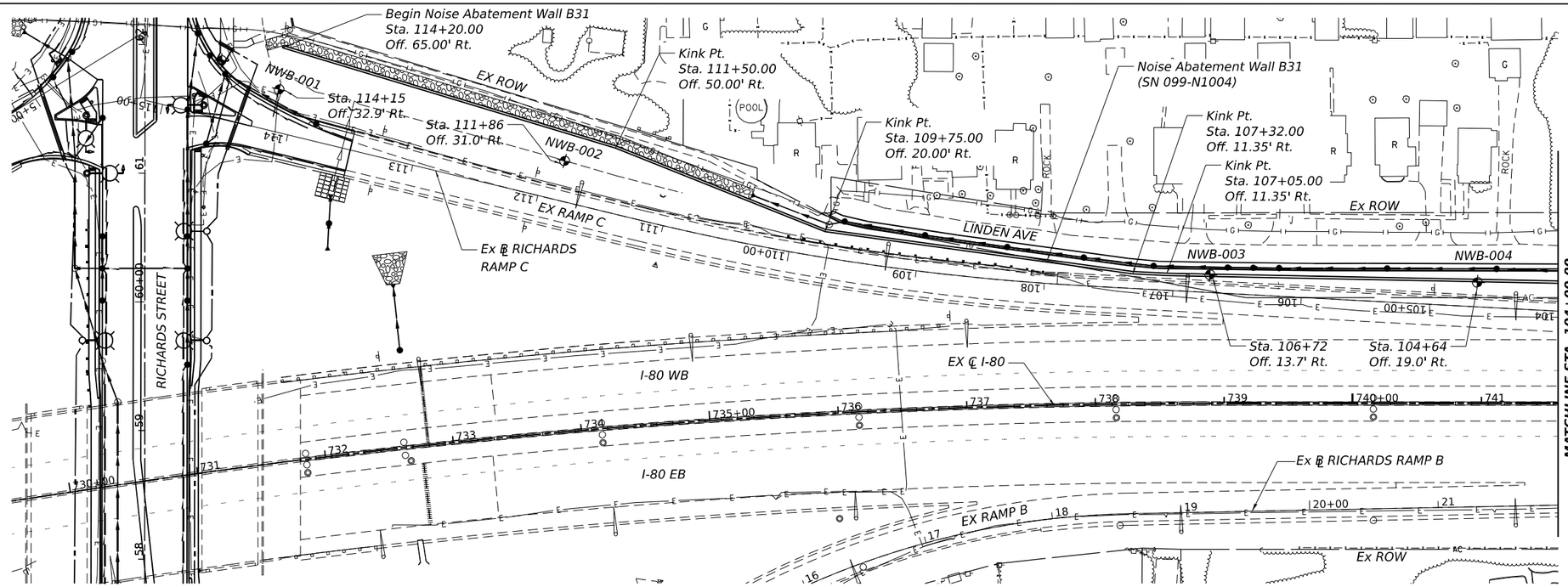
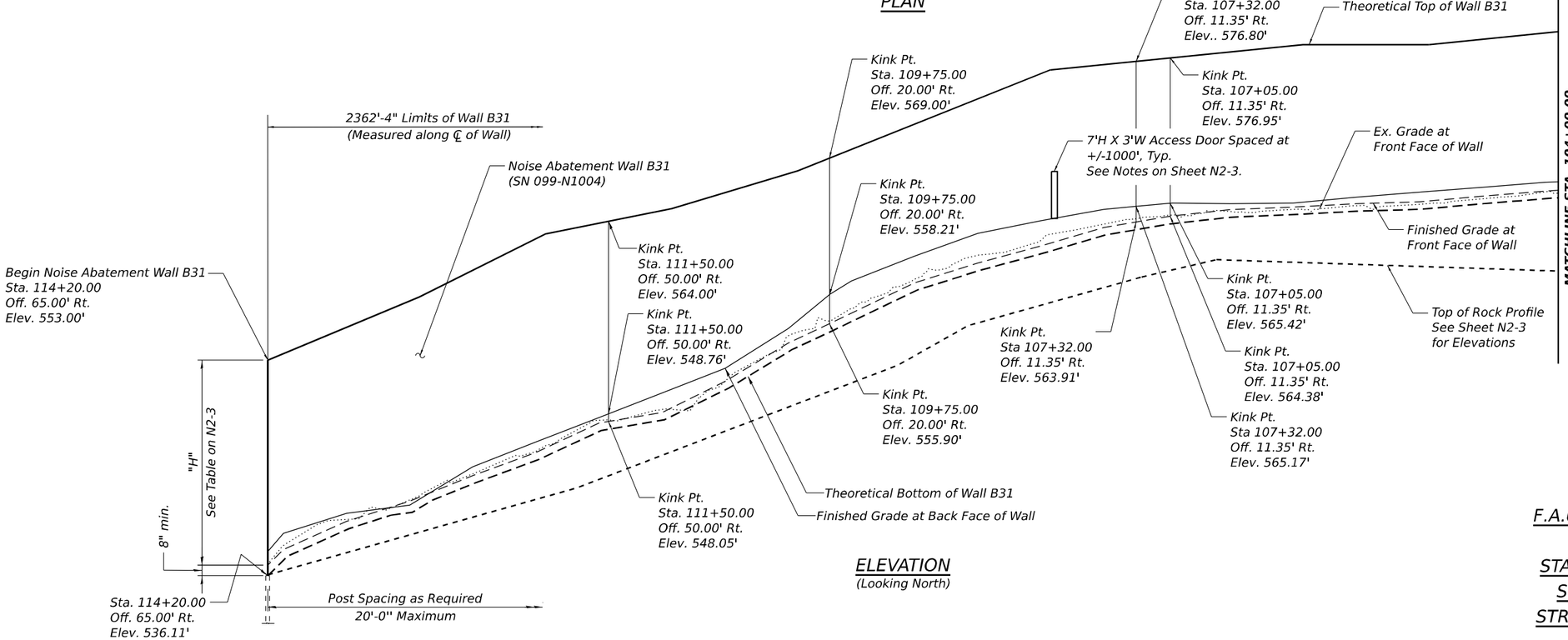
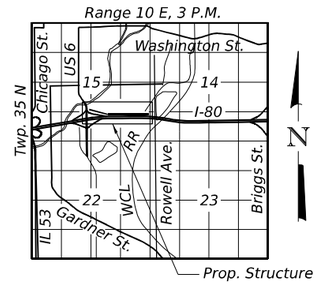


PLAN



ELEVATION
(Looking North)



LOCATION SKETCH

NOTES:

1. Theoretical Top of Wall Elevations, Theoretical Bottom of Wall Elevations, Existing Grade Elevations at Front Face of Wall and Finished Grade Elevations at Front Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table on Sheet N2-3.

2. For additional notes and legend, see Sheet N2-3.

GENERAL PLAN AND ELEVATION
NOISE ABATEMENT WALL ALONG I-80
F.A.U 354 (RICHARDS STREET) SEC. 99-4B-2-BR
WILL COUNTY
STA. 100+00.00 TO STA. 114+20.00 (RAMP C)
STA. 745+61.00 TO STA. 755+00.00 (I-80)
STRUCTURE NO. 099-N1004 (NOISE WALL B31)

MODEL: PR I-80 - PLAN ML NOISE WALL
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09883\099N1004-62380-001-GPE01.DGN

1/25/2024 [ERROR]

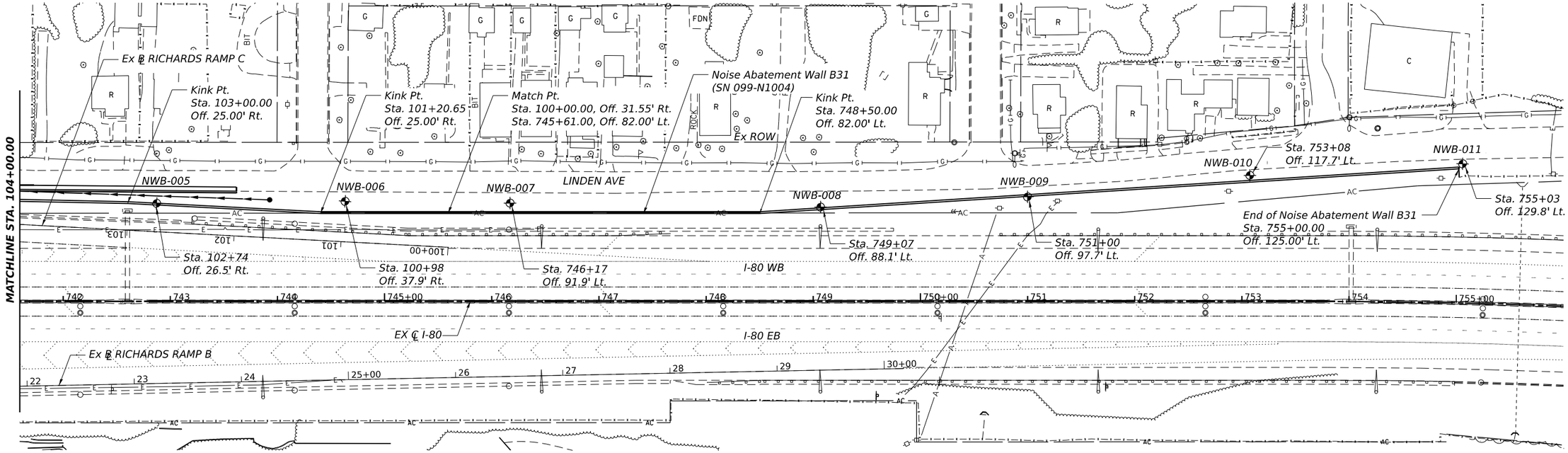
GARZA KARHOFF ENGINEERING, LLC

USER NAME =	DESIGNED - MB	REVISED -	
	CHECKED - LM	REVISED -	
PLOT SCALE =	DRAWN - MB	REVISED -	
PLOT DATE =	CHECKED - LM	REVISED -	

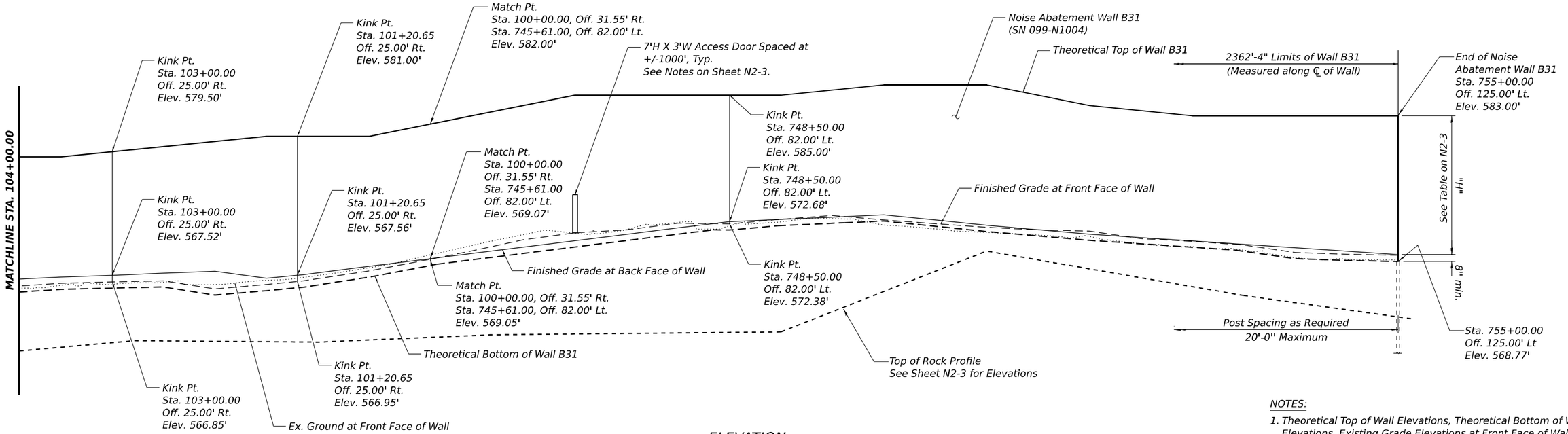
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
GENERAL PLAN AND ELEVATION
SHEET N2-1 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	201
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



PLAN



ELEVATION
(Looking North)

NOTES:

1. Theoretical Top of Wall Elevations, Theoretical Bottom of Wall Elevations, Existing Grade Elevations at Front Face of Wall and Finished Grade Elevations at Front Face of Wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table on Sheet N2-3.

2. For additional notes and legend, see Sheet N2-3.

MODEL: PR I-80 - PLAN ML NOISE WALL
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-011DMS09883\099N1004-62380-002-GPE02.DGN

1/25/2024 [ERROR]

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PLOT DATE =		CHECKED - LM	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
GENERAL PLAN AND ELEVATION
SHEET N2-2 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	202
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. Noise Abatement Wall drilled shaft foundation diameter, depth and spacing to be determined by the Contractor.
2. Contractor shall verify location of existing utilities prior to construction. Contractor shall locate drilled shafts to provide at least 5 feet clearance to existing and proposed underground utilities. Damage to any utilities shall be repaired by the Contractor at no additional cost to the Department.
3. Wall stations and offsets are measured relative to ℄ Richards Ramp C (Sta. 100+00.00 to Sta. 114+20.00) or ℄ I-80 (Sta. 745+61.00 to Sta. 755+00.00) and are measured to the centerline of wall.
4. For top of wall, bottom of wall and ground elevations, see Sheets N2-1 to N2-2.
5. The maximum center-to-center post spacing shall be 20 feet.
6. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in impression.
7. Any rock excavation required for noise wall construction will not be paid for separately and will be included with Noise Abatement Wall, Ground Mounted. Based on the estimated top of rock elevations in the soil boring logs, rock excavation will only be required for construction of the drilled shafts.
8. Theoretical top of wall elevations, theoretical bottom of wall elevations, existing grade elevations at front face of wall and finished grade elevations at front face of wall shall be taken as straight lines in the segments between the stations shown in the Noise Wall Data Table.
9. Provide access doors every 1000' spaced evenly along length of wall. Access door location shown in the plans is approximate. Only locate doors where the grade at both faces of noise wall is even.

INDEX OF SHEETS

LEGEND

- Exist. Underground Telephone
- Exist. Underground Electric
- Exist. Underground Gas
- Exist. Underground Fiber Optic
- Exist. Underground Cable TV
- Exist. Underground Water
- Exist. Underground Oil
- Exist. Access Control and ROW
- Exist. Aerial Line
- Exist. Guardrail
- Exist. Storm Sewer
- Exist. Lighting
- Prop. Access Control and ROW Fence
- Prop. Guardrail
- Prop. Storm Sewer
- Prop. Underdrain
- Prop. Drainage
- Prop. Drainage Flow
- Prop. Lighting
- Soil Boring

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Struct. Steel, M270 Grade 50, posts)
fy = 36,000 psi (Struct. Steel, M270 Grade 36, all other structural steel)

PRECAST UNITS

f'c = 4,500 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Reinforcement)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Noise Abatement Wall, Ground Mounted	Sq. Ft.	33,405
Geocomposite Wall Drain	Sq. Yd.	630
Pipe Underdrains for Structures 4"	Foot	1,342

TOP OF ROCK ELEVATIONS

Boring No.	Sta.	T/Rock Elev.
NWB-001	114+15	531.09
NWB-002	111+86	525.64
NWB-003	106+72	558.16
NWB-004	104+64	559.82
NWB-005	102+74	559.72
NWB-006	100+98	557.38
NWB-007	746+17	558.42
NWB-008	749+07	562.06
NWB-009	751+00	570.90
NWB-010	753+08	564.58

Note: See boring logs for additional information.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN LOADS

Factored Strength III or V Wind: 35 psf
Factored Service I Wind: 15 psf
*Max. Factored Service I active earth pressure: 190 psf (based on equivalent fluid pressure of 55 psf)
*Factored Service I live load surcharge load: 110 psf

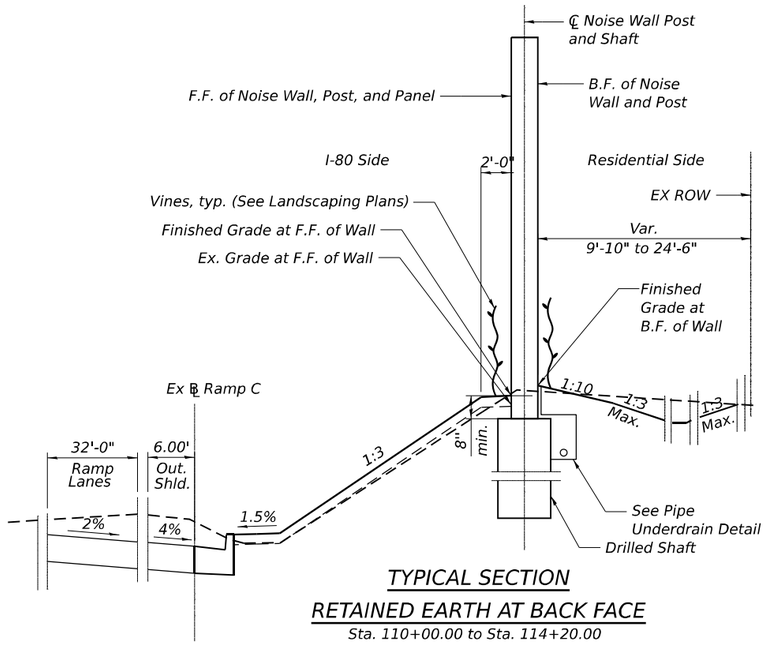
*Load applied only where noise wall acts as a retaining wall.

NOISE REDUCTION DATA

Noise Wall	Noise Wall Str. No.	Face	From Sta.	To Sta.	Noise Reduction Coefficient	Comments
B31	099-N1004	Ramp C face	114+20	109+00	Reflective	-
		residential face			Reflective	-
B31	099-N1004	Ramp C face	109+00	104+00	Absorptive	
		residential face			Reflective	-
B31	099-N1004	Ramp C face	104+00	100+00	Reflective	-
		residential face			Reflective	-
B31	099-N1004	I-80 face	745+61	755+00	Reflective	-
		residential face			Reflective	-

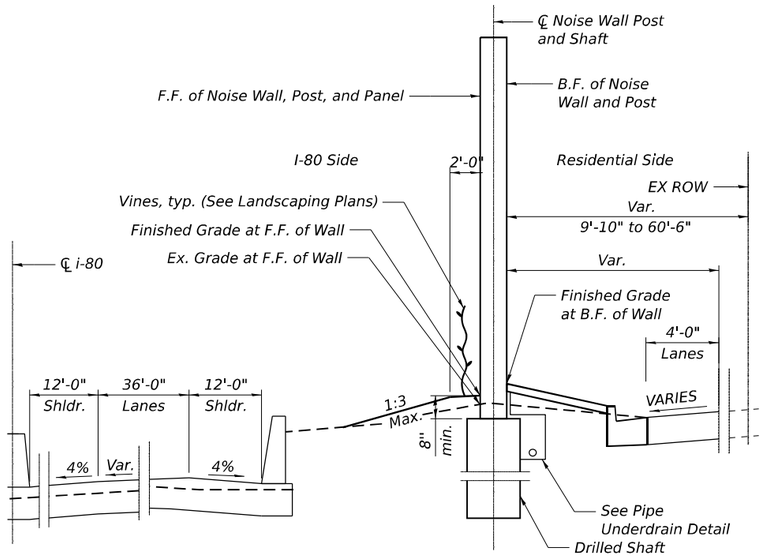
NOISE WALL DATA TABLE

Station	Offset to ℄ of Wall (ft.)	Theoretical Top of Wall Elev.	Ex. Grade Elev. at Front Face of Wall	Finished Grade Elev. at Front Face of Wall	Finished Grade Elev. at Back Face of Wall	Theoretical Bottom of Wall Elev.	Wall Height above Low Finished Grade "H" (ft.)
114+20.00	65.00	553.00	536.86	536.78	537.83	536.11	16.23
114+00.00	63.89	553.83	538.78	538.68	539.52	538.02	15.15
113+50.00	61.11	555.91	540.41	540.25	540.87	539.59	15.66
113+00.00	58.34	558.00	542.23	542.19	544.98	541.52	15.81
112+50.00	55.56	560.50	544.30	544.16	544.85	543.50	16.34
112+00.00	52.78	563.00	546.22	546.01	546.81	545.34	16.99
111+50.00	50.00	564.00	548.26	548.05	548.76	547.38	15.96
111+00.00	42.84	565.00	549.09	548.93	550.71	548.27	16.07
110+50.00	34.74	566.50	552.03	551.83	552.78	551.16	14.67
110+00.00	25.27	568.00	555.22	554.93	556.15	554.27	13.07
109+75.00	20.00	569.00	556.07	555.90	558.21	555.23	13.11
109+50.00	20.51	570.00	557.57	557.08	559.49	556.41	12.93
109+00.00	20.54	572.00	559.84	559.45	561.56	558.79	12.55
108+50.00	19.27	574.00	561.38	560.77	563.18	560.10	13.23
108+00.00	16.69	576.00	562.95	562.41	564.17	561.74	13.59
107+50.00	12.86	576.50	563.91	563.62	565.01	562.95	12.88
107+32.00	11.35	576.80	564.16	563.91	565.17	563.25	12.89
107+05.00	11.35	576.95	564.47	564.38	565.42	563.71	12.57
107+00.00	11.53	577.00	564.50	564.44	565.44	563.77	12.57
106+50.00	13.21	577.50	564.71	564.92	565.35	564.25	12.79
106+00.00	14.90	578.00	564.95	565.14	565.47	564.47	13.05
105+50.00	16.58	578.00	565.25	565.38	565.96	564.71	12.75
105+00.00	18.27	578.00	565.39	565.60	566.36	564.93	12.61
104+50.00	19.95	579.00	565.83	566.04	566.75	565.38	13.17
104+00.00	21.64	579.00	566.21	566.41	567.13	565.75	12.79
103+50.00	23.32	579.00	566.63	566.77	567.35	566.10	12.38
103+00.00	25.00	579.00	566.68	566.85	567.52	566.18	12.32
102+50.00	25.03	580.00	566.90	566.69	567.72	566.02	13.31
102+00.00	25.06	580.50	566.61	566.20	566.80	565.53	14.30
101+50.00	25.09	581.00	567.03	566.65	567.28	565.99	14.35
101+20.65	25.00	581.00	567.29	566.95	567.56	566.28	14.05
101+00.00	26.20	581.00	567.57	567.27	567.82	566.60	13.73
100+50.00	28.88	581.00	568.34	568.05	568.45	567.38	12.95
100+00.00	31.55	582.00	569.43	569.05	569.07	568.38	12.95
745+61.00	82.00	582.00	569.43	569.05	569.07	568.38	12.95
746+00.00	82.00	583.00	570.31	569.80	569.56	568.89	13.20
746+50.00	82.00	584.00	571.37	570.86	570.19	569.52	13.14
747+00.00	82.00	585.00	571.63	571.63	570.81	570.14	13.37
747+50.00	82.00	585.00	571.84	571.85	571.43	570.77	13.16
748+00.00	82.00	585.00	572.60	572.52	572.06	571.39	12.48
748+50.00	82.00	585.00	572.17	572.38	572.68	571.72	12.83
749+00.00	85.20	585.00	572.65	572.90	572.91	572.23	12.36
749+50.00	88.39	585.50	573.03	573.32	573.13	572.46	12.47
750+00.00	91.59	586.00	572.44	572.94	573.36	572.28	13.56
750+50.00	94.78	586.00	572.04	572.54	572.90	571.87	13.97
751+00.00	97.98	586.00	571.68	572.18	572.40	571.51	14.32
751+50.00	101.18	585.00	571.43	571.93	571.96	571.26	13.58
752+00.00	104.37	584.00	571.35	571.85	571.53	570.86	12.65
752+50.00	107.57	583.50	570.60	571.10	571.19	570.44	12.90
753+00.00	110.76	583.00	570.30	570.80	570.86	570.13	12.70
753+50.00	113.96	583.00	569.98	570.48	570.52	569.82	13.02
754+00.00	117.22	583.00	569.24	569.74	570.18	569.08	13.76
754+50.00	120.88	583.00	569.06	569.55	569.84	568.88	13.94
755+00.00	125.00	583.00	568.94	569.44	569.50	568.77	14.07



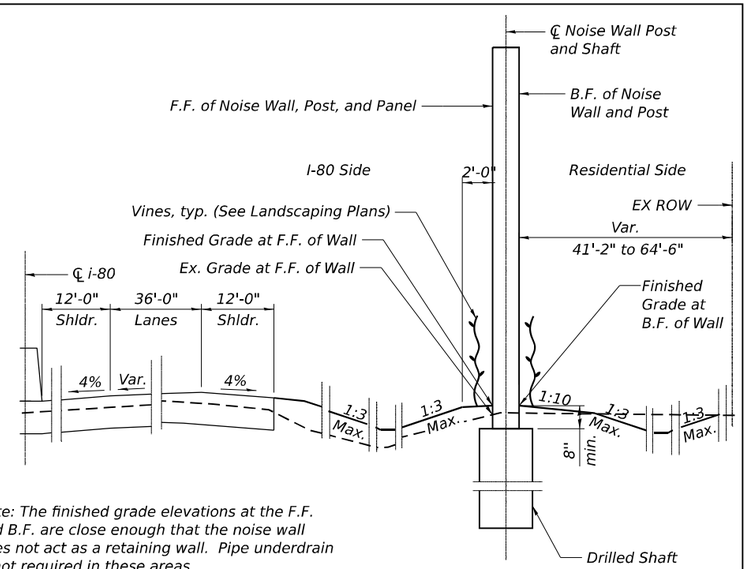
TYPICAL SECTION
RETAINED EARTH AT BACK FACE
Sta. 110+00.00 to Sta. 114+20.00

Note: Finished Grade at B.F. is higher than Finished Grade at F.F. between 110+00.00 and 114+20.00. Provide pipe underdrain in this area.



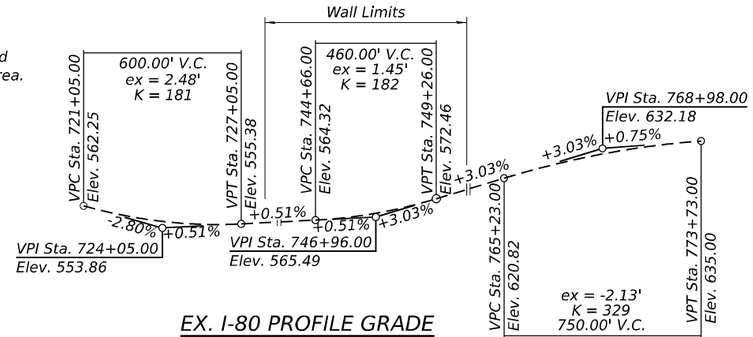
TYPICAL SECTION
RETAINED EARTH AT BACK FACE
Sta. 102+00.00 to Sta. 110+00.00

Note: Finished Grade at B.F. is higher than Finished Grade at F.F. between 102+00.00 and 110+00.00. Provide pipe underdrain in this area.



Note: The finished grade elevations at the F.F. and B.F. are close enough that the noise wall does not act as a retaining wall. Pipe underdrain is not required in these areas.

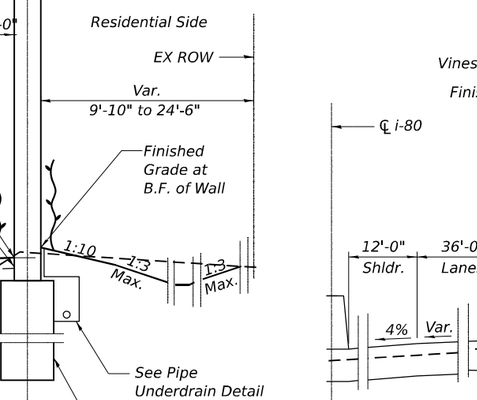
TYPICAL SECTION
(Sta. 100+00.00 to Sta. 102+00.00)
(Sta. 745+61.00 to Sta. 755+00.00)



EX. I-80 PROFILE GRADE
(Along I-80 WB PGL)

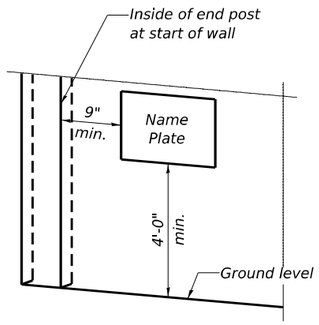
CURVE DATA - C-10
Ex. I-80
P.I. Sta. = 734+61.07
Δ = 8° 35' 27.6" (RT)
D = 1° 0' 0"
R = 5,731.00'
T = 430.49'
L = 859.37'
e = 3.3%
S.E Run = 248'
P.C. Sta. = 730+30.58
P.T. Sta. = 738+89.94

PIPE UNDERDRAIN DETAIL
BETWEEN DRILLED SHAFTS



PIPE UNDERDRAIN DETAIL
AT DRILLED SHAFTS

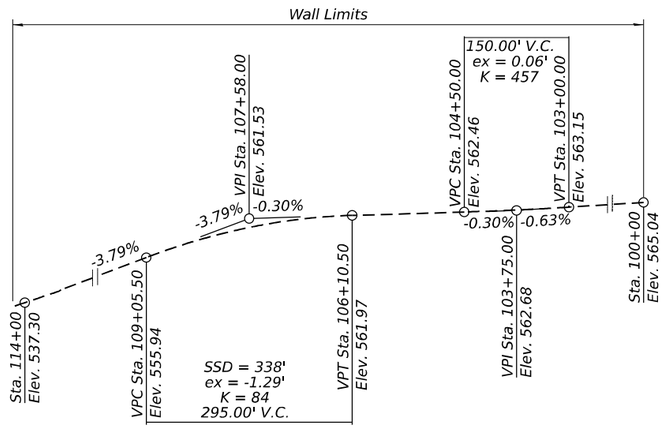
*Included in the cost of Pipe Underdrains for Structures 4"



NAME PLATE LOCATION

NOISE ABATEMENT WALL
BUILT 20__ BY
STATE OF ILLINOIS
F.A.U. 354 (RICHARDS STREET)
SEC. 99-4B-2-BR
FROM STA. 100+00 TO STA. 114+20 (RAMP C)
FROM STA. 745+61 TO STA. 755+00 (I-80)
STRUCTURE NO. 099-N1004

NAME PLATE
See Std. 515001



EX. RICHARDS RAMP C PROFILE GRADE
(Along Ramp C PGL)

CURVE DATA - C1
Ex. Richards Ramp C
P.I. Sta. = 109+42.22
Δ = 10° 33' 21.6" (RT)
D = 3° 0' 57.6"
R = 1,900.00'
T = 175.53'
L = 350.06'
E = 8.09''
e = 4.6%
P.C. Sta. = 107+66.69
P.T. Sta. = 111+16.75

NOTE:
1. F.F. denotes Front Face
   B.F. denotes Back Face

MODEL: SECTIONS
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1/25/2024 [ERROR]

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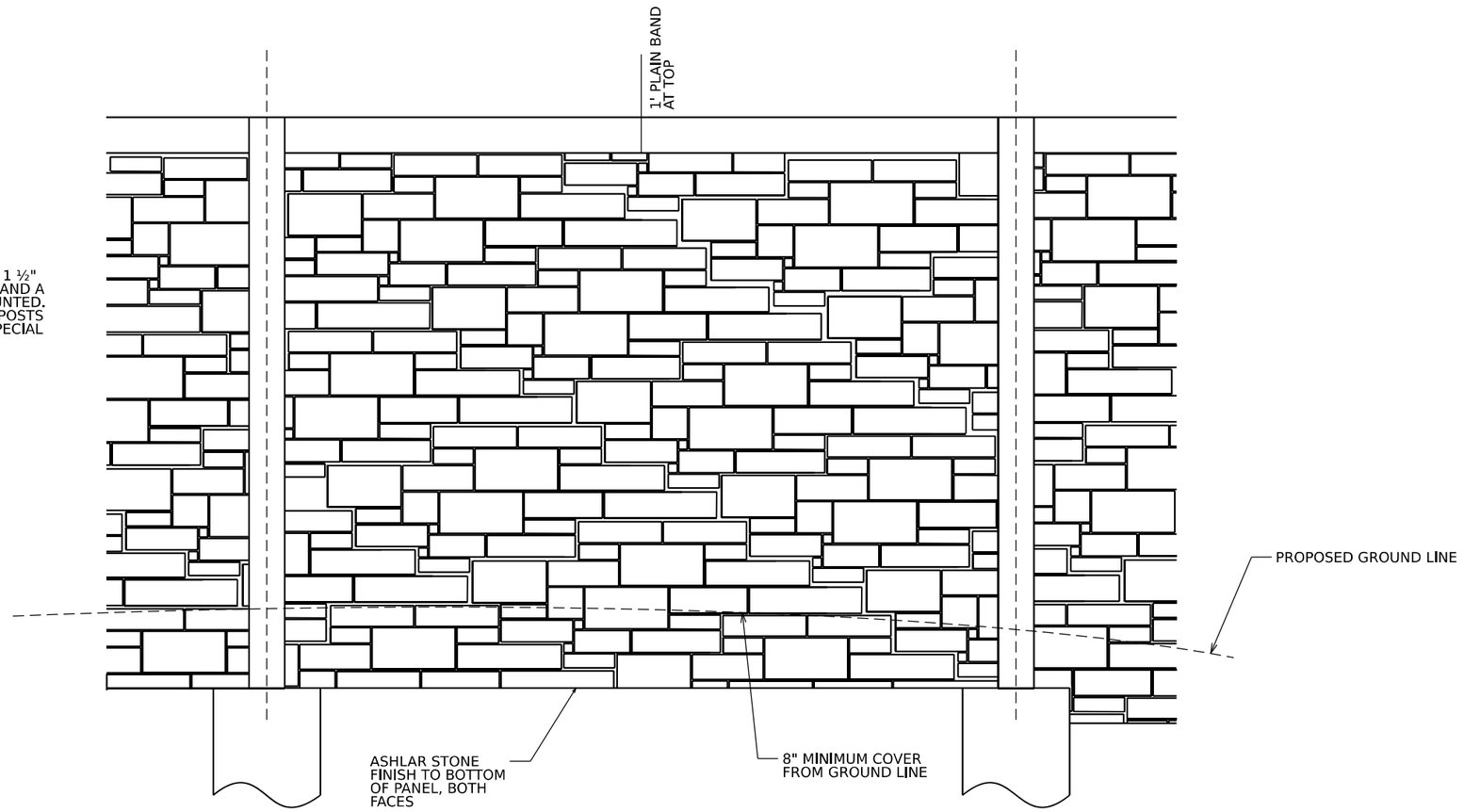
PLOT DATE =	CHECKED - LM	REVISED -	

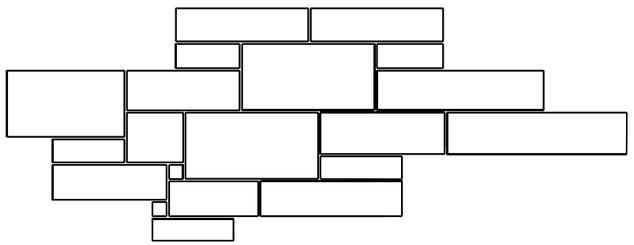
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
NOISE WALL DETAILS 2
SHEET N2-4 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	204
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

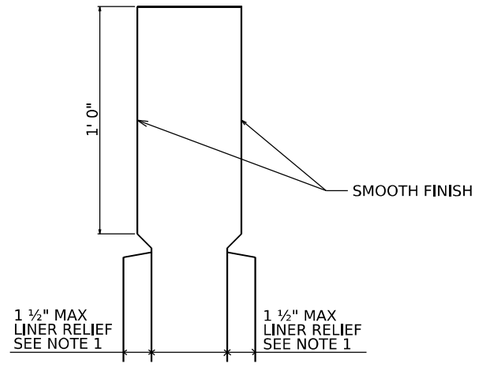
NOTES:
1. EACH SIDE OF THE NOISE WALL PANELS SHALL HAVE A ROLLED ASHLAR STONE FINISH. THE FINISH SHALL HAVE A 1 ½" RELIEF FOR NOISE ABATEMENT WALL, GROUND MOUNTED AND A ¾" RELIEF FOR NOISE ABATEMENT WALL, STRUCTURE MOUNTED. THE COLOR OF BOTH SIDES OF THE PANELS, PLAIN BAND, POSTS AND ALL OTHER VISIBLE 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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PLOT DATE =	CHECKED - LM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
NOISE WALL DETAILS 3
SHEET N2-5 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	205
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

Page 1 of 1

Date 3/1/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765542.465, **Easting** 1055645.475

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Station** -

BORING NO. NWB-001 **Station** 114+15 **Offset** 32.9 ft Right **Ground Surface Elev.** 535.09 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.** - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAYEY TOPSOIL-brown & black				28
534.09				
CRUSHED STONE-very dense		6		
		21		4
		50/4"		
532.09				
FRACTURED ROCK-very dense				
531.09		50/1"		2
Borehole continued with rock coring.	-5			
	-10			
	-15			
	-20			

SOIL BORING 20012_LOG.GPJ IL_DOT.GDT 1/2/23

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)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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(630) 355-2838

ROCK CORE LOG

Page 1 of 1

Date 3/1/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765542.465, **Easting** 1055645.475

COUNTY Will **CORING METHOD** Rotary Wash

STRUCT. NO. - **Station** -

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

BORING NO. NWB-001 **Station** 114+15 **Offset** 32.9 ft Right **Ground Surface Elev.** 535.09 ft

Core Diameter 2 in **Top of Rock Elev.** 531.09 ft **Begin Core Elev.** 531.09 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-4.0' to -14.0')						
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE						
Light gray & porous with horizontal bedding.Some rust staining to -9.2'. Numerous horizontal fractures throughout with large chert nodules.	531.09	1	99	51		624.00
	-5					
	-10					
521.09						
End Of Boring @ -14.0'. Boring backfilled with cuttings.	-15					
End of Boring	-20					

SOIL BORING 20012_LOG.GPJ IL_DOT.GDT 1/2/23

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

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SOIL BORING LOG

Page 1 of 1

Date 3/1/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SW 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765493.879, **Easting** 1055868.984

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Station** -

BORING NO. NWB-002 **Station** 111+86 **Offset** 31 ft Right **Ground Surface Elev.** 541.64 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.** - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY TOPSOIL-black				
540.64				32
CLAY LOAM-brown spotted black-stiff (Fill)		50/1"		
			1.25 P	18
538.64				
CRUSHED STONE-very dense		50/3"		
	-5			2
		5		
		50/2"		25
		21		
		50/1"		12
	-10			
		18		
		50/2"		10
		50/3"		
				7
	-15			
525.64				
Auger Refusal @ -16.0'. Possible Bedrock. End Of Boring. Boring backfilled with cuttings.		50/1"		7
	-20			

SOIL BORING 20012_LOG.GPJ IL_DOT.GDT 1/2/23

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. *Soil boring stations and offsets measured between Sta. 100+00.00 to Sta. 114+20.00 are relative to ℄ Richards Ramp C.*
2. *Soil boring stations and offsets measured between Sta. 745+61.00 to Sta. 755+03.00 are relative to ℄ I-80.*

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09883\099N1004-62380-006-SOIL01.DGN

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
SOIL BORING LOGS 1

SHEET N2-6 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	206
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

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SOIL BORING LOG

Page 1 of 1

Date 2/21/22

FAI Route 80 from Chicago Street to US Route 30

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765421.208, **Easting** 1056372.897

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Station** -

BORING NO. NWB-003 **Station** 106+72 **Offset** 13.7 ft Right **Ground Surface Elev.** 563.66 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.** - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black				29
562.66				
SILTY CLAY-dark brown & black-medium dense (Fill)		2 4 6		25
560.66				
FRACTURED ROCK-very dense		50/4"		5
558.16	-5			
Borehole continued with rock coring.				
	-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 20012_LOG.GPJ IL_DOT.GDT 1/3/23

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ROCK CORE LOG

Page 1 of 1

Date 2/21/22

FAI Route 80 from Chicago Street to US Route 30

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765421.208, **Easting** 1056372.897

COUNTY Will **CORING METHOD** Rotary Wash

STRUCT. NO. - **Station** -

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

Core Diameter 2 in **Top of Rock Elev.** 558.16 ft **Begin Core Elev.** 558.16 ft

BORING NO. NWB-003 **Station** 106+72 **Offset** 13.7 ft Right **Ground Surface Elev.** 563.66 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-5.5' to -15.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Some rust staining to -9.2'.	558.16	1	95	70		698.00
	-10					
	-15					
End Of Boring @ -15.5'. Boring backfilled with cuttings. End of Boring	548.10					
	-20					
	-25					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

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SOIL BORING LOG

Page 1 of 1

Date 2/21/22

FAI Route 80 from Chicago Street to US Route 30

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765421.961, **Easting** 1056580.857

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Station** -

BORING NO. NWB-004 **Station** 104+64 **Offset** 19 ft Right **Ground Surface Elev.** 564.82 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.** - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black				40
563.32		2		
SILTY CLAY-dark brown & black-stiff (Fill)		6 5	1.00 P	25
560.82		26		
FRACTURED ROCK-very dense		50/1"		7
559.82	-5			
Drillers Observation: Apparent Bedrock				
558.82				
Borehole continued with rock coring.				
	-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 20012_LOG.GPJ IL_DOT.GDT 1/3/23

NOTE:

1. *Soil boring stations and offsets measured between Sta. 100+00.00 to Sta. 114+20.00 are relative to ℄ Richards Ramp C.*
2. *Soil boring stations and offsets measured between Sta. 745+61.00 to Sta. 755+03.00 are relative to ℄ I-80.*

MODEL: DEFAULT
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
SOIL BORING LOGS 2

SHEET N2-7 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	207
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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ROCK CORE LOG

Page 1 of 1

Date 2/21/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**,
Northing 1765421.961, **Easting** 1056580.857

COUNTY Will **CORING METHOD** Rotary Wash

STRUCT. NO. - **CORING BARREL TYPE & SIZE** NX Double Swivel-10 ft
Station -

BORING NO. NWB-004 **Core Diameter** 2 in
Station 104+64 **Top of Rock Elev.** 559.82 ft
Offset 19 ft Right **Begin Core Elev.** 558.82 ft
Ground Surface Elev. 564.82 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-6.0' to -16.0') 558.82		1	97	47		523.00
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout.	-10					
	-15					
548.82						
End Of Boring @ -16.0'. Boring backfilled with cuttings. End of Boring	-20					
	-25					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

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SOIL BORING LOG

Page 1 of 1

Date 2/21/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**,
Northing 1765425.304, **Easting** 1056771.242

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Surface Water Elev.** n/a ft
Station - **Stream Bed Elev.** n/a ft

BORING NO. NWB-005 **Groundwater Elev.:**
Station 102+74 **First Encounter** Dry ft
Offset 26.5 ft Right **Upon Completion** n/a ft
Ground Surface Elev. 565.72 ft **After** - **Hrs.** - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black				33
564.22		3		
SILTY CLAY-dark brown spotted black-stiff (Till)		4 3	1.75 P	19
		2		
561.22		2		27
FRACTURED ROCK-very dense	-5	50/4"		
559.72				
Borehole continued with rock coring.	-10			
	-15			
	-20			

SOIL BORING 20IH2_LOG.GPJ IL_DOT.GDT 10/23

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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ROCK CORE LOG

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Date 2/21/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**,
Northing 1765425.304, **Easting** 1056771.242

COUNTY Will **CORING METHOD** Rotary Wash

STRUCT. NO. - **CORING BARREL TYPE & SIZE** NX Double Swivel-10 ft
Station -

BORING NO. NWB-005 **Core Diameter** 2 in
Station 102+74 **Top of Rock Elev.** 559.72 ft
Offset 26.5 ft Right **Begin Core Elev.** 559.72 ft
Ground Surface Elev. 565.72 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-6.0' to -16.0') 559.72		1	96	44		608.00
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Some rust staining to -12.0'.	-10					
	-15					
549.72						
End Of Boring @ -16.0'. Boring backfilled with cuttings. End of Boring	-20					
	-25					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

NOTE:

1. *Soil boring stations and offsets measured between Sta. 100+00.00 to Sta. 114+20.00 are relative to ℄ Richards Ramp C.*
2. *Soil boring stations and offsets measured between Sta. 745+61.00 to Sta. 755+03.00 are relative to ℄ I-80.*

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
SOIL BORING LOGS 3
SHEET N2-8 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	208
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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SOIL BORING LOG

Page 1 of 1

Date 2/28/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765432.783, **Easting** 1056946.97

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Station** -

BORING NO. NWB-006 **Station** 100+98 **Offset** 37.9 ft Right **Ground Surface Elev.** 566.38 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.** - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black			50
564.88	3		
SILTY CLAY-black-stiff (Fill)	8 4	1.00 P	17
becoming dark brown & -3.0'	2		
-5	3 5	1.00 P	23
560.88			
SAND & GRAVEL-brown-medium dense to very dense	5		
	8 14		9
557.38	50/5"		
Borehole continued with rock coring.			
-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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ROCK CORE LOG

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Date 2/28/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765432.783, **Easting** 1056946.97

COUNTY Will **CORING METHOD** Rotary Wash

STRUCT. NO. - **Station** -

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

Core Diameter 2 in **Top of Rock Elev.** 557.38 ft **Begin Core Elev.** 557.38 ft

BORING NO. NWB-006 **Station** 100+98 **Offset** 37.9 ft Right **Ground Surface Elev.** 566.38 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-9.0' to -19.0') 557.38	1	100	49		596.00
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE					
Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Some rust staining to -10.9'.					
-10					
-15					
547.38					
End Of Boring @ -19.0'. Boring backfilled with cuttings.					
End of Boring					
-20					
-25					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

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SOIL BORING LOG

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Date 2/28/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765435.955, **Easting** 1057100.937

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Station** -

BORING NO. NWB-007 **Station** 746+17 **Offset** 91.9 ft Left **Ground Surface Elev.** 569.42 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.** - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black			25
567.92	3		
SILTY CLAY-dark brown-very stiff (Fill)	4 6	2.50 P	21
566.42			
SAND & GRAVEL-brown-medium dense to dense	6		
-5	7 10		6
	7		
	14 17		5
	2		
10	4 11		6
558.42			
Borehole continued with rock coring.			
-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:

1. *Soil boring stations and offsets measured between Sta. 100+00.00 to Sta. 114+20.00 are relative to ℄ Richards Ramp C.*
2. *Soil boring stations and offsets measured between Sta. 745+61.00 to Sta. 755+03.00 are relative to ℄ I-80.*

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
SOIL BORING LOGS 4
SHEET N2-9 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	209
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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ROCK CORE LOG

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Date 2/28/22

ROUTE Route 30 DESCRIPTION I-80 Phase II LOGGED BY DJ

FAI Route 80 from Chicago Strcct to US

SECTION 15 LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R30E, 3rd PM, Northing 1765435.955, Easting 1057100.937

COUNTY Will CORING METHOD Rotary Wash

STRUCT. NO. - CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

Station -

BORING NO. NWB-007 Core Diameter 2 in

Station 746+17 Top of Rock Elev. 558.42 ft

Offset 91.9 ft Left Begin Core Elev. 558.42 ft

Ground Surface Elev. 569.42 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-11.0' to -21.0') 558.42		1	99	73		501.00
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE						
Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Some rust staining.	-15					
	-20					
548.42						
End Of Boring @ -21.0'. Boring backfilled with cuttings.						
End of Boring	-25					
	-30					

Color pictures of the cores Yes

Cores will be stored for examination until 5 yrs after const.

The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

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SOIL BORING LOG

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Date 2/28/22

ROUTE Route 30 DESCRIPTION I-80 Phase II LOGGED BY DJ

FAI Route 80 from Chicago Street to US

SECTION 15 LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R30E, 3rd PM, Northing 1765441.336, Easting 1057390.7

COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. - Surface Water Elev. n/a ft

Station - Stream Bed Elev. n/a ft

BORING NO. NWB-008 Groundwater Elev.:

Station 749+07 First Encounter Dry ft

Offset 88.1 ft Left Upon Completion n/a ft

Ground Surface Elev. 571.56 ft After - Hrs. - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL with				
Stone-black-medium dense (Fill)		3		31
		4		24
		6		
568.56				
SAND, GRAVEL &				
STONE-brown-medium dense		6		
(Fill)		7		4
	-5	9		
566.06				
SILTY CLAY LOAM-brown-very				
stiff (Fill)		6		
		8	2.75	12
		9	P	
563.56				
SILTY CLAY with Stone-dark				
brown & black (Fill) 562.56		50/5"		
Drillers Observation: Apparent				13
Bedrock 562.06	-10			
Borehole continued with rock				
coring.				
	-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)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

ROCK CORE LOG

Page 1 of 1

Date 2/28/22

ROUTE Route 30 DESCRIPTION I-80 Phase II LOGGED BY DJ

FAI Route 80 from Chicago Street to US

SECTION 15 LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R30E, 3rd PM, Northing 1765441.336, Easting 1057390.7

COUNTY Will CORING METHOD Rotary Wash

STRUCT. NO. - CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

Station -

BORING NO. NWB-008 Core Diameter 2 in

Station 749+07 Top of Rock Elev. 562.56 ft

Offset 88.1 ft Left Begin Core Elev. 562.06 ft

Ground Surface Elev. 571.66 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-9.5' to -19.5') 562.06	-10	1	84	60		629.00
SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE						
Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Some rust staining.						
	-15					
552.06						
End Of Boring @ -19.5'. Boring backfilled with cuttings.	-20					
End of Boring						
	-25					

Color pictures of the cores Yes

Cores will be stored for examination until 5 yrs after const.

The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

NOTE:

1. *Soil boring stations and offsets measured between Sta. 100+00.00 to Sta. 114+20.00 are relative to ℄ Richards Ramp C.*
2. *Soil boring stations and offsets measured between Sta. 745+61.00 to Sta. 755+03.00 are relative to ℄ I-80.*

MODEL: DEFAULT
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SOIL BORING 20012_LOG.GPJ IL_DOT.GDT 1/5/23

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
SOIL BORING LOGS 5

SHEET N2-10 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	210
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

Page 1 of 1

Date 2/28/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1057583.5, **Easting** 1765457

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Station** -

BORING NO. NWB-009 **Station** 751+00 **Offset** 97.7 ft Left **Ground Surface Elev.** 577.90 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.** - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL with Stone-black-very loose (Fill)	3		9
	2 1		25
574.90			
GRAVEL & STONE-brown-very loose (Fill)	4		
-5	6 7		8
572.40			
SILTY CLAY LOAM-brown-very stiff (Fill)	4		
570.90	50/4"	2.75 P	13
Drillers Observation: Weathered/Fractured Rock 569.90			
Borehole continued with rock coring.			
-10			
-15			
-20			

SOIL BORING 20012_LOG.GPJ IL_DOT.GDT 1/3/23

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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ROCK CORE LOG

Page 1 of 1

Date 2/28/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1057583.5, **Easting** 1765457

COUNTY Will **CORING METHOD** Rotary Wash

STRUCT. NO. - **Station** -

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

BORING NO. NWB-009 **Station** 751+00 **Offset** 97.7 ft Left **Ground Surface Elev.** 577.90 ft

Core Diameter 2 in **Top of Rock Elev.** 569.90 ft **Begin Core Elev.** 569.90 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-8.0' to -18.0') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. 569.90	1	93	68		616.00
-10					
-15					
559.90					
End Of Boring @ -18.0'. Boring backfilled with cuttings. End of Boring					
-20					
-25					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

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SOIL BORING LOG

Page 1 of 1

Date 2/23/22

FAI Route 80 from Chicago Street to US

ROUTE Route 30 **DESCRIPTION** I-80 Phase II **LOGGED BY** DJ

SECTION 15 **LOCATION** SE 1/4, **SEC.** 15, **TWP.** T35N, **RNG.** R30E, 3rd **PM**, **Northing** 1765483.551, **Easting** 1057790.284

COUNTY Will **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO. - **Station** -

BORING NO. NWB-010 **Station** 753+08 **Offset** 117.7 ft Left **Ground Surface Elev.** 571.58 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.** - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black			22
570.08	3		
SILTY CLAY-dark brown & black-stiff (Fill)	4	1.00	24
	3	P	
	4		
-5	9 15		5
565.58			
FRACTURED ROCK-very dense	50/1"		
564.58			10
Borehole continued with rock coring.			
-10			
-15			
-20			

SOIL BORING 20012_LOG.GPJ IL_DOT.GDT 1/3/23

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. *Soil boring stations and offsets measured between Sta. 100+00.00 to Sta. 114+20.00 are relative to ℄ Richards Ramp C.*
2. *Soil boring stations and offsets measured between Sta. 745+61.00 to Sta. 755+03.00 are relative to ℄ I-80.*

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1/25/2024 [ERROR]

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
SOIL BORING LOGS 6

SHEET N2-11 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	211
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

ROCK CORE LOG

Page 1 of 1

Date 2/23/22

ROUTE Route 30 (FAI Route 80 from Chicago Street to US) DESCRIPTION I-80 Phase II LOGGED BY DJ

SECTION 15 LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R30E, 3rd PM,
Northing 1765483.551, Easting 1057790.284

COUNTY Will CORING METHOD Rotary Wash

STRUCT. NO. - Station -

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

BORING NO. NWB-010
Station 753+08
Offset 117.7 ft Left
Ground Surface Elev. 571.58 ft

Core Diameter 2 in
Top of Rock Elev. 564.58 ft
Begin Core Elev. 564.58 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-7.0' to -17.0') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Some rust staining to -11.7'. 1/4" clay parting @ -8.8'.	564.58	1	98	62		427.00
End Of Boring @ -17.0'. Boring backfilled with cuttings. End of Boring	554.58					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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SOIL BORING LOG

Page 1 of 1

Date

ROUTE Route 30 (FAI Route 80 from Chicago Street to US) DESCRIPTION I-80 Phase II LOGGED BY

SECTION 15 LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R30E, 3rd PM,
Northing 1765500.579, Easting 1057988.341

COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. - Station -

BORING NO. NWB-011
Station 755+03
Offset 129.8 ft Left
Ground Surface Elev. 568.21 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. - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
ASPHALT/GRAVEL	567.21			
SILTY CLAY with gravel-brown-grey-stiff(CL)	564.71			
SANDY CLAY LOAM-brown,grey-Hard	562.21			
CLAYEY SAND &GRAVEL -brown ,grey-Hard	559.71			
CRUSHED STONE with sand -grey	557.21			
LIMESTONE with sand -gray	553.21	-15		
End Of Boring @ -15.0'. Boring backfilled with cuttings.				

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 20012_LOG.GPJ IL_DOT.GDT 1/3/23

NOTE:

1. *Soil boring stations and offsets measured between Sta. 100+00.00 to Sta. 114+20.00 are relative to ℄ Richards Ramp C.*
2. *Soil boring stations and offsets measured between Sta. 745+61.00 to Sta. 755+03.00 are relative to ℄ I-80.*

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE WALL B31 (SN 099-N1004)
SOIL BORING LOGS 7
SHEET N2-12 OF N2-12 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	212
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

Benchmark: Cut square on NW wingwall of Richards St. bridge over Hickory Creek. Sta. 66+63.57, 43.68' Lt., Elev. 539.55

Existing Structure: S.N. 099-0123 was built in 1966 under Project I-80-4(37)134, Section 99-4B-2. The superstructure consists of steel beams on three simple spans supporting a composite reinforced concrete deck. The back-to-back of abutment length is 149'-10⅛" and deck width varies from approximately 87'-8" to 84'-0". Reinforced concrete stub abutments with wingwalls are founded on steel piles. Reinforced concrete wall-type piers have spread footings founded on rock. Repairs in 1993 included a deck overlay, deck joint replacement, and repairs to the parapets, railings, floor drains. Hickory Creek improvements in 2000 included footing protection at piers and abutments.

Traffic Control: Stage construction in order to maintain one lane of traffic in each direction during construction.

No Salvage.

WATERWAY INFORMATION

Drainage Area = 109.0 sq. mi.		Low Grade Elev. 537.05 @ Sta. 66+47							
Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	2	3,710	735	735	522.60	0.11	0.12	522.71	522.72
	10	6,230	964	964	524.89	0.08	0.09	524.97	524.98
Design	50	10,660	1,397	1,397	528.37	0.03	0.04	528.40	528.41
Base	100	13,750	1,685	1,685	530.56	0.10	0.11	530.66	530.67
Overtopping	500	23,203	1,890	1,932	537.24	1.12	1.17	538.36	538.41
Scour Check	200	17,120	1,890	1,932	532.89	0.08	0.09	532.97	532.98

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.) S. Abut.	Pier 1	Pier 2	N. Abut.	Item 113
Q100	527.16	514.71	514.71	527.19	
Q200	527.16	514.71	514.71	527.19	5
Design	527.16	514.71	514.71	527.19	
Check	527.16	514.71	514.71	527.19	

ROADWAY TAPERS

Loc.	Sta.	℄ Offset
1	64+93.60	36'-8¾" Lt.
2	65+27.21	33'-0" Lt.
3	64+87.36	6⅞" Rt.
4	65+47.14	3'-0" Lt.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

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

LOADING HL-93

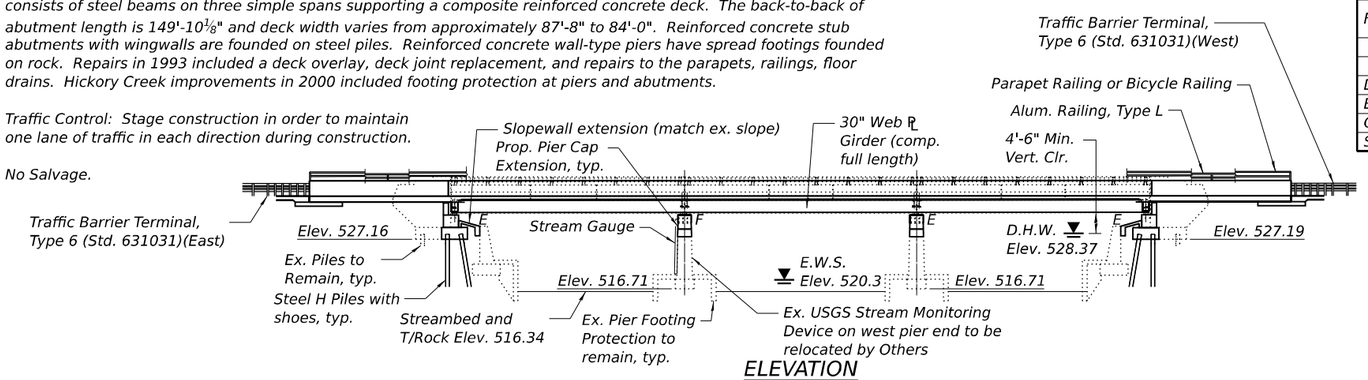
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.040g
Site Coefficient (S) = 1.0

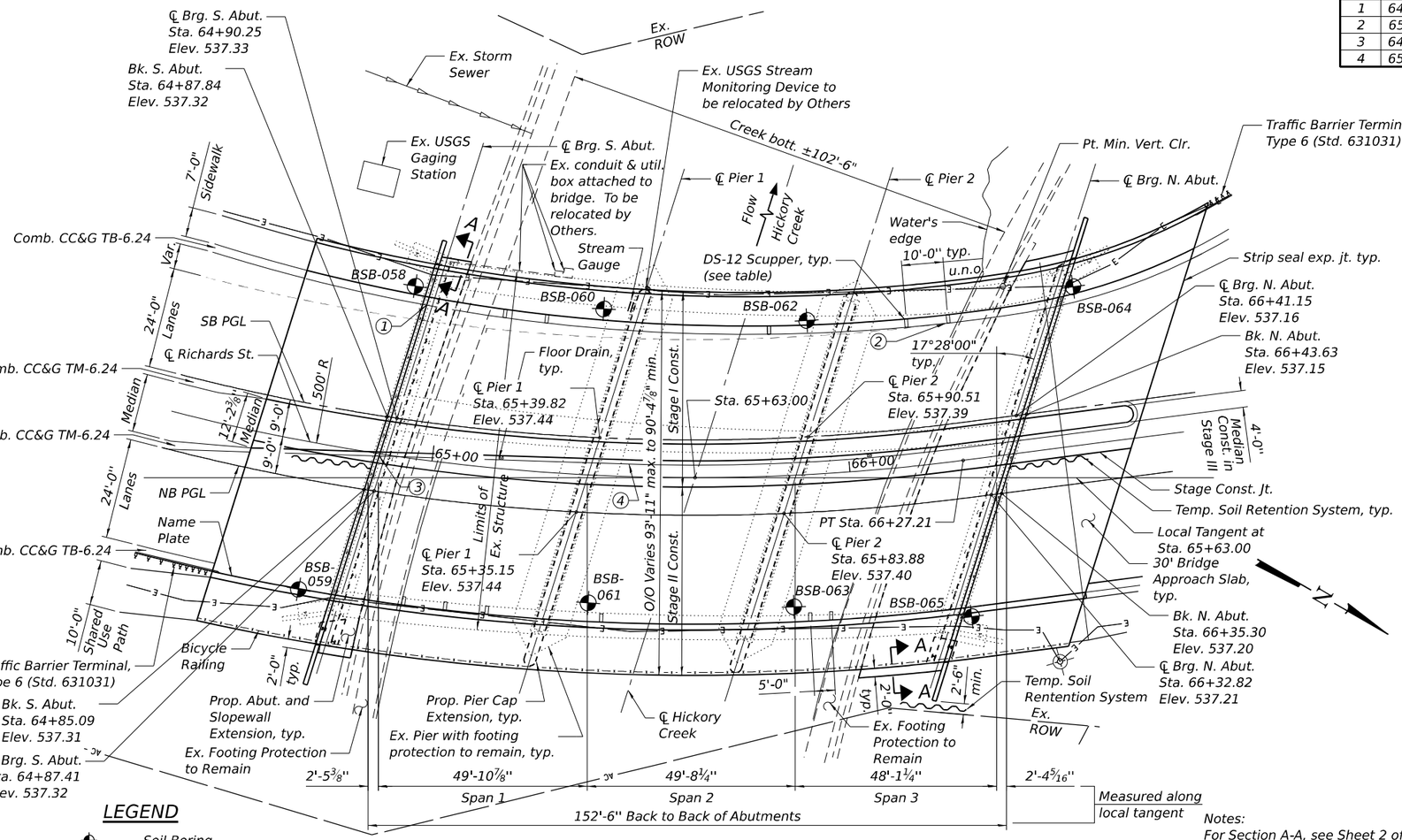
CURVE DATA

P.I. Sta. = 64+77.27
Δ = 35°33'06" Lt.
D = 11°27'33"
R = 500.00'
T = 160.30'
L = 310.25'
E = 25.07'
e = Normal Crown
T.R. = N/A
S.E. Run = N/A
P.C. Sta. = 63+16.97
P.T. Sta. = 66+27.21



ELEVATION

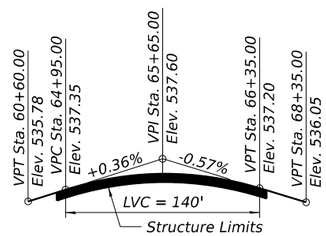
(Looking West)



PLAN

LEGEND

- Soil Boring
- E — Ex. Underground Electric
- Ex. Light Pole



PROFILE GRADE

Along NB & SB PGL

SCUPPERS & FLOOR DRAINS

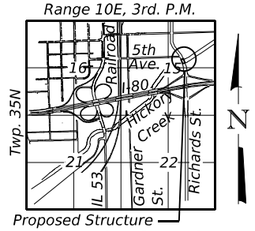
Scuppers Along W. Curb	Scuppers Along E. Parapet	Floor Drains Along Median
65+14	64+98	65+16
65+25	65+07	66+05
65+82	65+16	-
66+17	65+42	-
66+28	65+89	-
-	65+93	-

Notes:
For Section A-A, see Sheet 2 of 2.
See roadway plans for 5th Ave. curve data to determine the layout of the NW side of north approach pavement.

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

STATE OF ILLINOIS
VINOD C. PATEL
081-004528
CHICAGO, IL
LICENSED STRUCTURAL ENGINEER

Signed:
Date: 12/8/23
Exp: 11/30/2024
Sheets: 1 thru 50



LOCATION SKETCH

GENERAL PLAN & ELEVATION
RICHARDS ST. OVER HICKORY CREEK
F.A.U. ROUTE 354 - SEC. 99-4B-2-BR
WILL COUNTY
STA. 65+63.00
STRUCTURE NO. 099-0123

MODEL: SHEET
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09879\099001 23-62380-001-GPE.DGN

1/25/2024

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PLOT DATE =	CHECKED - VCP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 099-0123
SHEET S-1 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	213
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

INDEX OF SHEETS

GENERAL NOTES

1. Calculated weight of Structural Steel = 255,330 lbs (AASHTO M270 Gr. 50)
2. All new structural steel shall be metallized. See Special Provision for "Metallizing of Structural Steel".
3. Fasteners shall be ASTM F 3125 Grade A325 Type 1, hot dip galvanized bolts in metalized areas. Bolts $\frac{7}{8}$-in. ∅, holes $\frac{15}{16}$-in. ∅, unless otherwise noted.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
7. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
8. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
9. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
10. Slipforming of the parapet is not allowed.

STATION 65+63.00
RE-BUILT 20 BY
STATE OF ILLINOIS
F.A.U. RT. 354
SEC. 99-4B-2-BR
LOADING HL-93
STRUCTURE NO. 099-0123

NAME PLATE

See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal Of Existing Superstructures	Each	-	-	1
Concrete Removal	Cu Yd	-	137.6	137.6
Slope Wall Removal	Sq Yd	-	198	198
Structure Excavation	Cu Yd	-	478	478
Floor Drains	Each	2	-	2
Concrete Structures	Cu Yd	-	242.1	242.1
Concrete Superstructure	Cu Yd	499.8	-	499.8
Bridge Deck Grooving	Sq Yd	1,510	-	1,510
Concrete Encasement	Cu Yd	-	2.0	2.0
Protective Coat	Sq Yd	2,565	-	2,565
Concrete Superstructure (Approach Slab)	Cu Yd	266.0	-	266.0
Furnishing And Erecting Structural Steel	L Sum	1	-	1
Stud Shear Connectors	Each	10,376	-	10,376
Reinforcement Bars, Epoxy Coated	Pound	308,550	21,870	330,420
Bar Splicers	Each	865	38	903
Aluminum Railing, Type L	Foot	216	-	216
Bicycle Railing	Foot	210	-	210
Parapet Railing	Foot	210	-	210
Slope Wall 6 Inch	Sq Yd	-	217	217
Furnishing Steel Piles HP10X42	Foot	-	88	88
Driving Piles	Foot	-	88	88
Pile Shoes	Each	-	4	4
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	180	-	180
Elastomeric Bearing Assembly, Type I	Each	39	-	39
Anchor Bolts, 1"	Each	-	78	78
Anchor Bolts, 1 1/4"	Each	-	26	26
Temporary Soil Retention System	Sq Ft	-	209	209
Granular Backfill For Structures	Cu Yd	-	453	453
Epoxy Crack Injection	Foot	-	104	104
Geocomposite Wall Drain	Sq Yd	-	218	218
Pipe Underdrains For Structures 4"	Foot	-	247	247
Stream Gauge	Each	-	1	1
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	-	328	328
Drainage Scuppers, DS-12	Each	11	-	11

Stream Gauge Notes:

The gauge plates shall be porcelain enameled iron plate graduated in feet and tenths, unnumbered, and $3\frac{1}{2}$" wide. Gauge plates shall be WaterMark Style "E" or approved equivalent.

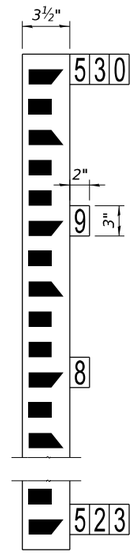
Each individual number plate should be a block numeral on 2" x 3" white porcelain enameled iron plate. Number plates shall be WaterMark Style "E" or equivalent.

Both gauge plates and number plates shall be fastened directly to the pier with a $\frac{1}{4}$" diameter, $1\frac{1}{2}$" long masonry screw with a hex washer head.

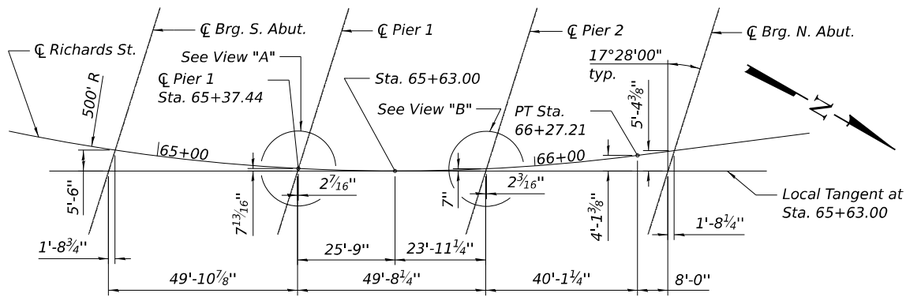
Three digit elevations to be installed at elevations 523 and 530. At all of the other whole elevations, place the last digit as shown on the Stream Gauge Detail.

See sheet S-40 for mounting details.

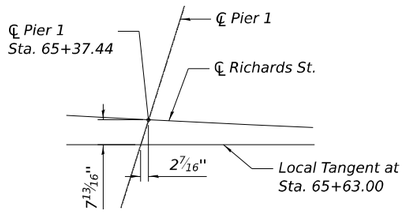
See Special Provision.



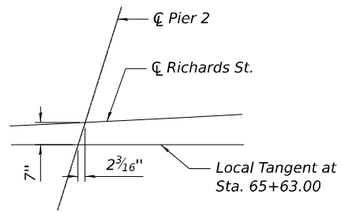
STREAM GAUGE DETAIL



OFFSET SKETCH



VIEW "A"



VIEW "B"

MODEL: SHEET
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1/25/2024

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 099-0123
SHEET S-2 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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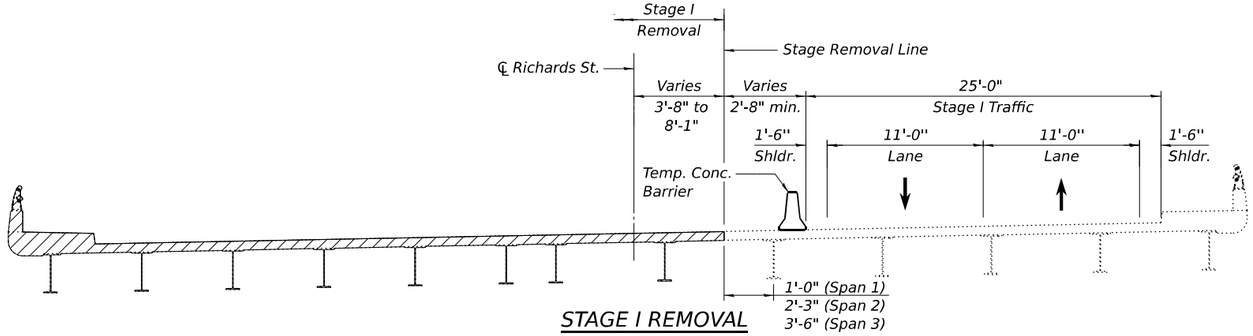
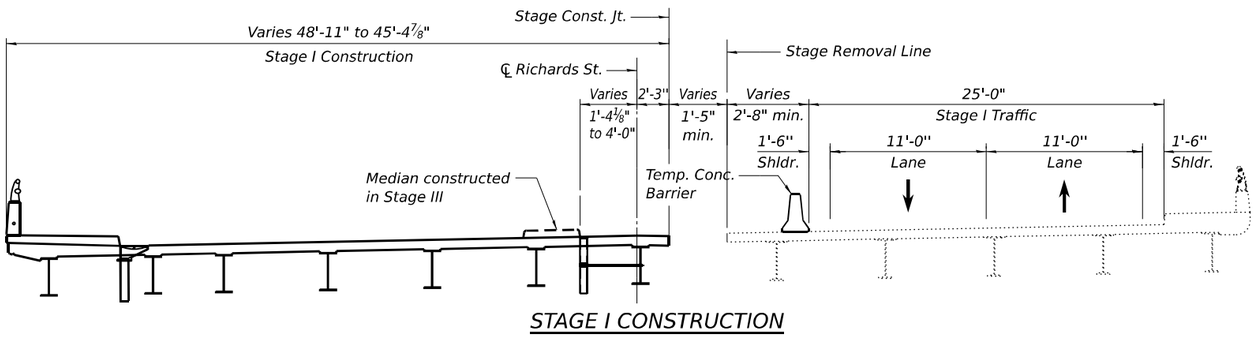
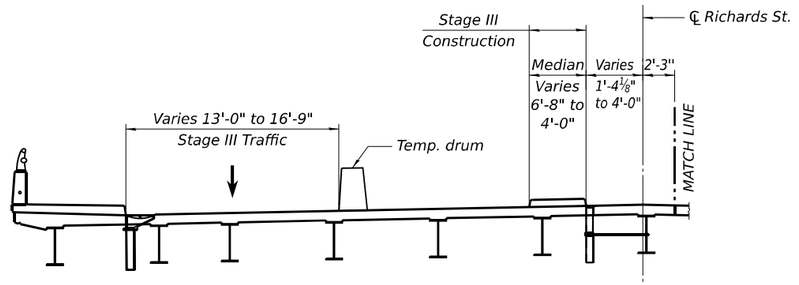
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

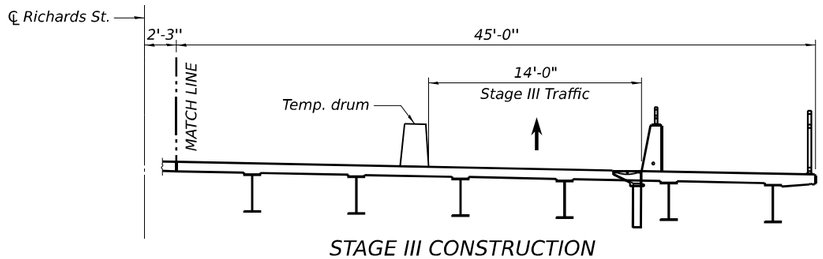


STAGE I REMOVAL

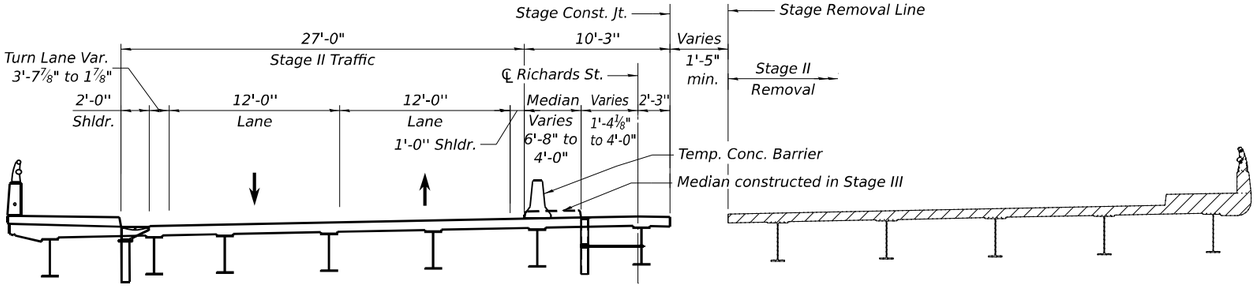


STAGE I CONSTRUCTION

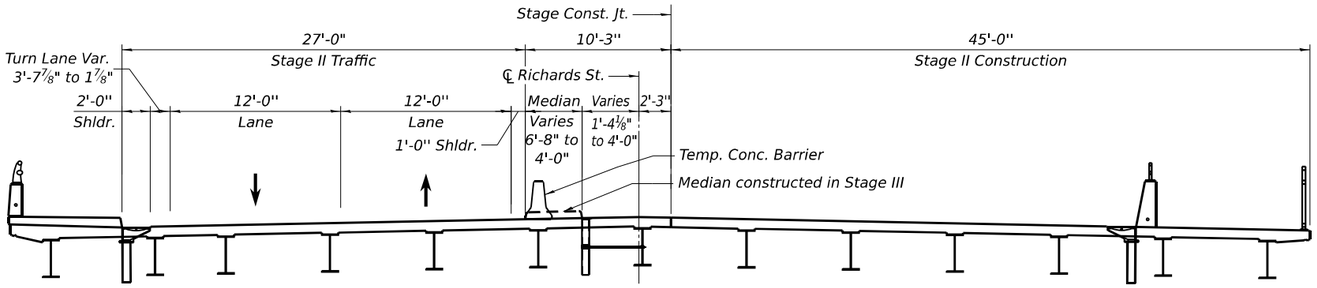




STAGE III CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

NOTES:

1. All transverse dimensions are measured radially to ℄ Richards St., U.N.O.
2. All views are looking North.
3. Hatched areas indicate Removal of Existing Superstructures.
4. For Temporary Concrete Barrier details, see Sheet S-5.
5. For Temporary Concrete Barrier quantity, see Roadway Plans.
6. For Abutment and Pier removal details, see Sheets S-34, S-38 and S-39. Removal lines at the abutments differ from the removal lines for the superstructure.

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS0987\09990123-62380-003-CONSTSTG.DGN
1/25/2024

exp.

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING
STRUCTURE NO. 099-0123
SHEET S-3 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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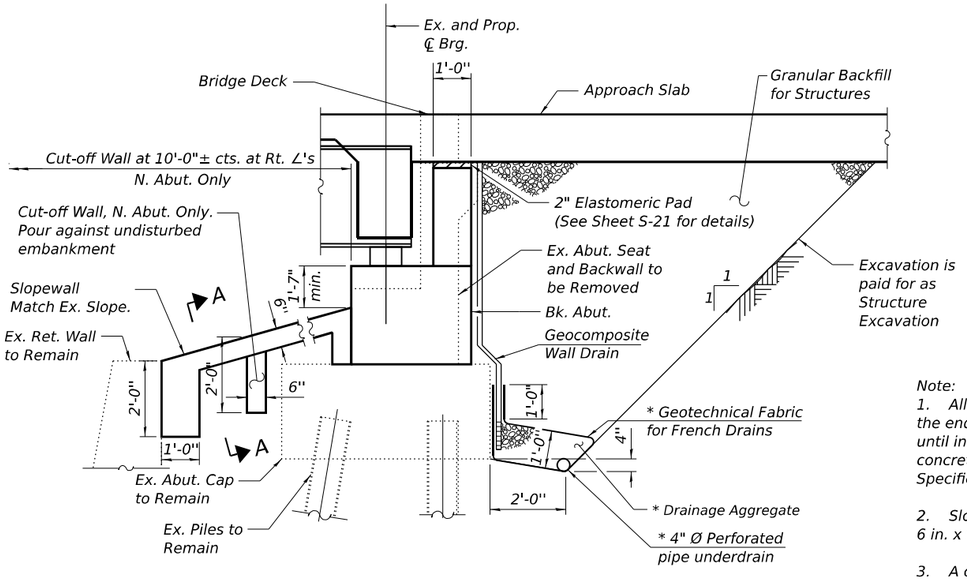
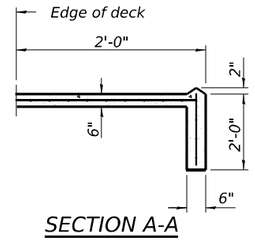
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	



SECTION THRU EXISTING ABUTMENT

(Horiz. dim. at Rt. ∠'s)

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



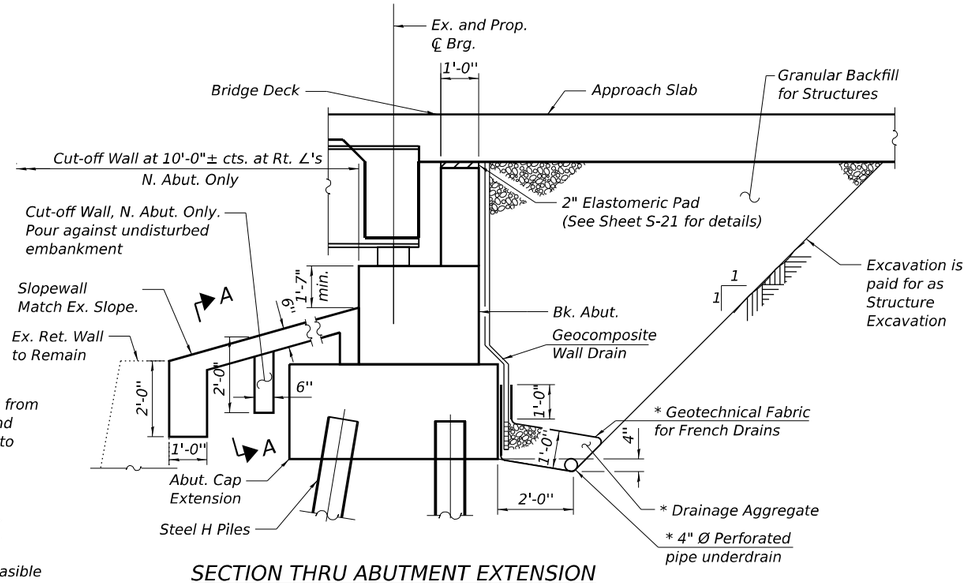
SECTION A-A

Note:

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

2. *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.*

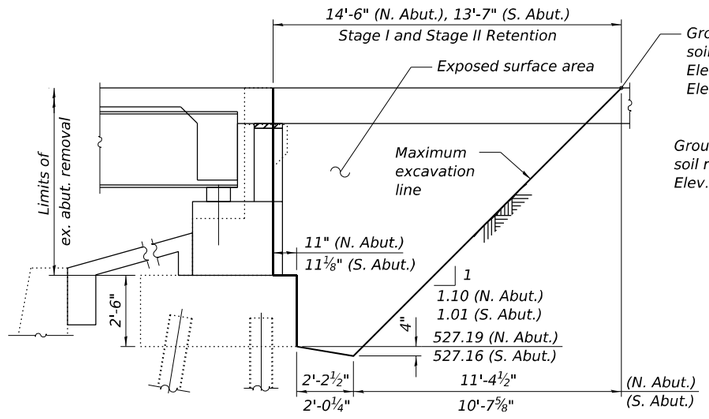
3. *A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.*



SECTION THRU ABUTMENT EXTENSION

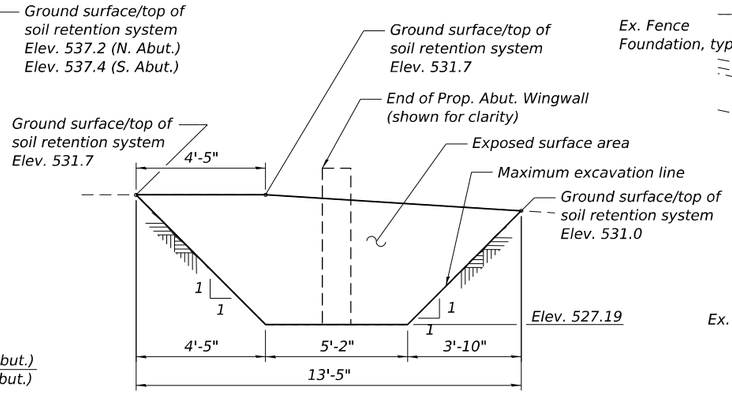
(Horiz. dim. at Rt. ∠'s)

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



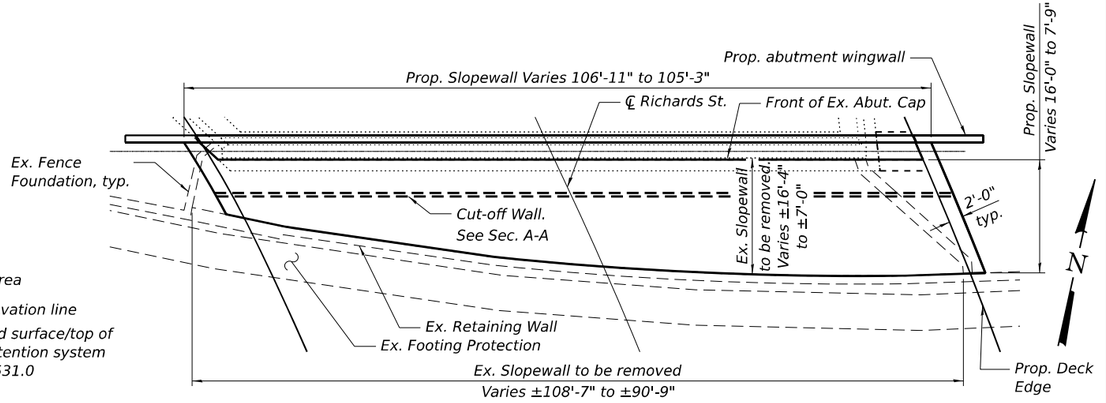
TEMPORARY SOIL RETENTION SYSTEM AT STAGE CONSTRUCTION LINE

(N. Abut. shown, S. Abut. similar)

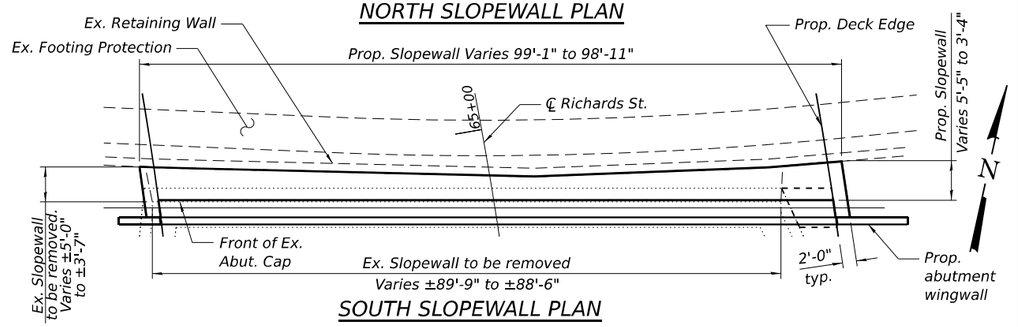


TEMPORARY SOIL RETENTION SYSTEM NORTH ABUTMENT - EAST WINGWALL

(Measured along front face of wall, parallel to ROW line)



NORTH SLOPEWALL PLAN



SOUTH SLOPEWALL PLAN

exp.	USER NAME =	DESIGNED - MSH	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SLOPE WALL & TEMPORARY SOIL RETENTION DETAILS STRUCTURE NO. 099-0123**
		CHECKED - BAR	REVISED -		SHEET S-4 OF S-50 SHEETS
	PLOT SCALE =	DRAWN - MSH	REVISED -		
	PLOT DATE =	CHECKED - BAR	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	216
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

MODEL: DEFAULT
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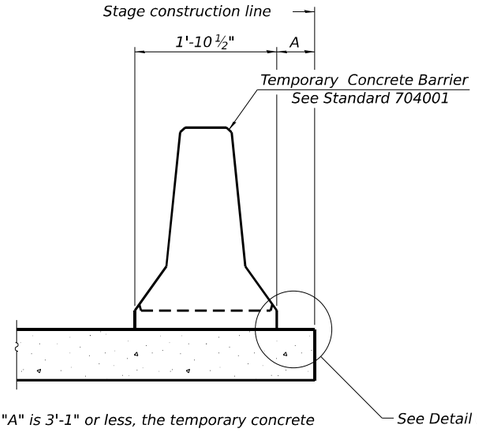
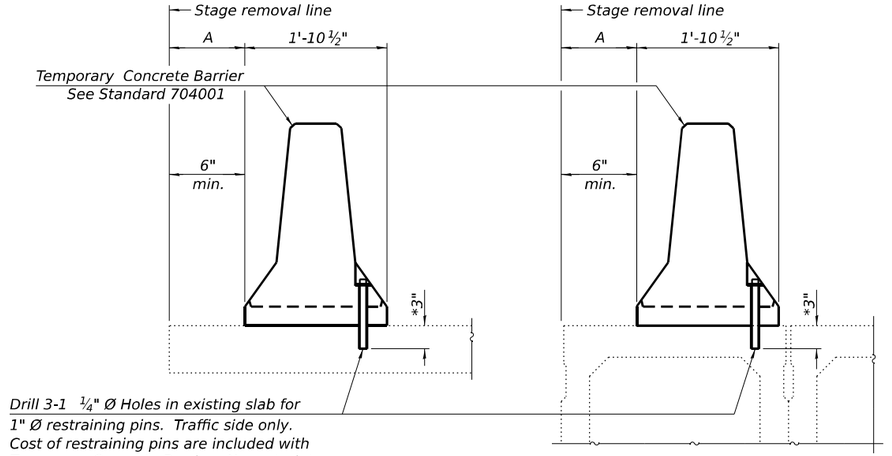
1/25/2024



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

NEW SLAB OR NEW DECK BEAM

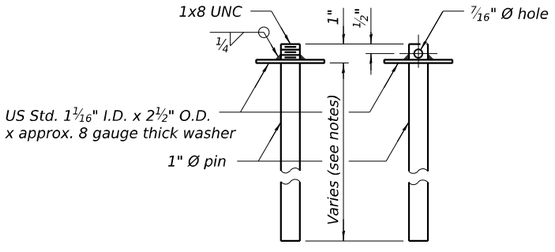


Drill 3-1 ¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

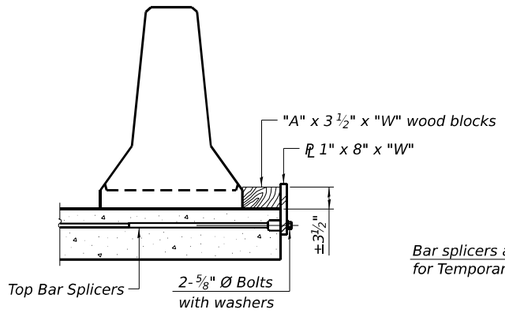
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

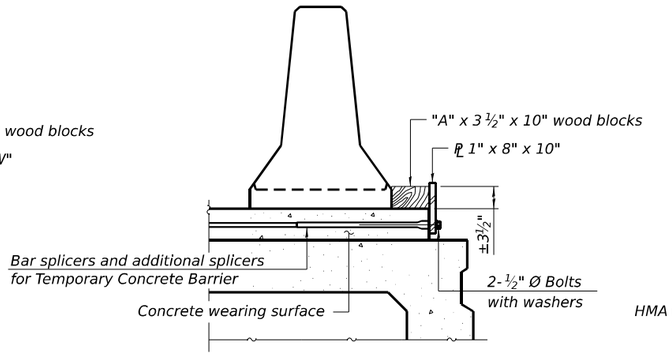


RESTRAINING PIN

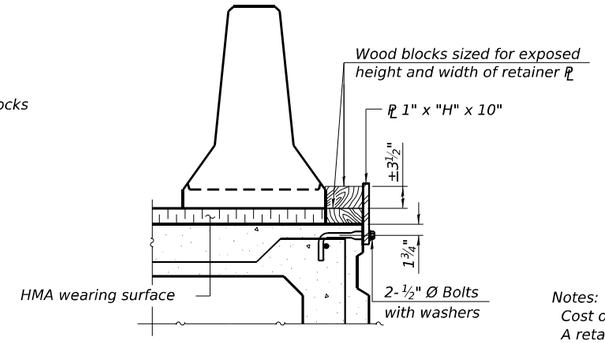
SECTIONS THRU SLAB OR DECK BEAM



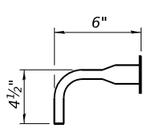
DETAIL I



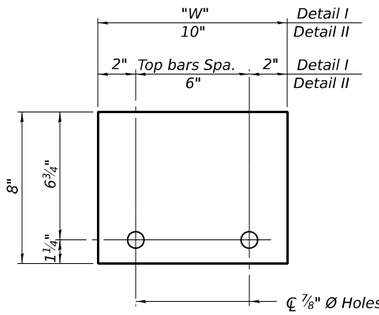
DETAIL II



DETAIL III

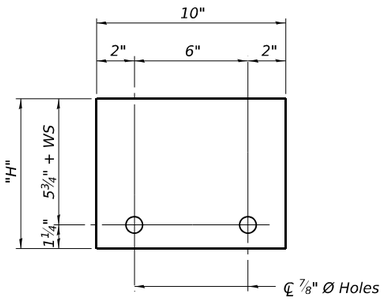


BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER ℄ 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"

(Detail III)

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

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

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

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

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

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

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

R-27

10-12-2021

exp.

USER NAME =		DESIGNED - BAR	REVISED -	
		CHECKED - VCP	REVISED -	
PLOT SCALE =		DRAWN - HBJ	REVISED -	
PLOT DATE =		CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 099-0123

SHEET S-5 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	217
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

MODEL: DEFAULT
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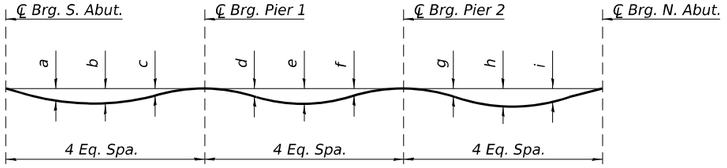
1/25/2024



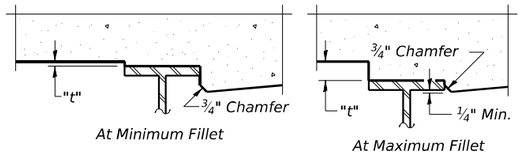
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets S-7 thru S-9.

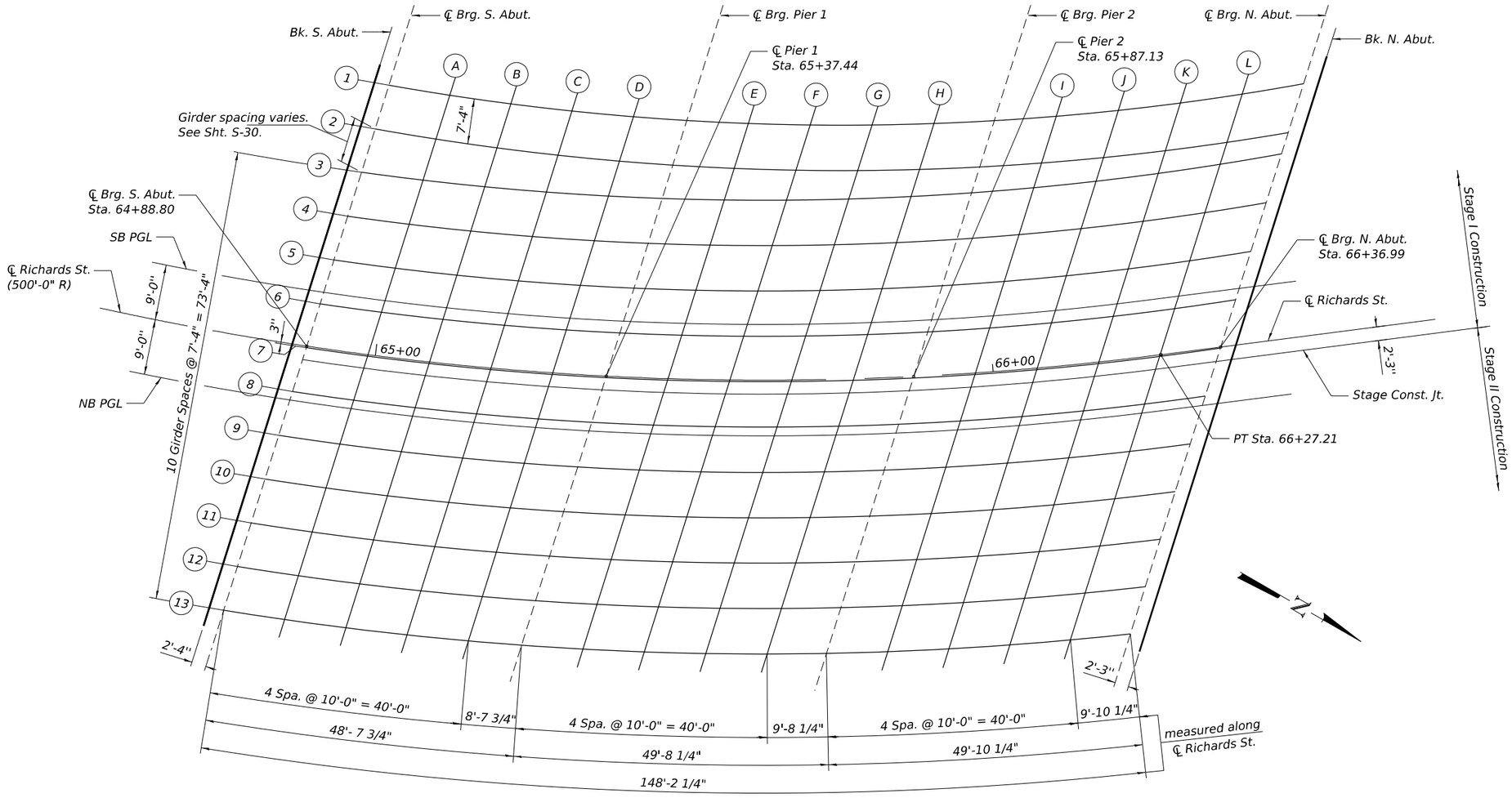
DEAD LOAD DEFLECTION DIAGRAM

Girder No.	a	b	c	d	e	f	g	h	i
1	1/2"	5/8"	3/8"	0	0	0	3/8"	3/4"	5/8"
2-13	3/8"	3/8"	1/4"	0	0	0	1/4"	1/2"	3/8"



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets S-7 thru S-9, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

MODEL: DEFAULT
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1/25/2024

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS LAYOUT
STRUCTURE NO. 099-0123
SHEET S-6 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	218
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

GIRDER 1 *

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+93.77	-43.73	536.65	536.65
℄ Brg. S. Abut.	64+96.35	-43.63	536.66	536.66
A	65+07.25	-43.21	536.70	536.74
B	65+18.14	-42.82	536.74	536.79
C	65+29.02	-42.44	536.76	536.80
D	65+39.90	-42.08	536.78	536.80
℄ Brg. Pier 1	65+49.31	-41.79	536.79	536.79
E	65+60.19	-41.48	536.79	536.79
F	65+71.08	-41.18	536.79	536.79
G	65+81.97	-40.91	536.77	536.77
H	65+92.87	-40.65	536.75	536.74
℄ Brg. Pier 2	66+03.44	-40.43	536.72	536.72
I	66+14.37	-40.21	536.68	536.70
J	66+25.31	-40.02	536.63	536.68
K	66+35.56	-39.93	536.58	536.64
L	66+45.67	-40.08	536.52	536.56
℄ Brg. N. Abut.	66+55.71	-40.47	536.45	536.45
Bk. N. Abut.	66+58.25	-40.61	536.43	536.43

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+92.45	-36.44	536.79	536.79
℄ Brg. S. Abut.	64+94.99	-36.34	536.80	536.80
A	65+05.71	-35.93	536.84	536.88
B	65+16.43	-35.54	536.88	536.92
C	65+27.13	-35.17	536.91	536.94
D	65+37.84	-34.81	536.92	536.94
℄ Brg. Pier 1	65+47.08	-34.52	536.93	536.93
E	65+57.78	-34.21	536.94	536.94
F	65+68.49	-33.91	536.93	536.93
G	65+79.19	-33.64	536.92	536.92
H	65+89.90	-33.38	536.90	536.90
℄ Brg. Pier 2	66+00.28	-33.16	536.87	536.87
I	66+11.01	-32.94	536.84	536.85
J	66+21.75	-32.75	536.79	536.83
K	66+32.17	-32.60	536.74	536.78
L	66+42.24	-32.67	536.68	536.71
℄ Brg. N. Abut.	66+52.24	-32.97	536.62	536.62
Bk. N. Abut.	66+54.77	-33.08	536.60	536.60

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+91.16	-29.08	536.93	536.93
℄ Brg. S. Abut.	64+93.67	-29.08	536.94	536.94
A	65+04.31	-29.08	536.98	537.01
B	65+14.95	-29.08	537.00	537.04
C	65+25.60	-29.08	537.03	537.06
D	65+36.25	-29.08	537.04	537.05
℄ Brg. Pier 1	65+45.47	-29.08	537.04	537.04
E	65+56.14	-29.08	537.04	537.04
F	65+66.81	-29.08	537.03	537.03
G	65+77.50	-29.08	537.02	537.02
H	65+88.19	-29.08	536.99	536.99
℄ Brg. Pier 2	65+98.56	-29.08	536.96	536.96
I	66+09.28	-29.08	536.92	536.94
J	66+20.01	-29.08	536.88	536.91
K	66+30.54	-29.10	536.82	536.86
L	66+40.67	-29.28	536.76	536.79
℄ Brg. N. Abut.	66+50.71	-29.67	536.69	536.69
Bk. N. Abut.	66+53.25	-29.80	536.68	536.68

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+89.92	-21.75	537.07	537.07
℄ Brg. S. Abut.	64+92.39	-21.75	537.08	537.08
A	65+02.86	-21.75	537.12	537.15
B	65+13.33	-21.75	537.15	537.19
C	65+23.81	-21.75	537.17	537.20
D	65+34.29	-21.75	537.18	537.20
℄ Brg. Pier 1	65+43.35	-21.75	537.19	537.19
E	65+53.84	-21.75	537.19	537.19
F	65+64.34	-21.75	537.18	537.18
G	65+74.84	-21.75	537.17	537.17
H	65+85.35	-21.75	537.15	537.14
℄ Brg. Pier 2	65+95.54	-21.75	537.12	537.12
I	66+06.06	-21.75	537.08	537.10
J	66+16.60	-21.75	537.04	537.07
K	66+27.14	-21.75	536.99	537.03
L	66+37.24	-21.86	536.93	536.96
℄ Brg. N. Abut.	66+47.24	-22.17	536.86	536.86
Bk. N. Abut.	66+49.77	-22.28	536.85	536.85

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+88.71	-14.42	537.22	537.22
℄ Brg. S. Abut.	64+91.14	-14.42	537.23	537.23
A	65+01.45	-14.42	537.26	537.29
B	65+11.76	-14.42	537.29	537.33
C	65+22.07	-14.42	537.31	537.34
D	65+32.38	-14.42	537.33	537.34
℄ Brg. Pier 1	65+41.30	-14.42	537.33	537.33
E	65+51.62	-14.42	537.34	537.33
F	65+61.94	-14.42	537.33	537.33
G	65+72.27	-14.42	537.32	537.32
H	65+82.60	-14.42	537.30	537.30
℄ Brg. Pier 2	65+92.61	-14.42	537.27	537.27
I	66+02.95	-14.42	537.24	537.26
J	66+13.30	-14.42	537.20	537.23
K	66+23.66	-14.42	537.15	537.19
L	66+33.82	-14.46	537.10	537.12
℄ Brg. N. Abut.	66+43.79	-14.70	537.03	537.03
Bk. N. Abut.	66+46.31	-14.79	537.02	537.02

SB PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+87.84	-9.00	537.32	537.32
℄ Brg. S. Abut.	64+90.25	-9.00	537.33	537.33
A	65+00.43	-9.00	537.37	537.39
B	65+10.62	-9.00	537.40	537.43
C	65+20.82	-9.00	537.42	537.45
D	65+31.01	-9.00	537.43	537.45
℄ Brg. Pier 1	65+39.82	-9.00	537.44	537.44
E	65+50.02	-9.00	537.44	537.44
F	65+60.22	-9.00	537.44	537.44
G	65+70.42	-9.00	537.43	537.43
H	65+80.62	-9.00	537.41	537.41
℄ Brg. Pier 2	65+90.51	-9.00	537.39	537.39
I	66+00.72	-9.00	537.36	537.37
J	66+10.94	-9.00	537.32	537.35
K	66+21.15	-9.00	537.27	537.31
L	66+31.29	-9.00	537.22	537.25
℄ Brg. N. Abut.	66+41.15	-9.00	537.16	537.16
Bk. N. Abut.	66+43.63	-9.00	537.15	537.15

* *Theoretical grade elevations calculated assuming constant 2% cross slope from ℄ Richards St. to ℄ Girder 1.*

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 1
STRUCTURE NO. 099-0123
SHEET S-7 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	219
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+87.54	-7.08	537.36	537.36
℄ Brg. S. Abut.	64+89.93	-7.08	537.37	537.37
A	65+00.08	-7.08	537.40	537.43
B	65+10.23	-7.08	537.43	537.47
C	65+20.38	-7.08	537.46	537.49
D	65+30.53	-7.08	537.47	537.49
℄ Brg. Pier 1	65+39.31	-7.08	537.48	537.48
E	65+49.46	-7.08	537.48	537.48
F	65+59.62	-7.08	537.48	537.48
G	65+69.78	-7.08	537.47	537.47
H	65+79.94	-7.08	537.45	537.45
℄ Brg. Pier 2	65+89.78	-7.08	537.43	537.43
I	65+99.95	-7.08	537.40	537.41
J	66+10.11	-7.08	537.36	537.39
K	66+20.28	-7.08	537.31	537.35
L	66+30.41	-7.09	537.26	537.29
℄ Brg. N. Abut.	66+40.34	-7.26	537.20	537.20
Bk. N. Abut.	66+42.86	-7.33	537.19	537.19

℄ RICHARDS ST. & CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+86.44	0.00	537.50	537.50
℄ Brg. S. Abut.	64+88.80	0.00	537.51	537.51
A	64+98.80	0.00	537.54	537.57
B	65+08.80	0.00	537.57	537.61
C	65+18.80	0.00	537.59	537.62
D	65+28.80	0.00	537.61	537.62
℄ Brg. Pier 1	65+37.44	0.00	537.62	537.62
E	65+47.44	0.00	537.62	537.62
F	65+57.44	0.00	537.62	537.62
G	65+67.44	0.00	537.61	537.61
H	65+77.44	0.00	537.60	537.60
℄ Brg. Pier 2	65+87.13	0.00	537.58	537.58
I	65+97.13	0.00	537.55	537.56
J	66+07.13	0.00	537.51	537.55
K	66+17.13	0.00	537.47	537.51
L	66+27.13	0.00	537.42	537.45
℄ Brg. N. Abut.	66+36.99	0.00	537.37	537.37
Bk. N. Abut.	66+39.46	0.00	537.35	537.35

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+86.40	0.25	537.49	537.49
℄ Brg. S. Abut.	64+88.76	0.25	537.50	537.50
A	64+98.76	0.25	537.54	537.56
B	65+08.75	0.25	537.57	537.60
C	65+18.74	0.25	537.59	537.62
D	65+28.74	0.25	537.61	537.62
℄ Brg. Pier 1	65+37.38	0.25	537.62	537.62
E	65+47.37	0.25	537.62	537.62
F	65+57.37	0.25	537.62	537.62
G	65+67.36	0.25	537.61	537.61
H	65+77.36	0.25	537.59	537.59
℄ Brg. Pier 2	65+87.04	0.25	537.57	537.57
I	65+97.03	0.25	537.54	537.56
J	66+07.03	0.25	537.51	537.54
K	66+17.02	0.25	537.47	537.50
L	66+27.01	0.25	537.42	537.44
℄ Brg. N. Abut.	66+36.91	0.16	537.36	537.36
Bk. N. Abut.	66+39.42	0.10	537.35	537.35

STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+86.10	2.25	537.45	537.45
℄ Brg. S. Abut.	64+88.45	2.25	537.46	537.46
A	64+98.40	2.25	537.49	537.52
B	65+08.35	2.25	537.52	537.56
C	65+18.31	2.25	537.55	537.58
D	65+28.26	2.25	537.57	537.58
℄ Brg. Pier 1	65+36.86	2.25	537.58	537.58
E	65+46.81	2.25	537.58	537.58
F	65+56.77	2.25	537.58	537.58
G	65+66.72	2.25	537.57	537.57
H	65+76.67	2.25	537.55	537.55
℄ Brg. Pier 2	65+86.30	2.25	537.53	537.53
I	65+96.25	2.25	537.51	537.52
J	66+06.20	2.25	537.47	537.50
K	66+16.15	2.25	537.43	537.47
L	66+26.09	2.25	537.38	537.41
℄ Brg. N. Abut.	66+35.94	2.25	537.33	537.33
Bk. N. Abut.	66+38.42	2.25	537.31	537.31

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+85.30	7.58	537.34	537.34
℄ Brg. S. Abut.	64+87.62	7.58	537.35	537.35
A	64+97.47	7.58	537.38	537.41
B	65+07.31	7.58	537.42	537.45
C	65+17.16	7.58	537.44	537.47
D	65+27.00	7.58	537.46	537.47
℄ Brg. Pier 1	65+35.51	7.58	537.47	537.47
E	65+45.35	7.58	537.47	537.47
F	65+55.19	7.58	537.47	537.47
G	65+65.02	7.58	537.46	537.47
H	65+74.86	7.58	537.45	537.45
℄ Brg. Pier 2	65+84.38	7.58	537.43	537.43
I	65+94.21	7.58	537.41	537.42
J	66+04.04	7.58	537.37	537.40
K	66+13.86	7.58	537.33	537.37
L	66+23.68	7.58	537.29	537.31
℄ Brg. N. Abut.	66+33.50	7.54	537.24	537.24
Bk. N. Abut.	66+35.99	7.51	537.22	537.22

NB PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+85.09	9.00	537.31	537.31
℄ Brg. S. Abut.	64+87.41	9.00	537.32	537.32
A	64+97.22	9.00	537.36	537.38
B	65+07.04	9.00	537.39	537.42
C	65+16.86	9.00	537.41	537.44
D	65+26.67	9.00	537.43	537.44
℄ Brg. Pier 1	65+35.15	9.00	537.44	537.44
E	65+44.96	9.00	537.44	537.44
F	65+54.77	9.00	537.44	537.44
G	65+64.58	9.00	537.44	537.44
H	65+74.38	9.00	537.42	537.42
℄ Brg. Pier 2	65+83.88	9.00	537.40	537.40
I	65+93.67	9.00	537.38	537.39
J	66+03.47	9.00	537.35	537.38
K	66+13.26	9.00	537.31	537.34
L	66+23.05	9.00	537.26	537.29
℄ Brg. N. Abut.	66+32.82	9.00	537.21	537.21
Bk. N. Abut.	66+35.30	9.00	537.20	537.20

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 2
STRUCTURE NO. 099-0123
SHEET S-8 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	220
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+84.22	14.92	537.19	537.19
℄ Brg. S. Abut.	64+86.52	14.92	537.20	537.20
A	64+96.22	14.92	537.23	537.26
B	65+05.92	14.92	537.26	537.30
C	65+15.62	14.92	537.29	537.32
D	65+25.31	14.92	537.31	537.32
℄ Brg. Pier 1	65+33.69	14.92	537.32	537.32
E	65+43.38	14.92	537.33	537.32
F	65+53.07	14.92	537.33	537.33
G	65+62.75	14.92	537.32	537.32
H	65+72.43	14.92	537.31	537.31
℄ Brg. Pier 2	65+81.80	14.92	537.29	537.29
I	65+91.47	14.92	537.27	537.28
J	66+01.14	14.92	537.24	537.27
K	66+10.80	14.92	537.20	537.24
L	66+20.45	14.92	537.16	537.18
℄ Brg. N. Abut.	66+30.09	14.91	537.11	537.11
Bk. N. Abut.	66+32.58	14.89	537.09	537.09

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+83.18	22.25	537.04	537.04
℄ Brg. S. Abut.	64+85.44	22.25	537.05	537.05
A	64+95.00	22.25	537.08	537.11
B	65+04.56	22.25	537.11	537.15
C	65+14.12	22.25	537.14	537.17
D	65+23.67	22.25	537.16	537.17
℄ Brg. Pier 1	65+31.93	22.25	537.17	537.17
E	65+41.47	22.25	537.18	537.18
F	65+51.01	22.25	537.18	537.18
G	65+60.55	22.25	537.18	537.18
H	65+70.08	22.25	537.17	537.16
℄ Brg. Pier 2	65+79.30	22.25	537.15	537.15
I	65+88.82	22.25	537.13	537.14
J	65+98.33	22.25	537.10	537.13
K	66+07.83	22.25	537.06	537.10
L	66+17.32	22.25	537.02	537.05
℄ Brg. N. Abut.	66+26.72	22.25	536.98	536.98
Bk. N. Abut.	66+29.17	22.25	536.97	536.97

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+82.17	29.58	536.89	536.89
℄ Brg. S. Abut.	64+84.40	29.58	536.90	536.90
A	64+93.82	29.58	536.93	536.96
B	65+03.25	29.58	536.96	537.00
C	65+12.67	29.58	536.99	537.02
D	65+22.08	29.58	537.01	537.02
℄ Brg. Pier 1	65+30.21	29.58	537.02	537.02
E	65+39.62	29.58	537.03	537.03
F	65+49.02	29.58	537.03	537.03
G	65+58.41	29.58	537.03	537.03
H	65+67.79	29.58	537.02	537.02
℄ Brg. Pier 2	65+76.87	29.58	537.01	537.01
I	65+86.24	29.58	536.99	537.00
J	65+95.60	29.58	536.96	536.99
K	66+04.95	29.58	536.93	536.97
L	66+14.29	29.58	536.89	536.92
℄ Brg. N. Abut.	66+23.53	29.58	536.85	536.85
Bk. N. Abut.	66+25.86	29.58	536.84	536.84

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+81.19	36.92	536.74	536.74
℄ Brg. S. Abut.	64+83.38	36.92	536.75	536.75
A	64+92.68	36.92	536.78	536.81
B	65+01.97	36.92	536.81	536.85
C	65+11.25	36.92	536.84	536.87
D	65+20.53	36.92	536.86	536.87
℄ Brg. Pier 1	65+28.55	36.92	536.87	536.87
E	65+37.82	36.92	536.88	536.88
F	65+47.08	36.92	536.89	536.89
G	65+56.33	36.92	536.88	536.89
H	65+65.57	36.92	536.88	536.88
℄ Brg. Pier 2	65+74.52	36.92	536.86	536.86
I	65+83.74	36.92	536.85	536.86
J	65+92.95	36.92	536.82	536.86
K	66+02.16	36.92	536.79	536.83
L	66+11.35	36.92	536.76	536.78
℄ Brg. N. Abut.	66+20.43	36.92	536.72	536.72
Bk. N. Abut.	66+22.73	36.92	536.71	536.71

GIRDER 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	64+80.23	44.25	536.59	536.59
℄ Brg. S. Abut.	64+82.39	44.25	536.60	536.60
A	64+91.56	44.25	536.63	536.66
B	65+00.72	44.25	536.66	536.70
C	65+09.88	44.25	536.69	536.72
D	65+19.03	44.25	536.71	536.72
℄ Brg. Pier 1	65+26.93	44.25	536.72	536.72
E	65+36.06	44.25	536.73	536.73
F	65+45.19	44.25	536.74	536.74
G	65+54.31	44.25	536.74	536.74
H	65+63.42	44.25	536.73	536.73
℄ Brg. Pier 2	65+72.23	44.25	536.72	536.72
I	65+81.31	44.25	536.71	536.72
J	65+90.38	44.25	536.68	536.72
K	65+99.44	44.25	536.66	536.70
L	66+08.49	44.25	536.62	536.65
℄ Brg. N. Abut.	66+17.43	44.25	536.58	536.58
Bk. N. Abut.	66+19.69	44.25	536.57	536.57

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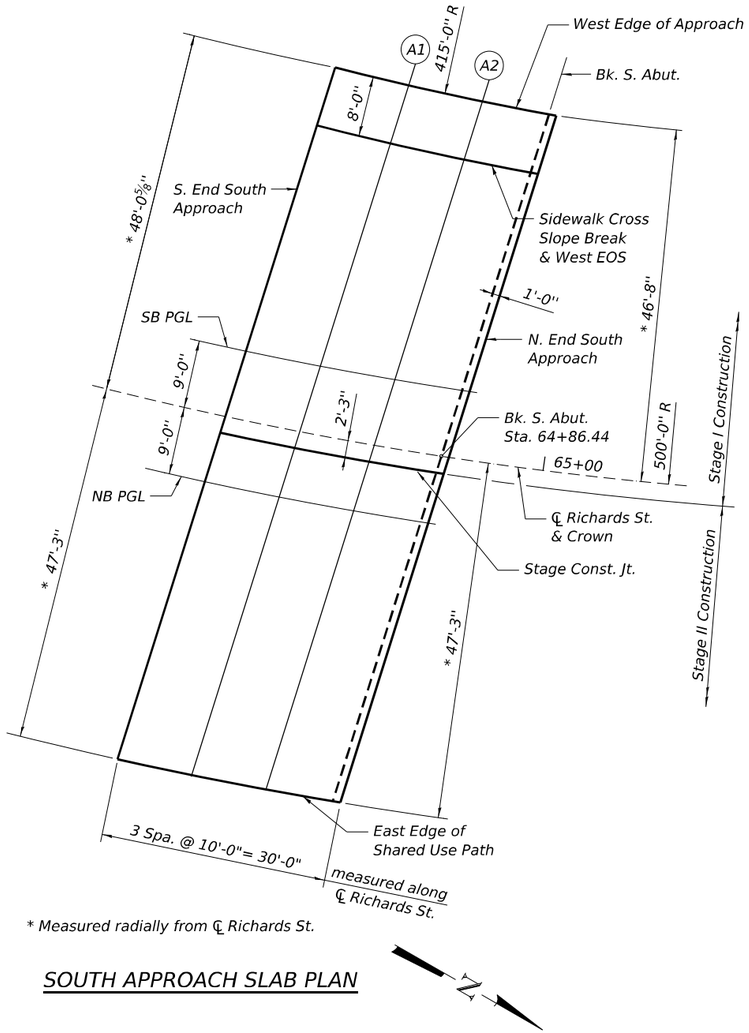
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 3
STRUCTURE NO. 099-0123
SHEET S-9 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	221
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

Note:
"EOS" denotes Edge of Shoulder.



* Measured radially from ℄ Richards St.

SOUTH APPROACH SLAB PLAN

WEST EDGE OF APPROACH **

Location	Station	Offset	Theoretical Grade Elevations
S. End	64+62.45	-48.05	536.45
A1	64+73.46	-47.57	536.50
A2	64+84.46	-47.11	536.55
N. End	64+95.44	-46.67	536.60

STAGE CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations
S. End	64+57.24	2.25	537.35
A1	64+67.19	2.25	537.38
A2	64+77.15	2.25	537.42
N. End	64+87.10	2.25	537.45

SIDEWALK CROSS SLOPE BREAK & WEST EOS

Location	Station	Offset	Theoretical Grade Elevations
S. End	64+61.55	-40.08	536.61
A1	64+72.37	-39.61	536.65
A2	64+83.17	-39.15	536.70
N. End	64+93.96	-38.72	536.75

NB PGL

Location	Station	Offset	Theoretical Grade Elevations
S. End	64+56.62	9.00	537.21
A1	64+66.44	9.00	537.24
A2	64+76.26	9.00	537.28
N. End	64+86.08	9.00	537.32

SB PGL

Location	Station	Offset	Theoretical Grade Elevations
S. End	64+58.31	-9.00	537.22
A1	64+68.50	-9.00	537.25
A2	64+78.68	-9.00	537.29
N. End	64+88.87	-9.00	537.33

EAST EDGE OF SHARED USE PATH

Location	Station	Offset	Theoretical Grade Elevations
S. End	64+53.39	47.25	536.43
A1	64+62.52	47.25	536.47
A2	64+71.65	47.25	536.50
N. End	64+80.77	47.25	536.53

℄ RICHARDS RD. & CROWN

Location	Station	Offset	Theoretical Grade Elevations
S. End	64+57.45	0.00	537.39
A1	64+67.45	0.00	537.43
A2	64+77.45	0.00	537.46
N. End	64+87.45	0.00	537.50

** Theoretical grade elevations calculated assuming constant 2% cross slope from ℄ Richards St. to West Edge of Approach.

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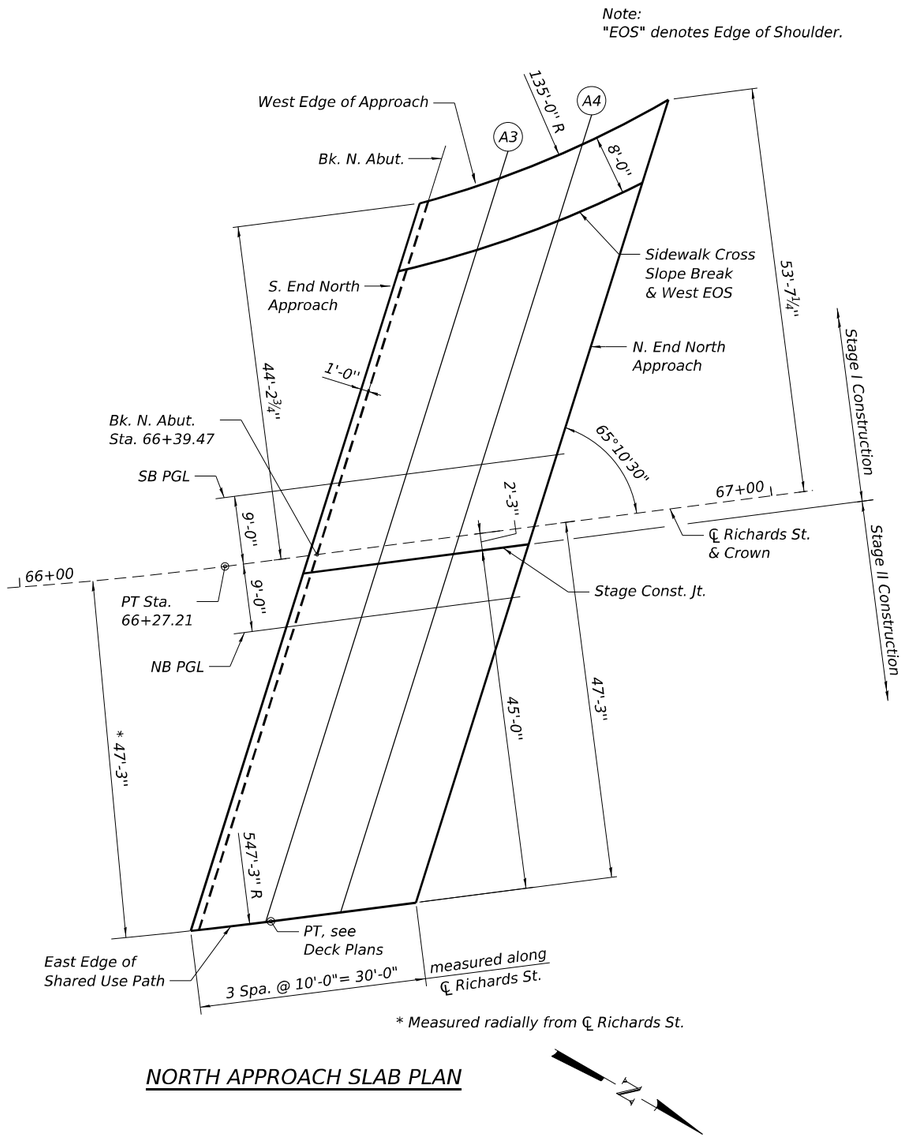
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 099-0123
SHEET S-10 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	222
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



NORTH APPROACH SLAB PLAN

WEST EDGE OF APPROACH **

Location	Station	Offset	Theoretical Grade Elevations
S. End	66+58.82	-44.22	536.36
A3	66+69.71	-46.15	536.26
A4	66+81.12	-49.19	536.13
N. End	66+93.16	-53.61	535.97

STAGE CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations
S. End	66+37.32	2.25	537.32
A3	66+47.32	2.25	537.26
A4	66+57.32	2.25	537.21
N. End	66+67.32	2.25	537.15

SIDEWALK CROSS SLOPE BREAK & WEST EOS

Location	Station	Offset	Theoretical Grade Elevations
S. End	66+54.88	-35.70	536.55
A3	66+65.56	-37.18	536.46
A4	66+76.68	-39.60	536.35
N. End	66+88.33	-43.16	536.21

NB PGL

Location	Station	Offset	Theoretical Grade Elevations
S. End	66+34.20	9.00	537.20
A3	66+44.20	9.00	537.15
A4	66+54.20	9.00	537.09
N. End	66+64.20	9.00	537.03

SB PGL

Location	Station	Offset	Theoretical Grade Elevations
S. End	66+42.53	-9.00	537.15
A3	66+52.53	-9.00	537.10
A4	66+62.53	-9.00	537.04
N. End	66+72.53	-9.00	536.98

EAST EDGE OF SHARED USE PATH

Location	Station	Offset	Theoretical Grade Elevations
S. End	66+17.47	47.25	536.52
A3	66+26.57	47.25	536.48
A4	66+36.51	47.25	536.42
N. End	66+46.51	47.25	536.37

℄ RICHARDS RD. & CROWN

Location	Station	Offset	Theoretical Grade Elevations
S. End	66+38.36	0.00	537.36
A3	66+48.36	0.00	537.30
A4	66+58.36	0.00	537.24
N. End	66+68.36	0.00	537.19

** Theoretical grade elevations calculated assuming constant 2% cross slope from ℄ Richards St. to West Edge of Approach.

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1/25/2024

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 099-0123
SHEET S-11 OF S-50 SHEETS

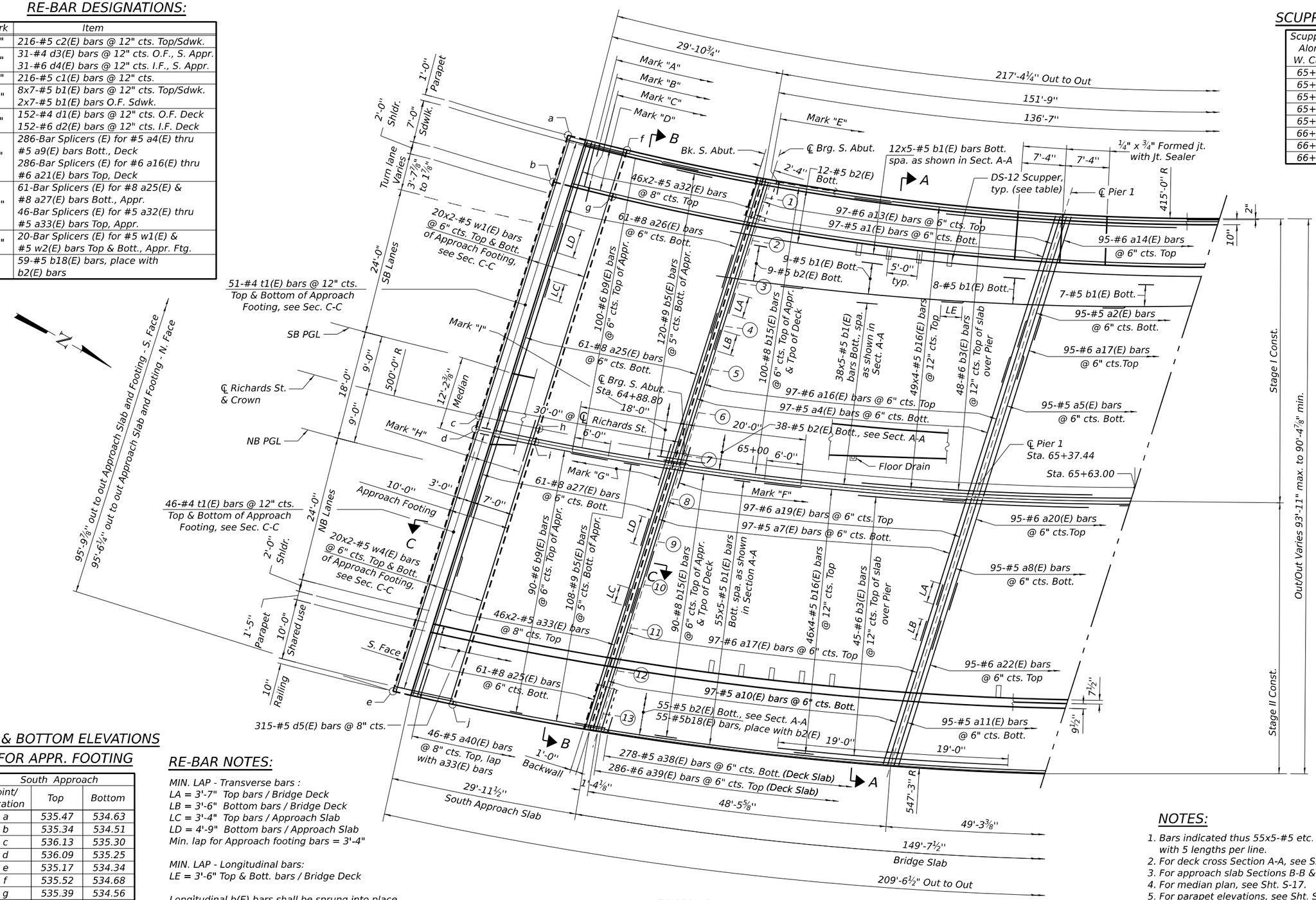
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	223
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

RE-BAR DESIGNATIONS:

Mark	Item
"A"	216-#5 c2(E) bars @ 12" cts. Top/Sdwk.
"B"	31-#4 d3(E) bars @ 12" cts. O.F., S. Appr. 31-#6 d4(E) bars @ 12" cts. I.F., S. Appr.
"C"	216-#5 c1(E) bars @ 12" cts.
"D"	8x7-#5 b1(E) bars @ 12" cts. Top/Sdwk. 2x7-#5 b1(E) bars O.F. Sdwk.
"E"	152-#4 d1(E) bars @ 12" cts. O.F. Deck 152-#6 d2(E) bars @ 12" cts. I.F. Deck
"F"	286-Bar Splicers (E) for #5 a4(E) thru #5 a9(E) bars Bott., Deck 286-Bar Splicers (E) for #6 a16(E) thru #6 a21(E) bars Top, Deck
"G"	61-Bar Splicers (E) for #8 a25(E) & #8 a27(E) bars Bott., Appr. 46-Bar Splicers (E) for #5 a32(E) thru #5 a33(E) bars Top, Appr.
"H"	20-Bar Splicers (E) for #5 w1(E) & #5 w2(E) bars Top & Bott., Appr. Ftg.
"I"	59-#5 b18(E) bars, place with b2(E) bars

SCUPPERS & FLOOR DRAINS

Scuppers Along W. Curb	Scuppers Along E. Parapet	Floor Drains Along Median
65+14	64+98	65+16
65+19	65+02	66+05
65+25	65+07	-
65+30	65+12	-
65+82	65+16	-
66+17	65+42	-
66+23	65+89	-
66+28	65+93	-



TOP & BOTTOM ELEVATIONS FOR APPR. FOOTING

South Approach		
Point/ Location	Top	Bottom
a	535.47	534.63
b	535.34	534.51
c	536.13	535.30
d	536.09	535.25
e	535.17	534.34
f	535.52	534.68
g	535.39	534.56
h	536.17	535.33
i	536.12	535.29
j	535.21	534.37

RE-BAR NOTES:

MIN. LAP - Transverse bars :
LA = 3'-7" Top bars / Bridge Deck
LB = 3'-6" Bottom bars / Bridge Deck
LC = 3'-4" Top bars / Approach Slab
LD = 4'-9" Bottom bars / Approach Slab
Min. lap for Approach footing bars = 3'-4"

MIN. LAP - Longitudinal bars:
LE = 3'-6" Top & Bott. bars / Bridge Deck

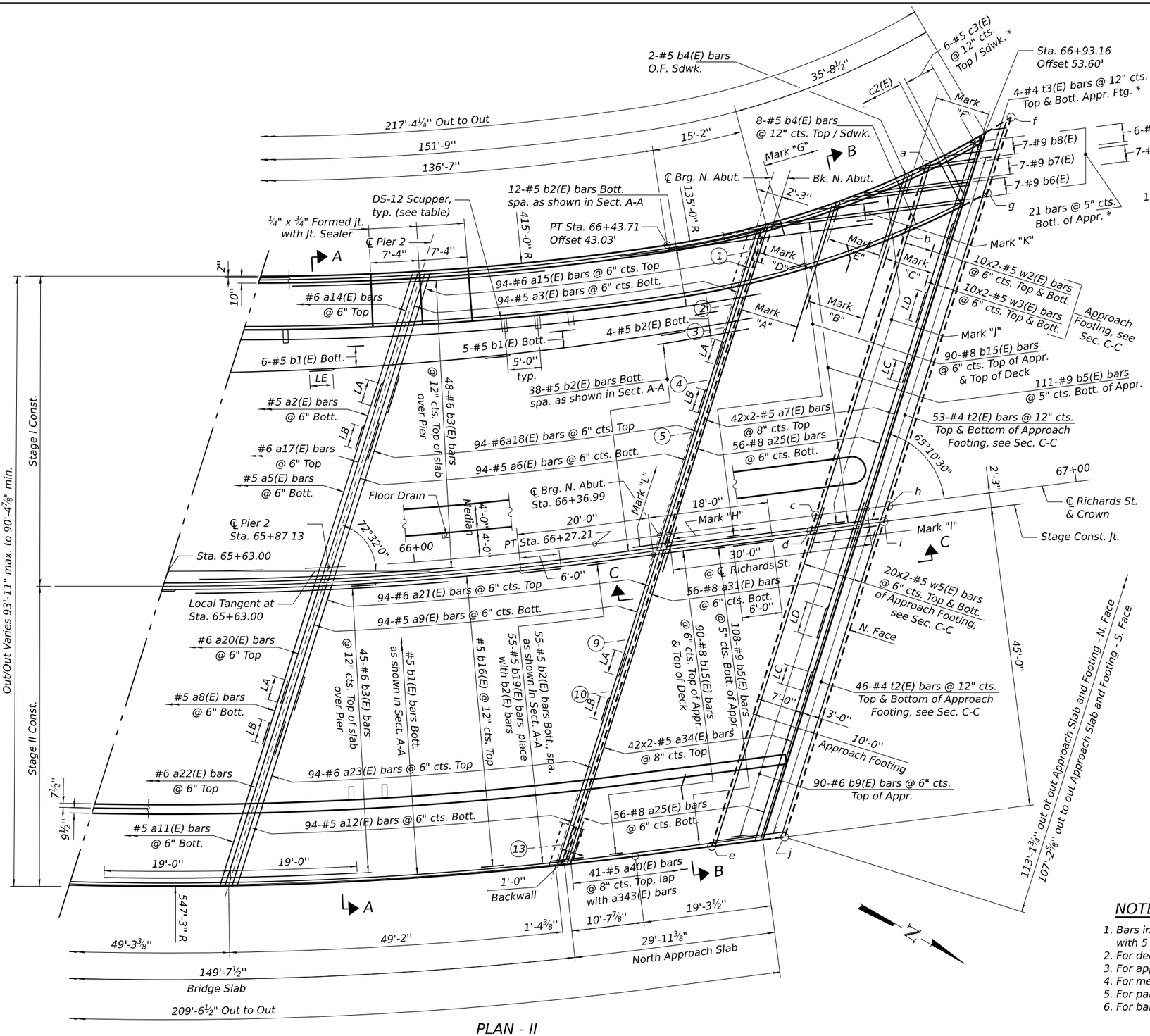
Longitudinal b(E) bars shall be sprung into place to be concentric at the spacing noted, U.N.O.

Sidewalk c(E) bars shall be placed radially to the exterior girder.

PLAN - I

NOTES:

1. Bars indicated thus 55x5-#5 etc. indicates 55 lines of bars with 5 lengths per line.
2. For deck cross Section A-A, see Sht. S-14.
3. For approach slab Sections B-B & C-C, see Sht. S-15.
4. For median plan, see Sht. S-17.
5. For parapet elevations, see Sht. S-16.
6. For bar list and superstructure details, see Sht. S-19.



RE-BAR DESIGNATIONS:

Mark	Item
"A"	18-#8 a28(E) bars @ 6" cts. Bott.
"B"	18-#8 a29(E) bars @ 6" cts. Bott.
"C"	19-#8 a30(E) bars @ 6" cts. Bott.
"D"	14-#5 a35(E) bars @ 8" cts. Top
"E"	14-#5 a36(E) bars @ 8" cts. Top
"F"	14-#5 a37(E) bars @ 8" cts. Top
"G"	31-#4 d3(E) bars @ 12" cts. O.F. 31-#6 d4(E) bars @ 12" cts. I.F. 5-#4 d8(E) bars @ 12" cts. O.F. 5-#6 d9(E) bars @12" cts. I.F. see Par. Elev. Sht. S-16
"H"	56-Bar Splicers (E) for #8 a25(E) & #8 a31(E) bars Bott., Appr. 42-Bar Splicers (E) for #5 a7(E) & #5 a34(E) bars Top, Appr.
"I"	20-Bar Splicers (E) for #5w2(E), #5w3(E) & #5 w5(E) bars Top & Bott., Appr.
"J"	95-#6 b9(E) bars @ 6" cts. Top of Appr.
"K"	6-#8 b17(E) bars @ 6" cts. Top of Appr. *
"L"	54-#5 b19(E) bars, place with b2(E) bars

TOP & BOTTOM ELEVATIONS FOR APPR. FOOTING

North Approach		
Point/ Location	Top	Bottom
a	535.11	534.28
b	535.07	534.23
c	535.98	535.15
d	535.94	535.11
e	535.16	534.33
f	534.91	534.08
g	534.91	534.07
h	535.92	535.08
i	535.88	535.05
j	535.10	534.26

NOTES:

1. Bars indicated thus 55x5-#5 etc. indicates 55 lines of bars with 5 lengths per line.
2. For deck cross Section A-A, see Sht. S-14.
3. For approach slab Sections B-B & C-C, see Sht. S-15.
4. For median plan, see Sht. S-17.
5. For parapet elevations, see Sht. S-16.
6. For bar list and superstructure details, see Sht. S-19.

PLAN - II

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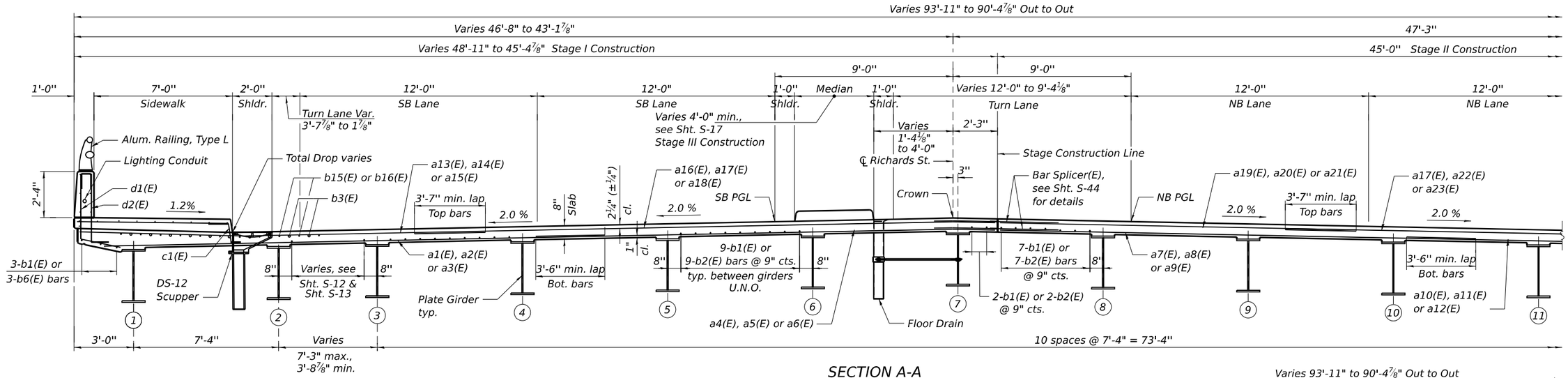
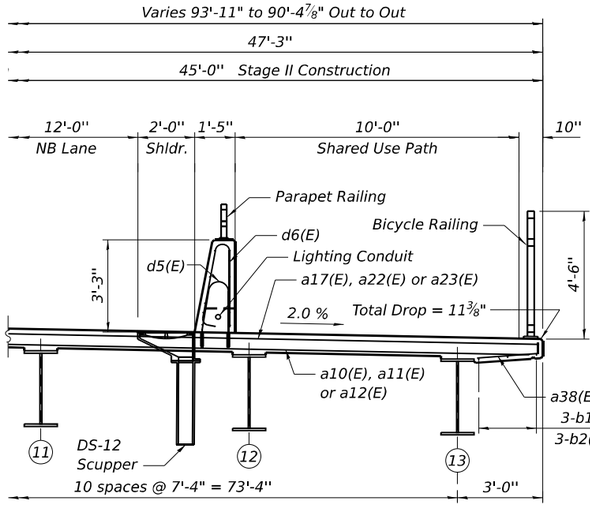
		CHECKED - CCE	REVISED -		
	PLOT SCALE =	DRAWN - HBJ	REVISED -		
	PLOT DATE =	CHECKED - CCE	REVISED -		SHEET S-13 OF S-50 SHEETS

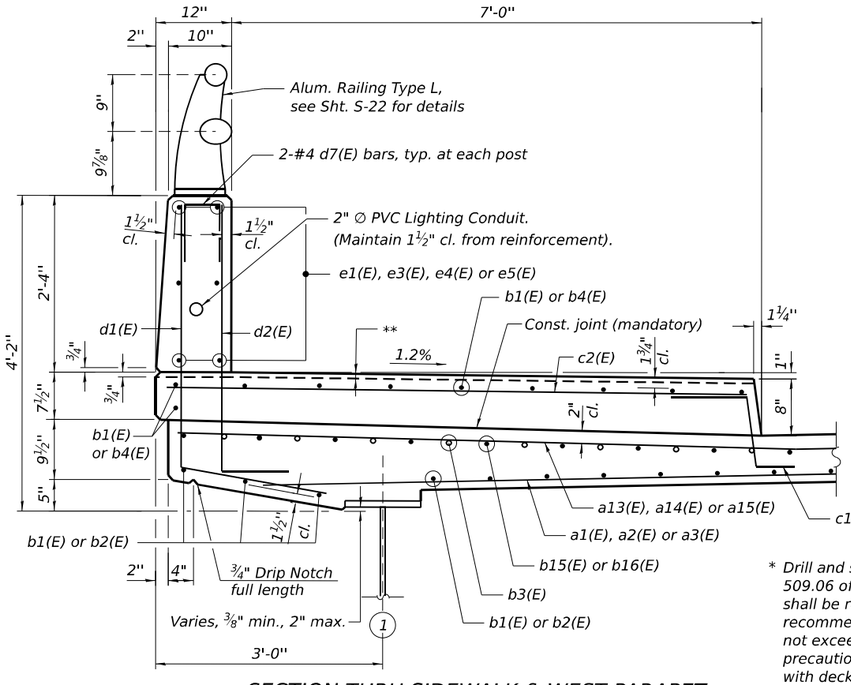
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	225
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	



SECTION A-A

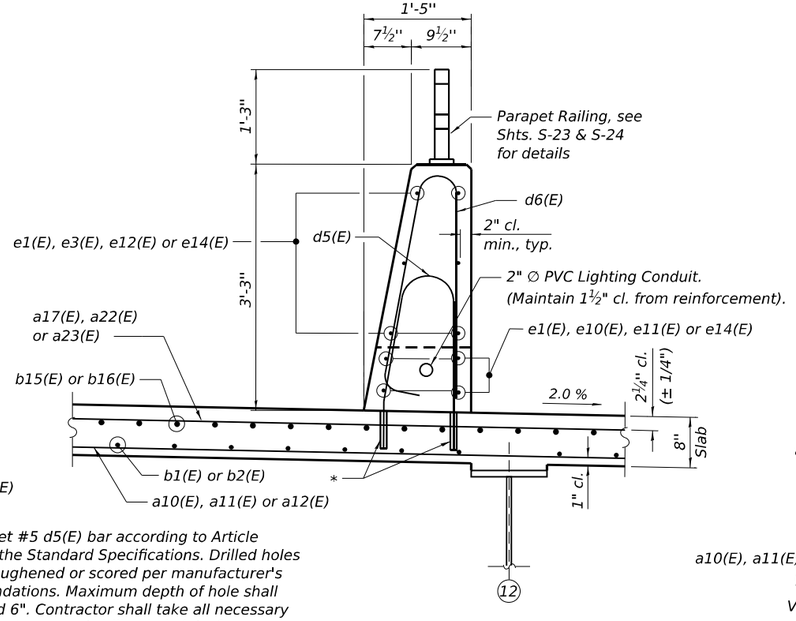


SECTION A-A



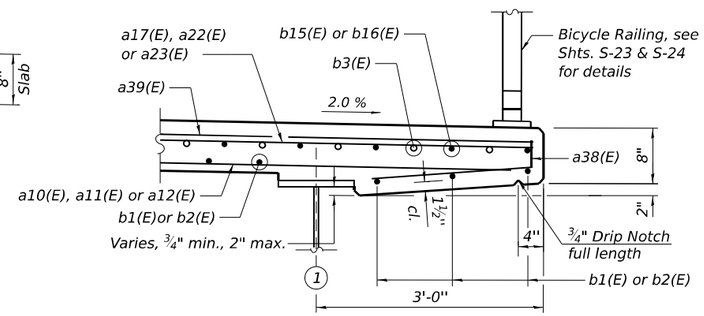
SECTION THRU SIDEWALK & WEST PARAPET

** ¼" x ¾" Formed joint with Bridge Relief Joint Sealer (full width along joint - backer rod not required) at Piers and either side.



SECTION THRU INNER PARAPET

* Drill and set #5 d5(E) bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6". Contractor shall take all necessary precautions to prevent drilled hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in deck.



SECTION THRU EAST END/DECK

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PLOT DATE =	CHECKED - CCE	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE CROSS SECTION
STRUCTURE NO. 099-0123
SHEET S-14 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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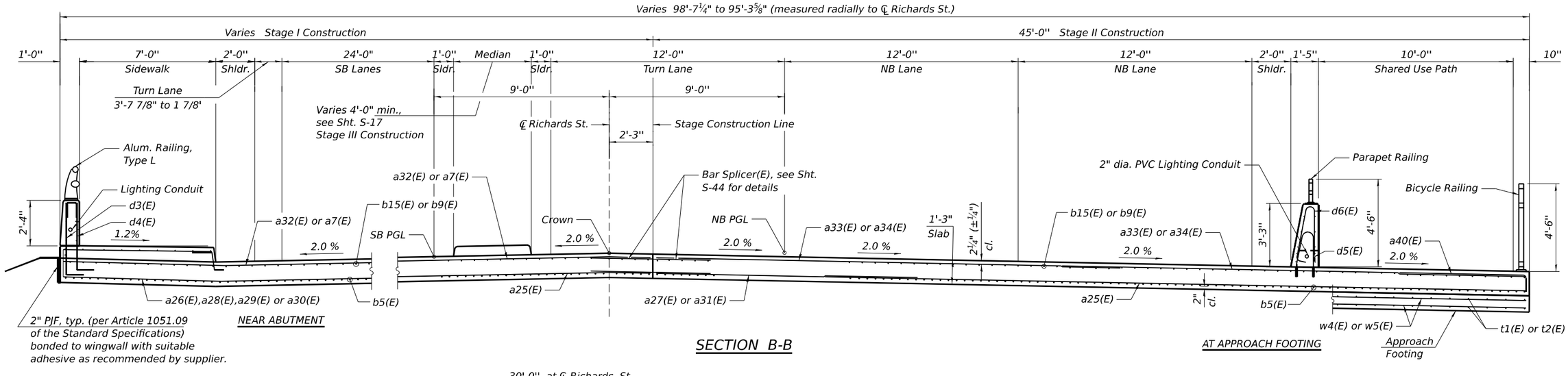
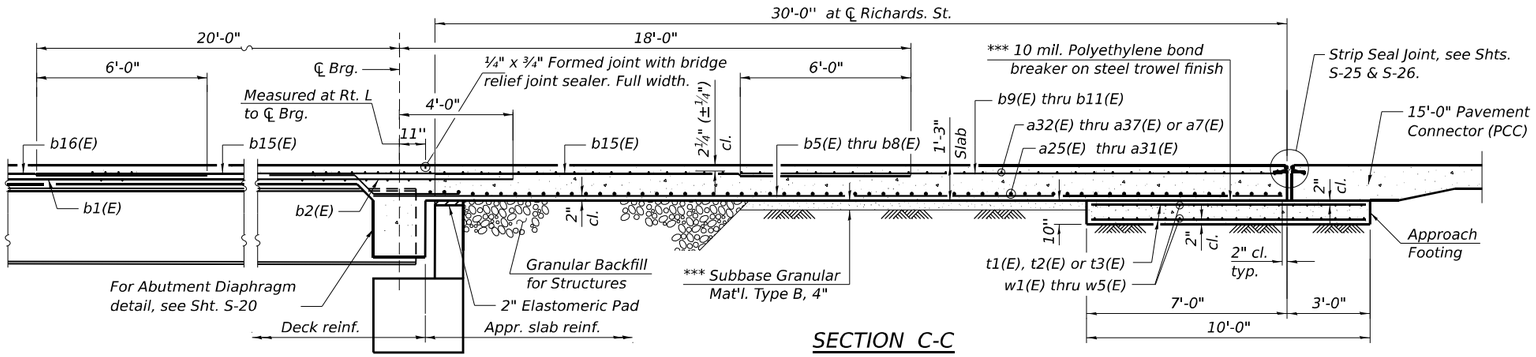
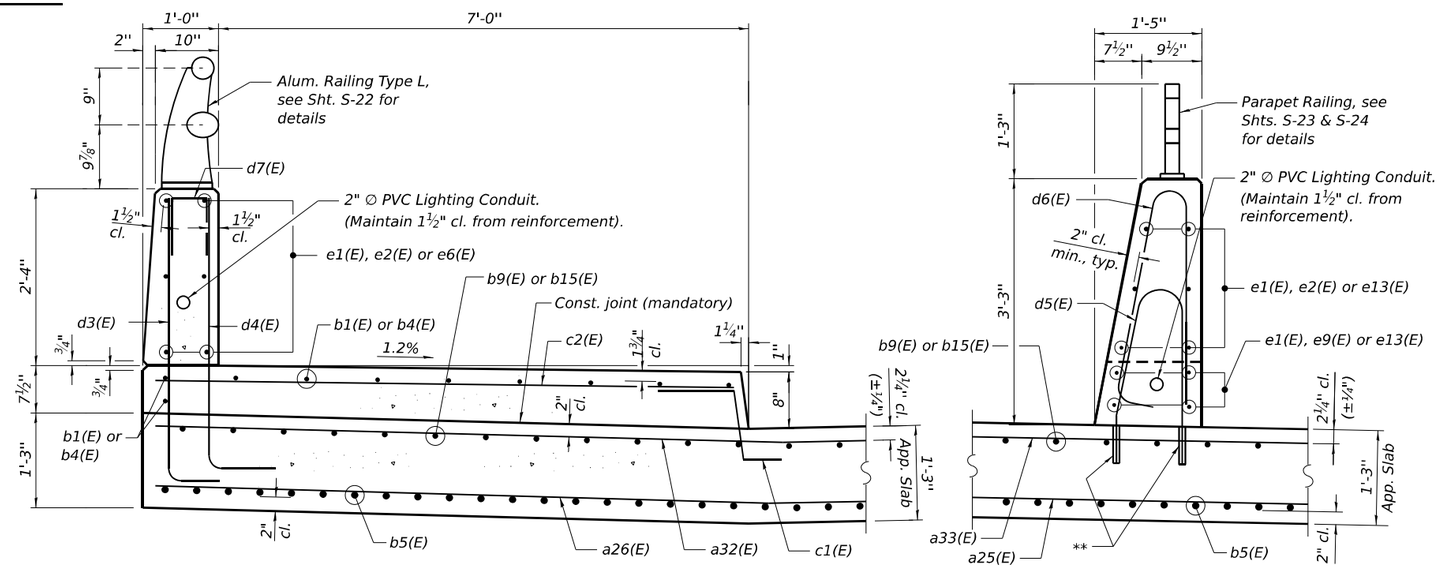
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	



SECTION B-B



SECTION C-C



SECTION THRU SIDEWALK & WEST PARAPET

SECTION THRU INNER PARAPET

Notes:

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

Parapet concrete shall be paid for as Concrete Superstructure.

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

Approach footing concrete shall be paid for as Concrete Structures.

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

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet S-4.

** *Drill and set #5 d5(E) bars according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened and scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6". Contractor shall take all necessary precautions to prevent drilled hole interference with slab reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in slab.*

*** *Cost included with Concrete Superstructure (Approach Slab).*

exp.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB CROSS SECTION
STRUCTURE NO. 099-0123
SHEET S-15 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	227
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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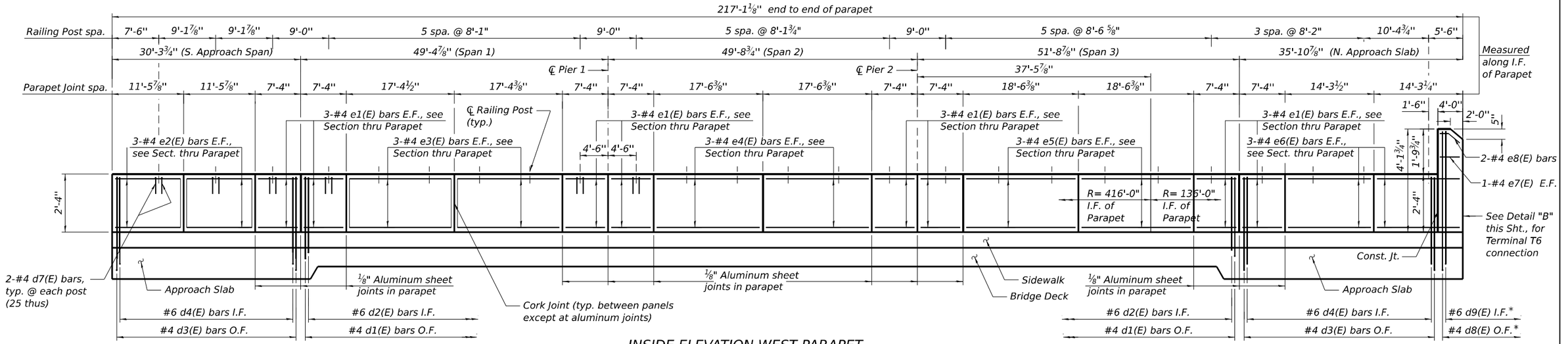
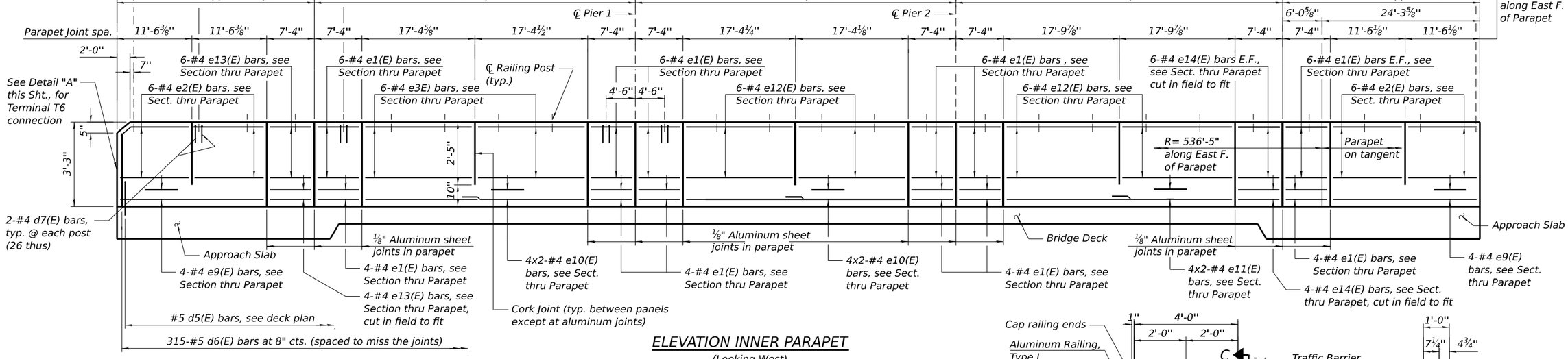


INSIDE ELEVATION WEST PARAPET

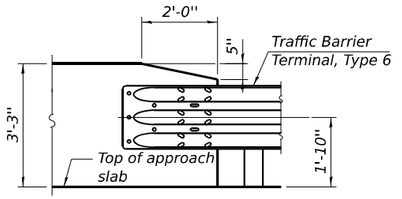
(Looking West)

* Cut bars in field to fit.



ELEVATION INNER PARAPET

(Looking West)



DETAIL "A"

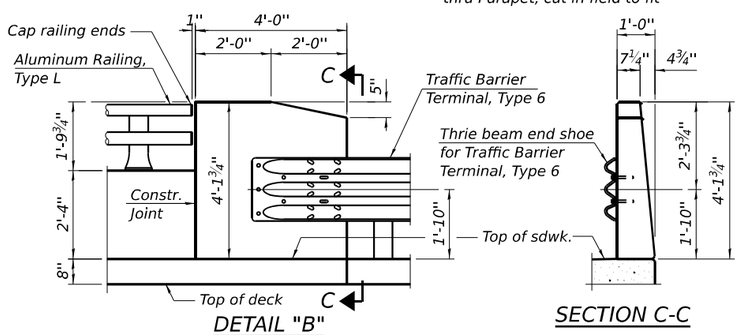
(Looking East)

MINIMUM BAR LAP

#4 bar = 2'-5"

NOTES:

1. Bars indicated thus 4x2-#4 etc. indicates 4 lines of bars with 2 lengths per line.
2. For Sections thru Parapets, see Sht. S-14.
3. For bar list and superstructure details, see Sht. S-19.



DETAIL "B"

(Looking West)

SECTION C-C

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATIONS
STRUCTURE NO. 099-0123
SHEET S-16 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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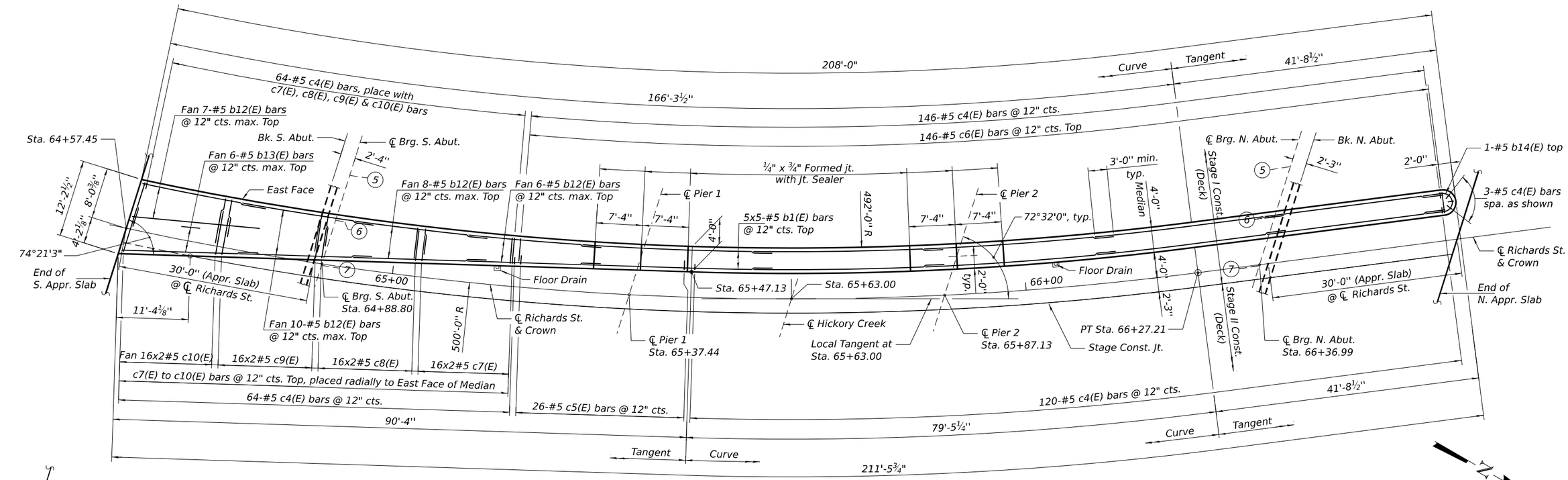
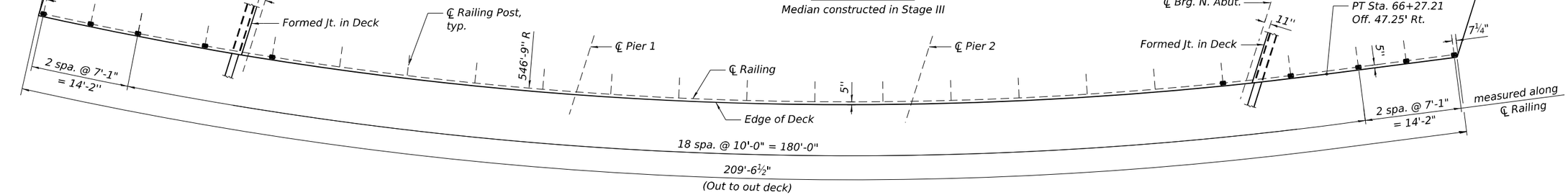
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	



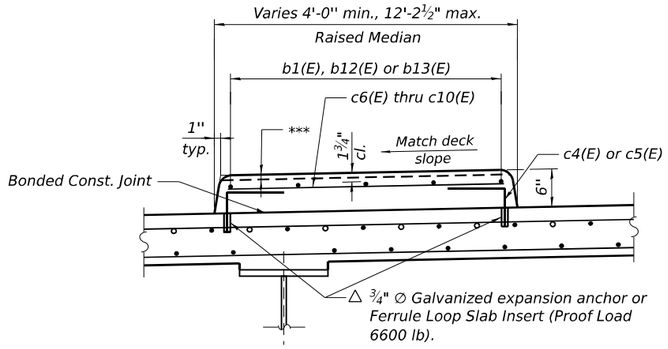
MEDIAN PLAN

Median constructed in Stage III



BICYCLE RAILING PLAN

For Railing details, see Shts. S-23 & S-24.



SECTION THRU MEDIAN

△ *The cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated.*

*** *1/4" x 3/4" Formed joint with Bridge Relief Joint Sealer (full width along joint - backer rod not required) at Piers and either side.*

NOTES:

1. *Bars indicated thus 5x2-#4 etc. indicates 5 lines of bars with 2 lengths per line.*
2. *For bar list and superstructure details, see Sht. S-19.*

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	PLOT SCALE =	DRAWN - HBJ	REVISED -		
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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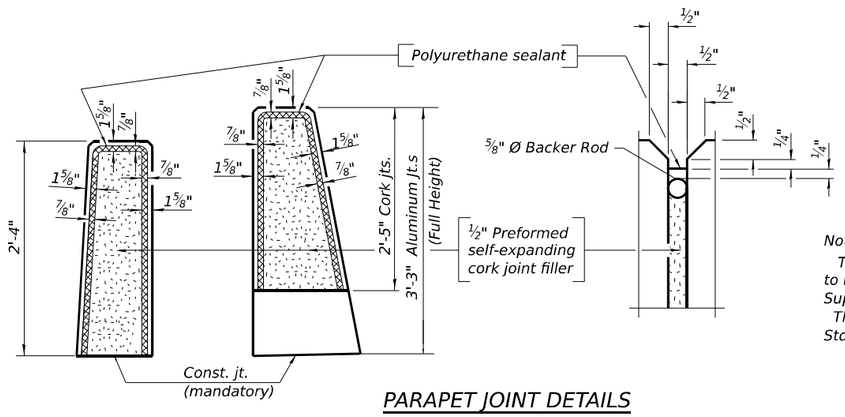
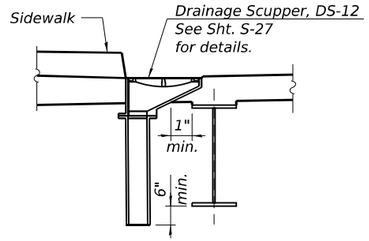
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

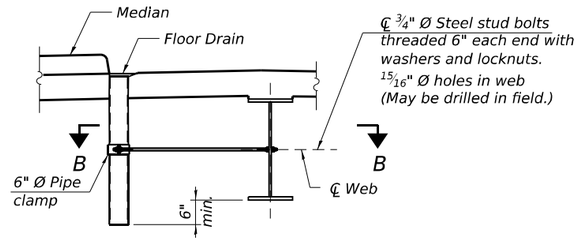


PARAPET JOINT DETAILS

Notes:
The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.



SECTION A-A



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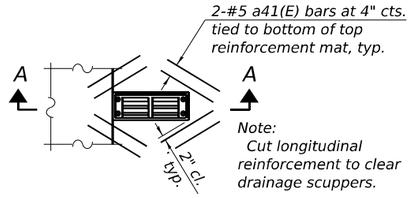
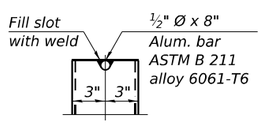


Note:
Cut longitudinal reinforcement to clear drainage scuppers.

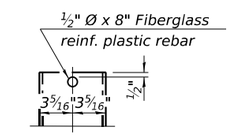
PLAN

(Scupper along sidewalk - shown
Scupper along parapet - similar)

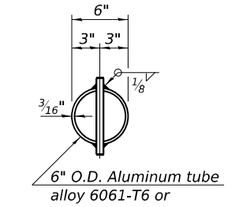
Notes:
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the floor drains shall be pigmented or painted to match the color of the adjacent beam.
The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.
The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.



ALUMINUM TUBE

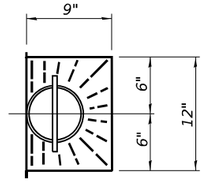


FIBERGLASS PIPE

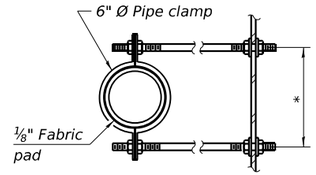


TOP PLAN

(Showing aluminum tube)



TOP PLAN



SECTION B-B

*Dimension as required by pipe clamp

MODEL: DEFAULT
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1/25/2024

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE & BRIDGE APPROACH SLAB DETAILS 1 STRUCTURE NO. 099-0123
		CHECKED - CCE	REVISED -		
	PLOT SCALE =	DRAWN - HBJ	REVISED -		SHEET S-18 OF S-50 SHEETS
	PLOT DATE =	CHECKED - CCE	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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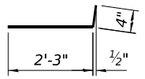
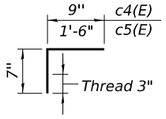
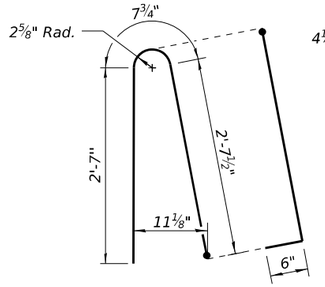
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



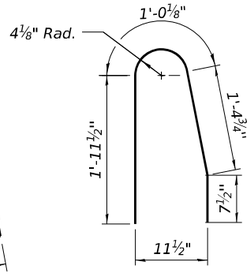
BAR a38(E)



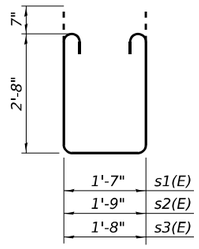
BARS c4(E) & c5(E)



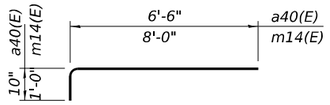
BAR d6(E)



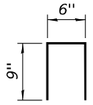
BAR d5(E)



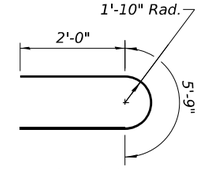
BARS s1(E), s2(E) & s3(E)



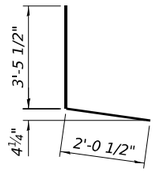
BARS a40(E) & m14(E)



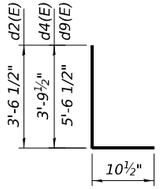
BAR d7(E)



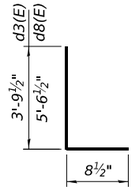
BAR b14(E)



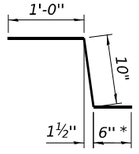
BAR d1(E)



BARS d2(E), d4(E) & d9(E)

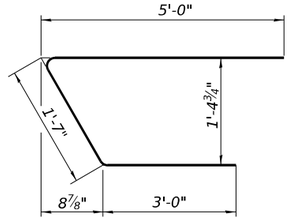


BARS d3(E) & d8(E)

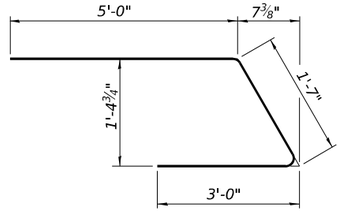


BAR c1(E)

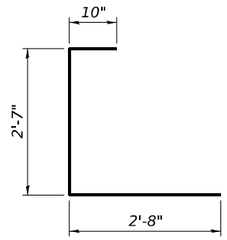
* *In lieu of bottom leg, c1(E) bars may be drilled and set according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened and scored per manufacturer's recommendations. Maximum depth of the hole shall not exceed 6".*



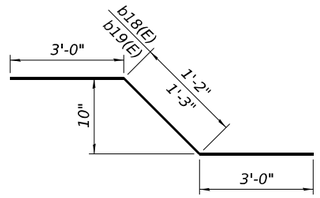
BAR m10(E)



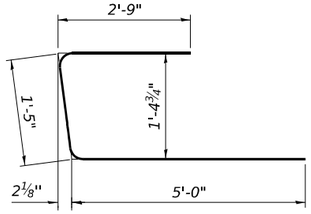
BAR m12(E)



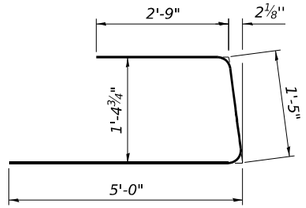
BAR m13(E)



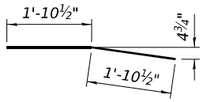
BARS b18(E) & b19(E)



BAR m9(E)



BAR m11(E)



BAR e8(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	97	#5	29'-0"	
a2(E)	95	#5	28'-0"	
a3(E)	94	#5	29'-3"	
a4(E)	97	#5	23'-6"	
a5(E)	95	#5	24'-0"	
a6(E)	94	#5	24'-9"	
a7(E)	181	#5	25'-0"	
a8(E)	95	#5	26'-0"	
a9(E)	94	#5	27'-0"	
a10(E)	98	#5	24'-6"	
a11(E)	95	#5	25'-3"	
a12(E)	94	#5	25'-9"	
a13(E)	97	#6	22'-8"	
a14(E)	95	#6	21'-0"	
a15(E)	94	#6	21'-8"	
a16(E)	97	#6	30'-0"	
a17(E)	192	#6	31'-0"	
a18(E)	94	#6	32'-6"	
a19(E)	97	#6	18'-7"	
a20(E)	95	#6	19'-0"	
a21(E)	94	#6	19'-9"	
a22(E)	95	#6	32'-0"	
a23(E)	94	#6	33'-0"	
a24(E)	287	#6	7'-4"	
a25(E)	234	#8	36'-0"	
a26(E)	61	#8	19'-0"	
a27(E)	61	#8	14'-0"	
a28(E)	18	#8	21'-8"	
a29(E)	18	#8	25'-0"	
a30(E)	19	#8	29'-8"	
a31(E)	56	#8	18'-0"	
a32(E)	92	#5	26'-9"	
a33(E)	92	#5	24'-3"	
a34(E)	84	#5	26'-3"	
a35(E)	14	#5	9'-8"	
a36(E)	14	#5	13'-0"	
a37(E)	14	#5	17'-7"	
a38(E)	278	#5	2'-7"	
a39(E)	286	#6	7'-4"	
a40(E)	86	#5	7'-4"	
a41(E)	128	#5	2'-0"	
b1(E)	655	#5	30'-0"	
b2(E)	223	#5	14'-6"	
b3(E)	186	#6	38'-0"	
b4(E)	10	#5	28'-0"	
b5(E)	447	#9	32'-0"	
b6(E)	7	#9	29'-6"	
b7(E)	7	#9	16'-0"	
b8(E)	7	#9	7'-4"	
b9(E)	375	#6	19'-3"	
b10(E)	7	#6	17'-6"	
b11(E)	6	#6	8'-6"	
b12(E)	31	#5	21'-0"	
b13(E)	6	#5	22'-0"	
b14(E)	1	#5	9'-9"	
b15(E)	370	#8	38'-0"	
b16(E)	380	#5	33'-0"	
b17(E)	6	#8	25'-0"	
b18(E)	114	#5	7'-0"	
b19(E)	109	#5	7'-10"	
c1(E)	216	#5	2'-4"	
c2(E)	216	#5	8'-8"	
c3(E)	6	#5	6'-6"	
c4(E)	397	#5	1'-4"	
c5(E)	26	#5	2'-1"	
c6(E)	146	#5	3'-8"	

Bar	No.	Size	Length	Shape
c7(E)	32	#5	4'-3"	
c8(E)	32	#5	5'-0"	
c9(E)	32	#5	6'-2"	
c10(E)	32	#5	7'-6"	
d1(E)	152	#4	5'-6"	
d2(E)	152	#6	4'-5"	
d3(E)	62	#4	4'-6"	
d4(E)	62	#6	4'-8"	
d5(E)	315	#5	5'-0"	
d6(E)	315	#5	6'-5"	
d7(E)	102	#4	2'-0"	
d8(E)	5	#4	6'-3"	
d9(E)	5	#6	6'-5"	
e1(E)	84	#4	7'-0"	
e2(E)	36	#4	11'-2"	
e3(E)	24	#4	17'-0"	
e4(E)	12	#4	17'-2"	
e5(E)	12	#4	18'-2"	
e6(E)	12	#4	14'-0"	
e7(E)	2	#4	3'-8"	
e8(E)	2	#4	3'-9"	
e9(E)	8	#4	22'-9"	
e10(E)	16	#4	18'-6"	
e11(E)	8	#4	19'-0"	
e12(E)	12	#4	17'-6"	
e13(E)	10	#4	7'-2"	
e14(E)	10	#4	7'-7"	
m1(E)	16	#6	27'-3"	
m2(E)	8	#6	27'-9"	
m3(E)	8	#6	25'-3"	
m4(E)	104	#6	5'-0"	
m5(E)	44	#6	7'-2"	
m6(E)	20	#6	7'-11"	
m7(E)	20	#6	7'-9"	
m8(E)	4	#6	3'-5"	
m9(E)	4	#6	9'-2"	
m10(E)	4	#6	9'-8"	
m11(E)	4	#6	9'-2"	
m12(E)	4	#6	9'-7"	
m13(E)	8	#5	6'-1"	
m14(E)	16	#6	9'-0"	
s1(E)	193	#5	8'-1"	
s2(E)	91	#5	8'-3"	
s3(E)	93	#5	8'-2"	
t1(E)	194	#4	9'-8"	
t2(E)	198	#4	10'-8"	
t3(E)	8	#4	8'-3"	
w1(E)	80	#5	27'-0"	
w2(E)	40	#5	31'-7"	
w3(E)	40	#5	33'-3"	
w4(E)	80	#5	24'-3"	
w5(E)	80	#5	26'-4"	

Item	Unit	Quantity
Concrete Structures	Cu Yd	63.6
Concrete Superstructure	Cu Yd	499.8
Concrete Superstructure (Approach Slab)	Cu Yd	266.0
Reinforcement Bars, Epoxy Coated	Pound	308,550

MODEL: DEFAULT
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1/25/2024

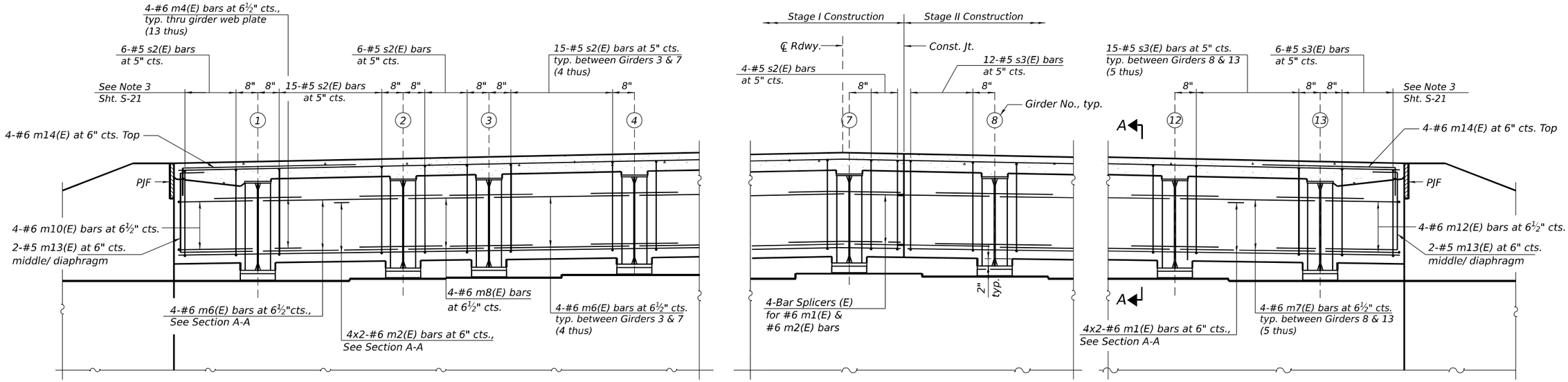
USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - CCE	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - CCE	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

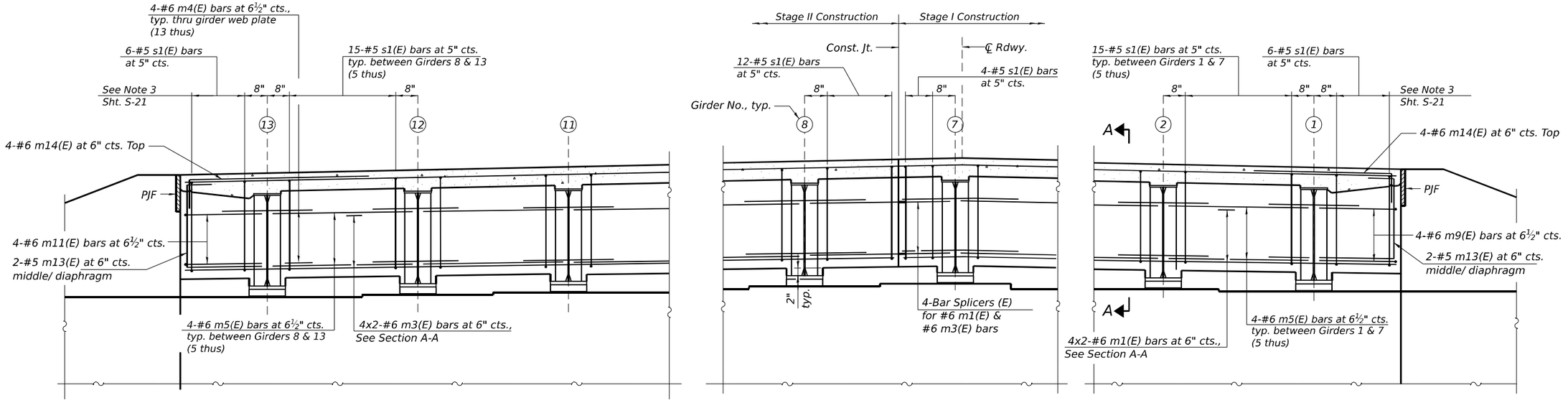
SUPERSTRUCTURE & BRIDGE APPROACH SLAB DETAILS 2
STRUCTURE NO. 099-0123

SHEET S-19 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	231
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	



DIAPHRAGM AT NORTH ABUTMENT



DIAPHRAGM AT SOUTH ABUTMENT

Note:
For Section A-A, see sheet S-21.

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1/25/2024

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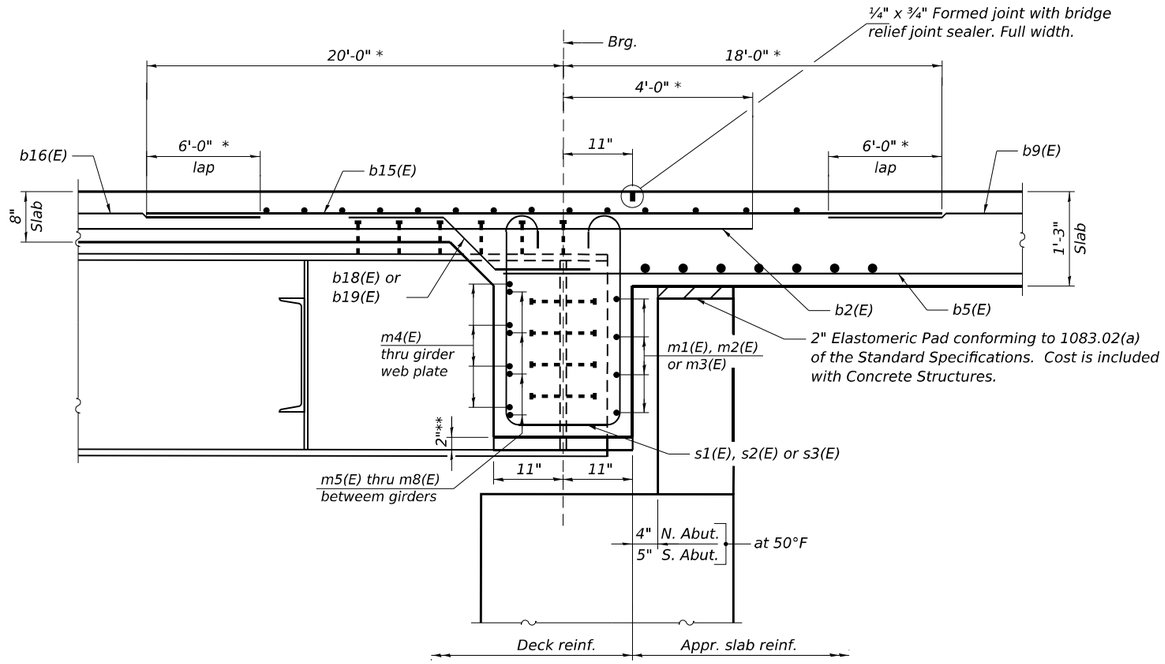
		CHECKED - BAR	REVISED -	
	PLOT SCALE =	DRAWN - HBJ	REVISED -	
	PLOT DATE =	CHECKED - BAR	REVISED -	

ABUTMENT DIAPHRAGM DETAILS 1
STRUCTURE NO. 099-0123
SHEET S-20 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	232
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

* Measured along ℄ Bridge
** See Sht. S-20 for details.



SECTION A-A
(at Rt. ∠ to diaphragm)

Notes:
1. See sheet S-19 for Bill of Material.
2. The s1(E), s2(E) and s3(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

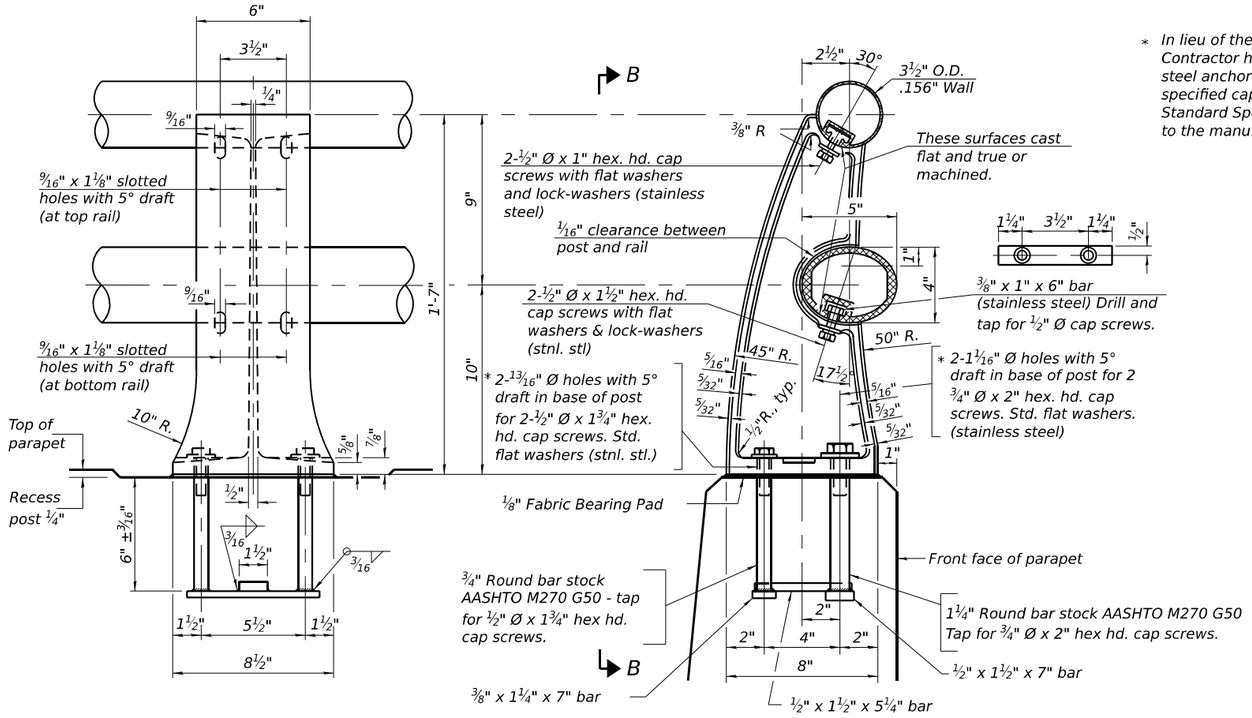
MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-011\DMS0987\0990123-62380-021-ABUTDIAPH2.DGN
1/25/2024

USER NAME =	DESIGNED - CCE	REVISED -	
	CHECKED - BAR	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

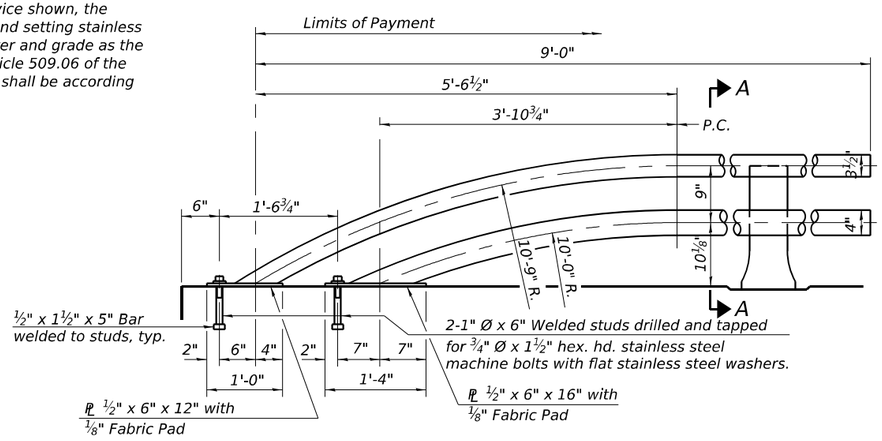
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

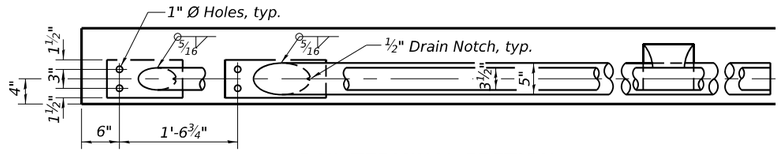
ABUTMENT DIAPHRAGM DETAILS 2
STRUCTURE NO. 099-0123
SHEET S-21 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	233
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	



* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.*





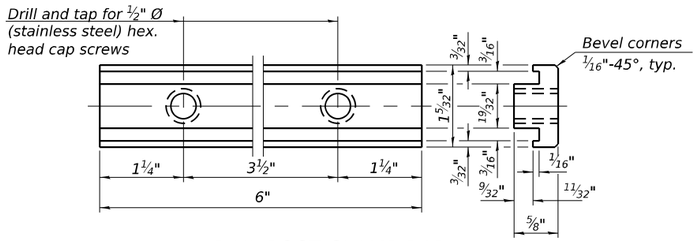
RAIL TERMINAL SECTION

Note: The end rail post shall be set back as required for the terminal rail section.

VIEW B-B

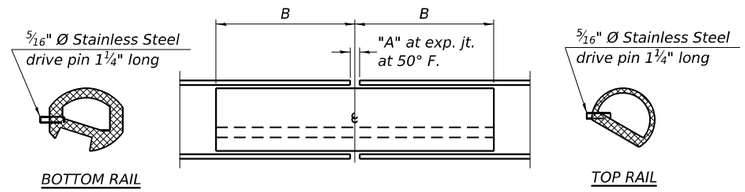
SECTION A-A

RAIL POST DETAILS



RAIL POST CLAMP BAR

For Top Rail



RAIL SPLICE

SPLICE DIMENSIONS

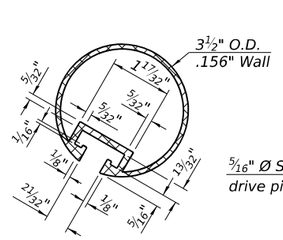
Location	T	A	B
All locs. not over exp. jts.	0	⅜"	1'-2"
Over Strip Seal Jt.	≤4"	2½"	1'-2"
Over Finger or Modular Jt.	≤9½"	5½"	1'-7¾"
Over Finger or Modular Jt.	≤15"	8¼"	2'-1¼"

T = ; total movement along centerline of roadway at expansion joint.

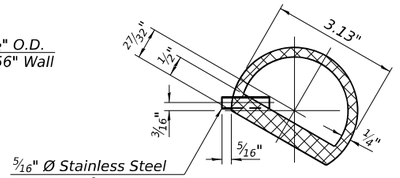
RAILING CRITERIA

NCHRP 350 Test Level	4
Post Spacing Range	7'-0" - 10'-0"
Rail Weight (plf)	40

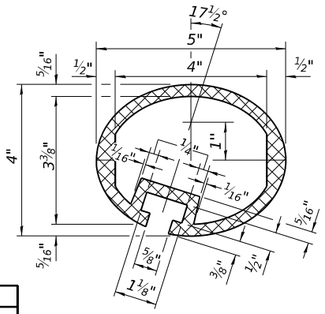
R-20 10-12-2021



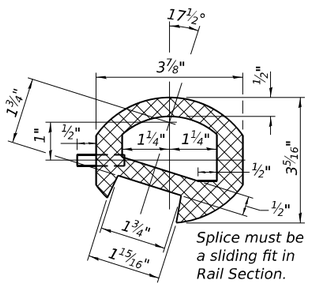
SECTION THRU TOP RAIL



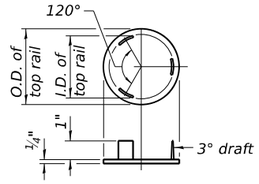
SECTION THRU TOP RAIL SPLICE



SECTION THRU BOTTOM RAIL

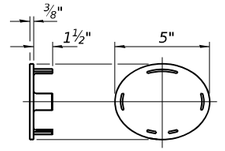


SECTION THRU BOTTOM RAIL SPLICE



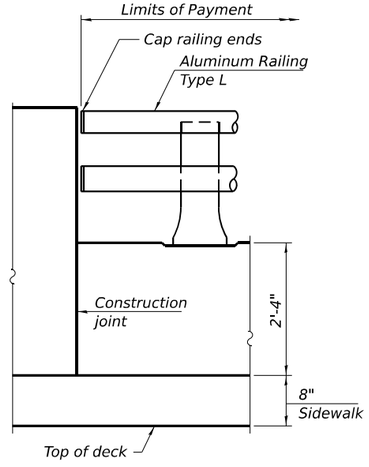
CAST END CAP

For top rail Drive Fit Type



CAST END CAP

For bottom rail Drive Fit Type



RAIL END TREATMENT FOR TYPE 5 AND 6 TERMINAL

Notes:

All Posts shall be normal to parapet.

All joints in rail shall be spliced per detail.

All exposed rail ends shall be capped per detail.

Provide 1-⅛" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade, high spots shall be ground and low spots shimmed.

Place reinforcement bars to miss anchor rod locations.

See sheet S-16 for rail post spacing.

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	Foot	216

MODEL: DEFAULT
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1/25/2024

USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALUMINUM RAILING, TYPE L STRUCTURE NO. 099-0123
	CHECKED - VCP	REVISED -		
PLOT SCALE =	DRAWN - HBJ	REVISED -		
PLOT DATE =	CHECKED - BAR	REVISED -		SHEET S-22 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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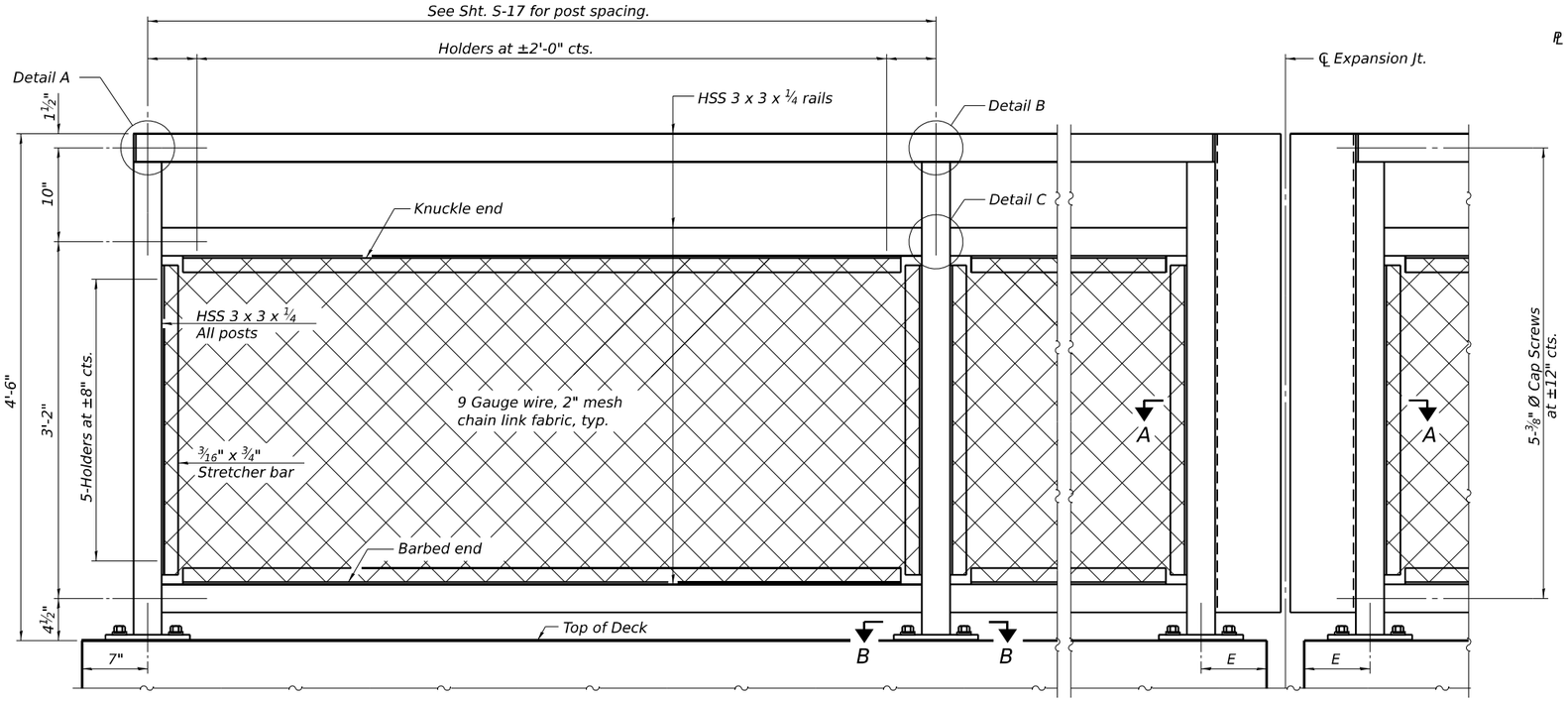
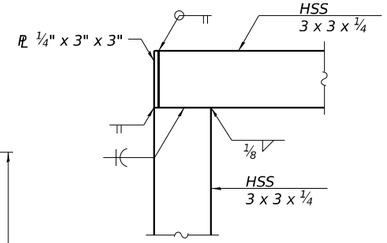
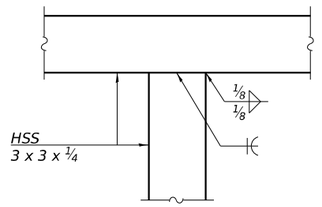
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	



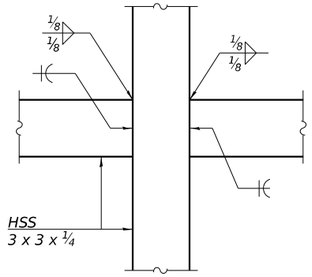
ELEVATION BICYCLE RAILING
(Inside face)



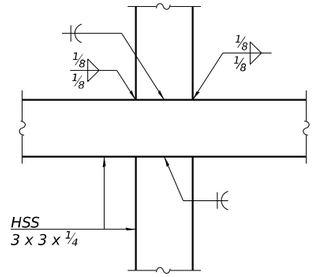
DETAIL A



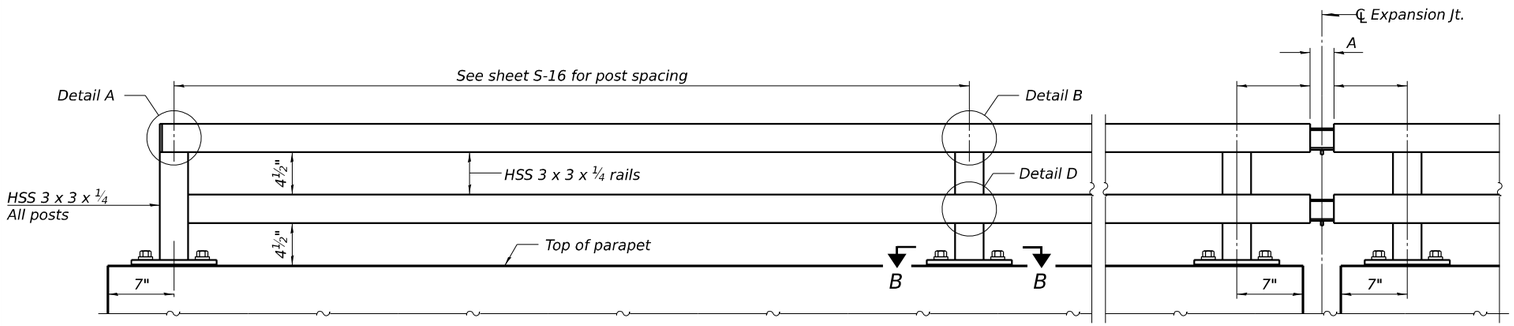
DETAIL B



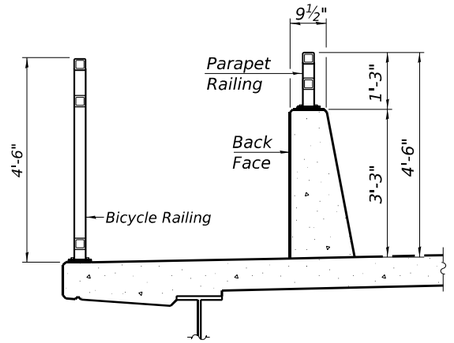
DETAIL C



DETAIL D



ELEVATION PARAPET RAILING
(Inside face)



SECTION THRU DECK

RAILING CRITERIA

MASH 2016 Test Level	4
Parapet Railing Weight (plf)	25
Bicycle Railing Weight (plf)	50
Max Post Spacing	10'-0"

R-29 9-1-2022

MODEL: DEFAULT
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1/25/2024

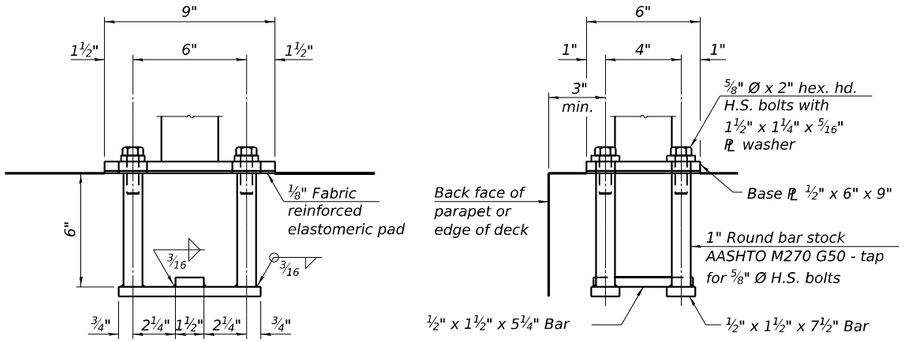
exp.

USER NAME =		DESIGNED - BAR	REVISED -		
		CHECKED - VCP	REVISED -		
PLOT SCALE =		DRAWN - HBJ	REVISED -		
PLOT DATE =		CHECKED - BAR	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING & PARAPET RAILING 1
STRUCTURE NO. 099-0123
SHEET S-23 OF S-50 SHEETS

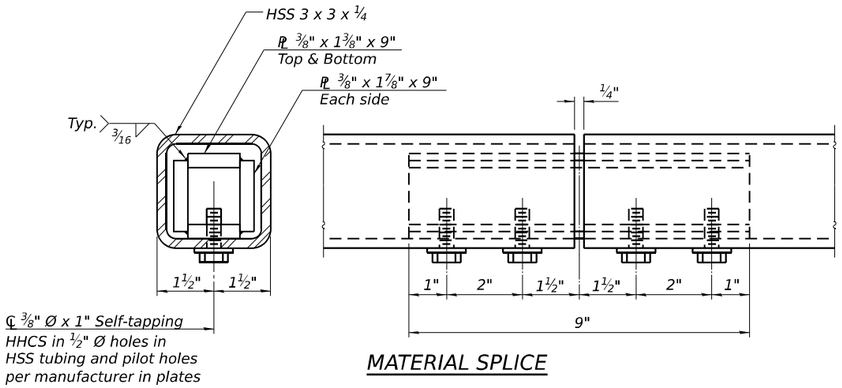
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	235
		CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			



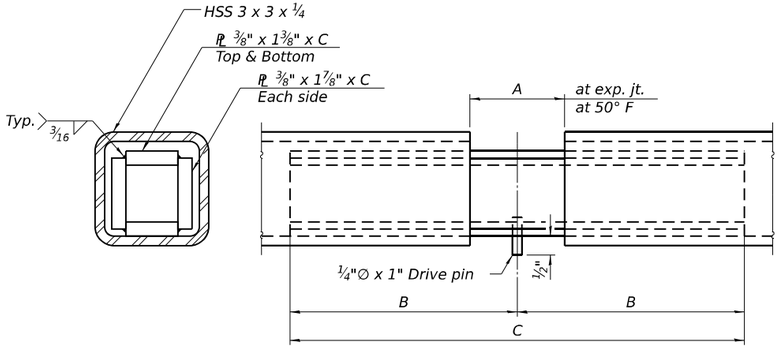
ANCHORAGE ASSEMBLY

The Bicycle Railing fasteners for end posts near expansion joints may need to be installed prior to installing the bent plates.

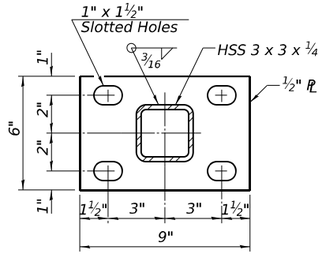
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" Ø fully threaded anchor rods with the same plate washers as specified above and heavy hex lock nuts according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



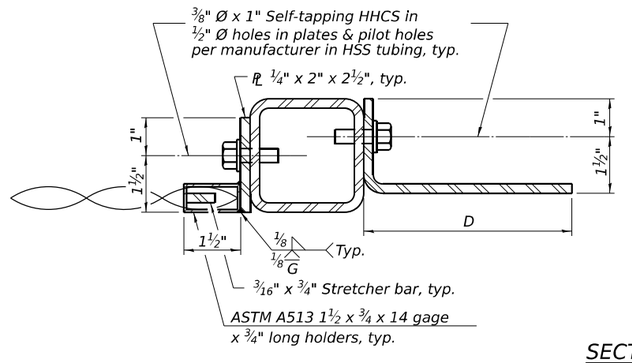
MATERIAL SPLICE

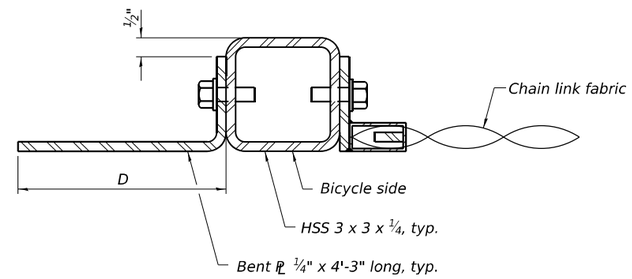


EXPANSION SPLICE



SECTION B-B





SECTION A-A

TABLE OF DIMENSIONS

Location	T	A	B	C	D	E
Over Strip Seal Jt.	≤4"	2½"	1'-2"	2'-4"	7¼"	7"
Over Finger or Modular Jt.	≤9½"	5½"	1'-7¾"	3'-3½"		
Over Finger or Modular Jt.	≤15"	8¼"	2'-1¼"	4'-2½"		

T= ; total movement based on total temperature range from -20°F to 120°F along centerline of roadway at expansion joint.

Notes:

Place reinforcement bars to miss anchor rod locations.

CVN testing is not required for the HSS tubing used in the Bicycle Railing.

All HSS tubing used for the Parapet Railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

All HSS tubing used for the Parapet Railing shall be ASTM A500 grade C.

All base plates used for the Paraper Railing shall be AASHTO M270 grade 50.

All heavy hex nuts shall be according to ASTM A 563 grade DH.

All fully threaded anchor rods shall be ASTM F1554 grade 105.

The post base plate shall be fastened to the curb snug tight and given an additional ⅛" turn.

Rail splice inserts may be built out of bent plates of the same thicknesses and outside geometry limits as the 4 plate rail splice inserts shown.

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

See Sheet 25 of 50 for dimensions of concrete openings at expansion joints.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	210
Parapet Railing	Foot	210

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9-1-2022

(Sheet 2 of 2)

USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	BICYCLE RAILING & PARAPET RAILING 2 STRUCTURE NO. 099-0123
PLOT DATE =	CHECKED - BAR	REVISED -	SHEET S-24 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	236
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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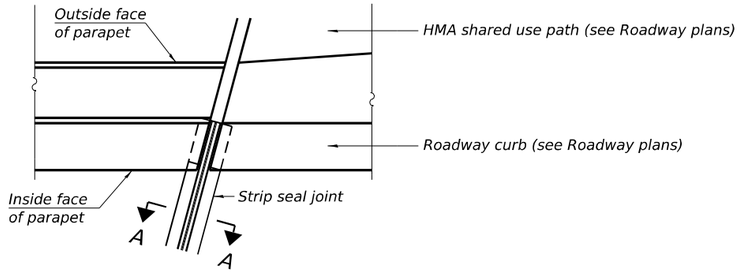
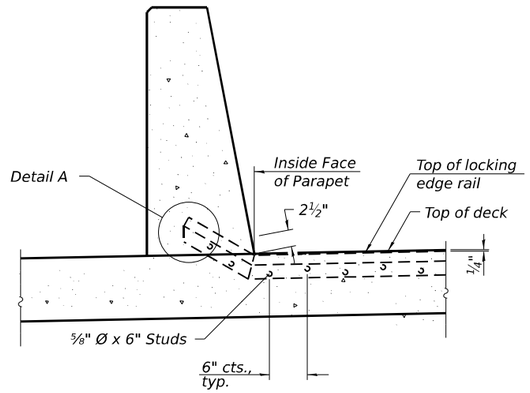
1/25/2024

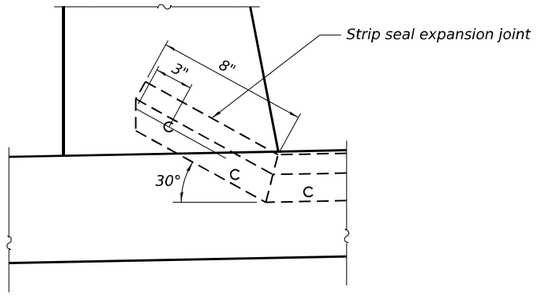


PLAN AT PARAPET

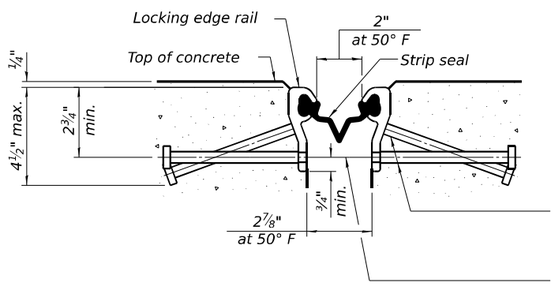


SECTION AT PARAPET

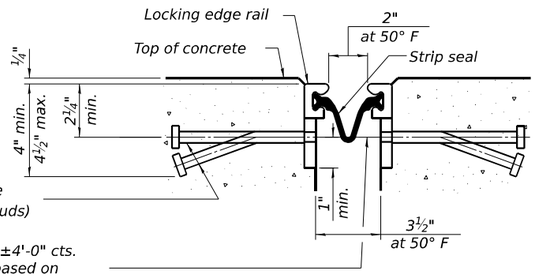
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL A



SHOWING ROLLED RAIL JOINT



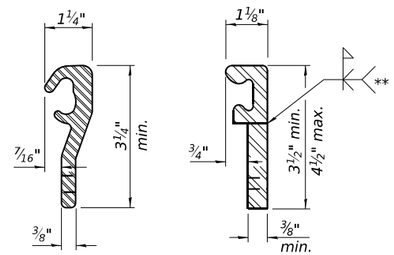
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in $^{7}/_{16}$" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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



ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

*** Back gouge not required if complete joint penetration is verified by mock-up.*

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	180

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.

Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

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1/25/2024

exp.

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	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL - SIDEWALK 1
STRUCTURE NO. 099-0123

SHEET S-25 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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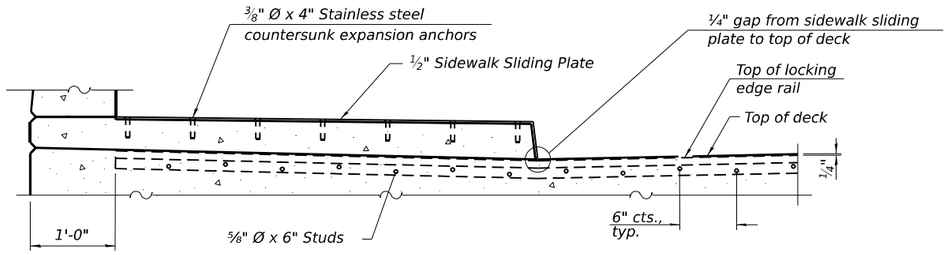
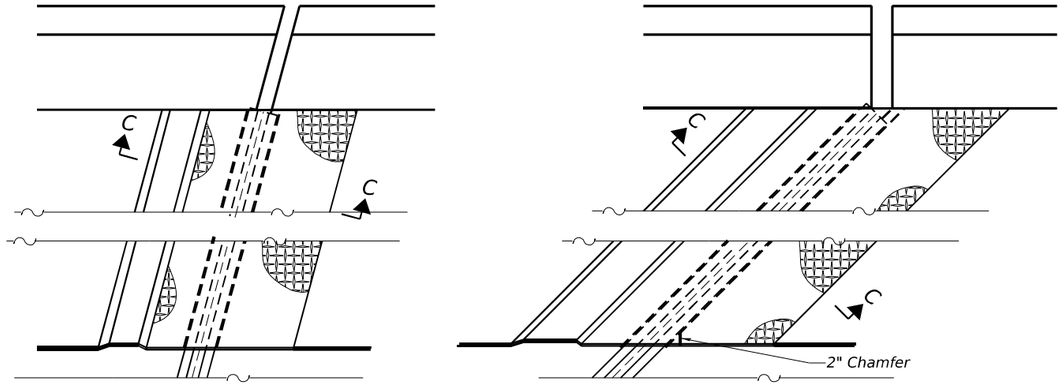
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



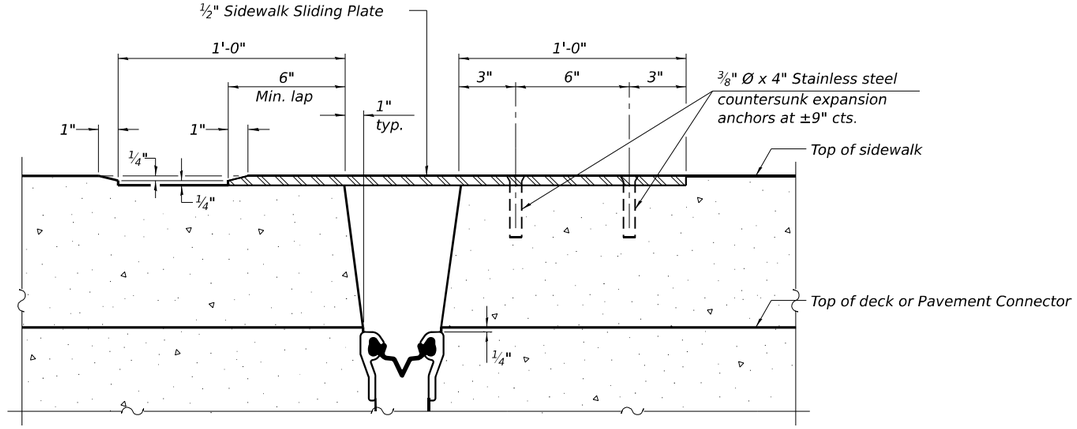
SECTION AT RAISED SIDEWALK



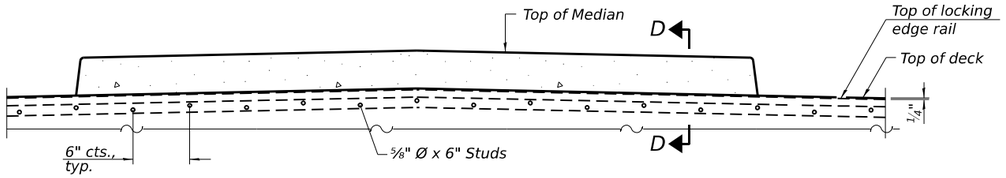
(FOR SKEWS ≤ 30°)

(FOR SKEWS > 30°)

PLAN AT RAISED SIDEWALK

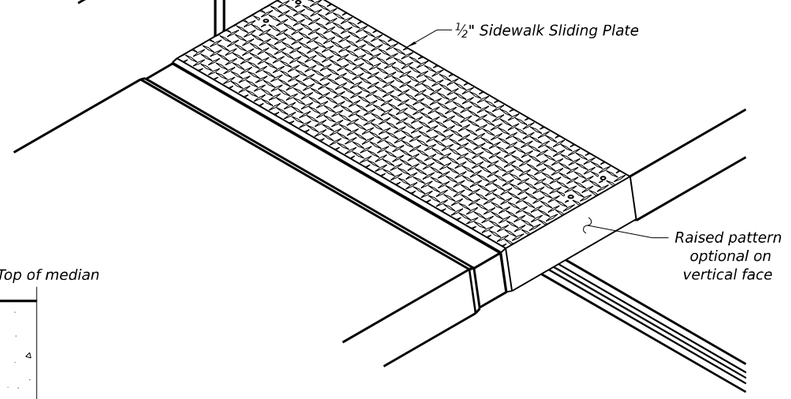


SECTION C-C

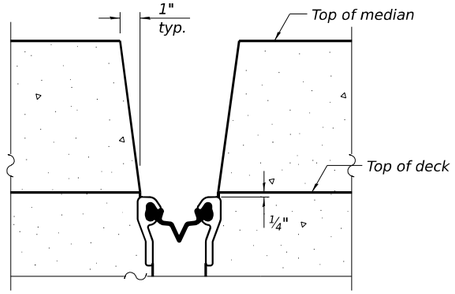


SECTION AT MEDIAN

For skews > 30°, chamfer acute corners 2" similar to sidewalk.



TRIMETRIC VIEW



SECTION D-D

(at Rt. ∠'s)

(Sheet 2 of 2)

exp.	USER NAME =	DESIGNED - BAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PREFORMED JOINT STRIP SEAL - SIDEWALK 2 STRUCTURE NO. 099-0123
		CHECKED - VCP	REVISED -		
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	PLOT DATE =	CHECKED - BAR	REVISED -		SHEET S-26 OF S-50 SHEETS

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

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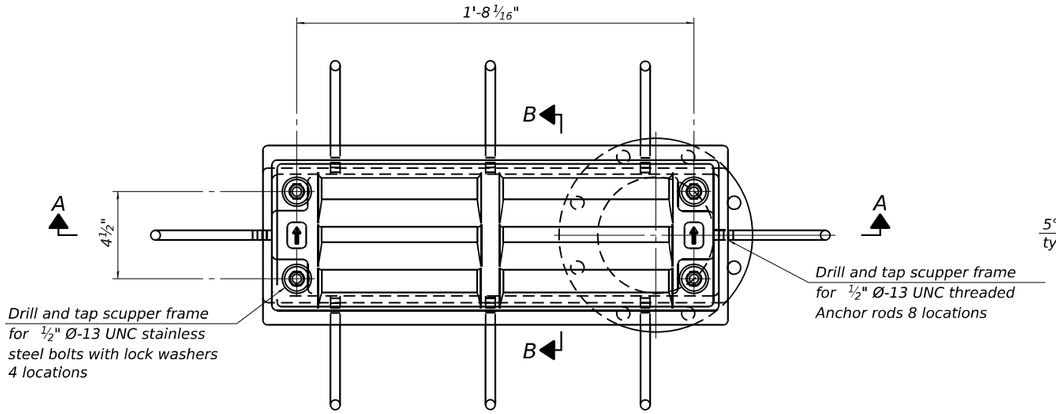
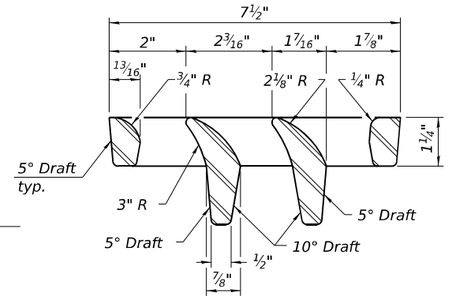
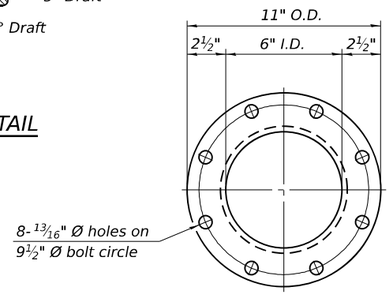
1/25/2024



PLAN



VANE GRATE DETAIL



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.

Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.

Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

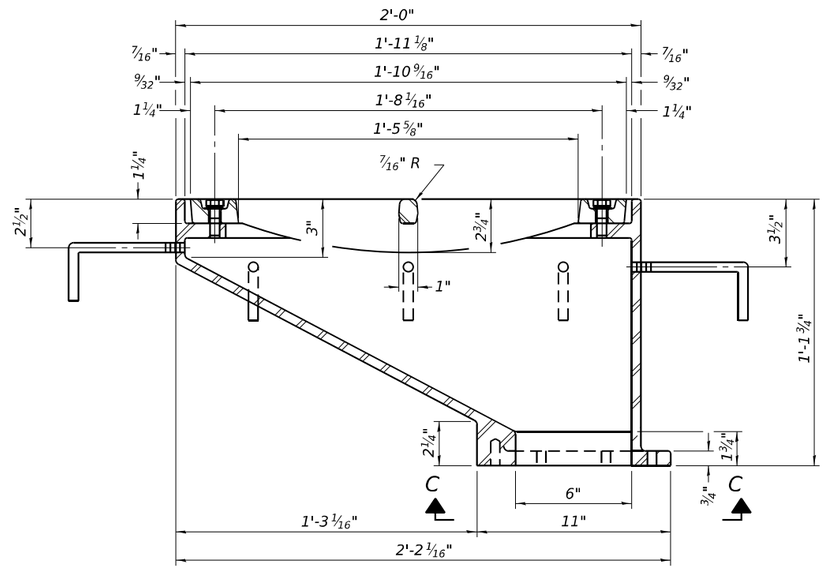
Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.

Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be pigmented or painted to match the color of the adjacent beam.

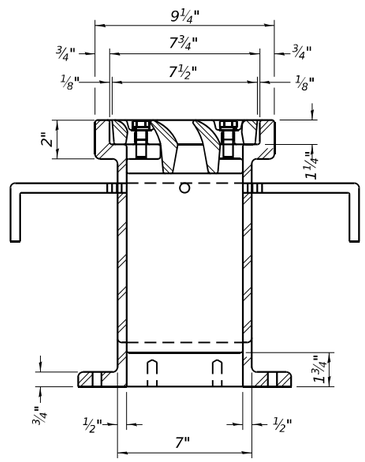
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper, DS-12.

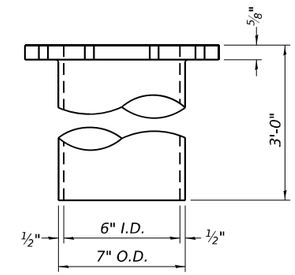


SECTION A-A

See sheet S-18 for scupper location relative to parapet.



SECTION B-B



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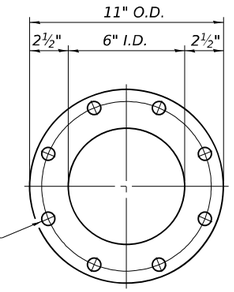

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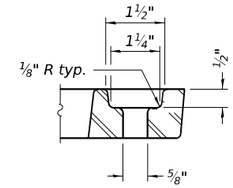
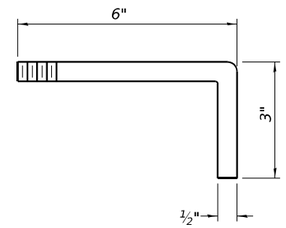


GRATE BOLT HOLE DETAIL



ANCHOR ROD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-12	Each	11

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - VCP	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-12
STRUCTURE NO. 099-0123
SHEET S-27 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	239
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS\09879\099012\3-62380-027-DS12.DGN

1/25/2024

FRAMING PLAN

NOTES

1. Span lengths and field section lengths are measured along centerline of girders. See Sheet S-29 for table of dimensions.
2. Diaphragm spacing is measured along centerline of girders. See Sheet S-29 for table of dimensions. Dimensions are measured to centerline of diaphragm connection plate.
3. For curved girder layout coordinates X and Y, see Sheet S-30.
4. For girder spacing measured along centerline of bearing, see Sheet S-30.
5. Diaphragms between Girders 1 and 3 are oriented radial to Girder 1, typical. Diaphragms between Girders 3 and 13 are oriented radial to Girder 13, typical. All diaphragms at Piers 1 and 2 are oriented parallel to centerline of pier.
6. For Detail 1, see Sheet S-30.
7. All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
8. The Contractor shall either:
   a. Ream diaphragm and/or cross frame connection holes during shop assembly, or
   b. Provide detailing and fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08(I) of the Standard Specifications.
9. All structural steel shall be AASHTO M270 Grade 50.

MODEL: DEFAULT
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1/25/2024

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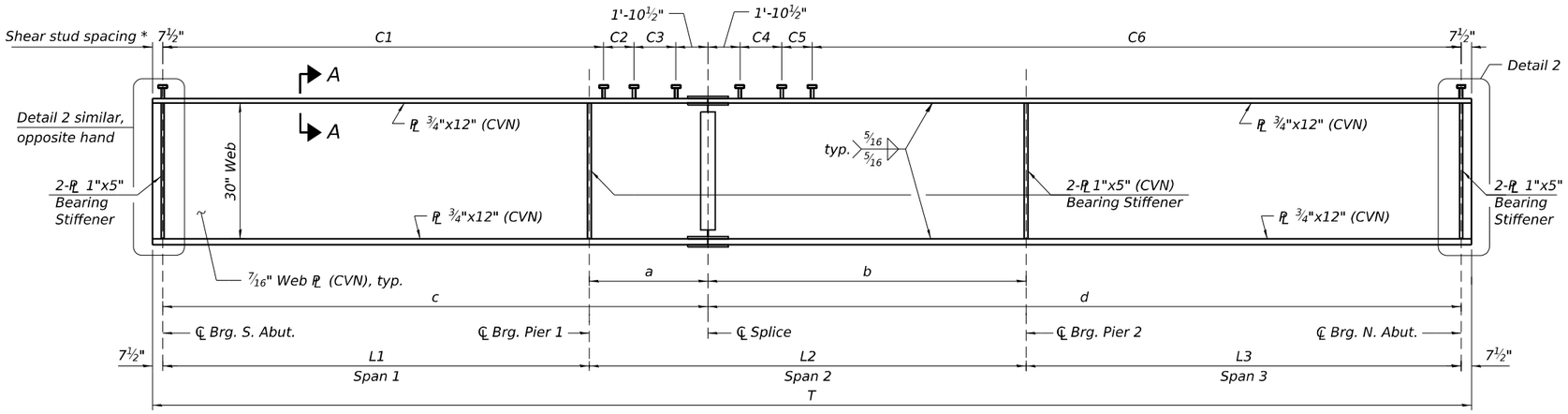
		CHECKED - BAR	REVISED -
	PLOT SCALE =	DRAWN - HBJ	REVISED -
	PLOT DATE =	CHECKED - BAR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 099-0123
SHEET S-28 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	240
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



GIRDER ELEVATION

* *Shear stud spacing measured along centerline of girder to centerline of middle stud in each row. See Section A-A, Section E-E, and Note 4.*

GIRDER DIMENSIONS

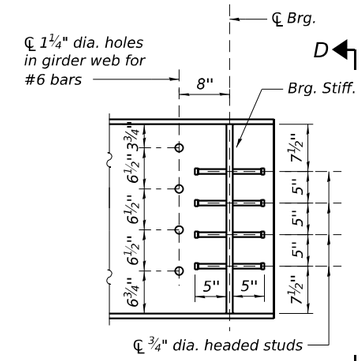
Girder No.	Radius	L1	L2	L3	T	a	b	c	d
1	418'-0"	48'-5 11/16"	49'-8 1/2"	50'-4 7/16"	149'-9 9/16"	13'-5 7/16"	36'-3"	61'-11 1/8"	86'-7 7/16"
2	425'-4"	48'-5 5/16"	49'-7 7/16"	50'-2 5/16"	149'-6 1/16"	13'-5 1/4"	36'-2 3/16"	61'-10 9/16"	86'-4 1/2"
3	470'-11"	48'-9 3/8"	50'-0 1/16"	50'-5 15/16"	150'-6 5/16"	13'-6 1/2"	36'-5 1/2"	62'-3 7/8"	86'-11 7/16"
4	478'-3"	48'-8 15/16"	49'-11"	50'-4"	150'-2 15/16"	13'-6 5/16"	36'-4 11/16"	62'-3 1/4"	86'-8 11/16"
5	485'-7"	48'-8 1/2"	49'-10"	50'-2 1/8"	149'-11 11/16"	13'-6 1/8"	36'-3 15/16"	62'-2 5/8"	86'-6 1/16"
6	492'-11"	48'-8 1/8"	49'-9 1/8"	50'-0 7/16"	149'-8 5/8"	13'-5 15/16"	36'-3 3/16"	62'-2"	86'-3 9/16"
7	500'-3"	48'-7 11/16"	49'-8 3/16"	49'-10 3/4"	149'-5 11/16"	13'-5 3/4"	36'-2 1/2"	62'-1 7/16"	86'-1 1/4"
8	507'-7"	48'-7 5/16"	49'-7 3/8"	49'-9 3/16"	149'-2 7/8"	13'-5 9/16"	36'-1 13/16"	62'-0 7/8"	85'-11"
9	514'-11"	48'-7"	49'-6 9/16"	49'-7 11/16"	149'-0 1/4"	13'-5 3/8"	36'-1 3/16"	62'-0 3/8"	85'-8 7/8"
10	522'-3"	48'-6 5/8"	49'-5 13/16"	49'-6 5/16"	148'-9 3/4"	13'-5 1/4"	36'-0 9/16"	61'-11 7/8"	85'-6 13/16"
11	529'-7"	48'-6 5/16"	49'-5 1/16"	49'-4 15/16"	148'-7 5/16"	13'-5 1/16"	35'-11 15/16"	61'-11 7/16"	85'-4 7/8"
12	536'-11"	48'-6"	49'-4 3/8"	49'-3 11/16"	148'-5"	13'-4 15/16"	35'-11 7/16"	61'-10 15/16"	85'-3 1/16"
13	544'-3"	48'-5 3/4"	49'-3 11/16"	49'-2 7/16"	148'-2 13/16"	13'-4 13/16"	35'-10 7/8"	61'-10 1/2"	85'-1 5/16"

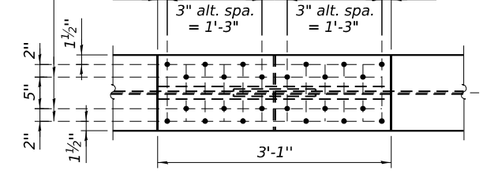
DIAPHRAGM SPACING

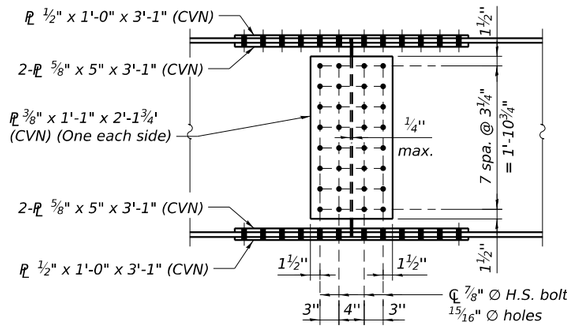
Girder No.	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12
1	-	-	-	-	-	-	-	-	-	-	-	-
2	4'-2 7/16"	19'-4 3/16"	15'-5 1/4"	9'-5 7/16"	10'-3 7/16"	15'-5 5/16"	15'-7 3/8"	8'-3 3/8"	12'-2 9/16"	16'-5 9/16"	18'-1 9/16"	3'-4 9/16"
3	4'-2 7/16"	19'-4 13/16"	15'-5 5/8"	9'-8 1/2"	10'-0 11/16"	15'-5 3/8"	15'-7 5/16"	8'-10 11/16"	11'-6 15/16"	16'-5 1/16"	18'-0 3/4"	4'-5 1/4"
4	4'-4 5/16"	19'-5 3/8"	15'-6 5/16"	9'-4 15/16"	10'-5 1/4"	15'-6 1/4"	15'-8 5/16"	8'-3 3/16"	12'-3 11/16"	16'-6 1/16"	18'-1 3/4"	3'-4 9/16"
5	4'-4 3/16"	19'-5 3/16"	15'-6 1/8"	9'-5"	10'-4 7/8"	15'-6"	15'-7 15/16"	8'-3 1/4"	12'-3"	16'-5 7/16"	18'-0 15/16"	3'-4 3/4"
6	4'-4"	19'-5 1/16"	15'-5 15/16"	9'-5 1/16"	10'-4 9/16"	15'-5 11/16"	15'-7 9/16"	8'-3 1/4"	12'-2 7/16"	16'-4 7/8"	18'-0 3/16"	3'-4 15/16"
7	4'-3 7/8"	19'-4 7/8"	15'-5 13/16"	9'-5 1/8"	10'-4 1/4"	15'-5 7/16"	15'-7 1/4"	8'-3 5/16"	12'-1 13/16"	16'-4 3/8"	17'-11 1/2"	3'-5 1/16"
8	4'-3 3/4"	19'-4 3/4"	15'-5 5/8"	9'-5 3/16"	10'-3 15/16"	15'-5 3/16"	15'-6 15/16"	8'-3 3/8"	12'-1 1/4"	16'-3 7/8"	17'-10 13/16"	3'-5 1/4"
9	4'-3 5/8"	19'-4 5/8"	15'-5 1/2"	9'-5 1/4"	10'-3 5/8"	15'-4 15/16"	15'-6 5/8"	8'-3 3/8"	12'-0 3/4"	16'-3 3/8"	17'-10 3/16"	3'-5 7/16"
10	4'-3 1/2"	19'-4 1/2"	15'-5 3/8"	9'-5 1/4"	10'-3 5/16"	15'-4 11/16"	15'-6 5/16"	8'-3 7/16"	12'-0 1/4"	16'-2 7/8"	17'-9 9/16"	3'-5 9/16"
11	4'-3 7/16"	19'-4 3/8"	15'-5 3/16"	9'-5 5/16"	10'-3 1/16"	15'-4 7/16"	15'-6 1/16"	8'-3 1/2"	11'-11 3/4"	16'-2 7/16"	17'-9"	3'-5 3/4"
12	4'-3 5/16"	19'-4 1/4"	15'-5 1/16"	9'-5 3/8"	10'-2 13/16"	15'-4 1/4"	15'-5 13/16"	8'-3 1/2"	11'-11 1/4"	16'-2 1/16"	17'-8 7/16"	3'-5 7/8"
13	4'-3 3/16"	19'-4 1/8"	15'-4 15/16"	9'-5 7/16"	10'-2 1/2"	15'-4 1/16"	15'-5 9/16"	8'-3 9/16"	11'-10 13/16"	16'-1 5/8"	17'-7 15/16"	3'-6 1/16"

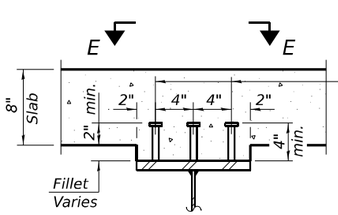
SHEAR STUDS

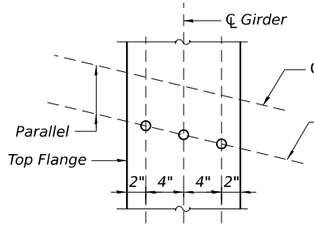
Girder No.	C1	C2	C3	C4	C5	C6
1	97 Spa. @ 7" = 56'-7"	5 5/8"	8 Spa. @ 4 1/2" = 3'-0"	7 Spa. @ 4 1/2" = 2'-7 1/2"	5 7/16"	140 Spa. @ 7" = 81'-8"
2	97 Spa. @ 7" = 56'-7"	5 1/16"	8 Spa. @ 4 1/2" = 3'-0"	8 Spa. @ 4 1/2" = 3'-0"	5"	139 Spa. @ 7" = 81'-1"
3	97 Spa. @ 7" = 56'-7"	5 7/8"	9 Spa. @ 4 1/2" = 3'-4 1/2"	8 Spa. @ 4 1/2" = 3'-0"	4 15/16"	140 Spa. @ 7" = 81'-8"
4	97 Spa. @ 7" = 56'-7"	5 1/4"	9 Spa. @ 4 1/2" = 3'-4 1/2"	7 Spa. @ 4 1/2" = 2'-7 1/2"	6 11/16"	140 Spa. @ 7" = 81'-8"
5	98 Spa. @ 7" = 57'-2"	6 5/8"	7 Spa. @ 4 1/2" = 2'-7 1/2"	8 Spa. @ 4 1/2" = 3'-0"	6 9/16"	139 Spa. @ 7" = 81'-1"
6	98 Spa. @ 7" = 57'-2"	6"	7 Spa. @ 4 1/2" = 2'-7 1/2"	9 Spa. @ 4 1/2" = 3'-4 1/2"	6 9/16"	138 Spa. @ 7" = 80'-6"
7	98 Spa. @ 7" = 57'-2"	5 7/16"	7 Spa. @ 4 1/2" = 2'-7 1/2"	7 Spa. @ 4 1/2" = 2'-7 1/2"	6 1/4"	139 Spa. @ 7" = 81'-1"
8	98 Spa. @ 7" = 57'-2"	4 7/8"	7 Spa. @ 4 1/2" = 2'-7 1/2"	8 Spa. @ 4 1/2" = 3'-0"	6 1/2"	138 Spa. @ 7" = 80'-6"
9	97 Spa. @ 7" = 56'-7"	6 7/8"	8 Spa. @ 4 1/2" = 3'-0"	9 Spa. @ 4 1/2" = 3'-4 1/2"	6 7/8"	137 Spa. @ 7" = 79'-11"
10	97 Spa. @ 7" = 56'-7"	6 3/8"	8 Spa. @ 4 1/2" = 3'-0"	7 Spa. @ 4 1/2" = 2'-7 1/2"	6 13/16"	138 Spa. @ 7" = 80'-6"
11	97 Spa. @ 7" = 56'-7"	5 15/16"	8 Spa. @ 4 1/2" = 3'-0"	7 Spa. @ 4 1/2" = 2'-7 1/2"	4 7/8"	138 Spa. @ 7" = 80'-6"
12	97 Spa. @ 7" = 56'-7"	5 7/16"	8 Spa. @ 4 1/2" = 3'-0"	8 Spa. @ 4 1/2" = 3'-0"	5 9/16"	137 Spa. @ 7" = 79'-11"
13	97 Spa. @ 7" = 56'-7"	5"	8 Spa. @ 4 1/2" = 3'-0"	9 Spa. @ 4 1/2" = 3'-4 1/2"	6 5/16"	136 Spa. @ 7" = 79'-4"











NOTES

1. *All structural steel shall be AASHTO M270 Grade 50.*
2. *"CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.*
3. *Diaphragm connection plates not shown. For locations and details, see Sheets S-28, S-30 and S-31.*
4. *Do not place shear studs on splice plates. Maintain minimum distance of 2½" from end of splice plate to centerline of stud.*

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1/25/2024

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	CHECKED - BAR	REVISED -		SHEET S-29 OF S-50 SHEETS
PLOT SCALE =	DRAWN - HBJ	REVISED -		
PLOT DATE =	CHECKED - BAR	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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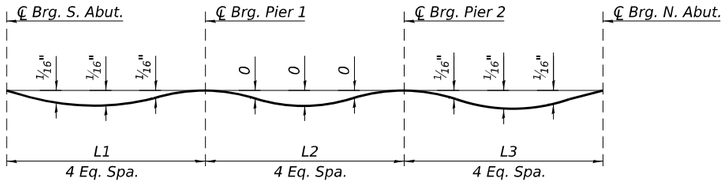
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



DEAD LOAD DEFLECTION - STEEL SELF WEIGHT

(Includes weight of structural steel only.)

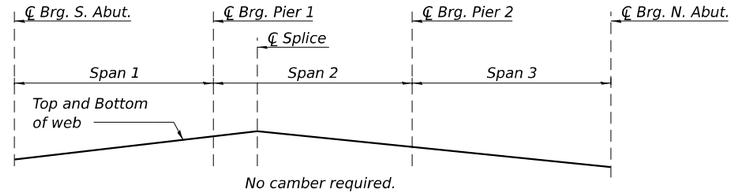
Notes:

1. The calculated deflections of the primary girders under steel self-weight shall be used to detail the diaphragm, cross frame and lateral bracing connections, and to erect the structural steel such that the girders will be plumb within a tolerance of ± 1/8" per vertical ft. throughout when supporting their own weight.
2. For span lenghts, see Sht. S-29.

GIRDER SPACING

(Measured along centerline of bearing)

Girders	℄ Brg. S. Abut.	℄ Brg. Pier 1	℄ Brg. Pier 2	℄ Brg. N. Abut.
1-2	7'-4 3/4"	7'-6 5/8"	7'-10 1/16"	8'-3 3/16"
2-3	7'-4 5/16"	5'-7 3/4"	4'-4 9/16"	3'-7 5/8"
3-4	7'-5 3/16"	7'-7 1/4"	7'-10 1/2"	8'-3 3/16"
4-5	7'-5 3/16"	7'-7 1/8"	7'-10 1/4"	8'-2 3/4"
5-6	7'-5 1/8"	7'-7 1/16"	7'-10 1/16"	8'-2 3/8"
6-7	7'-5 1/8"	7'-6 15/16"	7'-9 7/8"	8'-2"
7-8	7'-5 1/16"	7'-6 7/8"	7'-9 11/16"	8'-1 11/16"
8-9	7'-5 1/16"	7'-6 3/4"	7'-9 1/2"	8'-1 3/8"
9-10	7'-5"	7'-6 11/16"	7'-9 5/16"	8'-1 1/16"
10-11	7'-5"	7'-6 5/8"	7'-9 3/16"	8'-0 3/4"
11-12	7'-4 15/16"	7'-6 9/16"	7'-9"	8'-0 1/2"
12-13	7'-4 15/16"	7'-6 1/2"	7'-8 7/8"	8'-0 1/4"



CAMBER DIAGRAM

TOP OF WEB ELEVATIONS

(For fabrication use only)

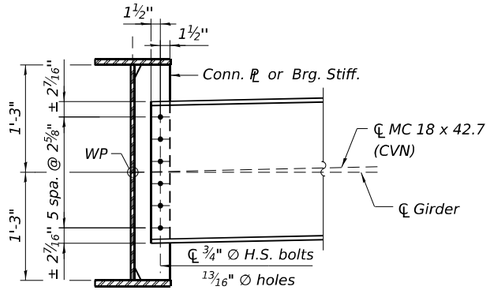
Girder No.	℄ Brg. S. Abut.	℄ Brg. Pier 1	℄ Splice	℄ Brg. Pier 2	℄ Brg. N. Abut.
1	535.85	535.92	535.93	535.81	535.64
2	535.99	536.06	536.08	535.97	535.81
3	536.13	536.17	536.18	536.06	535.88
4	536.27	536.32	536.33	536.21	536.05
5	536.41	536.47	536.48	536.37	536.22
6	536.56	536.61	536.63	536.53	536.39
7	536.69	536.75	536.76	536.68	536.55
8	536.54	536.60	536.62	536.54	536.42
9	536.39	536.45	536.47	536.40	536.29
10	536.24	536.31	536.32	536.26	536.17
11	536.09	536.16	536.18	536.12	536.04
12	535.94	536.01	536.03	535.98	535.90
13	535.78	535.86	535.88	535.83	535.77

NOTES

1. All structural steel shall be AASHTO M270 Grade 50.
2. "CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.
3. For girder spacing and diaphragm layout, see framing plan on Sheet S-28.

CURVED GIRDER LAYOUT COORDINATES

Girder No.	℄ Brg. S. Abut.		℄ Brg. Pier 1		℄ Splice		℄ Brg. Pier 2		℄ Brg. N. Abut.	
	X	Y	X	Y	X	Y	X	Y	X	Y
1	-60.66	47.68	-12.55	41.97	0.90	41.37	37.13	41.93	87.11	47.90
2	-62.87	40.62	-14.81	34.76	-1.39	34.11	34.78	34.45	84.63	40.02
3	-65.08	33.60	-16.51	29.37	-2.97	29.09	33.46	30.27	83.54	36.55
4	-67.32	26.51	-18.79	22.12	-5.27	21.78	31.10	22.76	81.06	28.67
5	-69.55	19.42	-21.07	14.87	-7.57	14.48	28.74	15.27	78.59	20.82
6	-71.78	12.34	-23.35	7.64	-9.86	7.18	26.39	7.79	76.13	13.00
7	-74.00	5.25	-25.62	0.41	-12.15	-0.10	24.04	0.33	73.68	5.21
8	-76.23	-1.83	-27.90	-6.82	-14.44	-7.38	21.70	-7.12	71.23	-2.56
9	-78.46	-8.90	-30.17	-14.03	-16.73	-14.64	19.36	-14.55	68.80	-10.30
10	-80.69	-15.98	-32.44	-21.24	-19.01	-21.90	17.02	-21.97	66.37	-18.02
11	-82.91	-23.05	-34.70	-28.45	-21.30	-29.16	14.69	-29.38	63.95	-25.71
12	-85.14	-30.12	-36.97	-35.64	-23.58	-36.40	12.37	-36.77	61.54	-33.38
13	-87.36	-37.19	-39.23	-42.83	-25.85	-43.64	10.04	-44.16	59.13	-41.03

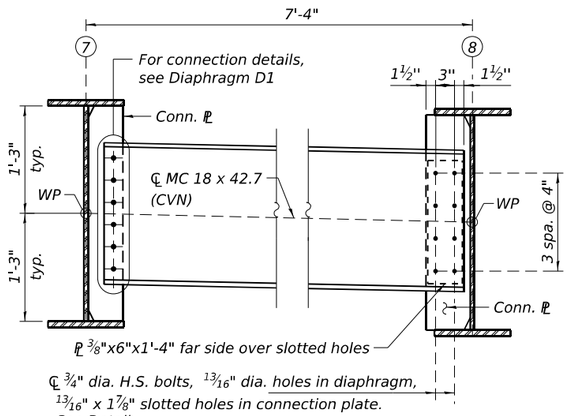


DIAPHRAGM D1 (PARTIAL)

(123 Required)

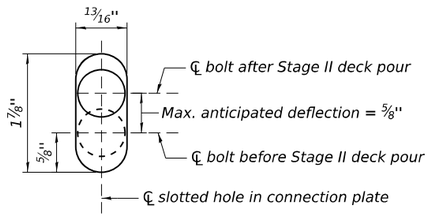
Erection Sequence for Diaphragm D2:

1. Install diaphragm before Stage II deck pour. Fully tighten bolts at Girder 7. Install bolts finger tight at Girder 8.
2. Complete Stage II deck pour.
3. Fully tighten all bolts.



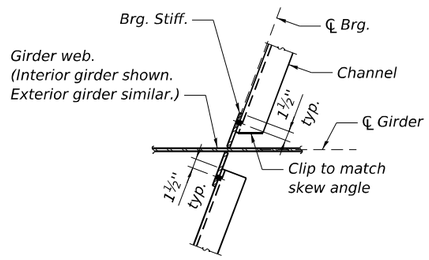
DIAPHRAGM D2

(9 Required)



SLOTTED HOLE DETAIL FOR DIAPHRAGM D2

Note:
The slotted holes shall be positioned as shown to allow vertical deflection to occur during Stage II deck pour without laterally stressing the girders.



DETAIL 1

USER NAME =	DESIGNED - CCE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - BAR	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STEEL DETAILS 2
STRUCTURE NO. 099-0123
SHEET S-30 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	242
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

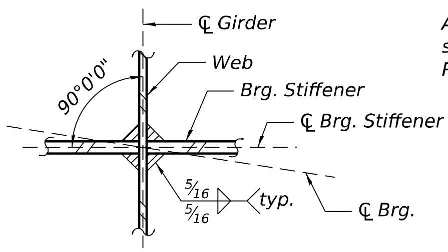
GIRDER 1 MOMENT TABLE *		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
Is	(in^4)	5240	5240	5240	5240	5240
Ic(n)	(in^4)	14795	-	14795	-	14795
Ic(3n)	(in^4)	11205	-	11205	-	11205
Ic(cr)	(in^4)	-	7478	-	7478	-
Ss	(in^3)	333	333	333	333	333
Sc(n)	(in^3)	489	-	489	-	489
Sc(3n)	(in^3)	448	-	448	-	448
Sc(cr)	(in^3)	-	389	-	389	-
Sxc	(in^3)	460	376	480	375	458
DC1	(k/')	1.039	1.039	1.039	1.039	1.039
MDC1	('k)	177	256	55	276	188
DC2	(k/')	0.430	0.430	0.430	0.430	0.430
MDC2	('k)	77	101	29	110	84
DW	(k/')	0.354	0.354	0.354	0.354	0.354
MDW	('k)	62	82	23	89	68
M_{LL+IM}	('k)	533	406	456	395	506
fℓ (Strength I)	(ksi)	6.27	3.27	5.61	3.68	0.96
Mu + ⅓ fℓ Sxc	('k)	1423	1314	1012	1346	1340
Øf Mn	('k)	-	-	-	-	-
fs DC1	(ksi)	6.38	9.23	1.98	9.95	6.78
fs DC2	(ksi)	2.06	3.12	0.78	3.39	2.25
fs DW	(ksi)	1.66	2.53	0.62	2.74	1.82
fs (LL+IM)	(ksi)	13.08	12.52	11.19	12.18	12.41
fℓ (Service II)	(ksi)	4.65	2.43	4.16	2.74	0.71
fs+fℓ/2 (Service II)	(ksi)	29.43	32.37	20.00	33.30	27.34
0.95Rh Fyf	(ksi)	47.50	47.50	47.50	47.50	47.50
fs + fℓ/3 (Total)(Strength I)	(ksi)	38.02	42.23	25.82	43.35	36.06
Øf Fn	(ksi)	50.00	50.00	50.00	50.00	50.00
Vf	(k)	21.9	27.3	21.8	37.2	19.6

GIRDER 7 MOMENT TABLE		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
Is	(in^4)	5240	5240	5240	5240	5240
Ic(n)	(in^4)	15153	-	15153	-	15153
Ic(3n)	(in^4)	11607	-	11607	-	11607
Ic(cr)	(in^4)	-	7712	-	7712	-
Ss	(in^3)	333	333	333	333	333
Sc(n)	(in^3)	493	-	493	-	493
Sc(3n)	(in^3)	453	-	453	-	453
Sc(cr)	(in^3)	-	394	-	394	-
Sxc	(in^3)	467	382	485	381	465
DC1	(k/')	0.903	0.903	0.903	0.903	0.903
MDC1	('k)	163	224	51	232	174
DC2	(k/')	0.121	0.091	0.090	0.090	0.090
MDC2	('k)	20	23	5	20	16
DW	(k/')	0.354	0.354	0.354	0.354	0.354
MDW	('k)	66	85	23	89	70
M_{LL+IM}	('k)	551	425	473	437	566
fℓ (Strength I)	(ksi)	3.87	3.57	1.65	3.35	1.47
Mu + ⅓ fℓ Sxc	('k)	1342	1218	954	1249	1352
Øf Mn	('k)	-	-	-	-	-
fs DC1	(ksi)	5.88	8.08	1.84	8.37	6.28
fs DC2	(ksi)	0.53	0.70	0.13	0.61	0.42
fs DW	(ksi)	1.75	2.59	0.61	2.71	1.85
fs (LL+IM)	(ksi)	13.41	12.95	11.51	13.31	13.77
fℓ (Service II)	(ksi)	2.88	2.67	1.22	2.50	1.09
fs+fℓ/2 (Service II)	(ksi)	27.03	29.54	18.15	30.25	27.00
0.95Rh Fyf	(ksi)	47.50	47.50	47.50	47.50	47.50
fs + fℓ/3 (Total)(Strength I)	(ksi)	35.39	38.71	24.07	39.71	35.75
Øf Fn	(ksi)	50.00	50.00	50.00	50.00	50.00
Vf	(k)	20.1	22.2	21.1	22.0	20.7

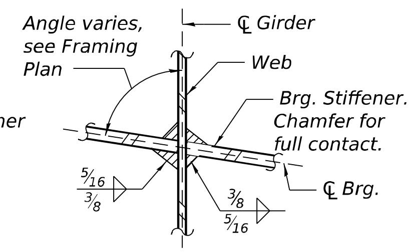
GIRDER 1 REACTION TABLE *		S. Abut.	Pier 1	Pier 2	N. Abut.
RDC1	(k)	19.33	56.29	58.02	19.84
RDC2	(k)	8.02	23.36	24.44	8.20
RDW	(k)	6.47	18.93	19.69	6.61
RLL	(k)	45.04	76.39	72.55	40.85
RIM	(k)	11.65	16.19	15.04	10.62
RTotal	(k)	90.51	191.16	189.74	86.12

GIRDER 7 REACTION TABLE		S. Abut.	Pier 1	Pier 2	N. Abut.
RDC1	(k)	17.95	48.74	49.35	18.59
RDC2	(k)	2.52	5.09	4.49	1.78
RDW	(k)	6.86	19.09	19.42	7.09
RLL	(k)	52.57	81.27	81.37	54.07
RIM	(k)	14.76	19.14	18.92	15.01
RTotal	(k)	94.66	173.33	173.55	96.54

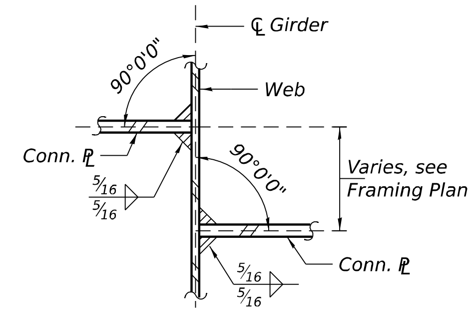
* Vehicular live load assumed to act full width of bridge, including sidewalk.



SECTION B-B AT ABUTMENTS

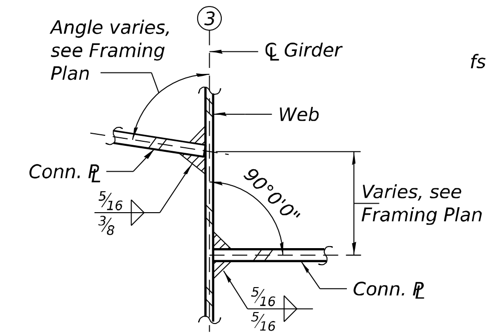


SECTION B-B AT PIERS

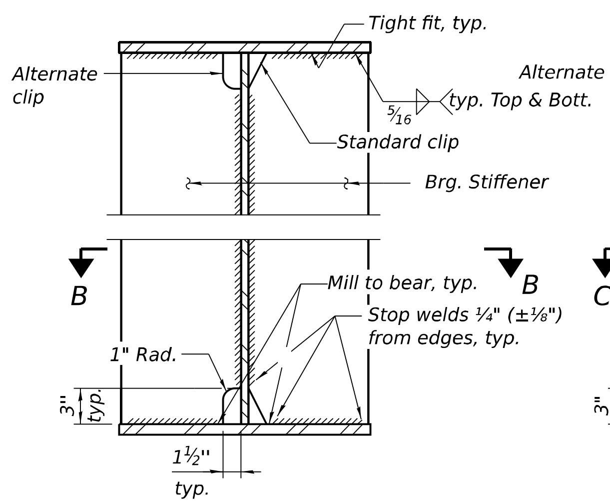


SECTION C-C AT GIRDERS 1-2 AND GIRDERS 4-13

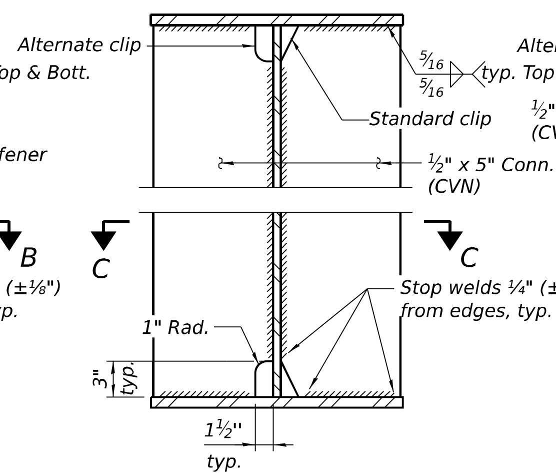
(See Note 3.)



SECTION C-C AT GIRDER 3

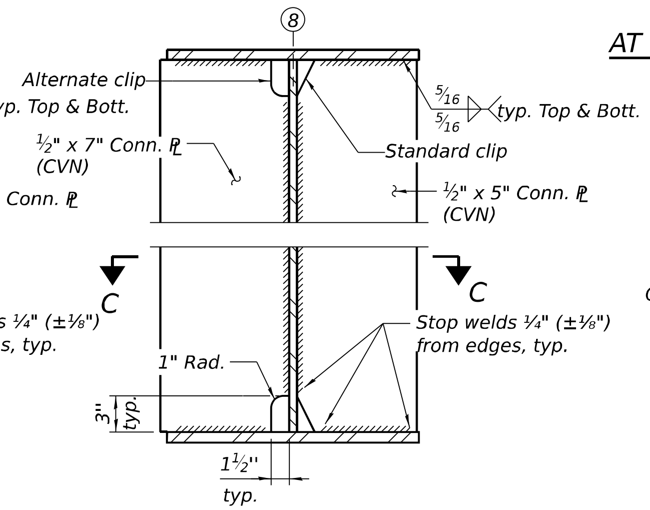


BEARING STIFFENERS



CONNECTION PLATES AT GIRDERS 1-7 AND GIRDERS 9-13

(See Note 3.)



CONNECTION PLATES AT GIRDER 8

(Looking Upstation)

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

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

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

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

Sxc: Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange ($in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

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

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

fℓ: Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending, Strength I or Service II as applicable (ksi).

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

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

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

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

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

fs + fℓ/2 (Service II): Sum of stresses as computed below (ksi).
fsDC1 + fsDC2 + fsDW + 1.3 fs(LL+IM) + fℓ/2

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

fs + fℓ/3 (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (fsDC1 + fsDC2) + 1.5 fsDW + 1.75 fs(LL+IM) + fℓ/3

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

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

Note:
M_{LL} and R_{LL} include the effects of centrifugal force and superelevation.

NOTES
1. All structural steel shall be AASHTO M270 Grade 50.
2. "CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.
3. Omit connection plates on west side of Girder 1 and east side of Girder 13.

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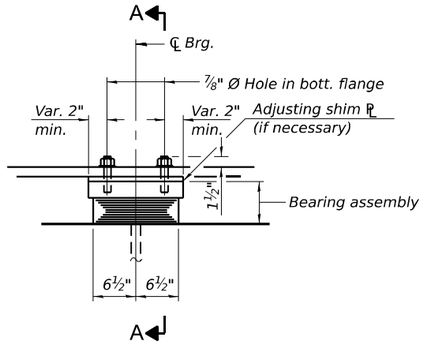
exp.

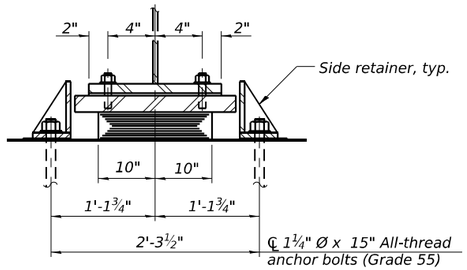
USER NAME =	DESIGNED - CCE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL DETAILS 3 STRUCTURE NO. 099-0123	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - BAR	REVISED -			354	99-4B-2-BR	WILL	320	243
PLOT SCALE =	DRAWN - HBJ	REVISED -			CONTRACT NO. 62380				
PLOT DATE =	CHECKED - BAR	REVISED -		SHEET S-31 OF S-50 SHEETS		ILLINOIS	FED. AID PROJECT		

1/25/2024

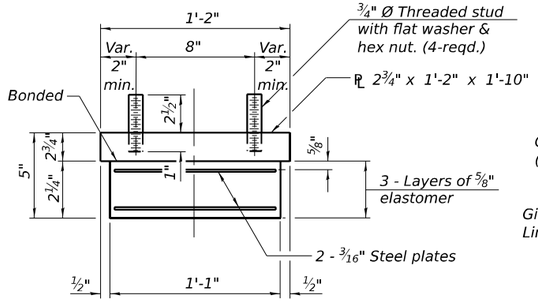


TYPE I ELASTOMERIC EXP. BRG. - PIER 2

(13 Required)

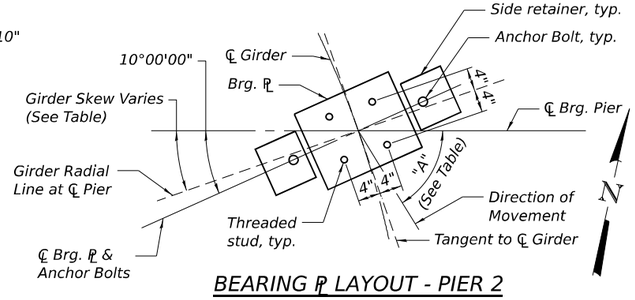


SECTION A-A



BEARING ASSEMBLY

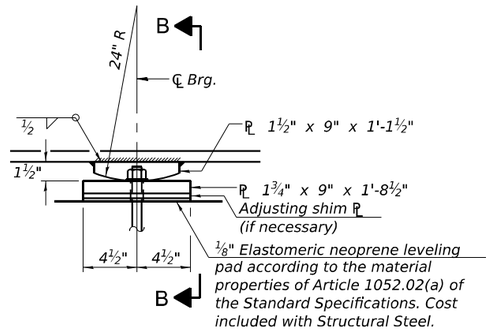
Note:
Shim plates shall not be placed under bearing assembly.



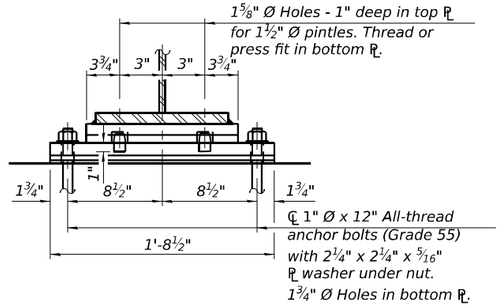
BEARING ℙ LAYOUT - PIER 2

DIRECTION OF MOVEMENT, "A"

Girder	Pier 2
1	38°37'22"
2	42°37'51"
3	45°10'34"
4	50°23'04"
5	56°29'48"
6	63°35'32"
7	71°39'30"
8	80°31'48"
9	89°51'46"
10	99°11'11"
11	108°01'57"
12	116°03'49"
13	123°07'14"



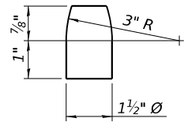
ELEVATION AT PIER



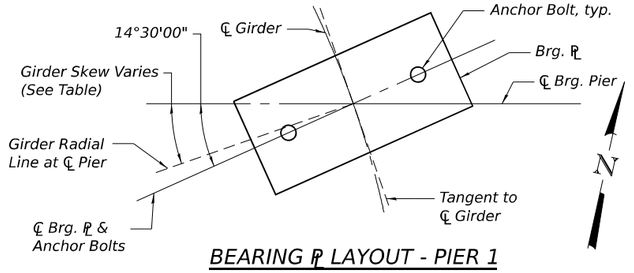
SECTION B-B

FIXED BEARING - PIER 1

(13 Required)



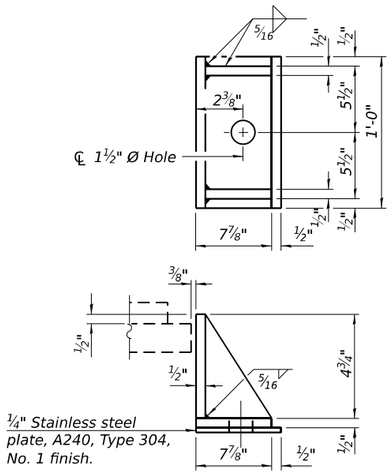
PINTLE



BEARING ℙ LAYOUT - PIER 1

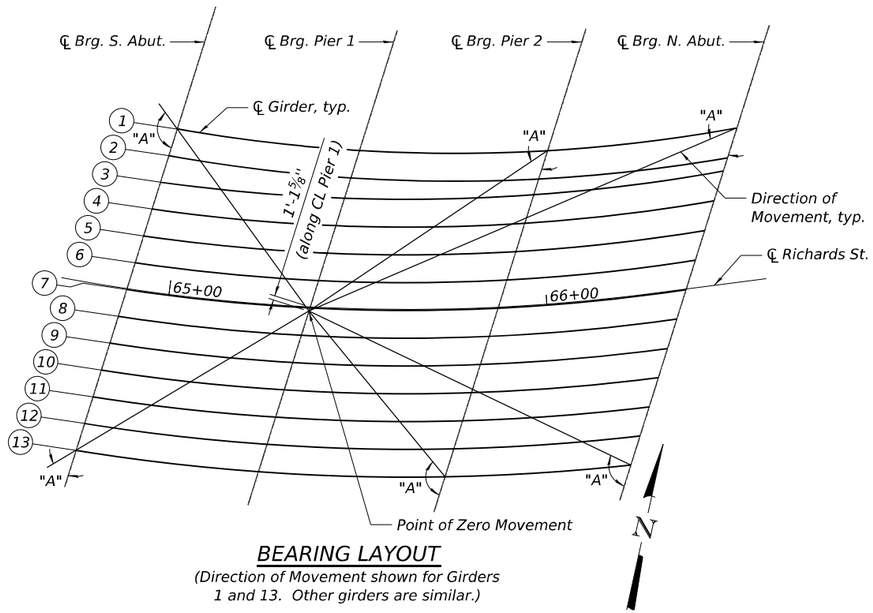
GIRDER SKEWS

Girder	Pier 1	Pier 2
1	14°1'5"	20°49'53"
2	13°46'17"	20°27'21"
3	15°27'28"	21°32'29"
4	15°12'53"	21°11'42"
5	14°58'47"	20°51'36"
6	14°45'6"	20°32'8"
7	14°31'50"	20°13'16"
8	14°18'58"	19°54'59"
9	14°6'29"	19°37'16"
10	13°54'21"	19°20'4"
11	13°42'34"	19°3'23"
12	13°31'7"	18°47'11"
13	13°19'60"	18°31'26"



SIDE RETAINER

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



BEARING LAYOUT

(Direction of Movement shown for Girders 1 and 13. Other girders are similar.)

Notes:

Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

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

All bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to M111 or M232 as applicable.

The structural steel plates of the Bearing Assembly, fixed bearing plates and pintles shall conform to the requirements of AASHTO M270 Grade 50.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	13
Anchor Bolts, 1"	Each	26
Anchor Bolts, 1¼"	Each	26

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-011DMS0987\09990123-62380-032-BRGDETPIERS.DGN

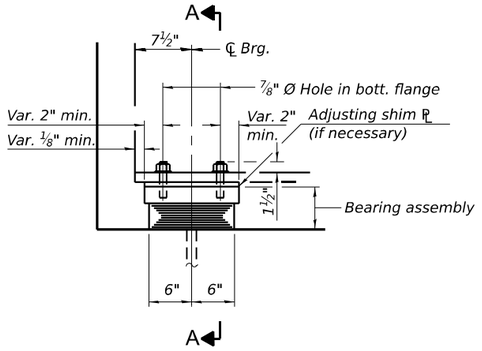
1/25/2024

USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - MSH	REVISED -	
PLOT SCALE =	DRAWN - MSH	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

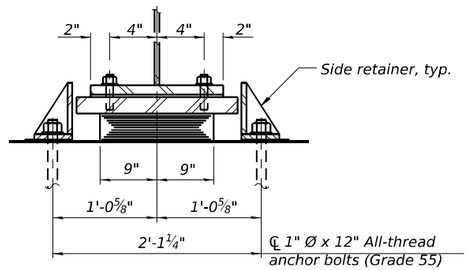
BEARING DETAILS - PIERS
STRUCTURE NO. 099-0123
SHEET S-32 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	244
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

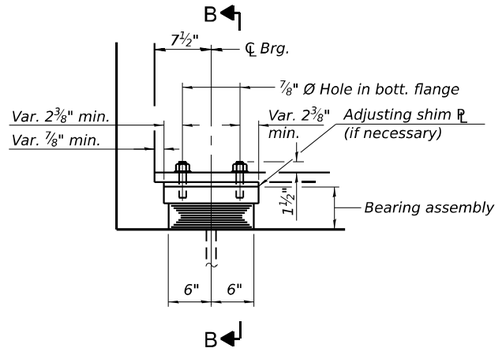


TYPE I ELASTOMERIC EXP. BRG. - NORTH ABUT.

(13 Required)



SECTION A-A



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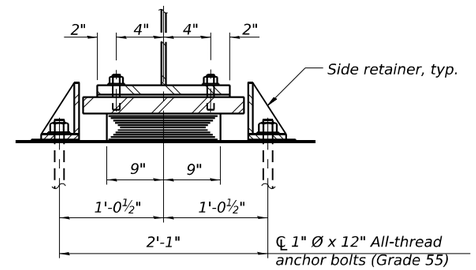
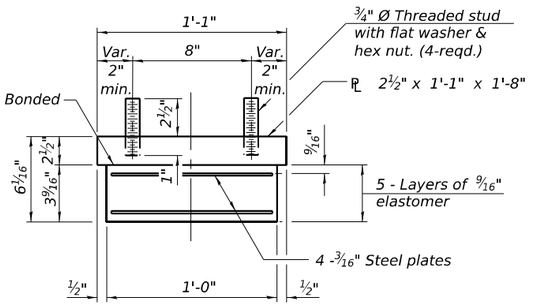
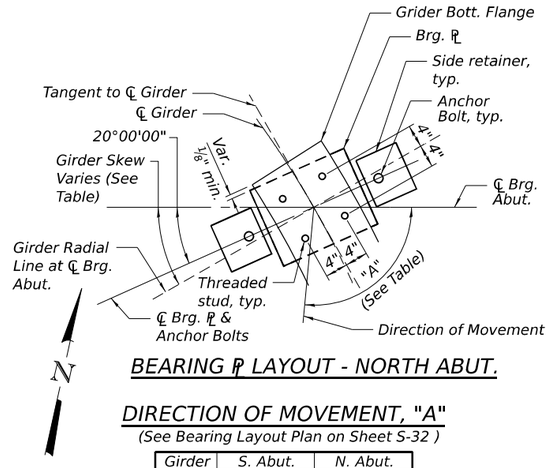


SECTION B-B



BEARING ASSEMBLY

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

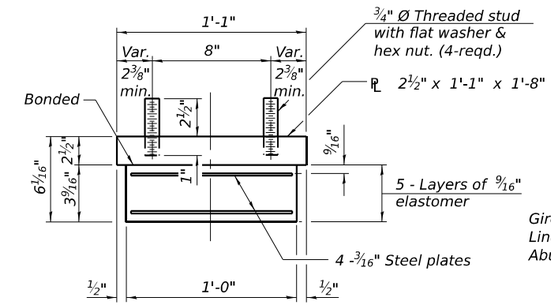


BEARING ℙ LAYOUT - NORTH ABUT.

DIRECTION OF MOVEMENT, "A"

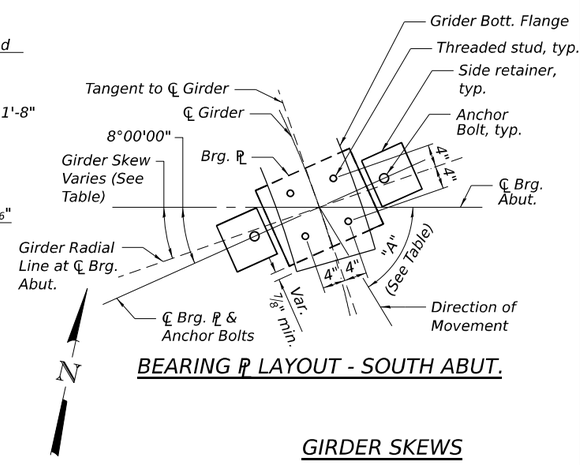
(See Bearing Layout Plan on Sheet S-32)

Girder	S. Abut.	N. Abut.
1	126°40'47"	49°22'25"
2	120°31'13"	52°25'45"
3	113°30'13"	53°51'29"
4	105°34'28"	57°18'36"
5	96°59'28"	61°02'06"
6	88°05'11"	65°01'57"
7	79°16'34"	69°17'29"
8	70°57'00"	73°47'13"
9	63°22'53"	78°28'54"
10	56°41'45"	83°19'21"
11	50°53'51"	88°14'45"
12	45°55'04"	93°10'53"
13	41°39'20"	98°03'25"



BEARING ASSEMBLY

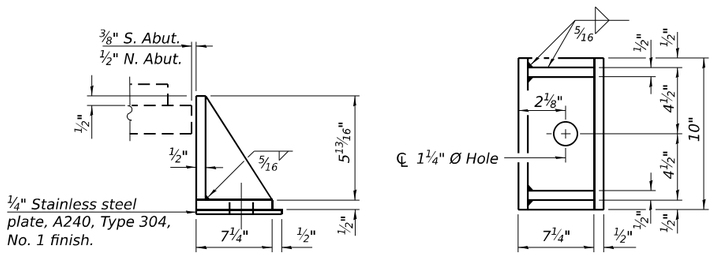
Note:
Shim plates shall not be placed under bearing assembly.



BEARING ℙ LAYOUT - SOUTH ABUT.

GIRDER SKEWS

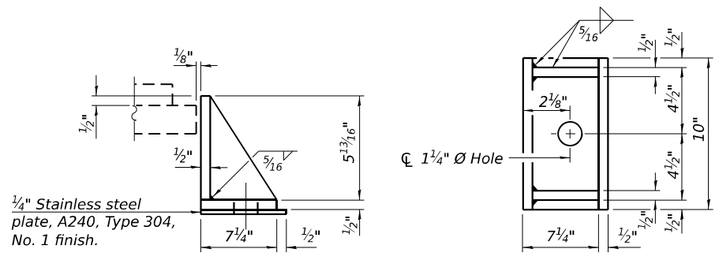
Girder	North Abut.	South Abut.
1	27°44'7"	7°22'25"
2	27°13'2"	7°14'45"
3	27°41'6"	9°31'21"
4	27°13'30"	9°22'31"
5	26°46'51"	9°13'56"
6	26°21'5"	9°5'38"
7	25°56'10"	8°57'34"
8	25°32'3"	8°49'44"
9	25°8'42"	8°42'8"
10	24°46'4"	8°34'45"
11	24°24'8"	8°27'34"
12	24°2'52"	8°20'35"
13	23°42'14	8°13'47"



SIDE RETAINER

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

Notes:
Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
All bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to M111 or M232 as applicable.
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	26
Anchor Bolts, 1"	Each	52

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-011\DMS0987\0990123-62380-033-BRGDETABUT.DGN

1/25/2024

exp.

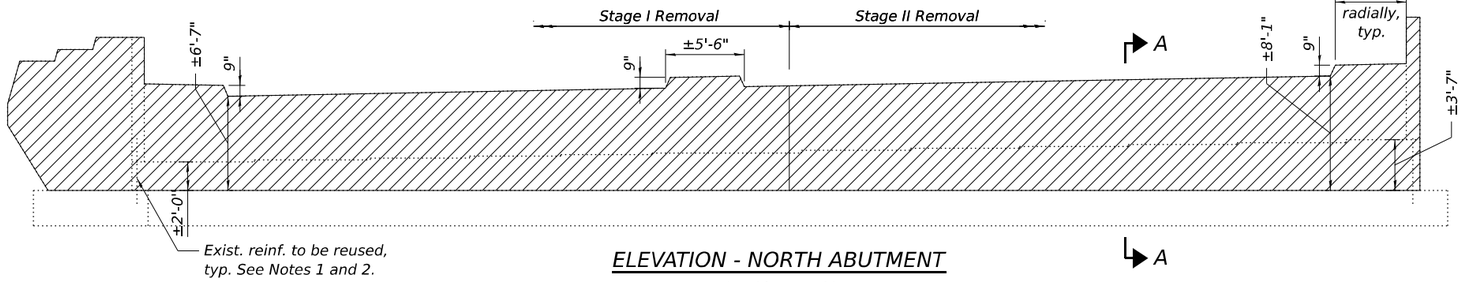
USER NAME =	DESIGNED - BAR	REVISED -	
	CHECKED - MSH	REVISED -	
PLOT SCALE =	DRAWN - MSH	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS - ABUTMENTS
STRUCTURE NO. 099-0123

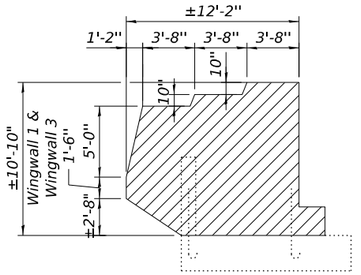
SHEET S-33 OF S-50 SHEETS

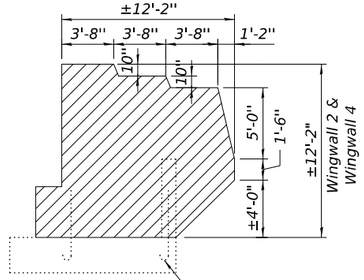
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	245
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	



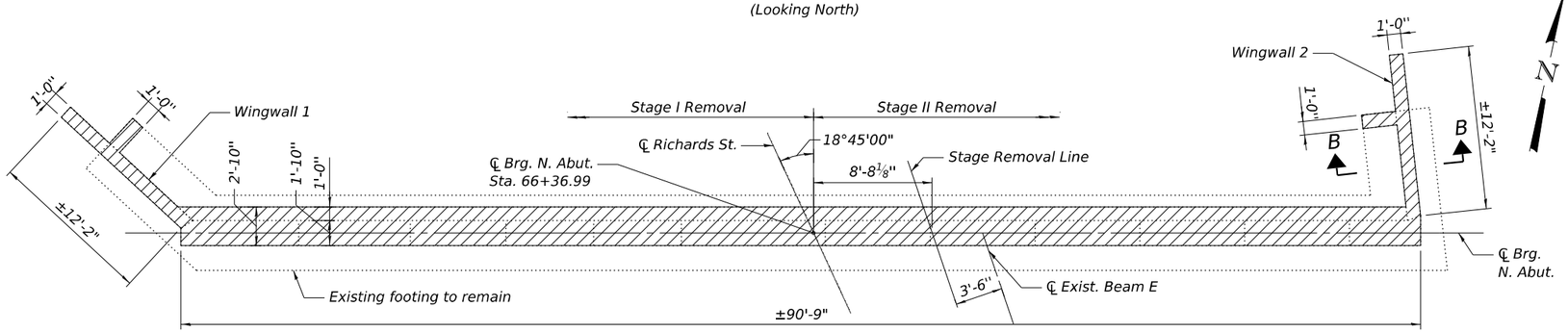
ELEVATION - NORTH ABUTMENT

(Looking North)

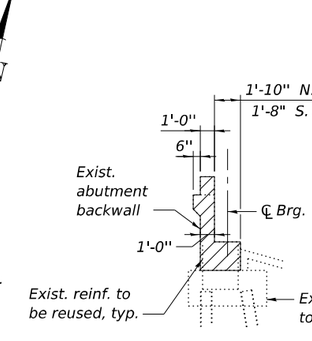




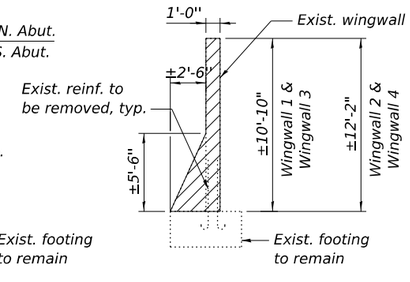
ELEVATION - WINGWALLS



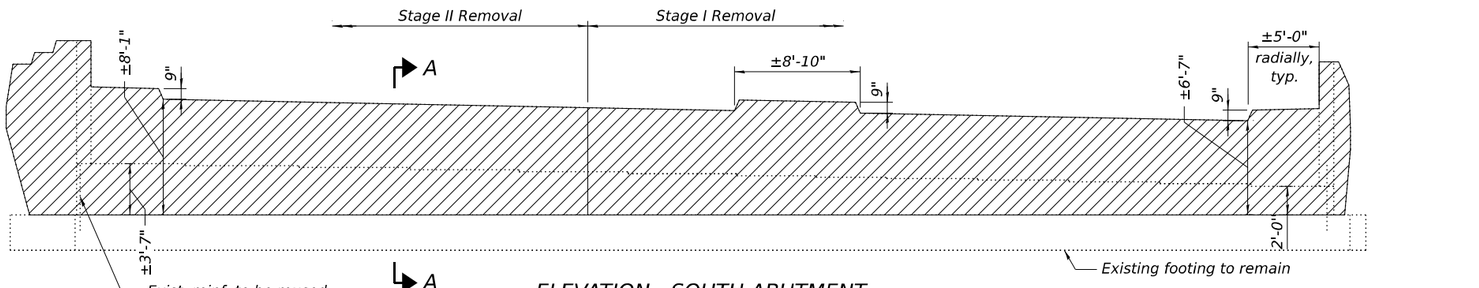
PLAN - NORTH ABUTMENT



SECTION A-A

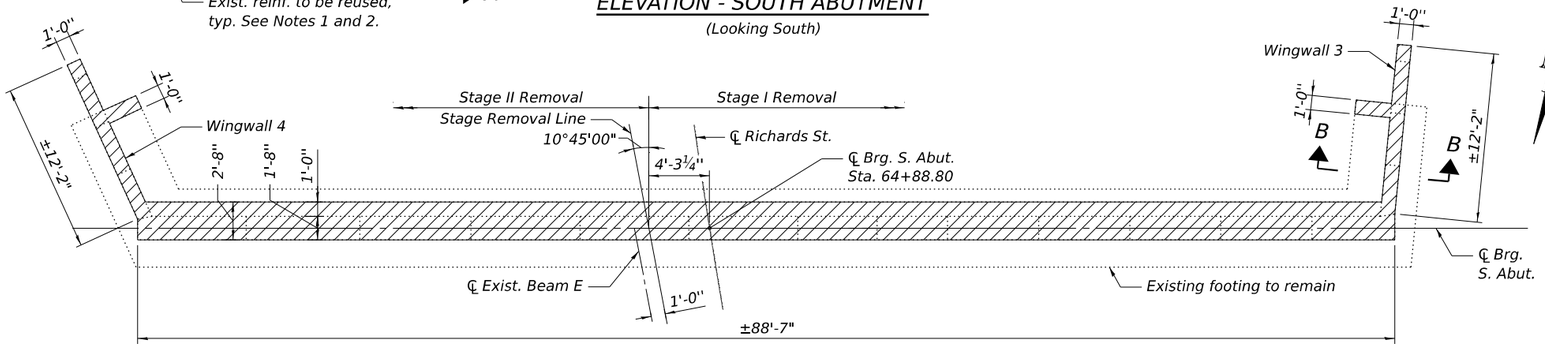


SECTION B-B



ELEVATION - SOUTH ABUTMENT

(Looking South)



PLAN - SOUTH ABUTMENT

LEGEND:

Concrete Removal

NOTES:

1. Contractor shall not cut or remove existing reinforcement bars extending from the existing footing.
2. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
3. Existing piles not shown.
4. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
5. Any damage to portions of the existing structure to remain in service shall be repaired by the Contractor at no additional cost to the Department.

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	104.2

MODEL: SHEET
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-011\DMS0987\0990123-62380-034-ABUTREMOVALDET.DGN

1/25/2024

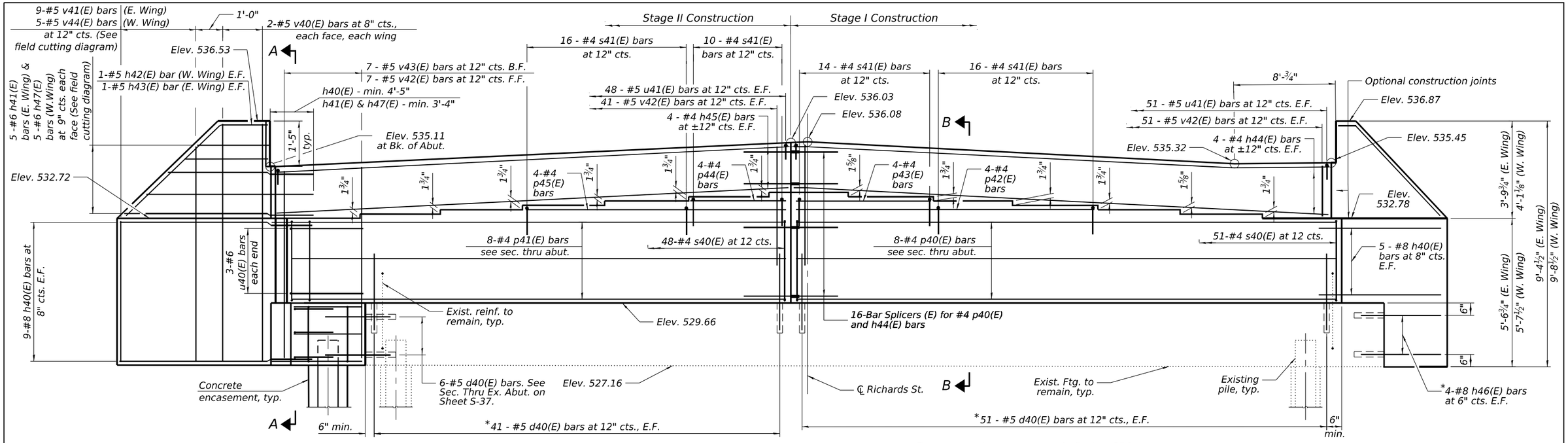
USER NAME =	DESIGNED - MSH	REVISED -	
	CHECKED - BAR	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REMOVAL DETAILS
STRUCTURE NO. 099-0123

SHEET S-34 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	246
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



SOUTH ABUTMENT ELEVATION

(Looking South)

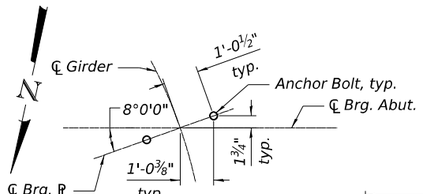
*Drill and grout bars according to Section 584 of the Standard Specifications with an embedment of 1'-0" for #5 bars and 1'-6" for #8 bars. Cost with Reinforcement Bars. Epoxy Coated.

NOTES:

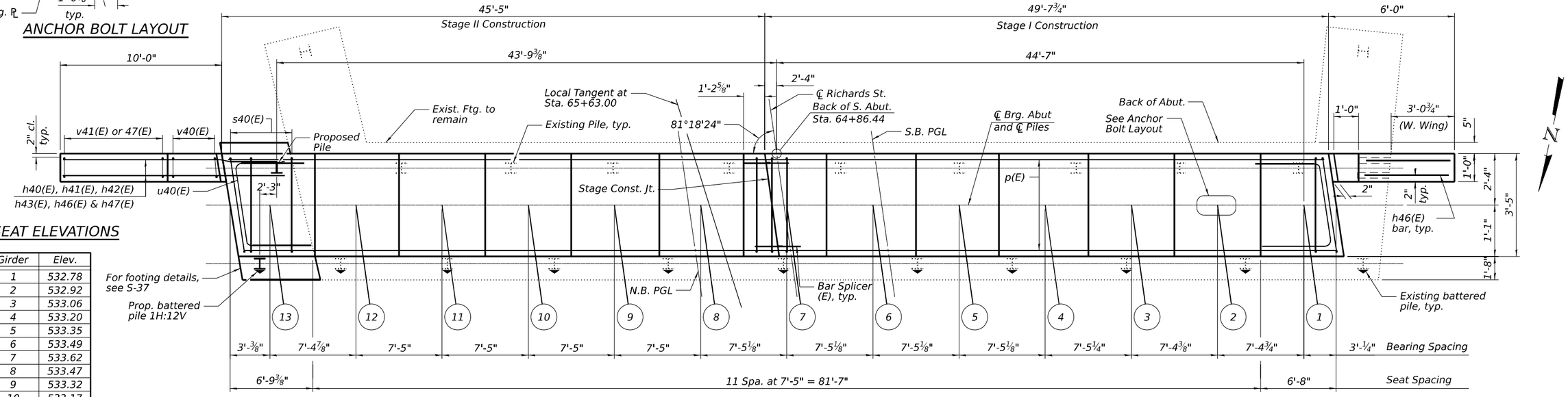
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For Bill of Material and bar bending diagrams, see Sheet S-37.
4. Backwall elevations shown are at the back of abutment.

PILE DATA

Type: HP 10X42 with Piles Shoes
Nominal Required Bearing: 335 kips
Factored Resistance Available: 184 kips
Est. Length: 24 ft
No. Production Piles: 2
No. Test Piles: 0



ANCHOR BOLT LAYOUT



SOUTH ABUTMENT PLAN

BRG. SEAT ELEVATIONS

Girder	Elev.
1	532.78
2	532.92
3	533.06
4	533.20
5	533.35
6	533.49
7	533.62
8	533.47
9	533.32
10	533.17
11	533.02
12	532.87
13	532.72

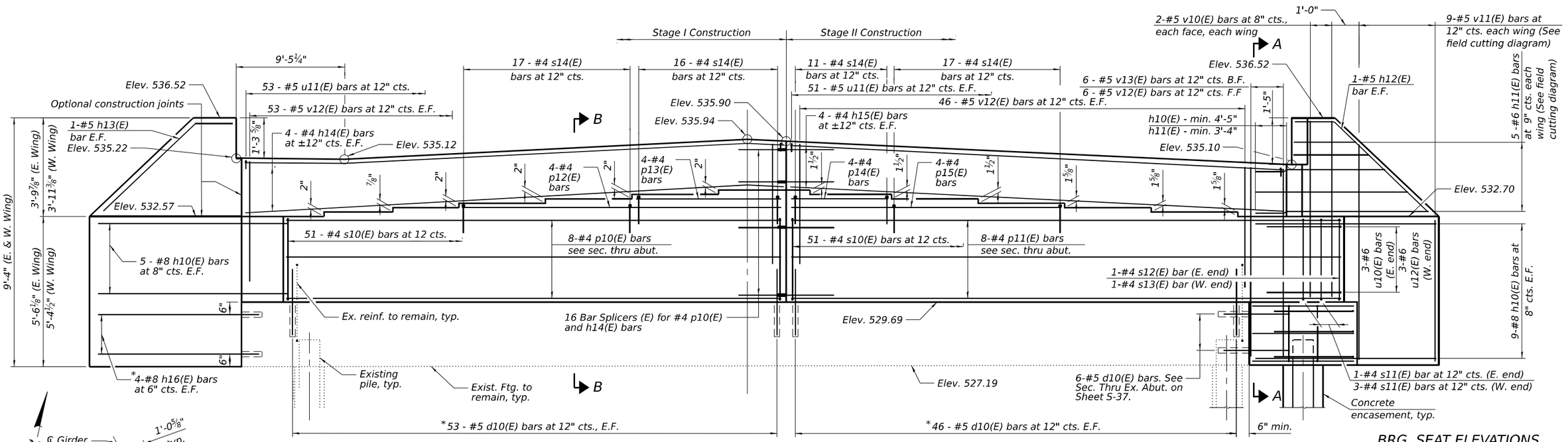
USER NAME =	DESIGNED - MSH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - BAR	REVISED -	
PLOT SCALE =	DRAWN - MSH	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

SOUTH ABUTMENT PLAN & ELEVATION
STRUCTURE NO. 099-0123
SHEET S-35 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	247
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

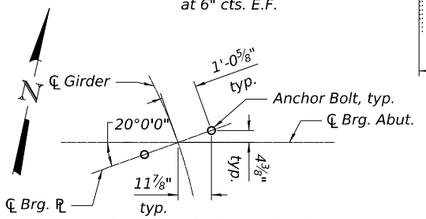
MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09879\0990123-62380-035-SOUTHABUT.DGN

1/25/2024



NORTH ABUTMENT ELEVATION

(Looking North)



ANCHOR BOLT LAYOUT

PILE DATA

Type: HP 10X42 with Piles Shoes
Nominal Required Bearing: 335 kips
Factored Resistance Available: 184 kips
Est. Length: 20 ft
No. Production Piles: 2
No. Test Piles: 0

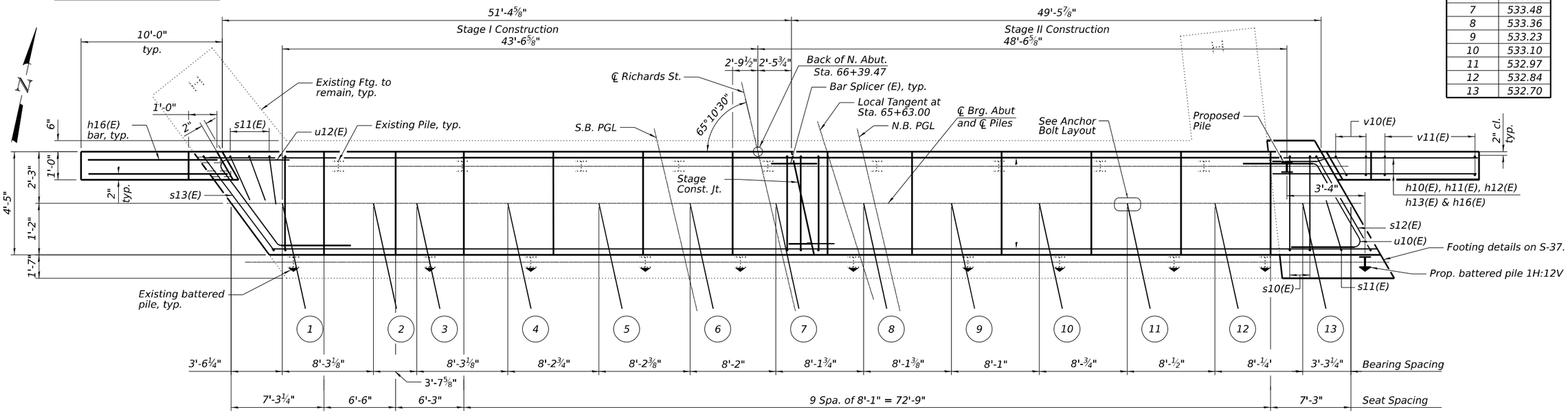
*Drill and grout bars according to Section 584 of the Standard Specifications with an embedment of 1'-0" for #5 bars and 1'-6" for #8 bars. Cost with Reinforcement Bars. Epoxy Coated.

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For Bill of Material and bar bending diagrams, see Sheet S-37.
4. Backwall elevations shown are at the back of abutment.

BRG. SEAT ELEVATIONS

Girder	Elev.
1	532.57
2	532.74
3	532.81
4	532.98
5	533.15
6	533.32
7	533.48
8	533.36
9	533.23
10	533.10
11	532.97
12	532.84
13	532.70



NORTH ABUTMENT PLAN

USER NAME =	DESIGNED - MSH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - BAR	REVISED -	NORTH ABUTMENT PLAN & ELEVATION STRUCTURE NO. 099-0123
PLOT SCALE =	DRAWN - MSH	REVISED -	SHEET S-36 OF S-50 SHEETS
PLOT DATE =	CHECKED - BAR	REVISED -	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	248
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

MODEL: DEFAULT
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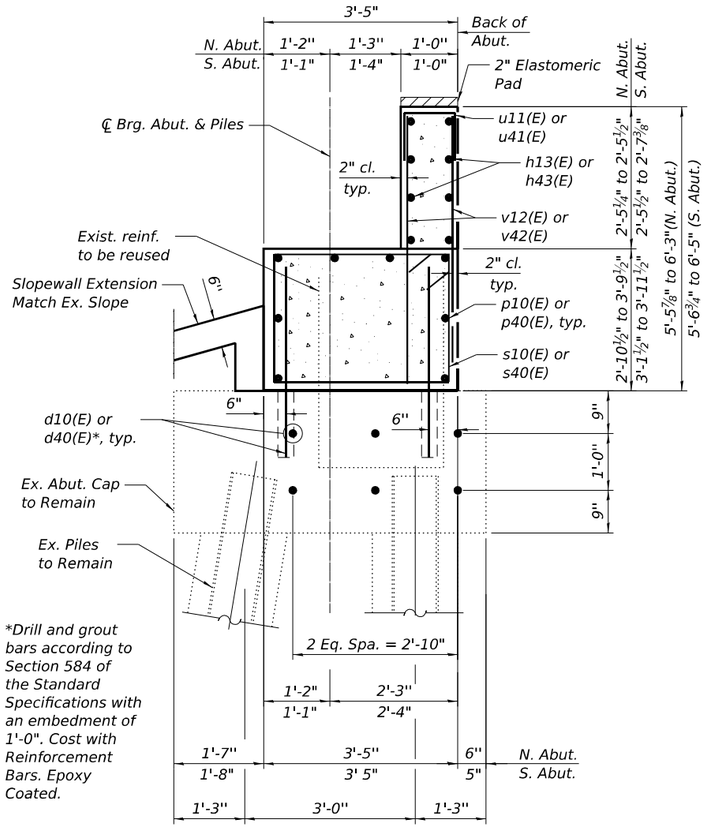
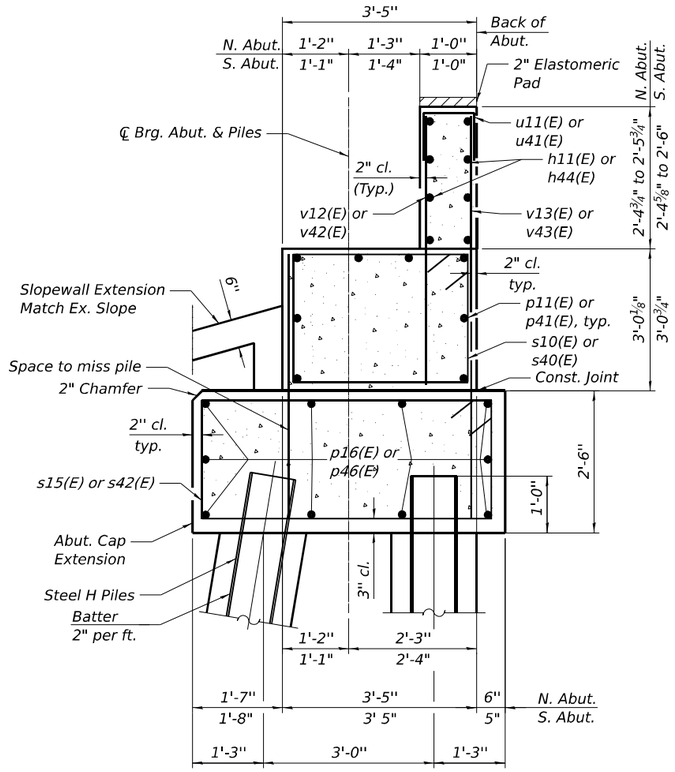
1/25/2024



*Drill and grout bars according to Section 584 of the Standard Specifications with an embedment of 1'-0". Cost with Reinforcement Bars. Epoxy Coated.

SECTION THRU EXISTING ABUTMENT



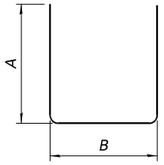
SECTION THRU ABUTMENT EXTENSION

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d40(E)	190	#5	4'-0"	
h40(E)	28	#8	14'-5"	
h41(E)	5	#6	20'-10"	
h42(E)	2	#5	6'-8"	
h43(E)	2	#5	9'-7"	
h44(E)	8	#4	49'-4"	
h45(E)	8	#4	45'-2"	
h46(E)	8	#8	4'-6"	
h47(E)	5	#6	15'-8"	
p40(E)	8	#4	49'-3"	
p41(E)	8	#4	45'-1"	
p42(E)	4	#4	28'-1"	
p43(E)	4	#4	12'-10"	
p44(E)	4	#4	8'-4"	
p45(E)	4	#4	23'-7"	
p46(E)	10	#7	6'-8"	
s40(E)	101	#4	12'-3"	
s41(E)	56	#4	6'-5"	
s42(E)	5	#5	15'-5"	
s43(E)	1	#5	16'-5"	
s44(E)	2	#5	7'-9"	
s45(E)	1	#5	15'-7"	
u40(E)	8	#6	11'-9"	
u41(E)	99	#5	4'-8"	
u42(E)	3	#6	13'-11"	
v40(E)	8	#5	8'-11"	
v41(E)	9	#5	14'-0"	
v42(E)	191	#5	5'-3"	
v43(E)	7	#5	7'-6"	
v44(E)	5	#5	14'-5"	
Concrete Structures		Cu. Yd.	58.0	
Reinforcement Bars, Epoxy Coated		Pound	6,880	
Furnishing Steel Piles HP 10x42		Foot	48	
Driving Piles		Foot	48	
Pile Shoes		Each	2	
Concrete Encasement		Cu. Yd.	1.0	

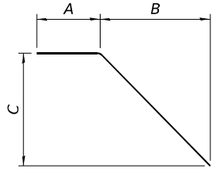
NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d10(E)	204	#5	4'-0"	
h10(E)	28	#8	14'-5"	
h11(E)	10	#6	21'-4"	
h12(E)	2	#5	9'-7"	
h13(E)	2	#5	9'-8"	
h14(E)	8	#4	51'-7"	
h15(E)	8	#4	49'-1"	
h16(E)	8	#8	11'-8"	
p10(E)	8	#4	51'-7"	
p11(E)	8	#4	49'-1"	
p12(E)	4	#4	30'-9"	
p13(E)	4	#4	14'-5"	
p14(E)	4	#4	10'-6"	
p15(E)	4	#4	26'-8"	
p16(E)	10	#7	6'-4"	
s10(E)	99	#4	12'-0"	
s11(E)	4	#4	6'-8"	
s12(E)	1	#4	12'-5"	
s13(E)	1	#4	13'-7"	
s14(E)	61	#4	6'-5"	
s15(E)	5	#5	15'-5"	
s16(E)	1	#5	16'-10"	
s17(E)	2	#5	9'-10"	
s18(E)	1	#5	15'-7"	
u10(E)	3	#6	12'-0"	
u11(E)	104	#5	4'-8"	
u12(E)	3	#6	12'-7"	
u13(E)	3	#6	14'-4"	
v10(E)	8	#5	8'-11"	
v11(E)	18	#5	12'-7"	
v12(E)	204	#5	4'-11"	
v13(E)	6	#5	7'-2"	
Concrete Structures		Cu. Yd.	62.5	
Reinforcement Bars, Epoxy Coated		Pound	7,280	
Furnishing Steel Piles HP 10x42		Foot	40	
Driving Piles		Foot	40	
Pile Shoes		Each	2	
Concrete Encasement		Cu. Yd.	1.0	



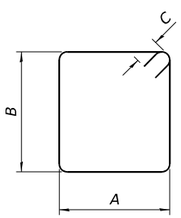
BARS S11(E), S14(E), S17(E), S41(E), S44(E), U11(E)& U41(E)

Bar	A	B
s11(E)	1'-8"	3'-4"
s14(E)	1'-3"	3'-1"
s17(E)	2'-10"	2'-1"
s41(E)	1'-8"	3'-1"
s44(E)	2'-10"	2'-1"
u11(E)	2'-0"	8"
u41(E)	2'-0"	8"



BARS h12(E), h13(E), h42(E) & h43(E)

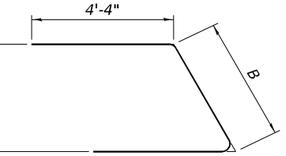
Bar	A	B	C
h12(E)	10"	8'-1"	3'-5"
h13(E)	10"	8'-1"	3'-7"
h42(E)	10"	4'-6"	3'-9"
h43(E)	10"	8'-1"	3'-5"



BARS S10(E), S12(E), S13(E), S15(E), S16(E), S18(E), S40(E), S42(E), S43(E) & S45(E)

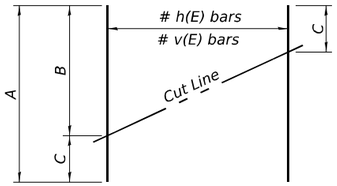
Bar	A	B	C
s10(E)	3'-1"	2'-6"	4½"
s12(E)	3'-4"	2'-6"	4½"
s13(E)	3'-11"	2'-6"	4½"
s15(E)	5'-2"	2'-1"	5½"
s16(E)	5'-8"	2'-1"	5½"
s18(E)	5'-3"	2'-1"	5½"
s40(E)	3'-1"	2'-8"	4½"
s42(E)	5'-2"	2'-1"	5½"
s43(E)	5'-8"	2'-1"	5½"
s45(E)	5'-3"	2'-1"	5½"

** Cut to fit in field only as necessary.



BARS U10(E), U12(E), U13(E), U40(E) & U42(E)

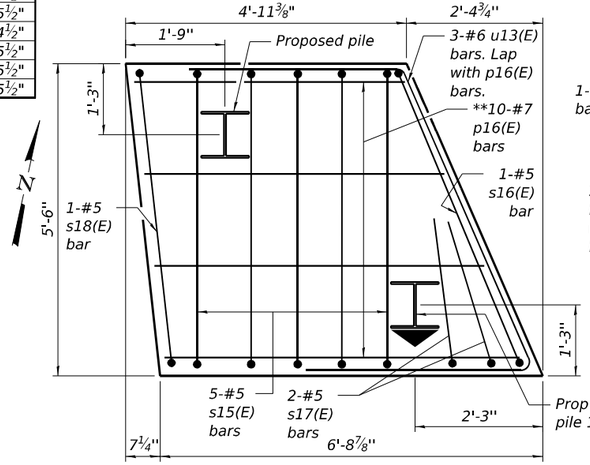
Bar	A	B
u10(E)	3'-1"	3'-4"
u12(E)	3'-1"	3'-11"
u13(E)	5'-2"	5'-8"
u40(E)	3'-1"	3'-1"
u42(E)	5'-2"	5'-3"



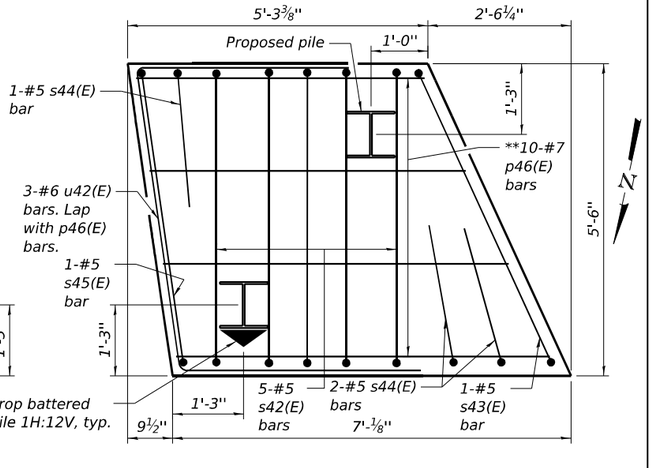
FIELD CUTTING DIAGRAM

Bar	No.	A	B	C
h11(E)	5	21'-4"	13'-6"	7'-10"
h41(E)	5	20'-4"	13'-0"	7'-10"
h47(E)	5	15'-8"	9'-4"	6'-4"
v11(E)	9	12'-7"	8'-10"	3'-9"
v41(E)	9	14'-0"	8'-11"	5'-1"
v44(E)	5	14'-5"	9'-3"	5'-2"

Order h11(E), h41(E), h47(E), v11(E), v41(E), v44(E) full length.
Cut as shown and use remainder of bars in opposite face.



NORTH ABUTMENT FOOTING EXTENSION PLAN



SOUTH ABUTMENT FOOTING EXTENSION PLAN

USER NAME =		DESIGNED - MSH	REVISED -	
		CHECKED - BAR	REVISED -	
PLOT SCALE =		DRAWN - MSH	REVISED -	
PLOT DATE =		CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 099-0123
SHEET S-37 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	249
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

MODEL: DEFAULT
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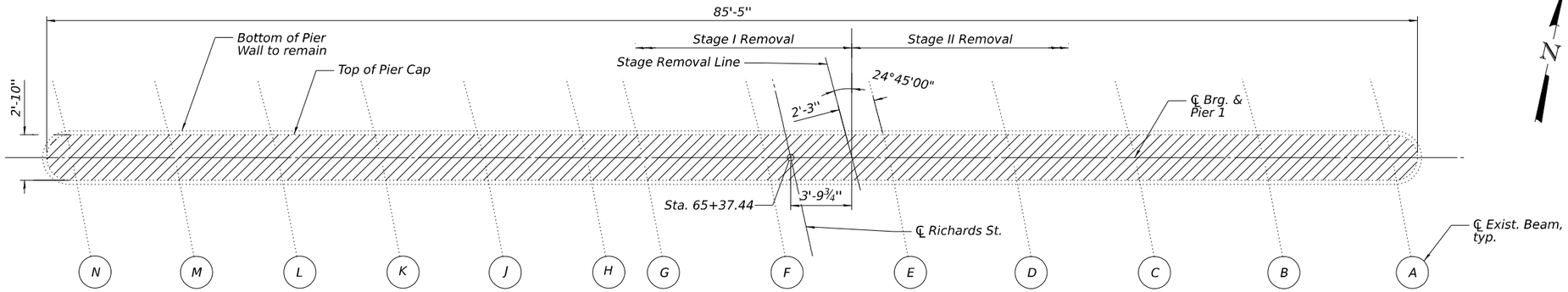
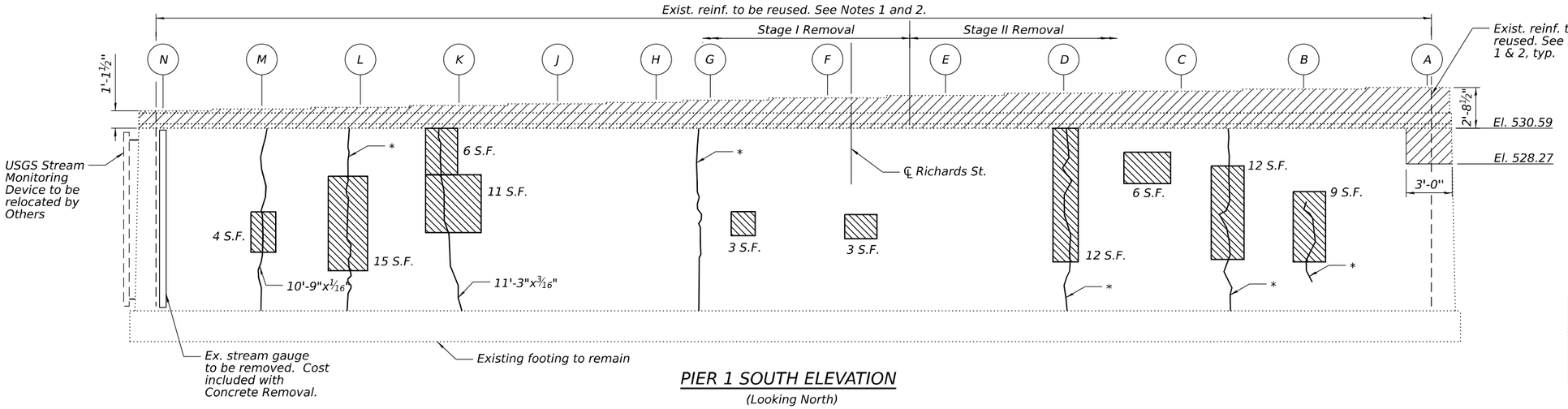
1/25/2024

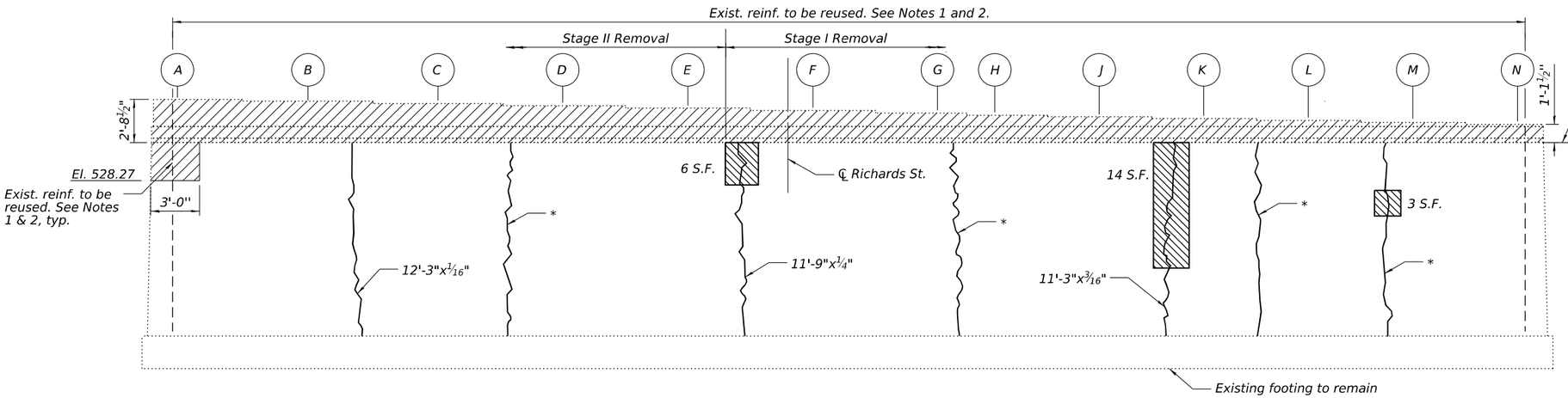


PIER 1 TOP PLAN



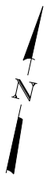
PIER 1 SOUTH ELEVATION

(Looking North)



PIER 1 NORTH ELEVATION

(Looking South)

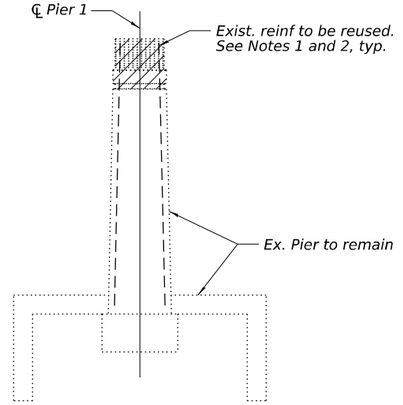


BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	16.8
Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq. Ft	104
Epoxy Crack Injection	Ft.	58

LEGEND:

- Concrete Removal
- Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)
- Epoxy Crack Injection



END VIEW

NOTES:

1. Contractor shall not cut or remove existing reinforcement bars extending from the existing pier.
2. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
3. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
4. Any damage to portions of existing structure to remain in service shall be repaired by the Contractor at no additional cost to the Department.
5. In the existing plans, proposed Pier 1 is labeled as Pier 2.
6. Hairline cracks do not need to be sealed by Epoxy Crack Injection.

* Hairline crack

USER NAME =	DESIGNED - MSH	REVISED -	
	CHECKED - BAR	REVISED -	
PLOT SCALE =	DRAWN - MSH	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 REMOVAL & REPAIR DETAILS
STRUCTURE NO. 099-0123

SHEET S-38 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	250
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

MODEL: DEFAULT
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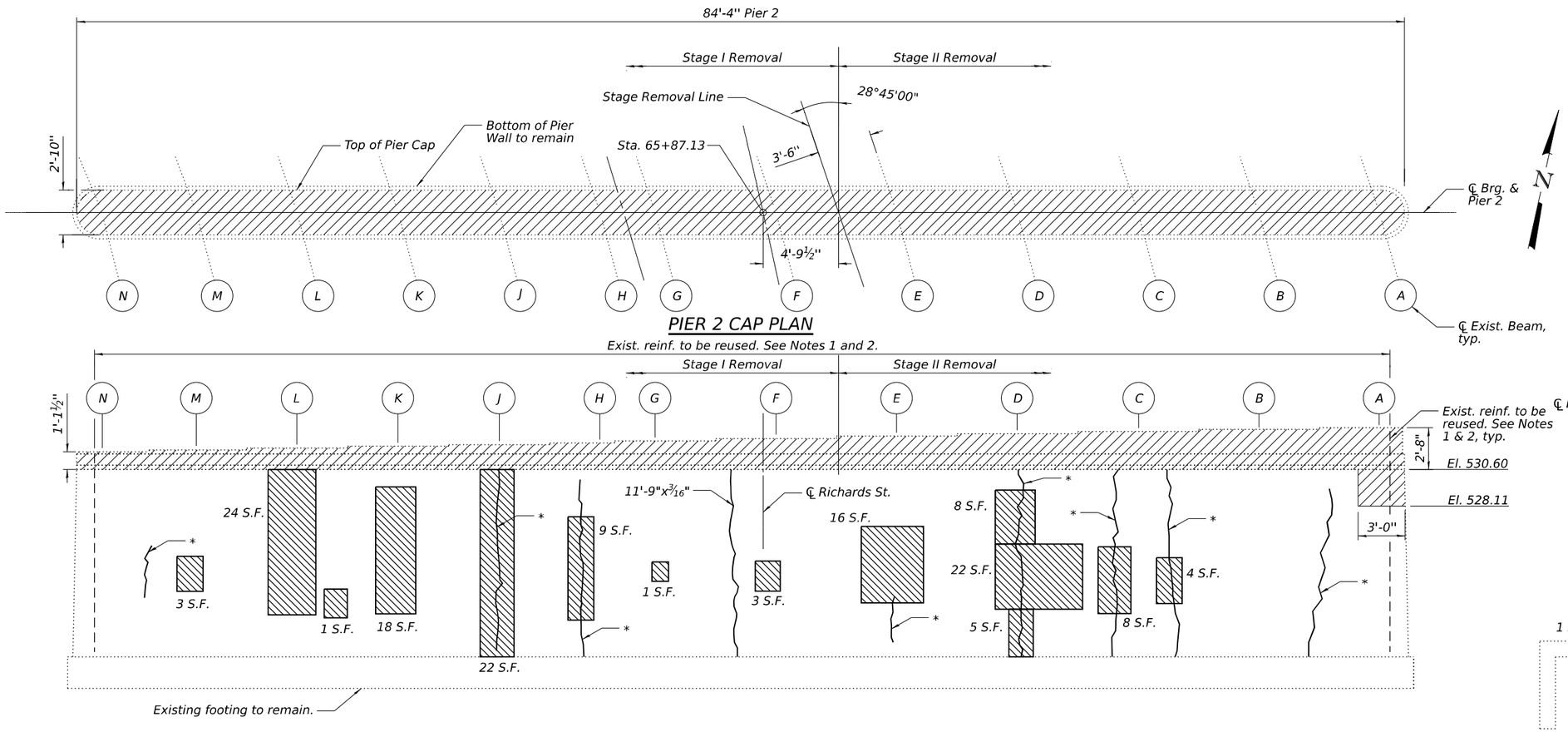
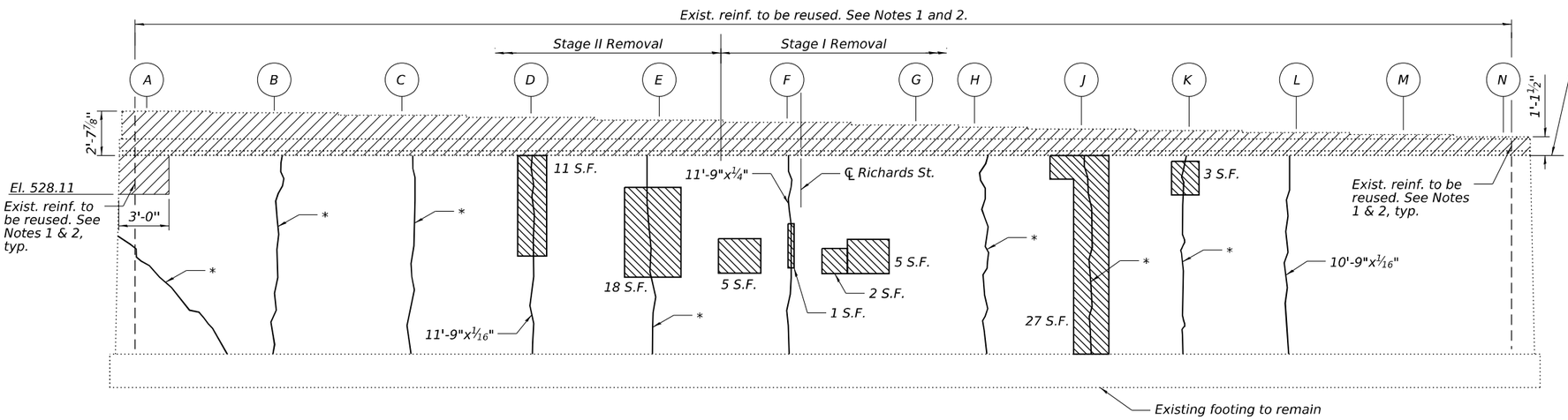
1/25/2024



PIER 2 CAP PLAN

PIER 2 SOUTH ELEVATION

(Looking North)



PIER 2 NORTH ELEVATION

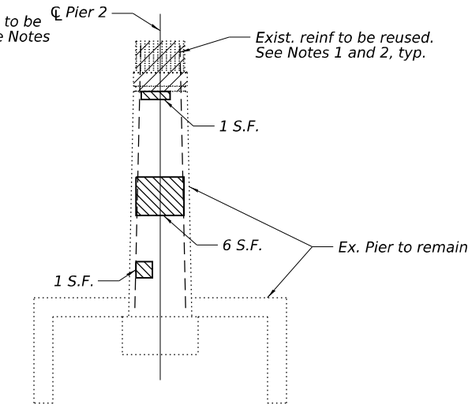
(Looking South)

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	16.6
Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq. Ft	224
Epoxy Crack Injection	Ft.	46

LEGEND:

- Concrete Removal
- Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)
- Epoxy Crack Injection



END VIEW

NOTES:

1. Contractor shall not cut or remove existing reinforcement bars extending from the existing pier.
2. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
3. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
4. Any damage to portions of existing structure to remain in service shall be repaired by the Contractor at no additional cost to the Department.
5. In the existing plans, proposed Pier 2 is labeled as Pier 1.
6. Hairline cracks do not need to be sealed by Epoxy Crack Injection.

* Hairline crack

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS098?\00990123-62380-039-PIER2REM&REPAIRDET.DGN

1/25/2024

USER NAME =	DESIGNED - MSH	REVISED -	
	CHECKED - BAR	REVISED -	
PLOT SCALE =	DRAWN - MSH	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

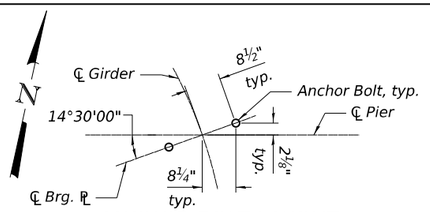
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 REMOVAL & REPAIR DETAILS
STRUCTURE NO. 099-0123
SHEET S-39 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	251
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

NOTES:

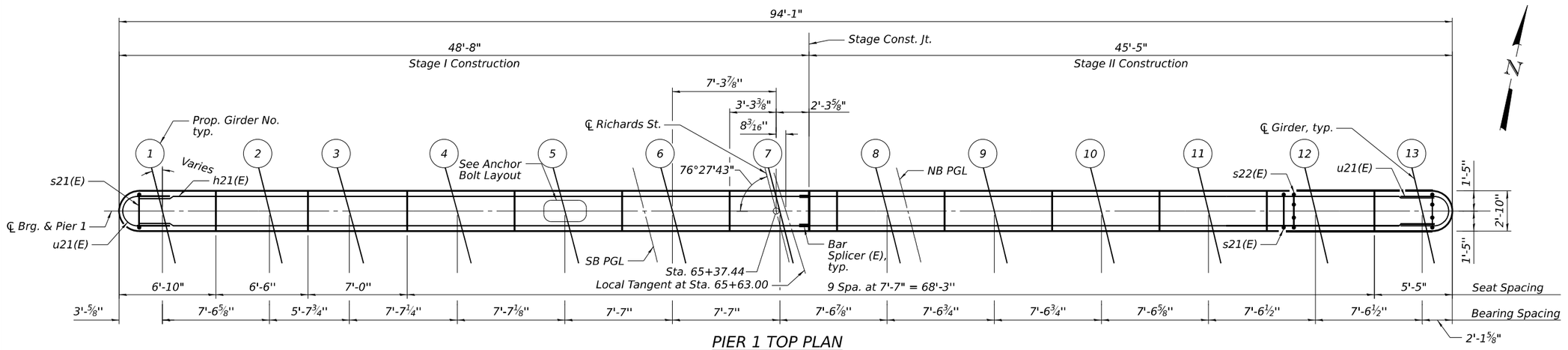
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For Bill of Material and bar bending diagrams, see Sheet S-42.
4. The maximum applied service bearing pressure under pier footing, Qmax = 17.6 ksf.
5. For Sections A-A, B-B and C-C, see Sheet S-42.
6. E.F. denotes each face.



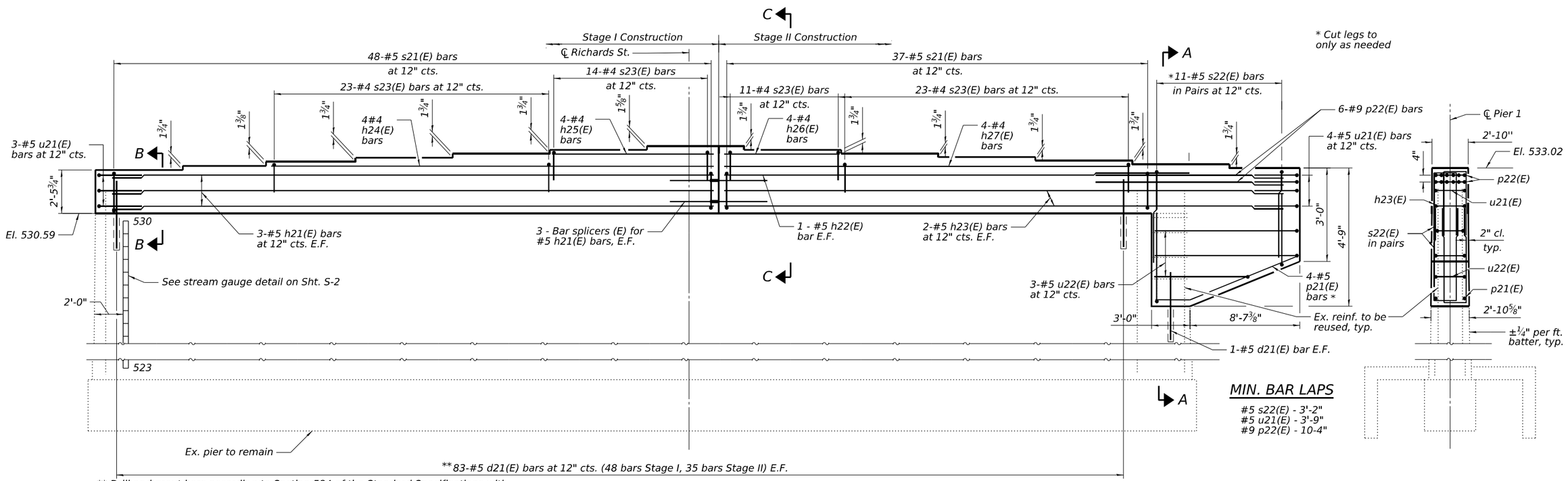
ANCHOR BOLT LAYOUT

BRG. SEAT ELEVATIONS

Girder	Elev.
1	533.07
2	533.22
3	533.33
4	533.48
5	533.62
6	533.77
7	533.90
8	533.76
9	533.61
10	533.46
11	533.31
12	533.17
13	533.02



PIER 1 TOP PLAN



** Drill and grout bars according to Section 584 of the Standard Specifications with an embedment of 1'-0" space between ex. reinforcement. Cost included with Reinforcement Bars, Epoxy Coated.

PIER 1 ELEVATION
(Looking North)

END VIEW

MIN. BAR LAPS

#5 s22(E) - 3'-2"
#5 u21(E) - 3'-9"
#9 p22(E) - 10-4"

exp.	USER NAME =	DESIGNED - MSH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 1 DETAILS STRUCTURE NO. 099-0123
		CHECKED - BAR	REVISED -		SHEET S-40 OF S-50 SHEETS
	PLOT SCALE =	DRAWN - MSH	REVISED -		
	PLOT DATE =	CHECKED - BAR	REVISED -		

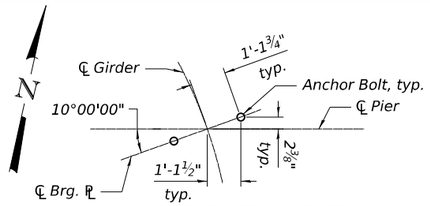
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	252
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-011DMS09879\09901123-62380-040-PIER1.DGN

1/25/2024

NOTES:

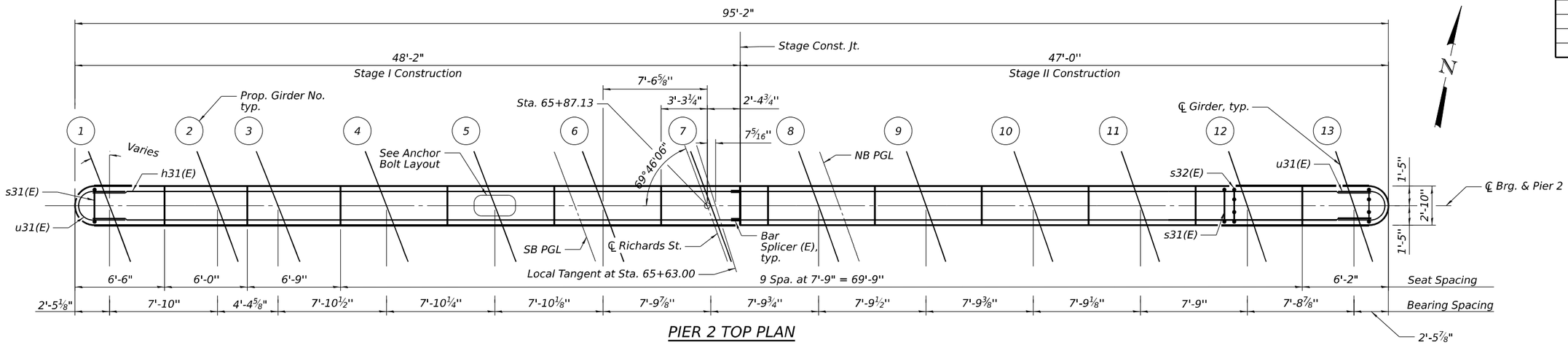
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For Bill of Material and bar bending diagrams, see Sheet S-42.
4. The maximum applied service bearing pressure under pier footing Qmax = 17.6 ksf.
5. For Sections A-A, B-B and C-C, see Sheet S-42.
6. E.F. denotes each face.



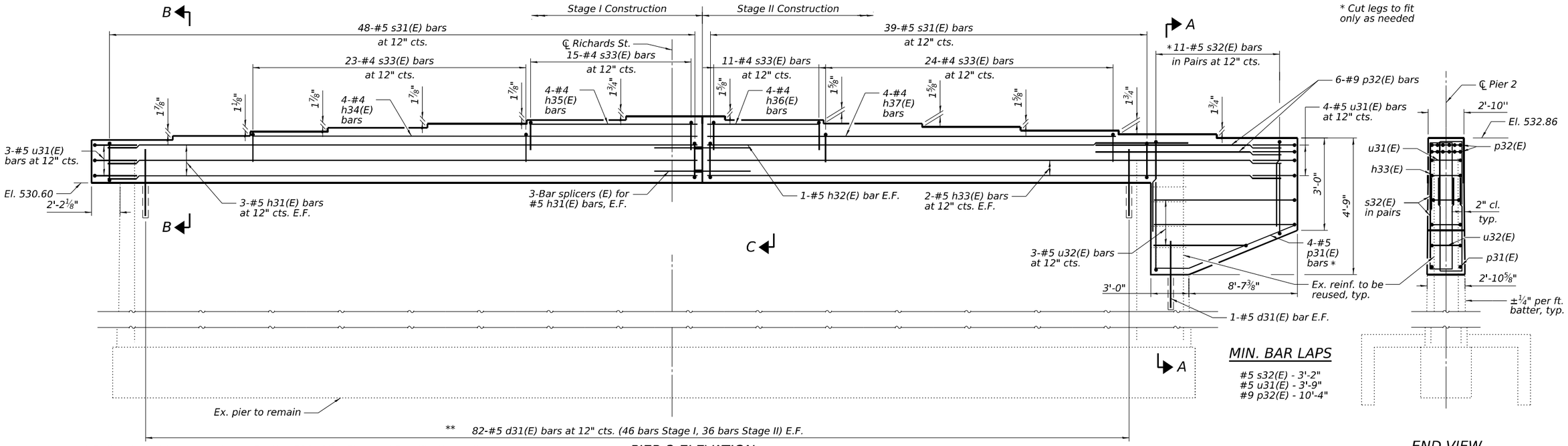
ANCHOR BOLT LAYOUT

BRG. SEAT ELEVATIONS

Girder	Elev.
1	532.83
2	532.99
3	533.08
4	533.24
5	533.39
6	533.55
7	533.70
8	533.56
9	533.42
10	533.28
11	533.14
12	533.00
13	532.86



PIER 2 TOP PLAN



** Drill and grout bars according to Section 584 of the Standard Specifications with an embedment of 1'-0" space between ex. reinforcement. Cost included with Reinforcement Bars, Epoxy Coated.

PIER 2 ELEVATION
(Looking North)

END VIEW

MIN. BAR LAPS

#5 s32(E) - 3'-2"
#5 u31(E) - 3'-9"
#9 p32(E) - 10'-4"

exp.	USER NAME =	DESIGNED - MSH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - BAR	REVISED -	
	PLOT SCALE =	DRAWN - MSH	REVISED -	
	PLOT DATE =	CHECKED - BAR	REVISED -	

PIER 2 DETAILS
STRUCTURE NO. 099-0123
SHEET S-41 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	253
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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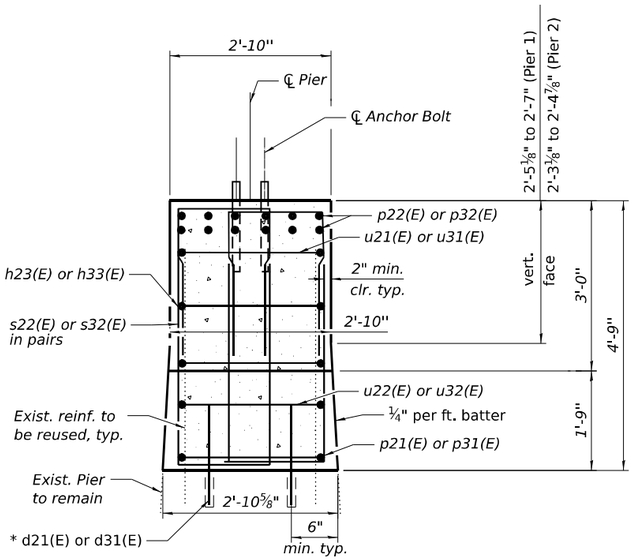
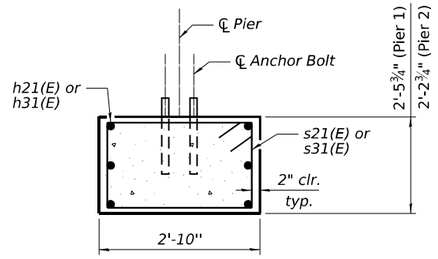
1/25/2024



SECTION A-A



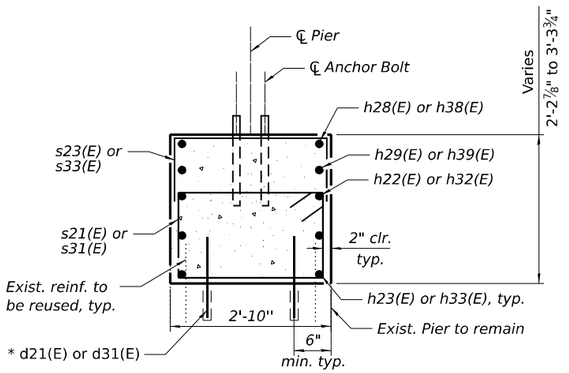
SECTION B-B

PIER 1 BILL OF MATERIAL

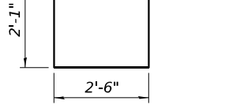
Bar	No.	Size	Length	Shape
d21(E)	168	#5	3'-0"	
h21(E)	6	#5	47'-1"	
h22(E)	2	#5	35'-2"	
h23(E)	4	#5	43'-10"	
h24(E)	4	#4	35'-0"	
h25(E)	4	#4	12'-10"	
h26(E)	4	#4	9'-2"	
h27(E)	4	#4	32'-0"	
s21(E)	85	#5	10'-1"	
s22(E)	44	#5	9'-5"	
s23(E)	71	#4	4'-8"	
p21(E)	4	#5	11'-6"	
p22(E)	12	#9	19'-0"	
u21(E)	7	#5	11'-5"	
u22(E)	3	#5	26'-5"	
Concrete Structures			Cu. Yd.	30.1
Reinforcement Bars, Epoxy Coated			Pound	3,860

PIER 2 BILL OF MATERIAL

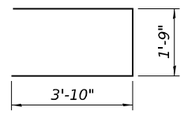
Bar	No.	Size	Length	Shape
d31(E)	166	#5	3'-0"	
h31(E)	6	#5	46'-7"	
h32(E)	2	#5	36'-9"	
h33(E)	4	#5	45'-5"	
h34(E)	4	#4	35'-4"	
h35(E)	4	#4	13'-1"	
h36(E)	4	#4	9'-6"	
h37(E)	4	#4	32'-9"	
s31(E)	87	#5	9'-9"	
s32(E)	44	#5	9'-5"	
s33(E)	71	#4	4'-8"	
p31(E)	4	#5	11'-6"	
p32(E)	12	#9	19'-0"	
u31(E)	7	#5	11'-5"	
u32(E)	3	#5	26'-5"	
Concrete Structures			Cu. Yd.	27.9
Reinforcement Bars, Epoxy Coated			Pound	3,850



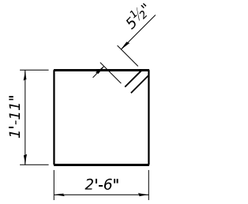
SECTION C-C



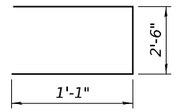
BAR S21(E)



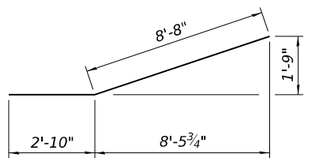
BARS S22(E) & S32(E)



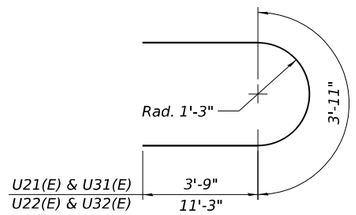
BAR S31(E)



BAR S23(E) & S33(E)



BARS P21(E) & P31(E)



BARS U21(E), U22(E)
U31(E) & U32(E)

** Drill and grout bars according to Section 584 of the Standard Specifications with an embedment of 1'-0" space between ex. reinforcement. Cost included with Reinforcement Bars, Epoxy Coated.*

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1/25/2024

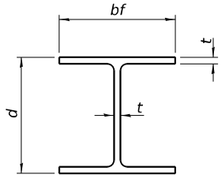
exp.

USER NAME =	DESIGNED - MSH	REVISED -	
	CHECKED - BAR	REVISED -	
PLOT SCALE =	DRAWN - MSH	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

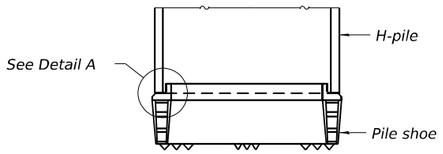
PIER DETAILS
STRUCTURE NO. 099-0123
SHEET S-42 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	254
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

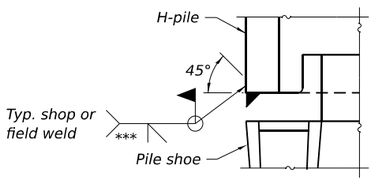


STEEL PILE TABLE

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



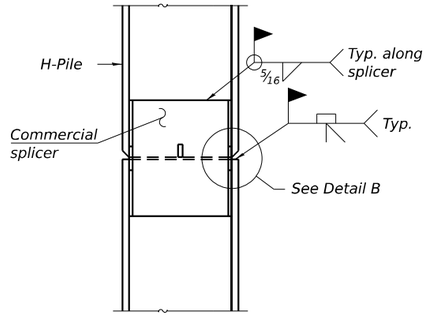
ELEVATION



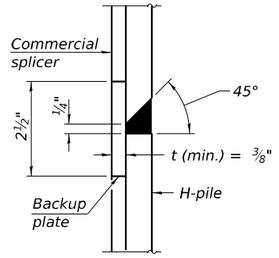
DETAIL A

SHOE ATTACHMENT

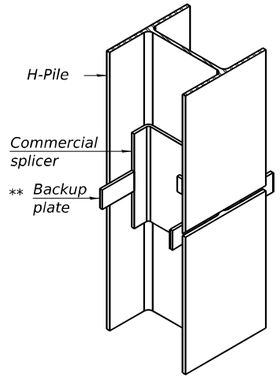
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



ELEVATION

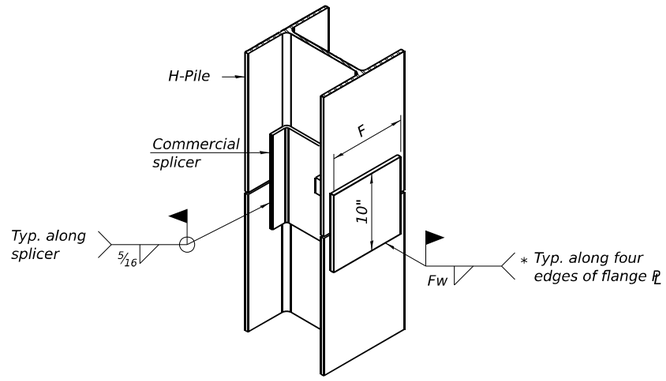


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



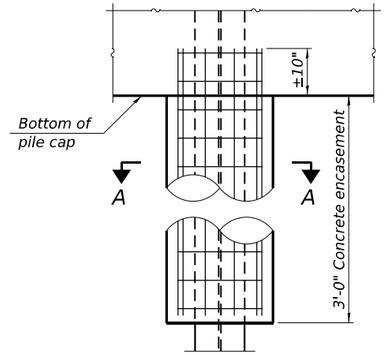
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

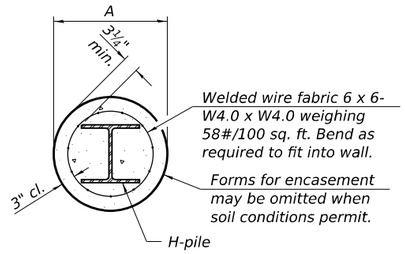
* *Interrupt welds 1/4" from end of web and/or each flange.*

** *Remove portions of backup plates that extend outside the flanges.*

*** *Weld size per pile shoe manufacturer (5/16" min.).*



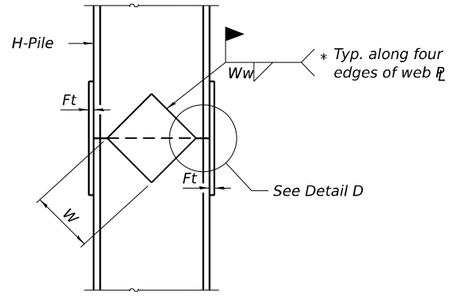
ELEVATION



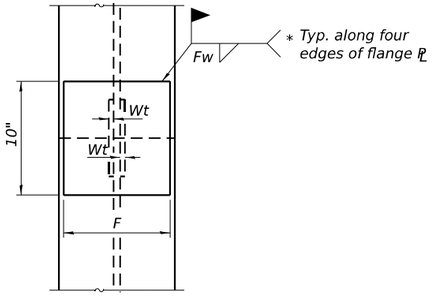
SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

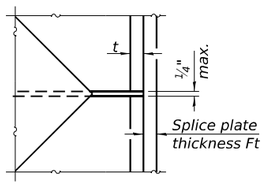
(when specified)



ELEVATION



END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

F-HP 2-1-2023

exp.

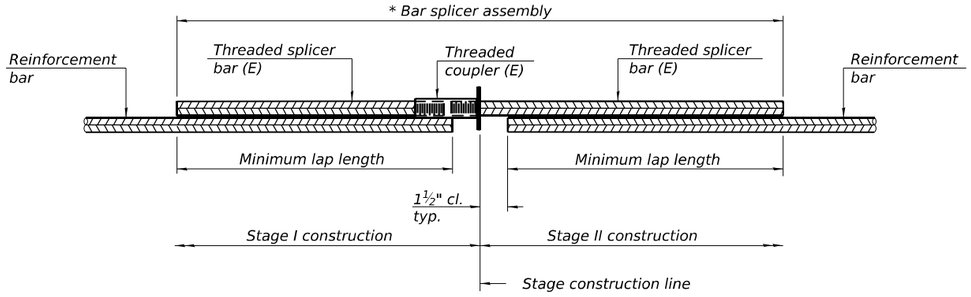
USER NAME =	DESIGNED - MSH	REVISED -	
	CHECKED - BAR	REVISED -	
PLOT SCALE =	DRAWN - HBJ	REVISED -	
PLOT DATE =	CHECKED - BAR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 099-0123
SHEET S-43 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	255
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS0987\0990123-62380-043-HPPILE.DGN
1/25/2024



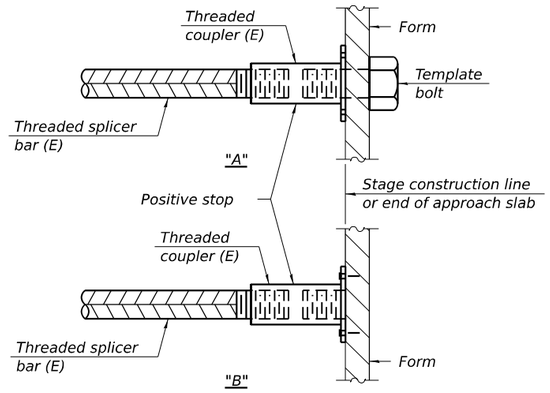
STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

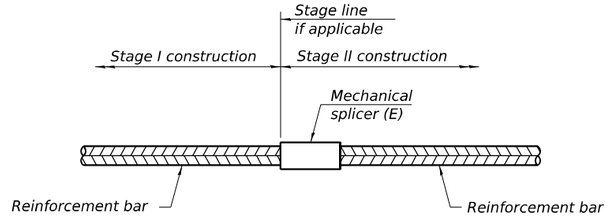
** Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.*

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	286	3'-6"
Deck	#6	286	3'-7"
Approach slabs	#5	168	3'-4"
Approach slabs	#8	117	4'-9"
Piers	#5	6	3'-7"
Abutments	#4	32	2'-11"
Diaphragms	#6	8	5'-0"



INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

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

BSD-1 2-1-2023

exp.	USER NAME =	DESIGNED - MSH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY DETAIL STRUCTURE NO. 099-0123
		CHECKED - BAR	REVISED -		
	PLOT SCALE =	DRAWN - HBJ	REVISED -		SHEET S-44 OF S-50 SHEETS
	PLOT DATE =	CHECKED - BAR	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	256
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09879\09990123-62380-044-BARSP.DGN

1/25/2024

BSB-058 (1)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravest Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

SOIL BORING LOG

GSI Job No. 20012
Page 1 of 1
Date 1/4/22

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic
CLIENT

BORING NO. BSB-058
Northing 1765845
Easting 1055464
Ground Surface Elev. 536.4 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry to -10.0' ft
Upon Completion n/a ft
After - Hrs. - ft

DEPTH (ft)		BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
	CLAYEY GRAVEL & STONE-dark gray				
535.4				11	
	CLAY LOAM-brown-very stiff (Fill)	4			
		10		24	
		4			
533.4					
	SILTY SAND, GRAVEL & STONE-dark brown & black medium dense (Fill)	4			
-5		5 5	3.50 P	13	
530.4					
	CLAY LOAM-brown & gray-very stiff (Fill)	7			
		11 6		14	
528.4					
	SILTY CLAY with Stone-dark gray to black-stiff (Fill)	3			
-10		6 8	2.50 P	15	
525.9					
	TOPSOIL-black-loose	4			
		5 4	1.50 P	36	
523.4					
	SAND & GRAVEL-brown & gray-dense	21			
		25 16		10	
-15					
		16			
		20 15		10	
518.4					
517.9	Drillers Observation: Apparent Bedrock				
	Borehole continued with rock coring.				
-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), GP-Geoprobe Hand Auger
BBS, from 137 (Rev. 8-99)

Boring Location:
Sta. 64+90
Off. 40.9' Lt.

BSB-058(2)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravest Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

ROCK CORE LOG

GSI Job No. 20012
Page 1 of 1
Date 1/4/22

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will CORING METHOD Rotary Wash
CLIENT
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2 in
Top of Rock Elev. 518.38 ft
Begin Core Elev. 517.88 ft

BORING NO. BSB-058
Northing 1765845
Easting 1055464
Ground Surface Elev. 536.4 ft

DEPTH (ft)		CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
517.9	RUN 1 (-18.5' to -28.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray mottled gray & porous with horizontal bedding & rust staining to -24.0' becoming light gray & fined grained with some chert replacement nodules. Some horizontal fractures throughout.	1	98	75		724.00
-20						
-25						
507.9	RUN 2 (-28.5' to -33.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures throughout.	2	92	92		1118.00
-30						
502.9	End Of Boring @ -33.5'. Boring backfilled with cuttings.					
-35						

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Boring Location:
Sta. 64+90
Off. 40.9' Lt.

BSB-059 (1)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravest Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

SOIL BORING LOG

GSI Job No. 20012
Page 1 of 1
Date 12/28/22

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic
CLIENT

BORING NO. BSB-059
Northing 1765856
Easting 1055541
Ground Surface Elev. 538.3 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry to -10.0' ft
Upon Completion n/a ft
After - Hrs. - ft

DEPTH (ft)		BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
	1.25" ASPHALT, 14.75" CONCRETE				
537.0		3			
	CRUSHED STONE	2 1		9	
535.3					
	CLAY LOAM with Stone-gray-very stiff to hard (Fill)	7			
-5		10 6	2.00 P	13	
		6			
		8 16	4.00 P	17	
530.3					
	SILTY CLAY-dark brown to black-very stiff	3			
-10		4 2	2.00 P	24	
527.8					
	SANDY LOAM-brown	3			
		3 4		17	
525.3					
	SAND, GRAVEL & FRACTURED ROCK-brown	8			
		27 50/5"		7	
-15					
		14			
		10 16		12	
520.3					
	Drillers Observation: Apparent Bedrock	50/1"			
				8	
-20					

DEPTH (ft)		BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
517.0	Borehole continued with rock coring.				
-25					
-30					
-35					
-40					

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), GP-Geoprobe Hand Auger
BBS, from 137 (Rev. 8-99)

Boring Location:
Sta. 64+74
Off. 35.1' Rt.

exp.	USER NAME =	DESIGNED - MSH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 1 STRUCTURE NO. 099-0123
		CHECKED - BAR	REVISED -		
	PLOT SCALE =	DRAWN - HBJ	REVISED -		SHEET S-45 OF S-50 SHEETS
	PLOT DATE =	CHECKED - BAR	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	257
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

BSB-059 (2)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Ameritech Court, Suite 204
Naperville, Illinois 60565
(630) 355-7868

ROCK CORE LOG

GSI Job No. 20012
Page 1 of 1
Date 12/28/22

PROJECT
LOCATION I-80 from Chicago Street to US Route 30

COUNTY Will CORING METHOD Rotary Wash
CLIENT CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

BORING NO. BSB-059
Northing 1765856
Easting 1055541
Ground Surface Elev. 538.3 ft

Core Diameter 2 in
Top of Rock Elev. 520.31 ft
Begin Core Elev. 517.81 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-20.5' to -30.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Numerous horizontal & vertical fractures throughout.	517.8	1	100	52		696.00
	507.8					
RUN 2 (-30.5' to -35.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures throughout.		2	100	96		761.00
	502.8					
End Of Boring @ -35.5'. Boring backfilled with cuttings.						

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Boring Location:
Sta. 64+74
Off. 35.1' Rt.

BSB-060 (1)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Ameritech Court, Suite 204
Naperville, Illinois 60565
(630) 355-7868

SOIL BORING LOG

GSI Job No. 20012
Page 1 of 1
Date 12/29/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30

COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic
CLIENT

BORING NO. BSB-060
Northing 1765886
Easting 1055446
Ground Surface Elev. 536.5 ft

Surface Water Elev. 20.33 ft
Stream Bed Elev. 21.00 ft
Groundwater Elev.:
First Encounter n/a ft
Upon Completion n/a ft
After - Hrs. - ft

	DEPTH (ft)	BLOWS (/0")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
CONCRETE BRIDGE DECK	535.7				
VOID					
	516.6				

	DEPTH (ft)	BLOWS (/0")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
CREEK *(continued)*	515.5				
Drillers Observation: Apparent Bedrock	514.5				
Borehole continued with rock coring.					

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), GP-Geoprobe Hand Auger
BBS, from 137 (Rev. 8-99)

Boring Location:
Sta. 65+39
Off. 39.8' Lt.

BSB-060 (2)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Ameritech Court, Suite 204
Naperville, Illinois 60565
(630) 355-7868

ROCK CORE LOG

GSI Job No. 20012
Page 1 of 1
Date 12/29/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30

COUNTY Will CORING METHOD Rotary Wash
CLIENT CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

BORING NO. BSB-060
Northing 1765886
Easting 1055446
Ground Surface Elev. 536.5 ft

Core Diameter 2 in
Top of Rock Elev. 515.48 ft
Begin Core Elev. 514.48 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-22.0' to -32.0') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures throughout.	514.5	1	99	77		763.00
	504.5					
RUN 2 (-32.0' to -37.0') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures & chert nodules throughout.		2	100	100		713.00
	499.5					
End Of Boring @ -37.0'. Boring backfilled with cuttings.						

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Boring Location:
Sta. 65+39
Off. 39.8' Lt.

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS098790\0990123-62380-046-SB2.DGN
1/25/2024

exp.	USER NAME =	DESIGNED - MSH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 2 STRUCTURE NO. 099-0123 SHEET S-46 OF S-50 SHEETS
		CHECKED - BAR	REVISED -		
	PLOT SCALE =	DRAWN - HBJ	REVISED -		
	PLOT DATE =	CHECKED - BAR	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	258
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

BSB-061 (1)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravesta Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

SOIL BORING LOG

GSI Job No. 20012
Page 1 of 1
Date 12/21/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic
CLIENT

BORING NO. BSB-061
Northing 1765911
Easting 1055514
Ground Surface Elev. 538.0 ft

Surface Water Elev. 21.33 ft
Stream Bed Elev. 22.00 ft
Groundwater Elev.:
First Encounter n/a ft
Upon Completion n/a ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
CONCRETE BRIDGE DECK 537.3				
VOID				
-5				
-10				
-15				
-20				
VOID *(continued)*				
516.4				
CREEK 516.0				
Drillers Observation: Apparent Bedrock				
514.0				
Borehole continued with rock coring.				
-25				
-30				
-35				
-40				

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), GP-Geoprobe Hand Auger
BBS, from 137 (Rev. 8-99)

Boring Location:
Sta. 65+39
Off. 30.6' Rt.

BSB-061 (2)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravesta Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

ROCK CORE LOG

GSI Job No. 20012
Page 1 of 1
Date 12/21/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will CORING METHOD Rotary Wash
CLIENT
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

BORING NO. BSB-061
Northing 1765911
Easting 1055514
Ground Surface Elev. 538.0 ft

Core Diameter 2 in
Top of Rock Elev. 516.02 ft
Begin Core Elev. 514.02 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-24.0' to -34.0') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures & chert nodules throughout. 514.0	1	99	71		479.00
-25					
-30					
504.0 RUN 2 (-34.0' to -39.0') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures & chert nodules throughout.	2	100	92		828.00
-35					
499.0 End Of Boring @ -39.0'. Boring backfilled with cuttings.					
-40					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Boring Location:
Sta. 65+39
Off. 30.6' Rt.

BSB-062 (1)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravesta Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

SOIL BORING LOG

GSI Job No. 20012
Page 1 of 1
Date 12/30/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic
CLIENT

BORING NO. BSB-062
Northing 1765930
Easting 1055425
Ground Surface Elev. 536.6 ft

Surface Water Elev. 20.00 ft
Stream Bed Elev. 21.00 ft
Groundwater Elev.:
First Encounter n/a ft
Upon Completion n/a ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
CONCRETE BRIDGE DECK 535.8				
VOID				
-5				
-10				
-15				
516.6 -20				
CREEK 515.6				
Drillers Observation: Apparent Bedrock 515.1				
Borehole continued with rock coring.				
-25				
-30				
-35				
-40				

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), GP-Geoprobe Hand Auger
BBS, from 137 (Rev. 8-99)

Boring Location:
Sta. 65+92
Off. 36.8' Lt.

Z:\PROJECTS\2020\20012.EXP...I-80 FROM CHICAGO ST. TO RT 30, PTB 194-9\20012 BORING LOGS\20012_LOG.GPJ 1/25/22

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09879\0990123-62380-047-SB3.DGN

1/25/2024

USER NAME =	DESIGNED - MSH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 3 STRUCTURE NO. 099-0123	SHEET S-47 OF S-50 SHEETS
	CHECKED - BAR	REVISED -			
PLOT SCALE =	DRAWN - HBJ	REVISED -			
PLOT DATE =	CHECKED - BAR	REVISED -			

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	259
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

BSB-062 (2)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Armstrong Court, Suite 204
Naperville, Illinois 60565
(630) 355-3988

ROCK CORE LOG

GSI Job No. 20012
Page 1 of 1
Date 12/30/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30

COUNTY Will CORING METHOD Rotary Wash
CLIENT
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
BORING NO. BSB-062
Northing 1765930
Easting 1055425
Ground Surface Elev. 536.6 ft
Core Diameter 2 in
Top of Rock Elev. 515.57 ft
Begin Core Elev. 515.07 ft

DESCRIPTION	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-21.5' to -31.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures throughout.	515.1	1	100	86		639.00
RUN 2 (-31.5' to -36.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures & chert nodules throughout.	505.1	2	100	100		742.00
End Of Boring @ -37.0'. Boring backfilled with cuttings.	500.1					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Boring Location:
Sta. 65+92
Off. 36.8' Lt.

BSB-063 (1)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Armstrong Court, Suite 204
Naperville, Illinois 60565
(630) 355-3988

SOIL BORING LOG

GSI Job No. 20012
Page 1 of 1
Date 12/21/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30

COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic
CLIENT
BORING NO. BSB-063
Northing 1765954
Easting 1055491
Ground Surface Elev. 538.0 ft
Surface Water Elev. 22.00 ft
Stream Bed Elev. 22.50 ft
Groundwater Elev.:
First Encounter n/a ft
Upon Completion n/a ft
After - Hrs. - ft

DESCRIPTION	DEPTH (ft)	BLOWS (/0")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
CONCRETE BRIDGE DECK	537.3				
VOID					
VOID *(continued)*	516.6				
CREEK	515.5				
Drillers Observation: Apparent Bedrock	514.5				
Borehole continued with rock coring.					

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), GP-Geoprobe Hand Auger
BBS, from 137 (Rev. 8-99)

Boring Location:
Sta. 65+85
Off. 31.4' Rt.

BSB-063 (2)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Armstrong Court, Suite 204
Naperville, Illinois 60565
(630) 355-3988

ROCK CORE LOG

GSI Job No. 20012
Page 1 of 1
Date 12/21/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30

COUNTY Will CORING METHOD Rotary Wash
CLIENT
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
BORING NO. BSB-063
Northing 1765954
Easting 1055491
Ground Surface Elev. 538.0 ft
Core Diameter 2 in
Top of Rock Elev. 515.51 ft
Begin Core Elev. 514.51 ft

DESCRIPTION	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-23.5' to -33.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures throughout.	514.5	1	97	87		725.00
RUN 2 (-33.5' to -38.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Some horizontal fractures & chert nodules throughout.	504.5	2	100	100		693.00
End Of Boring @ -38.5'. Boring backfilled with cuttings.	499.5					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Boring Location:
Sta. 65+85
Off. 31.4' Rt.

BSB-064 (1)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravesti Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

SOIL BORING LOG

GSI Job No. 20012
Page 1 of 1
Date 12/29/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic
CLIENT

BORING NO. BSB-064
Northing 1765980
Easting 1055387
Ground Surface Elev. 536.8 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry to -10.0' ft
Upon Completion n/a ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
535.5				
2.0" ASPHALT, 14.0" CONCRETE				
	0			
533.8	0		26	
CLAYEY GRAVEL & STONE-brown-very loose	0			
	1			
531.3	2	0.70	17	
CLAY LOAM-brown & gray-medium stiff (Fill)	6	B		
	4			
	2	1.20	23	
SILTY CLAY with Stone-dark brown & black-medium stiff to stiff (Fill)	4	B		
	4			
	2	0.60	24	
	3	B		
	2			
	4	1.00	33	
	5	P		
	1			
	2	0.50	30	
521.3	8	P		
GRAVEL with Sand-brown & gray-very dense	50/5"			
520.3			26	
Drillers Observation: Apparent Bedrock				
518.3				
Borehole continued with rock coring.				

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), GP-Geoprobe Hand Auger
BBS, from 137 (Rev. 8-99)

Boring Location:
Sta. 66+60
Off. 37.8' Lt.

BSB-064 (2)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravesti Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

ROCK CORE LOG

GSI Job No. 20012
Page 1 of 1
Date 12/29/21

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will CORING METHOD Rotary Wash
CLIENT
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

BORING NO. BSB-064
Northing 1765980
Easting 1055387
Ground Surface Elev. 536.8 ft

Core Diameter 2 in
Top of Rock Elev. 519.32 ft
Begin Core Elev. 518.32 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
518.3	1	98	83		719.00
RUN 1 (-18.5' to -28.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray to gray with horizontal to wavy bedding. Weathered with rust staining. Highly fractured throughout with some chert nodules.					
508.3	2	100	100		967.00
RUN 2 (-28.5' to -33.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray to gray with horizontal to wavy bedding. Weathered with rust staining to -57.0'. Highly fractured throughout with some chert nodules.					
503.3					
End Of Boring @ -33.5'. Boring backfilled with cuttings.					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Boring Location:
Sta. 66+60
Off. 37.8' Lt.

BSB-065 (1)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aravesti Court, Suite 204
Naperville, Illinois 60565
(630) 355-2688

SOIL BORING LOG

GSI Job No. 20012
Page 1 of 1
Date 1/18/22

PROJECT
LOCATION I-80 from Chicago Street to US Route 30
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic
CLIENT

BORING NO. BSB-065
Northing 1765998
Easting 1055467
Ground Surface Elev. 538.4 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry to -10.0' ft
Upon Completion n/a ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DRY DENSITY (pcf)
537.1				
2.25" ASPHALT, 13.25" CONCRETE				
	1			
535.4	2		18	
CLAY LOAM & STONE-gray-loose (Fill)	3			
	4			
CLAY LOAM-brown & gray spotted black-stiff to very stiff (Fill)	4	3.00	19	
	6	P		
	4			
	9	2.50	14	
	9	P		
	2			
	3	1.50	17	
527.9	5	P		
SILTY CLAY-black-very stiff	3			
	5	2.50	23	
525.4	8	P		
SAND & GRAVEL-brown-medium dense	5			
	9		9	
522.9	13			
FRACTURED ROCK-brown-medium dense	7			
	5		13	
520.9	6			
Drillers Observation: Apparent Bedrock				
519.9				
Borehole continued with rock coring.				

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), GP-Geoprobe Hand Auger
BBS, from 137 (Rev. 8-99)

Boring Location:
Sta. 66+25
Off. 37.3' Rt.

Z:\PROJECTS\2020\20012 EXP_I-80 FROM CHICAGO ST. TO RT 30, PTB 194-9\20012 BORING LOGS\20012_LOG.GPJ 1/23/22

MODEL: DEFAULT
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09879\0990123-62380-049-SB5.DGN

1/25/2024

USER NAME =	DESIGNED - MSH	REVISED -
	CHECKED - BAR	REVISED -
PLOT SCALE =	DRAWN - HBJ	REVISED -
PLOT DATE =	CHECKED - BAR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 5
STRUCTURE NO. 099-0123
SHEET S-49 OF S-50 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	261
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aurora Court, Suite 204
Naperville, Illinois 60565
(630) 355-3455

ROCK CORE LOG

GSI Job No. 20012
Page 1 of 1
Date 1/18/22

PROJECT

LOCATION I-80 from Chicago Street to US Route 30

COUNTY Will **CORING METHOD** Rotary Wash

CLIENT

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

BORING NO. BSB-065
Northing 1765998
Easting 1055467
Ground Surface Elev. 538.4 ft

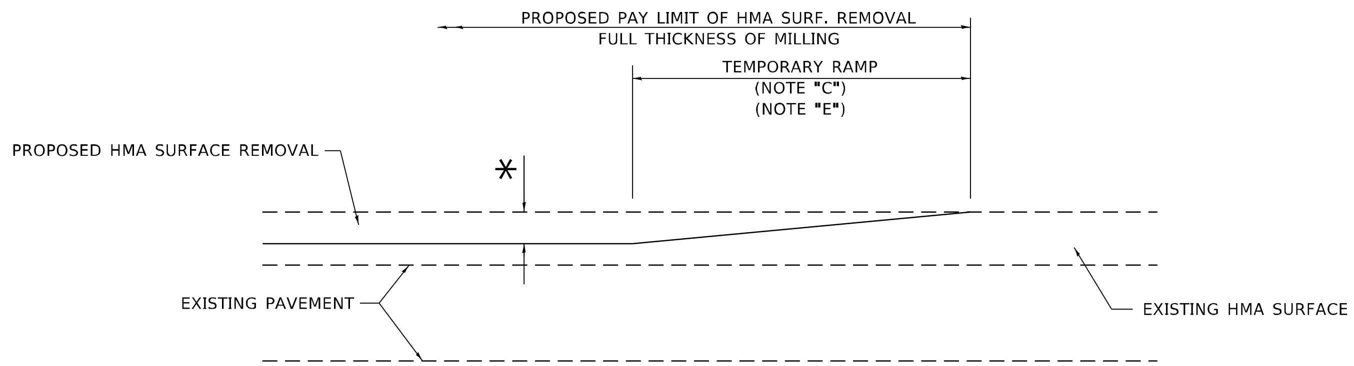
Core Diameter 2 in
Top of Rock Elev. 520.89 ft
Begin Core Elev. 519.89 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-18.5' to -28.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray mottled gray & porous with horizontal bedding to -21.8' becoming fine grained with some chert replacement nodules. Some horizontal fractures throughout.	519.9	1	97	84		315.00
	-20					
	-25					
	509.9					
RUN 2 (-28.5' to -33.5') SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding, some chert replacement nodules.		2	94	94		675.00
	-30					
	504.9					
End Of Boring @ -33.5'. Boring backfilled with cuttings.						
	-35					

Color pictures of the cores Yes
Cores will be stored for examination until 5 yrs after const.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

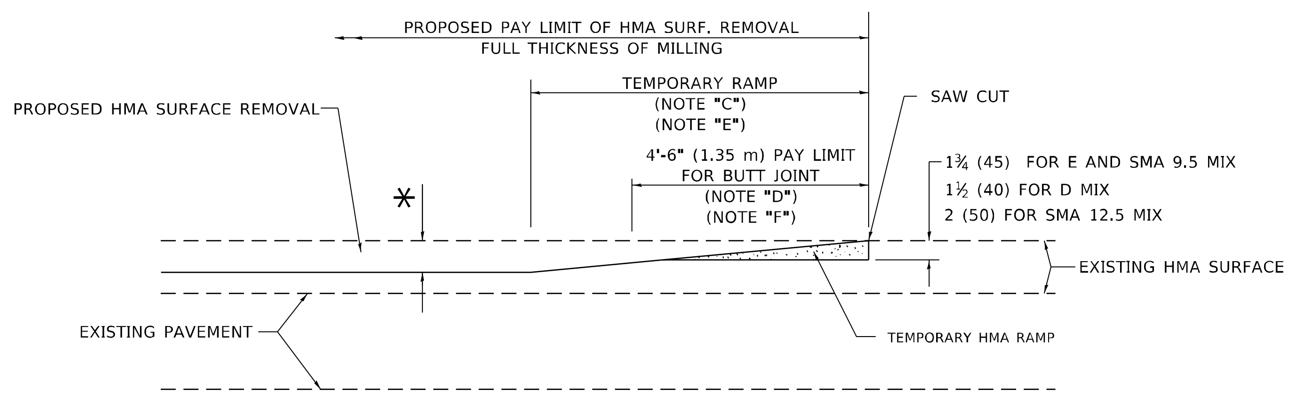
Boring Location:
Sta. 66+25
Off. 37.3' Rt.



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

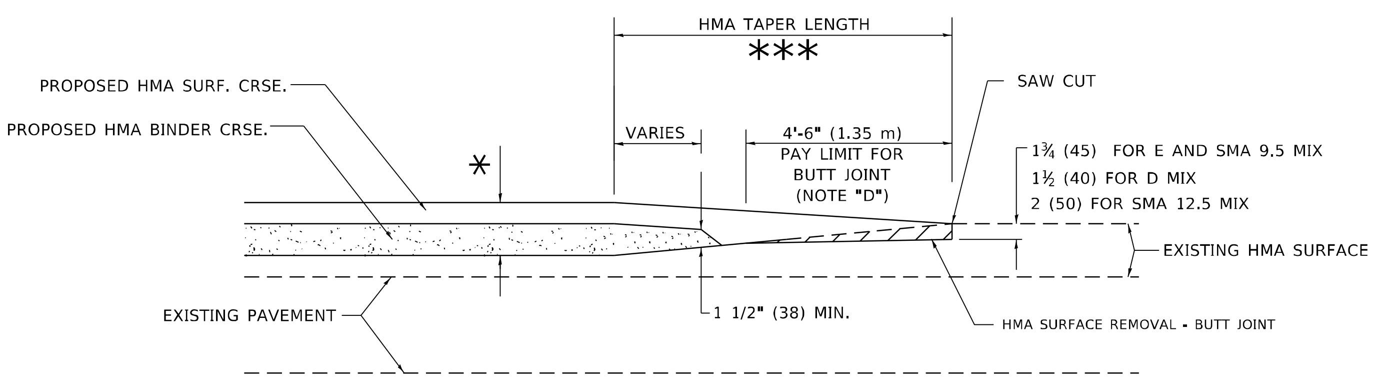


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

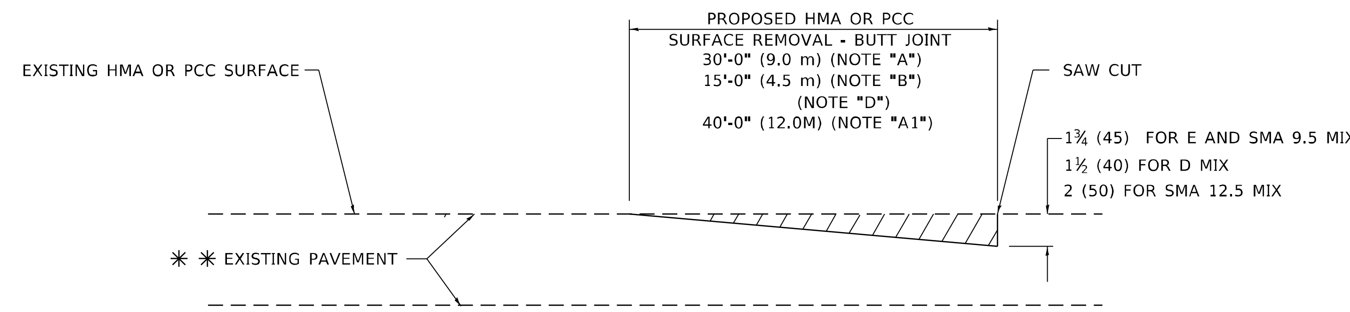
OPTION 2

TYPICAL TEMPORARY RAMP

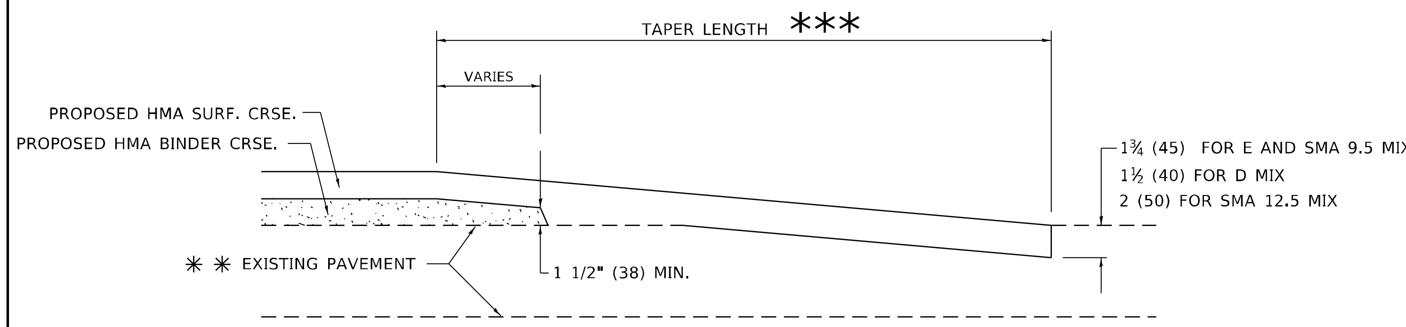


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

GENERAL NOTES

A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.

A1. INTERSTATES

B. MINOR SIDE ROADS.

C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E. TAPER THE TEMP. RAMP AT A RATE OF 3' - 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT

1. THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".
2. THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MODEL: Default

USER NAME = Lawrence.DeManche	DESIGNED - M. DE YONG	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - M. GOMEZ 04-06-01	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. BORO 01-01-07	
PLOT DATE = 11/18/2022	DATE - 06-13-90	REVISED - K. SMITH 11-18-22	

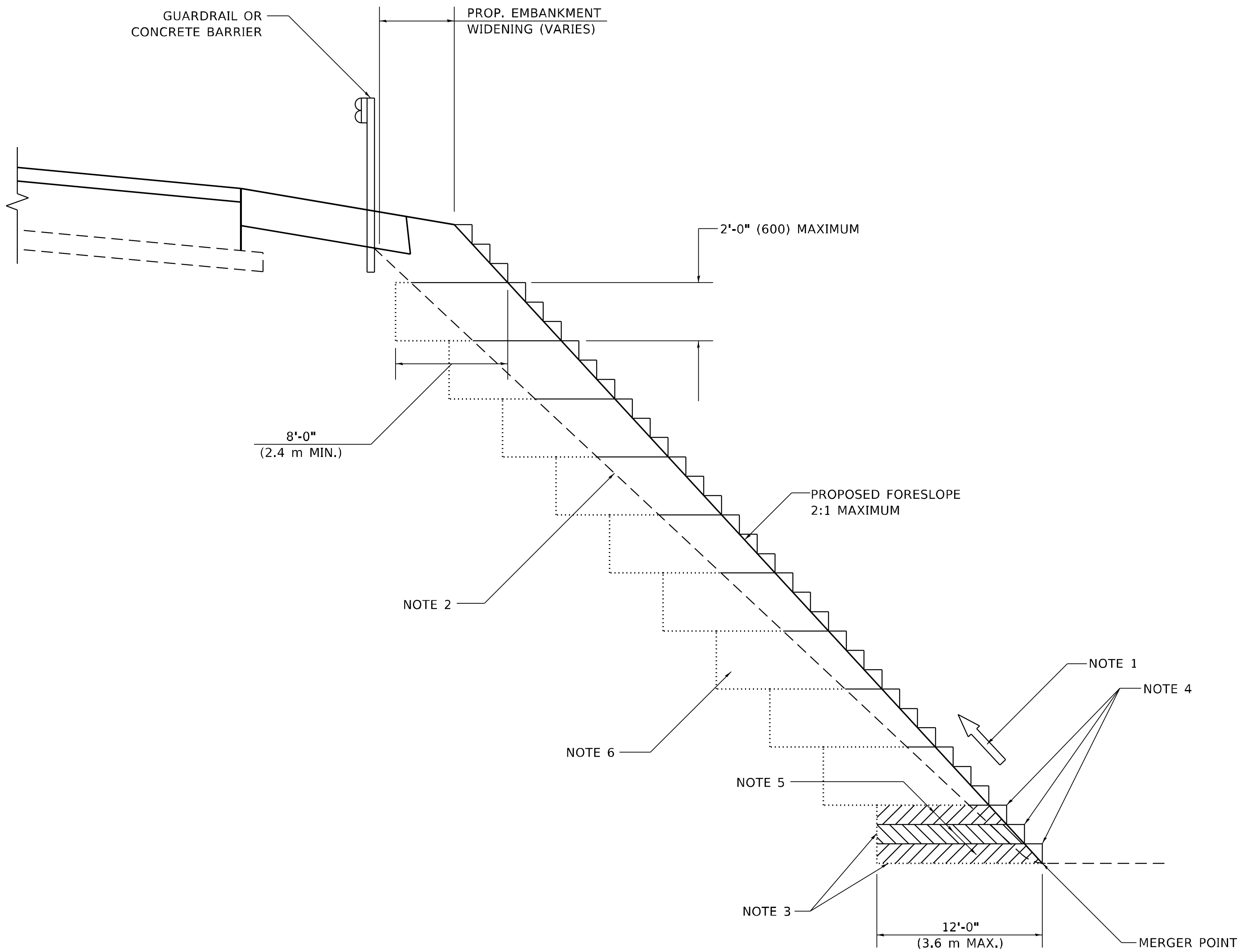
BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	263

BD400-05 BD-32 | CONTRACT NO. 62380

ILLINOIS | FED. AID PROJECT



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

GENERAL NOTES

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

BASIS OF PAYMENT

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

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = Lawrence.DeManche	DESIGNED -	REVISED - K. SMITH 11-18-22	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - CADD	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - S.E.B.	REVISED -	
PLOT DATE = 11/18/2022	DATE - 06-16-04	REVISED -	

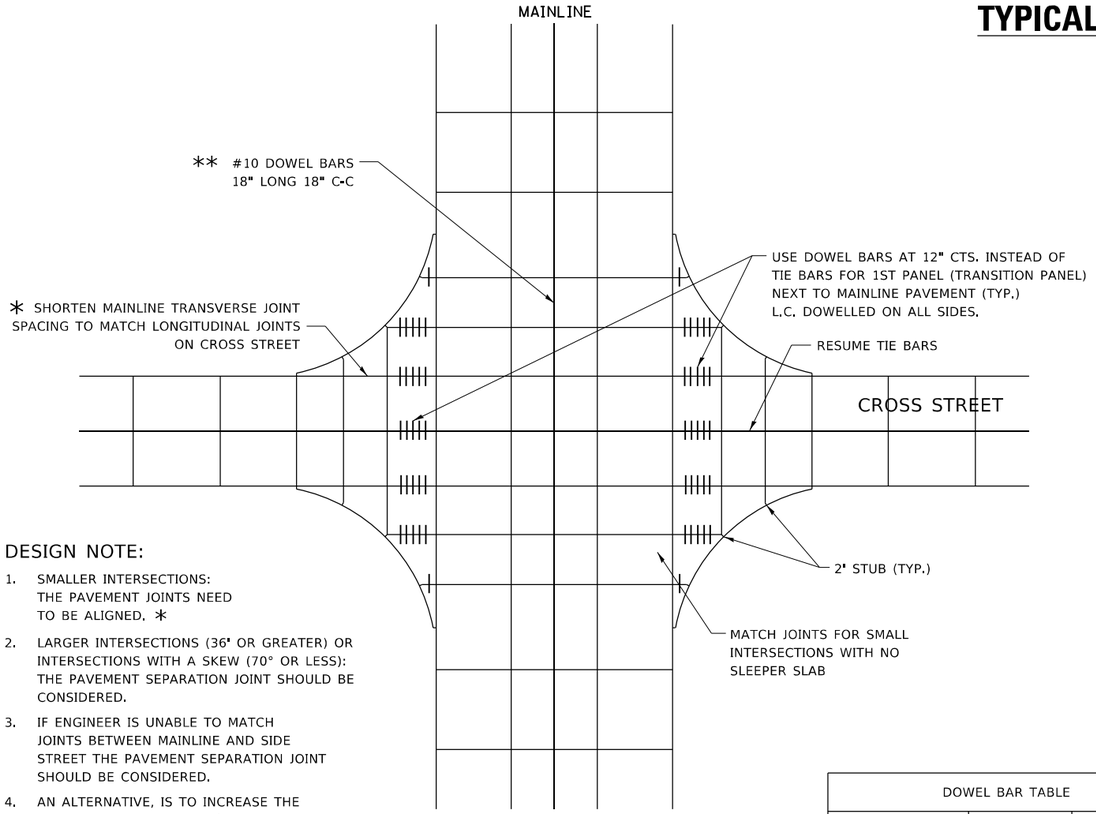
BENCHING DETAIL
FOR EMBANKMENT WIDENING

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	264
BD–51		CONTRACT NO. 62380		
		ILLINOIS FED. AID PROJECT		

MODEL: Default

TYPICAL APPLICATION



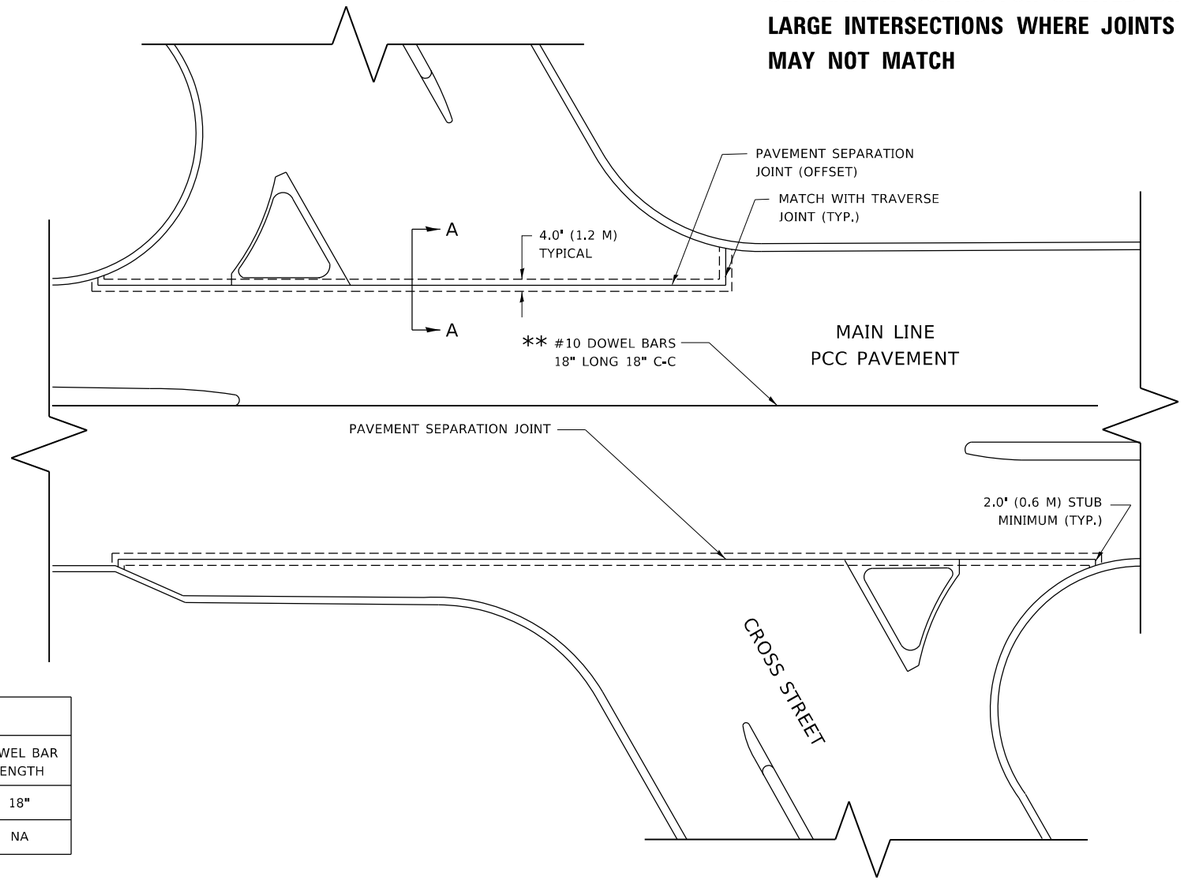
PLAN

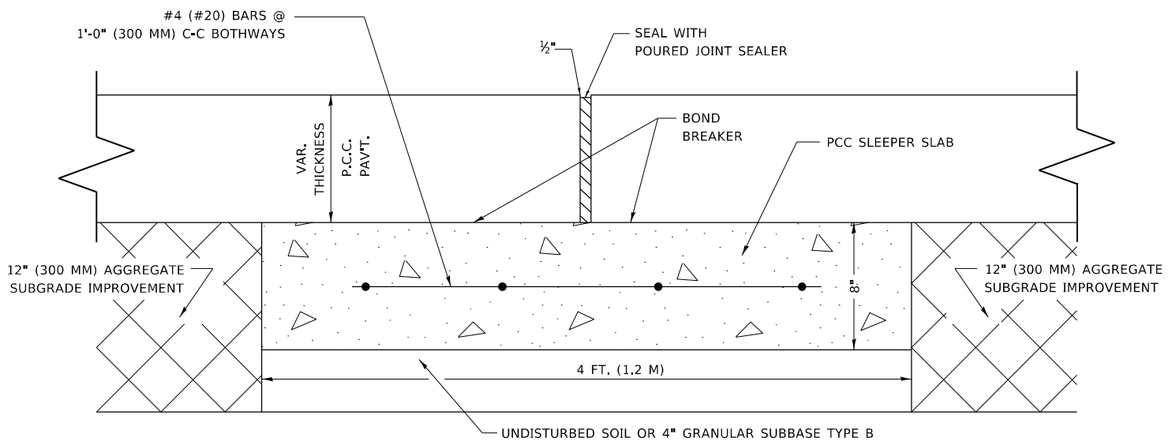
DESIGN NOTE:

1. SMALLER INTERSECTIONS: THE PAVEMENT JOINTS NEED TO BE ALIGNED. *
2. LARGER INTERSECTIONS (36' OR GREATER) OR INTERSECTIONS WITH A SKEW (70° OR LESS): THE PAVEMENT SEPARATION JOINT SHOULD BE CONSIDERED.
3. IF ENGINEER IS UNABLE TO MATCH JOINTS BETWEEN MAINLINE AND SIDE STREET THE PAVEMENT SEPARATION JOINT SHOULD BE CONSIDERED.
4. AN ALTERNATIVE, IS TO INCREASE THE PAVEMENT THICKNESS BY ½" FOR THE LENGTH OF THE AFFECTED PANELS AT THE INTERSECTION.
5. FOR LARGE INTERSECTIONS, (6 LANES OR MORE) WHERE JOINTS CAN BE MATCHED , USE #8 (25) DOWEL BARS INSTEAD OF #8 (25) TIE BARS AT EDGE OF MAINLINE PAVEMENT WHEN NO PAVEMENT SEPARATION JOINTS USED.

DOWEL BAR TABLE		
PAVEMENT THICKNESS	DOWEL BAR DIAMETER	DOWEL BAR LENGTH
8" OR GREATER	1½"	18"
LESS THAN 8"	NA	NA

THE USE OF CROSS STREET PAVEMENT SEPARATION JOINTS FOR SKEWED OR LARGE INTERSECTIONS WHERE JOINTS MAY NOT MATCH





PROPOSED SECTION A–A

NOTE:

1. JOINT FILLER SHALL CONSIST OF A SHEET OF ½" BITUMINOUS PREFORMED FIBER JOINT FILLER CONFORMING TO ARTICLE 1051.03 OF THE STANDARD SPECIFICATIONS.
2. THE JOINT SHALL BE SEALED WITH A HOT POUR JOINT SEALER CONFORMING TO ARTICLE 1050.02 OF THE STANDARD SPECIFICATIONS.
3. A SINGLE LAYER OF FELT ROOFING PAPER SHALL SERVE AS A BOND BREAKER.
4. JOINT SHALL CONTINUE THROUGH COMBINATION CURB & GUTTER OR PCC SHOULDER.

METHOD OF MEASUREMENT

THIS WORK WILL BE MEASURED FOR PAYMENT IN FEET, MEASURED IN PLACE.

BASIS OF PAYMENT

1. THIS WORK WILL BE PAID FOR AT THE UNIT PRICE PER FOOT FOR "SLEEPER SLAB".
2. BOND BREAKER AND½" (13MM) JOINT FILLER SHALL BE INCLUDED IN THE PAY ITEM "SLEEPER sLAB"

USER NAME = footem]	DESIGNED - TGM	REVISED -	CADD 06-18-10
	DRAWN -	REVISED -	O. PATEL 3-27-19
PLOT SCALE = 50.0000 ' / in.	CHECKED - AM	REVISED -	
PLOT DATE = 3/27/2019	DATE - 05-14-2002	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF PAVEMENT SEPARATION JOINT FOR JOINTED PCC PAVEMENTS AT INTERSECTIONS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	265
	BD52	CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			

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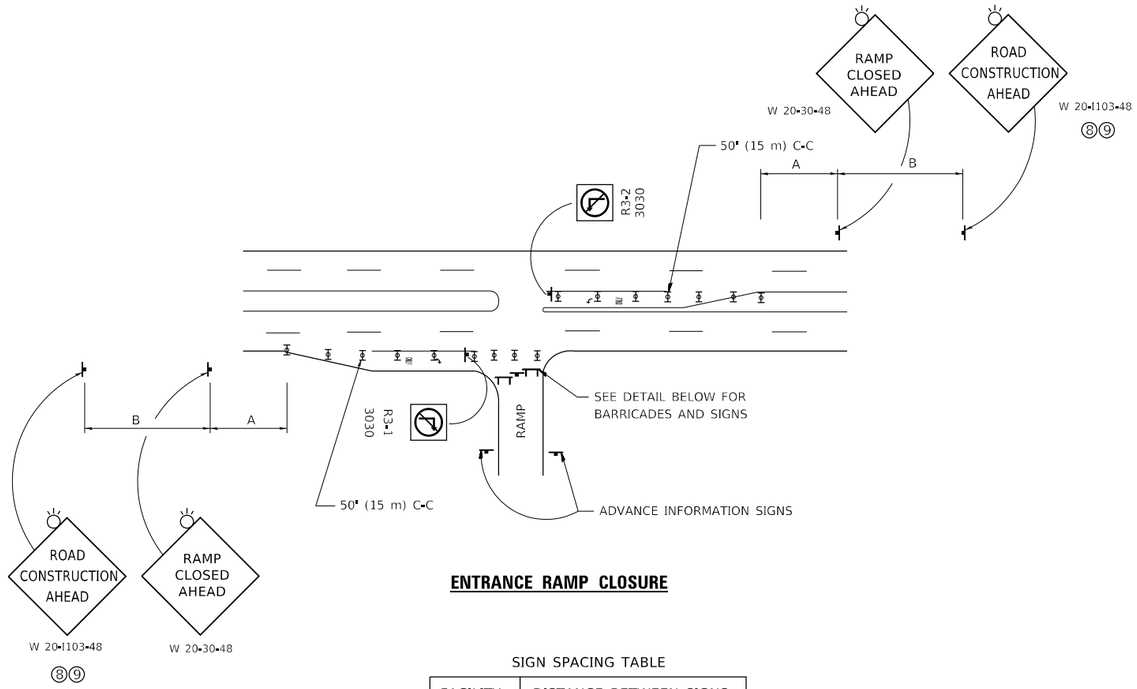
bd52.dan 3/27/2019 7:36:56 AM User:footem]

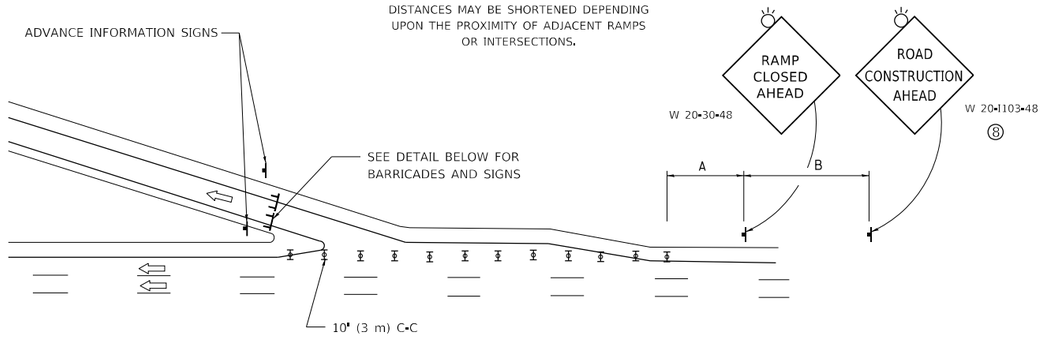


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

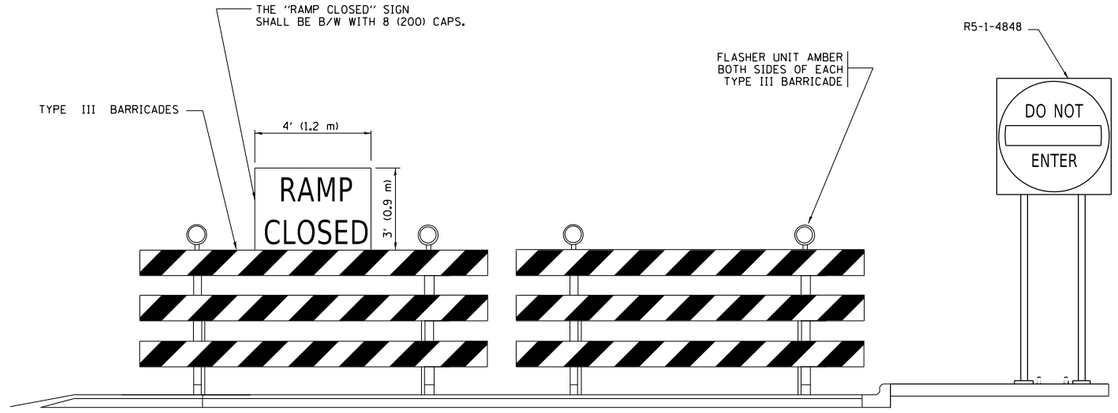


EXIT RAMP CLOSURE

SYMBOLS

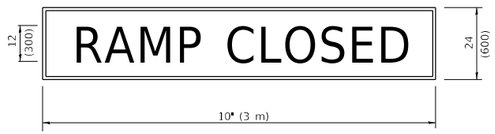
TYPE II BARRICADE OR DRUM

TYPE III BARRICADE WITH 2 FLASHING LIGHTS



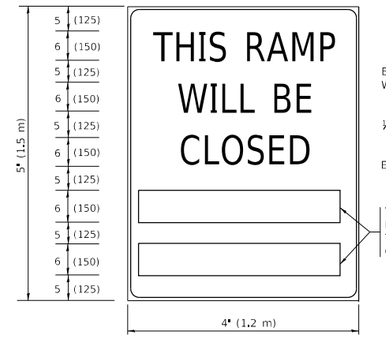
DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE
BACKGROUND MOUNTED
DIAGONALLY
E MOD FONT
1 (25) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT
GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE
CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE BACKGROUND

½ (12) BORDER

E MOD FONT

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.

② VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.

③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEEDED BY A W20-7 FLAGGER WARNING SIGN.

④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.

⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).

⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.

⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH

⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.

⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

MODEL: Default
FILE NAME: pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\DistStd22x34\CADData\CADsheets\tc08.dgn

USER NAME = footemj	DESIGNED - D.W.S.	REVISED - S.P.B._01-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - S.P.B._12-09	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - M.D._06-13	
PLOT DATE = 3/4/2019	DATE - 02-83	REVISED - M.D._01-18	

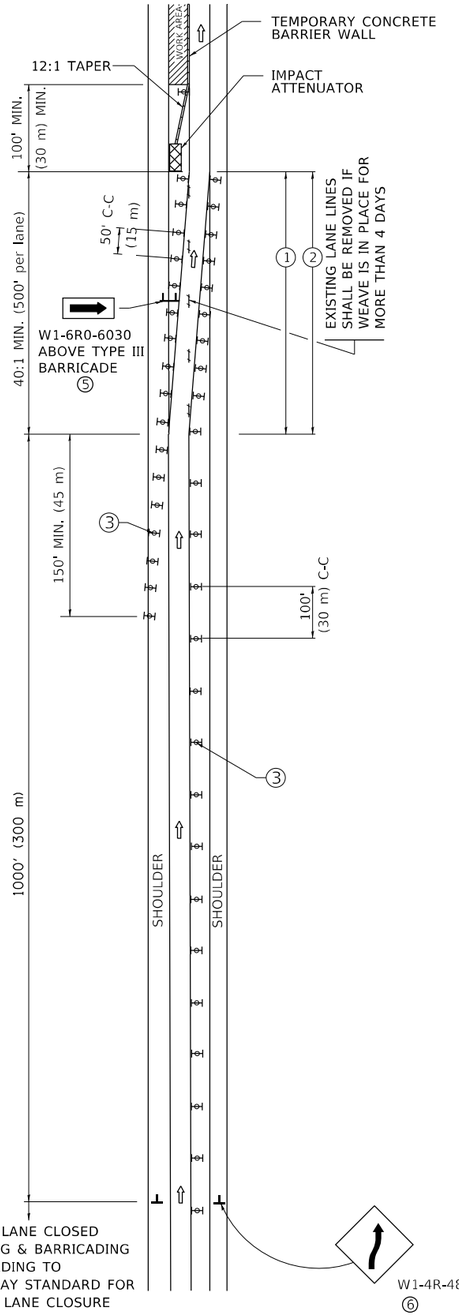
ENTRANCE_AND_EXIT_RAMP
CLOSURE_DETAILS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

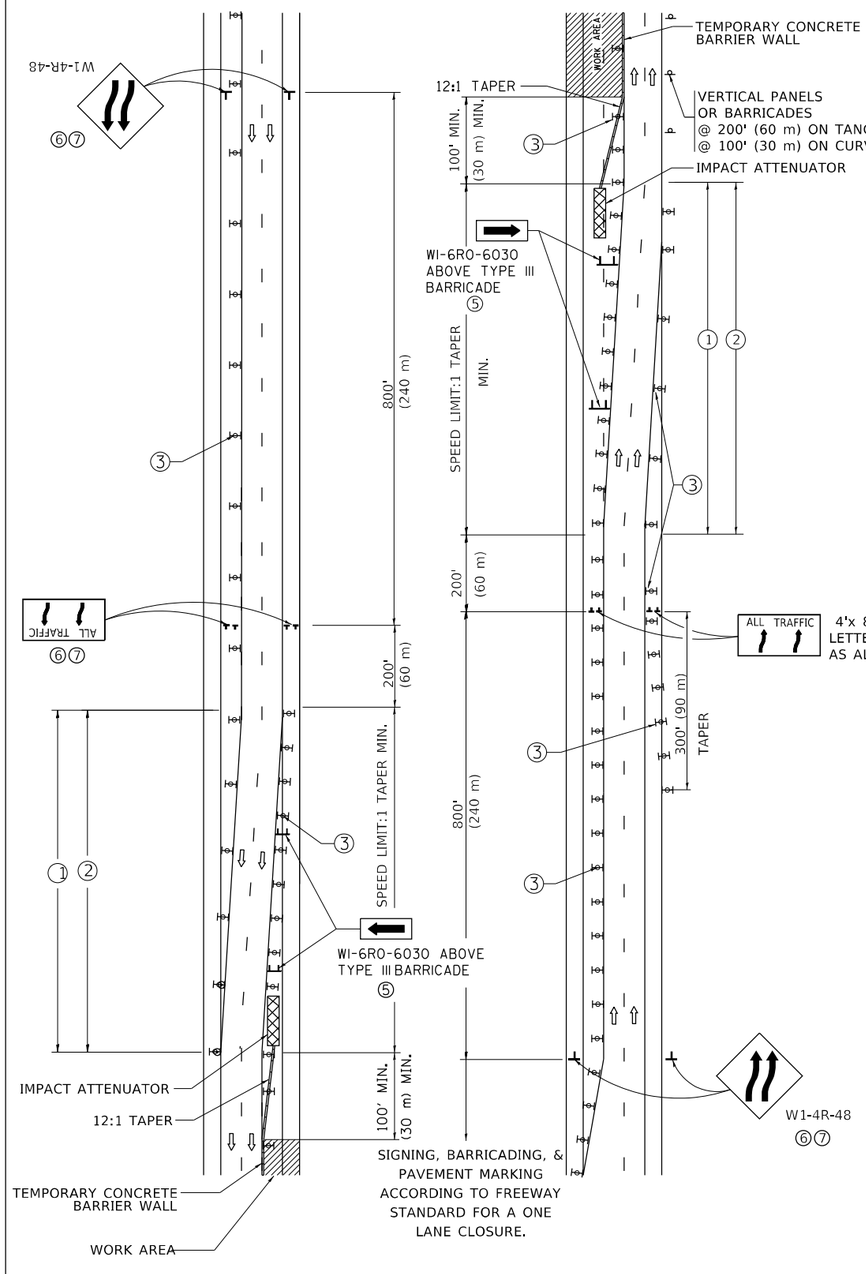
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	266
	TC-08	CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

tc08.dgn 3/4/2019 10:22:32 AM User=footemj

SINGLE LANE WEAVE



MULTI–LANE WEAVE



GENERAL NOTES:

① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.

② CONTINOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.

③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.

④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.

⑤ TYPE III BARRICADES MAY BE OMMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.

⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.

⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER WALL
- IMPACT ATTENUATOR

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

USER NAME = footemj	DESIGNED - D.W.S.	REVISED - J.A.F. 02-06
	DRAWN -	REVISED - S.P.B. 01-07
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - S.P.B. 12-09
PLOT DATE = 3/4/2019	DATE - 02-87	REVISED - M.D. 06-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

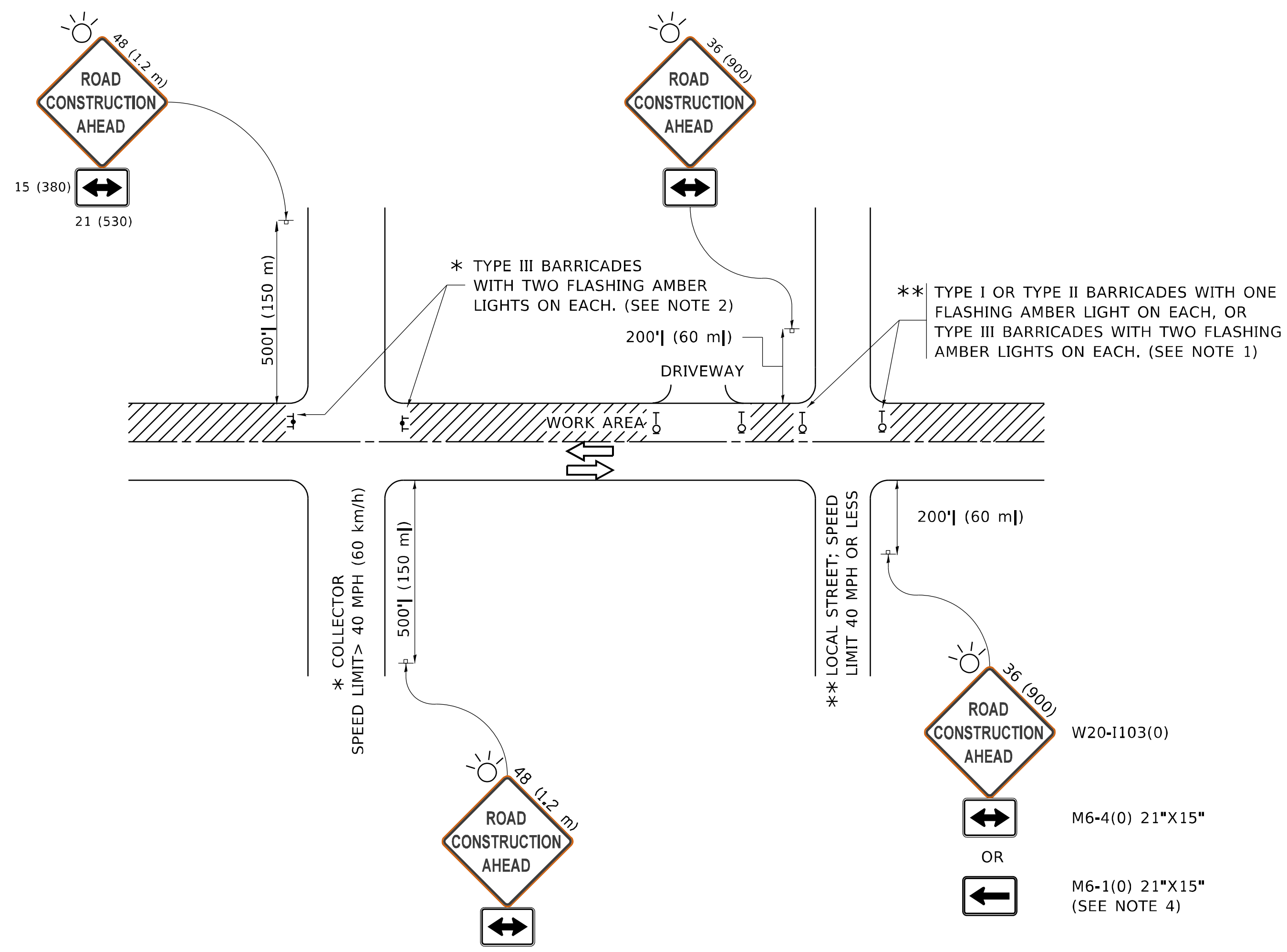
TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI–LANE WEAVE

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	267
	TC-09	CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw:\\IL084EBIDINTEG:illinois.gpw:PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist 1\d22x34\CADData\CADsheets\tc09.dgn

tc09.dgn 3/4/2019 10:24:46 AM User: footemj



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.

4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.

6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.

7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

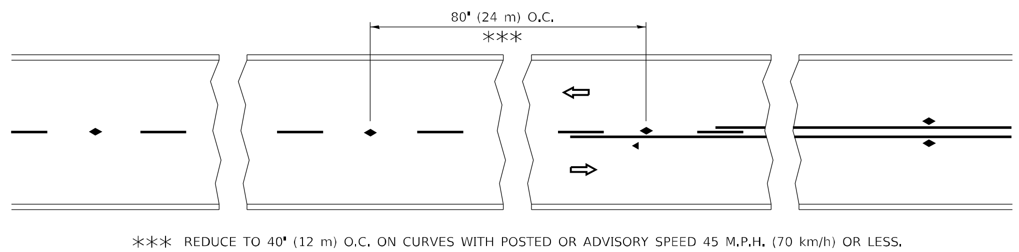
USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - T. RAMMACHER 01-06-00	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13	
PLOT DATE = 3/4/2019	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16	

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

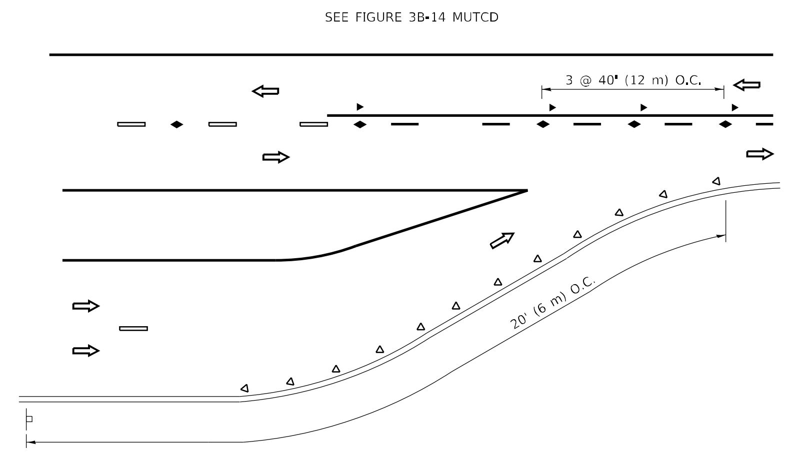
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	268
TC-10		CONTRACT NO. 62380		
		ILLINOIS FED. AID PROJECT		

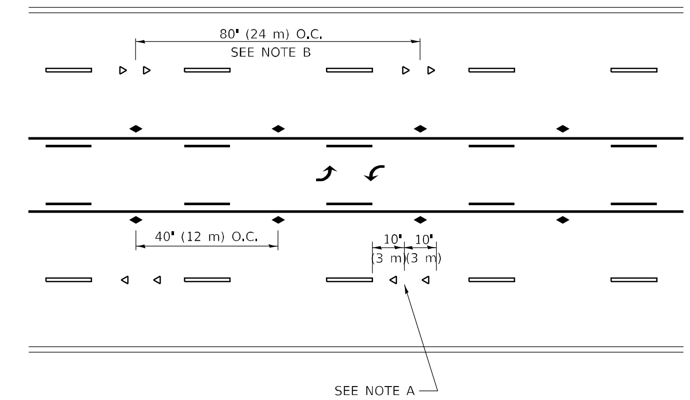
MODEL: Default



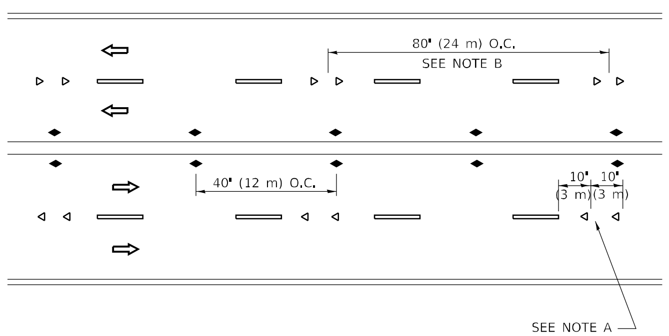
TWO–LANE/TWO–WAY



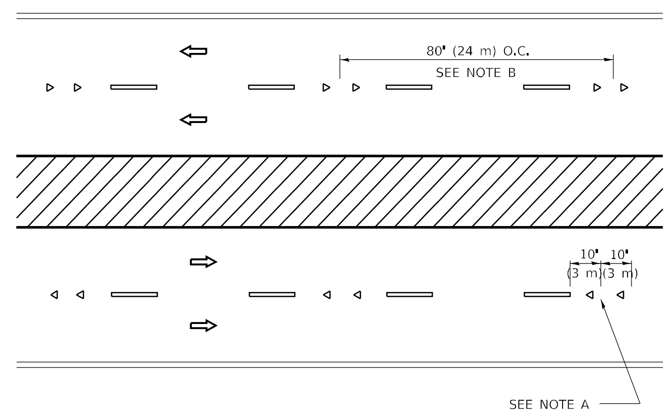
LANE REDUCTION TRANSITION



TWO–WAY LEFT TURN



MULTI–LANE/UNDIVIDED



MULTI–LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

SYMBOLS

YELLOW STRIPE
WHITE STRIPE
ONE-WAY AMBER MARKER
ONE-WAY CRYSTAL MARKER (W/O)
TWO-WAY AMBER MARKER

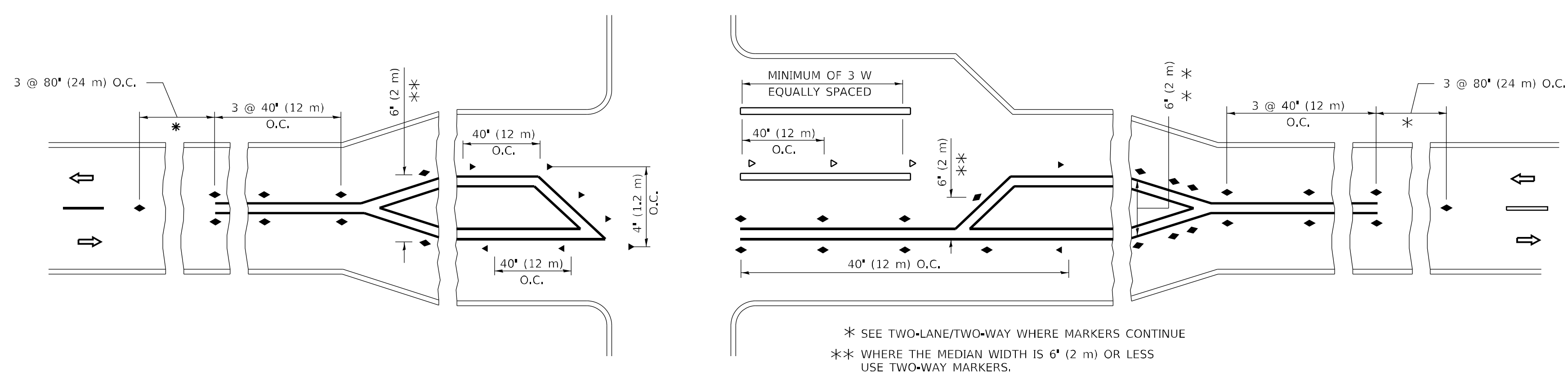
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



TURN LANES

All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footem]	DESIGNED -	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW–PLOW RESISTANT)
	DRAWN -	REVISED - T. RAMMACHER 01-06-00		
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 09-09-09		
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 07-01-13		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	269
	TC-11	CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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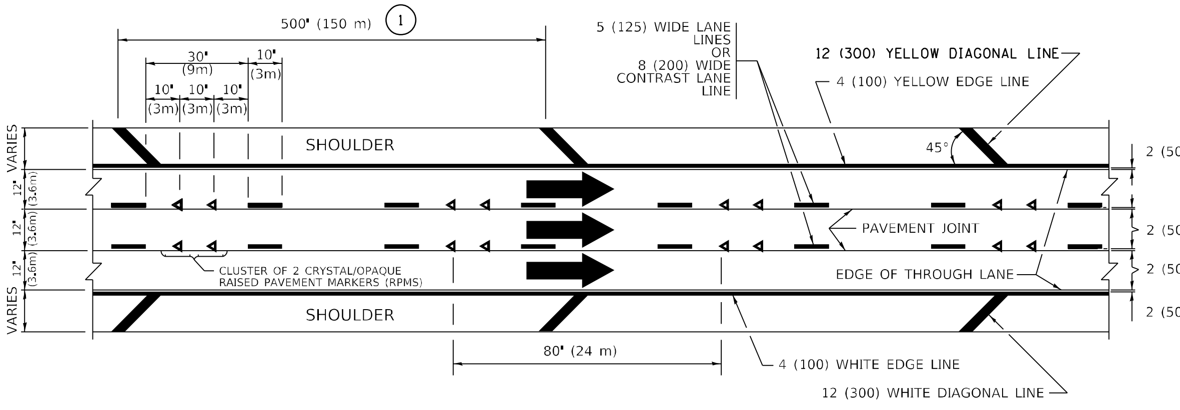
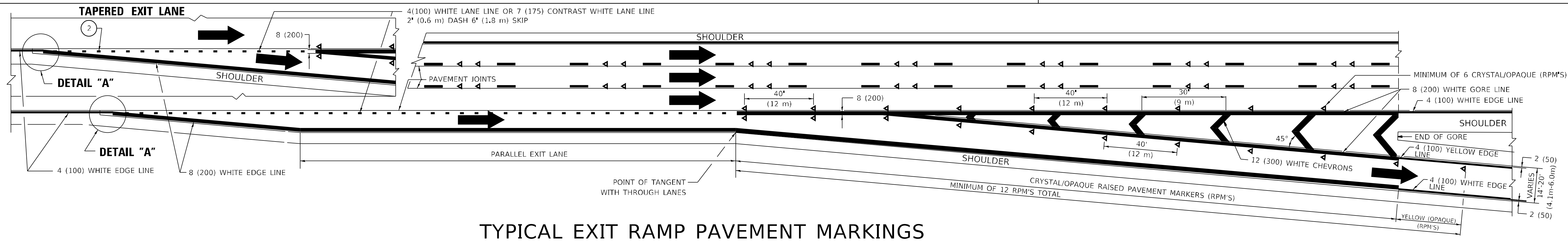


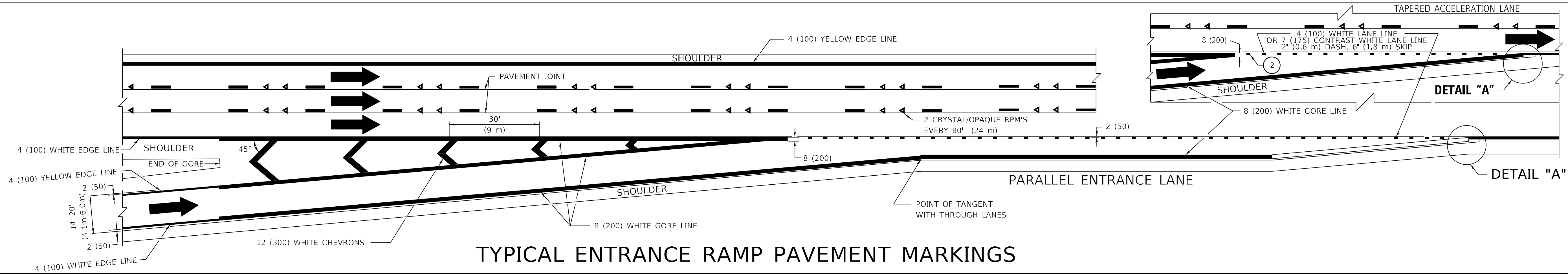
TYPICAL EDGE LINES & LANE LINES

PAVEMENT MARKING MATERIALS

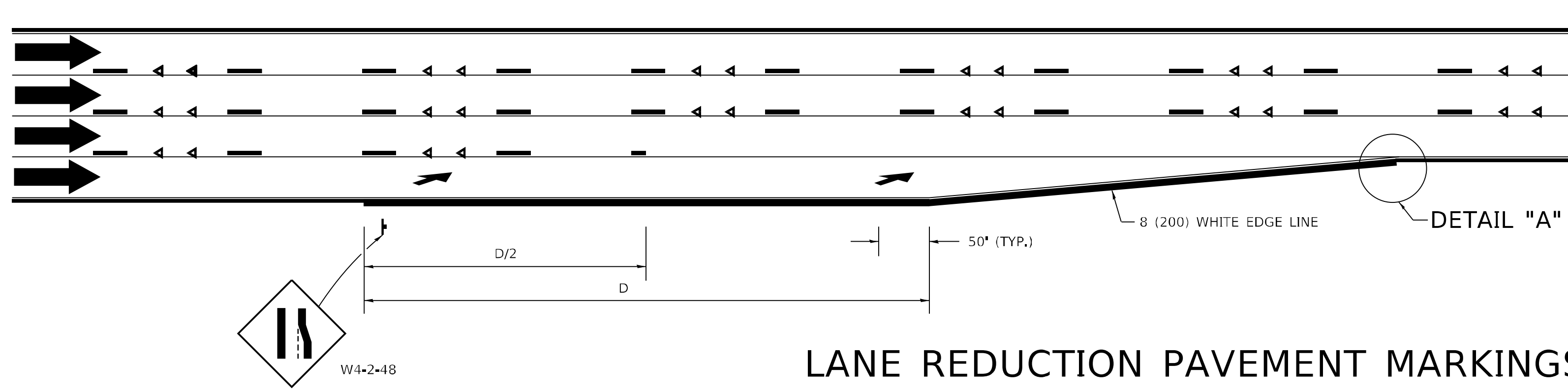
1. THERMOPLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON HMA PAVEMENTS.
2. POLYUREA OR MODIFIED URETHANE PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON PCC PAVEMENTS.
3. PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE D, INLAID OR GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON HMA PAVEMENTS.
4. CONTRAST PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE B, GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON PCC PAVEMENT.



TYPICAL EXIT RAMP PAVEMENT MARKINGS

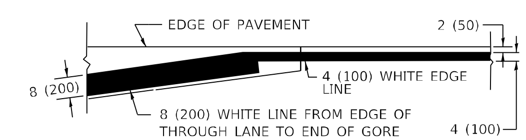


TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



LANE REDUCTION PAVEMENT MARKINGS

POSTED SPEED LIMIT	D DISTANCE
45 MPH	750' (230 m)
55 MPH	950' (290 m)
65 MPH	1200' (365 m)



DETAIL "A"

NOTES:

① THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.

② 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.

USER NAME = Lawrence.DeManche	DESIGNED - D.W.S.	REVISED - S.P.B. 01-10	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - M.D. 05-13	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - M.D. 09-17	
PLOT DATE = 11/18/2022	DATE - 01-90	REVISED - K. SMITH 11-18-22	

MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS

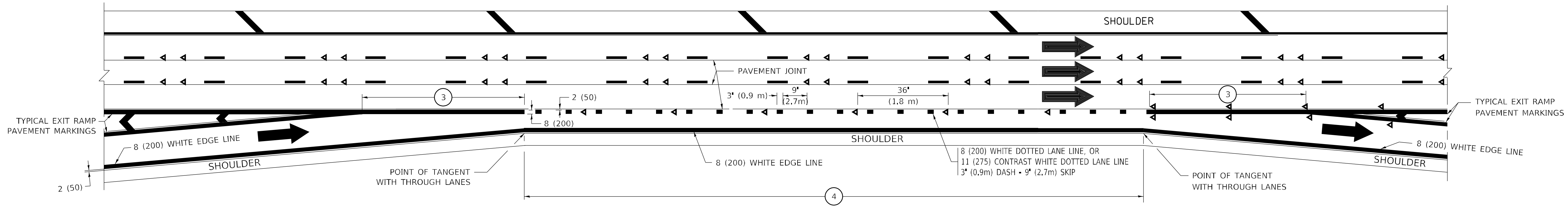
SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	270

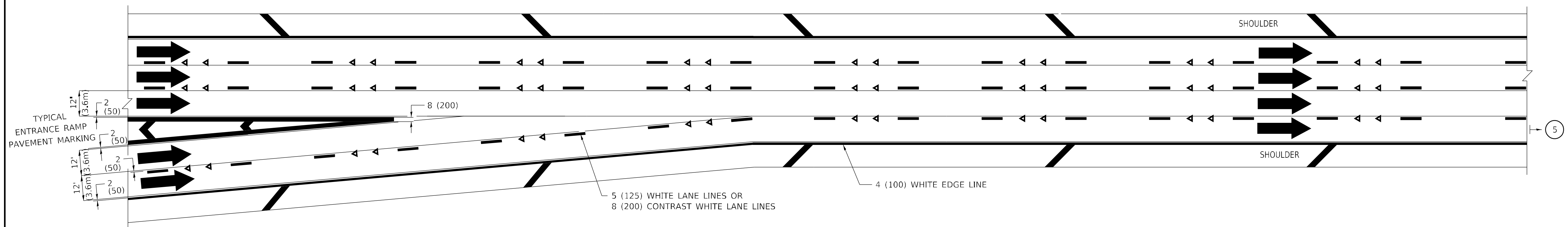
TC-12 | CONTRACT NO. 62380

ILLINOIS | FED. AID PROJECT

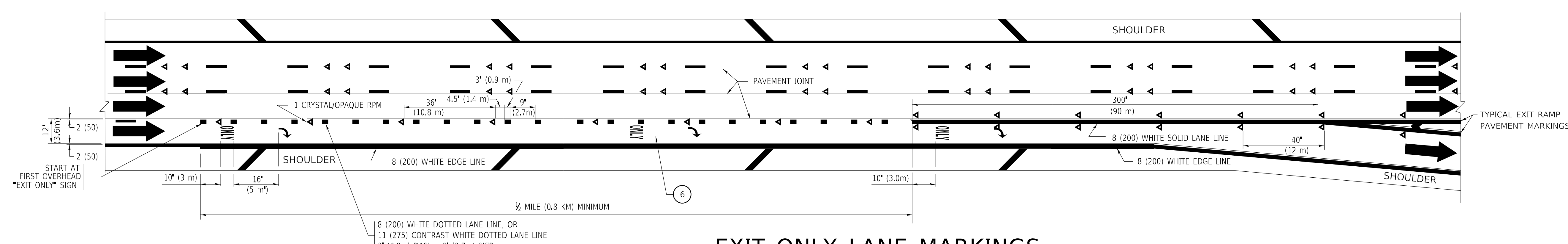
MODEL: Default



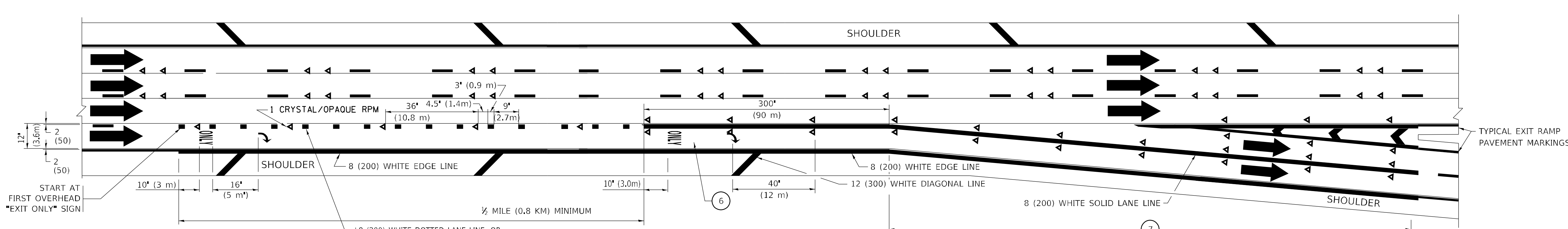
AUXILIARY LANE MARKINGS



TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



EXIT ONLY LANE MARKINGS



EXIT ONLY WITH OPTION LANE MARKINGS

NOTES:

3. OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
4. 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
5. FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
6. ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED..
7. CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

MODEL: Default

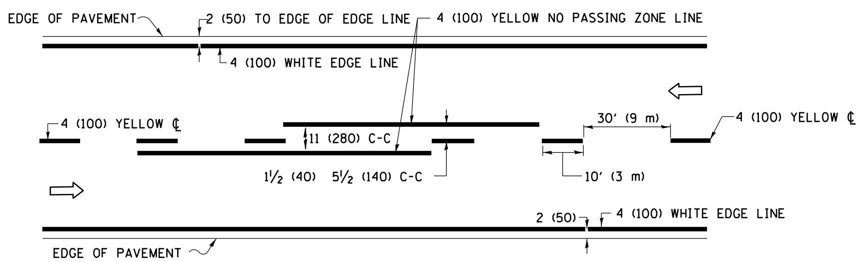
USER NAME = footemj	DESIGNED - D.W.S.	REVISED - J.A.F. 02-06
	DRAWN -	REVISED - S.P.B. 01-07
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - S.P.B. 01-10
PLOT DATE = 3/4/2019	DATE - 01-90	REVISED - M.D. 09-17

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

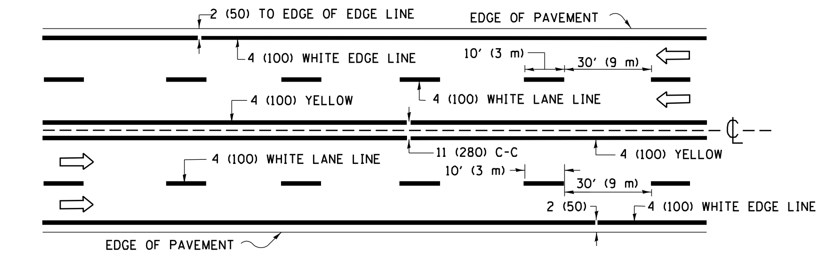
MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. | TO STA.

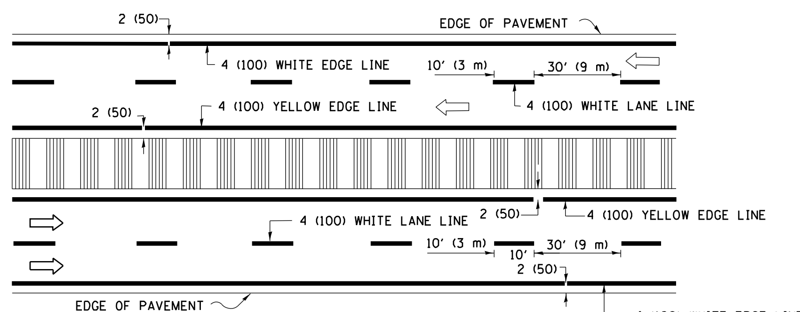
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	271
TC-12		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY

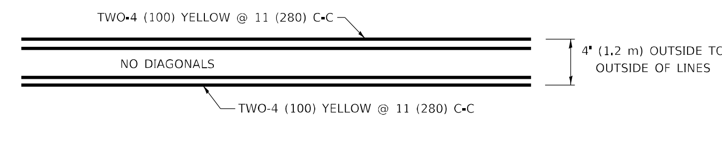


MULTI-LANE UNDIVIDED

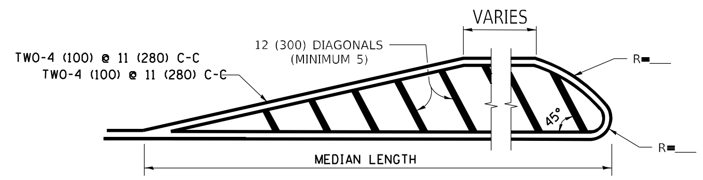


MULTI-LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING



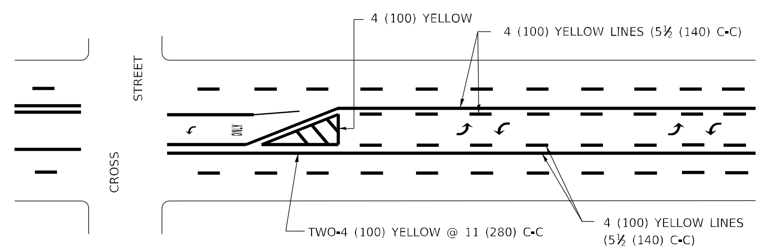
4' (1.2 m) WIDE MEDIANS ONLY



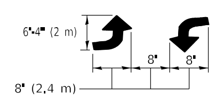
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

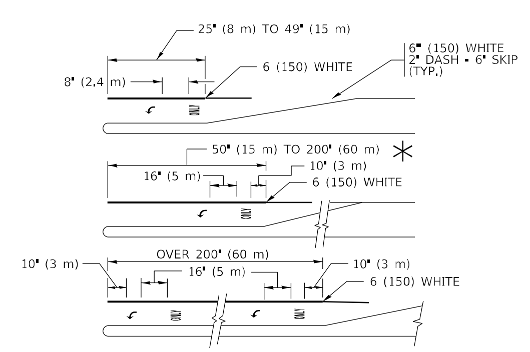


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED. WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

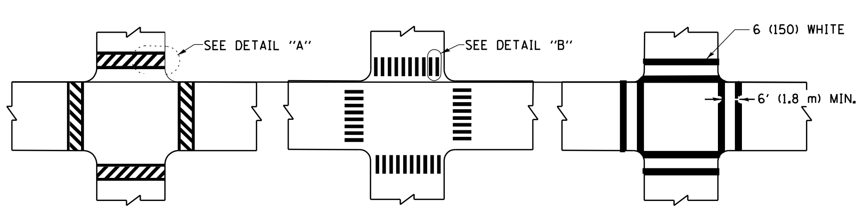


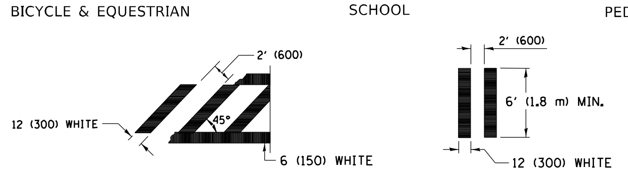
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) ONLY AREA = 20.8 SQ. FT. (1.9 m^2)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

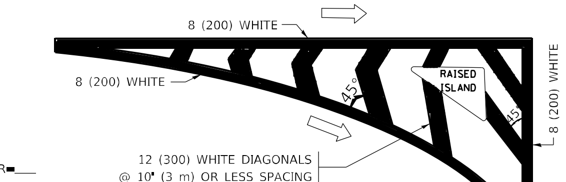




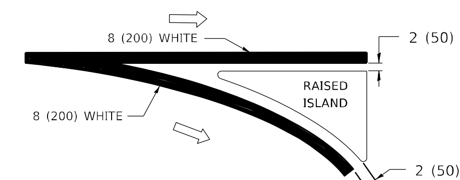
DETAIL "A" DETAIL "B"

TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

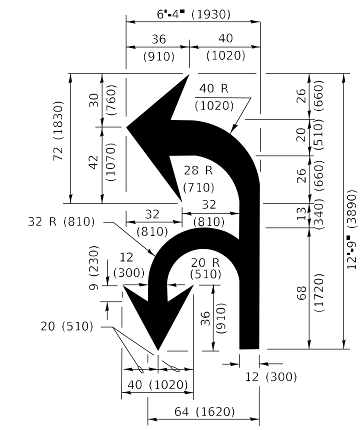


ISLAND OFFSET FROM PAVEMENT EDGE

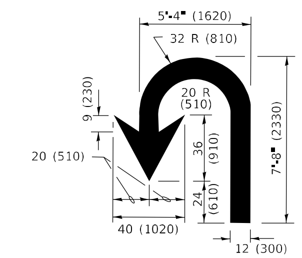


ISLAND AT PAVEMENT EDGE

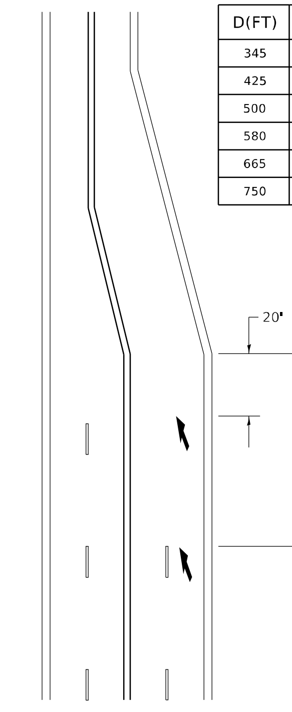
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN



D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

LANE REDUCTION TRANSITION

* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footem]	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - C. JUCIUS 07-01-13	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15	
PLOT DATE = 3/4/2019	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16	

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	272
TC-13		CONTRACT NO. 62380		

ILLINOIS FED. AID PROJECT

MODEL: Default

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

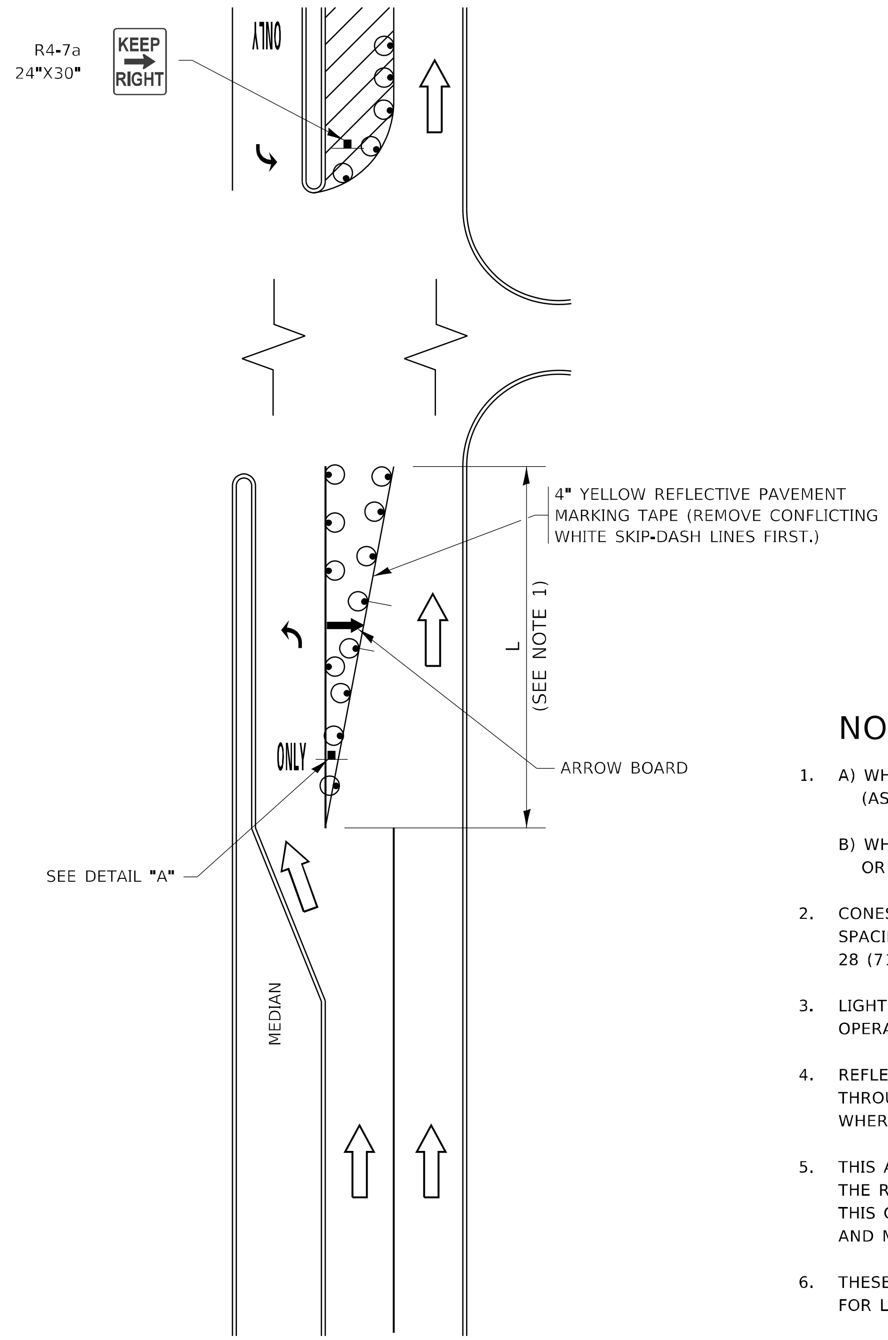


FIGURE 1

TURN BAY ENTRANCE WITHIN A LANE CLOSURE

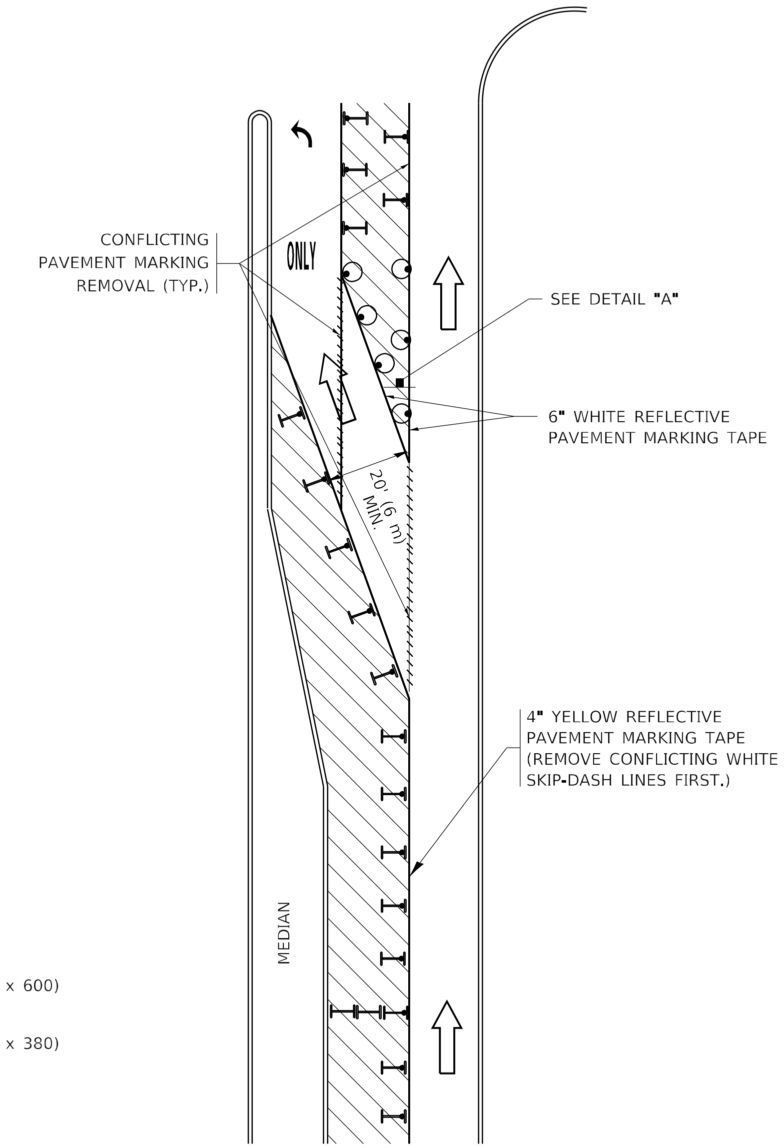
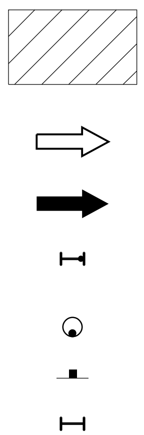


FIGURE 2

LEGEND



Symbol	Description
(hatched box)	WORK AREA
(open arrow)	LANE OPEN TO TRAFFIC
(solid arrow)	ARROW BOARD
(barricade)	TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
(drum)	DRUM WITH STEADY BURN LIGHT
(sign)	SIGN ASSEMBLY
(barricade)	TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

NOTES:

1. A) WHEN "L" IS ≤ THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.

   B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.

2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.

3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.

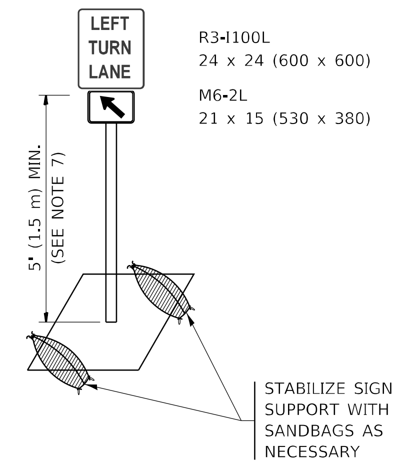
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.

5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.

6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.

7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.

8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

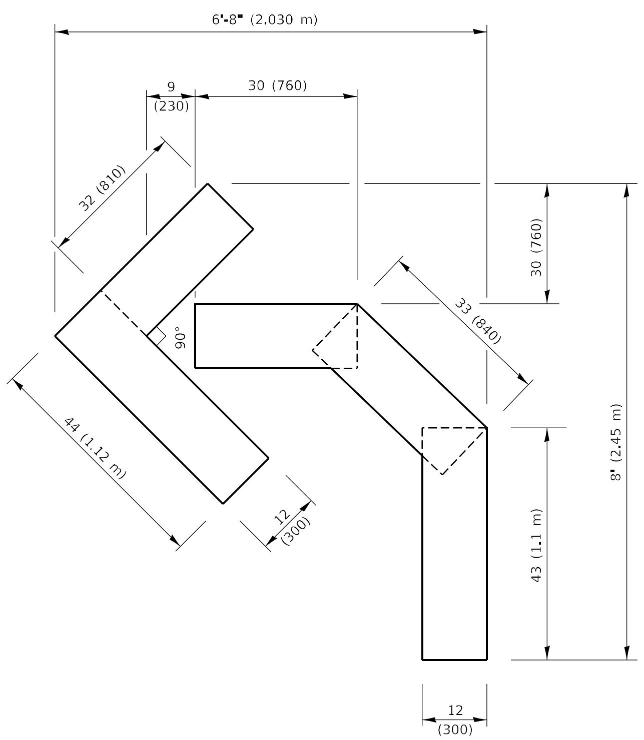


DETAIL A

All dimensions are in inches (millimeters) unless otherwise shown.

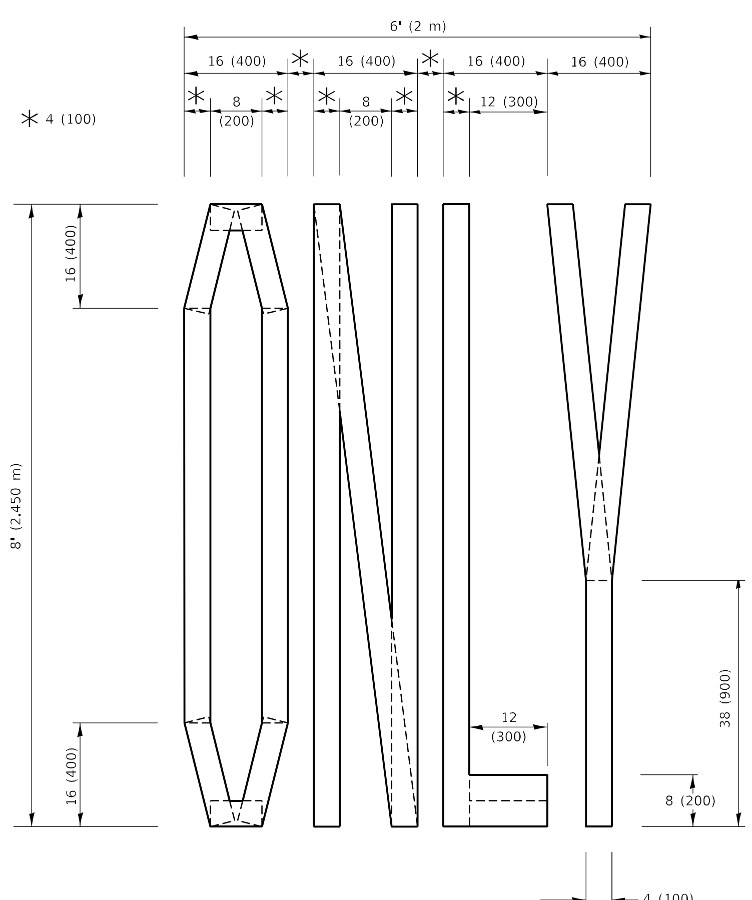
USER NAME = footemj	DESIGNED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)	
	DRAWN - A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13			
PLOT SCALE = 50.0000 ' / in.	CHECKED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16			
PLOT DATE = 3/4/2019	DATE - T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	273
TC-14		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



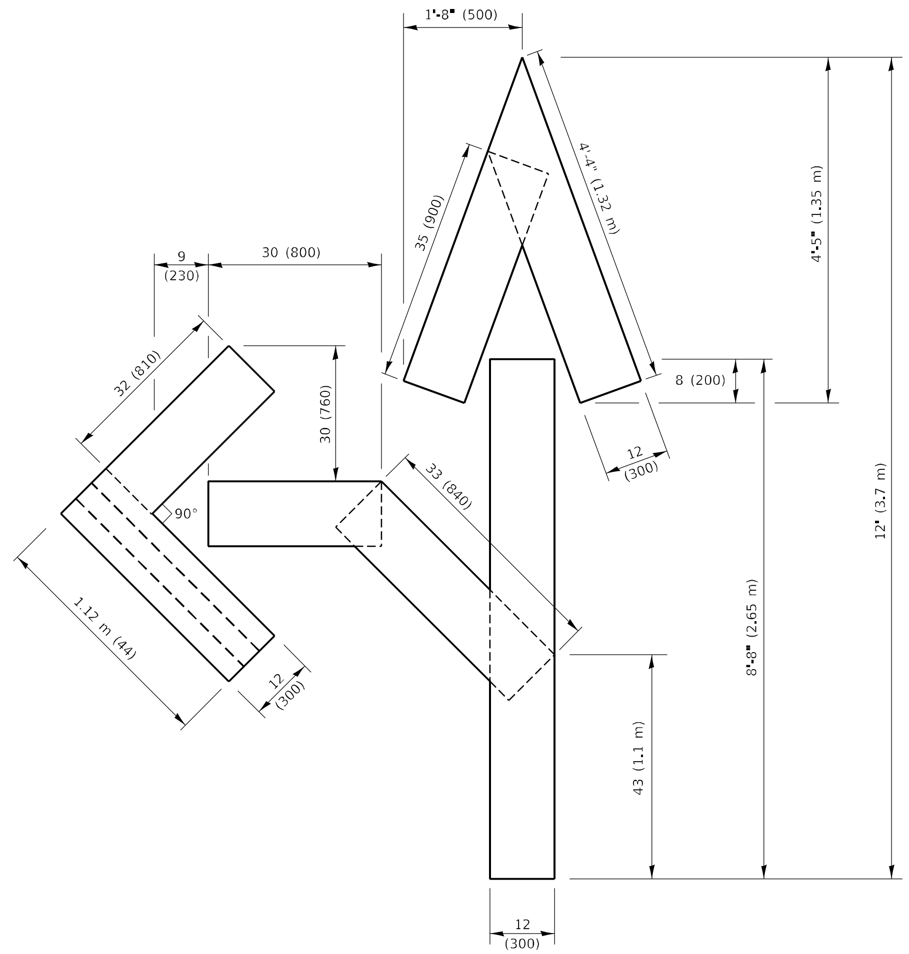
QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.41 sq. m)



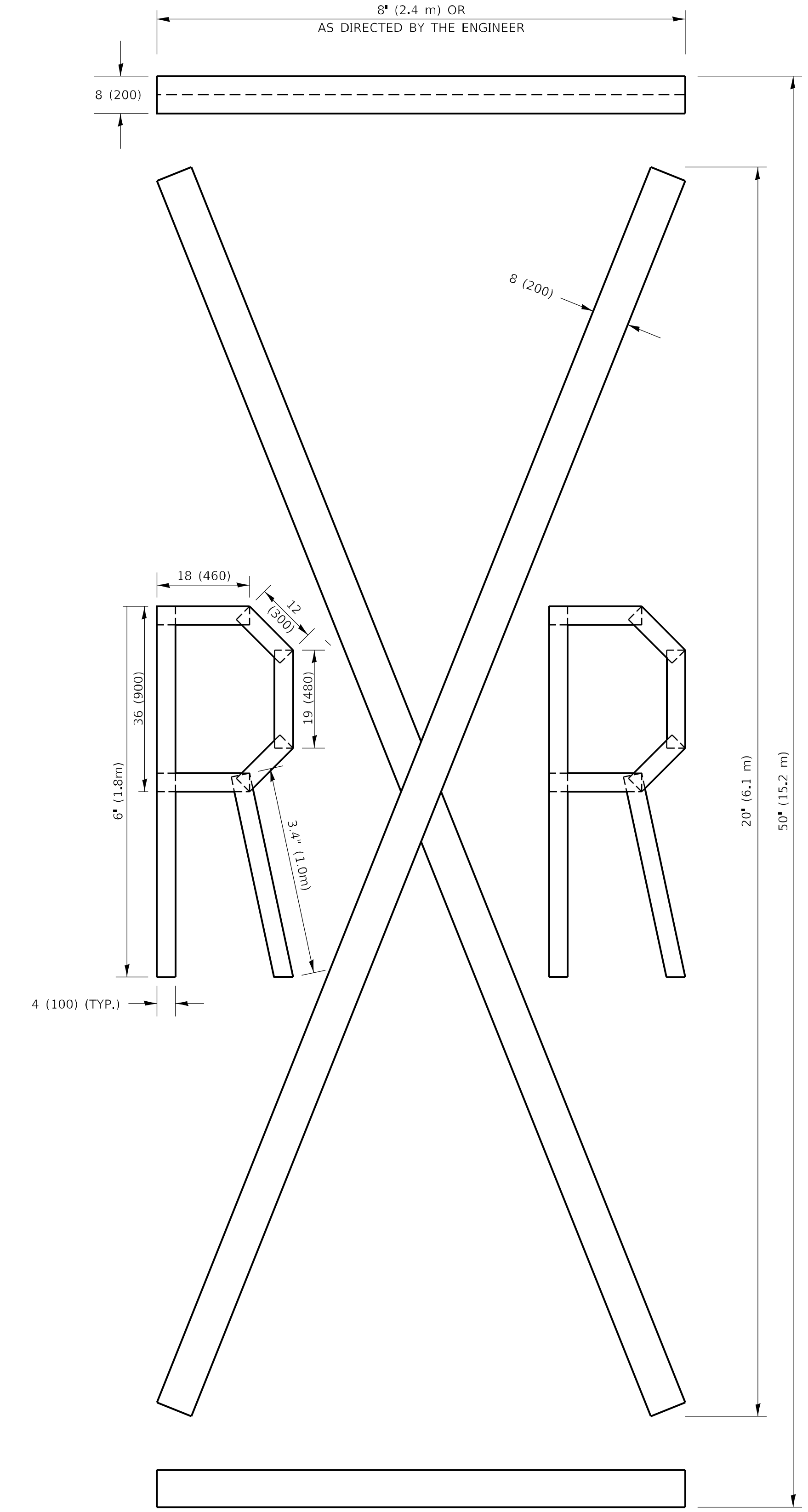
QUANTITY

4 (100) LINE = 64.1 ft. (19.5 m)
21.4 sq. ft. (1.99 sq. m)



QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY

4 (100) LINE = 225.9 ft. (68.9 m)
75.3 sq. ft. (6.99 sq. m)

NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.

All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 03-02-98	
	DRAWN -	REVISED - E. GOMEZ 08-28-00	
PLOT SCALE = 50.0068 ' / in.	CHECKED -	REVISED - E. GOMEZ 08-28-00	
PLOT DATE = 3/4/2019	DATE - 09-18-94	REVISED - A. SCHUETZE 09-15-16	

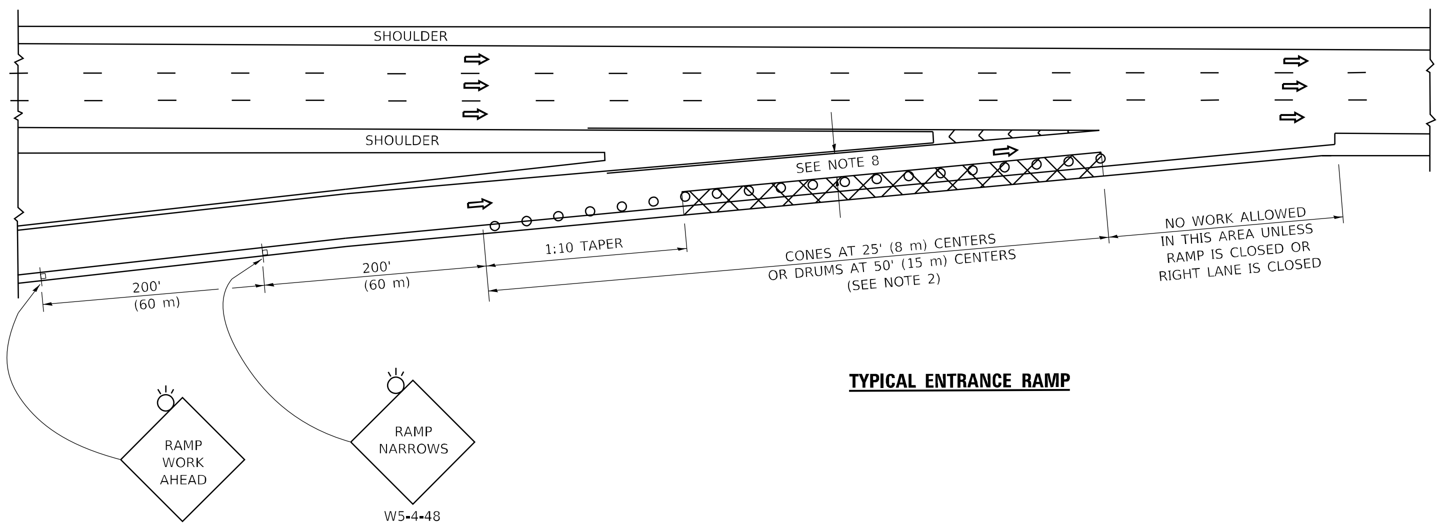
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

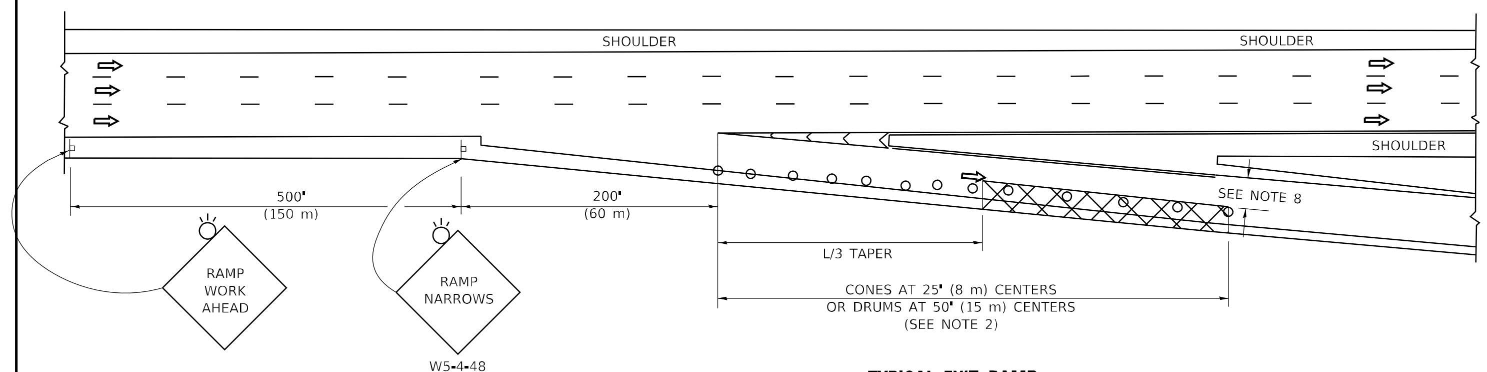
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	274
	TC-16	CONTRACT NO. 62380		
		ILLINOIS FED. AID PROJECT		

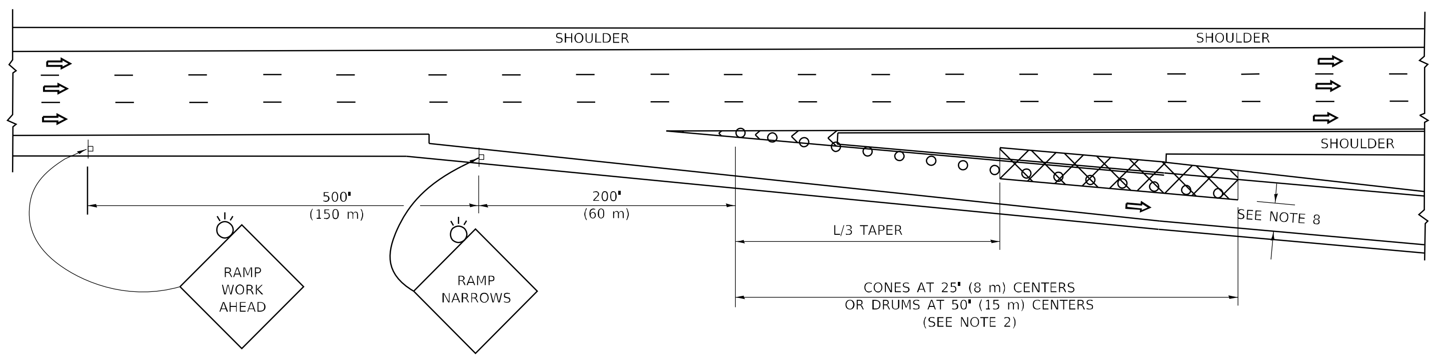
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP

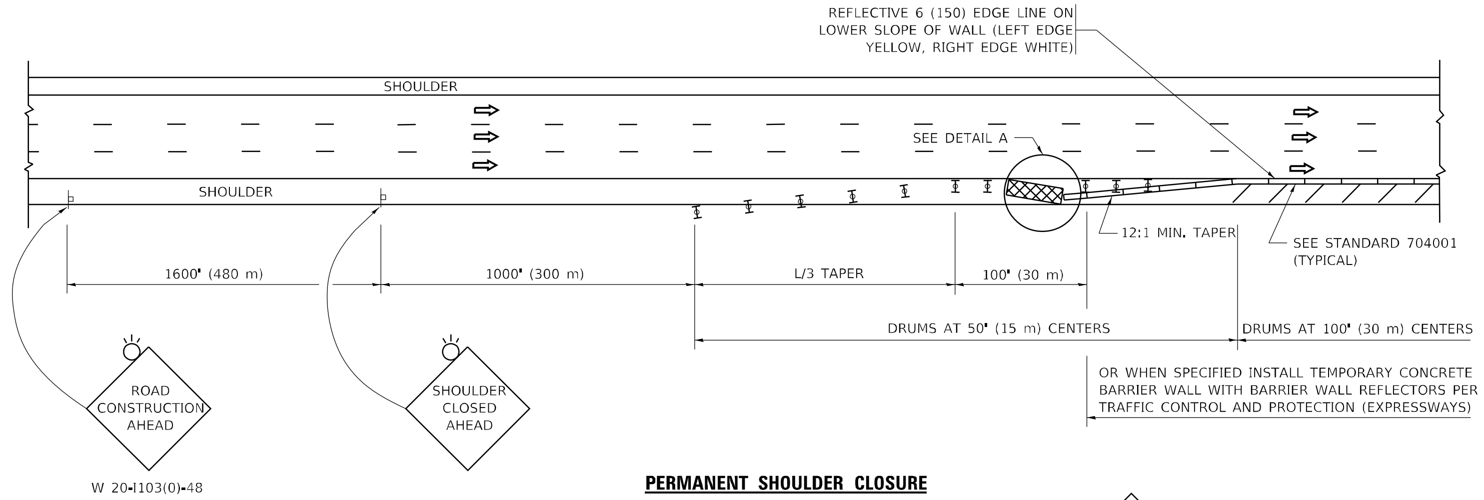


TYPICAL EXIT RAMP

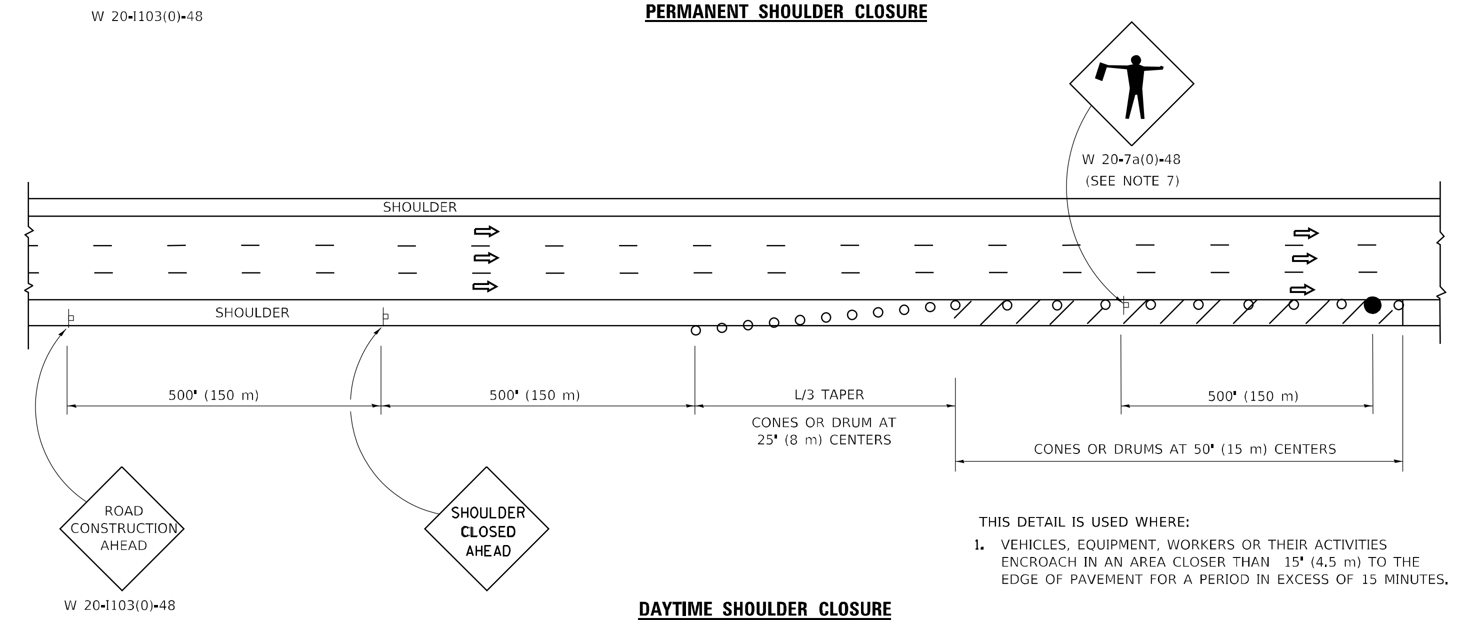


TYPICAL EXIT RAMP

SHOULDER CLOSURE DETAILS



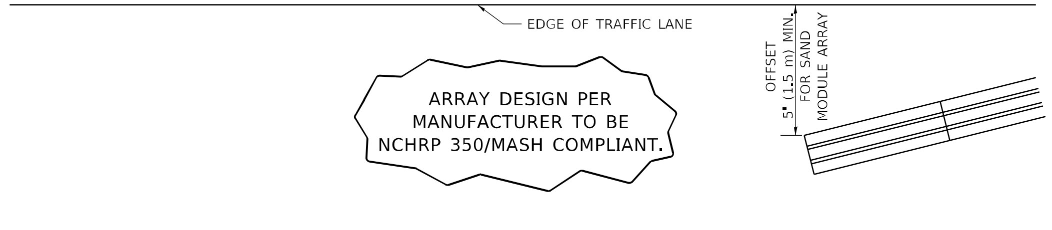
PERMANENT SHOULDER CLOSURE



THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

DAYTIME SHOULDER CLOSURE



DETAIL "A"
IMPACT ATTENTUATOR, TEMPORARY
(SEE NOTE 5)

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES:

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS METRIC	ENGLISH
45 mph (80 km/h) OR GREATER:	L=0.65(W)(S)	L=(W)(S)

W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)

2. TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTICLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENTUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
   b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12' MIN. WIDTH TANGENT SECTION
   16' MIN. WIDTH CURVE SECTION.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = footemj	DESIGNED -	REVISED - S.P.B. 01-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - D.W.S.	REVISED - S.P.B. 12-09	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - M.D. 06-13	
PLOT DATE = 3/4/2019	DATE - 11-96	REVISED - M.D. 01-18	

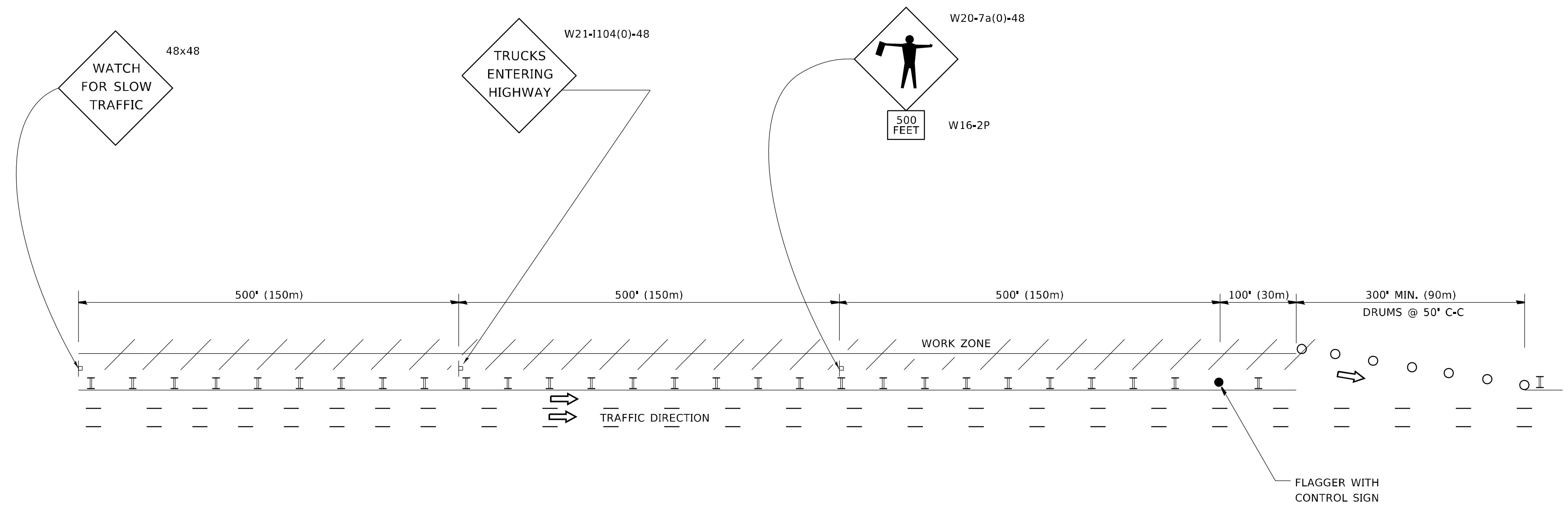
TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

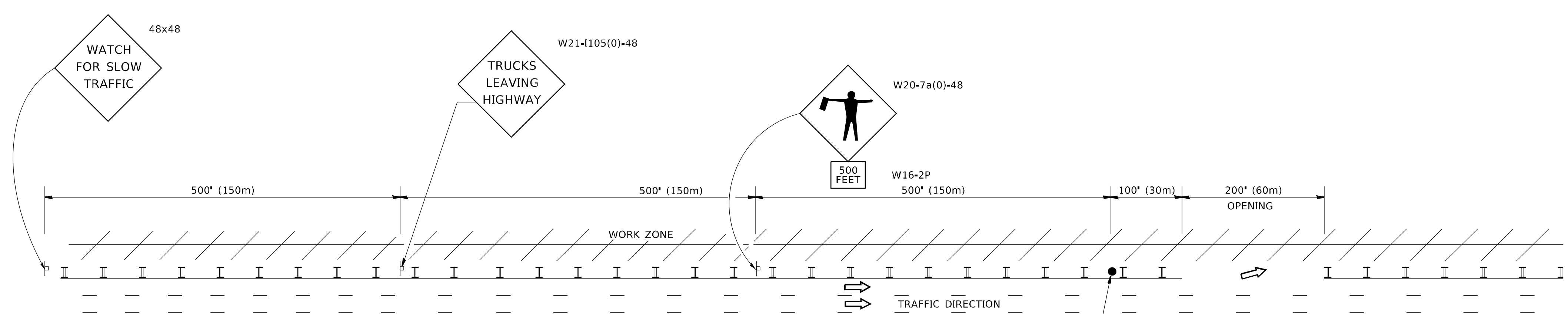
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	275
	TC-17	CONTRACT NO. 62380		
		ILLINOIS FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. ALL SIGNS SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMPS.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

USER NAME = footemj	DESIGNED -	REVISED -	J.A.F. 02-06
	DRAWN -	REVISED -	S.P.B. 01-07
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	S.P.B. 12-09
PLOT DATE = 3/4/2019	DATE -	REVISED -	M.D.06-13

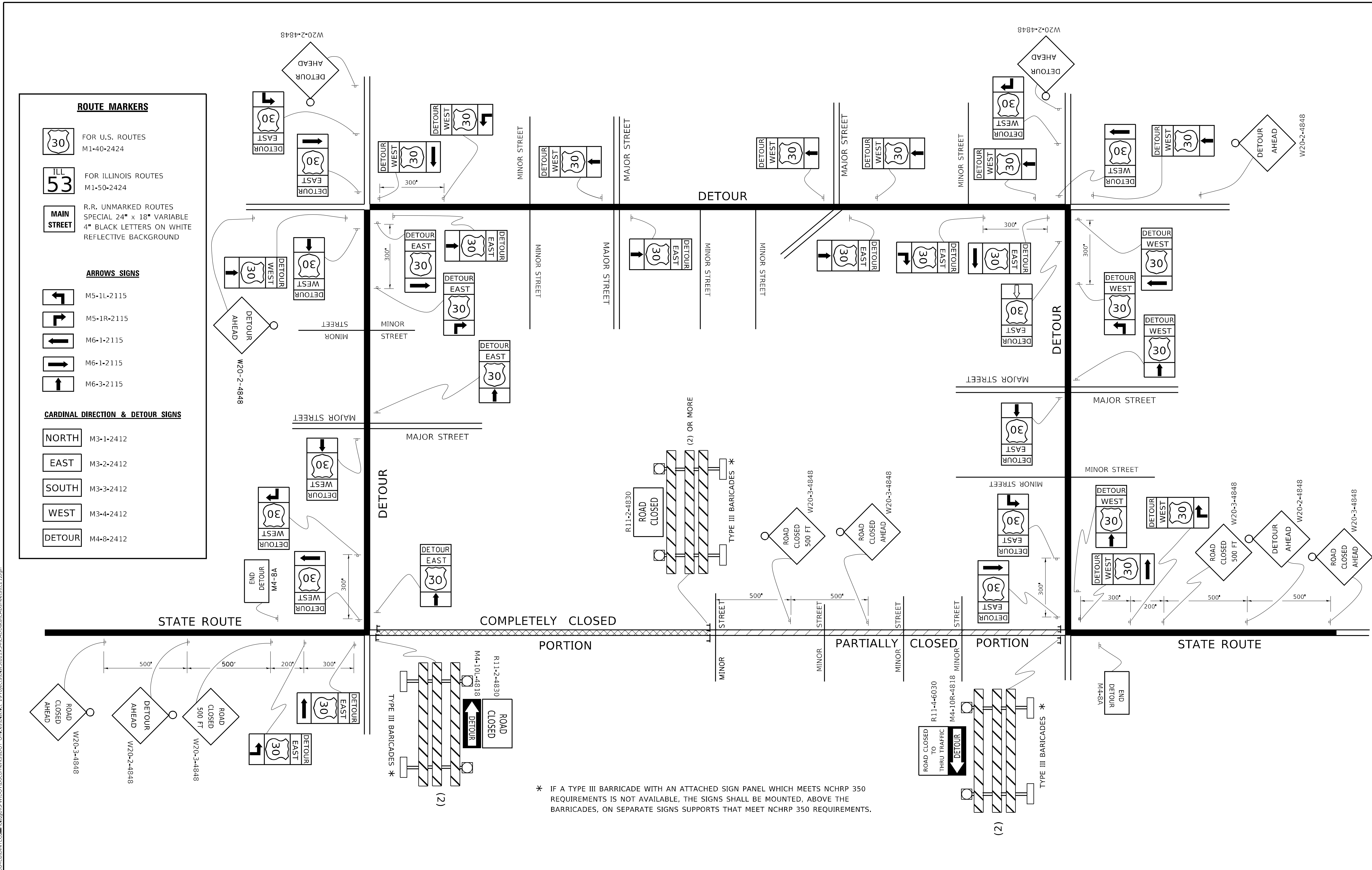
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FREEWAY /EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS /EXPRESSWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	276
	TC-18	CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			

MODEL: Default


ROUTE MARKERS
FOR U.S. ROUTES M1-40-2424
FOR ILLINOIS ROUTES M1-50-2424
R.R. UNMARKED ROUTES SPECIAL 24" x 18" VARIABLE 4" BLACK LETTERS ON WHITE REFLECTIVE BACKGROUND
ARROWS SIGNS
M5-1L-2115
M5-1R-2115
M6-1-2115
M6-1-2115
M6-3-2115
CARDINAL DIRECTION & DETOUR SIGNS
NORTH M3-1-2412
EAST M3-2-2412
SOUTH M3-3-2412
WEST M3-4-2412
DETOUR M4-8-2412
DETOUR
STATE ROUTE
COMPLETELY CLOSED
PORTION
PARTIALLY CLOSED PORTION
MINOR STREET
MAJOR STREET
ROAD CLOSED
END DETOUR M4-8A
R11-2-4830
M4-10L-4818
R11-4-6030
M4-10R-4818
ROAD CLOSED TO THRU TRAFFIC
W20-2-4848
W20-3-4848
ROAD CLOSED 500 FT
ROAD CLOSED AHEAD
DETOUR AHEAD
TYPE III BARICADES *
(2) OR MORE
(2)
500'
300'
200'
* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

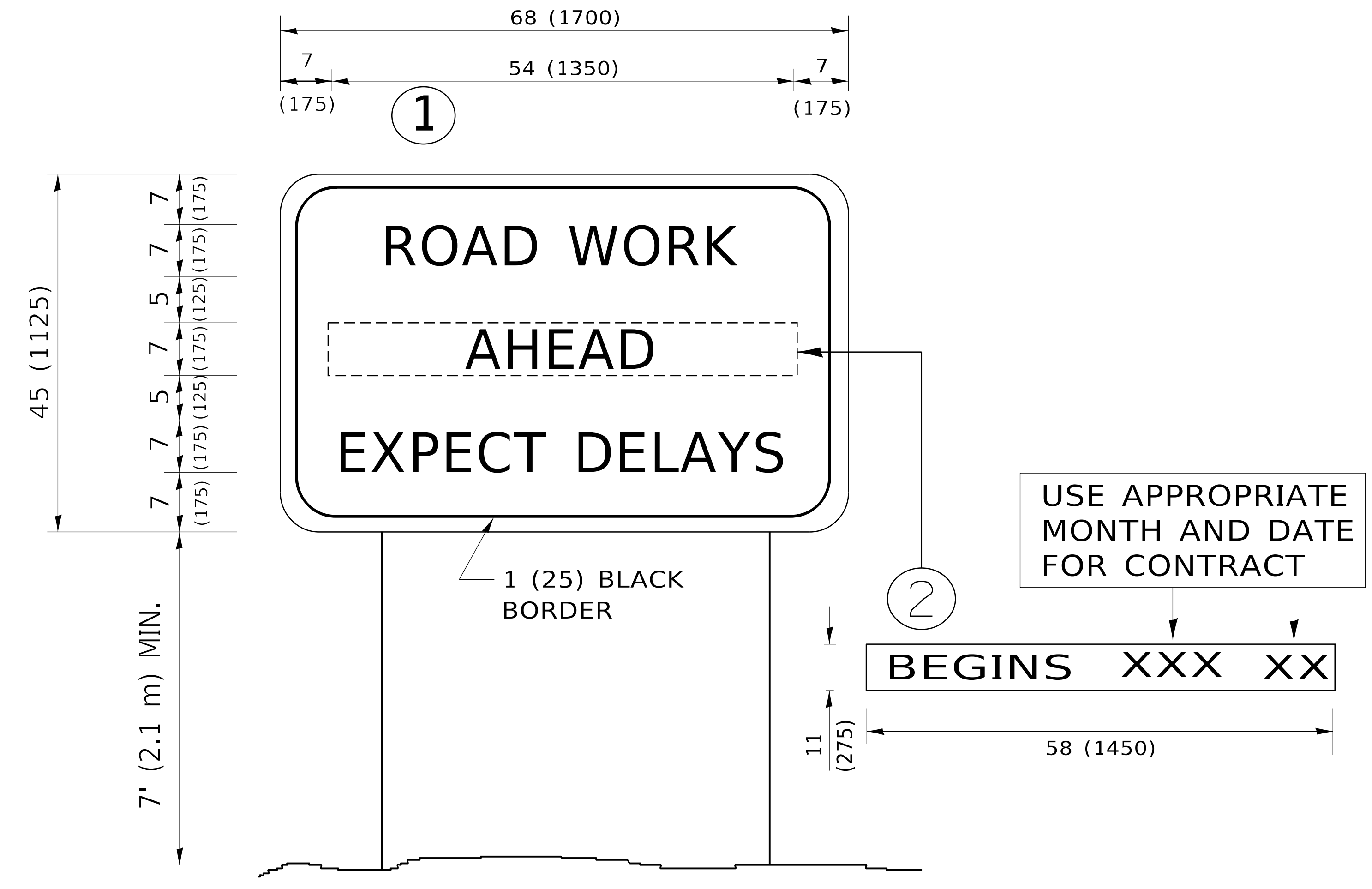
USER NAME = footem]	DESIGNED -	REVISED - 10-18-02	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - R. BORO 09-14-09	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/4/2019	DATE -	REVISED -	

DETOUR SIGNING FOR CLOSING STATE HIGHWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	277
TC-21		CONTRACT NO. 62380		

ILLINOIS FED. AID PROJECT



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

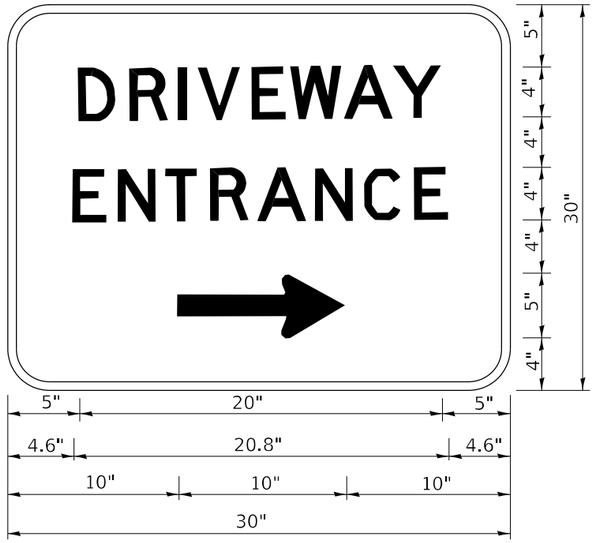
USER NAME = footemj	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED - R. MIRS 12-11-97	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99	
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07	

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	278
	TC-22	CONTRACT NO. 62380		
		ILLINOIS FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT01\Documents\IDOT Offices\District 1\Projects\Dist\d22x34\CADData\CADSheets\tc22.dgn



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
"DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

MODEL: Default
FILE NAME: pw:\\dmroom.dot.illinois.gov:PWIDOT\Documents\IDOT Offices\Dekalb\Projects\DeKalb\d22x34\CADData\CADSheets\tc26.dgn

USER NAME = lleysa	DESIGNED -	REVISED - C. JUCIUS 02-15-07	
	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/6/2021	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

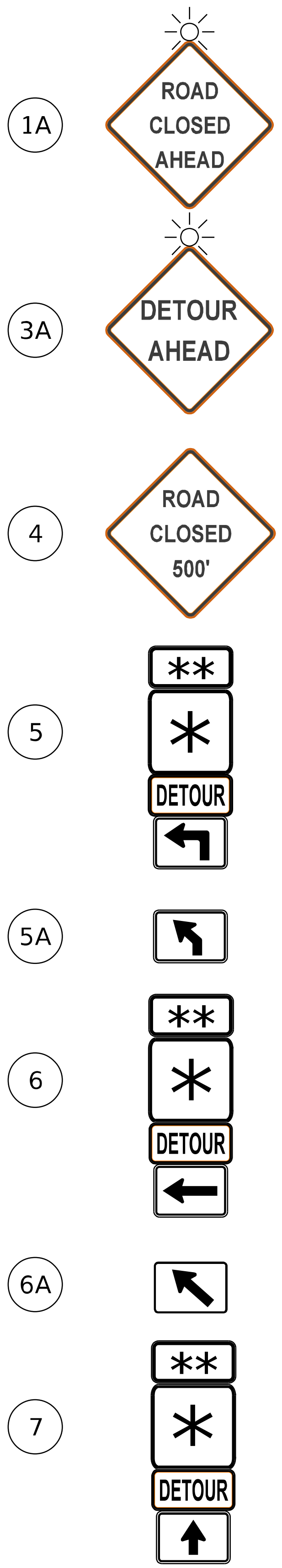
DRIVEWAY ENTRANCE SIGNING

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

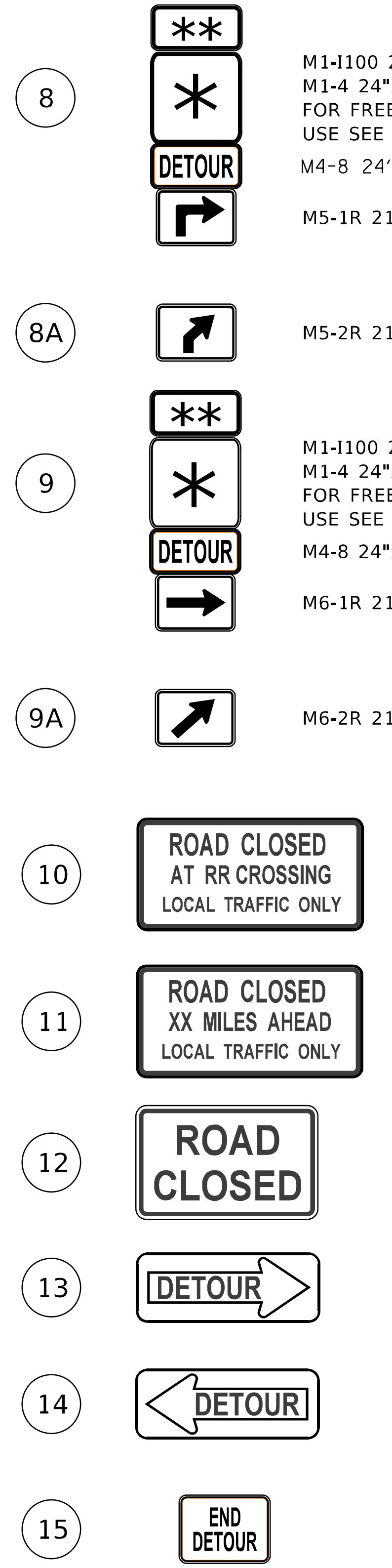
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	279
	TC-26	CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			

tc26.dgn 8/6/2021 8:37:02 AM Lleysa

RAILROAD CROSSING REPAIR DETOUR SIGNING

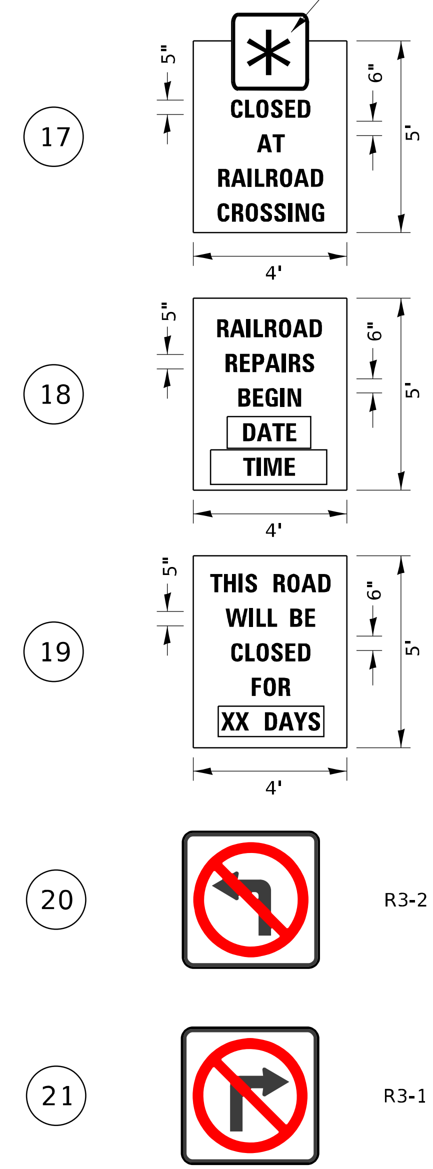


- 1A — W20-3 48"X48"
- 3A — W20-2a 48"X48"
- 4 — W20-3 48''X48''
- 5 — M1-I100 24"X24" (STATE ROUTE) M1-4 24"X24" (US ROUTE) FOR FREEWAY/EXPRESSWAY USE SEE NOTE 4.; M4-8 24"X12"; M5-1L 21"X15"
- 5A — M5-2L 21"X15"
- 6 — M1-I100 24"X24" (STATE ROUTE) M1-4 24"X24" (US ROUTE) FOR FREEWAY/EXPRESSWAY USE SEE NOTE 4.; M4-8 24"X12"; M6-1L 21"X15"
- 6A — M6-2L 21"X15"
- 7 — M1-I100 24"X24" (STATE ROUTE) M1-4 24"X24" (US ROUTE) FOR FREEWAY/EXPRESSWAY USE SEE NOTE 4.; M4-8 24"X12"; M6-3 21"x15"

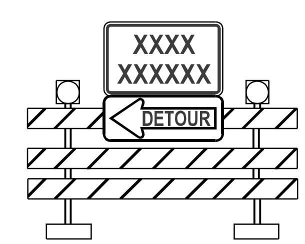


- 8 — M1-I100 24"X24" (STATE ROUTE) M1-4 24"X24" (US ROUTE) FOR FREEWAY/EXPRESSWAY USE SEE NOTE 4.; M4-8 24''X12''; M5-1R 21"X15"
- 8A — M5-2R 21"X15"
- 9 — M1-I100 24"X24" (STATE ROUTE) M1-4 24"X24" (US ROUTE) FOR FREEWAY/EXPRESSWAY USE SEE NOTE 4.; M4-8 24"X12"; M6-1R 21"X15"
- 9A — M6-2R 21"X15"
- 10 — R11-3a 60"X30"
- 11 — R11-3a 60"X30"
- 12 — R11-2 48"X30"
- 13 — M4-10R 48"X18"
- 14 — M4-10L 48"X18"
- 15 — M4-8a 24"X18"

M1-I100 24"X24" (STATE ROUTE)
M1-4 24"X24" (US ROUTE)
FOR FREEWAY/EXPRESSWAY
USE SEE NOTE 4.



- 17 — 5" LETTER MIN. BLACK LETTERS ON ORANGE BACKGROUND
- 18 — 5" LETTER MIN. BLACK LETTERS ON ORANGE BACKGROUND
- 19 — 5" LETTER MIN. BLACK LETTERS ON ORANGE BACKGROUND
- 20 — R3-2 24"X24"
- 21 — R3-1 24"X24"



TYPE III BARRICADE
W/ FLASHING LIGHTS

SEE R11-2, R-11-3a ABOVE

SEE M4-10L, M4-10R ABOVE (AS REQUIRED)

TYPE III BARRICADE W/FLASHING LIGHTS

TYPE A FLASHING LIGHT

NOTES:

1. FOR DETOURS OF UNMARKED ROUTES, SIGNS 5 - 9A SHALL BE MODIFIED TO USE THE M4-9 SIGN SERIES.
2. FOR DETOURS OF MARKED ROUTES, THE ORDER OF THE SIGNS SHOWN IN THE SIGN ASSEMBLIES 5 - 9A SHALL BE MODIFIED TO MATCH TYPICAL ASSEMBLY SHOWN BELOW.

   DETOUR / ** / * / (arrow)

3. ANY SIGNS THAT ARE TO BE IN PLACE FOR MORE THAN 4 DAYS MUST HAVE A VERTICAL CLEARANCE OF 7 FEET FROM TOP OF PAVEMENT TO THE BOTTOM OF THE SIGN (5 FEET IN RURAL AREAS). THESE SIGNS SHALL BE POST MOUNTED IN THE GROUND WHERE POSSIBLE PER ARTICLE 701.14 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND HIGHWAY STANDARD 701901.
4. FOR FREEWAY/EXPRESSWAY USE - M1-I100 36"X36" USED FOR ILLINOIS ROUTES, M1-4 36"X36" FOR U.S. ROUTES, OR ROAD NAMES SIGN WITH 6" LETTER MINIMUM BLACK LETTERS ON ORANGE BACKGROUND.
5. REFER TO DISTRICT DETAIL TC-21 FOR TYPICAL SIGN LAYOUT AND SPACING

*
- ILLINOIS — M1-I100 24"X24" USED FOR ILLINOIS ROUTES.
- M1-4 24"X24" USED FOR U.S. ROUTES.
- MAIN STREET — CUSTOM ROAD NAME SIGN WITH 5" MINIMUM UPPERCASE BLACK LETTERS ON ORANGE BACKGROUND.

OR

- Main St — WHEN LOWER CASE LETTERS ARE USED, AS SHOWN, THEY SHALL BE ¾ OF THE SIZE OF THE UPPER CASE LETTERS.

FOR FREEWAY/EXPRESSWAY USE - SEE NOTE 4.

**
- NORTH — M3-1 24"X12"
- SOUTH — M3-2 24"X12"
- EAST — M3-3 24"X12"
- WEST — M3-4 24"X12"

CARDINAL DIRECTION SIGNS SHALL BE USED DIRECTLY ABOVE THE ROUTE MARKER.

USER NAME = footemj	DESIGNED -	REVISED - A. SCHUETZE 09-16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/4/2019	DATE -	REVISED -	

RAILROAD CROSSING REPAIR DETOUR SIGNING

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	280
TC-28		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\IL084EIBIDNT1.GL.illinois.gov:PWIDOT01\Documents\IDOT Offices\District 1\Projects\Districts\tc22x34\CADData\CADsheets\tc28.dgn

LOCATION		EARTH EXCAVATION				ROCK EXCAVATION				EXCAVATION AVAILABLE FOR EMBANKMENT (SHRINKAGE - 15%)				EMBANKMENT				EARTHWORK WASTE (+) OR SHORTAGE (-)				TOPSOIL EXCAVATION				TOPSOIL PLACEMENT				TOPSOIL WASTE (+) OR SHORTAGE (-)			
STAGE		PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3
ROAD SEGMENT		(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
RICHARDS ST																																	
START	47+54.24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47+54.24	48+00.00	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48+00.00	48+50.00	0.0	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.0	0.0	0.0	0.1	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	-2.8	0.0
48+50.00	49+00.00	0.0	0.0	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0	-10.1	0.0
49+00.00	49+50.00	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.9	0.0	0.0	0.0	1.0	0.0	0.0	0.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.1	0.0	0.0	0.0	-18.1	0.0
49+50.00	50+00.00	0.0	27.5	41.7	0.0	0.0	0.0	0.0	0.0	0.0	23.4	35.4	0.0	0.0	1.4	3.0	0.0	0.0	21.9	32.4	0.0	0.0	4.0	2.3	0.0	0.0	2.7	25.9	0.0	0.0	1.4	-23.6	0.0
50+00.00	50+50.00	0.0	57.9	66.4	0.0	0.0	0.0	0.0	0.0	0.0	49.2	56.4	0.0	0.0	3.2	5.4	0.0	0.0	46.0	51.1	0.0	0.0	11.5	8.6	0.0	0.0	8.2	30.8	0.0	0.0	3.3	-22.2	0.0
50+50.00	51+00.00	0.0	68.7	64.6	0.0	0.0	0.0	0.0	0.0	0.0	58.4	54.9	0.0	0.0	9.2	6.5	0.0	0.0	49.2	48.4	0.0	0.0	14.6	13.2	0.0	0.0	12.4	32.0	0.0	0.0	2.1	-18.9	0.0
51+00.00	51+50.00	0.0	83.9	71.9	0.0	0.0	0.9	0.5	0.0	0.0	71.3	61.1	0.0	0.0	16.9	4.2	0.0	0.0	54.4	56.9	0.0	0.0	13.5	15.5	0.0	0.0	14.4	33.5	0.0	0.0	-0.8	-18.0	0.0
51+50.00	52+00.00	0.0	100.8	115.4	0.0	0.0	0.9	0.5	0.0	0.0	85.7	98.1	0.0	0.0	17.0	1.2	0.0	0.0	68.7	96.9	0.0	0.0	12.5	21.1	0.0	0.0	15.2	36.9	0.0	0.0	-2.7	-15.8	0.0
52+00.00	52+50.00	0.0	122.5	154.5	0.0	0.0	0.0	0.0	0.0	0.0	104.1	131.4	0.0	0.0	11.9	0.1	0.0	0.0	92.2	131.2	0.0	0.0	11.7	22.2	0.0	0.0	15.6	38.7	0.0	0.0	-3.9	-16.5	0.0
52+50.00	53+00.00	0.0	136.9	185.7	0.0	0.0	0.0	0.0	0.0	0.0	116.4	157.8	0.0	0.0	7.9	0.3	0.0	0.0	108.4	157.6	0.0	0.0	10.9	23.3	0.0	0.0	15.9	40.3	0.0	0.0	-5.0	-17.0	0.0
53+00.00	53+50.00	0.0	135.4	188.8	0.0	0.0	0.5	17.9	0.0	0.0	115.1	160.5	0.0	0.0	7.3	0.2	0.0	0.0	107.8	160.3	0.0	0.0	9.4	18.4	0.0	0.0	15.7	38.2	0.0	0.0	-6.3	-19.8	0.0
53+50.00	54+00.00	0.0	127.7	168.3	0.0	0.0	1.4	35.6	0.0	0.0	108.6	143.0	0.0	0.0	7.5	0.0	0.0	0.0	101.0	143.0	0.0	0.0	7.3	9.6	0.0	0.0	15.2	33.8	0.0	0.0	-7.8	-24.2	0.0
54+00.00	54+50.00	0.0	103.8	172.0	0.0	0.0	0.9	50.5	0.0	0.0	88.2	146.2	0.0	0.0	3.8	2.6	0.0	0.0	84.4	143.6	0.0	0.0	5.4	11.4	0.0	0.0	7.4	34.5	0.0	0.0	-2.0	-23.0	0.0
54+50.00	55+00.00	0.0	85.6	142.9	0.0	0.0	0.0	32.7	0.0	0.0	72.8	121.4	0.0	0.0	0.0	2.6	0.0	0.0	72.8	118.9	0.0	0.0	2.3	6.6	0.0	0.0	0.0	17.6	0.0	0.0	2.3	-11.0	0.0
55+00.00	55+50.00	0.0	95.3	109.3	0.0	0.0	0.0	0.0	0.0	0.0	81.0	92.9	0.0	0.0	0.0	0.0	0.0	0.0	81.0	92.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55+50.00	56+00.00	0.0	92.4	96.5	0.0	0.0	13.8	13.1	0.0	0.0	78.6	82.0	0.0	0.0	0.1	0.1	0.0	0.0	78.5	82.0	0.0	0.0	5.1	7.3	0.0	0.0	3.1	3.1	0.0	0.0	2.1	4.2	0.0
56+00.00	56+50.00	0.0	102.3	99.1	0.0	0.0	28.6	41.3	0.0	0.0	86.9	84.2	0.0	0.0	0.1	0.1	0.0	0.0	86.8	84.2	0.0	0.0	10.6	12.9	0.0	0.0	6.4	6.5	0.0	0.0	4.2	6.4	0.0
56+50.00	57+00.00	0.0	113.9	102.3	0.0	0.0	38.0	51.2	0.0	0.0	96.8	86.9	0.0	0.0	0.1	0.0	0.0	0.0	96.8	86.9	0.0	0.0	9.8	9.1	0.0	0.0	5.8	5.5	0.0	0.0	4.0	3.6	0.0
57+00.00	57+50.00	0.0	108.1	94.4	0.0	0.0	35.3	36.6	0.0	0.0	91.9	80.3	0.0	0.0	0.0	0.0	0.0	0.0	91.9	80.3	0.0	0.0	8.3	7.5	0.0	0.0	4.7	4.3	0.0	0.0	3.5	3.2	0.0
57+50.00	58+00.00	0.0	105.2	95.3	0.0	0.0	12.1	13.6	0.0	0.0	89.4	81.0	0.0	0.0	0.0	0.0	0.0	0.0	89.4	81.0	0.0	0.0	3.9	3.9	0.0	0.0	2.2	2.2	0.0	0.0	1.7	1.7	0.0
58+00.00	58+50.00	0.0	79.8	70.5	0.0	0.0	16.8	19.9	0.0	0.0	67.9	59.9	0.0	0.0	0.0	0.0	0.0	0.0	67.9	59.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58+50.00	59+00.00	0.0	65.2	59.5	0.0	0.0	22.7	25.7	0.0	0.0	55.4	50.6	0.0	0.0	0.0	0.0	0.0	0.0	55.4	50.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59+00.00	59+50.00	0.0	55.2	54.1	0.0	0.0	27.2	29.9	0.0	0.0	46.9	46.0	0.0	0.0	0.0	0.0	0.0	0.0	46.9	46.0	0.0	0.0	3.7	3.4	0.0	0.0	2.0	2.0	0.0	0.0	1.7	1.4	0.0
59+50.00	60+00.00	0.0	35.7	30.1	0.0	0.0	45.2	51.4	0.0	0.0	30.3	25.6	0.0	0.0	0.0	0.0	0.0	0.0	30.3	25.6	0.0	0.0	7.3	6.7	0.0	0.0	4.0	4.0	0.0	0.0	3.3	2.7	0.0
60+00.00	60+50.00	0.0	46.7	44.9	0.0	0.0	23.9	27.3	0.0	0.0	39.7	38.1	0.0	0.0	1.0	0.9	0.0	0.0	38.7	37.3	0.0	0.0	7.1	7.3	0.0	0.0	4.1	4.3	0.0	0.0	3.0	3.0	0.0
60+50.00	61+00.00	0.0	59.1	62.6	0.0	0.0	0.0	0.0	0.0	0.0	50.2	53.2	0.0	0.0	4.9	1.6	0.0	0.0	45.3	51.6	0.0	0.0	10.5	9.6	0.0	0.0	4.2	4.2	0.0	0.0	6.3	5.4	0.0
61+00.00	61+50.00	0.0	44.0	49.7	0.0	0.0	0.0	0.0	0.0	0.0	37.4	42.3	0.0	0.0	3.9	11.8	0.0	0.0	33.5	30.4	0.0	0.0	6.9	5.6	0.0	0.0	2.1	13.8	0.0	0.0	4.8	-8.1	0.0
61+50.00	62+00.00	0.0	54.0	48.3	0.0	0.0	0.0	0.0	0.0	0.0	45.9	41.1	0.0	0.0	2.4	36.0	0.0	0.0	43.5	5.0	0.0	0.0	7.1	24.2	0.0	0.0	3.0	23.8	0.0	0.0	4.1	0.4	0.0
62+00.00	62+50.00	0.0	126.4	50.6	0.0	0.0	0.0	0.0	0.0	0.0	107.5	43.0	0.0	0.0	5.1	52.8	0.0	0.0	102.4	-9.8	0.0	0.0	33.9	30.1	0.0	0.0	20.5	31.9	0.0	0.0	13.4	-1.8	0.0
62+50.00	63+00.00	0.0	189.8	46.6	0.0	0.0	0.0	0.0	0.0	0.0	161.3	39.6	0.0	0.0	3.6	46.2	0.0	0.0	157.7	-6.7	0.0	0.0	57.4	11.4	0.0	0.0	37.5	38.5	0.0	0.0	19.9	-27.1	0.0
63+00.00	63+50.00	0.0	195.8	56.2	0.0	0.0	0.0	0.0	0.0	0.0	166.4	47.8	0.0	0.0	2.4	39.4	0.0	0.0	164.0	8.4	0.0	0.0	62.5	18.9	0.0	0.0	41.0	40.5	0.0	0.0	21.5	-21.6	0.0
63+50.00	64+00.00	0.0	173.8	69.8	0.0	0.0	0.0	0.0	0.0	0.0	147.7	59.3	0.0	0.0	4.9	31.0	0.0	0.0	142.8	28.3	0.0	0.0	64.7	24.9	0.0	0.0	42.7	41.1	0.0	0.0	21.9	-16.2	0.0
64+00.00	64+50.00	0.0	180.5	86.7	0.0	0.0	0.0	0.0	0.0	0.0	153.5	73.7	0.0	0.0	6.7	18.3	0.0	0.0	146.8	55.3	0.0	0.0	64.8	17.7	0.0	0.0	43.2	31.1	0.0	0.0	21.6	-13.5	0.0
64+50.00	64+53.38	0.0	14.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	11.9	5.6	0.0	0.0	0.4	1.2	0.0	0.0	11.5	4.4	0.0	0.0	4.3	0.9	0.0	0.0	2.9	1.7	0.0	0.0	1.4	-0.8	0.0
64+53.38	END	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
START	66+93.16	0.0	8.7	15.1	0.0	0.0	0.0	0.0	0.0	0.0	7.4	12.8	0.0	0.0	0.0	0.1	0.0	0.0	7.4	12.8	0.0	0.0	1.1	2.3	0.0	0.0	0.0	1.5	0.0	0.0	1.1	0.8	0.0
66+93.16	67+00.00	0.0	67.2	107.0	0.0	0.0	0.0	0.0	0.0	0.0	57.1	91.0	0.0	0.0	0.0	0.5	0.0	0.0	57.1	90.5	0.0	0.0	14.0	17.7	0.0	0.0	0.0	11.3	0.0	0.0	14.0	6.4	0.0
67+00.00	67+50.00	0.0	59.5	83.4	0.0	0.0	0.0	0.0	0.0	0.0	50.6	70.9	0.0	0.0	0.0	5.6	0.0	0.0	50.6	65.3	0.0	0.0	19.6	16.5	0.0	0.0	0.0	11.7	0.0	0.0	19.6	4.7	0.0
67+50.00	68+00.00	0.0	35.1	40.5	0.0	0.0	0.0	0.0	0.0	0.0	29.8	34.4	0.0	0.0	0.0	8.2	0.0	0.0	29.8	26.2	0.0	0.0	9.2	10.9	0.0	0.0	0.0	7.9	0.0	0.0	9.2	3.0	0.0
68+00.00	68+35.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68+35.00	END	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL:	0.0	3158.5	2998.8	0.0	0.0	268.2	447.7	0.0	0.0	2684.7	2548.9	0.0	0.0	121.8	281.0	0.0	0.0	2562.9	2267.9	0.0	0.0	514.8	401.1	0.0	0.0	352.1	684.0	0.0	0.0	162.8	-282.9	0.0
RICHARDS ST RAMP A																																	
START	112+50.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112+50.00	113+00.00	0.0	95.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	80.3	0.0	0.0	0.0	14.9	0.0	0.0	0.0	8.8	0.0	0.0	0.0	6.1	0.0	0.0
113+00.00	113+50.00	0.0	191.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	162.6	0.0	0.0	0.0	0.7	0.0	0.0	0.0	161.9	0.0	0.0	0.0	28.3	0.0	0.0	0.0	15.3	0.0	0.0	0.0	13.0	0.0	0.0
113+50.00	114+00.00	0.0	231.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	196.5	0.0	0.0	0.0	3.1	0.0	0.0	0.0	193.4	0.0	0.0	0.0	13.4	0.0	0.0	0.0	7.7	0.0	0.0	0.0	5.7	0.0	0.0
114+00.00	114+46.81	0.0	142.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	120.7	0.0	0.0	0.0	3.0	0.0	0.0	0.0	117.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	-1.9	0.0	0.0

exp.

USER NAME = SUIC	DESIGNED - CMA	REVISED -
	DRAWN - FYW	REVISED -
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -
PLOT DATE = 1/25/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RICHARDS STREET
EARTHWORK SCHEDULE

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	281
		CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			

LOCATION		EARTH EXCAVATION				ROCK EXCAVATION				EXCAVATION AVAILABLE FOR EMBANKMENT (SHRINKAGE - 15%)				EMBANKMENT				EARTHWORK WASTE (+) OR SHORTAGE (-)				TOPSOIL EXCAVATION				TOPSOIL PLACEMENT				TOPSOIL WASTE (+) OR SHORTAGE (-)			
STAGE		PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3
ROAD SEGMENT		(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
RICHARDS ST RAMP A																																	
114+46.81	END	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL:	0.0	659.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	560.8	0.0	0.0	0.0	7.4	0.0	0.0	0.0	553.3	0.0	0.0	0.0	56.6	0.0	0.0	0.0	33.7	0.0	0.0	0.0	23.0	0.0	0.0
RICHARDS ST RAMP B																																	
START	10+39.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10+39.84	10+50.00	0.0	0.0	14.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10+50.00	11+00.00	0.0	0.0	226.5	0.0	0.0	0.0	37.2	0.0	0.0	0.0	192.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	192.5	0.0	0.0	0.0	5.7	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.1	0.0
11+00.00	11+50.00	0.0	0.0	165.9	0.0	0.0	0.0	77.3	0.0	0.0	0.0	141.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	140.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	8.7	0.0	0.0	0.0	-2.0	0.0
11+50.00	12+00.00	0.0	0.0	67.8	0.0	0.0	0.0	46.5	0.0	0.0	0.0	57.7	0.0	0.0	0.0	2.3	0.0	0.0	0.0	55.4	0.0	0.0	0.0	3.5	0.0	0.0	0.0	6.3	0.0	0.0	0.0	-2.8	0.0
12+00.00	12+04.00	0.0	0.0	5.4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	-0.1	0.0
12+04.00	12+50.00	0.0	0.0	11.5	0.0	0.0	0.0	27.6	0.0	0.0	0.0	9.8	0.0	0.0	0.0	0.1	0.0	0.0	0.0	9.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0	4.0	0.0	0.0	0.0	-2.3	0.0
12+50.00	13+00.00	0.0	0.0	0.0	0.0	0.0	0.0	31.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
13+00.00	13+50.00	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
13+50.00	14+00.00	0.0	0.0	0.0	0.0	0.0	0.0	16.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
14+00.00	14+50.00	0.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
14+50.00	15+00.00	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	-1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
15+00.00	15+50.00	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	-4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
15+50.00	16+00.00	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	-3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
16+00.00	16+50.00	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	-3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
16+50.00	17+00.00	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	-8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-4.3	0.0
17+00.00	17+50.00	0.0	0.0	2.8	0.0	0.0	0.0	3.4	0.0	0.0	0.0	2.4	0.0	0.0	0.0	10.7	0.0	0.0	0.0	-8.3	0.0	0.0	0.0	3.4	0.0	0.0	0.0	4.3	0.0	0.0	0.0	-0.9	0.0
17+50.00	18+00.00	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	6.7	0.0	0.0	0.0	-3.3	0.0	0.0	0.0	11.3	0.0	0.0	0.0	4.3	0.0	0.0	0.0	7.0	0.0
18+00.00	18+50.00	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	3.3	0.0	0.0	0.0	-1.8	0.0	0.0	0.0	15.1	0.0	0.0	0.0	4.3	0.0	0.0	0.0	10.7	0.0
18+50.00	19+00.00	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	3.3	0.0	0.0	0.0	-2.0	0.0	0.0	0.0	13.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0	9.6	0.0
19+00.00	19+50.00	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.3	0.0	0.0	0.0	13.3	0.0	0.0	0.0	4.3	0.0	0.0	0.0	9.0	0.0
19+50.00	19+90.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19+90.00	END	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL:	0.0	0.0	504.6	0.0	0.0	0.0	323.8	0.0	0.0	0.0	428.9	0.0	0.0	0.0	50.8	0.0	0.0	0.0	378.1	0.0	0.0	0.0	74.9	0.0	0.0	0.0	85.6	0.0	0.0	0.0	-10.6	0.0
RICHARDS ST RAMP C																																	
START	100+00.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100+00.00	100+50.00	0.0	0.0	24.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.7	0.0	0.0	0.0	1.9	0.0	0.0	0.0	18.8	0.0	0.0	0.0	21.9	0.0	0.0	0.0	13.5	0.0	0.0	0.0	8.4	0.0
100+50.00	101+00.00	0.0	0.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	2.6	0.0	0.0	0.0	14.1	0.0	0.0	0.0	21.2	0.0	0.0	0.0	13.0	0.0	0.0	0.0	8.2	0.0
101+00.00	101+50.00	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.2	0.0	0.0	0.0	3.0	0.0	0.0	0.0	13.2	0.0	0.0	0.0	21.6	0.0	0.0	0.0	13.3	0.0	0.0	0.0	8.3	0.0
101+50.00	102+00.00	0.0	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	-5.4	0.0	0.0	0.0	22.1	0.0	0.0	0.0	13.1	0.0	0.0	0.0	8.9	0.0
102+00.00	102+50.00	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	22.0	0.0	0.0	0.0	-17.1	0.0	0.0	0.0	20.0	0.0	0.0	0.0	11.3	0.0	0.0	0.0	8.7	0.0
102+50.00	103+00.00	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	-9.4	0.0	0.0	0.0	16.1	0.0	0.0	0.0	8.7	0.0	0.0	0.0	7.4	0.0
103+00.00	103+50.00	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	13.5	0.0	0.0	0.0	-8.6	0.0	0.0	0.0	14.8	0.0	0.0	0.0	7.8	0.0	0.0	0.0	7.0	0.0
103+50.00	104+00.00	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	12.5	0.0	0.0	0.0	-7.8	0.0	0.0	0.0	16.1	0.0	0.0	0.0	8.7	0.0	0.0	0.0	7.4	0.0
104+00.00	104+50.00	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	12.8	0.0	0.0	0.0	-9.0	0.0	0.0	0.0	15.2	0.0	0.0	0.0	8.1	0.0	0.0	0.0	7.1	0.0
104+50.00	105+00.00	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0	-9.2	0.0	0.0	0.0	12.2	0.0	0.0	0.0	6.0	0.0	0.0	0.0	6.1	0.0
105+00.00	105+50.00	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	9.0	0.0	0.0	0.0	-4.8	0.0	0.0	0.0	10.2	0.0	0.0	0.0	4.8	0.0	0.0	0.0	5.5	0.0
105+50.00	106+00.00	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	5.9	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	9.4	0.0	0.0	0.0	4.2	0.0	0.0	0.0	5.2	0.0
106+00.00	106+50.00	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.6	0.0	0.0	0.0	8.9	0.0	0.0	0.0	3.8	0.0	0.0	0.0	5.1	0.0
106+50.00	107+00.00	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.2	0.0	0.0	0.0	8.5	0.0	0.0	0.0	3.6	0.0	0.0	0.0	4.9	0.0
107+00.00	107+50.00	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.5	0.0	0.0	0.0	8.5	0.0	0.0	0.0	3.6	0.0	0.0	0.0	4.9	0.0
107+50.00	108+00.00	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	8.8	0.0	0.0	0.0	3.8	0.0	0.0	0.0	5.0	0.0
108+00.00	108+50.00	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	5.8	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	9.9	0.0	0.0	0.0	4.5	0.0	0.0	0.0	5.4	0.0
108+50.00	109+00.00	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0	-3.2	0.0	0.0	0.0	12.4	0.0	0.0	0.0	6.2	0.0	0.0	0.0	6.2	0.0
109+00.00	109+50.00	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	11.2	0.0	0.0	0.0	-6.6	0.0	0.0	0.0	14.4	0.0	0.0	0.0	7.5	0.0	0.0	0.0	6.9	0.0
109+50.00	110+00.00	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	6.9	0.0	0.0	0.0	-4.5	0.0	0.0	0.0	14.5	0.0	0.0	0.0	6.1	0.0	0.0	0.0	8.3	0.0

LOCATION		EARTH EXCAVATION				ROCK EXCAVATION				EXCAVATION AVAILABLE FOR EMBANKMENT (SHRINKAGE - 15%)				EMBANKMENT				EARTHWORK WASTE (+) OR SHORTAGE (-)				TOPSOIL EXCAVATION				TOPSOIL PLACEMENT				TOPSOIL WASTE (+) OR SHORTAGE (-)			
STAGE		PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3	PRE	1	2	3
ROAD SEGMENT		(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
RICHARDS ST RAMP C																																	
110+00.00	110+50.00	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	14.2	0.0	0.0	0.0	6.4	0.0	0.0	0.0	7.7	0.0
110+50.00	111+00.00	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	4.6	0.0	0.0	0.0	-1.7	0.0	0.0	0.0	16.6	0.0	0.0	0.0	10.0	0.0	0.0	0.0	6.6	0.0
111+00.00	111+50.00	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	4.7	0.0	0.0	0.0	-0.6	0.0	0.0	0.0	17.2	0.0	0.0	0.0	10.4	0.0	0.0	0.0	6.8	0.0
111+50.00	112+00.00	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	2.4	0.0	0.0	0.0	1.8	0.0	0.0	0.0	16.3	0.0	0.0	0.0	9.8	0.0	0.0	0.0	6.5	0.0
112+00.00	112+50.00	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	4.4	0.0	0.0	0.0	17.4	0.0	0.0	0.0	10.7	0.0	0.0	0.0	6.6	0.0
112+50.00	113+00.00	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0	0.0	2.4	0.0	0.0	0.0	5.7	0.0	0.0	0.0	17.1	0.0	0.0	0.0	10.5	0.0	0.0	0.0	6.6	0.0
113+00.00	113+50.00	0.0	0.0	51.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.6	0.0	0.0	0.0	12.2	0.0	0.0	0.0	31.5	0.0	0.0	0.0	25.0	0.0	0.0	0.0	14.6	0.0	0.0	0.0	10.5	0.0
113+50.00	114+00.00	0.0	0.0	96.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.9	0.0	0.0	0.0	14.8	0.0	0.0	0.0	67.1	0.0	0.0	0.0	32.2	0.0	0.0	0.0	16.4	0.0	0.0	0.0	15.8	0.0
114+00.00	114+50.00	0.0	0.0	99.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	84.2	0.0	0.0	0.0	9.7	0.0	0.0	0.0	74.5	0.0	0.0	0.0	18.8	0.0	0.0	0.0	8.5	0.0	0.0	0.0	10.2	0.0
114+50.00	115+00.00	0.0	0.0	63.3	0.0	0.0	0.0	5.5	0.0	0.0	0.0	53.8	0.0	0.0	0.0	6.0	0.0	0.0	0.0	47.9	0.0	0.0	0.0	3.3	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.6	0.0
115+00.00	115+03.28	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-0.1	0.0
115+03.28	END	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL:	0.0	0.0	506.9	0.0	0.0	0.0	11.1	0.0	0.0	0.0	430.9	0.0	0.0	0.0	238.7	0.0	0.0	0.0	192.3	0.0	0.0	0.0	464.6	0.0	0.0	0.0	251.7	0.0	0.0	0.0	212.9	0.0
RICHARDS ST RAMP D																																	
START	4+47.74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4+47.74	4+50.00	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4+50.00	5+00.00	0.0	65.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.8	0.0	0.0	0.0	1.3	0.0	0.0	0.0	54.5	0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.8	0.0	0.0	0.0	9.6	0.0	0.0
5+00.00	5+50.00	0.0	111.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.7	0.0	0.0	0.0	10.9	0.0	0.0	0.0	83.7	0.0	0.0	0.0	24.7	0.0	0.0	0.0	7.7	0.0	0.0	0.0	17.0	0.0	0.0
5+50.00	5+51.42	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.6	0.0	0.0
5+51.42	END	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL:	0.0	179.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	152.6	0.0	0.0	0.0	12.6	0.0	0.0	0.0	140.1	0.0	0.0	0.0	35.9	0.0	0.0	0.0	8.7	0.0	0.0	0.0	27.2	0.0	0.0
5TH AVE																																	
START	100+20.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100+20.63	100+50.00	0.0	20.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0	15.9	0.0	0.0	0.0	3.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.9	0.0	0.0
100+50.00	101+00.00	0.0	104.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.8	0.0	0.0	0.0	4.1	0.0	0.0	0.0	84.7	0.0	0.0	0.0	10.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	3.4	0.0	0.0
101+00.00	101+50.00	0.0	122.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	104.1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	102.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.0	0.0	0.0
101+50.00	102+00.00	0.0	94.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.5	0.0	0.0	0.0	1.6	0.0	0.0	0.0	78.9	0.0	0.0	0.0	7.2	0.0	0.0	0.0	3.8	0.0	0.0	0.0	3.4	0.0	0.0
102+00.00	102+06.21	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.6	0.0	0.0	0.0	4.9	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.7	0.0	0.0
102+06.21	END	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL:	0.0	348.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	296.0	0.0	0.0	0.0	9.6	0.0	0.0	0.0	286.4	0.0	0.0	0.0	26.4	0.0	0.0	0.0	16.0	0.0	0.0	0.0	10.4	0.0	0.0
I-80																																	
START	746+00.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
746+00.00	747+00.00	0.0	0.0	87.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.4	0.0	0.0	0.0	4.1	0.0	0.0	0.0	70.3	0.0	0.0	0.0	47.0	0.0	0.0	0.0	30.5	0.0	0.0	0.0	16.5	0.0
747+00.00	748+00.00	0.0	0.0	79.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	63.9	0.0	0.0	0.0	46.4	0.0	0.0	0.0	29.7	0.0	0.0	0.0	16.7	0.0
748+00.00	749+00.00	0.0	0.0	39.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.9	0.0	0.0	0.0	5.6	0.0	0.0	0.0	28.2	0.0	0.0	0.0	40.5	0.0	0.0	0.0	24.9	0.0	0.0	0.0	15.6	0.0
749+00.00	750+00.00	0.0	0.0	19.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6	0.0	0.0	0.0	10.8	0.0	0.0	0.0	5.8	0.0	0.0	0.0	41.1	0.0	0.0	0.0	25.2	0.0	0.0	0.0	15.9	0.0
750+00.00	751+00.00	0.0	0.0	14.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0	13.1	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	40.8	0.0	0.0	0.0	25.0	0.0	0.0	0.0	15.8	0.0
751+00.00	752+00.00	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	10.9	0.0	0.0	0.0	-2.5	0.0	0.0	0.0	34.6	0.0	0.0	0.0	20.9	0.0	0.0	0.0	13.8	0.0
752+00.00	753+00.00	0.0	0.0	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0	0.0	10.7	0.0	0.0	0.0	4.0	0.0	0.0	0.0	39.3	0.0	0.0	0.0	24.1	0.0	0.0	0.0	15.2	0.0
753+00.00	754+00.00	0.0	0.0	28.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.1	0.0	0.0	0.0	12.3	0.0	0.0	0.0	11.9	0.0	0.0	0.0	46.3	0.0	0.0	0.0	28.0	0.0	0.0	0.0	18.3	0.0
754+00.00	755+00.00	0.0	0.0	18.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	16.4	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	35.1	0.0	0.0	0.0	22.2	0.0	0.0	0.0	12.9	0.0
755+00.00	END	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL:	0.0	0.0	316.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	268.8	0.0	0.0	0.0	88.0	0.0	0.0	0.0	180.8	0.0	0.0	0.0	371.2	0.0	0.0	0.0	230.5	0.0	0.0	0.0	140.7	0.0
RAMP C DETENTION BASIN																																	
		0.0	0.0	3640.3	0.0	0.0	0.0	854.8	0.0	0.0	0.0	3094.3	0.0	0.0	0.0	191.4	0.0	0.0	0.0	2902.9	0.0	0.0	0.0	491.2	0.0	0.0	0.0	294.9	0.0	0.0	0.0	196.3	0.0
ROCK EX CONTINGENCY																																	
		0.0	0.0	0.0	0.0	375.0	375.0	375.0	375.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL:	0.0	4346.0	7966.9	0.0	375.0	643.2	2012.4	375.0	0.0	3694.1	6771.8	0.0	0.0	151.4	849.8	0.0	0.0	3542.7	5922.0	0.0	0.0	633.7	1802.9	0.0	0.0	410.4	1546.6	0.0	0.0	223.3	256.4	0.0

MODEL: 2D SHEET H
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-EWSCHED-03.DGN

exp.

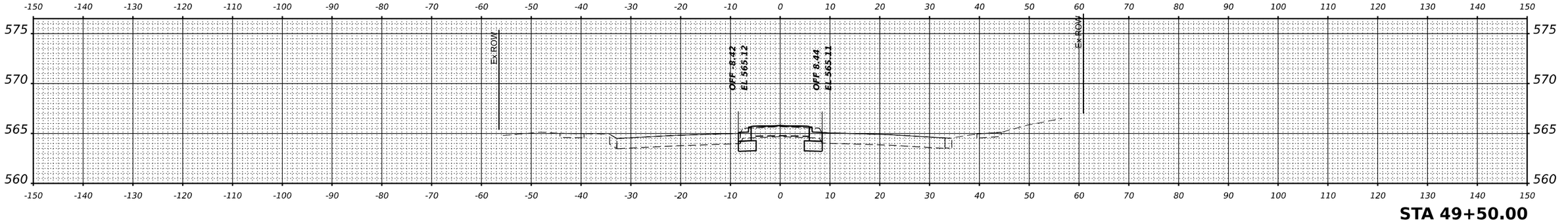
USER NAME = SUIC	DESIGNED - CMA	REVISED -
	DRAWN - FYW	REVISED -
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -
PLOT DATE = 1/25/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

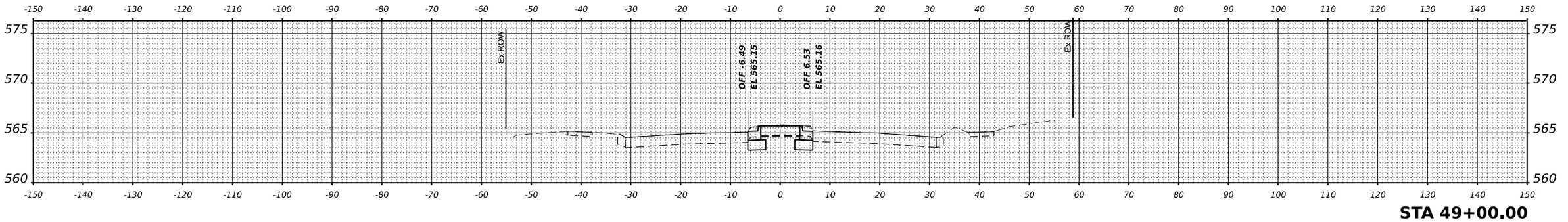
RICHARDS STREET
EARTHWORK SCHEDULE

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

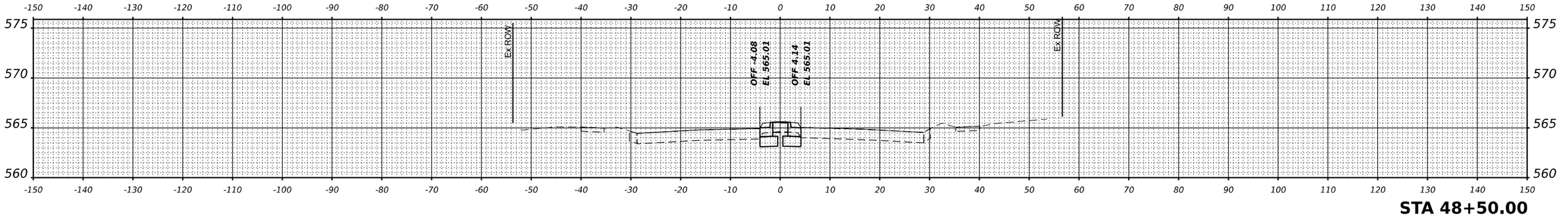
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	283
		CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			



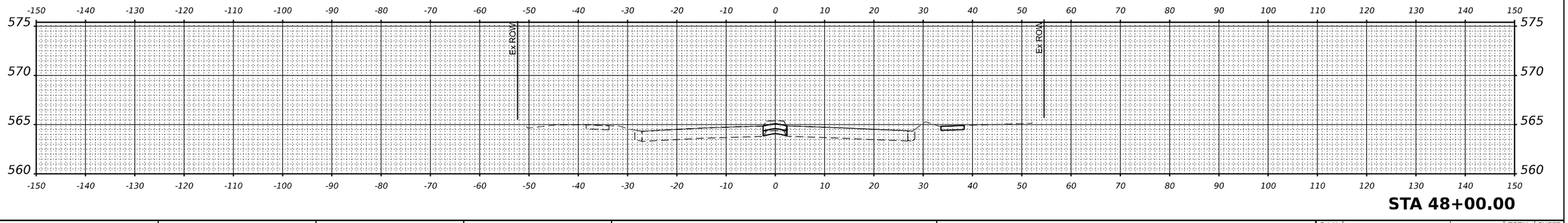
STA 49+50.00



STA 49+00.00



STA 48+50.00



STA 48+00.00

FINAL SURVEY	DATE	BY
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY	DATE	BY
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

MODEL: EX RICHARDS - 47+00.00 (SHEET)
FILE NAME: C:\TRANSYSTEMS\PW LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-XSSHT-01.DGN

exp.

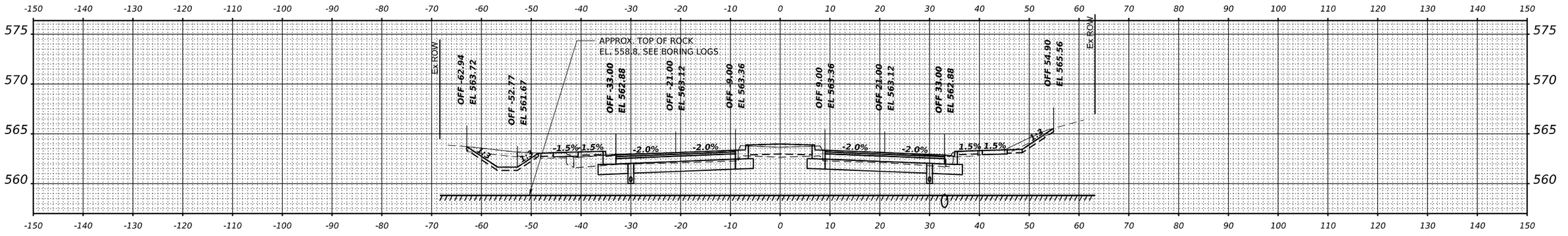
USER NAME = AVILAC		DESIGNED - CMA		REVISED -	
		DRAWN - CMA		REVISED -	
PLOT SCALE = 0.16666667 ' / IN.		CHECKED - BRH		REVISED -	
PLOT DATE = 1/29/2024		DATE -		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

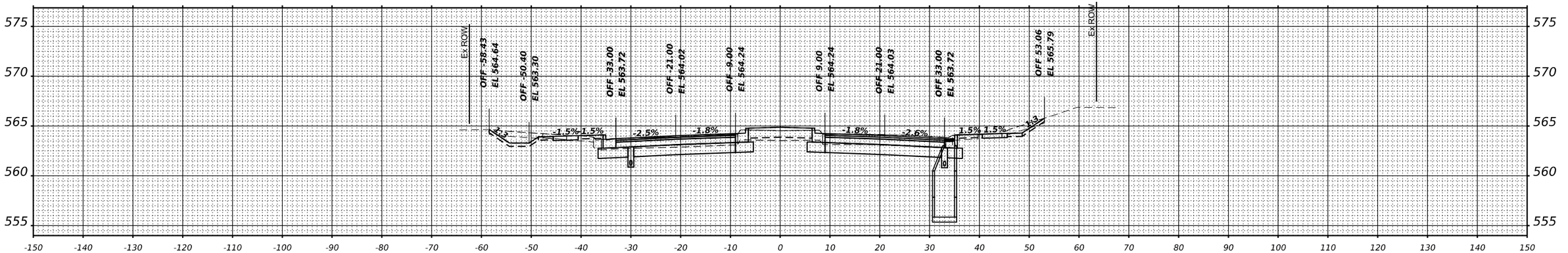
RICHARDS STREET
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA. 48+00.00 | 49+50.00

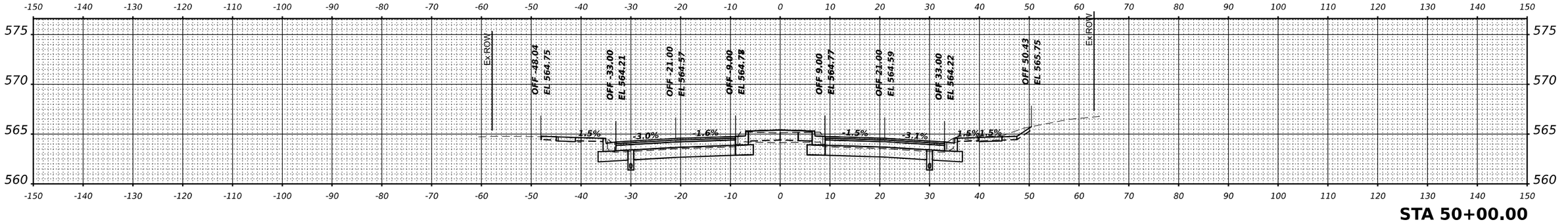
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	284
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



STA 51+00.00



STA 50+50.00



STA 50+00.00

USER NAME = AVILAC	DESIGNED - CMA	REVISED -	
	DRAWN - CMA	REVISED -	
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -	
PLOT DATE = 1/29/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

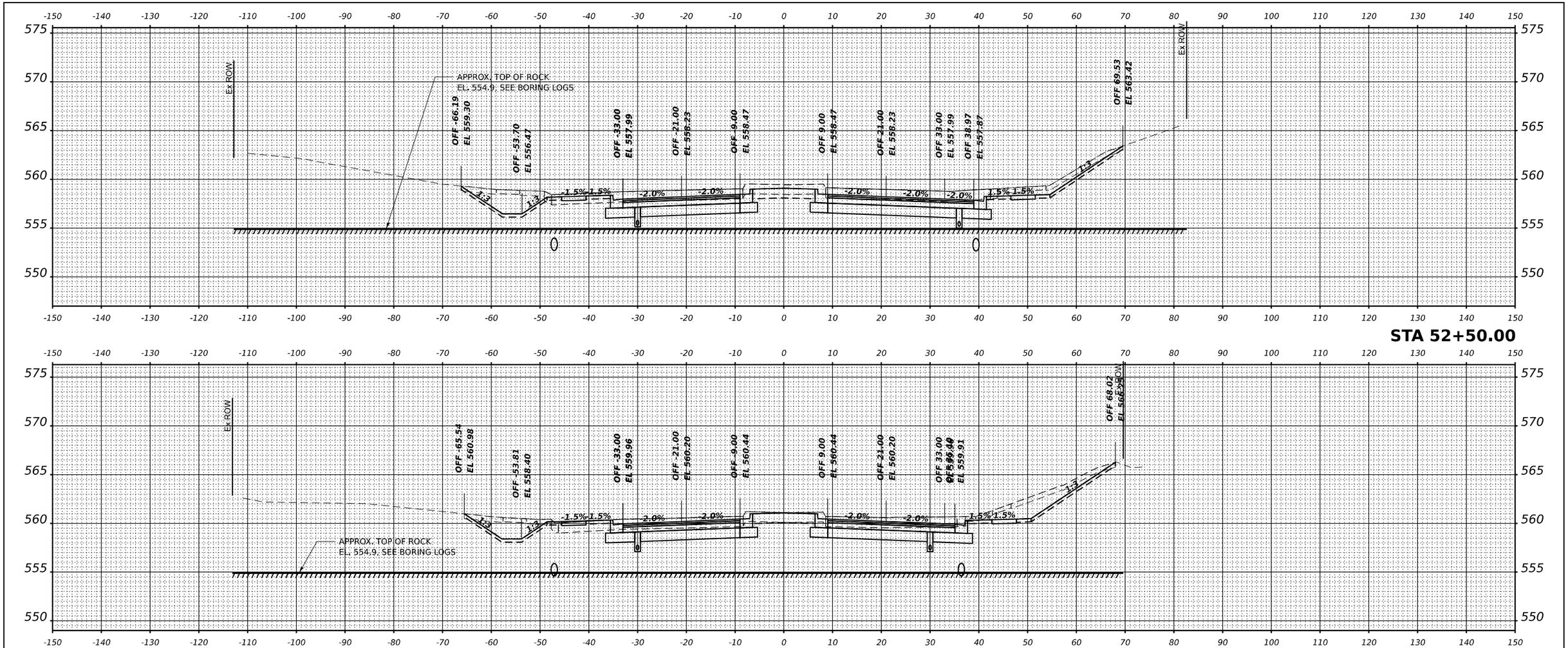
RICHARDS STREET
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA. 50+00.00 51+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	285
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

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

MODEL: EX RICHARDS - 49+00.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09888\362380-SHT-XS-SHT-02.DGN



FINAL SURVEY	NOTE BOOK	NO.
ORIGINAL SURVEY	NOTE BOOK	NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AVILAC		
AREAS CHECKED		

MODEL: EX RICHARDS - 50+50.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09883\W2380-SHT-XSSHT-03.DGN

exp.

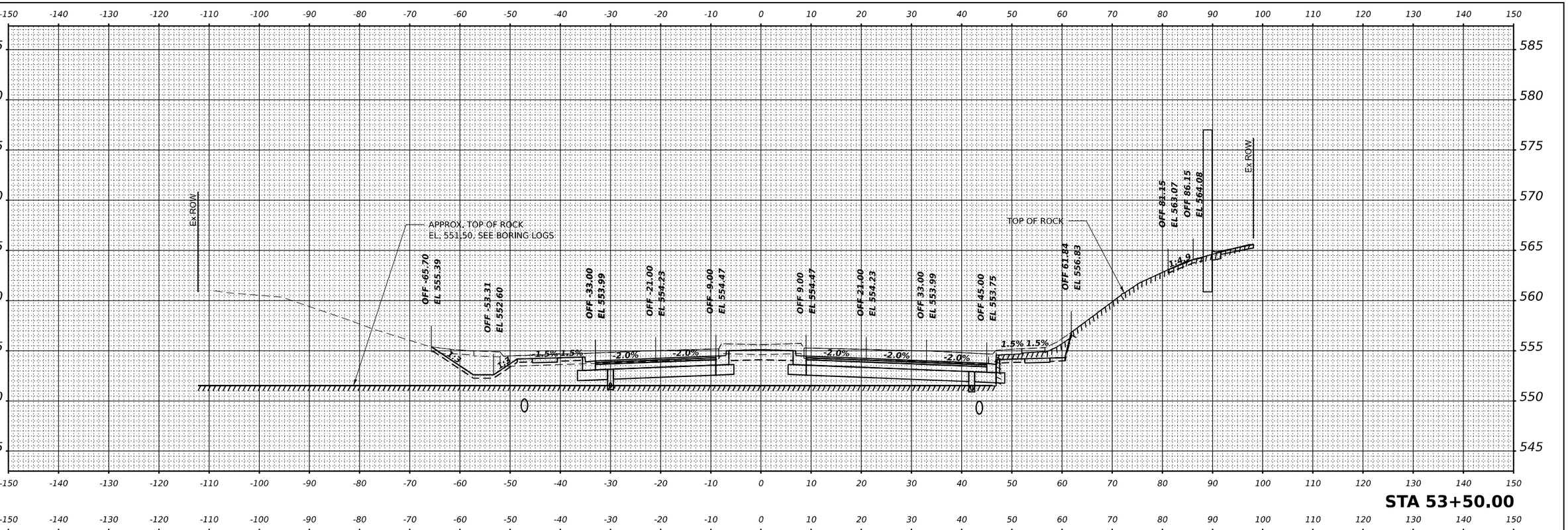
USER NAME = AVILAC		DESIGNED - CMA		REVISED -	
		DRAWN - CMA		REVISED -	
PLOT SCALE = 0.16666667 ' / IN.		CHECKED - BRH		REVISED -	
PLOT DATE = 1/29/2024		DATE -		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

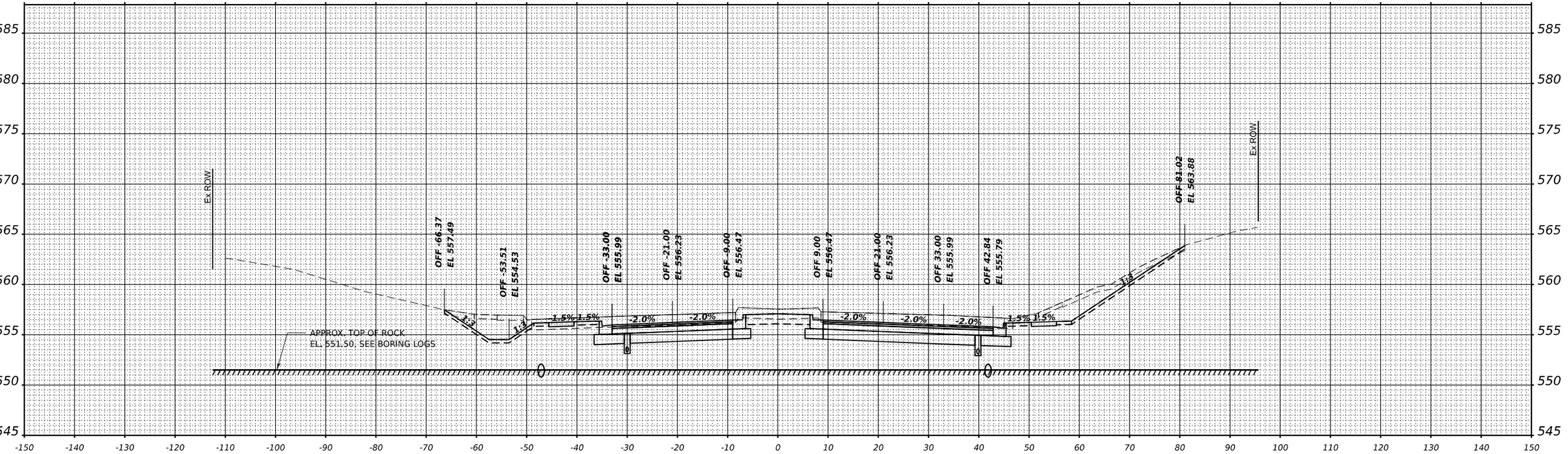
RICHARDS STREET
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA. 51+50.00 | 52+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	286
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



STA 53+50.00



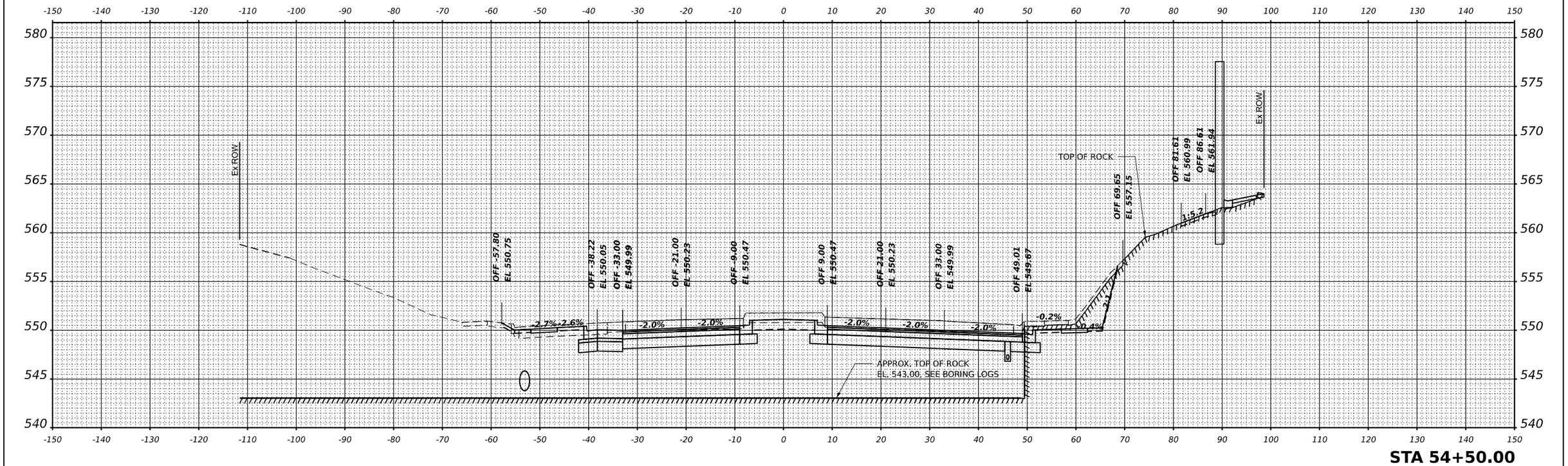
STA 53+00.00

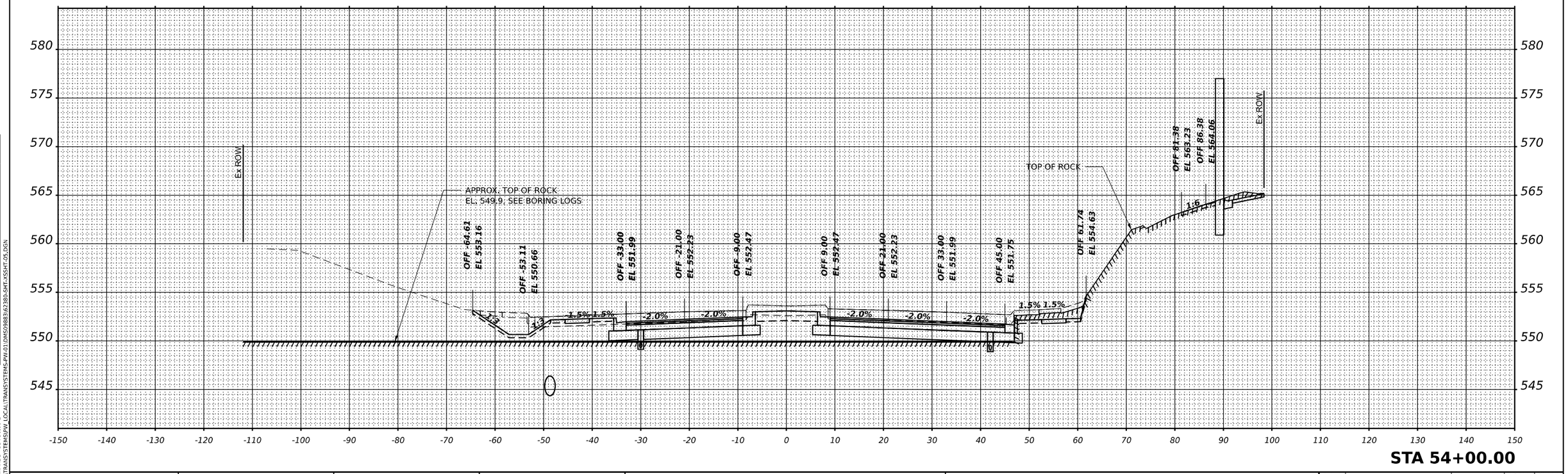
exp.	USER NAME = AVILAC	DESIGNED - CMA	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**	**RICHARDS STREET** **CROSS SECTIONS**
		DRAWN - CMA	REVISED -		
	PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 53+00.00 53+50.00
	PLOT DATE = 1/29/2024	DATE -	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	287
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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

MODEL: EX RICHARDS - 52+00.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS098831\62380-SHT-XSSHT-04.DGN





FINAL SURVEY / ORIGINAL SURVEY

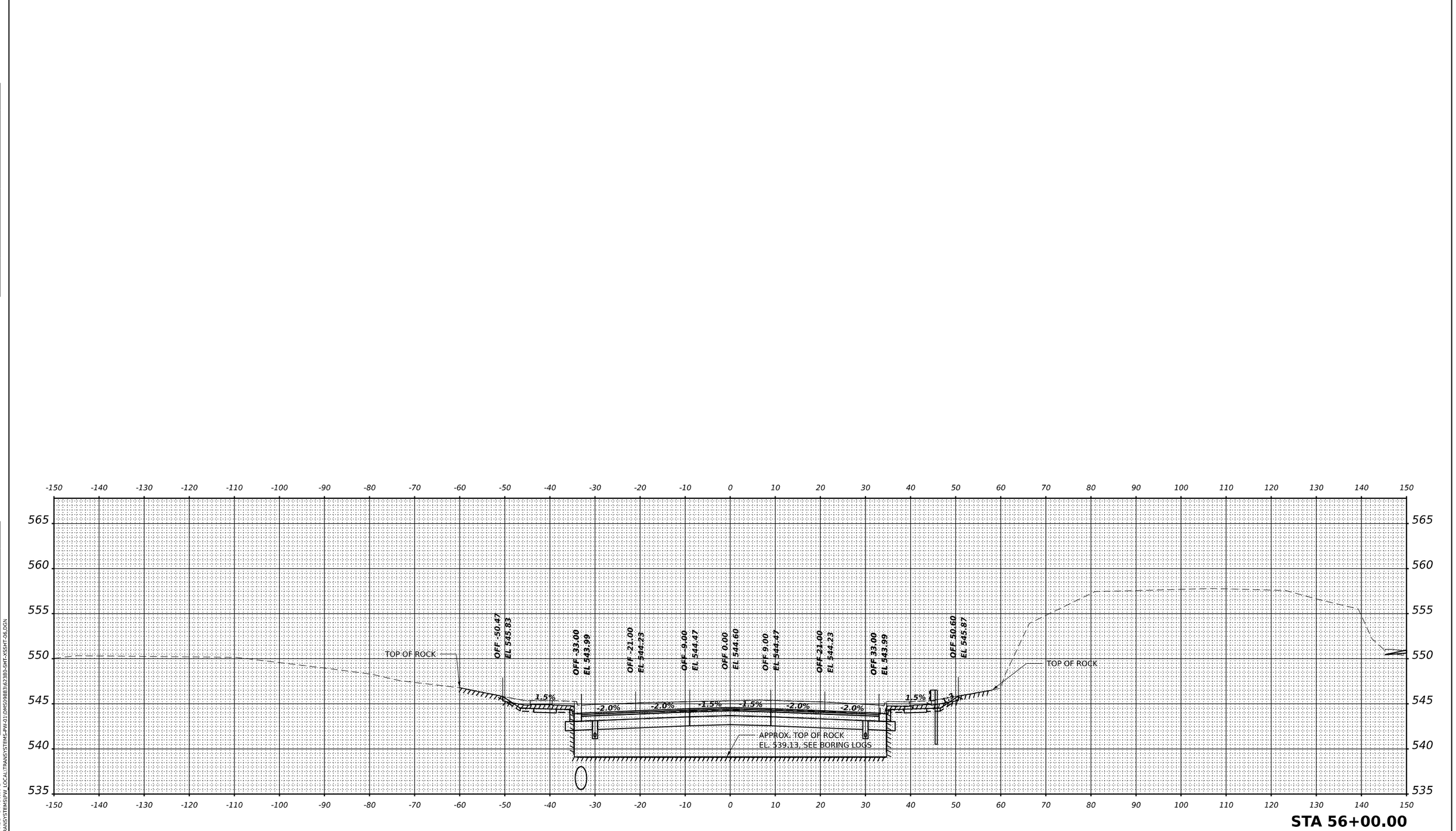
NO.	NOTE BOOK	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

MODEL: EX RICHARDS - 53+50.00-J
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09888\3\62380-SHT-XSSHT-05.DGN

USER NAME = AVILAC	DESIGNED - CMA	REVISED -	**STATE OF ILLINOIS**	**RICHARDS STREET**
	DRAWN - CMA	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS**
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 54+00.00 54+50.00
PLOT DATE = 1/29/2024	DATE -	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	288
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

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



STA 56+00.00

MODEL: EX RICHARDS - 54+50.00=1
FILE NAME: C:\TRANSYSTEMS\PW LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-XSSHT-06.DGN

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

exp.

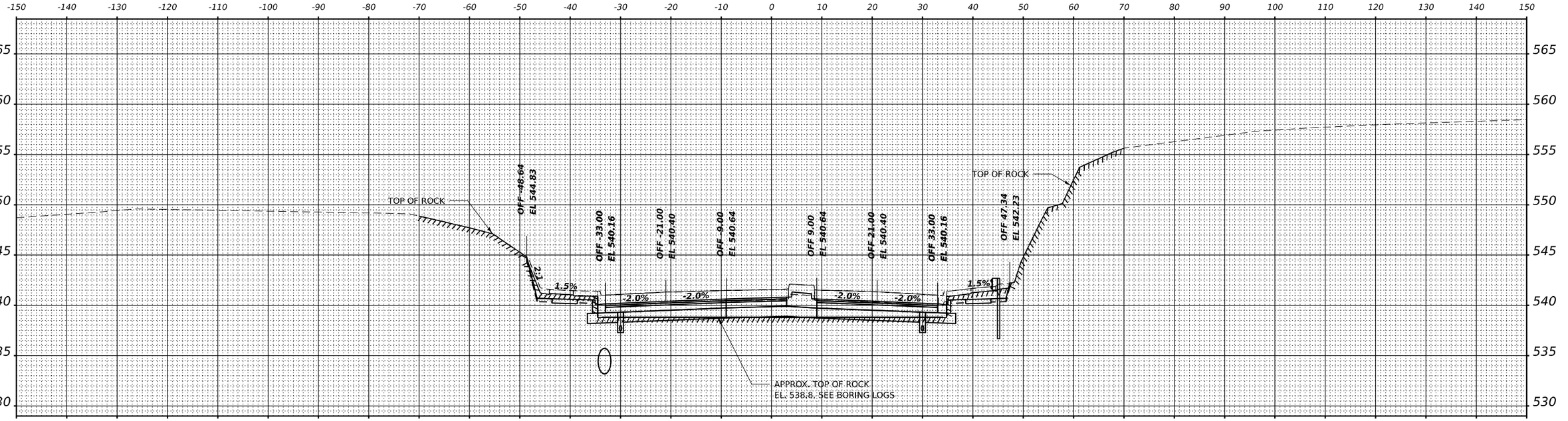
USER NAME = AVILAC	DESIGNED - CMA	REVISED -
	DRAWN - CMA	REVISED -
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -
PLOT DATE = 1/29/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

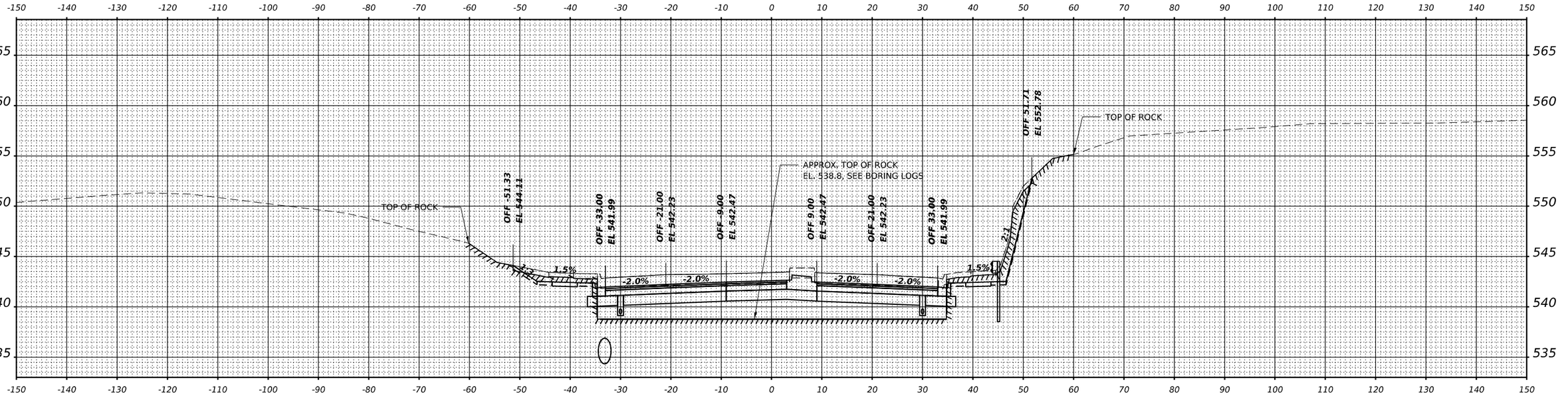
RICHARDS STREET
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA. 55+00.00 | 56+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	289
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



STA 57+00.00



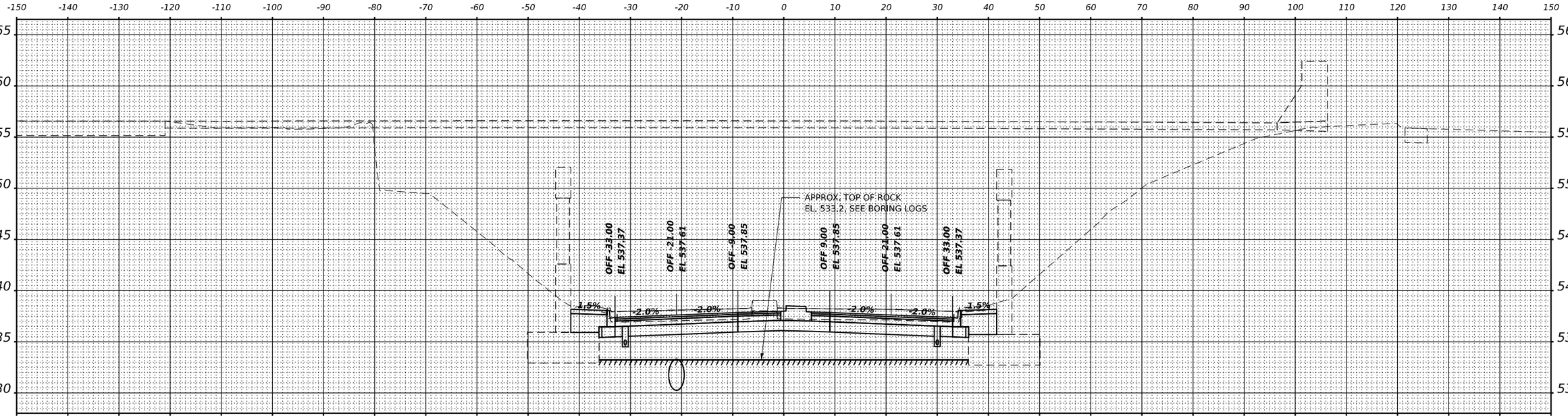
STA 56+50.00

exp.	USER NAME = AVILAC	DESIGNED - CMA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RICHARDS STREET CROSS SECTIONS
		DRAWN - CMA	REVISED -		
	PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 56+50.00 57+00.00
	PLOT DATE = 1/29/2024	DATE -	REVISED -		

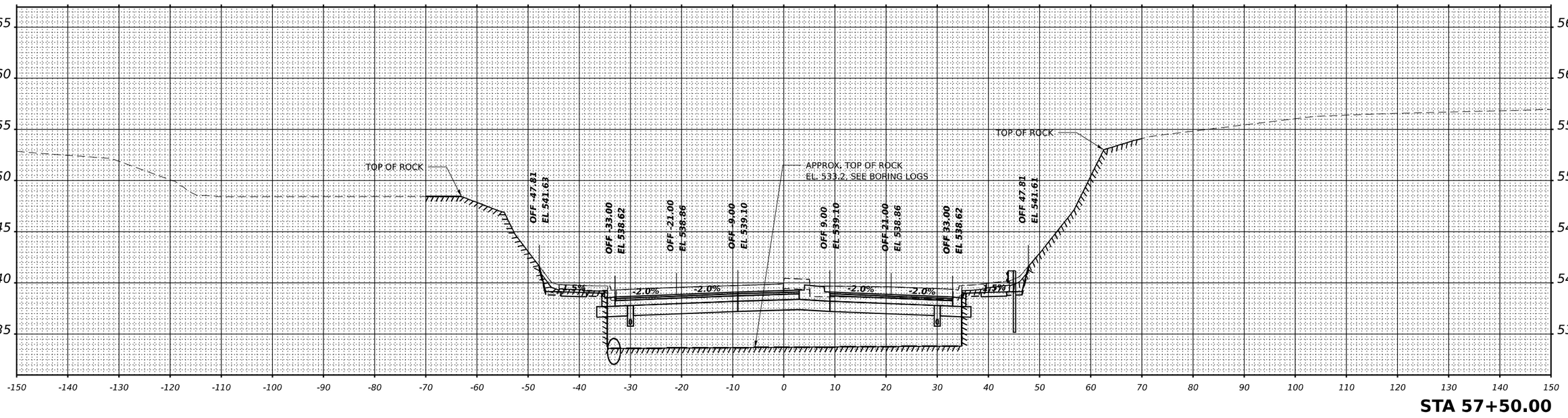
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	290
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

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

MODEL: EX RICHARDS - 55+50.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS\908836\62380-SHT-XSSHT-07.DGN



STA 58+00.00



STA 57+50.00

FINAL SURVEY	NOTE BOOK	NO.
ORIGINAL SURVEY	NOTE BOOK	NO.

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

MODEL: EX RICHARDS - 56+50.00-1
FILE NAME: C:\TRANSYSTEMS\PW LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-XSSHT-08.DGN

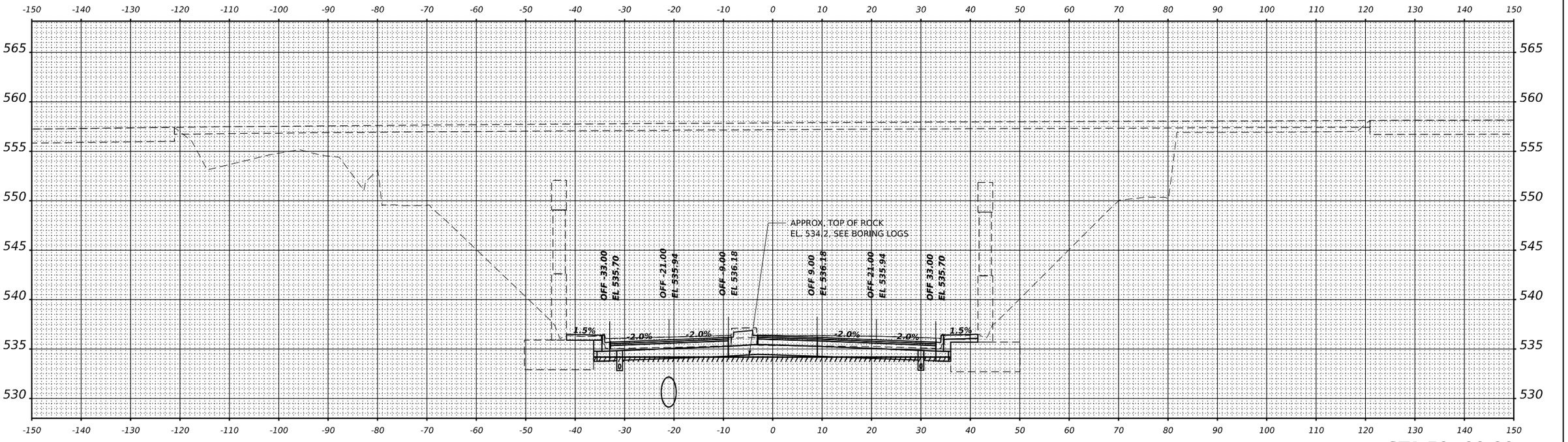
USER NAME = AVILAC	DESIGNED - CMA	REVISED -	
	DRAWN - CMA	REVISED -	
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -	
PLOT DATE = 1/29/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

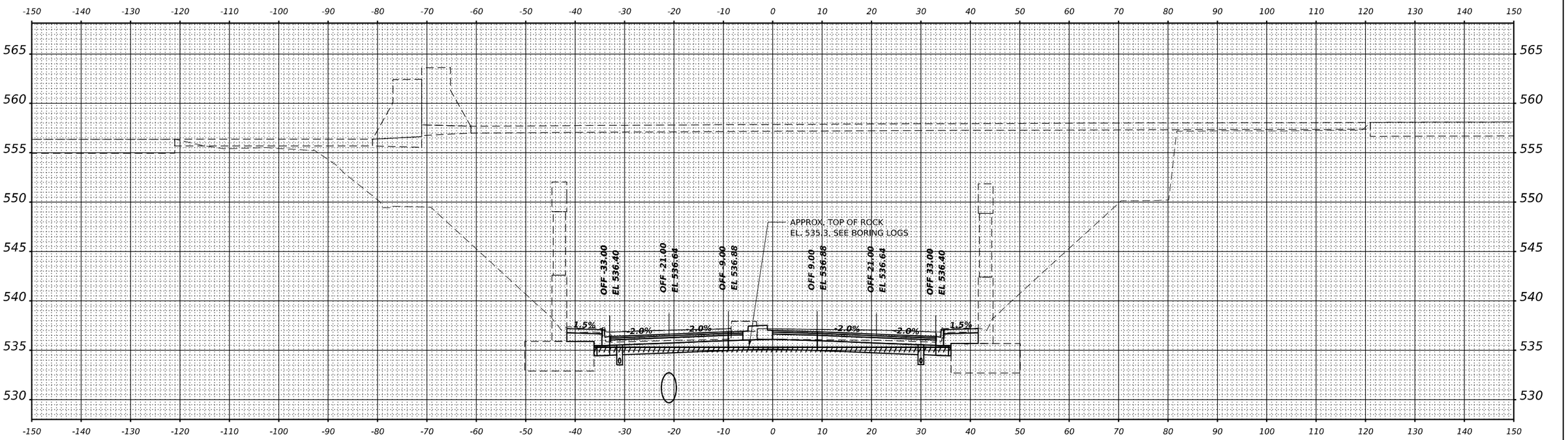
RICHARDS STREET
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA. 57+50.00 58+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	291
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



STA 59+00.00



STA 58+50.00

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

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

MODEL: EX RICHARDS - 57+50.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-XSSHT-09.DGN

exp.

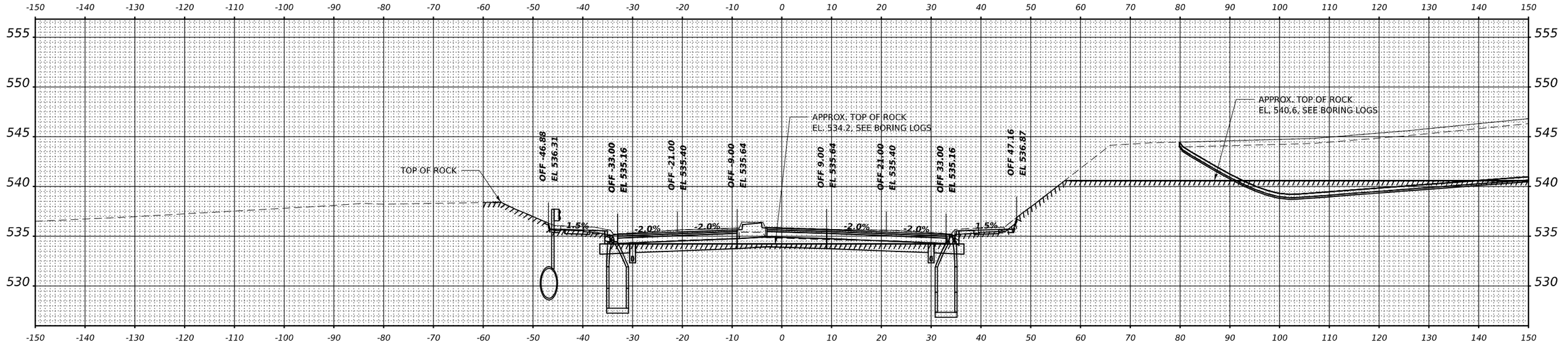
USER NAME = AVILAC	DESIGNED - CMA	REVISED -
	DRAWN - CMA	REVISED -
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -
PLOT DATE = 1/29/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

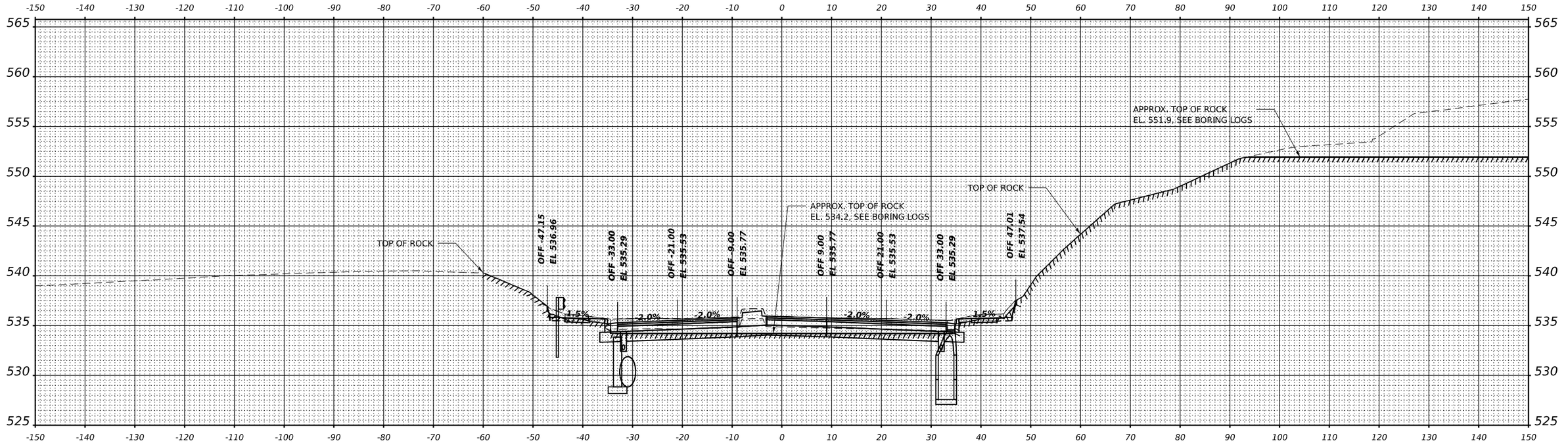
RICHARDS STREET
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA. 58+50.00 59+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	292
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



STA 60+00.00



STA 59+50.00

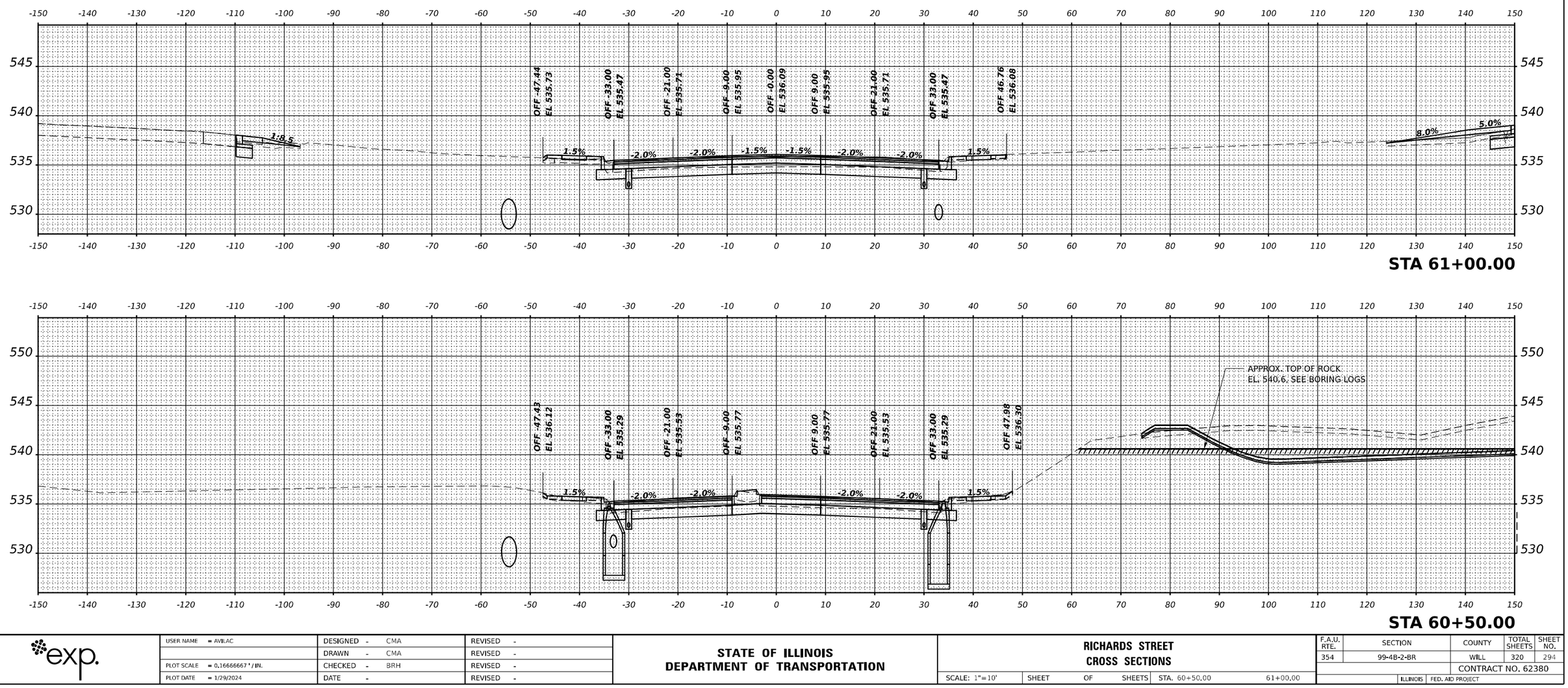
USER NAME = AVILAC	DESIGNED - CMA	REVISED -	**STATE OF ILLINOIS**	**RICHARDS STREET**	
	DRAWN - CMA	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS**	
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 59+50.00 60+00.00	
PLOT DATE = 1/29/2024	DATE -	REVISED -			

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	293
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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

MODEL: EX RICHARDS - 58+50.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-XSSHT-10.DGN

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



STA 61+00.00

STA 60+50.00

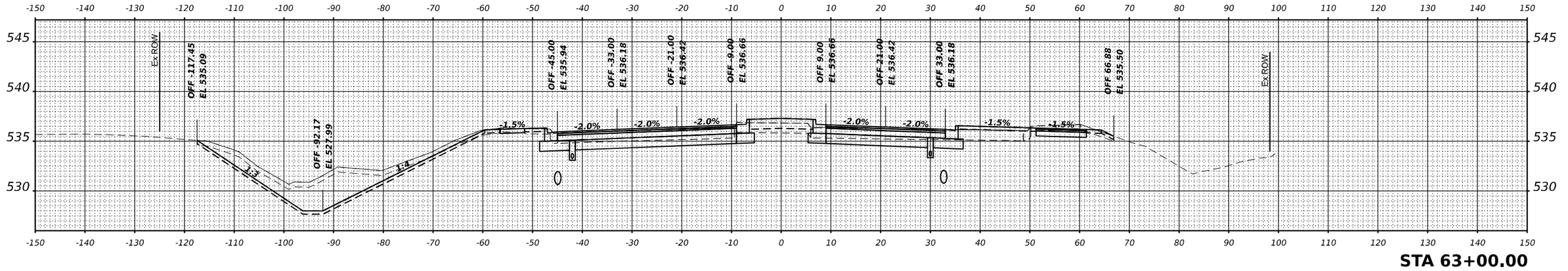
ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AVILAC		
NO.	AREAS CHECKED		

MODEL: EX RICHARDS - 59+50.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS=PW-01\DMS0988\62380-SHT-XSSHT-11.DGN

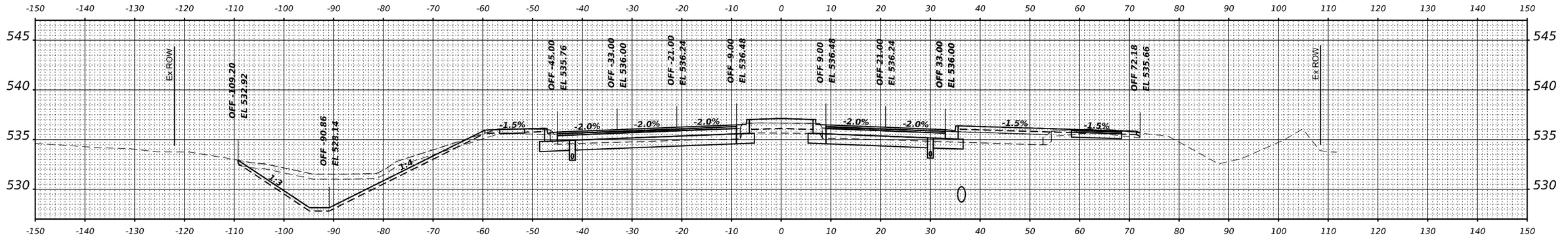
exp.

USER NAME = AVILAC	DESIGNED - CMA	REVISED -	**STATE OF ILLINOIS**	**RICHARDS STREET**	
	DRAWN - CMA	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS**	
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 60+50.00 61+00.00	
PLOT DATE = 1/29/2024	DATE -	REVISED -			

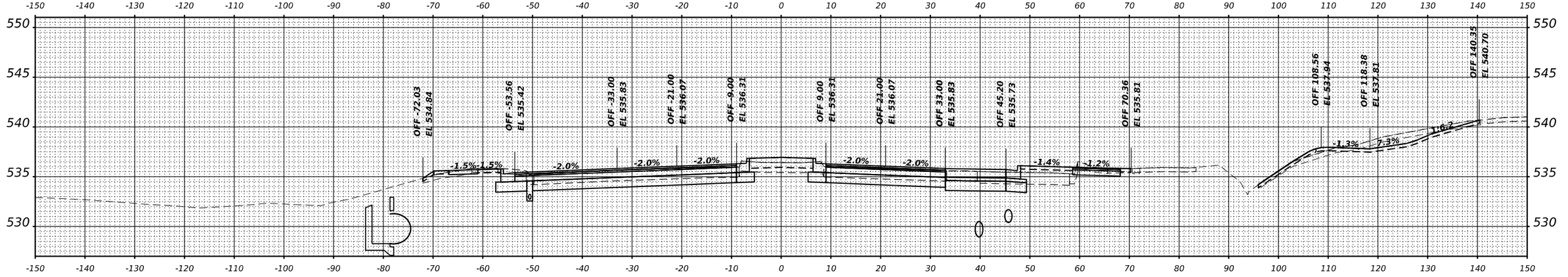
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	294
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		



STA 63+00.00



STA 62+50.00



STA 62+00.00

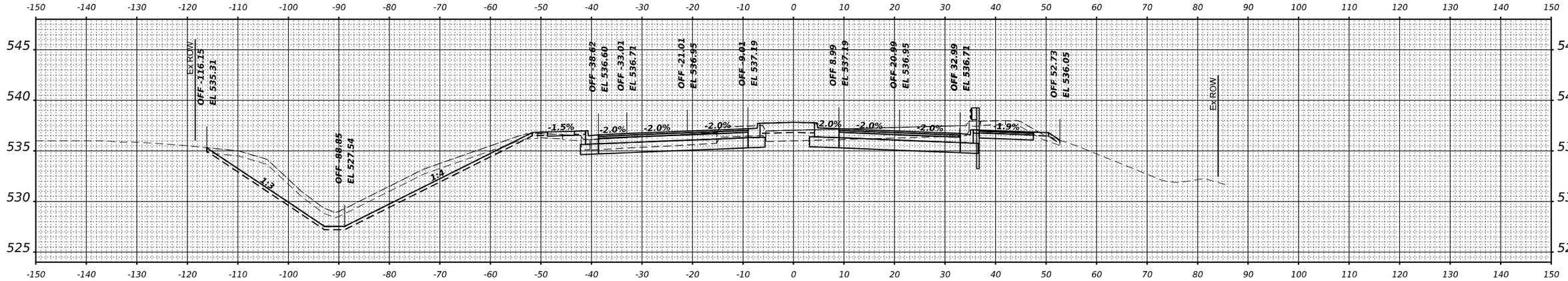
exp.	USER NAME = AVILAC	DESIGNED - CMA	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**RICHARDS STREET CROSS SECTIONS**
		DRAWN - CMA	REVISED -		
	PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 62+00.00 63+00.00
	PLOT DATE = 1/29/2024	DATE -	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	295
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

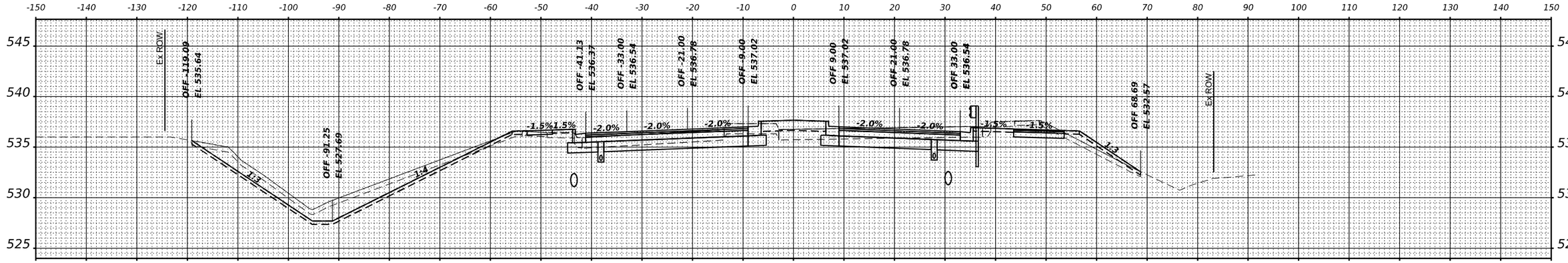
FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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

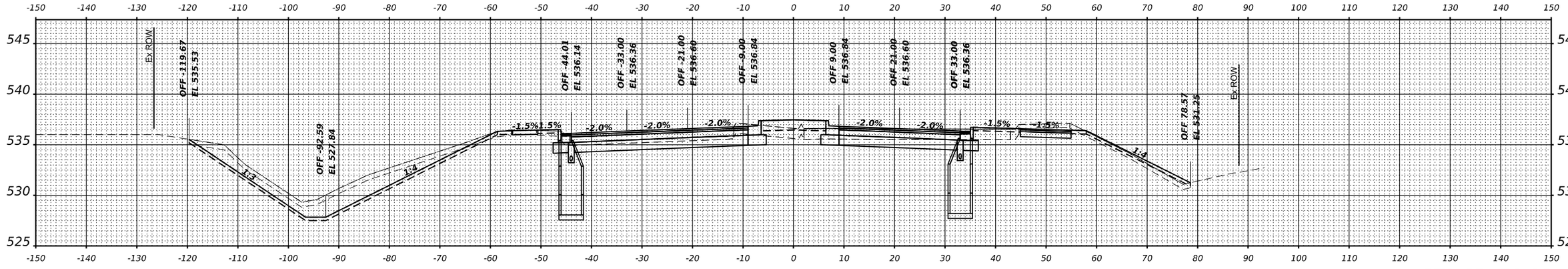
MODEL: EX RICHARDS - 62+00.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-D1\DMS09883\62380-SHT-XSSHT-12.DGN



STA 64+50.00



STA 64+00.00



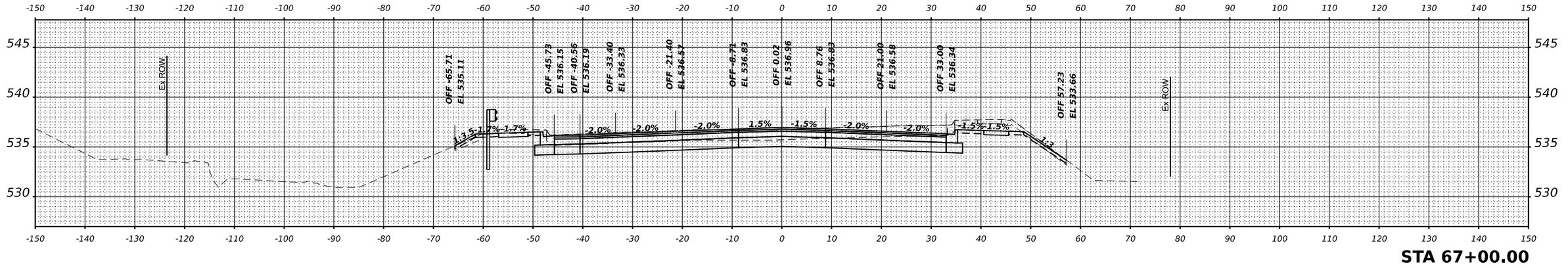
STA 63+50.00

USER NAME = AVILAC	DESIGNED - CMA	REVISED -	**STATE OF ILLINOIS**	**RICHARDS STREET**	
	DRAWN - CMA	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS**	
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 63+50.00 64+50.00	
PLOT DATE = 1/29/2024	DATE -	REVISED -			

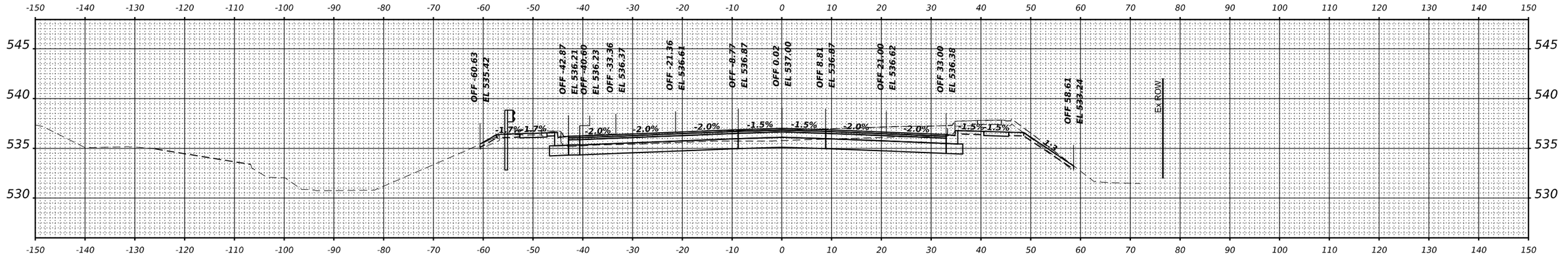
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	296
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

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

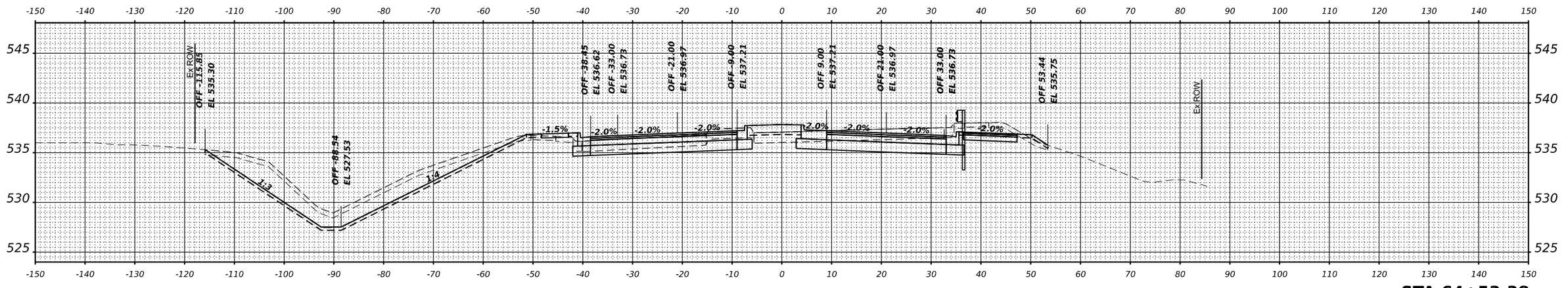
MODEL: EX RICHARDS - 63+50.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-011DMS0988336\2380-SHT-XSSHT-13.DGN



STA 67+00.00



STA 66+93.16



STA 64+53.38

USER NAME = AVILAC	DESIGNED - CMA	REVISED -	
	DRAWN - CMA	REVISED -	
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -	
PLOT DATE = 1/29/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

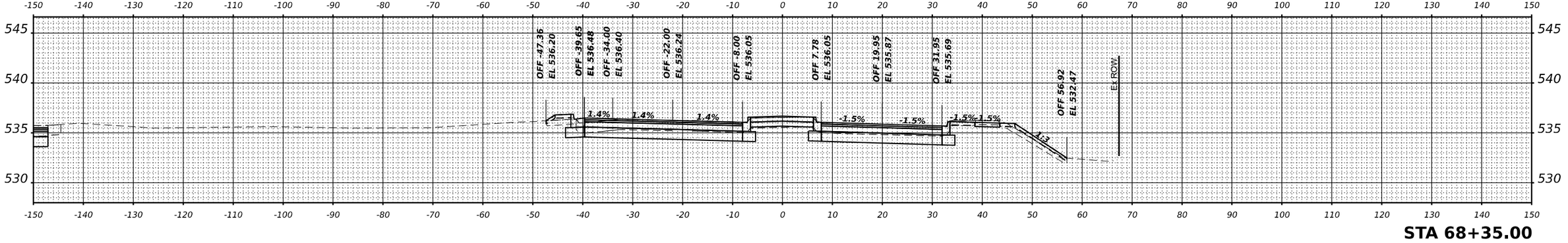
RICHARDS STREET
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA. 64+53.38 67+00.00

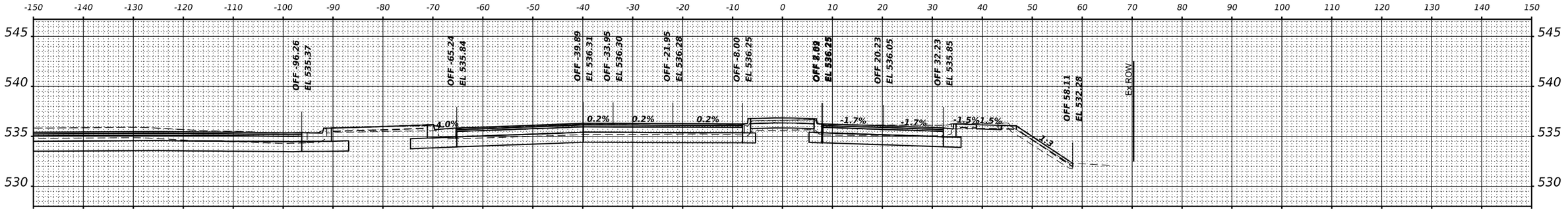
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	297
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		

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

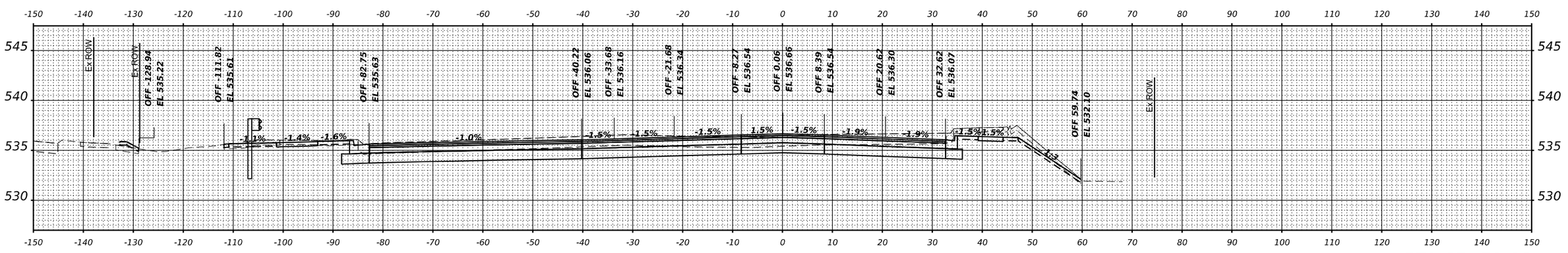
MODEL: EX RICHARDS - 66+50.00-1
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-XSSHT-14.DGN



STA 68+35.00



STA 68+00.00



STA 67+50.00

USER NAME = AVILAC	DESIGNED - CMA	REVISED -	**STATE OF ILLINOIS**	**RICHARDS STREET**	
	DRAWN - CMA	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS**	
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -		SCALE: 1"=10' SHEET OF SHEETS STA. 67+50.00 68+35.00	
PLOT DATE = 1/29/2024	DATE -	REVISED -			

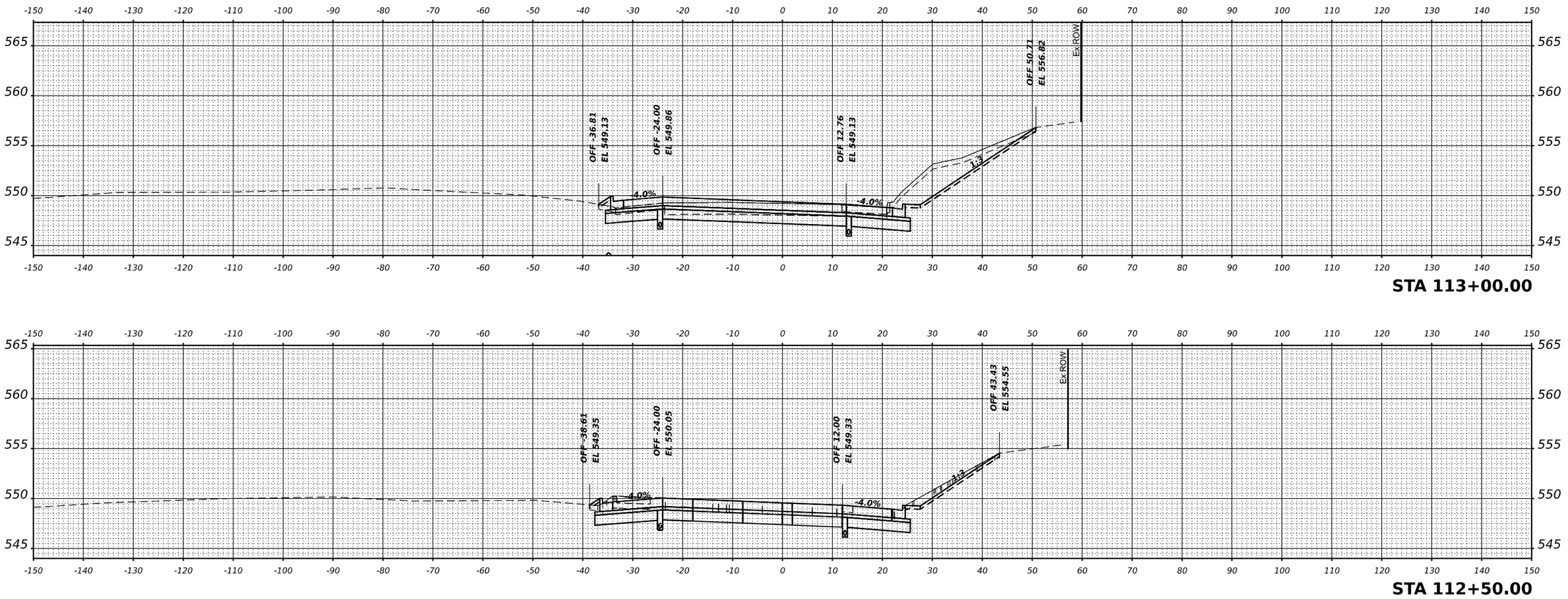
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	298
		CONTRACT NO. 62380		
		ILLINOIS	FED. AID PROJECT	

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

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

MODEL: EX RICHARDS - 67+50.00-1
FILE NAME: C:\TRANSYSTEMS\FPV_LOCAL\TRANSYSTEMS-FPV-01\DMS09883\62380-SHT-XSSHT-15.DGN

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



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

MODEL: EX RICHARDS ST RAMP A - 112+50.00 (SHEET)
FILE NAME: C:\TRANSYSTEMS\PW_LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-XSSHT-16.DGN

exp.

USER NAME = AVILAC	DESIGNED - CMA	REVISED -	
	DRAWN - CMA	REVISED -	
PLOT SCALE = 0.16666667 ' / IN.	CHECKED - BRH	REVISED -	
PLOT DATE = 1/29/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

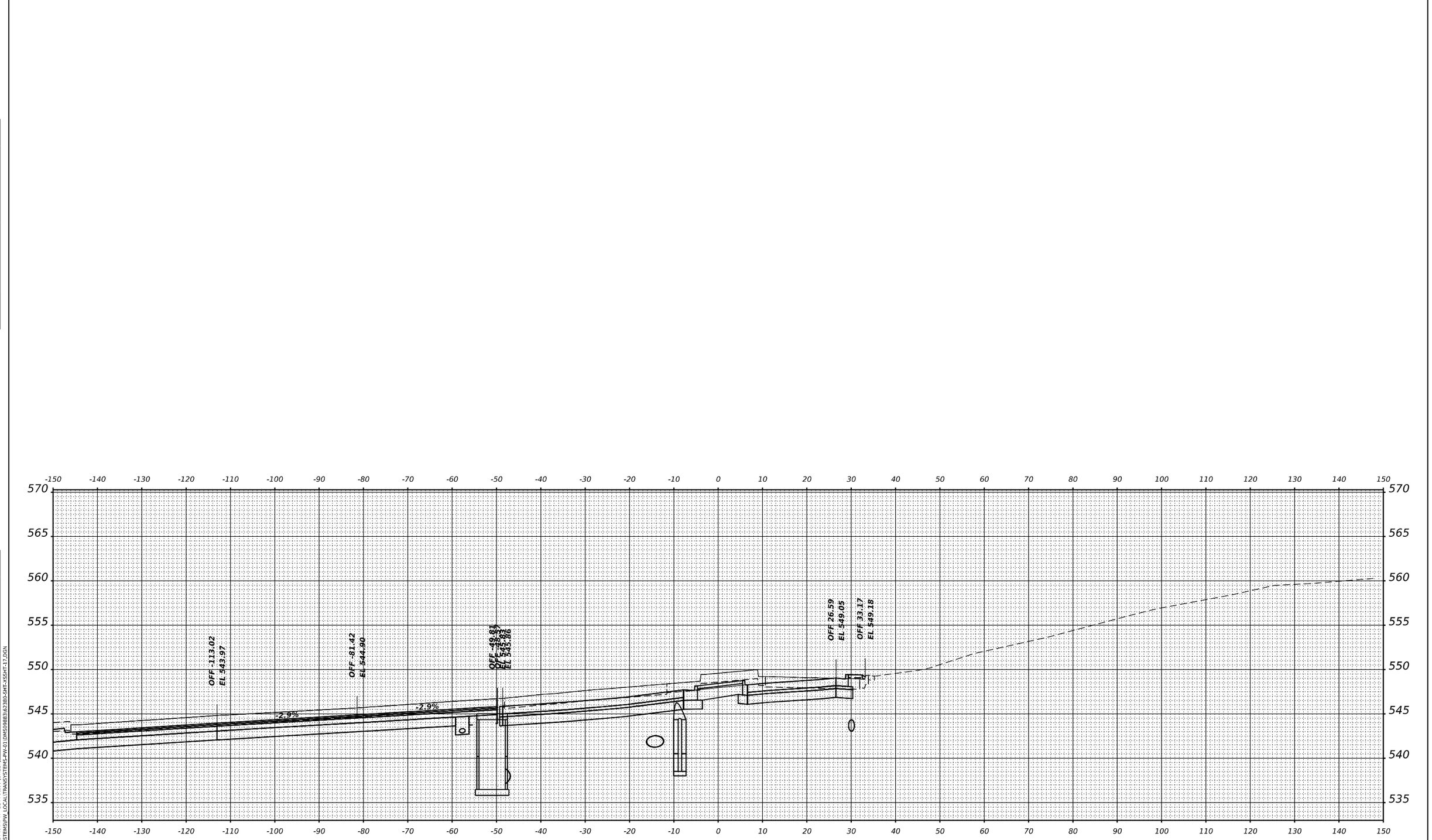
RICHARDS STREET RAMP A
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	299
		CONTRACT NO. 62380		
	ILLINOIS FED. AID PROJECT			

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

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



STA 114+00.00

MODEL: EX RICHARDS ST RAMP A - 114+00.00 (SHEET)
FILE NAME: C:\TRANSYSTEMS\PW LOCAL\TRANSYSTEMS-PW-01\DMS09883\62380-SHT-XSSHT-17.DGN

exp.

USER NAME = AVILAC		DESIGNED - CMA	REVISED -	
		DRAWN - CMA	REVISED -	
PLOT SCALE = 0.16666667 ' / IN.		CHECKED - BRH	REVISED -	
PLOT DATE = 1/29/2024		DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RICHARDS STREET RAMP A
CROSS SECTIONS

SCALE: 1"=10' | SHEET OF SHEETS | STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
354	99-4B-2-BR	WILL	320	300
		CONTRACT NO. 62380		
	ILLINOIS	FED. AID PROJECT		