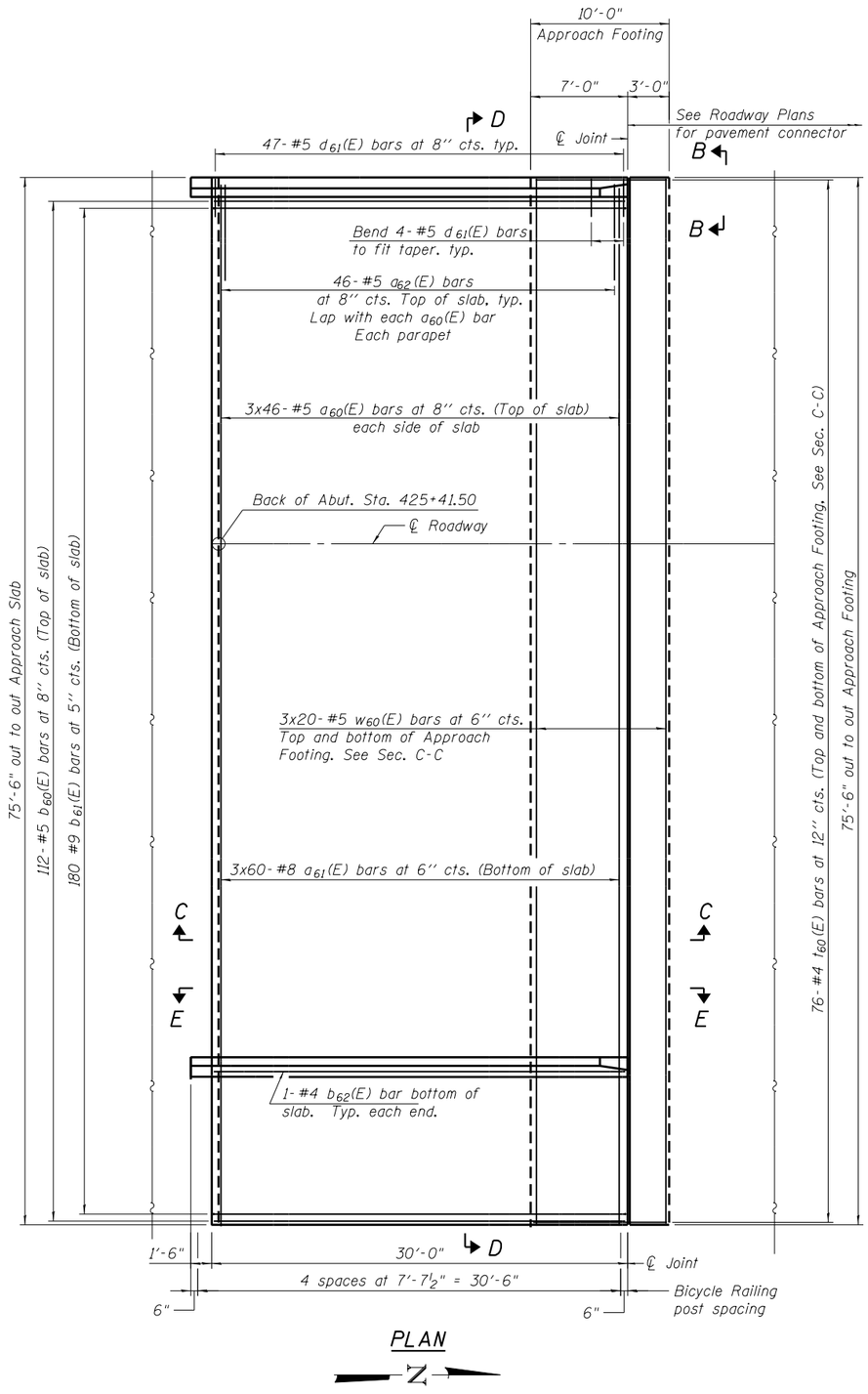
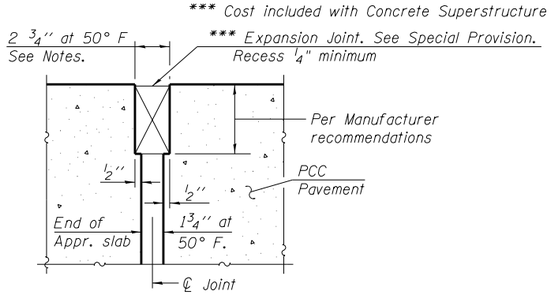


PLAN

Notes:
See sheet S-30 for Sections C-C & D-D and View E-E.
a_{60}(E) and a_{61}(E) bar spacings measured along ℄ 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 1½" for installation purposes.

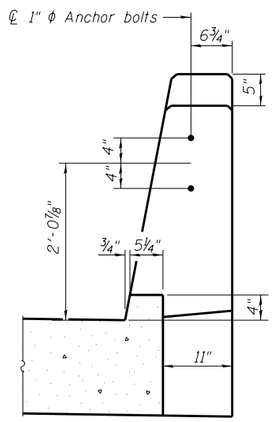
MINIMUM BAR LAP

#4 bar = 2'-8"
#5 bar = 3'-4"
#8 bar = 4'-9"



RIGID PAVEMENT
See Hwy Std.
420401

DETAIL A



VIEW B-B

HRG PROJECT NO.: 8B13038I
HRG PROJ. CONTACT:
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PLOT DRIVER: IL_pdf_Dwg.cfg
PEN TABLE: plotstbl.tbl

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184-001322

USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH APPROACH SLAB
SN: 047-3175
SHEET NO. S-29 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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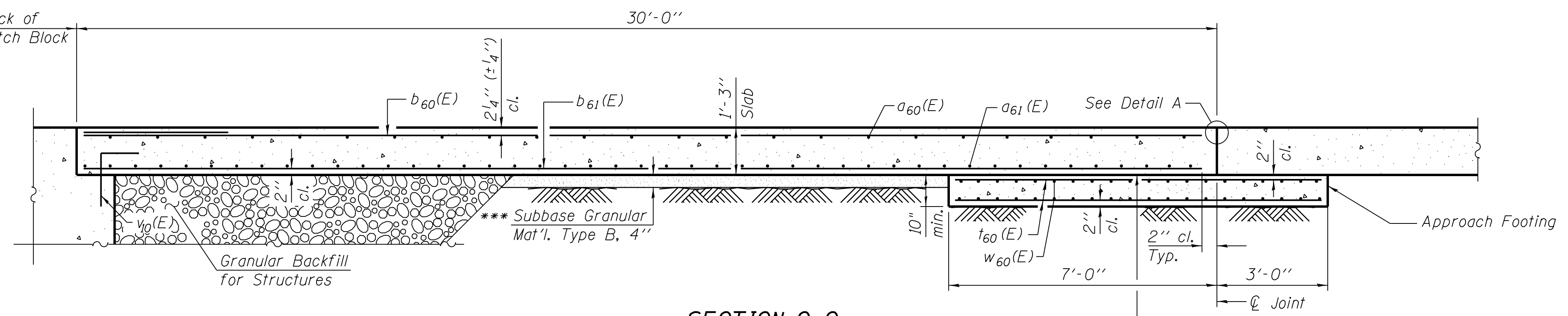
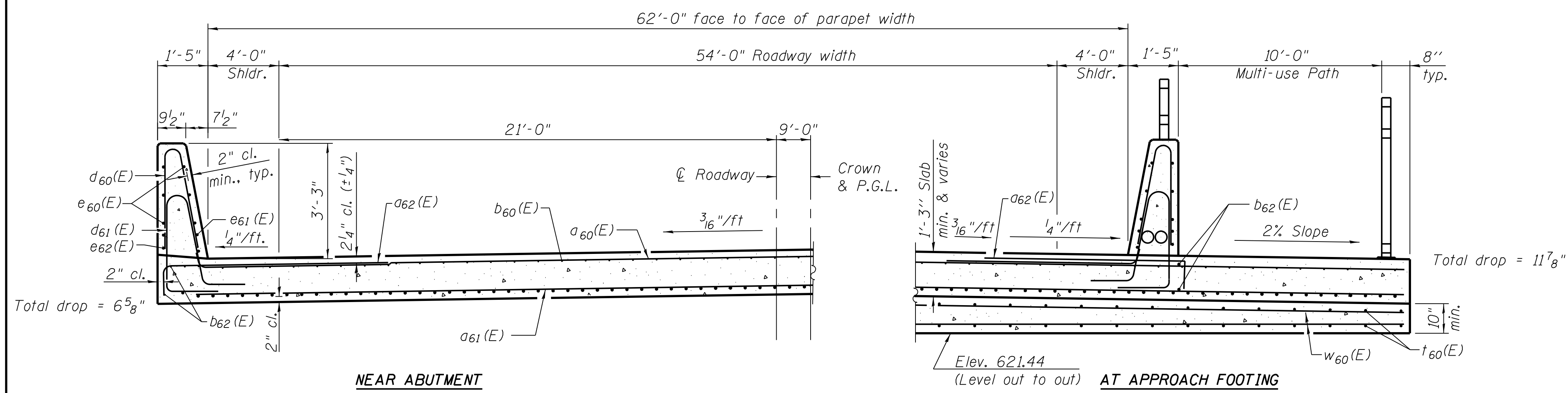
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

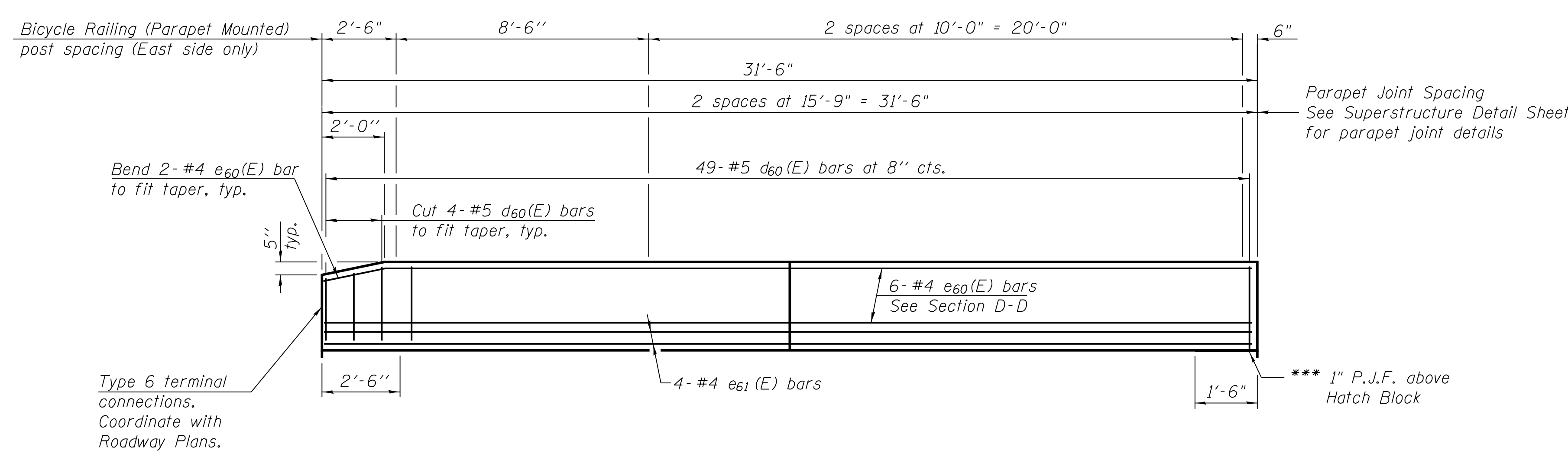


SECTION C-C



SECTION D-D

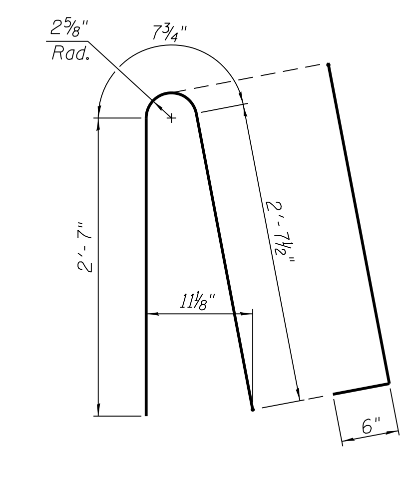
(See Plan for dimensions not shown)



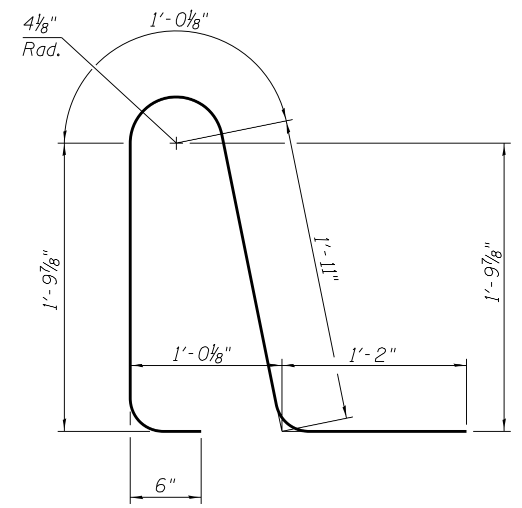
VIEW E-E

Notes:

See sheet S-29 for Detail A and View B-B.
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_{10}(E) bar details, see sheet S-51.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet S-67.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet S-3.
For additional parapet details, see sheet S-21.

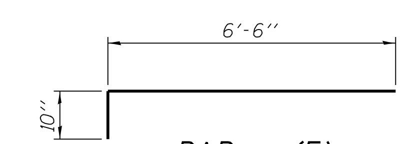


BAR d_{60}(E)



BAR d_{61}(E)

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



BAR a_{62}(E)

NORTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{60}(E)	138	#5	27'-4"	straight
a_{61}(E)	180	#8	28'-3"	straight
a_{62}(E)	92	#5	7'-4"	bent
b_{60}(E)	112	#4	29'-8"	straight
b_{61}(E)	180	#9	29'-8"	straight
b_{62}(E)	4	#5	29'-8"	straight
d_{60}(E)	98	#5	6'-5"	bent
d_{61}(E)	94	#5	8'-2"	bent
e_{60}(E)	24	#4	15'-5"	straight
e_{61}(E)	8	#4	31'-2"	straight
t_{60}(E)	152	#4	9'-8"	straight
w_{60}(E)	120	#5	27'-4"	straight
Concrete Superstructure		Cu Yd	8.2	
Concrete Superstructure (Approach Slab)		Cu Yd	104.9	
Concrete Structures		Cu Yd	33.9	
Bridge Deck Grooving		Sq Yd	197.0	
Reinforcement Bars, Epoxy Coated		Pound	44,990	

(Sheet 2 of 2)

HRG PROJECT NO.: 8803081
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PEN TABLE: plotlabel.tbl

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USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH APPROACH SLAB DETAILS
SN: 047-3175

SHEET NO. S-30 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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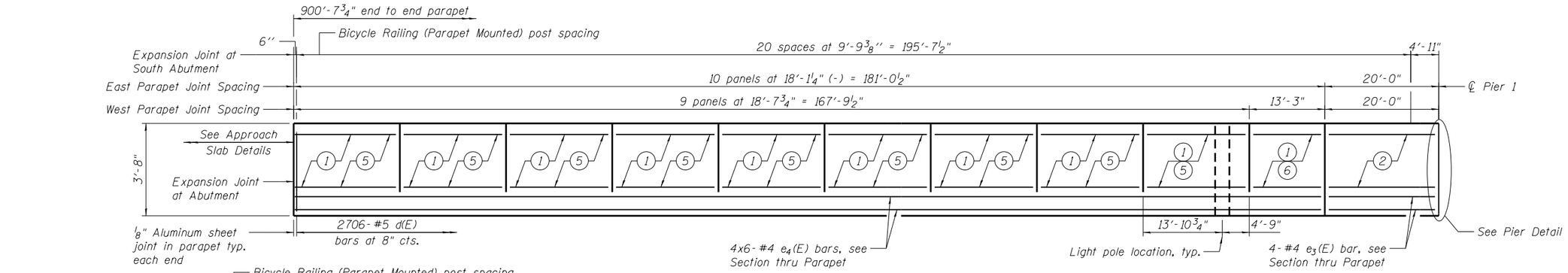
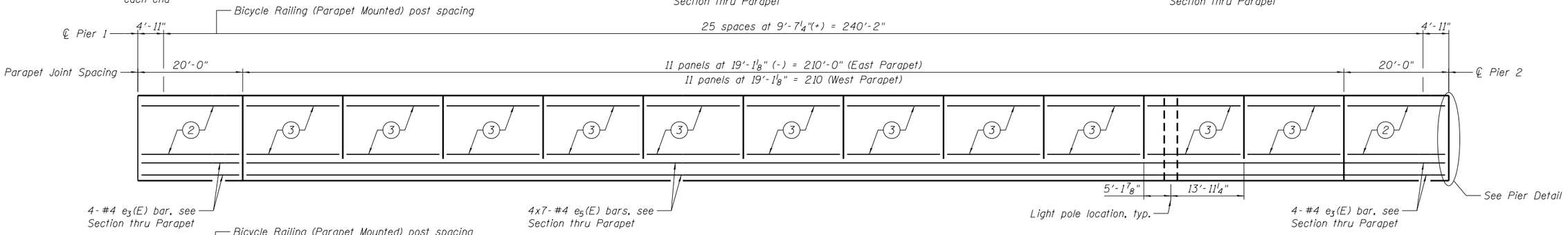
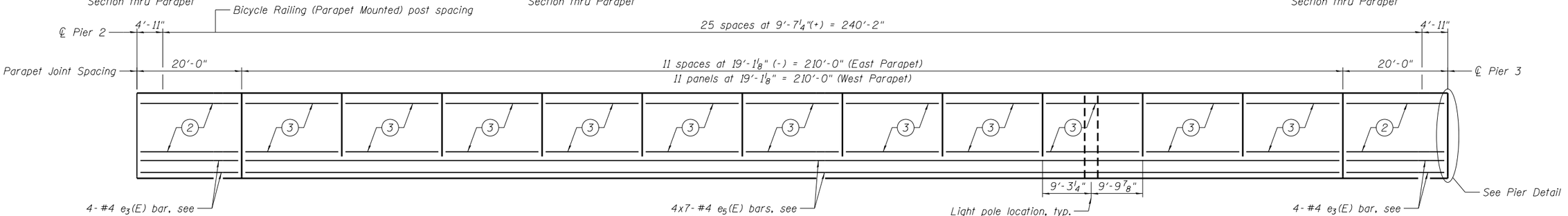
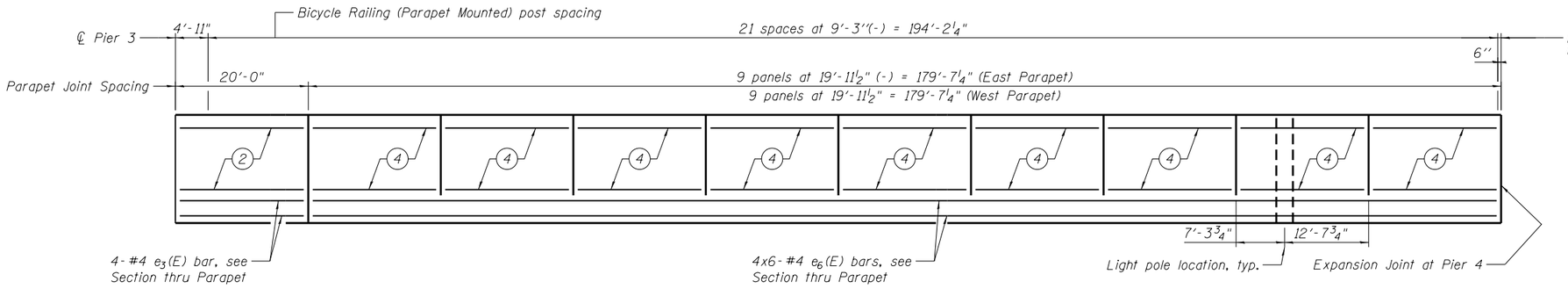
CONTRACT NO. 87731

ILLINOIS FED. AID PROJECT

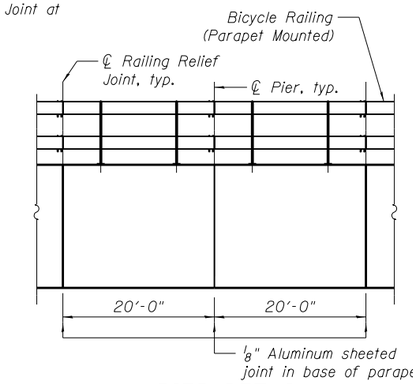








PARAPET ELEVATION



PIER DETAIL

See sheets S-34 and S-35 for details of Bicycle Railing (Parapet Mounted)

MINIMUM BAR LAP

#4 bar = 2'-8"

Note:
Light pole locations are for west parapet only. See Sheet S-65 for Lighting Plans

(1) 6-#4 e(E) bars, See Section thru Parapet Sheet S-21 (East Parapet)
(2) 6-#4 e_3(E) bars, See Section thru Parapet Sheet S-21
(3) 6-#4 e_1(E) bars, See Section thru Parapet Sheet S-21
(4) 6-#4 e_2(E) bars, See Section thru Parapet Sheet S-21
(5) 6-#4 e_7(E) bars, See Section thru Parapet Sheet S-21 (West Parapet)
(6) 6-#4 e_8(E) bars, See Section thru Parapet Sheet S-21 (West Parapet)

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PLOT DATE = 9/28/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET DETAILS – UNIT 1
SN: 047-3175
SHEET NO. S-31 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 87731		
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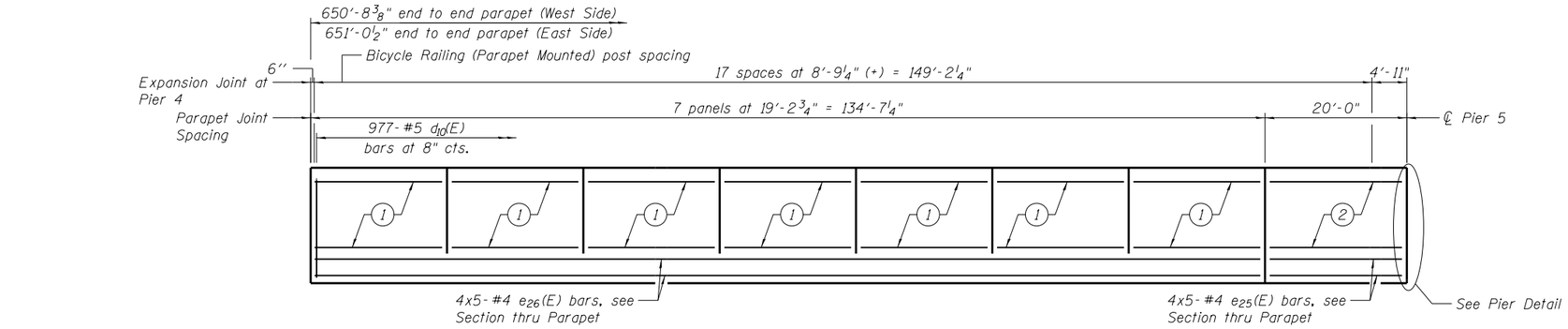
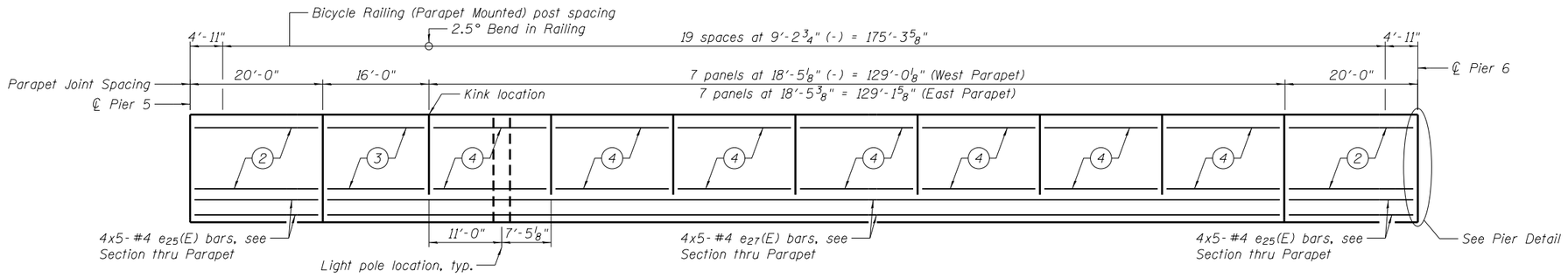
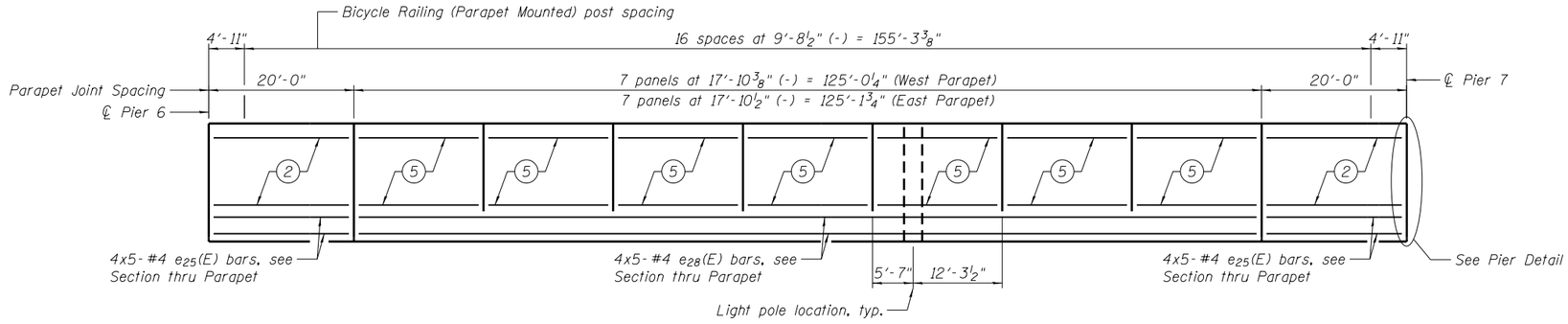
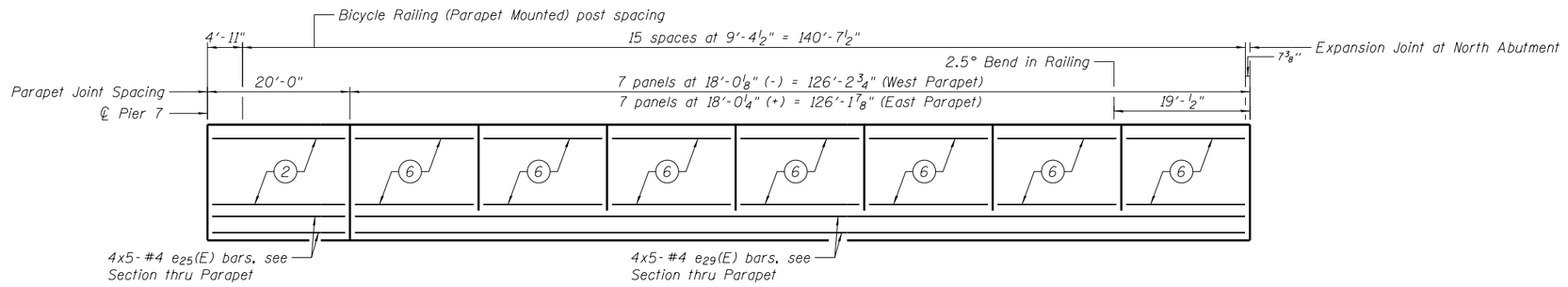








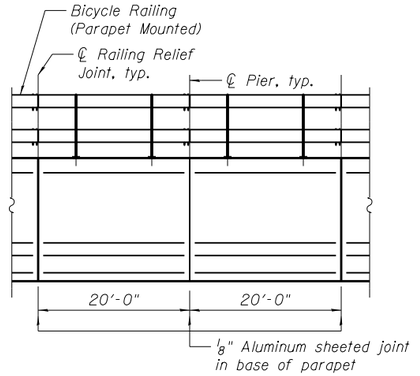
PARAPET ELEVATION

Note:
Light pole locations are for west parapet only. See Sheet S-65 for Lighting Plans

MINIMUM BAR LAP

#4 bar = 2'-8"

(1) 6-#4 e_{20}(E) bars, See Section thru Parapet Sheet S-21
(2) 6-#4 e_{25}(E) bars, See Section thru Parapet Sheet S-21
(3) 6-#4 e_{21}(E) bars, See Section thru Parapet Sheet S-21
(4) 6-#4 e_{22}(E) bars, See Section thru Parapet Sheet S-21
(5) 6-#4 e_{23}(E) bars, See Section thru Parapet Sheet S-21
(6) 6-#4 e_{24}(E) bars, See Section thru Parapet Sheet S-21



PIER DETAIL

See sheets S-34 and S-35 for details of Bicycle Railing (Parapet Mounted)

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PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET DETAILS – UNIT 2
SN: 047-3175
SHEET NO. S-32 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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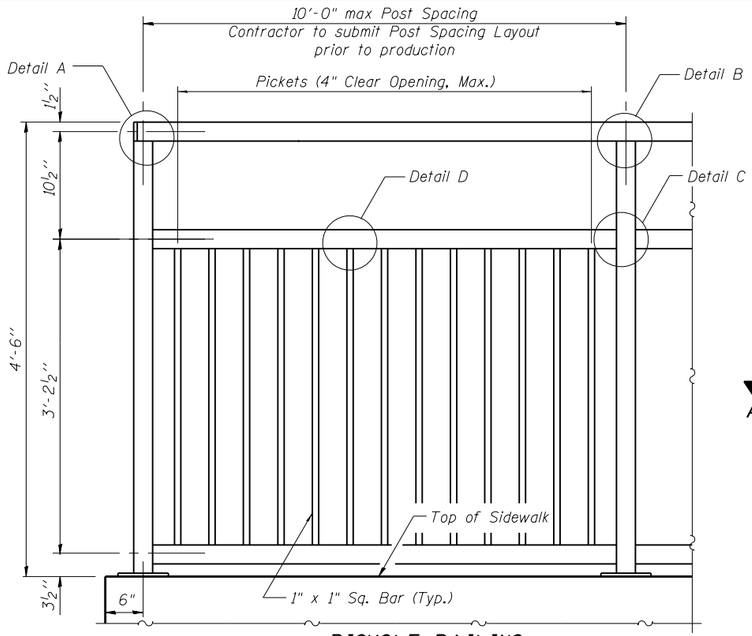
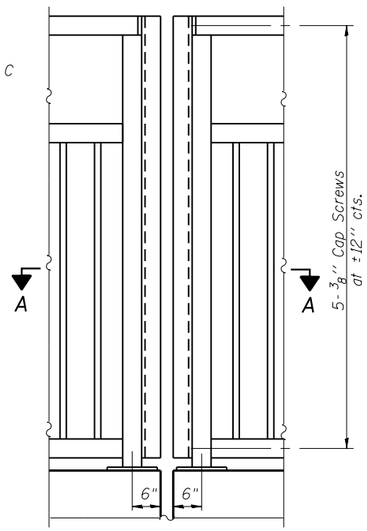
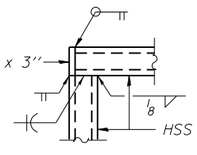


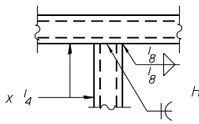
BICYCLE RAILING



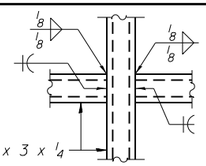
BICYCLE RAILING
AT EXPANSION JOINTS



DETAIL A

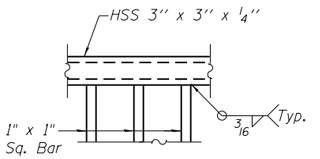


DETAIL B

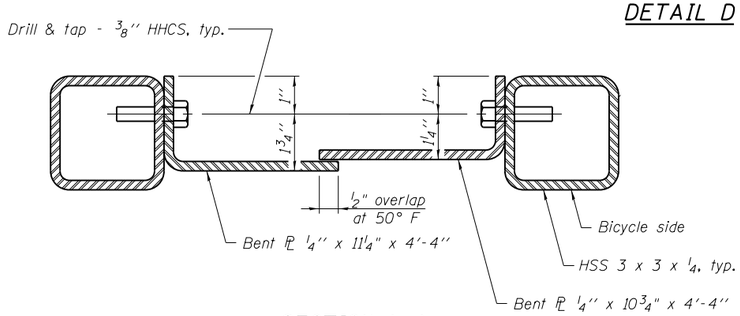


DETAIL C

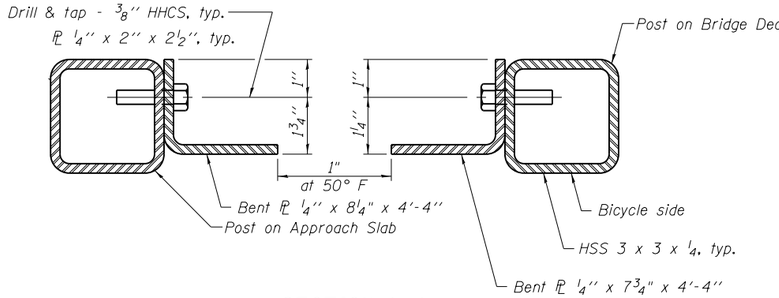
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



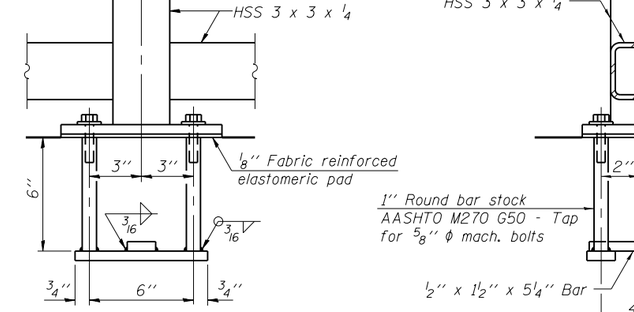
DETAIL D

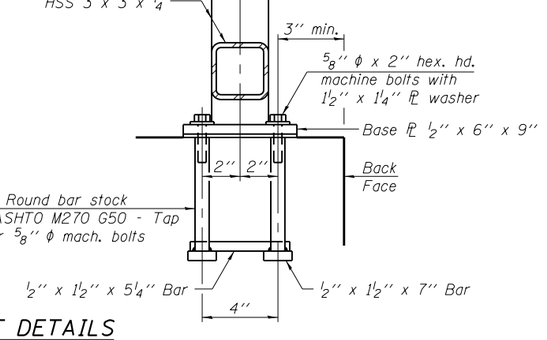


SECTION A-A
(At Pier 4)



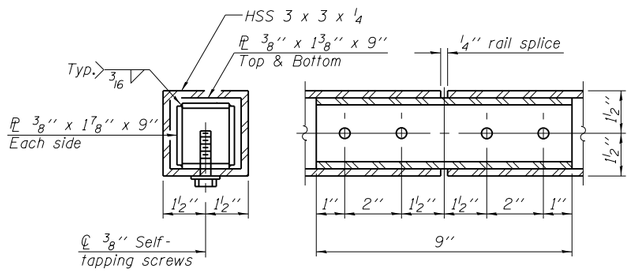
SECTION A-A
(At N. and S. Abut)



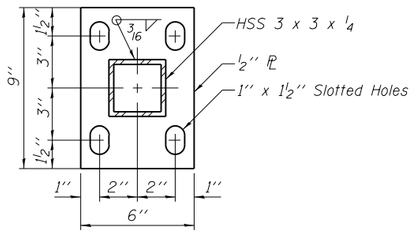


ANCHOR BOLT DETAILS

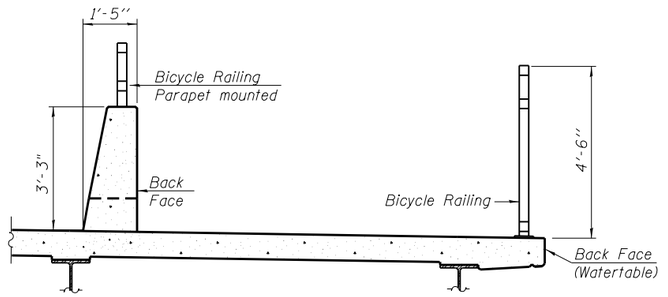
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications. Adjust rebar to miss anchor bolts.



RAIL SPLICE
45'-0" max. spacing between rail splices



BASE PL



SECTION THRU DECK

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	1,615

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PEN TABLE:

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184-001322

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PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING
SN: 047-3175
SHEET NO. S-33 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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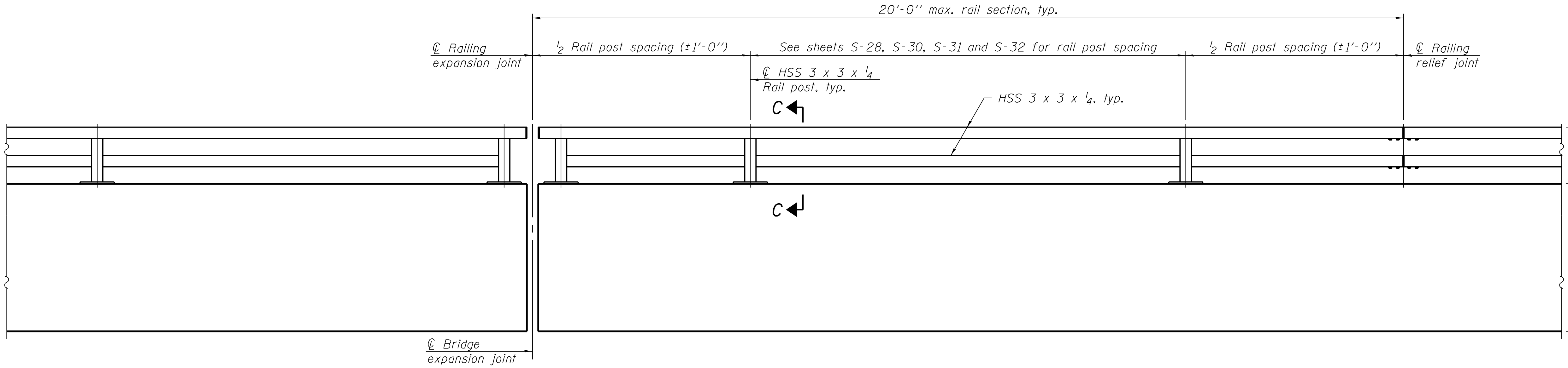
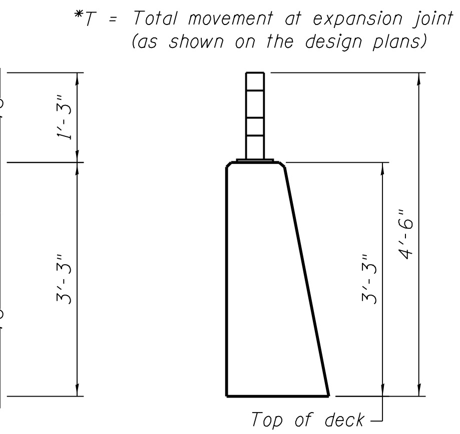
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

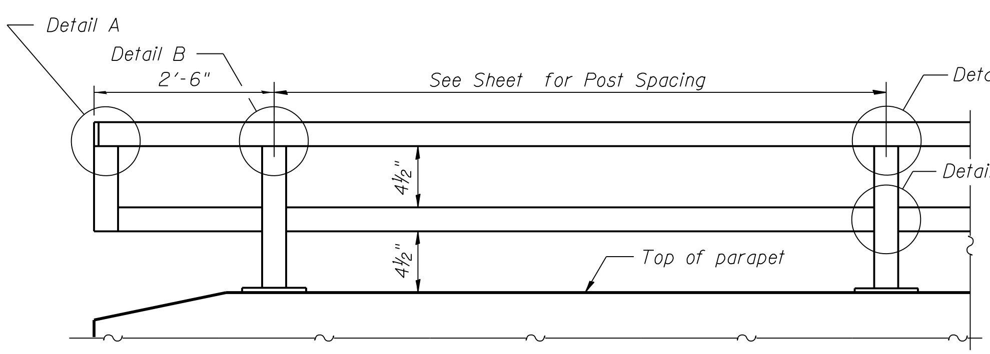


OUTSIDE ELEVATION OF PARAPET



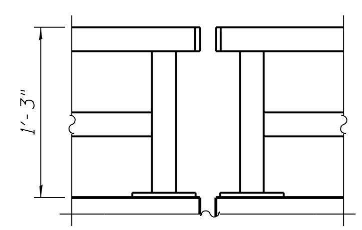
SECTION THRU PARAPET

(Straight backed parapet)



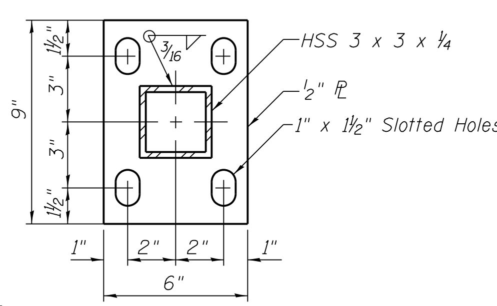
PARAPET RAILING ELEVATION

(Inside Face of Two Element Rail)

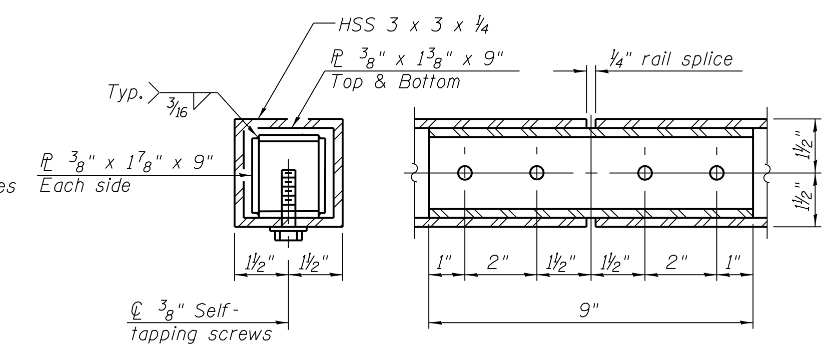


PARAPET RAILING ELEVATION AT EXPANSION JOINT

(Two Element Rail Shown - Three Element Rail Similar)

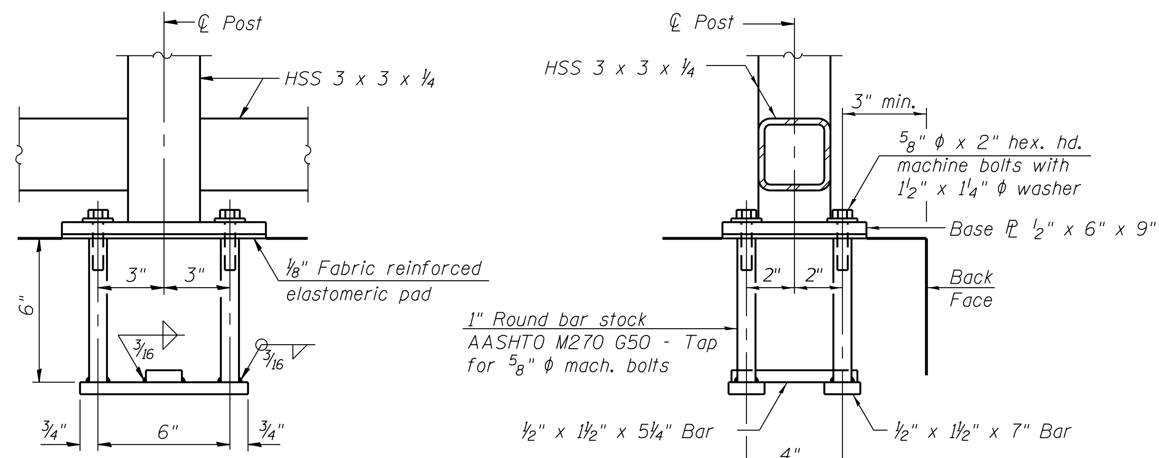


BASE ℙ



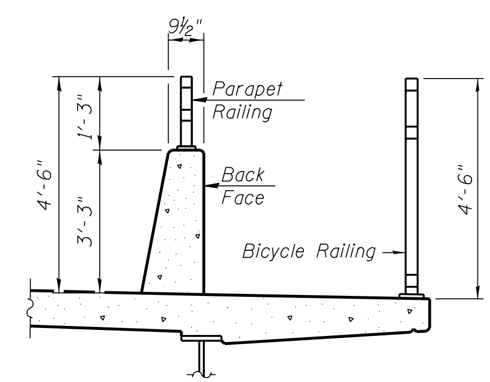
RAIL SPLICE

Notes:
All structural steel tubing, post and railing, for parapet railing shall be CVN tested according to 1006.34(b) of the Standard Specifications.
CVN testing may be omitted for the Bicycle Railing.



ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



SECTION THRU DECK

Notes:
Rail posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
Railing expansion joints shall be provided between any two (2) posts which span a bridge expansion joint.
Railing relief joints shall be placed between rail sections that do not span over an expansion joint.
All steel rail elements and hardware shall be galvanized according to Article 509.05 of the Standard Specifications.
All structural steel tubing shall be A500, Grade B.
Threaded rods shall be ASTM F1554, Grade 36 (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 may be used in lieu of ASTM F1554.
Drill and set threaded rods according to Article 509.06 of the Standard Specifications.
All structural steel plates shall be AASHTO M270, Grade 36.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing (Parapet Mounted)	Foot	1,615

HRG PROJECT NO.: 883038I
HRG PROJ.CONTACT:
FILE NAME: 38B_Str_BikeRail-R39-0l.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

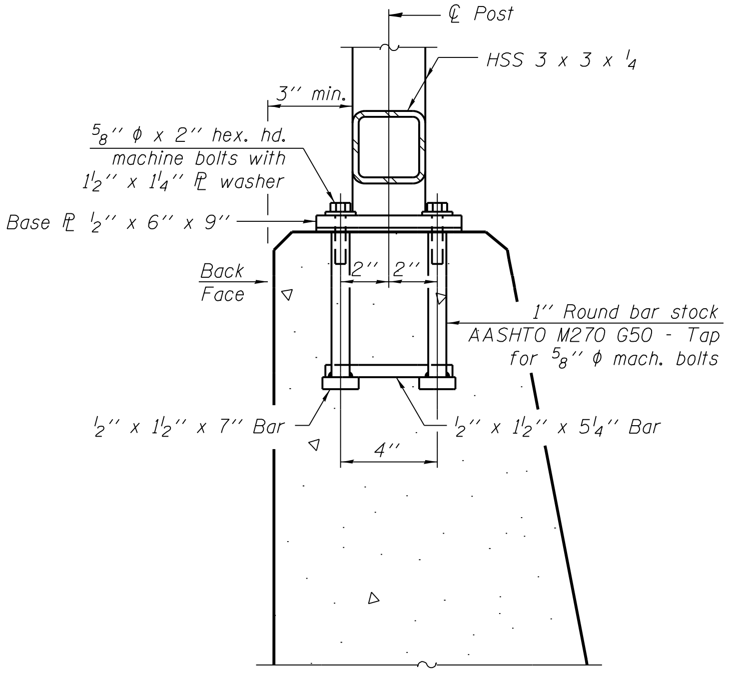
BICYCLE RAILING (PARAPET MOUNTED)
SN: 047-3175

SHEET NO. S-34 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	206

CONTRACT NO. 87731

ILLINOIS FED. AID PROJECT



SECTION C-C

(Straight backed parapet)

HRG PROJECT NO.: 88130381
HRG PROJ. CONTACT:
FILE NAME: 381B_Str_BikeRail-R39-02.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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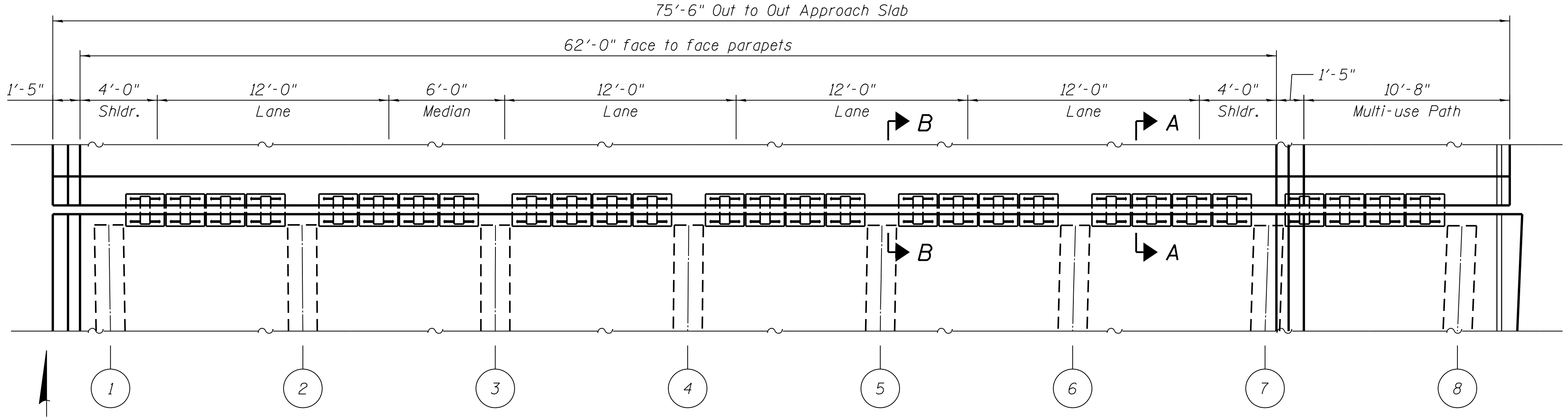
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

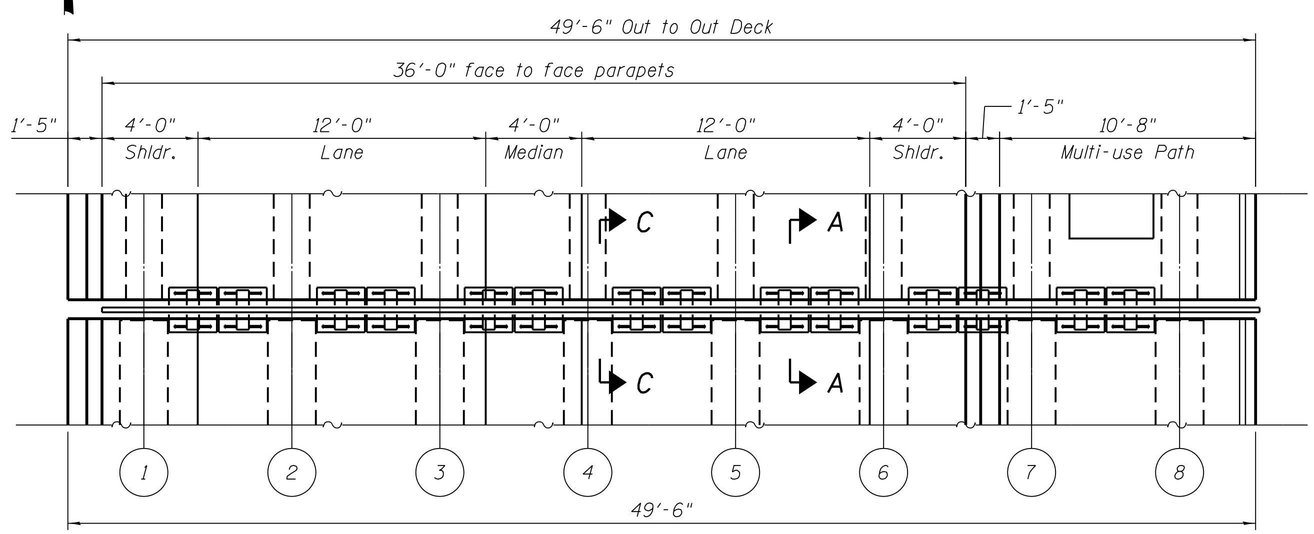
BICYCLE RAILING (PARAPET MOUNTED)
SN: 047-3175
SHEET NO. S-35 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	207
		CONTRACT NO. 87731		
		ILLINOIS FED. AID PROJECT		



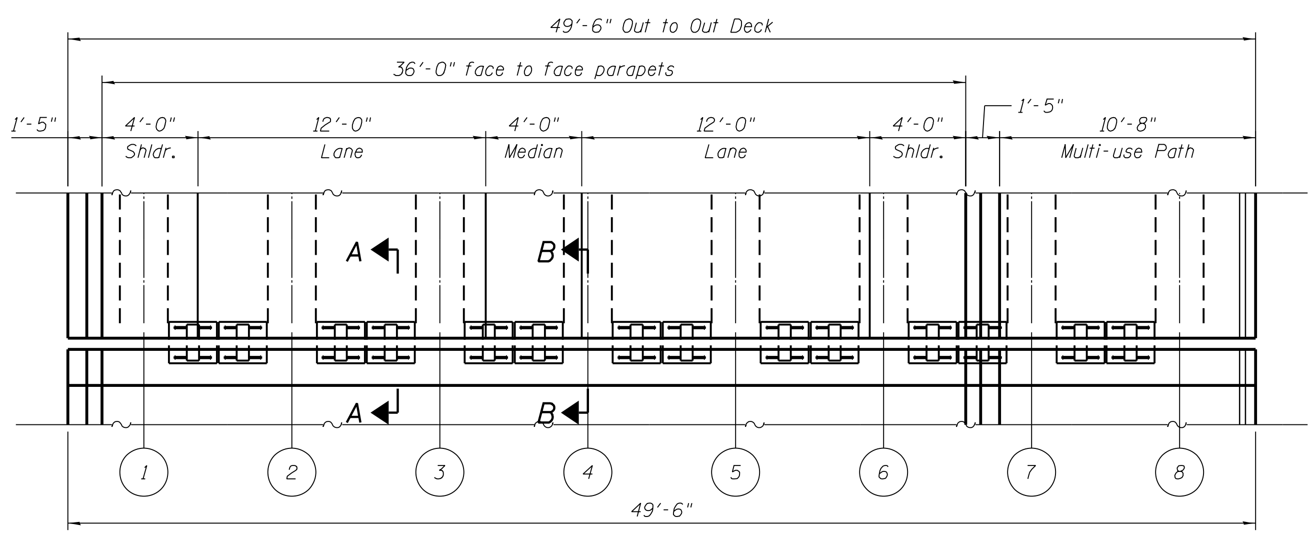
PLAN

North Abutment



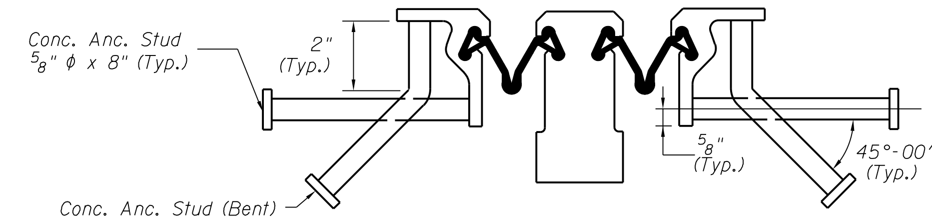
PLAN

Pier 4

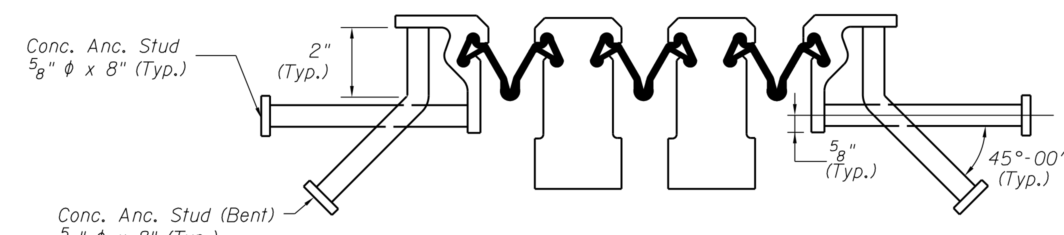


PLAN

South Abutment

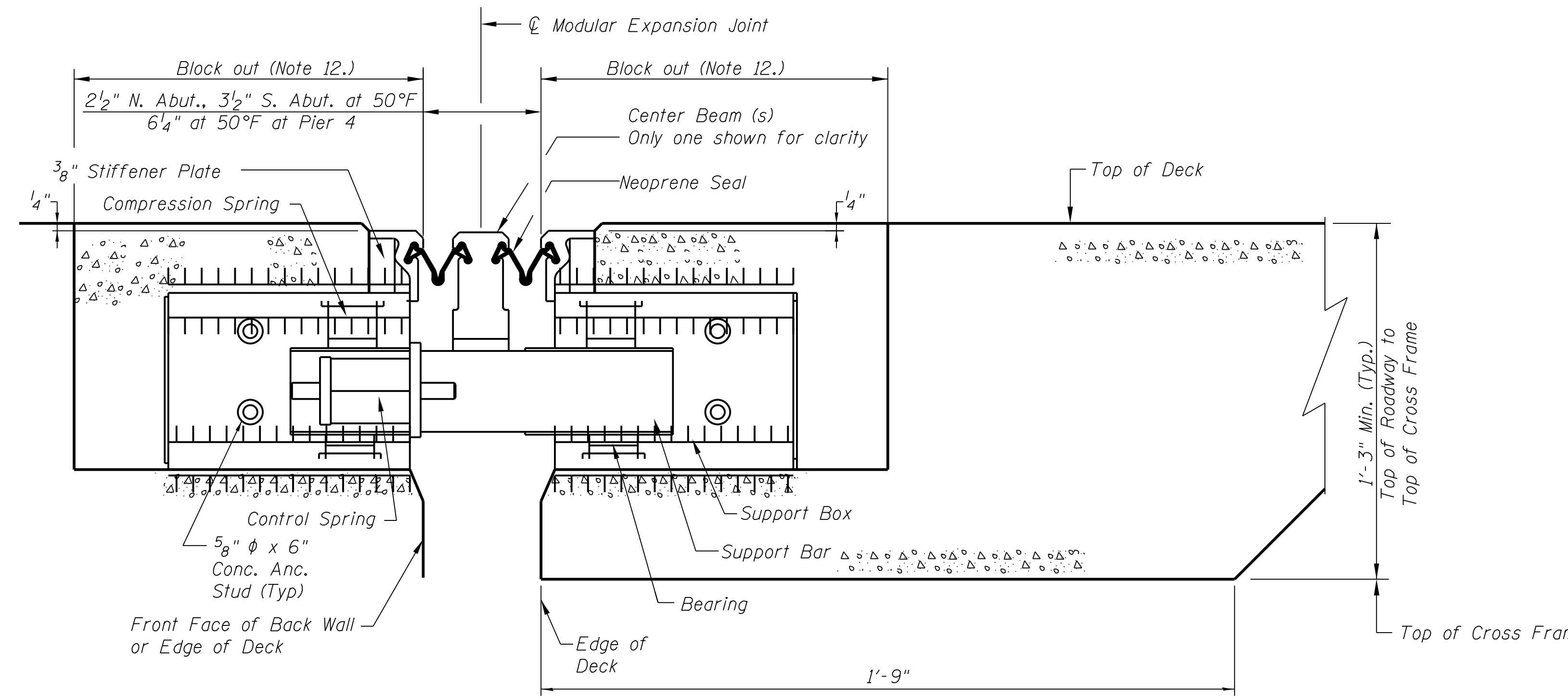


SECTION B-B



SECTION C-C

Note: Adjust rebar to miss studs



SECTION A-A

HRG PROJECT NO.: 88I3038I
HRG PROJ. CONTACT:
FILE NAME: 38IB_Str_ModExpansionJoint01.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

HRGreen	HRGreen.com Illinois Professional Design Firm # 184-001322	USER NAME = whood	DESIGNED - SLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
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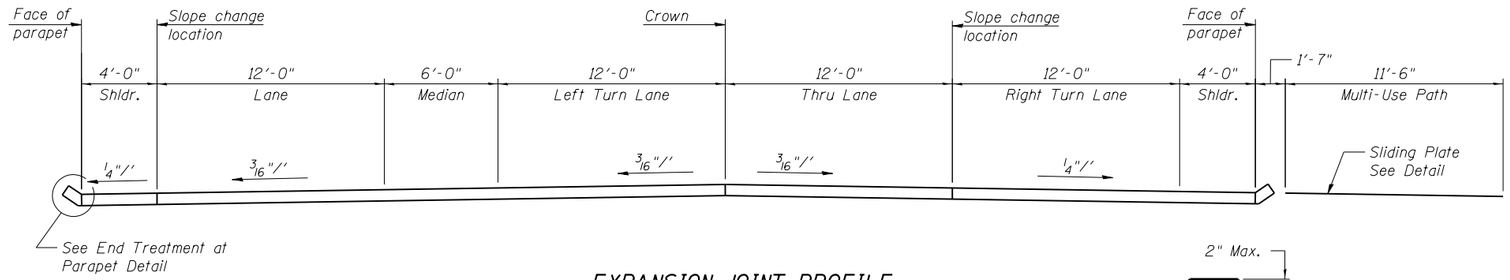
		PLOT SCALE =	CHECKED - SLS	REVISED -	
		PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

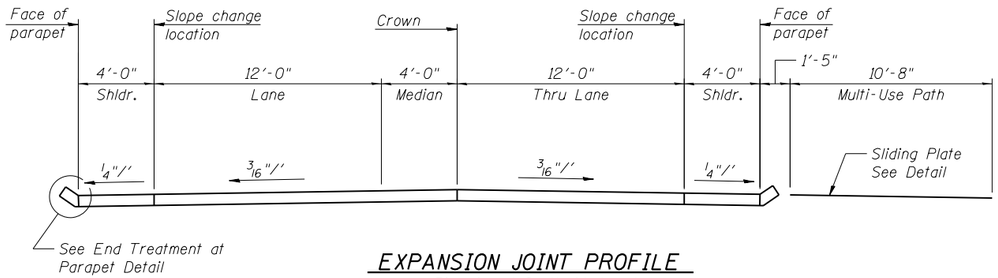
MODULAR EXPANSION JOINT DETAILS
SN: 047-3175
SHEET NO. S-36 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	208
		CONTRACT NO. 87731		
		ILLINOIS FED. AID PROJECT		



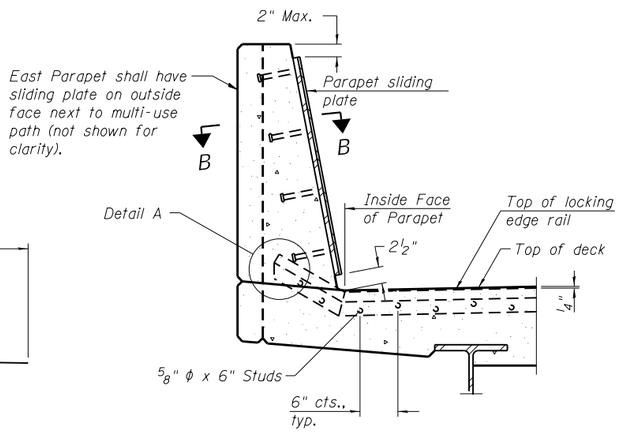
EXPANSION JOINT PROFILE

North Abutment
All Dimensions Shown are Taken
Along the Centerline of the Expansion Joint

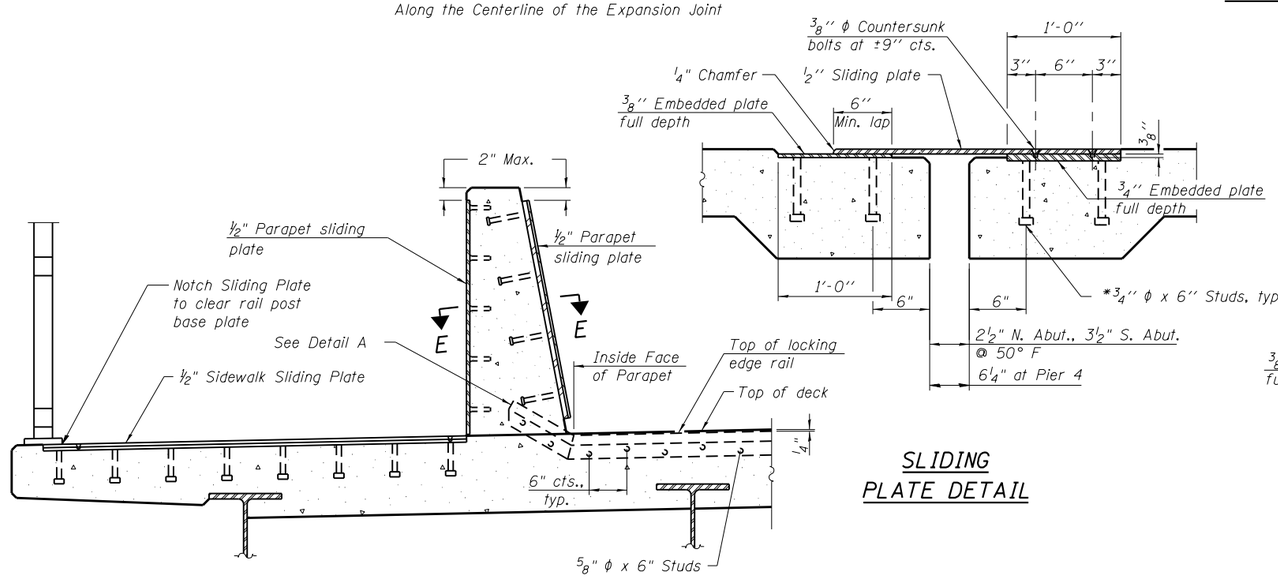


EXPANSION JOINT PROFILE

Pier 4 and South Abutment
All Dimensions Shown are Taken
Along the Centerline of the Expansion Joint



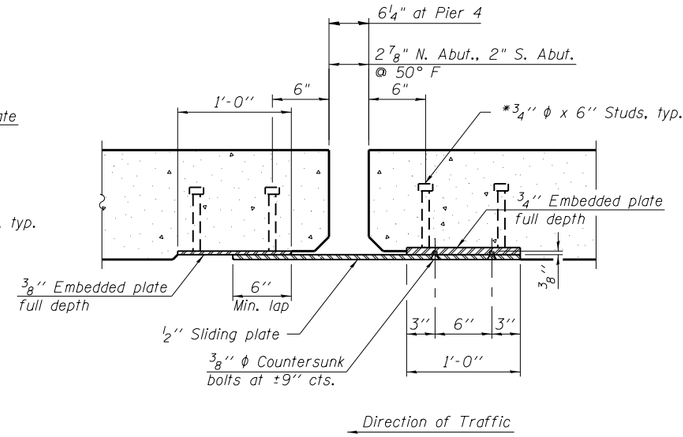
SECTION AT PARAPET



SLIDING PLATE DETAIL

SECTION AT DECK LEVEL SIDEWALK

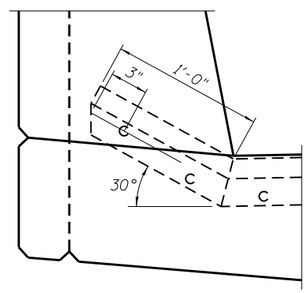
(Skews > 30° shown. Skews = 30° similar except as shown in plan view.)



SECTION B-D

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

Note: Back Face and Top of East Parapets shall also have Sliding Plates.



DETAIL A

GENERAL NOTES

1. The contractor must coordinate pocket and expansion joint assembly dimensions prior to fabrication.
2. All materials and fabrication shall be in accordance with the 2016 State of Illinois Department of Transportation Standard Specifications for Roads and Structures and the Project Special Provisions, except as noted herein.
3. All welding shall conform to the requirements of the ANSI/AASHTO/AWS D1.5 and the project special provisions.
4. The expansion joint assembly including the parapet and sidewalk plates shall be hot dip galvanized in accordance with ASTM A-123 after fabrication.
5. Studs may be bent to an angle of 30° to avoid interference with deck reinforcing or girders.
6. Modular Expansion Joint 6" shall provide a minimum total movement of 5 3/4" and Modular Expansion Joint 12" shall provide a minimum total movement of 12 1/2".
7. Joint shall be fabricated to conform to the roadway profile and cross-slopes.
8. Modular expansion joint shall be designed in accordance with the latest AASHTO Standard Specifications for HS-20 truck loading with impact.
9. Concrete anchor studs attached to the modular expansion joint shall conform to the requirements of Article 1006.32 of the Standard Specifications. The cost of the anchor studs shall be included with modular expansion joints. Number and spacing of concrete anchor studs shall be determined by Joint Manufacturer in accordance with Note 8 above.
10. Sliding plate assemblies as shown shall be provided for the parapets. The cost of furnishing and installing sliding plate assemblies shall be included with Modular Expansion Joints, 6", at abutments and Modular Expansion Joint, 12" at Pier 4.
11. See sheet S-22 for Superstructure Bill of Material.
12. Coordinate block out dimensions with Joint Manufacturer and reinforcement bar layout.
13. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

BILL OF MATERIAL

Item	Unit	Quantity
Modular Expansion Joint 6"	Foot	98
Modular Expansion Joint 12"	Foot	36

HRG PROJECT NO.: 8813038
HRG PROJ. CONTACT:
FILE NAME: 38B_Str_ModExpansionJoint02.dgn
PLOT DRIVER: IL_pdf_bw.ctb
PEN TABLE: plotlabel.tbl

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STATE OF ILLINOIS
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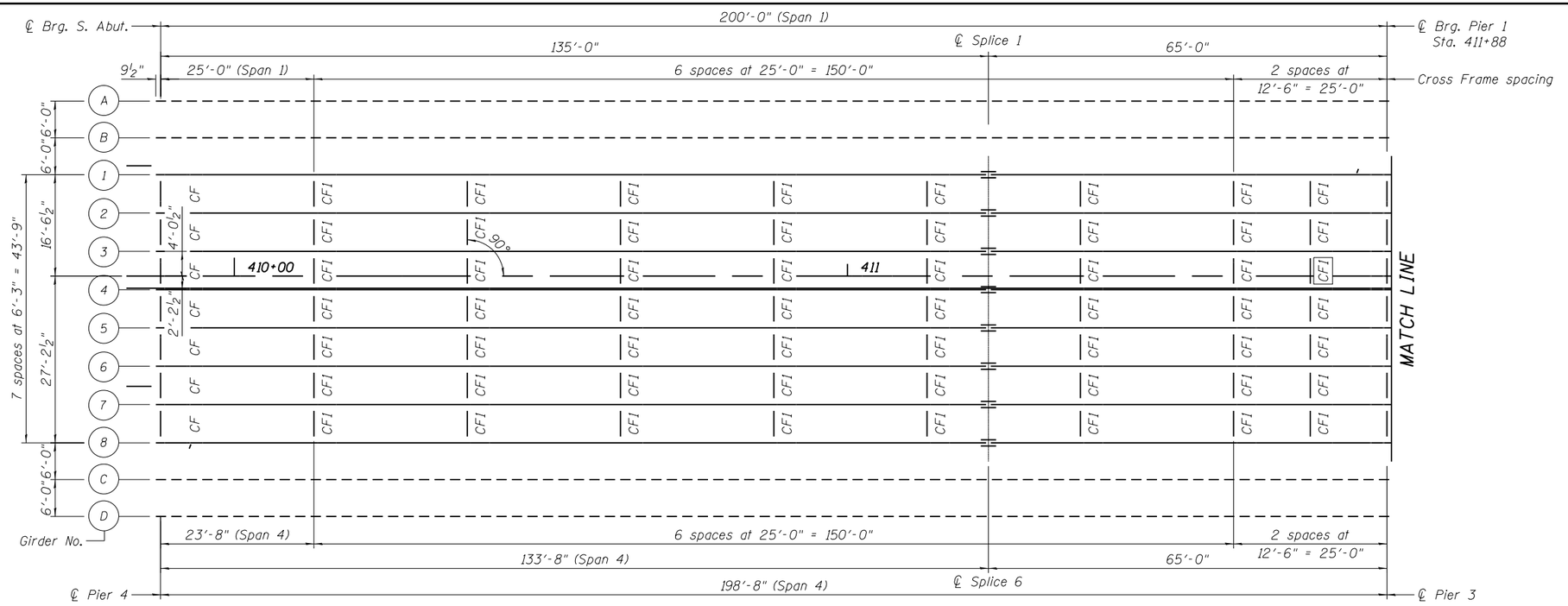
MODULAR EXPANSION JOINT DETAILS
SN: 047-3175
SHEET NO. S-37 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	209
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			



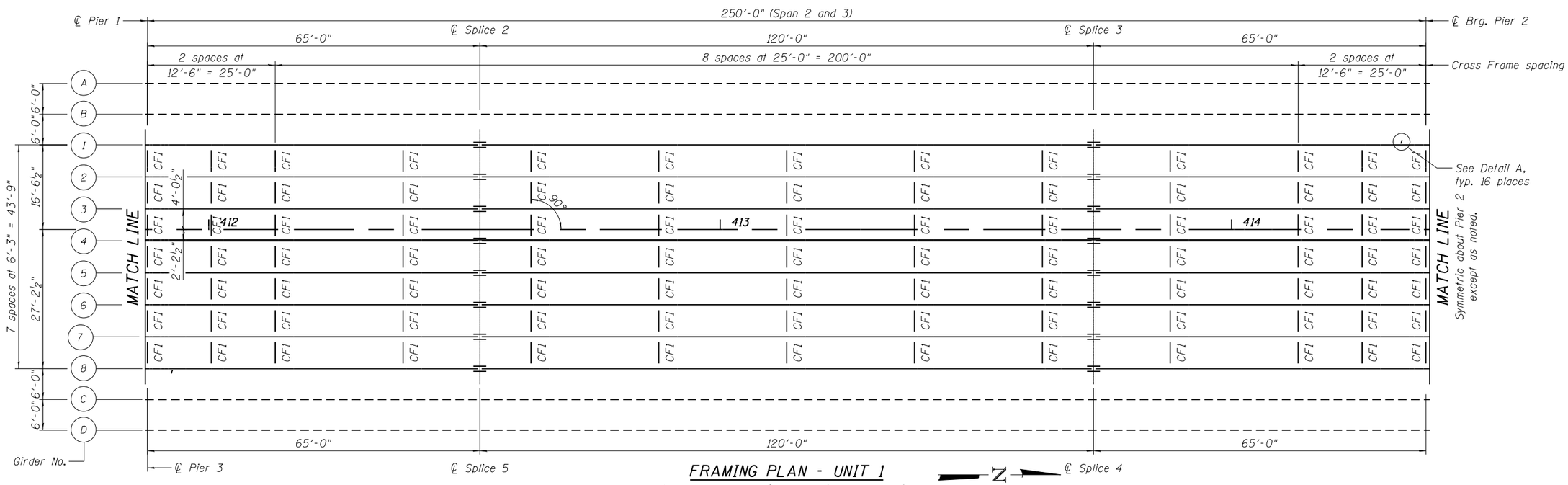
FRAMING PLAN - UNIT 1

All structural steel for plate girders and splice plates is AASHTO M270 Grade 50W (NTR as applicable)

(S Abt. to Pier 2)

(Pier 2 to Pier 4)

Girder lines (A), (B), (C) and (D) are for Future Widening.



FRAMING PLAN - UNIT 1

All structural steel for plate girders and splice plates is AASHTO M270 Grade 50W (NTR as applicable)

HRG PROJECT NO.: 8813038I
HRG PROJ. CONTACT: 3818_Str_FramingUnit1.dgn
FILE NAME: IL_pat_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
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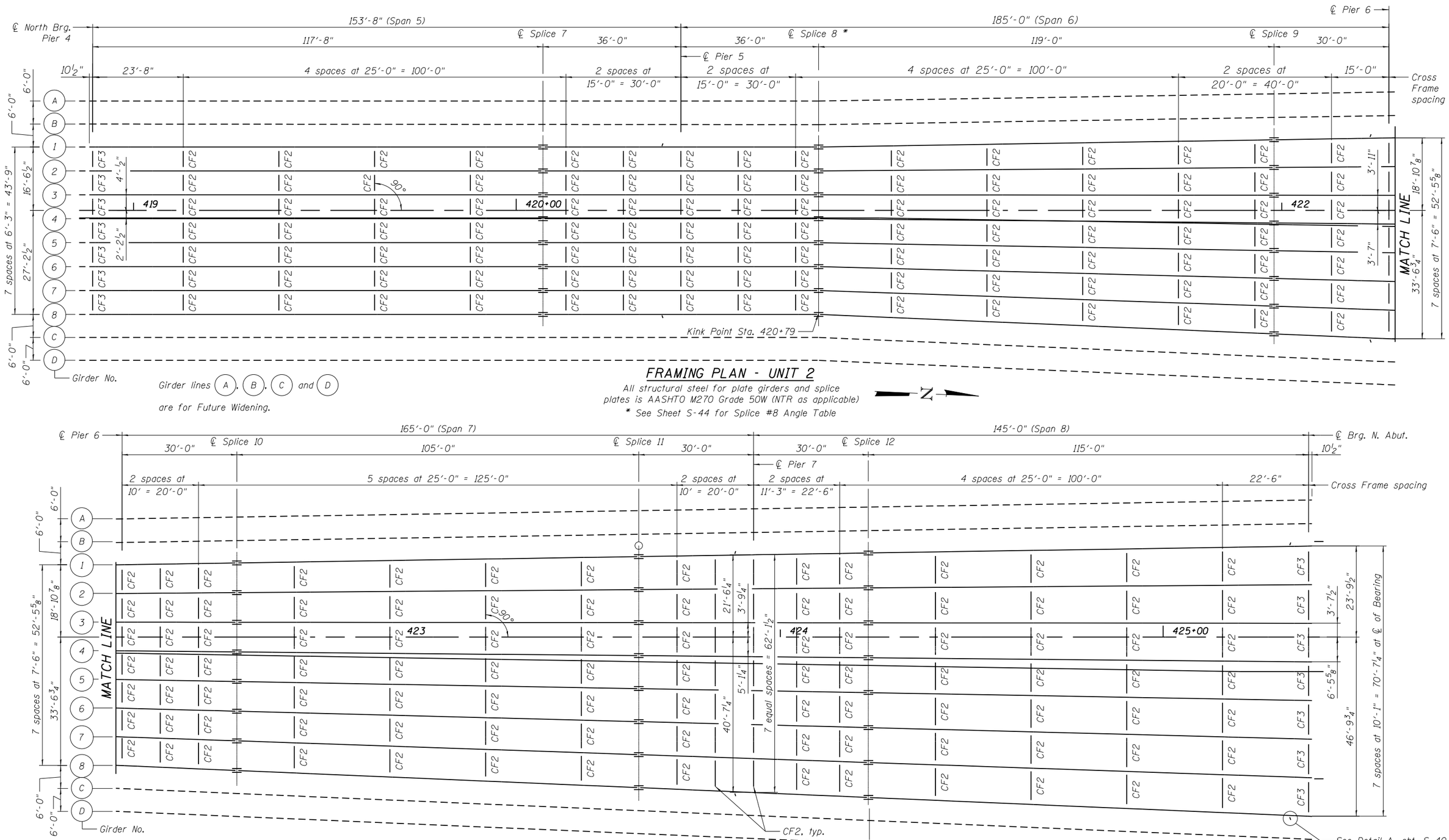
STEEL GIRDER FRAMING PLAN – UNIT 1
SN: 047-3175
SHEET NO. S-38 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	210
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			



FRAMING PLAN - UNIT 2

All structural steel for plate girders and splice plates is AASHTO M270 Grade 50W (NTR as applicable)

* See Sheet S-44 for Splice #8 Angle Table

FRAMING PLAN - UNIT 2

All structural steel for plate girders and splice plates is AASHTO M270 Grade 50W (NTR as applicable)

HRG PROJECT NO.: 8803038
HRG PROJ.CONTACT: 3818_Str_FramingUnit2-04.dgn
FILE NAME: IL_pdf_DwgPltCfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
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STEEL GIRDER FRAMING PLAN – UNIT 2
SN: 047–3175
SHEET NO. S-39 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	211
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

INTERIOR GIRDER MOMENT TABLE (UNIT 1)

		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.6 Sp. 4
Is	(in^4)	123,748	168,642	146,065	225,837	146,065	168,642	123,748
Ic(n)	(in^4)	230,765	286,601	258,761	363,450	258,761	286,601	230,765
Ic(3n)	(in^4)	173,092	220,796	196,875	284,341	196,875	220,796	173,092
Ic(cr)	(in^4)	------	178,955	-----	237,149	-----	183,466	-----
Ss	(in^3)	2,878	3,877	3,377	4,953	3,377	3,877	2,878
Sc(n)	(in^3)	3,662	11,217	4,162	12,460	4,162	11,217	3,662
Sc(3n)	(in^3)	3,314	6,209	3,801	7,364	3,801	6,209	3,314
Sc(cr)	(in^3)	-----	4,271	-----	5,362	-----	4,450	-----
DC1	(k/')	1.058	1.139	1.099	1.241	1.099	1.139	1.058
M_{DC1}	('k)	2,872	-5,688	2,740	-6,234	2,757	-5,656	2,816
DC2	(k/')	0.131	0.131	0.131	0.131	0.131	0.131	0.131
M_{DC2}	('k)	356	-684	321	-726	323	-681	350
DW	(k/')	0.225	0.225	0.225	0.225	0.225	0.225	0.225
M_{DW}	('k)	611	-1,173	549	-1,244	553	-1,166	599
LLDF		0.501	0.496	0.700	0.700	0.700	0.496	0.501
M (LL + IM)	('k)	3,129	-3,498	4,655	-5,478	4,651	-3,484	3,100
Mu (Strength I)	('k)	10,426	-15,847	12,797	-20,152	12,818	-15,767	10,281
$*_f M_n$	('k)	17,622	-17,405	19,553	-22,330	19,553	-17,406	17,622
fs DC1	(ksi)	11.98	17.61	9.74	15.10	9.80	17.51	11.74
fs DC2	(ksi)	1.29	1.92	1.01	1.62	1.02	1.52	1.27
fs DW	(ksi)	2.21	3.30	1.73	2.78	1.75	3.14	2.17
fs (LL+IM)	(ksi)	10.25	9.83	13.42	12.26	13.41	9.40	10.16
fs (Service II)	(ksi)	28.81	35.60	29.93	35.45	29.99	34.39	28.38
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50	47.50	47.50	47.50	47.50
fs (Total)(Strength I)	(ksi)	37.84	46.55	39.52	46.54	39.60	44.95	37.29
$*_f Fn$	(ksi)	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Vf	(k)	74.61	81.65	81.65	88.52	81.63	89.50	66.31

INTERIOR GIRDER MOMENT TABLE (UNIT 2)

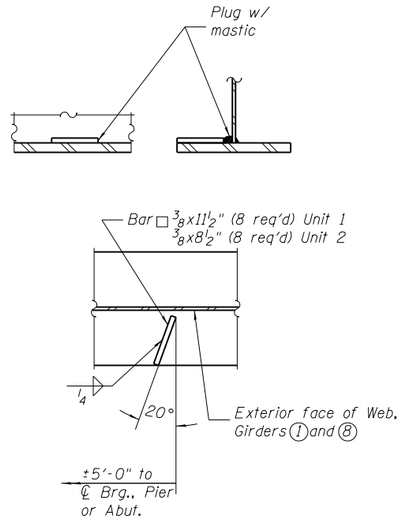
		0.4 Sp. 5	Pier 5	0.5 Sp. 6	Pier 6	0.5 Sp. 7	Pier 7	0.6 Sp. 8
Is	(in^4)	50,195	84,516	45,050	84,516	45,050	84,516	52,709
Ic(n)	(in^4)	107,968	157,737	102,437	165,329	107,461	172,448	127,249
Ic(3n)	(in^4)	79,645	118,915	75,342	124,152	79,738	129,494	94,864
Ic(cr)	(in^4)	-----	94,640	-----	94,640	-----	94,640	-----
Ss	(in^3)	1,482	2,388	1,335	2,388	1,335	2,388	1,598
Sc(n)	(in^3)	1,994	8,902	1,853	10,398	1,881	12,153	2,206
Sc(3n)	(in^3)	1,800	4,393	1,669	4,810	1,704	5,281	2,018
Sc(cr)	(in^3)	-----	2,874	-----	2,874	-----	2,874	-----
DC1	(k/')	0.916	1.016	0.948	1.140	1.095	1.278	1.259
M_{DC1}	('k)	1,365	-3,186	1,167	-2,750	812	-3,203	1,911
DC2	(k/')	0.131	0.131	0.131	0.131	0.131	0.131	0.131
M_{DC2}	('k)	199	-433	167	-355	102	-334	198
DW	(k/')	0.306	0.306	0.306	0.306	0.306	0.306	0.306
M_{DW}	('k)	463	-1,010	390	-828	238	-779	461
LLDF		0.492	0.485	0.510	0.511	0.587	0.582	0.665
M (LL + IM)	('k)	2,075	-2,525	1,933	-2,737	2,022	-2,944	2,697
Mu (Strength I)	('k)	6,674	11,069	6,019	10,496	5,366	11,268	8,418
$*_f M_n$	('k)	9,902	11,468	9,188	11,486	9,582	11,466	10,655
fs DC1	(ksi)	11.05	16.01	10.49	13.82	7.30	16.09	14.35
fs DC2	(ksi)	1.33	1.81	1.20	0.79	0.72	0.75	1.18
fs DW	(ksi)	3.09	4.22	2.80	3.46	1.68	3.25	2.74
fs (LL+IM)	(ksi)	12.49	10.54	12.52	11.43	12.90	12.29	14.67
fs (Service II)	(ksi)	31.70	35.74	30.77	32.93	26.47	36.07	37.34
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50	47.50	47.50	47.50	47.50
fs (Total)(Strength I)	(ksi)	41.96	47.05	40.73	43.45	35.12	47.44	49.19
$*_f Fn$	(ksi)	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Vf	(k)	67.76	72.76	70.64	79.98	78.57	87.85	78.34

INTERIOR GIRDER UNFACTORED REACTION TABLE (UNIT 1)

		S Abut.	Pier 1	Pier 2	Pier 3	Pier 4 (S)
LLDF		0.689	0.689	0.700	0.689	0.689
OCF		1	------	-------	-------	1
R_{DC1}	(k)	79.20	275.00	288.30	274.00	78.50
R_{DC2}	(k)	9.70	32.80	33.20	32.70	9.60
R_{DW}	(k)	16.60	56.20	56.80	56.00	16.50
R_{LL}	(k)	87.20	192.20	200.80	194.90	87.00
R_{IM}	(k)	15.50	27.80	28.10	28.30	15.40
R_{Total}	(k)	208.20	584.00	607.20	585.90	207.00

INTERIOR GIRDER UNFACTORED REACTION TABLE (UNIT 2)

		Pier 4 (N)	Pier 5	Pier 6	Pier 7	N Abut.
LLDF		0.689	0.689	0.779	0.875	0.917
OCF		1	-------	-------	-------	1
R_{DC1}	(k)	51.20	187.40	181.30	213.40	71.70
R_{DC2}	(k)	7.30	25.50	22.70	22.50	7.20
R_{DW}	(k)	16.90	59.40	52.90	52.50	16.80
R_{LL}	(k)	83.10	183.00	201.10	218.10	111.40
R_{IM}	(k)	15.10	26.80	30.40	33.90	21.00
R_{Total}	(k)	173.60	482.10	488.40	540.40	228.10



DETAIL A

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

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

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

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

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

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

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

LLDF: Live load distribution factor according to article 4.6.2.2.2

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

Mu (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

fs DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

fs DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

fs DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.

fs (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

fs (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(L+IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

Note:
M_L and R_L include the effects of centrifugal force and superelevation.

HRG PROJECT NO.: 8813038I
HRG PROJ. CONTACT: JAB_Str_FramingTables.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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USER NAME = whood	DESIGNED - SLS	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

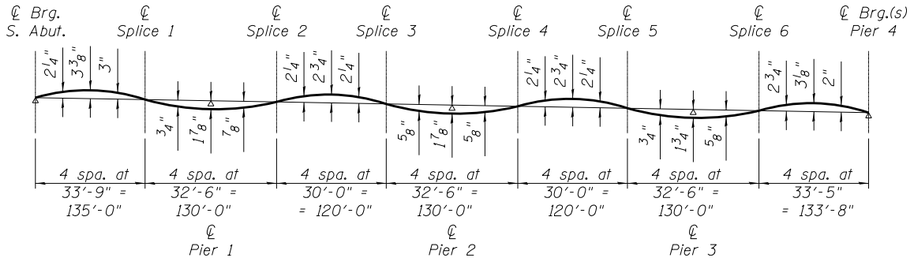
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT AND REACTION TABLES
SN: 047-3175
SHEET NO. S-40 OF S-72 SHEETS

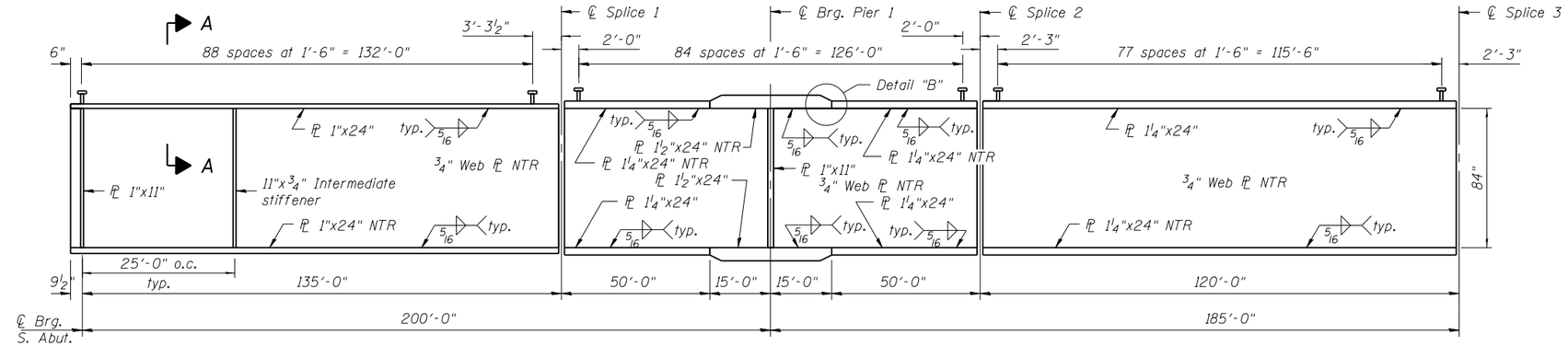
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	212
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

TOP OF WEB ELEVATIONS (UNIT 1)
For Fabrication Only

Girder No.	CL Brg. S. Abut.	Splice 1	CL Brg. Pier 1	Splice 2	Splice 3	CL Brg. Pier 2	Splice 4	Splice 5	CL Brg. Pier 3	Splice 6	CL Brg. Pier 4 (S)
1	636.08	635.12	634.44	634.07	633.08	632.40	632.04	631.11	630.44	630.07	628.89
2	636.19	635.24	634.55	634.18	633.19	632.51	632.15	631.22	630.55	630.18	629.00
3	636.29	635.33	634.65	634.28	633.29	632.61	632.25	631.32	630.65	630.28	629.10
4	636.38	635.42	634.74	634.37	633.38	632.70	632.34	631.41	630.74	630.37	629.19
5	636.28	635.33	634.64	634.27	633.28	632.60	632.24	631.31	630.64	630.28	629.09
6	636.18	635.22	634.54	634.17	633.18	632.50	632.14	631.21	630.54	630.17	628.99
7	636.05	635.09	634.41	634.04	633.05	632.37	632.01	631.08	630.41	630.04	628.86
8	635.92	634.96	634.28	633.91	632.92	632.24	631.88	630.95	630.28	629.91	628.73

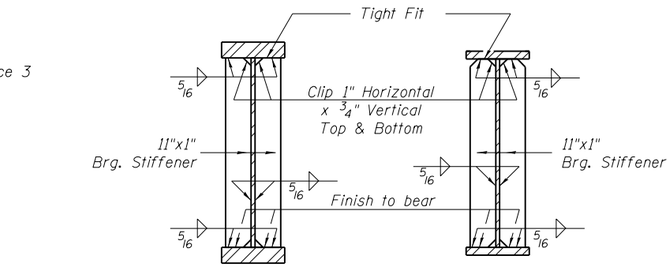


CAMBER DIAGRAM - UNIT 1



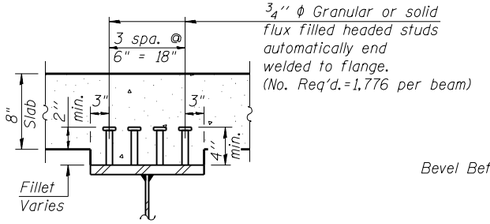
GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

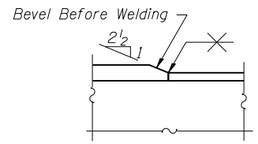


SECTION AT PIER

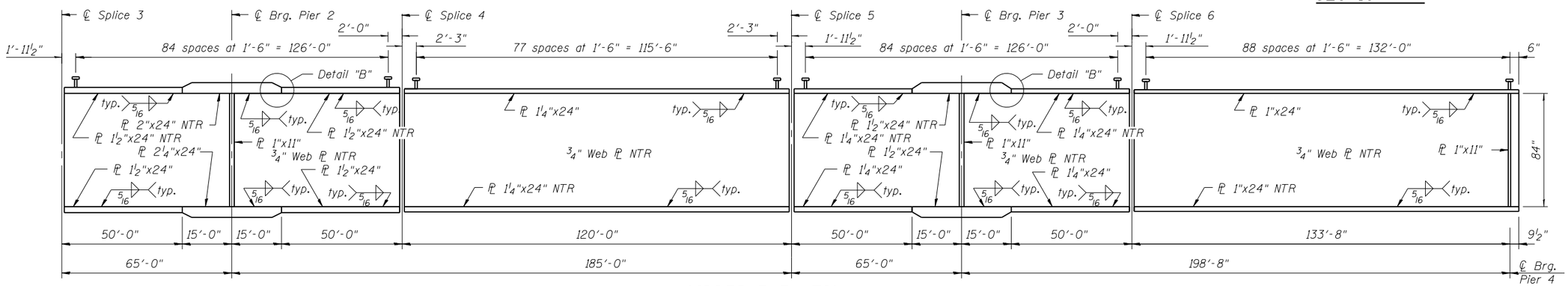
SECTION AT ABUTMENT



SECTION A-A



DETAIL "B"



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

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HRG PROJ. CONTACT:
FILE NAME: 38I8_Sr_GirderDetailsOl.dgn
PLOT DRIVER: IL_pdf_DwgPrtg
PEN TABLE: plotlabel.tbl

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	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL GIRDER DETAILS – UNIT 1
SN: 047–3175
SHEET NO. S-41 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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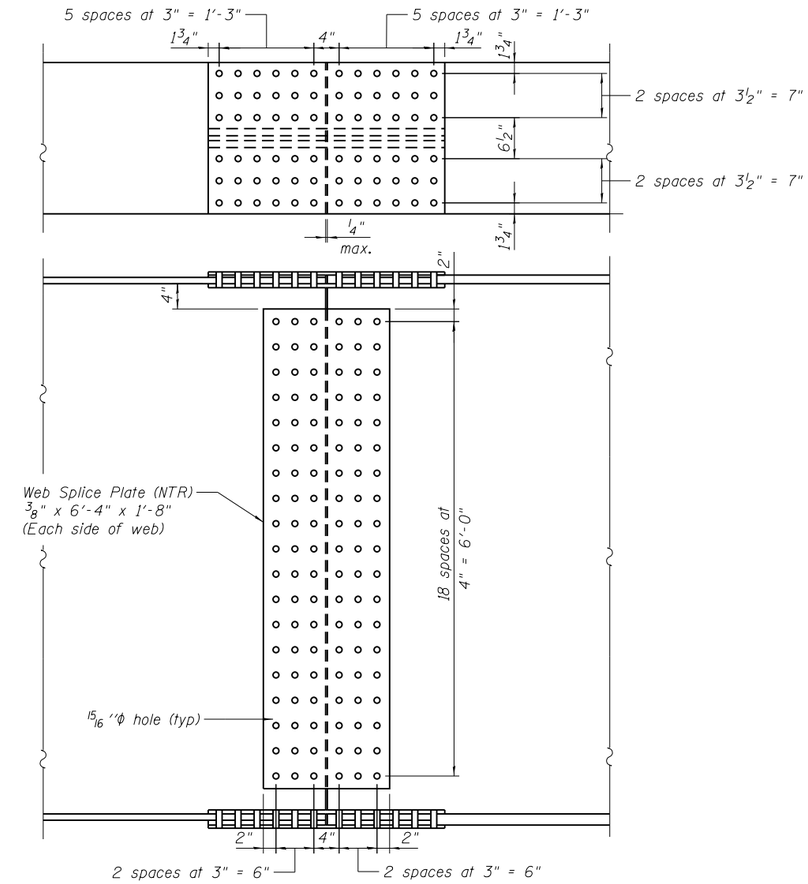
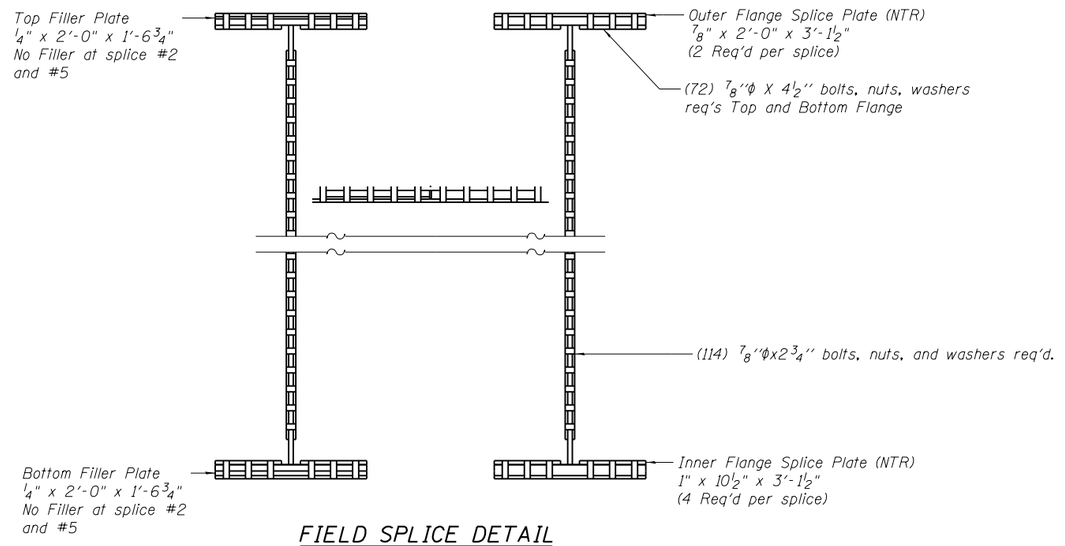
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			





FIELD SPLICE DETAIL

Unit 1 - Spices #1 thru #6
NTR denotes plates to which notch
toughness requirements are applicable

HRG PROJECT NO.: 8B13038
HRG PROJ. CONTACT: SLS
FILE NAME: 38B_Str_GirderDetails03.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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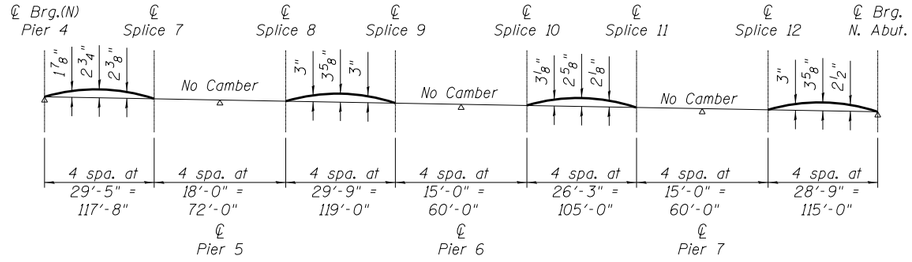
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

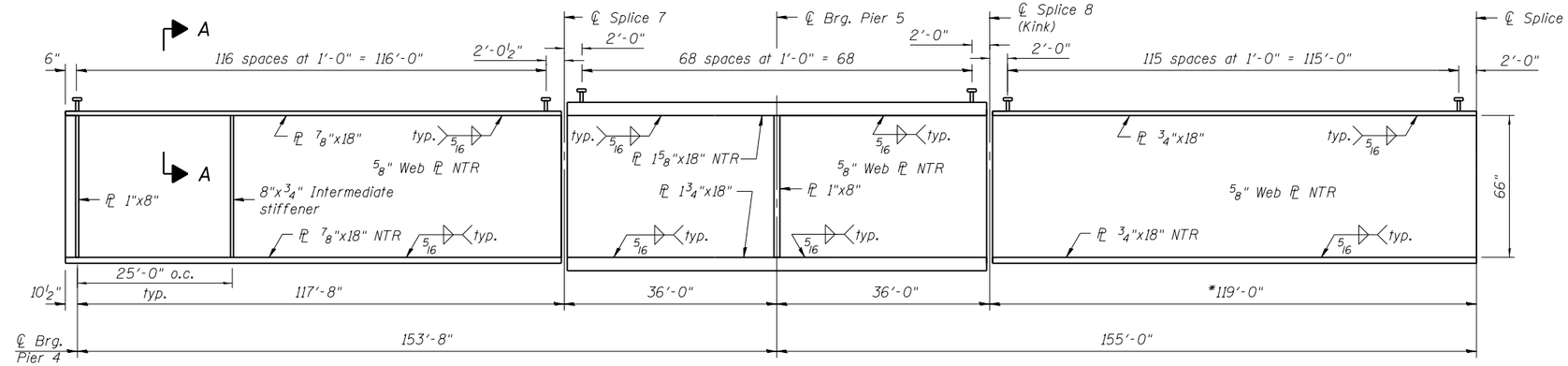
STEEL GIRDER DETAILS– UNIT 1
SN: 047–3175
SHEET NO. S-42 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	214
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

TOP OF WEB ELEVATIONS (UNIT 2) For Fabrication Only											
Girder No.	CL Brg. Pier 4 (N)	Splice 7	CL Brg. Pier 5	Splice 8	Splice 9	CL Brg. Pier 6	Splice 10	Splice 11	CL Brg. Pier 7	Splice 12	CL Brg. N. Abut.
1	628.87	627.90	627.58	627.31	626.31	626.03	625.73	624.83	624.63	624.43	623.45
2	628.98	628.01	627.69	627.42	626.43	626.16	625.86	624.97	624.78	624.59	623.67
3	629.08	628.11	627.79	627.52	626.55	626.28	625.98	625.11	624.92	624.73	623.78
4	629.17	628.20	627.88	627.61	626.66	626.40	626.10	625.24	625.06	624.87	623.94
5	629.08	628.11	627.79	627.52	626.56	626.30	626.01	625.16	624.98	624.79	623.86
6	628.97	628.00	627.68	627.41	626.43	626.17	625.87	625.00	624.82	624.63	623.67
7	628.84	627.87	627.55	627.28	626.28	626.01	625.71	624.82	624.63	624.44	623.46
8	628.71	627.74	627.42	627.15	626.13	625.86	625.55	624.69	624.45	624.25	623.25

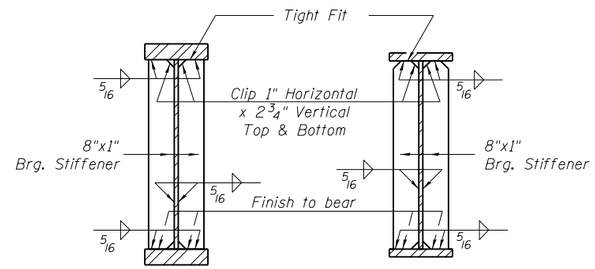


CAMBER DIAGRAM - UNIT 2



GIRDER ELEVATION

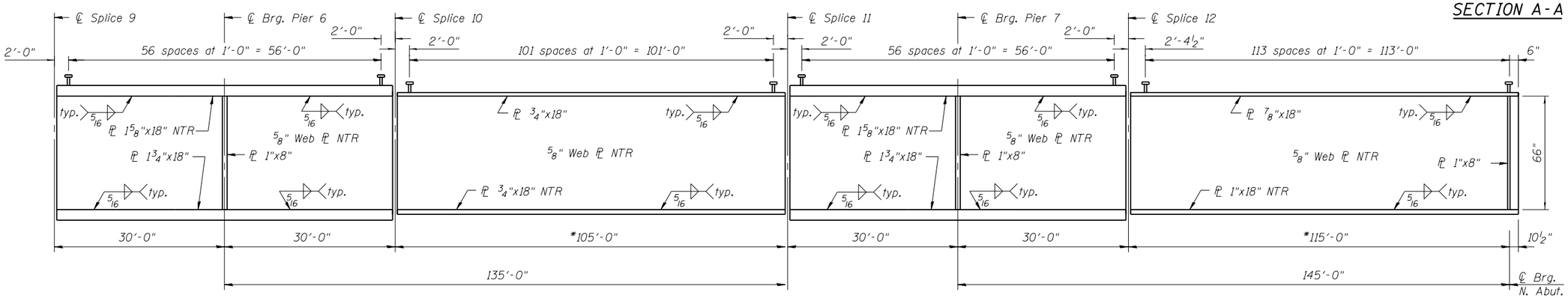
"NTR" denotes plates to which notch toughness requirements are applicable.



SECTION AT PIER

SECTION AT ABUTMENT

SECTION A-A



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

Notes:
Distances are measured parallel to ℄ of road. Actual beam dimensions may be longer due to taper.

* Adjust dimension as necessary to account for taper.

HRG PROJECT NO.: 8B3038I
HRG PROJ.CONTACT:
FILE NAME: 38IB_Str_GirderDetails02.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabe.tbl

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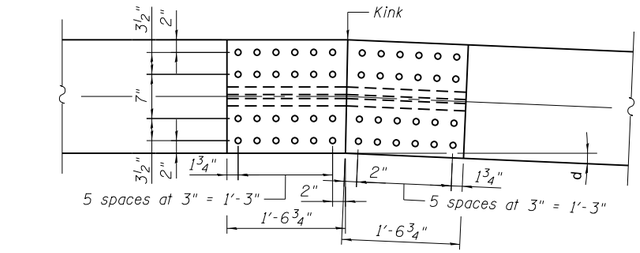
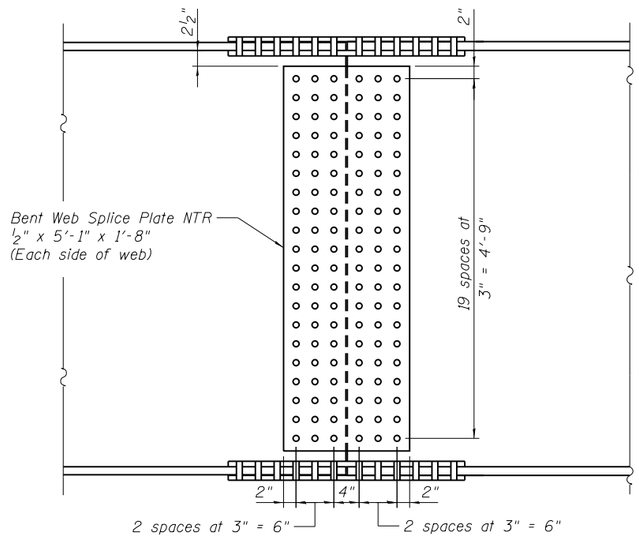
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

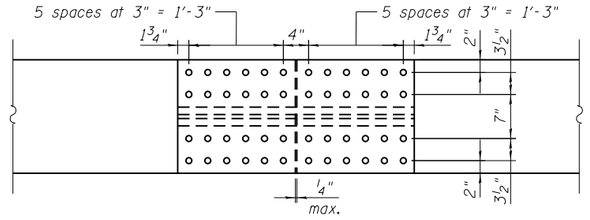
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

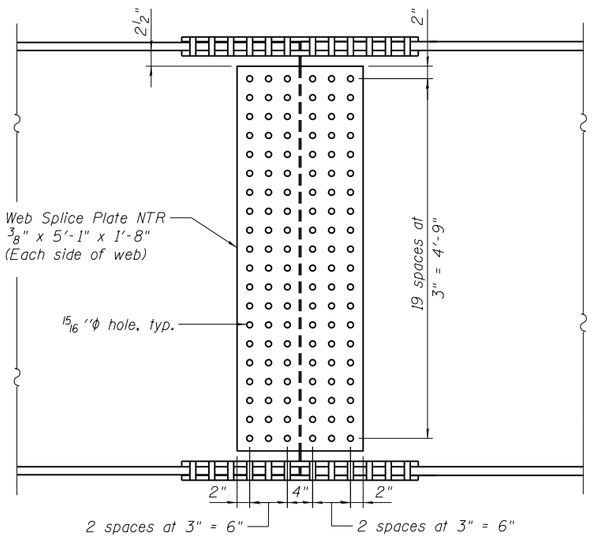
STEEL GIRDER DETAILS – UNIT 2
SN: 047–3175
SHEET NO. S-43 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	215
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			



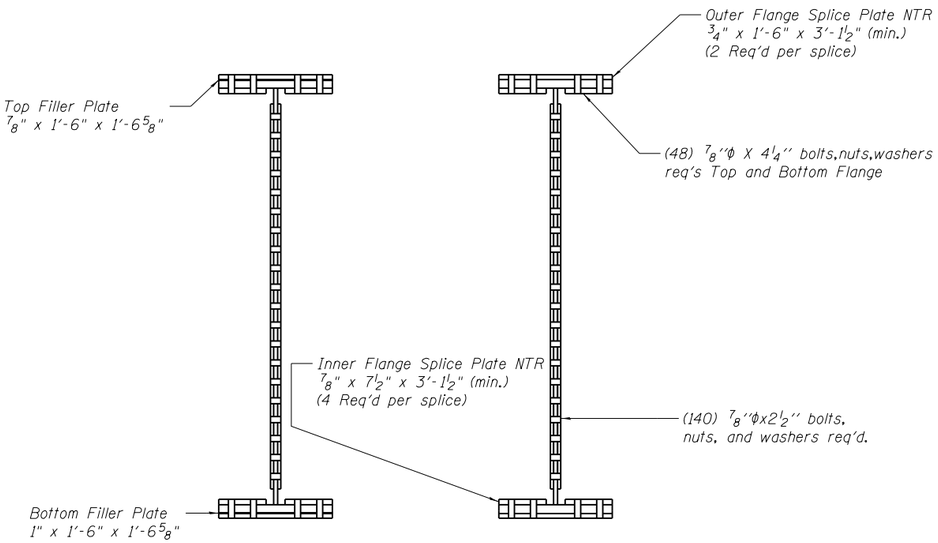






ANGLE TABLE FOR SPLICE #8

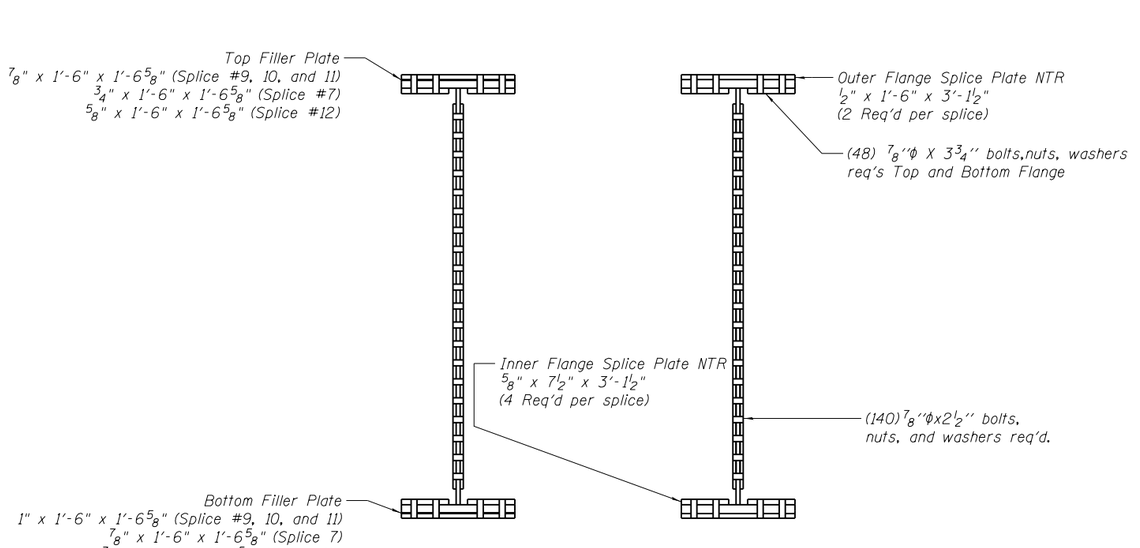
Beam Line	Angle d
1	0.9082° L
2	0.4290° L
3	0.0498° L
4	0.5289° R
5	1.0079° R
6	1.4868° R
7	1.9854° R
8	2.4438° R



FIELD SPLICE DETAIL (KINK)

Unit 2 - Spices #8

NTR denotes plates to which notch toughness requirements are applicable



FIELD SPLICE DETAIL

Unit 2 - Spices #7, #9, #10, #11 and #12

NTR denotes plates to which notch toughness requirements are applicable

HRG PROJECT NO.: 8813038
HRG PROJ. CONTACT: JAB
FILE NAME: 38B_Str_GirderDetails04.dgn
PLOT DRIVER: IL_pdf_bw.stb
PEN TABLE: plotbw.tbl

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PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
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STEEL GIRDER DETAILS – UNIT 2
SN: 047–3175
SHEET NO. S-44 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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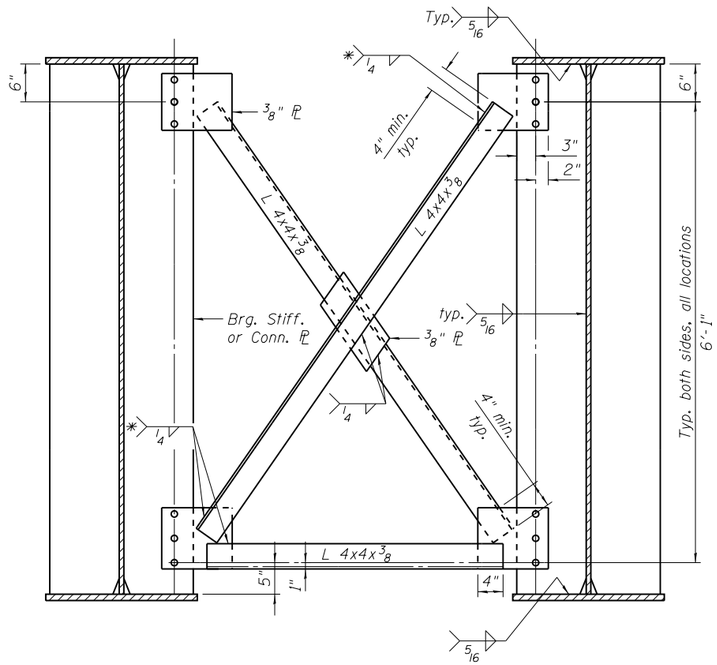
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			



AT CONN. PL

AT INTERMEDIATE STIFFENER

TYPICAL INTERIOR CROSS FRAME (CF1)

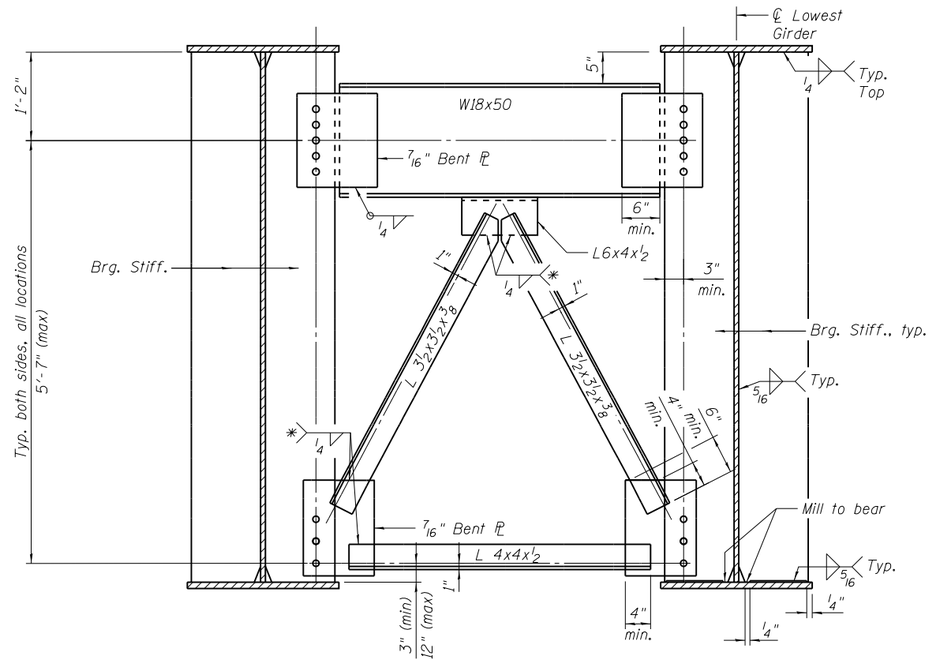
(287 Required)

* Fillet weld angles along 3 sides on one face of gusset plate.

Notes: Detail $1\frac{1}{16}$" ϕ holes for all $\frac{7}{8}$" ϕ bolts.
Two hardended washers shall be required for each set of oversized holes.

All steel to be AASHTO M270 Grade 50 W.

Stiffeners to be included on both sides of all beams, including fascia beams.



TYPICAL END CROSS FRAME (CF)

(14 Required)

* Fillet weld angles along 3 sides on one face of gusset plate.

Notes: Detail $1\frac{1}{16}$" ϕ holes for all $\frac{7}{8}$" ϕ bolts.
Two hardended washers shall be required for each set of oversized holes.

Stiffeners to be included on both sides of all beams, including fascia beams.

HRG PROJECT NO.: 8B13038
HRG PROJ. CONTACT:
FILE NAME: 38B_Str_CrossFrameDetailsOl.dgn
PLOT DRIVER: IL_pdf_bw.prtcfg
PEN TABLE: plotIDOT.tbl

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	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
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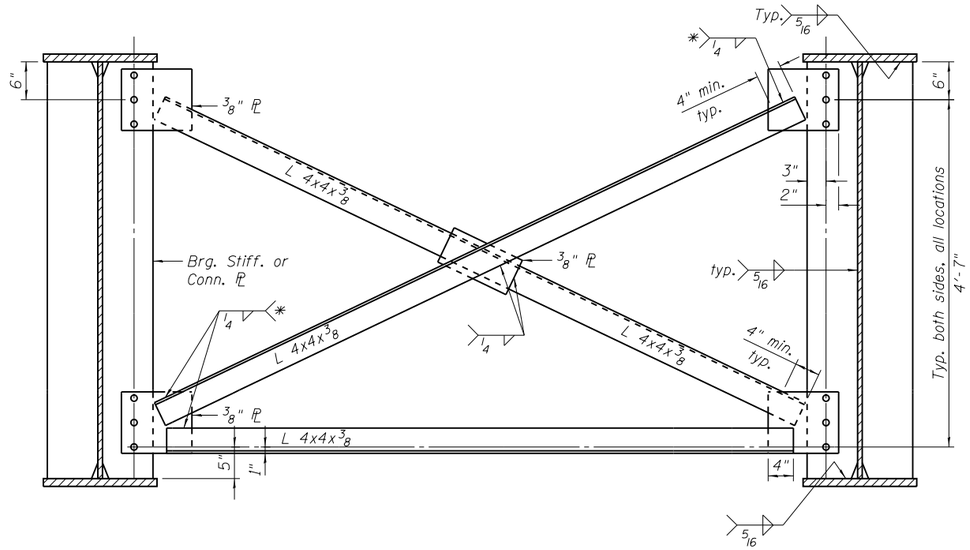
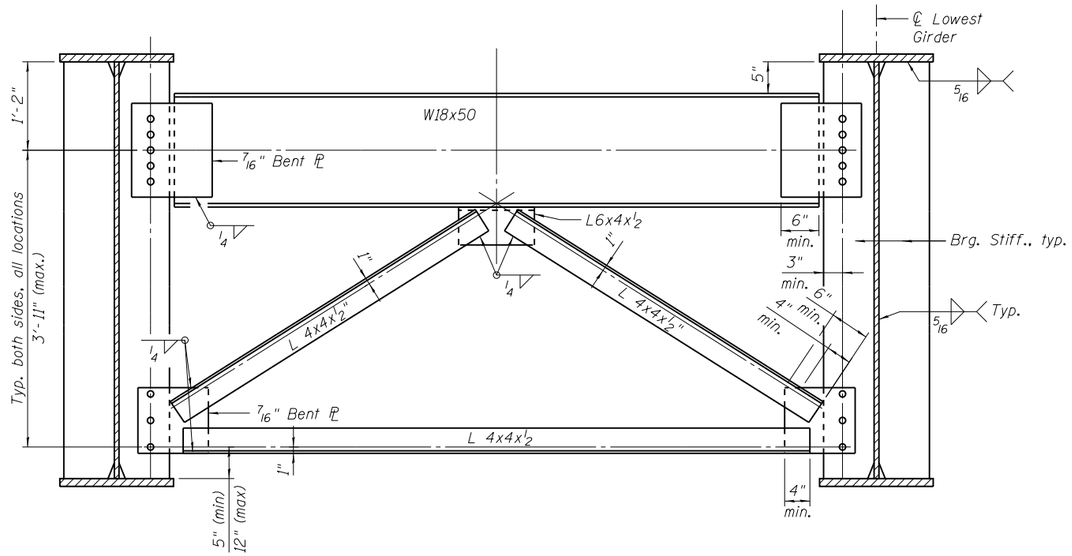
CROSS FRAME DETAILS – UNIT 1
SN: 047-3175
SHEET NO. S-45 OFS-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	217
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			



AT CONN. PL



AT INTERMEDIATE
STIFFENER

TYPICAL INTERIOR CROSS FRAME (CF2)

(217 Required)

* Fillet weld angles along 3 sides on one face of gusset plate.

Notes: Detail $1\frac{1}{16}$" ϕ holes for all $\frac{7}{8}$" ϕ bolts.
Two hardended washers shall be required for each set of oversized holes.

All steel to be AASHTO M270 Grade 50 W.

Stiffeners to be included on both sides of all beams, including fascia beams.

TYPICAL END CROSS FRAME (CF3)

(14 Required)

Notes: $1\frac{1}{16}$" ϕ holes for all $\frac{7}{8}$" ϕ bolts.
Two hardended washers shall be required for each set of oversized holes.

Stiffeners to be included on both sides of all beams, including fascia beams.

HRG PROJECT NO.: 8B13038
HRG PROJ. CONTACT: 388_Str_CrossFrameDetails02.dgn
FILE NAME: IL_pdf_bw.prfcfg
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PEN TABLE:

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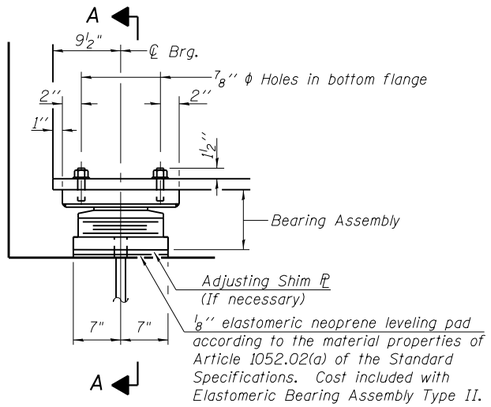
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

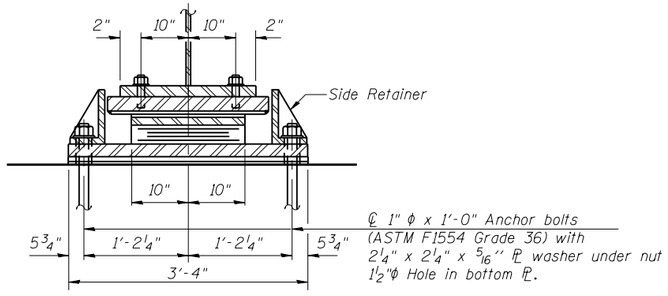
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS FRAME DETAILS – UNIT 2
SN: 047-3175
SHEET NO. S-46 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	218
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

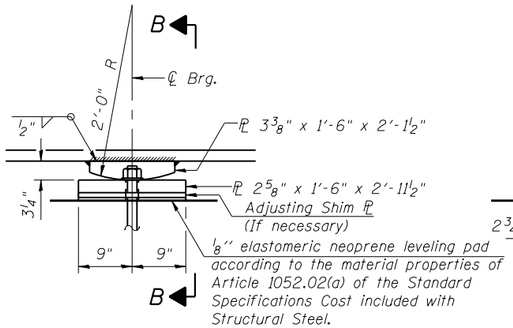


ELEVATION AT ABUT.

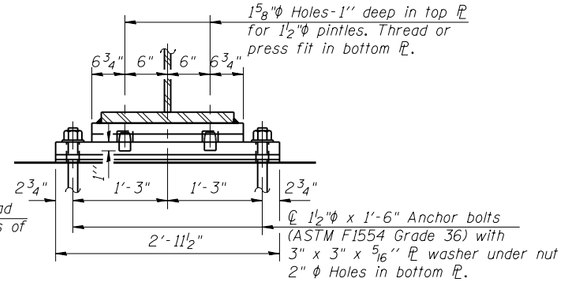


SECTION A-A

TYPE II ELASTOMERIC EXP. BRG. (SOUTH ABUTMENT & PIER 4 SOUTH BEARING)

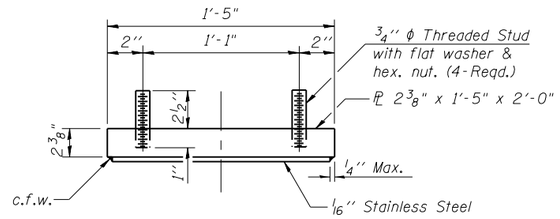


ELEVATION AT PIER

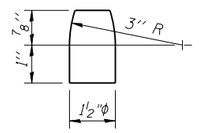


SECTION B-B

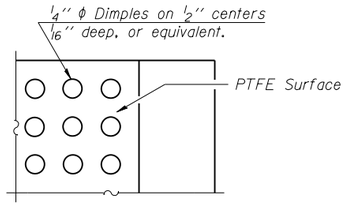
FIXED BEARING (PIER 2)



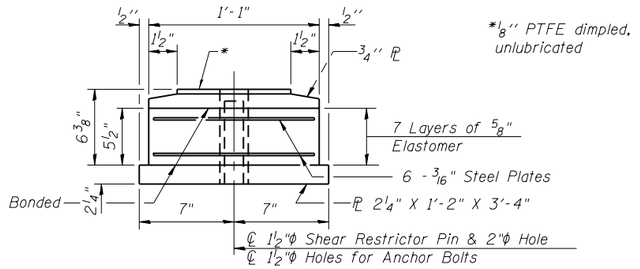
TOP BEARING ASSEMBLY



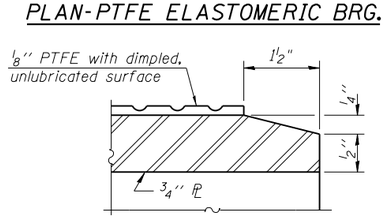
PINTLE



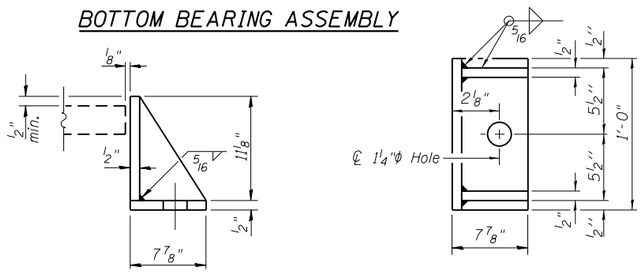
PLAN-PTFE ELASTOMERIC BRG.



BOTTOM BEARING ASSEMBLY

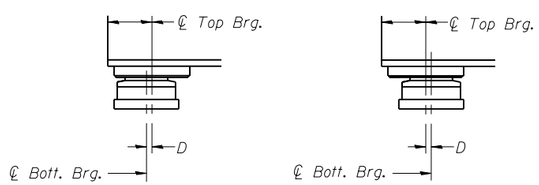


SECTION THRU PTFE



SIDE RETAINER

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



BELOW 50°F. ABOVE 50°F.

D=1/8" per each 100' of expansion for every 15° temp.
change from the normal temp. of 50°F.

EXPANSION BEARING ORIENTATION

The above diagrams are for informational purposes only to show the
amount of expected offset "D" for the current temperature in the field.

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

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 of the bearing assemblies shall conform to the requirements of AASHTO M 270 Grade 50.

Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	16
Anchor Bolts, 1"	Each	32
Anchor Bolts, 1 1/2"	Each	16

HRG PROJECT NO.: 8803038
HRG PROJ. CONTACT: 388.Str-Brgdtl1-0.dgn
FILE NAME: IL.pdf_bwptcfg
PLOT DRIVER: plotbwk.tbl
PEN TABLE:

I-2E-2

2-17-17

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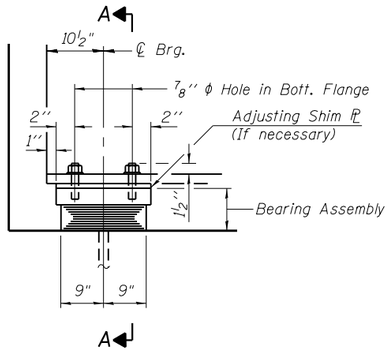
184-001322

USER NAME = whood	DESIGNED - SLS	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

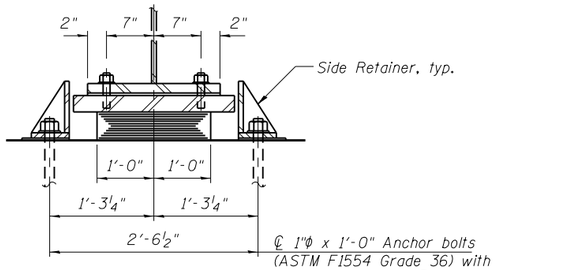
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS – UNIT 1
SN: 047-3175
SHEET NO. S-47 OFS-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	219
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

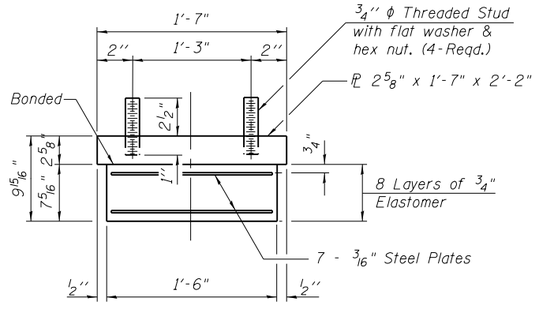


ELEVATION AT ABUT.



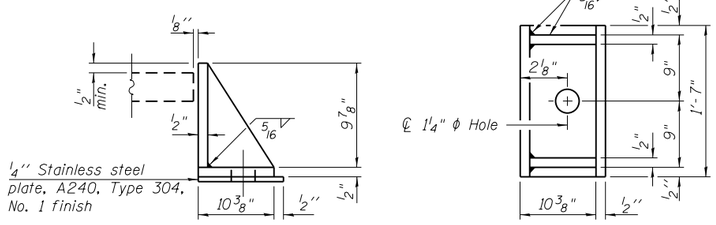
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. (NORTH ABUTMENT)



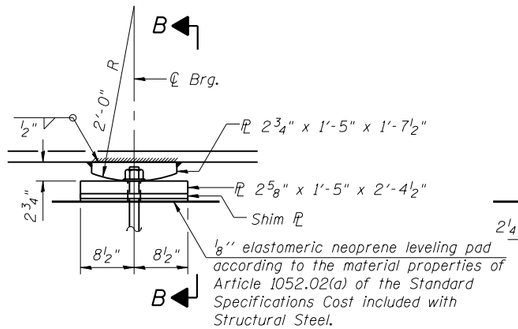
BEARING ASSEMBLY

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

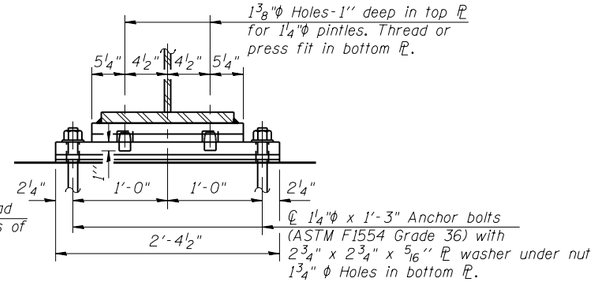


SIDE RETAINER

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

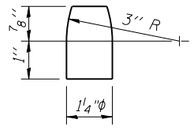


ELEVATION AT PIER



SECTION B-B

FIXED BEARING (PIER 6)



PINTLE

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

The structural steel plates of the bearing assemblies shall conform to the requirements of AASHTO M 270 Grade 50.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

See Bill of Materials on S-49.

HRG PROJECT NO.: 8B13038
HRG PROJ. CONTACT: 38B_Str_Brgunit2-Oldgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotdata.tbl
PEN TABLE:

I-2E-1

2-17-17

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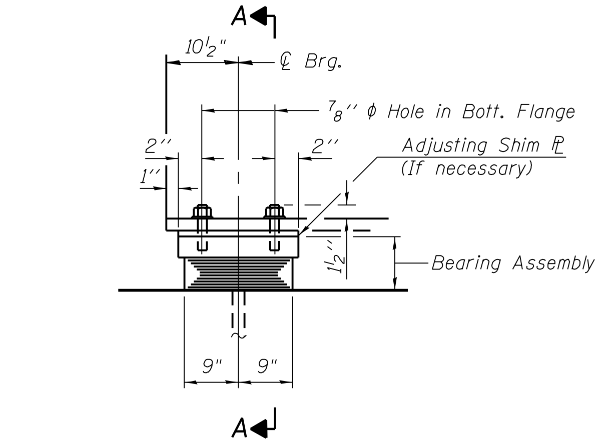
USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

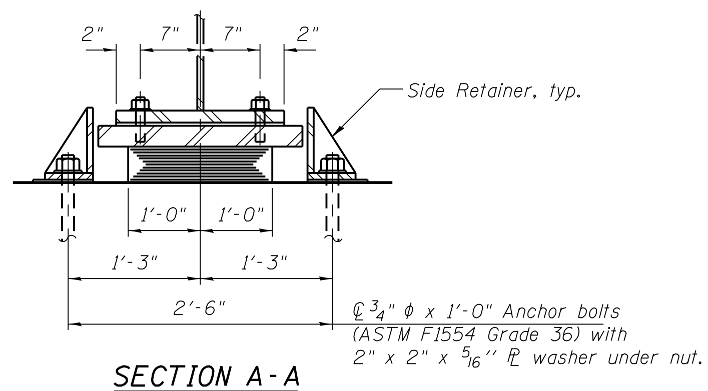
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS – UNIT 2
SN: 047-3175
SHEET NO. S-48 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	220
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

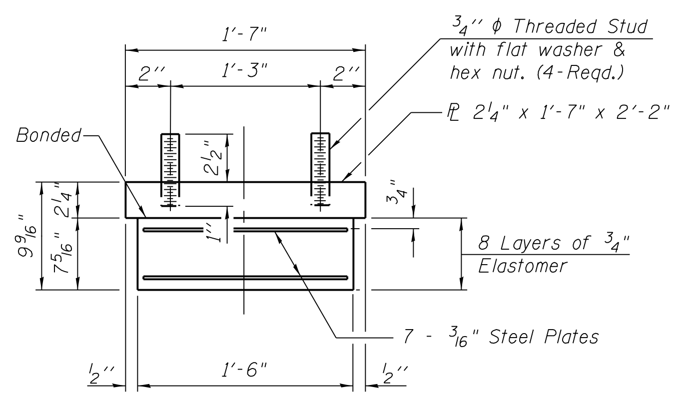


ELEVATION AT ABUT.



SECTION A-A

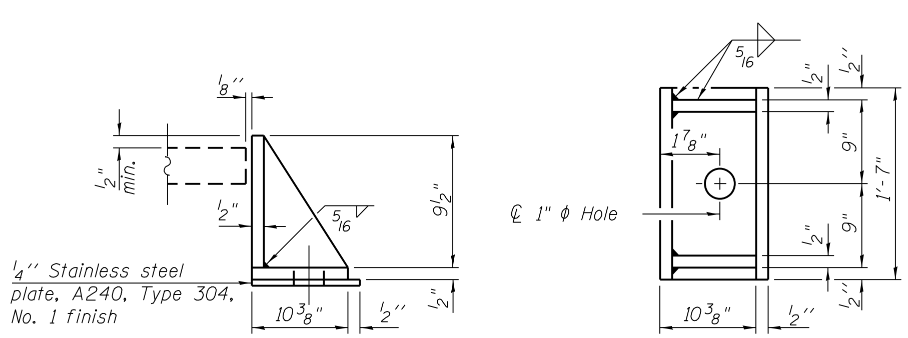
TYPE I ELASTOMERIC EXP. BRG. (PIER 4 NORTH BEARING)



BEARING ASSEMBLY

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

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
The structural steel plates of the bearing assemblies shall conform to the requirements of AASHTO M 270 Grade 50.
Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	16
Anchor Bolts, ¾"	Each	16
Anchor Bolts, 1"	Each	16
Anchor Bolts, 1¼"	Each	16

I-2E-1 2-17-17

HRG PROJECT NO.: 883038
HRG PROJ.CONTACT:
FILE NAME: 38B_Str_BrgUnit2-02.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS – UNIT 2
SN: 047-3175

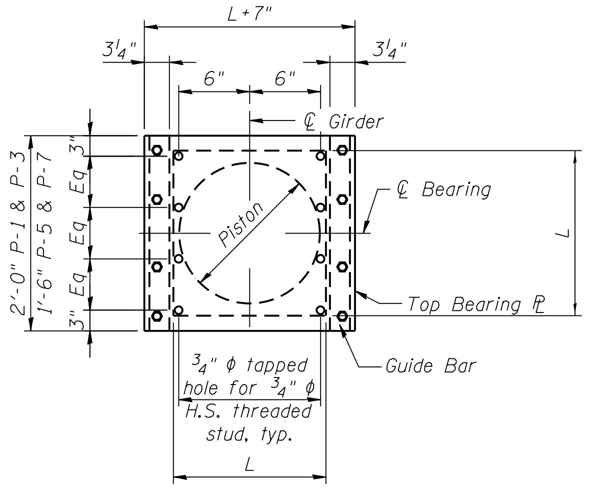
SHEET NO. S-49 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	221

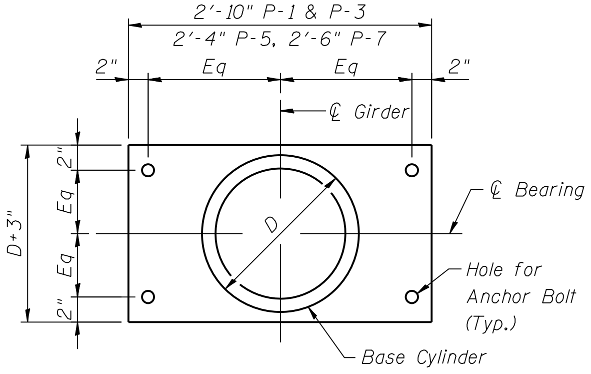
CONTRACT NO. 87731

ILLINOIS FED. AID PROJECT

Notes:
Anchor bolts shall be ASTM F1554 all-threaded (or an Engineer-approved alternative material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
H.S. Bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.
See Special Provisions for High Load Multi-Rotational Bearings.



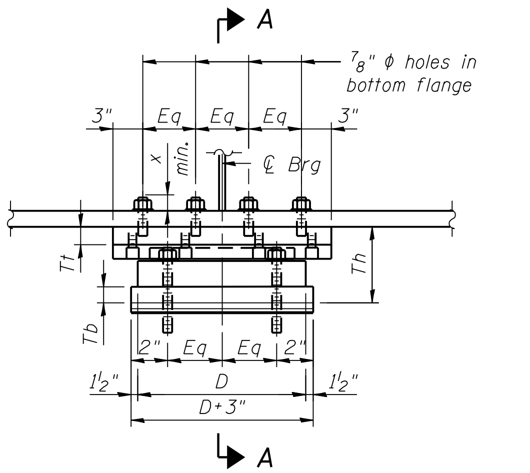
TOP BEARING ℄ AND PISTON PLAN



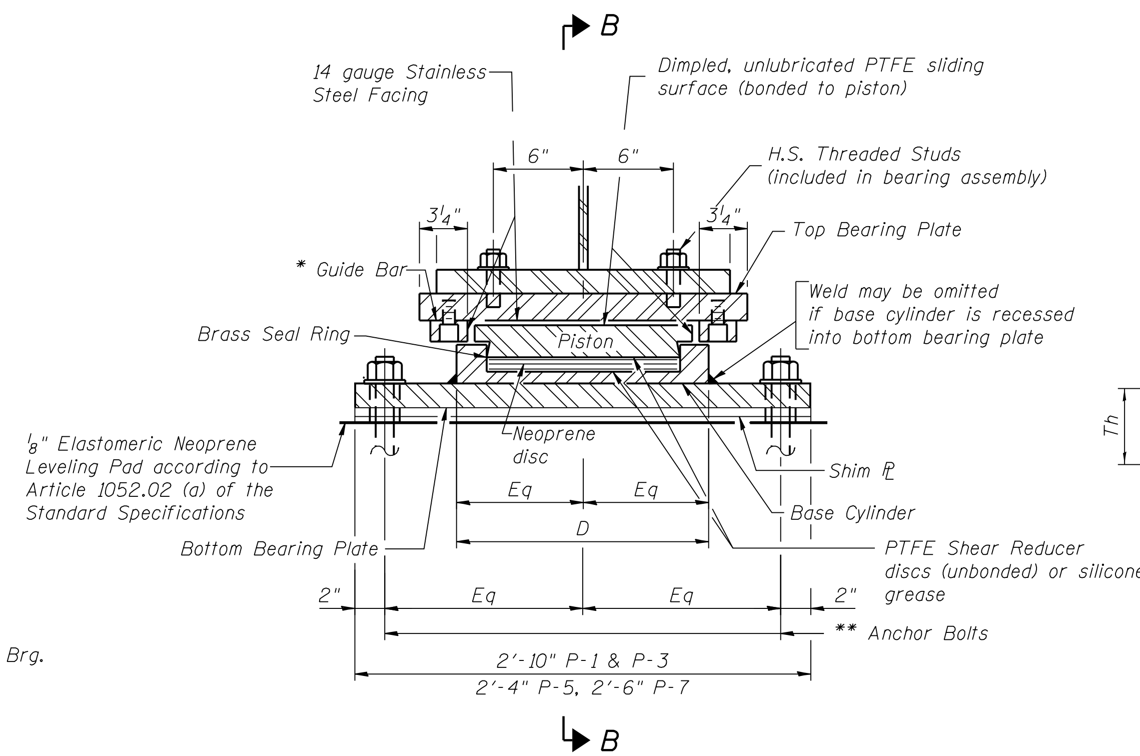
BOTTOM BEARING ℄ AND BASE CYLINDER PLAN

* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.

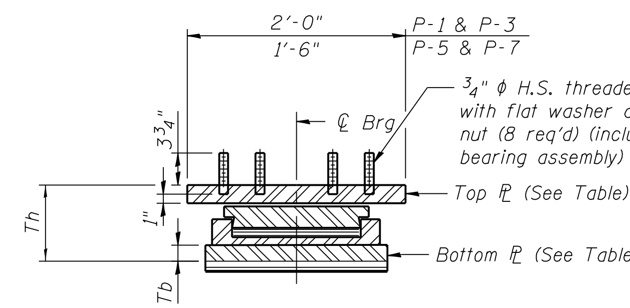
** Piers 1 & 3: ℄ 1 1/4" ϕ Anchor Bolts with 2 3/4" x 2 3/4" x 5/16" ℄ washer under nut. 1 3/4" ϕ holes in bottom ℄.
Piers 5 & 7: ℄ 1" ϕ Anchor Bolts with 2 1/4" x 2 1/4" x 5/16" ℄ washer under nut. 1 1/2" ϕ holes in bottom ℄.



ELEVATION AT PIERS 1, 3, 5 AND 7

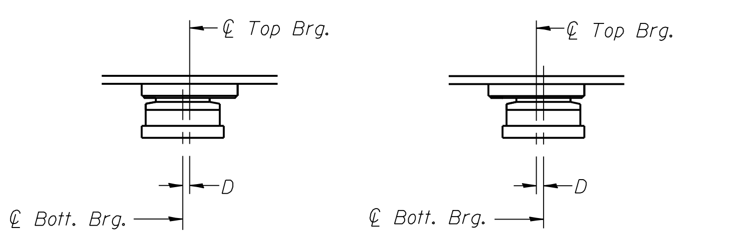


SECTION A-A



SECTION B-B

(Guide Bar omitted for clarity)



BELOW 50°F.
(Move bott. brg. away from fixed brg.)

ABOVE 50°F.
(Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

Pier	Bearing Data (LRFD)		Dimensions	
1 & 3	Vertical design load	558K	Tt	3"
	Total required movement	3 1/8"	Tb	1 7/8"
	Lateral design load (H_u)	112K	Th	7 1/8"
	Design Rotation (θ_u)	0.860°	L	1'-8"
			D	1'-9"
5	Vertical design load	456K	Tt	2 3/4"
	Total required movement	2 3/8"	Tb	1 3/4"
	Lateral design load (H_u)	92K	Th	6 1/4"
	Design Rotation (θ_u)	0.860°	L	1'-4"
			D	1'-5"
7	Vertical design load	507K	Tt	3"
	Total required movement	2 1/8"	Tb	2"
	Lateral design load (H_u)	102K	Th	6 3/4"
	Design Rotation (θ_u)	0.860°	L	1'-4"
			D	1'-5"

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotational Bearings, Guided Expansion, 500K	Each	8
High Load Multi-Rotational Bearings, Guided Expansion, 550K	Each	8
High Load Multi-Rotational Bearings, Guided Expansion, 600K	Each	16
Anchor Bolts, 1"	Each	64
Anchor Bolts, 1 1/4"	Each	64

Notes: The plates of the Bearing Assembly shall be AASHTO M270, Grade 50W.

HRG PROJECT NO.: 8803081
HRG PROJ.CONTACT:
FILE NAME: 3818_Str_BrgUnit2-03.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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Illinois Professional Design Firm # 184-001322
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USER NAME = whood
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PLOT DATE = 9/3/2020

DESIGNED - SLS
DRAWN - WJH
CHECKED - SLS
DATE - 8/7/2020

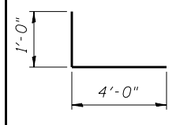
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

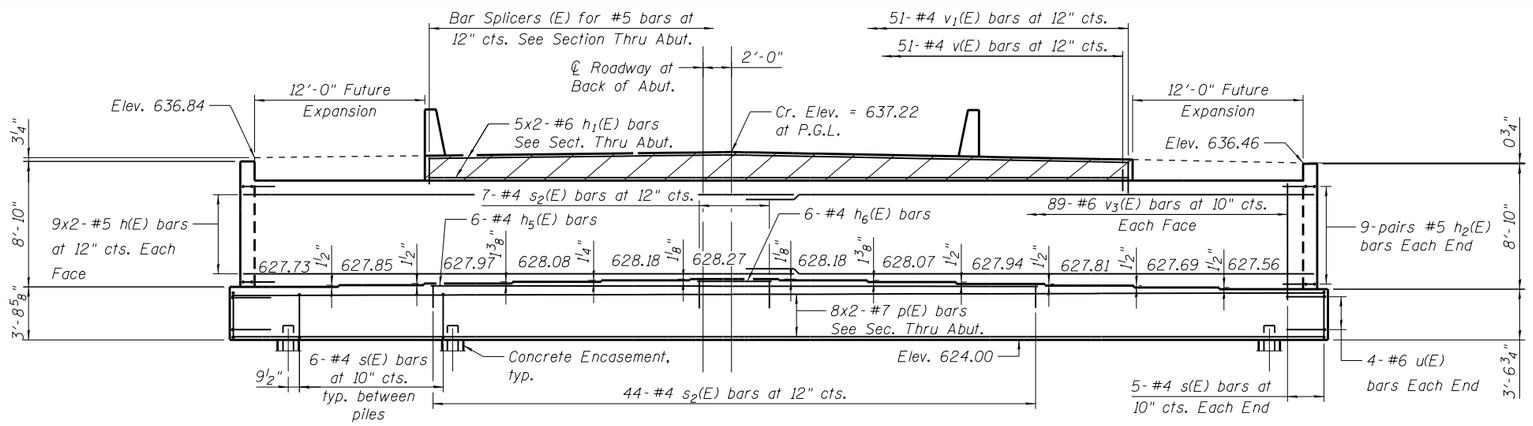
HIGH LOAD MULTI-ROTATIONAL BEARING DETAILS
SN: 047-3175
SHEET NO. S-50 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	222

CONTRACT NO. 87731
ILLINOIS FED. AID PROJECT



BAR $h_2(E)$



ELEVATION

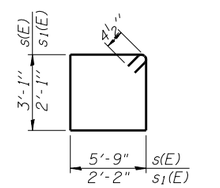
Notes:
"Hatch block" between wingwall and edge of approach slab to be constructed in the future.

PILE DATA

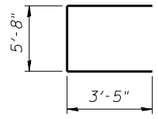
Type: HP 14x89
Nominal Required Bearing: 705K
Factored Resistance Available: 388K
Est. Length: 67'-0"
No. Production Piles: 14
No. Test Piles: 1

Minimum Bar Lap

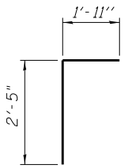
#4 bar - 2'-11"
#5 bar - 3'-7" (Top Bar)
#6 bar - 4'-4" (Top Bar)
#7 bar - 5'-0"



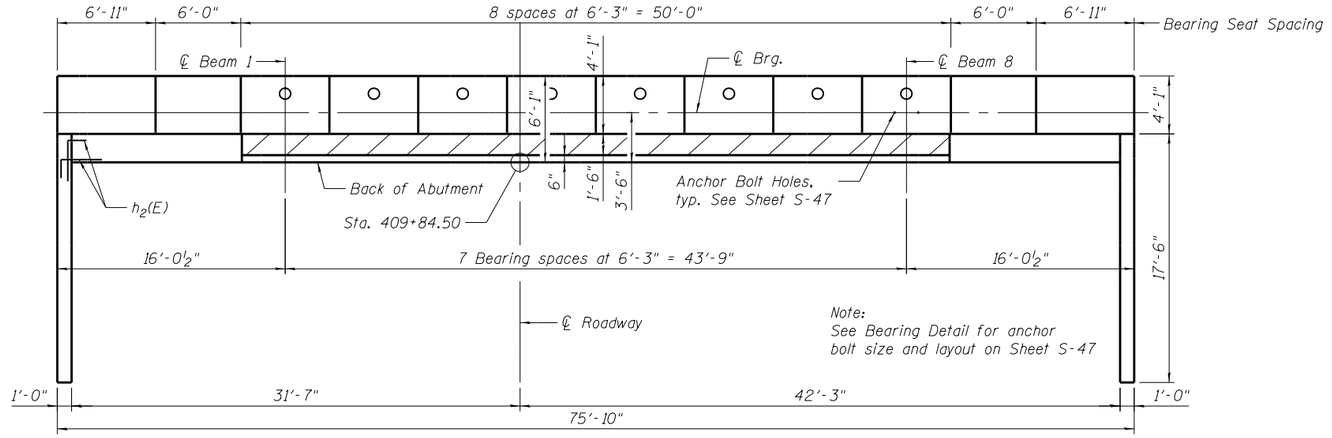
BARS s(E) & $s_1(E)$



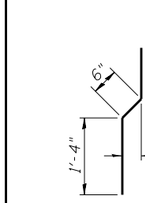
BAR u(E)



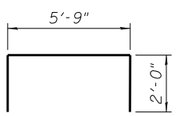
BAR v(E)



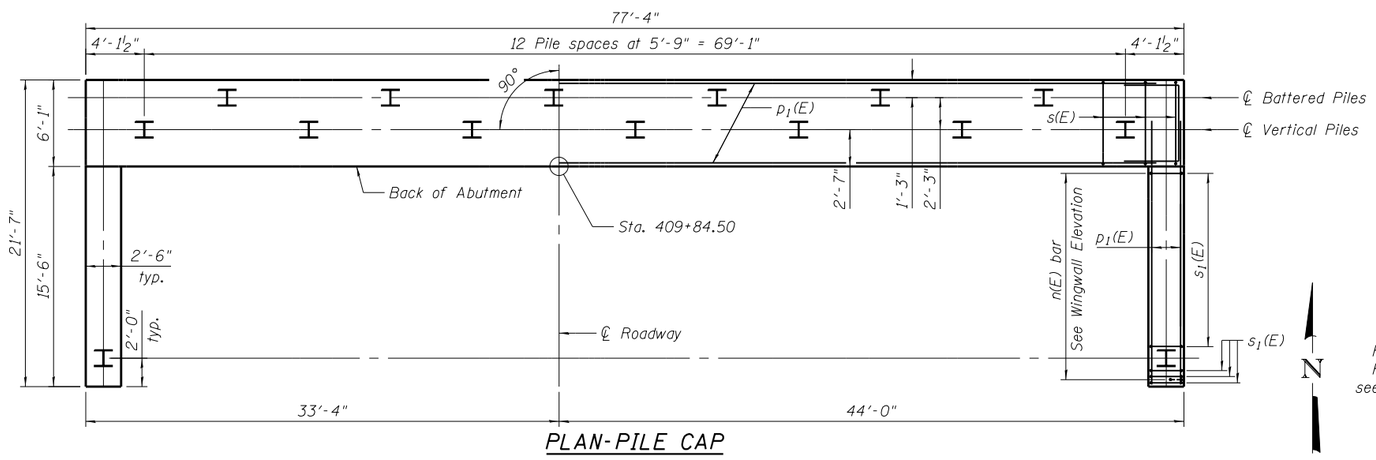
TOP VIEW



BAR $v_1(E)$



BAR $s_2(E)$



PLAN-PILE CAP

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h (E)	36	#5	39'- 7"	
$h_1(E)$	10	#6	27'- 0"	
$h_2(E)$	36	#5	5'- 0"	L
$h_3(E)$	20	#5	17'- 2"	
$h_4(E)$	28	#6	17'- 2"	
$h_5(E)$	6	#4	43'- 5"	
$h_6(E)$	6	#4	5'- 11"	
n(E)	32	#6	5'- 3"	
p (E)	16	#7	41'- 0"	
$p_1(E)$	12	#7	21'- 3"	
s (E)	82	#4	18'- 5"	
$s_1(E)$	32	#4	9'- 3"	
$s_2(E)$	51	#4	9'- 9"	
u (E)	8	#6	12'- 6"	
v (E)	51	#5	4'- 4"	
$v_1(E)$	51	#4	3'- 8"	
$v_2(E)$	72	#5	9'- 9"	
$v_3(E)$	178	#6	10'- 9"	

Structure Excavation	Cu Yd	290
Concrete Structures	Cu Yd	127.8
Reinforcement Bars, Epoxy Coated	Pound	11,120
Furnishing Steel Piles HP14x89	Foot	938
Driving Piles	Foot	938
Test Pile Steel HP14x89	Each	1
Concrete Encasement	Cu Yd	11
Concrete Sealer	Sq Ft	1,157

For details of Bar Splicers, see sheet S-67.
For details of piles and Concrete Encasement, see sheet S-64.

HRG PROJECT NO.: 8813038
HRG PROJ.CONTACT: JMW
FILE NAME: 38B_Str_Abut_South.dgn
PLOT DRIVER: IL_pdf.drv_ptcfg
PEN TABLE: plotlabel.tbl

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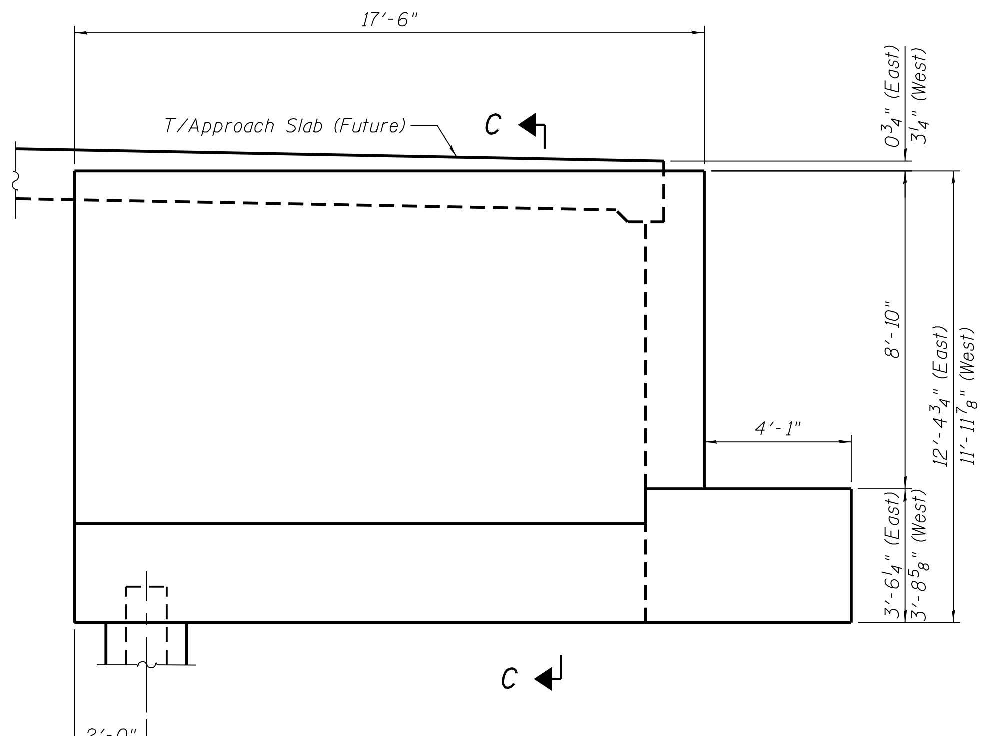
USER NAME = whood	DESIGNED - JMW	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

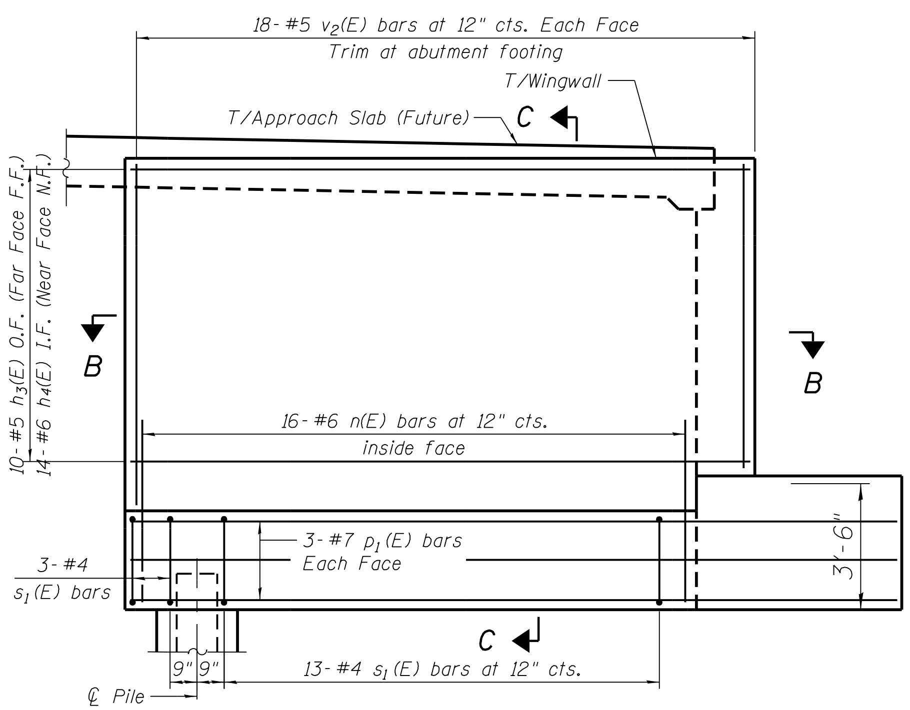
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
SN: 047-3175
SHEET NO. S-51 OF S-72 SHEETS

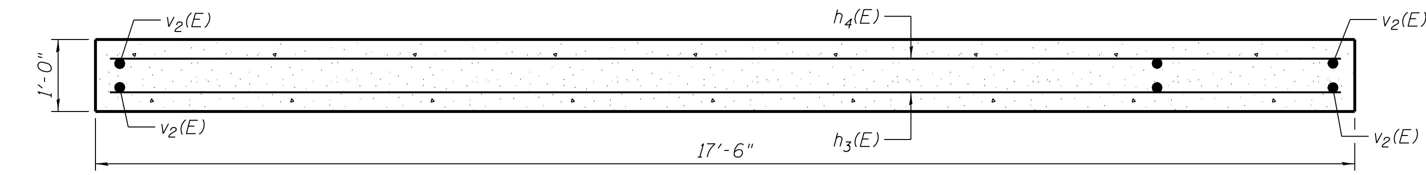
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	223
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			



WING WALL ELEVATION
(Looking West)
Showing Dimensions

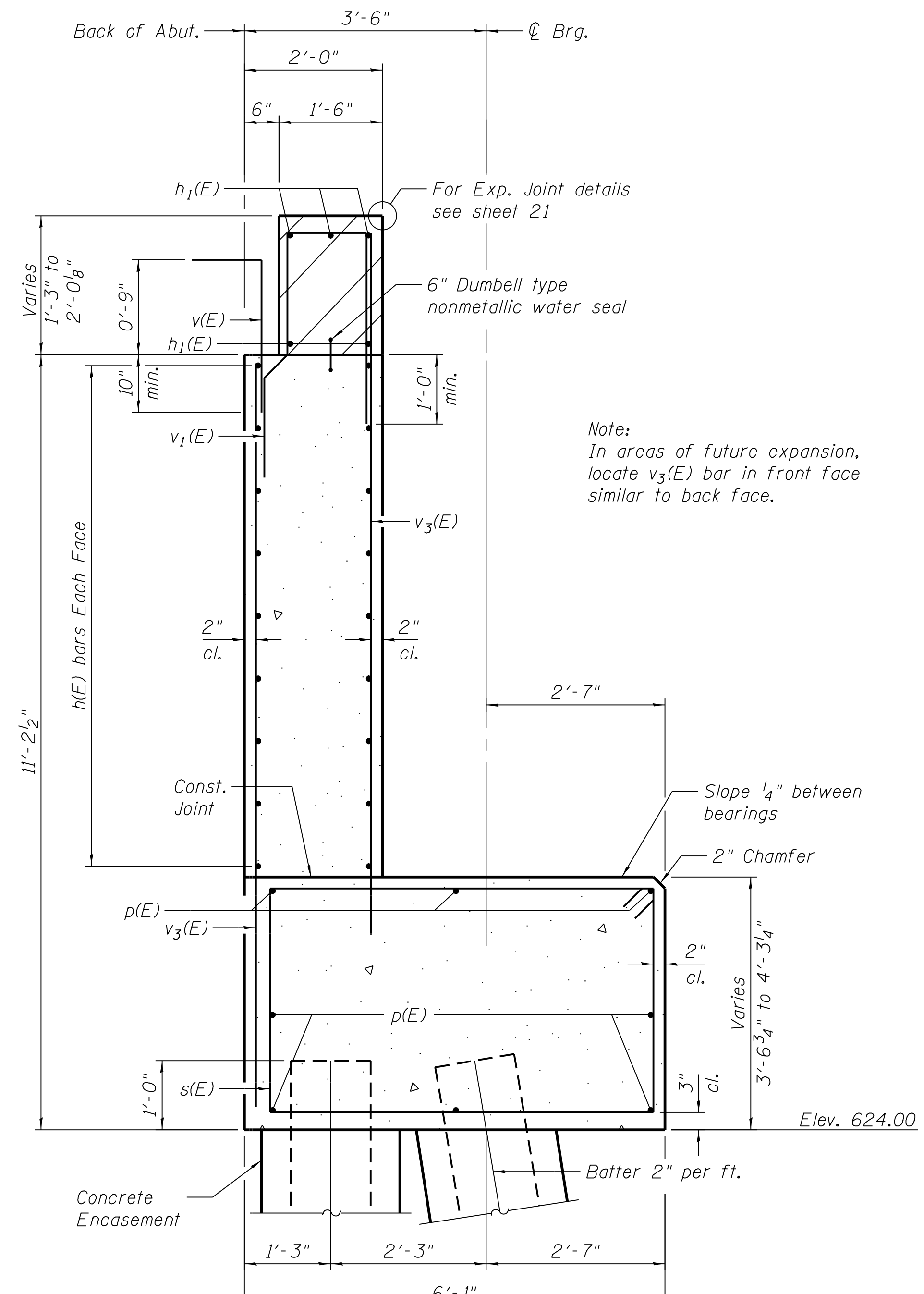


WING WALL ELEVATION
(Looking West)
Showing Reinforcement

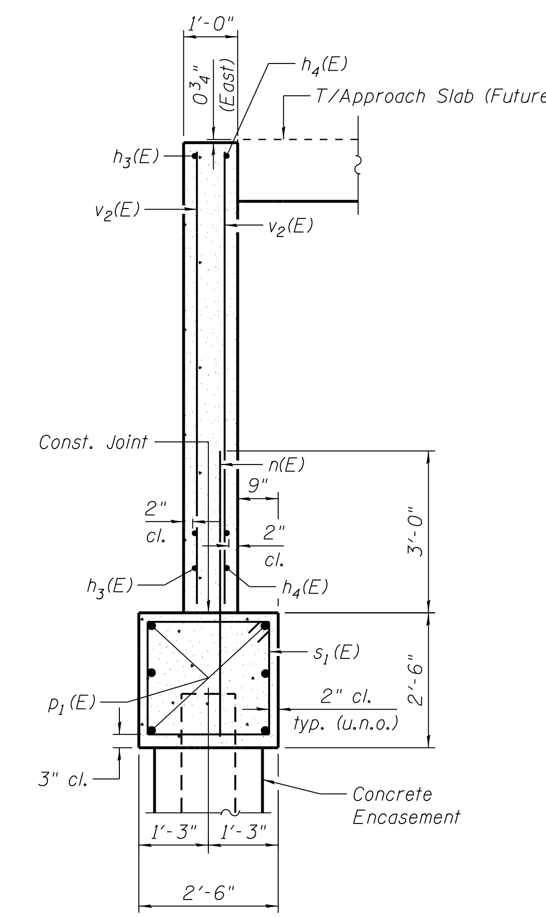


SECTION B-B

N



SECTION THROUGH ABUTMENT



SECTION C-C

Notes:
1. Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For Concrete Encasement details, see sheet S-64.
5. Concrete sealer to be applied to backwall, seat, and front face of footing.

HRG PROJECT NO.: 8803081
HRG PROJ.CONTACT:
FILE NAME: 3818_Str_AbutDetails_South.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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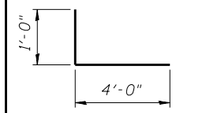
USER NAME = whood	DESIGNED - JMW	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

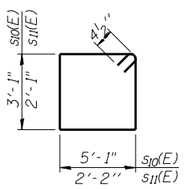
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT DETAILS
SN: 047-3175
SHEET NO. S-52 OF S-72 SHEETS

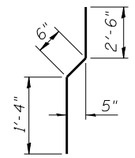
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	224
		CONTRACT NO. 87731		
		ILLINOIS FED. AID PROJECT		



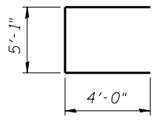
BAR $h_{12}(E)$



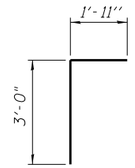
BARS $s_{10}(E)$ & $s_{11}(E)$



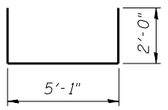
BAR $v_{11}(E)$



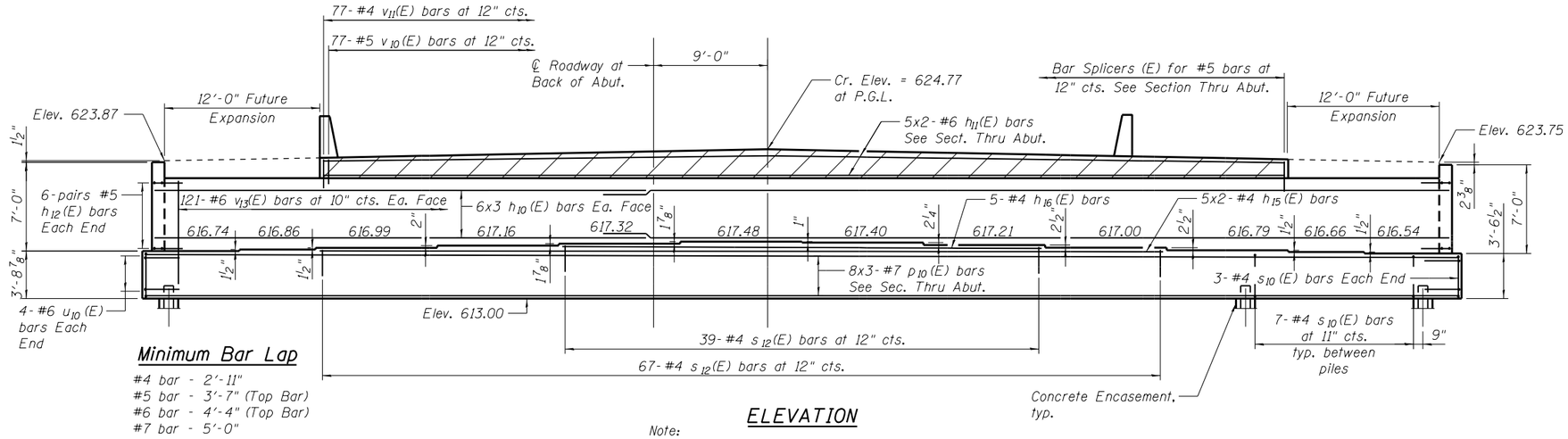
BAR $u_{10}(E)$



BAR $v_{10}(E)$



BAR $s_{12}(E)$

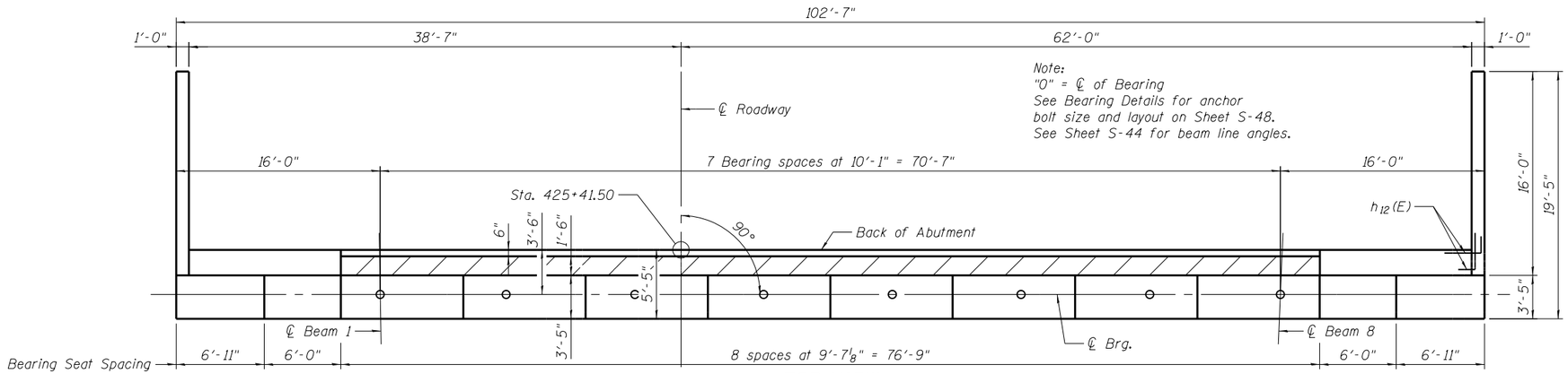


Minimum Bar Lap

#4 bar - 2'-11"
#5 bar - 3'-7" (Top Bar)
#6 bar - 4'-4" (Top Bar)
#7 bar - 5'-0"

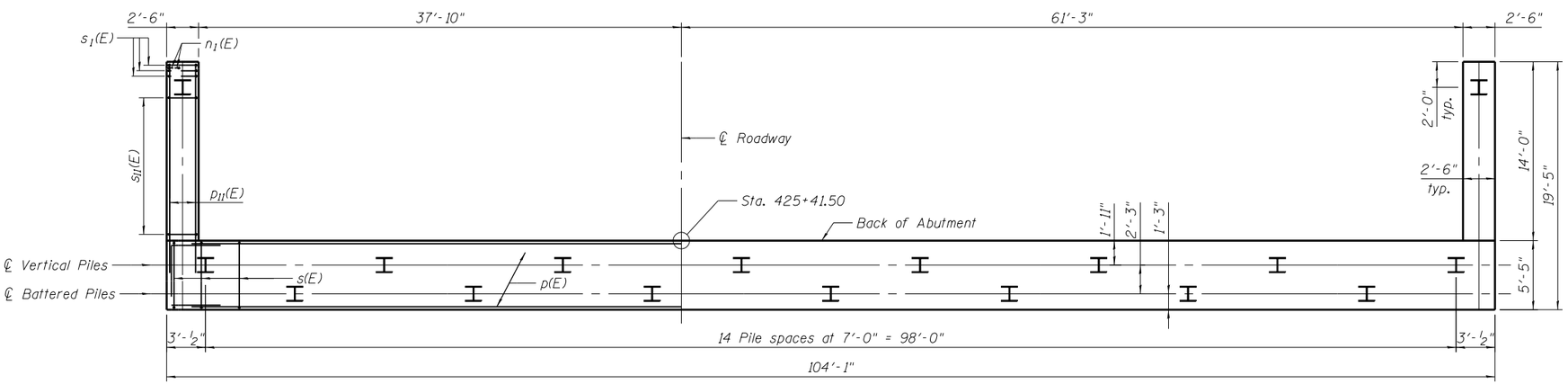
ELEVATION

Note:
"Hatch block" between wingwall and edge of approach slab to be constructed in the future.



Note:
"0" = ℄ of Bearing
See Bearing Details for anchor bolt size and layout on Sheet S-48.
See Sheet S-44 for beam line angles.

TOP VIEW



PLAN-PILE CAP

PILE DATA

Type: HP 14x89
Nominal Required Bearing: 705K
Factored Resistance Available: 388K
Est. Length: 59'-0"
No. Production Piles: 16
No. Test Piles: 1

BEAM ANGLE

Beam Number	Beam Line Angle
Future A	-
Future B	-
1	0.9082° L
2	0.4290° L
3	0.0498° R
4	0.5289° R
5	1.0079° R
6	1.4868° R
7	1.9654° R
8	2.4438° R
Future C	-
Future D	-

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{10}(E)$	36	#5	36'- 6"	—
$h_{11}(E)$	10	#6	40'- 1"	—
$h_{12}(E)$	24	#5	5'- 0"	L
$h_{13}(E)$	16	#4	15'- 8"	—
$h_{14}(E)$	22	#6	15'- 8"	—
$h_{15}(E)$	10	#4	34'- 11"	—
$h_{16}(E)$	5	#4	38'- 0"	—
$n_{10}(E)$	30	#6	5'- 3"	—
$p_{10}(E)$	24	#7	38'- 4"	—
$p_{11}(E)$	12	#7	19'- 1"	—
$s_{10}(E)$	104	#4	17'- 1"	□
$s_{11}(E)$	30	#4	9'- 3"	□
$s_{12}(E)$	106	#4	9'- 1"	⌐¬
$u_{10}(E)$	8	#6	13'- 1"	⊐
$v_{10}(E)$	77	#5	4'- 11"	⌐
$v_{11}(E)$	77	#4	4'- 4"	⌐
$v_{12}(E)$	68	#5	7'- 10"	—
$v_{13}(E)$	242	#6	9'- 1"	—
Structure Excavation			Cu Yd	288
Concrete Structures			Cu Yd	141.1
Reinforcement Bars, Epoxy Coated			Pound	12,370
Furnishing Steel Piles HP14x89			Foot	944
Driving Piles			Foot	944
Test Pile Steel HP14x89			Each	1
Concrete Encasement			Cu Yd	12
Concrete Sealer			Sq Ft	1,351

For details of Bar Splicers, see sheet S-67.
For details of piles and Concrete Encasement, see sheet S-64.

HRG PROJECT NO.: 88303B1
HRG PROJ. CONTACT:
FILE NAME: 388_Str_Abut_North.dgn
PLOT DRIVER: IL_pdf_bwPtrfg
PEN TABLE: plotTable.tbl

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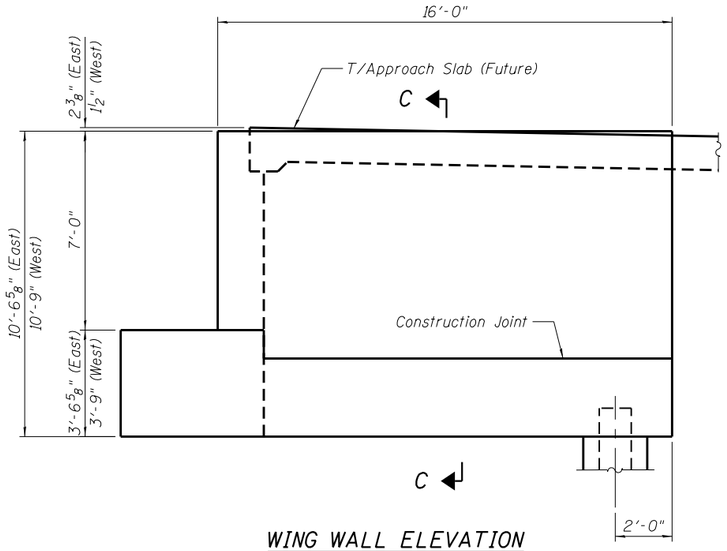
USER NAME = whood	DESIGNED - JMW	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

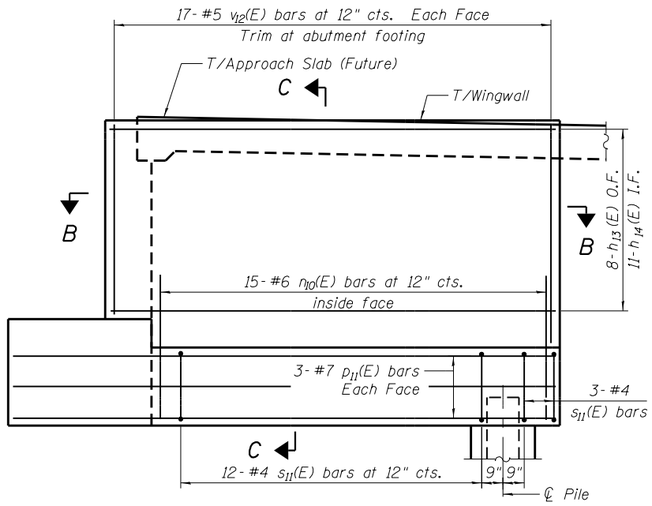
NORTH ABUTMENT
SN: 047-3175
SHEET NO. S-53 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	225
		CONTRACT NO. 87731		
		ILLINOIS FED. AID PROJECT		



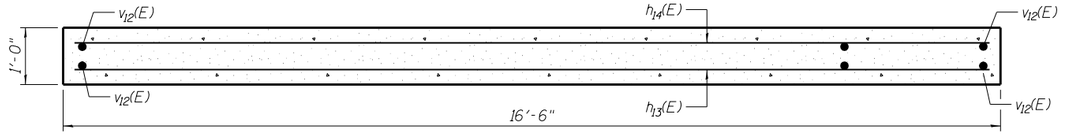
WING WALL ELEVATION

(Looking West)
Showing Dimensions

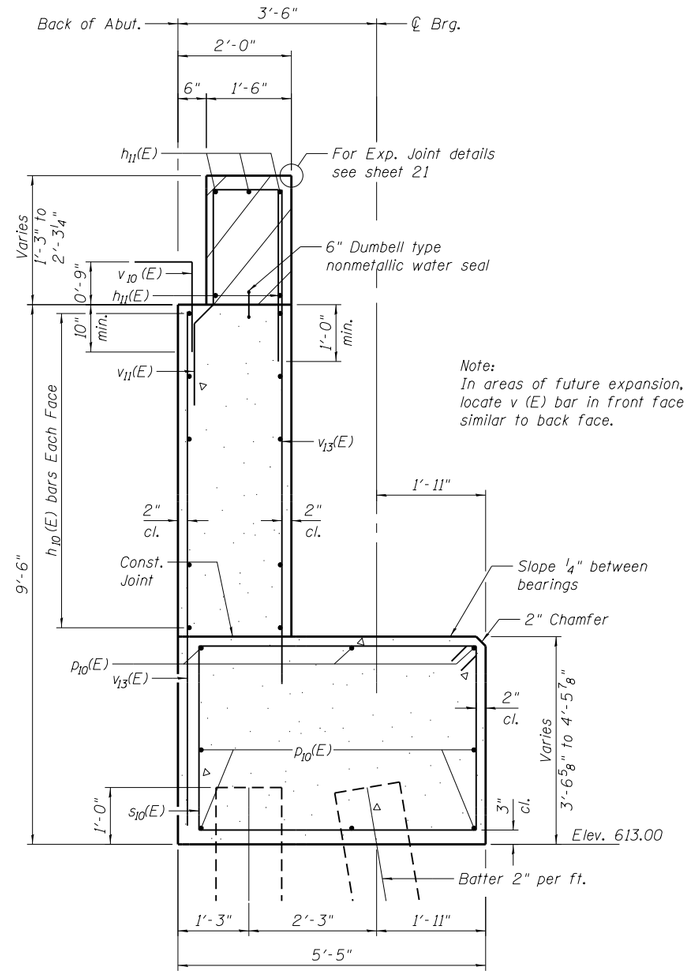


WING WALL ELEVATION

(Looking West)
Showing Reinforcement

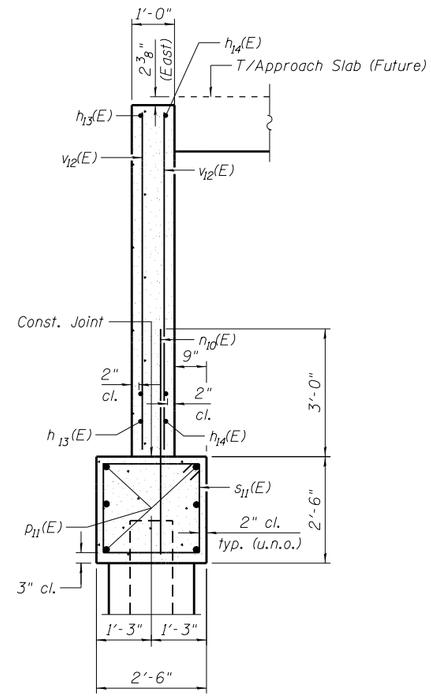


SECTION B-B



SECTION THROUGH ABUTMENT

Note:
In areas of future expansion, locate v (E) bar in front face similar to back face.



SECTION C-C

Notes:
1. Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For Concrete Encasement details, see sheet S-64.
5. Concrete sealer to be applied to backwall, seat, and front face of footing.

HRG PROJECT NO.: 8B3038I
HRG PROJ.CONTACT:
FILE NAME: 38B_Str_AbutDetails_North.dgn
PLOT DRIVER: IL_pdf_bw.plotcfg
PEN TABLE: plotlabels.tbl

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	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

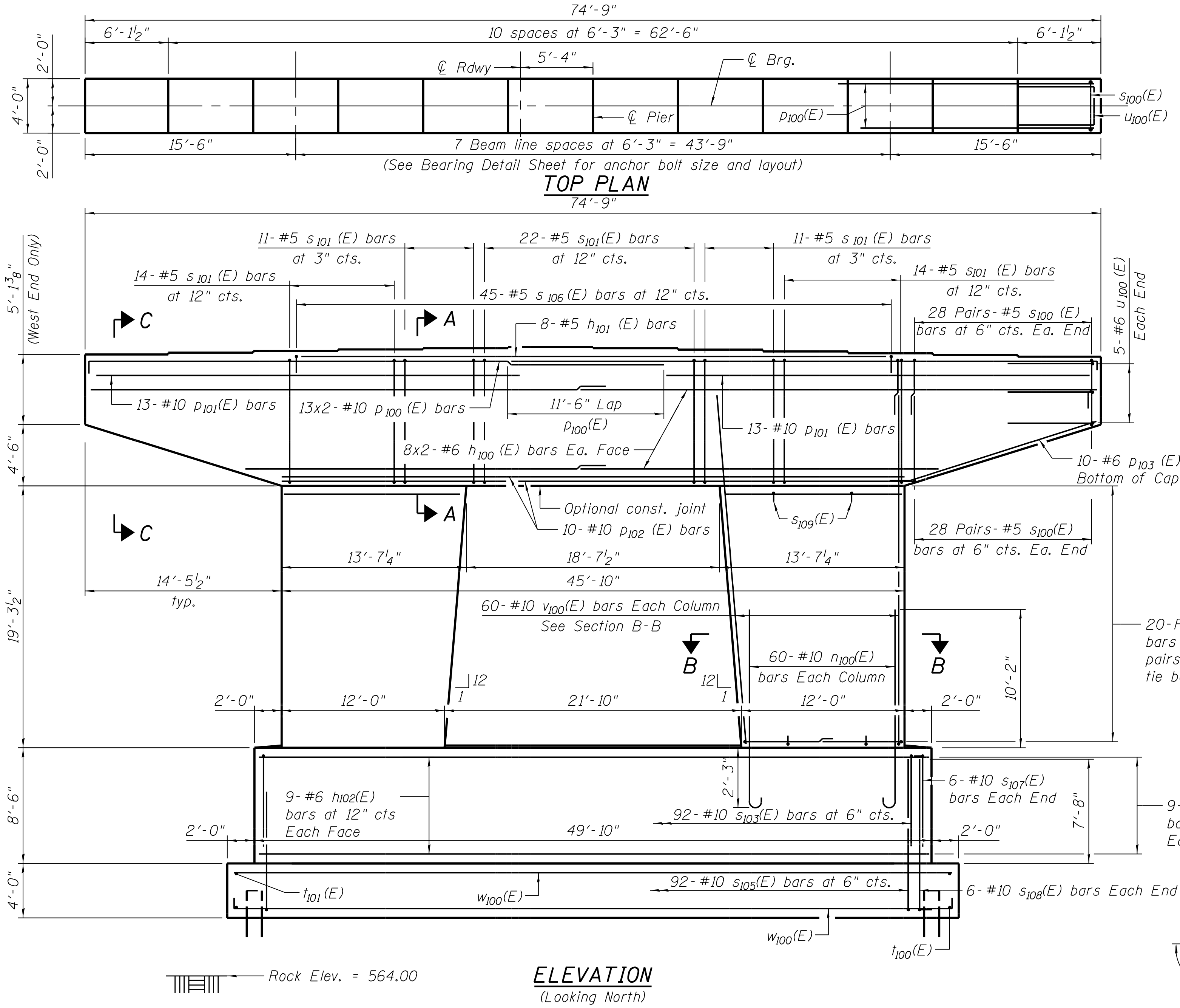
NORTH ABUTMENT DETAILS
SN: 047-3175
SHEET NO. S-54 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	226
		CONTRACT NO. 87731		
	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-64.
For Sections, see sheet S-62.

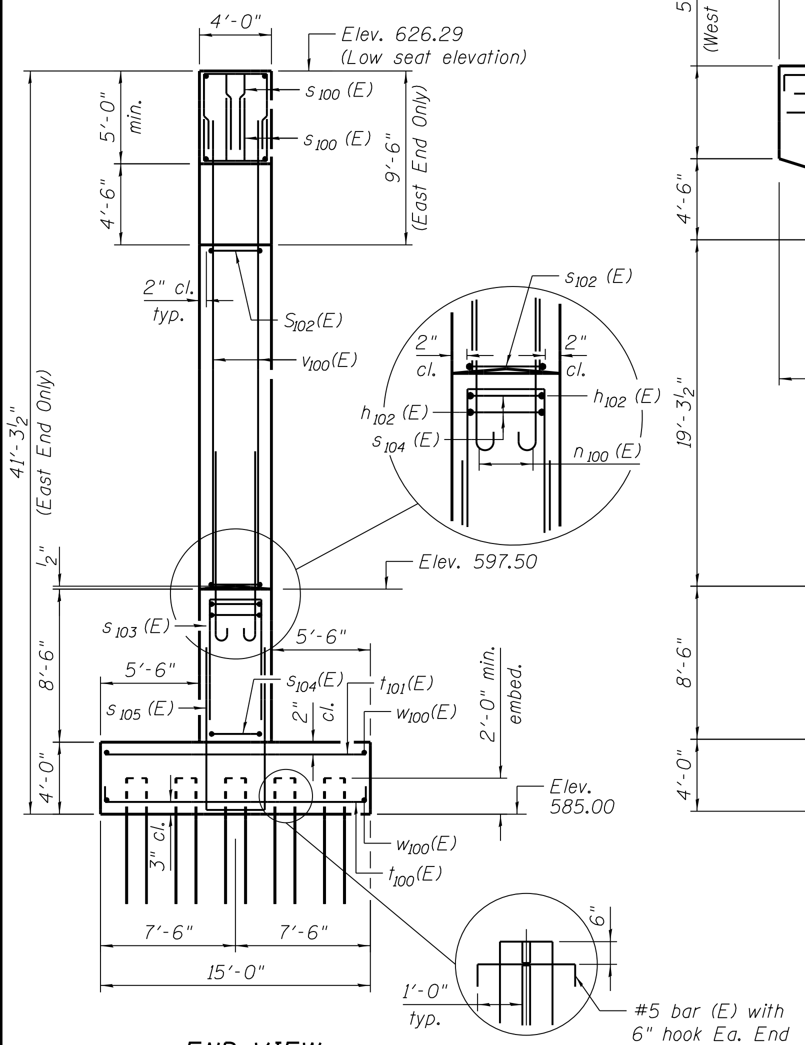
PILE DATA

Type: HP 14x89
Nominal Required Bearing: 705k
Factored Resistance Available: 388k
Est. Length: 25'
No. Production Piles: 47
No. Test Piles: 1



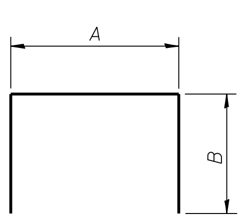
TOP PLAN

ELEVATION
(Looking North)



END VIEW
(East End)

Anchor outside rows of Piles to pile cap
Detail is of pile looking north

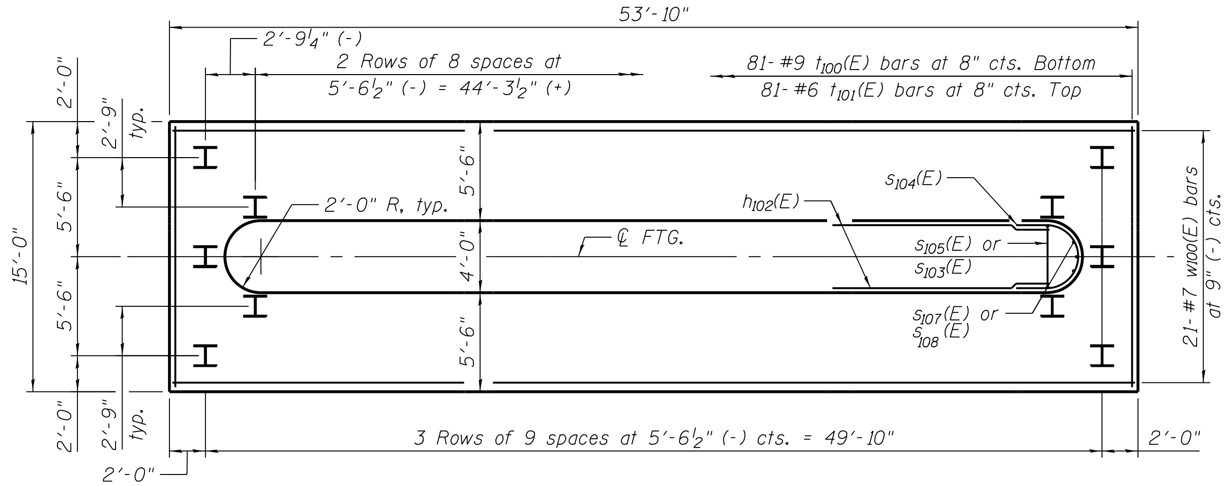


BARS

A & B DIMENSIONS

Bar	A	B
* s100(E)	2'-5"	5'-10"
s102(E)	3'-8"	8'-1"
s103(E)	3'-5"	8'-4"
s105(E)	3'-8"	11'-5"
s106(E)	3'-6"	1'-9"

* Trim to fit



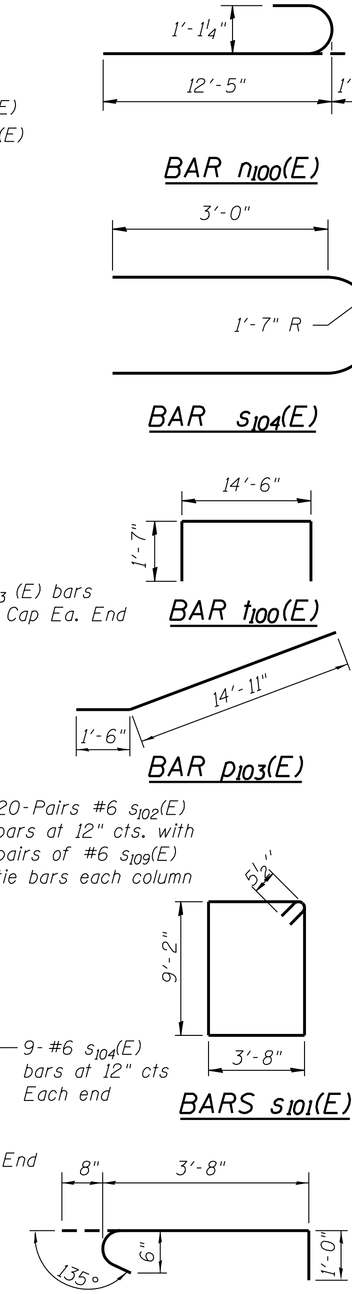
Note:
Locate bars in bottom of footing to clear piles.

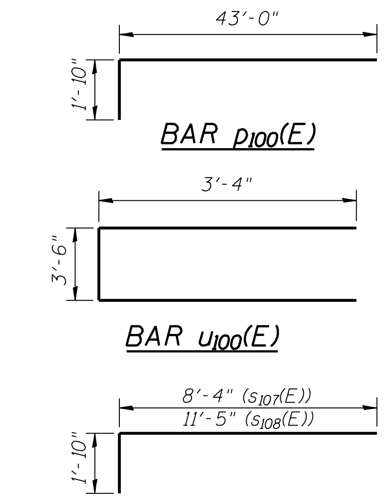
FOOTING PLAN

Beam Number	Seat Elevation	Step Height	
Future A	626.41	1 ½"	(West end)
Future B	626.54	1 ½"	
1	626.66	1 ⅜"	
2	626.77	1 ¼"	
3	626.87	1 ⅛"	
4	627.96	1 ⅛"	
5	626.87	1 ⅜"	
6	626.76	1 ½"	
7	626.63	1 ½"	
8	626.50	1 ½"	
Future C	626.38	1 ½"	
Future D	626.25	-	(East end)

MINIMUM BAR LAP

#6 bar = 4'-4"
#10 bar = 7'-8"
Basic Lap Unless noted otherwise





PIER 1
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	32	#6	39'- 5"	
h101(E)	8	#5	45'- 0"	
h102(E)	18	#6	45'- 10"	
n100(E)	120	#10	13'- 10"	
p100(E)	26	#10	44'- 10"	
p101(E)	26	#10	28'- 0"	
p102(E)	20	#10	45'- 8"	
p103(E)	20	#6	16'- 5"	
s100(E)	224	#5	14'- 1"	
s101(E)	72	#5	26'- 7"	
s102(E)	80	#6	19'- 10"	
s103(E)	92	#10	20'- 1"	
s104(E)	18	#6	11'- 0"	
s105(E)	92	#10	26'- 6"	
s106(E)	45	#5	7'- 0"	
s107(E)	12	#10	10'- 2"	
s108(E)	12	#10	13'- 3"	
s109(E)	80	#6	5'- 4"	
t100(E)	81	#9	17'- 8"	
t101(E)	81	#6	14'- 6"	
u100(E)	10	#6	10'- 2"	
v100(E)	120	#10	25'- 4"	
w100(E)	42	#7	53'- 4"	

Item	Unit	Quantity
Structure Excavation	Cu Yd	285.0
Concrete Structures	Cu Yd	353.9
Reinforcement Bars, Epoxy Coated	Pound	76,250
Furnishing Steel Piles HP14x89	Foot	1,175
Driving Piles	Foot	1,175
Test Pile Steel HP14x89	Each	1

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT:
FILE NAME: 3818_Str_Pier01.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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USER NAME = whood	DESIGNED - JMW	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

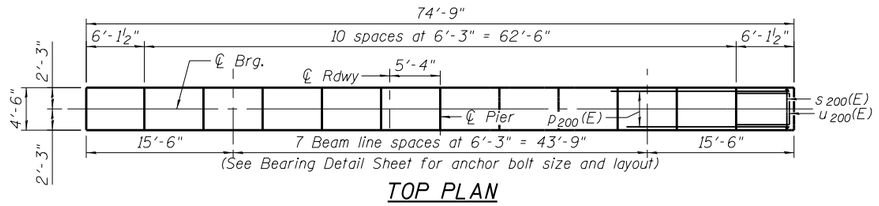
PIER 1
SN: 047-3175

SHEET NO. S-55 OF S-72 SHEETS

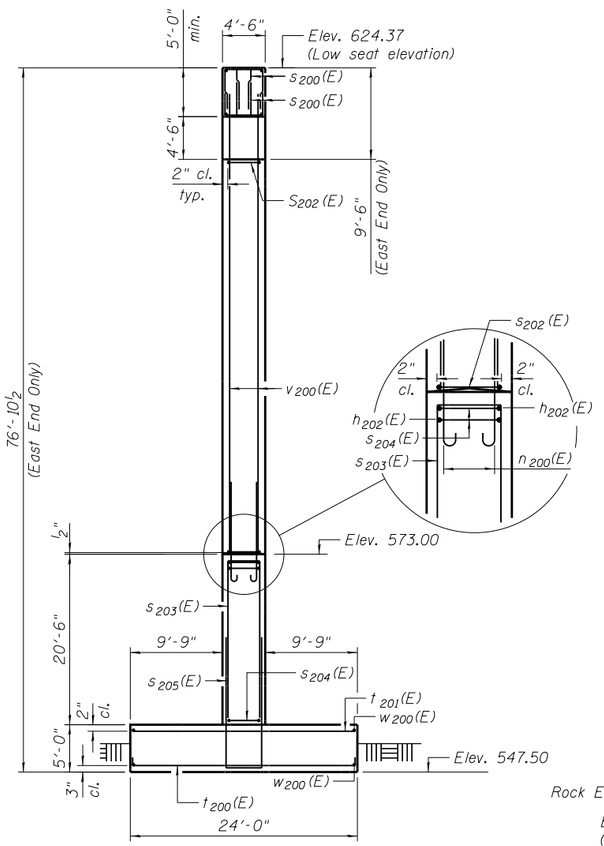
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	227

CONTRACT NO. 87731
ILLINOIS FED. AID PROJECT

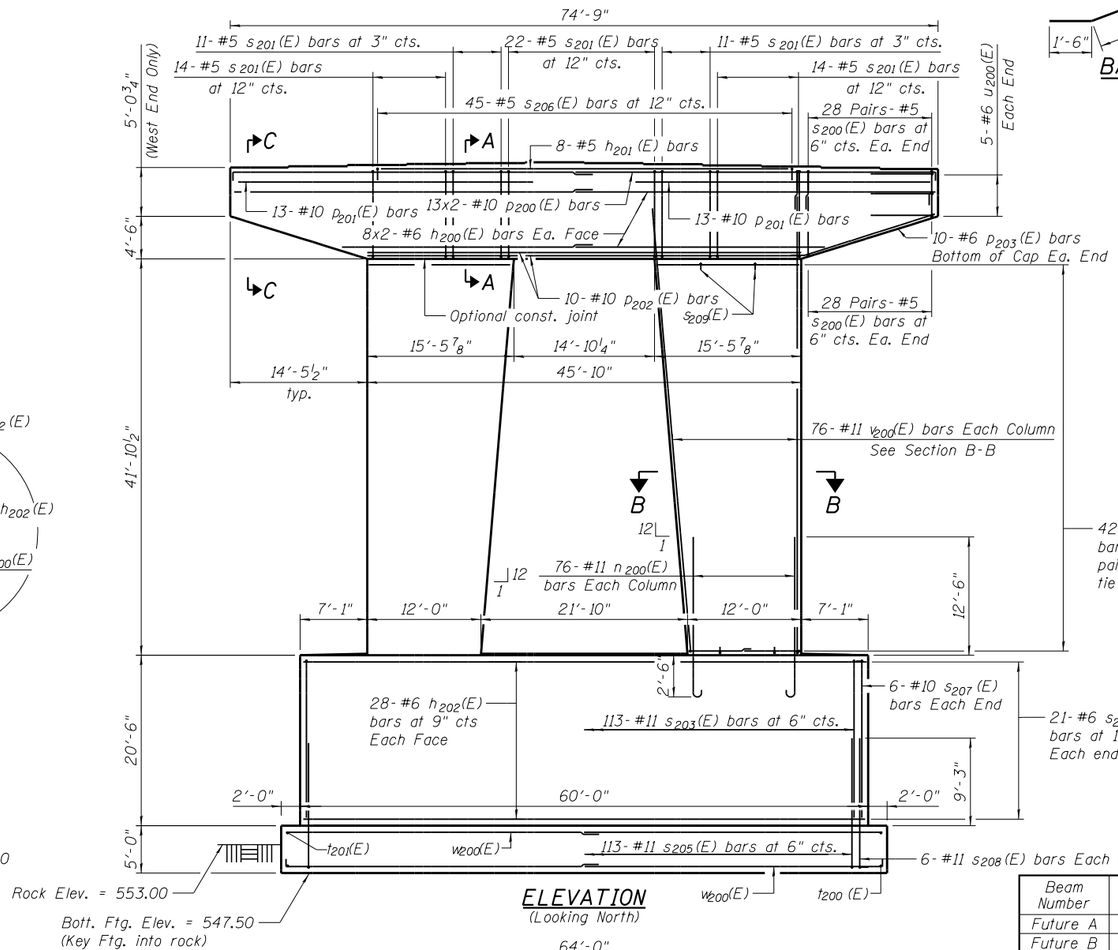
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet S-64.
For Sections, see sheet S-62.



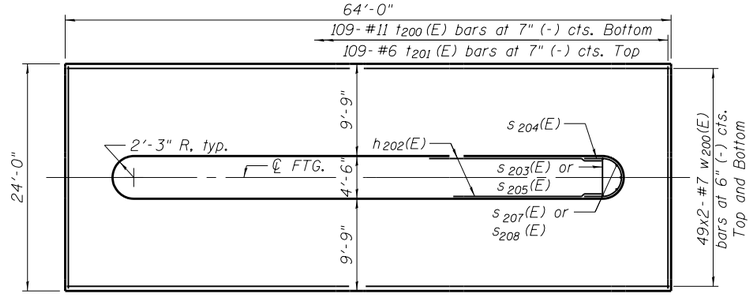
TOP PLAN



END VIEW
(East End)

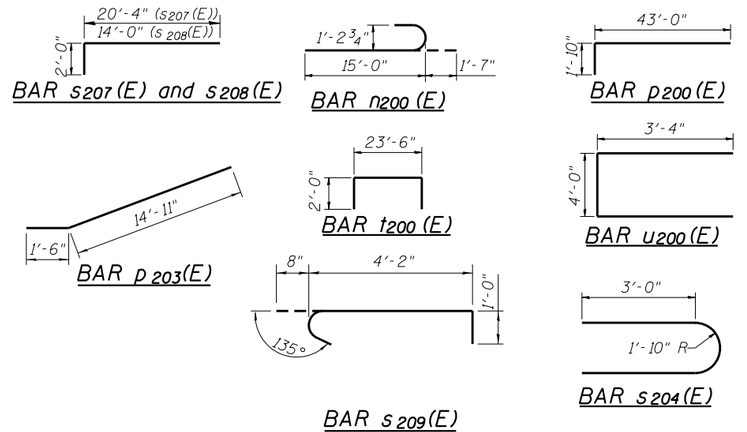


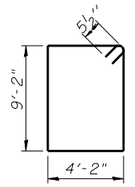
ELEVATION
(Looking North)



FOOTING PLAN

Note:
1. Apply concrete sealer to all surfaces above water.





BARS s201(E)

PIER 2
BILL OF MATERIAL

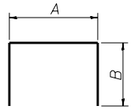
Bar	No.	Size	Length	Shape
h200(E)	32	#6	39'- 5"	—
h201(E)	8	#5	36'- 8"	—
h202(E)	50	#6	56'- 0"	—
n200(E)	152	#11	16'- 7"	⊃
p200(E)	26	#10	44'- 10"	⌐
p201(E)	26	#10	28'- 0"	—
p202(E)	20	#10	45'- 8"	—
p203(E)	20	#6	16'- 5"	◜
s200(E)	224	#5	14'- 4"	⊓
s201(E)	72	#5	27'- 7"	□
s202(E)	168	#6	22'- 0"	⊓
s203(E)	113	#11	44'- 7"	⊓
s204(E)	38	#6	11'- 9"	⊃
s205(E)	113	#11	32'- 2"	⊓
s206(E)	45	#5	7'- 6"	⊓
s207(E)	12	#11	22'- 4"	⌐
s208(E)	12	#11	16'- 0"	⌐
s209(E)	168	#6	5'- 10"	⌐
t200(E)	109	#11	27'- 6"	⌐
t201(E)	109	#6	23'- 6"	—
u200(E)	10	#6	10'- 8"	⊃
v200(E)	152	#11	49'- 0"	—
w200(E)	196	#7	35'- 0"	—
Rock Excavation for Structures			Cu Yd	313.0
Concrete Structures			Cu Yd	789.9
Reinforcement Bars, Epoxy Coated			Pound	167,886

See Substructure and Cofferdam Layout Plan for excavation quantities

A & B DIMENSIONS

Bar	A	B
* s200(E)	2'-8"	5'-10"
s202(E)	4'-2"	8'-11"
s203(E)	3'-11"	20'-4"
s205(E)	4'-2"	14'-0"
s206(E)	4'-0"	1'-9"

* Trim to fit



BARS

Beam Number	Seat Elevation	Step Height	
Future A	624.44	1 ½"	(West end)
Future B	624.57	1 ½"	
1	624.69	1 ⅜"	
2	624.80	1 ¼"	
3	624.90	1 ⅛"	
4	624.99	1 ⅛"	
5	624.90	1 ⅜"	
6	624.79	1 ½"	
7	624.66	1 ½"	
8	624.53	1 ½"	
Future C	624.41	1 ½"	
Future D	624.28	-	(East end)

MINIMUM BAR LAP

#6 bar = 4'-4"
#7 bar = 6'-3"
#9 bar = 7'-1"
#10 bar = 11'-6" (Top Bar)
#11 bar = 9'-3"
Unless noted otherwise

HRG PROJECT NO.: 88J038I
HRG PROJ. CONTACT:
FILE NAME: 38B_Str_Pier02.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotdebug.tbl

HRGreen
HRGreen.com
Illinois Professional Design Firm # 184-001322

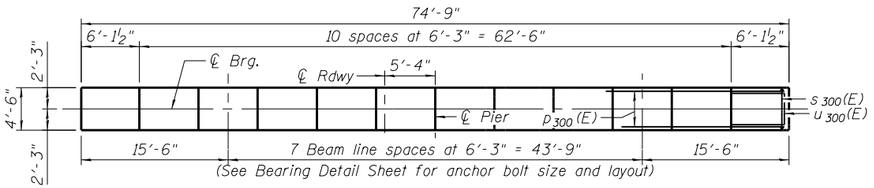
USER NAME = whood	DESIGNED - JMW	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

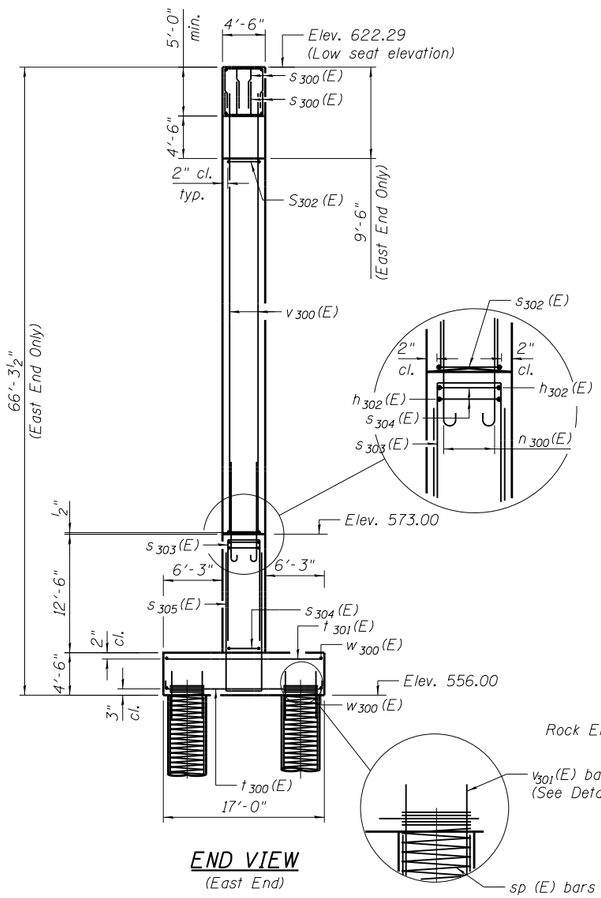
PIER 2
SN: 047-3175
SHEET NO. S-56 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	228
		CONTRACT NO. 87731		
		ILLINOIS FED. AID PROJECT		

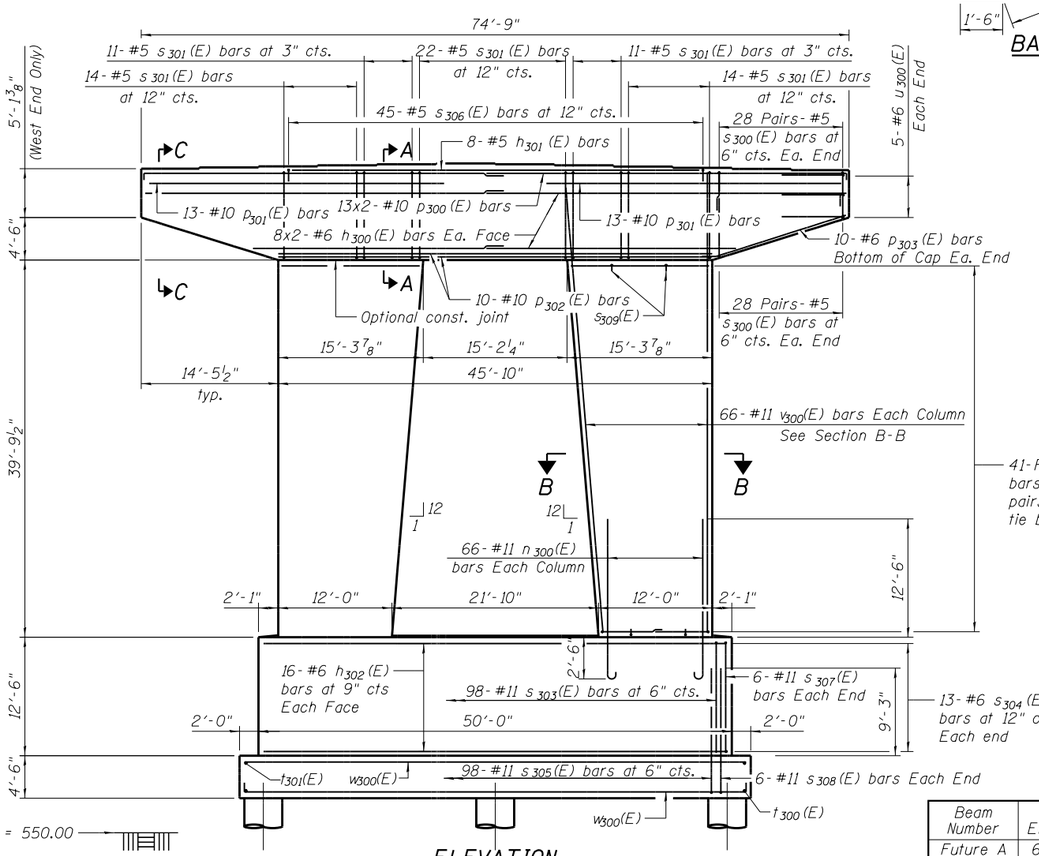
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet S-64.
For Sections, see sheet S-62.
Drilled Shaft length in Soil = 6'-0"
Drilled Shaft length in Rock = 23'-0"



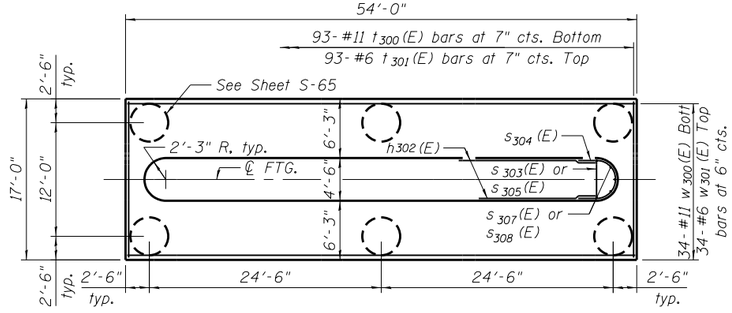
TOP PLAN



END VIEW
(East End)

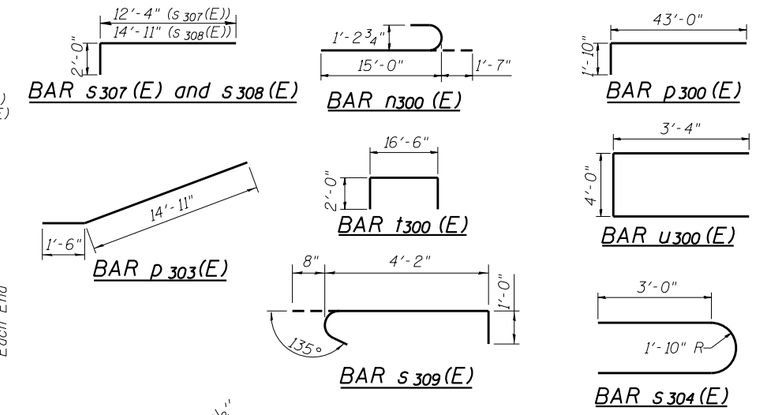


ELEVATION
(Looking North)



FOOTING PLAN

Note:
1. Apply concrete sealer to all surfaces above water.



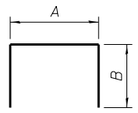
PIER 3
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{300} (E)	32	#6	39'- 5"	
h_{301} (E)	8	#5	45'- 0"	
h_{302} (E)	32	#6	45'- 6"	
n_{300} (E)	132	#11	16'- 7"	
p_{300} (E)	26	#10	44'- 10"	
p_{301} (E)	26	#10	28'- 0"	
p_{302} (E)	20	#10	45'- 8"	
p_{303} (E)	20	#6	16'- 5"	
s_{300} (E)	224	#5	14'- 4"	
s_{301} (E)	72	#5	27'- 7"	
s_{302} (E)	164	#6	21'- 8"	
s_{303} (E)	98	#11	28'- 7"	
s_{304} (E)	26	#6	11'- 9"	
s_{305} (E)	98	#11	31'- 2"	
s_{306} (E)	45	#5	7'- 6"	
s_{307} (E)	12	#11	16'- 4"	
s_{308} (E)	12	#11	15'- 6"	
s_{309} (E)	164	#6	5'- 10"	
sp_{300} (E)	6	#4	706'- 6"	
t_{300} (E)	93	#11	20'- 6"	
t_{301} (E)	93	#6	16'- 6"	
u_{300} (E)	10	#6	10'- 8"	
v_{300} (E)	132	#11	46'- 11"	
v_{301} (E)	84	#10	31'- 0"	
w_{300} (E)	34	#11	53'- 6"	
w_{301} (E)	34	#6	53'- 6"	
Concrete Structures			Cu Yd	548.9
Reinforcement Bars, Epoxy Coated			Pound	146,737
Drilled Shaft in Soil			Cu Yd	21.2
Drilled Shaft in Rock			Cu Yd	64.2

See Substructure and Cofferdam Layout Plan for excavation quantities

Beam Number	Seat Elevation	Step Height	
Future A	622.41	1 ½"	(West end)
Future B	622.54	1 ½"	
1	622.66	1 ⅜"	
2	622.77	1 ¼"	
3	622.87	1 ⅛"	
4	623.96	1 ⅛"	
5	622.87	1 ⅜"	
6	622.76	1 ½"	
7	622.63	1 ½"	
8	622.50	1 ½"	
Future C	622.38	1 ½"	
Future D	622.25	-	(East end)

A & B DIMENSIONS



Bar	A	B
* s_{300} (E)	2'-8"	5'-10"
s_{302} (E)	4'-2"	8'-9"
s_{303} (E)	3'-11"	12'-4"
s_{305} (E)	4'-2"	13'-6"
s_{306} (E)	4'-0"	1'-9"

* Trim to fit

MINIMUM BAR LAP

#6 bar = 4'-4"
#9 bar = 7'-1"
#10 bar = 11'-6" (Top Bar)
#11 bar = 9'-3"
Unless noted otherwise

HRG PROJECT NO.: 8813038
HRG PROJ. CONTACT: JMW
FILE NAME: 3813_Str_Pier03.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotbbw.tbl

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Illinois Professional Design Firm # 184-001322

USER NAME = whood	DESIGNED - JMW	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

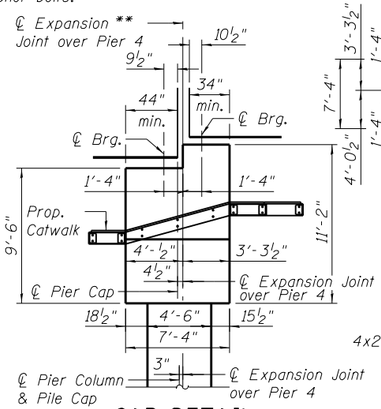
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3
SN: 047-3175
SHEET NO. S-57 OF S-72 SHEETS

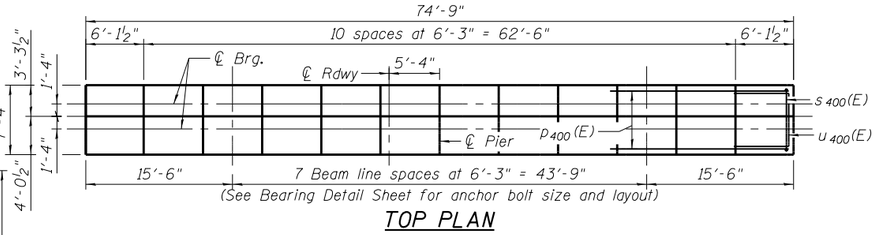
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	229
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet S-64.
For Sections, see sheet S-62.
See sheet S-63 for Catwalk Details.
Drilled Shaft length in Soil = 13'-0"
Drilled Shaft length in Rock = 18'-0"

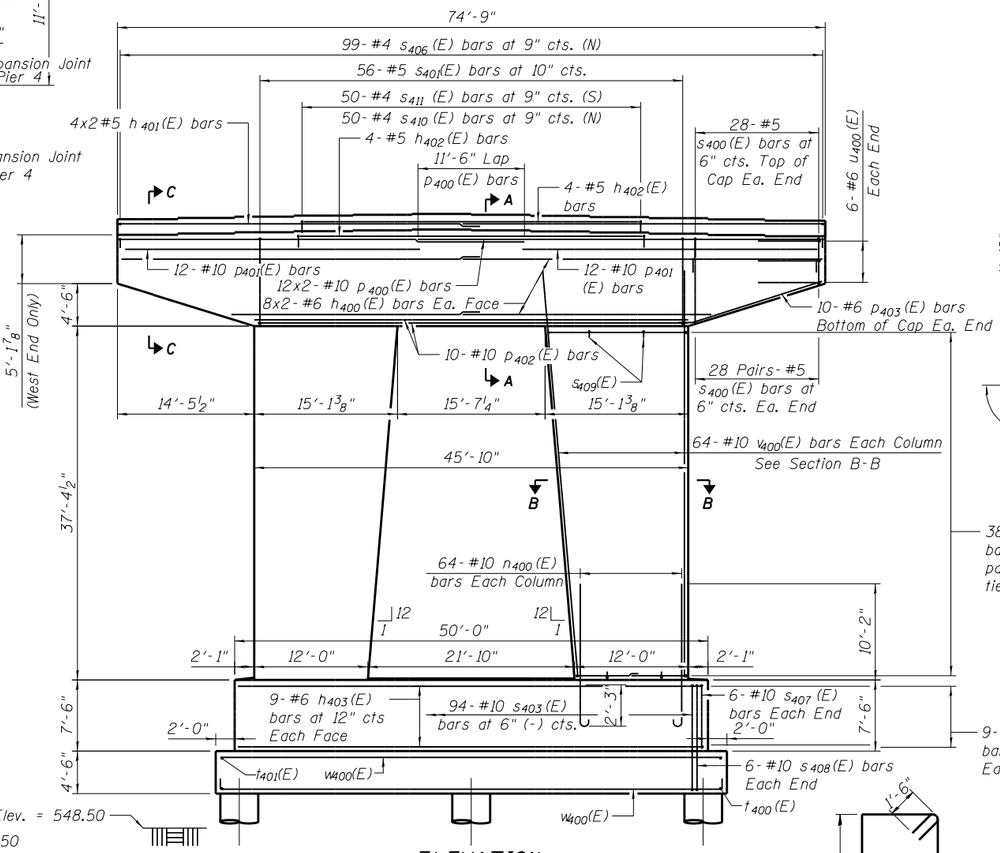
** = ℄ Expansion Joint over Pier 4 references the deck joint and step in the top of pier location between beam units.
℄ of Pier Cap, ℄ Pier Column and ℄ Pier Pile Cap are offset from ℄ Expansion Joint over Pier 4 as noted in details here in.



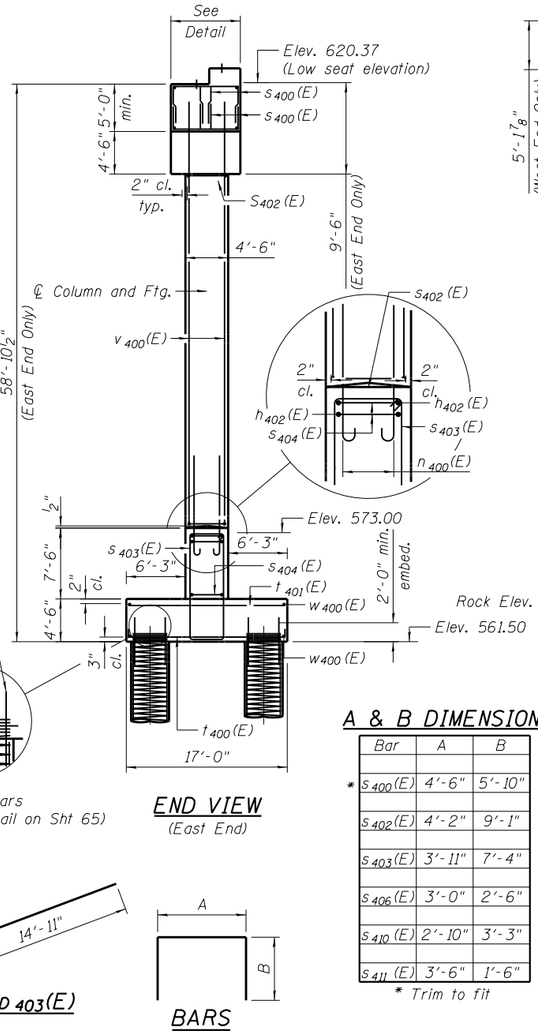
CAP DETAIL



TOP PLAN



ELEVATION
(Looking North)

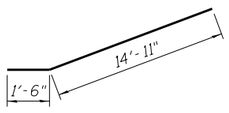


END VIEW
(East End)

A & B DIMENSIONS

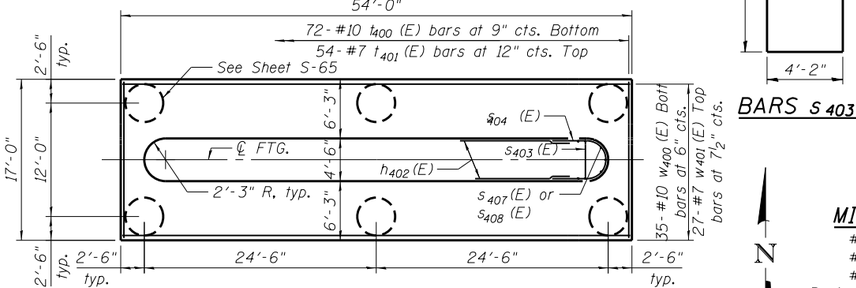
Bar	A	B
* s 400(E)	4'-6"	5'-10"
s 402(E)	4'-2"	9'-1"
s 403(E)	3'-11"	7'-4"
s 406(E)	3'-0"	2'-6"
s 410 (E)	2'-10"	3'-3"
s 411 (E)	3'-6"	1'-6"

* Trim to fit



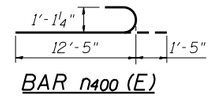
BAR p 403(E)

BARS

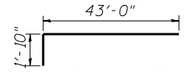


FOOTING PLAN

Note:
1. Apply concrete sealer to all surfaces above water.



BAR n400 (E)



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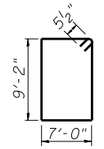
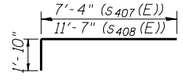
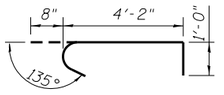


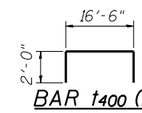
BAR s401 (E)



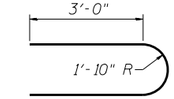
BAR s407 (E) and s408 (E)



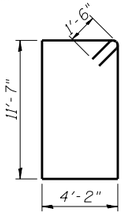
BAR s409 (E)



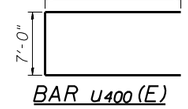
BAR t400 (E)



BAR s404 (E)



BARS s403(E)



BAR u400 (E)

MINIMUM BAR LAP
#5 bar = 3'-9"
#6 bar = 3'-10"
#10 bar = 7'-8"
Basic Lap Unless noted otherwise

Beam Number	South Bearing Seat Elevation	South Bearing Step Height	North Bearing Seat Elevation	North Bearing Step Height	
Future A	620.53	1 ½"	622.20	1 ½"	(West end)
Future B	620.66	1 ½"	622.33	1 ½"	
1	620.78	1 ⅜"	622.45	1 ⅜"	
2	620.89	1 ¼"	622.56	1 ¼"	
3	620.99	1 ⅛"	622.66	1 ⅛"	
4	621.08	1 ⅛"	622.75	1 ¼"	
5	620.99	1 ⅜"	622.65	1 ¼"	
6	620.88	1 ½"	622.55	1 ½"	
7	620.75	1 ½"	622.42	1 ½"	
8	620.62	1 ½"	622.29	1 ½"	
Future C	620.50	1 ½"	622.17	1 ½"	
Future D	620.37	-	622.04	-	(East end)

PIER 4
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h400 (E)	32	#6	39'- 5"	
h401 (E)	8	#5	39'- 1"	
h402 (E)	8	#5	36'- 8"	
h403 (E)	18	#6	46'- 5"	
n400 (E)	128	#10	13'- 10"	
p400 (E)	24	#10	44'- 10"	
p401 (E)	24	#10	28'- 0"	
p402 (E)	20	#10	45'- 8"	
p403 (E)	20	#6	16'- 5"	
s400 (E)	224	#5	16'- 2"	
s401 (E)	56	#5	33'- 3"	
s402 (E)	152	#6	22'- 4"	
s403 (E)	94	#10	34'- 6"	
s404 (E)	18	#6	11'- 9"	
s406 (E)	99	#4	8'- 0"	
s407 (E)	12	#10	9'- 2"	
s408 (E)	12	#10	13'- 5"	
s409 (E)	152	#6	5'- 10"	
s410 (E)	50	#4	9'- 4"	
s411 (E)	50	#4	6'- 6"	
sp400 (E)	6	#4	752'- 7"	
t400 (E)	72	#10	20'- 6"	
t401 (E)	54	#7	16'- 6"	
u400 (E)	12	#6	13'- 0"	
v400 (E)	128	#10	43'- 10"	
v401 (E)	84	#10	33'- 0"	
w400 (E)	35	#10	53'- 6"	
w401 (E)	27	#7	53'- 6"	
Concrete Structures			Cu Yd	580.6
Reinforcement Bars, Epoxy Coated			Pound	110,494
Drilled Shaft in Soil			Cu Yd	45.9
Drilled Shaft in Rock			Cu Yd	50.3
Concrete Sealer			SF	4940.00

See Substructure and Cofferdam Layout Plan for excavation quantities

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT:
FILE NAME: 388_Str_Pier04.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotcbw.tbl

HRGreen
HRGreen.com
Illinois Professional Design Firm # 184-001322

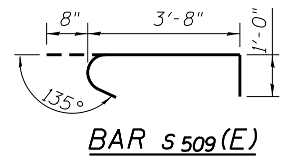
USER NAME = whood	DESIGNED - JMW	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

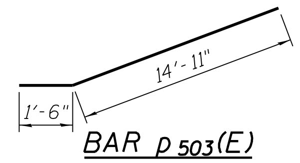
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

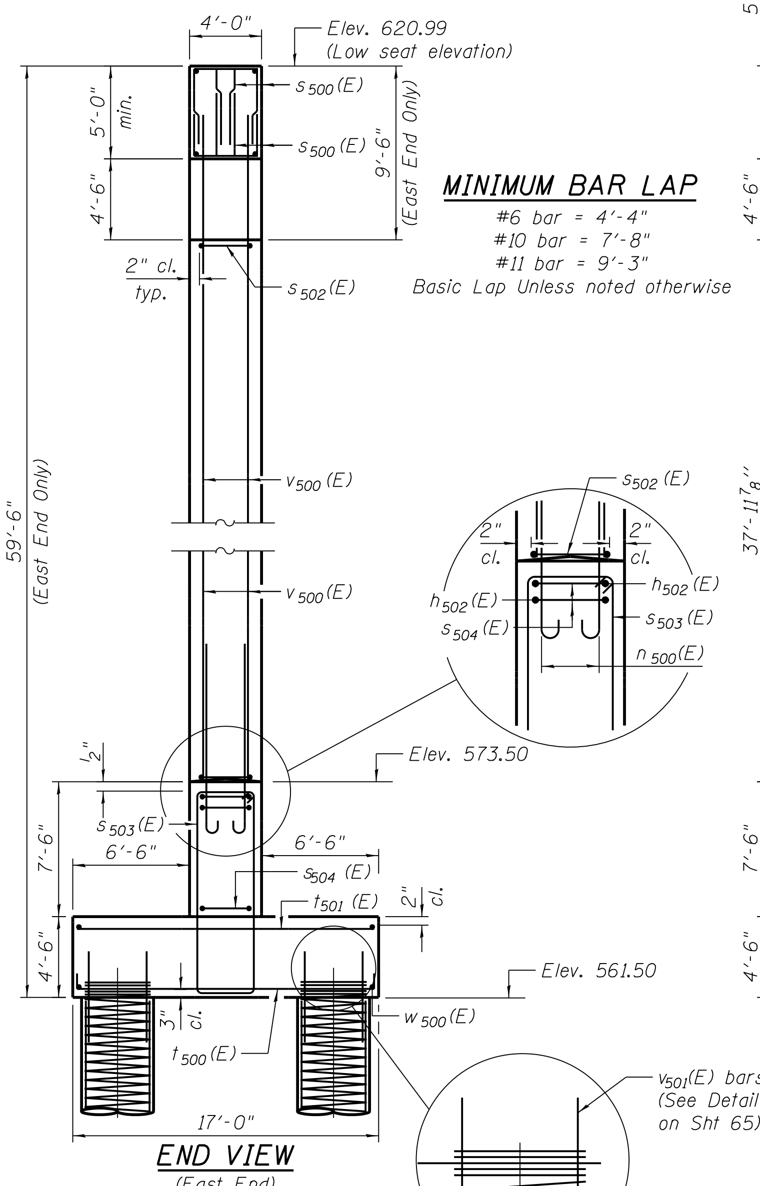
PIER 4
SN: 047-3175
SHEET NO. S-58 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	230
		CONTRACT NO. 87731		
		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-64.
For Sections, see sheet S-62.
Drilled Shaft length in Soil = 5'-3⅝"
Drilled Shaft length in Rock = 25'-8⅜"

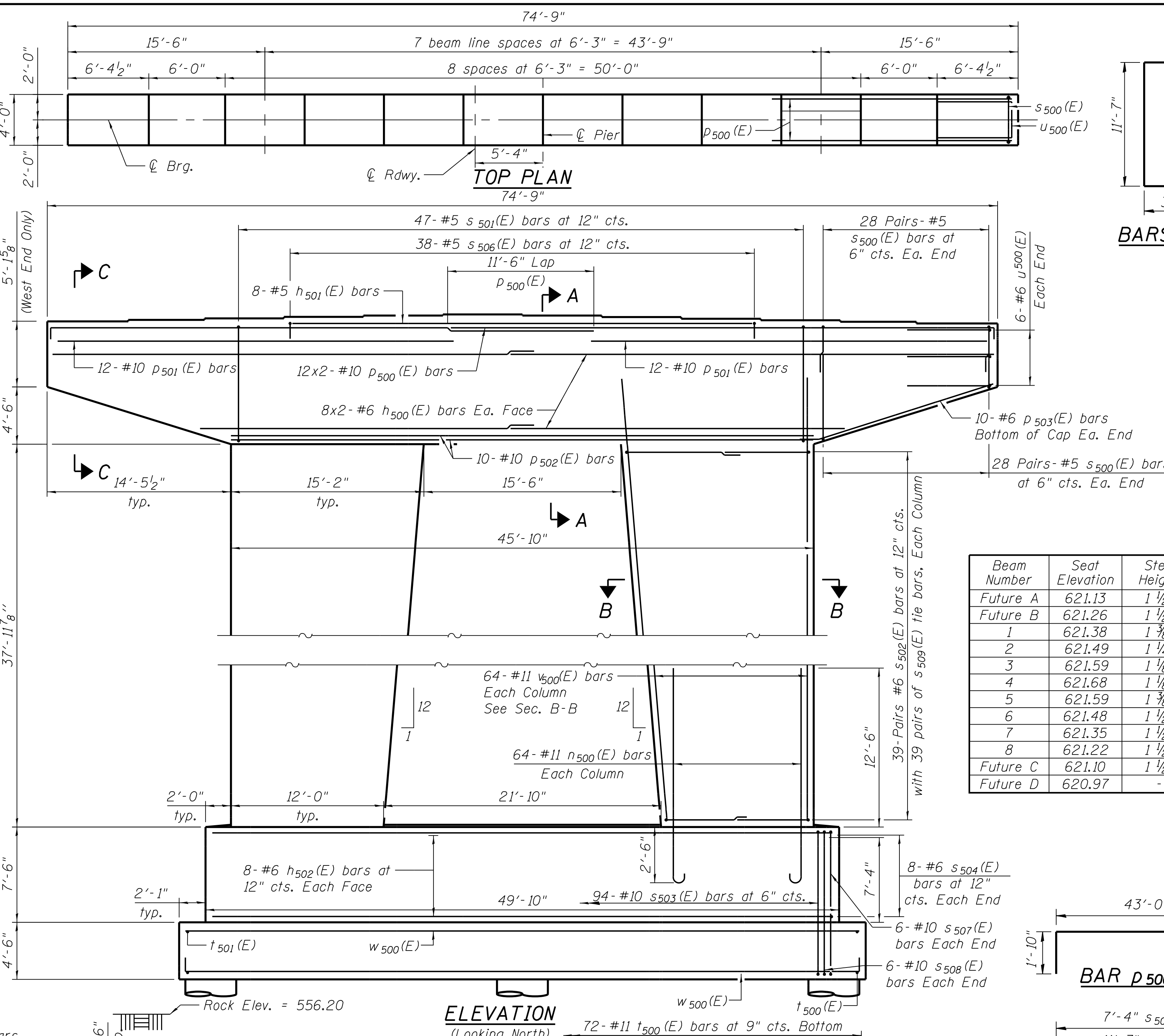




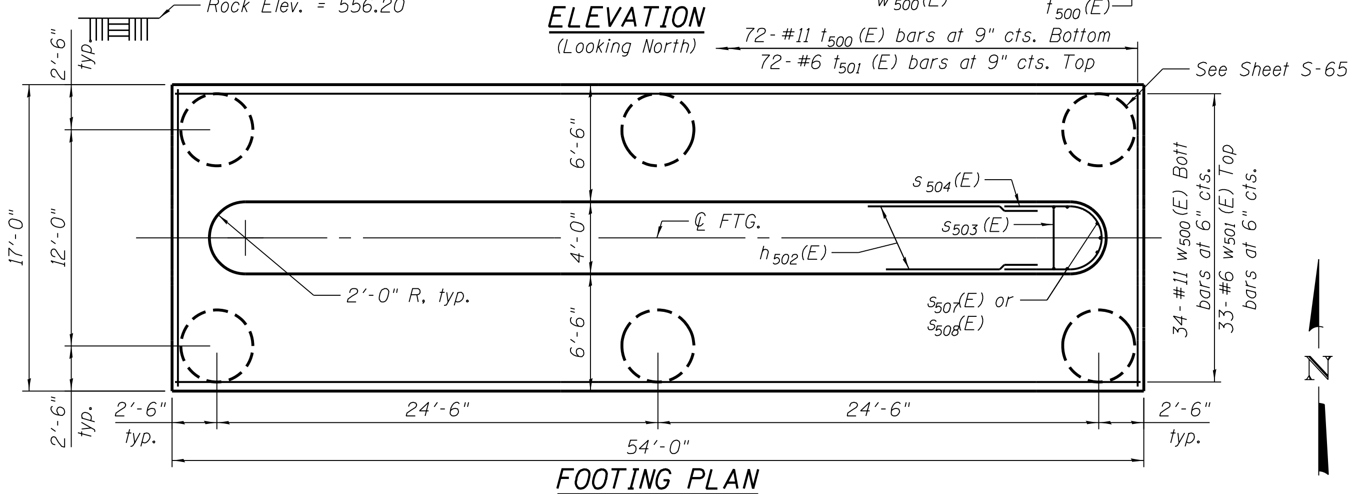


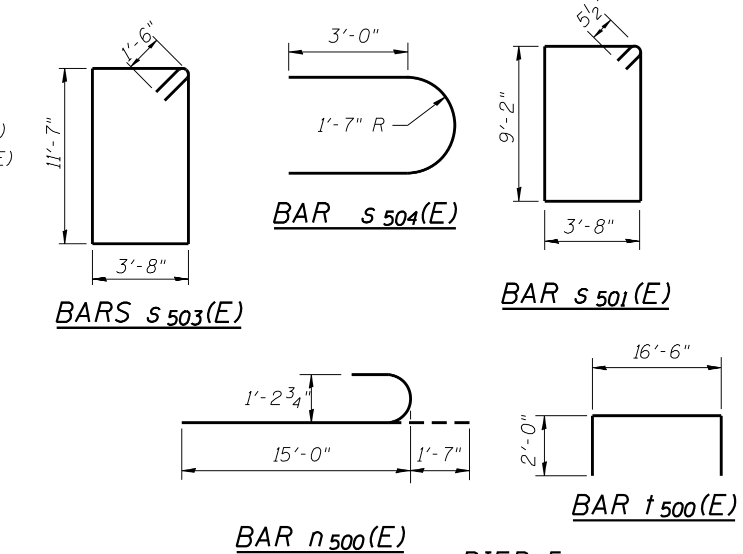
MINIMUM BAR LAP

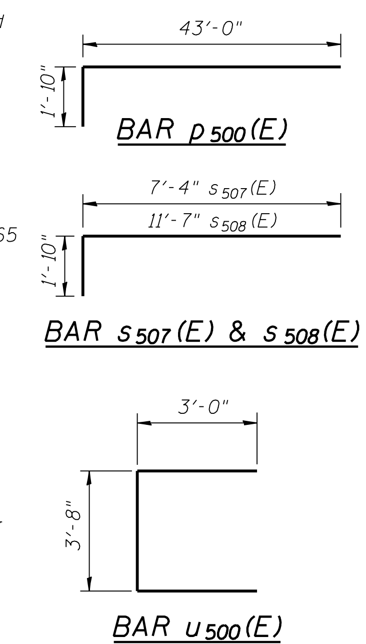
#6 bar = 4'-4"
#10 bar = 7'-8"
#11 bar = 9'-3"
Basic Lap Unless noted otherwise



Beam Number	Seat Elevation	Step Height	
Future A	621.13	1 ½"	(West end)
Future B	621.26	1 ½"	
1	621.38	1 ⅜"	
2	621.49	1 ¼"	
3	621.59	1 ⅛"	
4	621.68	1 ⅛"	
5	621.59	1 ⅜"	
6	621.48	1 ½"	
7	621.35	1 ½"	
8	621.22	1 ½"	
Future C	621.10	1 ½"	
Future D	620.97	-	(East end)



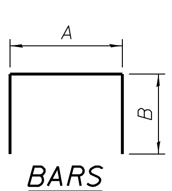




A & B DIMENSIONS

Bar	A	B
* s500(E)	2'-5"	5'-10"
s502(E)	3'-8"	9'-1"
s503(E)	3'-5"	7'-4"
s506(E)	3'-6"	1'-9"

* Trim to fit



PIER 5
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h500(E)	32	#6	39'- 5"	straight
h501(E)	8	#5	36'- 8"	straight
h502(E)	16	#6	45'- 10"	straight
n500(E)	128	#11	16'- 7"	
p500(E)	24	#10	44'- 10"	
p501(E)	24	#10	28'- 0"	straight
p502(E)	20	#10	45'- 6"	straight
p503(E)	20	#6	16'- 5"	
s500(E)	224	#5	14'- 1"	
s501(E)	47	#5	26'- 7"	
s502(E)	156	#6	21'- 10"	
s503(E)	94	#10	33'- 6"	
s504(E)	16	#6	11'- 0"	
s506(E)	38	#5	7'- 0"	
s507(E)	12	#10	9'- 2"	
s508(E)	12	#10	13'- 5"	
s509(E)	156	#6	5'- 4"	
sp500(E)	6	#4	752'- 7"	
t500(E)	72	#11	20'- 6"	
t501(E)	72	#6	16'- 6"	straight
u500(E)	12	#6	9'- 8"	
v500(E)	128	#11	45'- 1"	straight
v501(E)	84	#10	33'- 0"	straight
w500(E)	34	#11	53'- 6"	straight
w501(E)	33	#6	53'- 6"	straight
Concrete Structures			Cu Yd	459.7
Reinforcement Bars, Epoxy Coated			Pound	120,445
Drilled Shaft in Soil			Cu Yd	18.7
Drilled Shaft in Rock			Cu Yd	71.8

See Substructure and Cofferdam Layout Plan for excavation quantities

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT:
FILE NAME: 388_Str_Pier05.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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USER NAME = whood	DESIGNED - JMW	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

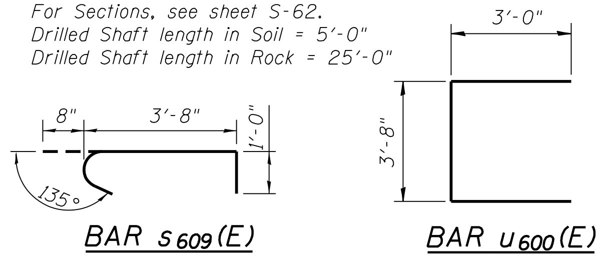
PIER 5
SN: 047-3175

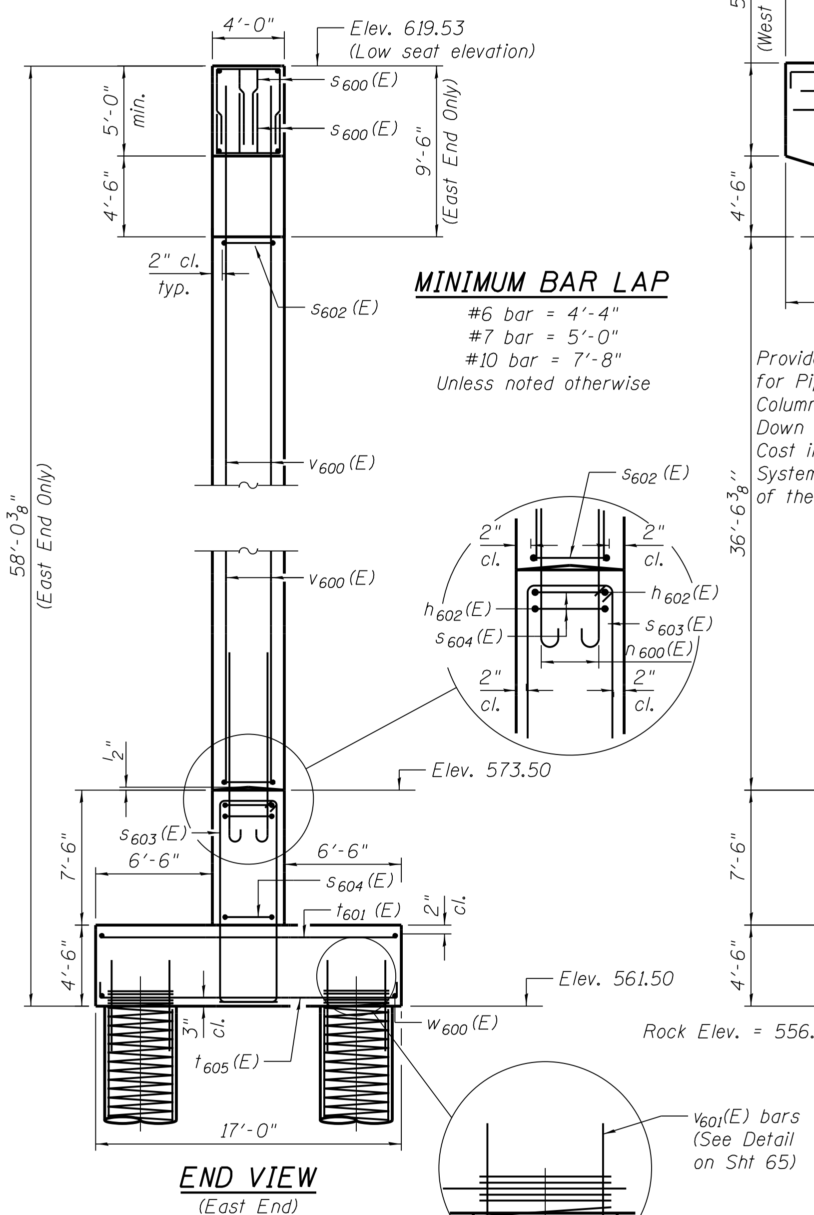
SHEET NO. S-59 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	231

CONTRACT NO. 87731
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-64.
- For Sections, see sheet S-62.
- Drilled Shaft length in Soil = 5'-0"
- Drilled Shaft length in Rock = 25'-0"





END VIEW
(East End)

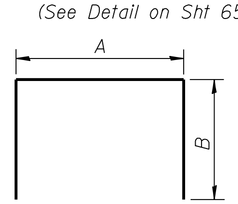
MINIMUM BAR LAP

#6 bar = 4'-4"
#7 bar = 5'-0"
#10 bar = 7'-8"
Unless noted otherwise

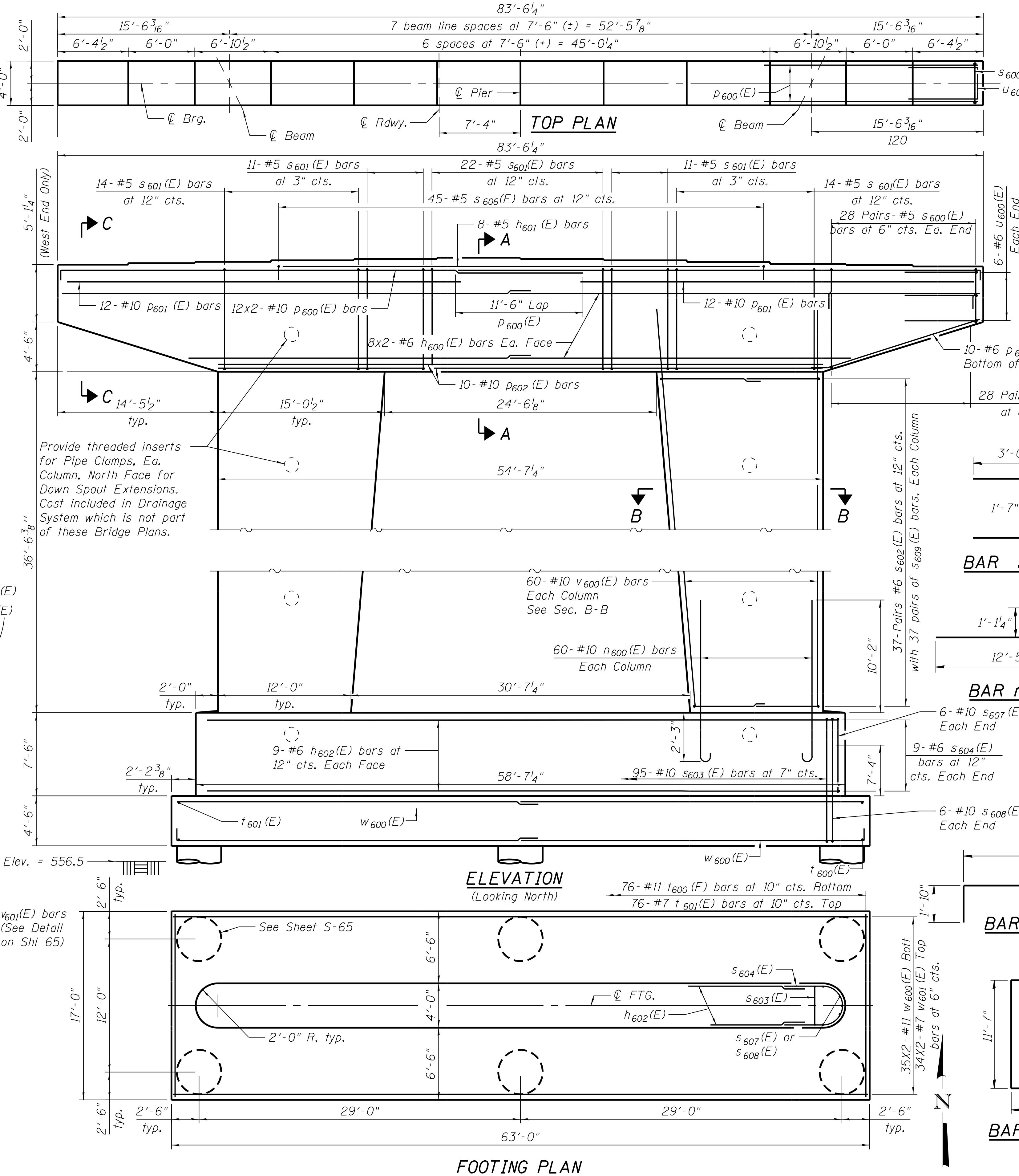
A & B DIMENSIONS

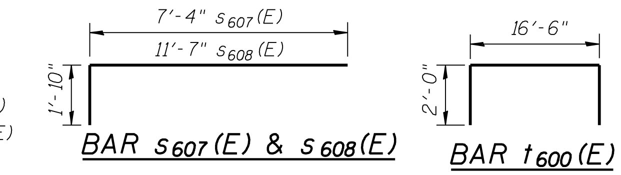
Bar	A	B
* s600(E)	2'-5"	5'-10"
s602(E)	3'-8"	8'-11"
s603(E)	3'-5"	7'-4"
s606(E)	3'-6"	1'-10"
t600(E)	16'-6"	2'-0"

* Trim to fit

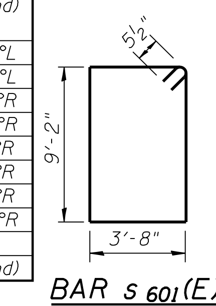


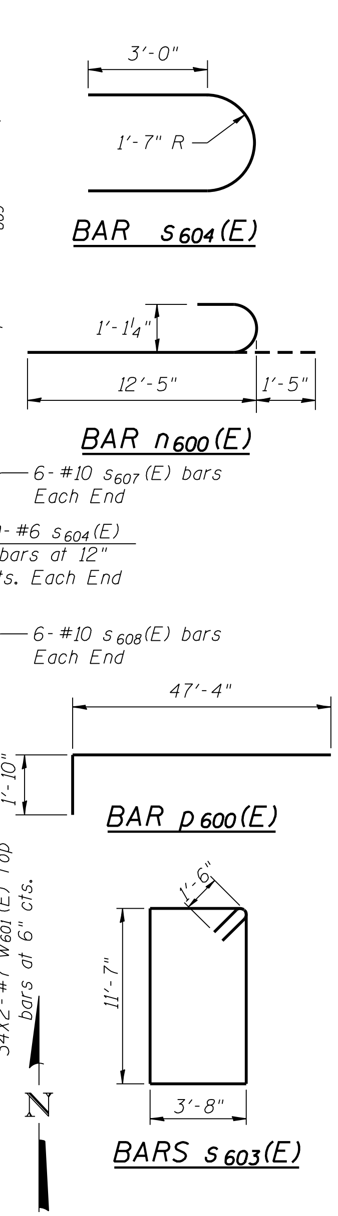
BARS





Beam Number	Seat Elevation	Step Height	Beam Line Angle
Future A	619.65	1 1/2"	(West end)
Future B	619.78	1 1/2"	
1	619.90	1 1/2"	0.9082°L
2	620.03	1 1/2"	0.4290°L
3	620.15	1 1/2"	0.0498°R
4	620.27	1 1/4"	0.5289°R
5	620.17	1 1/2"	1.0079°R
6	620.04	1 3/4"	1.4868°R
7	619.88	1 3/4"	1.9654°R
8	619.73	1 1/2"	2.4438°R
Future C	619.60	1 1/2"	
Future D	619.48	-	(East end)





PIER 6
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h600(E)	32	#6	43'- 9"	
h601(E)	8	#5	44'- 2"	
h602(E)	18	#6	54'- 7"	
n600(E)	120	#10	13'- 10"	
p600(E)	24	#10	49'- 2"	
p601(E)	24	#10	28'- 0"	
p602(E)	20	#10	54'- 3"	
p603(E)	20	#6	16'- 5"	
s600(E)	224	#5	14'- 1"	
s601(E)	72	#5	26'- 7"	
s602(E)	148	#6	21'- 6"	
s603(E)	95	#10	33'- 6"	
s604(E)	18	#6	11'- 0"	
s606(E)	45	#5	7'- 2"	
s607(E)	12	#10	9'- 2"	
s608(E)	12	#10	13'- 5"	
s609(E)	148	#6	5'- 4"	
sp600(E)	6	#4	729'- 7"	
t600(E)	76	#11	20'- 6"	
t601(E)	76	#7	16'- 6"	
u600(E)	12	#6	9'- 8"	
v600(E)	120	#11	42'- 6"	
v601(E)	84	#10	32'- 0"	
w600(E)	70	#11	35'- 5"	
w601(E)	68	#7	33'- 6"	
Concrete Structures			Cu Yd	501.3
Reinforcement Bars, Epoxy Coated			Pound	121,398
Drilled Shaft in Soil,			Cu Yd	17.7
Drilled Shaft in Rock,			Cu Yd	69.8

See Substructure and Cofferdam Layout Plan for excavation quantities

HRG PROJECT NO.: 8803081
HRG PROJ.CONTACT:
FILE NAME: 388_Str_Pier06.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 6
SN: 047-3175

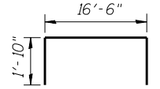
SHEET NO. S-60 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	232

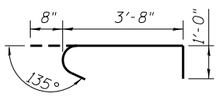
CONTRACT NO. 87731

ILLINOIS FED. AID PROJECT

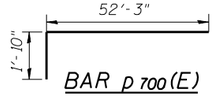
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet S-64.
For Sections, see sheet S-62.
Drilled Shaft length in Soil = 14'-0"
Drilled Shaft length in Rock = 20'-6"



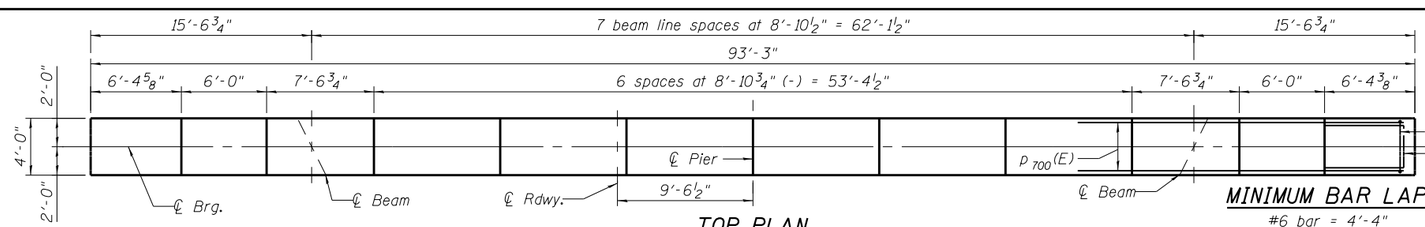
BAR t 700(E)



BAR s 709(E)



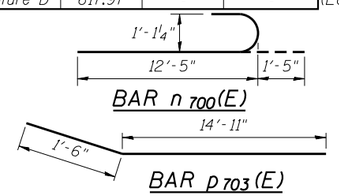
BAR p 700(E)



TOP PLAN

MINIMUM BAR LAP
#6 bar = 4'-4"
#7 bar = 5'-8" (Top Bar)
#10 bar = 7'-8"
Unless noted otherwise

Beam Number	Seat Elevation	Step Height	Beam Line Angle	
Future A	618.15	1 1/2"	-	(West end)
Future B	618.27	1 1/2"	-	
1	618.40	1 3/4"	0.9082° L	
2	618.55	1 5/8"	0.4290° L	
3	618.69	1 5/8"	0.0498° R	
4	618.83	1"	0.5289° R	
5	618.75	1 7/8"	1.0079° R	
6	618.59	2 1/4"	1.4868° R	
7	618.40	2 1/8"	1.9654° R	
8	618.22	1 1/2"	2.4438° R	
Future C	618.09	1 1/2"	-	
Future D	617.97	-	-	(East end)

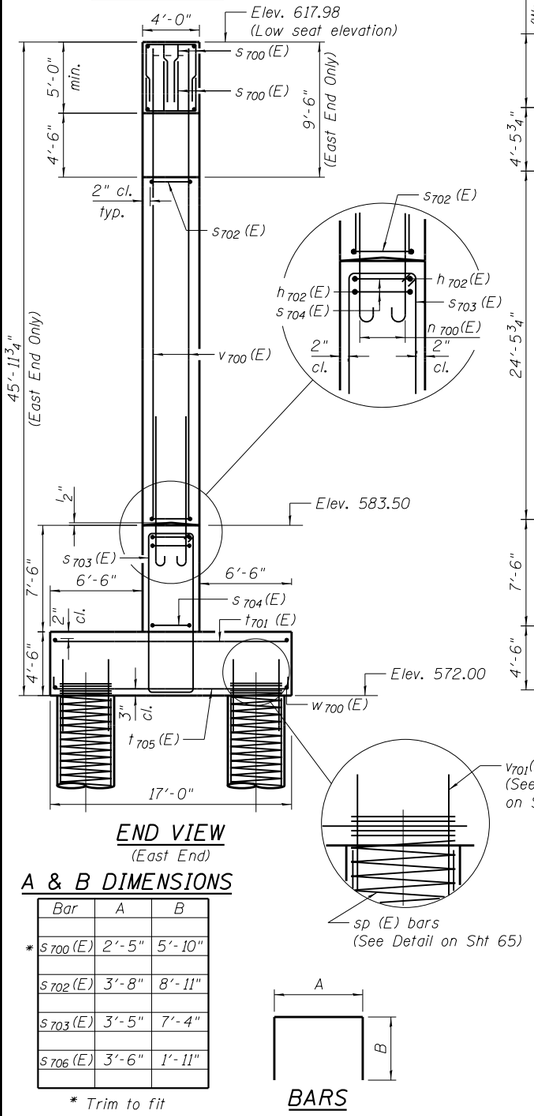


BAR n 700(E)
BAR p 703(E)

PIER 7
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h700(E)	48	#6	33'- 11"	
h701(E)	16	#5	28'- 2"	
h702(E)	36	#6	34'- 4"	
n700(E)	108	#10	13'- 10"	
p700(E)	26	#10	54'- 1"	
p701(E)	26	#10	40'- 0"	
p702(E)	20	#10	60'- 0"	
p703(E)	20	#6	23'- 11"	
s700(E)	376	#5	14'- 1"	
s701(E)	28	#5	26'- 7"	
s702(E)	100	#6	21'- 6"	
s703(E)	112	#10	33'- 6"	
s704(E)	18	#6	11'- 0"	
s706(E)	54	#5	7'- 4"	
s707(E)	12	#10	9'- 2"	
s708(E)	12	#10	13'- 5"	
s709(E)	100	#6	5'- 4"	
sp700(E)	6	#4	752'- 7"	
t700(E)	85	#10	20'- 2"	
t701(E)	71	#7	16'- 6"	
u700(E)	12	#6	9'- 8"	
v700(E)	108	#10	30'- 11"	
v701(E)	84	#10	33'- 0"	
w700(E)	68	#10	38'- 9"	
w701(E)	68	#6	37'- 9"	

Structure Excavation	Cu Yd	289.0
Concrete Structures	Cu Yd	495.3
Reinforcement Bars, Epoxy Coated	Pound	110,411
Drilled Shaft in Soil.	Cu Yd	49.5
Drilled Shaft in Rock.	Cu Yd	57.2



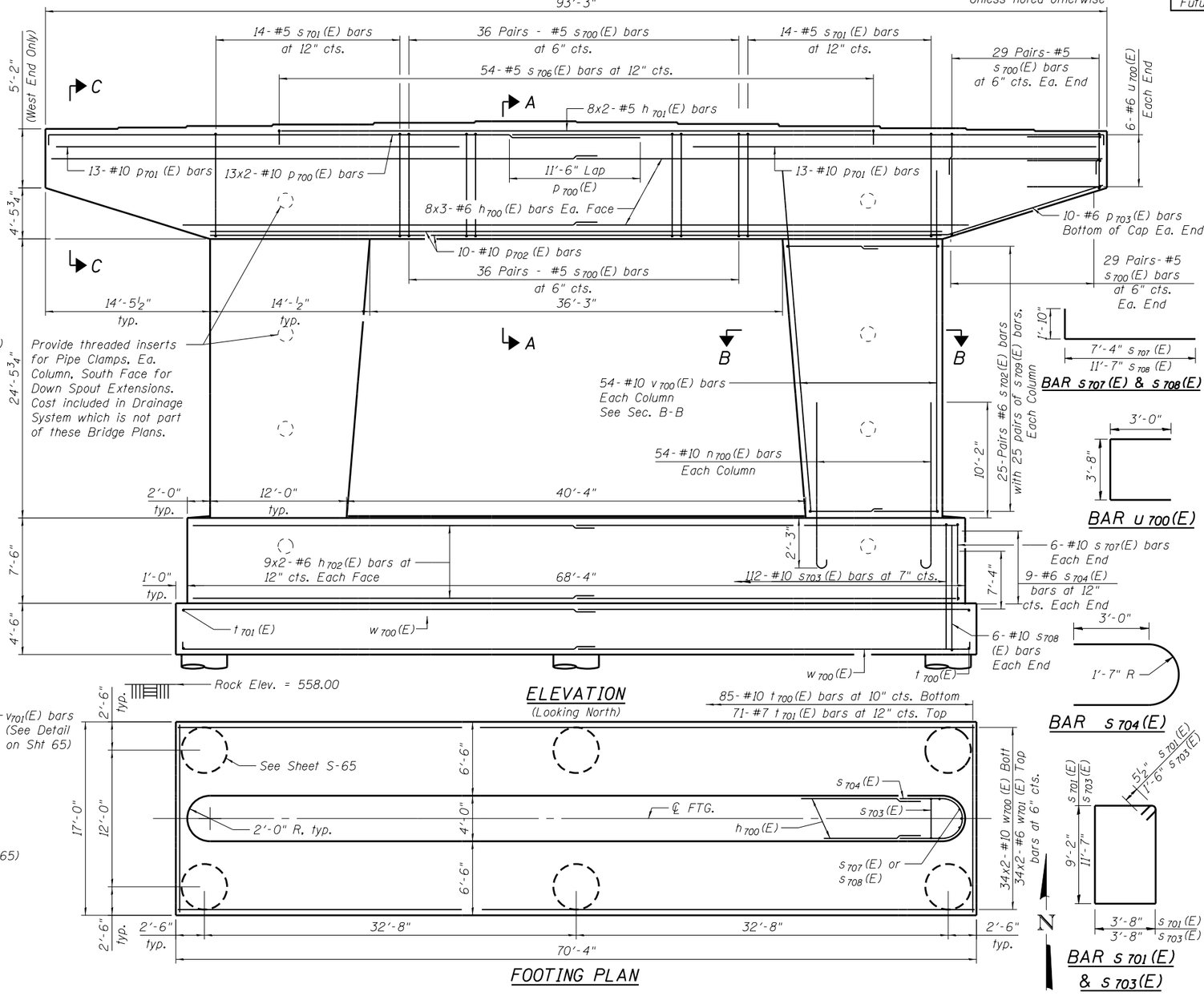
END VIEW
(East End)

A & B DIMENSIONS

Bar	A	B
* s 700(E)	2'-5"	5'-10"
s 702(E)	3'-8"	8'-11"
s 703(E)	3'-5"	7'-4"
s 706(E)	3'-6"	1'-11"

* Trim to fit

BARS



HRG PROJECT NO.: 8B3038I
HRG PROJ. CONTACT:
FILE NAME: 38B_Str_Pier07.dgn
PLOT DRIVER: IL_pdf_bw.ptf
PEN TABLE: plotbw.tbl

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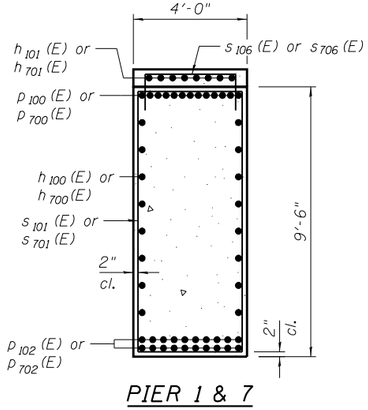
USER NAME = whood	DESIGNED - JMW	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

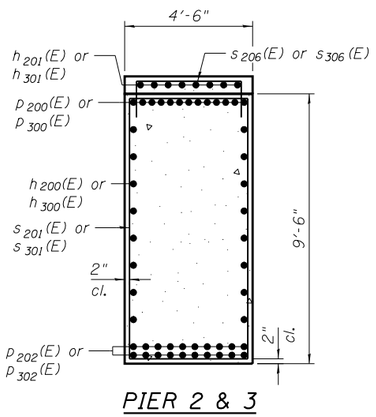
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 7
SN: 047-3175
SHEET NO. S-61 OF S-72 SHEETS

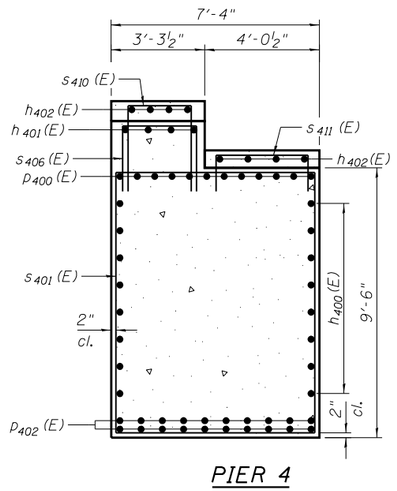
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	233
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			



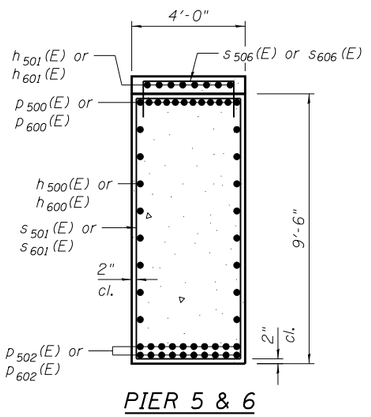
PIER 1 & 7



PIER 2 & 3

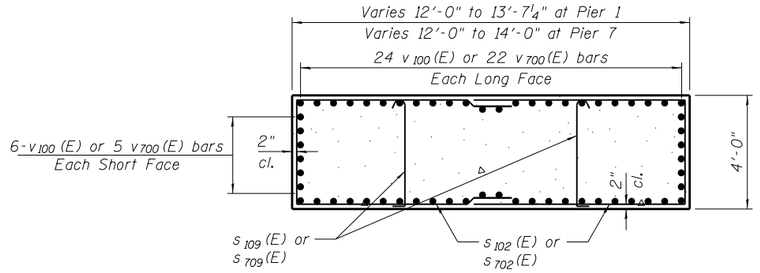


PIER 4

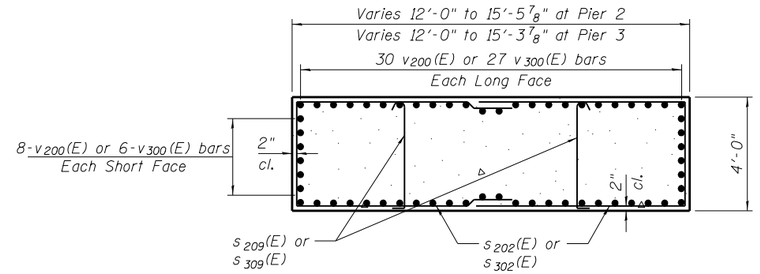


PIER 5 & 6

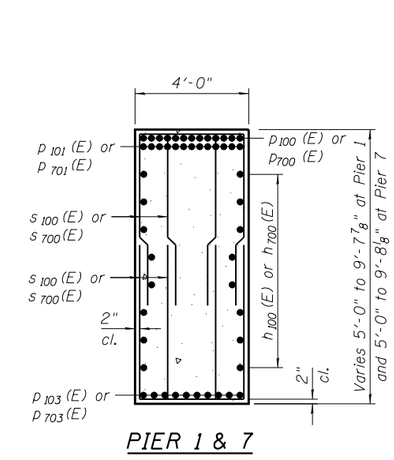
SECTION A-A



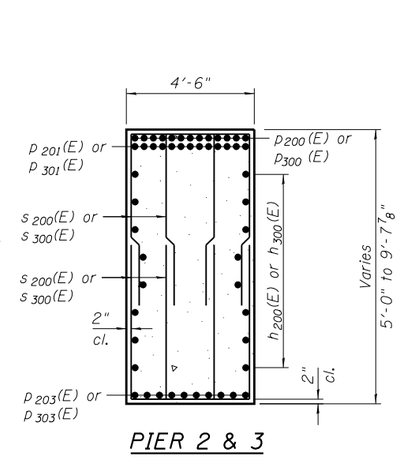
PIER 1 & 7



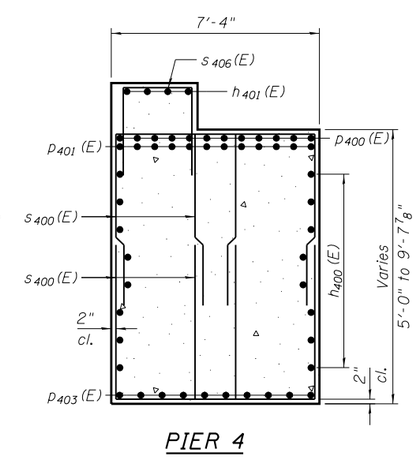
PIER 2 & 3



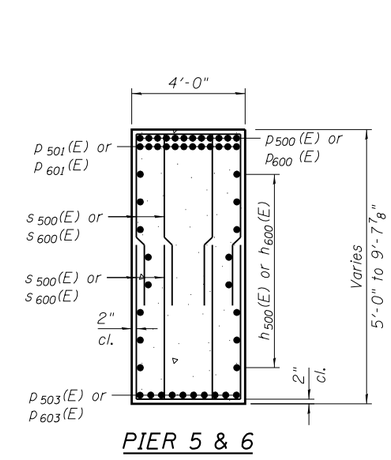
PIER 1 & 7



PIER 2 & 3

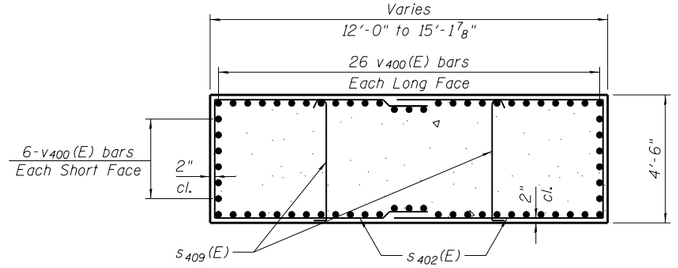


PIER 4

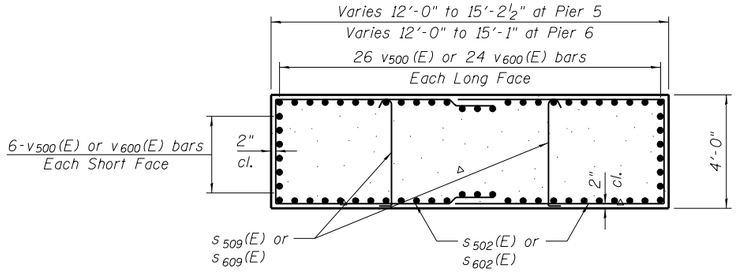


PIER 5 & 6

SECTION C-C



PIER 4



PIER 5 & 6

SECTION B-B

HRG PROJECT NO.: 8B13038
HRG PROJ. CONTACT:
FILE NAME: 38B_Str_PierDetails01.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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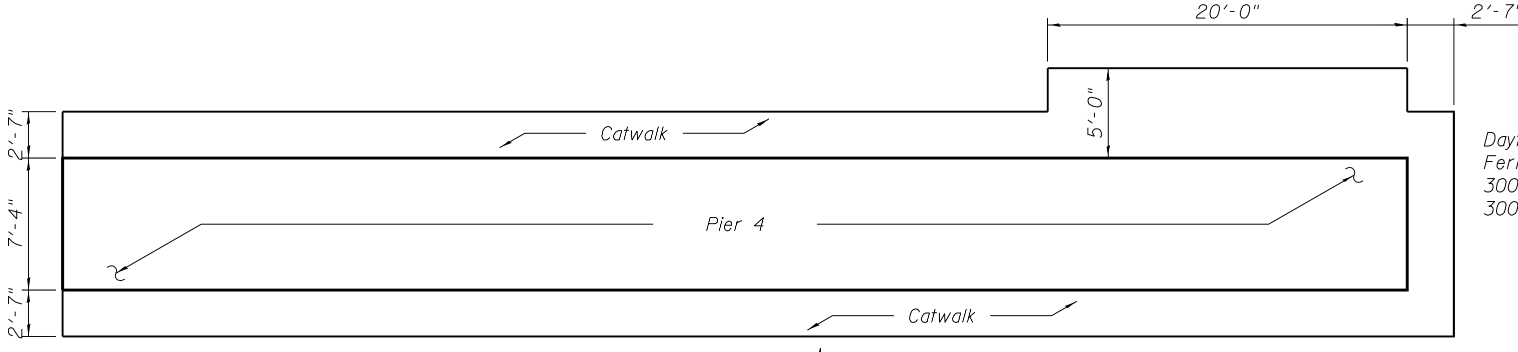
USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

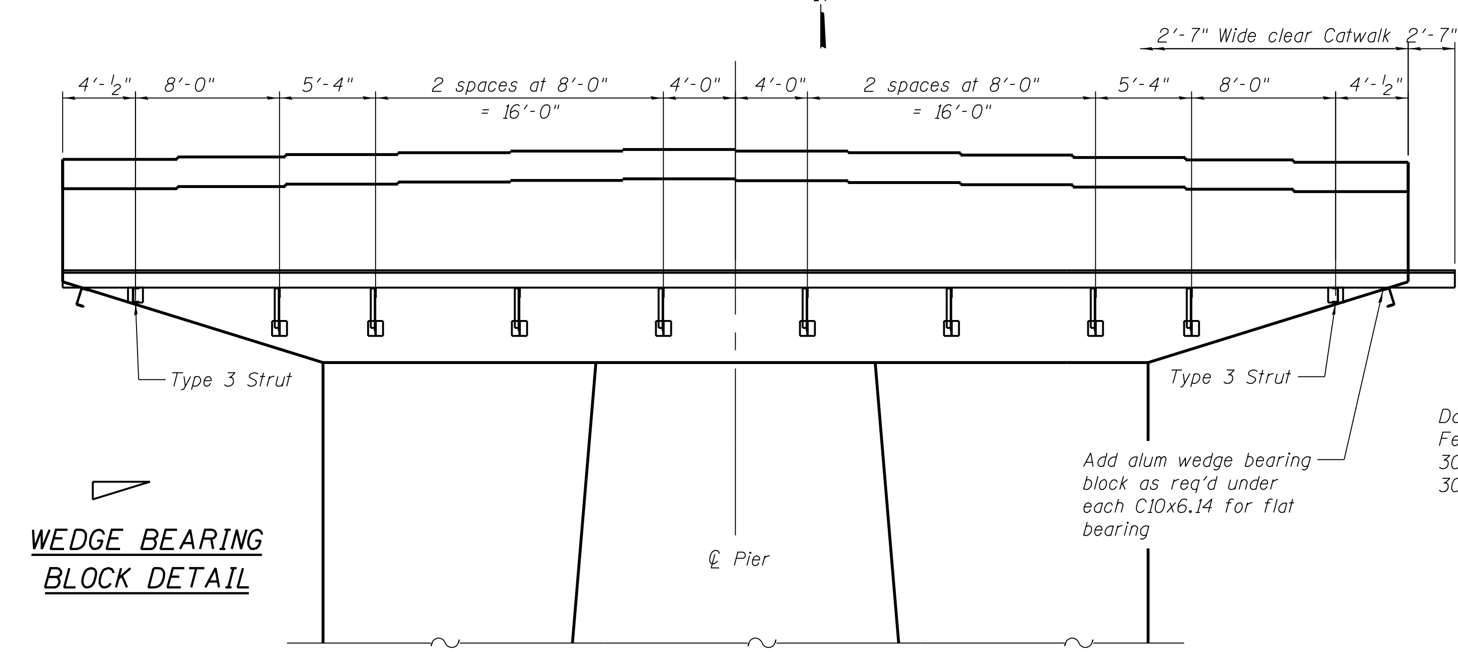
PIER DETAILS – SECTIONS
SN: 047-3175
SHEET NO. S-62 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	234
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

Note:
All items associated with Catwalk shall be paid for as Catwalk (Special). See Special Provisions.



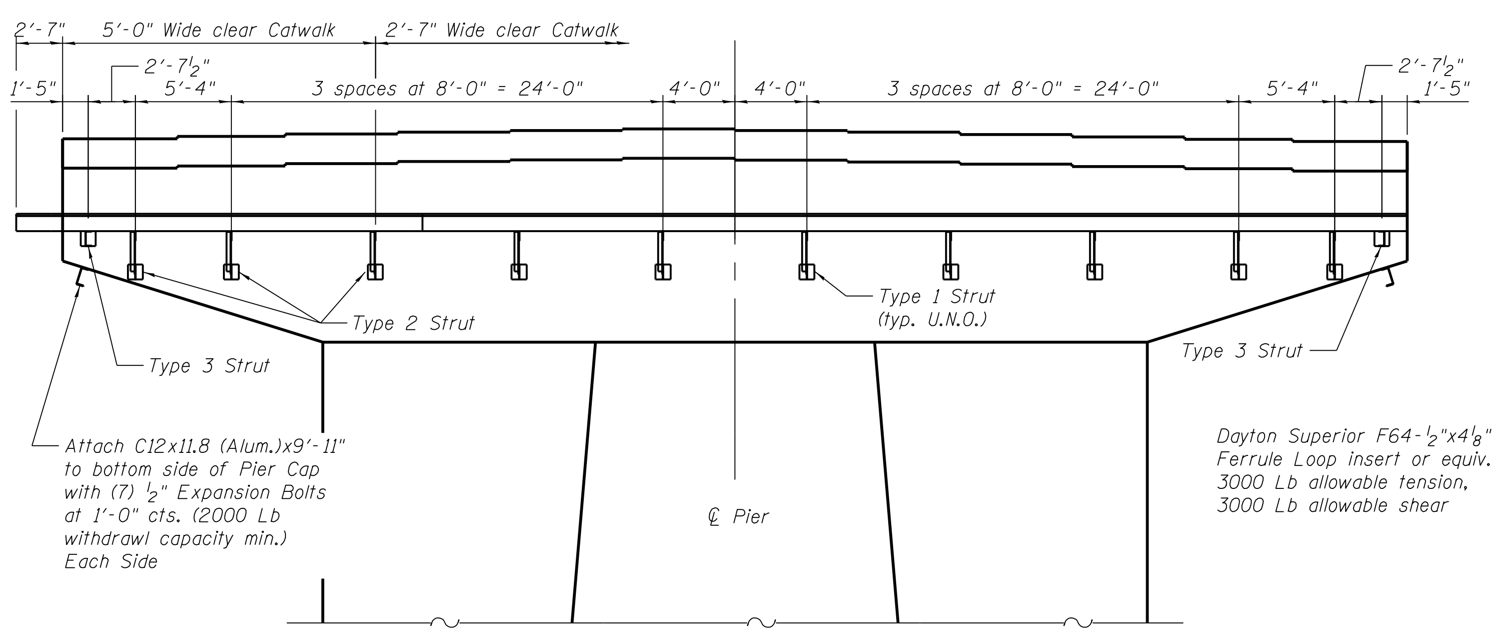
PLAN



WEDGE BEARING BLOCK DETAIL

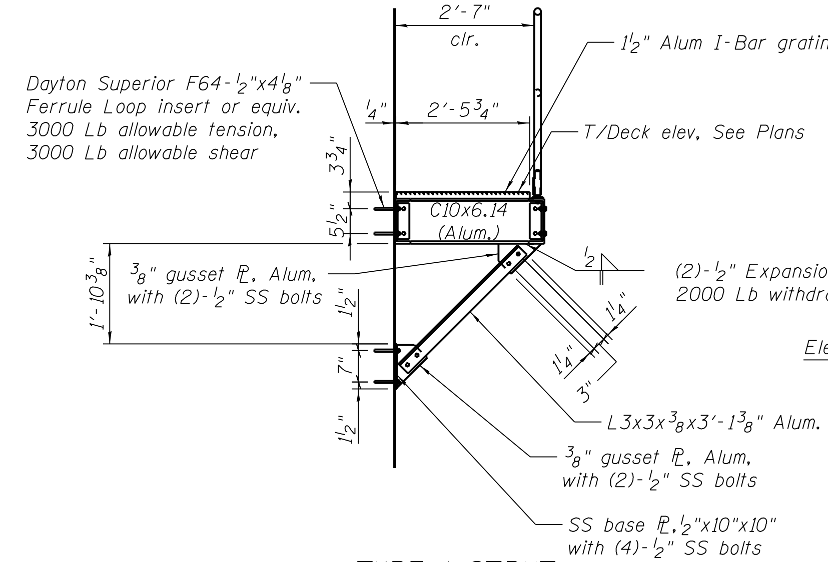
ELEVATION VIEW PIER 4

(Looking North)
Railing not shown for clarity



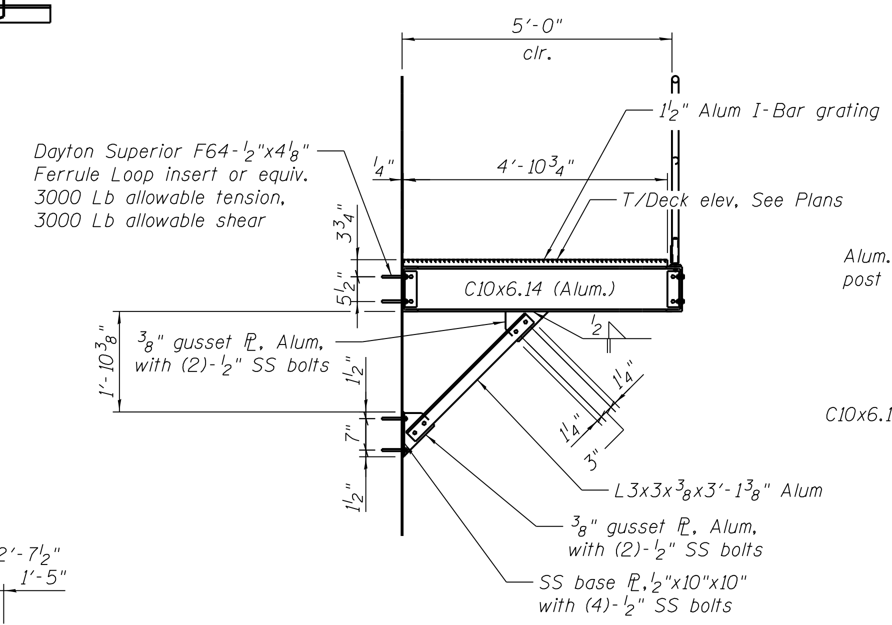
ELEVATION VIEW PIER 4

(Looking South)
Railing not shown for clarity



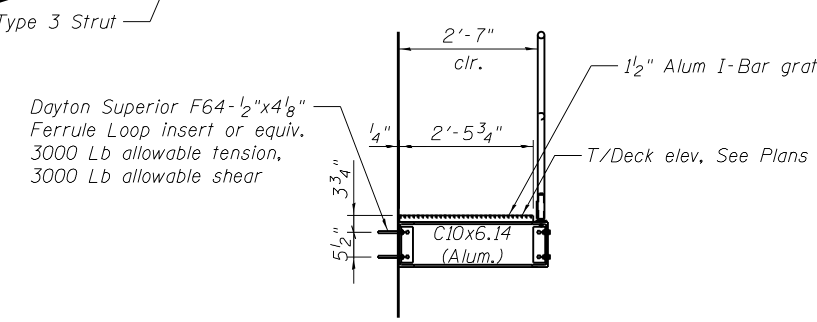
TYPE 1 STRUT

(15) req'd



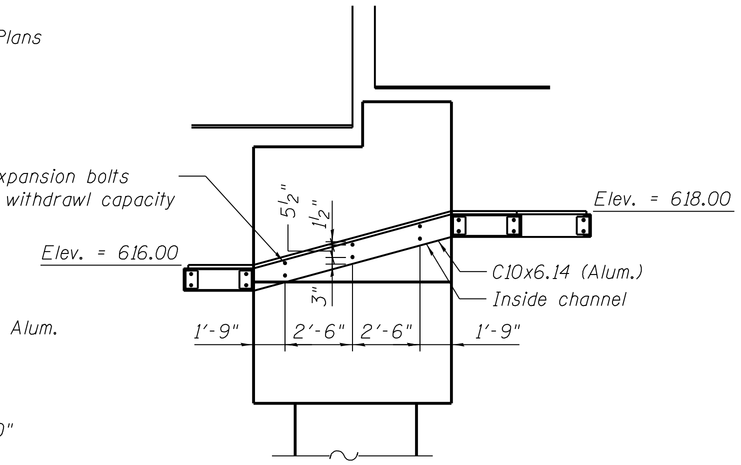
TYPE 2 STRUT

(3) req'd



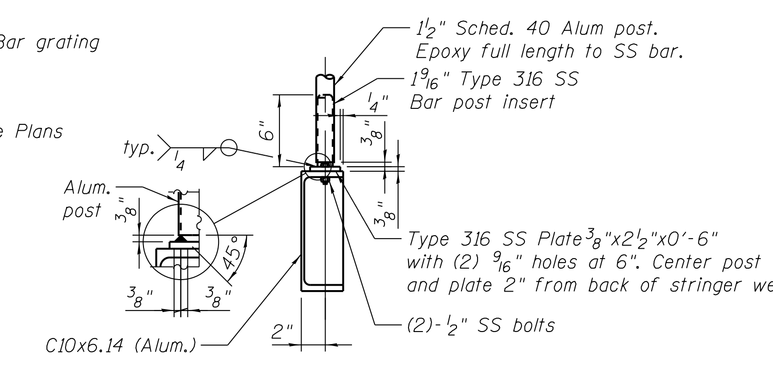
TYPE 3 STRUT

(4) req'd



ELEVATION VIEW PIER 4

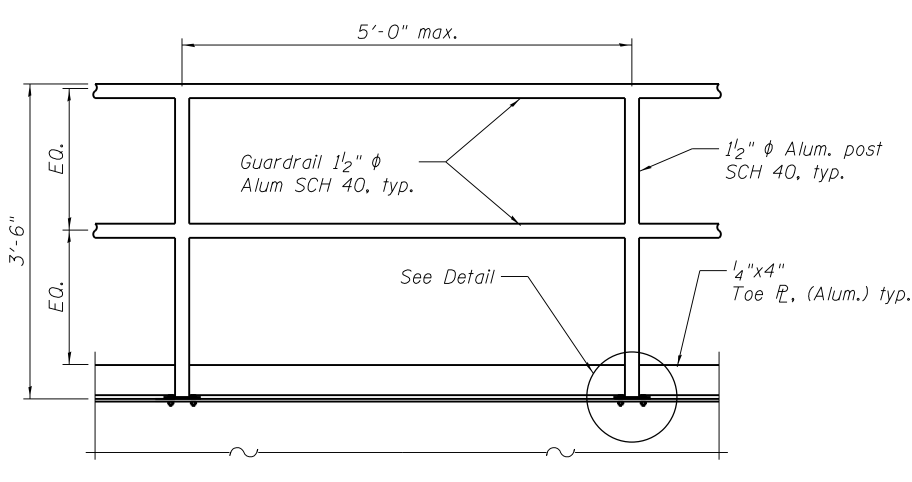
(Looking West)



RAILING POST CONNECTION

BILL OF MATERIAL

Item	Unit	Quantity
Catwalk (Special)	Each	1



TYPICAL HANDRAIL

HRG PROJECT NO.: 8B3038I
HRG PROJ.CONTACT:
FILE NAME: 3818_Str_CatwalkDetails-01.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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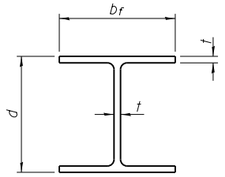
USER NAME = whood	DESIGNED - SLS	REVISED -	
	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CATWALK DETAILS
SN: 047-3175
SHEET NO. S-63 OF S-72 SHEETS

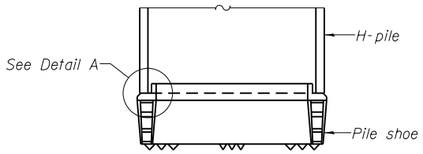
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	235

CONTRACT NO. 87731
ILLINOIS FED. AID PROJECT

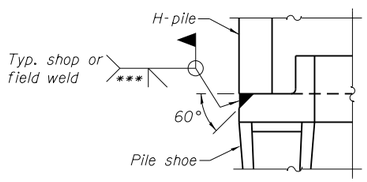


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	$14\frac{1}{4}''$	$14\frac{7}{8}''$	$\frac{13}{16}''$	30''
x102	14''	$14\frac{3}{4}''$	$\frac{11}{16}''$	30''
x89	$13\frac{7}{8}''$	$14\frac{3}{4}''$	$\frac{5}{8}''$	30''
x73	$13\frac{5}{8}''$	$14\frac{5}{8}''$	$\frac{1}{2}''$	30''
HP 12x84	$12\frac{1}{4}''$	$12\frac{1}{4}''$	$\frac{11}{16}''$	24''
x74	$12\frac{1}{8}''$	$12\frac{1}{4}''$	$\frac{5}{8}''$	24''
x63	12''	$12\frac{1}{8}''$	$\frac{1}{2}''$	24''
x53	$11\frac{3}{4}''$	12''	$\frac{7}{16}''$	24''
HP 10x57	10''	$10\frac{1}{4}''$	$\frac{9}{16}''$	24''
x42	$9\frac{3}{4}''$	$10\frac{1}{8}''$	$\frac{7}{16}''$	24''
HP 8x36	8''	$8\frac{1}{8}''$	$\frac{7}{16}''$	18''

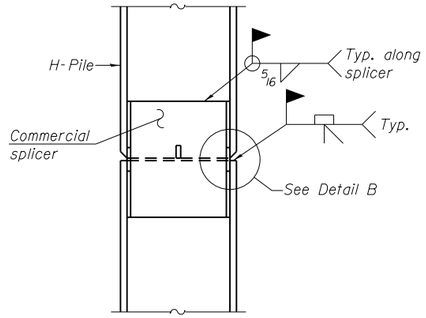


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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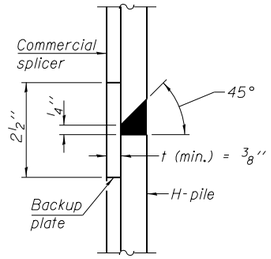
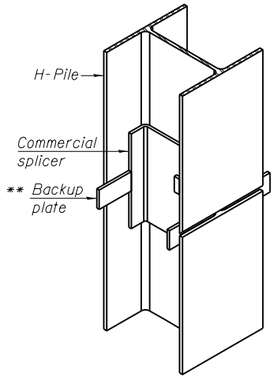
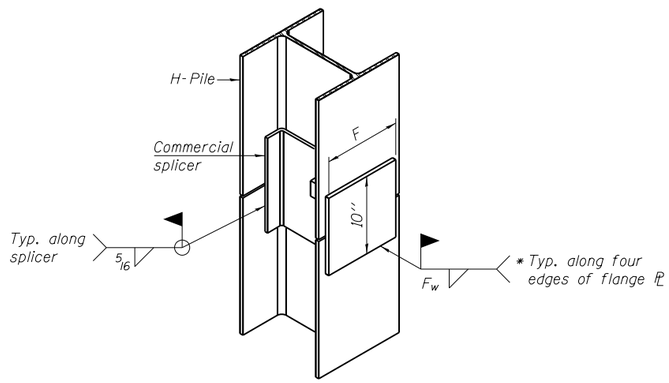


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



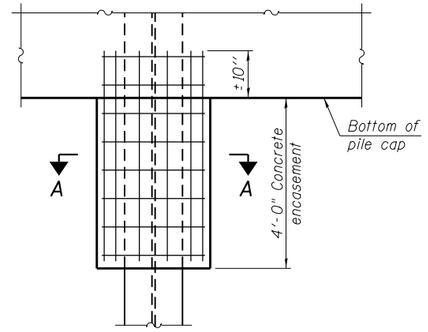
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

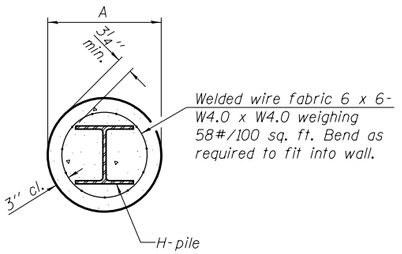
* Interrupt welds $\frac{1}{4}''$ from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer ($\frac{5}{16}''$ min.).



ELEVATION

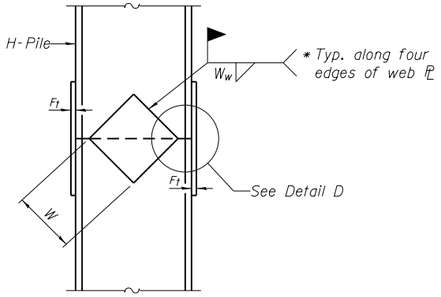


Note:
Forms for encasement may be omitted when soil conditions permit.

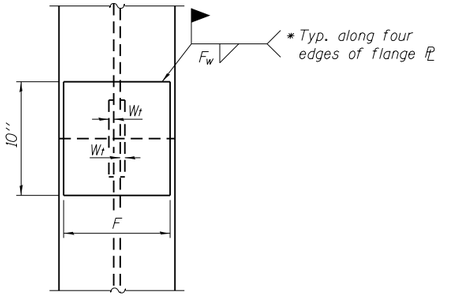
SECTION A-A

PILE ENCASEMENT

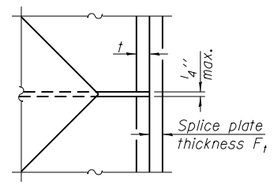
(Abutments only)



ELEVATION



END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	$12\frac{1}{2}''$	1''	$\frac{7}{8}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x102	$12\frac{1}{2}''$	$\frac{7}{8}''$	$\frac{3}{4}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x89	$12\frac{1}{2}''$	$\frac{3}{4}''$	$\frac{11}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x73	$12\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{9}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
HP 12x84	10''	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x74	10''	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x63	10''	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x53	10''	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 10x57	8''	$\frac{3}{4}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x42	8''	$\frac{5}{8}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 8x36	7''	$\frac{5}{8}''$	$\frac{7}{16}''$	$4\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 2-17-17

HRG PROJECT NO.: 8B1303B1
HRG PROJ. CONTACT:
FILE NAME: 38B_Str_PileDetails01.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

HRGreen.com
Illinois Professional Design Firm # 184-001322
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USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
SN: 047-3175
SHEET NO. S-64 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	236
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

Notes:

1. The quantities and reinforcment detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft.

2. Minimum Concrete f'c = 4,000 psi at 14 Days
   Reinforcement fy = 60,000 psi

3. The Contractor shall be responsible for locating all utilities prior to drilling of shafts.

4. Reinforcement bars designated (E) shall be epoxy coated.

5. When splicing of spiral reinforcement is necessary, the spirals shall be provided with $1\frac{1}{2}$ extra turns at the ends to be spliced. These additional turns shall either be welded together according to ASW D1.4, or shall both terminate with a 135° standard hook.

8. For drilled shaft layout see Pier Detail Sheets for Pier 3 thru 7.

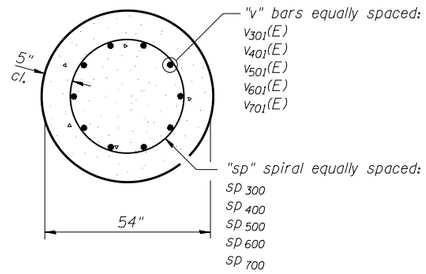
9. Place bars symmetrically about shaft.

DRILLED SHAFT SCHEDULE

Pier #	Length "A" in Soil (Ft.)	Length "B" in Rock (Ft.)	Estimated Drilled Shaft Length	Top of Rock Elevation	Bottom of Shaft Elevation	Drilled Shaft Factored Resistance (kips)
3	6.00	23.00	29.00	550.00	527.00	9,933
4	13.00	18.00	31.00	548.50	530.50	2,380
5	5.30	25.70	31.00	556.20	530.50	2,215
6	5.00	25.00	30.00	556.50	531.50	6,035
7	14.00	20.50	34.50	558.00	537.50	1,964

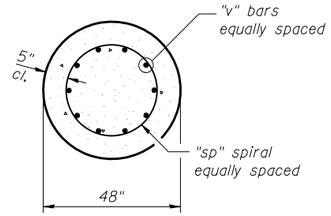
Pay Limits for 54" Drilled Shaft in Soil

Pay Limits for 48" Drilled Shaft in Rock

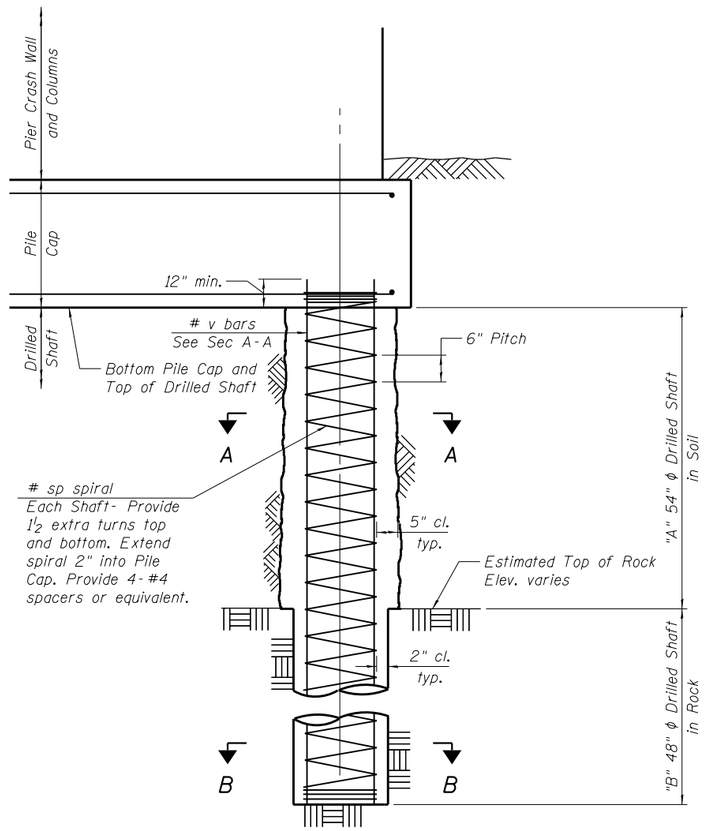


SECTION A-A

v_{x01} (E)
└ Indicates Pier No.



SECTION B-B



ELEVATION

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HRG PROJ. CONTACT:
FILE NAME: 388_Str_PileDetails02.dgn
PLOT DRIVER: IL.pdf_bwPltCfg
PEN TABLE: PlotTable.tbl

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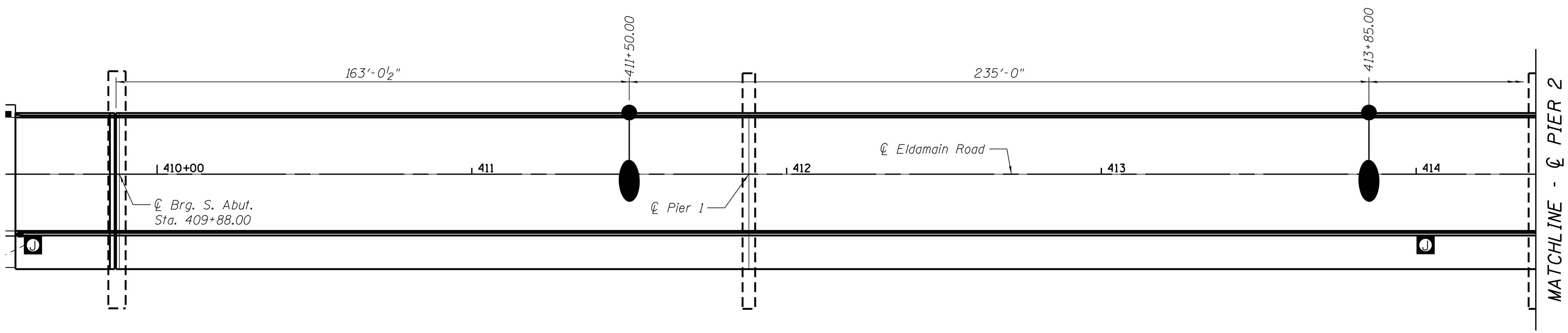
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

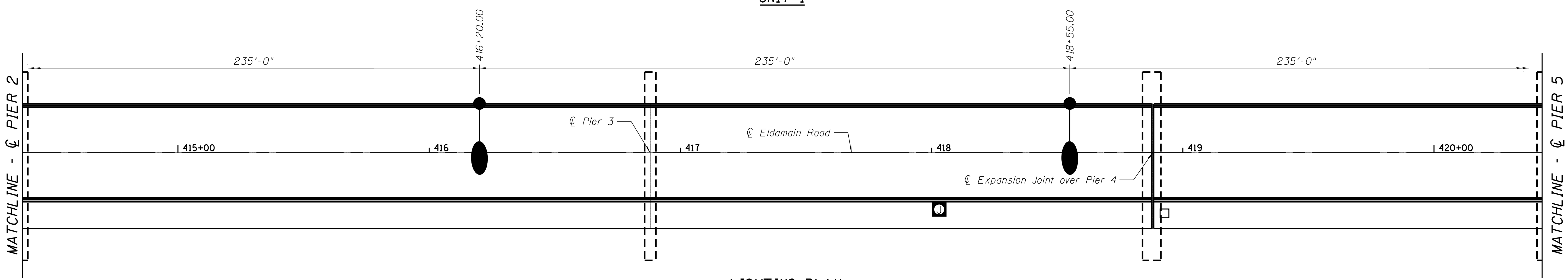
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRILLED SHAFT DETAILS
SN: 047-3175
SHEET NO. S-65 OF S-72 SHEETS

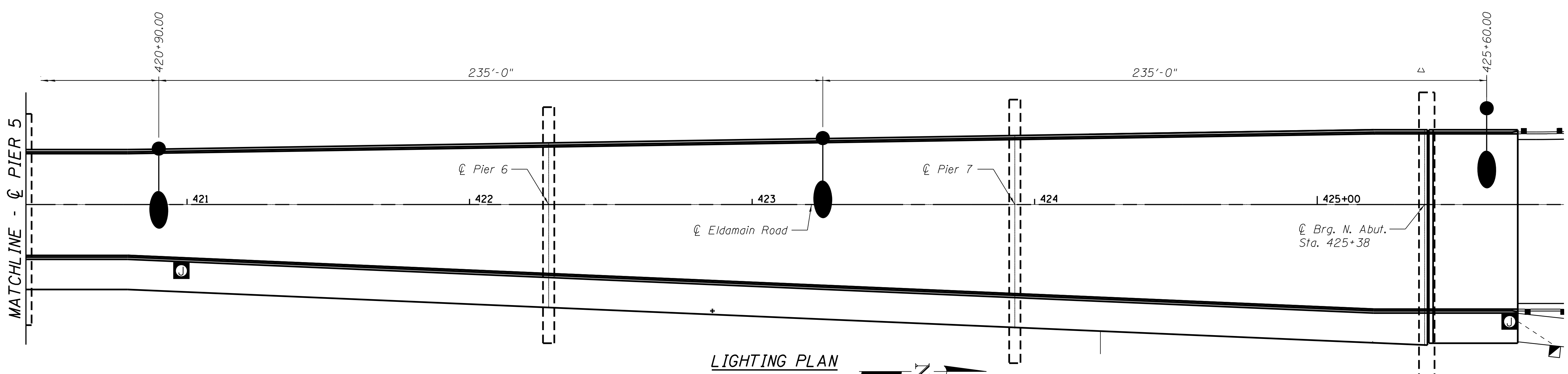
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	237
		CONTRACT NO. 87731		
		ILLINOIS	FED. AID PROJECT	



LIGHTING PLAN
UNIT 1



LIGHTING PLAN
UNIT 1



LIGHTING PLAN
UNIT 2

Note: To be used for location of bases.

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HRG PROJ.CONTACT:
FILE NAME: 388_Str_LightingPlan.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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	DRAWN - WJH	REVISED -	
PLOT SCALE =	CHECKED - SLS	REVISED -	
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -	

LIGHTING PLAN
SN: 047-3175
SHEET NO. S-66 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	238
		CONTRACT NO. 87731		
		ILLINOIS FED. AID PROJECT		

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HRG PROJECT NO.: 88303BI
HRG PROJ. CONTACT:
FILE NAME: 388_Str_BarSplicerDetailsOl.dgn
PLOT DRIVER: IL.pdf.bwPltCfg
PEN TABLE: plotTable.tbl

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	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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SHEET NO. S-67 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	239
		CONTRACT NO. 87731		
	ILLINOIS FED. AID PROJECT			

Testing Service Corporation
STRUCTURE BORING LOG

Page 1 of 2

Date Started 3/7/11
Date Completed 3/7/11

ROUTE ______ DESCRIPTION Bridge Structure, Eldamain Road over Fox River

SECT. ______ STRUCT. NO. ______ DRILLED BY TSC L-76,216 / L-77,545

COUNTY Kendall LOCATION Pier 1 S. 36E 1/2, TWP. 37N, RNG. 6E

Boring No. 1
Station 411+69
Offset 1.00ft LT
Surface Elev. 598.00 ft

Surface Water Elev. ______
Groundwater Elev.:
when drilling 572.0
at Completion 580.0
after ___ Hrs. ___

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
Black clayey TOPSOIL	597.70				
Hard brown CLAY, trace gravel, moist A-6			1 2 4	P 4.5+	22.2
		-5	7 12 17	B 7.9 15%	17.7
	592.50				
Very stiff brown CLAY LOAM, little gravel, moist A-6			9 11 26	B 2.5 15%	14.0
	590.00				
Medium dense brown SILTY LOAM, little gravel, moist A-4	588.00	-10	7 5 5		20.2
Medium dense brown SANDY LOAM, some gravel, moist A-2-4			6 5 8		9.3
	585.00				
Very stiff to hard gray CLAY LOAM, trace gravel, occasional silt and sand seams, moist A-6		-15	11 21 50/4"	B 4.5 15%	15.9
			9 17 24	S 3.9 12.5%	14.9
	579.50				
Very stiff to hard gray SILTY CLAY LOAM, moist A-6		-20	42 23 17	B 4.7 15%	10.3
Sample 8: LL/PL/PI = 38/16/22			22 27 22	S 3.7 10%	8.2
		-25	83 42 50/2"	B 4.3 15%	9.4

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
	572.50				
Very dense gray SILTY CLAY LOAM, trace gravel, moist A-4			17 29 33		12.1
	570.00				
Very dense gray SILTY LOAM (Shale), trace gravel, moist A-4		-30	34 50/4"		6.1
	564.00		100/6"		
Weathered SHALE (Rock): Dark gray to brown Soft from 34' to 34.5' Fractured between 37.5' to 38.5' and 41' to 42'		-35	Core Run 1: 34'-44' Recovery = 100% RQD = 100%		
		-40			
	554.00				
Weathered SHALE (Rock): Dark gray to brown		-45	Core Run 2: 44'-54' Recovery = 100% RQD = 100%		
		-50			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

IDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

Testing Service Corporation
STRUCTURE BORING LOG

Page 2 of 2

Date Started 3/7/11
Date Completed 3/7/11

STRUCTURE NO. ______
ROUTE ______
SECTION ______
COUNTY Kendall

Boring No. 1
Station 411+69
Offset 1.00ft LT
Elevation 548.00 ft

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
Weathered SHALE (Rock): Dark gray to brown					
	544.00				
Weathered SHALE (Rock): Dark gray to brown		-55	Core Run 3: 54'-64' Recovery = 96% RQD = 96%		
		-60			
	535.00				
Weathered SHALE (Rock): Gray to Greenish, Softer from 63' to 64'	534.00				
DOLOMITE: Tan to Gray, Motteled Gray and Red, Relatively Pure, Calcarenitic in thin zones, Thick to massive bedded, 10-15% pinpoint Vugs, with occasional larger Vugss (<1"), occasional fossils.		-65	Core Run 4: 64'-74' Recovery = 100% RQD = 100%		
		-70			
	524.00				
End of Boring at 74'		-75			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

IDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

Testing Service Corporation
STRUCTURE BORING LOG

Page 1 of 2

Date Started 3/1/11
Date Completed 3/2/11

ROUTE ______ DESCRIPTION Bridge Structure, Eldamain Road over Fox River

SECT. ______ STRUCT. NO. ______ DRILLED BY TSC L-76,216 / L-77,545

COUNTY Kendall LOCATION Pier 3 S. 36E 1/2, TWP. 37N, RNG. 6E

Boring No. 2
Station 416+75
Offset 20.00ft RT
Surface Elev. 568.00 ft

Surface Water Elev. ______
Groundwater Elev.:
when drilling 565.0
at Completion Rotary Wash
after ___ Hrs. ___

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
Black clayey TOPSOIL, very moist A-7-6			3 3 3	P 0.25	36.0
	565.00				
Very soft brown and gray CLAY, trace organic, very moist A-7-6		-5	1 1 1	P 0.25	36.1
	562.50				
Loose brown SAND, some gravel, saturated A-1-b			2 4 4		15.2
	560.00				
Very soft dark brown and gray ORGANIC CLAY, trace shells, very moist A-8 LOI = 9.0%		-10	0 2 2	P 0.25	98.6
	557.50				
Medium dense to dense brown and gray SAND some gravel, saturated A-1-b			4 9 9		10.1
		-15	11 9 12		12.6
			19 20 20		7.3
	550.00				
Very dense gray SILTY LOAM, occasional sand seams, moist [Possible Weathered Shale] A-6		-20	32 50/3"		10.3
			49 50/2"		10.9
Sample 10: LL/PL/PI = 37/17/20	543.00	-25	53 50/3"		10.8

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
SILT STONE (Rock): Dark gray, occasional pyrite inclusions		-30	Core Run 1: 25'-35' Recovery = 100% RQD = 100%		
		-35	Core Run 2: 35'-45' Recovery = 100% RQD = 100%		
	530.00				
Weathered SHALE (Rock): Grayish green	529.00				
DOLOMITE: Tan, Motteled reddish tan, Relatively Pure, Calcarenitic in thin zones, Medium thick bedded, 10-15% pinpoint Vugs, with occasional larger Vugss (<1"), occasional large calcite crystal/veins, Trace pyrite.		-40			
		-45	Core Run 3: 45'-55' Recovery = 85% RQD = 80%		
		-50			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

IDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

Testing Service Corporation
STRUCTURE BORING LOG

Page 2 of 2

Date Started 3/1/11
Date Completed 3/2/11

STRUCTURE NO. ______
ROUTE ______
SECTION ______
COUNTY Kendall

Boring No. 2
Station 416+75
Offset 20.00ft RT
Elevation 518.00 ft

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
DOLOMITE: Tan, Motteled reddish tan					
	513.00	-55			
End of Boring at 55'		-60			
		-65			
		-70			
		-75			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

IDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

HRG PROJECT NO.: 8813038I
HRG PROJ. CONTACT:
FILE NAME: 38IB_Str_SoilBoringLog0l.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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Illinois Professional Design Firm
184-001322

USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
SN: 047-3175

SHEET NO. S-68 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	240

CONTRACT NO. 87731

ILLINOIS FED. AID PROJECT

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 2
Date Started 1/10/12
Date Completed 1/10/12

ROUTE ______ DESCRIPTION Bridge Structure, Eldamain Road over Fox River
SECT. ______ STRUCT. NO. ______ DRILLED BY TSC L-77,545
COUNTY Kendall LOCATION Pier 4 S. 36E 1/2, TWP. 37N, RNG. 6E

Boring No. 9
Station 418+65
Offset 0.00ft
Surface Elev. 567.50 ft

Surface Water Elev. ______
Groundwater Elev.:
when drilling 559.5
at Completion Rotary Wash
after ______ Hrs. ______

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
Black clayey TOPSOIL, very moist A-7-6	564.50		3 4 8		40.8
Soft gray CLAY, very moist A-7-6	562.00	-5		B 0.41 15%	34.5
Stiff brown and gray ORGANIC CLAY, trace Shells, very moist A-8	559.50		0 2 2	B 0.74 15%	73.9
Med. Dense brown and gray SAND and GRAVEL, saturated A-1	557.00	-10	7 6 6		16.0
Hard gray CLAY LOAM, trace gravel, moist A-6			7 10 14	P 4.5+	7.9
		-15	9 14 22	P 4.5+	11.5
	549.50		15 24 35	P 4.5+	9.4
Weathered SHALE (Rock): Dark gray	548.50		100/6"		
SHALE (Rock): Dark gray		-20	Core Run 1: 19'-29' Recovery = 100% RQD = 100%		
		-25			
SHALE (Rock): Dark gray	538.50				
SHALE (Rock): Dark gray	530.00	-30	Core Run 2: 29'-39' Recovery = 100% RQD = 100%		
		-35			
Weathered SHALE (Rock): Grayish-green, occasional pyrite inclusions	528.50				
DOLOMITE: Tan, Molteled Gray, Relatively Pure, Calcarenitic in thin zones, Medium to thick bedded, 10-15% pinpoint Vugs, with occasional larger Vugss (>1"). Few large calcite crystals, Moderately Fractured (41'-42')		-40	Core Run 3: 39'-49' Recovery = 100% RQD = 88%		
		-45			
		-50	Core Run 4: 49'-55'		

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

Testing Service Corporation

STRUCTURE BORING LOG

Page 2 of 2
Date Started 1/10/12
Date Completed 1/10/12

STRUCTURE NO. ______
ROUTE ______
SECTION ______
COUNTY Kendall

Boring No. 9
Station 418+65
Offset 0.00ft
Elevation 517.50 ft

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
DOLOMITE: Tan, Motteled Gray	513.50		Core Run 4: 49'-54' Recovery = 100% RQD = 100%		
End of Boring at 54'		-55			
		-60			
		-65			
		-70			
		-75			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

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Page 1 of 2

ROCK CORE LOG

Date 1/22/16

ROUTE CH-7 Eldamain Road DESCRIPTION ______ LOGGED BY TLM
SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude
COUNTY Kendall CORING METHOD Wireline
STRUCT. NO. ______ Station ______
CORING BARREL TYPE & SIZE ______
BORING NO. SB-02
Station 420+43
Offset 2.0 ft Rt.
Ground Surface Elev. 566.70 ft
Core Diameter 2 in
Top of Rock Elev. 541.70 ft
Begin Core Elev. 541.70 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Dense gray argilacious Shale, thinly bedded	541.70		1	93	100	1.5	24.2
							20.4
							43.4
		-30					
							34.5
							27.4
		-35	2	100	100	0.6	
							15.2
							11.0
		-40					
	525.45						
Dense light gray argilacious Shale, thinly bedded	523.55		3	100	100	0.8	
Dense white Dolostone, vuggy			3				260.3
		-45					

Color pictures of the cores ______
Cores will be stored for examination until ______
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

ROCK CORE ELDAMAIN ROAD BRIDGE OVER FOX RIVER.GPJ IL_DOT.GDT 1/15/18

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Page 2 of 2

ROCK CORE LOG

Date 1/22/16

ROUTE CH-7 Eldamain Road DESCRIPTION ______ LOGGED BY TLM
SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude
COUNTY Kendall CORING METHOD Wireline
STRUCT. NO. ______ Station ______
CORING BARREL TYPE & SIZE ______
BORING NO. SB-02
Station 420+43
Offset 2.0 ft Rt.
Ground Surface Elev. 566.70 ft
Core Diameter 2 in
Top of Rock Elev. 541.70 ft
Begin Core Elev. 541.70 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Dense white Dolostone, vuggy *(continued)*			3				246.1
	516.80	-50	3				260.3
Dense white Dolostone, vuggy to slightly karst			4	100	90		
			4				224.0
	511.65	-55	4				273.0
End of Boring							
		-60					
		-65					

Color pictures of the cores ______
Cores will be stored for examination until ______
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

ROCK CORE ELDAMAIN ROAD BRIDGE OVER FOX RIVER.GPJ IL_DOT.GDT 1/15/18

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 3/2/11
Date Completed 3/3/11

ROUTE ______ DESCRIPTION Bridge Structure, Eldamain Road over Fox River
SECT. ______ STRUCT. NO. ______ DRILLED BY TSC L-76,216
COUNTY Kendall LOCATION Pier 6 S. 36E 1/2 , TWP. 37N , RNG. 6E

Boring No. 6
Station 421+60
Offset 0.00ft
Surface Elev. 567.00 ft

Surface Water Elev. ______
Groundwater Elev.:
when drilling 564.0
at Completion Rotary Wash
after ______ Hrs. ______

Description	Elev.	Depth	Blows	Qu (tsf)	W (%)
Black clayey TOPSOIL, very moist A-7-6			3 2 3	P 0.5	43.3
Very soft dark brown and gray CLAY, little organic, very moist A-8	564.00	-5	0 0 1	P 0.25	45.3
Medium dense gray SANDY LOAM, little to some gravel, saturated A-2-4	561.50		3 5 6		19.4
		-10	1 11 11		14.4
Hard gray CLAY LOAM, trace gravel, occasional silt and sand seams, moist [Possible Weathered Shale] A-6	556.50		26 50/5"	B 4.0 15%	11.2
Sample 6: LL/PL/PI = 40/17/23		-15	61 50/3"	B 4.3 15%	10.1
			100/6"	B 4.2 15%	10.7
		-20	100/6"	B 4.3 15%	11.1
Very dense gray SILTY LOAM (Weathered Shale), moist A-4	547.00		100/6"		12.3
		-25	100/4"		10.0
Very dense gray SILTY LOAM (Weathered Shale), moist A-4			100/3"		14.3
		-30	100/4"		21.7
		-35	100/4"		13.8
	529.00		100/0"		
DOLOMITE: Light gray with motteled dark gray, relatively pure, Calcarenite in thin zones. Vugs (pin point to 1") increasing downward form 42', occasionaly white with gray chert nodules, calcite crystals. Few fossiles.		-40	Core Run 1: 38'-43' Recovery = 100% RQD = 100%		
		-45	Core Run 2: 43'-48' Recovery = 100% RQD = 99%		
End of Boring at 48.0'	519.00	-50			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 2/24/11
Date Completed 2/24/11

ROUTE ______ DESCRIPTION Bridge Structure, Eldamain Road over Fox River
SECT. ______ STRUCT. NO. ______ DRILLED BY TSC L-76,216
COUNTY Kendall LOCATION North Abutment S. 36E 1/2 , TWP. 37N , RNG. 6E

Boring No. 3
Station 425+70
Offset 0.00ft
Surface Elev. 619.00 ft

Surface Water Elev. ______
Groundwater Elev.:
when drilling Dry
at Completion Dry
after ______ Hrs. ______

Description	Elev.	Depth	Blows	Qu (tsf)	W (%)
Dark brown clayey TOPSOIL	618.50				
Medium stiff brown CLAY, trace gravel, moist A-6			3 4 7	B 1.40 15%	23.3
Medium dense brown SAND, little gravel, moist A-1-b	616.00	-5	9 10 15		
Medium dense brown SAND and GRAVEL, moist A-1-a	613.50		11 10 14		
Dense to very dense brown SANDY LOAM, little to some gravel, moist A-2-4	611.00	-10	12 18 20		7.9
			14 20 24		8.7
		-15	13 21 32		5.5
			15 31 38		4.5
Very dense brown SANDY CLAY LOAM, little gravel, moist A-4	601.00	-20	17 48 50/3"		13.3
Very dense SANDY LOAM, little gravel, moist A-2-4	598.50		14 37 69		3.2
		-25	15 46 65		2.7
Very dense SANDY LOAM, little gravel, moist A-2-4			13 42 45		3.5
Very dense to dense Fine SAND, trace gravel, moist A-3	591.00	-30	14 35 42		4.1
		-35	17 21 26		4.3
		-40	14 20 24		4.1
End of Boring at 40.0'	579.00	-45			
		-50			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

SOIL BORING LOG

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Page 1 of 2

Date 1/21/16

ROUTE CH-7 Eldamain Road DESCRIPTION ______ LOGGED BY TLM
SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude
COUNTY Kendall DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. ______
Station ______
BORING NO. SB-01
Station 423+60
Offset 2.5 ft Rt.
Ground Surface Elev. 572.50 ft

Surface Water Elev. ______ ft
Stream Bed Elev. ______ ft
Groundwater Elev.:
First Encounter ______ ft
Upon Completion ______ ft
After ___ Hrs. ______ ft

Description	Elev.	Depth (ft)	Blows (/6")	UCS Qu (tsf)	Moist (%)
Medium stiff gray Silty Clay			1 1 1	0.7 B	26
Medium dense gray Silty Clay & Fine Sand (rock in shoe)	569.50	-5	2 5 6	1.2 B	19
			3 6 4		26
Medium dense gray Silty Fine Sand w/pieces of Limestone	564.50	-10	3 4 8		8
Stiff gray Silty Clay w/pieces of Limestone	562.00		5 12 12	2.1 S	10
		-15	10 15 20	4.0 P	11
Very weathered gray Shale, thinly bedded	558.00		7 35 56		8
		-20	16 60 70		6
Very weathered gray Shale, thinly bedded *(continued)*			41 126	2.3 S	11
		-25	40 126	1.0 S	12
Borehole continued with rock coring.	548.00	-30			
		-35			
		-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, form 137 (Rev. 8-99)

SOIL BORING LOG

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Page 1 of 2

Date 1/22/16

ROUTE CH-7 Eldamain Road DESCRIPTION ______ LOGGED BY TLM
SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude
COUNTY Kendall DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. ______
Station ______
BORING NO. SB-02
Station 420+43
Offset 2.0 ft Rt.
Ground Surface Elev. 566.70 ft

Surface Water Elev. ______ ft
Stream Bed Elev. ______ ft
Groundwater Elev.:
First Encounter ______ ft
Upon Completion ______ ft
After ___ Hrs. ______ ft

Description	Elev.	Depth (ft)	Blows (/6")	UCS Qu (tsf)	Moist (%)
Stiff black Silty Clay, organics			4 3 2	1.0 B	38
Soft black Silty Clay	563.70	-5	1 1 1		39
Medium dense brown coarse Sand & Gravel, angular	561.20		6 8 7		13
		-10	5 3 2		20
Very weathered gray Shale, argulacious	556.20		12 23 42	2.3 S	12
		-15	16 38 58	2.1 S	12
Very dense gray weathered Shale argulacious	551.20		37 100	3.1 S	13
		-20	41 150		12
Very dense gray weathered Shale argulacious *(continued)*			53 126		13
		-25	37 114	1.0 S	11
Borehole continued with rock coring.	541.70	-30			
		-35			
		-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, form 137 (Rev. 8-99)

HRG PROJECT NO.: 88130381
HRG PROJ. CONTACT:
FILE NAME: 381B_Str_SoilBoringLog03.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
SN: 047–3175

SHEET NO. S-70 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	242

CONTRACT NO. 87731

ILLINOIS FED. AID PROJECT

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 3/4/11
Date Completed 3/4/11

ROUTE ______ DESCRIPTION Bridge Structure, Eldamain Road over Fox River

SECT. ______ STRUCT. NO. ______ DRILLED BY TSC L-76,216

COUNTY Kendall LOCATION South Abutment S. 36E 1/2, TWP. 37N, RNG. 6E

Boring No. 4
Station 410+05
Offset 0.00ft
Surface Elev. 618.00 ft

Surface Water Elev. ______
Groundwater Elev.:
when drilling 592.0
at Completion 595.0
after ______ Hrs. ______

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
Black clayey TOPSOIL	617.70				
Medium stiff brown CLAY, trace gravel, very moist A-6			2 2 3	P 1.0	18.9
	615.00				
Hard brown CLAY LOAM, trace gravel, moist A-4		-5	4 7 8	P 4.5+	17.1
	612.50				
Medium dense brown SANDY LOAM, little gravel, moist A-2-4	611.50		7 17 12	P 3.75	4.7 / 11.5
Very stiff brown CLAY LOAM, trace gravel, moist A-4		-10	7 8 8	B 2.2 15%	10.1
	607.50				
Dense to very dense brown SAND, some gravel, moist A-1-b			17 23 22		5.9
		-15	34 35 30		4.4
			23 27 25		7.7
		-20	17 20 21		5.7
	597.50				
Medium dense brown SAND and GRAVEL, moist to wet A-1-a			16 14 14		7.7
	595.00				
Very stiff to hard gray CLAY, trace gravel, numerous silt and sand seams, moist A-6		-25	9 19 20	S 4.9 15%	14.6

Description	Elev.	DEPTH	BLOWS	Qu tsf	W %
Very stiff to hard gray CLAY, trace gravel, numerous silt and sand seams, moist A-6			15 19 21	B 2.5 15%	13.8
Sample 11: LL/PL/PI = 39/13/26		-30	11 11 14	S 7.0 15%	10.6
		-35	21 29 21	B 3.6 15%	8.6
		-40	27 21 40	B 4.3 15%	11.3
	573.00	-45	26 32 45	B 5.3 15%	7.8
End of Boring at 45.0'		-50			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

IDOT_BORING 77545 STRUCTURE.GPJ IDOT.GDT 3/20/12

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Page 1 of 2

SOIL BORING LOG

Date 8/22/16

ROUTE CH-7 Eldamain Road DESCRIPTION ______ LOGGED BY TLM

SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude

COUNTY Kendall DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. ______
Station ______

BORING NO. SB-03
Station ______
Offset ______
Ground Surface Elev. 559.88 ft

Surface Water Elev. 561.85 ft
Stream Bed Elev. 559.88 ft

Groundwater Elev.:
First Encounter ______ ft
Upon Completion ______ ft
After ______ Hrs. ______ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense brown medium to coarse Sand & coarse Gravel (angular)			5 4 8		15
	556.88				
Medium dense gray coarse Sand & Gravel (very angular)		-5	11 11 11		11
	553.88				
Weathered gray Shale			19 26 34	6.2 S	11
		-10	16 46 109	5.2 S	11
Borehole continued with rock coring.		-15			
		-20			

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)

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Page 1 of 2

ROCK CORE LOG

Date 8/22/16

ROUTE CH-7 Eldamain Road DESCRIPTION ______ LOGGED BY TLM

SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude

COUNTY Kendall CORING METHOD Wireline

STRUCT. NO. ______
Station ______

CORING BARREL TYPE & SIZE ______
Core Diameter 2 in
Top of Rock Elev. 549.88 ft
Begin Core Elev. 549.88 ft

BORING NO. SB-03
Station ______
Offset ______
Ground Surface Elev. 559.88 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Weathered gray Shale *(continued)*			1	100	0	6.5	
		-15	2	100	10	3.3	
		-20	3	94	58	3	23.4 / 75.6
		-25	4	100	63	2.6	37.6
	532.88		5	100	87	2.4	
Dense light gray argilaceous Shale	531.68						3.2
Dense white/gray vuggy Dolostone		-30					

Color pictures of the cores ______
Cores will be stored for examination until ______
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ROCK CORE ELDAMAIN ROAD BRIDGE OVER FOX RIVER.GPJ IL_DOT.GDT 1/15/18

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Page 2 of 2

ROCK CORE LOG

Date 8/22/16

ROUTE CH-7 Eldamain Road DESCRIPTION ______ LOGGED BY TLM

SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude

COUNTY Kendall CORING METHOD Wireline

STRUCT. NO. ______
Station ______

CORING BARREL TYPE & SIZE ______
Core Diameter 2 in
Top of Rock Elev. 549.88 ft
Begin Core Elev. 549.88 ft

BORING NO. SB-03
Station ______
Offset ______
Ground Surface Elev. 559.88 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Dense white/gray vuggy Dolostone *(continued)*							121.5
		-35	6	100	88	1.8	158.2
	519.88	-40	7	100	90	1.8	266.0
Very dense white/gray vuggy Dolostone	517.08		8	100	100	3.2	
End of Boring		-45					
		-50					

Color pictures of the cores ______
Cores will be stored for examination until ______
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ROCK CORE ELDAMAIN ROAD BRIDGE OVER FOX RIVER.GPJ IL_DOT.GDT 1/15/18

HRG PROJECT NO.: 8813038I
HRG PROJ. CONTACT:
FILE NAME: 38IB_Str_SoilBoringLog04.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = whood	DESIGNED - SLS	REVISED -
	DRAWN - WJH	REVISED -
PLOT SCALE =	CHECKED - SLS	REVISED -
PLOT DATE = 9/3/2020	DATE - 8/7/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
SN: 047–3175

SHEET NO. S-71 OF S-72 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	243

CONTRACT NO. 87731

ILLINOIS FED. AID PROJECT

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ROCK CORE LOG

Date 1/21/16

ROUTE CH-7 Eldamain Road DESCRIPTION LOGGED BY TLM

SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude

COUNTY Kendall CORING METHOD Wireline

STRUCT. NO.
Station

CORING BARREL TYPE & SIZE

Core Diameter 2 in
Top of Rock Elev. 548.00 ft
Begin Core Elev. 548.00 ft

BORING NO. SB-01
Station 423+60
Offset 2.5 ft Rt.
Ground Surface Elev. 572.50 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Very dense gray Shale, sandy slightly argulacious	548.00	-25	1	93	59	4.4	
			1				38.5
			1				37.3
		-30					
		-35	2	92	73		
	533.00						
Light gray argulacious Shale		-40	3	100	90	6.35	
	531.00						
Dense white Dolostone, vuggy			3				353.4

ROCK CORE ELDAMAIN ROAD BRIDGE OVER FOX RIVER.GPJ IL_DOT.GDT 1/15/18

Color pictures of the cores
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
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ROCK CORE LOG

Date 1/21/16

ROUTE CH-7 Eldamain Road DESCRIPTION LOGGED BY TLM

SECTION 05-00086-00-EG LOCATION , SEC. , TWP. , RNG. , Latitude , Longitude

COUNTY Kendall CORING METHOD Wireline

STRUCT. NO.
Station

CORING BARREL TYPE & SIZE

Core Diameter 2 in
Top of Rock Elev. 548.00 ft
Begin Core Elev. 548.00 ft

BORING NO. SB-01
Station 423+60
Offset 2.5 ft Rt.
Ground Surface Elev. 572.50 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Dense white Dolostone, vuggy *(continued)*		-45					
			3				172.5
			3				238.7
			3				156.9
		-50	4	100	100		
			4				295.1
			4				355.9
	520.00						
End of Boring							
		-55					
		-60					

ROCK CORE ELDAMAIN ROAD BRIDGE OVER FOX RIVER.GPJ IL_DOT.GDT 1/15/18

Color pictures of the cores
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

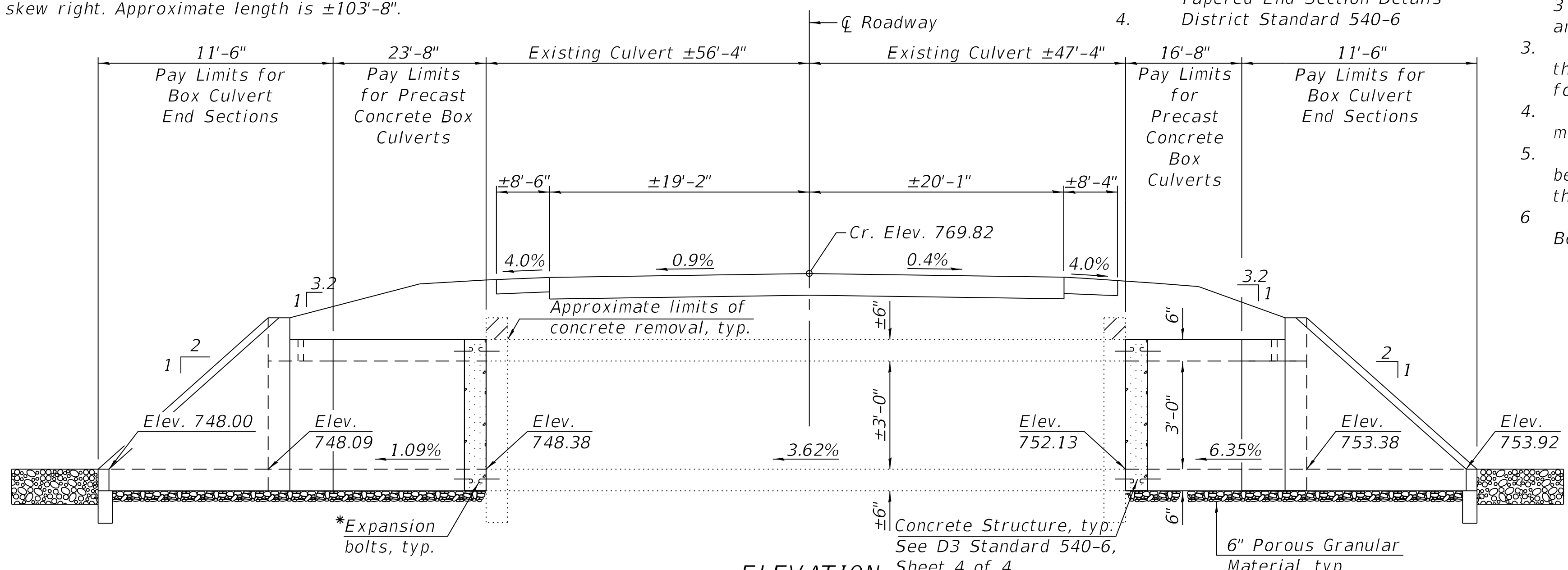
Benchmark: PK Nail in Mailbox Turnout Along North Side of Il 71.
Sta. 1267+17.37, 17.37' LT (33' East of "No Passing Zone" Sign)
Elevation: 769.15 (NGVD29)

Existing Structure: 3x3 Cast-in-place Box Culvert with Flared wingwalls at approximately 20° skew right. Approximate length is ±103'-8".

INDEX OF SHEETS

GENERAL NOTES

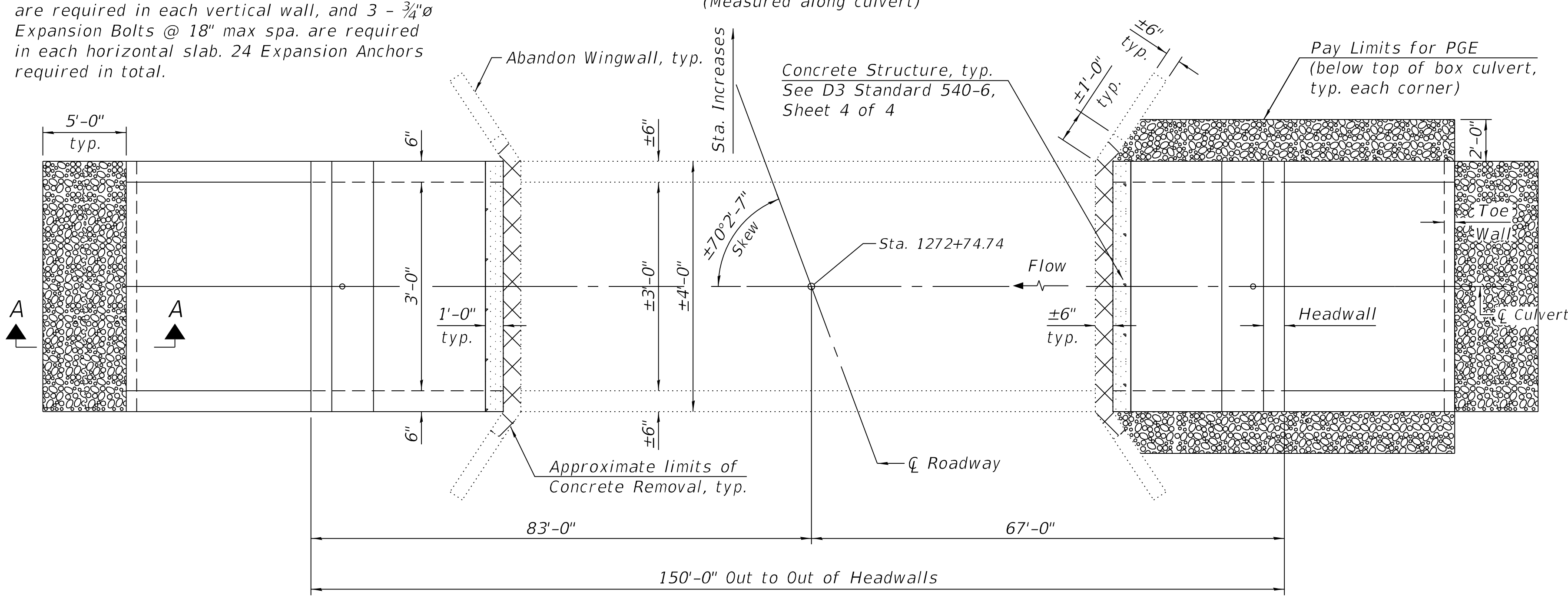
1. The design fill height for this box is 16.50 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
2. Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
3. The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
4. Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
5. Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.
6. The contract unit price, per "Cu Yd" for Concrete Structure shall include the Concrete, Reinforcement Bars, Expansion Bolts, and necessary hardware with materials for anchoring as shown. See sheet 4 of 4 District Standard 540-6.



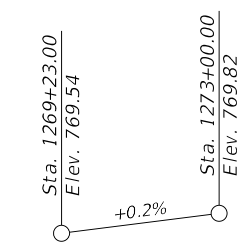
ELEVATION

(Measured along culvert)

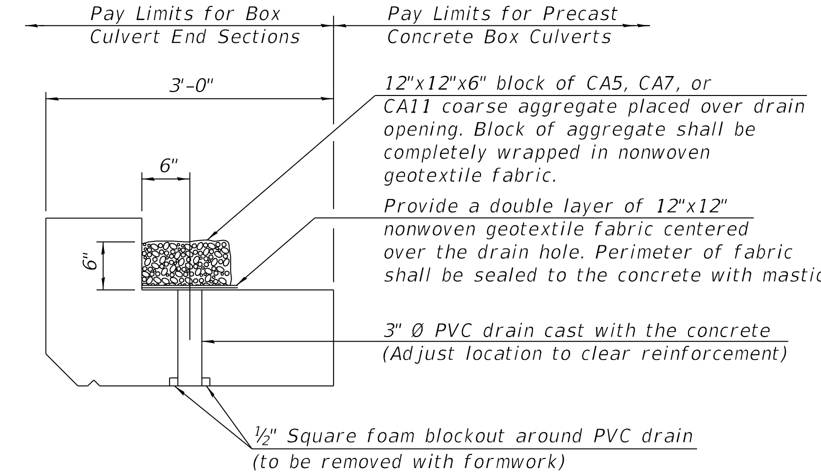
Note: 3 - ¾"ø Expansion Bolts @ 18" max spa. are required in each vertical wall, and 3 - ¾"ø Expansion Bolts @ 18" max spa. are required in each horizontal slab. 24 Expansion Anchors required in total.



PLAN



PROFILE GRADE



DRAIN DETAIL

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

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications 8th Edition

LOADING HL-93

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Reinforcement)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	41.0
** Stone Riprap, Class A4	Sq. Yd.	5.0
** Filter Fabric	Sq. Yd.	5.0
Concrete Removal	Cu. Yd.	2.0
Concrete Structure	Cu. Yd.	2.0
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culverts, 3x3	Foot	41.5

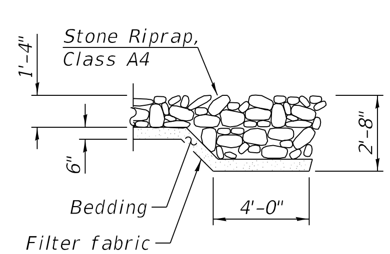
**(Note Cost of Stone Riprap , Class A4 and Filter Fabric included on Erosion control drawings.)

SCOPE

1. Remove limits of existing structure as indicated under Concrete Removal.
2. Install Expansion bolts into existing structure.
3. Install concrete collar paid as Concrete Structures.
4. Prepare subgrade for precast concrete box culvert and end section.
5. Install Precast Box Culvert over End Sections.
6. Backfill culvert and grade as required per plans.

Legend:

- Concrete Removal
- Concrete Structures
- Stone Riprap, Class A4



SECTION A-A

GENERAL PLAN AND ELEVATION
IL RTE. 71 OVER UNNAMED CREEK
F.A.U./F.A.S. RTE. 4000/275
SEC. 05-000 86-01-EG
KENDALL COUNTY
STATION 1272+74.74

STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = mfeller	DESIGNED - MAG	REVISED -
	DRAWN - DJW	REVISED -
PLOT SCALE = 0:2.0000 ' / in.	CHECKED - BMA	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STA. 1272 + 74.74

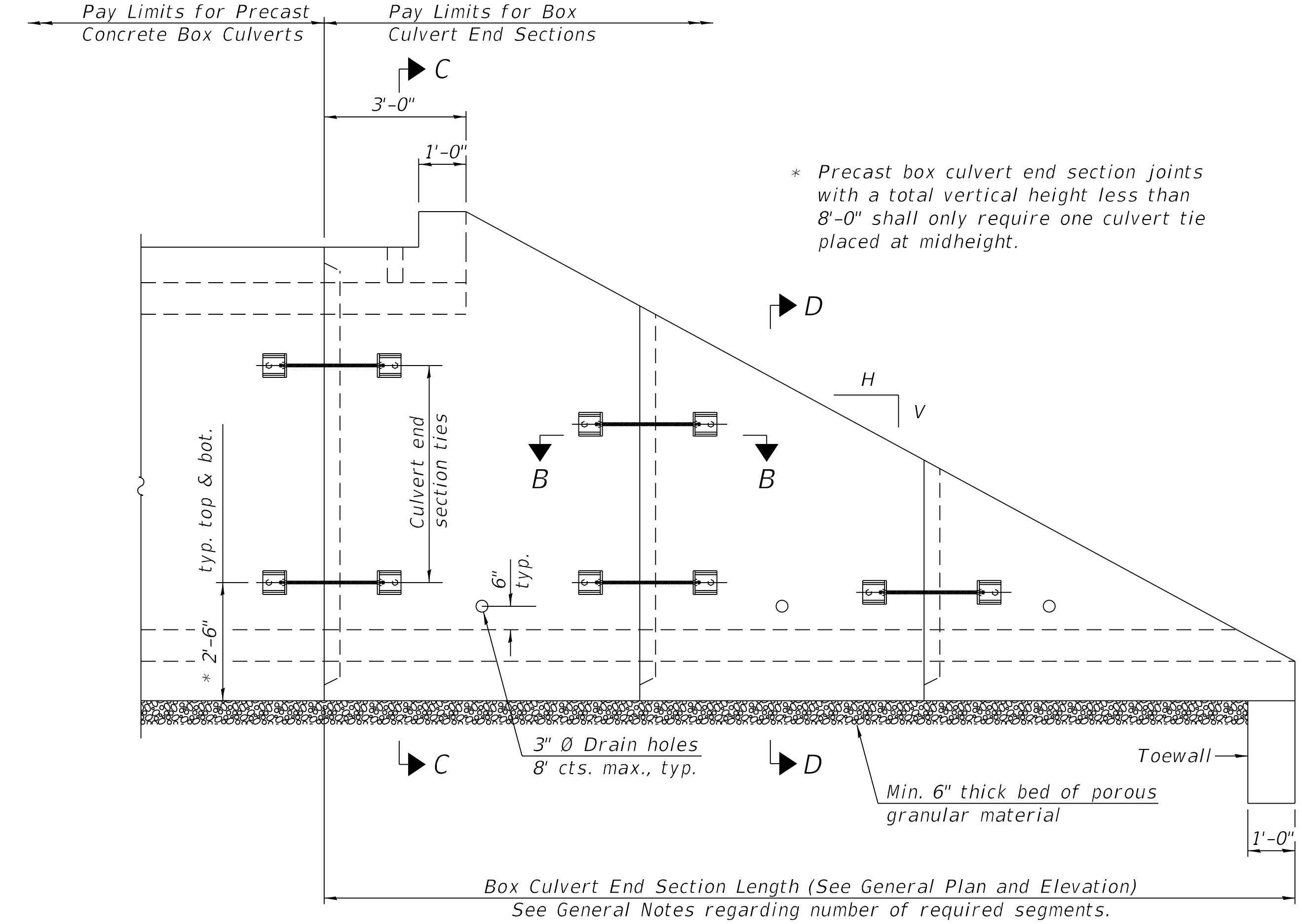
SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.U./F.A.S. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000/275	19-00153-00-BR	KENDALL	485	245

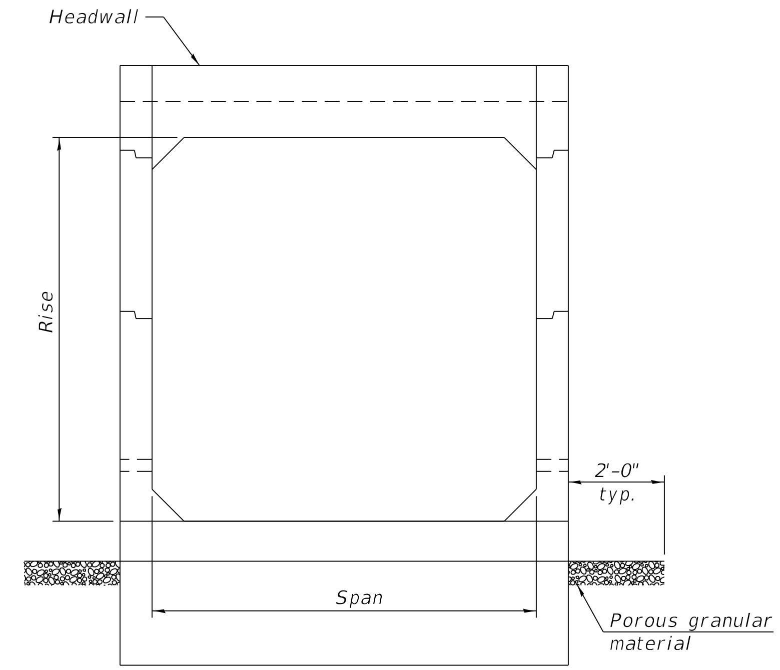
CONTRACT NO. 87731

FED. ROAD DIST. NO. 3 | ILLINOIS | FED. AID PROJECT

Benchmark:



ELEVATION



END VIEW

GENERAL NOTES

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

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

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

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

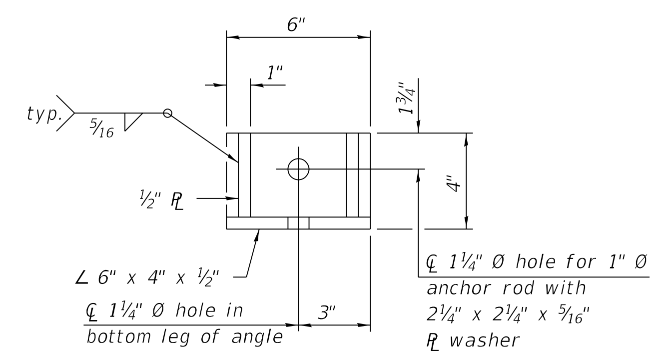
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2¼" x 2¼" x 5⁄16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional ½ turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

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

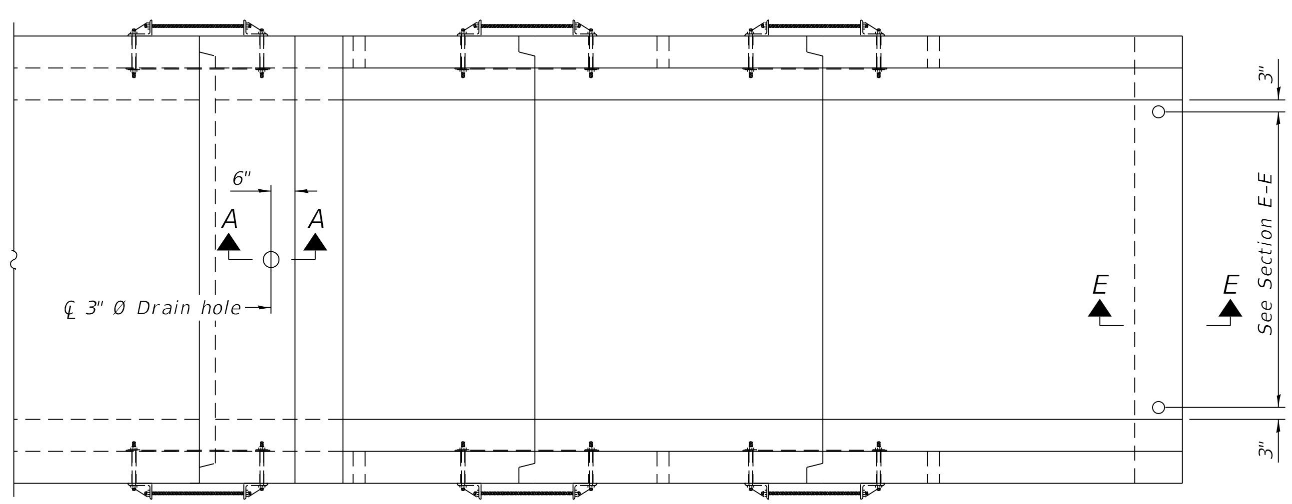
Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

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

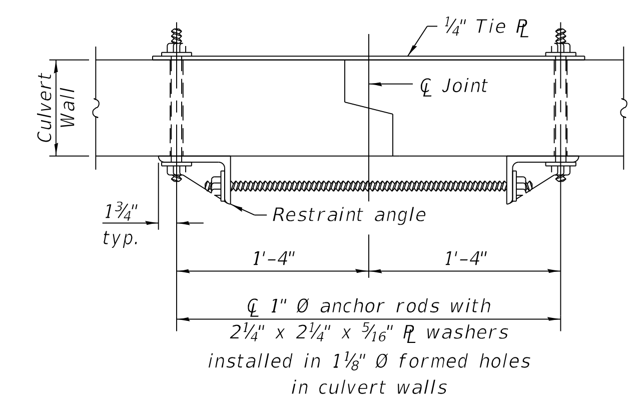
For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



RESTRAINT ANGLE DETAIL

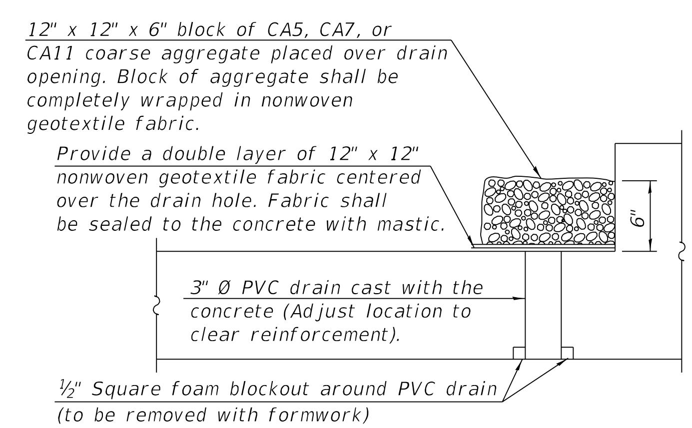


PLAN



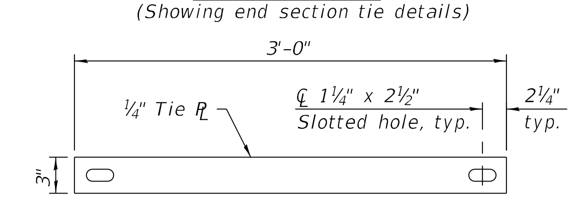
SECTION B-B

(Showing end section tie details)



SECTION A-A

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



TIE PLATE DETAIL

2-17-2017

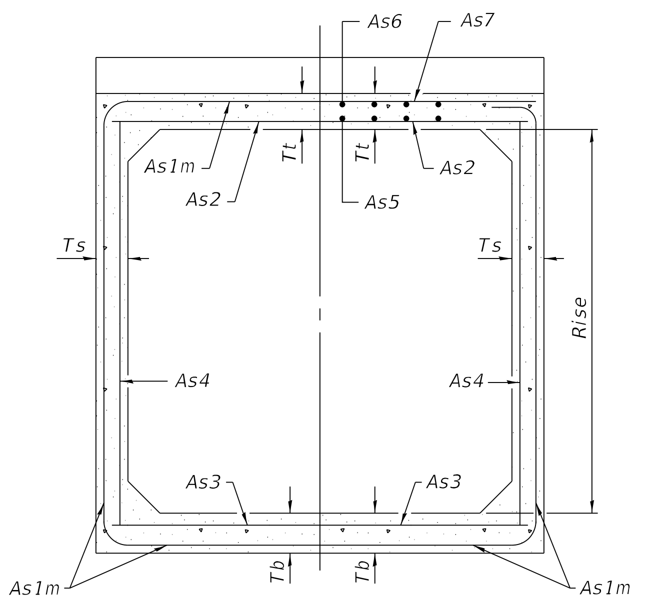
(Sheet 1 of 2)

STRAND ASSOCIATES 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = mfeller	DESIGNED - MAG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - DJW	REVISED -	
	PLOT SCALE = 0:2.0000 ' / in.	CHECKED - BMA	REVISED -	
	PLOT DATE = 8/17/2020	DATE -	REVISED -	

SINGLE CELL PRECAST BOX CULVERT TAPERED END SECTIONS
STA. 1272 + 74.74

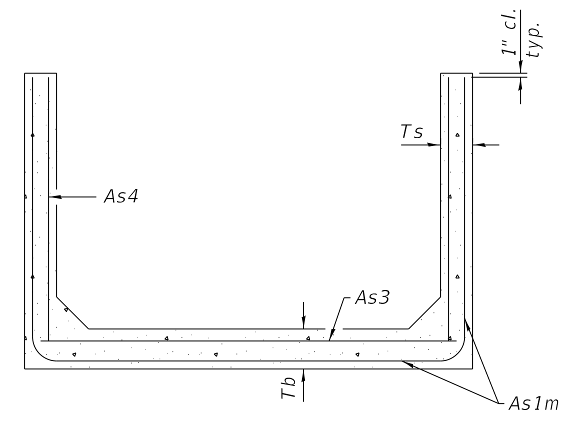
SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.U./F.A.S. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000/275	19-00153-00-BR	KENDALL	485	246
		CONTRACT NO. 87731		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		

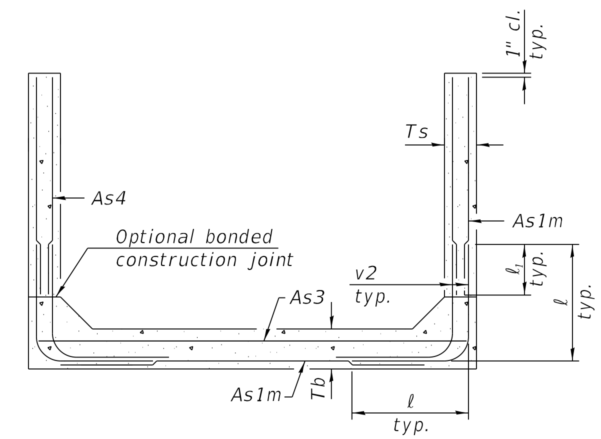


(Design Earth Cover ≥ 2 ft) (Design Earth Cover < 2 ft)

SECTION C-C



SECTION D-D



ALTERNATE SECTION D-D

As1m REINFORCEMENT

(in.²/ ft)

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

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

ℓ_1 DIMENSION

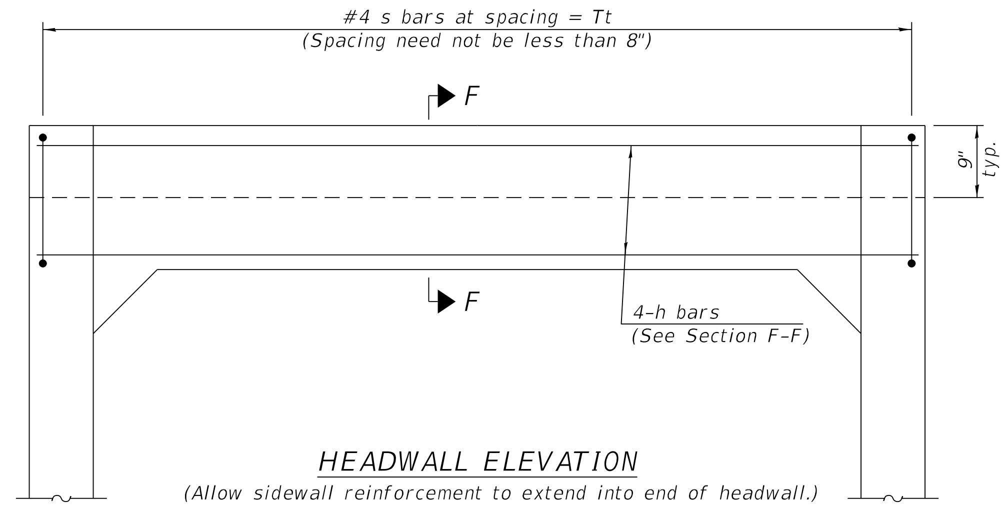
#3 bar = 2'-0"
#4 bar = 2'-8"
#5 bar = 3'-4"
#6 bar = 3'-11"

Notes:

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

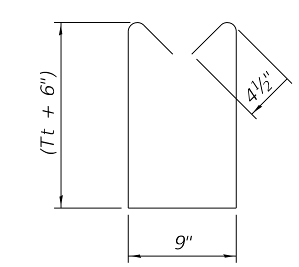
The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to 1.10*(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

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

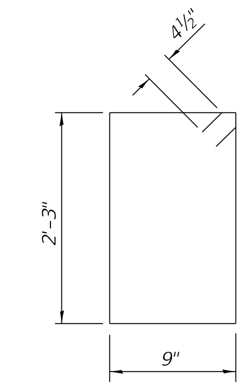


HEADWALL ELEVATION

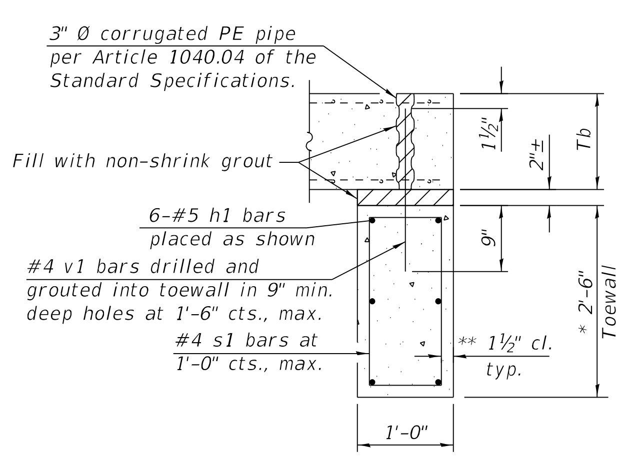
(Allow sidewall reinforcement to extend into end of headwall.)



BAR s



BAR s1



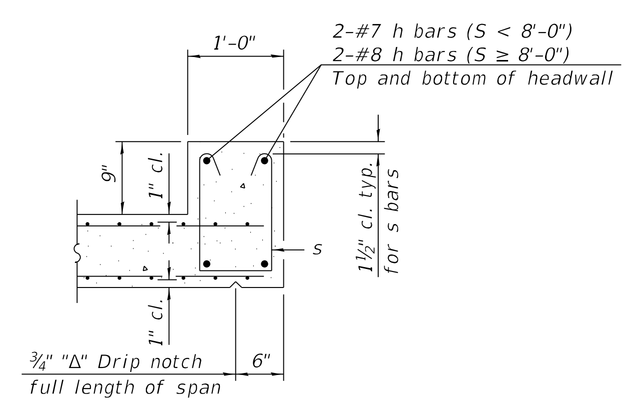
SECTION E-E

TOEWALL CONSTRUCTION SEQUENCE

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

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

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



SECTION F-F

SCB-TES 2-17-2017

(Sheet 2 of 2)

STRAND ASSOCIATES, 1170 SOUTH HOUBOLT ROAD, JOLIET, ILLINOIS 60431, (815) 744-4200	USER NAME = mfeller	DESIGNED - MAG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - DJW	REVISED -	
	PLOT SCALE = 0:2.0000 ' / in.	CHECKED - BMA	REVISED -	
	PLOT DATE = 8/17/2020	DATE -	REVISED -	

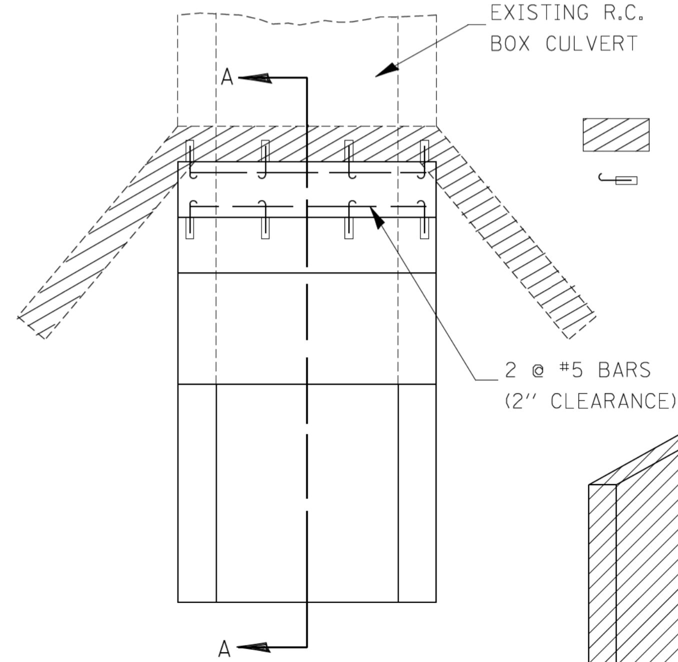
SINGLE CELL PRECAST BOX CULVERT TAPERED END SECTIONS
STA. 1272 + 74.74

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.U./F.A.S. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000/275	19-00153-00-BR	KENDALL	485	247

CONTRACT NO. 87731

FED. ROAD DIST. NO. 3 | ILLINOIS | FED. AID PROJECT

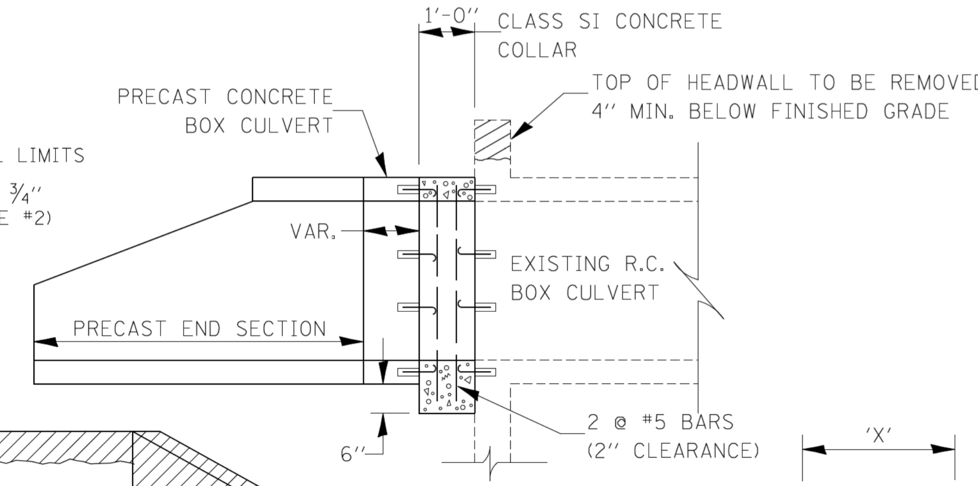


PLAN VIEW

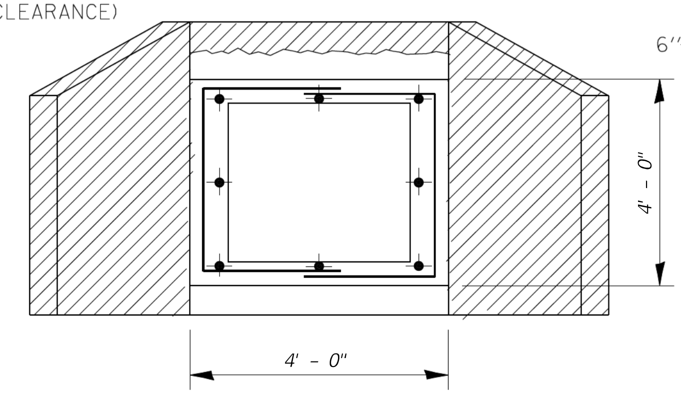
LEGEND

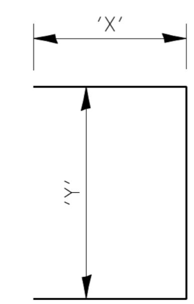
CONCRETE REMOVAL LIMITS

EXPANSION BOLTS, ¾''
(SEE GENERAL NOTE #2)



SECTION A-A





U-BAR

LOCATION	EXISTING CULVERT SIZE	PRECAST CULV. EXTENSION	U-BAR 'X'	U-BAR 'Y'	CONC. COLLAR	REINFORCEMENT BARS	¾'' DIA. EXPANSION BOLTS
Rte. 71	FT. x FT.	IN.	IN.	IN.	CU. YD.	POUND	EACH
1272+74.7	3x3	441	30	44	2.0	73.0	24

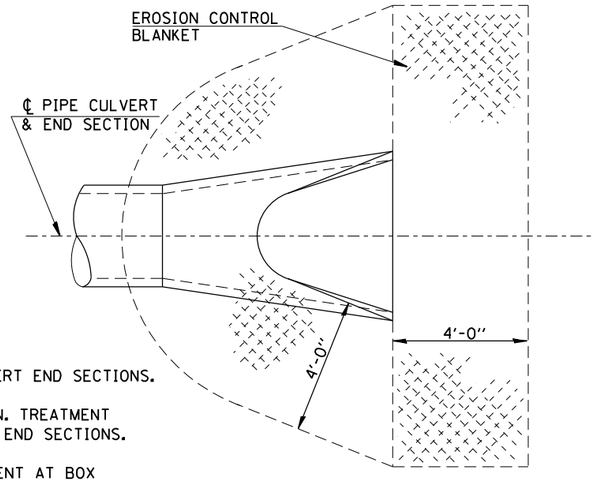
GENERAL NOTES

1.) CLASS SI CONCRETE SHALL BE USED THROUGHOUT. THE INSIDE DIMENSIONS OF THE CLASS SI CONCRETE COLLAR SHALL BE THE SAME AS THE NEW PRECAST CONCRETE BOX CULVERT.

2.) EXPANSION BOLTS SHALL CONSIST OF SELF DRILLING EXPANSION SHIELDS AND ¾'' HOOKED BOLTS. HOOKED BOLTS SHALL EXTEND A MINIMUM OF 9'' INTO NEW CONCRETE. BOLTS SHALL BE PLACED IN EACH CORNER AND AT 18'' MAXIMUM CENTERS. MINIMUM CERTIFIED PROOF LOADING = 4,080 LBS.

COLLAR DETAIL (PRECAST BOX CULVERT EXTENSION OF BOX CULVERT)

540–6

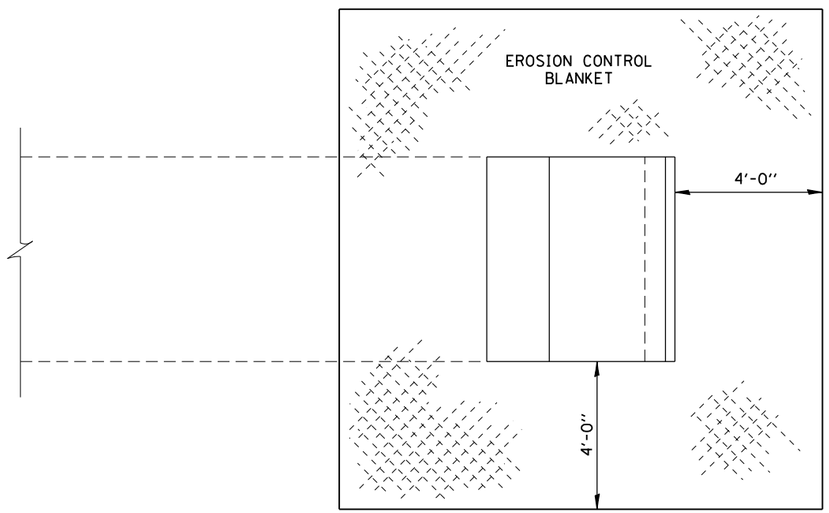


NOTES:
1. TO BE USED AT ALL PIPE CULVERT END SECTIONS.

2. PRC FLARED END SECTION SHOWN. TREATMENT SAME FOR OTHER PIPE CULVERT END SECTIONS.

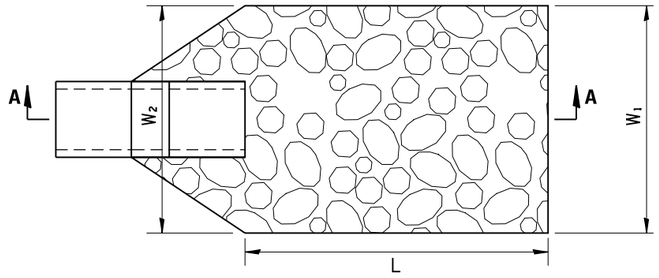
3. SEE DETAIL BELOW FOR TREATMENT AT BOX CULVERT END SECTIONS.

DETAIL OF EROSION CONTROL BLANKET LINING AROUND END SECTION

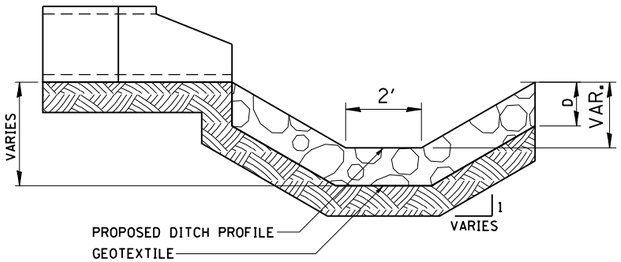


EROSION CONTROL BLANKET AT PRECAST BOX CULVERT END SECTIONS

RIPRAP OUTLET



PLAN



SECTION A–A

NOTES:
1. THE FILTER FABRIC SHALL MEET THE REQUIREMENTS IN MATERIAL SPECIFICATIONS 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, II OR III.

2. THE ROCK RIPRAP SHALL MEET THE IDOT REQUIREMENTS FOR THE GRADATION SPECIFIED ON THE EROSION CONTROL PLANS.

3. THE RIPRAP SHALL BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 61 LOOSE ROCK RIPRAP. THE ROCK MAY BE EQUIPMENT PLACED. DIMENSIONS SHOWN IN PLAN VIEW SHALL BE AS SPECIFIED ON THE EROSION CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

HRG PROJECT NO.: 8B3038
HRG PROJ CONTACT:
FILE NAME: 38B_det_0.dgn
PLOT DRIVER: IL_pdf_bw.prtcfg
PEN TABLE: plotlabel.tbl

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

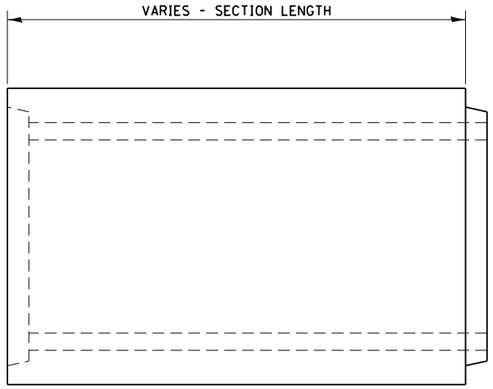
USER NAME = mfeller	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

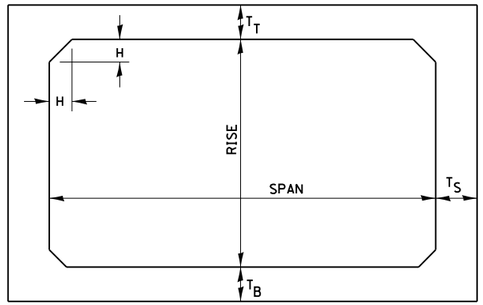
MISCELLANEOUS DETAILS
(SHEET 1 OF 8)

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	249
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION



NOTE:
THE HAUNCH DIMENSION H, IS EQUAL TO THE WALL THICKNESS T_S.

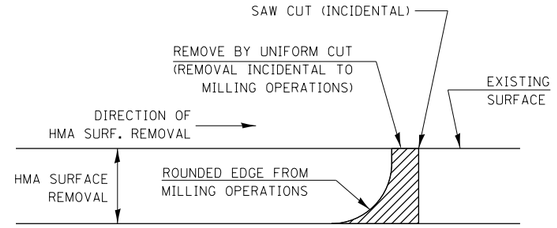
TYPICAL BOX SECTION

SPAN, FEET	T_T. INCHES		T_B. INCHES		T_S. INCHES	
	M 259	M 273	M 259	M 273	M 259	M 273
3	4	7	4	6	4	4
4	5	7½	5	6	5	5
5	6	8	6	7	6	6
6	7	8	7	7	7	7
7	8	8	8	8	8	8
8	8	8	8	8	8	8
9	9	9	9	9	9	9
10	10	10	10	10	10	10
11	11	11	11	11	11	11
12	12	12	12	12	12	12

TYPICAL THICKNESSES

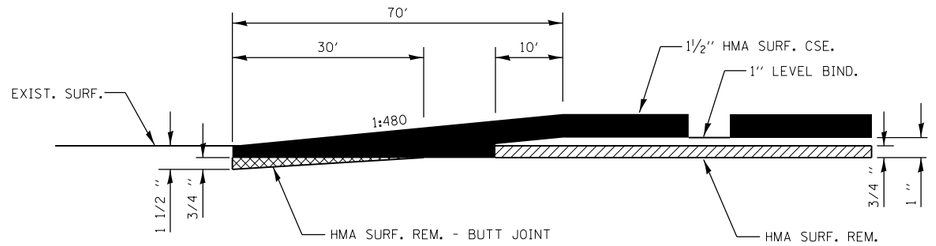
PRECAST CONCRETE BOX SECTION

NOTE:
MINIMUM COVER FOR BOX CULVERTS SHALL BE 6".



NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

HMA DETAIL AT BUTT JOINTS



HRG PROJECT NO. 88J038I
HRG PROJ. CONTACT:
FILE NAME: 38B_def-02.dgn
PLOT DRIVER: ilpdf_bw.prtcfg
PEN TABLE: plotlabel.tbl

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USER NAME = mfeller	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
(SHEET 2 OF 8)

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
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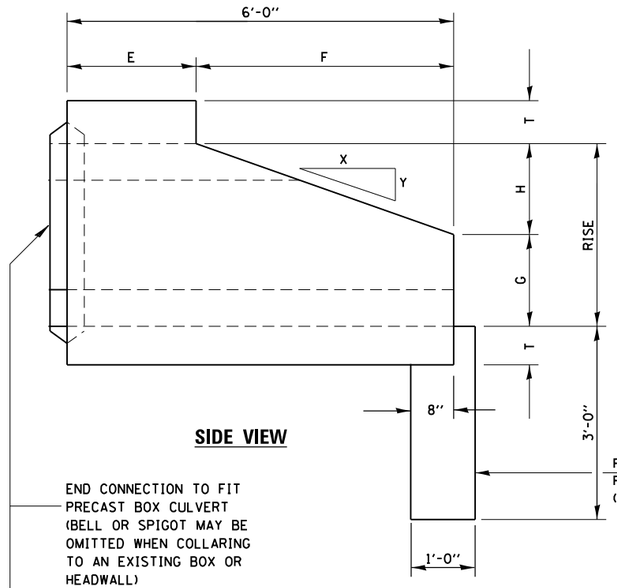
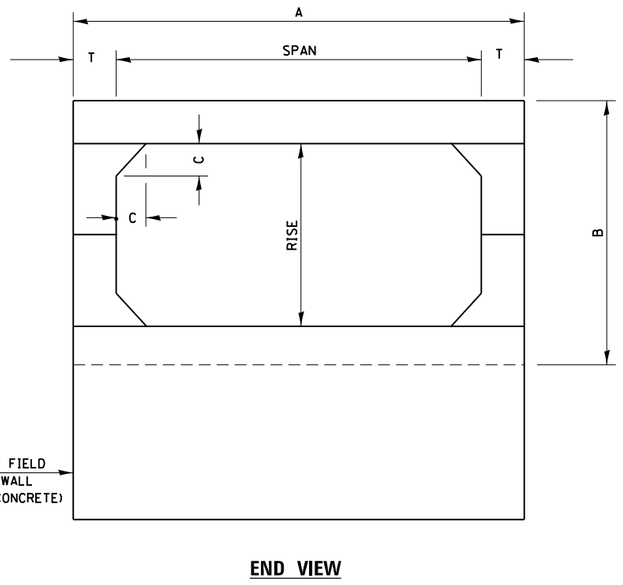
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

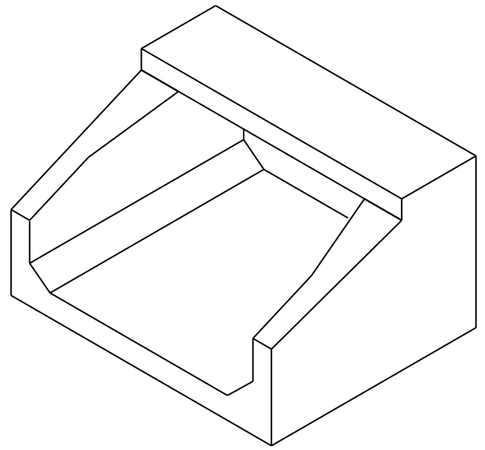


SIDE VIEW

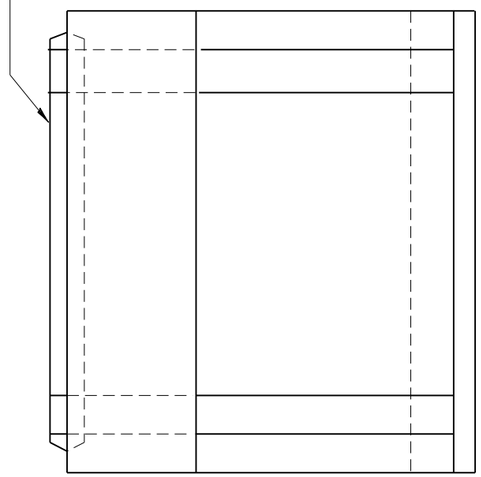
END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX OR HEADWALL)



END VIEW



ISOMETRIC VIEW



PLAN

SPAN X RISE	T (INCHES)	A (FT.-IN.)	B (FT.-IN.)	C (INCHES)	E (FT.-IN.)	F (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	SLOPE
2' X 2'	4	2 - 8	2 - 8	4	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
3' X 2'	4	3 - 8	2 - 8	4	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
3' X 3'	4	3 - 8	3 - 8	4	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
4' X 2'	5	4 - 10	2 - 10	5	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
4' X 3'	5	4 - 10	3 - 10	5	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
4' X 4'	5	4 - 10	4 - 10	5	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
5' X 2'	6	6 - 0	3 - 0	6	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
5' X 3'	6	6 - 0	4 - 0	6	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
5' X 4'	6	6 - 0	5 - 0	6	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
5' X 5'	6	6 - 0	6 - 0	6		4 - 0	3 - 0	2 - 0	2 : 1
6' X 2'	7	7 - 2	3 - 2	7	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
6' X 3'	7	7 - 2	4 - 2	7	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
6' X 4'	7	7 - 2	5 - 2	7	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
6' X 5'	7	7 - 2	6 - 2	7		4 - 0	3 - 0	2 - 0	2 : 1
7' X 3'	8	8 - 4	4 - 4	8		4 - 0	1 - 8	1 - 4	3 : 1
7' X 4'	8	8 - 4	5 - 4	8		4 - 0	2 - 0	2 - 0	2 : 1
7' X 5'	8	8 - 4	6 - 4	8		4 - 0	3 - 0	2 - 0	2 : 1
8' X 3'	8	9 - 4	4 - 4	8		4 - 0	1 - 8	1 - 4	3 : 1
8' X 4'	8	9 - 4	5 - 4	8		4 - 0	2 - 0	2 - 0	2 : 1
8' X 5'	8	9 - 4	6 - 4	8		4 - 0	3 - 0	2 - 0	2 : 1
9' X 3'	9	10 - 6	4 - 6	9		4 - 0	1 - 8	1 - 4	3 : 1
9' X 4'	9	10 - 6	5 - 6	9		4 - 0	2 - 0	2 - 0	2 : 1
9' X 5'	9	10 - 6	6 - 6	9		4 - 0	3 - 0	2 - 0	2 : 1
10' X 4'	10	11 - 8	5 - 9	10		4 - 0	2 - 0	2 - 0	2 : 1
10' X 5'	10	11 - 8	6 - 8	10		4 - 0	3 - 0	2 - 0	2 : 1

PRECAST CONCRETE BOX CULVERT END SECTION

HRG PROJECT NO.: 8B3038I
HRG PROJ. CONTACT:
FILE NAME: 38B_det_03.dgn
PLOT DRIVER: IL_pdf.bw.pltcfg
PEN TABLE: plotlabel.tbl

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USER NAME = mfeller	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
(SHEET 3 OF 8)

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
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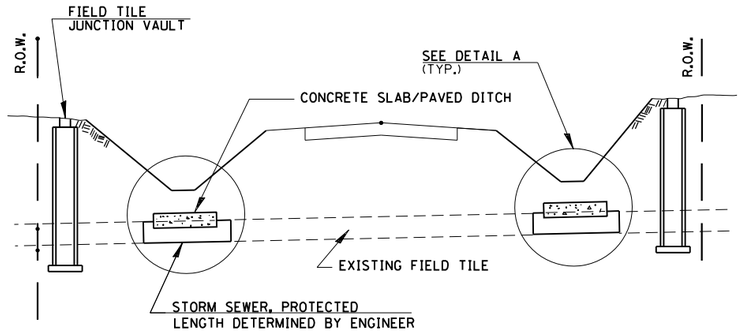
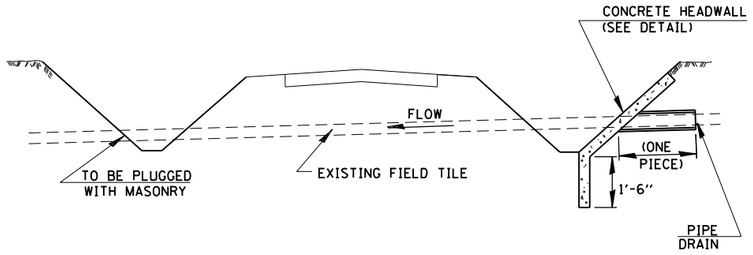
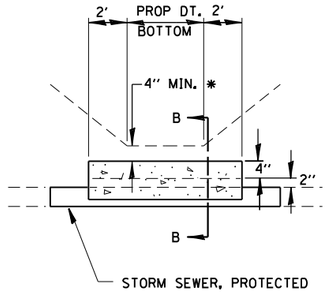
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





FIELD TILE REPLACEMENT

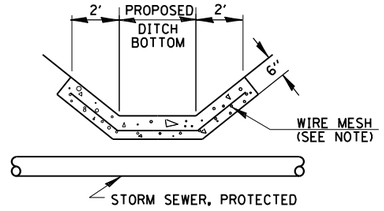


DETAIL A

NO SCALE

* IF A 4" COVER CAN NOT BE PROVIDED A PAVED DITCH SHALL BE CONSTRUCTED AS SHOWN IN DETAIL C.

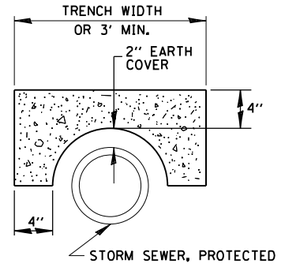
NOTES:
1. WIDTH OF CONCRETE SLAB SHALL BE THE SAME AS THE TRENCH WIDTH IN ACCORDANCE WITH SECTION 550 OF THE STD. SPECIFICATIONS, OR 3' MIN.
2. CONCRETE FOR SLAB, HEADWALL AND PAVED DITCH SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR "MISCELLANEOUS CONCRETE."
3. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58* PER 100 SQ. FT.



DETAIL C

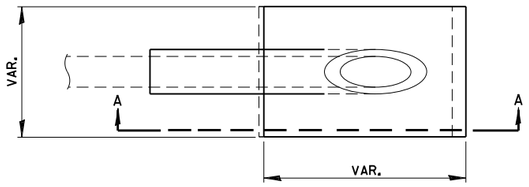
NO SCALE

ALTERNATE MATERIALS FOR WALLS	T
PRECAST REINFORCED CONCRETE RISERS	4"
CONCRETE MASONRY UNIT	5"
MONOLITHIC CONCRETE	6"
BUILDING BRICK, GRADE SW FROM CLAY OR SHALE	8"
CONCRETE BUILDING BRICK, GRADE A	8"

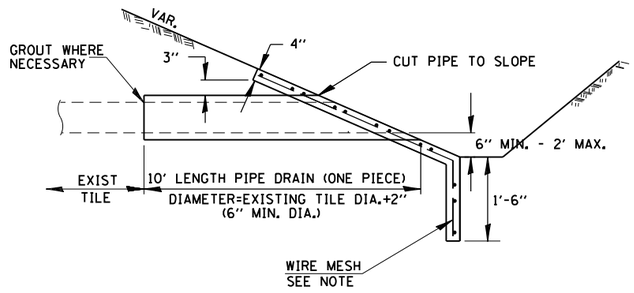


SECTION B–B

NOTES:
1. THE CONTRACT UNIT PRICE FOR FIELD TILE JUNCTION VAULT SHALL INCLUDE THE COST OF FURNISHING AND PLACING THE FRAME AND GRATE OR PRECAST CONCRETE LID AND WHEN REQUIRED, THE SAND CUSHION.
2. ALL FIELD TILE JUNCTION VAULTS SHALL BE 2'-0" IN DIAMETER UNLESS OTHERWISE NOTED ON THE PLANS.



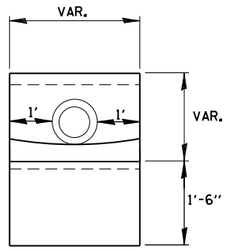
PLAN



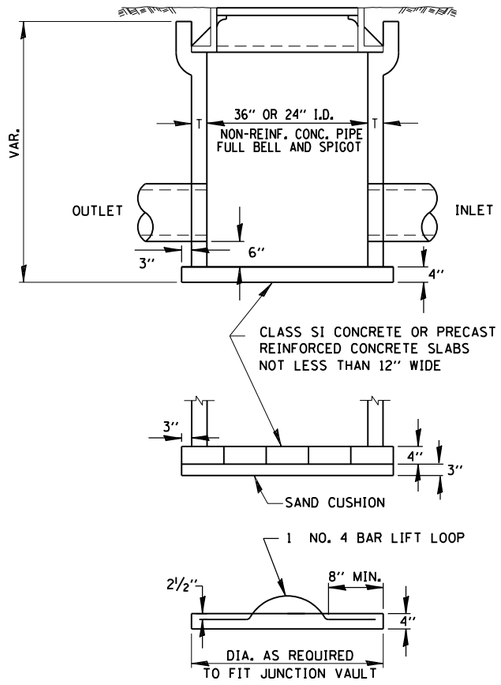
SECTION A–A

CLASS SI CONCRETE HEADWALLS

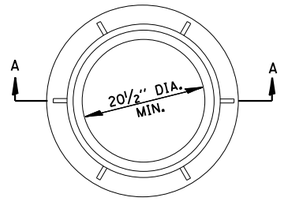
NOTES:
1. ANY STORM SEWER OR FIELD TILE OUTLET INTO A DITCH SHALL HAVE A HEADWALL BUILT IN ACCORDANCE WITH THIS DETAIL.
2. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58* PER 100 SQ. FT.



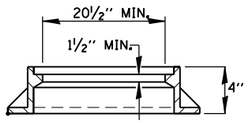
END VIEW



FIELD TILE JUNCTION VAULT



± 145°



SECTION A–A

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PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotdet.tbl

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USER NAME = mfeller	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
(SHEET 4 OF 8)

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
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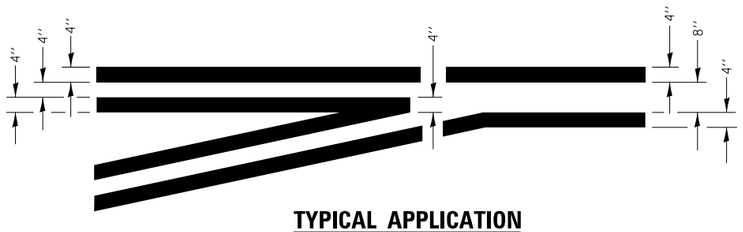
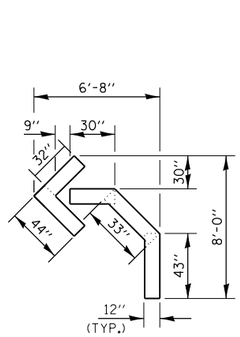
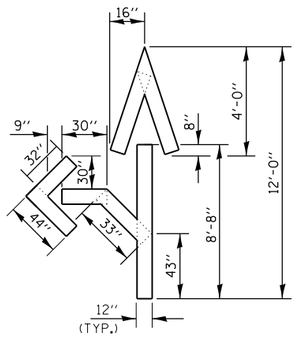
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



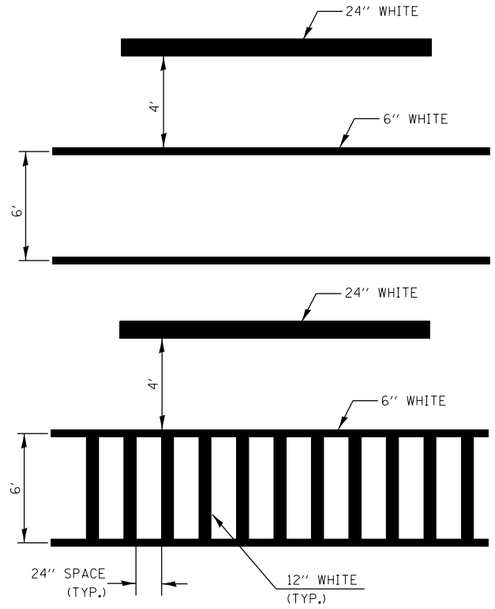
TYPICAL APPLICATION AT LEFT TURN LANES



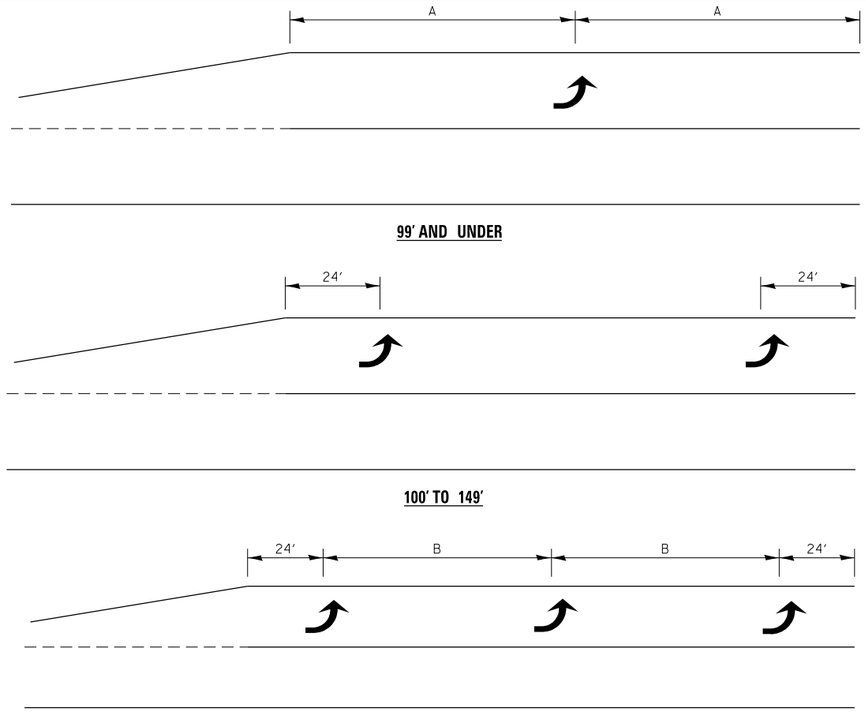
QUANTITY
12'' LINE = 16 LIN. FT.
OR 4'' LINE = 48 LIN. FT.



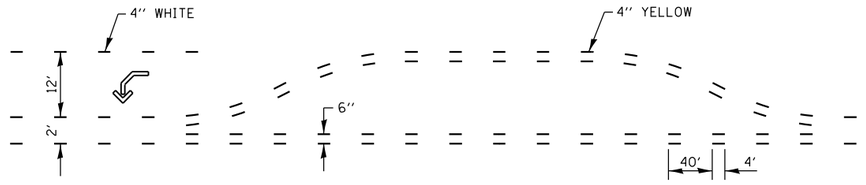
QUANTITY
12'' LINE = 29 LIN. FT.
OR 4'' LINE = 87 LIN. FT.



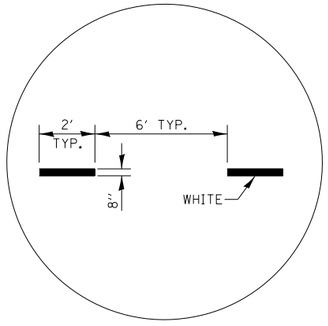
TYPICAL SPACING DETAIL FOR CROSSWALKS AND STOP BARS

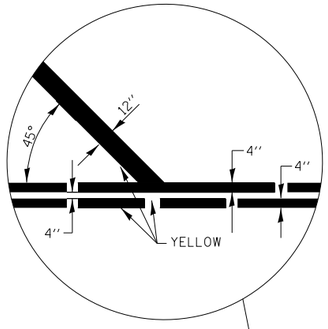


TYPICAL PLACEMENT OF ARROWS IN TURN LANES

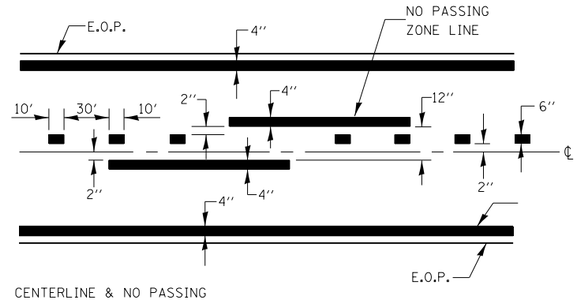


SHORT-TERM PAVEMENT MARKING FOR MEDIANS AND ARROWS



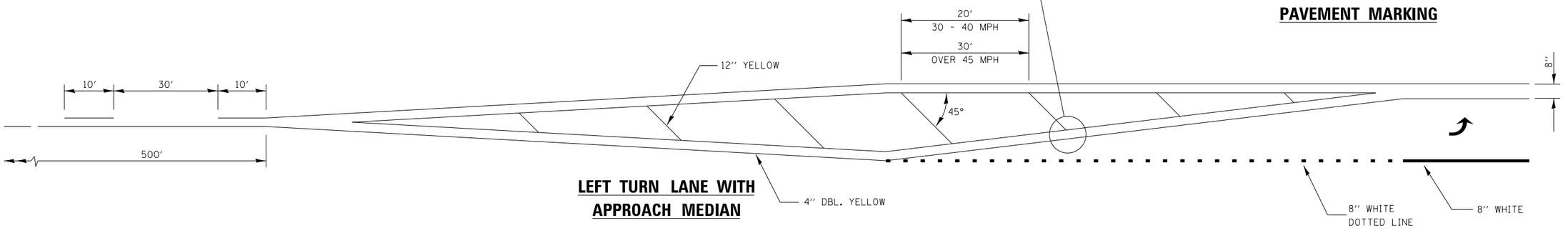


ADVANCE AND INTERSECTION LANE DIVIDER LINES



CENTERLINE & NO PASSING
ZONE LINES - YELLOW

PAVEMENT MARKING



LEFT TURN LANE WITH APPROACH MEDIAN

HRG PROJECT NO.: 88303B
HRG PROJ CONTACT:
FILE NAME: 38B_det_05.dgn
PLOT DRIVER: IL_pdf_bw.prc.fg
PEN TABLE: plotlabel.tbl

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USER NAME = mfeller	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
(SHEET 5 OF 8)

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
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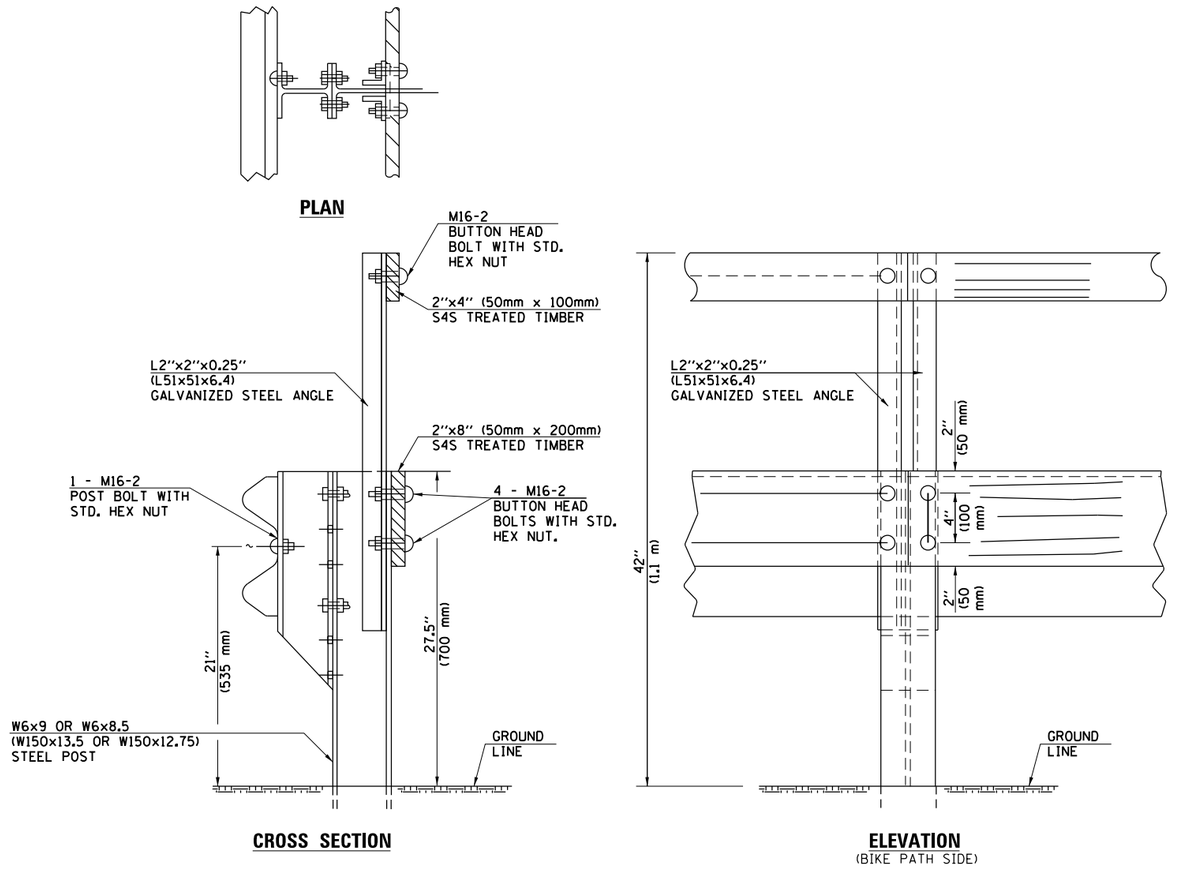
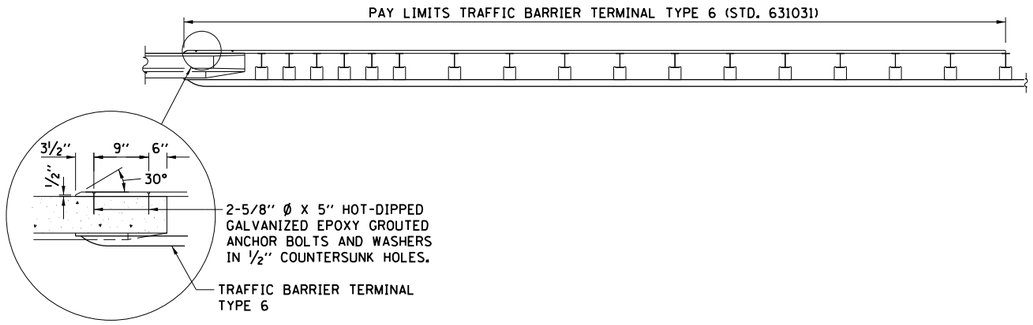
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





GUARDRAIL ADJUSTMENT ADJACENT TO MULTI–USE PATH

HRG PROJECT NO.: 8853038
HRG PROJ. CONTACT:
FILE NAME: 398_det_06.dgn
PLOT DRIVER: il_pdf_ow.pltcfg
PEN TABLE: plotlabel.tbl

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184-001322

USER NAME = mfeller	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
(SHEET 6 OF 8)

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
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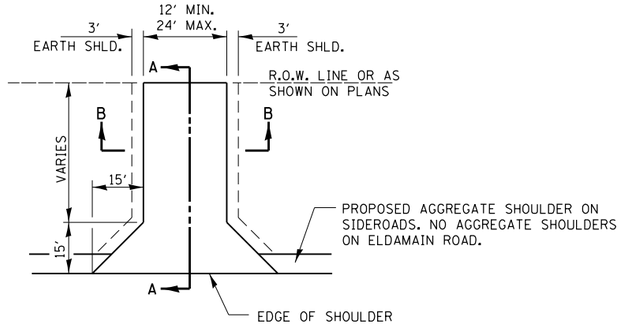
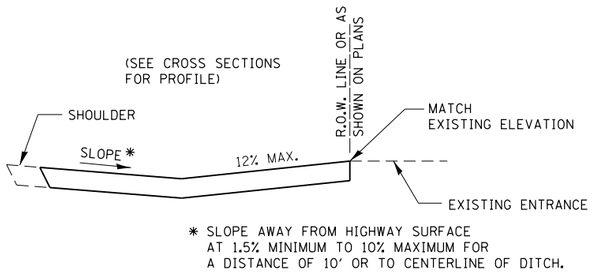
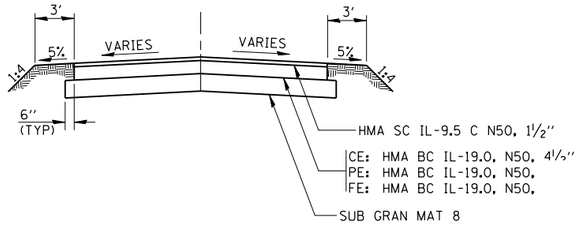
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



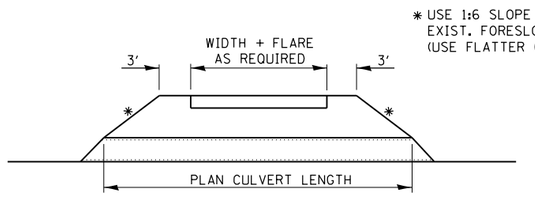


* SLOPE AWAY FROM HIGHWAY SURFACE
AT 1.5% MINIMUM TO 10% MAXIMUM FOR
A DISTANCE OF 10′ OR TO CENTERLINE OF DITCH.

SECTION A–A



SECTION B–B



NOTE:
FIELD ENTRANCES SHALL BE SURFACED FROM THE EDGE OF PAVEMENT TO THE END OF THE APRON. ALL OTHER DRIVEWAYS SHALL BE SURFACED FROM THE EDGE OF PAVEMENT TO THE RIGHT OF WAY LINE.

ENTRANCE DETAIL

HRG PROJECT NO.: 8B1038
HRG PROJ. CONTACT:
FILE NAME: 38B_det_07.dgn
PLOT DRIVER: IL_pdf.bw.pltcfg
PEN TABLE: plotlabel.tbl

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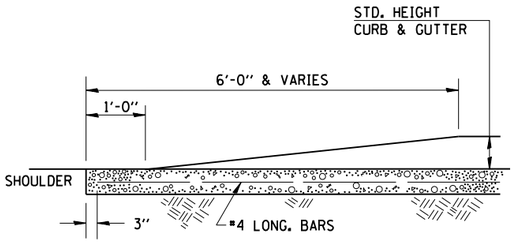
USER NAME = mfeller	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

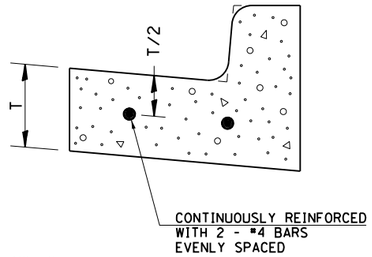
MISCELLANEOUS DETAILS
(SHEET 7 OF 8)

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	255
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



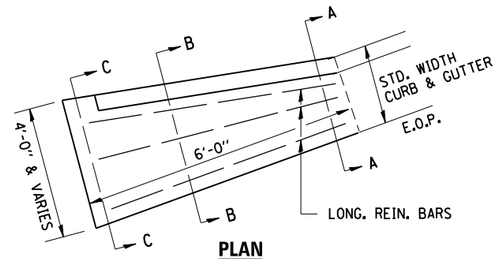
CURB DETAIL



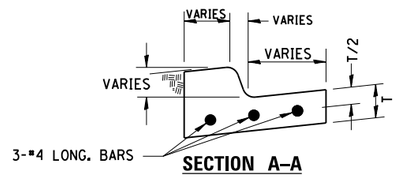
NOTES:
1. REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CC&G.

2. ABOVE CC&G DETAIL ALSO APPLIES TO MOUNTABLE CURB AND GUTTER.

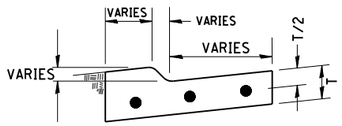
REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12



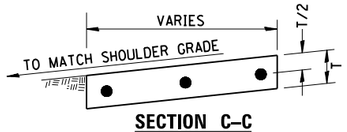
PLAN



SECTION A-A



SECTION B-B

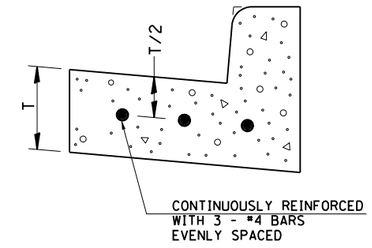


SECTION C-C

NOTES:
1. CONCRETE CURB AND GUTTER OUTLET, SPECIAL WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE MEASURED AND PAID FOR AS COMBINATION CONCRETE CURB AND GUTTER, OF THE ADJACENT TYPE SPECIFIED IN THE PLANS.

2. WHEN ADJACENT TO COMBINATION CONCRETE CURB AND GUTTER, TYPE M4.12, TWO EVENLY SPACED LONGITUDINAL REINFORCEMENT BARS SHALL BE REQUIRED INSTEAD OF THREE. SEE PLAN AND PROFILES FOR LOCATIONS OF SPECIFIC CURB TYPES.

CONCRETE CURB AND GUTTER OUTLET, SPECIAL



NOTES:
1. REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CC&G.

2. ABOVE CC&G DETAIL ALSO APPLIES TO TYPE M (MODIFIED) CURB AND GUTTER.

REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.24

HRG PROJECT NO.: RB3038
HRG PROJ CONTACT:
FILE NAME: 38B_det_08.dgn
PLOT DRIVER: IL_pdf_bw.prtcfg
PEN TABLE: plotlabel.tbl

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USER NAME = mfeller	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 8/17/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
(SHEET 8 OF 8)

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	256
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780
775
770
765
760

PR ROW

240 + 79.00

240 + 50.00

240 + 00.00

ELDAMAIN ROAD

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

BY	DATE

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

BY	DATE

HRG PROJECT NO.: 8B3038
HRG PROJ. CONTACT: 388_xssn10_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

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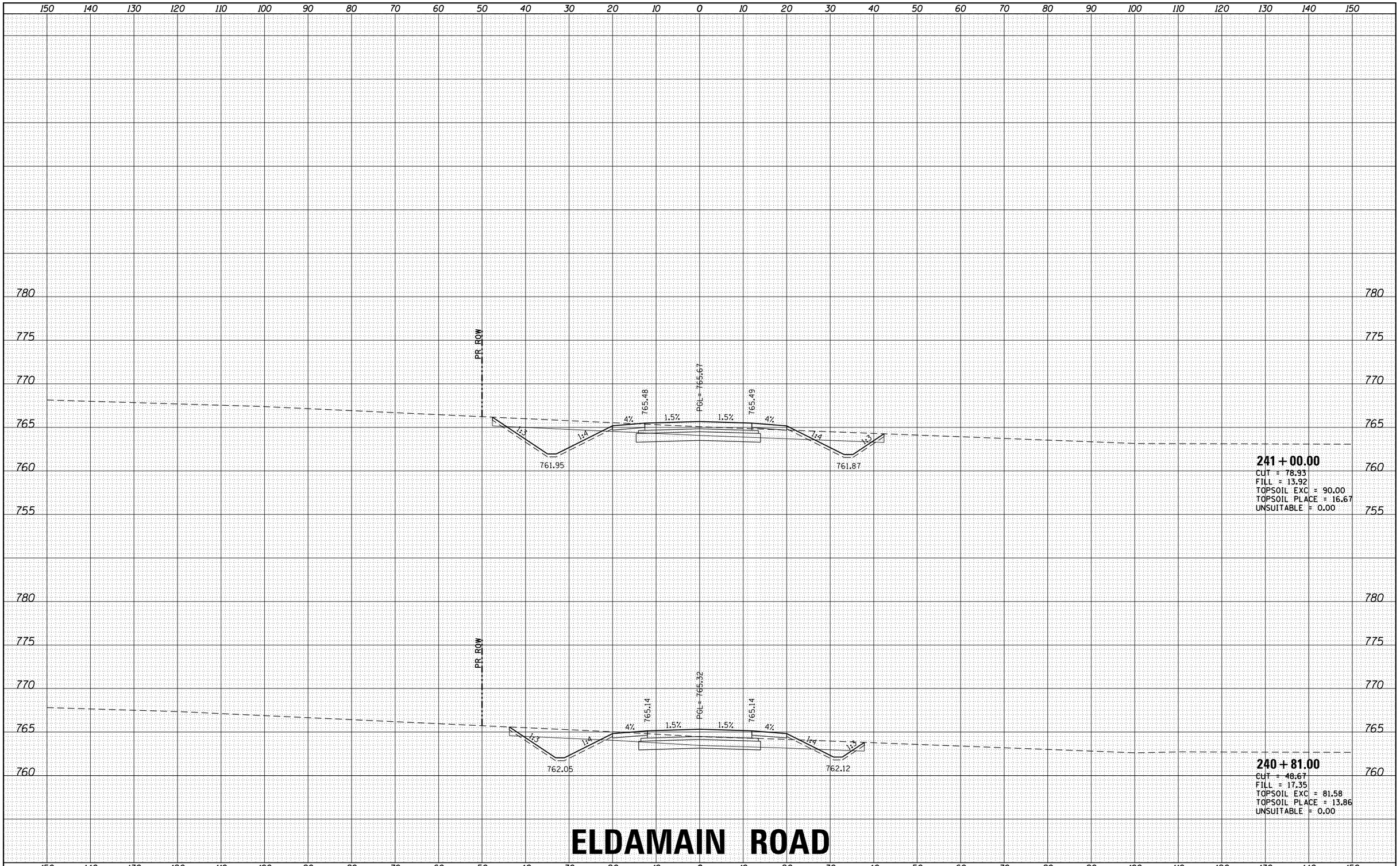
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 240+00.00 TO STA. 240+79.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	257
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

HRG PROJECT NO.: 8B3038I
HRG PROJ. CONTACT:
FILE NAME: 38B_xssht01_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 240+81.00 TO STA. 241+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	258
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

BY	DATE

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

BY	DATE

HRG PROJECT NO.: 8B3038
HRG PROJ.CONTACT: 388_xssht01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

780 775 770 765 760 755

SEE INTERSECTION SHEET FOR FINAL GRADING

SEE INTERSECTION SHEET FOR FINAL GRADING

PGL = 766.44

1.5% 1.5%

242 + 50.00
CUT = 0.00
FILL = 10.69
TOPSOIL EXC = 0.00
TOPSOIL PLACE = 0.00
UNSUITABLE = 0.00

SEE INTERSECTION SHEET FOR FINAL GRADING

SEE INTERSECTION SHEET FOR FINAL GRADING

PGL = 766.59

1.5% 1.5%

242 + 00.00
CUT = 23.80
FILL = 0.10
TOPSOIL EXC = 26.10
TOPSOIL PLACE = 0.00
UNSUITABLE = 0.00

PR ROW

766.03 PGL = 766.33 766.14

4% 1.5% 1.5% 4%

1:3 1:4 1:4 1:3

761.70 761.20

241 + 50.00
CUT = 74.26
FILL = 27.17
TOPSOIL EXC = 103.79
TOPSOIL PLACE = 13.89
UNSUITABLE = 0.00

ELDAMAIN ROAD

USER NAME = rbest	DESIGNED - JMR	REVISED -	
	DRAWN - RCB	REVISED -	
PLOT SCALE =	CHECKED - APS	REVISED -	
PLOT DATE = 6/29/2020	DATE -	REVISED -	

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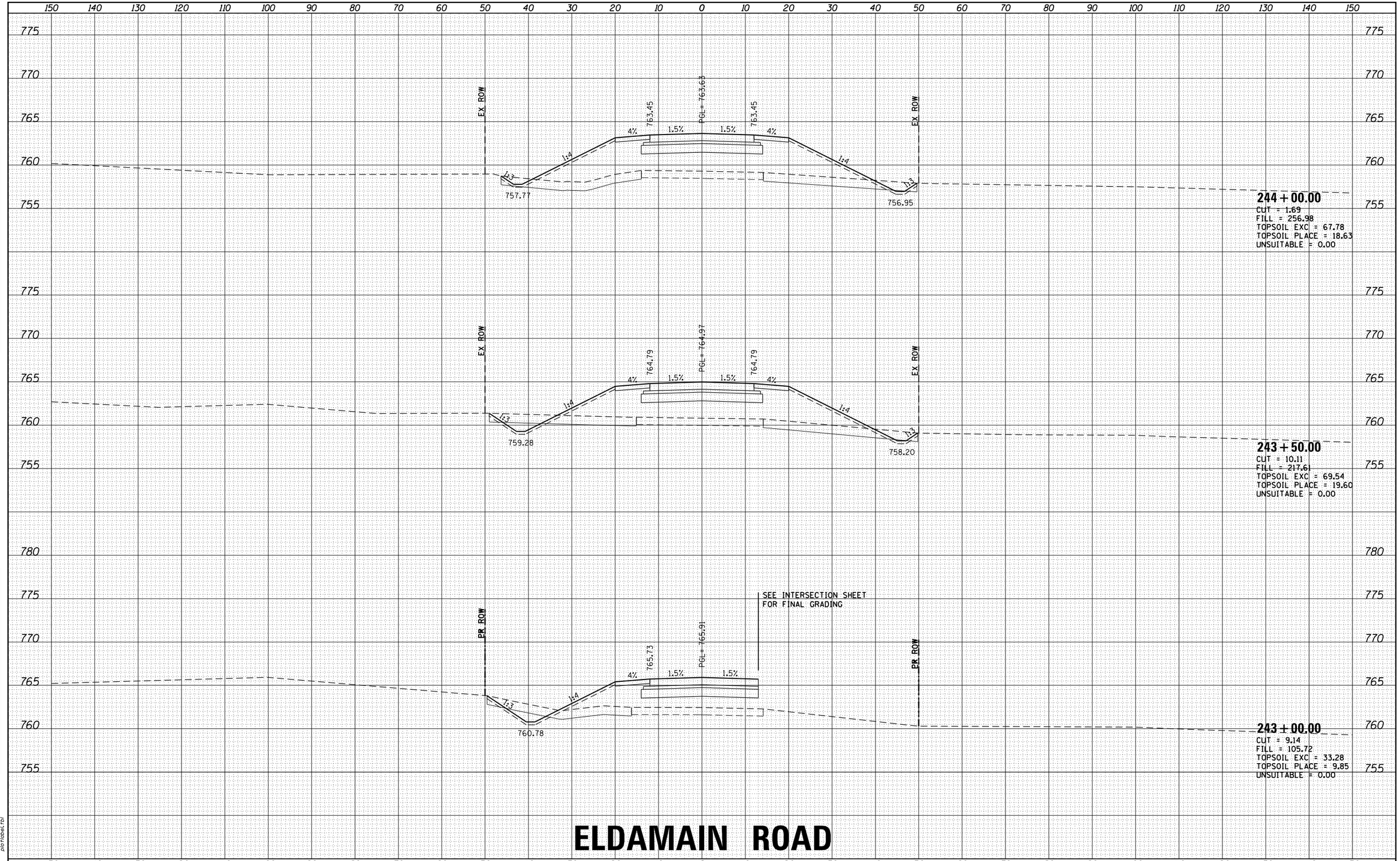
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 241+50.00 TO STA. 242+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	259
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 38B_xssh10_eldamain.dgn
FILE NAME: IL_pdf_bw_plt.cfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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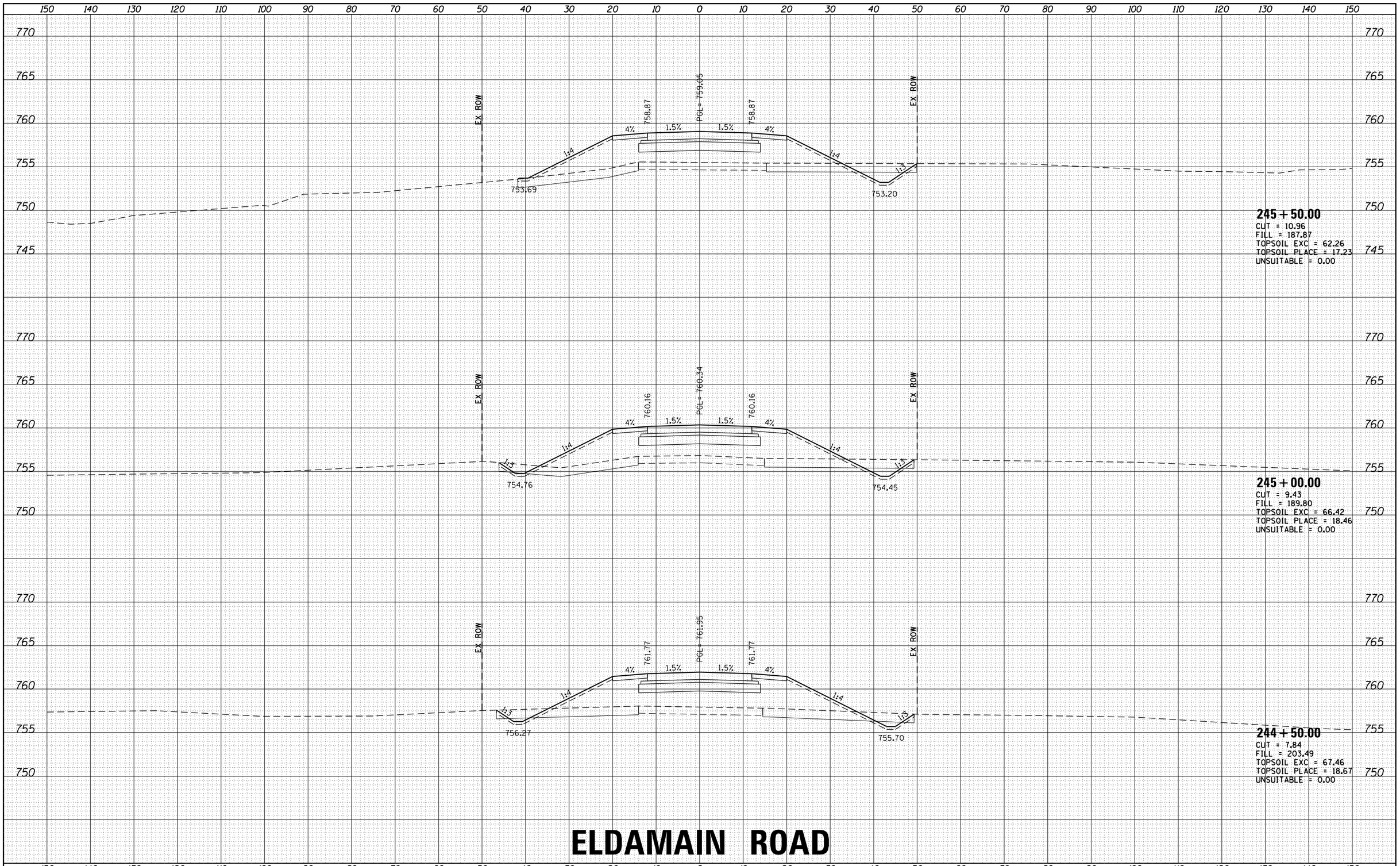
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 243+00.00 TO STA. 244+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	260
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 388_xsshl01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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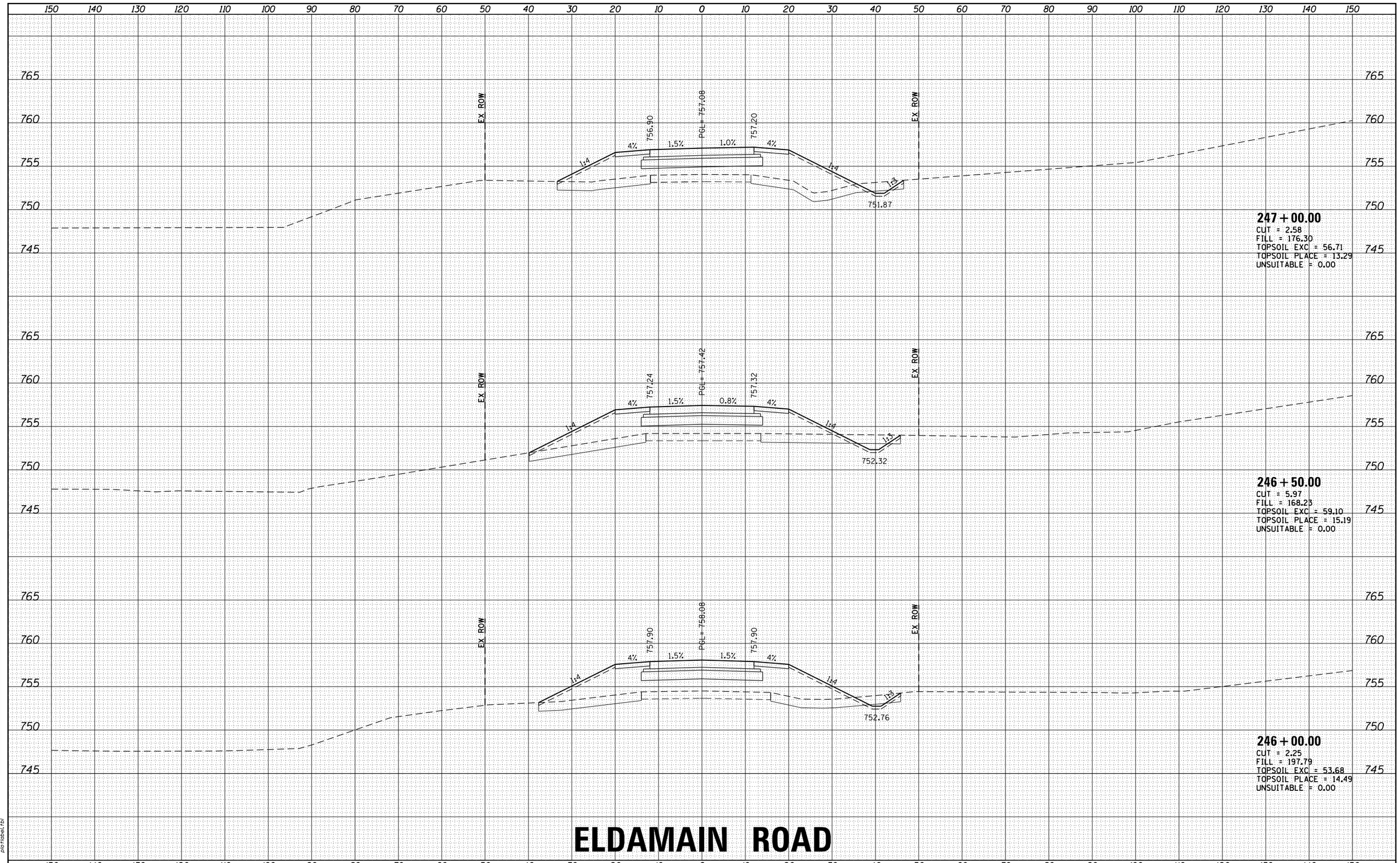
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 244+50.00 TO STA. 245+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	261
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

FINAL SURVEY	
NOTE BOOK	
NO.	

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	
NOTE BOOK	
NO.	

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 388_xsshl01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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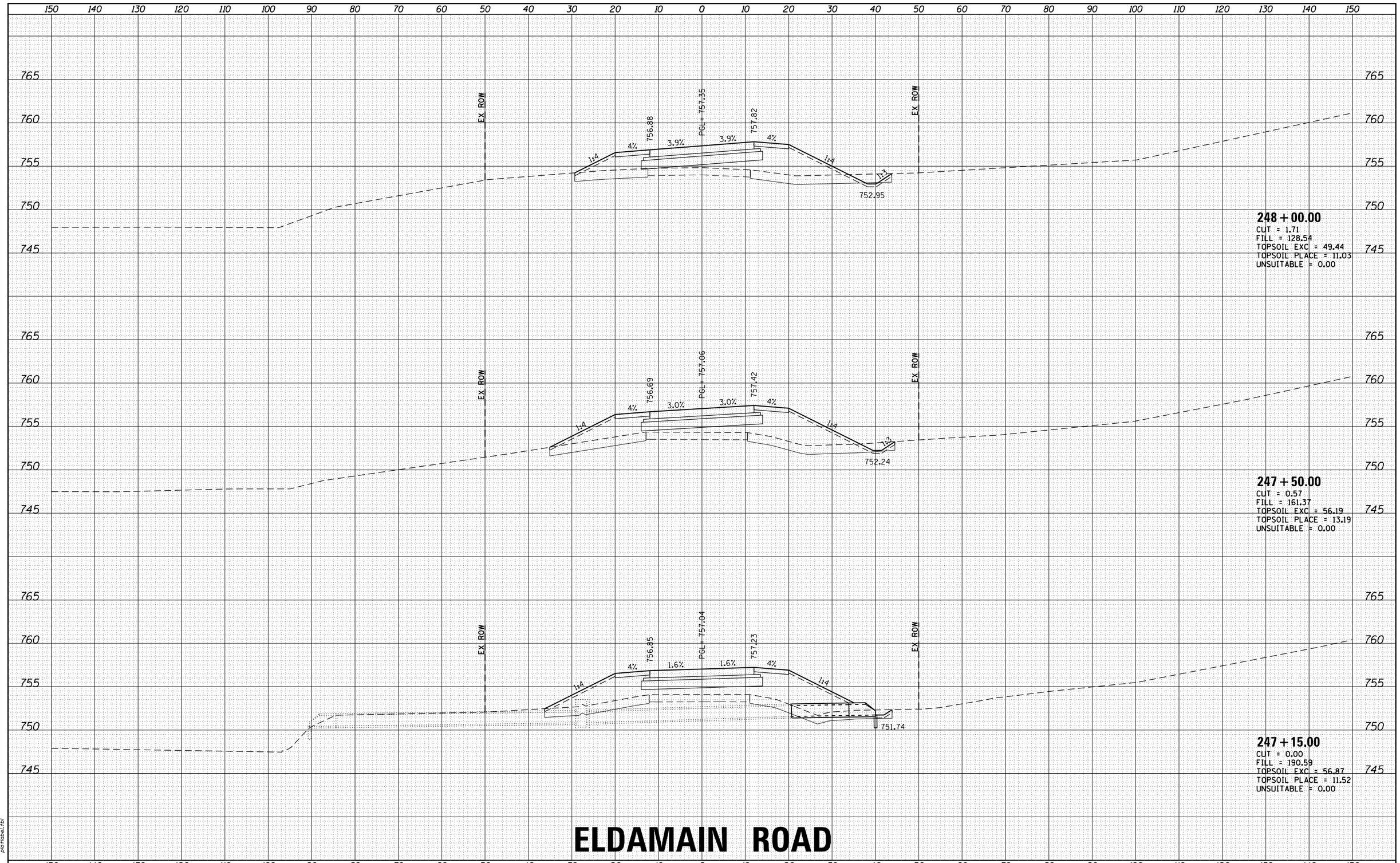
USER NAME = rbest	DESIGNED - JMR	REVISED -	
	DRAWN - RCB	REVISED -	
PLOT SCALE =	CHECKED - APS	REVISED -	
PLOT DATE = 6/29/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 246+00.00 TO STA. 247+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	262
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

FINAL SURVEY	NOTE BOOK	NO.	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY	NOTE BOOK	NO.	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 388_xsshl01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

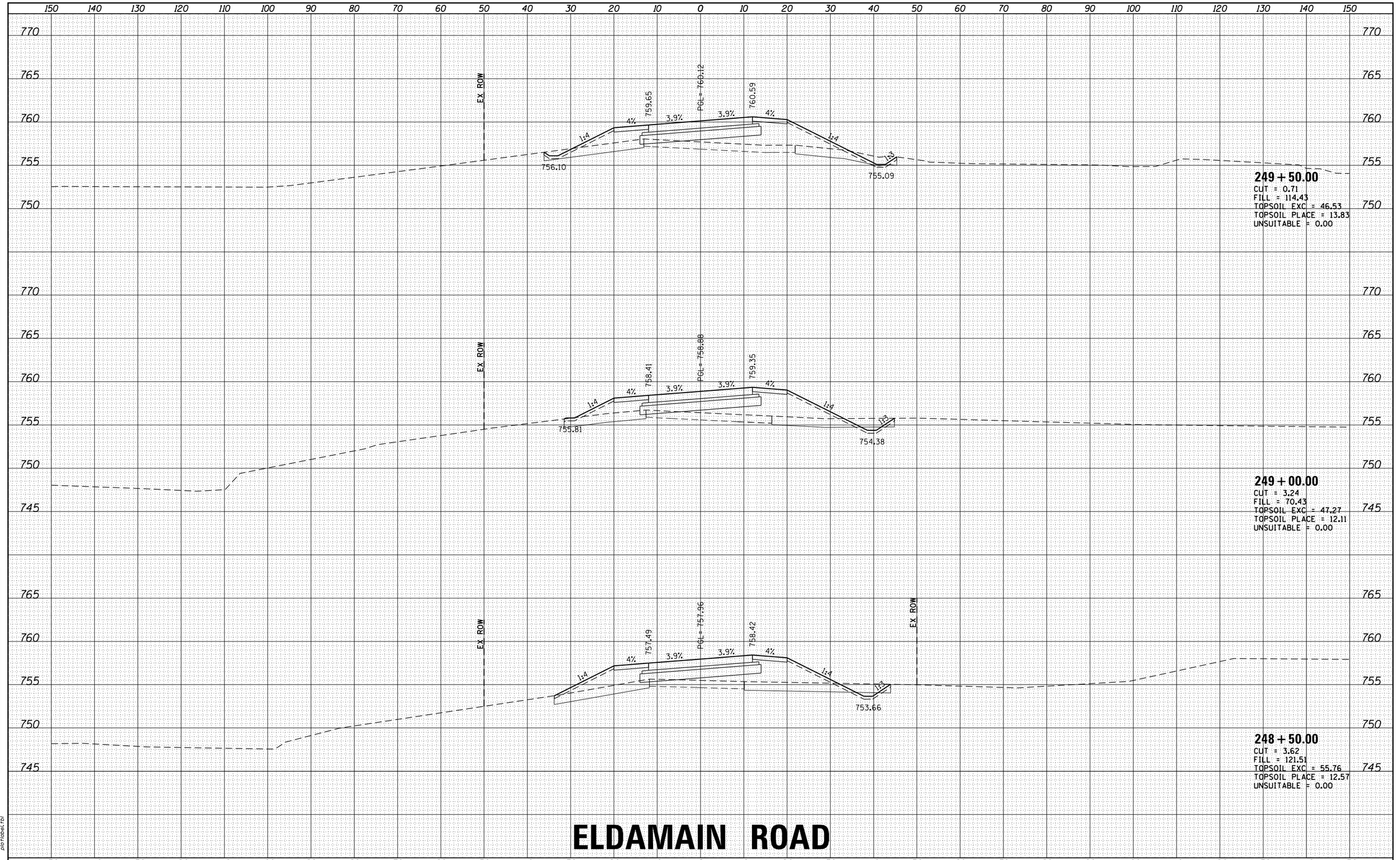
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 247+15.00 TO STA. 248+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	263
		CONTRACT NO. 87731		

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



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 38B_xsshi01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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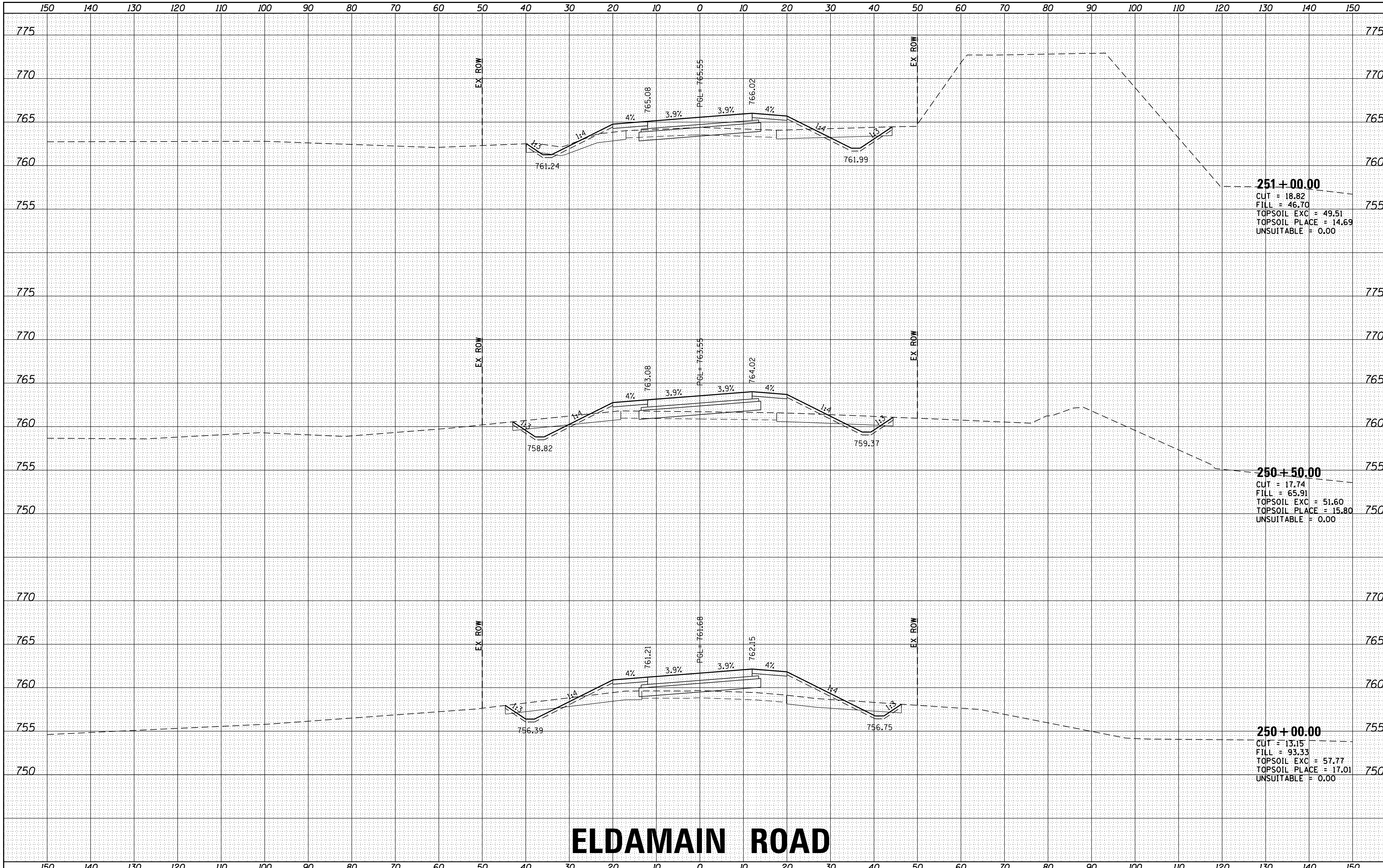
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 248+50.00 TO STA. 249+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	264
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT:
FILE NAME: 388_xssht01_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: pentabel.tbl

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USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

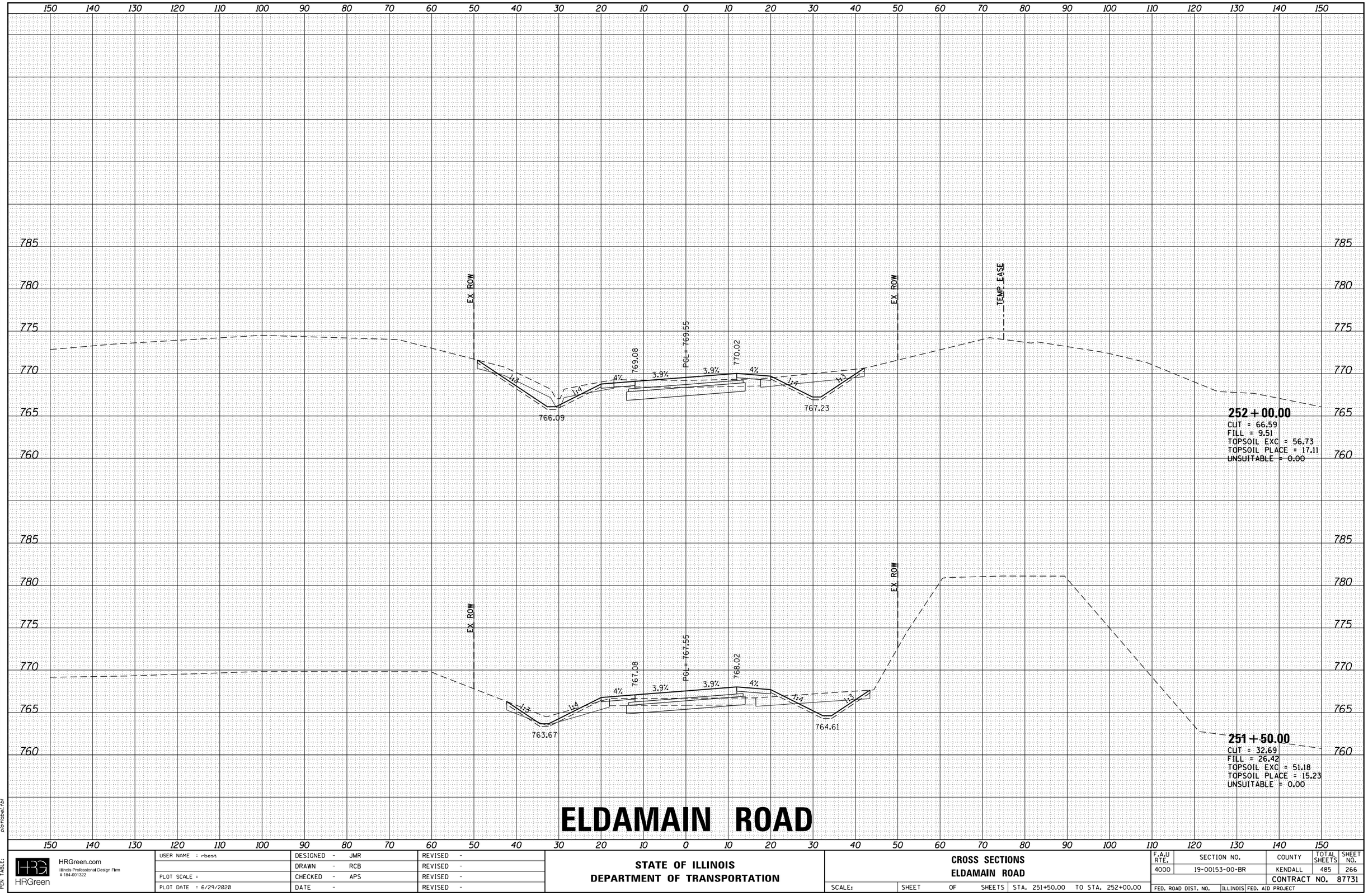
CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 250+00.00 TO STA. 251+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	265

CONTRACT NO. 87731

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



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

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

HRG PROJECT NO.: 8830381
HRG PROJ.CONTACT:
FILE NAME: 38B_xsshtOl_eldamain.dgn
PLOT DRIVER: IL_pdf_bw_plt.cfg
PEN TABLE: plotlabl.tbl

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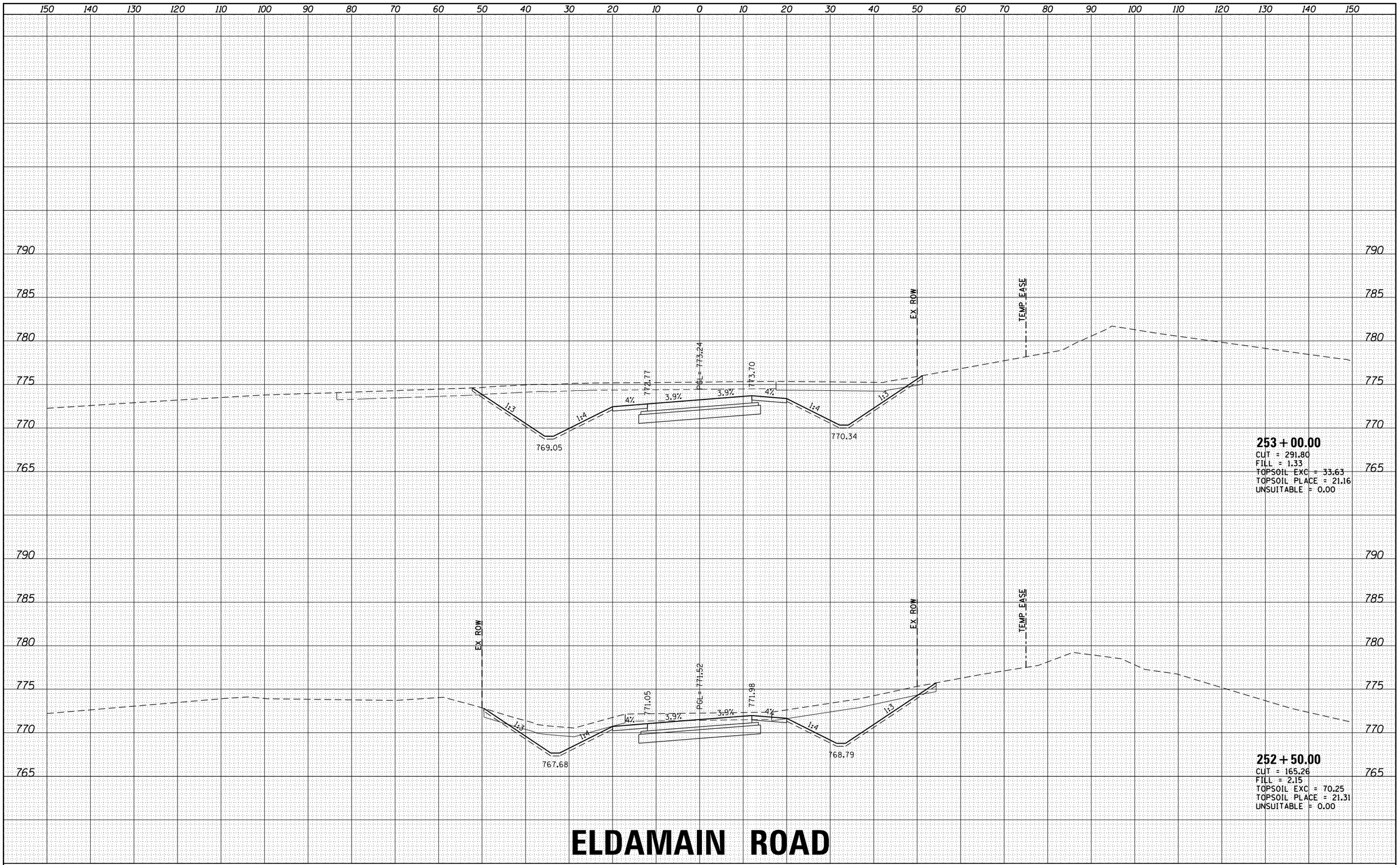
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 251+50.00 TO STA. 252+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	266
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 38B_xssh10i_eldamain.dgn
FILE NAME: il_pdf_bw.pltcfg
PLOT DRIVER: platlabel.tbl
PEN TABLE:

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

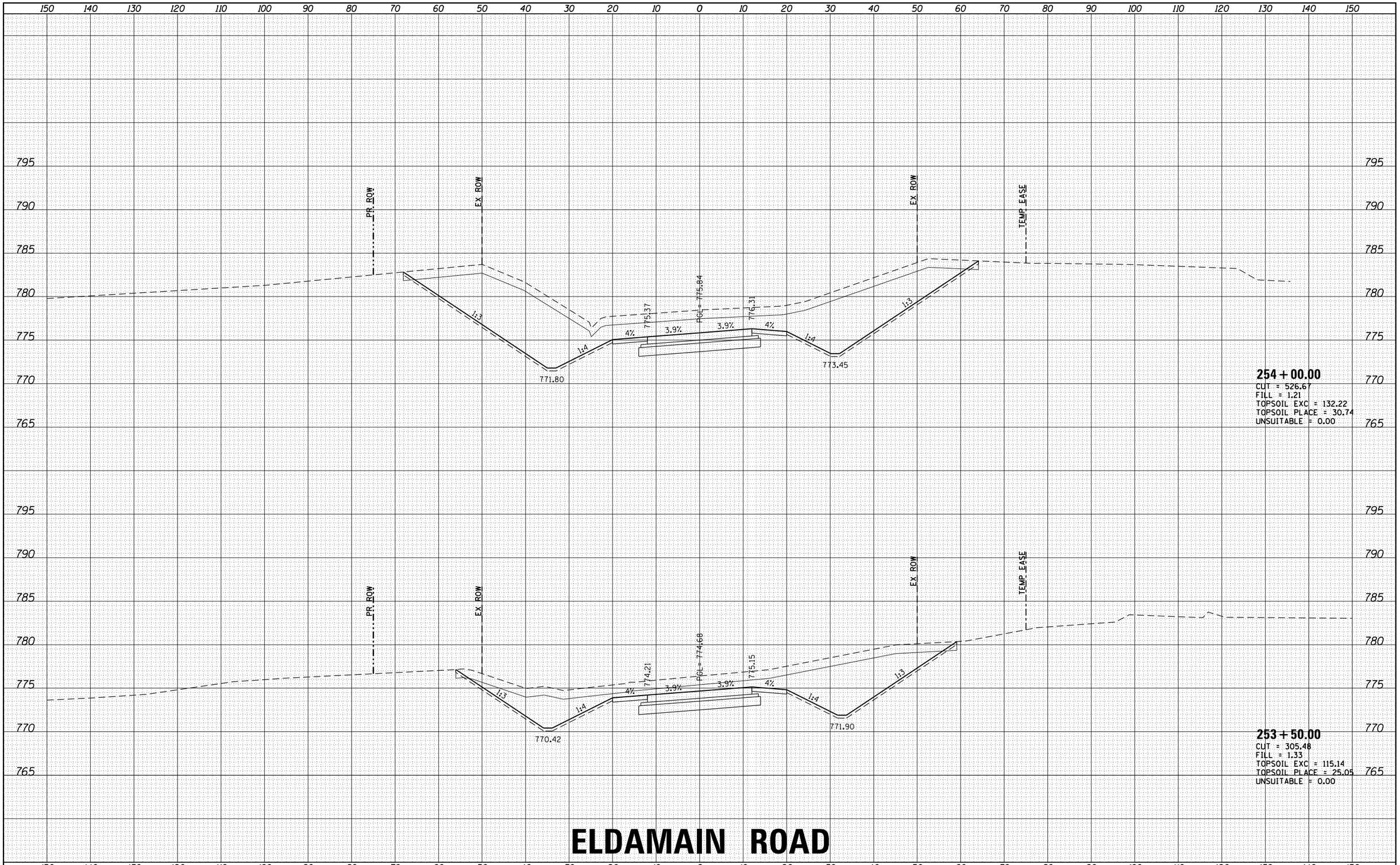
USER NAME = rbest	DESIGNED - JMR	REVISED -	
	DRAWN - RCB	REVISED -	
PLOT SCALE =	CHECKED - APS	REVISED -	
PLOT DATE = 6/29/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 252+50.00 TO STA. 253+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	267
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

FINAL SURVEY

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

ORIGINAL SURVEY

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

HRG PROJECT NO.: 88150381
HRG PROJ. CONTACT:
FILE NAME: 38@_xssh10_eldamain.dgn
PLOT DRIVER: IL_pdf_Bw.pltcfg
PEN TABLE: plotlabel.tbl

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HRGreen.com
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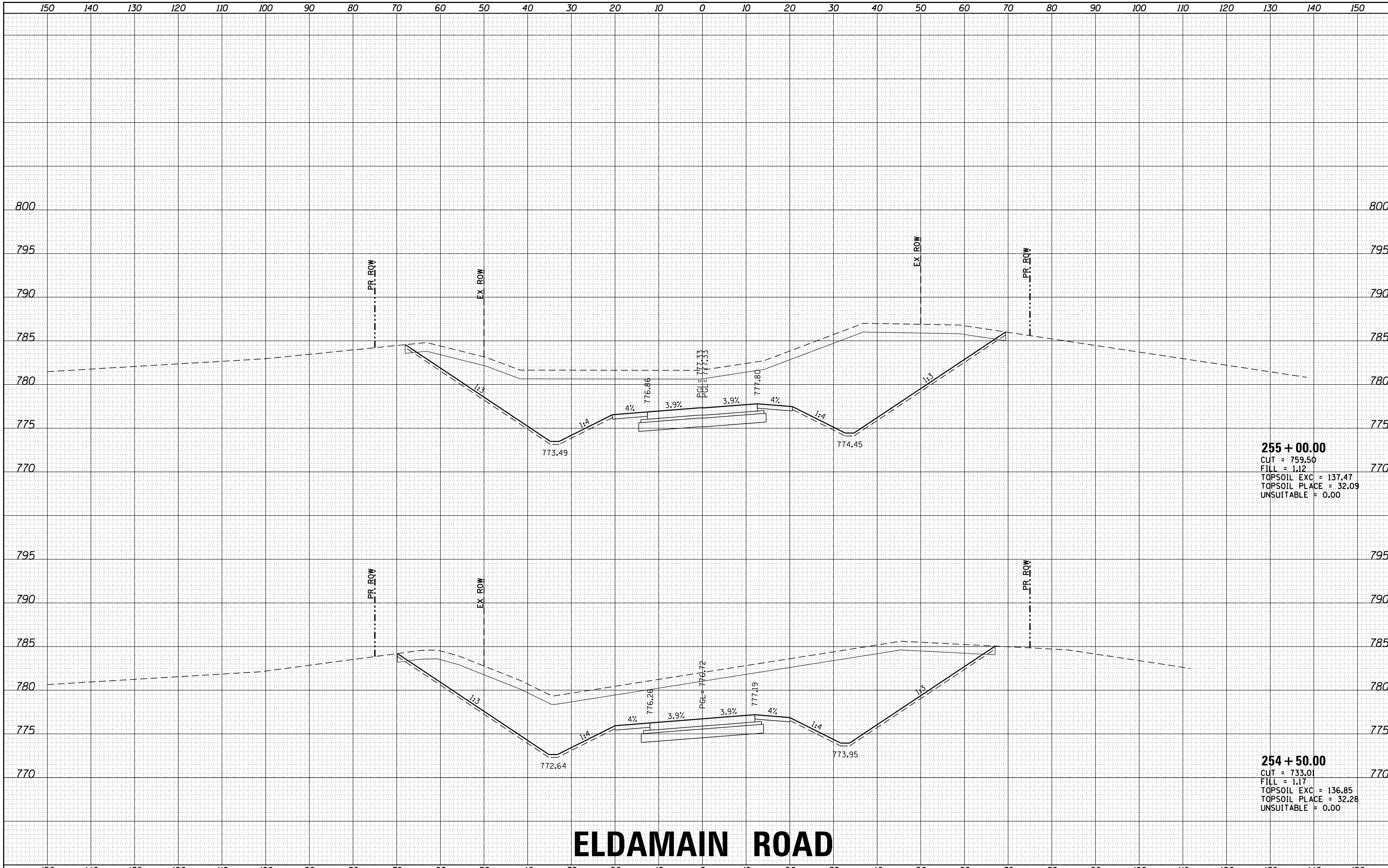
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 253+50.00 TO STA. 254+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	268
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

HRG PROJECT NO.: 8813038I
HRG PROJ. CONTACT:
FILE NAME: 388_xsshr01_eldamain.dgn
PLOT DRIVER: IL_pdf.bw.pltcfg
PEN TABLE: pentable.tbl

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Illinois Professional Design Firm
184-001322
HRGreen

USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

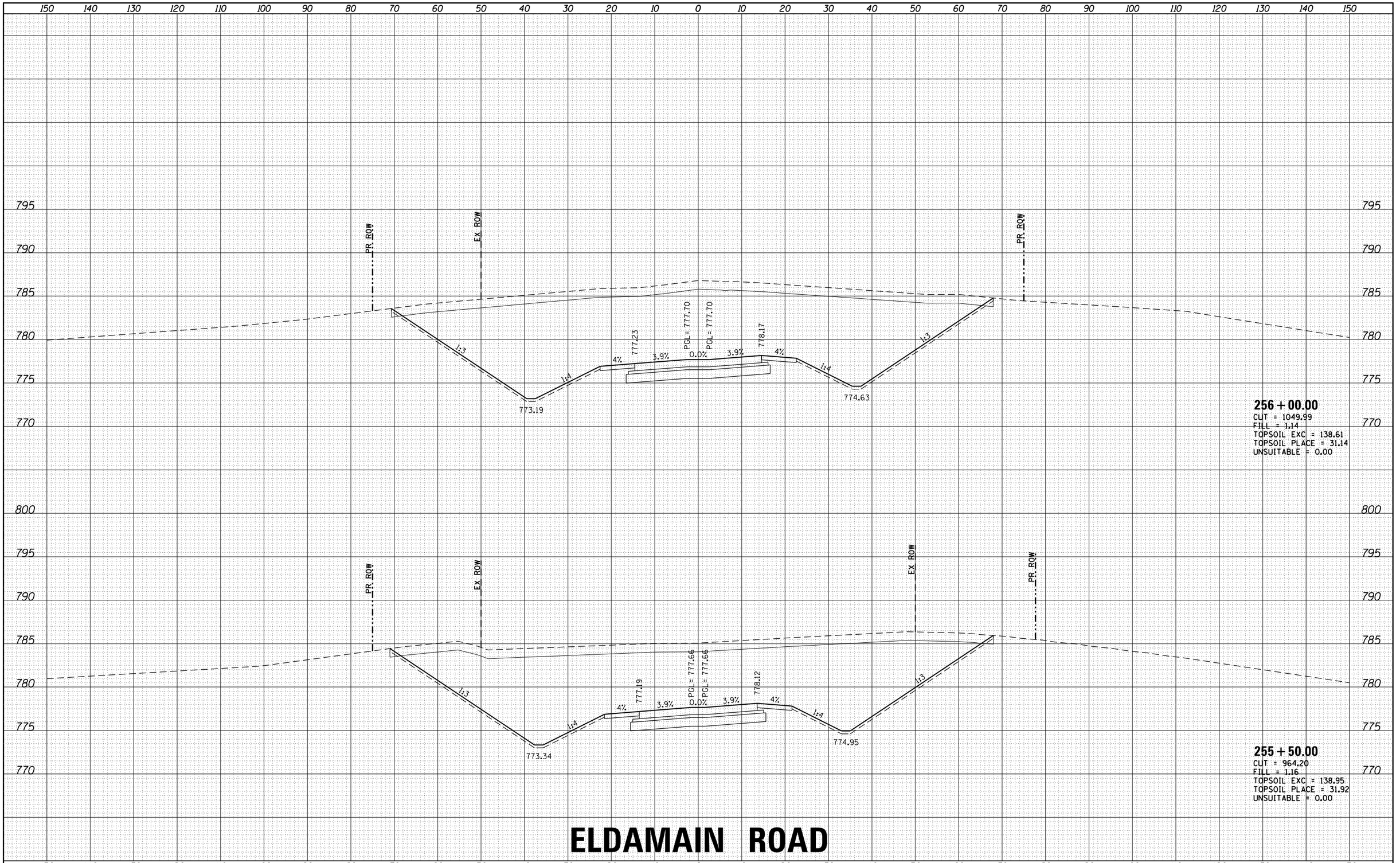
CROSS SECTIONS
ELDAMAIN ROAD

SCALE: SHEET OF SHEETS STA. 254+50.00 TO STA. 255+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	269
		CONTRACT NO. 87731		

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

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



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

ELDAMAIN ROAD

HRG PROJECT NO.: 88130381
HRG PROJ. CONTACT: 38@_xssh10_eldamain.dgn
FILE NAME: IL_pdf_Dw.pltcfg
PLOT DRIVER: plotdata.tbl
PEN TABLE:

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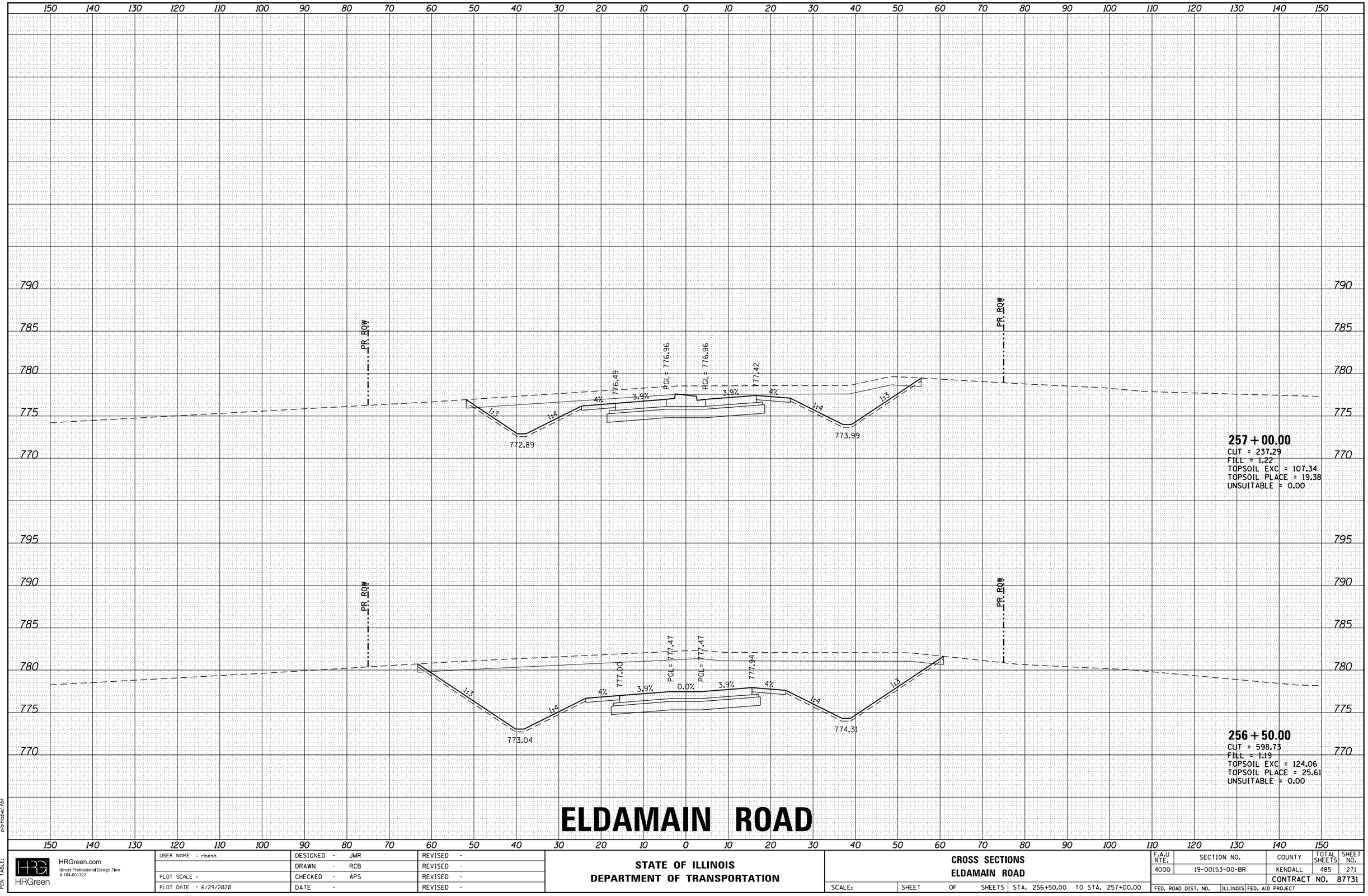
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 255+50.00 TO STA. 256+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	270
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8B3038I
HRG PROJ. CONTACT:
FILE NAME: 38B_xssh10_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.plotcfg
PEN TABLE: plotlabel.tbl

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	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

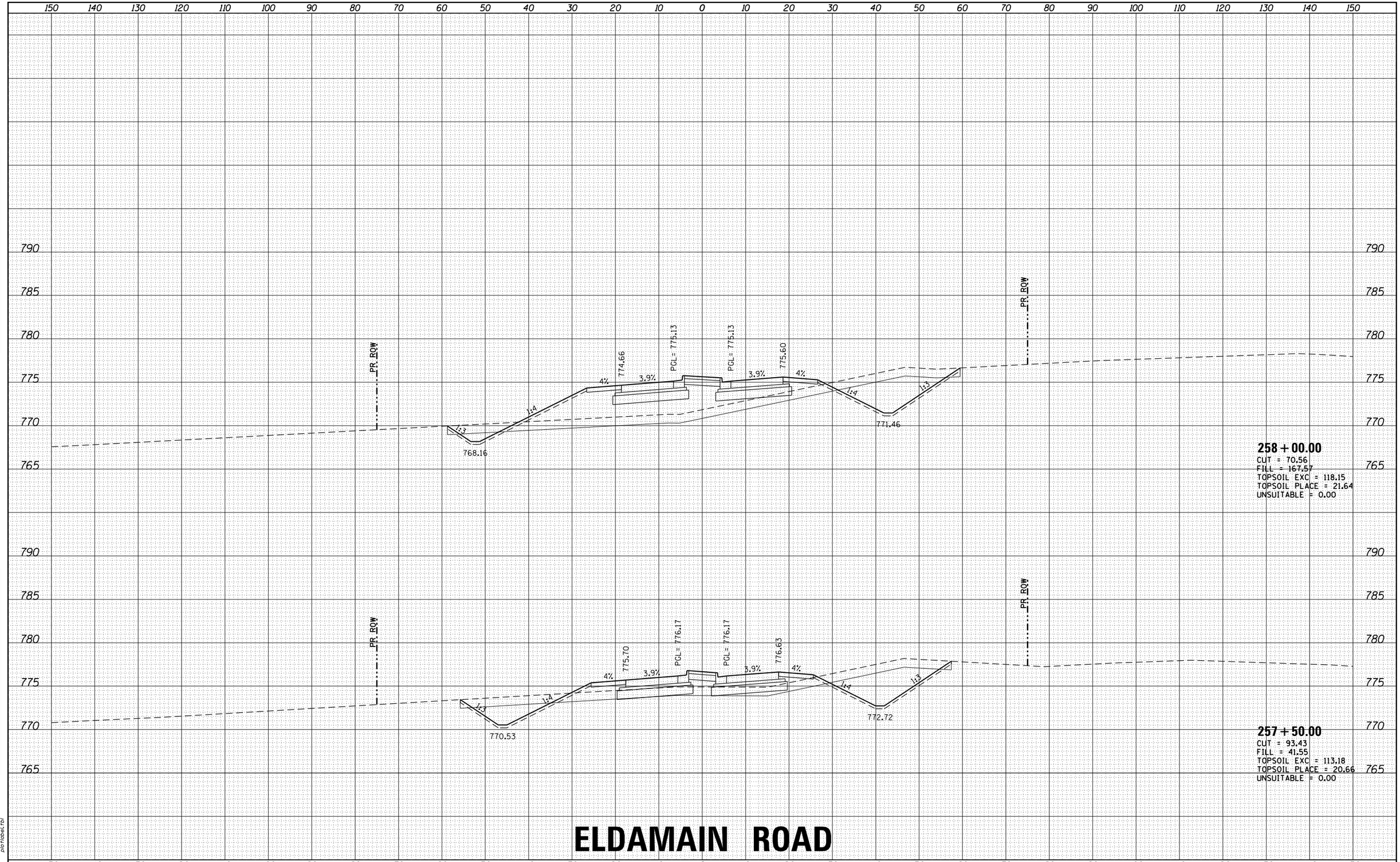
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 256+50.00 TO STA. 257+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	271
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



258 + 00.00
CUT = 70.56
FILL = 167.57
TOPSOIL EXC = 118.15
TOPSOIL PLACE = 21.64
UNSUITABLE = 0.00

257 + 50.00
CUT = 93.43
FILL = 41.55
TOPSOIL EXC = 113.18
TOPSOIL PLACE = 20.66
UNSUITABLE = 0.00

ELDAMAIN ROAD

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 398_xssn101_eldamain.dgn
FILE NAME: il_pdf_bw_ptctg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

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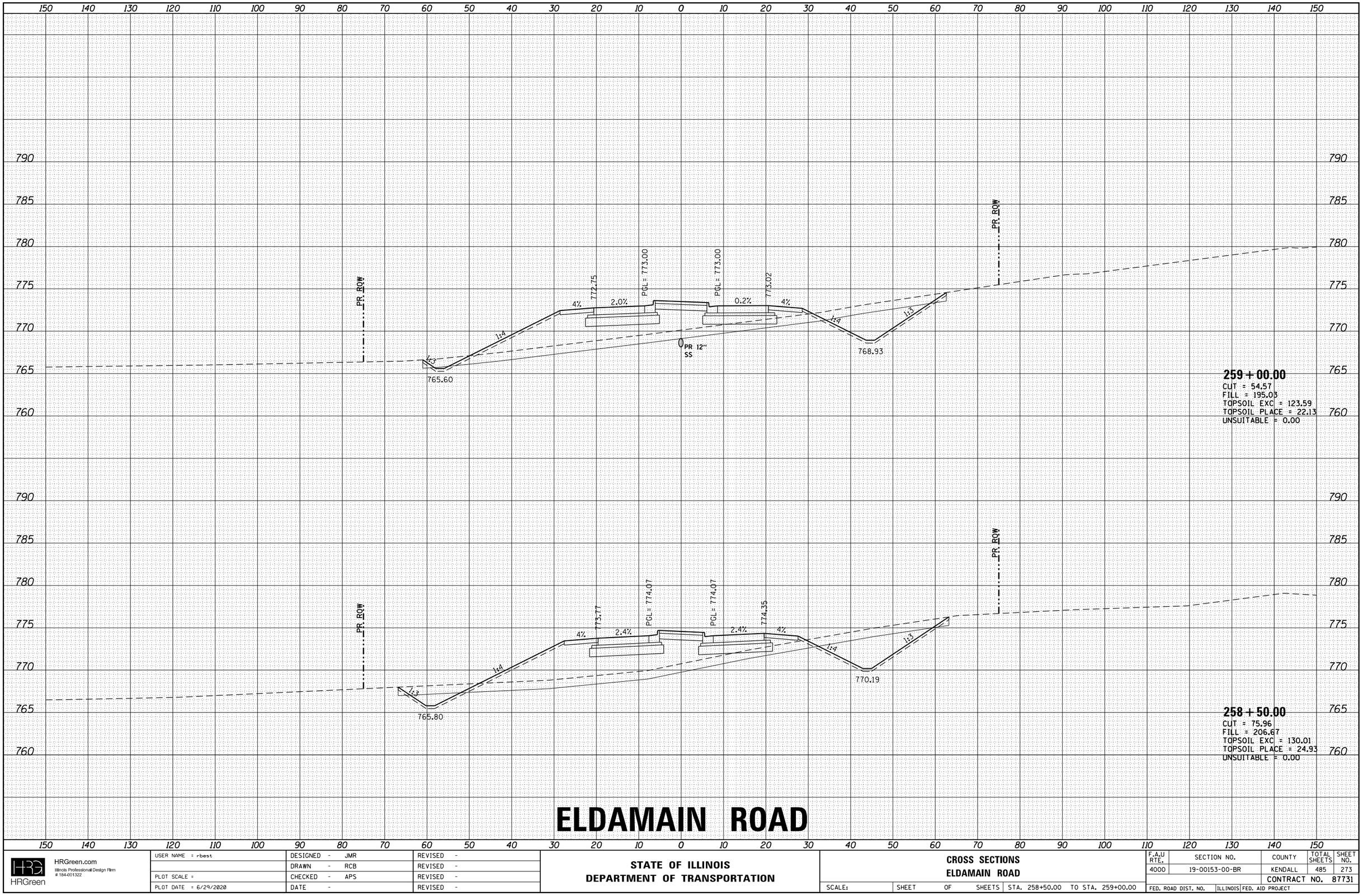
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 257+50.00 TO STA. 258+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	272
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

FINAL SURVEY

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

ORIGINAL SURVEY

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

HRG PROJECT NO.: 88150381
HRG PROJ. CONTACT:
FILE NAME: 388_xssh10L_eldamain.dgn
PLOT DRIVER: IL_pdf_Bw.pltcfg
PEN TABLE: plotlabel.tbl

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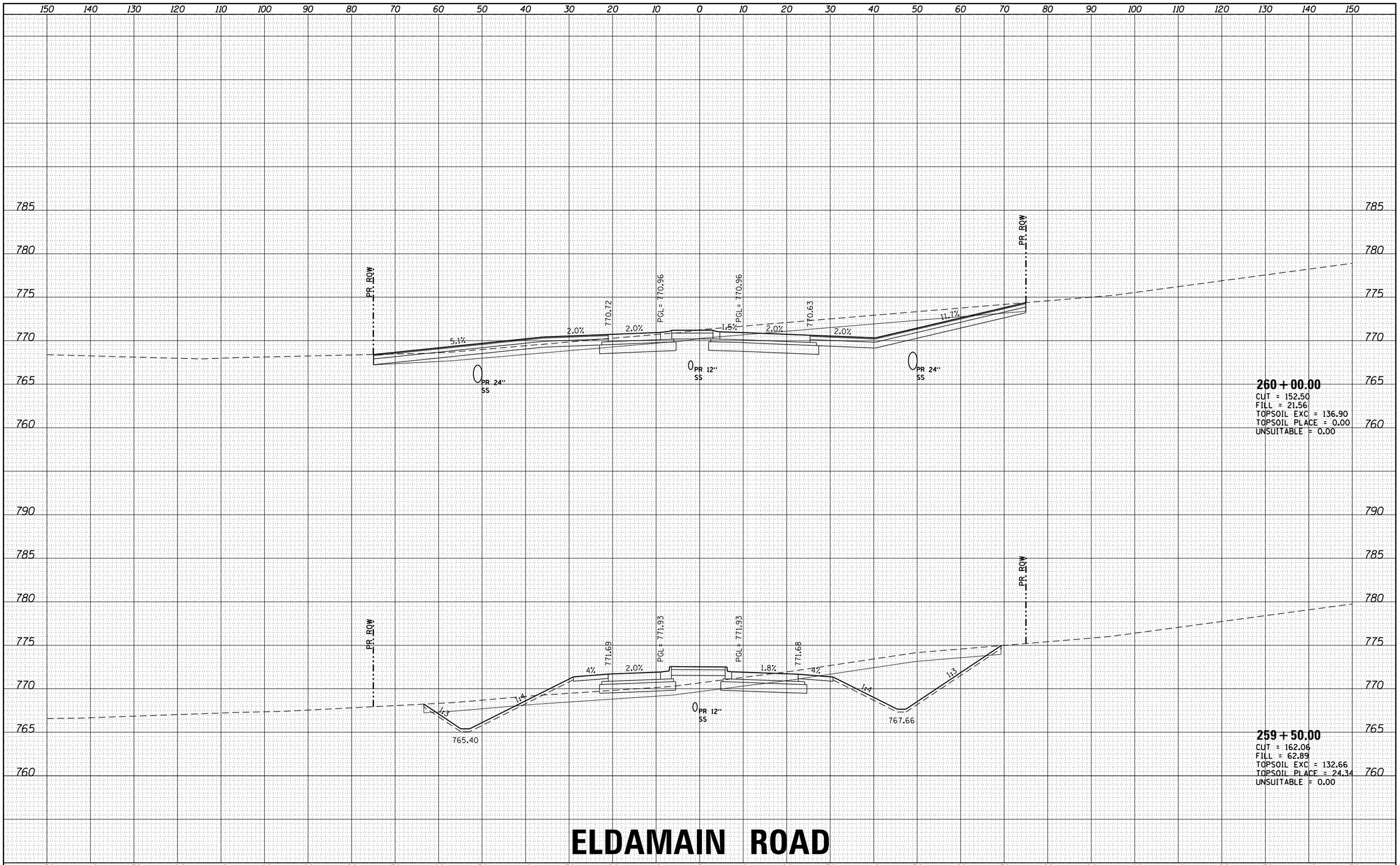
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 258+50.00 TO STA. 259+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	273
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 88150381
HRG PROJ. CONTACT:
FILE NAME: 38@_xssh10_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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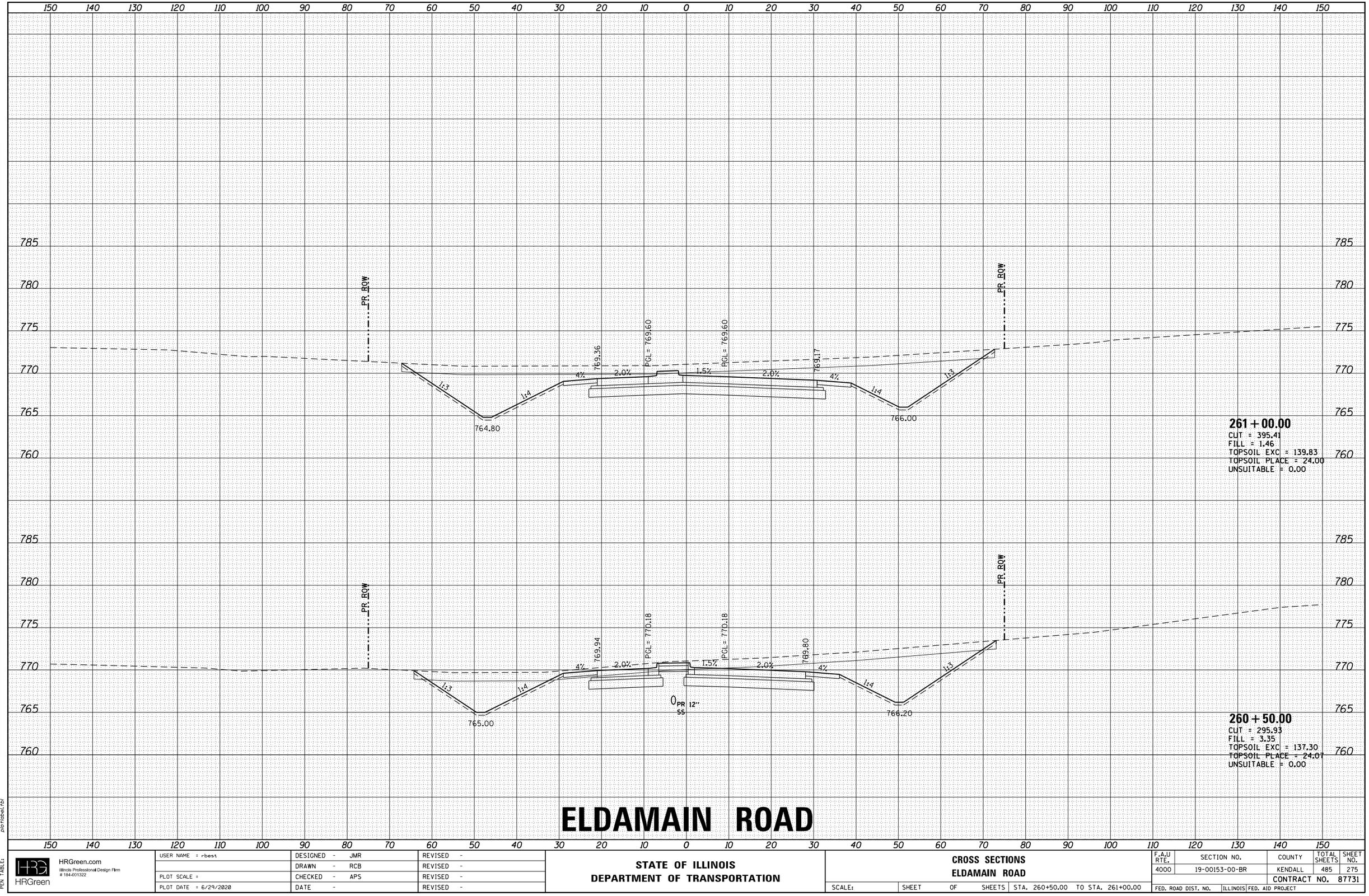
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 259+50.00 TO STA. 260+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	274
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8B3038I
HRG PROJ.CONTACT: 388_xssn10_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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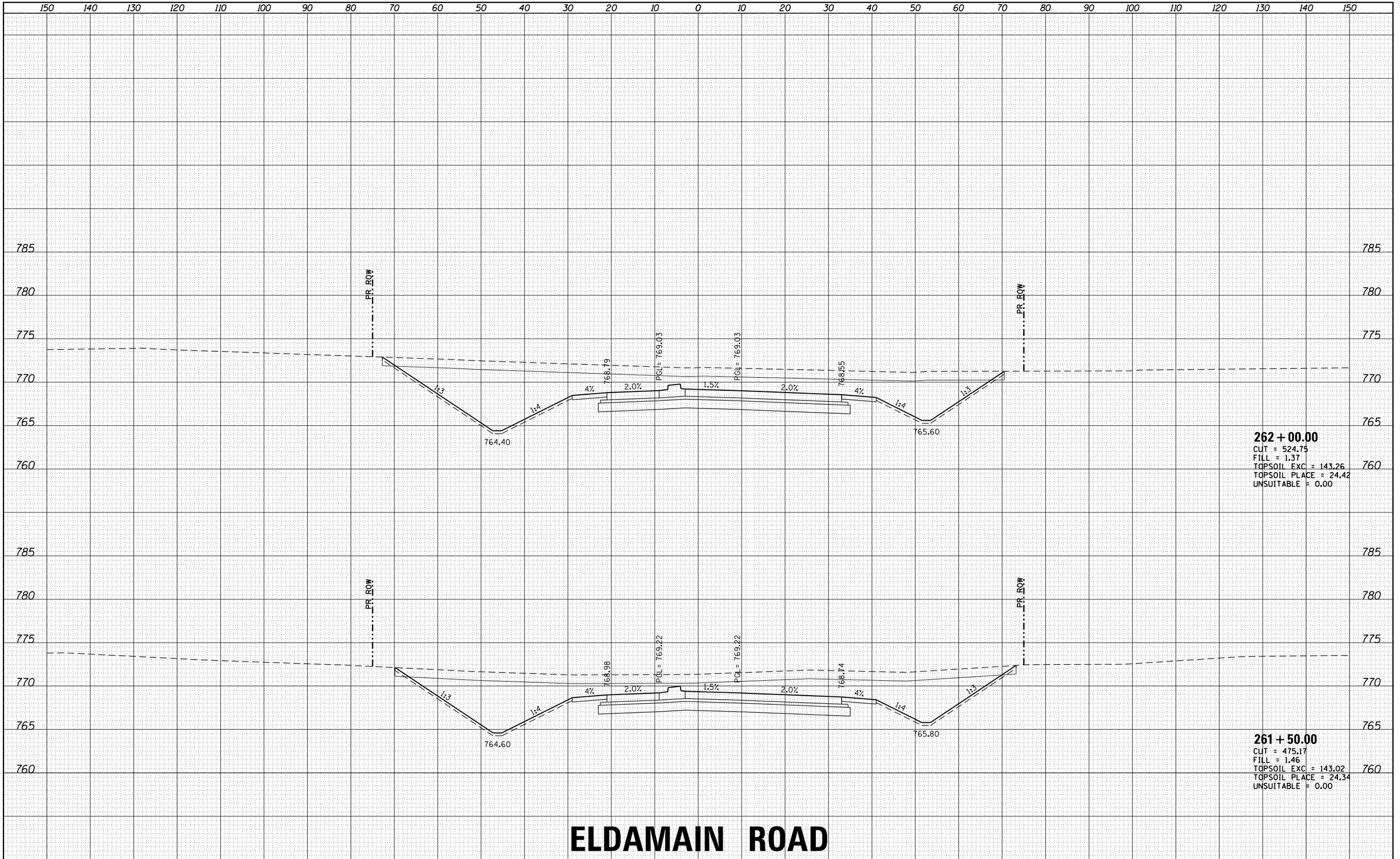
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 260+50.00 TO STA. 261+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	275
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 88150381
HRG PROJ. CONTACT: 388_xssh10_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

HRGreen
HRGreen.com
Illinois Professional Design Firm # 184-001322

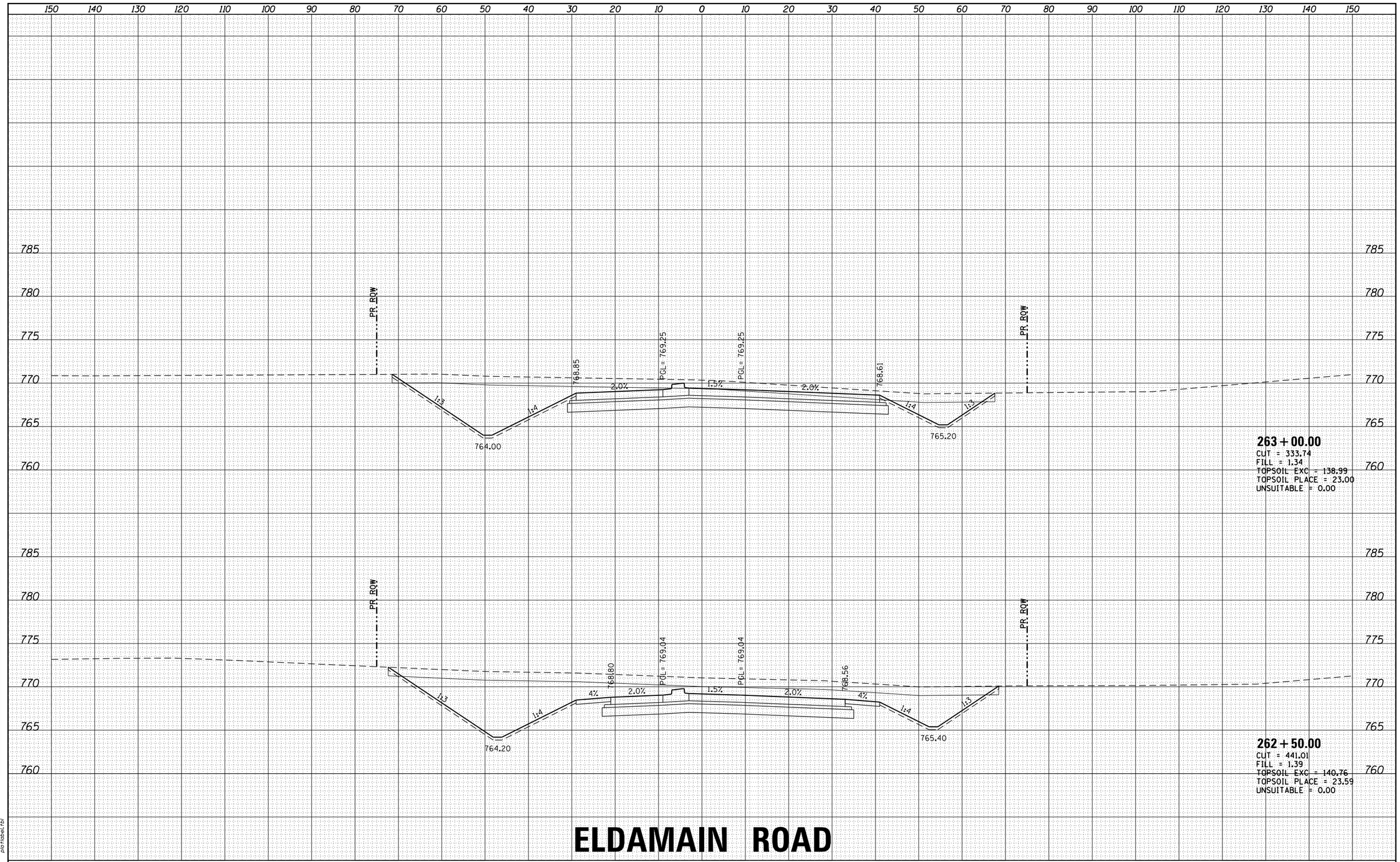
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 261+50.00 TO STA. 262+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	276
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 388_xssn101_eldamain.dgn
FILE NAME: IL_pdf_bw.ctf.cfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

HRGreen.com
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184-001322

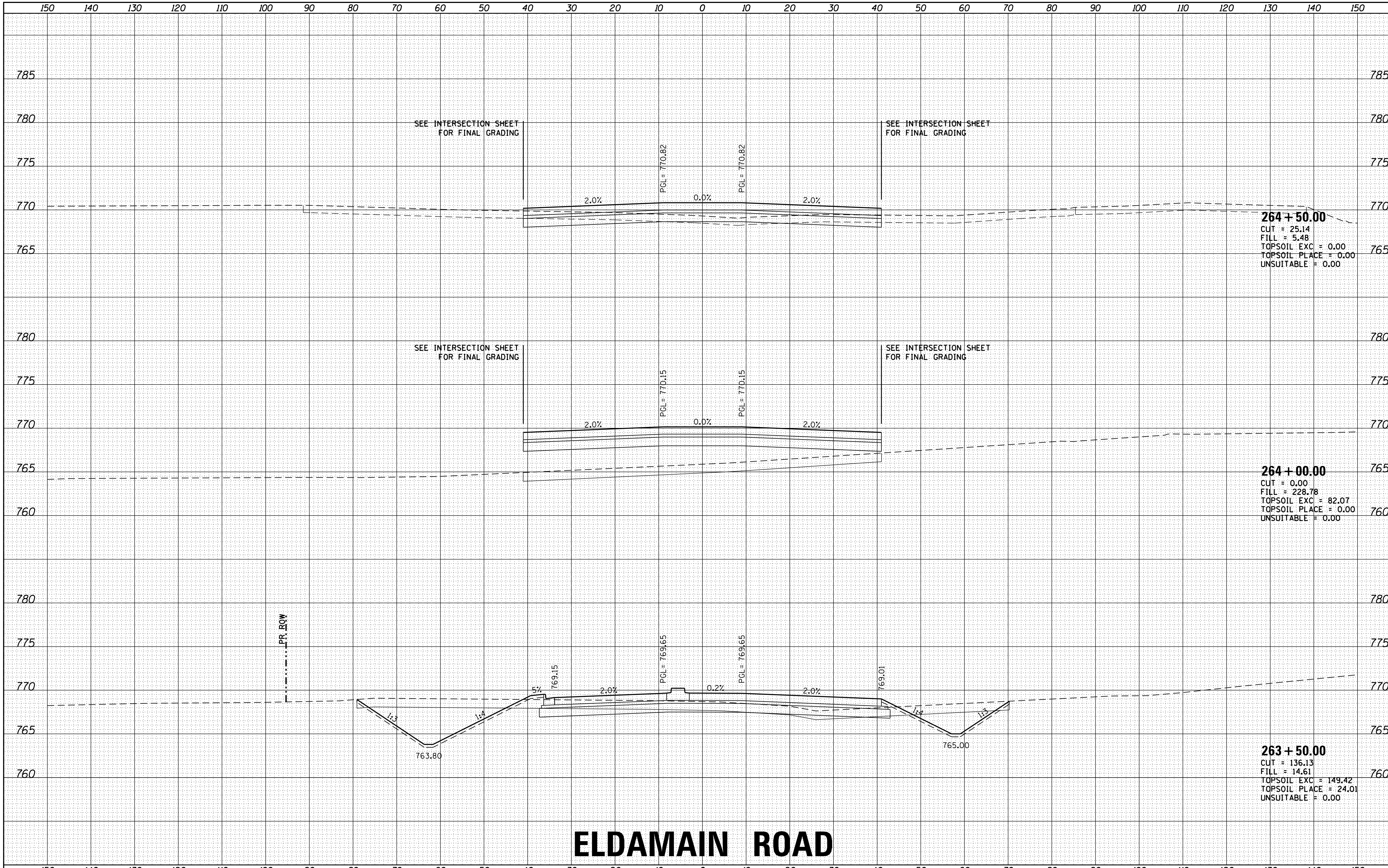
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 262+50.00 TO STA. 263+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	277
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8803081
HRG PROJ. CONTACT:
FILE NAME: 388_xssht01_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: pentable.tbl

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USER NAME = rbest	DESIGNED - JMR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RCB	REVISED -	
PLOT SCALE =	CHECKED - APS	REVISED -	
PLOT DATE = 6/29/2020	DATE -	REVISED -	

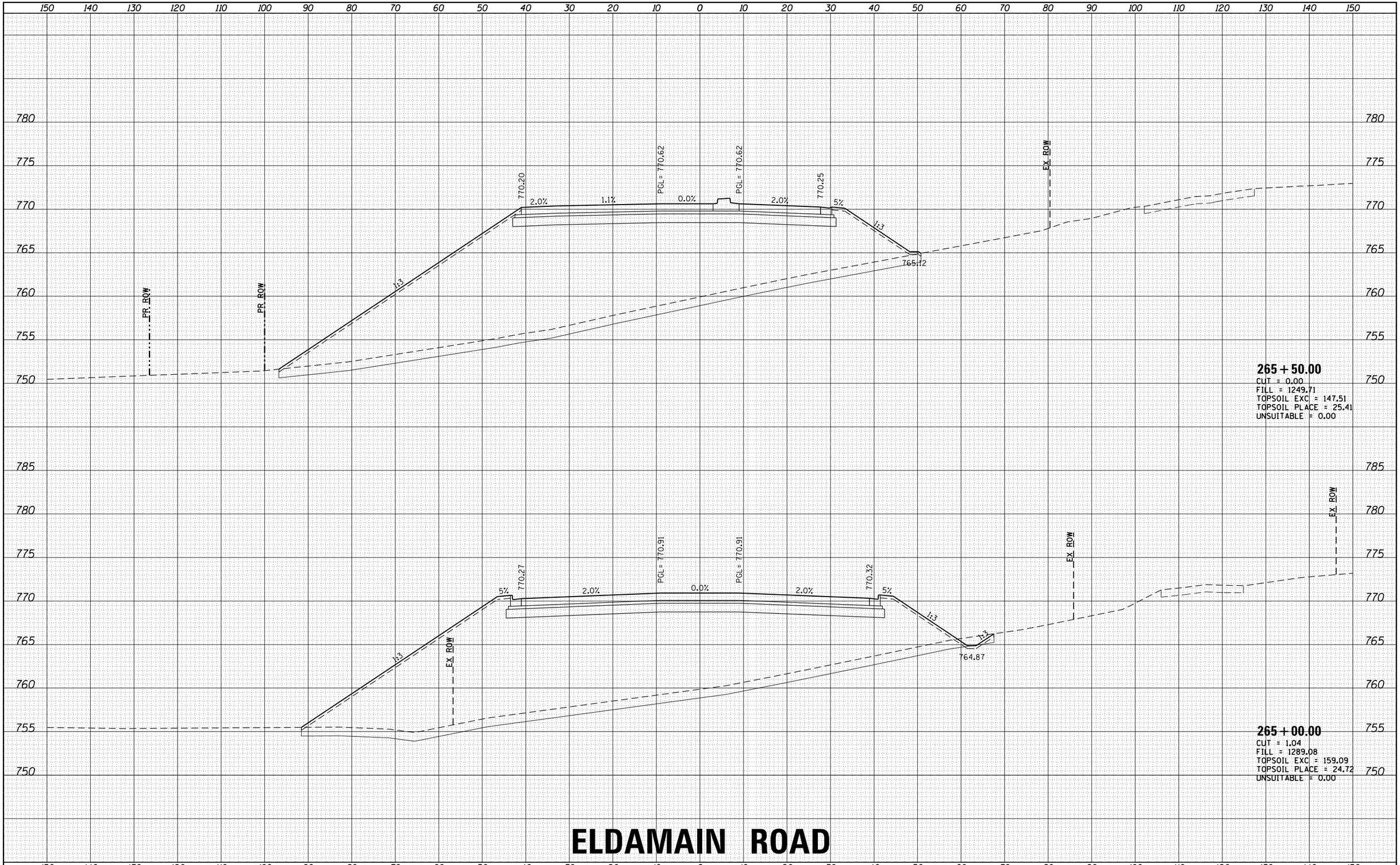
CROSS SECTIONS
ELDAMAIN ROAD

SCALE: SHEET OF SHEETS STA. 263+50.00 TO STA. 264+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	278

CONTRACT NO. 87731

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



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8B3038I
HRG PROJ.CONTACT: 388_xssn10_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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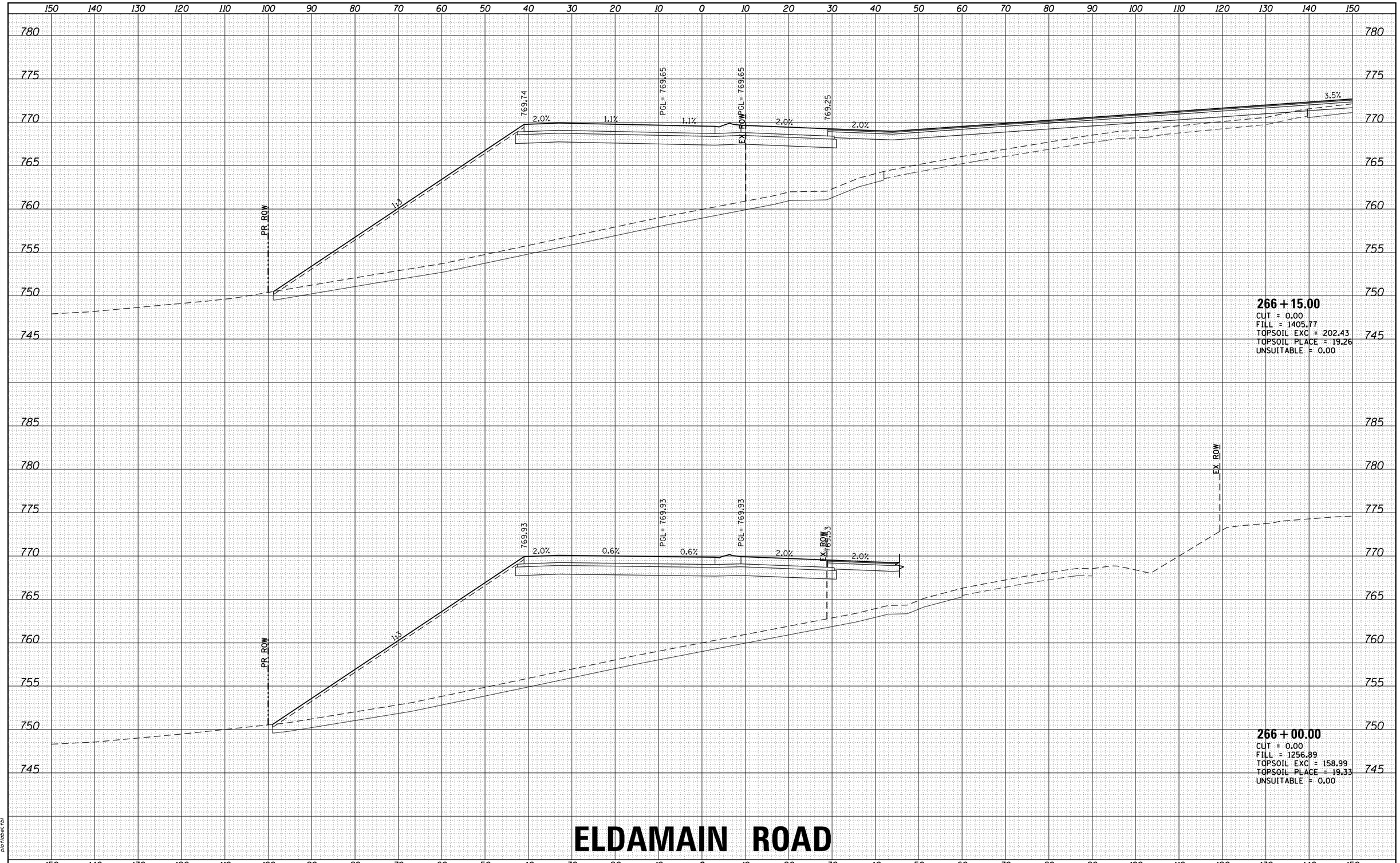
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 265+00.00 TO STA. 265+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	279
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



266 + 15.00
CUT = 0.00
FILL = 1405.77
TOPSOIL EXC = 202.43
TOPSOIL PLACE = 19.26
UNSUITABLE = 0.00

266 + 00.00
CUT = 0.00
FILL = 1256.89
TOPSOIL EXC = 158.99
TOPSOIL PLACE = 19.33
UNSUITABLE = 0.00

ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8B3038
HRG PROJ.CONTACT: 388_xssht01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

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Illinois Professional Design Firm
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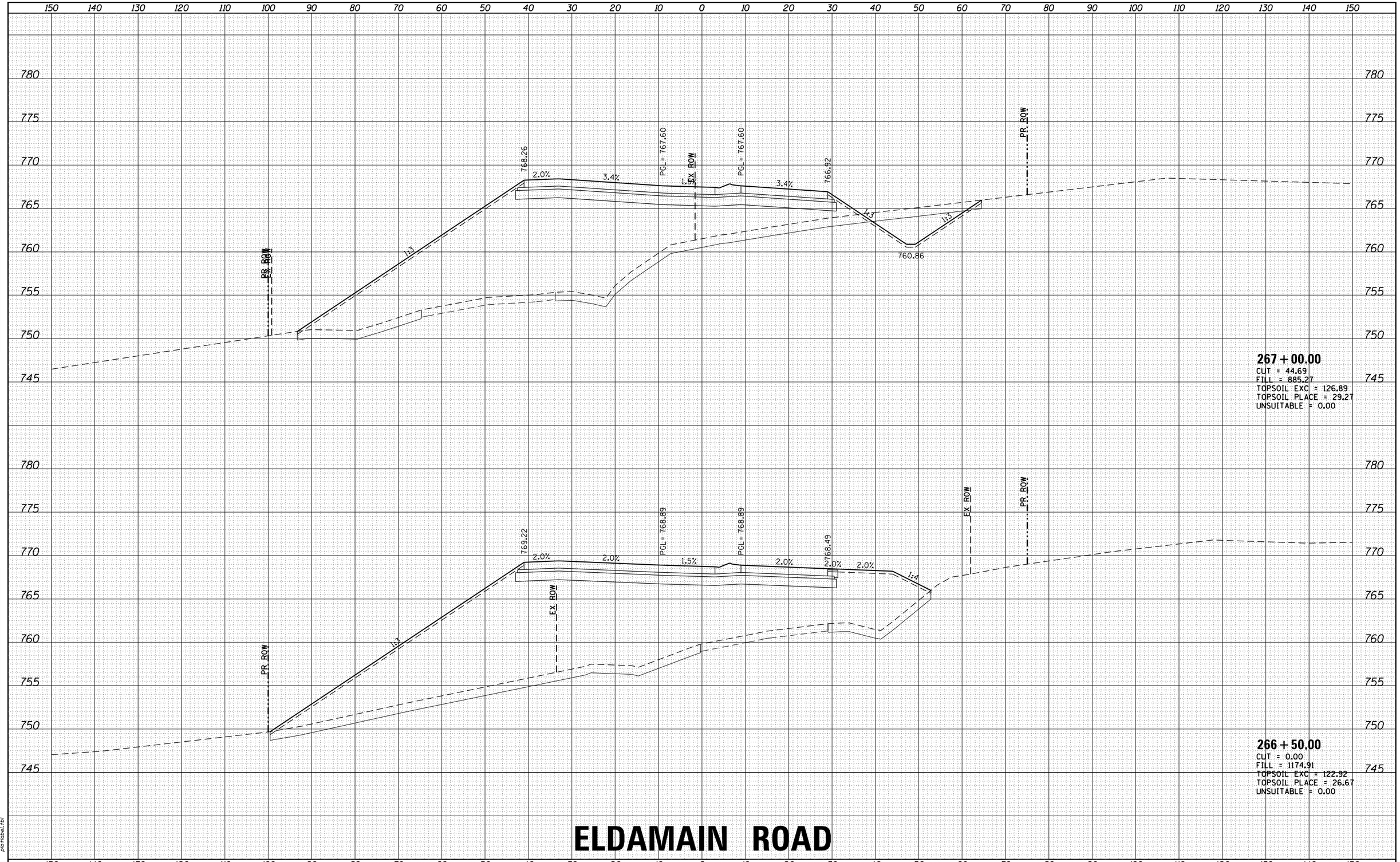
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 266+00.00 TO STA. 266+15.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	280
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

HRG PROJECT NO.: 8B3038
HRG PROJ.CONTACT: 388_xssht01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

HRGreen
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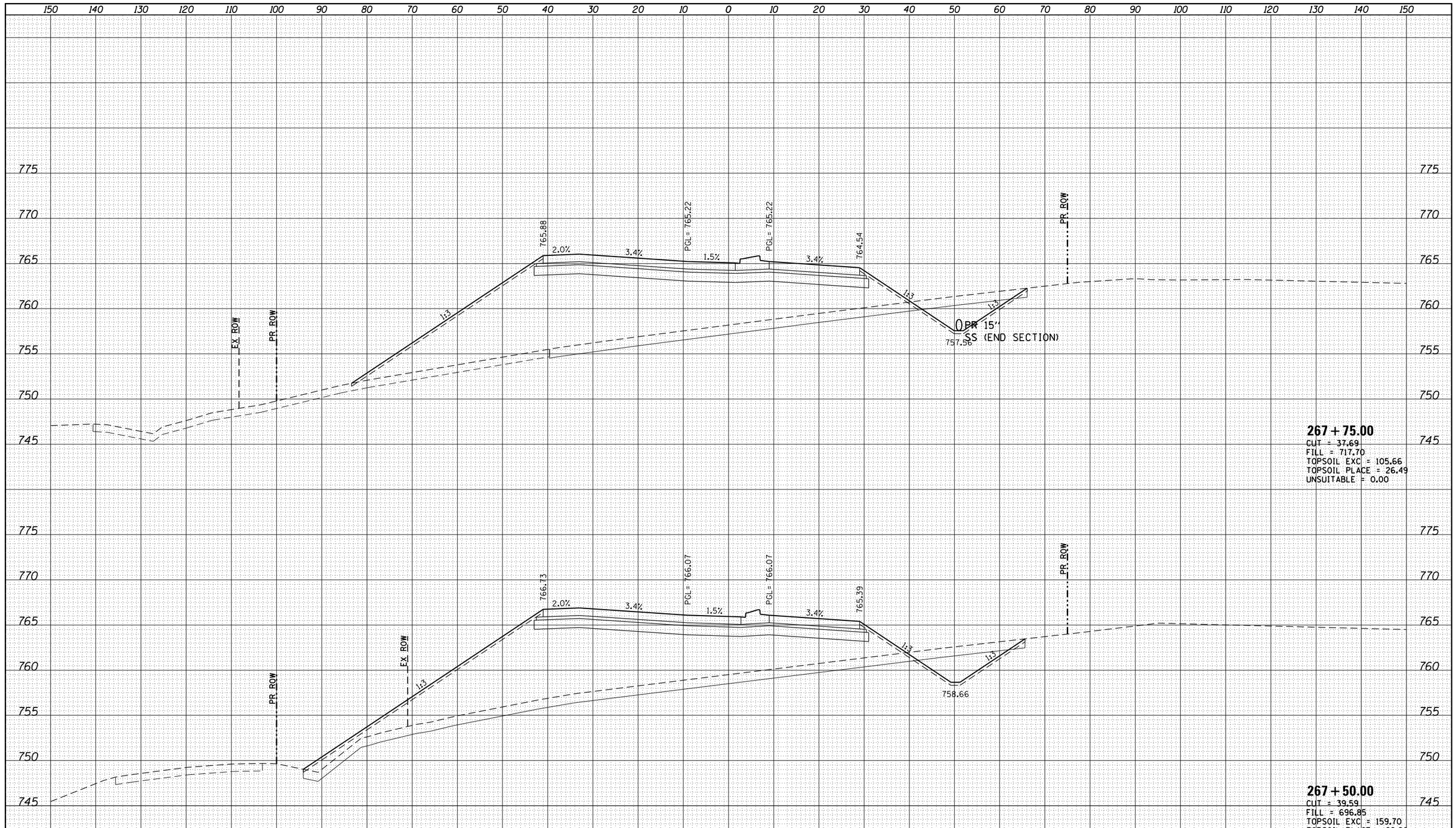
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 266+50.00 TO STA. 267+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	281
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 88130381
HRG PROJ. CONTACT: 38@_xssh10_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotdata.tbl
PEN TABLE:

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

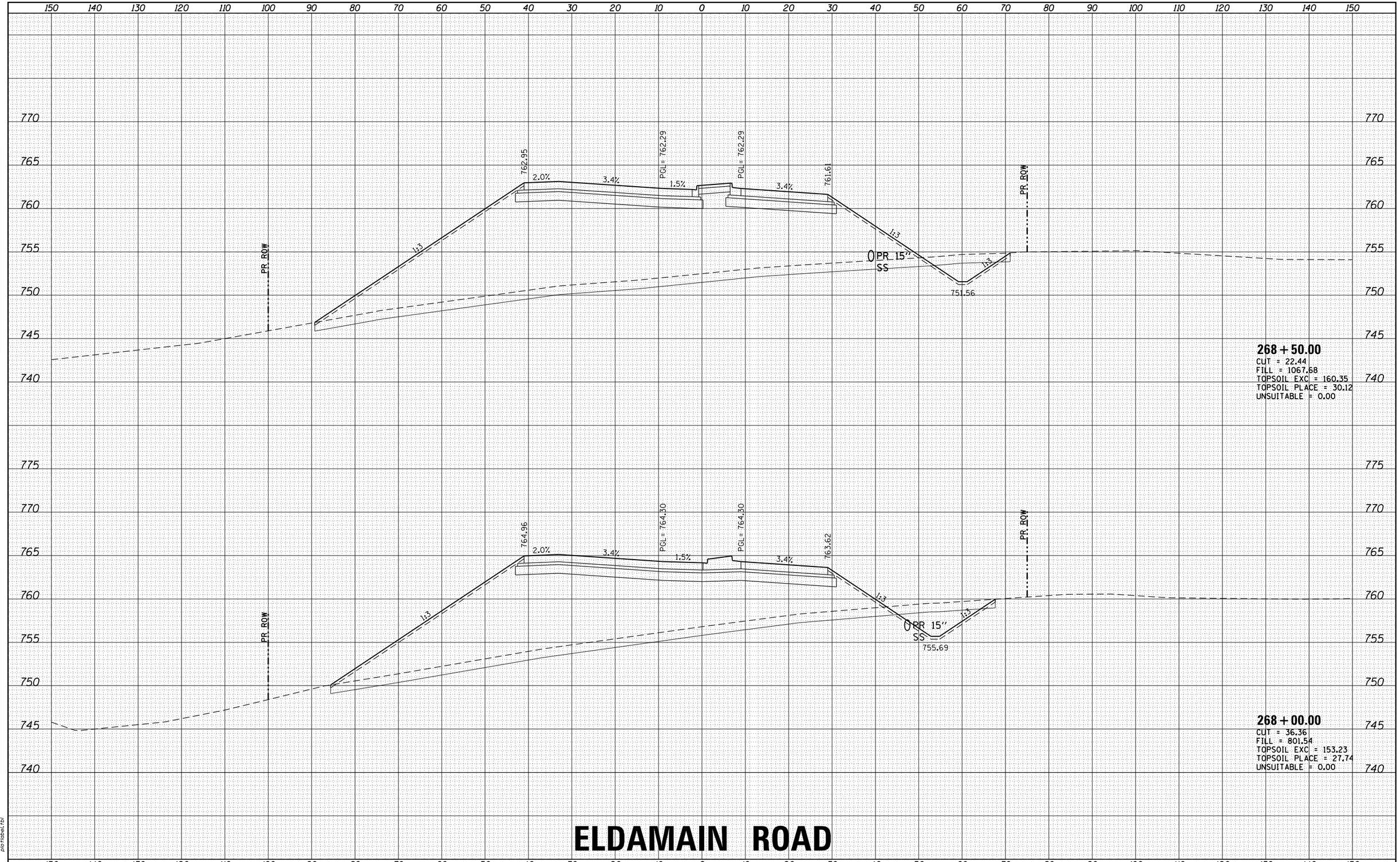
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 267+50.00 TO STA. 267+75.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	282
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

HRG PROJECT NO.: 8B3038
HRG PROJ. CONTACT: 388_xssht01_eldamain.dgn
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PLOT DRIVER:
PEN TABLE: plotlabel.tbl

HRGreen
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Illinois Professional Design Firm
184-001322

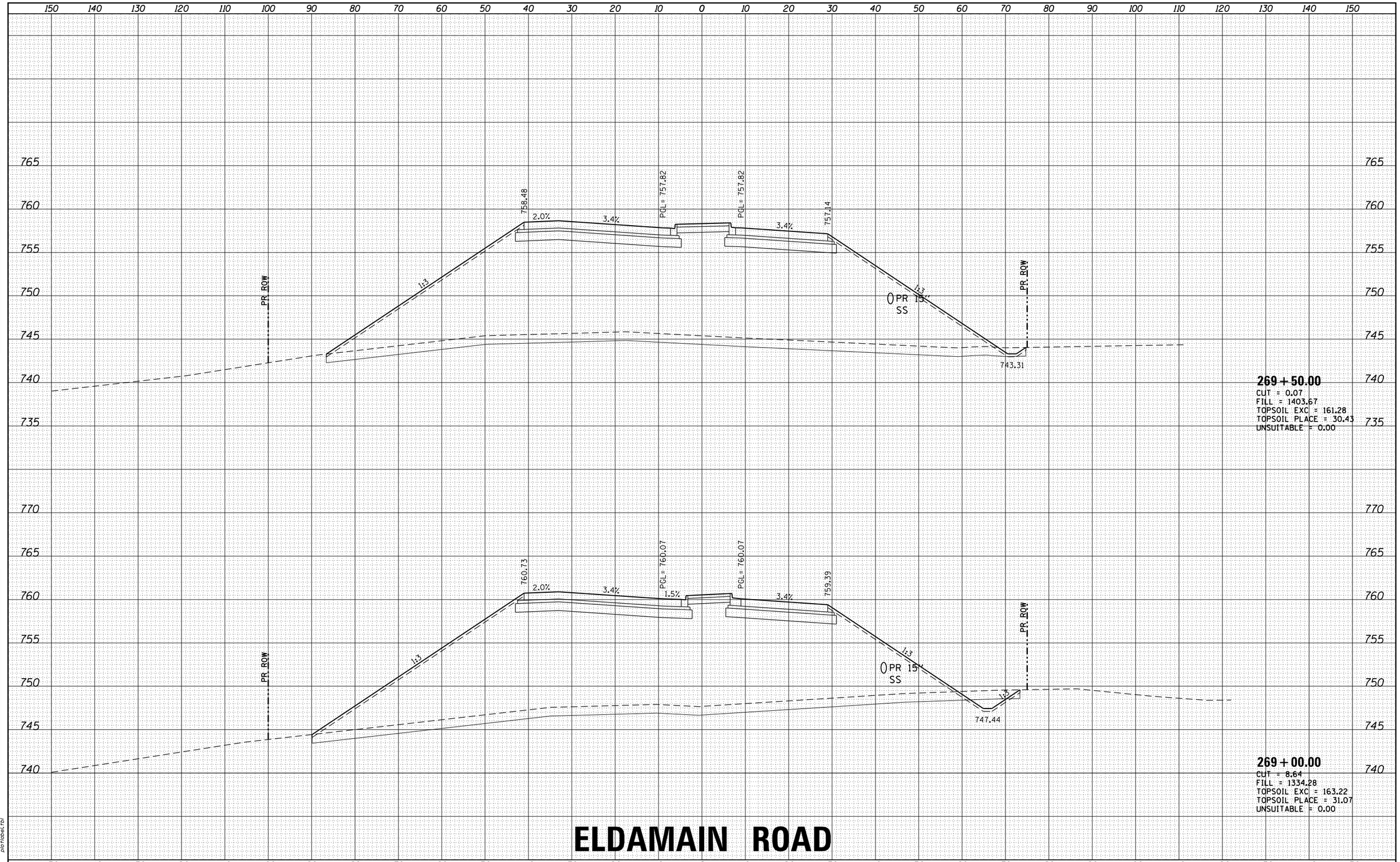
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 268+00.00 TO STA. 268+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	283
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



269 + 50.00
CUT = 0.07
FILL = 1403.67
TOPSOIL EXC = 161.28
TOPSOIL PLACE = 30.43
UNSUITABLE = 0.00

269 + 00.00
CUT = 8.64
FILL = 1334.28
TOPSOIL EXC = 163.22
TOPSOIL PLACE = 31.07
UNSUITABLE = 0.00

ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 88150381
HRG PROJ. CONTACT: 388_xssh10l_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotdata.tbl
PEN TABLE:

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

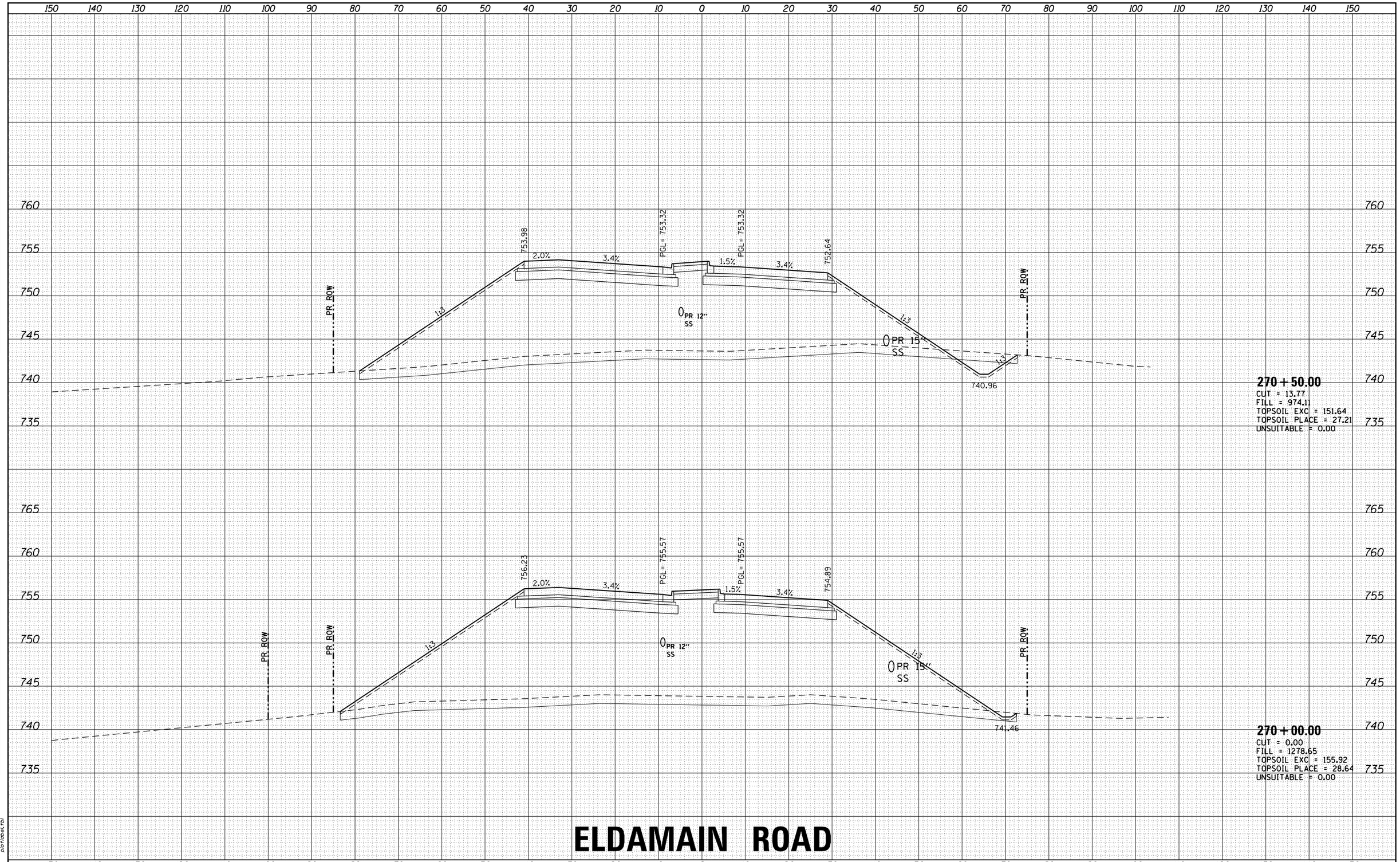
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 269+00.00 TO STA. 269+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	284
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 88150381
HRG PROJ. CONTACT:
FILE NAME: 388_xssh10L_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

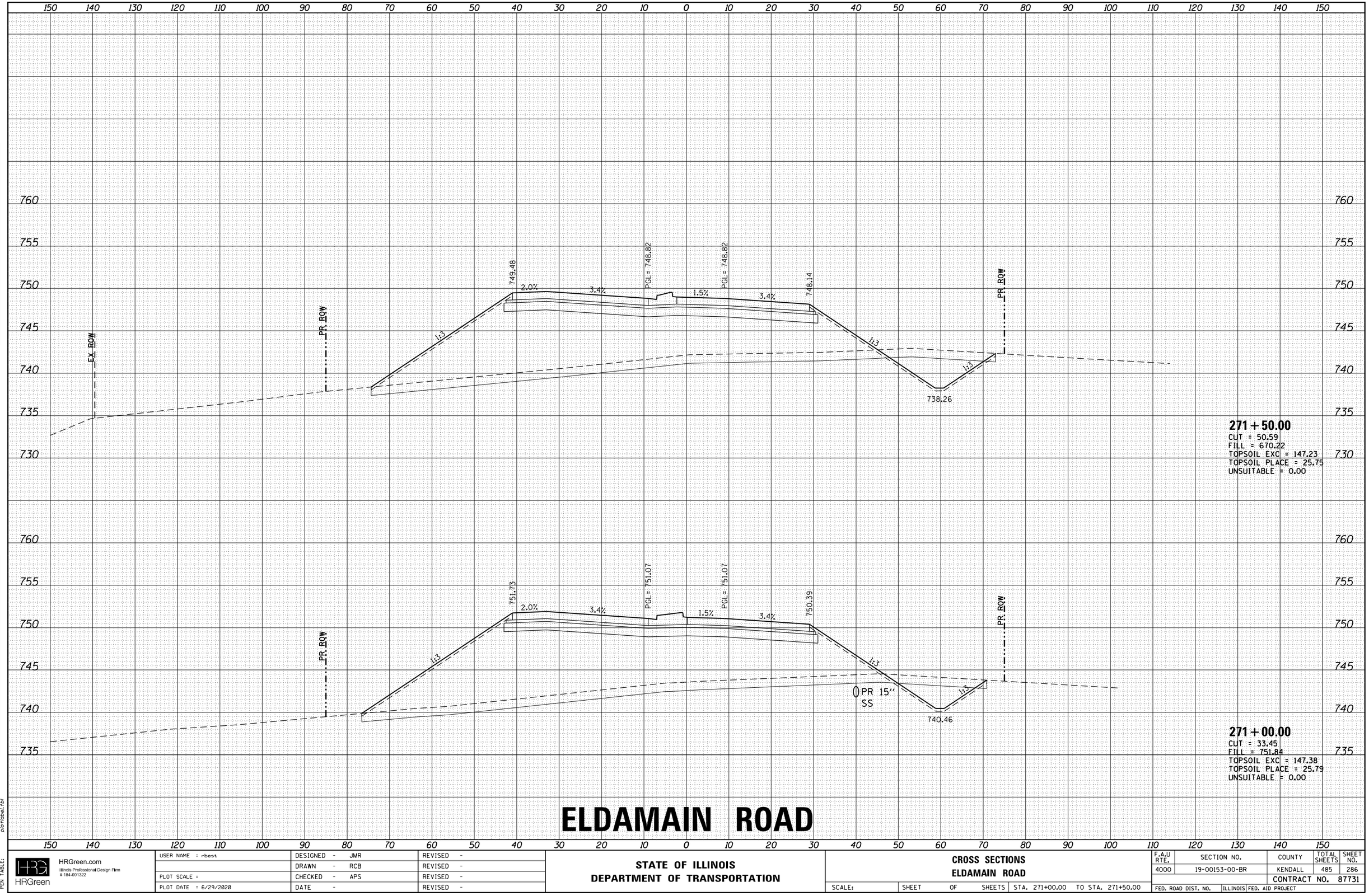
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 270+00.00 TO STA. 270+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	285
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

HRG PROJECT NO.: 8B3038
HRG PROJ.CONTACT: 388_xssht0_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

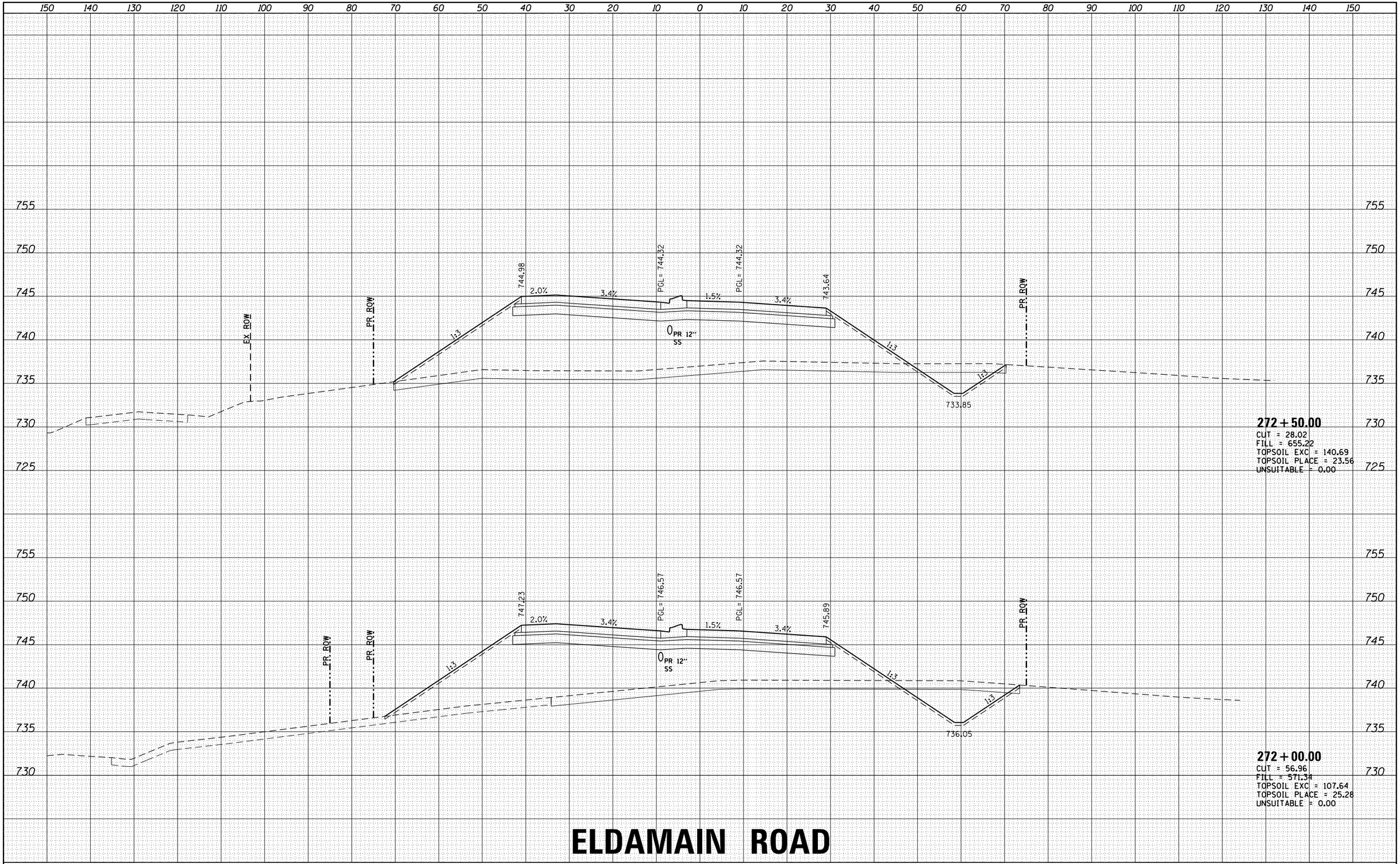
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 271+00.00 TO STA. 271+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	286
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



ELDAMAIN ROAD

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

HRG PROJECT NO.: 6803038
HRG PROJ. CONTACT:
FILE NAME: 3818_xssht01_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.plrcfg
PEN TABLE: plotlabel.tbl

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USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

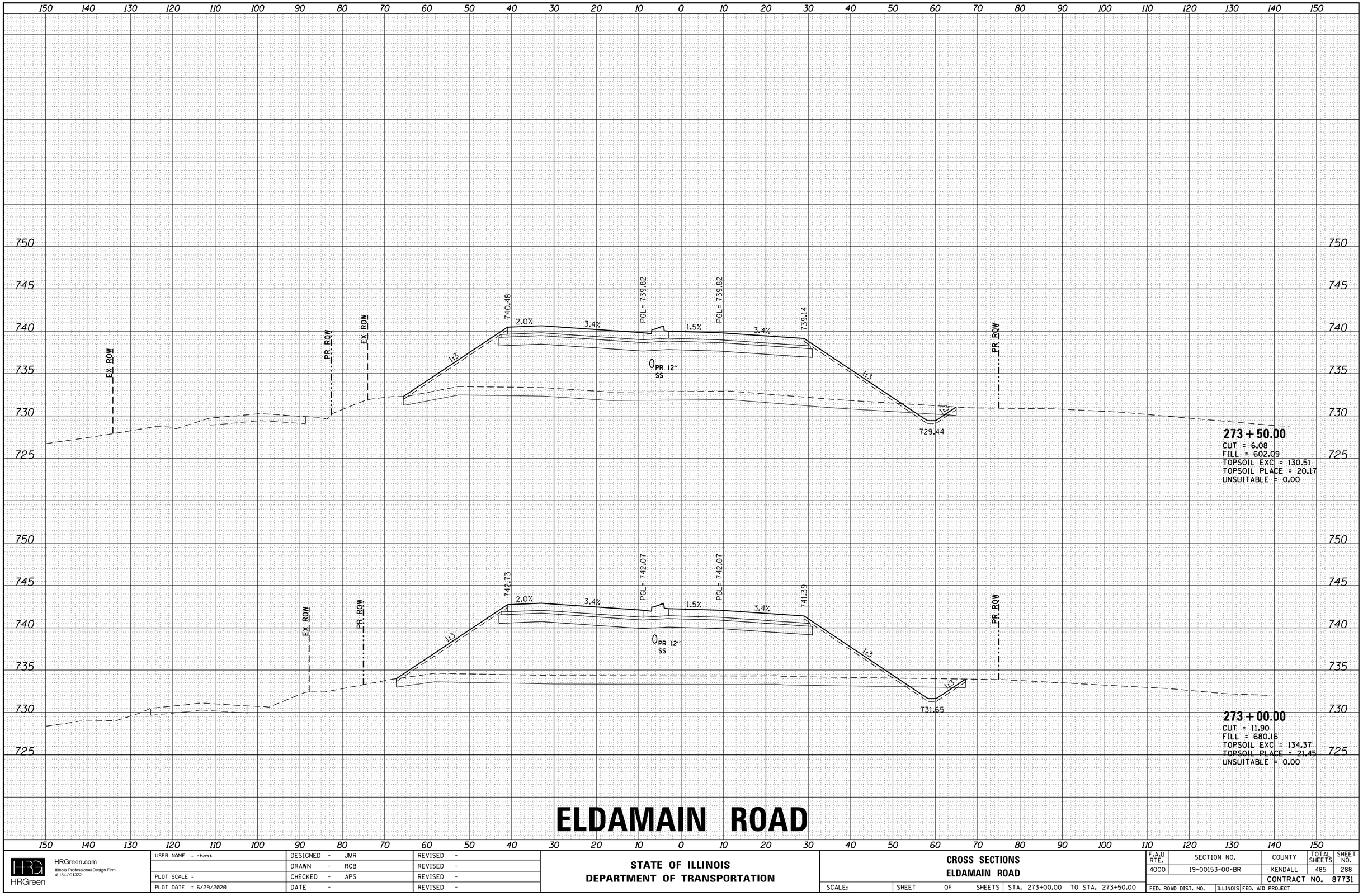
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 272+00.00 TO STA. 272+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	287
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

ELDAMAIN ROAD

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 38B_xsht01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: platlabel.tbl
PEN TABLE:

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 273+00.00 TO STA. 273+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	288
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	NOTE BOOK	
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

NO.	BY	DATE

ORIGINAL SURVEY	NOTE BOOK	
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

NO.	BY	DATE

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 388_xssht01_eldamain.dgn
FILE NAME: IL_pdf_dw_plt.cfg
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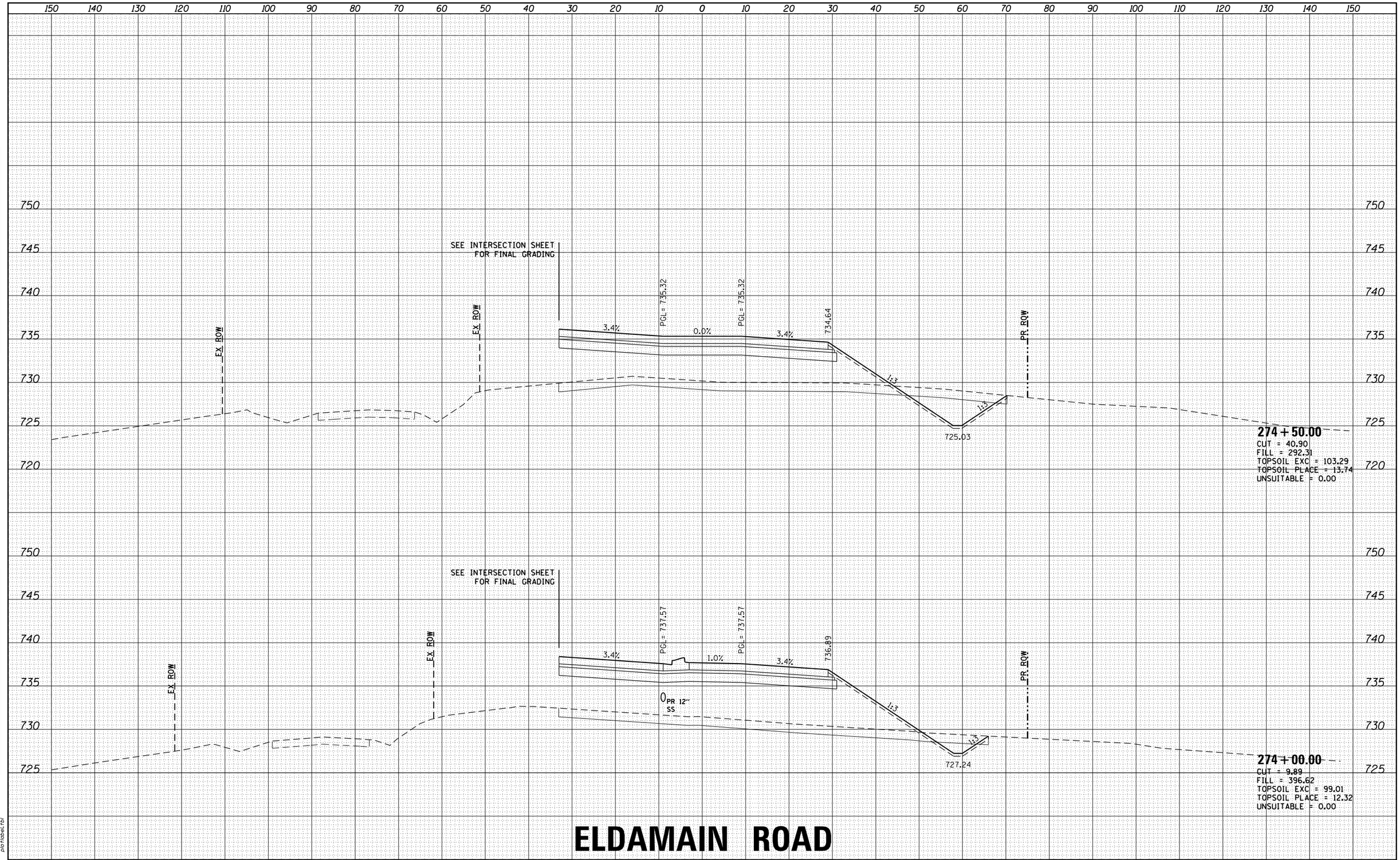
PEN TABLE:



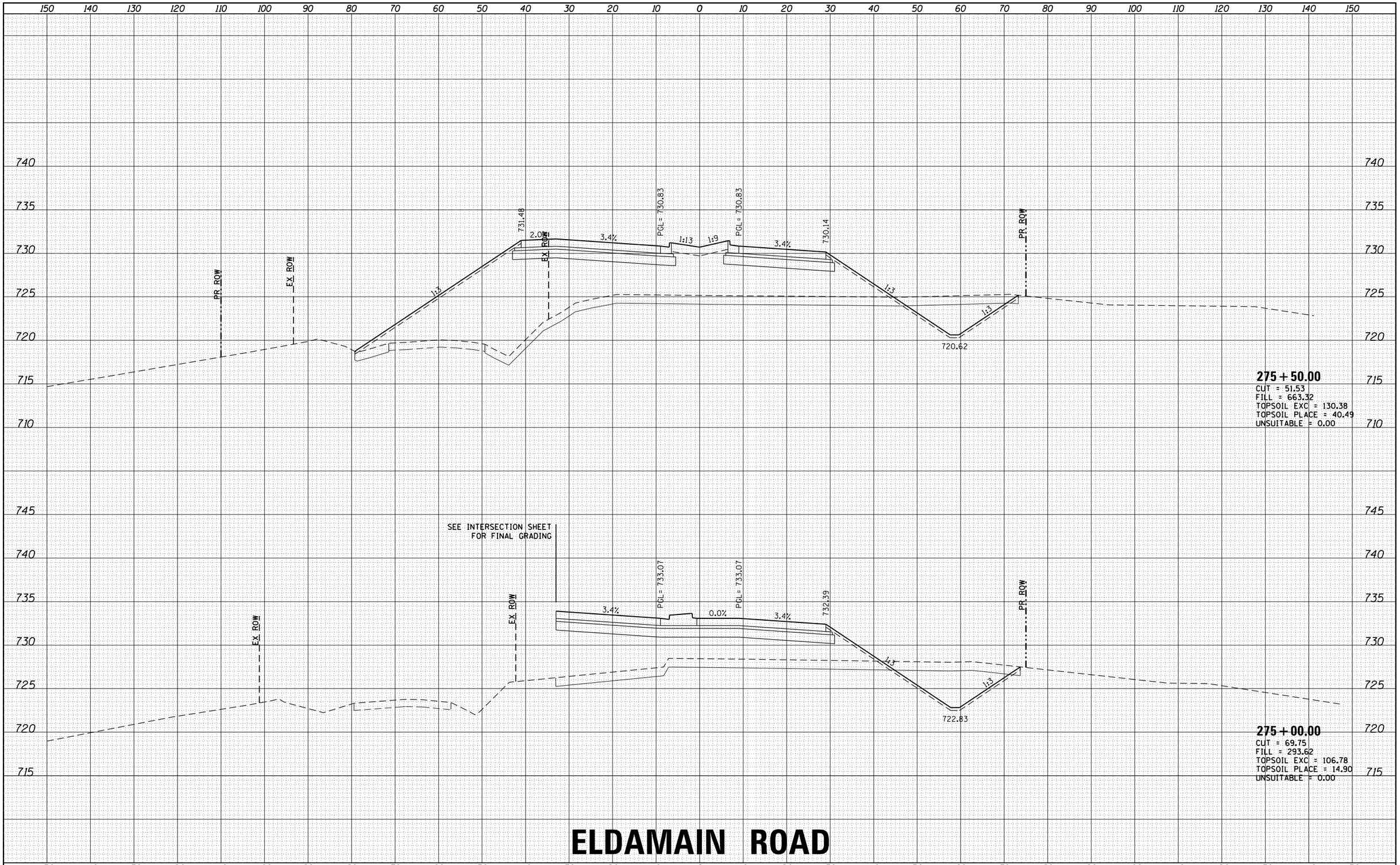
HRGreen.com Illinois Professional Design Firm # 184-001322	USER NAME = rbest	DESIGNED - JMR	REVISED -
		DRAWN - RCB	REVISED -
	PLOT SCALE =	CHECKED - APS	REVISED -
	PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 274+00.00 TO STA. 274+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	289
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



275 + 50.00
CUT = 51.53
FILL = 663.32
TOPSOIL EXC = 130.38
TOPSOIL PLACE = 40.49
UNSUITABLE = 0.00

275 + 00.00
CUT = 69.75
FILL = 293.62
TOPSOIL EXC = 106.78
TOPSOIL PLACE = 14.90
UNSUITABLE = 0.00

ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 88130381
HRG PROJ. CONTACT:
FILE NAME: 38@_xssh10_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.plotcfg
PEN TABLE: plotlabel.tbl

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184-001322

USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

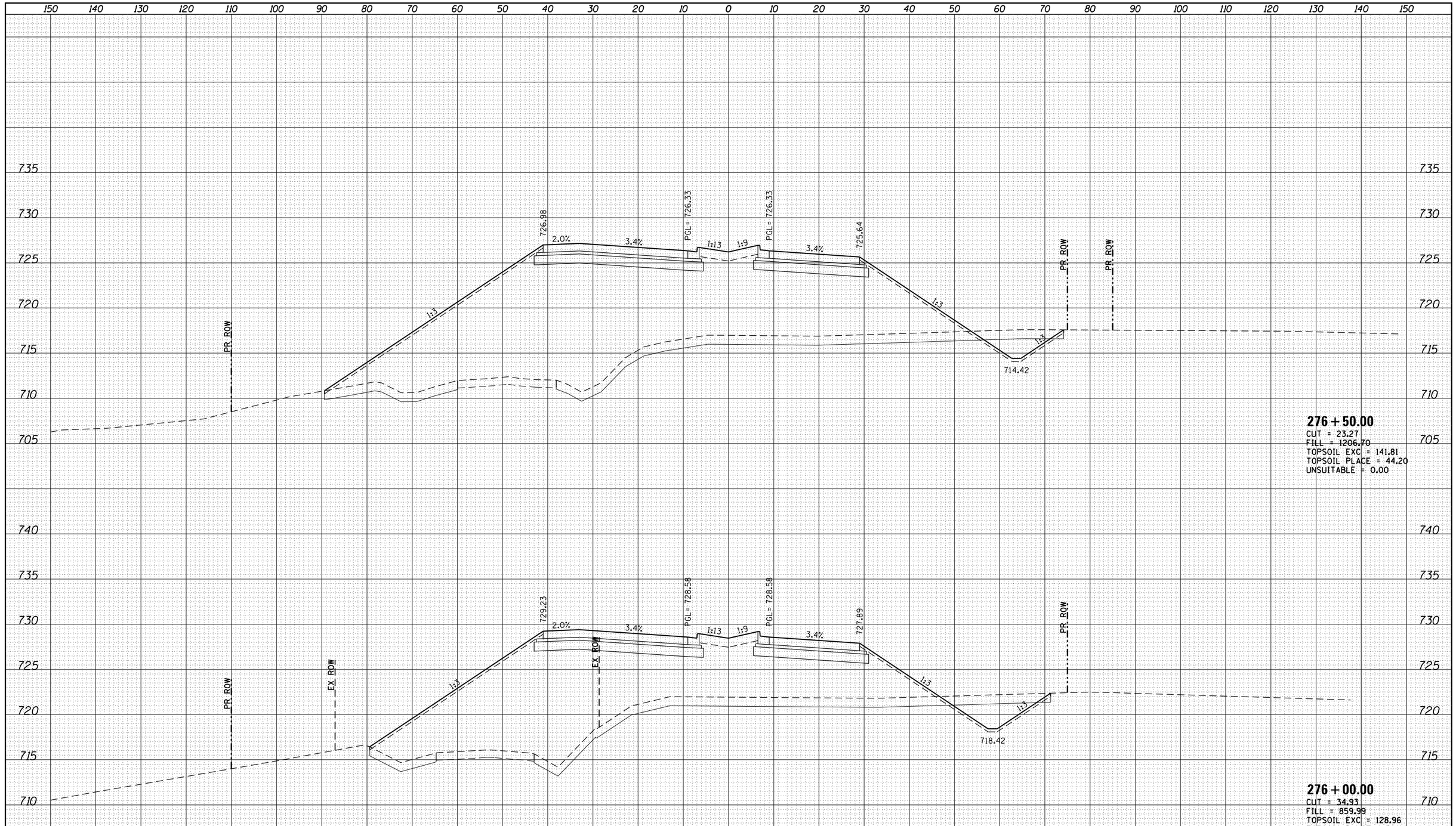
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 275+00.00 TO STA. 275+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	290
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



ELDAMAIN ROAD

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

HRG PROJECT NO.: 88150381
HRG PROJ. CONTACT:
FILE NAME: 38@_xssh10_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotdata.tbl

HRGreen
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Illinois Professional Design Firm
184-001322

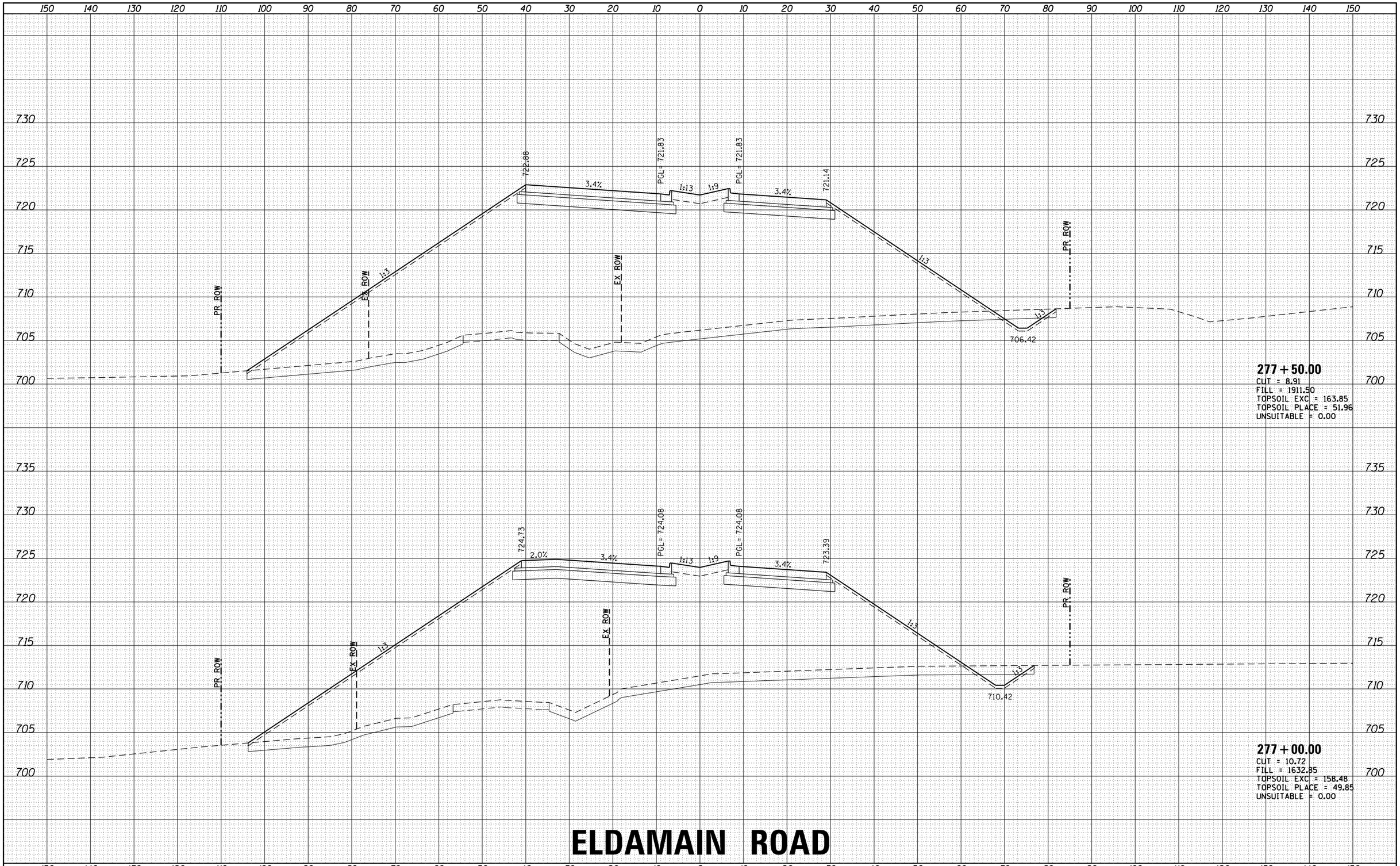
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 276+00.00 TO STA. 276+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	291
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8B3038
HRG PROJ.CONTACT: 388_xssht01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

HRGreen
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Illinois Professional Design Firm
184-001322

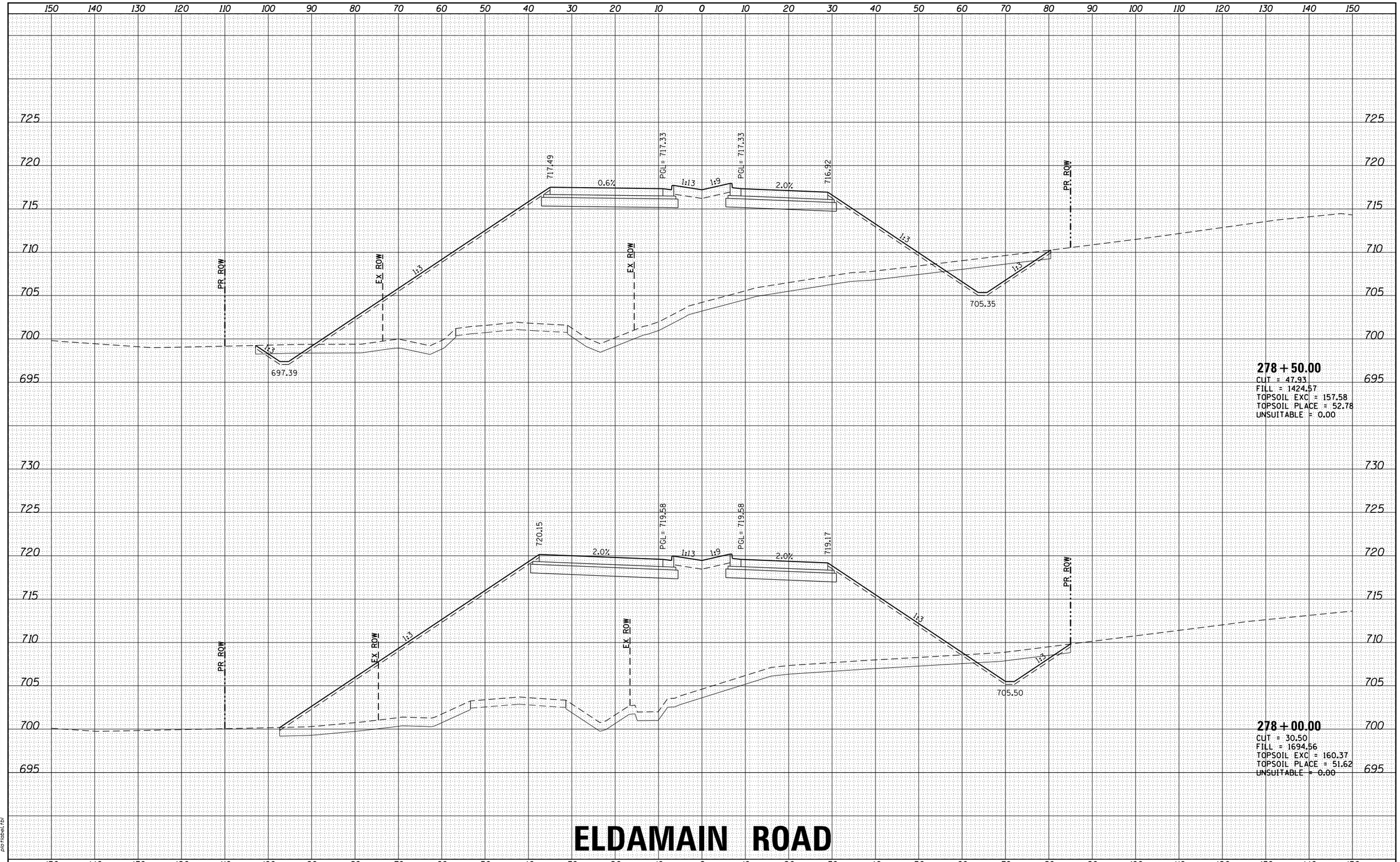
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

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

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	292
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



278 + 50.00
CUT = 47.93
FILL = 1424.57
TOPSOIL EXC = 157.58
TOPSOIL PLACE = 52.78
UNSUITABLE = 0.00

278 + 00.00
CUT = 30.50
FILL = 1694.56
TOPSOIL EXC = 160.37
TOPSOIL PLACE = 51.62
UNSUITABLE = 0.00

ELDAMAIN ROAD

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

HRG PROJECT NO.: 8B3038
HRG PROJ.CONTACT: 388_xssht01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

HRGreen
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184-001322

USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 278+00.00 TO STA. 278+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	293
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ELDAMAIN ROAD

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

BY	DATE

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

BY	DATE

HRG PROJECT NO.: 8B3038
HRG PROJ.CONTACT: 388_xssht01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322

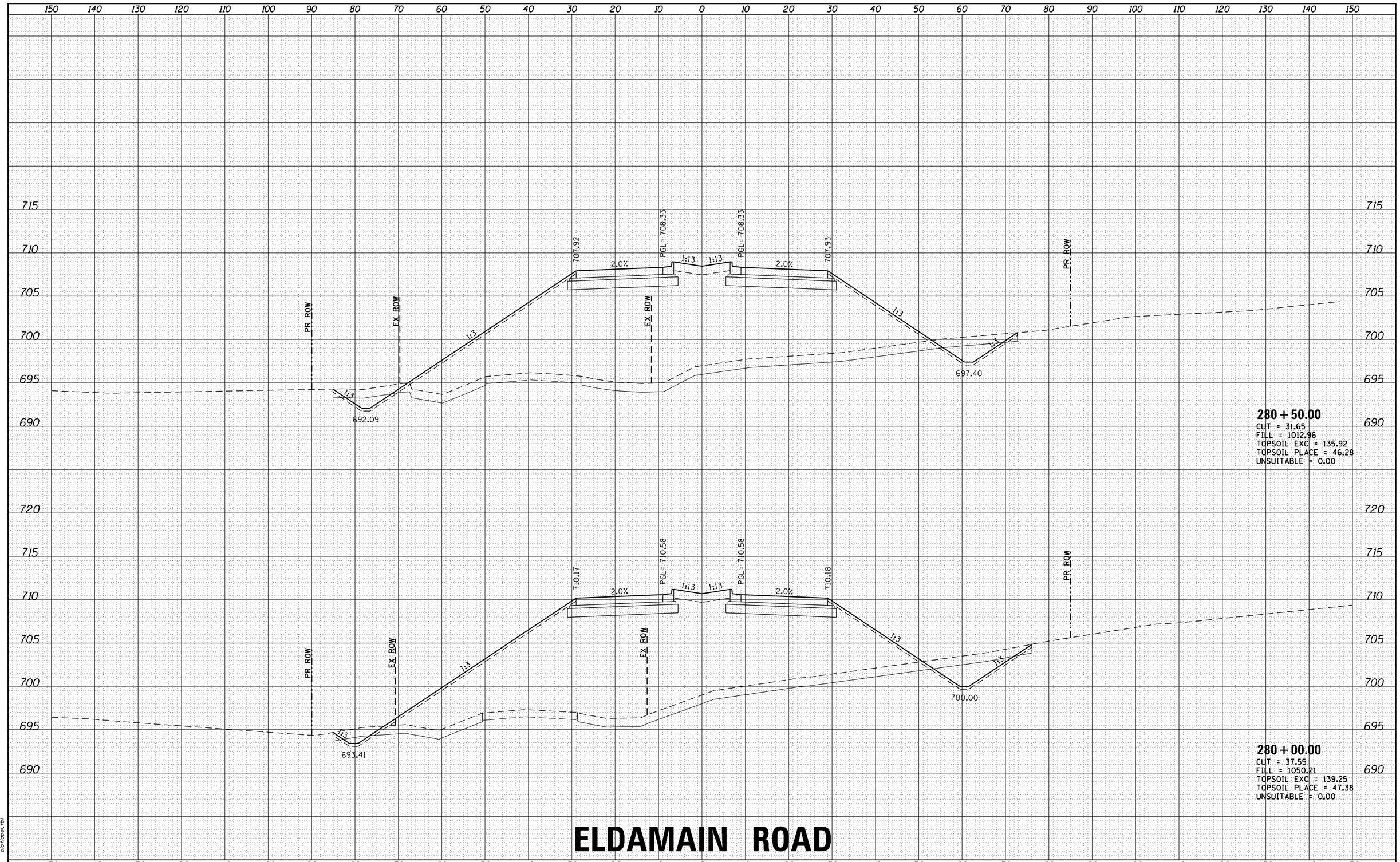
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 279+00.00 TO STA. 279+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	294
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



280 + 50.00
CUT = 31.65
FILL = 1012.96
TOPSOIL EXC = 135.92
TOPSOIL PLACE = 46.28
UNSUITABLE = 0.00

280 + 00.00
CUT = 37.55
FILL = 1050.21
TOPSOIL EXC = 139.25
TOPSOIL PLACE = 47.38
UNSUITABLE = 0.00

ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 88130381
HRG PROJ. CONTACT: 38@_xssh10_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

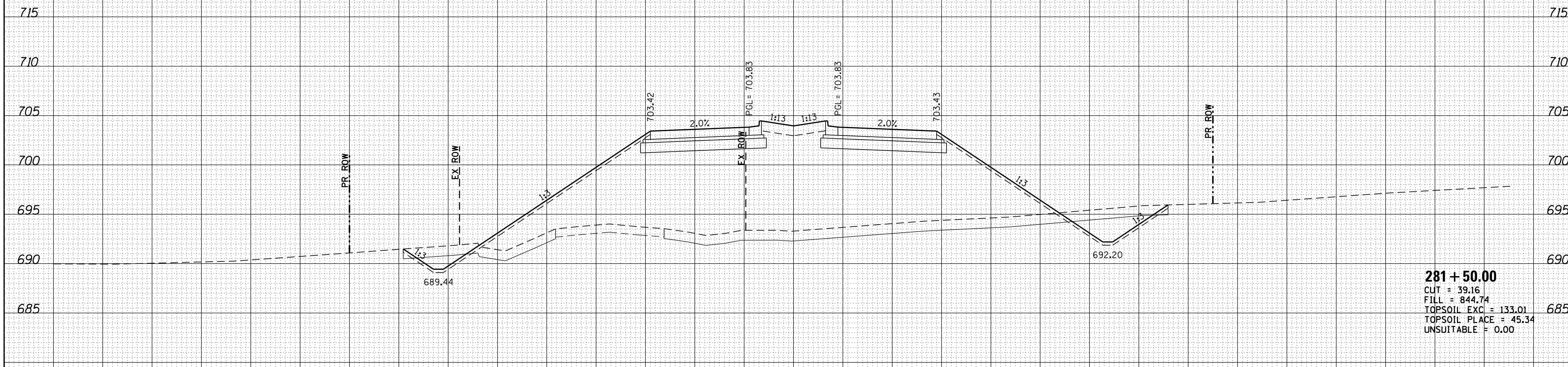
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

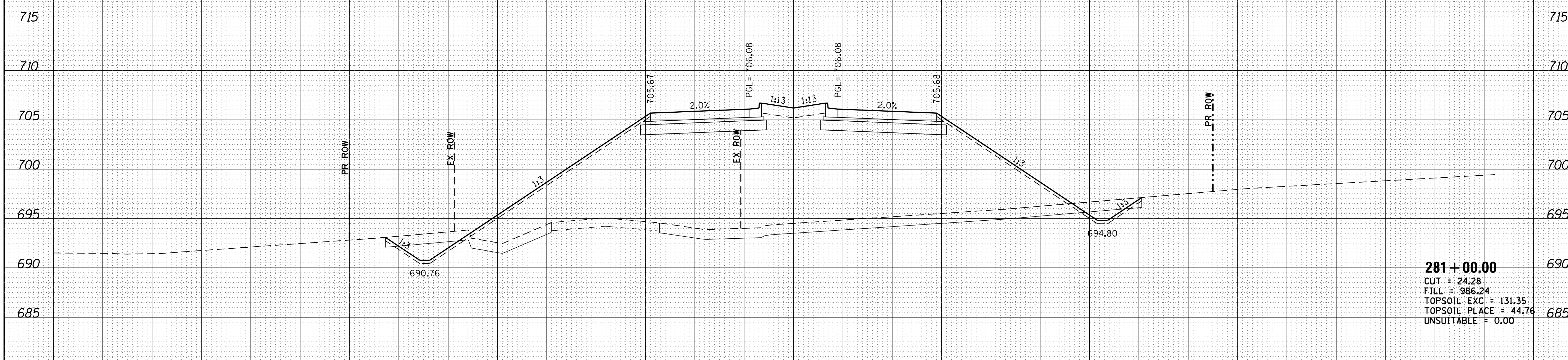
SCALE: | SHEET OF SHEETS | STA. 280+00.00 TO STA. 280+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	295
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



281+50.00

CUT = 39.16
FILL = 844.74
TOPSOIL EXC = 133.01
TOPSOIL PLACE = 45.34
UNSUITABLE = 0.00



281+00.00

CUT = 24.28
FILL = 986.24
TOPSOIL EXC = 131.35
TOPSOIL PLACE = 44.76
UNSUITABLE = 0.00

ELDAMAIN ROAD

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

HRG PROJECT NO.: 8813038I
HRG PROJ. CONTACT:
FILE NAME: 38B_xsshtOl_eldamain.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: pdfabel.tbl

HRGreen.com
Illinois Professional Design Firm # 184-001322
HRGreen

USER NAME = rbest	DESIGNED - JMR	REVISED -	
	DRAWN - RCB	REVISED -	
PLOT SCALE =	CHECKED - APS	REVISED -	
PLOT DATE = 6/29/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

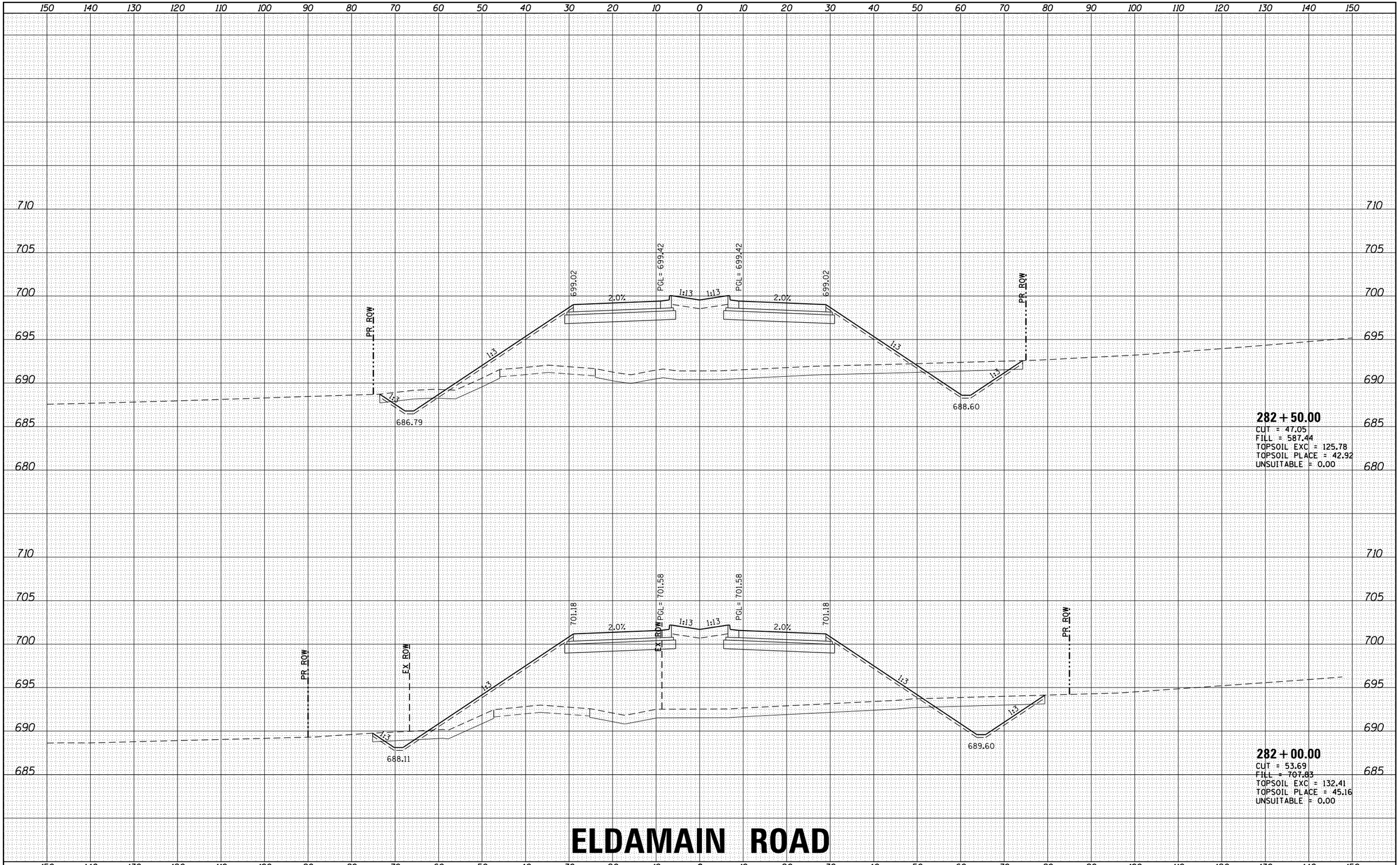
SCALE: | SHEET OF SHEETS | STA. 281+00.00 TO STA. 281+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	296
		CONTRACT NO. 87731		

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

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

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



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8B3038
HRG PROJ.CONTACT: 388_xssht01_eldamain.dgn
FILE NAME: IL_pdf_bw.pltcfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

HRGreen
HRGreen.com
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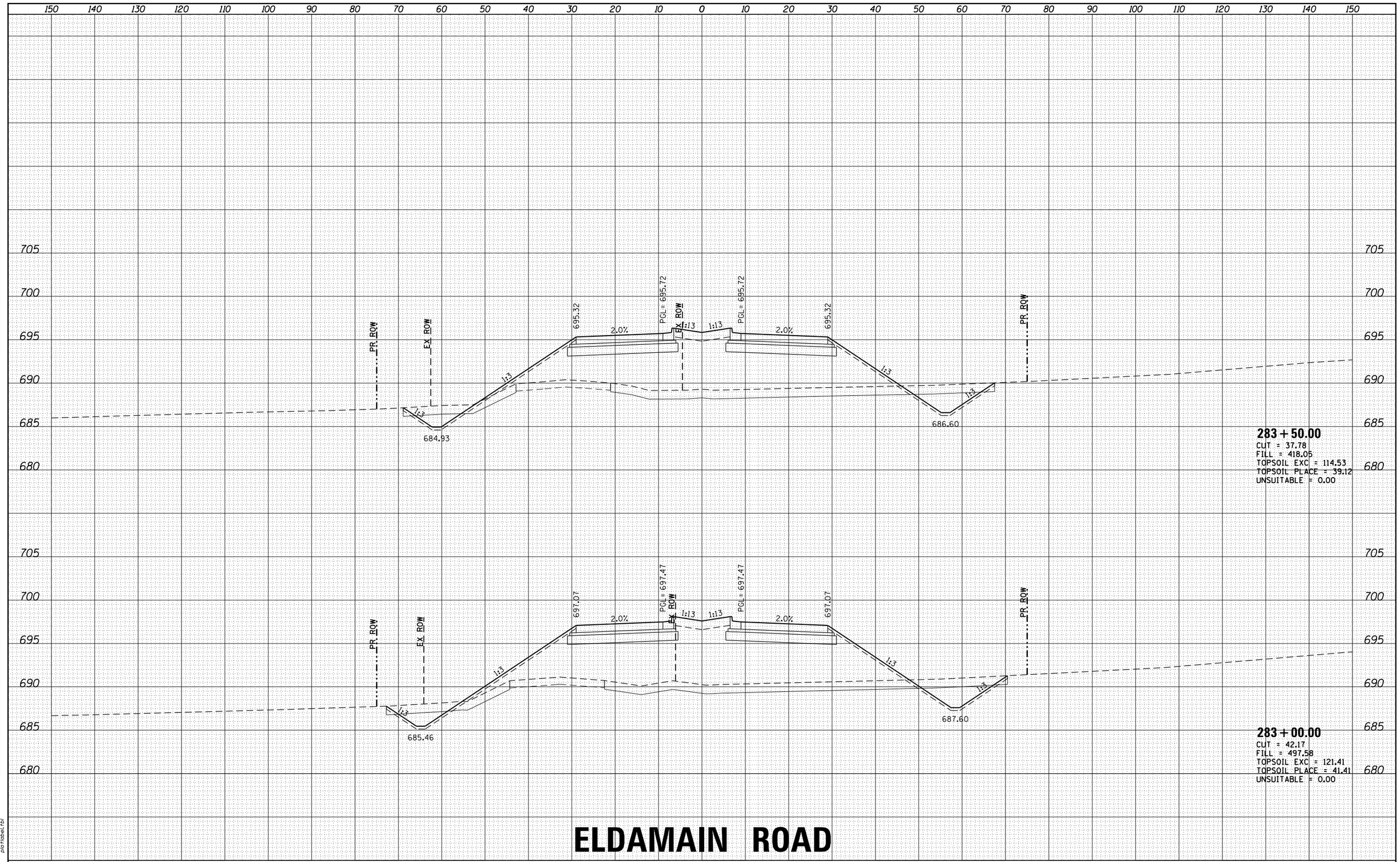
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 282+00.00 TO STA. 282+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	297
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT:
FILE NAME: 38B_xssht01_eldamain.dgn
PLOT DRIVER: il_pdf_bw_pltcfg
PEN TABLE: plotlabl.tbl

HRGreen
HRGreen.com
Illinois Professional Design Firm
184-001322

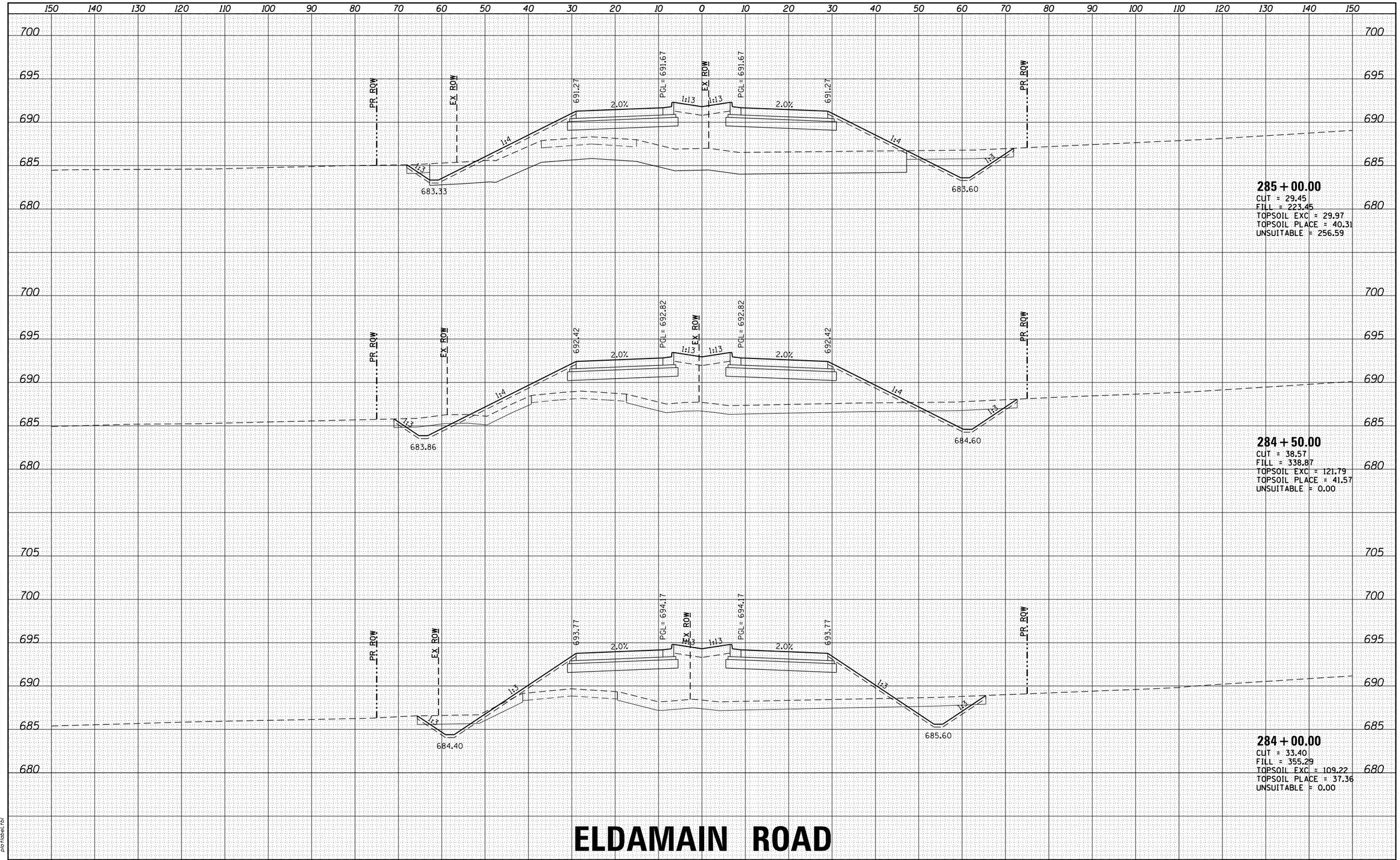
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 283+00.00 TO STA. 283+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	298
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 388_xssh10_eldamain.dgn
FILE NAME: IL_pdf_bw_ltr.cfg
PLOT DRIVER:
PEN TABLE: plotlabel.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322

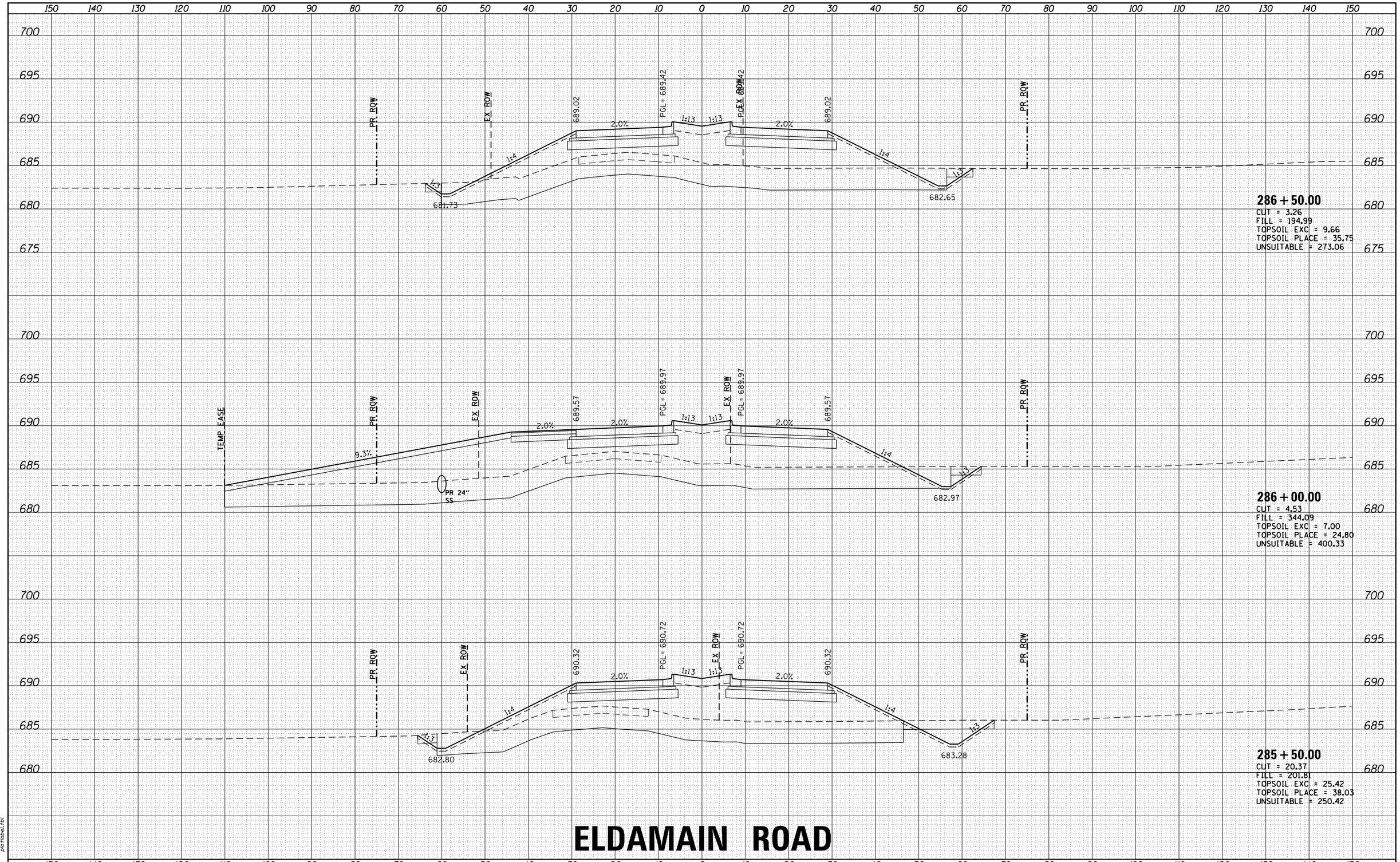
USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 284+00.00 TO STA. 285+00.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	299
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELDAMAIN ROAD

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

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

HRG PROJECT NO.: 8830381
HRG PROJ. CONTACT: 388_xssh10_eldamain.dgn
FILE NAME: IL_pdf_bw_ltr.cfg
PLOT DRIVER: plotlabel.tbl
PEN TABLE:

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USER NAME = rbest	DESIGNED - JMR	REVISED -
	DRAWN - RCB	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 6/29/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
ELDAMAIN ROAD

SCALE: | SHEET OF SHEETS | STA. 285+50.00 TO STA. 286+50.00

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
4000	19-00153-00-BR	KENDALL	485	300
		CONTRACT NO. 87731		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		