

MODEL: I-39 PLN-I-39 (Sheet)
 FILE NAME: p:\projects\benesch\benesch\work\10800\10800.dwg
 PROJECT: I-39 & I-55 Interchange
 SHEET: ELECTRICAL (2689-2703) LIGHTING PLAN.dwg



USER NAME = rscarla	DESIGNED - R.SCARIA	REVISED -
DRAWN - R.SCARIA	REVISIONS	REVISED -
PLOT SCALE = 99.999800000 ' / in.	CHECKED - G.THIESSE	REVISED -
PLOT DATE = 10/11/2023	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN	
I-39	
SCALE: 1"=20'	SHEET 47 OF 63 SHEETS
STA.	TO STA.

KEYPLAN SHEET 11			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279
		CONTRACT NO. 64R71	701
ILLINOIS FED. AID PROJECT			

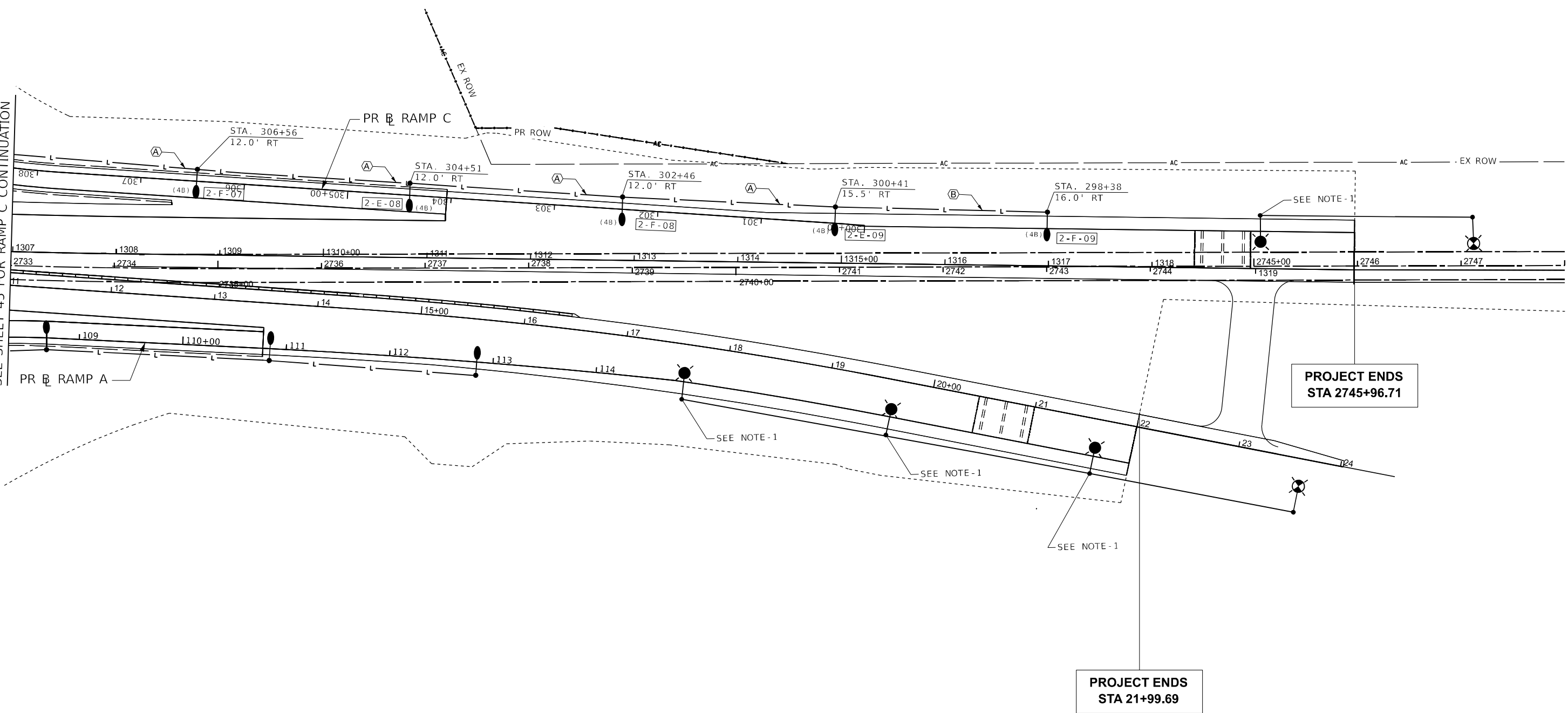
* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

NOTES

1. SEE SHEET 53 FOR PROPOSED TOLLWAY LIGHTING PLANS AND LEGENDS.



SEE SHEET 43 FOR RAMP A CONTINUATION
SEE SHEET 45 FOR RAMP C CONTINUATION



PROJECT ENDS
STA 2745+96.71

PROJECT ENDS
STA 21+99.69



MODEL: I19 PLN-I-39 (Sheet)
FILE NAME: p:\projects\benesch\benesch\work\10800\10800.dwg Desc:CAD Sheets\Electrical\I19-I-39-Lighting-Plan.dwg



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PLOT DATE = 10/12/2023	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





LIGHTING PLAN
I-39

SCALE: 1"=20' SHEET 49 OF 63 SHEETS STA. TO STA.

KEYPLAN SHEET 08			
F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279
			SHEET NO. 703
CONTRACT NO. 64R71			
ILLINOIS FED. AID PROJECT			

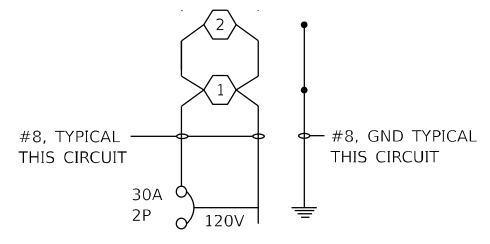
* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

LEGEND

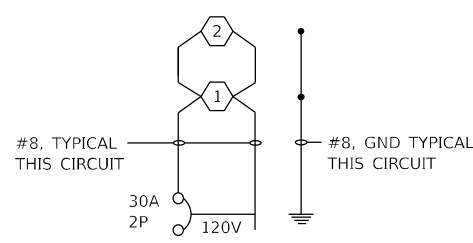
-  LED ROADWAY LUMINAIRE, DESIGNATION H
-  LED UNDERPASS LUMINAIRE, DESIGNATION E
-  GROUND CONNECTION AT EACH POLE
-  GROUND ROD

NOTE:

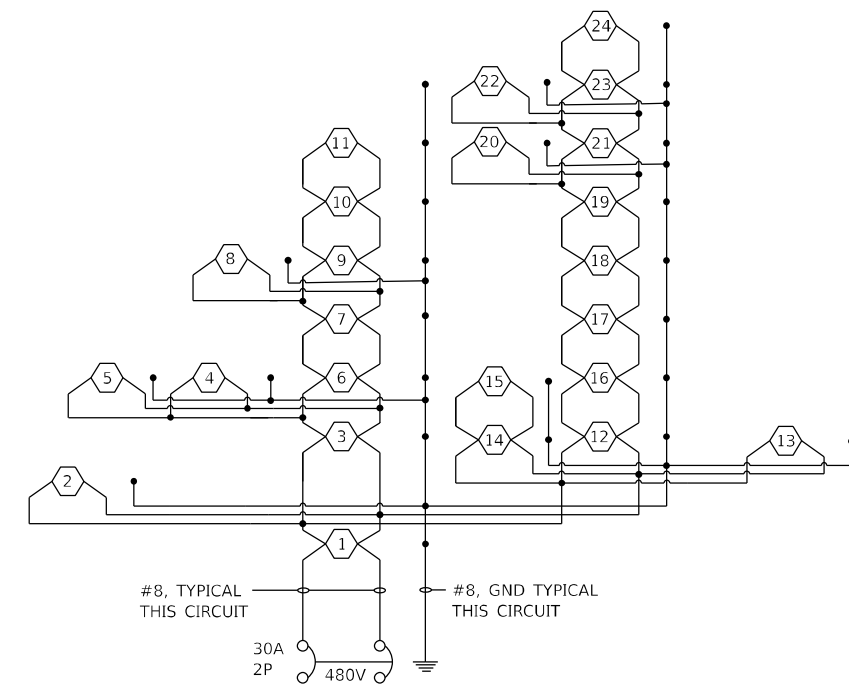
1. BOND EACH JUNCTION BOX TO EQUIPMENT GROUNDING CONDUCTOR.



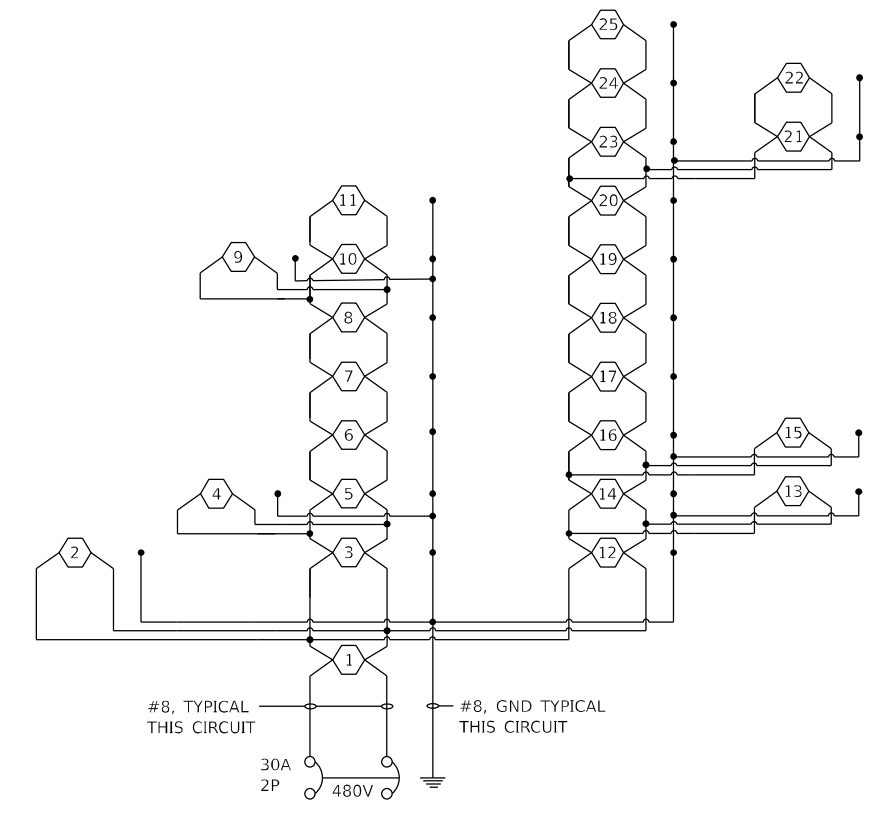
COMBINATION LIGHTING CONTROLLER
CIRCUIT A



COMBINATION LIGHTING CONTROLLER
CIRCUIT B



LIGHTING CONTROLLER 2
CIRCUIT C



LIGHTING CONTROLLER 2
CIRCUIT D

Model: Default
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 Alfred Benesch & Company
 35 W. Wacker Drive, Suite 3300
 Chicago, Illinois 60601
 312.655.0150 Job No. 10800.00



USER NAME = rscarla	DESIGNED - R.SCARIA	REVISED -
DRAWN - R.SCARIA	REVISIONS -	
PLOT SCALE = 0.167 "/>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN SCHEMATICS-1

SCALE: N/A SHEET 50 OF 63 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	704
CONTRACT NO. 64R71				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)



Luminaire Performance Table

Reset Form

Project

Date	Contract Number	Section Number	County
09/12/23	64R71	(201-3)K	Winnebago
Marked Route Number		Municipality	
I-39/US-20		VILLAGE OF CHERRY VALLEY	

Roadway

Lane Width	# of Lanes	Median Width	I.E.S. Surface Classification	Q-Zero Value
12'	3	18'	R3	0.07

Structure

Mounting Height	Arm Length	Set-Back	Number of Luminaires (Highmast & Sign Lighting Only)
45'	12'	3	N/A

Luminaire

Description	I.E.S. Lateral Distribution	I.E.S. Vertical Distribution	
LUMINAIRE,LED,OUTPUT DESIGNATION H	MEDIUM	TYPE III	
Total Light Loss Factor (LLF)	B-U-G Rating	Shields	Dimming Protocol
0.7	U=0	0	0

Layout

Spacing (to Nearest 5 ft)	Configuration (Opposite, Staggered, 1 Sided, or Median)
225'	OPPOSITE

Performance

Average Illuminance, E_{AVE} (fc)	Uniformity Ratio, E_{AVE}/E_{MIN}		
0.9	3.0		
Average Luminance, L_{AVE} (cd/m ²)	Uniformity Ratio, L_{AVE}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_v/L_{AVE}
0.6	3.0	5.0	0.3

Light Trespass

Distance to ROW (behind pole)	Max. Horizontal Illuminance at ROW, E_H	Max. Vertical Illuminance at ROW, E_v
N/A	N/A	N/A

Notes

3 LANES IN EACH DIRECTION

Printed 10/03/23

BDE 5630 (04/10/19)

MODEL: 2D Drawing
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PLOT DATE = 10/11/2023	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN LUMINAIRE PERFORMANCE TABLE

SCALE: N/A SHEET 52 OF 63 SHEETS STA. TO STA.

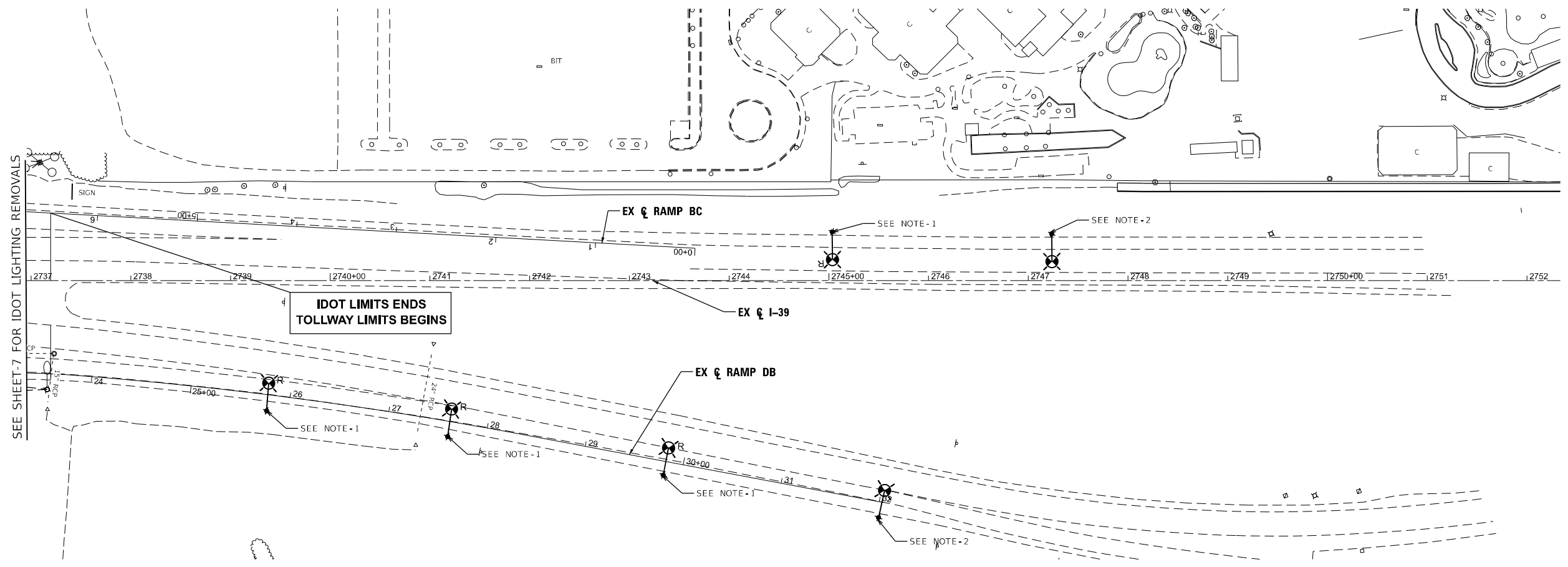
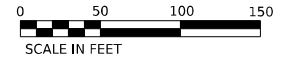
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*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	706
CONTRACT NO. 64R71				

ILLINOIS FED. AID PROJECT

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

NOTES

1. EXISTING POLE TO BE REMOVED AND RETURNED TO TOLLWAY.
2. EXISTING POLE TO REMAIN. REFER TO THE EXISTING TOLLWAY PLANS FOR MORE DETAILS.



SEE SHEET-7 FOR IDOT LIGHTING REMOVALS

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 DATE: 10/11/2023
 DRAWN: R.SCARIA
 CHECKED: G.THIESSE
 PLOT DATE: 10/11/2023



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION










**LIGHTING REMOVAL PLANS I-90
STA 2737+00 TO STA 2748+00**

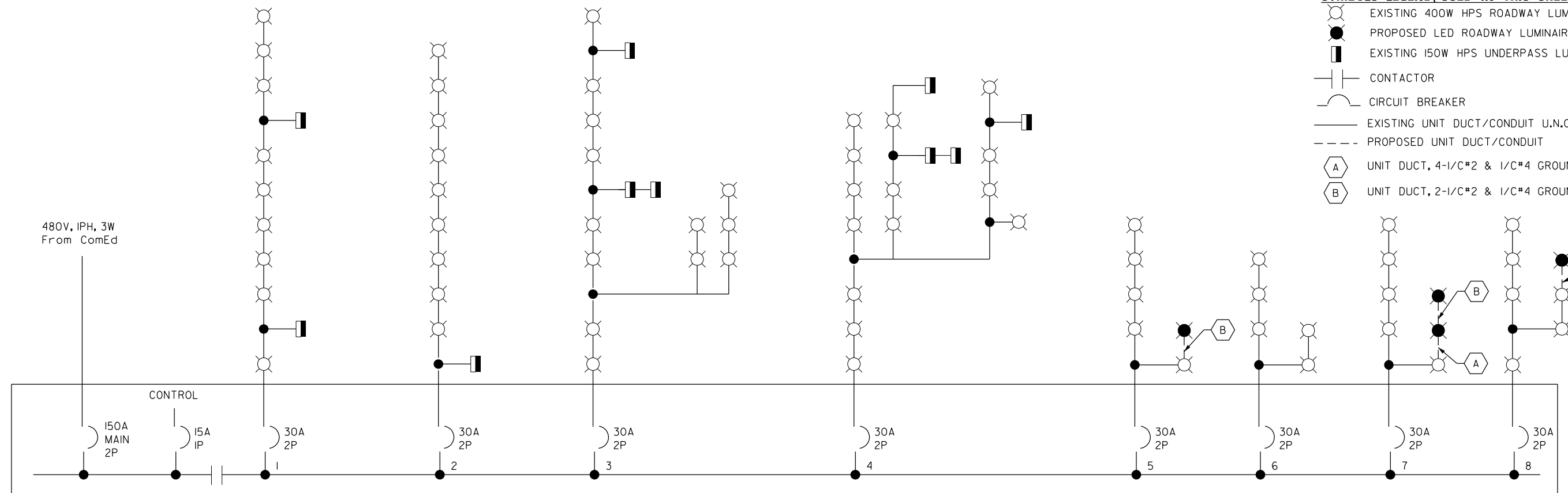
SCALE: 1"=50' SHEET 54 OF 63 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

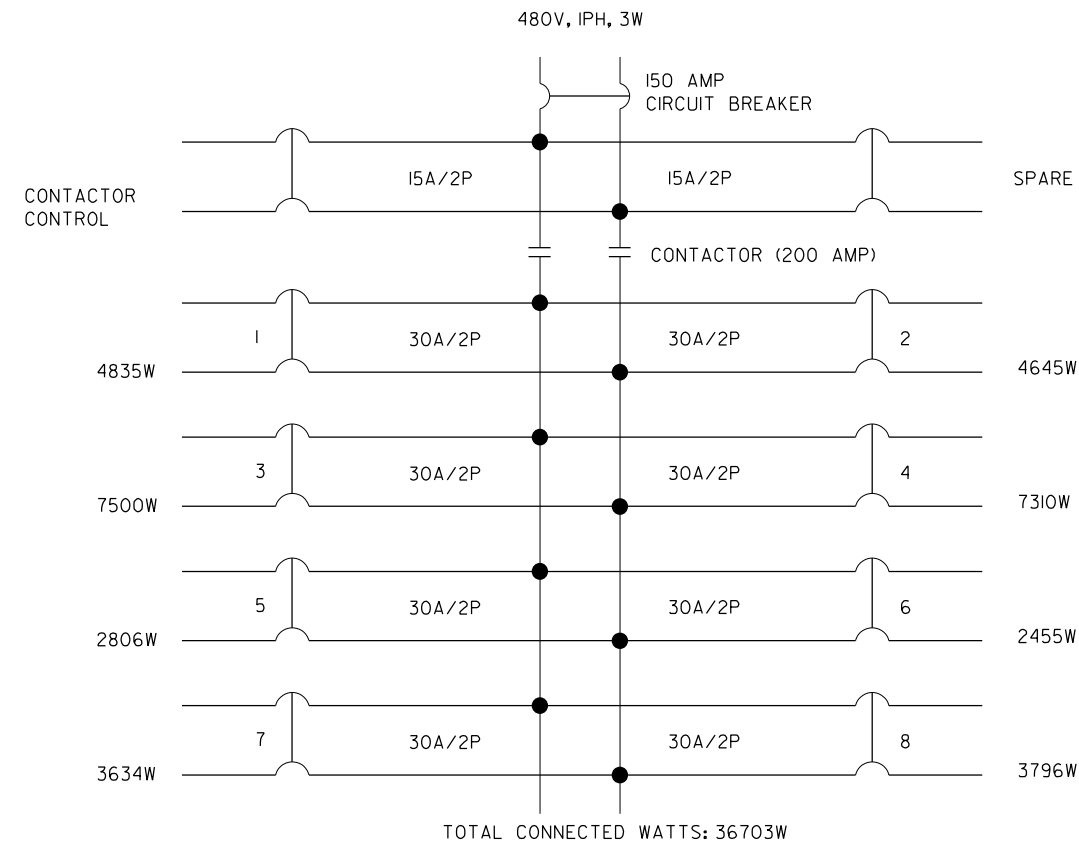
* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

SYMBOLS LEGEND (USED IN THIS SHEET ONLY)

-  EXISTING 400W HPS ROADWAY LUMINAIRE
-  PROPOSED LED ROADWAY LUMINAIRE
-  EXISTING 150W HPS UNDERPASS LUMINAIRE
-  CONTACTOR
-  CIRCUIT BREAKER
-  EXISTING UNIT DUCT/CONDUIT U.N.O
-  PROPOSED UNIT DUCT/CONDUIT
-  UNIT DUCT, 4-1/C*2 & 1/C*4 GROUND (XLP-TYPE)
-  UNIT DUCT, 2-1/C*2 & 1/C*4 GROUND (XLP-TYPE)



EXISTING CONTROLLER "A" WIRING DIAGRAM



EXISTING CONTROLLER "A" PANEL SCHEDULE

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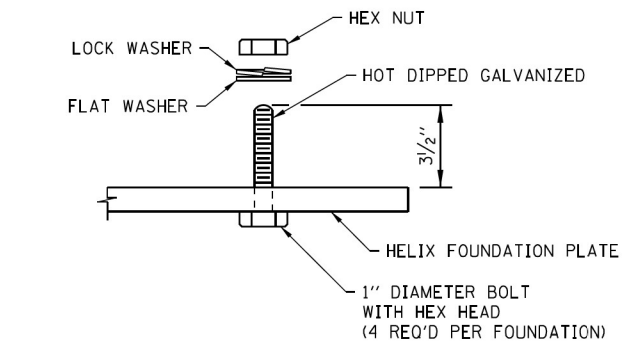
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN I-90
WIRING AND PANEL SCHEDULE

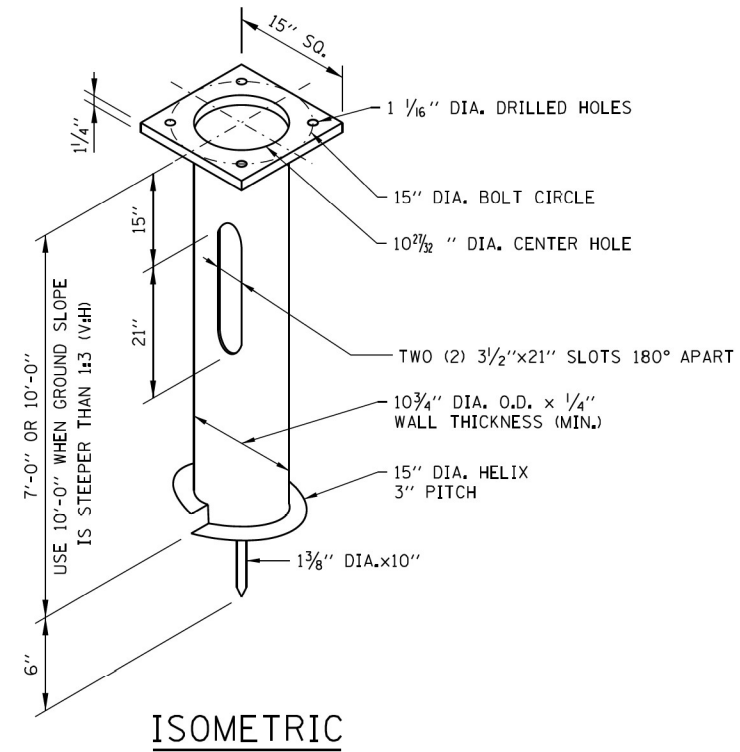
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CONTRACT NO. 64R71				

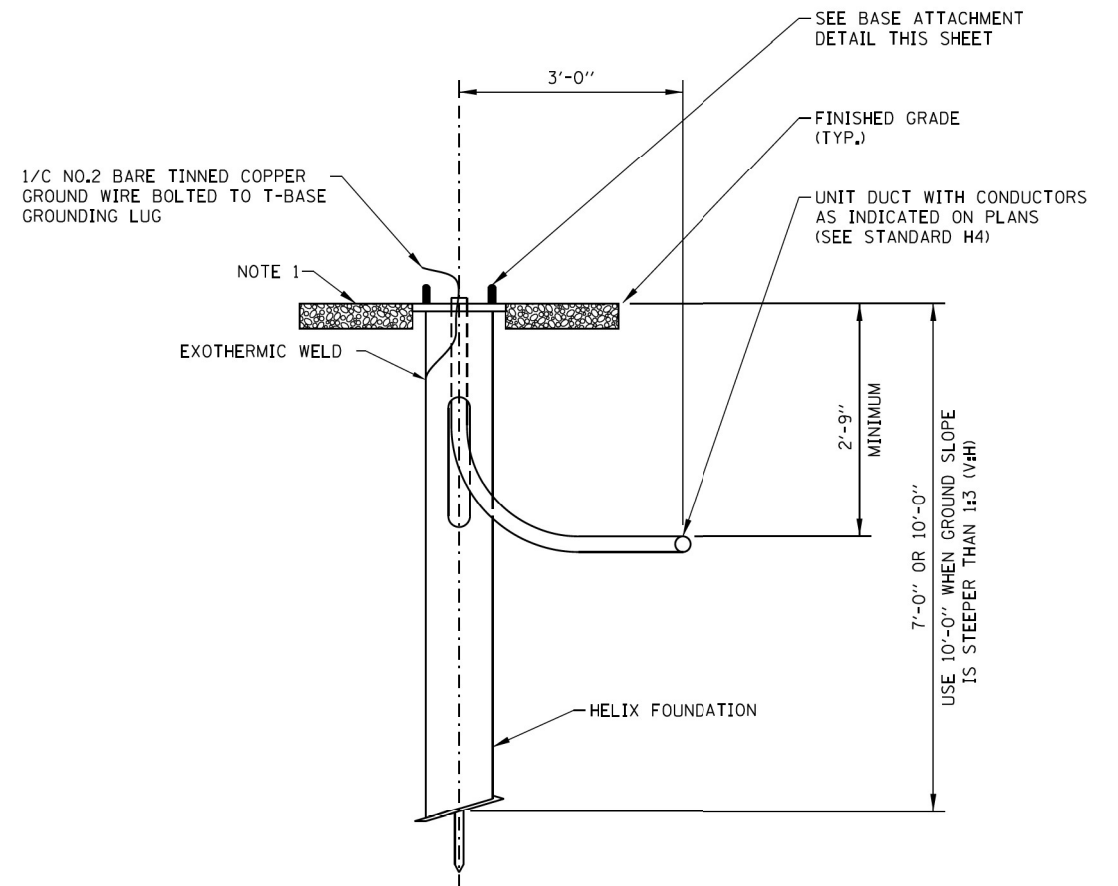
* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)



BASE ATTACHMENT DETAIL



ISOMETRIC



ELEVATION

APPROVED BY: *Manar Nashif*
 CHIEF ENGINEERING OFFICER
 DATE: 03/01/2023

**LIGHT STANDARD FOUNDATION DETAILS - HELIX
 (GROUND MOUNTED UNITS)**

NOTES:
 SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 2 OF 10



LIGHT STANDARD FOUNDATION

STANDARD H1-11

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PLOT DATE = 10/11/2023	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

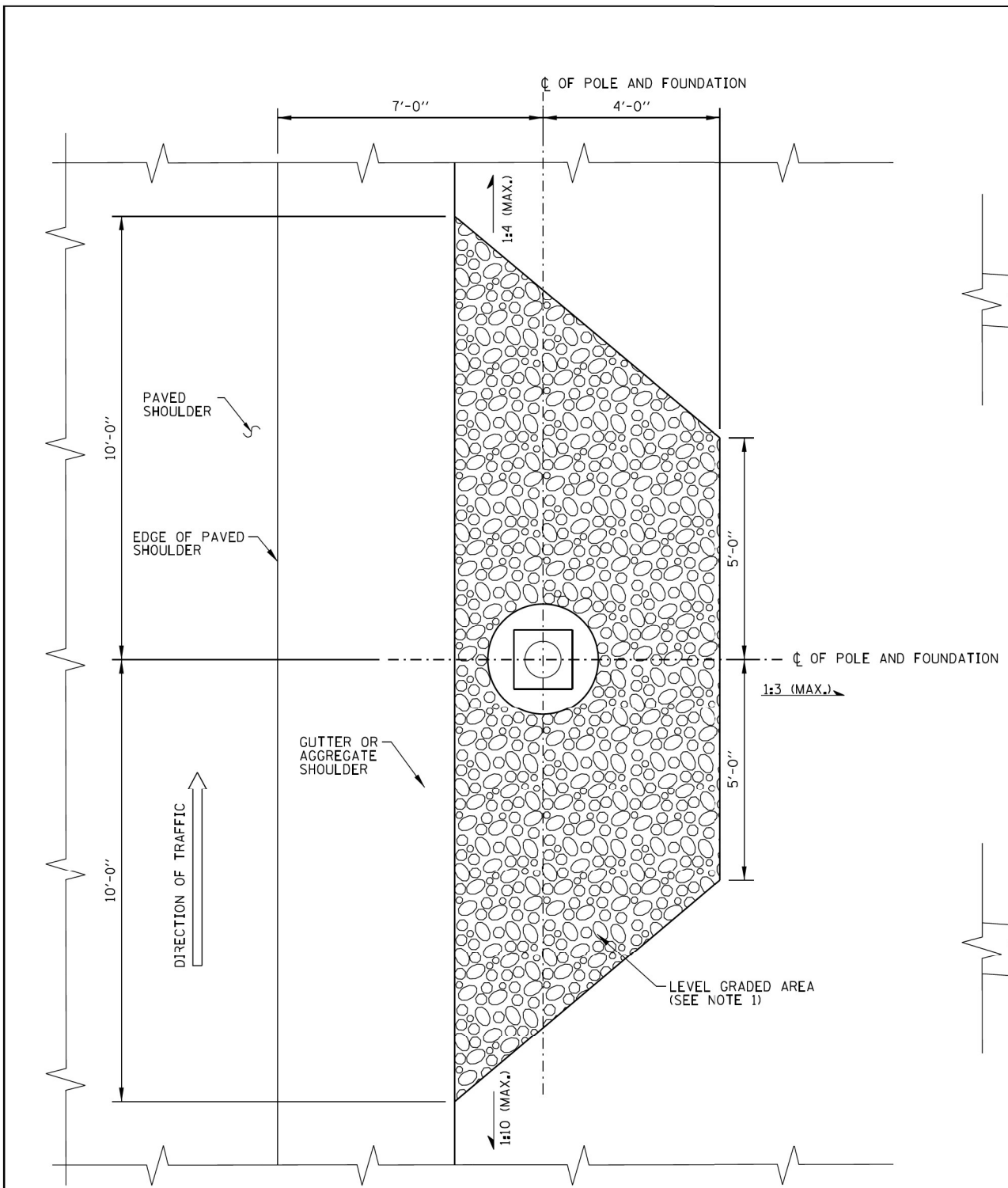
**LIGHTING PLAN I-90
 TOLLWAY DETAILS-1**

SCALE: N/A SHEET 57 OF 63 SHEETS STA. TO STA.

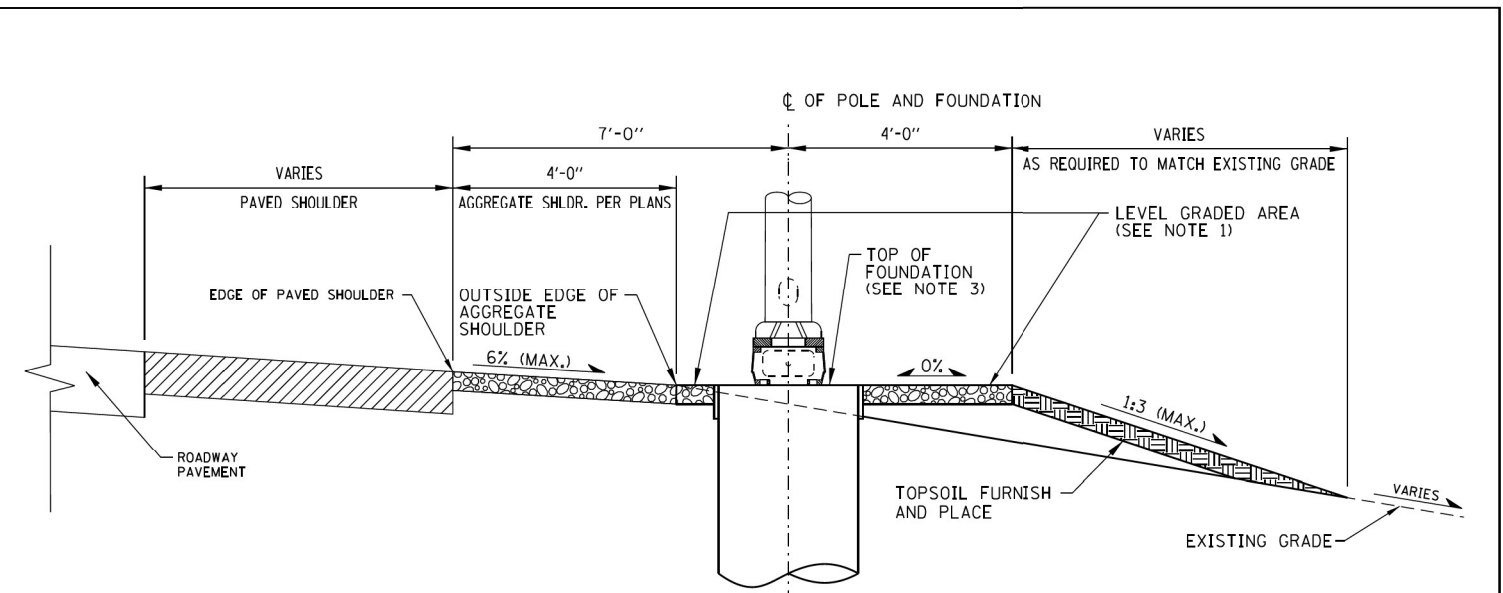
F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5)H/R/C	WINNEBAGO	1279	711
CONTRACT NO. 64R71				

ILLINOIS FED. AID PROJECT

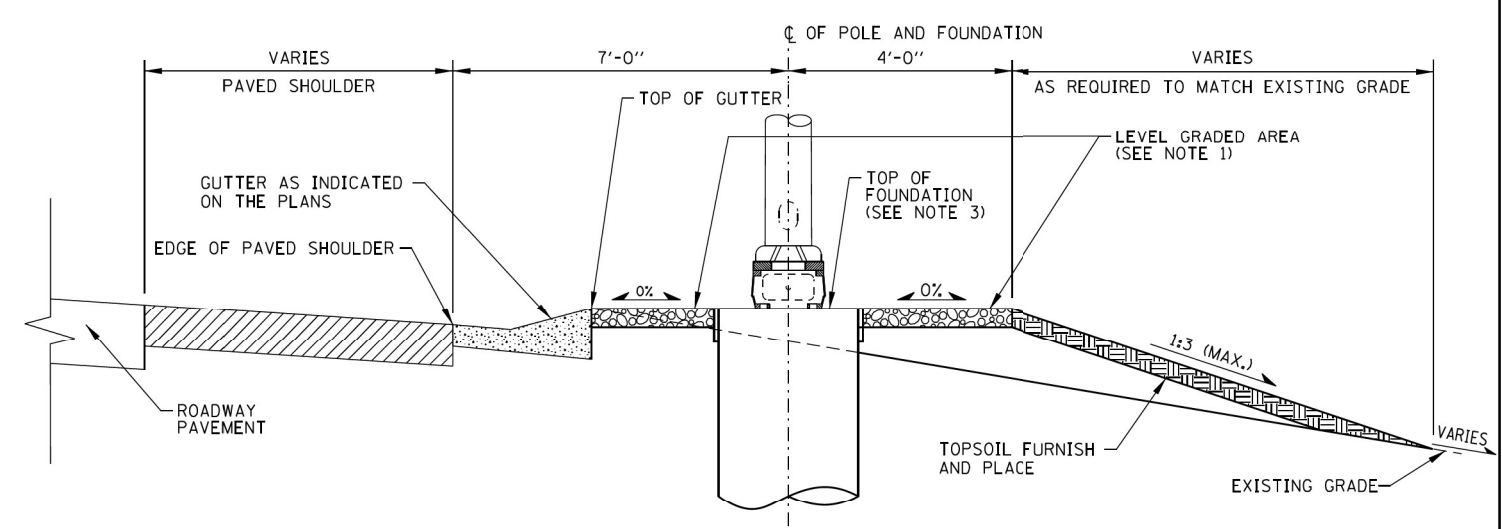
* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)



PLAN



LIGHT STANDARD FOUNDATION
ADJACENT TO AGGREGATE SHOULDER



LIGHT STANDARD FOUNDATION
ADJACENT TO GUTTER

LIGHT STANDARD FOUNDATION DETAILS - GRADING W/ FORESLOPE
(GROUND MOUNTED UNITS)

APPROVED BY: *Manar Nashif*
CHIEF ENGINEERING OFFICER
DATE: 03/01/2023

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 7 OF 10

LIGHT STANDARD FOUNDATION
STANDARD H1-11

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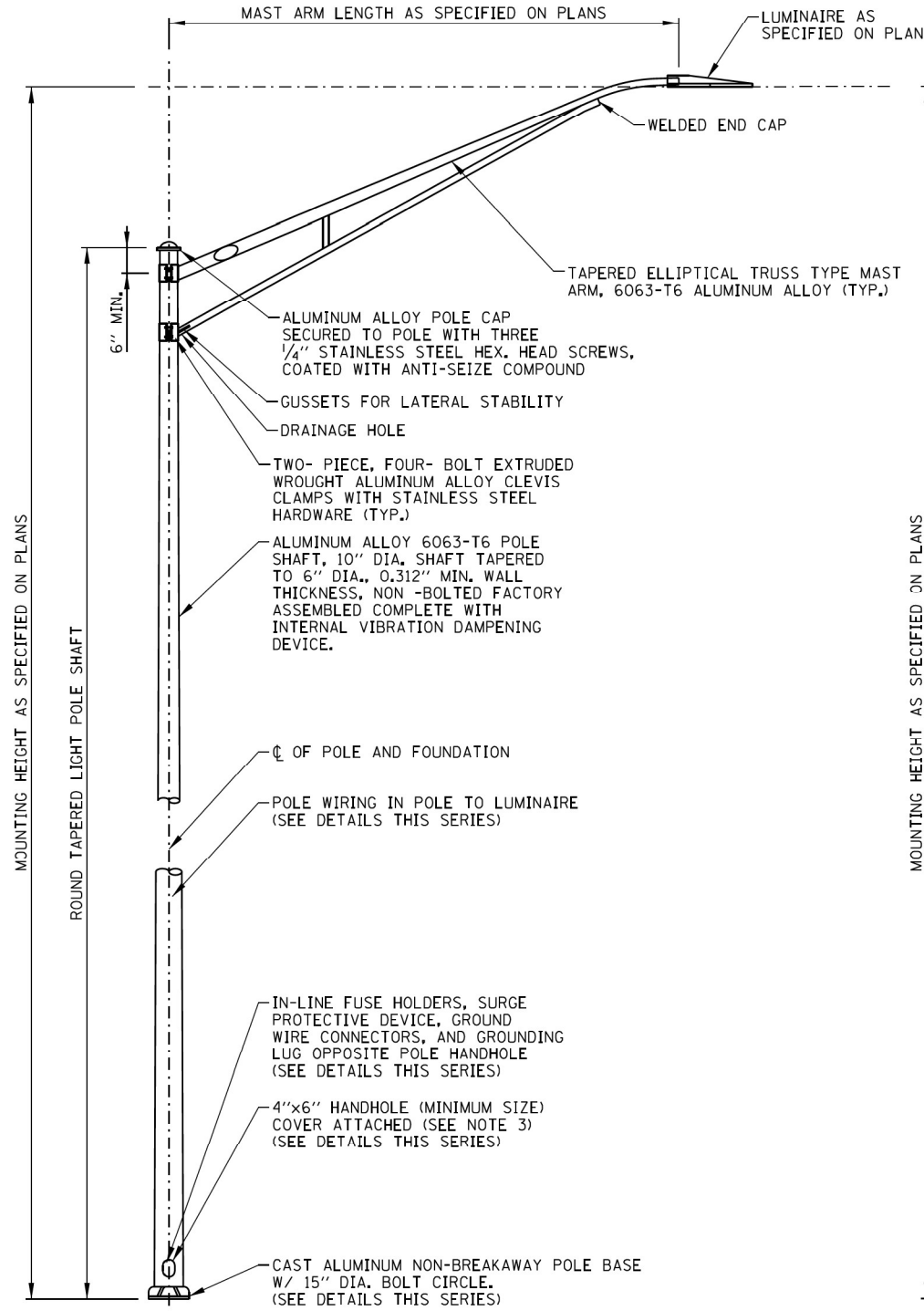
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN I-90
TOLLWAY DETAILS-2

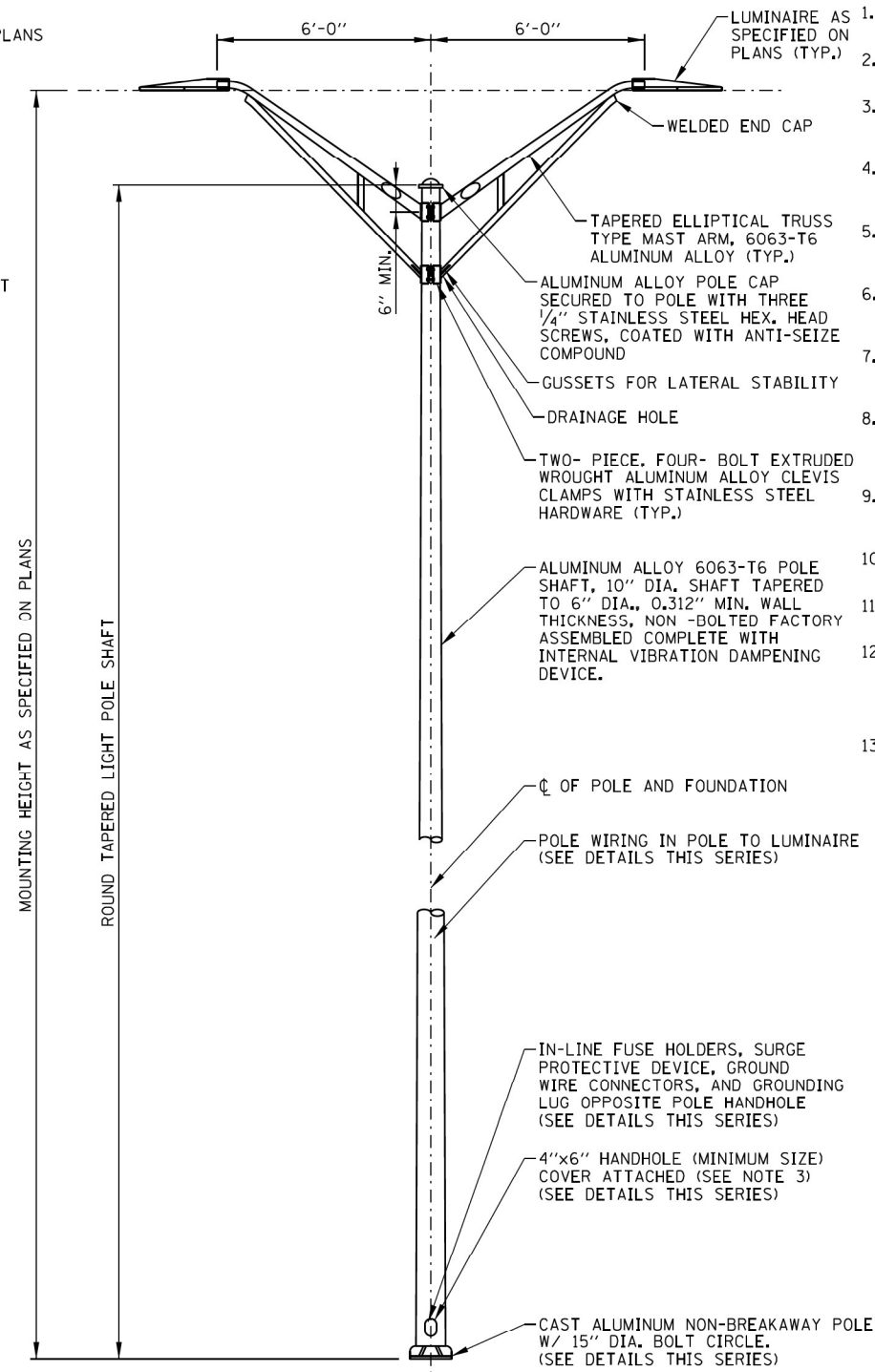
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F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	712
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)



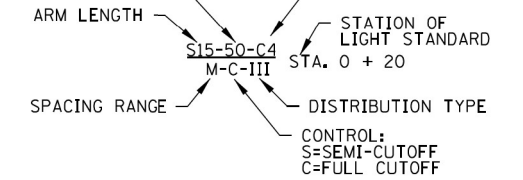
LIGHT STANDARD - SINGLE MAST ARM



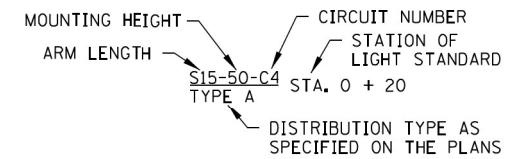
LIGHT STANDARD - TWIN MAST ARM

NOTES:

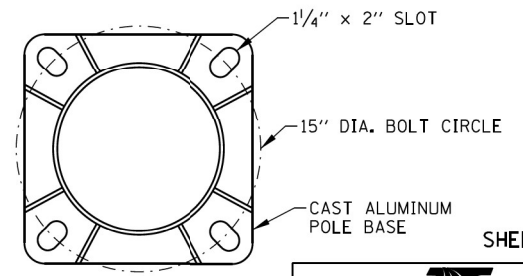
1. ALL LIGHT STANDARDS, BOTH NEW AND EXISTING, ARE SHOWN ON PLANS WITH THE SAMPLE DESCRIPTIONS SHOWN ON THIS SHEET.
2. FOR FOUNDATION DETAILS SEE STANDARD H1. FOR STRUCTURAL PARAPET FOUNDATION DETAILS, SEE STRUCTURAL PLANS.
3. HANDHOLE COVERS SHALL BE FASTENED USING TWO STAINLESS STEEL SCREWS WITH CAPTIVE STAINLESS STEEL NUTS OR INSERTS, PER ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATION SECTION 1063.
4. PROVIDE A 24\"/>



LIGHT STANDARD DESCRIPTION - HPS LUMINAIRES



LIGHT STANDARD DESCRIPTION - LED LUMINAIRES



POLE BASE

SHEET 1 OF 3



LIGHT STANDARD DETAILS

STANDARD H2-09

DATE	REVISIONS
3-01-2022	INCREASED ANCHOR BOLT PROJECTION, LOCK WASHER SHOWN ON GND POLES.
3-01-2020	REMOVED BOLT COVERS.
3-01-2019	REVISED LIGHT POLE AND MAST ARM DETAILS.

APPROVED BY: *Paul Kovacs*
CHIEF ENGINEERING OFFICER
DATE: 02/07/2012

LIGHT STANDARD DETAILS

MODEL: Default; FILE NAME: p:\benesch\proj\benesch\proj\benesch\proj\Documents\10800\01Eng_Docs\CAD Sheets\Electrical\Railway Plans-DDTollway_Lighting_Details-4



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PLOT DATE = 10/11/2023	CHECKED - G.THIESSE	REVISED -
	DATE - 10/13/2023	REVISED -

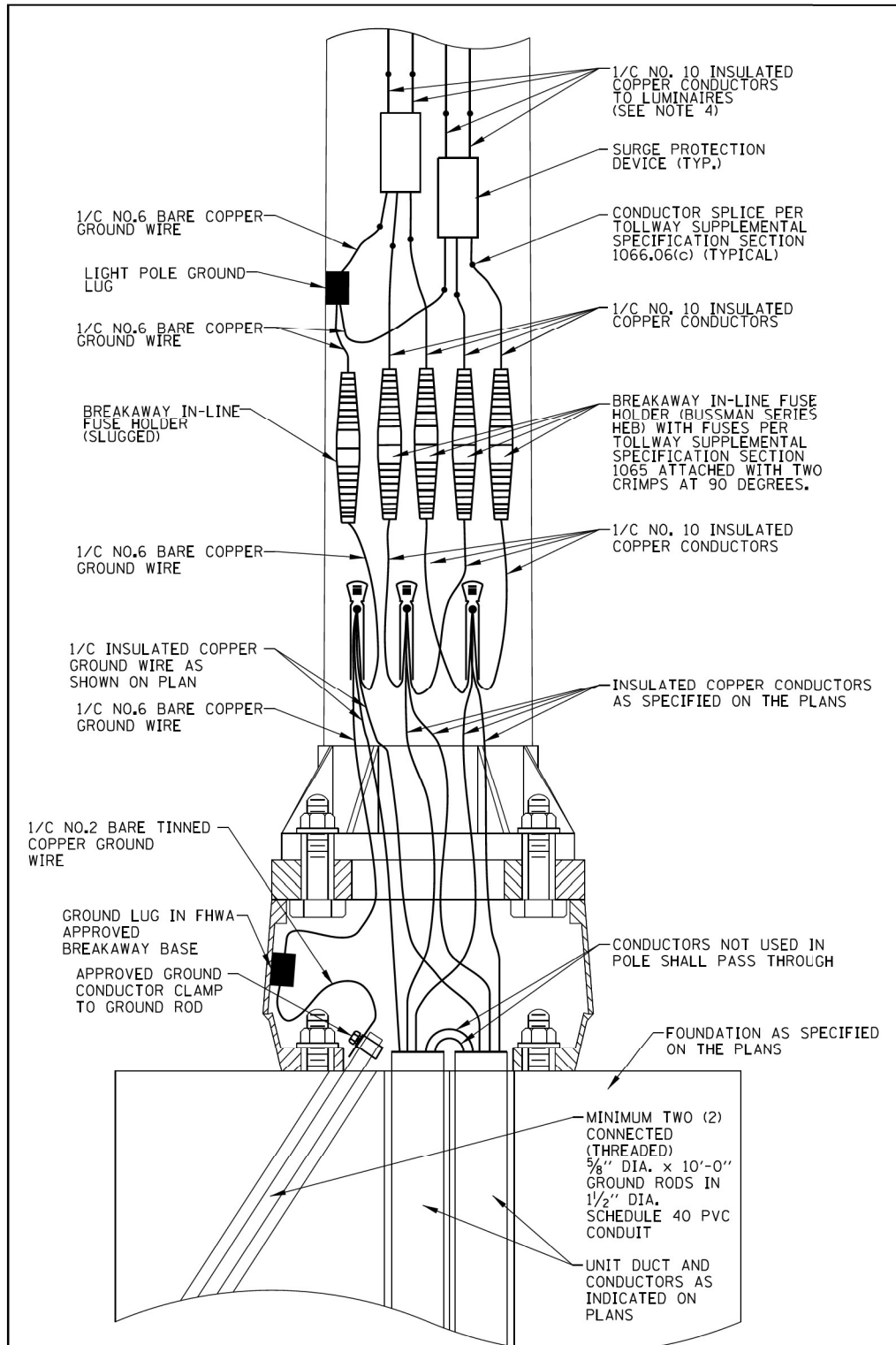
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**LIGHTING PLAN I-90
TOLLWAY DETAILS-4**

SCALE: N/A SHEET 60 OF 63 SHEETS STA. TO STA.

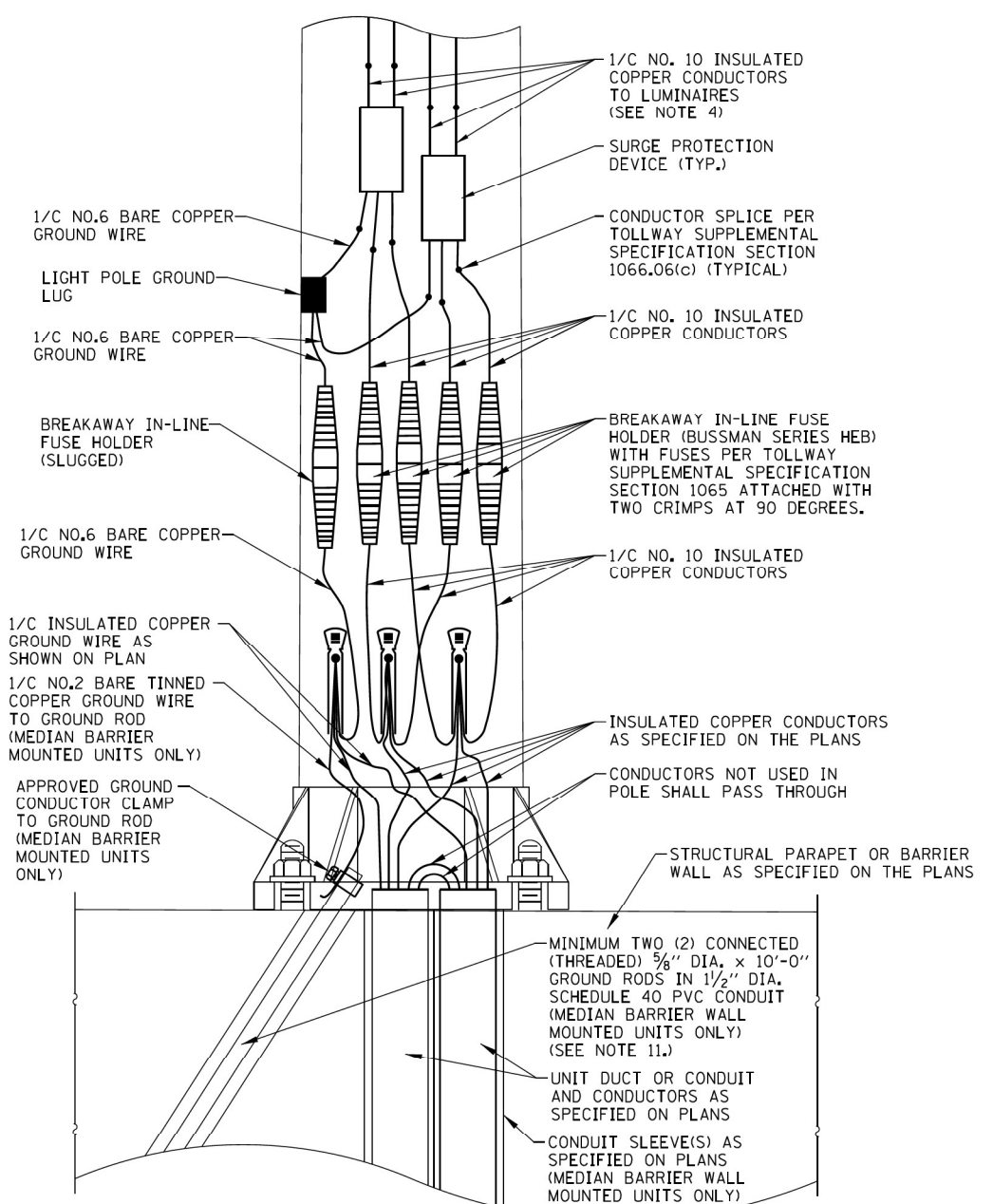
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*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	714
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)



LIGHT STANDARD WIRING DETAIL
(GROUND MOUNTED UNITS)
 (SEE NOTES 7 & 8)

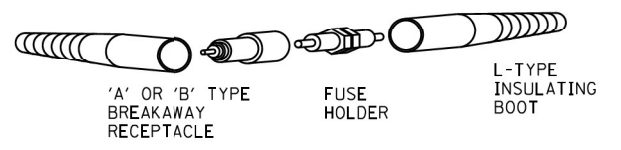
APPROVED BY: *Paul Kovacs*
 CHIEF ENGINEERING OFFICER
 DATE: 02/07/2012



LIGHT STANDARD WIRING DETAIL
(STRUCTURAL AND BARRIER WALL MOUNTED UNITS)

LIGHT STANDARD WIRING DETAILS

NOTE:
 SEE SHEET 1 OF THIS SERIES FOR NOTES.



IN-LINE FUSE HOLDER WITH BREAKAWAY FEATURE DETAIL

SHEET 3 OF 3

Illinois Tollway

LIGHT STANDARD DETAILS

STANDARD H2-09

MODEL: Default; FILE NAME: p:\benesch\proj\benesch\paw\01\Documents\108009\10800_001\Eng_Docs\CAD Sheets\Electrical\Tollway Plans-DDT\Tollway Lighting Details-6



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PLOT DATE = 10/11/2023	CHECKED - G.THIESSE	REVISED -
	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN I-90 TOLLWAY DETAILS-6	
SCALE: N/A	SHEET 62 OF 63 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	716
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

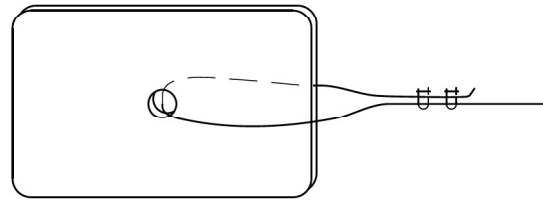
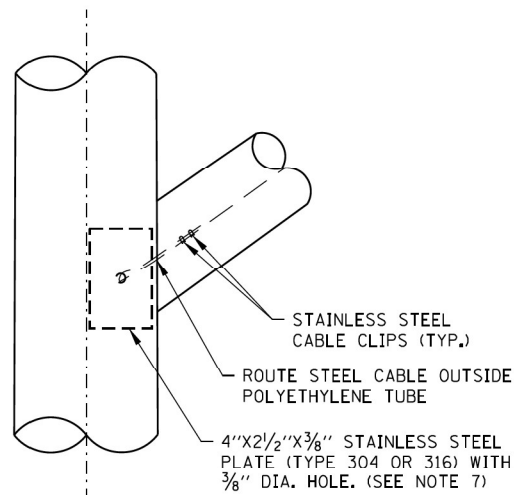
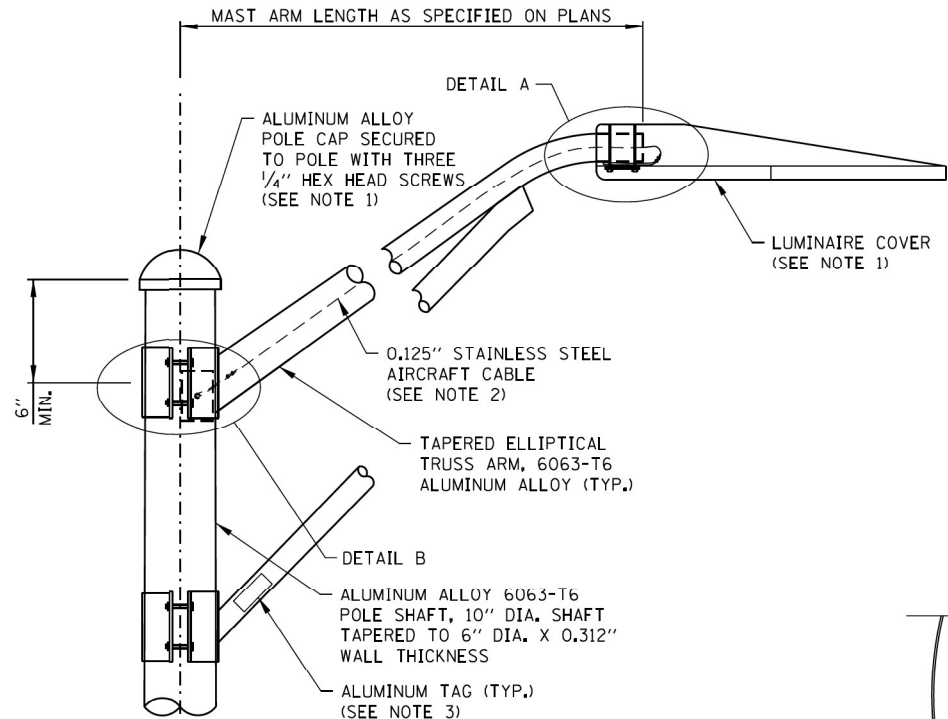


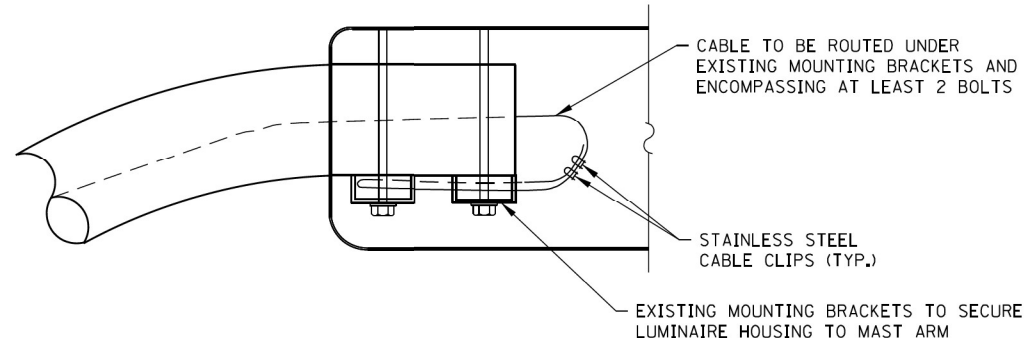
PLATE ATTACHMENT DETAIL



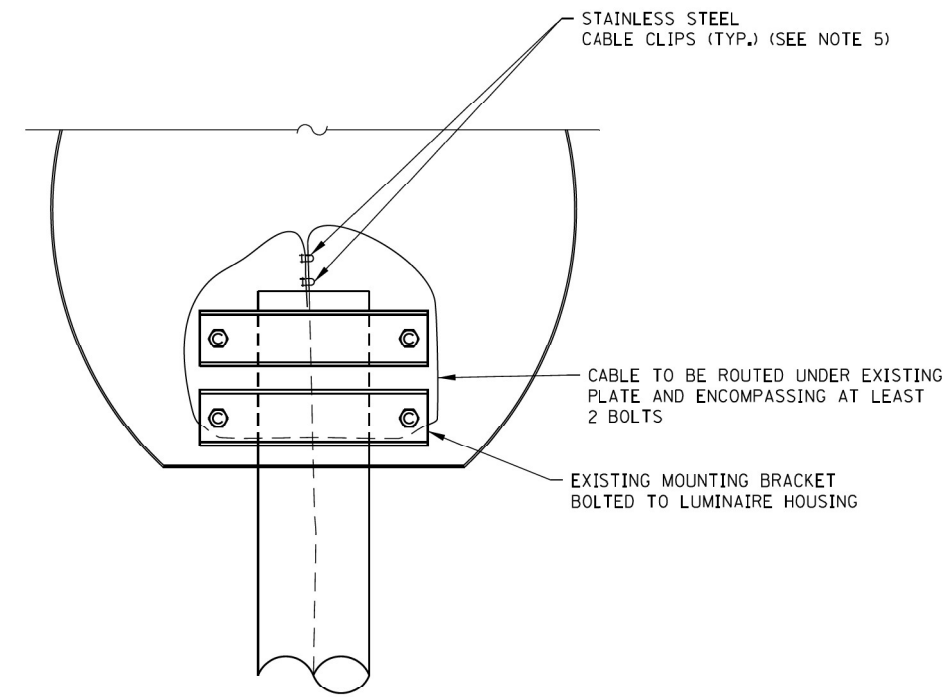
DETAIL B
(BRACKET CLAMPS OMITTED FOR CLARITY)
N.T.S.



LIGHT STANDARD - TRUSS ARM
(SINGLE TRUSS ARM SHOWN, SINGLE MAST ARM SIMILAR)
N.T.S.



DETAIL A
N.T.S.



BOTTOM VIEW
N.T.S.

NOTES:

- POLE CAP TO BE REMOVED AND LUMINAIRE LID TO BE OPENED FOR PLACEMENT OF THE CABLE ASSEMBLY AND PUT BACK IN PLACE. NEW CAP SCREWS SHALL BE USED.
- THE BREAKING STRENGTH OF THE ASSEMBLED CABLE SHALL BE 1,700 POUNDS MINIMUM. ALLOW FOR 9" TO 12" SLACK IN THE CABLE.
- ALUMINUM TAG WITH POLE IDENTIFICATION NUMBERS AS PER SPECIAL PROVISIONS.
- CONTRACTOR SHALL ROUTE CABLE WITHIN LUMINAIRE IN SUCH A WAY THAT IT DOES NOT BECOME PINCHED BETWEEN THE MAST ARM AND MOUNTING BRACKET.
- CABLE LOOPS SHALL BE CLOSED SUCH THAT EACH END OF THE CABLE PASSES THROUGH CLIPS IN OPPOSING DIRECTIONS.
- MINIMIZE SLACK WITHIN LUMINAIRE.
- ALL PLATE EDGES SHALL BE SMOOTH.

APPROVED BY:
Paul Kovacs
CHIEF ENGINEERING OFFICER
02/22/2018

SHEET 1 OF 1

MAST ARM
CABLE ASSEMBLY
(SINGLE MAST ARM)
STANDARD H17-01

DATE	REVISIONS
3-01-2020	REVISED BRACKET AND ROLTING DETAILS.

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Alfred Benesch & Company
35 W. Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-655-0150 Job No. 10800_00

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	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN I-90
TOLLWAY DETAILS-7

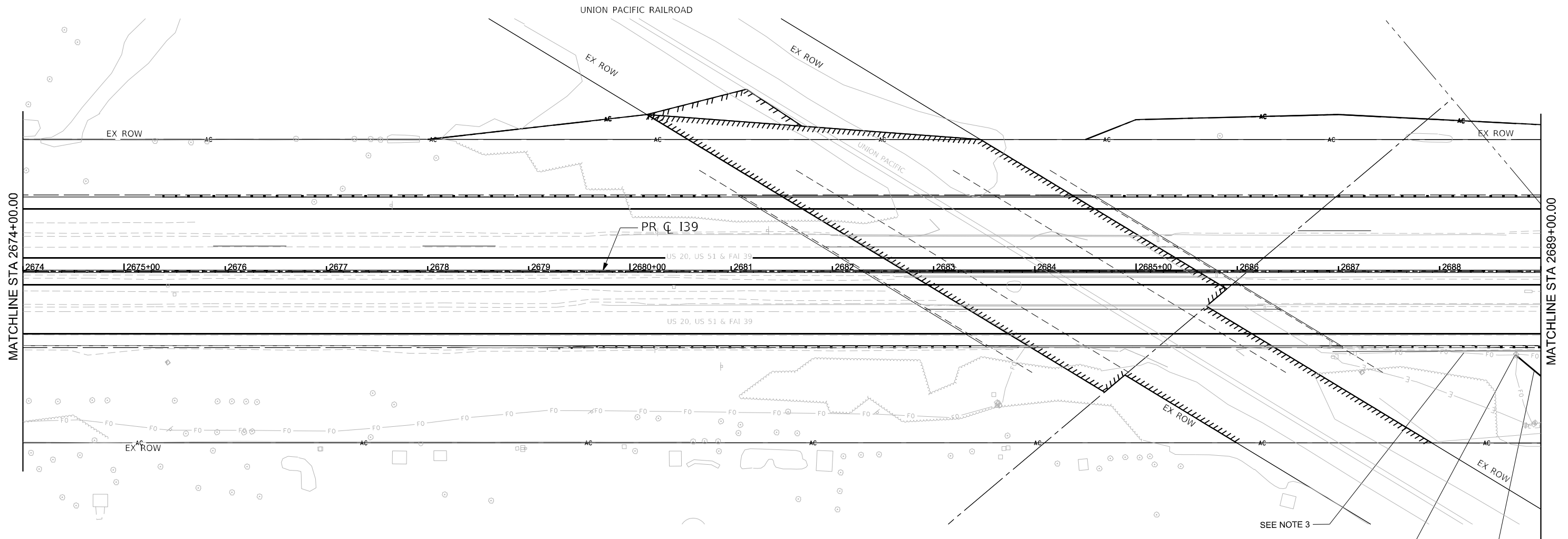
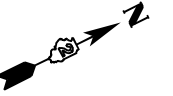
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F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	717
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

NOTES:

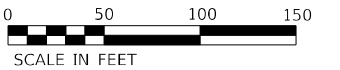
1. ALL STATIONS AND OFFSETS SHOWN FOR THE WOOD POLES ARE APPROXIMATE AND WOOD POLES SHOWN IN THIS PLAN ARE BASED ON AVAILABLE BURIED UTILITY DATA. THE CONTRACTOR SHALL FIELD VERIFY THAT THE WOOD POLE LOCATIONS SHOWN ON THIS PLAN SHEET WILL NOT CONFLICT WITH EXISTING AND PROPOSED UTILITIES.
2. ALL WOOD POLES AND AERIAL CABLE SHALL REMAIN IN PLACE AT THE END OF CONTRACT.
3. EXISTING UNDERGROUND FIBER IS PRESENT FROM THE EXISTING VAULT TO THE SOUTH OF I-39. THIS SHALL REMAIN IN PLACE.
4. EXISTING UNDERGROUND FIBER IS PRESENT FROM VAULT TO THE DMS CONTROLLER, DMS SIGN AND THE ADJACENT CAMERA. CONTRACTOR SHALL TAKE EXTRA CARE TO MAKE SURE THAT THE CAMERA AND DMS SIGNS ARE OPERATIONAL BETWEEN TEMPORARY AND PROPOSED INSTALLATIONS. EXTRA CARE SHALL ALSO BE TAKEN DURING INSTALLATION OF PROPOSED UNDERGROUND DUCTS.



SEE NOTE 3

COMM. VAULT (E) FIBER OPTIC
 3-CABLE SPLICE - MAINLINE(P)
 CLEAN EXISTING MANHOLE
 SEE NOTE-4

4-FIBER INNERDUCT 1 1/4" DIA WITH
 3-FIBER OPTIC CABLE 96 FIBERS, SM (P)



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PLOT DATE = 10/11/2023	CHECKED - G.THIESSE	REVISED -
	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FIBER OPTIC PLAN

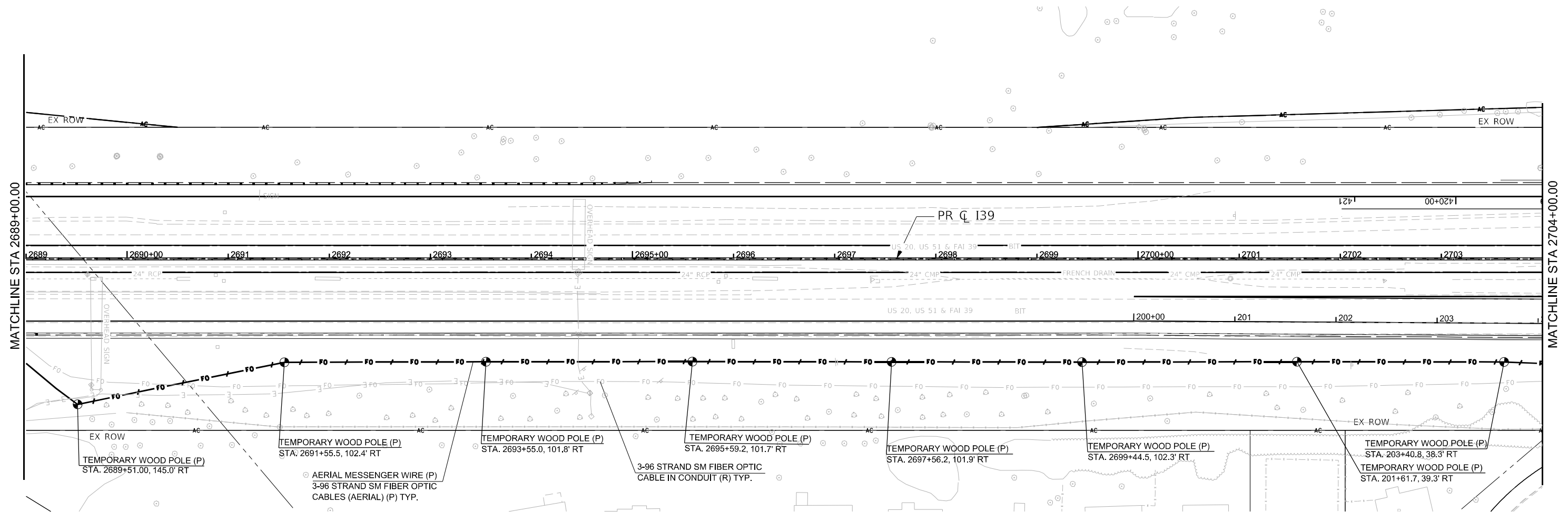
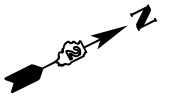
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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

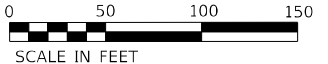
* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

NOTES:

1. ALL STATIONS AND OFFSETS SHOWN FOR THE WOOD POLES ARE APPROXIMATE AND WOOD POLES SHOWN IN THIS PLAN ARE BASED ON AVAILABLE BURIED UTILITY DATA. THE CONTRACTOR SHALL FIELD VERIFY THAT THE WOOD POLE LOCATIONS SHOWN ON THIS PLAN SHEET WILL NOT CONFLICT WITH EXISTING AND PROPOSED UTILITIES.
2. ALL WOOD POLES AND AERIAL CABLE SHALL REMAIN IN PLACE AT THE END OF CONTRACT.



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PLOT DATE = 10/11/2023	DATE - 10/13/2023	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FIBER OPTIC PLAN

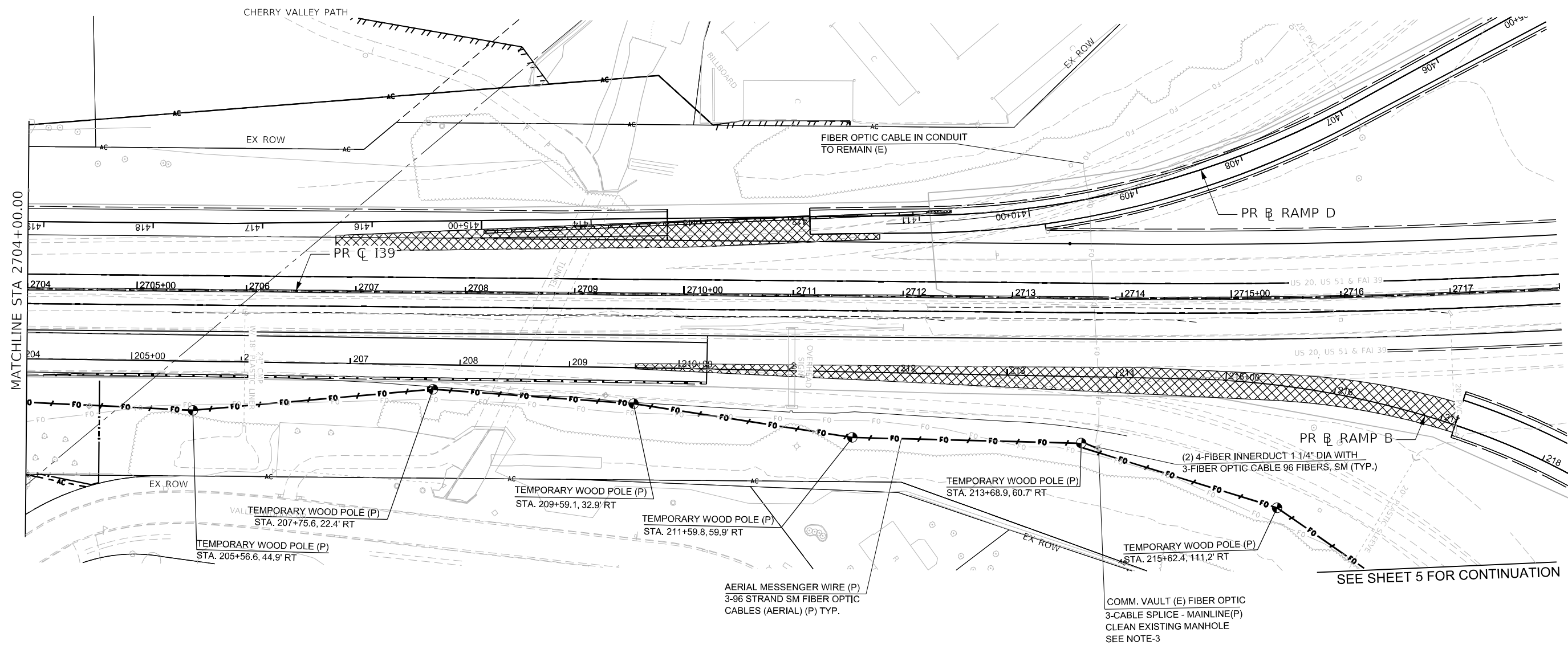
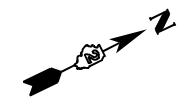
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*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	720
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

NOTES:

1. ALL STATIONS AND OFFSETS SHOWN FOR THE WOOD POLES ARE APPROXIMATE AND WOOD POLES SHOWN IN THIS PLAN ARE BASED ON AVAILABLE BURIED UTILITY DATA. THE CONTRACTOR SHALL FIELD VERIFY THAT THE WOOD POLE LOCATIONS SHOWN ON THIS PLAN SHEET WILL NOT CONFLICT WITH EXISTING AND PROPOSED UTILITIES.
2. ALL WOOD POLES AND AERIAL CABLE SHALL REMAIN IN PLACE AT THE END OF CONTRACT.
3. EXISTING FIBER OPTIC CABLE IS PRESENT CROSSING THE ROADWAY. CONTRACTOR SHALL TAKE EXTRA CARE WHILE CONSTRUCTION OF ROADWAY TO MAINTAIN THE FACILITY.



SEE SHEET 5 FOR CONTINUATION



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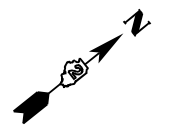
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIBER OPTIC PLAN

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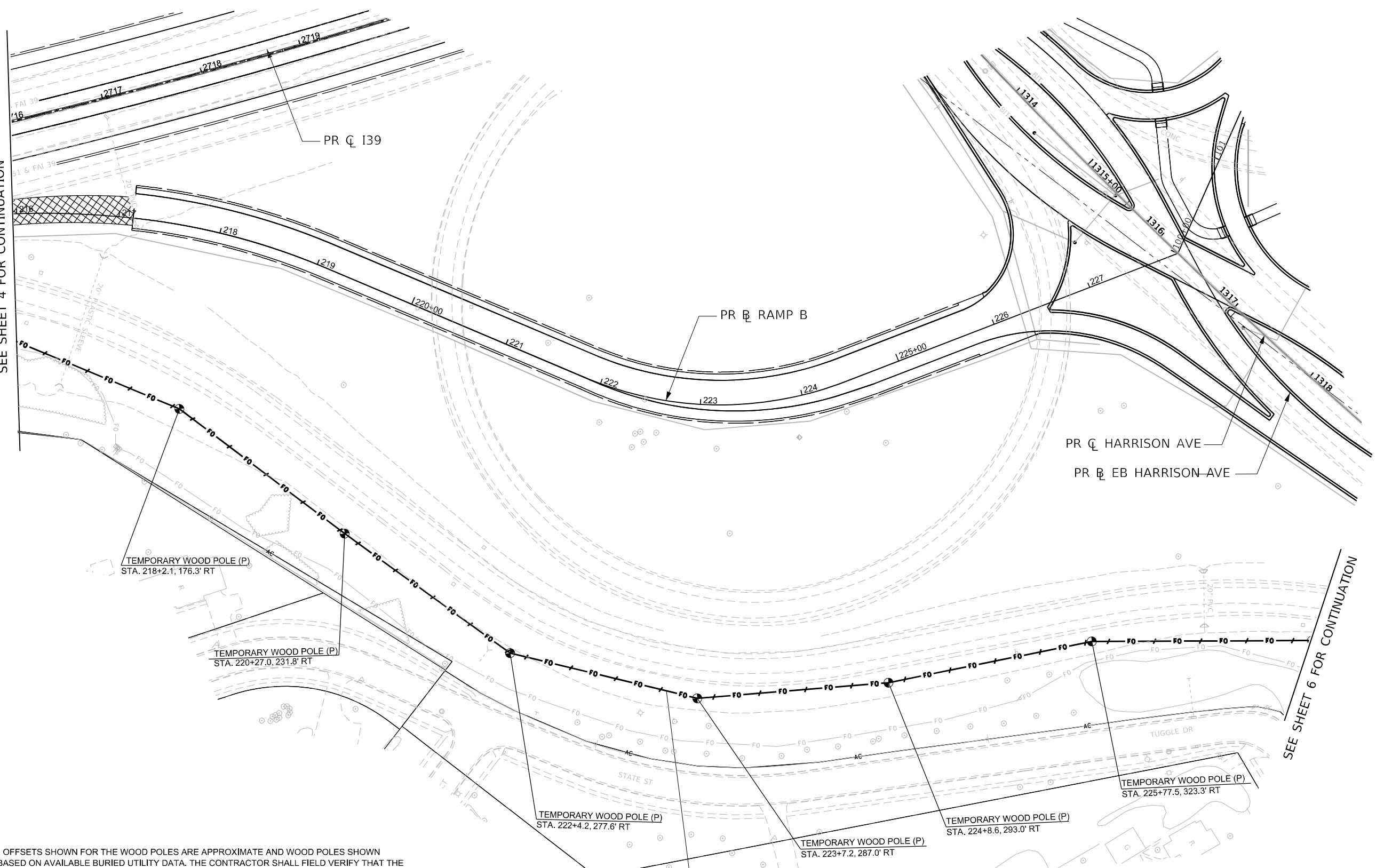
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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)



SEE SHEET 4 FOR CONTINUATION

SEE SHEET 6 FOR CONTINUATION



- NOTES:**
1. ALL STATIONS AND OFFSETS SHOWN FOR THE WOOD POLES ARE APPROXIMATE AND WOOD POLES SHOWN IN THIS PLAN ARE BASED ON AVAILABLE BURIED UTILITY DATA. THE CONTRACTOR SHALL FIELD VERIFY THAT THE WOOD POLE LOCATIONS SHOWN ON THIS PLAN SHEET WILL NOT CONFLICT WITH EXISTING AND PROPOSED UTILITIES.
 2. ALL WOOD POLES AND AERIAL CABLE SHALL REMAIN IN PLACE AT THE END OF CONTRACT.

AERIAL MESSENGER WIRE (P)
3-96 STRAND SM FIBER OPTIC
CABLES (AERIAL) (P) TYP.



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	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIBER OPTIC PLAN

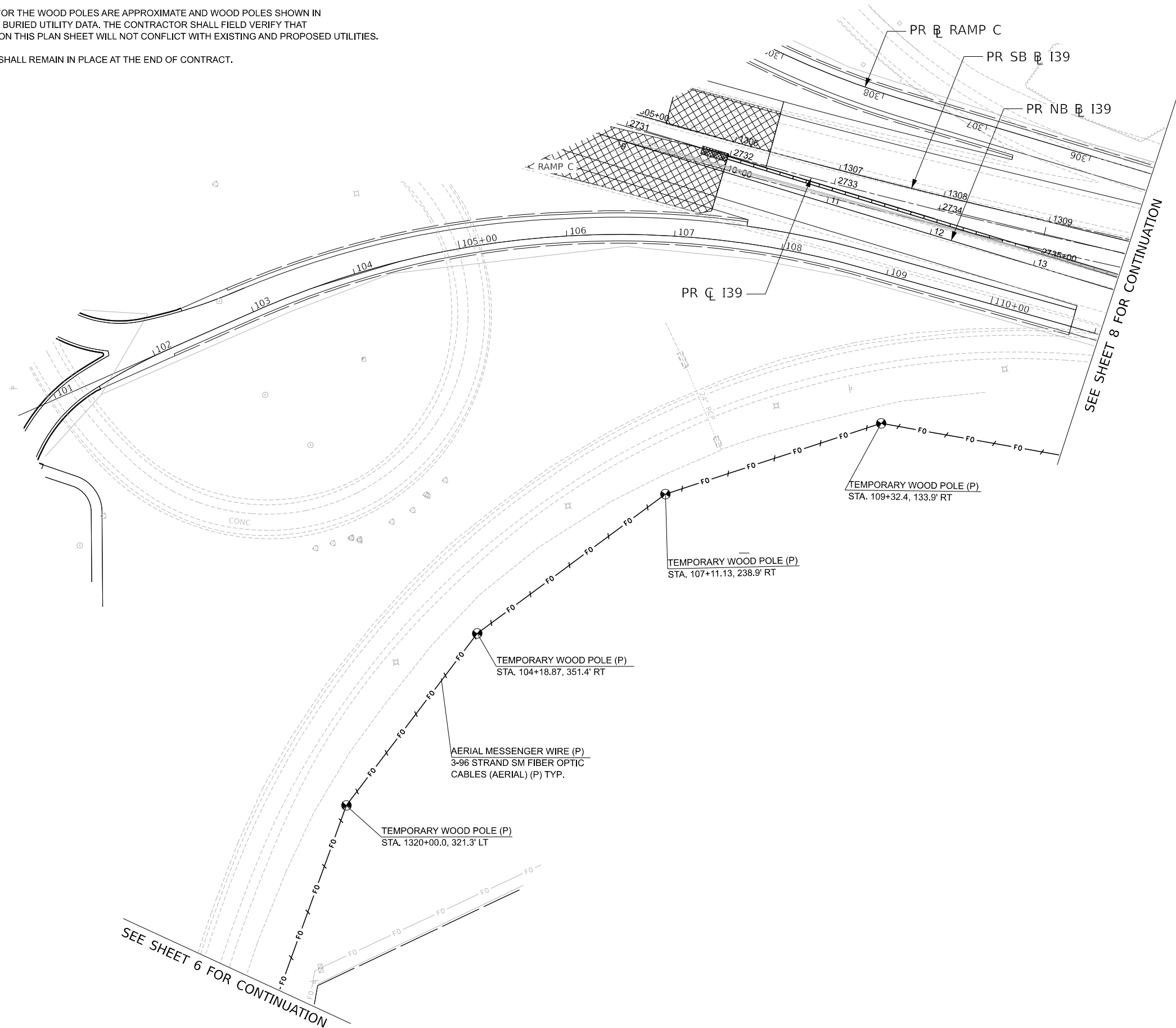
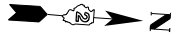
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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

NOTES:

1. ALL STATIONS AND OFFSETS SHOWN FOR THE WOOD POLES ARE APPROXIMATE AND WOOD POLES SHOWN IN THIS PLANS ARE BASED ON AVAILABLE BURIED UTILITY DATA. THE CONTRACTOR SHALL FIELD VERIFY THAT THE WOOD POLE LOCATIONS SHOWN ON THIS PLAN SHEET WILL NOT CONFLICT WITH EXISTING AND PROPOSED UTILITIES.
2. ALL WOOD POLES AND AERIAL CABLE SHALL REMAIN IN PLACE AT THE END OF CONTRACT.



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIBER OPTIC PLAN

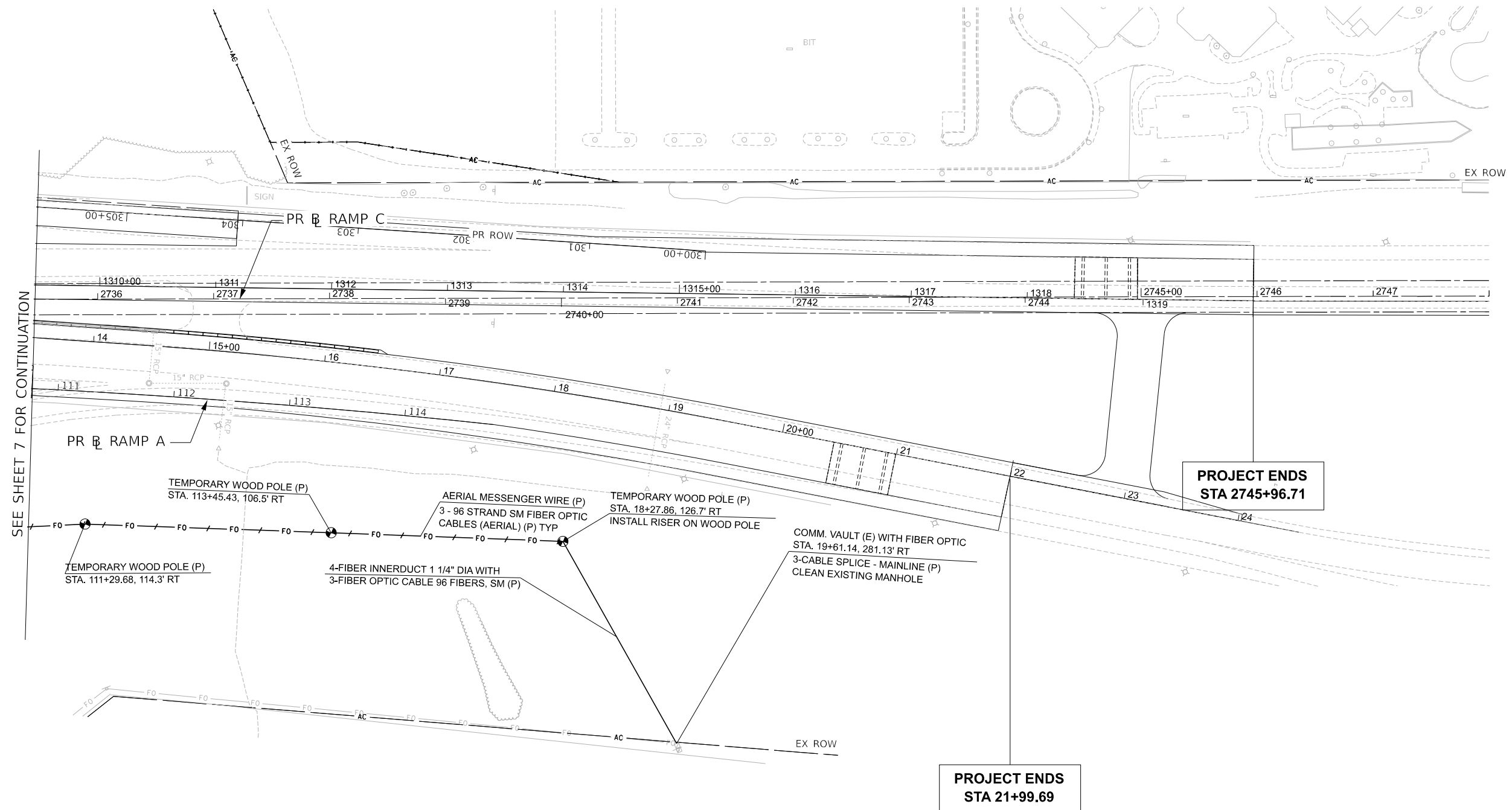
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F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

NOTES:

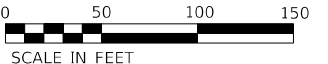
1. ALL STATIONS AND OFFSETS SHOWN FOR THE WOOD POLES ARE APPROXIMATE AND WOOD POLES SHOWN IN THIS PLAN ARE BASED ON AVAILABLE BURIED UTILITY DATA. THE CONTRACTOR SHALL FIELD VERIFY THAT THE WOOD POLE LOCATIONS SHOWN ON THIS PLAN SHEET WILL NOT CONFLICT WITH EXISTING AND PROPOSED UTILITIES.
2. ALL WOOD POLES AND AERIAL CABLE SHALL REMAIN IN PLACE AT THE END OF CONTRACT.
3. EXISTING UNDERGROUND FIBER IS PRESENT FROM THE EXISTING VAULT TO THE NORTH.



SEE SHEET 7 FOR CONTINUATION

**PROJECT ENDS
STA 2745+96.71**

**PROJECT ENDS
STA 21+99.69**



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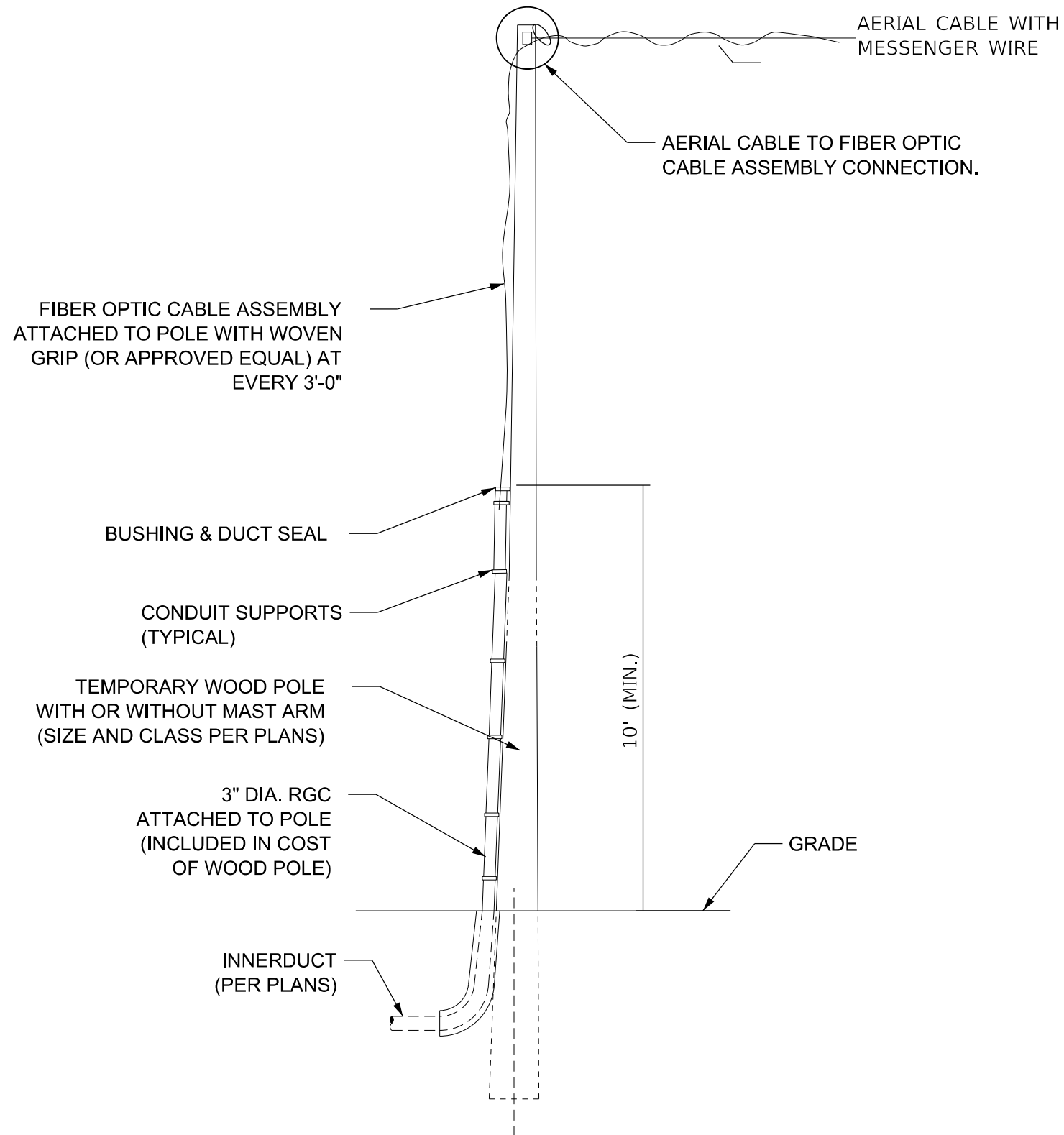
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIBER OPTIC PLAN

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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)



AERIAL CABLE TO UNDERGROUND DUCT TRANSITION DETAIL (TYP.)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

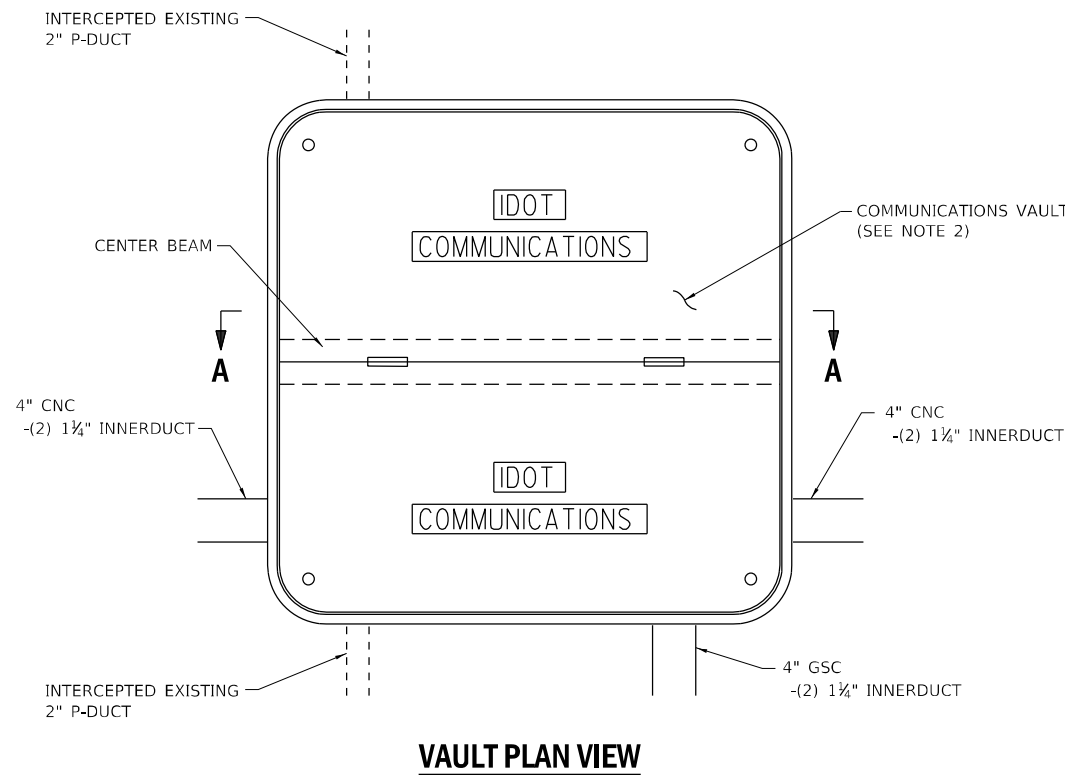
FIBER OPTIC PLAN DETAILS-2

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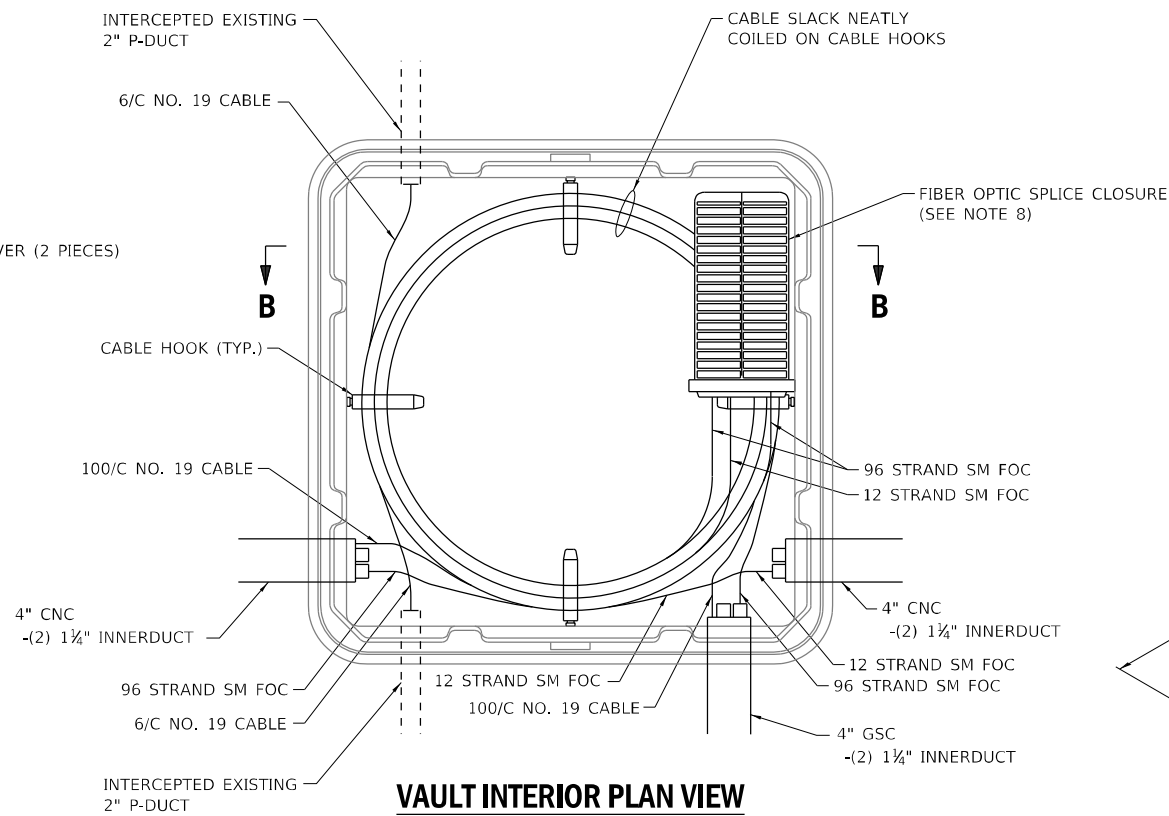
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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

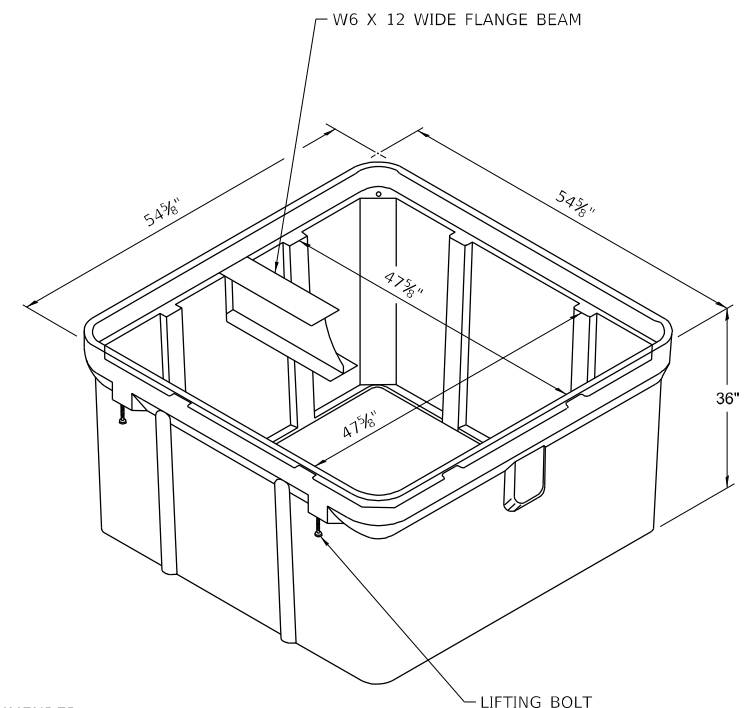
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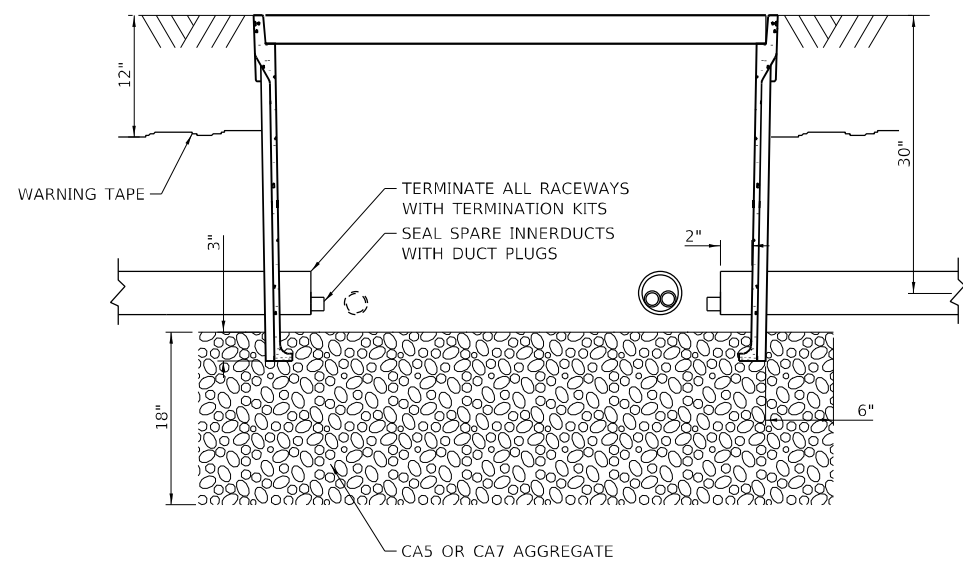
VAULT PLAN VIEW



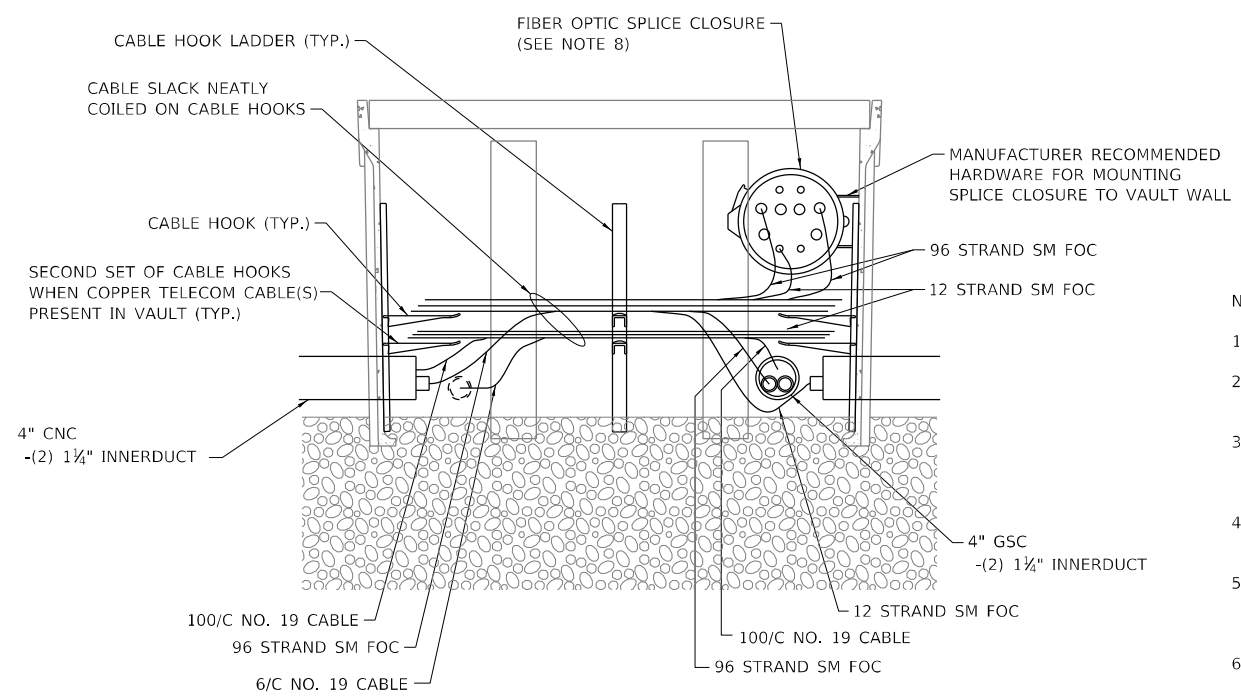
VAULT INTERIOR PLAN VIEW



ISOMETRIC VIEW



SECTION A-A



SECTION B-B

NOTES:

1. COMMUNICATIONS VAULT SHALL HAVE AN OPEN BASE.
2. COVER SHALL BE PLACED AS TO RECESS INTO VAULT TO PREVENT LATERAL MOVEMENT
3. ALL OPENINGS IN STRUCTURE SHALL BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT, IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
4. FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE AS DIRECTED BY THE ENGINEER.
5. ALL DIMENSIONS ARE MINIMUM AND A LARGER SIZE HANDHOLE MAY BE USED, WITH THE APPROVAL OF THE ENGINEER, TO FACILITATE USING A MANUFACTURER'S STANDARD PRODUCT.
6. ALL SPARE DUCTS SHALL BE PLUGGED WITH MANUFACTURER APPROVED DUCT PLUGS AFTER PLACEMENT IN VAULTS.
7. THE NUMBER, SIZE, AND TYPE OF RACEWAYS AND CABLES VARY BY LOCATION. RACEWAY AND CABLE CONFIGURATION SHOWN ON THESE DETAILS APPLIES TO A COMMUNICATIONS VAULT ON SHEET ITS-20. CONTRACTOR SHALL ADJUST CONDUIT AND CABLE ENTRY PER SITE.
8. FIBER OPTIC SPLICE CLOSURE SHALL BE INSTALLED ONLY AT LOCATIONS SHOWN ON THE PLANS.

COMMUNICATION VAULT



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	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: N/A		SHEET 11 OF 11 SHEETS	STA.	TO STA.
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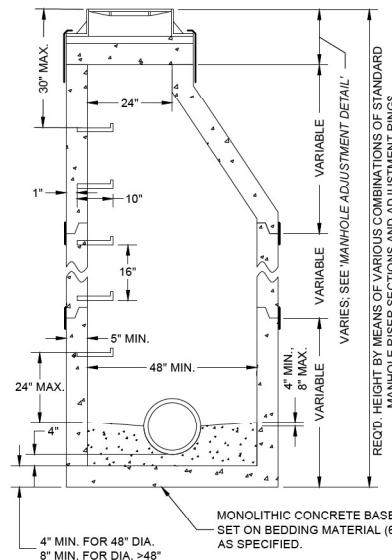
**FIBER OPTIC PLAN
DETAILS-3**

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	728
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

NOTES:

1. THE MAX. DROP FROM THE INVERT OF ANY PIPE TO THE CONCRETE CHANNEL UNDER THAT PIPE SHALL BE 8".
2. MANHOLES LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE MARKED WITH A STEEL FENCE POST AS DIRECTED.
3. ALL NEW MANHOLES SHALL BE VACUUM TESTED PER A.S.T.M. C-1244 PRIOR TO ACCEPTANCE.
4. ALL BARREL JOINTS SHALL BE SEALED WITH 3/4" x 3/8" PRE-FORMED RUBBER BUTYL JOINT SEALANT ON THE LOWER SHIPLAP.
5. ALL BARREL JOINTS SHALL BE SEALED WITH AN EXTERNAL BARREL SEAL CENTERED ON THE JOINT (MAR MAC MACWRAP, OR APPROVED EQUAL).
6. MANHOLE STRUCTURE SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE MANHOLE RISER SECTIONS IN ACCORDANCE WITH A.S.T.M. C478-90 OR THE LATEST DESIGNATION.
7. PRECAST FLAT TOPS ARE NOT APPROVED FOR USE.
8. SEE 'MANHOLE ADJUSTMENT DETAIL' FOR ADJUSTMENT REQUIREMENTS.
9. PIPE CONNECTIONS TO NEW MANHOLES SHALL BE MADE BY MEANS OF EITHER RUBBER GASKET SEAL (A-LOK OR APPROVED EQUAL) CONFORMING TO ASTM C-923 CAST INTEGRALLY IN MANHOLE WALL OR RUBBER GASKET SEAL AND STAINLESS STEEL CLAMP (PSX SERIES SIX OR APPROVED EQUAL) CONFORMING TO ASTM C-923. FOR PIPE CONNECTIONS WITH A DEPTH OF >20 FT., A RUBBER GASKET SEAL (A-LOK OR APPROVED EQUAL) CONFORMING TO ASTM C-923 CAST INTEGRALLY IN MANHOLE WALL SHALL BE USED.
10. PIPE CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE BY MEANS OF CORE DRILLING MANHOLE WALL AND INSTALLING RUBBER GASKET SEAL AND STAINLESS STEEL CLAMP (PSX SERIES SIX OR APPROVED EQUAL) CONFORMING TO ASTM C-923.
11. THE MAXIMUM DISTANCE FROM ANY INLET PIPE INVERT TO THE OUTLET PIPE INVERT SHALL BE 2'. DISTANCES GREATER THAN 2' WILL REQUIRE AN INSIDE DROP CONNECTION PER 'INSIDE DROP CONNECTION DETAIL'.
12. MANHOLE STEPS SHALL BE NEENAH R-1982-F OR M.A. IND. PS-1 OR APPROVED EQUAL INSTALLED AT 16" CENTERS, ORIENTED ABOVE THE OUTLET PIPE UNLESS OTHERWISE SPECIFIED. FOR MANHOLES WITH INSIDE DROP ASSEMBLIES, STEPS IN THE MANHOLE BASE SECTION SHALL BE INSTALLED IN THE FIELD AND NOT CAST IN PLACE. IN THIS CASE, THE ORIENTATION OF THE CONE SHALL BE AS DIRECTED BY FRSA.



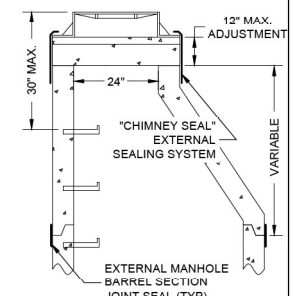
STANDARD MANHOLE DETAIL
(MANHOLE ADJUSTMENT DETAIL SHALL APPLY)

NOTES:

1. MANHOLE FRAMES & LIDS SHALL BE PER THE TABLE BELOW.
2. FOR MANHOLES CONNECTED TO MAINS 18" DIAMETER OR LARGER, OR FOR MANHOLES LOCATED IN FLOOD PRONE AREAS, FRAMES & LIDS SHALL BE THE BOLT DOWN TYPE.
3. ALLOWABLE TYPES OF ADJUSTING RINGS INCLUDE PRECAST CONCRETE (4" HEIGHT MIN.), & EXPANDED POLYPROPYLENE (EPP). THESE CAN BE USED IN CONJUNCTION WITH EACH OTHER, EXCEPT THAT A PRECAST RING SHALL NOT BE PLACED OVER AN EPP RING.
4. FOR PRECAST ADJUSTING RINGS, ALL ADJUSTING RING JOINTS AS WELL AS THE FRAME TO ADJUSTING RING JOINT SHALL BE SEALED WITH TWO 1" BEADS OF PRE-FORMED RUBBER BUTYL JOINT SEALANT. WHEN A FRAME REQUIRES PITCHING, EPP TAPER RINGS SHALL BE USED PER NOTE 5.
5. FOR EPP ADJUSTING RINGS, RINGS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. WHEN A FRAME REQUIRES PITCHING, THE TOP RING SHALL BE A TAPERED ADJUSTMENT RING PER MANUFACTURER'S INSTRUCTIONS.
6. NO TARRING OR GROUTING IS ALLOWED ON THE INSIDE OF MANHOLE OR ADJUSTMENT JOINTS.
7. MAXIMUM MANHOLE ADJUSTMENT IS 12". MINIMUM ADJUSTMENT IS 4" UNLESS OFF-ROAD OR IN CURB & GUTTER ROADWAY.
8. MANHOLE FRAMES SHALL BE SET 1/2" MIN. TO 3/8" MAX. BELOW PAVED SURFACES, AND AT FINAL GRADE IN TURF AREAS.
9. WHEN ADJUSTING EXISTING MANHOLES, THE ENTIRE EXISTING ADJUSTMENT SHALL BE REMOVED AND REPLACED.
10. THE COMBINATION OF NEW ADJUSTING RINGS

APPROVED FRAME & LID TABLE

TYPE	NEENAH FRAME	NEENAH LID	EAST JORDAN FRAME	EAST JORDAN LID
REGULAR	1670-2004	R-1670-0358	00111711	00111732
LOW PROFILE	1670-2008	R-1670-0358		
BOLT DOWN		1915JT08		



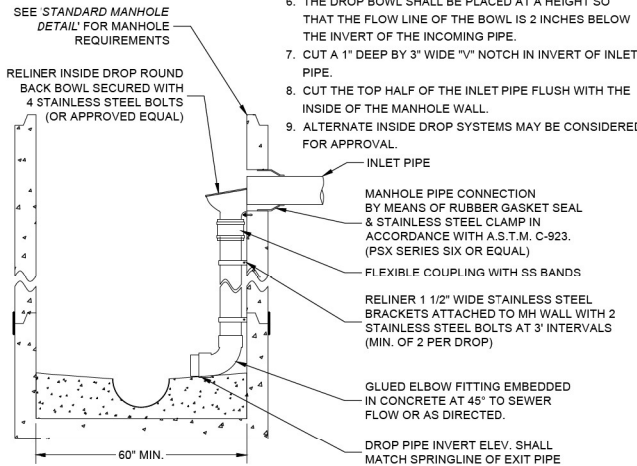
MANHOLE ADJUSTMENT DETAIL
(FOR ADJUSTMENT OF BOTH NEW & EXISTING MANHOLES)

- SHALL BE SUCH THAT THE MINIMUM NUMBER OF RINGS POSSIBLE ARE USED.
11. FLAT-TOPS ARE NOT PERMITTED ON 4" OR 5" DIA. MANHOLES.
 12. REPLACEMENT OF EXISTING BARREL SECTIONS MAY BE REQUIRED TO MEET THE ABOVE REQUIREMENTS.
 13. MANHOLE ADJUSTMENT INSERT RISER RINGS ARE NOT APPROVED FOR USE.

DROP BOWL & DROP PIPE SIZING TABLE

INLET PIPE DIA.	DROP PIPE DIA. (MIN.)
4-6 INCH	4 INCH
8 INCH	6 INCH
10 INCH	8 INCH
>10 INCH	-

* PER MFG. OR AS DIRECTED BY FRSA



INSIDE DROP CONNECTION DETAIL
(STANDARD MANHOLE DETAIL SHALL APPLY)

NOTES:

1. INSIDE DROP TYPE MANHOLES SHALL BE 5' MIN. INSIDE DIA.
2. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP AS MFG. BY RELINER-DURAN INC., OR EQUAL.
3. SEE TABLE FOR DROP BOWL AND DROP PIPE SIZES.
4. ALL INSIDE DROP PIPING SHALL BE PVC SDR35 ASTM-D3034.
5. ATTACH THE ROUND BACK DROP BOWL AND EACH CLAMPING BRACKET TO THE MANHOLE WALL WITH 3/8" x 1" MIN. STAINLESS STEEL BOLTS AND EPOXY IMPREGNATED LUGS PER MFR.'S RECOMMENDATIONS.
6. THE DROP BOWL SHALL BE PLACED AT A HEIGHT SO THAT THE FLOW LINE OF THE BOWL IS 2 INCHES BELOW THE INVERT OF THE INCOMING PIPE.
7. CUT A 1" DEEP BY 3" WIDE "V" NOTCH IN INVERT OF INLET PIPE.
8. CUT THE TOP HALF OF THE INLET PIPE FLUSH WITH THE INSIDE OF THE MANHOLE WALL.
9. ALTERNATE INSIDE DROP SYSTEMS MAY BE CONSIDERED FOR APPROVAL.

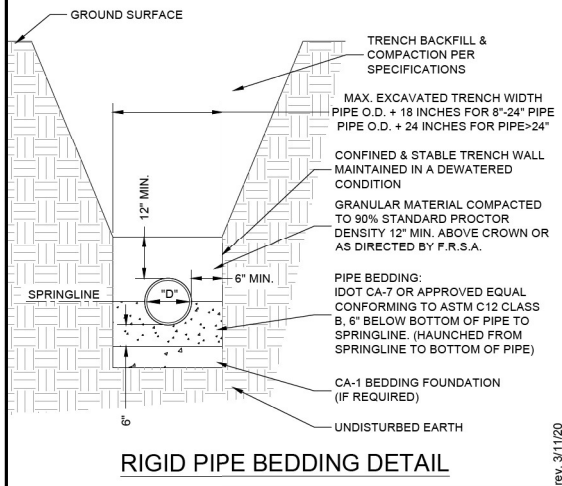
NOTES:

1. FOR NEW MAINLINE, FACTORY PVC WYE FITTING SHALL BE USED.
2. FOR EX. MAINLINE, HOLE SHALL BE CORE DRILLED IN THE MAINLINE PIPE PER MFR.'S REQUIREMENTS. LOCATION OF CORE SHALL BE APPROVED BY THE ENGINEER.
3. PIPE BEDDING FOR SANITARY SERVICE PIPING SHALL BE PER 'FLEXIBLE PIPE BEDDING DETAIL', 6" BELOW AND 12" ABOVE PIPING.
4. THE REMAINDER OF SERVICE TO PROPERTY/EASEMENT LINE SHALL BE INSTALLED PER STANDARD SERVICE & ALTERNATE SERVICE DETAIL.
5. THE COMPRESSION FITTING SHALL BE A WATER-TIGHT FLEXIBLE TEE CONNECTOR OF SPECIFIED SIZE. (INSERT A-TEE OR APPROVED EQUAL).
6. UNDERGROUND MAGNETIC MARKERS SHALL BE BERNSTEN INTERNATIONAL DEEP-1UG OR FRSA APPROVED EQUAL.

VERTICAL SERVICE RISER DETAIL
(FOR MAINLINE DIA. 8" - 18"; CONNECTION TO >18" MAIN PROHIBITED)

NOTES:

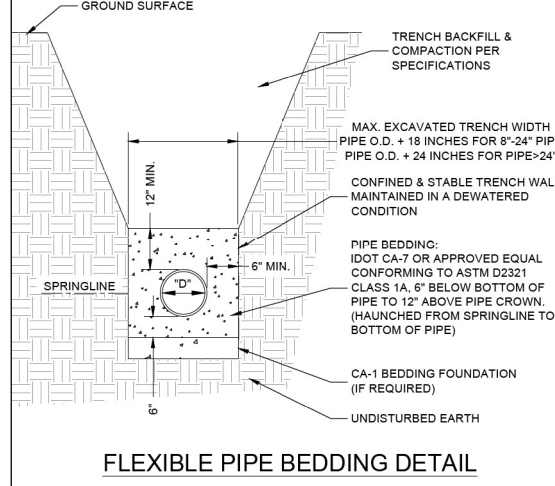
1. REASONABLE CARE SHALL BE USED WHEN BACKFILLING OVER SEWER. NO MATERIALS SUCH AS ROCKS OR BOULDERS SHALL BE PLACED WITHIN 24" OF THE CROWN OF THE PIPE. NO MATERIAL LARGER THAN 8" DIA. SHALL BE USED IN THE BACKFILL.
2. LOOSE MATERIAL SHALL BE REMOVED OR COMPACTED PRIOR TO PLACING PIPE BEDDING.
3. BEDDING SHALL BE WELL HAUNCHED ALONG PIPE TO ENSURE VOIDS ARE ELIMINATED.



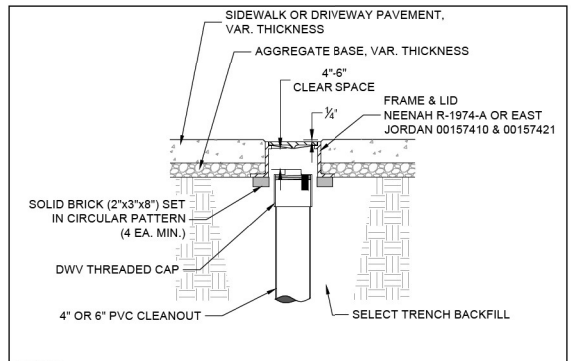
RIGID PIPE BEDDING DETAIL

NOTES:

1. REASONABLE CARE SHALL BE USED WHEN BACKFILLING OVER SEWER. NO MATERIALS SUCH AS ROCKS OR BOULDERS SHALL BE PLACED WITHIN 24" OF THE CROWN OF THE PIPE. NO MATERIAL LARGER THAN 8" DIA. SHALL BE USED IN THE BACKFILL.
2. LOOSE MATERIAL SHALL BE REMOVED OR COMPACTED PRIOR TO PLACING PIPE BEDDING.
3. BEDDING SHALL BE WELL HAUNCHED ALONG PIPE TO ENSURE VOIDS ARE ELIMINATED.



FLEXIBLE PIPE BEDDING DETAIL

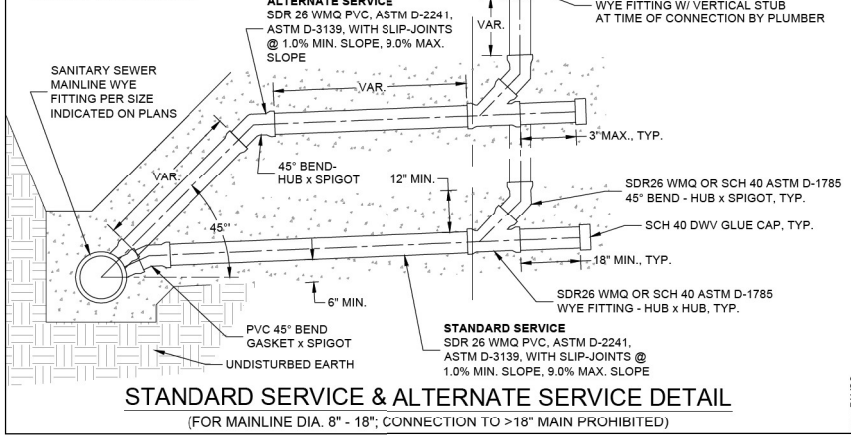


- NOTES:**
1. SERVICE CLEANOUT CASTINGS ARE REQUIRED FOR ALL CLEANOUTS LOCATED IN PAVED AREAS, DRIVEWAYS, OR SIDEWALKS.
 2. THE LOCATION OF THE CLEANOUT SHALL BE APPROVED BY FOUR RIVERS SANITATION AUTHORITY (FRSA).
 3. THE FRAME SHALL BE SET ON BRICKS THAT ARE PLACED IN A CIRCULAR PATTERN THE ENTIRE CIRCUMFERENCE OF THE FRAME. THE BRICKS SHALL BE SET ON COMPACTED TRENCH BACKFILL.
 4. THE FRAME SHALL BE SET TO AN ELEVATION THAT PROVIDES 4"-6" CLEAR SPACE BETWEEN THE TOP OF THE CLEANOUT CAP AND THE BOTTOM OF THE CASTING LID.
 5. THE CONTRACTOR SHALL ENSURE THAT THE CLEANOUT CAP CAN BE UNSCREWED AND REMOVED AND REPLACED WITHOUT HINDRANCE.
 6. THE FRAME SHALL BE SET 1/2" MIN. TO 3/8" MAX. BELOW FINAL PAVEMENT ELEVATION.

SERVICE CLEANOUT CASTING DETAIL

NOTES:

1. SANITARY SEWER MAINLINE SHALL BE INSTALLED PER 'FLEXIBLE PIPE BEDDING DETAIL' OR 'RIGID PIPE BEDDING DETAIL'.
2. PIPE BEDDING FOR SANITARY SERVICE PIPING SHALL BE PER 'FLEXIBLE PIPE BEDDING DETAIL', 6" BELOW AND 12" ABOVE PIPING.
3. ALL SCH 40 PVC PIPE & FITTINGS SHALL BE PER ASTM D-1785/D-2665.
4. ALL SDR26 WMQ PVC PIPE & FITTINGS SHALL BE PER ASTM D-2241/D-3139.
5. ALL DWV FITTINGS SHALL BE CLEANED, PRIMED, & GLUED.
6. MIN. DEPTH OF COVER SHALL BE 5'.
7. CLEANOUT CAP SHALL BE SCH 40 DWV GLUED CAP FOR NEW DEVELOPMENT OR SCH 40 GLUED SCREW CAP FOR EX. DEVELOPMENT.
8. CLEANOUT RISERS LOCATED IN PAVED AREAS, DRIVEWAYS, OR SIDEWALKS SHALL WILL REQUIRE A CLEANOUT FRAME & LID PER THE FRSA 'SERVICE CLEANOUT CASTING DETAIL'.



STANDARD SERVICE & ALTERNATE SERVICE DETAIL
(FOR MAINLINE DIA. 8" - 18"; CONNECTION TO >18" MAIN PROHIBITED)

NOTES:

1. SADDLE TEE OR SADDLE WYE ARE BOTH ACCEPTABLE FOR VCP MAIN.
2. CORE DRILL HOLE IN MAIN OR MODIFY EX. VCP FITTING FOR SADDLE DIMENSIONS.
3. APPLY 2 BEADS OF SILICONE CAULK TO UNDERSIDE OF SADDLE AROUND OPENING.



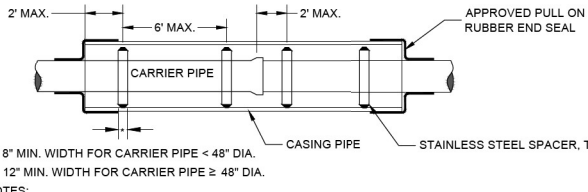
FLEXIBLE SADDLE CONNECTION DETAIL
(FOR SERVICE CONNECTIONS TO NON-PVC SANITARY MAINS LESS THAN 18" DIA.)

NOTES:

1. ONLY A SADDLE WYE IS ACCEPTABLE FOR A PVC MAIN.
2. CORE DRILL HOLE IN MAIN FOR SADDLE DIMENSIONS.
3. APPLY 2 BEADS OF SILICONE CAULK TO UNDERSIDE OF SADDLE AROUND OPENING.



FLEXIBLE SADDLE CONNECTION DETAIL
(FOR SERVICE CONNECTIONS TO PVC SANITARY MAINS LESS THAN 18" DIA.)



CASING & SPACER DETAIL

- NOTES:**
1. CASING END SEALS & SPACERS SHALL BE AS MFD. BY CASCADE MFG., OR APPROVED EQUAL.
 2. FOR FLEXIBLE CARRIER PIPE, SPACING OF SPACERS TO BE AS SHOWN, OR PER MFR.'S RECOMMENDATION.
 3. FOR RIGID CARRIER PIPE, SPACING SHALL BE PER MFR.'S RECOMMENDATION.

FOUR RIVERS SANITATION AUTHORITY (FRSA) STANDARD DETAIL SHEET
(NOT TO SCALE)

3501 KISHWAUKEE ST.
ROCKFORD, ILLINOIS 61109 PH. (815) 387-7660

ISSUE 05/01/2023

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 01/01/2023 Elevation
 Mainline Adjustment Detail: Revised notes 1, 2 with acceptable frames & lids. Modified notes 3, 5, 6, 7. Added note 8.
 Revised Four River Reclamation District to Four Rivers Sanitation Authority.
 Service Cleanout Casting Detail: Added this detail.
 Service Cleanout Casting Detail: Added this detail.

benesch
 Alfred Benesch & Company
 35 W. Wacker Drive, Suite 3300
 Chicago, Illinois 60601
 312-665-0150 Job No., 10800.00

USER NAME	DESIGNED	REVISED
= jworthington	- A. GIBSON	-
	DRAWN - N. REYNOLDS	REVISED -
	CHECKED - J. TARDY	REVISED -
	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOUR RIVERS SANITATION AUTHORITY (FRSA) STANDARD DETAIL SHEET

SCALE: N/A SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5B)RC	WINNEBAGO	1279	729
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* F41 ROUTE 39 (I-39) & F4P ROUTE 525 (US 20)

CATCH BASIN OR INLETS TO BE ADJUSTED OR RECONSTRUCTED (DETAILS FOR CURB & GUTTER REPLACEMENT)

CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, STANDARD 606001 AND THIS DRAWING.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT. A HOLE 1-1/2 IN DIAMETER AND 9" DEEP SHALL BE DRILLED IN THE EXISTING CONCRETE CURB AS SHOWN. A 1-1/4 X 18 SMOOTH DOWEL BAR SHALL BE GROUTED IN THE HOLE LONGITUDINALLY.

JOINTS OF A TYPE SIMILAR TO THAT IN THE UNDERLYING PAVEMENT (EXPANSION OR CONTRACTION) SHALL BE INSTALLED IN THE CONCRETE CURB IN ALIGNMENT WITH THE JOINTS IN THE PAVEMENT.

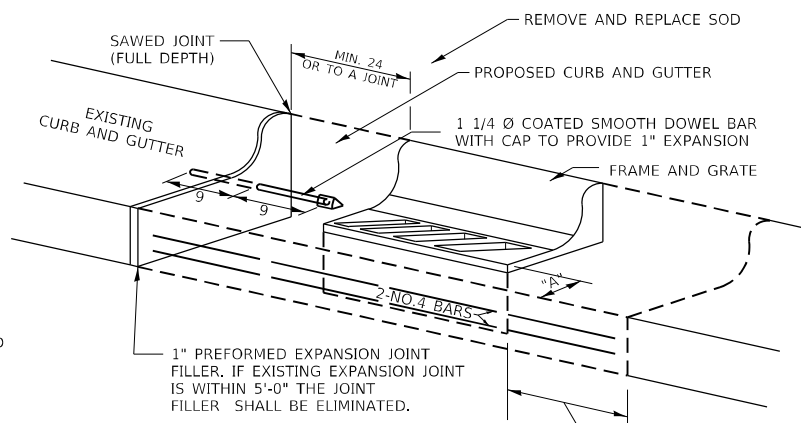
THE PROPOSED CONFIGURATION OF THE CURB AND GUTTER SHALL MATCH THAT REMOVED.

THE LOCATION OF THE DOWEL BAR SHALL BE DETERMINED BY THE ENGINEER.

ALL EXISTING TIE BARS IN EDGE OF PAVEMENT SLAB THRU REPLACEMENT AREA SHALL BE CUT OFF.

THE WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS AND INCLUDES THE REMOVAL AND REPLACEMENT OF SOD, CONCRETE PAVEMENT AND/OR CURB AND GUTTER ADJACENT TO CATCH BASINS OR INLETS TO BE ADJUSTED OR RECONSTRUCTED AND SHALL BE INCLUDED IN THE PAY ITEM OF CATCH BASINS OR INLETS TO BE ADJUSTED OR RECONSTRUCTED AS SPECIFIED.

REVISED - 9-30-11



WHEN "A" IS GREATER THAN 2", 2-NO. 4 BARS SHALL BE PLACED AS SHOWN.

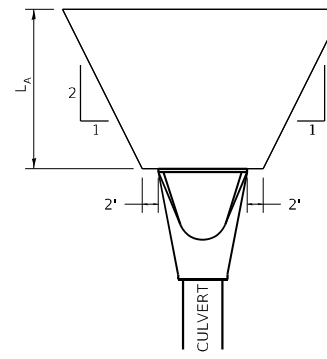
SAME REPAIR AS INDICATED ON OTHER SIDE OF FRAME AND GRATE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

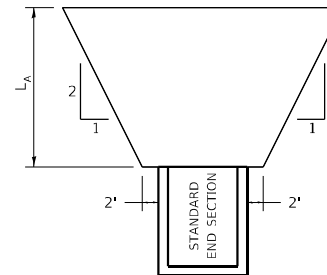
CATCH BASIN OR INLETS TO BE ADJUSTED OR RECONSTRUCTED

17.4

RIPRAP AT END SECTIONS

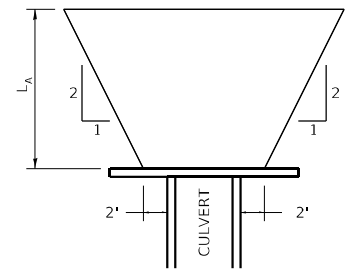


FLARED END SECTION

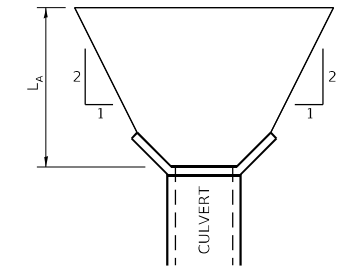


STANDARD END SECTION

REVISED - 7-13-16
REVISED - 11-12-14
REVISED - 2-10-14



CULVERT WITH HEADWALL



CULVERT WITH WING WALLS

L_A = APRON LENGTH (ft)

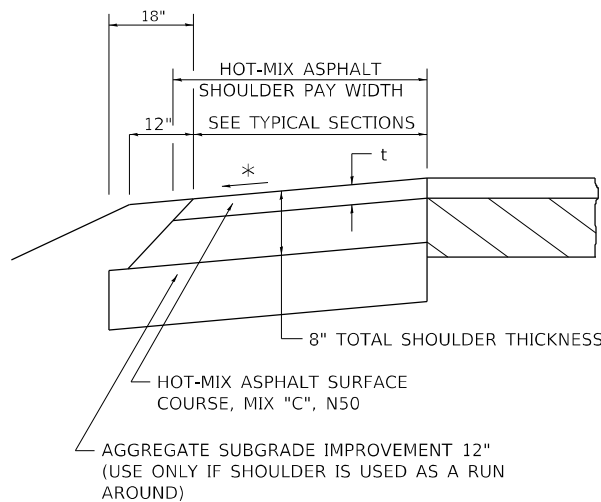
IF THE CULVERT OUTLETS INTO A DEFINED CHANNEL, RIPRAP BANK TO BANK FOR LENGTH (L_A).

STANDARD END SECTION:
542001 (PIPE), 542011 (ELLIPTICAL)
DISTRICT STANDARD 10.1 (BOX).

RIPRAP AT END SECTIONS

19.4

HOT-MIX ASPHALT SHOULDER



REVISED - 1-05-16
REVISED - 3-13-13

GENERAL NOTES

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

USE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS, THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50.

REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

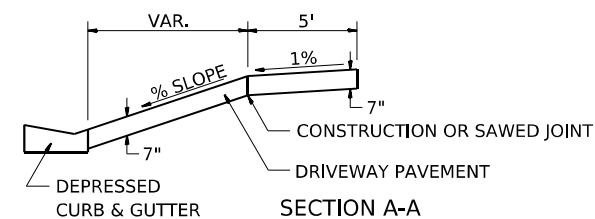
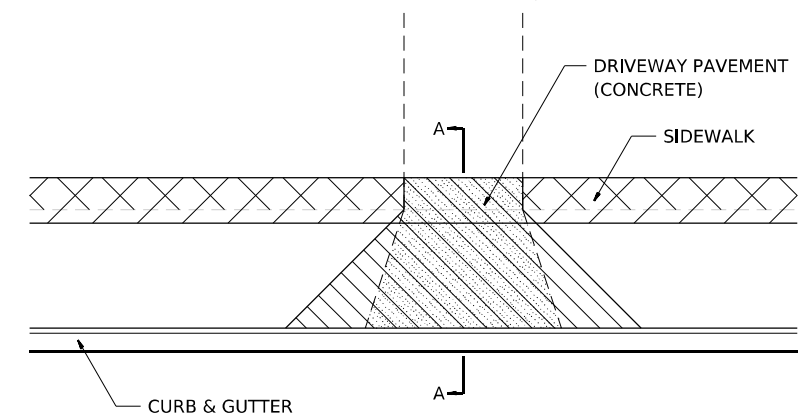
* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006 OR 483001.

HOT-MIX ASPHALT SHOULDER

22.4

SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS

- PAY FOR AS
- SIDEWALK REMOVAL
 - DRIVEWAY PAVEMENT REMOVAL
 - PCC SIDEWALK 5
 - PCC DRIVEWAY PAVEMENT 7



REVISED - 6-27-14
REVISED - 10-03-11

FOR DETAILS ON DIMENSIONS AND GRADES, SEE DISTRICT STANDARD 25.1 OR PLANS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS

35.4

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REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

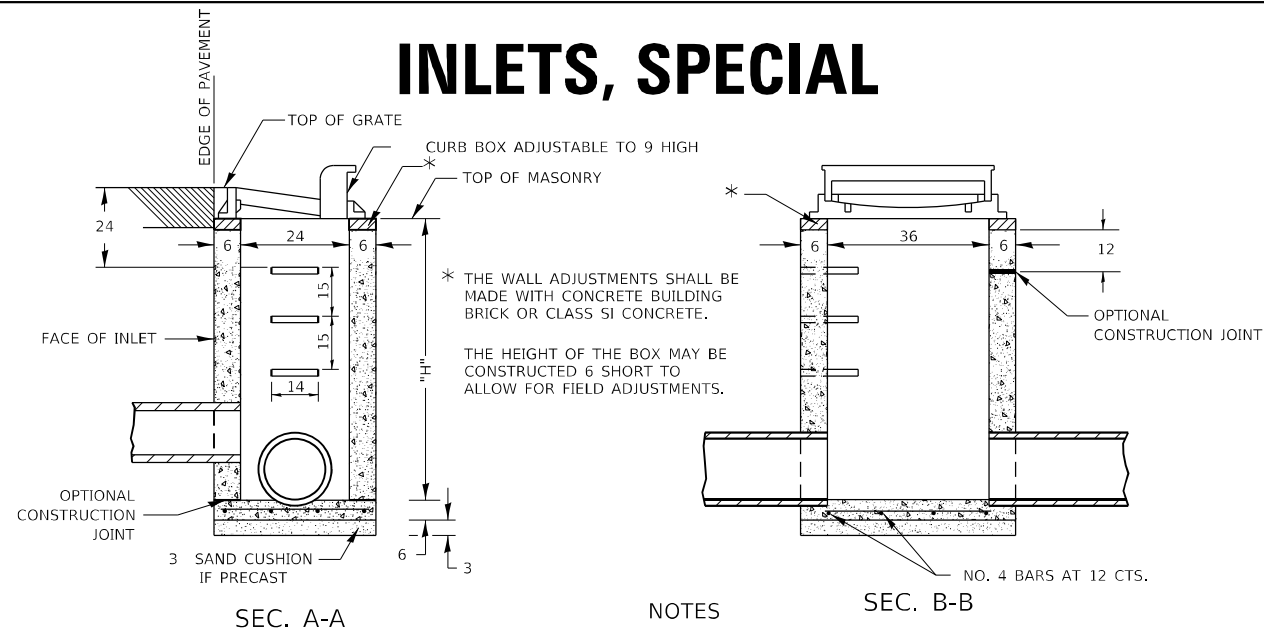
REGION 2/ DISTRICT 2 STANDARD

SCALE: SHEET 1 OF 26 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	730
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

INLETS, SPECIAL



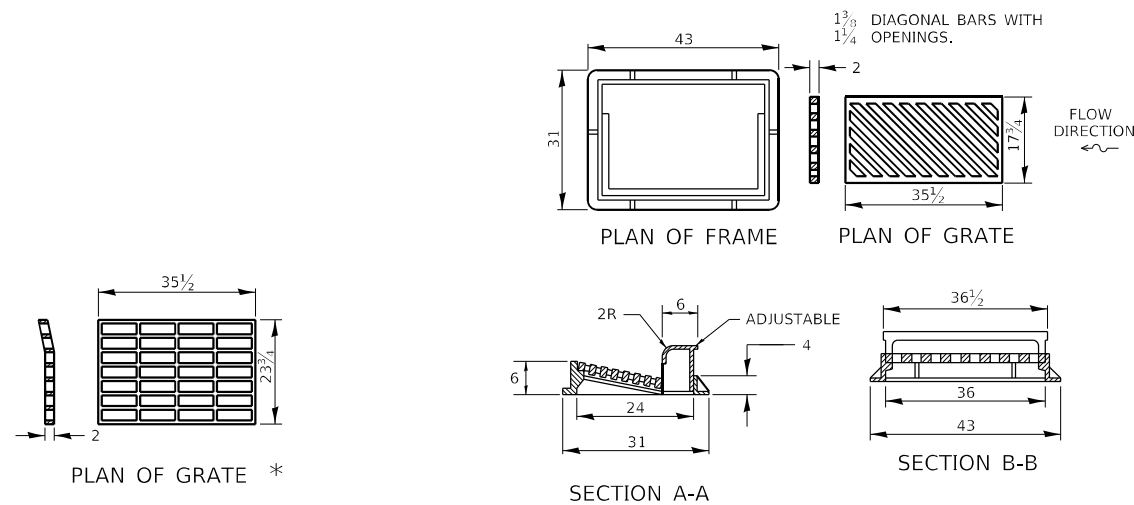
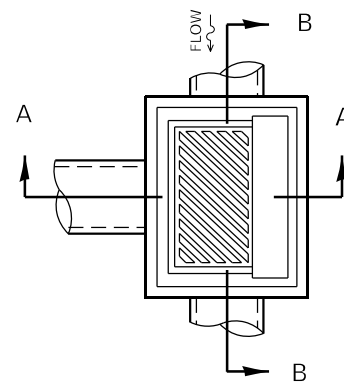
SEC. A-A

SEC. B-B

NOTES

- SEE STANDARD 602701 FOR DETAILS OF STEPS.
- EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.
- THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.
- ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.
- WEIGHT OF CAST IRON FRAME & GRATE = 530 lbs. ± . STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 ft.
- CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLES 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.
- THE CONTRACT UNIT PRICE EACH FOR INLETS, SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

DETAIL OF FRAME & GRATE



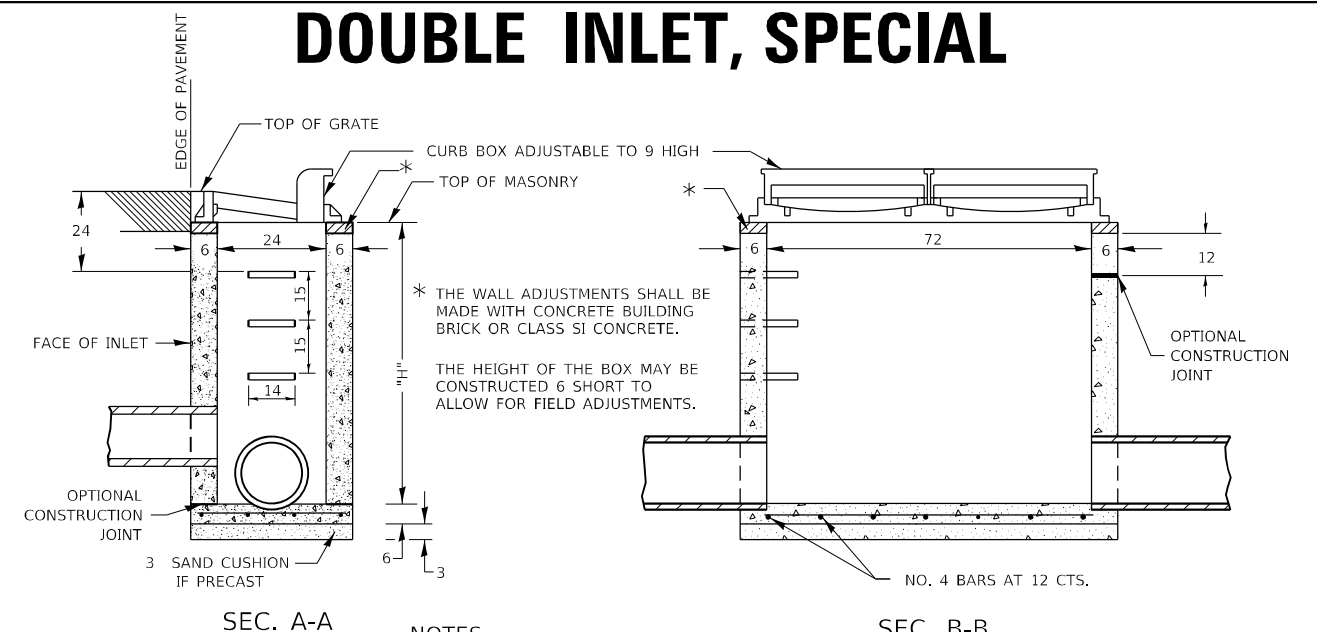
* THIS GRATE TO BE USED WITHOUT CURB BOX WHEN INLET IS IN DRIVEWAY.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

- REVISED - 1-05-16
- REVISED - 6-27-14
- REVISED - 10-13-11

INLETS, SPECIAL 10.2

DOUBLE INLET, SPECIAL



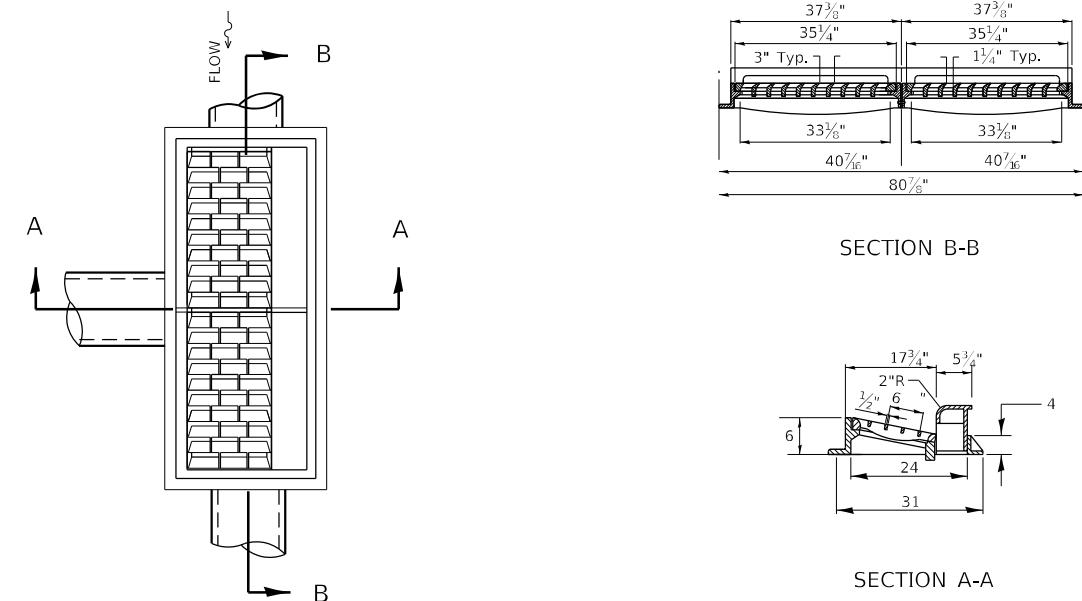
SEC. A-A

SEC. B-B

NOTES

- SEE STANDARD 602701 FOR DETAILS OF STEPS.
- EXCEPT AS NOTED HEREON DOUBLE INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.
- THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.
- ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.
- R-3295-2 DOUBLE UNIT OR EQUIVALENT.
- STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 FOOT.
- CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLES 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.
- CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

DETAIL OF FRAME & GRATE



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

- REVISED - 1-05-16
- REVISED - 7-16-15
- REVISED - 10-13-11

DOUBLE INLET, SPECIAL 12.2

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 DATE - 10/13/2023

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

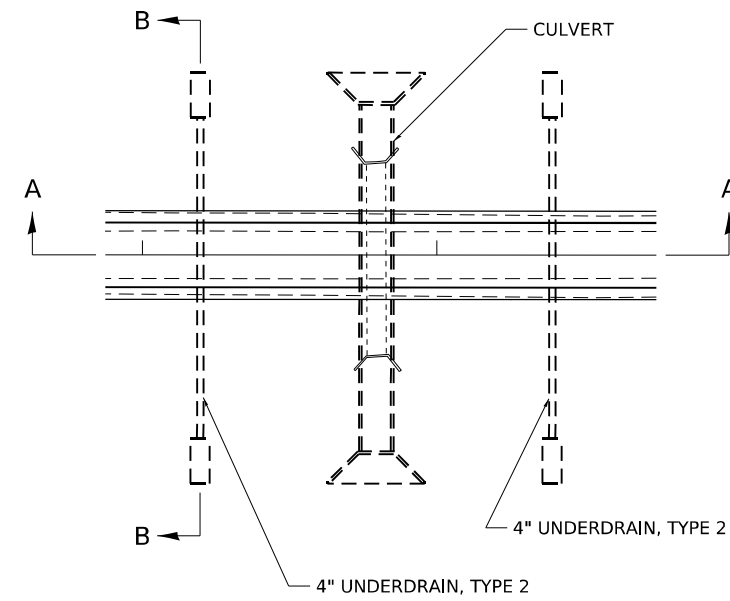
REGION 2/ DISTRICT 2 STANDARD

SCALE: N/A SHEET 3 OF 26 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

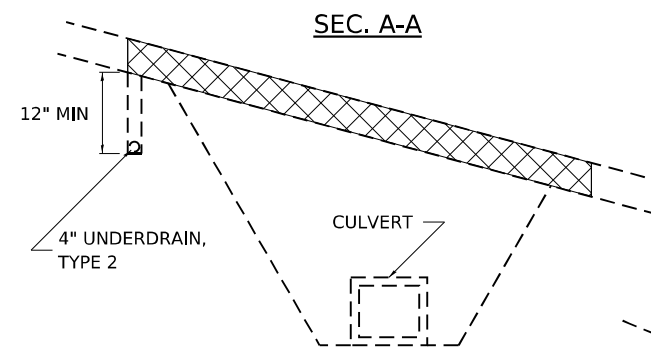
* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

UNDERDRAIN FOR ACROSS ROAD (AR) CULVERTS

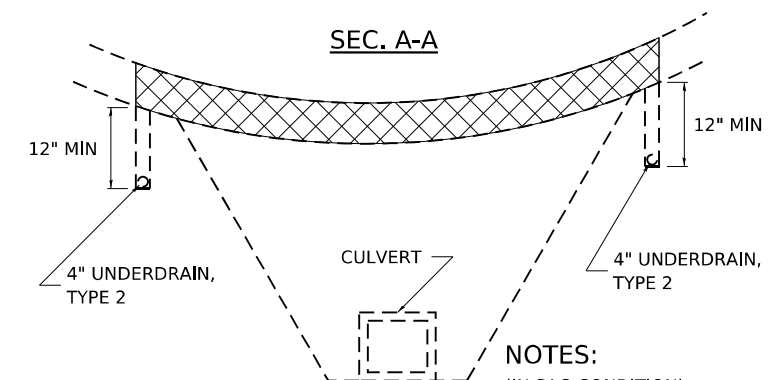


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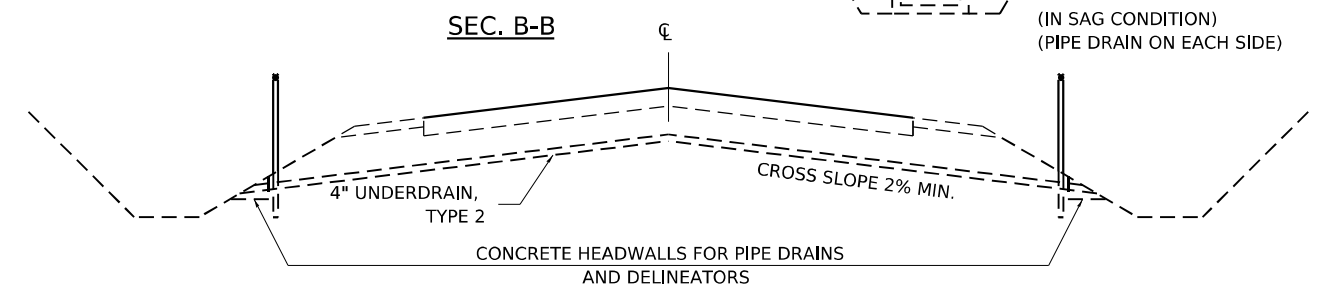
- IN SAG CONDITIONS INSTALL PIPE UNDERDRAINS, TYPE 2, 4" ON BOTH SIDES OF CULVERT.
- ON HIGHWAY GRADES GREATER THAN 2% INSTALL PIPE UNDERDRAINS, TYPE 2, 4" ON THE HIGH SIDE OF THE CULVERT.
- THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.
- THE UNDERDRAIN SHALL EXTEND UNTIL INTERSECTING WITH THE SIDE SLOPES. THE PIPES SHALL DRAIN INTO CONCRETE HEADWALLS. (SEE ARTICLE 601.05 OF THE STANDARD SPECIFICATIONS AND HIGHWAY STANDARD 601101).
- THE UNDERDRAIN SHALL BE A MINIMUM OF 12" BELOW THE EXISTING PAVEMENT.
- PIPE UNDERDRAINS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS, TYPE 2, 4".
- CONCRETE HEADWALLS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR CONCRETE HEADWALLS FOR PIPE DRAINS.
- A DELINEATOR SHALL BE PLACED AT EACH CONCRETE HEADWALL. THESE BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR DELINEATORS.



NOTES:
(HIGHWAY GRADE GREATER THAN 2%)



NOTES:
(IN SAG CONDITION)
(PIPE DRAIN ON EACH SIDE)



- REVISED - 8-03-17
- REVISED - 7-13-16
- REVISED - 1-05-16
- REVISED - 6-27-14

UNDERDRAIN FOR ACROSS ROAD (AR) CULVERTS 37.2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2/ DISTRICT 2 STANDARD

SCALE: N/A SHEET 4 OF 26 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	733
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

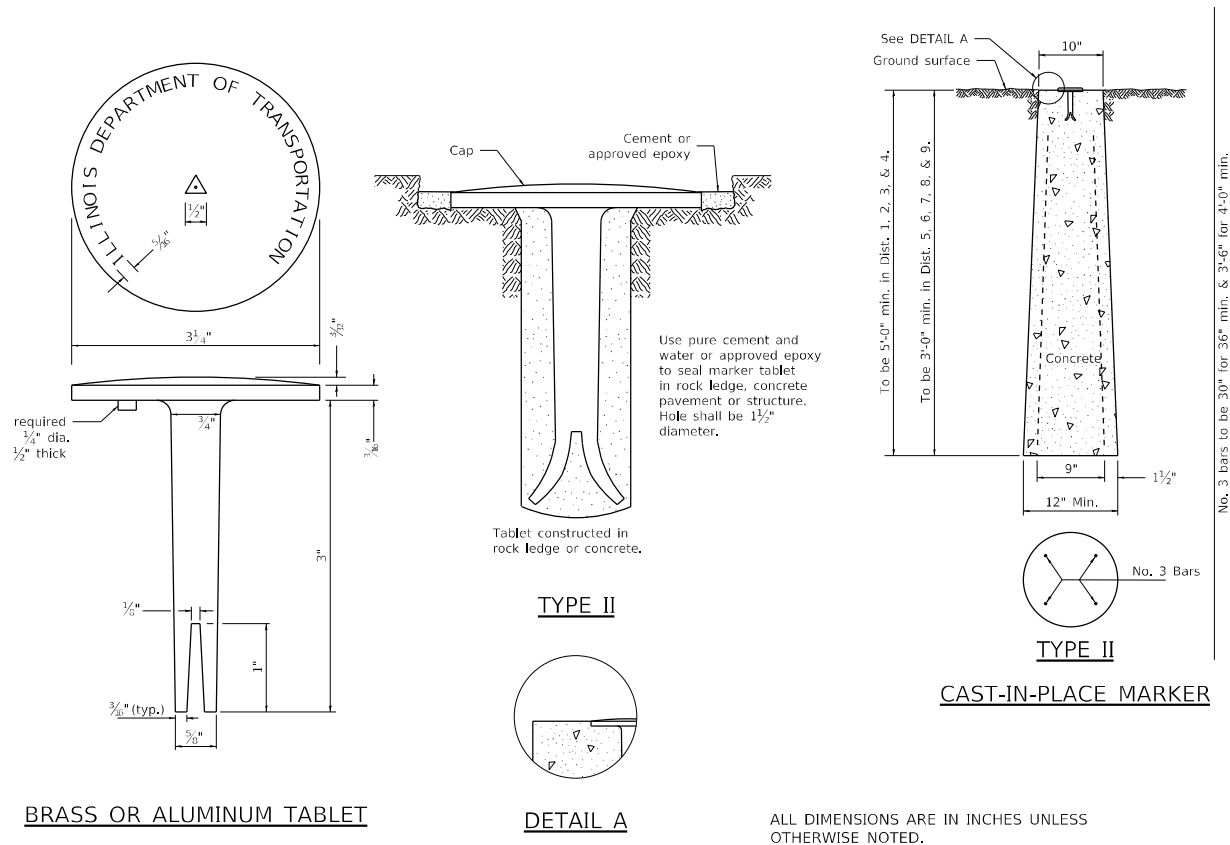
* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

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USER NAME = jworthington	DESIGNED -	REVISED -
PLOT SCALE = 0.167 1/ in.	DRAWN -	REVISED -
PLOT DATE = 10/12/2023	CHECKED -	REVISED -
	DATE - 10/13/2023	REVISED -

PERMANENT SURVEY MARKERS, TYPE II

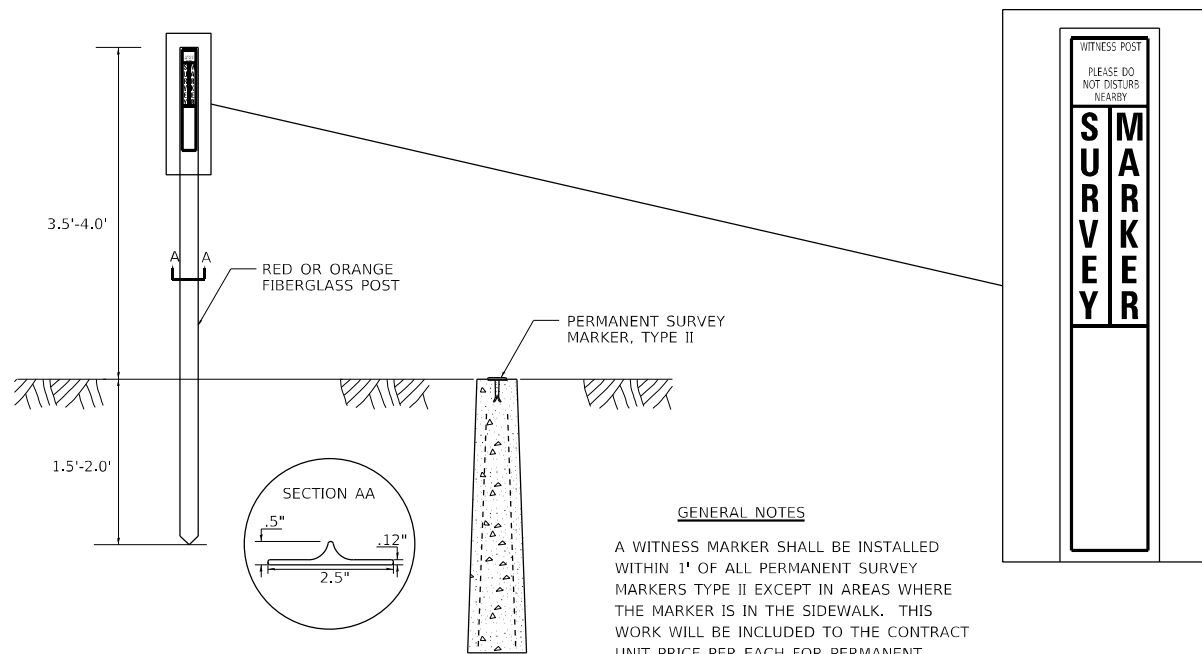


BRASS OR ALUMINUM TABLET

DETAIL A

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II

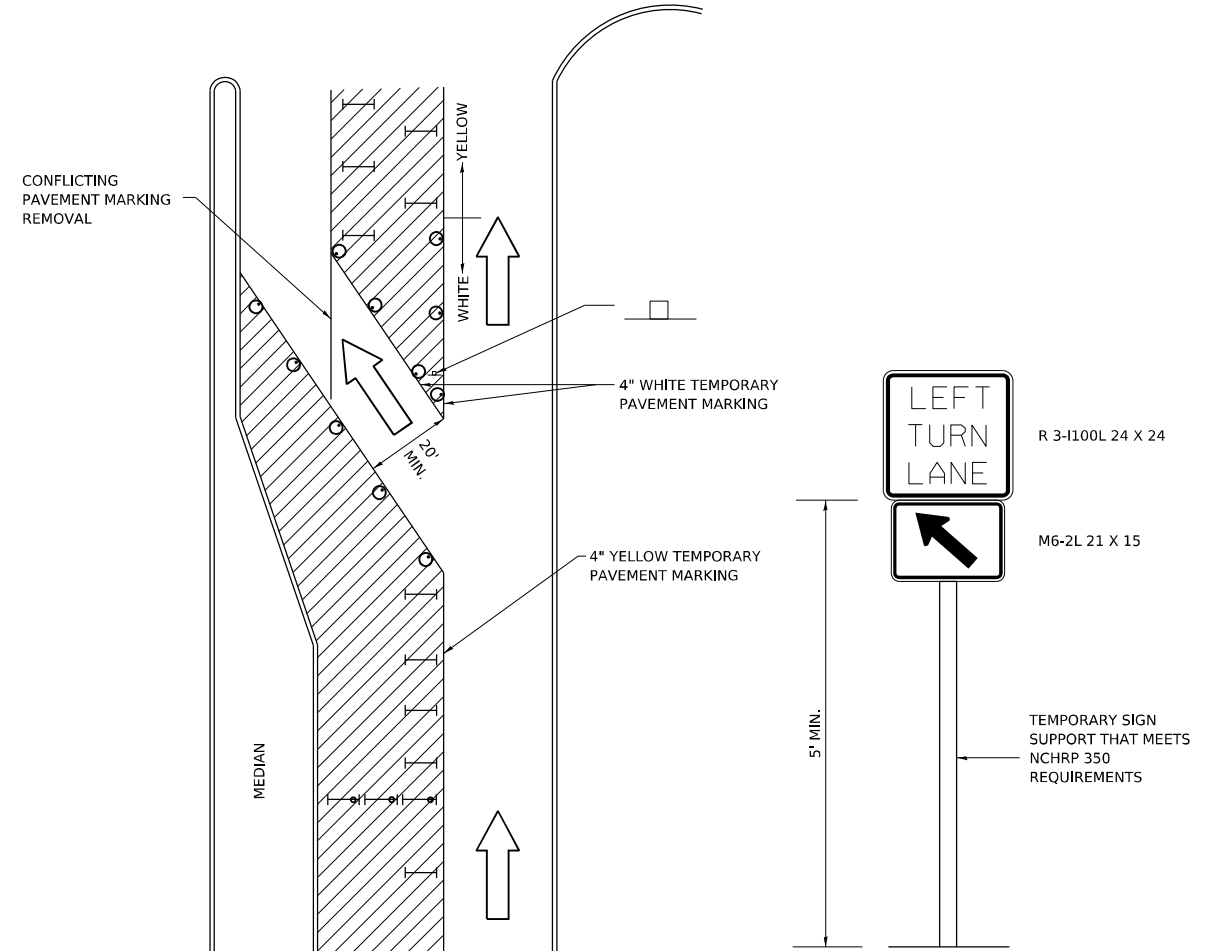


GENERAL NOTES

A WITNESS MARKER SHALL BE INSTALLED WITHIN 1' OF ALL PERMANENT SURVEY MARKERS TYPE II EXCEPT IN AREAS WHERE THE MARKER IS IN THE SIDEWALK. THIS WORK WILL BE INCLUDED TO THE CONTRACT UNIT PRICE PER EACH FOR PERMANENT SURVEY MARKERS, TYPE II.

REVISED - 6-27-14
REVISED - 10-14-11

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)



LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE OR DRUM WITH FLASHING BURNING LIGHT
- DRUM OR BARRICADE WITH STEADY BURN LIGHT
- SIGN (SEE DETAIL)
- TYPE I OR II CHECK BARRICADE WITH STEADY LIGHT BURN

REVISED - 10-14-11

GENERAL NOTES

- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 IN HEIGHT.
- STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS WILL BE MONODIRECTIONAL.
- TEMPORARY PAVEMENT MARKING SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
- 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" R3-100 24 X 24 AND M6-2R 21 X 15 SHALL BE USED.
- THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
- TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

Traffic Control and Protection at Turn Bays (To Remain Open to Traffic) 94.2

PERMANENT SURVEY MARKERS, TYPE II 66.2

MODEL: 06-03-11.dwg DATE: 06.2.14.2 FILE NAME: p:\bentech\p\11\Documents\110800\01\Eng_Doc\CAD_Standards\02\Standards\02\Standards-01.dgn



USER NAME = jworington	DESIGNED -	REVISED -
PLOT SCALE = 0.167 1/1 in.	DRAWN -	REVISED -
PLOT DATE = 10/12/2023	CHECKED -	REVISED -
	DATE - 10/13/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2/ DISTRICT 2 STANDARD

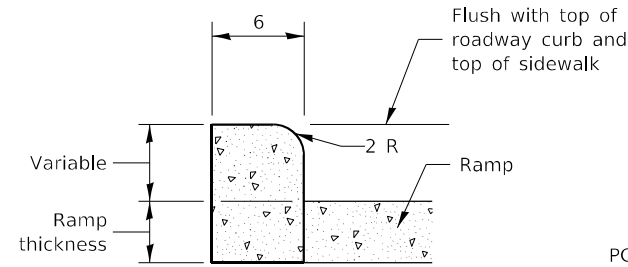
SCALE: N/A SHEET 5 OF 26 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(5)RS & (5&5HB)RC	WINNEBAGO	1279	734
CONTRACT NO. 64R71				

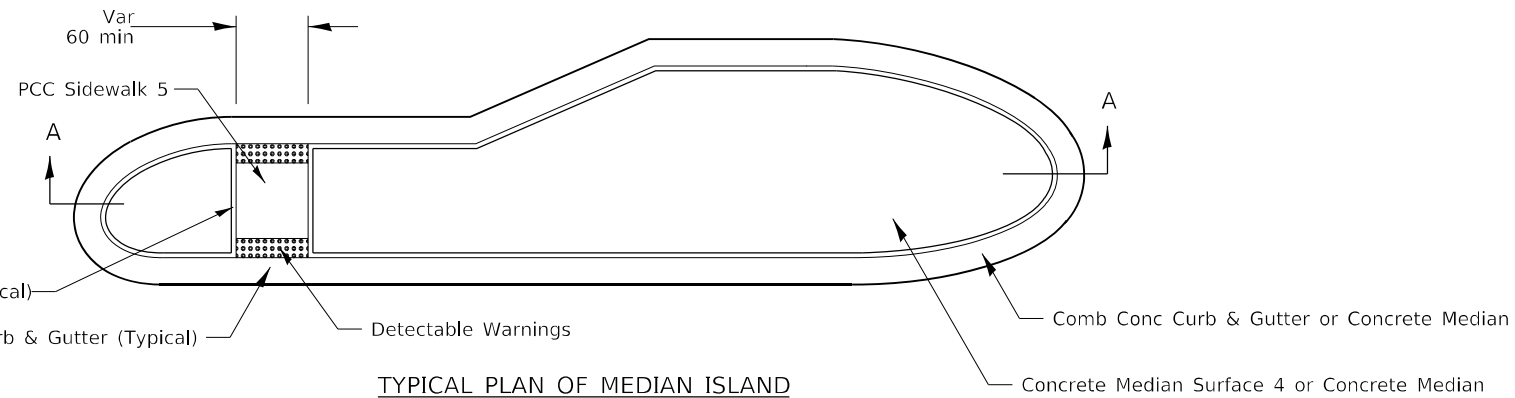
ILLINOIS FED. AID PROJECT

* FAI ROUTE 39 (I-39) & FAP ROUTE 525 (US 20)

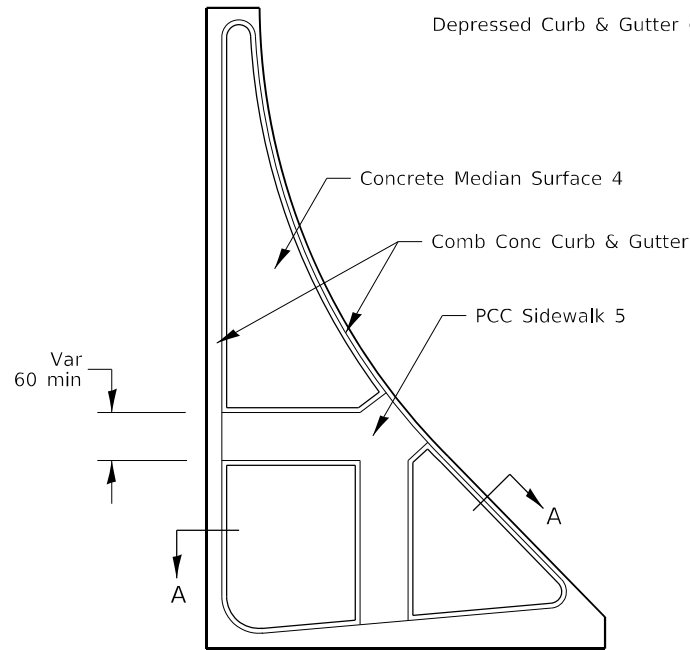
PC CONCRETE ISLANDS AND MEDIANS ACCESSIBLE TO THE DISABLED



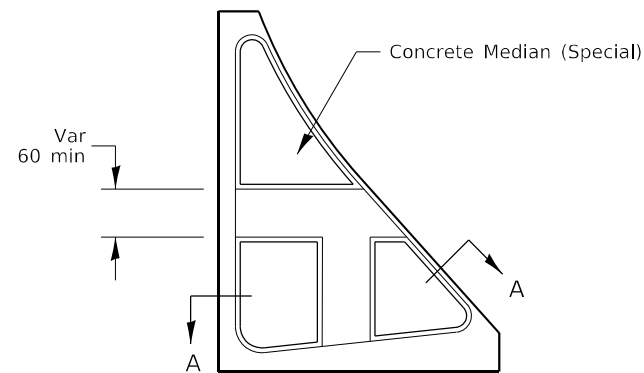
SIDE CURB DETAIL



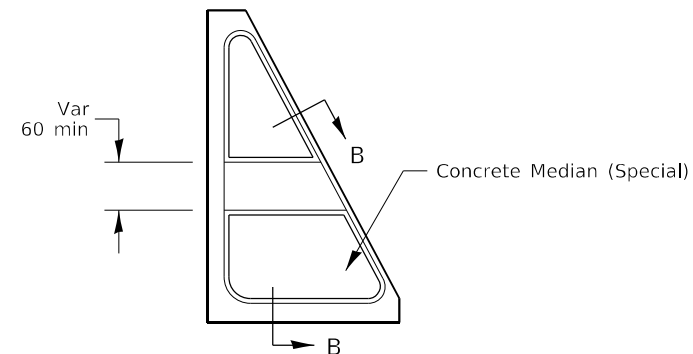
TYPICAL PLAN OF MEDIAN ISLAND



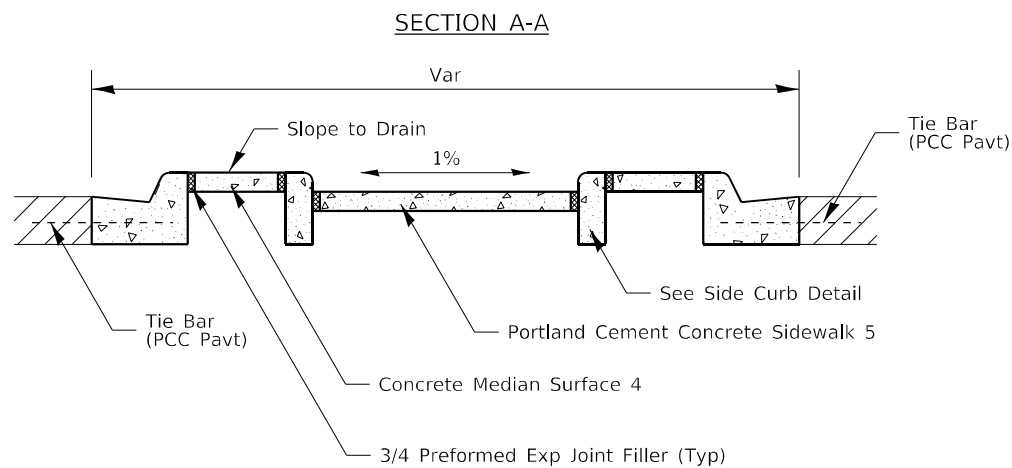
LARGE ISLAND
(Free Flow Design)



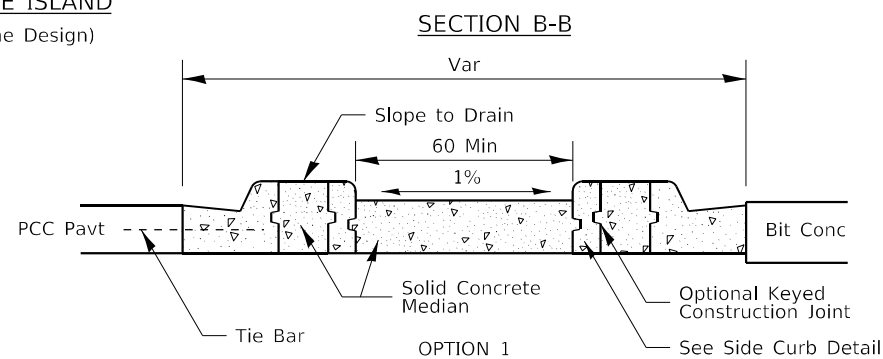
INTERMEDIATE ISLAND
(For Right Turn Lane Design)



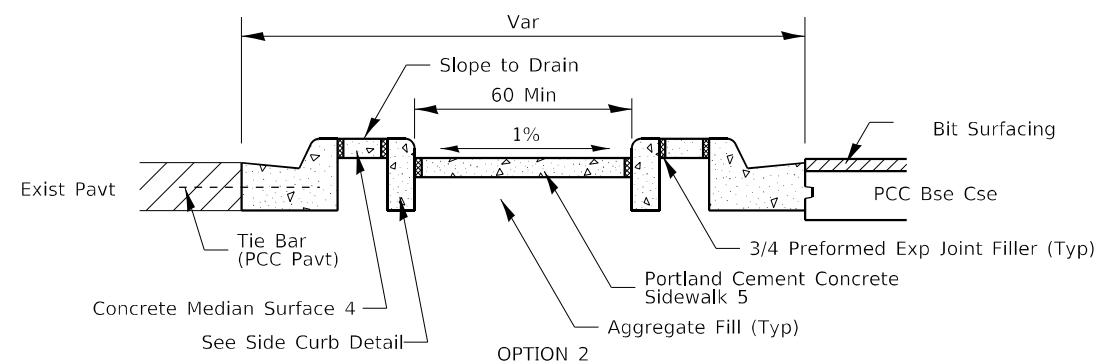
SMALL ISLAND
(For Typical Design)



SECTION A-A



SECTION B-B



OPTION 2

General Notes:
See Standard 606301 and plan sheets for station & offsets, radii, dimensions, and details not shown.

See Standard 424031 for sidewalk details not shown.

The sidewalk should drain to the low side of the island. If necessary the sidewalk shall be sloped to drain at 1%.

See the plan general notes for the type of curb & gutter to be used on islands.

The sidewalk should not be closer than 36 from the corner of the island.

Keyed longitudinal construction joints shall be constructed without tie bars.

Medians and large islands shall consist of PCC Sidewalk 5, Concrete Median Surface 4, and Combination Concrete Curb & Gutter, Type M or B of the size specified. Median island can also be solid concrete medians.

Locations, layouts, and widths of the flush sidewalk area, shall be determined by the designer and shown on the plans.

Small islands will be measured for payment from E.O.P. to E.O.P. using either option 1 or option 2, as specified in the plans, and will be paid for at the contract unit price per SQ FT for CONCRETE MEDIAN (SPECIAL) which shall include the combination curb & gutter, sidewalk, aggregate fill, concrete median surface, and solid concrete median.

Omit detectable warnings when distance between back of curbs is less than 6'.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

USER NAME = jworthington	DESIGNED -	REVISED - 4-16-19
FILE NAME: pw\benesch-pw.bentley.com\benesch-pw-01\Documents\10800s\10800\00\Eng_Docs\CAD_Sheets\DRAWINGS\Standards\264813-DD\shd-02 Standards-01	CHECKED -	REVISED - 1-05-16
PLOT SCALE = 0.167" / in.	DATE - 10/25/2022	REVISED - 6-27-14
PLOT DATE = 10/12/2023		REVISED - 8-27-13

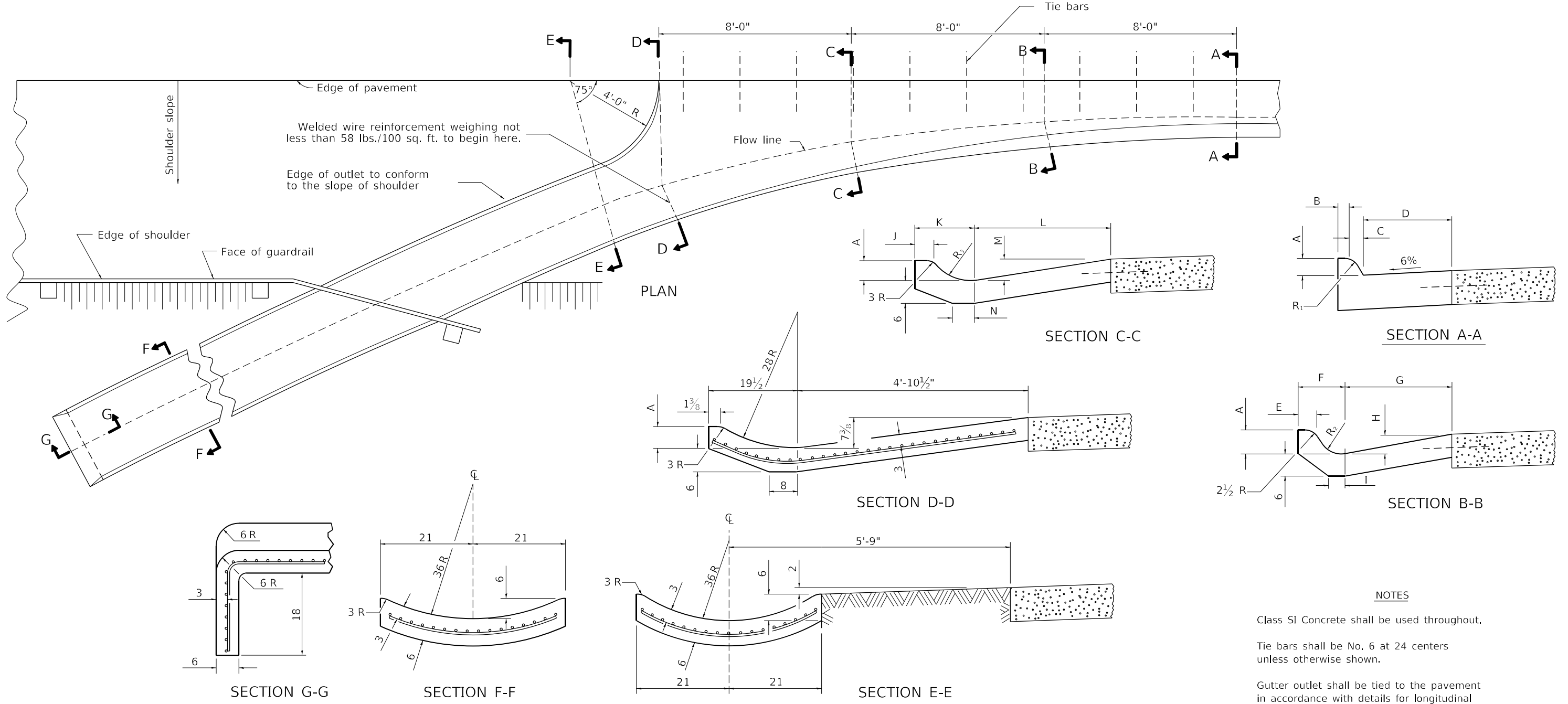
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2/ DISTRICT 2 STANDARD

SCALE: N/A SHEET 6 OF 26 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINNEBAGO	854	735
			CONTRACT NO. 64R71	
ILLINOIS FED. AID PROJECT				

STANDARD OUTLET FOR CURB & GUTTER



NOTES

Class SI Concrete shall be used throughout.

Tie bars shall be No. 6 at 24 centers unless otherwise shown.

Gutter outlet shall be tied to the pavement in accordance with details for longitudinal construction joint shown on Standard 420001.

If the average grade of pavement for the distance from Section A-A to D-D exceeds 2%, this distance shall be increased 6' for each 1% increase in grade.

When curb and gutter is constructed adjacent to flexible pavement, a 1 expansion joint shall be installed at construction joints.

All dimensions are in inches unless otherwise shown.

QUANTITY

For Section F-F =
0,069 cu. yds.
concrete per ft.

TYPE OF CURB & GUTTER	TABLE OF DIMENSIONS																CONCRETE QUANTITY A-A TO E-E AND CURTAIN WALL FOR 9 PAVT (CU YDS)	CONCRETE QUANTITY A-A TO E-E AND CURTAIN WALL FOR 10 PAVT (CU YDS)	
	SECTION A-A				SECTION B-B				SECTION C-C				R ₁	R ₂	R ₃				
	A	B	C	D	E	F	G	H	I	J	K	L				M			N
B-6.12	6	6	1	12	3	7 7/8	13 3/4	2 3/4	4	3	12 7/8	26 1/2	5	6	1	2	8	1.87	1.89
B-6.18	6	6	1	18	3 3/4	9 1/4	22	3	5	3 1/2	14 1/4	28 3/4	5 5/8	5 1/2	1	4	10	2.18	2.20
M-4.06	4	3	4	6	3	9 1/2	10 1/2	2	4	3	13	25	3	6	3	5	11	1.78	1.79
M-4.12	4	3	4	12	3 3/8	9 3/4	13 3/4	2 3/4	6	3	13 1/2	26 1/2	5	6	3	5	9	1.89	1.91
M-4.18	4	3	4	18	3 1/2	9 1/4	22	3	5	3 1/2	14 1/4	28 3/4	5 5/8	5 1/2	3	4	10	2.11	2.13
M-4.24	4	3	4	24	5	11 1/2	26	3 3/8	4	3 3/4	15	38	5 3/8	5	3	6	12	2.34	2.37
M-6.06	6	2	6	6	2 1/4	9 3/4	10 1/2	2	4	2 1/2	13	25	3	6	2	5	10	1.84	1.86
M-6.12	6	2	6	12	3 1/2	8 1/8	13 3/4	2 3/4	6	3	13 1/2	26 1/2	5	6	2	2	9	1.96	1.98
M-6.18	6	2	6	18	3 1/2	9 1/8	22	3	5	3 1/2	14 1/4	28 3/4	5 5/8	5 1/2	2	4	10	2.18	2.20
M-6.24	6	2	6	24	5 5/8	11	26	3 3/8	4	3 3/4	17 3/4	38	5 5/8	5	2	3 1/4	16	2.46	2.49

USER NAME = jworthington	DESIGNED -	REVISED - 1-05-16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2/ DISTRICT 2 STANDARD		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 0.167" / ft.	CHECKED -	REVISED -				CONTRACT NO. 64R71		ILLINOIS FED. AID PROJECT		
PLOT DATE = 10/12/2023	DATE -	REVISED -				SCALE:	SHEET 7 OF 26 SHEETS	STA.	TO STA.	

BOX CULVERT END SECTIONS

GENERAL NOTES

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

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

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

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

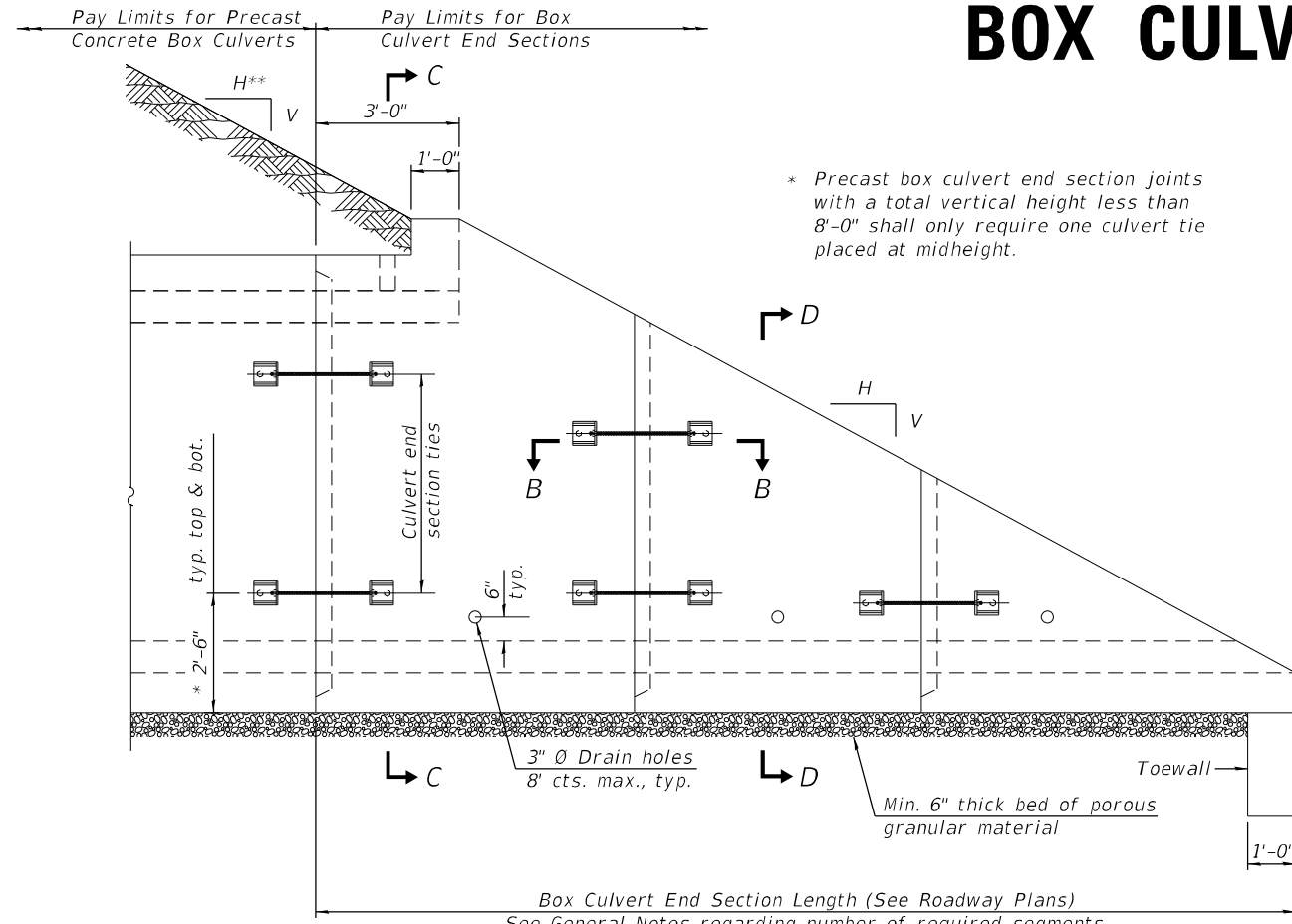
1" \emptyset anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

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

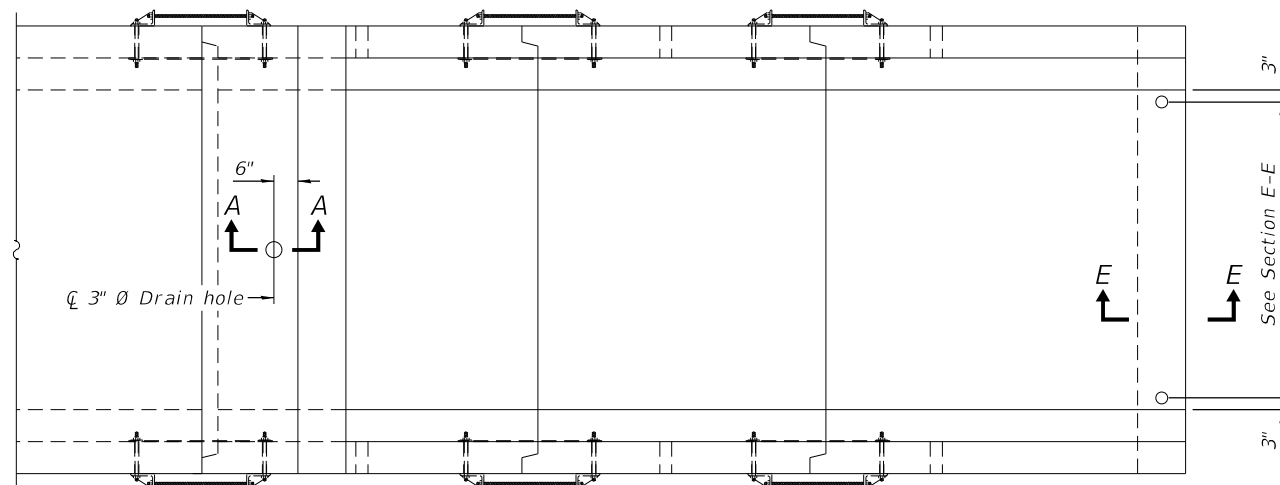
Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

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

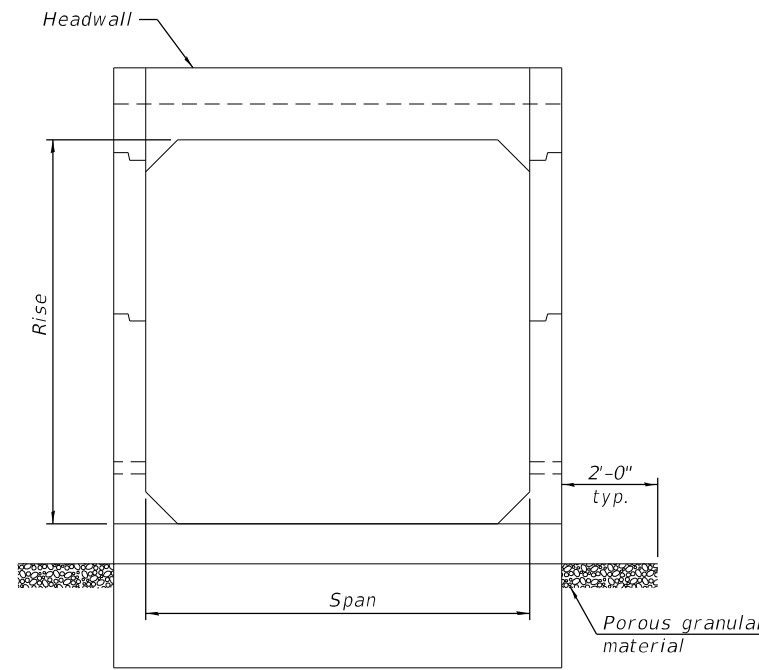
For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



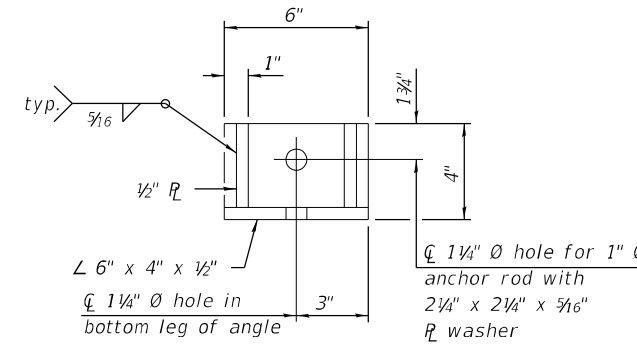
ELEVATION



PLAN



END VIEW



RESTRAINT ANGLE DETAIL

12" x 12" x 6" block of CA5, CA7, or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

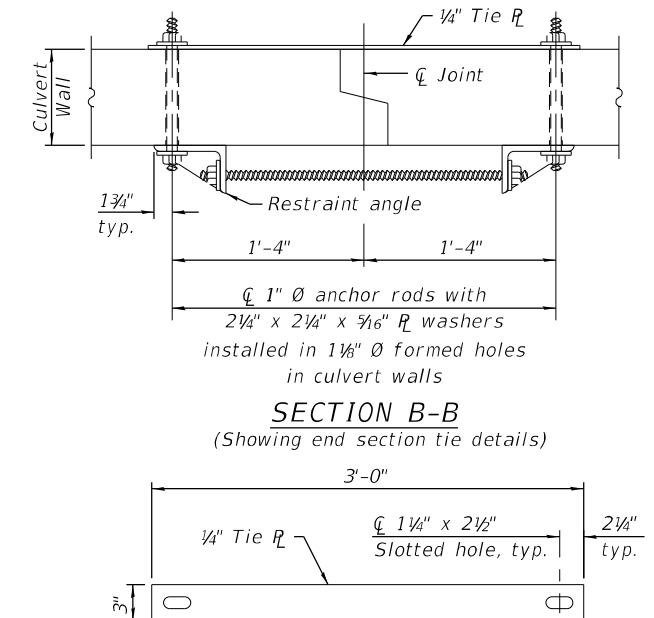
Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Fabric shall be sealed to the concrete with mastic.

3" \emptyset PVC drain cast with the concrete (Adjust location to clear reinforcement).

1/2" Square foam blockout around PVC drain (to be removed with formwork)

SECTION A-A

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.) (Sheet 1 of 2)



TIE PLATE DETAIL

SCB-TES

2-17-2017

USER NAME = jworthington	DESIGNED -	REVISED - 1-10-18
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PLOT SCALE = 0.167' / in.	DATE - 12/14/2022	REVISED - 5-09-14
PLOT DATE = 10/12/2023		REVISED -

STATE OF ILLINOIS
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REGION 2/ DISTRICT 2 STANDARD

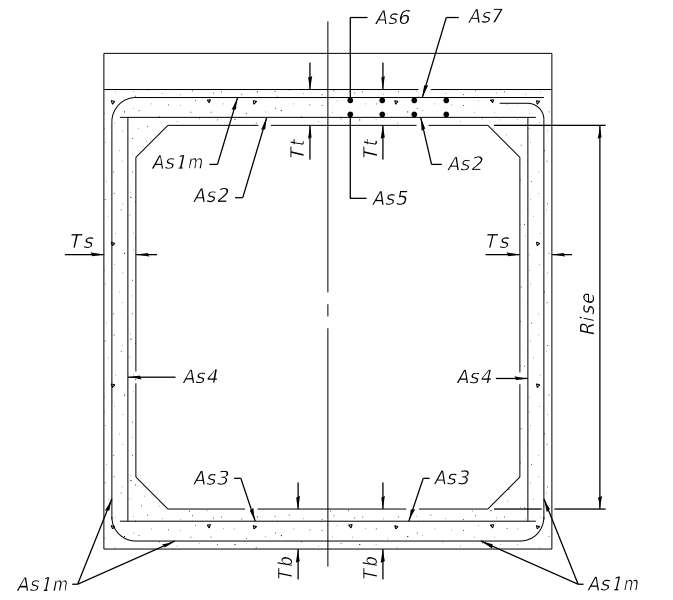
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINEBAGO	854	737
CONTRACT NO. 64R71			ILLINOIS FED. AID PROJECT	

BOX CULVERT END SECTIONS

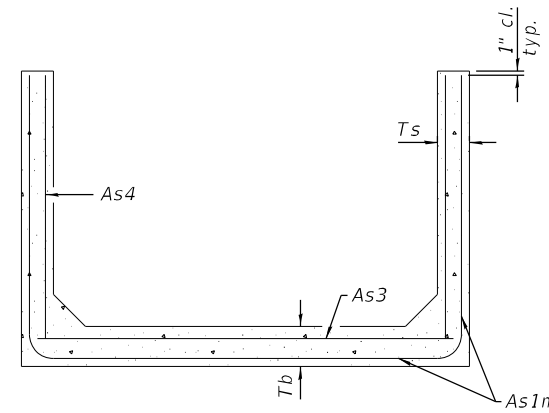
As1m REINFORCEMENT (in. ² /ft)											
Rise (ft)	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.17									
5	0.26	0.21	0.18								
6	0.22	0.26	0.23	0.22							
7	0.25	0.33	0.59	0.27	0.28						
8	0.40	0.35	0.43	0.39	0.36	0.34	0.40				
9	0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48			
10	0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56		
11	0.52	0.45	0.54	0.50	0.46	0.44	0.41	0.46	0.50	0.65	
12	0.55	0.49	0.58	0.54	0.50	0.48	0.45	0.46	0.46	0.61	0.75

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

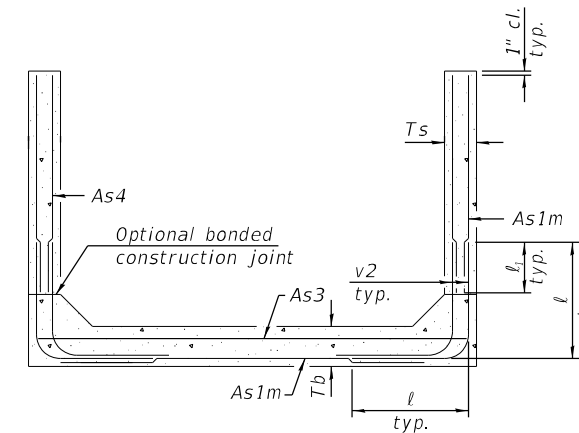


(Design Earth Cover ≥ 2 ft) (Design Earth Cover < 2 ft)

SECTION C-C



SECTION D-D



ALTERNATE SECTION D-D

ℓ₁ DIMENSION

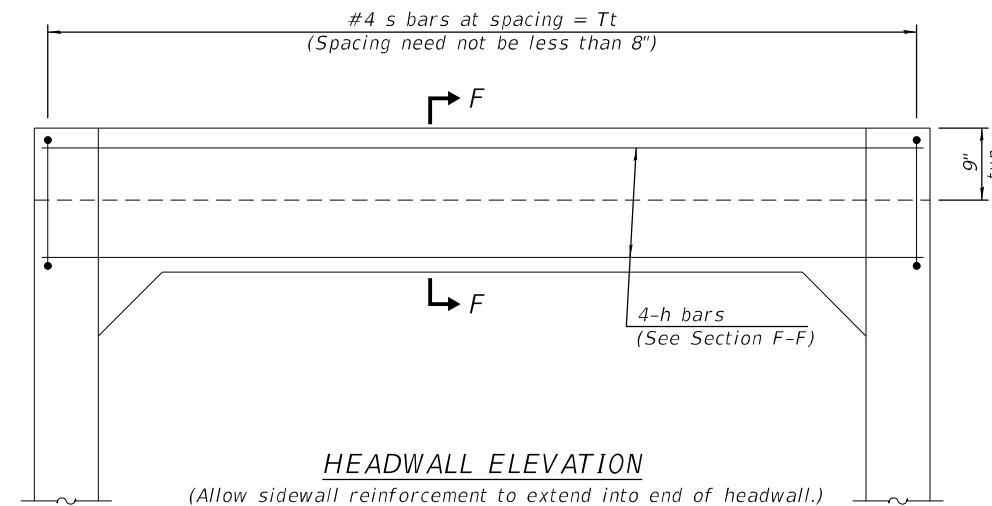
- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"

Notes:

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

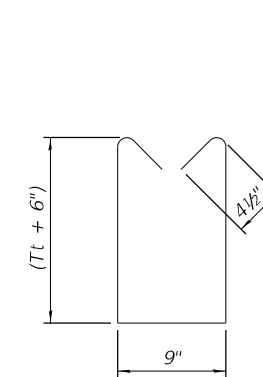
The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to 1.10*(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

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

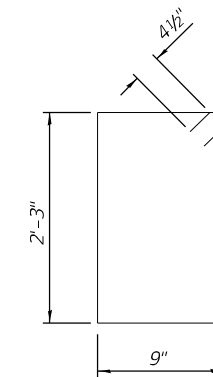


HEADWALL ELEVATION

(Allow sidewall reinforcement to extend into end of headwall.)



BAR s



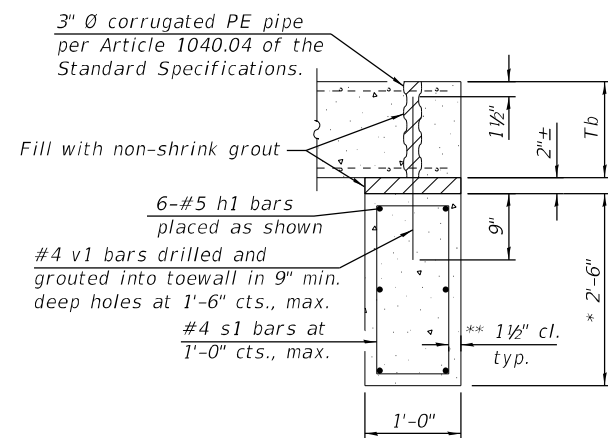
BAR s1

TOEWALL CONSTRUCTION SEQUENCE

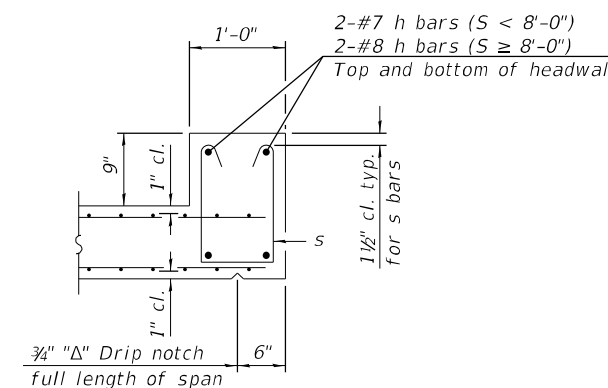
1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance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

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

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



SECTION E-E



SECTION F-F

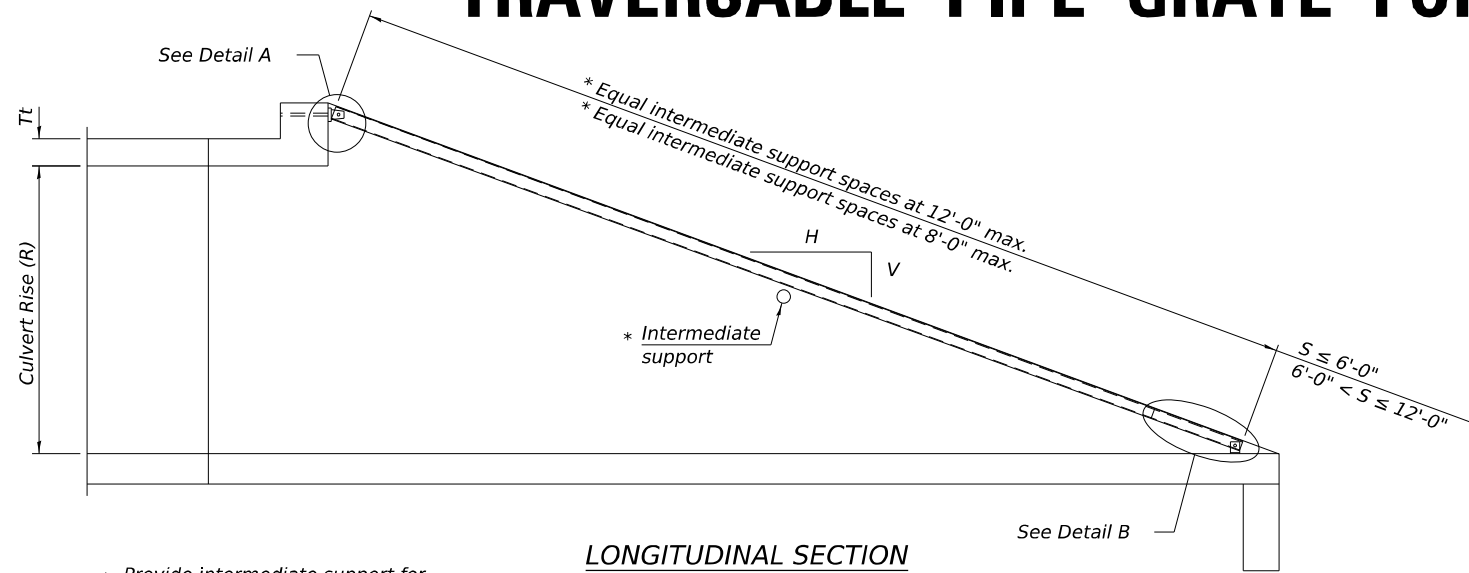
SCB-TES

2-17-2017

(Sheet 2 of 2)

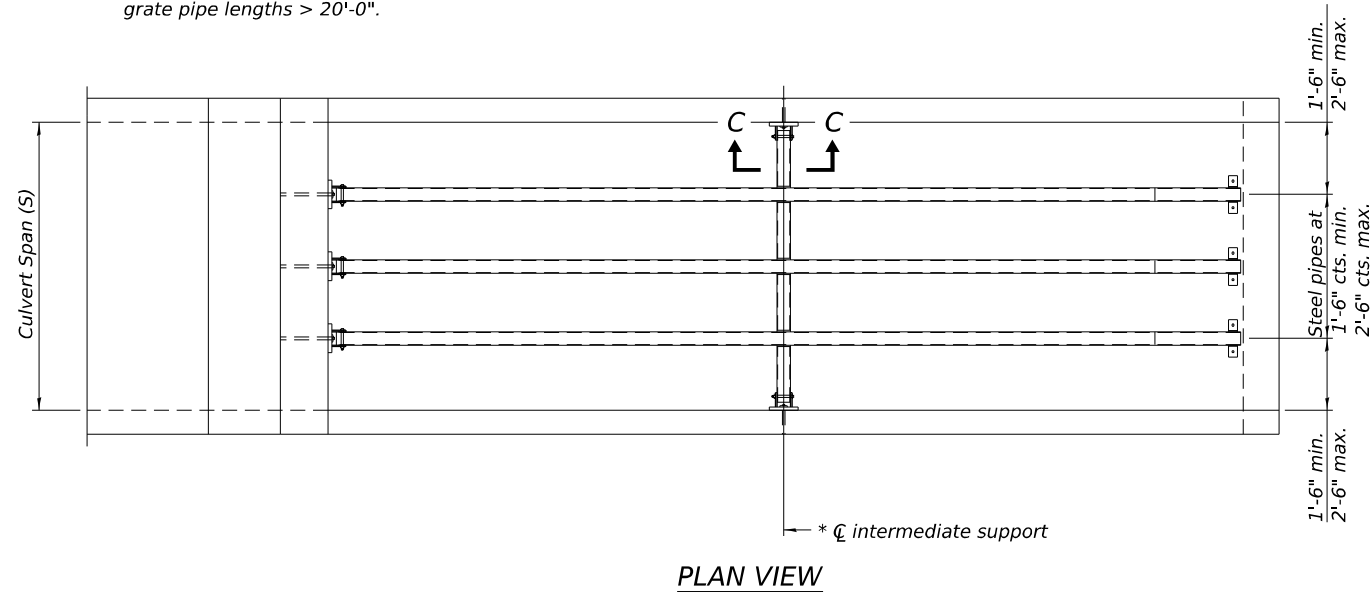
USER NAME = jworthington	DESIGNED -	REVISED - 1-10-18	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD		F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: pw\1\benesch-pw.bentley.com\benesch-pw-01\Documents\10800s\10800.00\Eng_Docs\CAD_Sheets\Drawings\Standards\264813-DDI-sht-D2_Standards-03.dwg	CHECKED -	REVISED - 1-05-16		39	(201-3)K	WINNEBAGO	854	738		
PLOT SCALE = 0.167' / in.	DATE - 12/14/2022	REVISED - 5-09-14		SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 64R71		
PLOT DATE = 10/12/2023	DATE -	REVISED -								

TRAVERSABLE PIPE GRATE FOR BOX CULVERT END SECTIONS

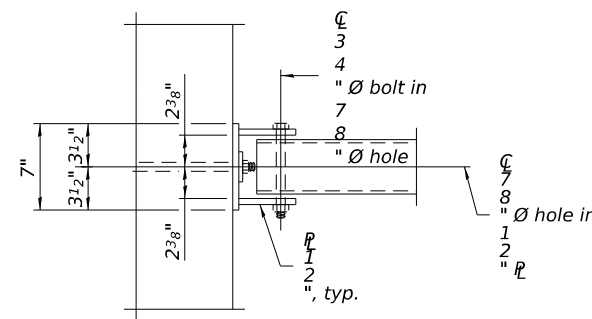


LONGITUDINAL SECTION

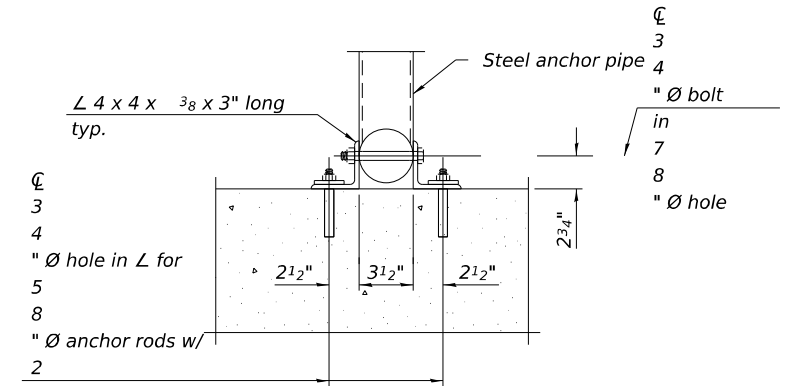
* Provide intermediate support for grate pipe lengths > 20'-0".



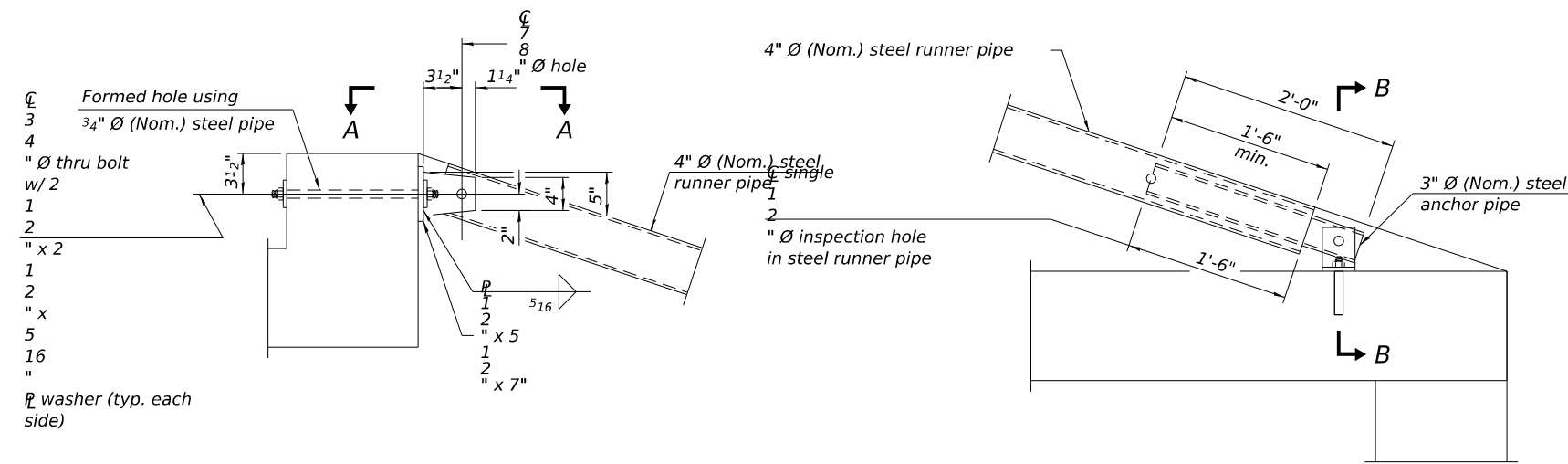
PLAN VIEW



VIEW A-A

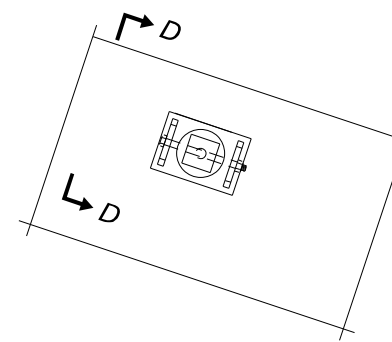


SECTION B-B



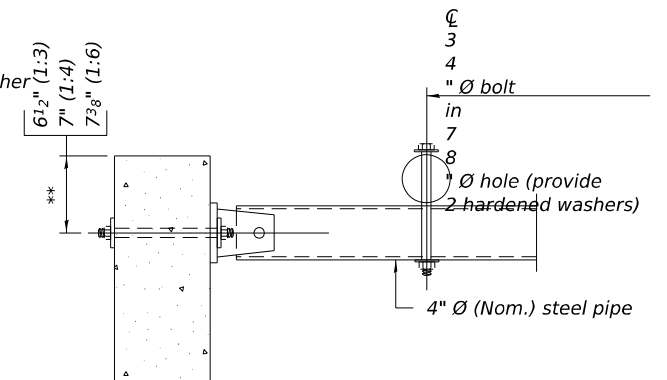
DETAIL A

DETAIL B



VIEW C-C

(See Detail A for dimensions and details not shown.)



SECTION D-D

** Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.

GENERAL NOTES

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.

This standard shall only be used on concrete end sections not skewed more than ±15 degrees with roadway.

The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completed filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be snug tightened followed by an additional 1/3 turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.

TPGBC-ZS

2-17-2017

USER NAME = jworthington	DESIGNED -	REVISED - 11-09-16
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PLOT SCALE = 0.167" / in.	DATE - 12/14/2022	REVISED -
PLOT DATE = 10/12/2023		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2/ DISTRICT 2 STANDARD

SCALE: SHEET 10 OF 26 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINNEBAGO	854	739
			CONTRACT NO. 64R71	
ILLINOIS FED. AID PROJECT				

TRAVERSABLE PIPE GRATE FOR BOX CULVERT END SECTIONS

PIPE-GRATE SCHEDULE FOR BOX CULVERT END SECTIONS

GENERAL NOTES

This table is only to be used for cross drainage structures.

Precast Box Culvert Dimensions			Slope of End Section								
			1:3			1:4			1:6		
			Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe	Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe	Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe
4	2	7.5	1 @ 8'-10"	N/A	8'-10"	1 @ 11'-7"	N/A	11'-7"	1 @ 17'-2"	N/A	17'-2"
4	2	5	1 @ 8'-2"	N/A	8'-2"	1 @ 10'-8"	N/A	10'-8"	1 @ 15'-11"	N/A	15'-11"
4	3	7.5	1 @ 12'-0"	N/A	12'-0"	1 @ 15'-8"	N/A	15'-8"	1 @ 23'-3"	1 @ 3'-7"	26'-10"
4	3	5	1 @ 11'-4"	N/A	11'-4"	1 @ 14'-10"	N/A	14'-10"	1 @ 22'-0"	1 @ 3'-7"	25'-7"
4	4	7.5	1 @ 15'-2"	N/A	15'-2"	1 @ 19'-10"	1 @ 3'-7"	23'-5"	1 @ 29'-4"	2 @ 3'-7"	36'-6"
4	4	5	1 @ 14'-6"	N/A	14'-6"	1 @ 18'-11"	N/A	18'-11"	1 @ 28'-1"	2 @ 3'-7"	35'-3"
5	2	8	1 @ 8'-11"	N/A	8'-11"	1 @ 11'-9"	N/A	11'-9"	1 @ 17'-5"	N/A	17'-5"
5	2	6	1 @ 8'-5"	N/A	8'-5"	1 @ 11'-1"	N/A	11'-1"	1 @ 16'-5"	N/A	16'-5"
5	3	8	1 @ 12'-1"	N/A	12'-1"	1 @ 15'-10"	N/A	15'-10"	1 @ 23'-6"	1 @ 4'-7"	28'-1"
5	3	6	1 @ 11'-7"	N/A	11'-7"	1 @ 15'-2"	N/A	15'-2"	1 @ 22'-6"	1 @ 4'-7"	27'-1"
5	4	8	1 @ 15'-3"	N/A	15'-3"	1 @ 20'-0"	1 @ 4'-7"	24'-7"	1 @ 29'-7"	2 @ 4'-7"	38'-9"
5	4	6	1 @ 14'-9"	N/A	14'-9"	1 @ 19'-3"	N/A	19'-3"	1 @ 28'-7"	2 @ 4'-7"	37'-9"
5	5	8	1 @ 18'-5"	N/A	18'-5"	1 @ 24'-1"	2 @ 4'-7"	33'-3"	1 @ 35'-8"	3 @ 4'-7"	49'-5"
5	5	6	1 @ 17'-11"	N/A	17'-11"	1 @ 23'-5"	1 @ 4'-7"	28'-0"	1 @ 34'-8"	2 @ 4'-7"	43'-10"
6	2	8	2 @ 8'-11"	N/A	17'-10"	2 @ 11'-9"	N/A	23'-6"	2 @ 17'-5"	N/A	34'-10"
6	2	7	2 @ 8'-8"	N/A	17'-4"	2 @ 11'-5"	N/A	22'-10"	2 @ 16'-11"	N/A	33'-10"
6	3	8	2 @ 12'-1"	N/A	24'-2"	2 @ 15'-10"	N/A	31'-8"	2 @ 23'-6"	1 @ 5'-7"	52'-7"
6	3	7	2 @ 11'-10"	N/A	23'-8"	2 @ 15'-6"	N/A	31'-0"	2 @ 23'-0"	1 @ 5'-7"	51'-7"
6	4	8	2 @ 15'-3"	N/A	30'-6"	2 @ 20'-0"	1 @ 5'-7"	45'-7"	2 @ 29'-7"	2 @ 5'-7"	70'-4"
6	4	7	2 @ 15'-0"	N/A	30'-0"	2 @ 19'-8"	1 @ 5'-7"	44'-11"	2 @ 29'-1"	2 @ 5'-7"	69'-4"
6	5	8	2 @ 18'-5"	N/A	36'-10"	2 @ 24'-1"	2 @ 5'-7"	59'-4"	2 @ 35'-8"	3 @ 5'-7"	88'-1"
6	5	7	2 @ 18'-2"	N/A	36'-4"	2 @ 23'-9"	2 @ 5'-7"	58'-8"	2 @ 35'-2"	2 @ 5'-7"	81'-6"
6	6	8	2 @ 21'-7"	1 @ 5'-7"	48'-9"	2 @ 28'-3"	2 @ 5'-7"	67'-8"	2 @ 41'-9"	3 @ 5'-7"	100'-3"
6	6	7	2 @ 21'-4"	1 @ 5'-7"	48'-3"	2 @ 27'-11"	2 @ 5'-7"	67'-0"	2 @ 41'-3"	3 @ 5'-7"	99'-3"
7	2	8	2 @ 8'-11"	N/A	17'-10"	2 @ 11'-9"	N/A	23'-6"	2 @ 17'-5"	N/A	34'-10"
7	3	8	2 @ 12'-1"	N/A	24'-2"	2 @ 15'-10"	N/A	31'-8"	2 @ 23'-6"	2 @ 6'-7"	60'-2"
7	4	8	2 @ 15'-3"	N/A	30'-6"	2 @ 20'-0"	2 @ 6'-7"	53'-2"	2 @ 29'-7"	3 @ 6'-7"	78'-11"
7	5	8	2 @ 18'-5"	N/A	36'-10"	2 @ 24'-1"	3 @ 6'-7"	67'-11"	2 @ 35'-8"	4 @ 6'-7"	97'-8"
7	6	8	2 @ 21'-7"	2 @ 6'-7"	56'-4"	2 @ 28'-3"	3 @ 6'-7"	76'-3"	2 @ 41'-9"	5 @ 6'-7"	116'-5"
7	7	8	2 @ 24'-9"	3 @ 6'-7"	69'-3"	2 @ 32'-4"	4 @ 6'-7"	91'-0"	2 @ 47'-10"	6 @ 6'-7"	135'-2"
8	2	8	3 @ 8'-11"	N/A	26'-9"	3 @ 11'-9"	N/A	35'-3"	3 @ 17'-5"	N/A	52'-3"
8	3	8	3 @ 12'-1"	N/A	36'-3"	3 @ 15'-10"	N/A	47'-6"	3 @ 23'-6"	2 @ 7'-7"	85'-8"
8	4	8	3 @ 15'-3"	N/A	45'-9"	3 @ 20'-0"	2 @ 7'-7"	75'-2"	3 @ 29'-7"	3 @ 7'-7"	111'-6"
8	5	8	3 @ 18'-5"	N/A	55'-3"	3 @ 24'-1"	3 @ 7'-7"	95'-0"	3 @ 35'-8"	4 @ 7'-7"	137'-4"
8	6	8	3 @ 21'-7"	2 @ 7'-7"	79'-11"	3 @ 28'-3"	3 @ 7'-7"	107'-6"	3 @ 41'-9"	5 @ 7'-7"	163'-2"
8	7	8	3 @ 24'-9"	3 @ 7'-7"	97'-0"	3 @ 32'-4"	4 @ 7'-7"	127'-4"	3 @ 47'-10"	6 @ 7'-7"	189'-0"
8	8	8	3 @ 27'-11"	3 @ 7'-7"	106'-6"	3 @ 36'-6"	4 @ 7'-7"	139'-10"	3 @ 53'-11"	6 @ 7'-7"	207'-3"
9	2	9	3 @ 9'-3"	N/A	27'-9"	3 @ 12'-1"	N/A	36'-3"	3 @ 17'-11"	N/A	53'-9"
9	3	9	3 @ 12'-4"	N/A	37'-0"	3 @ 16'-2"	N/A	48'-6"	3 @ 24'-0"	3 @ 8'-7"	97'-9"
9	4	9	3 @ 15'-6"	N/A	46'-6"	3 @ 20'-4"	2 @ 8'-7"	78'-2"	3 @ 30'-1"	3 @ 8'-7"	116'-0"
9	5	9	3 @ 18'-8"	N/A	56'-0"	3 @ 24'-5"	3 @ 8'-7"	99'-0"	3 @ 36'-2"	4 @ 8'-7"	142'-10"
9	6	9	3 @ 21'-10"	2 @ 8'-7"	82'-8"	3 @ 28'-7"	3 @ 8'-7"	111'-6"	3 @ 42'-3"	5 @ 8'-7"	169'-8"
9	7	9	3 @ 25'-0"	3 @ 8'-7"	100'-9"	3 @ 32'-8"	4 @ 8'-7"	132'-4"	3 @ 48'-4"	6 @ 8'-7"	196'-6"
9	8	9	3 @ 28'-2"	3 @ 8'-7"	110'-3"	3 @ 36'-10"	4 @ 8'-7"	144'-10"	3 @ 54'-5"	6 @ 8'-7"	214'-9"
9	9	9	3 @ 31'-4"	3 @ 8'-7"	119'-9"	3 @ 40'-11"	5 @ 8'-7"	165'-8"	3 @ 60'-6"	7 @ 8'-7"	241'-7"
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10	3	10	3 @ 12'-8"	N/A	38'-0"	3 @ 16'-6"	N/A	49'-6"	3 @ 24'-6"	3 @ 9'-7"	102'-3"
10	4	10	3 @ 15'-10"	N/A	47'-6"	3 @ 20'-8"	2 @ 9'-7"	81'-2"	3 @ 30'-7"	3 @ 9'-7"	120'-6"
10	5	10	3 @ 19'-0"	N/A	57'-0"	3 @ 24'-9"	3 @ 9'-7"	103'-0"	3 @ 36'-8"	4 @ 9'-7"	148'-4"
10	6	10	3 @ 22'-1"	2 @ 9'-7"	85'-5"	3 @ 28'-11"	3 @ 9'-7"	115'-6"	3 @ 42'-9"	5 @ 9'-7"	176'-2"
10	7	10	3 @ 25'-3"	3 @ 9'-7"	104'-6"	3 @ 33'-0"	4 @ 9'-7"	137'-4"	3 @ 48'-10"	6 @ 9'-7"	204'-0"
10	8	10	3 @ 28'-5"	3 @ 9'-7"	114'-0"	3 @ 37'-2"	4 @ 9'-7"	149'-10"	3 @ 54'-11"	6 @ 9'-7"	222'-3"
10	9	10	3 @ 31'-7"	4 @ 9'-7"	133'-1"	3 @ 41'-3"	5 @ 9'-7"	171'-8"	3 @ 61'-0"	7 @ 9'-7"	250'-1"
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11	2	11	4 @ 9'-9"	N/A	39'-0"	4 @ 12'-9"	N/A	51'-0"	4 @ 18'-11"	N/A	75'-8"
11	3	11	4 @ 12'-11"	N/A	51'-8"	4 @ 16'-11"	N/A	67'-8"	4 @ 25'-0"	3 @ 10'-7"	131'-9"
11	4	11	4 @ 16'-1"	N/A	64'-4"	4 @ 21'-0"	2 @ 10'-7"	105'-2"	4 @ 31'-1"	3 @ 10'-7"	156'-1"
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11	10	11	4 @ 35'-0"	4 @ 10'-7"	182'-4"	4 @ 45'-9"	5 @ 10'-7"	235'-11"	4 @ 67'-7"	8 @ 10'-7"	355'-0"
11	11	11	4 @ 38'-2"	4 @ 10'-7"	195'-0"	4 @ 49'-10"	6 @ 10'-7"	262'-10"	4 @ 73'-8"	9 @ 10'-7"	389'-11"
12	2	12	4 @ 10'-0"	N/A	40'-0"	4 @ 13'-1"	N/A	52'-4"	4 @ 19'-5"	N/A	77'-8"
12	3	12	4 @ 13'-2"	N/A	52'-8"	4 @ 17'-3"	N/A	69'-0"	4 @ 25'-6"	3 @ 11'-7"	136'-9"
12	4	12	4 @ 16'-4"	N/A	65'-4"	4 @ 21'-4"	2 @ 11'-7"	108'-6"	4 @ 31'-7"	4 @ 11'-7"	172'-8"
12	6	12	4 @ 22'-8"	2 @ 11'-7"	113'-10"	4 @ 29'-7"	3 @ 11'-7"	153'-1"	4 @ 43'-9"	5 @ 11'-7"	232'-11"
12	8	12	4 @ 29'-0"	3 @ 11'-7"	150'-9"	4 @ 37'-10"	4 @ 11'-7"	197'-8"	4 @ 55'-11"	7 @ 11'-7"	304'-9"
12	10	12	4 @ 35'-4"	4 @ 11'-7"	187'-8"	4 @ 46'-1"	5 @ 11'-7"	242'-3"	4 @ 68'-1"	8 @ 11'-7"	365'-0"
12	12	12	4 @ 41'-8"	5 @ 11'-7"	224'-7"	4 @ 54'-4"	6 @ 11'-7"	286'-10"	4 @ 80'-3"	10 @ 11'-7"	436'-10"

The above "Tables" are referenced from Article 542.03 of the Standard Specifications.

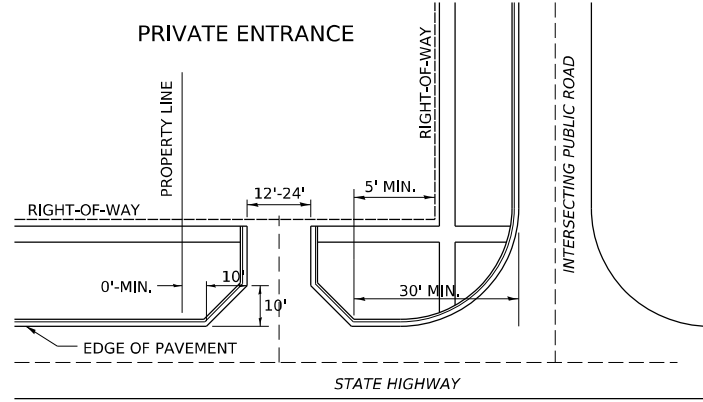
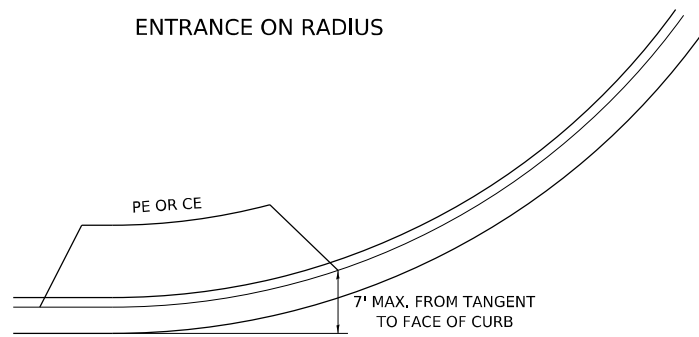
TPGBC-ZS

2-17-2017

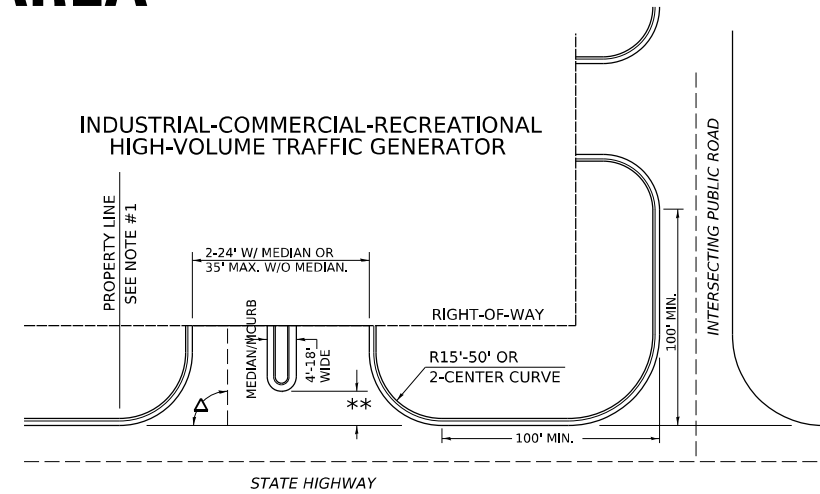
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PLOT SCALE = 0.167" / ft.	CHECKED -	REVISED - 5-08-14	39			(201-3)K	WINNEBAGO	854	740	
PLOT DATE = 10/12/2023	DATE - 12/14/2022	REVISED -	CONTRACT NO. 64R71							
			SCALE:			SHEET 11 OF 26 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT		

ENTRANCE APPROACHES – URBAN AREA

ENTRANCE ON RADIUS



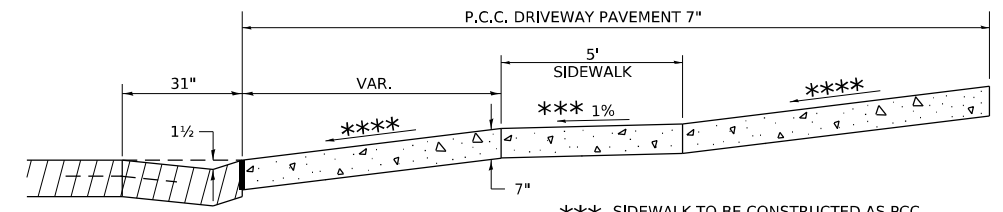
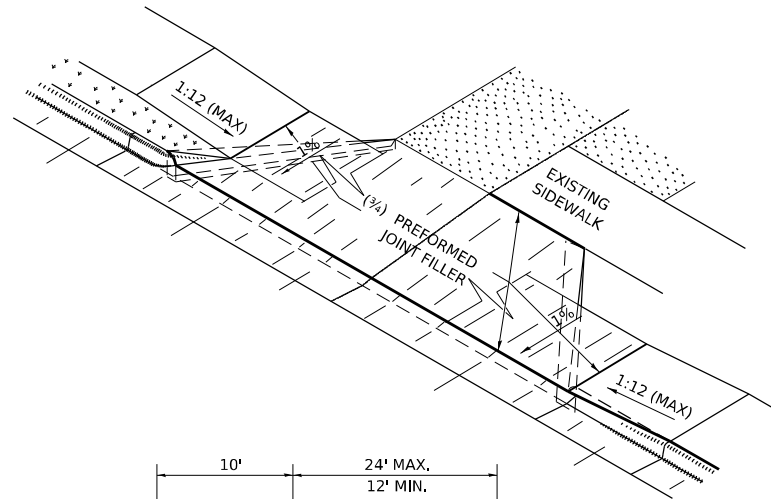
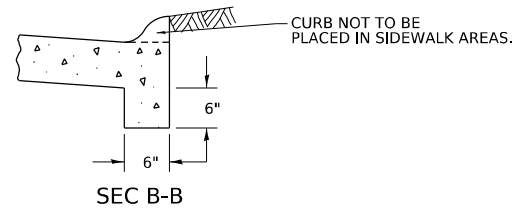
INDUSTRIAL-COMMERCIAL-RECREATIONAL
HIGH-VOLUME TRAFFIC GENERATOR



A MINIMUM OF 440 FEET SHALL BE MAINTAINED BETWEEN CENTER LINES OF ADJACENT DRIVEWAYS.
 $\Delta 90^\circ$ DESIRABLE, 45° MIN. ANGLE PERMITTED ONLY FOR ONE-WAY DRIVEWAYS.
 60° MIN. ANGLE FOR TWO-WAY DRIVEWAYS.

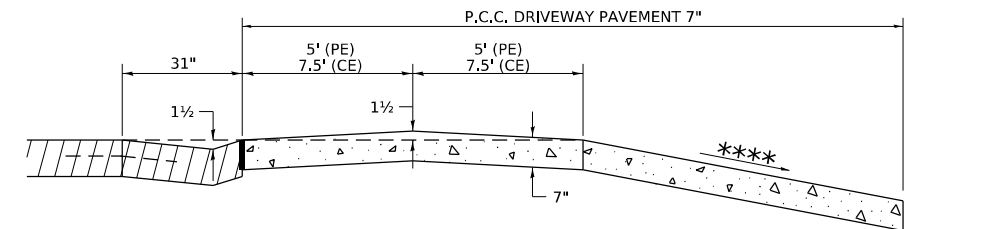
NOTE: #1 ENCROACHMENT ON THE ADJACENT PROPERTY OWNER LAND REQUIRES HIS OR HER WRITTEN APPROVAL.

** 4'-10" IF HIGHWAY CURBED.
 AT EDGE OF SHOULDER IF HIGHWAY UNCURBED.

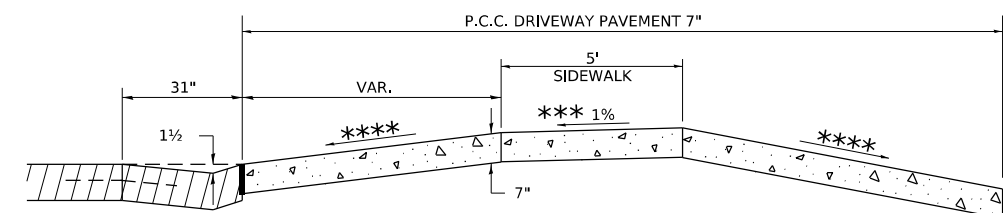


ASCENDING APPROACH

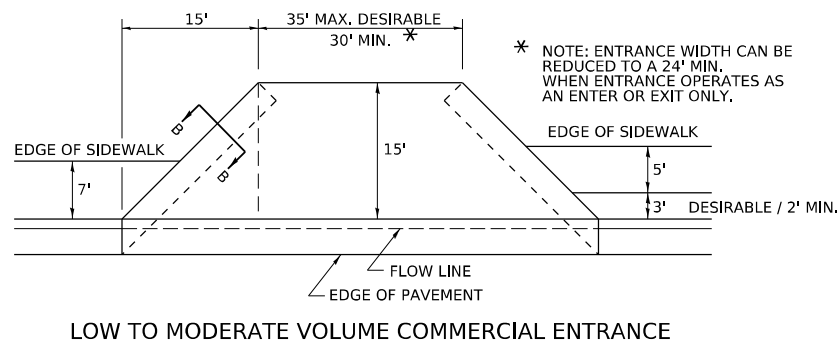
*** 4.0% DESIRABLE
 6.0% MAX. COMMERCIAL
 8.0% MAX. NON-COMMERCIAL



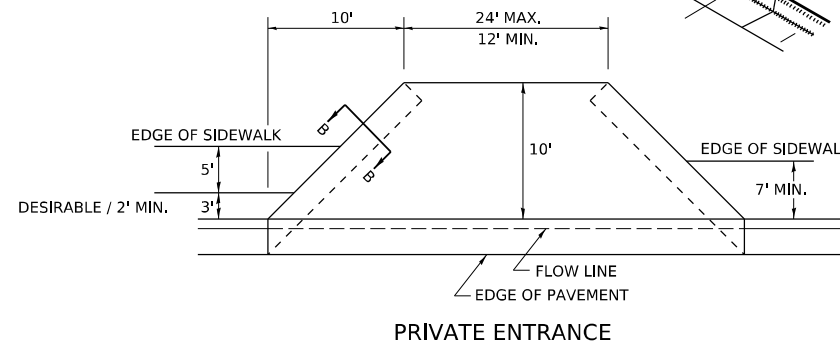
DESCENDING APPROACH
(NO SIDEWALK)



DESCENDING APPROACH
(WITH SIDEWALK)

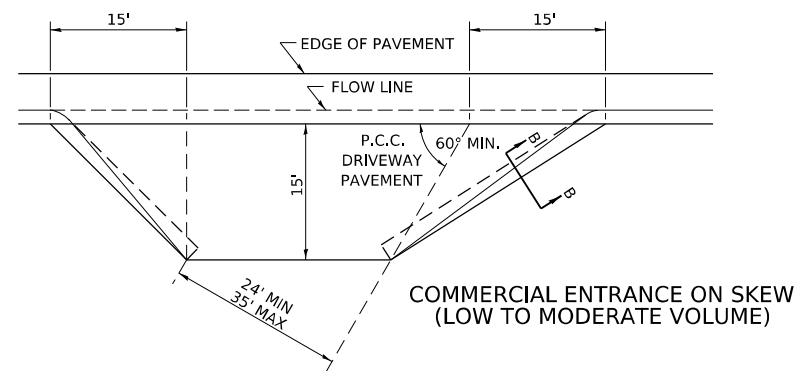


LOW TO MODERATE VOLUME COMMERCIAL ENTRANCE

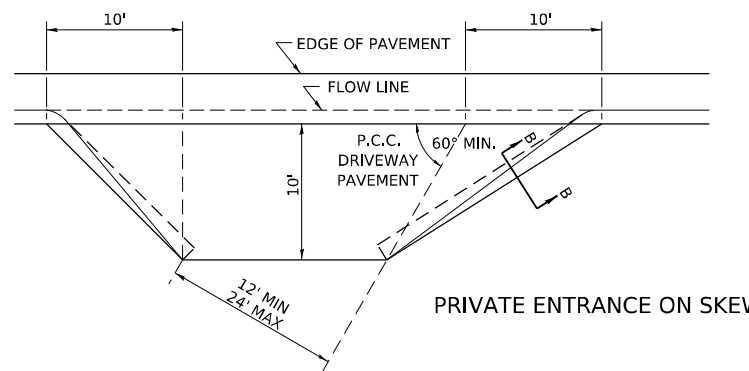


PRIVATE ENTRANCE

NOTE: CURVED ENTRANCE RETURNS MAY BE USED FOR LOW TO MODERATE VOLUME LOCATIONS WITH REVIEW ON A CASE-BY-CASE BASIS.



COMMERCIAL ENTRANCE ON SKEW
(LOW TO MODERATE VOLUME)



PRIVATE ENTRANCE ON SKEW

7-19-18
 1-03-18
 6-27-14
 12-07-10

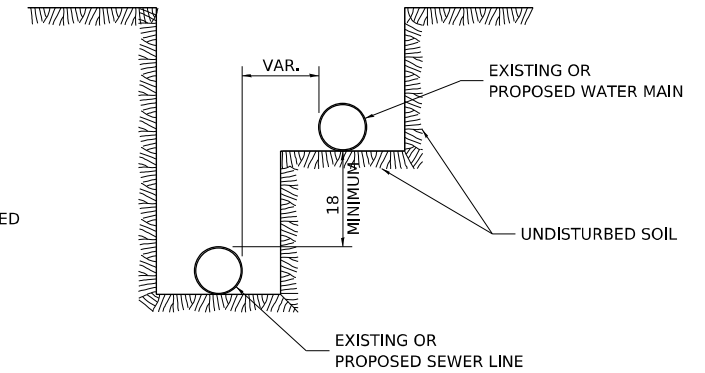
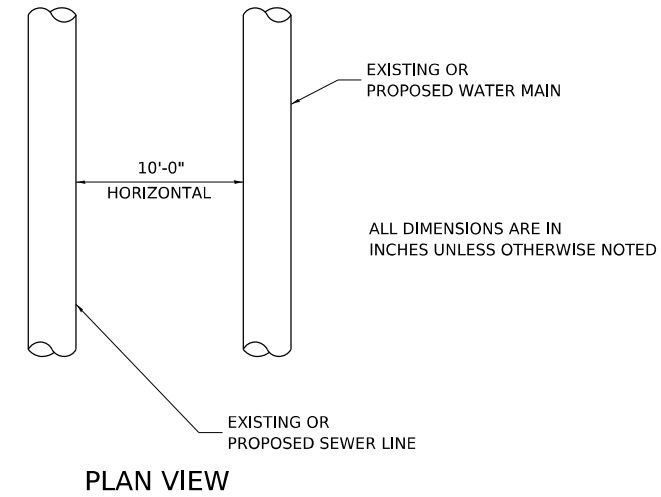
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		CHECKED -	REVISED - 5-09-14		39	(201-3)K	WINNEBAGO	854	741		
	PLOT SCALE = 0.167" / 1'	DATE - 12/14/2022	REVISED -		CONTRACT NO. 64R71						
	PLOT DATE = 10/12/2023		REVISED -		ILLINOIS FED. AID PROJECT						

SEWER AND WATER MAIN CROSSINGS

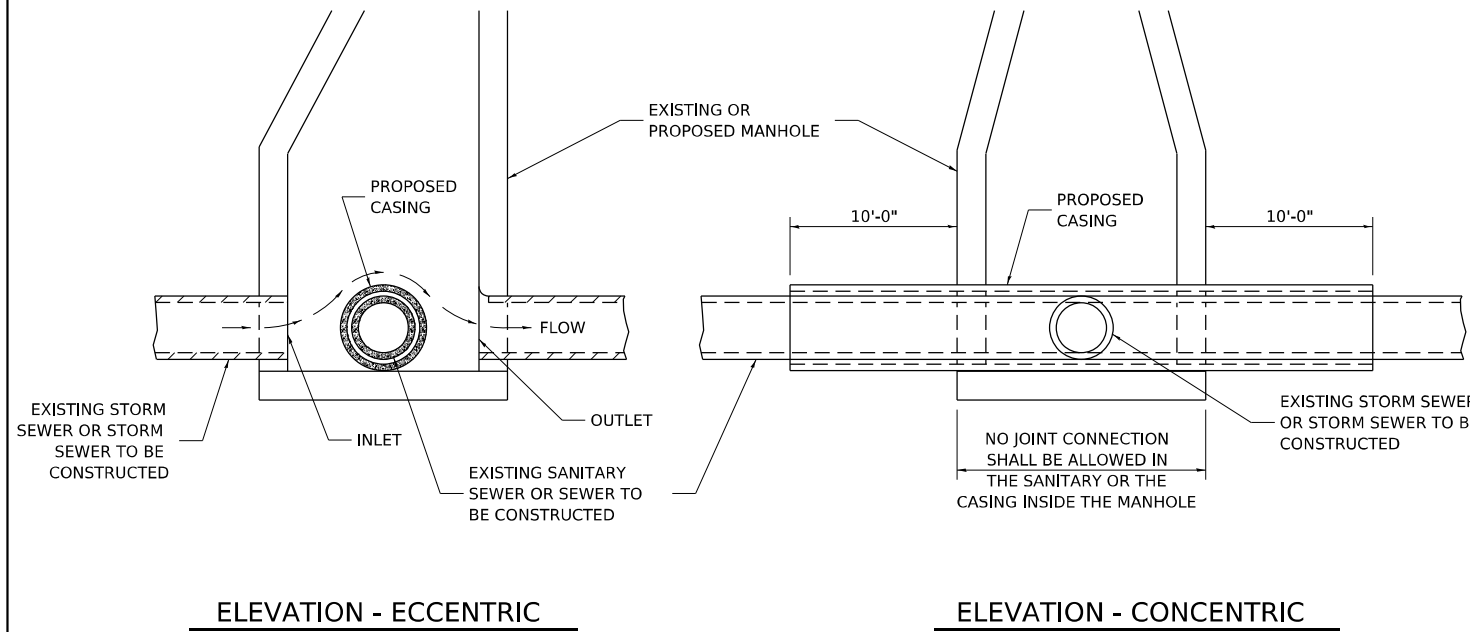
THIS DETAIL IS FOR UNKNOWN UTILITIES UNLESS QUANTITIES ARE INCLUDED IN THE PLANS THE EXTRA WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10'-0" OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION REQUIRED.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10'-0" FROM EXISTING WATER (OR SEWER) DETAILS BELOW SHALL APPLY.



WATER AND SEWER HORIZONTAL SEPARATION REQUIREMENTS

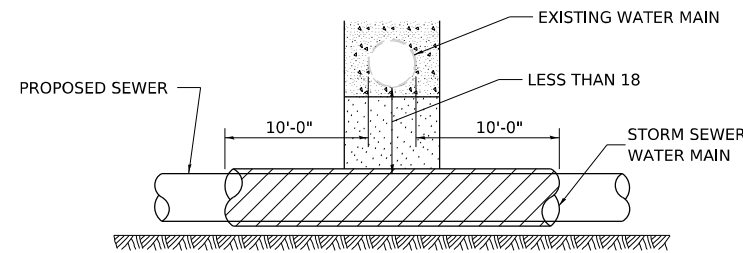


AT GRADE CROSSING OF SANITARY AND STORM SEWER

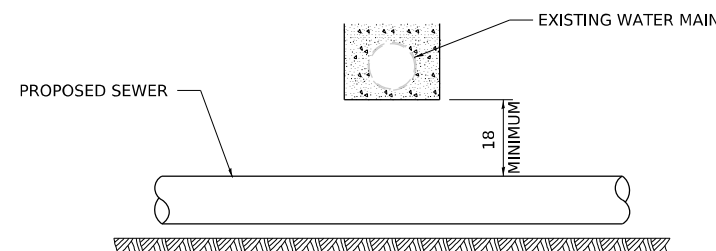
CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN
 PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



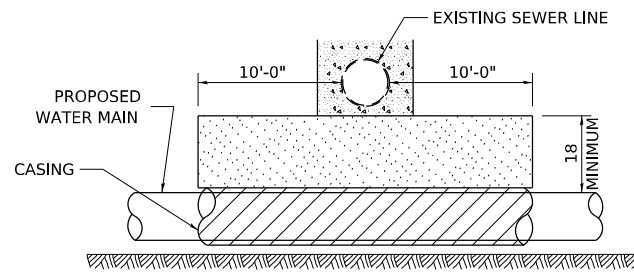
PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH
 MAINTAIN 18 MINIMUM VERTICAL SEPARATION FOR 10 FT. HORIZONTALLY



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

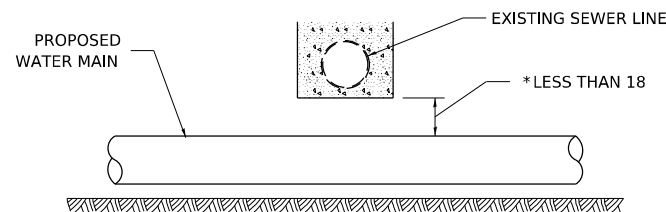
PROPOSED SEWER LINE BELOW EXISTING WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT
 PLACE TRENCH BACKFILL FOR 10 FT. ON EITHER SIDE OF SEWER LINE



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH
 MAINTAIN 18 MINIMUM VERTICAL SEPARATION FOR 10 FT. HORIZONTALLY

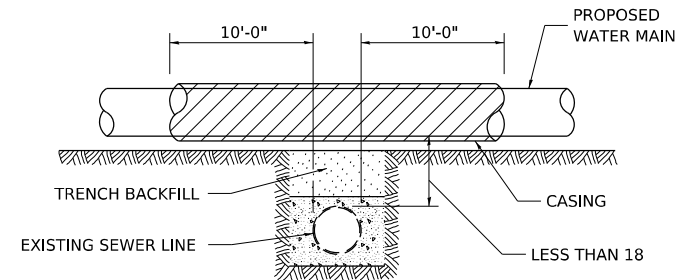


* NOT ALLOWED
 MUST MAINTAIN 18 VERTICAL SEPARATION

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE

POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING AND SEWER

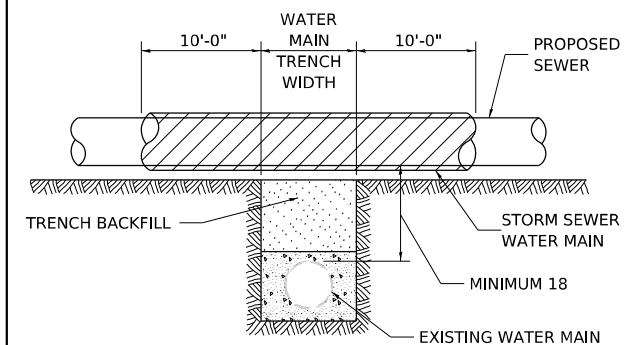


CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE

PROVIDE ADEQUATE SUPPORT FOR SEWER TO PREVENT SETTLING AND BREAKING THE WATER MAIN.



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

EXISTING WATER MAIN BELOW PROPOSED SEWER LINE WITH MINIMUM 18 VERTICAL SEPARATION

USER NAME = jworthington	DESIGNED -	REVISED - 8-03-17
FILE NAME: pw:\bensch-pw.bentley.com\bensch-pw-01\Documents\10800s\10800_00\Eng_Docs\CAD_Sheets\Standards\264813-DDI-sh-D2_Standards-03	CHECKED -	REVISED - 1-05-16
PLOT SCALE = 0.167" / 1"	DATE - 12/14/2022	REVISED - 8-27-13
PLOT DATE = 10/12/2023		REVISED - 10-17-11

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

REGION 2/ DISTRICT 2 STANDARD

SCALE: N/A SHEET 13 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINNEBAGO	854	742
CONTRACT NO. 64R71			ILLINOIS FED. AID PROJECT	

CONCRETE COLLARS FOR PIPE OR BOX CULVERT EXTENSIONS

Bill of Materials

STRUCTURE ID	h bar	U bar dimensions				U ₁ bar dimensions				REINF. BARS	EXPANSION BOLTS 3/4"	CONCRETE COLLAR
	Quantity	X	Y	Length	Quantity	X	Z	Length	Quantity	LBS	EACH	Cu. Yds.
K595	16	4.33	2.83	10.00	8	--	--	--	--	69.47	8	1.07
K597	16	4.33	2.83	10.00	8	--	--	--	--	69.47	8	1.07
K905	16	4.33	2.83	10.00	8	--	--	--	--	69.47	8	1.07
K907	16	4.33	2.83	10.00	8	--	--	--	--	69.47	8	1.07
All h bars 18 Long									Total	278	32	5

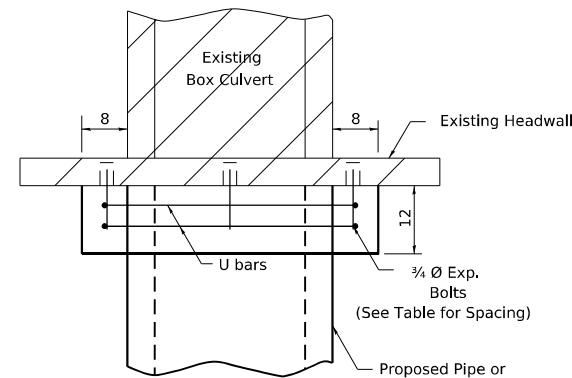
General Notes

Concrete Collars shall be constructed of Class SI Concrete in accordance with Section 503 of the Standard Specifications

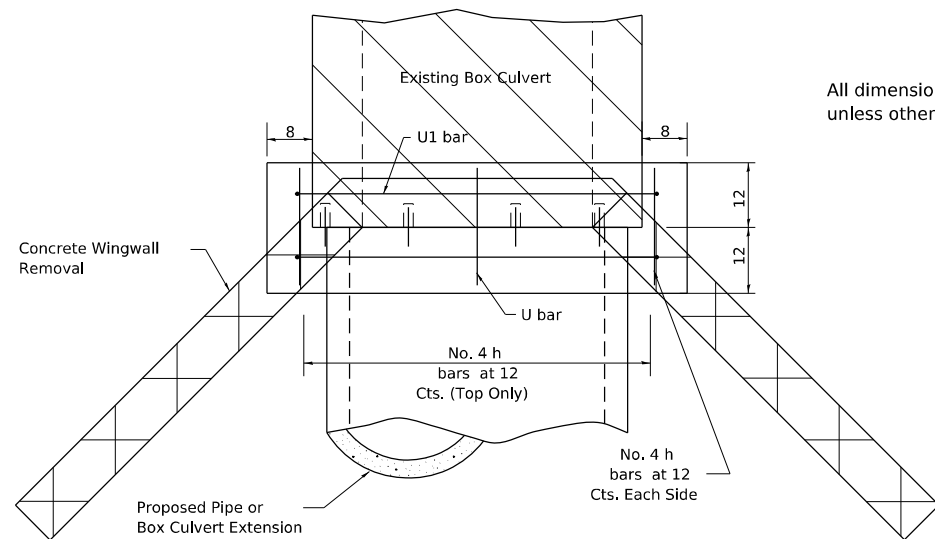
Reinforcement bars shall conform to Section 508 of the Standard Specifications.

Expansion bolts shall be 3/4" Ø hooked bolts and shall conform to Section 540 of the Standard Specifications.

The concrete will be paid for at the contract unit price per cubic yard for CONCRETE COLLAR. Reinforcement will be paid for at the contract unit price per pound for REINFORCEMENT BARS. Expansion Bolts, when required, will be paid for at the contract unit price each for EXPANSION BOLTS 3/4" inch, which price shall include furnishing, drilling holes, and installing the expansion bolts complete in place. These bolts shall extend at least 9 inches into the new concrete.

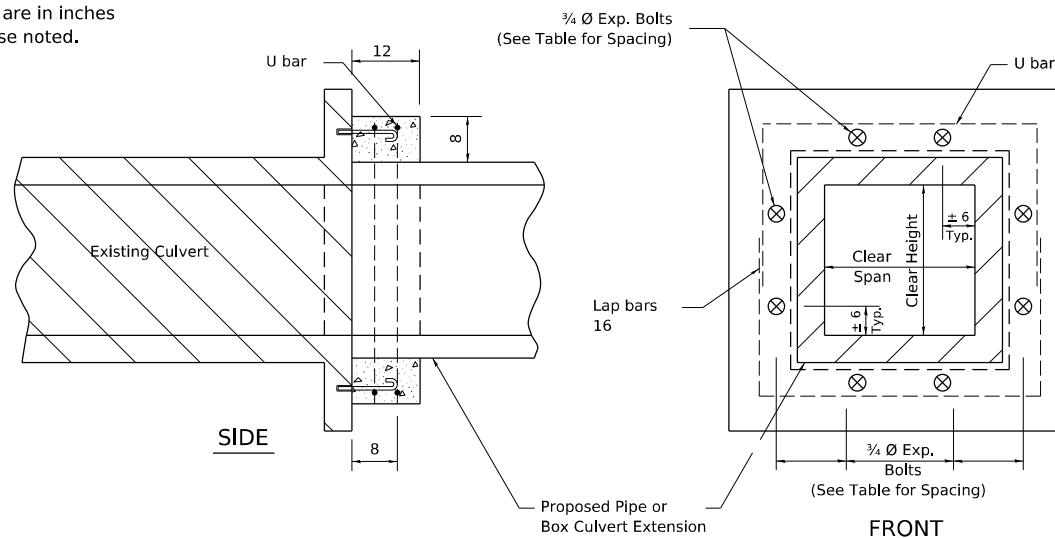


PLAN OF CULVERT WITH STRAIGHT HEADWALL



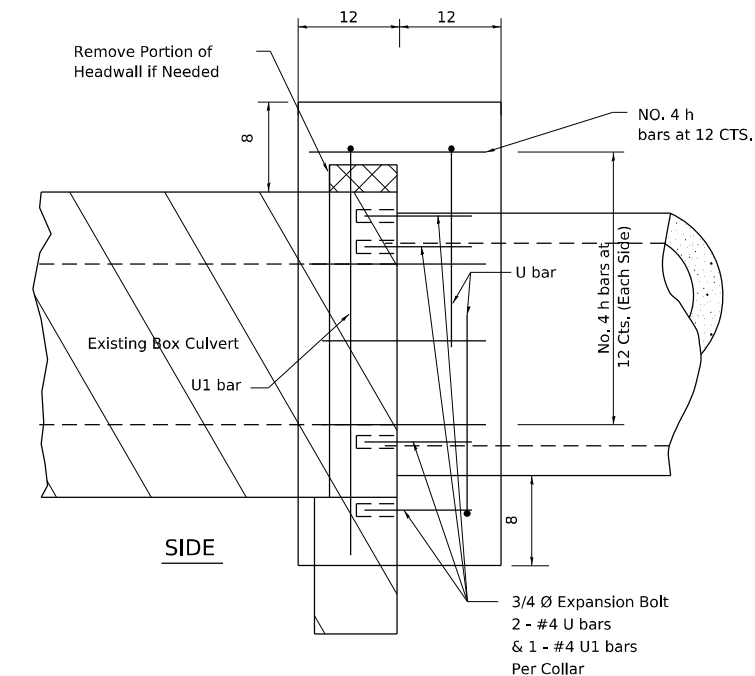
PLAN OF CULVERT WITH ANGLED WING WALLS

All dimensions are in inches unless otherwise noted.

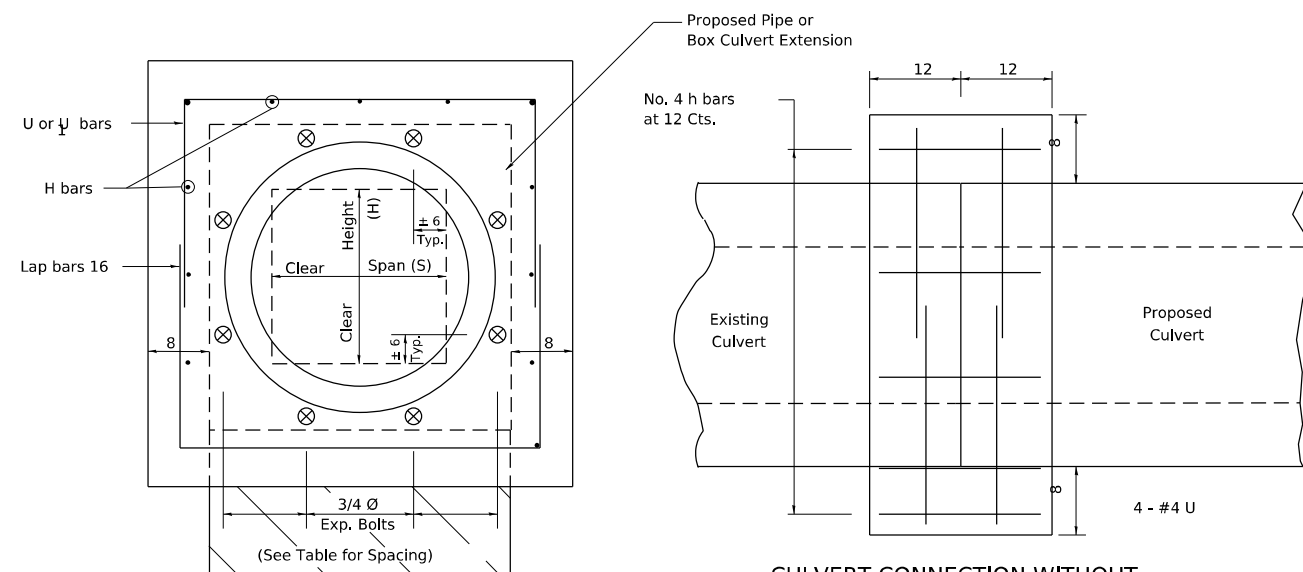


SIDE

FRONT

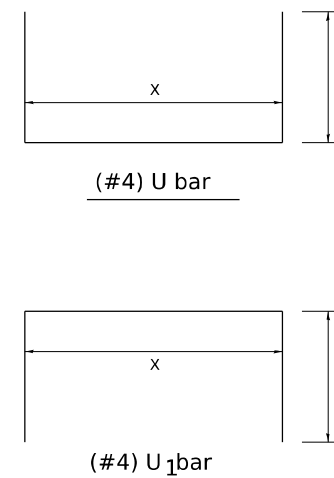


SIDE



FRONT

CULVERT CONNECTION WITHOUT EXISTING HEADWALL



(#4) U bar

(#4) U₁ bar

PLACEMENT DETAILS FOR EXPANSION BOLTS

H or S	NUMBER OF EXPANSION BOLTS REQUIRED PER SIDE			
	EXTENSIONS ≤ 15'		EXTENSIONS > 15'	
	NUMBER *	SPACING	NUMBER *	SPACING
24	**	**	**	**
30	2	18	2	18
36	2	24	2	24
48	3	18	3	18
60	4	16	3	24
72	5	15	4	20
84	5	18	4	24
96	6	17	5	21
108	6	19	5	24
120	7	18	6	21
132	8	17	6	24
144	8	19	7	22

* Expansion bolts based on non-skewed culverts
 ** Minimum one expansion bolt at each corner

Example:
 6' x 4' box culvert to be extended 18' at one end only.

From table find
 6' side requires 4 - 3/4" Ø expansion bolts at 20" cts.
 4' side requires 3 - 3/4" Ø expansion bolts at 18" cts.

Total Number required
 (4+3)2 = 14 - 3/4" Ø expansion bolts.

USER NAME = jworthington	DESIGNED - 1-05-16	REVISED - 6-27-14
FILE NAME: pw\benesch-pw.bentley.com\benesch-pw-01\Documents\10800s\10800.00\Eng_Docs\CAD_Sheets\Drawings\264813-DDI-shd-02_Standards-01.dwg	CHECKED - 10-17-11	REVISED - 10-17-11
PLOT SCALE = 0.167" / in.	DATE - 12/14/2022	REVISED -
PLOT DATE = 10/12/2023		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

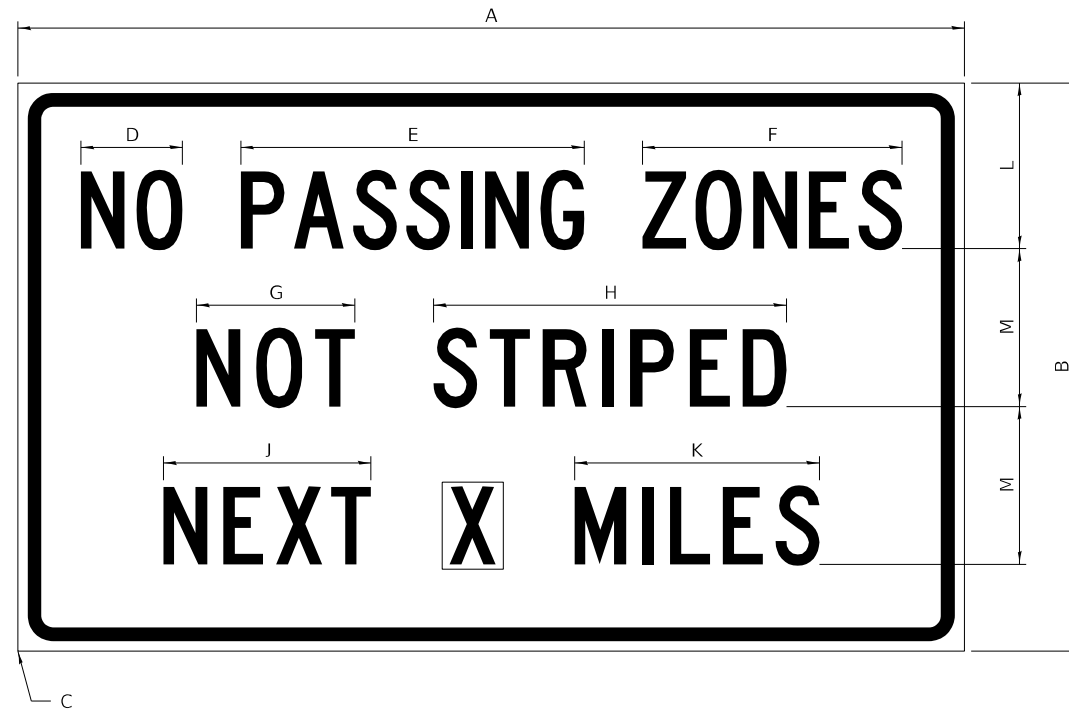
REGION 2 / DISTRICT 2 STANDARD

SCALE: SHEET 14 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINNEBAGO	854	743
CONTRACT NO. 64R71			ILLINOIS FED. AID PROJECT	

WORK ZONE SIGN DETAILS

ILLINOIS STANDARD G20-I100



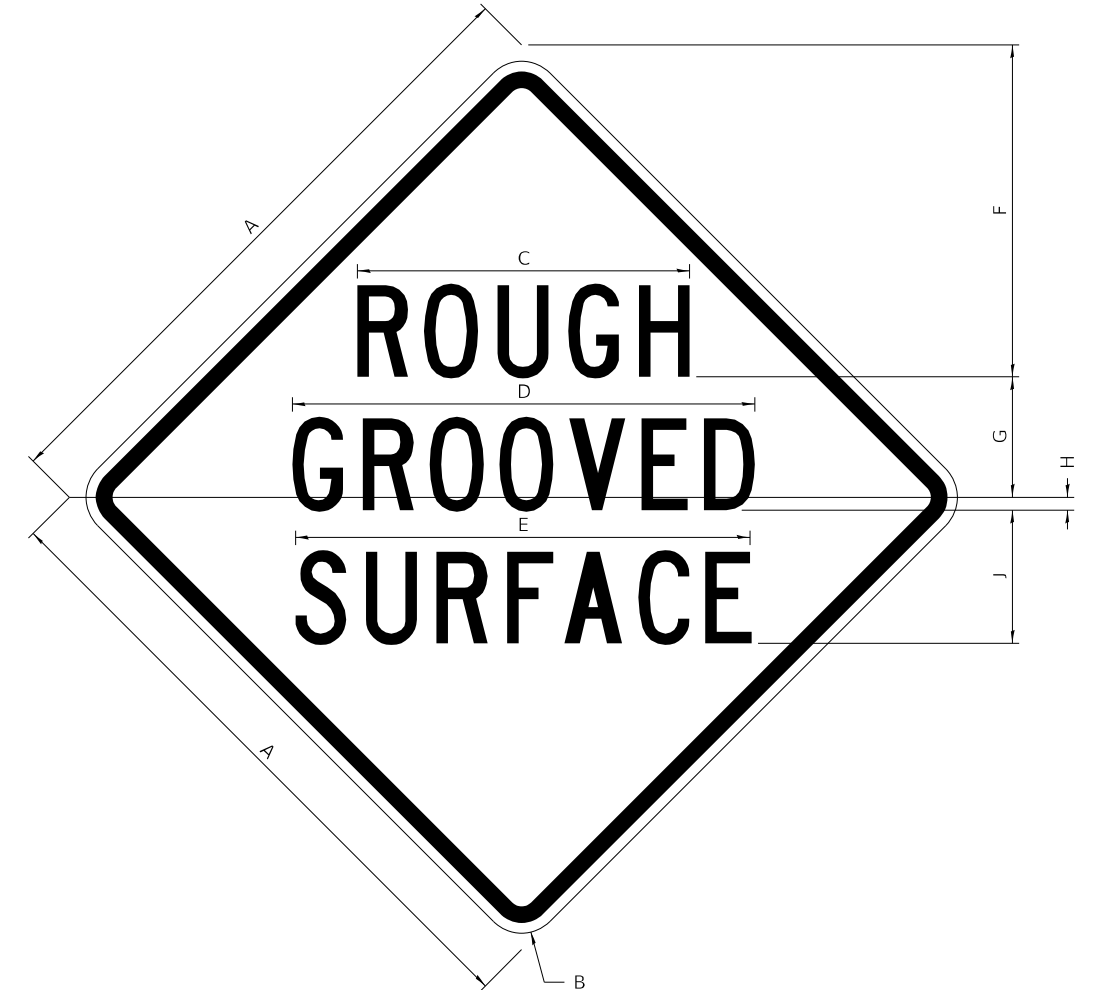
COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
60 x 36	60.00	36.00	2.25	6.4	21.80	16.40	10.00	22.40	13.20	15.50	10.50	10.00

SIGN SIZE	SERIES BY LINE			MARGIN	BORDER
	1	2	3		
60 x 36	5C	5C	5C	0.625	0.875

Sign not to scale

ILLINOIS STANDARD W8-I107



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48 x 48	48.00	3.00	25.00	34.80	34.20	24.94	9.00	1.00	10.00

SIGN SIZE	SERIES BY LINE			MARGIN	BORDER
	1	2	3		
48 x 48	7C	7C	7C	1.250	0.750

Sign not to scale

GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

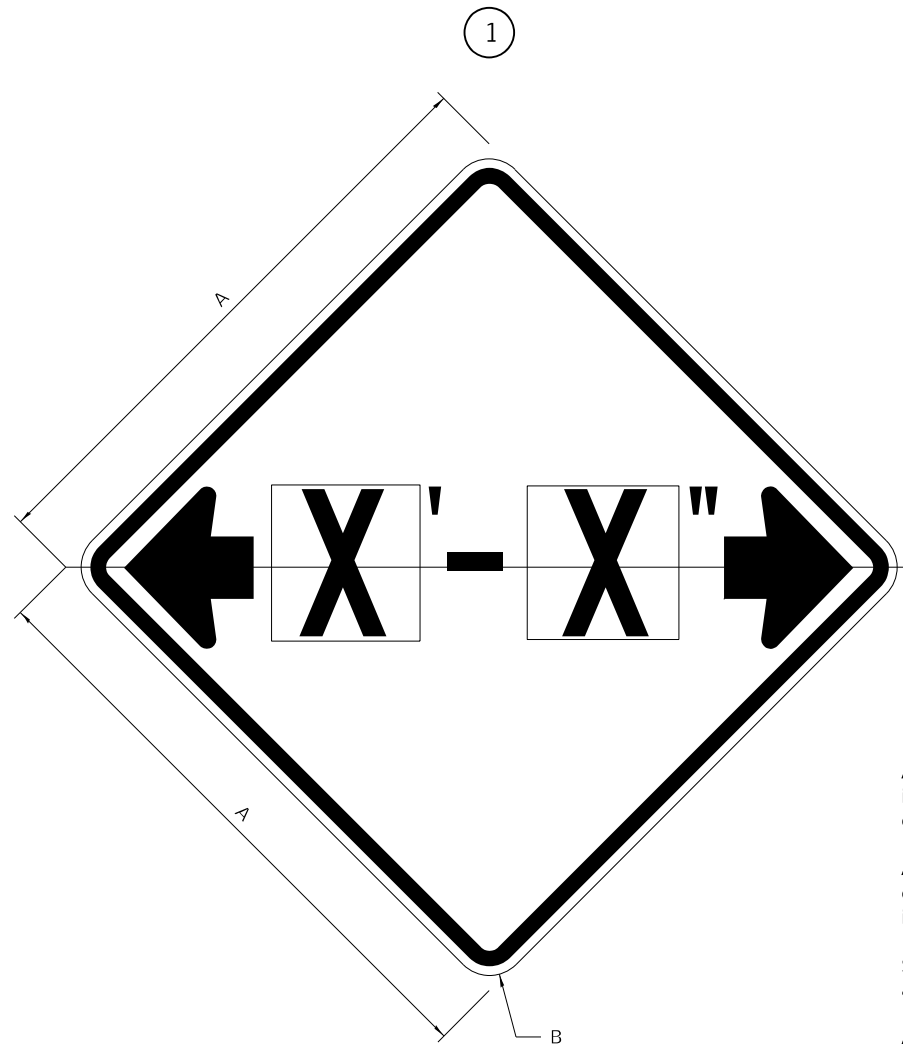
Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

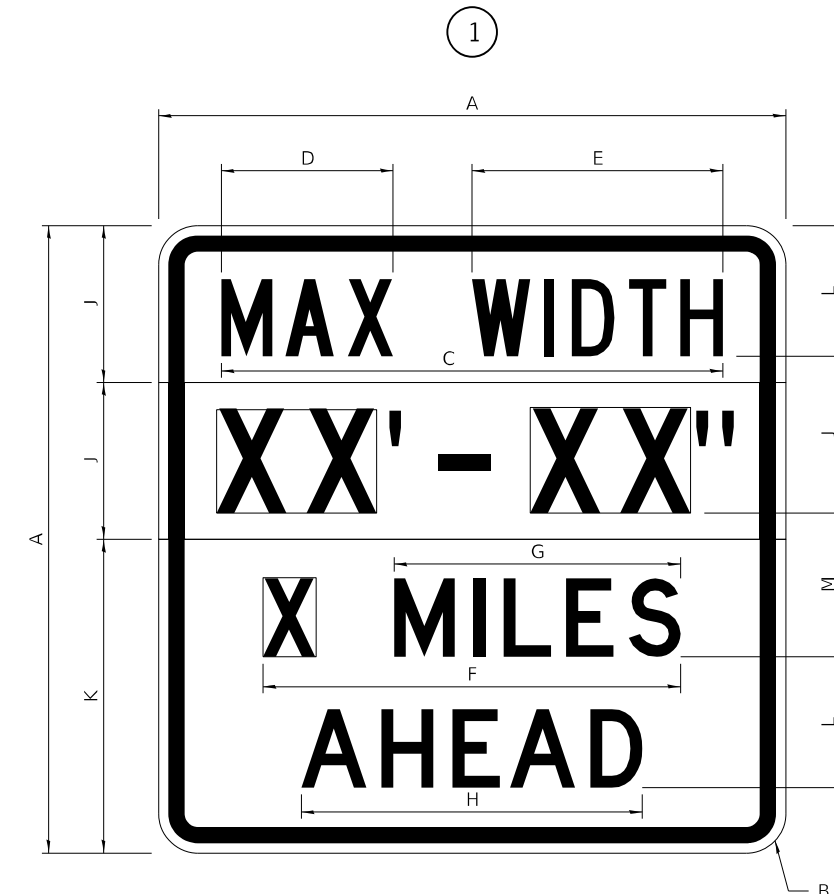
FILE NAME: pw\benesch-pw.bentley.com:benesch	USER NAME = jworthington	DESIGNED -	REVISED - 3-02-16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2/ DISTRICT 2 STANDARD			F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 0.167" / in.	CHECKED -	REVISED -					39	(201-3)K	WINNEBAGO	854	744
	PLOT DATE = 10/12/2023	DATE - 12/14/2022	REVISED -		SCALE: N/A SHEET 15 OF 26 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT CONTRACT NO. 64R71				
WORK ZONE SIGN DETAILS SHEET 1 OF 4 34.1												

WORK ZONE SIGN DETAILS

ILLINOIS STANDARD W12-I102



ILLINOIS STANDARD W12-I103



GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

COLOR LEGEND AND BORDER BACKGROUND BLACK FL ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS	
	A	B
48 x 48	48.00	3.00

① Illinois Standard signs W12-I102 and W12-I103 shall be used as described in the special provisions.

SIGN SIZE	SERIES BY LINE	MARGIN	BORDER
	1		
48 x 48	12C	0.750	1.250

Sign not to scale

COLOR LEGEND AND BORDER BACKGROUND BLACK WHITE NON-REFLECTORIZED REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
48 x 48	48.00	3.00	38.40	13.20	19.20	32.00	22.00	26.20	12.00	24.00	10.00	11.00

SIGN SIZE	SERIES BY LINE				MARGIN	BORDER
	1	2	3	4		
48 x 48	6C	8D	6D	6D	0.750	1.250

Sign not to scale

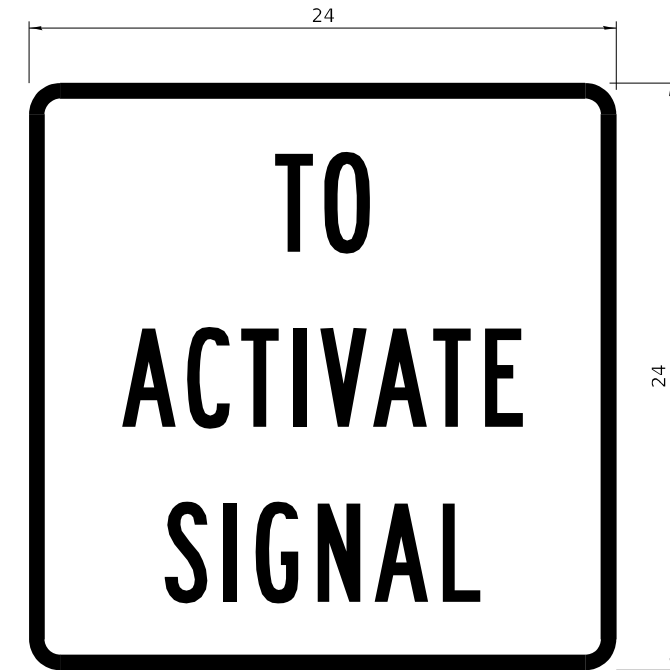
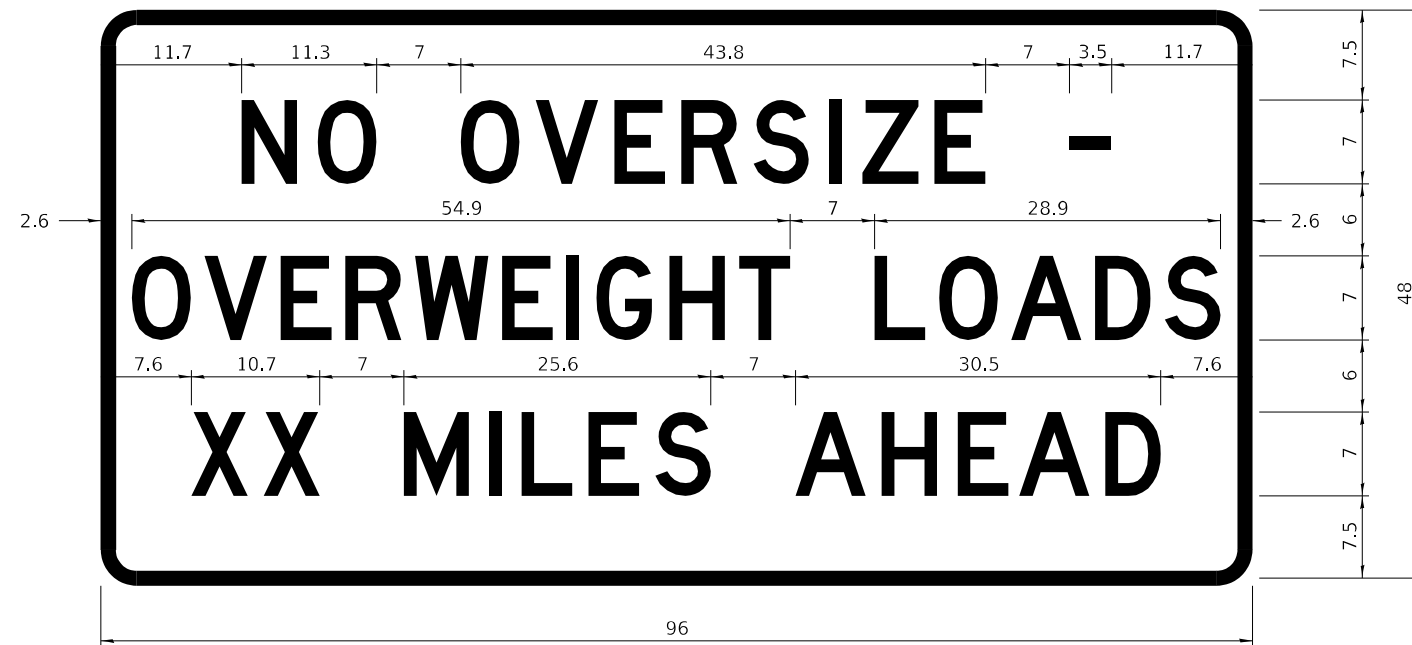
XX'-XX" WIDTH AND X MILES ARE VARIABLE TOP AND BOTTOM OF BACKGROUND WHITE

USER NAME = jworthington	DESIGNED -	REVISED - 3-02-16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2/ DISTRICT 2 STANDARD	F.A.J. RTE. 39	SECTION (201-3)K	COUNTY WINNEBAGO	TOTAL SHEETS 854	SHEET NO. 745		
FILE NAME: pwc:\benesch-pw.com\benesch-pw-01\Documents\10800s\10800.00\Eng_Docs\CAD_Sheet\DRAWINGS\Standards\264813-DDI-sht-02_Standards-02.dwg	CHECKED -	REVISED -			SCALE:	SHEET 16 OF 26 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 64R71			
PLOT SCALE = 0.167" / in.	DATE - 12/14/2022	REVISED -									
PLOT DATE = 10/12/2023											

WORK ZONE SIGN DETAILS

ROAD CLOSED TO OVERSIZED LOADS

STOP LINE SIGN FOR TEMPORARY SIGNALS



COLOR	LEGEND AND BORDER BACKGROUND	BLACK ORANGE	NON-REFLECTORIZED REFLECTORIZED
-------	------------------------------	--------------	---------------------------------

COLOR	LEGEND AND BORDER BACKGROUND	BLACK WHITE	NON-REFLECTORIZED REFLECTORIZED
-------	------------------------------	-------------	---------------------------------

Permit Loads - Loads Over 13 Feet; 3.0" Radius, 1.3" Border;
 [NO OVERSIZE -] D; [OVERWEIGHT LOADS] D 85% spacing; [XX MILES AHEAD] D;
 Table of letter and object lefts.

SIGN SIZE	SERIES BY LINE		
	1	2	3
24 x 24	4C	4C	4C

N	O	O	V	E	R	S	I	Z	E	-
11.7	18.1	30.0	36.2	42.8	48.4	54.4	60.7	63.5	69.5	80.8

O	V	E	R	W	E	I	G	H	T	L	O	A	D	S
2.6	8.6	15.0	20.4	26.2	33.4	38.8	41.3	47.4	53.2	64.5	69.9	75.9	82.9	88.7

X	X	M	I	L	E	S	A	H	E	A	D
7.6	13.6	25.3	32.3	35.1	40.6	46.2	57.9	65.1	71.4	76.6	83.7

Sign not to scale

Sign not to scale

GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

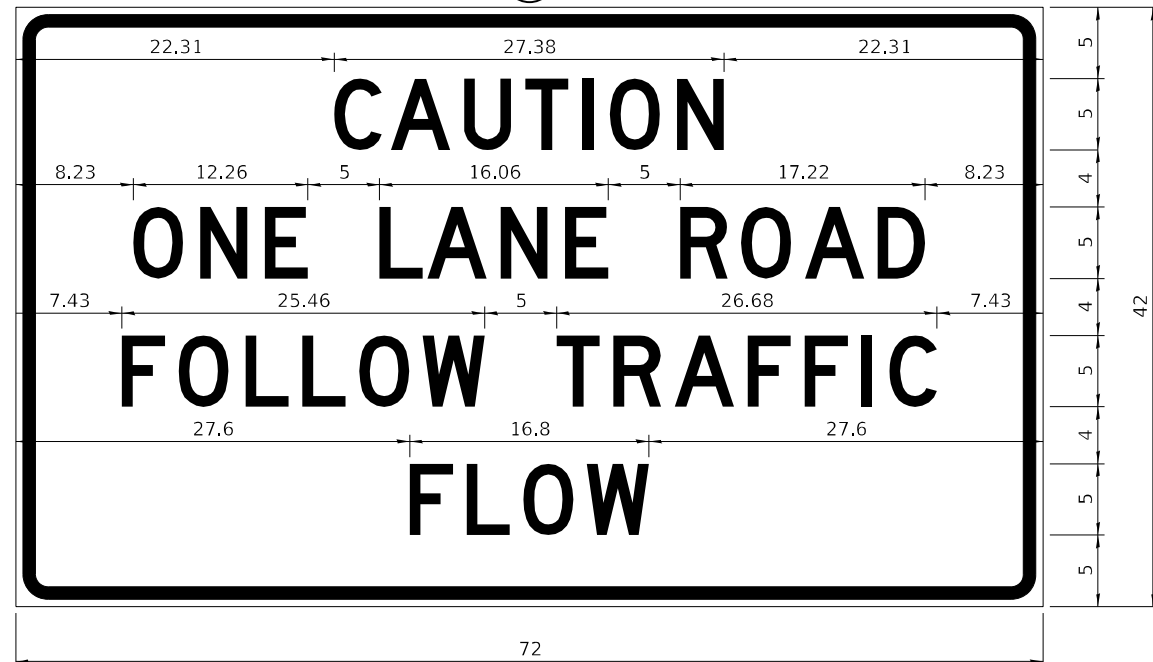
All dimensions are in inches unless otherwise noted.

FILE NAME: pwc:\benesch-pw.bentley.com\benesch	USER NAME = jworthington	DESIGNED -	REVISED - 3-02-16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2/ DISTRICT 2 STANDARD	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 0.167" / in.	CHECKED -	REVISED -			39	(201-3)K	WINNEBAGO	854	746
PLOT DATE = 10/12/2023	DATE - 12/14/2022	REVISED -		SCALE:	SHEET 17 OF 26 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 64R71		

**ENTRANCE SIGN FOR USE
WITH TEMPORARY SIGNALS**

WORK ZONE SIGN DETAILS

2



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

2.25" Radius, 0.88" Border, 0.50" Indent;
[CAUTION] D; [ONE LANE ROAD] D;
[FOLLOW TRAFFIC] D; [FLOW] D

2 This sign shall be installed at entrances located between the temporary signals as shown in the staging plans.

Table Of Widths And Spaces

22.31	C	3.36	0.62	A	4.18	0.94	U	3.36	0.94	T	3.04	0.94	I	0.78	1.17	O	3.52	1.17	N	3.36	22.31
-------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	-------

8.23	O	3.51	1.17	N	3.36	1.18	E	3.04
------	---	------	------	---	------	------	---	------

5.00	L	3.05	0.31	A	4.18	0.94	N	3.36	1.17	E	3.05
------	---	------	------	---	------	------	---	------	------	---	------

5.00	R	3.36	0.93	O	3.52	0.94	A	4.18	0.93	D	3.36	8.23
------	---	------	------	---	------	------	---	------	------	---	------	------

7.43	F	3.04	0.94	O	3.52	1.17	L	3.04	0.94	L	3.05	0.94	O	3.51	0.94	W	4.37
------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------

5.00	T	3.05	0.94	R	3.36	0.94	A	4.18	0.93	F	3.05	0.94	F	3.04	0.94	I	0.78	1.18	C	3.35	7.43
------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------

27.60	F	3.05	0.94	L	3.04	0.94	O	3.52	0.93	W	4.38	27.60
-------	---	------	------	---	------	------	---	------	------	---	------	-------

Sign not to scale

GENERAL NOTES

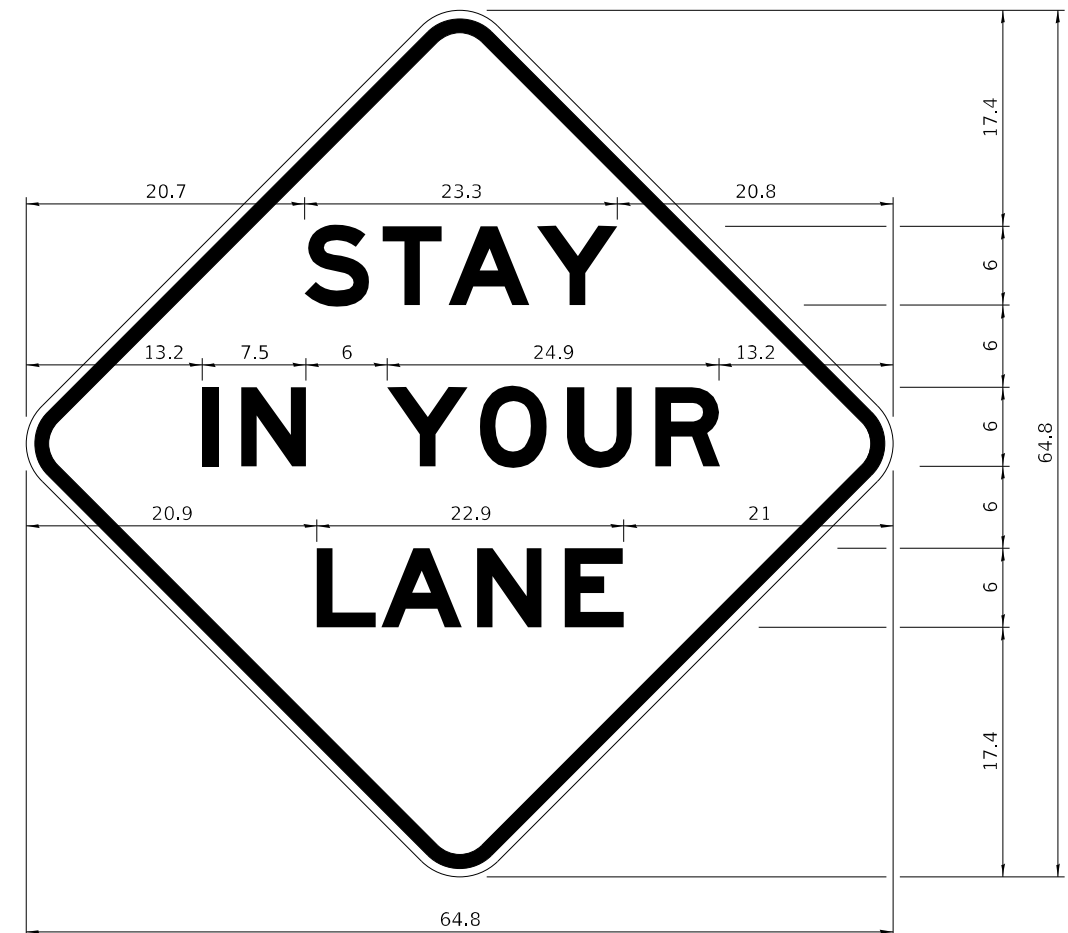
All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

STAY IN YOUR LANE



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

48.0" across sides 3.8" Radius, 1.0" Border, 0.6" Indent;
"STAY" E Mod; "IN YOUR" E Mod; "LANE" E Mod;

Table of Letter and Object Lefts

S	T	A	Y
20.7	26.8	31.6	38.0

I	N	Y	O	U	R
13.2	15.9	26.7	33.9	40.5	46.8

L	A	N	E
20.9	25.8	33.1	39.4

Sign not to scale

USER NAME = jworthington	DESIGNED -	REVISED - 3-02-16
FILE NAME: p:\w\benesch-pw\benesch.com\benesch-pw-01\Documents\10800s\10800.00\Eng_Docs\CAD_Sheet\Drawings\264813-DDI-sht-D2 Standards-03.dwg	CHECKED -	REVISED -
PLOT SCALE = 0.167" / in.	DATE - 12/14/2022	REVISED -
PLOT DATE = 10/12/2023		

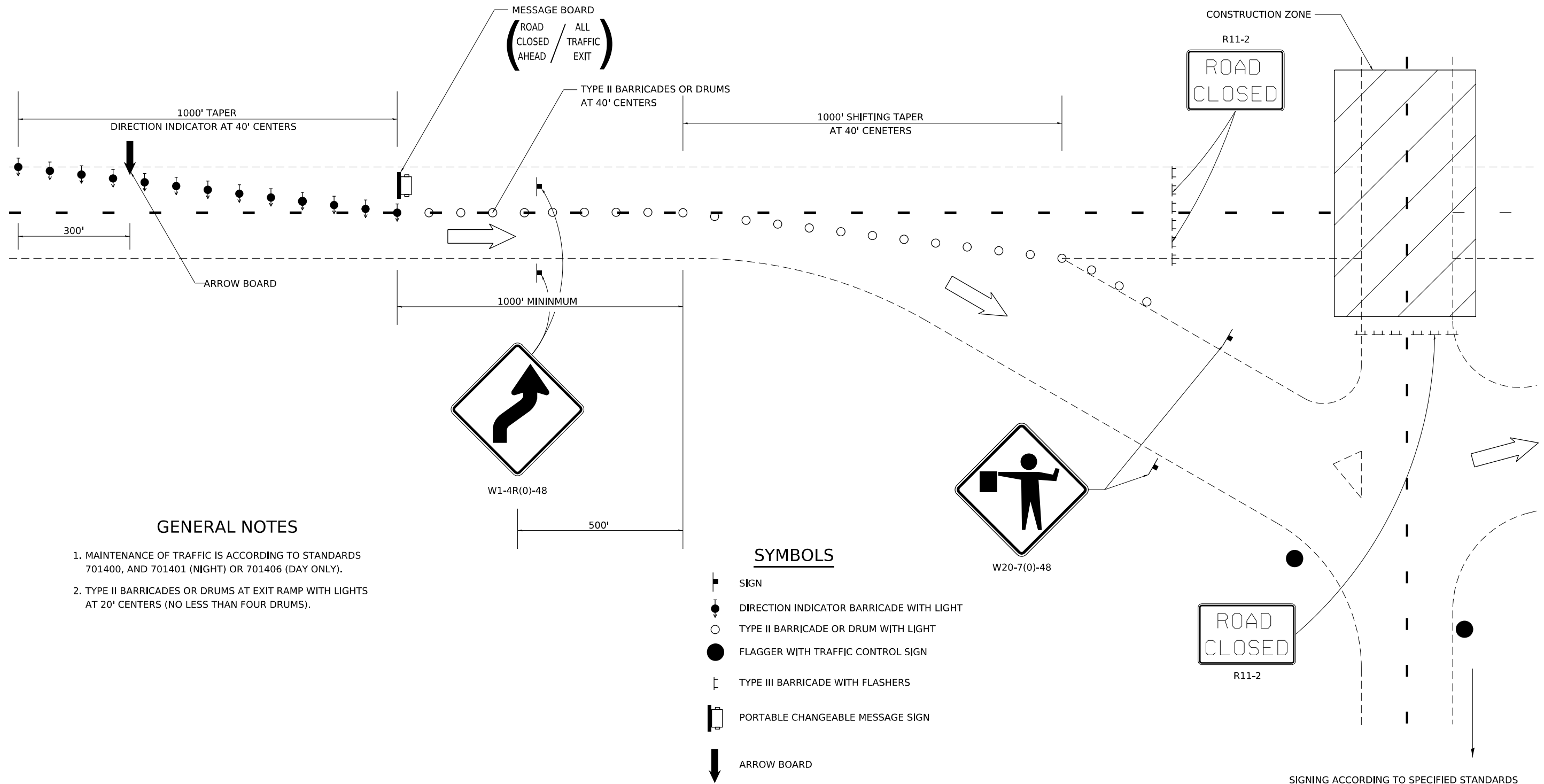
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

REGION 2/ DISTRICT 2 STANDARD

SCALE: SHEET 18 OF 26 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINNEBAGO	854	747
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				








TEMPORARY ROAD CLOSURE EXPRESSWAY



GENERAL NOTES

1. MAINTENANCE OF TRAFFIC IS ACCORDING TO STANDARDS 701400, AND 701401 (NIGHT) OR 701406 (DAY ONLY).
2. TYPE II BARRICADES OR DRUMS AT EXIT RAMP WITH LIGHTS AT 20' CENTERS (NO LESS THAN FOUR DRUMS).

SYMBOLS

-  SIGN
-  DIRECTION INDICATOR BARRICADE WITH LIGHT
-  TYPE II BARRICADE OR DRUM WITH LIGHT
-  FLAGGER WITH TRAFFIC CONTROL SIGN
-  TYPE III BARRICADE WITH FLASHERS
-  PORTABLE CHANGEABLE MESSAGE SIGN
-  ARROW BOARD

USER NAME = jworthington	DESIGNED -	REVISED -
PLOT SCALE = 0.167" / 1"	CHECKED -	REVISED -
PLOT DATE = 10/12/2023	DATE - 12/14/2022	REVISED -

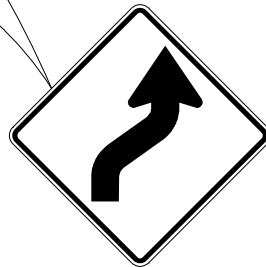
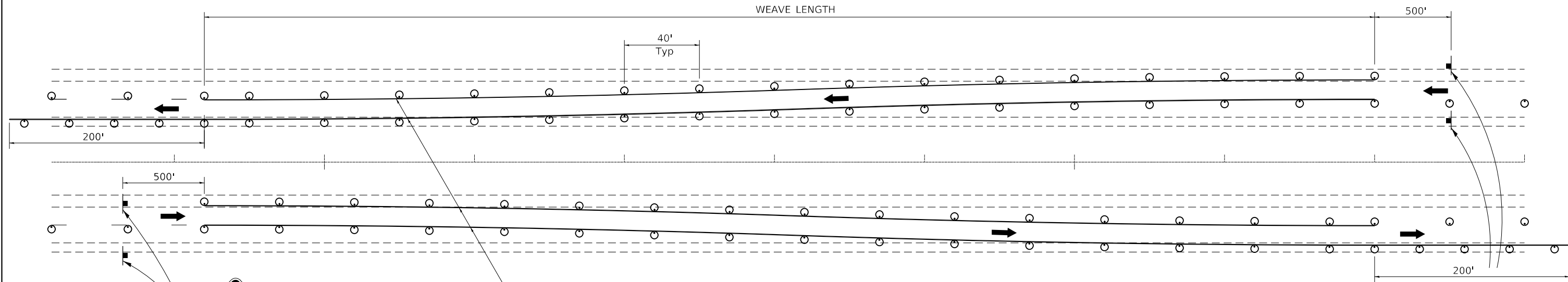
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2/ DISTRICT 2 STANDARD
§C3001C

SCALE: SHEET SE3001E OF SF3001FSHEETS STA. TO STA.

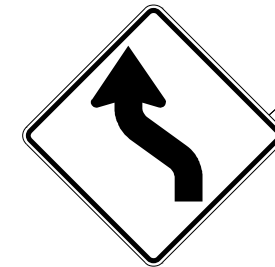
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINNEBAGO	854	748
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64R71	

TRAFFIC CONTROL TYPICAL WEAVE



W1-4R(O)-48

Temporary Pavement Marking required if Typical Weave is used for 14 days or more.



W1-4L(O)-48

SYMBOLS

- DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- ▬ SIGN

STANDARD WEAVE CONDITIONS FOR DIFFERENT SPEED LIMITS

POSTED SPEED LIMIT	WEAVE LENGTH
65 MPH OR HIGHER	780 FT.
55 MPH	660 FT.
45 MPH	540 FT.

GENERAL NOTES:

USE ON LONG 4-LANE PROJECTS WHERE THE CONTRACTOR MAY CHANGE A PORTION OF THE WORK TO THE OPPOSITE LANE.

USE WHERE THE PROJECT IS ADJACENT TO ANOTHER AND THE CONTRACTOR COULD BE WORKING ON DIFFERENT LANES.

TEMPORARY PAVEMENT MARKING SHALL BE USED WHEN TYPICAL WEAVE IS USED FOR 14 DAYS OR MORE.

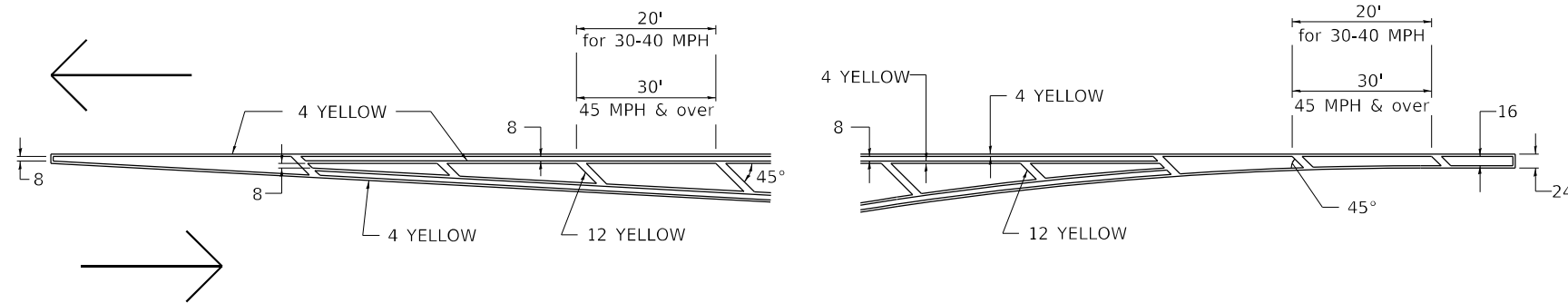
TRAFFIC CONTROL TYPICAL WEAVE SHALL BE INCLUDED IN THE COST OF THE SPECIFIC TRAFFIC CONTROL STANDARDS OF ITEMS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

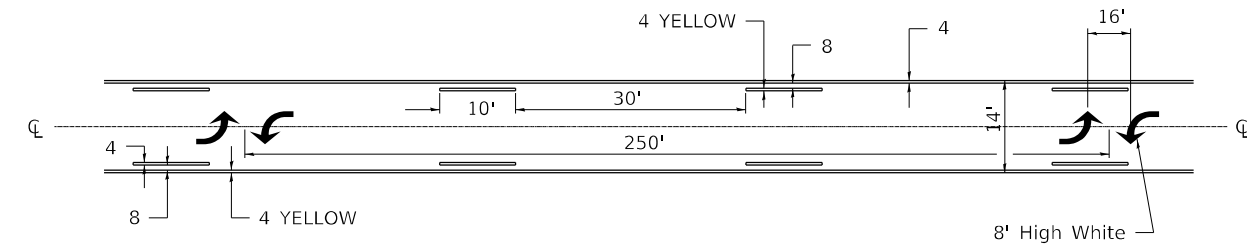
FILE NAME: p:\w\benesch-pw\benesch.com\benesch	USER NAME = jworthington	DESIGNED -	REVISED - 1-05-16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2/ DISTRICT 2 STANDARD	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 0.167" / ft.	CHECKED -	REVISED - 6-27-14			39	(201-3)K	WINNEBAGO	854	749
	PLOT DATE = 10/12/2023	DATE - 12/14/2022	REVISED - 8-27-13		SCALE: N/A	SHEET 20 OF 26 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 64R71		

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

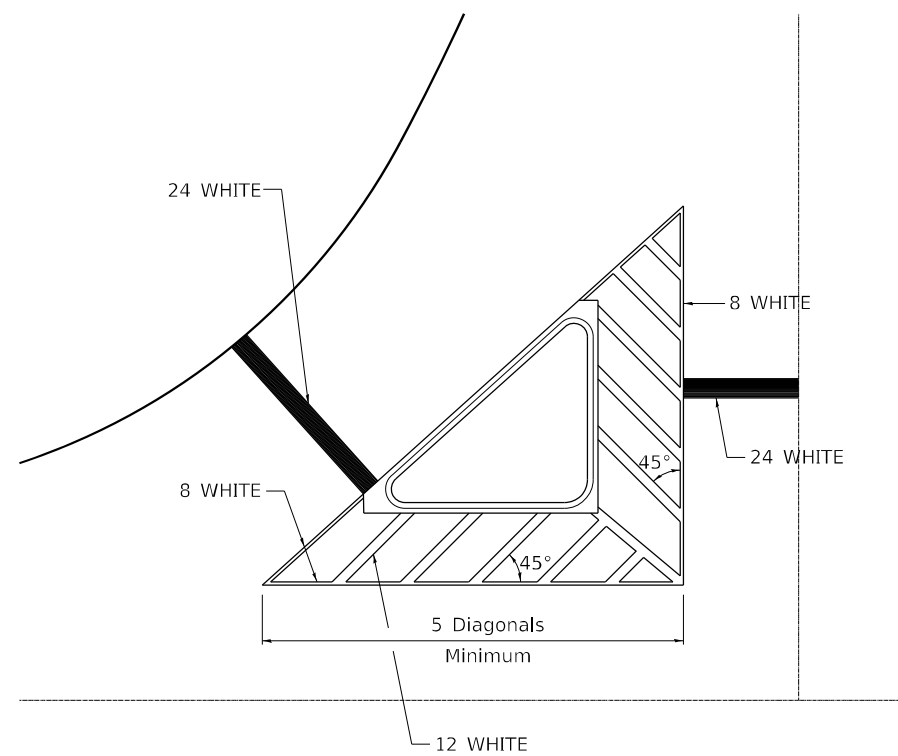


MEDIAN PAVEMENT MARKING



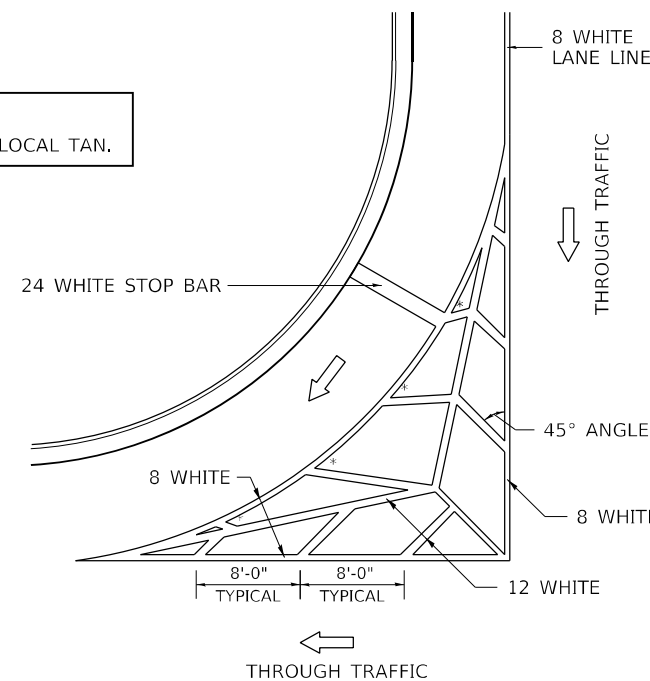
** ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

TYPICAL ISLAND OFFSET SHOULDER WIDTH



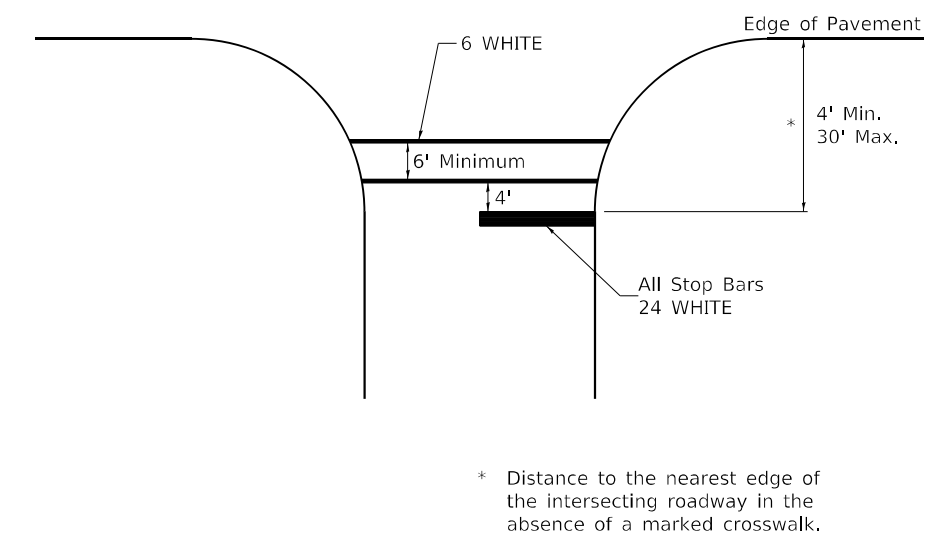
TYPICAL MARKING FOR PAINTED ISLANDS

NOTE:
* 45° TO LOCAL TAN.



STANDARD CROSSWALK MARKING

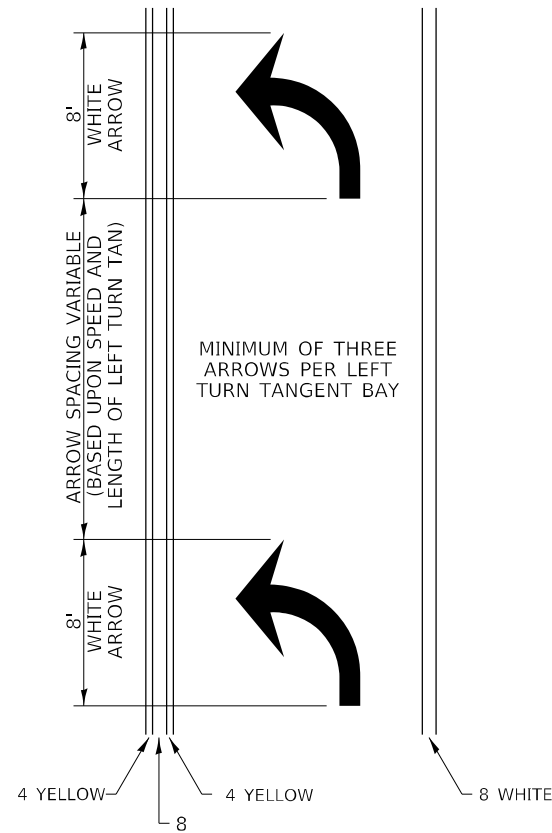
See Schedules for Locations



FILE NAME: pw\benesch-pw.bentley.com:benesch	USER NAME = jworthington	DESIGNED -	REVISED - 6-27-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2/ DISTRICT 2 STANDARD			F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN	DESIGNED	REVISED - 3-05-12					39	(201-3)K	WINNEBAGO	854	750
	PLOT SCALE = 0.167" / ft.	CHECKED -	REVISED -		CONTRACT NO. 64R71							
	PLOT DATE = 10/12/2023	DATE - 12/14/2022	REVISED -		ILLINOIS FED. AID PROJECT							

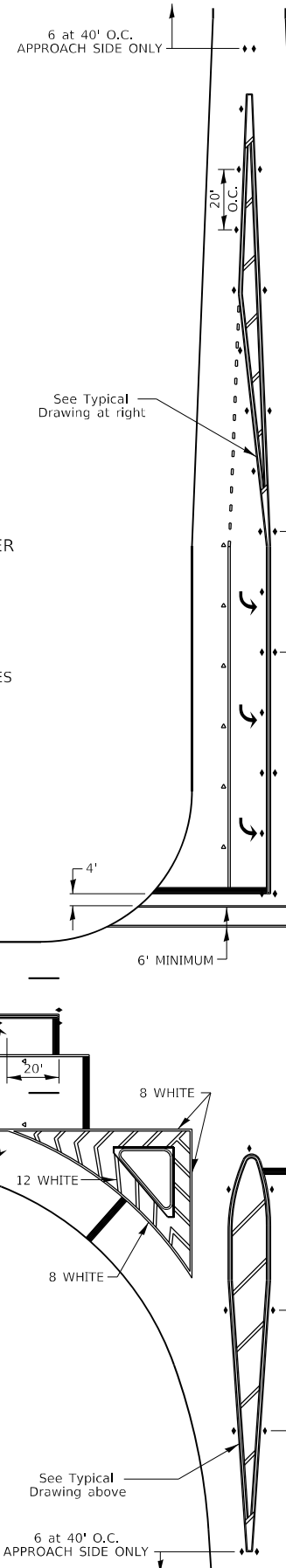
TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT

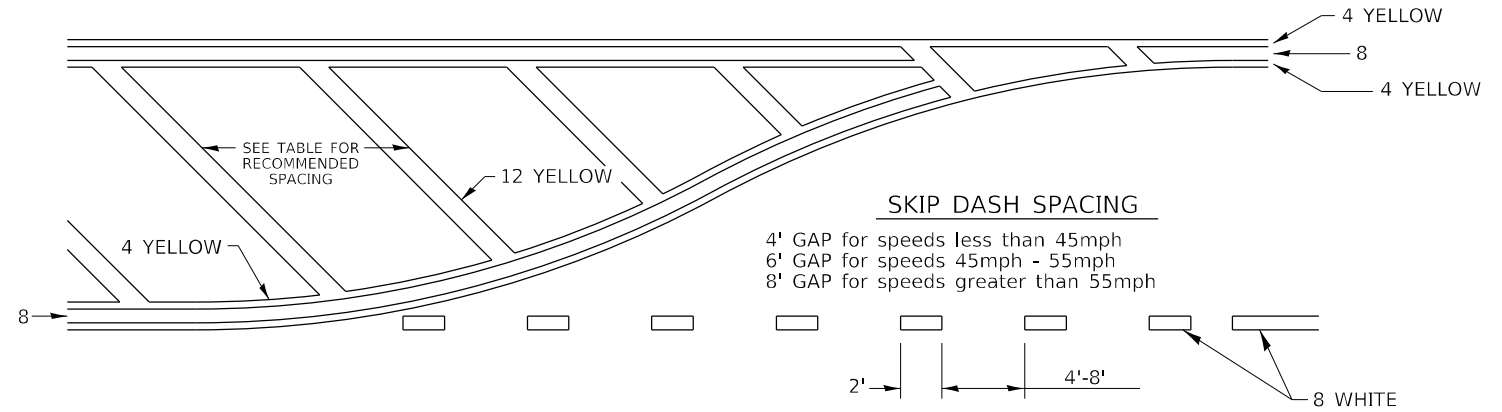


- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



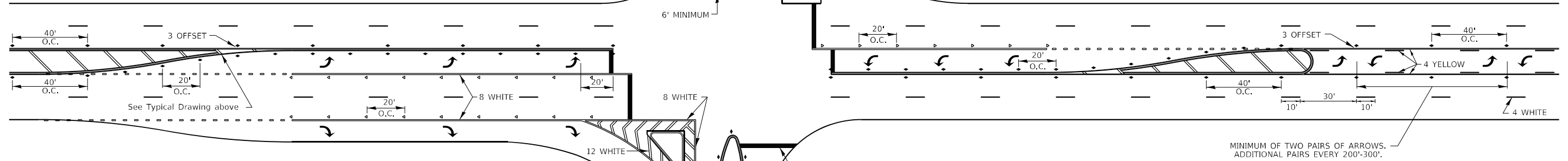
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 30MPH	50'	15'	10'
30-40MPH	75'	20'	15'
45MPH & over	75'	30'	20'

NOTE: if the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



USER NAME = jworthington	DESIGNED -	REVISED - 6-27-14
FILE NAME: p:\w\benesch-pw.bentley.com\benesch-pw-01\Documents\10800s\10800.00\Eng_Docs\CAD_Sheets\Standards\264813-DDI-shd-D2_Standards-03.dwg	DRAWN -	REVISED - 3-05-12
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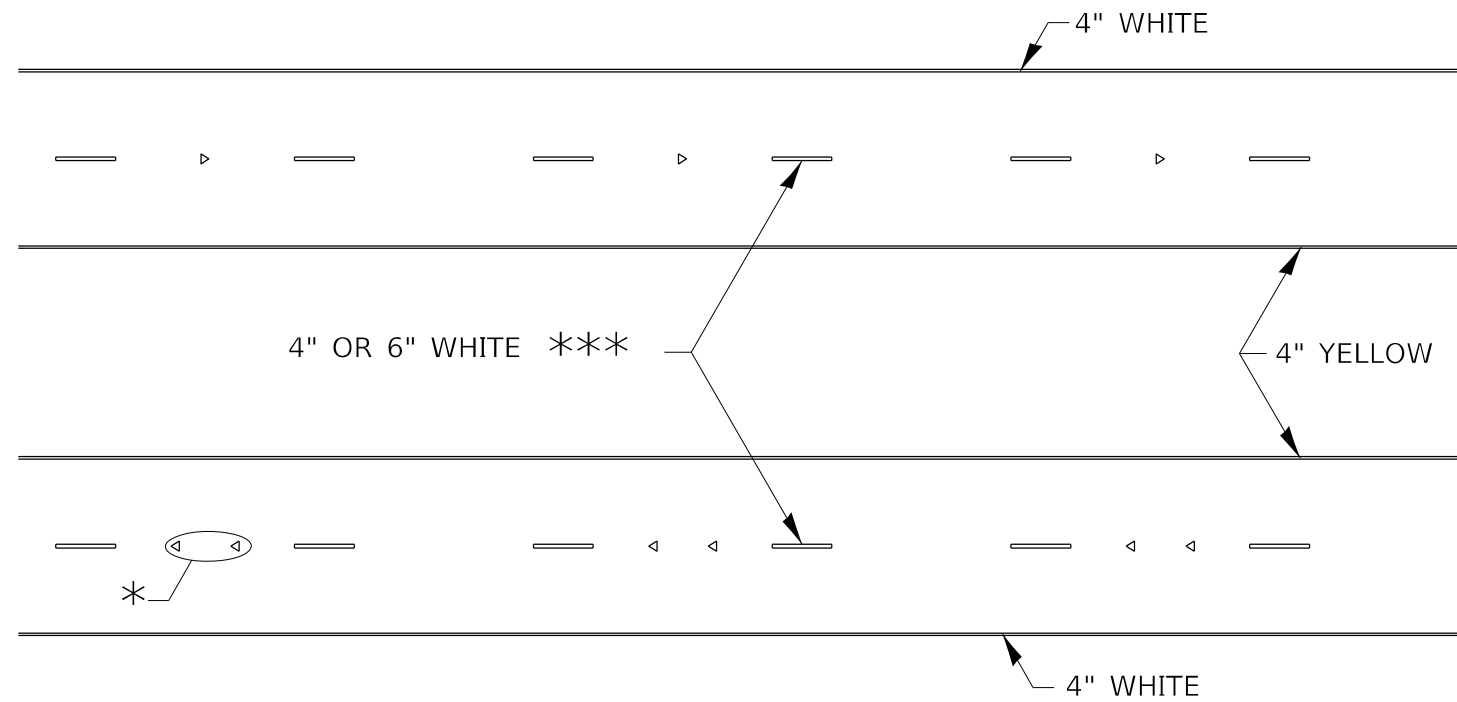
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2/ DISTRICT 2 STANDARD

SCALE: SHEET 22 OF 26 SHEETS STA. TO STA.

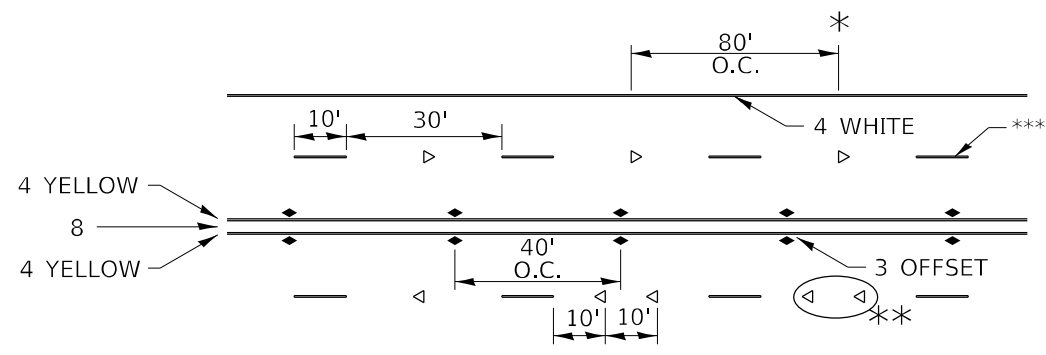
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINNEBAGO	854	751
			CONTRACT NO. 64R71	
ILLINOIS FED. AID PROJECT				

TYPICAL PAVEMENT MARKINGS



* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.
USE DOUBLE MARKERS WHEN ADT ≥ 20,000.

MULTI-LANE / DIVIDED



* REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.

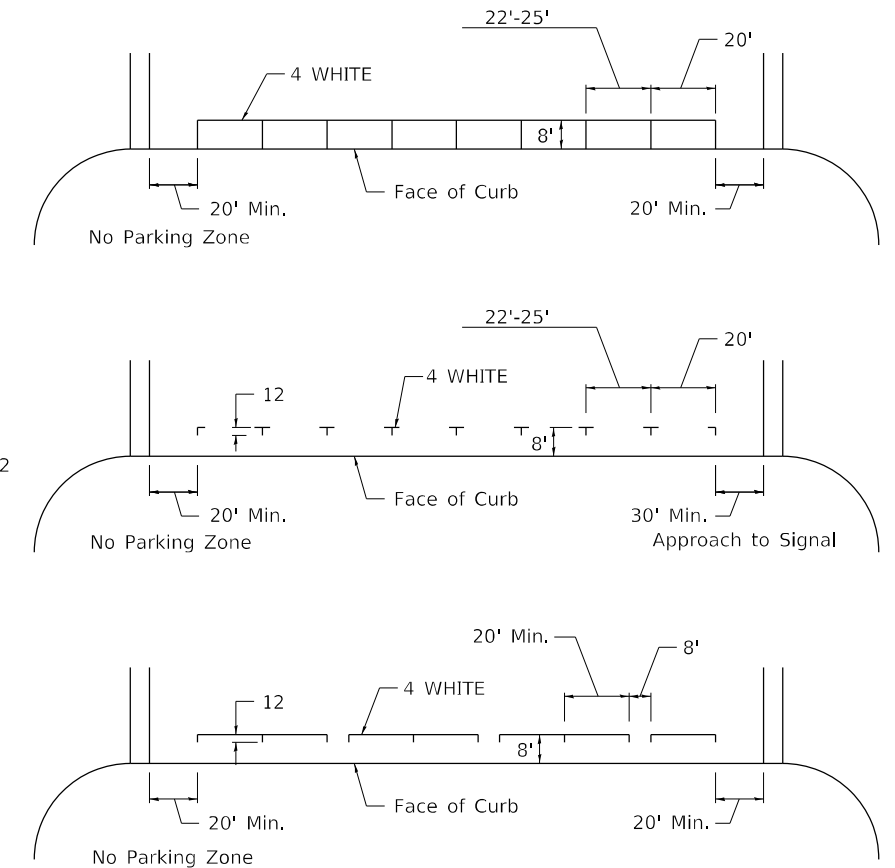
** USE DOUBLE MARKERS WHEN ADT ≥ 20,000

*** CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE. SPEED LIMIT 40 MPH AND OVER USE 6" LINE.

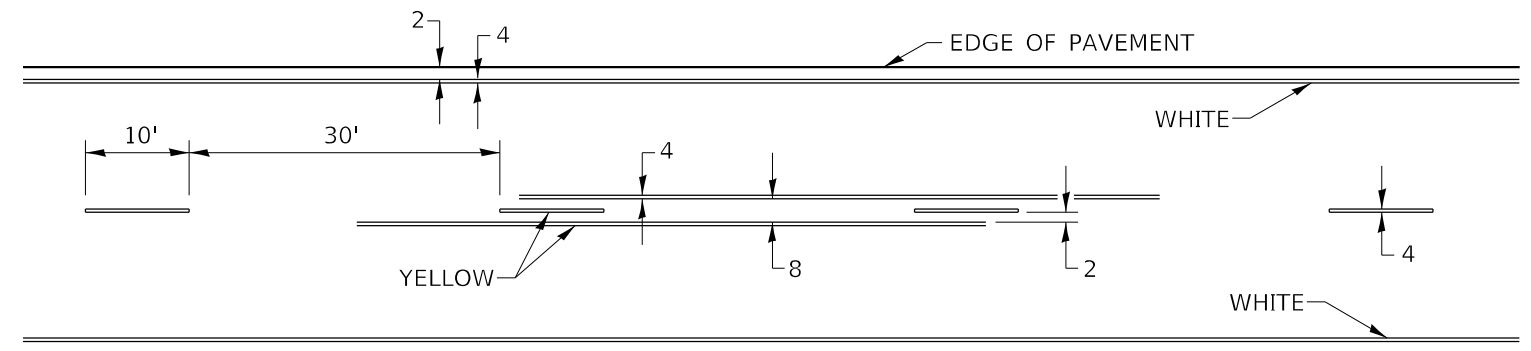
MULTI-LANE / UNDIVIDED & ONE WAY

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS DETAIL NOT HIGHWAY STANDARD 781001)

TYPICAL PARKING SPACING



TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES



SYMBOLS

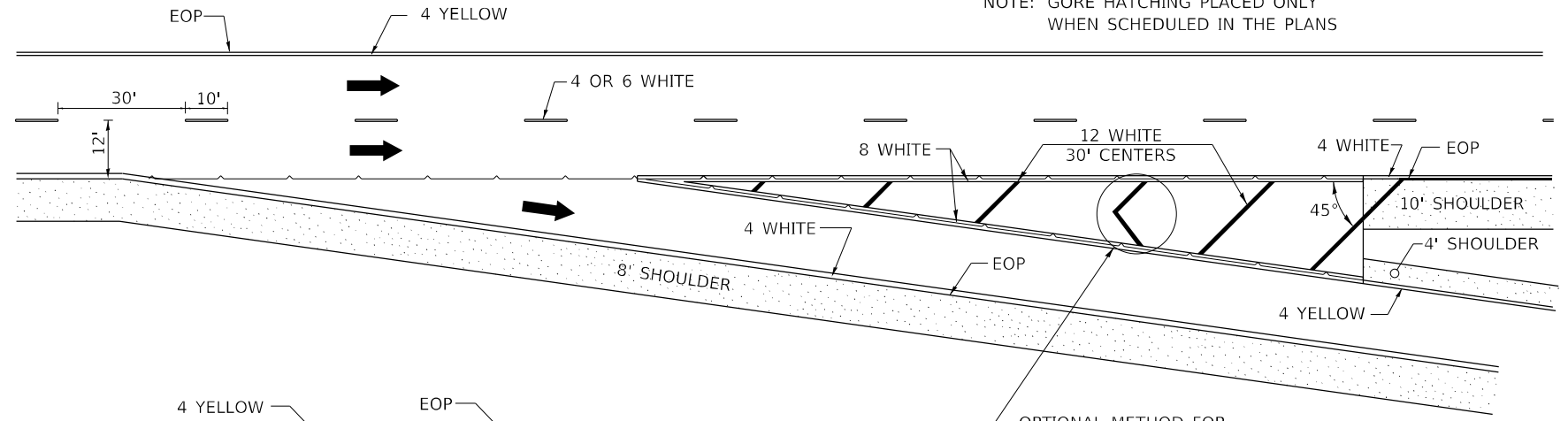
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	PLOT SCALE = 0.167" / ft.	CHECKED -	REVISED - 8-27-13			39	(201-3)K	WINNEBAGO	854	752
	PLOT DATE = 10/12/2023	DATE - 12/14/2022	REVISED - 11-28-12			CONTRACT NO. 64R71		ILLINOIS FED. AID PROJECT		

PAINING DETAILS

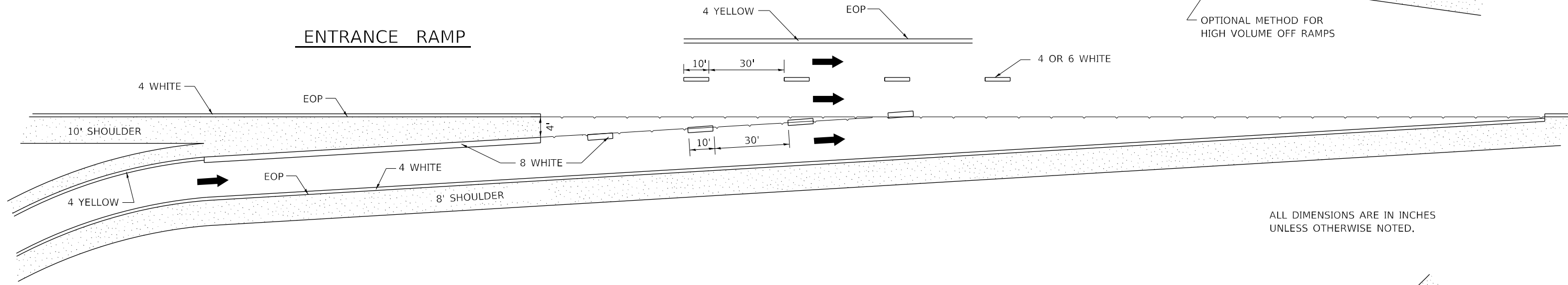
CENTERLINE SKIP DASH PAVEMENT MARKING WIDTH SHALL BE 4" WHEN THE POSTED SPEED LIMIT IS UNDER 40 MPH AND 6" WHEN THE POSTED SPEED LIMIT IS 40 MPH AND OVER.

EXIT RAMP

NOTE: GORE HATCHING PLACED ONLY WHEN SCHEDULED IN THE PLANS

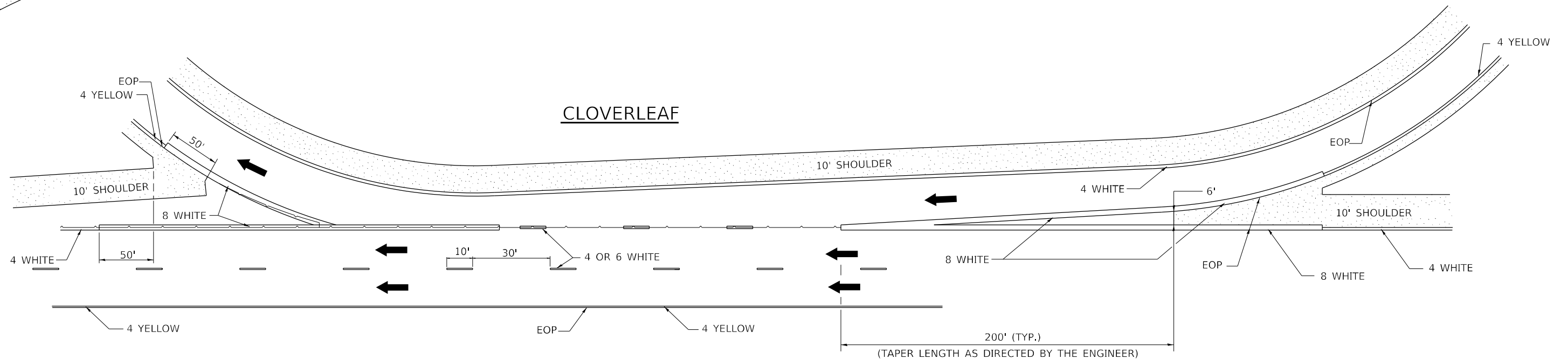


ENTRANCE RAMP



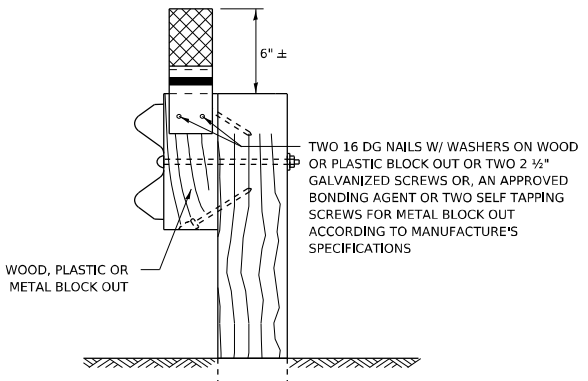
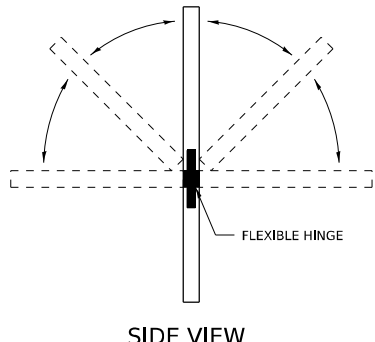
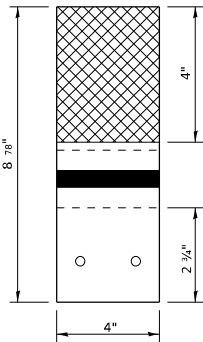
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

CLOVERLEAF



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	PLOT SCALE = 0.167" / ft.	DATE - 12/14/2022	REVISED -	SCALE: N/A	SHEET 24 OF 26 SHEETS	STA. TO STA.	CONTRACT NO. 64R71				
	PLOT DATE = 10/12/2023		REVISED -	ILLINOIS FED. AID PROJECT							

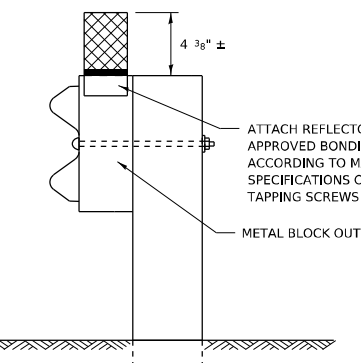
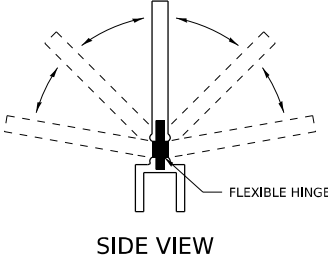
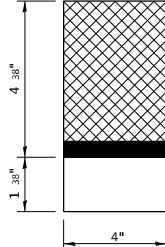
GUARDRAIL REFLECTORS, TYPE C (SPECIAL)



REFLECTORS SHALL BE MOUNTED DIRECTLY TO WOOD OR PLASTIC BLOCK OUTS.

REFLECTORS MOUNTED ON WOODEN OR PLASTIC BLOCK OUT SHALL BE MOUNTED USING TWO 16 DG NAILS AND TWO 3/16" WASHERS OR TWO 2 1/2" GALVANIZED SCREWS WITH WASHERS.

MOUNTED ON A WOOD OR PASTIC GUARDRAIL BLOCK OUT



REFLECTORS SHALL BE MOUNTED DIRECTLY TO METAL BLOCK OUT.

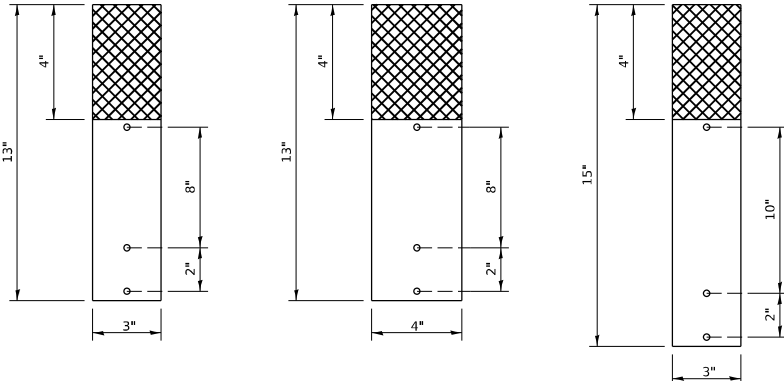
REFLECTORS MOUNTED ON METAL BLOCK OUT SHALL BE MOUNTED USING AN APPROVED BONDING AGENT PER THE MANUFACTURE'S SPECIFICATIONS OR TWO SELF TAPPING GALVANIZED SCREWS WITH WASHERS.

MOUNTED ON A METAL GUARDRAIL BLOCK OUT

REFLECTORS MOUNTED ON WOOD OR PLASTIC GUARDRAIL BLOCK OUT

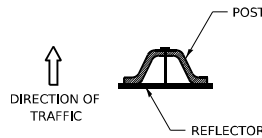
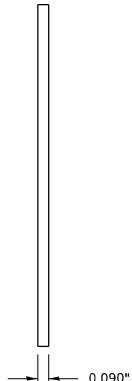
REFLECTORS MOUNTED ON METAL GUARDRAIL BLOCK OUT

STRAIGHT GUARDRAIL / DELINEATOR REFLECTOR

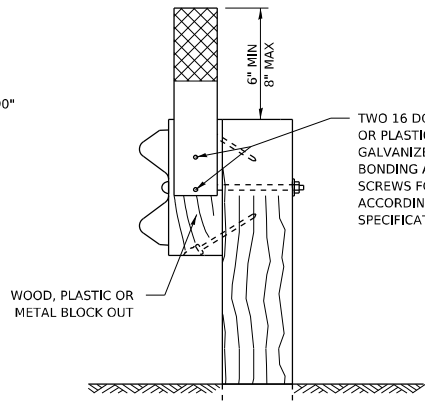


REFLECTORS MAY BE MOUNTED TO DELINEATOR POST USING TWO 10/24 X 1 1/2" BOLTS WITH NUTS AND WASHERS. ADDITIONAL HOLES SHALL BE DRILLED IN THE REFLECTORS AS SHOWN ABOVE.

SIDE VIEW

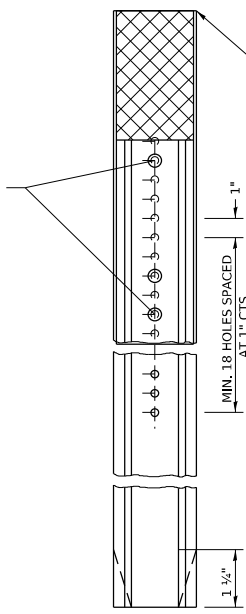


DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE REFLECTOR ATTACHED AS SHOWN ABOVE.



MOUNTED ON A WOOD OR PASTIC GUARDRAIL BLOCK OUT

ADDITIONAL SHEETING MAY BE ADDED AS NEEDED FOR TURN AROUNDS AS SHOWN IN THE PLANS



TOP OF REFLECTOR PLACED FLUSH WITH TOP OF POST UNLESS DOUBLE SIDED REFLECTOR IS CALLED FOR, THEN REFLECTOR SHALL BE PLACED SUCH THAT THE REFLECTOR IS ABOVE THE TOP OF THE POST AND VISIBLE.

10/24 X 1 1/2" BOLTS WITH WASHERS AND NUT (ADDITIONAL HOLES MAY BE DRILLED AS NEEDED)

TWO 16 DG NAILS W/ WASHERS ON WOOD OR PLASTIC BLOCK OUT OR TWO 2 1/2" GALVANIZED SCREWS OR, AN APPROVED BONDING AGENT OR TWO SELF TAPPING SCREWS FOR METAL BLOCK OUT ACCORDING TO MANUFACTURE'S SPECIFICATIONS

MOUNTED ON A DELINEATOR POST

NOTE:
 REFLECTORS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR GUARDRAIL REFLECTORS, TYPE C (SPECIAL), WHICH PRICE SHALL ALSO INCLUDE SCREWS/NAILS, WASHERS OR BONDING AGENT.
 REFLECTORS INSTALLED ON TWO LANE ROADS SHALL BE DOUBLE SIDED AND BOTH SIDES SHALL BE CRYSTAL.
 REFLECTORS INSTALLED ON DIVIDED HIGHWAYS SHALL BE SINGLE SIDED CRYSTAL.
 SHEETING COLOR SHALL BE CALLED OUT IN THE PLANS.
 SPACING FOR REFLECTORS SHALL BE ACCORDING TO STANDARD 782006 UNLESS OTHERWISE NOTED IN THE PLANS.
 REFLECTORS MOUNTED ON GUARDRAIL SHALL BE 4" WIDE.
 REFLECTORS MOUNTED ON DELINEATOR POST SHALL BE 3" WIDE.

6-21-21

USER NAME = jworthington FILE NAME: pwc:\benesch-pw.bentley.com\benesch-pw-01\Documents\10800s\10800,00\Eng_Docs\CAD_Sheet\Drawings\Standards\264813-DDI-sht-D2_Standards-01.dwg PLOT SCALE = 0.167" / in. PLOT DATE = 10/12/2023	DESIGNED - DRAWN - CHECKED - DATE - 12/14/2022	REVISED - 8-27-13 REVISED - 10-18-11 REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2/ DISTRICT 2 STANDARD	SCALE: N/A SHEET 25 OF 26 SHEETS STA. TO STA.	F.A.J. RTE. 39 SECTION (201-3)K COUNTY WINNEBAGO ILLINOIS FED. AID PROJECT	TOTAL SHEETS 854 SHEET NO. 754 CONTRACT NO. 64R71
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GUARDRAIL REFLECTORS, TYPE C (SPECIAL)

LOADING CONDITION	MAX. EXTENDER HEIGHT - "H"
H20/H25 * 750 PSI CONCRETE	19"

* 125 PSI TIRE PRESSURE

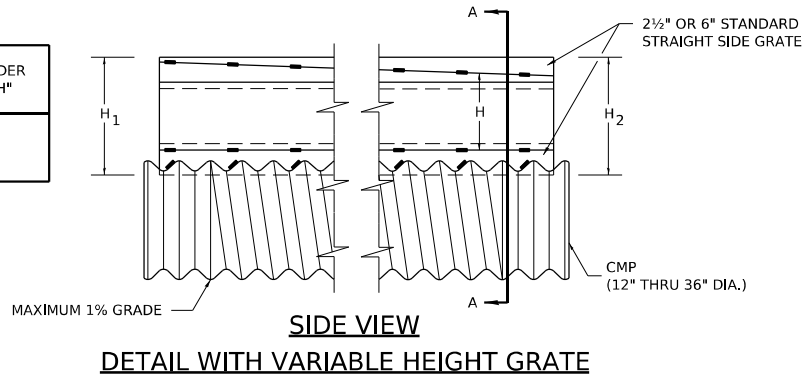
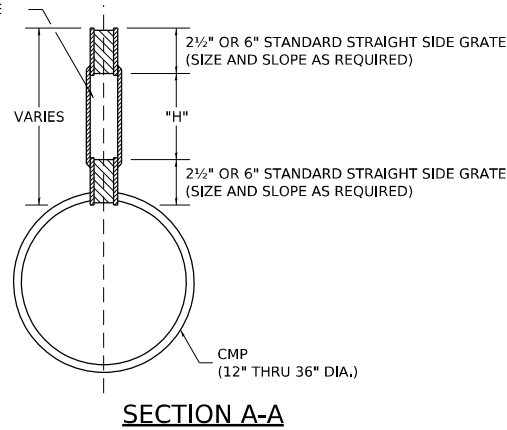


PLATE EXTENDERS
7 GA. GALVANIZED PLATE
PER ASTM A761
SLOPE AS REQUIRED.



GENERAL

Class SI Concrete shall be used throughout.
This specification covers Slotted Drain used for the removal of water as shown on the plans.
The Slotted Drain shall be Corrugated Pipe Culvert with Integral Slotted Drains.
Before placing the concrete adjacent to the pipe, the slot shall be covered by either thin, flat metal sheeting or by a board notched to fit over the grate bars. This covering must fit closely in the slot to prevent entry of concrete into the pipe. Paving over the slotted drain will then be one continuous operation over the protected drain. The protection for the drain slot shall then be removed. The pipe shall drain into the side of the inlet. The opening where the slot is removed shall be covered to prevent concrete from entering the pipe.
The Corrugated Steel Pipe used in the Slotted Drain shall meet the requirements of AASHTO M36/ASTM A760.
The CMP shall be ALUMINIZED STEEL Type 2.
The diameter shall be as shown on the plans.
Steel grating shall meet the galvanizing requirements of AASHTO M111.
This work will be paid for at the contract unit price per foot for SLOTTED DRAIN of the pipe diameter specified WITH VARIABLE SLOT, or SLOTTED DRAIN, of the pipe diameter specified, WITH 6" SLOT, and shall include concrete and grating for depth specified on plans.
Use approved end cap to prevent concrete entry into the pipe during gutter construction on the upstream end of the pipe.

CONNECTIONS

The Corrugated Steel Pipe shall have a minimum of two rerolled annular ends,
The Slotted Drain bands shall be modified HUGGER Bands to secure the pipe and prevent infiltration of the backfill.
When the Slotted Drain is banded together, the adjacent grates shall have a maximum 3" gap.

GRATES

The grates shall be manufactured from ASTM A670, Grade 36 steel. The spacers and bearing bars (sides) shall be 3/16" material ±0.008".
The spacers shall be on 6" centers and welded on both sides to each bearing bar (sides) with four (4) 1-1/4" long 3/16" fillet welds on each side of the bearing bar.
The plate extender shall be 7 gage steel meeting ASTM A761.
The engineer may call for tensile strength tests on the grate if the grate is not in compliance with the above spacer specifications. If tensile strength tests are called for, minimum results for an in-place spacer pulled perpendicular to the bearing bar shall be:
T = 12,000 pounds for 2-1/2" grate
T = 15,000 pounds for 6" grate

GALVANIZING

The grate and plate extenders shall be galvanized in accordance with ASTM A123 except with a 2 oz. galvanized coating.

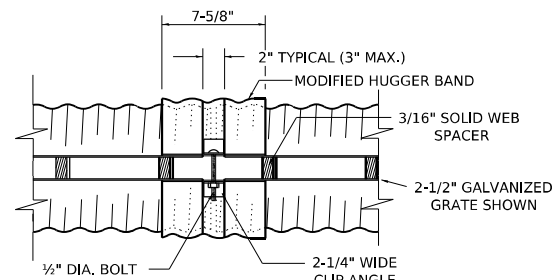
GRATE ATTACHED TO CSP

The grate shall be fillet welded with a minimum weld 1" long to the CSP on each side of the grate at every other corrugation.

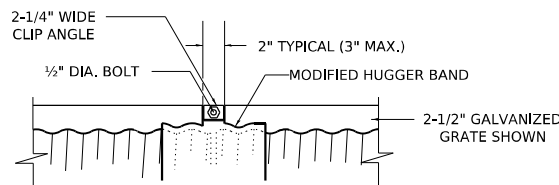
TOLERANCES - FINISHED SLOTTED DRAIN - 20' LENGTHS

Vertical Bow = ± 3/8"
Horizontal Bow = ± 5/8"
Twist = ± 1/2"

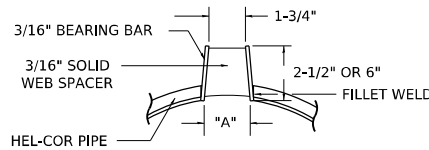
SLOTTED DRAIN PIPE



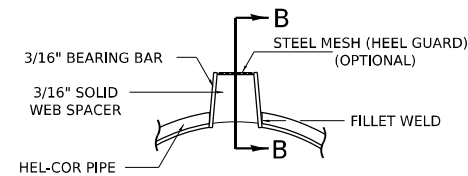
TOP VIEW



SIDE VIEW



**SECTION A-A
STANDARD DETAIL**



**SECTION A-A
DETAIL WITH MESH**

(TRAPEZOIDAL GALVANIZED GRATE SHOWN)

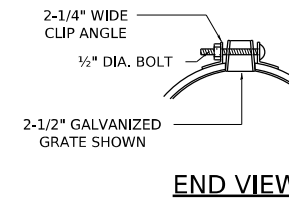
GAGE OF PIPE	STANDARD SIZES					
	DIAMETER OF PIPE					
	12"	15"	18"	24"	30"	36"
16	X	X	X	X	X	X
14	X	X	X	X	X	X
12	N.A.	N.A.	N.A.	N.A.	X	X

GRATE TYPE	"A"
VERT	2-1/2"
TRAP	6"

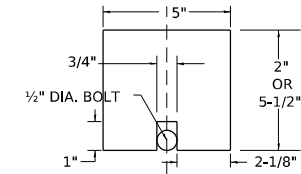
VERT = VERTICAL
TRAP = TRAPEZOIDAL

SLOTTED DRAIN NOTES

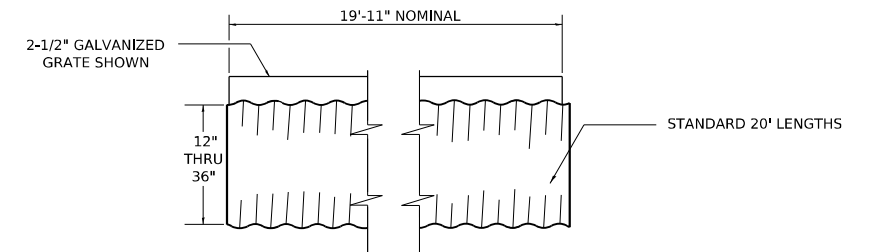
- GRATING IS AVAILABLE IN DEPTHS OF 2-1/2" AND 6".
- VERTICAL GRATING (STRAIGHT SIDES) WITH VERTICAL SPACERS IS ALSO AVAILABLE.
- FOR 6" VERTICAL & TRAPEZOIDAL REQUIREMENTS, THE SLOTTED DRAIN BAND MAY BE FURNISHED WITH THE 4" TECHCO BAND ANGLE.
- DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- DIMENSIONS FOR H AND H₂ REQUIRED.
- H₁ AND H₂ MEASURED FROM TOP OF GRATE TO BOTTOM OF GRATE.



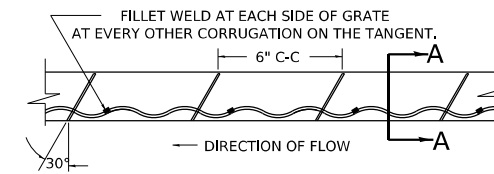
END VIEW



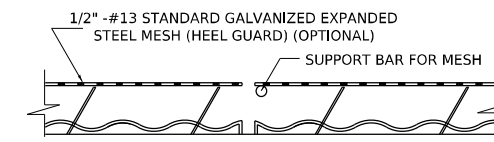
GAP PLATE (OPTIONAL)
MAY BE PLACED DIRECTLY OVER BAND BOLT TO PROVIDE CONTINUOUS FORM FOR GROUTING.



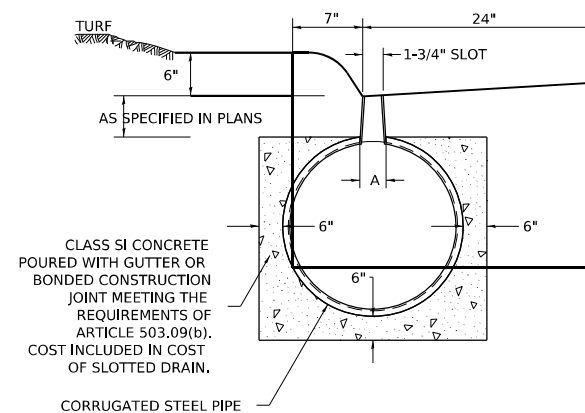
TYPICAL PIPE SECTION



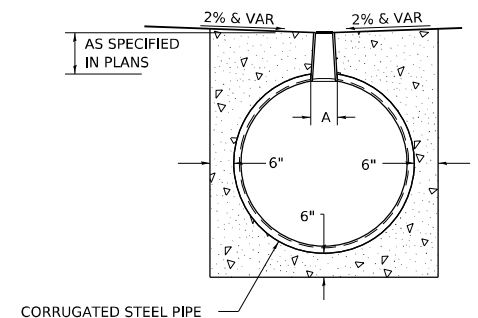
GRATE WELDING DETAIL



SECTION B-B



DETAIL FOR CURB & GUTTER



**DETAIL FOR CROSSOVERS,
DRIVEWAYS, OR PARKING LOTS**

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

USER NAME = jworthington	DESIGNED -	REVISED - 8-27-13
FILE NAME: pw\01\benesch-pw\benesch.com\benesch-pw-01\Documents\10800s\10800_00\Eng_Docs\CAD_Sheets\Drawings\264813-DD\sh-d2 Standards-01	CHECKED -	REVISED - 10-18-11
PLOT SCALE = 0.167' / in.	DATE - 12/14/2022	REVISED -
PLOT DATE = 10/12/2023		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

REGION 2/ DISTRICT 2 STANDARD

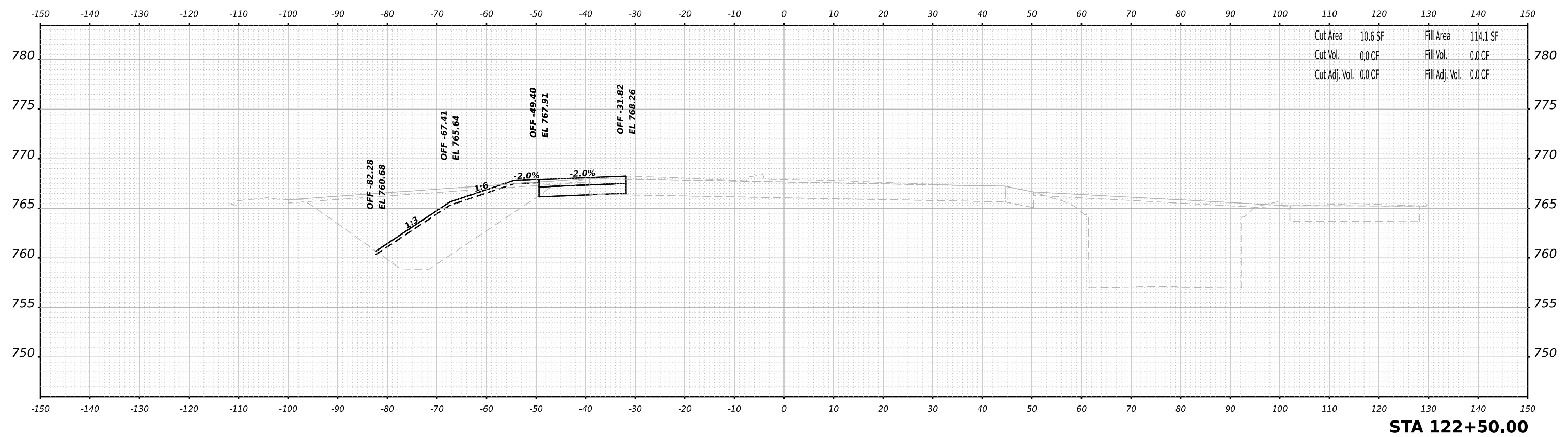
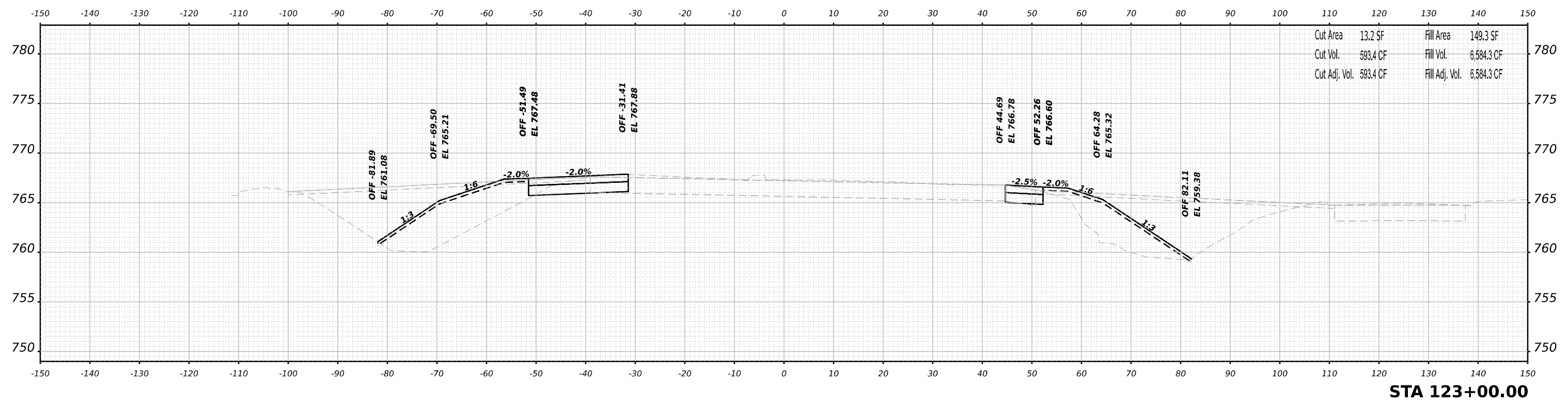
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F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K	WINNEBAGO	854	755
CONTRACT NO. 64R71				

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

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

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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/26/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

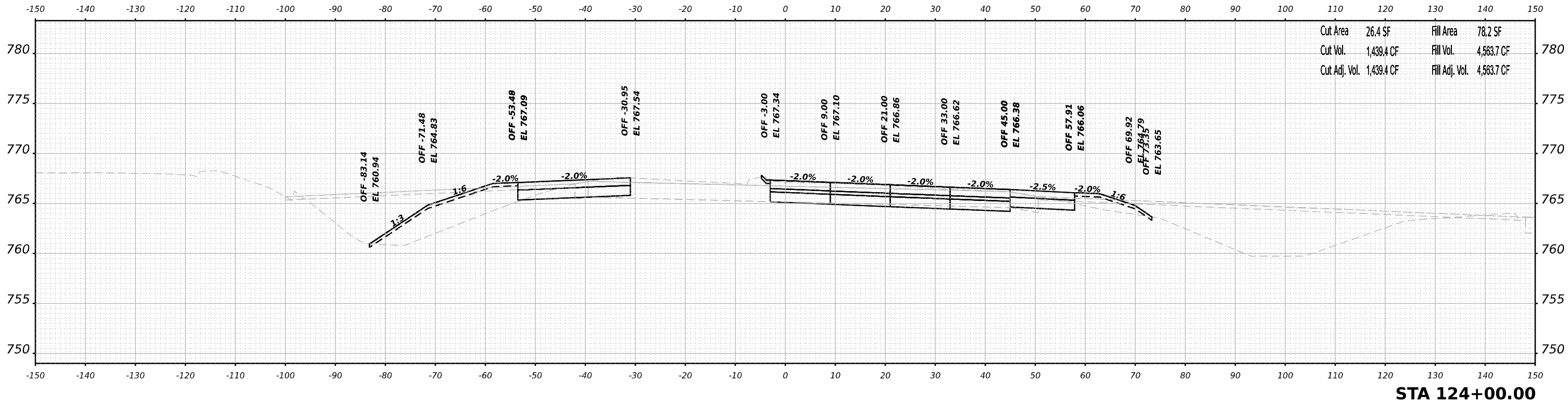
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F.A.I./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

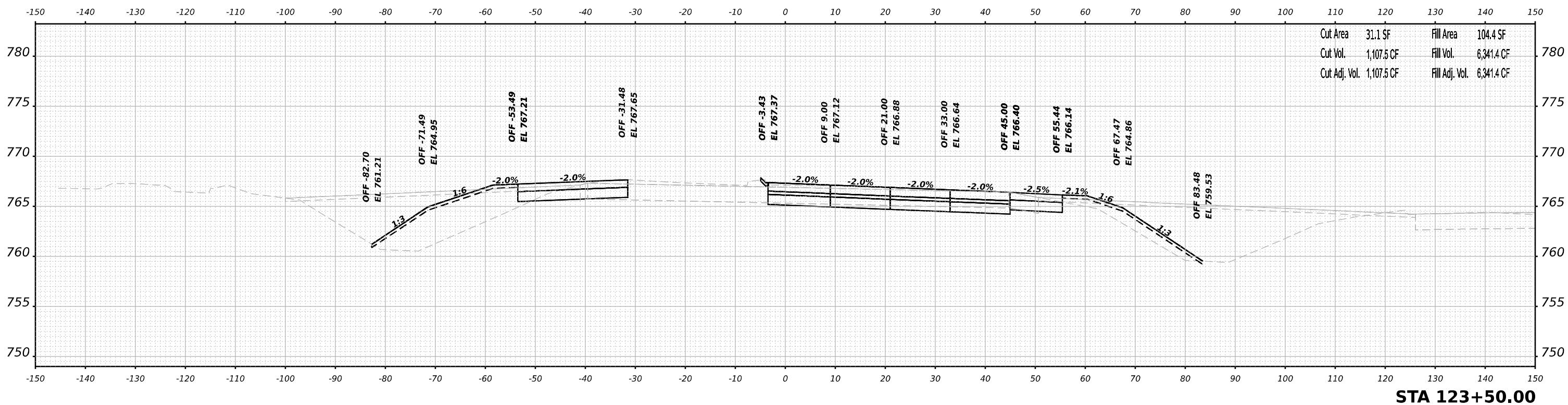
DATE	
BY	
SURVEYED	
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DATE	
BY	
SURVEYED	
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Cut Area	26.4 SF	Fill Area	78.2 SF
Cut Vol.	1,439.4 CF	Fill Vol.	4,563.7 CF
Cut Adj. Vol.	1,439.4 CF	Fill Adj. Vol.	4,563.7 CF



Cut Area	31.1 SF	Fill Area	104.4 SF
Cut Vol.	1,107.5 CF	Fill Vol.	6,341.4 CF
Cut Adj. Vol.	1,107.5 CF	Fill Adj. Vol.	6,341.4 CF

USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
PLOT SCALE	= 0.16666633 1/ in.
PLOT DATE	= 10/27/2023

REVISD	-
REVISD	-
REVISD	-
REVISD	-

DATE	- 10/13/2023
------	--------------

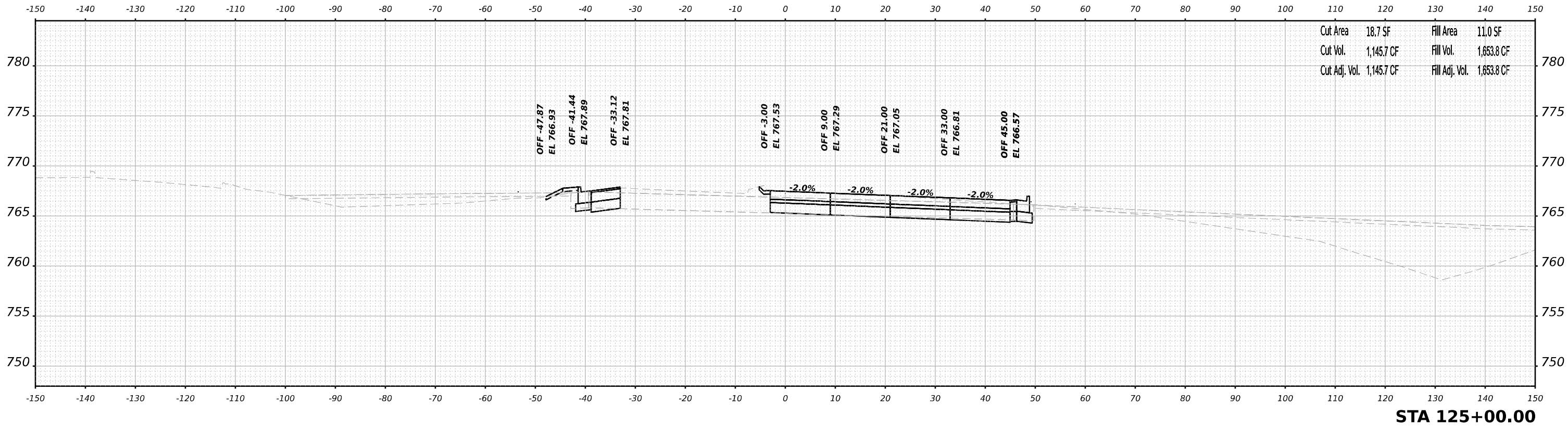
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

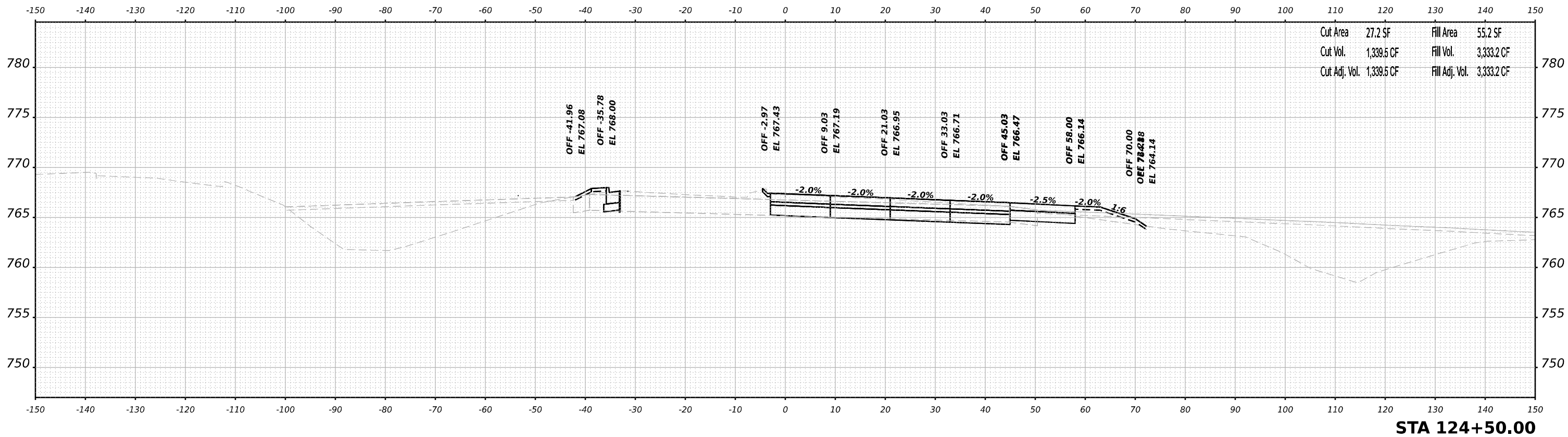
SCALE: N/A SHEET 2 OF 70 SHEETS STA. 123+50.00 TO STA. 124+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	757
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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



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



MODEL: Plus2014r-1-124+50.00 (Sheet)
 FILE NAME: jw@benesch.com\benesch\42\Documents\10209108000\Eng\Drawings\24471-Cross-Sections-Harrison-US-20-Stage1-Beginning to STA 136+00.dgn

USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
PLOT SCALE	= 0.16666633 1/ in.
PLOT DATE	= 10/27/2023

REVISIED	-
REVISIED	-
REVISIED	-
REVISIED	-

DATE	- 10/13/2023
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

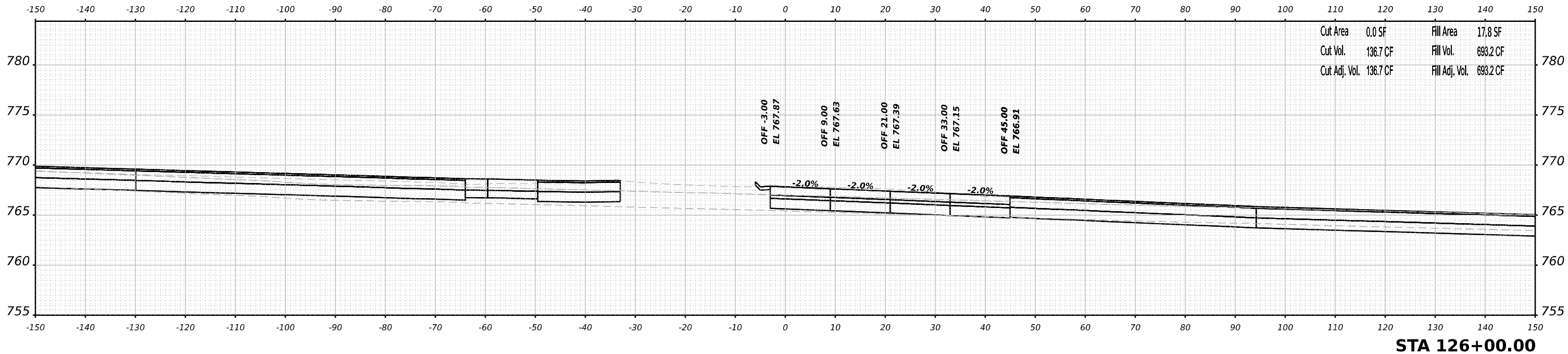
**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 3 OF 70 SHEETS STA. 124+50.00 TO STA. 125+00.00

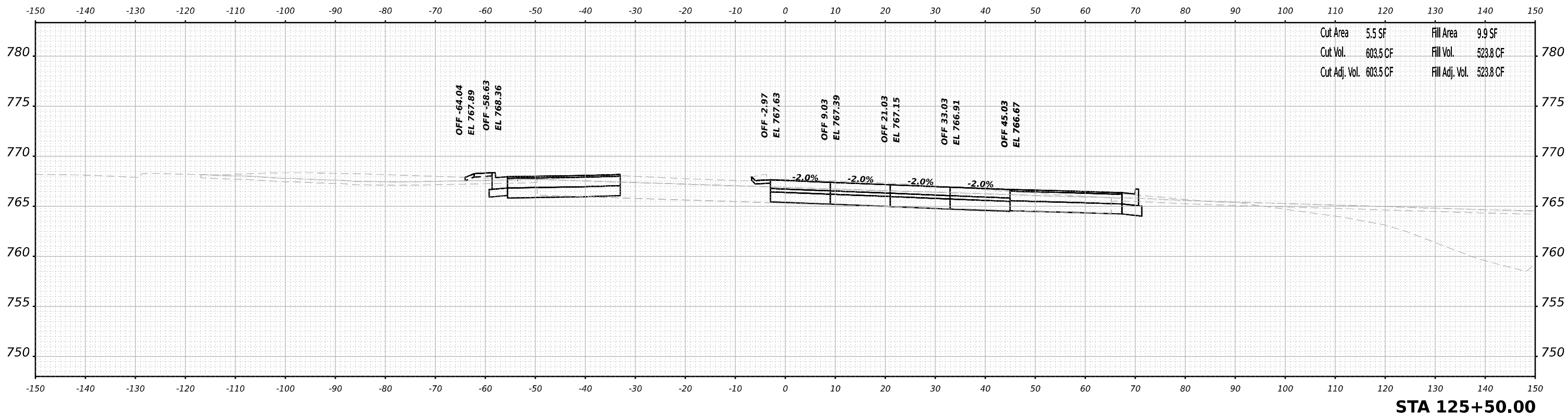
F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	758
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				



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



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



MODEL: Plus2018r-1-125+50.00 (Sheet)
 FILE NAME: jw@benesch.com\benesch\42\Documents\10209108000\Eng\Drawn\Drawn\Cross_Sections\Harrison-152-Stage1-Beginning to STA 136+00.dgn



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/27/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**

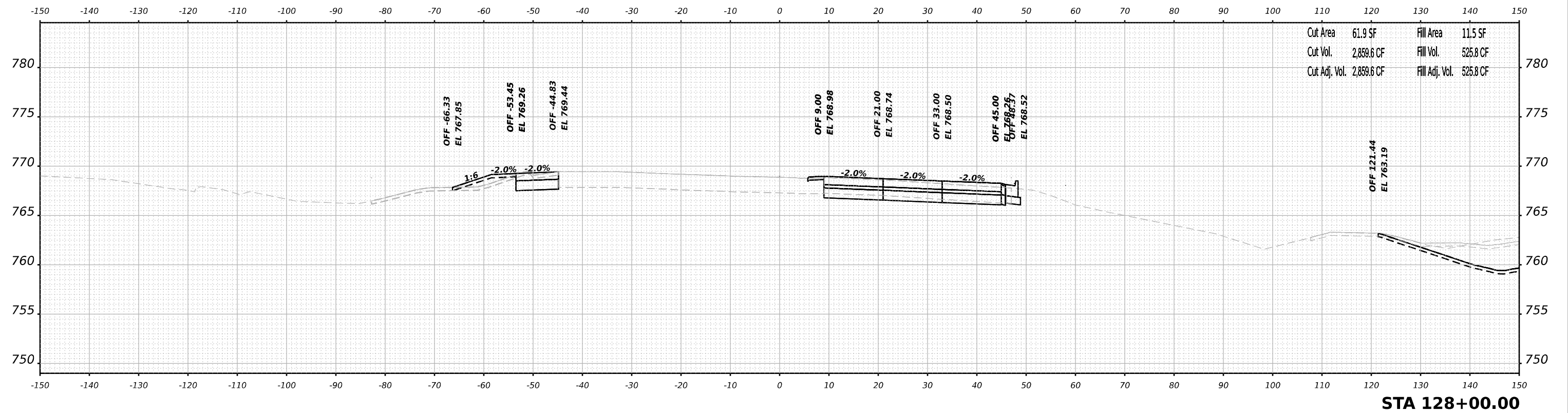
SCALE: N/A SHEET 4 OF 70 SHEETS STA. 125+50.00 TO STA. 126+00.00

F.A.I.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	759
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

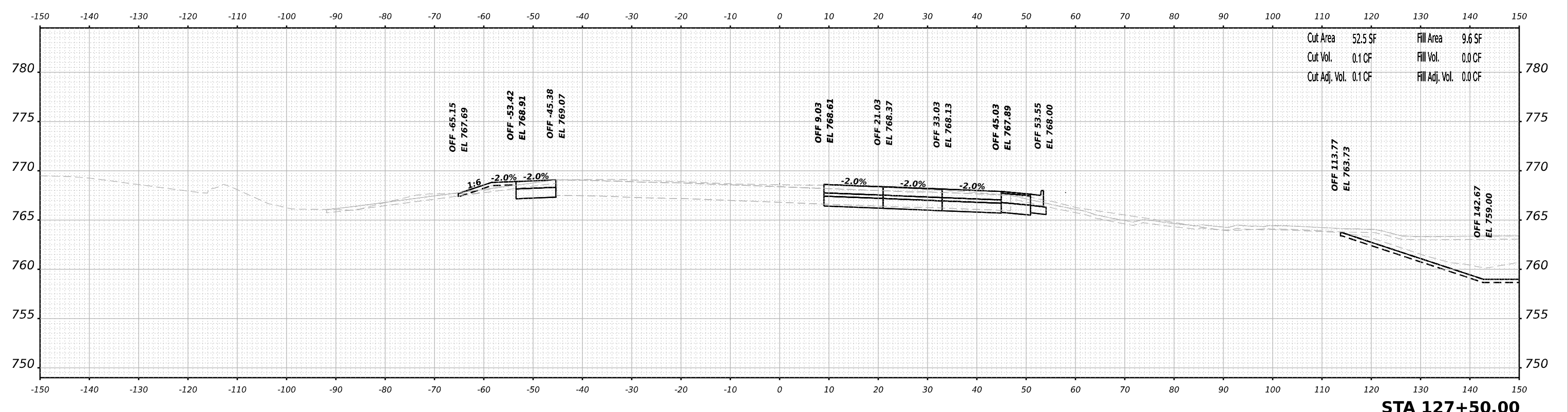
ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	CHECKED	

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Cut Area	61.9 SF	Fill Area	11.5 SF
Cut Vol.	2,859.6 CF	Fill Vol.	525.8 CF
Cut Adj. Vol.	2,859.6 CF	Fill Adj. Vol.	525.8 CF

STA 128+00.00



Cut Area	52.5 SF	Fill Area	9.6 SF
Cut Vol.	0.1 CF	Fill Vol.	0.0 CF
Cut Adj. Vol.	0.1 CF	Fill Adj. Vol.	0.0 CF

STA 127+50.00



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/26/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

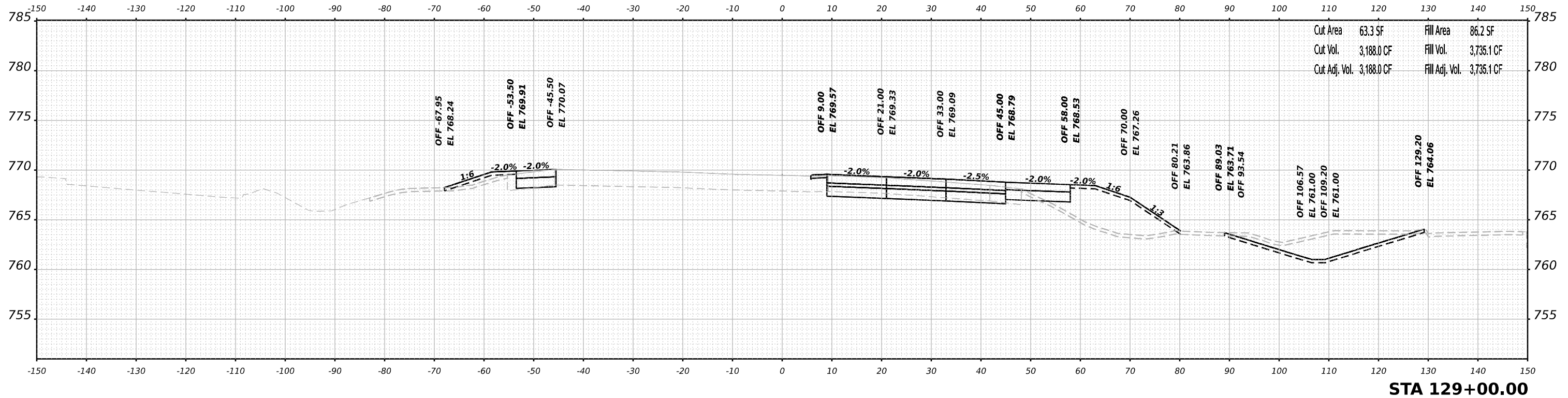
SCALE: N/A SHEET 6 OF 70 SHEETS STA. 127+50.00 TO STA. 128+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	761
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

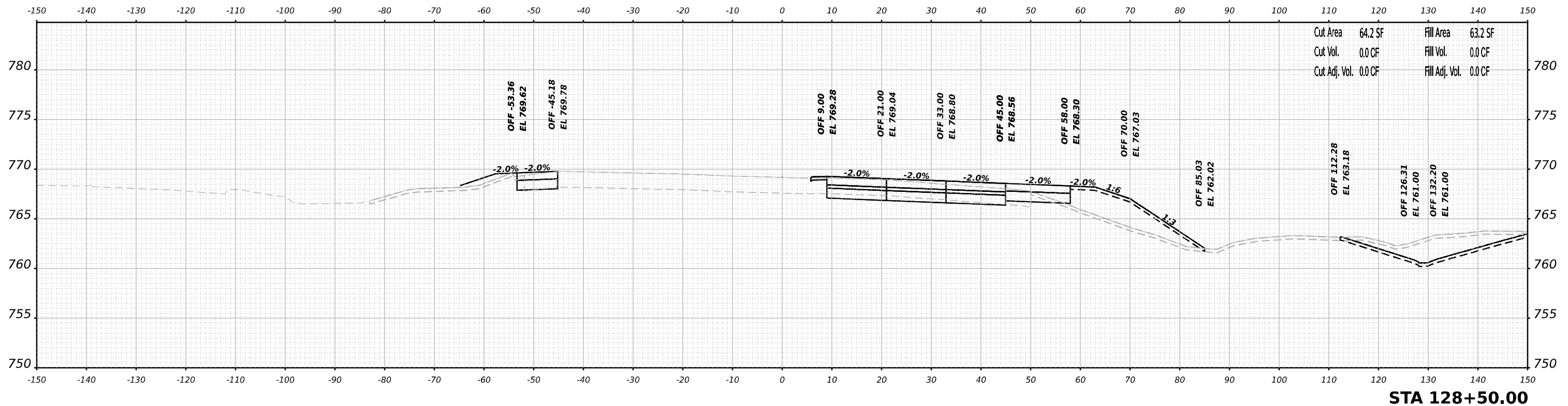
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

MODEL: Plus2018r-1-128+50.00 (Sheet)
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Cut Area	63.3 SF	Fill Area	86.2 SF
Cut Vol.	3,188.0 CF	Fill Vol.	3,735.1 CF
Cut Adj. Vol.	3,188.0 CF	Fill Adj. Vol.	3,735.1 CF



Cut Area	64.2 SF	Fill Area	63.2 SF
Cut Vol.	0.0 CF	Fill Vol.	0.0 CF
Cut Adj. Vol.	0.0 CF	Fill Adj. Vol.	0.0 CF



USER NAME	= jMajcher
PLOT SCALE	= 0.16666633 1/ in.
PLOT DATE	= 10/26/2023

DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
CHECKED	- J.TARDY
DATE	- 10/13/2023

REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

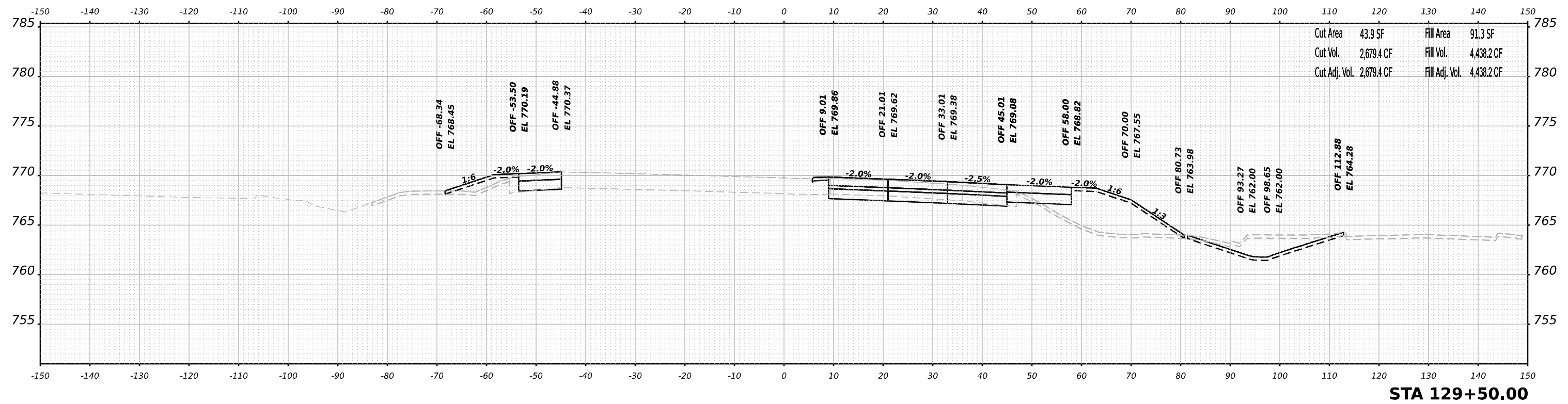
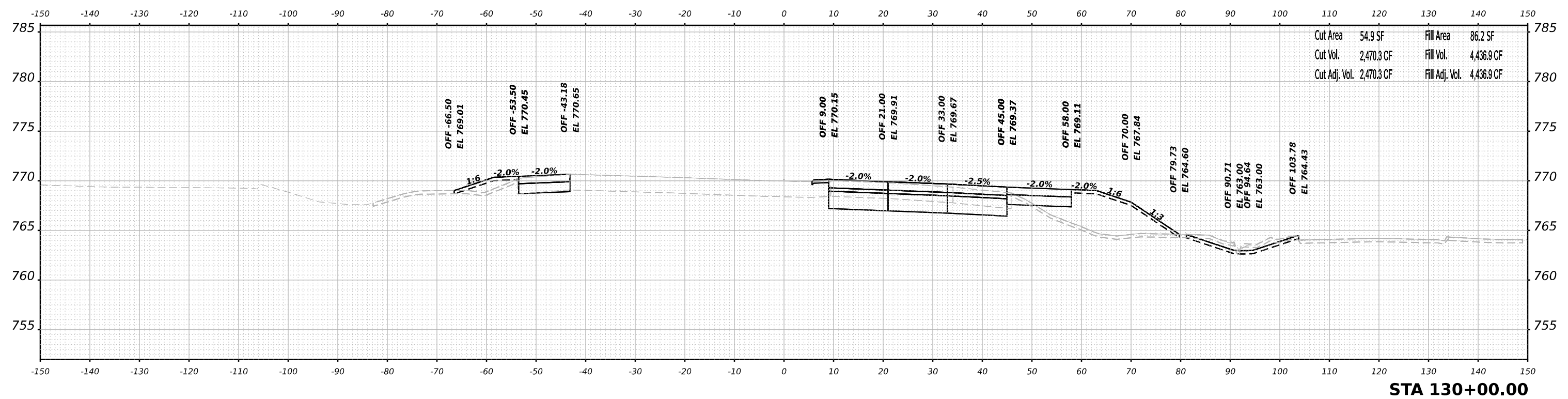
SCALE: N/A SHEET 7 OF 70 SHEETS STA. 128+50.00 TO STA. 129+00.00

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	782
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/26/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

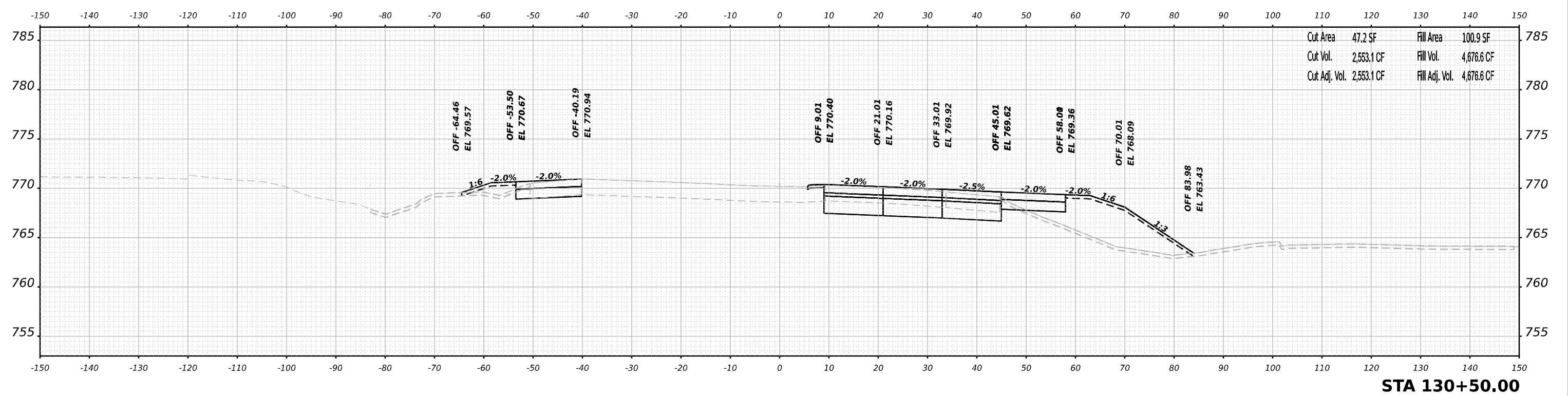
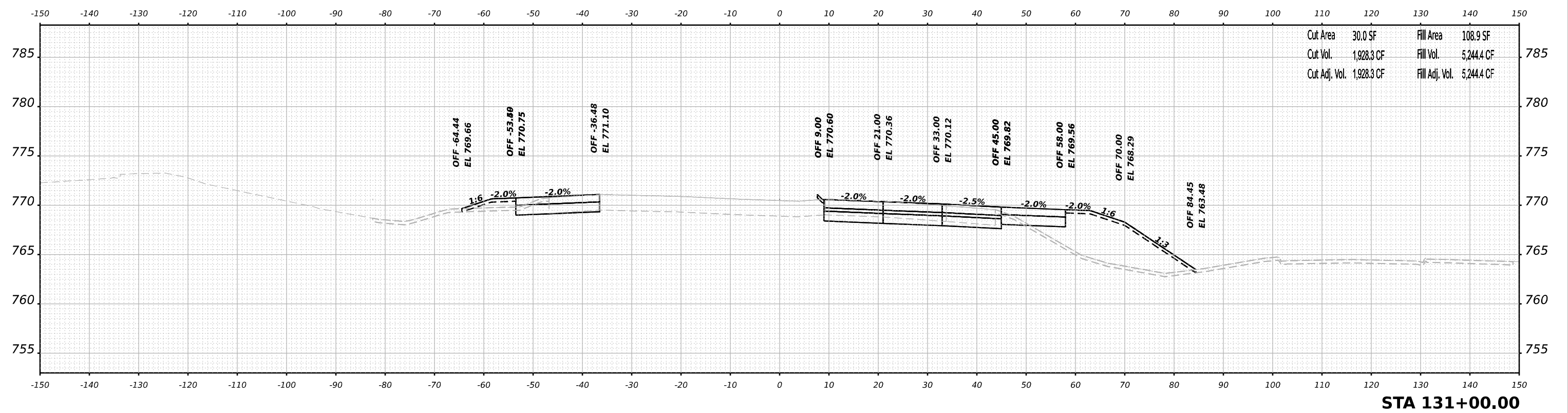
SCALE: N/A SHEET 8 OF 70 SHEETS STA. 129+50.00 TO STA. 130+00.00

F.A.I.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	783
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/26/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**

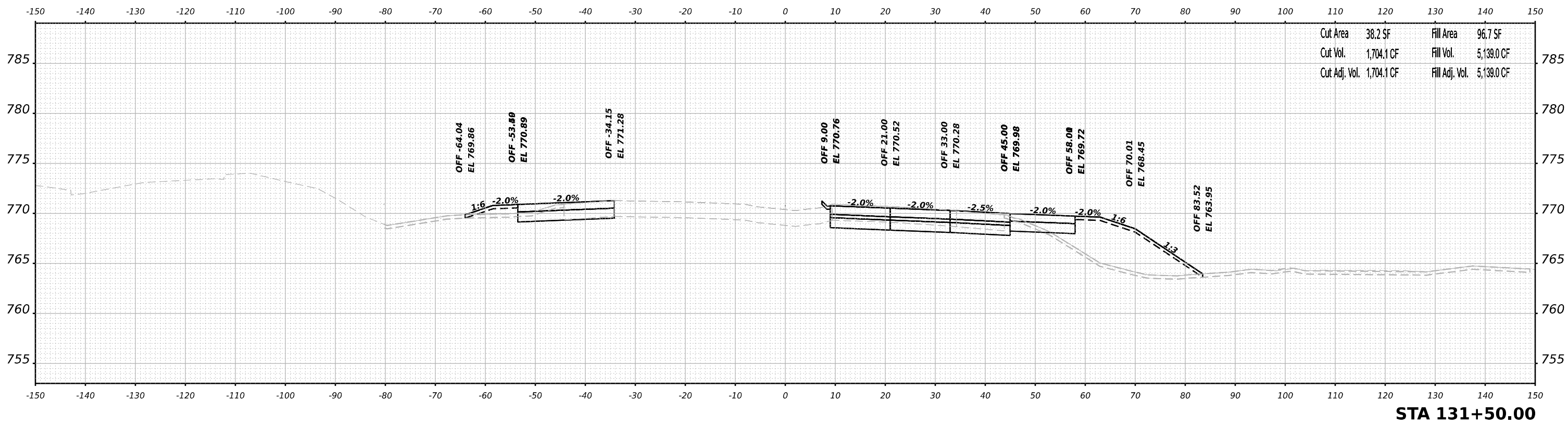
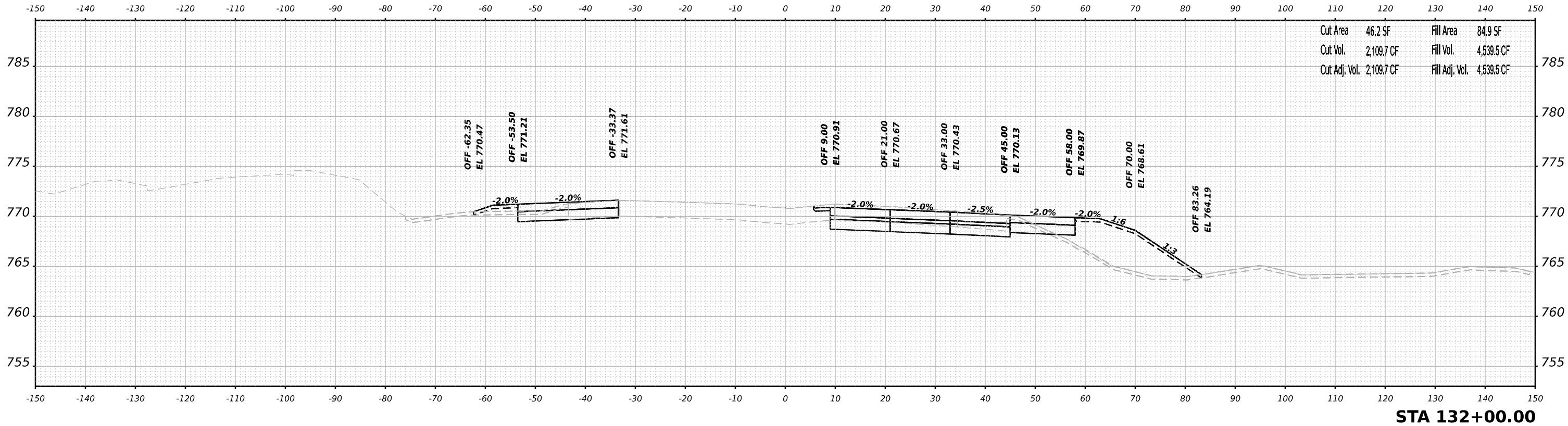
SCALE: N/A SHEET 9 OF 70 SHEETS STA. 130+50.00 TO STA. 131+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	764
			CONTRACT NO. 64R71	
		ILLINOIS	FED. AID PROJECT	

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

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

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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/26/2023	DATE	- 10/13/2023	REVISED	-

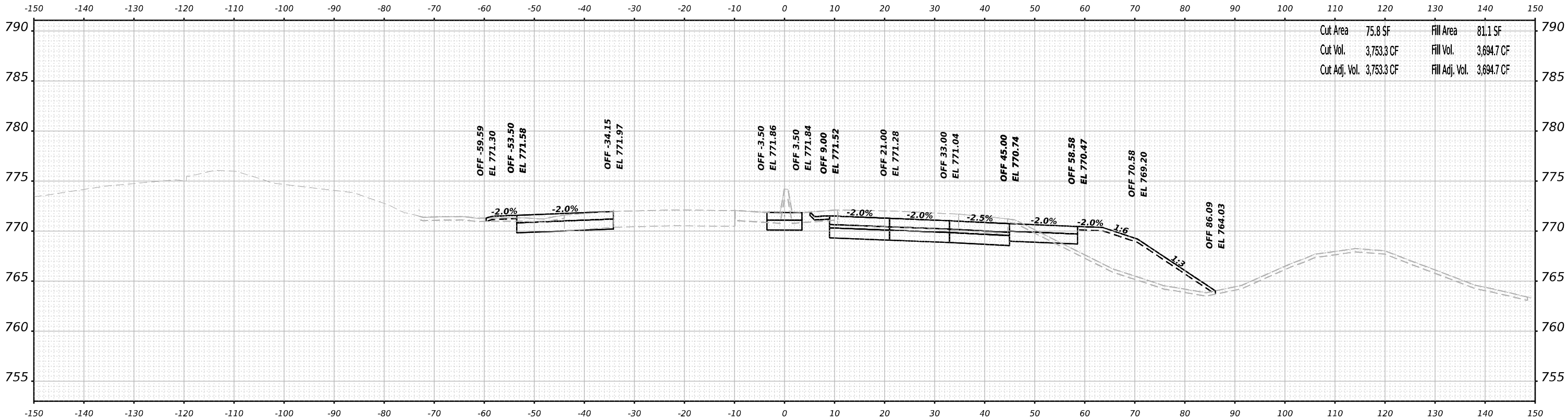
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**

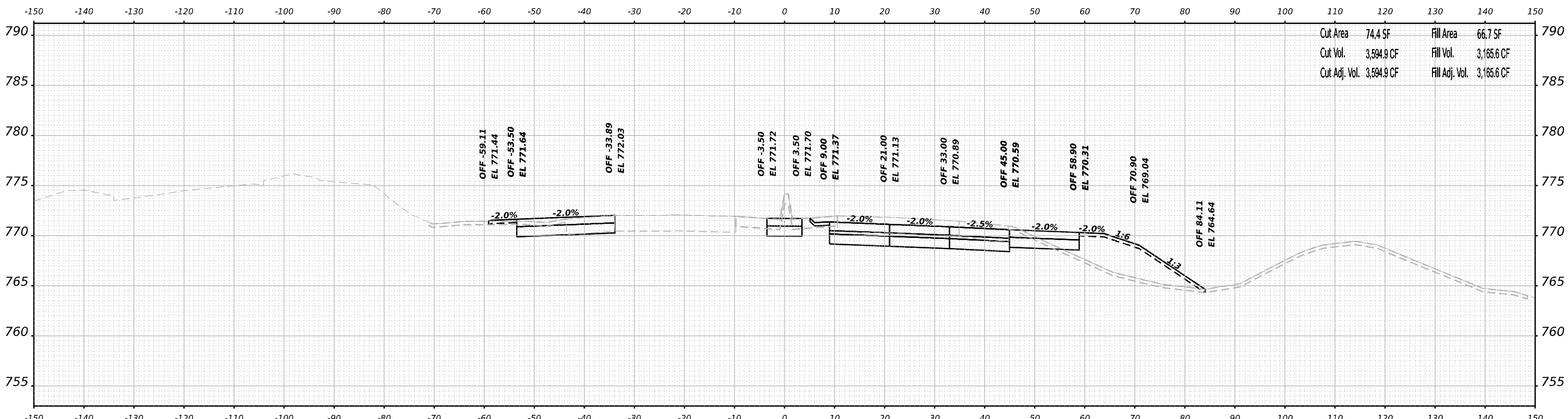
SCALE: N/A SHEET 10 OF 70 SHEETS STA. 131+50.00 TO STA. 132+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	765
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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



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



MODEL: Plus2011ar-1-133+50.00 (Sheet)
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USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
PLLOT SCALE	= 0.16666633 1/ in.
PLLOT DATE	= 10/26/2023

REVISD	-
REVISD	-
REVISD	-
REVISD	-

DESIGNED	- T.VOGLER
CHECKED	- J.TARDY
DATE	- 10/13/2023

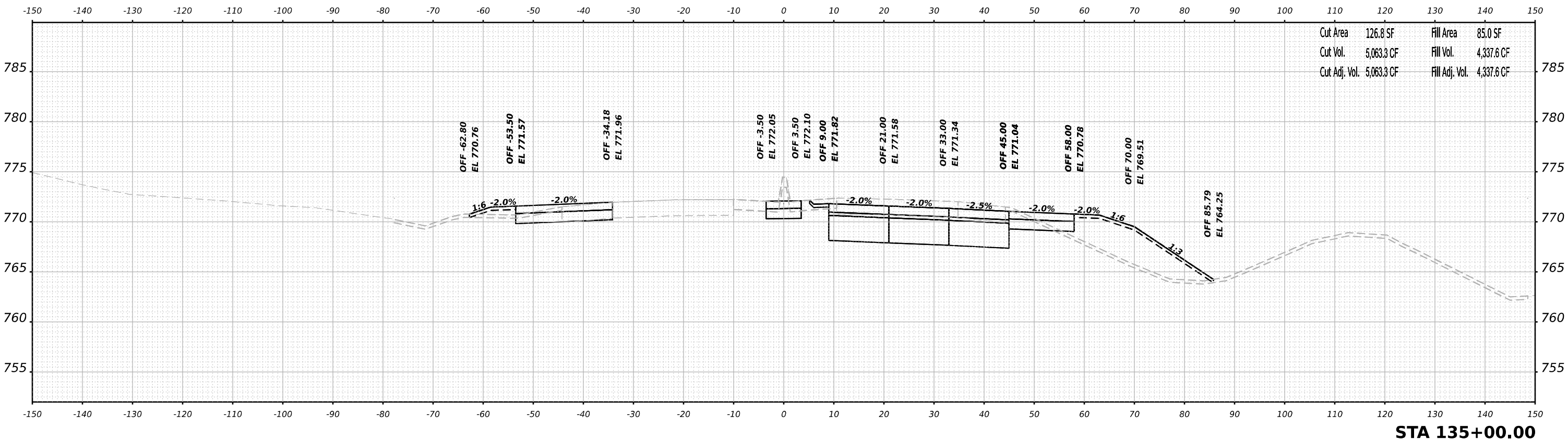
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 12 OF 70 SHEETS STA. 133+50.00 TO STA. 134+00.00

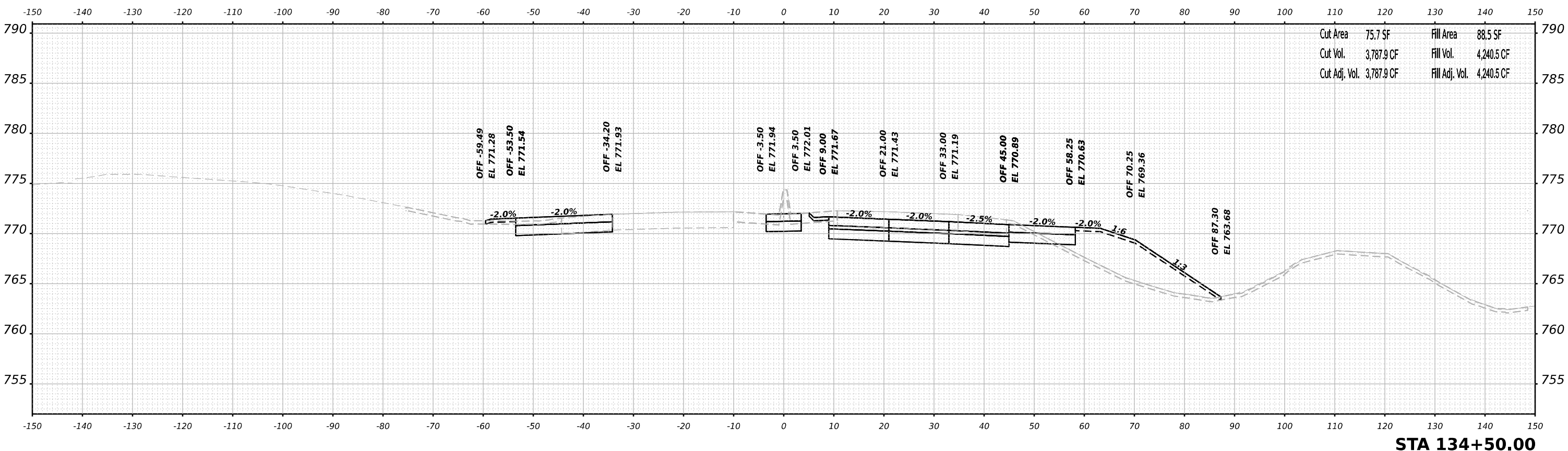
F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	767
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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



Cut Area	126.8 SF	Fill Area	85.0 SF
Cut Vol.	5,063.3 CF	Fill Vol.	4,337.6 CF
Cut Adj. Vol.	5,063.3 CF	Fill Adj. Vol.	4,337.6 CF

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



Cut Area	75.7 SF	Fill Area	88.5 SF
Cut Vol.	3,787.9 CF	Fill Vol.	4,240.5 CF
Cut Adj. Vol.	3,787.9 CF	Fill Adj. Vol.	4,240.5 CF

MODEL: PLUS2011ar-1_134+50.00 (Sheet)
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USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
CHECKED	- J.TARDY
DATE	- 10/13/2023

DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
CHECKED	- J.TARDY
DATE	- 10/13/2023

DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
CHECKED	- J.TARDY
DATE	- 10/13/2023

DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
CHECKED	- J.TARDY
DATE	- 10/13/2023

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

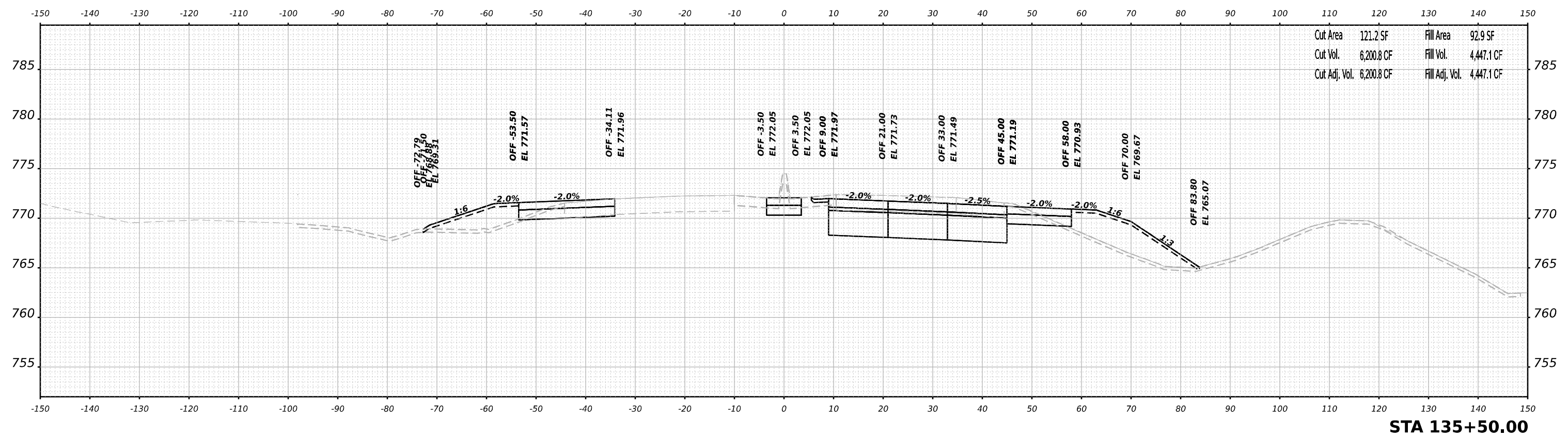
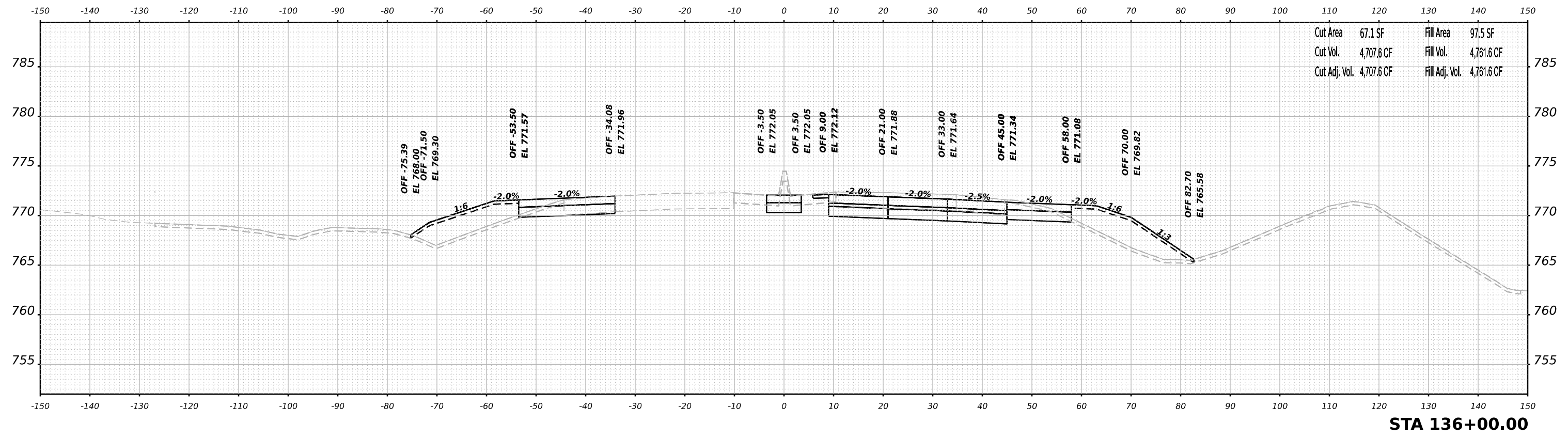
SCALE: N/A SHEET 13 OF 70 SHEETS STA. 134+50.00 TO STA. 135+00.00

F.A.I./P.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	788
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

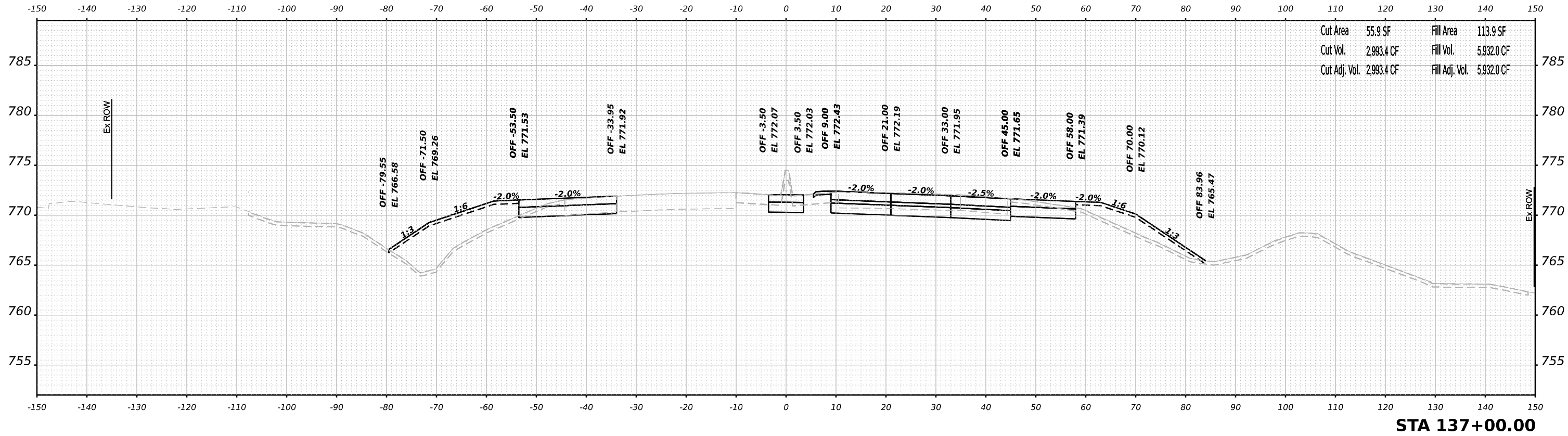
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NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	CHECKED	

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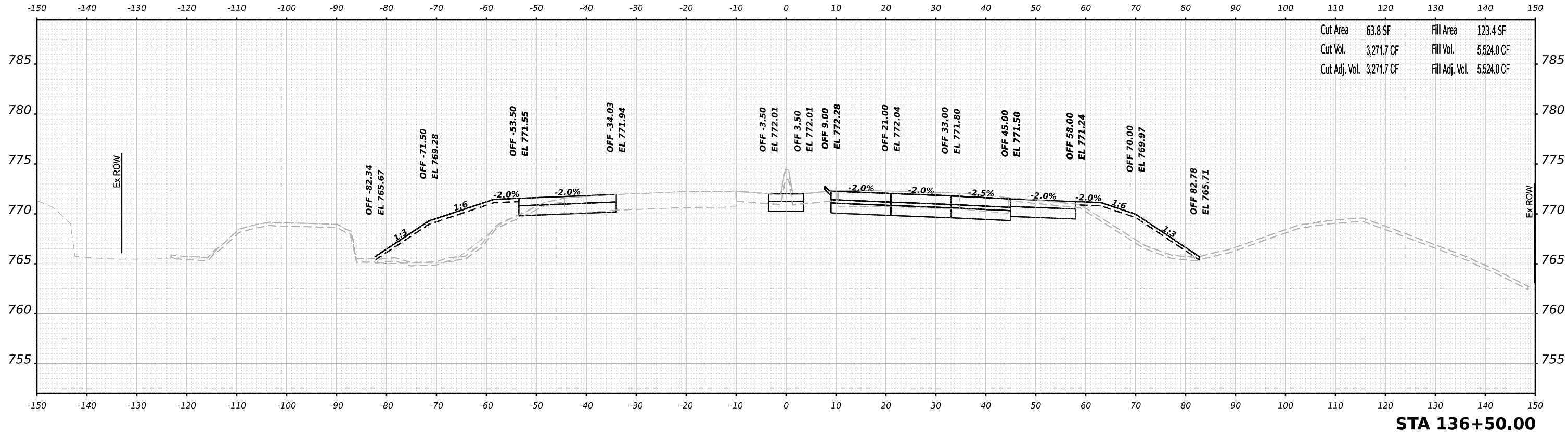


<p>Alfred Benesch & Company 35 W Wacker Drive, Suite 3300 Chicago, Illinois 60601 312-265-0450 Job No. 10660,00</p>	USER NAME = jMajcher	DESIGNED - T.VOGLER	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS HARRISON / US-20 - STAGE 1/1B			F.A.I./P.R.T.E. = 39	SECTION = (5)RS & (5&5HB)RC	COUNTY = WINNEBAGO	TOTAL SHEETS = 1279	SHEET NO. = 769	
	PLOT SCALE = 0.16666633 1/ in.	CHECKED - J.TARDY	REVISED -		SCALE: N/A	SHEET 14 OF 70 SHEETS	STA. 135+50.00 TO STA. 136+00.00	CONTRACT NO. 64R71					
	PLOT DATE = 10/26/2023	DATE = 10/13/2023	REVISED -		ILLINOIS FED. AID PROJECT								

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



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



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USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
PLOT SCALE	= 0.16666633 1/ in.
PLOT DATE	= 10/13/2023

CHECKED	- J.TARDY
DATE	- 10/13/2023

REVISED	-
REVISED	-
REVISED	-
REVISED	-

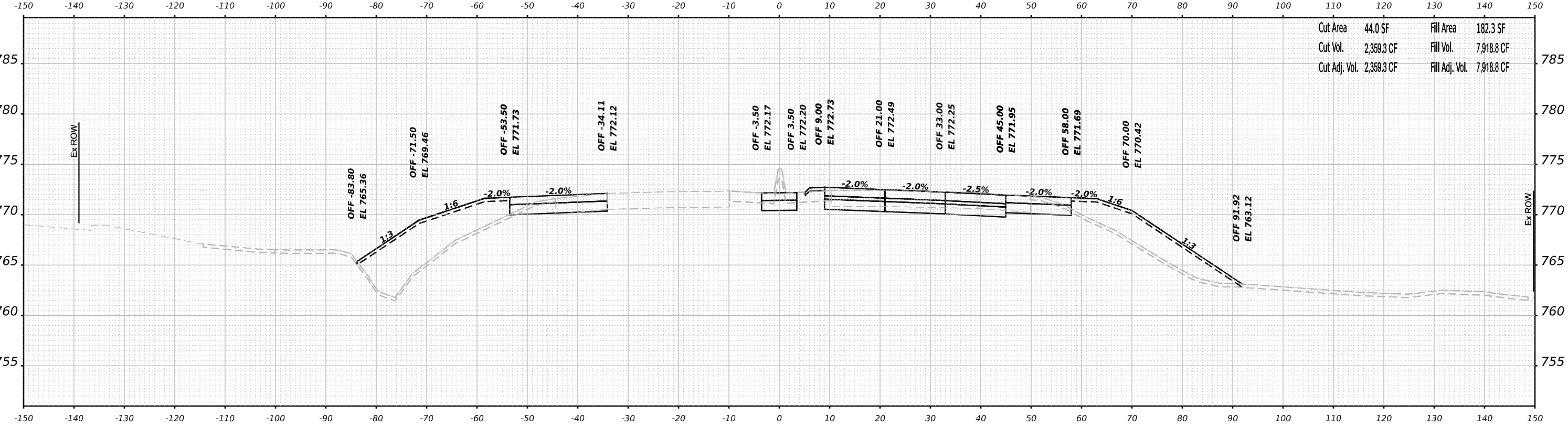
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 15 OF 70 SHEETS STA. 136+50.00 TO STA. 137+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	770
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

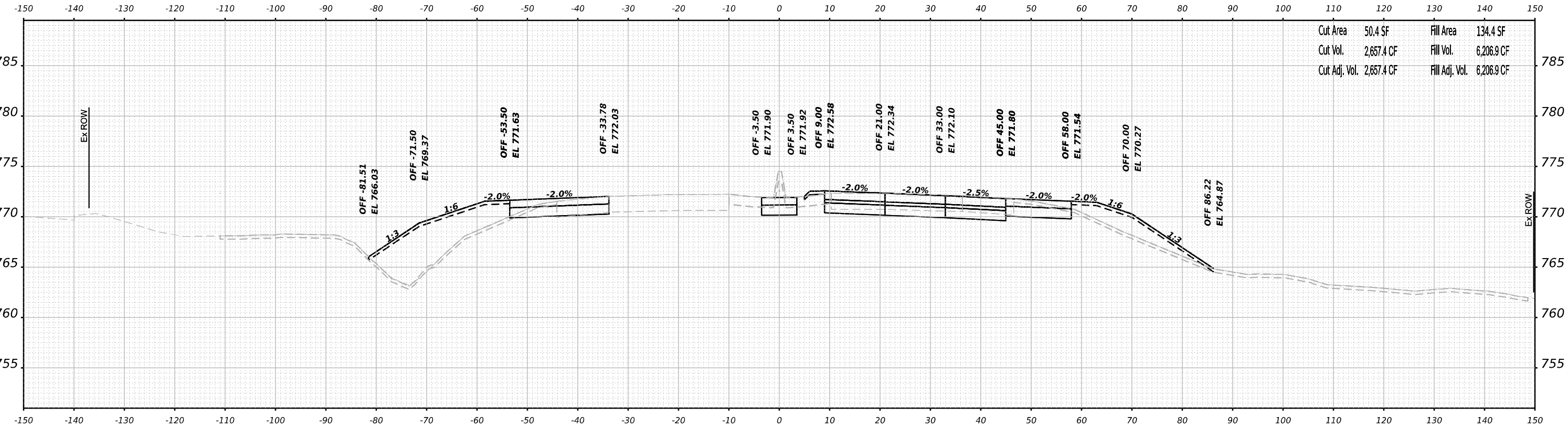
FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	CHECKED	



Cut Area	44.0 SF	Fill Area	182.3 SF
Cut Vol.	2,359.3 CF	Fill Vol.	7,918.8 CF
Cut Adj. Vol.	2,359.3 CF	Fill Adj. Vol.	7,918.8 CF

STA 138+00.00

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



Cut Area	50.4 SF	Fill Area	134.4 SF
Cut Vol.	2,657.4 CF	Fill Vol.	6,206.9 CF
Cut Adj. Vol.	2,657.4 CF	Fill Adj. Vol.	6,206.9 CF

STA 137+50.00

MODEL: Plus2018r-1-137+50.00 (Sheet)
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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

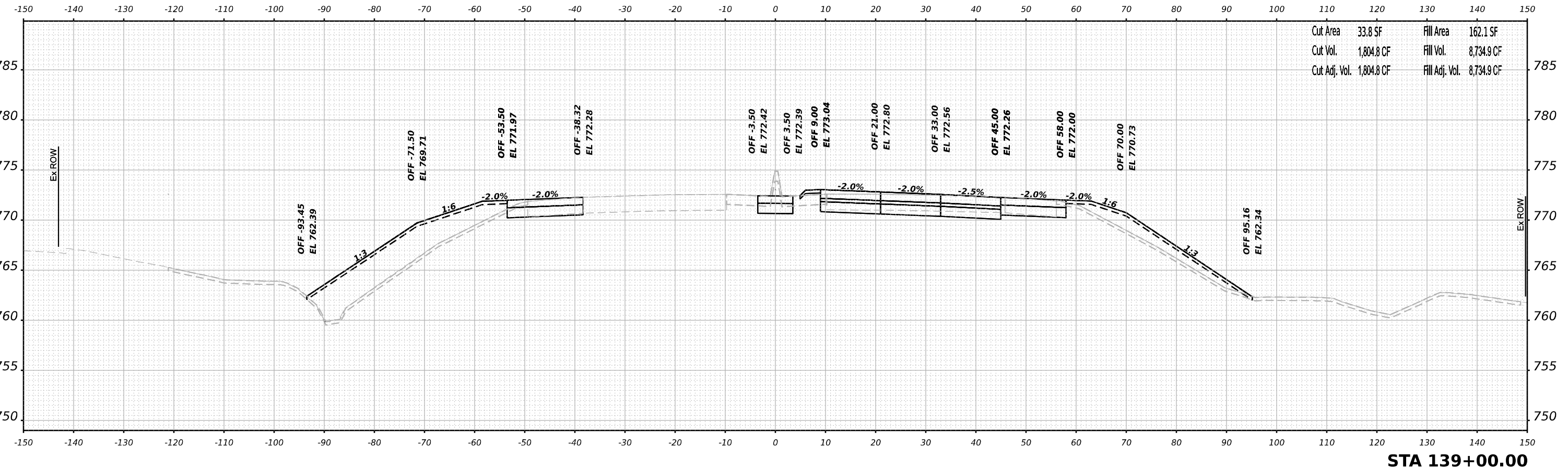
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 16 OF 70 SHEETS STA. 137+50.00 TO STA. 138+00.00

F.A.I./P.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5H)RC	WINNEBAGO	1279	771
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

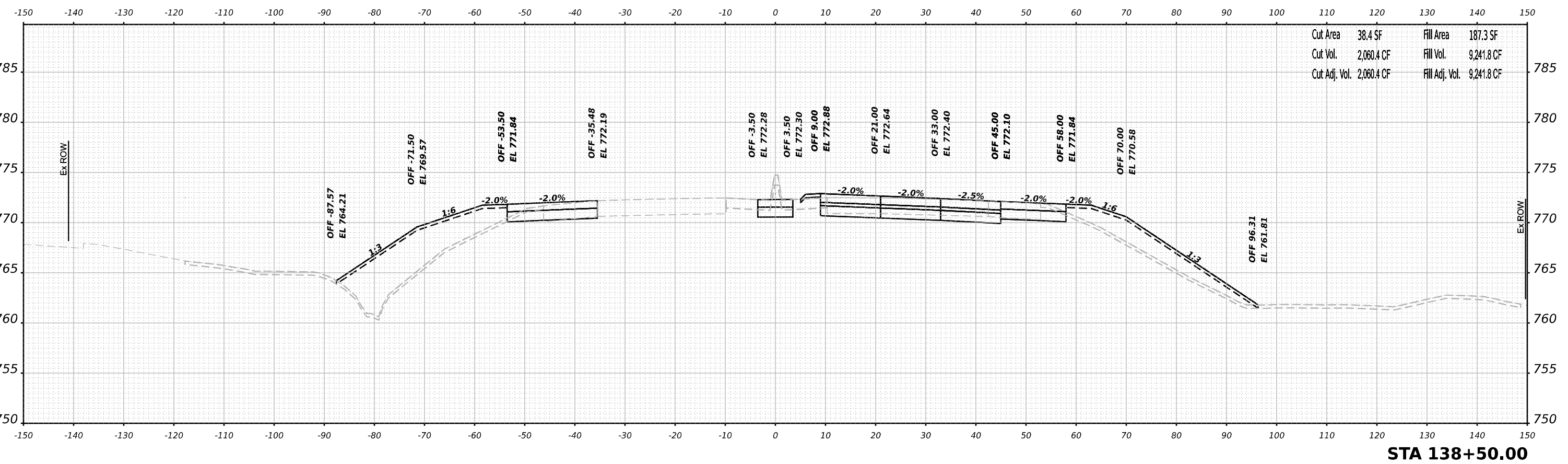
FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	CHECKED	



Cut Area	33.8 SF	Fill Area	162.1 SF
Cut Vol.	1,804.8 CF	Fill Vol.	8,734.9 CF
Cut Adj. Vol.	1,804.8 CF	Fill Adj. Vol.	8,734.9 CF

STA 139+00.00

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



Cut Area	38.4 SF	Fill Area	187.3 SF
Cut Vol.	2,060.4 CF	Fill Vol.	9,241.8 CF
Cut Adj. Vol.	2,060.4 CF	Fill Adj. Vol.	9,241.8 CF

STA 138+50.00

MODEL: Plus2018r-1-138+50.00 (Sheet)
 FILE NAME: jw@benesch.com\benesch\42\Documents\10209108\00\Eng\Draw\138+50.00\Cross_Section\138+50.00\Stage1\138+50.00\Stage1.dgn



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/16"	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

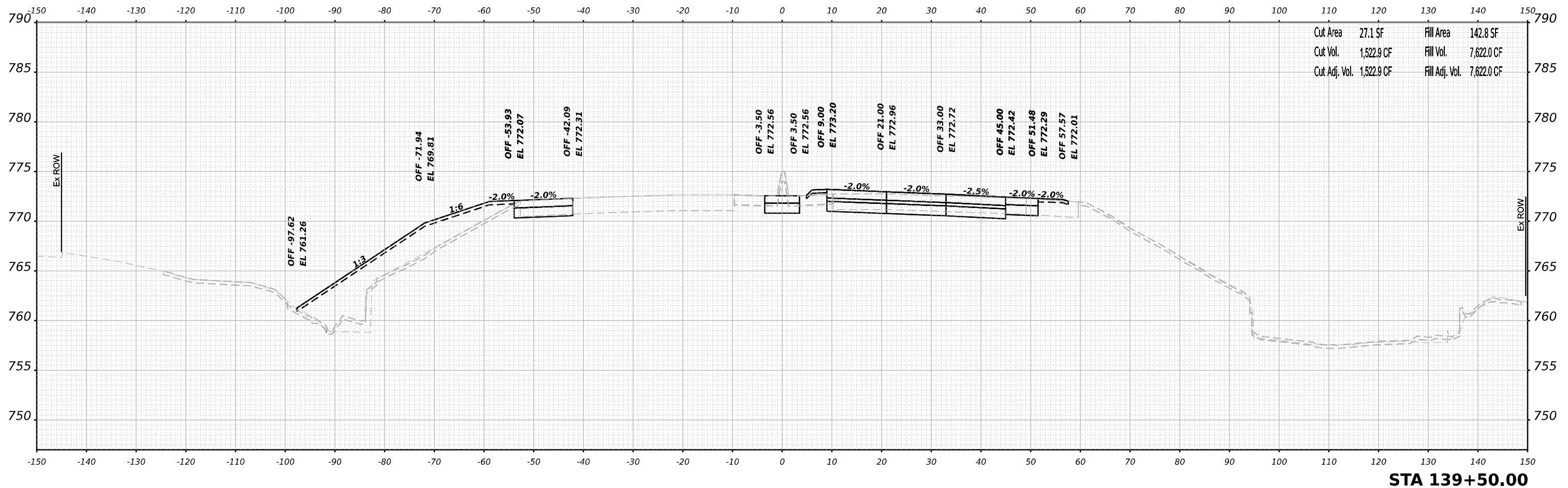
CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B
 SCALE: N/A SHEET 17 OF 70 SHEETS STA. 138+50.00 TO STA. 139+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	772
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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Cut Area	27.1 SF	Fill Area	142.8 SF
Cut Vol.	1,522.9 CF	Fill Vol.	7,622.0 CF
Cut Adj. Vol.	1,522.9 CF	Fill Adj. Vol.	7,622.0 CF

STA 139+50.00



USER NAME = jMajcher	DESIGNED - T.VOGLER	REVISED -
	DRAWN - T.VOGLER	REVISED -
PLOT SCALE = 0.16666633 1/ in.	CHECKED - J.TARDY	REVISED -
PLOT DATE = 10/13/2023	DATE - 10/13/2023	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 18 OF 70 SHEETS STA. 139+50.00 TO STA. 140+00.00

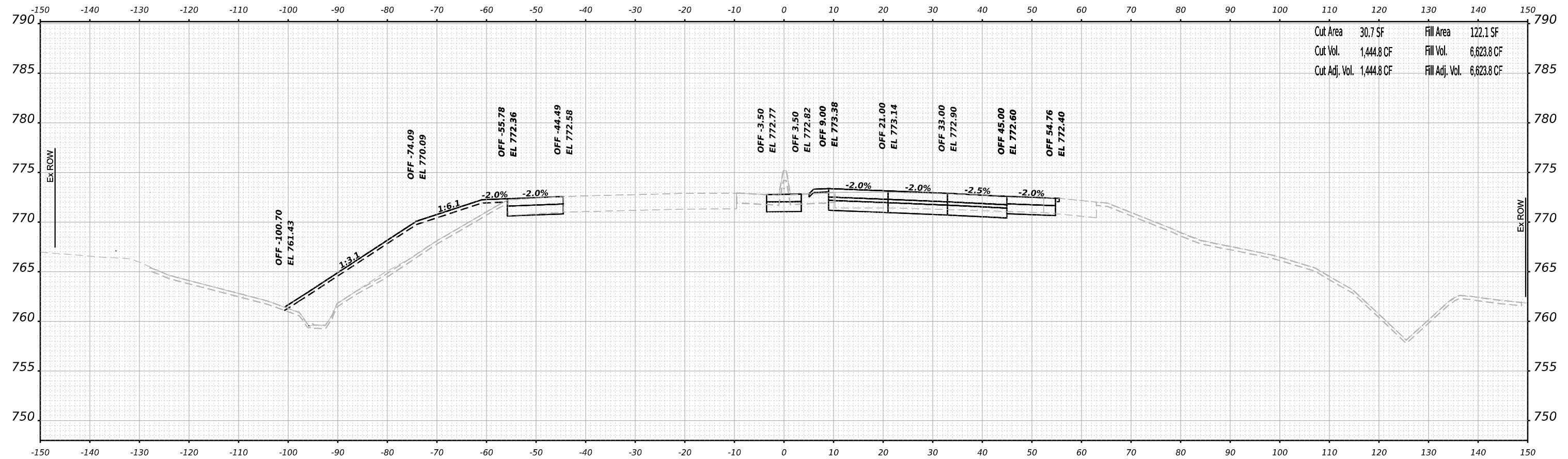
F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	773
CONTRACT NO. 64R71				

ILLINOIS FED. AID PROJECT

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

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

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 FILE NAME: p:\w\benesch.com\benesch-h4\Documents\10209108000\Eng\Drawings\0244R1-Cross-Sections-Harrison-152-Stage1.dgn



Cut Area	30.7 SF	Fill Area	122.1 SF
Cut Vol.	1,444.8 CF	Fill Vol.	6,623.8 CF
Cut Adj. Vol.	1,444.8 CF	Fill Adj. Vol.	6,623.8 CF

STA 140+00.00



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

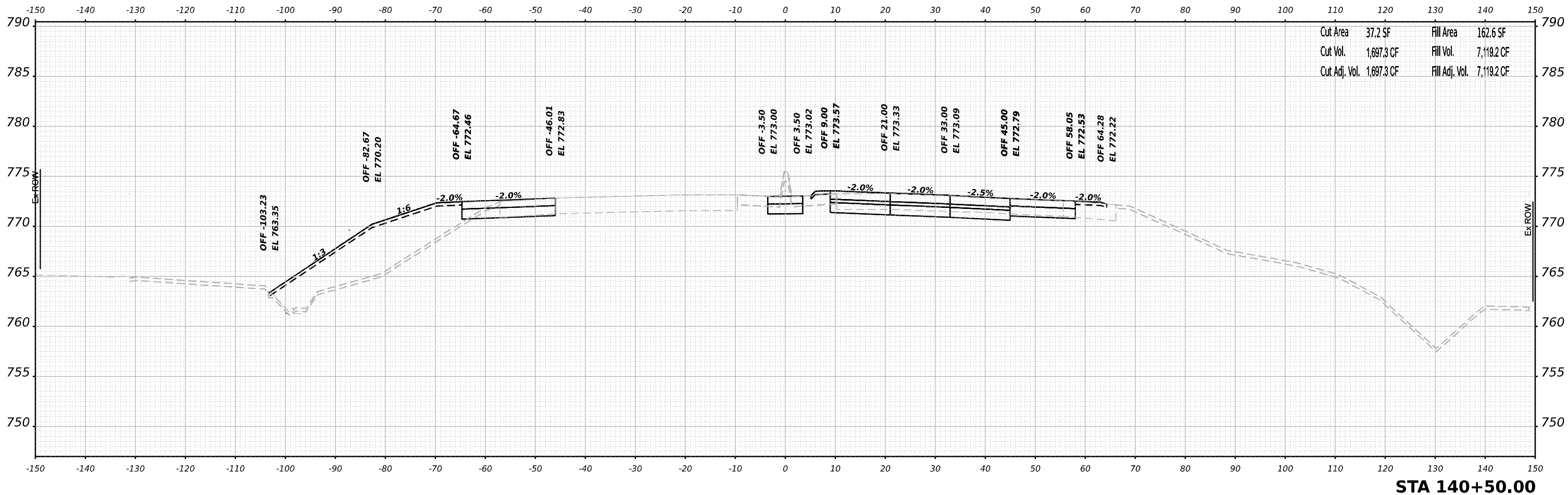
SCALE: N/A SHEET 19 OF 70 SHEETS STA. 140+00.00 TO STA. 141+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	774
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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Cut Area	37.2 SF	Fill Area	162.6 SF
Cut Vol.	1,697.3 CF	Fill Vol.	7,119.2 CF
Cut Adj. Vol.	1,697.3 CF	Fill Adj. Vol.	7,119.2 CF

STA 140+50.00



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

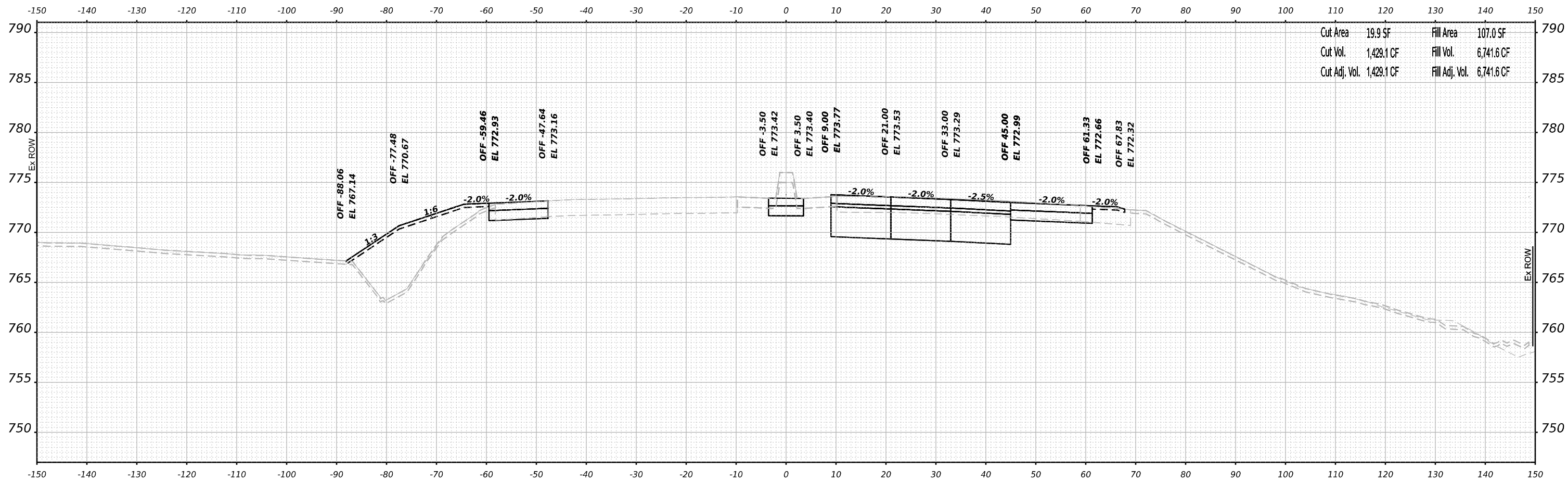
SCALE: N/A SHEET 20 OF 70 SHEETS STA. 140+50.00 TO STA. 140+50.00

F.A.I./P.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	775
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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Cut Area	19.9 SF	Fill Area	107.0 SF
Cut Vol.	1,429.1 CF	Fill Vol.	6,741.6 CF
Cut Adj. Vol.	1,429.1 CF	Fill Adj. Vol.	6,741.6 CF

STA 141+00.00



USER NAME = jMajcher	DESIGNED - T.VOGLER	REVISED -
	DRAWN - T.VOGLER	REVISED -
PLOT SCALE = 0.16666633 1/ in.	CHECKED - J.TARDY	REVISED -
PLOT DATE = 10/13/2023	DATE - 10/13/2023	REVISED -

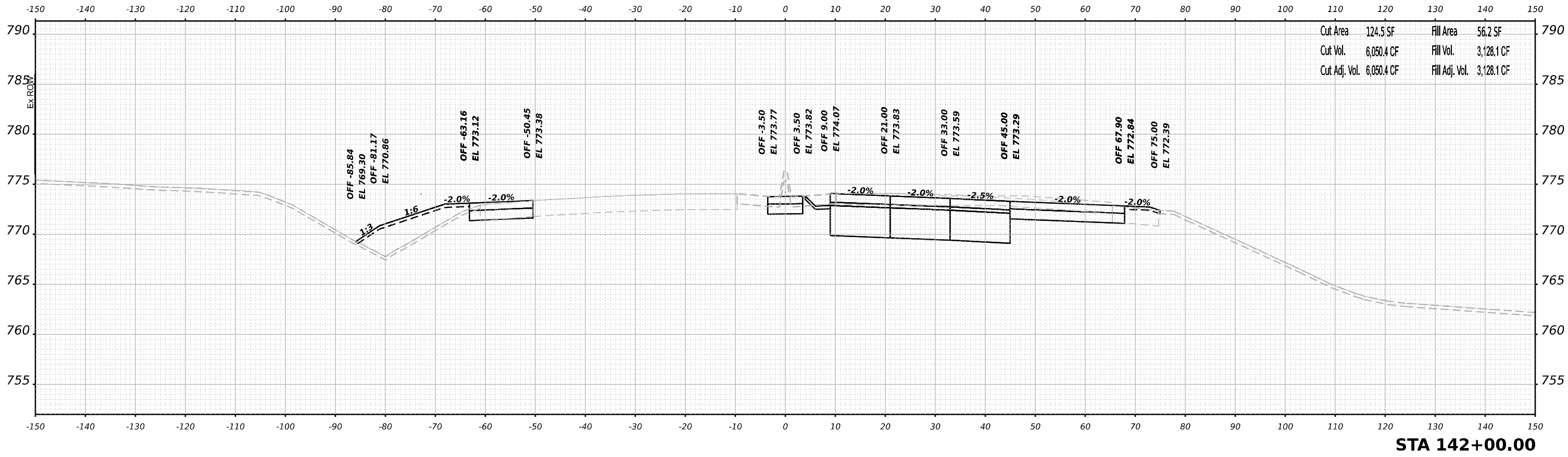
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 21 OF 70 SHEETS STA. 141+00.00 TO STA. 141+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	776
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

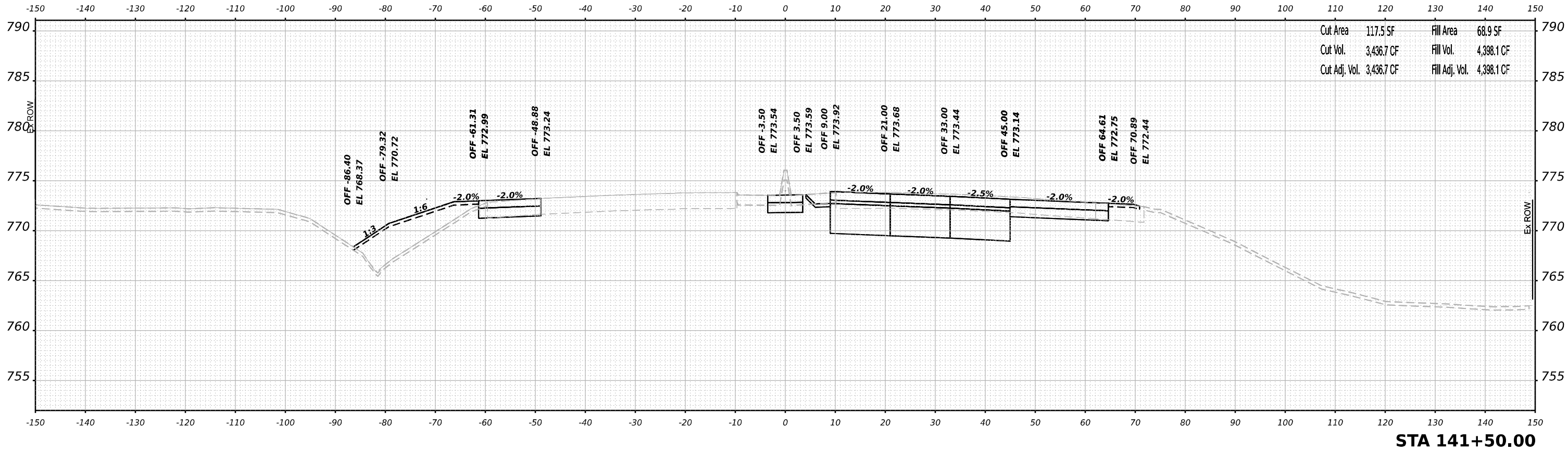
FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		



Cut Area	124.5 SF	Fill Area	56.2 SF
Cut Vol.	6,050.4 CF	Fill Vol.	3,128.1 CF
Cut Adj. Vol.	6,050.4 CF	Fill Adj. Vol.	3,128.1 CF

STA 142+00.00

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



Cut Area	117.5 SF	Fill Area	68.9 SF
Cut Vol.	3,436.7 CF	Fill Vol.	4,398.1 CF
Cut Adj. Vol.	3,436.7 CF	Fill Adj. Vol.	4,398.1 CF

STA 141+50.00

MODEL: Plus2011ar - 1 - 141 - 50.00 (Sheet)
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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

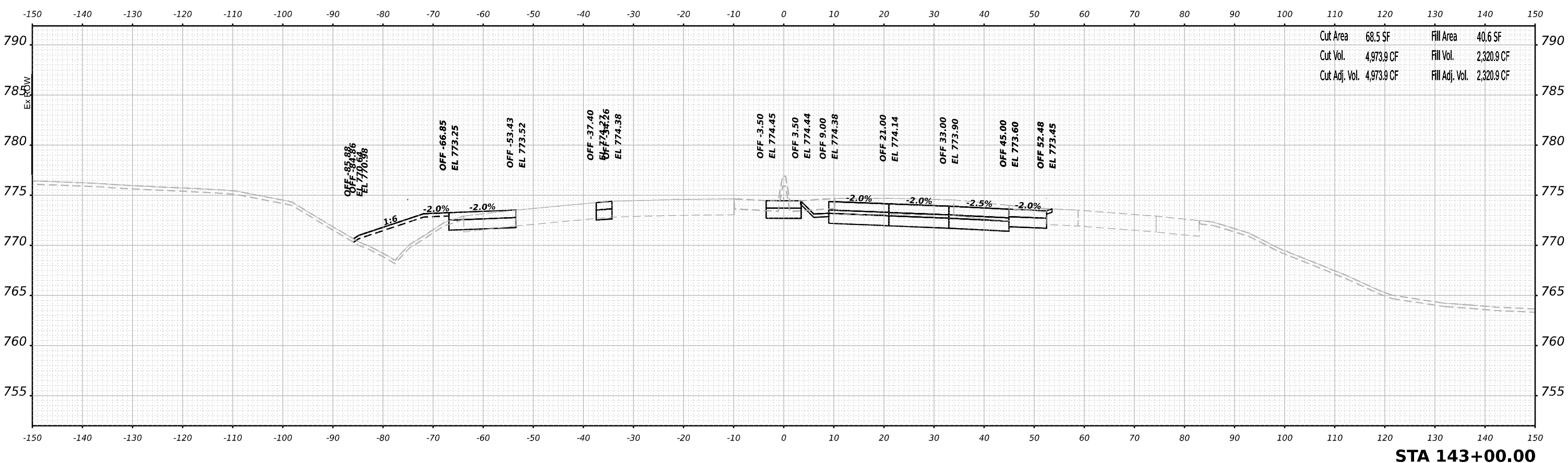
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 22 OF 70 SHEETS STA. 141+50.00 TO STA. 141+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	777
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

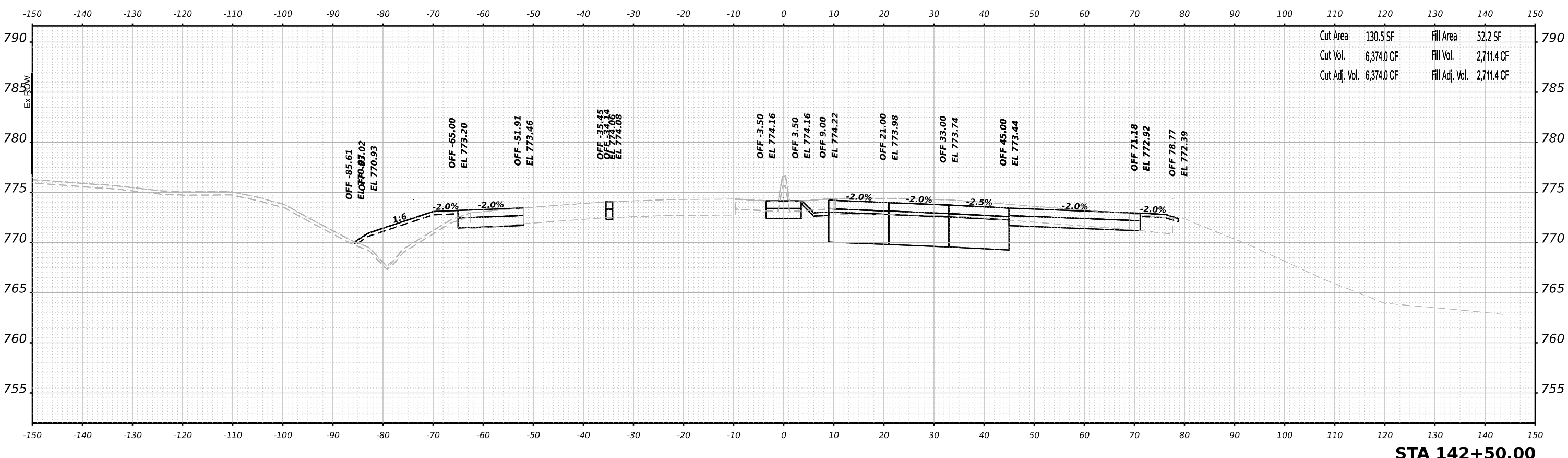
FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
	AREAS	



Cut Area	68.5 SF	Fill Area	40.6 SF
Cut Vol.	4,973.9 CF	Fill Vol.	2,320.9 CF
Cut Adj. Vol.	4,973.9 CF	Fill Adj. Vol.	2,320.9 CF

STA 143+00.00

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



Cut Area	130.5 SF	Fill Area	52.2 SF
Cut Vol.	6,374.0 CF	Fill Vol.	2,711.4 CF
Cut Adj. Vol.	6,374.0 CF	Fill Adj. Vol.	2,711.4 CF

STA 142+50.00

MODEL: Plus2014r-1-142+50.00 (Sheet)
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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**

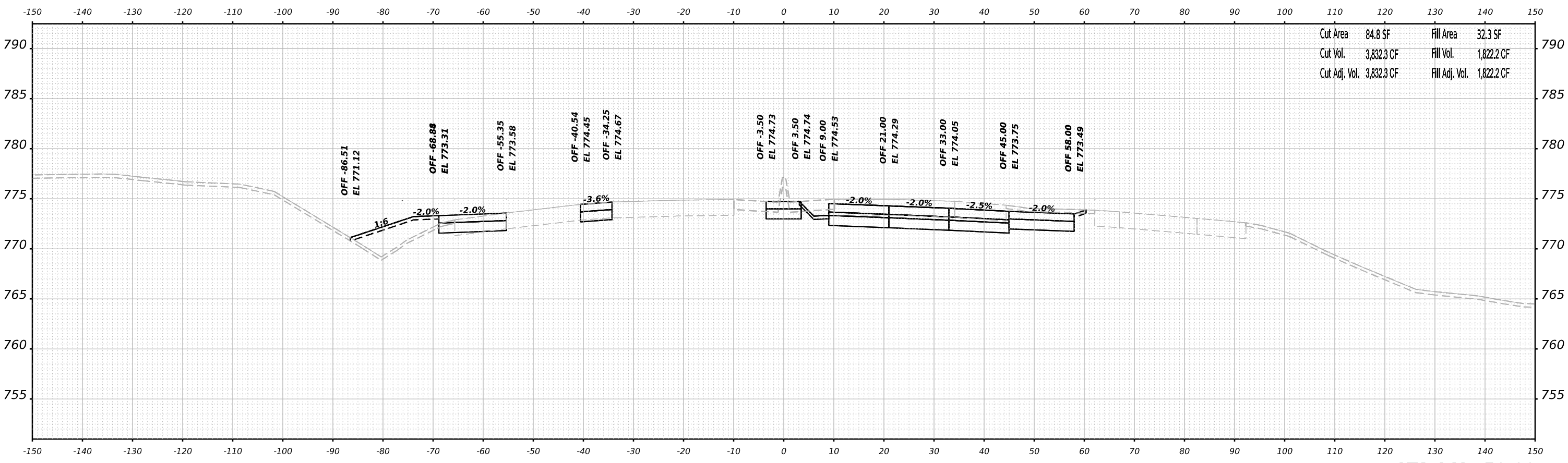
SCALE: N/A SHEET 23 OF 70 SHEETS STA. 142+50.00 TO STA. 142+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	778
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

MODEL: Plus2018r-1 - 143+50.00 (Sheet)
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STA 143+50.00



USER NAME = jMajcher	DESIGNED - T.VOGLER	REVISED -
	DRAWN - T.VOGLER	REVISED -
PLOT SCALE = 0.16666633 1/ in.	CHECKED - J.TARDY	REVISED -
PLOT DATE = 10/13/2023	DATE - 10/13/2023	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

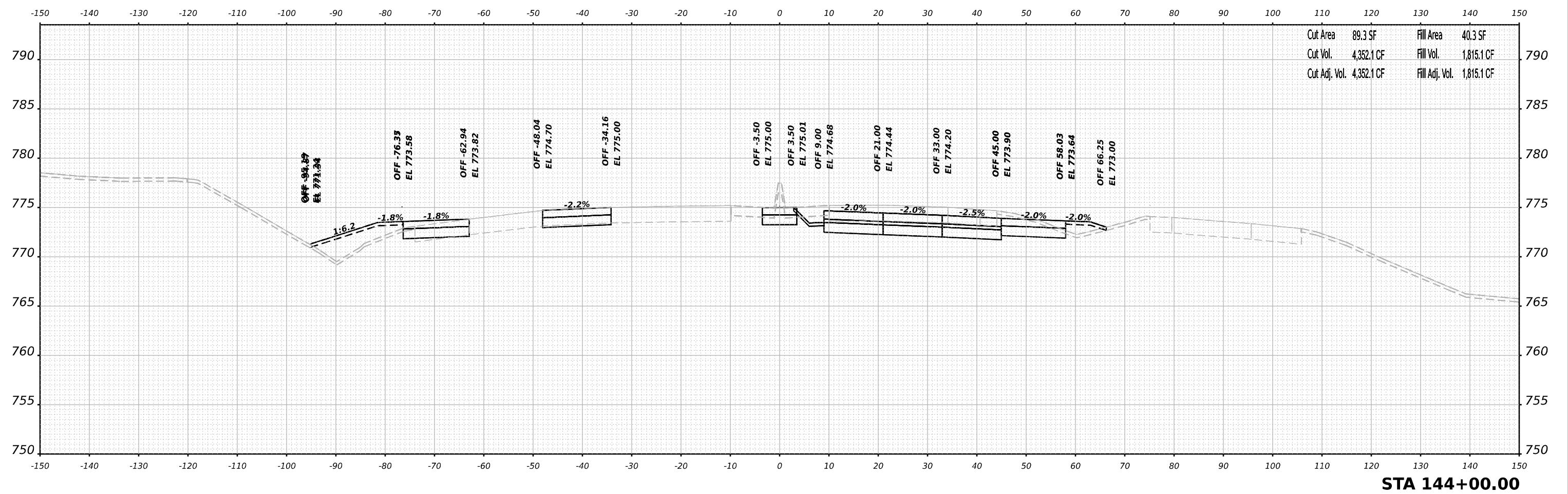
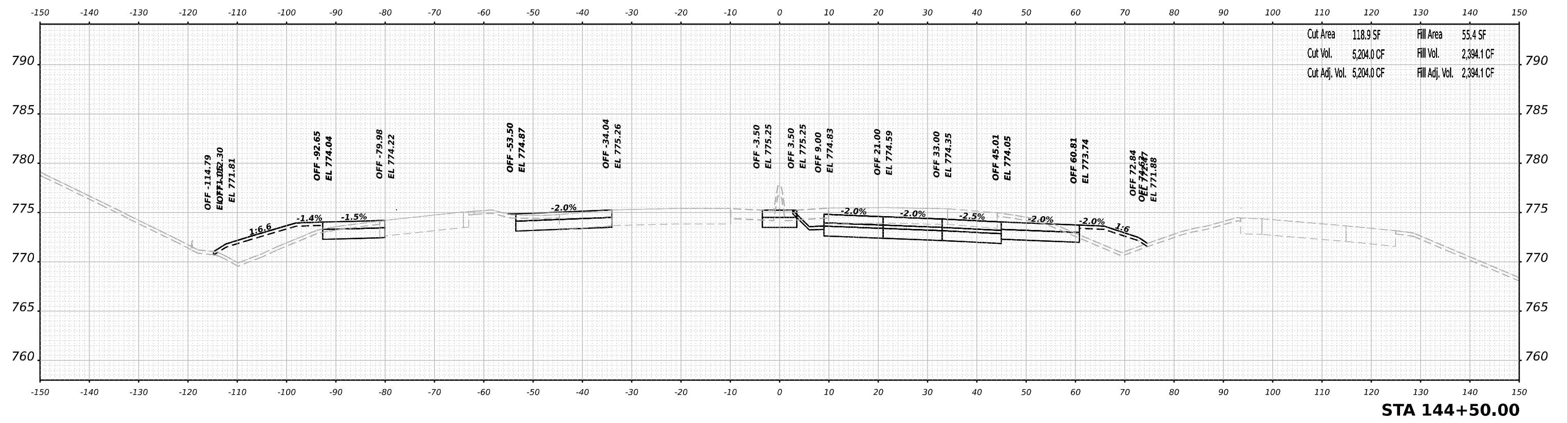
SCALE: N/A SHEET 24 OF 70 SHEETS STA. 143+50.00 TO STA. 143+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	779
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

MODEL: P1US2014r-1-144+00.00 (Sheet)
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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
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PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

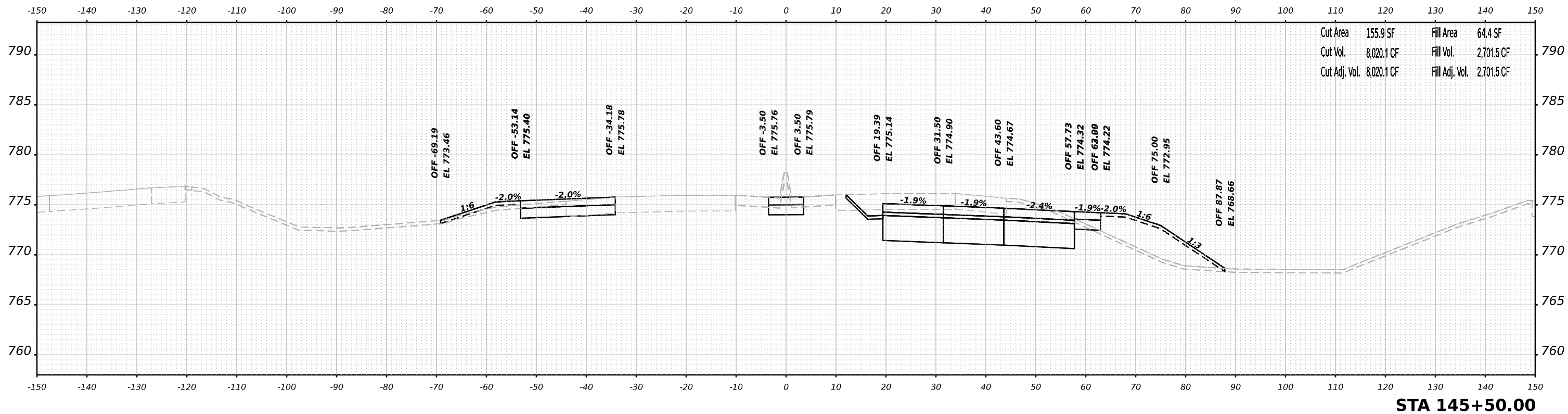
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 25 OF 70 SHEETS STA. 144+00.00 TO STA. 144+50.00

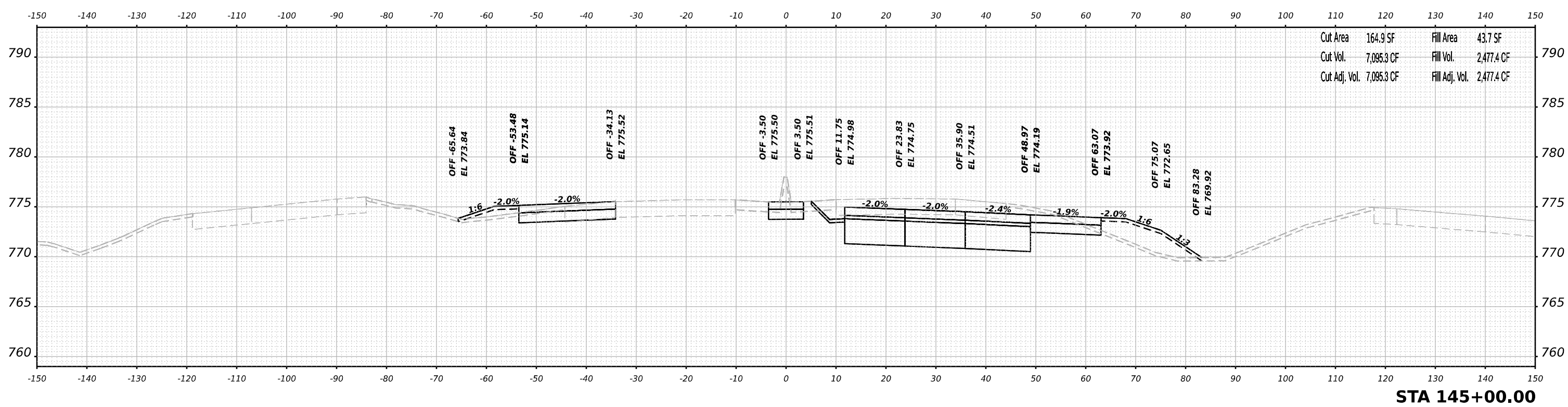
F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	780
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



Cut Area	155.9 SF	Fill Area	64.4 SF
Cut Vol.	8,020.1 CF	Fill Vol.	2,701.5 CF
Cut Adj. Vol.	8,020.1 CF	Fill Adj. Vol.	2,701.5 CF

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



Cut Area	164.9 SF	Fill Area	43.7 SF
Cut Vol.	7,095.3 CF	Fill Vol.	2,477.4 CF
Cut Adj. Vol.	7,095.3 CF	Fill Adj. Vol.	2,477.4 CF

MODEL: Plus2014r-1-145+00.00 (Sheet)
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USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
PLOT SCALE	= 0.16666633 1/ in.
PLOT DATE	= 10/13/2023

DESIGNED	- T.VOGLER	REVISED	-
DRAWN	- T.VOGLER	REVISED	-
CHECKED	- J.TARDY	REVISED	-
DATE	- 10/13/2023	REVISED	-

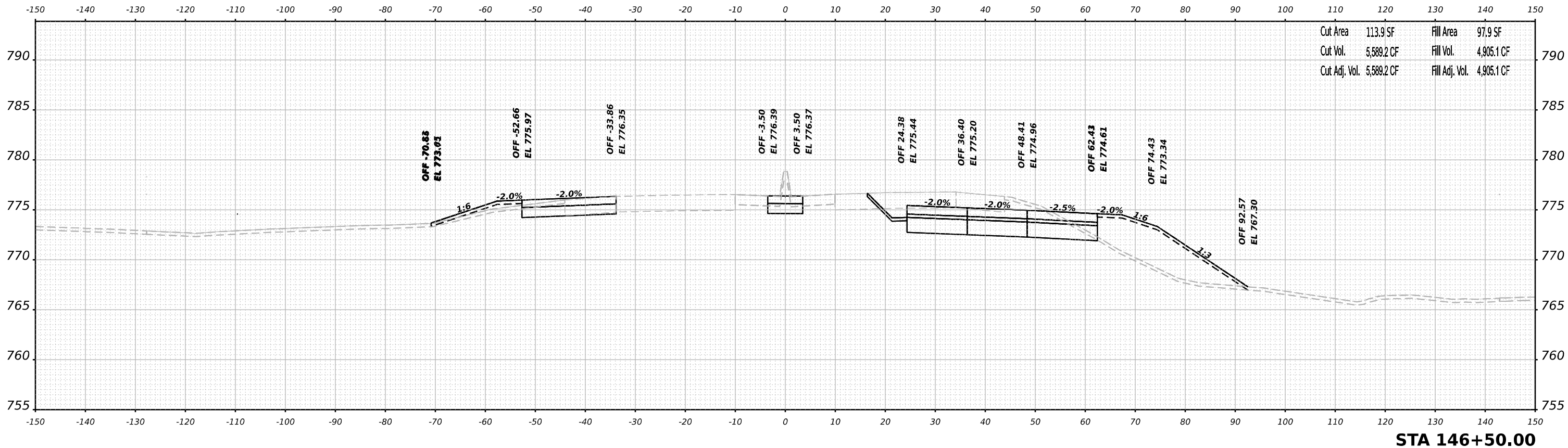
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 26 OF 70 SHEETS STA. 145+00.00 TO STA. 145+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	781
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

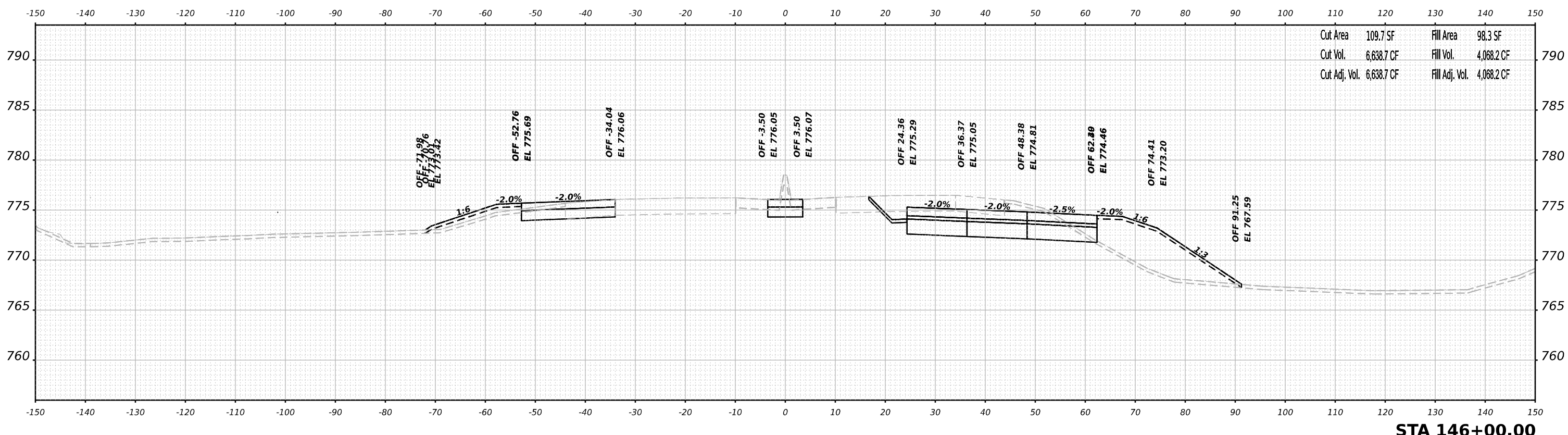
FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
	AREAS	



Cut Area	113.9 SF	Fill Area	97.9 SF
Cut Vol.	5,589.2 CF	Fill Vol.	4,905.1 CF
Cut Adj. Vol.	5,589.2 CF	Fill Adj. Vol.	4,905.1 CF

STA 146+50.00

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



Cut Area	109.7 SF	Fill Area	98.3 SF
Cut Vol.	6,638.7 CF	Fill Vol.	4,068.2 CF
Cut Adj. Vol.	6,638.7 CF	Fill Adj. Vol.	4,068.2 CF

STA 146+00.00

MODEL: Plus2011ar-1-146-00.00 (Sheet)
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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	DRAWN	- T.VOGLER	REVISED	-
PLOT DATE	= 10/13/2023	CHECKED	- J.TARDY	REVISED	-
		DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**

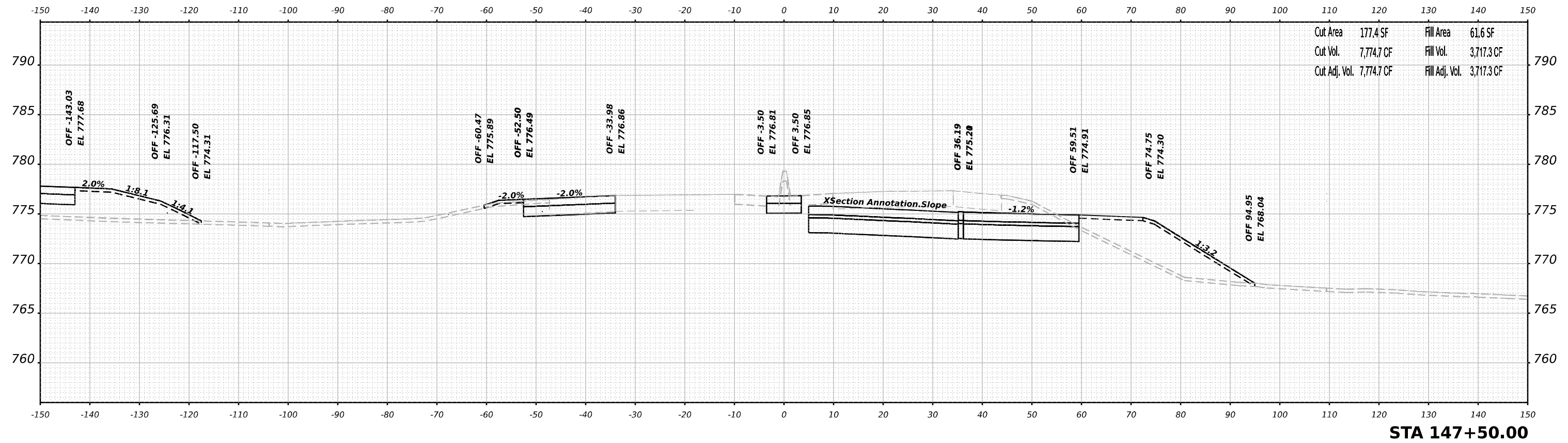
SCALE: N/A SHEET 27 OF 70 SHEETS STA. 146+00.00 TO STA. 146+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	782
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

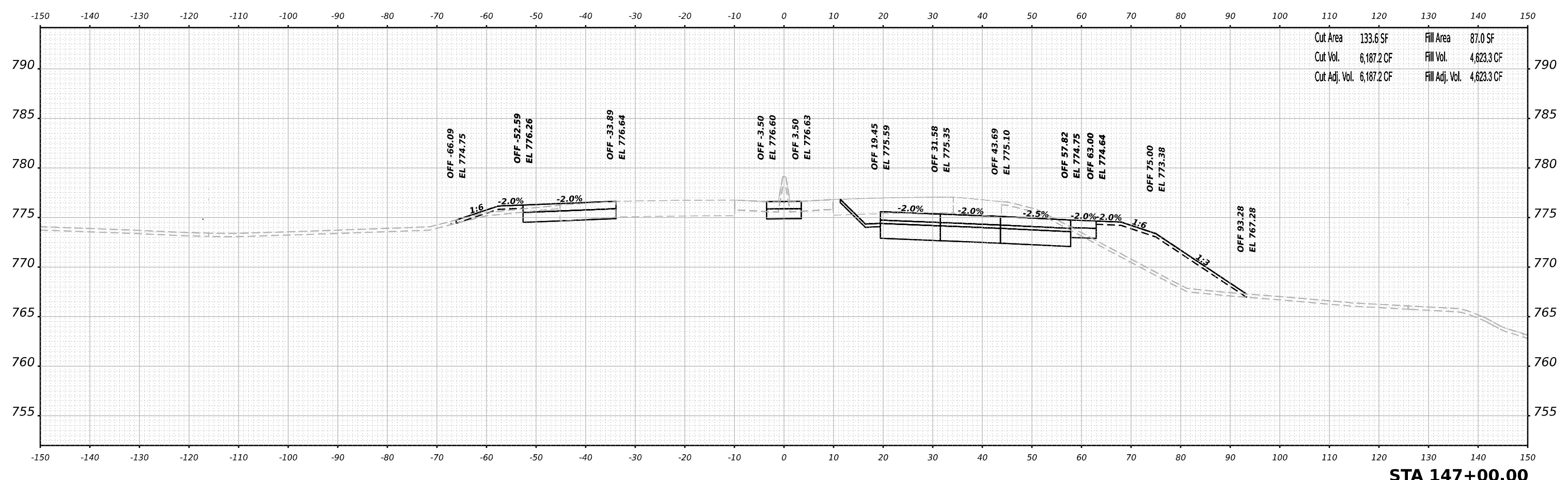
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
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ORIGINAL SURVEY	
NOTE BOOK	
NO.	

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Cut Area	177.4 SF	Fill Area	61.6 SF
Cut Vol.	7,774.7 CF	Fill Vol.	3,717.3 CF
Cut Adj. Vol.	7,774.7 CF	Fill Adj. Vol.	3,717.3 CF

STA 147+50.00



Cut Area	133.6 SF	Fill Area	87.0 SF
Cut Vol.	6,187.2 CF	Fill Vol.	4,623.3 CF
Cut Adj. Vol.	6,187.2 CF	Fill Adj. Vol.	4,623.3 CF

STA 147+00.00



USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
PLOT SCALE	= 0.16666633 1/ in.
PLOT DATE	= 10/13/2023

REVISIED	-
REVISIED	-
REVISIED	-
REVISIED	-
DATE	- 10/13/2023

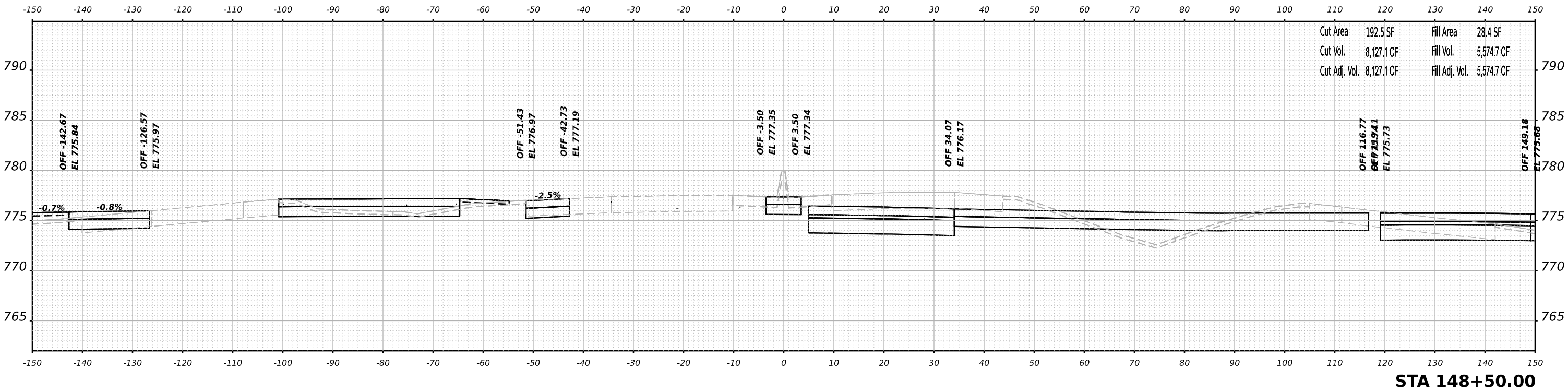
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

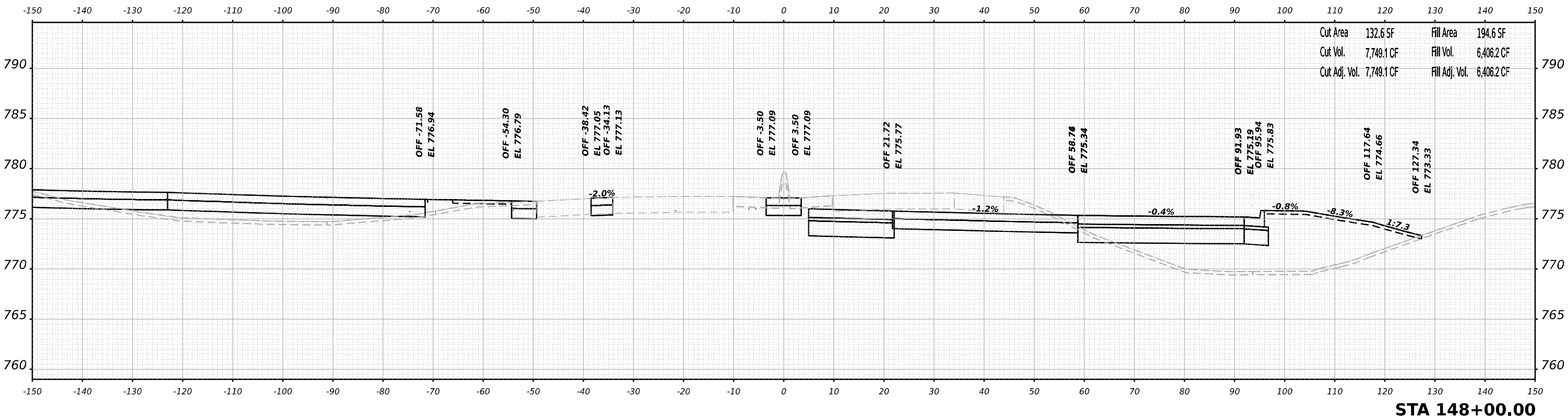
SCALE: N/A SHEET 28 OF 70 SHEETS STA. 147+00.00 TO STA. 147+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	783
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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



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



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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

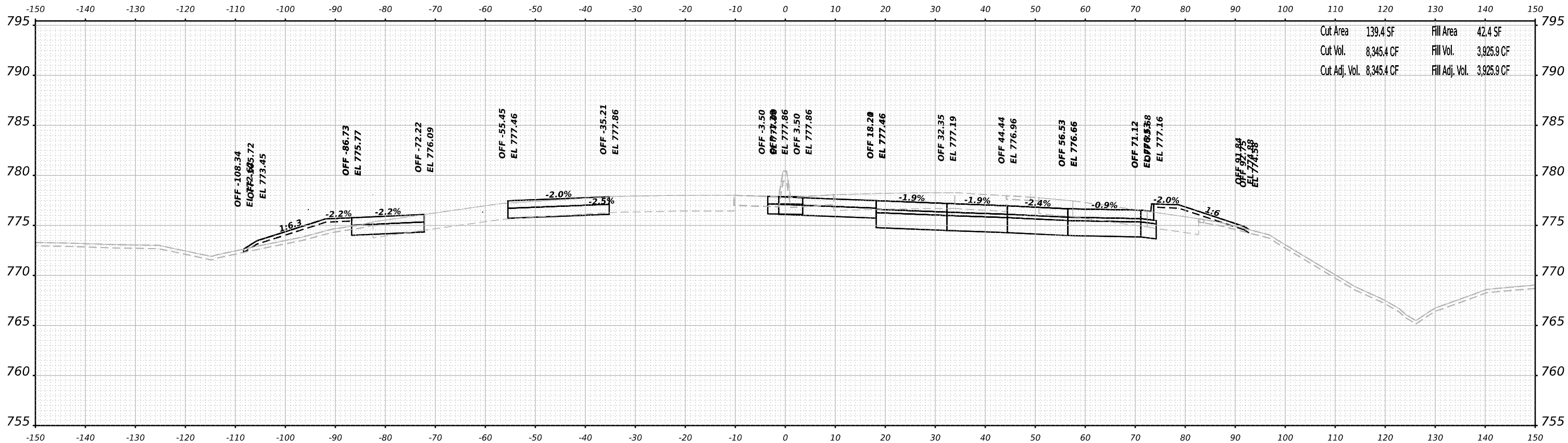
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 29 OF 70 SHEETS STA. 148+00.00 TO STA. 148+50.00

F.A.I.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	784
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

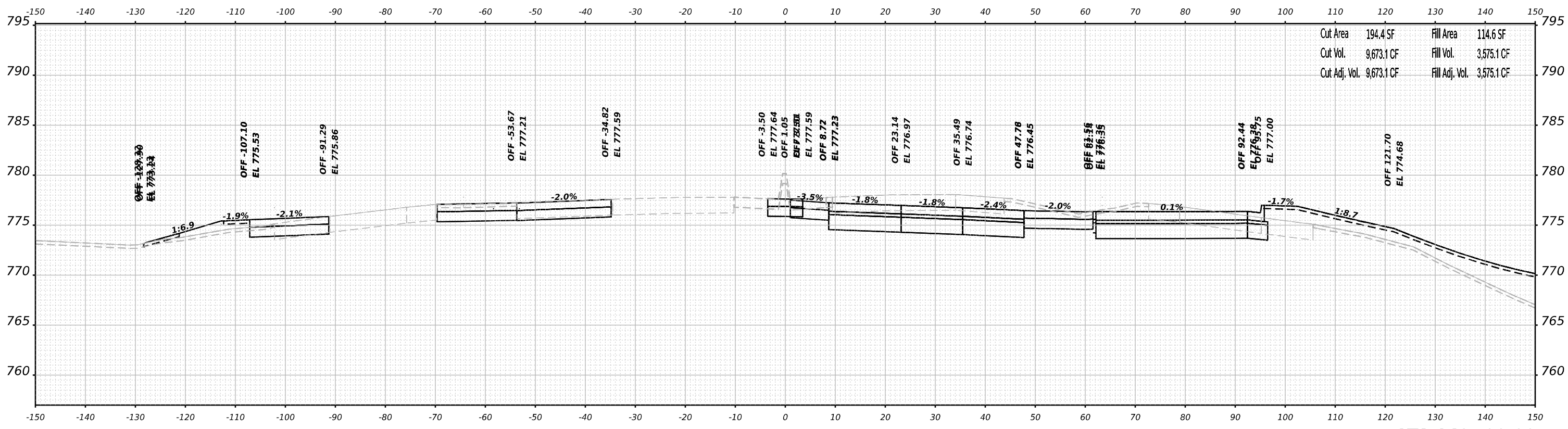
FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	CHECKED	



Cut Area	139.4 SF	Fill Area	42.4 SF
Cut Vol.	8,345.4 CF	Fill Vol.	3,925.9 CF
Cut Adj. Vol.	8,345.4 CF	Fill Adj. Vol.	3,925.9 CF

STA 149+50.00

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



Cut Area	194.4 SF	Fill Area	114.6 SF
Cut Vol.	9,673.1 CF	Fill Vol.	3,575.1 CF
Cut Adj. Vol.	9,673.1 CF	Fill Adj. Vol.	3,575.1 CF

STA 149+00.00

MODEL: Plus2011ar-1-149-00.00 (Sheet)
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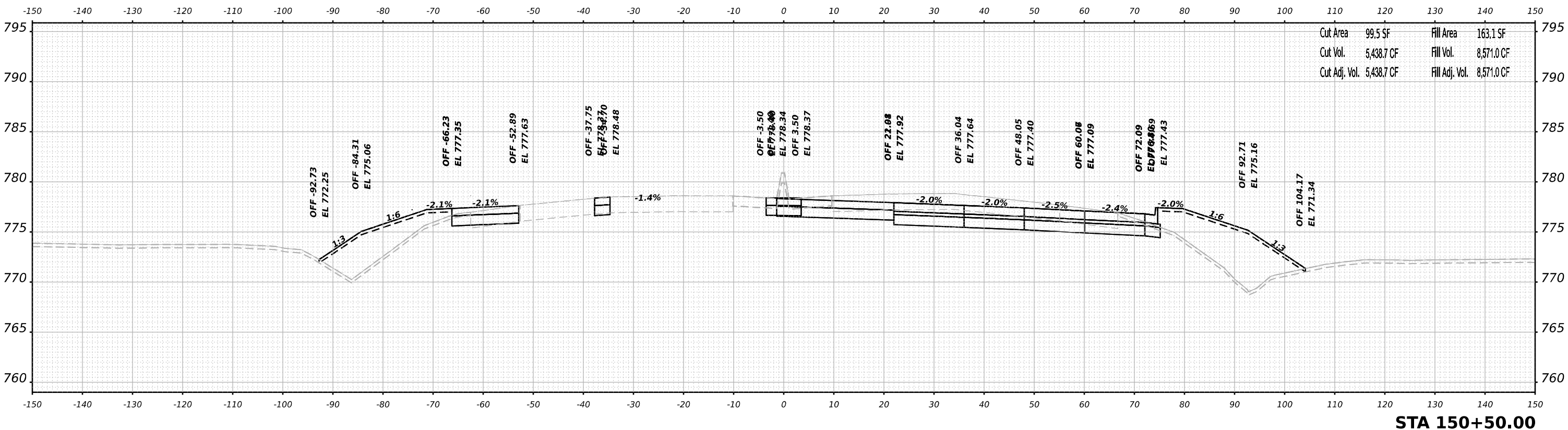
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		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS HARRISON / US-20 - STAGE 1/1B	
SCALE: N/A	SHEET 30 OF 70 SHEETS
STA. 149+00.00 TO STA. 149+50.00	

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	785
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

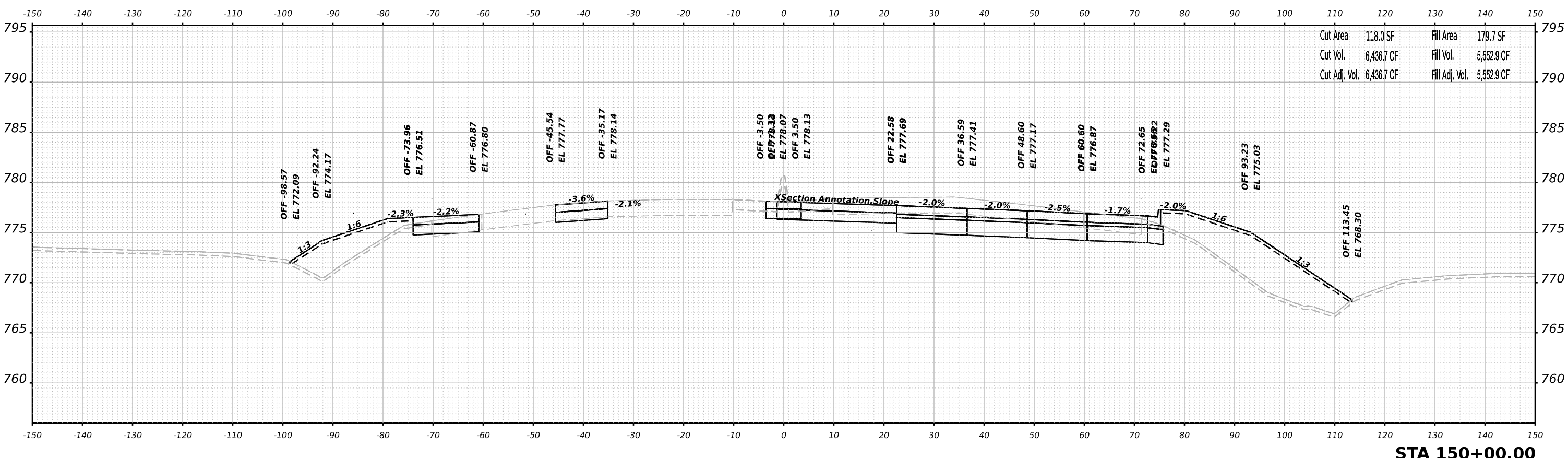
FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		



Cut Area	99.5 SF	Fill Area	163.1 SF
Cut Vol.	5,438.7 CF	Fill Vol.	8,571.0 CF
Cut Adj. Vol.	5,438.7 CF	Fill Adj. Vol.	8,571.0 CF

STA 150+50.00

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



Cut Area	118.0 SF	Fill Area	179.7 SF
Cut Vol.	6,436.7 CF	Fill Vol.	5,552.9 CF
Cut Adj. Vol.	6,436.7 CF	Fill Adj. Vol.	5,552.9 CF

STA 150+00.00

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Alfred Benesch & Company
 35 W Wacker Drive, Suite 3300
 Chicago, Illinois 60601
 312-265-0450 Job No. 10660,00

USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	DRAWN	- T.VOGLER	REVISED	-
PLOT DATE	= 10/13/2023	CHECKED	- J.TARDY	REVISED	-
		DATE	- 10/13/2023	REVISED	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

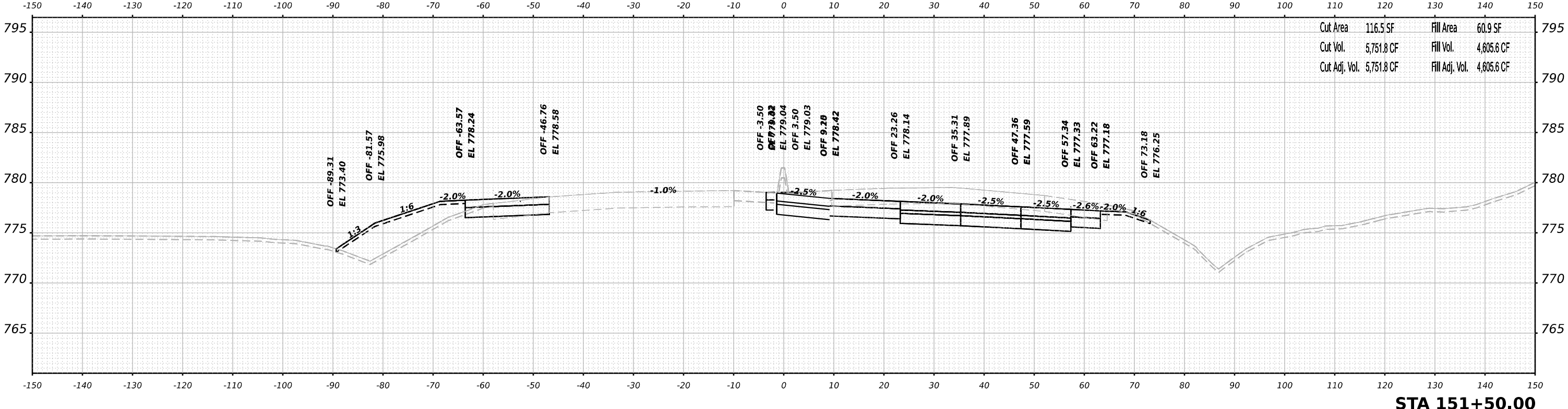
CROSS SECTIONS	
HARRISON / US-20 - STAGE 1/1B	
SCALE: N/A	SHEET 31 OF 70 SHEETS
STA. 150+00.00	TO STA. 150+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	786
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

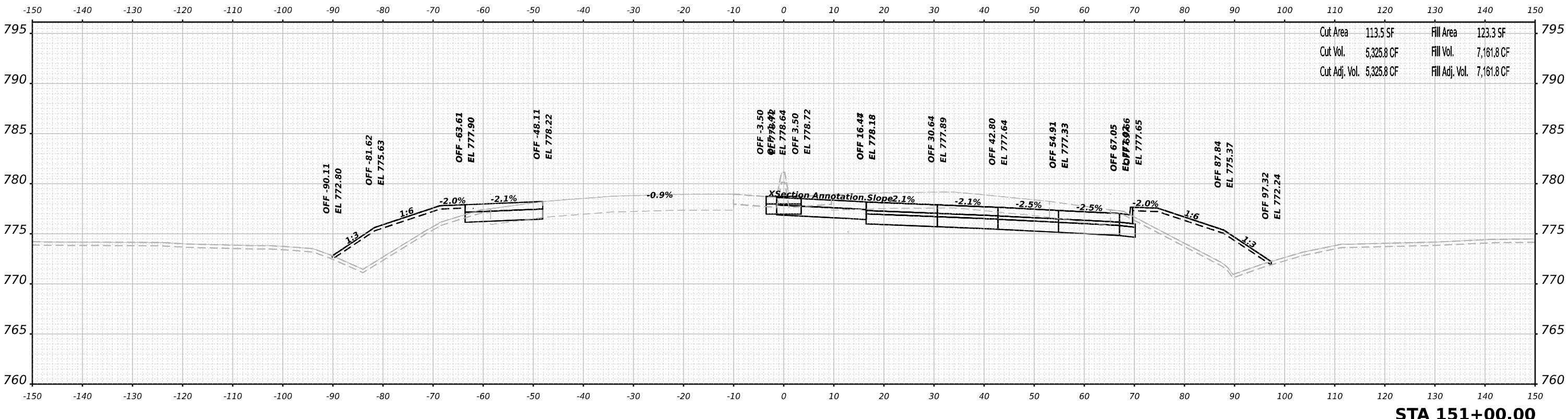
FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

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

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Cut Area	116.5 SF	Fill Area	60.9 SF
Cut Vol.	5,751.8 CF	Fill Vol.	4,605.6 CF
Cut Adj. Vol.	5,751.8 CF	Fill Adj. Vol.	4,605.6 CF



Cut Area	113.5 SF	Fill Area	123.3 SF
Cut Vol.	5,325.8 CF	Fill Vol.	7,161.8 CF
Cut Adj. Vol.	5,325.8 CF	Fill Adj. Vol.	7,161.8 CF



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

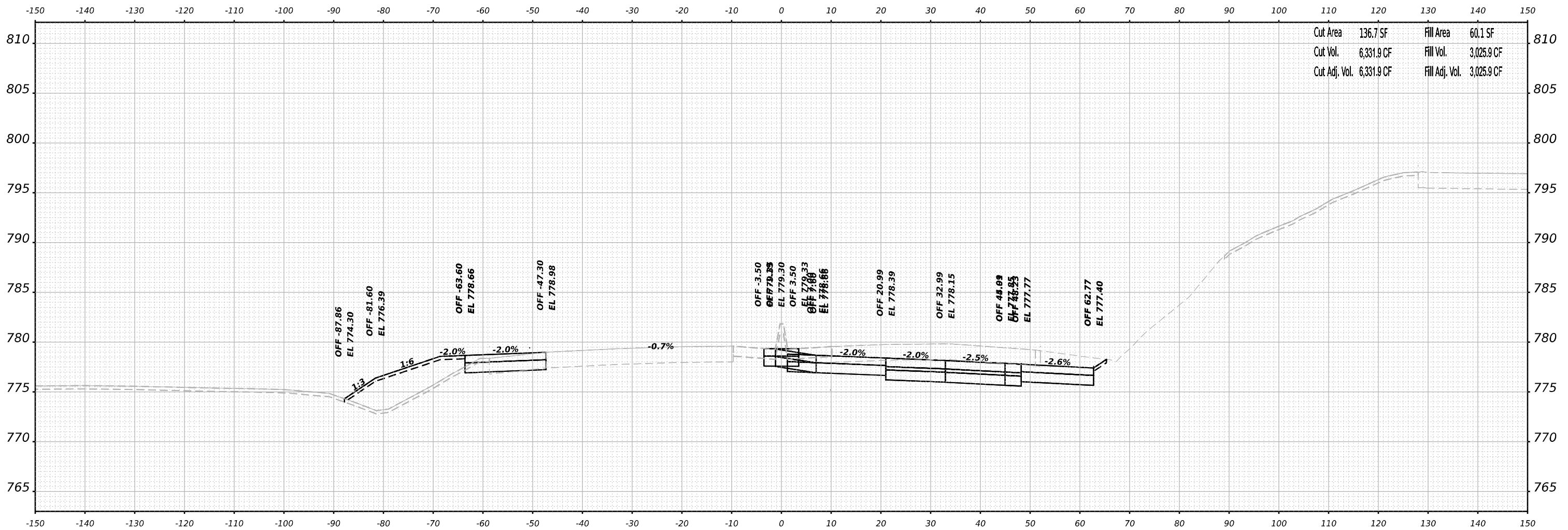
SCALE: N/A SHEET 32 OF 70 SHEETS STA. 151+00.00 TO STA. 151+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	787
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

MODEL: Plus2018r-1-152+00.00 (Sheet)
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Cut Area	136.7 SF	Fill Area	60.1 SF
Cut Vol.	6,331.9 CF	Fill Vol.	3,025.9 CF
Cut Adj. Vol.	6,331.9 CF	Fill Adj. Vol.	3,025.9 CF

STA 152+00.00



USER NAME = jMajcher	DESIGNED - T.VOGLER	REVISED -
	DRAWN - T.VOGLER	REVISED -
PLOT SCALE = 0.16666633 1/ in.	CHECKED - J.TARDY	REVISED -
PLOT DATE = 10/13/2023	DATE - 10/13/2023	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

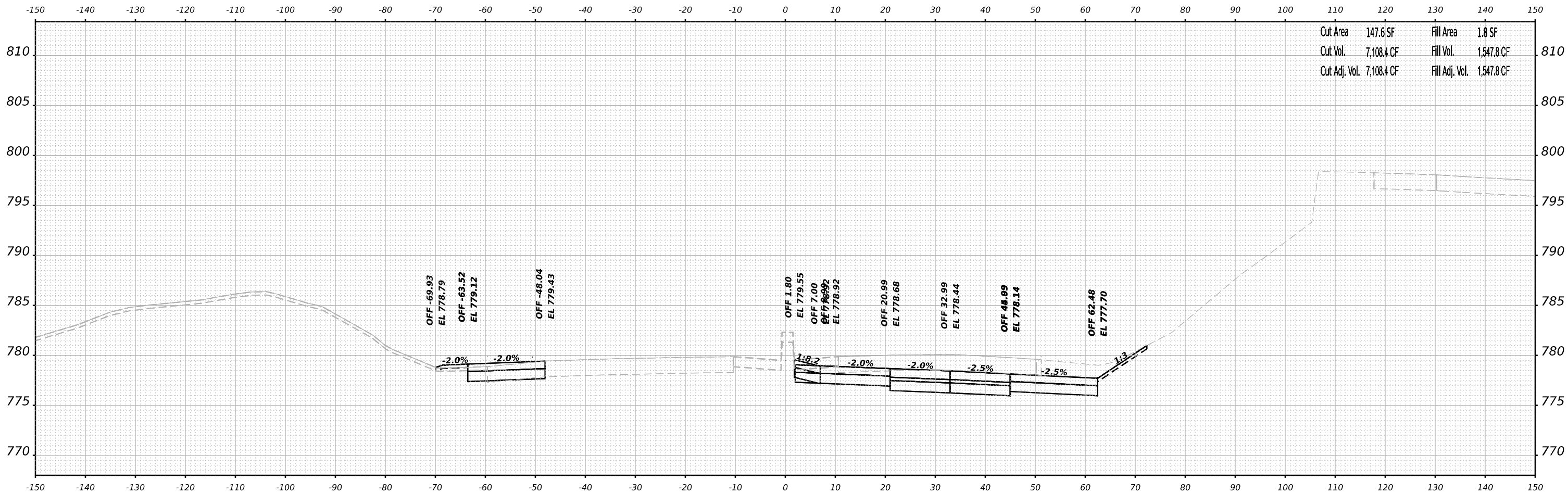
SCALE: N/A SHEET 33 OF 70 SHEETS STA. 152+00.00 TO STA. 152+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	788
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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Cut Area	147.6 SF	Fill Area	1.8 SF
Cut Vol.	7,108.4 CF	Fill Vol.	1,547.8 CF
Cut Adj. Vol.	7,108.4 CF	Fill Adj. Vol.	1,547.8 CF

STA 152+50.00



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**

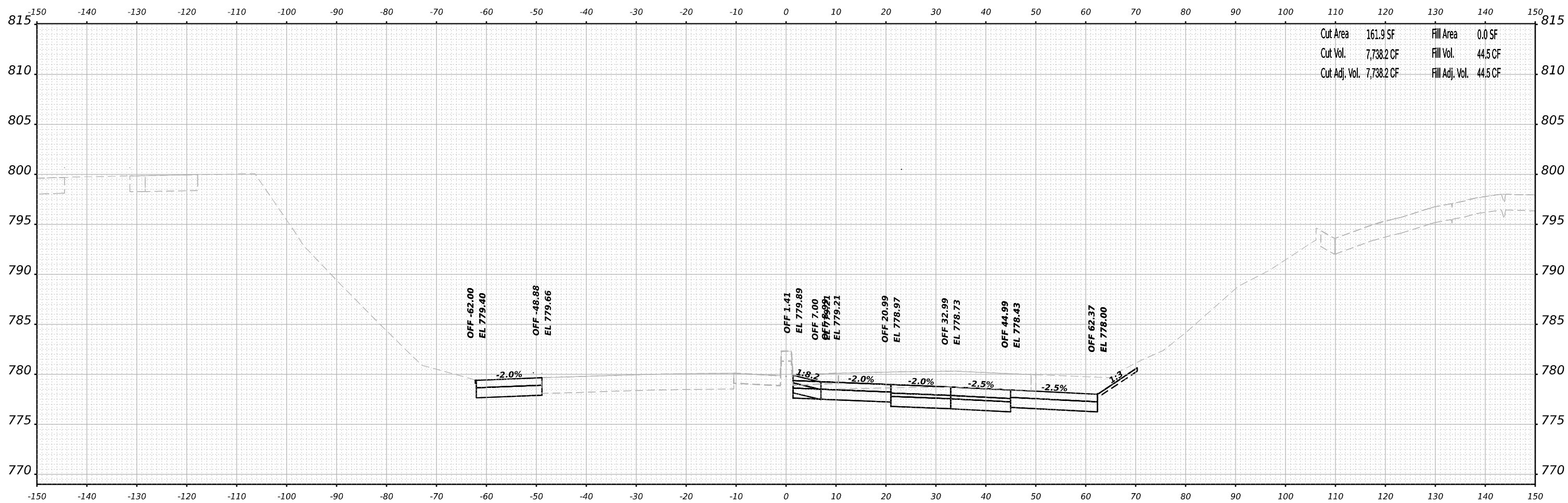
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F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	789
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

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STA 153+00.00



USER NAME = jMajcher	DESIGNED - T.VOGLER	REVISED -
	DRAWN - T.VOGLER	REVISED -
PLOT SCALE = 0.16666633 1/ in.	CHECKED - J.TARDY	REVISED -
PLOT DATE = 10/13/2023	DATE - 10/13/2023	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

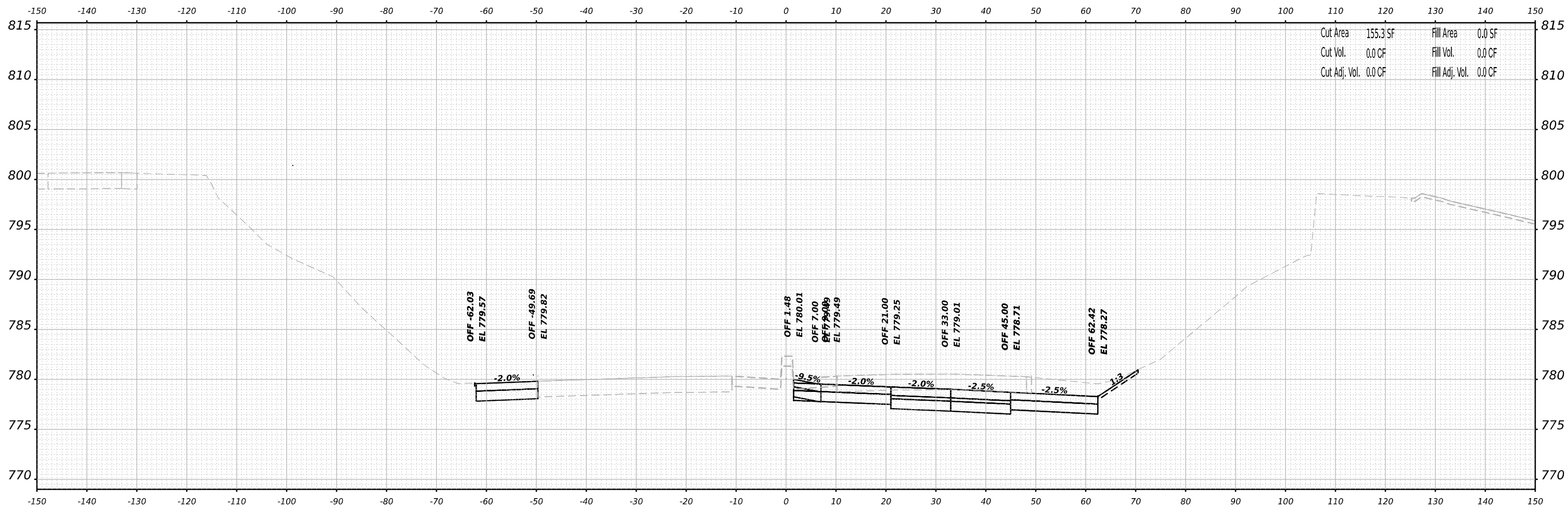
SCALE: N/A SHEET 35 OF 70 SHEETS STA. 153+00.00 TO STA. 153+00.00

F.A.I./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	790
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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Cut Area	155.3 SF	Fill Area	0.0 SF
Cut Vol.	0.0 CF	Fill Vol.	0.0 CF
Cut Adj. Vol.	0.0 CF	Fill Adj. Vol.	0.0 CF

STA 1311+50.00



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

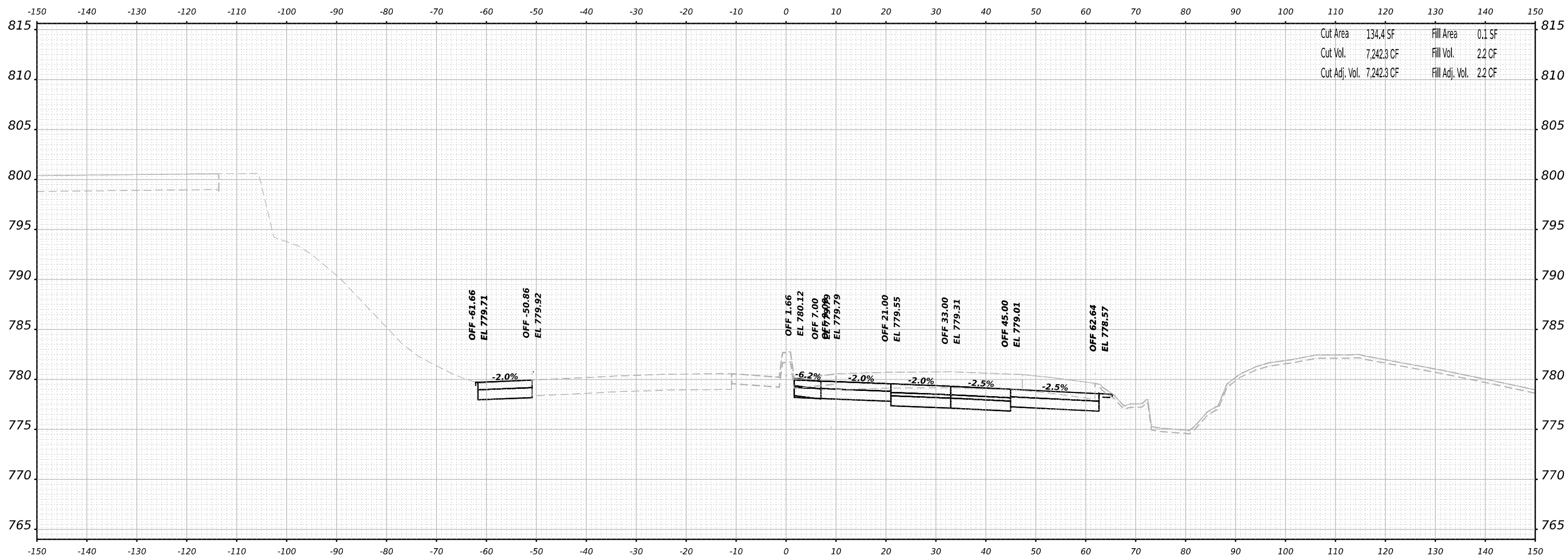
SCALE: N/A SHEET 36 OF 70 SHEETS STA. 1311+50.00 TO STA. 1311+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	791
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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Cut Area	134.4 SF	Fill Area	0.1 SF
Cut Vol.	7,242.3 CF	Fill Vol.	2.2 CF
Cut Adj. Vol.	7,242.3 CF	Fill Adj. Vol.	2.2 CF

STA 1312+00.00



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

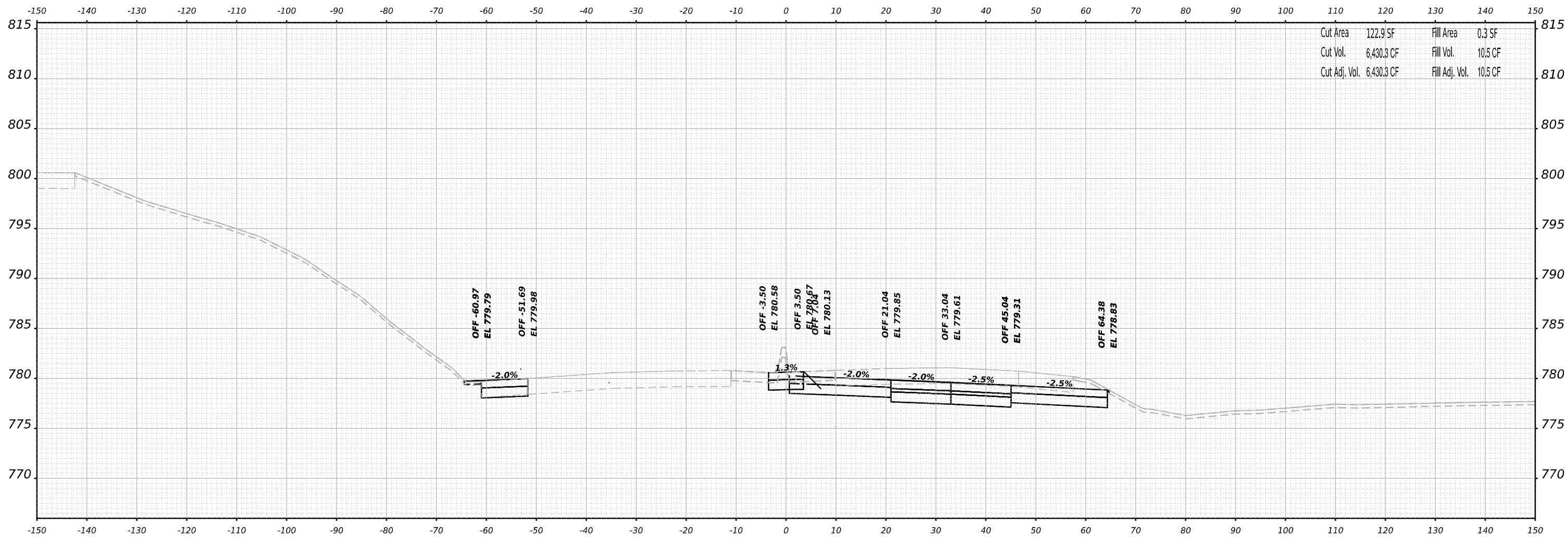
SCALE: N/A SHEET 37 OF 70 SHEETS STA. 1312+00.00 TO STA. 1312+00.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	792
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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

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

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STA 1312+50.00



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

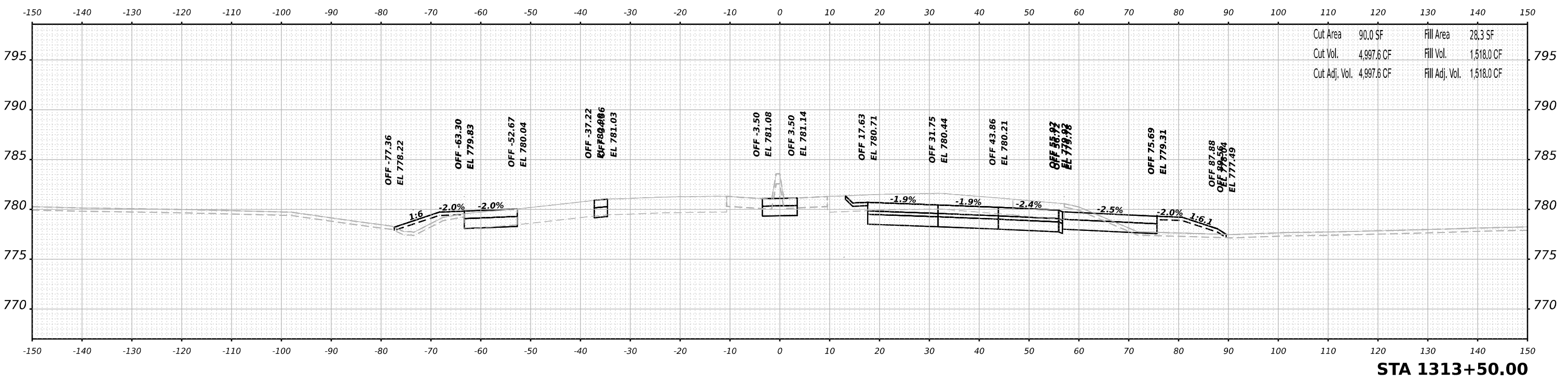
SCALE: N/A SHEET 38 OF 70 SHEETS STA. 1312+50.00 TO STA. 1312+50.00

F.A.I./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	793
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

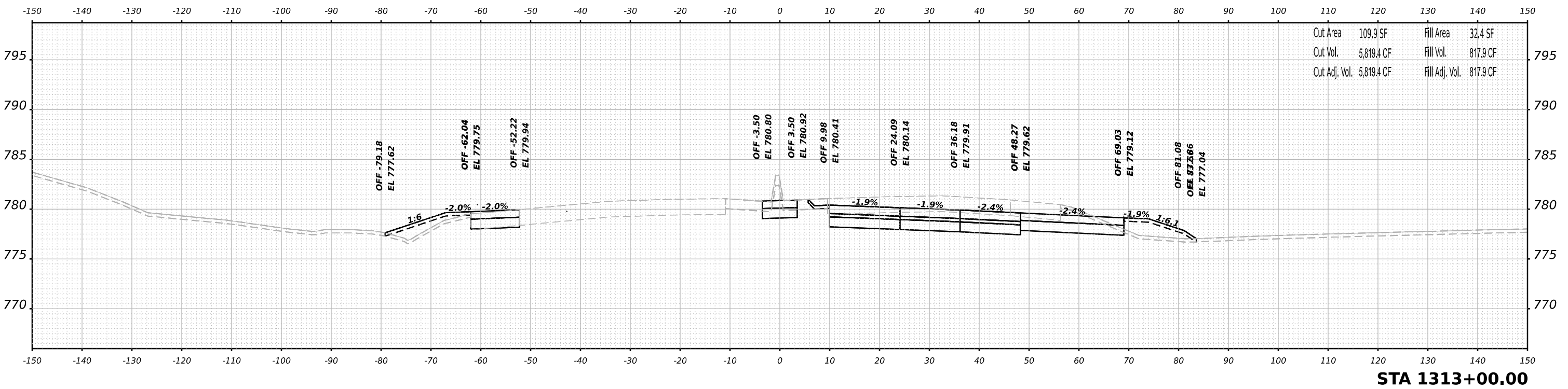
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

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Cut Area	90.0 SF	Fill Area	28.3 SF
Cut Vol.	4,997.6 CF	Fill Vol.	1,518.0 CF
Cut Adj. Vol.	4,997.6 CF	Fill Adj. Vol.	1,518.0 CF



Cut Area	109.9 SF	Fill Area	32.4 SF
Cut Vol.	5,819.4 CF	Fill Vol.	817.9 CF
Cut Adj. Vol.	5,819.4 CF	Fill Adj. Vol.	817.9 CF



USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

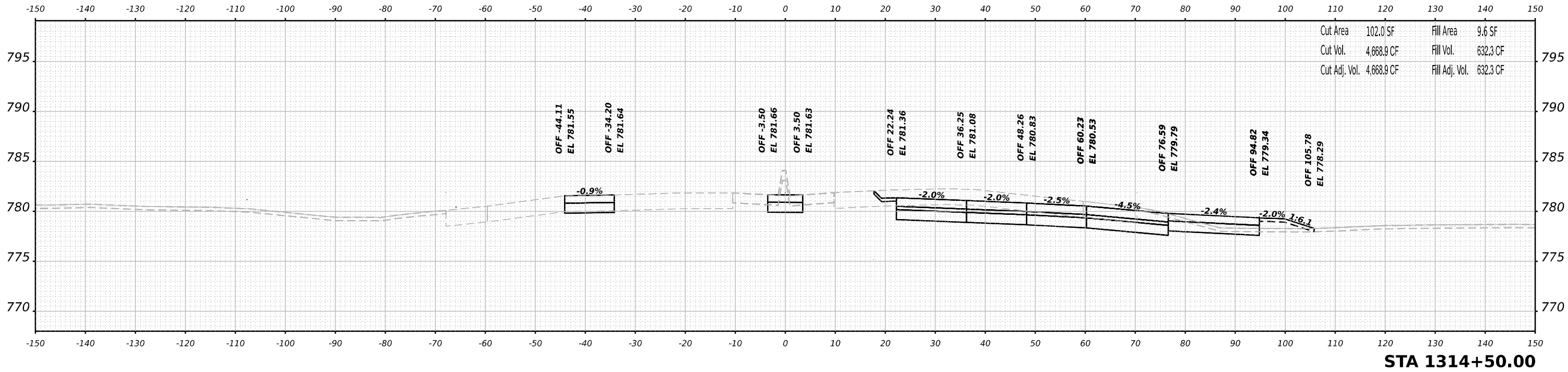
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 39 OF 70 SHEETS STA. 1313+00.00 TO STA. 1313+50.00

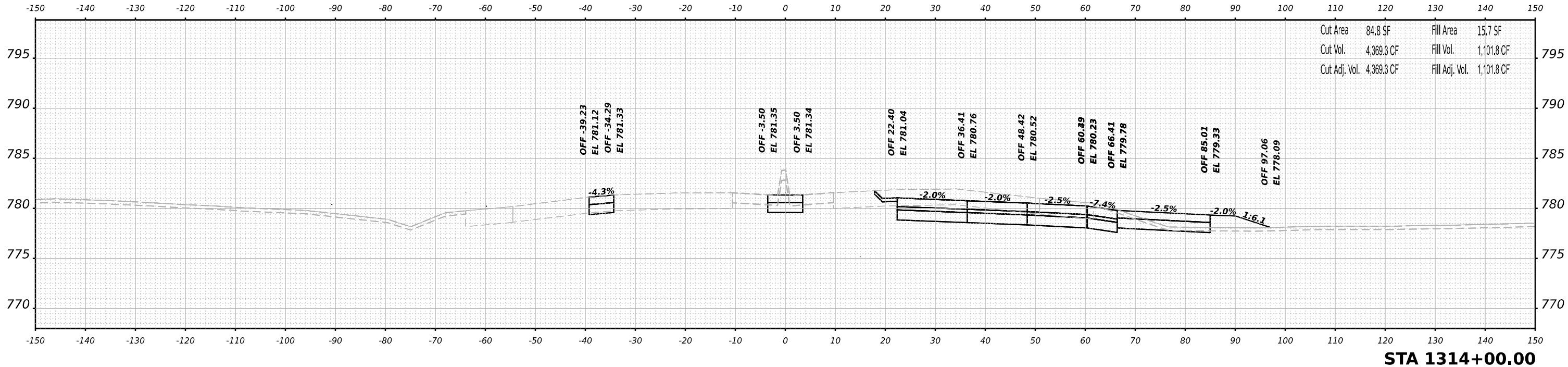
F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	794
			CONTRACT NO. 64R71	
		ILLINOIS	FED. AID PROJECT	

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



STA 1314+50.00

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



STA 1314+00.00

MODEL: PLUS2018r - 2 - 1314+00.00 (Sheet)
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benesch
 Alfred Benesch & Company
 35 W Wacker Drive, Suite 3300
 Chicago, Illinois 60601
 312-265-0450 Job No. 10660,00

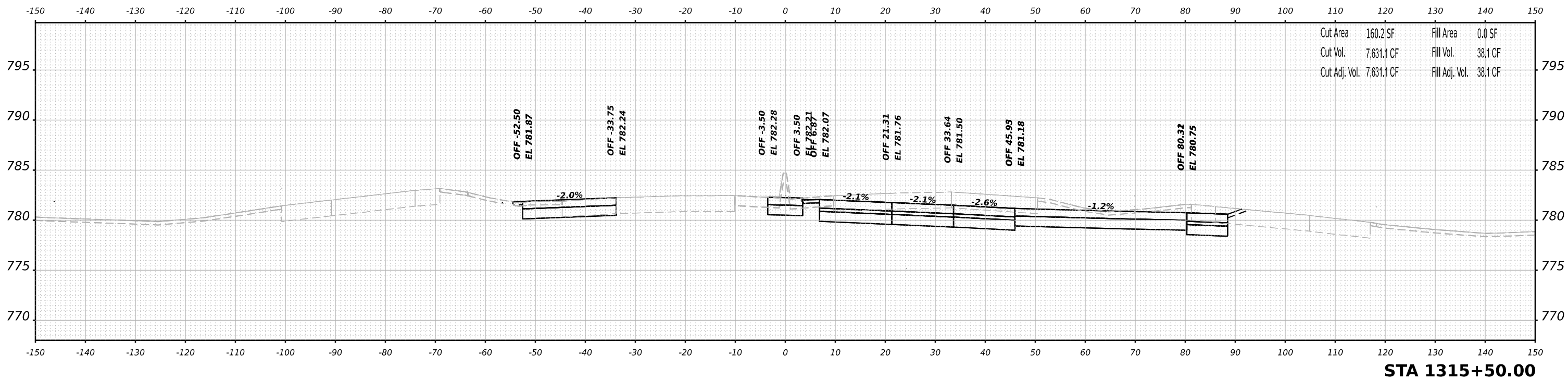
USER NAME = jMajcher	DESIGNED - T.VOGLER	REVISED -
	DRAWN - T.VOGLER	REVISED -
PLOT SCALE = 0.16666633 1/ in.	CHECKED - J.TARDY	REVISED -
PLOT DATE = 10/13/2023	DATE - 10/13/2023	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

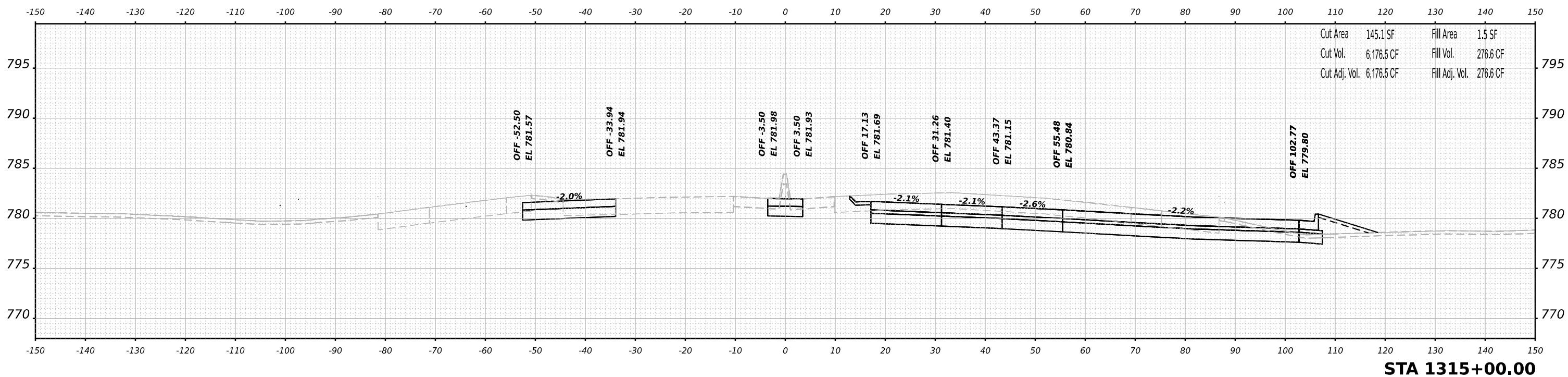
**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**
 SCALE: N/A SHEET 40 OF 70 SHEETS STA. 1314+00.00 TO STA. 1314+50.00

F.A.I./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	795
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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



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



MODEL: PLUS2011ar - 2 - 1315+00.00 (Sheet)
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USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
PLLOT SCALE	= 0.16666633 1/ in.
PLLOT DATE	= 10/13/2023

REVISIED	-
REVISIED	-
REVISIED	-
REVISIED	-

DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
CHECKED	- J.TARDY
DATE	- 10/13/2023

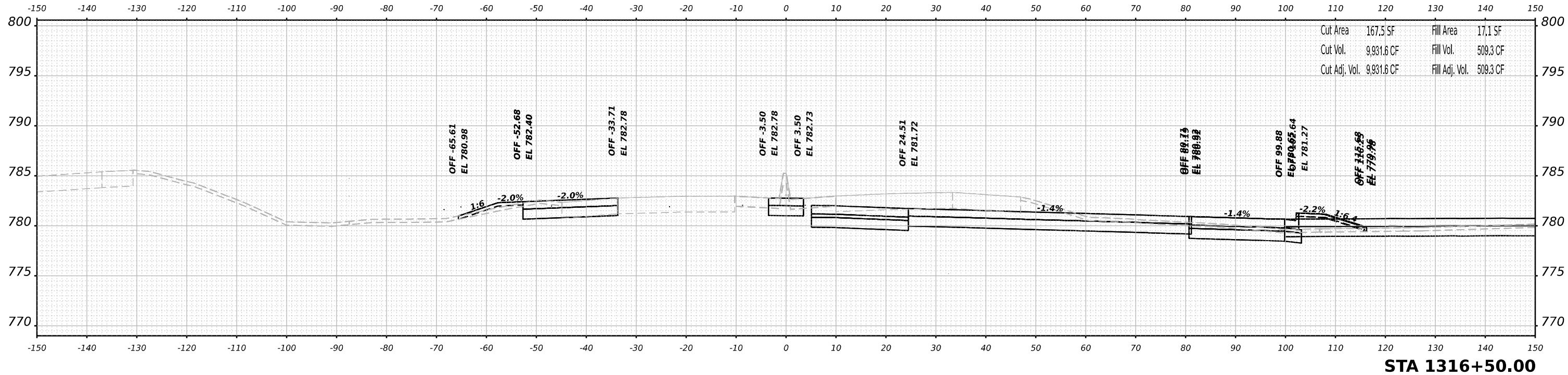
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
HARRISON / US-20 - STAGE 1/1B**

SCALE: N/A SHEET 41 OF 70 SHEETS STA. 1315+00.00 TO STA. 1315+50.00

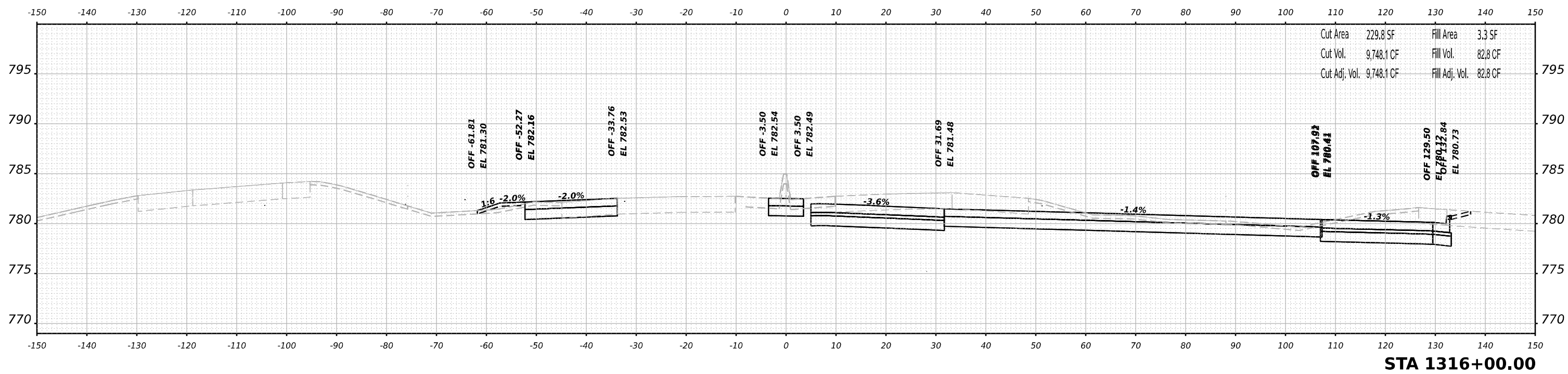
F.A.I./P.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	796
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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



STA 1316+50.00

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



STA 1316+00.00

MODEL: Plus2011ar - 2 - 1316 - 00.00 (Sheet)
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USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

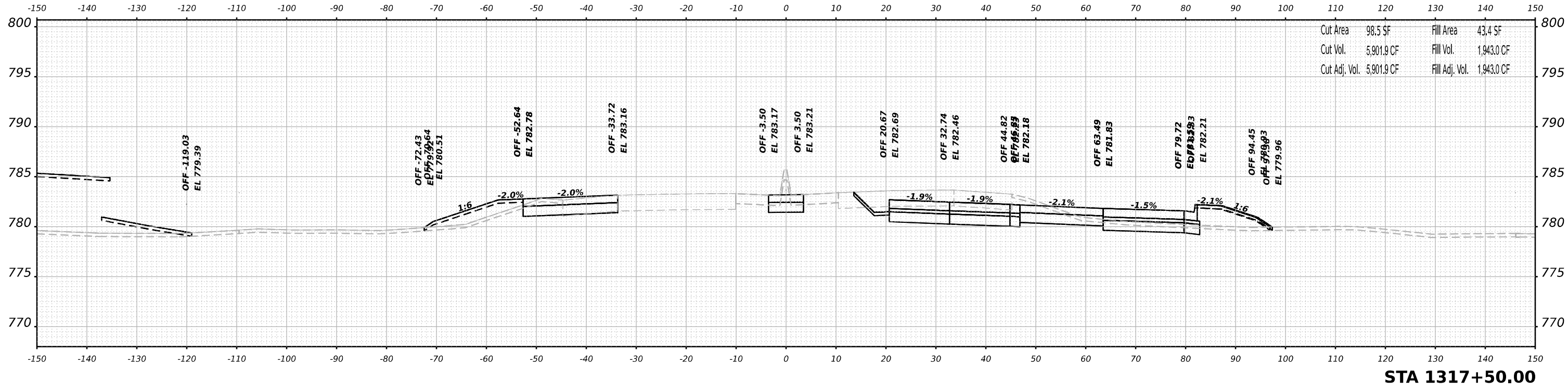
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	797
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

SCALE: N/A SHEET 42 OF 70 SHEETS STA. 1316+00.00 TO STA. 1316+50.00

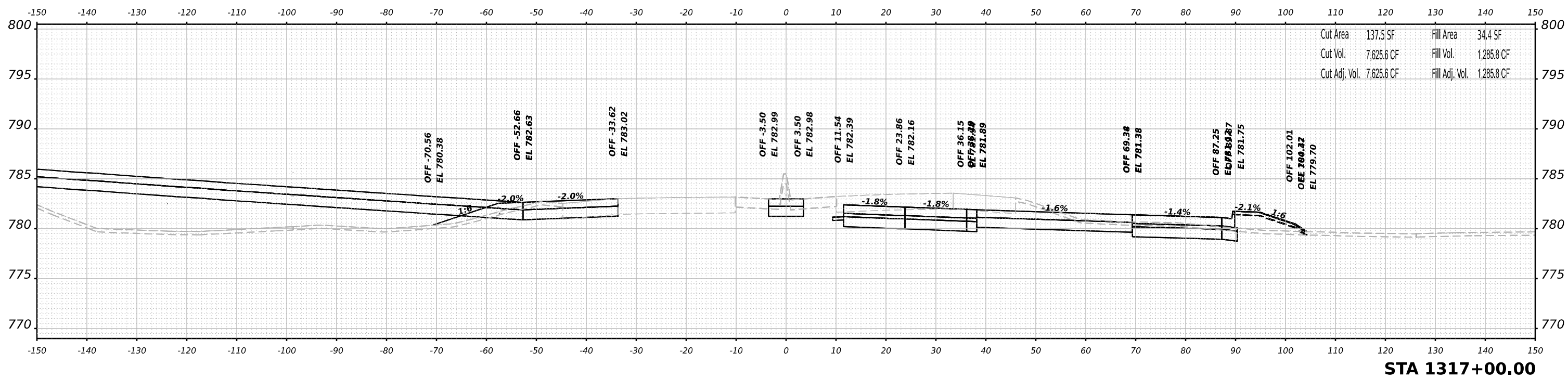
FINAL SURVEY NO.	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
	AREAS		
	CHECKED		



Cut Area	98.5 SF	Fill Area	43.4 SF
Cut Vol.	5,901.9 CF	Fill Vol.	1,943.0 CF
Cut Adj. Vol.	5,901.9 CF	Fill Adj. Vol.	1,943.0 CF

STA 1317+50.00

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



Cut Area	137.5 SF	Fill Area	34.4 SF
Cut Vol.	7,625.6 CF	Fill Vol.	1,285.8 CF
Cut Adj. Vol.	7,625.6 CF	Fill Adj. Vol.	1,285.8 CF

STA 1317+00.00

MODEL: Plus2011ar - 2 - 11317 - 00.00 (Sheet)
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USER NAME	= jMajcher
PLOT SCALE	= 0.16666633 1/ in.
PLOT DATE	= 10/13/2023

DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
CHECKED	- J.TARDY
DATE	- 10/13/2023

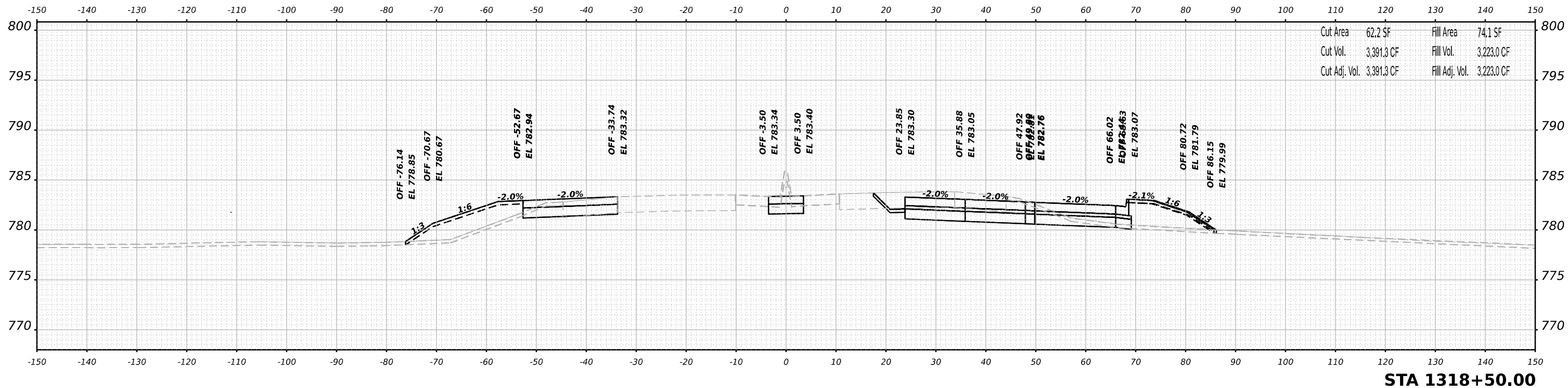
REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

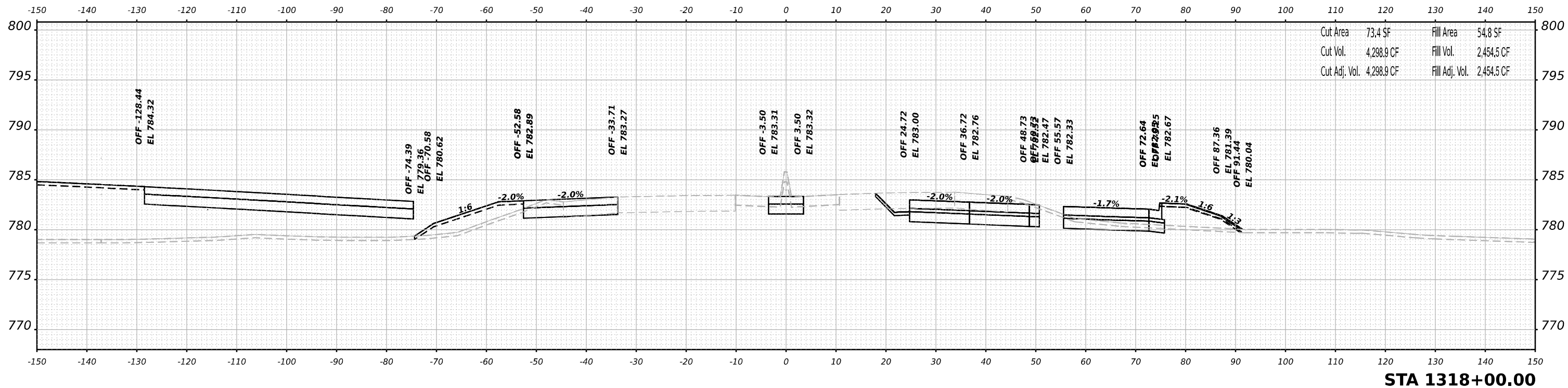
CROSS SECTIONS HARRISON / US-20 - STAGE 1/1B	
SCALE: N/A	SHEET 43 OF 70 SHEETS
STA. 1317+00.00 TO STA. 1317+50.00	

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	798
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

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



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



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USER NAME	= jMajcher
DESIGNED	- T.VOGLER
DRAWN	- T.VOGLER
PLLOT SCALE	= 0.16666633 1/ in.
PLLOT DATE	= 10/13/2023

CHECKED	- J.TARDY
DATE	- 10/13/2023

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B

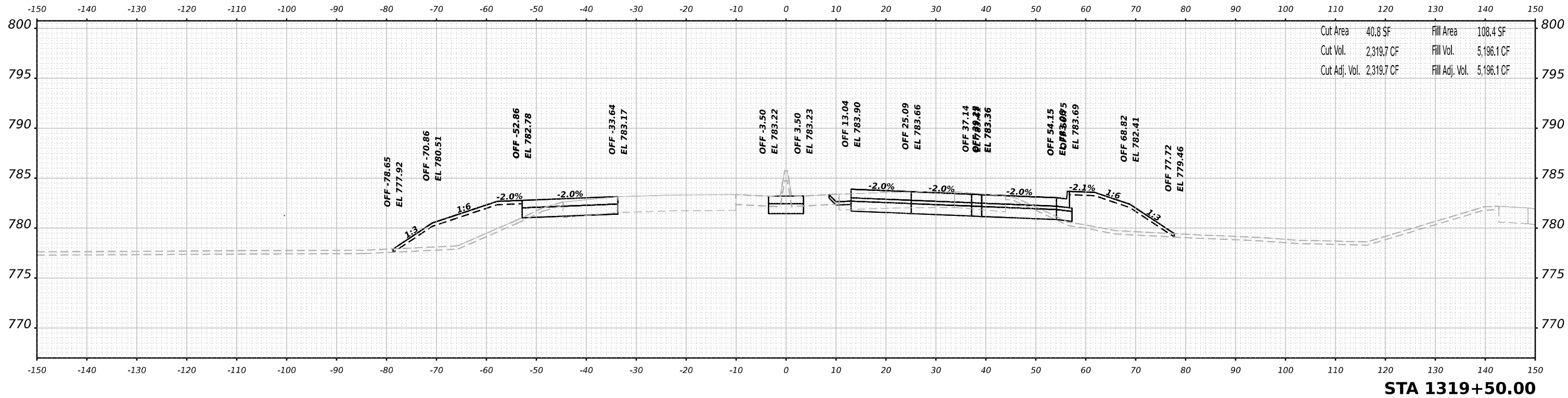
SCALE: N/A SHEET 44 OF 70 SHEETS STA. 1318+00.00 TO STA. 1318+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	799
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				

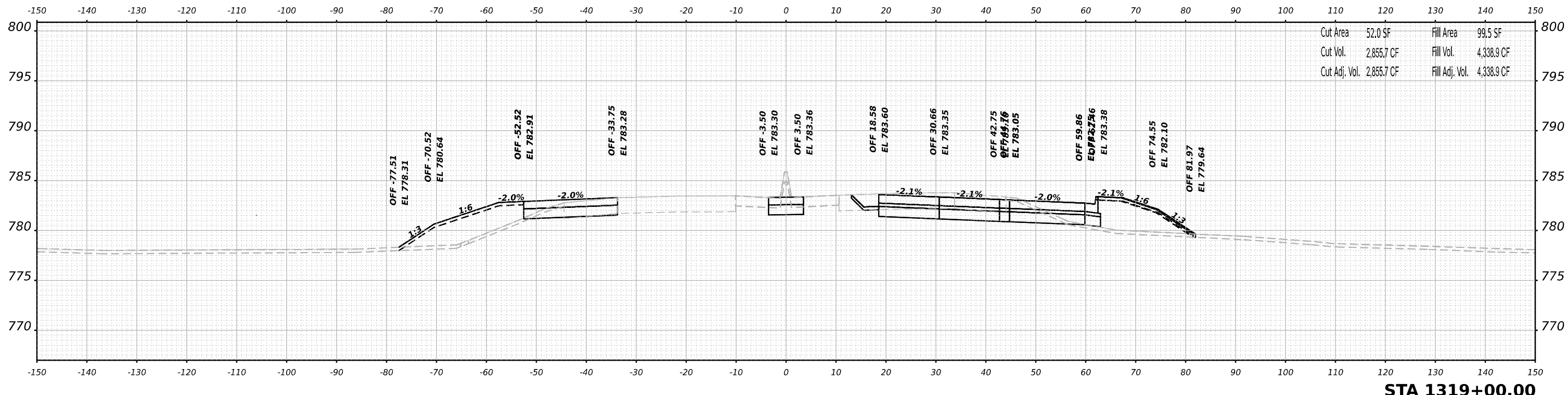
DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED

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

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Cut Area	40.8 SF	Fill Area	108.4 SF
Cut Vol.	2,319.7 CF	Fill Vol.	5,196.1 CF
Cut Adj. Vol.	2,319.7 CF	Fill Adj. Vol.	5,196.1 CF



Cut Area	52.0 SF	Fill Area	99.5 SF
Cut Vol.	2,855.7 CF	Fill Vol.	4,338.9 CF
Cut Adj. Vol.	2,855.7 CF	Fill Adj. Vol.	4,338.9 CF

benesch
 Alfred Benesch & Company
 35 W Wacker Drive, Suite 3300
 Chicago, Illinois 60601
 312-265-0450 Job No. 10660.00

USER NAME	= jMajcher	DESIGNED	- T.VOGLER	REVISED	-
		DRAWN	- T.VOGLER	REVISED	-
PLOT SCALE	= 0.16666633 1/ in.	CHECKED	- J.TARDY	REVISED	-
PLOT DATE	= 10/13/2023	DATE	- 10/13/2023	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 HARRISON / US-20 - STAGE 1/1B**
 SCALE: N/A SHEET 45 OF 70 SHEETS STA. 1319+00.00 TO STA. 1319+50.00

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(5)RS & (5&5HB)RC	WINNEBAGO	1279	800
CONTRACT NO. 64R71				
ILLINOIS FED. AID PROJECT				