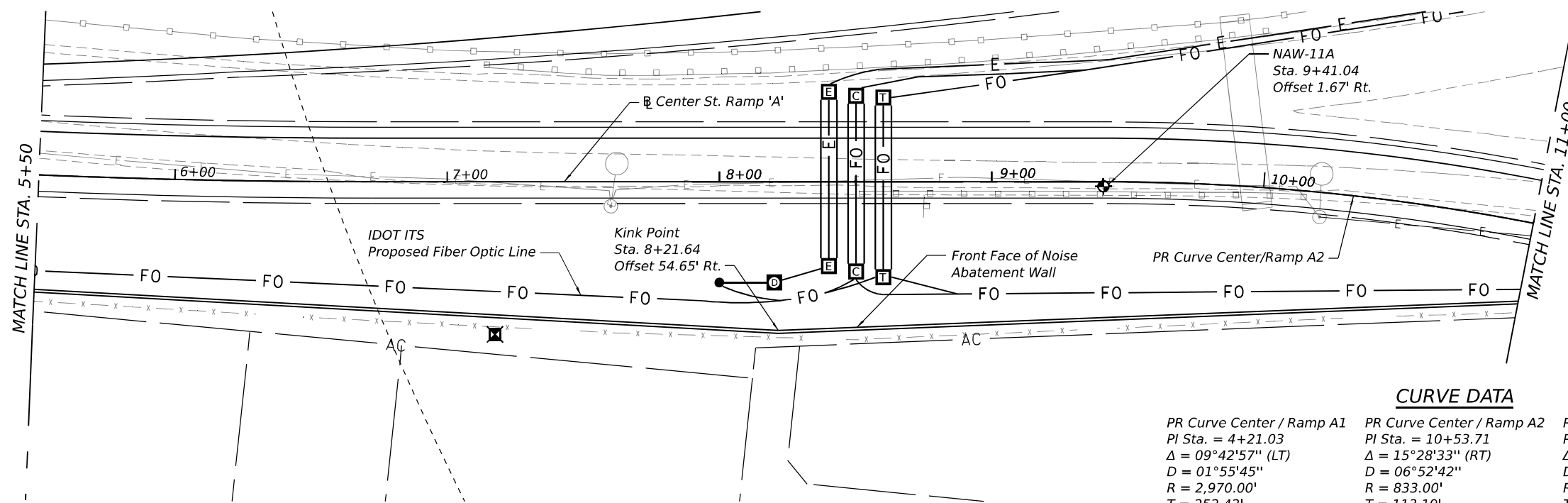
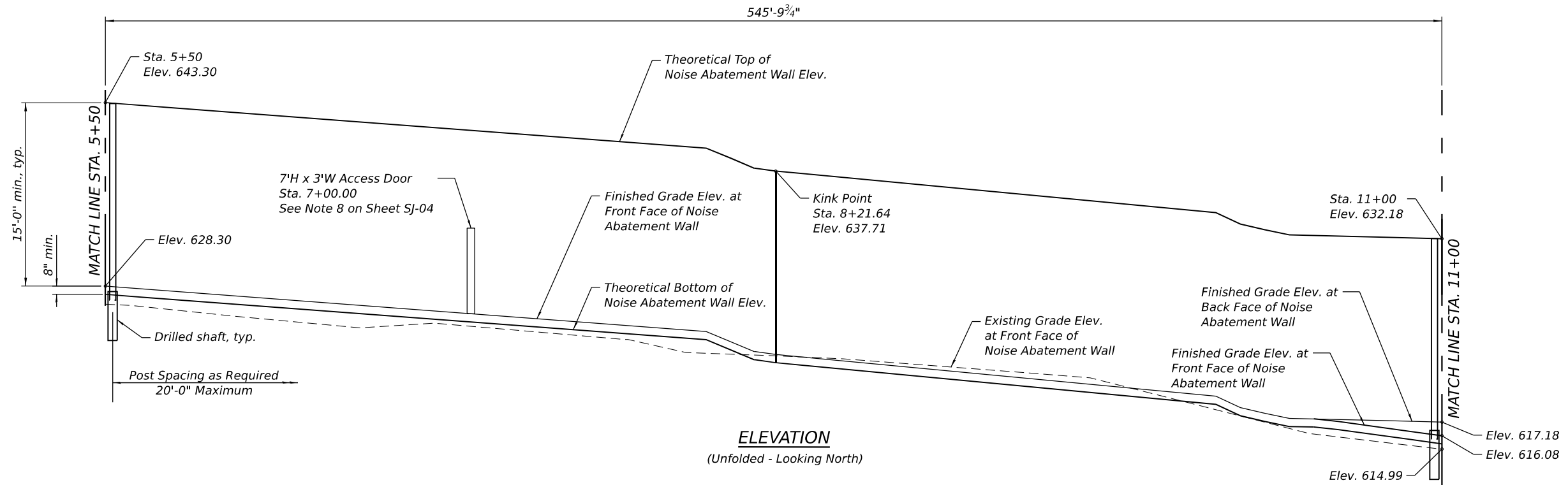
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PLOT DATE = 4/23/2025	DRAWN - BK/GM	REVISED -
	CHECKED - MS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET SJ-01 OF SJ-07 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	782
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

1482'-4" Limits of Noise Abatement Wall, Ground Mounted
(Measured along Front Face of Noise Abatement Wall, SN 099-N1024)



CURVE DATA

PR Curve Center / Ramp A1	PR Curve Center / Ramp A2	PR Curve Center / Ramp A3
PI Sta. = 4+21.03	PI Sta. = 10+53.71	PI Sta. = 13+33.45
$\Delta = 09^\circ 42' 57''$ (LT)	$\Delta = 15^\circ 28' 33''$ (RT)	$\Delta = 37^\circ 07' 54''$ (RT)
D = 01°55'45"	D = 06°52'42"	D = 11°27'33"
R = 2,970.00'	R = 833.00'	R = 500.00'
T = 252.42'	T = 113.19'	T = 167.94'
L = 503.63'	L = 225.00'	L = 324.03'
E = 10.71'	E = 7.65'	E = 27.45'
e = 3.40%	e = 6.00%	e = 6.00%
TR = 48.0'	TR = N/A	TR = N/A
SE Run = 108.8'	SE Run = 144.0'	SE Run = 124.1'
PC Sta. = 1+68.61	PC Sta. = 9+40.52	PC Sta. = 11+65.52
PT Sta. = 6+72.25	PT Sta. = 11+65.52	PT Sta. = 14+89.55

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

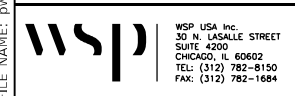
GENERAL PLAN AND ELEVATION 2
NOISE ABATEMENT WALL B22 - SN 099-N1024

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	783
CONTRACT NO. 62R22				

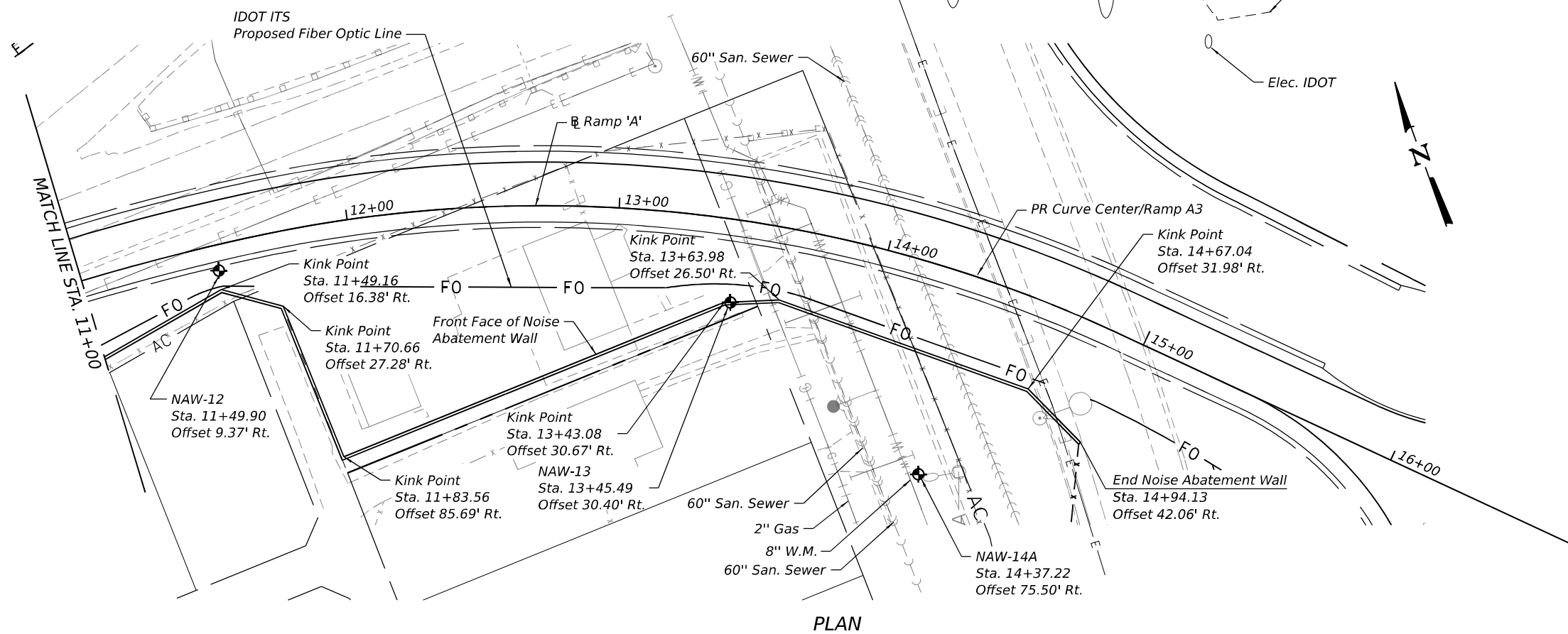
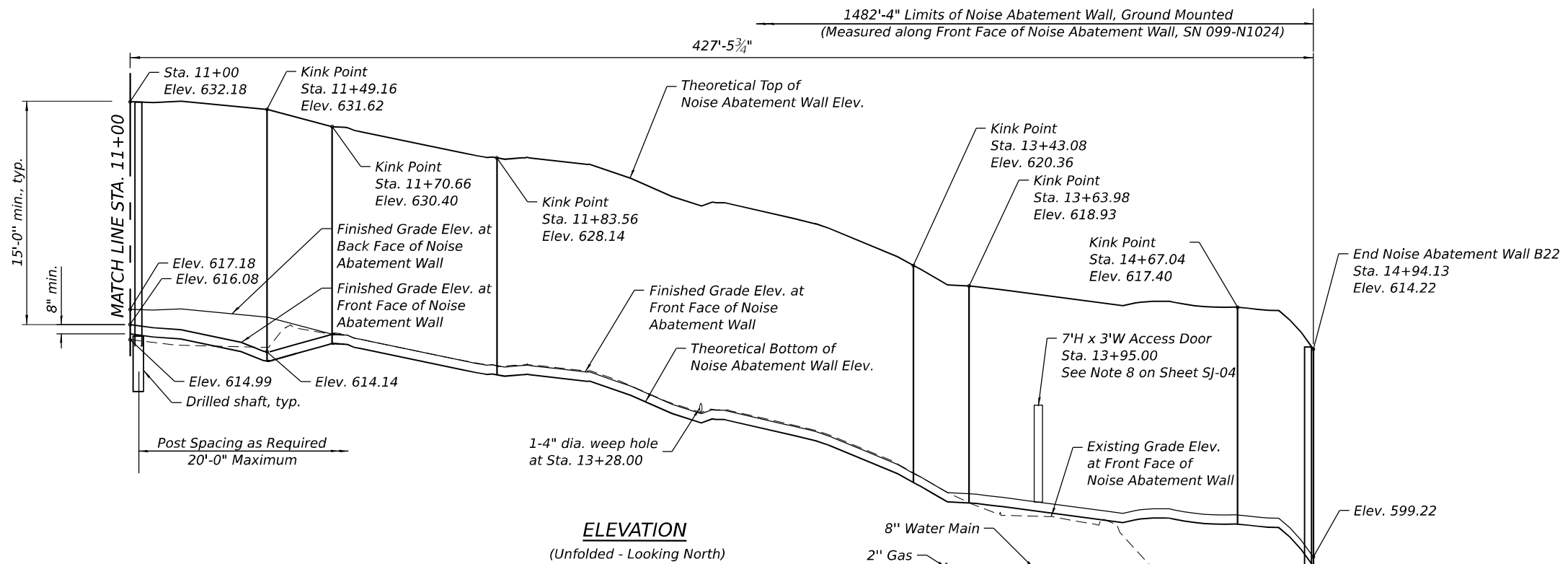
SHEET SJ-02 OF SJ-07 SHEETS

ILLINOIS FED. AID PROJECT

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CHECKED - NBR/PJL	DRAWN - BK/GM	REVISED -
PLOT SCALE = 50,000' / in.	CHECKED - MS	REVISED -
PLOT DATE = 6/9/2025		



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WSP
 WSP USA Inc.
 30 N. LASALLE STREET
 SUITE 400
 CHICAGO, IL 60602
 TEL: (312) 782-8150
 FAX: (312) 782-1884

USER NAME =	USG717780	DESIGNED -	MS	REVISED -	
CHECKED -	NBR/PJL	REVISIONS			
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION 3
NOISE ABATEMENT WALL B22 - SN 099-N1024**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	784
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

SHEET SJ-03 OF SJ-07 SHEETS

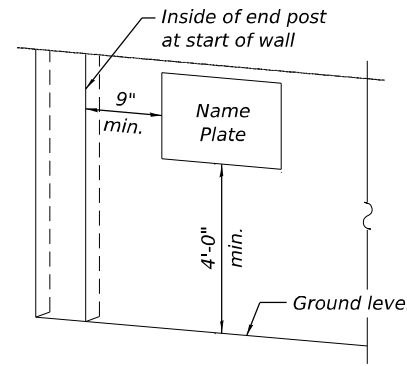
GENERAL NOTES:

- Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table.
- See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction, erection and other requirements for installation of proposed Noise Abatement Wall.
- The existing utilities will be adjusted. 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.
- Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.
- Contractor shall provide 4" Ø weep hole at finished grade level in the bottom of the wall at Sta. 13+28.00. Cost shall be included with Noise Abatement Wall, Ground Mounted.
- Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.
- The default color of both sides of the NAW panels, posts and other visible elements shall be Federal Standard 30279 - Sand.
- Access door location shown in the plans is approximate and may be adjusted to accommodate final fire hydrant locations provided by the City of Joliet. This work shall be included as part of the respective Noise Abatement Wall costs.

NOISE ABATEMENT WALL
BUILT 202_ BY
STATE OF ILLINOIS
F.A.I. RTE. I-80
SECTION FAI 80 21 INTERCHANGE
FROM STA. 0+89.78 TO STA. 14+94.13
STRUCTURE NO. 099-N1024

NAME PLATE

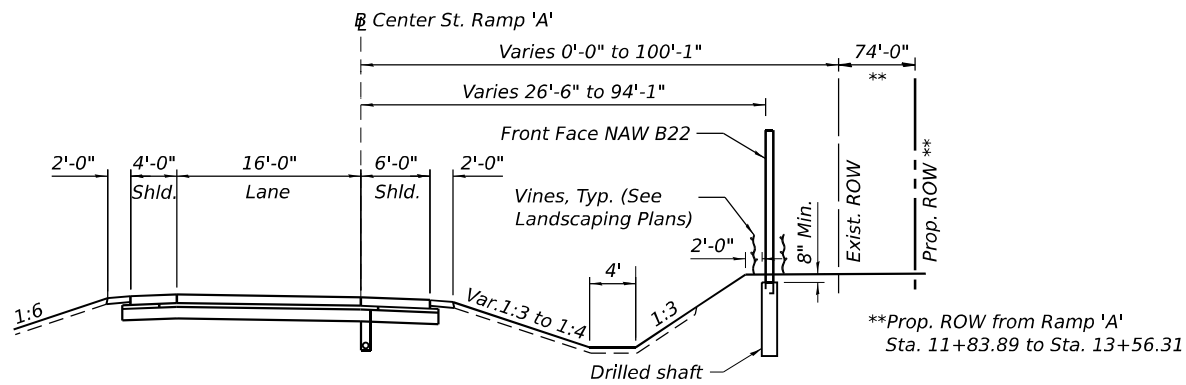
See Std. 515001



**FOR NOISE ABATEMENT WALL
GROUND MOUNTED**

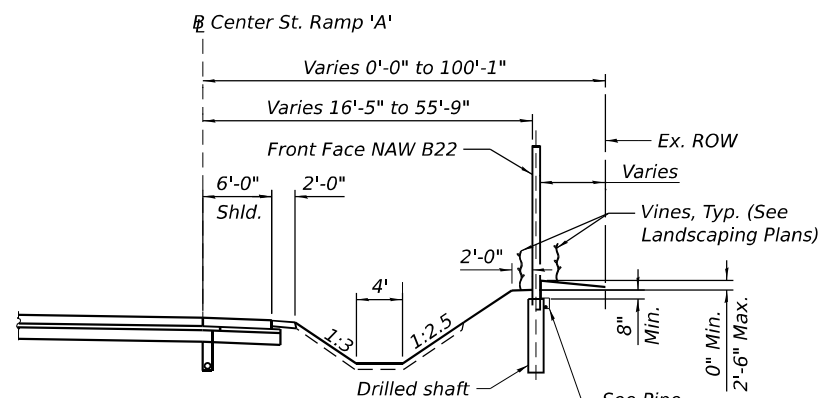
NOISE ABATEMENT WALL B22 (DATA TABLE)

Station	Offset (Rt.) to Front Face of Wall (ft.)	Theoretical Top of NAW Elev.	BL Center St. Ramp 'A' Elev	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)	Final Retained Height (ft)
0+89.78	94.11	650.15	616.33	635.15	635.15	634.58	634.48	15.67	0.00
1+00.00	93.36	649.92	616.50	634.92	634.92	634.30	634.25	15.67	0.00
1+50.00	89.70	648.78	617.32	633.78	633.78	633.08	633.11	15.67	0.00
2+00.00	86.15	647.62	618.15	632.62	632.62	632.36	631.95	15.67	0.00
2+50.00	83.37	646.49	618.97	631.49	631.49	631.56	630.82	15.67	0.00
3+00.00	81.45	645.23	619.62	630.23	630.23	630.01	629.56	15.67	0.00
3+50.00	80.41	644.03	620.03	629.03	629.03	629.23	628.36	15.67	0.00
4+00.00	80.22	643.44	620.27	628.44	628.44	628.69	627.77	15.67	0.00
4+50.00	80.91	642.90	620.51	627.90	627.90	627.76	627.23	15.67	0.00
4+93.80	82.22	643.44	620.78	628.44	628.44	627.83	627.77	15.67	0.00
4+95.69	41.75	644.14	620.79	629.14	629.14	627.56	628.47	15.67	0.00
5+00.00	41.74	644.14	620.82	629.14	629.14	627.50	628.47	15.67	0.00
5+50.00	42.03	643.30	621.12	628.30	628.30	626.82	627.63	15.67	0.00
6+00.00	43.18	642.53	621.43	627.53	627.53	625.89	626.86	15.67	0.00
6+50.00	45.19	641.77	621.73	626.77	626.77	624.94	626.10	15.67	0.00
7+00.00	47.90	641.00	621.96	626.00	626.00	624.97	625.33	15.67	0.00
7+50.00	50.67	640.24	621.91	625.24	625.24	624.11	624.57	15.67	0.00
8+00.00	53.45	639.04	621.60	624.04	624.04	622.76	623.37	15.67	0.00
8+21.64	54.65	637.71	621.37	622.71	622.71	622.60	622.04	15.67	0.00
8+50.00	53.52	637.17	621.01	622.17	622.17	622.35	621.50	15.67	0.00
9+00.00	51.53	636.22	620.14	621.22	621.22	621.59	620.55	15.67	0.00
9+50.00	49.49	635.29	619.00	620.29	620.29	620.82	619.62	15.67	0.00
10+00.00	45.68	634.40	617.59	619.40	619.40	618.45	618.73	15.67	0.00
10+50.00	38.93	632.43	616.11	617.38	617.43	616.13	616.71	15.72	0.05
11+00.00	29.14	632.18	614.62	616.08	617.18	614.99	615.41	16.77	1.10
11+49.16	16.38	631.62	613.17	614.14	614.14	614.44	613.47	18.15	2.48
11+70.66	27.28	630.40	612.53	615.40	615.40	615.50	614.73	15.67	0.00
11+83.56	85.69	628.14	612.15	613.07	613.14	613.09	612.40	15.74	0.07
12+00.00	82.54	628.10	611.66	613.10	613.10	613.17	612.43	15.67	0.00
12+50.00	69.77	625.58	610.18	610.58	610.58	610.60	609.91	15.67	0.00
13+00.00	51.56	623.90	608.69	608.90	608.90	608.99	608.23	15.67	0.00
13+43.08	30.67	620.36	607.42	605.36	605.34	605.38	604.67	15.69	0.02
13+50.00	29.39	618.94	607.21	603.94	603.94	604.61	603.27	15.67	0.00
13+63.98	26.50	618.93	606.80	603.93	603.93	603.23	603.26	15.67	0.00
14+00.00	30.71	618.08	605.73	603.08	603.08	602.12	602.41	15.67	0.00
14+50.00	32.46	617.53	604.25	602.53	602.53	595.67	601.86	15.67	0.00
14+67.04	31.98	617.40	603.74	602.40	602.40	589.30	601.73	15.67	0.00
14+94.13	42.06	614.22	602.95	599.22	599.22	587.85	598.55	15.67	0.00



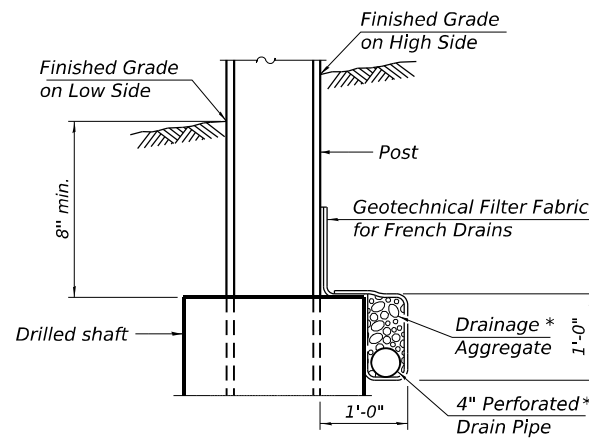
RAMP 'A'
TYPICAL SECTION THROUGH NAW B22

Sta. 0+89.78 to Sta. 10+46.77
Sta. 11+76.51 to Sta. 14+94.13
(Looking East)



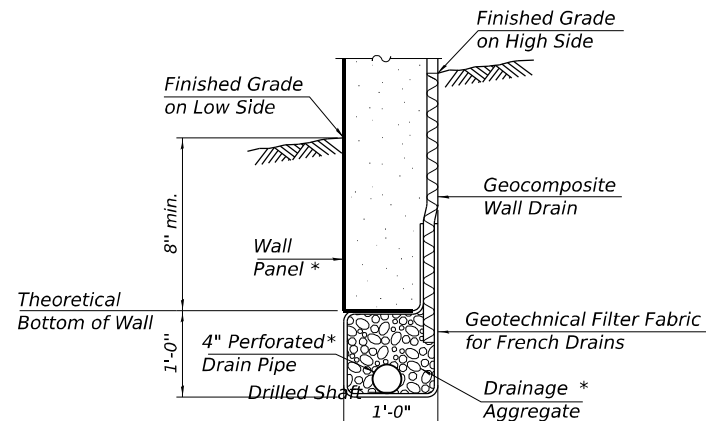
RAMP 'A'
TYPICAL SECTION THROUGH NAW B22

Sta. 10+46.77 to Sta. 11+76.51
(Looking East)



**PIPE UNDERDRAIN DETAIL
AT DRILLED SHAFTS**

*Included in the cost of Pipe Underdrains for Structures 4"



**PIPE UNDERDRAIN DETAIL
BETWEEN DRILLED SHAFTS**

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	23,225
Geocomposite Wall Drain	Sq. Yd.	53
Pipe Underdrains for Structures 4"	Foot	130
Boring Drilling for Noise Abatement Wall Foundation	Each	4

NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	0+89.78	14+94.13	Reflective	-
Residential face	0+89.78	14+94.13	Reflective	-

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WSP
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4000
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1884

USER NAME =	USG717780	DESIGNED -	MS	REVISED -	
CHECKED -	NBR/PJL	CHECKED -	MS	REVISED -	
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

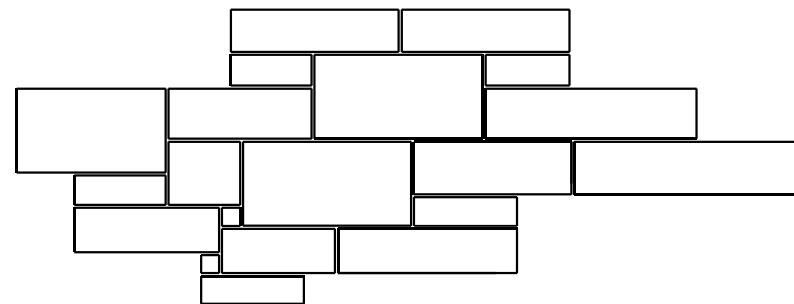
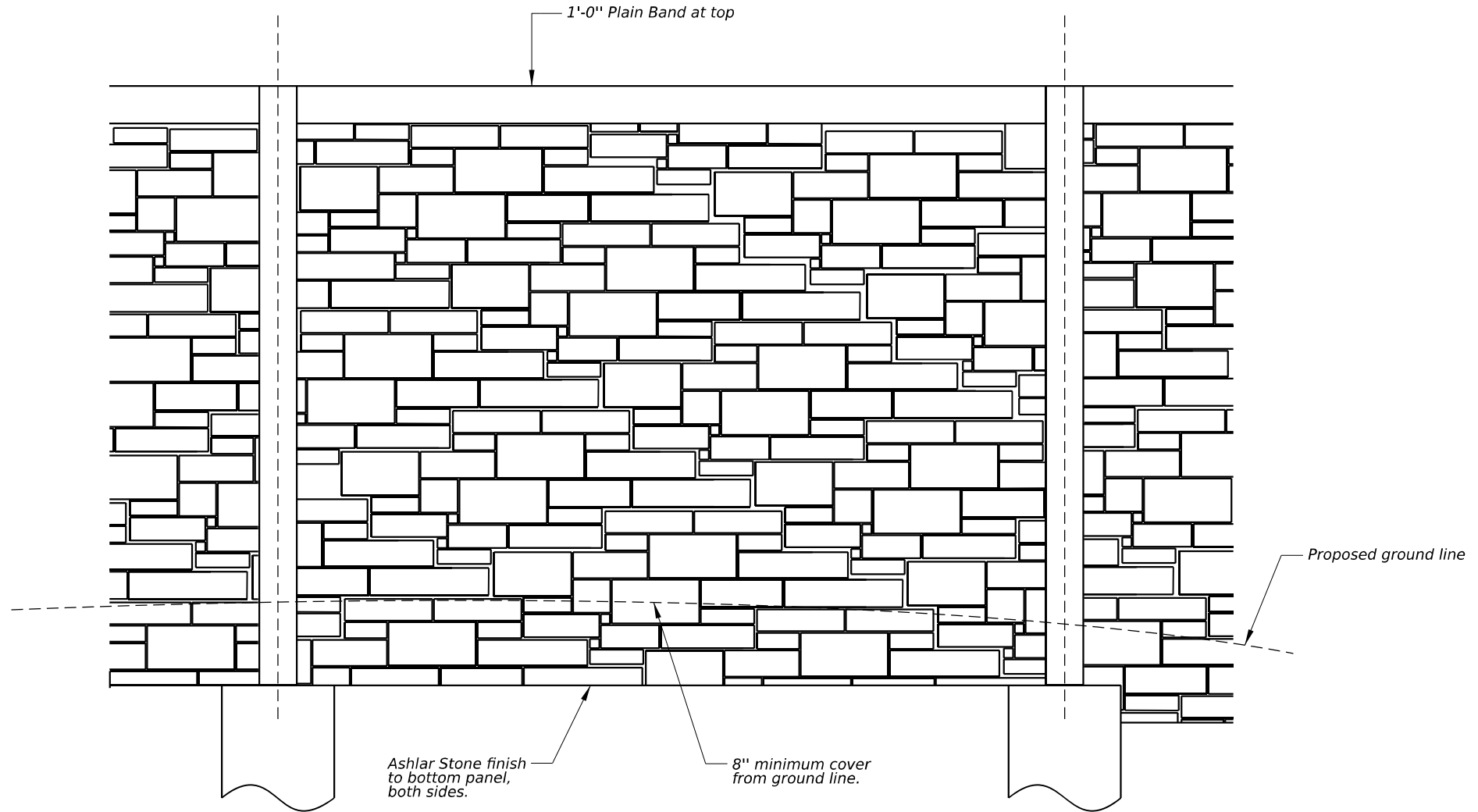
**GENERAL NOTES AND TOTAL BILL OF MATERIAL
NOISE ABATEMENT WALL B22 - SN 099-N1024**

SHEET SJ-04 OF SJ-07 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	785
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

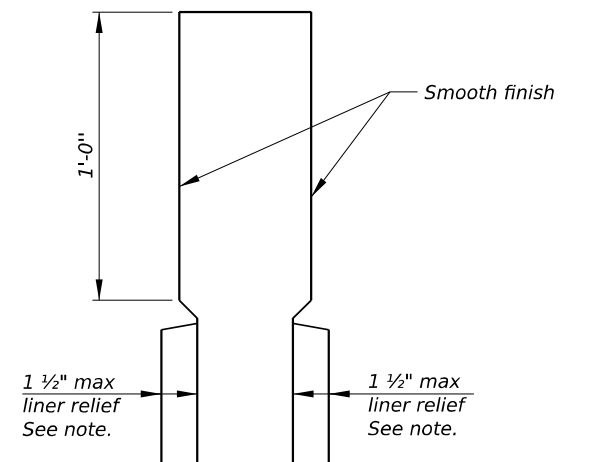
Notes:

Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 1/2" relief for noise abatement wall, ground mounted. The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.



ENLARGED PATTERN DETAIL

Stone Pattern Sizes:
3" x 3" - 14" x 28"



ENLARGED CAP DETAIL

MODEL: NOISE WALLS DETAILS
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wsp
WSP USA Inc.
30 N. LASALLE STREET
SUITE 400
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1884

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
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PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WALL DETAILS
NOISE ABATEMENT WALL B22 - SN 099-N1024**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	786
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	



Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/30/25

ROUTE I-80 DESCRIPTION Noise Wall B22 LOGGED BY SB

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Geoprobe DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 99

STRUCT. NO. N/A Station

BORING NO. NAW-11A Station 9+41.04 Offset 1.67ft RT Ground Surface Elev. 617.34 ft

DEPTH (ft)	BLOWS	UCS (tsf)	FAILURE MODE	DESCRIPTION
0				11 inches of Asphalt
5	7	4.5	10	Brown and Gray, Moist FILL: SILTY CLAY, trace gravel
10	10	4.5		Hard Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)
15	8	4.5	21	
20	6	4.5	18	
25	7	4.5	18	
30	7	4.5	24	Hard Gray, Moist SILTY CLAY, some gravel, some sand (CL/ML)
35				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, form 137 (Rev. 8 99)



Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/8/25

ROUTE I-80 DESCRIPTION Noise Wall B22 LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Diedrich D-50 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 97.7

STRUCT. NO. N/A Station

BORING NO. NAW-12 Station Sta. 11+49.90 Offset 9.37 Rt. Ground Surface Elev. 611.48 ft

DEPTH (ft)	BLOWS	UCS (tsf)	FAILURE MODE	DESCRIPTION
0				1 inch of Topsoil
4	9	3.5	10	Brown, Moist FILL: SILTY CLAY, with gravel
8	10			Hard Brown, Moist SILTY CLAY, trace gravel (CL/ML)
12	7	6.0	18	
16	10	7.3	18	
20	9	7.1	24	
24	11			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, form 137 (Rev. 8 99)

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WSP
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8130
FAX: (312) 782-1884

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	0:2.000" = 1' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 1
NOISE ABATEMENT WALL B22 - SN 099-N1024

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	787
			CONTRACT NO. 62R22	
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/8/25

ROUTE I-80 DESCRIPTION Noise Wall B22 LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Latitude Longitude Diedrich D-50 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 97.7

STRUCT. NO. N/A Station N/A

BORING NO. NAW-13 Station 13+45.49 Offset 30.40ft RT Ground Surface Elev. 606.74 ft

DEPTH (ft)	DIAMETER (ft)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	FAILURE MODE	REMARKS
0				Surface Water Elev. N/A ft
0				Stream Bed Elev. N/A ft
0				Groundwater Elev.: Dry ft
0				First Encounter N/A ft
0				Upon Completion N/A ft
0				After Hrs. N/A ft
0				2 inches of Asphalt 606.57
0				10 inches of Gravel Aggregate Subbase 605.74
3	4	4.5	24	Brown, Moist
4	4	P		FILL: SILTY CLAY, trace asphalt, trace gravel
603.24				
7				Hard Brown, Moist
6	5	5.0	20	SILTY CLAY, trace gravel (CL/ML)
11		B		
6				
10	7	7.3	5	
13		B		
598.24				
25				Very Dense Brown, Moist
597.24	50/3"		15	GRAVEL, with sand (GP)
-10				Auger refusal at 9.5 feet
-20				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, form 137 (Rev. 8 99)



Illinois Department of Transportation
Division of Highways
GSG Consultants

SOIL BORING LOG

Page 1 of 1

Date 4/8/25

ROUTE I-80 DESCRIPTION Noise Wall B22 LOGGED BY DV

SECTION C-91-109-22 LOCATION SEC. TWP. RNG.

COUNTY Will DRILLING RIG Latitude Longitude Diedrich D-50 DRILLING METHOD HSA HAMMER TYPE Auto HAMMER EFF (%) 97.7

STRUCT. NO. N/A Station N/A

BORING NO. NAW-14A Station 14+37.22 Offset 75.50ft RT Ground Surface Elev. 602.39 ft

DEPTH (ft)	DIAMETER (ft)	UNCONFINED COMPRESSIVE STRENGTH (tsf)	FAILURE MODE	REMARKS
0				Surface Water Elev. N/A ft
0				Stream Bed Elev. N/A ft
0				Groundwater Elev.: Dry ft
0				First Encounter N/A ft
0				Upon Completion N/A ft
0				After Hrs. N/A ft
0				6 inches of Asphalt 601.89
0				Dark Brown, Moist FILL: SILTY CLAY, with sand, trace asphalt, trace gravel
3	2.0	15		
3	P			
598.89				
4				Very Stiff Brown, Moist
5	2.3	23		SILTY CLAY, trace gravel (CL/ML)
9		B		
597.39				Auger refusal at 5 feet
-10				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, form 137 (Rev. 8 99)

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WSP
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8130
FAX: (312) 782-1884

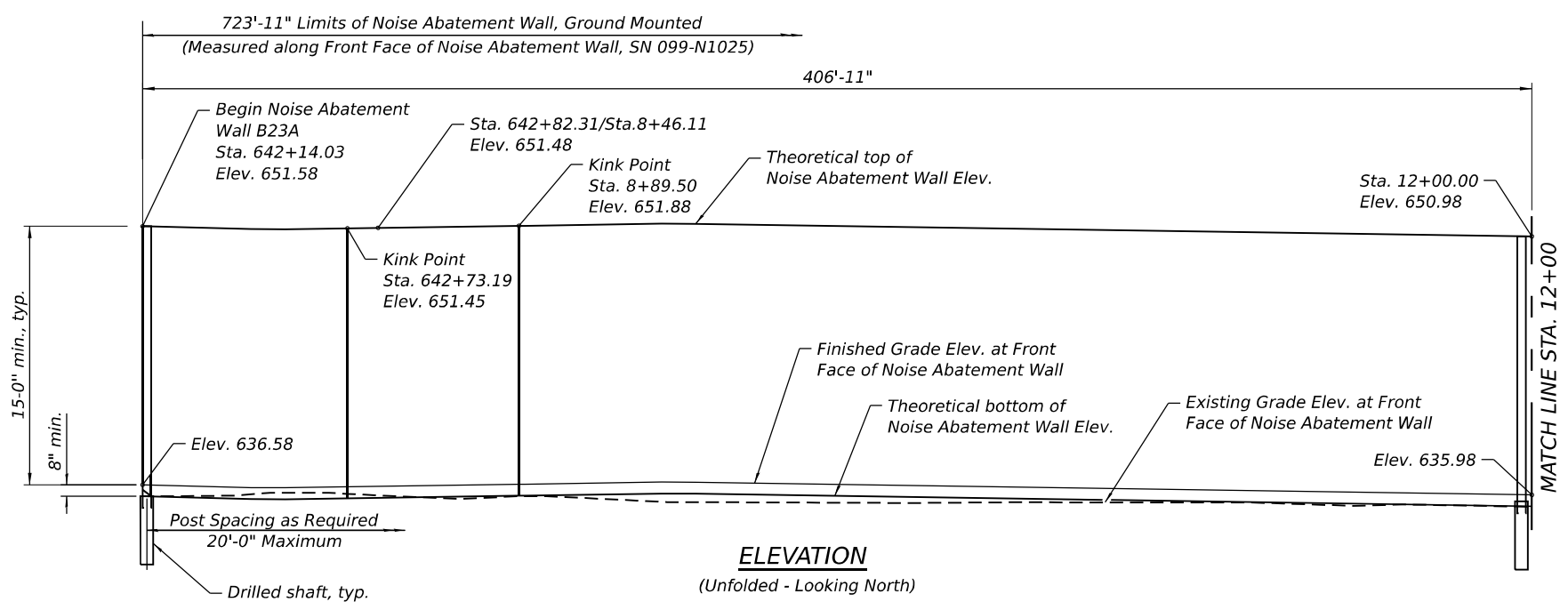
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PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 2
NOISE ABATEMENT WALL B22 - SN 099-N1024

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	788
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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ELEVATION
 (Unfolded - Looking North)

INDEX OF SHEETS

- SK-01 General Plan and Elevation 1
- SK-02 General Plan and Elevation 2
- SK-03 General Notes and Total Bill of Material
- SK-04 Wall Details
- SK-05 Soil Boring Logs 1
- SK-06 Soil Boring Logs 2

DESIGN SPECIFICATIONS
 2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS
 $f_c = 4,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Struct. Steel, M270 Grade 50, posts)
 $f_y = 36,000$ psi (Struct. Steel, M270 Grade 36, all other structural steel)

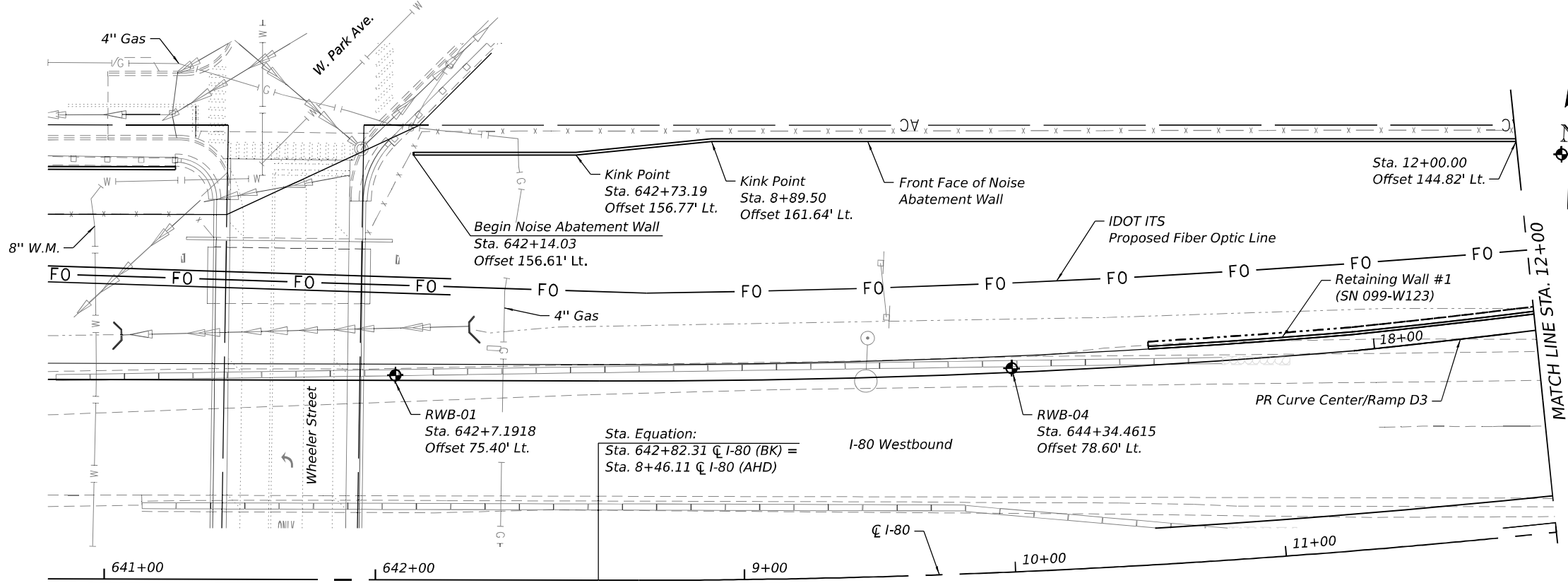
PRECAST UNITS
 $f_c = 4,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 65,000$ psi (Welded Wire Reinforcement)

DESIGN LOADS

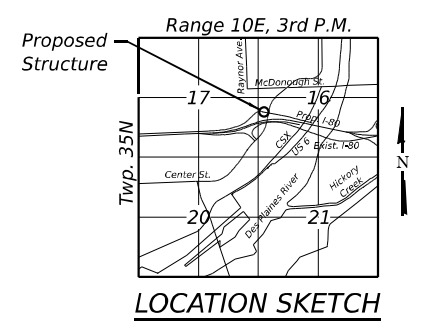
Strength III or V Wind : 35 psf
 Service I Wind : 15 psf

LEGEND

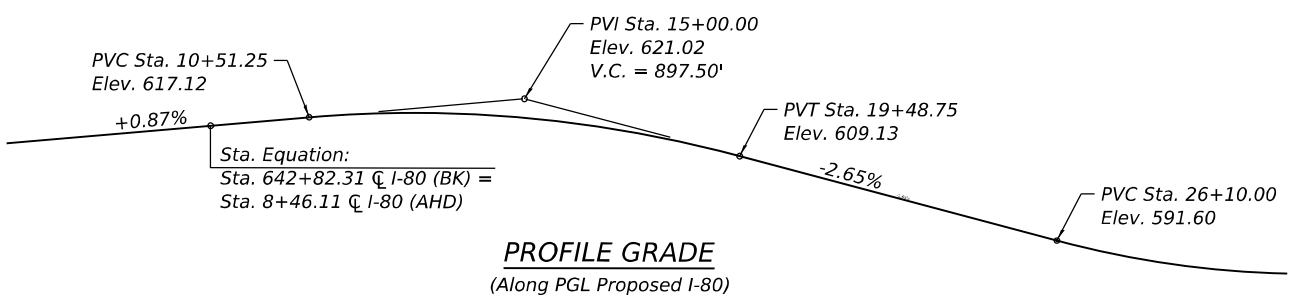
---	Proposed ROW line
FO	Proposed Fiber Optic line
T	Existing Telephone line
A	Existing Aerial line
E	Existing Electric line
---	Existing ROW line
G	Existing Gas line
---	Existing Sanitary Sewer
---	Existing Storm Sewer
W	Existing Water main
CTV	Existing Cable TV line
◆	Indicates Soil Boring location



PLAN



LOCATION SKETCH



PROFILE GRADE
 (Along PGL Proposed I-80)

CURVE DATA

PR Curve PR-180-North-1
 PI Sta. = 13+44.34
 $\Delta = 16^\circ 55' 07''$ (LT)
 $D = 01^\circ 42' 37''$
 $R = 3,350.00'$
 $T = 498.23'$
 $L = 989.20'$
 $E = 36.85'$
 $e = 5.00\%$
 $TR = 92.3'$
 $SE Run = 375.0'$
 $PC Sta. = 8+46.11$
 $PT Sta. = 18+35.31$

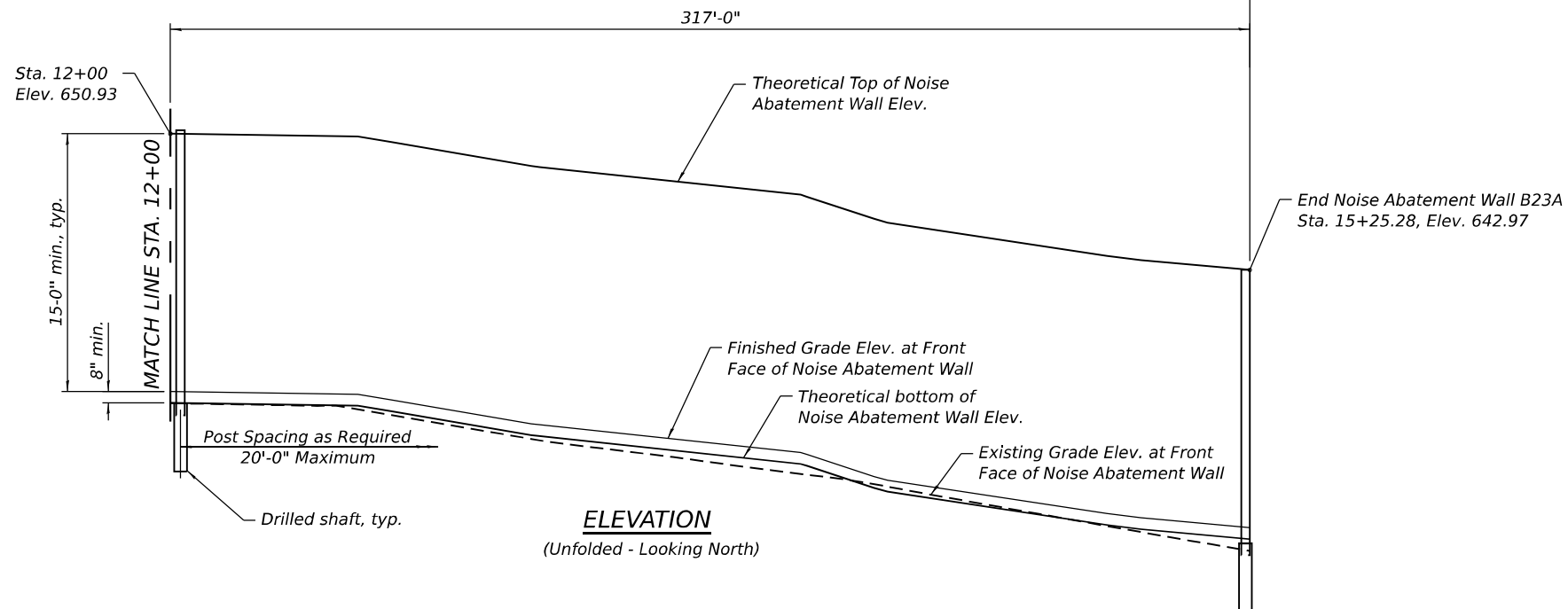
NOTES:

- For General Notes and Total Bill of Material, see Sheet SK-03.
- Stations are measured along and Offsets are measured to Prop. CL I-80.
- Length of ground mounted wall is measured along Front Face of Noise Abatement Wall.

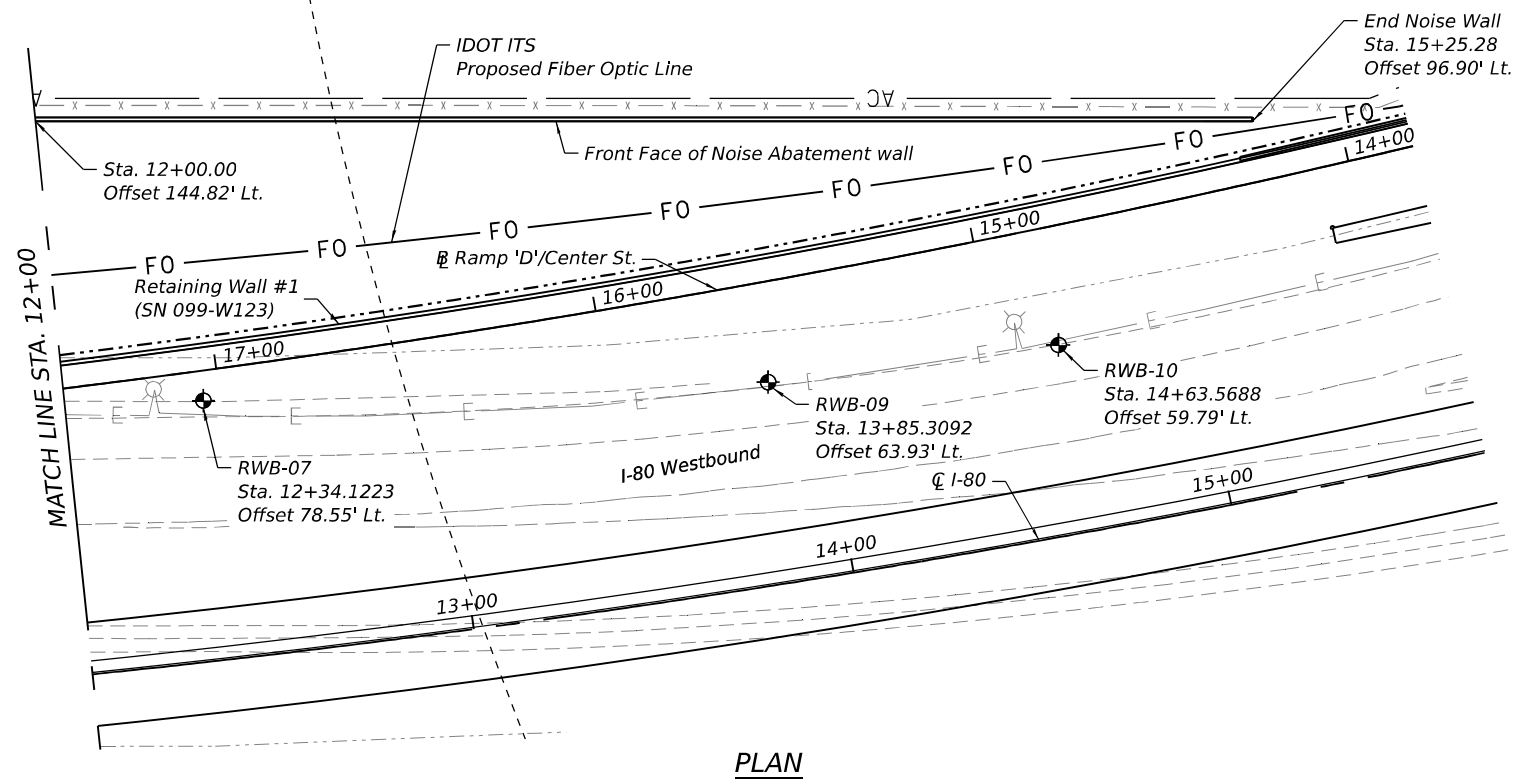
GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG I-80
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 642+14.03 TO STA. 15+25.28
STRUCTURE NO. 099-N1025 (NOISE WALL B23A)

	USER NAME = USGM717780 DESIGNED - MS CHECKED - NBR/PJL PLOT SCALE = 50,000' / in. PLOT DATE = 4/23/2025	DESIGNED - MS CHECKED - NBR/PJL DRAWN - BK/GM CHECKED - MS	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET SK-01 OF SK-06 SHEETS	F.A.U. RTE. 316 SECTION FAI 80 21 INTERCHANGE COUNTY WILL COUNTY TOTAL SHEETS 1209 COUNTY SHEET NO. 789	CONTRACT NO. 62R22 ILLINOIS FED. AID PROJECT

723'-11" Limits of Noise Abatement Wall, Ground Mounted
(Measured along Front Face of Noise Abatement Wall, SN 099-N1025)



ELEVATION
(Unfolded - Looking North)



PLAN

MODEL: Default
FILE NAME: p:\wsp\transystems\ppw1\hosted\Documents\Projects_2018\CH40\401180022\03-WSP\CAD\62R22-INT-4 (Center)\Sheets\Structural\Noise Walls\Pre-Final\NAV B23\0162R22-GPE_B23A-02.dgn

wsp
WSP USA Inc.
30 N. LASALLE STREET
SUITE 400
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1884

USER NAME =	USG717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	50,000' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION 2
NOISE ABATEMENT WALL B23A - SN 099-N1025**

SHEET SK-02 OF SK-06 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	790
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

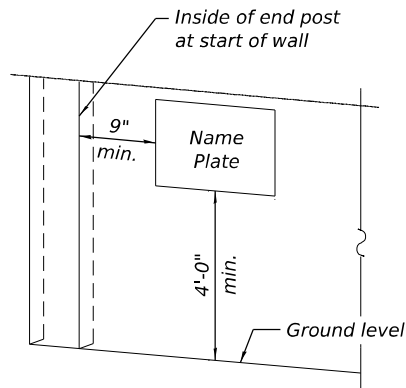
GENERAL NOTES:

- Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall between the stations shown in the Noise Wall Data Table.
- See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction, erection and other requirements for installation of proposed Noise Abatement Wall.
- The existing utilities will be adjusted. 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.
- Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.
- Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.
- The default color of both sides of the NAW panels, posts and other visible elements shall be Federal Standard 30279 - Sand.

NOISE ABATEMENT WALL
 BUILT 202_BY
 STATE OF ILLINOIS
 F.A.I. RTE. I-80
 SECTION FAI 80 21 INTERCHANGE
 FROM STA. 642+14.03 TO STA. 15+25.28
 STRUCTURE NO. 099-N1025

NAME PLATE

See Std. 515001



**FOR NOISE ABATEMENT WALL
 GROUND MOUNTED**

NOISE ABATEMENT WALL B23A (DATA TABLE)

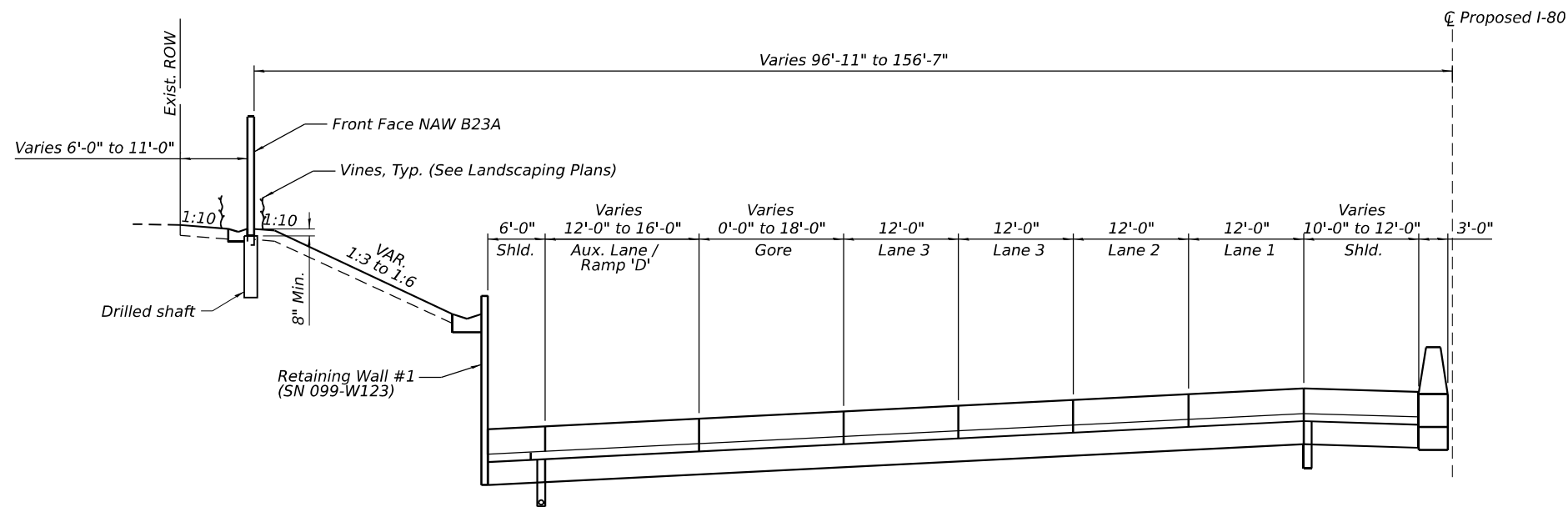
Station	Offset (Lt.) to Front Face of Wall (ft.)	Theoretical Top of NAW Elev.	I-80 PGL Elev.	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)
642+14.03	156.61	651.58	614.74	636.58	636.58	636.95	635.91	15.67
642+73.19	156.77	651.45	615.25	636.45	636.45	636.71	635.78	15.67
642+82.31/8+46.11	157.66	651.48	615.33	636.48	636.48	636.63	635.81	15.67
8+89.50	161.64	651.60	615.71	636.60	636.60	636.58	635.93	15.67
9+00.00	161.52	651.64	615.80	636.64	636.64	636.54	635.97	15.67
9+50.00	160.52	651.70	616.23	636.70	636.70	636.22	636.03	15.67
10+00.00	158.82	651.56	616.67	636.56	636.56	636.18	635.89	15.67
10+50.00	156.40	651.41	617.10	636.41	636.41	636.22	635.74	15.67
11+00.00	153.26	651.27	617.49	636.27	636.27	636.21	635.60	15.67
11+50.00	149.40	651.12	617.78	636.12	636.12	636.04	635.45	15.67
12+00.00	144.82	650.98	617.98	635.98	635.98	635.96	635.31	15.67
12+50.00	139.51	650.83	618.07	635.83	635.83	635.82	635.16	15.67
13+00.00	133.47	649.41	618.07	634.41	634.41	634.18	633.74	15.67
13+50.00	126.68	648.24	617.96	633.24	633.24	632.85	632.57	15.67
14+00.00	119.14	646.83	617.76	631.83	631.83	631.59	631.16	15.67
14+50.00	110.84	644.78	617.47	629.78	629.78	629.89	629.11	15.67
15+00.00	101.78	643.42	617.07	628.42	628.42	628.13	627.75	15.67
15+25.28	96.90	642.97	616.83	627.97	627.97	627.27	627.30	15.67

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	11,343

NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	642+14.03	15+25.28	Reflective	-
Residential face	642+14.03	15+25.28	Reflective	-



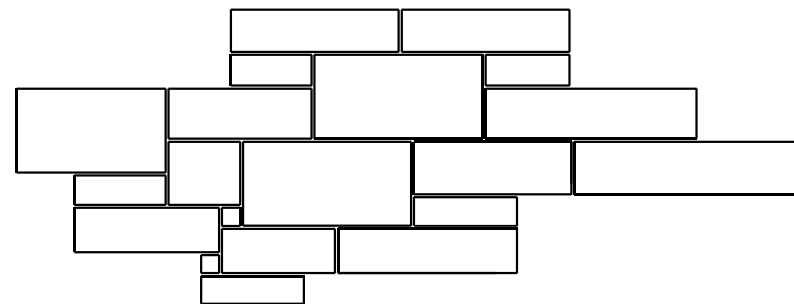
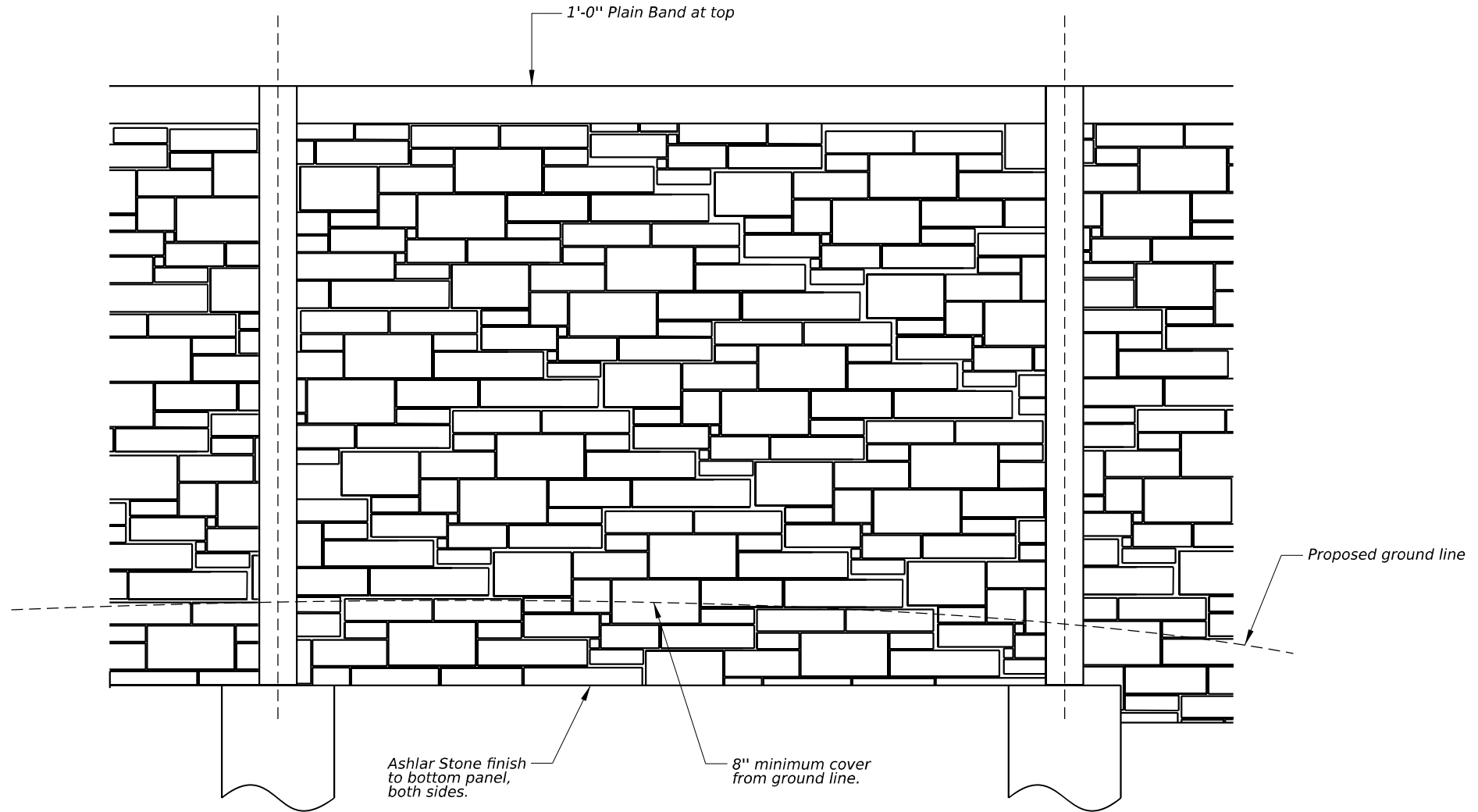
**WESTBOUND I-80
 TYPICAL SECTION THROUGH NAW B23A**
 Sta. 642+14.03 to Sta. 15+25.88
 (Looking East)

MODEL: Default
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<p>WSP USA Inc. 30 N. LASALLE STREET SUITE 4000 CHICAGO, IL 60602 TEL: (312) 782-8150 FAX: (312) 782-1884</p>	USER NAME = USG717780	DESIGNED - MS	REVISED -	<p>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p>GENERAL NOTES AND TOTAL BILL OF MATERIAL NOISE ABATEMENT WALL B23A - SN 099-N1025</p>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / in.	CHECKED - NBR/PJL	REVISED -			316	FAI 80 21 INTERCHANGE	WILL	1209	791
PLOT DATE = 4/23/2025	DRAWN - BK/GM	REVISED -		CONTRACT NO. 62R22						
	CHECKED - MS	REVISED -		SHEET SK-03 OF SK-06 SHEETS						
ILLINOIS FED. AID PROJECT										

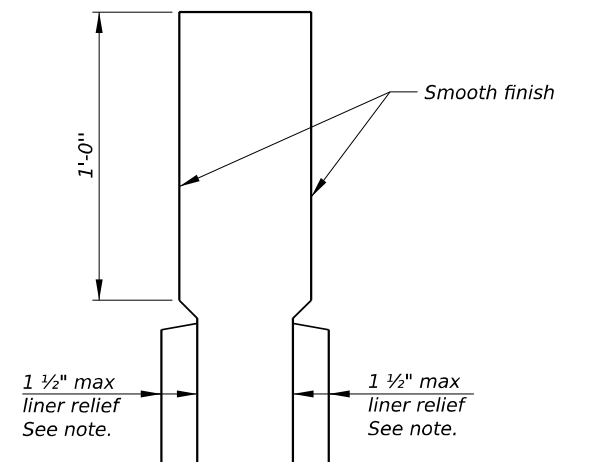
Notes:

Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 1/2" relief for noise abatement wall, ground mounted. The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.



ENLARGED PATTERN DETAIL

Stone Pattern Sizes:
3" x 3" - 14" x 28"



ENLARGED CAP DETAIL

MODEL: NOISE WALLS DETAILS
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wsp	WSP USA Inc.
	30 N. LASALLE STREET
	SUITE 400
	CHICAGO, IL 60602
	TEL: (312) 782-8150
	FAX: (312) 782-1884

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	0.16666667' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WALL DETAILS
NOISE ABATEMENT WALL B23A - SN 099-N1025**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	792
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 5/2/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 17 TWP. 35 N. RNG. 10 E.

COUNTY Will DRILLING RIG CME-75 HAMMER TYPE Auto DRILLING METHOD HSA HAMMER EFF (%) 91

STRUCT. NO. 099-W123 Station Station BORING NO. RWB-01 Station 642+7.1918 Offset 75.40R LT Ground Surface Elev. 616.04 ft

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (U), and Soil Description. Includes data for 14 inches of Asphalt, Brown Moist SAND, and Dense soil layers.

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

Date 5/2/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY KA

SECTION C-91-109-22 LOCATION SEC. 17 TWP. 35 N. RNG. 10 E.

COUNTY Will DRILLING RIG Mobile B-57 HAMMER TYPE Auto DRILLING METHOD HSA HAMMER EFF (%) 80

STRUCT. NO. 099-W123 Station Station BORING NO. RWB-04 Station 644+34.4615 Offset 78.60R LT Ground Surface Elev. 618.10 ft

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (U), and Soil Description. Includes data for 7 inches of Asphalt, Gray Moist SILTY CLAY, and Medium Dense Gray Moist SILT (ML) layers.

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

Date 4/29/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 17 TWP. 35 N. RNG. 10 E.

COUNTY Will DRILLING RIG CME-75 HAMMER TYPE Auto DRILLING METHOD HSA HAMMER EFF (%) 91

STRUCT. NO. 099-W123 Station Station BORING NO. RWB-07 Station 12+34.1223 Offset 78.55R LT Ground Surface Elev. 618.53 ft

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (U), and Soil Description. Includes data for 14 inches of Asphalt, Brown Moist SILTY CLAY, and Very Stiff to Hard Gray Moist SILTY CLAY layers.

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)

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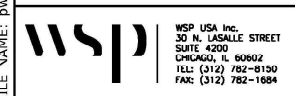


Table with fields: USER NAME = USGM717780, DESIGNED - MS, CHECKED - NBR/PJL, DRAWN - BK/GM, PLOT DATE = 4/23/2025, REVISIONS table.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS NOISE ABATEMENT WALL B23A - SN 099-N1025

SHEET SK-05 OF SK-06 SHEETS

Table with fields: F.A.U. RTE. 316, SECTION FAI 80 21 INTERCHANGE, COUNTY WILL, TOTAL SHEETS 1209, SHEET NO. 793, CONTRACT NO. 62R22, ILLINOIS FED. AID PROJECT



Illinois Department of Transportation
Division of Highways
GSG Consultants, Inc.

SOIL BORING LOG

Page 1 of 1

Date 4/29/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DD

SECTION C-91-109-22 LOCATION SEC. 17 TWP. 35 N. RNG. 10 E.

COUNTY Will DRILLING RIG CME-75 Longitude HSA HAMMER TYPE Auto HAMMER EFF (%) 91

STRUCT. NO. 099-W123
Station
BORING NO. RWB-09
Station 13+85.3092
Offset 63.93ft LT
Ground Surface Elev. 618.48 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter 615.0 ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	DIAMETER (in)	SOIL TYPE	UCS (tsf)	SPT (blows)
0		12 inches of Asphalt		
617.48	6	Brown, Moist FILL: SILTY CLAY, with gravel	2.9	13
615.48	6	Brown, Moist to Wet FILL: SAND, trace gravel		14
	11			14
	14			14
	13			20
	17			
608.98	11	Very Stiff Brown, Moist SILTY CLAY, trace gravel (CL/ML)	4.5	15
607.48	4	Very Stiff to Hard Gray, Moist SILTY CLAY (CL/ML)	2.5	14
	5			14
	8			22
	3			
	7			22
	8			
	2			23
	5			
	7			
	3			22
	7			
	10			
598.48	10			

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, form 137 (Rev. 8 99)



Illinois Department of Transportation
Division of Highways
GSG Consultants, Inc.

SOIL BORING LOG

Page 1 of 1

Date 4/28/22

ROUTE I-80 DESCRIPTION Retaining Wall No. 1 - Ramp D LOGGED BY DM

SECTION C-91-109-22 LOCATION SEC. 17 TWP. 35 N. RNG. 10 E.

COUNTY Will DRILLING RIG Diedrich D-50 Longitude HSA HAMMER TYPE Auto HAMMER EFF (%) 98

STRUCT. NO. 099-W123
Station
BORING NO. RWB-10
Station 14+63.5688
Offset 59.79ft LT
Ground Surface Elev. 618.19 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion N/A ft
After Hrs. N/A ft

DEPTH (ft)	DIAMETER (in)	SOIL TYPE	UCS (tsf)	SPT (blows)
617.94		3 inches of Asphalt		
	3	Brown, Moist FILL: SILTY CLAY, trace sand and gravel	2.5	14
615.19	4	Very Stiff to Hard Brown, Moist SILTY CLAY, trace sand and gravel (CL/ML)	6.5	19
	6			15
	7			
	4			15
	5			
	6			22
	8			
	4			24
604.19	7	Very Stiff to Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)	4.6	24
	7			
	4			22
	7			
	11			22
	3			
	6			20
	7			
598.19	7			

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, form 137 (Rev. 8 99)

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hoststd/Documents/Projects_2018/CH401/401.180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Final/NAW_B23/D162R22-SBL_E23A-05.dgn

WSP
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8130
FAX: (312) 782-1884

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
CHECKED -	NBR/PJL	REVISIED -			
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PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 2
NOISE ABATEMENT WALL B23A - SN 099-N1025

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	794
ILLINOIS			FED. AID PROJECT	

INDEX OF SHEETS

- SL-01 General Plan and Elevation 1
- SL-02 General Plan and Elevation 2
- SL-03 General Plan and Elevation 3
- SL-04 General Plan and Elevation 4
- SL-05 General Notes and Total Bill of Material
- SL-06 Wall Details
- SL-07 Soil Boring Logs 1
- SL-08 Soil Boring Logs 2
- SL-09 Soil Boring Logs 3

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

$f_c = 4,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Struct. Steel, M270 Grade 50, posts)
 $f_y = 36,000$ psi (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

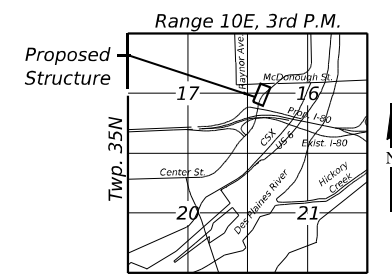
$f_c = 4,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 65,000$ psi (Welded Wire Reinforcement)

DESIGN LOADS

Strength III or V Wind : 35 psf
 Service I Wind : 15 psf
 Unfactored Design Active Earth Pressure:
 55 pcf equivalent fluid pressure
 Minimum Live load Surcharge Pressure:
 2 ft. additional earth pressure

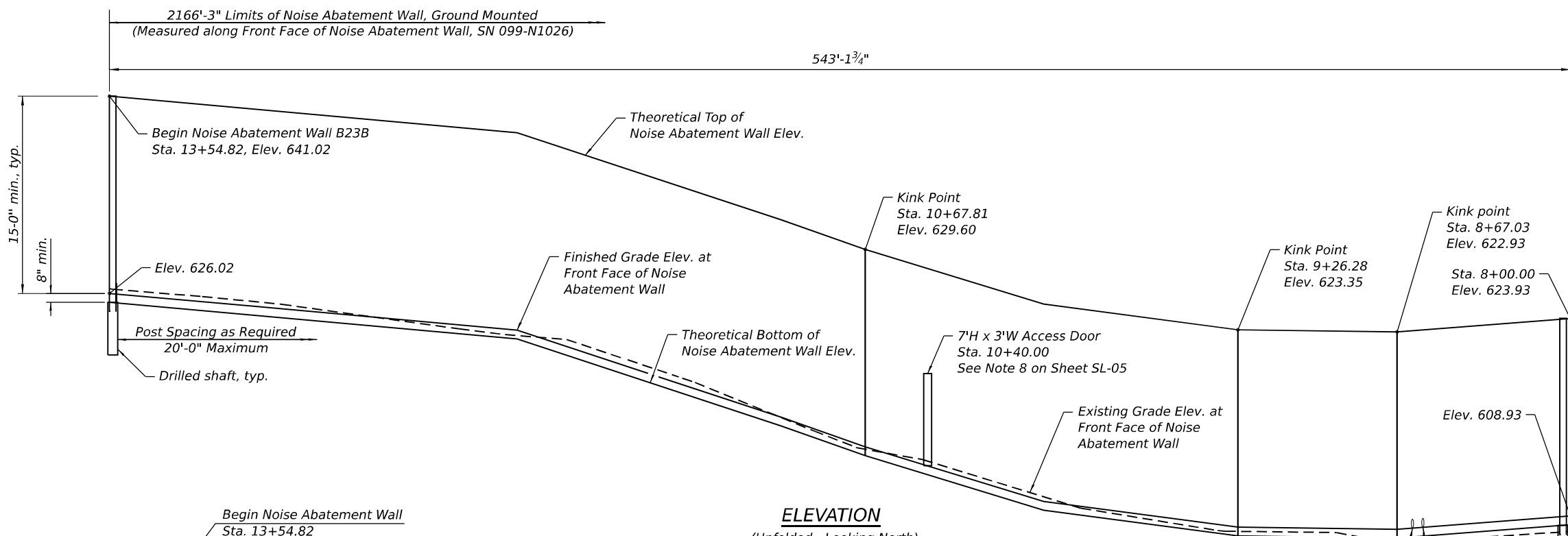
LEGEND

- Proposed ROW line
- FO Proposed Fiber Optic line
- T Existing Telephone line
- A Existing Aerial line
- E Existing Electric line
- Existing ROW line
- IG Existing Gas line
- Existing Sanitary Sewer
- Existing Storm Sewer
- WM Existing Water main
- CTV Existing Cable TV line
- ◆ Indicates Soil Boring location



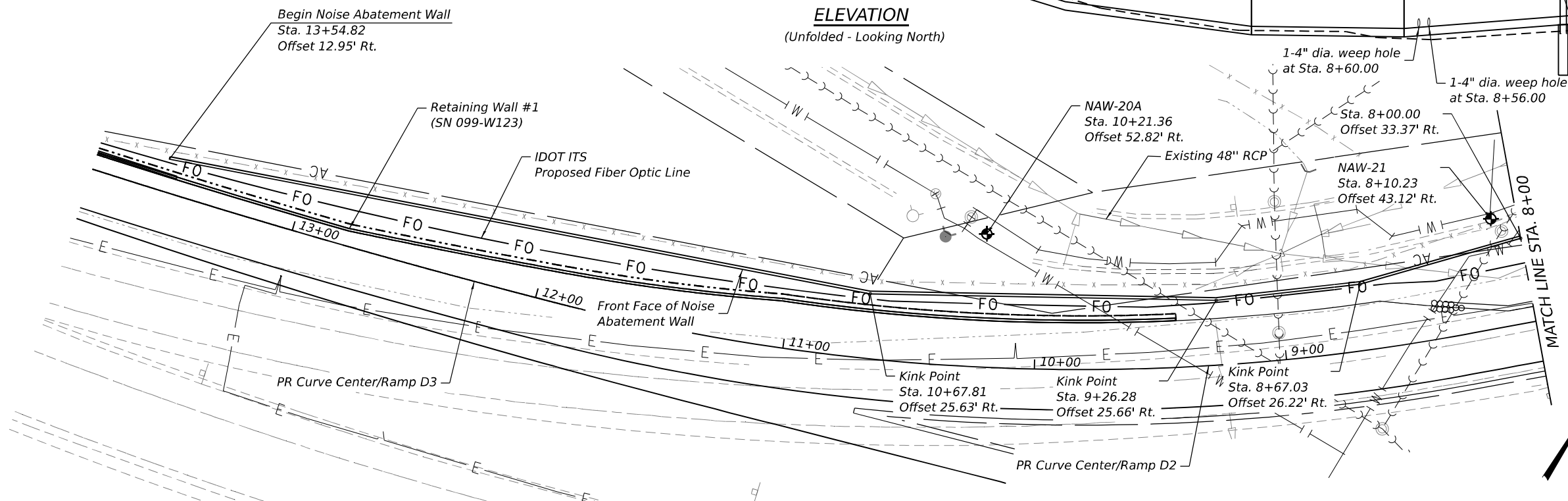
LOCATION SKETCH

GENERAL PLAN AND ELEVATION 1
NOISE ABATEMENT WALL ALONG RAMP-D
F.A.I. RTE. I-80 SEC. FAI 80 21 INTERCHANGE
WILL COUNTY
STA. 13+54.82 TO STA. 41+00.00
STRUCTURE NO. 099-N1026 (NOISE WALL B23B)

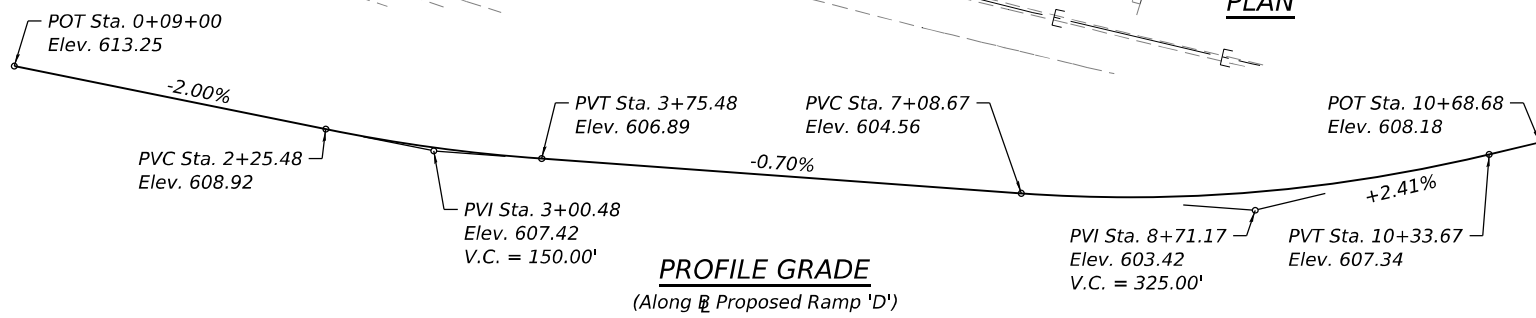


ELEVATION

(Unfolded - Looking North)



PLAN



PROFILE GRADE

(Along Proposed Ramp 'D')

NOTES:

1. For General Notes and Total Bill of Material, see Sheet S05.
2. Stations are measured along and Offsets are measured to BL Prop. Ramp D and BL Center St.
3. Length of ground mounted wall is measured along Front Face of Noise Abatement Wall.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

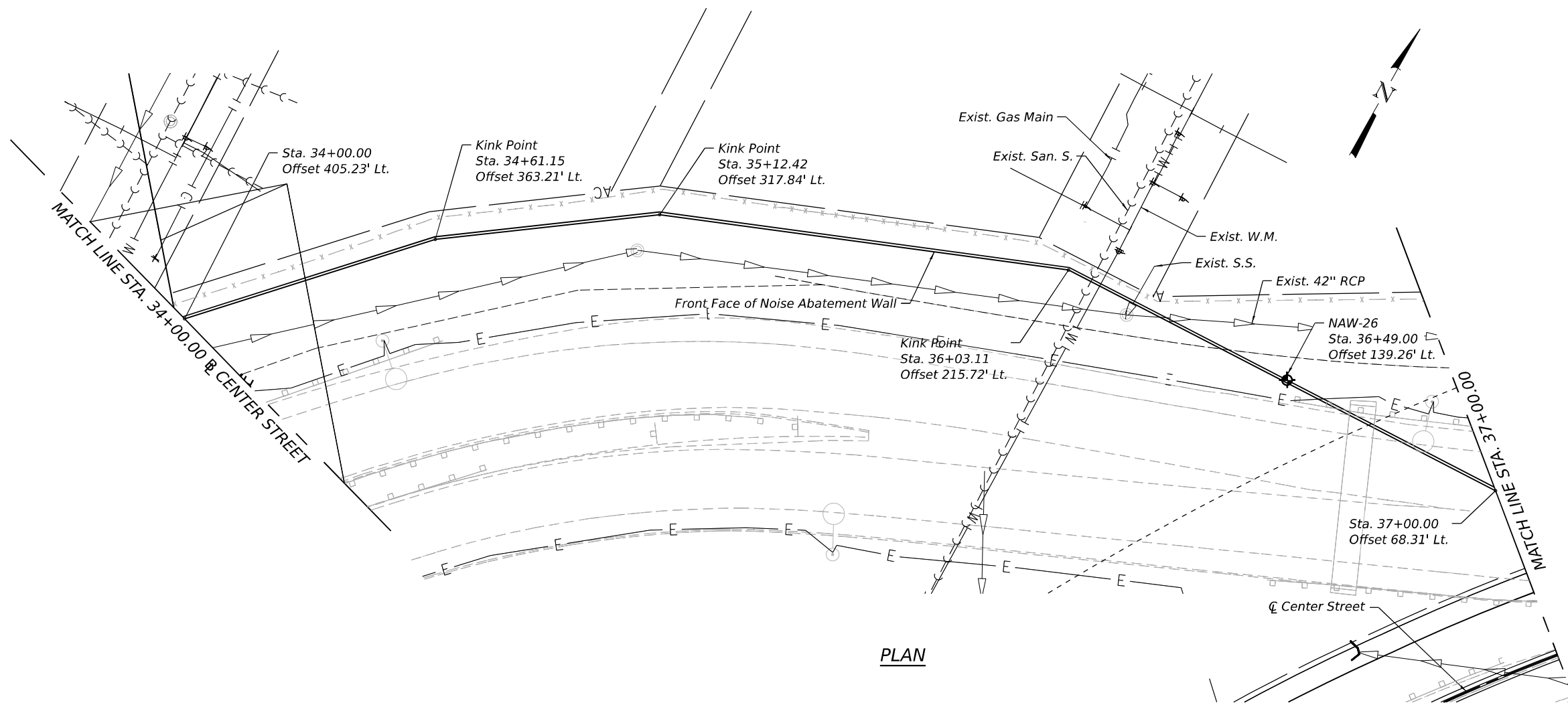
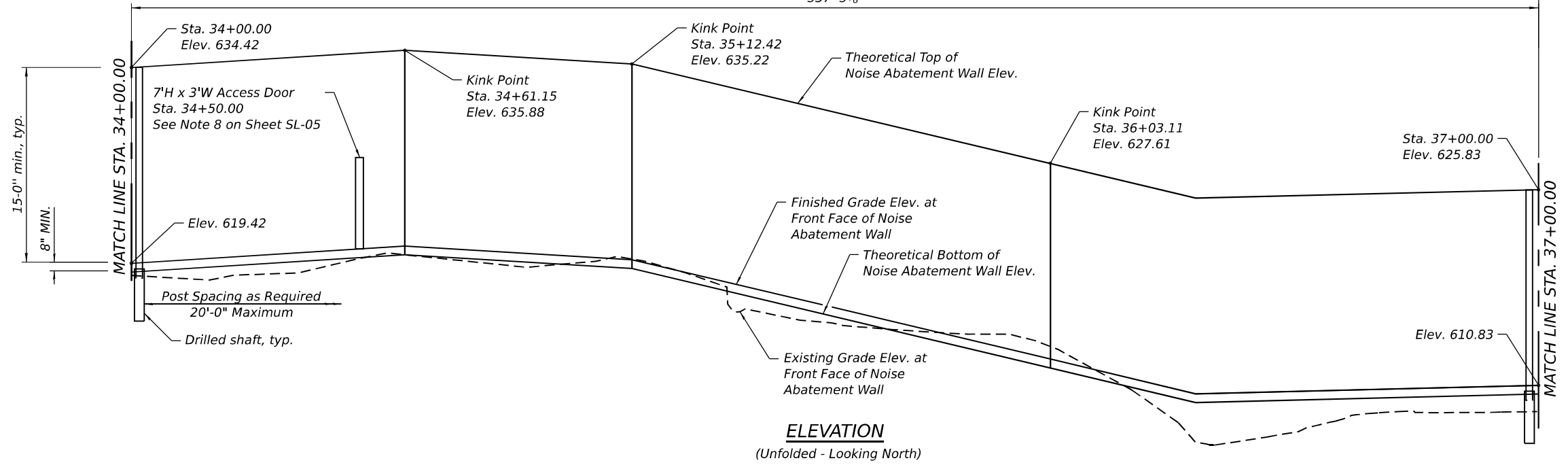
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PLOT DATE = 6/9/2025		

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	795
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				

SHEET SL-01 OF SL-09 SHEETS

WSP
 WSP USA Inc.
 30 N. LASALLE STREET
 SUITE 4200
 CHICAGO, IL 60602
 TEL: (312) 782-8150
 FAX: (312) 782-1884

2166'-3" Limits of Noise Abatement Wall, Ground Mounted
 (Measured along Front Face of Noise Abatement Wall, SN 099-N1026)
 537'-5 7/8"



MODEL: Default
 FILE NAME: pw://transystems-pw.bentley.com/transystems-pw1-hosted/Projects_2018/CH40/401180022/03-WSP/CAD/62R22-INT-4 (Center)/Sheets/Structural/Noise Walls/Pre-Final/NAW_B23/D162R22-GPE_B23B-03.dgn

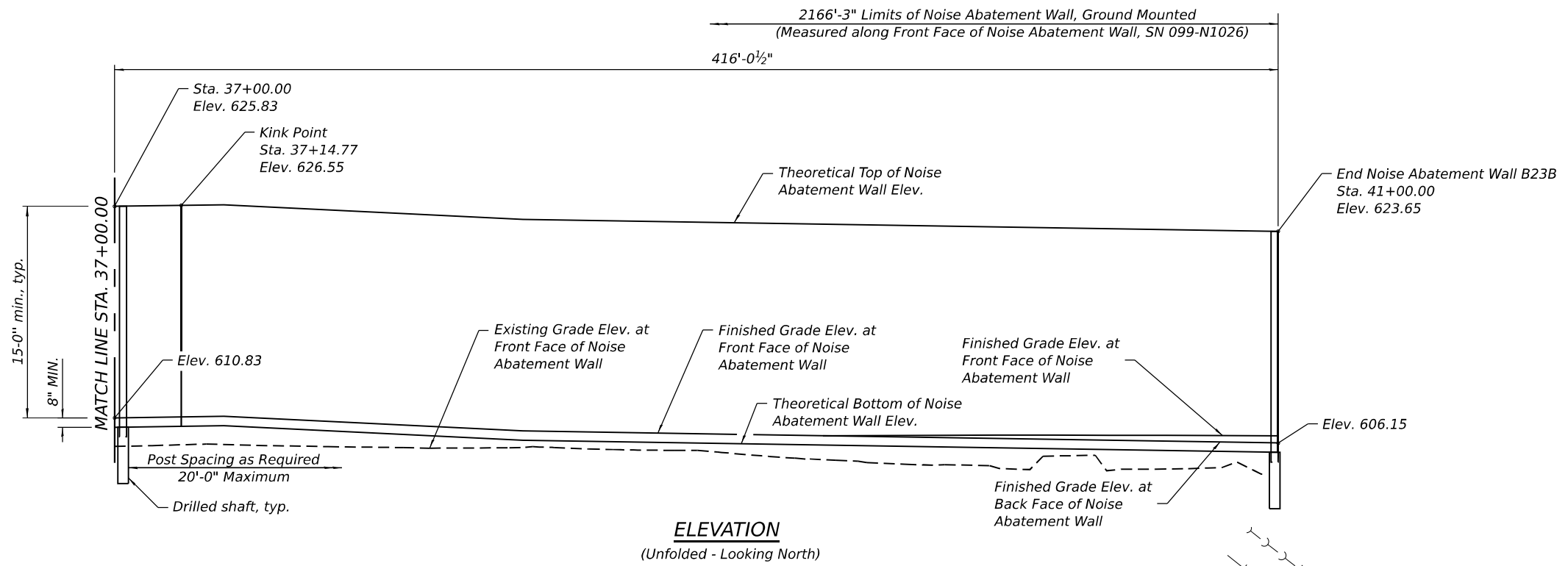
WSP
 WSP USA Inc.
 30 N. LASALLE STREET
 SUITE 4200
 CHICAGO, IL 60602
 TEL: (312) 782-8150
 FAX: (312) 782-1884

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
CHECKED -	NBR/PJL	REVISIONS			
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PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

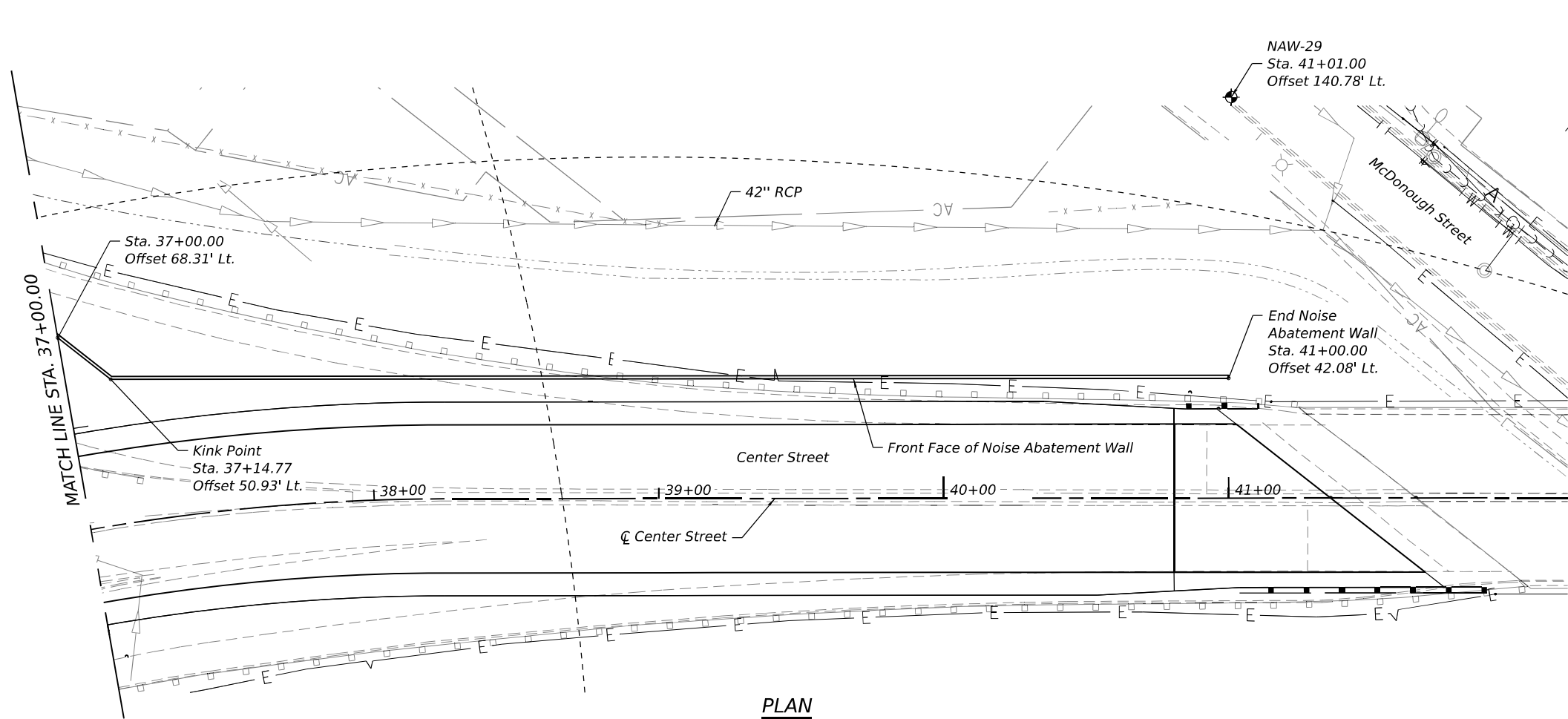
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION 3
 NOISE ABATEMENT WALL B23B - SN 099-N1026**

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	797
CONTRACT NO. 62R22				
ILLINOIS FED. AID PROJECT				



ELEVATION
(Unfolded - Looking North)



PLAN

MODEL: Default
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WSP
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1884

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	50:0' = 1" / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	6/9/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION 4
NOISE ABATEMENT WALL B23B - SN 099-N1026**

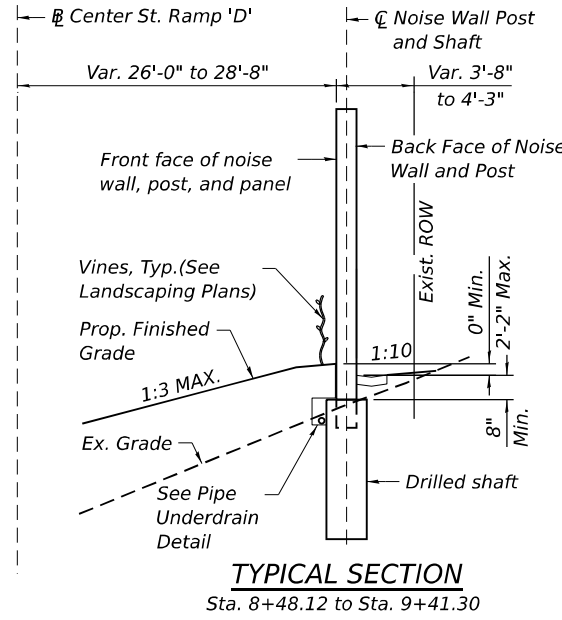
FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	798
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES:

- Theoretical Top of Wall Elev., Theoretical Bottom of Wall Elev., Finished Grade Elev. at Front Face of Wall and Finished Grade Elev. at Back Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table.
- See NOISE ABATEMENT WALL, GROUND MOUNTED Special Provision for material, design, fabrication, construction and erection and other requirements for installation of the proposed Noise Abatement Wall.
- The existing utilities will be adjusted. 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.
- Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor in accordance with the Special Provision.
- Contractor shall provide 4" ϕ weep holes at ground level in the bottom of the wall at Sta. 4+39.00, 8+56.00, and 8+60.00. Cost shall be included with Noise Abatement Wall, Ground Mounted.
- Contractor shall provide Ashlar Stone Finish on both faces of Noise Abatement Wall.
- The default color of both sides of the NAW panels, posts and other visible elements shall Federal Standard 30279 - Sand.
- Access door location shown in the plans is approximate and may be adjusted to accommodate final fire hydrant locations provided by the City of Joliet. This work shall be included as part of the respective Noise Abatement Wall costs.

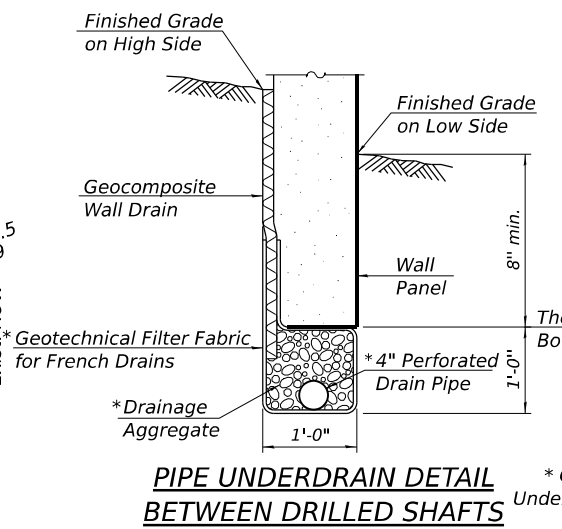
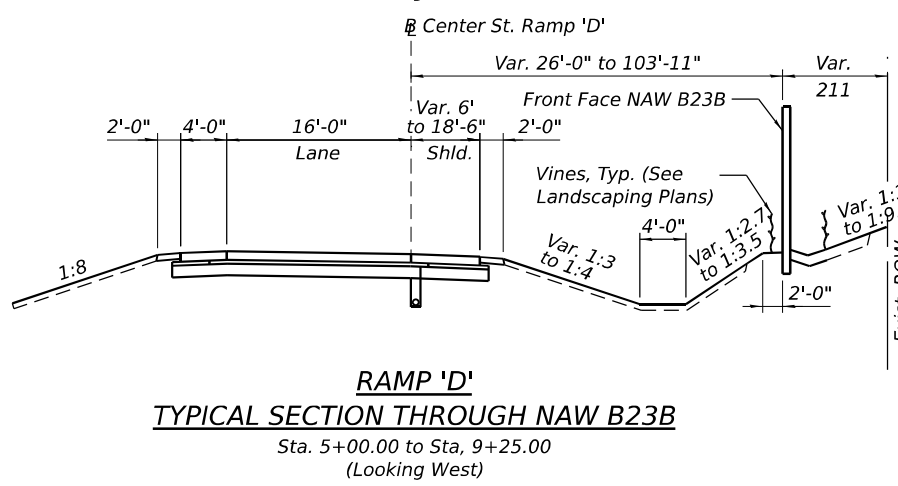
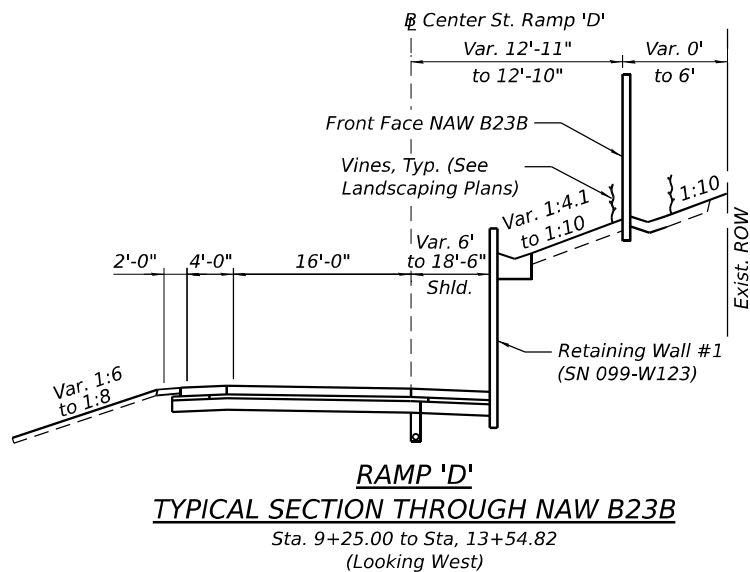
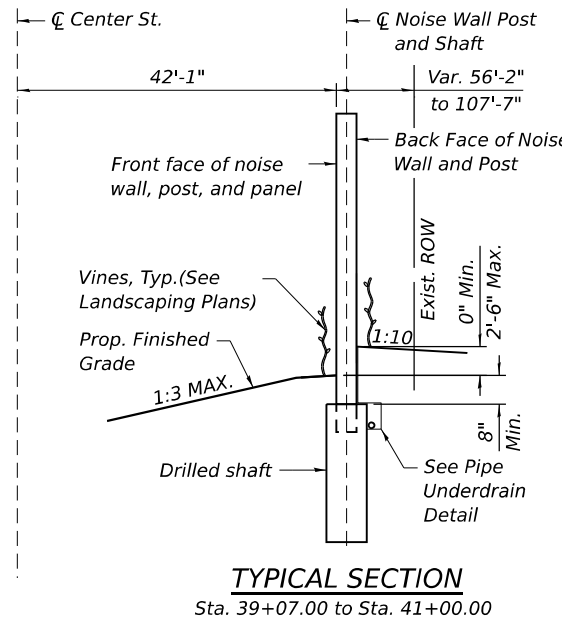
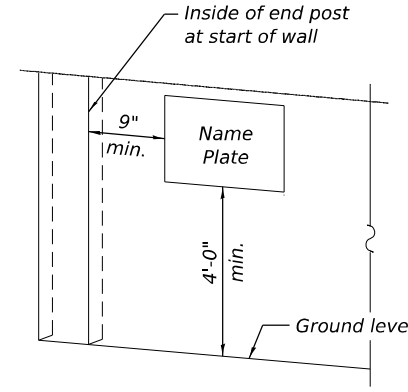
NOISE ABATEMENT WALL B23B (DATA TABLE)

Station	Offset to Front Face of Wall (ft.)	Theoretical Top of NAW Elev.	Prop. Ramp D/ Center St. Elev.	Finished Grade Elev. at Front Face of NAW	Finished Grade Elev. at Back Face of NAW	Ex. Grade Elev. at Front Face of NAW	Theoretical Bottom of NAW Elev.	Theoretical Wall Height (ft)	Final Retained Height (ft)
13+54.82	12.95 Rt.	641.02	612.59	626.02	626.02	625.51	625.35	15.67	0.00
13+00.00	18.61 Rt.	640.05	611.77	625.05	625.05	624.55	624.38	15.67	0.00
12+50.00	22.95 Rt.	639.03	611.09	624.03	624.03	623.25	623.36	15.67	0.00
12+00.00	26.52 Rt.	638.23	610.38	623.23	623.23	621.98	622.56	15.67	0.00
11+50.00	28.55 Rt.	635.08	609.38	620.08	620.08	619.65	619.41	15.67	0.00
11+00.00	27.71 Rt.	631.86	608.85	616.86	616.86	615.98	616.19	15.67	0.00
10+67.81	25.63 Rt.	629.60	608.16	614.60	614.60	613.48	613.93	15.67	0.00
10+50.00	26.92 Rt.	628.60	607.73	613.60	613.60	612.85	612.93	15.67	0.00
10+00.00	28.54 Rt.	625.62	606.58	610.62	610.62	610.08	609.95	15.67	0.00
9+50.00	27.28 Rt.	623.78	605.66	608.78	608.78	607.93	608.11	15.67	0.00
9+26.28	25.66 Rt.	623.35	605.30	607.82	608.35	607.18	607.15	16.20	0.53
9+00.00	26.41 Rt.	623.14	604.97	606.08	608.14	607.07	605.41	17.73	2.06
8+67.03	26.22 Rt.	622.93	604.65	605.78	607.93	606.55	605.11	17.82	2.15
8+50.00	28.39 Rt.	623.17	604.52	607.09	608.17	606.42	606.42	16.75	1.08
8+00.00	33.37 Rt.	623.93	604.32	608.93	608.93	606.96	608.26	15.67	0.00
7+79.10	35.37 Rt.	624.29	604.30	609.29	609.29	607.24	608.62	15.67	0.00
7+50.00	42.76 Rt.	625.87	604.35	610.87	610.87	608.81	610.20	15.67	0.00
7+00.00	55.45 Rt.	628.86	604.62	613.86	613.86	611.45	613.19	15.67	0.00
6+50.00	88.13 Rt.	630.97	604.97	615.97	615.97	613.47	615.30	15.67	0.00
6+00.00	80.82 Rt.	633.23	605.32	618.23	618.23	615.53	617.56	15.67	0.00
5+50.00	93.51 Rt.	633.71	605.67	618.71	618.71	616.01	618.04	15.67	0.00
5+00.00	109.67 Rt.	633.42	606.02	618.42	618.42	615.83	617.75	15.67	0.00
4+50.00	138.07 Rt.	633.35	606.37	618.35	618.35	615.48	617.68	15.67	0.00
4+38.70	146.42 Rt.	633.53	606.45	618.53	618.53	615.60	617.86	15.67	0.00
32+50.00	492.22 Lt.	634.08	612.71	619.08	619.08	614.81	618.41	15.67	0.00
33+00.00	467.96 Lt.	634.59	612.34	619.59	619.59	614.97	618.92	15.67	0.00
33+50.00	437.63 Lt.	635.25	611.96	620.25	620.25	615.99	619.58	15.67	0.00
33+98.57	406.35 Lt.	634.38	611.60	619.38	619.38	617.91	618.71	15.67	0.00
34+00.00	405.23 Lt.	634.42	611.59	619.42	619.42	617.88	618.75	15.67	0.00
34+50.00	370.07 Lt.	635.62	611.22	620.62	620.62	618.78	619.95	15.67	0.00
34+61.15	363.21 Lt.	635.88	611.14	620.88	620.88	619.56	620.21	15.67	0.00
35+00.00	328.10 Lt.	635.49	610.85	620.49	620.49	618.70	619.82	15.67	0.00
35+12.42	317.84 Lt.	635.22	610.76	620.22	620.22	619.28	619.55	15.67	0.00
35+50.00	270.98 Lt.	632.35	610.48	617.35	617.35	614.39	616.68	15.67	0.00
36+03.11	215.52 Lt.	627.61	610.08	612.61	612.61	612.85	611.94	15.67	0.00
36+50.00	136.14 Lt.	624.76	609.73	609.76	609.76	605.77	609.09	15.67	0.00
37+00.00	68.31 Lt.	625.83	609.36	610.83	610.83	607.38	610.16	15.67	0.00
37+14.77	50.93 Lt.	626.55	609.25	611.56	611.55	607.46	610.88	15.67	0.01
37+50.00	46.15 Lt.	625.83	608.99	610.83	610.83	607.33	610.16	15.67	0.00
38+00.00	42.53 Lt.	625.02	608.63	610.02	610.02	607.21	609.35	15.67	0.00
38+50.00	42.08 Lt.	624.31	608.42	609.31	609.31	607.03	608.64	15.67	0.00
39+00.00	42.08 Lt.	623.84	608.41	608.84	608.84	606.45	608.17	15.67	0.00
39+50.00	42.08 Lt.	623.74	608.61	608.74	606.58	605.72	605.91	17.81	2.16
40+00.00	42.08 Lt.	623.92	608.79	608.92	606.42	605.21	605.75	18.17	2.50
40+50.00	42.08 Lt.	623.89	608.76	608.89	606.39	605.52	605.72	18.17	2.50
41+00.00	42.08 Lt.	623.65	608.52	608.65	606.15	604.28	605.48	18.17	2.50

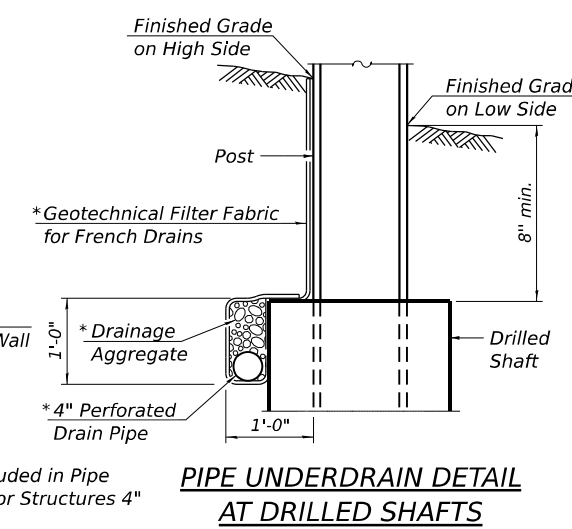


NOISE ABATEMENT WALL BUILT 202 BY STATE OF ILLINOIS F.A.I. RTE. I-80 SECTION FAI 80 21 INTERCHANGE FROM STA. 13+54.82 TO STA.41+00.00 STRUCTURE NO. 099-N1026

NAME PLATE
See Std. 515001



* Cost included in Pipe Underdrains for Structures 4"



TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	33,940
Geocomposite Wall Drain	Sq. Yd.	112
Pipe Underdrains for Structures 4"	Foot	291

NOISE REDUCTION DATA

Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
I-80 face	13+54.82	41+00.00	Reflective	-
Residential face	13+54.82	41+00.00	Reflective	-

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND TOTAL BILL OF MATERIAL NOISE ABATEMENT WALL B23B - SN 099-N1026

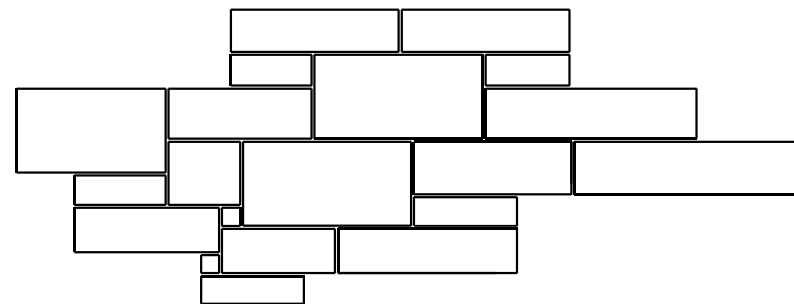
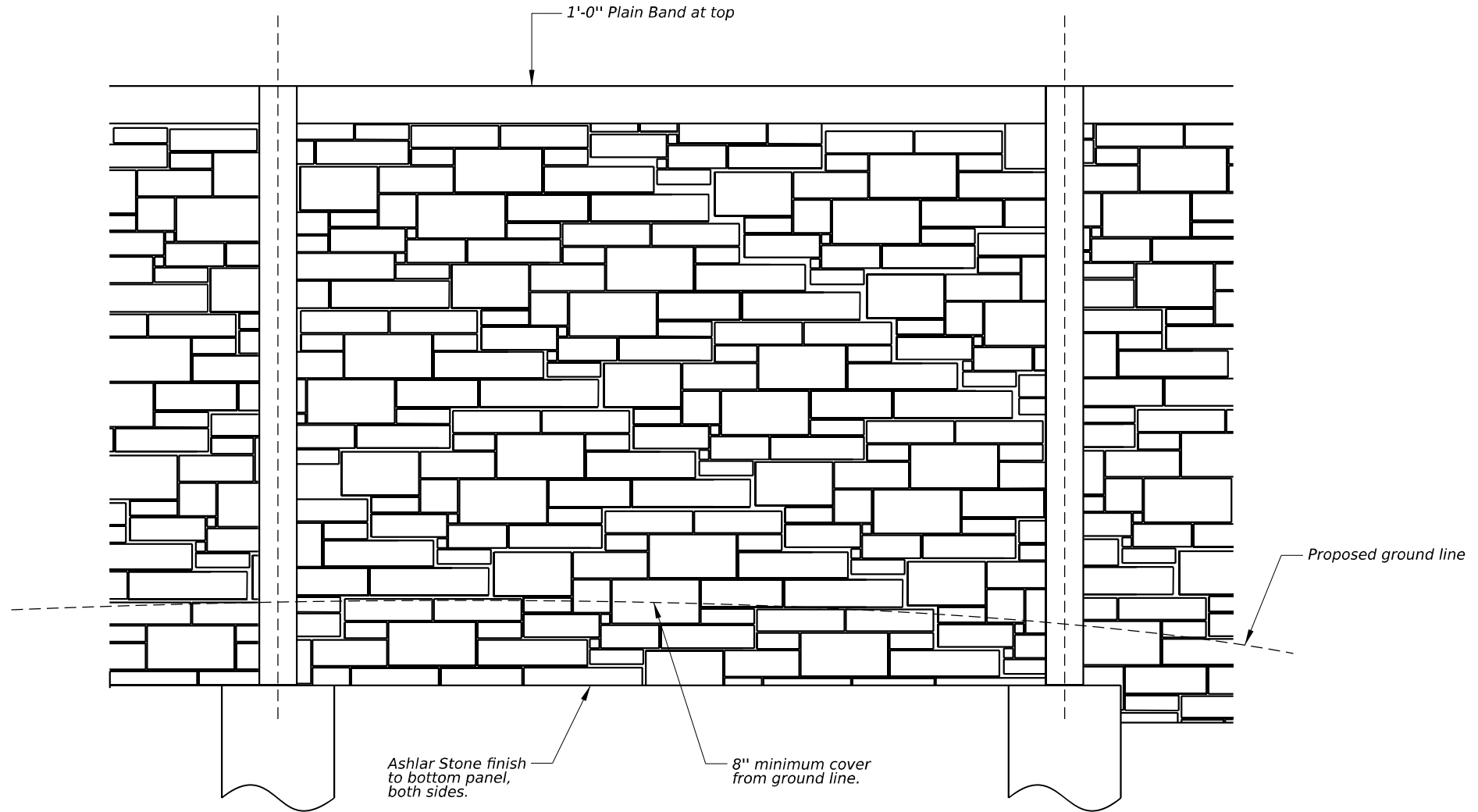
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316	FAI 80 21 INTERCHANGE	WILL	1209	799

CONTRACT NO. 62R22

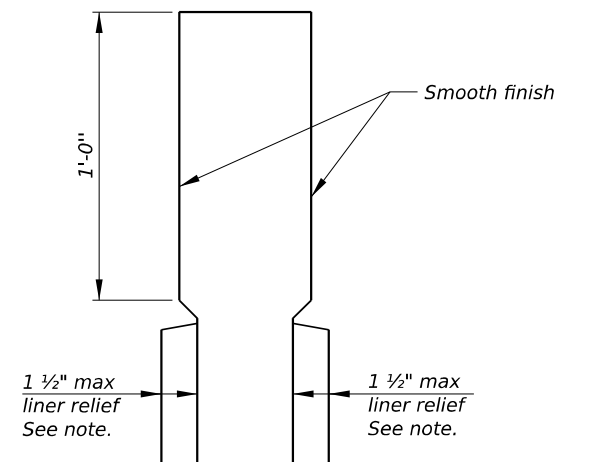


Notes:

Each side of the noise wall panels shall have a rolled ashlar stone finish. The finish shall have a 1 1/2" relief for noise abatement wall, ground mounted. The color of both sides of the panels, plain band, posts and all other visible elements shall follow the special provisions.



ENLARGED PATTERN DETAIL



ENLARGED CAP DETAIL

MODEL: NOISE WALLS DETAILS
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WSP USA Inc.
30 N. LASALLE STREET
SUITE 400
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1884

USER NAME =	USGM717780	DESIGNED -	MS	REVISED -	
		CHECKED -	NBR/PJL	REVISED -	
PLOT SCALE =	0.16666667' / in.	DRAWN -	BK/GM	REVISED -	
PLOT DATE =	4/23/2025	CHECKED -	MS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WALL DETAILS
NOISE ABATEMENT WALL B23B - SN 099-N1026**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	FAI 80 21 INTERCHANGE	WILL	1209	800
CONTRACT NO. 62R22				
		ILLINOIS	FED. AID PROJECT	