

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. WEST ABUT	893+14.250	1.67	753.51	753.51
CL WEST ABUT	893+16.090	1.67	753.50	753.50
A	893+26.090	1.67	753.45	753.48
B	893+36.090	1.67	753.40	753.46
C	893+46.090	1.67	753.34	753.42
D	893+56.090	1.67	753.27	753.38
E	893+66.090	1.67	753.20	753.32
F	893+76.090	1.67	753.13	753.25
G	893+86.090	1.67	753.06	753.17
H	893+96.090	1.67	752.98	753.07
I	894+06.090	1.67	752.89	752.97
J	894+16.090	1.67	752.80	752.85
CL BRG WEST	894+31.000	1.67	752.66	752.66
CL PIER	894+32.170	1.67	752.65	752.65
CL BRG EAST	894+33.340	1.67	752.64	752.64
K	894+43.340	1.67	752.54	752.56
L	894+53.340	1.67	752.44	752.48
M	894+63.340	1.67	752.33	752.38
N	894+73.340	1.67	752.22	752.28
O	894+83.340	1.67	752.10	752.17
P	894+93.340	1.67	751.99	752.05
Q	895+03.340	1.67	751.86	751.91
R	895+13.340	1.67	751.73	751.77
S	895+23.340	1.67	751.60	751.62
CL EAST ABUT	895+32.170	1.67	751.48	751.48
BK. EAST ABUT	895+34.000	1.67	751.46	751.46

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. WEST ABUT	893+14.250	7.83	753.61	753.61
CL WEST ABUT	893+16.090	7.83	753.6	753.6
A	893+26.090	7.83	753.55	753.58
B	893+36.090	7.83	753.49	753.56
C	893+46.090	7.83	753.43	753.52
D	893+56.090	7.83	753.37	753.48
E	893+66.090	7.83	753.3	753.42
F	893+76.090	7.83	753.23	753.35
G	893+86.090	7.83	753.15	753.27
H	893+96.090	7.83	753.07	753.17
I	894+06.090	7.83	752.99	753.06
J	894+16.090	7.83	752.9	752.95
CL BRG WEST	894+31.000	7.83	752.76	752.76
CL PIER	894+32.170	7.83	752.75	752.75
CL BRG EAST	894+33.340	7.83	752.74	752.74
K	894+43.340	7.83	752.64	752.66
L	894+53.340	7.83	752.53	752.57
M	894+63.340	7.83	752.43	752.48
N	894+73.340	7.83	752.32	752.38
O	894+83.340	7.83	752.2	752.27
P	894+93.340	7.83	752.08	752.14
Q	895+03.340	7.83	751.96	752.01
R	895+13.340	7.83	751.83	751.87
S	895+23.340	7.83	751.7	751.72
CL EAST ABUT	895+32.170	7.83	751.58	751.58
BK. EAST ABUT	895+34.000	7.83	751.55	751.55

ROADWAY E.B.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. WEST ABUT	893+14.250	12.00	753.67	753.67
CL WEST ABUT	893+16.090	12.00	753.67	753.67
A	893+26.090	12.00	753.61	753.65
B	893+36.090	12.00	753.56	753.62
C	893+46.090	12.00	753.50	753.59
D	893+56.090	12.00	753.43	753.54
E	893+66.090	12.00	753.37	753.48
F	893+76.090	12.00	753.29	753.41
G	893+86.090	12.00	753.22	753.33
H	893+96.090	12.00	753.14	753.23
I	894+06.090	12.00	753.05	753.13
J	894+16.090	12.00	752.96	753.01
CL BRG WEST	894+31.000	12.00	752.82	752.82
CL PIER	894+32.170	12.00	752.81	752.81
CL BRG EAST	894+33.340	12.00	752.80	752.8
K	894+43.340	12.00	752.70	752.72
L	894+53.340	12.00	752.60	752.64
M	894+63.340	12.00	752.49	752.54
N	894+73.340	12.00	752.38	752.44
O	894+83.340	12.00	752.27	752.33
P	894+93.340	12.00	752.15	752.21
Q	895+03.340	12.00	752.02	752.08
R	895+13.340	12.00	751.90	751.93
S	895+23.340	12.00	751.76	751.78
CL EAST ABUT	895+32.170	12.00	751.64	751.64
BK. EAST ABUT	895+34.000	12.00	751.62	751.62

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. WEST ABUT	893+14.250	14.00	753.64	753.64
CL WEST ABUT	893+16.090	14.00	753.63	753.63
A	893+26.090	14.00	753.58	753.61
B	893+36.090	14.00	753.53	753.59
C	893+46.090	14.00	753.47	753.55
D	893+56.090	14.00	753.40	753.51
E	893+66.090	14.00	753.33	753.45
F	893+76.090	14.00	753.26	753.38
G	893+86.090	14.00	753.19	753.30
H	893+96.090	14.00	753.11	753.20
I	894+06.090	14.00	753.02	753.10
J	894+16.090	14.00	752.93	752.98
CL BRG WEST	894+31.000	14.00	752.79	752.79
CL PIER	894+32.170	14.00	752.78	752.78
CL BRG EAST	894+33.340	14.00	752.77	752.77
K	894+43.340	14.00	752.67	752.69
L	894+53.340	14.00	752.57	752.61
M	894+63.340	14.00	752.46	752.51
N	894+73.340	14.00	752.35	752.41
O	894+83.340	14.00	752.23	752.30
P	894+93.340	14.00	752.12	752.18
Q	895+03.340	14.00	751.99	752.04
R	895+13.340	14.00	751.86	751.90
S	895+23.340	14.00	751.73	751.75
CL EAST ABUT	895+32.170	14.00	751.61	751.61
BK.EAST ABUT	895+34.000	14.00	751.59	751.59

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. WEST ABUT	893+14.250	20.167	753.55	753.55
CL WEST ABUT	893+16.090	20.167	753.54	753.54
A	893+26.090	20.167	753.49	753.52
B	893+36.090	20.167	753.43	753.49
C	893+46.090	20.167	753.37	753.46
D	893+56.090	20.167	753.31	753.41
E	893+66.090	20.167	753.24	753.36
F	893+76.090	20.167	753.17	753.29
G	893+86.090	20.167	753.09	753.20
H	893+96.090	20.167	753.01	753.11
I	894+06.090	20.167	752.92	753.00
J	894+16.090	20.167	752.84	752.88
CL BRG WEST	894+31.000	20.167	752.70	752.70
CL PIER	894+32.170	20.167	752.69	752.69
CL BRG EAST	894+33.340	20.167	752.67	752.67
K	894+43.340	20.167	752.58	752.59
L	894+53.340	20.167	752.47	752.51
M	894+63.340	20.167	752.36	752.42
N	894+73.340	20.167	752.25	752.32
O	894+83.340	20.167	752.14	752.20
P	894+93.340	20.167	752.02	752.08
Q	895+03.340	20.167	751.90	751.95
R	895+13.340	20.167	751.77	751.80
S	895+23.340	20.167	751.64	751.65
CL EAST ABUT	895+32.170	20.167	751.52	751.52
BK. EAST ABUT	895+34.000	20.167	751.49	751.49

EDGE OF PAVEMENT E.B.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. WEST ABUT.	893+14.250	24.00	753.49	753.49
CL WEST ABUT	893+16.090	24.00	753.48	753.48
A	893+26.090	24.00	753.43	753.46
B	893+36.090	24.00	753.37	753.43
C	893+46.090	24.00	753.31	753.4
D	893+56.090	24.00	753.25	753.35
E	893+66.090	24.00	753.18	753.3
F	893+76.090	24.00	753.11	753.23
G	893+86.090	24.00	753.03	753.14
H	893+96.090	24.00	752.95	753.05
I	894+06.090	24.00	752.86	752.94
J	894+16.090	24.00	752.78	752.82
CL BRG WEST	894+31.000	24.00	752.64	752.64
CL PIER	894+32.170	24.00	752.63	752.63
CL BRG EAST	894+33.340	24.00	752.61	752.61
K	894+43.340	24.00	752.52	752.53
L	894+53.340	24.00	752.41	752.45
M	894+63.340	24.00	752.31	752.36
N	894+73.340	24.00	752.19	752.26
O	894+83.340	24.00	752.08	752.14
P	894+93.340	24.00	751.96	752.02
Q	895+03.340	24.00	751.84	751.89
R	895+13.340	24.00	751.71	751.74
S	895+23.340	24.00	751.58	751.59
CL EAST ABUT	895+32.170	24.00	751.46	751.46
BK. EAST ABUT	895+34.000	24.00	751.43	751.43

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. WEST ABUT	893+14.250	26.33	753.44	753.44
CL WEST ABUT	893+16.090	26.33	753.43	753.43
A	893+26.090	26.33	753.38	753.41
B	893+36.090	26.33	753.32	753.38
C	893+46.090	26.33	753.26	753.35
D	893+56.090	26.33	753.20	753.31
E	893+66.090	26.33	753.13	753.25
F	893+76.090	26.33	753.06	753.18
G	893+86.090	26.33	752.98	753.09
H	893+96.090	26.33	752.90	753.00
I	894+06.090	26.33	752.82	752.89
J	894+16.090	26.33	752.73	752.77
CL BRG WEST	894+31.000	26.33	752.59	752.59
CL PIER	894+32.170	26.33	752.58	752.58
CL BRG EAST	894+33.340	26.33	752.57	752.57
K	894+43.340	26.33	752.47	752.49
L	894+53.340	26.33	752.36	752.40
M	894+63.340	26.33	752.26	752.31
N	894+73.340	26.33	752.15	752.21
O	894+83.340	26.33	752.03	752.10
P	894+93.340	26.33	751.91	751.97
Q	895+03.340	26.33	751.79	751.84
R	895+13.340	26.33	751.66	751.70
S	895+23.340	26.33	751.53	751.55
CL EAST ABUT	895+32.170	26.33	751.41	751.41
BK. EAST ABUT	895+34.000	26.33	751.38	751.38

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. WEST ABUT	893+14.250	32.5	753.31	753.31
CL WEST ABUT	893+16.090	32.5	753.30	753.30
A	893+26.090	32.5	753.25	753.28
B	893+36.090	32.5	753.19	753.25
C	893+46.090	32.5	753.13	753.22
D	893+56.090	32.5	753.07	753.17
E	893+66.090	32.5	753.00	753.12
F	893+76.090	32.5	752.93	753.05
G	893+86.090	32.5	752.85	752.96
H	893+96.090	32.5	752.77	752.87
I	894+06.090	32.5	752.69	752.76
J	894+16.090	32.5	752.60	752.64
CL BRG WEST	894+31.000	32.5	752.46	752.46
CL PIER	894+32.170	32.5	752.45	752.45
CL BRG EAST	894+33.340	32.5	752.44	752.44
K	894+43.340	32.5	752.34	752.36
L	894+53.340	32.5	752.24	752.27
M	894+63.340	32.5	752.13	752.18
N	894+73.340	32.5	752.02	752.08
O	894+83.340	32.5	751.90	751.97
P	894+93.340	32.5	751.78	751.84
Q	895+03.340	32.5	751.66	751.71
R	895+13.340	32.5	751.53	751.57
S	895+23.340	32.5	751.40	751.42
CL EAST ABUT	895+32.170	32.5	751.28	751.28
BK. EAST ABUT	895+34.000	32.5	751.26	751.26

NORTH EDGE OF SHOULDER W.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	-34.00	753.39
A1	892+95.25	-34.00	753.35
A2	893+05.25	-34.00	753.31
E. End West Appr. Slab.	893+15.25	-34.00	753.26

EDGE OF PAVEMENT W.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	-24.00	753.60
A1	892+95.25	-24.00	753.56
A2	893+05.25	-24.00	753.52
E. End West Appr. Slab.	893+15.25	-24.00	753.47

☉ RDWY W.B.

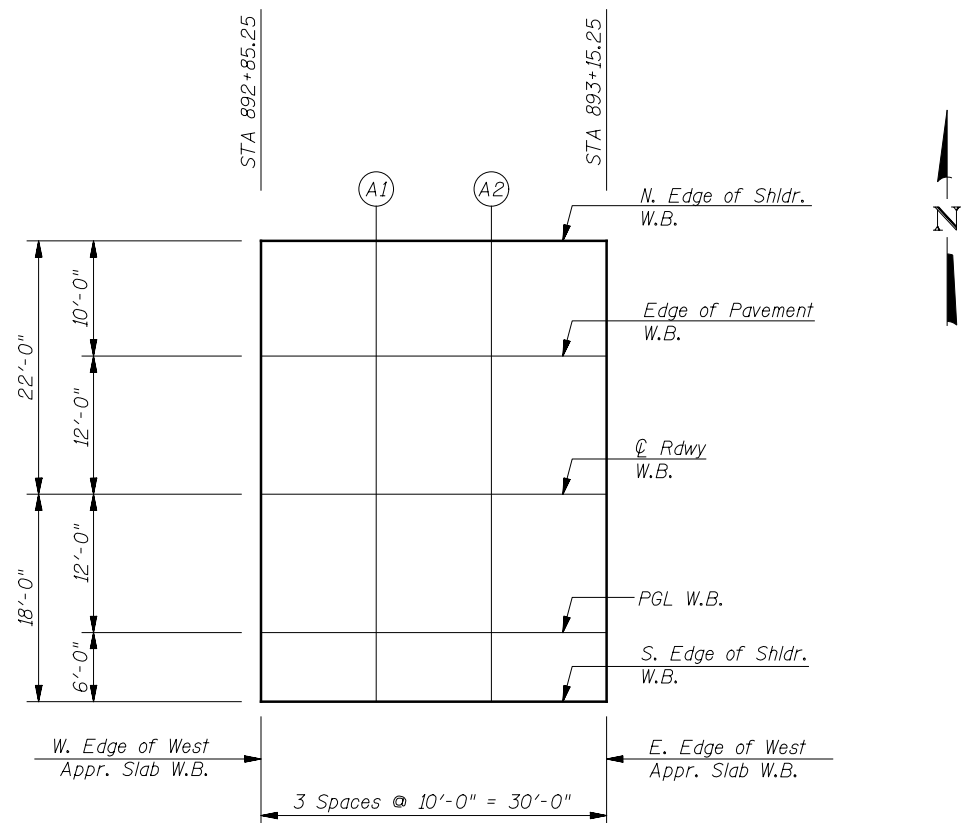
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	-12.00	753.78
A1	892+95.25	-12.00	753.74
A2	893+05.25	-12.00	753.70
E. End West Appr. Slab.	893+15.25	-12.00	753.66

PGL W.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	0.00	753.60
A1	892+95.25	0.00	753.56
A2	893+05.25	0.00	753.52
E. End West Appr. Slab.	893+15.25	0.00	753.47

SOUTH EDGE OF SHOULDER W.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	6.00	753.47
A1	892+95.25	6.00	753.43
A2	893+05.25	6.00	753.39
E. End West Appr. Slab.	893+15.25	6.00	753.34



PLAN

NORTH EDGE OF SHOULDER W.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	-34.00	751.22
A3	895+43.00	-34.00	751.08
A4	895+53.00	-34.00	750.94
E. End East Appr. Slab.	895+63.00	-34.00	750.79

EDGE OF PAVEMENT W.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	-24.00	751.43
A3	895+43.00	-24.00	751.29
A4	895+53.00	-24.00	751.15
E. End East Appr. Slab.	895+63.00	-24.00	751.00

RDWY W.B.

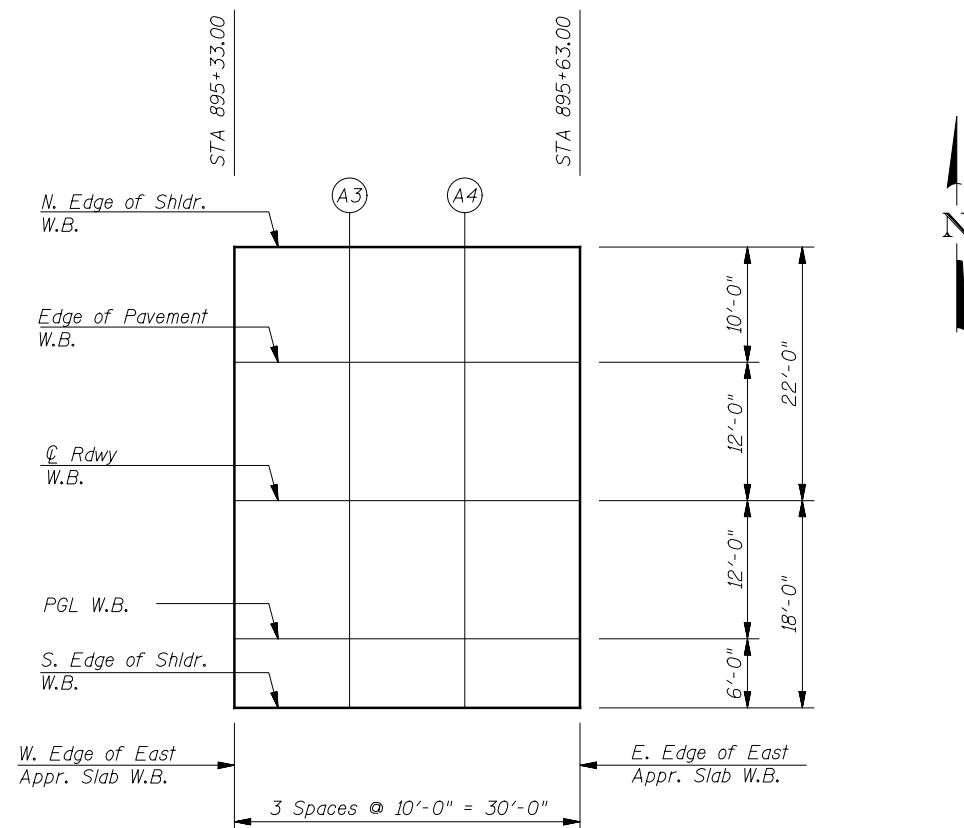
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	-12.00	751.62
A3	895+43.00	-12.00	751.48
A4	895+53.00	-12.00	751.34
E. End East Appr. Slab.	895+63.00	-12.00	751.19

PGL W.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	0.00	751.43
A3	895+43.00	0.00	751.29
A4	895+53.00	0.00	751.15
E. End East Appr. Slab.	895+63.00	0.00	751.00

SOUTH EDGE OF SHOULDER W.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	6.00	751.31
A3	895+43.00	6.00	751.17
A4	895+53.00	6.00	751.02
E. End East Appr. Slab.	895+63.00	6.00	750.88



PLAN

NORTH EDGE OF SHOULDER E.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	-6.00	753.47
A1	892+95.25	-6.00	753.43
A2	893+05.25	-6.00	753.39
E. End West Appr. Slab.	893+15.25	-6.00	753.34

PGL E.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	0.00	753.60
A1	892+95.25	0.00	753.56
A2	893+05.25	0.00	753.52
E. End West Appr. Slab.	893+15.25	0.00	753.47

Ⓞ RDWY E.B.

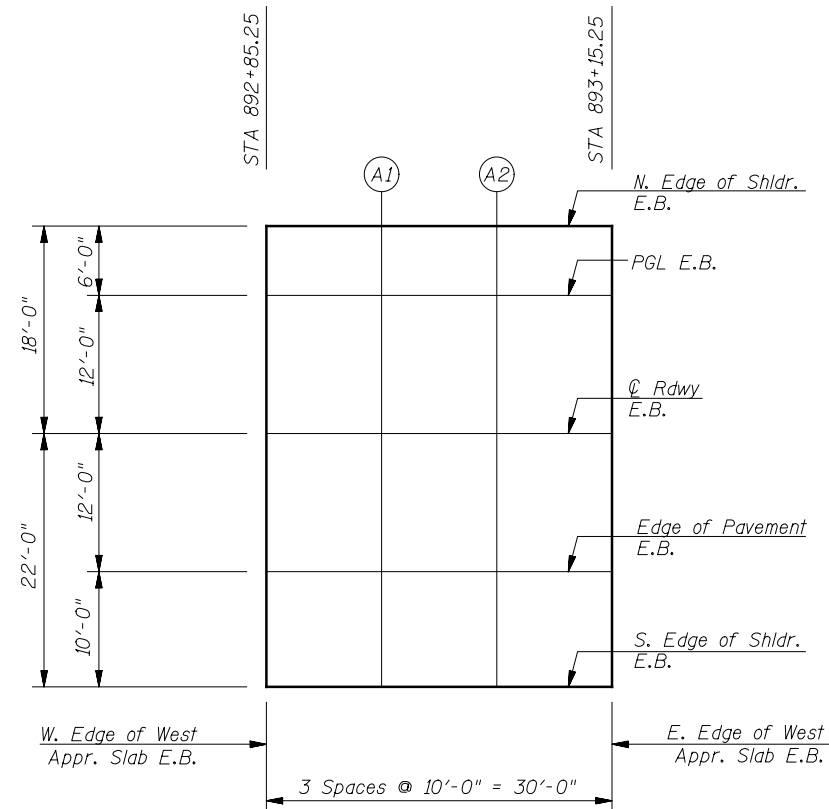
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	12.00	753.78
A1	892+95.25	12.00	753.74
A2	893+05.25	12.00	753.70
E. End West Appr. Slab.	893+15.25	12.00	753.66

EDGE OF PAVEMENT E.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	24.00	753.60
A1	892+95.25	24.00	753.56
A2	893+05.25	24.00	753.52
E. End West Appr. Slab.	893+15.25	24.00	753.47

SOUTH EDGE OF SHOULDER E.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab.	892+85.25	34.00	753.39
A1	892+95.25	34.00	753.35
A2	893+05.25	34.00	753.31
E. End West Appr. Slab.	893+15.25	34.00	753.26



PLAN

NORTH EDGE OF SHOULDER E.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	-6.00	751.31
A3	895+43.00	-6.00	751.17
A4	895+53.00	-6.00	751.02
E. End East Appr. Slab.	895+63.00	-6.00	750.88

PGL E.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	0.00	751.43
A3	895+43.00	0.00	751.29
A4	895+53.00	0.00	751.15
E. End East Appr. Slab.	895+63.00	0.00	751.00

☉ RDWY E.B.

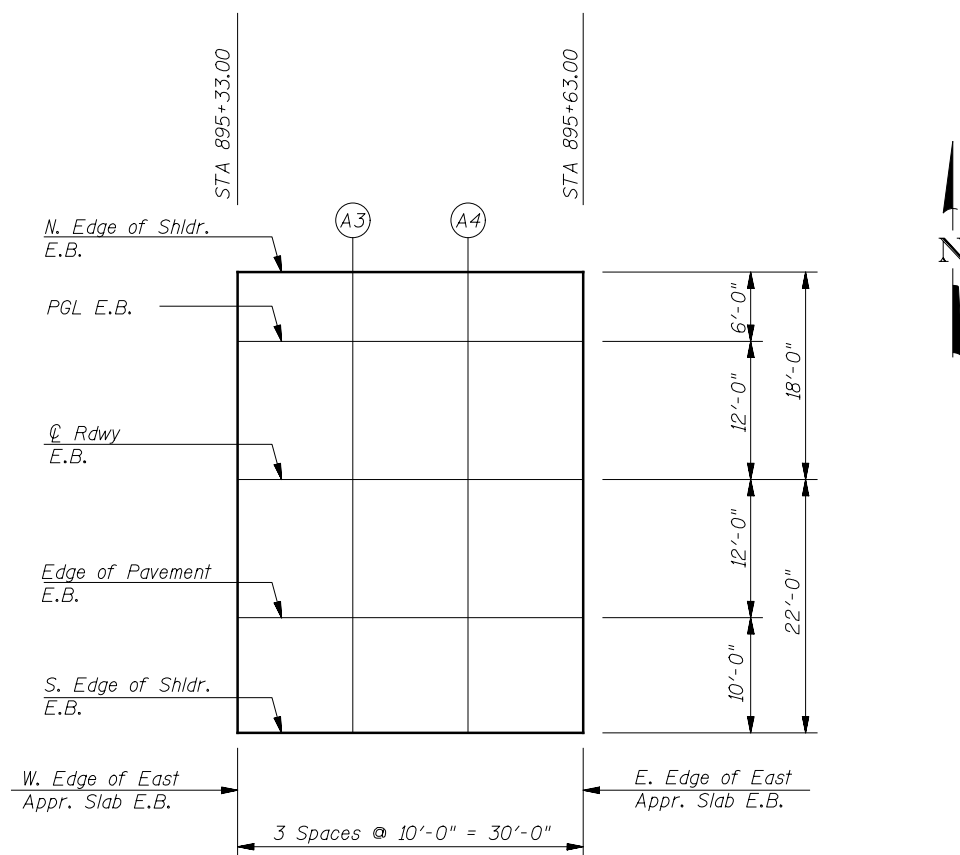
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	12.00	751.62
A3	895+43.00	12.00	751.48
A4	895+53.00	12.00	751.34
E. End East Appr. Slab.	895+63.00	12.00	751.19

EDGE OF PAVEMENT E.B.

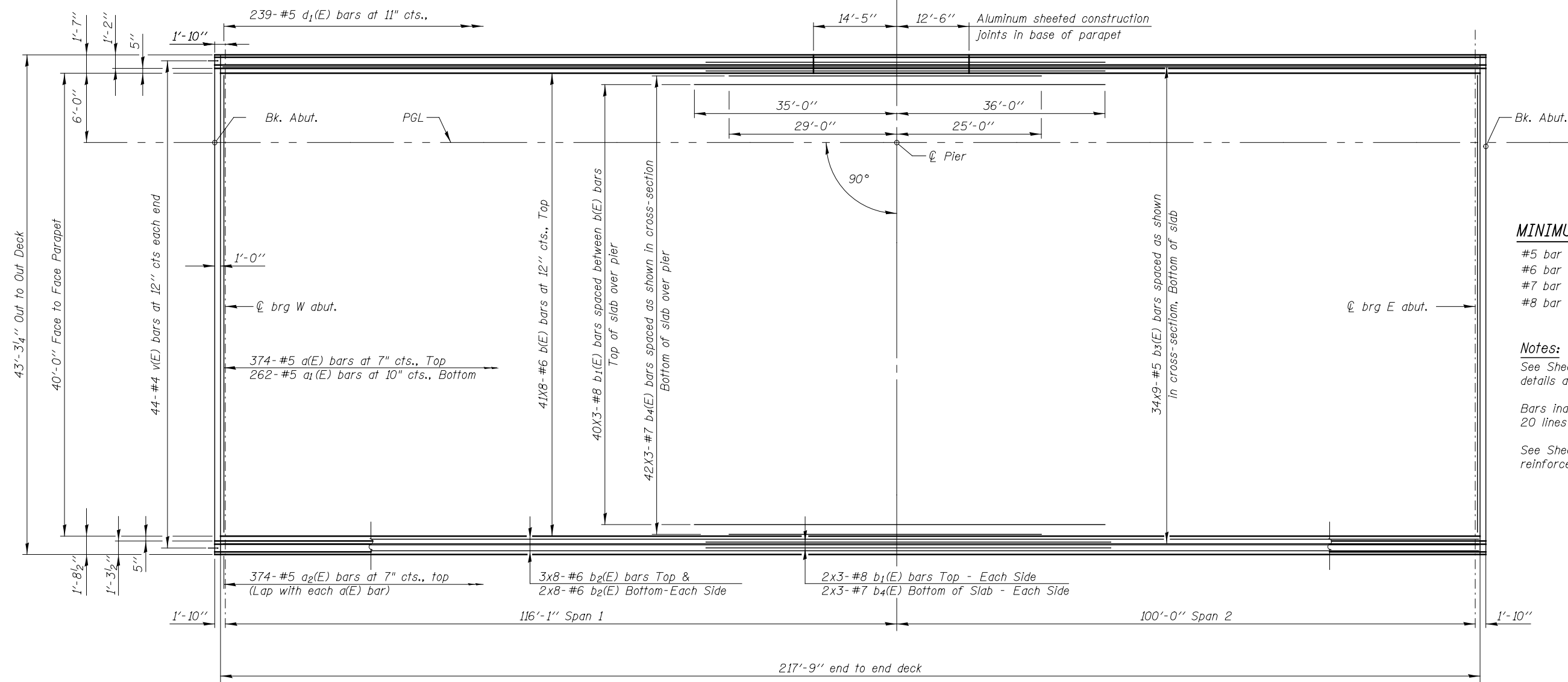
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	24.00	751.43
A3	895+43.00	24.00	751.29
A4	895+53.00	24.00	751.15
E. End East Appr. Slab.	895+63.00	24.00	751.00

SOUTH EDGE OF SHOULDER E.B.

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab.	895+33.00	34.00	751.22
A3	895+43.00	34.00	751.08
A4	895+53.00	34.00	750.94
E. End East Appr. Slab.	895+63.00	34.00	750.79



PLAN



MINIMUM BAR LAP

#5 bar = 3'-6" with min. 1" cover
 #6 bar = 4'-10" with min. 1" cover
 #7 bar = 4'-8" with min. 1.5" cover
 #8 bar = 5'-11" with min. 1.5" cover

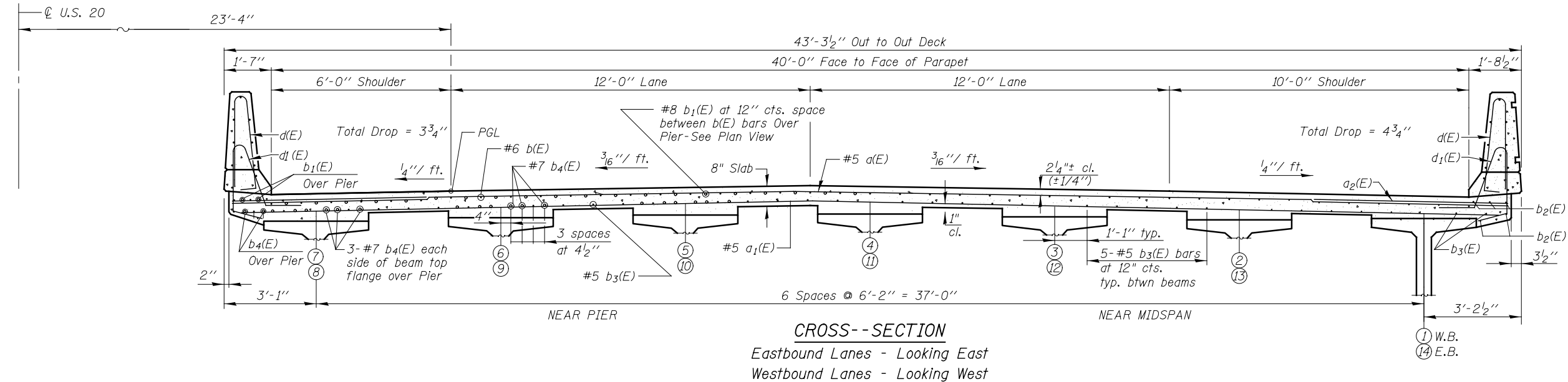
Notes:

See Sheet S-21 of 39 for superstructure details and Bill of Material.

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

See Sheet S-19 of 39 for parapet reinforcement.

PLAN
 Eastbound Deck Shown, Westbound Opposite Hand



CROSS-SECTION
 Eastbound Lanes - Looking East
 Westbound Lanes - Looking West

KNIGHT
 Engineers & Architects

DESIGNED - FW	REVISED
CHECKED - WPM	REVISED
DRAWN - DC	REVISED
CHECKED - WPM	REVISED

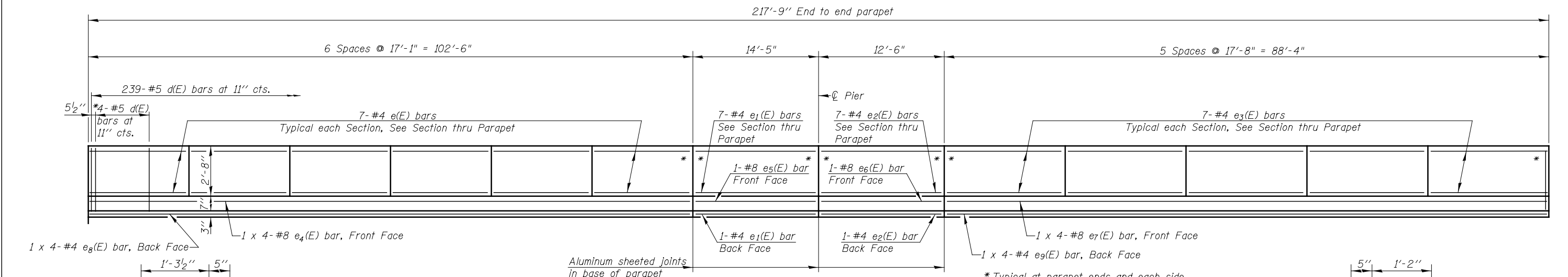
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN AND CROSS SECTION
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	508
CONTRACT NO. 64B87				

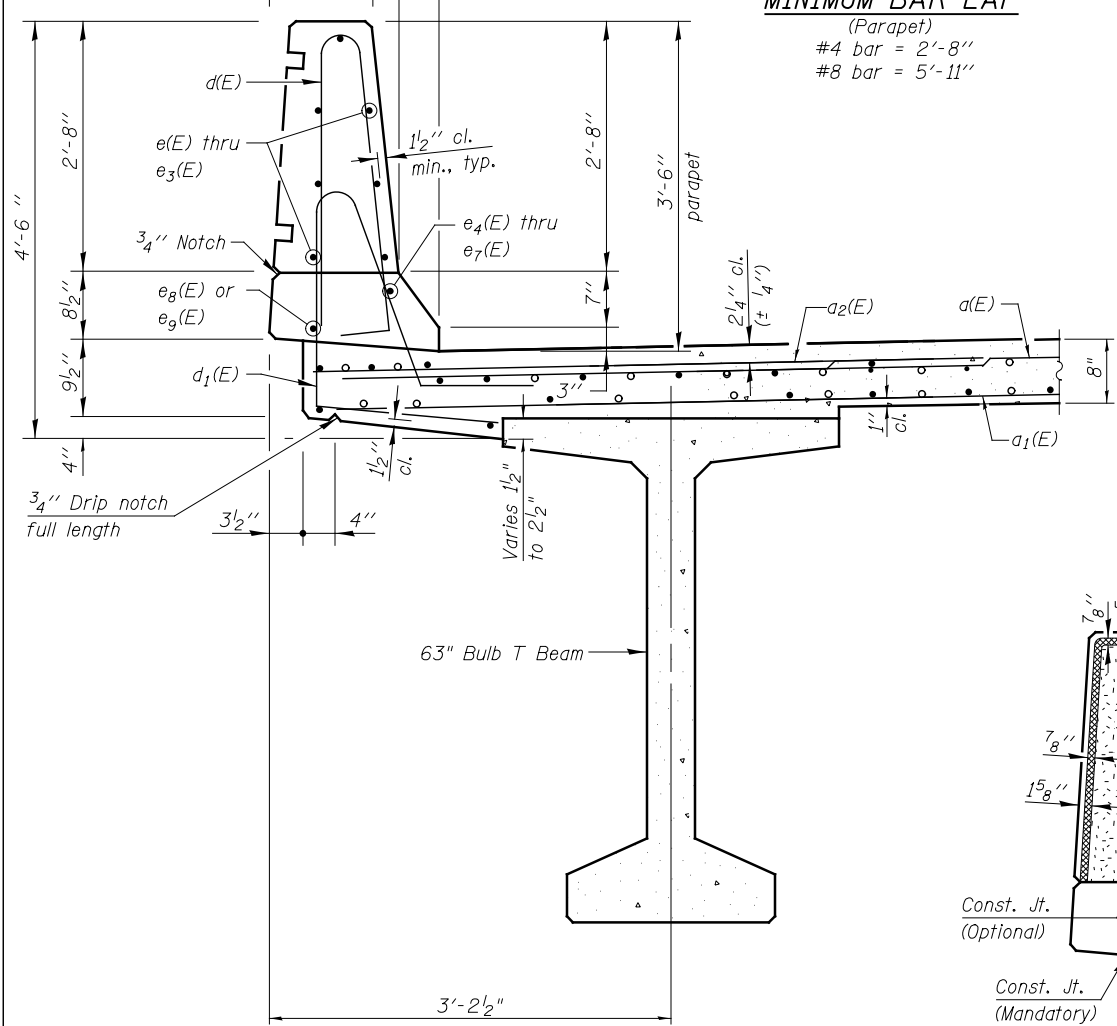
DRAWING NO. 5-18 OF 39 DRAWINGS

ILLINOIS FED. AID PROJECT



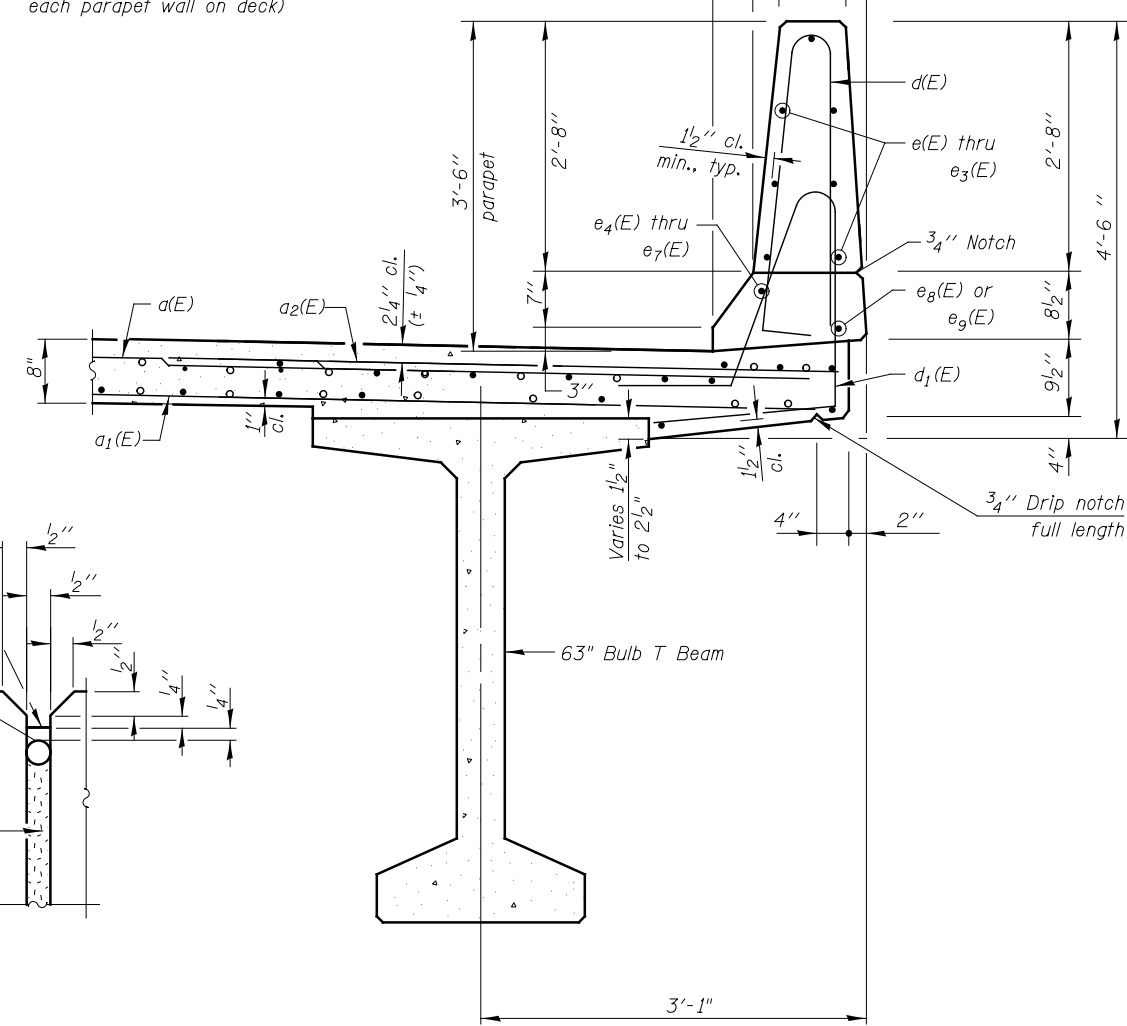
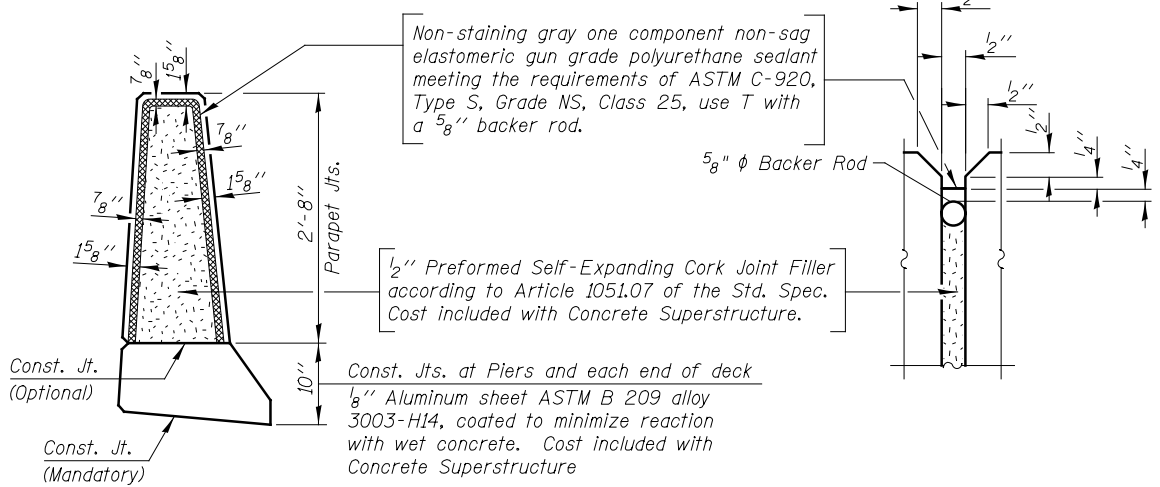
INSIDE ELEVATION OF PARAPET

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

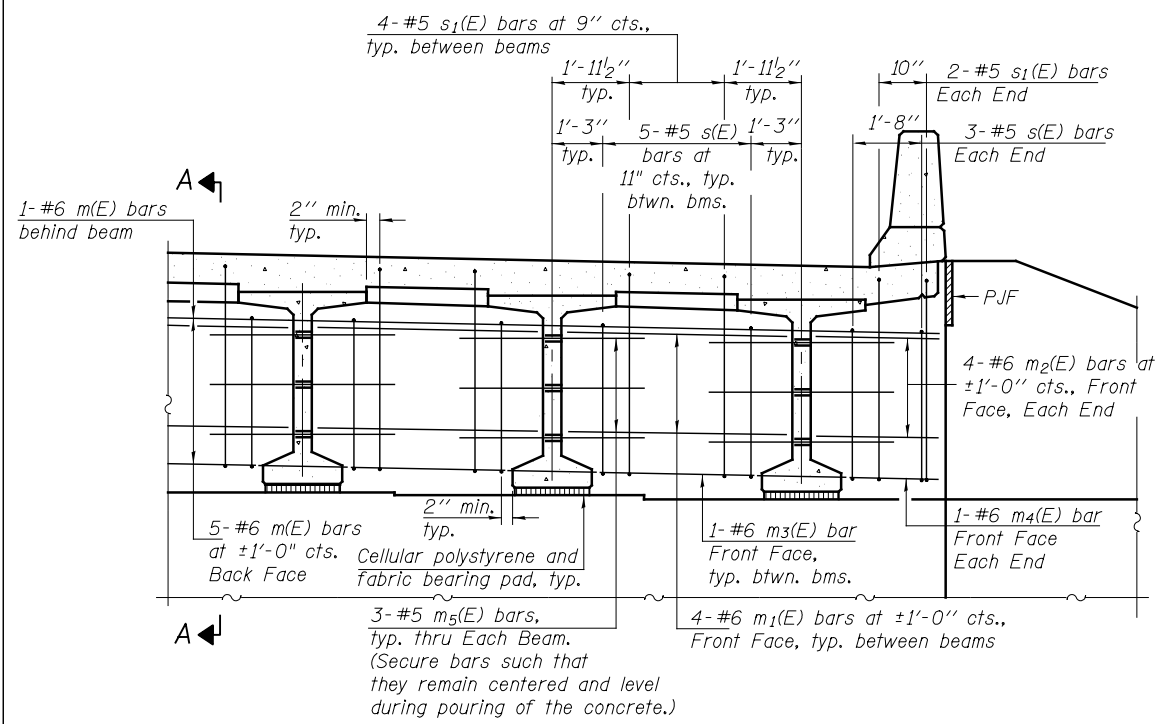


SECTION THRU PARAPET
Outside Parapet Walls

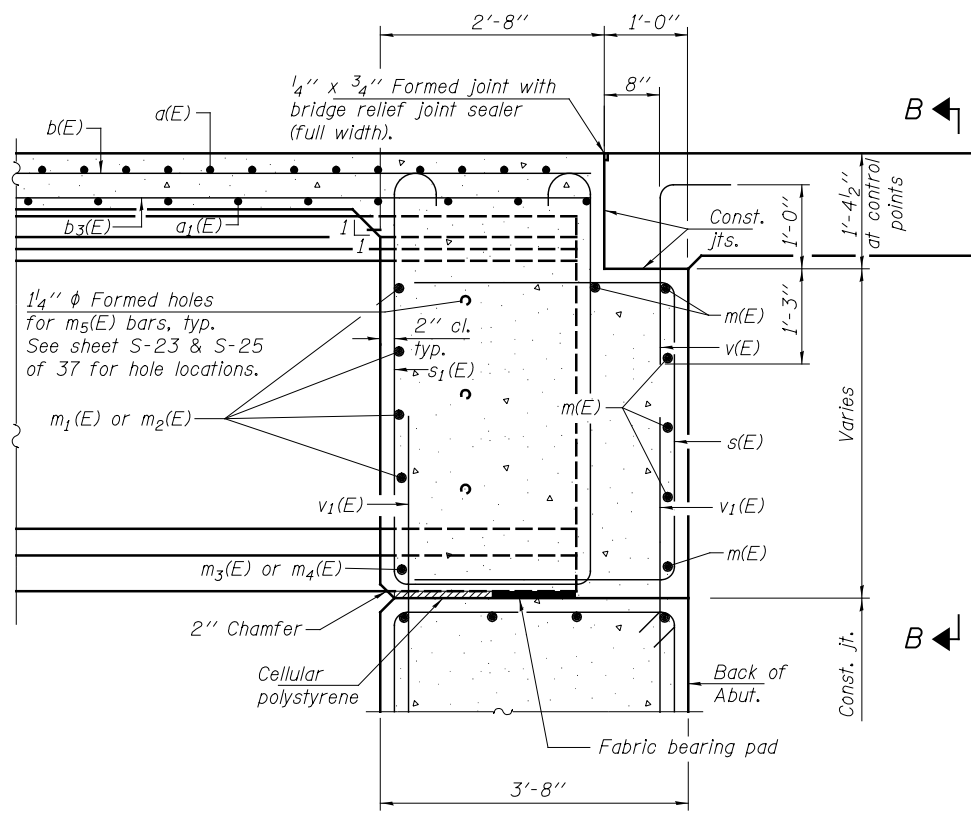
PARAPET JOINT DETAILS



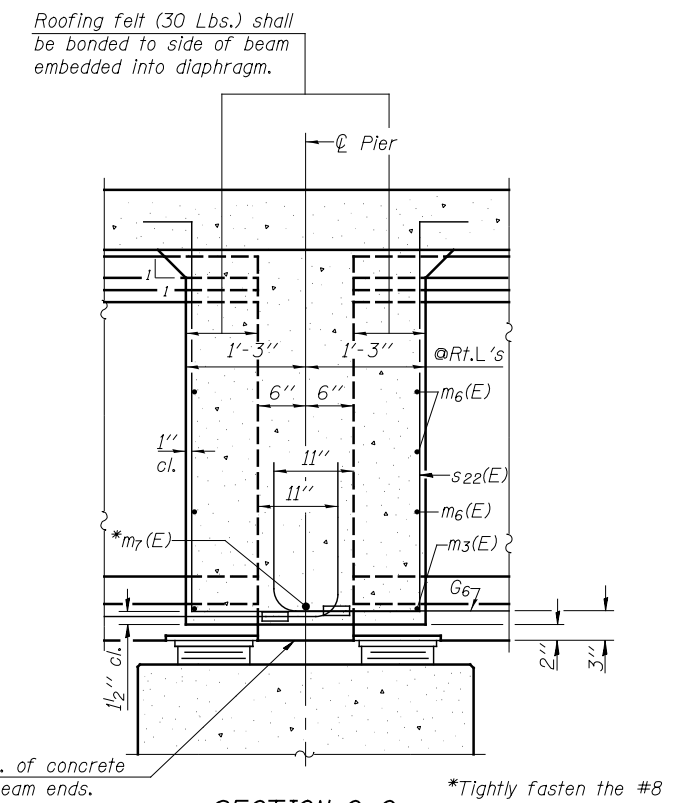
SECTION THRU PARAPET
Inside Parapet Walls



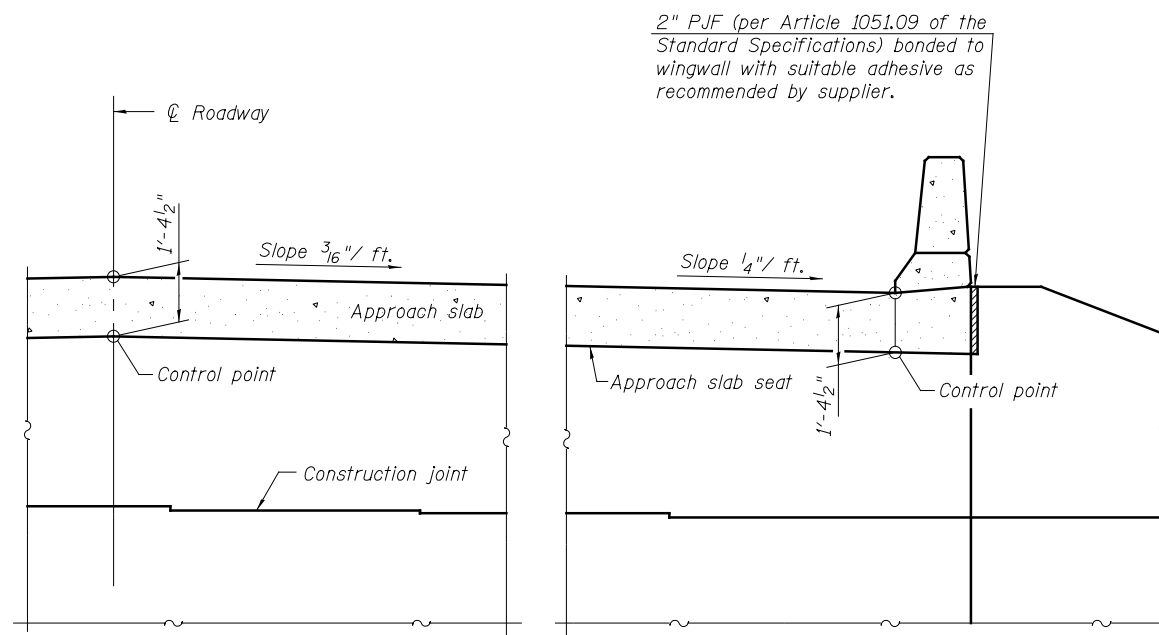
DIAPHRAGM ELEVATION AT ABUTMENT



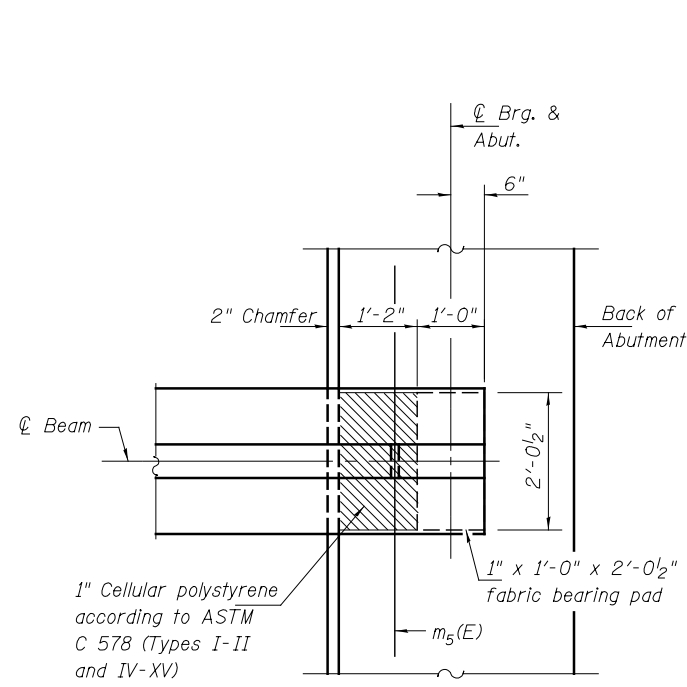
SECTION A-A AT ABUTMENT



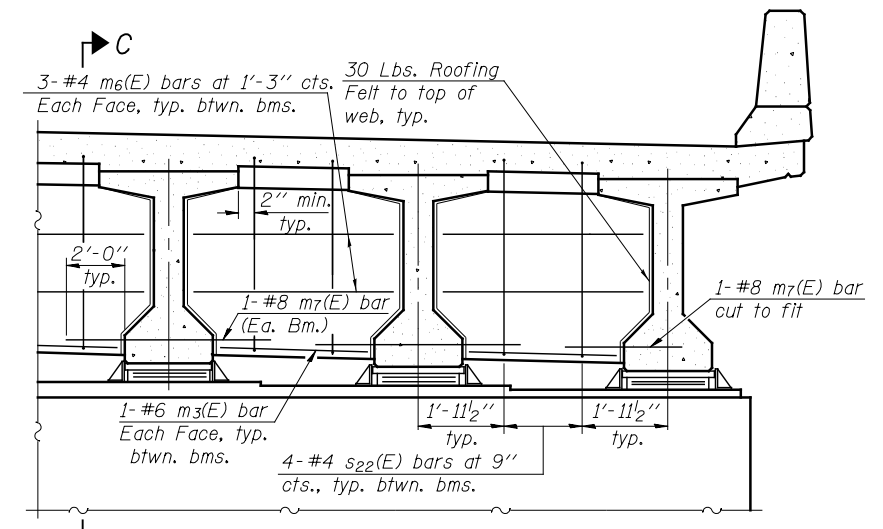
SECTION C-C AT PIER (Expansion)



SECTION B-B



PARTIAL PLAN AT ABUTMENT (Showing bottom flange of beam)



DIAPHRAGM AT PIER (Expansion)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet S-21 of 39.
 Concrete in diaphragm is included with Concrete Superstructure on sheet S-21 of 39.
 The s(E), s1(E) and s22(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
 Horizontal dimensions for Sec. A-A and Sec. C-C are along centerline of beam unless otherwise noted.
 For details of bars s(E), s1(E), s22(E) and v(E) see sheet S-21 of 39.
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.

DPBTI-0

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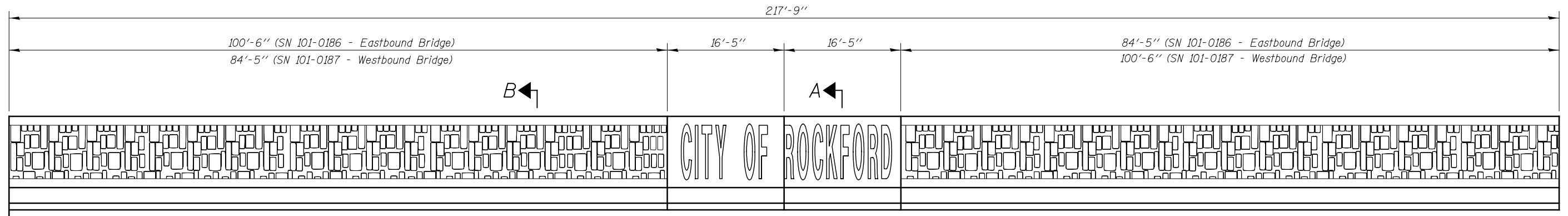
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CHECKED - WPM	REVISION
SCALE - NONE	REVISION
DATE - 8/16/2018	REVISION
DRAWN - DC	REVISION
CHECKED - WPM	REVISION

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

**ABUTMENT AND PIER DIAPHRAGM DETAILS
 STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)**

DRAWING NO. S-20 OF 39 DRAWINGS

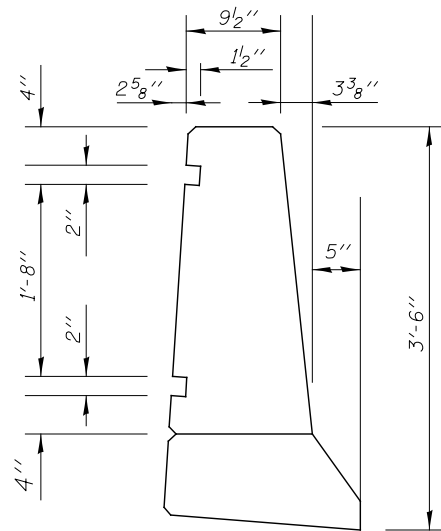
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HR	WINNEBAGO	689	510
CONTRACT NO. 64B87				
ILLINOIS FED. AID PROJECT				



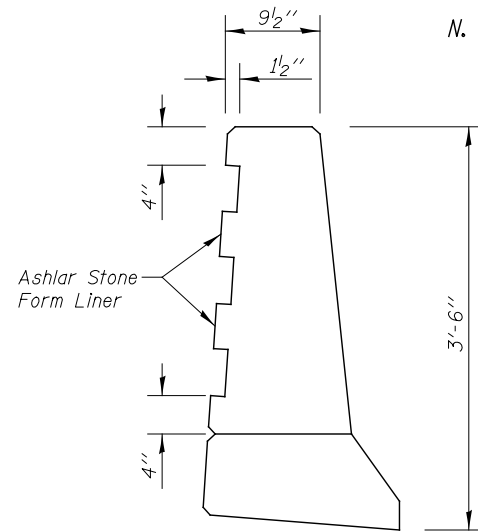
CITY OF ROCKFORD

ELEVATION - OUTSIDE PARAPET FACES

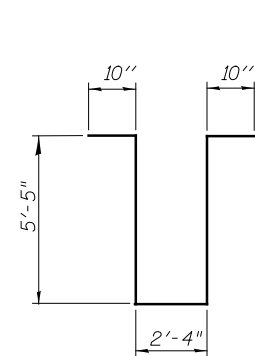
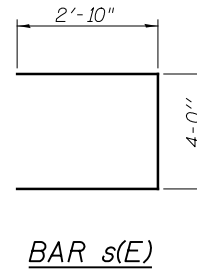
N. Parapet of Westbound Bridge and S. Parapet of Eastbound Bridge



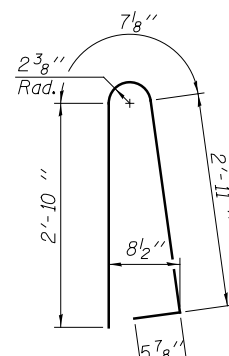
SECTION A-A
Typical of north and south parapets



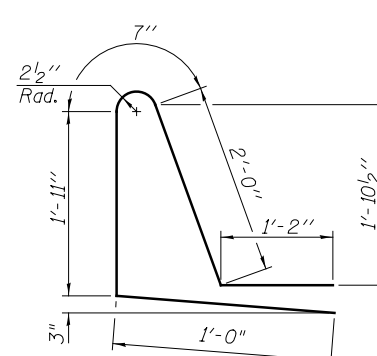
SECTION B-B
Typical of north and south parapets



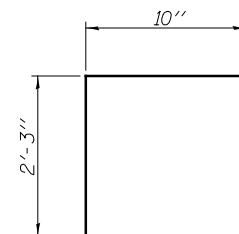
BARS s22(E)



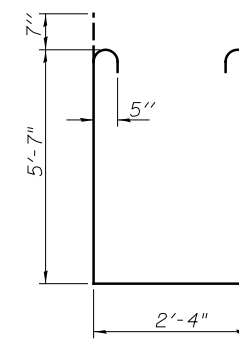
BAR d1(E)



BAR d1(E)



BAR v(E)



BAR s1(E)

BILL OF MATERIAL
TWO SUPERSTRUCTURES

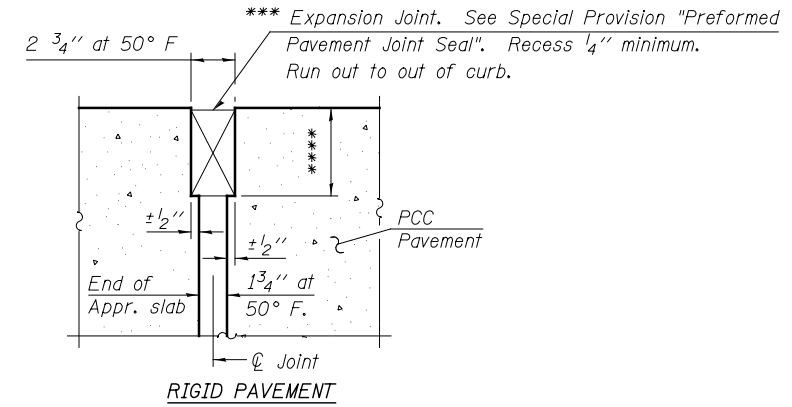
Bar	No.	Size	Length	Shape
a(E)	748	#5	42'-3"	—
a1(E)	524	#5	41'-10"	—
a2(E)	1496	#6	6'-6"	—
b(E)	656	#6	30'-3"	—
b1(E)	264	#8	27'-4"	—
b2(E)	160	#6	31'-5"	—
b3(E)	612	#5	27'-8"	—
b4(E)	276	#7	21'-2"	—
d(E)	1084	#5	6'-10"	⏏
d1(E)	956	#5	6'-8"	⏏
e(E)	168	#4	16'-9"	—
e1(E)	32	#4	14'-1"	—
e2(E)	32	#4	12'-2"	—
e3(E)	140	#4	17'-4"	—
e4(E)	16	#8	29'-5"	—
e5(E)	4	#8	14'-1"	—
e6(E)	4	#8	12'-2"	—
e7(E)	16	#8	25'-11"	—
e8(E)	16	#4	27'-6"	—
e9(E)	16	#4	24'-0"	—
m(E)	24	#6	42'-10"	—
m1(E)	96	#6	5'-4"	—
m2(E)	32	#6	2'-6"	—
m3(E)	48	#6	3'-8"	—
m4(E)	8	#6	1'-8"	—
m5(E)	84	#5	7'-6"	—
m6(E)	72	#4	5'-4"	—
m7(E)	14	#8	6'-2"	—
s(E)	144	#5	9'-8"	⏏
s1(E)	112	#5	14'-8"	⏏
s22(E)	48	#4	14'-10"	⏏
v(E)	176	#5	3'-4"	⏏
Reinforcement Bars, Epoxy Coated		Pound	186,400	
Concrete Superstructure		Cu. Yds.	812.0	
Form Liner Textured Surface		Sq. Ft.	872	

Bars indicated thus 1 x 3 - #5 etc. indicates 1 line of bars with 3 lengths per line.

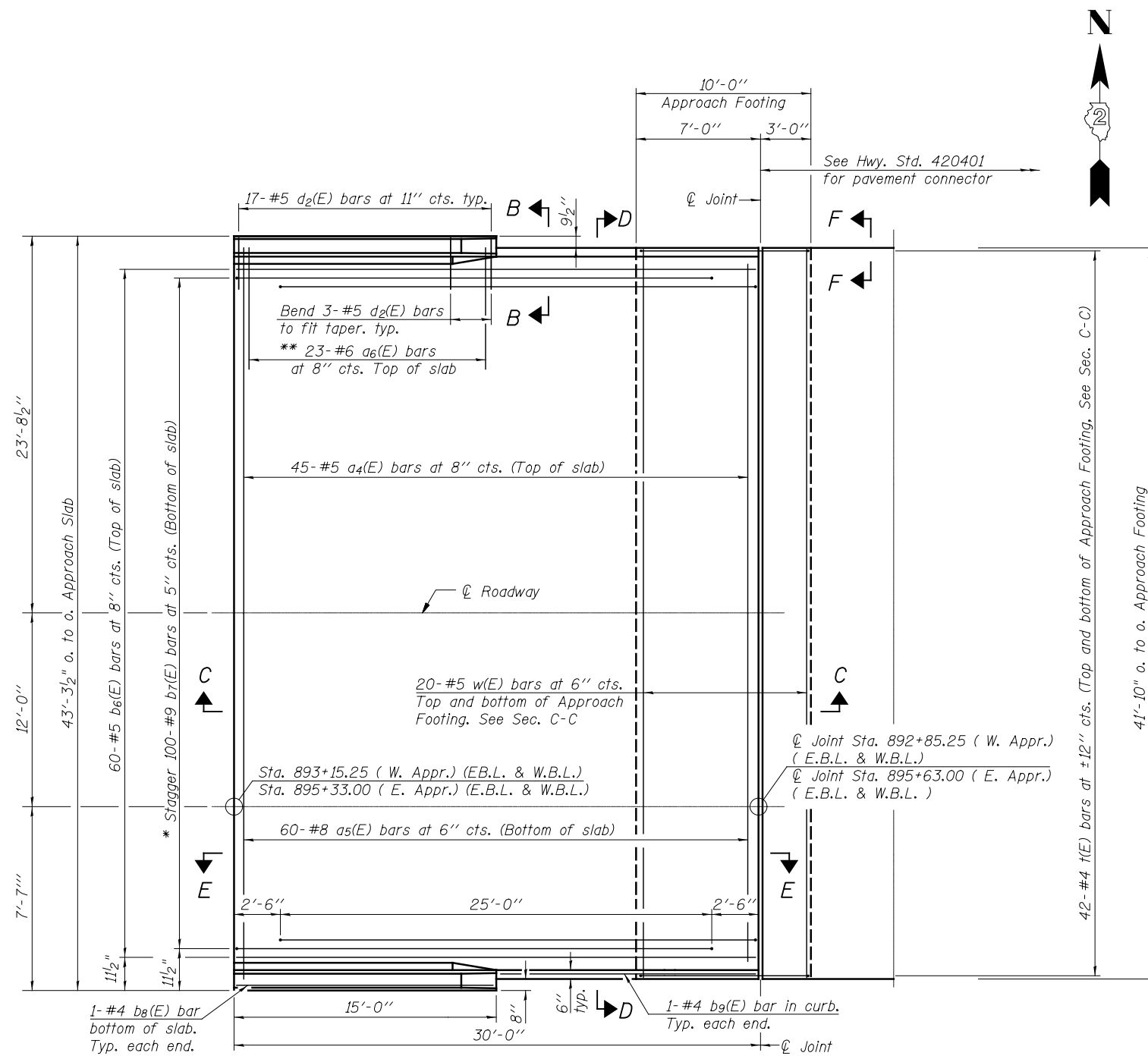
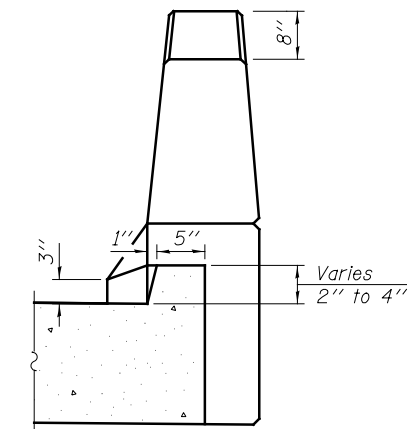
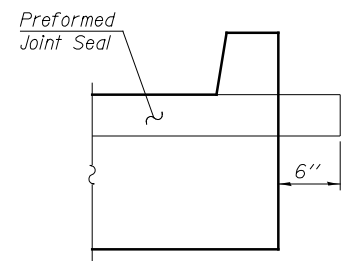
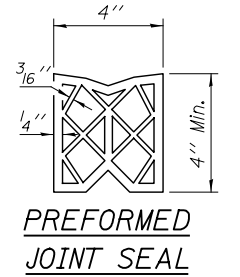
Notes:
 See sheet S-23 of 39 for Sections C-C & D-D and View E-E.
 a4(E) and a5(E) bar spacings measured along \varnothing Rdwy.
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2' for installation purposes.

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

**** Per manufacturer recommendations



DETAIL A



PLAN

Westbound Bridge (East Approach shown-Other Approaches opposite hand)

* Tilt #9 b₇(E) bars as required to maintain clearance.
 ** Alternate with a₄(E) bars, typ. ea. parapet.

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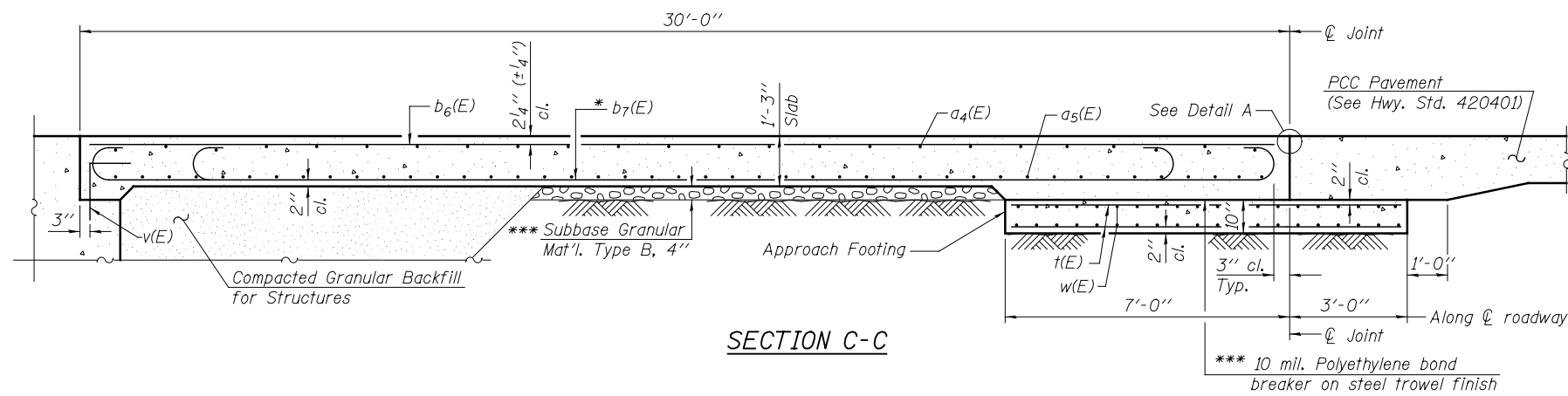
DESIGNED - FW	REVISED
CHECKED - WPM	REVISED
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CHECKED - WPM	REVISED
SCALE - NONE	
DATE - 8/16/2018	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

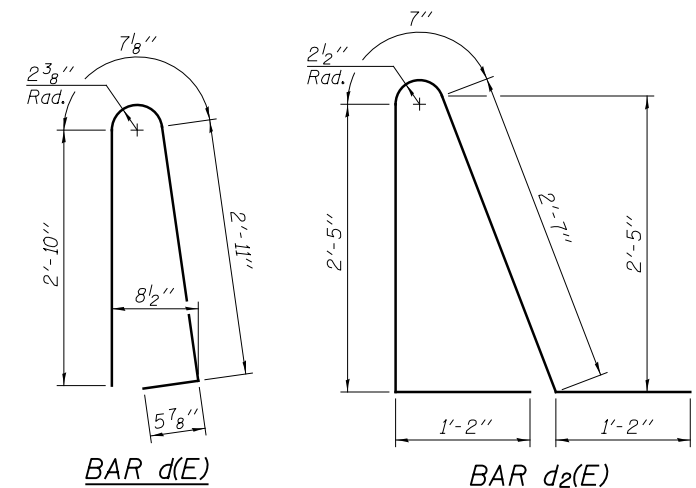
BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	512
CONTRACT NO. 64B87				
ILLINOIS FED. AID PROJECT				

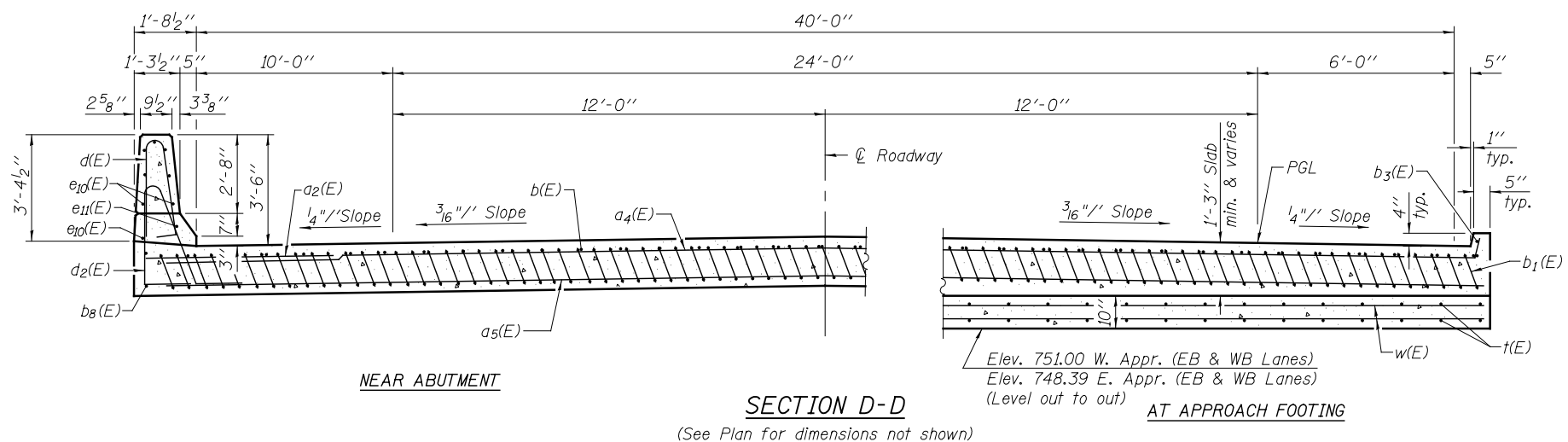
DRAWING NO. 5-22 OF 39 DRAWINGS



Notes:
 See sheet S-22 of 39 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.
 For v(E) bar details, see sheet S-21 of 39.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet S-02 of 39.
 For additional parapet details, see sheet S-19 of 39.

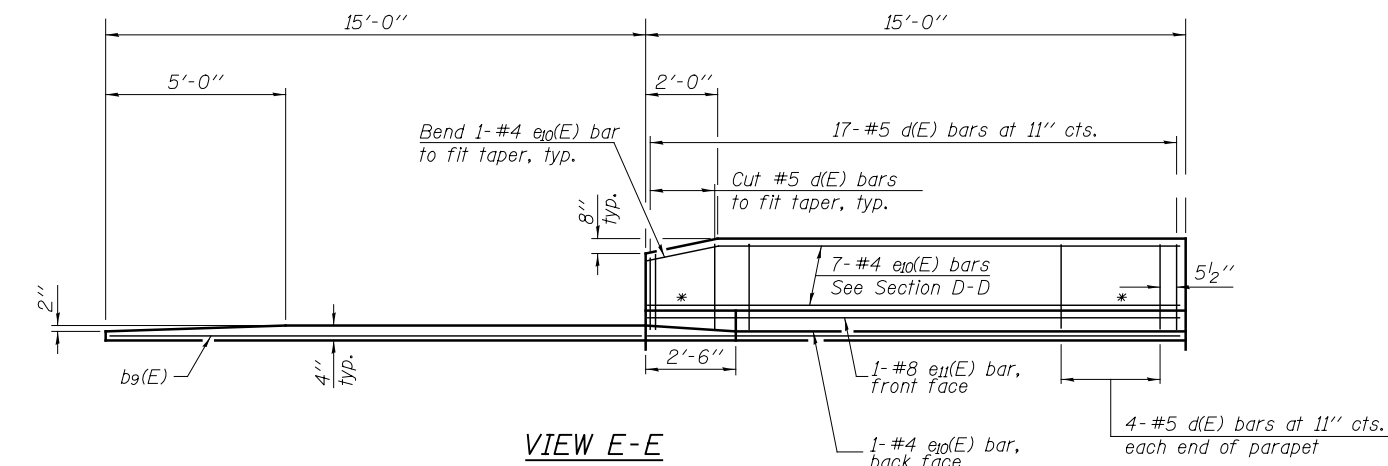


* Tilt #9 b₁(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure (Approach Slab).

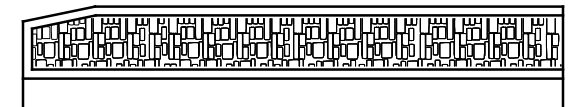


**FOUR APPROACHES
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a ₄ (E)	180	#5	41'-5"	—
a ₅ (E)	240	#8	41'-7"	—
a ₆ (E)	184	#6	6'-6"	—
b ₆ (E)	240	#5	29'-8"	—
b ₇ (E)	400	#9	29'-9"	—
b ₈ (E)	8	#4	14'-8"	—
b ₉ (E)	8	#4	14'-9"	—
d(E)	200	#5	6'-10"	⌒
d ₂ (E)	136	#5	7'-11"	⌒
e ₁₀ (E)	64	#4	14'-8"	—
e ₁₁ (E)	8	#8	14'-8"	—
t(E)	336	#4	9'-8"	—
w(E)	160	#5	41'-7"	—
Concrete Superstructure			Cu. Yd.	18.0
Concrete Superstructure (Approach Slab)			Cu. Yd.	250.0
Concrete Structures			Cu. Yd.	52.0
Reinforcement Bars, Epoxy Coated			Pound	96,860
Form Liner Textured Surface			Sq. Ft.	120

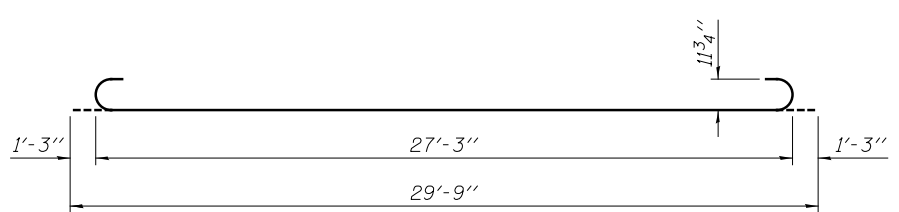
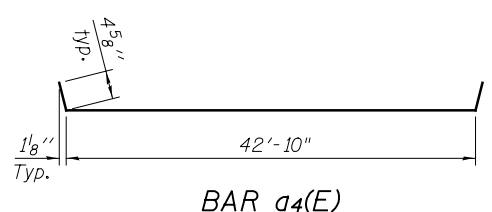


Note:
 Form Liner Textured Surface treatment applies to outside faces of the north parapet wall of the westbound bridge and south parapet wall of the eastbound bridge.



ELEVATION VIEW
 Outside of Parapet Walls - Aesthetic Details
 (See sheet S-21 of 39 for cross-section details)

* Typical at parapet ends (2 locations marked with an "*" each parapet wall on each of four (4) approaches)



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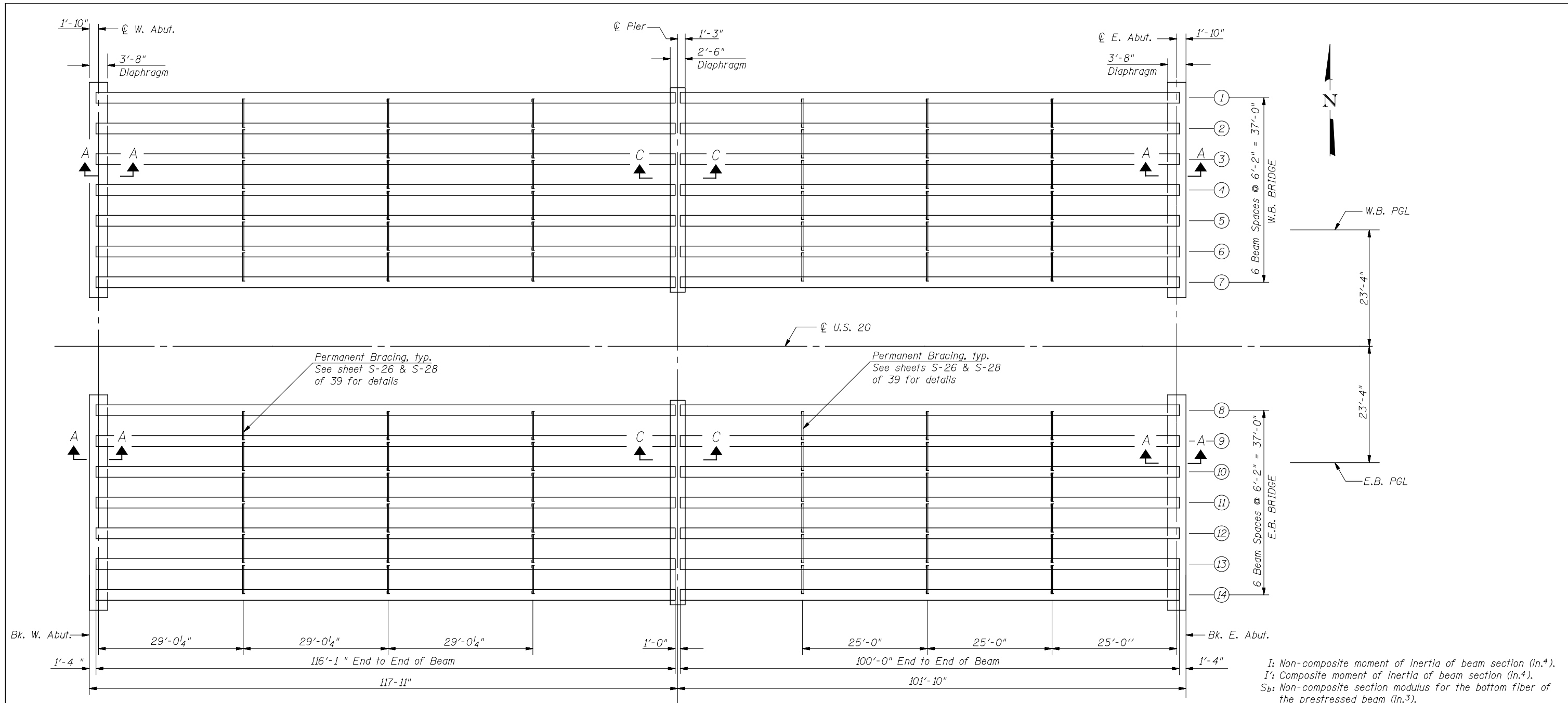
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CHECKED - WPM	REVISION
SCALE - NONE	REVISION
DATE - 10/1/2018	REVISION
DRAWN - DC	REVISION
CHECKED - WPM	REVISION

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)**

DRAWING NO. S-23 OF 39 DRAWINGS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	513
CONTRACT NO. 64B87			ILLINOIS FED. AID PROJECT	



FRAMING PLAN

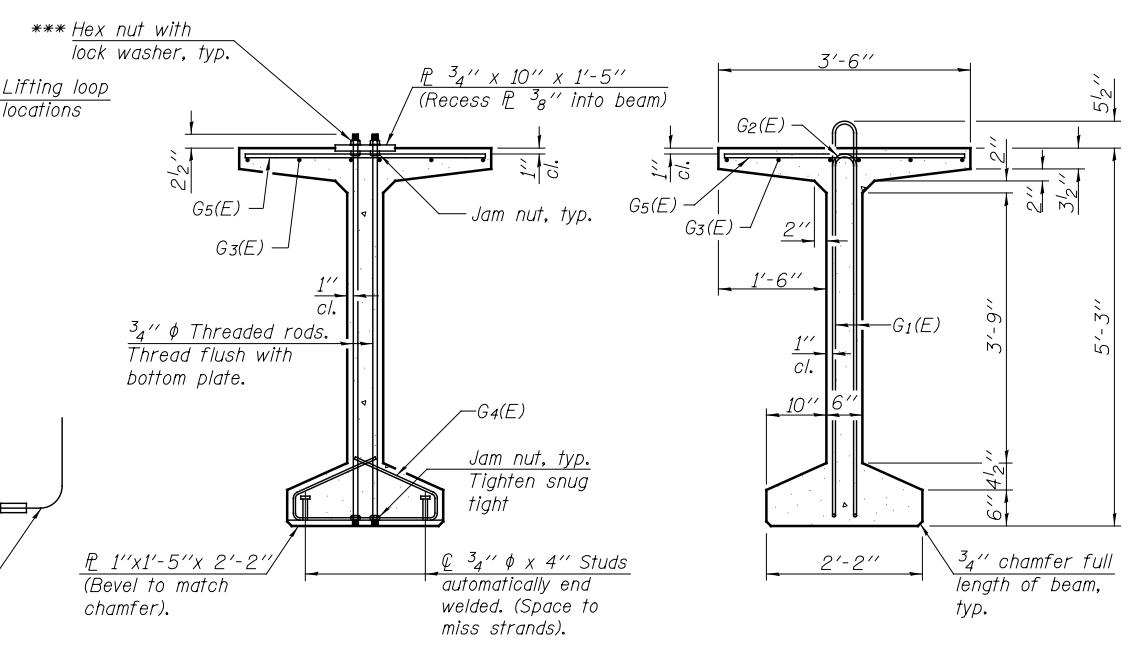
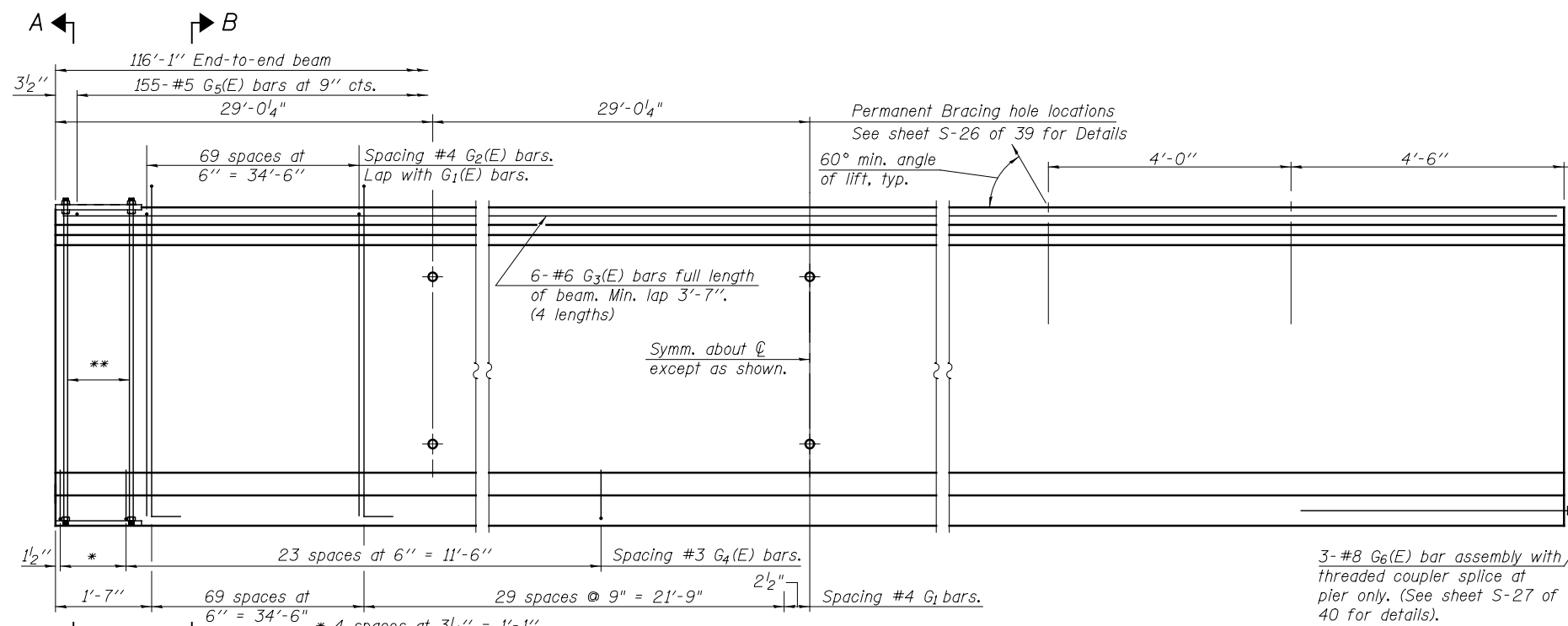
	0.4 Sp. 1	Pier	0.6 Sp. 2
I	392,638	392,638	392,638
I'	744,394	--	744,394
S_b	12,224	12,224	12,224
S_b'	16,260	--	16,260
S_t	12,715	12,715	12,715
S_t'	43,229	--	43,229
$DC1$	1,403	1,403	1,403
M_{DC1}	2223.3	0	1644.9
$DC2$	0.148	0.148	0.148
M_{DC2}	149.4	-212.8	88.4
DW	0.286	0.286	0.286
M_{DW}	288.8	-411.1	170.9
$M_{\xi} + IM$	1,533.8	-1458.7	1,314.9

	W. Abutment	Pier		E. Abutment
		Span 1	Span 2	
R_{DC1}	80.6	80.6	69.3	69.3
R_{DC2}	6.7	10.0	10.0	5.2
R_{DW}	12.8	19.2	19.2	10.0
$R_{\xi} + IM$	81.1	73.9	73.9	75.5
R_{Total}	181.2	183.7	172.4	160.0

* At continuous piers, reactions from composite loads are assumed to be equally distributed to each bearing line.

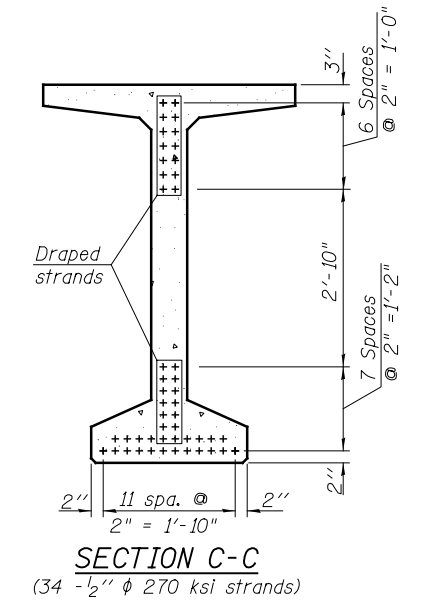
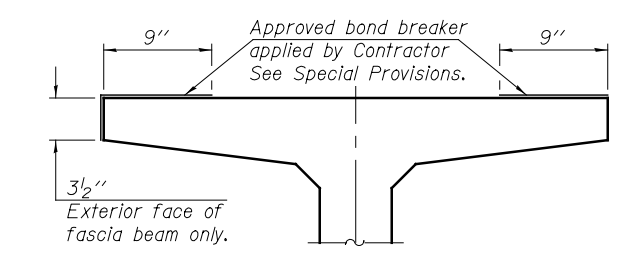
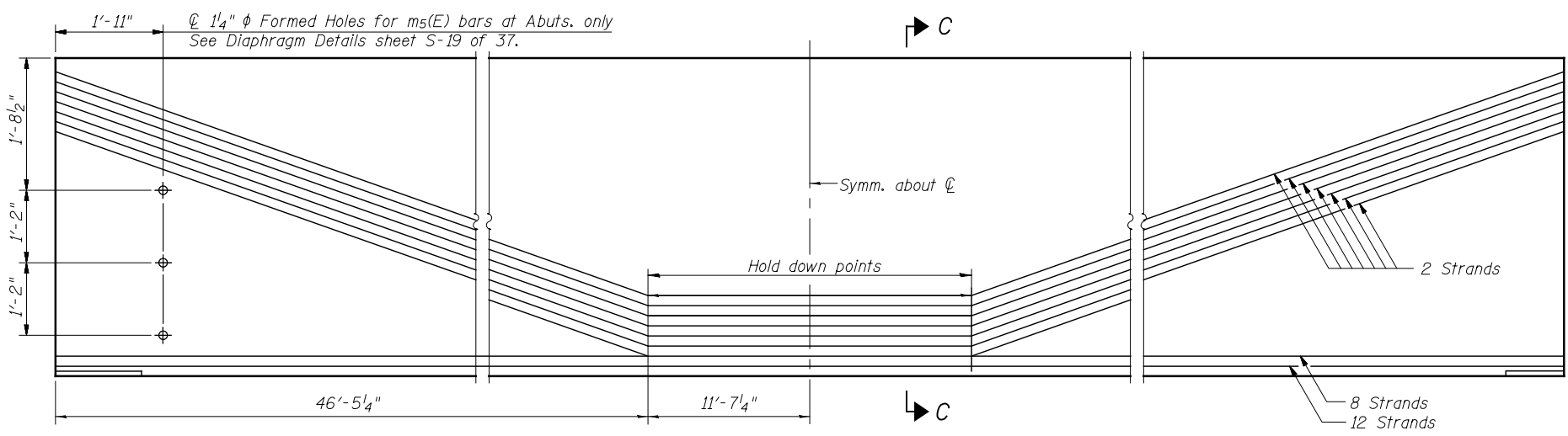
- I : Non-composite moment of inertia of beam section (in^4).
- I' : Composite moment of inertia of beam section (in^4).
- S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in^3).
- S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in^3).
- S_t : Non-composite section modulus for the top fiber of the prestressed beam (in^3).
- S_t' : Composite section modulus for the top fiber of the prestressed beam (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.).
- $M_{\xi} + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

For Section A-A and Section C-C see sheet S-20 of 39.



ELEVATION OF BEAM
(Showing reinforcement & dimensions)

*** Hex nut with lock washer, typ.
 Recess 3/8" into beam
 Jam nut, typ.
 3/4" Threaded rods. Thread flush with bottom plate.
 Jam nut, typ. Tighten snug tight
 3/4" chamfer full length of beam, typ.



BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G ₁ (E)	198	#4	12'-1"	∩
G ₂ (E)	140	#4	10'-2"	∩
G ₃ (E)	24	#6	31'-8"	∩
G ₄ (E)	56	#3	4'-11"	∩
G ₅ (E)	155	#5	3'-4"	∩
G ₆ (E)	3	#8	6'-6"	∩

Notes:
See sheet S-26 of 39 for additional details and Bill of Material.

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DESIGNED - FW	REVISED
CHECKED - WPM	REVISED
SCALE - NONE	REVISED
DATE - 8/16/2018	REVISED
DRAWN - DC	REVISED
CHECKED - WPM	REVISED

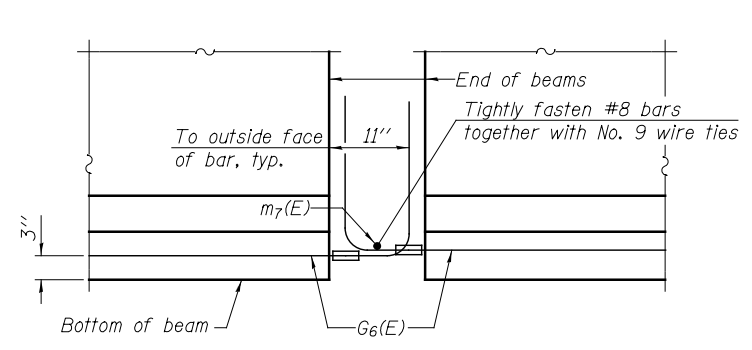
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

63" PPC BULB T-BEAM SPAN 1
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

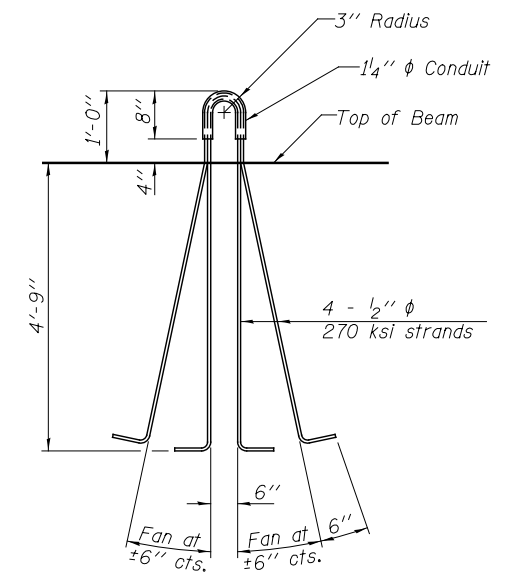
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	515
CONTRACT NO. 64B87				

DRAWING NO. S-25 OF 39 DRAWINGS

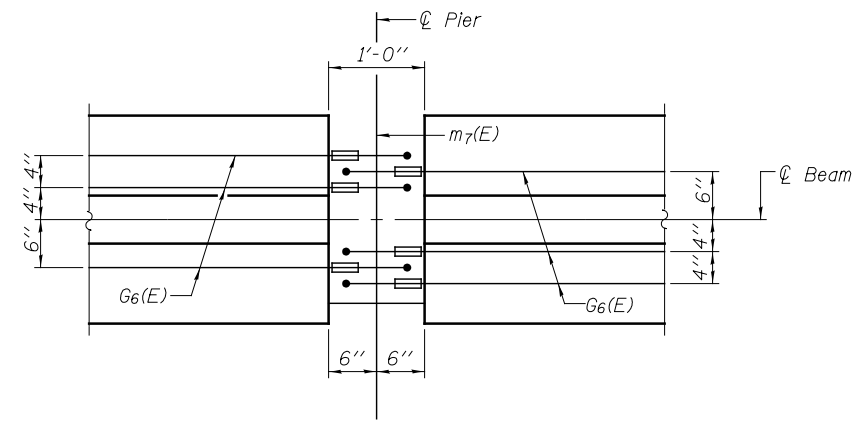
ILLINOIS FED. AID PROJECT



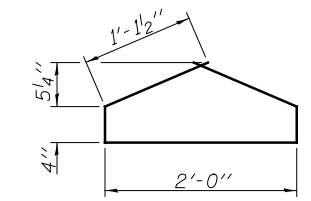
ELEVATION OF BEAM AT PIER



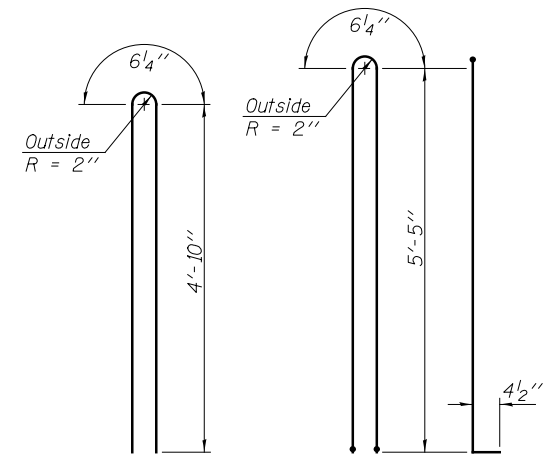
LIFTING LOOP DETAIL
2 loops at each end



PLAN OF BEAM AT PIER

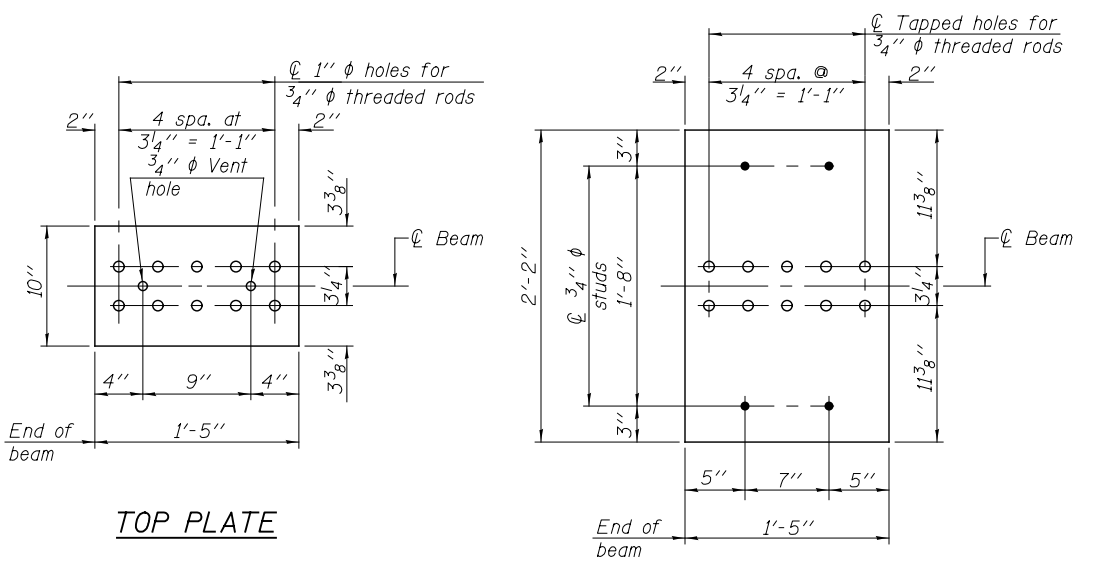


BAR G4(E)



BAR G2(E)

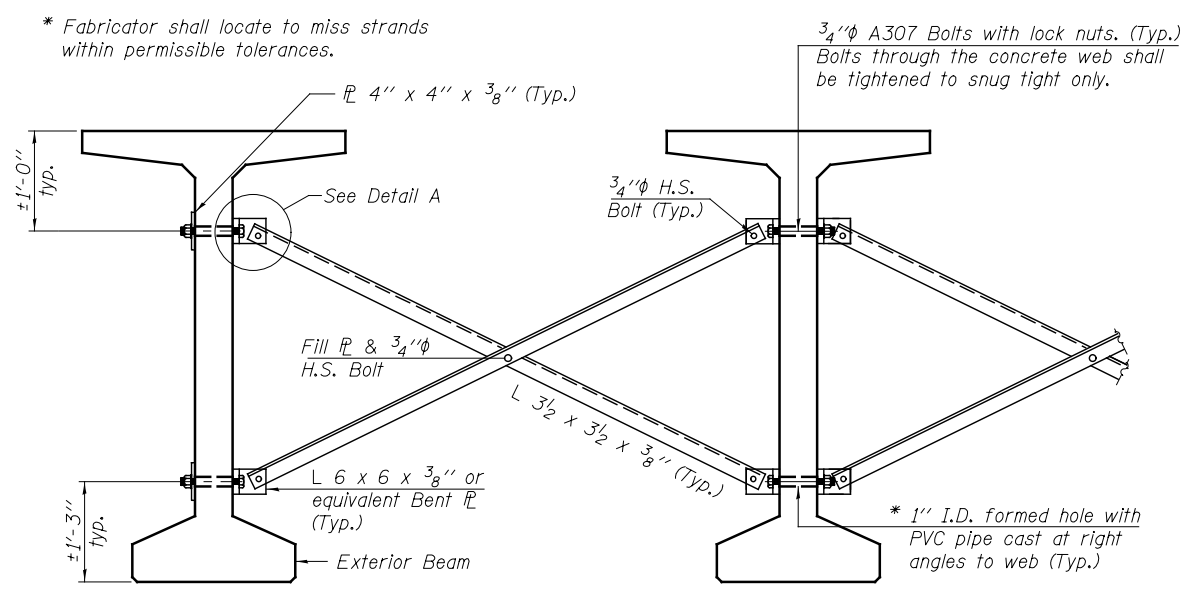
BAR G1(E)



TOP PLATE

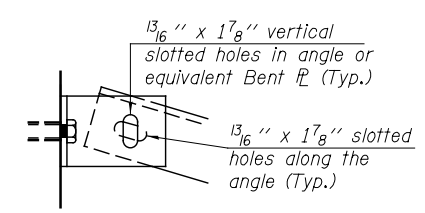
BOTTOM PLATE

See bearing details for pintle hole locations when required.

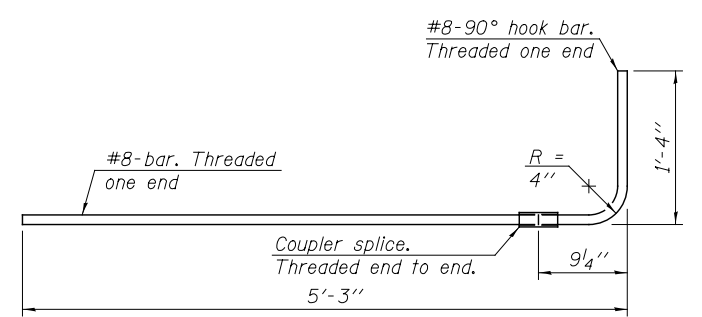


NOTES:
All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
Two hardened washers are required for each set of oversized holes.
All holes shall be 1 5/16\"/>

PERMANENT BRACING DETAILS FOR BULB-T BEAMS



DETAIL A



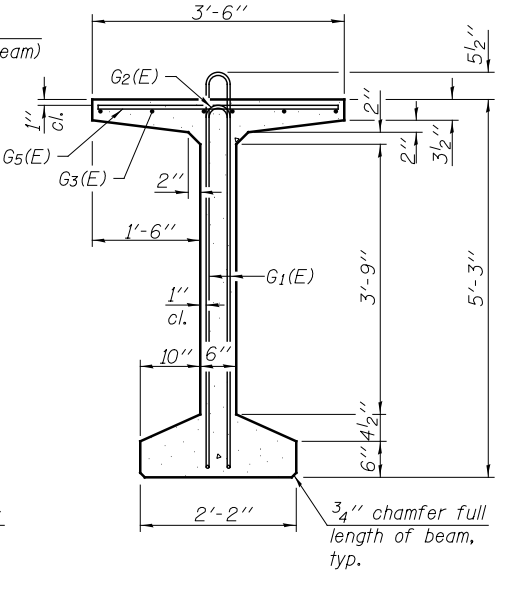
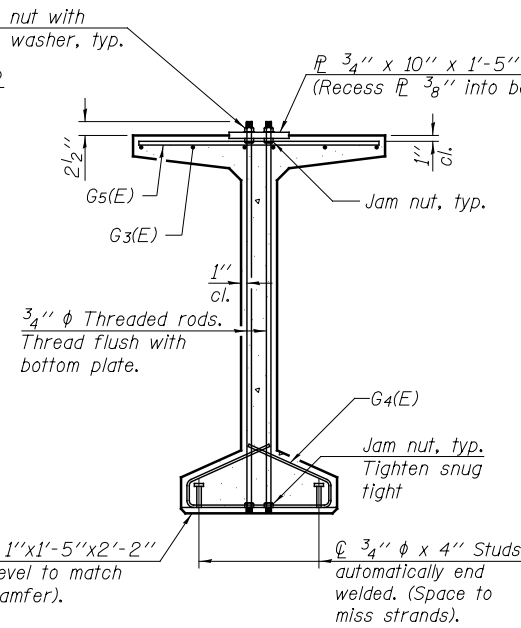
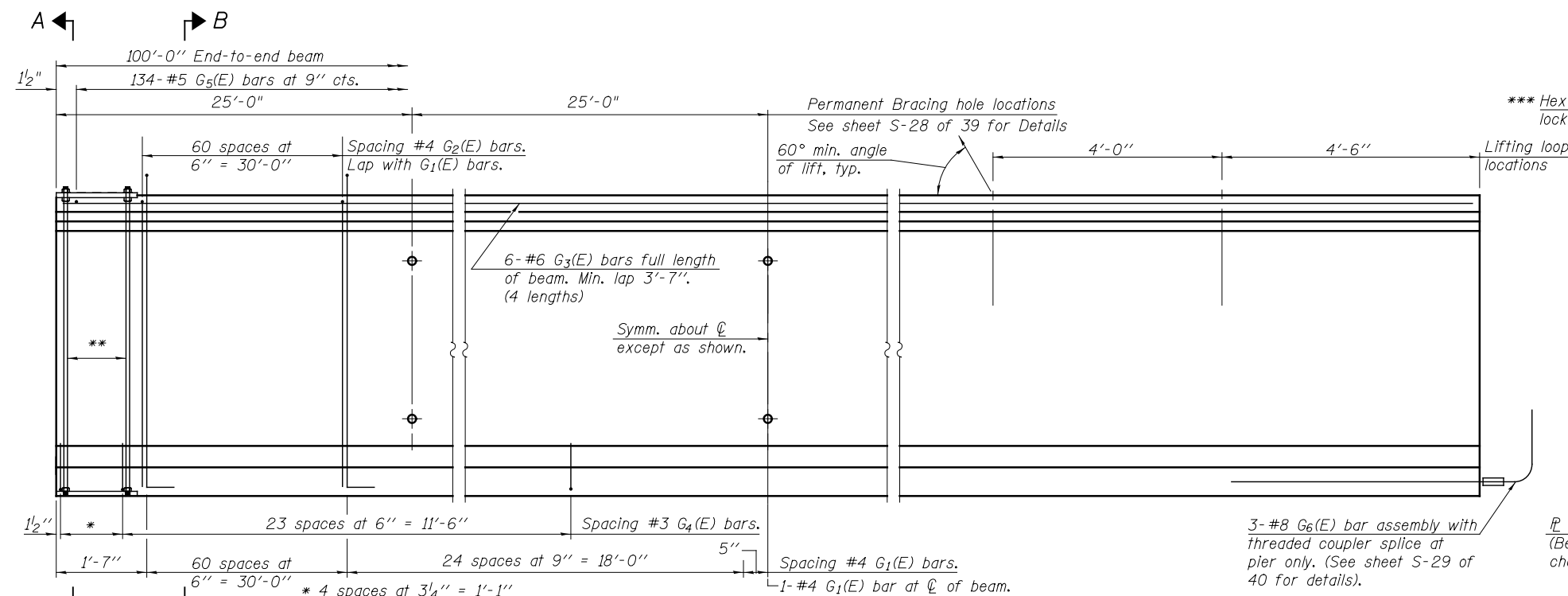
G6(E) BAR ASSEMBLY

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 63"	Ft.	1626

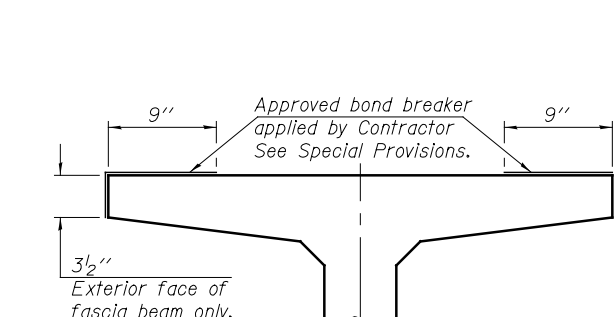
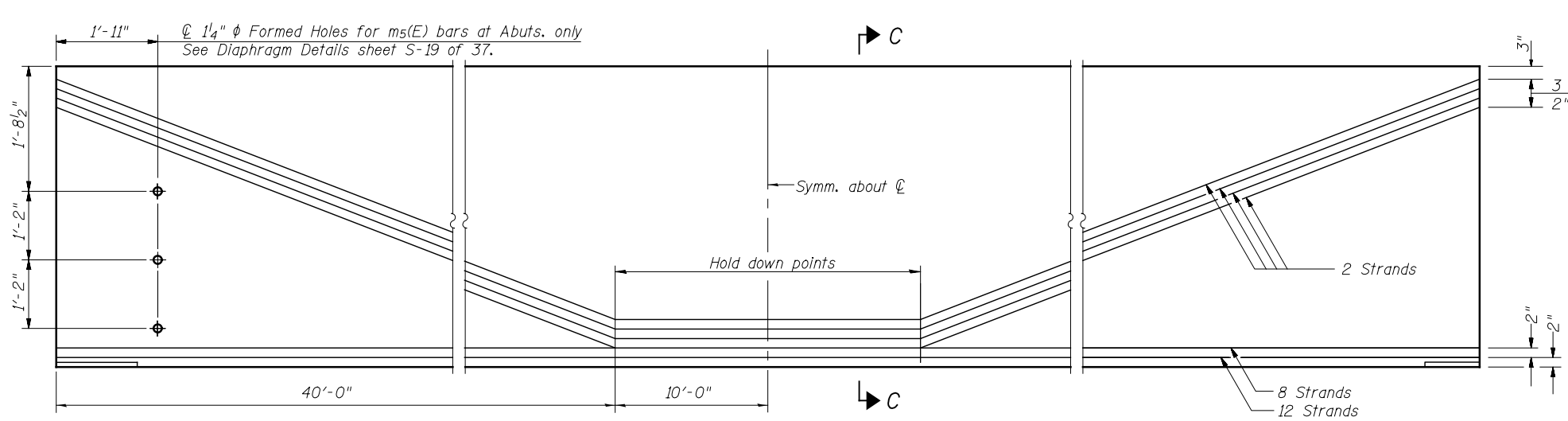
NOTES

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
The beams shall have a final concrete compressive strength, $f'c$, of 7,000 psi and a release concrete compressive strength, $f'ci$, of 6,000 psi.
A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling.
Tilt G6(E) bars when necessary to maintain 1 1/2" clearance.
The top and bottom plates shall be AASHTO M270 Grade 50.
The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.
Threaded rods shall be ASTM F 1554 Grade 55.
The G6(E) bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.
Beams shall not be released from the fabricator until they have attained 45 days of age or older.



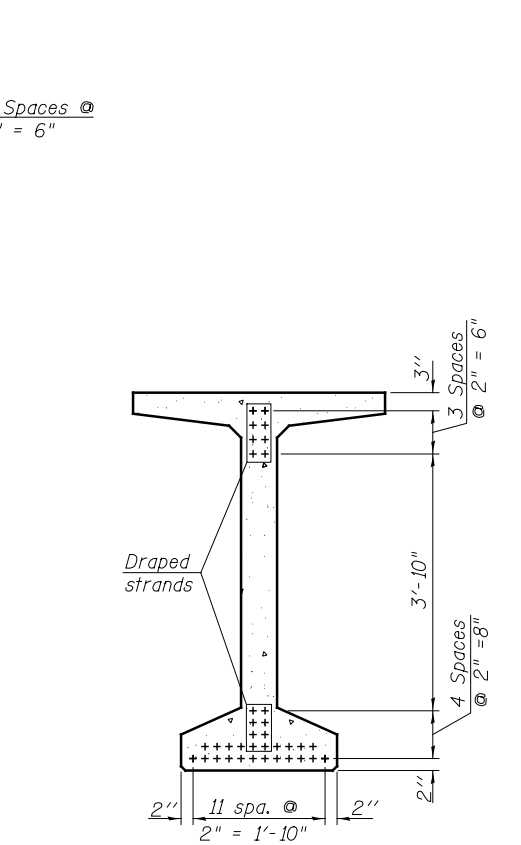
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

*** Hex nut with lock washer, typ.
*** Only tighten sufficiently to compress lock washers



ELEVATION OF BEAM
(Showing prestressing steel)

SECTION THRU TOP FLANGE
(Showing limits of bond breaker)



SECTION C-C
(28 - 1/2" φ 270 ksi strands)

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G ₁ (E)	171	#4	12'-1"	∩L
G ₂ (E)	122	#4	10'-2"	∩
G ₃ (E)	24	#6	27'-8"	—
G ₄ (E)	56	#3	4'-11"	⊗
G ₅ (E)	134	#5	3'-4"	—
G ₆ (E)	3	#8	6'-6"	U

Notes:
See sheet S-28 of 39 for additional details and Bill of Material.

KNIGHT
Engineers & Architects

DESIGNED - FW	REVISED
CHECKED - WPM	REVISED
SCALE - NONE	REVISED
DATE - 8/16/2018	REVISED
DRAWN - DC	REVISED
CHECKED - WPM	REVISED

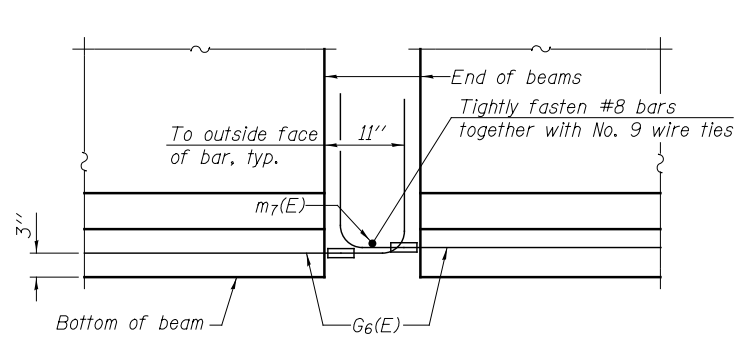
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

63" PPC BULB T-BEAM SPAN 2
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

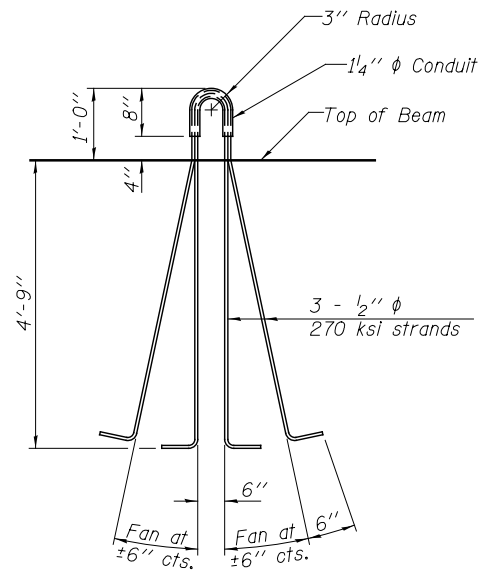
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HRB	WINNEBAGO	689	517
CONTRACT NO. 64B87				

DRAWING NO. S-27 OF 39 DRAWINGS

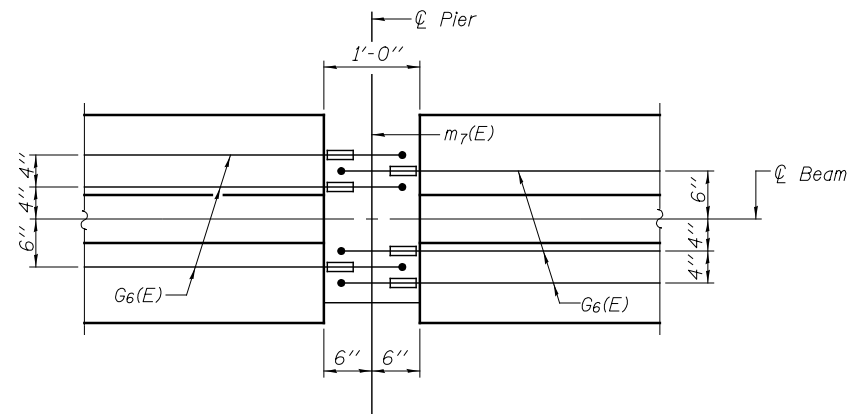
ILLINOIS FED. AID PROJECT



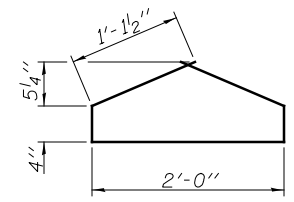
ELEVATION OF BEAM AT PIER



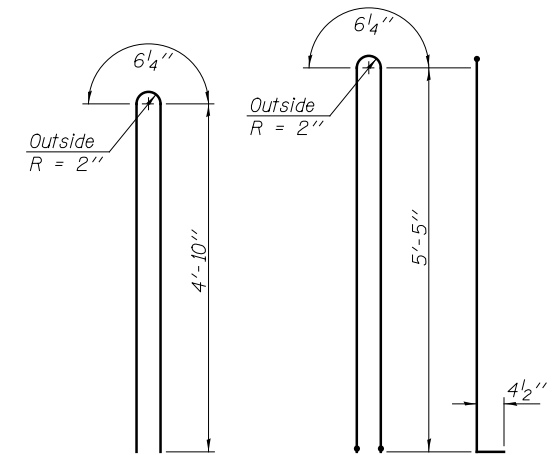
LIFTING LOOP DETAIL
2 loops at each end



PLAN OF BEAM AT PIER

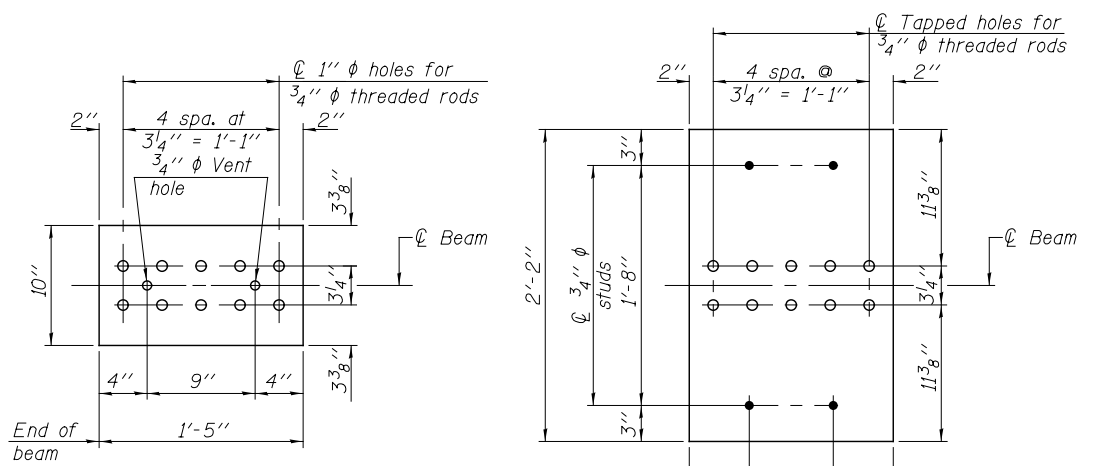


BAR G4(E)

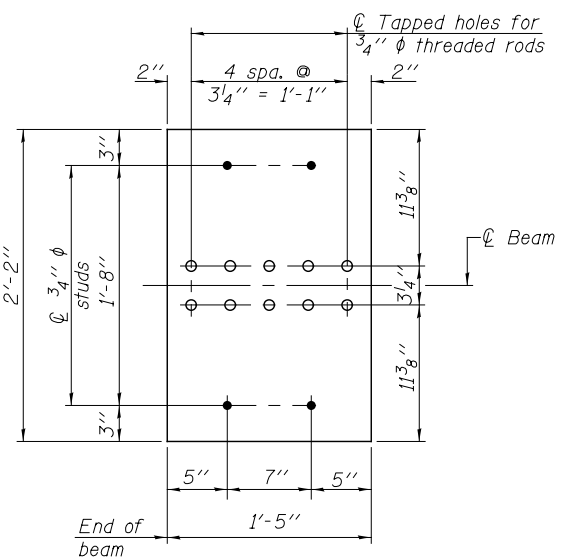


BAR G2(E)

BAR G1(E)

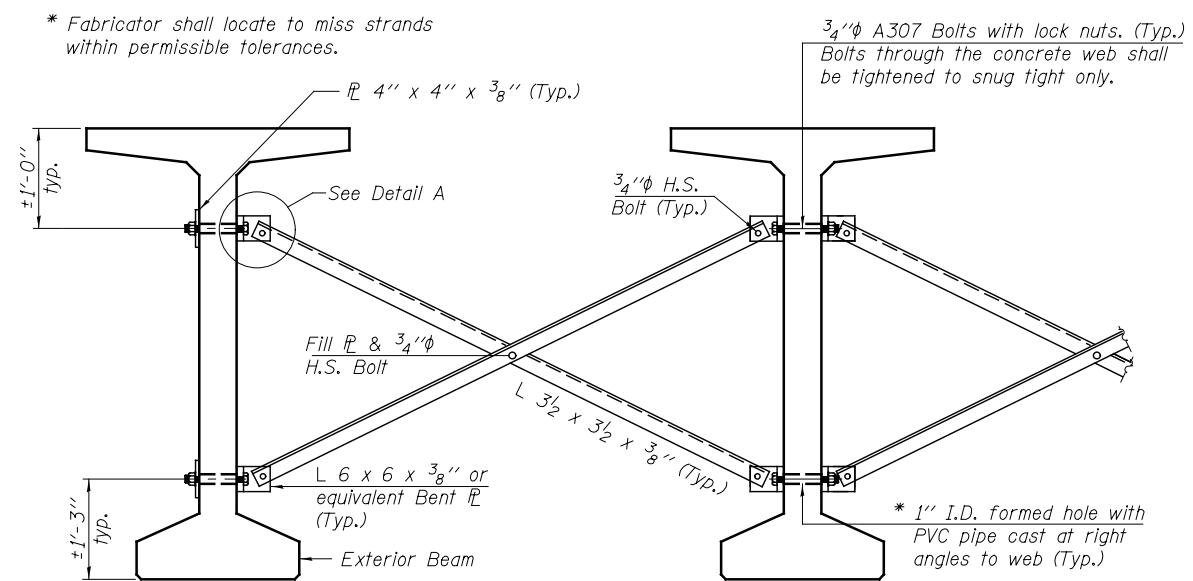


TOP PLATE



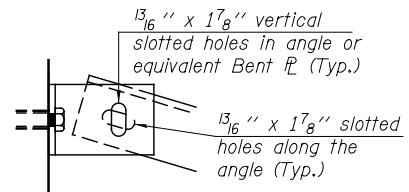
BOTTOM PLATE

See bearing details for pintle hole locations when required.

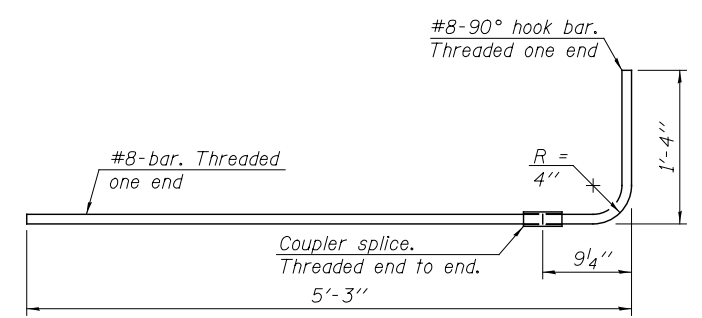


NOTES:
All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
Two hardened washers are required for each set of oversized holes. All holes shall be 5/16\"/>

PERMANENT BRACING DETAILS FOR BULB-T BEAMS



DETAIL A

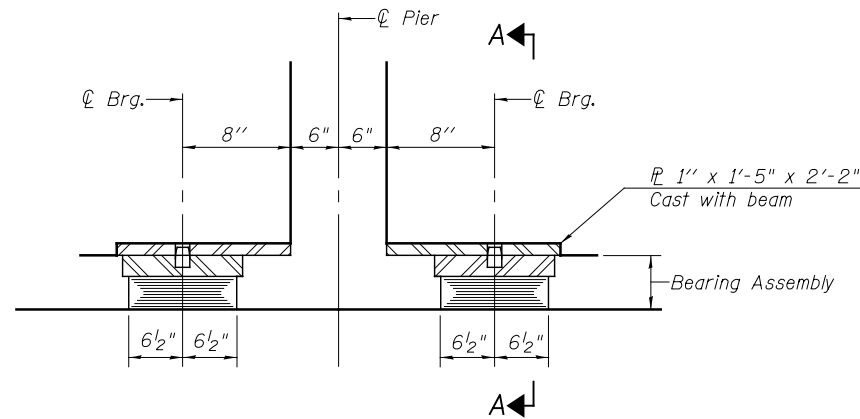


G6(E) BAR ASSEMBLY

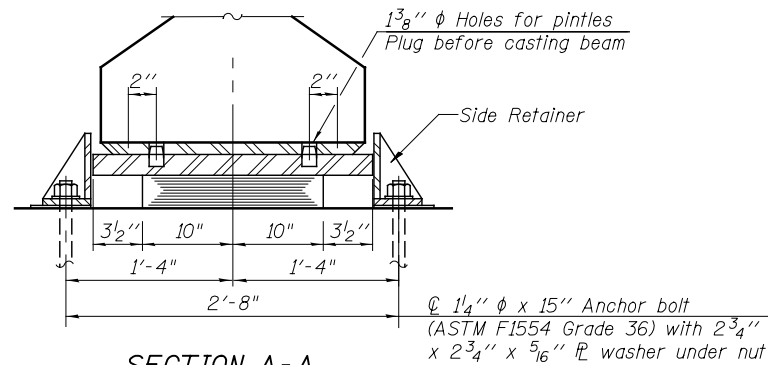
BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 63"	Ft.	1400

NOTES
Inserts for 3/4\"/>

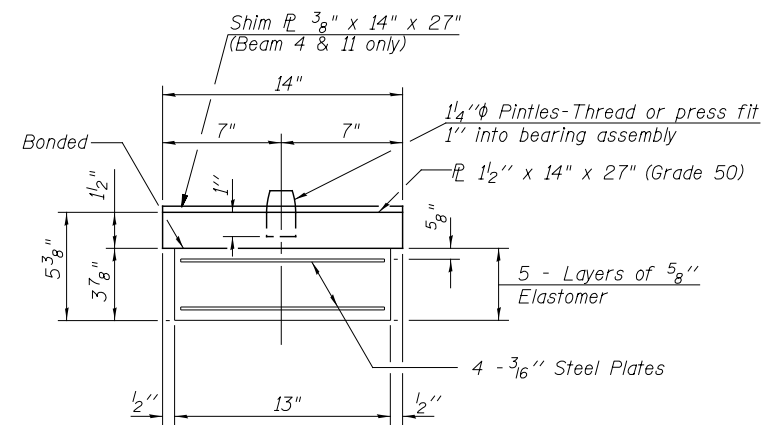


SECTION AT PIER

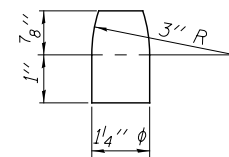


SECTION A-A

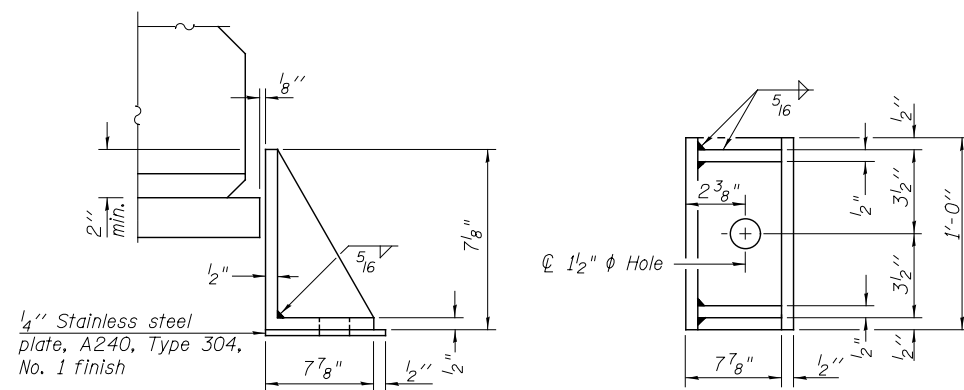
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY



PINTLE



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 bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

See sheet S-26 & S-28 of 39 for additional details of plate cast with beam.

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.

The structural steel plates and pintles of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	28
Anchor Bolts, 1 1/4"	Each	56

PI-2E-1

12-2-15

KNIGHT
Engineers & Architects

DESIGNED - FW
CHECKED - WPM
SCALE - NONE
DATE - 8/16/2018

REVISIONS
REVISOR
DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

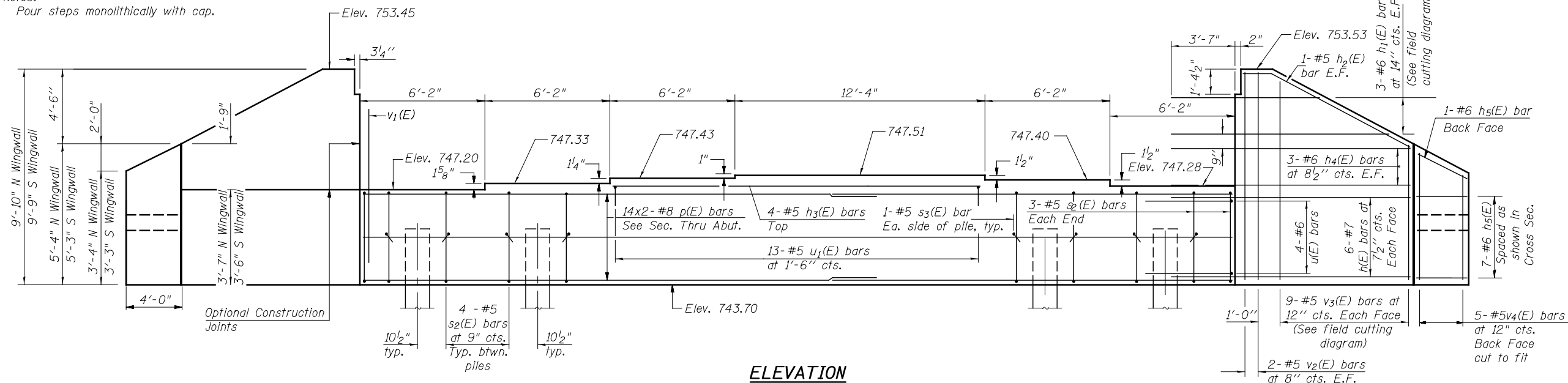
ELASTOMERIC BEARING DETAILS
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	519
CONTRACT NO. 64B87				

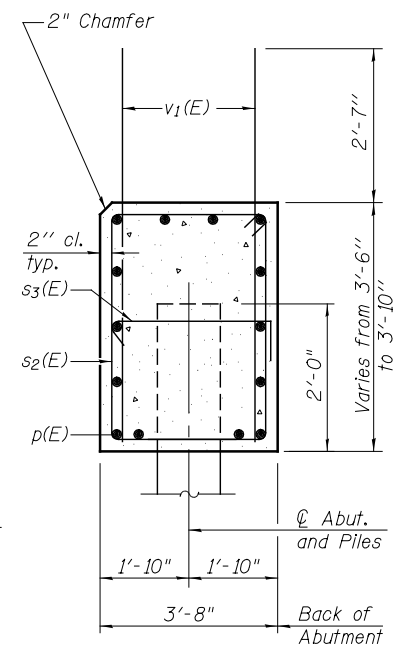
DRAWING NO. S-29 OF 39 DRAWINGS

ILLINOIS FED. AID PROJECT

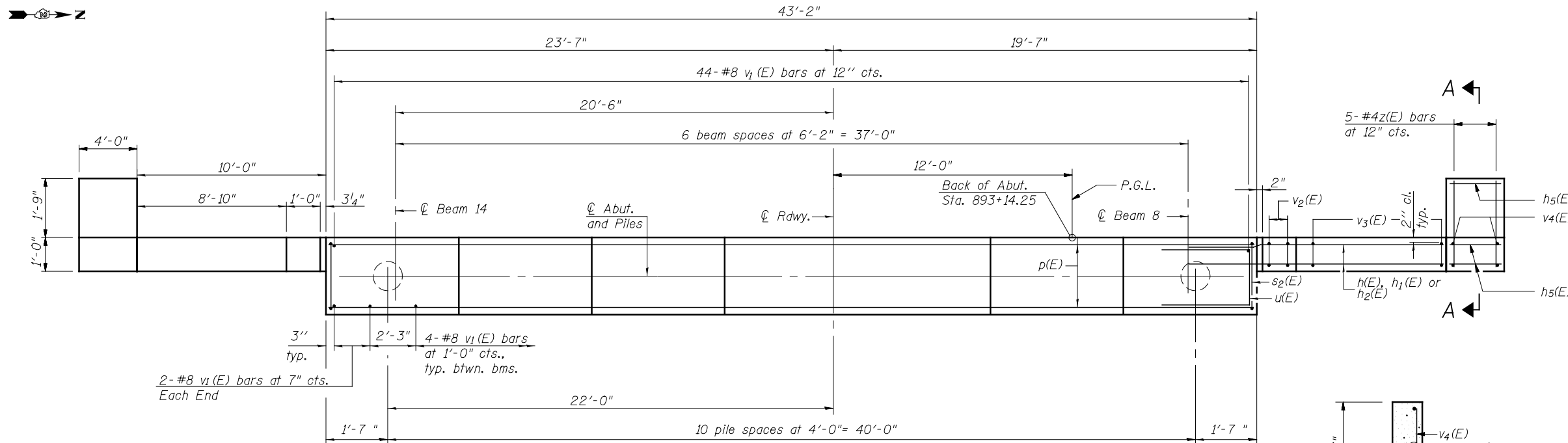
Notes:
Pour steps monolithically with cap.



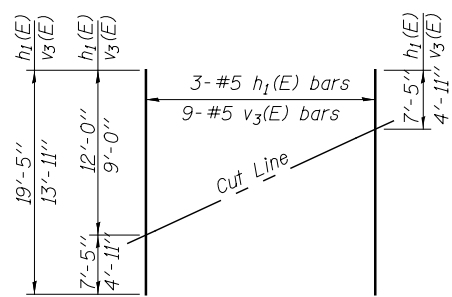
ELEVATION



SEC. THRU ABUT.

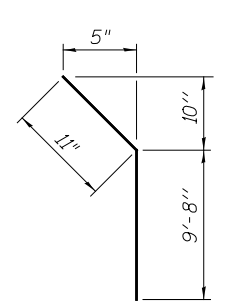


PLAN

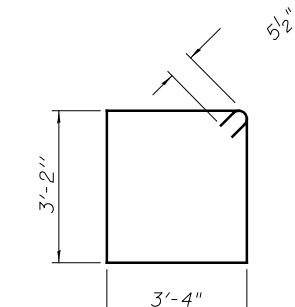


FIELD CUTTING DIAGRAM

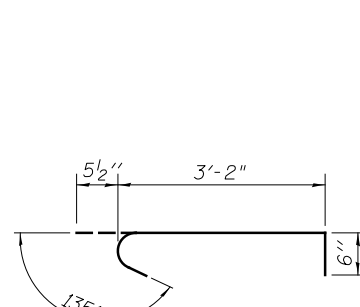
Order $h_1(E)$ and $v_3(E)$ full length. Cut as shown and use remainder of bars in opposite face.



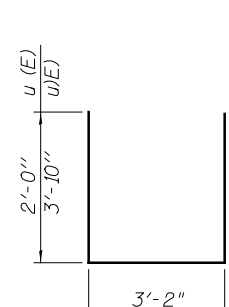
BAR $h_2(E)$



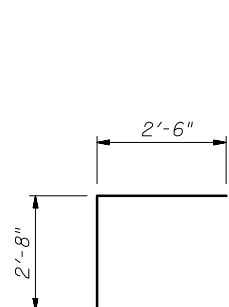
BAR $s_2(E)$



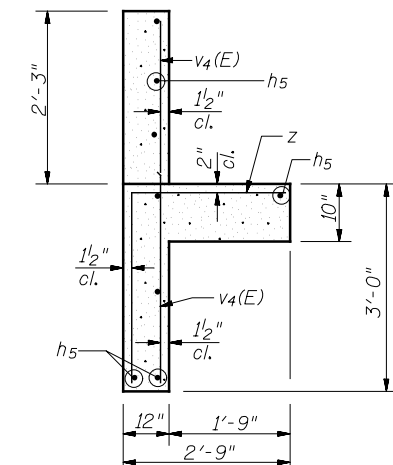
BAR $s_3(E)$



BAR $u(E)$ & $u_1(E)$



BAR $z(E)$



SECTION A-A

Maximum Applied Service Bearing Pressure $Q_{max} = 0.67$ ksf

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_1(E)$	24	#7	14'-0"	
$h_2(E)$	6	#6	19'-5"	
$h_3(E)$	4	#5	10'-7"	
$h_4(E)$	4	#5	18'-2"	
$h_5(E)$	12	#6	14'-0"	
$h_5(E)$	16	#6	3'-8"	
$p(E)$	28	#8	24'-10"	
$s_2(E)$	46	#5	7'-5"	
$s_3(E)$	22	#5	4'-2"	
$u(E)$	8	#6	7'-2"	
$u_1(E)$	13	#5	10'-10"	
$v_1(E)$	72	#8	5'-11"	
$v_2(E)$	8	#5	9'-5"	
$v_3(E)$	18	#5	13'-11"	
$v_4(E)$	10	#5	5'-0"	
$z(E)$	10	#4	5'-2"	
Structure Excavation		Cu. Yd.	78	
Concrete Structures		Cu. Yd.	31.0	
Reinforcement Bars, Epoxy Coated		Pound	5,430	
Furnishing Metal Shell Piles 14"x0.25"		Foot	200	
Driving Piles		Foot	200	
Test Pile Metal Shells		Each	1	

For details of piles see sheet S-36 of 39.

Min. Bar Lap
#8 Bar - 6'-9"

PILE DATA

Type: 14"x0.25" Metal Shell Piles
Nominal Required Bearing: 327 Kips
Factored Resistance Available: 180 Kips
Est. Length: 20 Ft.
No. Production Piles: 10
No. Test Piles: 1

AI->40-0

8-31-12

KNIGHT
Engineers & Architects

DESIGNED - FW	REVISION
CHECKED - WPM	REVISION
SCALE - NONE	REVISION
DATE - 8/16/2018	REVISION
DRAWN - DC	REVISION
CHECKED - WPM	REVISION

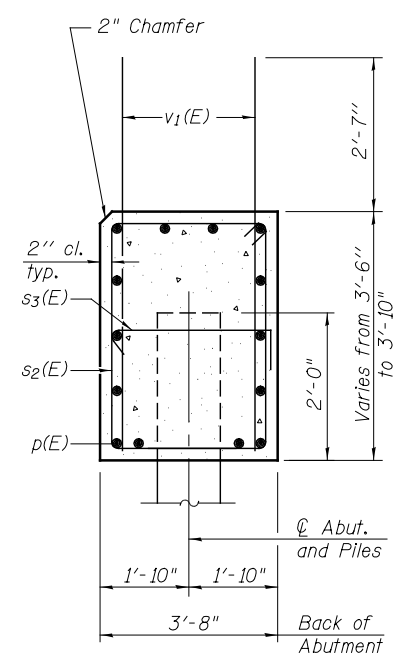
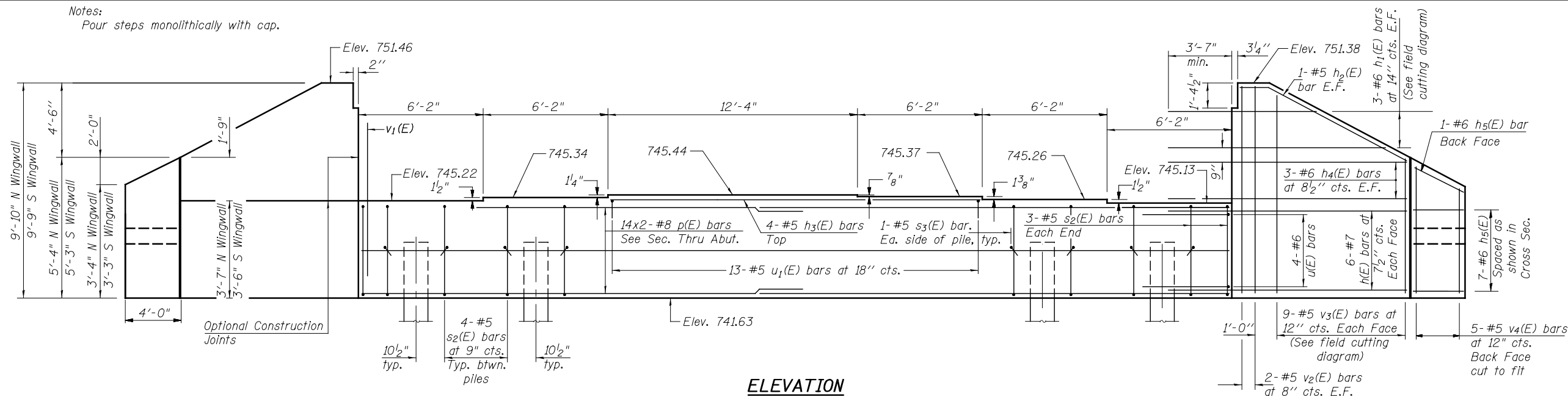
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT (EB)
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

DRAWING NO. 5-30 OF 39 DRAWINGS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HR	WINNEBAGO	689	520
CONTRACT NO. 64B87			ILLINOIS FED. AID PROJECT	

Notes:
Pour steps monolithically with cap.



SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#7	14'-0"	
h ₁ (E)	6	#6	19'-0"	
h ₂ (E)	4	#5	10'-7"	
h ₃ (E)	4	#5	18'-2"	
h ₄ (E)	12	#6	14'-0"	
h ₅ (E)	16	#6	3'-8"	
p(E)	28	#8	24'-10"	
s ₂ (E)	46	#5	7'-5"	
s ₃ (E)	22	#5	4'-2"	
u(E)	8	#6	7'-2"	
u ₁ (E)	13	#5	10'-10"	
v ₁ (E)	72	#8	5'-11"	
v ₂ (E)	8	#5	9'-5"	
v ₃ (E)	18	#5	13'-11"	
v ₄ (E)	10	#5	5'-0"	
z(E)	10	#4	5'-2"	

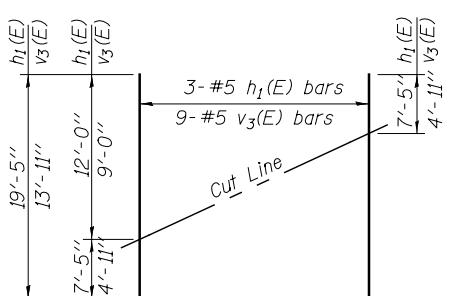
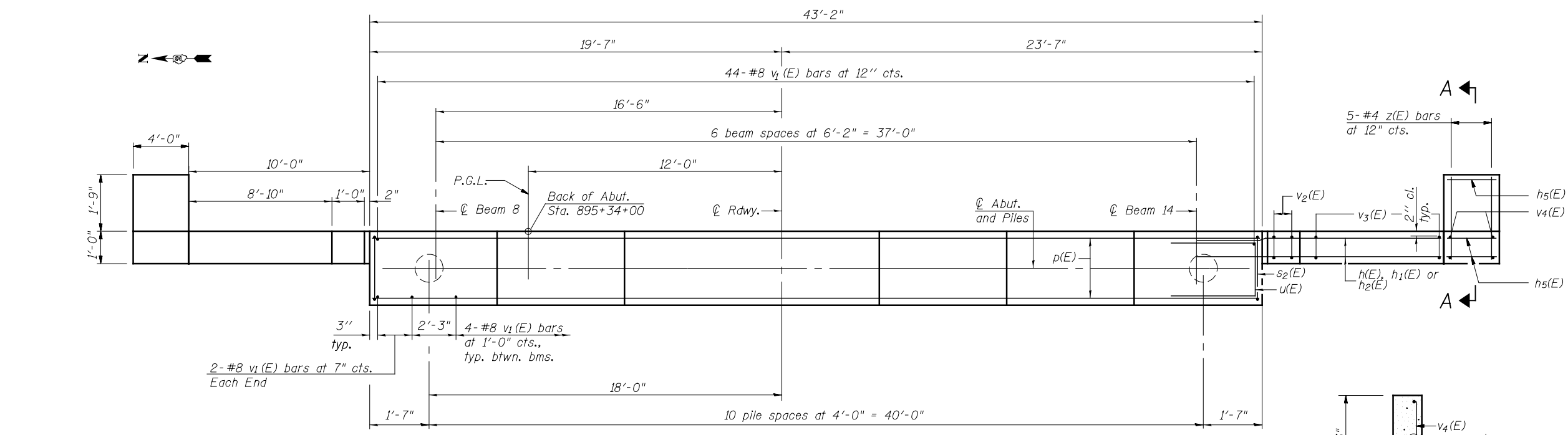
Structure Excavation	Cu. Yd.	88
Concrete Structures	Cu. Yd.	31.0
Reinforcement Bars, Epoxy Coated	Pound	5,430
Furnishing Metal Shell Piles 14"x0.25"	Foot	280
Driving Piles	Foot	280
Test Pile Metal Shells	Each	1

For details of piles see sheet S-36 of 39.

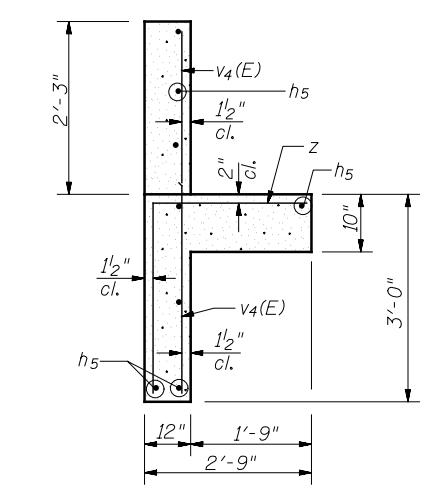
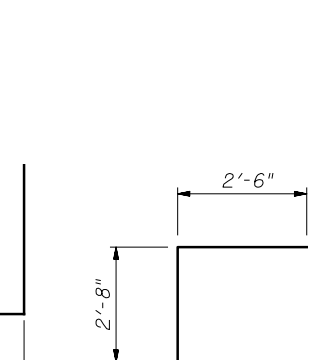
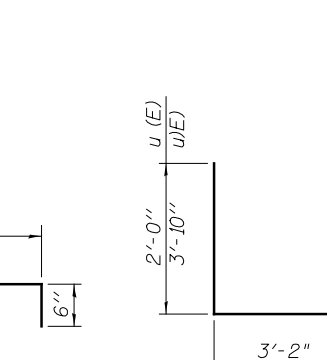
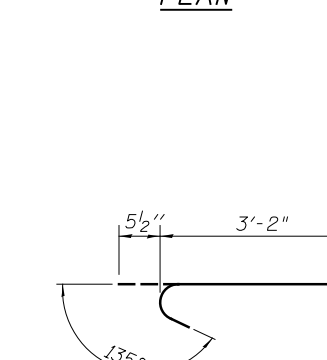
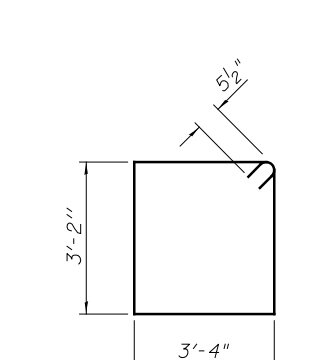
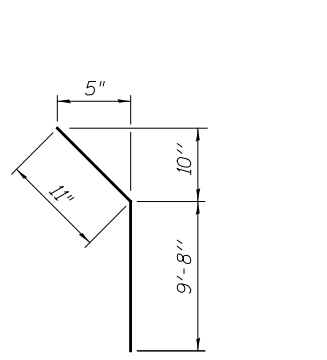
Min. Bar Lap
#8 Bar - 6'-9"

PILE DATA

Type: 14"x0.25" Metal Shell Piles
Nominal Required Bearing: 295 Kips
Factored Resistance Available: 162 Kips
Est. Length: 28 Ft.
No. Production Piles: 10
No. Test Piles: 1



Order h₁(E) and v₃(E) full length. Cut as shown and use remainder of bars in opposite face.



Maximum Applied Service Bearing Pressure Q_{max} = 0.67 ksf

KNIGHT
Engineers & Architects

DESIGNED	- FW	REVISED	
CHECKED	- WPM	REVISED	
SCALE	- NONE	REVISED	
DATE	- 8/16/2018	REVISED	
DRAWN	- DC	REVISED	
CHECKED	- WPM	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

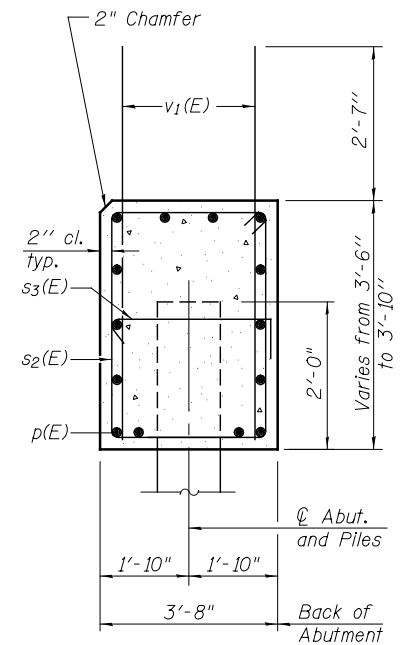
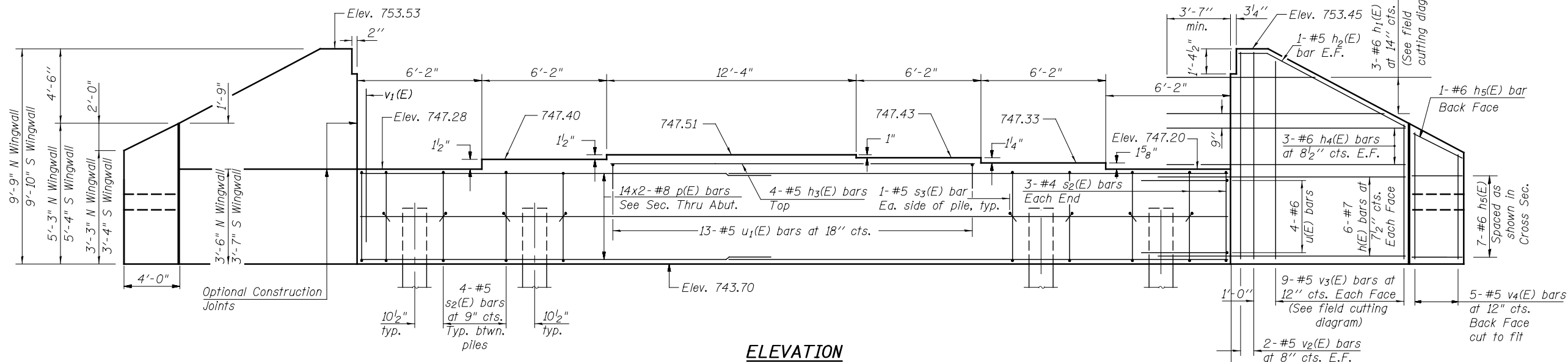
EAST ABUTMENT (EB)
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

DRAWING NO. 5-31 OF 39 DRAWINGS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HR	WINNEBAGO	689	521
CONTRACT NO. 64B87				

ILLINOIS FED. AID PROJECT

Notes:
Pour steps monolithically with cap.



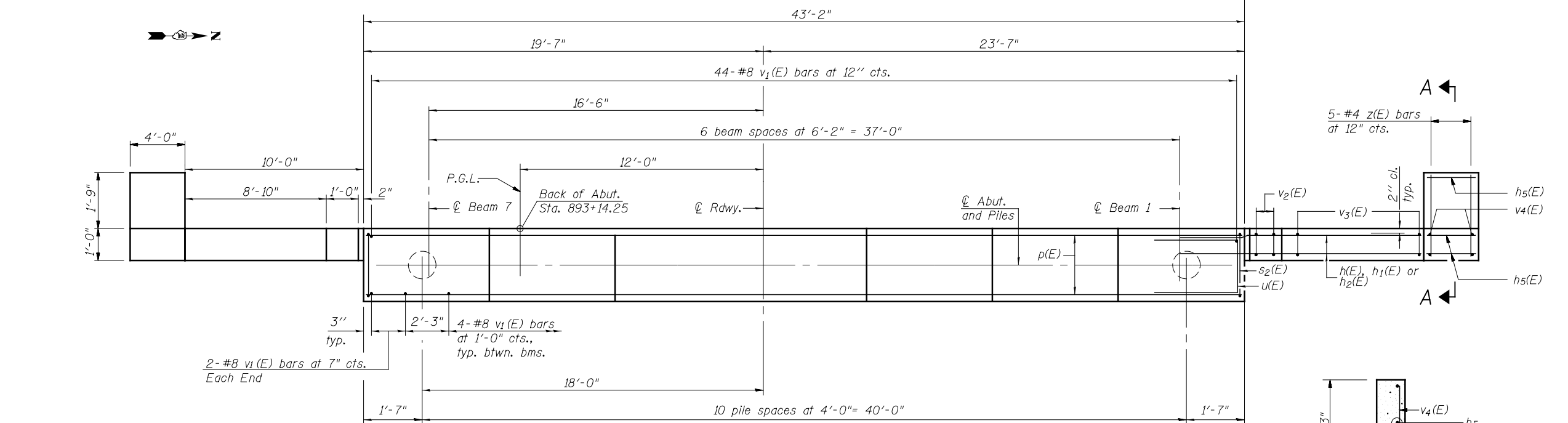
ELEVATION

SEC. THRU ABUT.

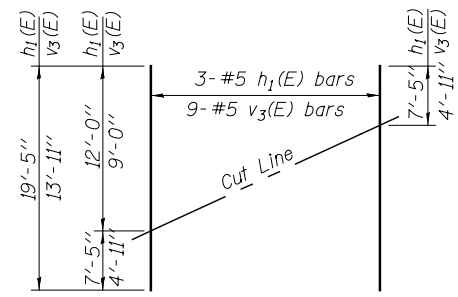
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#7	14'-0"	—
h1(E)	6	#6	19'-5"	—
h2(E)	4	#5	10'-7"	—
h3(E)	4	#5	18'-2"	—
h4(E)	12	#6	14'-0"	—
h5(E)	16	#6	3'-8"	—
p(E)	28	#8	24'-10"	—
s2(E)	46	#5	7'-5"	—
s3(E)	22	#5	4'-2"	—
u(E)	8	#6	7'-2"	—
u1(E)	13	#5	10'-10"	—
v1(E)	72	#8	5'-11"	—
v2(E)	8	#5	9'-5"	—
v3(E)	18	#5	13'-11"	—
v4(E)	10	#5	5'-0"	—
z(E)	10	#4	5'-2"	—

Structure	Excavation	Cu. Yd.	80
Concrete Structures	Cu. Yd.	31.0	
Reinforcement Bars, Epoxy Coated	Pound	5,430	
Furnishing Metal Shell Piles 14"x0.25"	Foot	200	
Driving Piles	Foot	200	
Test Pile Metal Shells	Each	1	

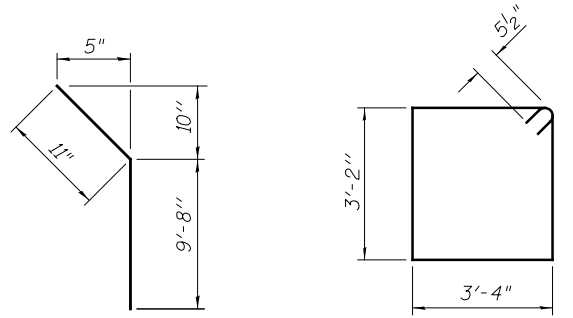


PLAN



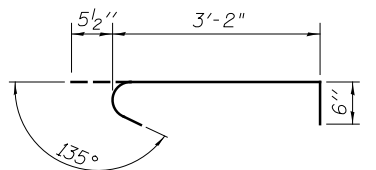
FIELD CUTTING DIAGRAM

Order h1(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.

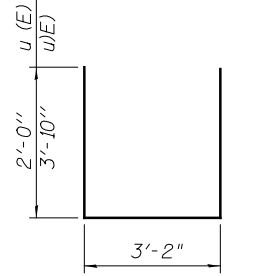


BAR h2(E)

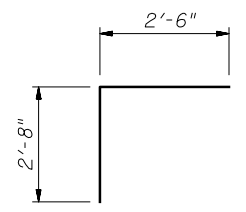
BAR s2(E)



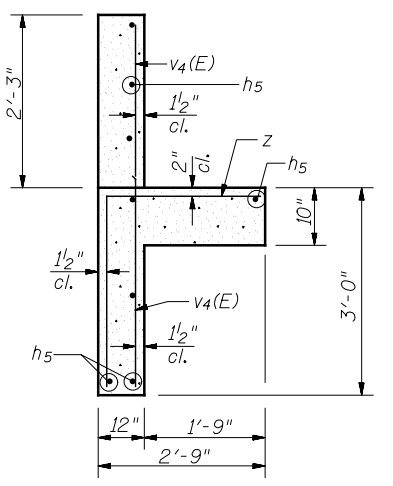
BAR s3(E)



BAR u(E) & u1(E)



BAR z(E)



SECTION A-A

Maximum Applied Service Bearing Pressure Qmax = 0.67 ksf

For details of piles see sheet S-36 of 39.

Min. Bar Lap
#8 Bar - 6'-9"

PILE DATA

Type: 14"x0.25" Metal Shell Piles
Nominal Required Bearing: 327 Kips
Factored Resistance Available: 180 Kips
Est. Length: 20 Ft
No. Production Piles: 10
No. Test Piles: 1

AI- >40-0

8-31-12



DESIGNED - FW	REVISOR
CHECKED - WPM	REVISOR
SCALE - NONE	REVISOR
DATE - 8/16/2018	REVISOR
DRAWN - DC	REVISOR
CHECKED - WPM	REVISOR

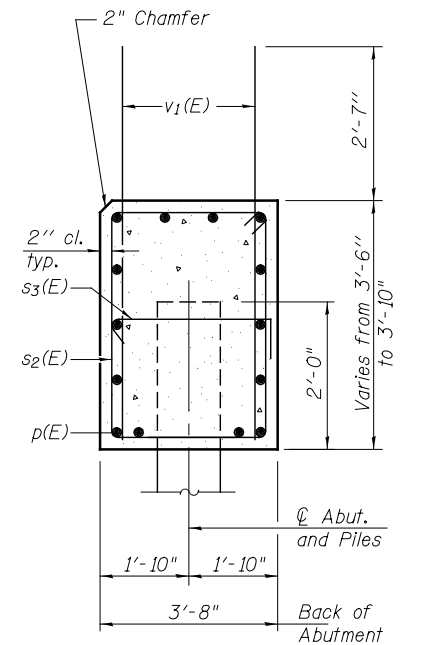
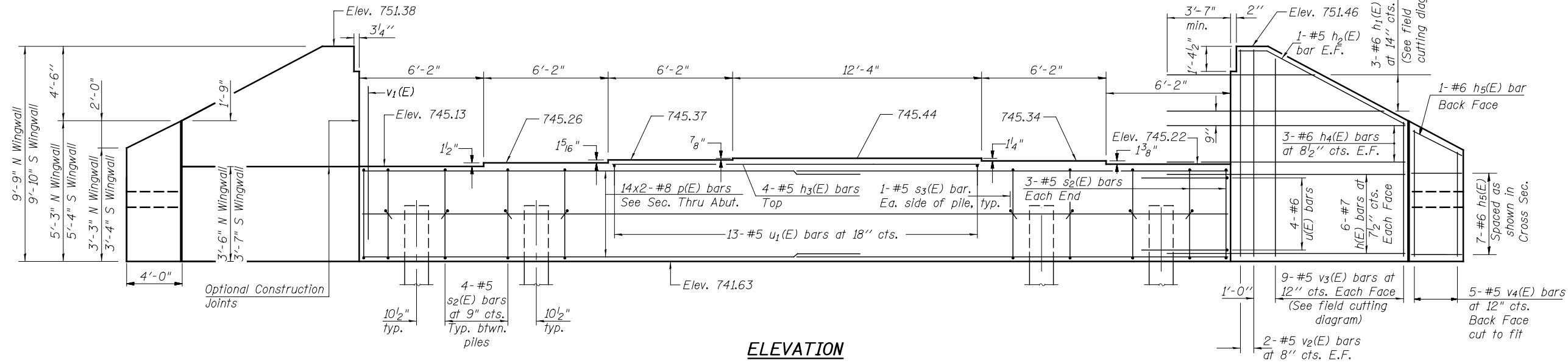
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT (WB)
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

DRAWING NO. S-32 OF 39 DRAWINGS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	522
CONTRACT NO. 64B87				
ILLINOIS FED. AID PROJECT				

Notes:
Pour steps monolithically with cap.



SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h(E)	24	#7	14'-0"	—	
h1(E)	6	#6	19'-5"	—	
h2(E)	4	#5	10'-7"	—	
h3(E)	4	#5	18'-2"	—	
h4(E)	12	#6	14'-0"	—	
h5(E)	16	#6	3'-8"	—	
p(E)	28	#8	24'-10"	—	
s2(E)	46	#5	7'-5"	□	
s3(E)	22	#5	4'-2"	—	
u(E)	8	#6	7'-2"	□	
u1(E)	13	#5	10'-10"	—	
v1(E)	72	#8	5'-11"	—	
v2(E)	8	#5	9'-5"	—	
v3(E)	18	#5	13'-11"	—	
v4(E)	10	#5	5'-0"	—	
z(E)	10	#4	5'-2"	└	
Structure Excavation				Cu. Yd.	87
Concrete Structures				Cu. Yd.	31.0
Reinforcement Bars, Epoxy Coated				Pound	5,430
Furnishing Metal Shell Piles 14"x0.25"				Foot	280
Driving Piles				Foot	280
Test Pile Metal Shells				Each	1

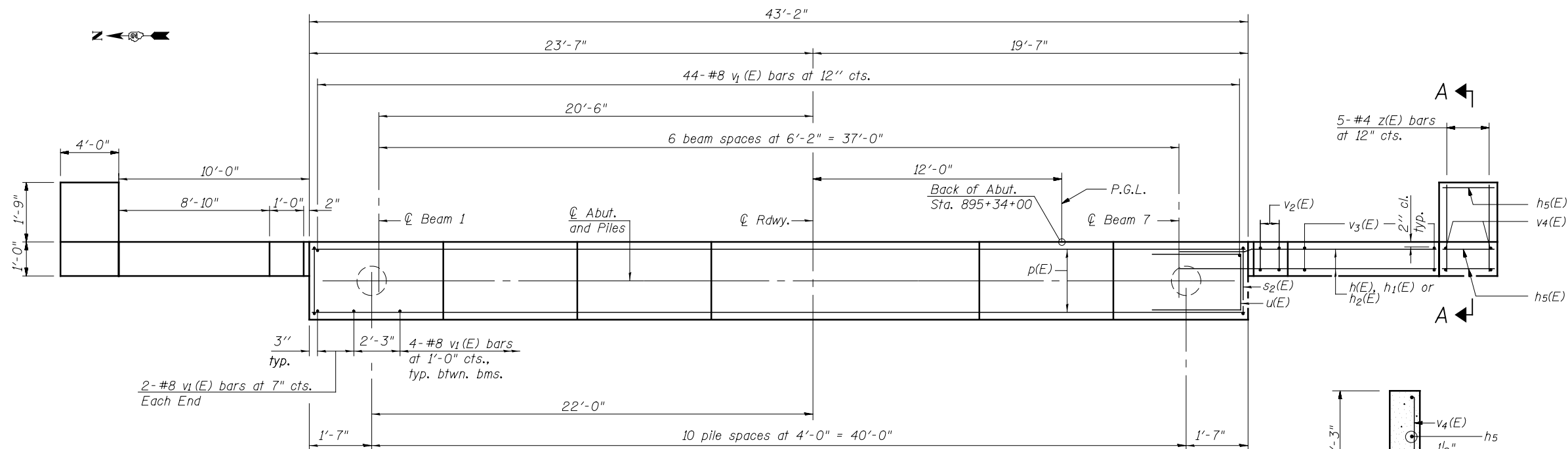
For details of piles see sheet S-36 of 39.

Min. Bar Lap
#8 Bar - 6'-9"

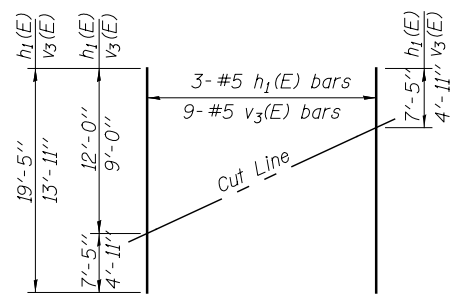
PILE DATA

Type: 14"x0.25" Metal Shell Piles
Nominal Required Bearing: 295 Kips
Factored Resistance Available: 162 Kips
Est. Length: 28 Ft
No. Production Piles: 10
No. Test Piles: 1

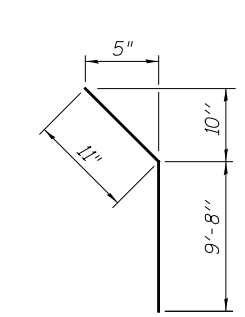
ELEVATION



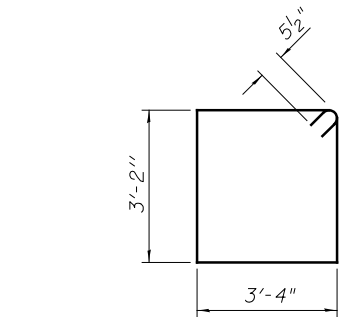
PLAN



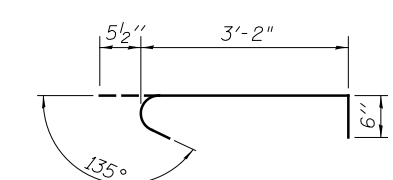
FIELD CUTTING DIAGRAM
Order h1(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.



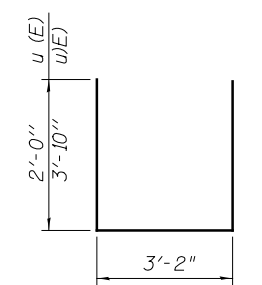
BAR h2(E)



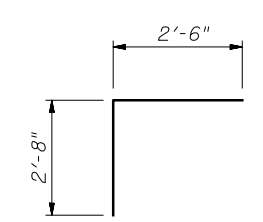
BAR s2(E)



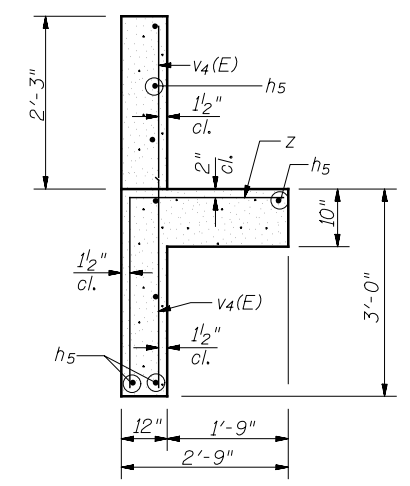
BAR s3(E)



BAR u(E) & u1(E)



BAR z(E)



SECTION A-A

Maximum Applied Service Bearing Pressure Qmax = 0.67 ksf

AI-40-0 8-31-12

KNIGHT
Engineers & Architects

DESIGNED	- FW	REVISED	
CHECKED	- WPM	REVISED	
SCALE	- NONE	DRAWN	- DC
DATE	- 9/28/2018	CHECKED	- WPM
		REVISED	

DESIGNED	- FW	REVISED	
CHECKED	- WPM	REVISED	
DRAWN	- DC	REVISED	
CHECKED	- WPM	REVISED	

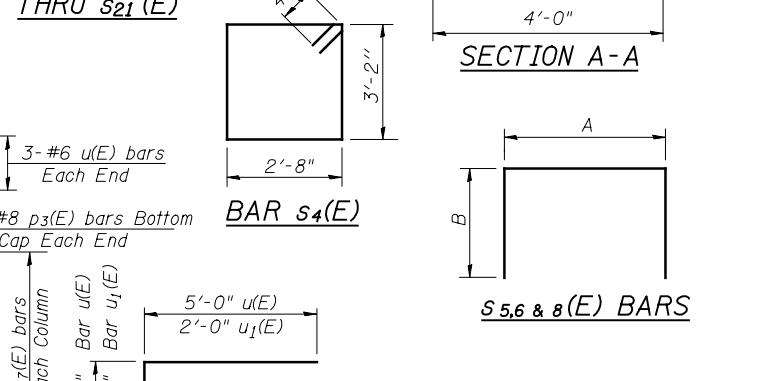
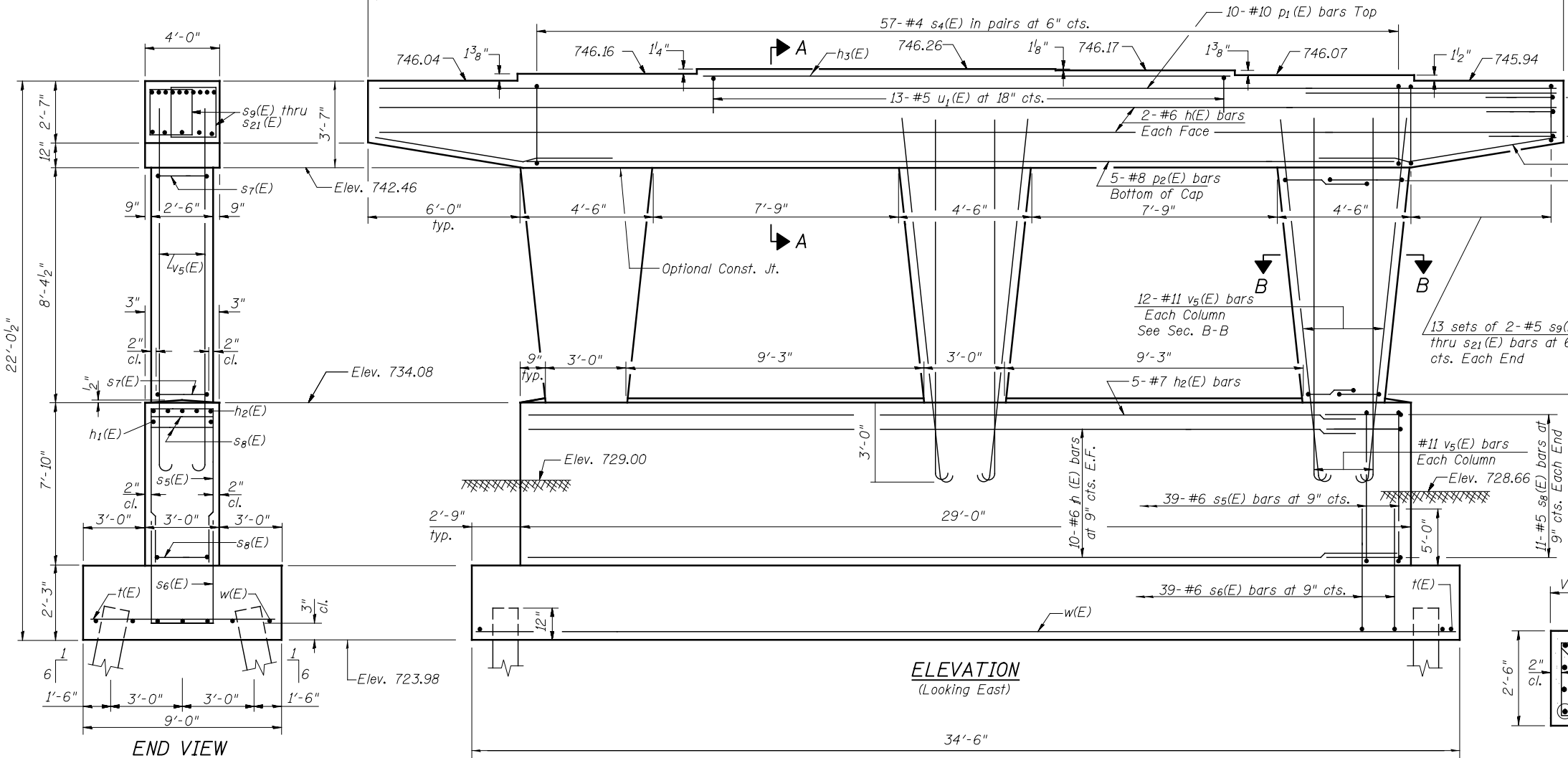
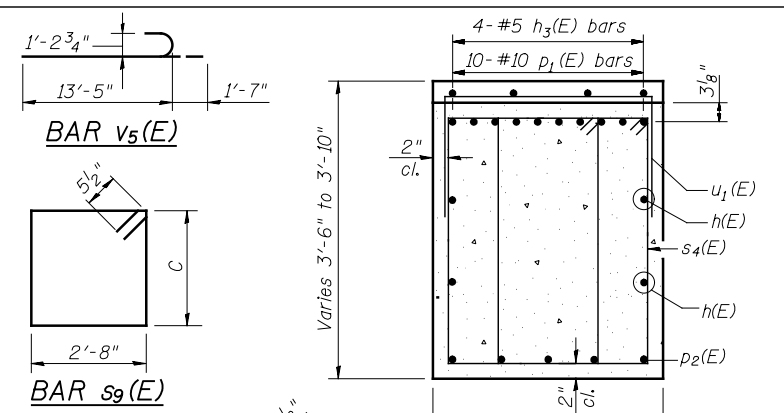
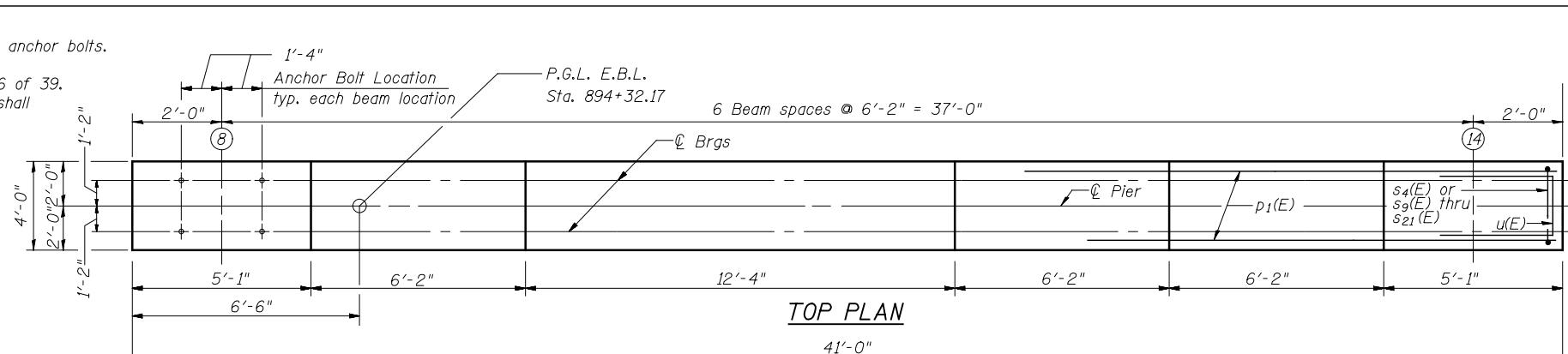
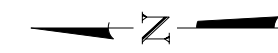
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT (WB)
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

DRAWING NO. S-33 OF 39 DRAWINGS

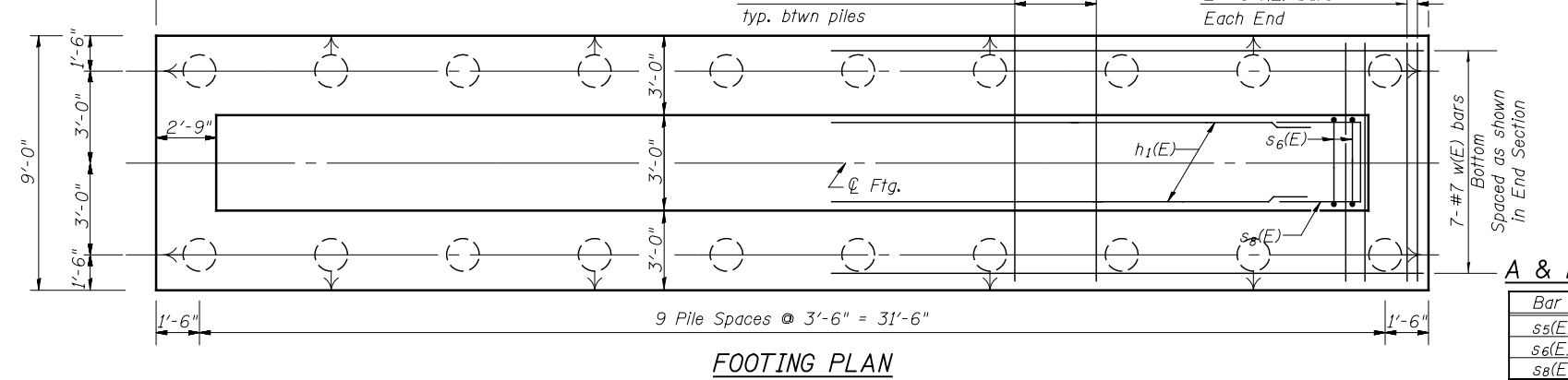
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HR	WINNEBAGO	689	523
CONTRACT NO. 64B87				
ILLINOIS FED. AID PROJECT				

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet S-36 of 39.
 All exposed surface areas of pier shall
 be treated with concrete sealer.



PILE DATA
 Type: 14" Dia. x 0.25" Metal Shell Piles
 Nominal Required Bearing: 364 k
 Factored Resistance Available: 200 k
 Est. Length: 20'
 No. Production Piles: 19
 No. Test Piles: 1

LEGEND
 - Indicates battered pile



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#6	40'-8"	
h1(E)	20	#6	28'-8"	
h2(E)	5	#7	28'-8"	
h3(E)	4	#5	18'-2"	
p1(E)	10	#10	40'-8"	
p2(E)	5	#8	28'-8"	
p3(E)	10	#8	10'-8"	
s4(E)	114	#4	12'-5"	
s5(E)	39	#6	17'-10"	
s6(E)	39	#6	14'-6"	
s7(E)	54	#4	10'-5"	
s8(E)	22	#5	11'-7"	
s9(E)	4	#5	12'-7"	
s10(E)	4	#5	12'-5"	
s11(E)	4	#5	12'-3"	
s12(E)	4	#5	12'-1"	
s13(E)	4	#5	11'-11"	
s14(E)	4	#5	11'-9"	
s15(E)	4	#5	11'-7"	
s16(E)	4	#5	11'-5"	
s17(E)	4	#5	11'-3"	
s18(E)	4	#5	11'-1"	
s19(E)	4	#5	10'-11"	
s20(E)	4	#5	10'-9"	
s21(E)	4	#5	10'-8"	
t(E)	40	#8	8'-8"	
u(E)	6	#6	13'-7"	
u1(E)	13	#5	7'-8"	
v5(E)	36	#11	15'-0"	
w(E)	7	#7	34'-2"	

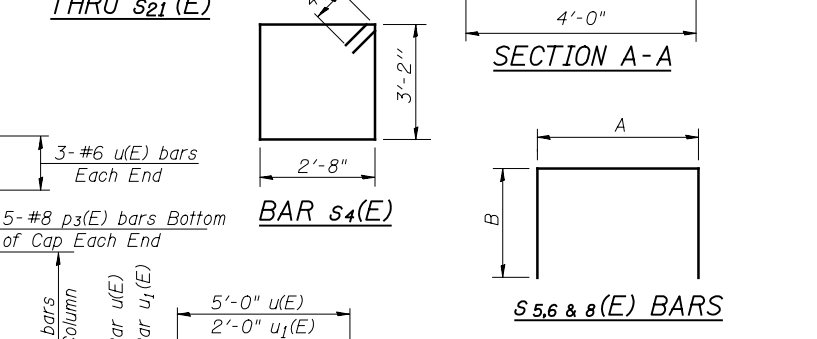
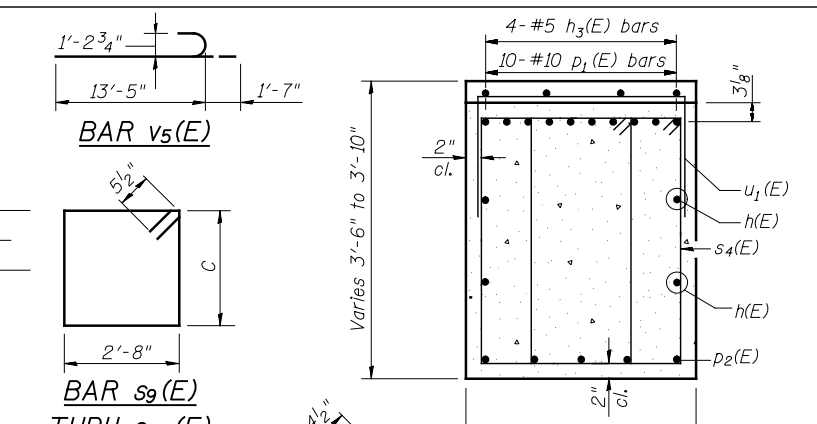
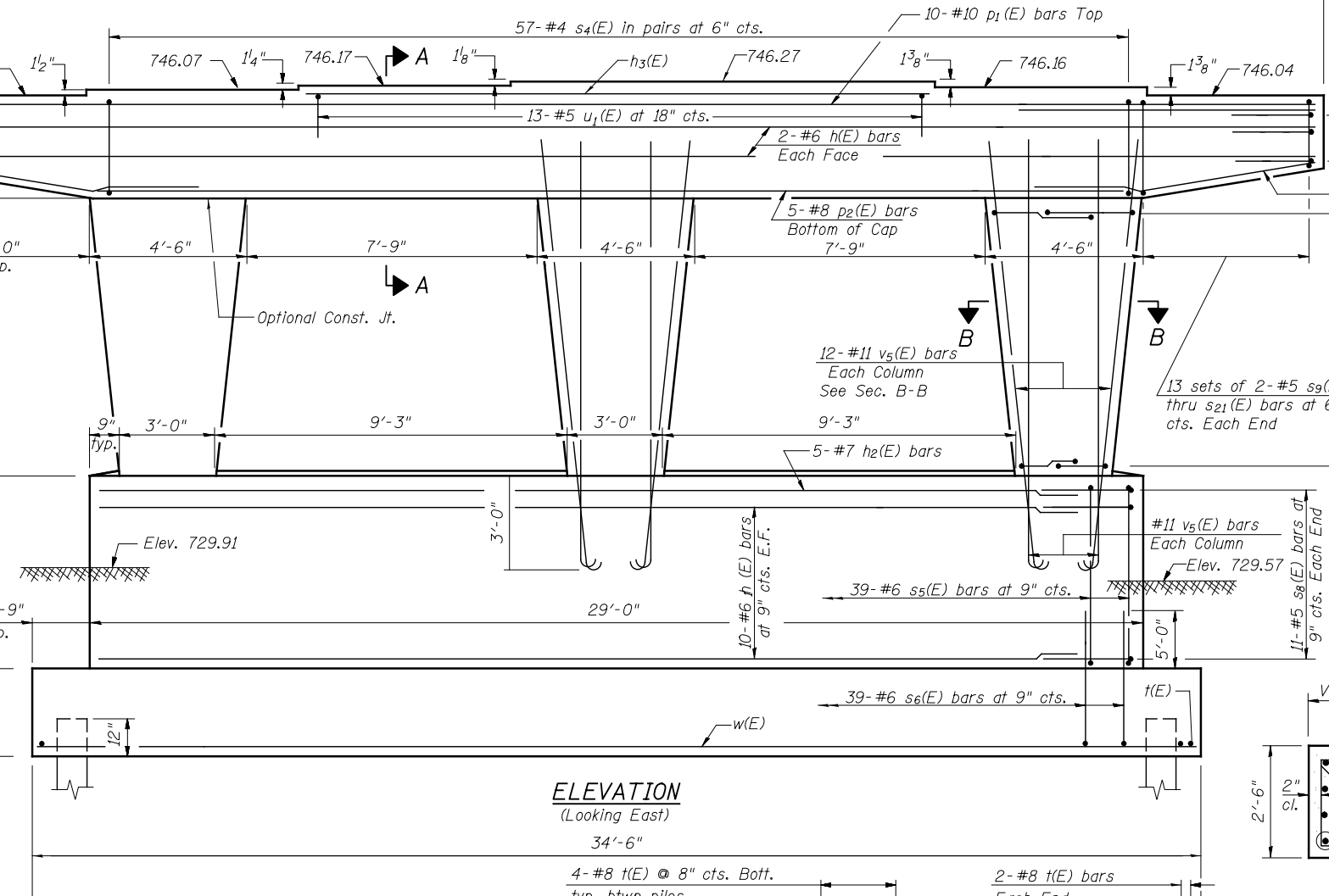
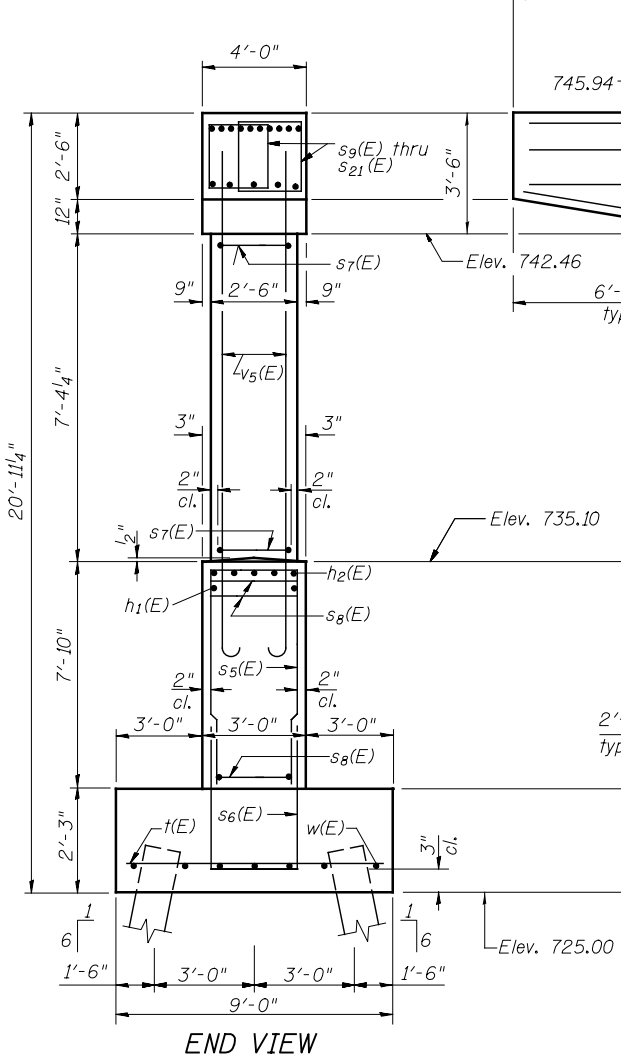
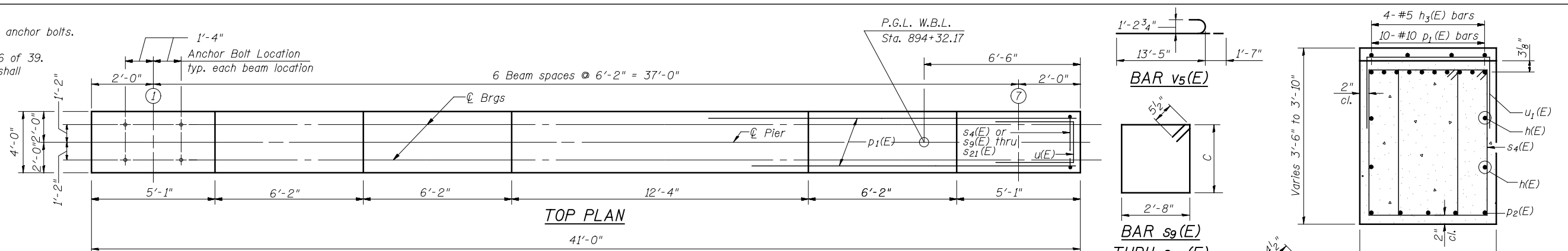
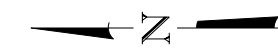
Bar	C
s9(E)	3'-2"
s10(E)	3'-1"
s11(E)	3'-0"
s12(E)	2'-11"
s13(E)	2'-10"
s14(E)	2'-9"
s15(E)	2'-8"
s16(E)	2'-7"
s17(E)	2'-6"
s18(E)	2'-5"
s19(E)	2'-4"
s20(E)	2'-3"
s21(E)	2'-2 1/2"

Bar	A	B
s5(E)	2'-8"	7'-7"
s6(E)	2'-8"	5'-11"
s8(E)	2'-7"	4'-6"

Bar	C
u(E)	6
u1(E)	13
v5(E)	36
w(E)	7

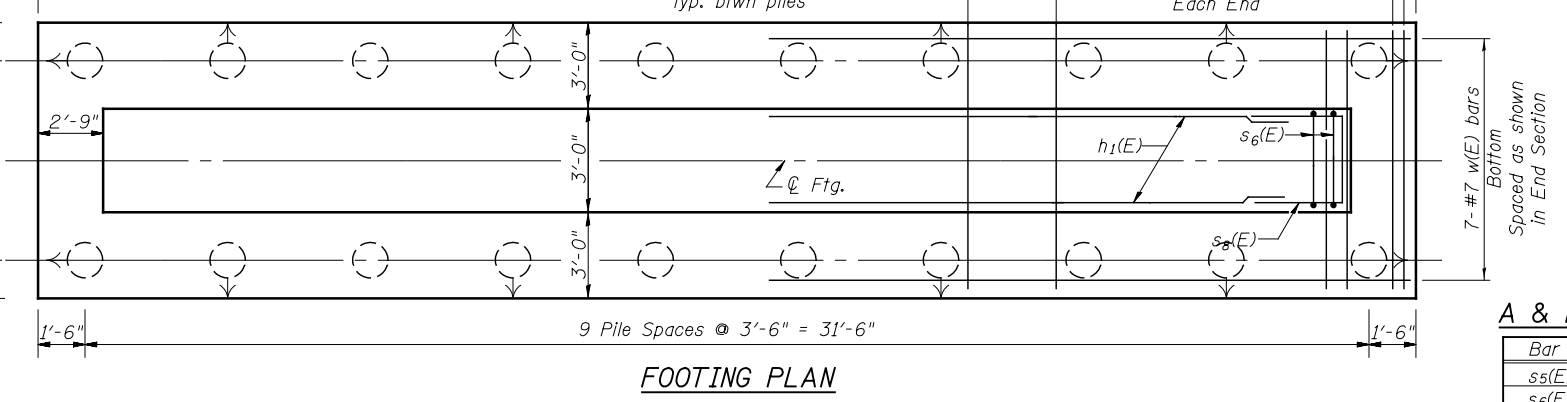
Structure	Unit	Quantity
Structure Excavation	Cu. Yd.	104
Concrete Structures	Cu. Yd.	86.5
Reinforcement Bars, Epoxy Coated	Pound	12,520
Furnishing Metal Shell Piles, 14" x 0.250"	Foot	380
Driving Piles	Foot	380
Test Pile Metal Shells	Each	1
Concrete Sealer	Sq. Ft.	1,282

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet S-36 of 39.
 All exposed surface areas of pier shall
 be treated with concrete sealer.



PILE DATA
 Type: 14" Dia. x 0.25" Metal Shell Piles
 Nominal Required Bearing: 364 k
 Factored Resistance Available: 200 k
 Est. Length: 20'
 No. Production Piles: 19
 No. Test Piles: 1

LEGEND
 - Indicates battered pile



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#6	40'-8"	
h1(E)	20	#6	28'-8"	
h2(E)	5	#7	28'-8"	
h3(E)	4	#5	18'-2"	
p1(E)	10	#10	40'-8"	
p2(E)	5	#8	28'-8"	
p3(E)	10	#8	10'-8"	
s4(E)	114	#4	12'-5"	
s5(E)	39	#6	17'-10"	
s6(E)	39	#6	14'-6"	
s7(E)	48	#4	10'-5"	
s8(E)	22	#5	11'-7"	
s9(E)	4	#5	12'-7"	
s10(E)	4	#5	12'-5"	
s11(E)	4	#5	12'-3"	
s12(E)	4	#5	12'-1"	
s13(E)	4	#5	11'-11"	
s14(E)	4	#5	11'-9"	
s15(E)	4	#5	11'-7"	
s16(E)	4	#5	11'-5"	
s17(E)	4	#5	11'-3"	
s18(E)	4	#5	11'-1"	
s19(E)	4	#5	10'-11"	
s20(E)	4	#5	10'-9"	
s21(E)	4	#5	10'-8"	
t(E)	40	#8	8'-8"	
u(E)	6	#6	13'-7"	
u1(E)	13	#5	7'-8"	
v5(E)	36	#11	15'-0"	
w(E)	7	#7	34'-2"	

A & B DIMENSIONS

Bar	A	B
s5(E)	2'-8"	7'-7"
s6(E)	2'-8"	5'-11"
s8(E)	2'-7"	4'-6"

C DIMENSIONS

Bar	C
s9(E)	3'-2"
s10(E)	3'-1"
s11(E)	3'-0"
s12(E)	2'-11"
s13(E)	2'-10"
s14(E)	2'-9"
s15(E)	2'-8"
s16(E)	2'-7"
s17(E)	2'-6"
s18(E)	2'-5"
s19(E)	2'-4"
s20(E)	2'-3"
s21(E)	2'-2 1/2"

KNIGHT
 Engineers & Architects

DESIGNED - FW	REVISED
CHECKED - WPM	REVISED
SCALE - NONE	REVISED
DATE - 8/16/2018	REVISED
DRAWN - DC	REVISED
CHECKED - WPM	REVISED

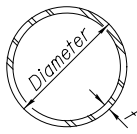
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER (WB)
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HRB	WINNEBAGO	689	525
CONTRACT NO. 64B87				

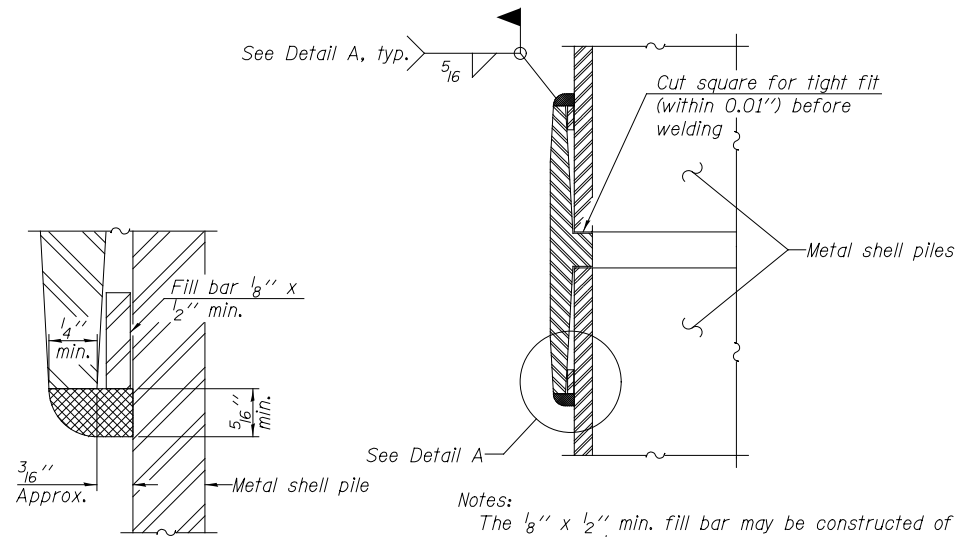
DRAWING NO. S-35 OF 39 DRAWINGS

ILLINOIS FED. AID PROJECT



METAL SHELL PILE TABLE

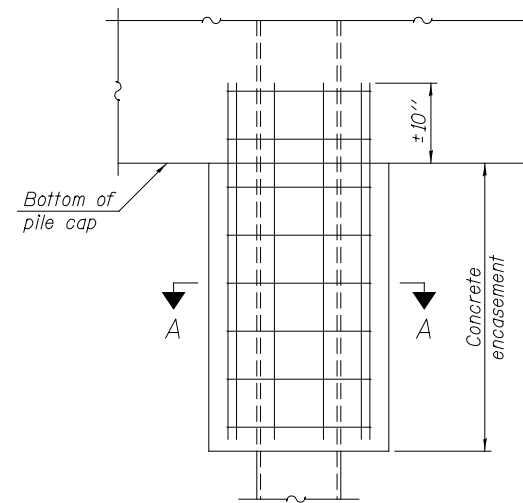
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



Notes:
 The $\frac{1}{8}$ " x $\frac{1}{2}$ " min. fill bar may be constructed of 2 bars with a $\frac{1}{8}$ " max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

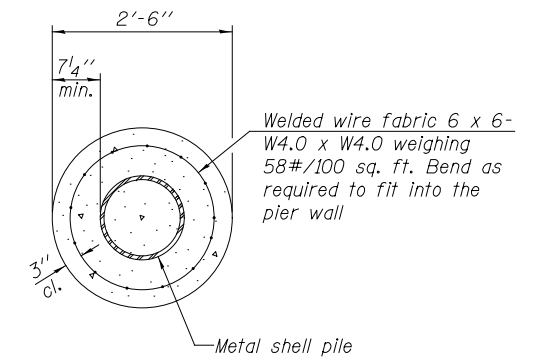
DETAIL A

WELDED COMMERCIAL SPLICE



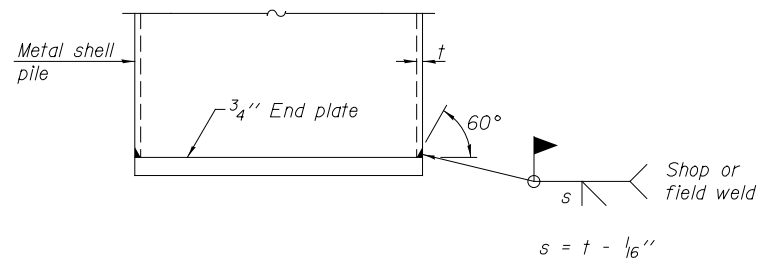
ELEVATION

CONCRETE ENCASEMENT AT PIERS

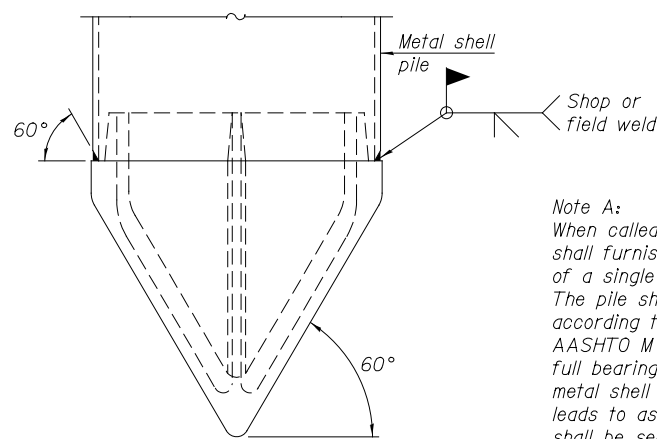


SECTION A-A

Note:
 Forms for encasement may be omitted when soil conditions permit.



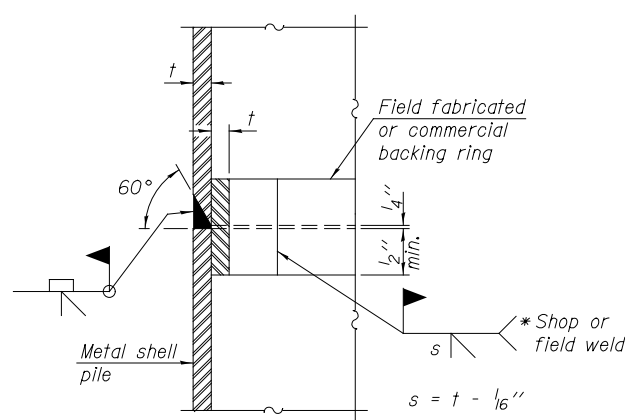
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

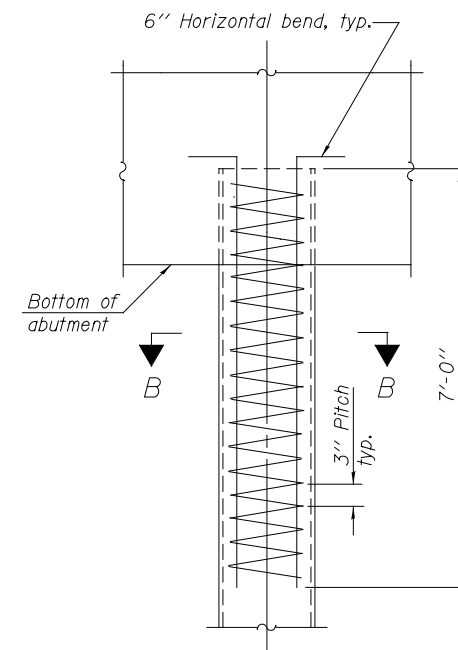
(See Note A)

Note A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



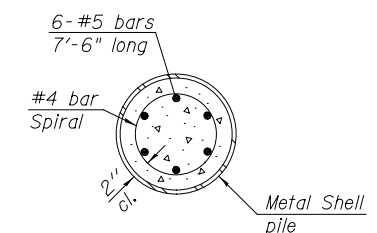
COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS



SECTION B-B

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

F-MS 1-27-12

KNIGHT
 Engineers & Architects

DESIGNED - FW	REVISION
CHECKED - WPM	REVISION
DRAWN - DC	REVISION
CHECKED - WPM	REVISION

SCALE - NONE	DATE - 8/16/2018
--------------	------------------

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
 STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

DRAWING NO. 5-36 OF 39 DRAWINGS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	526
CONTRACT NO. 64B87				
ILLINOIS FED. AID PROJECT				

BORING 1

BORING 1

BORING 2



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation-D-2

SOIL BORING LOG

Page 1 of 2

ROUTE FAP 301 DESCRIPTION P92-007-06 Bridge on US Bypass 20 over IL 2 in Rockford
SECTION 3 HBR LOCATION Rockford Twp. - 10 NW, SEC. , TWP. 43N, RNG. 1E
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

Table with columns for Soil Description, Depth (ft), Blows (6"), SPT (tsf), and Moisture (%). Includes groundwater data and soil layers like SILTY CLAY LOAM, MEDIUM tan medium SAND, etc.

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



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation-D-2

SOIL BORING LOG

Page 2 of 2

ROUTE FAP 301 DESCRIPTION P92-007-06 Bridge on US Bypass 20 over IL 2 in Rockford
SECTION 3 HBR LOCATION Rockford Twp. - 10 NW, SEC. , TWP. 43N, RNG. 1E
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

Table with columns for Soil Description, Depth (ft), Blows (6"), SPT (tsf), and Moisture (%). Includes groundwater data and soil layers like MEDIUM tan fine SAND.

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



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation-D-2

SOIL BORING LOG

Page 1 of 2

ROUTE FAP 301 DESCRIPTION P92-007-06 Bridge on US Bypass 20 over IL 2 in Rockford
SECTION 3 HBR LOCATION Rockford Twp. - 10 NW, SEC. , TWP. 43N, RNG. 1E
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

Table with columns for Soil Description, Depth (ft), Blows (6"), SPT (tsf), and Moisture (%). Includes groundwater data and soil layers like SOFT brown SANDY LOAM, MEDIUM tan dirty SAND & GRAVEL, etc.

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

KNIGHT
Engineers & Architects

Table with columns for DESIGNED, CHECKED, DRAWN, DATE and REVISED, REVISIONS.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

Table with columns for F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

DRAWING NO. 5-37 OF 39 DRAWINGS

ILLINOIS FED. AID PROJECT

BORING 2



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 2 of 2

Date 4/24/07

ROUTE FAP 301 DESCRIPTION P92-007-06 Bridge on US Bypass 20 over IL 2 in Rockford LOGGED BY W. Garza
SECTION 3 HBR LOCATION Rockford Twp. - 10 NW, SEC. TWP. 43N, RNG. 1E
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev. _____ ft	
					Stream Bed Elev. _____ ft	
BORING NO. B-2 Station (993+59) 454+77 Offset 74.00 ft RL CL Ground Surface Elev. 80.00 ft					Groundwater Elev.: First Encounter 40.5 ft Upon Completion 40.5 ft After _____ Hrs. _____ ft	
MEDIUM tan fine SAND (continued)	9	12				
End of Boring						

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

BORING 3



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 1 of 2

Date 4/27/07

ROUTE FAP 301 DESCRIPTION P92-007-06 Bridge on US Bypass 20 over IL 2 in Rockford LOGGED BY W. Garza
SECTION 3 HBR LOCATION Rockford Twp. - 10 NW, SEC. TWP. 43N, RNG. 1E
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev. _____ ft	
					Stream Bed Elev. _____ ft	
BORING NO. B-3 Station (992+01.9) 453+93 Offset 2.00 ft RL CL Ground Surface Elev. 99.00 ft					Groundwater Elev.: First Encounter None ft Upon Completion Dry ft After _____ Hrs. _____ ft	
SOFT brown SILTY CLAY LOAM			0.3	18.0		
MEDIUM gray dirty medium SAND	4	8				
LOOSE gray dirty SAND and medium GRAVEL	3	4				
STIFF dark gray LOAM	1	2	1.1	19.0		
MEDIUM gray LOAM	2	5	0.8	13.0		
STIFF gray LOAM	3	4	1.3	14.0		
MEDIUM brown SILTY CLAY LOAM	3	4	0.8	16.0		
MEDIUM brown SILTY CLAY LOAM	3	7	0.8	19.0		

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

BORING 3



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 2 of 2

Date 4/27/07

ROUTE FAP 301 DESCRIPTION P92-007-06 Bridge on US Bypass 20 over IL 2 in Rockford LOGGED BY W. Garza
SECTION 3 HBR LOCATION Rockford Twp. - 10 NW, SEC. TWP. 43N, RNG. 1E
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev. _____ ft	
					Stream Bed Elev. _____ ft	
BORING NO. B-3 Station (992+01.9) 453+93 Offset 2.00 ft RL CL Ground Surface Elev. 99.00 ft					Groundwater Elev.: First Encounter None ft Upon Completion Dry ft After _____ Hrs. _____ ft	
DENSE tan SAND & GRAVEL	12	19				
DENSE tan dry clean medium coarse SAND with GRAVEL	14	22				
DENSE tan fine SAND	12	18				
MEDIUM tan clean medium coarse SAND	10	16				
End of Boring						

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

KNIGHT

Engineers & Architects

DESIGNED - FW	REVISED
CHECKED - WPM	REVISED
DRAWN - DC	REVISED
CHECKED - WPM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NUMBER 101-0186 (EB) AND 101-0187 (WB)

DRAWING NO. 5-38 OF 39 DRAWINGS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	528
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 5/4/07

ROUTE FAP 301 DESCRIPTION P92-007-06 Bridge on US Bypass 20 over IL 2 in Rockford LOGGED BY W. Garza

SECTION 3 HBR LOCATION Rockford Twp. - 10 NW, SEC. , TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station	D E P T H H S	B L O W S Qu	U C S (tsf)	M O I S T (%)	Surface Water Elev. _____ ft Stream Bed Elev. 82.00 ft	D E P T H H S	B L O W S Qu	U C S (tsf)	M O I S T (%)	Groundwater Elev.: First Encounter 39.4 ft Upon Completion _____ ft After Hrs. _____
748.6					MEDIUM dark brown SILTY CLAY LOAM					STIFF brown LOAM
			0.5 P	19.0		4 5 7		2.0 P	24.0	
	96.90	4			VERY STIFF dark brown SILTY CLAY LOAM					MEDIUM brown SANDY LOAM
	95.40	5 7	2.1 P	21.0		2 3 4		0.8 P	10.0	
		3			STIFF gray SANDY LOAM					MEDIUM brown dirty coarse SAND
	92.40	7 9	1.3 S	8.0		2 5 5				
		5			MEDIUM gray SAND & GRAVEL					MEDIUM tan SAND & GRAVEL
	89.90	9 11				2 3 10				
		5			MEDIUM/STIFF dark gray LOAM with SAND lens					DENSE tan SAND & GRAVEL
	87.90	6 8	1.0 B	13.0		8 13 21				
		2			MEDIUM/STIFF dark gray LOAM					MEDIUM tan SAND & GRAVEL
	85.40	4 6	1.0 P	14.0		6 12 13				
		3			STIFF gray SANDY LOAM					MEDIUM tan SAND & GRAVEL
	82.90	5 7	1.1 B	10.0		6 12 13				
		2			STIFF gray LOAM with SAND lens					
	80.40	3 8	1.4 B	14.0						

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



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 5/4/07

ROUTE FAP 301 DESCRIPTION P92-007-06 Bridge on US Bypass 20 over IL 2 in Rockford LOGGED BY W. Garza

SECTION 3 HBR LOCATION Rockford Twp. - 10 NW, SEC. , TWP. 43N, RNG. 1E

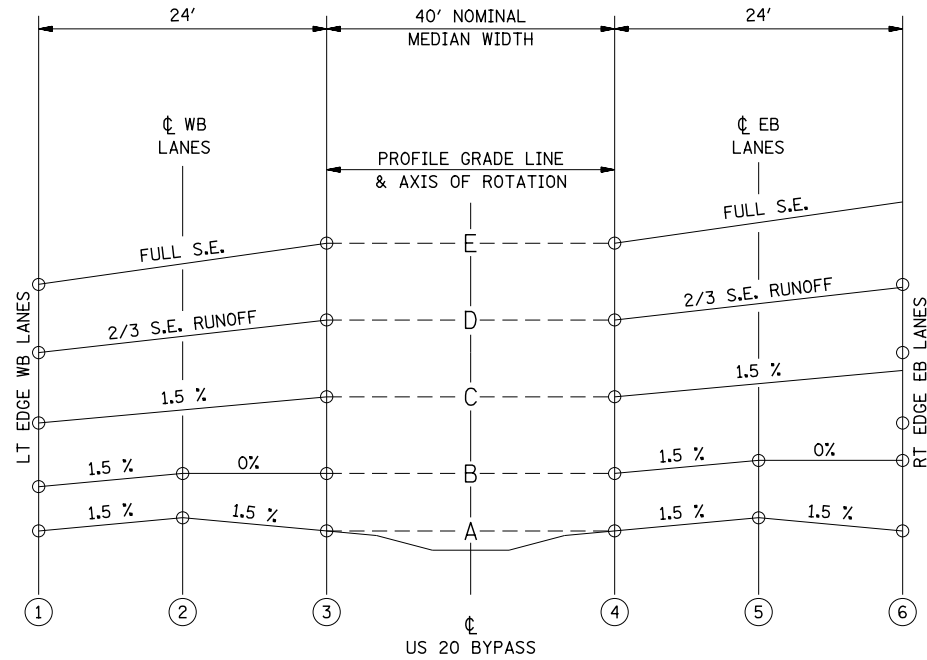
COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station	D E P T H H S	B L O W S Qu	U C S (tsf)	M O I S T (%)	Surface Water Elev. _____ ft Stream Bed Elev. 82.00 ft	D E P T H H S	B L O W S Qu	U C S (tsf)	M O I S T (%)	Groundwater Elev.: First Encounter 39.4 ft Upon Completion _____ ft After Hrs. _____
748.6					DENSE tan SAND & GRAVEL					MEDIUM tan fine SAND
						8 17 24				7 9 14
										End of Boring
	55.40				DENSE tan clean medium coarse SAND with medium GRAVEL					
						9 15 16				
	50.40				MEDIUM tan clean medium coarse SAND					
						18 13 13				
	45.40									
						7 12 13				
	40.40									

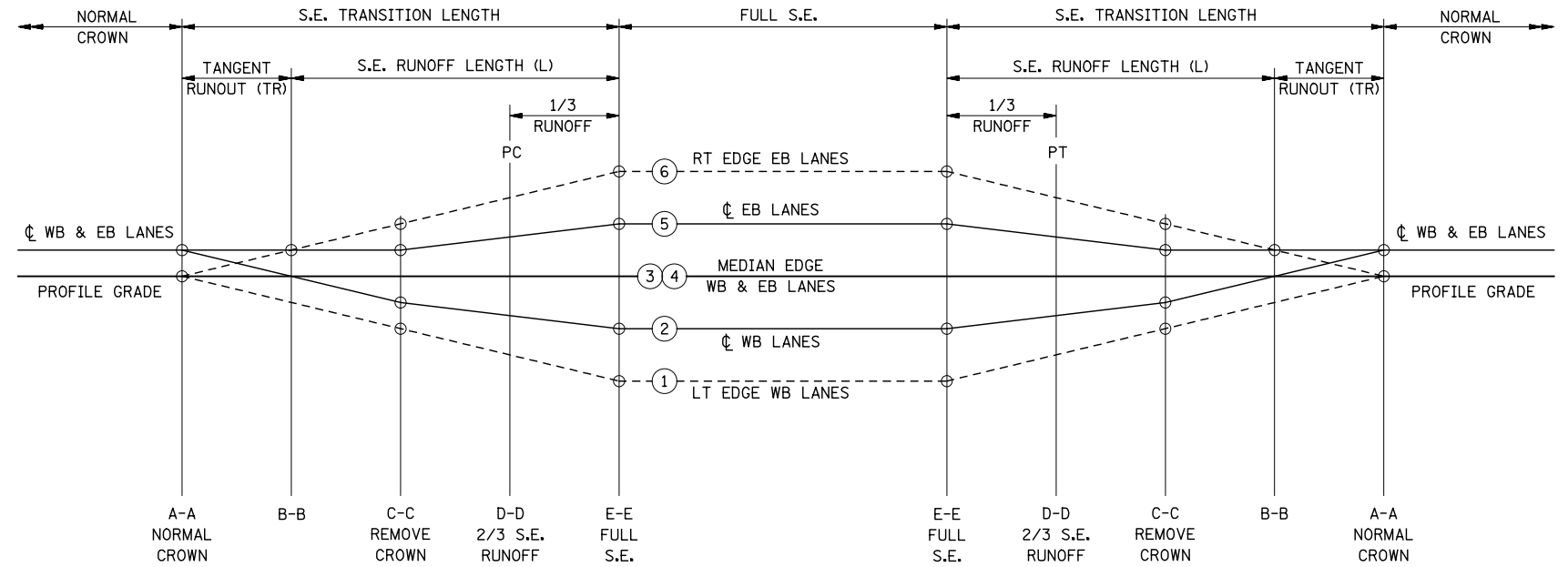
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED - FW	REVISED
CHECKED - WPM	REVISED
SCALE - NONE	REVISED
DATE - 8/16/2018	REVISED
DRAWN - DC	
CHECKED - WPM	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	529
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				



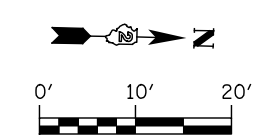
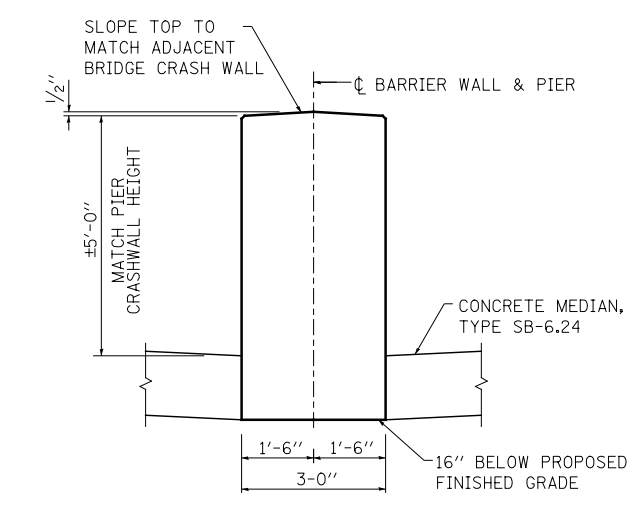
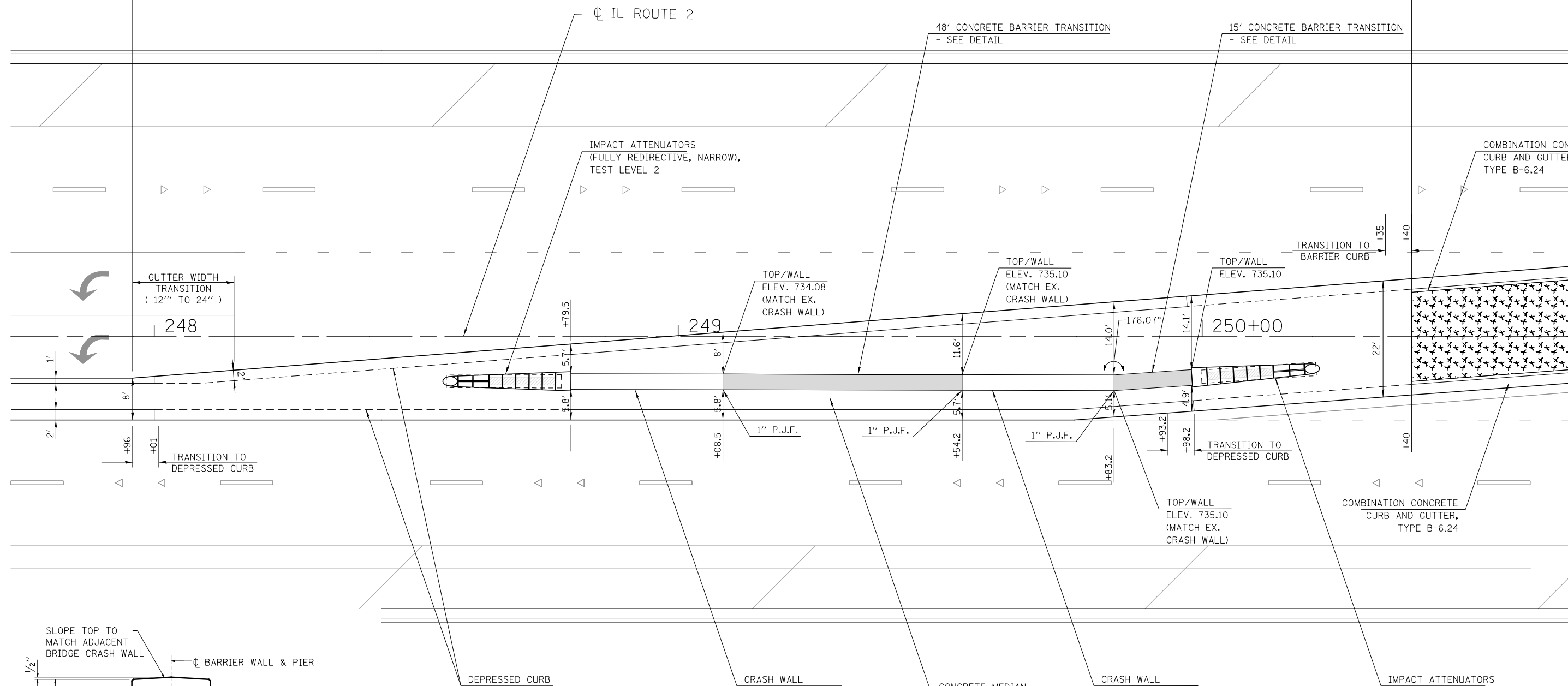
CROSS SECTION - S.E. TRANSITION



PROFILE - S.E. TRANSITION

LOCATION OF SUPERELEVATION TRANSITIONS (STA.)											
CURVE	RADIUS	REQ'D S.E.	TR	L	A-A	B-B	C-C	D-D	E-E		
1	3,827.45	4.6%	42'	213'	849+28	849+70	850+12	851+12	851+83	PC	851+12.18
					884+94	884+52	884+10	883+09	882+39	PT	883+09.48

PAY LIMITS - CONCRETE MEDIAN, TYPE SB (SPECIAL) PAY LIMITS - CONCRETE MEDIAN, TYPE SB-6.24 LANDSCAPE MEDIAN



DETAIL - CONCRETE BARRIER TRANSITION

KNIGHT
Engineers & Architects

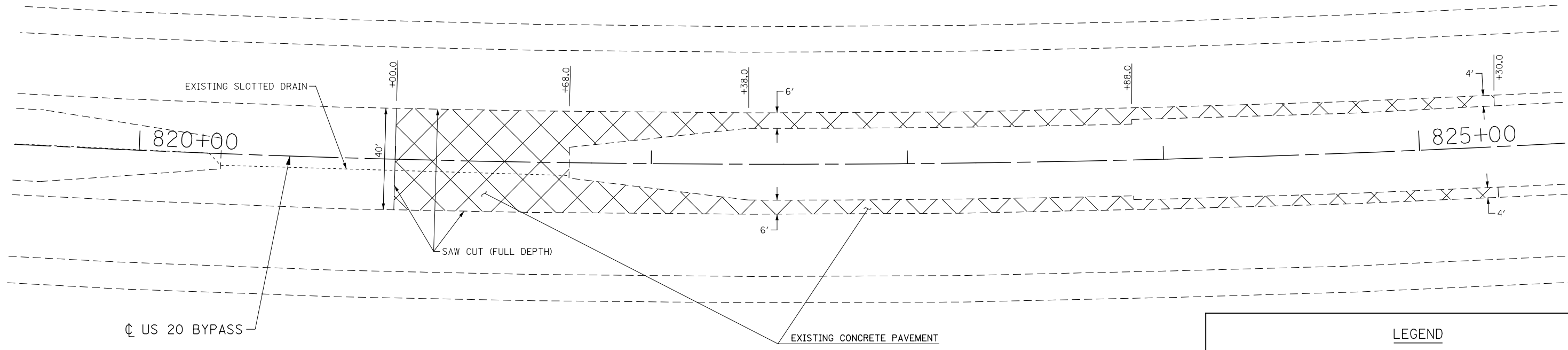
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PLOT DATE = 8/16/2018	CHECKED - DMS	REVISED -
	DATE - 08/15/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 2
MEDIAN DETAIL AT US 20

SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 301	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 531
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

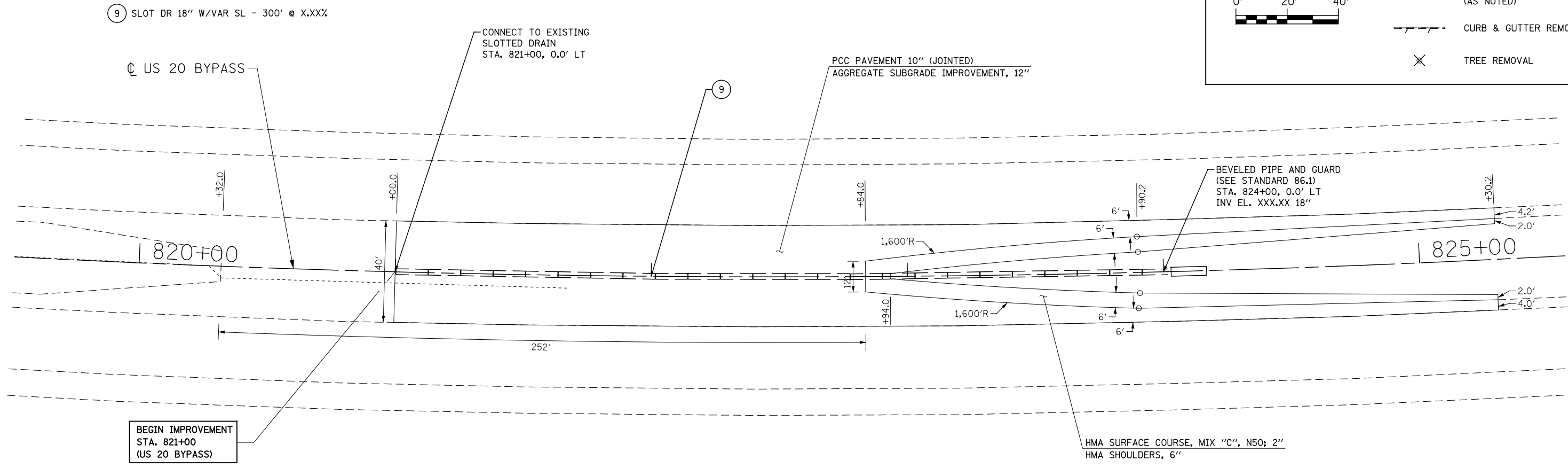


NOTES:
 1. FOR MORE INFORMATION, SEE 75.1 - 40' SINGLE LANE MEDIAN CROSSOVER (55 MPH WORK ZONE SPEED LIMIT) - DISTRICT 2 STANDARD.

LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER REMOVAL
- MEDIAN REMOVAL
- TREE REMOVAL, ACRES
- VARIOUS REMOVAL (AS NOTED)
- CURB & GUTTER REMOVAL
- TREE REMOVAL

Scale: 0' 20' 40'



KNIGHT
 Engineers & Architects

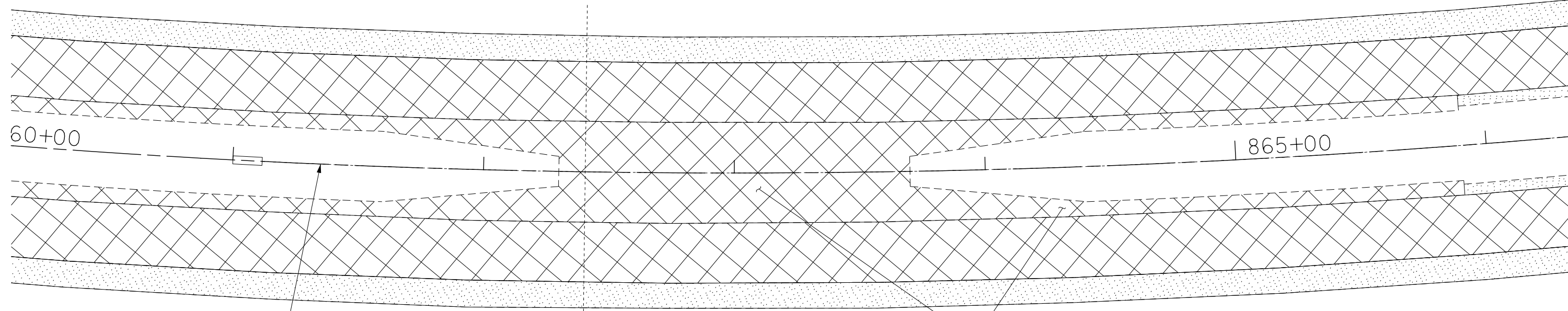
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PLOT SCALE = 1:40	CHECKED - DMS	REVISED -
PLOT DATE = 8/16/2018	DATE - 08-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US ROUTE 20 BYPASS
MEDIAN CROSSOVER #1 DETAILS

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	532
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	



☐ US 20 BYPASS

EXISTING CONCRETE PAVEMENT

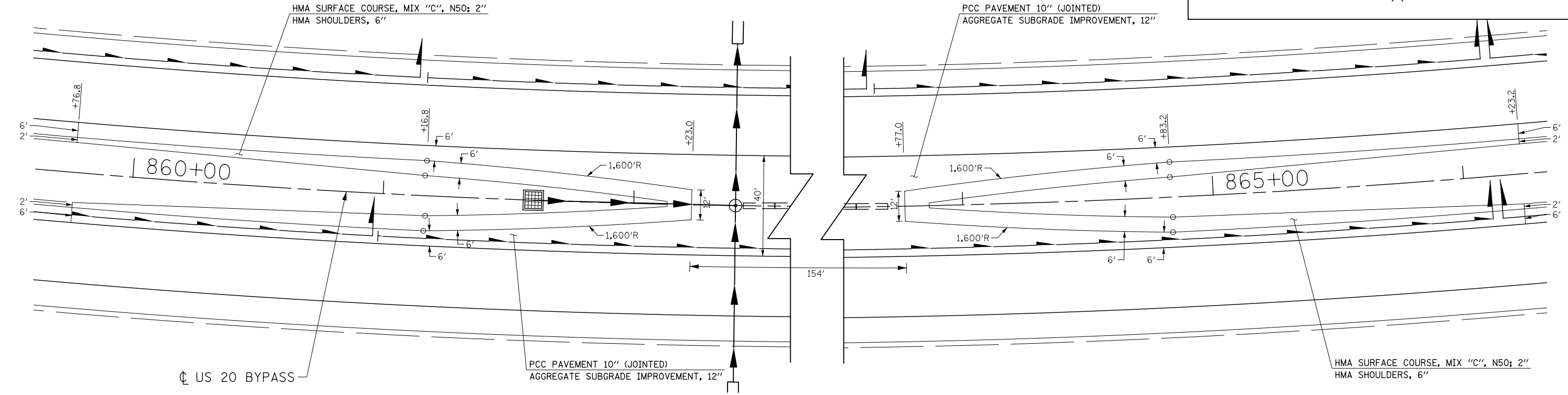
NOTES:

1. FOR MORE INFORMATION, SEE 75.1 - 40' SINGLE LANE MEDIAN CROSSOVER (55 MPH WORK ZONE SPEED LIMIT) - DISTRICT 2 STANDARD.

LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER REMOVAL
- MEDIAN REMOVAL
- TREE REMOVAL, ACRES
- VARIOUS REMOVAL (AS NOTED)
- CURB & GUTTER REMOVAL
- TREE REMOVAL

0' 20' 40'



HMA SURFACE COURSE, MIX "C", N50; 2"
HMA SHOULDERS, 6"

PCC PAVEMENT 10" (JOINTED)
AGGREGATE SUBGRADE IMPROVEMENT, 12"

☐ US 20 BYPASS

PCC PAVEMENT 10" (JOINTED)
AGGREGATE SUBGRADE IMPROVEMENT, 12"

HMA SURFACE COURSE, MIX "C", N50; 2"
HMA SHOULDERS, 6"

KNIGHT
Engineers & Architects

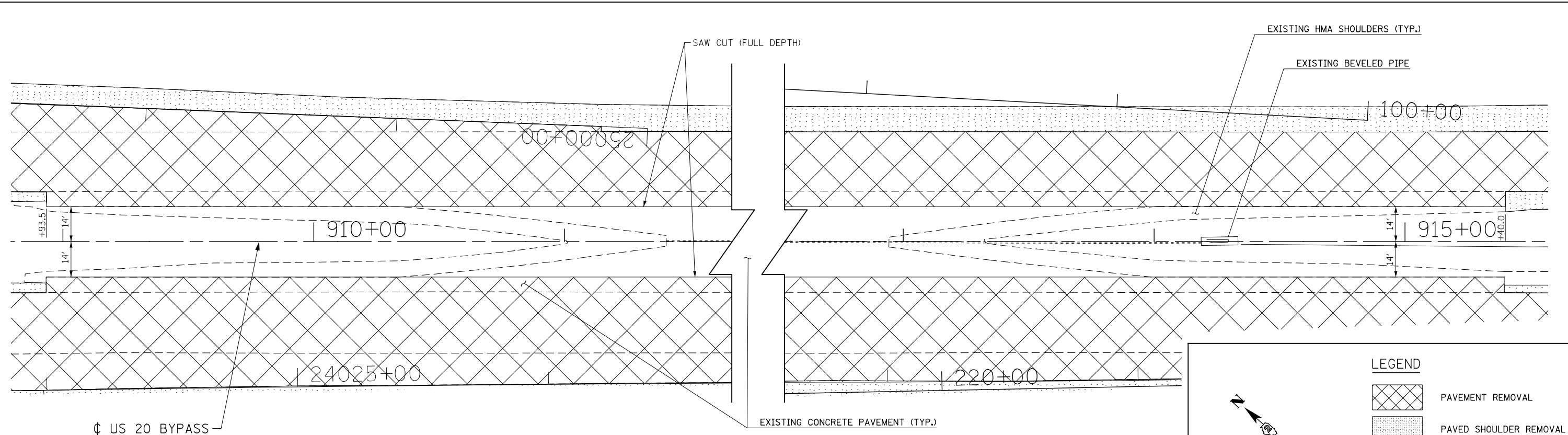
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	DRAWN - PMO	REVISED -
PLOT SCALE = 1:40	CHECKED - DMS	REVISED -
PLOT DATE = 8/16/2018	DATE - 08-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US ROUTE 20 BYPASS
MEDIAN CROSSOVER #2 DETAILS**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	533
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 64B87	



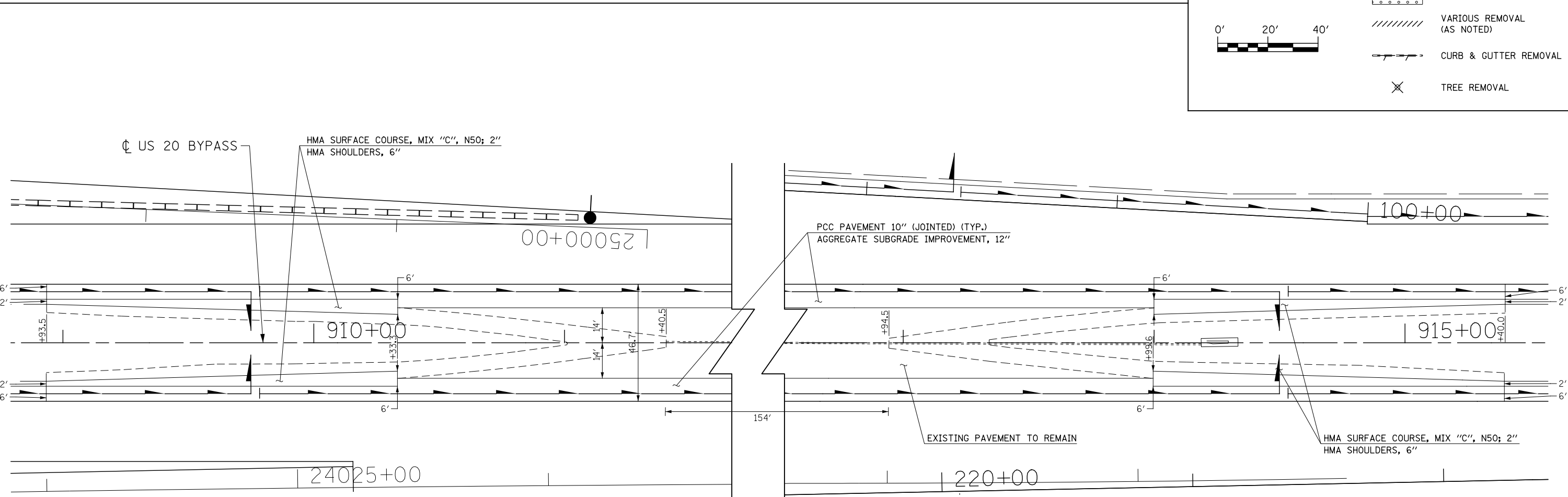
NOTES:

- FOR MORE INFORMATION, SEE 75.1 - 40' SINGLE LANE MEDIAN CROSSOVER (55 MPH WORK ZONE SPEED LIMIT) - DISTRICT 2 STANDARD.

LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER REMOVAL
- MEDIAN REMOVAL
- TREE REMOVAL, ACRES
- VARIOUS REMOVAL (AS NOTED)
- CURB & GUTTER REMOVAL
- TREE REMOVAL

Scale: 0' 20' 40'



KNIGHT
Engineers & Architects

USER NAME = dsiwo	DESIGNED - PMO	REVISED -
PLOT SCALE = 1:40	DRAWN - PMO	REVISED -
PLOT DATE = 8/16/2018	CHECKED - DMS	REVISED -
	DATE - 08-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US ROUTE 20 BYPASS
MEDIAN CROSSOVER #3 DETAILS**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	534
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

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

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

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

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

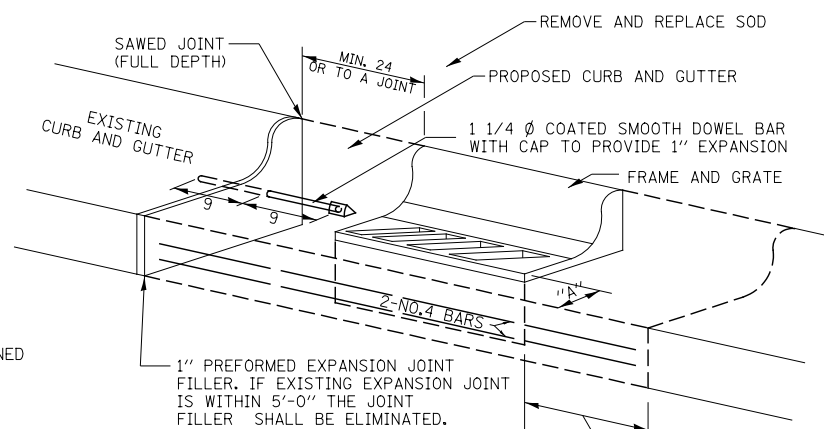
THE PROPOSED CONFIGURATION OF THE CURB AND GUTTER SHALL MATCH THAT REMOVED.

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

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

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

REVISED - 9-30-11



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

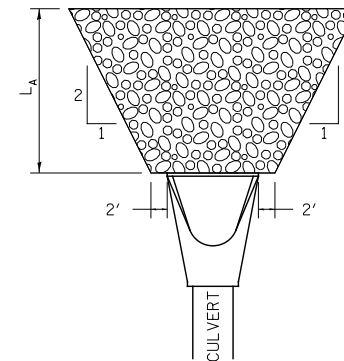
SAME REPAIR AS INDICATED ON OTHER SIDE OF FRAME AND GRATE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

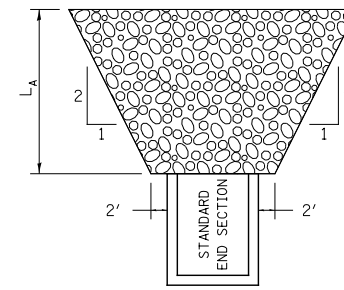
CATCH BASIN OR INLETS TO BE ADJUSTED OR RECONSTRUCTED

17.4

RIPRAP AT END SECTIONS

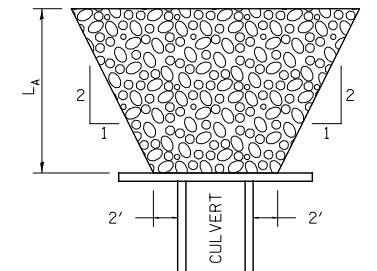


FLARED END SECTION

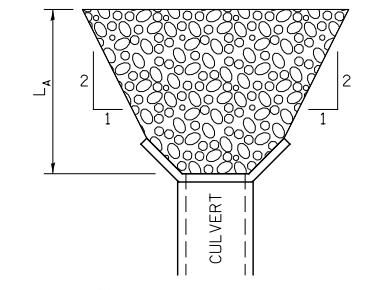


STANDARD END SECTION

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



CULVERT WITH HEADWALL



CULVERT WITH WING WALLS

L_A = APRON LENGTH (ft)

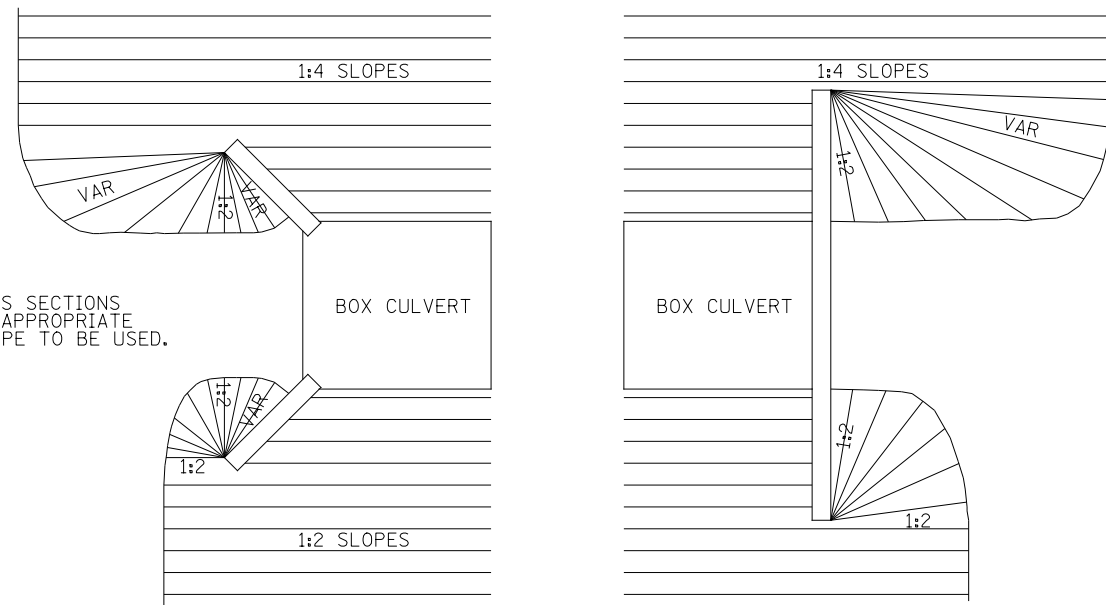
IF THE CULVERT OUTLETS INTO A DEFINED CHANNEL, RIPRAP BANK TO BANK FOR LENGTH (L_A).

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

RIPRAP AT END SECTIONS

19.4

GRADING AROUND WINGWALLS



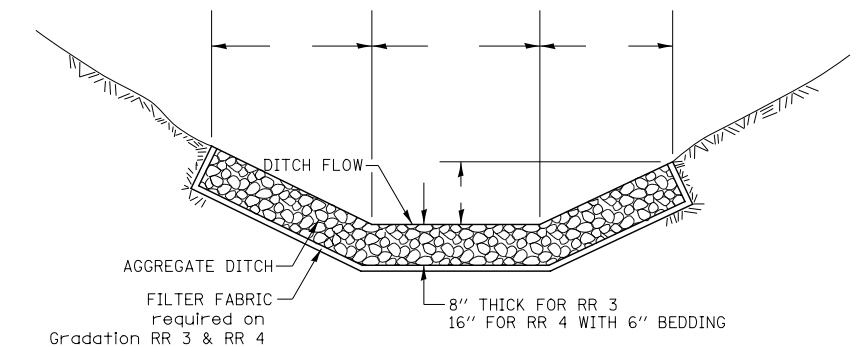
NOTES
SEE CROSS SECTIONS FOR THE APPROPRIATE FRONTSLOPE TO BE USED.

REVISED - 5-27-09

GRADING AROUND WINGWALLS

20.4

AGGREGATE DITCH FOR FLEXIBLE DITCH LINING



THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 281. AGGREGATE DITCH WILL BE MEASURED FOR PAYMENT IN PLACE AND THE AREA COMPUTED IN SQUARE YARDS OF ACTUAL SURFACE AREA. AGGREGATE DITCH WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR STONE RIPRAP CLASS A3 OR STONE RIPRAP CLASS A4 THE FILTER FABRIC SHALL BE ACCORDING TO SECTION 282. FILTER FABRIC WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR FILTER FABRIC.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 7-05-12

AGGREGATE DITCH FOR FLEXIBLE DITCH LINING

21.4

KNIGHT
Engineers & Architects

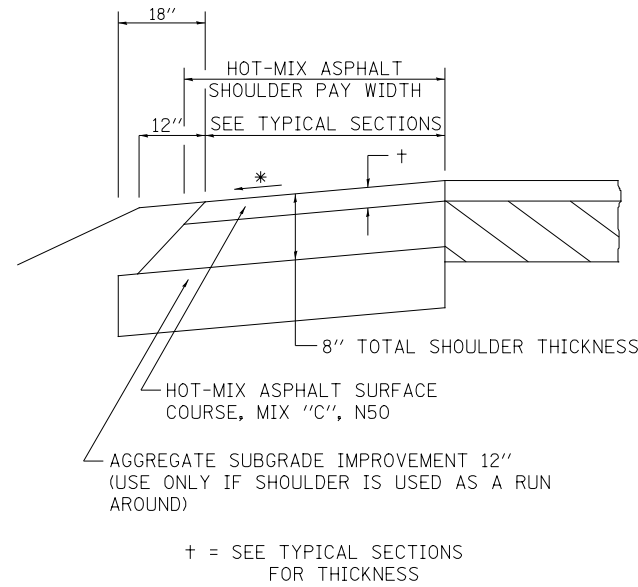
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PLOT SCALE = 1:20	DRAWN -	REVISED -
PLOT DATE = 8/16/2018	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD	
SCALE: NONE	SHEET NO. 1 OF 25 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	535
CONTRACT NO. 64B87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

HOT-MIX ASPHALT SHOULDER



GENERAL NOTES

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

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

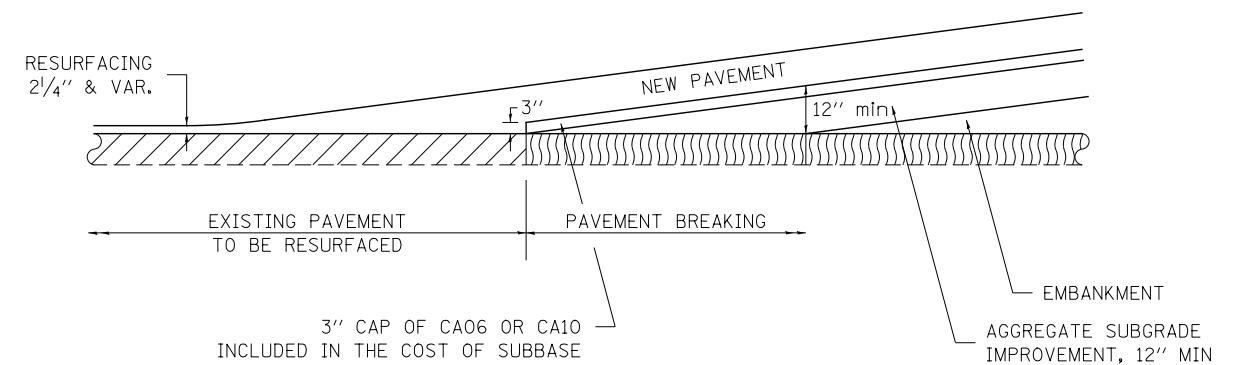
REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

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

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

HOT-MIX ASPHALT SHOULDER 22.4

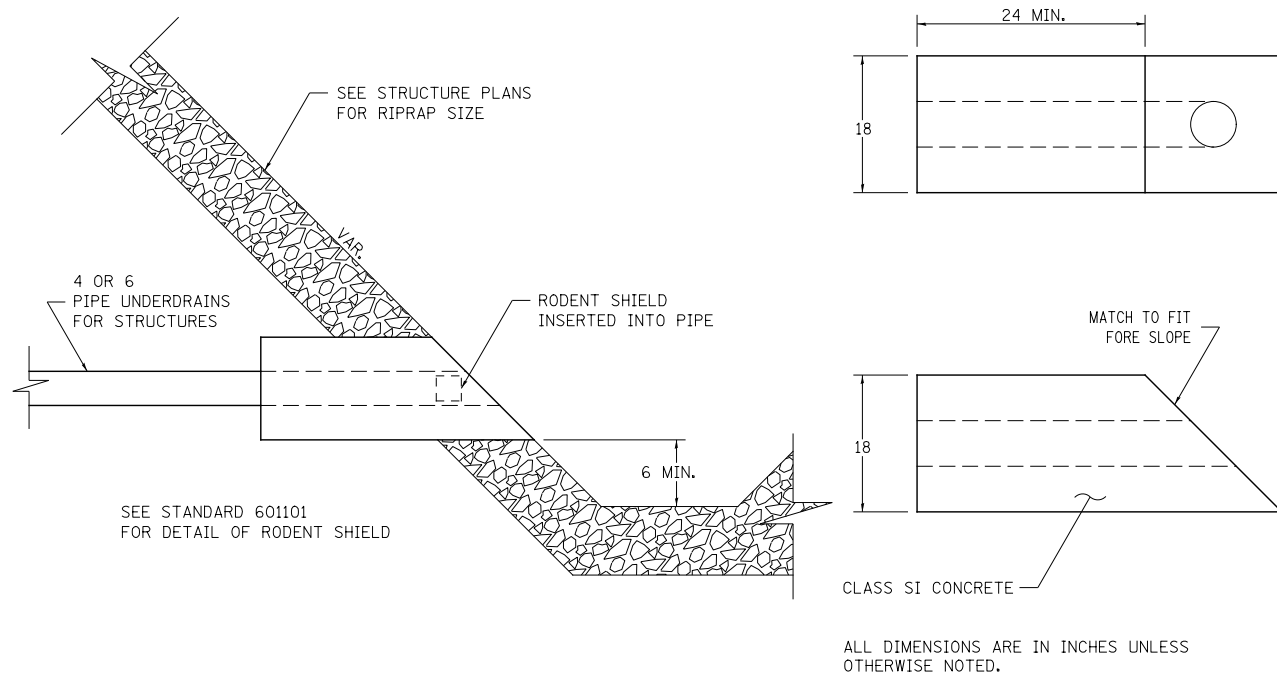
PAVEMENT BREAKING DETAIL



REVISED - 3-19-13

PAVEMENT BREAKING DETAIL 24.4

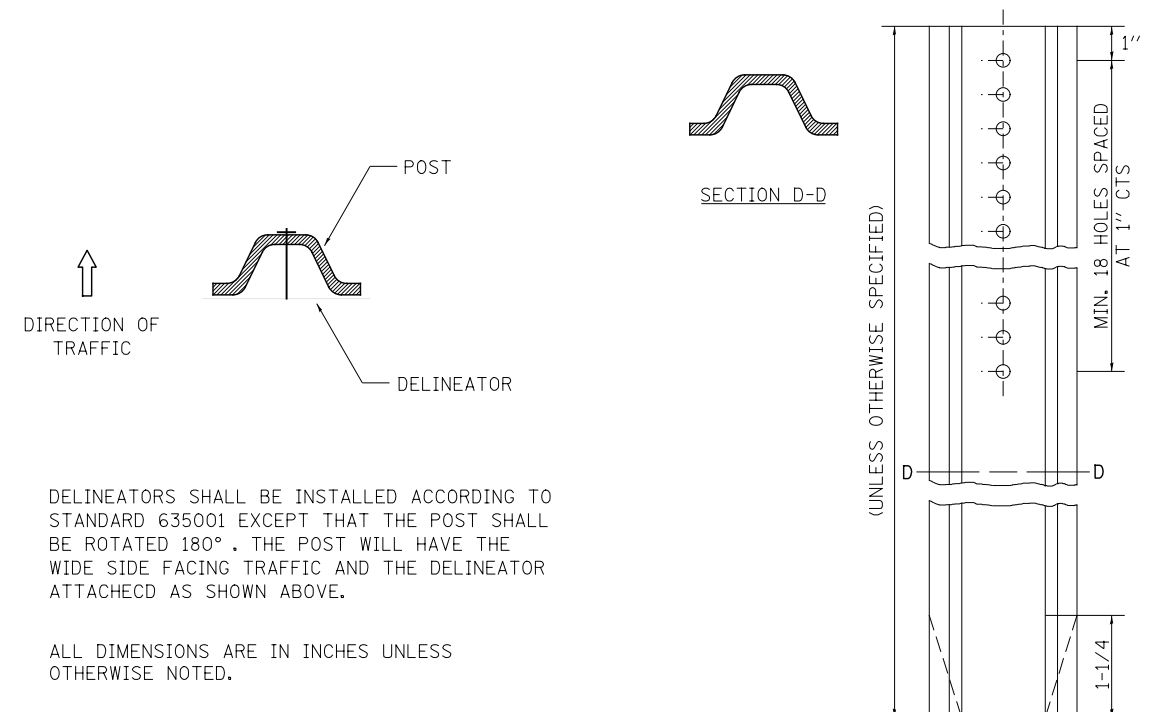
CONCRETE HEADWALLS FOR PIPE UNDERDRAINS FOR STRUCTURES



REVISED - 9-28-17
REVISED - 11-12-14
REVISED - 10-03-11

CONCRETE HEADWALLS FOR PIPE UNDERDRAINS FOR STRUCTURES 27.4

DELINEATOR AND POST ORIENTATION



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

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 10-03-11

DELINEATOR AND POST ORIENTATION 37.4

KNIGHT
Engineers & Architects

USER NAME = dsivo	DESIGNED -	REVISED -
PLOT SCALE = 1:20	DRAWN -	REVISED -
PLOT DATE = 8/16/2018	CHECKED -	REVISED -
	DATE -	REVISED -

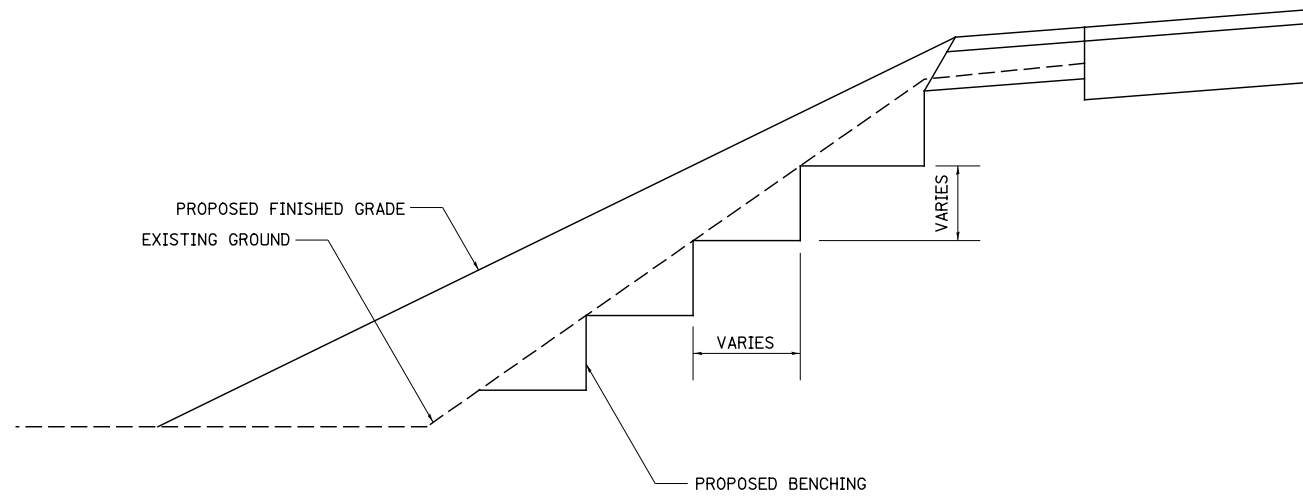
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: NONE SHEET NO. 2 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	536
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

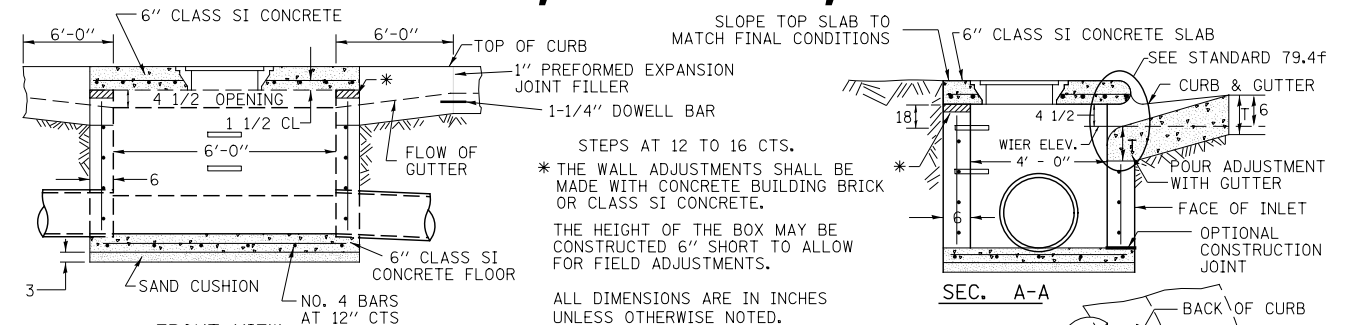
TYPICAL BENCHING ON EXISTING EMBANKMENT



REVISED - 2-22-06

TYPICAL BENCHING ON EXISTING EMBANKMENT 50.4

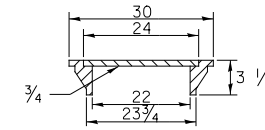
INLETS, SPECIAL, NO. 3



FRONT VIEW

SEE STANDARD 602701 FOR DETAILS OF STEPS. 1" PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET. CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS. REINFORCEMENT FOR INLETS, SPECIAL, NO. 3 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

LIGHT WEIGHT MANHOLE CASTING

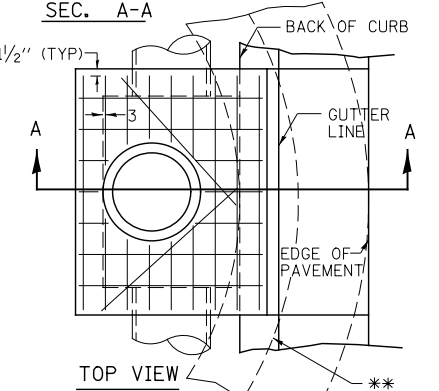


TOTAL WEIGHT 160 LBS.

REVISED - 1-05-16
REVISED - 8-27-13
REVISED - 10-03-11

NOTES

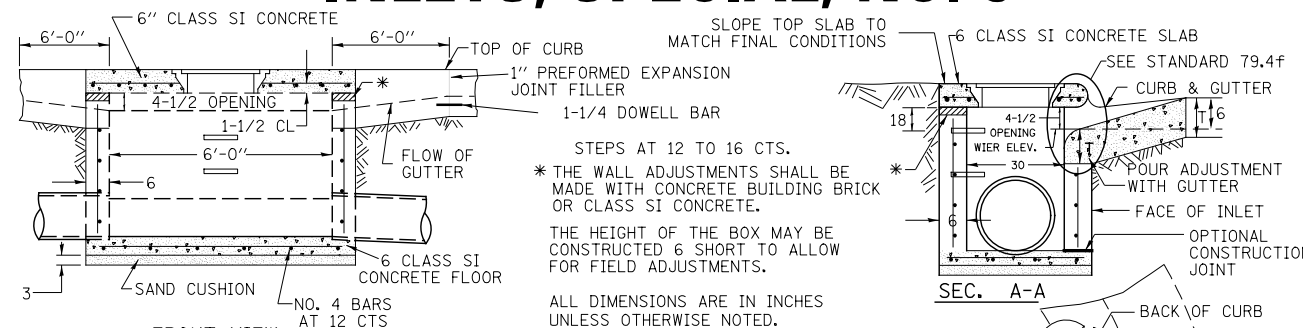
STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 5 FOOT. THE INLET SHALL BE CAST IN PLACE OR PRECAST. EXCEPT AS NOTED HEREON INLETS, SPECIAL, NO. 3 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS. THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 3 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED). THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET. THE CURB AND GUTTER ADJACENT TO AND 6 FOOT ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION. ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS, TYPE 2 OR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CAT OR CA16 AND THE CONNECTION TO THE INLET.



** WHEN INLET IS CONSTRUCTED IN RETURN, THE TOP OF SLAB SHALL CONFORM TO THE RADIUS OF THE RETURN.

INLETS, SPECIAL, NO. 3 79.4

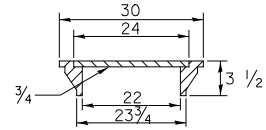
INLETS, SPECIAL, NO. 5



FRONT VIEW

SEE STANDARD 602701 FOR DETAILS OF STEPS. 1" PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET. CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS. REINFORCEMENT FOR INLETS, SPECIAL, NO. 5 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

LIGHT WEIGHT MANHOLE CASTING

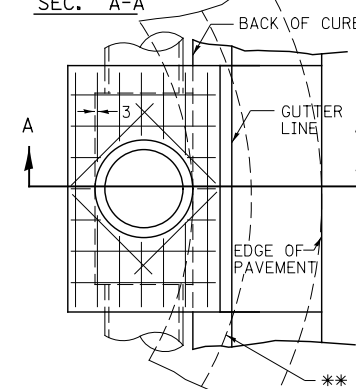


TOTAL WEIGHT 160 LBS.

REVISED - 1-05-16
REVISED - 8-27-13
REVISED - 10-04-11

NOTES

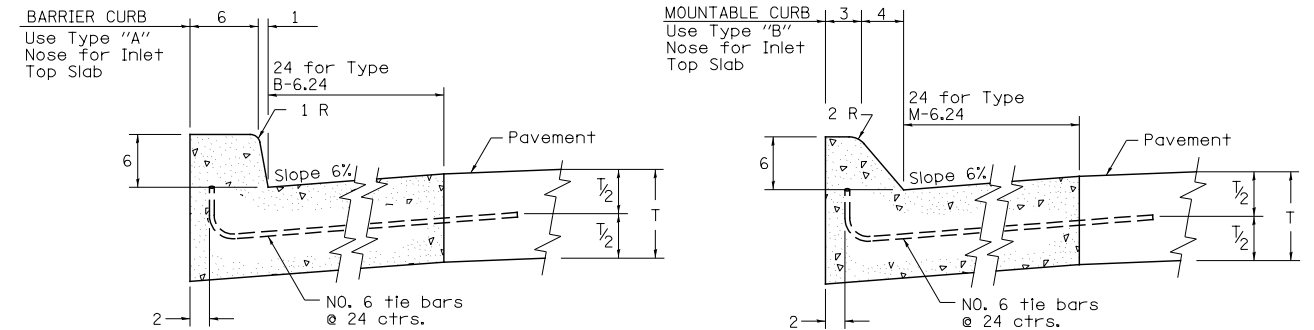
STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 5 FOOT. THE INLET SHALL BE CAST IN PLACE OR PRECAST. EXCEPT AS NOTED HEREON INLETS, SPECIAL, NO. 5 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS. THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 5 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED). THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET. THE CURB AND GUTTER ADJACENT TO AND 6 FOOT ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION. ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS, TYPE 2 OR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CAT OR CA16 AND THE CONNECTION TO THE INLET.



** WHEN INLET IS CONSTRUCTED IN RETURN, THE TOP OF SLAB SHALL CONFORM TO THE RADIUS OF THE RETURN.

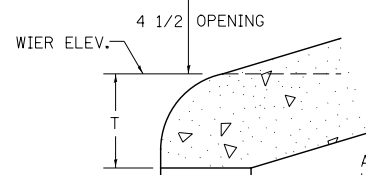
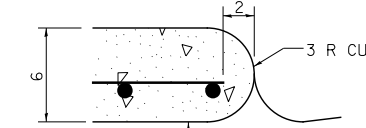
INLETS, SPECIAL, NO. 5 79.4b

NOSE TYPE FOR INLET TOP SLAB



TYPE "A"

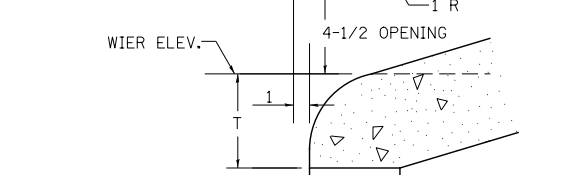
TO BE USED ON EXISTING OR PROPOSED 6 BARRIER CURB



REVISED - 4-14-15
REVISED - 10-05-11

TYPE "B"

TO BE USED ON PROPOSED 6 MOUNTABLE CURB



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

NOSE TYPE FOR INLET TOP SLAB 79.4f

KNIGHT

Engineers & Architects

USER NAME = dsivo
DESIGNED -
DRAWN -
PLOT SCALE = 1:20
PLOT DATE = 8/16/2018

CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

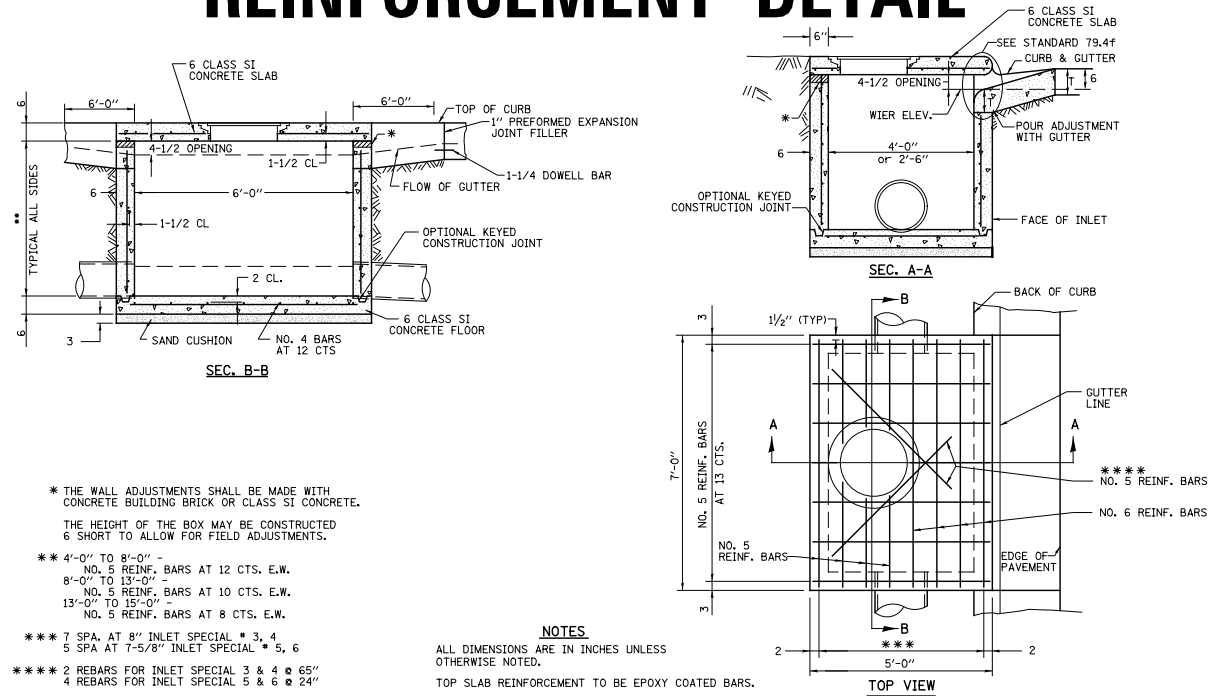
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: NONE SHEET NO. 3 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	537
CONTRACT NO. 64B87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

INLETS, SPECIAL, NO. 3, 4, 5, 6 REINFORCEMENT DETAIL



* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE. THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6 SHORT TO ALLOW FOR FIELD ADJUSTMENTS.

** 4'-0" TO 8'-0" - NO. 5 REINF. BARS AT 12 CTS. E.W.
 8'-0" TO 13'-0" - NO. 5 REINF. BARS AT 10 CTS. E.W.
 13'-0" TO 15'-0" - NO. 5 REINF. BARS AT 8 CTS. E.W.

*** 7 SPA. AT 8" INLET SPECIAL * 3, 4
 5 SPA AT 7-5/8" INLET SPECIAL * 5, 6

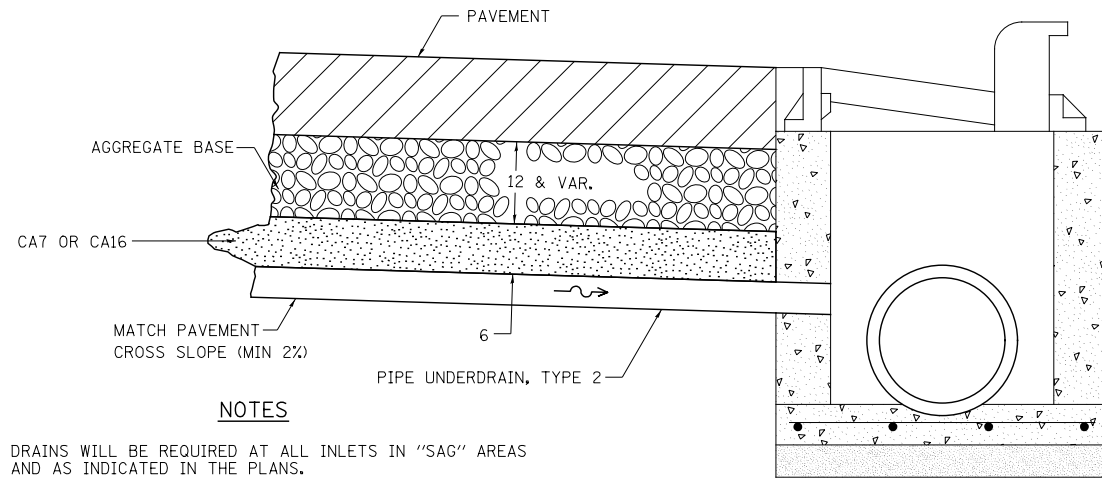
**** 2 REBARS FOR INLET SPECIAL 3 & 4 @ 65"
 4 REBARS FOR INLET SPECIAL 5 & 6 @ 24"

NOTES
 ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
 TOP SLAB REINFORCEMENT TO BE EPOXY COATED BARS.

REVISED - 4-13-16
 REVISED - 8-27-13
 REVISED - 10-05-11

INLETS, SPECIAL, NO. 3, 4, 5, 6 REINFORCEMENT DETAIL 79.4g

DRAIN FOR AGGREGATE BASES IN URBAN AREAS



NOTES
 DRAINS WILL BE REQUIRED AT ALL INLETS IN "SAG" AREAS AND AS INDICATED IN THE PLANS.
 THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.
 THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS, TYPE 2 OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 1-05-16
 REVISED - 10-05-11

DRAIN FOR AGGREGATE BASES IN URBAN AREAS 88.4

TYPICAL MEDIAN CROSSOVER CLOSURE (WITH EMERGENCY OPENING)

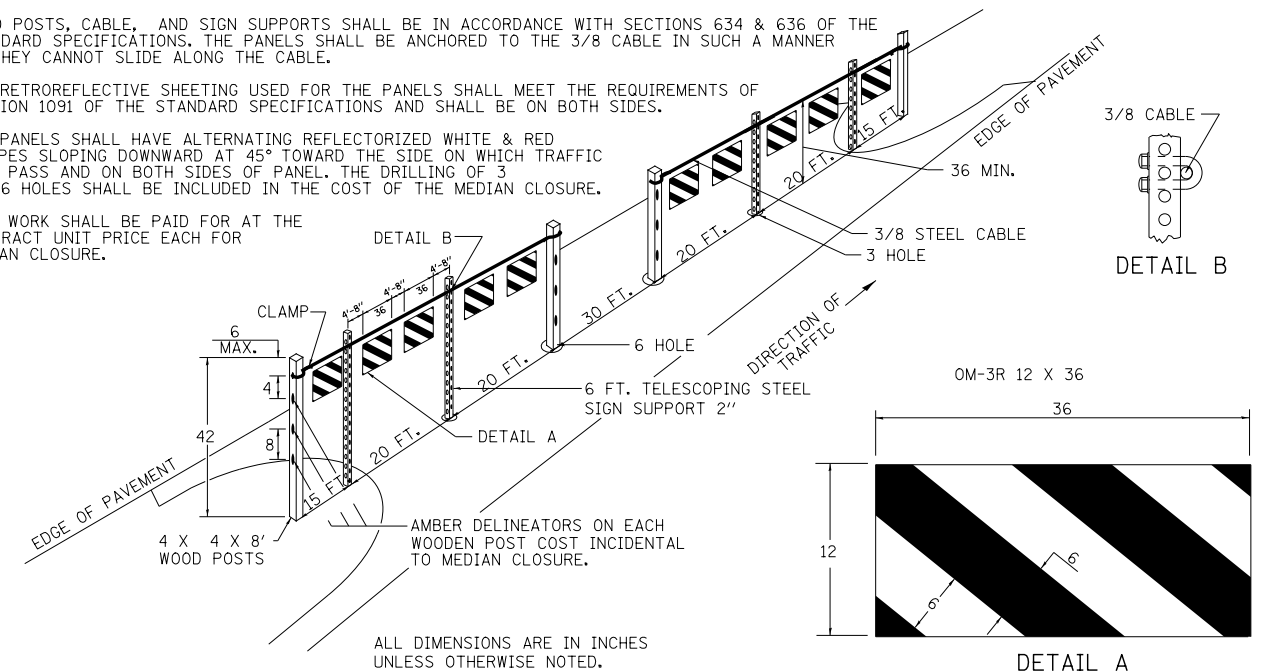
GENERAL NOTES

WOOD POSTS, CABLE, AND SIGN SUPPORTS SHALL BE IN ACCORDANCE WITH SECTIONS 634 & 636 OF THE STANDARD SPECIFICATIONS. THE PANELS SHALL BE ANCHORED TO THE 3/8 CABLE IN SUCH A MANNER SO THEY CANNOT SLIDE ALONG THE CABLE.

THE RETROREFLECTIVE SHEETING USED FOR THE PANELS SHALL MEET THE REQUIREMENTS OF SECTION 1091 OF THE STANDARD SPECIFICATIONS AND SHALL BE ON BOTH SIDES.

ALL PANELS SHALL HAVE ALTERNATING REFLECTORIZED WHITE & RED STRIPES SLOPING DOWNWARD AT 45° TOWARD THE SIDE ON WHICH TRAFFIC WILL PASS AND ON BOTH SIDES OF PANEL. THE DRILLING OF 3 AND 6 HOLES SHALL BE INCLUDED IN THE COST OF THE MEDIAN CLOSURE.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR MEDIAN CLOSURE.



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 1-05-16
 REVISED - 1-17-12

TYPICAL MEDIAN CROSSOVER CLOSURE (WITH EMERGENCY OPENING) 87.4

TYPICAL MEDIAN CROSSOVER CLOSURE

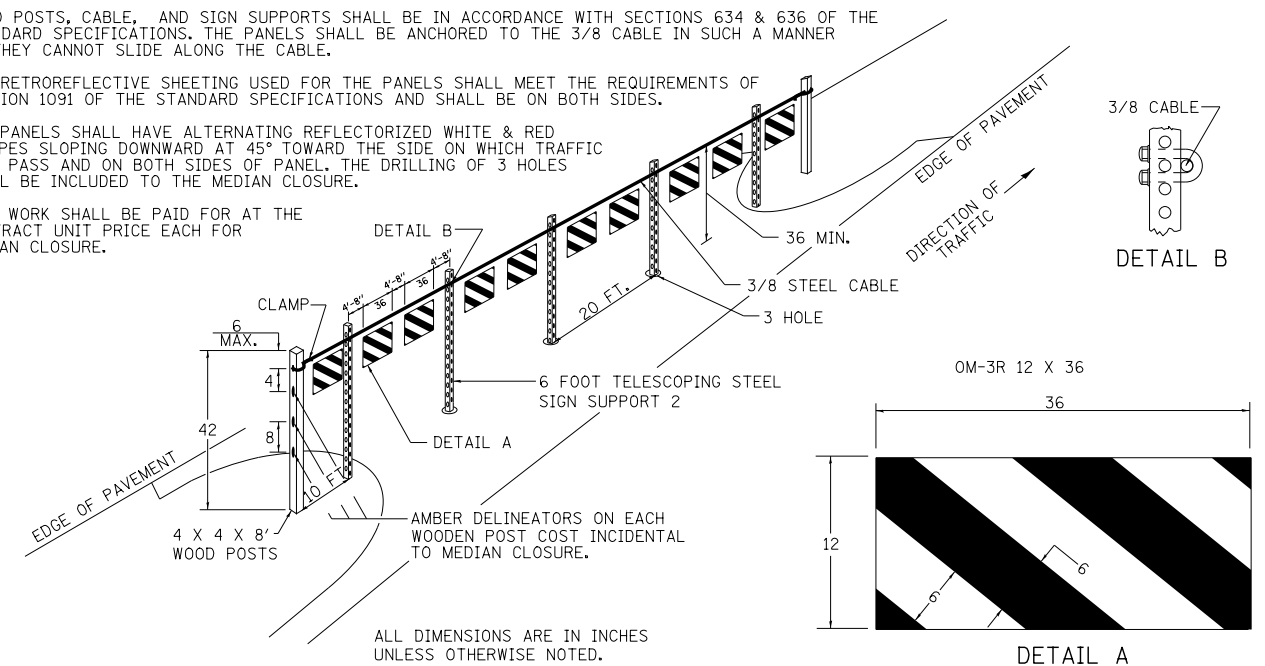
GENERAL NOTES

WOOD POSTS, CABLE, AND SIGN SUPPORTS SHALL BE IN ACCORDANCE WITH SECTIONS 634 & 636 OF THE STANDARD SPECIFICATIONS. THE PANELS SHALL BE ANCHORED TO THE 3/8 CABLE IN SUCH A MANNER SO THEY CANNOT SLIDE ALONG THE CABLE.

THE RETROREFLECTIVE SHEETING USED FOR THE PANELS SHALL MEET THE REQUIREMENTS OF SECTION 1091 OF THE STANDARD SPECIFICATIONS AND SHALL BE ON BOTH SIDES.

ALL PANELS SHALL HAVE ALTERNATING REFLECTORIZED WHITE & RED STRIPES SLOPING DOWNWARD AT 45° TOWARD THE SIDE ON WHICH TRAFFIC WILL PASS AND ON BOTH SIDES OF PANEL. THE DRILLING OF 3 HOLES SHALL BE INCLUDED TO THE MEDIAN CLOSURE.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR MEDIAN CLOSURE.



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 1-05-16
 REVISED - 1-16-12

TYPICAL MEDIAN CROSSOVER CLOSURE 98.4

KNIGHT

Engineers & Architects

USER NAME = dsilwo
 PLOT SCALE = 1:20
 PLOT DATE = 8/16/2018

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

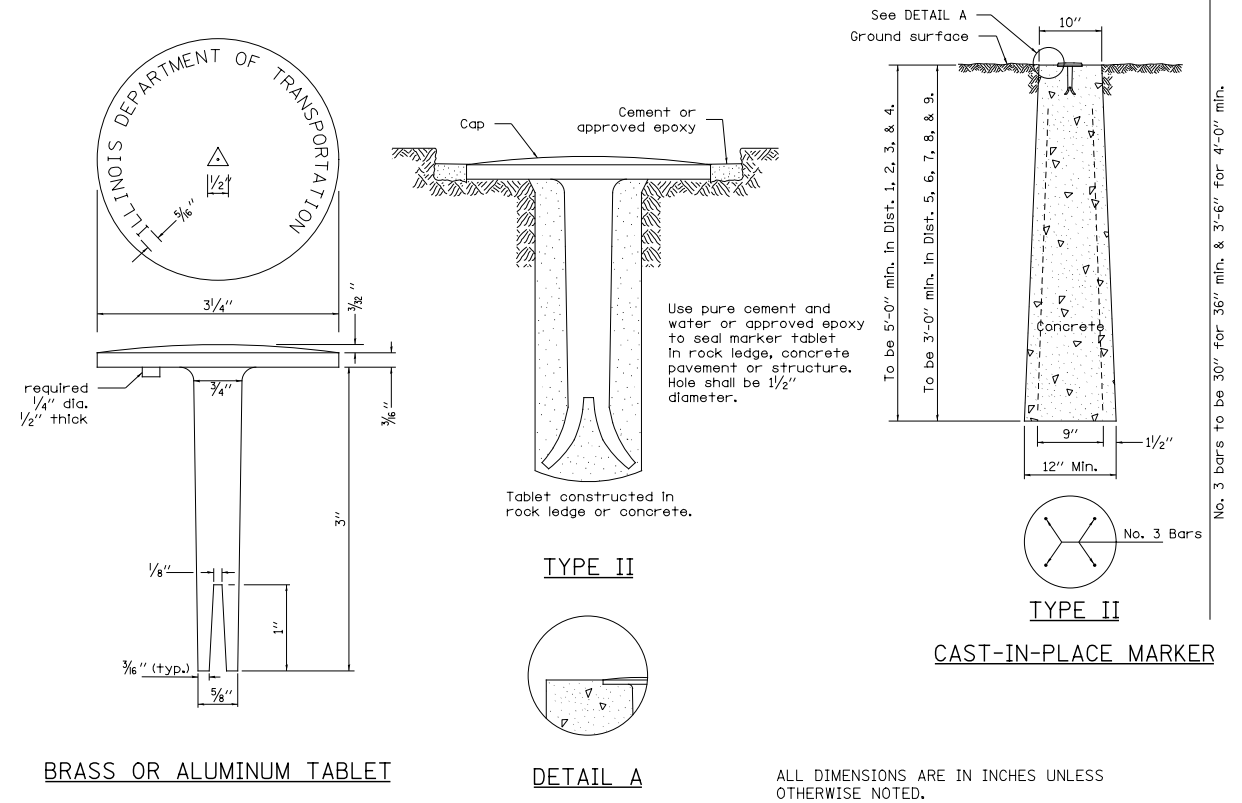
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

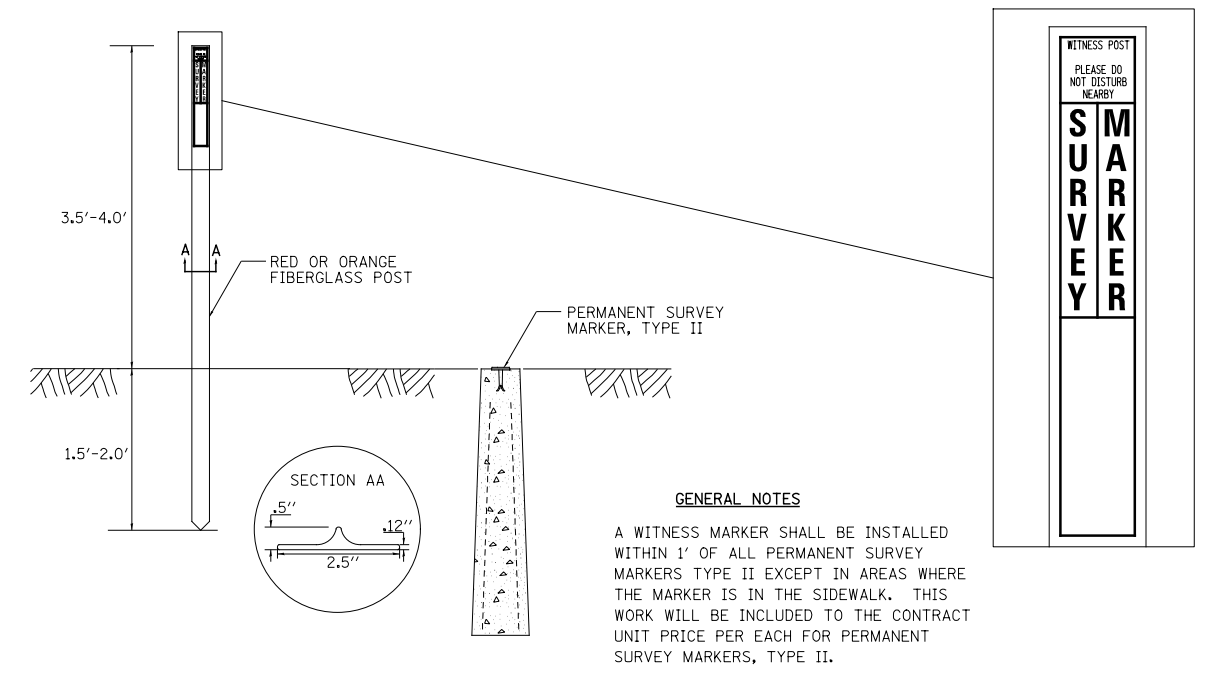
SCALE: NONE SHEET NO. 4 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	538
CONTRACT NO. 64B87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PERMANENT SURVEY MARKERS, TYPE II



WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II



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

PERMANENT SURVEY MARKERS, TYPE II 66.2

KNIGHT
Engineers & Architects

USER NAME = dsirwo	DESIGNED -	REVISED -
PLOT SCALE = 1:20	DRAWN -	REVISED -
PLOT DATE = 8/16/2018	CHECKED -	REVISED -
	DATE -	REVISED -

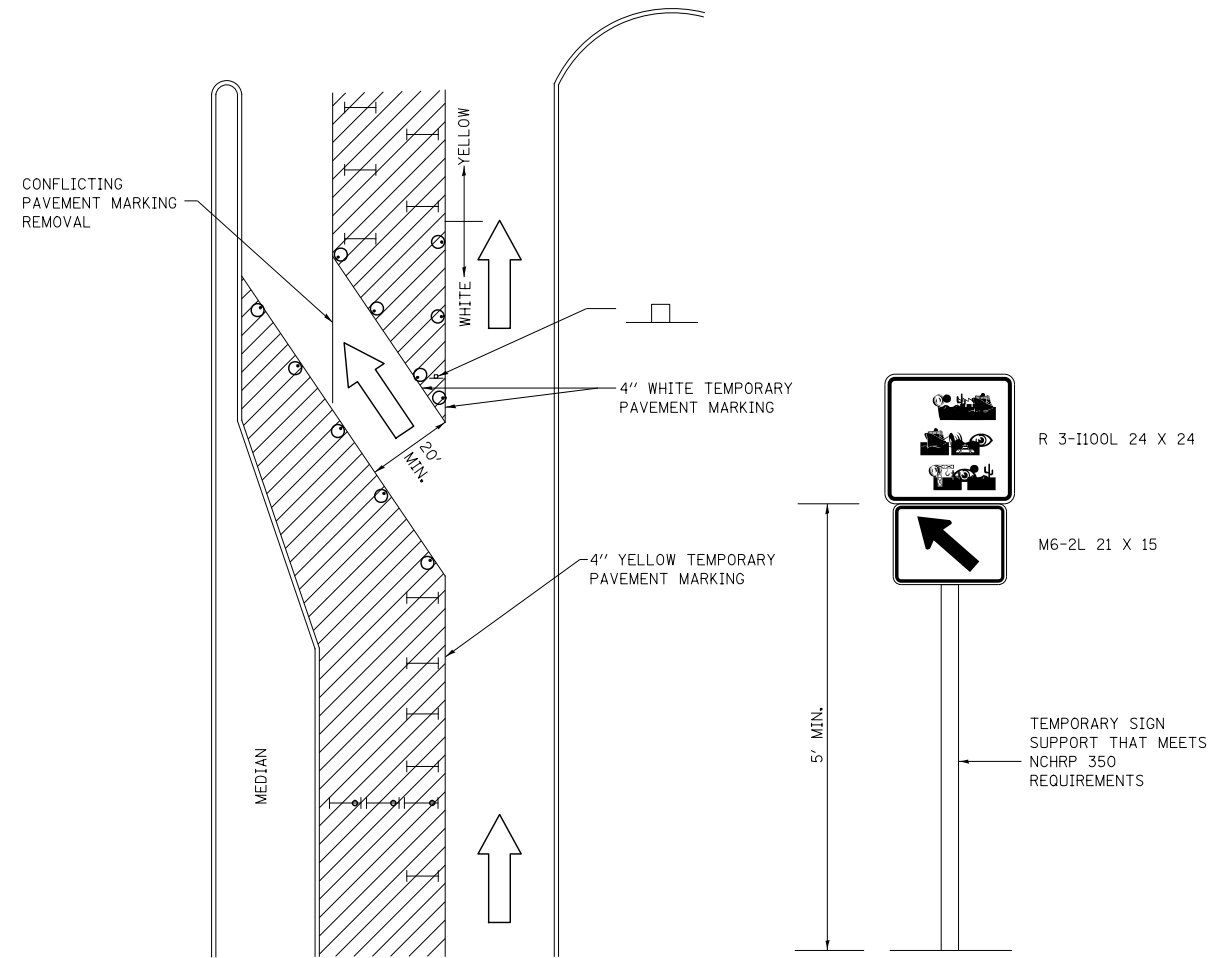
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD


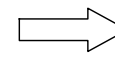
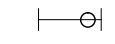

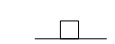
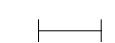
SCALE: NONE SHEET NO. 5 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	539
CONTRACT NO. 64B87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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



LEGEND

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

REVISED - 10-14-11

GENERAL NOTES

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

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

KNIGHT
Engineers & Architects

USER NAME = dsivo	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1:20	CHECKED -	REVISED -
PLOT DATE = 8/16/2018	DATE -	REVISED -

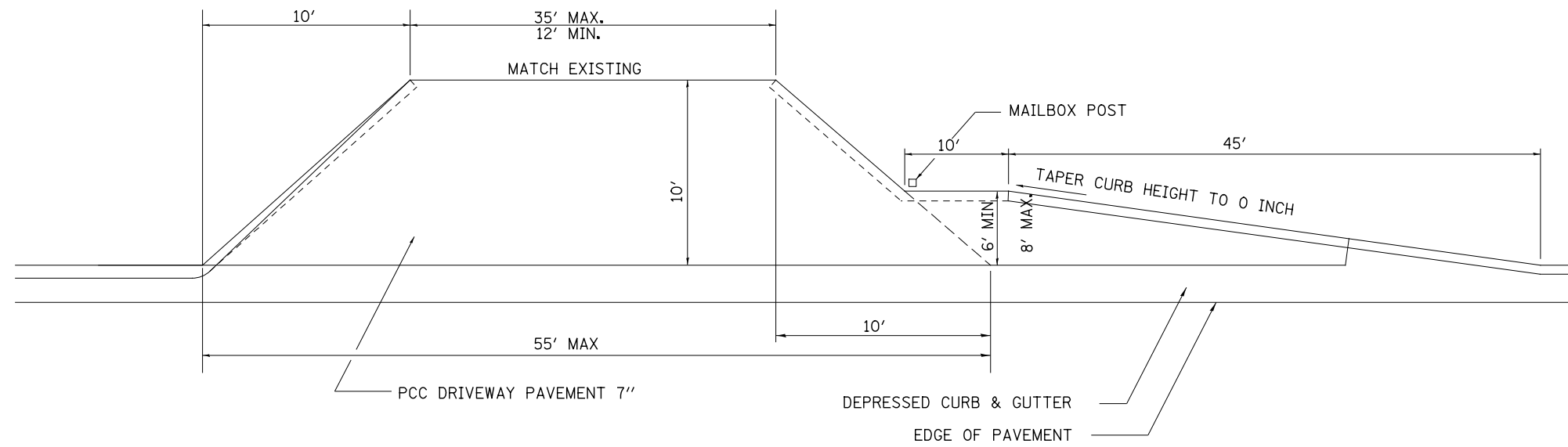
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

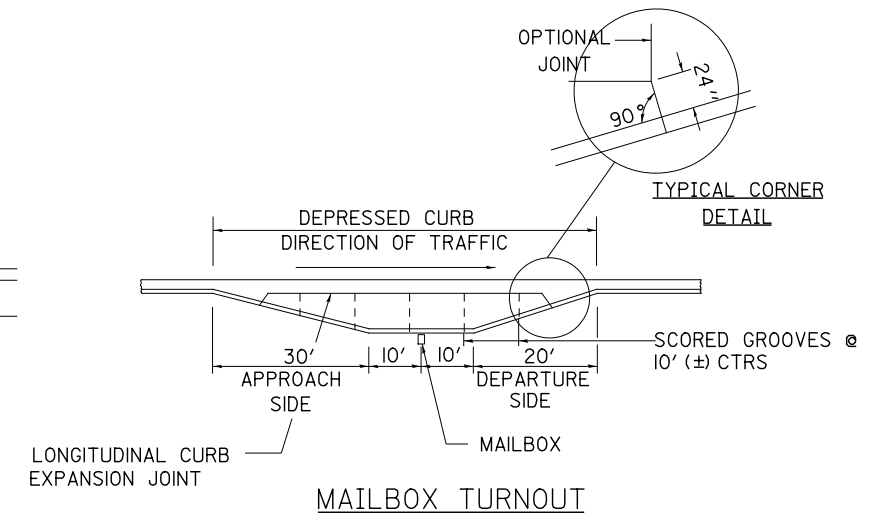
SCALE: NONE SHEET NO. 5 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	540
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

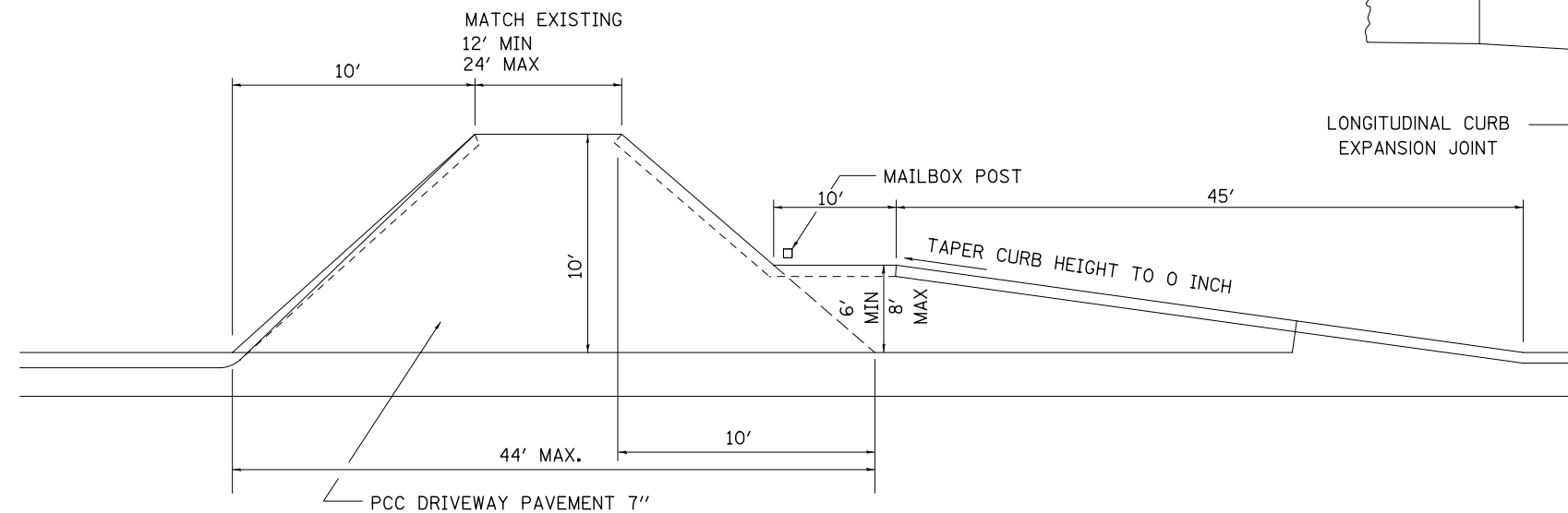
MAILBOX TURNOUT IN CURB AND GUTTER SECTION



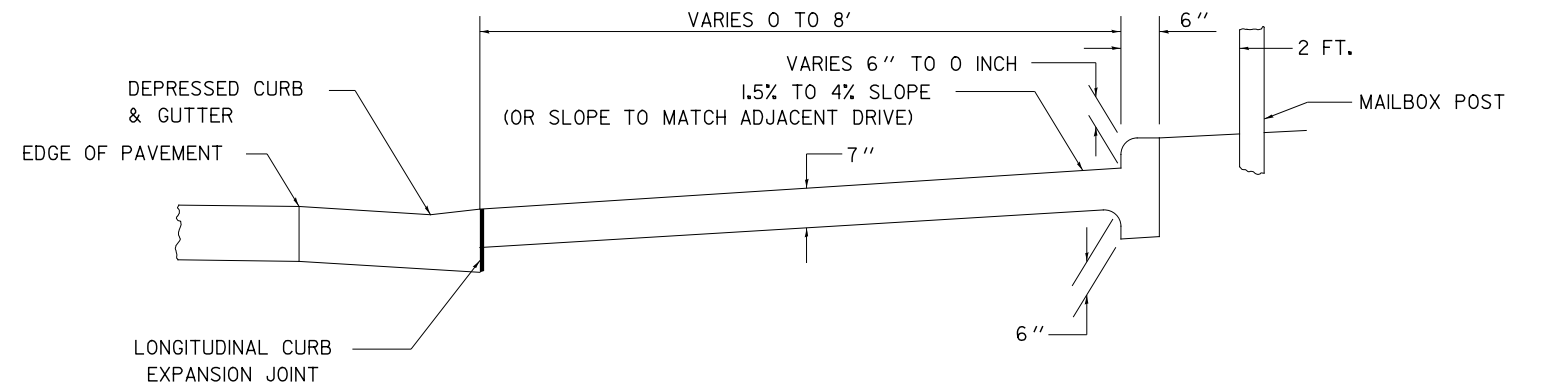
COMMERCIAL ENTRANCE WITH MAILBOX TURNOUT



MAILBOX TURNOUT



PRIVATE ENTRANCE WITH MAILBOX TURNOUT



TYPICAL CROSS SECTION

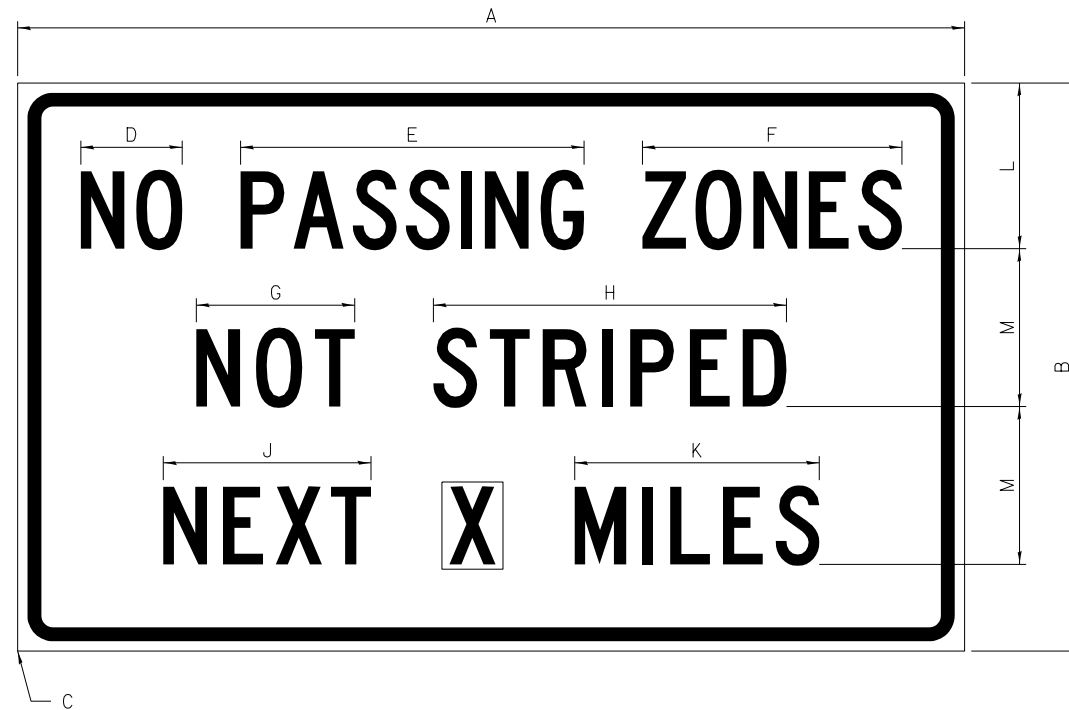
GENERAL NOTES

- 1.) THE LONGITUDINAL CURB EXPANSION JOINT SHALL CONFORM TO SECTION 1051 OF THE STANDARD SPECIFICATIONS.
- 2.) THE MAILBOX TURNOUT CROSS SLOPE WILL BE AS SHOWN ABOVE, AS SHOWN ON THE STATION CROSS SECTIONS OR AS DIRECTED BY THE ENGINEER.
- 3.) THE MAILBOX TURNOUT SHALL BE CONSTRUCTED WITH SCORED GROOVES, AS SPECIFIED IN ARTICLE 423.06 OF THE STANDARD SPECIFICATIONS, AT APPROXIMATELY 10 FT. CENTERS. IN THE EVENT THERE IS EXISTING OR PROPOSED SIDEWALK PRESENT, THESE SCORED GROOVES SHALL BE PLACED IN LINE WITH EVERY OTHER JOINT IN THE ADJACENT SIDEWALK.
- 4.) THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR P.C. CONCRETE DRIVEWAY PAVEMENT OF THE THICKNESS SPECIFIED IN THE PLANS WHICH PRICE SHALL INCLUDE THE LONGITUDINAL CURB EXPANSION JOINT AND MONOLITHIC CURB AS SHOWN, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 5.) SEE THE DISTRICT STANDARD 25.1 FOR ADDITIONAL DETAILS.
- 6.) MAILBOXES SHALL BE INSTALLED TO CURRENT UNITED STATES POSTAL SERVICE MAILBOX GUIDELINES.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

WORK ZONE SIGN DETAILS

ILLINOIS STANDARD G20-I100



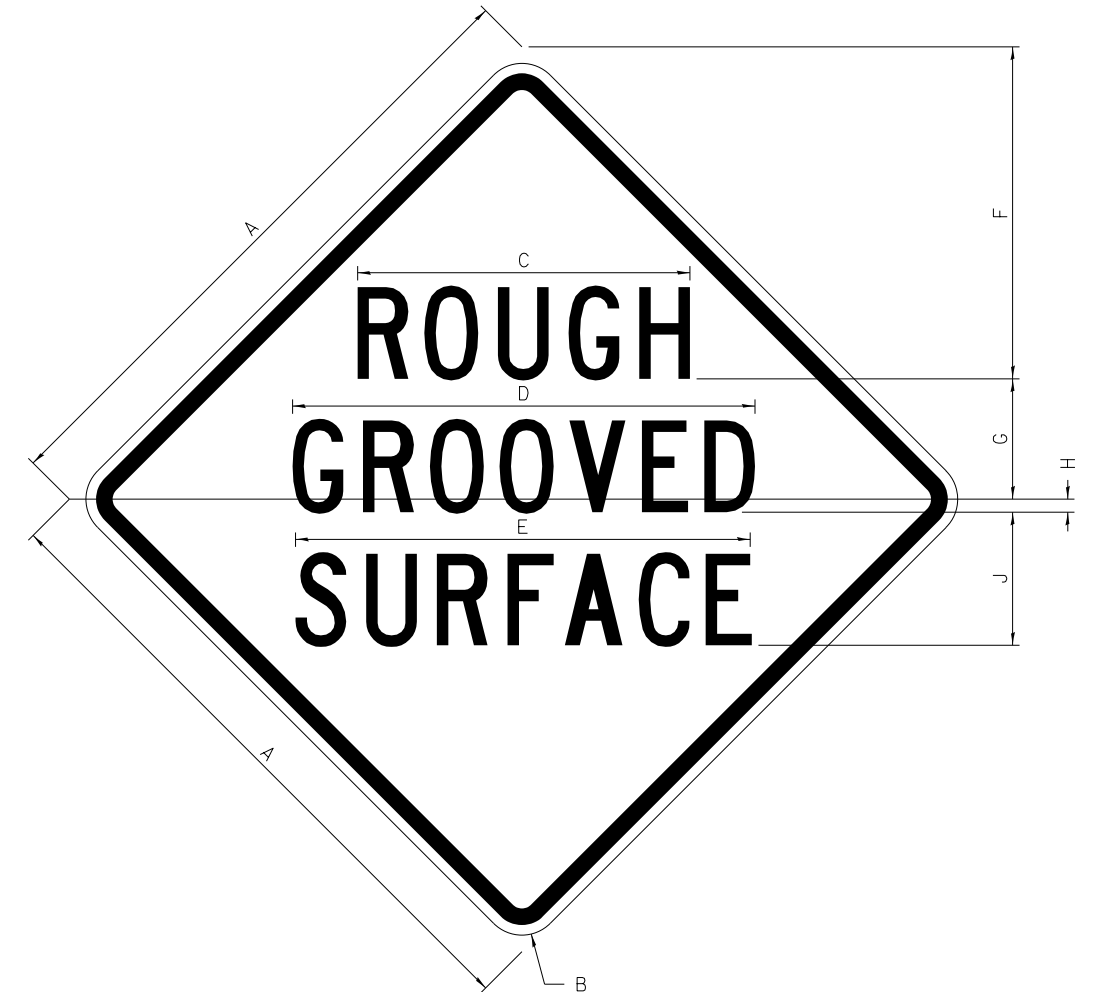
COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

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

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

Sign not to scale

ILLINOIS STANDARD W8-I107



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

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

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

Sign not to scale

GENERAL NOTES

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

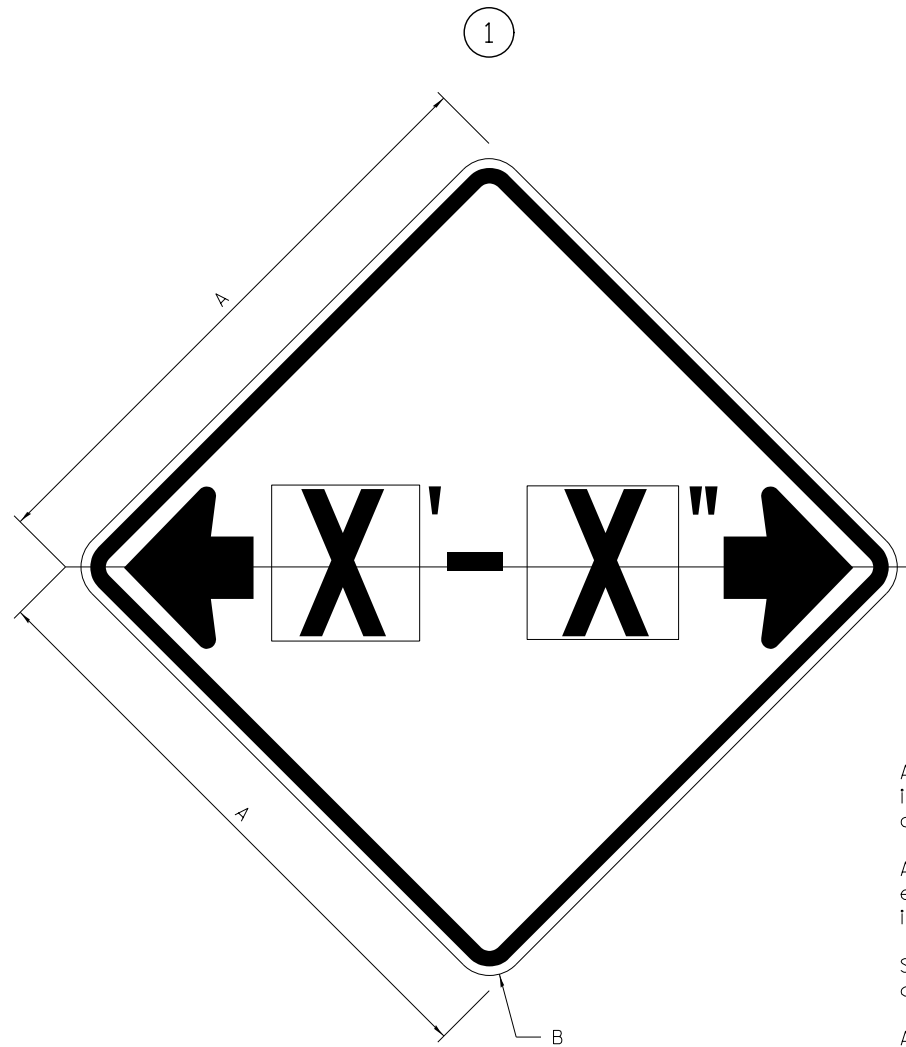
All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

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

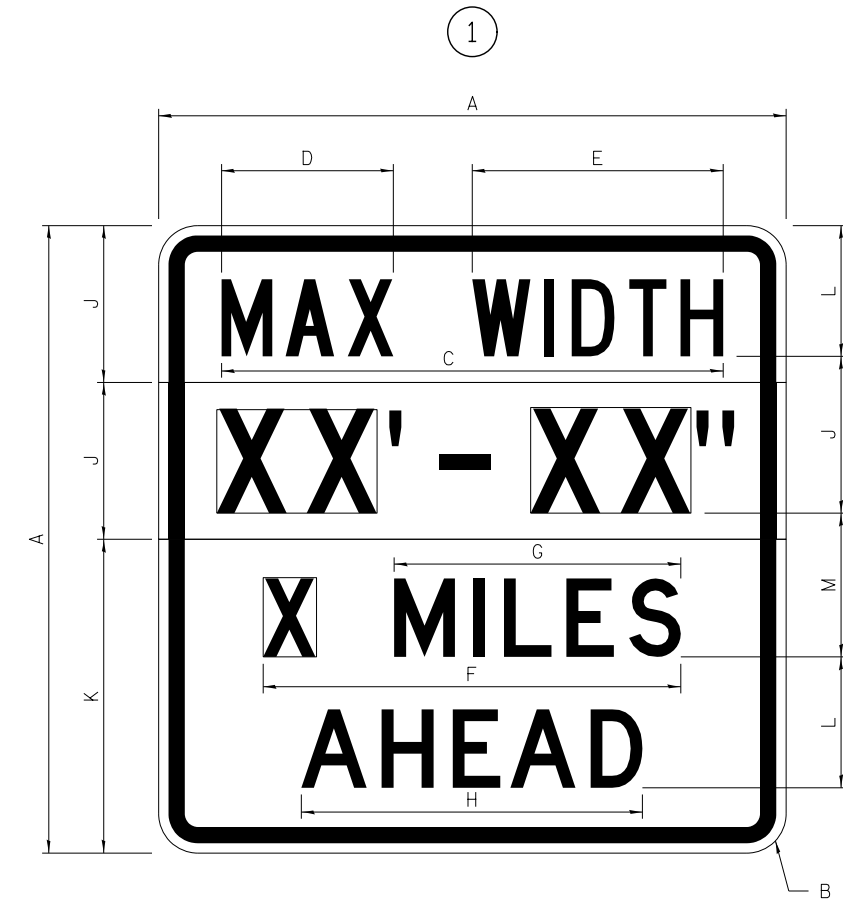
All dimensions are in inches unless otherwise noted.

WORK ZONE SIGN DETAILS

ILLINOIS STANDARD W12-I102



ILLINOIS STANDARD W12-I103



GENERAL NOTES

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

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

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

All dimensions are in inches unless otherwise noted.

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

SIGN SIZE	DIMENSIONS	
	A	B
48 x 48	48.00	3.00

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

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

Sign not to scale

COLOR LEGEND AND BORDER BACKGROUND (WIDTH) BLACK WHITE FL ORANGE NON-REFLECTORIZED REFLECTORIZED REFLECTORIZED

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

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

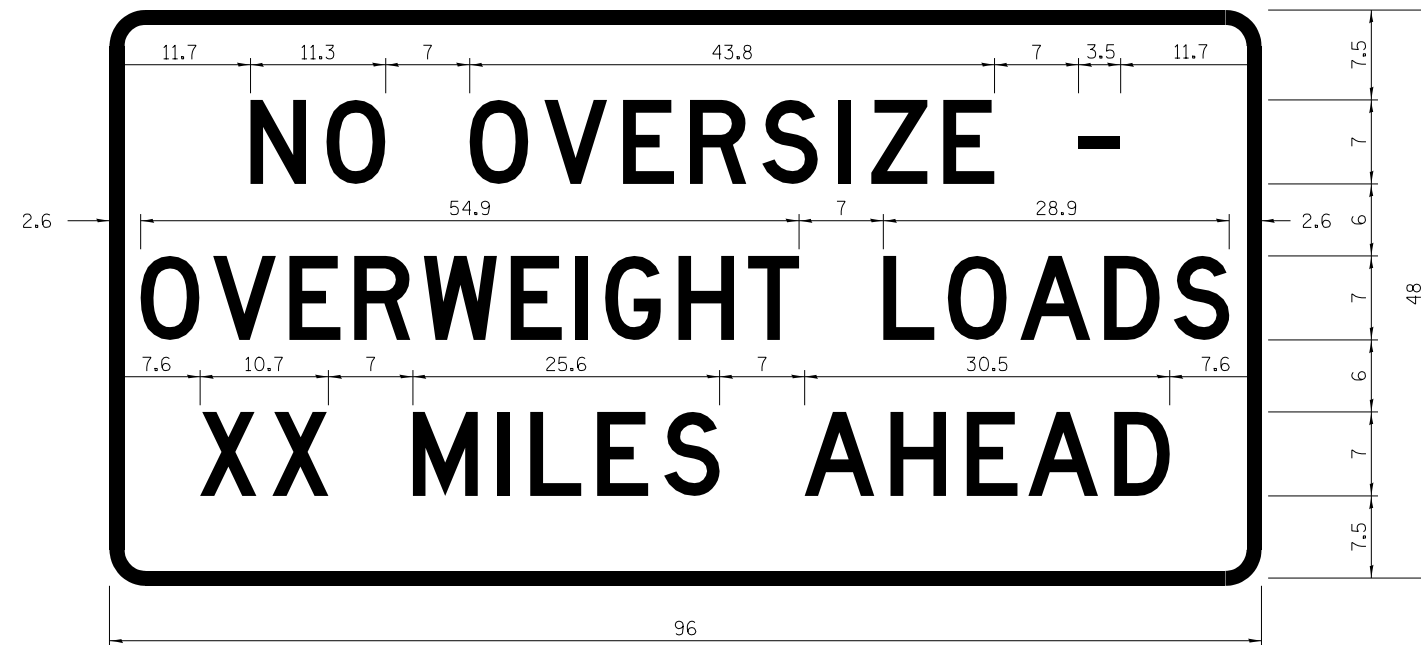
Sign not to scale

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

WORK ZONE SIGN DETAILS

ROAD CLOSED TO OVERSIZED LOADS

STOP LINE SIGN FOR TEMPORARY SIGNALS



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

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

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

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

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

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

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

Sign not to scale

Sign not to scale

GENERAL NOTES

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

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

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

All dimensions are in inches unless otherwise noted.

KNIGHT
Engineers & Architects

USER NAME = dslw	DESIGNED -	REVISED - 3-02-16
	DRAWN -	REVISED -
PLOT SCALE = 1:20	CHECKED -	REVISED -
PLOT DATE = 8/16/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

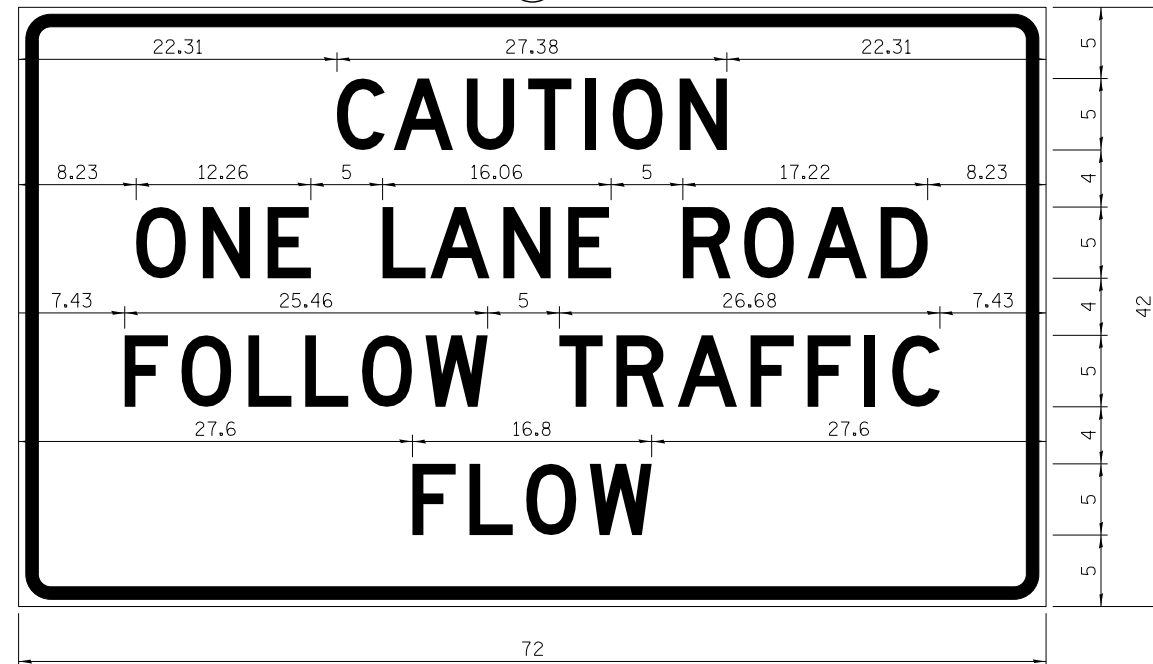
SCALE: SHEET NO. 9 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	544
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

**ENTRANCE SIGN FOR USE
WITH TEMPORARY SIGNALS**

WORK ZONE SIGN DETAILS

2



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

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

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

Table Of Widths And Spaces

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

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

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

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

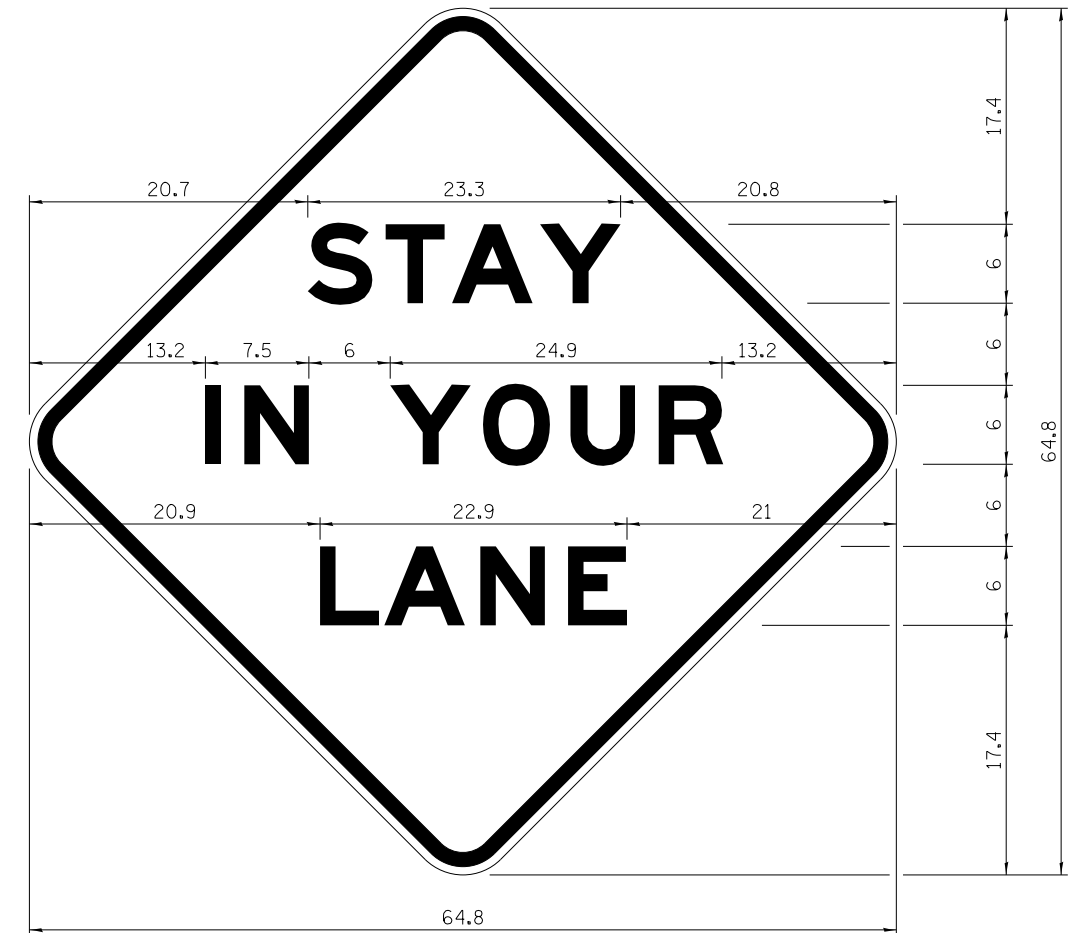
7.43	F	3.04	0.94	O	3.52	1.17	L	3.04	0.94	L	3.05	0.94	O	3.51	0.94	W	4.37
------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------

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

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

Sign not to scale

STAY IN YOUR LANE



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

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

Table of Letter and Object Lefts

S	T	A	Y
20.7	26.8	31.6	38.0

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

L	A	N	E
20.9	25.8	33.1	39.4

Sign not to scale

GENERAL NOTES

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

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

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

All dimensions are in inches unless otherwise noted.



USER NAME = dsilwo	DESIGNED -	REVISED - 3-02-16
PLOT SCALE = 1:20	DRAWN -	REVISED -
PLOT DATE = 8/16/2018	CHECKED -	REVISED -
	DATE -	REVISED -

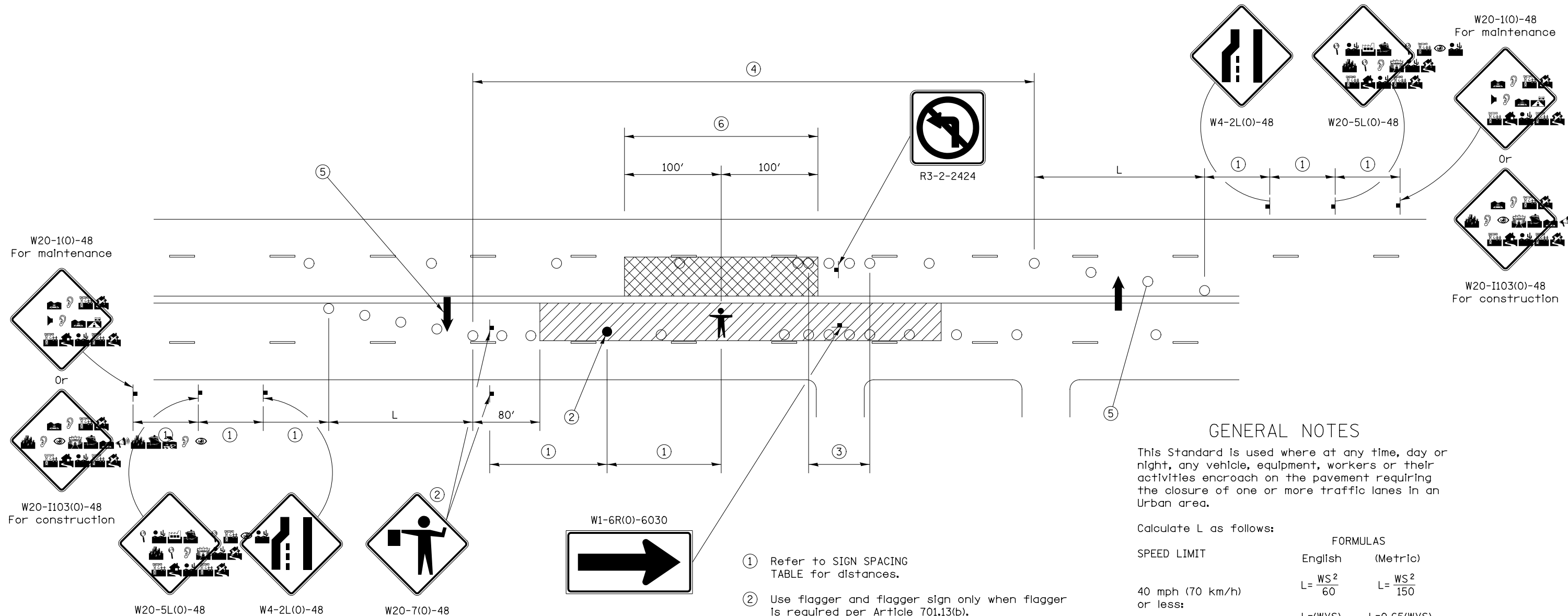
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

REGION 2 / DISTRICT 2 STANDARD

SCALE: SHEET NO. 10 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	545
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

URBAN LANE INSIDE CLOSURE, MULTILANE, 2-WAY, WITH MOUNTABLE MEDIAN



GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one or more traffic lanes in an Urban area.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L=(W)(S)$	$L=0.65(W)(S)$

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Lane closures in the opposite direction shall be removed when no workers are present.

Cones or reflectorized cones shall not be used during hours of darkness.

This Traffic Control detail shall be included in the cost of Traffic Control and Protection Standard 701606.

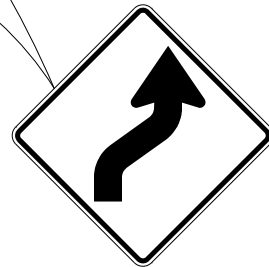
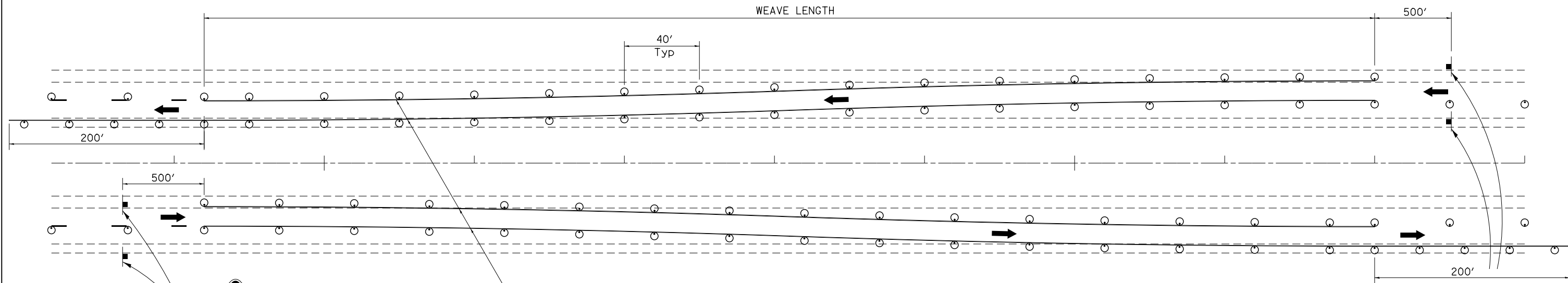
SYMBOLS

- WORK AREA
- CLOSED LANE
- ARROW BOARD
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- CONE, DRUM OR BARRICADE
- FLAGGER WITH TRAFFIC CONTROL SIGN.
- WORKER ON FOOT

SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

- ① Refer to SIGN SPACING TABLE for distances.
- ② Use flagger and flagger sign only when flagger is required per Article 701.13(b).
- ③ Devices at 10' centers from edge of radius return to edge of radius return when left turns are prohibited due to actively working in the intersection.
- ④ Cones at 20' (6 m) centers for 250' (75 m). Additional cones may be placed at 40' (12 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled (excluding devices in intersections).
- ⑤ Cones, drums or barricades at 20' (6 m) centers in taper.
- ⑥ No equipment, materials, vehicles, or other hazards are allowed in the closed lane in the opposite direction within 100' of a worker on foot.

TRAFFIC CONTROL TYPICAL WEAVE

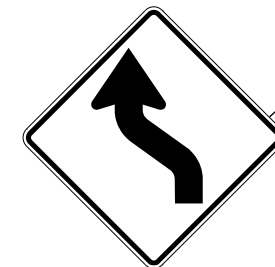


W1-4R(O)-48

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

SYMBOLS

- DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- SIGN



W1-4L(O)-48

GENERAL NOTES:

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

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

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

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

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

STANDARD WEAVE CONDITIONS FOR DIFFERENT SPEED LIMITS

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

KNIGHT
Engineers & Architects

USER NAME = dsiwo	DESIGNED -	REVISED - 1-05-16
	DRAWN -	REVISED - 6-27-14
PLOT SCALE = 1:20	CHECKED -	REVISED - 8-27-13
PLOT DATE = 8/16/2018	DATE -	REVISED - 10-17-11

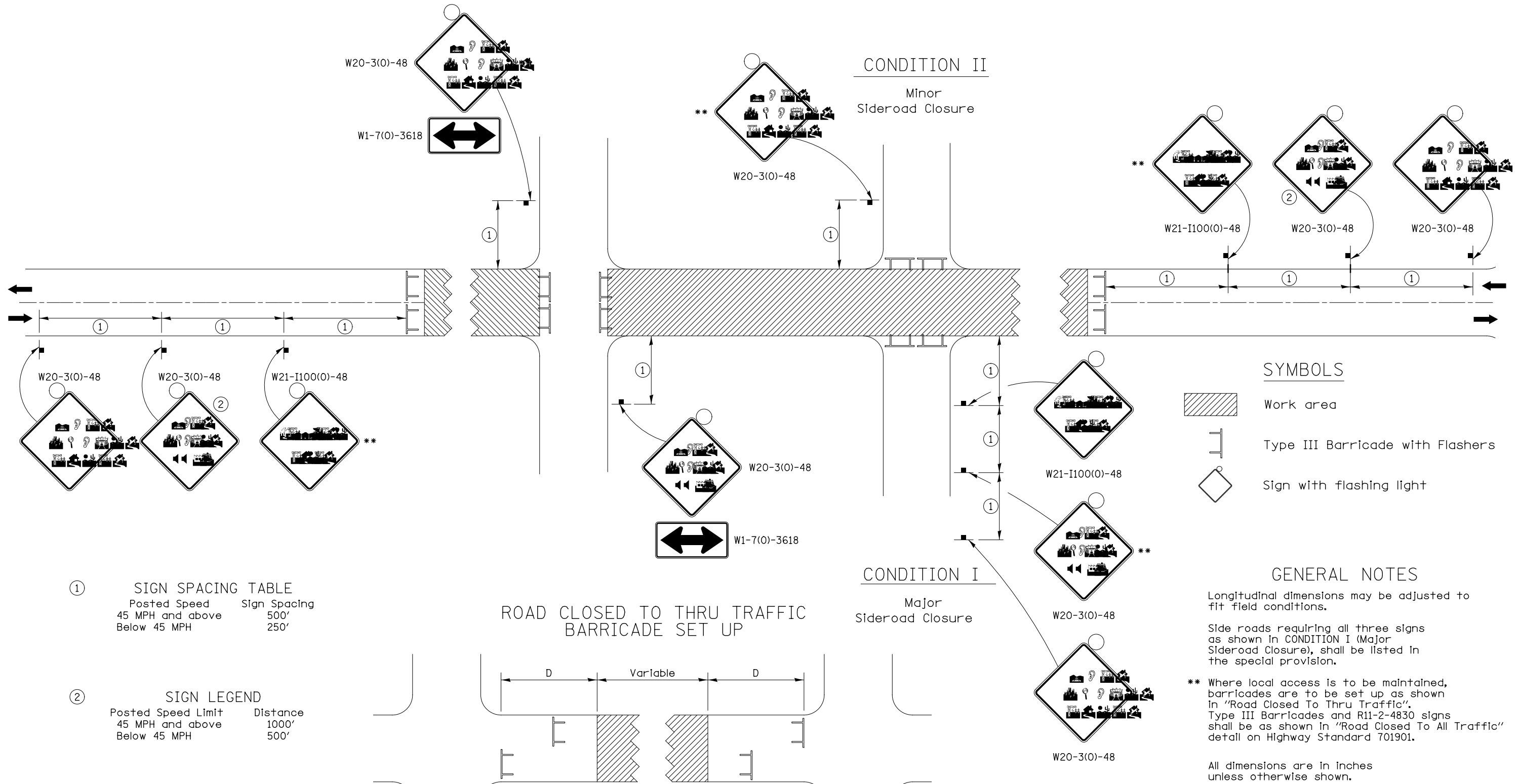
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: NONE SHEET NO. 12 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	547
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

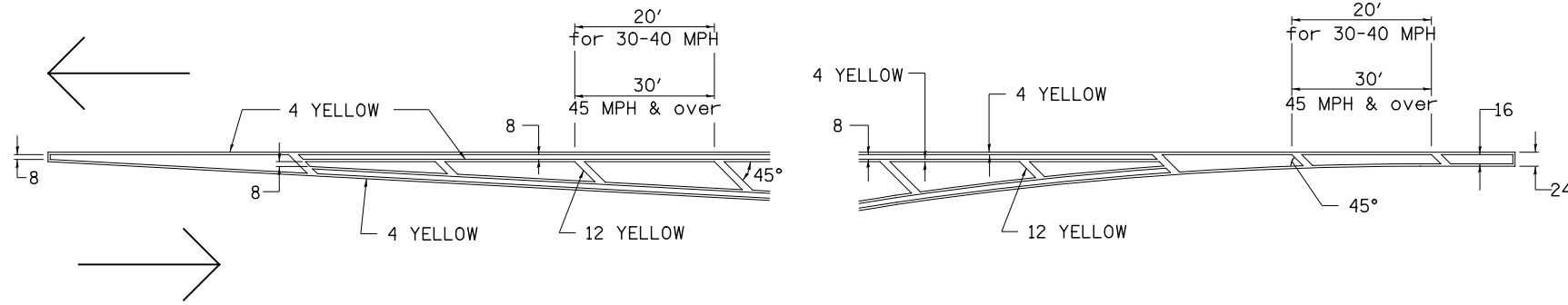
TRAFFIC CONTROL FOR ROAD CLOSURE



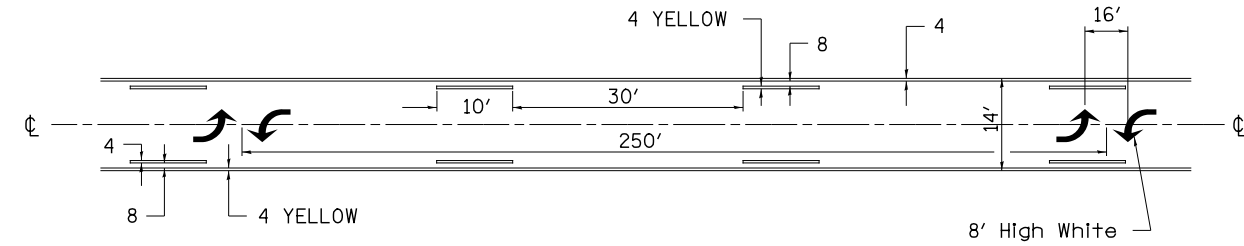
TYPICAL APPLICATION FOR ROAD CLOSURE

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

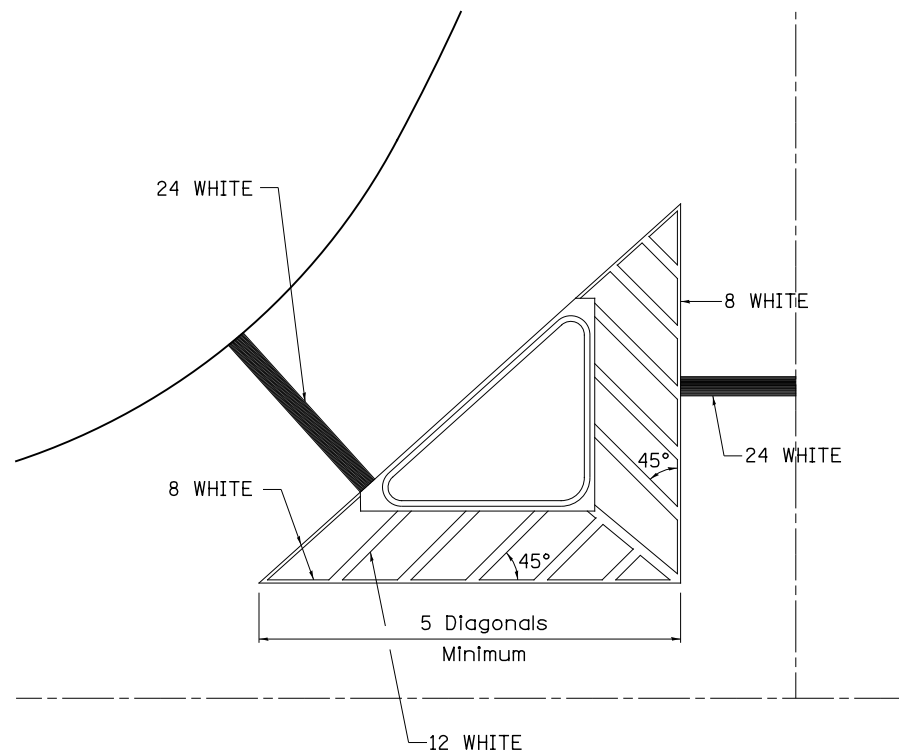


MEDIAN PAVEMENT MARKING



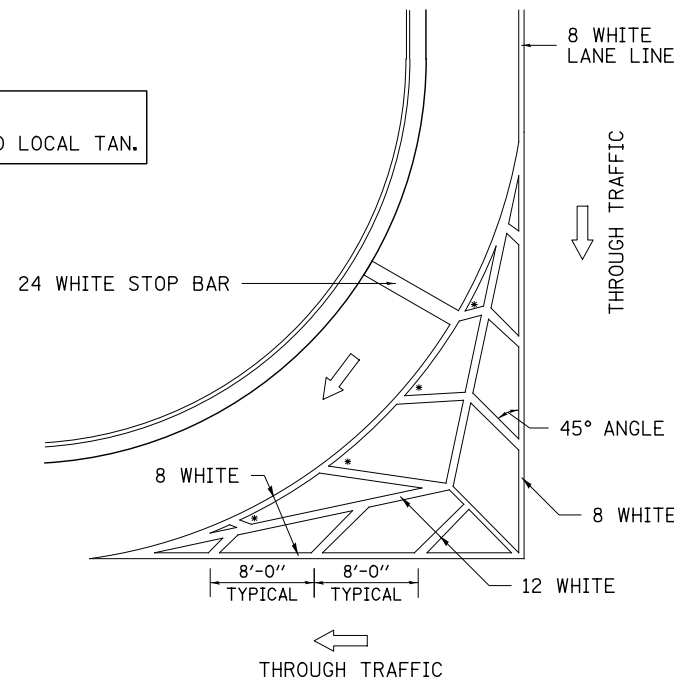
** ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

TYPICAL ISLAND OFFSET SHOULDER WIDTH



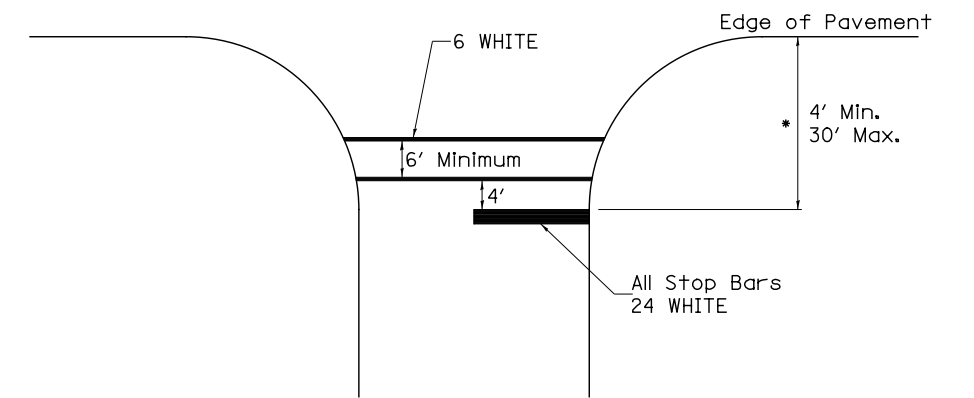
TYPICAL MARKING FOR PAINTED ISLANDS

NOTE:
* 45° TO LOCAL TAN.



STANDARD CROSSWALK MARKING

See Schedules for Locations



* Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

KNIGHT
Engineers & Architects

USER NAME = dsiwo
PLOT SCALE = 1:20
PLOT DATE = 8/16/2018

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED - 6-27-14
REVISED - 3-05-12
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

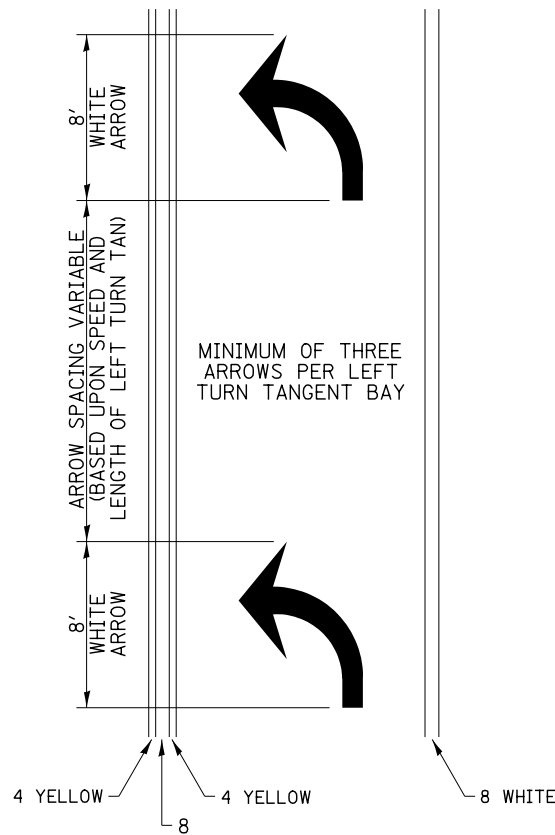
SCALE: NONE SHEET NO. 14 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	549
CONTRACT NO. 64B87				

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

TYPICAL PAVEMENT MARKINGS

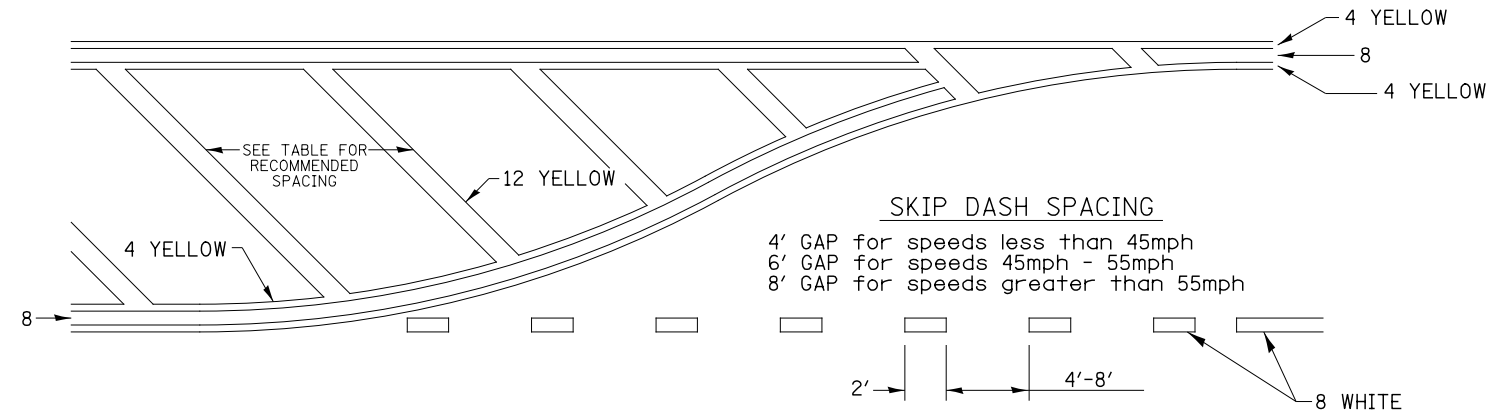
ARROW LAYOUT



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

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

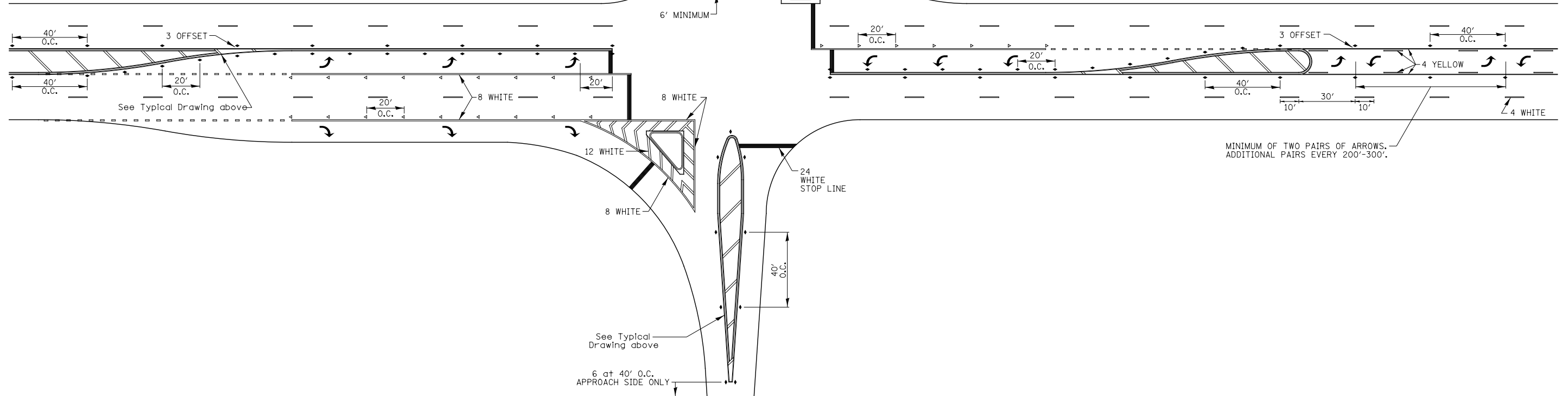
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

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

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



KNIGHT
Engineers & Architects

USER NAME = dsiwo	DESIGNED -	REVISED - 6-27-14
	DRAWN -	REVISED - 3-05-12
PLOT SCALE = 1:20	CHECKED -	REVISED -
PLOT DATE = 8/16/2018	DATE -	REVISED -

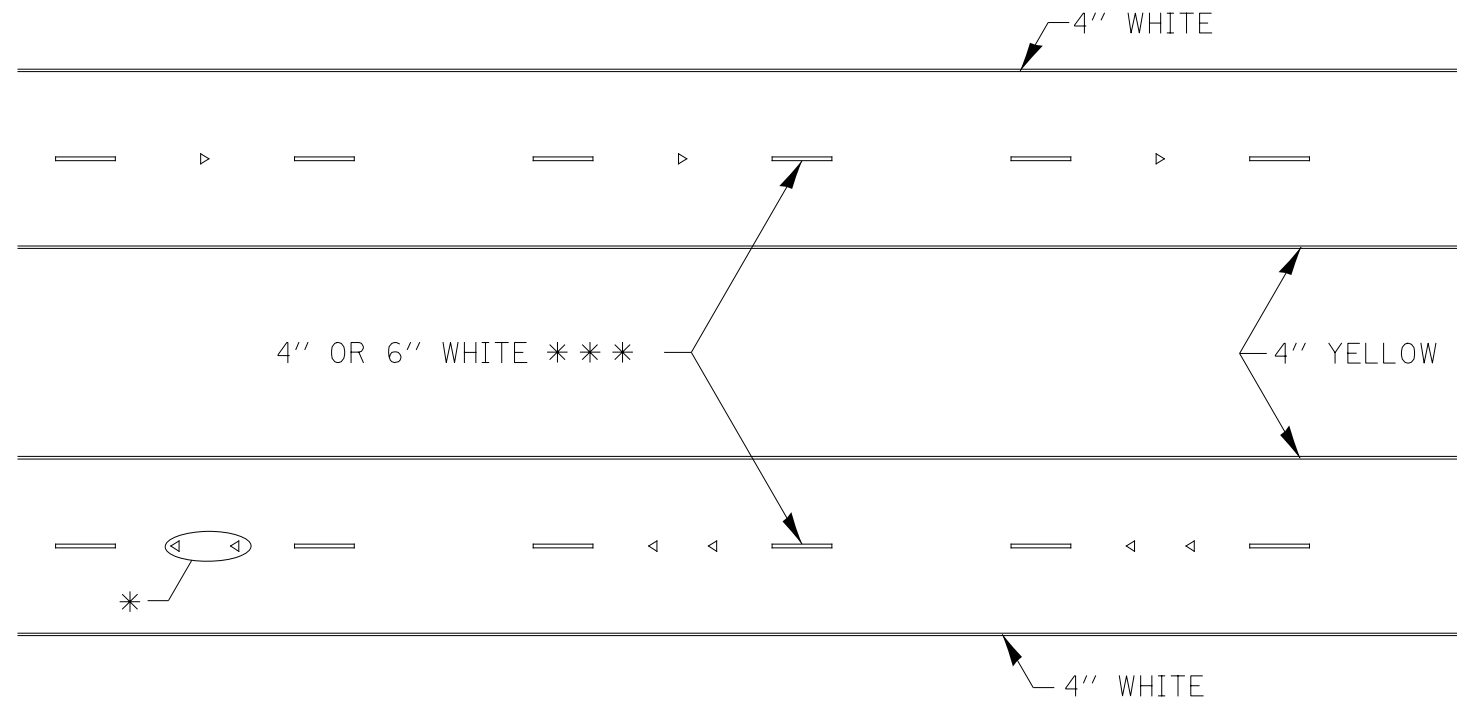
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: NONE SHEET NO. 15 OF 25 SHEETS STA. TO STA.

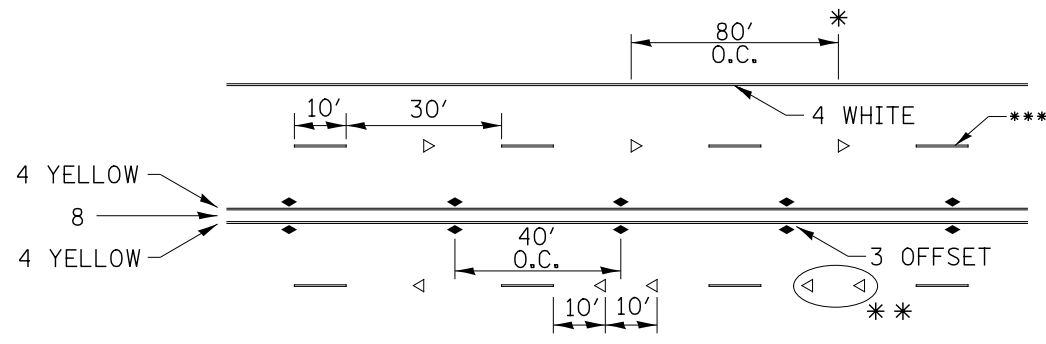
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	550
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

TYPICAL PAVEMENT MARKINGS



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

MULTI-LANE / DIVIDED



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

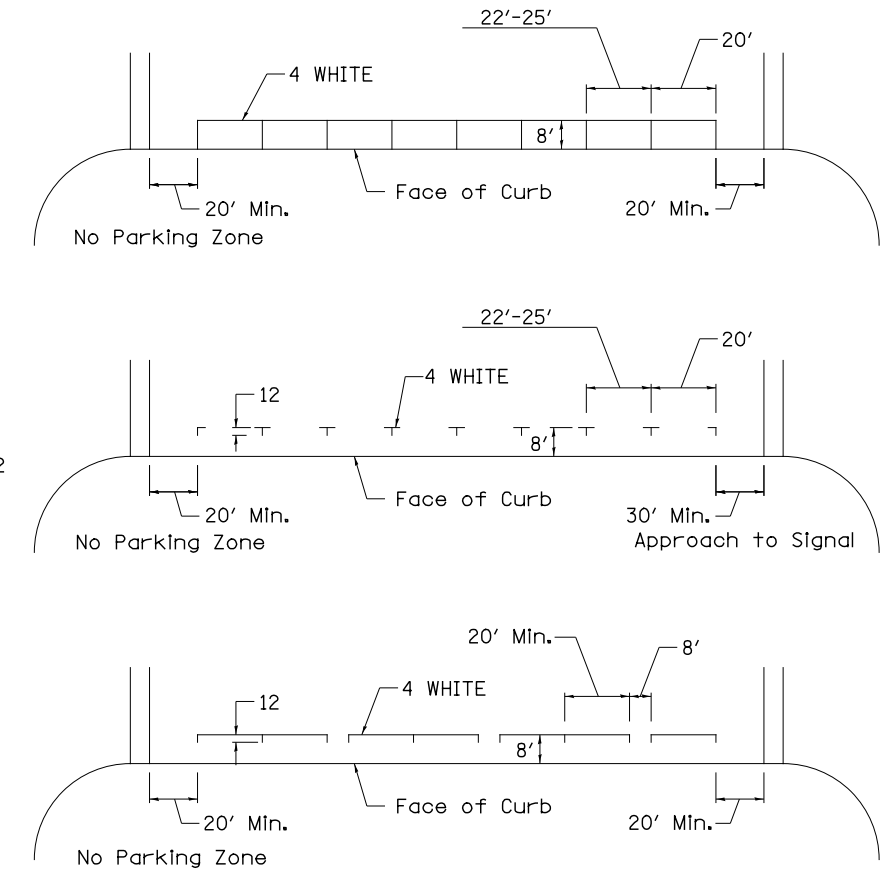
** USE DOUBLE MARKERS WHEN ADT ≥ 20,000

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

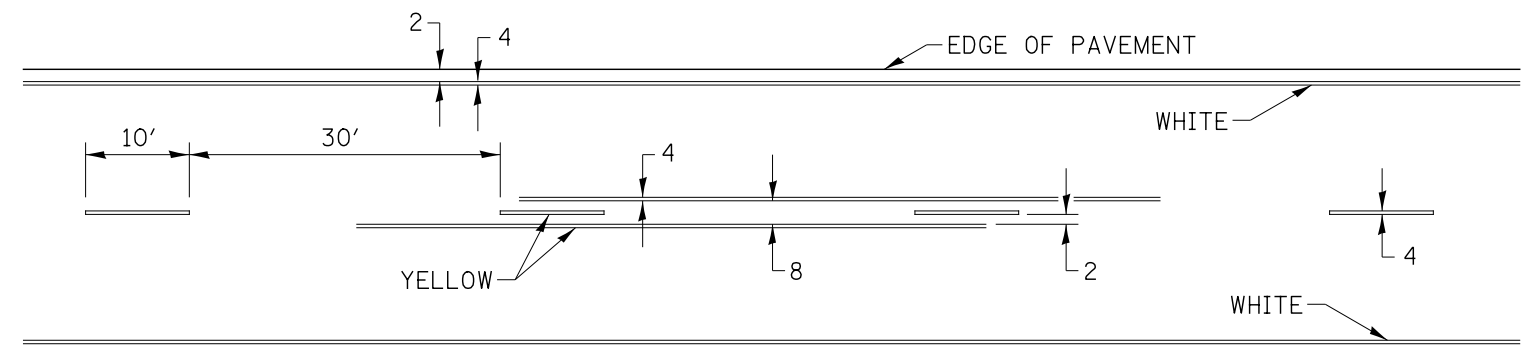
MULTI-LANE / UNDIVIDED & ONE WAY

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

TYPICAL PARKING SPACING



TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES



SYMBOLS

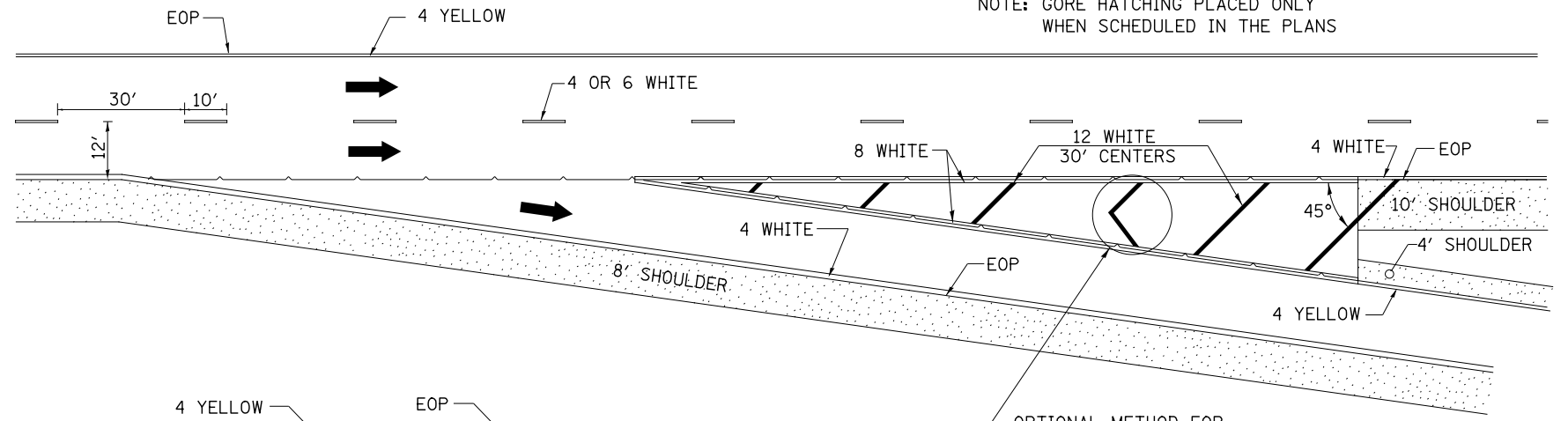
KNIGHT Engineers & Architects	USER NAME = dsilwo	DESIGNED -	REVISED - 6-27-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD	F.A.P. RTE. = 742	SECTION = 3HBR	COUNTY = WINNEBAGO	TOTAL SHEETS = 689	SHEET NO. = 551
	PLOT SCALE = 1:20	DRAWN -	REVISED - 8-27-13			SCALE: NONE	SHEET NO. 16 OF 25 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. =	ILLINOIS FED. AID PROJECT
	PLOT DATE = 8/16/2018	CHECKED -	REVISED - 11-28-12							
		DATE -	REVISED -							

PAINING DETAILS

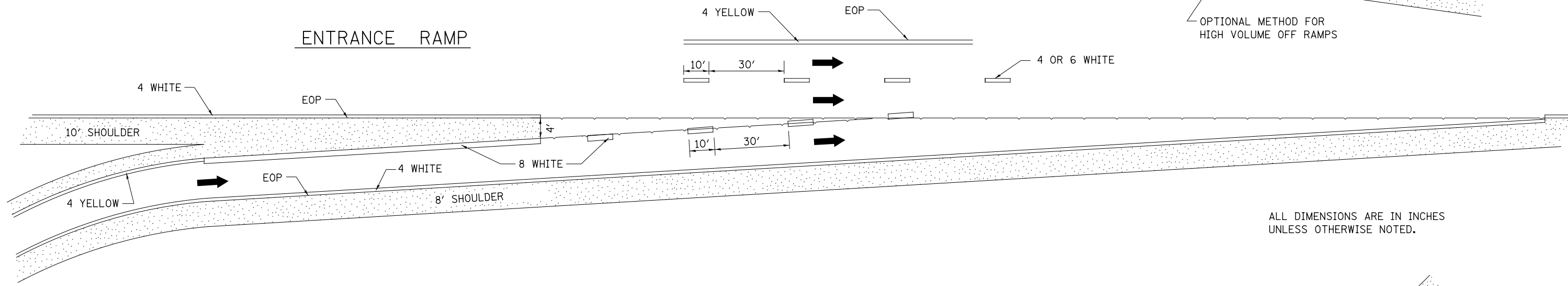
EXIT RAMP

NOTE: GORE HATCHING PLACED ONLY WHEN SCHEDULED IN THE PLANS

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

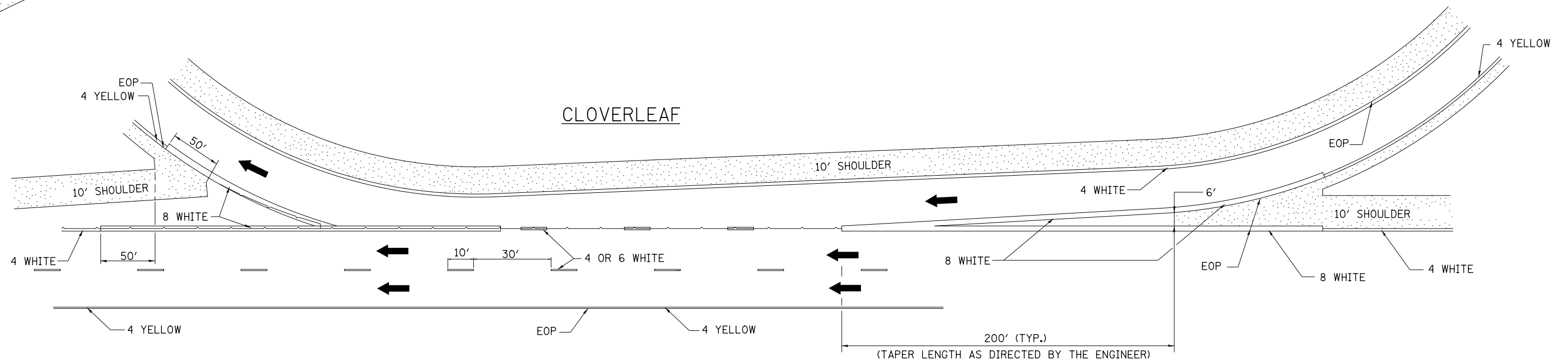


ENTRANCE RAMP



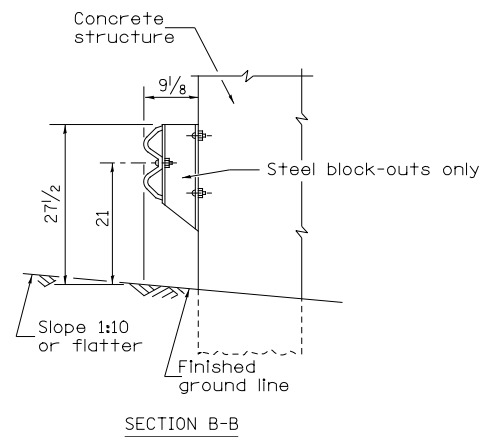
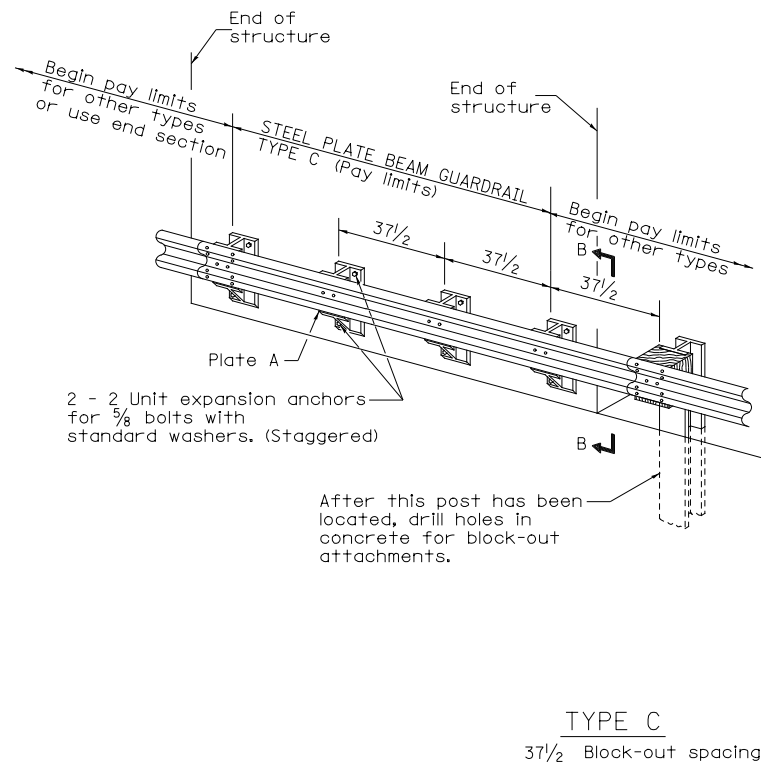
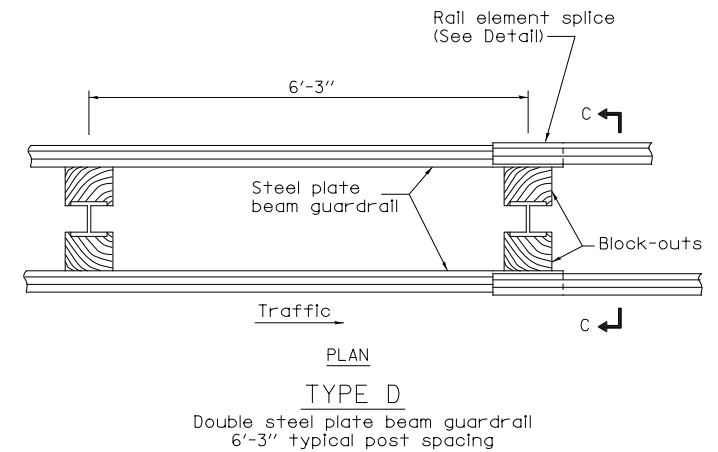
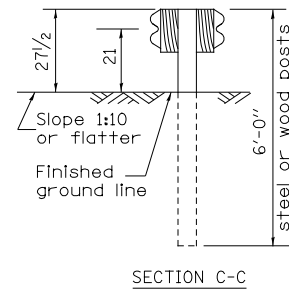
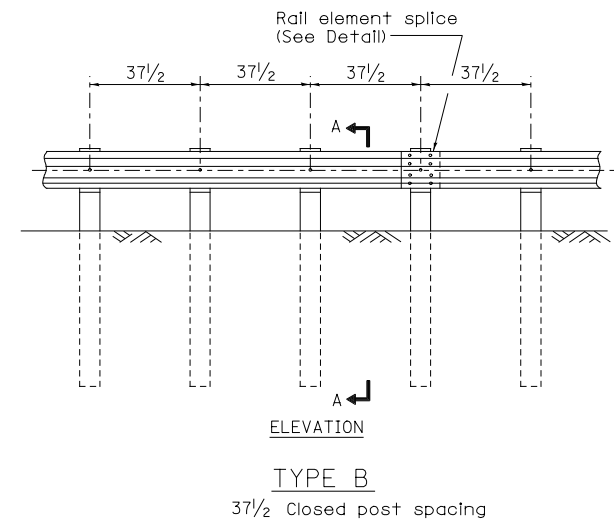
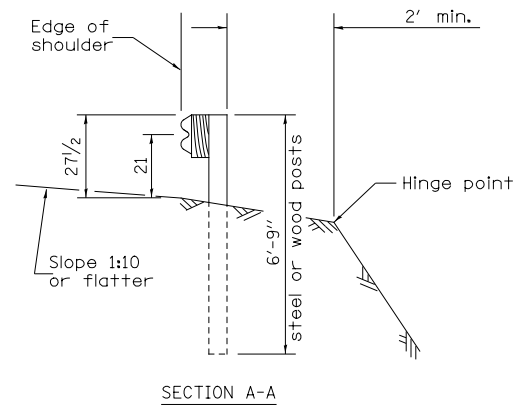
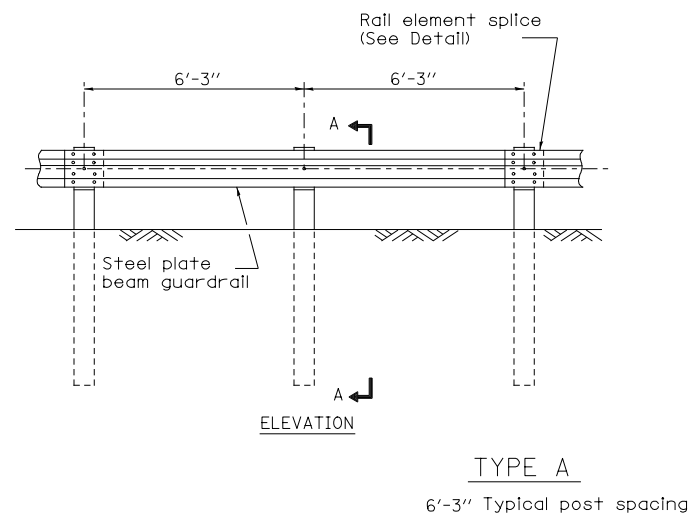
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

CLOVERLEAF



KNIGHT Engineers & Architects	USER NAME = dsiwo	DESIGNED -	REVISED - 8-27-13	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD		F.A.P. RTE. = 742	SECTION = 3HBR	COUNTY = WINNEBAGO	TOTAL SHEETS = 689	SHEET NO. = 552	
	PLOT SCALE = 1:20	DRAWN -	REVISED - 10-18-11				SCALE: NONE	SHEET NO. 17 OF 25 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT		CONTRACT NO. 64B87
	PLOT DATE = 8/16/2018	CHECKED -	REVISED -				(TAPER LENGTH AS DIRECTED BY THE ENGINEER)		FEDERAL ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL



GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches unless otherwise shown.

The existing steel posts may be drilled to match the bolt pattern shown herein for the wood block-out, or a new steel post shall be provided.

This detail is applicable to the guardrail system used prior to January 1, 2007. For details on the Midwest Guardrail System, see Standard 630001.

KNIGHT
Engineers & Architects

USER NAME = dsilwo	DESIGNED -	REVISED - 1-05-16
PLOT SCALE = 1:20	DRAWN -	REVISED - 10-18-11
PLOT DATE = 8/16/2018	CHECKED -	REVISED -
	DATE -	REVISED -

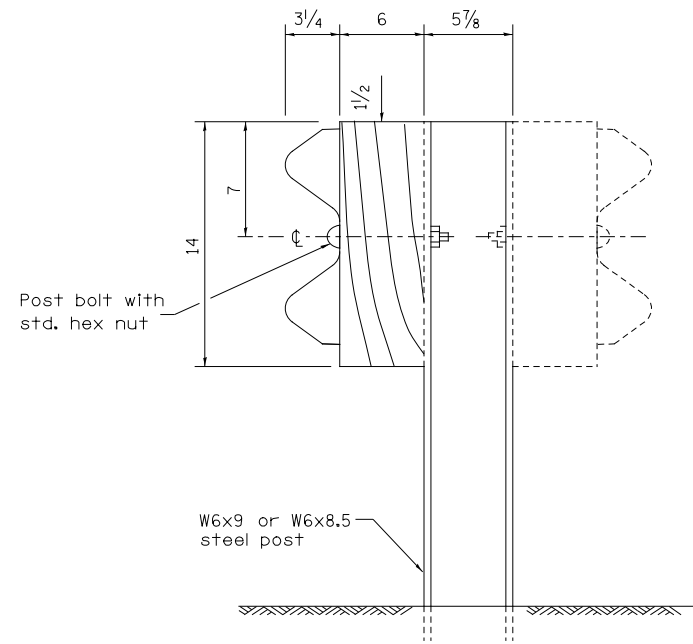
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

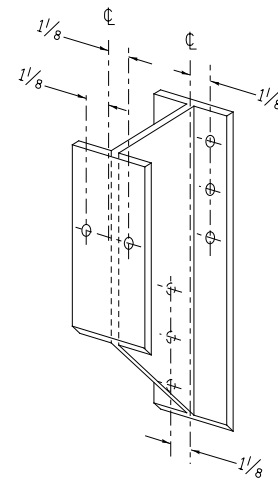
SCALE: SHEET NO. 18 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	553
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

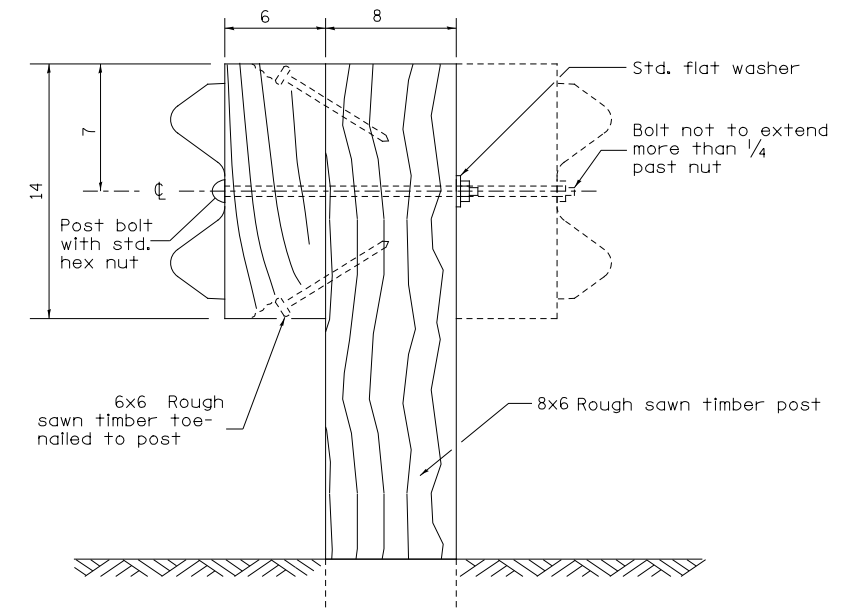
REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL



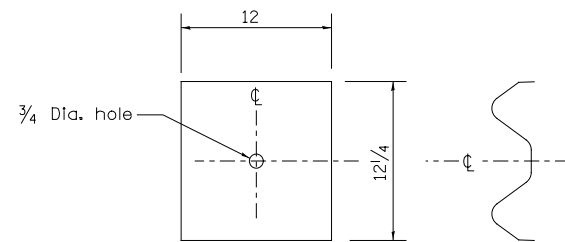
STEEL POST CONSTRUCTION



STEEL BLOCK-OUT DETAIL



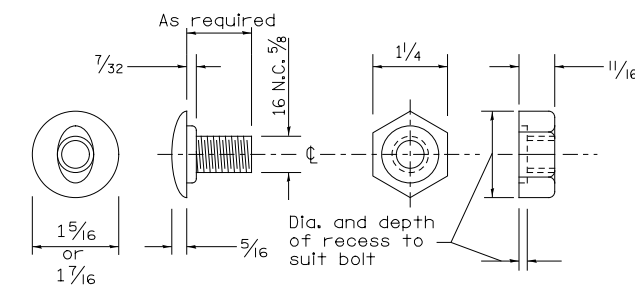
WOOD POST CONSTRUCTION



NOTE

Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

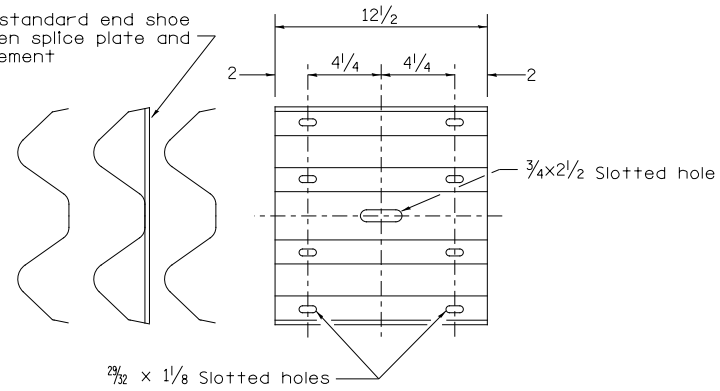
PLATE A



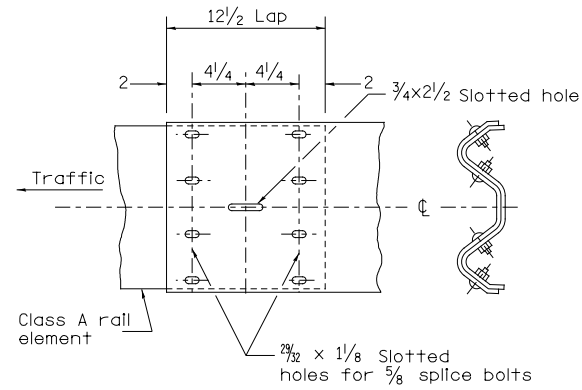
POST OR SPLICE BOLT & NUT

REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

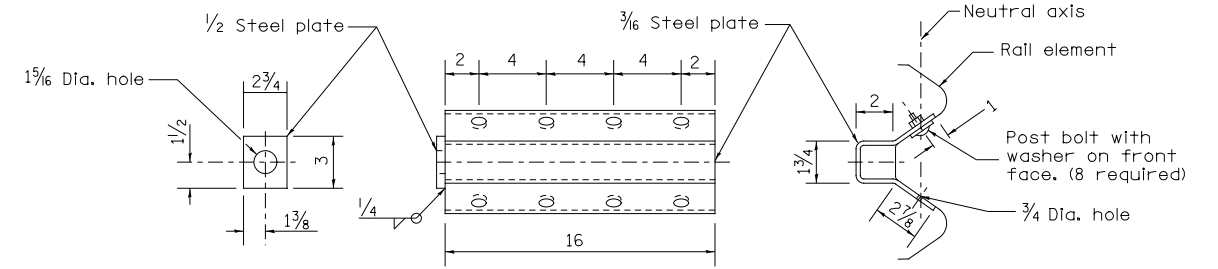
Place standard end shoe between splice plate and rail element



SPLICE PLATE



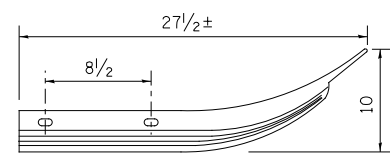
RAIL ELEMENT SPLICE



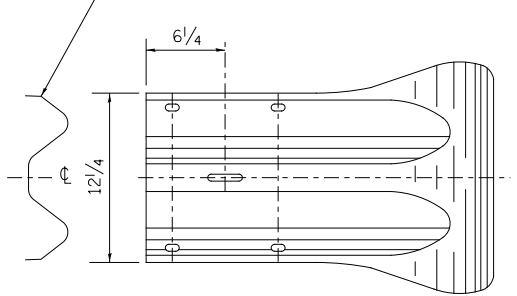
NOTE

Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

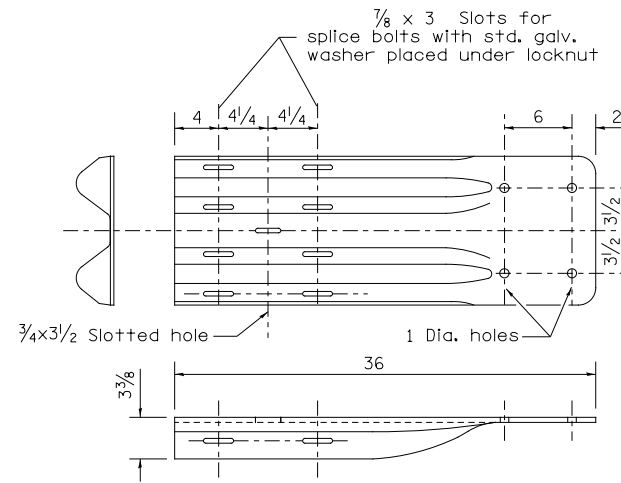
ANCHOR PLATE T DETAILS



Class A rail element



END SECTION



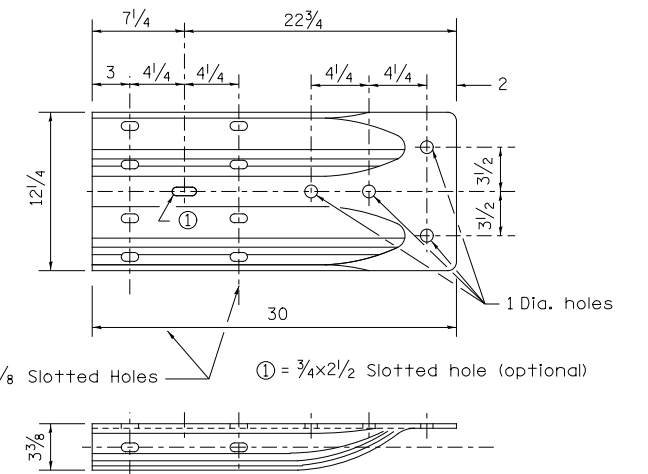
NOTE

When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

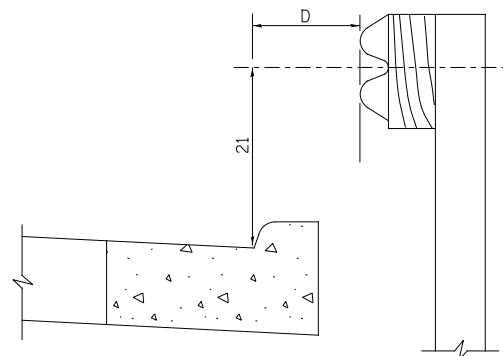
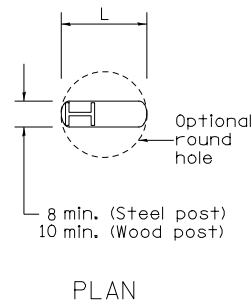
Externally threaded studs protruding from the surface of the concrete will not be permitted.

END SHOE



ALTERNATE END SHOE

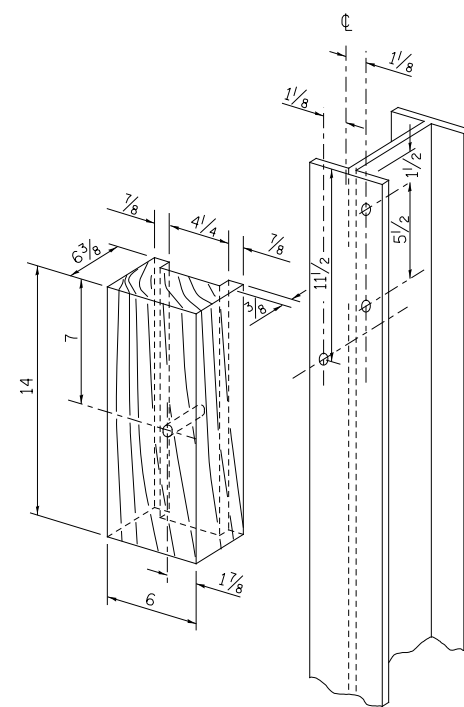
REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL



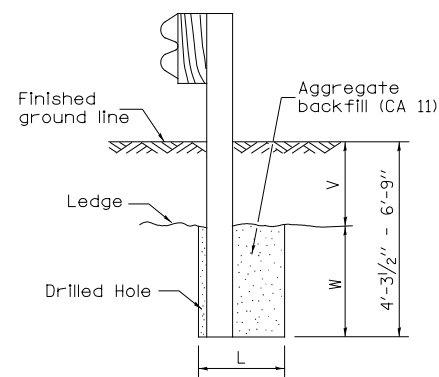
Note:
If it is necessary for D to be more than 12 and less than 10'-0" type M-2 curb and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

GUARDRAIL PLACED BEHIND CURB

(D = 0 desirable to 12 maximum)



WOOD BLOCK-OUT AND STEEL POST DETAILS

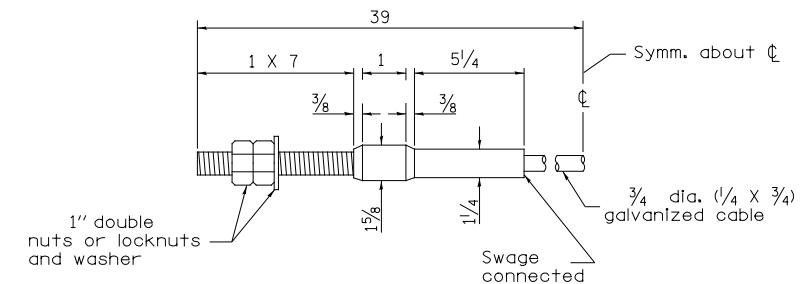


Note:
Ledge line is top of rock ledge or hard slag fill.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

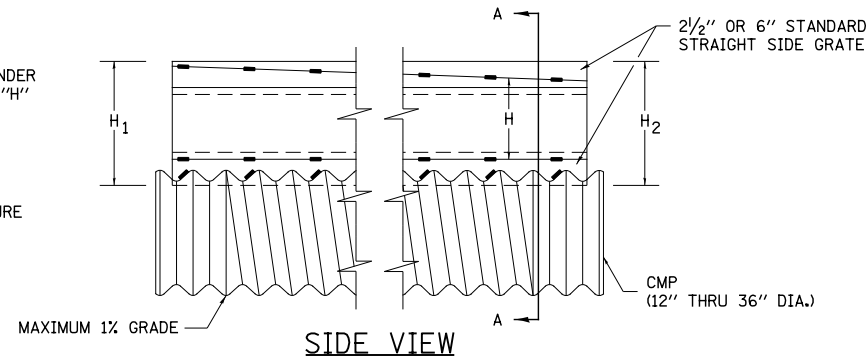
V	W	L	
		Steel Post	Wood Post
0 - 18	24	21	23
>18 - 41.5	12	8	10
>41.5 - 53.5	12 - 0	8	10



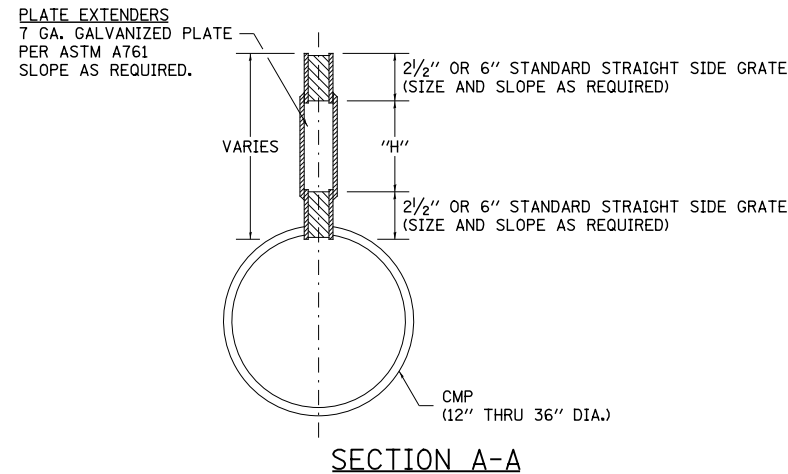
CABLE ASSEMBLY
(40,000 lbs. min. breaking strength)
Tighten to fault tension.

SLOTTED DRAIN PIPE

LOADING CONDITION
 MAX. EXTENDER HEIGHT - "H"
 H20/H25
 • 750 PSI CONCRETE
 • 125 PSI TIRE PRESSURE



DETAIL WITH VARIABLE HEIGHT GRATE



SECTION A-A

GENERAL

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

CONNECTIONS

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

GRATES

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

GALVANIZING

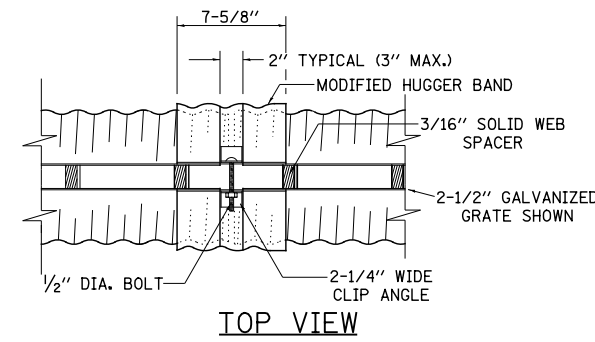
The grate and plate extenders shall be galvanized in accordance with ASTM A123 except with a 2 oz. galvanized coating.

GRATE ATTACHED TO CSP

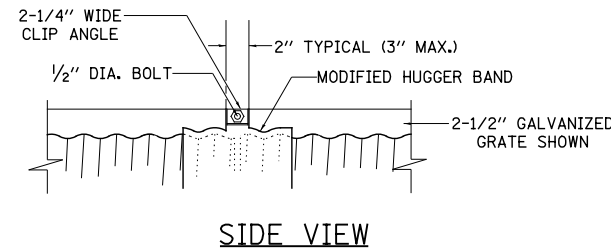
The grate shall be fillet welded with a minimum weld 1" long to the CSP on each side of the grate at every other corrugation.

TOLERANCES - FINISHED SLOTTED DRAIN - 20' LENGTHS

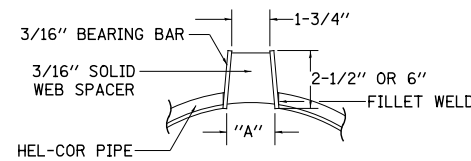
Vertical Bow = ± 3/8"
 Horizontal Bow = ± 5/8"
 Twist = ± 1/2"



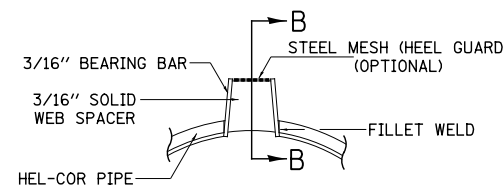
TOP VIEW



SIDE VIEW



SECTION A-A STANDARD DETAIL



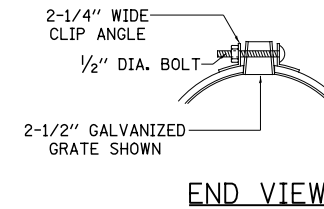
SECTION A-A DETAIL WITH MESH (TRAPEZOIDAL GALVANIZED GRATE SHOWN)

STANDARD SIZES

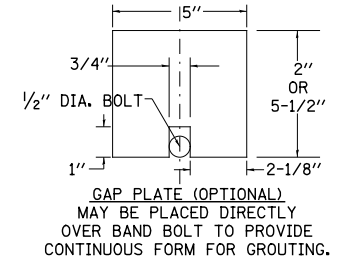
GAGE OF PIPE	DIAMETER OF PIPE						GRATE TYPE	"A"
	12"	15"	18"	24"	30"	36"		
16	X	X	X	X	X	X	VERT 2-1/2"	1-3/4"
14	X	X	X	X	X	X	VERT 6"	1-3/4"
12	N.A.	N.A.	N.A.	N.A.	X	X	TRAP 2-1/2"	2-1/4"
							TRAP 6"	3"

SLOTTED DRAIN NOTES

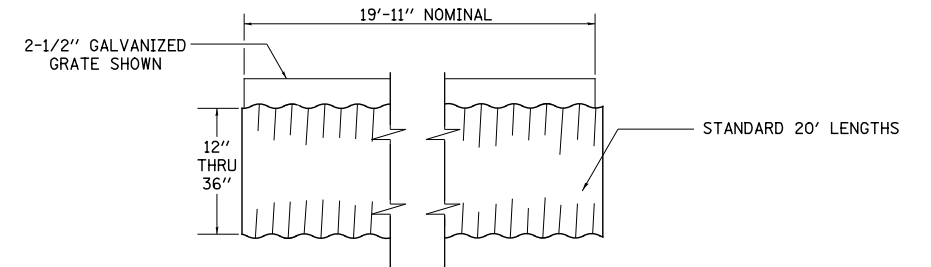
- GRATING IS AVAILABLE IN DEPTHS OF 2-1/2" AND 6".
- VERTICAL GRATING (STRAIGHT SIDES) WITH VERTICAL SPACERS IS ALSO AVAILABLE.
- FOR 6" VERTICAL & TRAPZOIDAL REQUIREMENTS, THE SLOTTED DRAIN BAND MAY BE FURNISHED WITH THE 4" TECHCO BAND ANGLE.
- DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- DIMENSIONS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



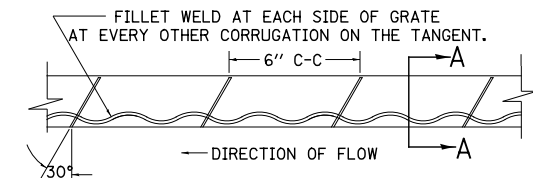
END VIEW



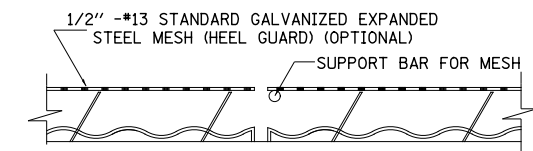
GAP PLATE (OPTIONAL) MAY BE PLACED DIRECTLY OVER BAND BOLT TO PROVIDE CONTINUOUS FORM FOR GROUTING.



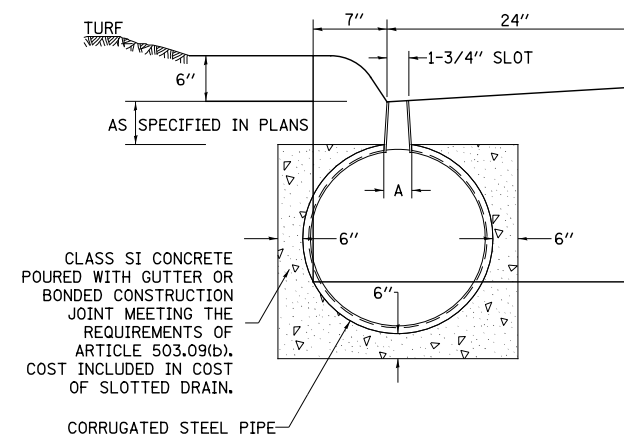
TYPICAL PIPE SECTION



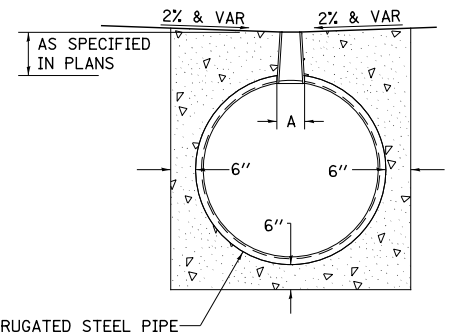
GRATE WELDING DETAIL



SECTION B-B



DETAIL FOR CURB & GUTTER



DETAIL FOR CROSSOVERS, DRIVEWAYS, OR PARKING LOTS

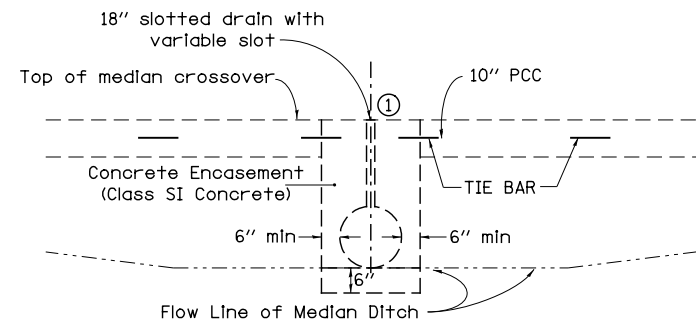
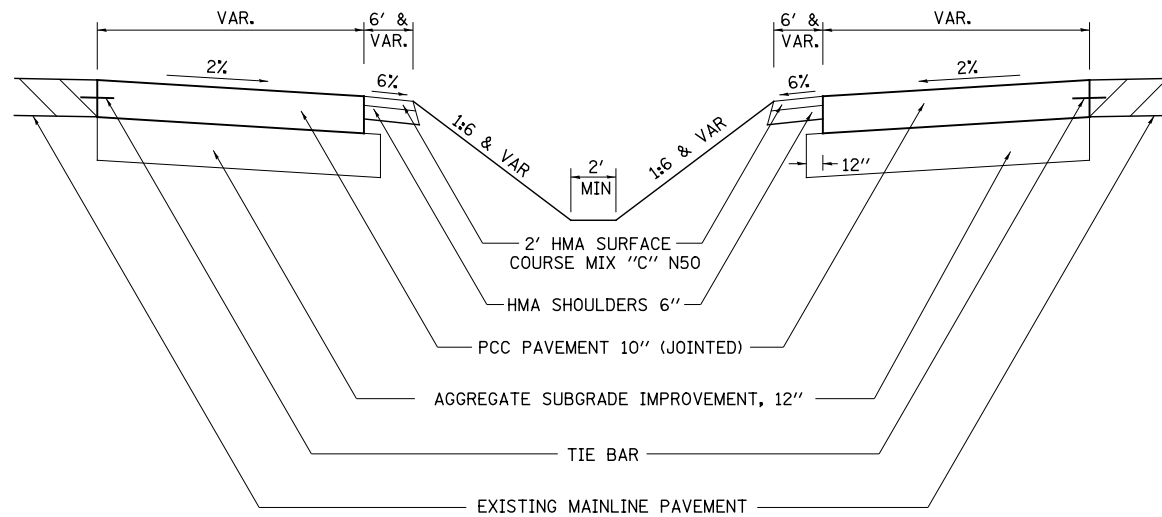
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

KNIGHT Engineers & Architects	USER NAME = dsilwo	DESIGNED -	REVISED - 1-05-16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD	F.A.P. RTE. = 742	SECTION = 3HBR	TOTAL SHEETS = 689	SHEET NO. = 557
	PLOT SCALE = 1:20	CHECKED -	REVISED - 6-27-14			CONTRACT NO. = 64B87			
	PLOT DATE = 8/16/2018	DATE -	REVISED - 10-18-11		SCALE:	SHEET NO. 22 OF 25 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

40' TWO LANE MEDIAN CROSSOVER

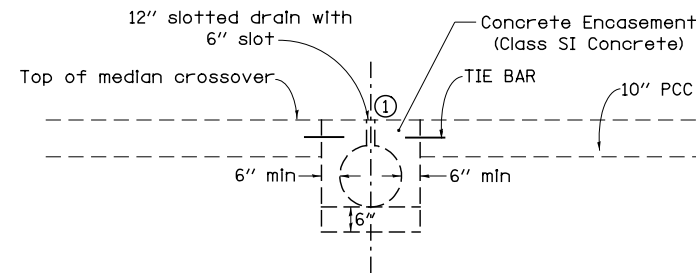
TYPICAL SECTION (POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH)

GENERAL NOTES



SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



① Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A

(WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

Construction of median crossover shall conform to the requirement of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(2142.56 Sq. Yds.)	AGGREGATE SUBGRADE IMPROVEMENT, 12"
(2003.87 Sq. Yds.)	P. C. C. PAVEMENT 10" (JOINTED)
(71.01 Tons)	2" HMA SURFACE COURSE, MIX "C", N50
(634.04 Sq. Yds.)	HMA SHOULDERS 6"

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

See District Standard 86.1 for details for the beveled pipe & guard.

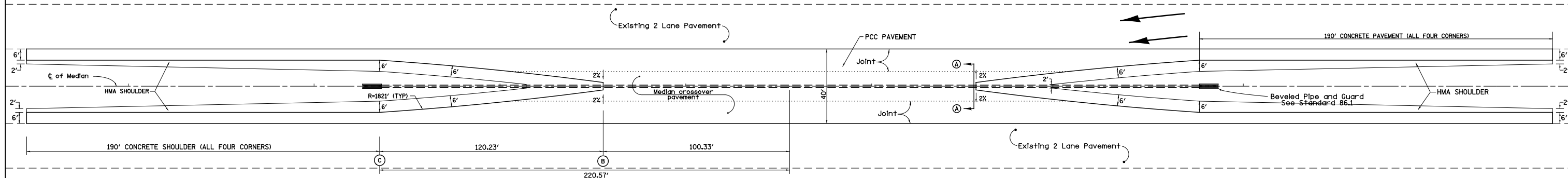
The crossover is designed using a 55mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (JOINTED) shall be tied to adjacent existing concrete pavement and the concrete encasement for the slotted drain. The tie bars shall be No. 6 bars 24" long @ 30" cts, and installed according to the applicable portions of Article 420.05(b) of the Standard Specifications. The cost of the bars to be included in the cost of the PCC Pavement 10" (JOINTED).

Distance feet from location station	0	100.33'	125'	150'	175'	200'	220.57'
Offsets feet from inside edge of pavement	20'	18'	14.88'	12.07'	9.60'	7.48'	6.00'
Drop feet from inside edge of pavement	0.40'	0.36'	0.30'	0.24'	0.19'	0.15'	0.12'



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6' from edge of pavement). The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinal joints shall be sawed at a max 12' width. All joints shall be sealed.

TRAFFIC CONTROL STANDARD 701416 IS TO BE USED WITH THIS DETAIL

KNIGHT Engineers & Architects	USER NAME = dsiwo	DESIGNED -	REVISED - 1-05-16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD		F.A.P. RTE. 742	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 558
	PLOT SCALE = 1:20	CHECKED -	REVISED - 6-27-14		REVISED - 8-27-13	SCALE:	SHEET NO. 23 OF 25 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 64B87
	PLOT DATE = 8/16/2018	DATE -	REVISED - 4-04-11								

BEVELED PIPE & GUARD DETAIL FOR MEDIAN CROSSOVER

GENERAL NOTES:

Details shown hereon are for the construction of beveled pipe and guard. Alternate designs, methods of construction or materials may be submitted to the Engineer for approval. All methods of construction and materials involved shall conform to current Standard Specifications.

Reinforcing steel used in construction of "Beveled Pipe and Guard" shall be deformed bars meeting the requirements of Article 1006.10 of the Standard Specifications. All steel bars shall be hot-dip galvanized in accordance with ASTM A 123 specifications.

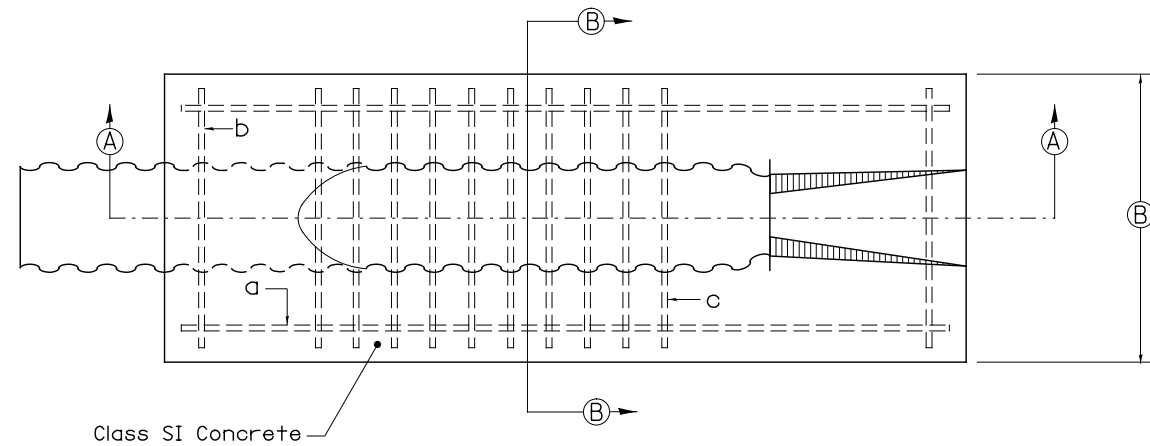
Concrete used in construction of the beveled pipe and guard shall be Class "SI" Concrete.

The corrugated metal pipe shall be cut to fit the 1:8 foreslope. Slots shall be cut into the C.M.P. for placement of the 'b' and 'c' bars. After the foreslope has been placed, the 'b' and 'c' bars shall be fitted into the slots cut in the C.M.P. so they will be in proper position when the concrete collar is poured.

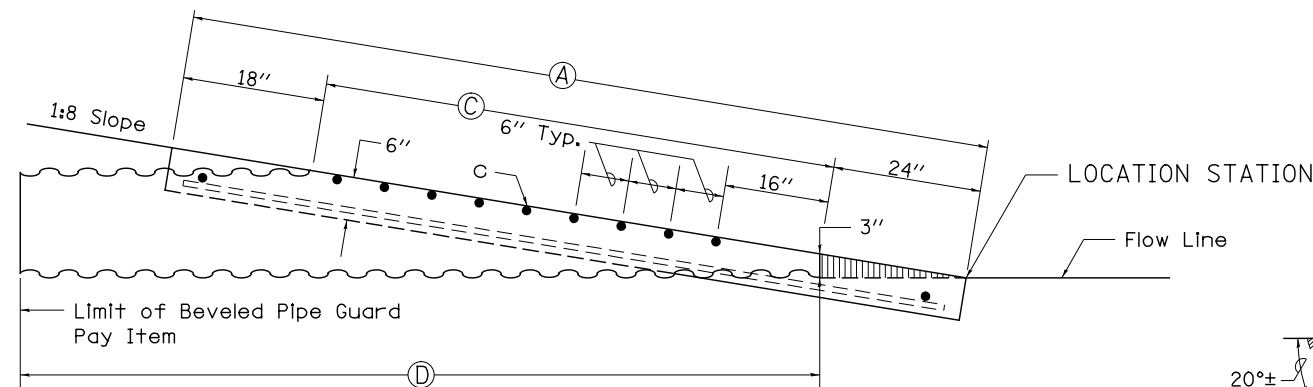
This work shall be paid for at the contract unit price per Each for "Beveled Pipe and Guard", as shown hereon and as directed by the Engineer.

12 PIPE REINFORCING SCHEDULE			
Mark Req'd	Bar Size	Length	No.
a	5	110	2
b	5	32	2
c	8	34	10

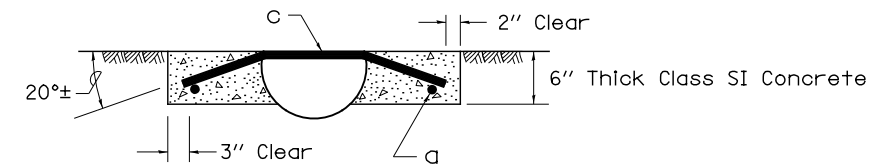
18 PIPE REINFORCING SCHEDULE			
Mark Req'd	Bar Size	Length	No.
a	5	162	2
b	5	38	2
c	8	40	18



PLAN VIEW



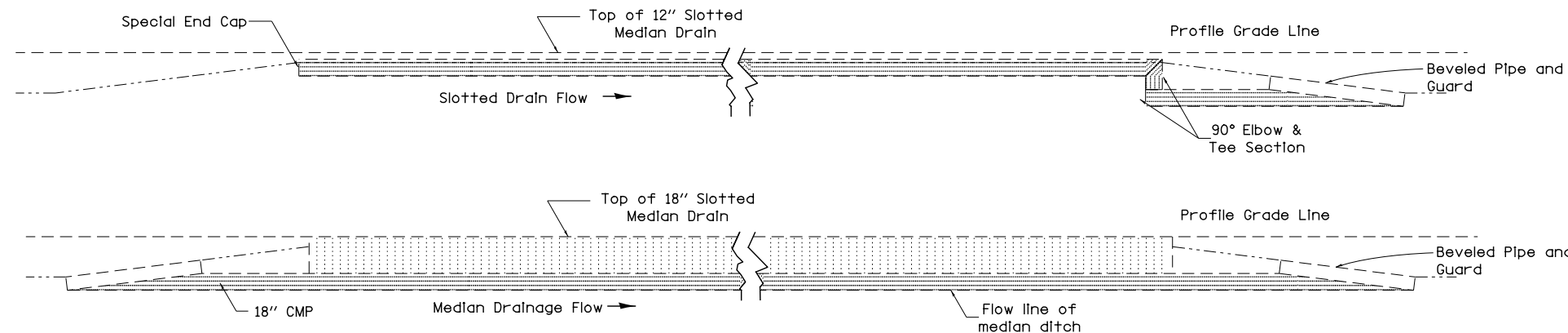
SECTION A-A



SECTION B-B

TABLE OF DIMENSIONS				
PIPE SIZE	A	B	C	D
12	9'-6"	36	6'	10'
18	13'-10"	42	10'-4"	14'-10"

TYPICAL SECTION THRU CENTERLINE OF MEDIAN CROSSOVER



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

KNIGHT
Engineers & Architects

USER NAME = dsilvo	DESIGNED -	REVISED - 5-27-09
PLOT SCALE = 1:20	DRAWN -	REVISED -
PLOT DATE = 8/16/2018	CHECKED -	REVISED -
	DATE -	REVISED -

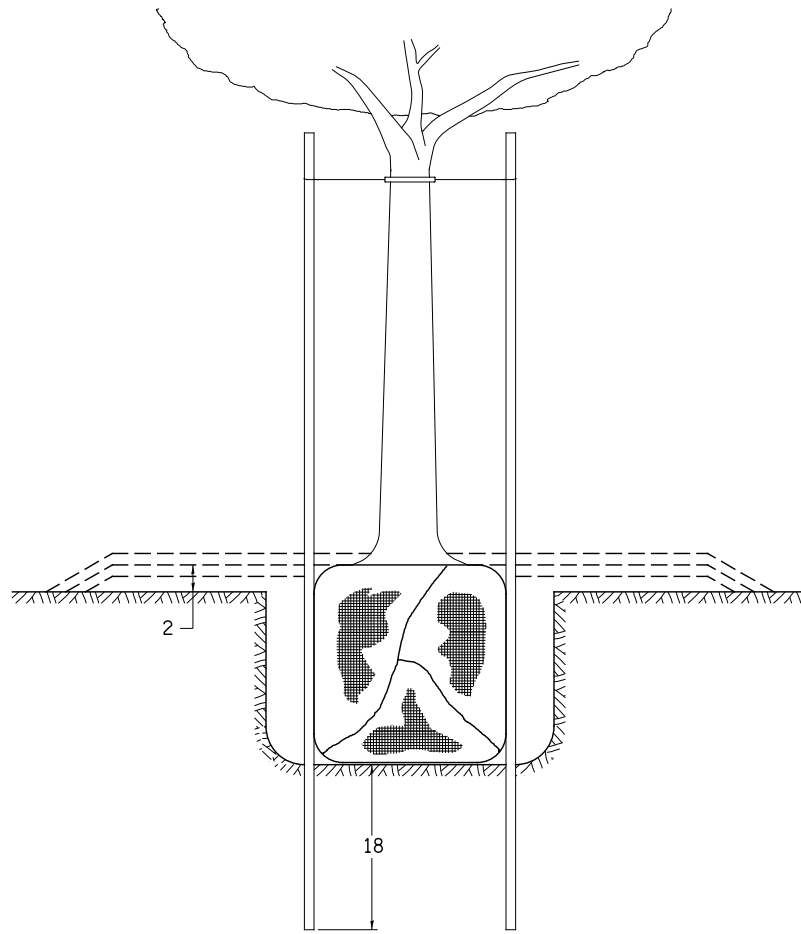
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

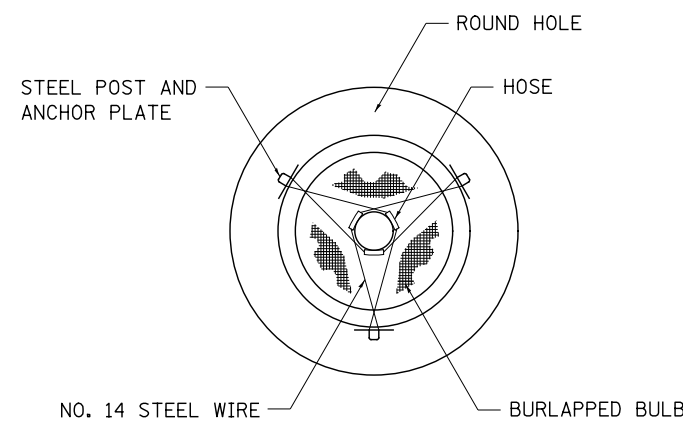
SCALE: NONE SHEET NO. 24 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	559
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

DETAILS OF PLANTING AND BRACING TREES

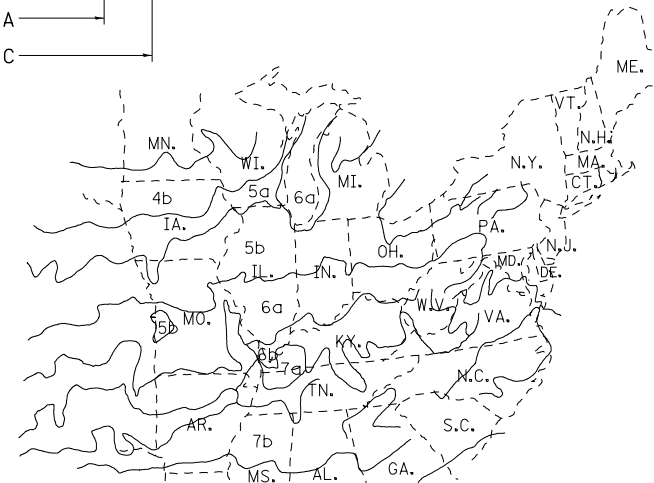
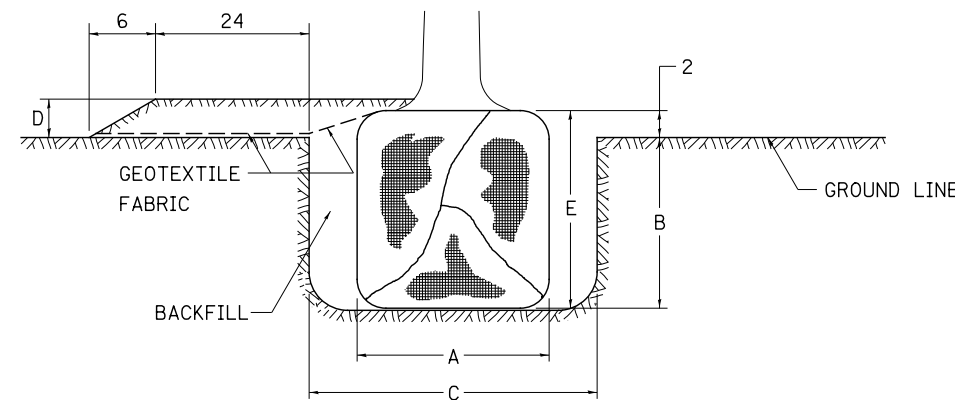


TREES SMALLER THAN 4 1/2 IN DIAMETER



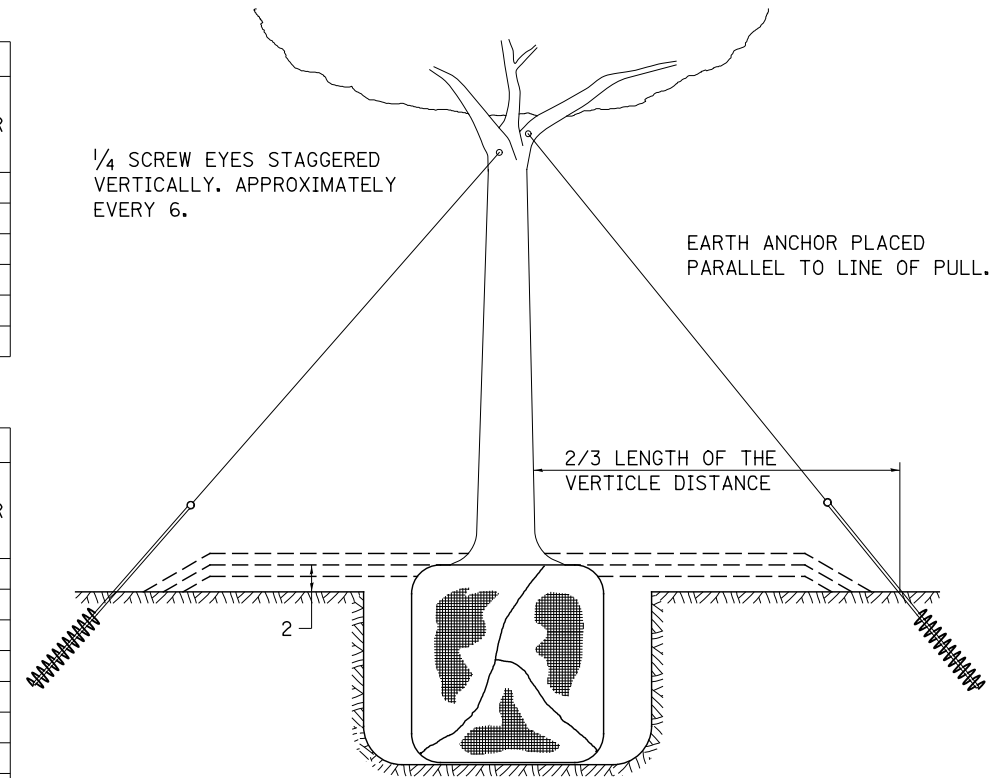
SMALL	A	B	C	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER CU. YDS.
5'-6'	16	10	30	4	12	0.54
5'-6' BB	16	10	30	4	12	0.54
6'-7' BB	18	12	30	4	14	0.54
7'-8' BB	20	11	30	4	13	0.54
8'-10' BB	24	14	36	4	16	0.61
10'-12' BB	26	15	36	4	17	0.61

LARGE	A	B	C	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER CU. YDS.
0-2	20	11	36	4	13	0.61
2-2 1/2 BB	24	14	48	4	16	0.78
2 1/2-3 BB	28	17	48	4	19	0.78
3-3 1/2 BB	32	17	60	4	19	0.96
3 1/2-4 BB	36	20	60	4	22	0.96
4-4 1/2 BB	40	22	72	4	24	1.16
4 1/2-5 BB	44	24	72	4	26	1.16
5-5 1/2 BB	48	27	84	4	29	1.38

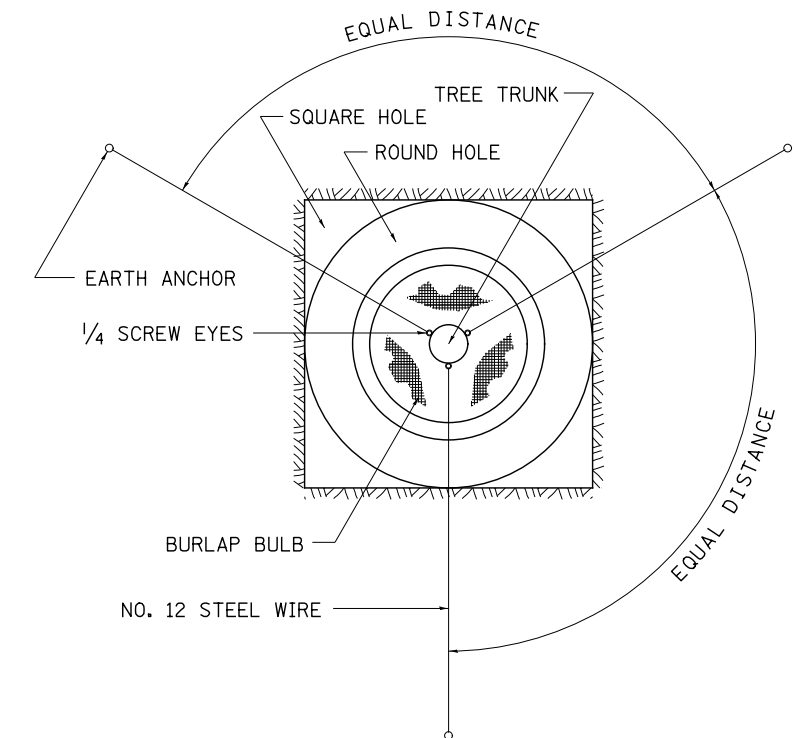


PLANT HARDINESS ZONE MAP

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
PUBLICATION NO. 814



TREES OVER 4 1/2 IN DIAMETER



ALL DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE NOTED.

KNIGHT
Engineers & Architects

USER NAME = dsilwo	DESIGNED -	REVISED - 10-18-11
	DRAWN -	REVISED -
PLOT SCALE = 1:20	CHECKED -	REVISED -
PLOT DATE = 8/16/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

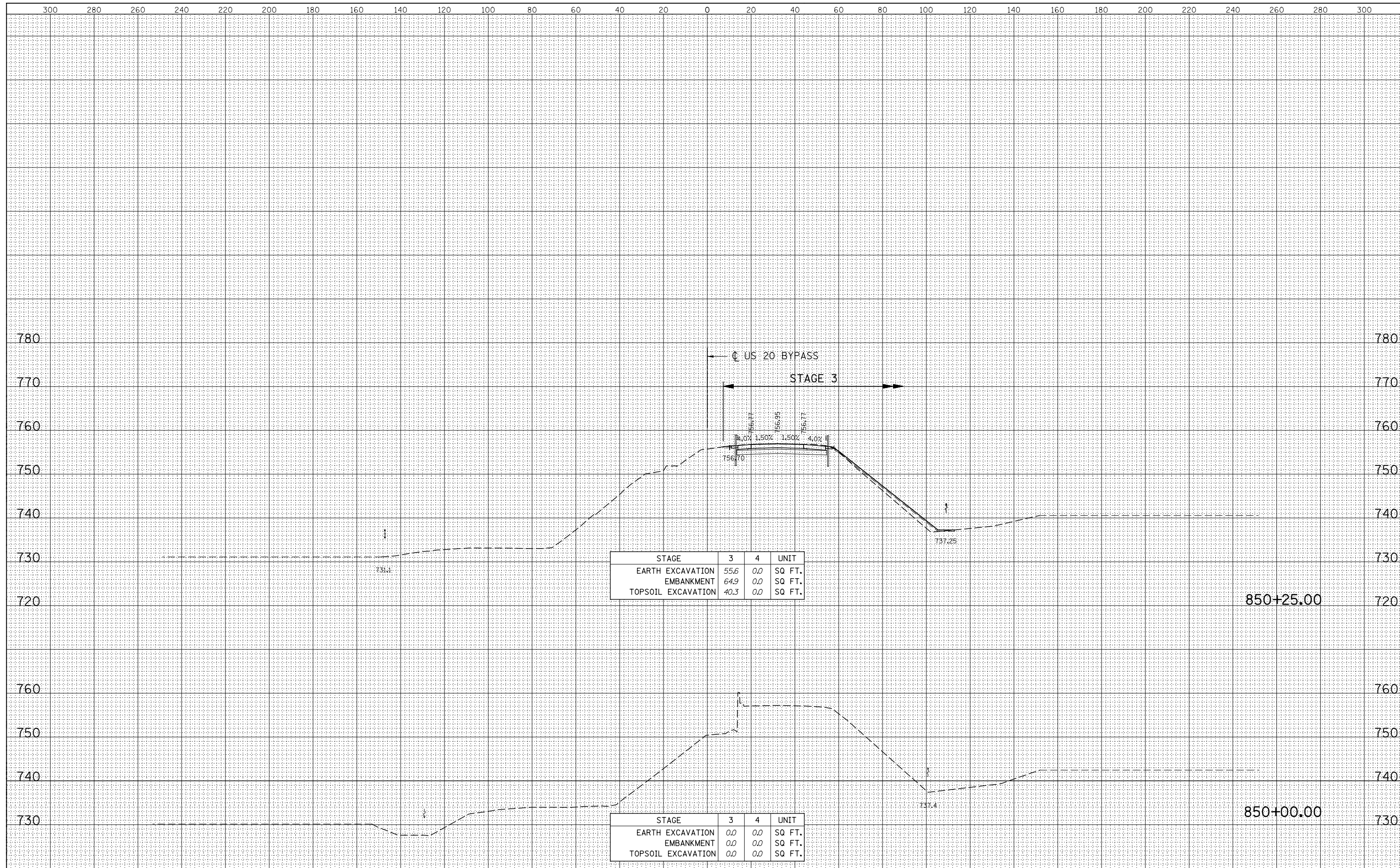
REGION 2 / DISTRICT 2 STANDARD

SCALE: NONE SHEET NO. 25 OF 25 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3HBR	WINNEBAGO	689	560
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

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

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



USER NAME : dsiw
 DESIGNED - PMO
 DRAWN - PMO
 CHECKED - DMS
 DATE - 08-15-2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

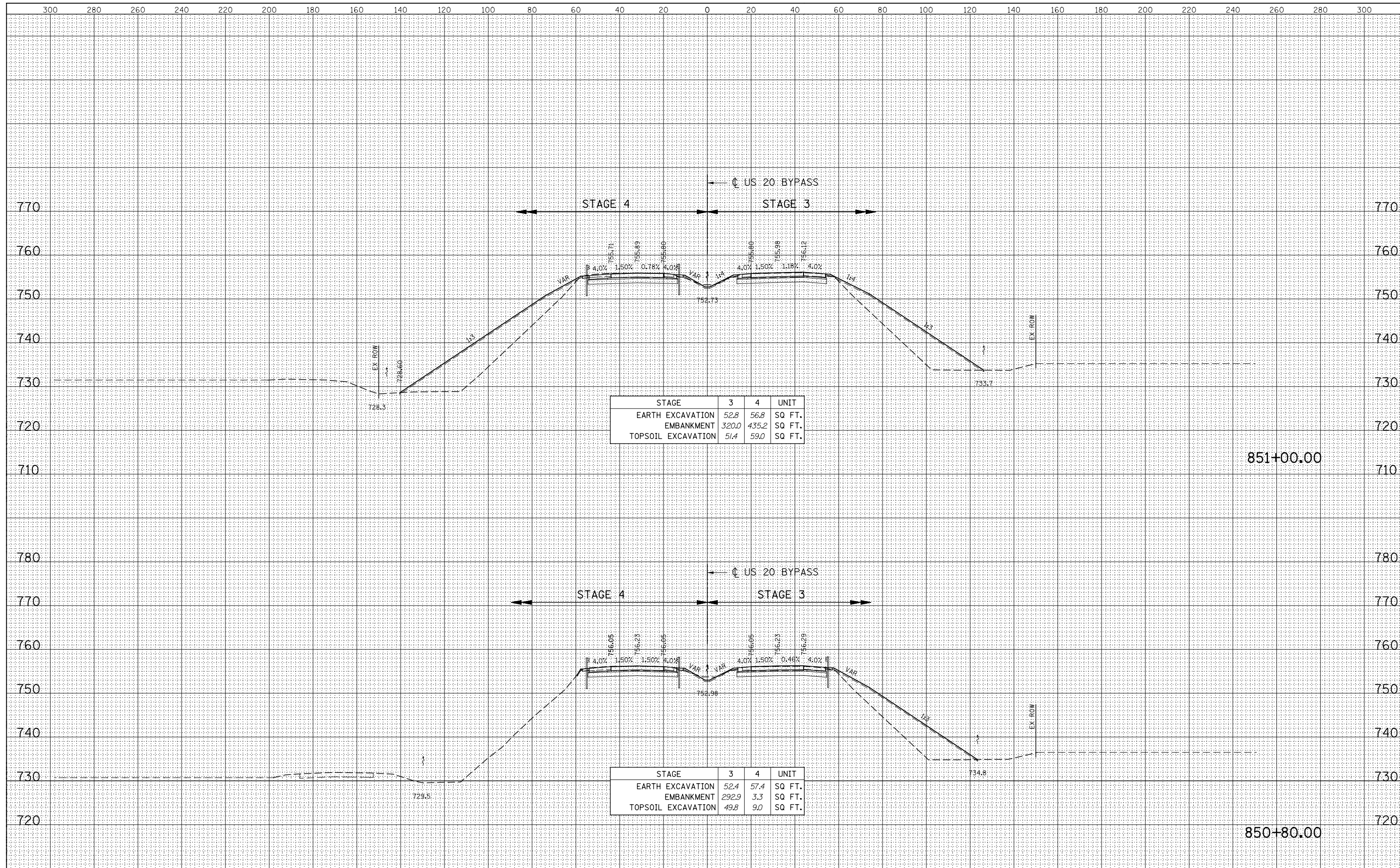
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 850+00.00 TO STA. 850+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	561
				CONTRACT NO. 64B87
ILLINOIS FED. AID PROJECT				

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 FINISH SURVEY NO. _____
 NOTE BOOK NO. _____
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 AREAS CHECKED _____
 ORIGINAL SURVEY NO. _____
 NOTE BOOK NO. _____
 AREAS CHECKED _____



STAGE	3	4	UNIT
EARTH EXCAVATION	52.8	56.8	SQ FT.
EMBANKMENT	320.0	435.2	SQ FT.
TOPSOIL EXCAVATION	51.4	59.0	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	52.4	57.4	SQ FT.
EMBANKMENT	292.9	3.3	SQ FT.
TOPSOIL EXCAVATION	49.8	9.0	SQ FT.



USER NAME - dsilve
 DESIGNED - PMO
 DRAWN - PMO
 CHECKED - DMS
 DATE - 08-15-2018

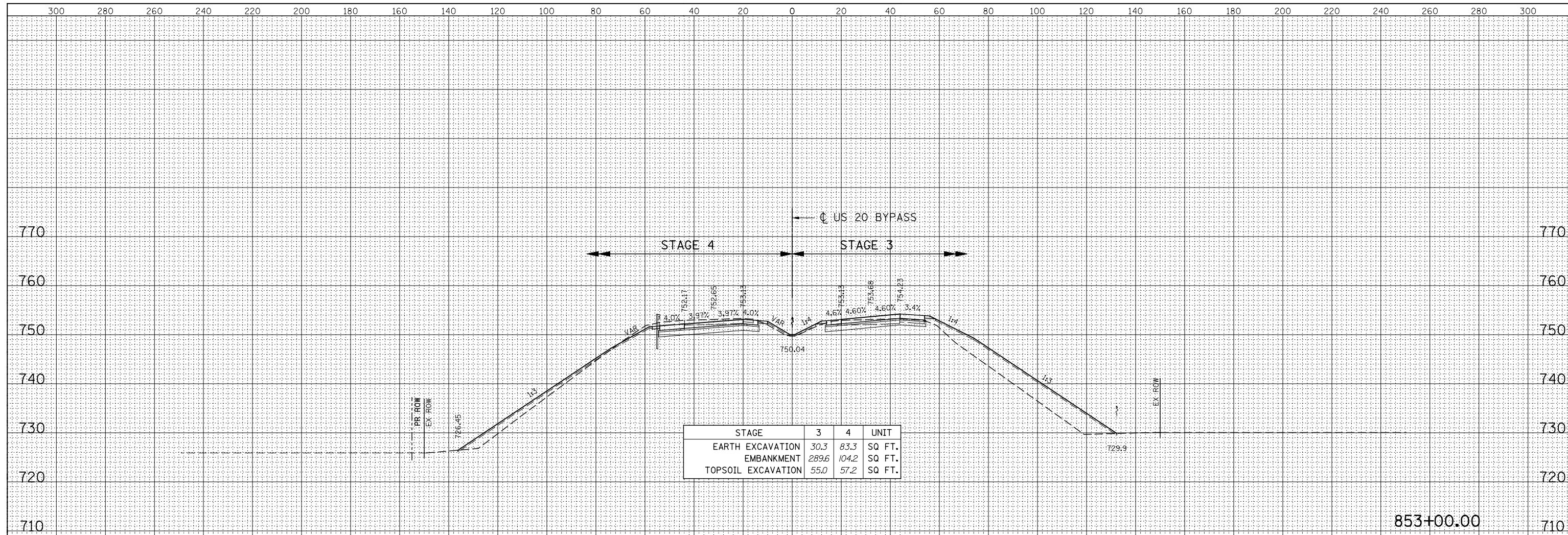
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

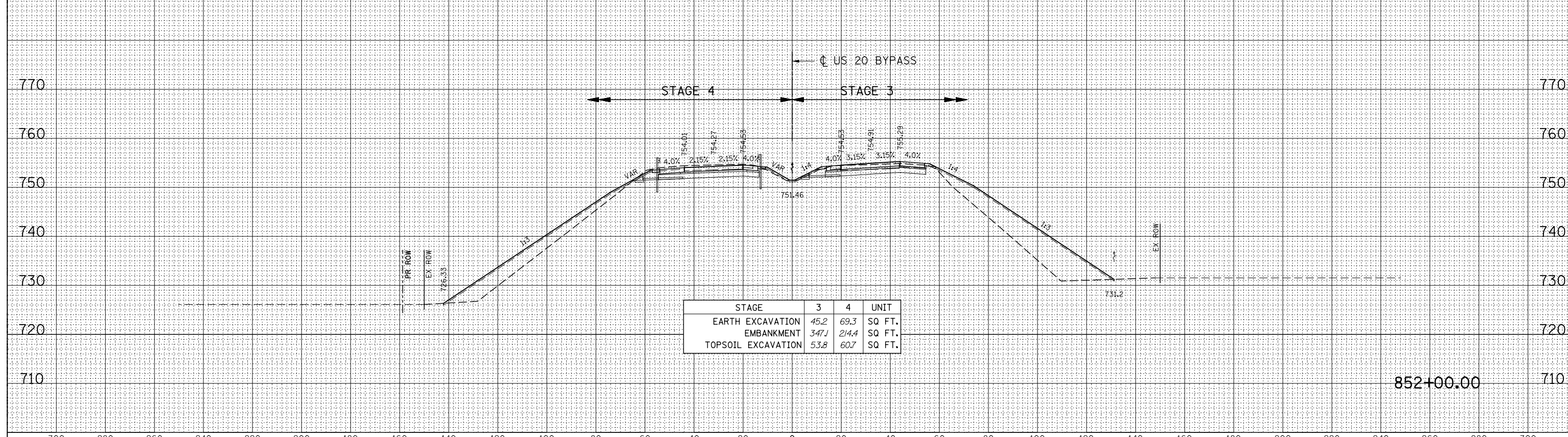
CROSS SECTIONS - US 20 BYPASS
 SCALE: 20H/10V
 SHEET NO. OF SHEETS
 STA. 850+80.00 TO STA. 851+00.00

F.A.P. RTE. 301	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 562
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

BY	DATE
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED
	AREAS CHECKED



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



KNIGHT
Engineers & Architects

USER NAME - dsiw
DESIGNED - PMO
DRAWN - PMO
PLOT SCALE - 1"=40'
PLOT DATE - 8/16/2018

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

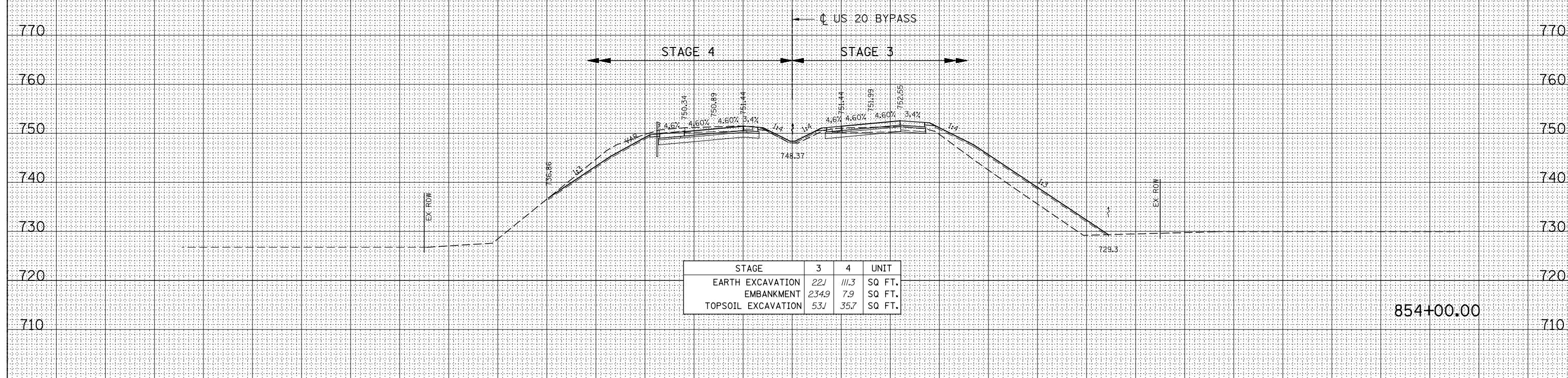
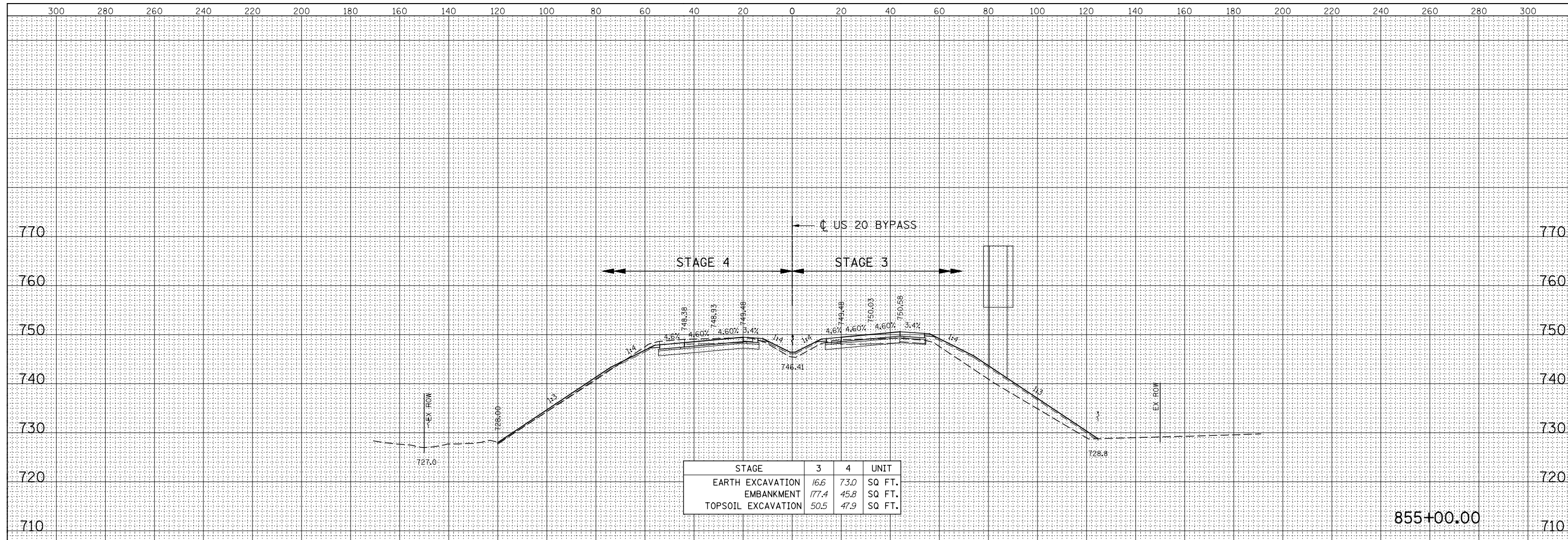
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 852+00.00 TO STA. 853+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	563
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

DATE: _____
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USER NAME : dslw	DESIGNED - PMO	REVISED -
PLOT SCALE : 1:40	DRAWN - PMO	REVISED -
PLOT DATE : 8/16/2018	CHECKED - DMS	REVISED -
	DATE - 08-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

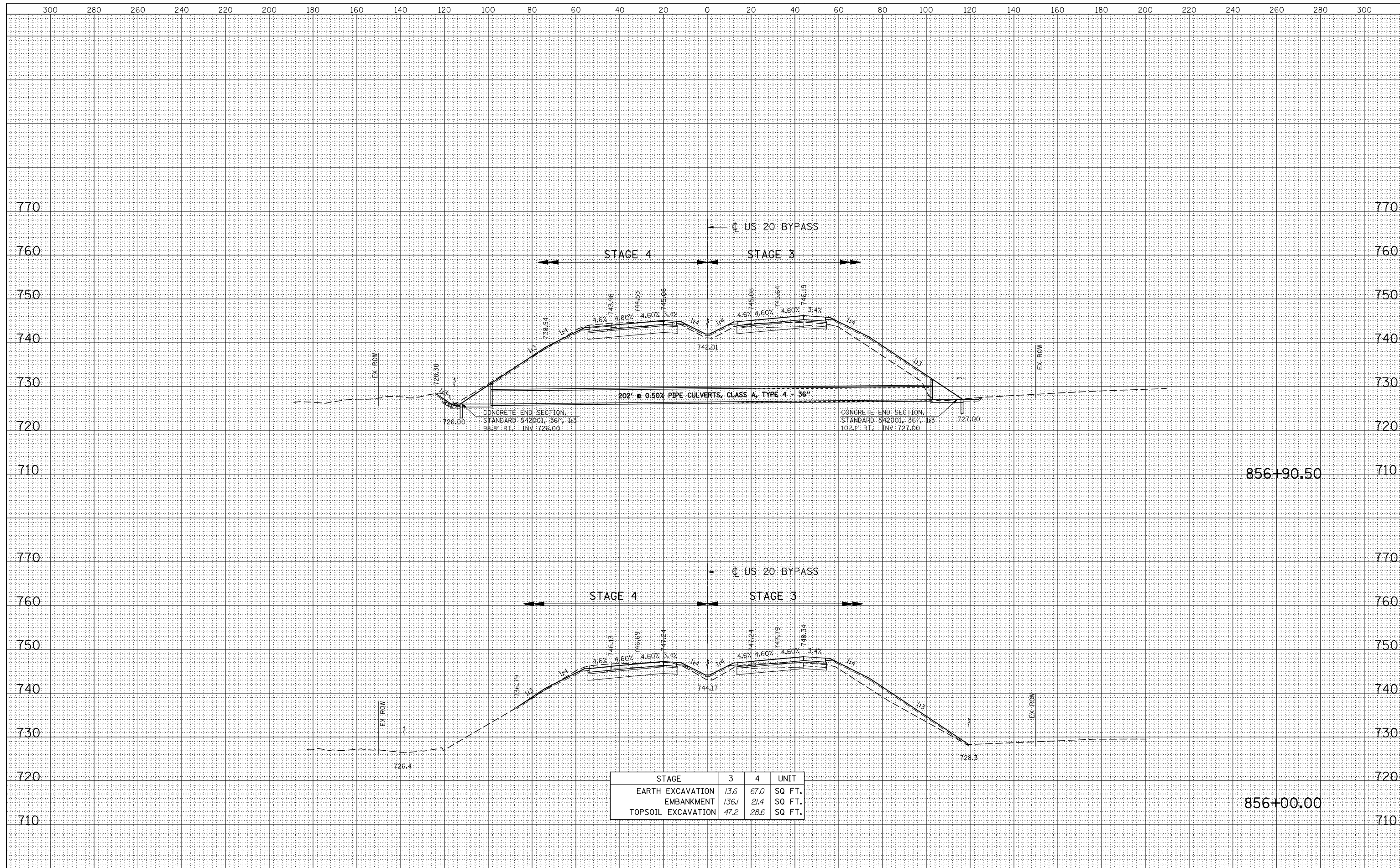
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 854+00.00 TO STA. 855+00.00

F.A.P. RTE. 301	SECTION 3HR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 564
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED
	AREAS CHECKED



STAGE	3	4	UNIT
EARTH EXCAVATION	13.6	67.0	SQ FT.
EMBANKMENT	136.1	21.4	SQ FT.
TOPSOIL EXCAVATION	47.2	28.6	SQ FT.



USER NAME - dsiw	DESIGNED - PMO	REVISED -
	DRAWN - PMO	REVISED -
PLOT SCALE - 1:40	CHECKED - DMS	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

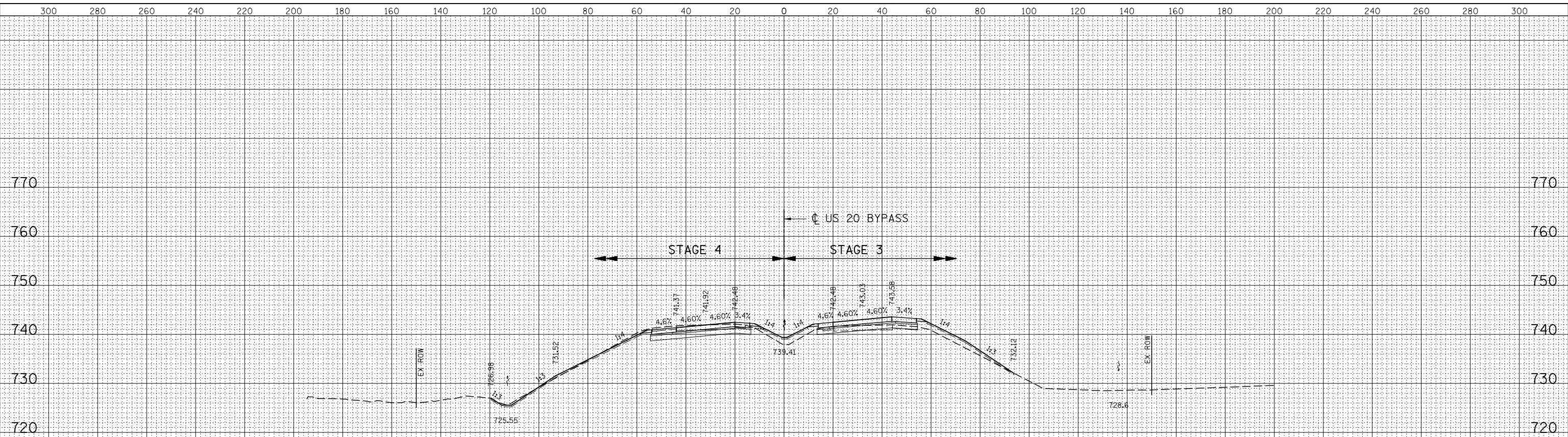
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 856+00.00 TO STA. 856+90.50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	565
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

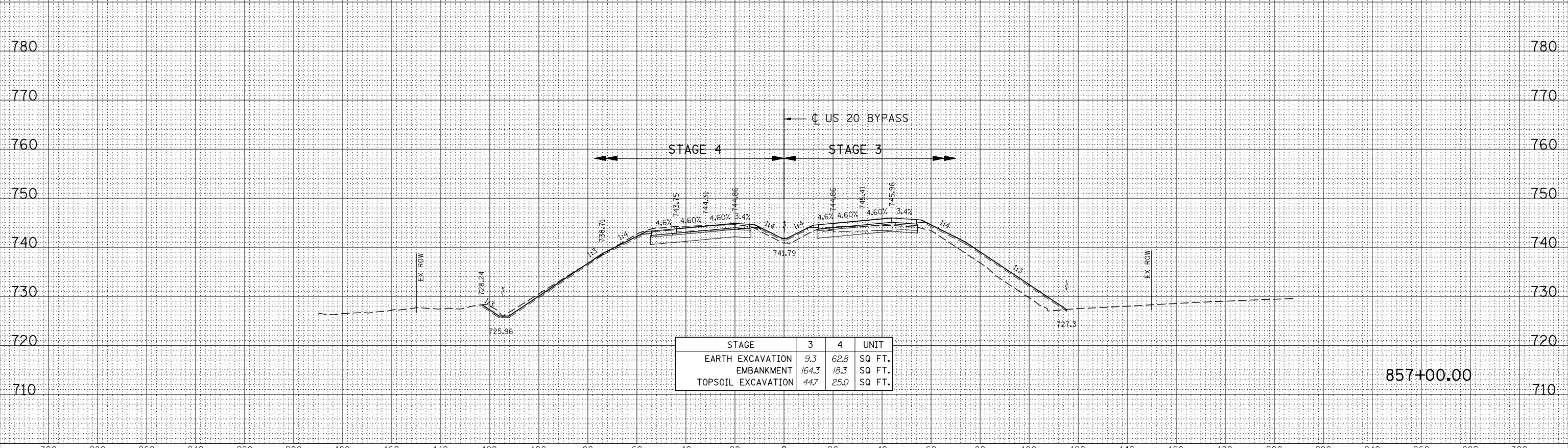
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STAGE	3	4	UNIT
EARTH EXCAVATION	6.9	58.6	SQ FT.
EMBANKMENT	79.0	19.5	SQ FT.
TOPSOIL EXCAVATION	32.1	22.6	SQ FT.

858+00.00



STAGE	3	4	UNIT
EARTH EXCAVATION	9.3	62.8	SQ FT.
EMBANKMENT	164.3	18.3	SQ FT.
TOPSOIL EXCAVATION	44.7	25.0	SQ FT.

857+00.00



USER NAME - dsilve	DESIGNED - PMO	REVISED -
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PLOT SCALE - 1:40	CHECKED - DMS	REVISED -
PLOT DATE - 8/16/2018	DATE - 08-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

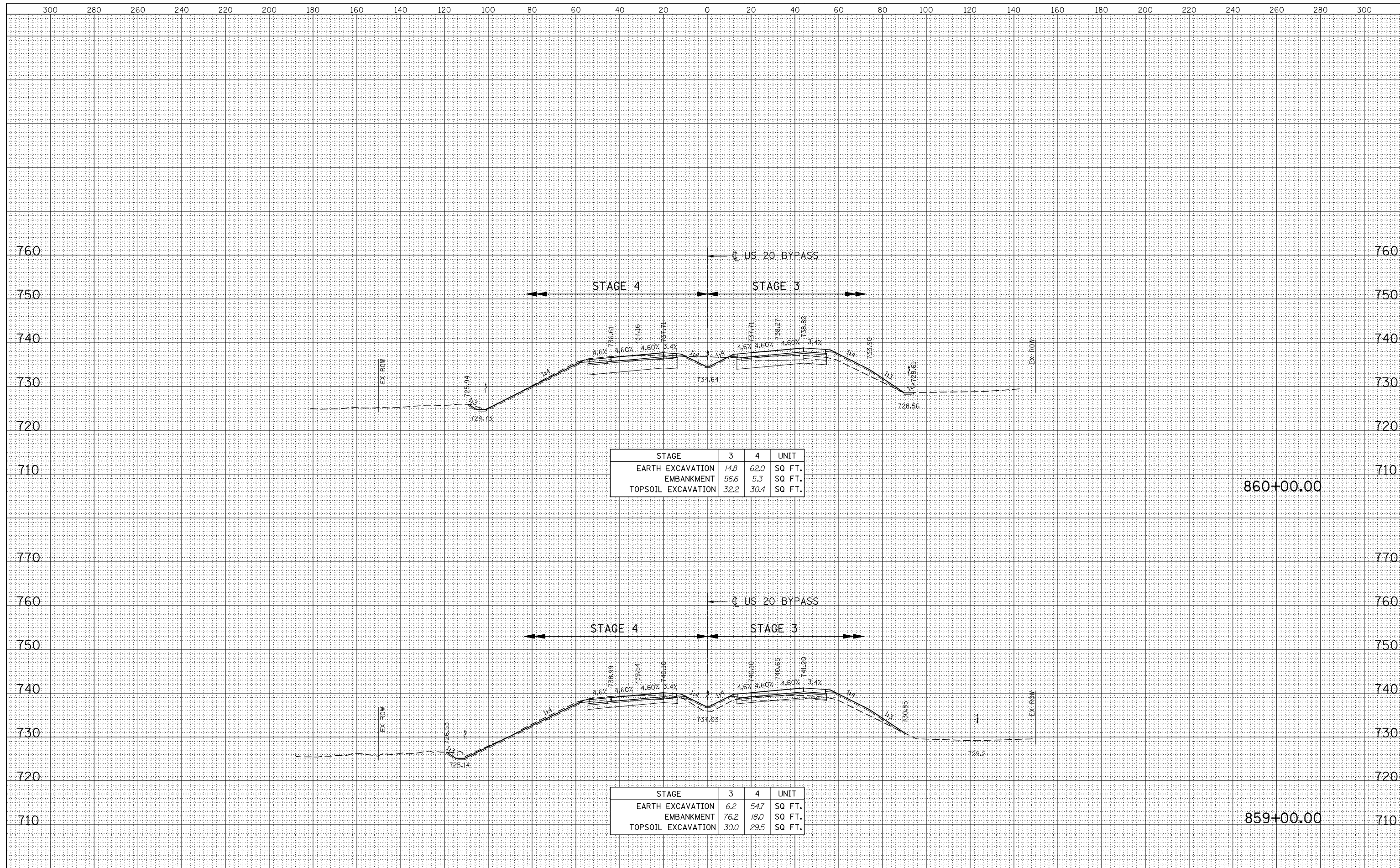
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 857+00.00 TO STA. 858+00.00

F.A.P. RTE. 301	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 566
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

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	TEMPLATE
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USER NAME - dsilve	DESIGNED - PMO	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

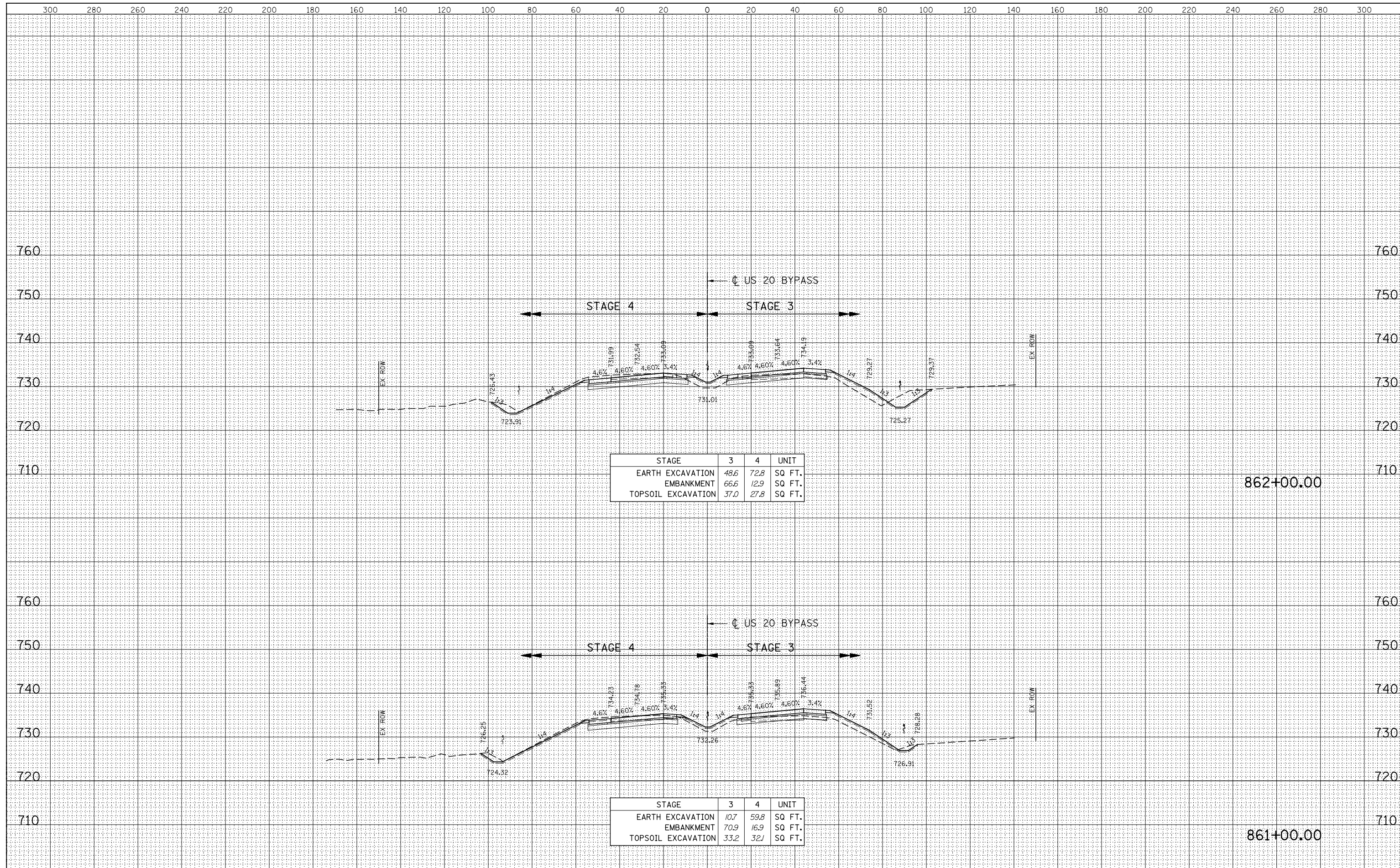
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 859+00.00 TO STA. 860+00.00

F.A.P. RTE. 301	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 567
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	48.6	72.8	SQ FT.
EMBANKMENT	66.6	12.9	SQ FT.
TOPSOIL EXCAVATION	37.0	27.8	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	10.7	59.8	SQ FT.
EMBANKMENT	70.9	16.9	SQ FT.
TOPSOIL EXCAVATION	33.2	32.1	SQ FT.



USER NAME	- dsiw	DESIGNED	- PMO	REVISED	-
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PLOT DATE	- 8/16/2018	DATE	- 08-15-2018	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

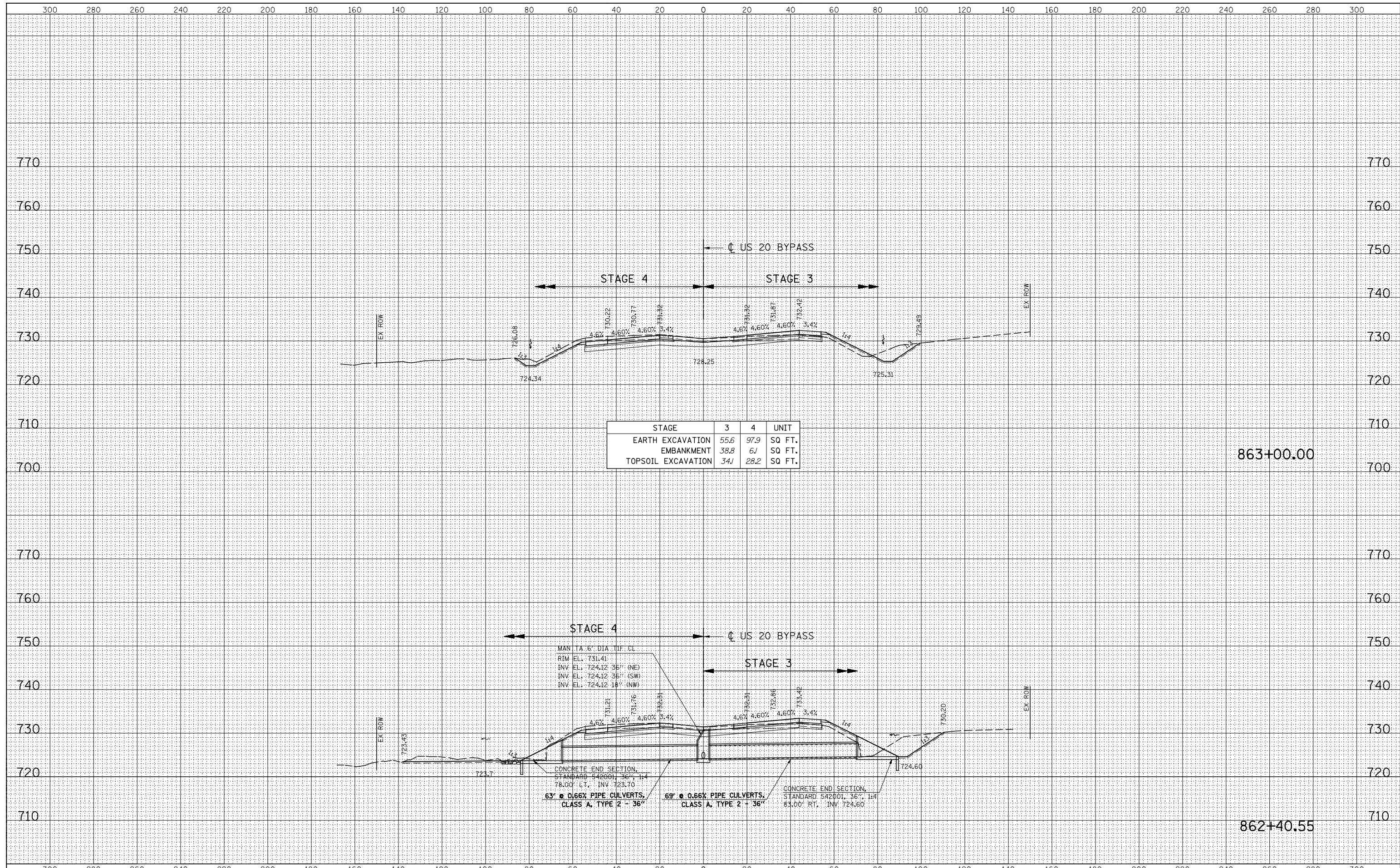
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 861+00.00 TO STA. 862+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	568
				CONTRACT NO. 64B87
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	55.6	97.9	SQ FT.
EMBANKMENT	38.8	61	SQ FT.
TOPSOIL EXCAVATION	34.1	28.2	SQ FT.

863+00.00

862+40.55



USER NAME - dsiw	DESIGNED - PMO	REVISED -
PLOT SCALE - 1:40	DRAWN - PMO	REVISED -
PLOT DATE - 8/16/2018	CHECKED - DMS	REVISED -
	DATE - 08-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

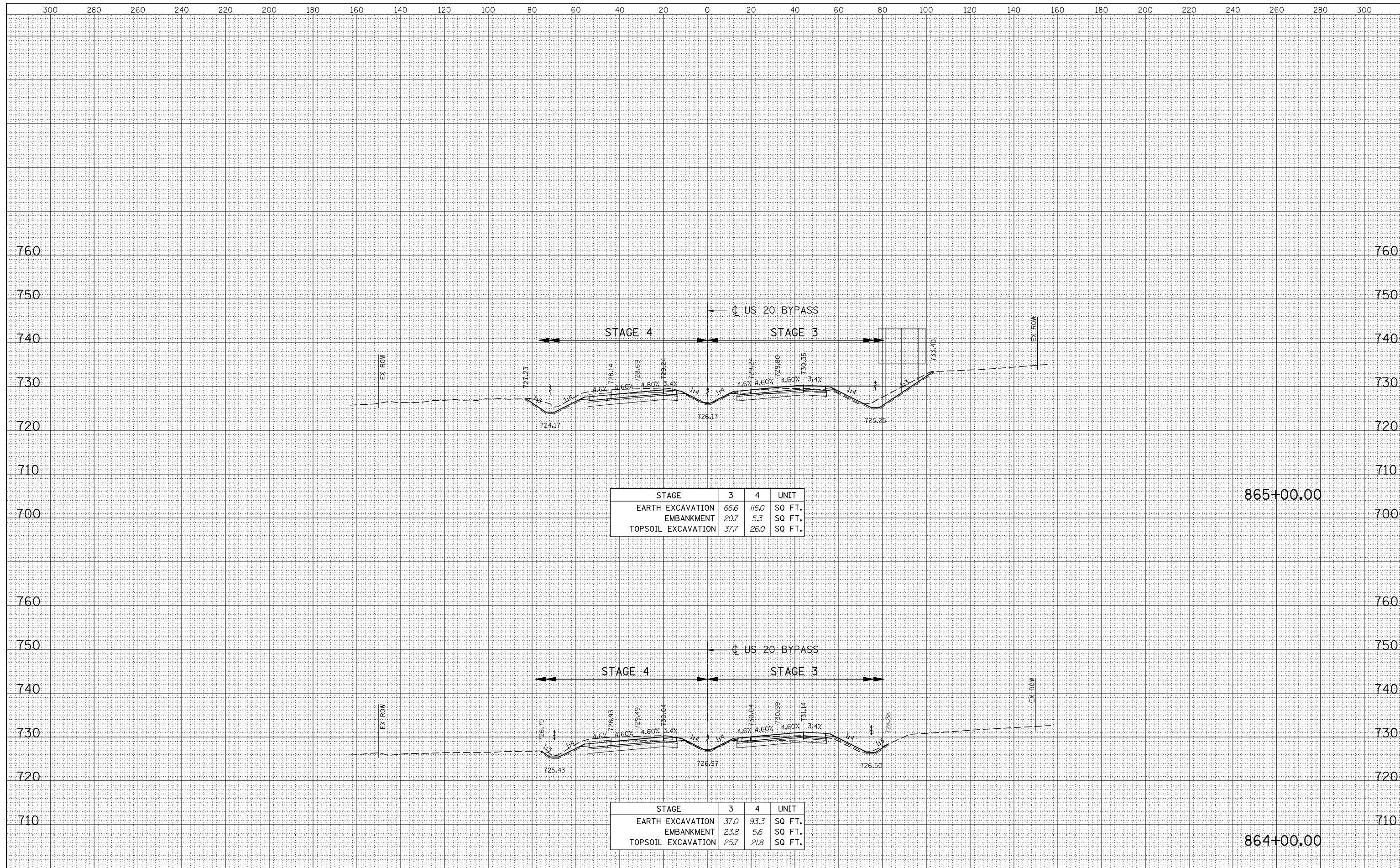
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 862+40.55 TO STA. 863+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	569
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

DATE: _____
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STAGE	3	4	UNIT
EARTH EXCAVATION	66.6	116.0	SQ FT.
EMBANKMENT	20.7	5.3	SQ FT.
TOPSOIL EXCAVATION	37.7	26.0	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	37.0	93.3	SQ FT.
EMBANKMENT	23.8	5.6	SQ FT.
TOPSOIL EXCAVATION	25.7	21.8	SQ FT.



USER NAME - dsilve
 DESIGNED - PMO
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

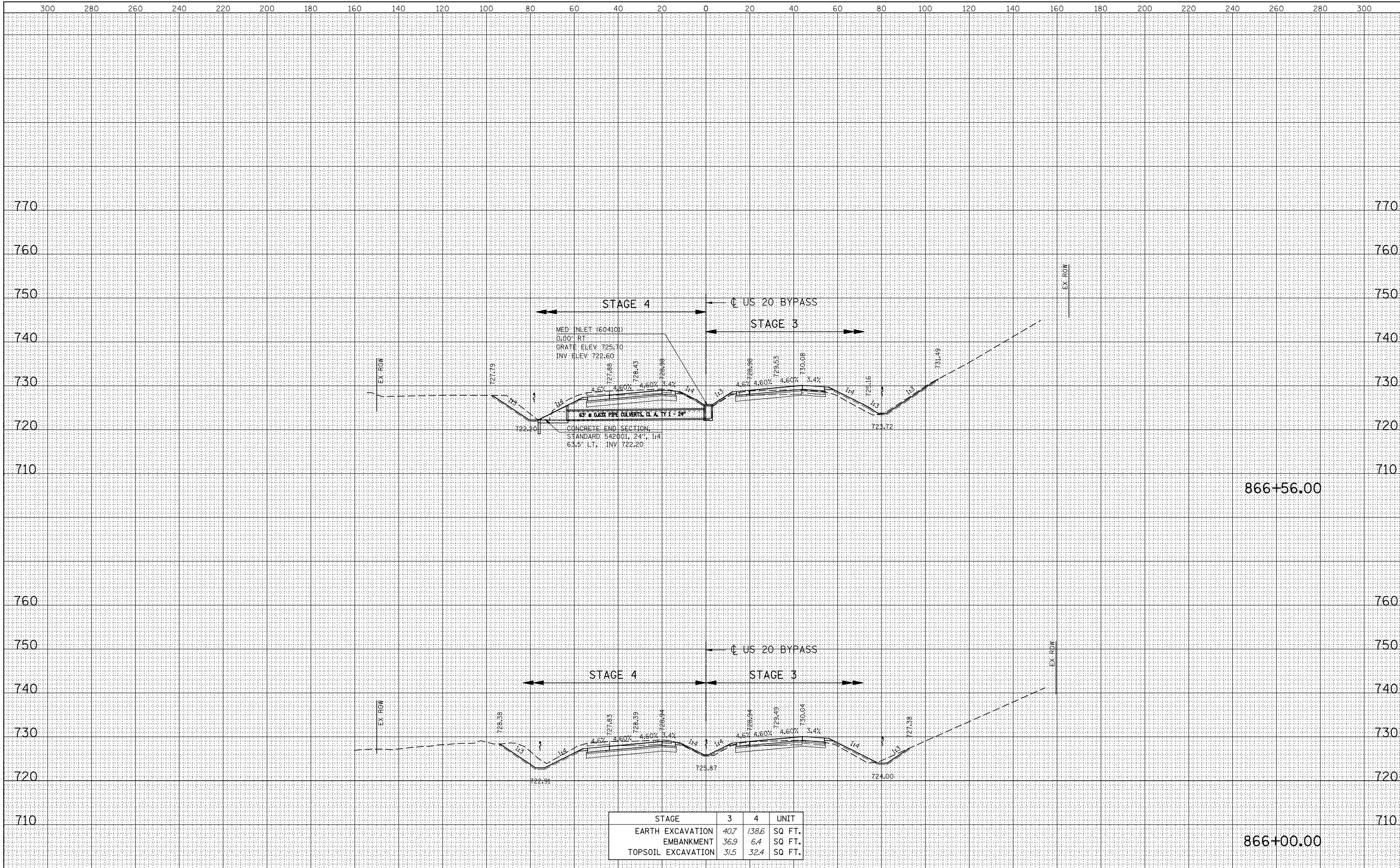
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 864+00.00 TO STA. 865+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	570
CONTRACT NO. 64B87				
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	40.7	138.6	SQ FT.
EMBANKMENT	36.9	6.4	SQ FT.
TOPSOIL EXCAVATION	31.5	32.4	SQ FT.

KNIGHT
Engineers & Architects

USER NAME	- dsilve	DESIGNED	- PMO	REVISED	-
PLLOT SCALE	- 1:40	DRAWN	- PMO	REVISED	-
PLLOT DATE	- 8/16/2018	CHECKED	- DMS	REVISED	-
		DATE	- 08-15-2018	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

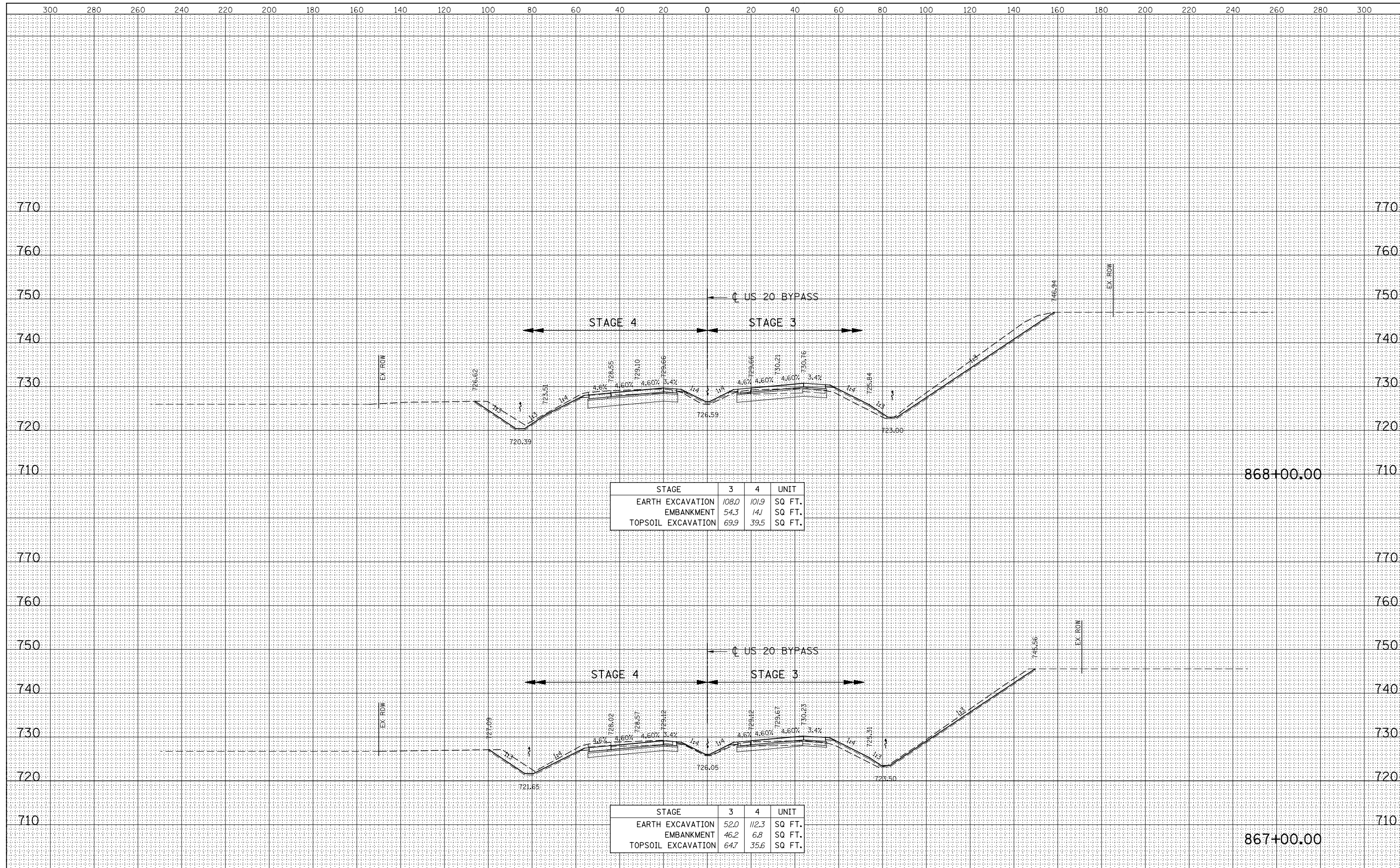
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 866+00.00 TO STA. 866+56.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	571
				CONTRACT NO. 64B87
ILLINOIS FED. AID PROJECT				

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FINAL SURVEY	SURVEYED
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AREAS CHECKED	TEMPLATE
	AREAS CHECKED



STAGE	3	4	UNIT
EARTH EXCAVATION	108.0	101.9	SQ FT.
EMBANKMENT	54.3	14.1	SQ FT.
TOPSOIL EXCAVATION	69.9	39.5	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	52.0	112.3	SQ FT.
EMBANKMENT	46.2	6.8	SQ FT.
TOPSOIL EXCAVATION	64.7	35.6	SQ FT.



USER NAME = dsilve
 PLOT SCALE = 1:40
 PLOT DATE = 8/16/2018

DESIGNED - PMO
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 DATE - 08-15-2018

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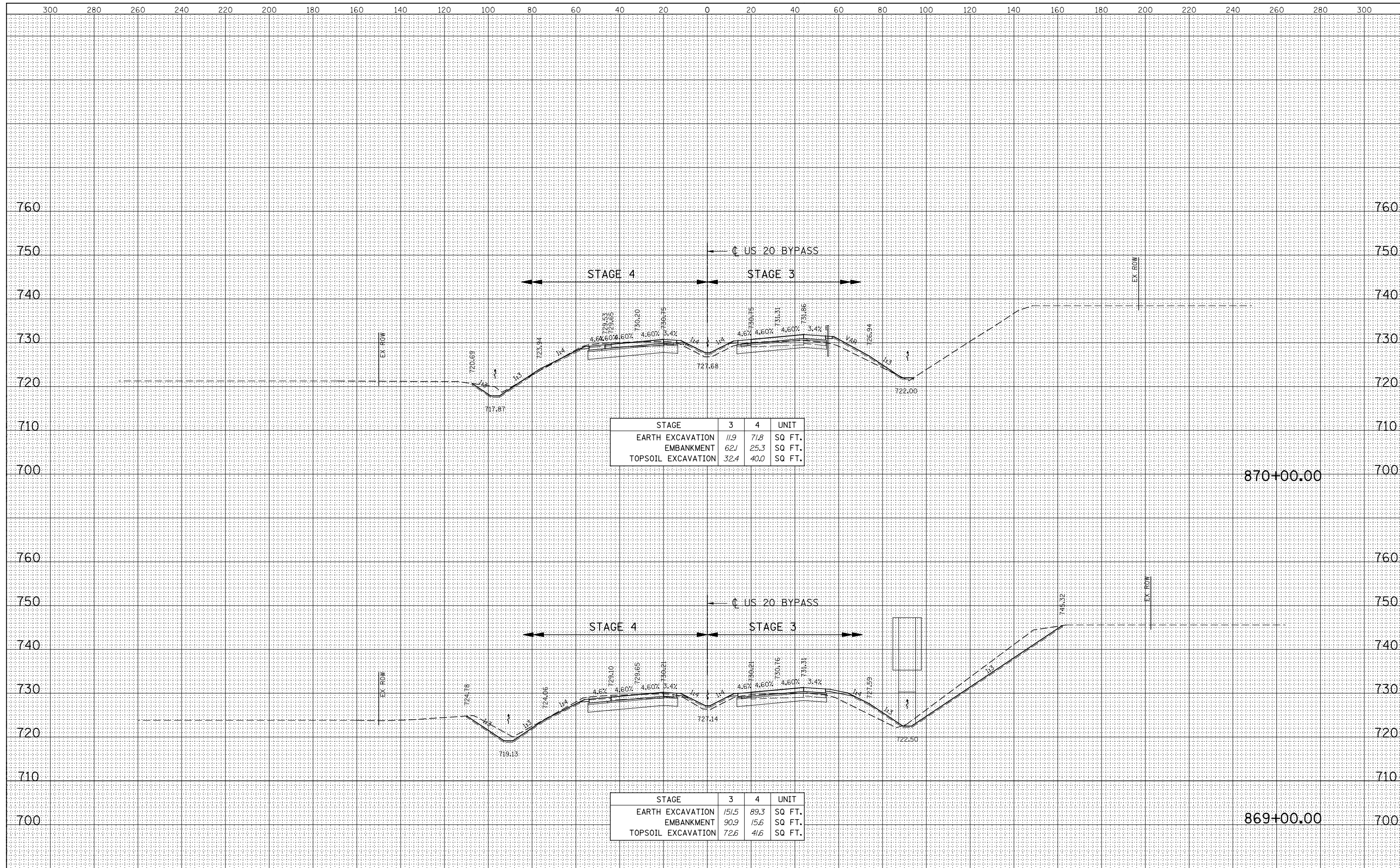
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US 20 BYPASS
 SCALE: 20H/10V
 SHEET NO. OF SHEETS STA. 867+00.00 TO STA. 868+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	572
CONTRACT NO. 64B87				
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	11.9	71.8	SQ. FT.
EMBANKMENT	62.1	25.3	SQ. FT.
TOPSOIL EXCAVATION	32.4	40.0	SQ. FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	151.5	89.3	SQ. FT.
EMBANKMENT	90.9	15.6	SQ. FT.
TOPSOIL EXCAVATION	72.6	41.6	SQ. FT.



USER NAME: dsilve
DESIGNED: PMO
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DATE: 08-15-2018

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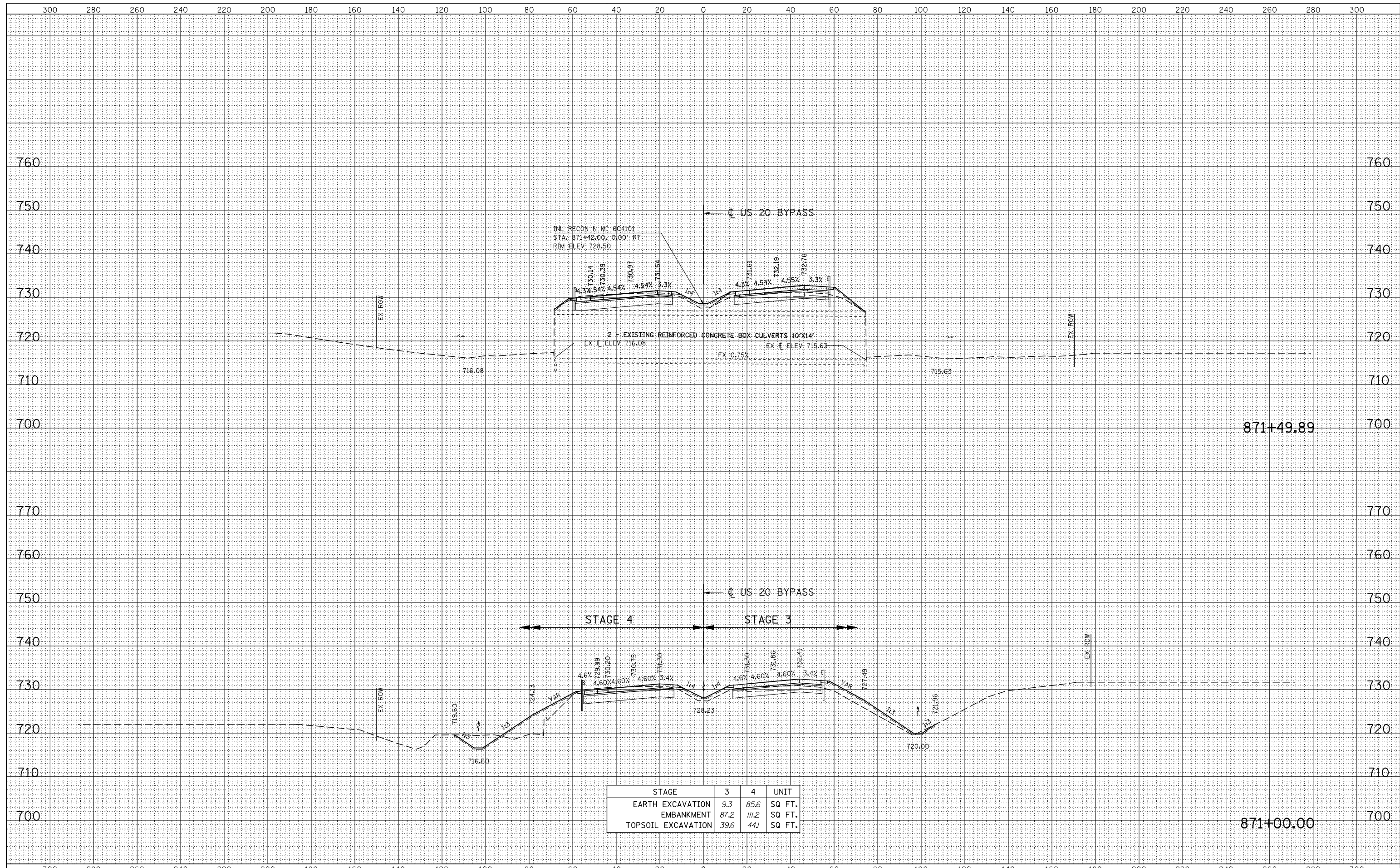
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US 20 BYPASS
SCALE: 20H/10V
SHEET NO. OF SHEETS STA. 869+00.00 TO STA. 870+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	573
				CONTRACT NO. 64B87
ILLINOIS FED. AID PROJECT				

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USER NAME - dsilwa
DESIGNED - PMO
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

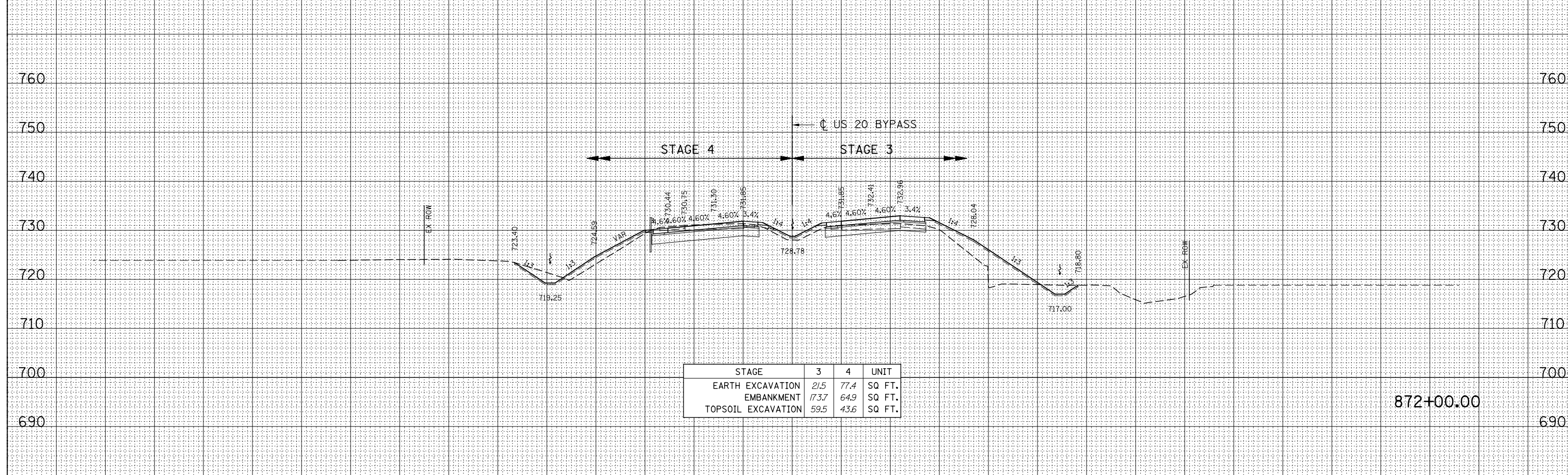
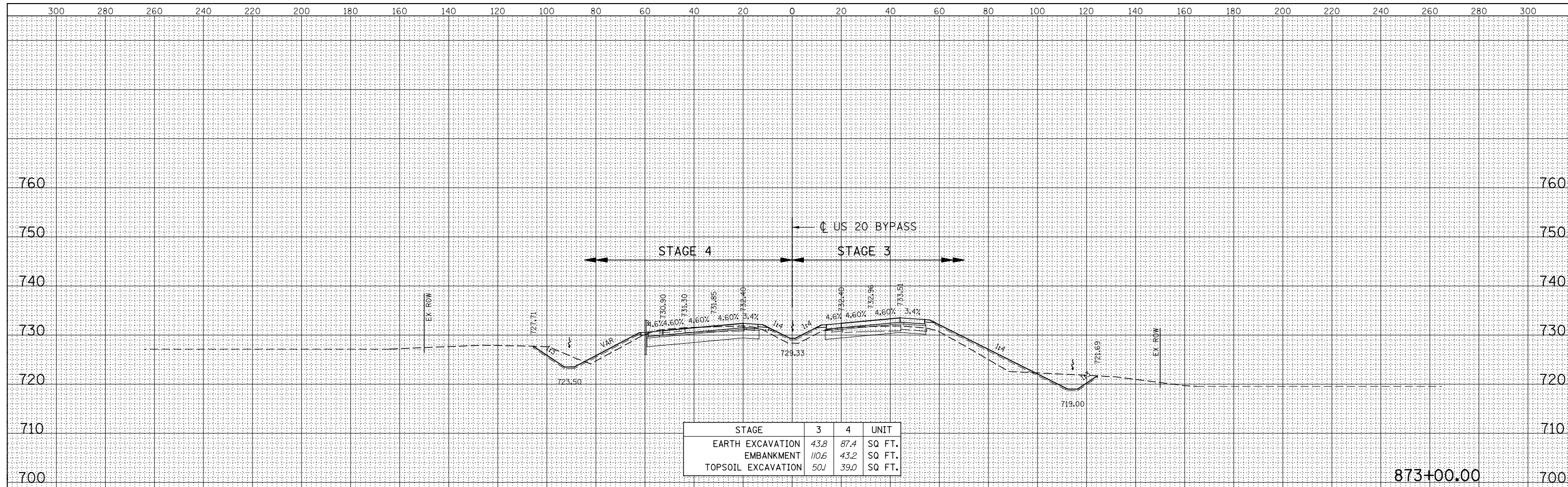
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 871+00.00 TO STA. 871+49.89

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	574
CONTRACT NO. 64B87			ILLINOIS FED. AID PROJECT	

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USER NAME - dsilve	DESIGNED - PMO	REVISED -
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PLOT SCALE - 1:40	CHECKED - DMS	REVISED -
PLOT DATE - 8/16/2018	DATE - 08-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

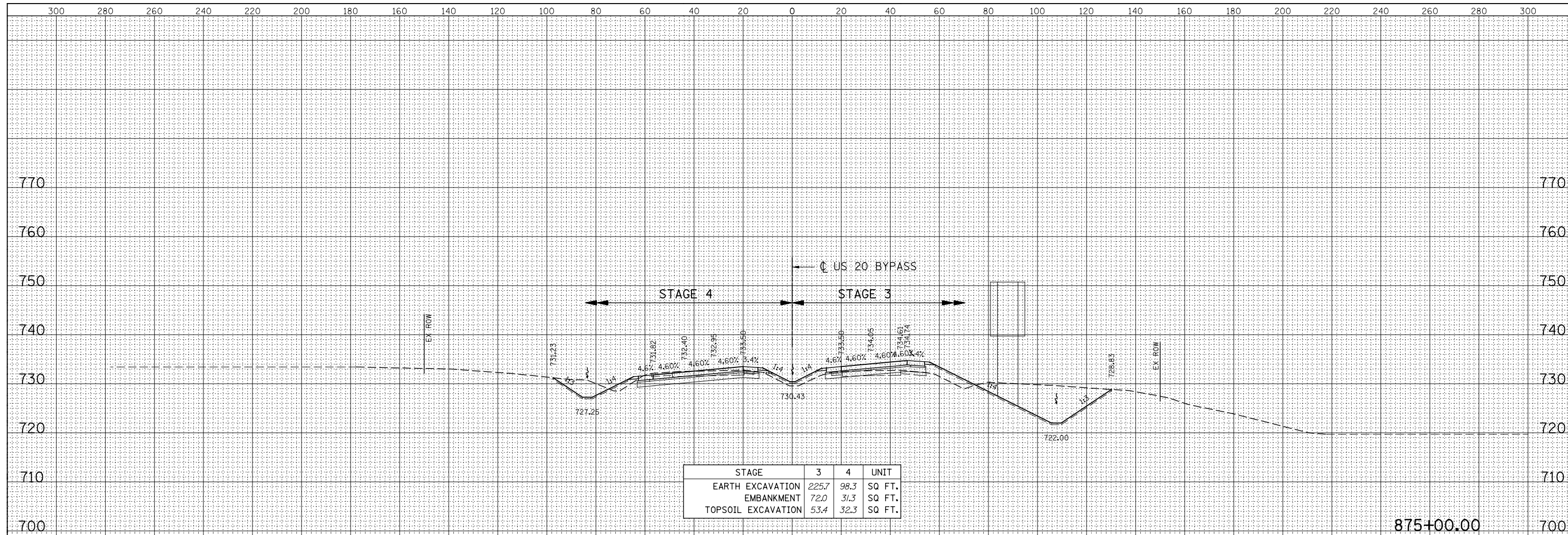
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 872+00.00 TO STA. 873+00.00

F.A.P. RTE. 301	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 575
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

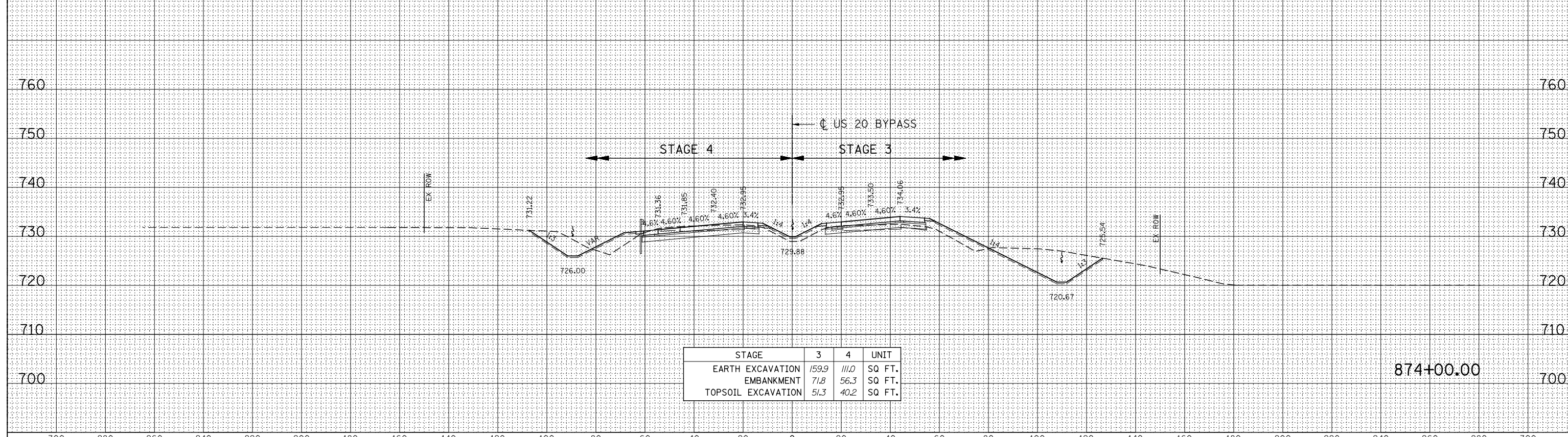
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STAGE	3	4	UNIT
EARTH EXCAVATION	225.7	98.3	SQ FT.
EMBANKMENT	72.0	31.3	SQ FT.
TOPSOIL EXCAVATION	53.4	32.3	SQ FT.

875+00.00



STAGE	3	4	UNIT
EARTH EXCAVATION	159.9	111.0	SQ FT.
EMBANKMENT	71.8	56.3	SQ FT.
TOPSOIL EXCAVATION	51.3	40.2	SQ FT.

874+00.00



USER NAME - dsiw	DESIGNED - PMO	REVISED -
PLOT SCALE - 1:40	DRAWN - PMO	REVISED -
PLOT DATE - 8/16/2018	CHECKED - DMS	REVISED -
	DATE - 08-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

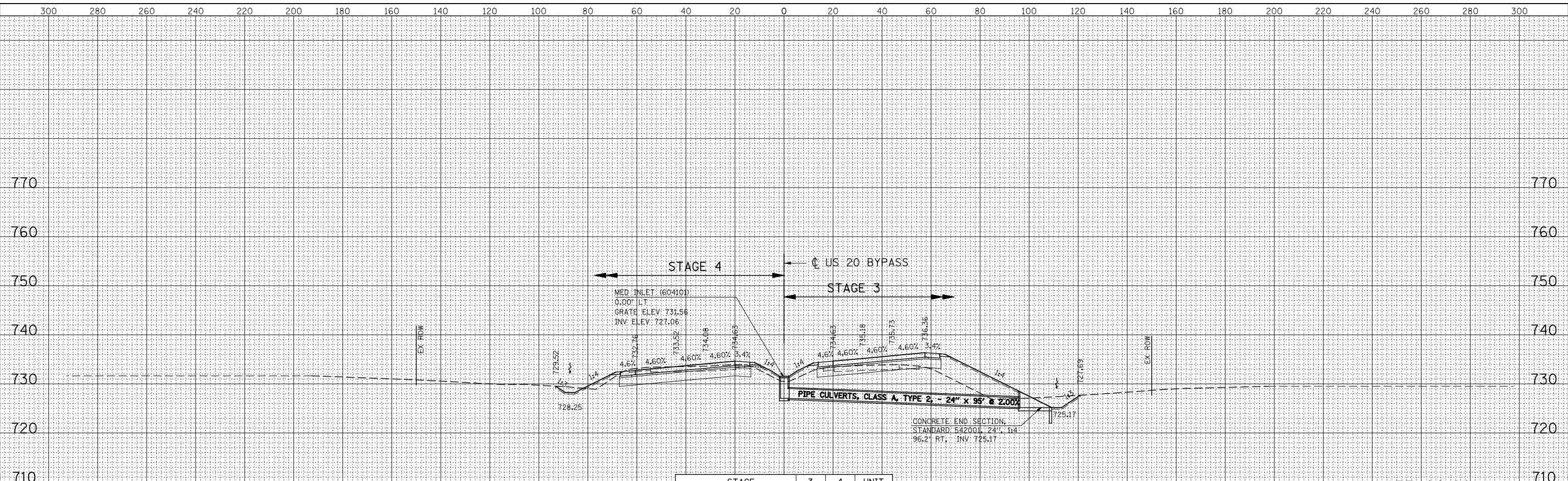
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 874+00.00 TO STA. 875+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	576
				CONTRACT NO. 64B87

ILLINOIS FED. AID PROJECT

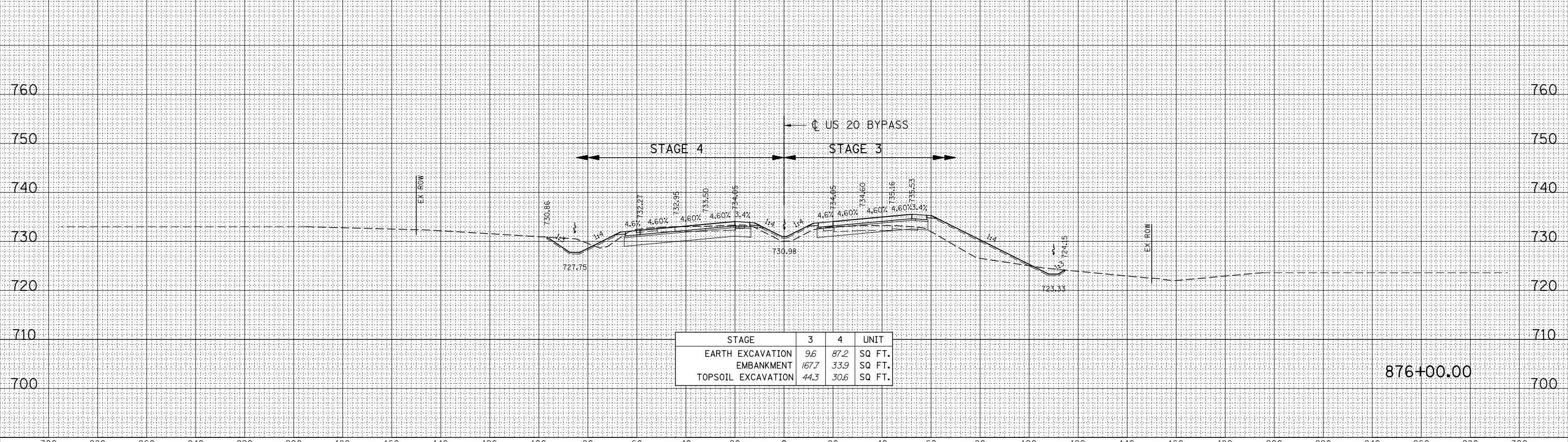
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STAGE	3	4	UNIT
EARTH EXCAVATION	24.2	69.2	SQ FT.
EMBANKMENT	185.8	35.4	SQ FT.
TOPSOIL EXCAVATION	47.8	26.8	SQ FT.

877+00.00

DATE	
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STAGE	3	4	UNIT
EARTH EXCAVATION	9.6	87.2	SQ FT.
EMBANKMENT	167.7	33.9	SQ FT.
TOPSOIL EXCAVATION	44.3	30.6	SQ FT.

876+00.00



USER NAME - dsilva	DESIGNED - PMO	REVISED -
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PLOT DATE - 8/16/2018	DATE - 08-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US 20 BYPASS

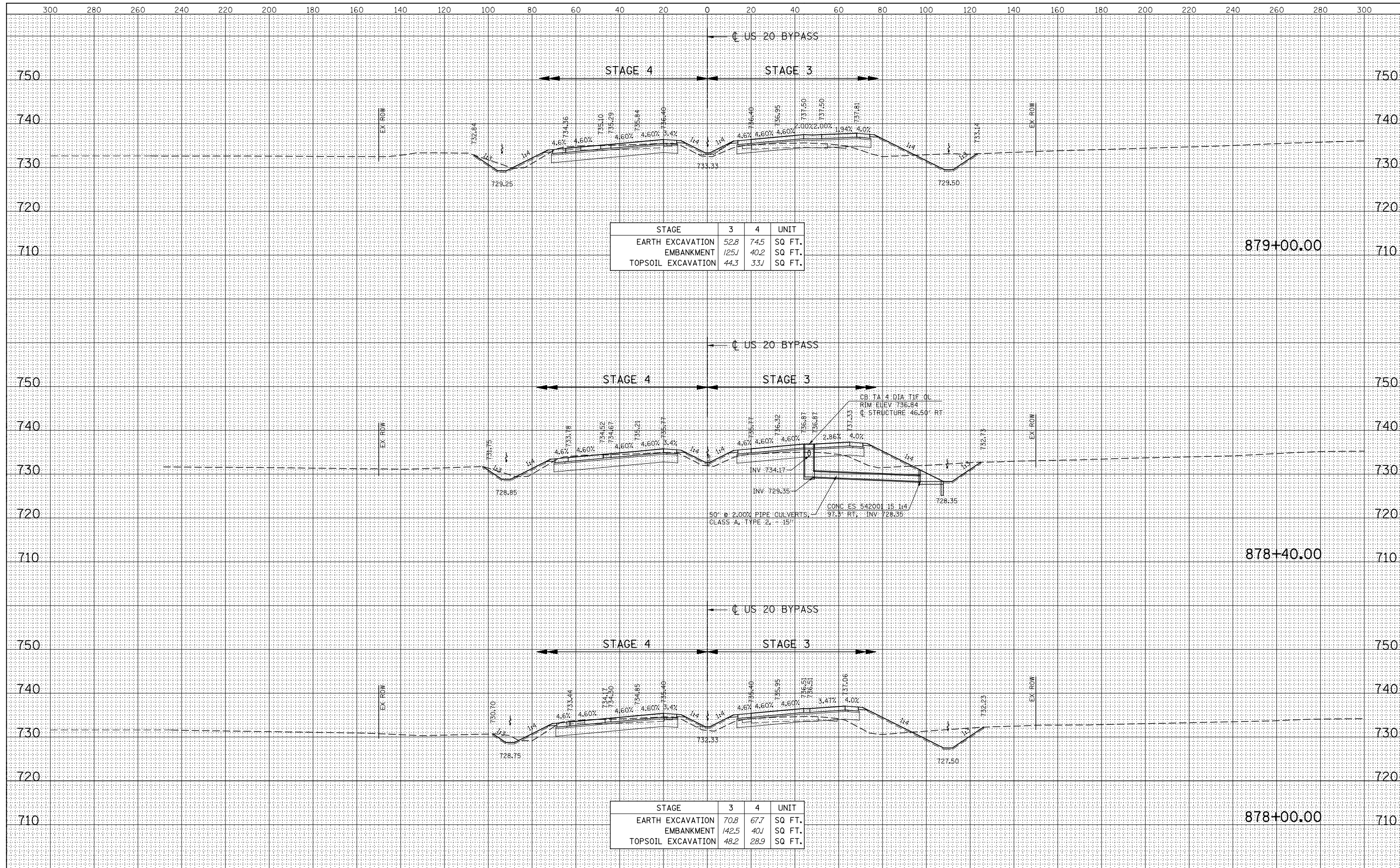
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 876+00.00 TO STA. 877+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	577
			CONTRACT NO. 64B87	

ILLINOIS FED. AID PROJECT

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STAGE	3	4	UNIT
EARTH EXCAVATION	52.8	74.5	SQ FT.
EMBANKMENT	125.1	40.2	SQ FT.
TOPSOIL EXCAVATION	44.3	33.1	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	70.8	67.7	SQ FT.
EMBANKMENT	142.5	40.1	SQ FT.
TOPSOIL EXCAVATION	48.2	28.9	SQ FT.



USER NAME - dsilva
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - US 20 BYPASS

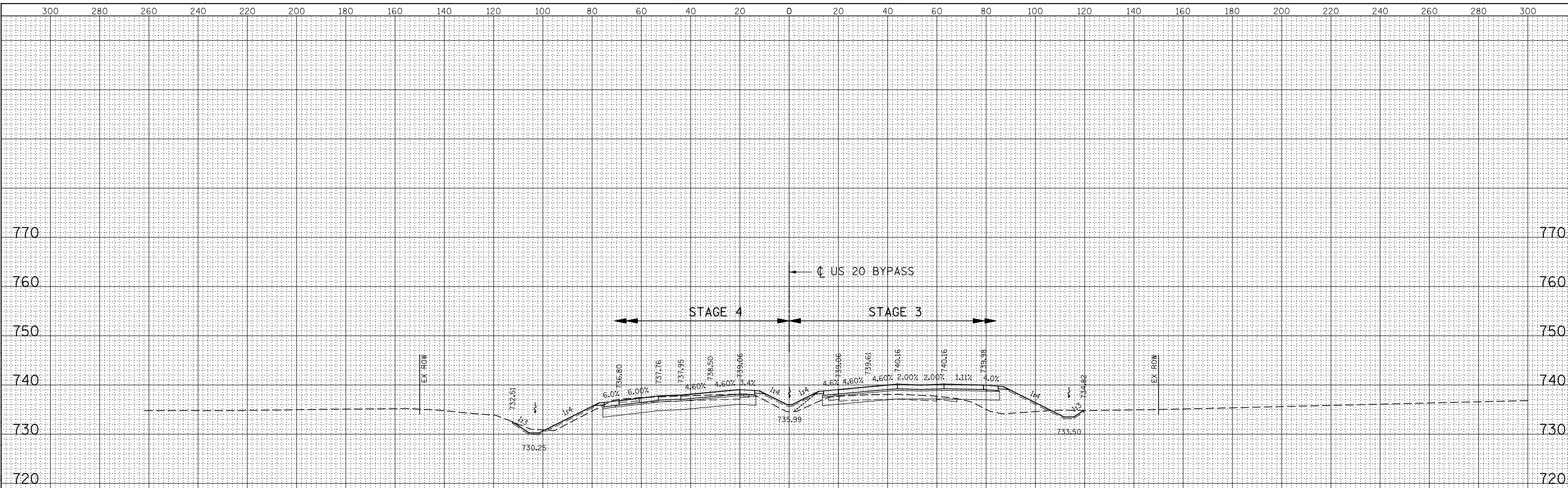
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 878+00.00 TO STA. 879+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	578

CONTRACT NO. 64B87

ILLINOIS FED. AID PROJECT

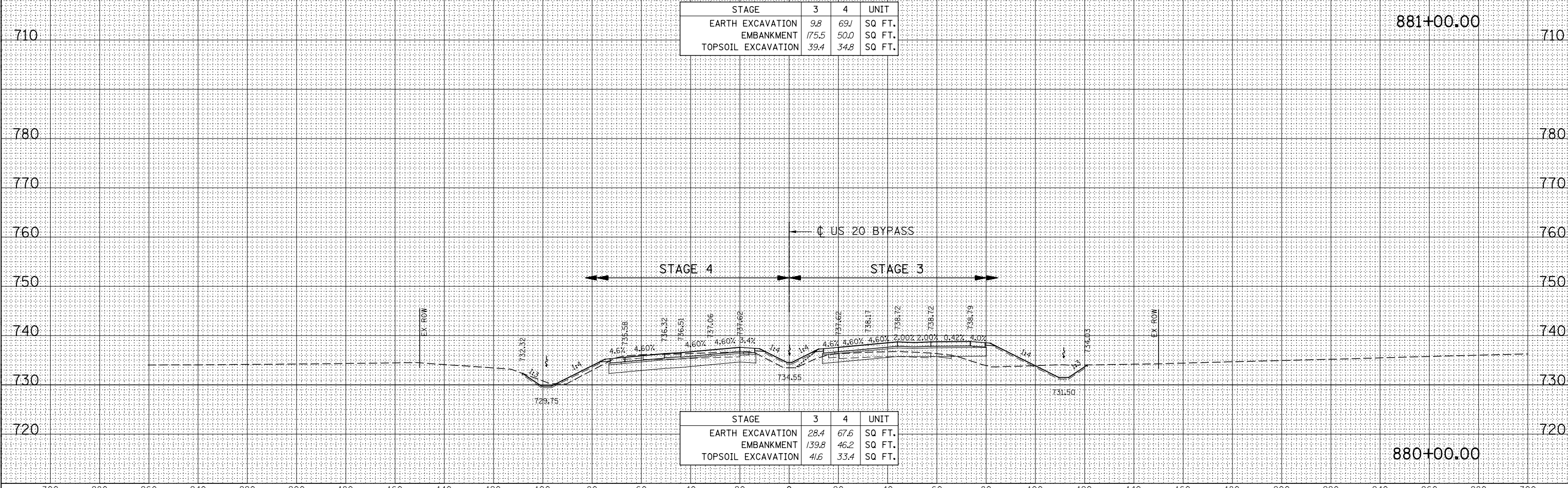
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FINAL SURVEY	SURVEYED
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STAGE	3	4	UNIT
EARTH EXCAVATION	9.8	69.1	SQ FT.
EMBANKMENT	175.5	50.0	SQ FT.
TOPSOIL EXCAVATION	39.4	34.8	SQ FT.

881+00.00

BY	DATE
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STAGE	3	4	UNIT
EARTH EXCAVATION	28.4	67.6	SQ FT.
EMBANKMENT	139.8	46.2	SQ FT.
TOPSOIL EXCAVATION	41.6	33.4	SQ FT.

880+00.00

KNIGHT
Engineers & Architects

USER NAME - dsilve	DESIGNED - PMO	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

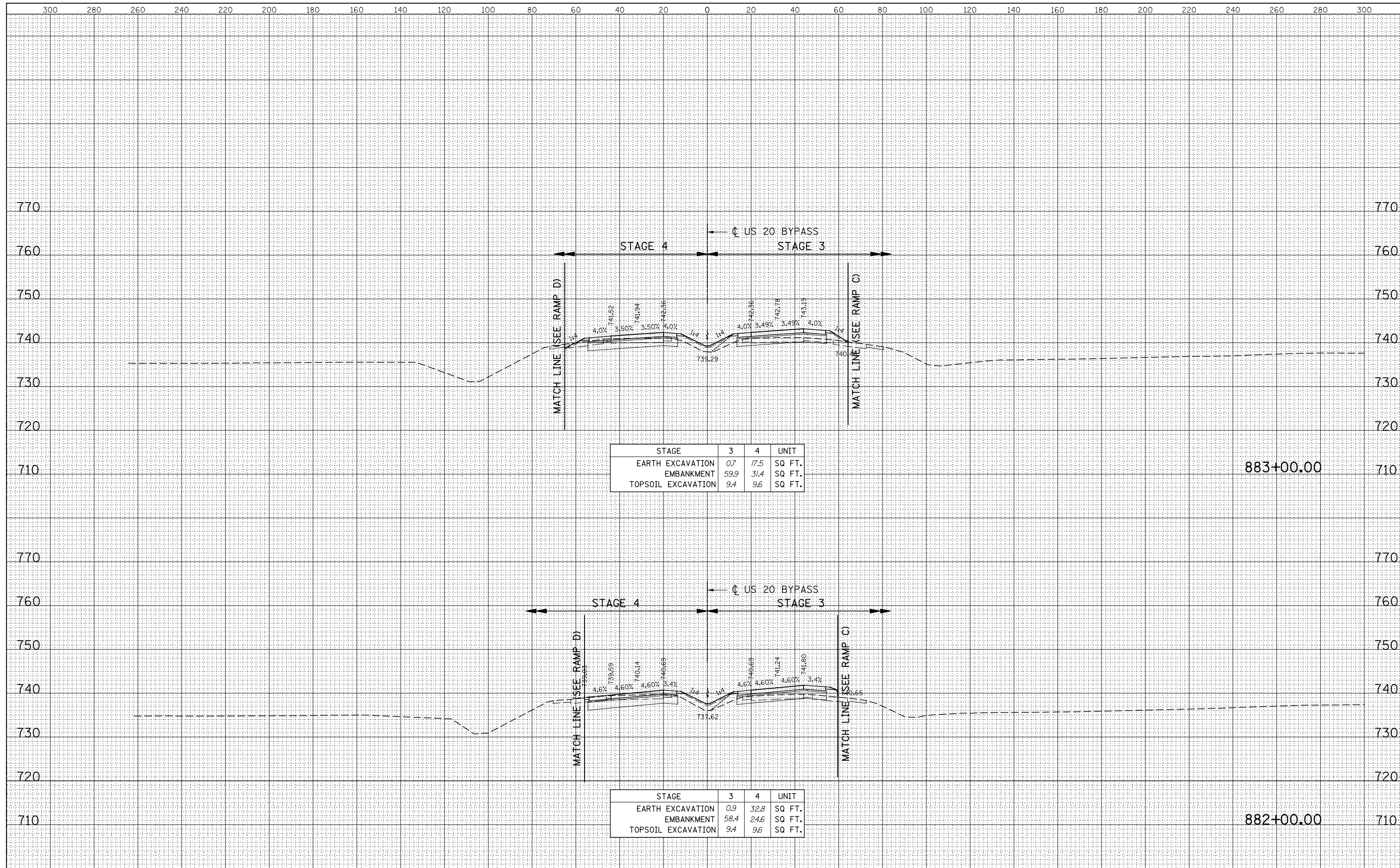
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 880+00.00 TO STA. 881+00.00

F.A.P. RTE. 301	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 579
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	0.7	17.5	SQ FT.
EMBANKMENT	59.9	31.4	SQ FT.
TOPSOIL EXCAVATION	9.4	9.6	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	0.9	32.8	SQ FT.
EMBANKMENT	58.4	24.6	SQ FT.
TOPSOIL EXCAVATION	9.4	9.6	SQ FT.



USER NAME - dsiw	DESIGNED - PMO	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

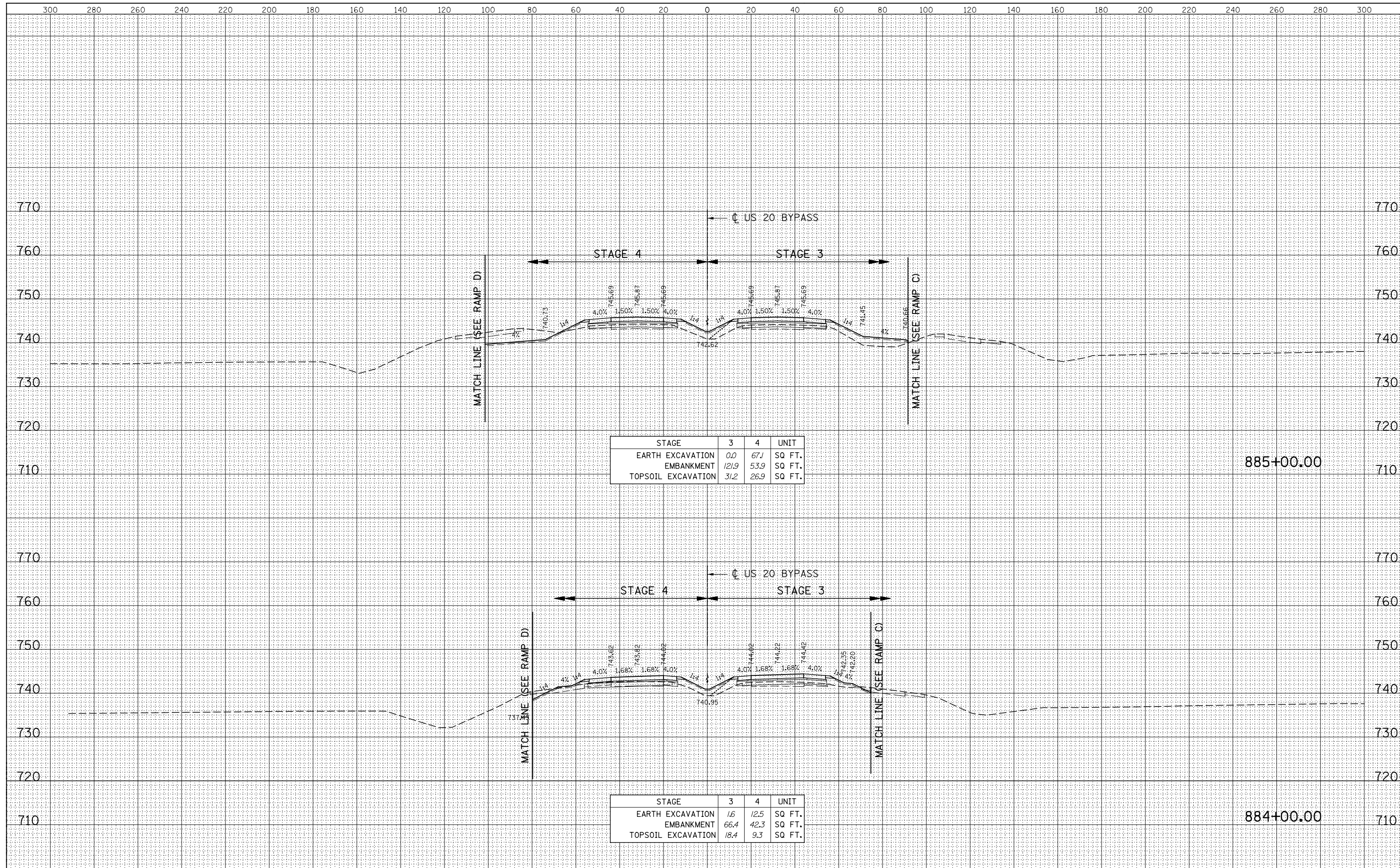
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 882+00.00 TO STA. 883+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	580
CONTRACT NO. 64B87			ILLINOIS FED. AID PROJECT	

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STAGE	3	4	UNIT
EARTH EXCAVATION	0.0	67.1	SQ FT.
EMBANKMENT	121.9	53.9	SQ FT.
TOPSOIL EXCAVATION	31.2	26.9	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	1.6	12.5	SQ FT.
EMBANKMENT	66.4	42.3	SQ FT.
TOPSOIL EXCAVATION	18.4	9.3	SQ FT.

KNIGHT
 Engineers & Architects

USER NAME - dsilwa
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

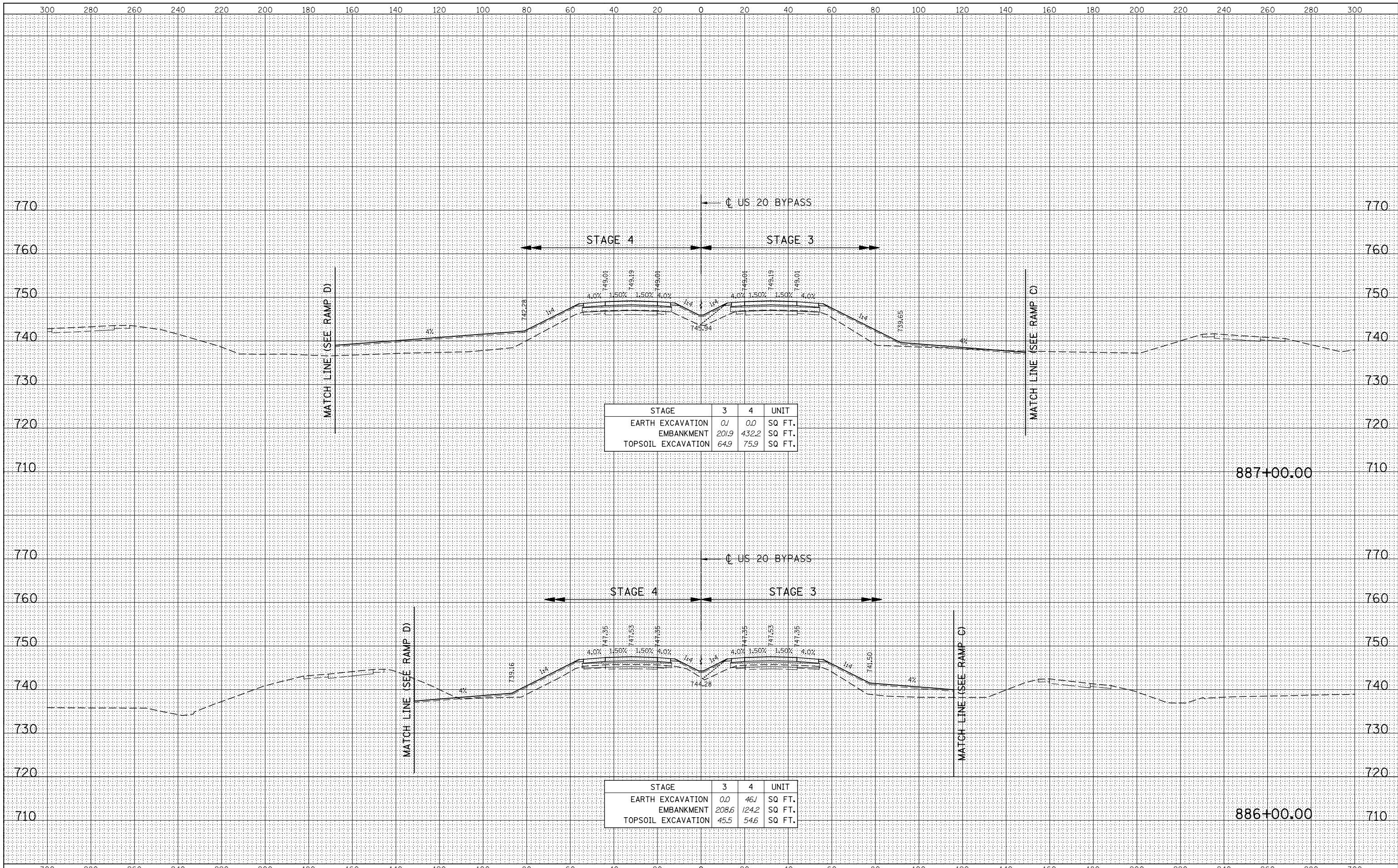
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 884+00.00 TO STA. 885+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	581
CONTRACT NO. 64B87				
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	0.1	0.0	SQ FT.
EMBANKMENT	201.9	432.2	SQ FT.
TOPSOIL EXCAVATION	64.9	75.9	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	0.0	46.1	SQ FT.
EMBANKMENT	208.6	124.2	SQ FT.
TOPSOIL EXCAVATION	45.5	54.6	SQ FT.

KNIGHT
Engineers & Architects

USER NAME - dsilve
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CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 886+00.00 TO STA. 887+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	582
CONTRACT NO. 64B87				

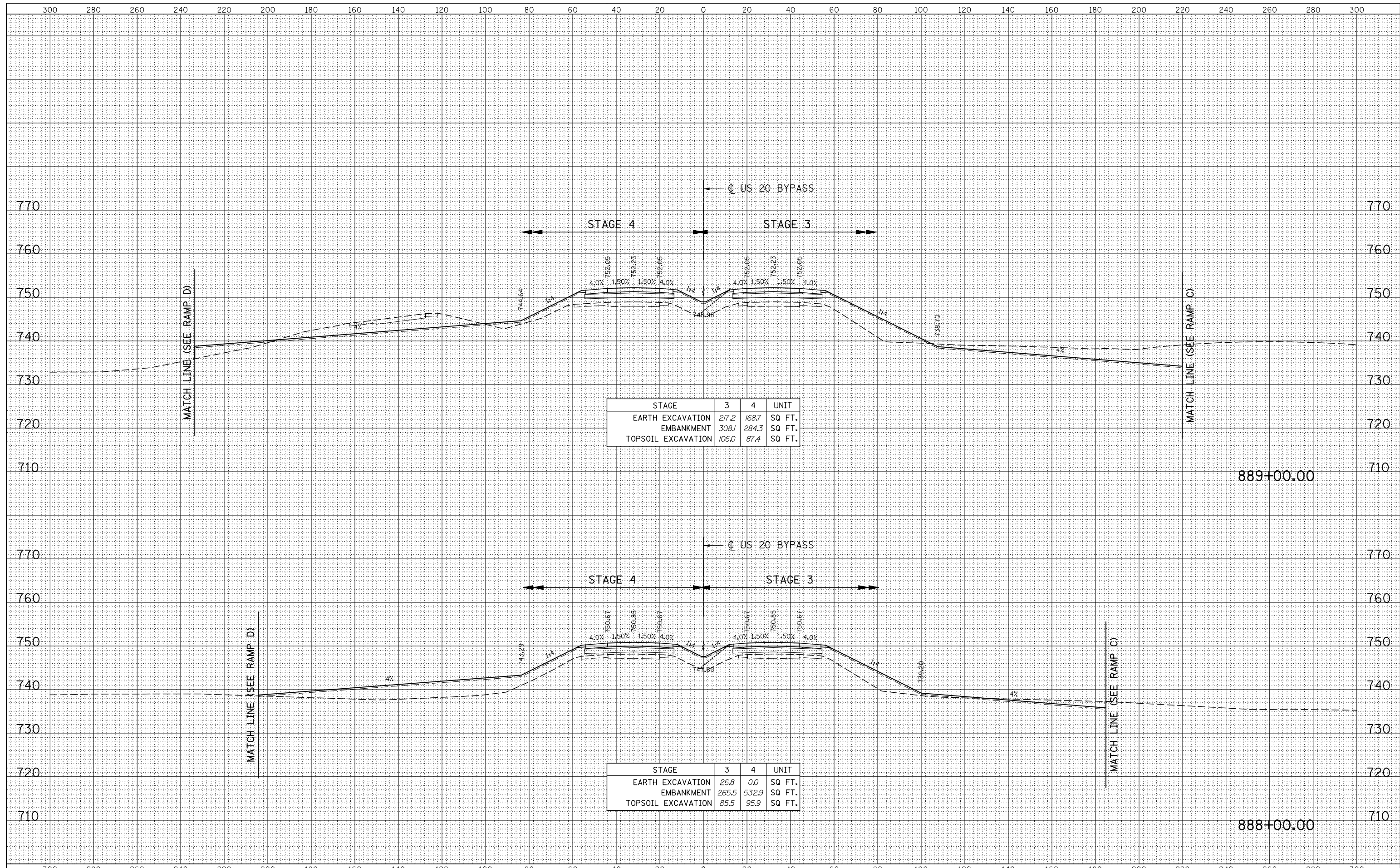
887+00.00

886+00.00

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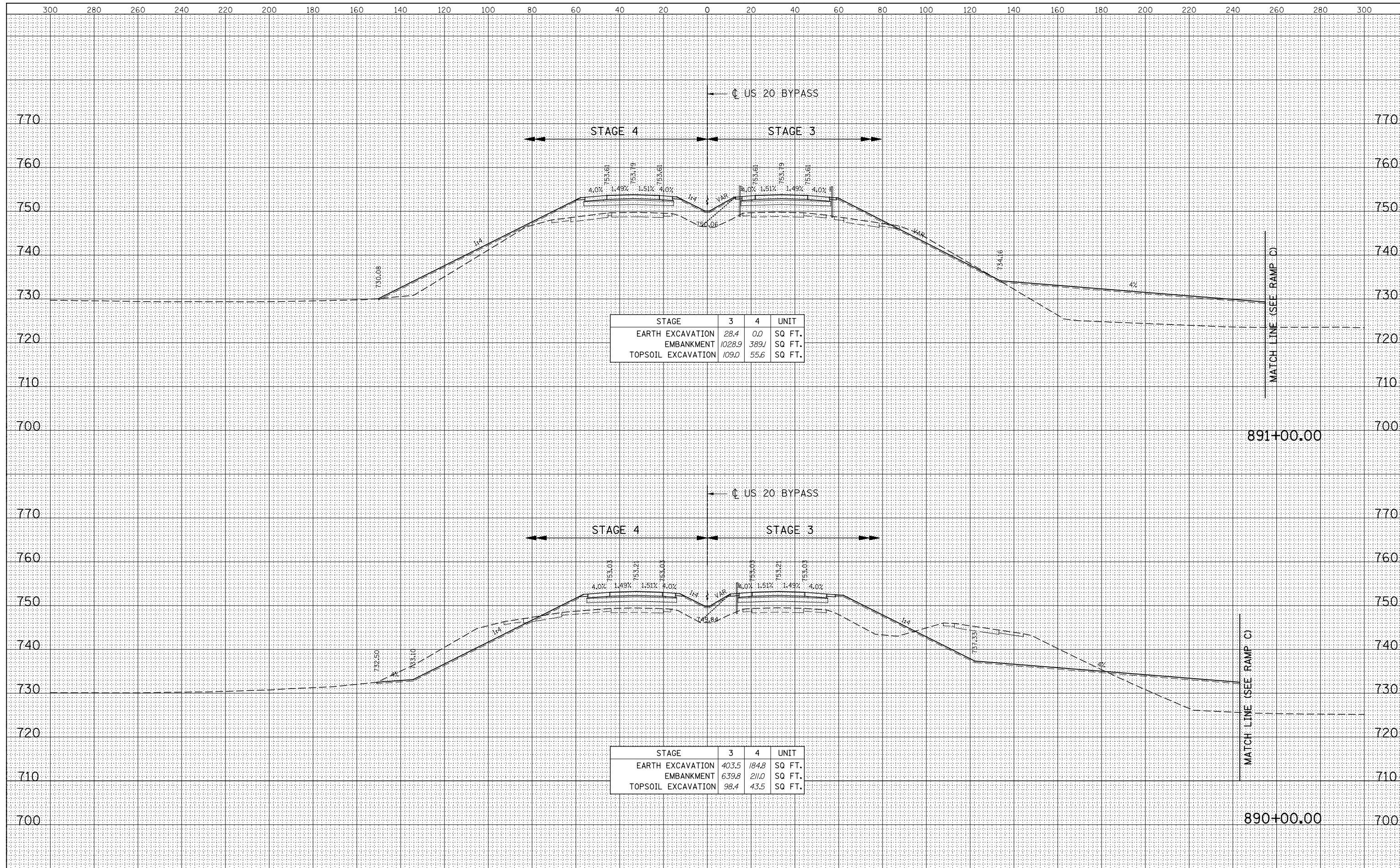


STAGE	3	4	UNIT
EARTH EXCAVATION	217.2	168.7	SQ FT.
EMBANKMENT	308.1	284.3	SQ FT.
TOPSOIL EXCAVATION	106.0	87.4	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	26.8	0.0	SQ FT.
EMBANKMENT	265.5	532.9	SQ FT.
TOPSOIL EXCAVATION	85.5	95.9	SQ FT.

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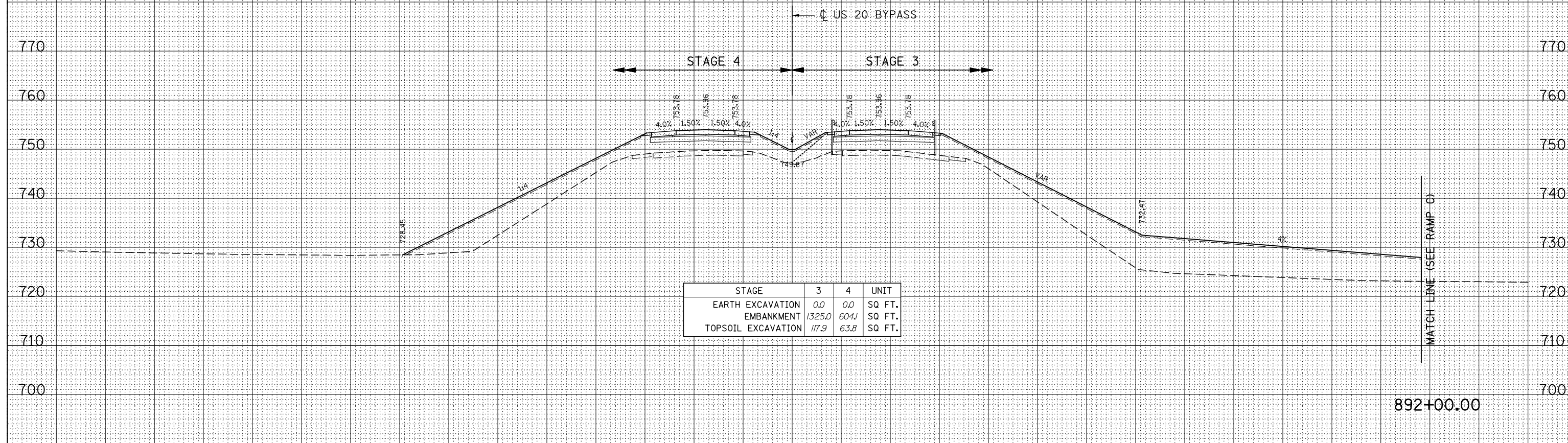
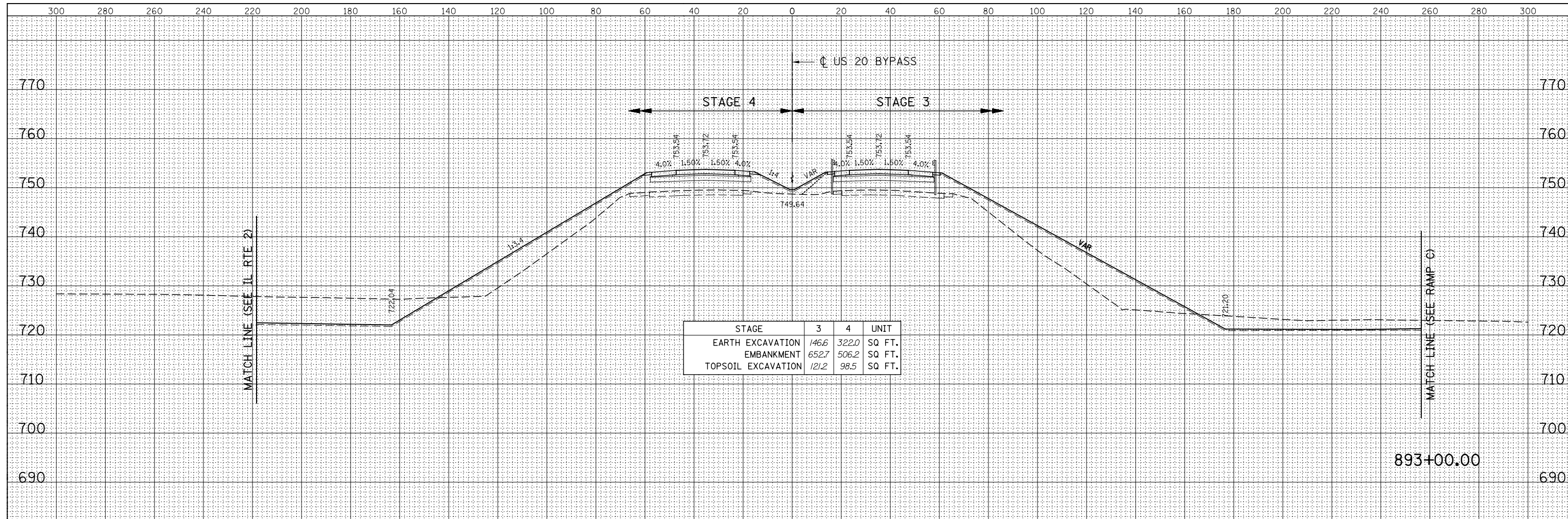
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 890+00.00 TO STA. 891+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	584
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

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CROSS SECTIONS - US 20 BYPASS

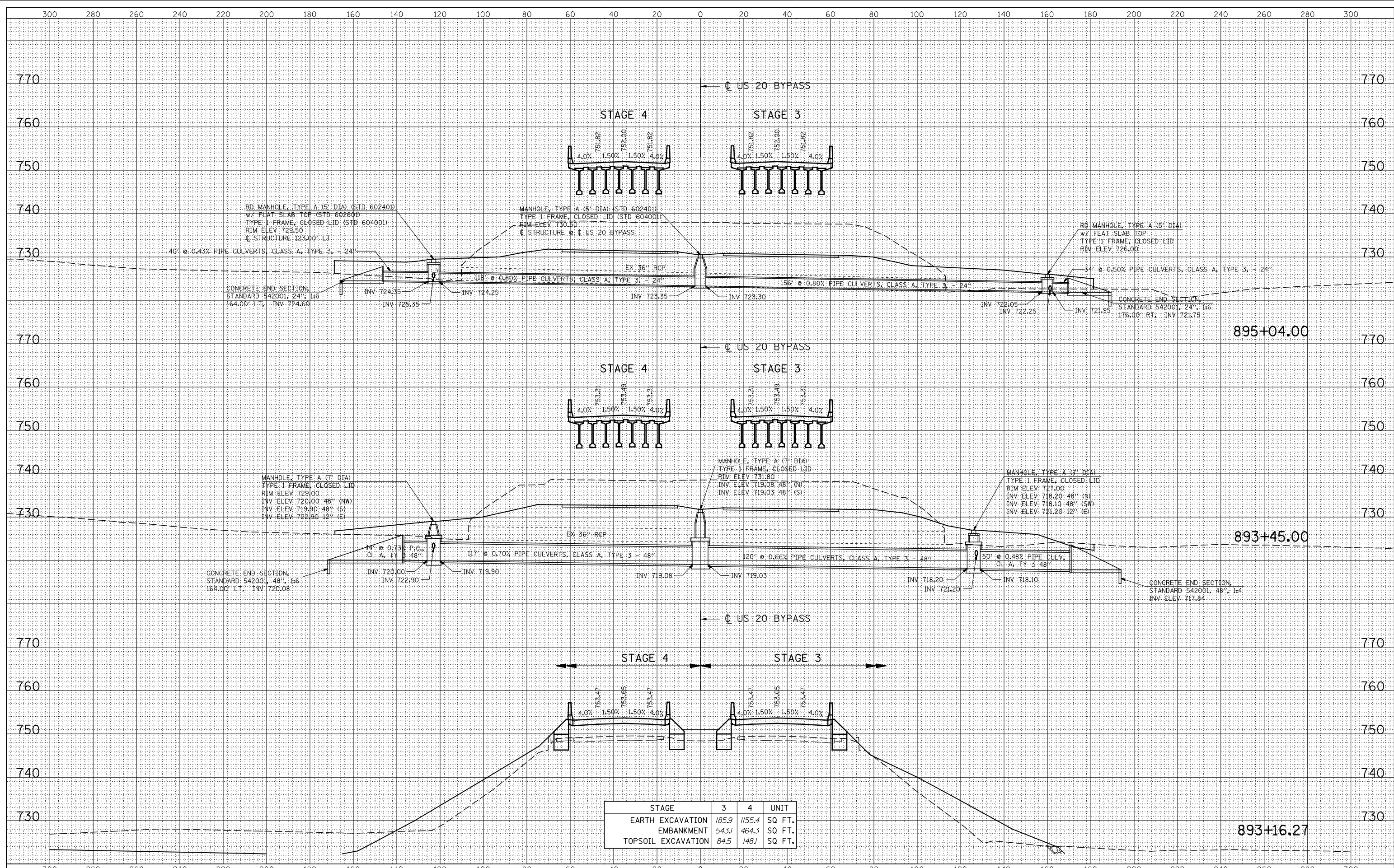
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 892+00.00 TO STA. 893+00.00

F.A.P. RTE. 301	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 585
			CONTRACT NO. 64B87	

ILLINOIS FED. AID PROJECT

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STAGE	3	4	UNIT
EARTH EXCAVATION	185.9	1155.4	SQ FT.
EMBANKMENT	543.1	464.3	SQ FT.
TOPSOIL EXCAVATION	84.5	148.1	SQ FT.

KNIGHT
Engineers & Architects

USER NAME = dsilve
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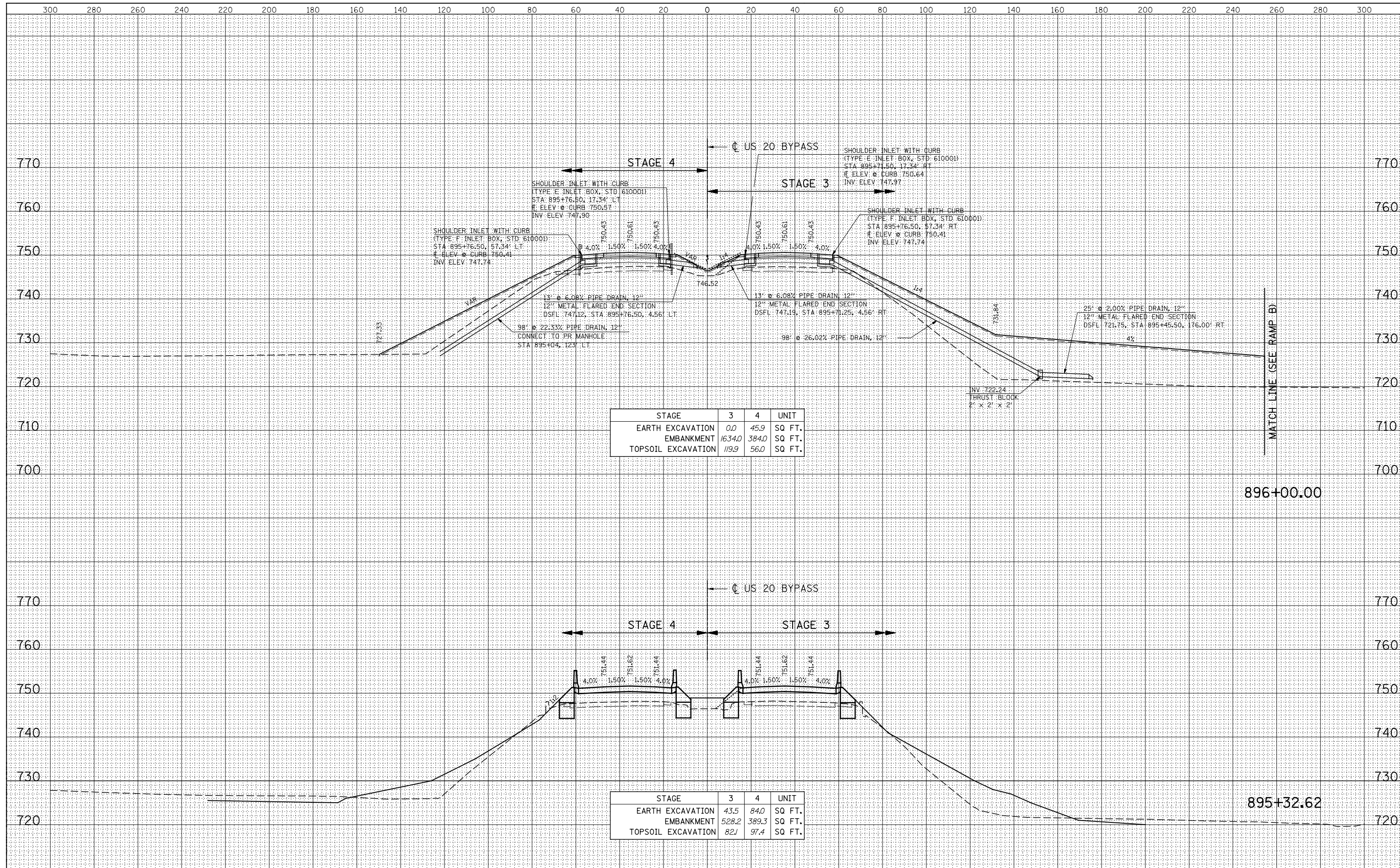
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 893+16.27 TO STA. 895+04.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	586
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64B87	

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STAGE	3	4	UNIT
EARTH EXCAVATION	0.0	45.9	SQ FT.
EMBANKMENT	1634.0	384.0	SQ FT.
TOPSOIL EXCAVATION	119.9	56.0	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	43.5	84.0	SQ FT.
EMBANKMENT	528.2	389.3	SQ FT.
TOPSOIL EXCAVATION	82.1	97.4	SQ FT.

KNIGHT
Engineers & Architects

USER NAME - dsilve
DESIGNED - PMO
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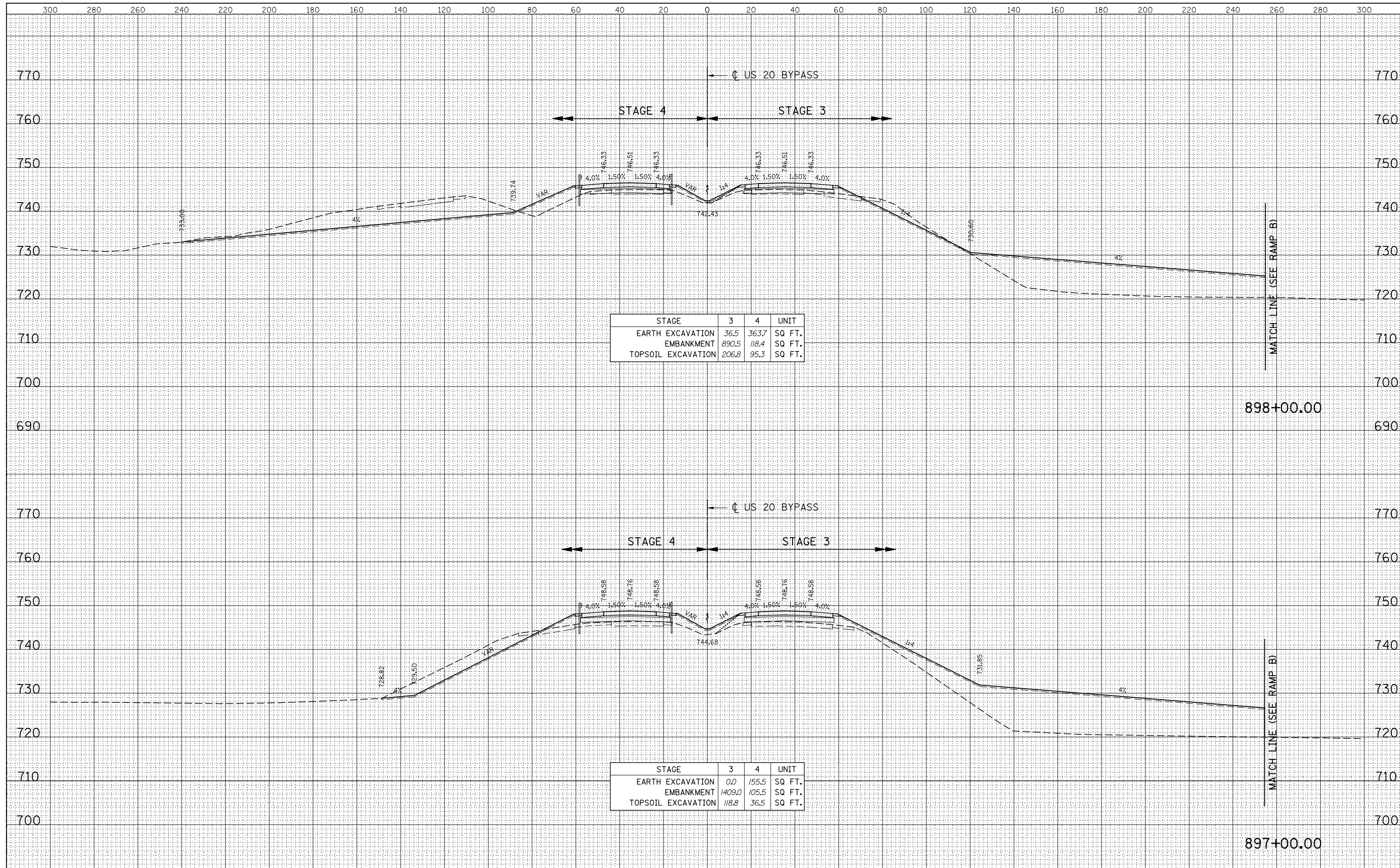
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 895+32.62 TO STA. 896+00.00

F.A.P. RTE. 301	SECTION 3HBR	COUNTY WINNEBAGO	TOTAL SHEETS 689	SHEET NO. 587
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	36.5	36.37	SQ FT.
EMBANKMENT	890.5	118.4	SQ FT.
TOPSOIL EXCAVATION	206.8	95.3	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	0.0	155.5	SQ FT.
EMBANKMENT	1409.0	105.5	SQ FT.
TOPSOIL EXCAVATION	118.8	36.5	SQ FT.



USER NAME	- dsilva	DESIGNED	- PMO	REVISED	-
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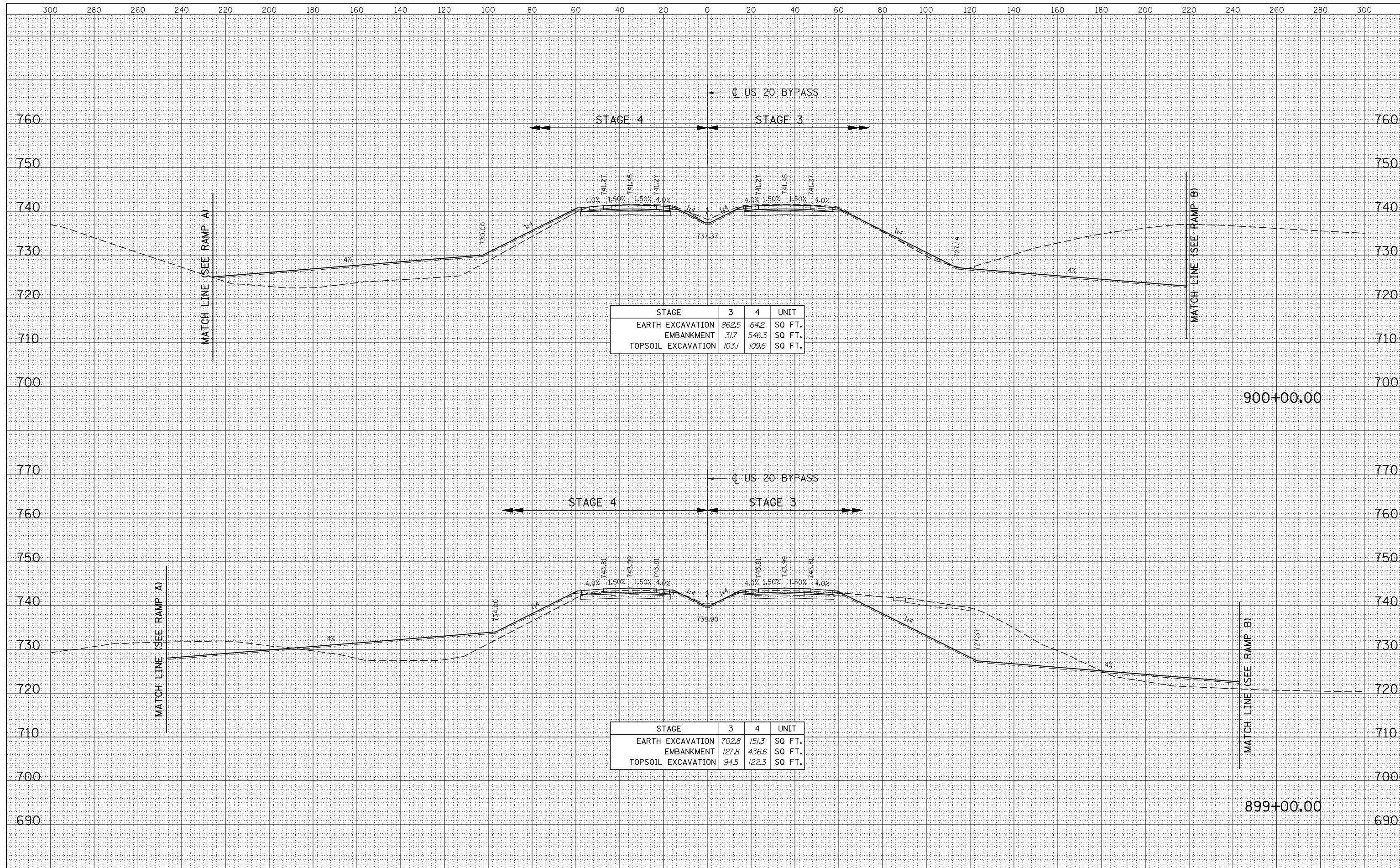
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 897+00.00 TO STA. 898+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	588
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	862.5	64.2	SQ. FT.
EMBANKMENT	31.7	546.3	SQ. FT.
TOPSOIL EXCAVATION	103.1	109.6	SQ. FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	702.8	151.3	SQ. FT.
EMBANKMENT	127.8	436.6	SQ. FT.
TOPSOIL EXCAVATION	94.5	122.3	SQ. FT.



USER NAME = dsiw
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CROSS SECTIONS - US 20 BYPASS

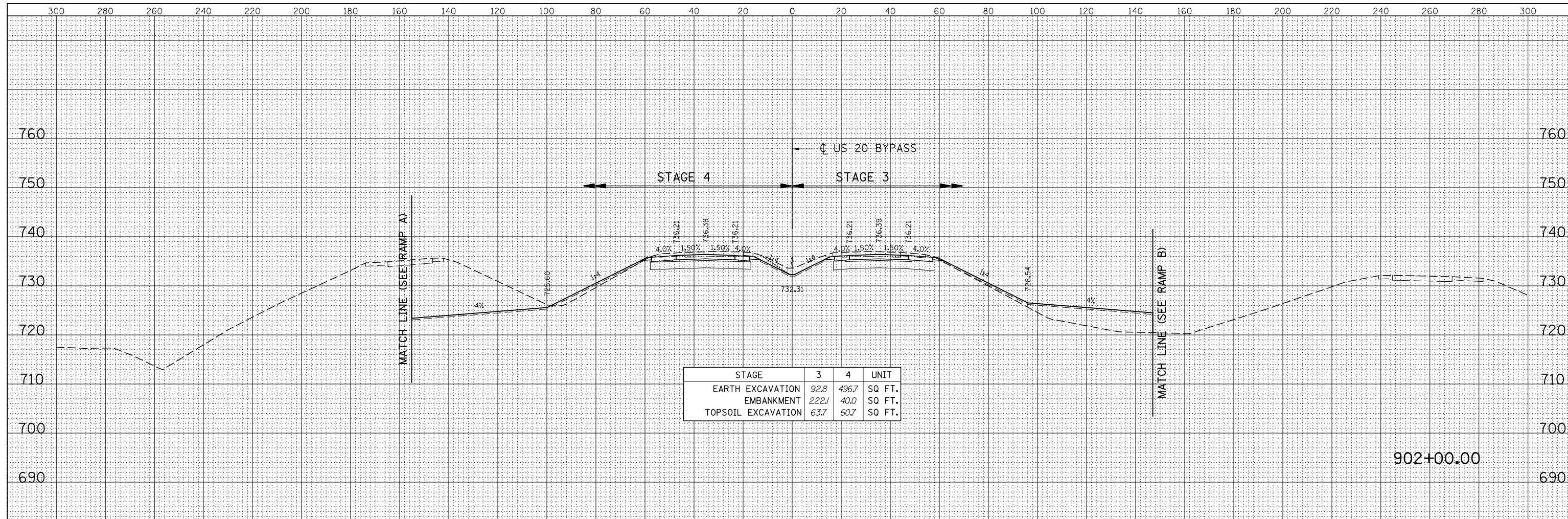
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 899+00.00 TO STA. 900+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	589

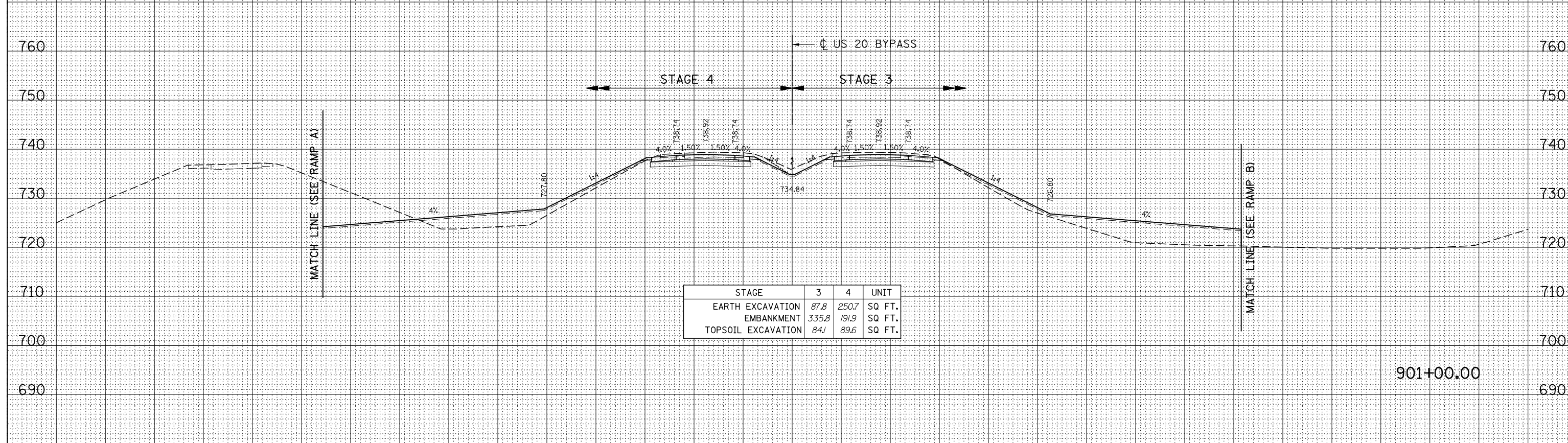
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STAGE	3	4	UNIT
EARTH EXCAVATION	92.8	496.7	SQ FT.
EMBANKMENT	222.1	40.0	SQ FT.
TOPSOIL EXCAVATION	63.7	60.7	SQ FT.



STAGE	3	4	UNIT
EARTH EXCAVATION	87.8	250.7	SQ FT.
EMBANKMENT	335.8	191.9	SQ FT.
TOPSOIL EXCAVATION	84.1	89.6	SQ FT.



USER NAME - dsilve	DESIGNED - PMO	REVISED -
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CROSS SECTIONS - US 20 BYPASS

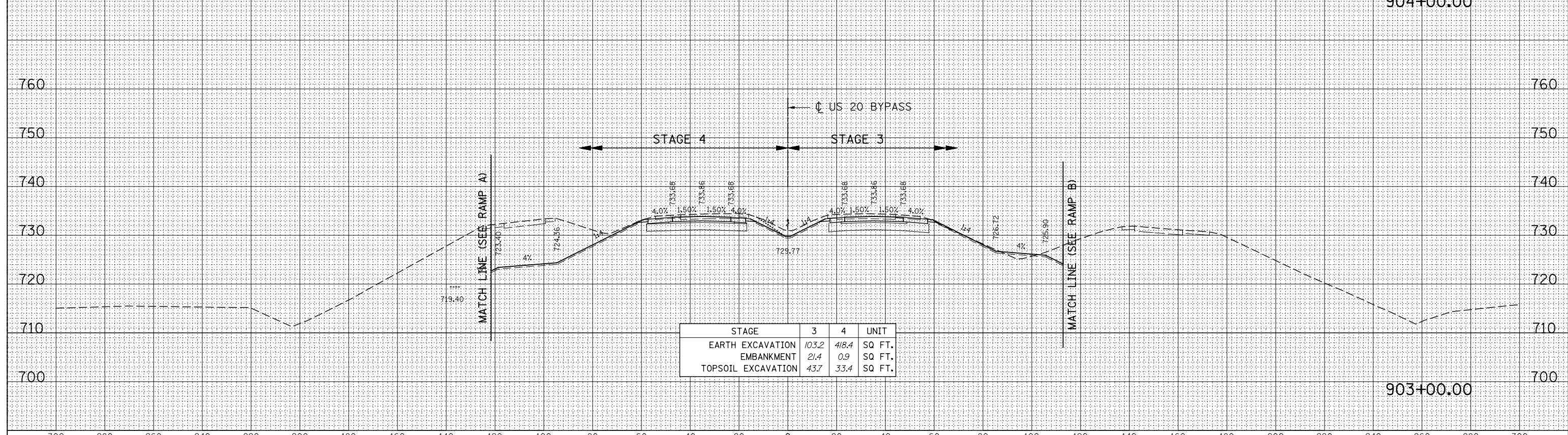
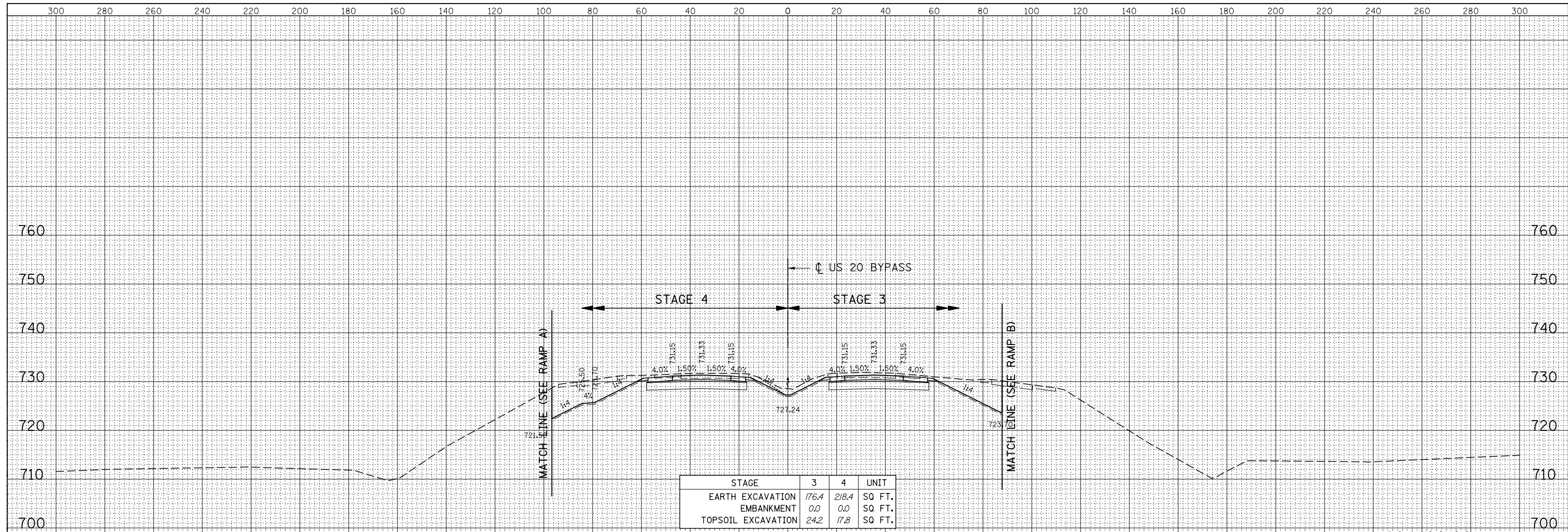
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 901+00.00 TO STA. 902+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	590
CONTRACT NO. 64B87				

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USER NAME - dsiw
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CROSS SECTIONS - US 20 BYPASS

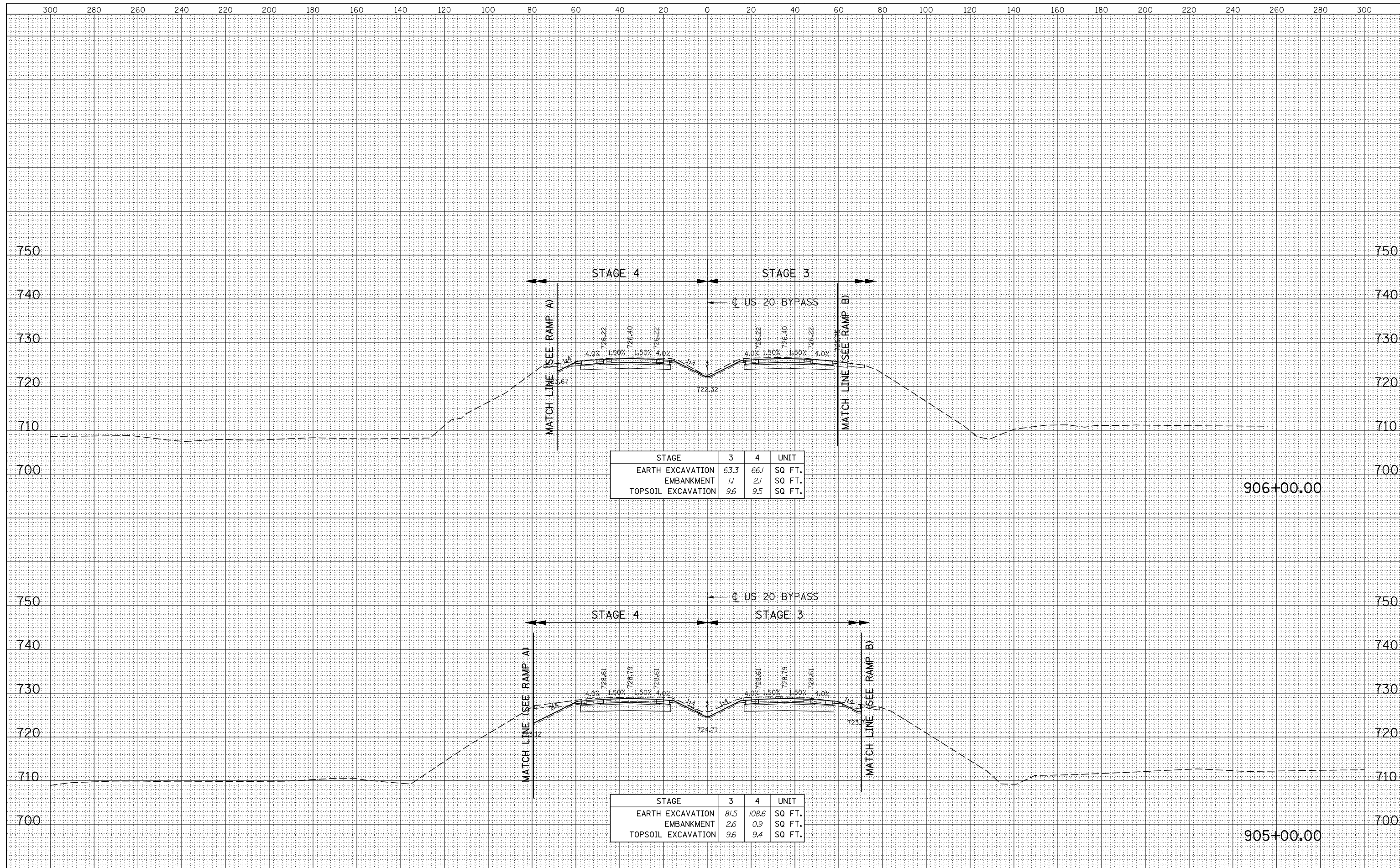
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 903+00.00 TO STA. 904+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	591
			CONTRACT NO. 64B87	

ILLINOIS FED. AID PROJECT

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STAGE	3	4	UNIT
EARTH EXCAVATION	63.3	66.1	SQ FT.
EMBANKMENT	1.1	2.1	SQ FT.
TOPSOIL EXCAVATION	9.6	9.5	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	81.5	108.6	SQ FT.
EMBANKMENT	2.6	0.9	SQ FT.
TOPSOIL EXCAVATION	9.6	9.4	SQ FT.



USER NAME - dsiw
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CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 905+00.00 TO STA. 906+00.00

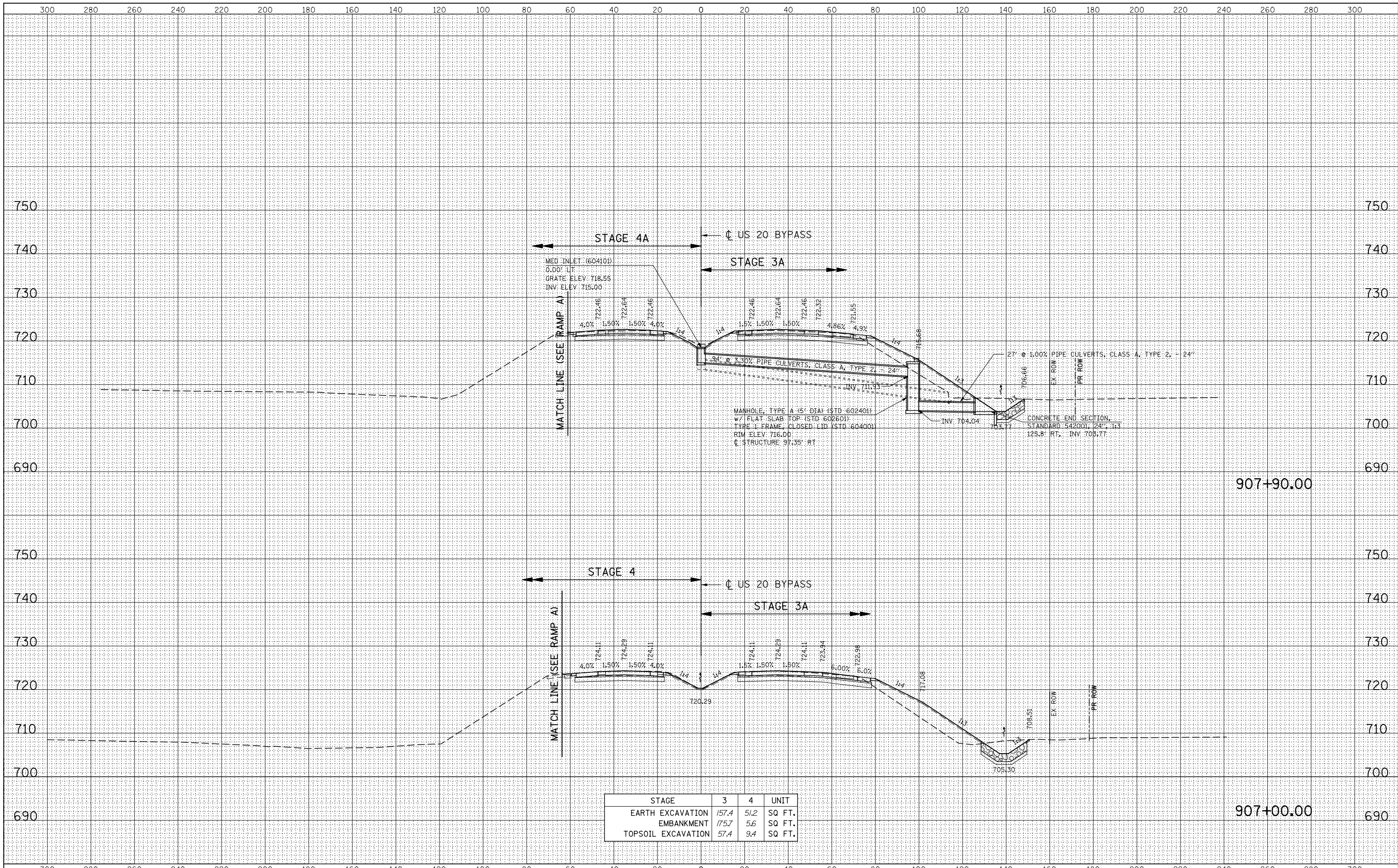
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	592
				CONTRACT NO. 64B87

906+00.00

905+00.00

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STAGE	3	4	UNIT
EARTH EXCAVATION	157.4	51.2	SQ FT.
EMBANKMENT	175.7	5.6	SQ FT.
TOPSOIL EXCAVATION	57.4	9.4	SQ FT.



USER NAME = dsilve
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CROSS SECTIONS - US 20 BYPASS

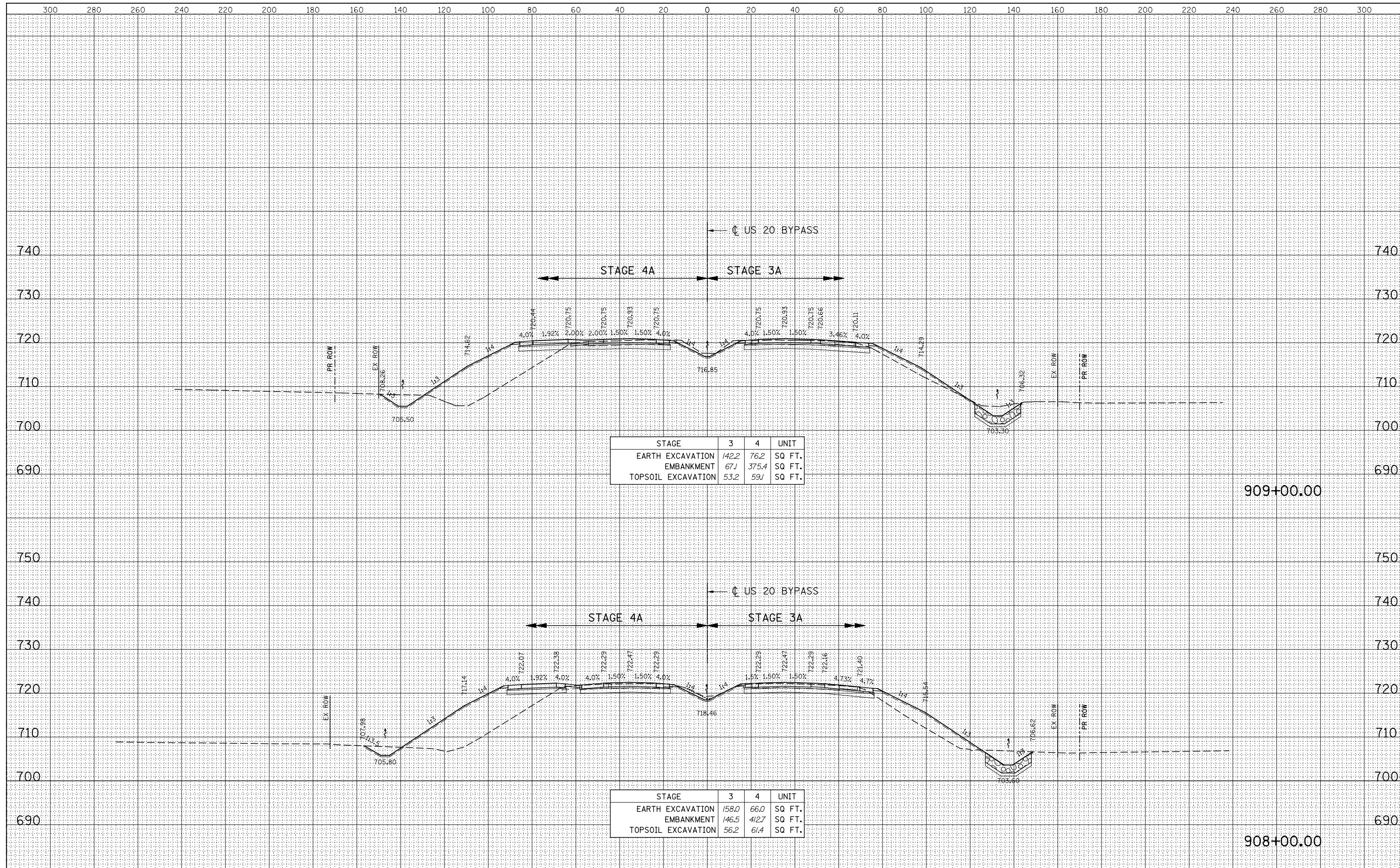
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 907+00.00 TO STA. 907+90.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	593

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 ILLINOIS FED. AID PROJECT

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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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STAGE	3	4	UNIT
EARTH EXCAVATION	142.2	76.2	SQ FT.
EMBANKMENT	67.1	375.4	SQ FT.
TOPSOIL EXCAVATION	53.2	59.1	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	158.0	66.0	SQ FT.
EMBANKMENT	146.5	412.7	SQ FT.
TOPSOIL EXCAVATION	56.2	61.4	SQ FT.



USER NAME - dsiw
 DESIGNED - PMO
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 CHECKED - DMS
 DATE - 08-15-2018

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

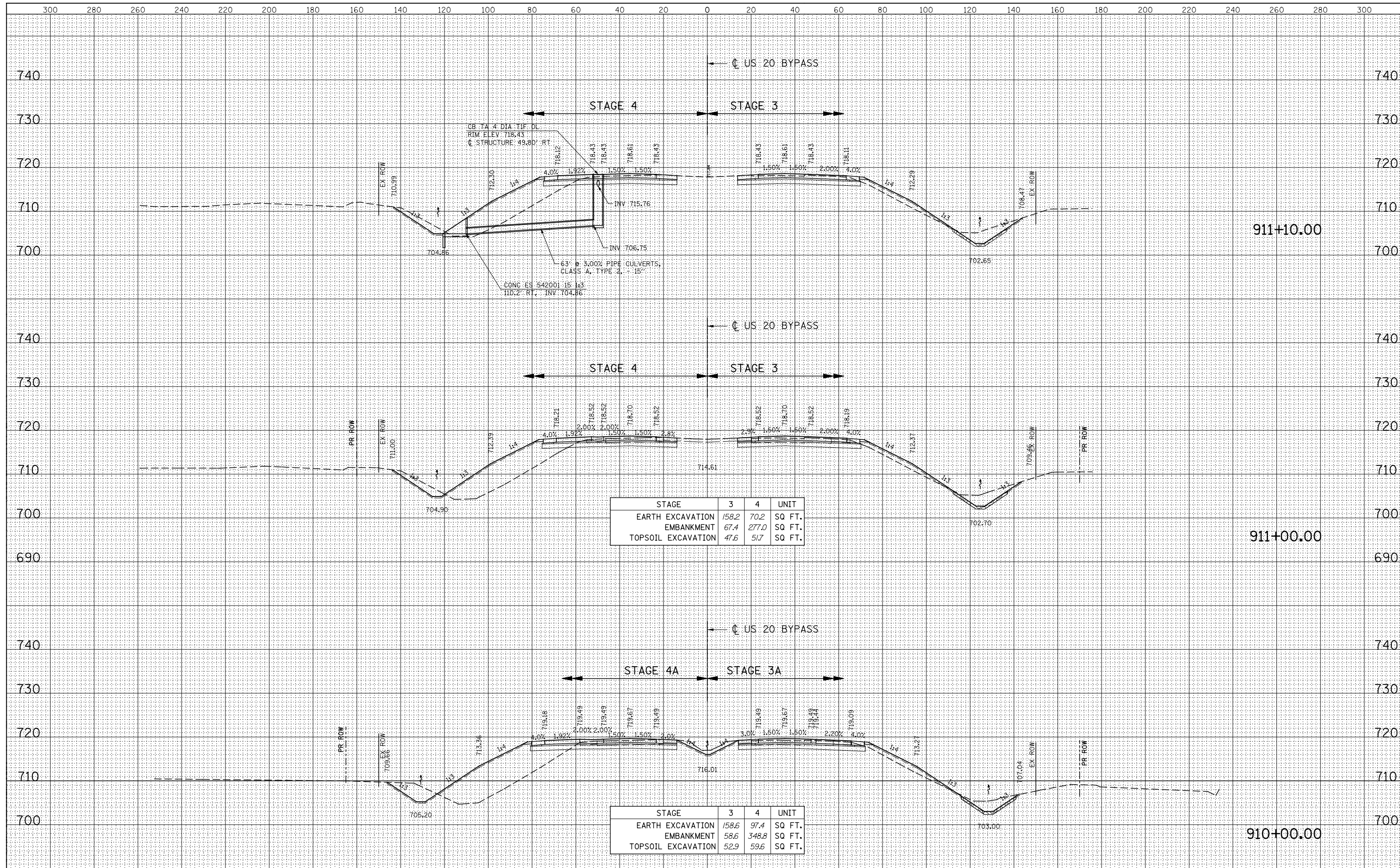
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 908+00.00 TO STA. 909+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	594
			CONTRACT NO. 64B87	
ILLINOIS FED. AID PROJECT				

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STAGE	3	4	UNIT
EARTH EXCAVATION	158.2	70.2	SQ FT.
EMBANKMENT	67.4	277.0	SQ FT.
TOPSOIL EXCAVATION	47.6	51.7	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	158.6	97.4	SQ FT.
EMBANKMENT	58.6	348.8	SQ FT.
TOPSOIL EXCAVATION	52.9	59.6	SQ FT.



USER NAME = dsiw
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 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 20 BYPASS

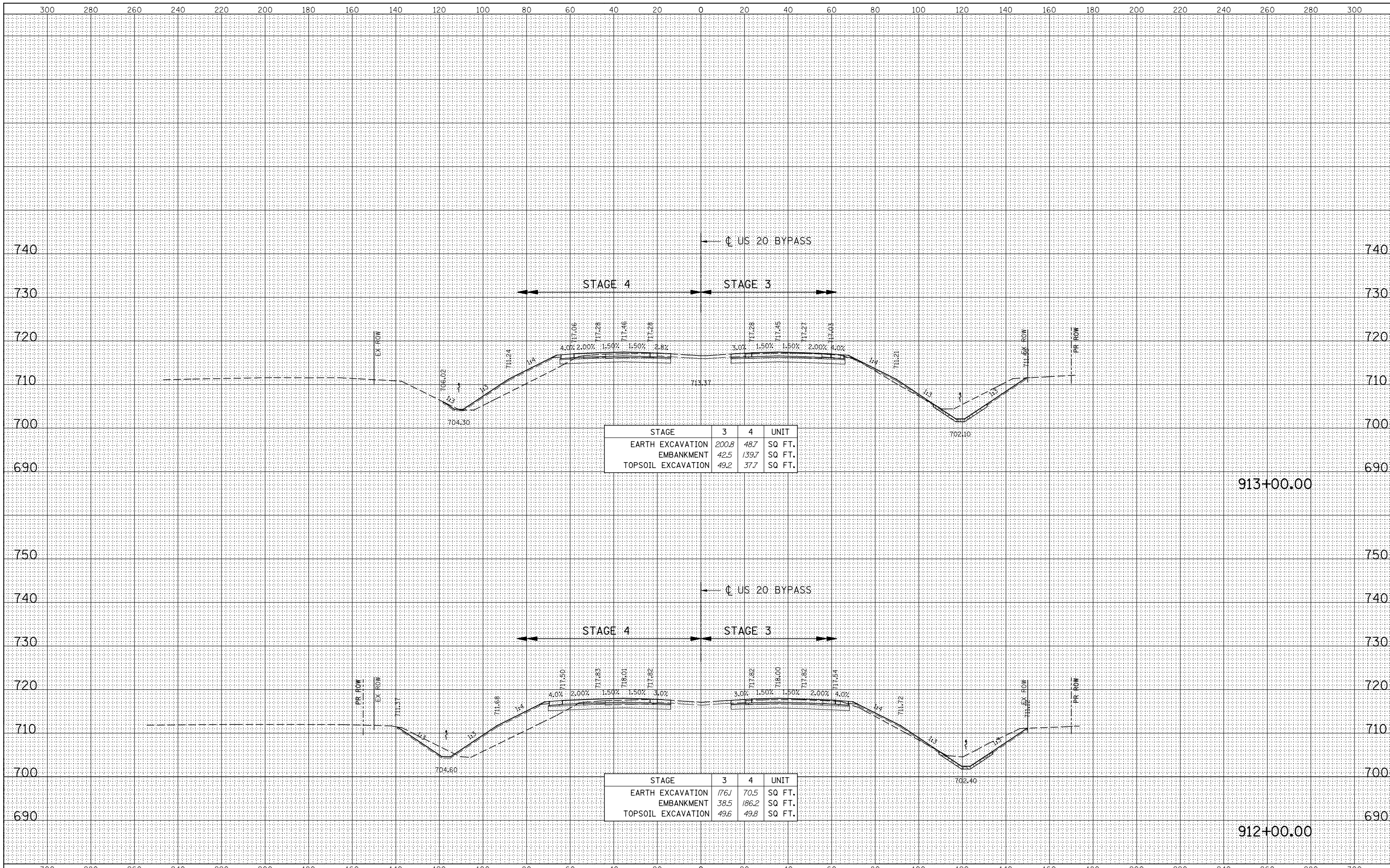
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 910+00.00 TO STA. 911+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	595

CONTRACT NO. 64B87
 ILLINOIS FED. AID PROJECT

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KNIGHT
Engineers & Architects

USER NAME - dsiw	DESIGNED - PMO	REVISED -
PLOT SCALE - 1:40	DRAWN - PMO	REVISED -
PLOT DATE - 8/16/2018	CHECKED - DMS	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

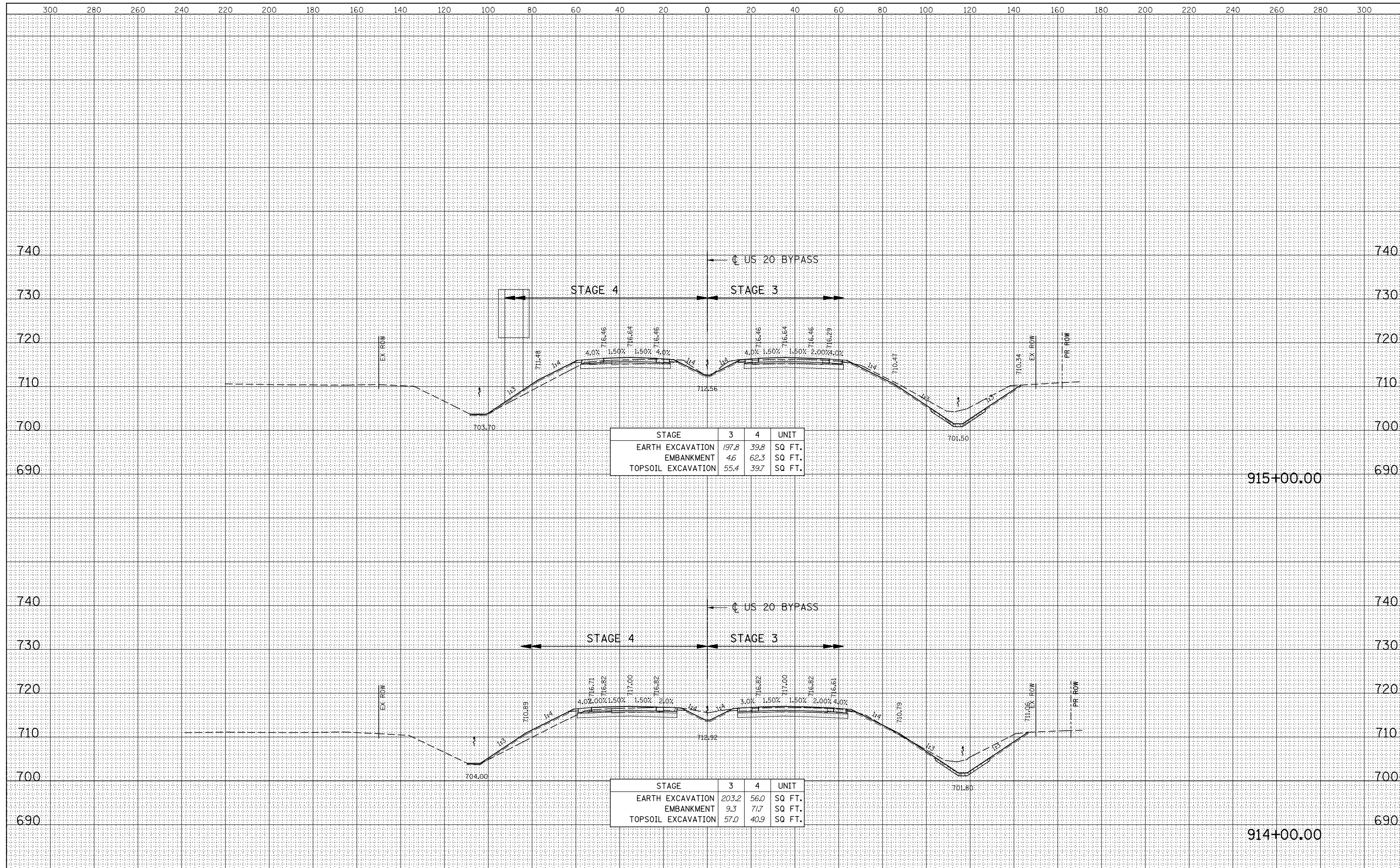
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 912+00.00 TO STA. 913+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	596
				CONTRACT NO. 64B87
ILLINOIS FED. AID PROJECT				

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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ORIGINAL SURVEY	SURVEYED
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STAGE	3	4	UNIT
EARTH EXCAVATION	197.8	39.8	SQ FT.
EMBANKMENT	4.6	62.3	SQ FT.
TOPSOIL EXCAVATION	55.4	39.7	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	203.2	56.0	SQ FT.
EMBANKMENT	9.3	71.7	SQ FT.
TOPSOIL EXCAVATION	57.0	40.9	SQ FT.



USER NAME - dsilve	DESIGNED - PMO	REVISED -
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PLOT DATE - 8/16/2018	CHECKED - DMS	REVISED -
	DATE - 08-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 20 BYPASS

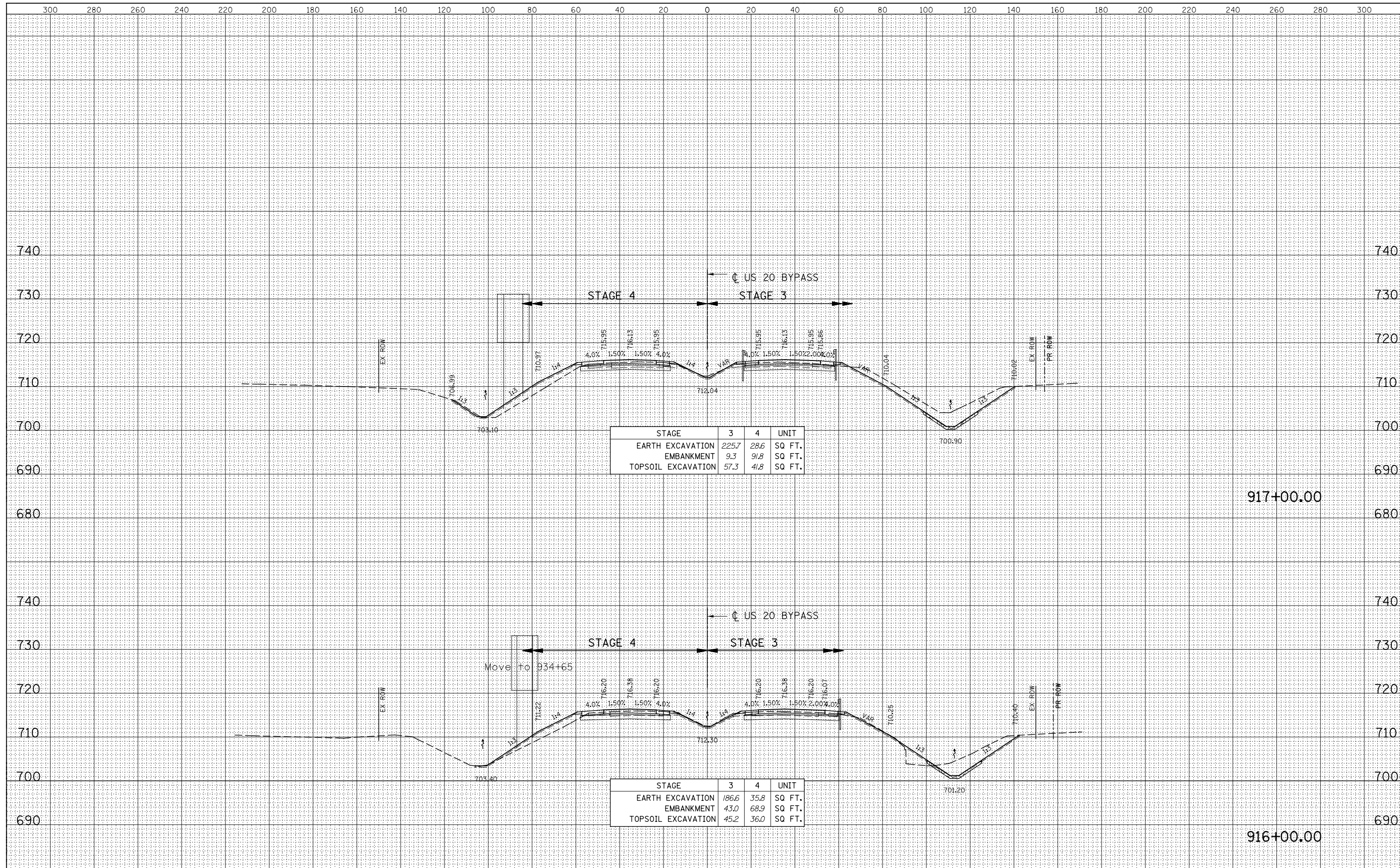
SCALE: 20H/10V SHEET NO. OF SHEETS STA. 914+00.00 TO STA. 915+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	597
			CONTRACT NO. 64B87	

ILLINOIS FED. AID PROJECT

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STAGE	3	4	UNIT
EARTH EXCAVATION	225.7	28.6	SQ FT.
EMBANKMENT	9.3	91.8	SQ FT.
TOPSOIL EXCAVATION	57.3	41.8	SQ FT.

STAGE	3	4	UNIT
EARTH EXCAVATION	186.6	35.8	SQ FT.
EMBANKMENT	43.0	68.9	SQ FT.
TOPSOIL EXCAVATION	45.2	36.0	SQ FT.



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

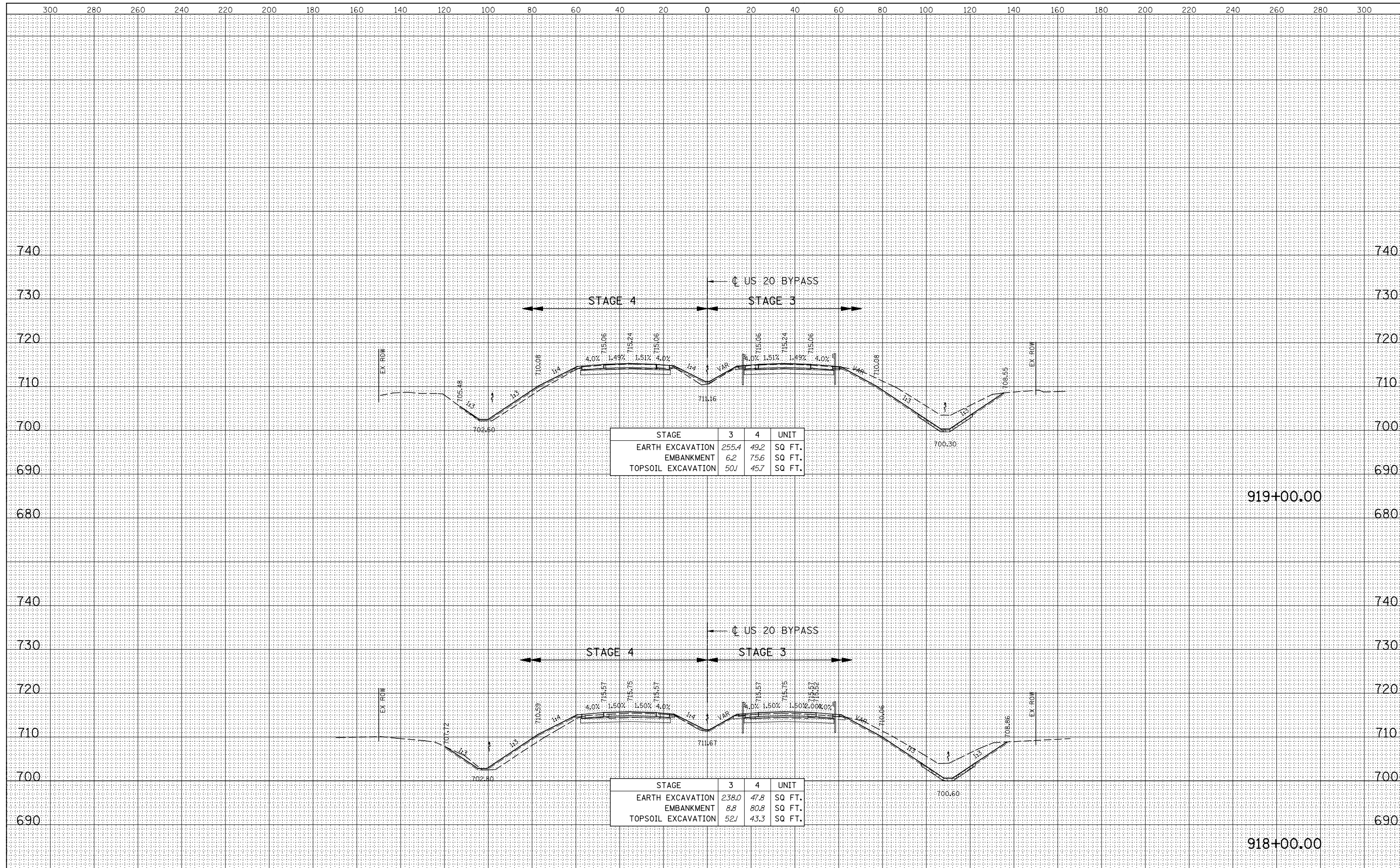
CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 916+00.00 TO STA. 917+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	598
				CONTRACT NO. 64B87
ILLINOIS FED. AID PROJECT				

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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ORIGINAL SURVEY	SURVEYED
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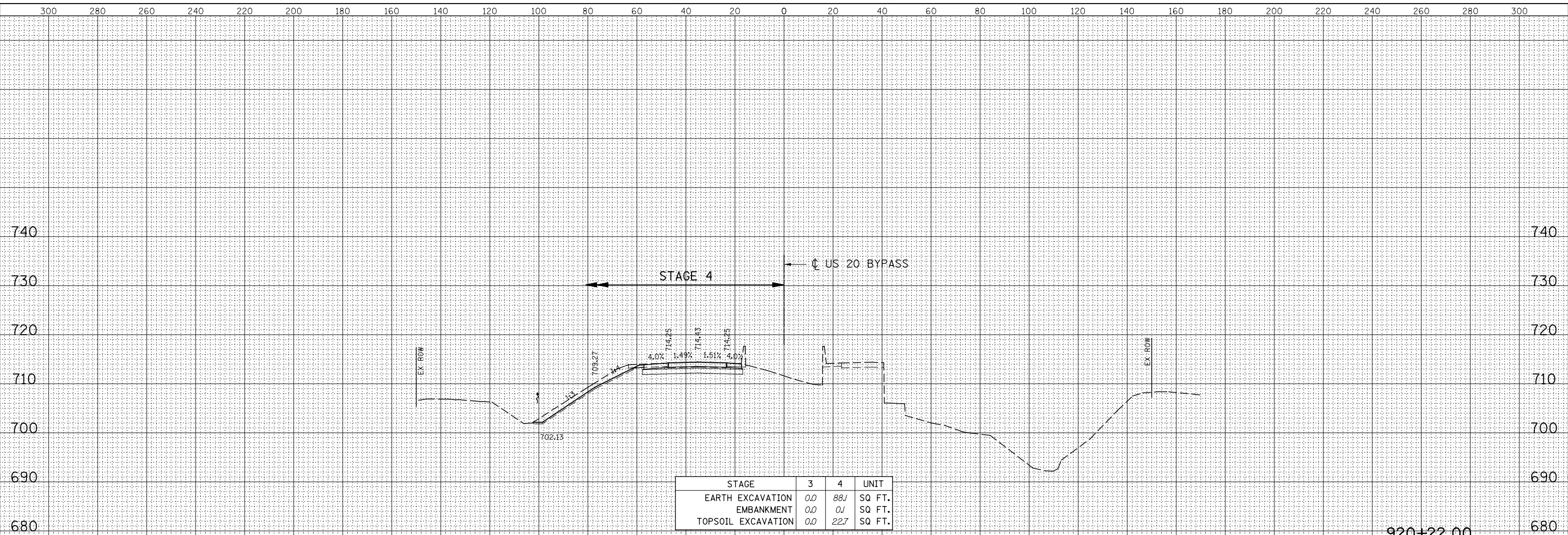
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - US 20 BYPASS

SCALE: 20H/10V SHEET NO. OF SHEETS STA. 918+00.00 TO STA. 919+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3HBR	WINNEBAGO	689	599
				CONTRACT NO. 64B87
ILLINOIS FED. AID PROJECT				

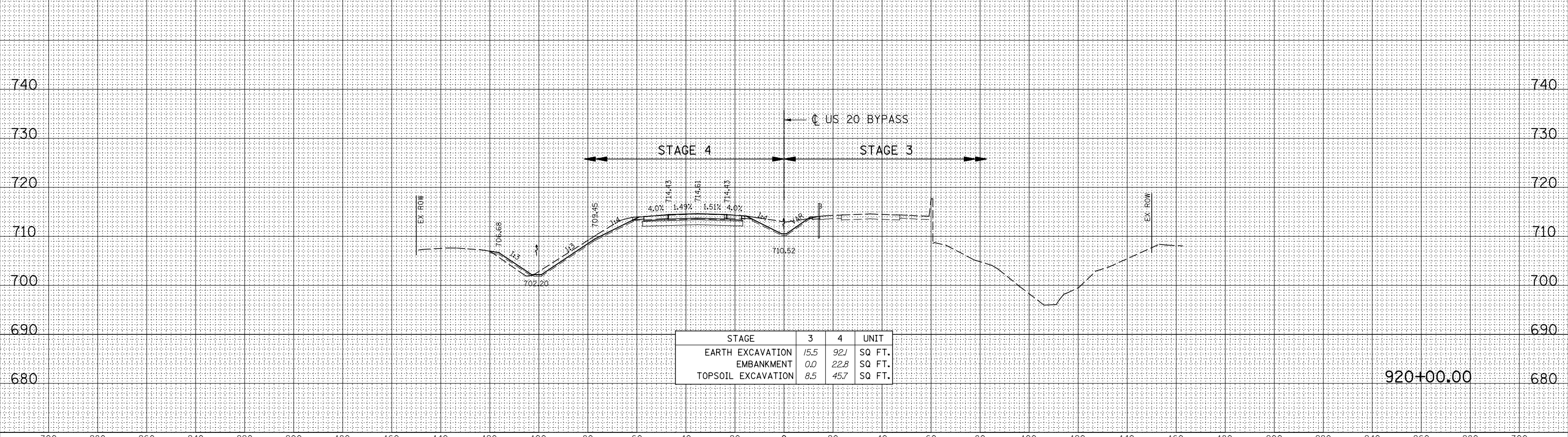
BY	DATE
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NOTE BOOK NO.	



STAGE	3	4	UNIT
EARTH EXCAVATION	0.0	88.1	SQ FT.
EMBANKMENT	0.0	0.1	SQ FT.
TOPSOIL EXCAVATION	0.0	22.7	SQ FT.

920+22.00

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



STAGE	3	4	UNIT
EARTH EXCAVATION	15.5	92.1	SQ FT.
EMBANKMENT	0.0	22.8	SQ FT.
TOPSOIL EXCAVATION	8.5	45.7	SQ FT.

920+00.00