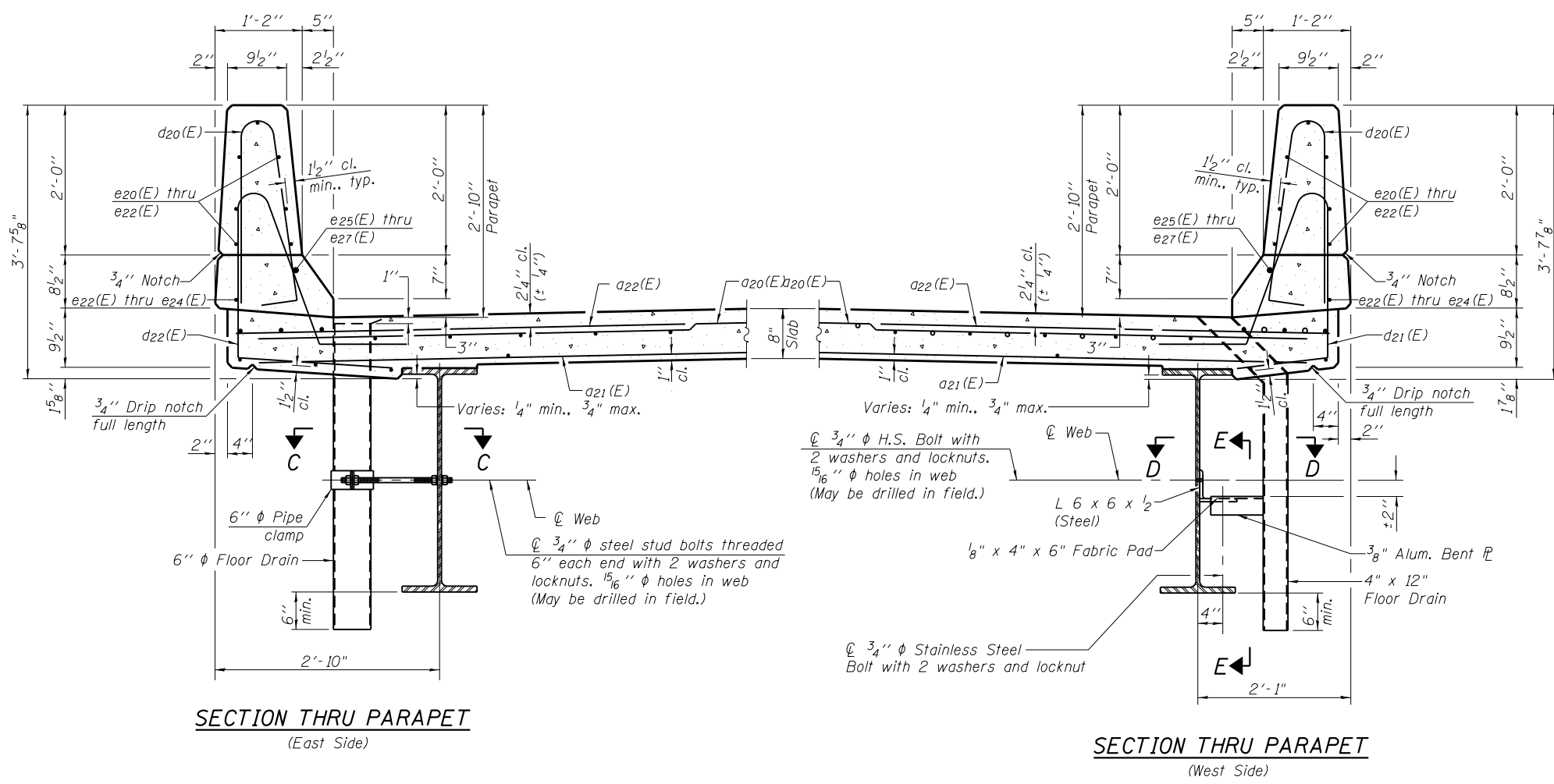


INSIDE ELEVATION OF PARAPET

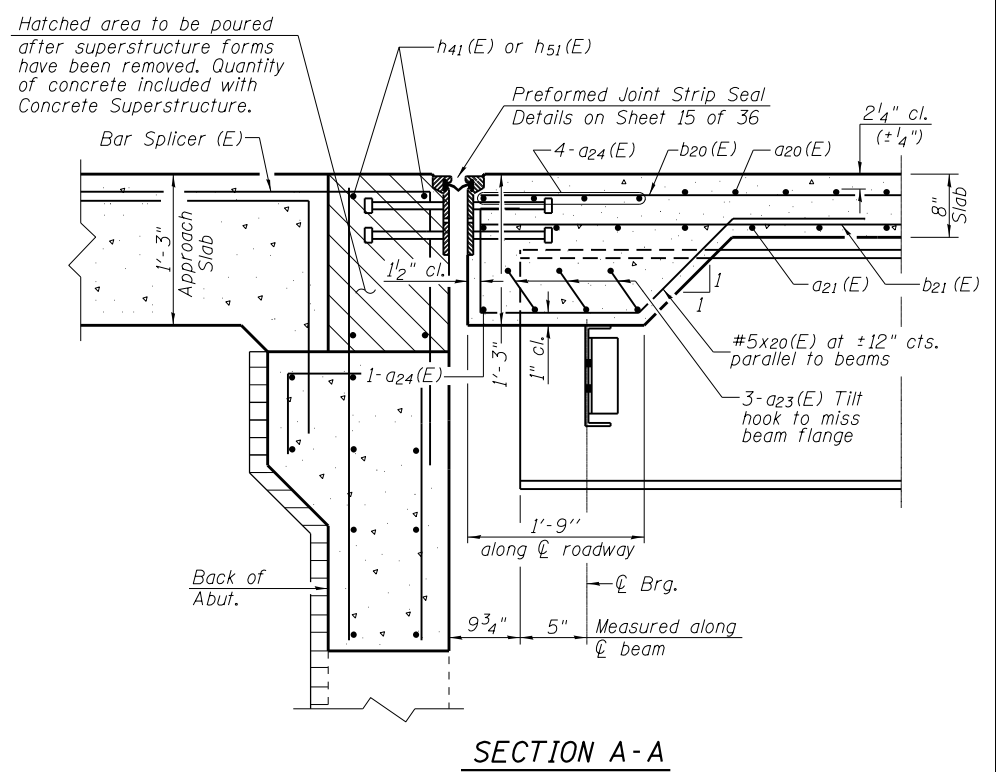
MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-8"
#8 bar = 5'-11"

NOTES:
1. See Sheet 13 of 36 for Section C-C, D-D, E-E, Parapet Joint Details and bar details.



SECTION THRU PARAPET
(East Side)

SECTION THRU PARAPET
(West Side)



SECTION A-A

L:\DOT\080660\W0_29\Dr-aw\Sheets\Bridg\Plns\78349-12-Superstructure Dtl\1-0012.dgn



USER NAME =	DESIGNED - CJW	REVISED -
	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE =	CHECKED - CJW	REVISED -

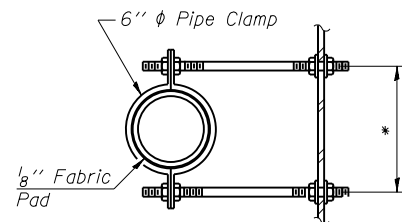
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS - 1
STRUCTURE NO. 091-0012 (SB)**

SHEET NO. 12 OF 36 SHEETS

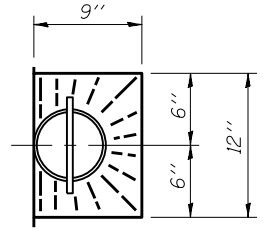
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	101
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT

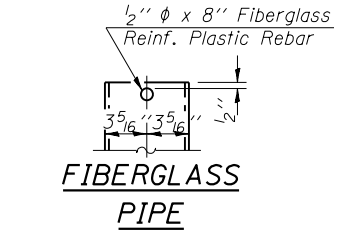


SECTION C-C

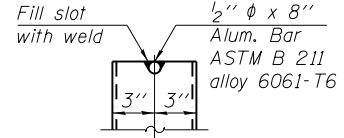
*Dimension as required by Pipe Clamp



TOP PLAN



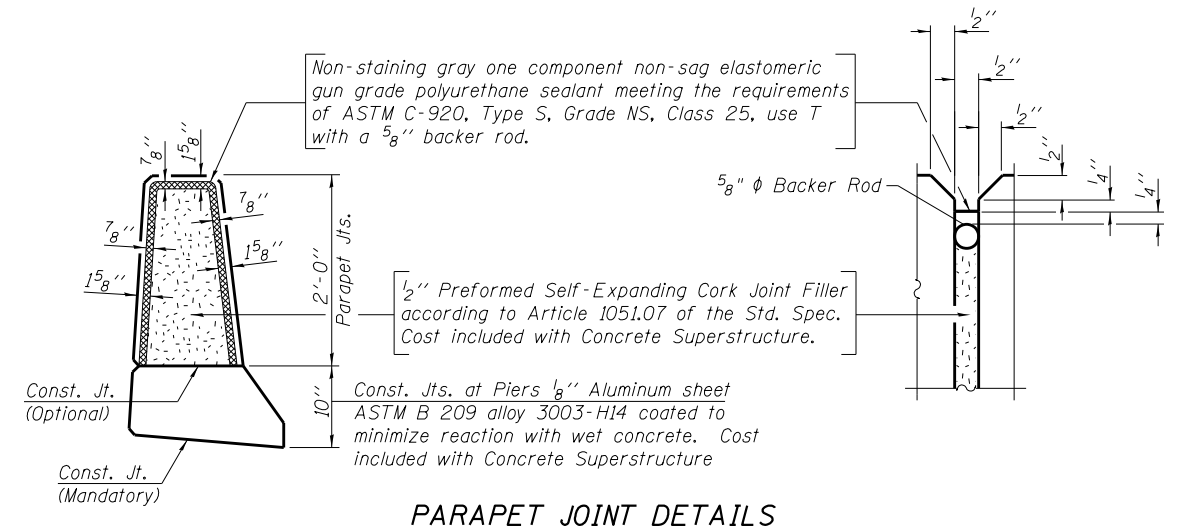
FIBERGLASS PIPE



ALUMINUM TUBE

TOP PLAN

(Showing Aluminum Tube)



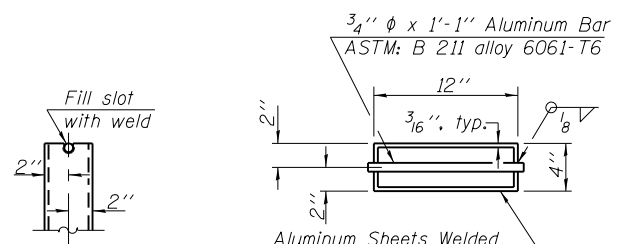
PARAPET JOINT DETAILS

Notes:

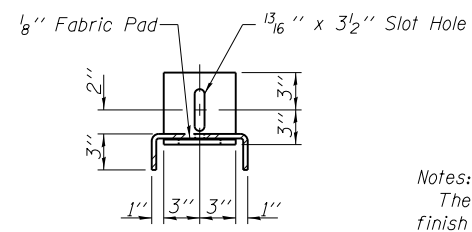
Drains shall be located clear of all diaphragms.
 The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to painting.
 Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

FLOOR DRAIN DETAILS

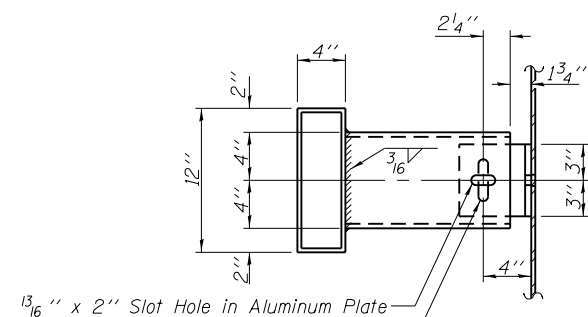
(East Shoulder)



TOP PLAN



SECTION E-E



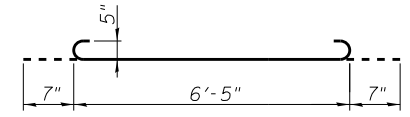
SECTION D-D

Notes:

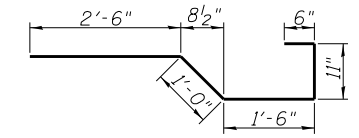
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in Article 506 of the Standard Specifications. The exterior surfaces of the drain shall be cleaned and given a washcoat pretreatment in accordance with Society of Protective Coatings Spec. SSPC-SP1 & SSPC Paint 27 prior to painting.

FLOOR DRAIN DETAILS

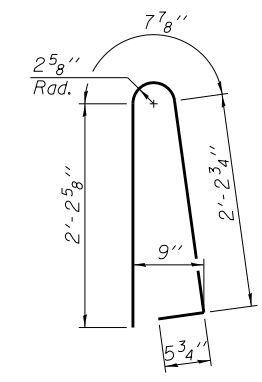
(West Shoulder)



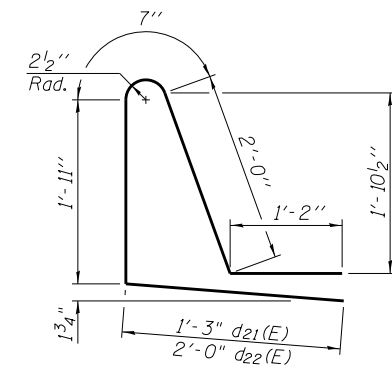
BAR a23(E)



BAR x20(E)



BAR d20(E)



BAR d21(E) & d22(E)

SUPERSTRUCTURE BILL OF MATERIAL 091-0012 (SB)

Bar	No.	Size	Length	Shape
a20(E)	248	#5	43'-9"	—
a21(E)	161	#5	42'-8"	—
a22(E)	496	#6	6'-6"	—
a23(E)	36	#5	7'-7"	—
a24(E)	10	#5	44'-5"	—
b20(E)	240	#5	29'-9"	—
b21(E)	90	#6	27'-3"	—
b22(E)	246	#5	25'-6"	—
d20(E)	294	#5	5'-7"	—
d21(E)	147	#5	6'-11"	—
d22(E)	147	#5	7'-8"	—
e20(E)	56	#4	17'-1"	—
e21(E)	28	#4	19'-4"	—
e22(E)	64	#4	6'-1"	—
e23(E)	4	#4	34'-7"	—
e24(E)	2	#4	39'-0"	—
e25(E)	4	#8	34'-7"	—
e26(E)	8	#8	6'-1"	—
e27(E)	2	#8	39'-0"	—
x20(E)	72	#5	6'-5"	—

Material	Unit	Quantity
Reinforcement Bars, Epoxy Coated	Pound	48,290
Concrete Superstructure	Cu. Yd.	188.8
Protective Coat	Sq. Yd.	730
Bridge Deck Grooving	Sq. Yd.	586

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - 2
STRUCTURE NO. 091-0012 (SB)

SHEET NO. 13 OF 36 SHEETS

F.A.I. RTE. 57	SECTION (91-3HB)BR-1	COUNTY UNION	TOTAL SHEETS 150	SHEET NO. 102
				CONTRACT NO. 78349
ILLINOIS FED. AID PROJECT				

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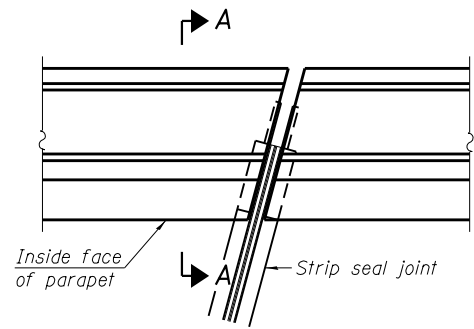


USER NAME =	DESIGNED - CJW	REVISED -
	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE =	CHECKED - CJW	REVISED -

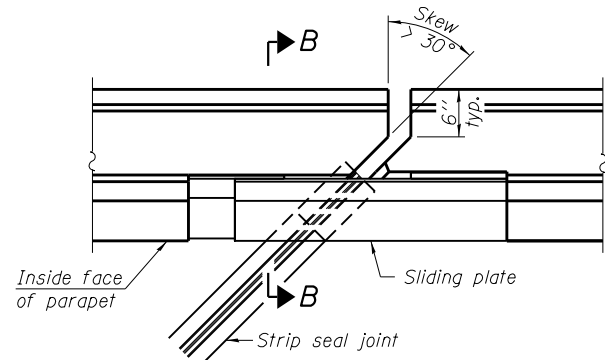
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SHEET NO. 14 OF 36 SHEETS

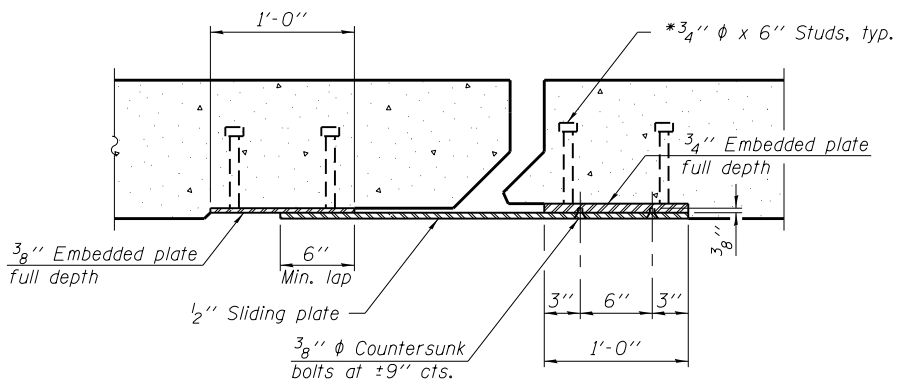
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	103
				CONTRACT NO. 78349
ILLINOIS FED. AID PROJECT				



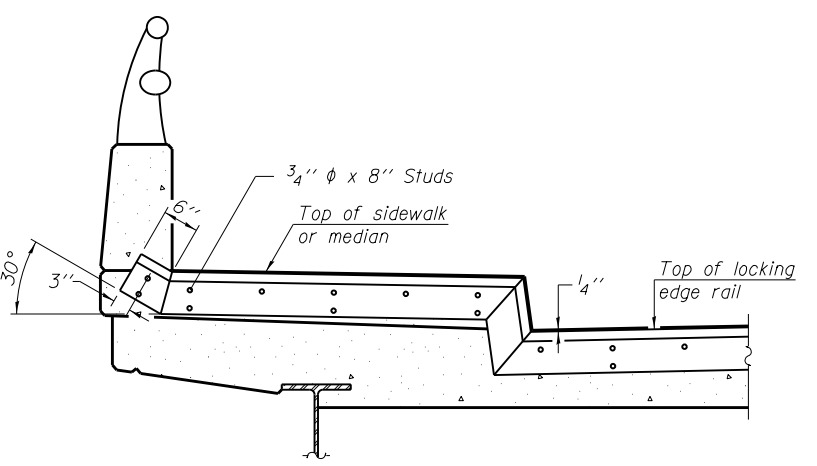
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

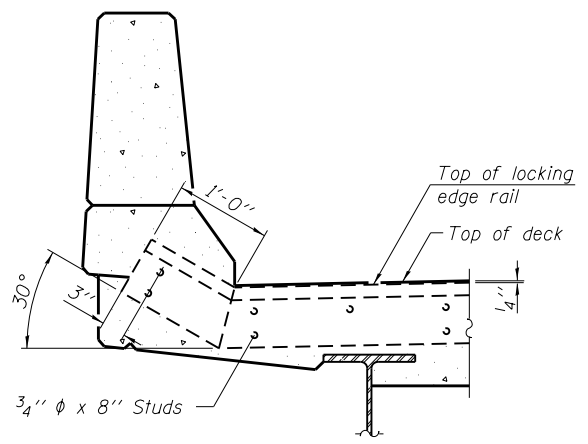


SECTION C-C

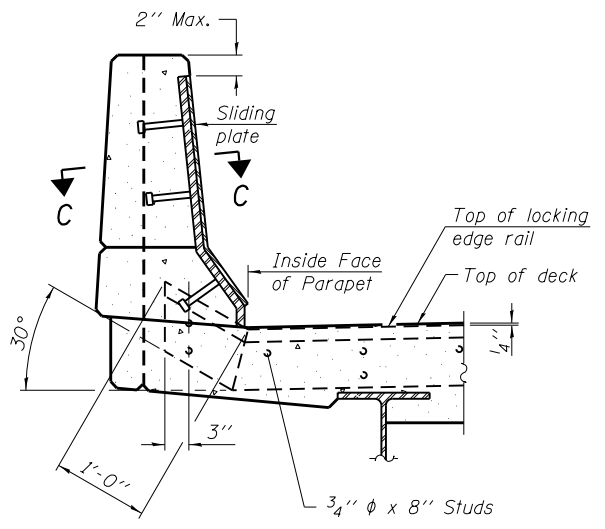


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

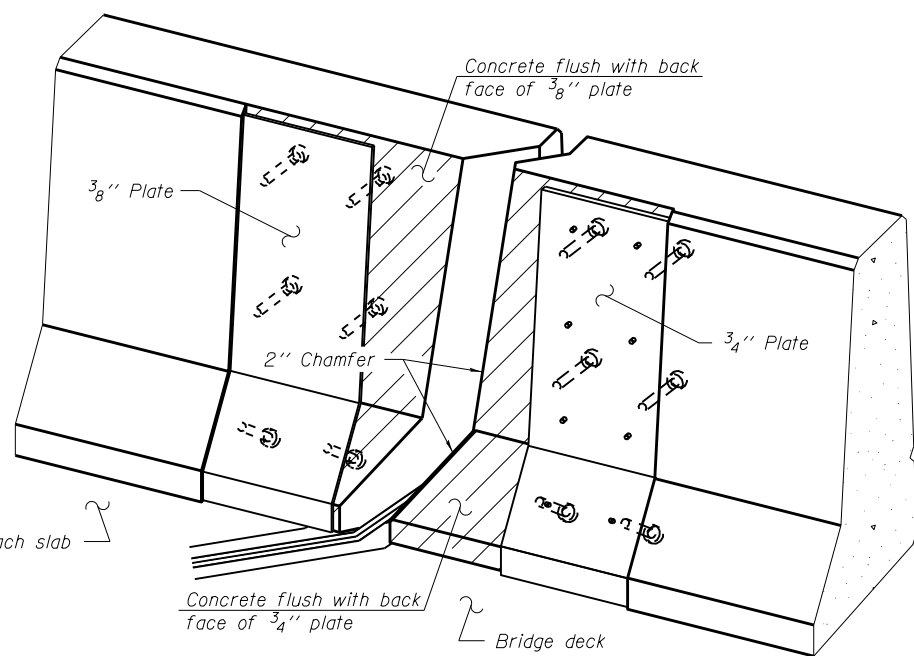
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

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. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. 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.

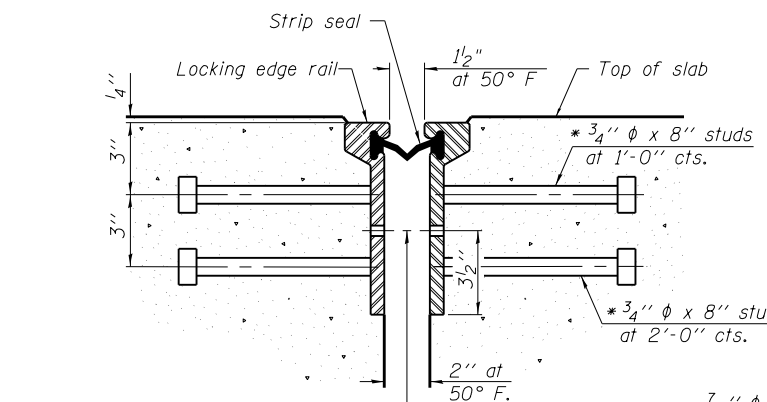
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

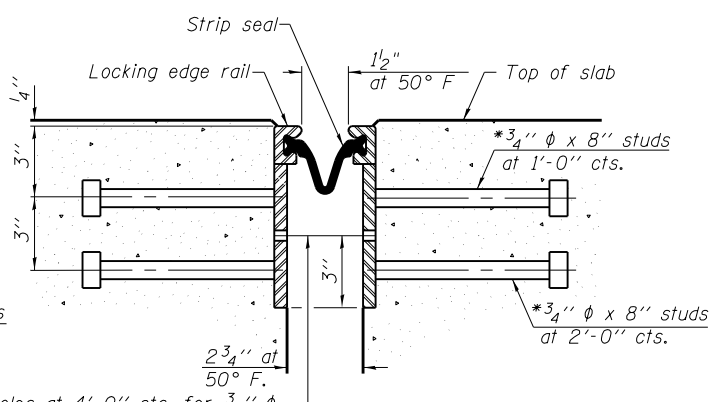
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



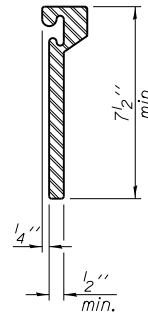
SECTION THRU ROLLED RAIL JOINT



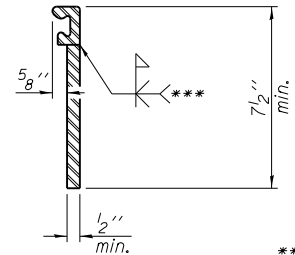
SECTION THRU WELDED RAIL JOINT

7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

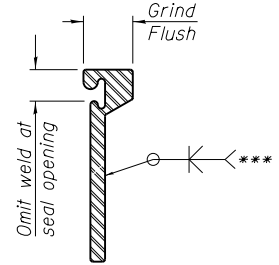
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



ROLLED EXTRUDED RAIL



WELDED RAIL



LOCKING EDGE RAIL SPLICE

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

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal (S.N. 091-0011)	Foot	88
Preformed Joint Strip Seal (S.N. 091-0012)	Foot	88

LOCKING EDGE RAILS

EJ-SSJ

1-27-12



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 091-0011 (NB) & 0012 (SB)

SHEET NO. 15 OF 36 SHEETS

F.A.I. RTE. 57	SECTION (91-3HB)BR-1	COUNTY UNION	TOTAL SHEETS 150	SHEET NO. 104
				CONTRACT NO. 78349

ILLINOIS FED. AID PROJECT

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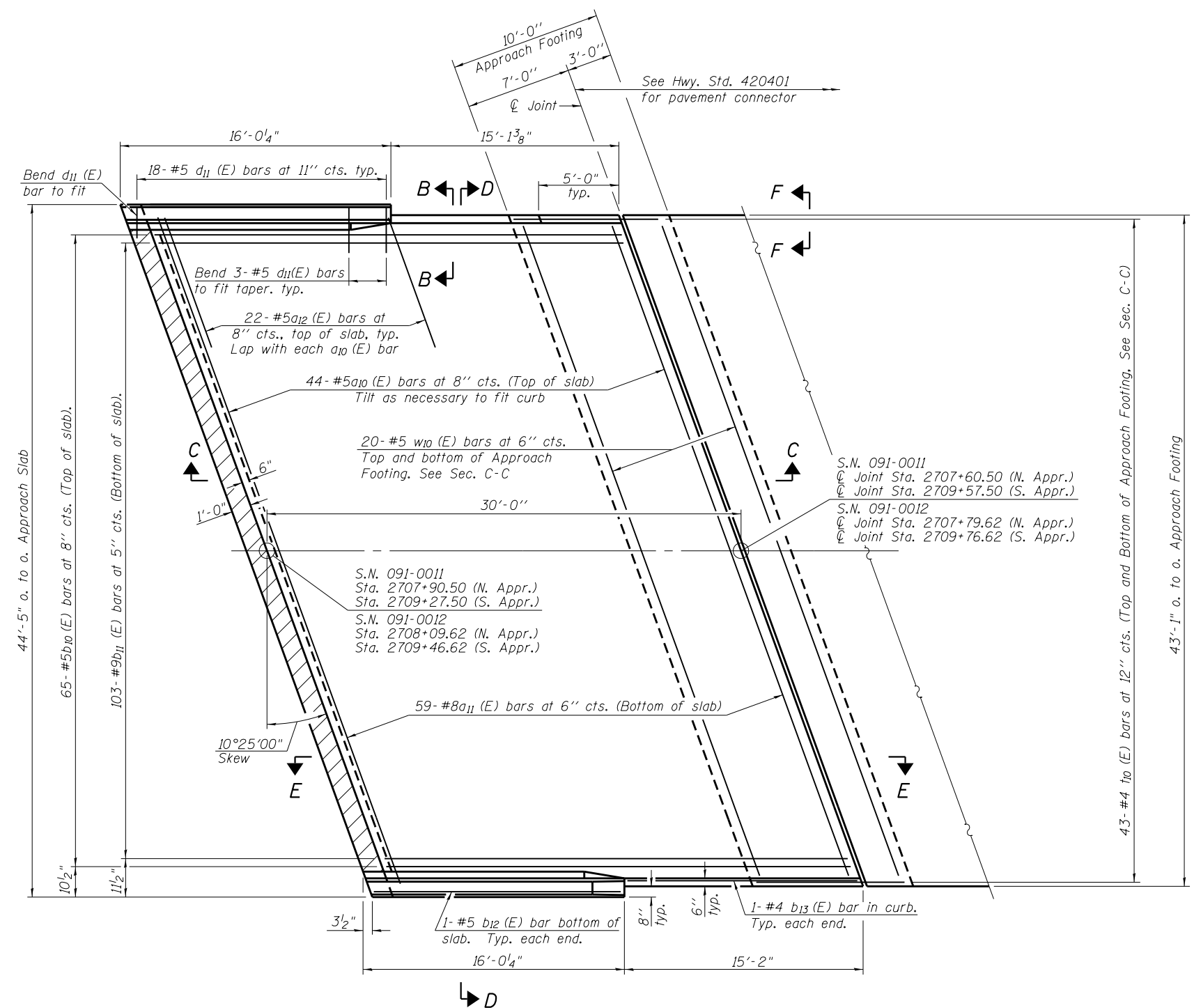
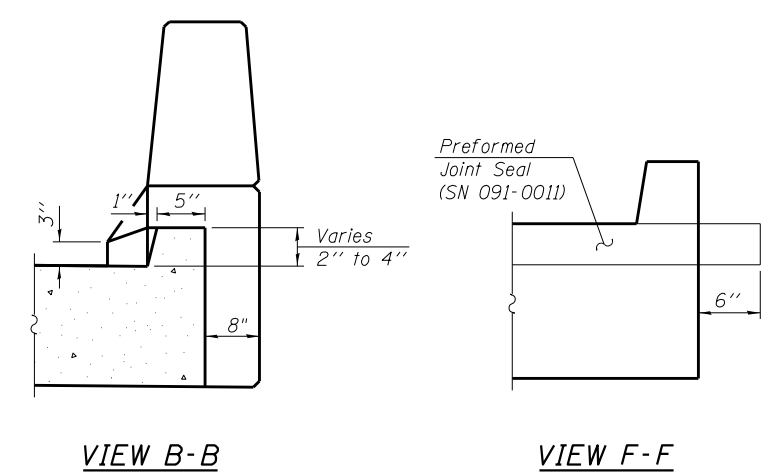
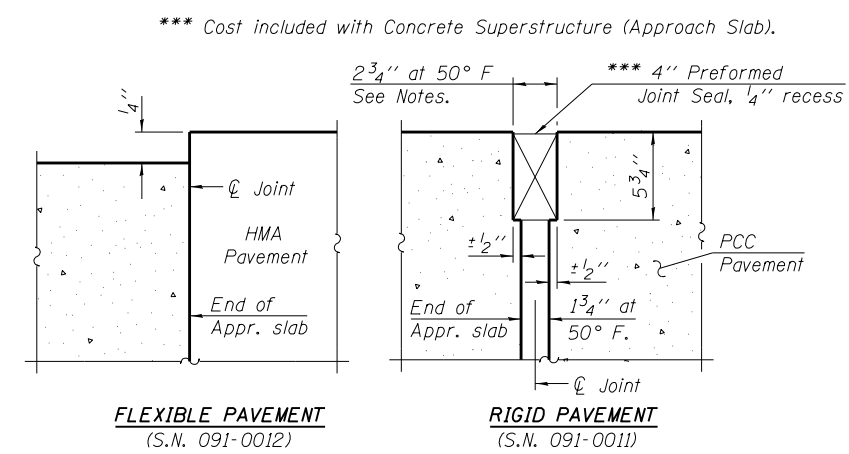
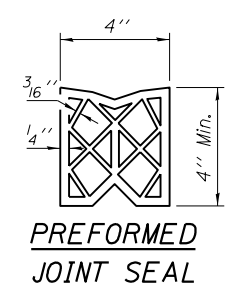
USER NAME =	DESIGNED - CJW	REVISED -
	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE =	CHECKED - CJW	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SHEET NO. 16 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	105
				CONTRACT NO. 78349
ILLINOIS FED. AID PROJECT				

Notes:
 See sheet 18 of 36 for Sections C-C & D-D and View E-E.
 $a_{10}(E)$ and $a_{11}(E)$ bar spacings measured along \hat{C} Rdwy.
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1\frac{1}{2}$ " for installation purposes.



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USER NAME =	DESIGNED - CJW	REVISED -
	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE =	CHECKED - CJW	REVISED -

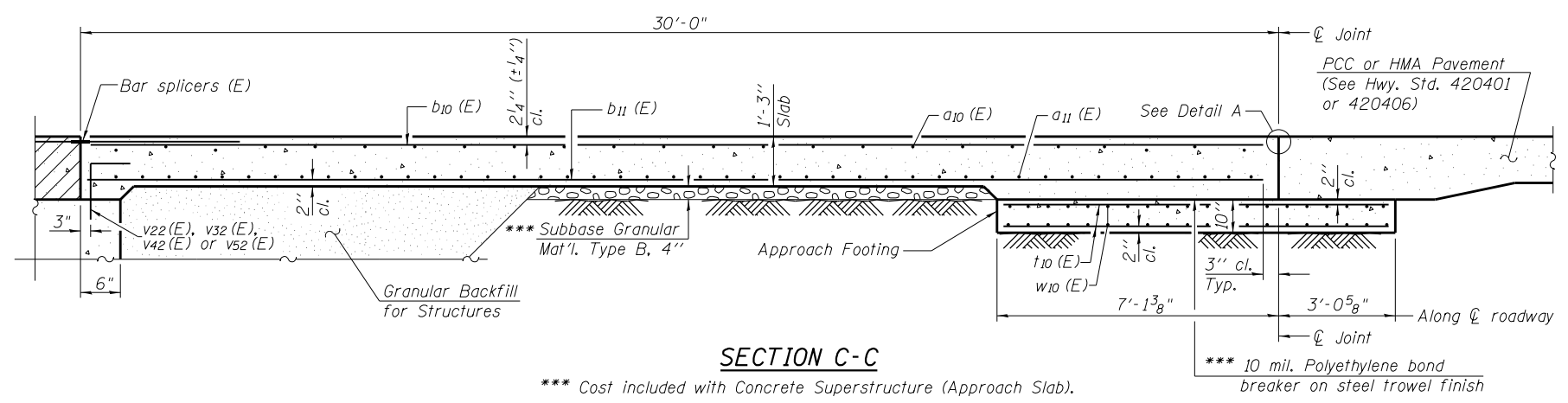
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 1
 STRUCTURE NO. 091-0011 (NB) & 0012 (SB)**

SHEET NO. 17 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	106
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

Notes:
 See sheet 17 of 36 for Detail A.
 Parapet concrete shall be paid for as Concrete Superstructure.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 For bar splicer details, see sheet 36 of 36.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 36.
 For v22(E) bar details, see sheet 26 of 36.
 For v32(E) bar details, see sheet 27 of 33.
 For v42(E) bar details, see sheet 29 of 33.
 For v52(E) bar details, see sheet 30 of 33.



SECTION C-C

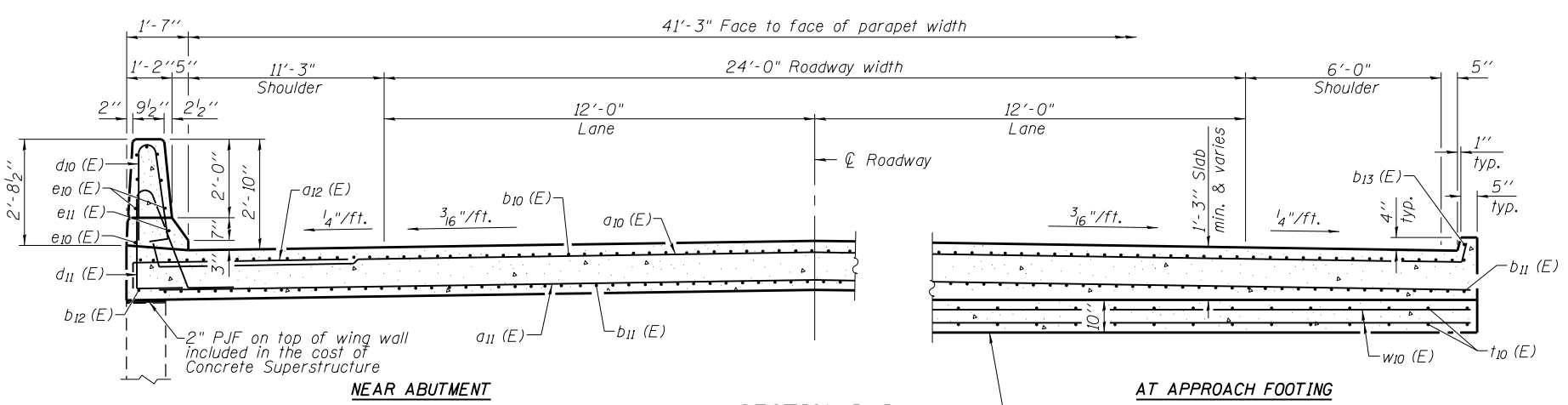
*** Cost included with Concrete Superstructure (Approach Slab).

**S.N. 091-0011 (N.B.)
 TWO APPROACHES
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a10 (E)	88	#5	44'-1"	—
a11 (E)	118	#8	43'-5"	—
a12 (E)	88	#5	7'-4"	—
b10 (E)	130	#5	29'-8"	—
b11 (E)	206	#9	29'-8"	—
b12 (E)	4	#5	15'-5"	—
b13 (E)	4	#4	14'-9"	—
d10 (E)	72	#5	5'-7"	⌒
d11 (E)	72	#5	7'-11"	⌒
e10 (E)	32	#4	15'-5"	—
e11 (E)	4	#8	15'-5"	—
t10 (E)	172	#4	9'-9"	—
w10 (E)	80	#5	43'-5"	—
Concrete Superstructure		Cu. Yd.	7.2	
Concrete Superstructure (Approach Slab)		Cu. Yd.	129.2	
Concrete Structures		Cu. Yd.	27.0	
Reinforcement Bars, Epoxy Coated		Pound	49,550	
Protective Coat		Sq. Yd.	309	
Bridge Deck Grooving		Sq. Yd.	259	

**S.N. 091-0012 (S.B.)
 TWO APPROACHES
 BILL OF MATERIAL**

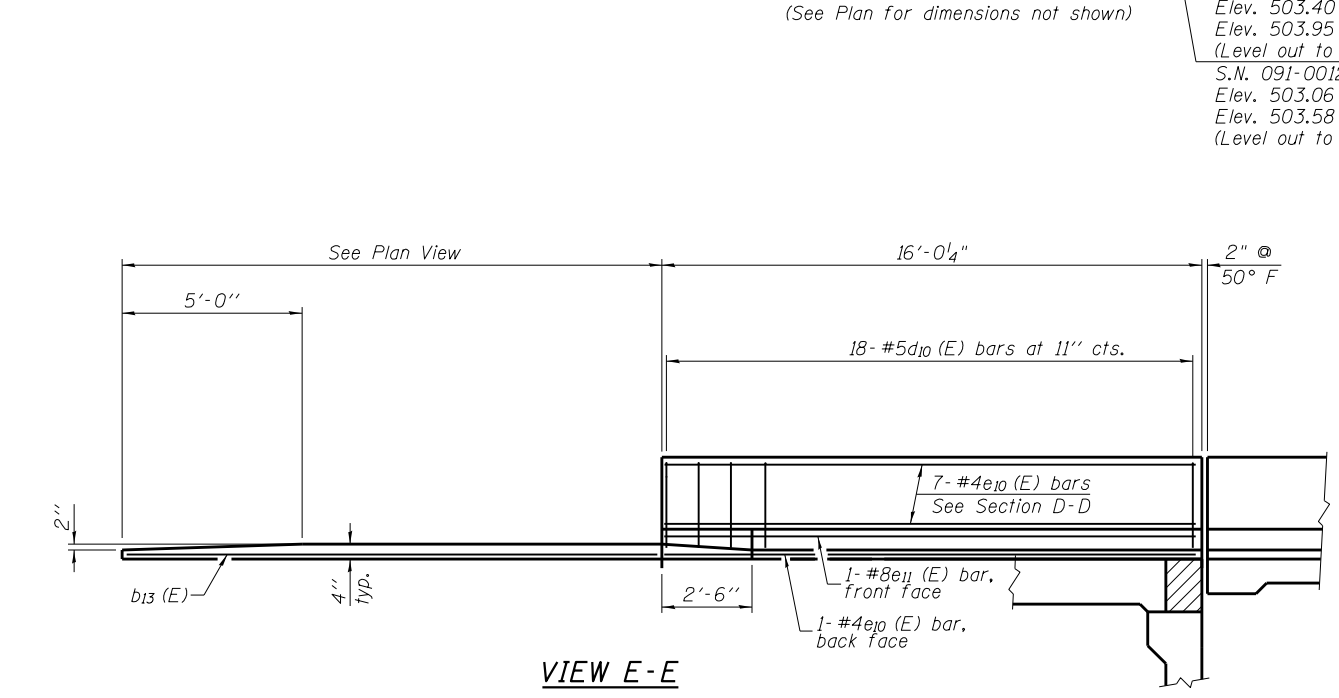
Bar	No.	Size	Length	Shape
a10 (E)	88	#5	44'-1"	—
a11 (E)	118	#8	43'-5"	—
a12 (E)	88	#5	7'-4"	—
b10 (E)	130	#5	29'-8"	—
b11 (E)	206	#9	29'-8"	—
b12 (E)	4	#5	15'-5"	—
b13 (E)	4	#4	14'-9"	—
d10 (E)	72	#5	5'-7"	⌒
d11 (E)	72	#5	7'-11"	⌒
e10 (E)	32	#4	15'-5"	—
e11 (E)	4	#8	15'-5"	—
t10 (E)	172	#4	9'-9"	—
w10 (E)	80	#5	43'-5"	—
Concrete Superstructure		Cu. Yd.	7.2	
Concrete Superstructure (Approach Slab)		Cu. Yd.	129.2	
Concrete Structures		Cu. Yd.	27.0	
Reinforcement Bars, Epoxy Coated		Pound	49,550	
Protective Coat		Sq. Yd.	309	
Bridge Deck Grooving		Sq. Yd.	259	



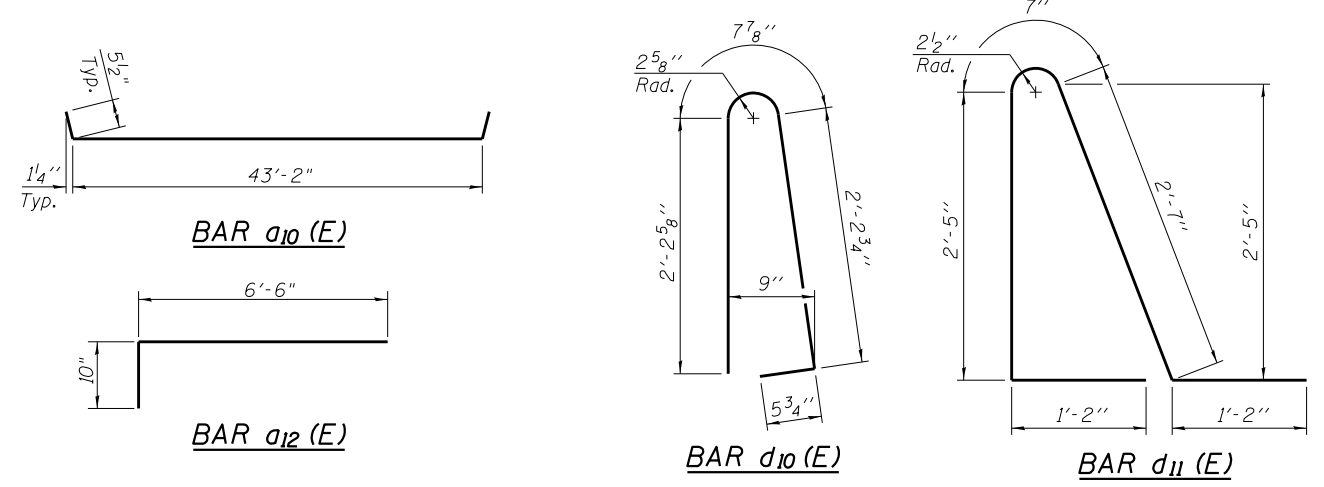
SECTION D-D

(See Plan for dimensions not shown)

S.N. 091-0011
 Elev. 503.40 (N. Appr.).
 Elev. 503.95 (S. Appr.).
 (Level out to out)
 S.N. 091-0012
 Elev. 503.06 (N. Appr.).
 Elev. 503.58 (S. Appr.).
 (Level out to out)



VIEW E-E



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 2
 STRUCTURE NO. 091-0011 (NB) & 0012 (SB)**

SHEET NO. 18 OF 36 SHEETS

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	107
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT

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NOTES:

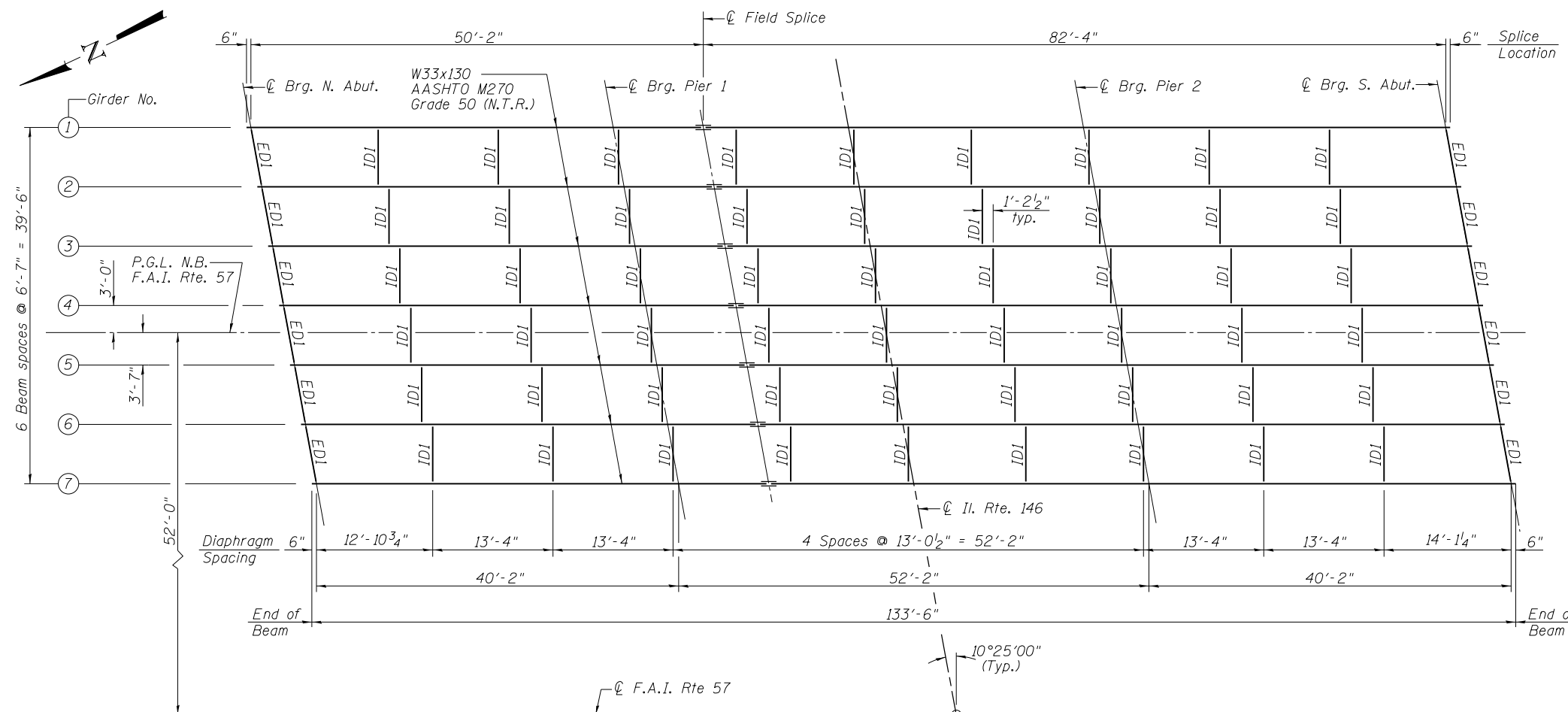
- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).
- DCI: Un-factored non-composite dead load (kips/ft.).
- M_{DCI} : Un-factored moment due to non-composite dead load (kip-ft.).
- DW: Un-factored non-composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW} : Un-factored moment due to non-composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_L + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DCI} + 1.5 M_{DW} + 1.75 M_L + IM)$
- $\phi_f M_n$: Compact non-composite moment capacity computed according to Article 6.10.8 or non-slender moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
- f_s DCI: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
 M_{DCI} / S_s
- f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite future wearing surface loads as calculated below (ksi).
 M_{DW} / S_s
- $f_s (L+IM)$: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite live load plus impact loads as calculated below (ksi).
 $M_L + IM / S_s$
- f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{sDCI} + f_{sDW} + 1.3 f_s (L+IM)$
- $0.8R_n F_y f$: Non-composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 f_{sDCI} + 1.5 f_{sDW} + 1.75 f_s (L+IM)$
- $\phi_f F_n$: Non-Compact positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_s	(in ⁴)	6710	6710	6710
S_s	(in ³)	406	406	406
DCI	(k/')	0.95	0.95	0.95
M_{DCI}	(k)	103	-207	119
DW	(k/')	0.30	0.30	0.30
M_{DW}	(k)	32	-65	37
LLDF		0.645	0.629	0.616
$M_L + IM$	(k)	383	-341	403
M_u (Strength I)	(k)	—	—	—
$\phi_f M_n$	(k)	—	—	—
f_s DCI	(ksi)	3.04	6.12	3.52
f_s DW	(ksi)	0.95	1.92	1.09
$f_s (L+IM)$	(ksi)	11.32	10.08	11.91
f_s (Service II)	(ksi)	18.71	21.14	20.09
$0.8R_n F_y f$	(ksi)	40.0	40.0	40.0
f_s (Total)(Strength I)	(ksi)	25.03	28.17	26.88
$\phi_f F_n$	(ksi)	50.00	50.00	50.00

BEAM REACTION TABLE					
		Abut.		Pier	
		Interior	Exterior	Interior	Exterior
LLDF		0.713	0.517	0.713	0.517
OCF		—	1.04	—	—
R_{DCI}	(k)	14.9	14	49.5	46.6
R_{DW}	(k)	4.4	4.4	15.5	15.5
$R_L + IM$	(k)	58	43.7	88.8	64.4
R_L	(k)	45.7	34.4	72.9	52.9
R_{IM}	(k)	12.3	9.3	15.9	11.5
R_{Total}	(k)	77.3	62.1	153.8	126.5

NOTES:

1. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
2. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.



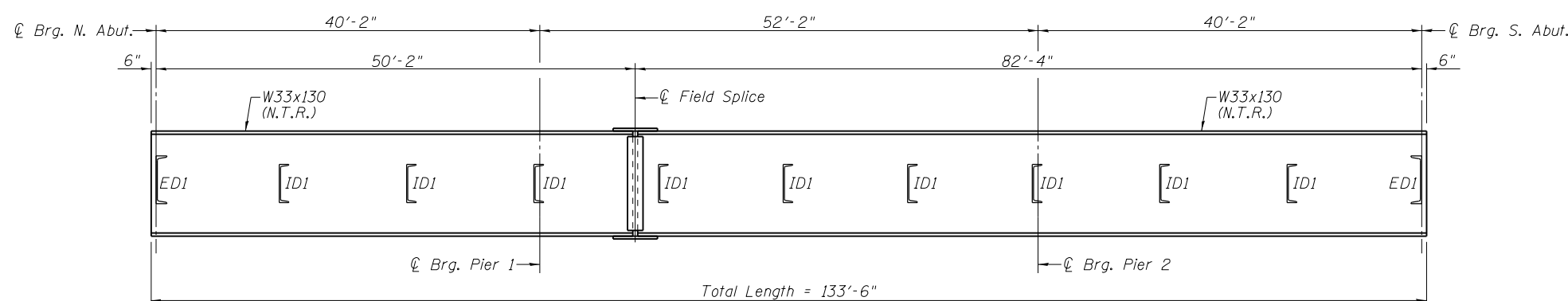
TOP OF BEAM ELEVATIONS - S.N. 091-0011

Location	1	2	3	4	5	6	7
℄ Brg N. Abut.	504.87	505.01	505.14	505.24	505.24	505.14	505.01
℄ Brg. Pier 1	504.93	505.07	505.20	505.31	505.30	505.20	505.08
℄ Splice	504.95	505.09	505.22	505.33	505.32	505.22	505.10
℄ Brg. Pier 2	505.10	505.25	505.37	505.48	505.47	505.37	505.25
℄ Brg S. Abut.	505.25	505.39	505.52	505.63	505.62	505.52	505.40

For Fabrication Only

FRAMING PLAN
(SN 091-0011)

INTERIOR BEAM DEFLECTION TABLE		
Span Location	0.5 Sp. 1 or Sp. 3	0.5 Sp. 2
Calculated (in.) LL + IM Deflection	7/16	3/4
Allowable (in.) LL + IM Deflection	9/16	3/4



BEAM ELEVATION



USER NAME =	DESIGNED - CJW	REVISED -
	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE	CHECKED - CJW	REVISED -

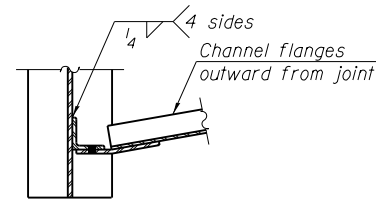
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND DETAILS
STRUCTURE NO. 091-0011 (NB)

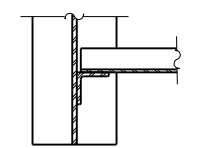
SHEET NO. 19 OF 36 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	108
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

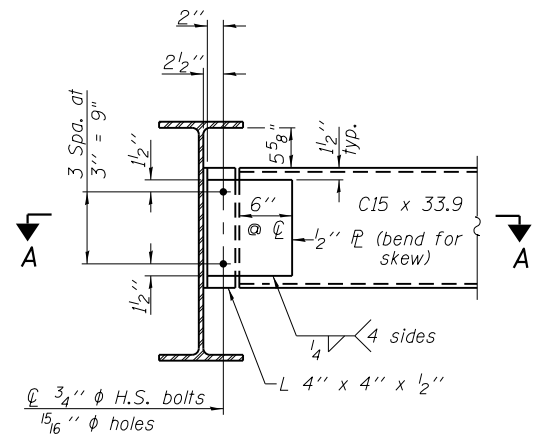
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SECTION A-A

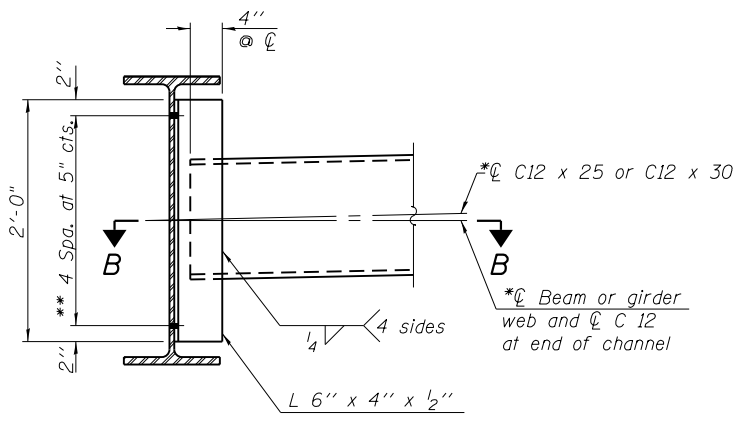


SECTION B-B



END DIAPHRAGM EDI

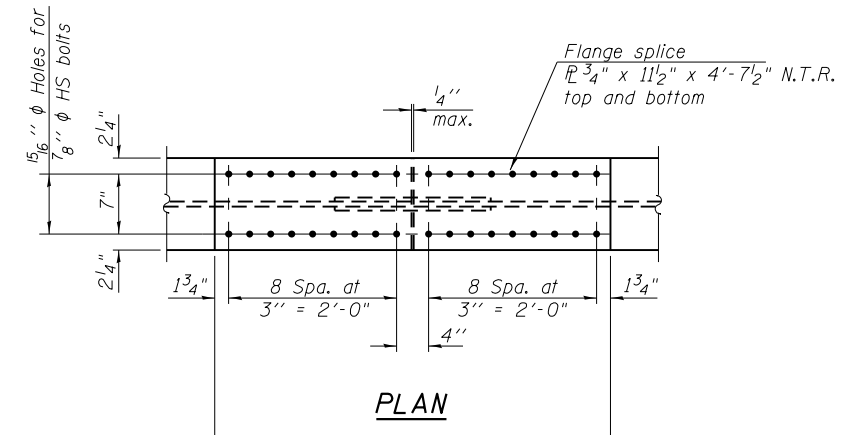
Note:
Two hardened washers required for each set of oversized holes.



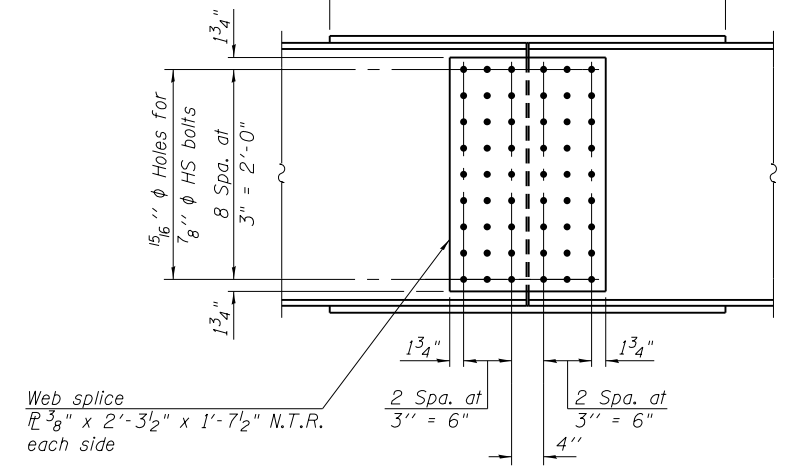
INTERIOR DIAPHRAGM IDI

Note:
Two hardened washers required for each set of oversized holes.
*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
**3/4" ϕ HS bolts, 15/16" ϕ holes

Note:
All diaphragms, connection plates and angles shall conform to AASHTO M270 Grade 50.



PLAN



ELEVATION

FIELD SPLICE DETAIL

(7 Required)

Note:
All splice plates shall conform to AASHTO M270 Grade 50

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USER NAME =	DESIGNED - CJW	REVISED -
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PLOT SCALE =	DRAWN - GLD	REVISED -
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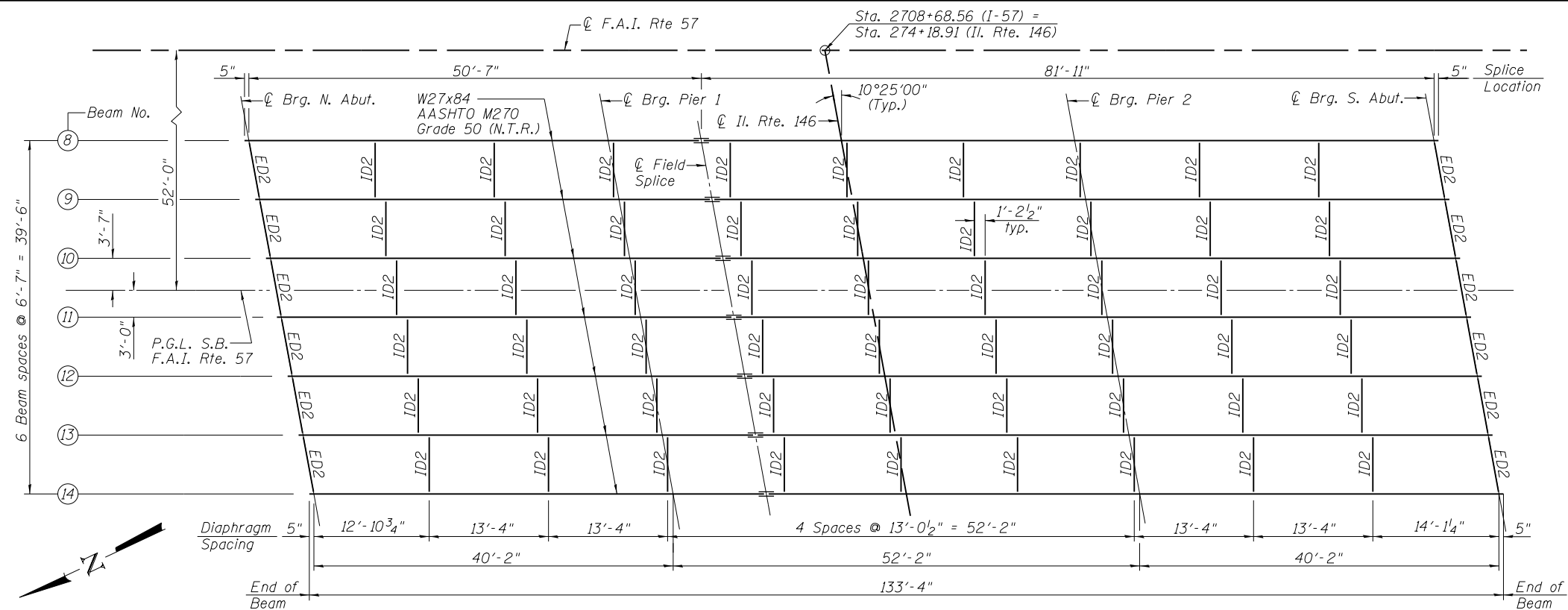
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING DETAILS
STRUCTURE NO. 091-0011 (NB)**

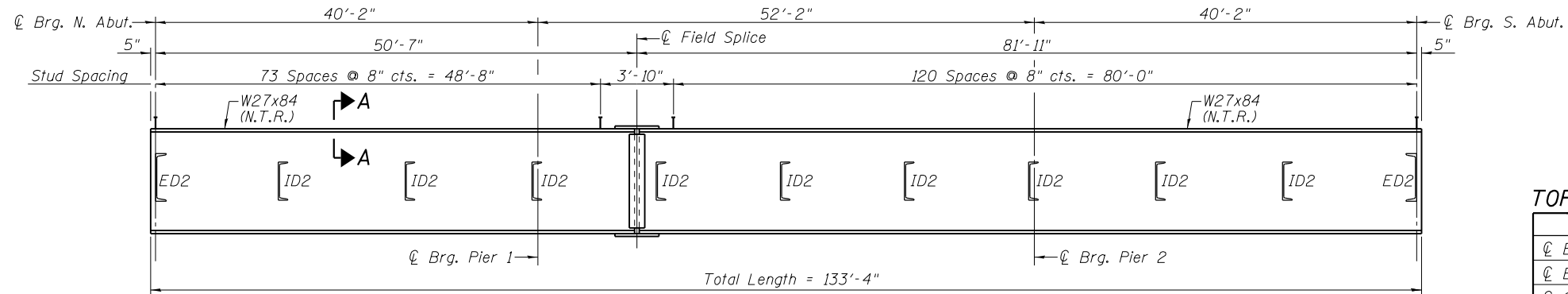
SHEET NO. 20 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	109
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT



FRAMING PLAN
(SN 091-0012)



BEAM ELEVATION

NOTES:

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

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

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

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

DC1: Un-factored non-composite dead load (kips/ft.).
 M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).
 DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
 DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
 M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
 $M_L + I_M$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
 M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L + I_M$
 $\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
 f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
 M_{DC1} / S_{nc}
 f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
 $M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
 $M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.
 f_s ($L + I_M$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
 $M_L + I_M / S_c(n)$ or $M_L + I_M / S_c(cr)$ as applicable.
 f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s(L + I_M)$
 $0.95R_n F_y F$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
 f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s(L + I_M)$
 $\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
 V_r : Maximum factored shear range in span computed according to Article 6.10.10.

NOTES:

- See Sheet 22 of 36 for Section A-A.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_s	(in ⁴) 2850	2850	2850
$I_c(n)$	(in ⁴) 9458	—	9458
$I_c(3n)$	(in ⁴) 7177	—	7177
$I_c(cr)$	(in ⁴) —	4593	—
S_s	(in ³) 213	213	213
$S_c(n)$	(in ³) 349	—	349
$S_c(3n)$	(in ³) 316	—	316
$S_c(cr)$	(in ³) —	261	—
DC1	(k/ft) 0.79	0.79	0.79
M_{DC1}	(k) 82	-169	96
DC2	(k/ft) 0.13	0.13	0.13
M_{DC2}	(k) 14	-28	16
DW	(k/ft) 0.30	0.30	0.30
M_{DW}	(k) 32	-65	37
LLDF	0.645	0.629	0.616
$M_L + I_M$	(k) 383	-341	403
M_u (Strength I)	(k) —	—	—
$\phi_f M_n$	(k) —	—	—
f_s DC1	(ksi) 4.62	9.52	5.41
f_s DC2	(ksi) 0.53	1.29	0.61
f_s DW	(ksi) 1.21	2.99	1.40
f_s ($L + I_M$)	(ksi) 13.18	15.68	13.87
f_s (Service II)	(ksi) 23.50	34.18	25.45
$0.95R_n F_y F$	(ksi) 47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi) 31.31	45.43	33.90
$\phi_f F_n$	(ksi) 50.00	50.00	50.00
V_r	(k) 18.40	29.05	18.60

	Abut.		Pier	
	Interior	Exterior	Interior	Exterior
LLDF	0.713	0.517	0.713	0.517
OCF	—	1.04	—	—
R_{DC1}	(k) 12.1	11.2	40.1	36.9
R_{DC2}	(k) 1.9	1.9	6.7	6.7
R_{DW}	(k) 4.4	4.4	15.5	15.5
$R_L + I_M$	(k) 58	43.7	88.8	64.4
R_L	(k) 45.7	34.4	72.9	52.9
R_{I_M}	(k) 12.3	9.3	15.9	11.5
R_{Total}	(k) 76.4	61.2	151.1	123.5

TOP OF BEAM ELEVATIONS - STRUCTURE NO. 091-0012

Location	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12	Beam 13	Beam 14
⊖ Brg. N. Abut.	504.63	504.76	504.87	504.88	504.78	504.66	504.53
⊖ Brg. Pier 1	504.70	504.83	504.94	504.95	504.85	504.73	504.60
⊖ Splice	504.72	504.85	504.96	504.97	504.87	504.75	504.61
⊖ Brg. Pier 2	504.86	504.99	505.10	505.11	505.01	504.89	504.75
⊖ Brg. S. Abut.	504.99	505.12	505.23	505.24	505.14	505.02	504.89

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	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE	CHECKED - CJW	REVISED -

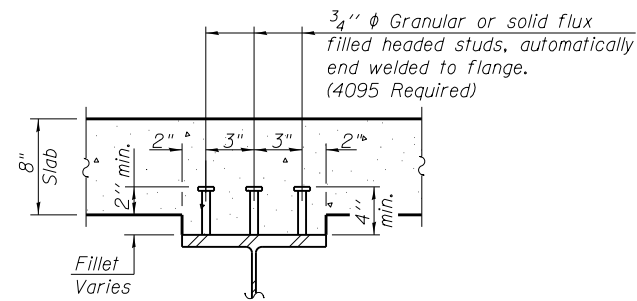
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND DETAILS
STRUCTURE NO. 091-0012 (SB)

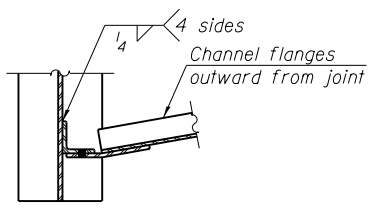
SHEET NO. 21 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	110
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

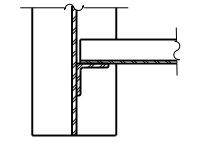
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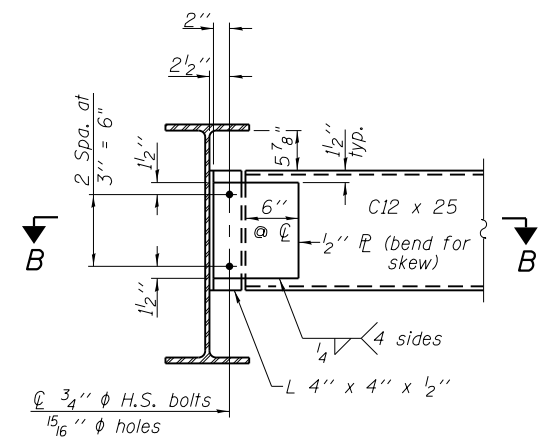
SECTION A-A



SECTION B-B

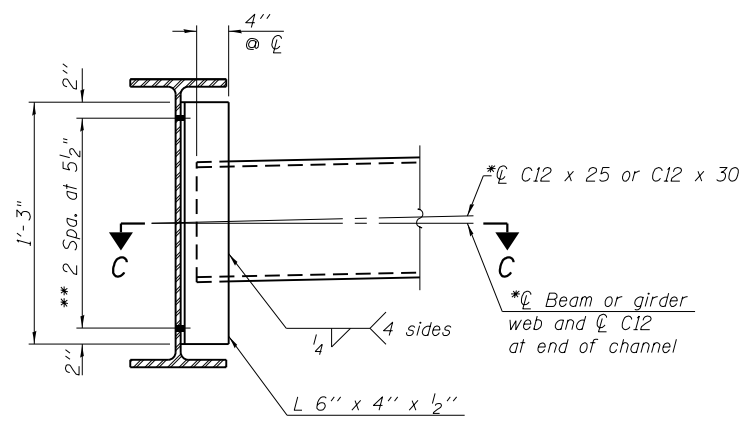


SECTION C-C



END DIAPHRAGM ED2

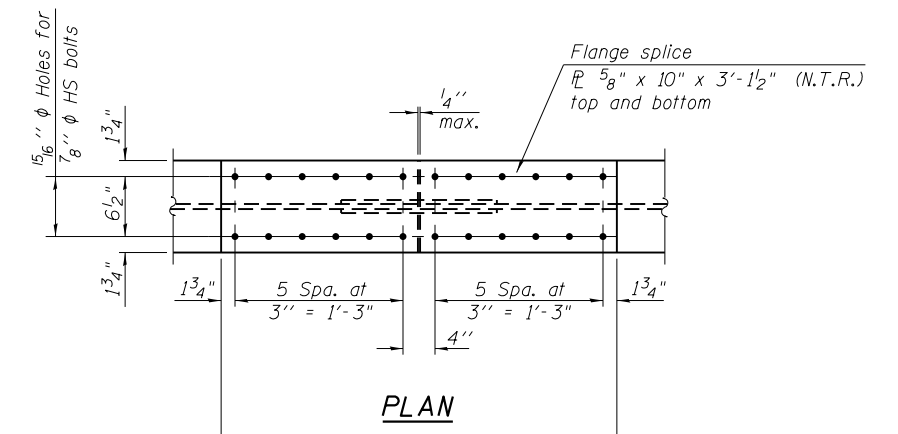
Note:
Two hardened washers required for each set of oversized holes.



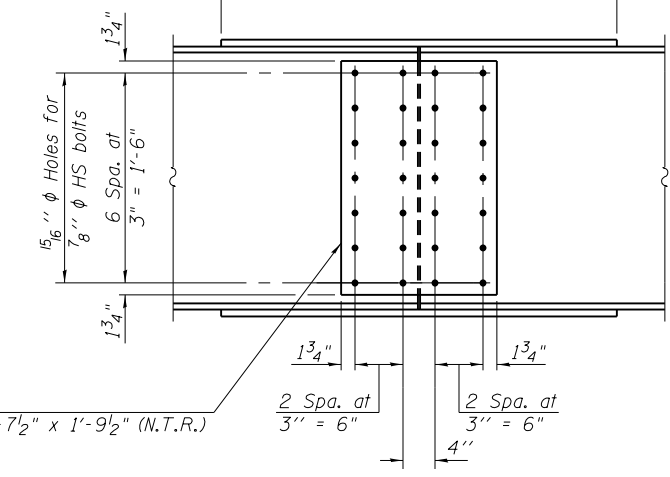
INTERIOR DIAPHRAGM ID2

Note:
Two hardened washers required for each set of oversized holes.
*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
**3/4 inch diameter H.S. bolts, 1 5/16 inch diameter holes

Note:
All diaphragms, connection plates and angles shall conform to AASHTO M270 Grade 50.



PLAN



ELEVATION

FIELD SPLICE DETAIL
(7 Required)

Note:
All splice plates shall conform to AASHTO M270 Grade 50

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	CHECKED - WLB	REVISED -
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PLOT DATE =	CHECKED - CJW	REVISED -

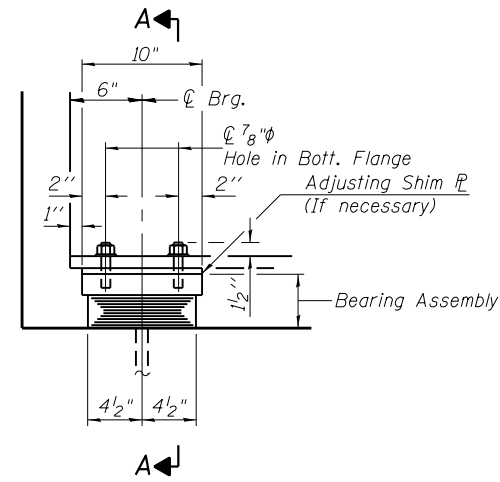
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING DETAILS
STRUCTURE NO. 091-0012 (SB)

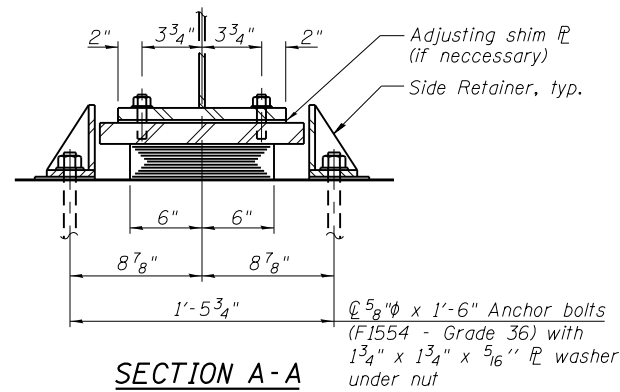
SHEET NO. 22 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	111
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT

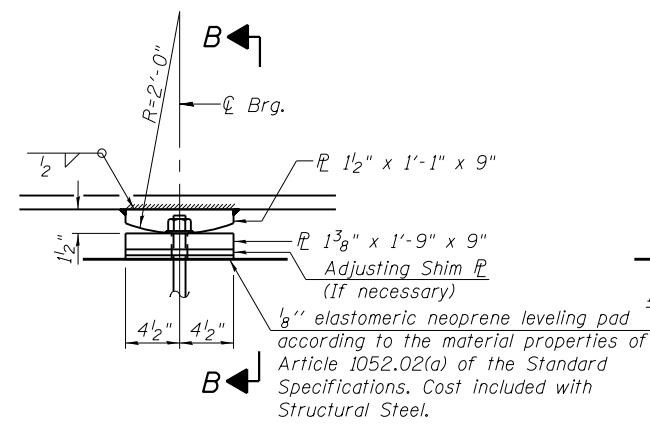


ELEVATION AT ABUT.

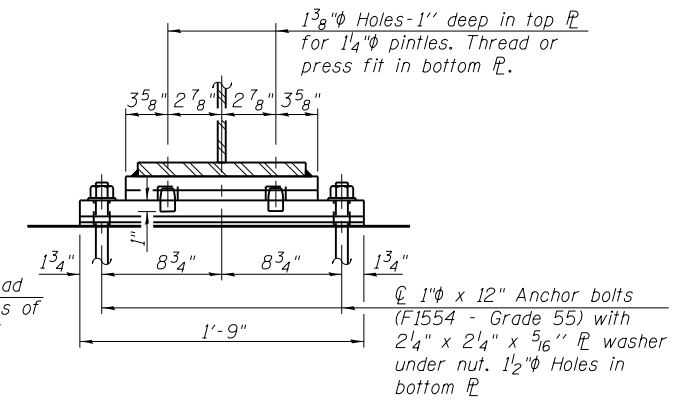


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

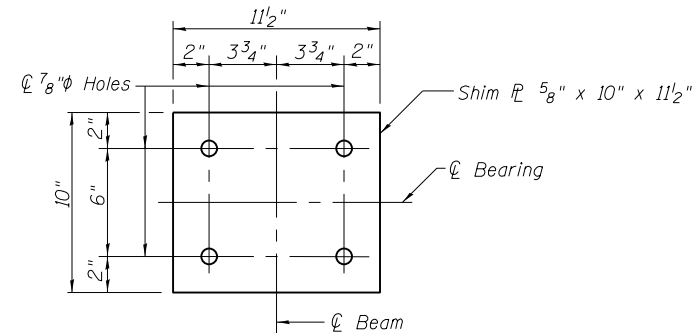


ELEVATION AT PIERS



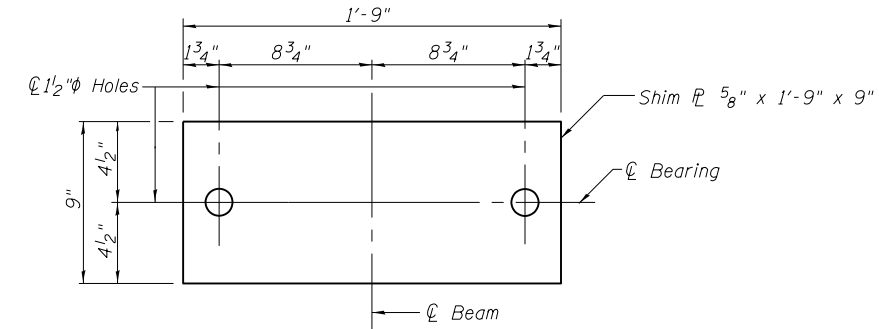
SECTION B-B

FIXED BEARING AT PIERS



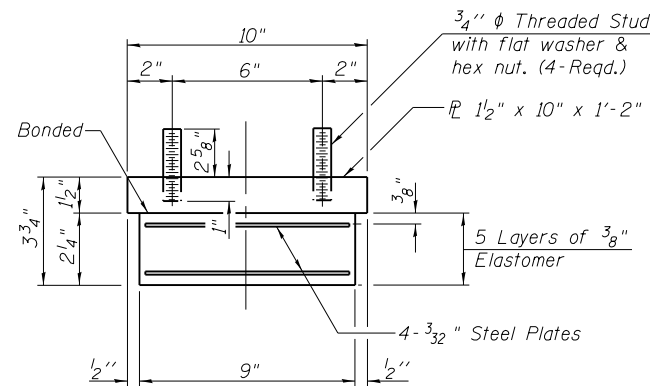
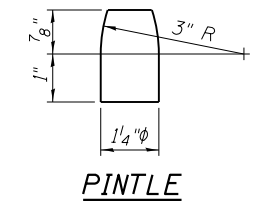
ABUT. BEARING SHIM

Notes:
Provide one shim plate at each Abutment for Beam Number 5.
All shim plates shall be AASHTO M270 Grade 50.
Cost included with Bearing Assembly.



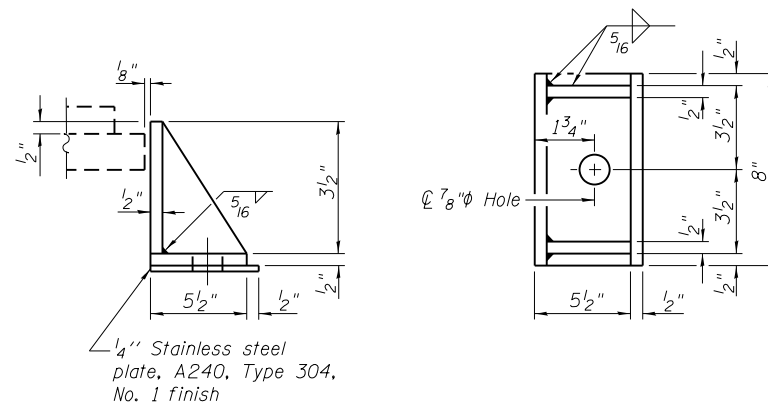
PIER BEARING SHIM

Notes:
Provide one shim plate at each Pier for Beam Number 5.
All shim plates shall be AASHTO M270 Grade 50.
Cost included with Structural Steel.



ABUT. BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



ABUT. SIDE RETAINER

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

NOTES:

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
- Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
- Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- The structural steel plates and pintles of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
- The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

BILL OF MATERIAL 091-0011 (NB)

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Anchor Bolts, 5/8"	Each	28
Anchor Bolts, 1"	Each	28



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

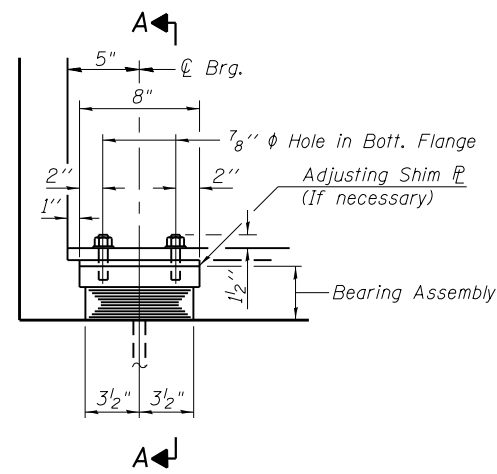
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 091-0011 (NB)

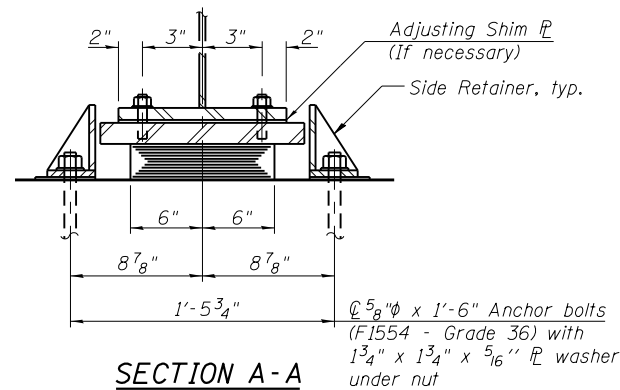
SHEET NO. 23 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	112
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

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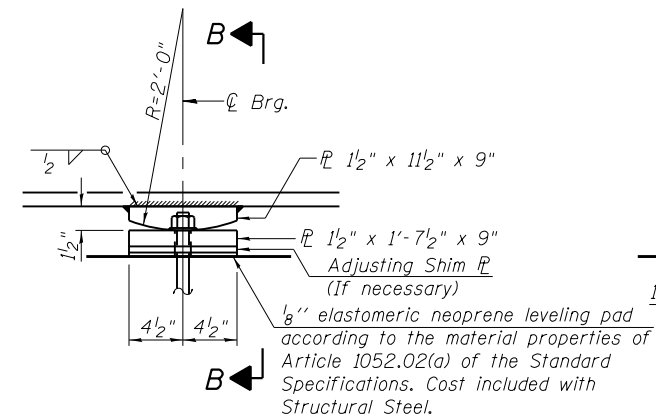


ELEVATION AT ABUT.

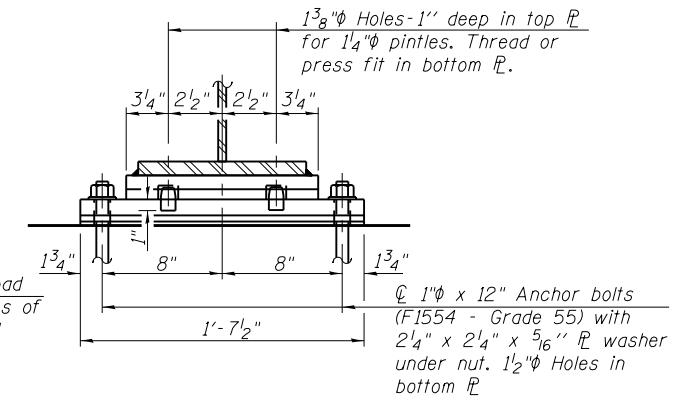


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

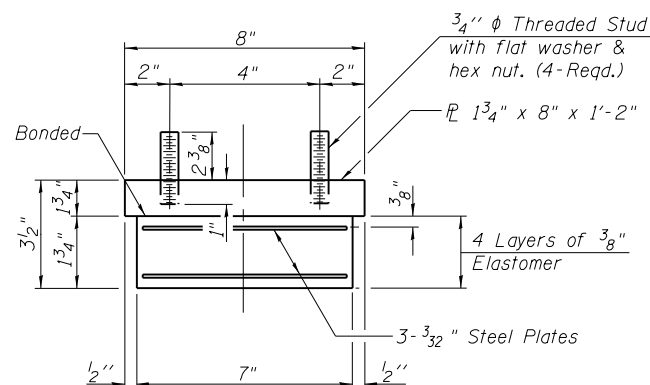


ELEVATION AT PIERS



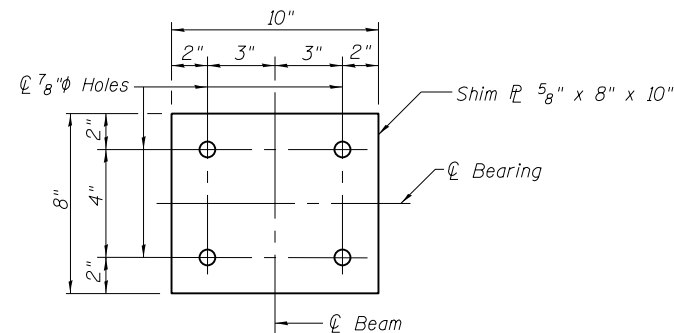
SECTION B-B

FIXED BEARING AT PIERS



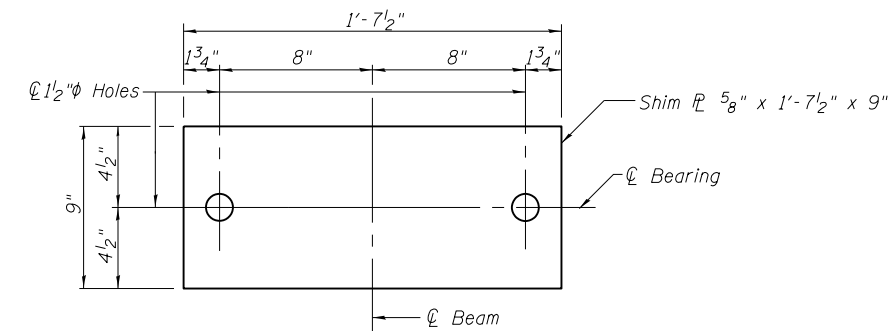
ABUT. BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



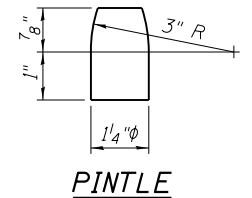
ABUT. BEARING SHIM

Notes:
Provide one shim plate at each Abutment for Beam Number 10.
All shim plates shall be AASHTO M270 Grade 50.
Cost included with Bearing Assembly.



PIER BEARING SHIM

Notes:
Provided one shim plate at each Pier for Beam Number 10.
All shim plates shall be AASHTO M270 Grade 50.
Cost included with Structural Steel.



PINTLE

NOTES:

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
- Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
- Two 5/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- The structural steel plates and pintles of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
- The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

BILL OF MATERIAL 091-0012 (SB)

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Anchor Bolts, 5/8"	Each	28
Anchor Bolts, 1"	Each	28



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 091-0012 (SB)

SHEET NO. 24 OF 36 SHEETS

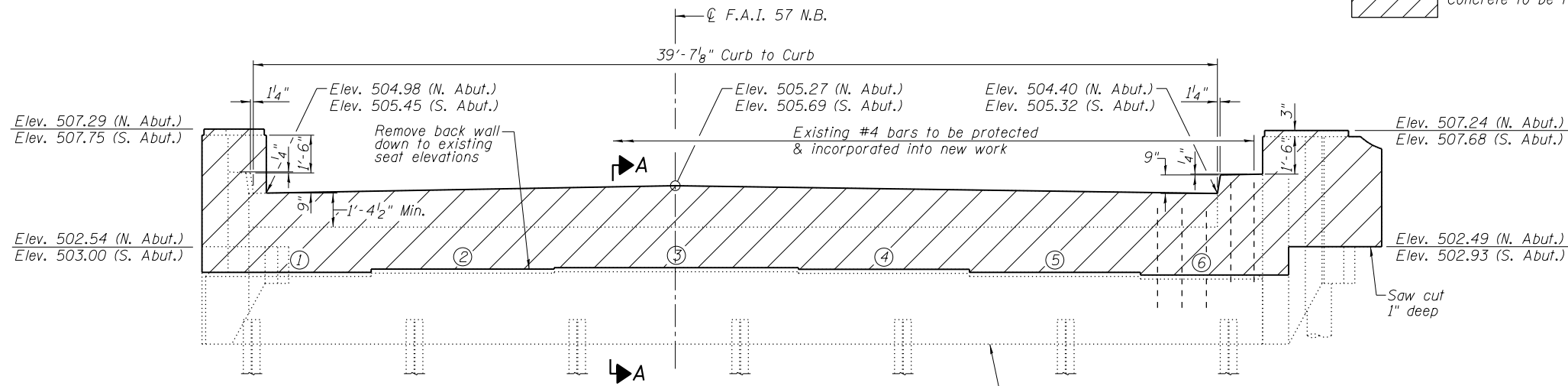
F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	113
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

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LEGEND



Concrete to be Removed



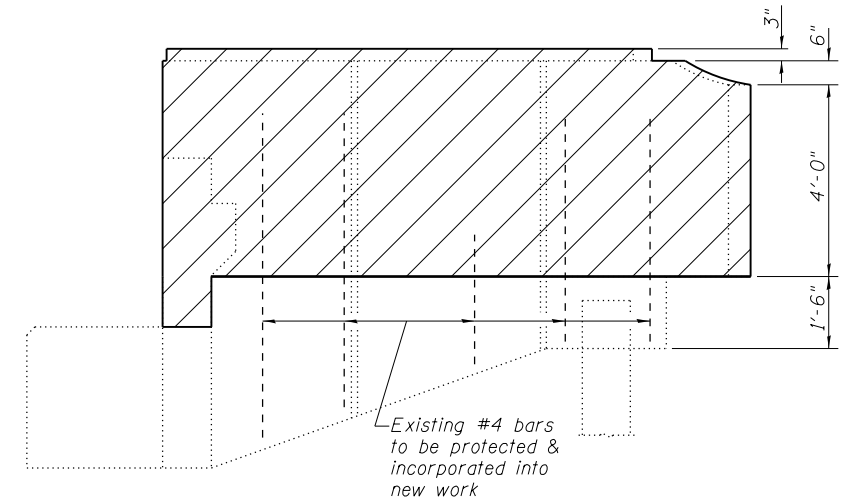
ELEVATION - EXISTING NORTH ABUTMENT

(Looking North)
(South Abutment similar)

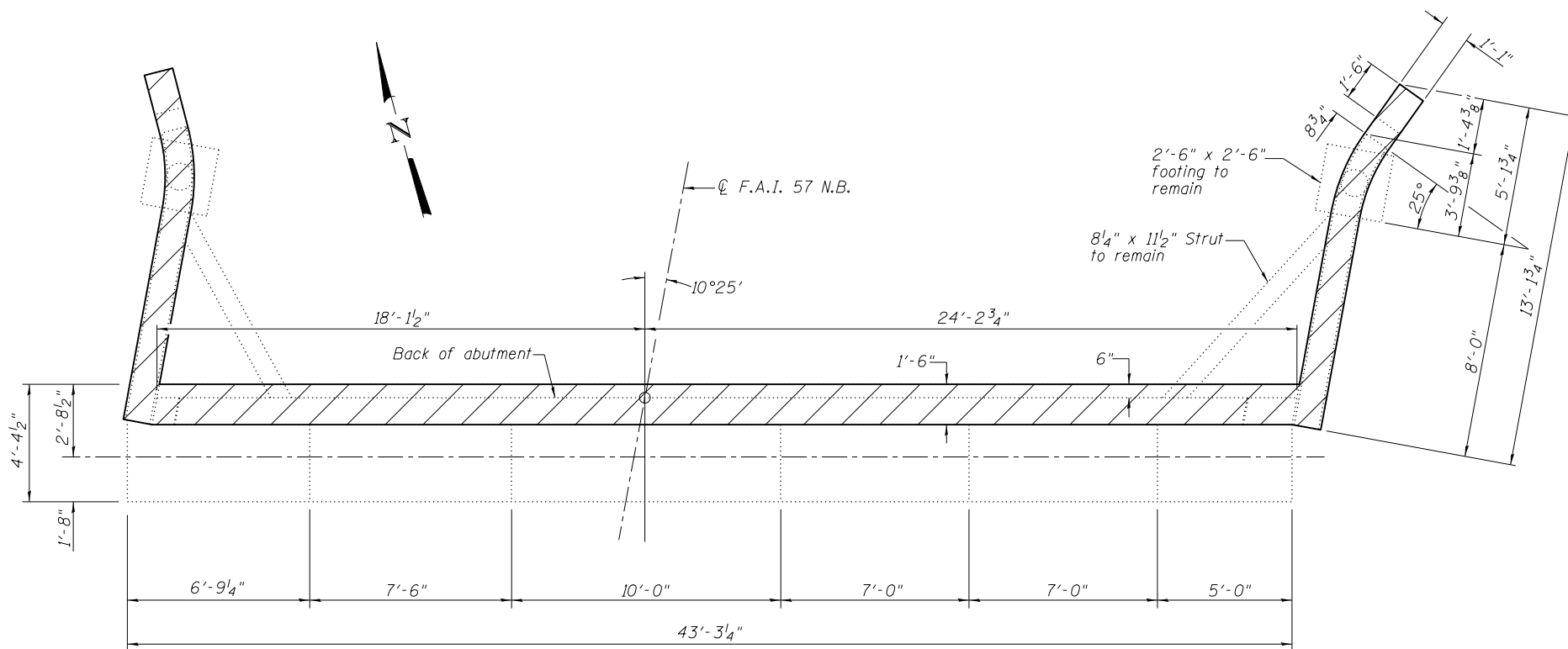
*Elev. 498.46 (N. Abut.)
*Elev. 498.97 (S. Abut.)

*Elevations from record drawings

Note: Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

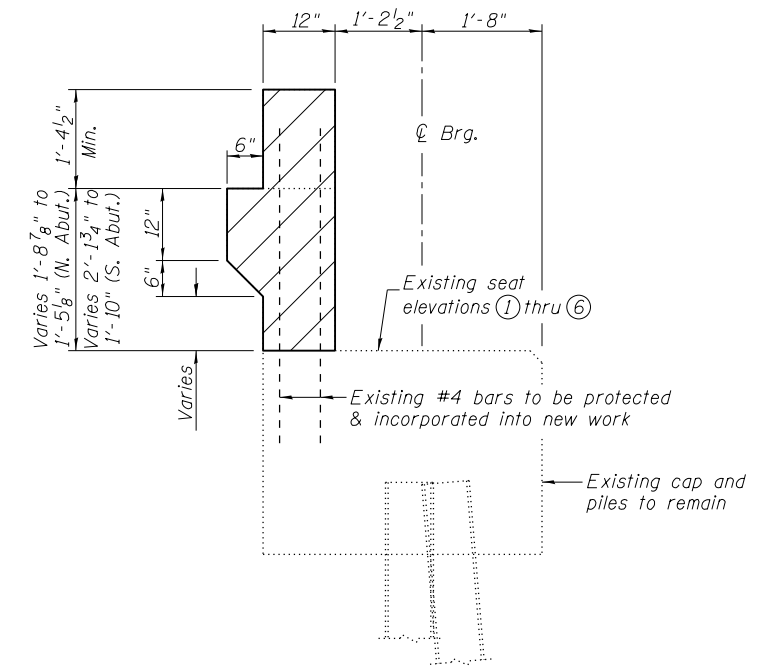


SIDE ELEVATION



PLAN - EXISTING NORTH ABUTMENT

(South Abutment similar)



SECTION A-A

EXIST. ELEVATIONS

NO.	N. Abut.	S. Abut.
1	501.40	501.85
2	501.55	502.04
3	501.60	502.11
4	501.52	502.01
5	501.41	501.91
6	501.29	501.80

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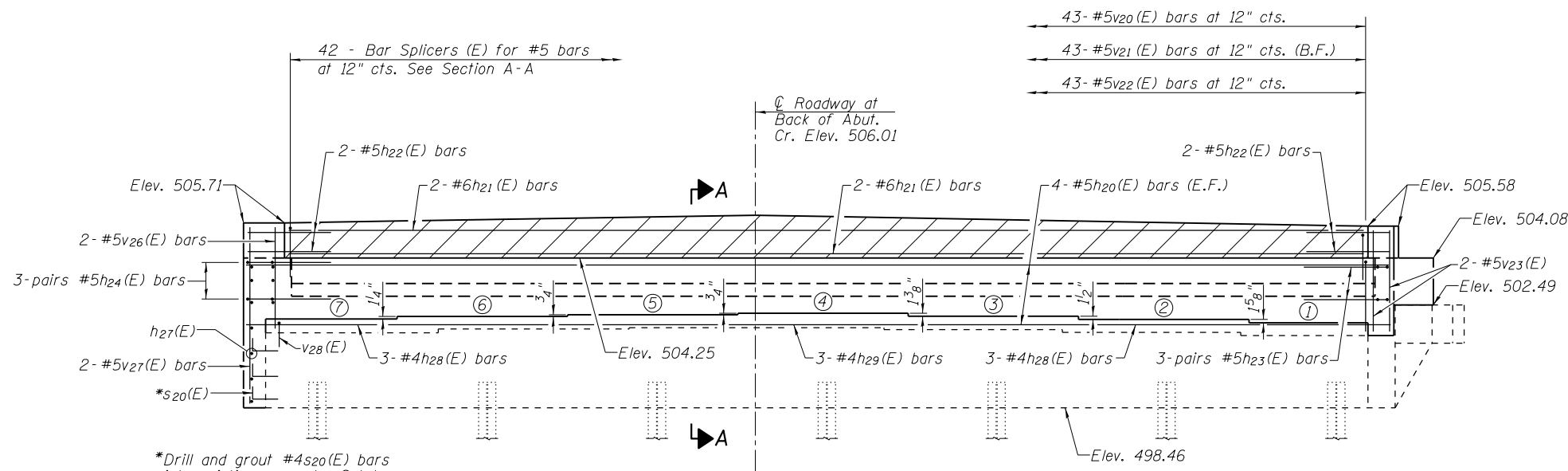
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	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE =	CHECKED - CJW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REMOVAL DETAILS
STRUCTURE NO. 091-0011 (NB)

SHEET NO. 25 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	114
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

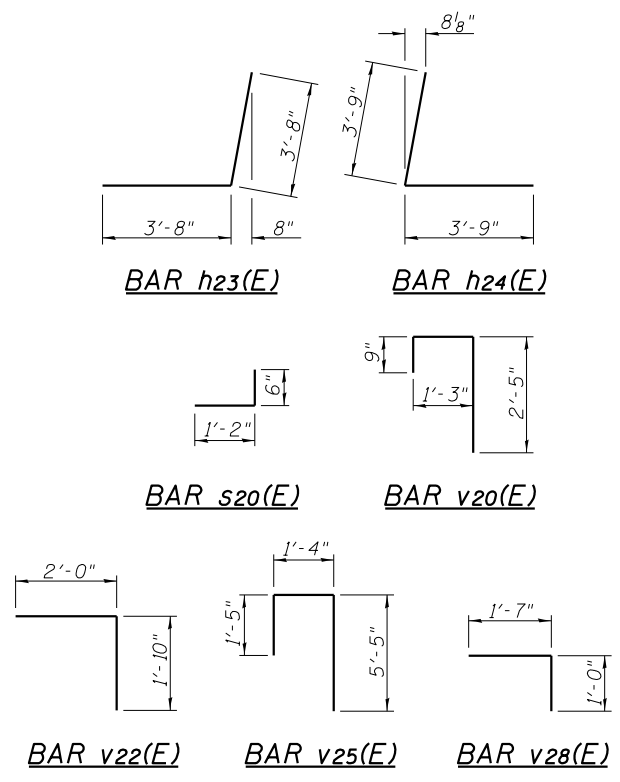


ELEVATION - PROPOSED NORTH ABUTMENT
(Looking North)

*Drill and grout #4s20(E) bars into existing concrete. Set to provide min. 1 1/2" cover for reinforcement.

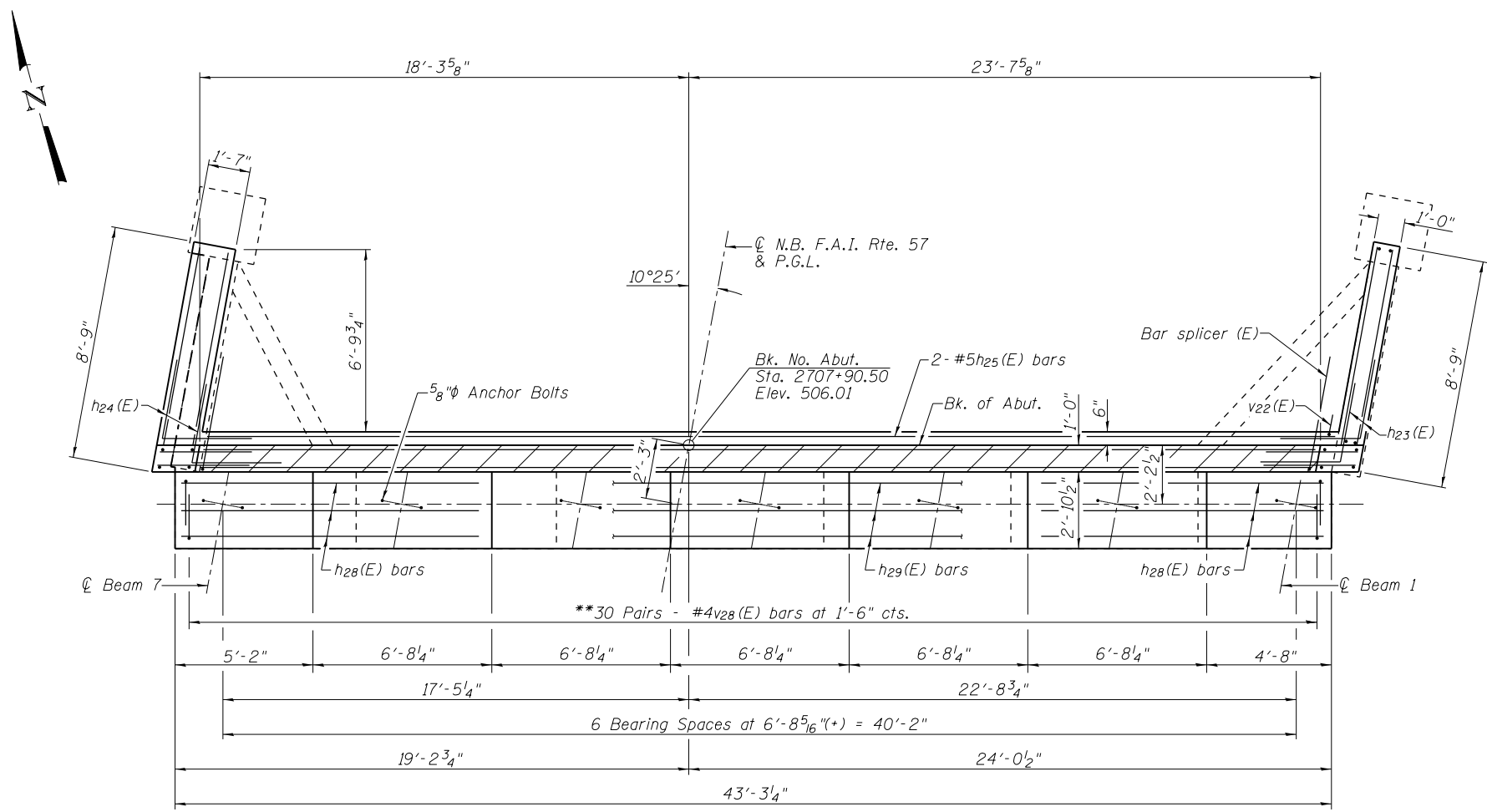
PROP. ELEVATIONS

NO.	SEAT ELEV.
7	501.94
6	502.04
5	502.11
4	502.17
3	502.05
2	501.93
1	501.79



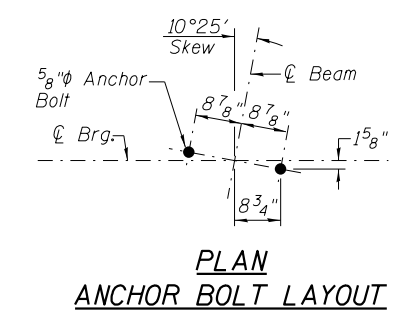
NORTH ABUTMENT
BILL OF MATERIAL 091-0011 (NB)

Bar	No.	Size	Length	Shape
h20(E)	8	#5	44'-10"	—
h21(E)	4	#6	41'-7"	—
h22(E)	8	#5	4'-8"	—
h23(E)	6	#5	7'-4"	└
h24(E)	6	#5	7'-6"	└
h25(E)	2	#5	44'-9"	—
h26(E)	12	#5	8'-5"	—
h27(E)	4	#5	7'-11"	—
h28(E)	6	#4	11'-8"	—
h29(E)	3	#4	21'-0"	—
s20(E)	12	#4	1'-8"	└
v20(E)	43	#5	4'-5"	└
v21(E)	43	#5	3'-10"	└
v22(E)	43	#5	3'-10"	└
v23(E)	4	#5	3'-11"	—
v24(E)	16	#5	1'-4"	—
v25(E)	8	#5	8'-2"	└
v26(E)	2	#5	4'-0"	—
v27(E)	2	#5	6'-11"	—
v28(E)	60	#4	2'-7"	└
Concrete Removal		Cu. Yd.	11.5	
Concrete Structures		Cu. Yd.	10.2	
Reinforcement Bars, Epoxy Coated		Pound	1,860	
Structure Excavation		Cu. Yd.	41	
Concrete Sealer		Sq. Ft.	319	
Drill and Grout Bars		Each	72	
Bar Splicers		Each	42	



PLAN - PROPOSED NORTH ABUTMENT

**Drill and grout #4v28(E) bars into existing concrete. Set to provide min. 2" cover and min. 6" embedment.



PLAN ANCHOR BOLT LAYOUT

NOTES:

- Hatched area to be poured after superstructure false work has been removed.
- Quantity of concrete included with Concrete Superstructure.
- See Sheet 31 of 36 for Section A-A.
- For details of Bar Splicers see Sheet 36 of 36.
- Concrete Sealer shall be applied to front face of backwall and new concrete bearing seats.



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

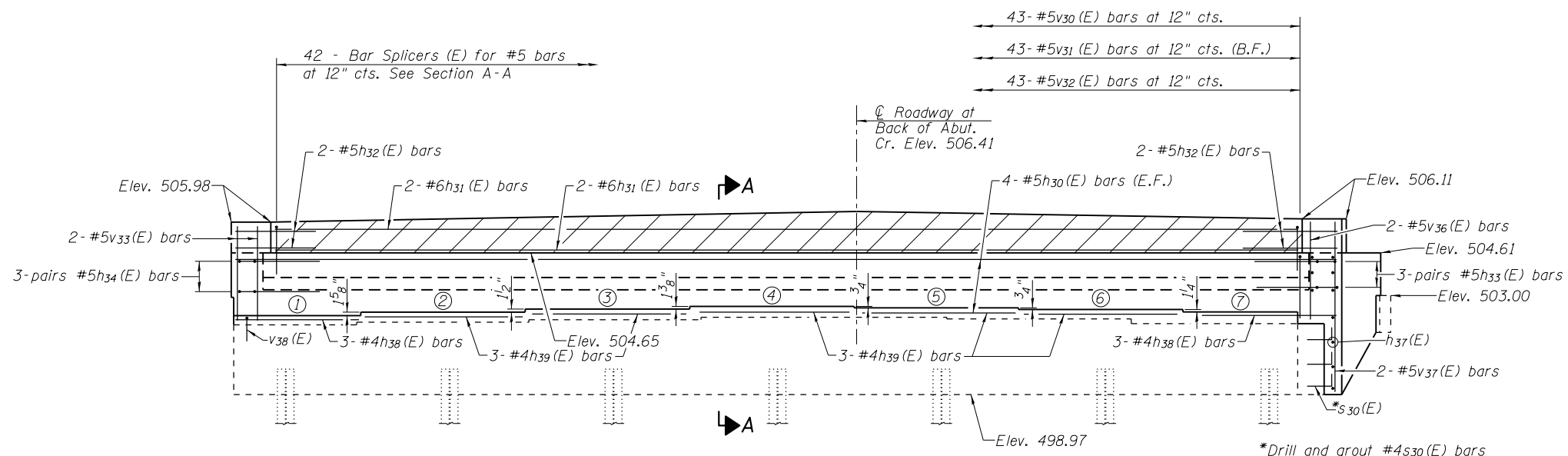
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 091-0011 (NB)

SHEET NO. 26 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	115
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

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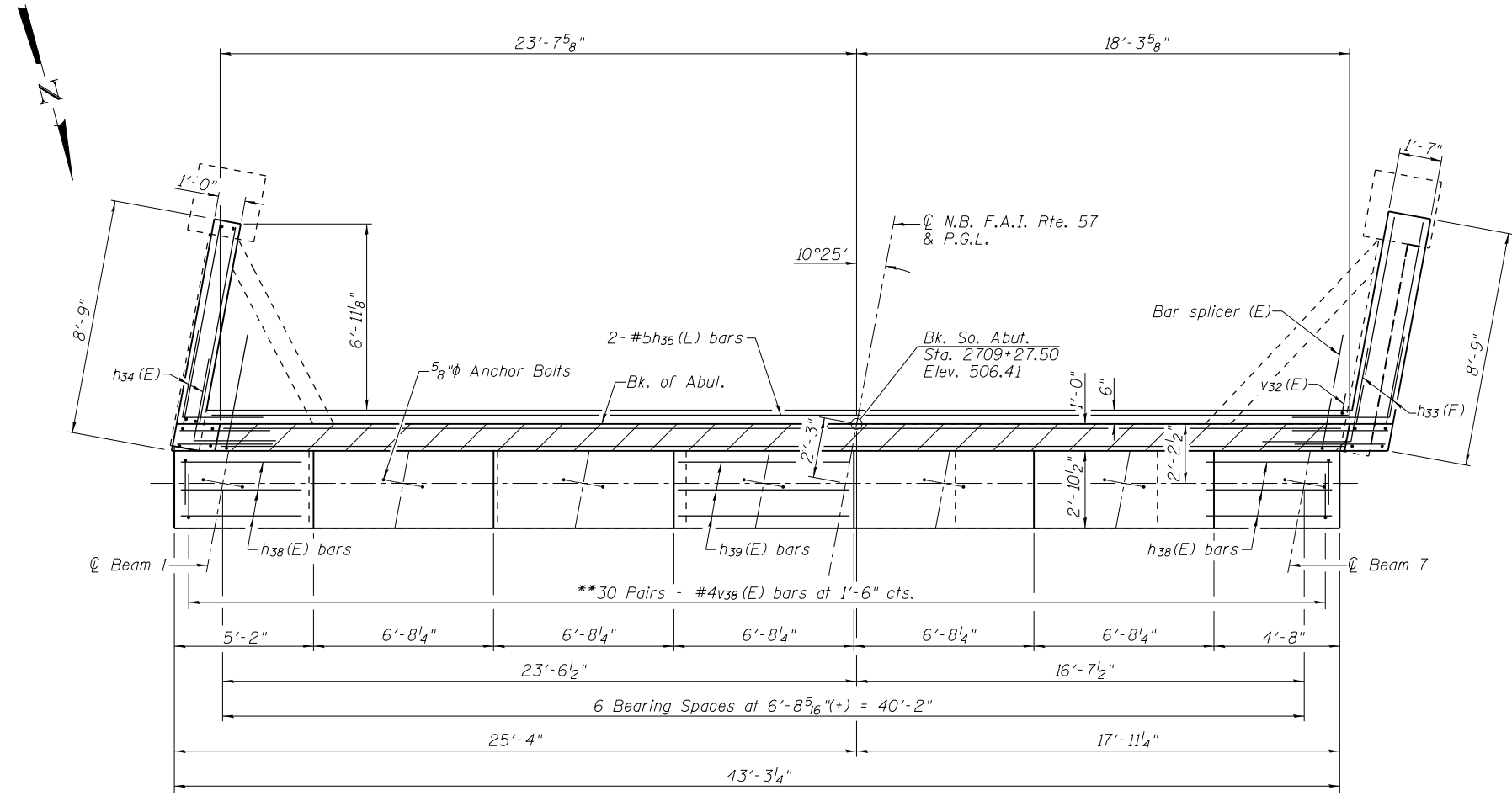
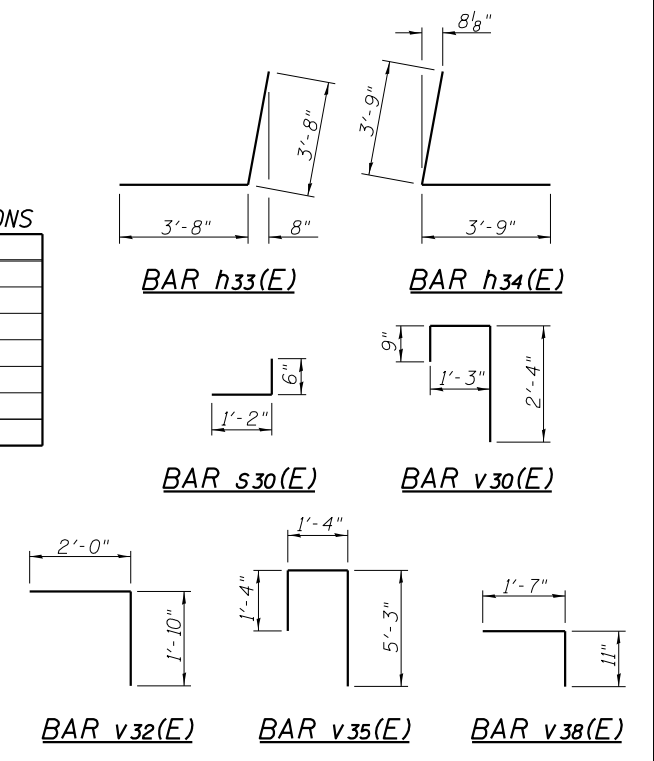


ELEVATION - PROPOSED SOUTH ABUTMENT
(Looking South)

*Drill and grout #4s30(E) bars into existing concrete. Set to provide min. 1 1/2\"/>

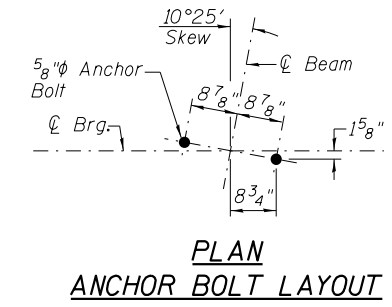
PROP. ELEVATIONS

NO.	SEAT ELEV.
1	502.18
2	502.31
3	502.44
4	502.55
5	502.49
6	502.43
7	502.32



PLAN - PROPOSED SOUTH ABUTMENT

**Drill and grout #4v38(E) bars into existing concrete. Set to provide min. 2\"/>



**SOUTH ABUTMENT
BILL OF MATERIAL 091-0011 (NB)**

Bar	No.	Size	Length	Shape
h30(E)	8	#5	44'-10"	—
h31(E)	4	#6	41'-7"	—
h32(E)	8	#5	4'-8"	—
h33(E)	6	#5	7'-4"	└
h34(E)	6	#5	7'-6"	└
h35(E)	2	#5	44'-9"	—
h36(E)	12	#5	8'-5"	—
h37(E)	4	#5	7'-11"	—
h38(E)	6	#4	4'-8"	—
h39(E)	15	#4	6'-8"	—
s30(E)	12	#4	1'-8"	└
v30(E)	43	#5	4'-4"	└
v31(E)	43	#5	3'-9"	—
v32(E)	43	#5	3'-10"	└
v33(E)	4	#5	3'-10"	—
v34(E)	16	#5	1'-3"	—
v35(E)	8	#5	7'-11"	└
v36(E)	2	#5	3'-11"	—
v37(E)	2	#5	6'-9"	—
v38(E)	60	#4	2'-6"	└
Concrete Removal		Cu. Yd.	11.5	
Concrete Structures		Cu. Yd.	9.6	
Reinforcement Bars, Epoxy Coated		Pound	1,850	
Structure Excavation		Cu. Yd.	41	
Concrete Sealer		Sq. Ft.	316	
Drill and Grout Bars		Each	72	
Bar Splicers		Each	42	

- NOTES:**
- Hatched area to be poured after superstructure false work has been removed.
 - Quantity of concrete included with Concrete Superstructure.
 - See Sheet 31 of 36 for Section A-A.
 - For details of Bar Splicers see Sheet 36 of 36.
 - Concrete Sealer shall be applied to front face of backwall and new concrete bearing seats.



USER NAME =	DESIGNED - CJW	REVISED -
	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE =	CHECKED - CJW	REVISED -


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

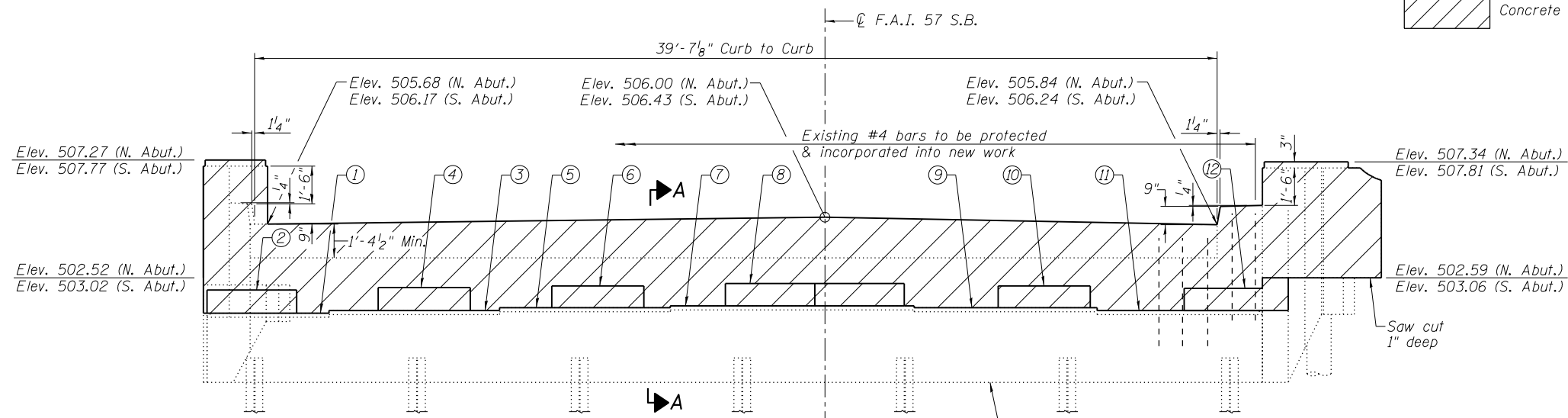
**SOUTH ABUTMENT
STRUCTURE NO. 091-0011 (NB)**
SHEET NO. 27 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	116
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

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LEGEND

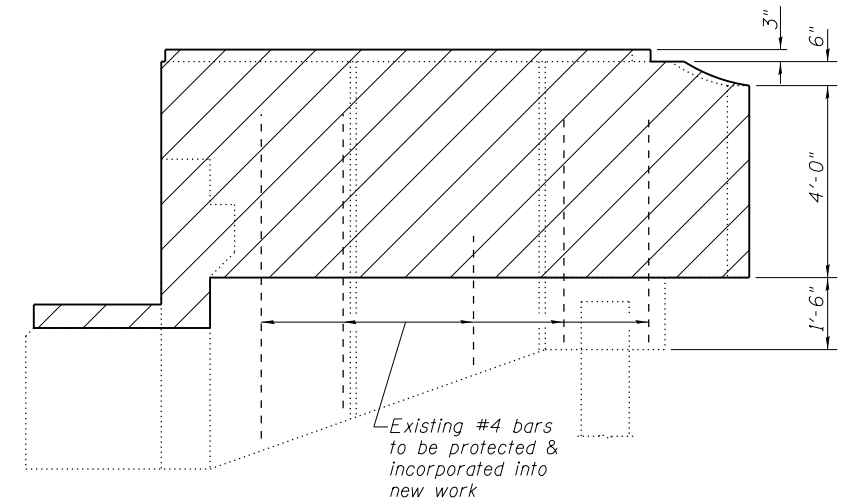
 Concrete to be Removed



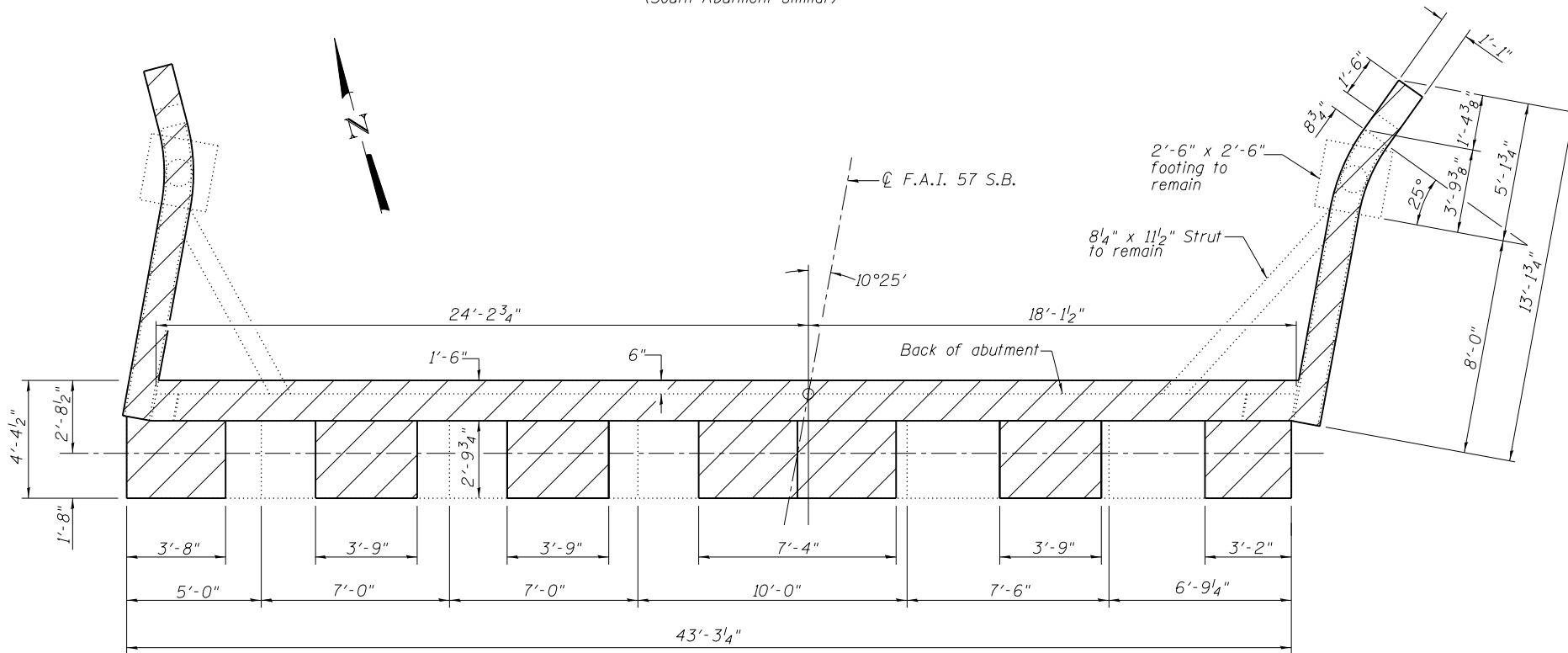
ELEVATION - EXISTING NORTH ABUTMENT
(Looking North)
(South Abutment similar)

*Elev. 498.57 (N. Abut.)
*Elev. 498.97 (S. Abut.)
*Elevations from record drawings

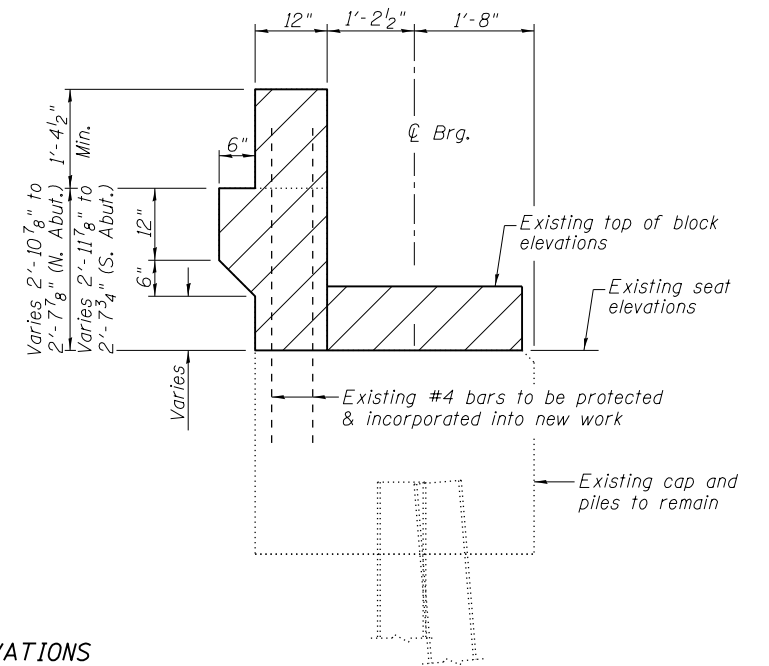
Note: Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



SIDE ELEVATION



PLAN - EXISTING NORTH ABUTMENT
(South Abutment similar)



SECTION A-A

EXIST. ELEVATIONS

NO.	N. Abut.	S. Abut.
1	501.40	501.87
2	502.54	503.02
3	501.49	501.97
4	502.65	503.19
5	501.59	502.09
6	502.80	503.27
7	501.65	502.15
8	502.79	503.32
9	501.58	502.03
10	502.72	503.20
11	501.48	501.80
12	502.59	503.09

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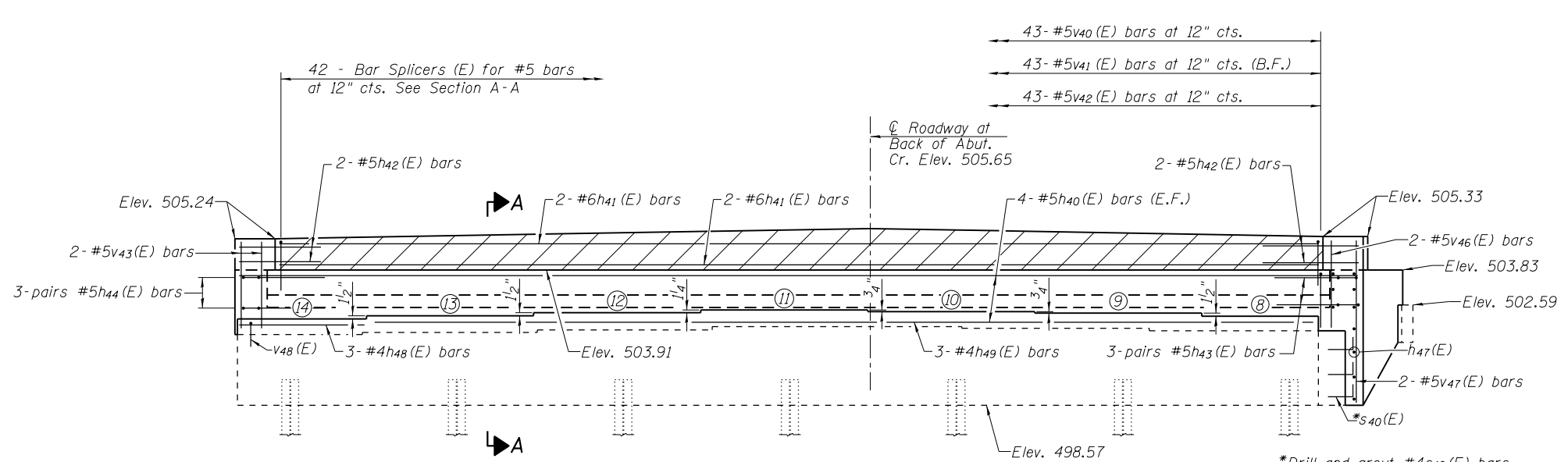
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT REMOVAL DETAILS
STRUCTURE NO. 091-0012 (SB)**

SHEET NO. 28 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	117
CONTRACT NO. 78349				

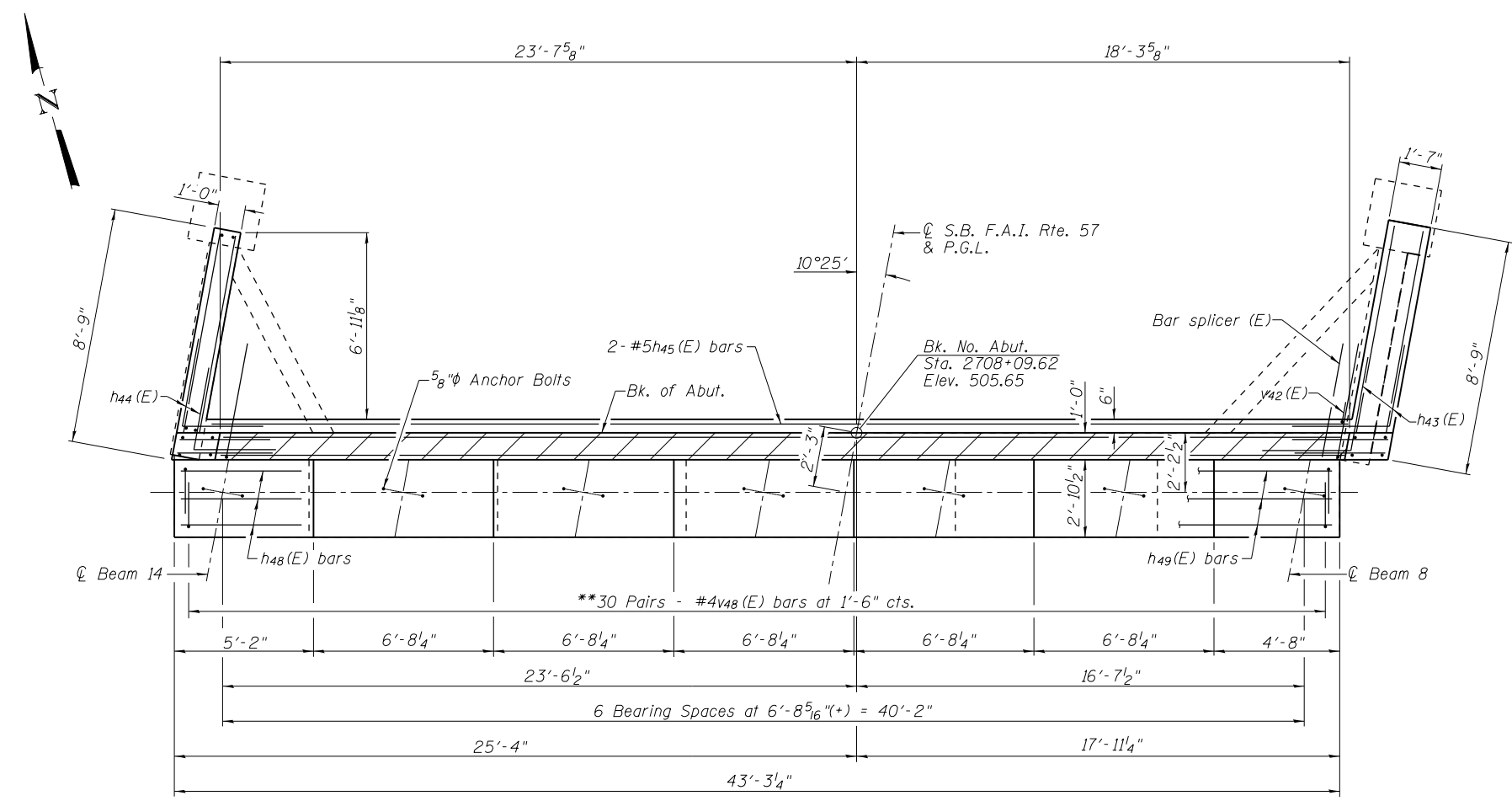
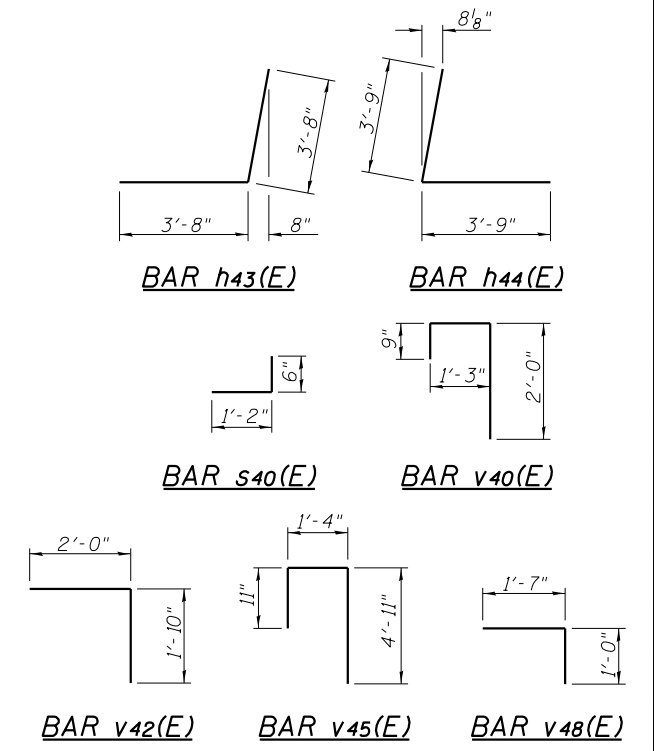
ILLINOIS FED. AID PROJECT



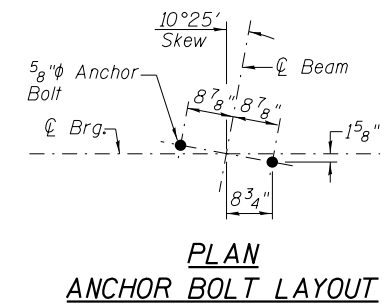
ELEVATION - PROPOSED NORTH ABUTMENT
(Looking North)

PROP. ELEVATIONS

NO.	SEAT ELEV.
14	502.01
13	502.13
12	502.26
11	502.36
10	502.30
9	502.24
8	502.11



PLAN - PROPOSED NORTH ABUTMENT



NORTH ABUTMENT
BILL OF MATERIAL 091-0012 (SB)

Bar	No.	Size	Length	Shape
h40(E)	8	#5	44'-10"	—
h41(E)	4	#6	41'-7"	—
h42(E)	8	#5	4'-8"	—
h43(E)	6	#5	7'-4"	J
h44(E)	6	#5	7'-6"	L
h45(E)	2	#5	44'-9"	—
h46(E)	12	#5	8'-5"	—
h47(E)	4	#5	7'-11"	—
h48(E)	3	#4	5'-0"	—
h49(E)	3	#4	37'-11"	—
s40(E)	3	#4	1'-8"	J
v40(E)	43	#5	4'-0"	J
v41(E)	43	#5	3'-4"	—
v42(E)	43	#5	3'-10"	J
v43(E)	4	#5	3'-6"	—
v44(E)	16	#5	0'-11"	—
v45(E)	8	#5	7'-2"	J
v46(E)	2	#5	3'-5"	—
v47(E)	2	#5	6'-5"	—
v48(E)	60	#4	2'-7"	J
Concrete Removal		Cu. Yd.	14.6	
Concrete Structures		Cu. Yd.	9.8	
Reinforcement Bars, Epoxy Coated		Pound	1,800	
Structure Excavation		Cu. Yd.	50	
Concrete Sealer		Sq. Ft.	299	
Drill and Grout Bars		Each	72	
Bar Splicers		Each	42	

- NOTES:**
- Hatched area to be poured after superstructure false work has been removed.
 - Quantity of concrete included with Concrete Superstructure.
 - See Sheet 31 of 36 for Section A-A.
 - For details of Bar Splicers see Sheet 36 of 36.
 - Concrete Sealer shall be applied to front face of backwall and new concrete bearing seats.



USER NAME =	DESIGNED - CJW	REVISED -
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PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

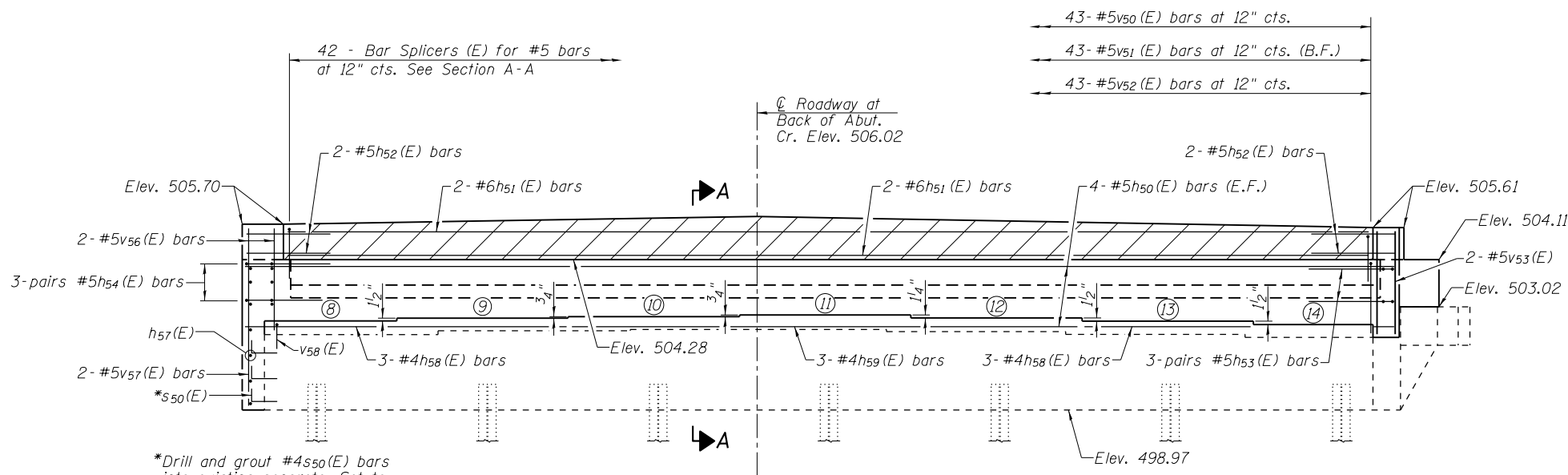
NORTH ABUTMENT
STRUCTURE NO. 091-0012 (SB)

SHEET NO. 29 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	118
CONTRACT NO. 78349				

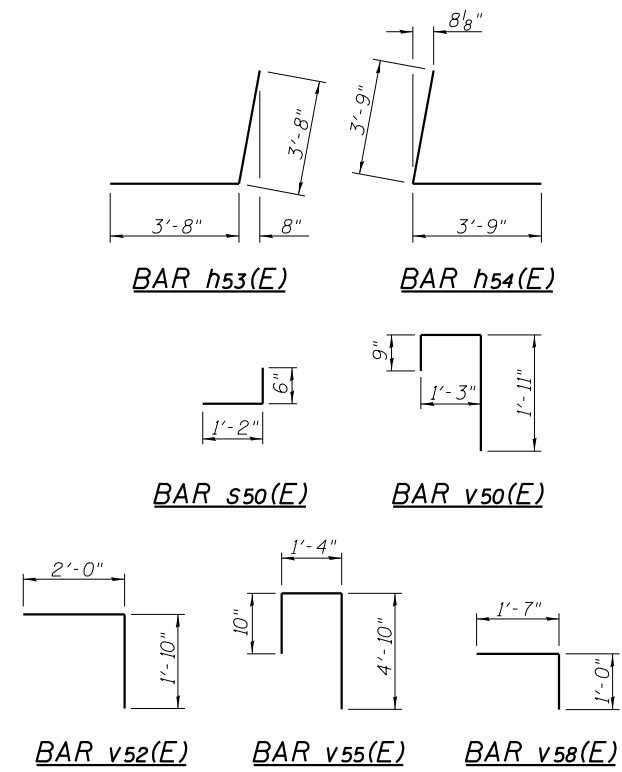
ILLINOIS FED. AID PROJECT

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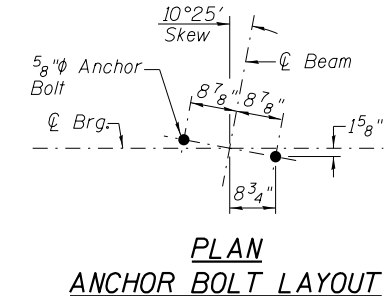
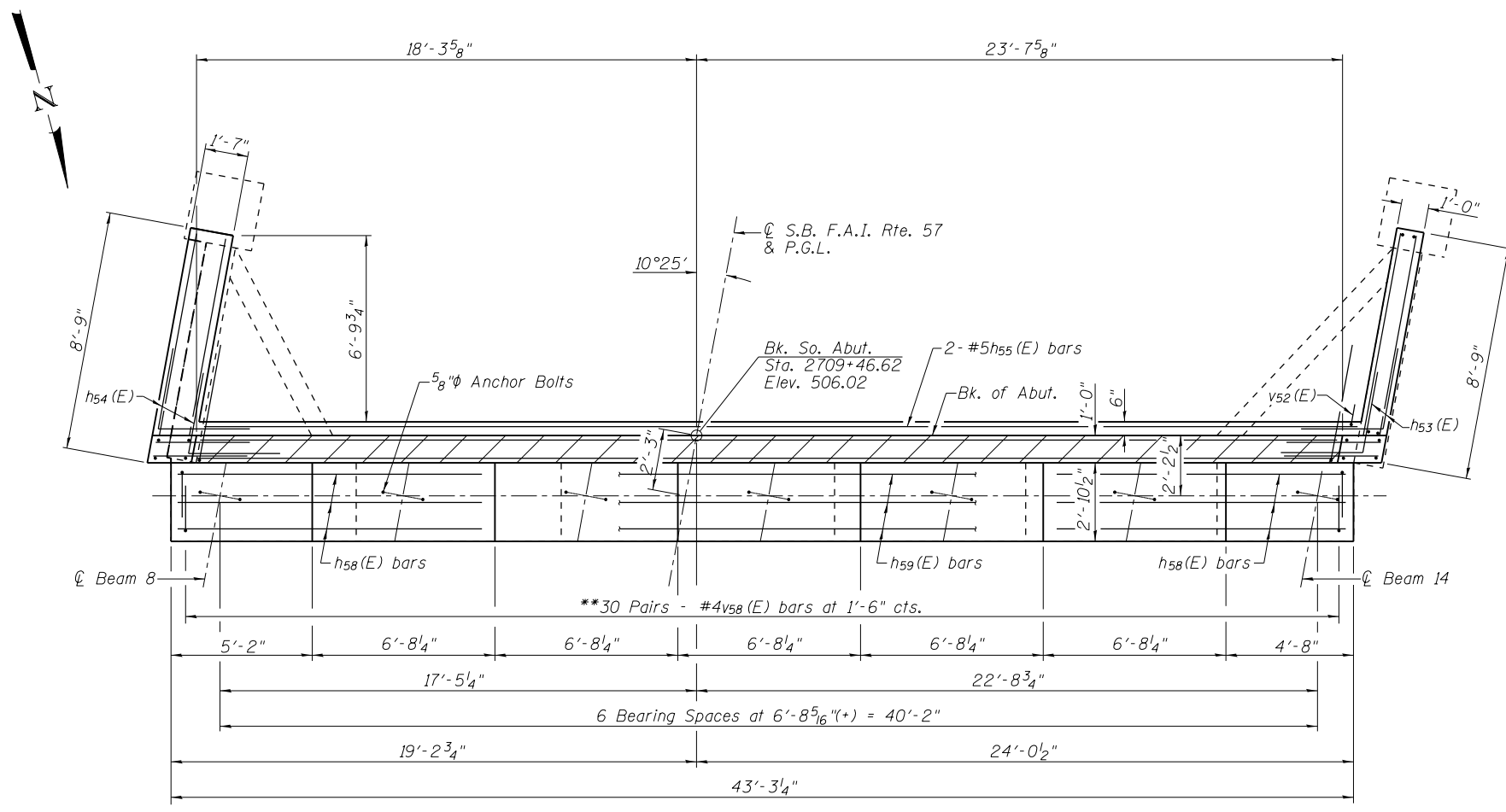


PROP. ELEVATIONS

NO.	SEAT ELEV.
8	502.47
9	502.60
10	502.66
11	502.72
12	502.62
13	502.49
14	502.37



ELEVATION - PROPOSED SOUTH ABUTMENT
(Looking South)



PLAN - PROPOSED SOUTH ABUTMENT

SOUTH ABUTMENT
BILL OF MATERIAL 091-0012 (SB)

Bar	No.	Size	Length	Shape
h50(E)	8	#5	44'-10"	—
h51(E)	4	#6	41'-7"	—
h52(E)	8	#5	4'-8"	—
h53(E)	6	#5	7'-4"	J
h54(E)	6	#5	7'-6"	L
h55(E)	2	#5	44'-9"	—
h56(E)	12	#5	8'-5"	—
h57(E)	4	#5	7'-11"	—
h58(E)	6	#4	11'-7"	—
h59(E)	3	#4	20'-0"	—
s50(E)	12	#4	1'-8"	J
v50(E)	43	#5	3'-11"	7
v51(E)	43	#5	3'-6"	—
v52(E)	43	#5	3'-10"	J
v53(E)	4	#5	3'-4"	—
v54(E)	16	#5	0'-10"	—
v55(E)	8	#5	7'-0"	7
v56(E)	2	#5	3'-5"	—
v57(E)	2	#5	6'-4"	—
v58(E)	60	#4	2'-7"	7
Concrete Removal			Cu. Yd.	14.5
Concrete Structures			Cu. Yd.	9.4
Reinforcement Bars, Epoxy Coated			Pound	1800
Structure Excavation			Cu. Yd.	50
Concrete Sealer			Sq. Ft.	297
Drill and Grout Bars			Each	72
Bar Splicers			Each	42

- NOTES:**
- Hatched area to be poured after superstructure false work has been removed.
 - Quantity of concrete included with Concrete Superstructure.
 - See Sheet 31 of 36 for Section A-A.
 - For details of bar splicers see Sheet 36 of 36.
 - Concrete Sealer shall be applied to front face of backwall and new concrete bearing seats.



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

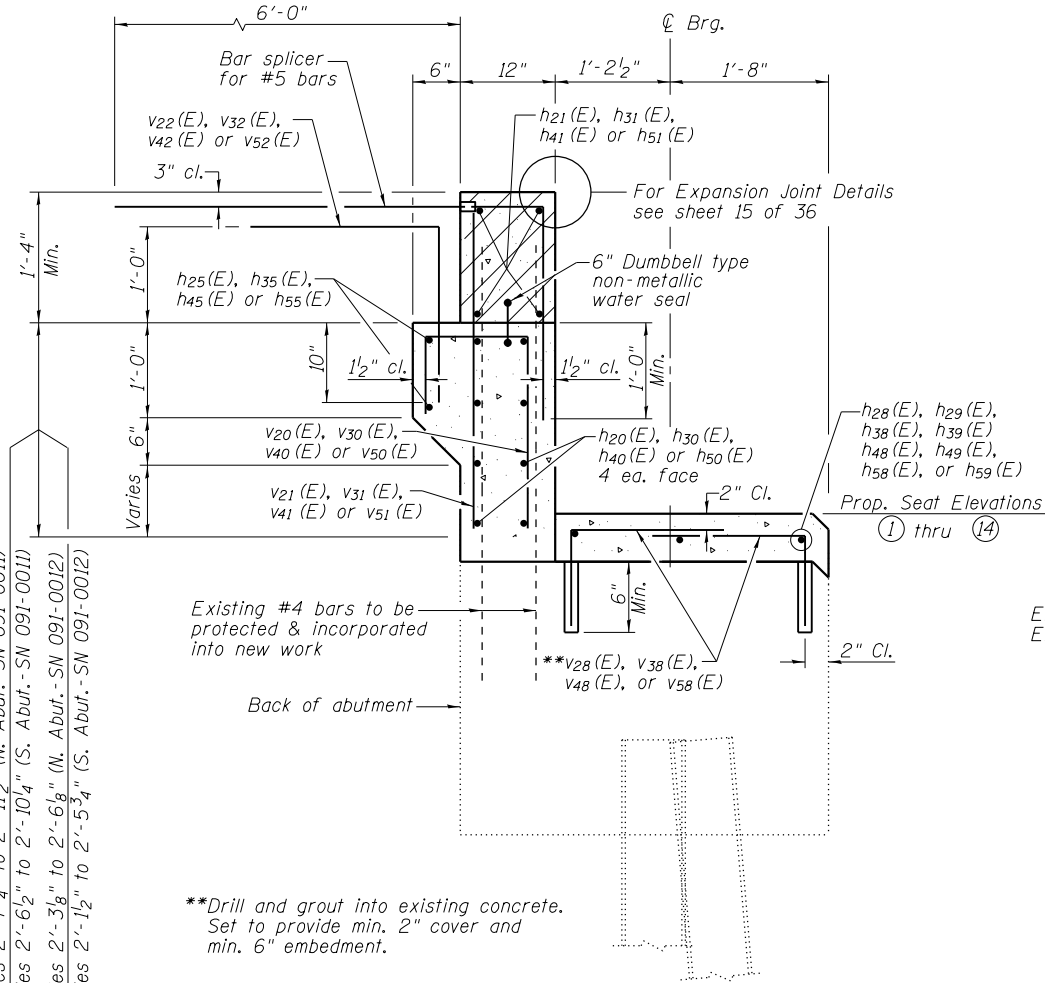
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 091-0012 (SB)
SHEET NO. 30 OF 36 SHEETS

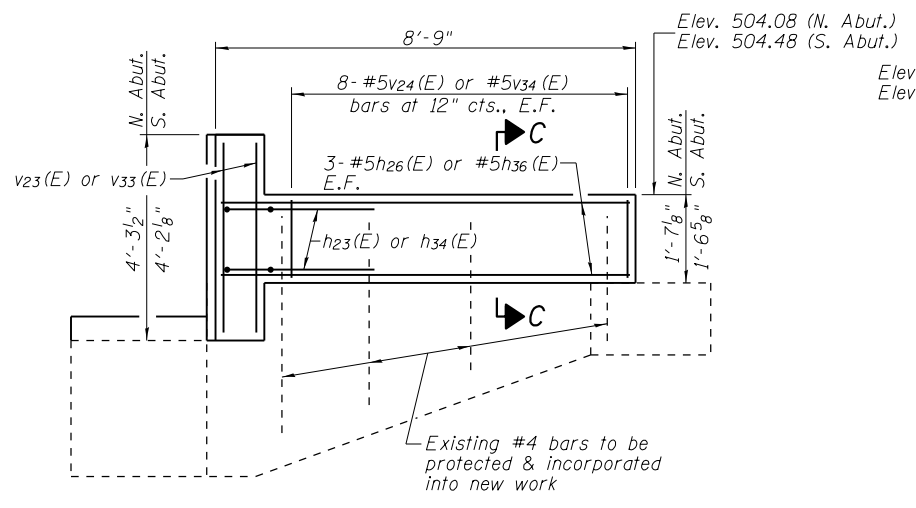
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	119
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

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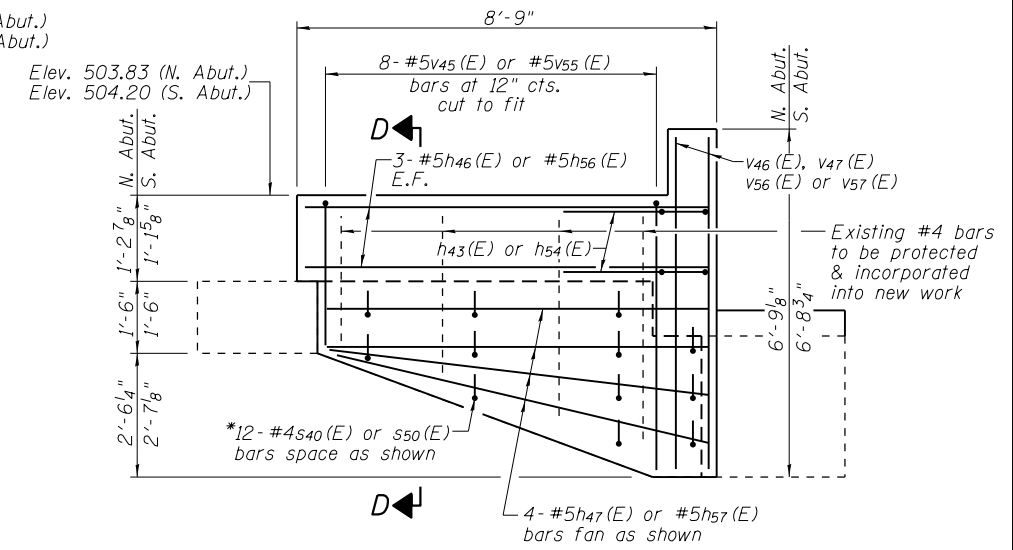
Varies 2'-7 $\frac{3}{4}$ " to 2'-11 $\frac{1}{2}$ " (N. Abut. - SN 091-0011)
 Varies 2'-6 $\frac{1}{2}$ " to 2'-10 $\frac{1}{4}$ " (S. Abut. - SN 091-0011)
 Varies 2'-3 $\frac{1}{8}$ " to 2'-6 $\frac{1}{8}$ " (N. Abut. - SN 091-0012)
 Varies 2'-1 $\frac{1}{2}$ " to 2'-5 $\frac{3}{4}$ " (S. Abut. - SN 091-0012)



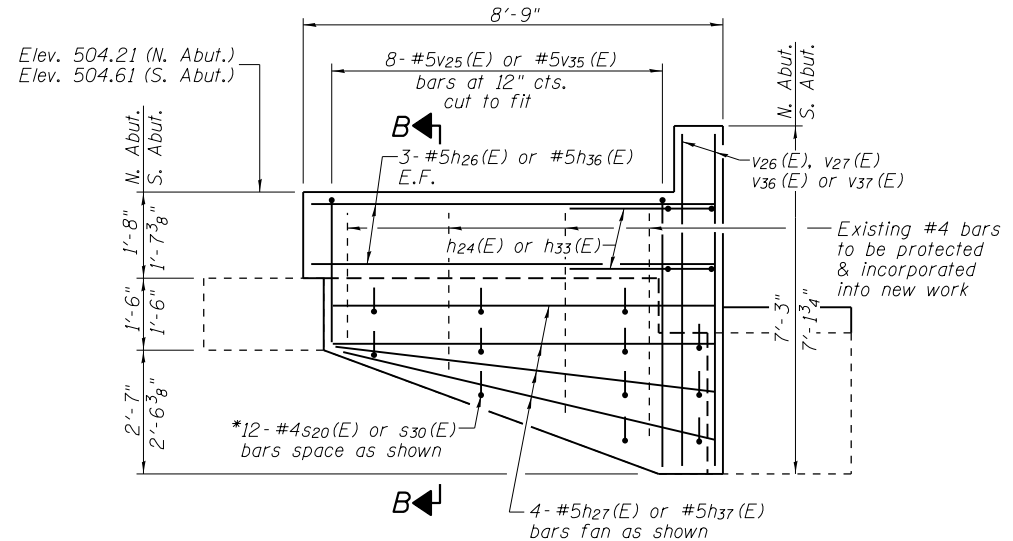
SECTION A-A



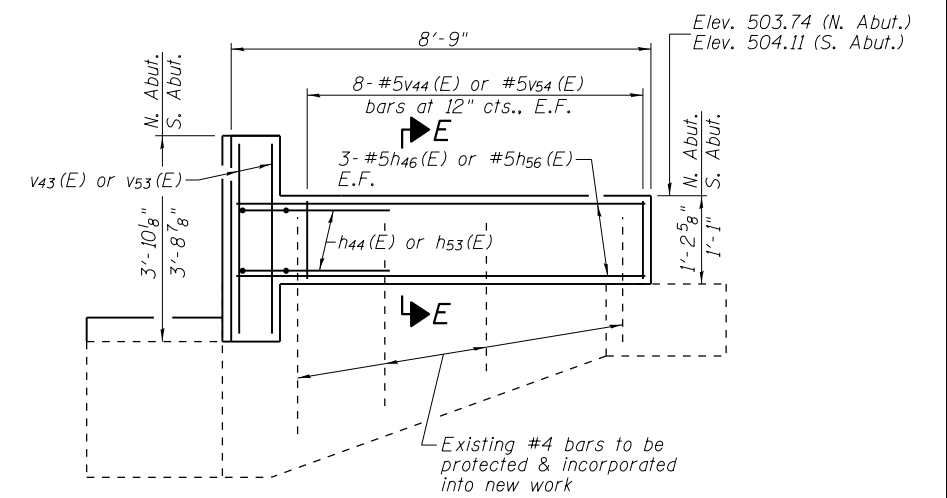
EAST WING WALL ELEVATION
(SN 091-0011)



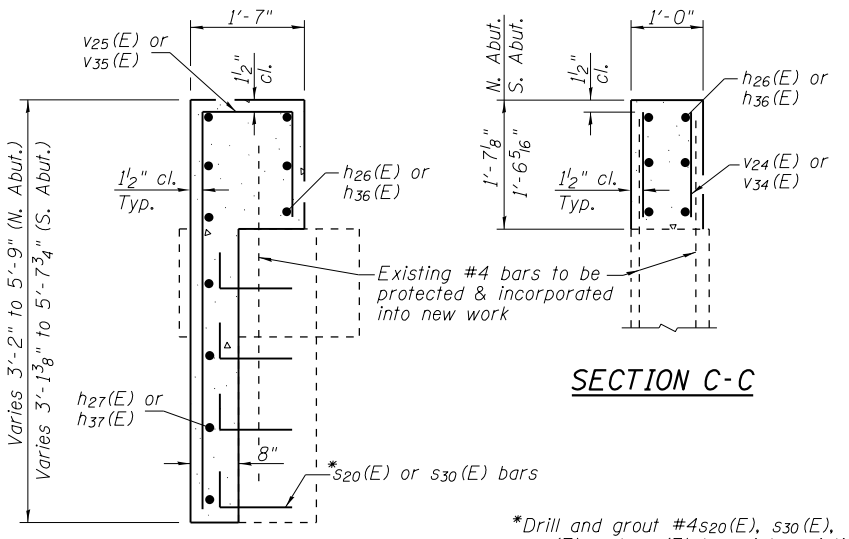
EAST WING WALL ELEVATION
(SN 091-0012)



WEST WING WALL ELEVATION
(SN 091-0011)

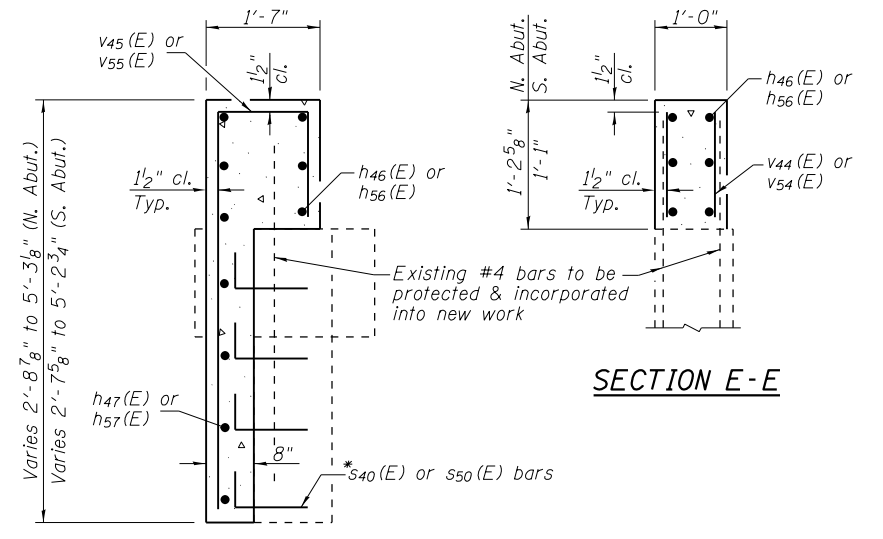


WEST WING WALL ELEVATION
(SN 091-0012)



SECTION B-B

SECTION C-C



SECTION D-D

SECTION E-E



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

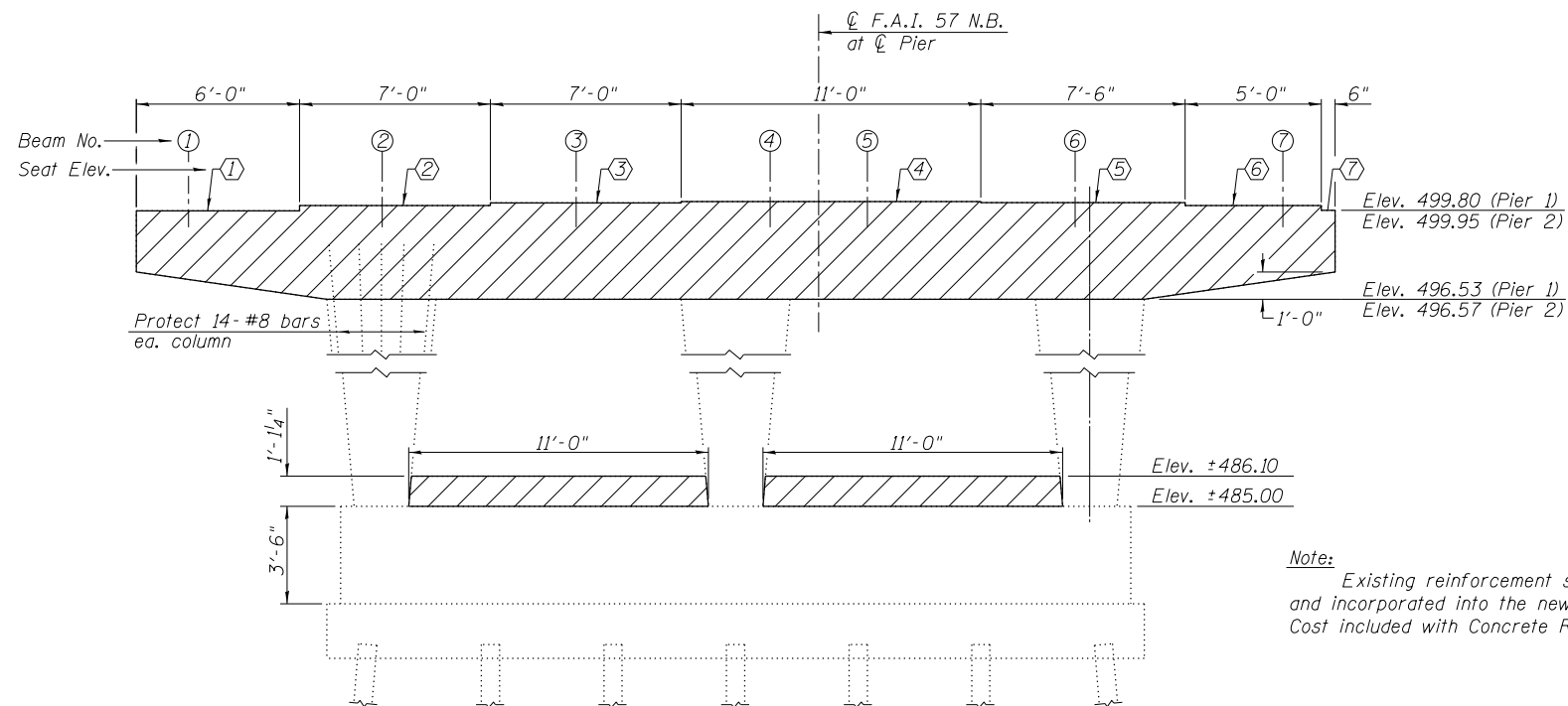
ABUTMENT DETAILS
STRUCTURE NO. 091-0011 (NB) & (0012) (SB)

SHEET NO. 31 OF 36 SHEETS

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	120
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT

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ELEVATION - EXISTING PIER
(Looking South)

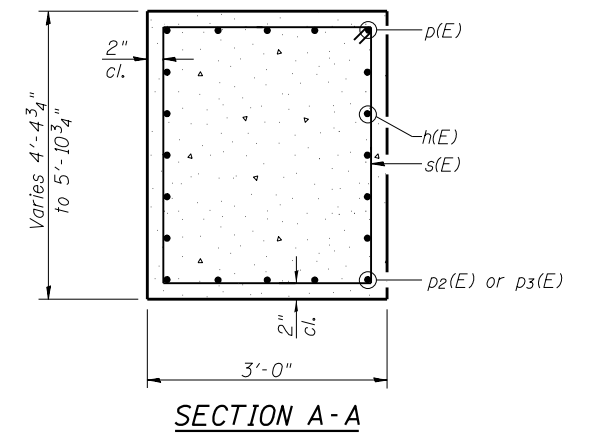
EXIST. ELEVATIONS

NO.	PIER 1	PIER 2
1	499.78	499.87
2	499.97	500.06
3	500.07	500.18
4	500.12	500.24
5	500.08	500.18
6	499.97	500.06
7	499.80	499.95

LEGEND

	Concrete to be Removed
--	------------------------

Note:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

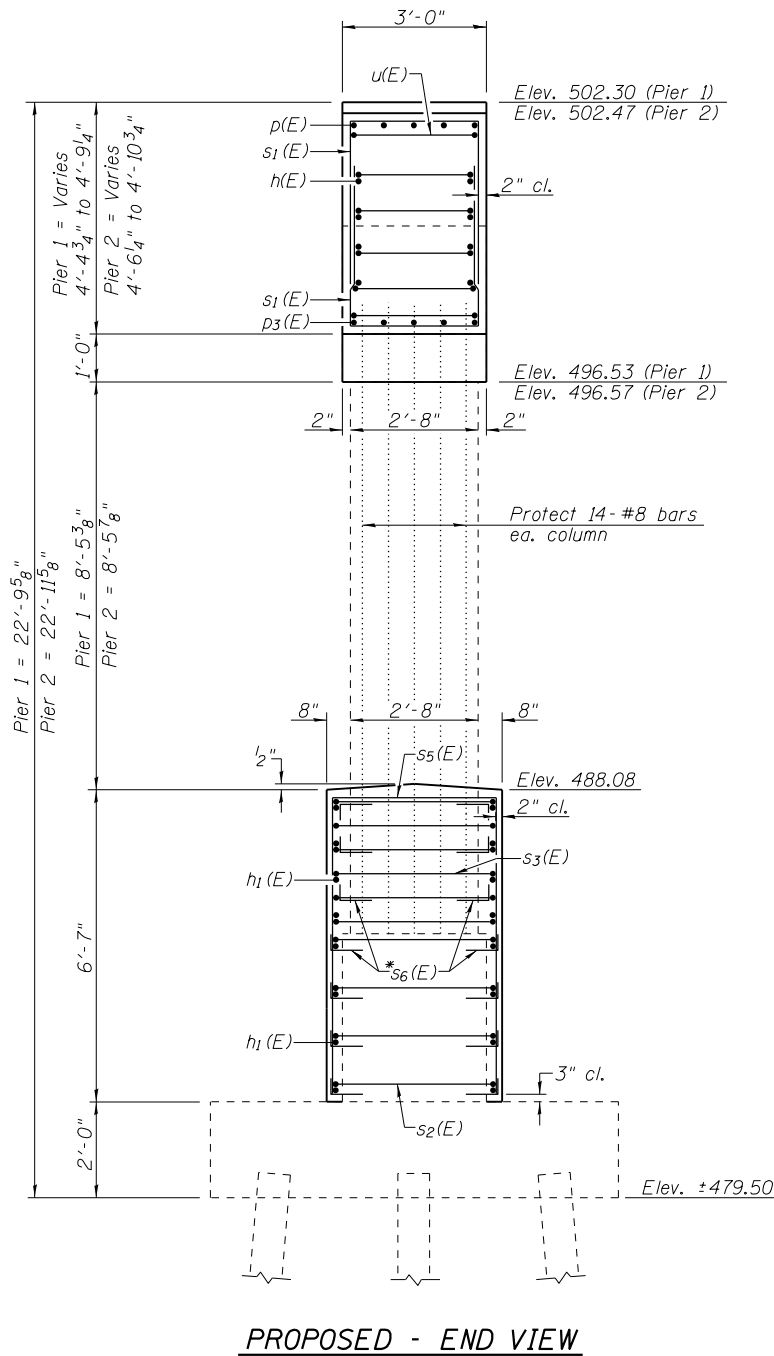


SECTION A-A

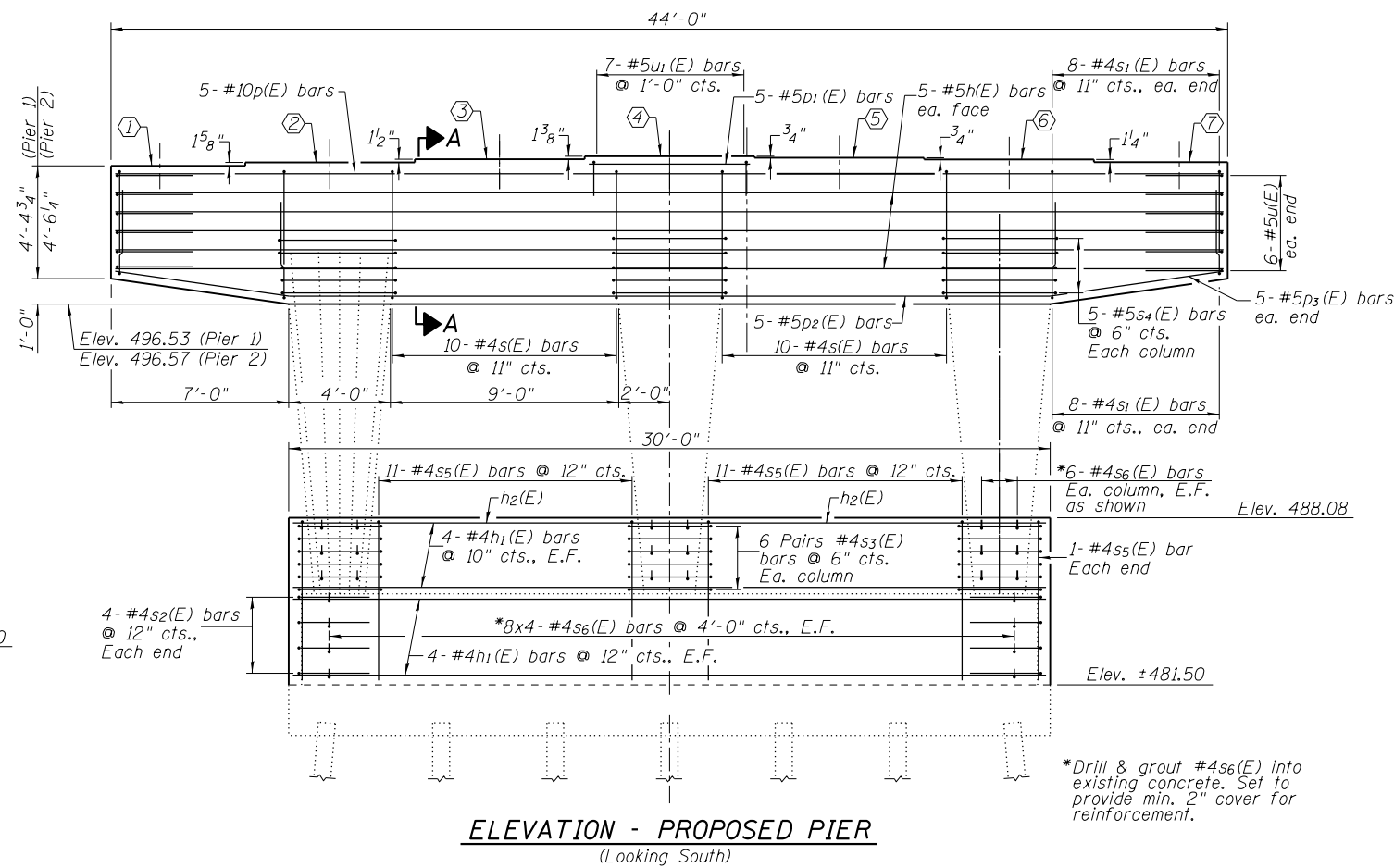
PROP. ELEVATIONS

NO.	PIER 1	PIER 2
1	501.92	502.09
2	502.06	502.23
3	502.18	502.35
4	502.30	502.47
5	502.24	502.41
6	502.17	502.34
7	502.07	502.24

- NOTES:**
- Existing reinforcement (protected) extending out of existing columns shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
 - Concrete Sealer shall be applied to all exposed surfaces of the pier cap and crashwall.



PROPOSED - END VIEW



ELEVATION - PROPOSED PIER
(Looking South)

*Drill & grout #4s6(E) into existing concrete. Set to provide min. 2" cover for reinforcement.



USER NAME =	DESIGNED - CJW	REVISED -
	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE	CHECKED - CJW	REVISED -

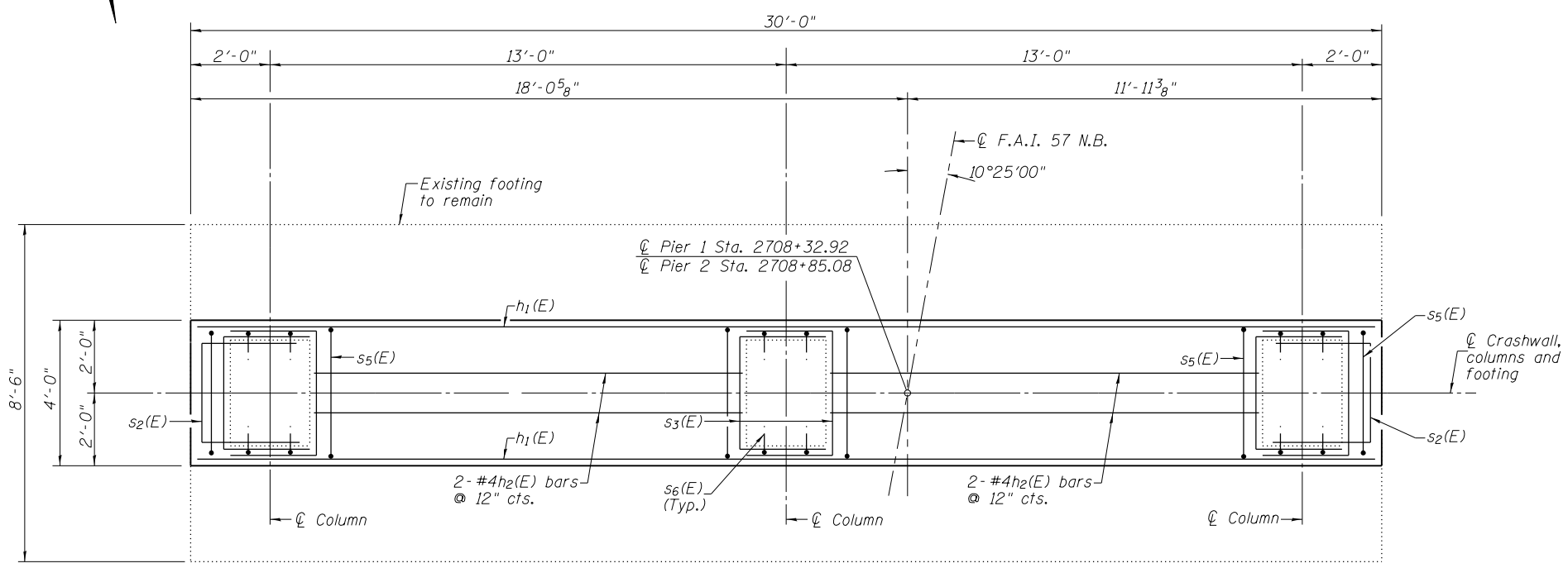
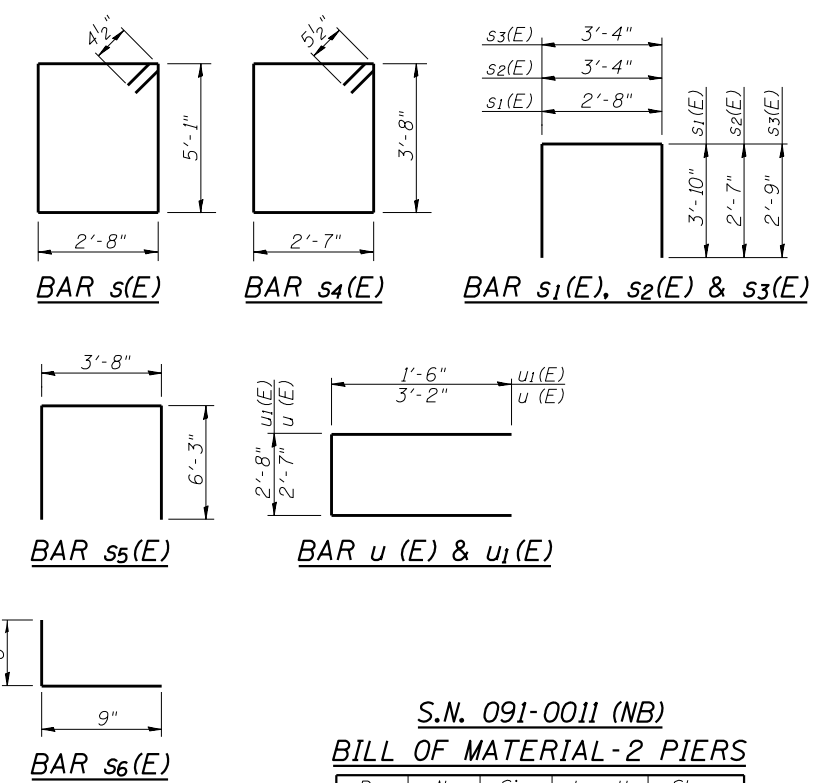
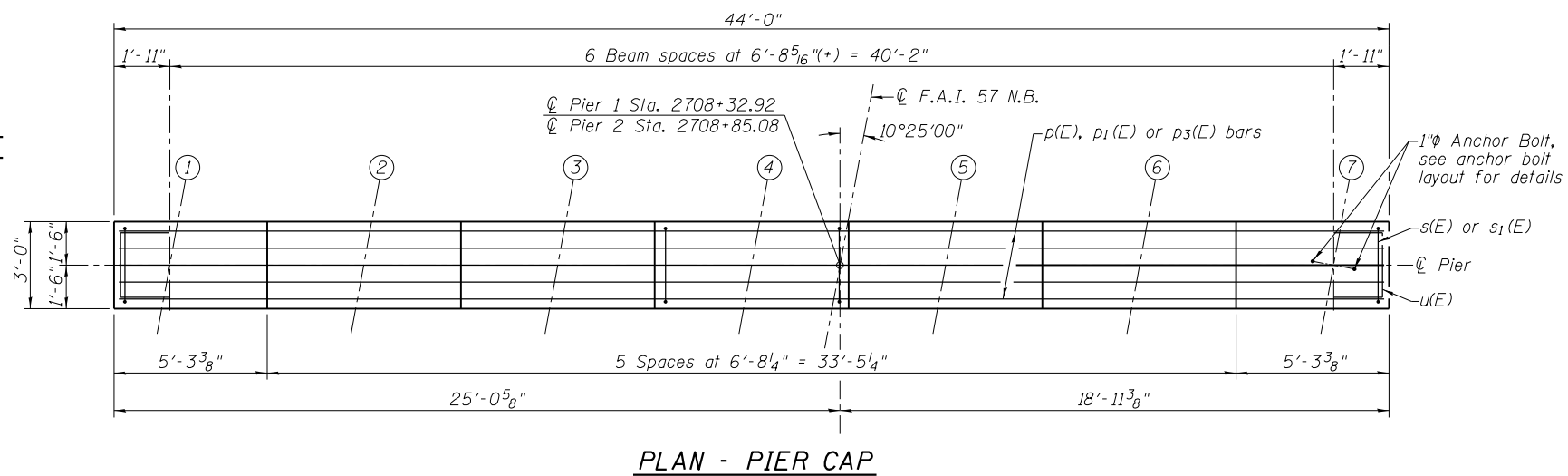
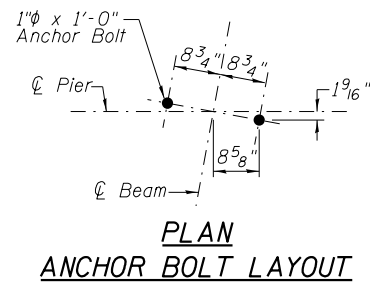
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER DETAILS 1
STRUCTURE NO. 091-0011 (NB)

SHEET NO. 32 OF 36 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	121
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT



**S.N. 091-0011 (NB)
BILL OF MATERIAL - 2 PIERS**

Bar	No.	Size	Length	Shape
h(E)	20	#5	43'-8"	—
h1(E)	32	#4	29'-8"	—
h2(E)	8	#4	10'-4"	—
p(E)	10	#10	43'-8"	—
p1(E)	10	#5	6'-4"	—
p2(E)	10	#5	30'-0"	—
p3(E)	20	#5	6'-11"	—
s(E)	40	#4	16'-3"	□
s1(E)	64	#4	10'-4"	□
s2(E)	16	#4	8'-6"	□
s3(E)	72	#4	8'-10"	□
s4(E)	30	#5	13'-5"	□
s5(E)	48	#4	16'-2"	□
s6(E)	200	#4	1'-3"	L
u(E)	24	#5	8'-11"	—
u1(E)	14	#5	5'-8"	—
Concrete Removal		Cu. Yd.	38.2	
Concrete Structures		Cu. Yd.	69.7	
Reinforcement Bars, Epoxy Coated		Pound	6,810	
Drill and Grout Bars		Each	200	
Structure Excavation		Cu. Yd.	42	
Concrete Sealer		Sq. Ft.	2,696	

- NOTES:**
- Space reinforcement in cap to miss anchor bolts.
 - Pour steps monolithically with cap.
 - Concrete Sealer shall be applied to all exposed surfaces of the pier cap and crashwall.

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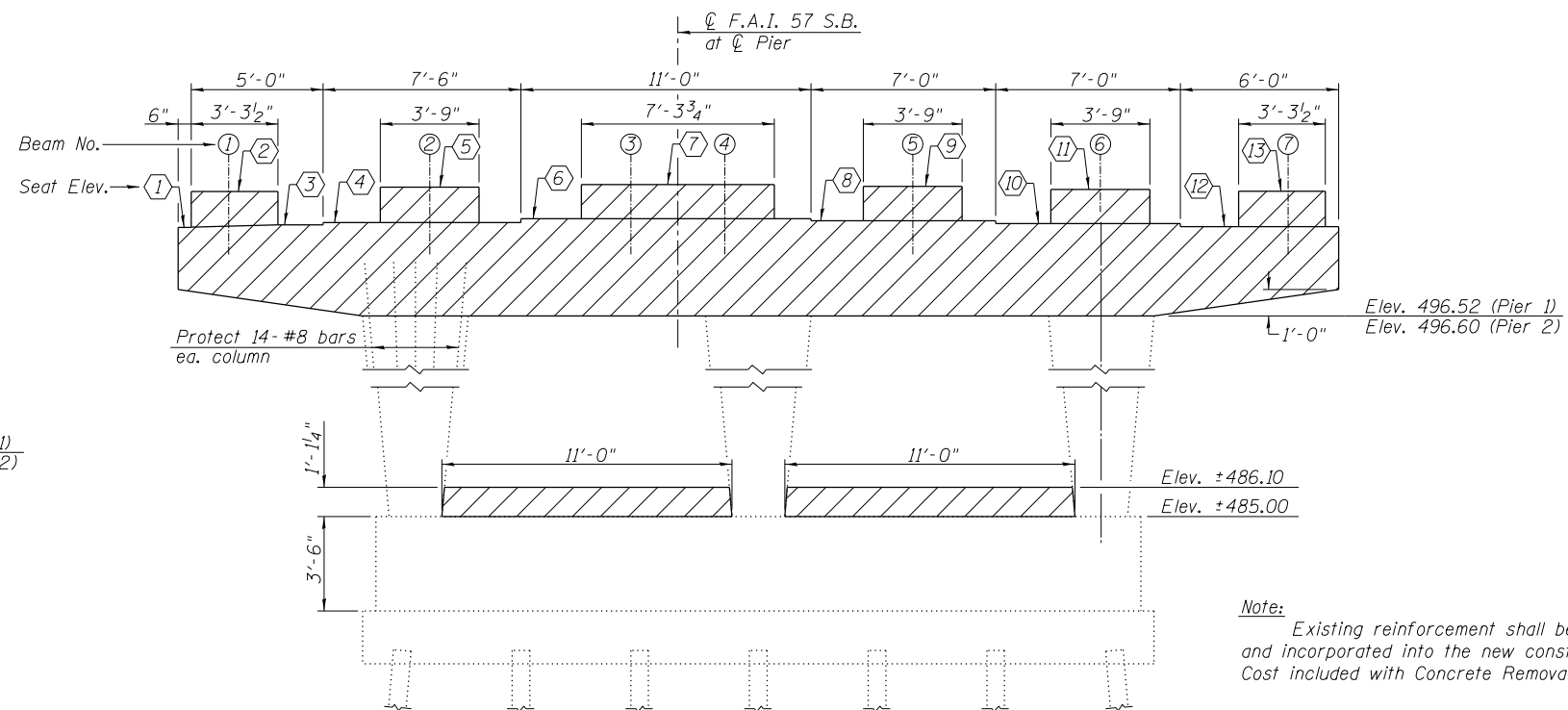


USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

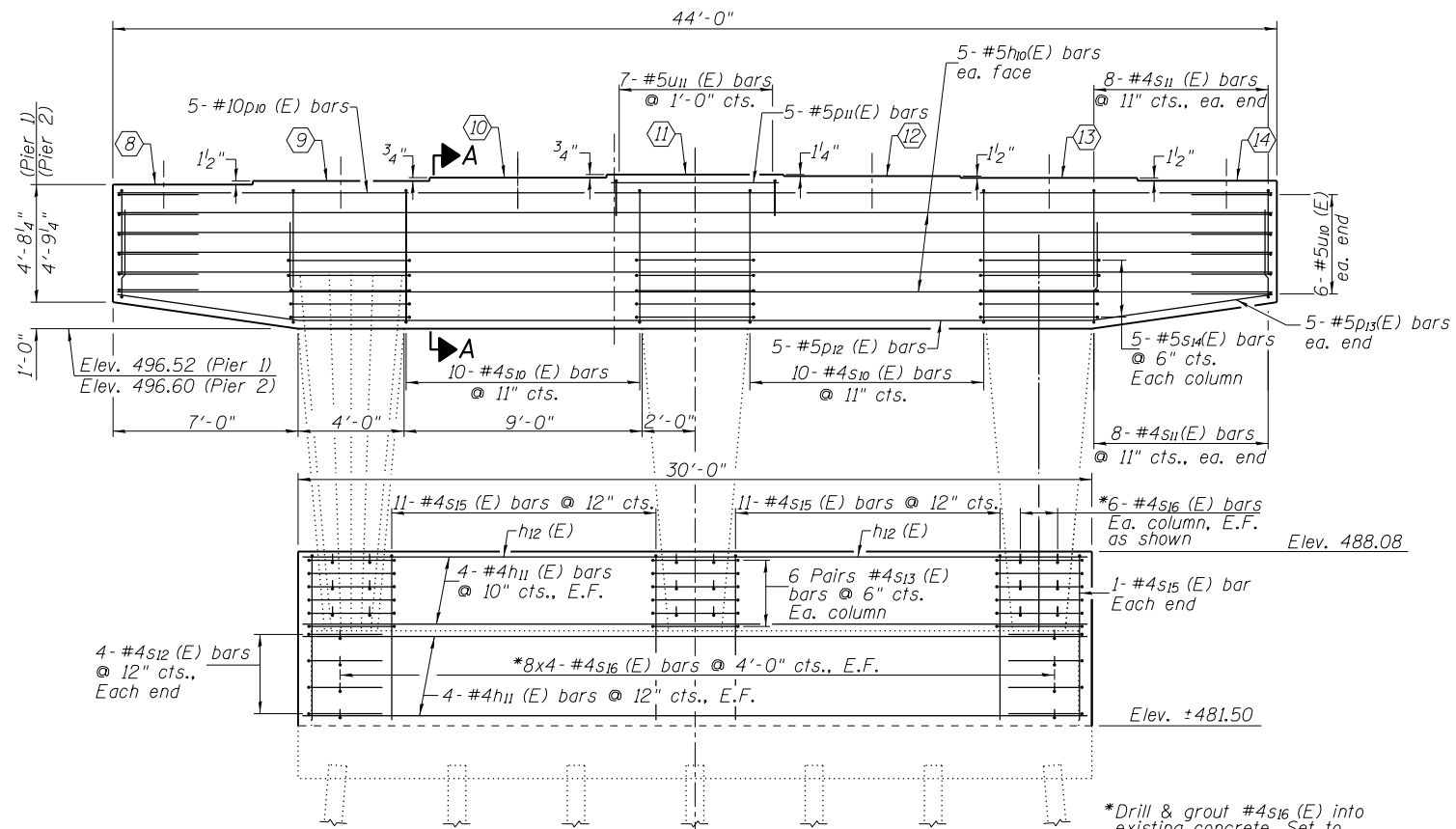
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER DETAILS 2
STRUCTURE NO. 091-0011 (NB)**
SHEET NO. 33 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	122
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				



ELEVATION - EXISTING PIER
(Looking South)



ELEVATION - PROPOSED PIER
(Looking South)

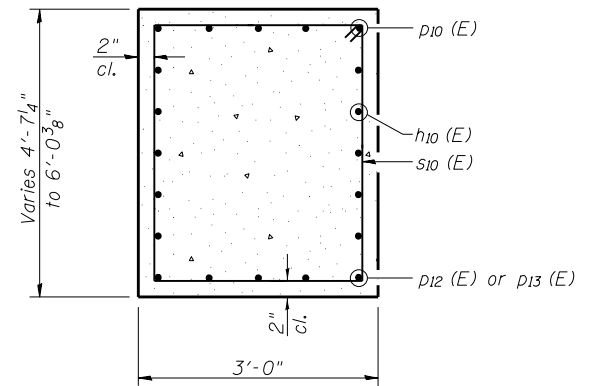
EXIST. ELEVATIONS

NO.	PIER 1	PIER 2
1	499.88	499.85
2	501.24	500.94
3	499.97	499.94
4	500.06	500.08
5	501.40	501.08
6	500.21	500.17
7	501.50	501.24
8	500.13	500.11
9	501.43	501.23
10	500.02	499.99
11	501.32	501.07
12	499.91	499.89
13	501.25	500.91

LEGEND



Note:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



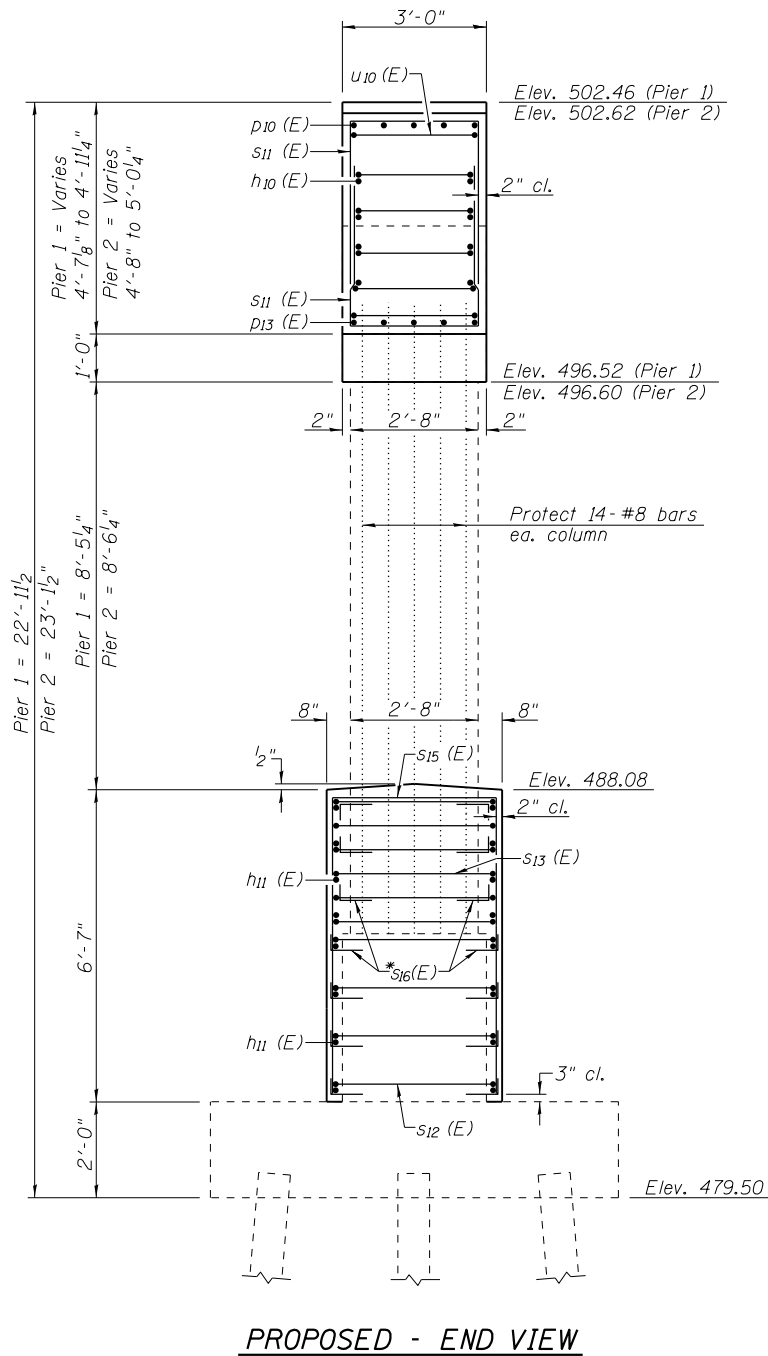
SECTION A-A

PROP. ELEVATIONS

NO.	PIER 1	PIER 2
8	502.21	502.37
9	502.34	502.49
10	502.40	502.55
11	502.46	502.62
12	502.36	502.51
13	502.23	502.39
14	502.11	502.26

NOTES:

- Existing reinforcement (protected) extending out of existing columns shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
- Concrete Sealer shall be applied to all exposed surfaces of the pier cap and crashwall.



PROPOSED - END VIEW



USER NAME =	DESIGNED - CJW	REVISED -
PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

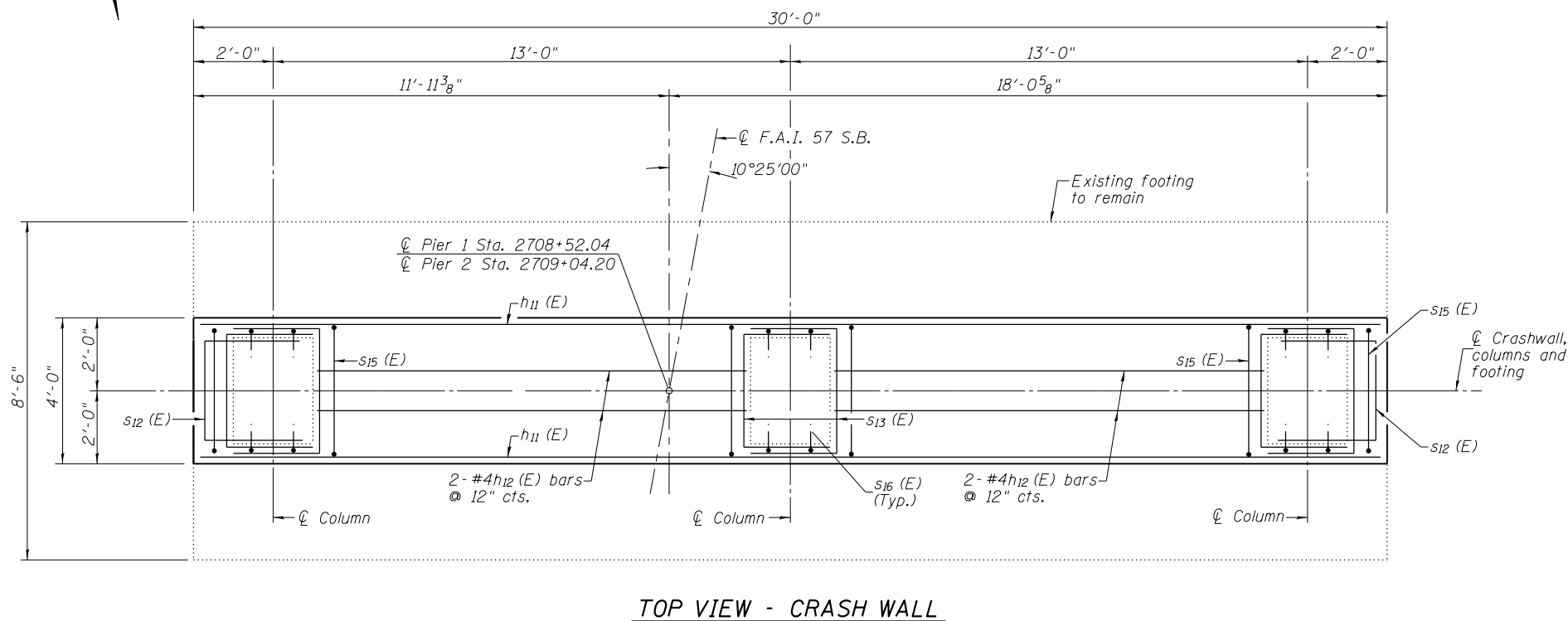
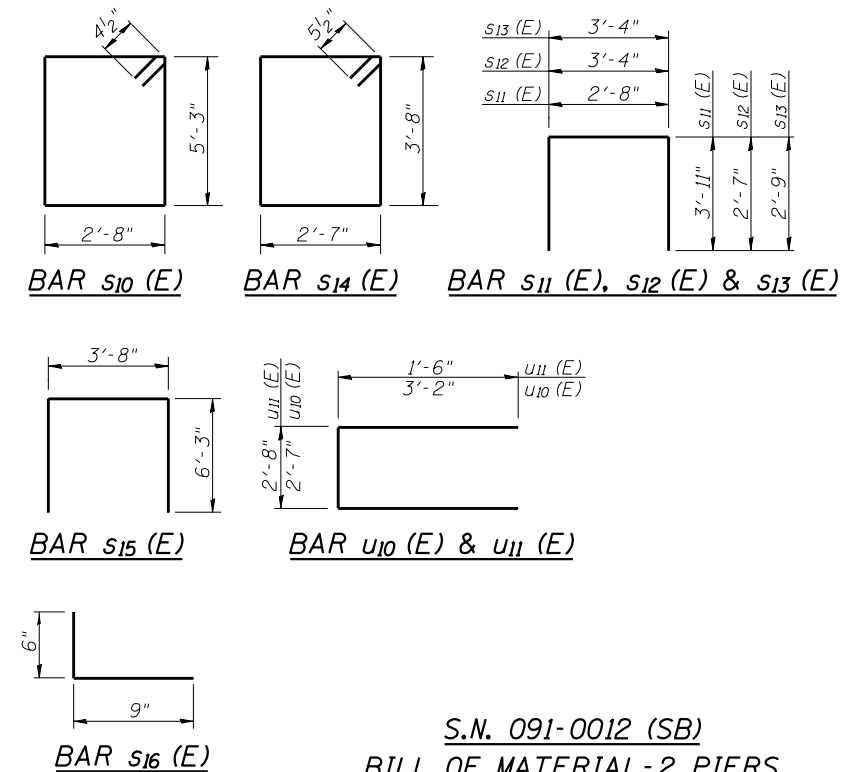
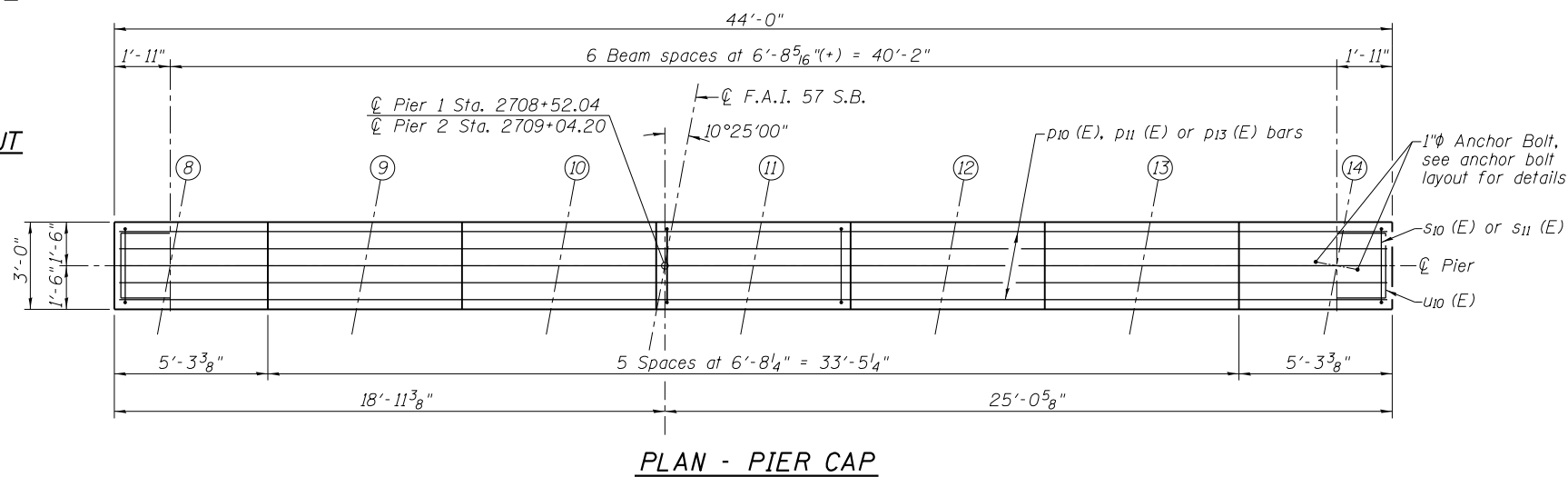
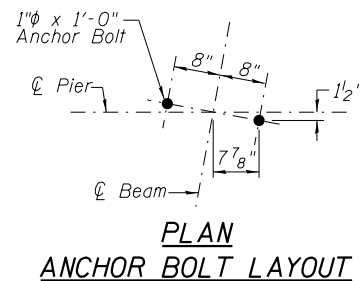
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER DETAILS 1
STRUCTURE NO. 091-0012 (SB)

SHEET NO. 34 OF 36 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	123
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT



S.N. 091-0012 (SB)
BILL OF MATERIAL - 2 PIERS

Bar	No.	Size	Length	Shape
h10 (E)	20	#5	43'-8"	—
h11 (E)	32	#4	29'-8"	—
h12 (E)	8	#4	10'-4"	—
p10 (E)	10	#10	43'-8"	—
p11 (E)	10	#5	6'-4"	—
p12 (E)	10	#5	30'-0"	—
p13 (E)	20	#5	6'-11"	—
s10 (E)	40	#4	16'-7"	□
s11 (E)	64	#4	10'-6"	□
s12 (E)	16	#4	8'-6"	□
s13 (E)	72	#4	8'-10"	□
s14 (E)	30	#5	13'-5"	□
s15 (E)	48	#4	16'-2"	□
s16 (E)	200	#4	1'-3"	L
u10 (E)	24	#5	8'-11"	—
u11 (E)	14	#5	5'-8"	—
Concrete Removal		Cu. Yd.	44.6	
Concrete Structures		Cu. Yd.	71.1	
Reinforcement Bars, Epoxy Coated		Pound	6,820	
Drill and Grout Bars		Each	200	
Structure Excavation		Cu. Yd.	42	
Concrete Sealer		Sq. Ft.	2,720	

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. Concrete Sealer shall be applied to all exposed surfaces of the pier cap and crashwall.

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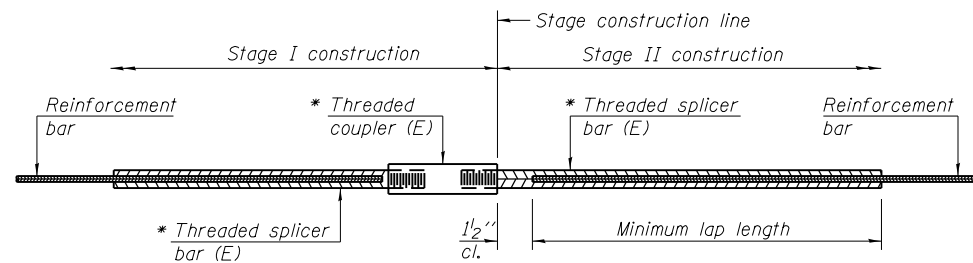
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PLOT SCALE =	CHECKED - WLB	REVISED -
PLOT DATE =	DRAWN - GLD	REVISED -
	CHECKED - CJW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER DETAILS 2
STRUCTURE NO. 091-0012 (SB)

SHEET NO. 35 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	124
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

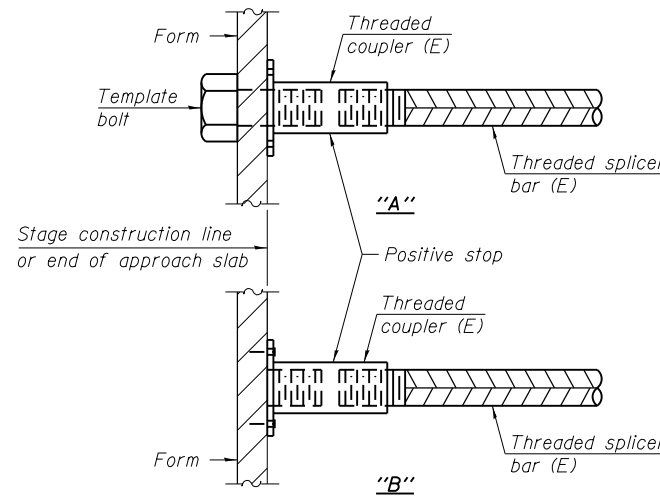


STANDARD BAR SPLICER ASSEMBLY

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

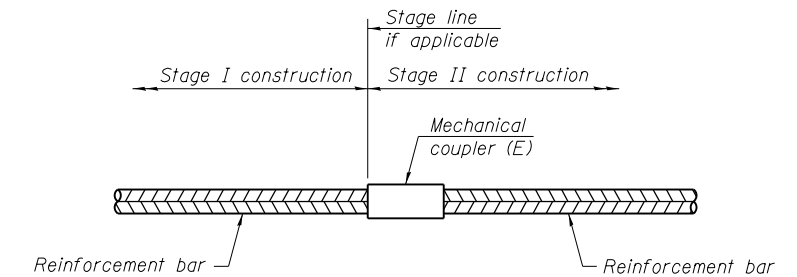
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length



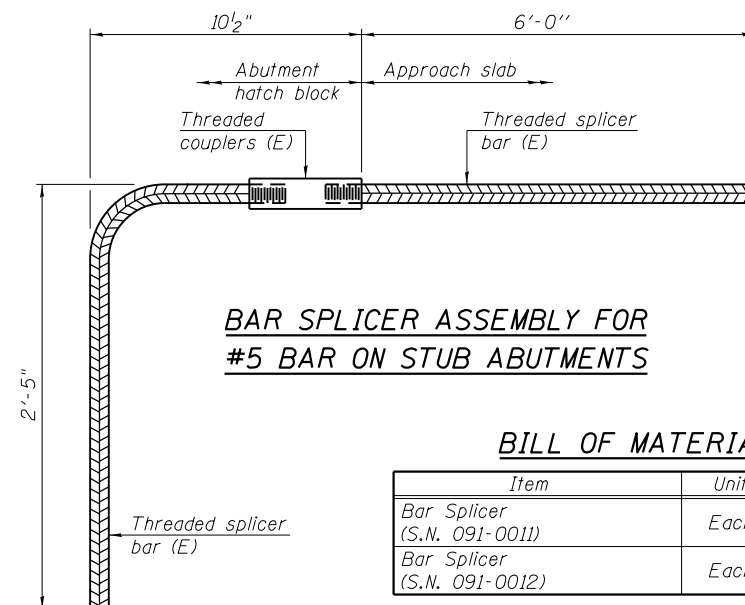
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

BILL OF MATERIAL

Item	Unit	Total
Bar Splicer (S.N. 091-0011)	Each	84
Bar Splicer (S.N. 091-0012)	Each	84

NOTES

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

BSD-1

6-8-15



USER NAME =	DESIGNED - CJW	REVISED -
	CHECKED - WLB	REVISED -
PLOT SCALE =	DRAWN - GLD	REVISED -
PLOT DATE =	CHECKED - CJW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER DETAILS
STRUCTURE NO. 091-0011 (NB) & 0012 (SB)

SHEET NO. 36 OF 36 SHEETS

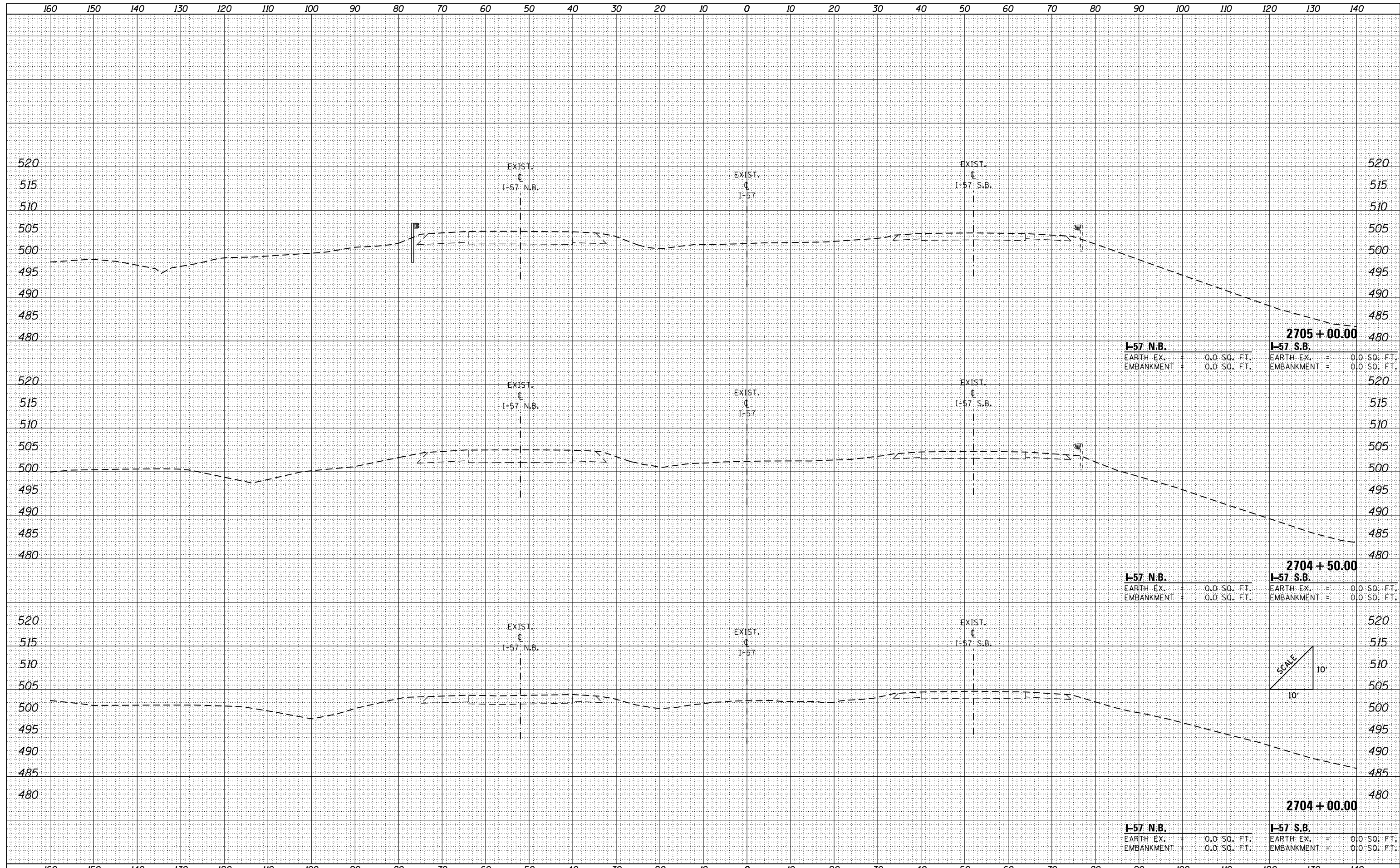
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57	(91-3HB)BR-1	UNION	150	125
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT

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DATE	
BY	
FINISHED SURVEY	
PLOTTED TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

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



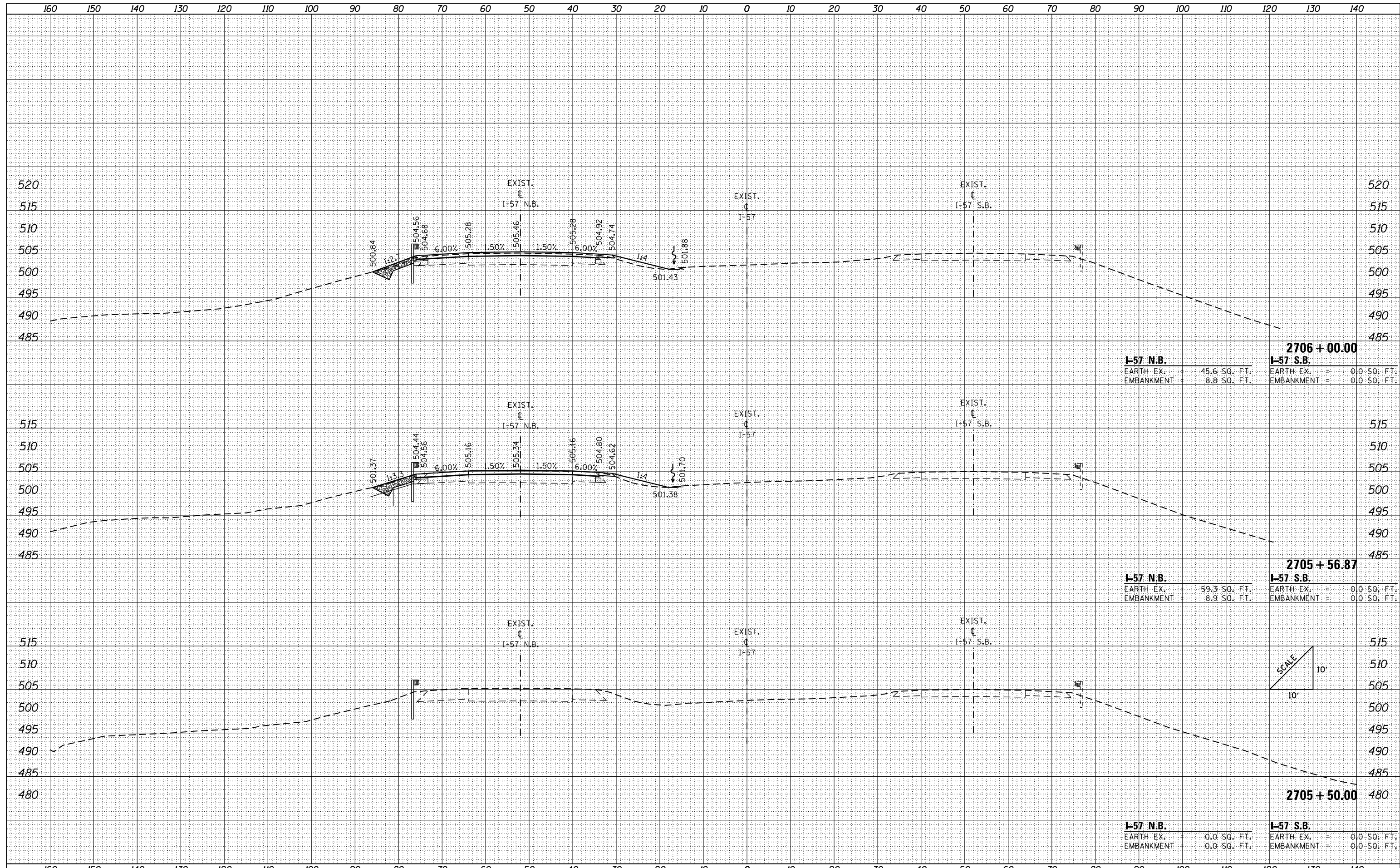
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I-57 N.B.	I-57 S.B.
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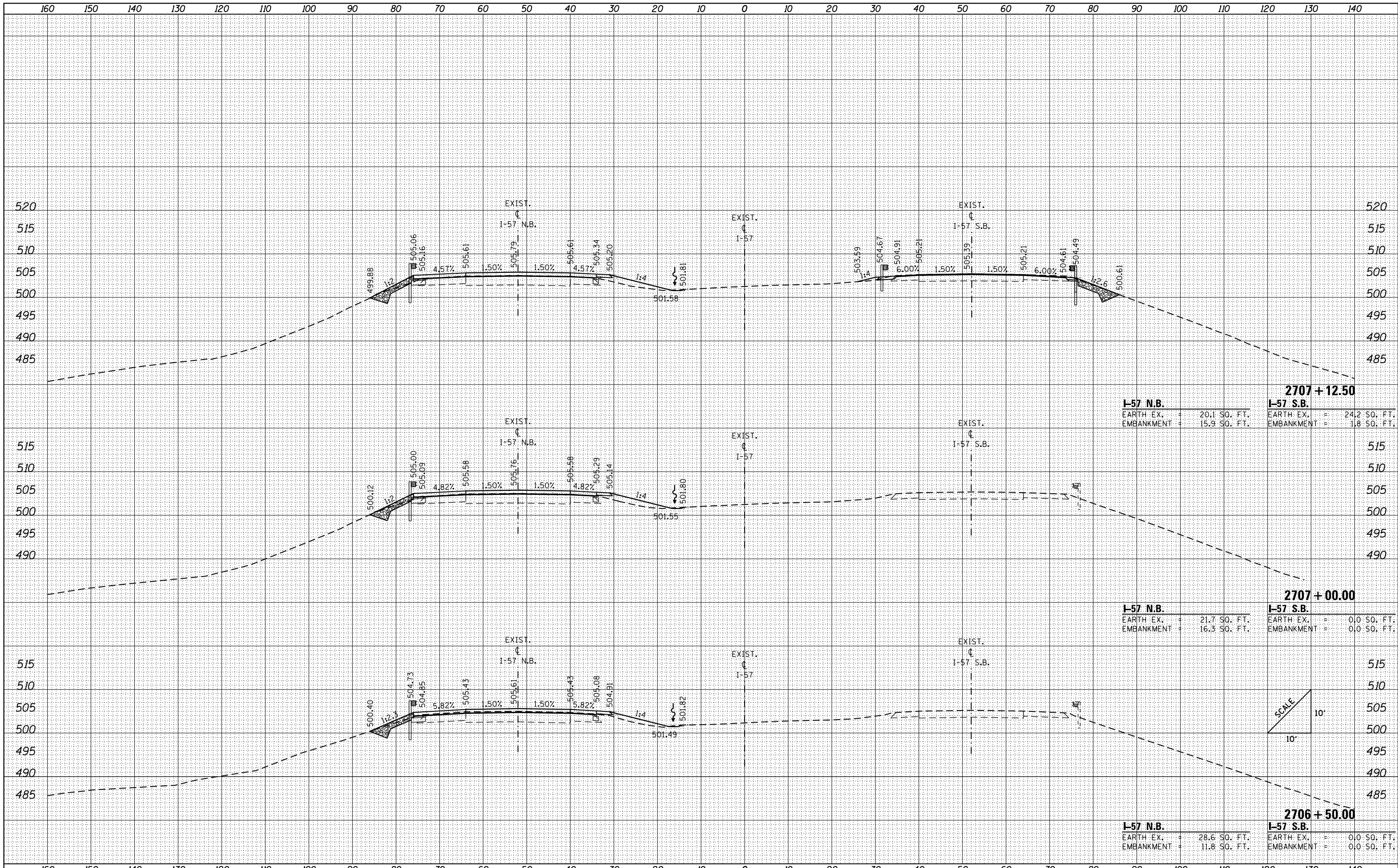
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2704 + 00.00	
I-57 N.B.	I-57 S.B.
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EMBANKMENT = 0.0 SQ. FT.	EMBANKMENT = 0.0 SQ. FT.

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

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





BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____

FILE NAME = L:\1001\0806610\10_29\Draw\Sheets\Roadway Plans\10978349-sht-XSC-157.dgn
 USER NAME = Matt Overbey
 DESIGNED - BB
 DRAWN - BB
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 10/19/2016

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

CHECKED - JMM
 DATE - 09/30/16

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

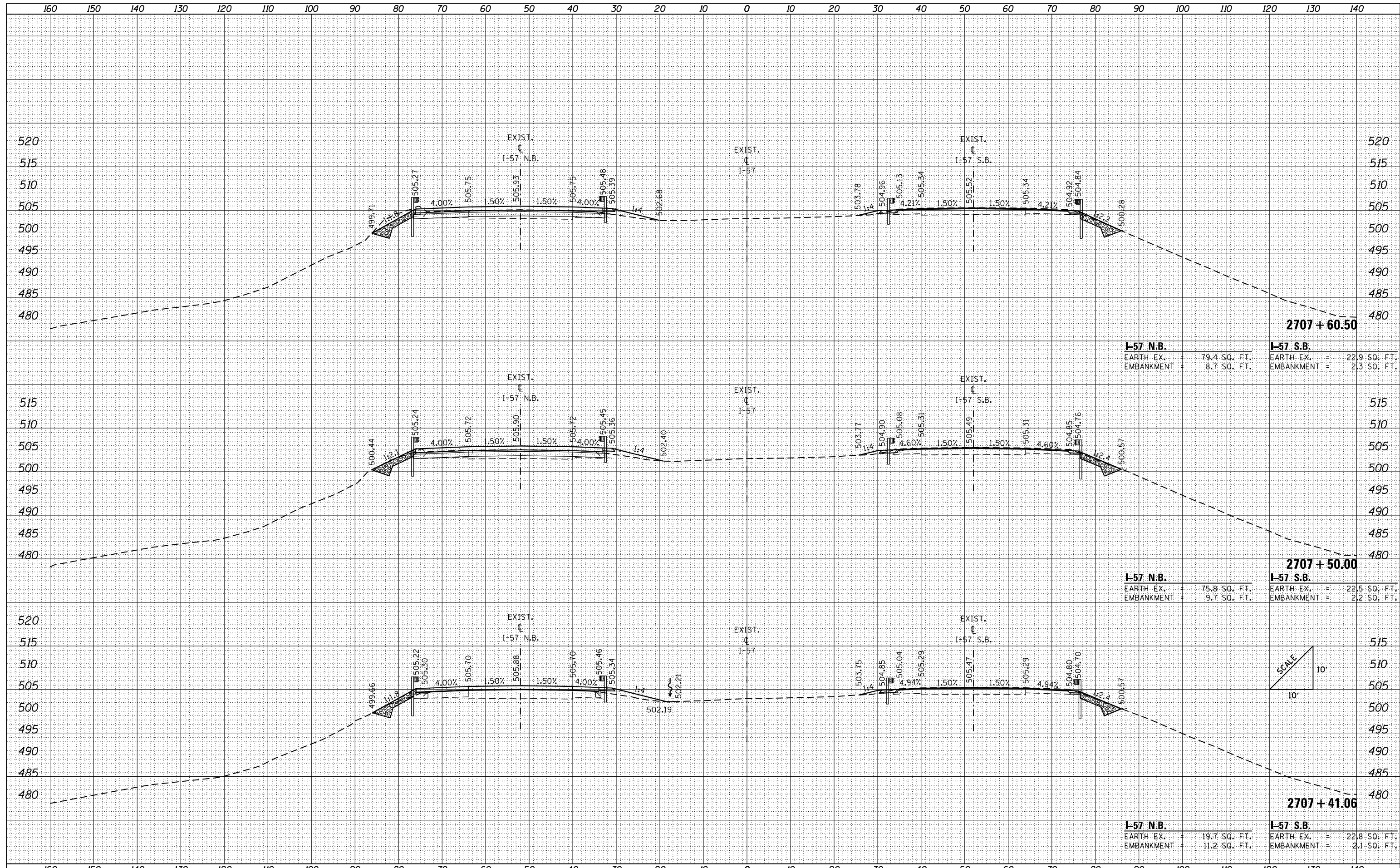
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I-57
 SCALE: SHEET 3 OF 10 SHEETS STA. 2706+50.00 TO STA. 2707+12.50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB) BR-1	UNION	150	128

CONTRACT NO. 78349
 ILLINOIS FED. AID PROJECT

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

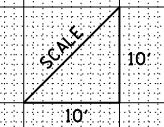
DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED



I-57 N.B.		I-57 S.B.	
EARTH EX.	= 79.4 SQ. FT.	EARTH EX.	= 22.9 SQ. FT.
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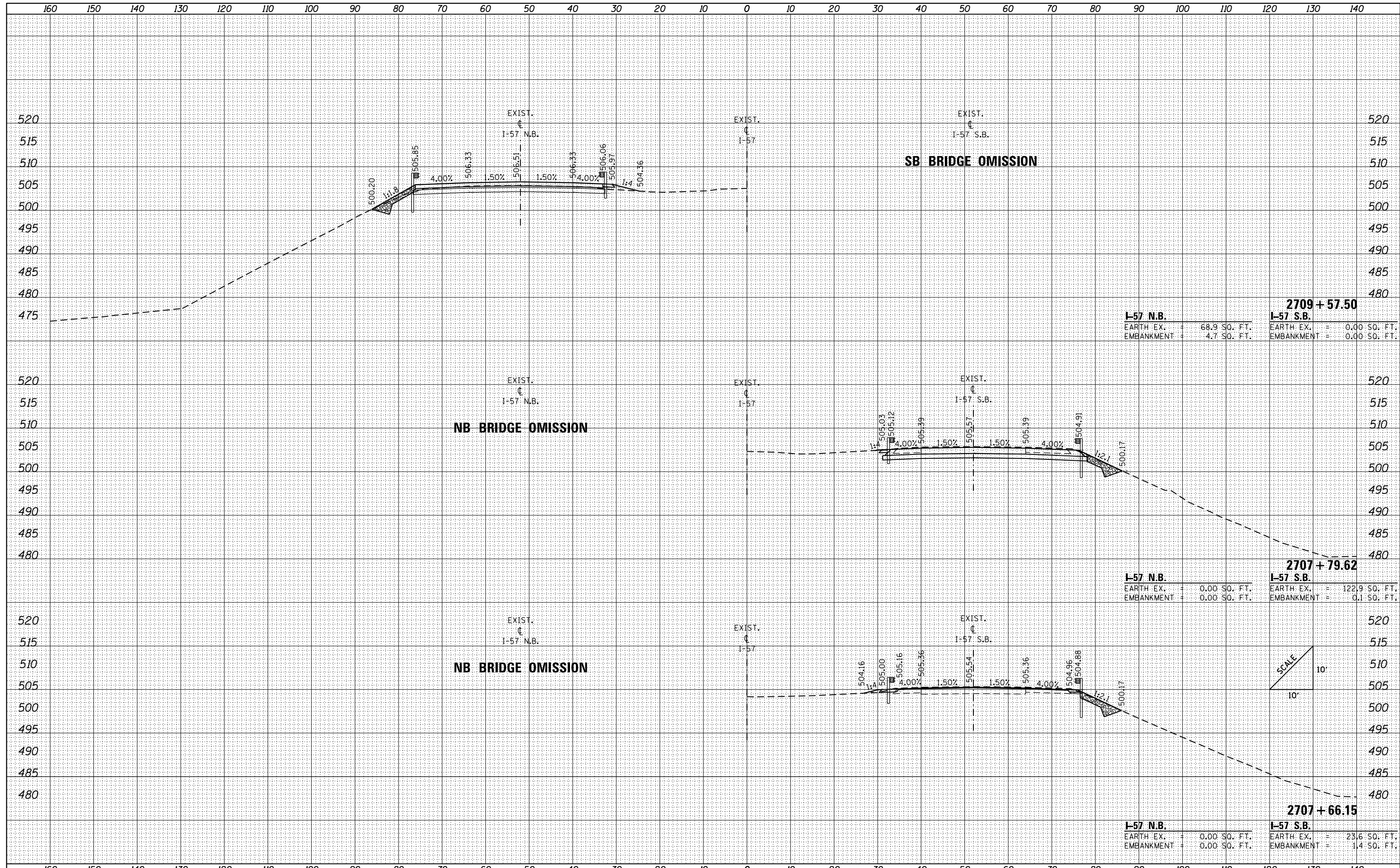
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EMBANKMENT	= 9.7 SQ. FT.	EMBANKMENT	= 2.2 SQ. FT.

I-57 N.B.		I-57 S.B.	
EARTH EX.	= 19.7 SQ. FT.	EARTH EX.	= 22.8 SQ. FT.
EMBANKMENT	= 11.2 SQ. FT.	EMBANKMENT	= 2.1 SQ. FT.



DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



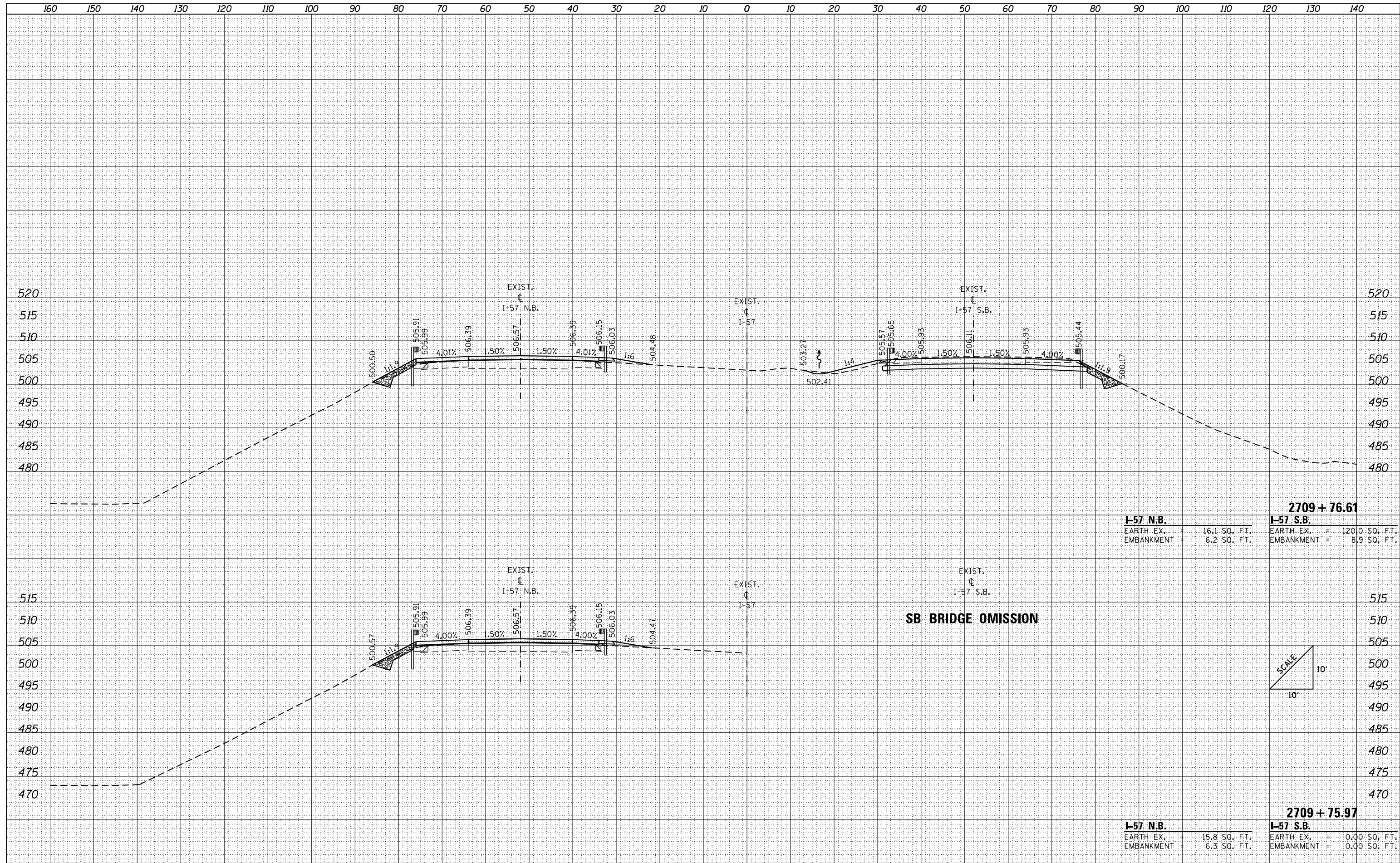
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2707 + 79.62	
I-57 N.B.	I-57 S.B.
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EMBANKMENT = 0.00 SQ. FT.	EMBANKMENT = 0.1 SQ. FT.

2707 + 66.15	
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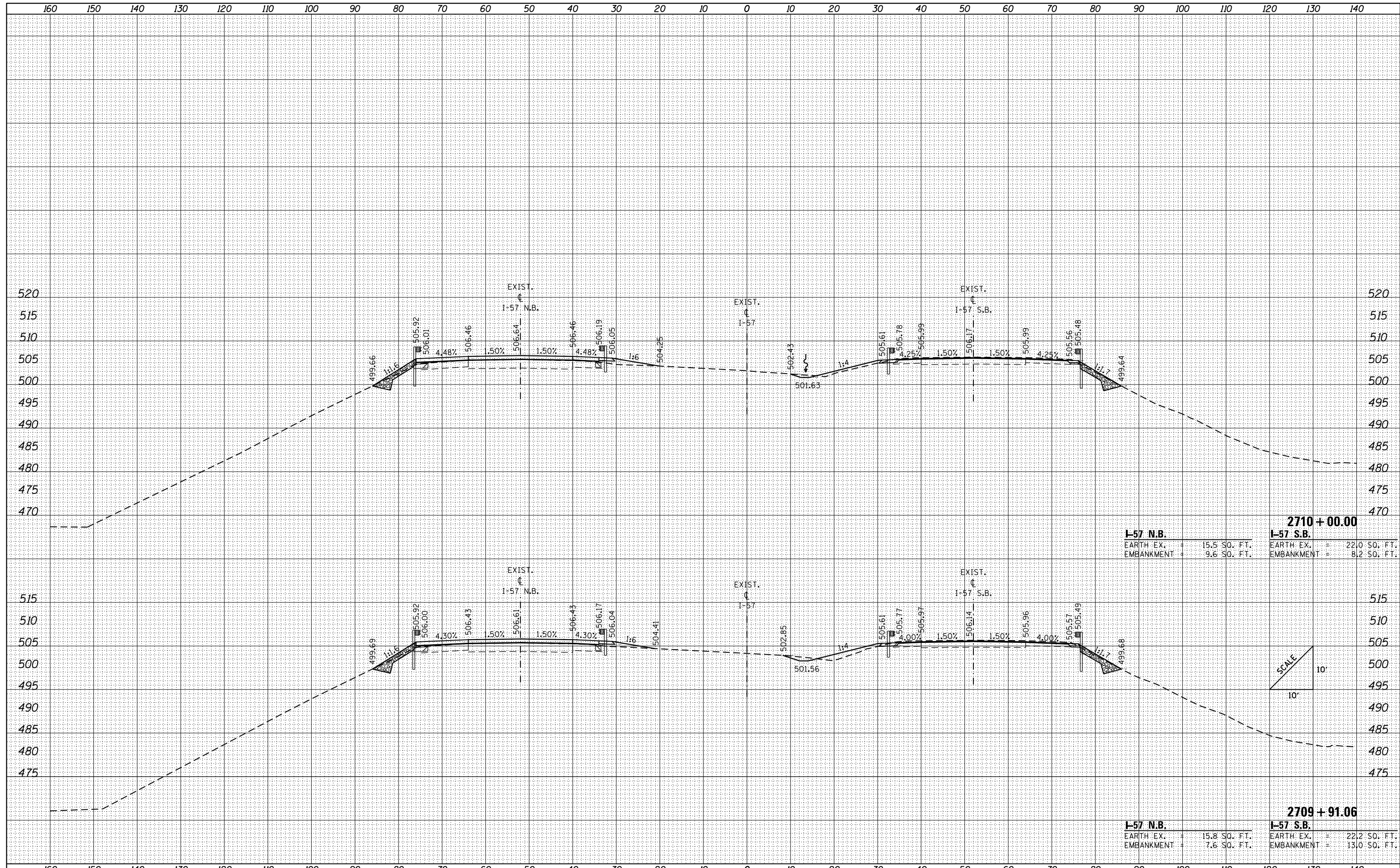
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BY	
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NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

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



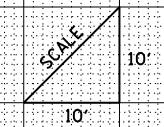
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



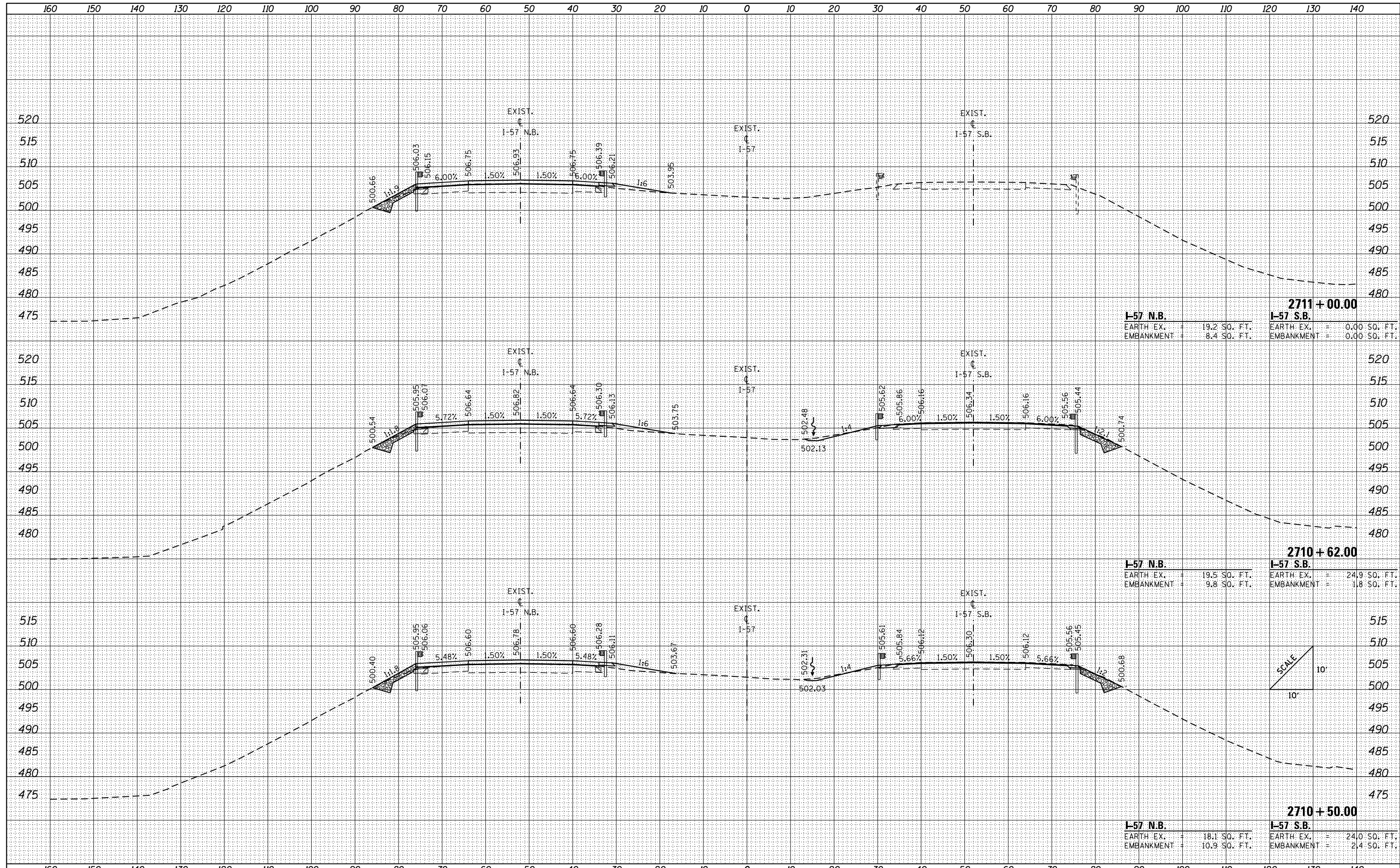
2710 + 00.00	
I-57 N.B.	I-57 S.B.
EARTH EX. = 15.5 SQ. FT.	EARTH EX. = 22.0 SQ. FT.
EMBANKMENT = 9.6 SQ. FT.	EMBANKMENT = 8.2 SQ. FT.

2709 + 91.06	
I-57 N.B.	I-57 S.B.
EARTH EX. = 15.8 SQ. FT.	EARTH EX. = 22.2 SQ. FT.
EMBANKMENT = 7.6 SQ. FT.	EMBANKMENT = 13.0 SQ. FT.



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

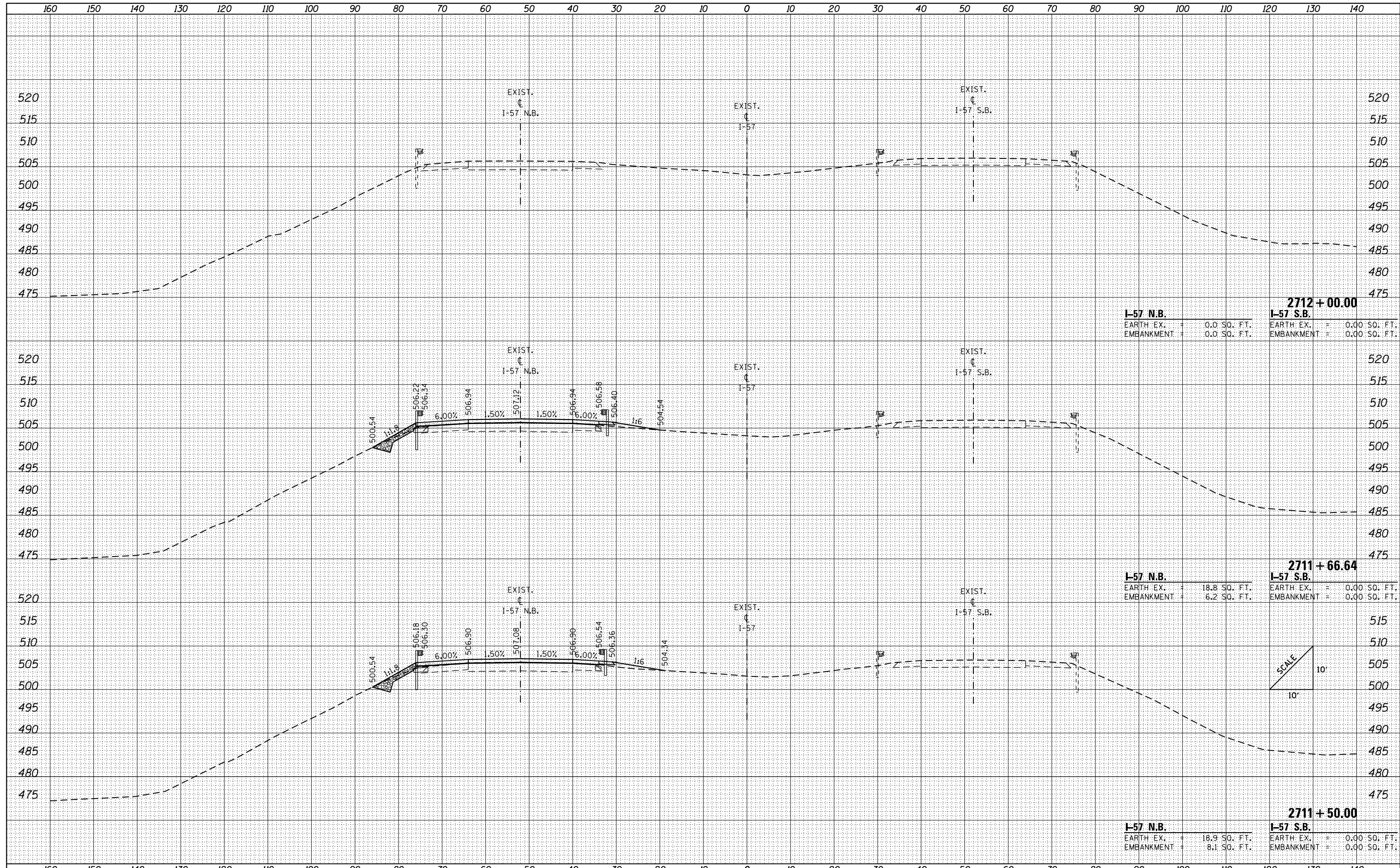
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BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED



FILE NAME =	USER NAME = Matt Overbey	DESIGNED - BB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
L:\1001\0806610\10_29\Draw\Sheets\Roadway Plans\0978349-sh1-XSC-157.dgn		DRAWN - BB	REVISED -		57	(91-3HB) BR-1	UNION	150	133				
Default	PLOT SCALE = 20.0000' / in.	CHECKED - JMM	REVISED -		CONTRACT NO. 78349								
	PLOT DATE = 10/19/2016	DATE - 09/30/16	REVISED -		ILLINOIS FED. AID PROJECT								

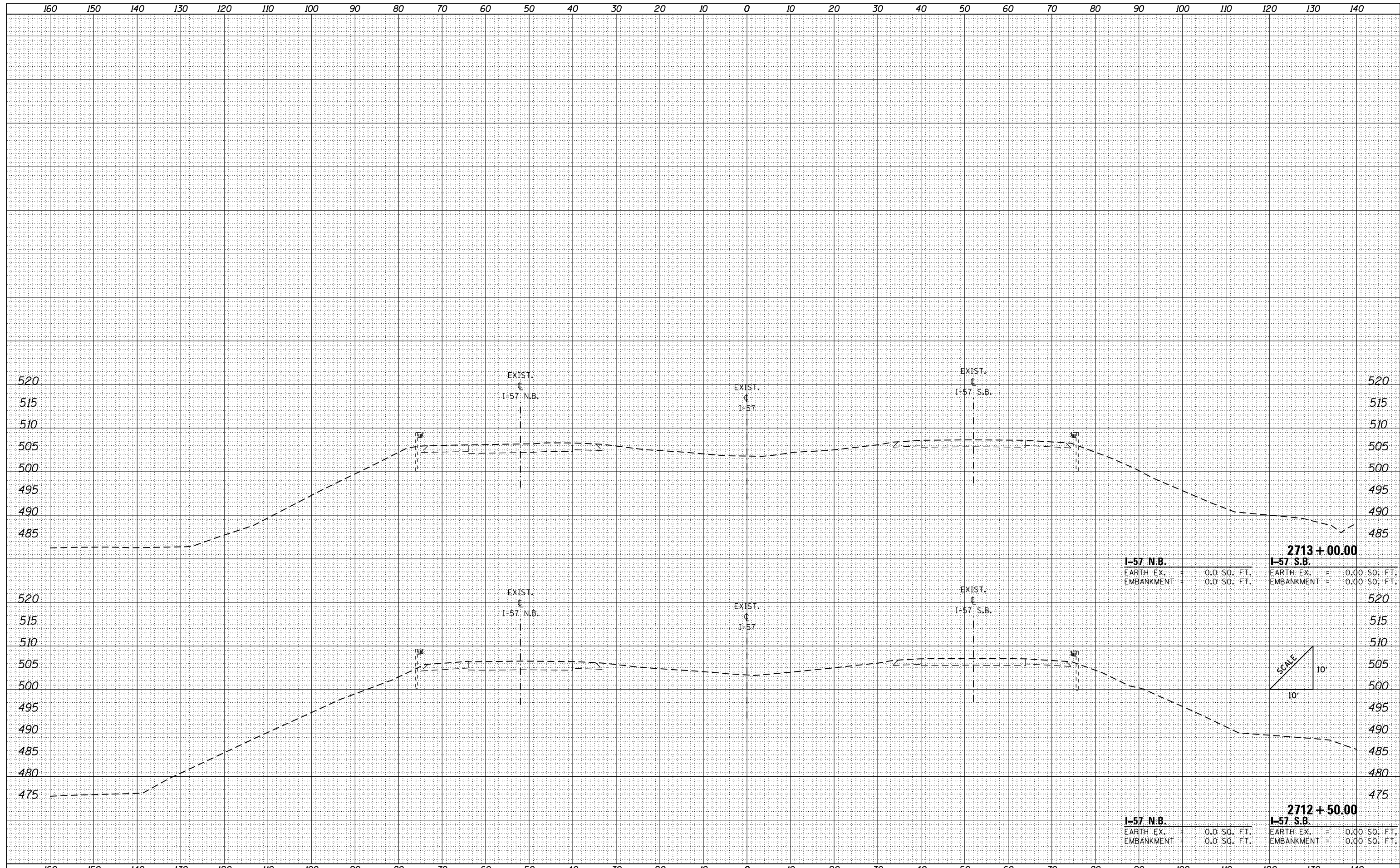
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BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

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

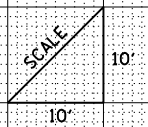


DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

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



2713 + 00.00	
I-57 N.B.	I-57 S.B.
EARTH EX. = 0.0 SQ. FT.	EARTH EX. = 0.00 SQ. FT.
EMBANKMENT = 0.0 SQ. FT.	EMBANKMENT = 0.00 SQ. FT.



2712 + 50.00	
I-57 N.B.	I-57 S.B.
EARTH EX. = 0.0 SQ. FT.	EARTH EX. = 0.00 SQ. FT.
EMBANKMENT = 0.0 SQ. FT.	EMBANKMENT = 0.00 SQ. FT.

FILE NAME =	USER NAME = Matt Overbey	DESIGNED - BB	REVISD -
L:\1001\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-sh1-XSC-157.dgn		DRAWN - BB	REVISD -
Default		CHECKED - JMM	REVISD -
		DATE - 09/30/16	REVISD -

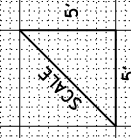
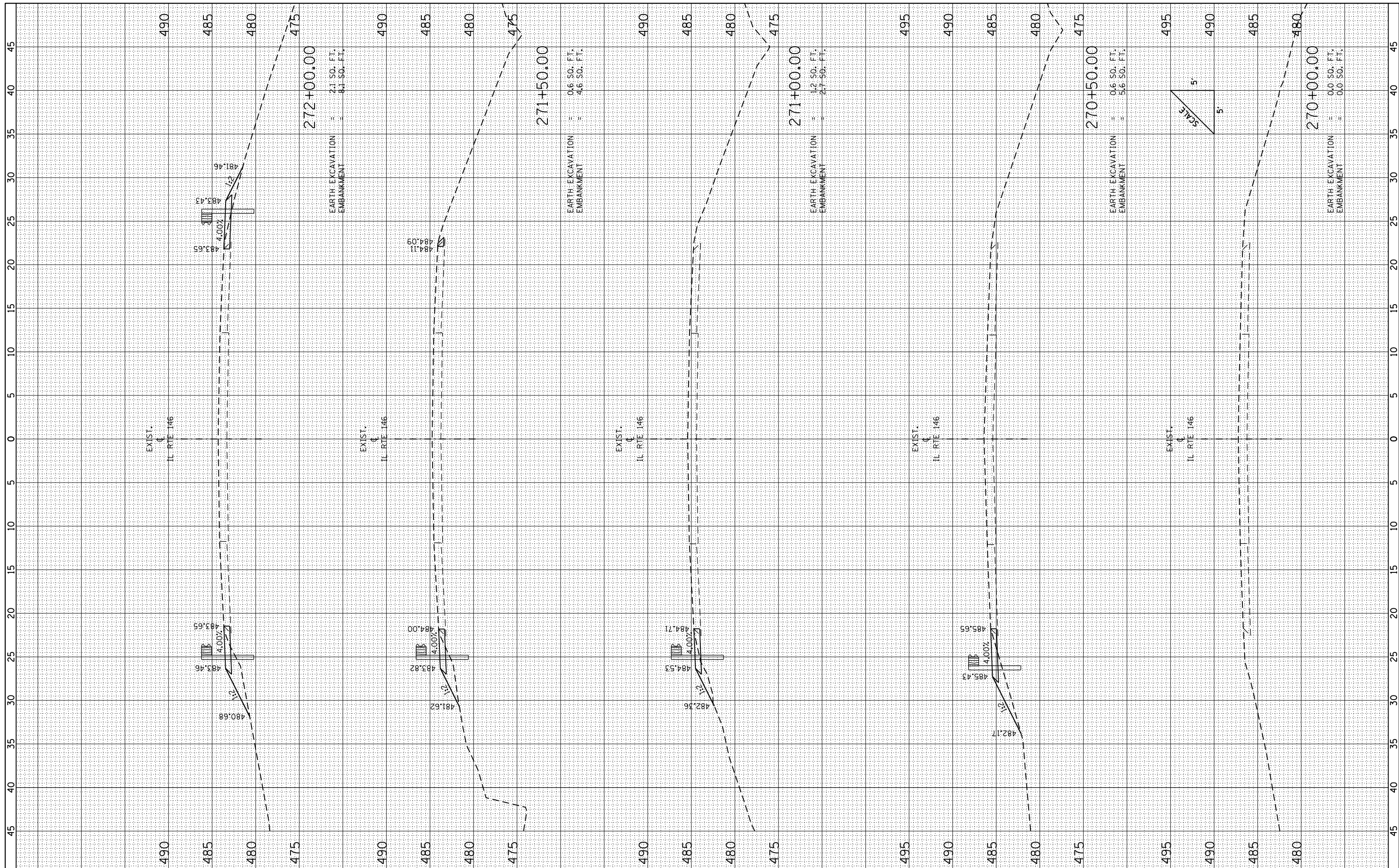
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS			
I-57			
SCALE:	SHEET 10	OF 10 SHEETS	STA. 2712+50.00 TO STA. 2713+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB) BR-1	UNION	150	135
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

BY	DATE

ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
	TEMPLATE
	AREAS
	CHECKED



FILE NAME =	USER NAME = Matt Overbey	DESIGNED -	MJO	REVISED -	
L:\1001\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-shr-XSC-IL146.dgn		DRAWN -	BB	REVISED -	
Default		CHECKED -	JMM	REVISED -	
		DATE -	09/30/16	REVISED -	

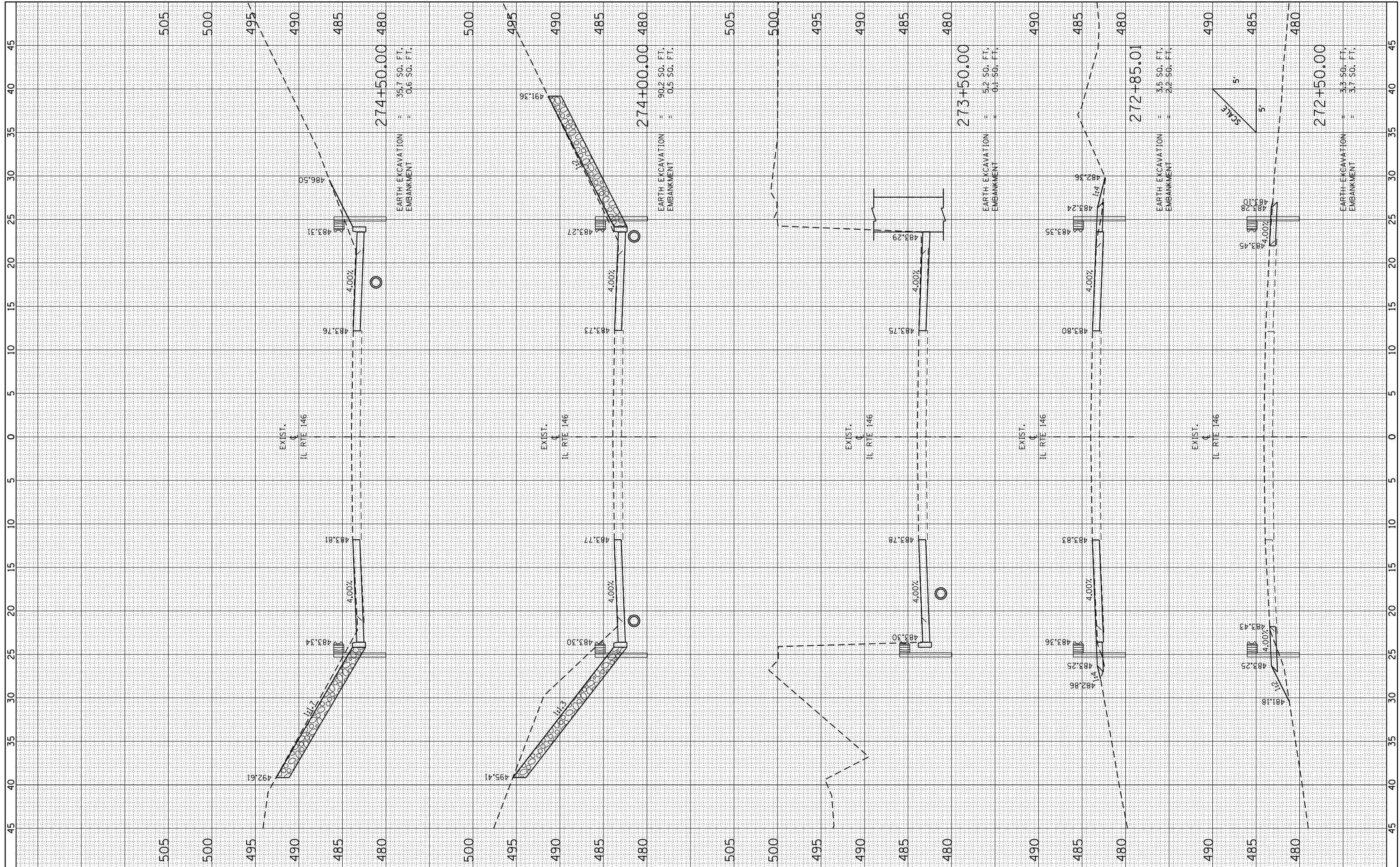
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS			
IL 146			
SCALE:	SHEET 1	OF 4 SHEETS	STA. 270+00.00 TO STA. 272+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3H)BR-1	UNION	150	136
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

BY	DATE

ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
	TEMPLATE
	AREAS
	CHECKED



FILE NAME = L:\1001\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-shr-XSC-IL146.dgn
 USER NAME = Matt Overbey
 PLOT SCALE = 10.0000' / 1"
 PLOT DATE = 10/19/2016

DESIGNED	-	MJO
DRAWN	-	BB
CHECKED	-	JMM
DATE	-	09/30/16

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

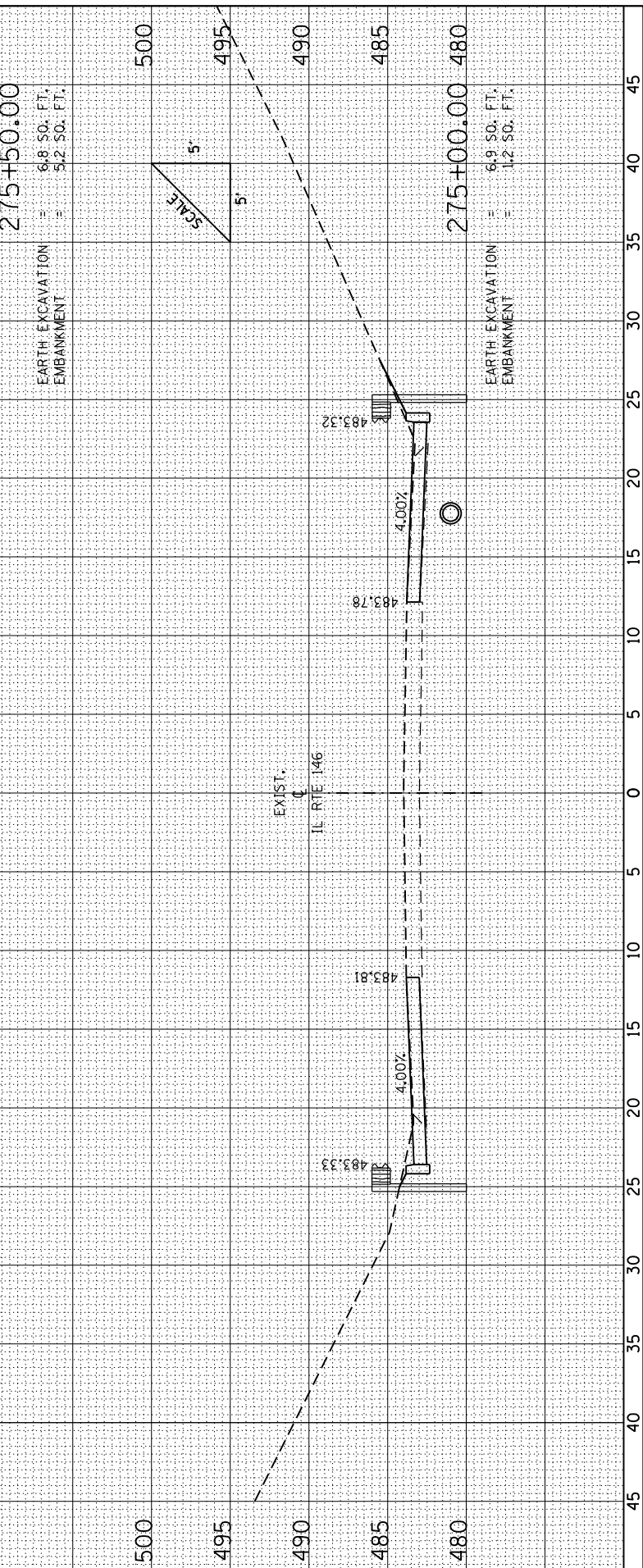
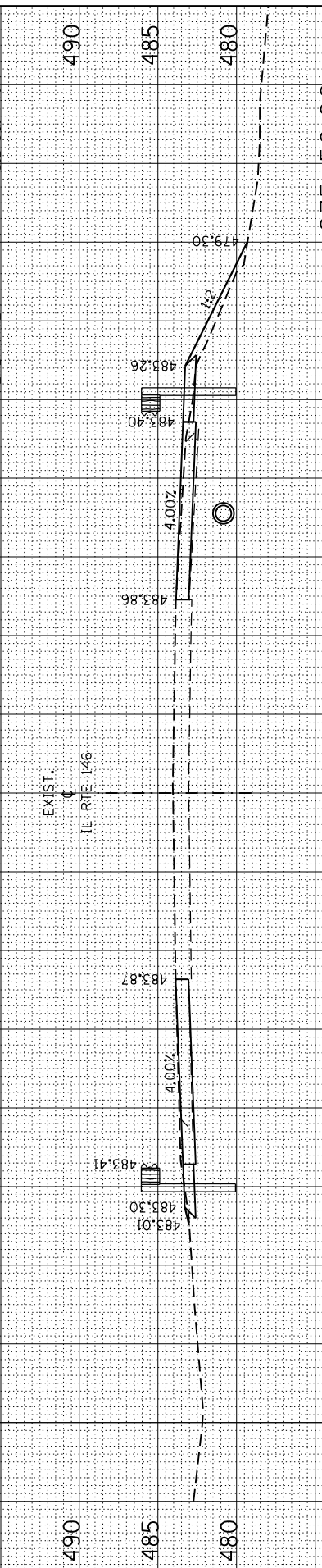
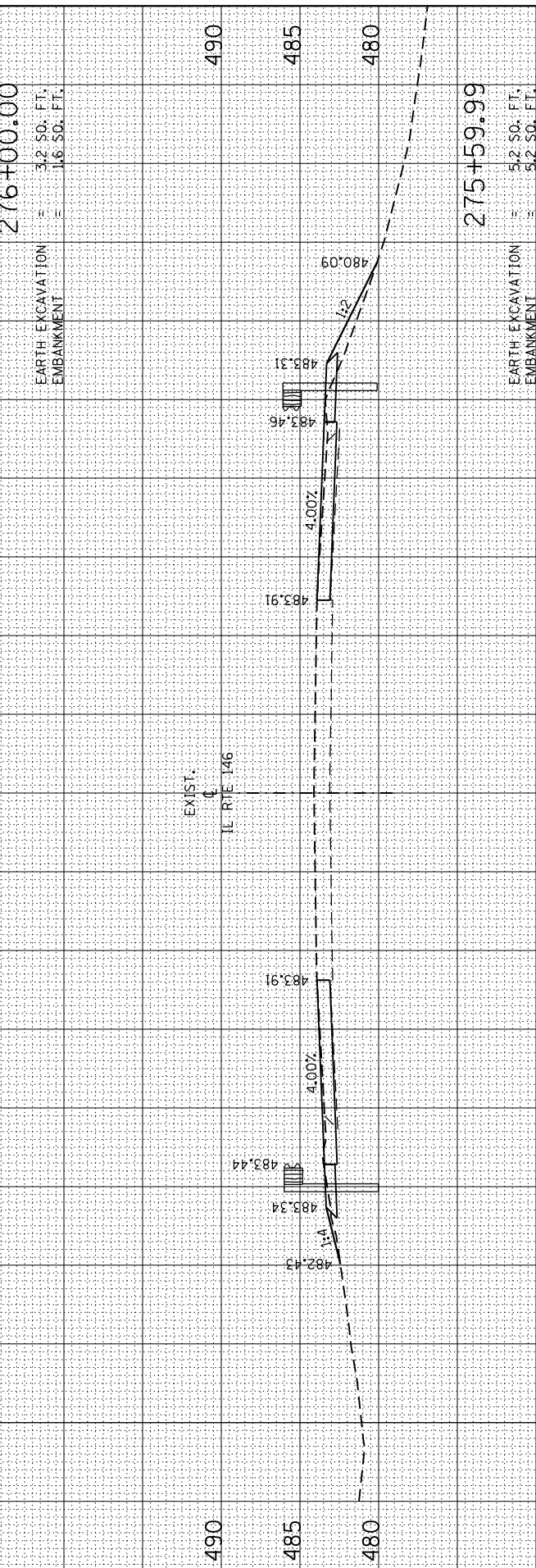
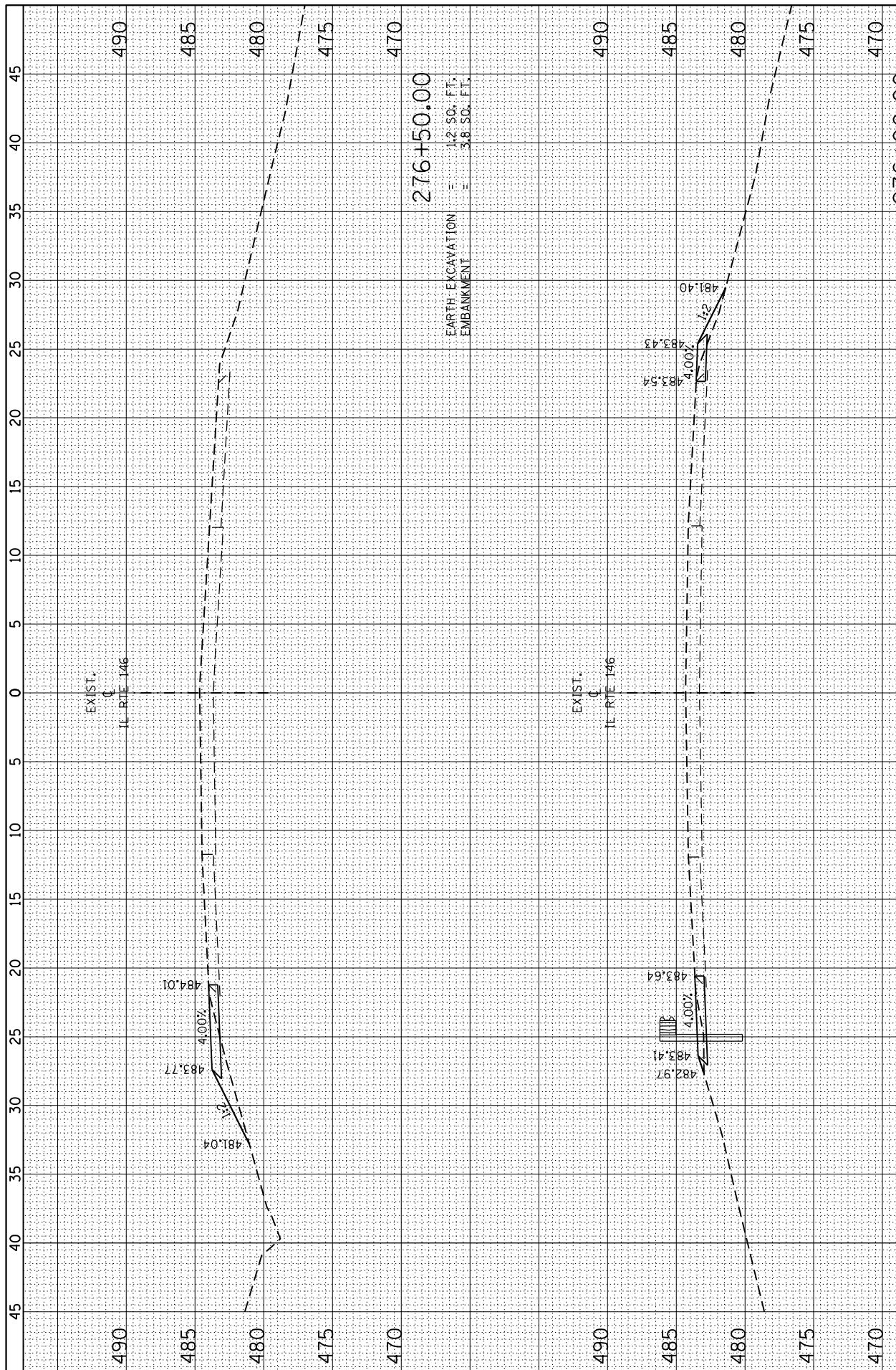
CROSS SECTIONS
IL 146

SCALE: SHEET 2 OF 4 SHEETS STA. 272+50.00 TO STA. 274+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HD)BR-1	UNION	150	137
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

BY	DATE

ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED



FILE NAME = L:\1001\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-shd-XSC-IL146.dgn
 Default

USER NAME = Matt Overbey
 PLOT SCALE = 10.0000' / 1" /
 PLOT DATE = 10/19/2016

DESIGNED - MJU
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 IL 146**
 SCALE: SHEET 3 OF 4 SHEETS STA. 275+00.00 TO STA. 276+50.00

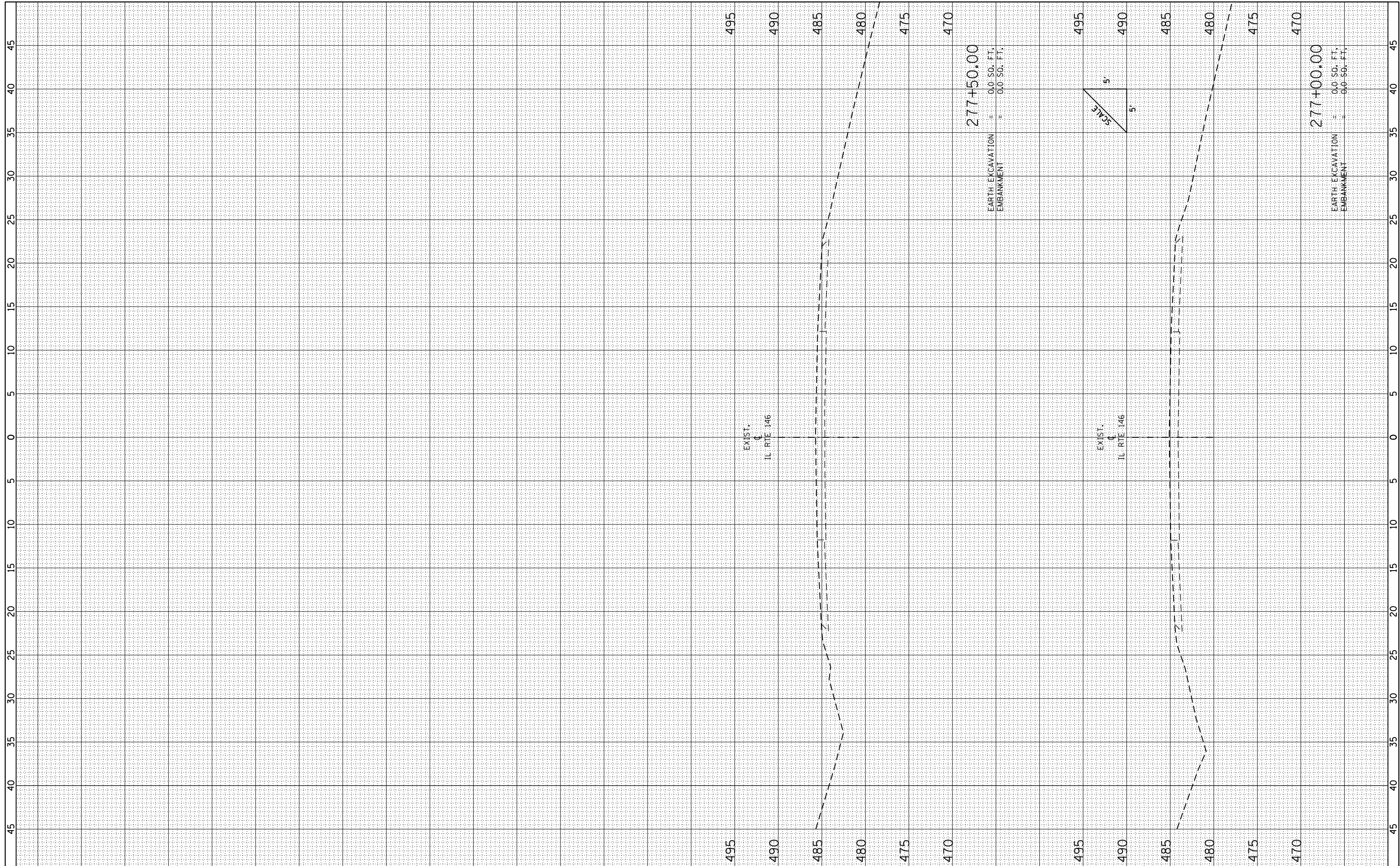
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3H)BR-1	UNION	150	138
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

BY	DATE

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		



FILE NAME =
L:\1001\0006610\W0_29\Draw\Sheets\Roadway Plans\0978349-sh1-XSC-IL146.dgn

USER NAME = Matt Overbey
DESIGNED - MJO
DRAWN - BB
CHECKED - JMM
DATE - 09/30/16
PLOT SCALE = 10.0000 / in.
PLOT DATE = 10/19/2016

DESIGNED - MJO
DRAWN - BB
CHECKED - JMM
DATE - 09/30/16

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

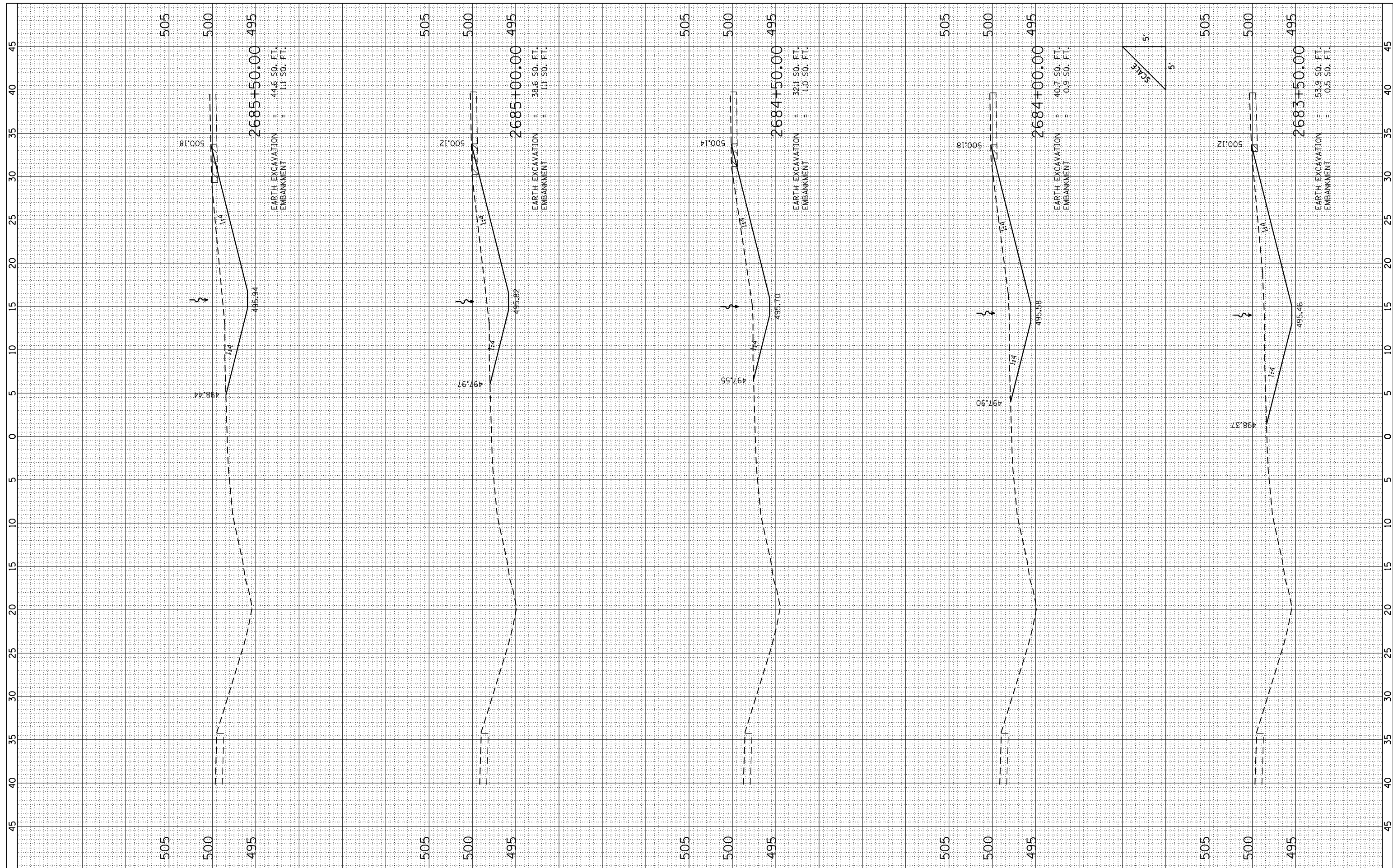
CROSS SECTIONS
IL 146

SCALE: SHEET 4 OF 4 SHEETS STA. 277+00.00 TO STA. 277+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3H)BR-1	UNION	150	139
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = L:\1001\0806610\10_29\Draw\Sheets\Roadway Plans\0978349-sh1-XSC-NXOVER_REMOVAL.dgn
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USER NAME = Matt Overbey
 DESIGNED - MJO
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

REVISED -
 REVISED -
 REVISED -
 REVISED -

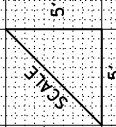
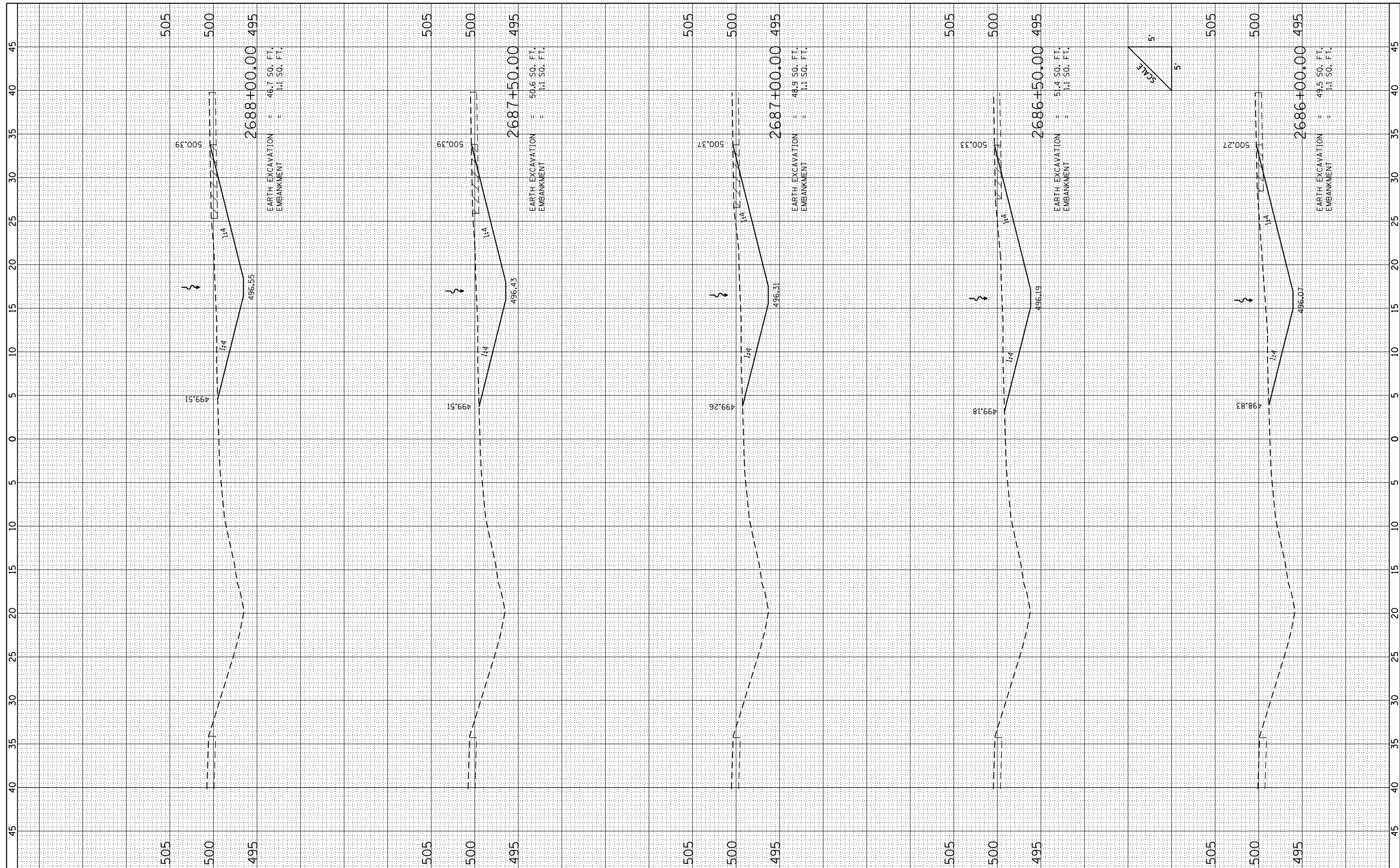
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 NORTH CROSSOVER REMOVAL**
 SCALE: SHEET 1 OF 5 SHEETS STA. 2683+50.00 TO STA. 2685+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3)H/BR-1	UNION	150	140
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = L:\1001\0806610\10_29\Draw\Sheets\Roadway Plans\0978349-sh1-XSC-NXOVER_REMOVAL.dgn

USER NAME = Matt Overbey
 PLOT SCALE = 10.0000' / in.
 PLOT DATE = 10/19/2016

DESIGNED - MJO
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

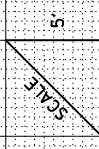
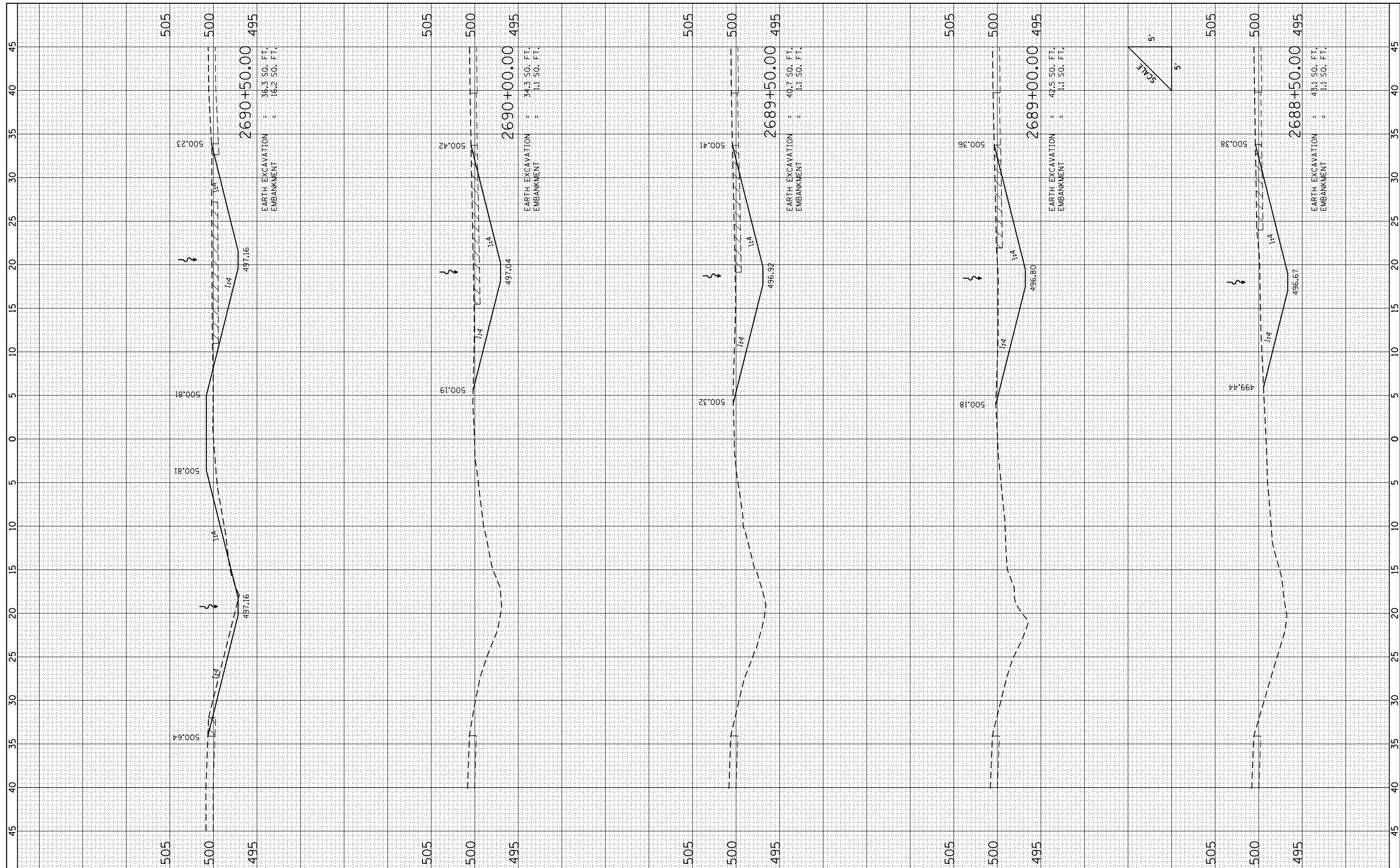
**CROSS SECTIONS
 NORTH CROSSOVER REMOVAL**

SCALE: SHEET 2 OF 5 SHEETS STA. 2686+00.00 TO STA. 2688+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	141
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = L:\1001\0806610\10_29\Draw\Sheets\Roadway Plans\0978349-sh1-XSC-NXOVER_REMOVAL.dgn

USER NAME = Matt Overbey
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

DESIGNED - MJO
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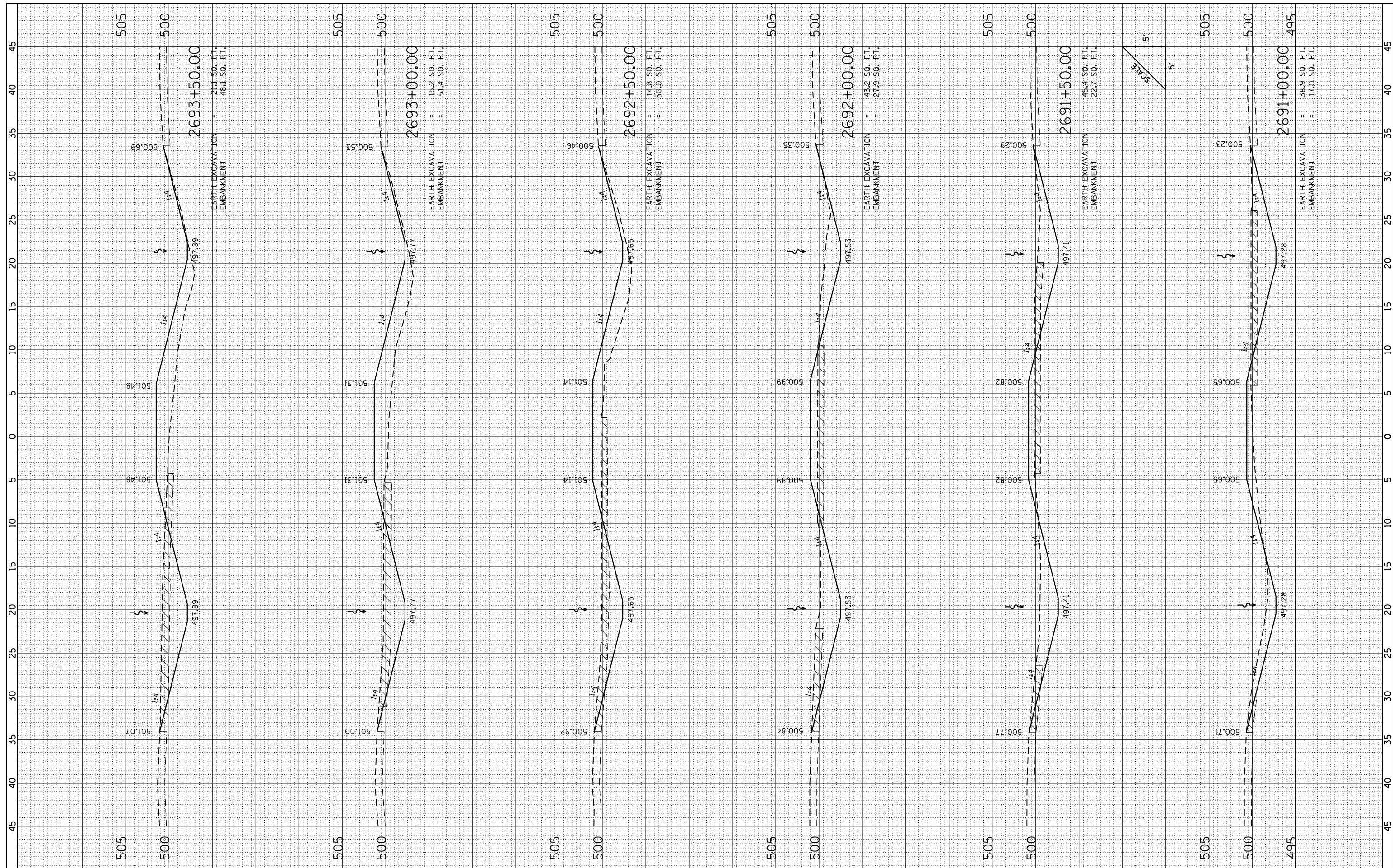
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 NORTH CROSSOVER REMOVAL**
 SCALE: SHEET 3 OF 5 SHEETS STA. 2688+50.00 TO STA. 2690+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	142
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



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 USER NAME = Matt Overbey
 PLOT SCALE = 10.0000' / 1" = 10000
 PLOT DATE = 10/19/2016

DESIGNED -	MJO	REVISED -	
DRAWN -	BB	REVISED -	
CHECKED -	JMM	REVISED -	
DATE -	09/30/16	REVISED -	

DESIGNED -	MJO	REVISED -	
DRAWN -	BB	REVISED -	
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DATE -	09/30/16	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

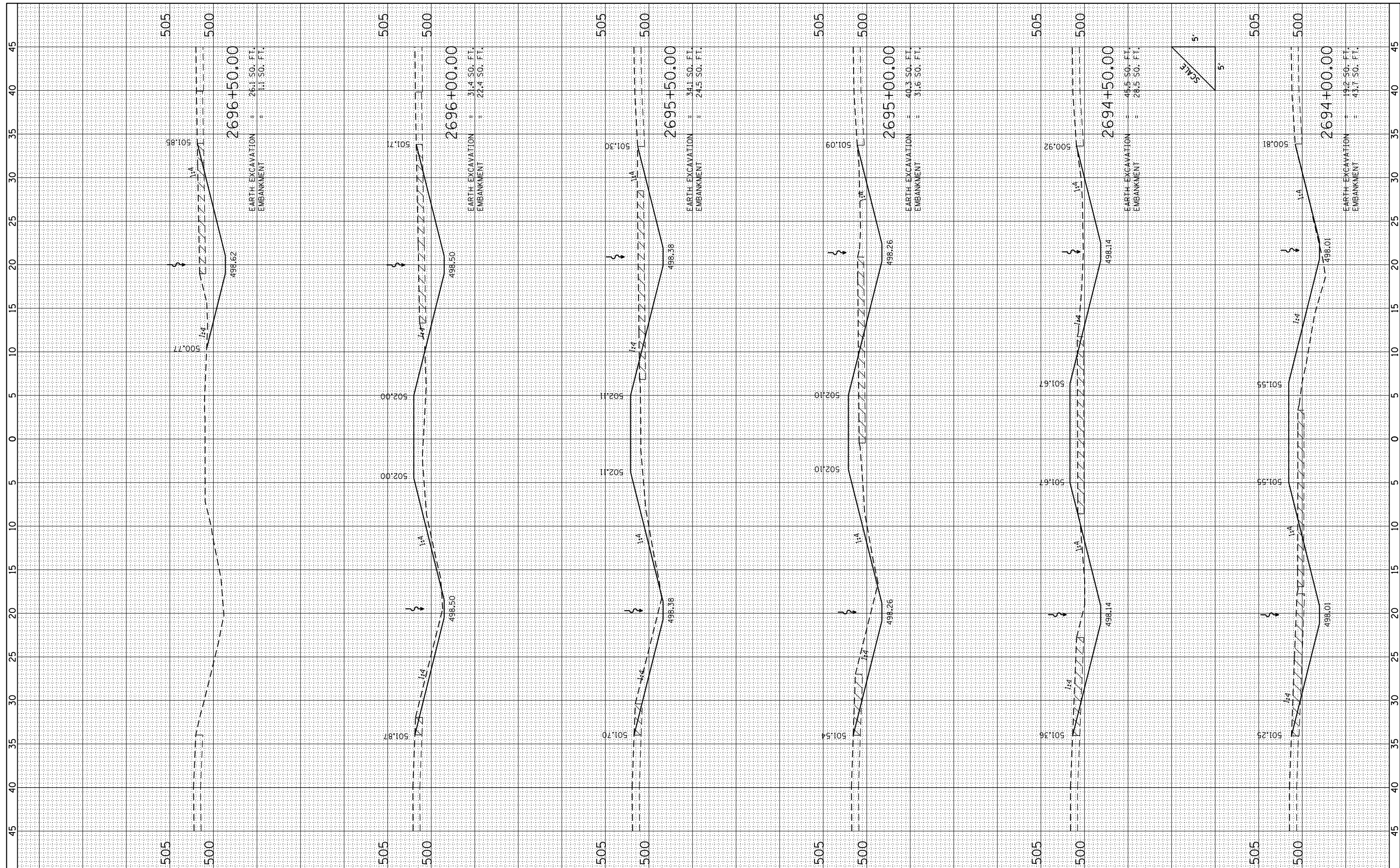
**CROSS SECTIONS
NORTH CROSSOVER REMOVAL**

SCALE: SHEET 4 OF 5 SHEETS STA. 2691+00.00 TO STA. 2693+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3)B1BR-1	UNION	150	143
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



SCALE
5'

FILE NAME = L:\1001\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-shr-XSC-NXOVER_REMOVAL.dgn

USER NAME = Matt Overbey
 PLOT SCALE = 10.0000' / in.
 PLOT DATE = 10/19/2016

DESIGNED - MJO
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

REVISED -
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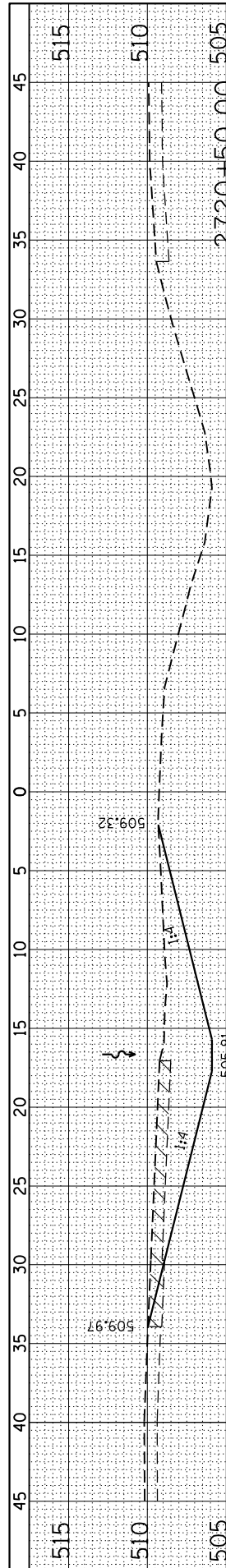
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
 NORTH CROSSOVER REMOVAL
 SCALE: SHEET 5 OF 5 SHEETS STA. 2694+00.00 TO STA. 2696+50.00

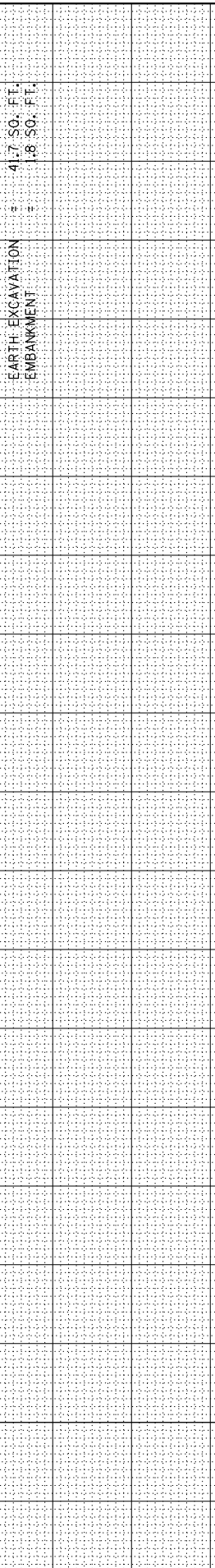
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	144
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

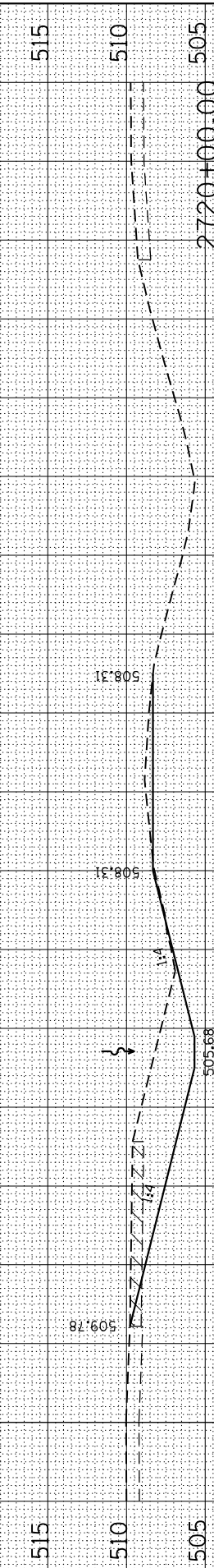
ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE



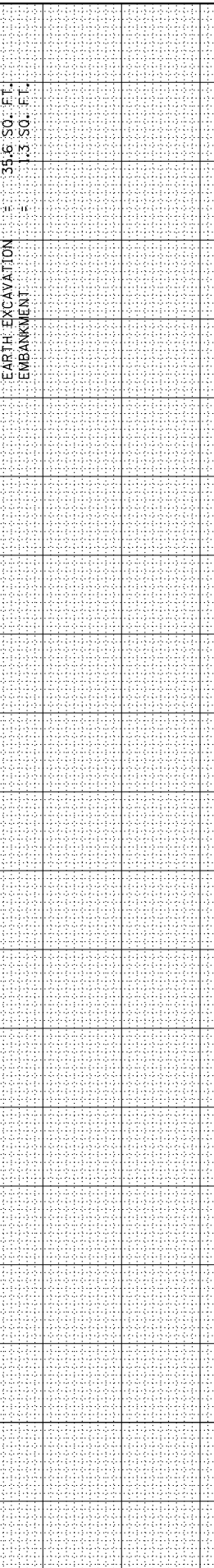
EARTH EXCAVATION : 4.7 SQ. FT.
EMBANKMENT : 1.8 SQ. FT.



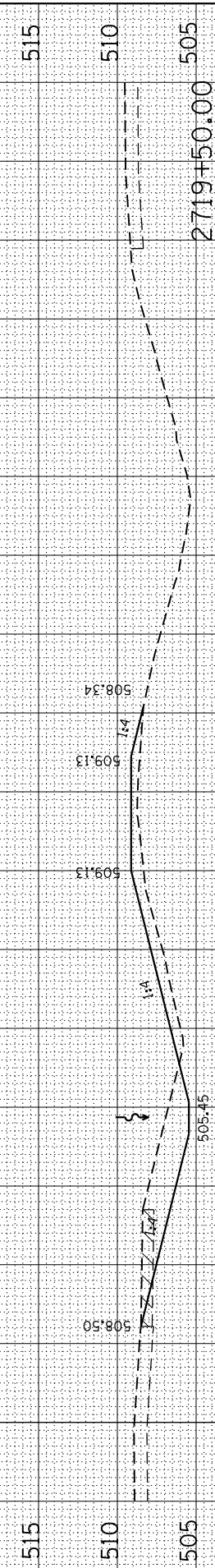
EARTH EXCAVATION : 35.6 SQ. FT.
EMBANKMENT : 1.3 SQ. FT.



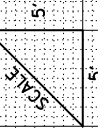
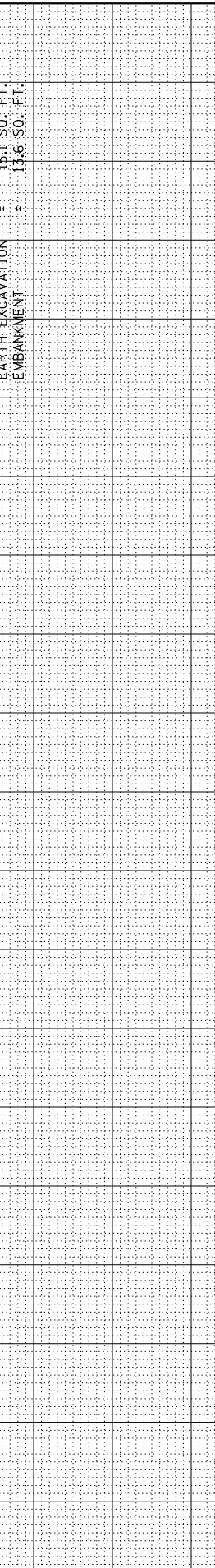
EARTH EXCAVATION : 15.1 SQ. FT.
EMBANKMENT : 13.6 SQ. FT.



EARTH EXCAVATION : 9.8 SQ. FT.
EMBANKMENT : 5.5 SQ. FT.



EARTH EXCAVATION : 0.0 SQ. FT.
EMBANKMENT : 0.0 SQ. FT.



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PLOT SCALE = 10.0000' / 1"
PLOT DATE = 10/19/2016

USER NAME = Matt Overbey
DESIGNED - MJ0
DRAWN - BB
CHECKED - JMM
DATE - 09/30/16

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SOUTH CROSSOVER REMOVAL

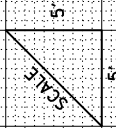
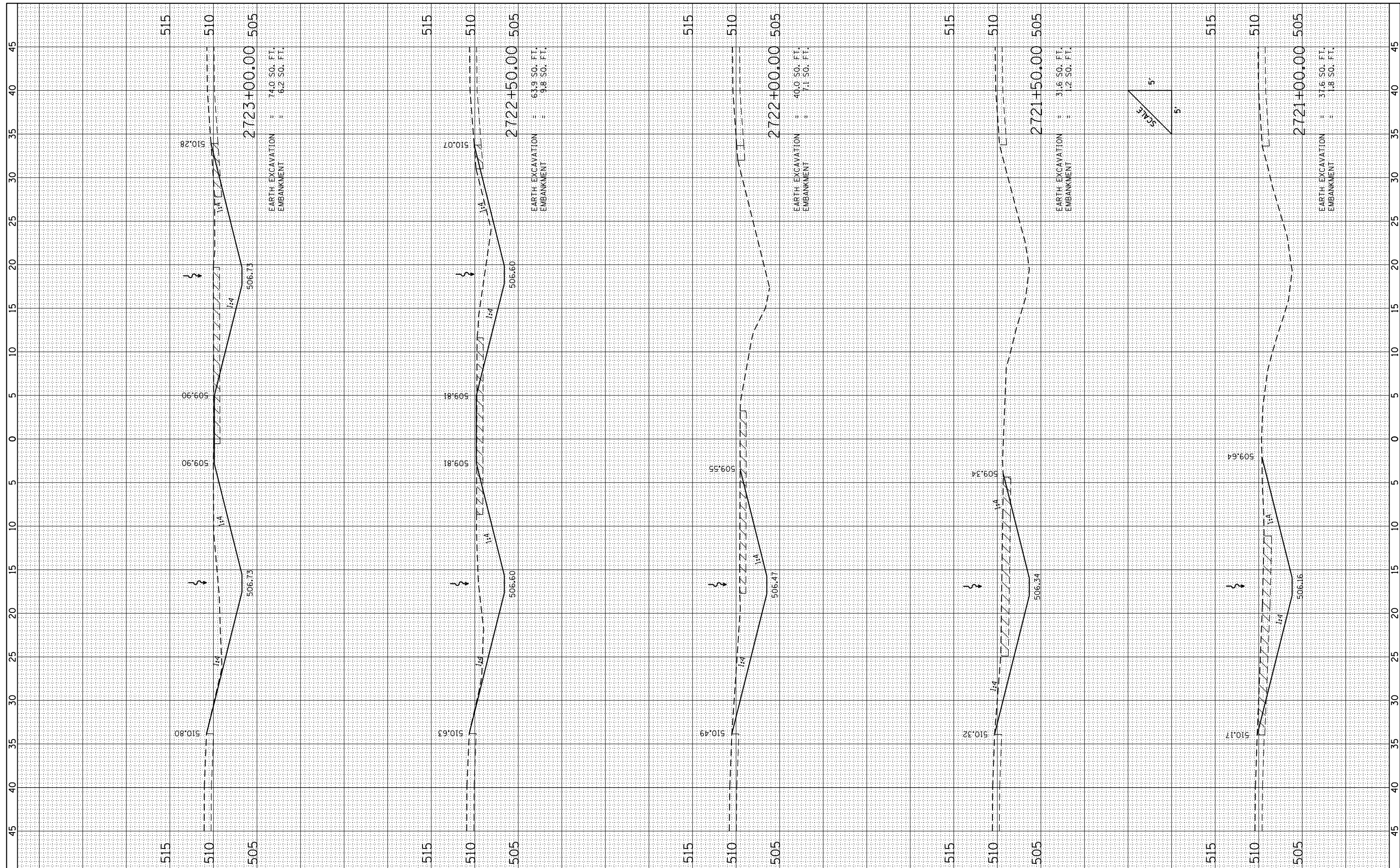
SCALE: SHEET 1 OF 6 SHEETS STA. 2718+00.00 TO STA. 2720+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	145
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = L:\1001\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-sh1-XSC-SXOVER_REMOVAL.dgn

USER NAME = Matt Overbey
 PLOT SCALE = 10.0000' / in.
 PLOT DATE = 10/19/2016

DESIGNED - MJO
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

REVISED -
 REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 SOUTH CROSSOVER REMOVAL**

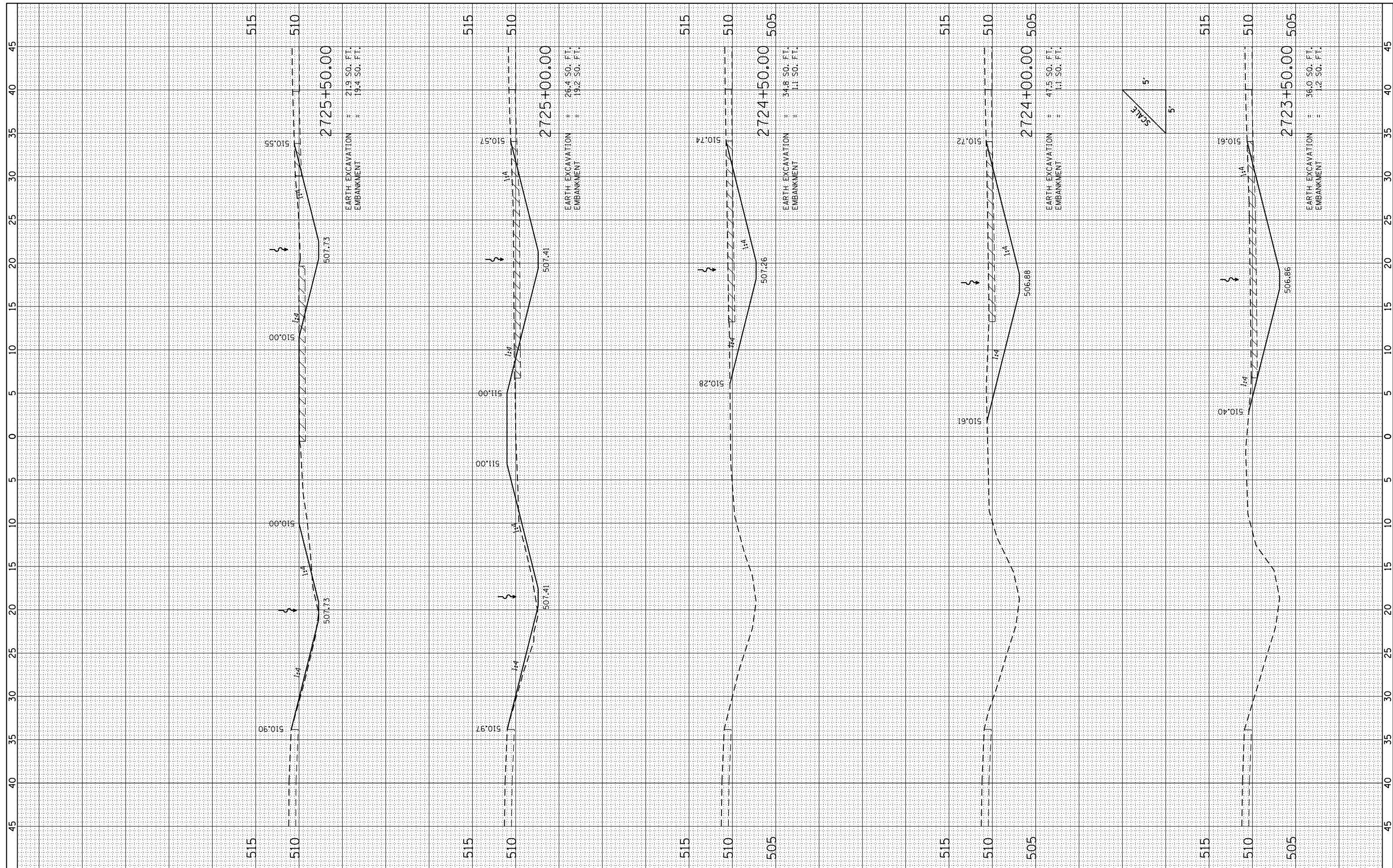
SCALE: SHEET 2 OF 6 SHEETS STA. 2721+00.00 TO STA. 2723+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3)B1BR-1	UNION	150	146
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = L:\1001\0806610\10_29\Draw\Sheets\Roadway Plans\0978349-shr-XSC-SXOVER_REMOVAL.dgn

USER NAME = Matt Overbey
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

DESIGNED - MJO
 REVISIONS:
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REVISIONS:
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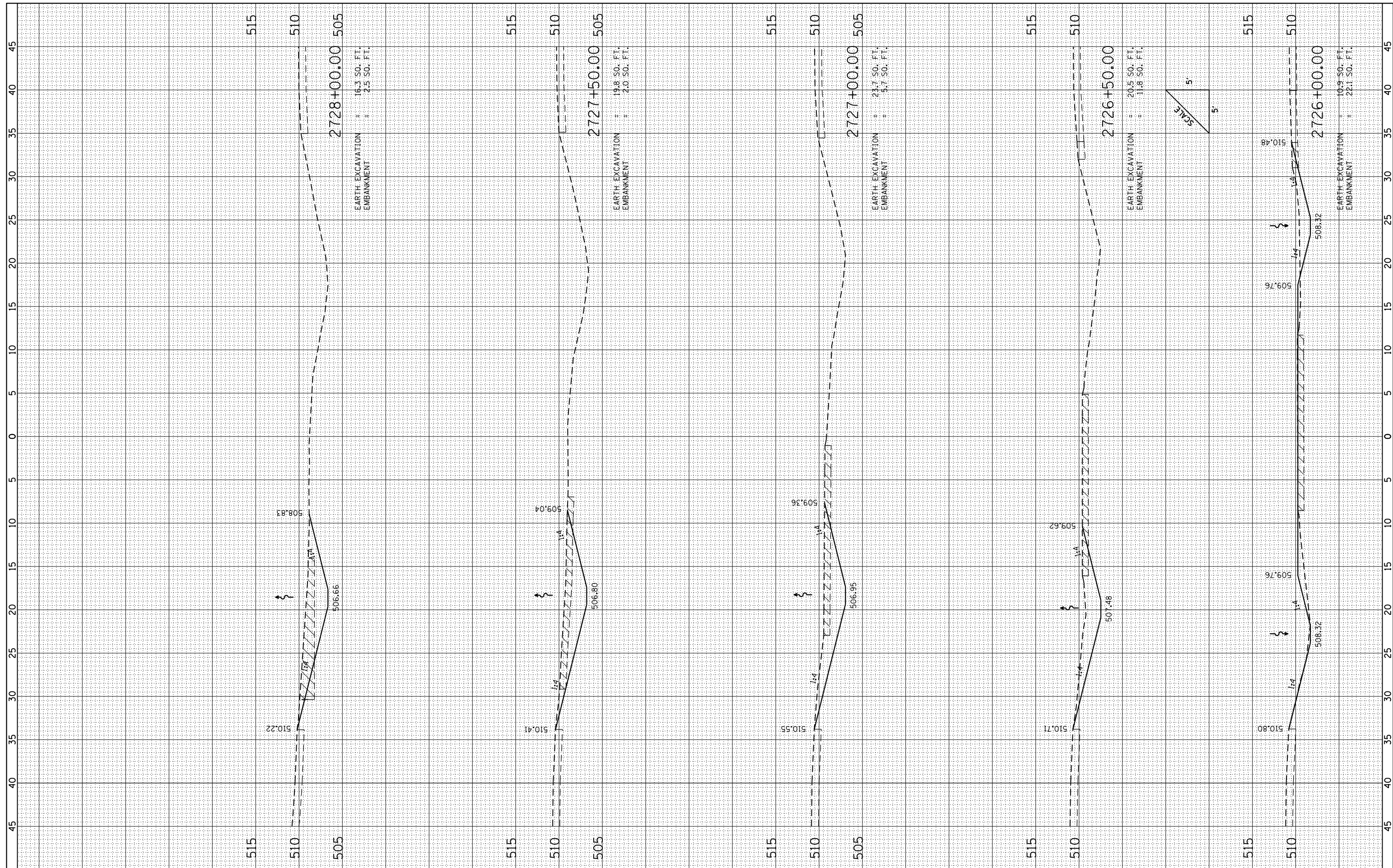
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 SOUTH CROSSOVER REMOVAL**
 SCALE: SHEET 3 OF 6 SHEETS STA. 2723+50.00 TO STA. 2725+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3)B1BR-1	UNION	150	147
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = L:\IDOT\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-shr-XSC-SXOVER_REMOVAL.dgn

USER NAME = Matt Overbey
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

DESIGNED - MJO
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

REVISED -
 REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

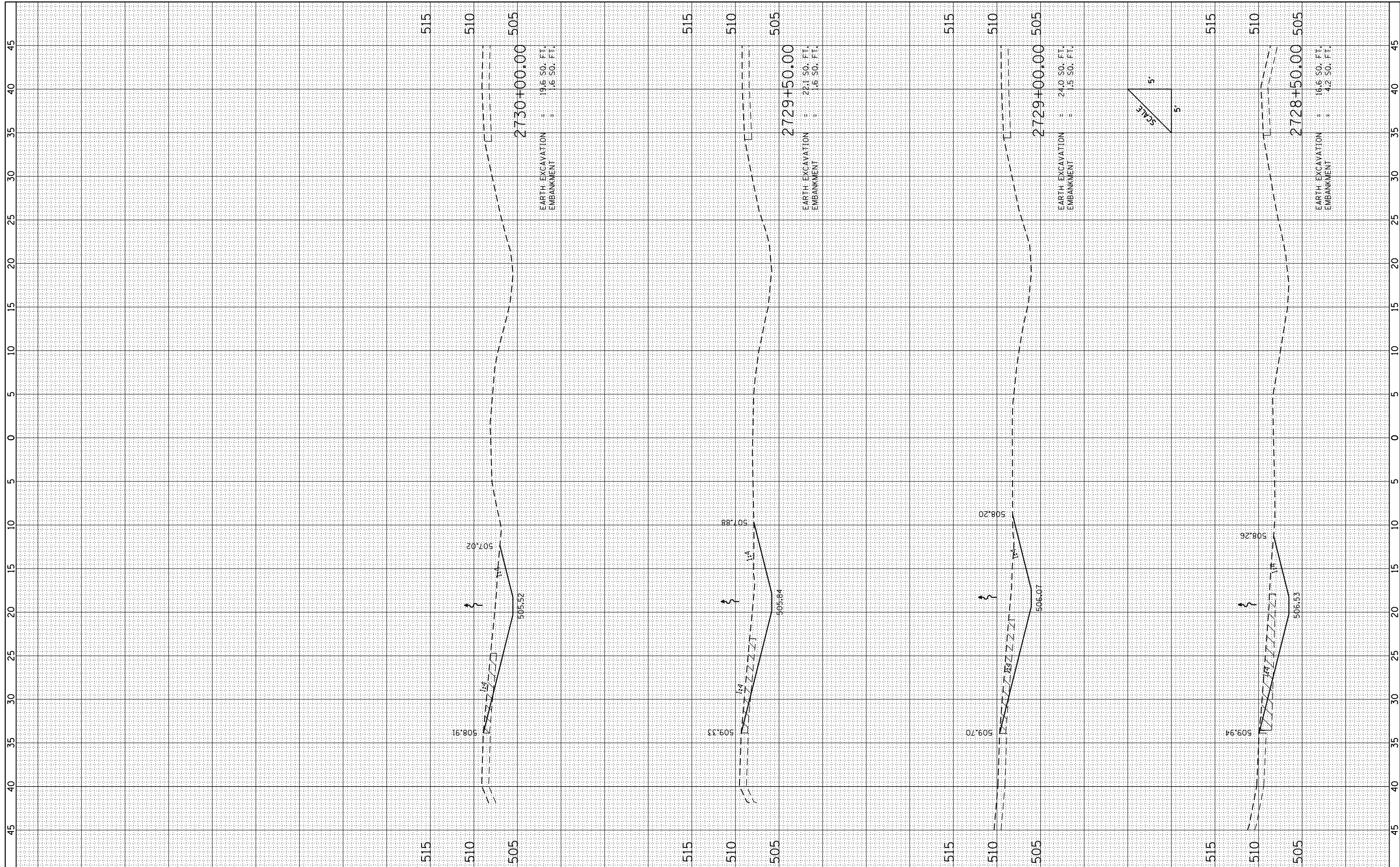
**CROSS SECTIONS
 SOUTH CROSSOVER REMOVAL**

SCALE: SHEET 4 OF 6 SHEETS STA. 2726+00.00 TO STA. 2728+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	148
CONTRACT NO. 78349				
ILLINOIS FED. AID PROJECT				

BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED



FILE NAME = L:\1001\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-shr-XSC-SXOVER_REMOVAL.dgn

USER NAME = Matt Overbey
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

DESIGNED - MJO
 DRAWN - BB
 CHECKED - JMM
 DATE - 09/30/16

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
 SOUTH CROSSOVER REMOVAL

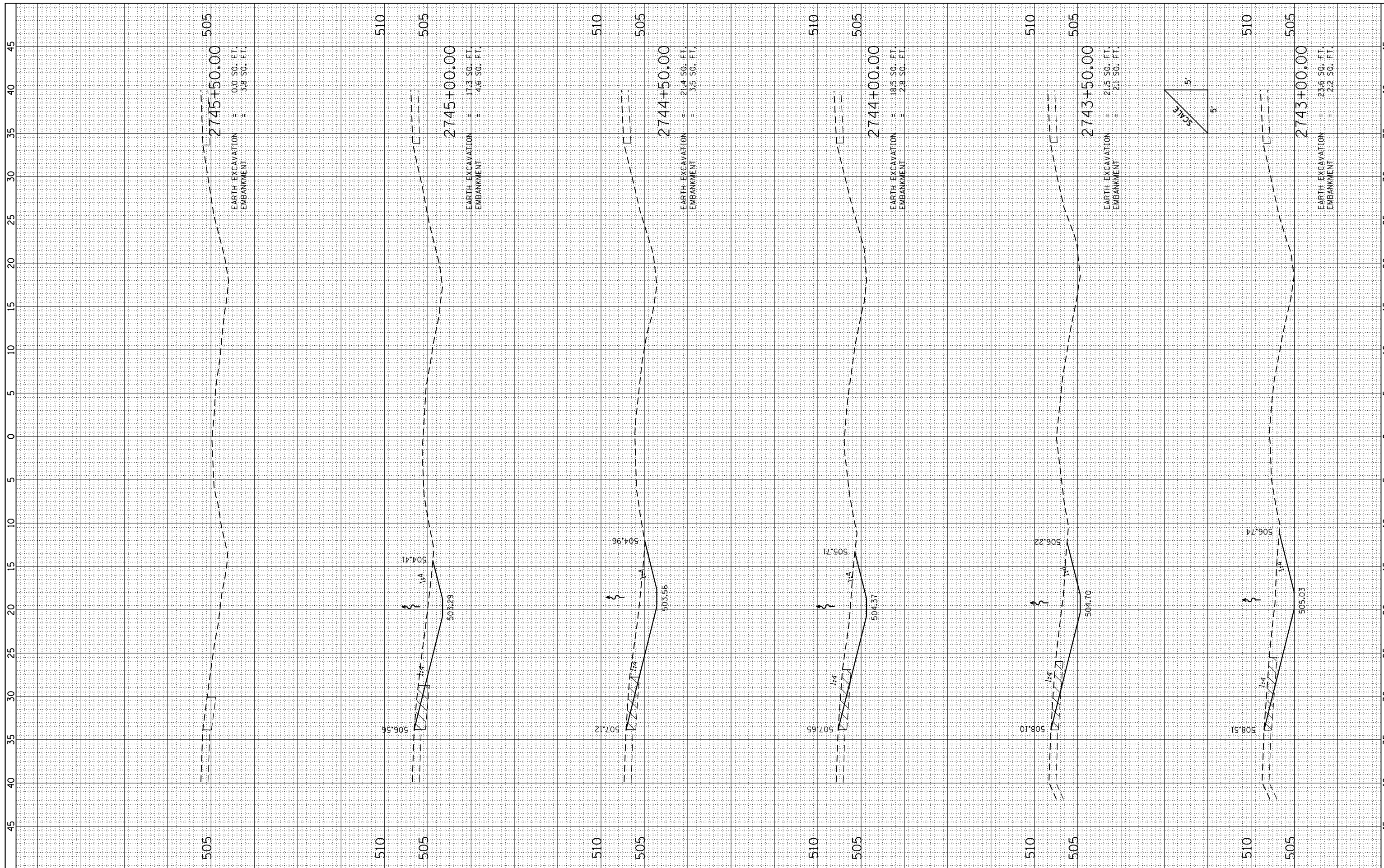
SCALE: SHEET 5 OF 6 SHEETS STA. 2728+50.00 TO STA. 2730+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(91-3HB)BR-1	UNION	150	145
CONTRACT NO. 78349				

ILLINOIS FED. AID PROJECT

BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED



FILE NAME =	USER NAME = Matt Overbey	DESIGNED -	MJO	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION CROSS SECTIONS SOUTH CROSSOVER REMOVAL SCALE: SHEET 6 OF 6 SHEETS STA. 2743+00.00 TO STA. 2745+50.00	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
L:\1001\0806610\W0_29\Draw\Sheets\Roadway Plans\0978349-shit-XSC-SXOVER_REMOVAL2.dgn	PLOT SCALE = 10.0000' / 1"	DRAWN -	BB	REVISED -			57	(91-3H)BR-1	UNION	150	150
Default	PLOT DATE = 10/19/2016	CHECKED -	JMM	REVISED -			CONTRACT NO. 78349				
		DATE -	09/30/16	REVISED -			ILLINOIS FED. AID PROJECT				