

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	1
		ILLINOIS	CONTRACT NO.	

INDEX OF SHEETS

- 1
- 2
- 3-4
- 5
- 6-9
- 10-23
- 24-25
- COVER SHEET
- SIGNATURE SHEET
- SUMMARY OF QUANTITIES
- ALIGNMENTS TIES AND BENCHMARKS
- TRAFFIC CONTROL PLAN
- TEMPORARY SUPPORT SHEETS
- EXISTING PLAN RIGHT-OF-WAY SHEETS

HIGHWAY STANDARDS

- 000001-08
- 630301-09
- 631031-18
- 701101-05
- 701106-02
- 701422-10
- 701426-09
- 701901-08
- 704001-08
- 720006-04
- 720011-01
- 725001-01
- 728001-01
- 729001-01
- 731001-01
- 780001-05
- 782006-01
- STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- TRAFFIC BARRIER TERMINAL, TYPE 6
- OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
- LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ 45 MPH TO 55 MPH
- LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
- TRAFFIC CONTROL DEVICES
- TEMPORARY CONCRETE BARRIER
- SIGN PANEL ERECTION DETAILS
- METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- OBJECT AND TERMINAL MARKERS
- TELESCOPING STEEL SIGN SUPPORT
- APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
- BASE FOR TELESCOPING STEEL SIGN SUPPORT
- TYPICAL PAVEMENT MARKINGS
- GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

ROUTE FAP 331 (IL 13)
SECTION
TEMPORARY SUPPORT
JACKSON COUNTY

C-99-061-23

R 2 W

TRAFFIC DATA

ROADWAY CLASSIFICATION = MINOR ARTERIAL
DESIGN SPEED = 30 MPH (TEMPORARY CROSSEVERS)
CURRENT ADT (2022) = 7600 EB
SU = 4%
MU = 2%

TOWNSHIPS

MURPHYSBORO

BEGIN PROJECT
STA. 100 + 64.4

COORDINATE SYSTEM : STATE PLANE ZONE – ILLINOIS WEST

POSTED SPEED : 40 MPH



Collinsville

100 Lanter Court, Suite 1
Collinsville, IL 62234
618.345.2200

Belleville

20 East Main Street
Belleville, IL 62200
618.416.4688
www.oatesassociates.com

ILLINOIS DESIGN FIRM LICENSE NO. 184.001115

St. Louis

720 Olive, Suite 700
St. Louis, MO 63101
314.588.8381

St. Charles

330 North Main, Suite 201
St. Charles, MO 63301
636.493.6277

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811

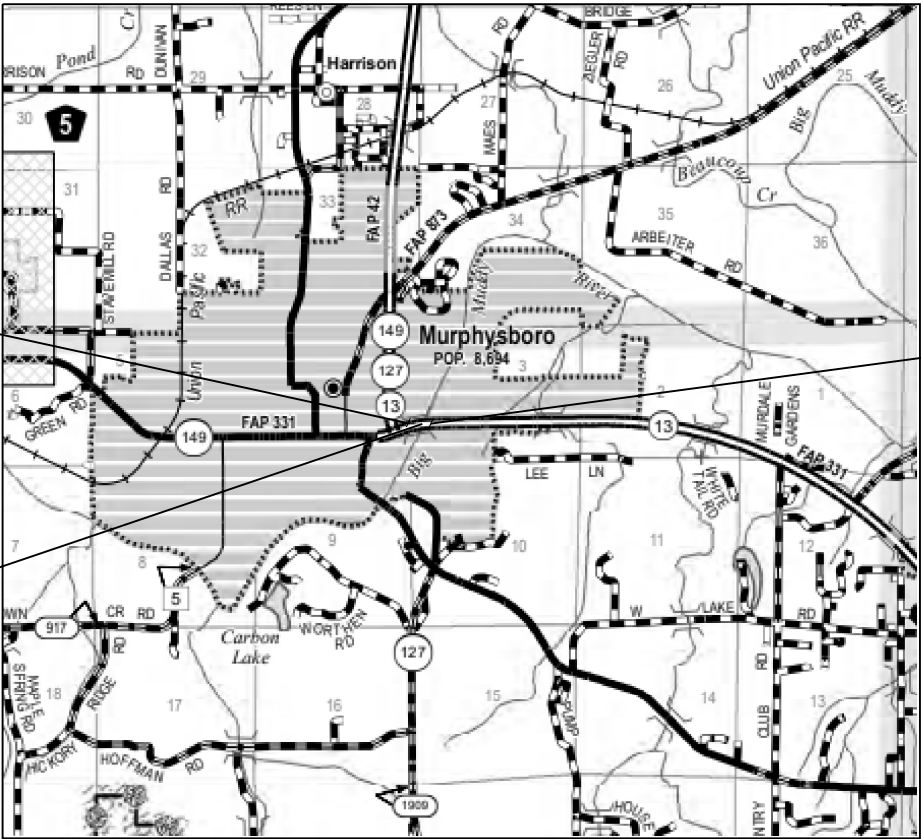
PROJECT ENGINEER: EHREN KIRBY

CONTRACT NO. _____



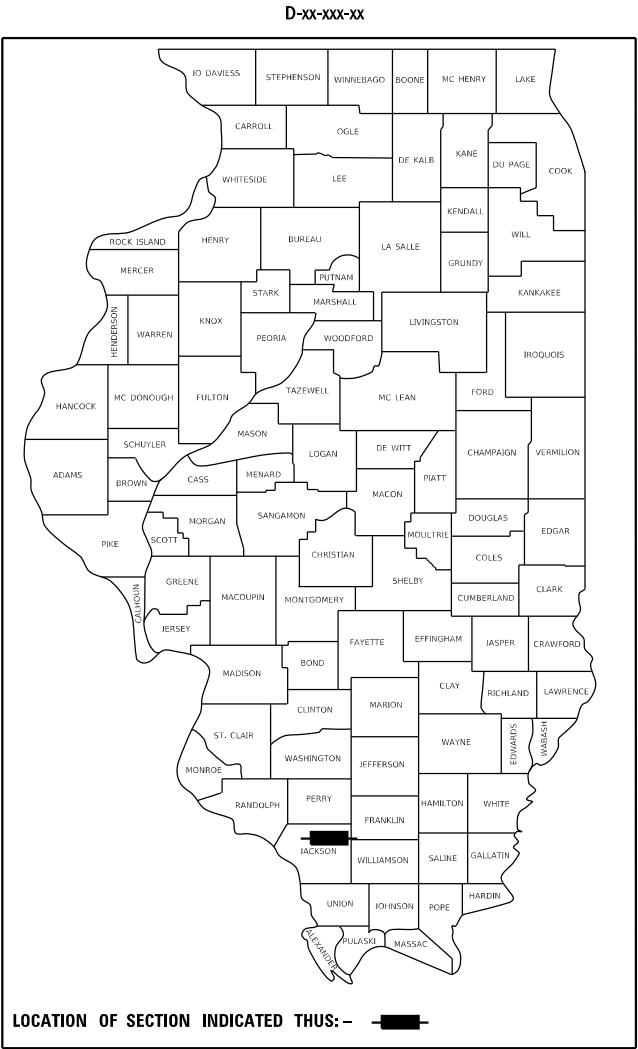
BILL TINDALL, P.E.
License Expires 11/30/2023

9/05/2023
Date



LOCATION MAP
(NOT TO SCALE)

GROSS LENGTH = 1,186.4 FT. = 0.225 MILE
NET LENGTH = 430.4 FT. = 0.082 MILE



LOCATION OF SECTION INDICATED THUS: — ■ —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED _____ 20 _____

_____ REGION FIVE ENGINEER

_____ 20 _____

_____ ENGINEER OF DESIGN AND ENVIRONMENT

_____ 20 _____

_____ DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

MODEL Default
FILE Name: I:\0222064 - IDOT PTB 203 Item 49 District 9 VAV222064.008 - IL 13 over Big Muddy Temp Shoring\Read\CADD\0978056-sht-signature.dgn



O A T E S
ASSOCIATES
www.oatesassociates.com

ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115

USER NAME = bill.tindall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/25/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	2
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

Prepared By: _____
DISTRICT STUDIES & PLANS ENGINEER

Examined By: _____
DISTRICT LAND ACQUISITION ENGINEER

Examined By: _____
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: _____
DISTRICT OPERATIONS ENGINEER

Examined By: _____
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: _____
DISTRICT CONSTRUCTION ENGINEER

Examined By: _____
DISTRICT MATERIALS ENGINEER

MODEL Default
FILE Name: I:\0222064 - IDOT PTB 203 Item 49 District 9 VAV222064.008 - IL 13 over Big Muddy Temp Shoring\Read\CADD\0918056-shit-500.dgn

COUNTY	JACKSON
ROUTE	FAP 331 (IL 13)
FUNDING	100% STATE
LOCATION	URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
50300225	CONCRETE STRUCTURES	CU YD	224.6	224.6
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	4,660	4,660
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	54,070	54,070
50800515	BAR SPLICERS	EACH	208	208
50800530	MECHANICAL SPLICERS	EACH	168	168
51602000	PERMANENT CASING	FOOT	128	128
51603000	DRILLED SHAFT IN SOIL	CU YD	134.0	134.0
51604000	DRILLED SHAFT IN ROCK	CU YD	26.4	26.4
52100520	ANCHOR BOLTS, 1"	EACH	12	12
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1	1
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1
63200310	GUARDRAIL REMOVAL	FOOT	28	28
67100100	MOBILIZATION	L SUM	1	1
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	63	63



OATES
ASSOCIATES
www.oatesassociates.com

ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115

USER NAME = bill.tindall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 9/5/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE:	SHEET 1	OF 2	SHEETS	STA.	TO STA.
--------	---------	------	--------	------	---------

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	3
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

MODEL Default
FILE Name: I:\0222064 - IDOT PTB 203 Item 49 District 9 VAV222064.008 - IL 13 over Big Muddy Temp Shoring\Road\CADD\09\8056-shit-500.dgn

CODE NO.	ITEM	UNIT	COUNTY	JACKSON
			ROUTE	FAP 331 (IL 13)
			FUNDING	100% STATE
			LOCATION	URBAN
			TOTAL QUANTITY	
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	2,492	2,492
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	3,673	3,673
70306120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE III TAPE	FOOT	7,903	7,903
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,110	1,110
70600241	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	1	1
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	32	32
80300100	LOCATING UNDERGROUND CABLE	FOOT	75	75
X0320051	CROSSHOLE SONIC LOGGING ACCESS DUCTS	FOOT	158	158
X0320052	CROSSHOLE SONIC LOGGING TESTING	EACH	2	2
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1



OATES

ASSOCIATES

www.oatesassociates.com

ILLINOIS DESIGN FIRM LICENSE NO.:

184.001115

USER NAME = bill.tindall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 9/5/2023	DATE -	REVISED -

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE:	SHEET 2	OF 2	SHEETS
STA.		TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	4
CONTRACT NO.				
		ILLINOIS	FED. AID PROJECT	

MODEL Default
FILE Name: I:\0222064 - IDOT PTB 203 Item 49 District 9 VAV2222064.008 - IL 13 over Big Muddy Temp Shoring\Road\CADD\0918056-shit-ATB.dgn



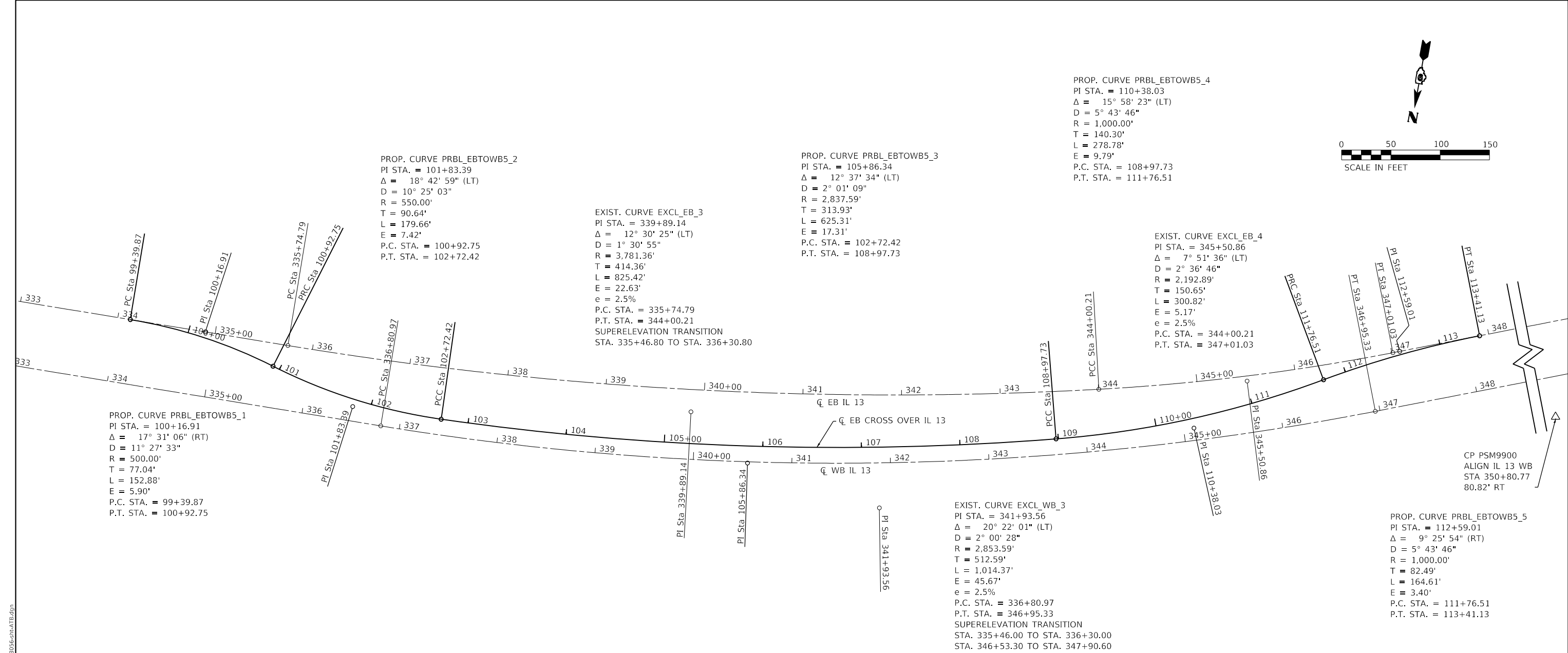
USER NAME = bill.tindall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/25/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENTS, TIES AND BENCHMARKS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	5
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



DESCRIPTION	NORTHING	EASTING
IL ROUTE 13 EB		
POT STA 329+00.00	401,159.054	2,541,681.422
PC STA 335+74.79	401,149.484	2,541,006.705
PI STA 339+89.14	401,143.607	2,540,592.387
PCC STA 344+00.21	401,048.145	2,540,042.579
PI STA 345+50.86	401,013.439	2,540,042.579
PT STA 347+01.03	400,959.010	2,539,902.106
POT STA 351+99.38	400,778.962	2,539,437.422

DESCRIPTION	NORTHING	EASTING
IL ROUTE 13 WB		
POT STA 329+00.00	401,224.247	2,541,680.497
PC STA 336+80.97	401,213.171	2,540,899.610
PI STA 341+93.56	401,205.901	2,540,387.071
PT STA 346+95.33	401,020.706	2,539,909.103
POT STA 352+22.49	400,830.247	2,539,417.551

DESCRIPTION	NORTHING	EASTING
PR CROSSOVER		
PC 99+39.87	401,151.781	2,541,168.680
PI STA 100+16.91	401,150.688	2,541,091.648
PRC STA 100+92.75	401,172.834	2,541,017.860
PI STA 101+83.39	401,198.889	2,54,0931.046
PCC STA 102+72.42	401,195.709	2,540,840.462
PI STA 105+86.34	401,184.688	2,540,526.728
PCC STA 108+97.73	401,105.354	2,540,222.990
PI STA 110+38.03	401,069.898	2,540,087.242
PRC STA 111+76.51	400,998.455	2,539,966.492
PI STA 112+59.01	400,956.449	2,539,895.495
PT STA 113+41.13	400,926.645	2,539,818.574

NOTE:
HORIZONTAL CONTROL HAS NOT BEEN VERIFIED SINCE JULY 2022. SIGNIFICANT MOVEMENT WAS FOUND BETWEEN FEBRUARY 2022 AND JULY 2022. PLEASE USE PSM9900 AS A CHECK FOR ALL CONSTRUCTION POINTS.

CP PSM9900 IS LOCATED AT NORTHWEST QUADRANT OF N 2ND ST & WALNUT ST INTERSECTION.
NORTHING 401127.154
EASTING 2540396.950
ELEV 353.504

MODEL TCP - sheet 3
FILE NAME: I:\222064 - IDOT P18 203 Item 49 District 9 VAV222064.008 - IL 13 over Big Muddy Temp Shortage\Road\CADD\0918056-shit-tcp.dgn



USER NAME = bill.tindall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/25/2023	DATE -	REVISED -

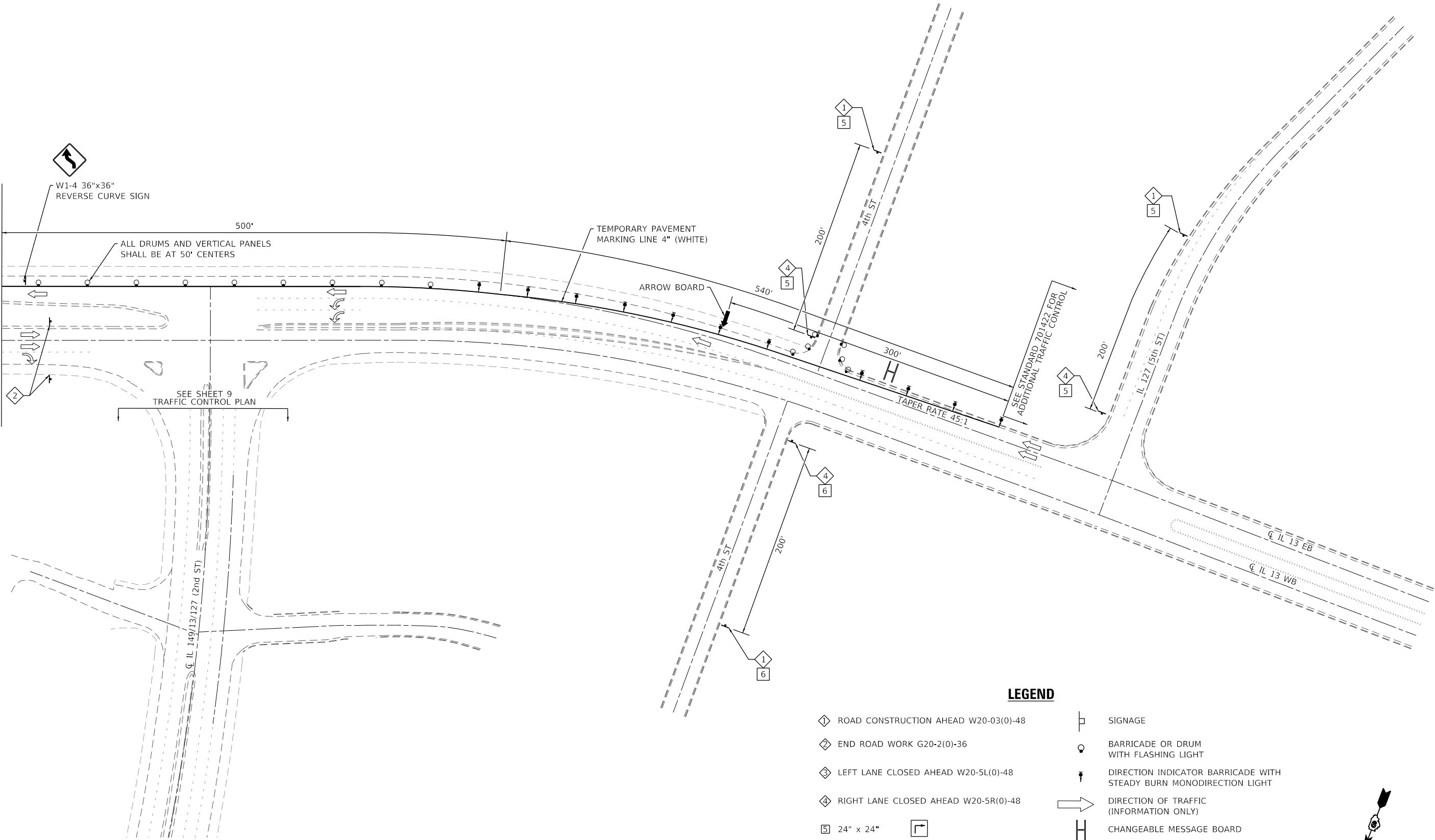
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

SCALE: 1"=50' SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 331	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		JACKSON	25	8
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

MATCH LINE STA 113+41



LEGEND

- ROAD CONSTRUCTION AHEAD W20-03(0)-48
- END ROAD WORK G20-2(0)-36
- LEFT LANE CLOSED AHEAD W20-5L(0)-48
- RIGHT LANE CLOSED AHEAD W20-5R(0)-48
- 24" x 24" (Right Turn Arrow)
- 24" x 24" (Left Turn Arrow)
- 36" x 24" (Left Turn Lane Open Ahead)
- SIGNAGE
- BARRICADE OR DRUM WITH FLASHING LIGHT
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTION LIGHT
- DIRECTION OF TRAFFIC (INFORMATION ONLY)
- CHANGEABLE MESSAGE BOARD
- VERTICAL SIGN PANEL
- TYPE 3 BARRICADE WITH FLASHING LIGHTS

MODEL: TCP - sheet 4
FILE NAME: I:\222064 - IDOT PTB 203 Item 49 District 9 VAV222064.008 - IL 13 over Blg Muddy Temp Shorhg\Road\CADD\0918056-shit-tcp.dgn



USER NAME	= bill.tindall
PLOT SCALE	= 100.0000 ' / in.
PLOT DATE	= 8/25/2023

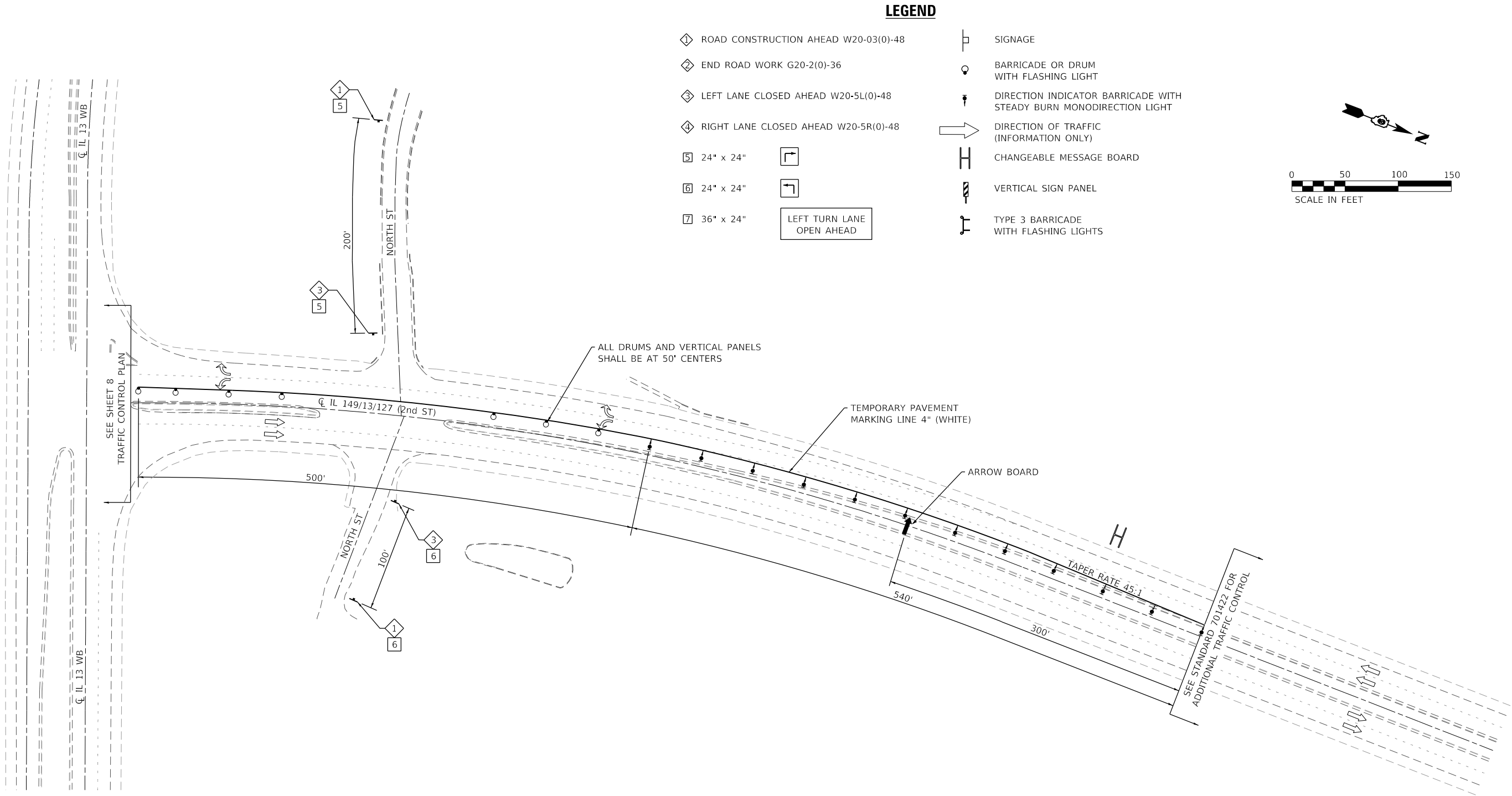
DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

SCALE: 1"=50' SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	9
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



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

DESIGN STRESSES

FIELD UNITS

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

LOADING HL-93

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

INDEX OF SHEETS

Sheet No.	Description
1	General Plan & Elevation
2	Temporary Support Pier Details
3	Steel Details
4	Bar Splicer Assembly and Mechanical Splicer Details
5-7	Existing Bridge Plans
8-14	Soil Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Structures	Cu. Yd.	-	224.6	224.6
Furnishing and Erecting Structural Steel	Pound	4,660	-	4,660
Reinforcement Bars, Epoxy Coated	Pound	-	54,070	54,070
Bar Splicers	Each	-	208	208
Mechanical Splicers	Each	-	168	168
Permanent Casing	Foot	-	128	128
Drilled Shaft in Soil	Cu. Yd.	-	134.0	134.0
Drilled Shaft in Rock	Cu. Yd.	-	26.4	26.4
Anchor Bolts, 1"	Each	12	-	12
Crosshole Sonic Logging Access Ducts	Foot	-	158	158
Crosshole Sonic Logging Testing	Each	-	2	2

GENERAL NOTES

Calculated weight of Structural Steel = AASHTO M270 Grade 50 = 2,800 pounds
AASHTO M270 Grade 50W = 1,860 pounds

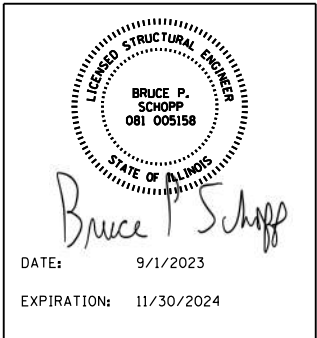
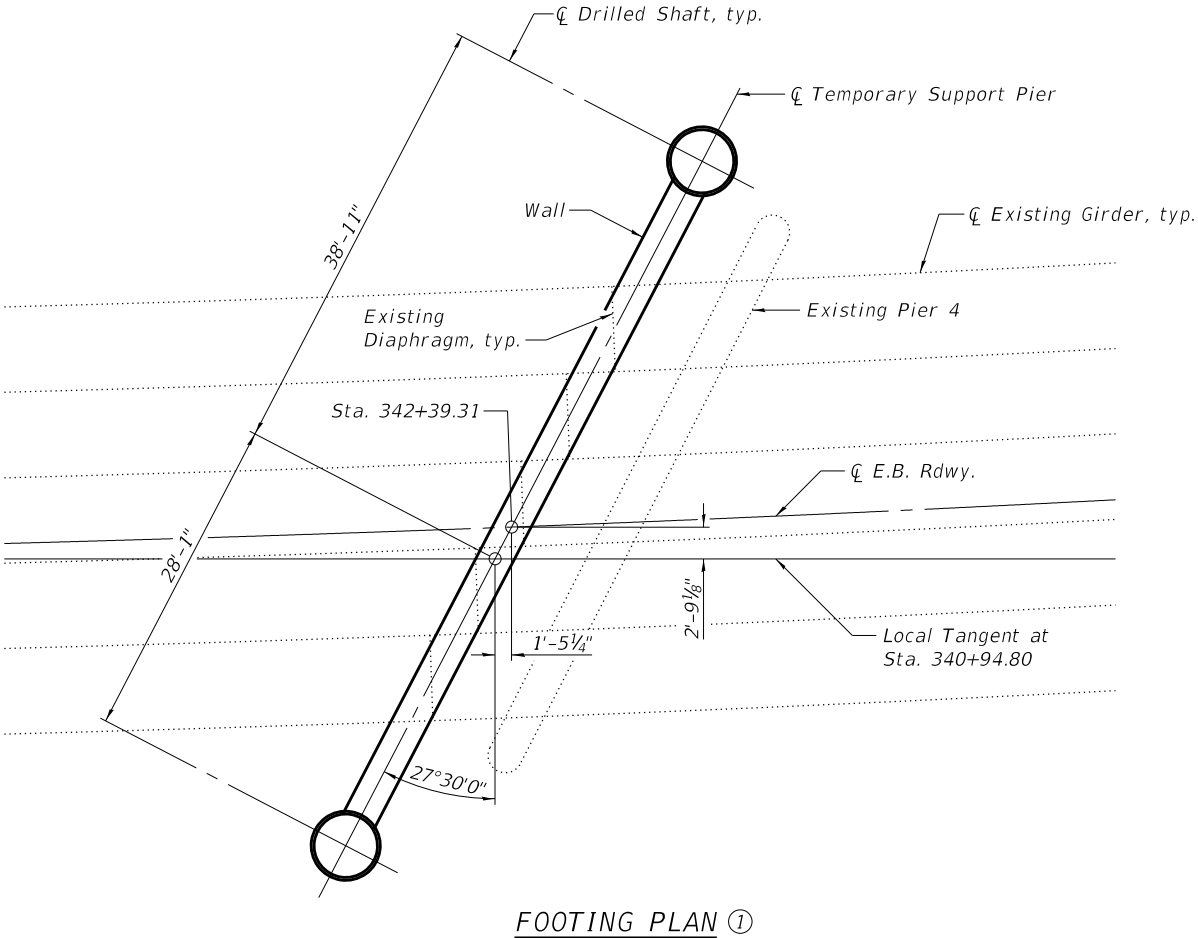
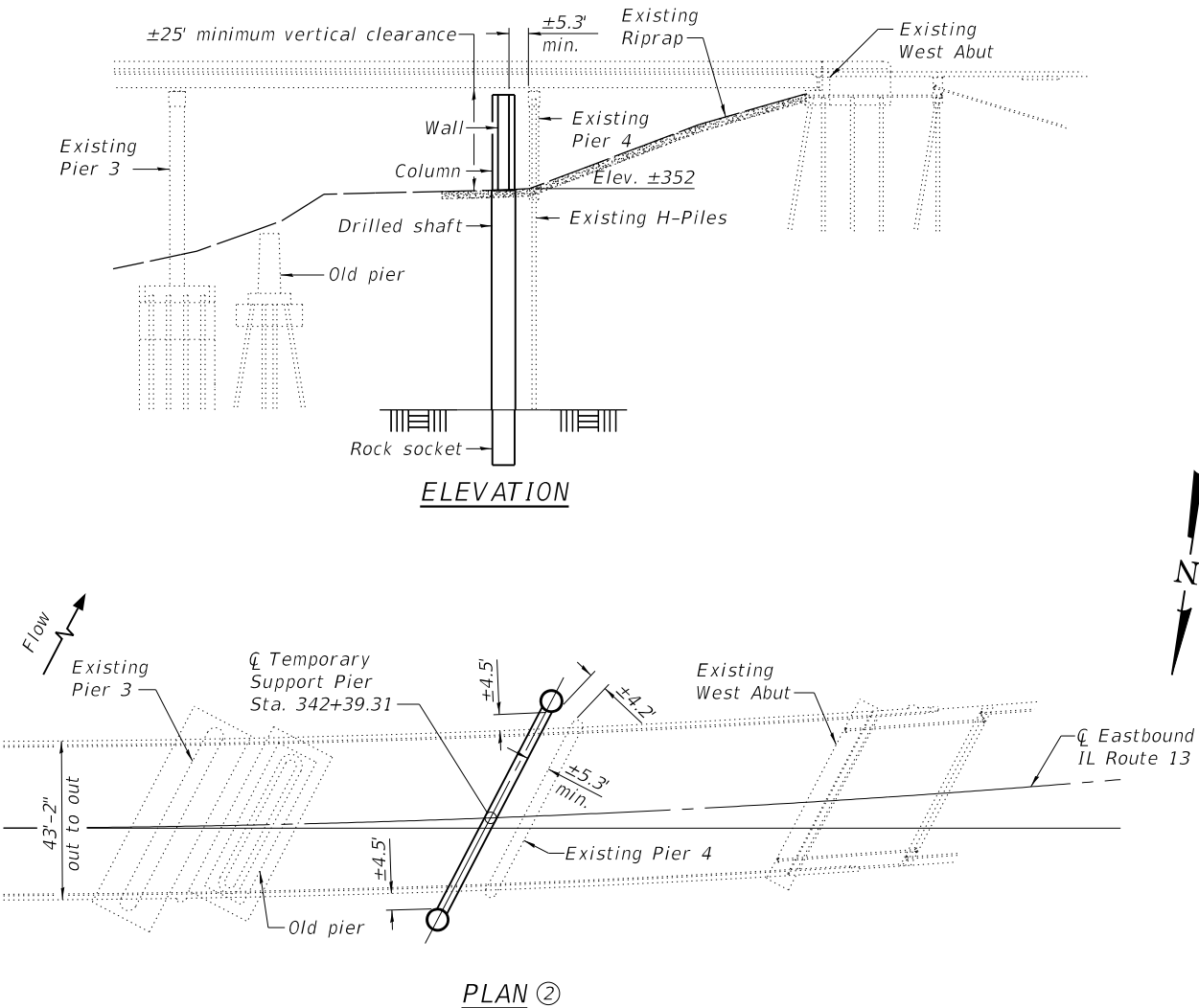
Reinforcement bars designated (E) shall be epoxy coated.

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

Plan dimensions and details relative to the existing structure have been taken from existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Obstructions are likely to be encountered at or a few feet below ground surface at the drilled shaft locations. Known obstructions include riprap and the reinforced concrete deck from the original bridge. See the Special Provisions for Drilled Shafts.

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



- Notes:
- For original bridge plan geometry, see sheets 5 thru 7 of 14. Temporary Support Pier is approximately centered under first line of steel diaphragms east of existing Pier 4 as shown.
 - Clearances for information only and approximated based on available information, Contractor shall verify. Clearances shown between Temporary Support Pier and existing Pier 4 are from estimated deflected position of existing Pier 4. Clearances between drilled shafts and existing superstructure are from original bridge plan geometry. The superstructure has moved an unknown distance.

FILE NAME: H:\P222064 - IDOT PTB 203 Item 49 District 9 V-V\222064.008 - IL 13 over Big Muddy Temp Shoring\Bridge\Microstation\0390075-78056-001-General Plan & Elevation.dgn



USER NAME =	DESIGNED - JAD	REVISED -
	CHECKED - ETH	REVISED -
PLOT SCALE =	DRAWN - ETH	REVISED -
PLOT DATE = 9/1/2023	CHECKED - JAD	REVISED -

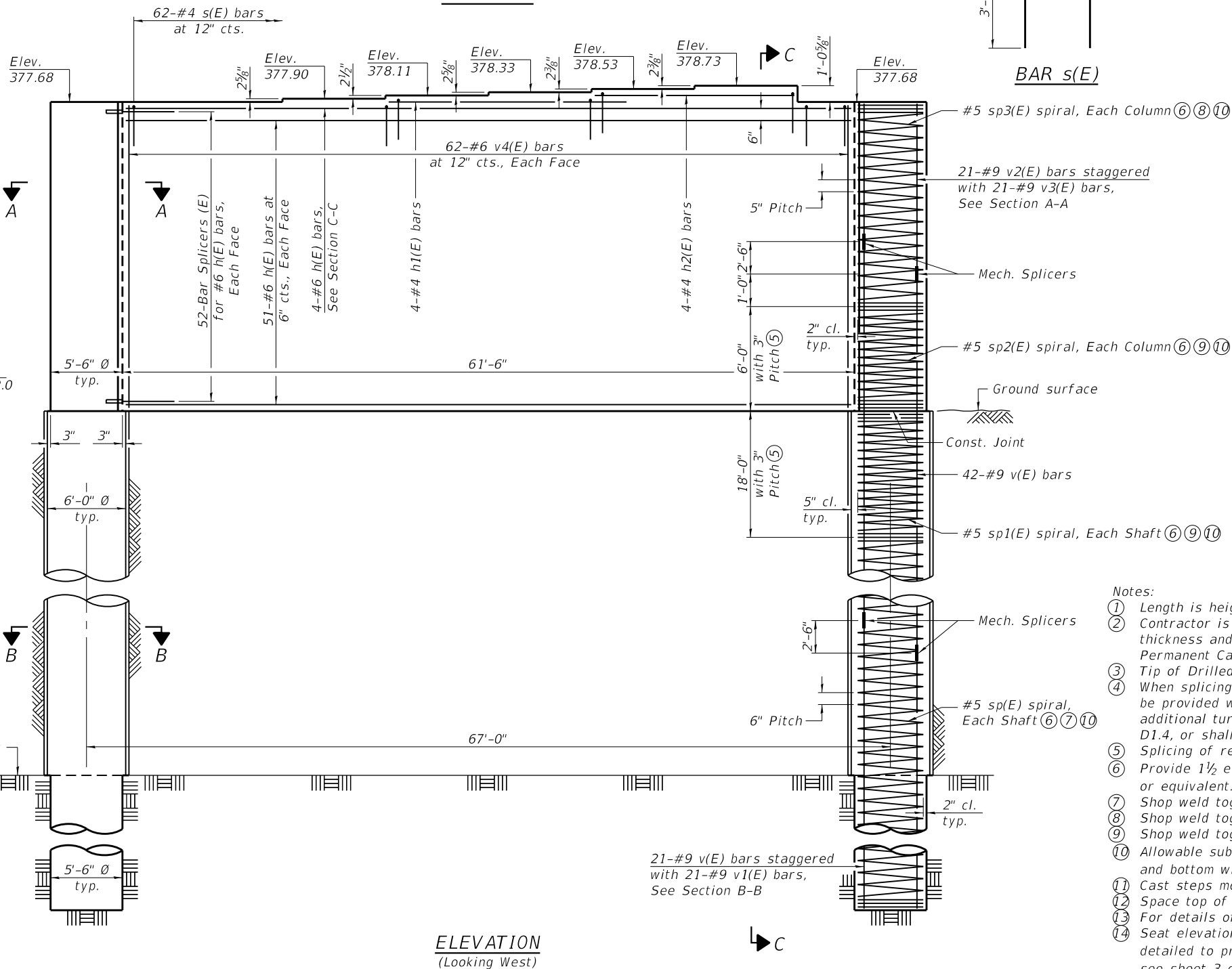
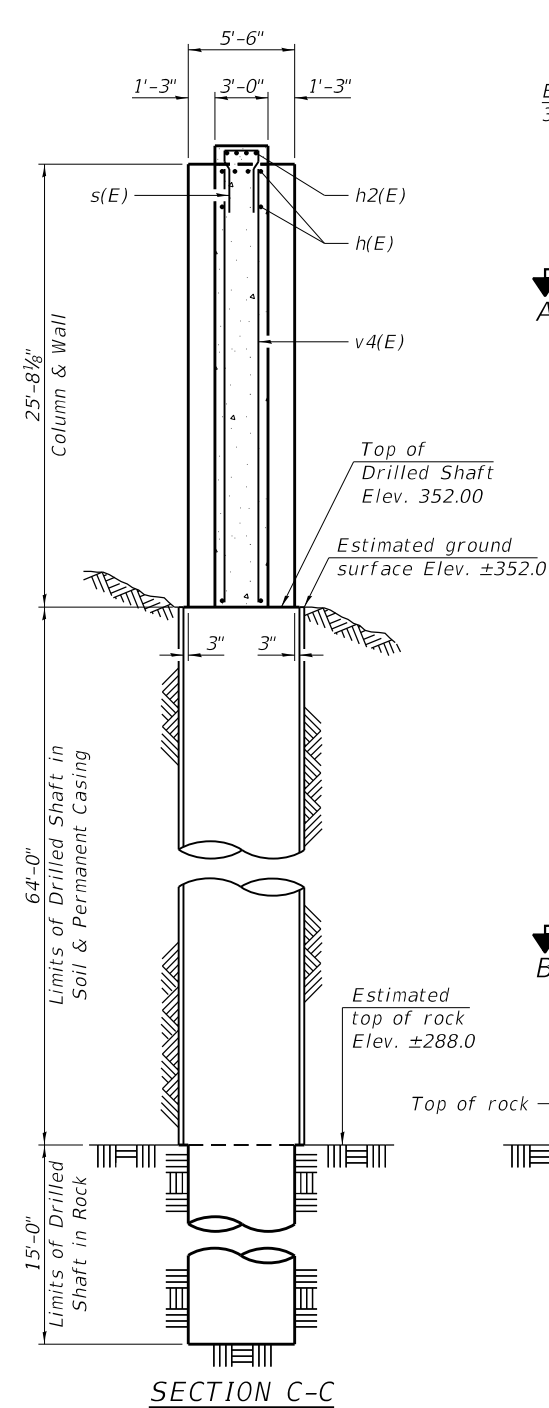
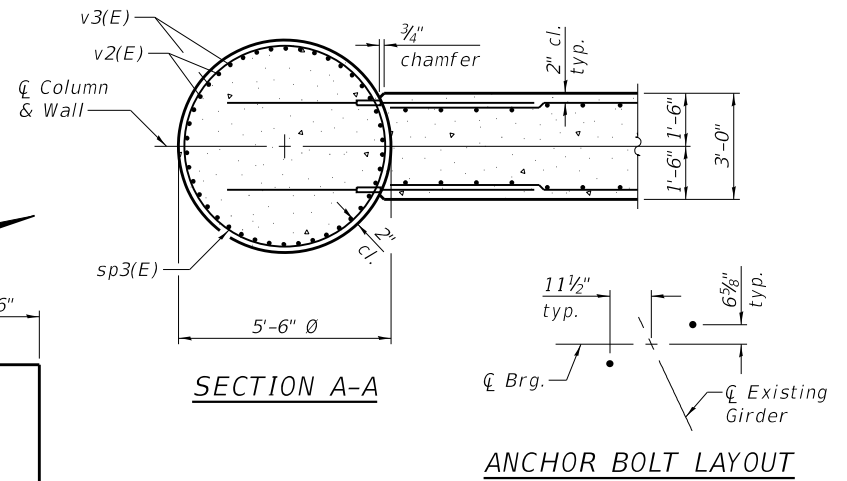
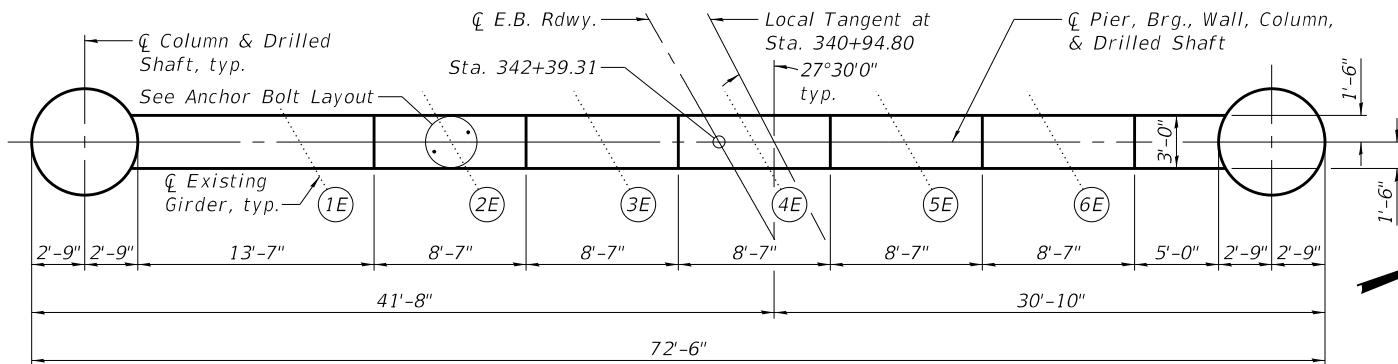
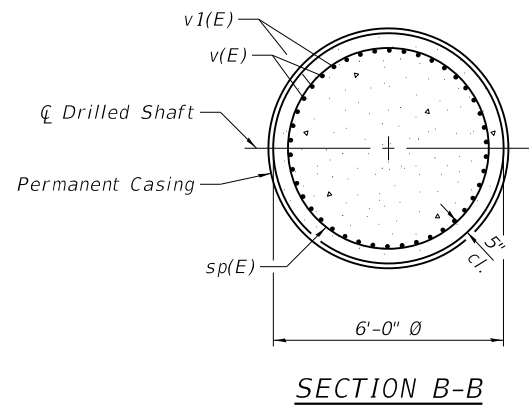
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 039-0075

SHEET 1 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	10
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

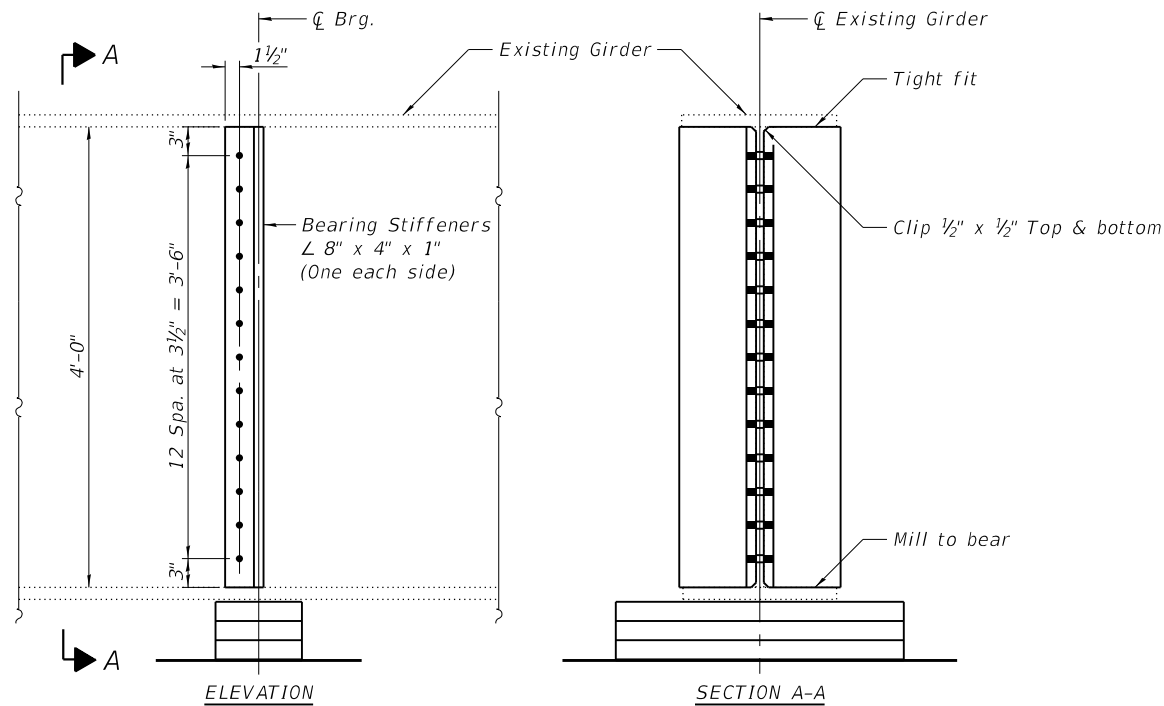
FILE NAME: H:\P\222064 - IDOT PTB 203 Item 49 District 9 V-V\222064.008 - IL 13 over Big Muddy Temp Shoring\Bridge\Microstation\0390075-78056-002-Temporary Support Pier Details.dgn



BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
h(E)	106	#6	61'-2"	—
h1(E)	4	#4	19'-11"	—
h2(E)	4	#4	16'-10"	—
s(E)	62	#4	9'-6"	⌐
sp(E)	2	#5	61'-0"	⌐
sp1(E)	2	#5	18'-0"	⌐
sp2(E)	2	#5	6'-0"	⌐
sp3(E)	2	#5	19'-6"	⌐
v(E)	126	#9	44'-3"	—
v1(E)	42	#9	41'-9"	—
v2(E)	42	#9	16'-0"	—
v3(E)	42	#9	18'-6"	—
v4(E)	124	#6	25'-4"	—
Concrete Structures			Cu. Yd.	224.6
Reinforcement Bars, Epoxy Coated			Pound	54,070
Bar Splicers			Each	208
Mechanical Splicers			Each	168
Permanent Casing			Foot	128
Drilled Shaft in Soil			Cu. Yd.	134.0
Drilled Shaft in Rock			Cu. Yd.	26.4
Crosshole Sonic Logging Access Ducts			Foot	158
Crosshole Sonic Logging Testing			Each	2

- Notes:
- Length is height of spiral.
 - Contractor is responsible for determining the permanent casing thickness and the actual tip elevation to be used. Pay limits for the Permanent Casing are based on minimum length shown.
 - Tip of Drilled Shaft in Rock shall be set in competent limestone.
 - When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
 - Splicing of reinforcement will not be allowed in this region.
 - Provide 1 1/2 extra turns top and bottom. Provide min. 4-#4 spacers or equivalent.
 - Shop weld together extra spiral turns top per AWS D1.4.
 - Shop weld together extra spiral turns bottom per AWS D1.4.
 - Shop weld together extra spiral turns top and bottom per AWS D1.4.
 - Allowable substitution for shop weld: Provide 1 1/2 extra turns top and bottom with 135° standard hook into core at ends of spiral.
 - Cast steps monolithically with wall.
 - Space top of wall reinforcement to miss anchor bolts.
 - For details of Bar Splicers and Mechanical Splicers, see sheet 4 of 14.
 - Seat elevations to be field verified. The steel bearing height is detailed to provide 6 3/8" from bottom of existing steel girders to the seat, see sheet 3 of 14.
 - See Special Provisions for Drilled Shafts.

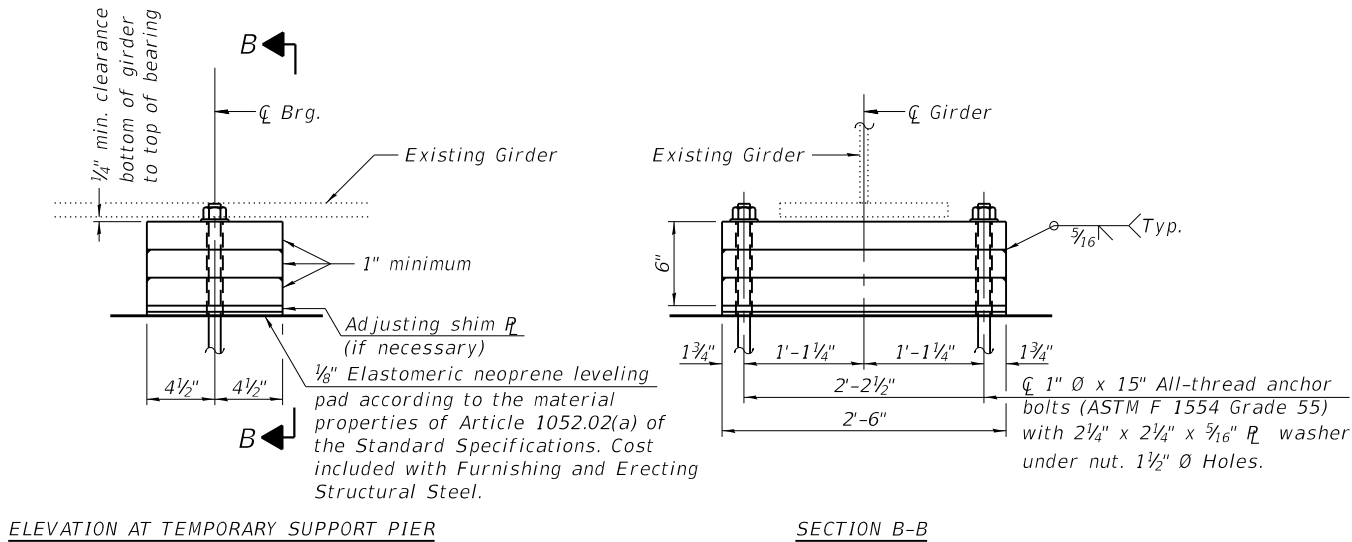
FILE NAME: H:\P222064 - IDOT PTB 203 Item 49 District 9 V-V\222064.008 - IL 13 over Big Muddy Temp Shoring\Bridge\Microstation\0390075-78056-003-Steel Details.dgn



BEARING STIFFENER ⑤⑥⑦
(6 Pairs Required)

BOLT HOLE LEGEND

- Field drill holes
- Shop drill holes



TEMPORARY STEEL BEARING
(6 Required)

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	4,660
Anchor Bolts, 1"	Each	12

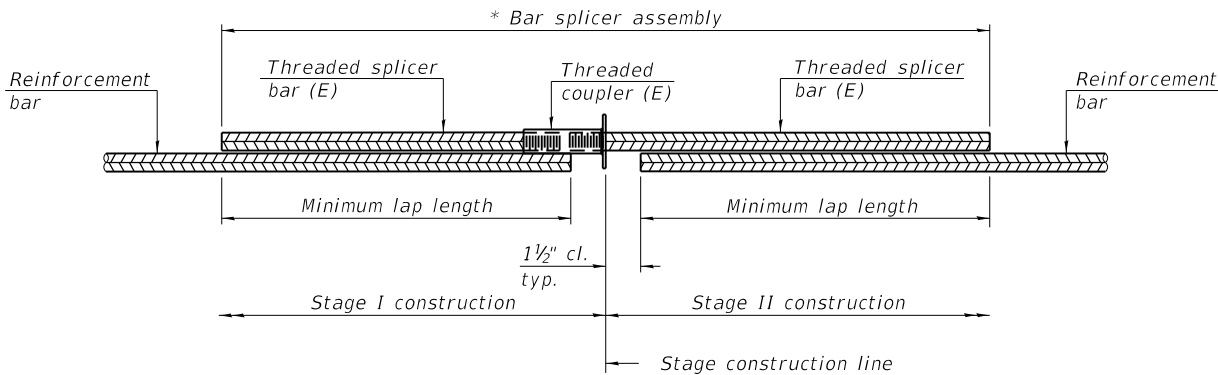
Notes:

- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
- The structural steel angles of the bearing stiffener shall be AASHTO M270 Grade 50W.
- Fasteners shall be ASTM F 3125 Grade A325 Type 3, weathering steel bolts. Bolts 3/4 in. diameter, holes 13/16 in. diameter, unless otherwise noted.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- All holes in existing steel shall be field drilled using shop drilled holes in new steel as a template, except as noted.
- Equivalent bent plate may be used in lieu of angle shown.
- When temporary support is no longer being used, bearing stiffeners shall not be removed.

USER NAME =	DESIGNED - JAD	REVISED -
	CHECKED - ETH	REVISED -
PLOT SCALE =	DRAWN - ETH	REVISED -
PLOT DATE = 9/1/2023	CHECKED - JAD	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	12
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

FILE NAME: H:\P\222064 - IDOT PTB 203 Item 49 District 9 V-V\222064.008 - IL 13 over Big Muddy Temp Shoring\Bridge\Microstation\0390075-78056-004-Bar Splicer Assembly and Mechanical Splicer Details.dgn



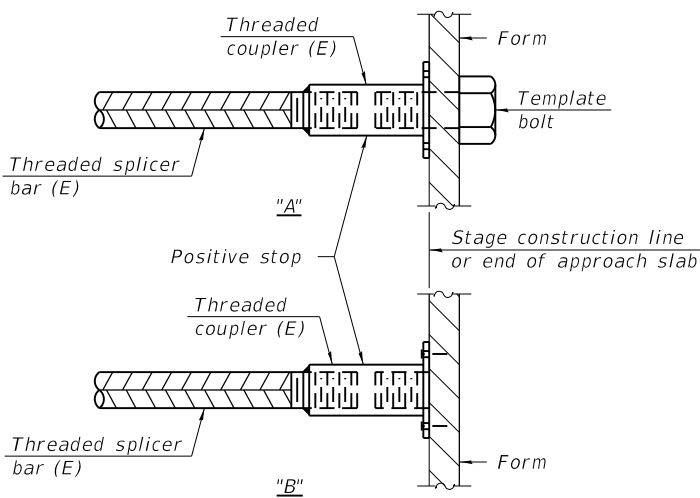
STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

Location	Bar size	No. assemblies required	Minimum lap length
Pier	#6	208	4'-4"

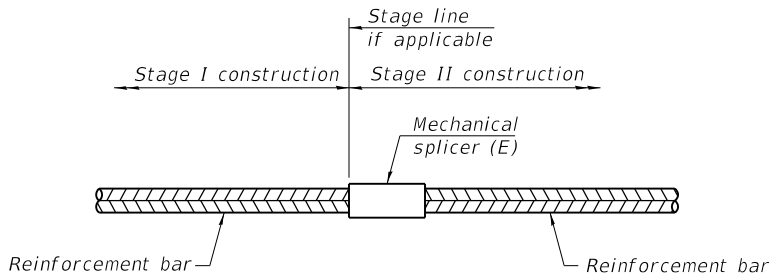


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier	#9	168

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

BSD-1

2-1-2023

FILE NAME: H:\P222064 - IDOT PTB 203 Item 49 District 9 V-V222064.008 - IL 13 over Big Muddy Temp Shoring\Bridge\Microstation\0390075-78056-005-Existing Bridge Plans.dgn

Bench Mark: F-291, NGS Monument on east abutment of S.N. 039-0013, 22' left of Sta. 339+04, Elev. 373.18.

Existing Structure: S.N. 039-0013 was originally built in 1954 along F.A. 14, Section 12-1B-2, 1F-2 and reconstructed in 1980 as F.A.P. 107, Section 12-1B-2. The back to back abutment length is 417'-0" and the out-to-out deck width is 33'-8". The structure consists of a three span continuous steel plate girder superstructure horizontally curved supported on pile stub abutments and solid wall piers. Structure to be removed and replaced.

Traffic Control: Traffic will be maintained by providing a temporary crossover from the existing eastbound roadway to the existing westbound structure for Stage I. Upon completion of the new eastbound structure, traffic will be maintained with a temporary crossover from the existing westbound roadway to the eastbound structure for Stage II.

Salvage: None

- Notes:
- ① Light poles not shown for clarity.
 - ② Measured radially.
 - ③ For Section A-A, see sheet 2 of 53.
 - ④ DS-II Drainage Scuppers to be located on the south side only at each end of the structure.
 - ⑤ For light pole locations, pole heights, and anchor bolt patterns, see Lighting Plan Details.
 - ⑥ Slope 1:2 (V:H) at right angles to abutment along face of wingwalls, typical.
 - ⑦ After removal of existing west median drain pipe, drainage to be accommodated by Contractor until completion of final median grading.
 - ⑧ Permanent Ground Anchor and Tie Rod, typical.

DESIGN SPECIFICATIONS
2010 AASHTO LRFD Bridge Design Specifications

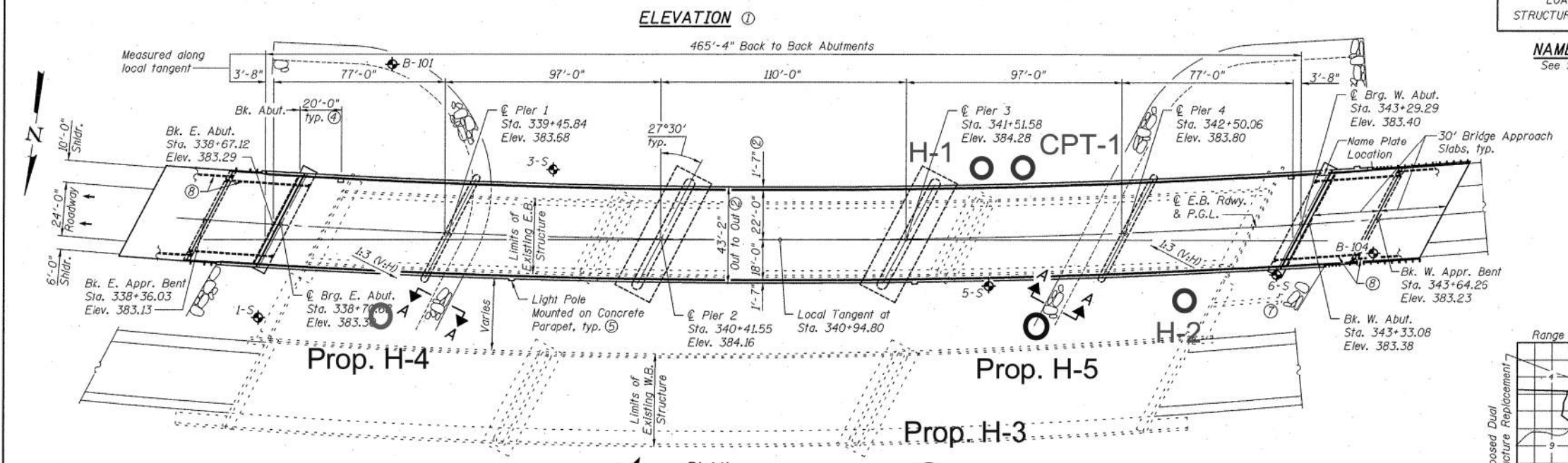
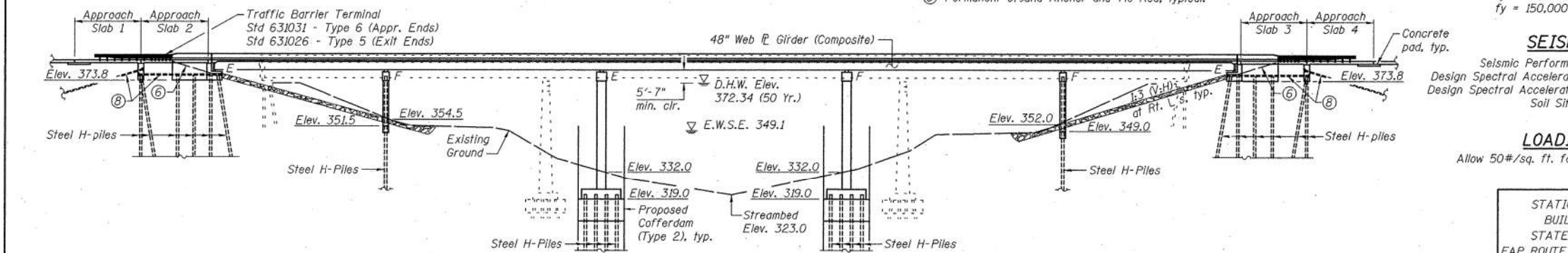
DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (AASHTO M 270 Grade 50W)
fy = 50,000 psi (AASHTO M 270 Grade 50)
fy = 150,000 psi (AASHTO M 275 Grade 150)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.35g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.82g
Soil Site Class = D

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

STATION 340+96.56
BUILT 20__ BY
STATE OF ILLINOIS
FAP ROUTE 331 SEC (12-1B-1)
LOADING HL-93
STRUCTURE NO. 039-0075

NAME PLATE
See Std. 515001



WATERWAY INFORMATION

Exist. Low Grade Elev. 382.5 @ Sta. 337+50
Prop. Low Grade Elev. 382.5 @ Sta. 337+50

Flood	Freq. Yr.	Q	C.F.S.	Opening Sq. Ft.	Nat. Exist.	Prop.	Head - Ft.	Headwater El.	Headwater El.
Design	10	26,344	7,286	7,458	366.94	0.05	0.05	366.99	366.99
Base	50	38,509	9,259	9,562	372.34	0.08	0.07	372.42	372.41
Overtopping	100	43,714	10,054	10,601	374.84	0.23	0.14	375.07	374.98
Max. Calc.	500	55,669	10,054	11,926	378.10	0.27	0.18	378.37	378.28

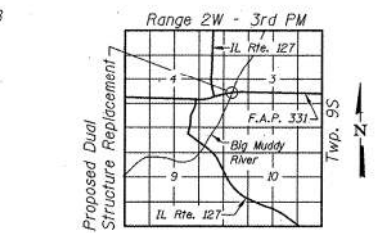
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	E. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	W. Abut.
	373.8	349.1	314.8	314.8	345.0	373.8

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

Plans prepared by
Oates Associates, Inc.
Sheets 1-12, 18-23
& 26-53 of 53
Exp. 11-30-12

Plans prepared by
Coombe-Bloxdorf P.C.
Sheets 13-17 & 24-25 of 53
Exp. 11-30-12



LOCATION SKETCH
GENERAL PLAN & ELEVATION
IL RTE. 13 OVER BIG MUDDY RIVER
F.A.P. RTE. 331 - SEC. (12-1B-1)
JACKSON COUNTY
STATION 340+96.56 (E.B.)
STRUCTURE NO. 039-0075 (E.B.)

USER NAME =	DESIGNED - JAD	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE =	DRAWN - MAG	REVISED -
	CHECKED - DGL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(12-1B-1)	JACKSON	200	60
CONTRACT NO. 78056				
ILLINOIS FED. AID PROJECT				

Note:
① General Plan & Elevation sheet from original plans included above with new 2022 and 2023 boring locations shown on Plan.

FOR INFORMATION ONLY

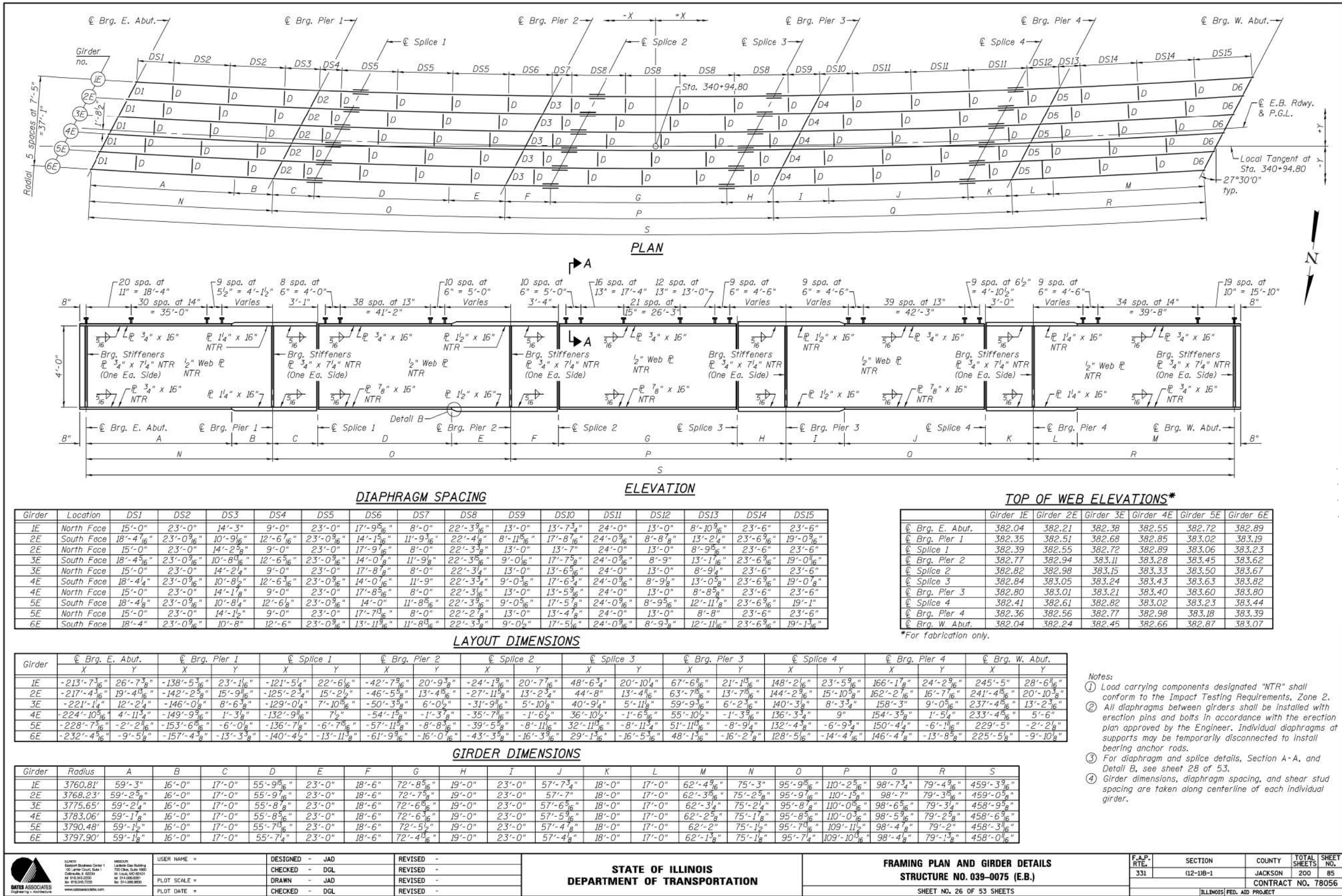
OATES ASSOCIATES
www.oatesassociates.com
ILLINOIS DESIGN FIRM LICENSE NO. 184.001115

USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 9/1/2023	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

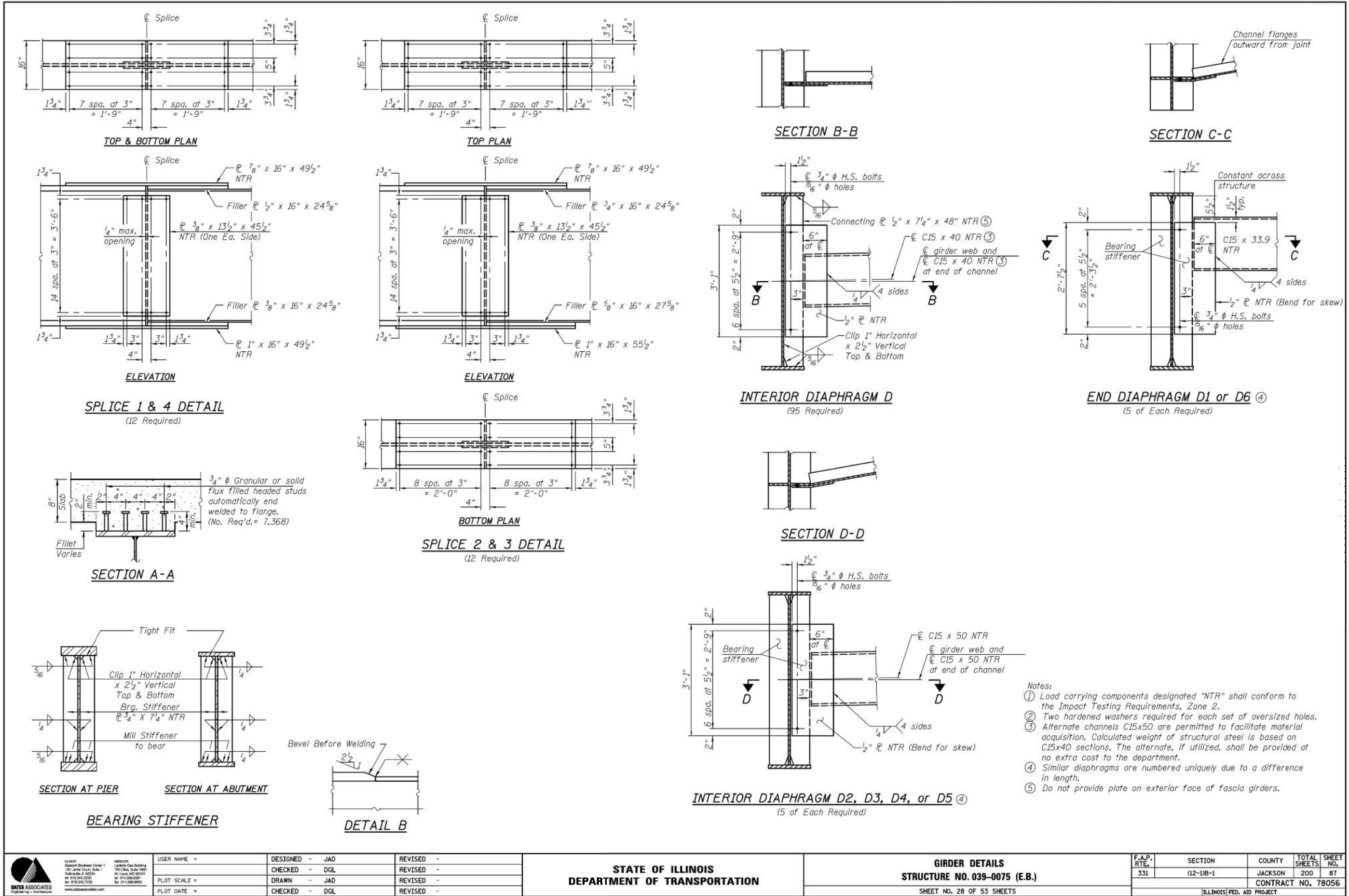
EXISTING BRIDGE PLANS
STRUCTURE NO. 039-0075
SHEET 5 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	14
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



FOR INFORMATION ONLY

FILE NAME: H:\P222064 - IDOT PTB 203 Item 49 District 9 V-V\222064.008 - IL 13 over Big Muddy Temp Shoring\Bridge\Microstation\0390075-78056-007-Existing Bridge Plans.dgn

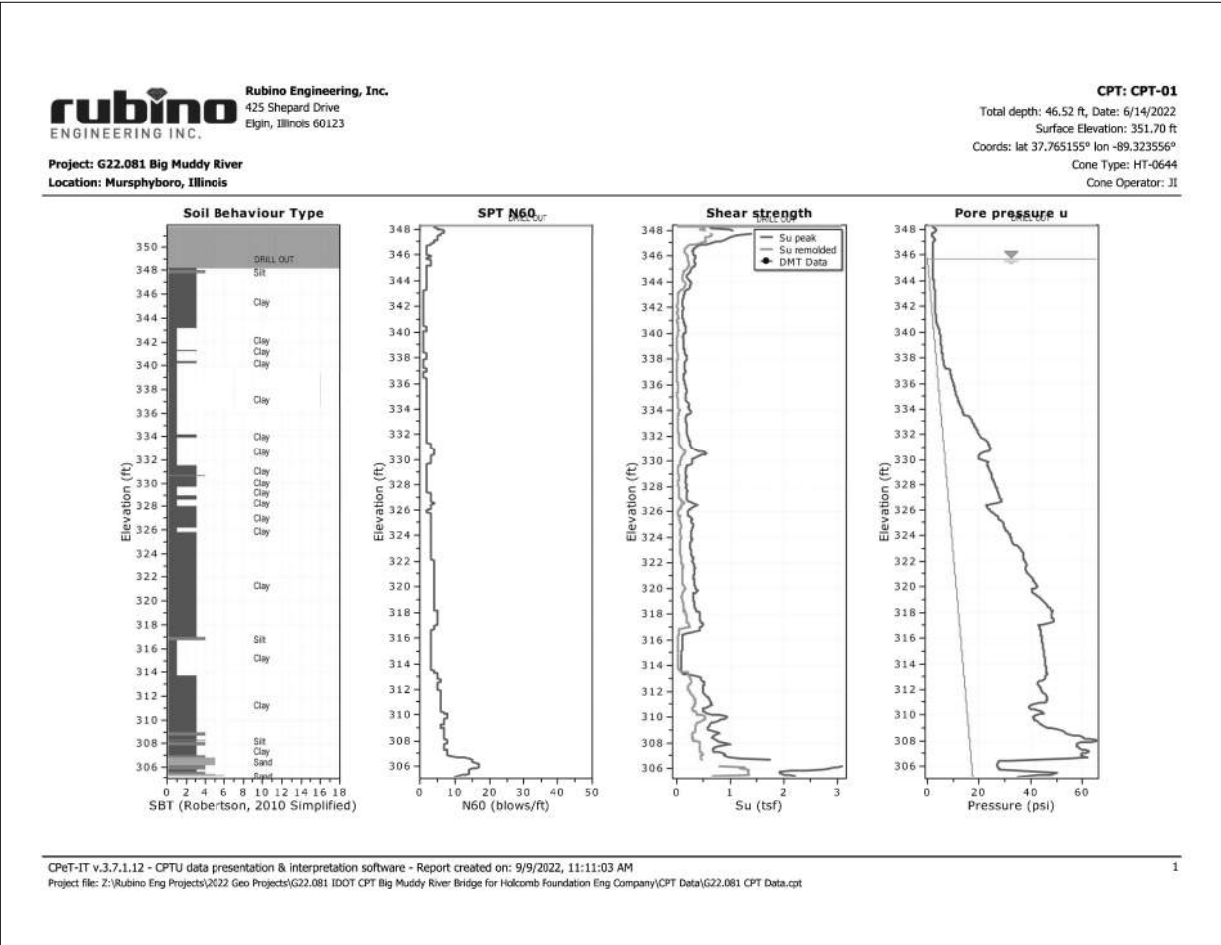


FOR INFORMATION ONLY

USER NAME =	DESIGNED - JAD	REVISED -
PLOT SCALE =	CHECKED - DGL	REVISED -
PLOT DATE = 9/1/2023	DRAWN - JAD	REVISED -
	CHECKED - DGL	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	16
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

FILE NAME: H:\P\222064 - IDOT PTB 203 Item 49 District 9 V-V\222064.008 - IL 13 over Big Muddy Temp Shoring\Bridge\Microstation\0390075-78056-008-Soil Boring Logs.dgn



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 039-0075

SHEET 8 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	17
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

Page 2 of 4

Date 07/03/23

ROUTE FAP 331 DESCRIPTION IL 13 EB over Big Muddy River LOGGED BY Gonzalez (NRK)

SECTION (12-2)B-1 LOCATION IL 13 EB over Big Muddy River, SEC. 3, TWP. 9S, RNG. 2W, 3rd PM.

Latitude 37.765370, Longitude -89.323339

COUNTY Jackson DRILLING METHOD Hollow Stem Auger (8" O.D., 4.25" I.D.) HAMMER TYPE Auto 140 lb HE 92

STRUCT. NO. 039-0075 (Ex.)

Station _____

BORING NO. H-5

Station 342+20

Offset 40.0 ft RT

Ground Surface Elev. 352.0 ft

Medium Stiff, Reddish Brown,
Moist, CLAY, Some Sand;
Interbedded with Brown, Wet,
Fine to Coarse, SAND (continued)

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

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

Groundwater Elev.: _____ ft

First Encounter 348.5 ft

Upon Completion _____ ft

After _____ Hrs. _____ ft

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

Very Stiff, Brown, Dry, CLAY
(continued)

288.4

60/5*

Black, COAL, Dry
Borehole continued with rock
coring.

Benchmark: CP #10011 at West
Abutment of SN 039-0075, EL.
378.28

304.0

Loose, Brown, Moist, Fine,
SANDY LOAM

Blow-in; washed before SPT

4

6

4

Blow-in; washed before SPT

297.5

4

5

Medium Stiff, Brown, CLAY, With
Fine Sand

296.5

Medium Dense, Brown, Moist,
Fine, SANDY LOAM

11

10

14

Medium Dense, Brown, Moist,
Fine to Coarse, SAND

292.4

292.1

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

BBS, form 137 (Rev. 8-99)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	22
		CONTRACT NO.		
ILLINOIS		FED. AID PROJECT		

ROCK CORE LOG

Page 4 of 4

Date 07/03/23

ROUTE FAP 331 DESCRIPTION IL 13 EB over Big Muddy River LOGGED BY Gonzalez (NRK)

SECTION (12-2)B-1 LOCATION IL 13 EB over Big Muddy River, SEC. 3, TWP. 3S, RNG. 2W, 3rd PM,

Latitude 37.765370, Longitude -89.323339

COUNTY Jackson CORING METHOD Water

STRUCT. NO. 039-0075 (Ex.)

CORING BARREL TYPE & SIZE NQ

Station _____

Core Diameter 1.8 in

BORING NO. H-5

Top of Rock Elev. _____ ft

Station 342+20

Begin Core Elev. 288.00 ft

Offset 40.0 ft RT

Ground Surface Elev. 352.0 ft

DEPTH
(ft)

CORRE
(#)

RECOVER
(%)

R.Q.D.
(%)

CORE
TIME
(min/ft)

STRENGTH
(tsf)

Gray, LIMESTONE, Dry, Slightly Weathered (continued)

267.00

-85

End of Boring

-90

-95

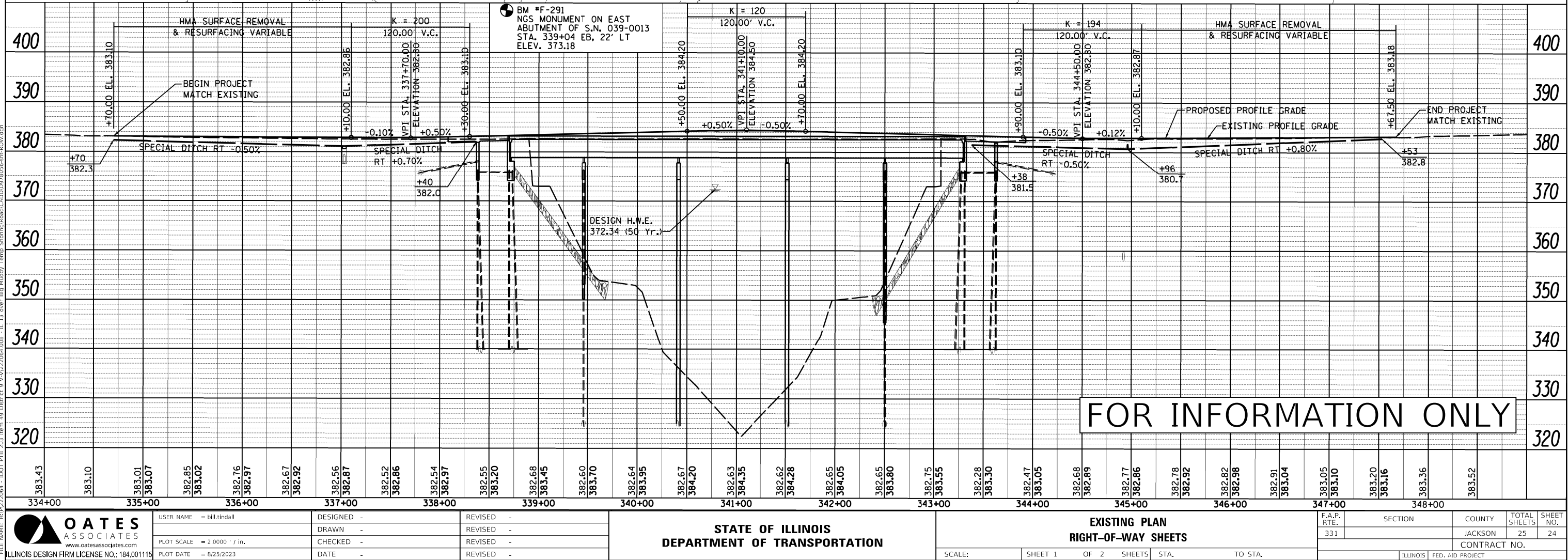
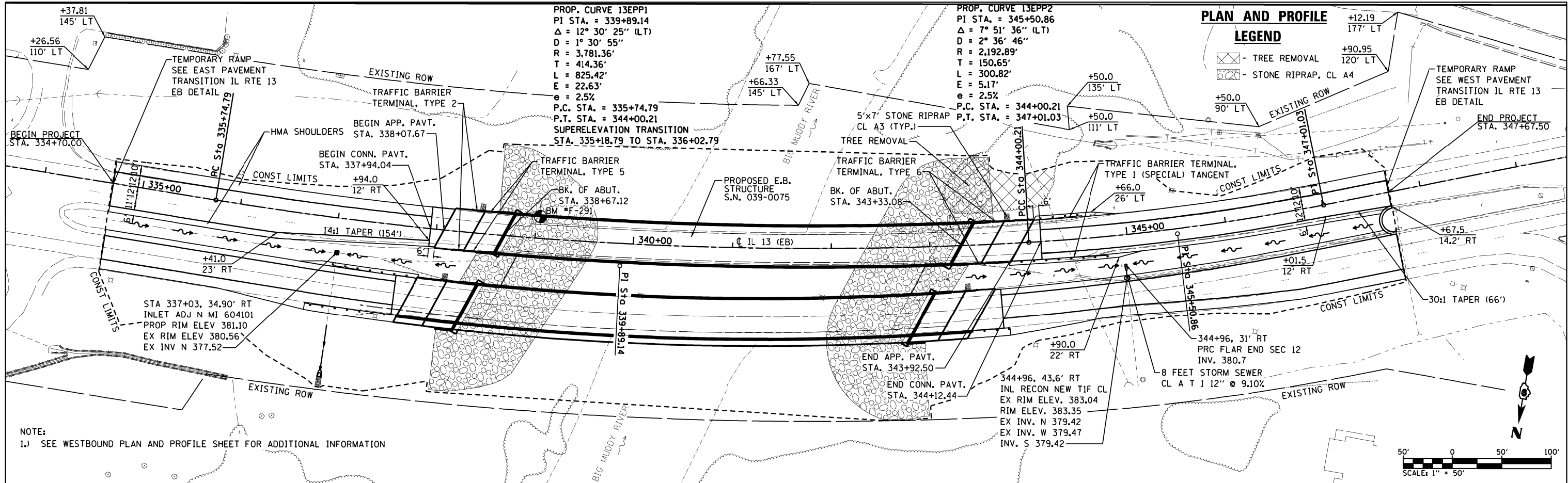
-100

Color pictures of the cores Yes

Cores will be stored for examination until 5 Years after Completion

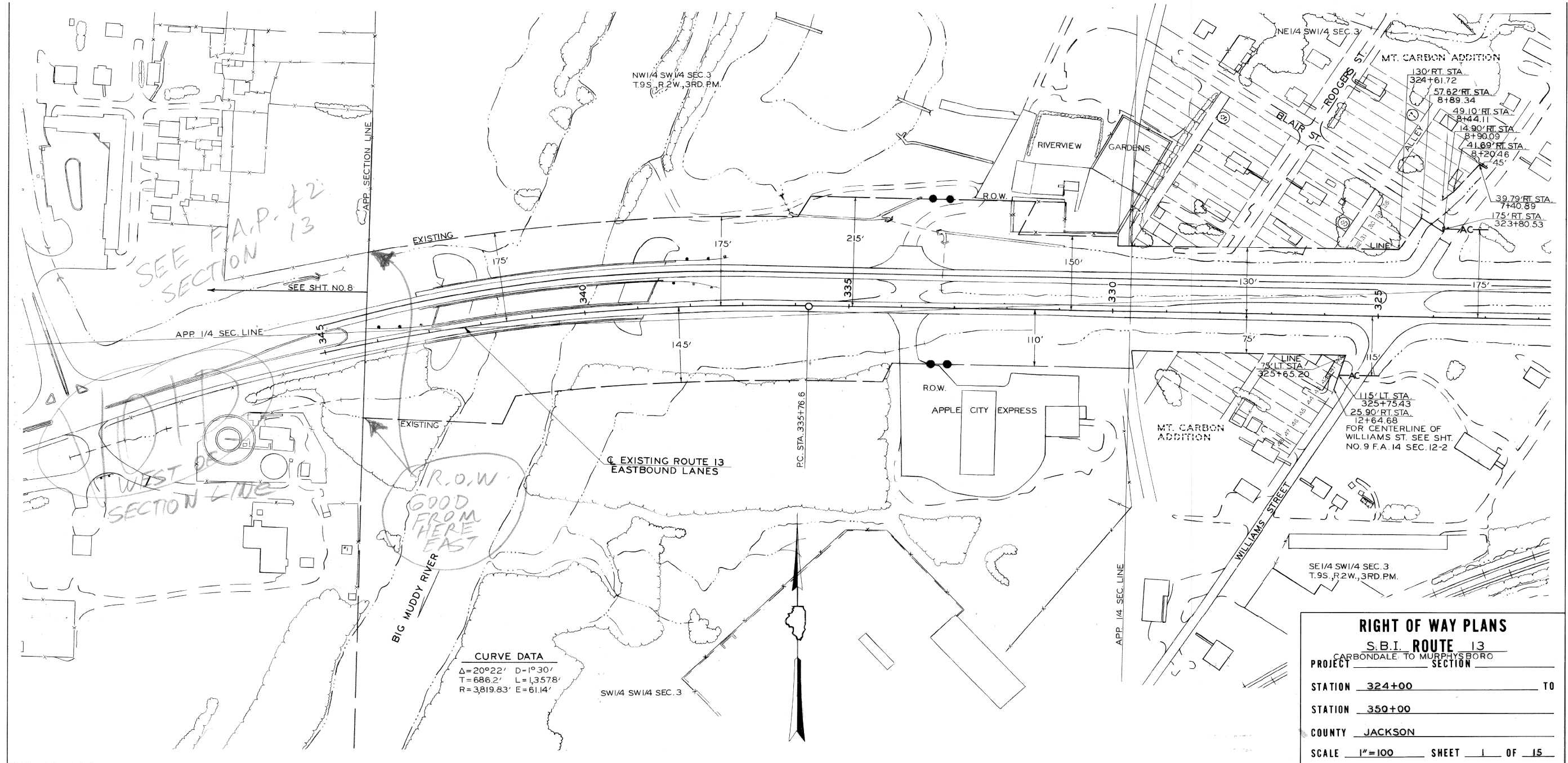
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BES, form 138 (Rev. 8-99)



REVISED BY JSB
DATE 5-30-87

DRAWN BY JSB
DATE 6-15-83



RIGHT OF WAY PLANS				
S.B.I. ROUTE 13				
CARBONDALE TO MURPHYSBORO				
PROJECT	SECTION			
STATION	324+00		TO	
STATION	350+00			
COUNTY	JACKSON			
SCALE	1" = 100	SHEET	1	OF 15

FOR INFORMATION ONLY

MODEL Default
FILE Name: I:\0222064 - IDOT P18 203 Item 49 District 9 VAV222064.008 - IL 13 over Big Muddy Temp Shoring\Road\CADD\0918056-shr-ROW.dgn
ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115



USER NAME	= bill.tindall	DESIGNED	-	REVISED	-
DRAWN	-	DRAWN	-	REVISED	-
PLOT SCALE	= 2,000' / in.	CHECKED	-	REVISED	-
PLOT DATE	= 8/25/2023	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLAN
RIGHT-OF-WAY SHEETS

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331		JACKSON	25	25
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				