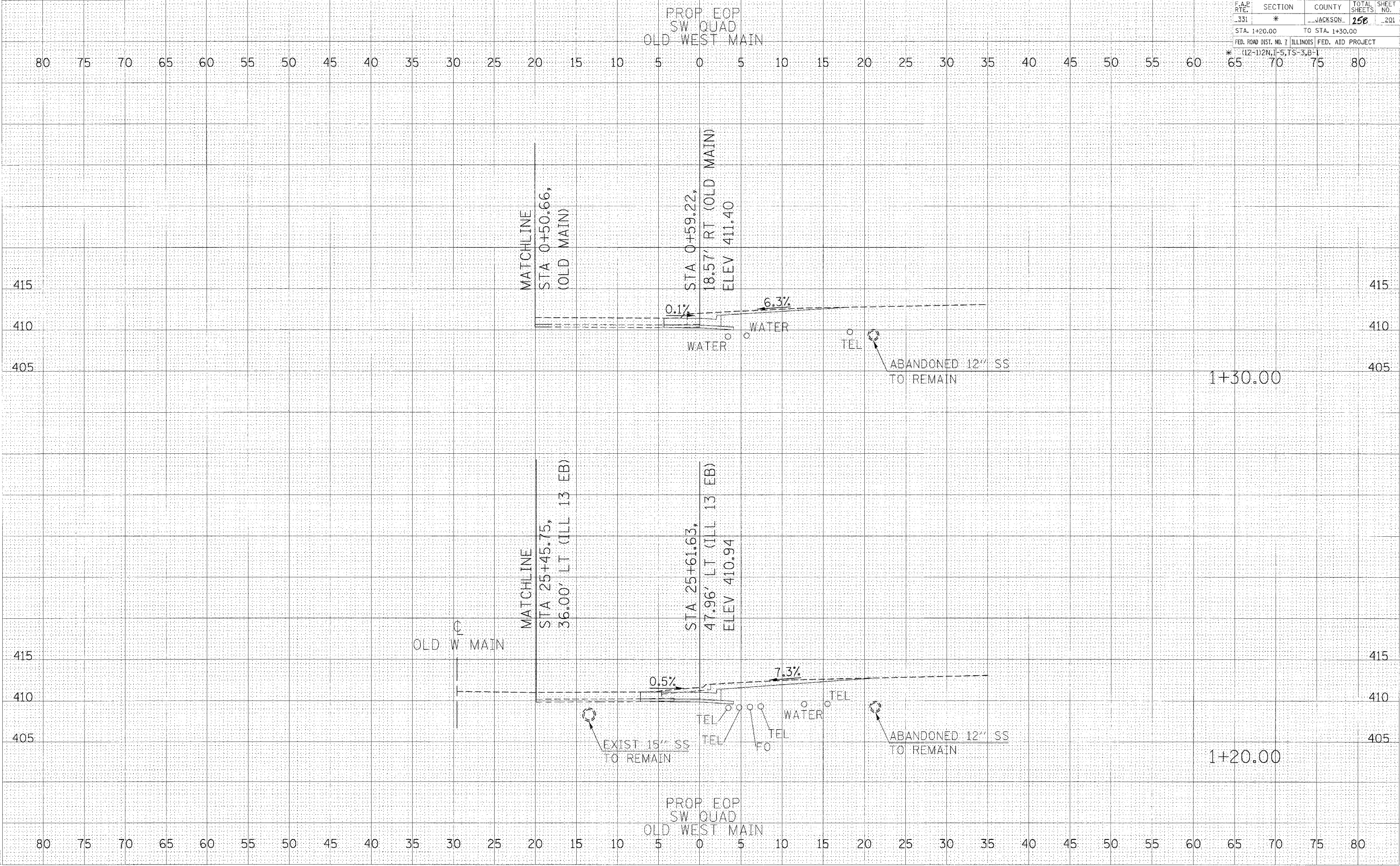


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	256	201
STA. 1+20.00		TO STA. 1+30.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				
* (12-1)2N, I-5, TS-3, B-1				



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CROSS SECTIONS - OLD MAIN ST SW QUADRANT

F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
.331	*	JACKSON	258	202
STA. 1+40.00		TO STA. 1+40.00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

(12-1)2N, I-5, TS-3, B-1

PROP EOP
SW QUAD
OLD WEST MAIN

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

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MATCHLINE

STA 0+67.13,
(OLD MAIN)

STA 0+71.27,
15.09' RT (OLD MAIN)
ELEV 411.86

WATER

6.7%

TEL

ABANDONED 12" SS
TO REMAIN

1+40.00

PROP EOP
SW QUAD
OLD WEST MAIN

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

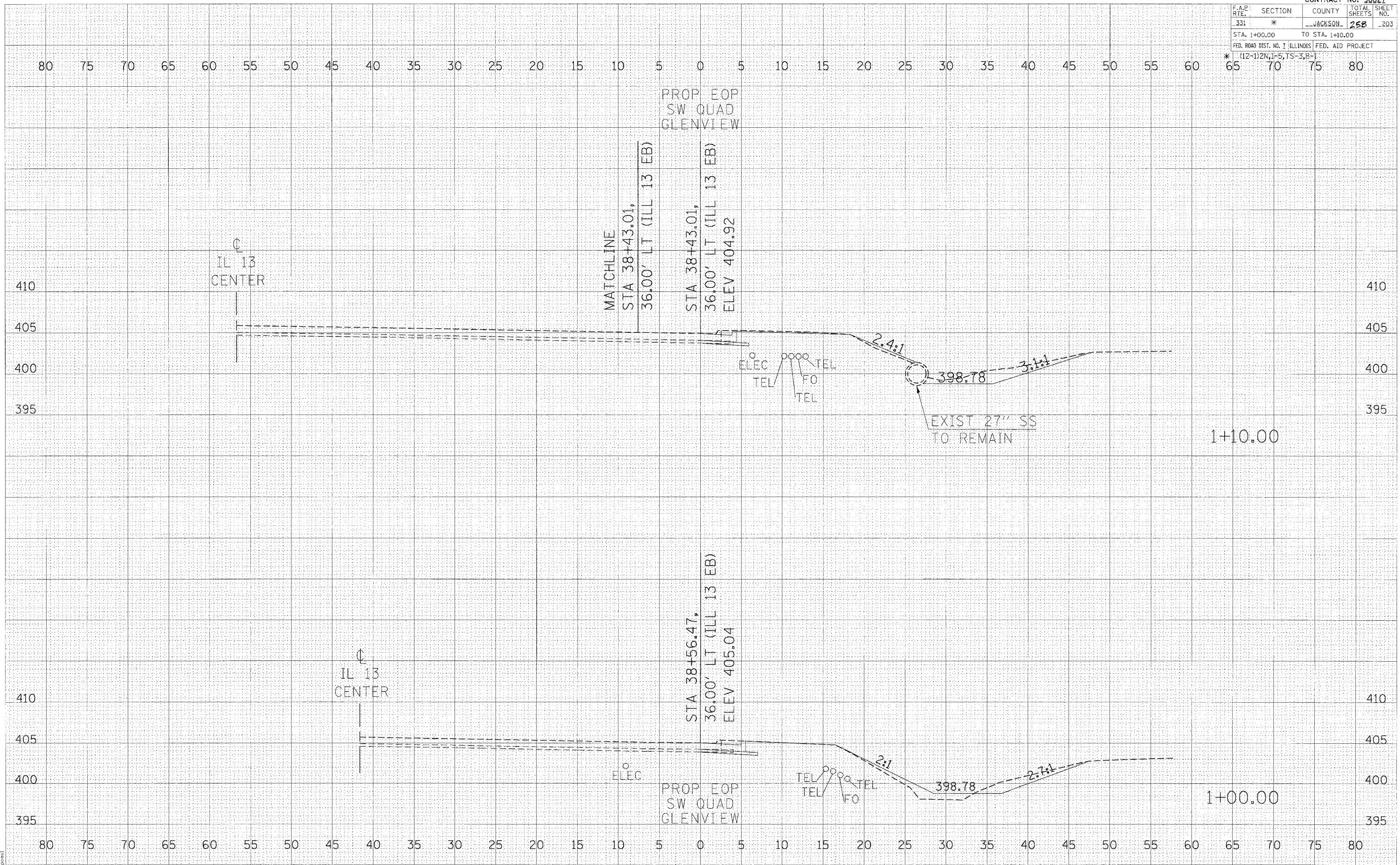
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	203
STA. 1+00.00		TO STA. 1+10.00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

* 112-112N, 1-5, TS-3, B-1

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PLOTTED	
TEMPERATURE	
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ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
TEMPERATURE	
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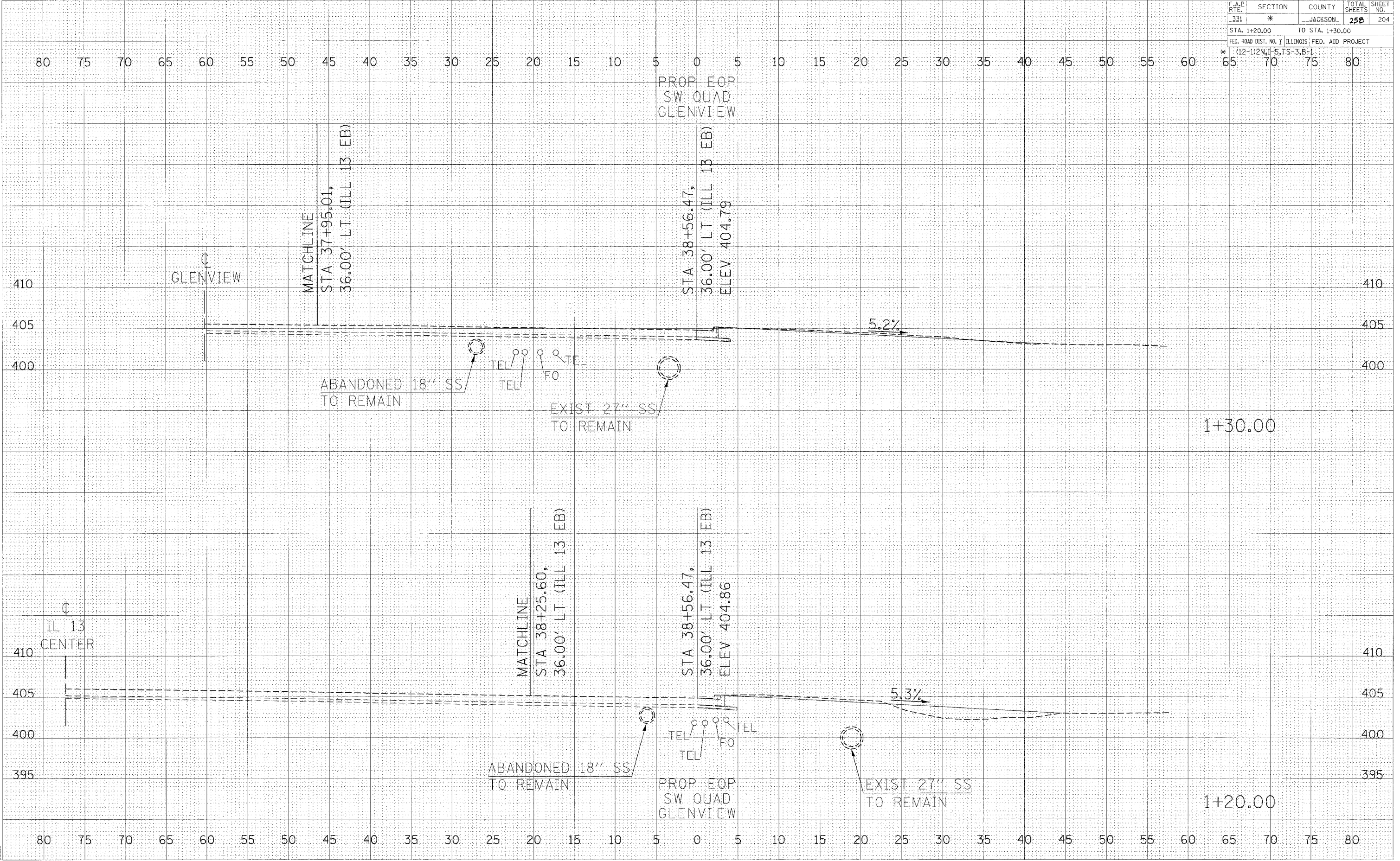


CROSS SECTIONS - GLENVIEW SW QUADRANT RADIUS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	204
STA. 1+20.00		TO STA. 1+30.00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (12-1)2N, 1-5, TS-3, B-1				

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PLOTTED	DATE
NOTE BOOK	AREAS CHECKED
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DATE	BY
SURVEYED	NOTED
PLOTTED	DATE
NOTE BOOK	AREAS CHECKED
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CROSS SECTIONS - GLENVIEW SW QUADRANT RADIUS

2/15/2005
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post

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	205
STA. 1+40.00 TO STA. 1+40.00				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (12-1)2N,1-5,TS-3,B-1				

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

PROP EOP
SW QUAD
GLENVIEW

DATE	BY

DATE	BY

DATE	BY

DATE	BY

MATCHLINE
STA 9+39.11,
0' LT (GLENVIEW)

STA 38+56.47,
36.00' LT (ILL 13 EB)
ELEV 404.70

5.5%

1+40.00

PROP EOP
SW QUAD
GLENVIEW

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

CROSS SECTIONS - GLENVIEW SW QUADRANT RADIUS

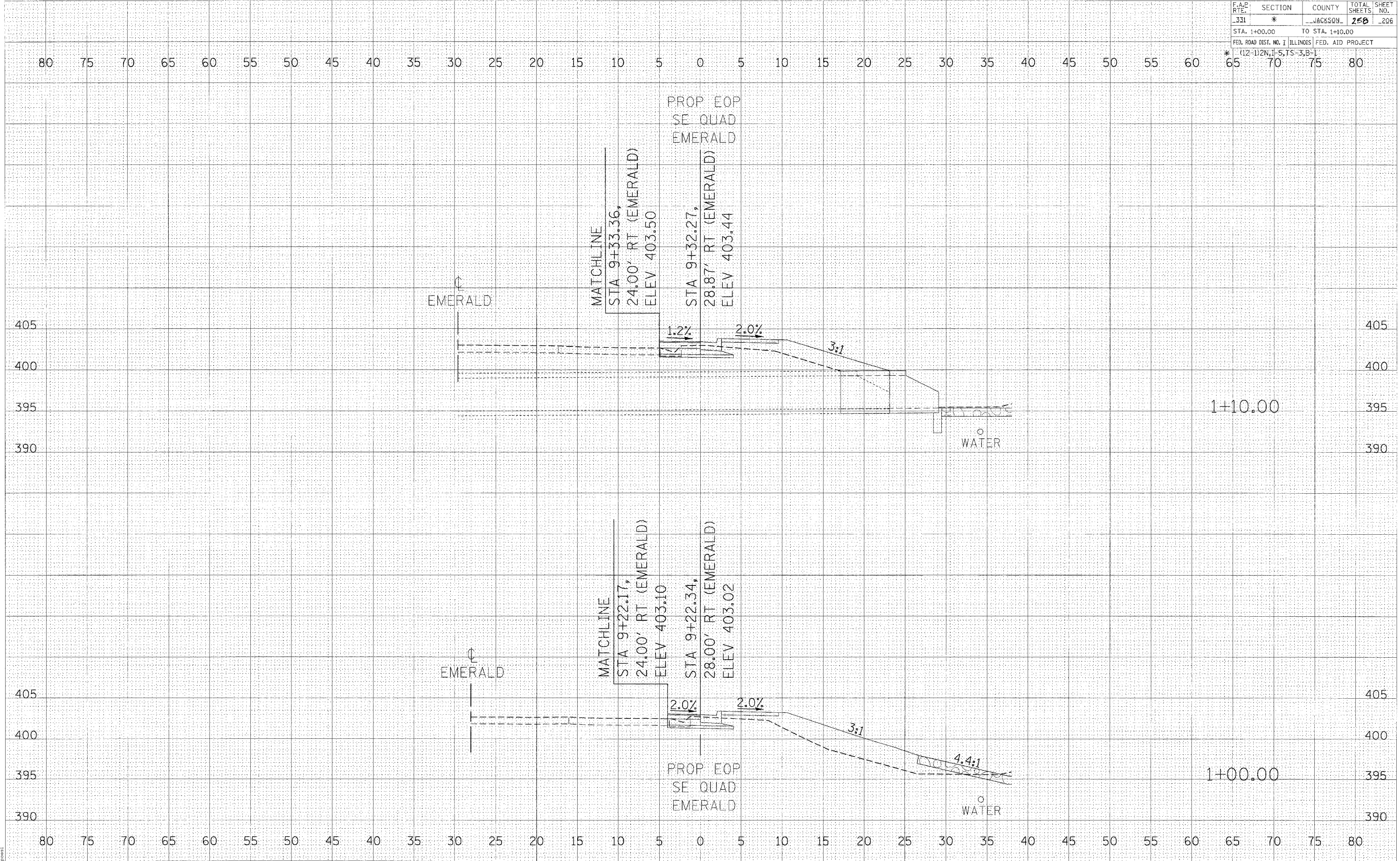
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	250	206
STA. 1+00.00		TO STA. 1+10.00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

* (12-1)2N, 1-5, TS-3, B-1

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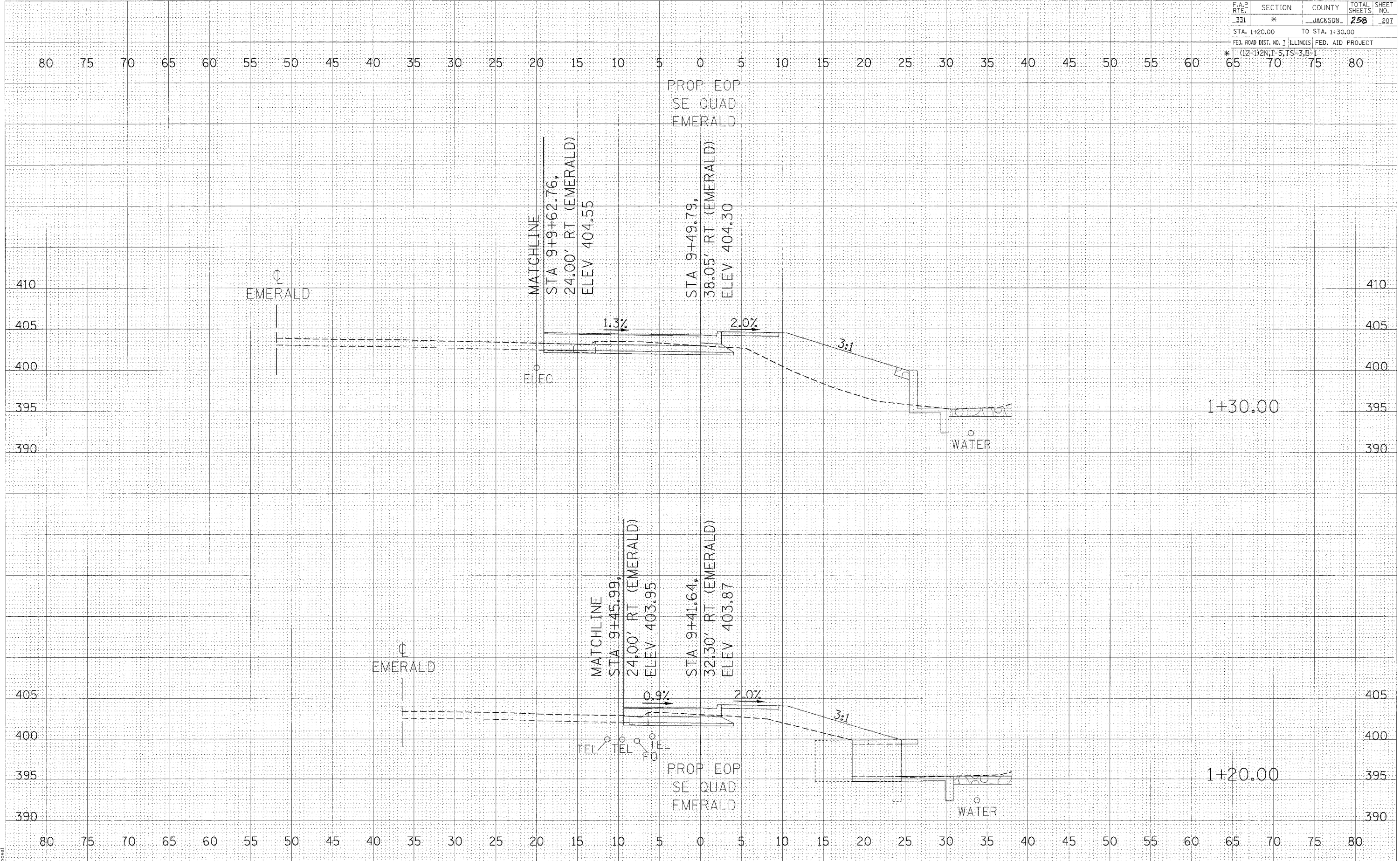


CROSS SECTIONS - EMERALD/SYCAMORE SE QUADRANT RADIUS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	207
STA. 1+20.00		TO STA. 1+30.00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (12-1)2N, 1-5, TS-3, B-1				

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DESIGNED	
PLANNED	
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REVISIONS	
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PLANNED	
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REVISIONS	
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CROSS SECTIONS - EMERALD/SYCAMORE SE QUADRANT RADIUS

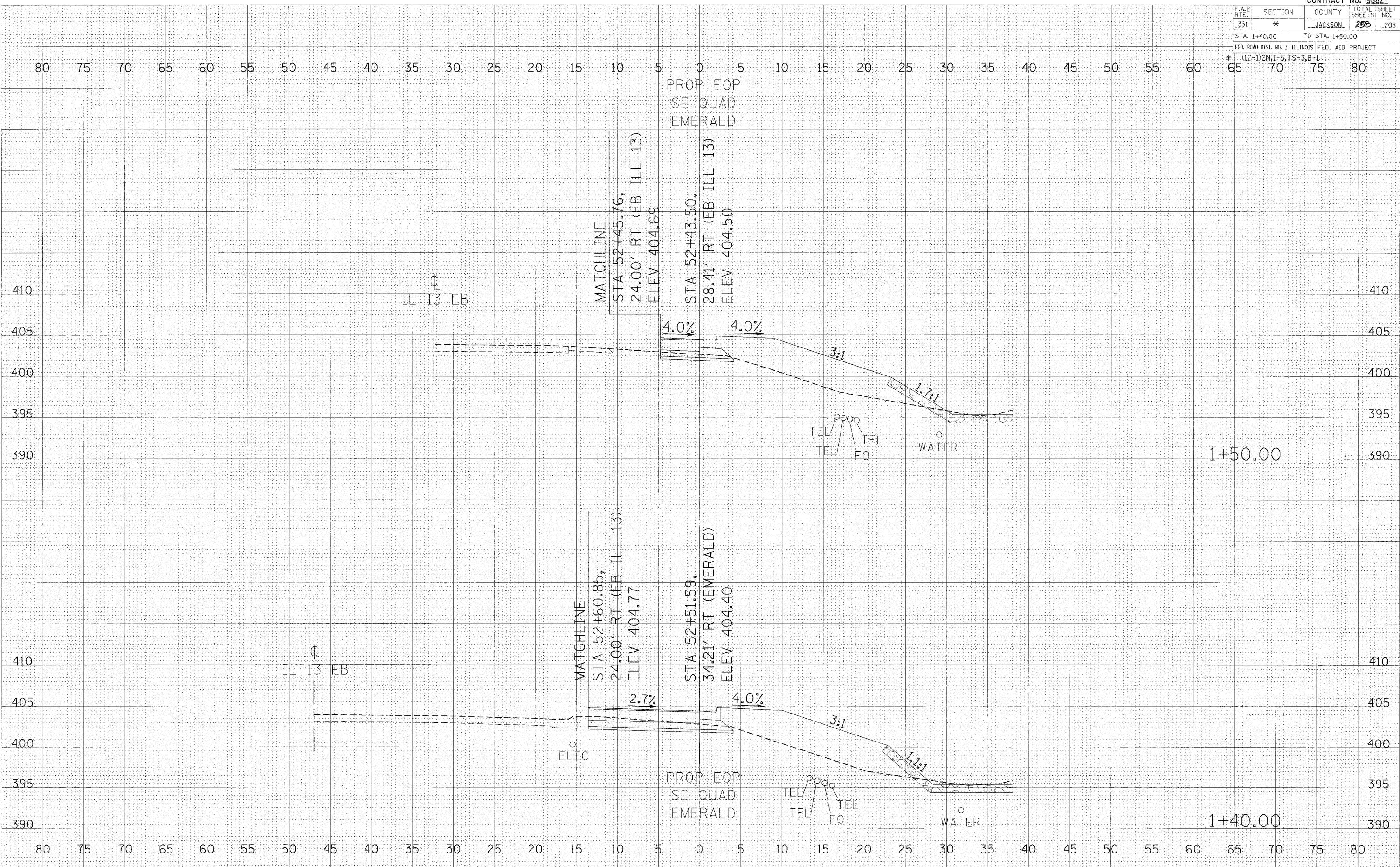
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
331	*	JACKSON	258
STA. 1+40.00		TO STA. 1+50.00	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			
* (12-1)2N, I-5, TS-3, B-1			

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NOTE BOOK	
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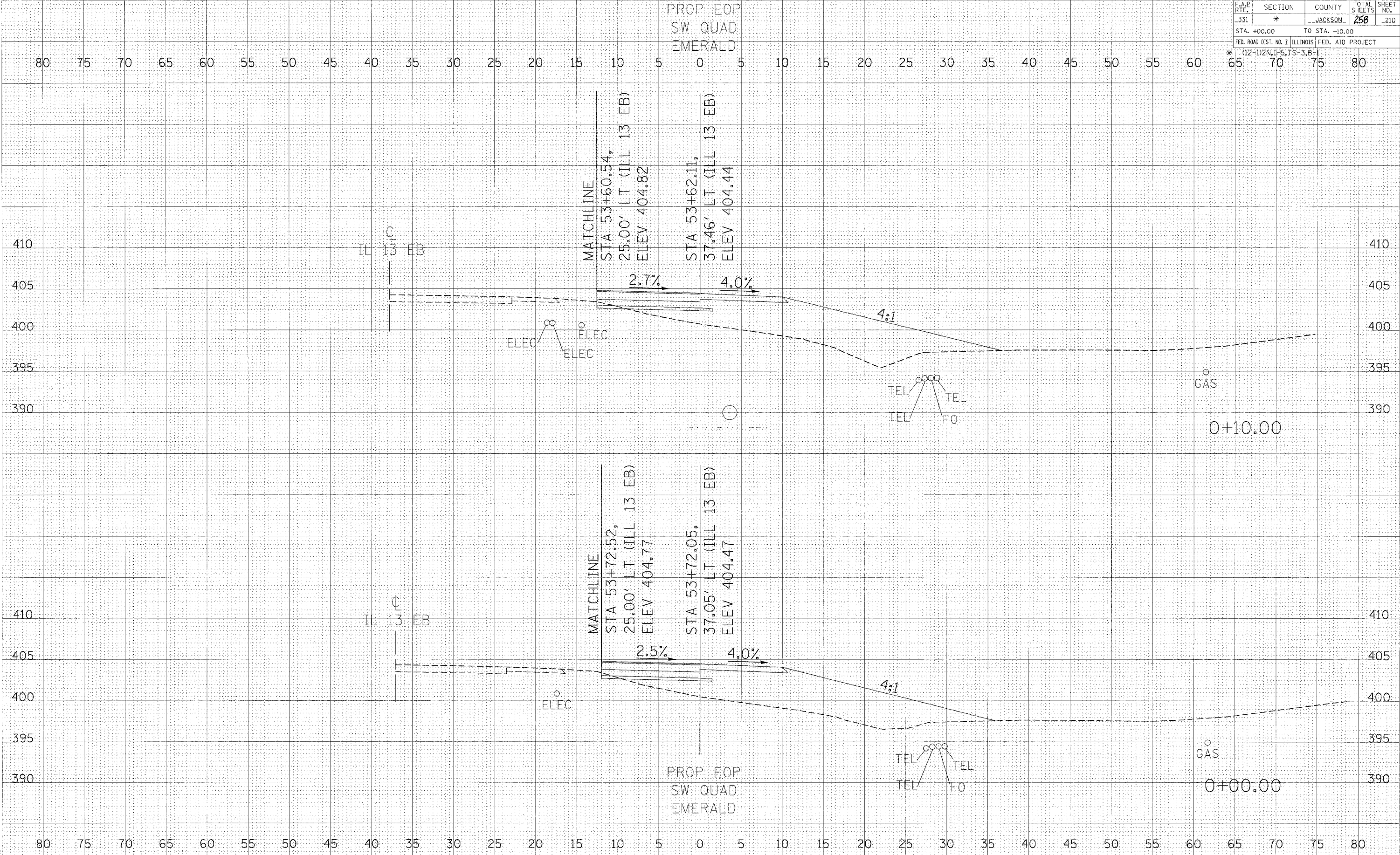
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ORIGINAL SURVEY	
NOTE BOOK	
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CROSS SECTIONS - EMERALD/SYCAMORE SE QUADRANT RADIUS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	256	210
STA. +00.00		TO STA. +10.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				
* (12-1)2N, II-5, TS-3, B-1				



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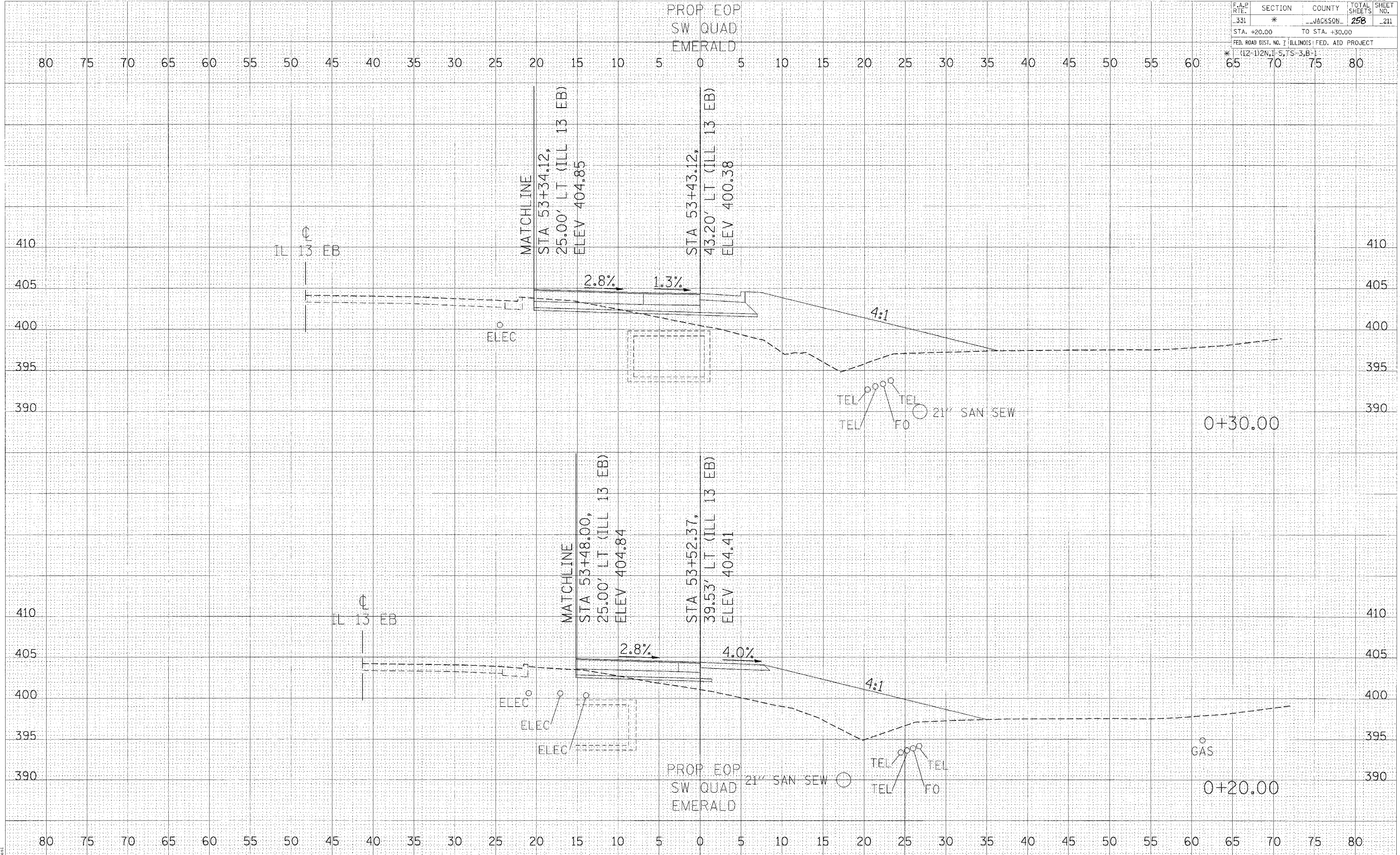
CROSS SECTIONS - EMERALD/SYCAMORE SW QUADRANT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	211
STA. +20.00		TO STA. +30.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

* (12-1)2N, 5, TS-3, B-1

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CROSS SECTIONS - EMERALD/SYCAMORE SW QUADRANT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	256	212

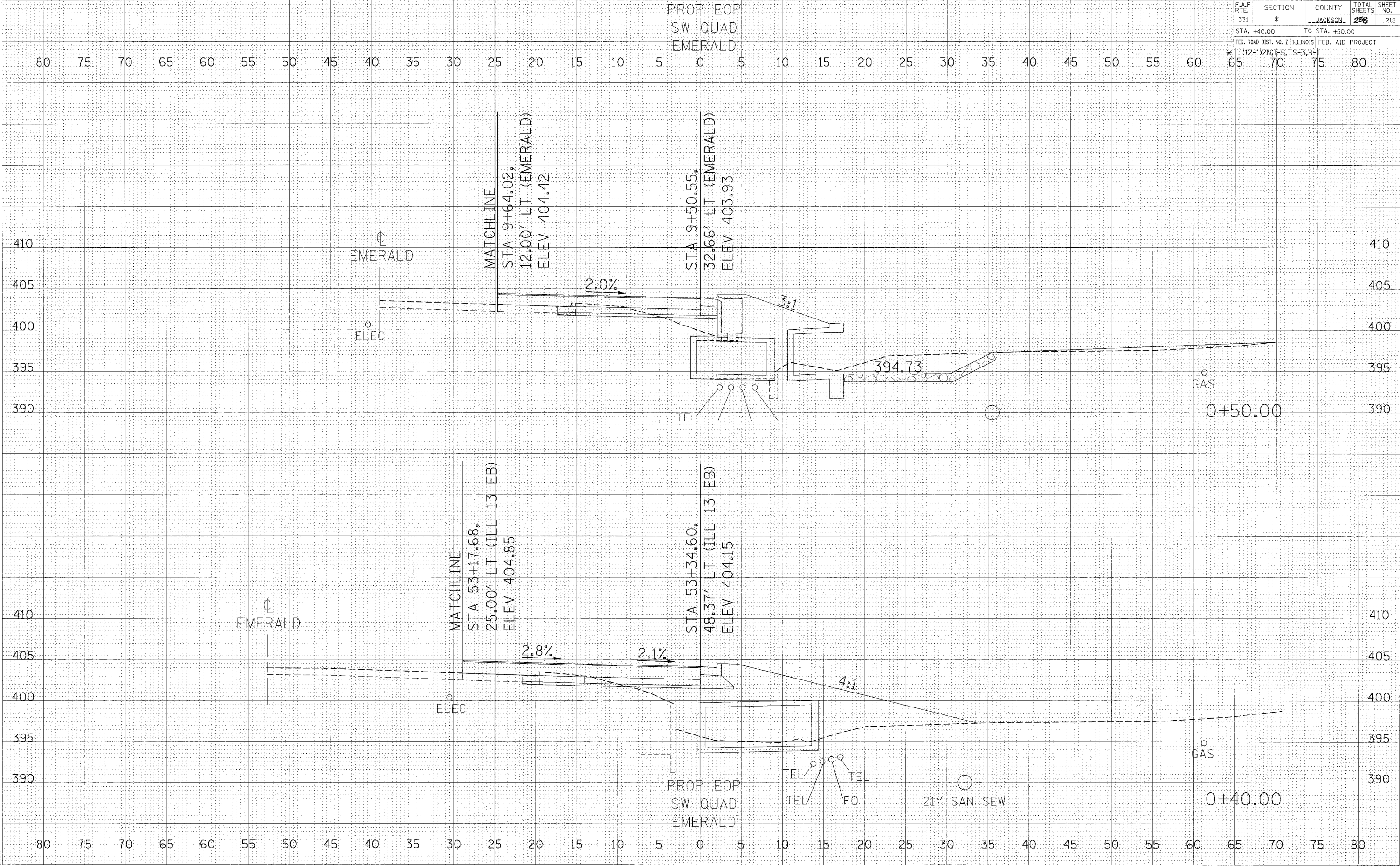
STA. +40.00 TO STA. +50.00
 FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

(12-1)2N, I-5, TS-3, B-1

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 5:0000' / 1" = 100'
 5:0000' / 1" = 100'

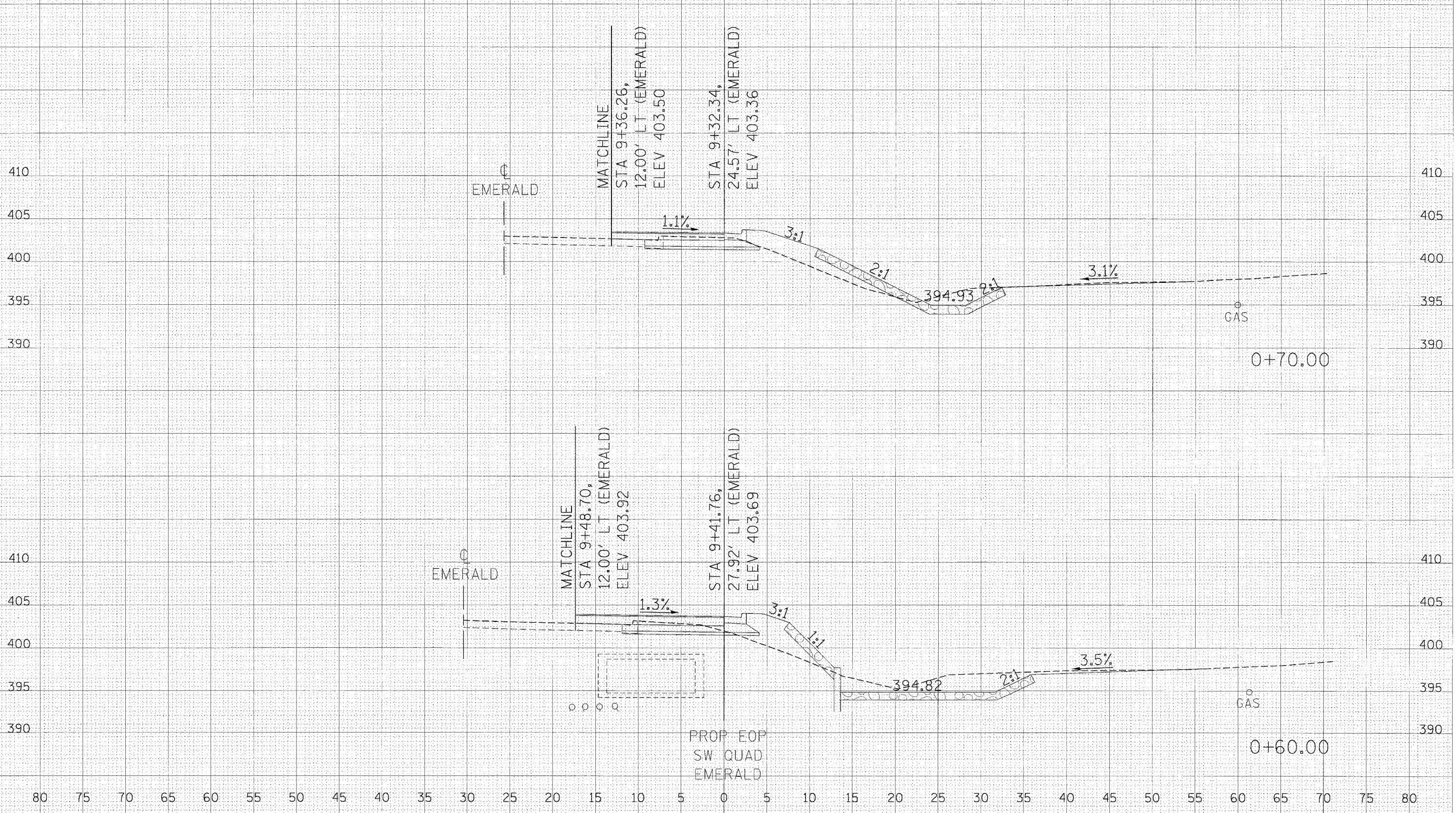


CROSS SECTIONS - EMERALD/SYCAMORE SW QUADRANT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	213
STA. +60.00 TO STA. +70.00			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	
* (12-1)2N, 1-5, TS-3, B-1				

PROP EOP
SW QUAD
EMERALD

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80



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ORIGINAL SURVEY	DATE
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NOTE BOOK	TEMPERATURE
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CROSS SECTIONS - EMERALD/SYCAMORE SW QUADRANT

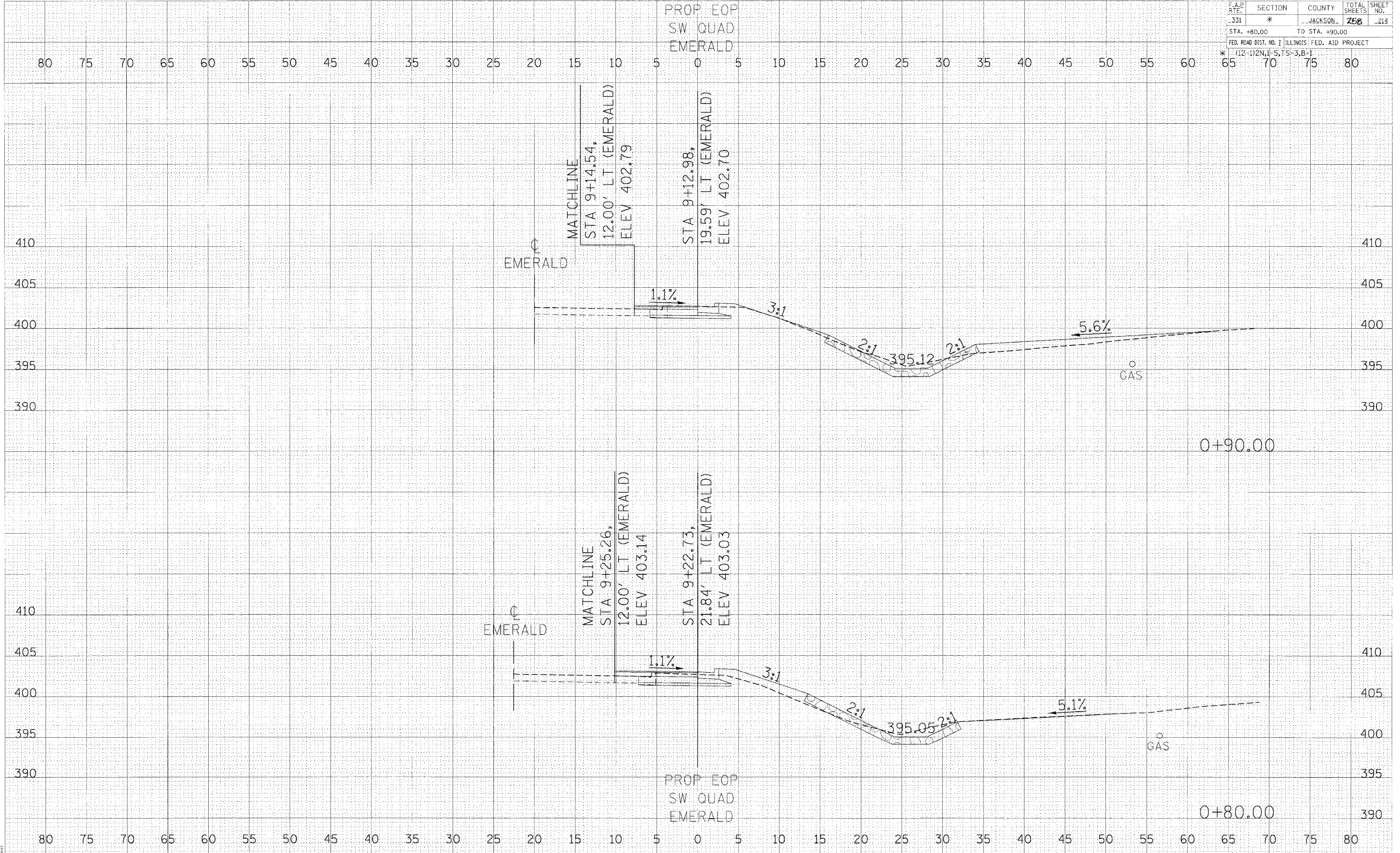
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
.331	*	JACKSON	258	214

STA. +80.00 TO STA. +90.00
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

* (12-1)2N, 1-5, TS-3, B-1

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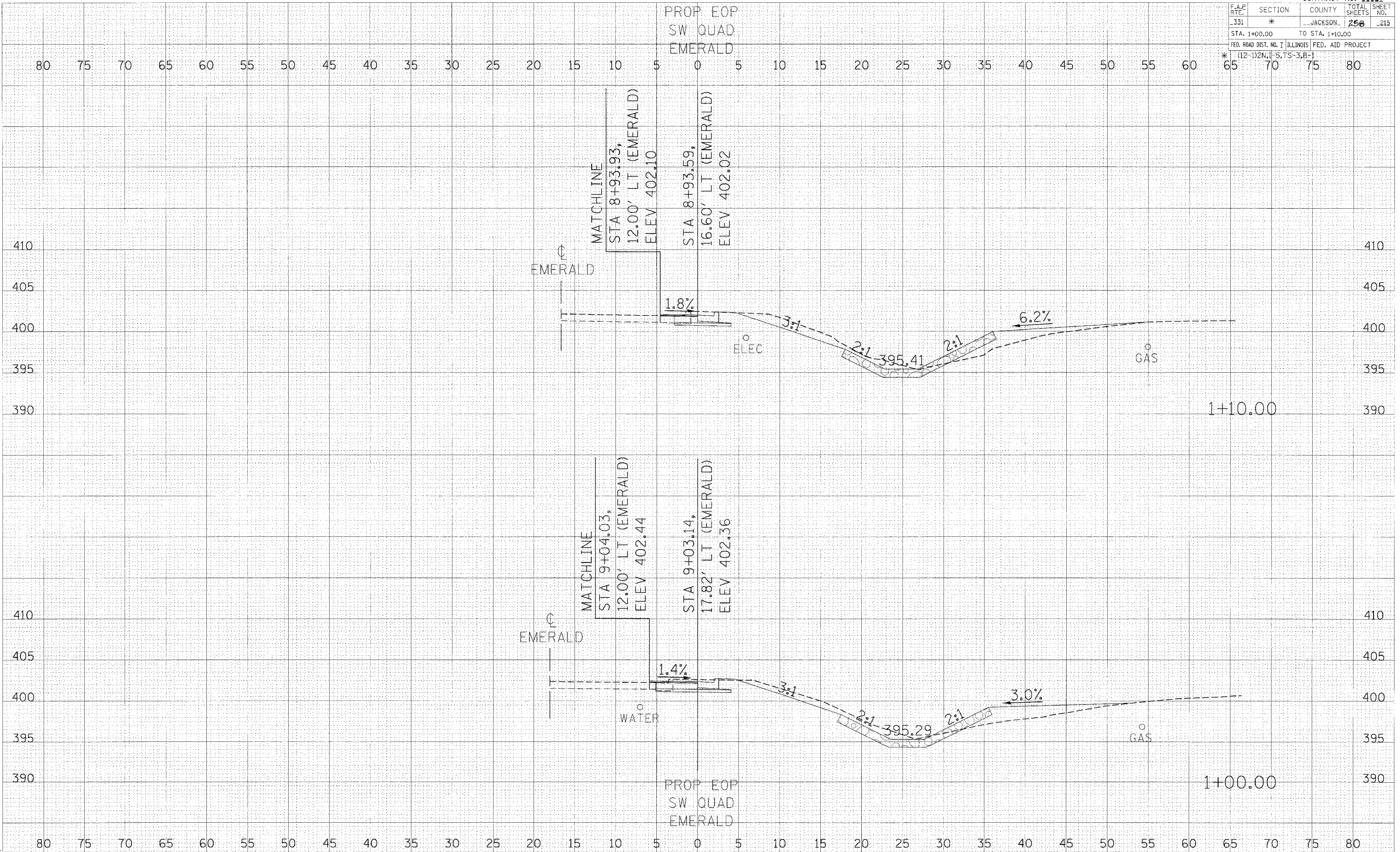
DATE	BY	NO.



CROSS SECTIONS - EMERALD/SYCAMORE SW QUADRANT

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	256	215
STA. 1+00.00		TO STA. 1+10.00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (12-1)2N, 1-S, TS-3, B-1				



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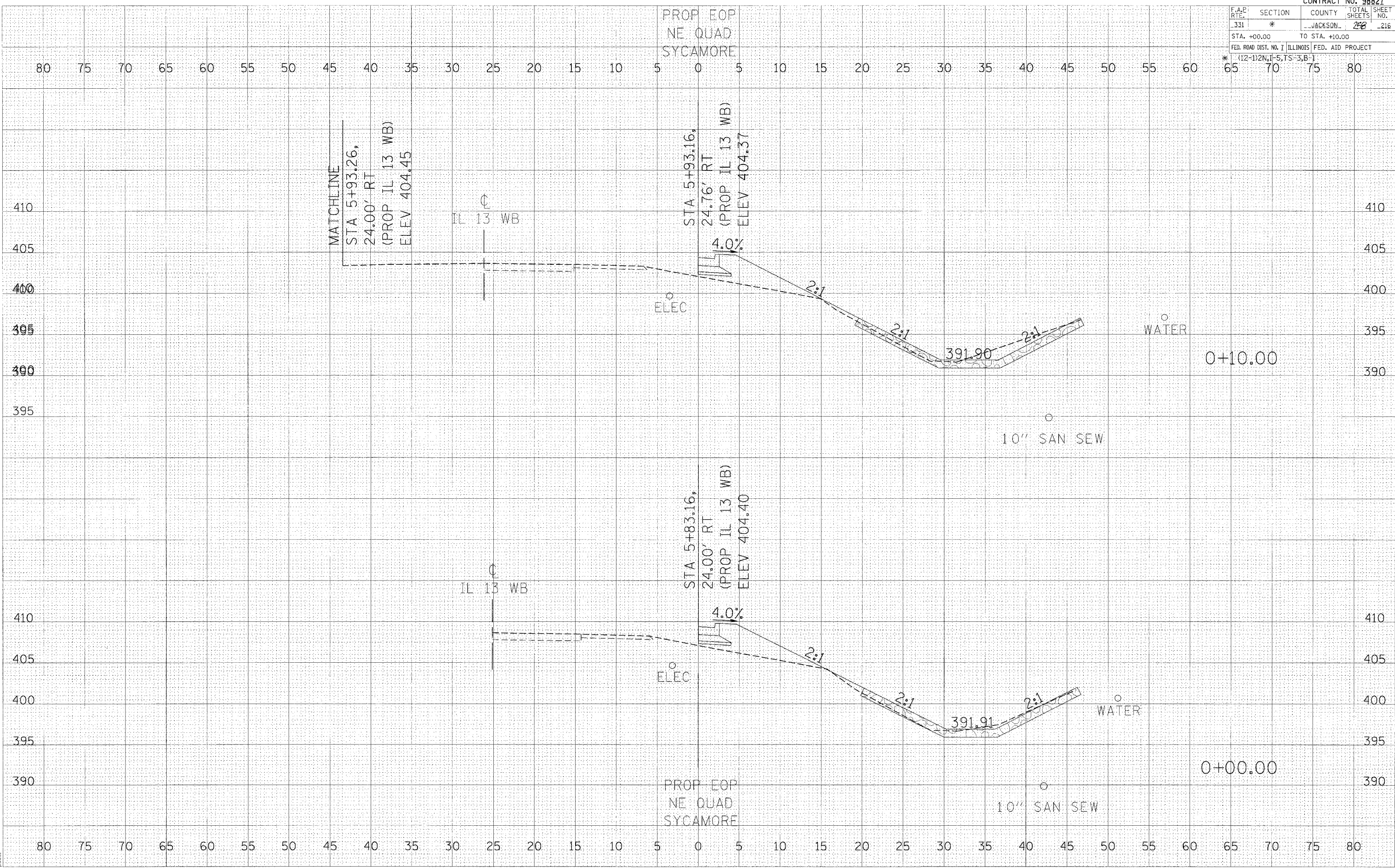
CROSS SECTIONS - EMERALD/SYCAMORE SW QUADRANT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	248	216
STA. +00.00		TO STA. +10.00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
*(12-1)2N,1-5,TS-3,B-1				

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DATE	BY	DESCRIPTION

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CROSS SECTIONS - EMERALD/SYCAMORE NE QUADRANT

F.A.E. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	217
STA. +20.00		TO STA. +30.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				
* (12-1)2N, I-5, TS-3, B-1				

PROP EOP
NE QUAD
SYCAMORE

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

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PLOTTED	
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IL 13 WB

MATCHLINE
STA 6+15.45,
24.00' RT
(PROP IL 13 WB)
ELEV 404.54

MATCHLINE
STA 6+12.25,
30.74' RT
(PROP IL 13 WB)
ELEV 404.31

ELEC

ELEC

MATCHLINE
STA 6+03.83,
24.00' RT
(PROP IL 13 WB)
ELEV 404.50

MATCHLINE
STA 6+02.39,
27.02' RT
(PROP IL 13 WB)
ELEV 404.34

IL 13 WB

PROP EOP
NE QUAD
SYCAMORE

10" SAN SEW

10" SAN SEW

0+30.00

0+20.00

391.84

391.81

2.4:1

1.0:1

2:1

2:1

1.8:1

2:1

3.2%

3.0%

5.4%

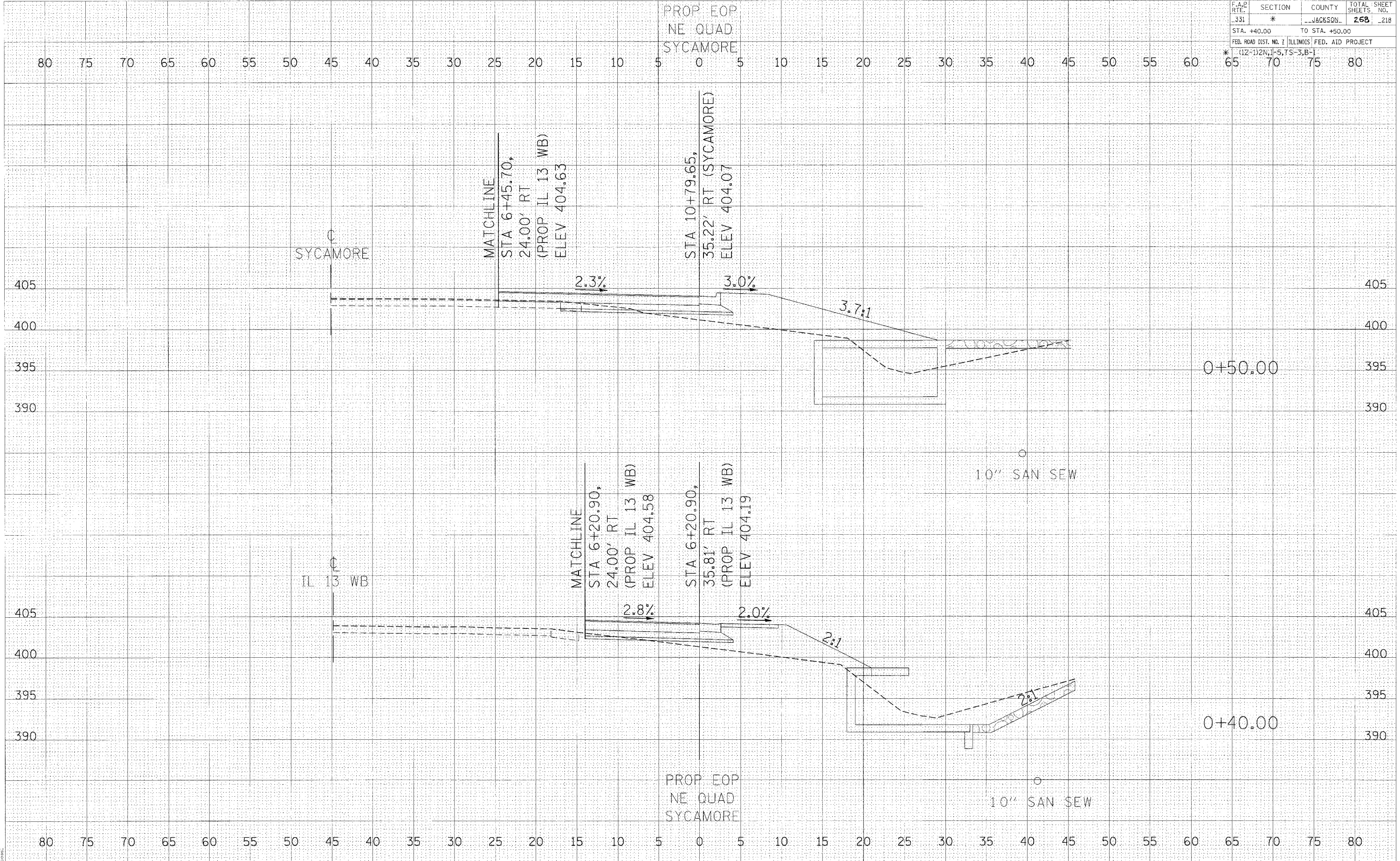
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CROSS SECTIONS - EMERALD/SYCAMORE NE QUADRANT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
331	*	JACKSON	268
STA. +40.00		TO STA. +50.00	
FED. ROAD DIST. NO. I ILLINOIS FED. AID PROJECT			

* (12-1)2N, I-5, TS-3, B-1



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CROSS SECTIONS - EMERALD/SYCAMORE NE QUADRANT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	219

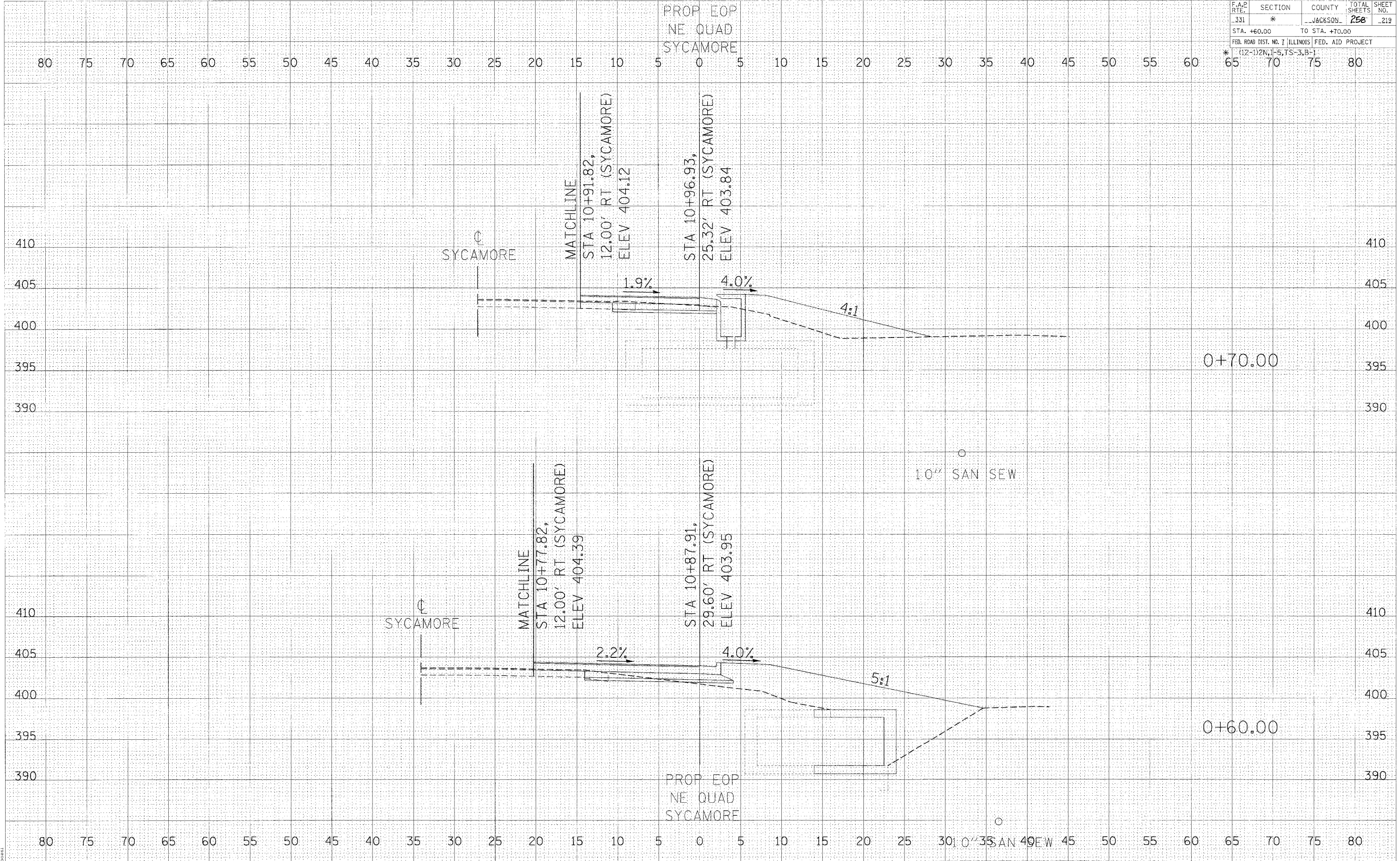
STA. +60.00 TO STA. +70.00
 FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

* (12-1)2N, 1-5, TS-3, B-1

FINAL SURVEY	SURVEY	DATE
NO.	NO.	NO.

ORIGINAL SURVEY	SURVEY	DATE
NO.	NO.	NO.

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 10/10/08

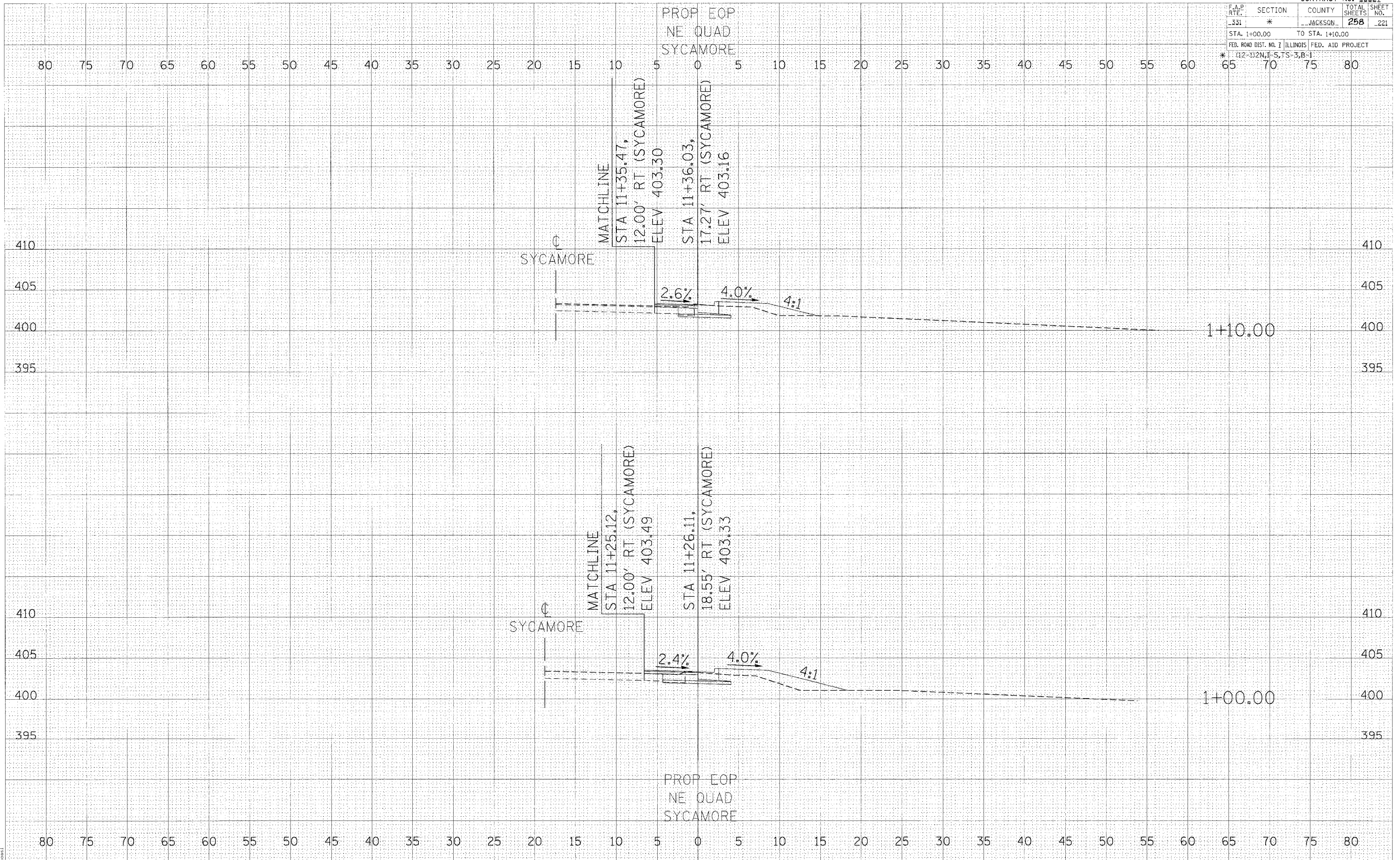


CROSS SECTIONS - EMERALD/SYCAMORE NE QUADRANT

CONTRACT NO. 98827			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
331	*	JACKSON	258
STA. 1+00.00	TO STA. 1+10.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			
* 112-112N, I-5, TS-3, B-1			

FINAL SURVEY	DATE
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NOTE BOOK NO.	
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CROSS SECTIONS - EMERALD/SYCAMORE NE QUADRANT

F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	223

STA. 1+00.00 TO STA. 1+10.00

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

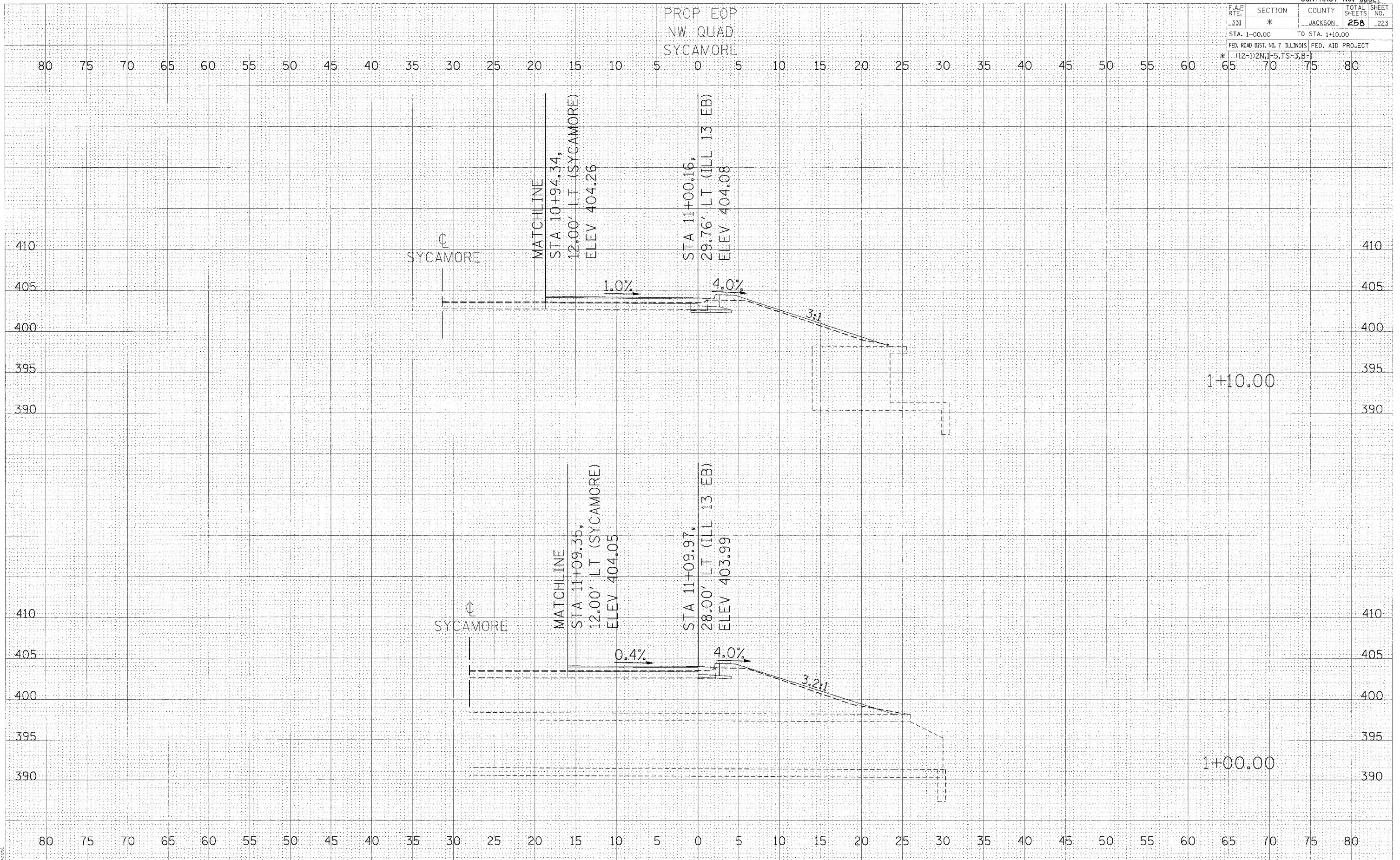
* (12-1)2N,1-5,TS-3,B-1

PROP EOP
NW QUAD
SYCAMORE

DATE	BY

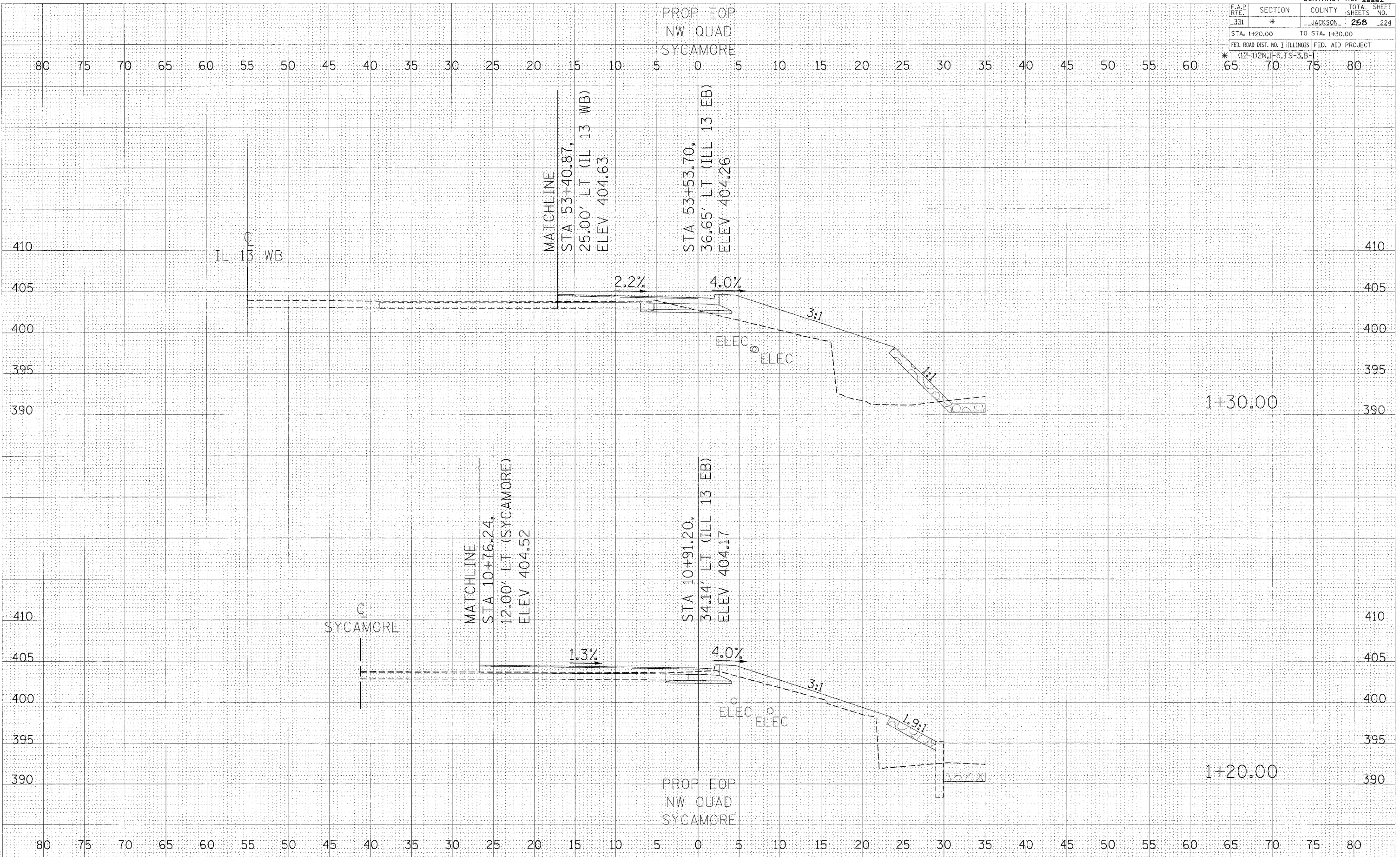
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CROSS SECTIONS - EMERALD/SYCAMORE NW QUADRANT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	224
STA. 1+20.00 TO STA. 1+30.00				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (12-1)2N, I-5, TS-3, B-1				



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 PLOTTED: _____
 FINAL SURVEY: _____
 NOTE BOOK NO.: _____
 AREAS CHECKED: _____

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 SURVEYED: _____
 PLOTTED: _____
 ORIGINAL SURVEY: _____
 NOTE BOOK NO.: _____
 AREAS CHECKED: _____

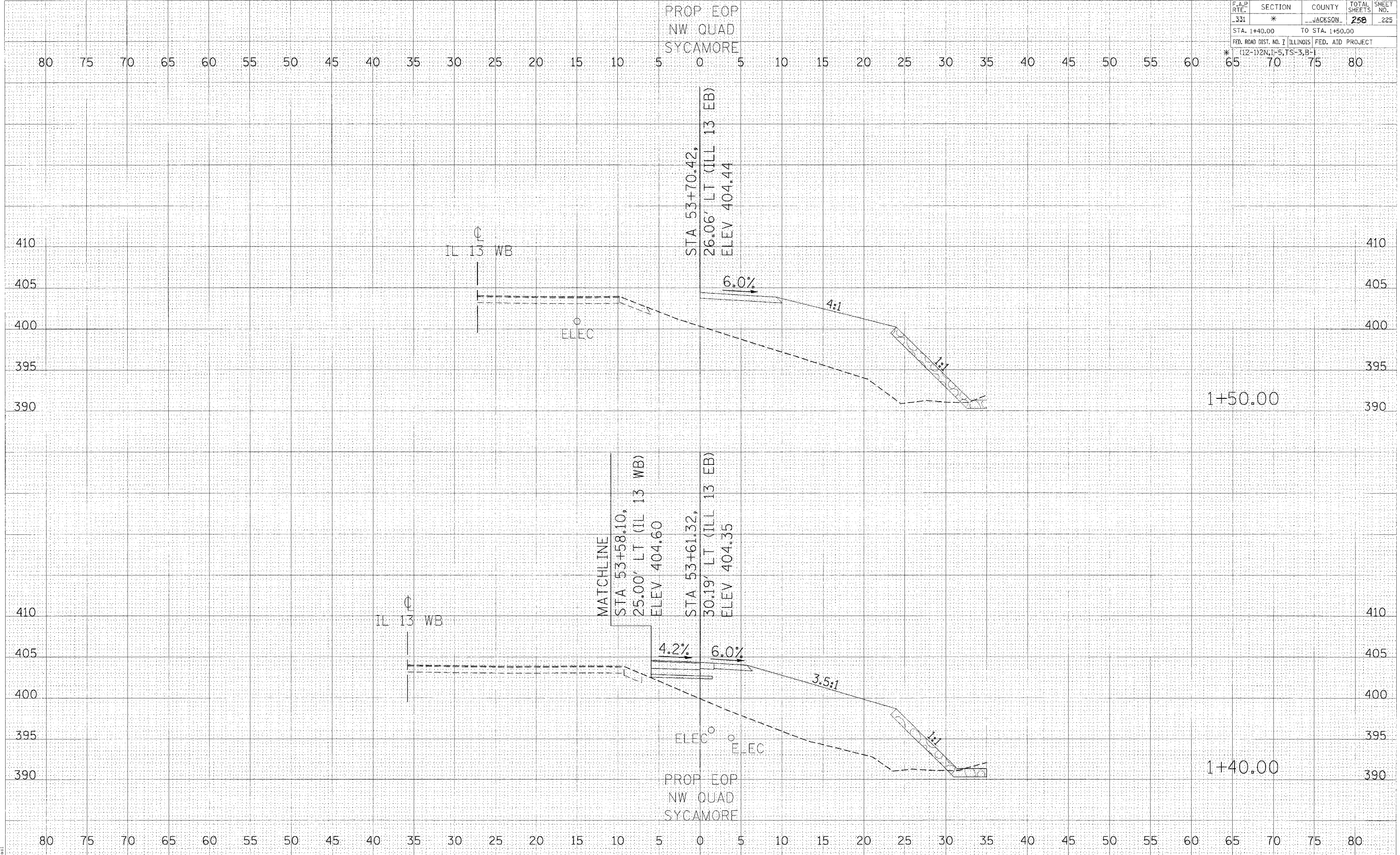
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CROSS SECTIONS - EMERALD/SYCAMORE NW QUADRANT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	*	JACKSON	258	225

STA. 1+40.00 TO STA. 1+50.00
 FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

* (12-1)2N,1-5,TS-3,B-1



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CROSS SECTIONS - EMERALD/SYCAMORE NW QUADRANT

Bench Mark: Brass disk on NE headwall of S.N. 039-0016(WB), Elev. 405.45

Existing Structure: S.N. 039-0016(WB) & 039-0017(EB) Built in 1954 as F.A. Rt. 14, Sec. 12-1B at Sta. 57+95.26 as a simple span WF dual structure 55'-8" Bk.-Bk. abutments, supported on timber piles. Existing bridge to be removed and replaced with raised median.

No salvage

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STATION 57+91.70
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 331 SEC. (12-1)B-1
LOADING HL-93
STR. NO. 039-0071

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON	224	32 SHEETS

Contract #98827

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " ϕ , open holes $\frac{1}{16}$ " ϕ , unless otherwise noted.
Calculated weight of Structural Steel = 266830 Lbs. (AASHTO M270, Grade 50)
22880 Lbs. (AASHTO M270, Grade 36)

Field welding of construction accessories will not be permitted to beams.
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams.

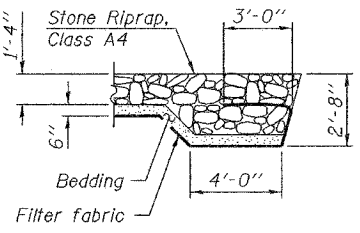
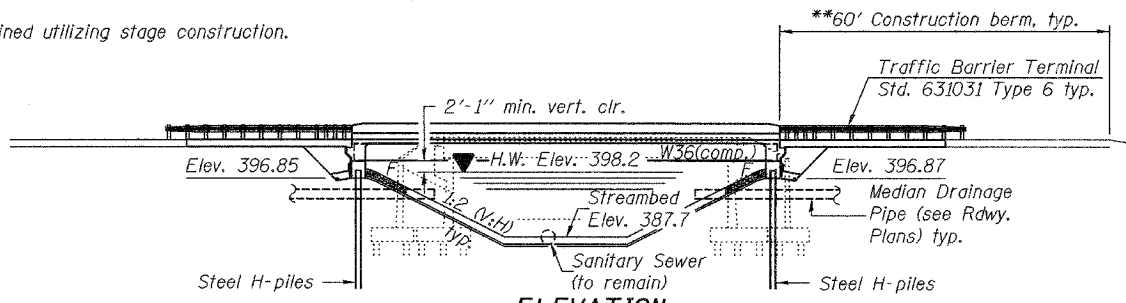
Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
The Contractor shall drive one HP 12x84 test pile in a permanent location at the East Abut. as directed by the Engineer before ordering the remainder of piles.

In addition to all other requirements of section 512 of the Standard Specifications, splices for HP 12x84 piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. All construction joints shall be bonded.

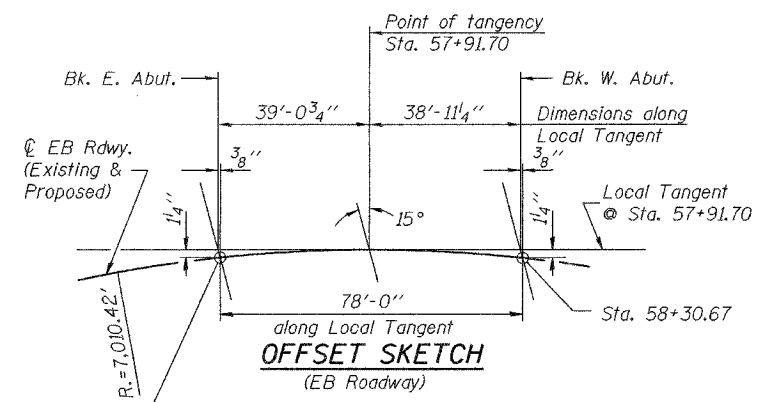
The inorganic zinc rich primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures".



INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Details
- 3 Footing Layout
- 4-5 Stage Construction Details
- 6 Temporary Concrete Barrier
- 7-9 Top of Slab Elevations
- 10-13 Superstructure
- 14-15 Superstructure Details
- 16-17 Diaphragm Details
- 18 Structural Steel
- 19 Structural Steel Details
- 20 Anchor Bolt Details
- 21-24 East Abutment
- 25-28 West Abutment
- 29 Bar Splicer Assembly Details
- 30-32 Soil Boring Logs

* Raised median to be constructed along specific EB & WB Curve Data.



CURVE DATA

(Existing 48-WB)
P.I. Sta. = 55+11.03
 $\Delta = 12^\circ 25' 59''$ (RT)
D = 0°37'54"
R = 9,070.34 FT.
T = 988.00 FT.
L = 1,968.24 FT.
E = 53.93 FT.
P.C. Sta. = 45+23.03
P.T. Sta. = 64+91.27

CURVE DATA

(Existing 3-EB)
P.I. Sta. = 76+59.01
 $\Delta = 33^\circ 04' 47''$ (RT)
D = 0°49'02"
R = 7,010.42 FT.
T = 2,081.89 FT.
L = 4,047.47 FT.
E = 302.60 FT.
P.C. Sta. = 55+77.12
P.T. Sta. = 96+24.59

LOADING HL-93

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

DESIGN SPECIFICATIONS

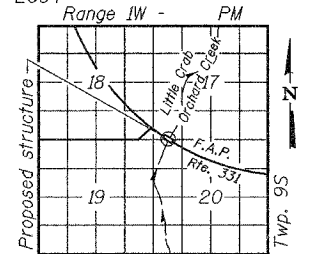
AASHTO LRFD Bridge Design Specifications, US, 3rd. Edition - 2004

DESIGN STRESSES

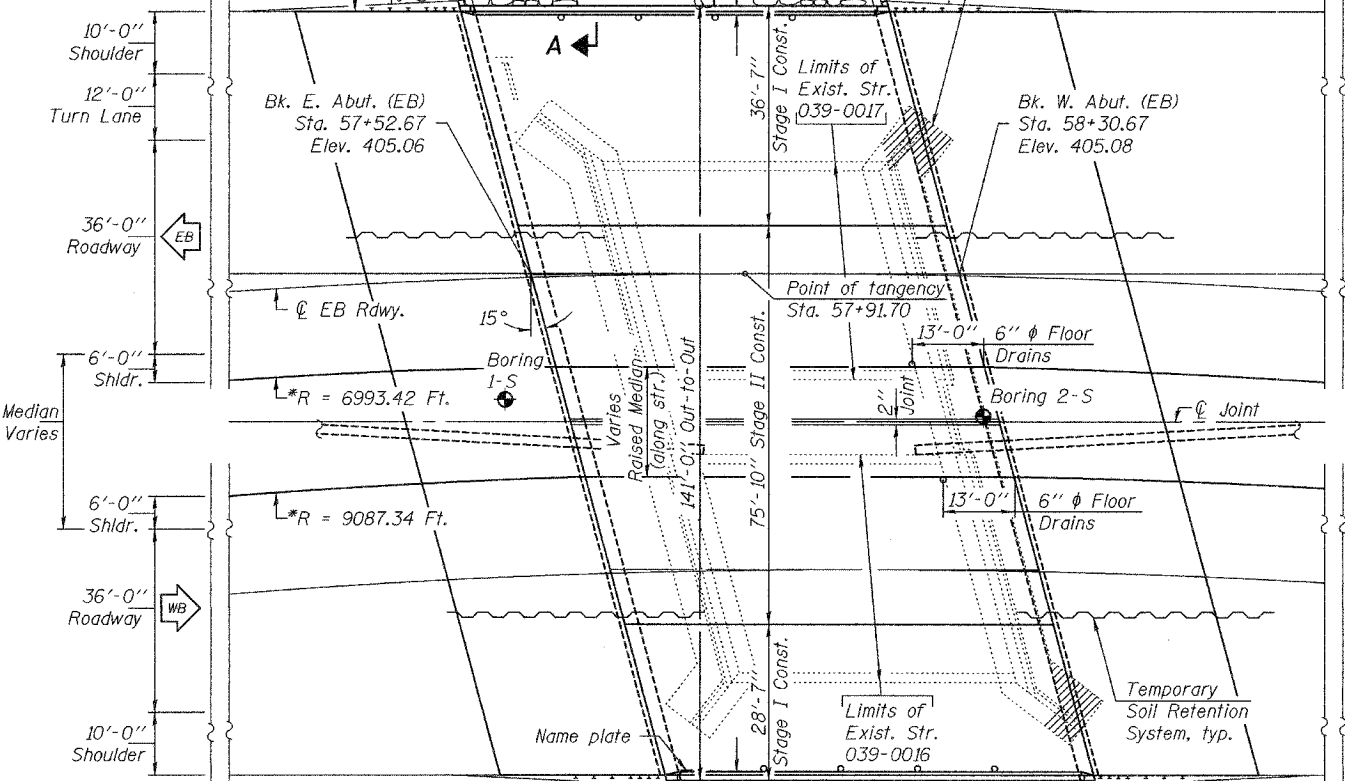
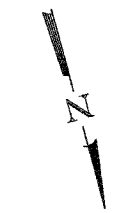
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (AASHTO M270, Gr. 50)
 $f_y = 36,000$ psi (AASHTO M270, Gr. 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Bedrock Acceleration Coefficient (A) = 13.0
Site Coefficient (S) = 1.5



GENERAL PLAN
ILLINOIS ROUTE 13 OVER
LITTLE CRAB ORCHARD CREEK
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071



PROFILE GRADE

(1' South of ϕ EB Rdwy. Existing & Proposed)

DESIGNED	Curran & Eng
CHECKED	Robert J. Mitchell
DRAWN	M.B.M. / W.D.C.
CHECKED	CME / WDM



EXAMINED March 1, 2006
THOMAS J. ANDERSON
ENGINEER OF BRIDGE DESIGN

PASSED
Ralph Anderson
ENGINEER OF BRIDGES AND STRUCTURES

EXPIRES 11-30-2006

WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	2310	374	473	398.2	0.4	0.1	398.6	398.3
Base	100	2620	387	486	398.4	0.5	0.1	398.9	398.5
Max. Calc.	500	3360	409	520	398.9	0.6	0.1	399.5	399.0

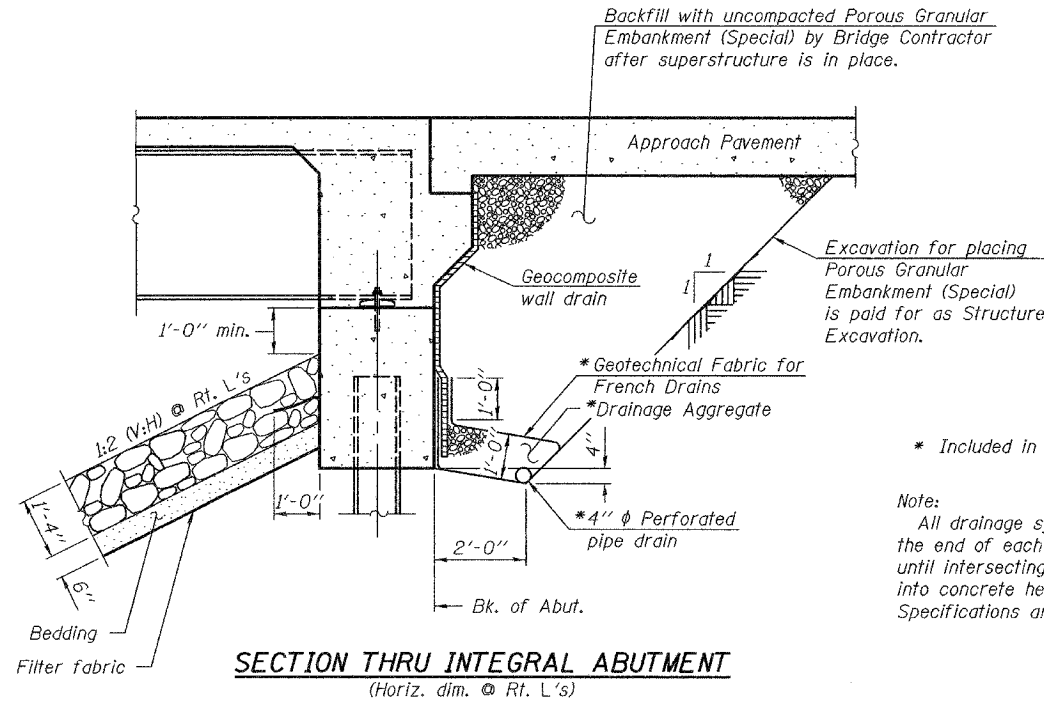
Exist. Low Grade Elev. 404.30 @ Sta. 54+00 (Exist. Alignment)
Prop. Low Grade Elev. 404.30 @ Sta. 54+00 (Prop. Alignment)

Drainage Area = 7.4 mi.²

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 331	(12-D B-1)	JACKSON	227	2
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #98827

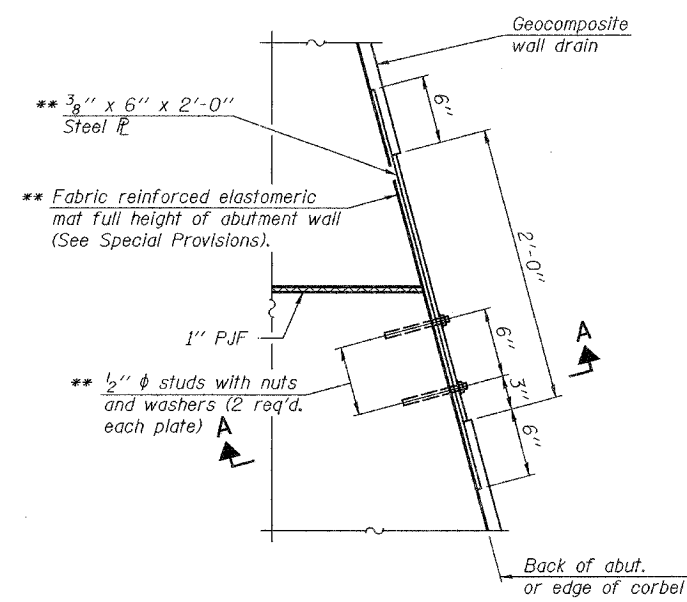
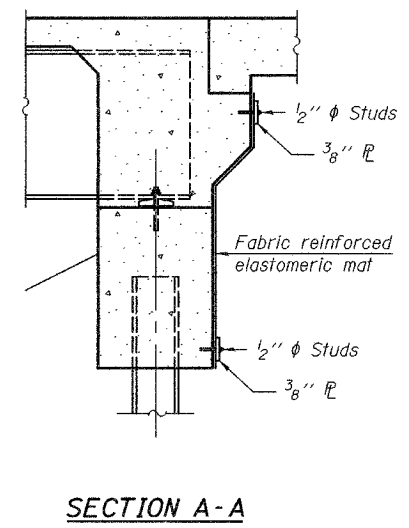


* Included in the cost of Pipe Underdrains for Structures 4".

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe 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 60110).

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		430	430
Stone Riprap, Class A4	Sq. Yd.		1708	1708
Filter Fabric	Sq. Yd.		1708	1708
Removal of Existing Structures	Each			2
Structure Excavation	Cu. Yd.		538	538
Driving Piles	Foot		6118	6118
Floor Drains	Each	10		10
Concrete Structures	Cu. Yd.		117.4	117.4
Concrete Superstructure	Cu. Yd.	402.8		402.8
Bridge Deck Grooving	Sq. Yd.	985		985
Protective Coat	Sq. Yd.	1267		1267
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	8096		8096
Reinforcement Bars, Epoxy Coated	Pound	75070	15740	90810
Furnishing Steel Piles HP 12x84	Foot		6118	6118
Test Pile Steel HP 12x84	Each		1	1
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		227	227
Pipe Underdrains for Structures, 4"	Foot		360	360
Temporary Soil Retention System	Sq. Ft.		965	965
Bar Splicers	Each	751	48	799
Preformed Joint Strip Seal	Foot	78		78



** Included in the cost of Concrete Structures.

DESIGNED Curt M. Evoy
 CHECKED Rebecca L. Mitchell
 DRAWN Michael B. Mossman
 CHECKED C.M.E. / R.L.M.

March 1, 2006
 EXAMINED *Thomas J. Domagalicki*
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

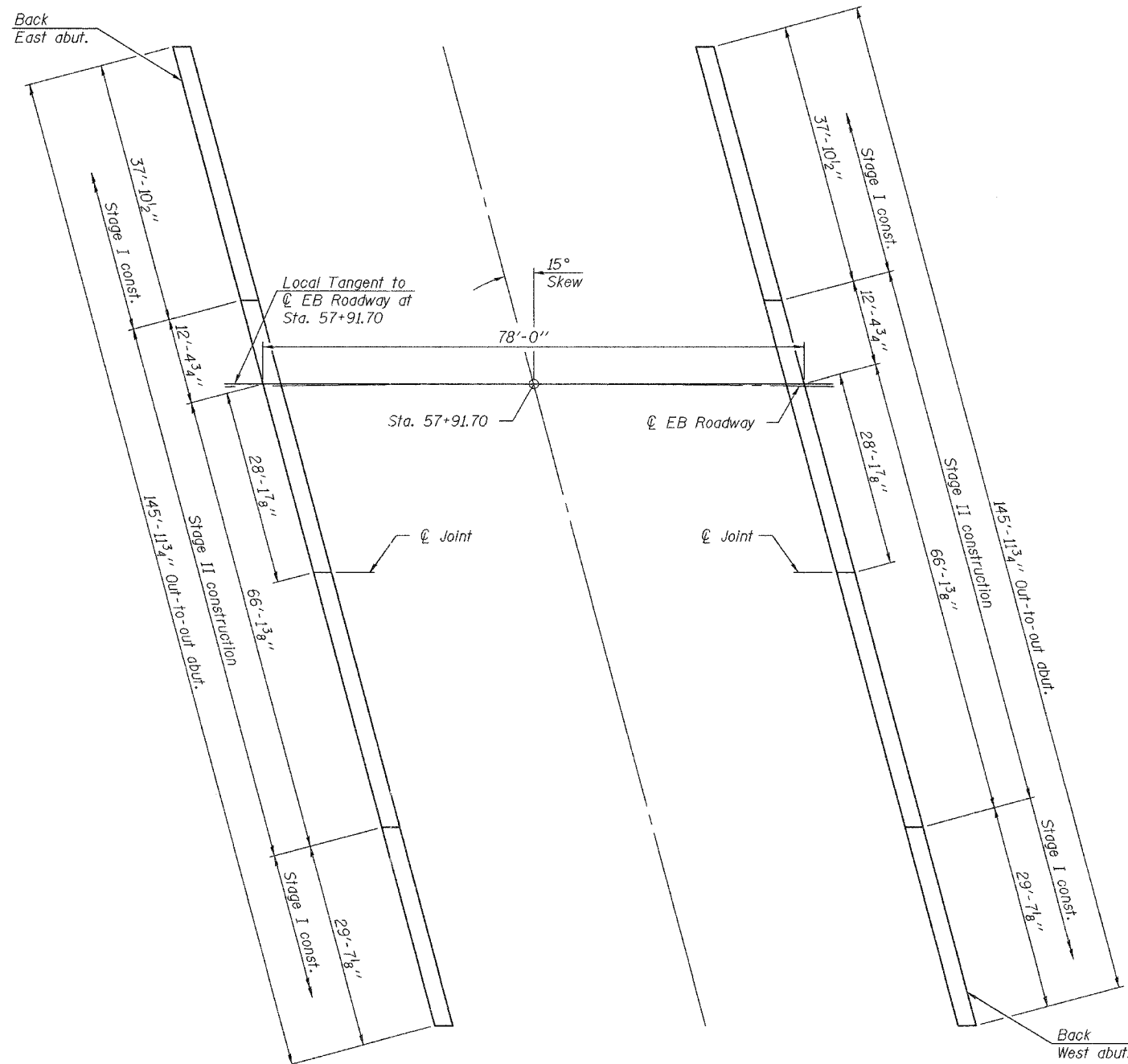
GENERAL DETAILS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. 331	SECTION (12-D) B-1	COUNTY JACKSON	TOTAL SHEETS 228	SHEET NO. 3
FED. ROAD DIST. NO. 7				ILLINOIS
FED. AID PROJECT				

Contract #98827

SHEET NO. 3
32 SHEETS



PLAN

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

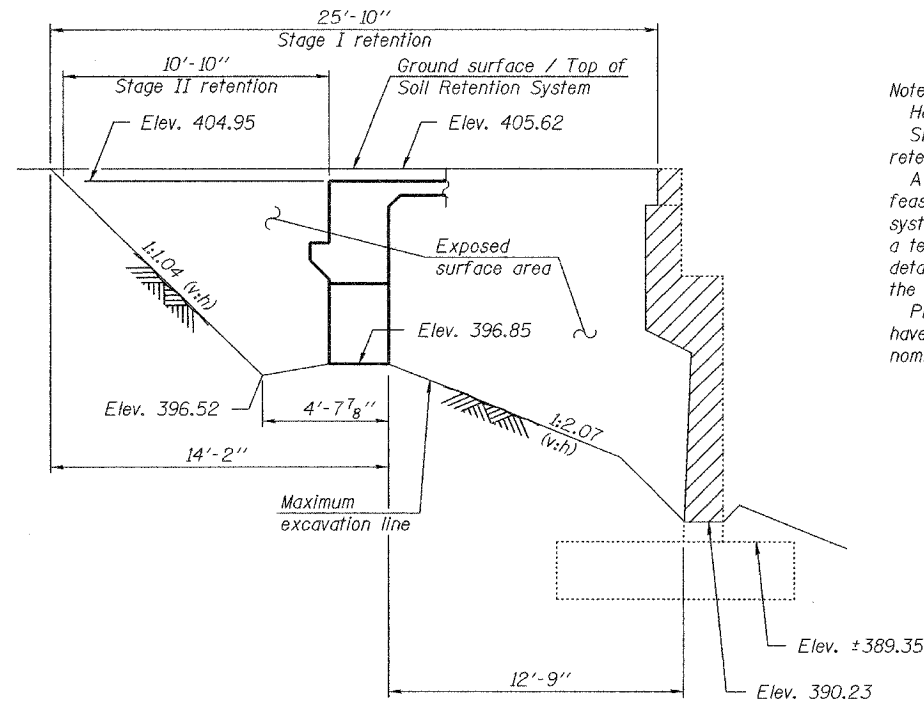
EXAMINED	Thomas J. Demagalaki	March 1, 2006
PASSED	Ralph E. Anderson	

FOOTING LAYOUT
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

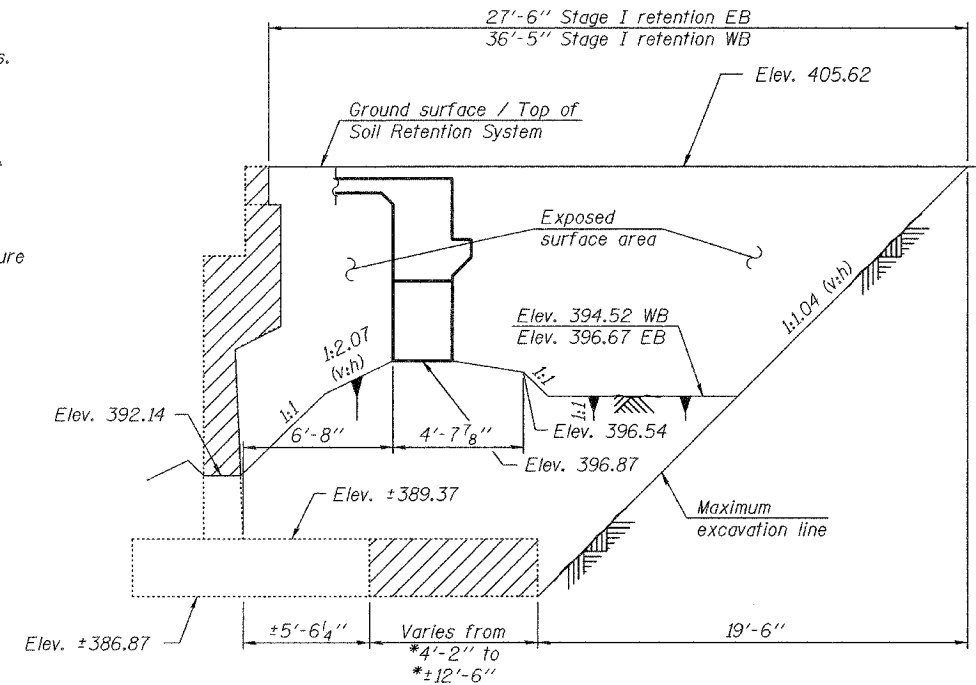
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON	229	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #98827



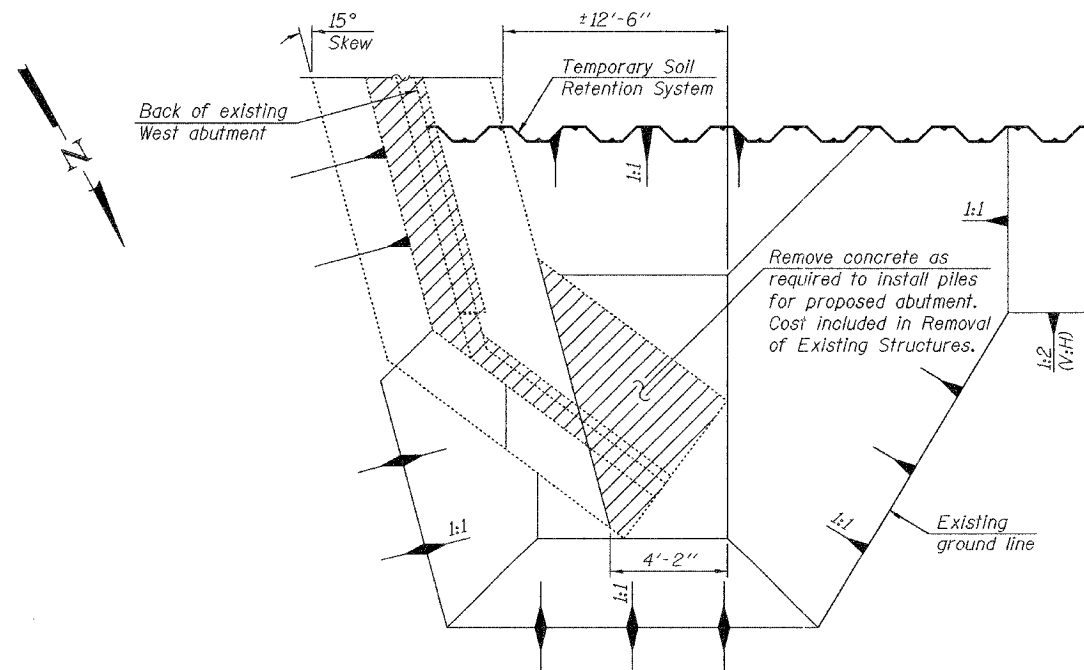
ELEVATION
EAST ABUTMENT TEMPORARY
SOIL RETENTION SYSTEM
(Showing stage I and stage II retention - 2 locations)

Notes:
Hatched area indicates Removal of Existing Structures. Slopes and distances are shown along alignment of retention system.
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations.

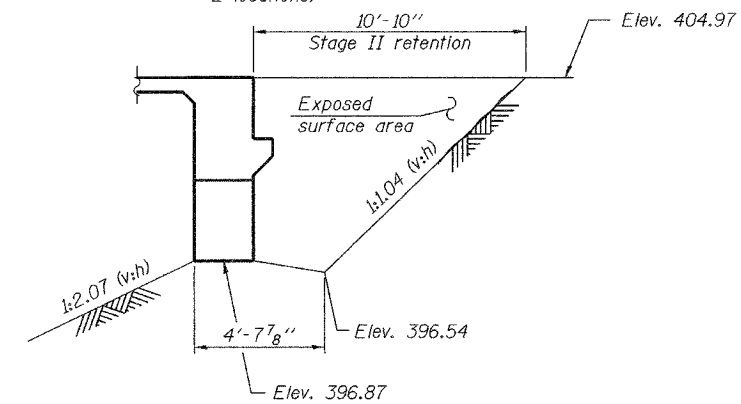


ELEVATION
WEST ABUTMENT TEMPORARY
SOIL RETENTION SYSTEM
(Showing stage I retention - 2 locations)

* Measured along Temporary Soil Retention System. Existing footing is not below proposed abutment at Temporary Soil Retention System. See plan view.



WEST ABUTMENT STAGE I RETENTION PLAN
(Westbound shown, Eastbound similar)



WEST ABUTMENT TEMPORARY
SOIL RETENTION SYSTEM
(Showing stage II retention - 2 locations)

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Damagala
PASSED		Ralph E. Anderson

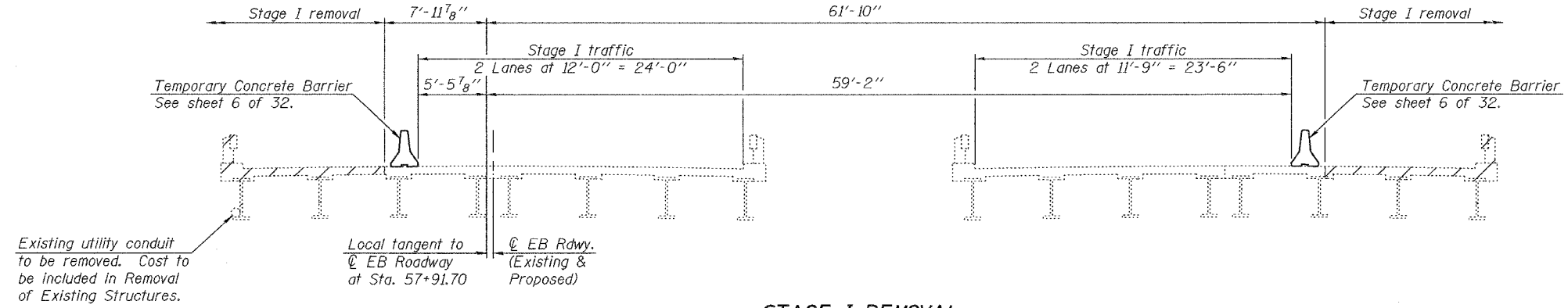
STAGE CONSTRUCTION DETAILS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

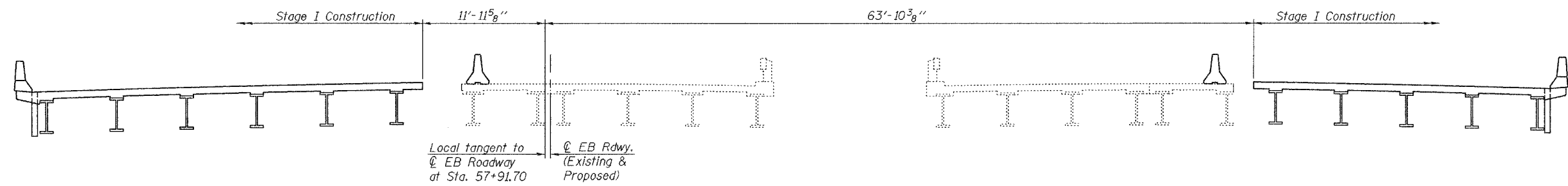
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
F.A.P. 331	(12-D) B-1	JACKSON		230
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
32 SHEETS

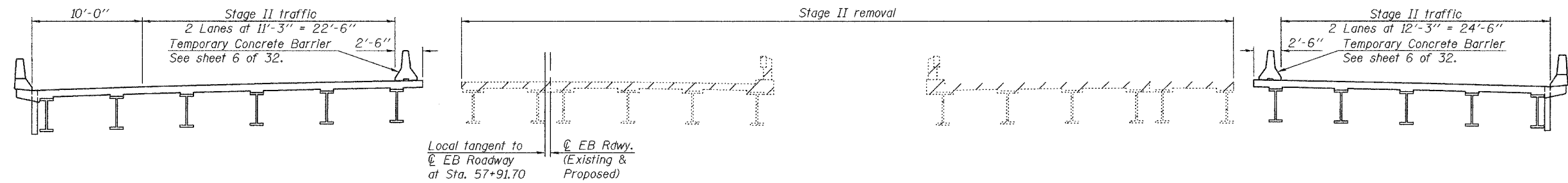
Contract #98827



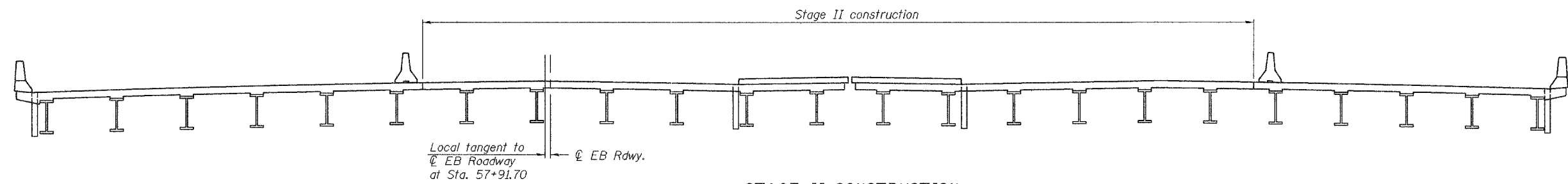
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

DESIGNED Curt M. Evoy
CHECKED Rebecca L. Mitchell
DRAWN Michael B. Mossman
CHECKED C.M.E. / R.L.M.

March 1, 2006

EXAMINED *Thomas J. Demagalki*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

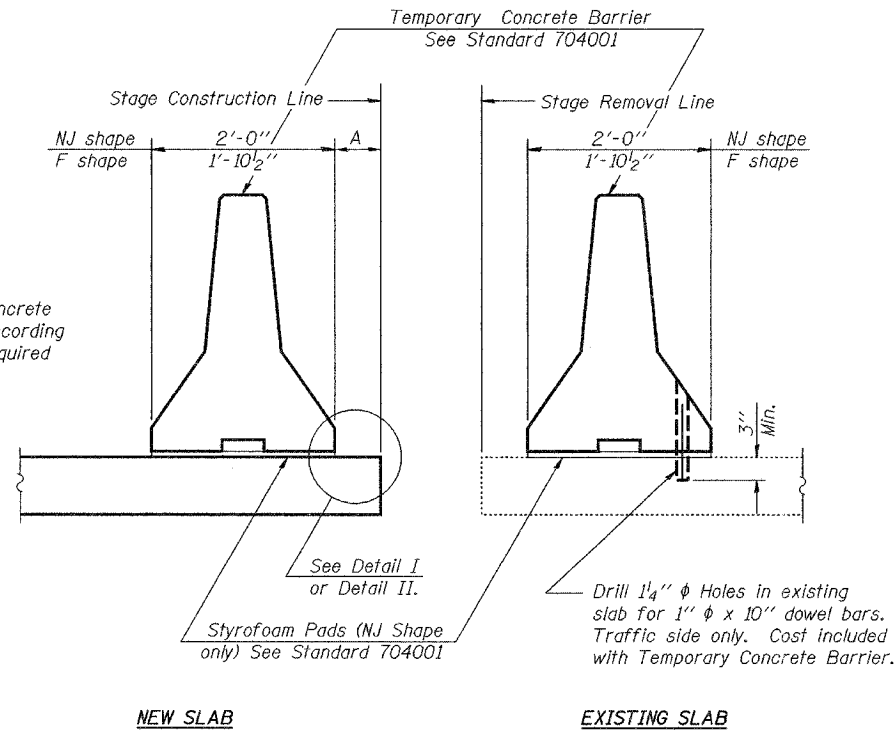
Notes:
Hatched area indicates Removal of Existing Structures.
For quantity of Temporary Concrete Barrier, see roadway plans.
All cross sections are looking West.

STAGE CONSTRUCTION DETAILS
F.A.P. ROUTE 331 - SEC. (12-D)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

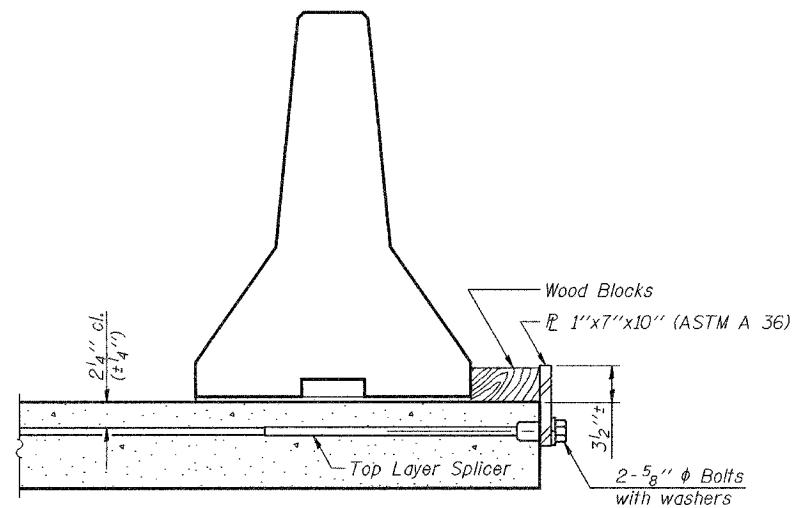
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON		231
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #98827

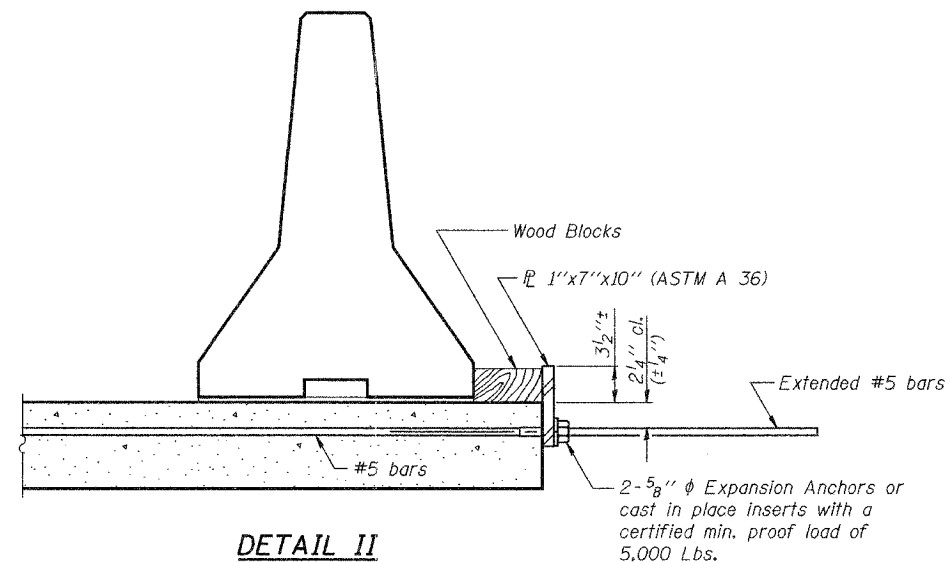


SECTION THRU SLAB



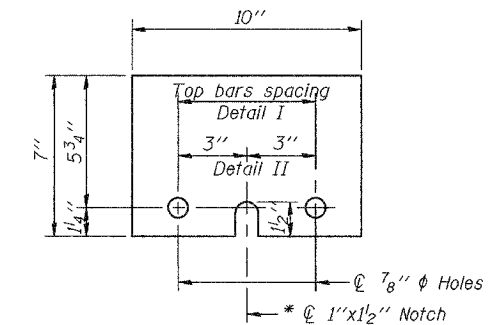
DETAIL I

The 1" x 7" x 10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1" x 7" x 10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Demagala
PASSED		Ralph E. Anderson

R-27

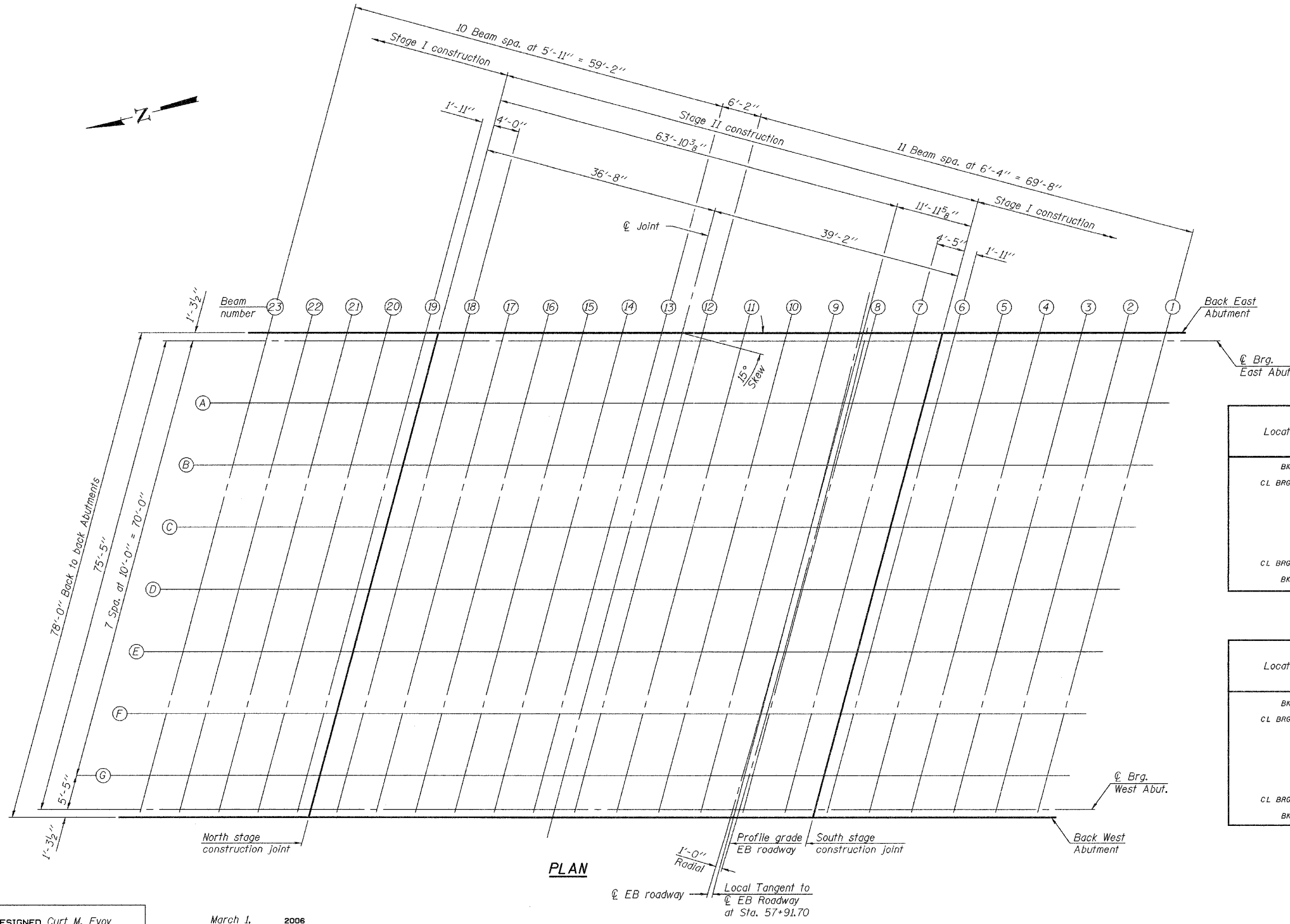
10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON	232	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #98827

Note:
Top of slab elevations and offsets are
referenced with respect to Eastbound
☉ roadway.



PLAN

☉ EB roadway
Local Tangent to
☉ EB Roadway
at Sta. 57+91.70
1'-0" Radial
Profile grade
EB roadway
South stage
construction joint
North stage
construction joint

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5740.767	-45.738	404.206	404.206
CL BRG E. ABUT	5742.053	-45.729	404.206	404.206
A	5751.988	-45.665	404.210	404.271
B	5761.923	-45.616	404.213	404.330
C	5771.858	-45.580	404.216	404.356
D	5781.794	-45.559	404.219	404.370
E	5791.729	-45.552	404.222	404.351
F	5801.665	-45.559	404.224	404.318
G	5811.600	-45.580	404.226	404.259
CL BRG W. ABUT	5816.977	-45.598	404.227	404.227
BK W. ABUT	5818.263	-45.603	404.227	404.227

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5742.409	-39.393	404.338	404.338
CL BRG E. ABUT	5743.696	-39.384	404.338	404.338
A	5753.640	-39.323	404.342	404.403
B	5763.584	-39.276	404.346	404.463
C	5773.528	-39.243	404.349	404.488
D	5783.472	-39.224	404.351	404.503
E	5793.417	-39.219	404.354	404.483
F	5803.361	-39.229	404.356	404.450
G	5813.305	-39.252	404.358	404.391
CL BRG W. ABUT	5818.687	-39.271	404.359	404.359
BK W. ABUT	5819.974	-39.276	404.359	404.359

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Domagalicki
PASSED		Ralph E. Anderson

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	TOTAL SHEETS 233	SHEET NO. 8
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT -		

Contract #98827

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5744.053	-33.049	404.470	404.470
CL BRG E. ABUT	5745.341	-33.040	404.471	404.471
A	5755.294	-32.981	404.474	404.535
B	5765.247	-32.936	404.478	404.595
C	5775.201	-32.906	404.481	404.620
D	5785.154	-32.889	404.484	404.635
E	5795.107	-32.887	404.486	404.615
F	5805.060	-32.899	404.488	404.582
G	5815.014	-32.925	404.490	404.523
CL BRG W. ABUT	5820.400	-32.945	404.491	404.491
BK W. ABUT	5821.688	-32.950	404.491	404.491

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5745.701	-26.704	404.603	404.603
CL BRG E. ABUT	5746.990	-26.696	404.603	404.603
A	5756.952	-26.639	404.607	404.668
B	5766.914	-26.597	404.610	404.727
C	5776.876	-26.569	404.613	404.752
D	5786.839	-26.555	404.616	404.767
E	5796.801	-26.555	404.618	404.747
F	5806.763	-26.569	404.620	404.714
G	5816.725	-26.598	404.622	404.655
CL BRG W. ABUT	5822.117	-26.619	404.623	404.623
BK W. ABUT	5823.406	-26.625	404.623	404.623

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5747.352	-20.361	404.735	404.735
CL BRG E. ABUT	5748.642	-20.353	404.736	404.736
A	5758.613	-20.298	404.739	404.800
B	5768.584	-20.258	404.742	404.859
C	5778.555	-20.232	404.745	404.884
D	5788.526	-20.221	404.748	404.899
E	5798.497	-20.223	404.750	404.879
F	5808.469	-20.240	404.752	404.846
G	5818.440	-20.271	404.754	404.787
CL BRG W. ABUT	5823.836	-20.294	404.755	404.755
BK W. ABUT	5825.126	-20.300	404.755	404.755

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5749.005	-14.017	404.867	404.867
CL BRG E. ABUT	5750.296	-14.010	404.868	404.868
A	5760.276	-13.958	404.871	404.932
B	5770.256	-13.920	404.875	404.992
C	5780.237	-13.896	404.877	405.017
D	5790.217	-13.881	404.880	405.031
E	5800.197	-13.892	404.882	405.011
F	5810.177	-13.911	404.884	404.978
G	5820.157	-13.945	404.886	404.919
CL BRG W. ABUT	5825.559	-13.969	404.887	404.887
BK W. ABUT	5826.850	-13.975	404.887	404.887

SOUTH STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5749.506	-12.097	404.903	404.903
CL BRG E. ABUT	5750.798	-12.090	404.903	404.903
A	5760.781	-12.038	404.906	404.967
B	5770.763	-12.001	404.909	405.026
C	5780.746	-11.979	404.912	405.051
D	5790.729	-11.970	404.915	405.066
E	5800.712	-11.976	404.917	405.046
F	5810.695	-11.996	404.919	405.013
G	5820.678	-12.030	404.921	404.954
CL BRG W. ABUT	5826.081	-12.054	404.922	404.922
BK W. ABUT	5827.372	-12.061	404.922	404.922

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5750.662	-7.673	404.972	404.972
CL BRG E. ABUT	5751.954	-7.666	404.972	404.972
A	5761.943	-7.616	404.976	405.036
B	5771.932	-7.581	404.979	405.096
C	5781.922	-7.560	404.981	405.121
D	5791.911	-7.553	404.984	405.135
E	5801.900	-7.560	404.986	405.115
F	5811.889	-7.582	404.988	405.082
G	5821.878	-7.618	404.990	405.023
CL BRG W. ABUT	5827.284	-7.643	404.991	404.991
BK W. ABUT	5828.577	-7.650	404.991	404.991

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5752.321	-1.331	405.071	405.071
CL BRG E. ABUT	5753.615	-1.323	405.072	405.072
A	5763.613	-1.276	405.075	405.136
B	5773.611	-1.243	405.078	405.195
C	5783.609	-1.225	405.081	405.220
D	5793.608	-1.220	405.083	405.234
E	5803.606	-1.230	405.085	405.214
F	5813.604	-1.254	405.087	405.181
G	5823.602	-1.293	405.089	405.122
CL BRG W. ABUT	5829.013	-1.319	405.090	405.090
BK W. ABUT	5830.307	-1.326	405.090	405.090

PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5752.408	-1.000	405.077	405.077
CL BRG E. ABUT	5753.700	-1.000	405.077	405.077
A	5763.698	-1.000	405.079	405.140
B	5773.697	-1.000	405.082	405.199
C	5783.696	-1.000	405.084	405.223
D	5793.694	-1.000	405.087	405.238
E	5803.693	-1.000	405.089	405.218
F	5813.691	-1.000	405.091	405.185
G	5823.690	-1.000	405.094	405.127
CL BRG W. ABUT	5829.101	-1.000	405.095	405.095
BK W. ABUT	5830.396	-1.000	405.095	405.095

EASTBOUND ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5752.670	0.000	405.061	405.061
CL BRG E. ABUT	5753.962	0.000	405.061	405.061
A	5763.962	0.000	405.064	405.124
B	5773.962	0.000	405.066	405.183
C	5783.962	0.000	405.068	405.208
D	5793.962	0.000	405.071	405.222
E	5803.962	0.000	405.073	405.202
F	5813.962	0.000	405.076	405.169
G	5823.962	0.000	405.078	405.111
CL BRG W. ABUT	5829.374	0.000	405.079	405.079
BK W. ABUT	5830.670	0.000	405.080	405.080

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5753.984	5.012	404.983	404.983
CL BRG E. ABUT	5755.279	5.018	404.983	404.983
A	5765.286	5.063	404.985	405.046
B	5775.293	5.094	404.987	405.104
C	5785.300	5.110	404.989	405.128
D	5795.308	5.112	404.992	405.143
E	5805.315	5.100	404.994	405.123
F	5815.322	5.073	404.997	405.091
G	5825.329	5.032	405.000	405.033
CL BRG W. ABUT	5830.745	5.004	405.002	405.002
BK W. ABUT	5832.040	4.997	405.002	405.002

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5755.649	11.353	404.883	404.883
CL BRG E. ABUT	5756.945	11.360	404.883	404.883
A	5766.962	11.402	404.885	404.945
B	5776.978	11.431	404.886	405.003
C	5786.994	11.444	404.888	405.028
D	5797.011	11.444	404.891	405.042
E	5807.027	11.429	404.894	405.023
F	5817.043	11.400	404.897	404.990
G	5827.059	11.357	404.900	404.933
CL BRG W. ABUT	5832.480	11.328	404.902	404.902
BK W. ABUT	5833.776	11.320	404.902	404.902

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5757.318	17.695	404.777	404.777
CL BRG E. ABUT	5758.615	17.701	404.777	404.777
A	5768.640	17.741	404.780	404.841
B	5778.666	17.767	404.783	404.900
C	5788.691	17.778	404.785	404.925
D	5798.717	17.775	404.788	404.939
E	5808.742	17.758	404.790	404.919
F	5818.767	17.727	404.792	404.886
G	5828.793	17.681	404.794	404.826
CL BRG W. ABUT	5834.218	17.650	404.794	404.794
BK W. ABUT	5835.515	17.642	404.795	404.795

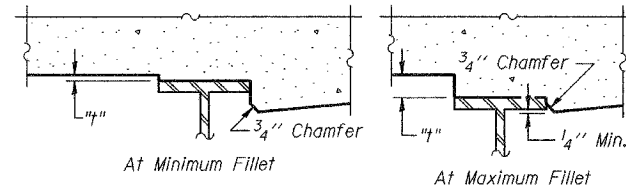
BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5758.989	24.036	404.876	404.876
CL BRG E. ABUT	5760.288	24.042	404.876	404.876
A	5770.322	24.080	404.879	404.940
B	5780.357	24.103	404.882	404.999
C	5790.391	24.112	404.885	405.024
D	5800.426	24.107	404.887	405.038
E	5810.460	24.087	404.889	405.018
F	5820.495	24.053	404.891	404.985
G	5830.529	24.005	404.893	404.925
CL BRG W. ABUT	5835.959	23.973	404.893	404.893
BK W. ABUT	5837.258	23.964	404.894	404.894

JOINT

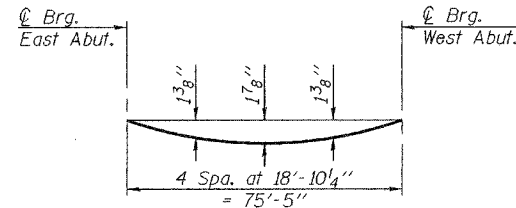
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5759.804	27.123	404.924	404.924
CL BRG E. ABUT	5761.103	27.128	404.925	404.925
A	5771.142	27.165	404.928	404.988
B	5781.181	27.187	404.930	405.048
C	5791.220	27.195	404.933	405.072
D	5801.259	27.189	404.935	405.086
E</				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	TOTAL SHEETS 32	SHEET NO. 234
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #98827



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on sheets 7 and 8 of 32.

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 7 of 32. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflection" shown below and on sheets 7 and 8 of 32, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5763.757	42.057	404.900	404.900
CL BRG E. ABUT	5765.059	42.062	404.901	404.901
A	5775.119	42.093	404.904	404.965
B	5785.180	42.109	404.906	405.024
C	5795.240	42.111	404.909	405.048
D	5805.301	42.099	404.911	405.062
E	5815.361	42.072	404.913	405.042
F	5825.421	42.031	404.915	405.008
G	5835.481	41.976	404.916	404.949
CL BRG W. ABUT	5840.926	41.940	404.916	404.916
BK W. ABUT	5842.227	41.931	404.916	404.916

BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5765.330	47.980	404.995	404.995
CL BRG E. ABUT	5766.633	47.984	404.995	404.995
A	5776.702	48.013	404.998	405.059
B	5786.771	48.027	405.001	405.118
C	5796.839	48.027	405.003	405.142
D	5806.908	48.013	405.005	405.157
E	5816.977	47.984	405.007	405.136
F	5827.046	47.941	405.009	405.103
G	5837.115	47.883	405.011	405.043
CL BRG W. ABUT	5842.564	47.846	405.011	405.011
BK W. ABUT	5843.867	47.836	405.011	405.011

BEAM 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5766.905	53.902	405.088	405.088
CL BRG E. ABUT	5768.209	53.907	405.088	405.088
A	5778.287	53.933	405.091	405.152
B	5788.364	53.945	405.093	405.211
C	5798.442	53.943	405.096	405.235
D	5808.519	53.926	405.098	405.249
E	5818.597	53.895	405.100	405.229
F	5828.674	53.849	405.102	405.195
G	5838.751	53.789	405.103	405.136
CL BRG W. ABUT	5844.205	53.751	405.104	405.104
BK W. ABUT	5845.509	53.741	405.104	405.104

BEAM 18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5768.483	59.825	405.011	405.011
CL BRG E. ABUT	5769.788	59.829	405.012	405.012
A	5779.874	59.853	405.014	405.074
B	5789.960	59.863	405.016	405.133
C	5800.046	59.858	405.018	405.158
D	5810.133	59.839	405.021	405.172
E	5820.219	59.805	405.024	405.153
F	5830.304	59.758	405.027	405.121
G	5840.390	59.695	405.031	405.064
CL BRG W. ABUT	5845.849	59.656	405.033	405.033
BK W. ABUT	5847.154	59.646	405.033	405.033

NORTH STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5769.551	63.828	404.949	404.949
CL BRG E. ABUT	5770.857	63.832	404.949	404.949
A	5780.949	63.855	404.951	405.012
B	5791.041	63.863	404.954	405.071
C	5801.133	63.857	404.956	405.096
D	5811.225	63.836	404.959	405.110
E	5821.317	63.801	404.962	405.091
F	5831.408	63.752	404.965	405.059
G	5841.500	63.688	404.969	405.001
CL BRG W. ABUT	5846.961	63.647	404.971	404.971
BK W. ABUT	5848.267	63.637	404.971	404.971

BEAM 19

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5770.064	65.747	404.919	404.919
CL BRG E. ABUT	5771.370	65.751	404.920	404.920
A	5781.465	65.773	404.922	404.982
B	5791.559	65.780	404.924	405.041
C	5801.654	65.773	404.927	405.066
D	5811.749	65.752	404.929	405.080
E	5821.843	65.716	404.932	405.061
F	5831.938	65.666	404.935	405.029
G	5842.032	65.601	404.939	404.972
CL BRG W. ABUT	5847.495	65.560	404.941	404.941
BK W. ABUT	5848.801	65.550	404.941	404.941

BEAM 20

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5771.647	71.669	404.800	404.800
CL BRG E. ABUT	5772.954	71.672	404.800	404.800
A	5783.058	71.692	404.802	404.863
B	5793.161	71.697	404.805	404.922
C	5803.264	71.688	404.807	404.946
D	5813.368	71.664	404.810	404.961
E	5823.471	71.626	404.813	404.942
F	5833.574	71.573	404.817	404.910
G	5843.677	71.506	404.821	404.854
CL BRG W. ABUT	5849.144	71.464	404.823	404.823
BK W. ABUT	5850.452	71.453	404.823	404.823

BEAM 21

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5773.233	77.590	404.677	404.677
CL BRG E. ABUT	5774.542	77.593	404.677	404.677
A	5784.654	77.610	404.680	404.740
B	5794.765	77.613	404.682	404.799
C	5804.877	77.602	404.685	404.824
D	5814.989	77.576	404.688	404.839
E	5825.101	77.535	404.691	404.820
F	5835.213	77.480	404.694	404.789
G	5845.324	77.411	404.698	404.731
CL BRG W. ABUT	5850.796	77.368	404.700	404.700
BK W. ABUT	5852.105	77.357	404.701	404.701

BEAM 22

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5774.822	83.511	404.554	404.554
CL BRG E. ABUT	5776.132	83.514	404.555	404.555
A	5786.252	83.529	404.557	404.618
B	5796.373	83.529	404.559	404.676
C	5806.493	83.516	404.562	404.701
D	5816.614	83.487	404.565	404.716
E	5826.734	83.445	404.568	404.697
F	5836.854	83.387	404.572	404.666
G	5846.974	83.316	404.576	404.609
CL BRG W. ABUT	5852.451	83.271	404.578	404.578
BK W. ABUT	5853.761	83.260	404.579	404.579

BEAM 23

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK E. ABUT	5776.413	89.432	404.432	404.432
CL BRG E. ABUT	5777.724	89.434	404.432	404.432
A	5787.853	89.447	404.434	404.495
B	5797.983	89.445	404.437	404.554
C	5808.112	89.429	404.439	404.579
D	5818.241	89.398	404.442	404.594
E	5828.370	89.353	404.446	404.575
F	5838.499	89.294	404.449	404.543
G	5848.628	89.220	404.453	404.486
CL BRG W. ABUT	5854.109	89.174	404.456	404.456
BK W. ABUT	5855.420	89.162	404.456	404.456

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

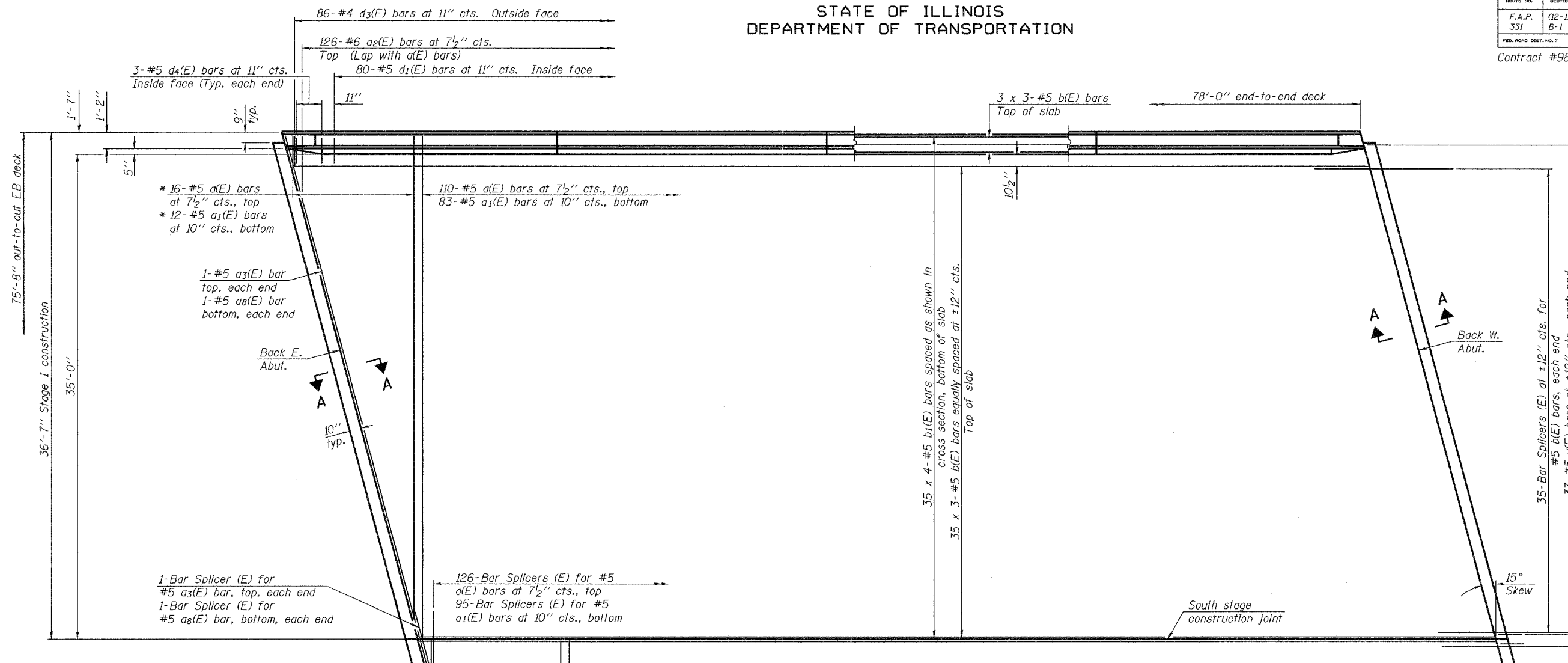
DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

March 1, 2006
EXAMINED <i>Thomas J. Demagala</i> ENGINEER OF BRIDGE DESIGN
PASSED <i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON	32	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		32 SHEETS

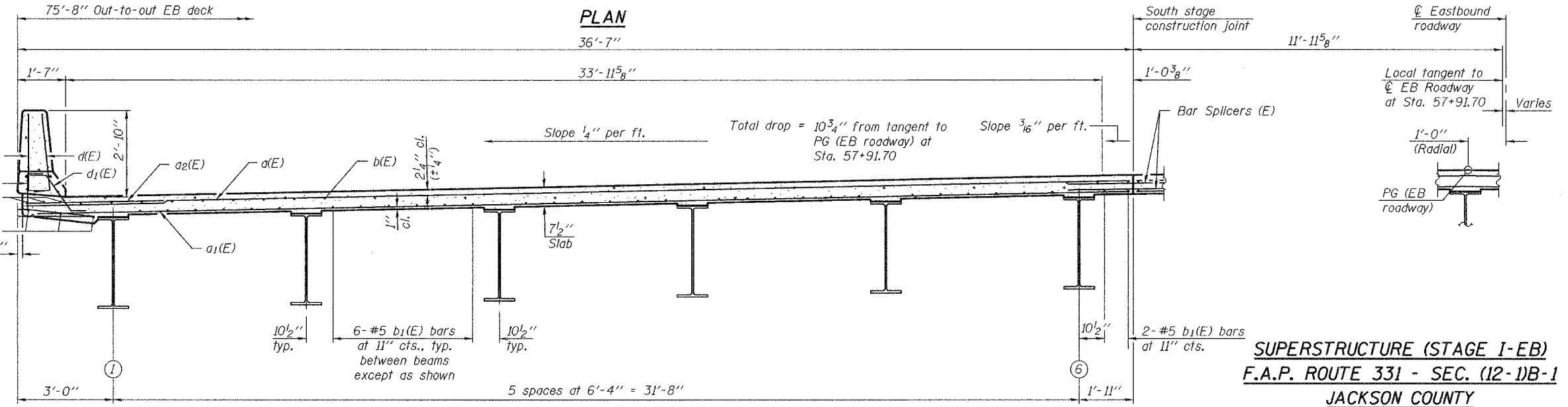
Contract #98827



MINIMUM BAR LAP
(Slab)
#5 bar = 2'-2"

* Order a(E) and a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

Notes:
See Sheets 14 and 15 of 32 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 35 x 3-#5 etc. indicates 35 lines of bars with 3 lengths per line.
See Sheet 15 of 32 for parapet reinforcement.
See sheets 16 and 17 of 32 for Section A-A and diaphragm details.
See sheet 29 of 32 for bar splicer details.
All bridge deck cross slopes measured perpendicular to the local tangent.



CROSS SECTION
(Looking West)

SUPERSTRUCTURE (STAGE I-EB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

March 1, 2006
EXAMINED *Thomas J. Demagalaki*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

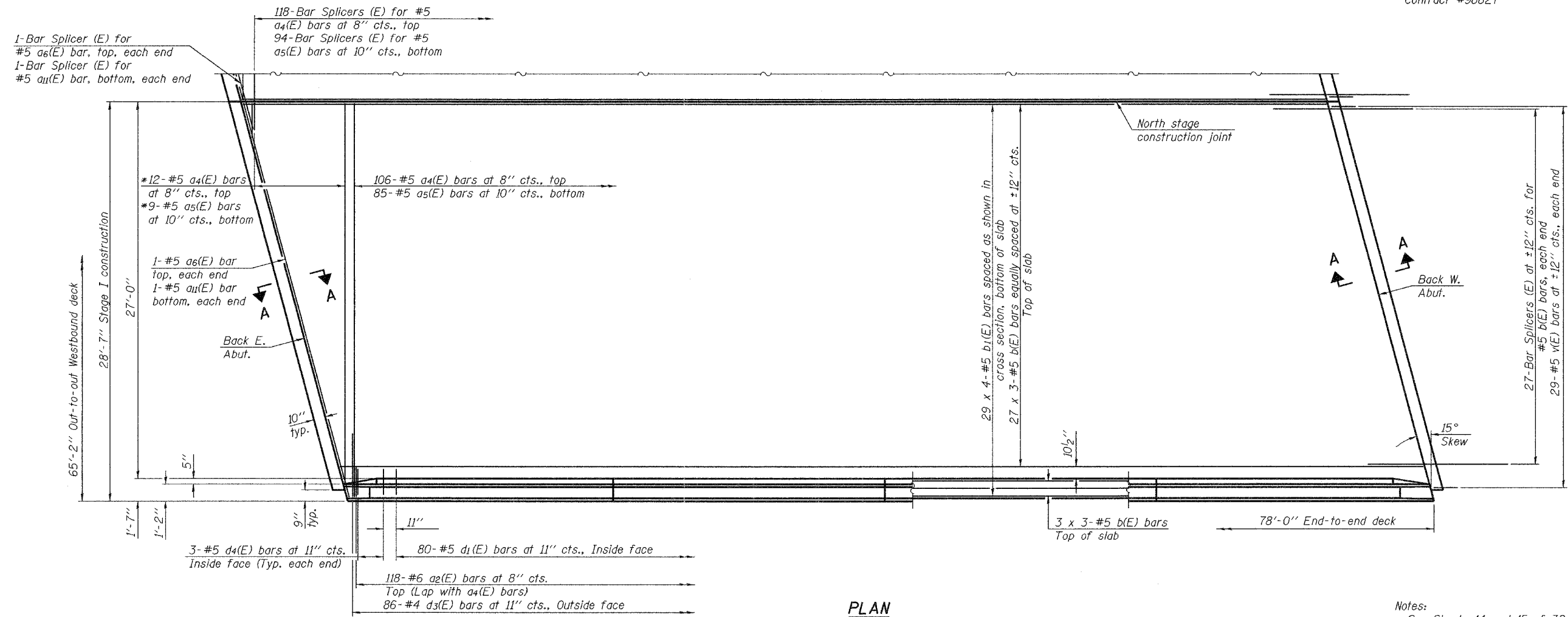
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON		236
FED. ROAD DIST. NO. 7	BILLING	FED. AID PROJECT		

Contract #98827

SHEET NO. 11

32 SHEETS

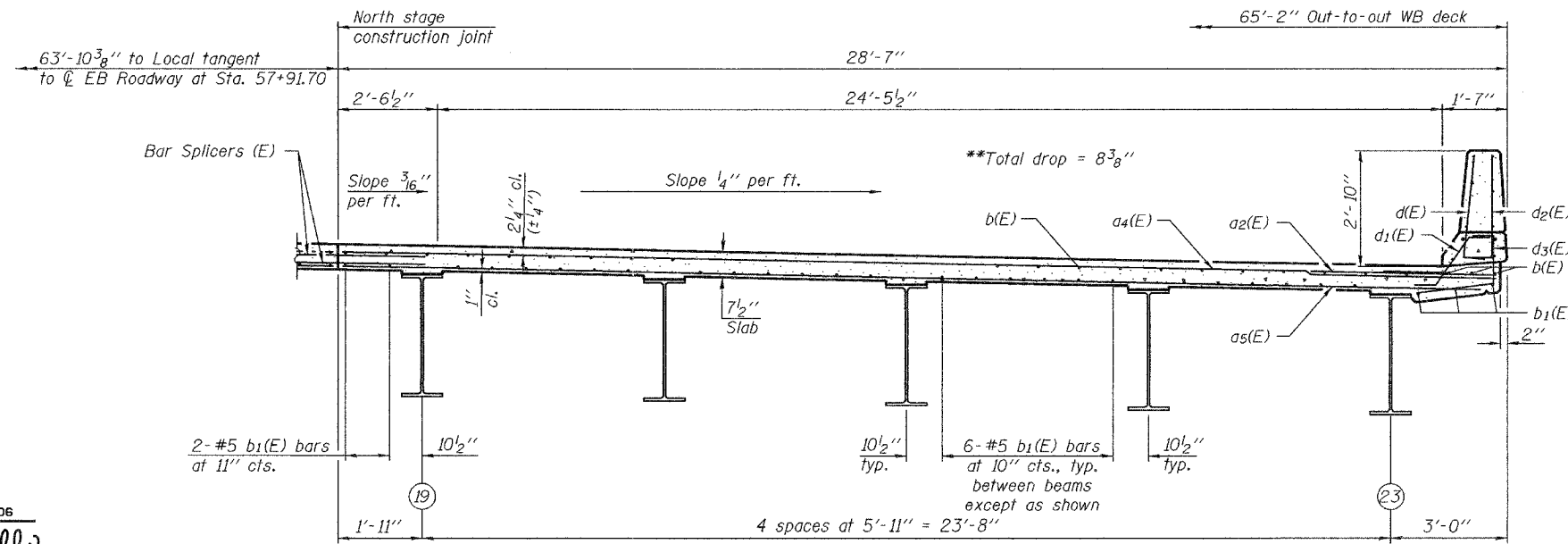


PLAN

* Order a4(E) and a5(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

MINIMUM BAR LAP
(Slab)

#5 bar = 2'-2"



CROSS SECTION
(Looking West)

** Drop is measured from Point A to the face of N. parapet. See sheet 13 of 32 for location of Point A.

Notes:
See Sheets 14 and 15 of 32 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 27 x 3-#5 etc. indicates 27 lines of bars with 3 lengths per line.
See Sheet 15 of 32 for parapet reinforcement.
See sheets 16 and 17 of 32 for Section A-A and diaphragm details.
See sheet 29 of 32 for bar splicer details.
All bridge deck cross slopes measured perpendicular to the local tangent.

SUPERSTRUCTURE (STAGE I-WB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

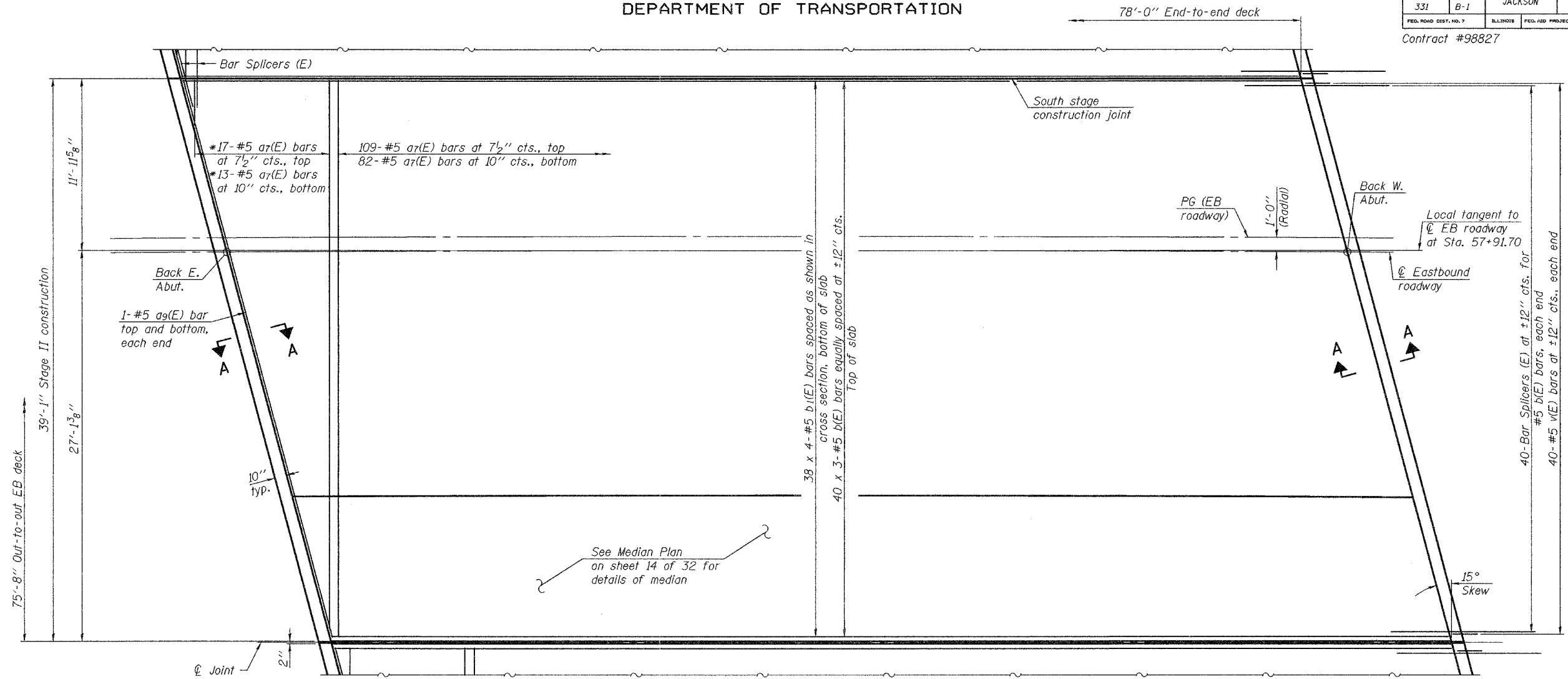
DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

March 1, 2006
EXAMINED *Thomas J. Domagalala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

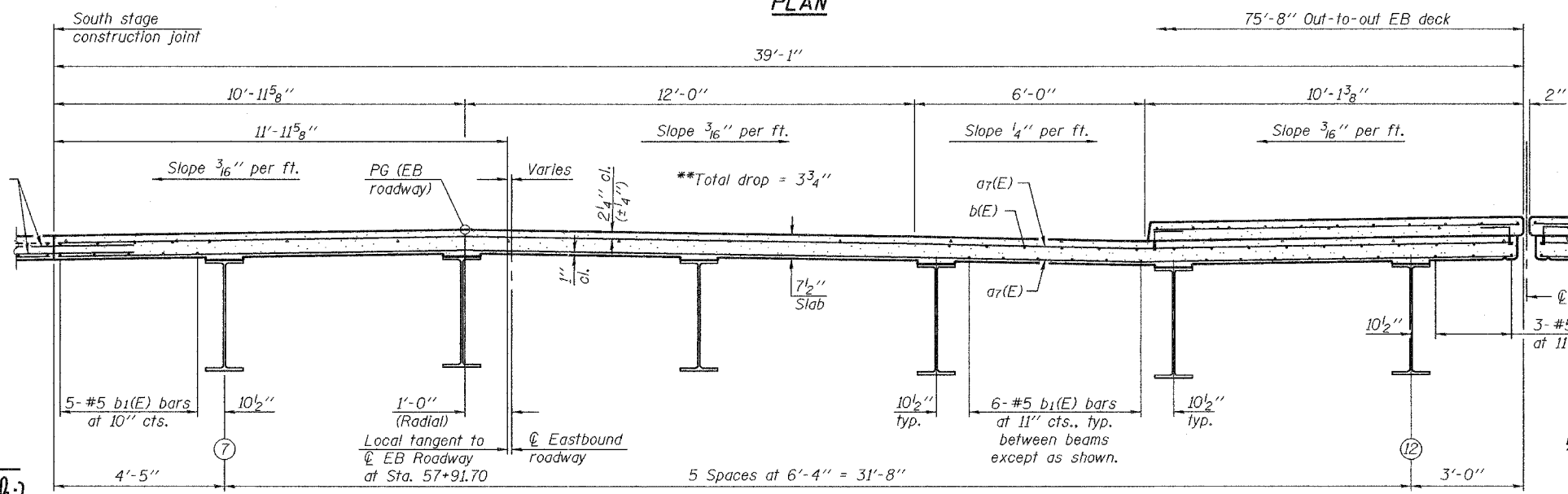
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. 331	SECTION (12-1) B-1	COUNTY JACKSON	TOTAL SHEETS 32	SHEET NO. 237	SHEET NO. 12 32 SHEETS
F.A.P. 331		ILLINOIS		FED. AID PROJECT-	

Contract #98827



PLAN



CROSS SECTION
(Looking West)

* Order a7(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

Notes:
See Sheets 14 and 15 of 32 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 40 x 3-#5 etc. indicates 40 lines of bars with 3 lengths per line.
See sheets 16 and 17 of 32 for Section A-A and diaphragm details.
See sheet 29 of 32 for bar splicer details.
See sheet 14 of 32 for median reinforcement.
All bridge deck cross slopes measured perpendicular to the local tangent.

MINIMUM BAR LAP
(Slab)
#5 bar = 2'-2"

SUPERSTRUCTURE (STAGE II-EB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Massman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Demagalicki
PASSED		Ralph E. Anderson

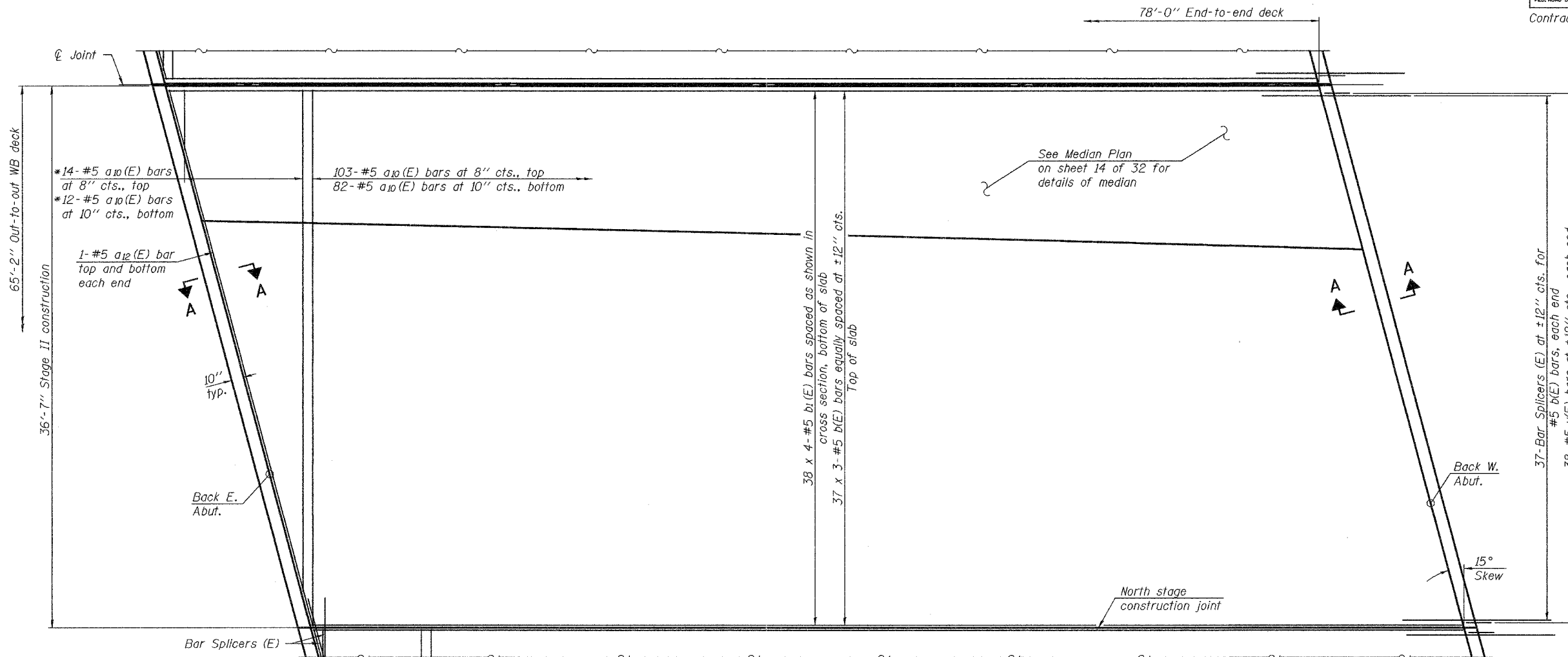
ENGINEER OF BRIDGES AND STRUCTURES

** Drop is measured from the tangent to PG (EB roadway) at Sta. 57+91.70 to a distance 18'-0" away (towards median).

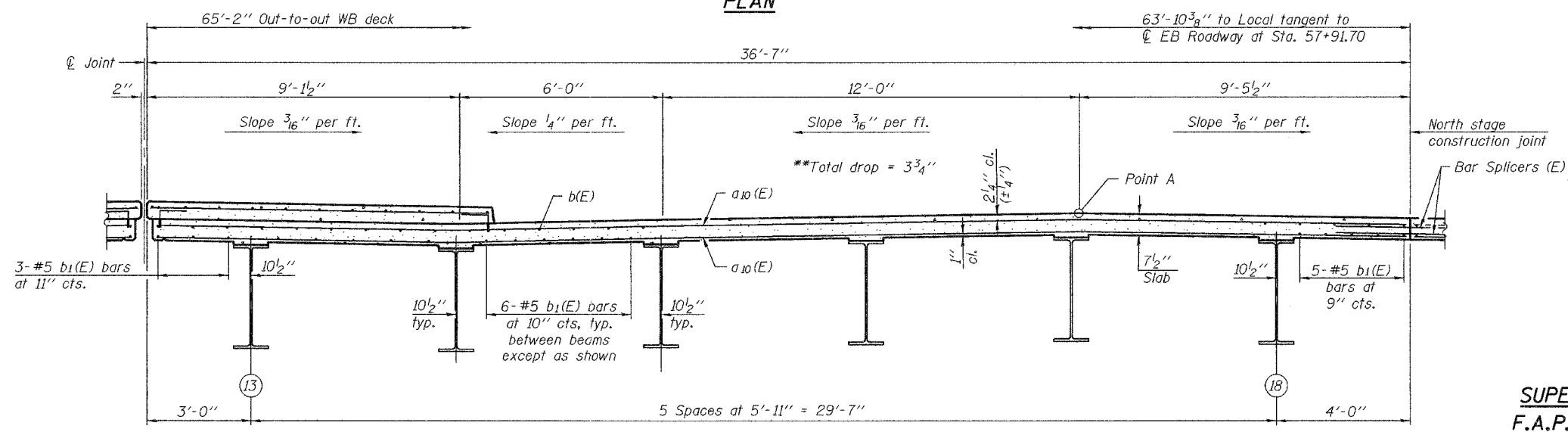
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON	230	13
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #98827



PLAN



CROSS SECTION
(Looking West)

* Order a₁₀(E) and a₁₁(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

Notes:
See Sheets 14 and 15 of 32 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 37 x 3-#5 etc. indicates 37 lines of bars with 3 lengths per line.
See sheets 16 and 17 of 32 for Section A-A and diaphragm details.
See sheet 29 of 32 for bar splicer details.
See sheet 14 of 32 for median reinforcement.
All bridge deck cross slopes measured perpendicular to the local tangent.

MINIMUM BAR LAP
(Slab)
#5 bar = 2'-2"

DESIGNED Curt M. Evoy	EXAMINED Thomas J. Demagalaki ENGINEER OF BRIDGE DESIGN
CHECKED Rebecca L. Mitchell	PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES
DRAWN Michael B. Mossman	
CHECKED C.M.E. / R.L.M.	

March 1, 2006

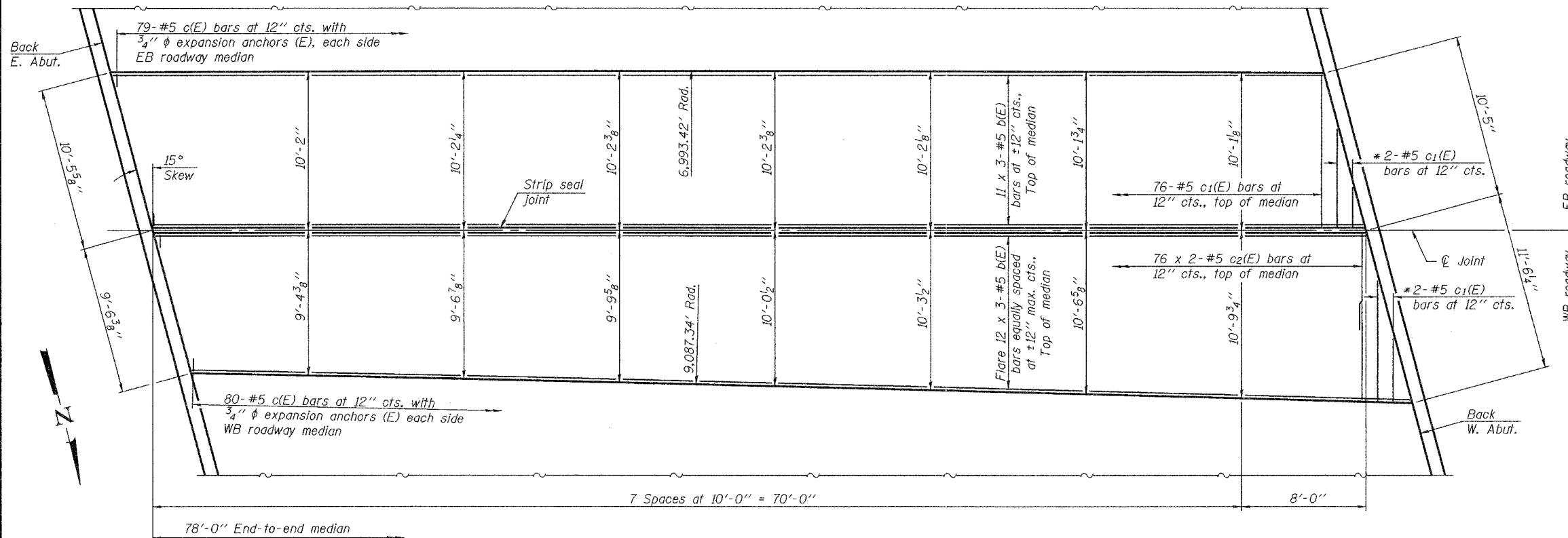
** Drop is measured from Point A to a distance 18'-0" away (towards median).

SUPERSTRUCTURE (STAGE II-WB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

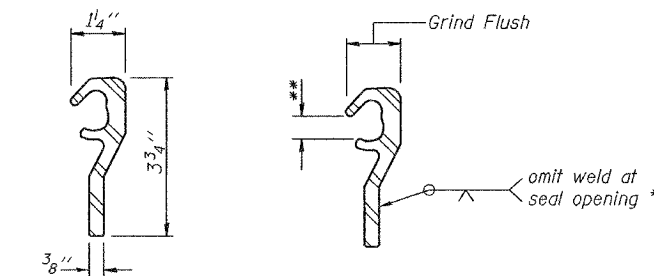
ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	SHEET NO. 239	SHEET NO. 14 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract #98827



* Order c1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

MEDIAN PLAN



LOCKING EDGE RAIL

LOCKING EDGE RAIL SPLICE

The inside of the Locking Edge Rail groove shall be free of weld residue.

Notes:

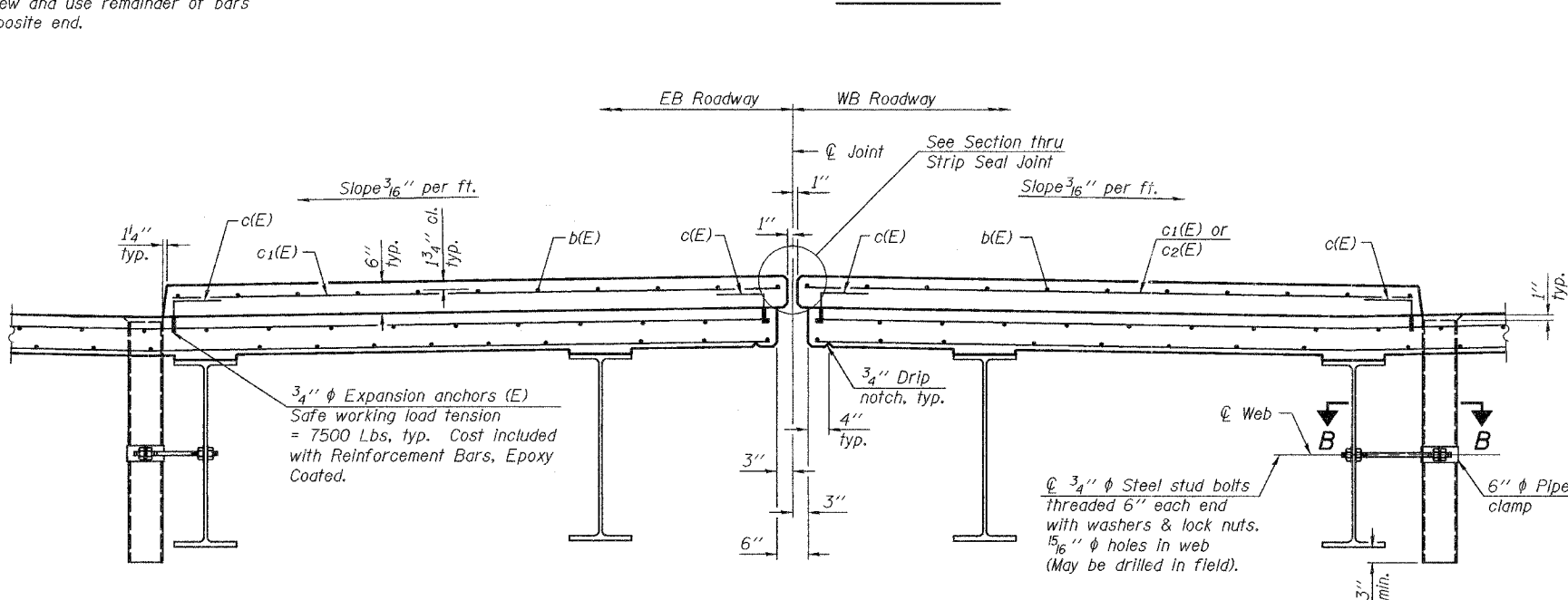
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

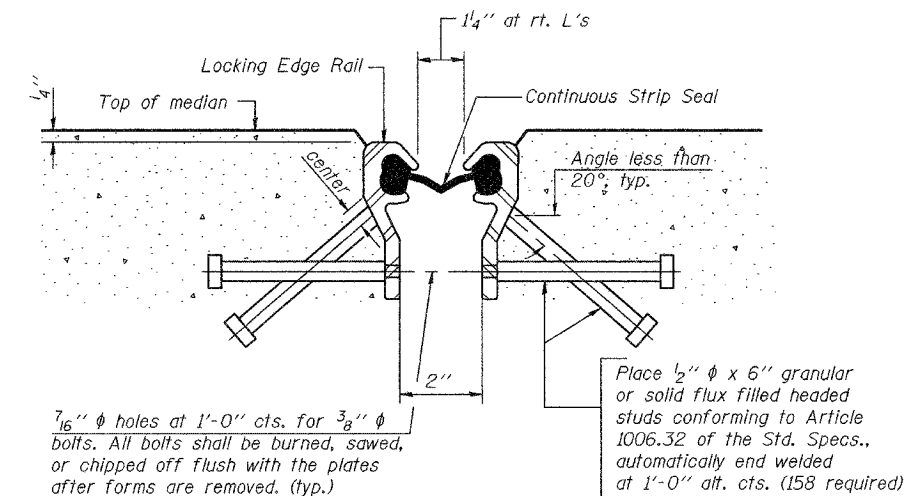
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

See sheet 15 of 32 for Section B-B and additional drain details.



SECTION THRU MEDIAN
(Looking West)



SECTION THRU STRIP SEAL JOINT

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	78.0

SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED Curt M. Evoy
CHECKED Rebecca L. Mitchell
DRAWN Michael B. Mossman
CHECKED C.M.E. / R.L.M.

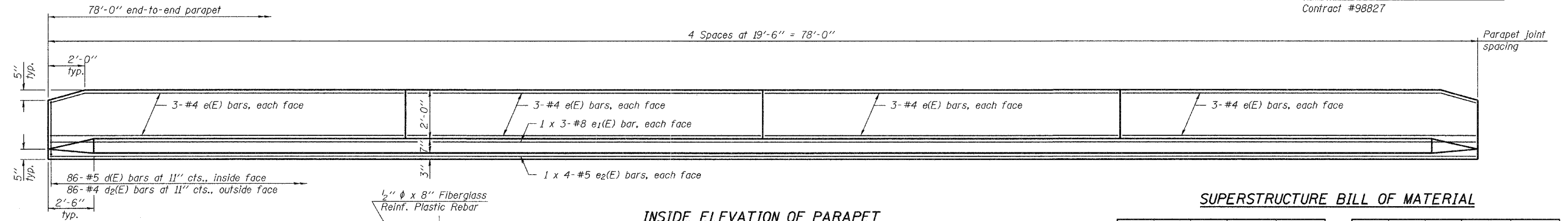
March 1, 2006
EXAMINED <i>Thomas J. Domagala</i>
PASSED <i>Ralph E. Anderson</i>

MINIMUM BAR LAP
(Median)
#5 bar = 2'-2"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-D) B-1	COUNTY JACKSON	TOTAL SHEETS 240	SHEET NO. 240	SHEET NO. 15 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

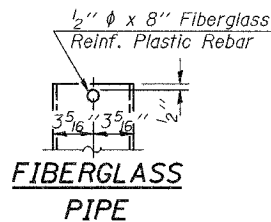
Contract #98827



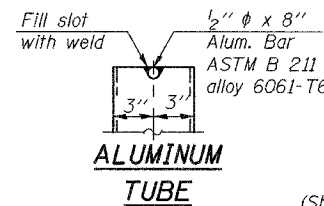
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	126	#5	36'-2"	—
a1(E)	95	#5	35'-4"	—
a2(E)	244	#6	6'-0"	—
a3(E)	2	#5	37'-5"	—
a4(E)	118	#5	28'-2"	—
a5(E)	94	#5	27'-3"	—
a6(E)	2	#5	29'-2"	—
a7(E)	221	#5	38'-8"	—
a8(E)	2	#5	36'-6"	—
a9(E)	4	#5	40'-0"	—
a10(E)	211	#5	36'-2"	—
a11(E)	2	#5	28'-3"	—
a12(E)	4	#5	37'-5"	—
b(E)	504	#5	27'-5"	—
b1(E)	560	#5	21'-1"	—
c(E)	318	#5	1'-4"	┌
c1(E)	80	#5	9'-8"	—
c2(E)	152	#5	6'-5"	—
d(E)	172	#5	3'-0"	—
d1(E)	160	#5	2'-5"	└
d2(E)	172	#4	3'-0"	—
d3(E)	172	#4	3'-9"	└
d4(E)	12	#5	2'-2"	└
e(E)	48	#4	19'-2"	—
e1(E)	12	#8	28'-3"	—
e2(E)	16	#5	20'-9"	—
m(E)	4	#6	36'-10"	—
m1(E)	8	#6	21'-6"	—
m2(E)	4	#6	37'-8"	—
m3(E)	4	#6	28'-6"	—
m4(E)	6	#6	37'-7"	—
m5(E)	18	#6	15'-3"	—
m6(E)	6	#6	37'-6"	—
m7(E)	6	#6	29'-4"	—
m8(E)	8	#6	7'-9"	—
m9(E)	32	#6	9'-4"	—
m10(E)	4	#6	6'-7"	—
m11(E)	4	#6	9'-2"	—
m12(E)	8	#6	7'-8"	—
m13(E)	28	#6	8'-11"	—
m14(E)	4	#6	8'-5"	—
m15(E)	4	#6	6'-4"	—
m16(E)	8	#6	2'-9"	—
m17(E)	2	#6	4'-3"	—
m18(E)	20	#6	6'-3"	—
m19(E)	2	#6	3'-10"	—
m20(E)	18	#6	5'-9"	—
s(E)	256	#5	6'-11"	└
s1(E)	260	#4	10'-0"	└
v(E)	288	#5	3'-4"	┌
Reinforcement Bars, Epoxy Coated		Pound	75070	
Concrete Superstructure		Cu. Yds.	402.8	

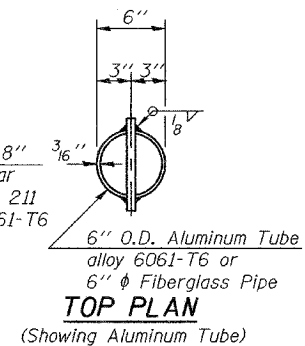
INSIDE ELEVATION OF PARAPET



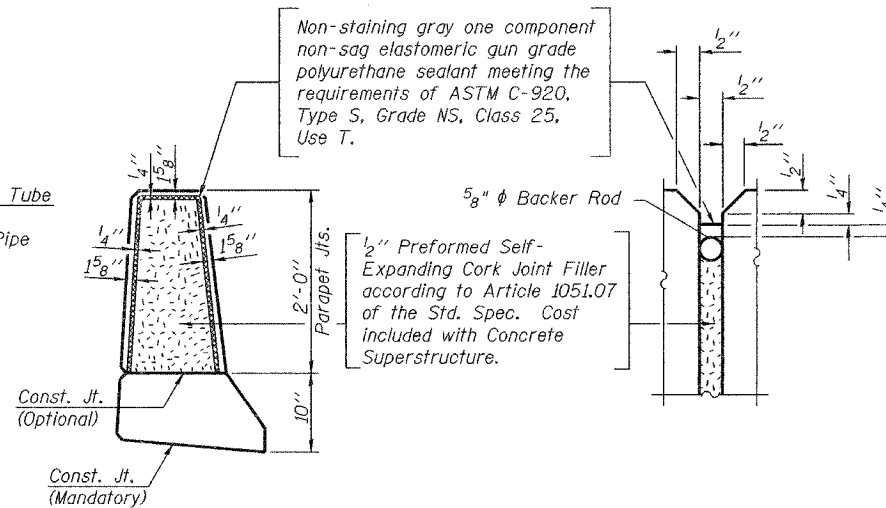
FIBERGLASS PIPE



ALUMINUM TUBE



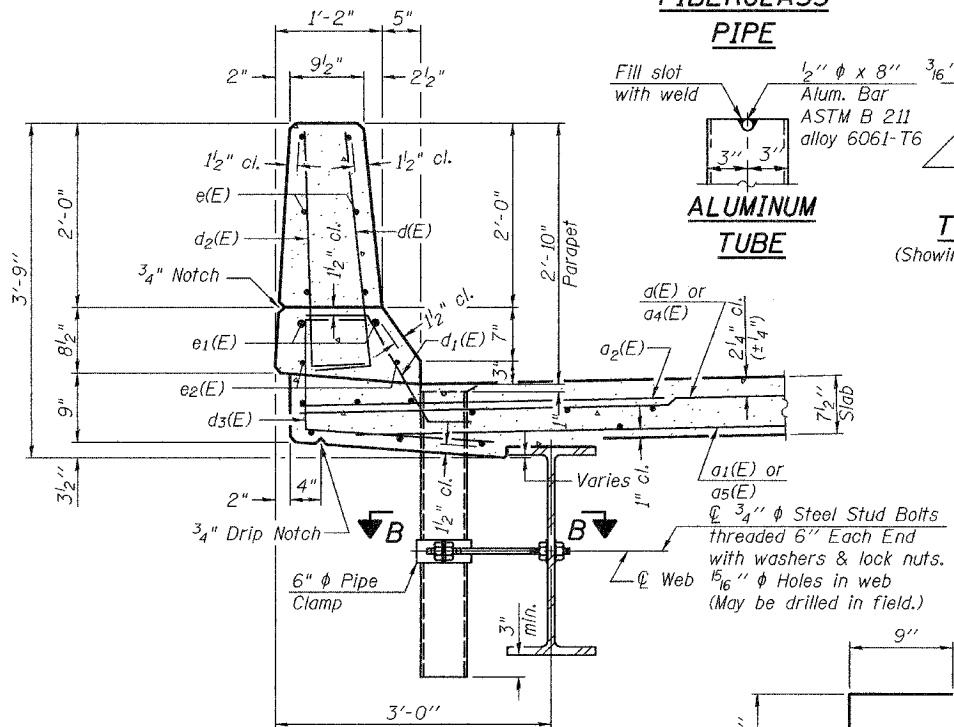
TOP PLAN (Showing Aluminum Tube)



PARAPET JOINT DETAILS

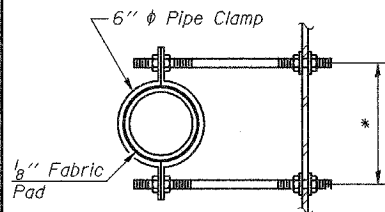
Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 3-#8 etc. indicates 1 line of bars with 3 lengths per line.

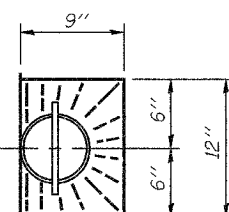


SECTION THRU PARAPET

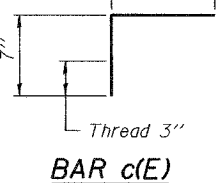
* Dimension as required by Pipe Clamp



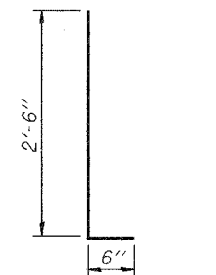
SECTION B-B



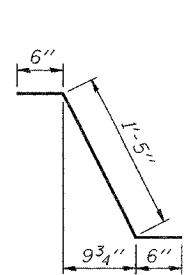
TOP PLAN



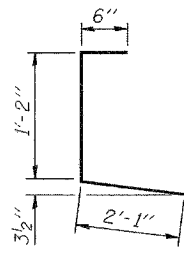
BAR c(E)



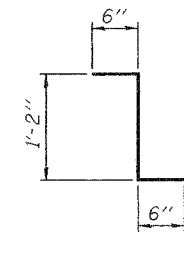
BARS d(E) & d2(E)



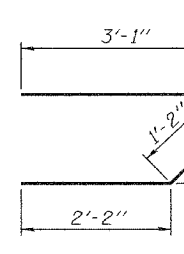
BAR d1(E)



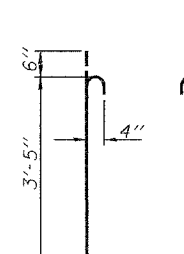
BAR d3(E)



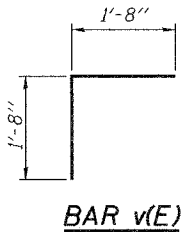
BAR d4(E)



BAR s(E)



BAR s1(E)



BAR v(E)

MINIMUM BAR LAP (Parapet)

#5 bar = 1'-8"
#8 bar = 3'-5"

SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED Curt M. Evoy
CHECKED Rebecca L. Mitchell
DRAWN Michael B. Mossman
CHECKED C.M.E. / R.L.M.

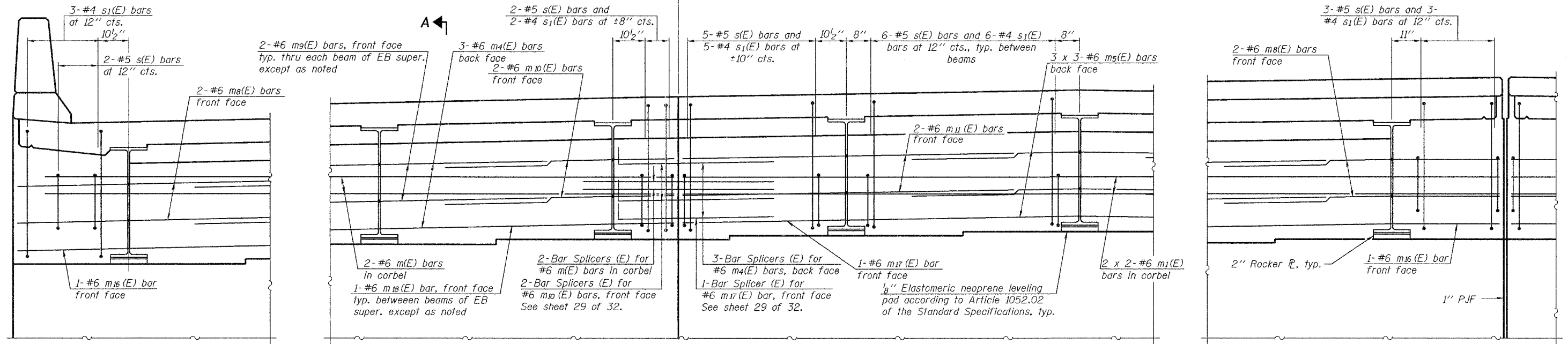
March 1, 2006
EXAMINED *Thomas J. Demagalibi*
PASSED *Ralph E. Anderson*

S-2-D 10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

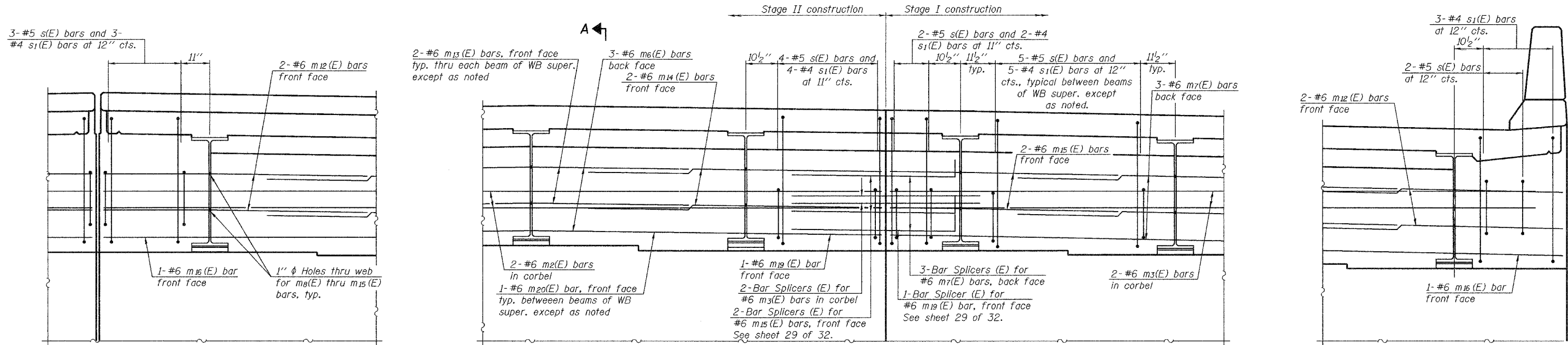
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 16
F.A.P. 331	(12-1) B-1	JACKSON		241	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #98827



ELEVATION

Looking West at West diaphragm, Eastbound superstructure.
East diaphragm similar.



ELEVATION

Looking West at West diaphragm, Westbound superstructure.
East diaphragm similar.

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 15 of 32.
Concrete in diaphragm is included with Concrete Superstructure on sheet 15 of 32.
For details of bars s(E) & s₁(E) see sheet 15 of 32.
The s(E) and s₁(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
For anchor bolt details see sheet 20 of 32.
See sheet 19 of 32 for holes thru web for m₈(E) thru m₁₅(E) bars.
See sheet 29 of 32 for bar splicer details.
See sheet 17 of 32 for Section A-A.
Bars indicated thus 3 x 3-#6 etc. indicates 3 lines of bars with 3 lengths per line.

MINIMUM BAR LAP

(Diaphragms)
#6 bar = 2'-9"

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Domagala
PASSED		Ralph E. Anderson

DIAPHRAGM DETAILS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

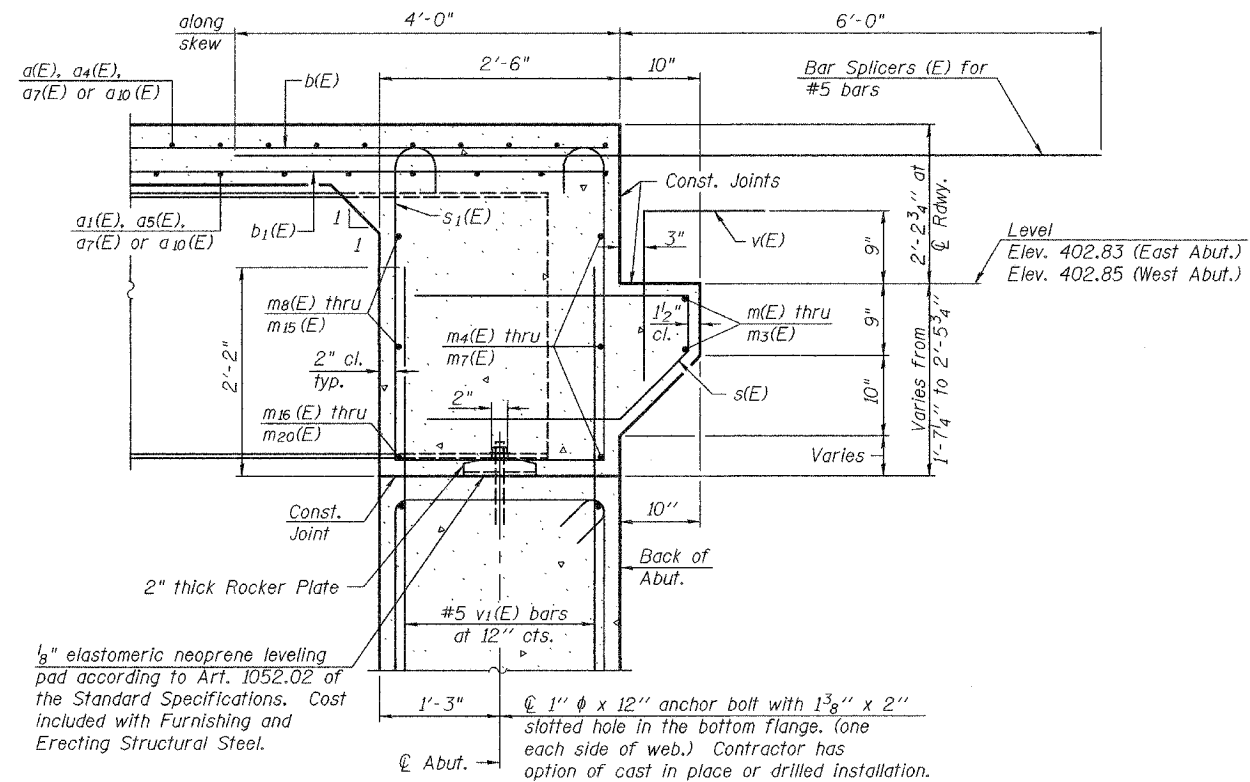
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON		242
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 17

32 SHEETS

Contract #98827



SECTION A-A

Dimensions at right angles to abutment, except as shown.

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

March 1, 2006

EXAMINED *Thomas J. Demagala*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

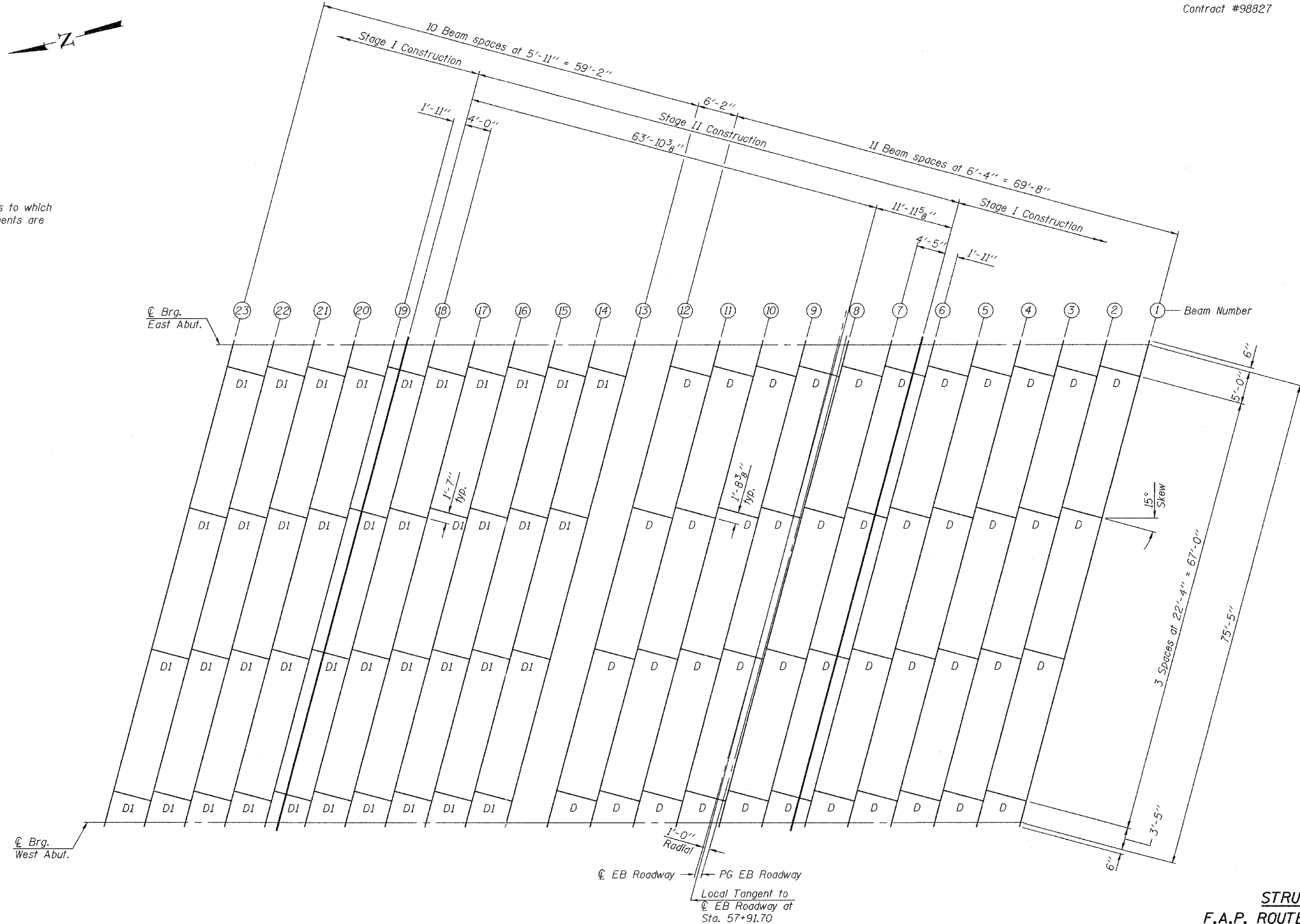
ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	SHEETS 243
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

SHEET NO. 18

32 SHEETS

Contract #98827

Note:
"NTR" denotes members to which
notch toughness requirements are
applicable.



FRAMING PLAN

All beams W36x150 AASHTO M270 Grade 50 and NTR.

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

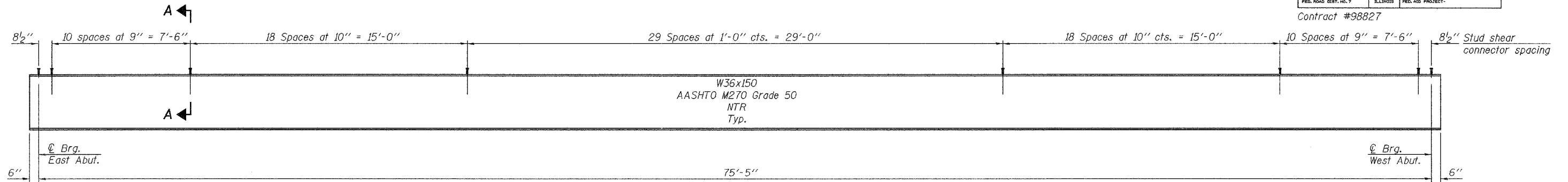
March 1, 2006
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON	244	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #98827

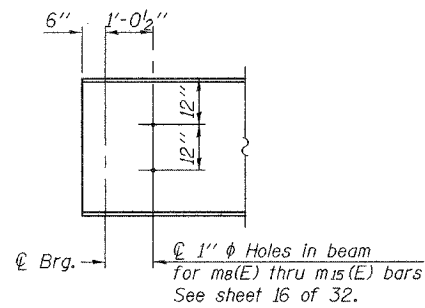


ELEVATION

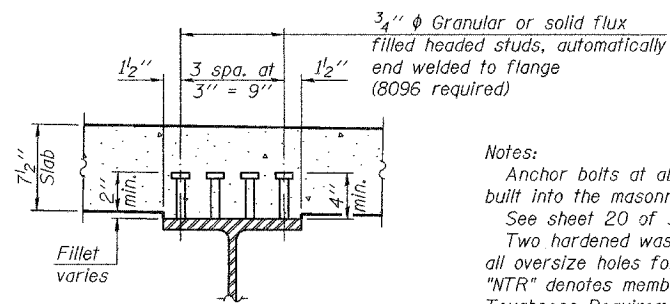
*TOP OF BEAM ELEVATIONS

* For fabrication only.

Beam	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
℄ Brg. East abutment	403.52	403.65	403.78	403.92	404.05	404.18	404.29	404.39	404.30	404.20	404.09	404.19	404.19	404.10	404.21	404.31	404.40	404.33	404.23	404.11	403.99	403.87	403.75
℄ Brg. West Abutment	403.54	403.67	403.80	403.94	404.07	404.20	404.30	404.40	404.32	404.22	404.11	404.21	404.21	404.12	404.23	404.32	404.42	404.35	404.25	404.14	404.01	403.89	403.77



END OF BEAM
ELEVATION



SECTION A-A

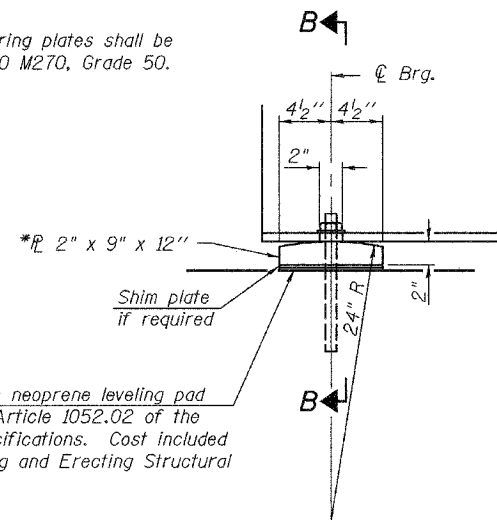
Notes:
Anchor bolts at abutment bearings may be built into the masonry.
See sheet 20 of 32 for Anchor Bolt installation.
Two hardened washers shall be required over all oversize holes for diaphragms.
"NTR" denotes members to which Notch Toughness Requirements are applicable.

		0.5 Sp. 1 for 6'-4" beam spacing
I_s	(in ⁴)	9040
I_c (n)	(in ⁴)	22166
I_c (3n)	(in ⁴)	16180
S_s	(in ³)	504
S_c (n)	(in ³)	714
S_c (3n)	(in ³)	644
DC1	(k/')	0.780
M DC1	(k)	555
DC2	(k/')	0.214
M DC2	(k)	152
DW	(k/')	0.317
M DW	(k)	225
M ϕ + Imp	(k)	1027
M_a (Strength I)	(k)	3019
$\phi_r M_n$	(k)	3695
f_s DC1	(ksi)	13.2
f_s DC2	(ksi)	2.8
f_s DW	(ksi)	4.2
f_s 1.3(ϕ +I)	(ksi)	22.4
f_s (Service II)	(ksi)	42.6
Vsr	(k)	25.9

		Abutments
R DC1	(k)	29.4
R DC2+DW	(k)	20.1
R ϕ	(k)	65.2
Imp	(k)	15.6
R Total	(k)	130.3

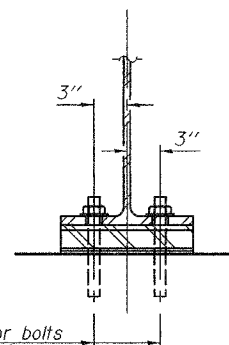
I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s due to non-composite loads.
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing f_s due to short-term composite loads.
 $I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing f_s due to long-term composite loads.
DC1 is the dead load acting on the non-composite section.
DC2 is the dead load acting on the long-term composite section.
DW is the dead load acting on the long-term composite section due to wearing surface.
 M_a (Strength I) = 1.25 M(DC1+DC2) + 1.5 M(DW) + 1.75 M(ϕ +Imp)
 $\phi_r M_n$ is the full plastic moment capacity computed in accordance with Appendix D6.1 and 6.10.7.
 f_s (Service II) is the sum of the stresses due to DC1+DC2+DW+1.3(ϕ +Imp).
Vsr is the maximum shear range in the span 0.75(ϕ +Imp).
 M_ϕ , Vsr and R_ϕ include the effects of centrifugal force.

* All bearing plates shall be AASHTO M270, Grade 50.



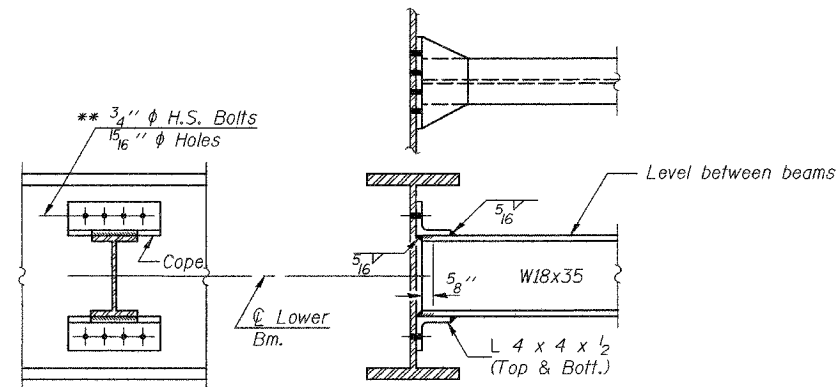
ELEVATION AT ABUTMENT

ABUTMENT BEARING
46 Required



SECTION B-B

** Use 1 5/16" x 1 1/2" vertical slotted holes in top and bottom angles at beam 7 between beams 6 and 7 and at beam 18 between beams 18 and 19. Provide 1 5/16" plate washers for slotted holes. The bolts for slotted holes shall only be finger tightened prior to the deck pour for stage II construction. The bolts shall be fully tightened after completion of the deck pour for stage II construction.



DIAPHRAGMS D & D1

Diaphragm D: 44 required
Diaphragm D1: 40 required

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Massman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Damagalki
PASSED		Ralph E. Anderson

STRUCTURAL STEEL DETAILS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

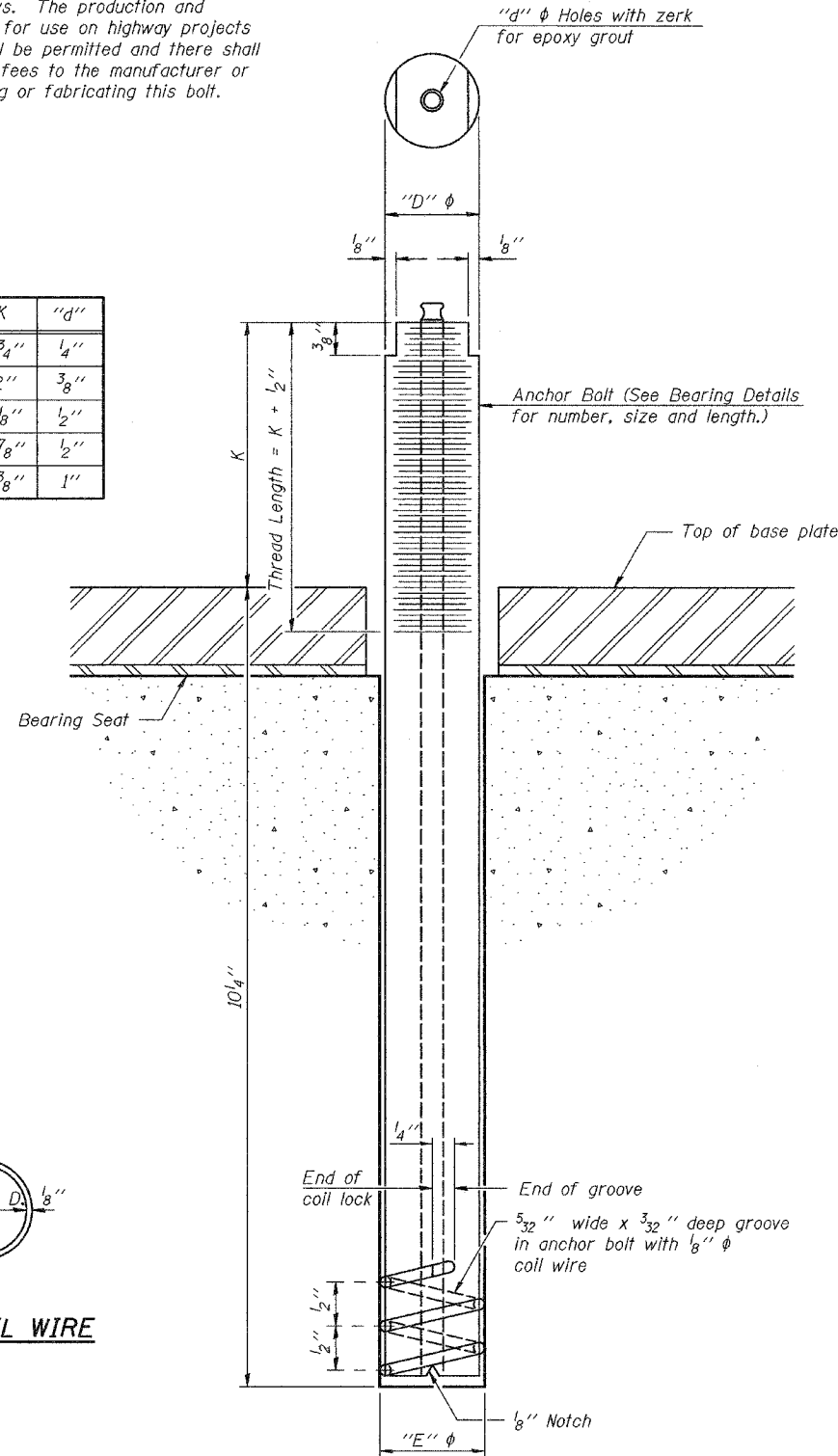
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	POST MILE	SHEET NO.	SHEET NO. 20
F.A.P. 331	(12-1) B-1	JACKSON		245	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

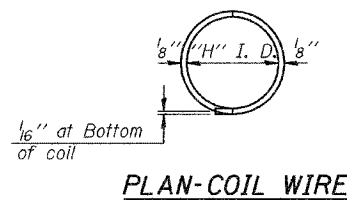
Contract #98827

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



ILLINOIS COIL-LOCK ANCHOR BOLT



PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abuts.	A307

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

ANCHOR BOLT DETAILS FOR BEARINGS

F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

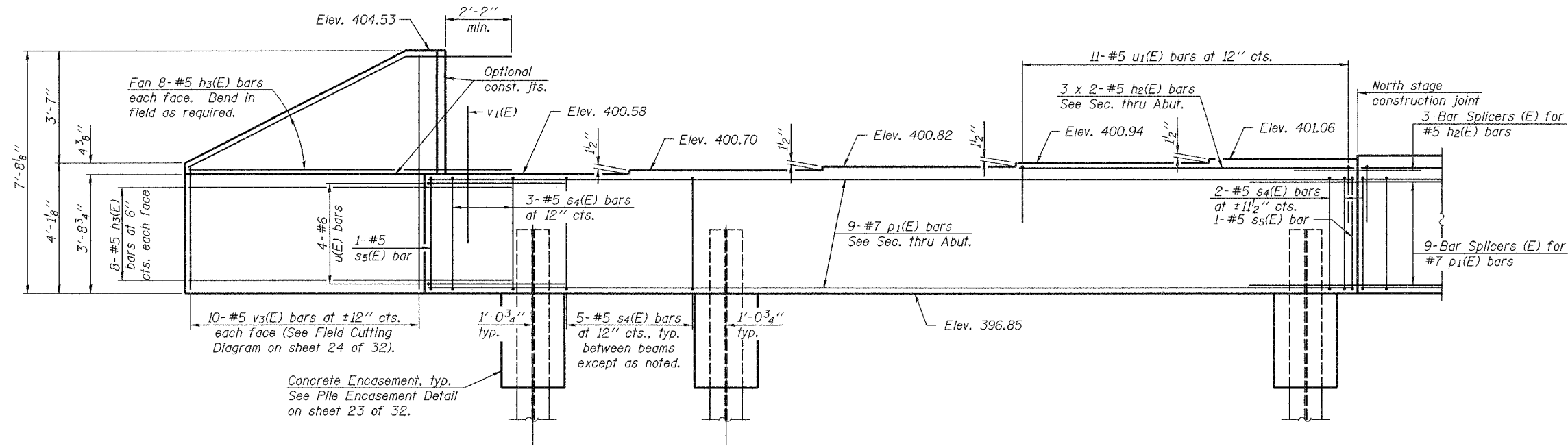
March 1, 2006
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

ABB-1 10-22-04

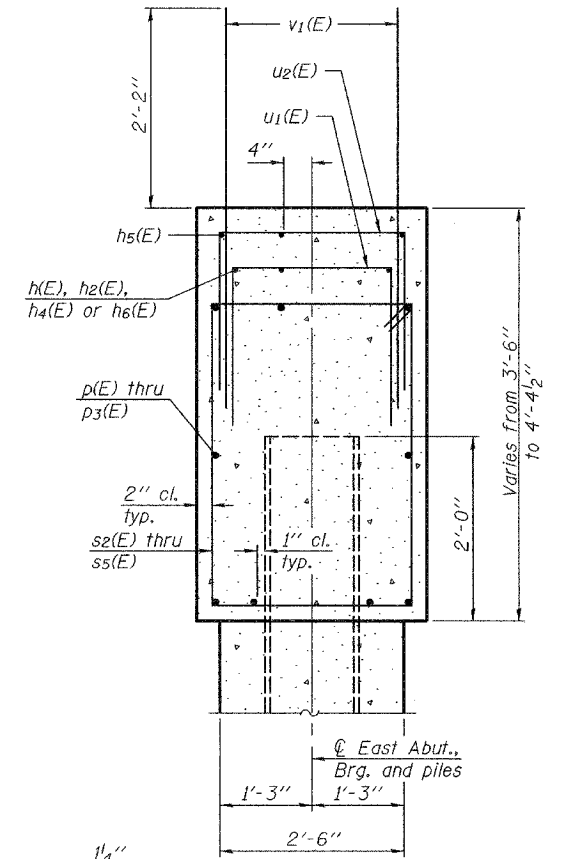
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	SHEET NO. 247	SHEET NO. 22 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

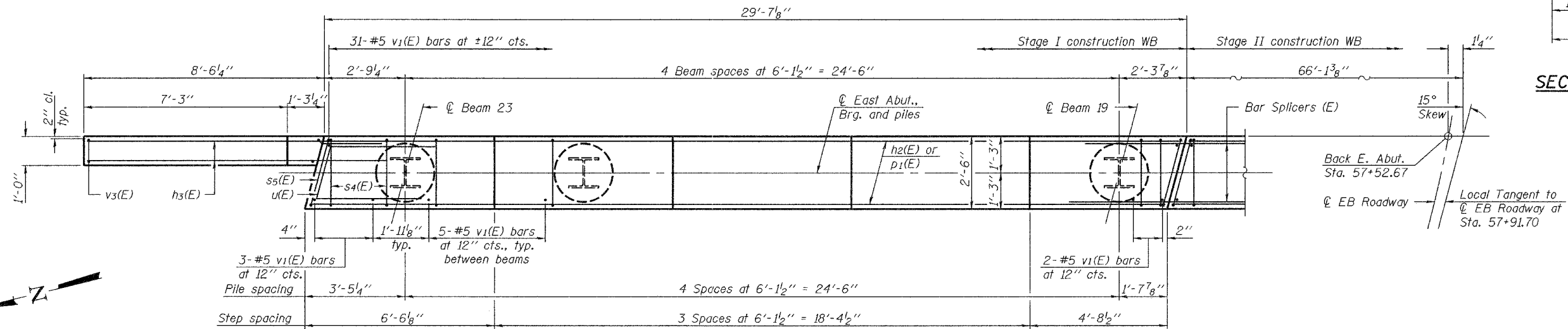
Contract #98827



ELEVATION
(Looking East)



SEC. THRU ABUT.



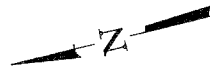
PLAN

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

EAST ABUTMENT (STAGE I-WB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED Curt M. Evoy	EXAMINED <i>Thomas J. Domagalaki</i> ENGINEER OF BRIDGE DESIGN
CHECKED Rebecca L. Mitchell	PASSED <i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES
DRAWN Michael B. Mossman	
CHECKED C.M.E. / R.L.M.	

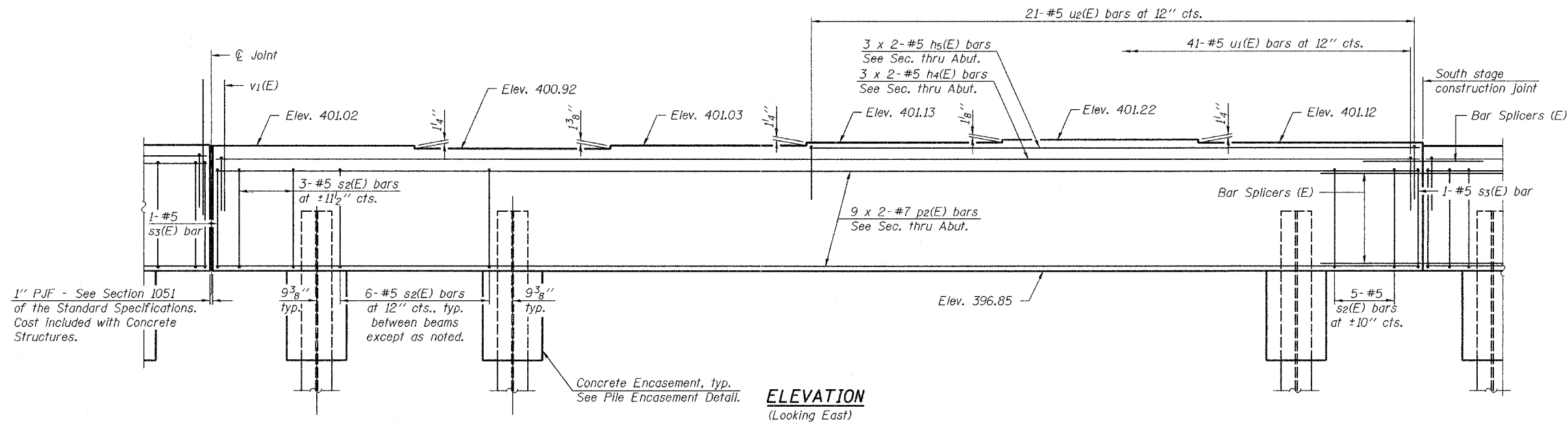
March 1, 2006



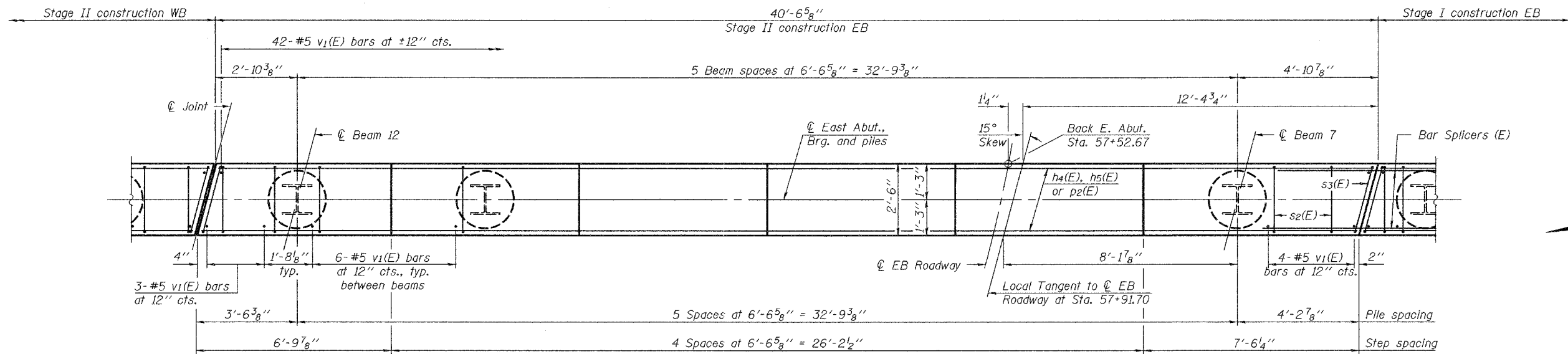
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 23 32 SHEETS
F.A.P. 331	(12-1) B-1	JACKSON		248	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

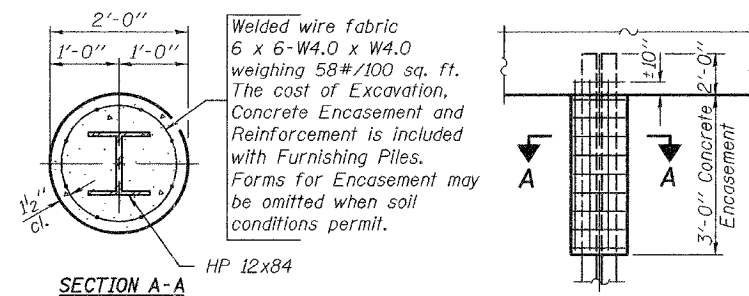
Contract #98827



ELEVATION
(Looking East)



PLAN



PILE ENCASEMENT DETAIL

MINIMUM BAR LAP

#5 bar = 2'-3"
#7 bar = 3'-8"

EAST ABUTMENT (STAGE II-EB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Domagala
PASSED		Ralph E. Anderson

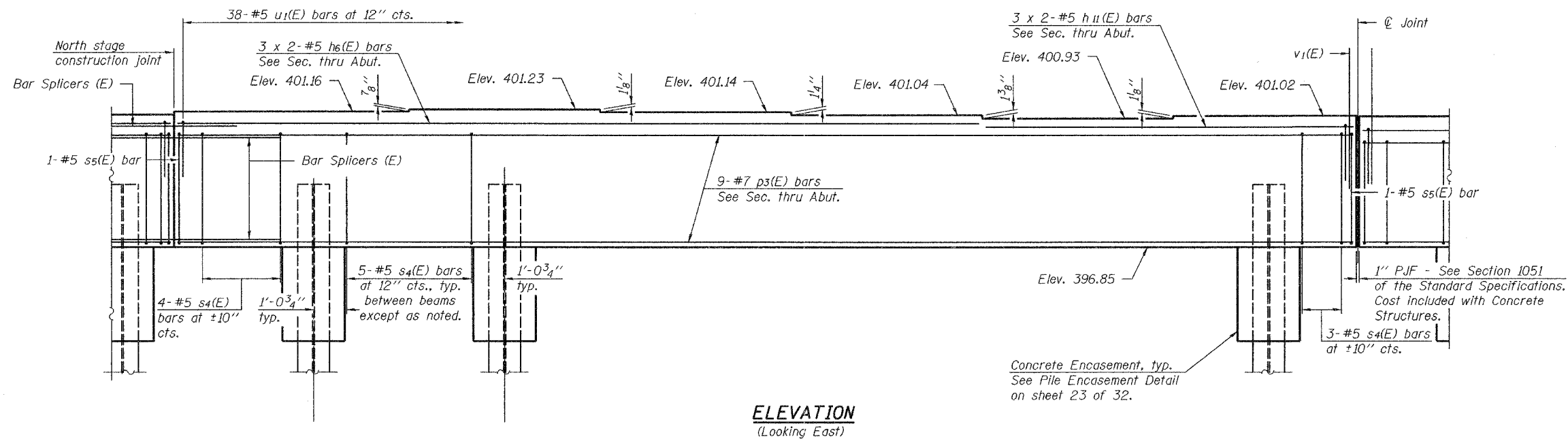
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	SHEET NO. 249	SHEET NO. 24 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

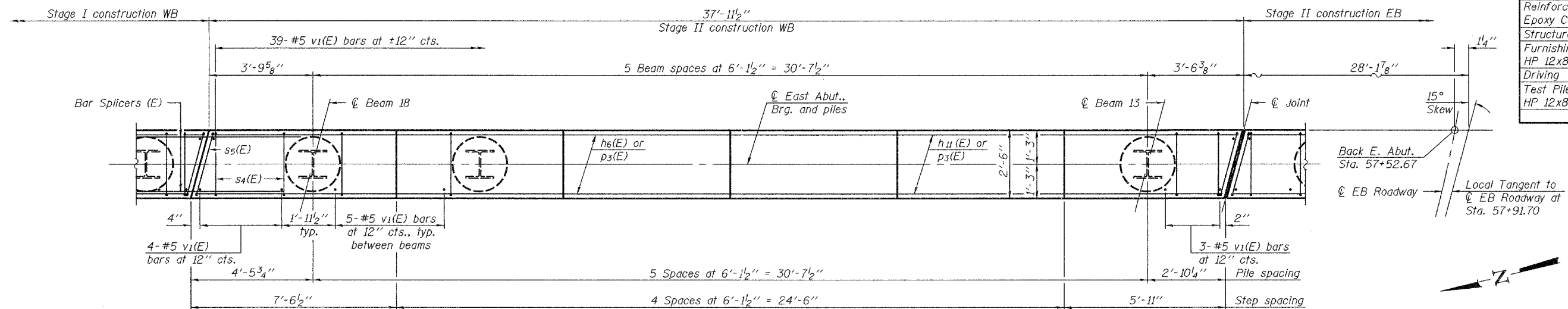
Contract #98827

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	6	#5	10'-4"	
h1(E)	32	#5	11'-0"	
h2(E)	6	#5	6'-9"	
h3(E)	32	#5	11'-6"	
h4(E)	6	#5	21'-3"	
h5(E)	6	#5	11'-8"	
h6(E)	6	#5	14'-0"	
h11(E)	6	#5	7'-5"	
p(E)	9	#7	37'-7"	
p1(E)	9	#7	29'-4"	
p2(E)	18	#7	22'-0"	
p3(E)	9	#7	37'-8"	
s2(E)	73	#5	11'-7"	□
s3(E)	4	#5	11'-9"	□
s4(E)	57	#5	11'-11"	□
s5(E)	4	#5	12'-1"	□
u(E)	8	#6	9'-5"	∟
u1(E)	109	#5	4'-8"	□
u2(E)	21	#5	5'-8"	□
v1(E)	280	#5	4'-4"	
v2(E)	9	#5	11'-0"	
v3(E)	10	#5	11'-1"	
Concrete Structures		Cu. Yd.	58.7	
Reinforcement Bars, Epoxy Coated		Pound	7870	
Structure Excavation		Cu. Yd.	269	
Furnishing Steel Piles HP 12x84		Foot	3047	
Driving Piles		Foot	3047	
Test Pile Steel HP 12x84		Each	1	



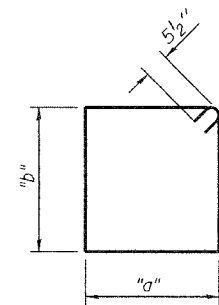
ELEVATION
(Looking East)



PLAN

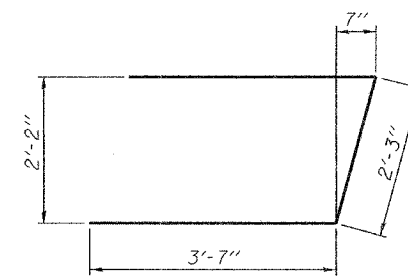
PILE DATA

Type: HP 12x84
Nominal Required Bearing: 665 tons
Nominal Design Capacity: 92.9 tons
Est. Length: 138.5 ft.
No. Required: 22 + 1 Test pile

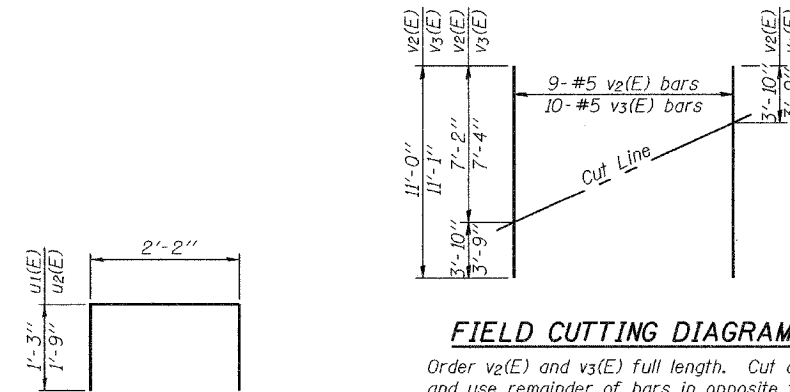


Bar	"a"	"b"
s2(E)	2'-2"	3'-2"
s3(E)	2'-3"	3'-2"
s4(E)	2'-2"	3'-4"
s5(E)	2'-3"	3'-4"

BARS s2(E) thru s5(E)



BAR u(E)



FIELD CUTTING DIAGRAM

Order v2(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.

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

EAST ABUTMENT (STAGE II-WB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

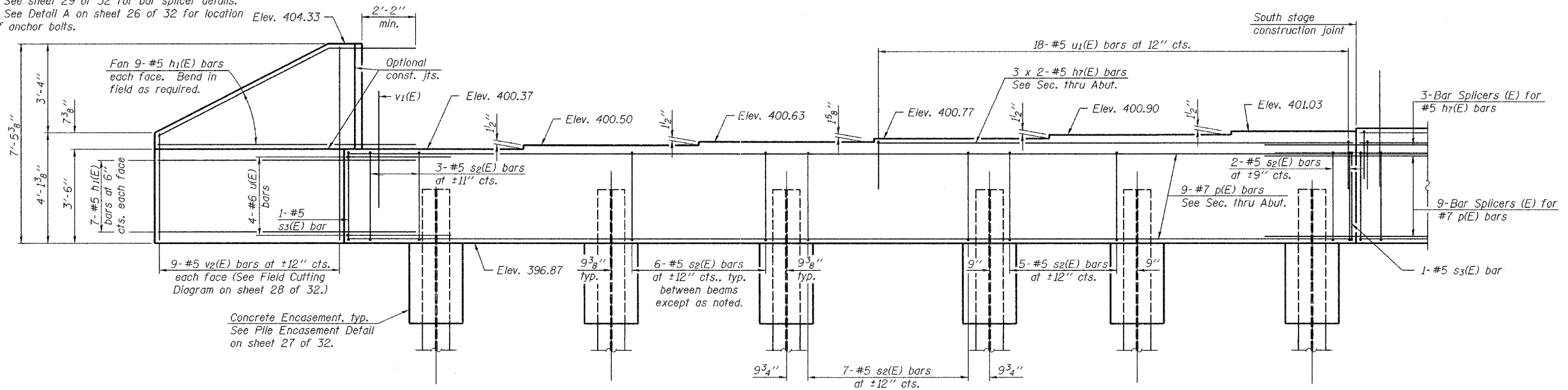
March 1, 2006
EXAMINED *Thomas J. Domagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

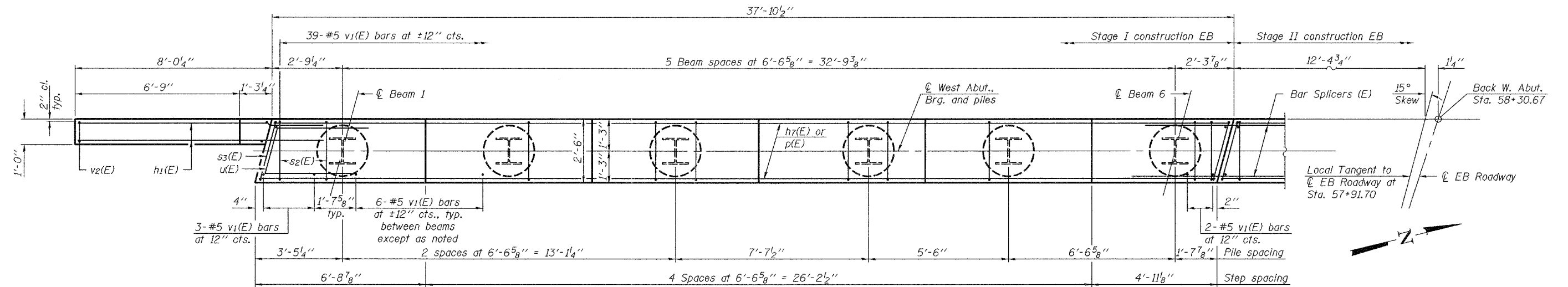
ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	TOTAL SHEETS 250	SHEET NO. 25
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	32 SHEETS

Contract #98827

Notes:
Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 9 x 2-#7 etc. indicates 9 lines of bars with 2 lengths per line.
Space reinforcement in cap to miss anchor bolts.
See sheet 28 of 32 for reinforcement details, pile data and Bill of Material.
See sheet 26 of 32 for Section thru Abut.
See sheet 29 of 32 for bar splicer details.
See Detail A on sheet 26 of 32 for location of anchor bolts.



ELEVATION
(Looking West)

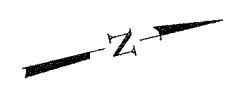


PLAN

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

DESIGNED Curt M. Evoy	March 1, 2006
CHECKED Rebecca L. Mitchell	EXAMINED <i>Thomas J. Donagale</i>
DRAWN Michael B. Mossman	PASSED <i>Ralph E. Anderson</i>
CHECKED C.M.E. / R.L.M.	ENGINEER OF BRIDGES AND STRUCTURES

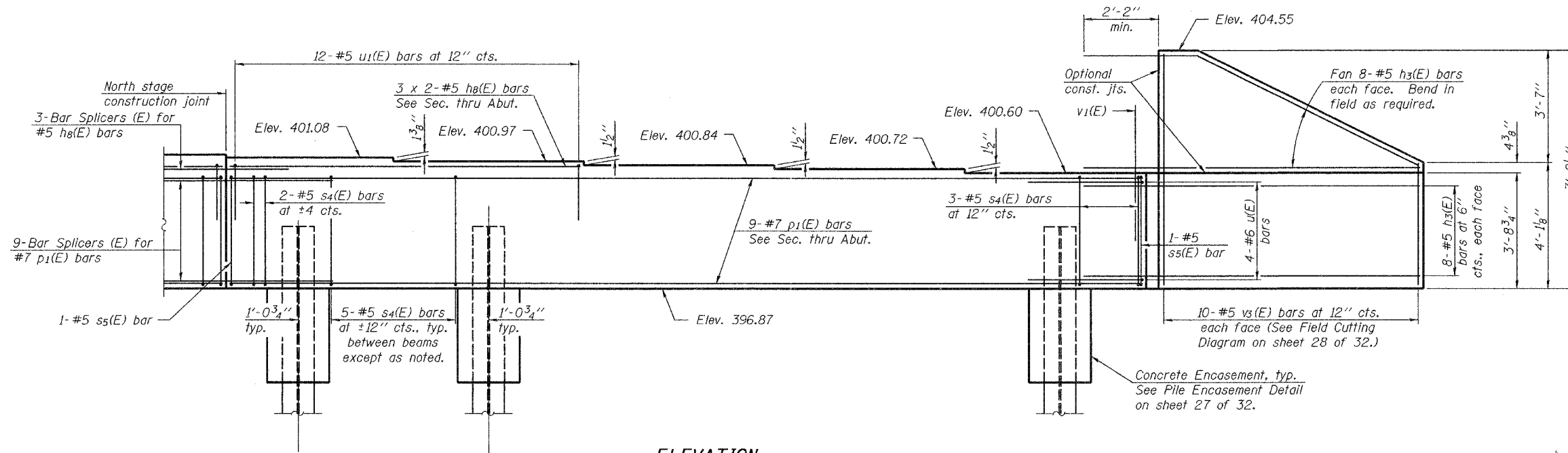
WEST ABUTMENT (STAGE I-EB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071



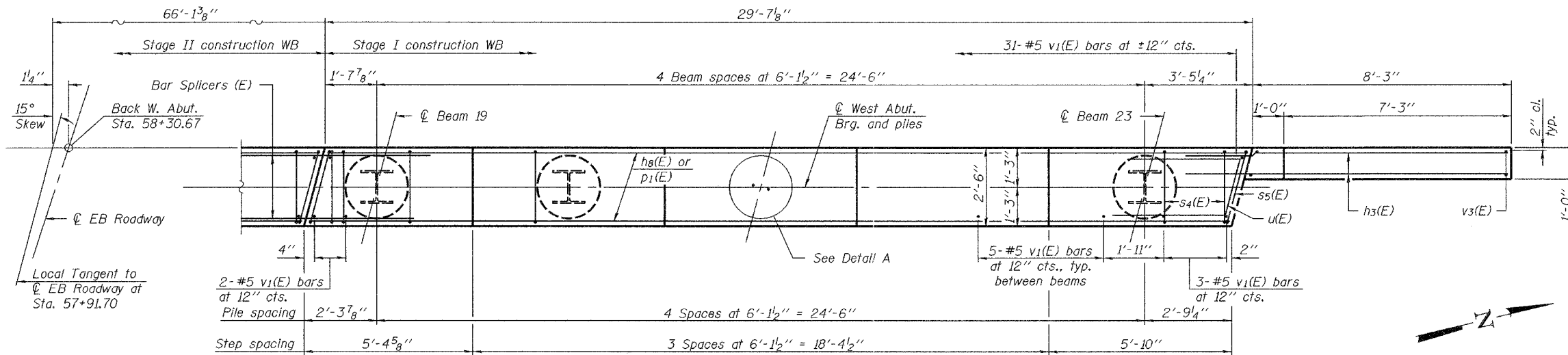
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	TOTAL SHEETS 32	SHEET NO. 25	SHEET NO. 26 32 SHEETS
FED. ROAD DIST. NO. 7		BILLINGS	FED. AID PROJECT		

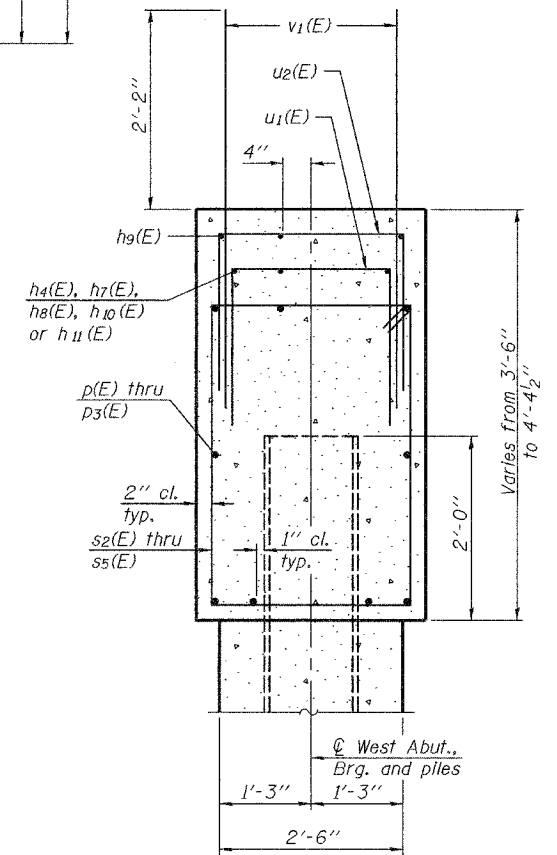
Contract #98827



ELEVATION
(Looking West)

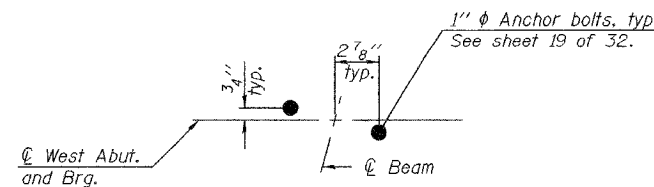


PLAN



SEC. THRU ABUT.

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



DETAIL "A"

DESIGNED Curt M. Evoy	EXAMINED Thomas J. Domagala
CHECKED Rebecca L. Mitchell	PASSED Ralph E. Anderson
DRAWN Michael B. Mossman	
CHECKED C.M.E. / R.L.M.	

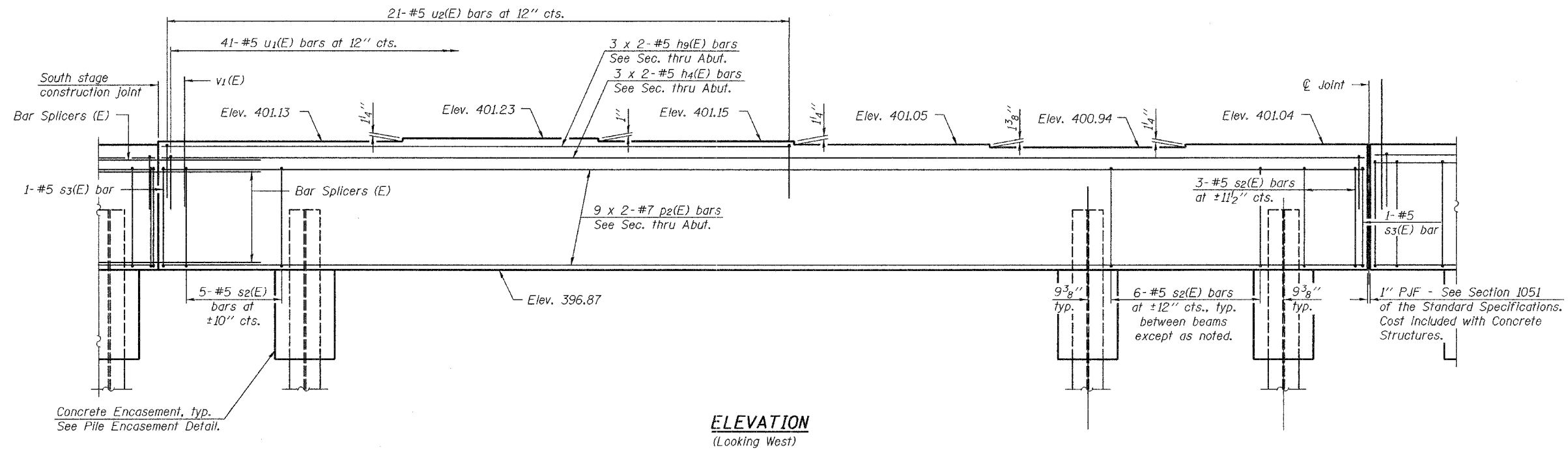
March 1, 2006
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

WEST ABUTMENT (STAGE I-WB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

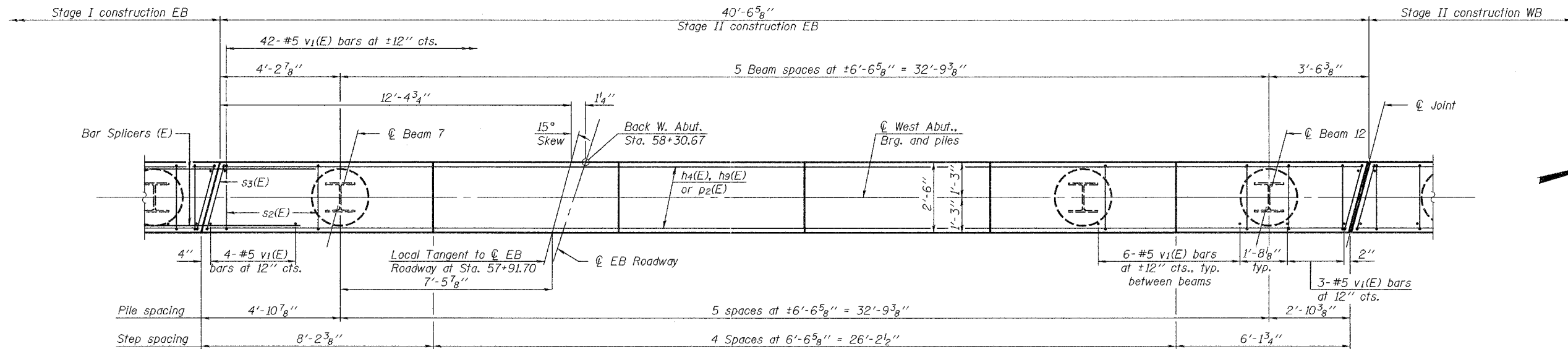
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	TOTAL SHEETS 252	SHEET NO. 27
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	32 SHEETS

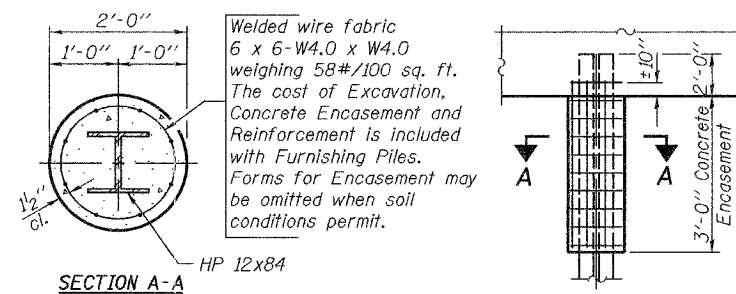
Contract #98827



ELEVATION
(Looking West)



PLAN



PILE ENCASEMENT DETAIL

MINIMUM BAR LAP

#5 bar = 2'-3"
#7 bar = 3'-8"

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Domagalaki
PASSED		Ralph E. Anderson

WEST ABUTMENT (STAGE II-EB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	SHEET 253	SHEET NO. 28 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	Contract #98827

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	32	#5	11'-0"	
h3(E)	32	#5	11'-6"	
h4(E)	6	#5	21'-3"	
h7(E)	6	#5	10'-5"	
h8(E)	6	#5	6'-9"	
h9(E)	6	#5	11'-8"	
h10(E)	6	#5	13'-11"	
h11(E)	6	#5	7'-4"	
p1(E)	9	#7	37'-7"	
p2(E)	18	#7	22'-0"	
p3(E)	9	#7	37'-8"	
s2(E)	73	#5	11'-7"	□
s3(E)	4	#5	11'-9"	□
s4(E)	57	#5	11'-11"	□
s5(E)	4	#5	12'-1"	□
u(E)	8	#6	9'-5"	⌢
u1(E)	109	#5	4'-8"	□
u2(E)	21	#5	5'-8"	□
v1(E)	280	#5	4'-4"	
v2(E)	9	#5	11'-0"	
v3(E)	10	#5	11'-1"	
Concrete Structures		Cu. Yd.	58.7	
Reinforcement Bars, Epoxy Coated		Pound	7870	
Structure Excavation		Cu. Yd.	269	
Furnishing Steel Piles HP 12x84		Foot	3071	
Driving Piles		Foot	3071	

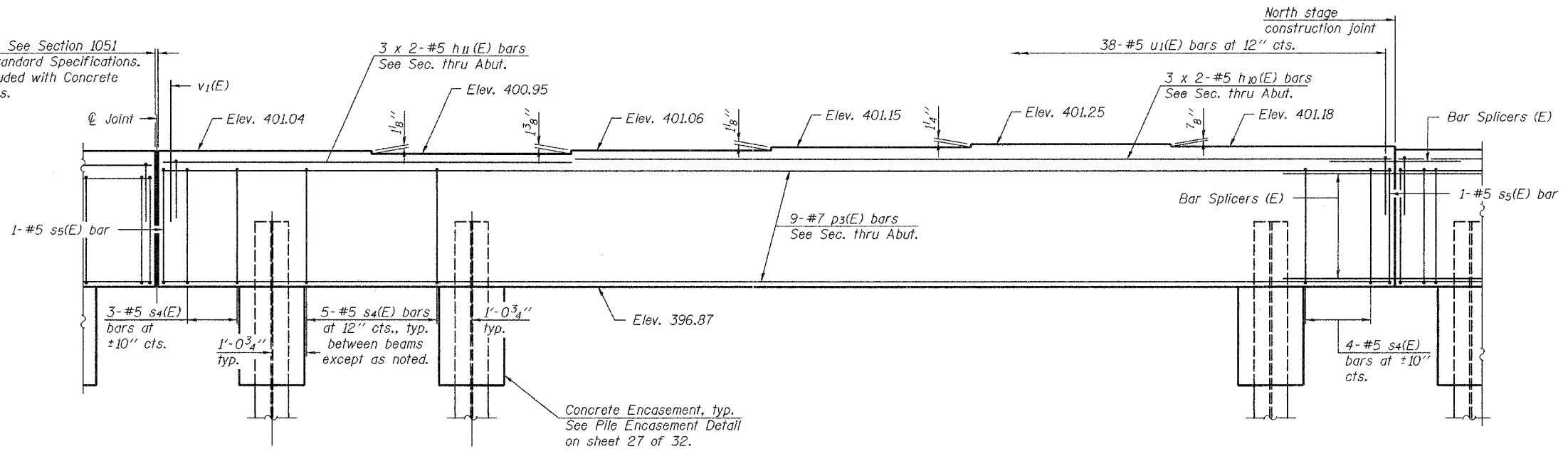
PILE DATA

Type: HP 12x84
Nominal Required Bearing: 665 tons
Nominal Design Capacity: 92.4 tons
Est. Length: 133.5 ft.
No. Required: 23

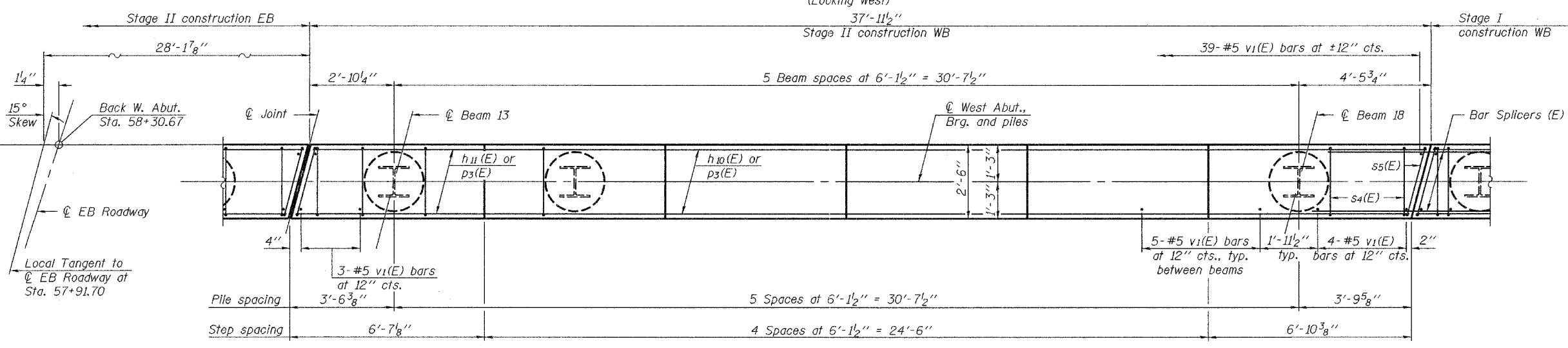
MINIMUM BAR LAP
#5 bar = 2'-3"

WEST ABUTMENT (STAGE II-WB)
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

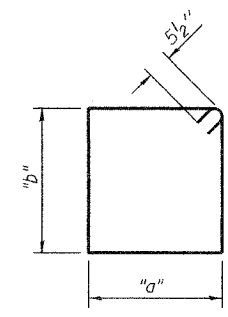
1" PJF - See Section 1051 of the Standard Specifications. Cost included with Concrete Structures.



ELEVATION
(Looking West)

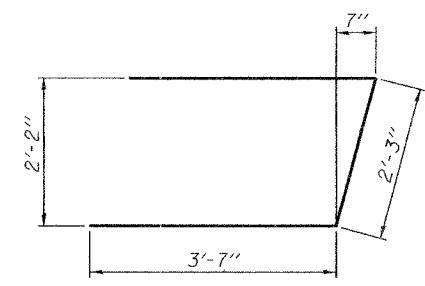


PLAN

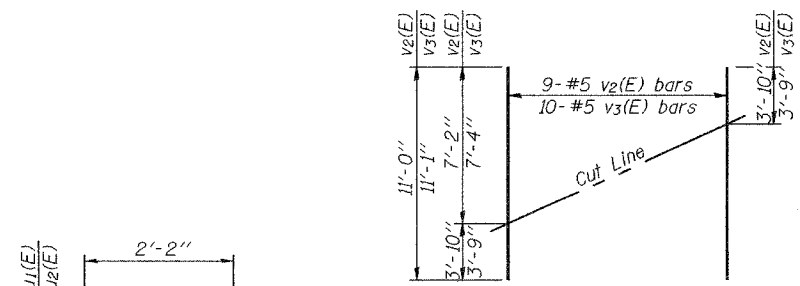


Bar	"a"	"b"
s2(E)	2'-2"	3'-2"
s3(E)	2'-3"	3'-2"
s4(E)	2'-2"	3'-4"
s5(E)	2'-3"	3'-4"

BARS s2(E) thru s5(E)



BAR u(E)



FIELD CUTTING DIAGRAM

Order v2(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.

BARS u1(E) and u2(E)

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

March 1, 2006
EXAMINED *Thomas J. Domagalaki*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 331	(12-1) B-1	JACKSON	254	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		32 SHEETS

Contract #98827

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

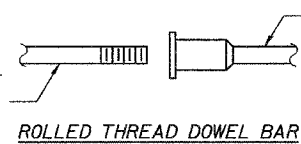
- ① Minimum Capacity = $1.25 \times f_y \times A_T$
(Tension in kips)
- ② Minimum *Pull-out Strength = $1.25 \times f_{s_{allow}} \times A_T$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s_{allow}}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_T = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

The diameter of this part is equal or larger than the diameter of bar spliced.



ROLLED THREAD DOWEL BAR



** ONE PIECE

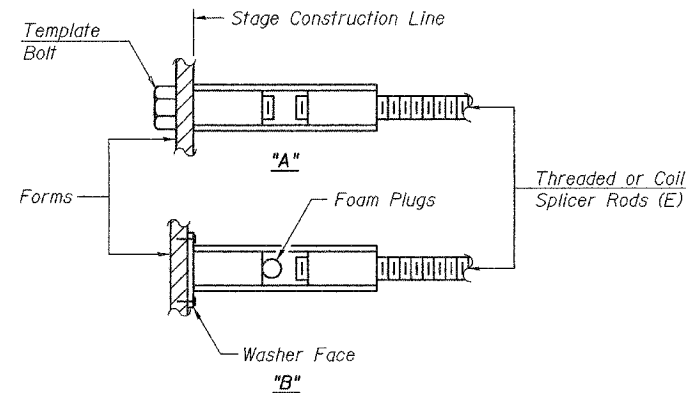
Wire Connector



WELDED SECTIONS

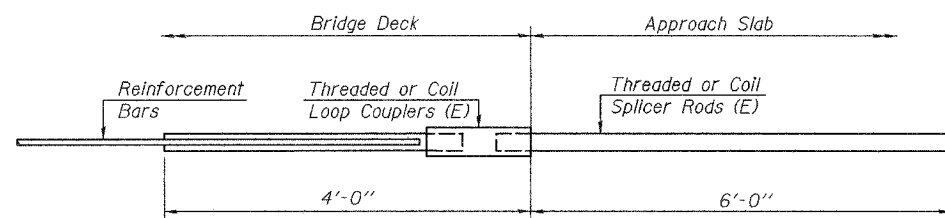
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



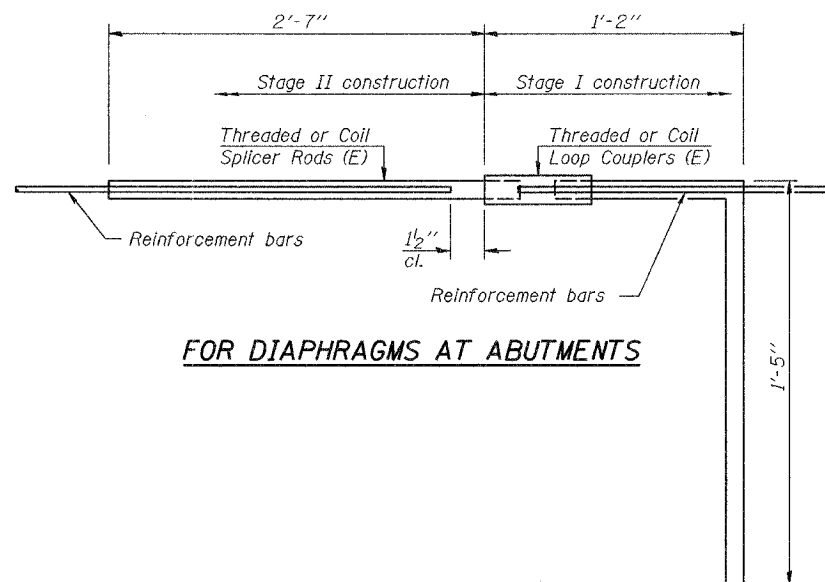
INSTALLATION AND SETTING METHODS

"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.



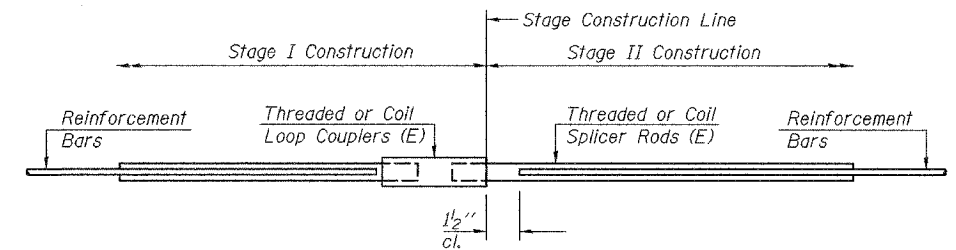
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 278



FOR DIAPHRAGMS AT ABUTMENTS

Bar Splicer for #6 bar
Min. Capacity = 33.1 kips - tension
Min. Pull-out Strength = 13.3 kips - tension
No. Required = 12



STANDARD

Bar Size	No. Assemblies Required	Location
#5	441	Slab
#6	20	Diaphragms
#7	18	East Abutment
#5	6	East Abutment
#7	18	West Abutment
#5	6	West Abutment

BAR SPLICER ASSEMBLY DETAILS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Mitchell
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.M.

EXAMINED	March 1, 2006	Thomas J. Domagala
PASSED		Ralph E. Anderson

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	SHEET NO. 255	SHEET NO. 30 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract #98827

Illinois Department of Transportation
Division of Highways
District Nine Materials

SOIL BORING LOG Page 1 of 4
Date 3/9/00

FAP ROUTE 131 over Little Crab DESCRIPTION FAP 331 (IL 13) over Little Crab Orchard Ck LOGGED BY Bryan Keller

SECTION (12-1)B-1 LOCATION Near WCL Carbondale, SEC., TWP. 9S, RNG. 1W, 3 PM
COUNTY Jackson DRILLING METHOD HAMMER TYPE

STRUCT. NO. 039-0016 (WB), 039-0017 (EB)
Station 57+95.26

BORING NO. 1-S
Station 57+48
Offset 4.00ft S. CL median
Ground Surface Elev. 404.9 ft

DEPTH (ft)	SOIL DESCRIPTION	BLOWS (6")	TSF (%)	DEPTH (ft)	BLOWS (6")	TSF (%)
0	Surface Water Elev. 388.2 ft			0		
0	Stream Bed Elev. _____ ft			0		
0	Groundwater Elev.: _____ ft			0		
0	First Encounter _____ ft			0		
0	Upon Completion _____ ft			0		
0	After _____ Hrs. _____ ft			0		
1	Very stiff, moist, brown, Silty Clay A-6	1	B	1	B	
3	Very stiff, moist, grey, Clay A7-6	3	2.1	27		
5		5	3.5	18		
5		5	P			
400.90				380.90		
4	Stiff, moist, brown, Silty Clay A-6	4		2		
5		5	1.4	21		
6		6	B			
398.40				378.40		
3	Very stiff, moist, grey to brown, Silty Clay A-6	3	3.4	21		
3		3	B			
395.90						
3	Medium, moist, grey to brown, Silty Clay A-6	3	0.6	22		
3		3	B			
393.40						
1	Soft, very moist, grey, Silty Clay A-6	1	0.3	29		
2		2	B			
370.90						
1	Stiff, very moist, grey, Silty Clay A-6	1		1.4	31	
2		2	B			
368.40						
1	Medium, very moist, grey, Silty Clay A-6	1	0.7	36		
2		2	B			
385.90						
1	Medium, moist, brown mottled grey, Clay A7-6	1	0.7	29		
20		20	1	0.6	38	

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

Illinois Department of Transportation
Division of Highways
District Nine Materials

SOIL BORING LOG Page 2 of 4
Date 3/9/00

FAP ROUTE 131 over Little Crab DESCRIPTION FAP 331 (IL 13) over Little Crab Orchard Ck LOGGED BY Bryan Keller

SECTION (12-1)B-1 LOCATION Near WCL Carbondale, SEC., TWP. 9S, RNG. 1W, 3 PM
COUNTY Jackson DRILLING METHOD HAMMER TYPE

STRUCT. NO. 039-0016 (WB), 039-0017 (EB)
Station 57+95.26

BORING NO. 1-S
Station 57+48
Offset 4.00ft S. CL median
Ground Surface Elev. 404.9 ft

DEPTH (ft)	SOIL DESCRIPTION	BLOWS (6")	TSF (%)	DEPTH (ft)	BLOWS (6")	TSF (%)
1	Medium, very moist, grey, Silty Clay A-6 (continued)	1	B	1	B	17
1	Washed 5' blow in very loose, very moist, grey, coarse Sand (continued)	1		1		
360.40				339.90	66	
2	Stiff, very moist, grey, Clay A7-6	2	1.1	40		
3		3	B			
365.40				335.40		
1	Soft to medium, very moist, grey, Silty Clay Loam A-6	1	0.5	38		
2		2	B			
350.40				330.40		
1	Medium to stiff, very moist, grey, Clay to Silty Clay A7-6	1	1.0	35		
2		2	B			
346.40				325.40		
1	Washed 5' blow in very loose, very moist, grey, coarse Sand	1		5		
305.40				285.40		
5		5		1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District Nine Materials

SOIL BORING LOG Page 3 of 4
Date 3/9/00

FAP ROUTE 131 over Little Crab DESCRIPTION FAP 331 (IL 13) over Little Crab Orchard Ck LOGGED BY Bryan Keller

SECTION (12-1)B-1 LOCATION Near WCL Carbondale, SEC., TWP. 9S, RNG. 1W, 3 PM
COUNTY Jackson DRILLING METHOD HAMMER TYPE

STRUCT. NO. 039-0016 (WB), 039-0017 (EB)
Station 57+95.26

BORING NO. 1-S
Station 57+48
Offset 4.00ft S. CL median
Ground Surface Elev. 404.9 ft

DEPTH (ft)	SOIL DESCRIPTION	BLOWS (6")	TSF (%)	DEPTH (ft)	BLOWS (6")	TSF (%)
8	Medium, moist, grey, Silty Clay A7-6 with Sand layers (continued)	8	0.6	20		
10		10	B			
315.40				295.40		
9	Stiff, moist, grey, Silty Clay to Silty Clay Loam A-6 (continued)	9		11	1.2	19
11		11	1.9	18		
14		14	S			
310.40				290.40		
11	Stiff, moist, grey, Clay to Silty Clay A7-6	11	6	1.7	24	
14		14	B			
275.40				275.40		
10	Dense, moist, grey, Fine Silty Sand	10		27		
27		27		28		
265.40				265.40		
9		9		1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District Nine Materials

SOIL BORING LOG Page 4 of 4
Date 3/9/00

FAP ROUTE 131 over Little Crab DESCRIPTION FAP 331 (IL 13) over Little Crab Orchard Ck LOGGED BY Bryan Keller

SECTION (12-1)B-1 LOCATION Near WCL Carbondale, SEC., TWP. 9S, RNG. 1W, 3 PM
COUNTY Jackson DRILLING METHOD HAMMER TYPE

STRUCT. NO. 039-0016 (WB), 039-0017 (EB)
Station 57+95.26

BORING NO. 1-S
Station 57+48
Offset 4.00ft S. CL median
Ground Surface Elev. 404.9 ft

DEPTH (ft)	SOIL DESCRIPTION	BLOWS (6")	TSF (%)	DEPTH (ft)	BLOWS (6")	TSF (%)
1	Very moist, Fine Silty Sand with Clay layers	1		19		
263.90				24		
3%	Gravel					
70%	Sand					
17%	Silt					
10%	Clay					
	Very dense, moist, grey, Fine Silty Sand with some Gravel (continued)					
	ESF = 71.0 Tons					
	Bottom of hole = 141.0 feet					
	Free water observed at 60.0 feet					
	Elevation referenced to USGS B 291, 1981 Elevation = 406.45'					
	Washout Procedures used from 66.0 to 69.5 and 111.0 to 119.5 feet					
	Note: To convert "N" values to "M00", multiply by 1.25					
275.40				150		
130				155		
145				180		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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BBS, form 137 (Rev. 8-99)

SOIL BORING LOGS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 331	SECTION (12-1) B-1	COUNTY JACKSON	TOTAL SHEETS 256	SHEET NO. 31
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT-				

Contract #98827

Illinois Department of Transportation SOIL BORING LOG Page 1 of 5

SECTION (12-1)B-1 LOCATION Near WCL Carbondale, SEC., TWP. 9S, RING. 1W, 3 PM

COUNTY Jackson DRILLING METHOD HAMMER TYPE

STRUCT. NO. 039-0016 (WB), 039-0017 (EB) Station 57+95.26

BORING NO. 2-S Station 58+35 Offset 1.00ft Lt. CL median Ground Surface Elev. 405 ft

DEPTH (ft)	(ft)	(ft)	(%)	DESCRIPTION	DEPTH (ft)	(ft)	(ft)	(%)	DESCRIPTION
2	0.8	27		Medium, moist to very moist, grey mottled brown, Clay A7-6 (continued)	2	0.8	27		Medium, moist to very moist, grey mottled brown, Clay A7-6 (continued)
3	B				3	B			
363.00				Soft to medium, very moist, grey mottled brown, Clay A7-6	363.00				Soft to medium, very moist, grey mottled brown, Clay A7-6
2	1.5	22			2	1.5	22		
2	P				2	P			
400.50				Soft, very moist, brown, Silty Clay A-6	400.50				Soft, very moist, brown, Silty Clay A-6
5	WH				5	WH			
1	0.3	27			1	0.3	27		
1	B				1	B			
368.00				Soft, moist to very moist, brown to grey, Silty Clay A-6	368.00				Soft, moist to very moist, brown to grey, Silty Clay A-6
2					2				
3	0.4	24			3	0.4	24		
4	B				4	B			
395.50				Medium, moist to very moist, grey, Silty Clay A-6	395.50				Medium, moist to very moist, grey, Silty Clay A-6
10	3				10	3			
3	0.7	23			3	0.7	23		
3	B				3	B			
370.50				Medium, very moist, grey mottled brown, Clay A7-6	370.50				Medium, very moist, grey mottled brown, Clay A7-6
1					1				
2	0.7	47			2	0.7	47		
2	S				2	S			
370.50				Medium, very moist, grey, Clay to Silty Clay A7-6	370.50				Medium, very moist, grey, Clay to Silty Clay A7-6
1					1				
2	0.9	43			2	0.9	43		
2	B				2	B			
368.00				Medium, moist to very moist, grey mottled brown, Clay A7-6	368.00				Medium, moist to very moist, grey mottled brown, Clay A7-6
2					2				
3	0.6	26			3	0.6	26		
3	B				3	B			
365.50				Medium, moist to very moist, grey mottled brown, Clay A7-6	365.50				Medium, moist to very moist, grey mottled brown, Clay A7-6
2					2				
1	0.8	64			1	0.8	64		
2	B				2	B			
365.50				Medium, moist to very moist, grey mottled brown, Clay A7-6	365.50				Medium, moist to very moist, grey mottled brown, Clay A7-6
2					2				
2					2				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation SOIL BORING LOG Page 2 of 5

SECTION (12-1)B-1 LOCATION Near WCL Carbondale, SEC., TWP. 9S, RING. 1W, 3 PM

COUNTY Jackson DRILLING METHOD HAMMER TYPE

STRUCT. NO. 039-0016 (WB), 039-0017 (EB) Station 57+95.26

BORING NO. 2-S Station 58+35 Offset 1.00ft Lt. CL median Ground Surface Elev. 405 ft

DEPTH (ft)	(ft)	(ft)	(%)	DESCRIPTION	DEPTH (ft)	(ft)	(ft)	(%)	DESCRIPTION
1	0.6	44		Medium, very moist, grey, Clay to Silty Clay A7-6 (continued)	1	0.6	44		Medium, very moist, grey, Clay to Silty Clay A7-6 (continued)
1	B				1	B			
360.50				Washed 17' blow in very loose, very moist, Medium to Coarse Sand (continued)	360.50				Washed 17' blow in very loose, very moist, Medium to Coarse Sand (continued)
1					1				
2	1.4	40			2	1.4	40		
2	B				2	B			
360.50				Stiff, moist to very moist, grey, Clay A7-6	360.50				Stiff, moist, grey, Silty Clay A-6
1					1				
2	1.6	21			2	1.6	21		
4	B				4	B			
335.50				Medium, very moist, grey, Silty Clay to Clay A-6	335.50				Medium to dense, moist, Fine to Coarse Sand with some Gravel
1					1				
2	0.7	33			2	0.7	33		
1	B				1	B			
350.50				Stiff, moist, grey, Clay A7-6	350.50				Stiff, moist, grey, Clay A7-6
1					1				
2	1.1	26			2	1.1	26		
3	B				3	B			
345.50				Stiff, moist, grey, Clay A7-6	345.50				Stiff, moist, grey, Clay A7-6
1					1				
2	0.9	43			2	0.9	43		
2	B				2	B			
345.50				Stiff, moist, grey, Clay A7-6	345.50				Stiff, moist, grey, Clay A7-6
2					2				
1	0.8	64			1	0.8	64		
2	B				2	B			
345.50				Stiff, moist, grey, Clay A7-6	345.50				Stiff, moist, grey, Clay A7-6
2					2				
2					2				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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Illinois Department of Transportation SOIL BORING LOG Page 3 of 5

SECTION (12-1)B-1 LOCATION Near WCL Carbondale, SEC., TWP. 9S, RING. 1W, 3 PM

COUNTY Jackson DRILLING METHOD HAMMER TYPE

STRUCT. NO. 039-0016 (WB), 039-0017 (EB) Station 57+95.26

BORING NO. 2-S Station 58+35 Offset 1.00ft Lt. CL median Ground Surface Elev. 405 ft

DEPTH (ft)	(ft)	(ft)	(%)	DESCRIPTION	DEPTH (ft)	(ft)	(ft)	(%)	DESCRIPTION
3	0.4	22		Soft, very moist, grey, Clay A7-6 with some Gravel (continued)	3	0.4	22		Very stiff, moist, grey mottled dark grey, Clay A7-6 (continued)
3	E				3	E			
315.50				Stiff, moist, grey, Silty Clay A-6	315.50				Stiff, moist, grey, Clay A7-6 with some Gravel
4					4				
6	1.2	20			6	1.2	20		
6	B				6	B			
295.50				Stiff, moist, grey, Clay A7-6 with some Gravel	295.50				Stiff, moist, grey, Clay A7-6 with some Gravel
1					1				
2	1.1	18			2	1.1	18		
4	B				4	B			
285.50				Stiff, moist, grey, Clay A7-6 with some Gravel	285.50				Stiff, moist, grey, Clay A7-6 with some Gravel
1					1				
3					3				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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SOIL BORING LOGS
F.A.P. ROUTE 331 - SEC. (12-1)B-1
JACKSON COUNTY
STATION 57+91.70
STRUCTURE NO. 039-0071

