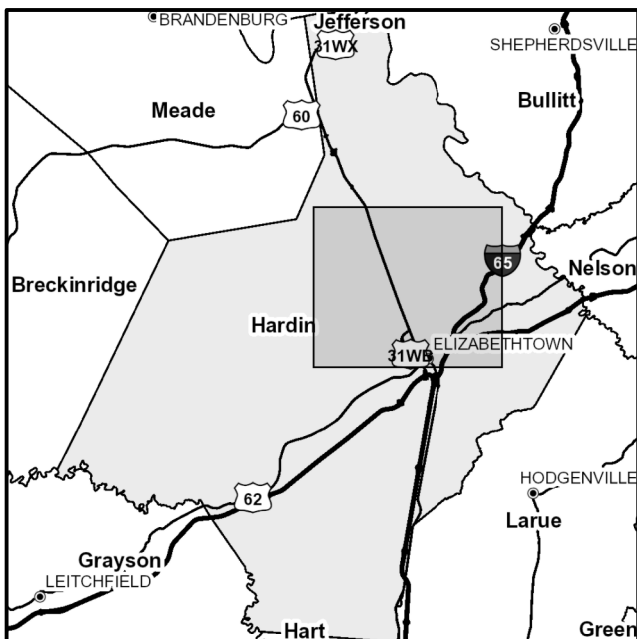
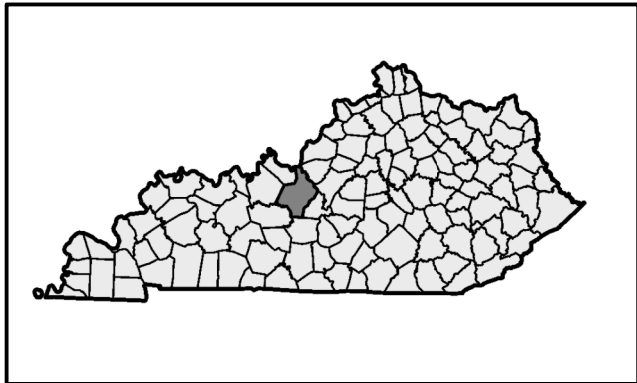


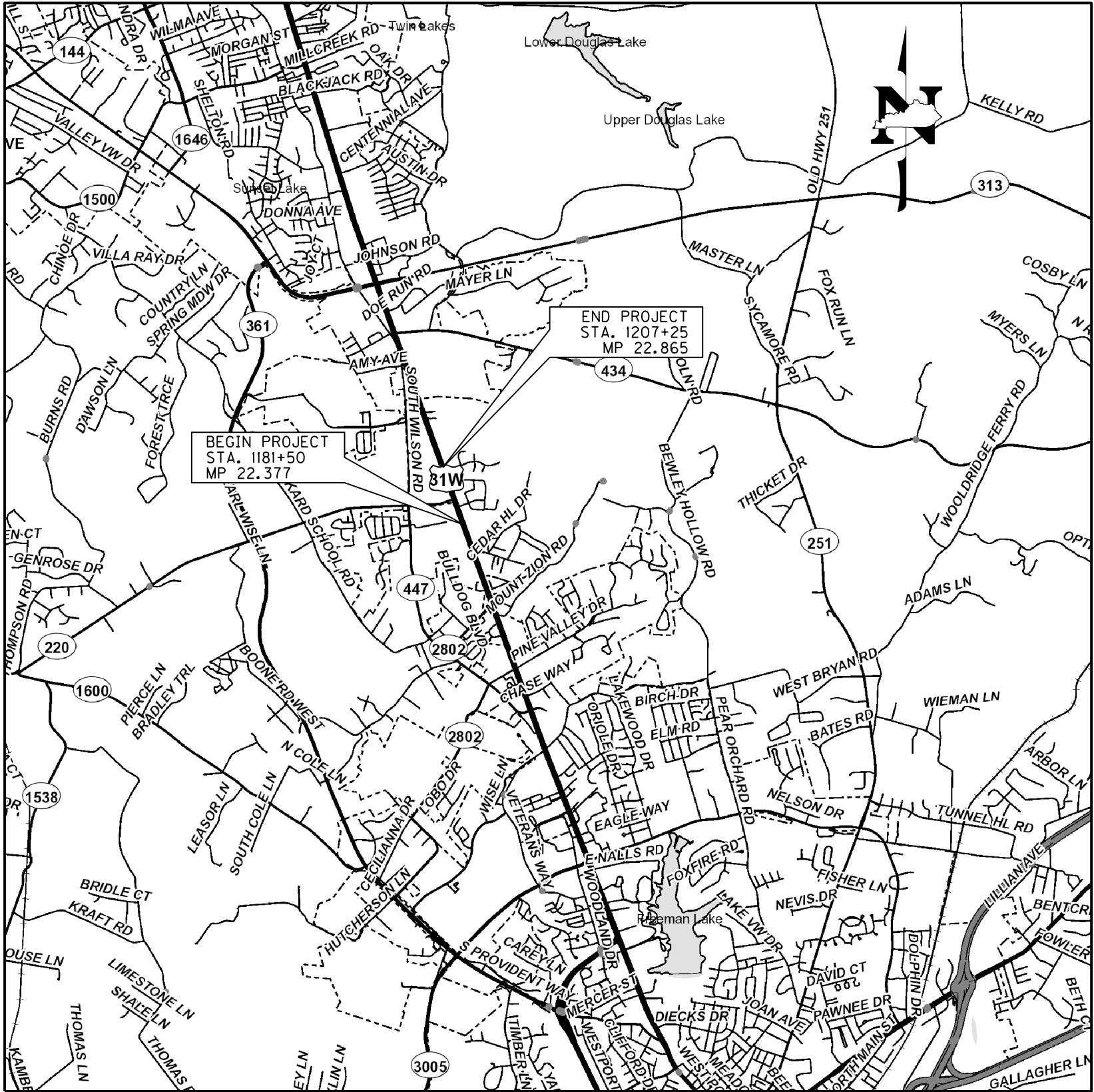
Hardin County
Construction of J-Turns and Intersection Improvements
On US 31W Near KY 220
Item No. 4-9008.40

COUNTY OF	ITEM NO.
HARDIN	4-9008.40

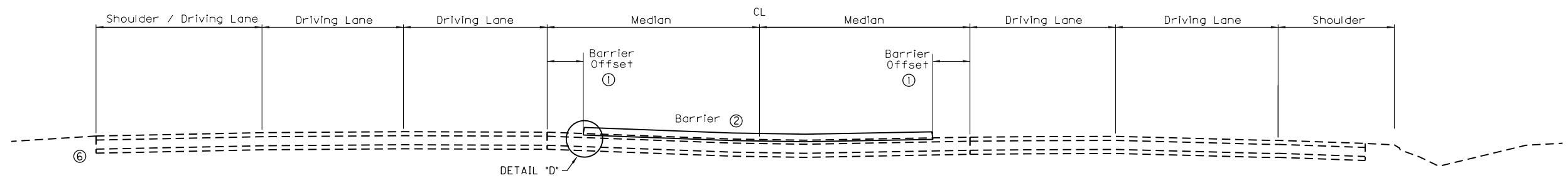


Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

PLANS OF
PROPOSED PROJECT
HARDIN COUNTY
US 31W



TYPICAL SECTION AND DETAILS

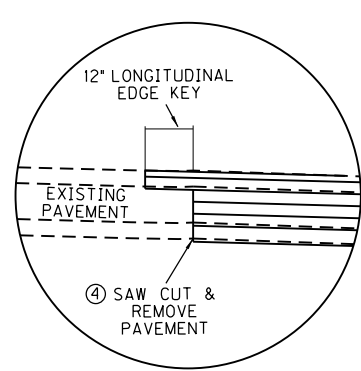


US 31W PAVEMENT DESIGN

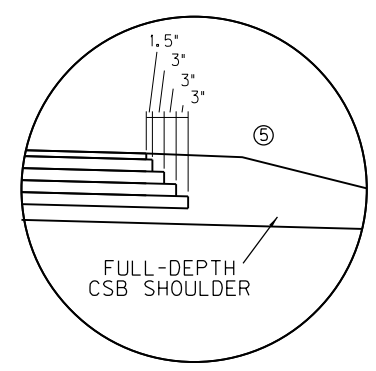
- 1.5" SURFACE — 1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
- ⑥ 16.5" BASE —
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 76-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3.5" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 4" COMPACTED DEPTH CRUSHED STONE BASE

US 31W
BARRIER MEDIAN
ON EXISTING PAVEMENT

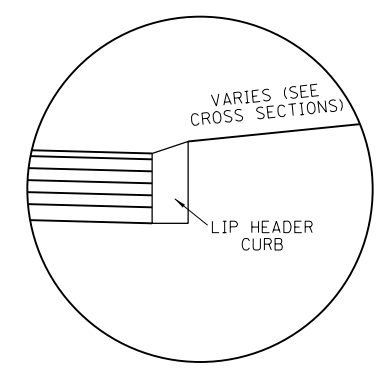
- ① 3' TYPICAL - SEE PLANS AND DETAILS WHERE IT MAY VARY
- ② STANDARD BARRIER MEDIAN TYPE 4
- ③ SEE PLANS AND CROSS SECTIONS FOR LOCATION
- ④ SAW CUT TO BE A BID ITEM; PAVEMENT REMOVAL TO BE INCIDENTAL TO ROADWAY EXCAVATION (SEE CROSS SECTIONS)
- ⑤ ASPHALT SEAL COAT REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. 2.4 LB/SY ASPHALT SEAL COAT (TWO APPLICATIONS) AND 20 LB/SY ASPHALT SEAL AGGREGATE (TWO APPLICATIONS).
- ⑥ BASED ON RECORD PLANS, THE EXISTING PAVEMENT DEPTH IS APPROXIMATELY 15.75" THICK. THE PROPOSED PAVEMENT DESIGN AS SHOWN IS 18". IF FIELD CONDITIONS REVEAL THE EXISTING THICKNESS TO BE SIGNIFICANTLY DIFFERENT, ADJUSTMENTS MAY BE MADE BY THE ENGINEER TO BEST MATCH THAT THICKNESS.
- ⑦ ENTRANCE RECONSTRUCTION PAVEMENT TO MATCH MAINLINE FULL DEPTH PAVEMENT
- ⑧ STA. 1203+50 TO STA. 1205+50
- ⑨ SEE CROSS SECTIONS FOR SIDE SLOPES AND DITCH ELEVATIONS
- ⑩ SEE PLANS AND DETAILS WHERE IT MAY VARY.
- ⑪ MATCH EXISTING DRIVING LANE BUT NOT LESS THAN 2.00%



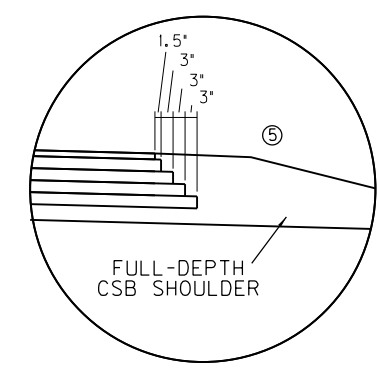
DETAIL "A"



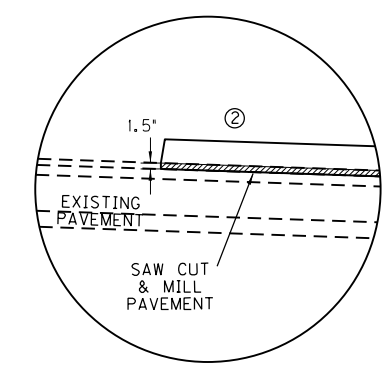
DETAIL "B"



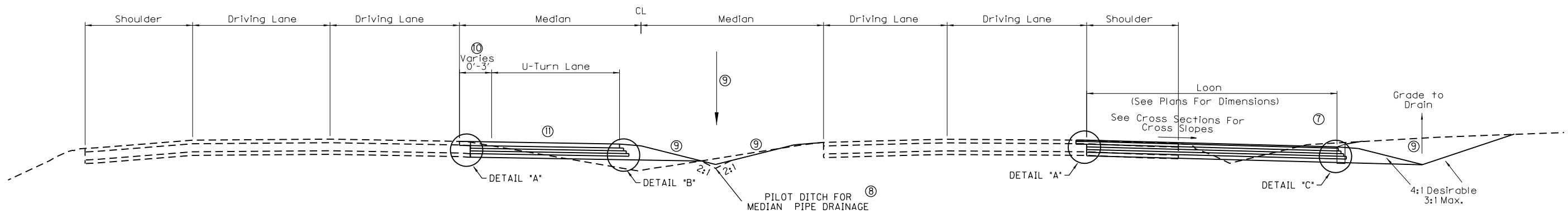
DETAIL "C"
(AT FULL WIDTH) ③



DETAIL "C"
(IN TAPER) ③



DETAIL "D"

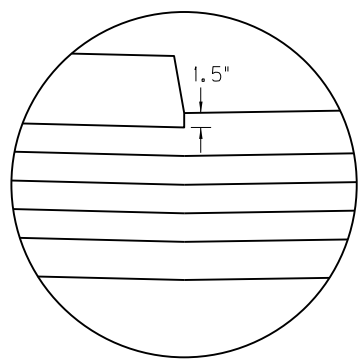
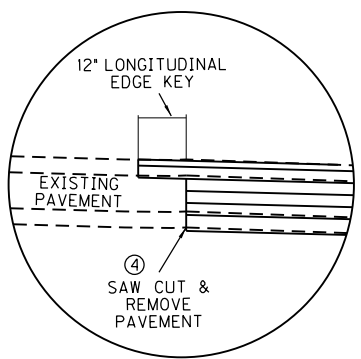
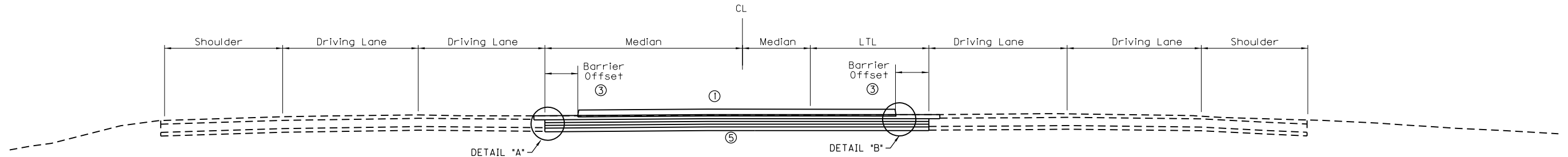
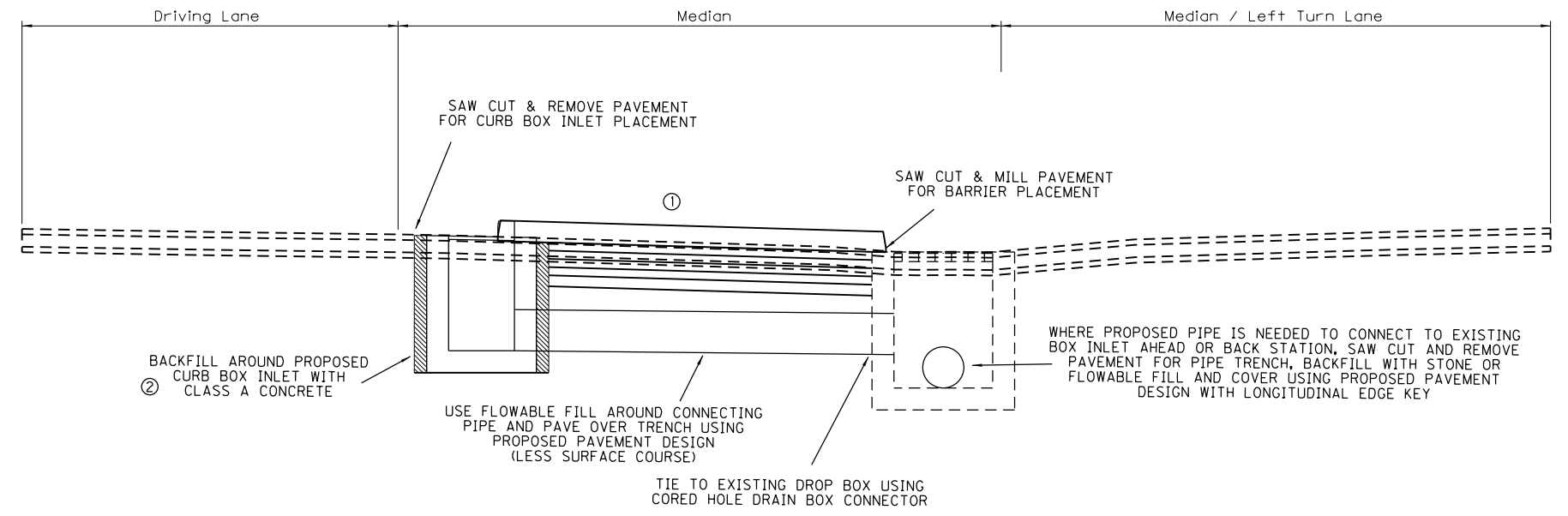
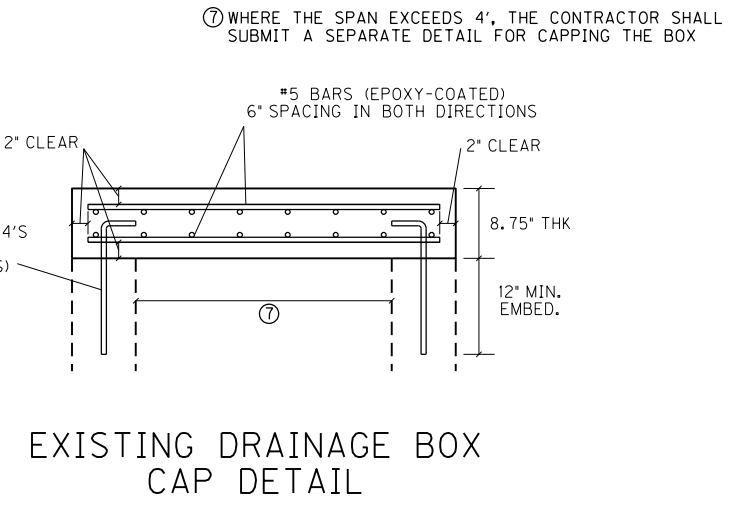


US 31W
LOON AND LEFT TURN LANE
PAVEMENT WIDENING

NOT TO SCALE

HIGHWAY SAFETY IMPROVEMENT PROGRAM
US 31W AT KY 220
TYPICAL SECTIONS AND DETAILS

TYPICAL SECTION AND DETAILS



US 31W PAVEMENT DESIGN

1.5" SURFACE	1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
⑥ 16.5" BASE	3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 76-22 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22 3.5" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22 4" COMPACTED DEPTH CRUSHED STONE BASE

- ① STANDARD BARRIER MEDIAN TYPE 4 ON EXISTING PAVEMENT & TYPE 2 ON NEW PAVEMENT
- ② CONCRETE QUANTITIES TO BE INCIDENTAL TO BID ITEM FOR CURB BOX INLET
- ③ 3' TYPICAL - SEE PLANS AND DETAILS WHERE IT MAY VARY
- ④ SAW CUT TO BE A BID ITEM; PAVEMENT REMOVAL TO BE INCIDENTAL TO ROADWAY EXCAVATION (SEE CROSS SECTIONS)
- ⑤ AT THE DISCRETION OF THE ENGINEER, PERFORATED PIPE MAY BE REQUIRED AT MEDIAN CROSSOVERS WHERE THE STONE BASE DOES NOT DAYLIGHT OR DRAIN TO THE MEDIAN DITCH. SEE OTHER TYPICAL SECTIONS FOR DETAILS.
- ⑥ BASED ON RECORD PLANS, THE EXISTING PAVEMENT DEPTH IS APPROXIMATELY 15.75" THICK. THE PROPOSED PAVEMENT DESIGN AS SHOWN IS 18". IF FIELD CONDITIONS REVEAL THE EXISTING THICKNESS TO BE SIGNIFICANTLY DIFFERENT, ADJUSTMENTS MAY BE MADE BY THE ENGINEER TO BEST MATCH THAT THICKNESS.

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT			TOTAL PROJECT
1885	LIP HEADER CURB	LF			90
1917	STANDARD BARRIER MEDIAN TY 2	SQ YD			52
1921	STANDARD BARRIER MEDIAN TY 4	SQ YD			630
2159	TEMPORARY DITCH	LF			625
2160	CLEAN TEMPORARY DITCH	LF			313
2200	ROADWAY EXCAVATION ⑦	CU YD			1250
2242	WATER ⑥	M GAL			37
2545	CLEARING AND GRUBBING ①	LS			1
2562	TEMPORARY SIGNS	SQ FT			213
2600	FABRIC-GEOTEXTILE TYPE IV FOR PIPE	SQ YD			911
2650	MAINTAIN AND CONTROL TRAFFIC	LS			1
2671	PORTABLE CHANGEABLE MESSAGE SIGNS	EACH			2
2676	MOBILIZATION FOR MILL & TEXT	LS			1
2677	ASPHALT PAVE MILLING & TEXTURING ②	TON			52
2701	TEMPORARY SILT FENCE	LF			625
2703	SILT TRAP TYPE A	EACH			1
2704	SILT TRAP TYPE B	EACH			3
2705	SILT TRAP TYPE C	EACH			10
2706	CLEAN SILT TRAP TYPE A	EACH			1
2707	CLEAN SILT TRAP TYPE B	EACH			3
2708	CLEAN SILT TRAP TYPE C	EACH			10
2726	STAKING	LS			1
2775	ARROW PANEL	EACH			2
5950	EROSION CONTROL BLANKET	SQ YD			1288
5952	TEMPORARY MULCH	SQ YD			2788
5953	TEMP SEEDING AND PROTECTION	SQ YD			2091
5963	INITIAL FERTILIZER	TON			0.17
5964	MAINTENANCE FERTILIZER	TON			0.28
5985	SEEDING AND PROTECTION	SQ YD			4182
5992	AGRICULTURAL LIMESTONE	TON			3.41
6530	PAVEMENT STRIPING REMOVAL - 4 INCH ③	LF			1902
6569	PAVEMENT MARKING - THERMO CROSS-HATCH	SQ FT			114
6574	PAVEMENT MARKING - THERMO CURVE ARROW	EACH			13
6576	PAVEMENT MARKING - THERMO "ONLY"	EACH			1
6598	PAVEMENT MARKING REMOVAL ③	SQ FT			233
10020NS	FUEL ADJUSTMENT ⑨	DOLLAR			3041
10030NS	ASPHALT ADJUSTMENT ⑨	DOLLAR			7638
20550ND	SAW CUT PAVEMENT ④	LF			1933
21289ED	LONGITUDINAL EDGE KEY ⑤	LF			1811
24489EC	INLAID PAVEMENT MARKERS	EACH			33
24679ED	PAVE MARK THERMO CHEVRON	SQ FT			63
24814EC	PIPELINE INSPECTION	LF			672
24955ED	REMOVE SIGNAL EQUIPMENT ⑧	EACH			1
24995EC	PAVE STRIPING - SPRAY THERMO - 6 IN W	LF			1411
24996EC	PAVE STRIPING - SPRAY THERMO - 6 IN Y	LF			1433
23274EN11F	TURF REINFORCEMENT MAT 1	SQ YD			120

- ① APPROXIMATELY 0.85 ACRES
- ② FOR PREPARATION OF STANDARD BARRIER MEDIAN TYPE 4 CONSTRUCTION
- ③ FOR THE REMOVAL OF ALL STRIPING AND MARKING THAT WILL CONFLICT WITH FUTURE PROPOSED TRAFFIC PATTERNS OR PROPOSED MARKINGS
- ④ FOR ALL LOCATIONS OF PAVEMENT MILLING, WIDENING, OR REPLACEMENT (SEE ALSO TYPICAL SECTIONS AND DETAILS)
- ⑤ FOR ALL LOCATIONS OF PAVEMENT WIDENING OR REPLACEMENT (SEE ALSO TYPICAL SECTIONS AND DETAILS)
- ⑥ FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY; ESTIMATED AT 75 MGAL PER MILE
- ⑦ EARTHWORK QUANTITIES ARE APPROXIMATE AND FOR INFORMATION ONLY

EARTHWORK QUANTITIES:

COMMON 1250 CY
EMBANKMENT 262 CY
- ⑧ TO INCLUDE REMOVAL OF POLES, EQUIPMENT, AND CONCRETE BASES. CONCRETE BASES TO BE REMOVED TO 12 INCHES BELOW EXISTING GROUND LINE. DELIVER SIGNAL HEADS AND CABINET TO:
310 VALLEY ROAD
ELIZABETHTOWN, KY 42701

BEFORE DELIVERING, CONTACT JAKE RIGGS:
(270) 401-8132
- ⑨ PROJECT QUANTITY PRORATED BASED ON PERCENTAGE OF ASPHALT FROM TOTAL ASPHALT OF KY 220, KY 434, AND BLACKJACK ROAD PROJECTS

PAVING AREAS

ITEM	LEFT TURN & U-TURN LANES ①	LOONS & RIGHT TURN LANES ②	ENTRANCES		TOTAL PROJECT
	S Q U A R E Y A R D S				
1.5" CL 3 ASPHALT SURFACE 0.38A PG 76-22	1551	1105			2656
3.0" CL 3 ASPHALT BASE 1.00D PG 76-22	1564	1112			2676
3.0" CL 3 ASPHALT BASE 1.00D PG 64-22	1457	1056			2513
3.0" CL 3 ASPHALT BASE 1.00D PG 64-22	1483	1070			2553
3.5" CL 3 ASPHALT BASE 1.00D PG 64-22	1510	1085			2595
8" CEMENT CONCRETE ENTRANCE PAVEMENT			140		140
4.0" CRUSHED STONE BASE ③	1541	1101	141		2783
LEVELING & WEDGING PG 64-22	10	10			20
ASPHALT SEAL COAT	372	224			596
ASPHALT SEAL AGGREGATE	372	224			596
ASPHALT MATERIAL FOR TACK NON-TRACKING	6055	4343			10398

PAVING QUANTITIES

ITEM CODE	ITEM	UNIT	LEFT TURN & U-TURN LANES ①	LOONS & RIGHT TURN LANES ②	ENTRANCES		TOTAL PROJECT
336	CL 3 ASPHALT SURFACE 0.38A PG 76-22	TON	128	91			219
216	CL 3 ASPHALT BASE 1.00D PG 76-22	TON	258	183			442
214	CL 3 ASPHALT BASE 1.00D PG 64-22	TON	776	560			1335
2101	CEM CONC ENT PAVEMENT-8 IN	SQ YD			140		140
3	CRUSHED STONE BASE ③	TON	777	474	32		1284
103	ASPHALT SEAL COAT ④	TON	0.9	0.5			1.4
100	ASPHALT SEAL AGGREGATE ⑤	TON	7.4	4.5			11.9
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING ⑥	TON	1.5	1.1			2.6
190	LEVELING & WEDGING PG 64-22 ⑦	TON	1	1			2

- ALL ASPHALT MIXTURES ESTIMATED AT 110 LBS. PER SQUARE YARD PER INCH UNLESS NOTED OTHERWISE
- ① INCLUDES CROSSOVERS AND PAVEMENT REPLACEMENT FOR CONSTRUCTION OF DRAINAGE STRUCTURES
- ② INCLUDES ADJACENT ENTRANCE
- ③ ESTIMATED AT 115 LBS. PER SQUARE PER INCH OF DEPTH; QUANTITIES FOR FULL-DEPTH SHOULDERS CALCULATED BY AVERAGE END AREA METHOD
- ④ ESTIMATED AT 2.40 LBS. PER SQUARE YARD (2 APPLICATIONS)
- ⑤ ESTIMATED AT 20 LBS. PER SQUARE YARD (2 APPLICATIONS)
- ⑥ ESTIMATED AT 0.50 LBS. PER SQUARE YARD (BETWEEN ASPHALT PAVEMENT COURSES)
- ⑦ ESTIMATED QUANTITY FOR MAKING ADJUSTMENTS TO CROSS SLOPES AND WHERE NEEDED AT TIE-DOWNS; AS DIRECTED BY THE ENGINEER

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 220
GENERAL SUMMARY

PIPE DRAINAGE SUMMARY

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

[illegible]

NOTES:

IF A PIPE COLLAR OR BEND CONNECTION IS NEEDED FOR CONSTRUCTION OF A PIPE EXTENSION,
IT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PIPE BEING CONSTRUCTED.

① BID ITEM TO INCLUDE THE REMOVAL OF THE TOP PHASE OF THE CURB BOX OR DROP BOX INLET

② FRAME AND LID TYPE 2

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 220
PIPE DRAINAGE SUMMARY

FILE NAME: D:\PW\WORKDIR\DM564840\PLAN SHEET R3-KY220.DGN

USER: travis-m
DATE PLOTTED: June 17, 2019

E-SHEET NAME:

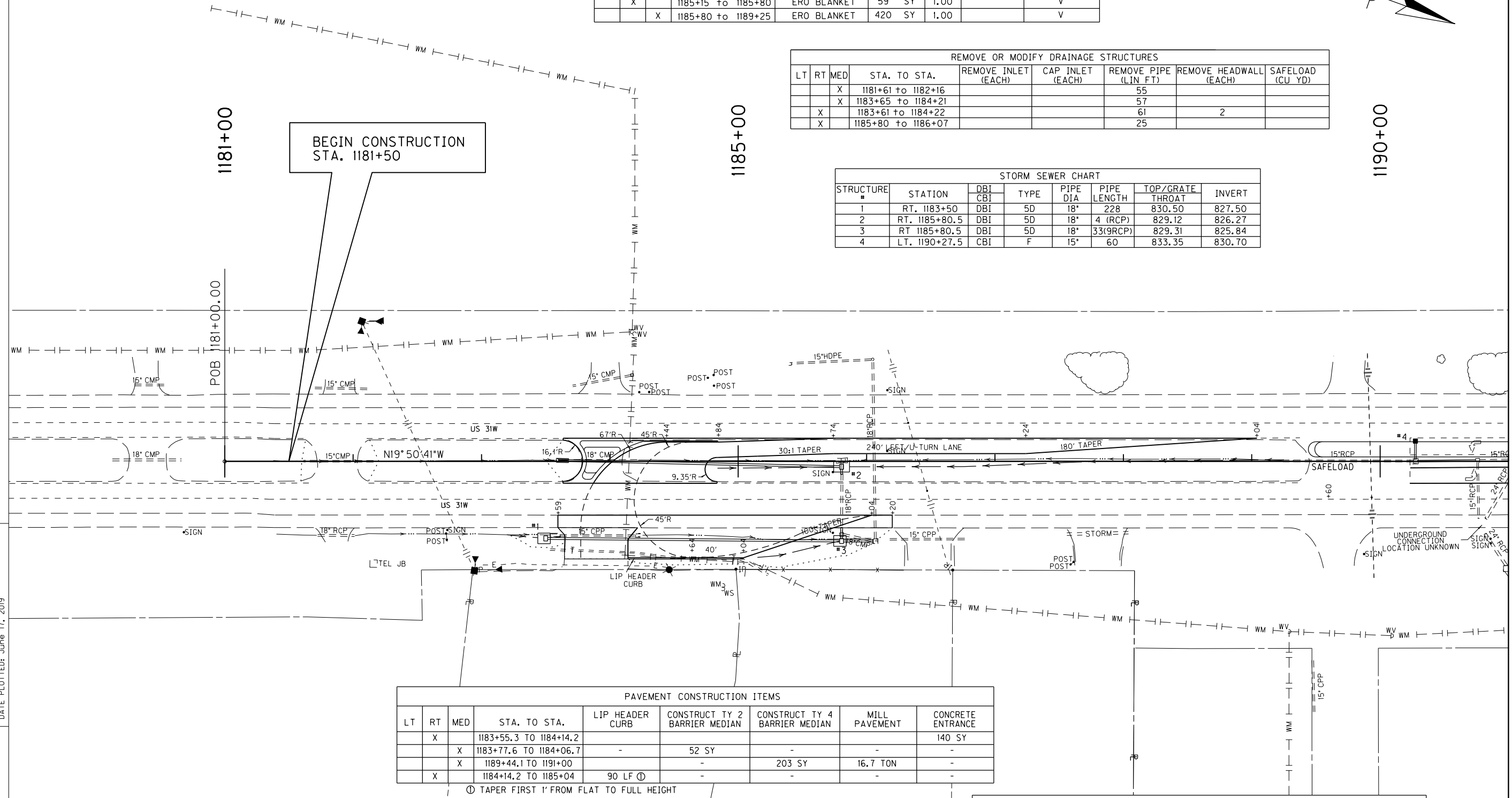
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

DITCH CONSTRUCTION CHART								
LT	RT	MED	STA. TO STA.	TYPE	QUANTITY	DEPTH	THICKNESS	DITCH
		X	1181+60 to 1182+20	ERO BLANKET	80 SY	1.00		V
		X	1183+20 to 1183+50	ERO BLANKET	40 SY	1.00		V
		X	1184+52 to 1185+80	ERO BLANKET	114 SY	1.00		V
		X	1185+15 to 1185+80	ERO BLANKET	59 SY	1.00		V
		X	1185+80 to 1189+25	ERO BLANKET	420 SY	1.00		V

REMOVE OR MODIFY DRAINAGE STRUCTURES						
LT	RT	MED	STA. TO STA.	REMOVE INLET (EACH)	CAP INLET (EACH)	REMOVE PIPE (LIN FT)
		X	1181+61 to 1182+16			55
		X	1183+65 to 1184+21			57
	X		1183+61 to 1184+22			61
	X		1185+80 to 1186+07			25

STORM SEWER CHART							
STRUCTURE #	STATION	DBI CBI	TYPE	PIPE DIA	PIPE LENGTH	TOP/GRATE THROAT	INVERT
1	RT. 1183+50	DBI	5D	18"	228	830.50	827.50
2	RT. 1185+80.5	DBI	5D	18"	4 (RCP)	829.12	826.27
3	RT 1185+80.5	DBI	5D	18"	33(9RCP)	829.31	825.84
4	LT. 1190+27.5	CBI	F	15"	60	833.35	830.70



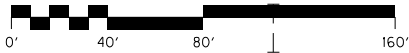
PAVEMENT CONSTRUCTION ITEMS						
LT	RT	MED	STA. TO STA.	LIP HEADER CURB	CONSTRUCT TY 2 BARRIER MEDIAN	CONSTRUCT TY 4 BARRIER MEDIAN
	X		1183+55.3 TO 1184+14.2			
		X	1183+77.6 TO 1184+06.7	-	52 SY	-
		X	1189+44.1 TO 1191+00	-	203 SY	16.7 TON
	X		1184+14.2 TO 1185+04	90 LF ①	-	-

① TAPER FIRST 1' FROM FLAT TO FULL HEIGHT

PIPE CULVERT CHART					
STATION TO STATION	INLET ELEV.	INLET TYPE	OUTLET ELEV.	OUTLET TYPE	PIPE
1183+67.05 - 1185+80.5	829.22	SLOPED BOX	826.27	PROP. DBI	212 LF - 18"
		OUTLET TY 1			

BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.



SCALE: 1"= 40'

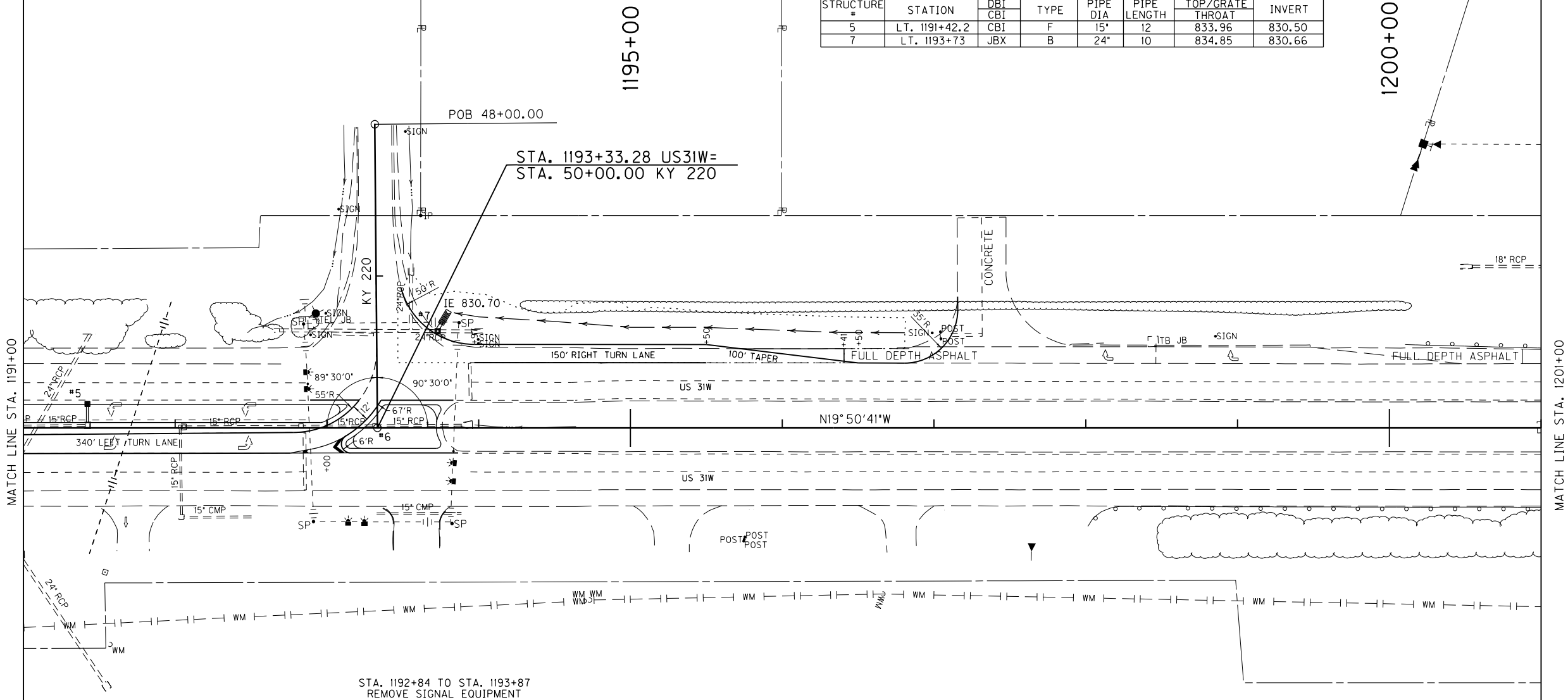
HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 220 PLAN SHEET
BEGIN TO STA. 1191+00

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

DITCH CONSTRUCTION CHART									
LT	RT	MED	STA. TO STA.	TYPE	QUANTITY	DEPTH	THICKNESS	DITCH	
X			1193+80 to 1195+00	TURF REINF MAT	120 SY	1.00		V	
X			1195+00 to 1196+80	ERO BLANKET	180 SY	1.00		V	

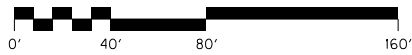
REMOVE OR MODIFY DRAINAGE STRUCTURES								
STRUCTURE #	LT	RT	MED	STA. TO STA.	REMOVE INLET (EACH)	CAP INLET (EACH)	REMOVE PIPE (LIN FT)	REMOVE HEADWALL (EACH)
6			X	1193+31.8		1		

STORM SEWER CHART								
STRUCTURE #	STATION	DBI CBI	TYPE	PIPE DIA	PIPE LENGTH	TOP/GRATE THROAT	INVERT	
5	LT. 1191+42.2	CBI	F	15"	12	833.96	830.50	
7	LT. 1193+73	JBX	B	24"	10	834.85	830.66	



STA. 1192+84 TO STA. 1193+87
REMOVE SIGNAL EQUIPMENT

PAVEMENT CONSTRUCTION ITEMS					
LT	RT	MED	STA. TO STA.	CONSTRUCT TY 4 BARRIER MEDIAN	MILL PAVEMENT
		X	1191+00 TO 1193+13.2	271 SY	22.4 TON
		X	1193+12.6 TO 1193+75.2	156 SY	12.9 TON

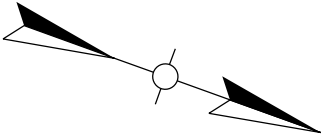


SCALE: 1"= 40'

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 220 PLAN SHEET
STA. 1191+00 TO STA. 1201+00

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

DITCH CONSTRUCTION CHART									
LT	RT	MED	STA. TO STA.		TYPE	QUANTITY	DEPTH	THICKNESS	DITCH
		X	1202+40	1205+50	ERO BLANKET	280 SY	1.00		V
		X	1205+50	1206+40	ERO BLANKET	100 SY	1.00		V
		X	1207+10	1207+20	ERO BLANKET	15 SY	1.00		V



1205+00

EXISTING DRAINAGE EASEMENT

DRAINAGE ESMT. PER PC 1 SHT 4317

PENCE LEASING, LLC
DB 968 PG 150
PC 1 SHT 4317
LOT 4

MATCH LINE STA. 1201+00

18" RCP SSMH 18" RCP

N19°50'41"W

+40

+40

180' TAPER

240' LEFT/U-TURN LANE

10.5' R

11.25' R

15' R

12' RCP

18' R

23.25' R

POE 1207+77.8

US 31W

US 31W

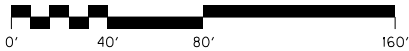
END CONSTRUCTION
STA. 1207+25

REMOVE OR MODIFY DRAINAGE STRUCTURES

LT	RT	MED	STA. TO STA.	REMOVE INLET (EACH)	CAP INLET (EACH)	REMOVE PIPE (LIN FT)	REMOVE HEADWALL (EACH)	SAFELoad (CU YD)
		X	1206+46 to 1207+02			57		

PIPE CULVERT CHART

STATION TO STATION	INLET ELEV.	INLET TYPE	OUTLET ELEV.	OUTLET TYPE	PIPE
1205+57.7 - 1207+02.8	838.60	SLOPED BOX	838.00	SLOPED BOX	146 LF - 15"
		OUTLET TY 1		OUTLET TY 1	



SCALE: 1"= 40'

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 220 PLAN SHEET
STA. 1201+00 TO END

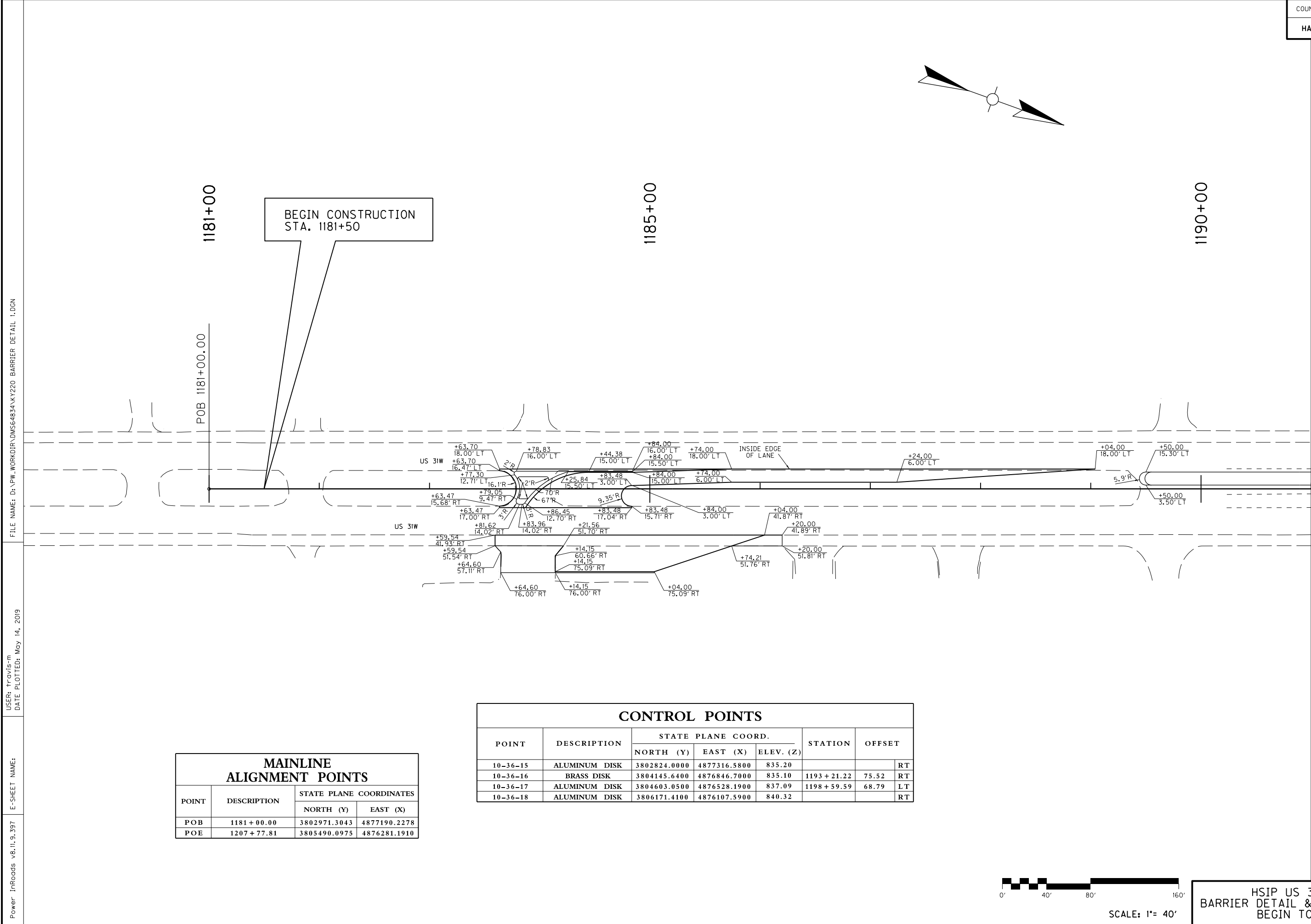
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW_MWORK\DR\MS64834\KY220 BARRIER DETAIL 1.DGN

USER: travis-m
DATE PLOTTED: May 14, 2019

E-SHEET NAME:

Power InRoads v8.11.9.337



MAINLINE ALIGNMENT POINTS			
POINT	DESCRIPTION	STATE PLANE COORDINATES	
		NORTH (Y)	EAST (X)
POB	1181 + 00.00	3802971.3043	4877190.2278
POE	1207 + 77.81	3805490.0975	4876281.1910

CONTROL POINTS							
POINT	DESCRIPTION	STATE PLANE COORD.			STATION	OFFSET	
		NORTH (Y)	EAST (X)	ELEV. (Z)			
10-36-15	ALUMINUM DISK	3802824.0000	4877316.5800	835.20			RT
10-36-16	BRASS DISK	3804145.6400	4876846.7000	835.10	1193 + 21.22	75.52	RT
10-36-17	ALUMINUM DISK	3804603.0500	4876528.1900	837.09	1198 + 59.59	68.79	LT
10-36-18	ALUMINUM DISK	3806171.4100	4876107.5900	840.32			RT



HSIP US 31W AT KY 220
BARRIER DETAIL & CONTROL PLAN SHEET
BEGIN TO STA. 1191+00

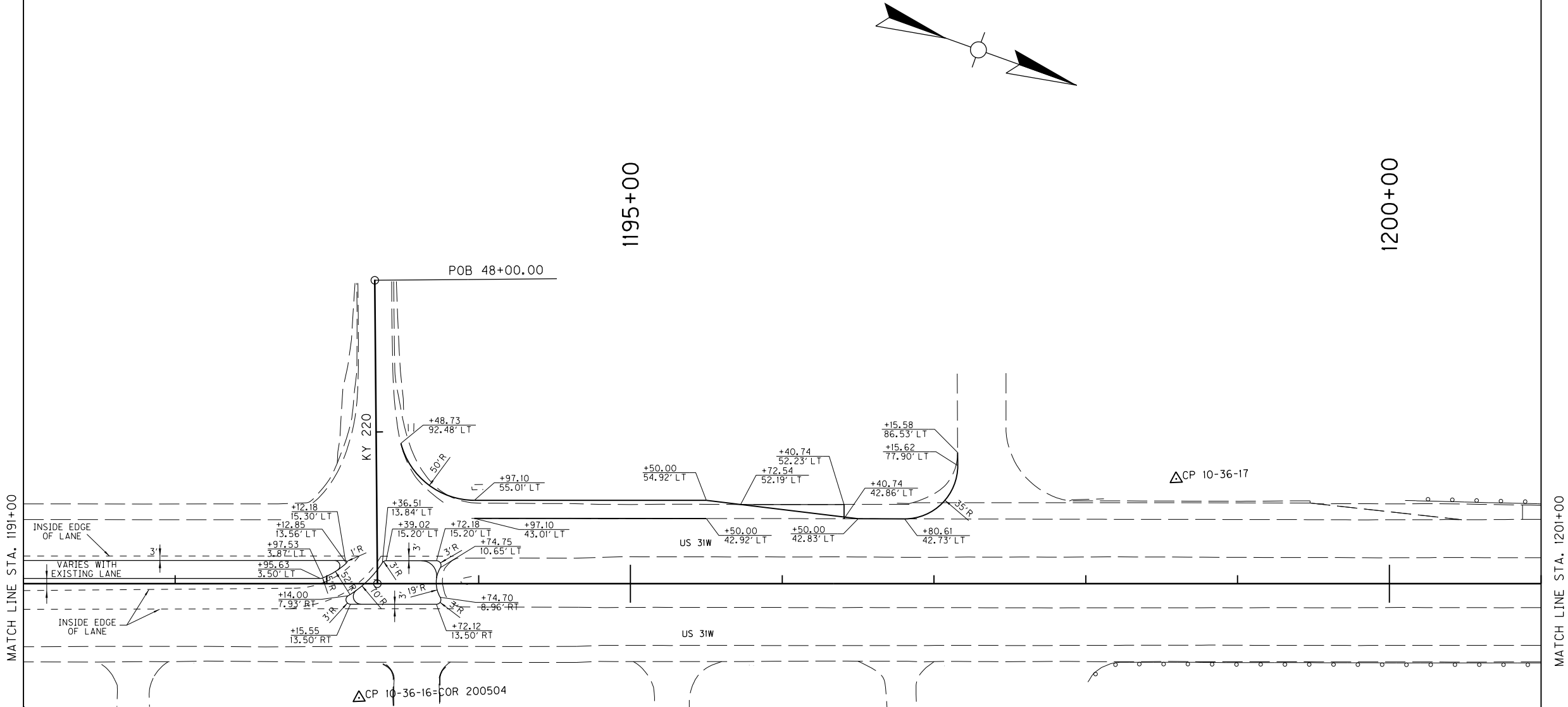
FILE NAME: D:\PW_WORKDIR\DM564834\KY220 BARRIER DETAIL 2.DGN

USER: travis-m
DATE PLOTTED: June 17, 2019

E-SHEET NAME:

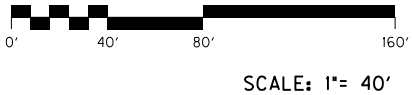
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



MAINLINE ALIGNMENT POINTS			
POINT	DESCRIPTION	STATE PLANE COORDINATES	
		NORTH (Y)	EAST (X)
POB	1181 + 00.00	3802971.3043	4877190.2278
POE	1207 + 77.81	3805490.0975	4876281.1910
KY 220			
POB	48 + 00.00	3804061.8098	4876584.0361
POE	50 + 00.00	3804131.3429	4876771.5598

CONTROL POINTS						
POINT	DESCRIPTION	STATE PLANE COORD.			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
10-36-15	ALUMINUM DISK	3802824.0000	4877316.5800	835.20		RT
10-36-16	BRASS DISK	3804145.6400	4876846.7000	835.10	1193 + 21.22	75.52 RT
10-36-17	ALUMINUM DISK	3804603.0500	4876528.1900	837.09	1198 + 59.59	68.79 LT
10-36-18	ALUMINUM DISK	3806171.4100	4876107.5900	840.32		RT



HSIP US 31W AT KY 220
BARRIER DETAIL & CONTROL PLAN SHEET
STA. 1191+00 TO STA. 1201+00

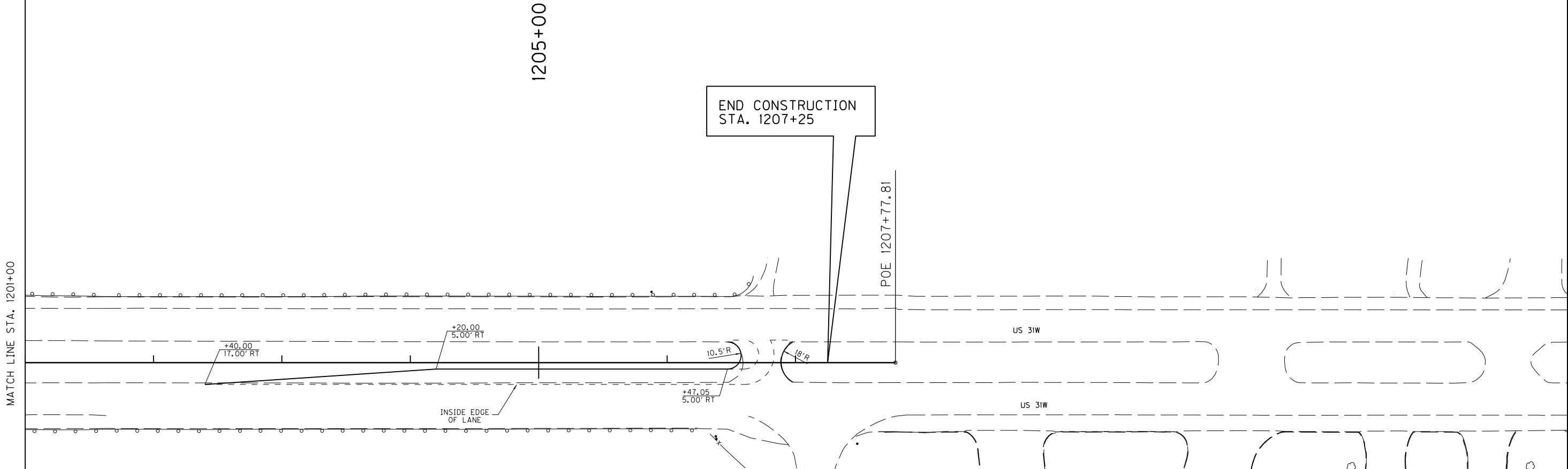
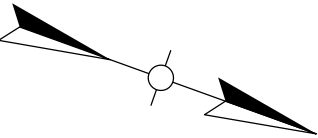
FILE NAME: D:\PW\WORKDIR\DM564834\KY220 BARRIER DETAIL 3.DGN

USER: travis-m
DATE PLOTTED: August 30, 2018

E-SHEET NAME:

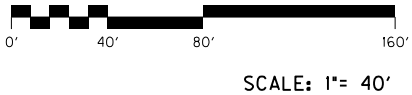
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



MAINLINE ALIGNMENT POINTS			
POINT	DESCRIPTION	STATE PLANE COORDINATES	
		NORTH (Y)	EAST (X)
POB	1181 + 00.00	3802971.3043	4877190.2278
POE	1207 + 77.81	3805490.0975	4876281.1910

CONTROL POINTS						
POINT	DESCRIPTION	STATE PLANE COORD.			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
10-36-15	ALUMINUM DISK	3802824.0000	4877316.5800	835.20		RT
10-36-16	BRASS DISK	3804145.6400	4876846.7000	835.10	1193 + 21.22	75.52 RT
10-36-17	ALUMINUM DISK	3804603.0500	4876528.1900	837.09	1198 + 59.59	68.79 LT
10-36-18	ALUMINUM DISK	3806171.4100	4876107.5900	840.32		RT



SCALE: 1"= 40'

HSIP US 31W AT KY 220
BARRIER DETAIL & CONTROL PLAN SHEET
STA. 1201+00 TO END

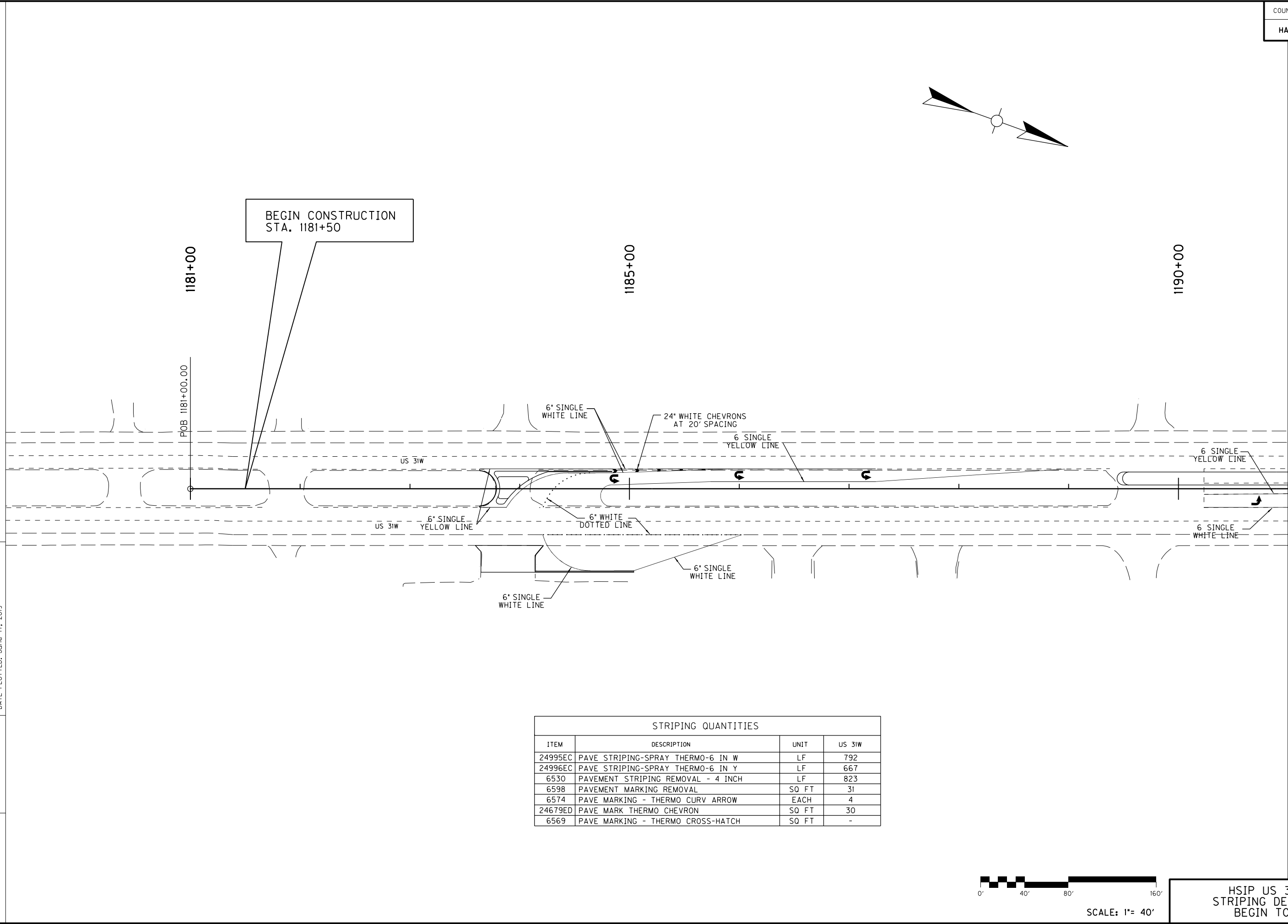
FILE NAME: D:\PW\WORKDIR\DM564834\KY220 STRIPING DETAIL 1.DGN

USER: travis-m
DATE PLOTTED: June 17, 2019

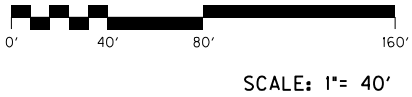
E-SHEET NAME:

Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



STRIPING QUANTITIES			
ITEM	DESCRIPTION	UNIT	US 31W
24995EC	PAVE STRIPING-SPRAY THERMO-6 IN W	LF	792
24996EC	PAVE STRIPING-SPRAY THERMO-6 IN Y	LF	667
6530	PAVEMENT STRIPING REMOVAL - 4 INCH	LF	823
6598	PAVEMENT MARKING REMOVAL	SQ FT	31
6574	PAVE MARKING - THERMO CURV ARROW	EACH	4
24679ED	PAVE MARK THERMO CHEVRON	SQ FT	30
6569	PAVE MARKING - THERMO CROSS-HATCH	SQ FT	-



HSIP US 31W AT KY 220
STRIPING DETAIL PLAN SHEET
BEGIN TO STA. 1191+00

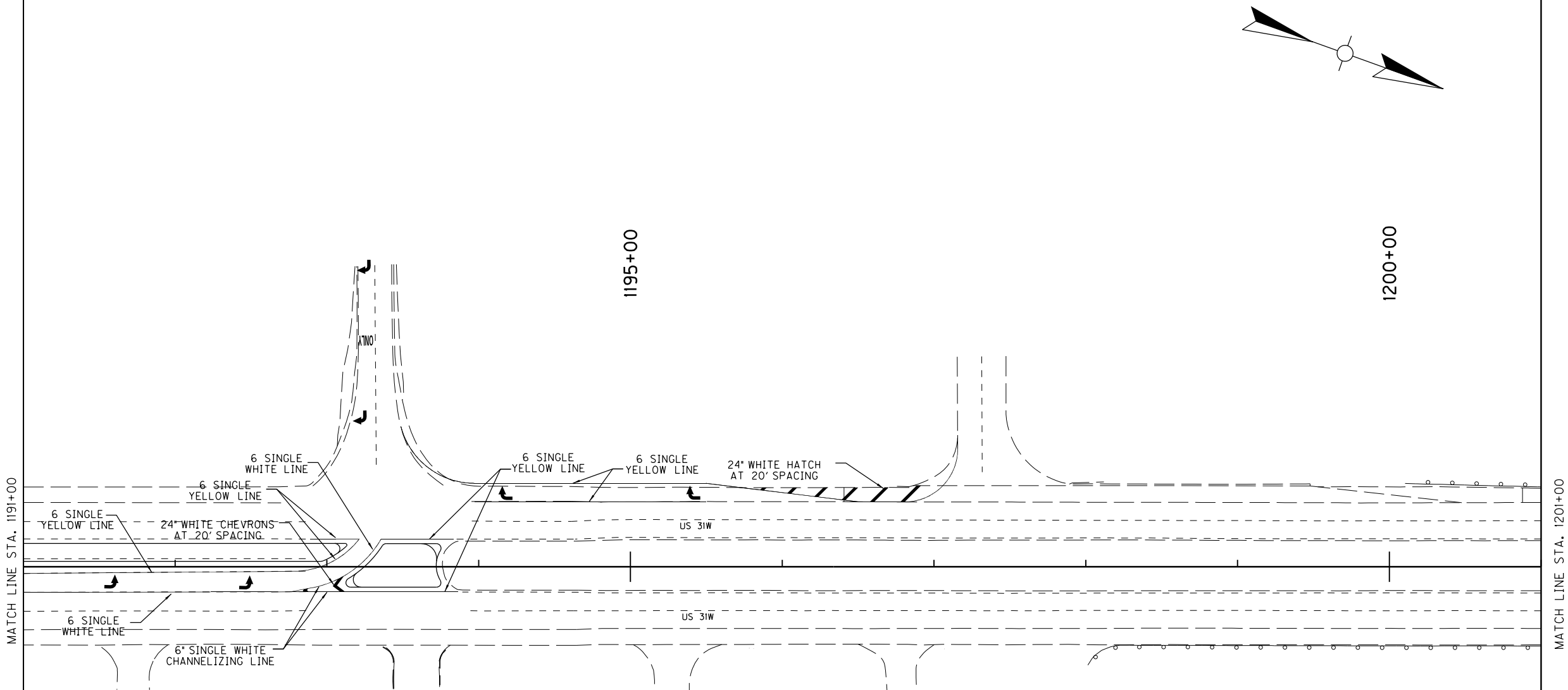
FILE NAME: D:\PW\WORKDIR\DM564834\KY220 STRIPING DETAIL 2.DGN

USER: travis-m
DATE PLOTTED: August 30, 2018

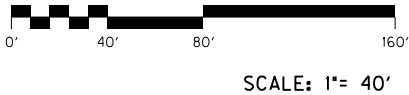
E-SHEET NAME:

Power InRoads v8.11.9.397

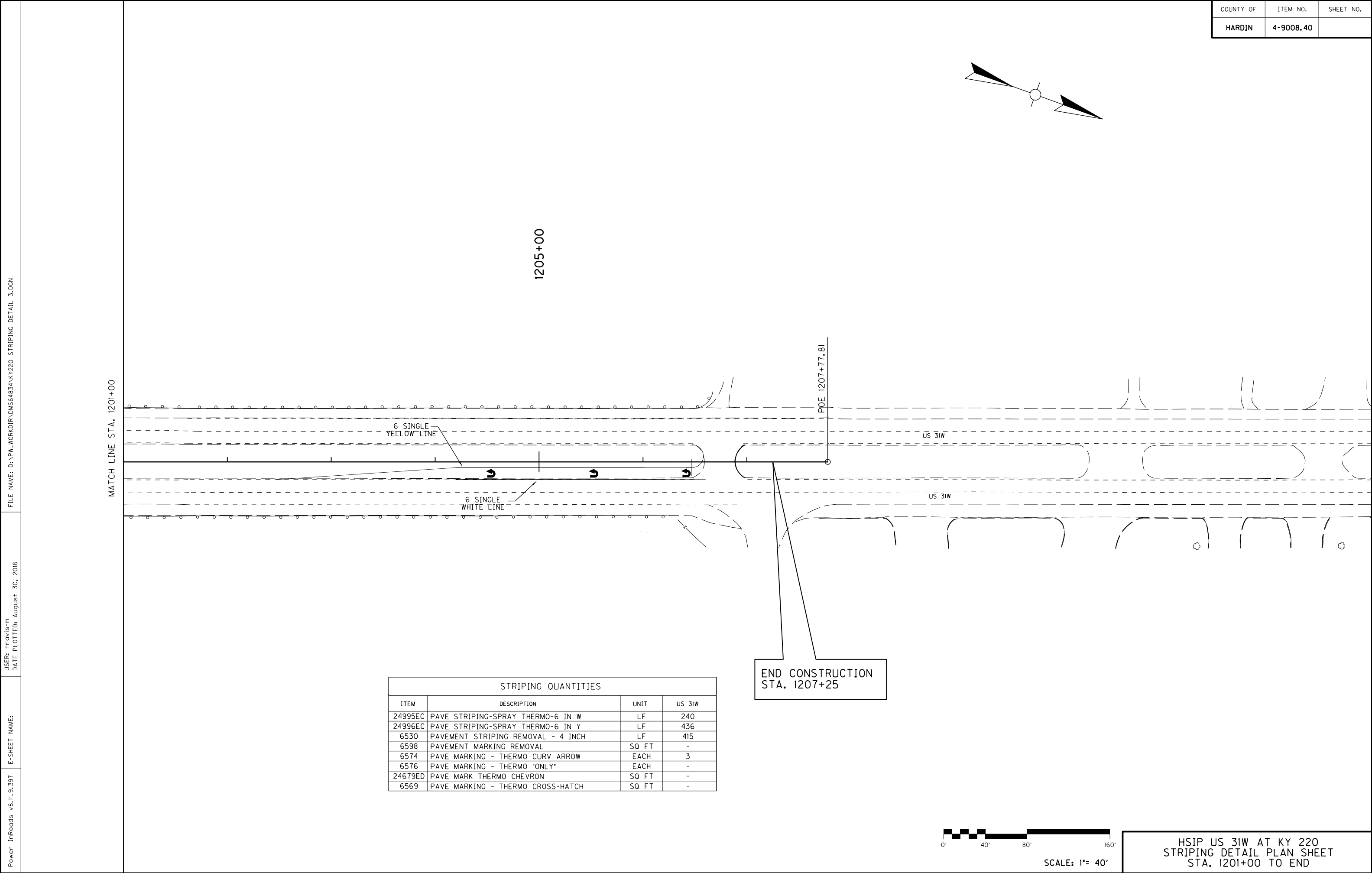
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



STRIPING QUANTITIES			
ITEM	DESCRIPTION	UNIT	US 31W
24995EC	PAVE STRIPING-SPRAY THERMO-6 IN W	LF	379
24996EC	PAVE STRIPING-SPRAY THERMO-6 IN Y	LF	330
6530	PAVEMENT STRIPING REMOVAL - 4 INCH	LF	664
6598	PAVEMENT MARKING REMOVAL	SQ FT	202
6574	PAVE MARKING - THERMO CURV ARROW	EACH	6
6576	PAVE MARKING - THERMO "ONLY"	EACH	1
24679ED	PAVE MARK THERMO CHEVRON	SQ FT	33
6569	PAVE MARKING - THERMO CROSS-HATCH	SQ FT	114



HSIP US 31W AT KY 220
STRIPING DETAIL PLAN SHEET
STA. 1191+00 TO STA. 1201+00



FILE NAME: D:\PW\WORKDIR\DM564834\KY220 STRIPING DETAIL 3.DGN

USER: travis-m
DATE PLOTTED: August 30, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

[illegible]

[illegible]

FILE NAME: D:\PW\WORKDIR\DM564839\KY 220 PIPE SHEET.DGN

USER: travis-m
DATE PLOTTED: September 19, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397

PIPE DRAINAGE SHEET

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

STORM SEWER PIPE

CULVERT PIPE

DESIGN
PH
LEVEL

MAXIMUM
COVER
HEIGHT

CORED HOLE
DRAIN BOX
CONN. - 15"

CAP
INLET

REMOVE PIPE

SAFELoad

DRAINAGE
JUNCTION
BOX TYP B

SLOPED BOX
OUTLET TYPE
1-24 IN

REMOVE
HEADWALL

12"

15"

18"

24"

30"

36"

42"

15"

18"

24"

30"

36"

42"

L

I

N

E

A

R

F

E

E

T

FT

EACH

EACH

LIN FT

CU YD

EACH

EACH

EACH

850

845

840

835

830

825

820

-100

-95

-90

-85

-80

-75

-70

-65

-60

-55

-50

-45

-40

-35

-30

-25

-20

-15

-10

-5

0

5

10

15

20

25

30

35

40

45

50

850

845

840

835

830

825

820

-75

-70

-65

-60

-55

-50

-45

-40

-35

-30

-25

-20

-15

-10

-5

0

5

10

15

20

25

30

35

40

45

850

845

840

835

830

825

820

US 31W
STA. 1193+73
0° SKEW

850

845

840

835

830

825

820

EXIST. T/G 834.58

EXIST. INV. 831.98

REMOVE GRATE AND CAP
EXISTING DROP BOX
FOR USE AS JUNCTION BOX

#6

M

1

US 31W
STA. 1193+31.8
0° SKEW

50 55 60 65 70 75

SCALE: 1"=5'

HSIP US 31W KY 220
PIPE SHEET
STA. 1193+31.8 to 1193+73

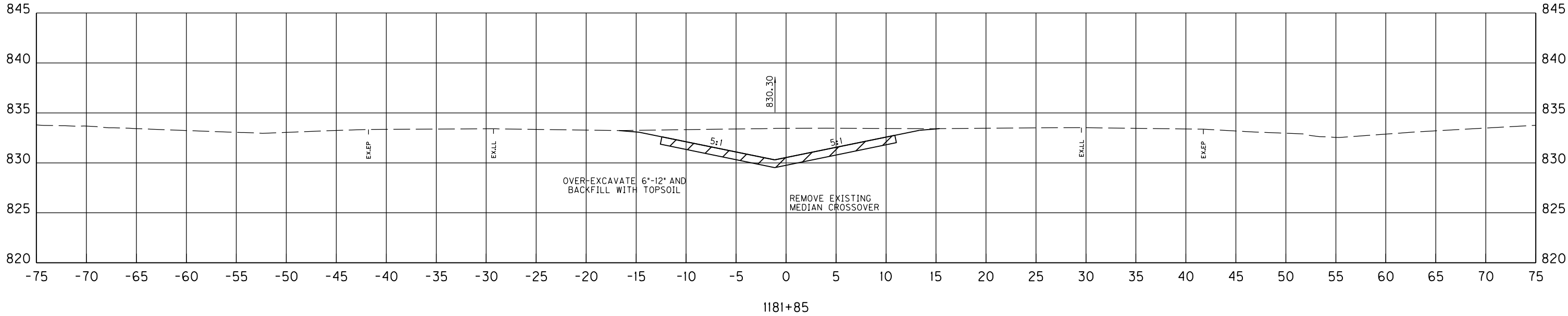
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

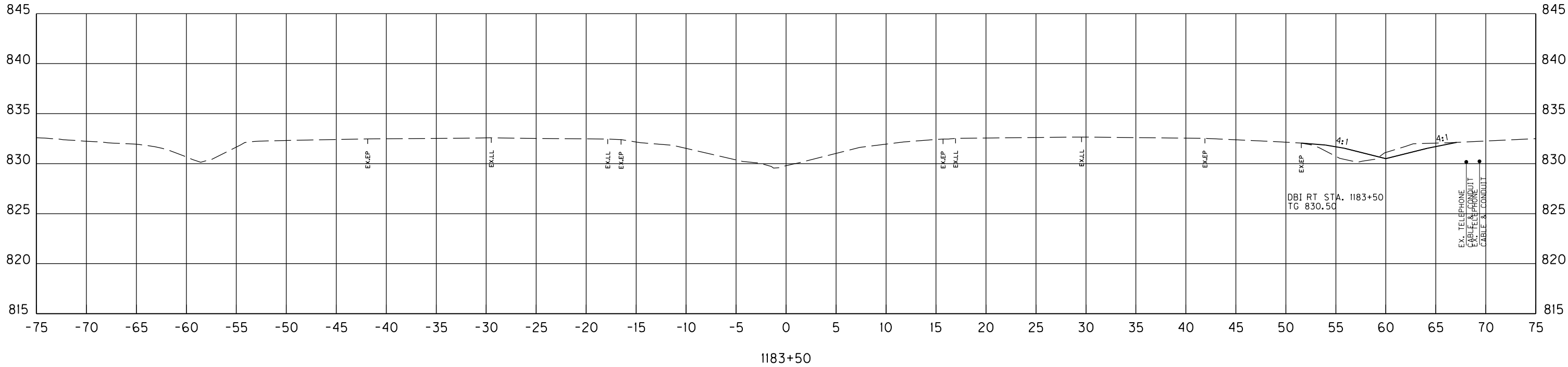
Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1181+85 TO STA. 1181+85

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

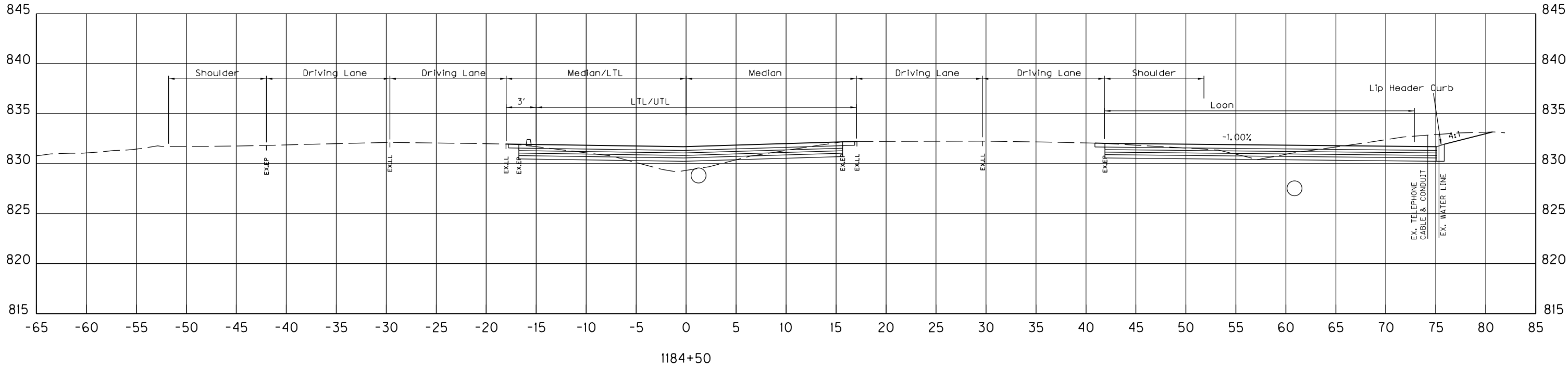


FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: TRAVIS-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

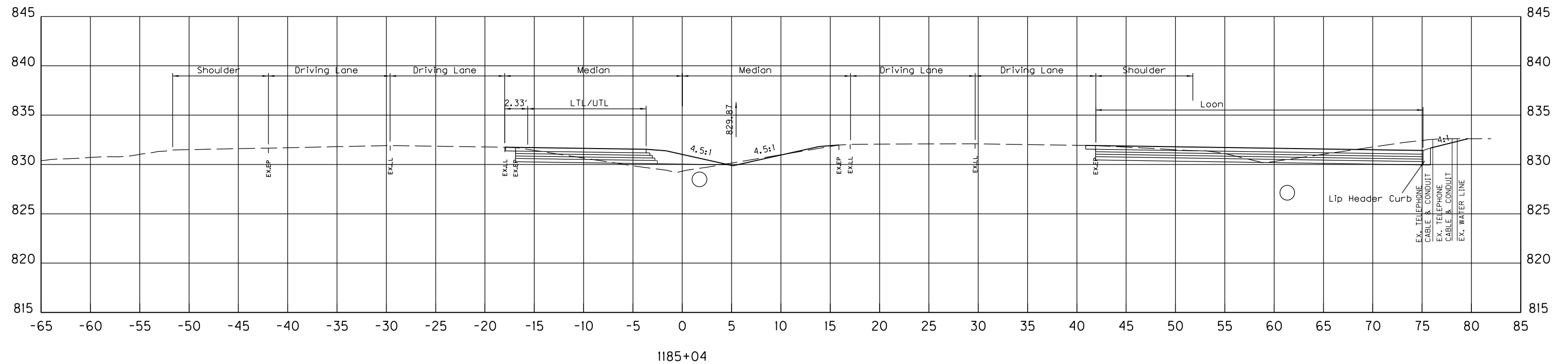
Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1184+50 TO STA. 1184+50

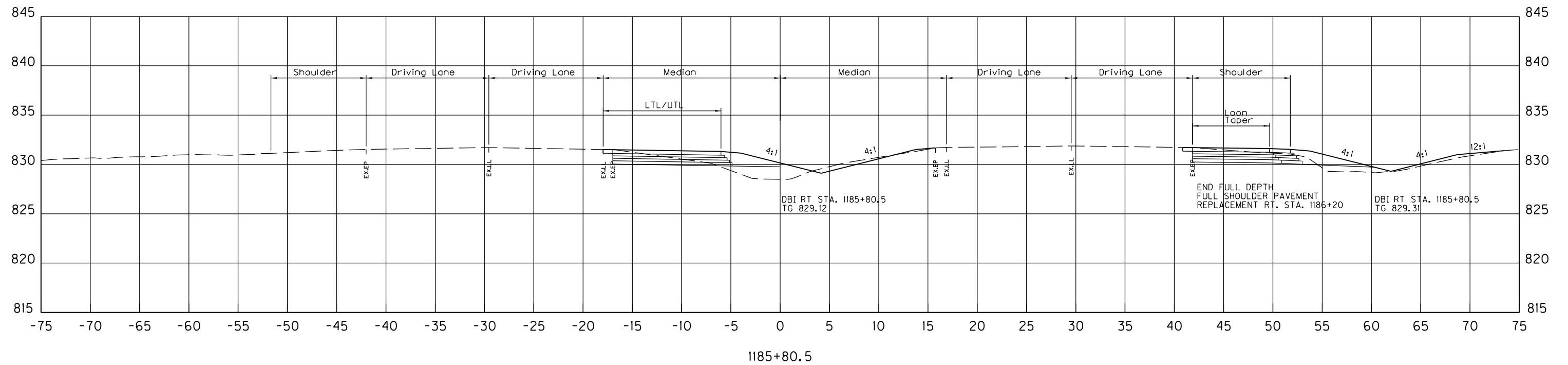
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1185+04 TO STA. 1185+04

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1185+80.5 TO STA. 1185+80.5

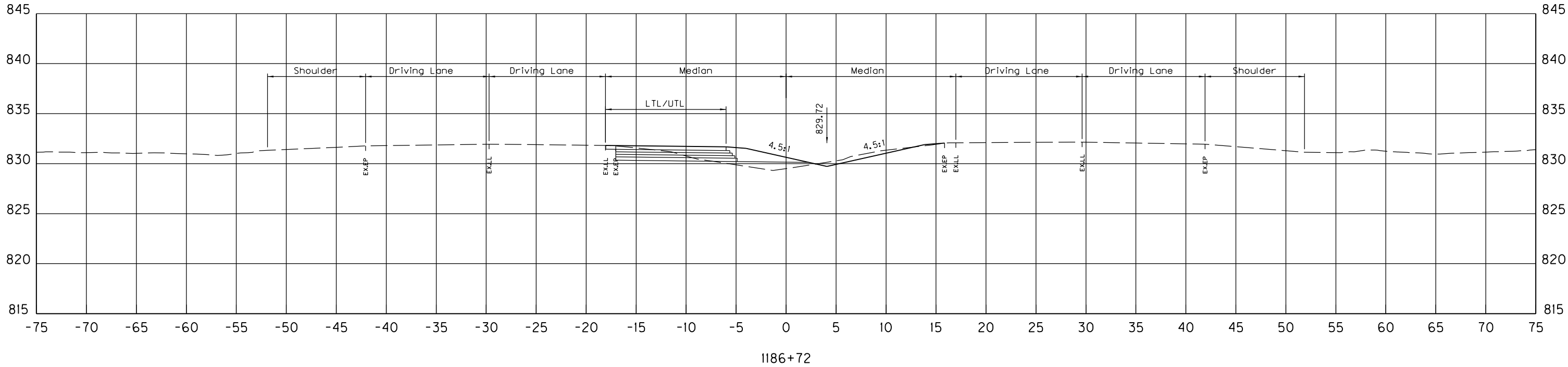
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.337



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1186+72 TO STA. 1186+72

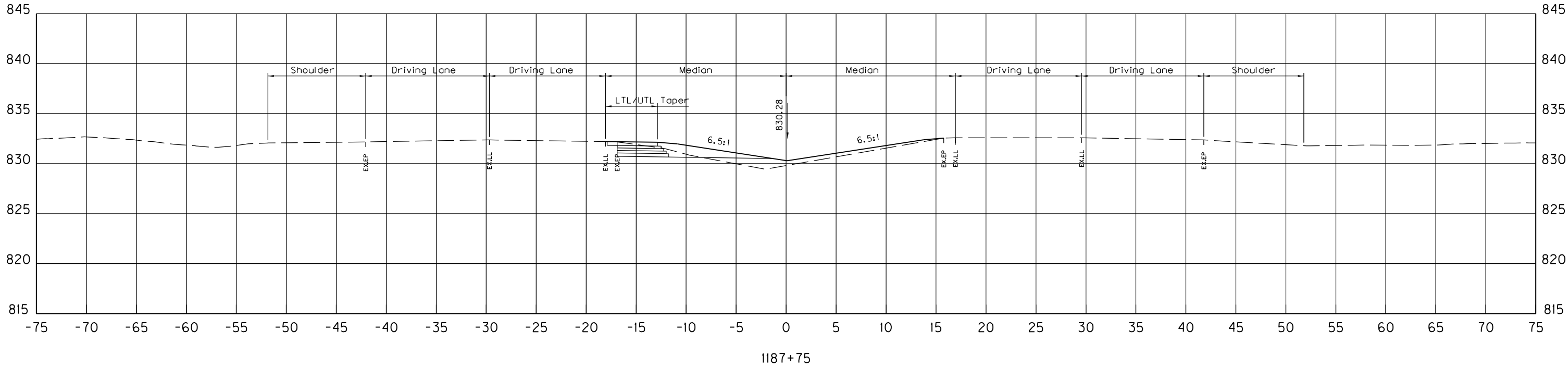
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: TRAVIS-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1187+75 TO STA. 1187+75

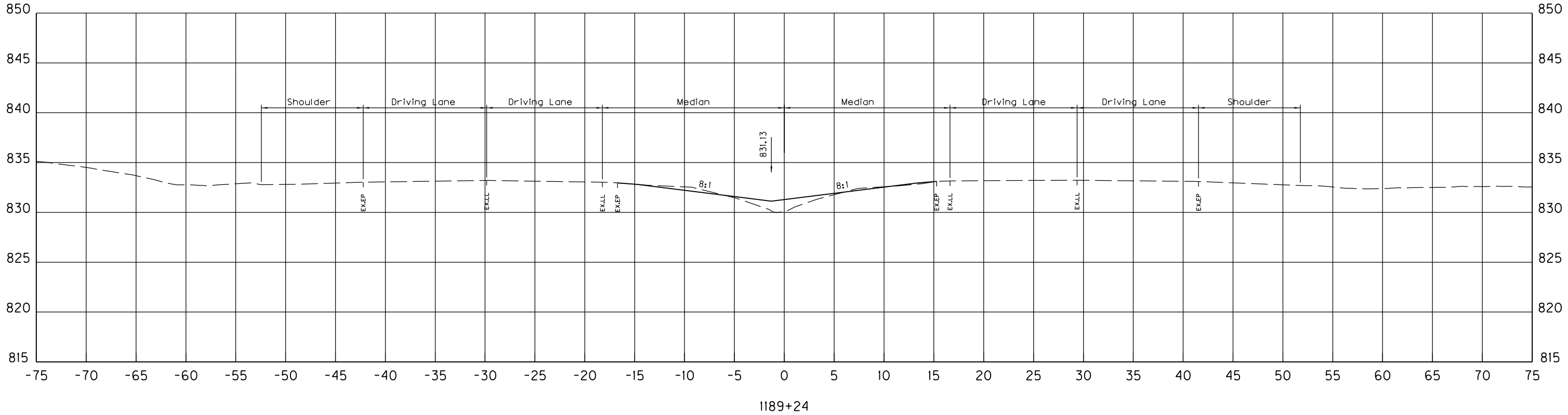
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1189+24 TO STA. 1189+24

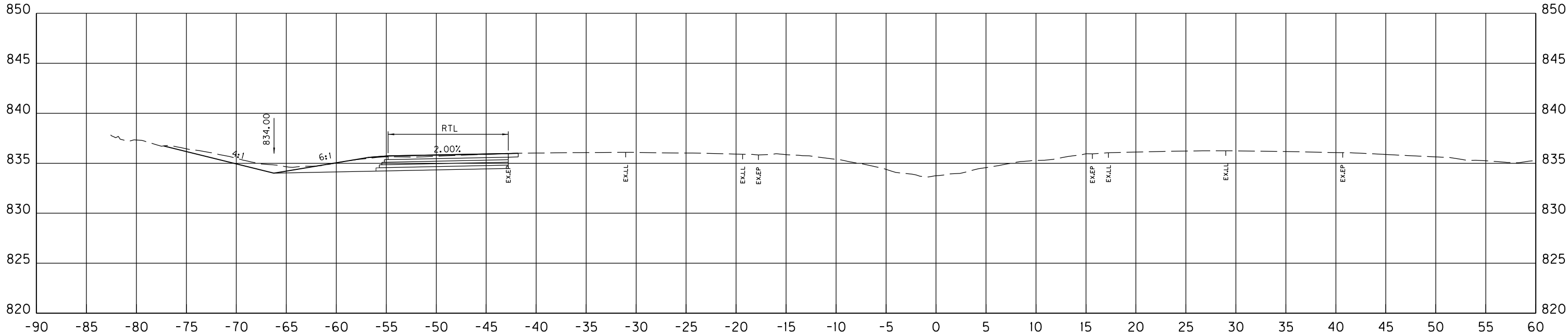
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

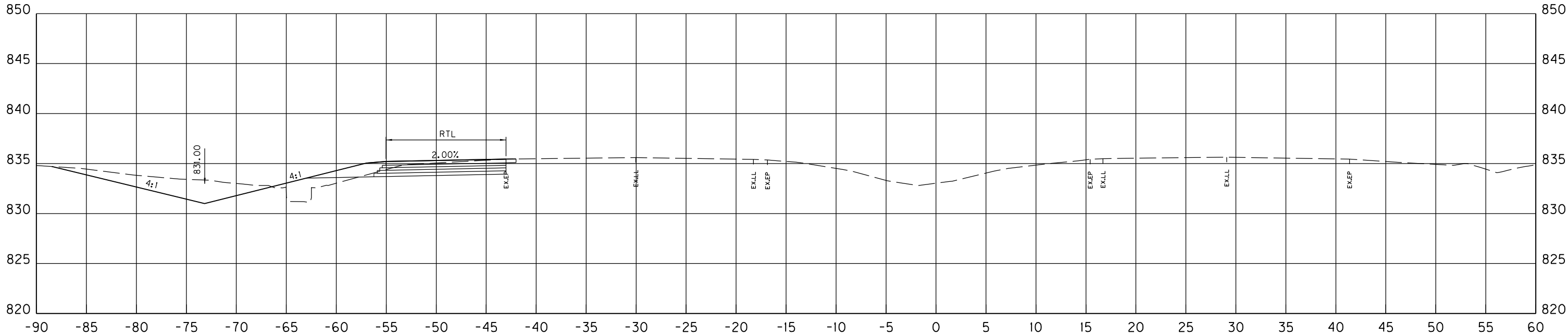
USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



1195+00



1194+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1194+00 TO STA. 1195+00

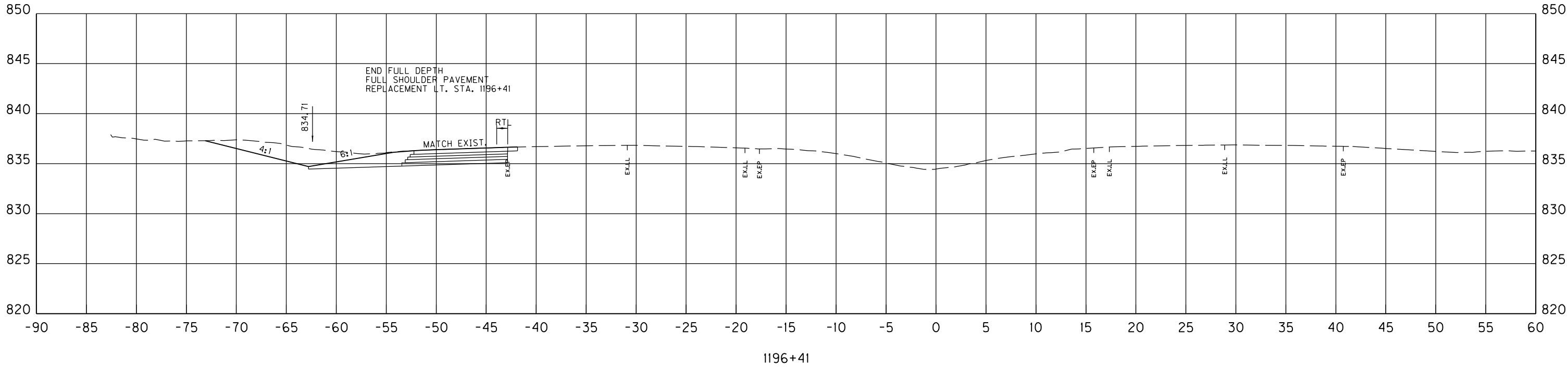
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1196+41 TO STA. 1196+41

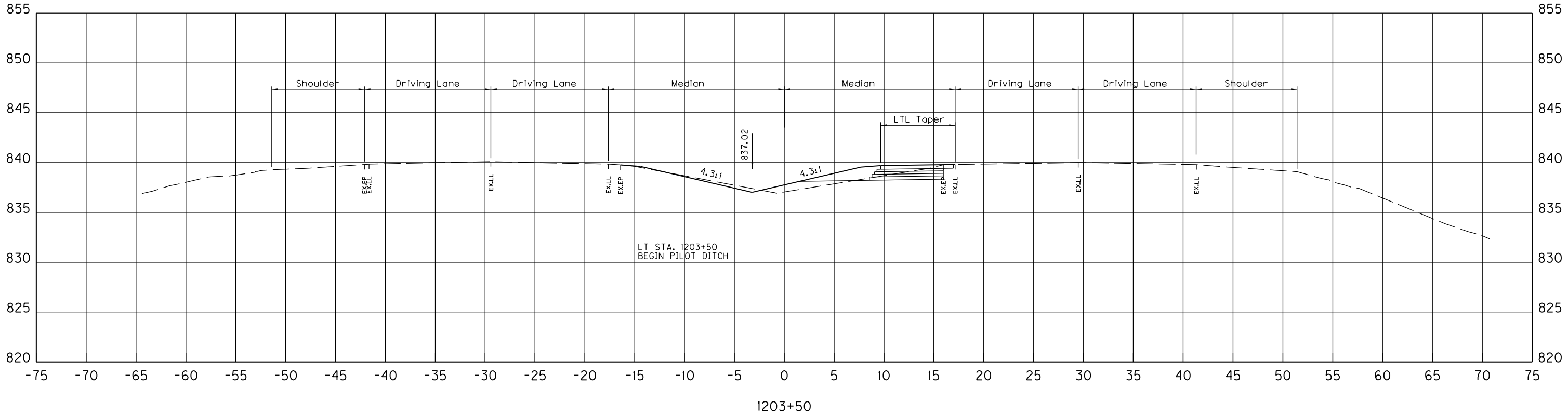
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1203+50 TO STA. 1203+50

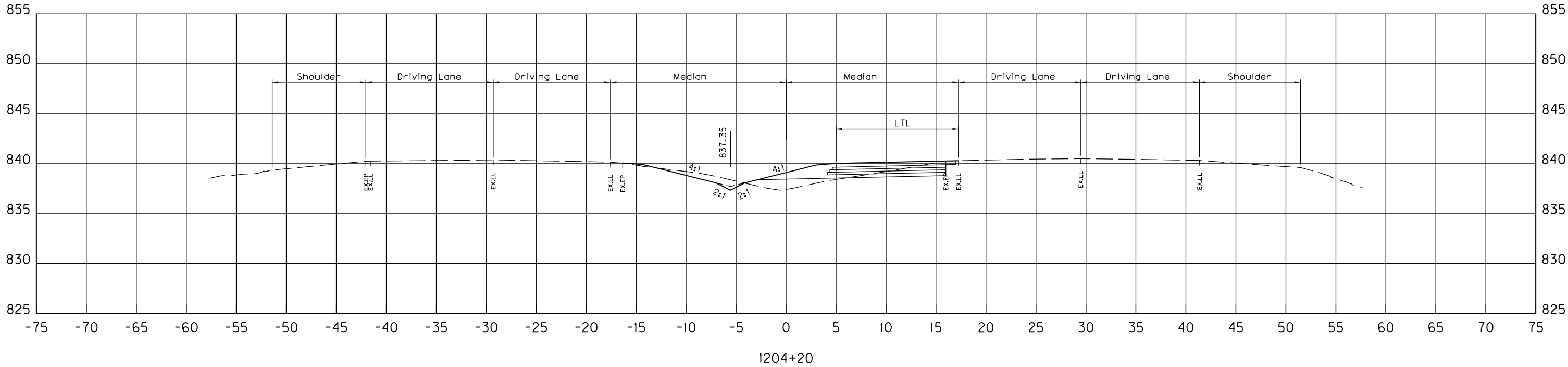
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1204+20 TO STA. 1204+20

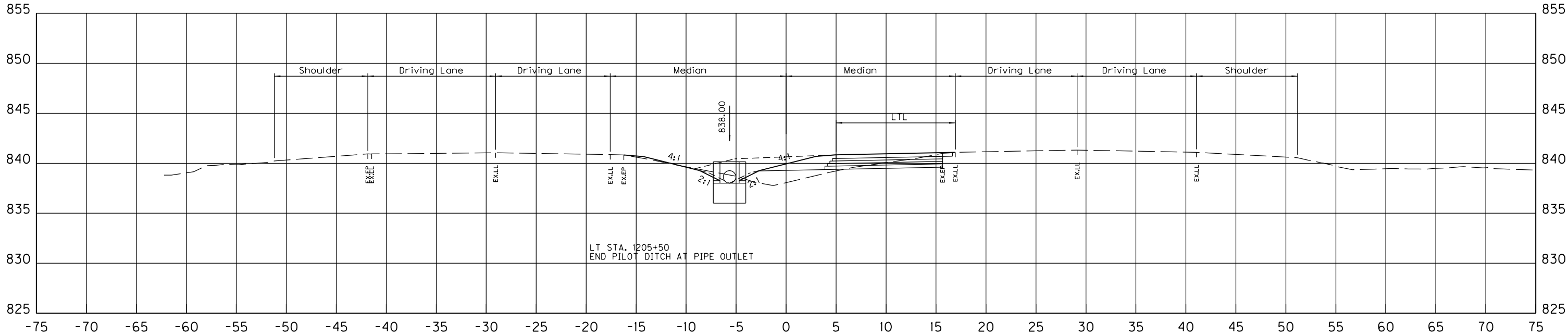
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

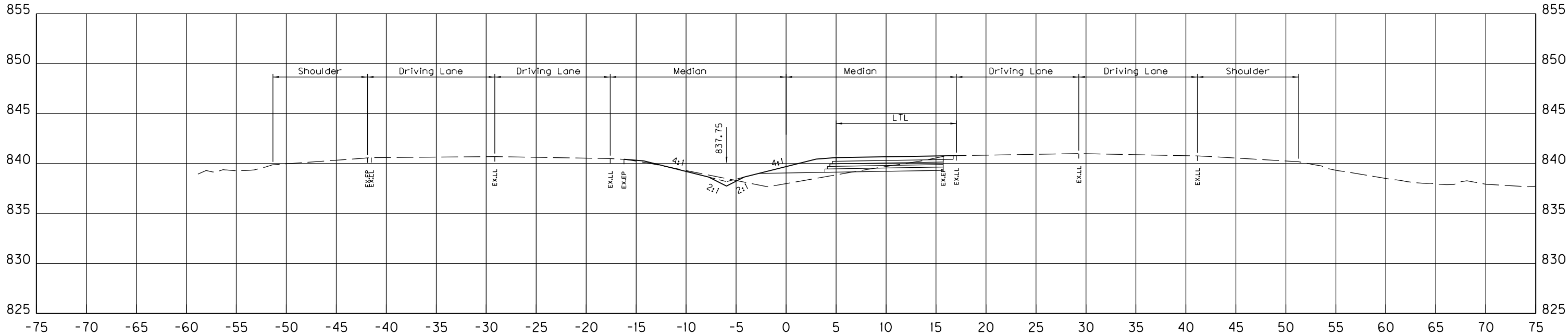
USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



1205+50



1205+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1205+00 TO STA. 1205+50

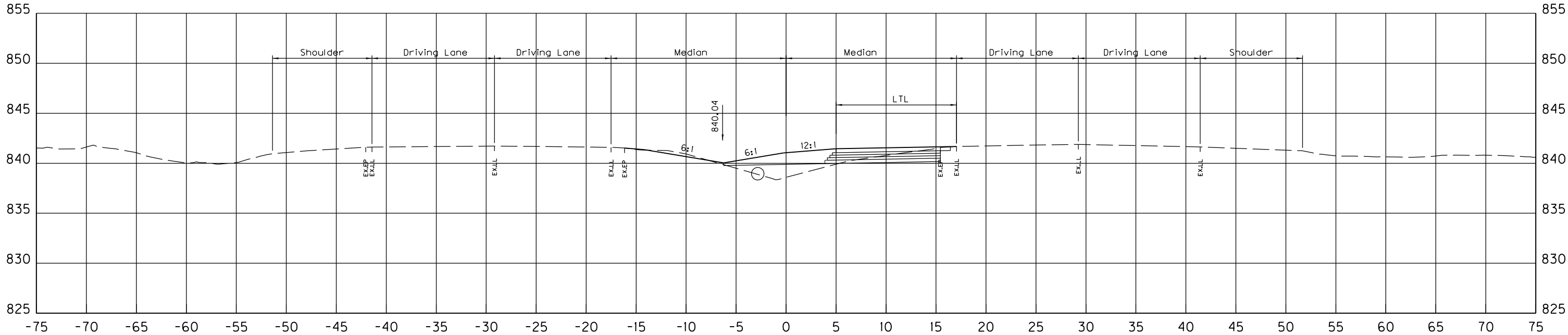
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\MORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

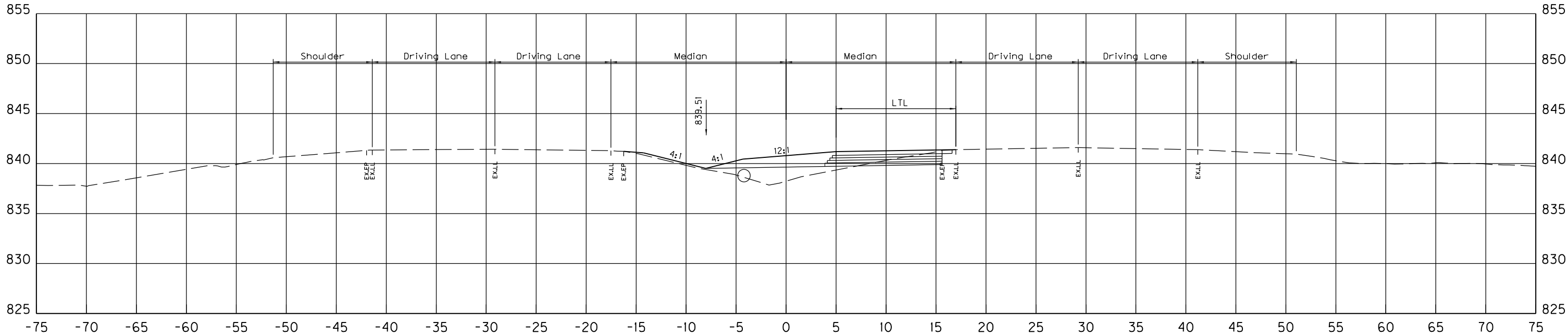
USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



1206+40



1206+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1206+00 TO STA. 1206+40

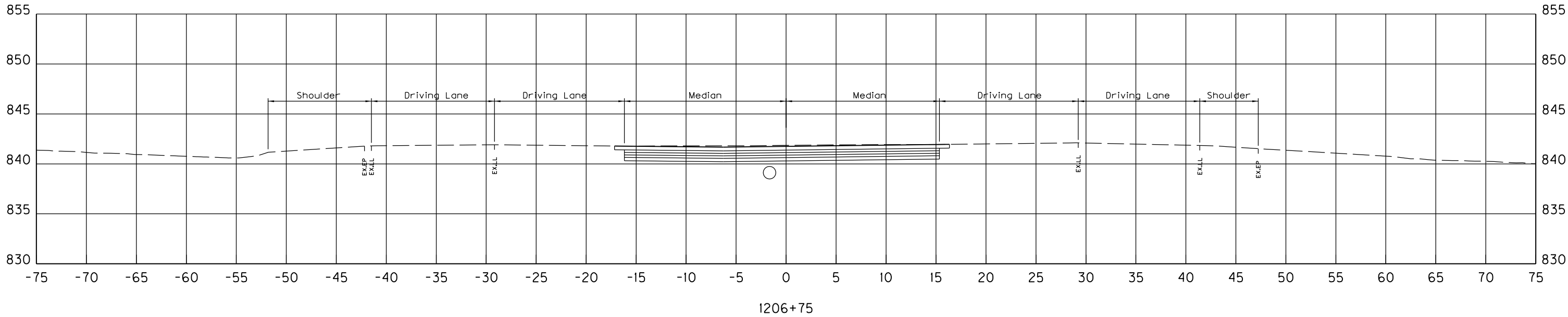
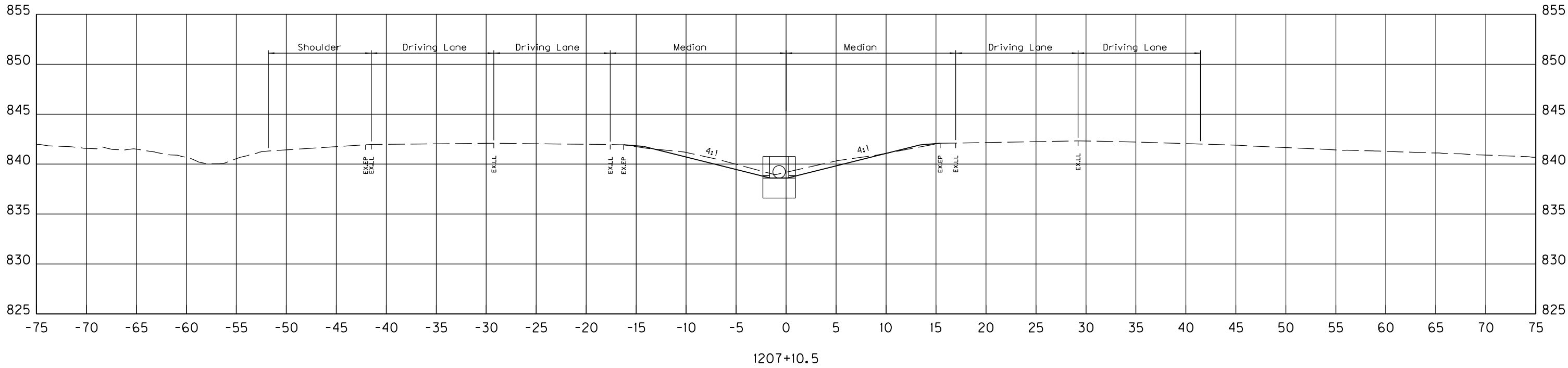
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\KY220 CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: January 15, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 220
CROSS SECTIONS
STA. 1206+75 TO STA. 1207+10.5

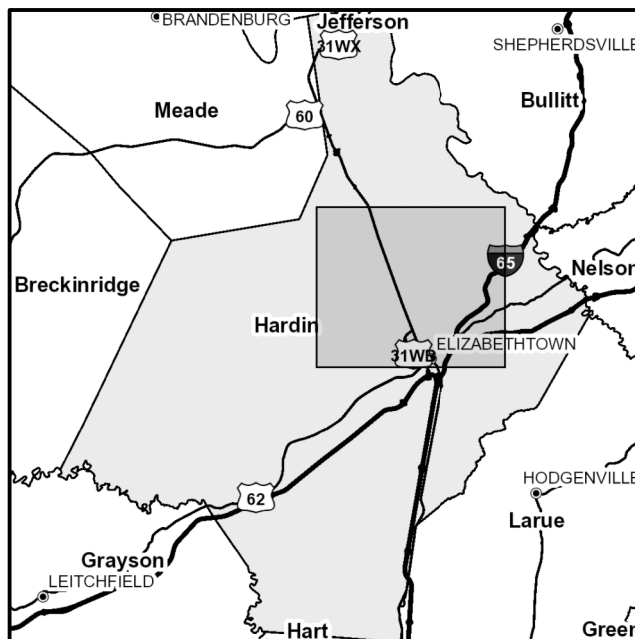
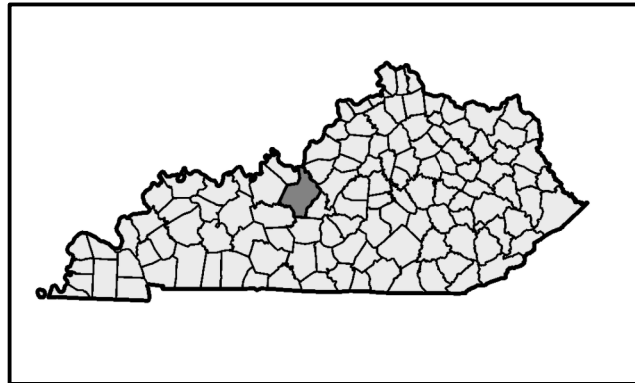
Hardin County

Construction of J-Turns and Intersection Improvements

On US 31W Near KY 434

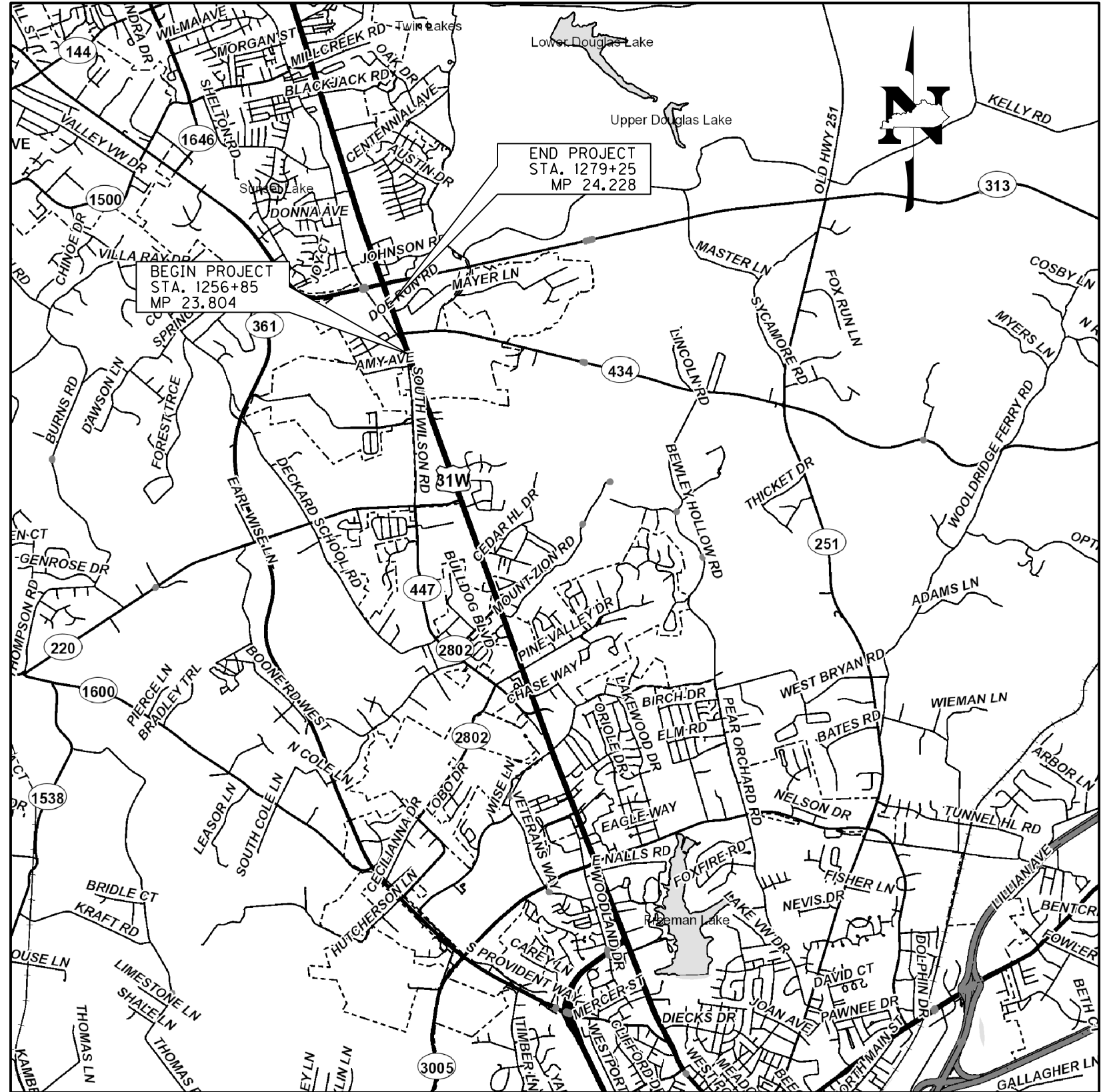
Item No. 4-9008.40

COUNTY OF	ITEM NO.
HARDIN	4-9008.40

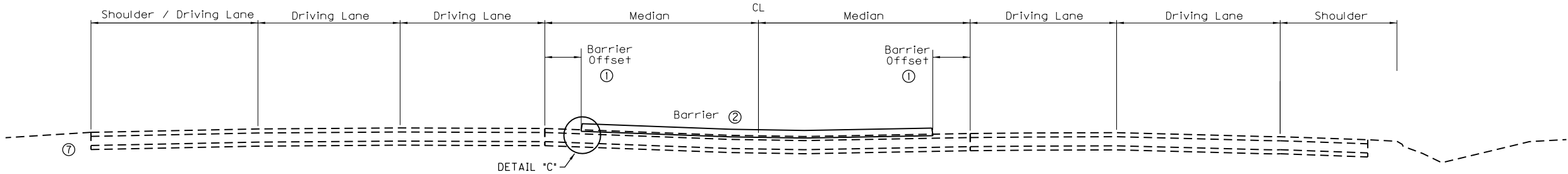


Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

PLANS OF
PROPOSED PROJECT
HARDIN COUNTY
US 31W



TYPICAL SECTION AND DETAILS



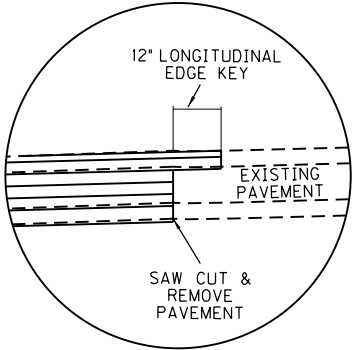
US 31W
BARRIER MEDIAN
ON EXISTING PAVEMENT

- ① 3' TYPICAL - SEE PLANS AND DETAILS WHERE IT MAY VARY
- ② STANDARD BARRIER MEDIAN TYPE 4
- ③ MATCH EXISTING DRIVING LANE BUT NOT LESS THAN 2.00%
- ④ SEE SECTIONS FOR SIDE SLOPES AND DITCH ELEVATIONS
- ⑤ ASPHALT SEAL COAT REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. 2.4 LB/SY ASPHALT SEAL COAT (TWO APPLICATIONS) AND 20 LB/SY ASPHALT SEAL AGGREGATE (TWO APPLICATIONS).
- ⑥ SAW CUT TO BE A BID ITEM; PAVEMENT REMOVAL TO BE INCIDENTAL TO ROADWAY EXCAVATION (SEE CROSS SECTIONS)

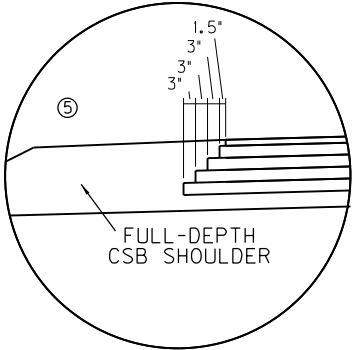
US 31W PAVEMENT DESIGN

- 1.5" SURFACE — 1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
- ⑦ 16.5" BASE —
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 76-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3.5" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 4" COMPACTED DEPTH CRUSHED STONE BASE

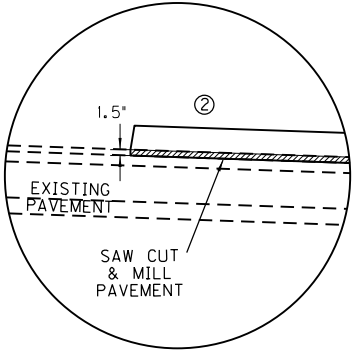
⑦ BASED ON RECORD PLANS, THE EXISTING PAVEMENT DEPTH IS APPROXIMATELY 15.75" THICK. THE PROPOSED PAVEMENT DESIGN AS SHOWN IS 18". IF FIELD CONDITIONS REVEAL THE EXISTING THICKNESS TO BE SIGNIFICANTLY DIFFERENT, ADJUSTMENTS MAY BE MADE BY THE ENGINEER TO BEST MATCH THAT THICKNESS.



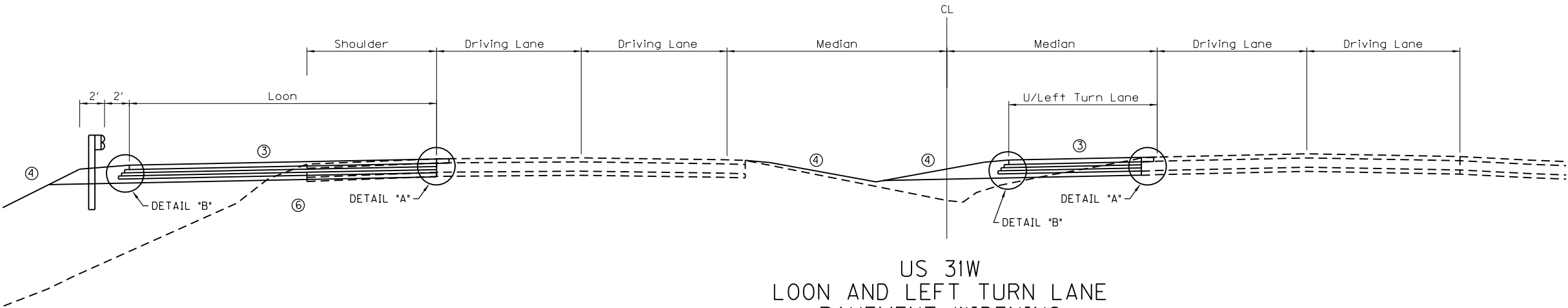
DETAIL "A"



DETAIL "B"

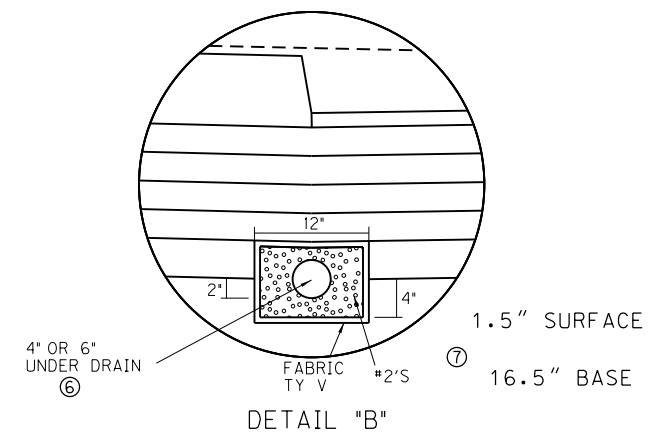
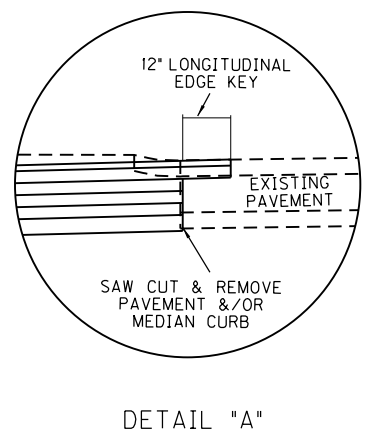
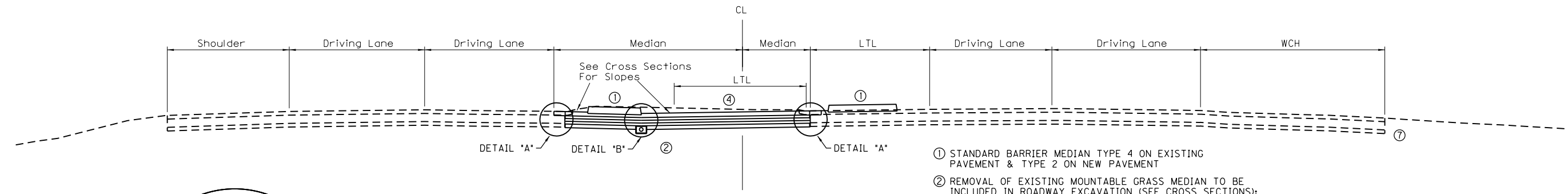
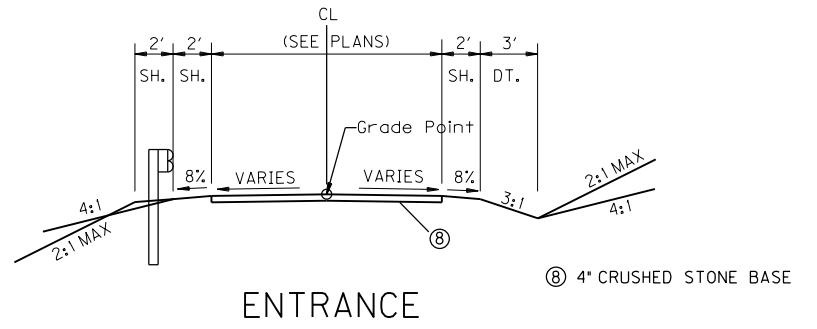
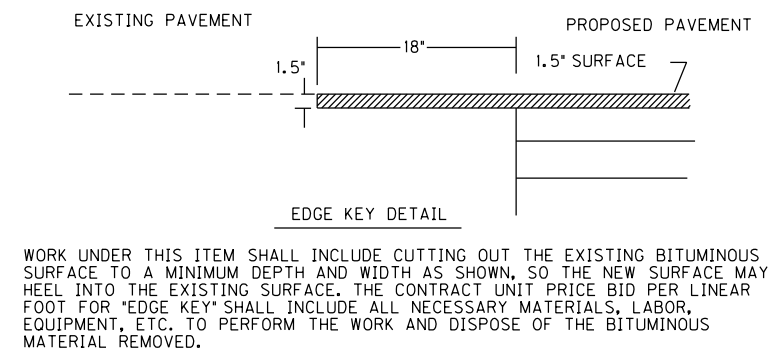
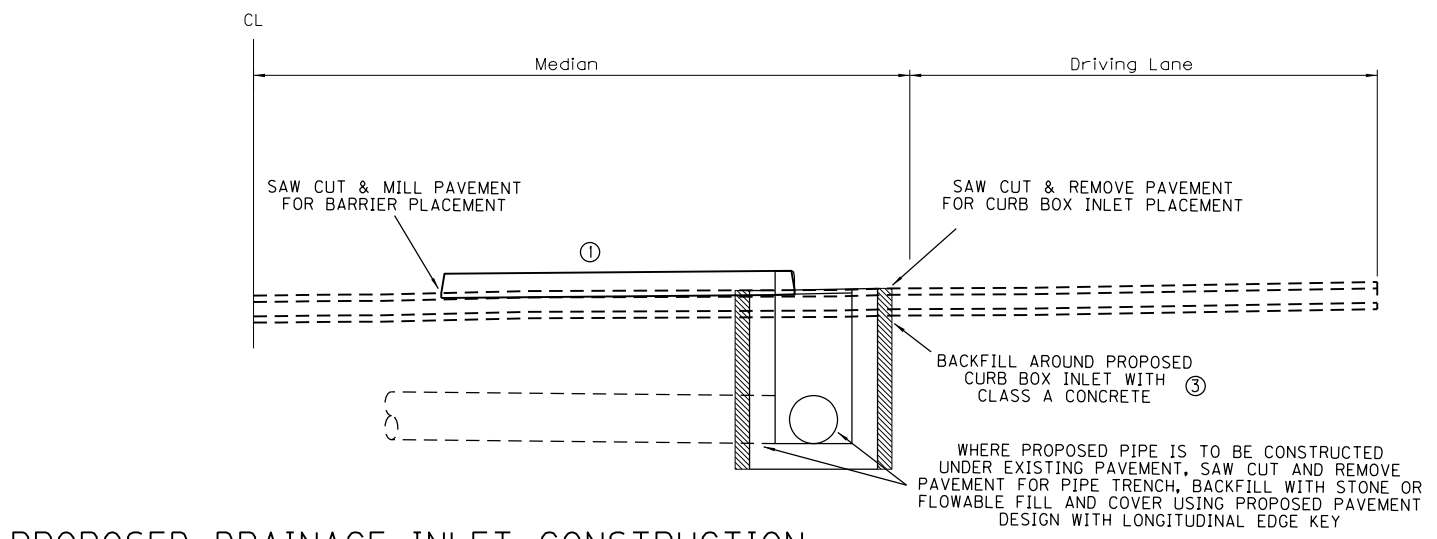
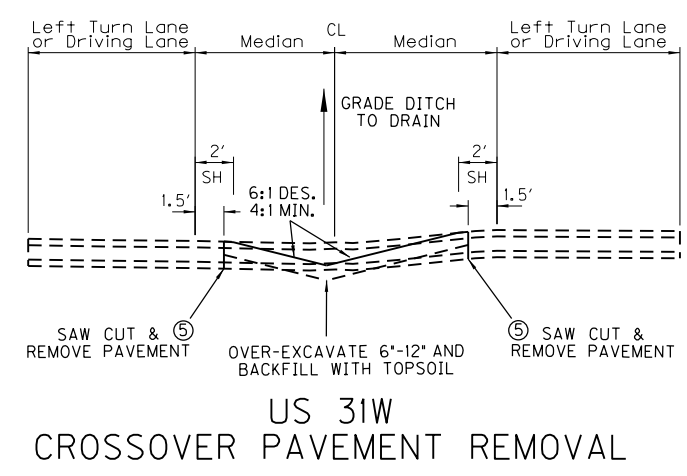


DETAIL "C"



US 31W
LOON AND LEFT TURN LANE
PAVEMENT WIDENING

TYPICAL SECTION AND DETAILS



- US 31W PAVEMENT DESIGN
- 1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 76-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3.5" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 4" COMPACTED DEPTH CRUSHED STONE BASE

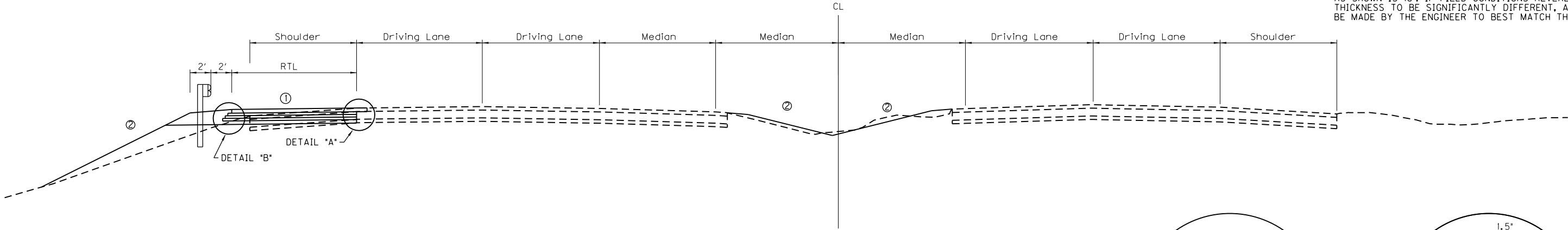
- ① STANDARD BARRIER MEDIAN TYPE 4 ON EXISTING PAVEMENT & TYPE 2 ON NEW PAVEMENT
- ② REMOVAL OF EXISTING MOUNTABLE GRASS MEDIAN TO BE INCLUDED IN ROADWAY EXCAVATION (SEE CROSS SECTIONS); REMOVAL OF MEDIAN CURB TO BE A BID ITEM
- ③ CONCRETE QUANTITIES TO BE INCIDENTAL TO BID ITEM FOR CURB BOX INLET
- ④ SEE CROSS SECTIONS FOR PAVEMENT CROSS SLOPE; GRADE TO DRAIN TO PROPOSED INLET LOCATIONS
- ⑤ SAW CUT TO BE A BID ITEM; PAVEMENT REMOVAL TO BE INCIDENTAL TO ROADWAY EXCAVATION (SEE CROSS SECTIONS)
- ⑥ CONNECT PIPE TO PROPOSED MEDIAN DRAINAGE BOXES. PIPE MAY BE OMITTED AT MEDIAN CROSSEOVERS WHERE THE STONE BASE DAYLIGHTS AND DRAINS TO THE MEDIAN DITCH
- ⑦ BASED ON RECORD PLANS, THE EXISTING PAVEMENT DEPTH IS APPROXIMATELY 15.75" THICK. THE PROPOSED PAVEMENT DESIGN AS SHOWN IS 18". IF FIELD CONDITIONS REVEAL THE EXISTING THICKNESS TO BE SIGNIFICANTLY DIFFERENT, ADJUSTMENTS MAY BE MADE BY THE ENGINEER TO BEST MATCH THAT THICKNESS.

NOT TO SCALE

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

TYPICAL SECTION AND DETAILS

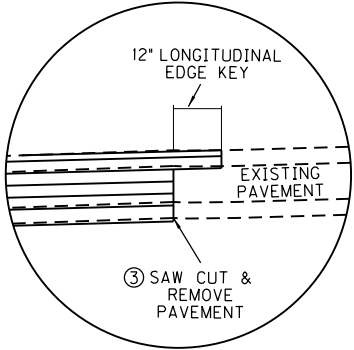
- ① MATCH EXISTING DRIVING LANE BUT NOT LESS THAN 2.00%
- ② SEE CROSS SECTIONS FOR SIDE SLOPES AND DITCH ELEVATIONS
- ③ SAW CUT TO BE A BID ITEM; PAVEMENT REMOVAL TO BE INCIDENTAL TO ROADWAY EXCAVATION (SEE CROSS SECTIONS)
- ④ ASPHALT SEAL COAT REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. 2.4 LB/SY ASPHALT SEAL COAT (TWO APPLICATIONS) AND 20 LB/SY ASPHALT SEAL AGGREGATE (TWO APPLICATIONS).
- ⑤ BASED ON RECORD PLANS, THE EXISTING PAVEMENT DEPTH IS APPROXIMATELY 15.75" THICK. THE PROPOSED PAVEMENT DESIGN AS SHOWN IS 18". IF FIELD CONDITIONS REVEAL THE EXISTING THICKNESS TO BE SIGNIFICANTLY DIFFERENT, ADJUSTMENTS MAY BE MADE BY THE ENGINEER TO BEST MATCH THAT THICKNESS.



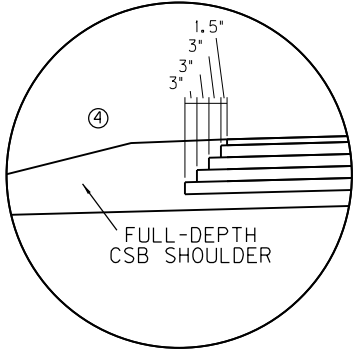
US 31W
ADDED RIGHT TURN LANE

US 31W & KY 434 PAVEMENT DESIGN

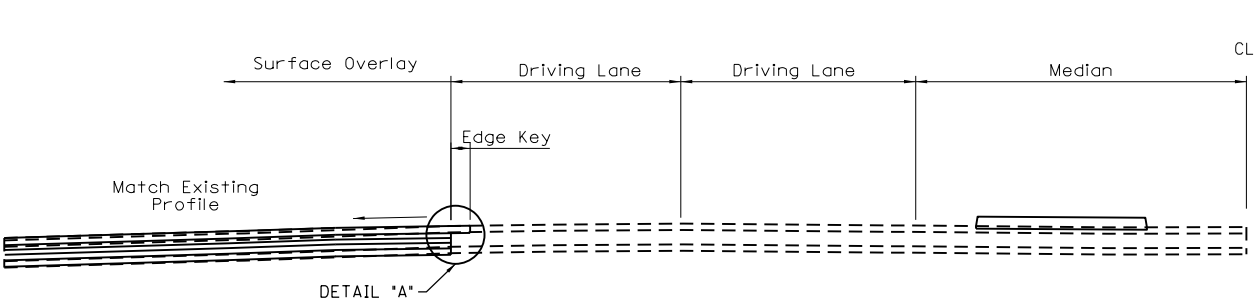
- 1.5" SURFACE
- ⑤ 16.5" BASE
- 1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
- 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 76-22
- 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
- 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
- 3.5" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
- 4" COMPACTED DEPTH CRUSHED STONE BASE



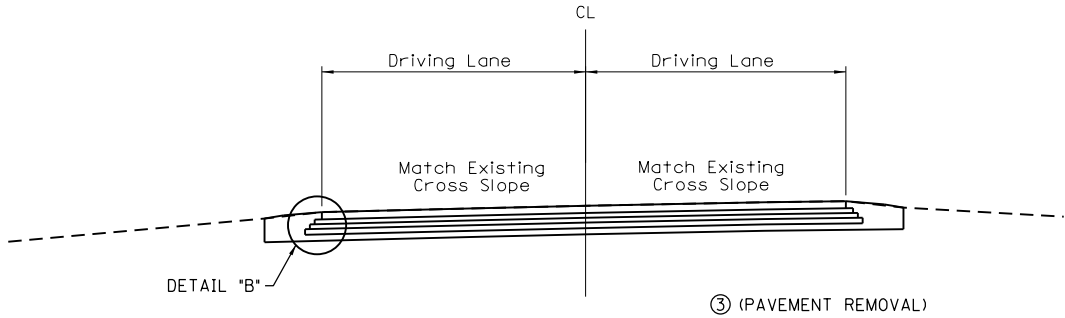
DETAIL "A"



DETAIL "B"



PROFILE



CROSS SECTION

KY 434 WEST PAVEMENT REPLACEMENT DETAIL

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT			TOTAL PROJECT
78	CRUSHED AGGREGATE SIZE No 2 ②	TON			19
1000	PERFORATED PIPE - 4IN	LF			410
1010	NON-PERFORATED PIPE - 4IN	LF			10
1314	PLUG PIPE	EACH			1
1904	REMOVE CURB ⑨	LF			946
1917	STANDARD BARRIER MEDIAN TY 2	SQ YD			745
1921	STANDARD BARRIER MEDIAN TY 4	SQ YD			155
2159	TEMPORARY DITCH	LF			1120
2160	CLEAN TEMPORARY DITCH	LF			560
2200	ROADWAY EXCAVATION ⑧	CU YD			2928
2242	WATER ⑦	M GAL			32
2351	GUARDRAIL - STEEL W BEAM - SINGLE FACE	LF			475
2360	GUARDRAIL TERMINAL SECTION No 1	EACH			1
2369	GUARDRAIL END TREATMENT TY 2A	EACH			1
2381	REMOVE GUARDRAIL ⑫	LF			495
2403	REMOVE CONCRETE MASONRY ⑪	CU YD			1.7
2429	RIGHT-OF-WAY MONUMENT TYPE 1	EACH			4
2432	WITNESS POST	EACH			4
2483	CLASS II CHANNEL LINING	TON			180
2545	CLEARING AND GRUBBING ①	LS			1
2562	TEMPORARY SIGNS	SQ FT			213
2585	EDGE KEY	LF			144
2600	FABRIC-GEOTEXTILE TYPE IV FOR PIPE	SQ YD			1558
2650	MAINTAIN AND CONTROL TRAFFIC	LS			1
2671	PORTABLE CHANGEABLE MESSAGE SIGNS	EACH			2
2676	MOBILIZATION FOR MILL & TEXT	LS			1
2677	ASPHALT PAVE MILLING & TEXTURING ③	TON			12
2697	EDGELINE RUMBLE STRIPS	LF			150
2701	TEMPORARY SILT FENCE	LF			1120
2703	SILT TRAP TYPE A	EACH			1
2704	SILT TRAP TYPE B	EACH			5
2705	SILT TRAP TYPE C	EACH			15
2706	CLEAN SILT TRAP TYPE A	EACH			1
2707	CLEAN SILT TRAP TYPE B	EACH			5
2708	CLEAN SILT TRAP TYPE C	EACH			15
2726	STAKING	LS			1
2775	ARROW PANEL	EACH			2
5950	EROSION CONTROL BLANKET	SQ YD			951
5952	TEMPORARY MULCH	SQ YD			6911
5953	TEMP SEEDING AND PROTECTION	SQ YD			5183
5963	INITIAL FERTILIZER	TON			0.34
5964	MAINTENANCE FERTILIZER	TON			0.57
5985	SEEDING AND PROTECTION	SQ YD			10083
5989	SPECIAL SEEDING CROWN VETCH	SQ YD			957
5992	AGRICULTURAL LIMESTONE	TON			6.84
6530	PAVEMENT STRIPING REMOVAL - 4 INCH ④	LF			1144
6568	PAVEMENT MARKING - THERMO STOP BAR - 24 INCH	LF			89
6569	PAVEMENT MARKING - THERMO CROSS-HATCH	SQ FT			319
6574	PAVEMENT MARKING - THERMO CURVE ARROW	EACH			19
6598	PAVEMENT MARKING REMOVAL ④	SQ FT			279
10020NS	FUEL ADJUSTMENT ⑬	DOLLAR			6088
10030NS	ASPHALT ADJUSTMENT ⑬	DOLLAR			15291
20550ND	SAW CUT PAVEMENT ⑤	LF			1832
21289ED	LONGITUDINAL EDGE KEY ⑥	LF			3491
22861EN	FABRIC-GEOTEXTILE TYPE V ②	SQ YD			156
24489EC	INLAID PAVEMENT MARKERS	EACH			48
24679ED	PAVE MARK THERMO CHEVRON	SQ FT			122
24814EC	PIPELINE INSPECTION	LF			1173
24955ED	REMOVE SIGNAL EQUIPMENT ⑩	EACH			2
24995EC	PAVE STRIPING - SPRAY - 6 IN W	LF			3219
24996EC	PAVE STRIPING - SPRAY - 6 IN Y	LF			3555

- ① APPROXIMATELY 2.0 ACRES
- ② FOR PERFORATED PIPE UNDERDRAIN
- ③ FOR PREPARATION OF STANDARD BARRIER MEDIAN TYPE 4 CONSTRUCTION
- ④ FOR THE REMOVAL OF ALL STRIPING AND MARKING THAT WILL CONFLICT WITH FUTURE PROPOSED TRAFFIC PATTERNS OR PROPOSED MARKINGS
- ⑤ FOR ALL LOCATIONS OF PAVEMENT MILLING, WIDENING, OR REPLACEMENT (SEE ALSO TYPICAL SECTIONS AND DETAILS)
- ⑥ FOR ALL LOCATIONS OF PAVEMENT WIDENING OR REPLACEMENT (SEE ALSO TYPICAL SECTIONS AND DETAILS)

PAVING AREAS

ITEM	CROSSOVERS & LEFT TURN LANES Ⓐ	LOONS & RIGHT TURN LANES Ⓑ	ENTRANCES		TOTAL PROJECT
	S Q U A R E Y A R D S				
1.5" CL 3 ASPHALT SURFACE 0.38A PG 76-22	3259	1873			5132
3.0" CL 3 ASPHALT BASE 1.00D PG 76-22	3275	1888			5163
3.0" CL 3 ASPHALT BASE 1.00D PG 64-22	3016	1917			4933
3.0" CL 3 ASPHALT BASE 1.00D PG 64-22	3048	1947			4995
3.5" CL 3 ASPHALT BASE 1.00D PG 64-22	3081	1977			5058
4.0" CRUSHED STONE BASE	3119	2011	43		5173
LEVELING & WEDGING PG 64-22	10	10			20
ASPHALT SEAL COAT	487	458			945
ASPHALT SEAL AGGREGATE	487	458			945
ASPHALT MATERIAL FOR TACK NON-TRACKING	12598	7625			20223

PAVING QUANTITIES

ITEM CODE	ITEM	UNIT	CROSSOVERS & LEFT TURN LANES Ⓐ	LOONS & RIGHT TURN LANES Ⓑ	ENTRANCES		TOTAL PROJECT
336	CL 3 ASPHALT SURFACE 0.38A PG 76-22	TON	269	155			424
216	CL 3 ASPHALT BASE 1.00D PG 76-22	TON	540	312			852
214	CL 3 ASPHALT BASE 1.00D PG 64-22	TON	1594	1018			2612
3	CRUSHED STONE BASE Ⓒ	TON	1223	818	10		2051
103	ASPHALT SEAL COAT Ⓓ	TON	1.2	1.1			2.3
100	ASPHALT SEAL AGGREGATE Ⓔ	TON	9.7	9.2			18.9
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING Ⓕ	TON	3.1	1.9			5.0
190	LEVELING & WEDGING PG 64-22 Ⓖ	TON	1	1			2

ALL ASPHALT MIXTURES ESTIMATED AT 110 LBS. PER SQUARE YARD PER INCH UNLESS NOTED OTHERWISE

- Ⓐ PAVEMENT AREAS WITHIN THE EXISTING MEDIAN
- Ⓑ PAVEMENT AREAS OUTSIDE EXISTING LANES; INCLUDES THE RECONSTRUCTION OF THE KY 434 WEST APPROACH
- Ⓒ ESTIMATED AT 115 LBS. PER SQUARE PER INCH OF DEPTH; QUANTITIES FOR FULL-DEPTH SHOULDERS CALCULATED BY AVERAGE END AREA METHOD
- Ⓓ ESTIMATED AT 2.40 LBS. PER SQUARE YARD (2 APPLICATIONS)
- Ⓔ ESTIMATED AT 20 LBS. PER SQUARE YARD (2 APPLICATIONS)
- Ⓕ ESTIMATED AT 0.50 LBS. PER SQUARE YARD (BETWEEN ASPHALT PAVEMENT COURSES)
- Ⓖ ESTIMATED QUANTITY FOR MAKING ADJUSTMENTS TO CROSS SLOPES AND WHERE NEEDED AT TIE-DOWNS; AS DIRECTED BY THE ENGINEER

- ⑦ FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY; ESTIMATED AT 75 MGAL PER MILE
- ⑧ EARTHWORK QUANTITIES ARE APPROXIMATE AND FOR INFORMATION ONLY
EARTHWORK QUANTITIES:

COMMON

EMBANKMENT

EMBANKMENT BENCH

2626 CY

1198 CY

302 CY
- ⑨ FOR REMOVAL OF CURB AROUND MOUNTABLE GRASS MEDIAN
- ⑩ TO INCLUDE REMOVAL OF POLES, EQUIPMENT, AND CONCRETE BASES. CONCRETE BASES TO BE REMOVED TO 12 INCHES BELOW EXISTING GROUND LINE; STOP SIGNALS AT KY 434 INTERSECTION AND NORTHBOUND WARNING FLASHERS, DELIVER SIGNAL HEADS AND CABINET AND WARNING FLASHERS TO: 310 VALLEY ROAD ELIZABETHTOWN, KY 42701
BEFORE DELIVERING, CONTACT JAKE RIGGS: (270) 401-8132
- ⑪ FOR REMOVAL OF CONCRETE FLUME IN MEDIAN
- ⑫ TO BE DELIVERED TO THE BAILEY BRIDGE YARD
- ⑬ PROJECT QUANTITY PRORATED BASED ON PERCENTAGE OF ASPHALT FROM TOTAL ASPHALT OF KY 220, KY 434, AND BLACKJACK ROAD PROJECTS

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 434
GENERAL SUMMARY

FILE NAME: D:\PW_WORKDIR\DM564846\KY434 DRAINAGE SUMMARY.DGN

USER: travis-m
DATE PLOTTED: June 17, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397

PIPE DRAINAGE SUMMARY

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

STRUCTURE NO.		SKEW	COVER HEIGHT (FT)	DESIGN PH LEVEL	CULVERT PIPE - 15 INCH	CULVERT PIPE - 18 INCH	STORM SEWER PIPE - 15 INCH	STORM SEWER PIPE - 18 INCH	STORM SEWER PIPE - 24 INCH	PIPE CULVERT HEADWALL 18 INCH	REMOVE PIPE	SLOPED BOX OUTLET TYPE 1 - 15 INCH	CURB BOX INLET TYPE A	CURB BOX INLET TYPE F	DROP BOX INLET TYPE 5D	JUNCTION BOX	REMOVE INLET	REMARKS
	ITEM CODE				461	462	521	522	524	1204	1310	1432	1456	1487	1511	1650	1718	
	UNIT TO BID				LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH	LIN FT	EACH	EACH	EACH	EACH	EACH	EACH	
	HARDIN COUNTY																	
	KY 434																	
	1257+76	N/A	2	M	110						116							PROJECTING INLET/OUTLET
	1260+15	N/A	1.5	M		74												PROJECTING INLET/OUTLET
1	1263+48	0°	4	M	9						4				1		1	EXTEND IN KIND 15" RCP
2	1265+80	0°	3	M			14							1				
3	1265+95	0°	3	M			31							1				
4	1266+10	0°	3	M			126							1				
5 & 6	1267+37	0°	3	M			130							2				
7 & 8	1268+50	0°	3	M			57					1		2				
9	1273+21.9	0°	4	M					9		4				1		1	EXTEND IN KIND 24" CMP
10	1274+69	0°	6	M				14		1						1		SLOPED & FLARED HEADWALL; JBOX SIZE No 5
11 & 12	1275+88	0°	8.8	M				383						1	1			
13	1276+25	0°	4	M				36					1					
14	1276+50	0°	3.3	M			31							1				
15	1277+00	0°	3.3	M			51							1				
16	1278+00	0°	3.7	M			98								1			
	PROJECT TOTAL				119	74	538	433	9	1	268 ①	1	1	10	4	1	2	

① INCLUDES ADDITIONAL 144 LF FROM PLANS

NOTES: IF A PIPE COLLAR OR BEND CONNECTION IS NEEDED FOR CONSTRUCTION OF A PIPE EXTENSION, IT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PIPE BEING CONSTRUCTED.

FILE NAME: C:\PW\WORKING\DM564840\PLAN SHEET R3-KY434.DGN

USER: jeff-c
DATE PLOTTED: August 6, 2018

E-SHEET NAME:

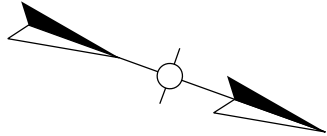
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

DITCH CONSTRUCTION CHART								
LT	RT	MED	STA. TO STA.	TYPE	QUANTITY	DEPTH	THICKNESS	DITCH
		X	1256+85 to 1257+00	ERO BLANKET	17 SY	1.00		V
		X	1257+00 to 1257+20	CLASS II	13 TON	1.00	1.25	V
		X	1258+30 to 1258+40	CLASS II	6 TON	1.00	1.25	V
		X	1258+40 to 1259+61	ERO BLANKET	108 SY	1.00		V
		X	1259+61 to 1259+71	CLASS II	6 TON	1.00	1.25	V
		X	1260+45 to 1260+55	CLASS II	6 TON	1.00	1.25	V
		X	1260+55 to 1263+42	ERO BLANKET	255 SY	1.00		V
	X		1259+60 to 1261+72	CLASS II	135 TON	1.00	1.25	V

PAVEMENT CONSTRUCTION ITEMS							
LT	RT	MED	STA. TO STA.	MILL PAVEMENT	CONSTRUCT TY 2 BARRIER MEDIAN	CONSTRUCT TY 4 BARRIER MEDIAN	REMOVE MEDIAN CURB
		X	1263+78 TO 1265+00	-	178 SY	-	-
		X	1263+69 TO 1265+00	-	-	-	263 LF
				-	-	-	-

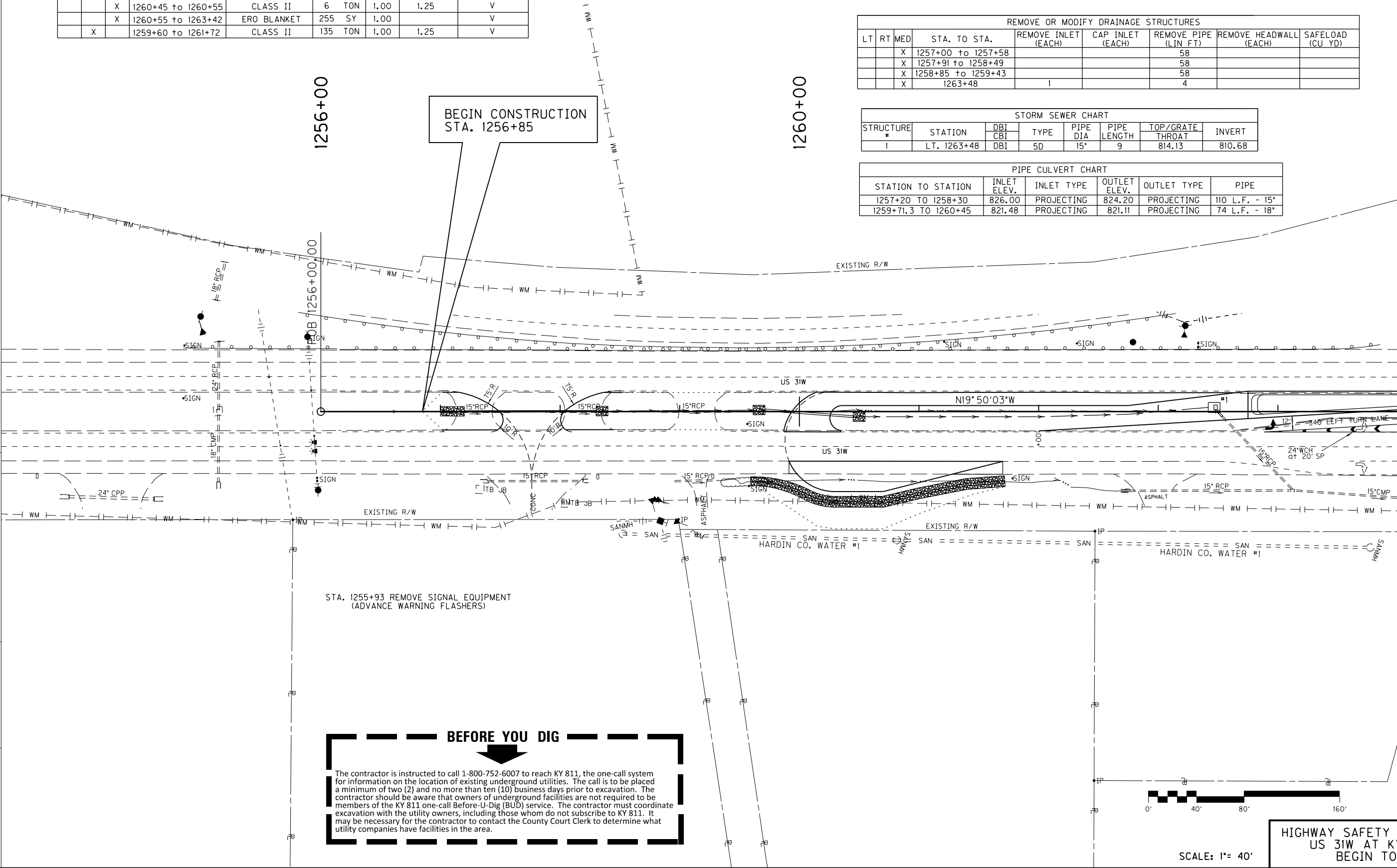
NOTE: SEE CROSS SECTIONS FOR CROSSOVER REMOVAL



REMOVE OR MODIFY DRAINAGE STRUCTURES								
LT	RT	MED	STA. TO STA.	REMOVE INLET (EACH)	CAP INLET (EACH)	REMOVE PIPE (LIN FT)	REMOVE HEADWALL (EACH)	SAFELOAD (CU YD)
		X	1257+00 to 1257+58			58		
		X	1257+91 to 1258+49			58		
		X	1258+85 to 1259+43			58		
		X	1263+48	1		4		

STORM SEWER CHART							
STRUCTURE #	STATION	DBI CBI	TYPE	PIPE DIA	PIPE LENGTH	TOP/GRATE THROAT	INVERT
1	LT. 1263+48	DBI	5D	15"	9	814.13	810.68

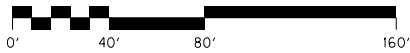
PIPE CULVERT CHART						
STATION TO STATION	INLET ELEV.	INLET TYPE	OUTLET ELEV.	OUTLET TYPE	PIPE	
1257+20 TO 1258+30	826.00	PROJECTING	824.20	PROJECTING	110 L.F. - 15"	
1259+71.3 TO 1260+45	821.48	PROJECTING	821.11	PROJECTING	74 L.F. - 18"	



STA. 1255+93 REMOVE SIGNAL EQUIPMENT
(ADVANCE WARNING FLASHERS)

BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.



SCALE: 1"= 40'

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 434 PLAN SHEET
BEGIN TO STA. 1265+00

MATCH LINE STA. 1265+00

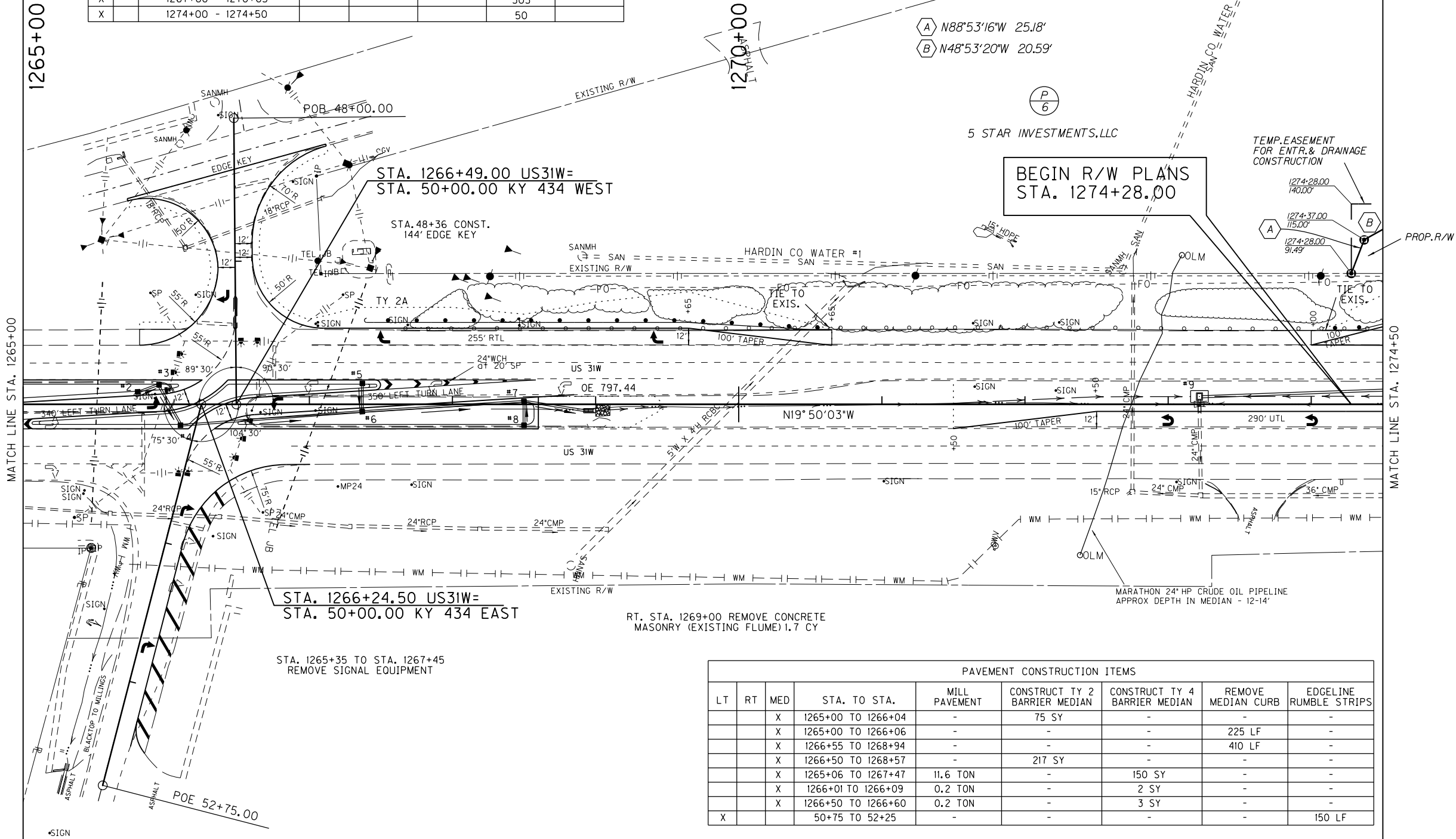
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

DITCH CONSTRUCTION CHART									
LT	RT	MED	STA. TO STA.		TYPE	QUANTITY	DEPTH	THICKNESS	DITCH
		X	1269+00+0	1269+10	CLASS II	6 TON	1.00	1.25	V
		X	1269+10+0	1269+50	ERO BLANKET	36 SY	1.00		V
		X	1271+50+0	1273+22	ERO BLANKET	153 SY	1.00		V
		X	1273+22+0	1274+50	ERO BLANKET	142 SY	1.00		V

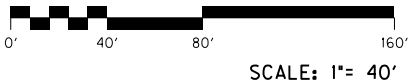
STEEL "W" BEAM GUARDRAIL CONSTRUCTION CHART						
LT	RT	STATION TO STATION		SINGLE FACE (ft)	END TREAT. TY 1 (Eq)	END TREAT. TY 2A (Eq)
X		1267+40 - 1270+65		325		I
X		1274+10 - 1274+50		40		
X		1267+60 - 1270+65				305
X		1274+00 - 1274+50				50

REMOVE OR MODIFY DRAINAGE STRUCTURES						
LT	RT	MED	STA. TO STA.	REMOVE INLET (EACH)	CAP INLET (EACH)	REMOVE PIPE (LIN FT)
		X	1273+21.9	1		4

STORM SEWER CHART							
STRUCTURE #	STATION	DBI CBI	TYPE	PIPE DIA	PIPE LENGTH	TOP/GRATE THROAT	INVERT
2	LT. 1265+80	CBI	F	15"	14	809.80	805.80
3	LT. 1265+95	CBI	F	15"	31	809.53	805.53
4	RT. 1266+10	CBI	F	15"	126	809.18	805.18
5	LT. 1267+37	CBI	F	15"	18	805.10	801.10
6	RT. 1267+37	CBI	F	15"	112	804.74	800.74
7	LT. 1268+50	CBI	F	15"	42	801.20	797.65
8	RT. 1268+50	CBI	F	15"	15	801.68	798.00
9	LT. 1273+21.9	DBI	SD	24"	9	790.19	786.37



RIGHT OF WAY MONUMENTS						
SIDE	STATION	OFFSET	NORTH (Y)	EAST (X)	DESCRIPTION	TYPE
LT	1274+28.00	91.49	3811864.762	4873884.912	RW MON	I
LT	1274+37.00	115.00	3811865.251	4873859.741	RW MON	I



HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 434 PLAN SHEET
STA. 1265+00 TO STA. 1274+50

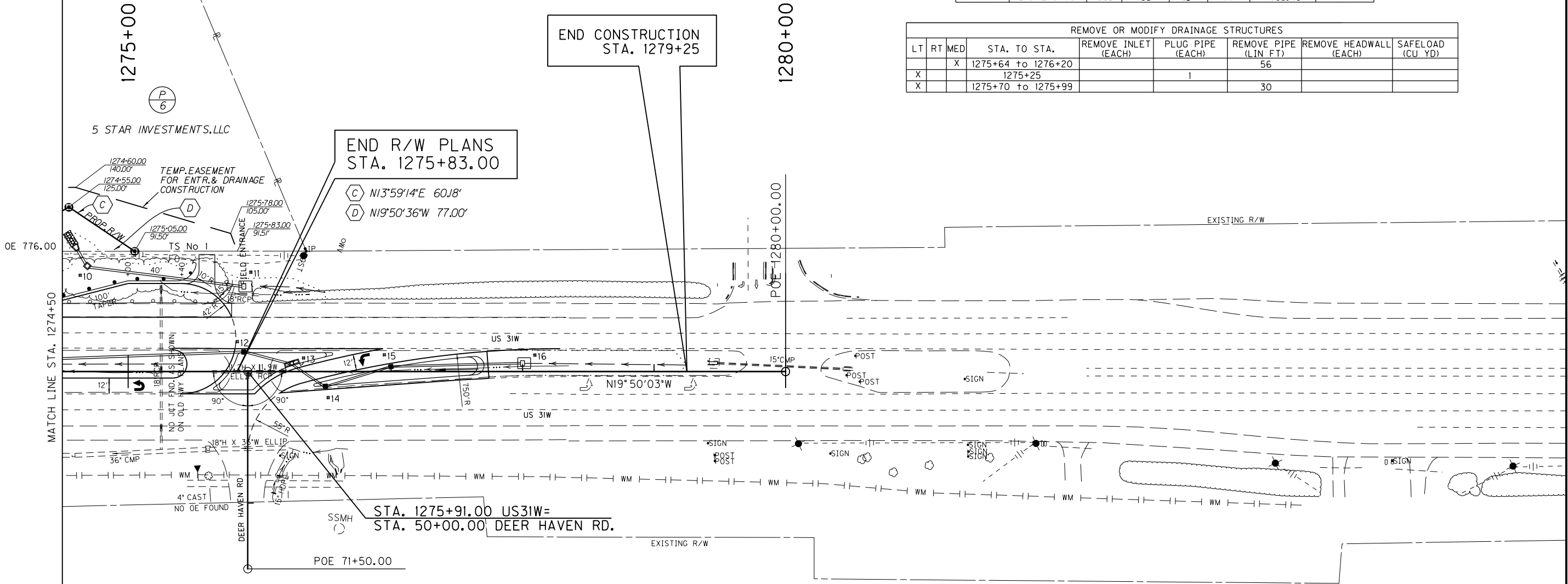
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

DITCH CONSTRUCTION CHART									
LT	RT	MED	STA. TO STA.		TYPE	QUANTITY	DEPTH	THICKNESS	DITCH
		X	1274+50+o	1275+40	ERO BLANKET	100 SY	1.00		V
X			1274+53+o	1274+59	CLASS II	8 TON	1.00	2.0'	2' FB
X			1275+88+o	1276+50	ERO BLANKET	56 SY	1.00		V
		X	1278+00+o	1279+25	ERO BLANKET	84 SY	1.50		V

STEEL "W" BEAM GUARDRAIL CONSTRUCTION CHART						
LT	RT	STATION TO STATION		SINGLE FACE (ft)	TERM. SECT NO. 1 (Eq)	END TREAT. TY. 2A (Eq)
X		1274+50 - 1275+52		110	1	
X		1274+50 - 1275+80				140

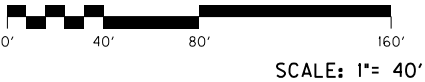
STORM SEWER CHART							
STRUCTURE #	STATION	DBI CBI	TYPE	PIPE DIA	PIPE LENGTH	TOP/GRATE THROAT	INVERT
10	LT. 1274+69	JBOX	SIZE #5	18"	14	-	777.00
12	LT. 1275+88	CBI	F	18"	264	794.12	789.00
11	LT. 1275+88	DBI	5D	18"	119	790.90	787.90
13	LT. 1276+25	CBI	A	18"	36	794.04	789.50
14	RT. 1276+50	CBI	F	15"	31	794.59	790.00
15	LT. 1277+00	CBI	F	15"	51	794.68	790.45
16	LT. 1278+00	DBI	5D	15"	98	793.45	790.95

REMOVE OR MODIFY DRAINAGE STRUCTURES								
LT	RT	MED	STA. TO STA.	REMOVE INLET (EACH)	PLUG PIPE (EACH)	REMOVE PIPE (LIN. FT)	REMOVE HEADWALL (EACH)	SAFELOAD (CU. YD)
		X	1275+64 +o 1276+20			56		
X			1275+25		1			
X			1275+70 +o 1275+99			30		

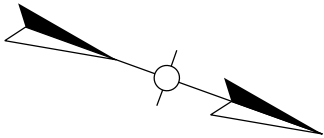


RIGHT OF WAY MONUMENTS						
SIDE	STATION	OFFSET	NORTH (Y)	EAST (X)	DESCRIPTION	TYPE
LT	1274+55.00	125.00	3811878.790	4873844.227	RW MON	I
LT	1275+05.00	91.50	3811937.190	4873858.774	RW MON	I

PAVEMENT CONSTRUCTION ITEMS							
LT	RT	MED	STA. TO STA.	MILL PAVEMENT	CONSTRUCT TY 2 BARRIER MEDIAN	CONSTRUCT TY 4 BARRIER MEDIAN	REMOVE MOUNTABLE MEDIAN
		X	1275+65 TO 1276+56	-	135 SY	-	-
		X	1276+41 TO 1277+71	-	140 SY	-	-
X			1275+60	-	-	-	12' / 43 SY



HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT KY 434 PLAN SHEET
STA. 1274+50 TO END

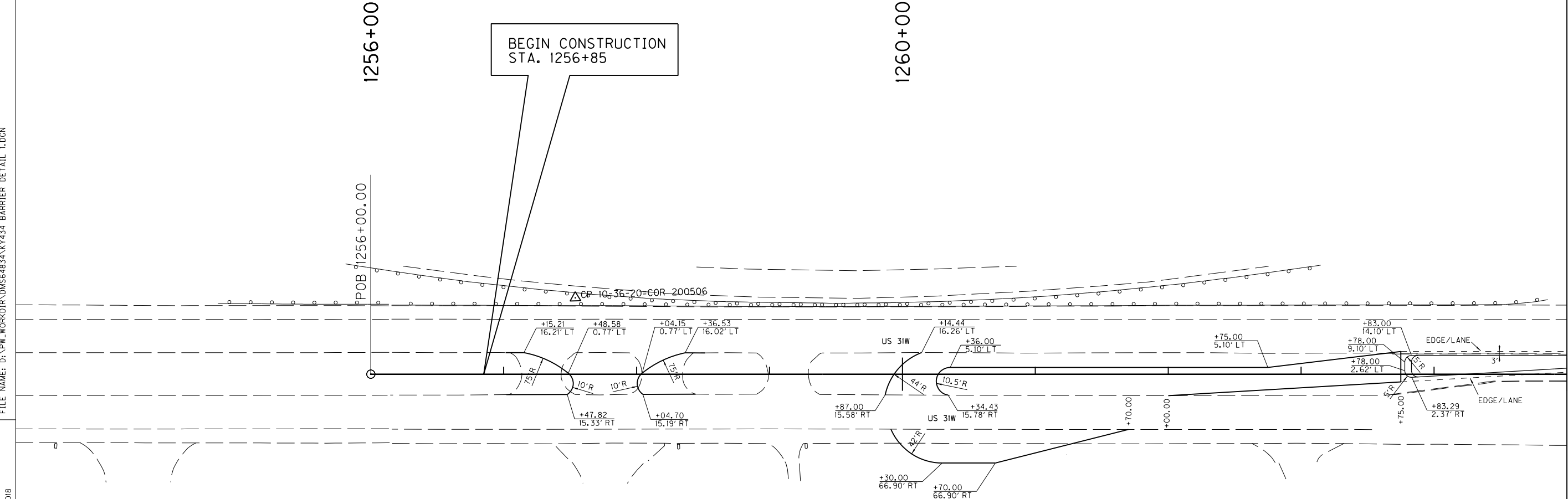


FILE NAME: D:\PW_MORKDIR\DM564834\KY434 BARRIER DETAIL 1.DGN

USER: jeff-c
DATE PLOTTED: August 6, 2018

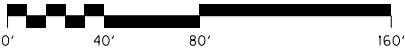
E-SHEET NAME:

Power InRoads v8.11.9.397



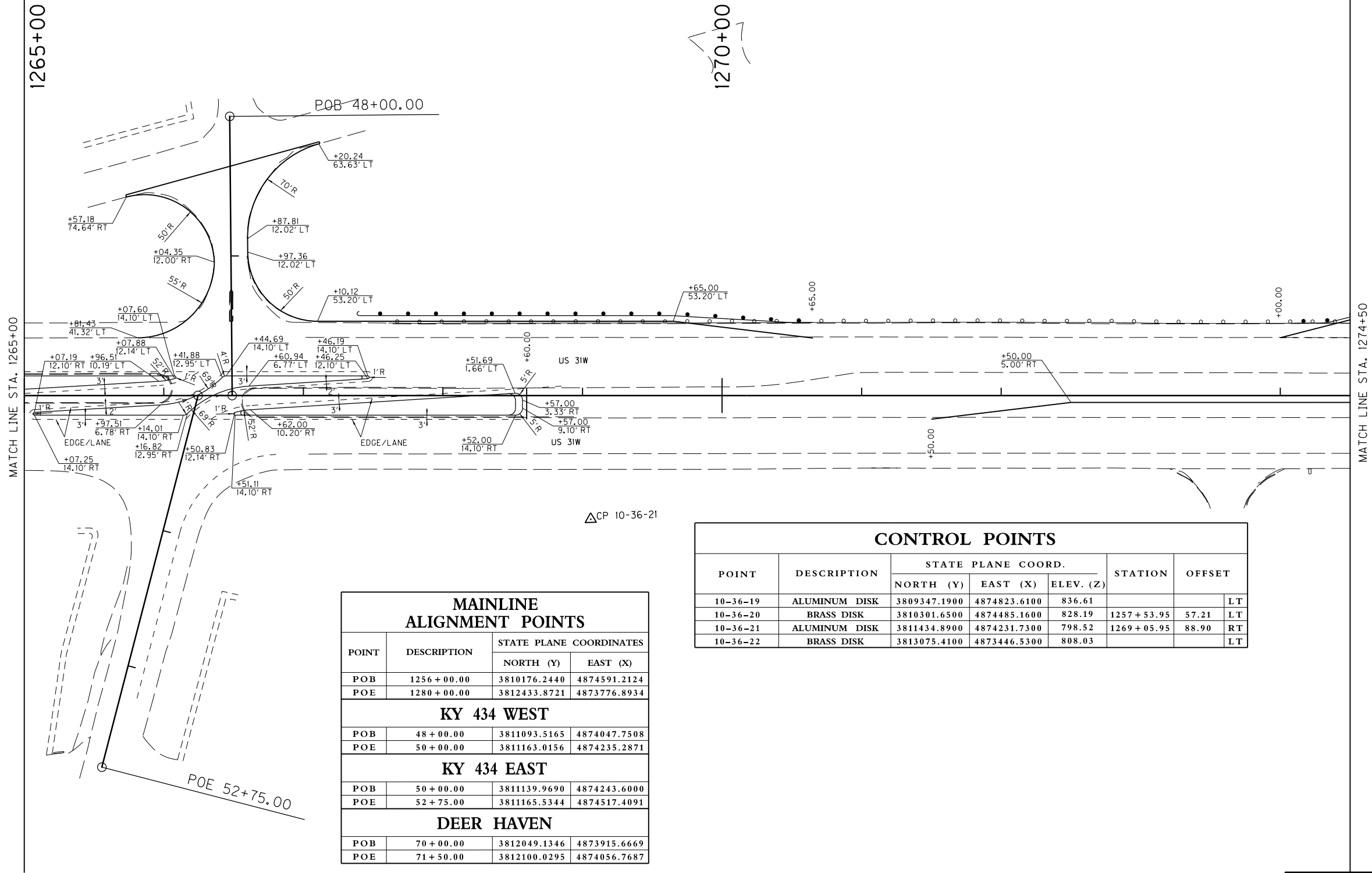
MAINLINE ALIGNMENT POINTS				
POINT	DESCRIPTION	STATE PLANE COORDINATES		
		NORTH (Y)	EAST (X)	
POB	1256 + 00.00	3810176.2440	4874591.2124	
POE	1280 + 00.00	3812433.8721	4873776.8934	
KY 434 WEST				
POB	48 + 00.00	3811093.5165	4874047.7508	
POE	50 + 00.00	3811163.0156	4874235.2871	
KY 434 EAST				
POB	50 + 00.00	3811139.9690	4874243.6000	
POE	52 + 75.00	3811165.5344	4874517.4091	
DEER HAVEN				
POB	70 + 00.00	3812049.1346	4873915.6669	
POE	71 + 50.00	3812100.0295	4874056.7687	

CONTROL POINTS							
POINT	DESCRIPTION	STATE PLANE COORD.			STATION	OFFSET	
		NORTH (Y)	EAST (X)	ELEV. (Z)			
10-36-19	ALUMINUM DISK	3809347.1900	4874823.6100	836.61			LT
10-36-20	BRASS DISK	3810301.6500	4874485.1600	828.19	1257 + 53.95	57.21	LT
10-36-21	ALUMINUM DISK	3811434.8900	4874231.7300	798.52	1269 + 05.95	88.90	RT
10-36-22	BRASS DISK	3813075.4100	4873446.5300	808.03			LT



SCALE: 1"= 40'

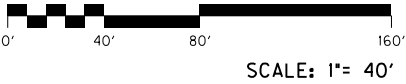
HSIP US 31W AT KY 434
BARRIER DETAIL & CONTROL PLAN SHEET
BEGIN TO STA. 1265+00



△CP 10-36-21

MAINLINE ALIGNMENT POINTS			
POINT	DESCRIPTION	STATE PLANE COORDINATES	
		NORTH (Y)	EAST (X)
POB	1256 + 00.00	3810176.2440	4874591.2124
POE	1280 + 00.00	3812433.8721	4873776.8934
KY 434 WEST			
POB	48 + 00.00	3811093.5165	4874047.7508
POE	50 + 00.00	3811163.0156	4874235.2871
KY 434 EAST			
POB	50 + 00.00	3811139.9690	4874243.6000
POE	52 + 75.00	3811165.5344	4874517.4091
DEER HAVEN			
POB	70 + 00.00	3812049.1346	4873915.6669
POE	71 + 50.00	3812100.0295	4874056.7687

CONTROL POINTS							
POINT	DESCRIPTION	STATE PLANE COORD.			STATION	OFFSET	
		NORTH (Y)	EAST (X)	ELEV. (Z)			
10-36-19	ALUMINUM DISK	3809347.1900	4874823.6100	836.61			LT
10-36-20	BRASS DISK	3810301.6500	4874485.1600	828.19	1257 + 53.95	57.21	LT
10-36-21	ALUMINUM DISK	3811434.8900	4874231.7300	798.52	1269 + 05.95	88.90	RT
10-36-22	BRASS DISK	3813075.4100	4873446.5300	808.03			LT



HSIP US 31W AT KY 434
BARRIER DETAIL & CONTROL PLAN SHEET
STA. 1265+00 TO STA. 1274+50

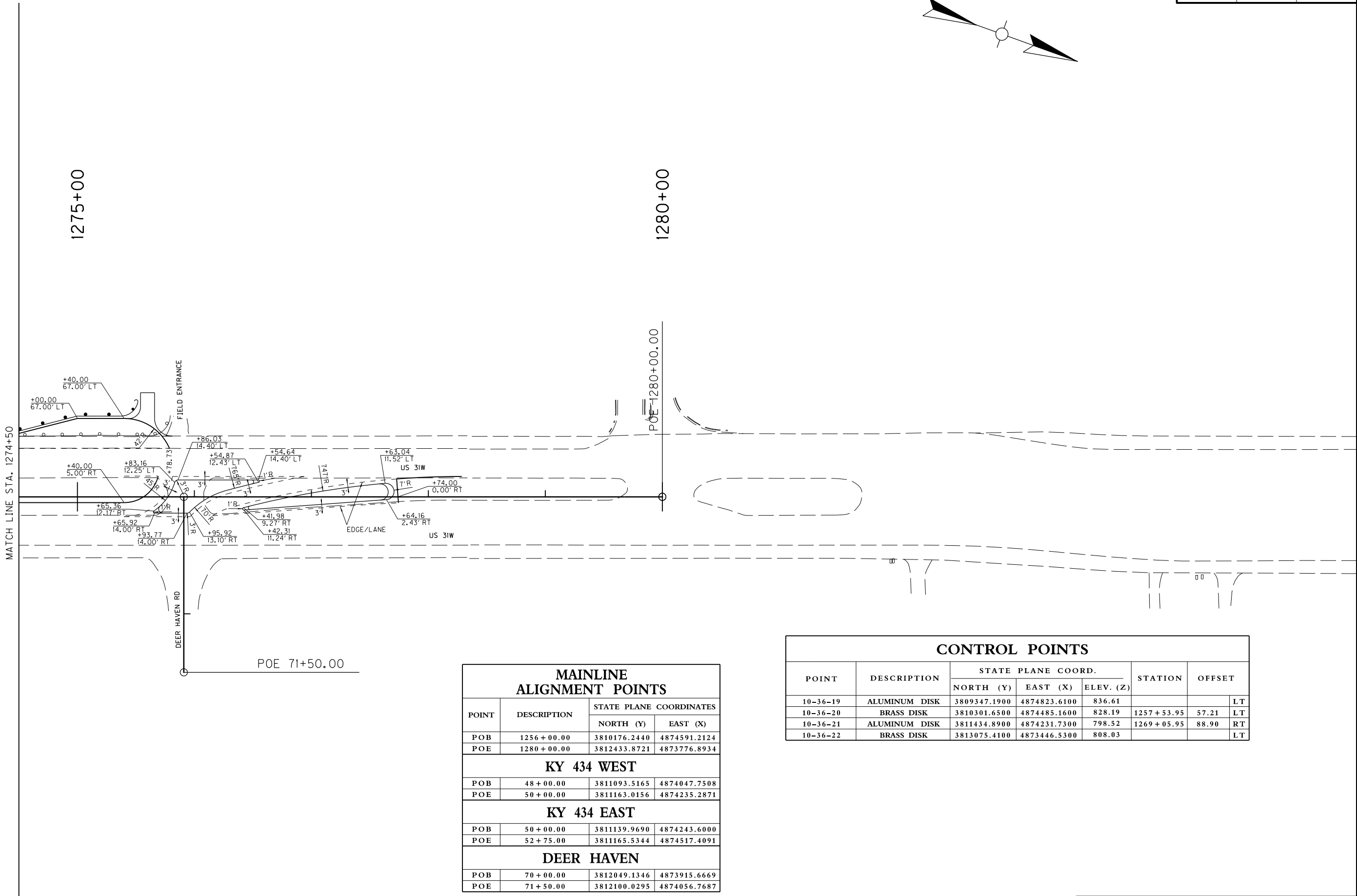
FILE NAME: D:\PW\WORKDIR\DM564834\KY434 BARRIER DETAIL 3.DGN

USER: jeff-c
DATE PLOTTED: August 6, 2018

E-SHEET NAME:

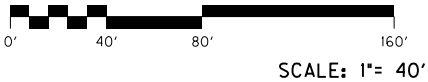
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

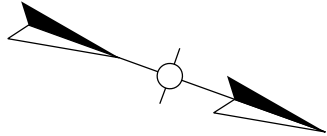


MAINLINE ALIGNMENT POINTS			
POINT	DESCRIPTION	STATE PLANE COORDINATES	
		NORTH (Y)	EAST (X)
POB	1256 + 00.00	3810176.2440	4874591.2124
POE	1280 + 00.00	3812433.8721	4873776.8934
KY 434 WEST			
POB	48 + 00.00	3811093.5165	4874047.7508
POE	50 + 00.00	3811163.0156	4874235.2871
KY 434 EAST			
POB	50 + 00.00	3811139.9690	4874243.6000
POE	52 + 75.00	3811165.5344	4874517.4091
DEER HAVEN			
POB	70 + 00.00	3812049.1346	4873915.6669
POE	71 + 50.00	3812100.0295	4874056.7687

CONTROL POINTS						
POINT	DESCRIPTION	STATE PLANE COORD.			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
10-36-19	ALUMINUM DISK	3809347.1900	4874823.6100	836.61		LT
10-36-20	BRASS DISK	3810301.6500	4874485.1600	828.19	1257 + 53.95	57.21 LT
10-36-21	ALUMINUM DISK	3811434.8900	4874231.7300	798.52	1269 + 05.95	88.90 RT
10-36-22	BRASS DISK	3813075.4100	4873446.5300	808.03		LT



HSIP US 31W AT KY 434
BARRIER DETAIL & CONTROL PLAN SHEET
STA. 1274+50 TO END

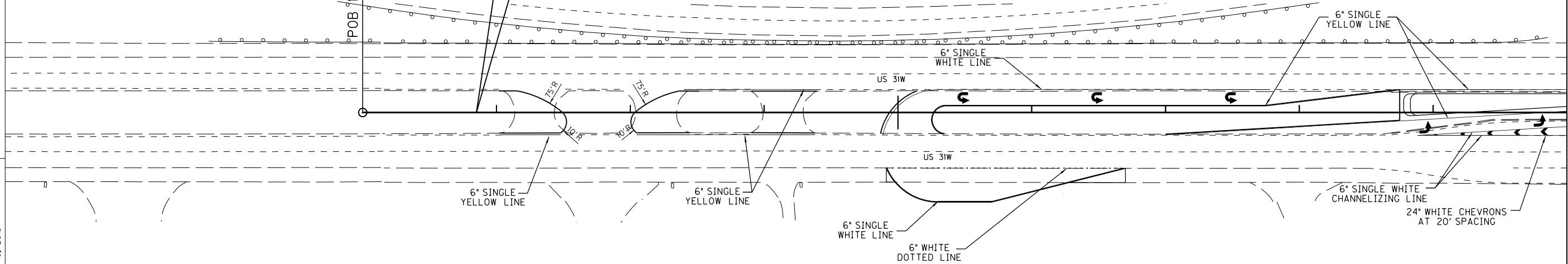


1256+00

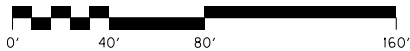
1260+00

BEGIN CONSTRUCTION
STA. 1256+85

POB 1256+00.00



STRIPING QUANTITIES			
ITEM	DESCRIPTION	UNIT	US 31W
24995EC	PAVE STRIPING-SPRAY THERMO-6 IN W	LF	761
24996EC	PAVE STRIPING-SPRAY THERMO-6 IN Y	LF	1034
6530	PAVEMENT STRIPING REMOVAL - 4 INCH	LF	45
6598	PAVEMENT MARKING REMOVAL	SQ FT	15.5
6574	PAVE MARKING - THERMO CURV ARROW	EACH	5
6575	PAVE MARKING - THERMO COMB ARROW	EACH	-
24679ED	PAVE MARK THERMO CHEVRON	SQ FT	46
6569	PAVE MARKING - THERMO CROSS-HATCH	SQ FT	-



SCALE: 1"= 40'

HSIP US 31W AT KY 434
STRIPING DETAIL PLAN SHEET
BEGIN TO STA. 1265+00

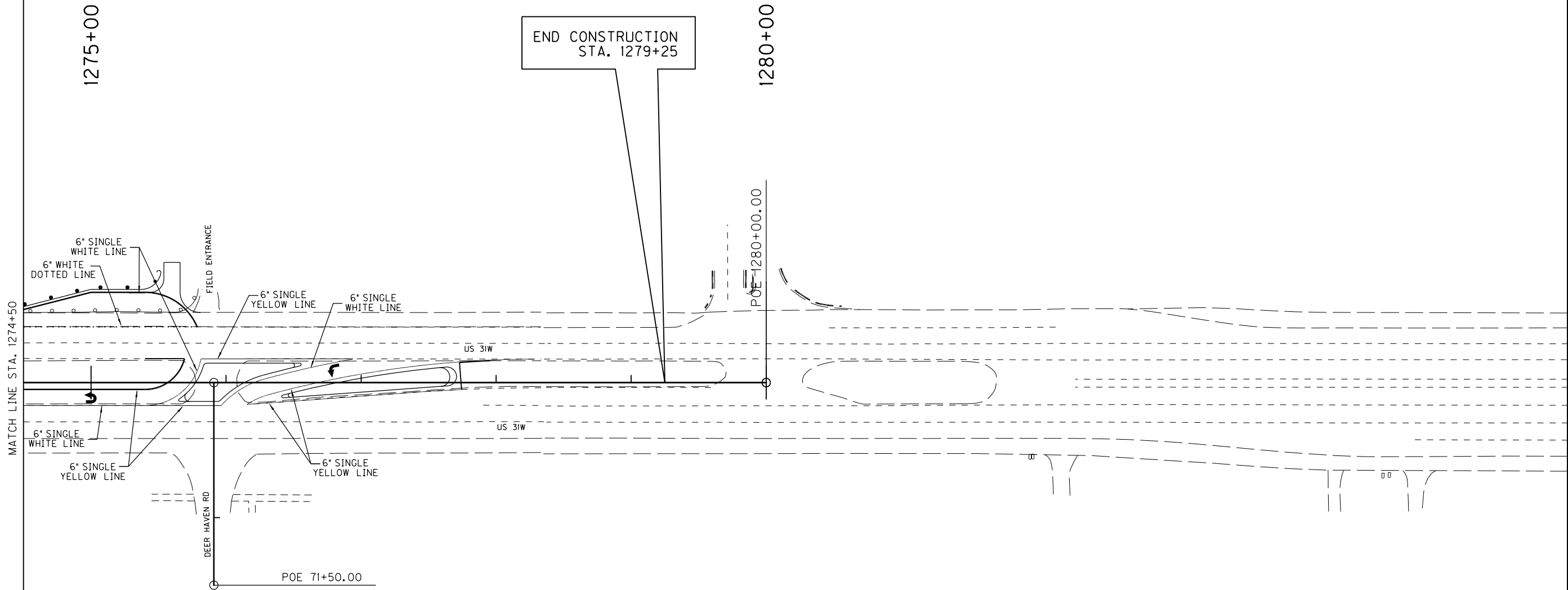
FILE NAME: D:\PW\WORKDIR\DM564834\KY434 STRIPING DETAIL 3.DGN

USER: jeff-c
DATE PLOTTED: August 6, 2018

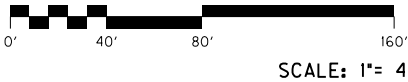
E-SHEET NAME:

Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

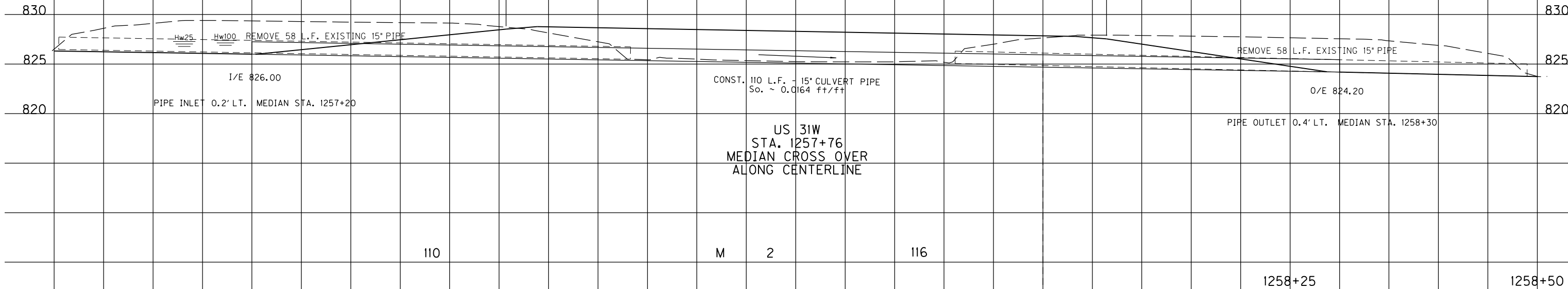
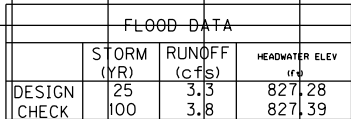
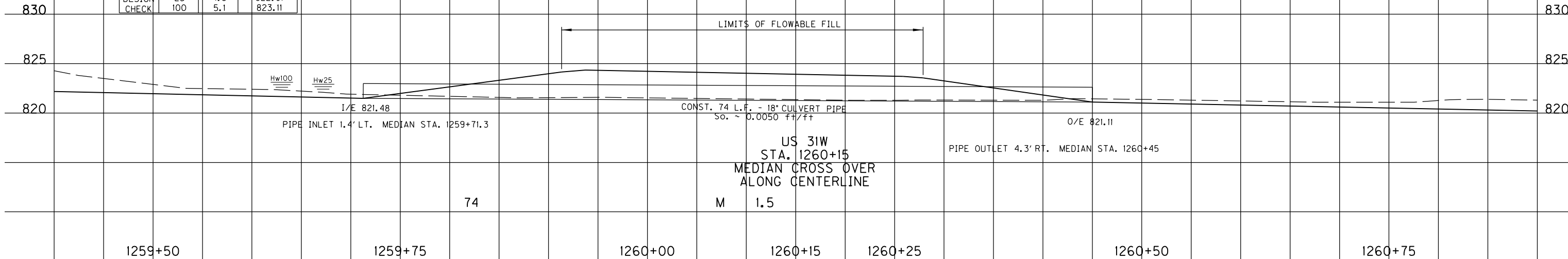
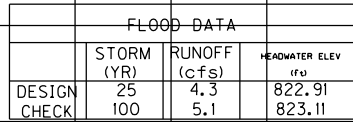


STRIPING QUANTITIES			
ITEM	DESCRIPTION	UNIT	US 31W
24995EC	PAVE STRIPING-SPRAY THERMO-6 IN W	LF	439
24996EC	PAVE STRIPING-SPRAY THERMO-6 IN Y	LF	676
6530	PAVEMENT STRIPING REMOVAL - 4 INCH	LF	-
6598	PAVEMENT MARKING REMOVAL	SQ FT	-
6574	PAVE MARKING - THERMO CURV ARROW	EACH	2
6575	PAVE MARKING - THERMO COMB ARROW	EACH	-
6576	PAVE MARKING - THERMO "ONLY"	EACH	-
24679ED	PAVE MARK THERMO CHEVRON	SQ FT	-
6569	PAVE MARKING - THERMO CROSS-HATCH	SQ FT	-



HSIP US 31W AT KY 434
STRIPING DETAIL PLAN SHEET
STA. 1274+50 TO END

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

[illegible]

SCALE: 1"=5'

HSIP US 31W AT KY 434
PIPE SHEET
STA. 1257+76 TO 1260+15

FILE NAME: D:\PW_WORKDIR\DMS64839\KY434 PIPE SHEET.DGN

USER: travis-m
DATE PLOTTED: June 17, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

[illegible]

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

Power InRoads v8.11.9.397	E-SHEET NAME:	USER: jeff-c DATE PLOTTED: 01-11-2010	FILE NAME: C:\PW_WORKING\DMS64839\KY434 PIPE SHEET.DGN
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COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

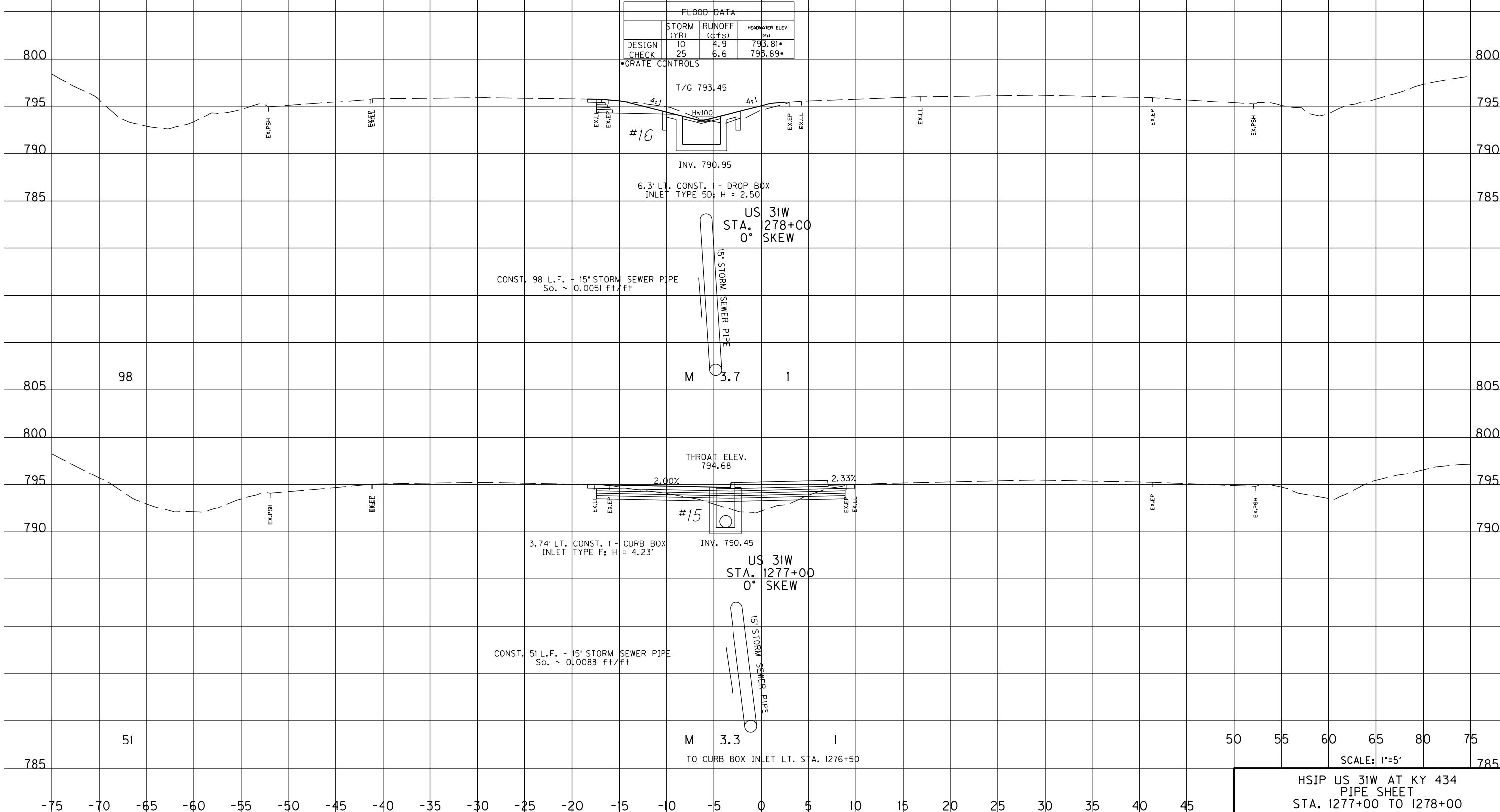
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COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

STORM SEWER PIPE							CULVERT PIPE						DESIGN PH LEVEL	MAXIMUM COVER HEIGHT	DROP BOX INLET TYPE 5D	CURB BOX INLET TYPE F													
12"	15"	18"	24"	30"	36"	42"	15"	18"	24"	30"	36"	42"																	
L	I	N	E	A	R	F	E	E	T										FT	EACH	EACH								



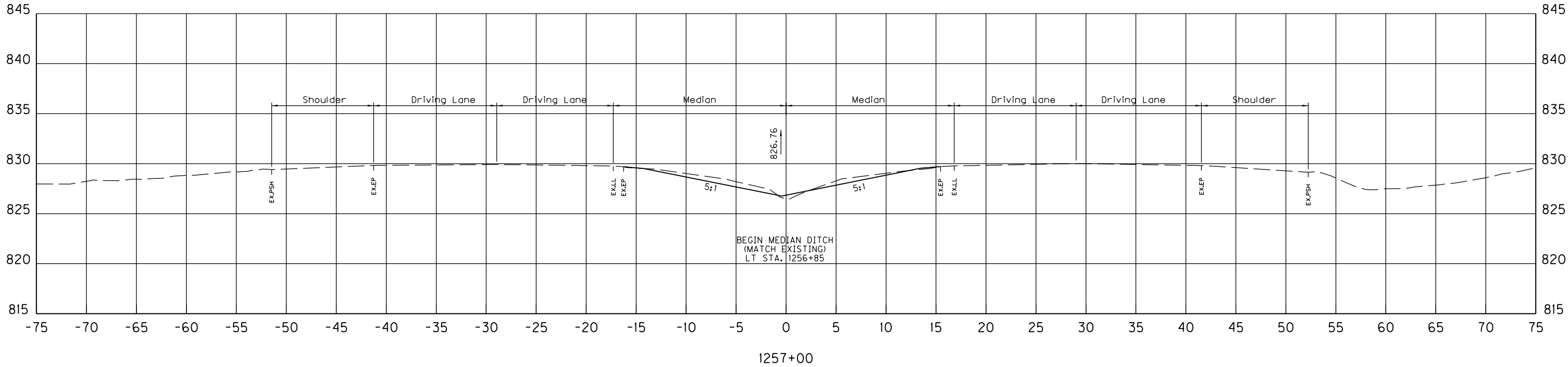
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1257+00 TO STA. 1257+00

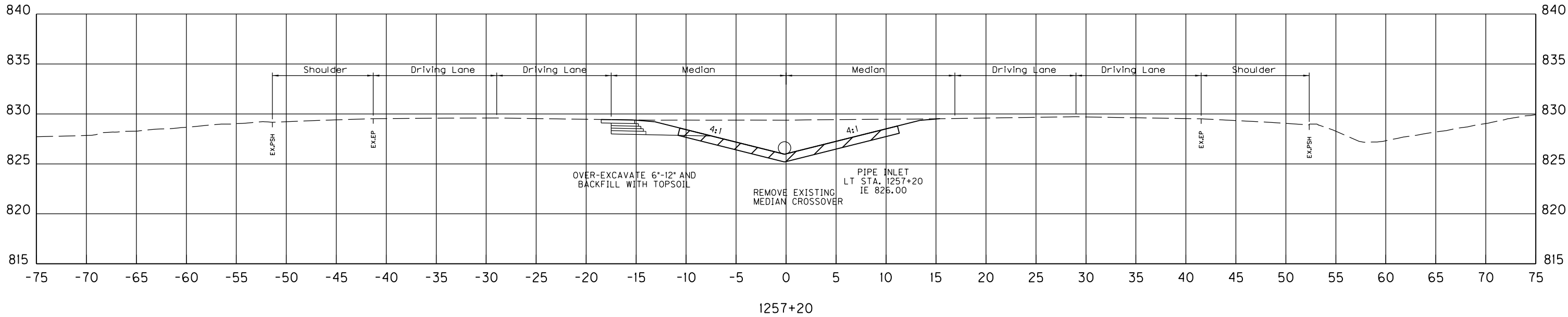
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1257+20 TO STA. 1257+20

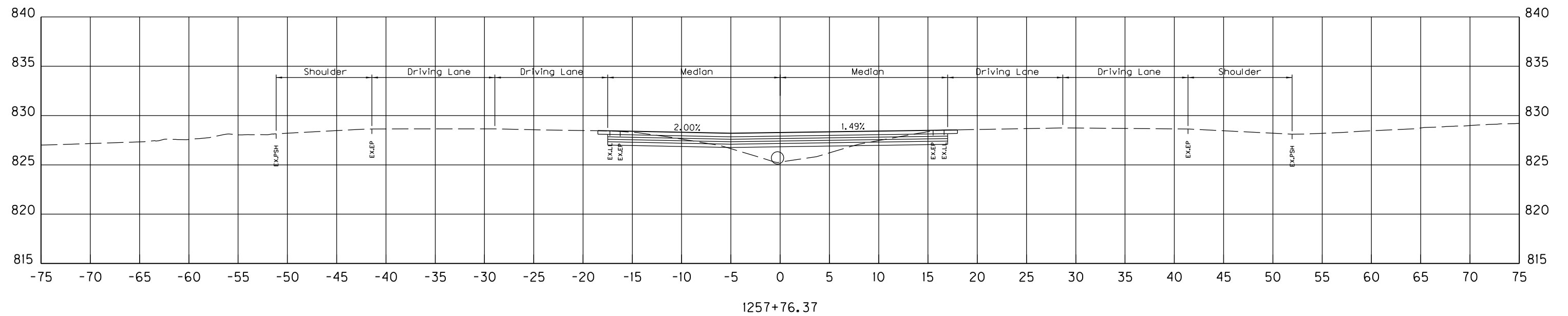
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW_WORKING\DMS64832\KY434 CROSS SECTIONS.DGN

USER: jeff-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



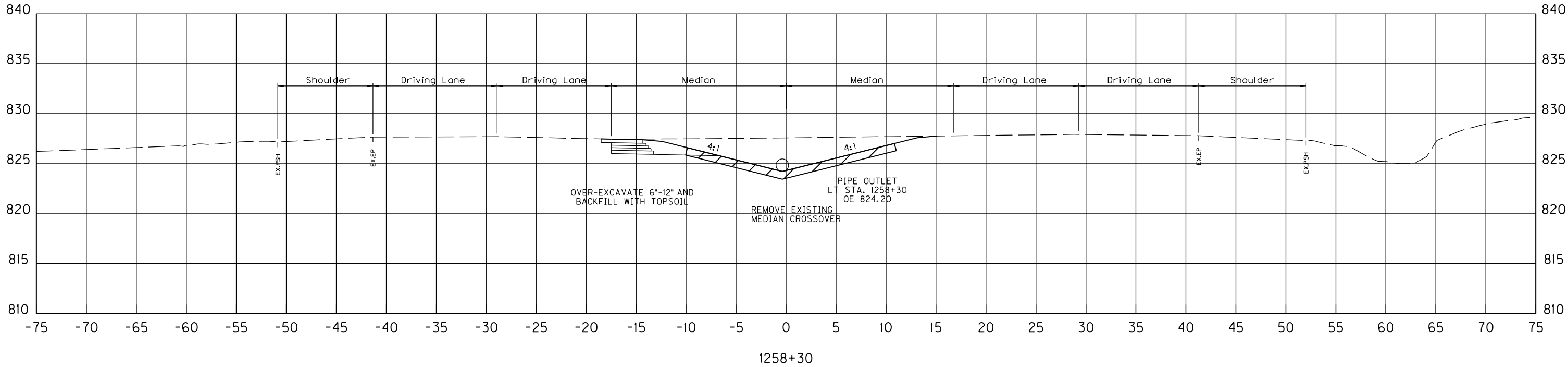
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: telf-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1258+30 TO STA. 1258+30

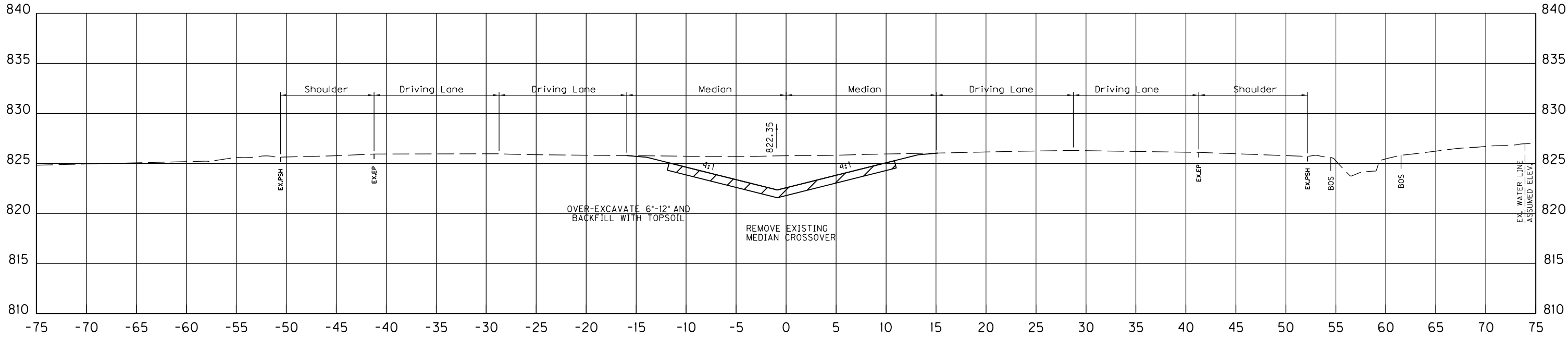
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832 KY434 CROSS SECTIONS.DGN

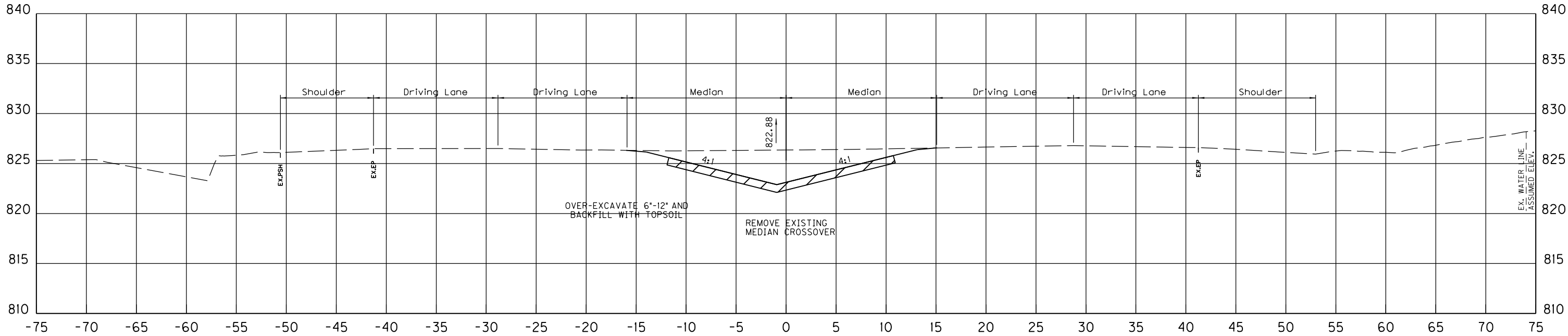
USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1259+29



1259+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

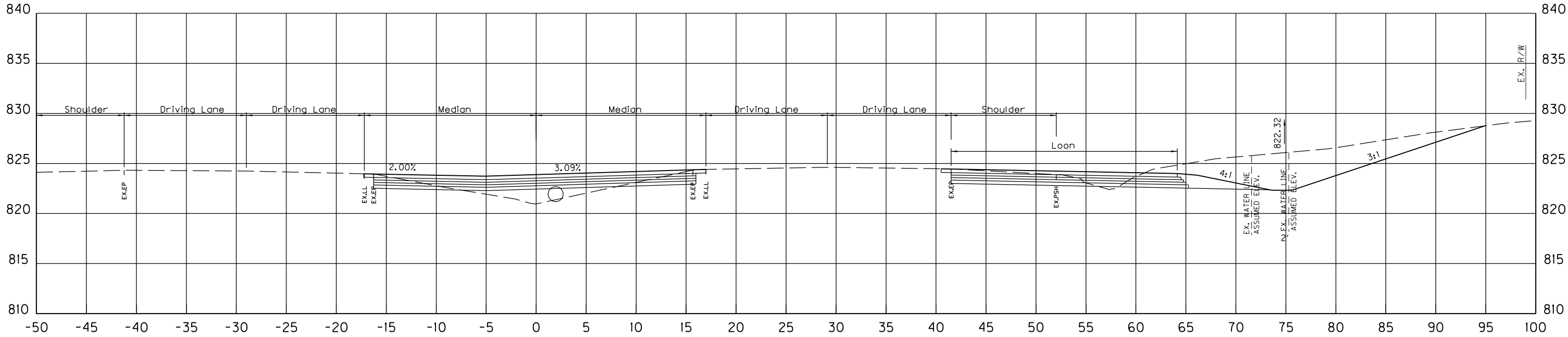
HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1259+00 TO STA. 1259+29

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

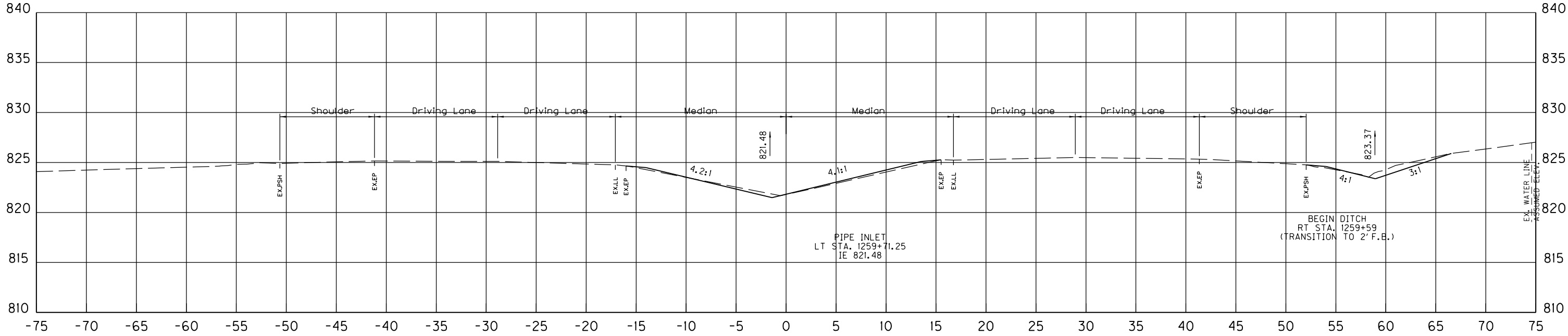
USER: jeff-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1260+15



1259+71

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1259+71 TO STA. 1260+15

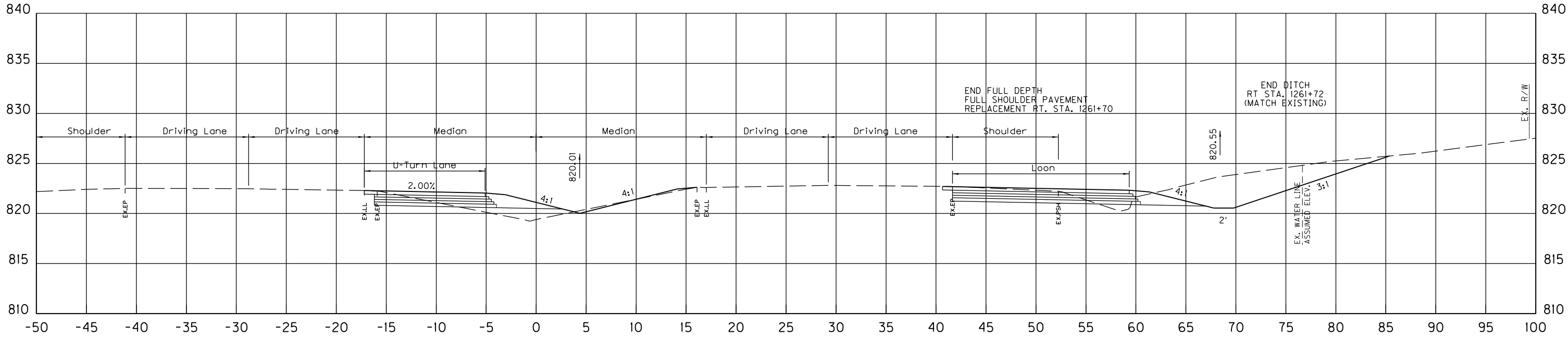
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

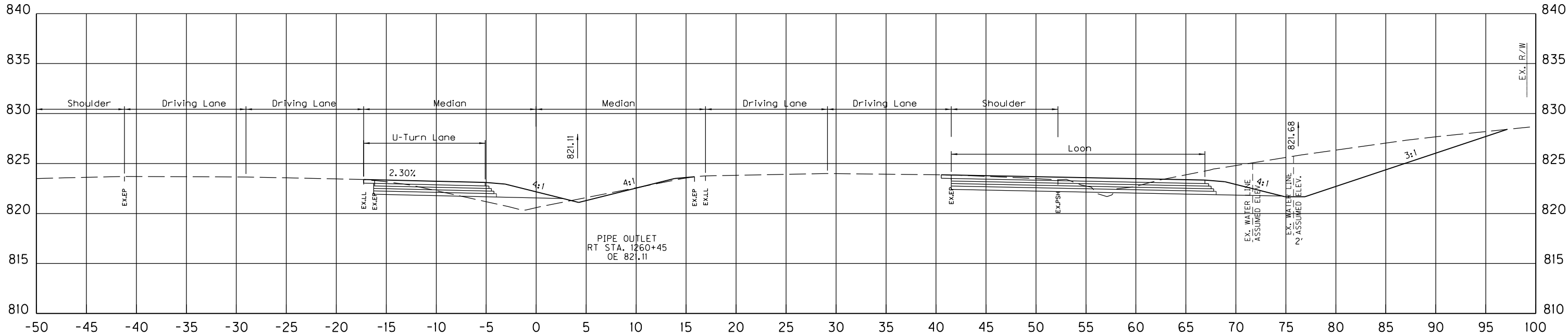
USER: jeff-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1261+00



1260+45

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1260+45 TO STA. 1261+00

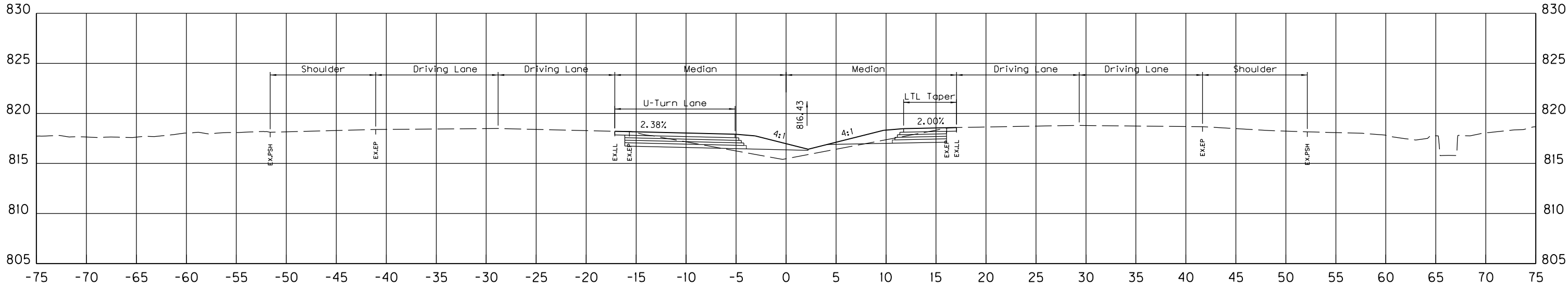
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

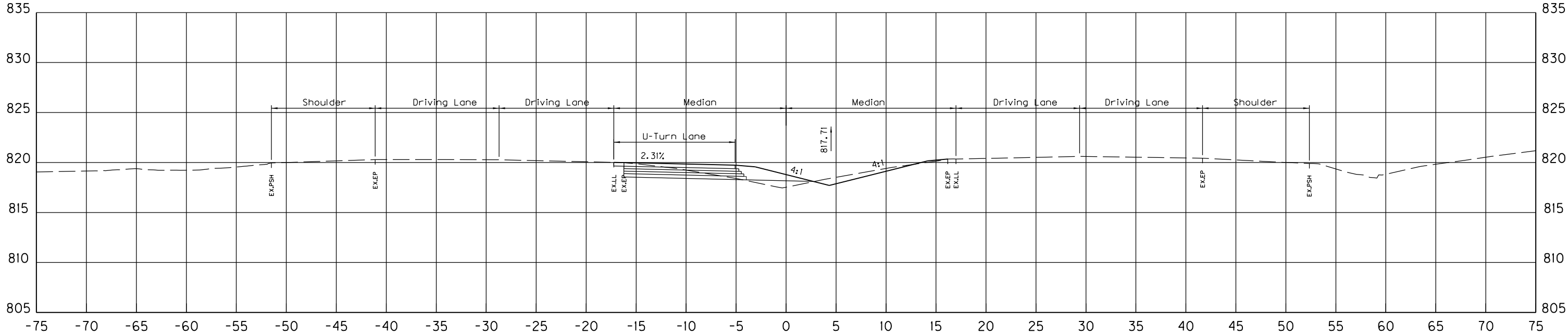
USER: jeff-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1262+75



1262+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1262+00 TO STA. 1262+75

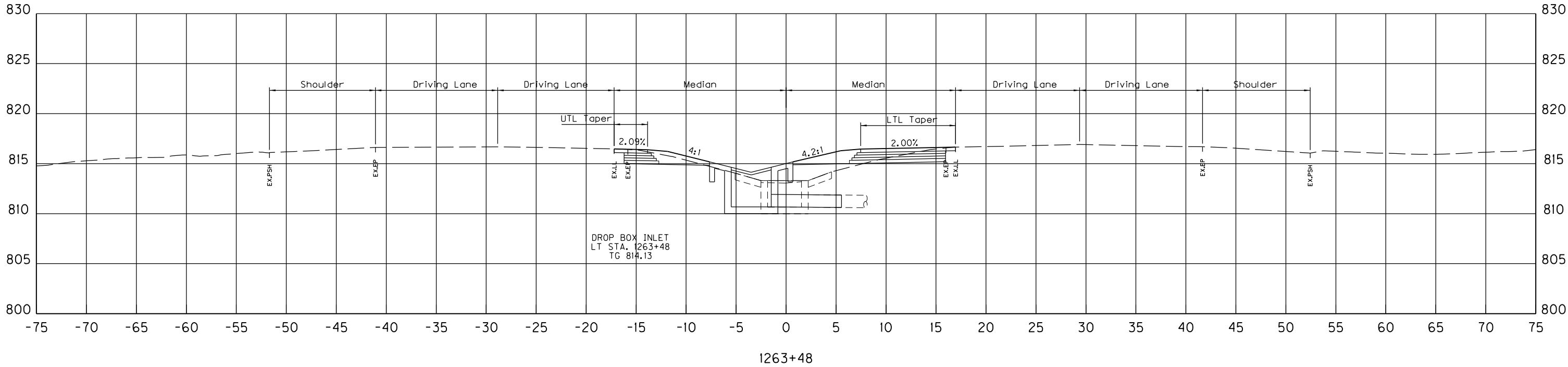
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: tef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

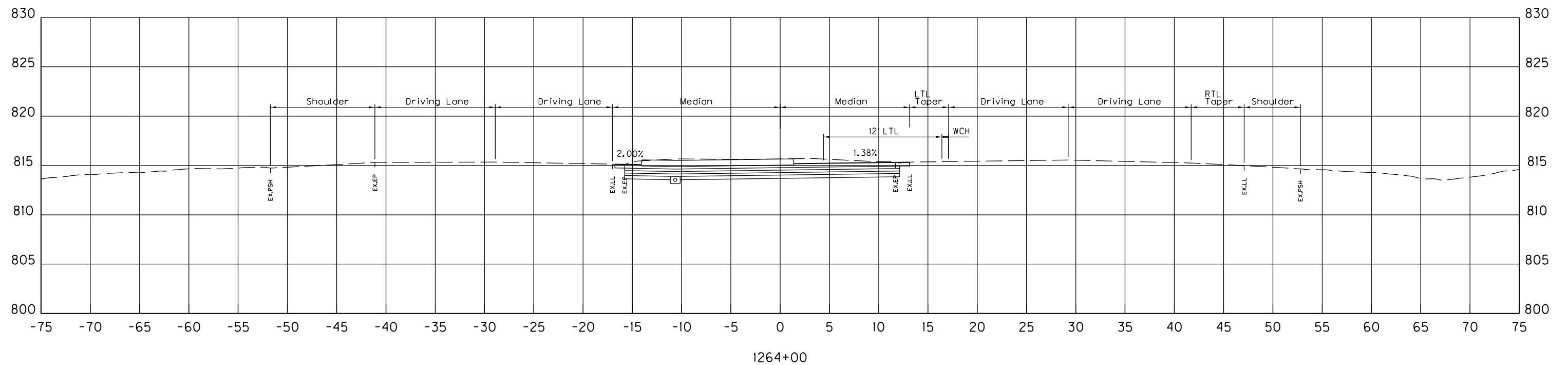
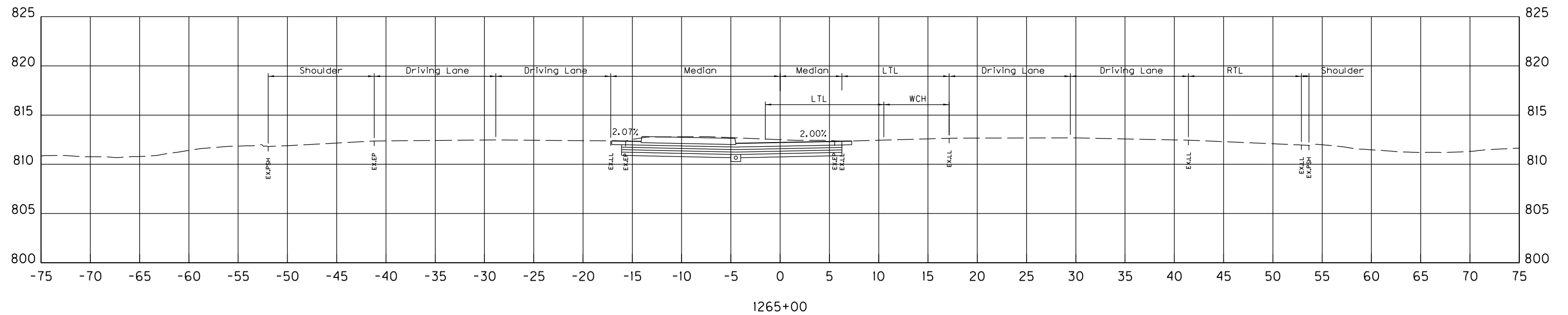
Power InRoads v8.11.9.337



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1263+48 TO STA. 1263+48

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1264+00 TO STA. 1265+00

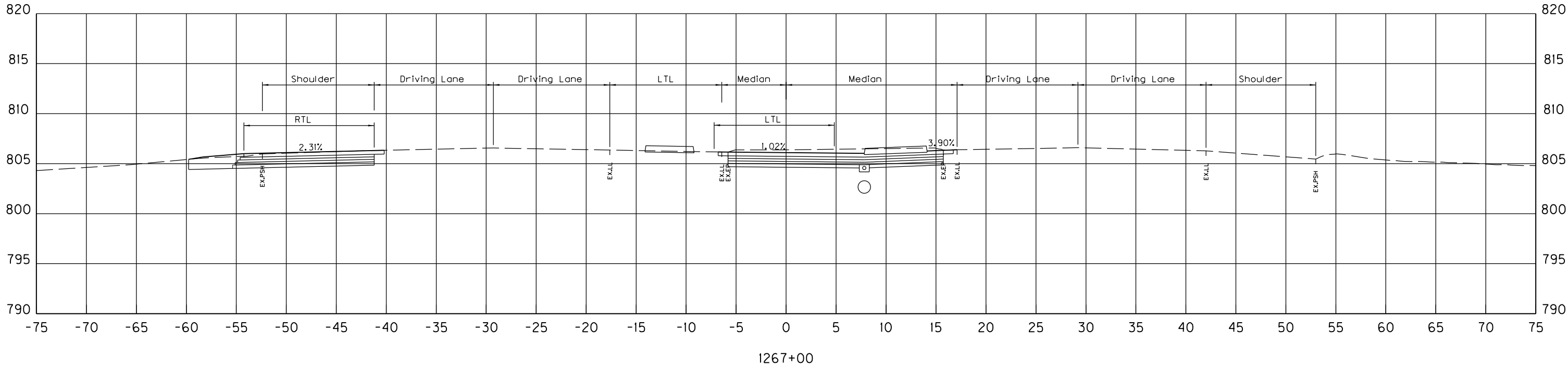
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



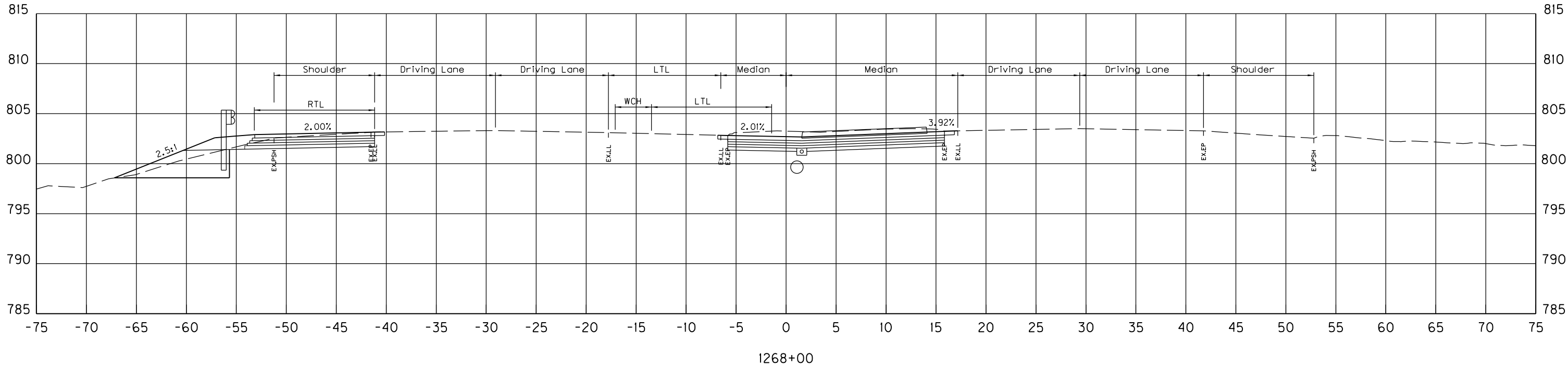
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: telf-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

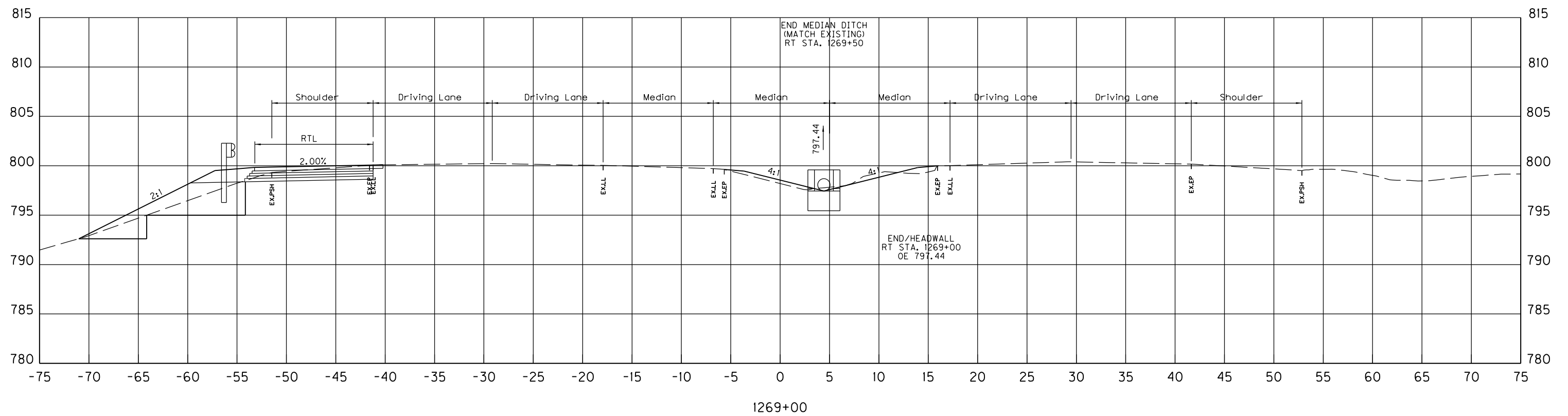
Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1268+00 TO STA. 1268+00

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1269+00 TO STA. 1269+00

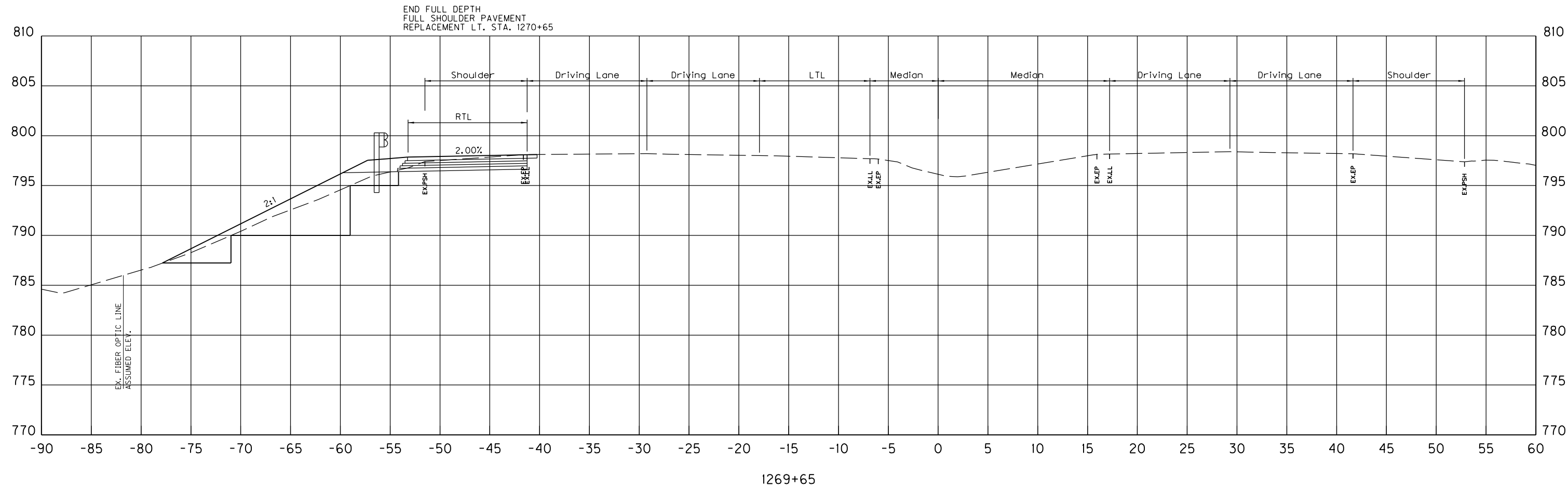
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.337



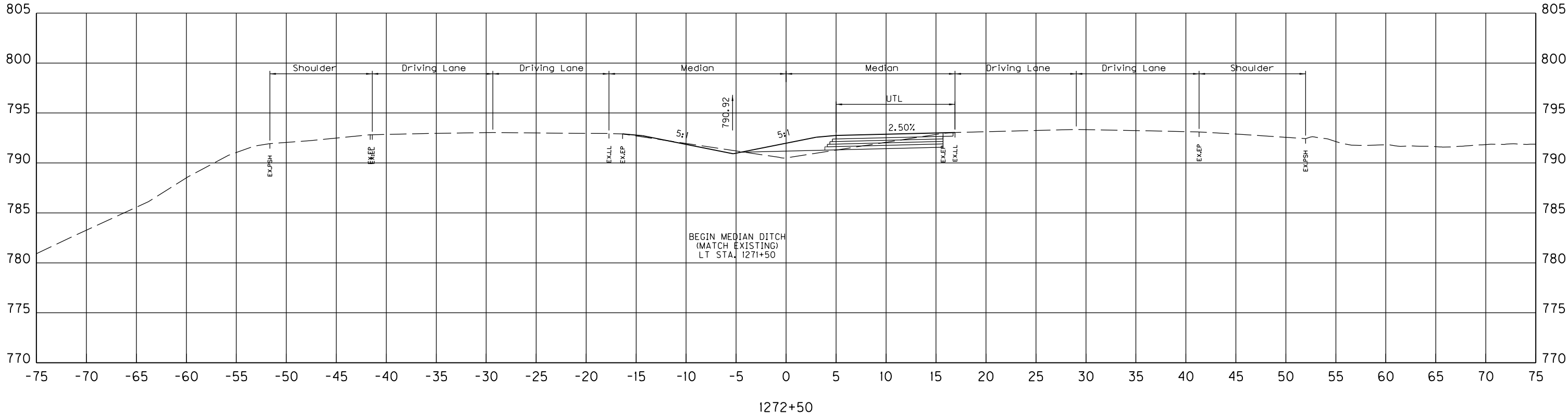
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jeff-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

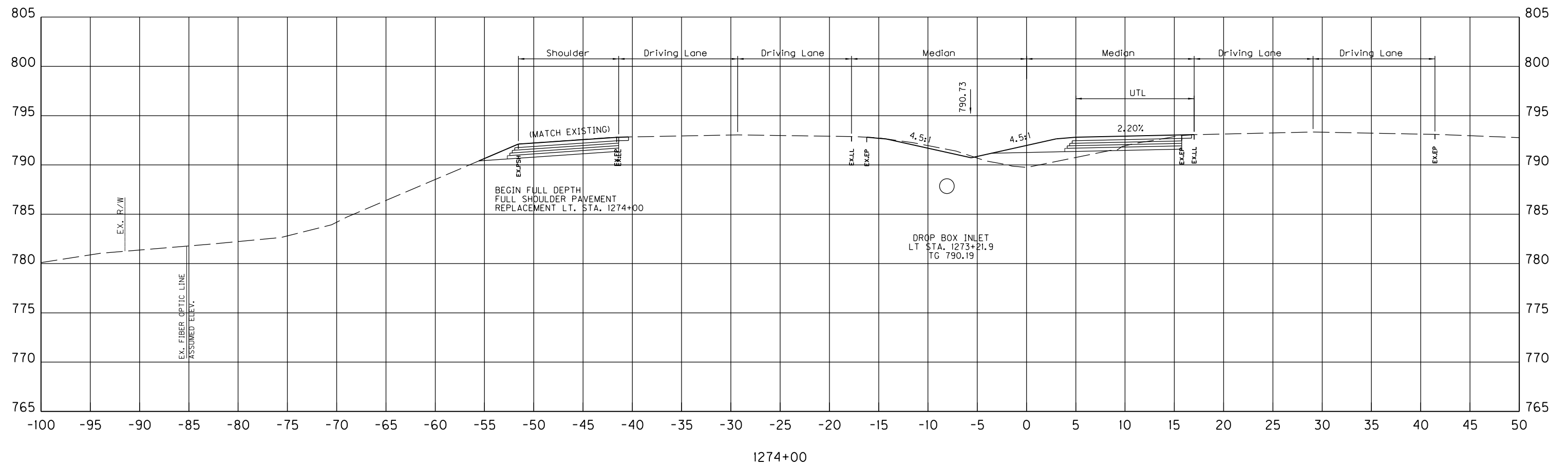
Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1272+50 TO STA. 1272+50

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



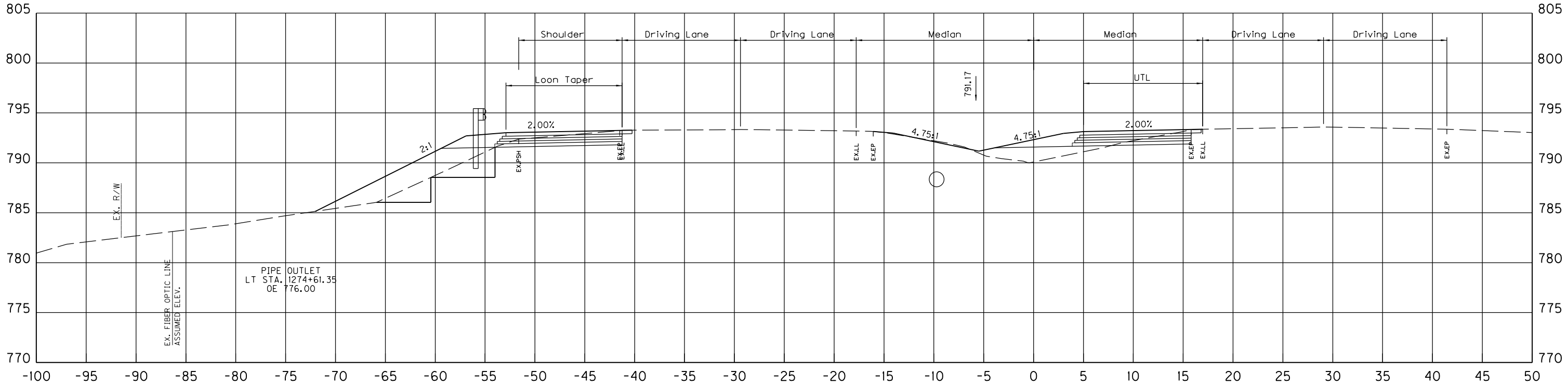
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

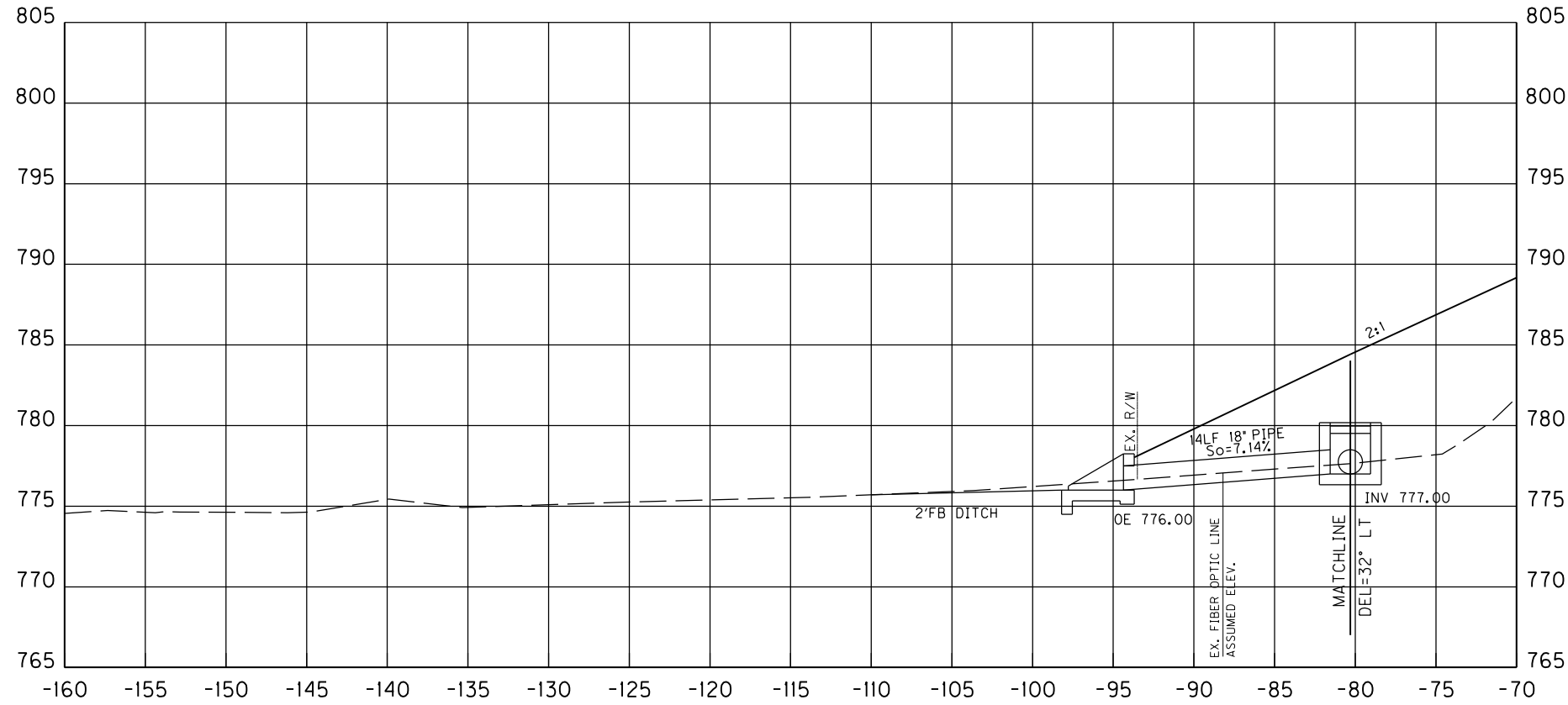
Power InRoads v8.11.9.397



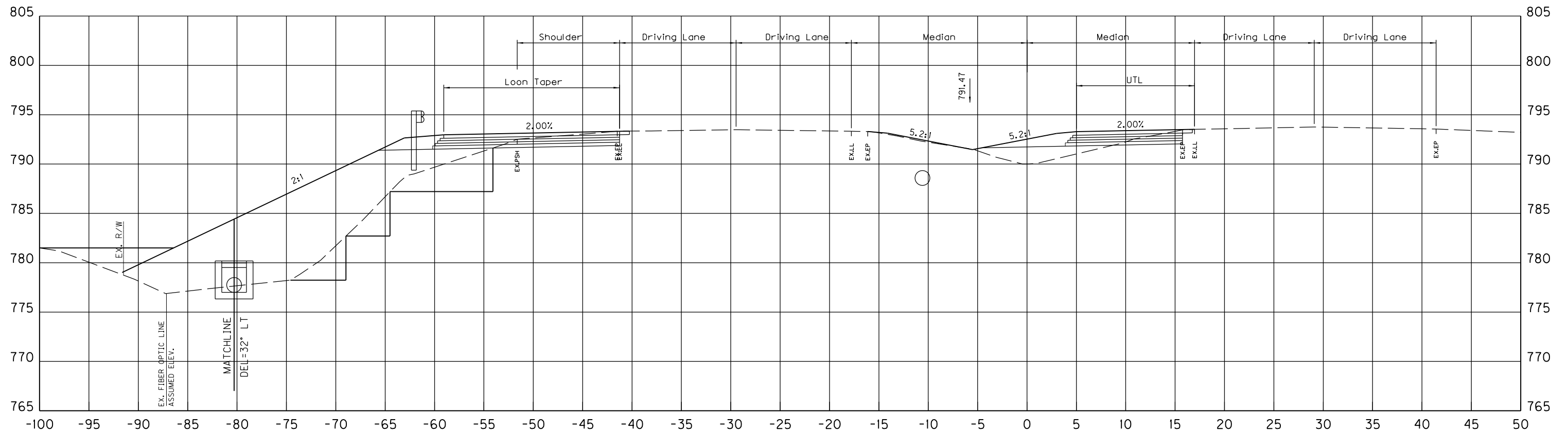
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1274+45 TO STA. 1274+45

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



1274+69 (ALONG PIPE CENTERLINE)



1274+69

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1274+69 TO STA. 1274+69

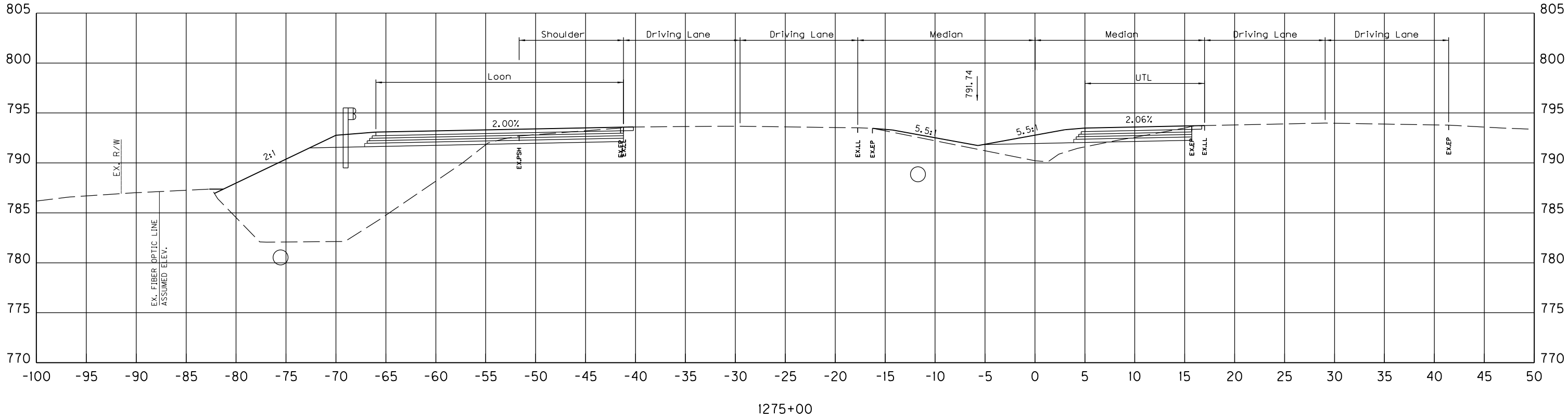
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1275+00 TO STA. 1275+00

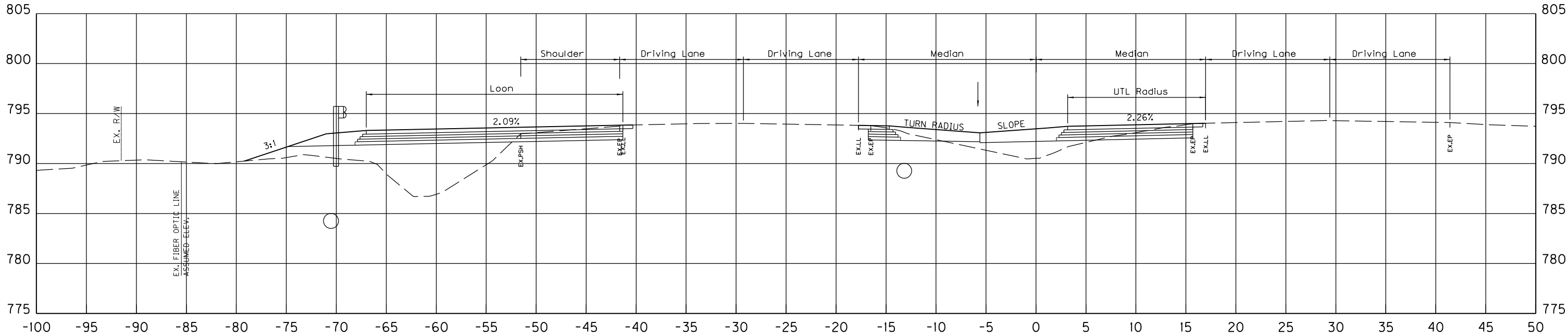
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1275+40

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

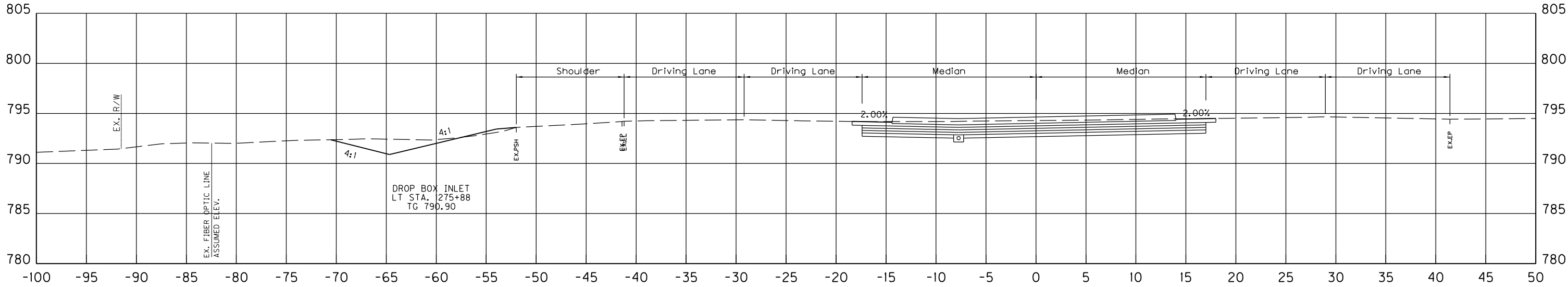
HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1275+40 TO STA. 1275+40

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

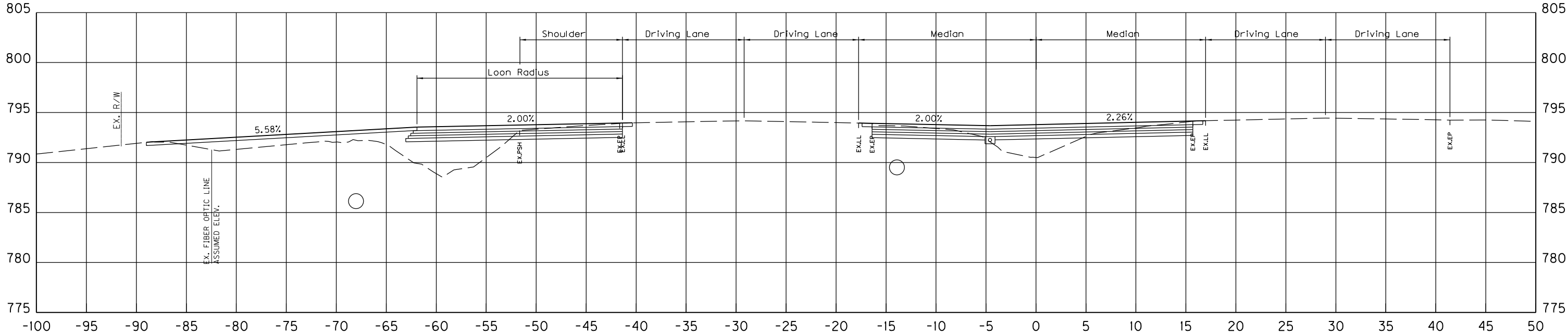
USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1275+88



1275+60
ENTRANCE LT

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1275+60 TO STA. 1275+88

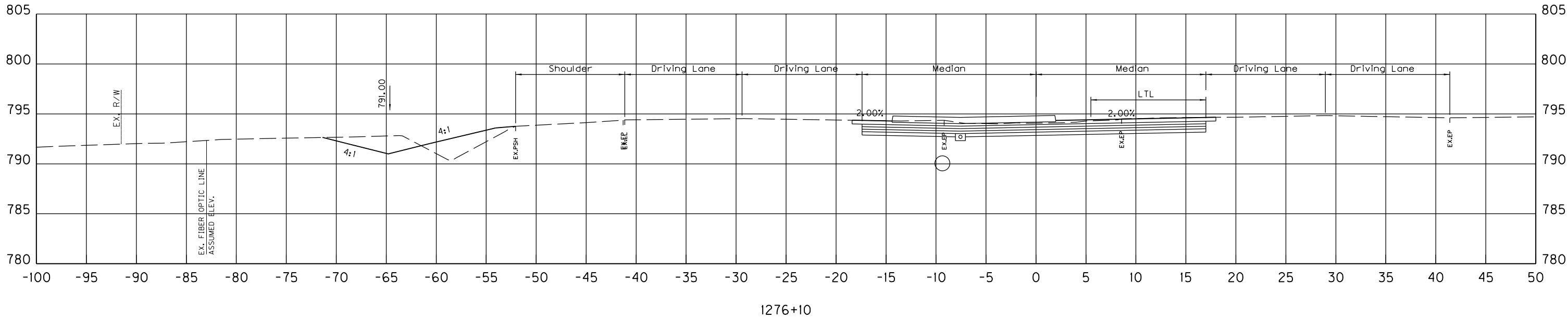
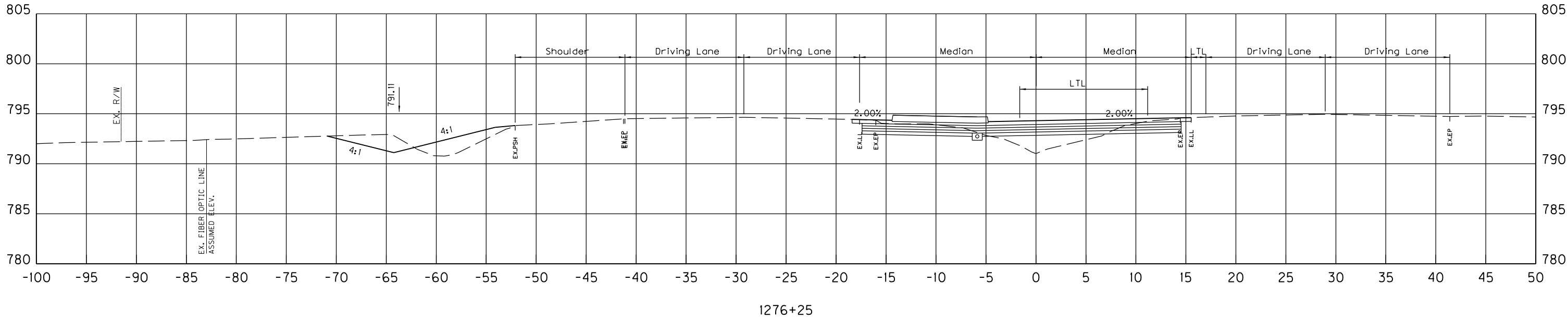
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jeff-c
DATE PLOTTED: November 5, 2018

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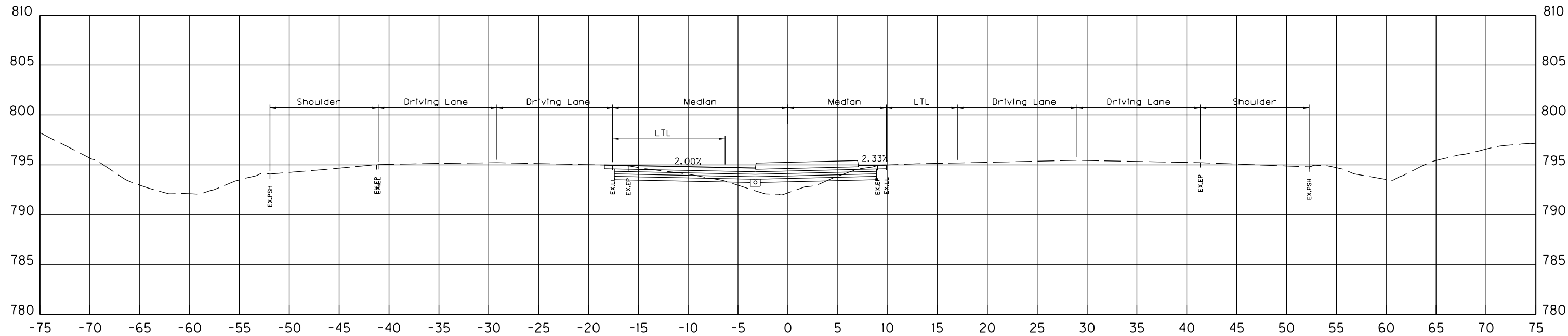
Power InRoads v8.11.9.397



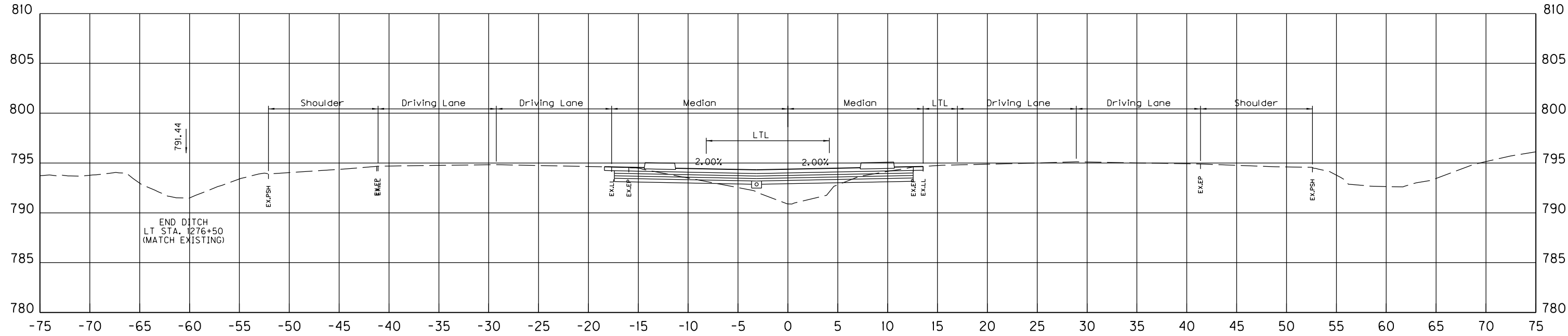
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1276+10 TO STA. 1276+25

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



1277+00



1276+50

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1276+50 TO STA. 1277+00

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jeff-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397

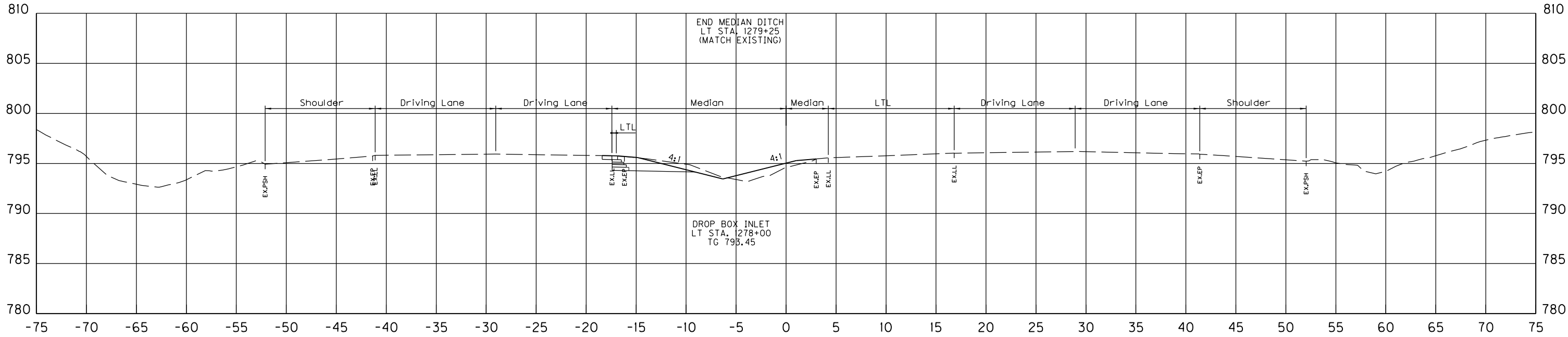
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

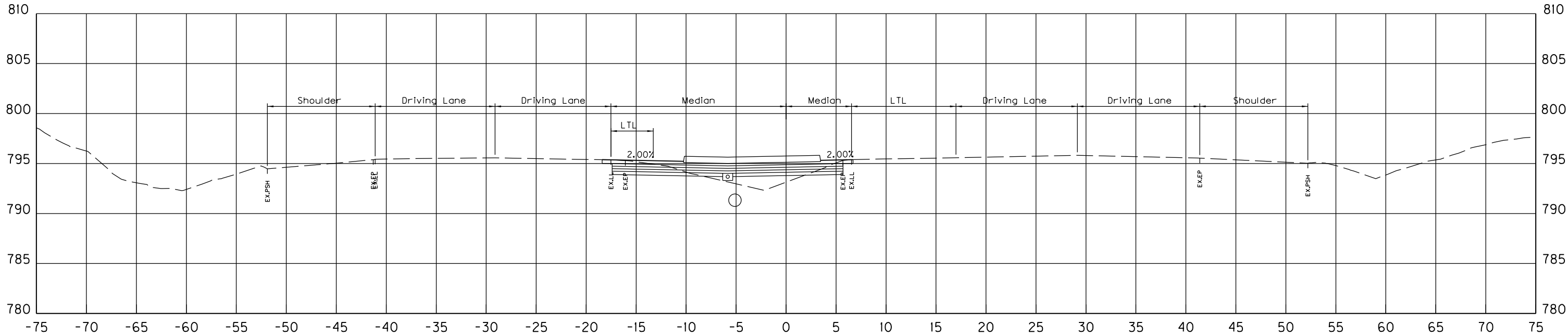
USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1278+00



1277+50

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS
STA. 1277+50 TO STA. 1278+00

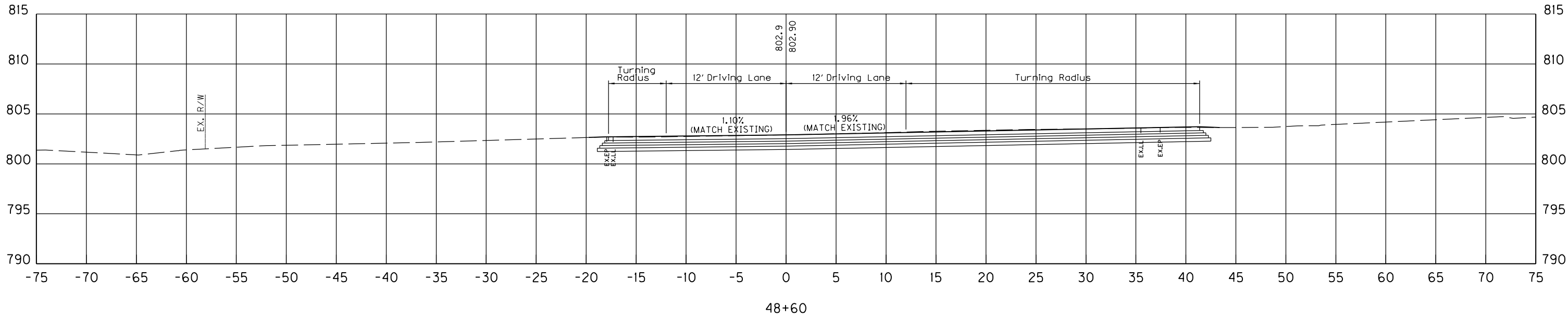
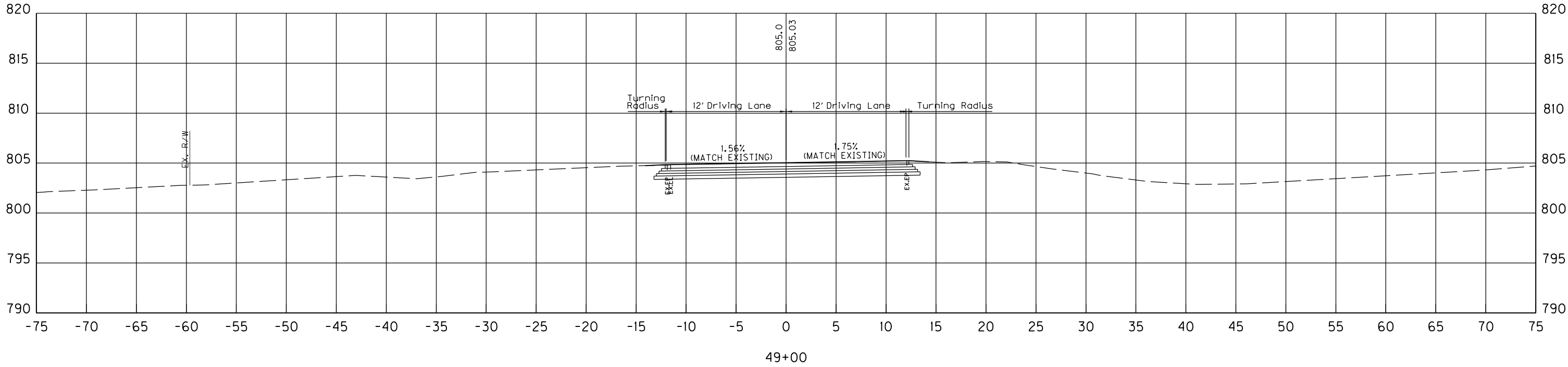
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jeff-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT KY 434
CROSS SECTIONS - KY 434 WEST
STA. 48+60 TO STA. 49+00

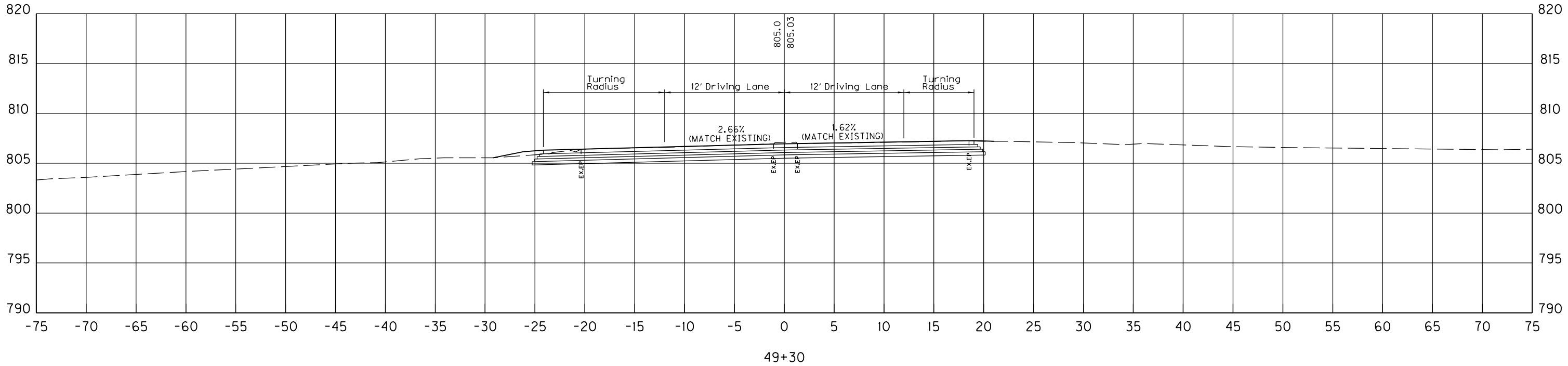
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: C:\PW\WORKING\DM564832\KY434 CROSS SECTIONS.DGN

USER: jef-f-c
DATE PLOTTED: November 5, 2018

E-SHEET NAME:

Power InRoads v8.11.9.337



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

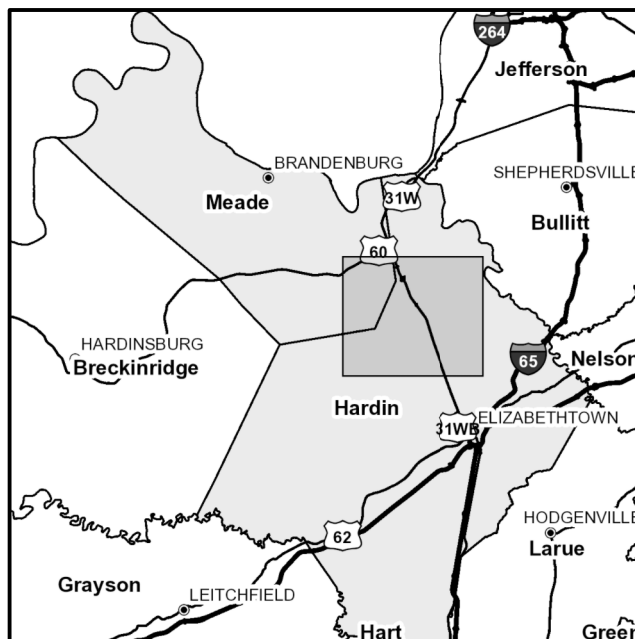
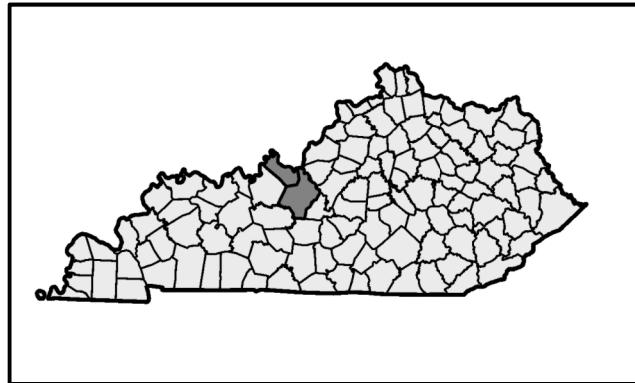
HSIP US 31W AT KY 434
CROSS SECTIONS - KY 434 WEST
STA. 49+30 TO STA. 49+30

Hardin County

Construction of J-Turns and Intersection Improvements On US 31W At Blackjack Road

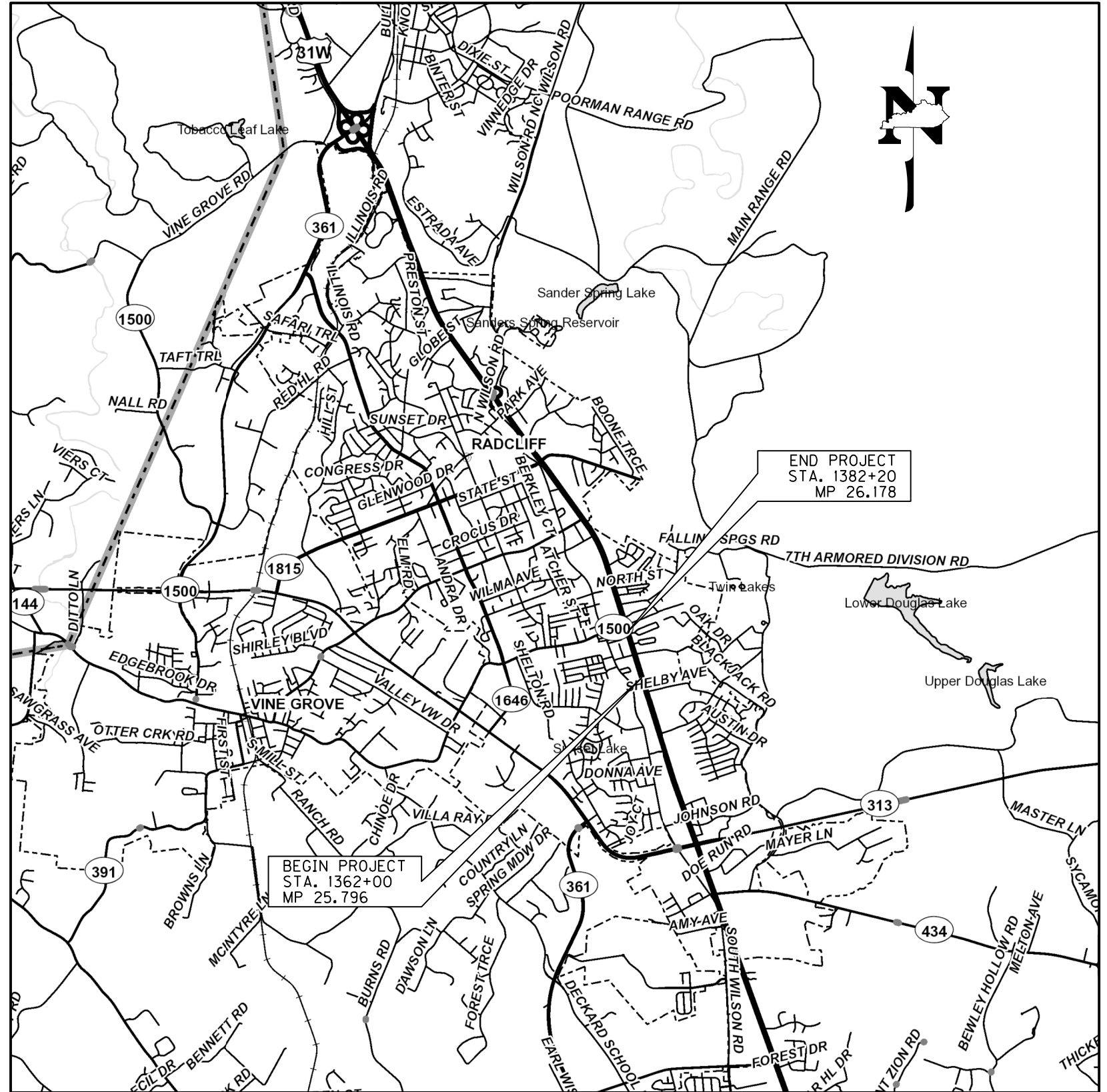
Item No. 4-9008.40

COUNTY OF	ITEM NO.
HARDIN	4-9008.40

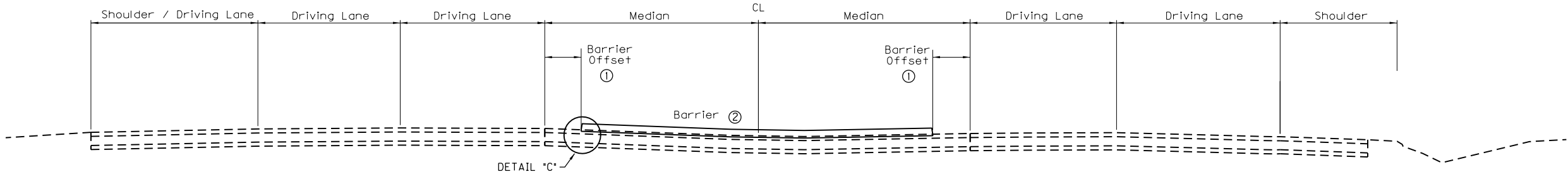


Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

PLANS OF
PROPOSED PROJECT
HARDIN COUNTY
US 31W



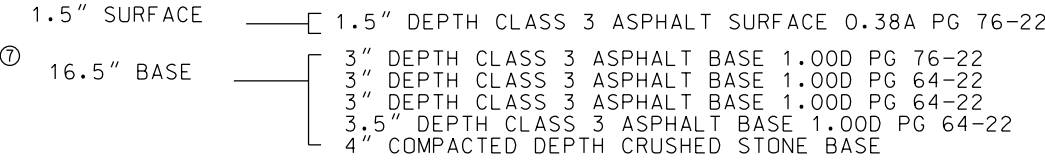
TYPICAL SECTION AND DETAILS



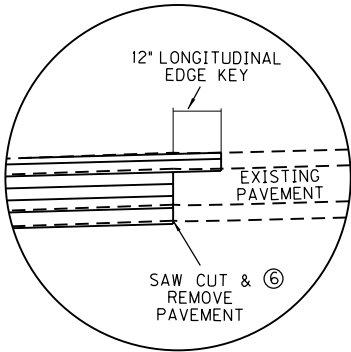
US 31W
BARRIER MEDIAN ON
EXISTING PAVEMENT

- ① 3' TYPICAL - SEE PLANS AND DETAILS WHERE IT MAY VARY
- ② STANDARD BARRIER MEDIAN TYPE 4
- ③ MATCH EXISTING DRIVING LANE BUT NOT LESS THAN 2.00%
- ④ SEE SECTIONS FOR SIDE SLOPES AND DITCH ELEVATIONS
- ⑤ ASPHALT SEAL COAT REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. 2.4 LB/SY ASPHALT SEAL COAT (TWO APPLICATIONS) AND 20 LB/SY ASPHALT SEAL AGGREGATE (TWO APPLICATIONS).
- ⑥ SAW CUT TO BE A BID ITEM; PAVEMENT REMOVAL TO BE INCIDENTAL TO ROADWAY EXCAVATION (SEE CROSS SECTIONS)

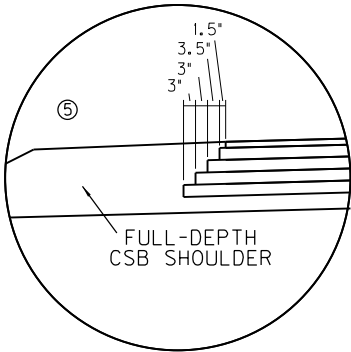
US 31W PAVEMENT DESIGN



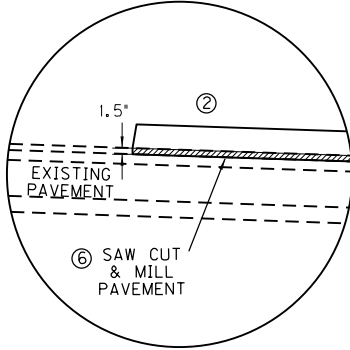
⑦ BASED ON RECORD PLANS, THE EXISTING PAVEMENT DEPTH IS APPROXIMATELY 15.75" THICK. THE PROPOSED PAVEMENT DESIGN AS SHOWN IS 18". IF FIELD CONDITIONS REVEAL THE EXISTING THICKNESS TO BE SIGNIFICANTLY DIFFERENT, ADJUSTMENTS MAY BE MADE BY THE ENGINEER TO BEST MATCH THAT THICKNESS.



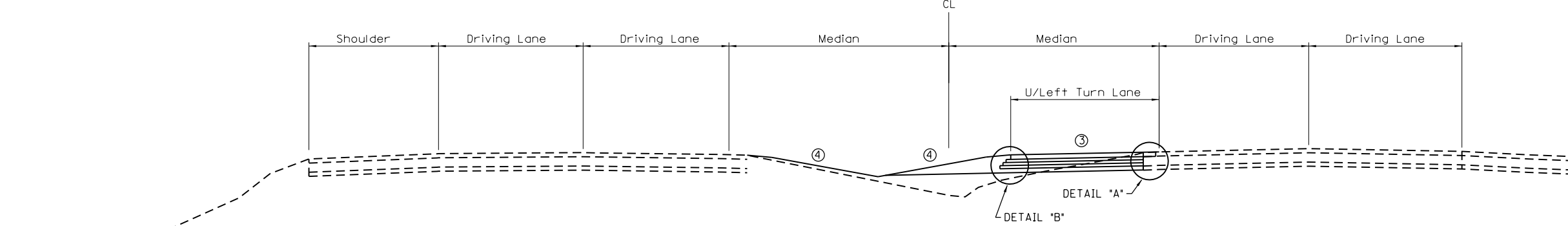
DETAIL "A"



DETAIL "B"

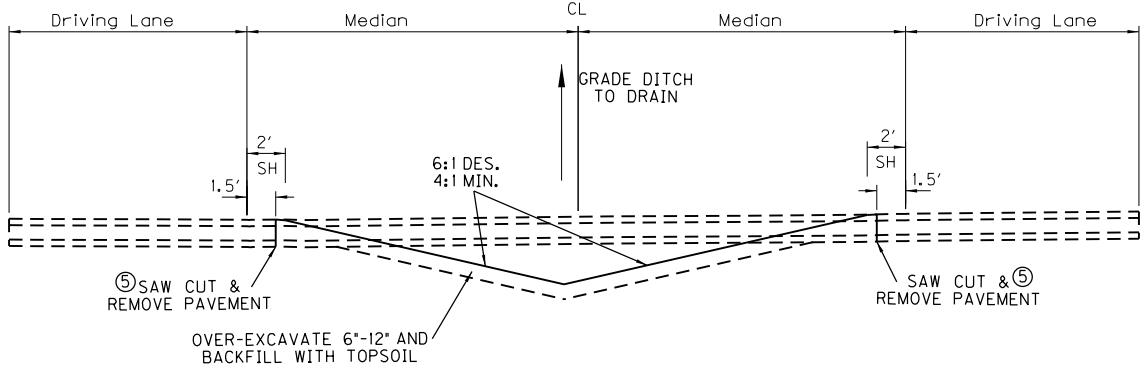


DETAIL "C"

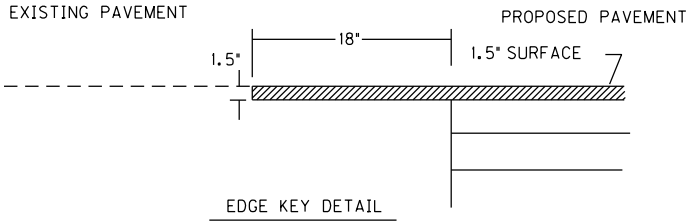


US 31W
LEFT TURN LANE
PAVEMENT WIDENING

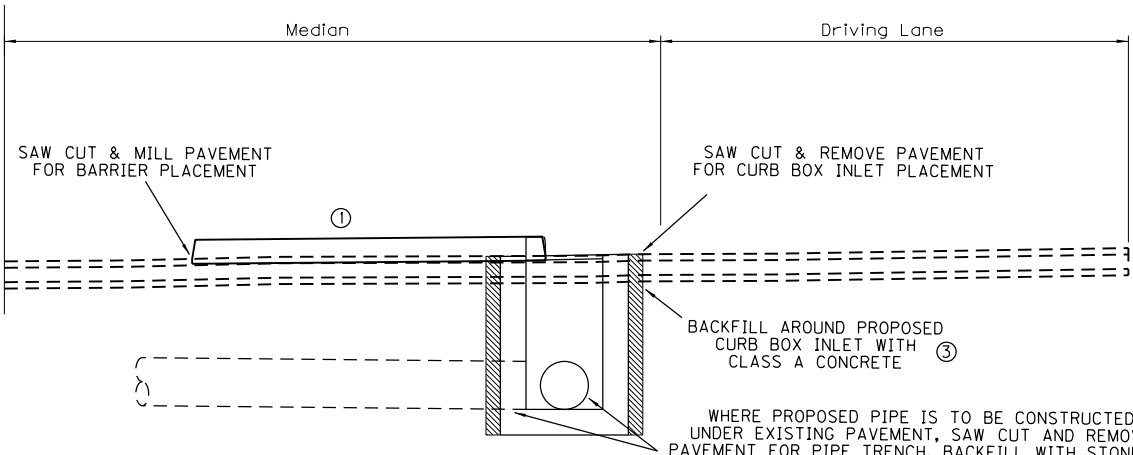
TYPICAL SECTION AND DETAILS



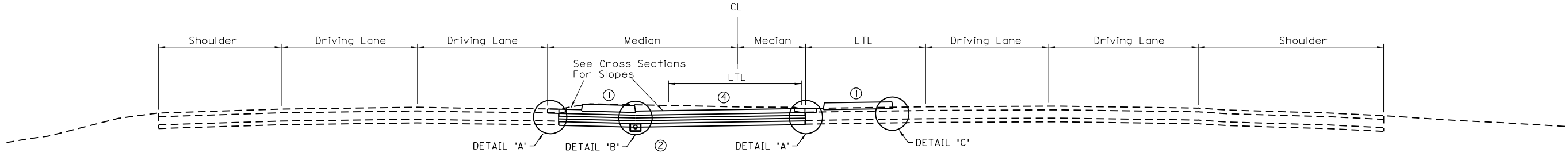
US 31W
CROSSOVER PAVEMENT REMOVAL
FOR OPEN DITCH



WORK UNDER THIS ITEM SHALL INCLUDE CUTTING OUT THE EXISTING BITUMINOUS SURFACE TO A MINIMUM DEPTH AND WIDTH AS SHOWN, SO THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE. THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR "EDGE KEY" SHALL INCLUDE ALL NECESSARY MATERIALS, LABOR, EQUIPMENT, ETC. TO PERFORM THE WORK AND DISPOSE OF THE BITUMINOUS MATERIAL REMOVED.



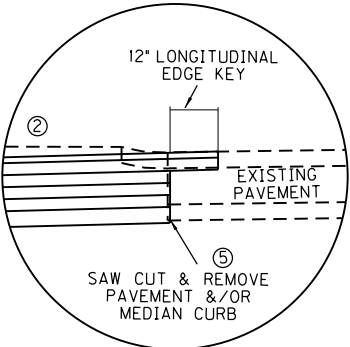
PROPOSED DRAINAGE INLET CONSTRUCTION
IN EXISTING PAVEMENT LOCATIONS



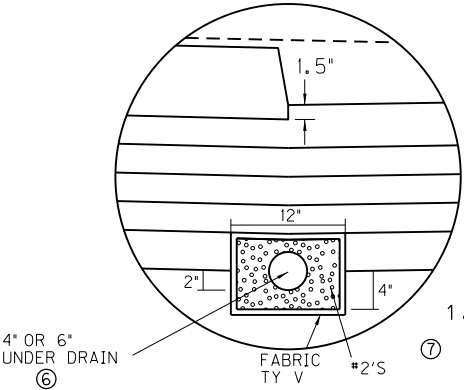
US31W
BARRIER MEDIAN ON EXISTING
AND PROPOSED PAVEMENT

US 31W PAVEMENT DESIGN

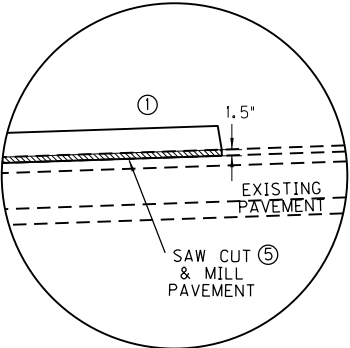
- 1.5" SURFACE
- 16.5" BASE
- 1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
- 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 76-22
- 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
- 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
- 3.5" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
- 4" COMPACTED DEPTH CRUSHED STONE BASE



DETAIL "A"



DETAIL "B"



DETAIL "C"

- STANDARD BARRIER MEDIAN TYPE 4 ON EXISTING PAVEMENT & TYPE 2 ON NEW PAVEMENT
- REMOVAL OF EXISTING MOUNTABLE GRASS MEDIAN TO BE INCLUDED IN ROADWAY EXCAVATION (SEE CROSS SECTIONS); REMOVAL OF MEDIAN CURB TO BE A BID ITEM
- CONCRETE QUANTITIES TO BE INCIDENTAL TO BID ITEM FOR CURB BOX INLET
- SEE CROSS SECTIONS FOR PAVEMENT CROSS SLOPE; GRADE TO DRAIN TO PROPOSED INLET LOCATIONS
- SAW CUT TO BE A BID ITEM; PAVEMENT REMOVAL TO BE INCIDENTAL TO ROADWAY EXCAVATION (SEE CROSS SECTIONS)
- CONNECT PIPE TO PROPOSED MEDIAN DRAINAGE BOXES. PIPE MAY BE OMITTED AT MEDIAN CROSSOVERS WHERE THE STONE BASE DAYLIGHTS AND DRAINS TO THE MEDIAN DITCH
- BASED ON RECORD PLANS, THE EXISTING PAVEMENT DEPTH IS APPROXIMATELY 15.75" THICK. THE PROPOSED PAVEMENT DESIGN AS SHOWN IS 18". IF FIELD CONDITIONS REVEAL THE EXISTING THICKNESS TO BE SIGNIFICANTLY DIFFERENT, ADJUSTMENTS MAY BE MADE BY THE ENGINEER TO BEST MATCH THAT THICKNESS.

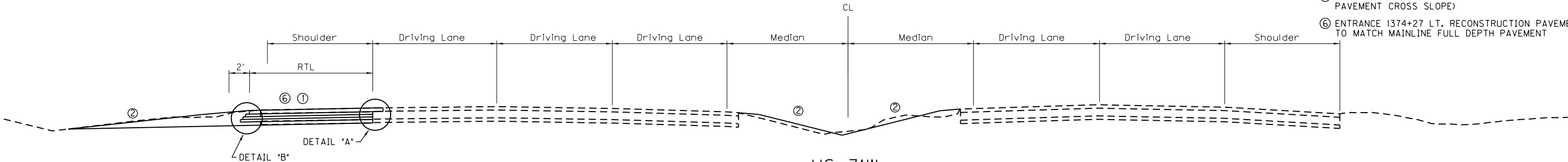
HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT BLACKJACK ROAD
TYPICAL SECTIONS AND DETAILS

NOT TO SCALE

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

TYPICAL SECTION AND DETAILS

- ① MATCH EXISTING DRIVING LANE BUT NOT LESS THAN 2.00%
- ② SEE CROSS SECTIONS FOR SIDE SLOPES AND DITCH ELEVATIONS
- ③ SAW CUT TO BE A BID ITEM; PAVEMENT REMOVAL TO BE INCIDENTAL TO ROADWAY EXCAVATION (SEE CROSS SECTIONS)
- ④ ASPHALT SEAL COAT REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. 2.4 LB/SY ASPHALT SEAL COAT (TWO APPLICATIONS) AND 20 LB/SY ASPHALT SEAL AGGREGATE (TWO APPLICATIONS).
- ⑤ STANDARD CURB AND GUTTER (GUTTER CROSS SLOPE MATCHES PAVEMENT CROSS SLOPE)
- ⑥ ENTRANCE 1374+27 LT. RECONSTRUCTION PAVEMENT TO MATCH MAINLINE FULL DEPTH PAVEMENT

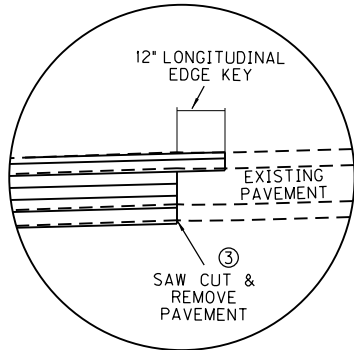


US 31W ADDED RIGHT TURN LANE

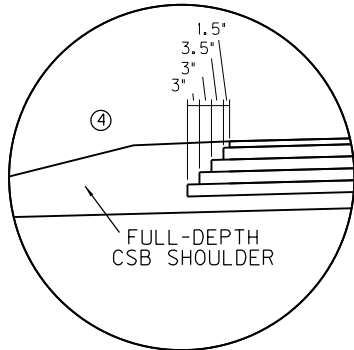
US 31W PAVEMENT DESIGN

- 1.5" SURFACE — 1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
- ⑦ 16.5" BASE —
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 76-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3.5" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 4" COMPACTED DEPTH CRUSHED STONE BASE

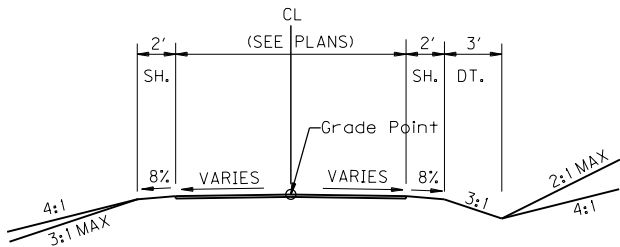
⑦ BASED ON RECORD PLANS, THE EXISTING PAVEMENT DEPTH IS APPROXIMATELY 15.75" THICK. THE PROPOSED PAVEMENT DESIGN AS SHOWN IS 18". IF FIELD CONDITIONS REVEAL THE EXISTING THICKNESS TO BE SIGNIFICANTLY DIFFERENT, ADJUSTMENTS MAY BE MADE BY THE ENGINEER TO BEST MATCH THAT THICKNESS.



DETAIL "A"

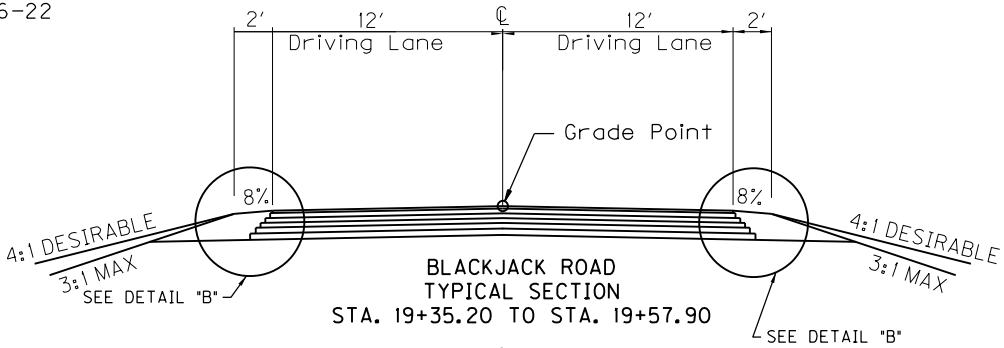


DETAIL "B"

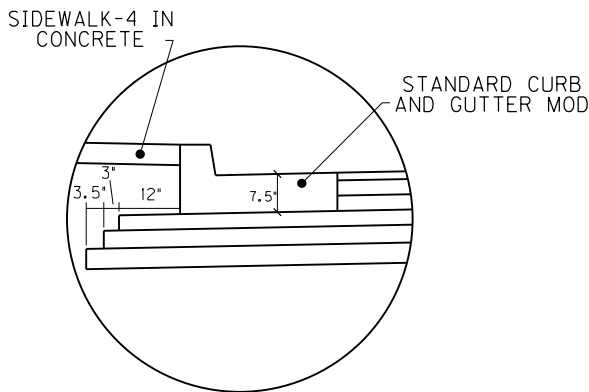


ENTRANCE ENTRANCE PAVEMENT DESIGN

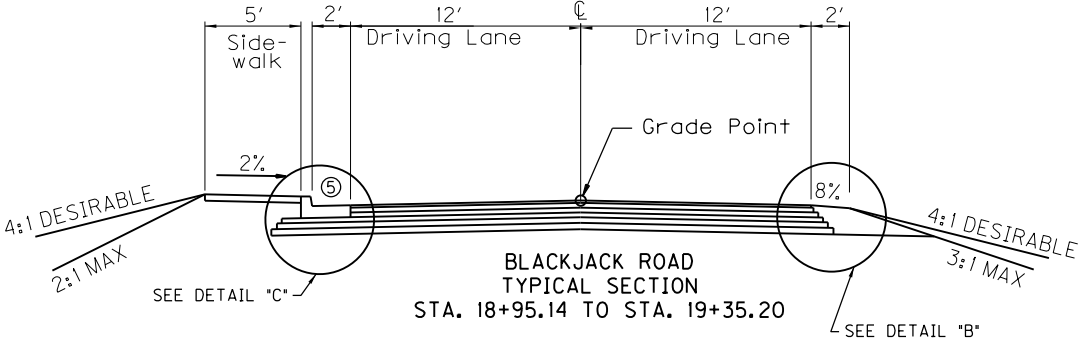
- 1.5" SURFACE — 1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
- LEVELING AND WEDGING AS NEEDED



BLACKJACK ROAD TYPICAL SECTION STA. 19+35.20 TO STA. 19+57.90



DETAIL "C"

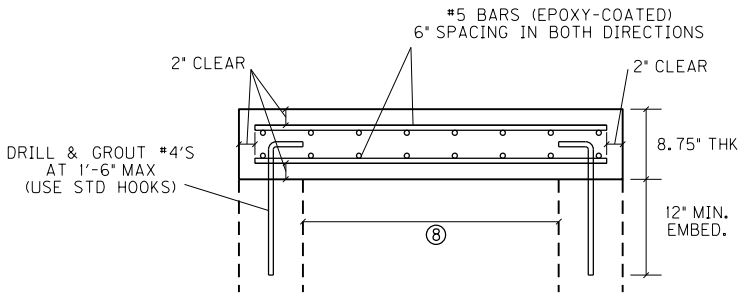


BLACKJACK ROAD TYPICAL SECTION STA. 18+95.14 TO STA. 19+35.20

BLACKJACK ROAD APPROACH PAVEMENT DESIGN

- 1.5" SURFACE — 1.5" DEPTH CLASS 3 ASPHALT SURFACE 0.38A PG 76-22
- ⑦ 16.5" BASE —
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 76-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 3.5" DEPTH CLASS 3 ASPHALT BASE 1.00D PG 64-22
 - 4" COMPACTED DEPTH CRUSHED STONE BASE

⑧ WHERE THE SPAN EXCEEDS 4', THE CONTRACTOR SHALL SUBMIT A SEPARATE DETAIL FOR CAPPING THE BOX



EXISTING DRAINAGE BOX CAP DETAIL

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT BLACKJACK ROAD
TYPICAL SECTIONS AND DETAILS

NOT TO SCALE

FILE NAME: D:\PW\WORKDIR\DM564847\TYPICAL BLACKJACK.DGN

USER: travis-m
DATE PLOTTED: December 7, 2018

E-SHEET NAME:

Power InRoads v8.11.9.337

FILE NAME: D:\PW_WORKDIR\DM564846\BLACKJACK_GENERAL_SUMMARY.DGN

USER: travis-m
DATE PLOTTED: June 20, 2019

E-SHEET NAME:

Power InRoads v8.11.9.337

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT			TOTAL PROJECT
78	CRUSHED AGGREGATE SIZE NO 2 ⑩	TON			24
1000	PERFORATED PIPE-4 IN	L.F.			525
1010	NON-PERFORATED PIPE-4 IN	L.F.			8
1811	STANDARD CURB AND GUTTER MOD	L.F.			41
1904	REMOVE CURB ⑨	SQ.YD.			1303
1917	STANDARD BARRIER MEDIAN TYPE 2	SQ.YD.			737
1921	STANDARD BARRIER MEDIAN TYPE 4	SQ.YD.			173
2159	TEMPORARY DITCH	L.F.			979
2160	CLEAN TEMPORARY DITCH	L.F.			490
2200	ROADWAY EXCAVATION ⑧	CU YD			4361
2242	WATER ⑦	M GAL			29
2545	CLEARING AND GRUBBING ①	L.S.			1
2562	TEMPORARY SIGNS	SQ. FT.			213
2585	EDGE KEY	L.F.			23
2600	FABRIC GEOTEXTILE TIPE IV FOR PIPE	SQ. YD.			1840
2650	MAINTAIN & CONTROL TRAFFIC	L.S.			1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH			2
2676	MOBILIZATION FOR MILL & TEXT	L.S.			1
2677	ASPHALT MILLING AND TEXTURING ③	TON			15
2701	TEMPORARY SILT FENCE	L.F.			979
2703	SILT TRAP TYPE A	EACH			1
2704	SILT TRAP TYPE B	EACH			5
2705	SILT TRAP TYPE C	EACH			10
2706	CLEAN SILT TRAP TYPE A	EACH			1
2707	CLEAN SILT TRAP TYPE B	EACH			5
2708	CLEAN SILT TRAP TYPE C	EACH			10
2720	SIDEWALK-4 IN CONCRETE	SQ. YD.			21
2726	STAKING	L.S.			1
2775	ARROW PANEL	EACH			2
3290	SIDEWALK RAMP TYPE 4	EACH			1
5950	EROSION CONTROL BLANKET	SQ. YD.			840
5952	TEMPORARY MULCH	SQ. YD.			3966
5953	TEMP SEEDING AND PROTECTION	SQ. YD.			2975
5963	INITIAL FERTILLIZER	TON			0.21
5964	MAINTENANCE FERTILIZER	TON			0.35
5985	SEEDING AND PROTECTION	SQ. YD.			5949
5992	AGRICULTURAL LIMESTONE	TON			4.21
6530	PAVE STRIPING-REMOVAL - 4 INCH ④	L.F.			2037
6574	PAVE MARKING-THERMO CURVE ARROW	EACH			21
6598	PAVEMENT MARKING REMOVAL ④	SQ. FT.			247
10020NS	FUEL ADJUSTMENT ⑪	DOLLAR			5017
10030NS	ASPHALT ADJUSTMENT ⑪	DOLLAR			12601
20550ND	SAWCUT PAVEMENT ⑤	L.F.			2187
21289ED	LONGITUDINAL EDGE KEY ⑥	L.F.			2731
22861EN	FABRIC-GEOTEXTILE TYPE V ⑩	SQ. YD.			198
24489EC	INLAID PAVEMENT MARKERS	EACH			77
24679ED	PAVE MARK THERMO CHEVRON	SQ. FT.			362
24814EC	PIPELINE INSPECTION	L.F.			736
24955ED	REMOVE SIGNAL EQUIPMENT ②	EACH			1
24995EC	PAVE STRIPING - SPRAY THERMO - 6 IN W	L.F.			2944
24996EC	PAVE STRIPING - SPRAY THERMO - 6 IN Y	L.F.			3368
23158ES50S	DETECTABLE WARNINGS	SQ. FT.			20
23274EN11F	TURF REINFORCEMENT MAT 1	SQ. YD.			570

① APPROXIMATELY 1.2 ACRES

② TO INCLUDE REMOVAL OF POLES, EQUIPMENT, AND CONCRETE BASES. CONCRETE BASES TO BE REMOVED TO 12 INCHES BELOW EXISTING GROUND LINE. DELIVER SIGNAL HEADS AND CABINET TO:
310 VALLEY ROAD
ELIZABETHTOWN, KY 42701

BEFORE DELIVERING, CONTACT JAKE RIGGS:
(270) 401-8132

③ FOR PREPARATION OF STANDARD BARRIER MEDIAN TYPE 4 CONSTRUCTION

④ FOR THE REMOVAL OF ALL STRIPING AND MARKING THAT WILL CONFLICT WITH FUTURE PROPOSED TRAFFIC PATTERNS OR PROPOSED MARKINGS

⑤ FOR ALL LOCATIONS OF PAVEMENT MILLING, WIDENING, OR REPLACEMENT (SEE ALSO TYPICAL SECTIONS AND DETAILS)

⑥ FOR ALL LOCATIONS OF PAVEMENT WIDENING OR REPLACEMENT (SEE ALSO TYPICAL SECTIONS AND DETAILS)

⑦ FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY; ESTIMATED AT 75 MGAL PER MILE

⑧ EARTHWORK QUANTITIES ARE APPROXIMATE AND FOR INFORMATION ONLY

EARTHWORK QUANTITIES:

COMMON 4361 CY
EMBANKMENT 99 CY

⑨ FOR REMOVAL OF CURB AROUND MOUNTABLE GRASS MEDIAN

⑩ FOR PERFORATED PIPE UNDERDRAIN

⑪ PROJECT QUANTITY PRORATED BASED ON PERCENTAGE OF ASPHALT FROM TOTAL ASPHALT OF KY 220, KY 434, AND BLACKJACK ROAD PROJECTS

PAVING AREAS

ITEM	CROSSOVERS & LEFT TURN LANES ①	LOONS & RIGHT TURN LANES ②	BLACKJACK ROAD	ENTRANCES	TOTAL PROJECT
	S Q U A R E Y A R D S				
1.5" CL 3 ASPHALT SURFACE 0.38A PG 76-22	2949	875	348	152	4324
3.0" CL 3 ASPHALT BASE 1.00D PG 76-22	2964	884	350	94	4292
3.0" CL 3 ASPHALT BASE 1.00D PG 64-22	2759	811	353	102	4025
3.0" CL 3 ASPHALT BASE 1.00D PG 64-22	2789	830	356	110	4085
3.5" CL 3 ASPHALT BASE 1.00D PG 64-22	2819	848	377	118	4162
4.0" CRUSHED STONE BASE	2854	870	382	127	4233
LEVELING & WEDGING PG 64-22	10	10			20
ASPHALT SEAL COAT	375	338	50		763
ASPHALT SEAL AGGREGATE	375	338	50		763
ASPHALT MATERIAL FOR TACK NON-TRACKING	11461	3400	1407	458	16726

PAVING QUANTITIES

ITEM CODE	ITEM	UNIT	CROSSOVERS & LEFT TURN LANES ①	LOONS & RIGHT TURN LANES ②	BLACKJACK ROAD	ENTRANCES	TOTAL PROJECT
336	CL 3 ASPHALT SURFACE 0.38A PG 76-22	TON	243	72	29	13	357
216	CL 3 ASPHALT BASE 1.00D PG 76-22	TON	489	146	58	16	708
214	CL 3 ASPHALT BASE 1.00D PG 64-22	TON	1458	434	190	58	2139
3	CRUSHED STONE BASE ③	TON	1079	363	104	29	1576
103	ASPHALT SEAL COAT ④	TON	0.9	0.8			1.7
100	ASPHALT SEAL AGGREGATE ⑤	TON	7.5	6.8			14.3
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING ⑥	TON	2.9	0.9	0.4	0.1	4.2
190	LEVELING & WEDGING PG 64-22 ⑦	TON	1	1			2

ALL ASPHALT MIXTURES ESTIMATED AT 110 LBS. PER SQUARE YARD PER INCH UNLESS NOTED OTHERWISE

① PAVEMENT AREAS WITHIN THE EXISTING MEDIAN

② PAVEMENT AREAS OUTSIDE EXISTING LANES

③ ESTIMATED AT 115 LBS. PER SQUARE PER INCH OF DEPTH; QUANTITIES FOR FULL-DEPTH SHOULDERS CALCULATED BY AVERAGE END AREA METHOD

④ ESTIMATED AT 2.40 LBS. PER SQUARE YARD (2 APPLICATIONS)

⑤ ESTIMATED AT 20 LBS. PER SQUARE YARD (2 APPLICATIONS)

⑥ ESTIMATED AT 0.50 LBS. PER SQUARE YARD (BETWEEN ASPHALT PAVEMENT COURSES)

⑦ ESTIMATED QUANTITY FOR MAKING ADJUSTMENTS TO CROSS SLOPES AND WHERE NEEDED AT TIE-DOWNS; AS DIRECTED BY THE ENGINEER

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT BLACKJACK ROAD
GENERAL SUMMARY

FILE NAME: D:\PW_WORKDIR\DM564846\BLACKJACK DRAINAGE SUMMARY.DGN

USER: travis-m
DATE PLOTTED: June 17, 2019

E-SHEET NAME:

Power InRoads v8.11.9.337

PIPE DRAINAGE SUMMARY

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	-

STRUCTURE NO.		SKEW	COVER HEIGHT (FT)	DESIGN PH LEVEL	ENTRANCE PIPE - 15 INCH	CULVERT PIPE - 15 INCH	STORM SEWER PIPE - 15 INCH	STORM SEWER PIPE - 18 INCH	REMOVE PIPE	SLOPED BOX OUTLET TYPE 1-15 IN	SLOPED BOX OUTLET TYPE 1-18 IN	CURB BOX INLET TYPE A	CURB BOX INLET TYPE F	DROP BOX INLET TYPE 5D	REMOVE DROP BOX INLET	REMOVE HEADWALL	REMARKS
	ITEM CODE				440	461	521	522	1310	1432	1433	1456	1487	1511	1585	2625	
	UNIT TO BID				LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
	HARDIN COUNTY																
	BLACKJACK ROAD																
	1364+43 TO 1365+04		1.9	M		62				2							
1	RT. 1366+99.5	0°	3.5	M				12	14					1	1		RCP 18" STORM SEWER PIPE
2	LT. 1370+42	0°	1.7	M			12					1					
3	RT. 1370+42	0°	1.7	M				26			1		1				
4	LT. 1371+85	0°	2	M			142						1				
5	LT. 1372+79	0°	2.7	M			94					1					
	LT. 1372+93.5																
6	RT. 1373+30	0°	2.8	M			53					1					
8	RT. 1374+50	0°	2.7	M			118					1					
	1380+32 TO 1380+94		1.7	M		63				2							
7	LT. 19+32.69	6° 43' 41" LT.	2.6	M			118		4	2			1				4' RCP 15" STORM SEWER PIPE
	LT. 1373+89 TO 1374+60		1.3	M	71												
	PROJECT TOTAL				71	125	537	38	546 ①	6	1	4	3	1	2 ①	1 ①	

① INCLUDES ADDITIONAL QUANTITIES FROM PLANS, SEE PLAN CHARTS

NOTES: IF A PIPE COLLAR OR BEND CONNECTION IS NEEDED FOR CONSTRUCTION OF A PIPE EXTENSION, IT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PIPE BEING CONSTRUCTED.

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT BLACKJACK ROAD
PIPE DRAINAGE SUMMARY

FILE NAME: D:\PW\WORKDIR\DM564840\PLAN SHEET R3-BLACKJACK.DGN

USER: travis-m
DATE PLOTTED: March 29, 2019

E-SHEET NAME:

Power InRoads v8.11.9.397

DITCH CONSTRUCTION CHART								
LT	RT	MED	STA. TO STA.	TYPE	QUANTITY	DEPTH	THICKNESS	DITCH
		X	1362+00 to 1362+58	TRM TY 1	52 SY	1.00		V
		X	1364+25 to 1364+35	ERO BLANKET	9 SY	1.00		V
		X	1365+12 to 1366+91	TRM TY 1	159 SY	1.00		V
		X	1367+06 to 1369+75	TRM TY 1	359 SY	1.50		V
		X	1369+75 to 1370+07	ERO BLANKET	28 SY	2.00		V
X			1371+66 to 1371+85	ERO BLANKET	19 SY	1.50		V
X			1373+14 to 1373+89	ERO BLANKET	88 SY	1.50		V

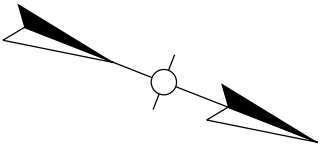
REMOVE OR MODIFY DRAINAGE STRUCTURES					
LT	RT	MED	STA. TO STA.	REMOVE DBI (EACH)	REMOVE HDWLL (EACH)
		X	1362+00 to 1362+58		58
		X	1364+46 to 1365+04		58
		X	1366+99.5	1	14
X			1371+81 to 1374+00	1	236

PIPE CULVERT CHART					
STATION TO STATION	INLET ELEV.	INLET TYPE	OUTLET ELEV.	OUTLET TYPE	PIPE
1364+43 - 1365+04	766.17	SL. BOX OUTLET TY 1	764.81	SL. BOX OUTLET TY 1	62 LF - 15"

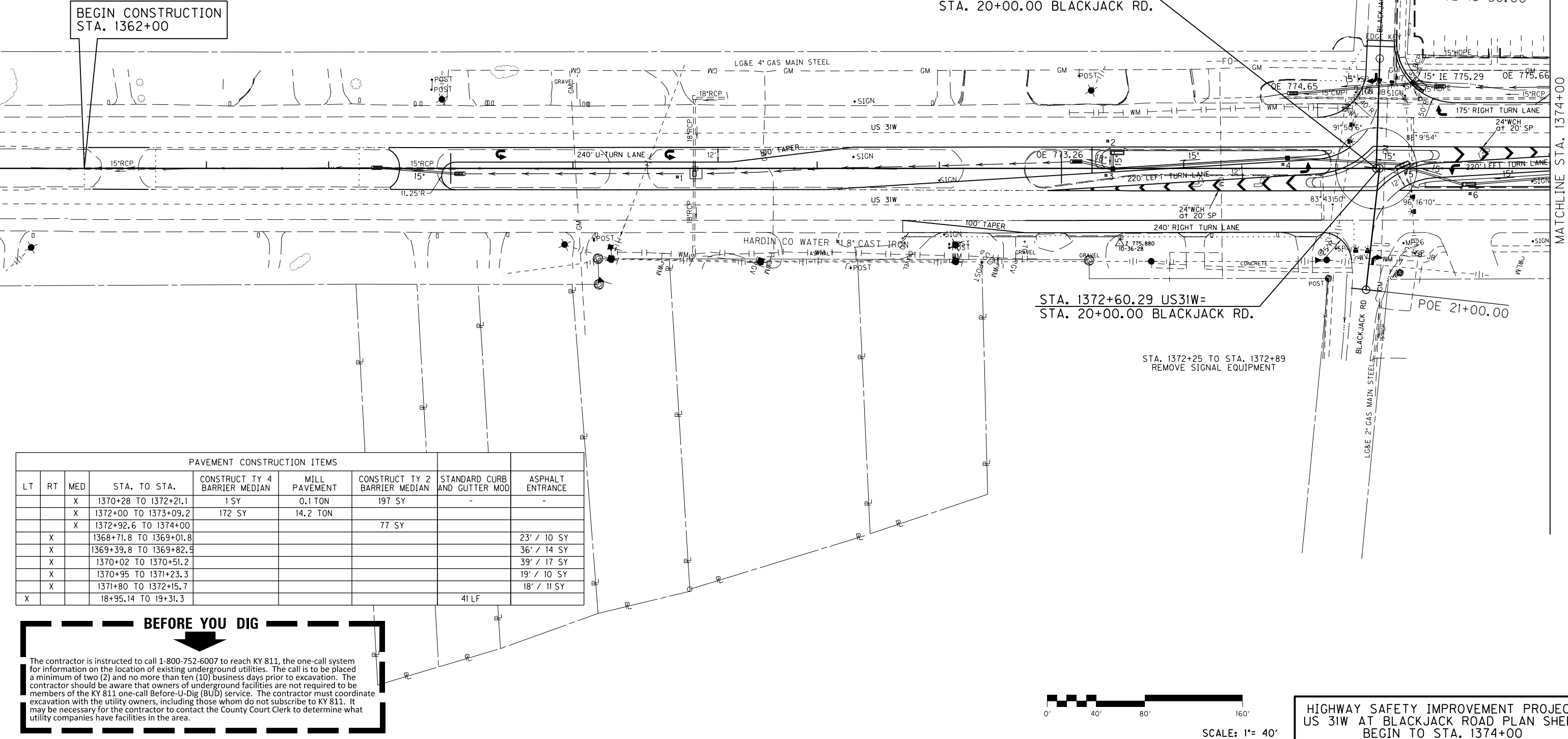
STORM SEWER CHART							
STRUCTURE #	STATION	DBI CBI	TYPE	PIPE DIA	PIPE LENGTH	TOP/GRATE THROAT	INVERT
1	RT. 1366+99.5	DBI	5D	18"	12	769.17	776.31
2	LT. 1370+42	CBI	A	15"	12	776.07	773.53
3	RT. 1370+42	CBI	F	18"	26	776.34	773.39
4	LT. 1371+85	CBI	F	15"	142	777.44	774.18
5	LT. 1372+79	CBI	A	15"	94	777.99	774.73
6	RT. 1373+30	CBI	A	15"	53	778.51	775.07
7	LT. 19+32.69	CBI	F	15"	114/4	778.56	775.12

① RCP

CONSTRUCT CONCRETE SIDEWALK			
LT. OR RT.	STATION TO STATION	SIDEWALK RAMP TY.	SO. YDS.
LT	19+08 to 19+37	4	21

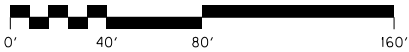


COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



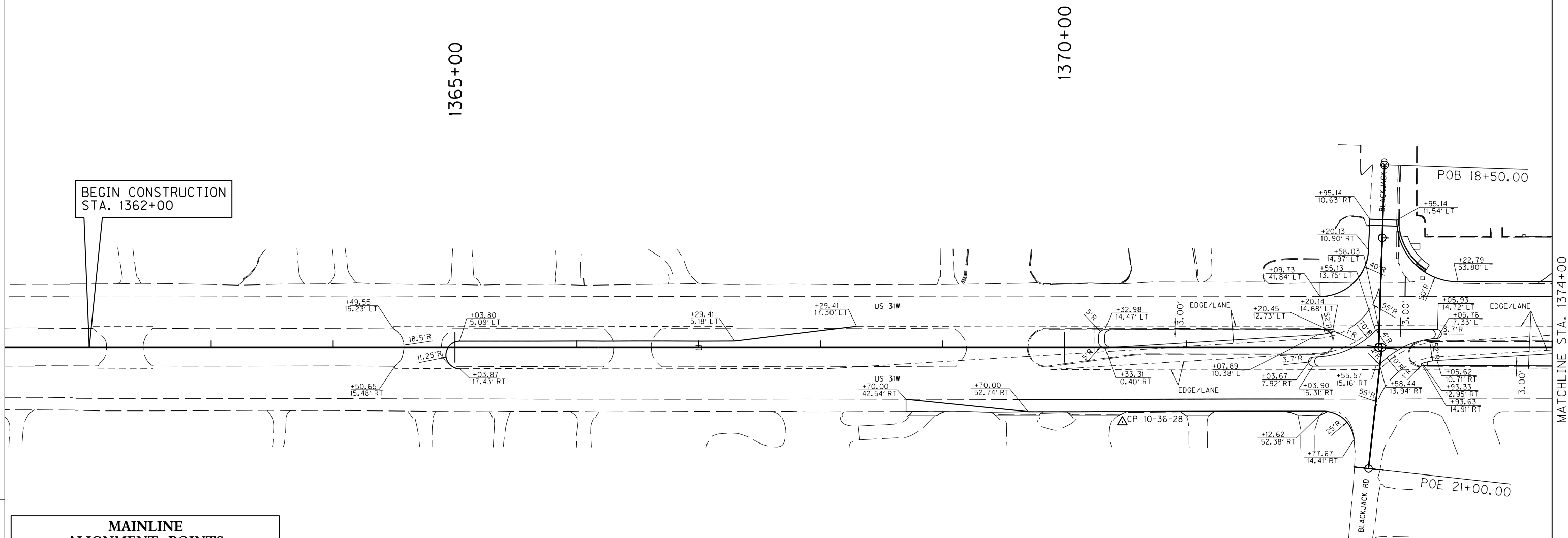
BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-You-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.



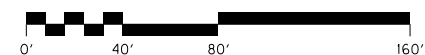
SCALE: 1"= 40'

HIGHWAY SAFETY IMPROVEMENT PROJECT
US 31W AT BLACKJACK ROAD PLAN SHEET
BEGIN TO STA. 1374+00



MAINLINE ALIGNMENT POINTS			
POINT	DESCRIPTION	STATE PLANE COORDINATES	
		NORTH (Y)	EAST (X)
POB	1317 + 97.36	3816074.9148	4872475.3710
POE	1412 + 69.63	3825117.8738	4869656.0002
BLACKJACK RD. LT. ALIGNMENT POINTS			
POB	19 + 10.00	3821263.7657	4870763.3880
POE	20 + 00.00	3821287.7896	4870850.1256
BLACKJACK RD. RT. ALIGNMENT POINTS			
POB	20 + 00.00	3821290.2475	4870849.3594
POE	21 + 00.00	3821309.4084	4870947.5065

CONTROL POINTS							
POINT	DESCRIPTION	STATE PLANE COORD.			STATION	OFFSET	
		NORTH (Y)	EAST (X)	ELEV. (Z)			
10-36-26	ALUMINUM DISK	3818873.4000	4871533.2200	735.39	1347+49.43	66.50	LT
10-36-27	ALUMINUM DISK	3819941.5000	4871328.6400	756.47	1358+30.02	56.11	RT
10-36-28	ALUMINUM DISK	3821105.5200	4870971.3300	775.88	1370+47.63	61.46	RT
10-36-29	ALUMINUM DISK	3822511.8100	4870542.0400	774.69	1385+17.96	70.20	RT
10-36-30	ALUMINUM DISK	3823613.8600	4870191.7700	754.45	1396+74.32	63.83	RT



SCALE: 1"= 40'

HSIP US 31W AT BLACKJACK ROAD
BARRIER DETAIL & CONTROL PLAN SHEET
BEGIN TO STA. 1374+00

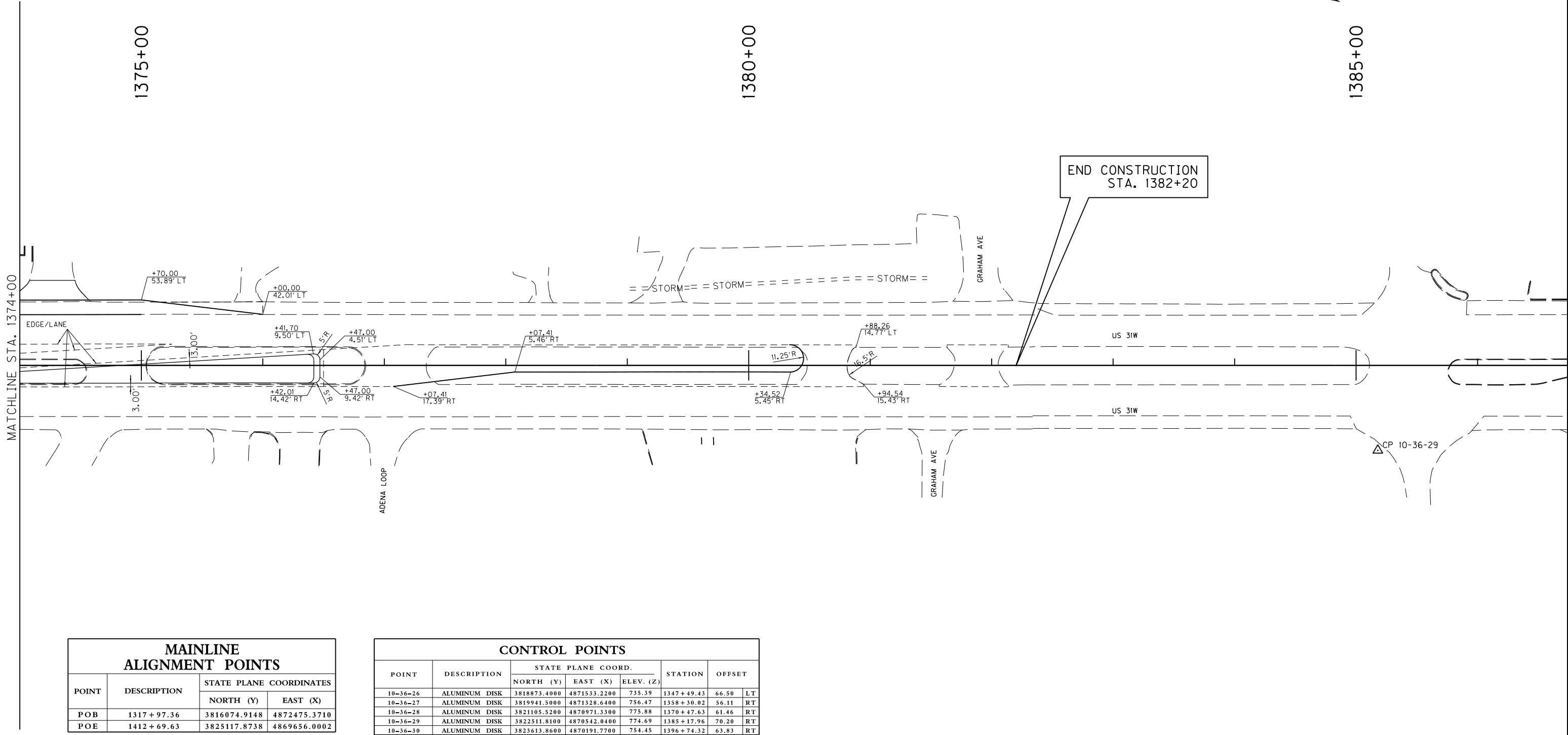
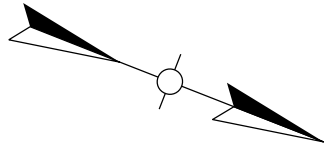
FILE NAME: D:\PW\WORKDIR\DM564834\BLACKJACK BARRIER DETAIL 2.DGN

USER: travis-m
DATE PLOTTED: September 26, 2018

E-SHEET NAME:

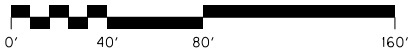
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



MAINLINE ALIGNMENT POINTS			
POINT	DESCRIPTION	STATE PLANE COORDINATES	
		NORTH (Y)	EAST (X)
POB	1317 + 97.36	3816074.9148	4872475.3710
POE	1412 + 69.63	3825117.8738	4869656.0002

CONTROL POINTS							
POINT	DESCRIPTION	STATE PLANE COORD.			STATION	OFFSET	
		NORTH (Y)	EAST (X)	ELEV. (Z)			
10-36-26	ALUMINUM DISK	3818873.4000	4871533.2200	735.39	1347 + 49.43	66.50	LT
10-36-27	ALUMINUM DISK	3819941.5000	4871328.6400	756.47	1358 + 30.02	56.11	RT
10-36-28	ALUMINUM DISK	3821105.5200	4870971.3300	775.88	1370 + 47.63	61.46	RT
10-36-29	ALUMINUM DISK	3822511.8100	4870542.0400	774.69	1385 + 17.96	70.20	RT
10-36-30	ALUMINUM DISK	3823613.8600	4870191.7700	754.45	1396 + 74.32	63.83	RT



SCALE: 1"= 40'

HSIP US 31W AT BLACKJACK ROAD
BARRIER DETAIL & CONTROL PLAN SHEET
STA. 1374+00 TO END

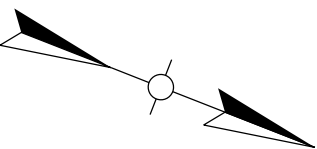
FILE NAME: D:\PW\WORKDIR\DM564834\BLACKJACK STRIPING DETAIL 1.DGN

USER: travis-m
DATE PLOTTED: November 14, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397

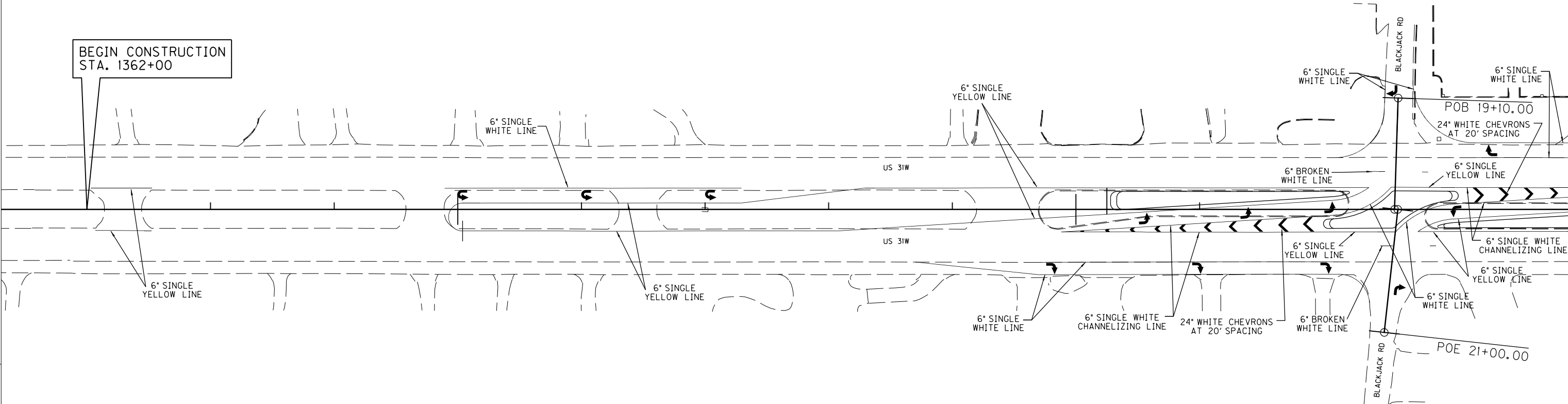
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



1365+00

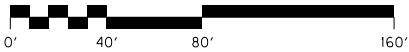
1370+00

BEGIN CONSTRUCTION
STA. 1362+00



STRIPING QUANTITIES

ITEM	DESCRIPTION	UNIT	US 31W	BLACKJACK RD WEST	BLACKJACK RD EAST
24995EC	PAVE STRIPING-SPRAY THERMO-6 IN W	LF	1951	165	37
24996EC	PAVE STRIPING-SPRAY THERMO-6 IN Y	LF	1956	-	-
6530	PAVEMENT STRIPING REMOVAL - 4 INCH	LF	1231	-	-
6598	PAVEMENT MARKING REMOVAL	SQ FT	183	20	28
6574	PAVE MARKING - THERMO CURV ARROW	EACH	11	1	1
24679ED	PAVE MARK THERMO CHEVRON	SQ FT	296	-	-



SCALE: 1"= 40'

HSIP US 31W AT BLACKJACK ROAD
STRIPING DETAIL PLAN SHEET
BEGIN TO STA. 1374+00

MATCHLINE STA. 1374+00

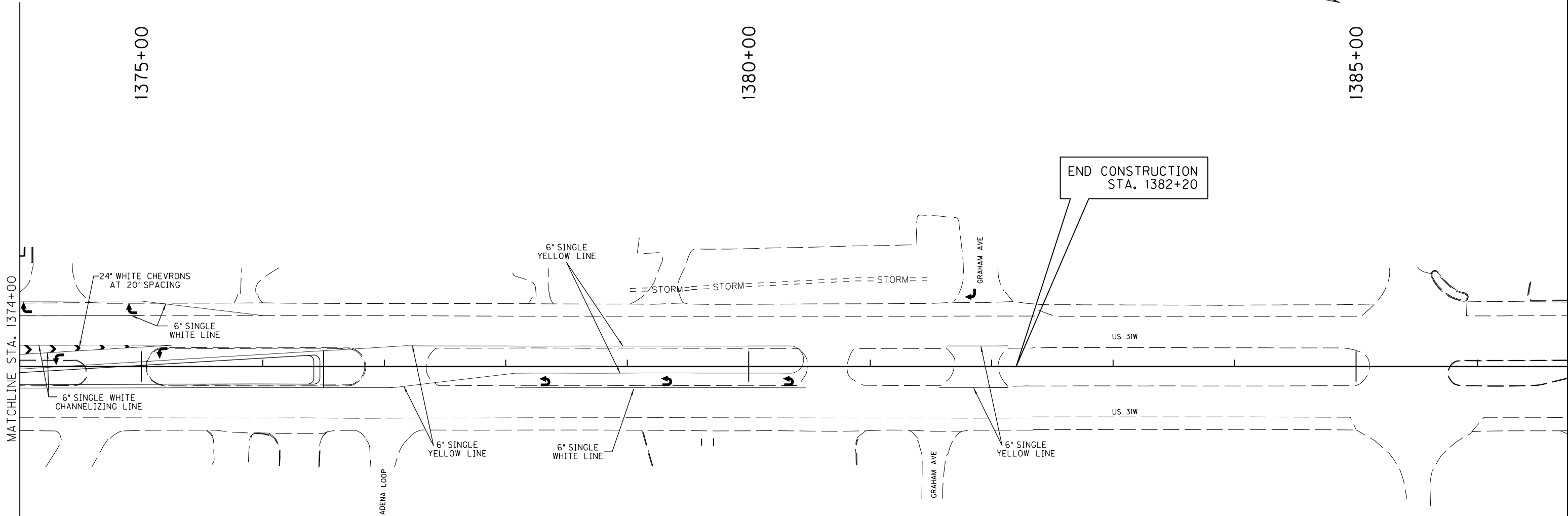
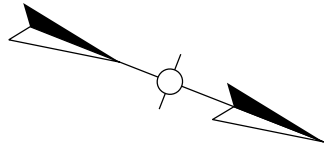
FILE NAME: D:\PW\WORKDIR\DM564834\BLACKJACK STRIPING DETAIL 2.DGN

USER: travis-m
DATE PLOTTED: November 14, 2018

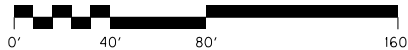
E-SHEET NAME:

Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



STRIPING QUANTITIES			
ITEM	DESCRIPTION	UNIT	US 31W
24995EC	PAVE STRIPING-SPRAY THERMO-6 IN W	LF	791
24996EC	PAVE STRIPING-SPRAY THERMO-6 IN Y	LF	1412
6530	PAVEMENT STRIPING REMOVAL - 4 INCH	LF	806
6598	PAVEMENT MARKING REMOVAL	SQ FT	16
6574	PAVE MARKING - THERMO CURV ARROW	EACH	8
24679ED	PAVE MARK THERMO CHEVRON	SQ FT	66

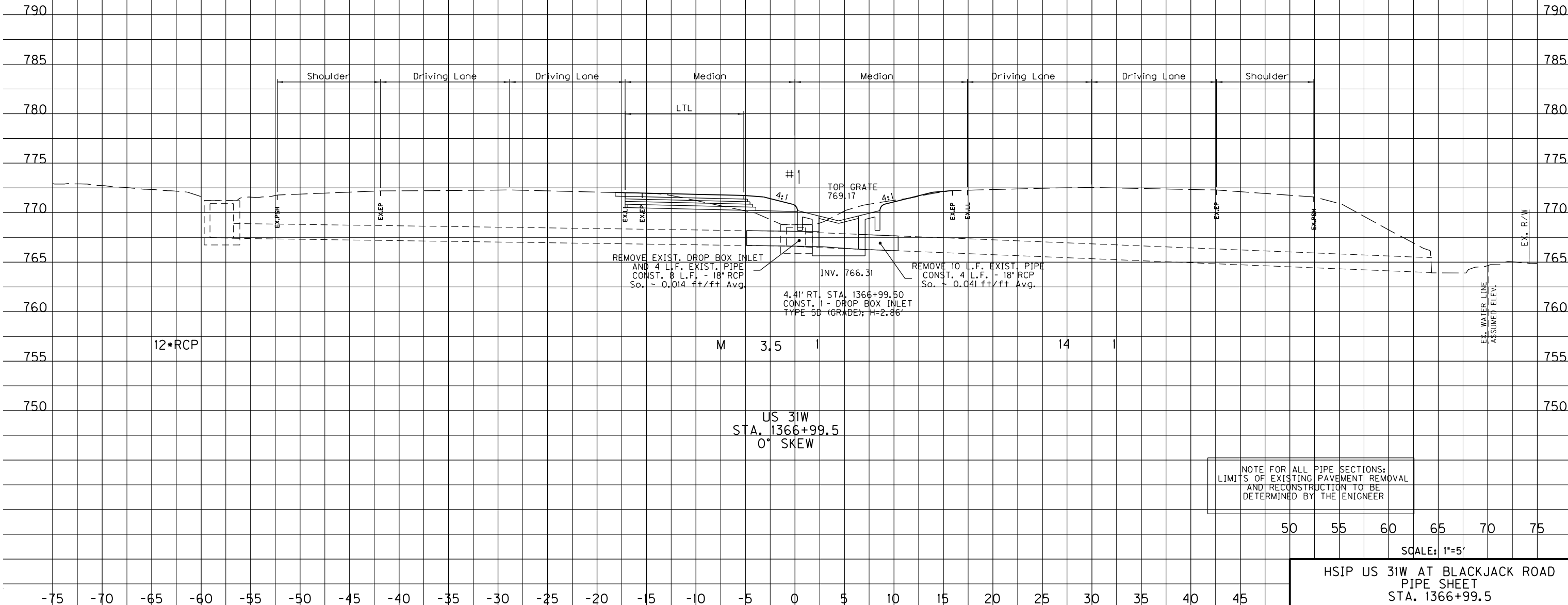


SCALE: 1"= 40'

HSIP US 31W AT BLACKJACK ROAD
STRIPING DETAIL PLAN SHEET
STA. 1374+00 TO END

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

STORM SEWER PIPE							CULVERT PIPE						DESIGN PH LEVEL	MAXIMUM COVER HEIGHT	DROP BOX INLET TYPE 5D	CURB BOX INLET TYPE A	CURB BOX INLET TYPE F	SLOPED BOX OUTLET TYPE 1 - 15 INCH	SLOPED BOX OUTLET TYPE 1 - 18 INCH	REMOVE PIPE	REMOVE DROP BOX INLET								
12"	15"	18"	24"	30"	36"	42"	15"	18"	24"	30"	36"	42"																	
L	I	N	E	A	R	F	E	E	T						FT	EACH	EACH	EACH	EACH	EACH	LIN FT	EACH							



COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

The drawing illustrates the storm sewer infrastructure for US 31W at Blackjack Road. Key features include:

- Elevations:** Vertical axis ranging from 760 to 790 feet.
- Lane Markings:** Shoulder, Driving Lane, Median, LTL (Left Turn Lane), WCH (Width of Carriage Way), RTL (Right Turn Lane), ENT (End of Taper).
- Manholes:**
 - #1: Invert at 774.18, Throat at 777.44.
 - #2: Invert at 773.53, Throat at 776.07.
 - #3: Invert at 773.39, Throat at 776.34.
- Pipe Segments:**
 - 15" STORM SEWER PIPE, CONST. 142 L.F., Slope ~ 0.005 ft+/ft.
 - 15" PIPE, CONST. 12 L.F., Slope ~ 0.005 ft+/ft.
 - 18" PIPE, CONST. 26 L.F., Slope ~ 0.005 ft+/ft.
 - 18" SLOPED BOX OUTLET TYPE 1, O.E. 775.26.
- Other Details:**
 - EX. WATER LINE ASSUMED ELEV. (Existing Water Line Assumed Elevation).
 - US 31W STA. 1371+85 0° SKEW.
 - US 31W STA. 1370+42 0° SKEW.
 - STA. 1370+16 TO STA. 1370+42 CONST. 26 L.F. - 18" PIPE Slo. ~ 0.005 ft+/ft.

Scale: 1"=5'

HSIP US 31W AT BLACKJACK ROAD
PIPE SHEET
STA. 1370+42 to 1371+85

HSIP US 31W AT BLACKJACK ROAD
PIPE SHEET
STA. 1370+42 to 1371+85

[illegible]

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

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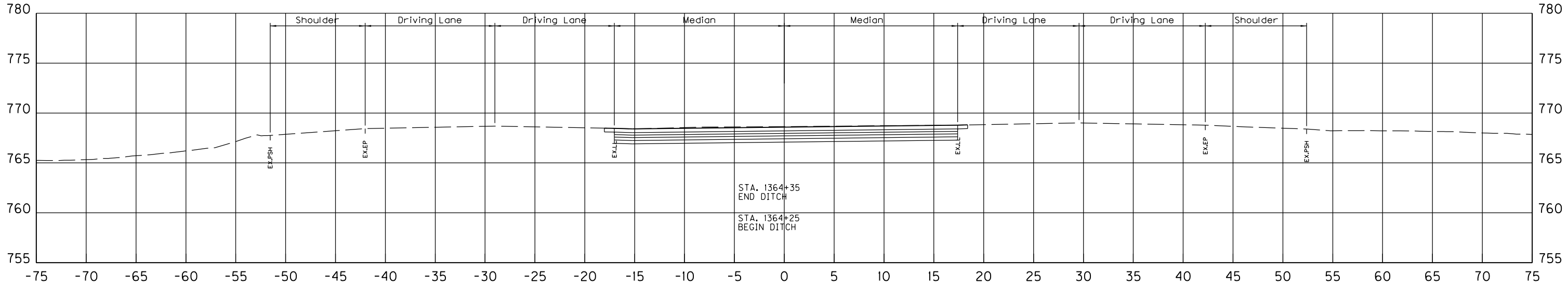
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

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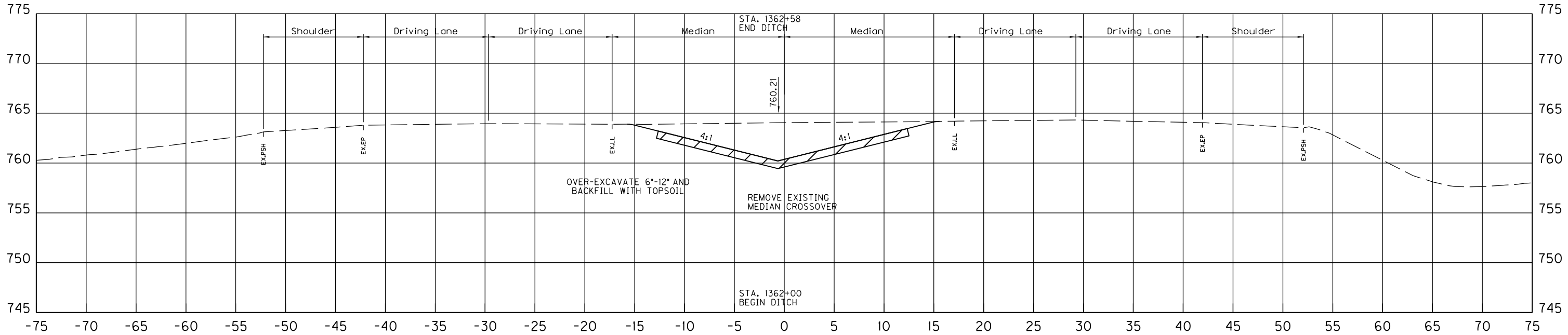
USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1364+75

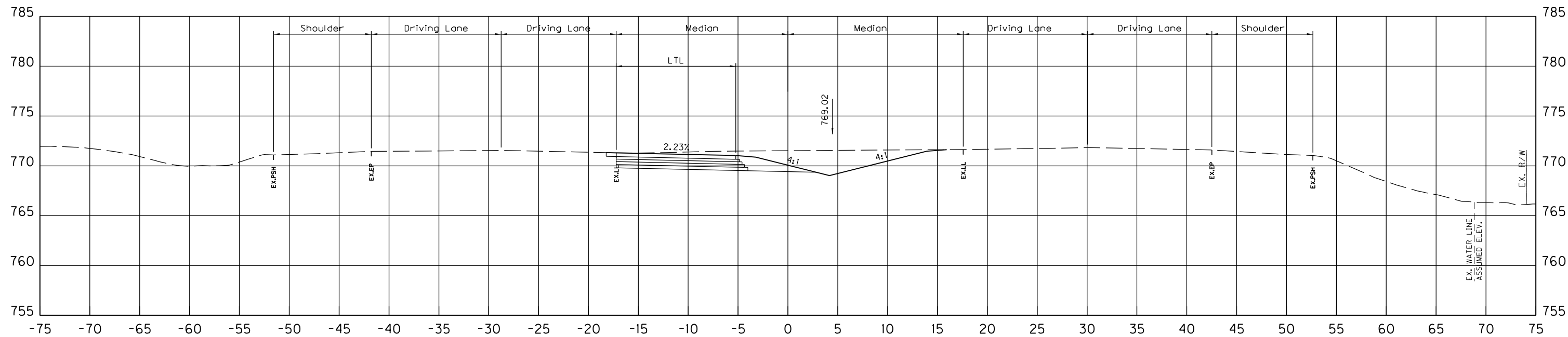


1362+30

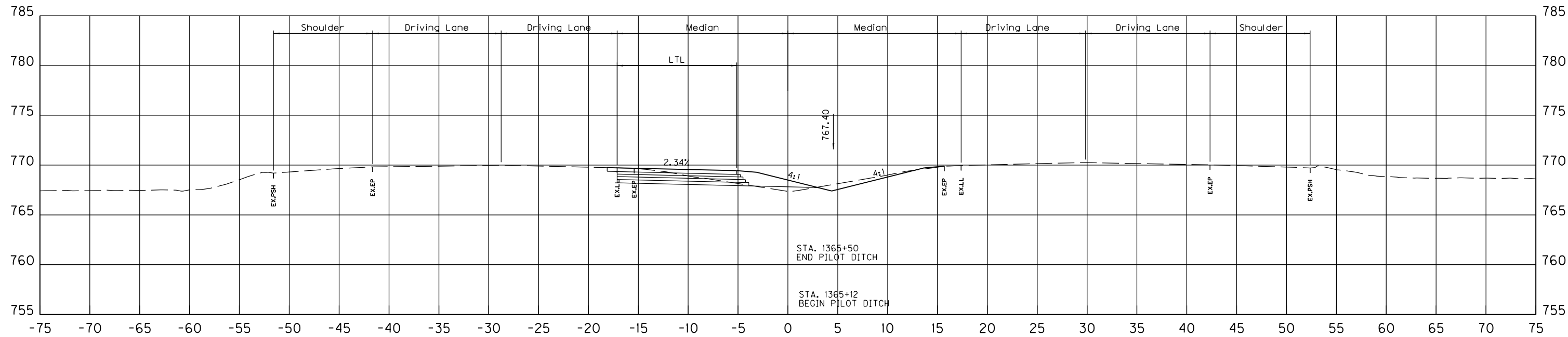
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1362+30 TO STA. 1364+75

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



1366+50



1365+50

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1365+50 TO STA. 1366+50

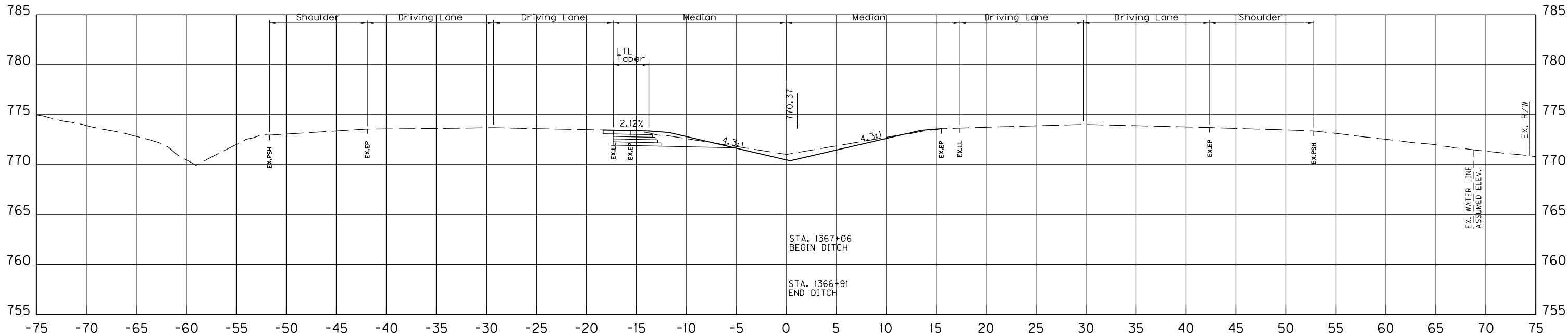
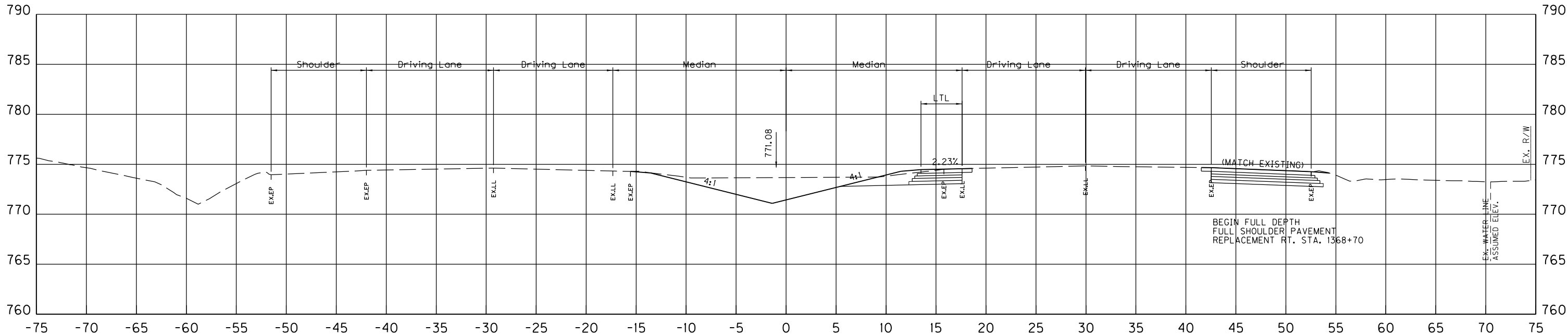
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\BLACKJACK CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

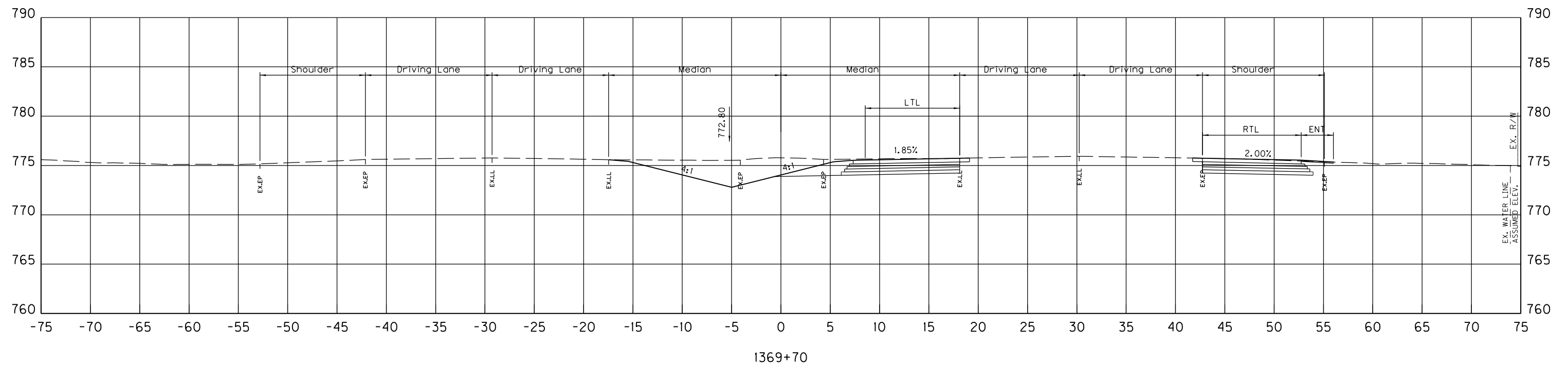
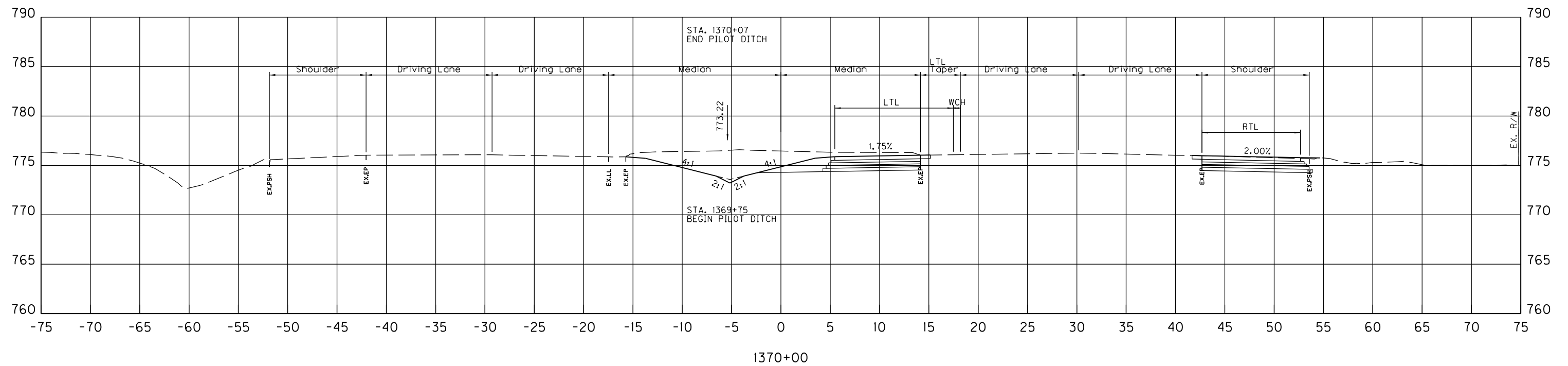
Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1368+00 TO STA. 1368+70

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1369+70 TO STA. 1370+00

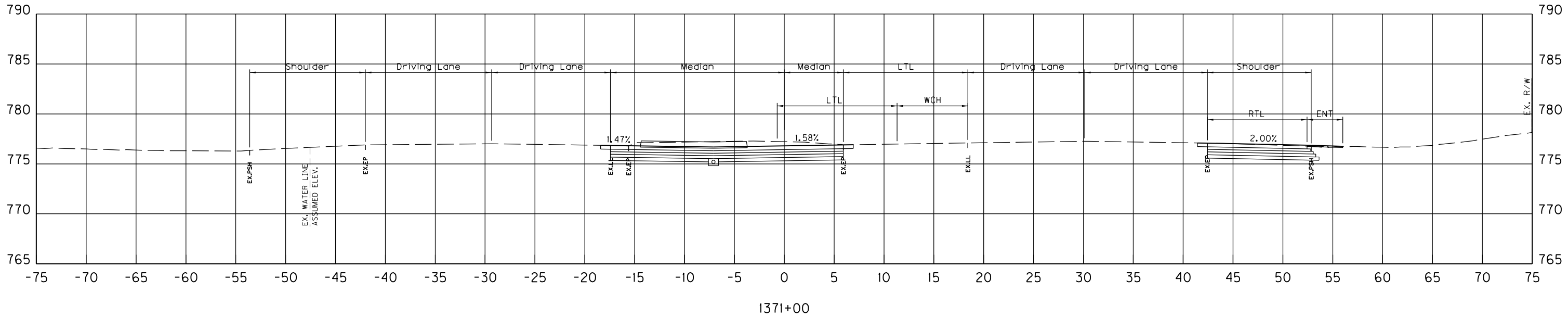
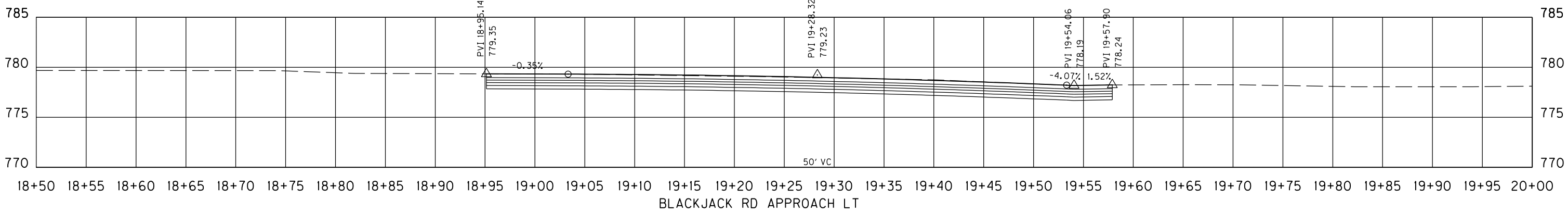
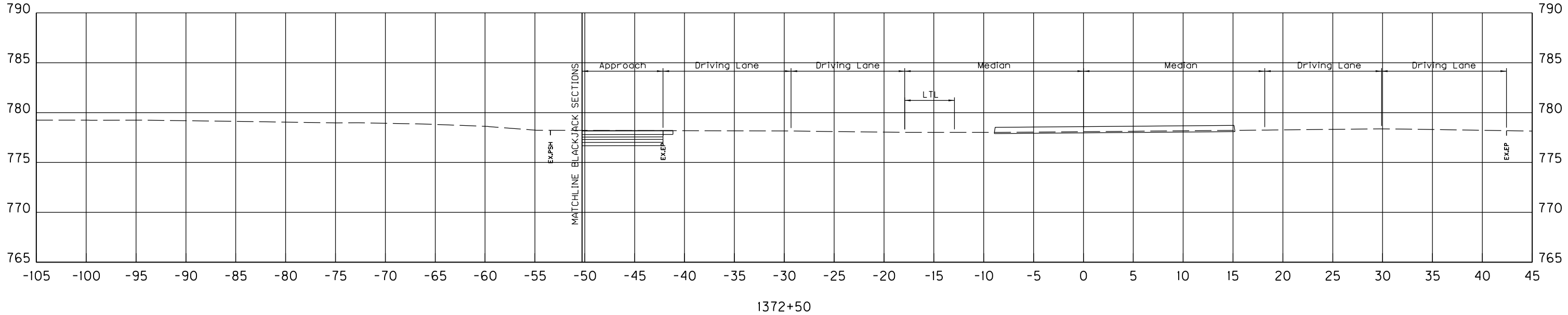
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USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1371+00 TO STA. 1372+50

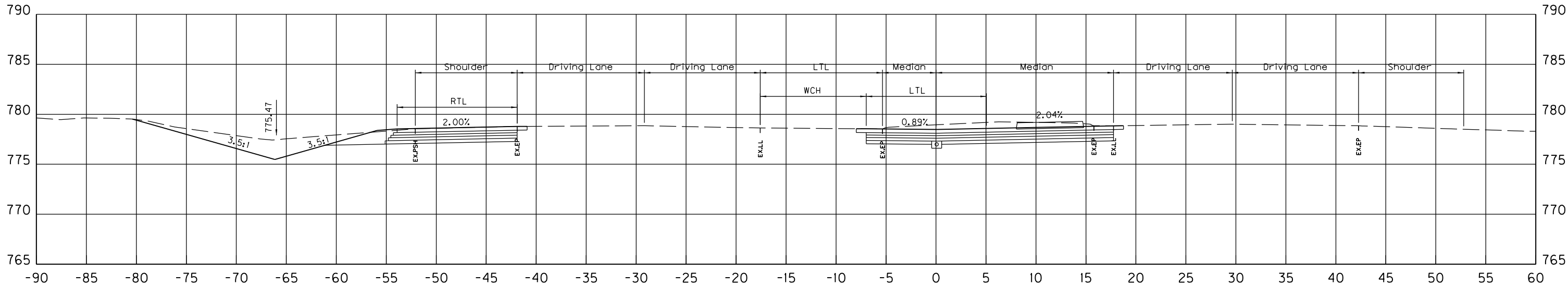
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

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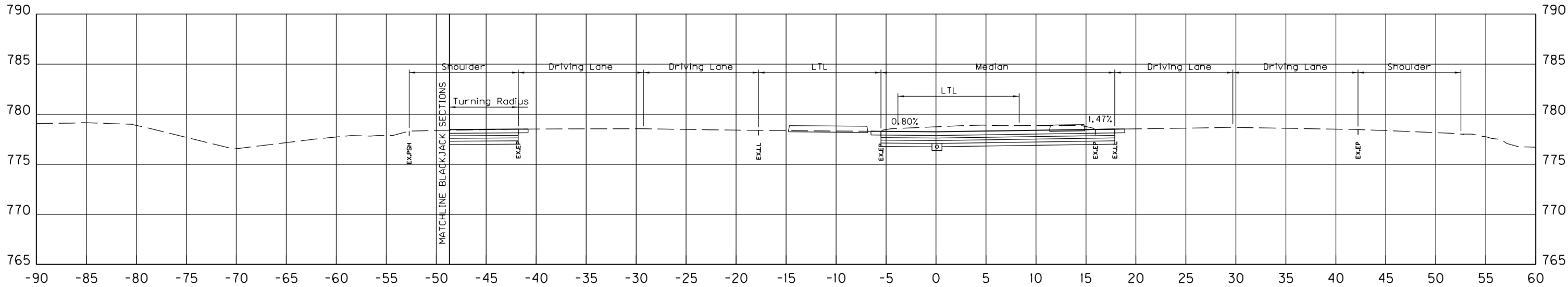
USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1373+50

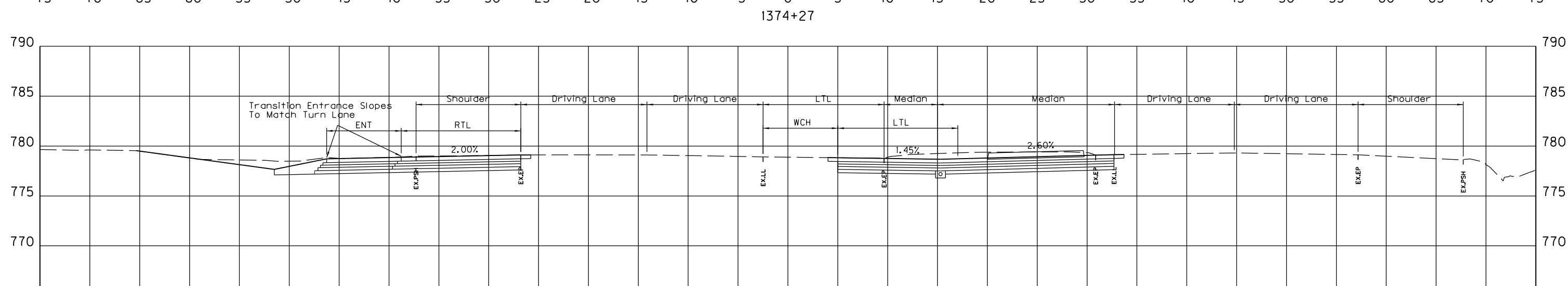
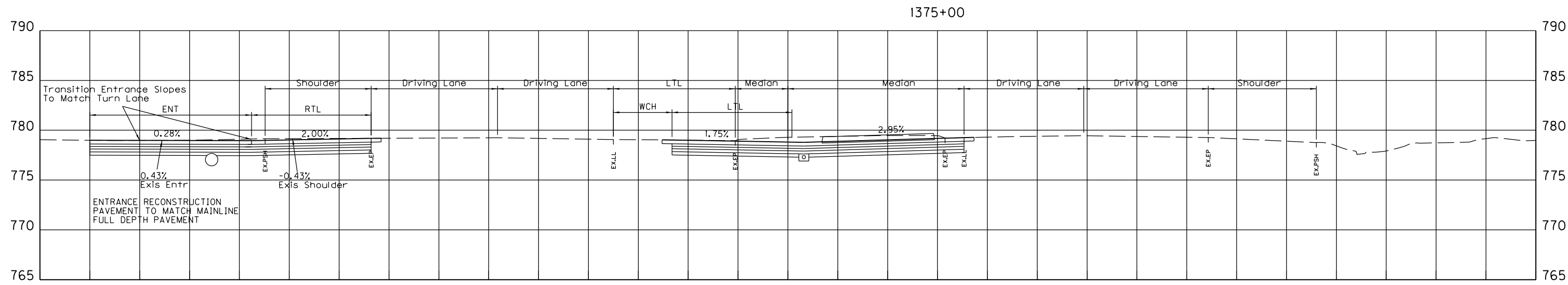
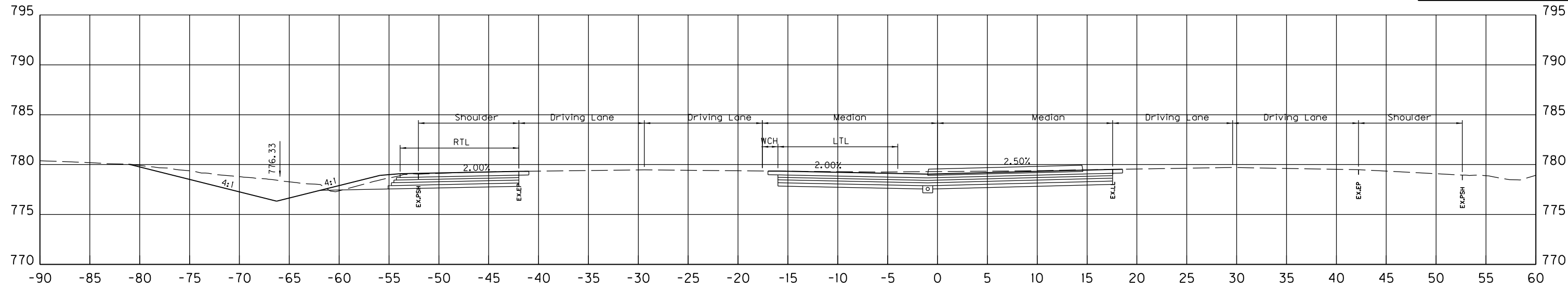


1373+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1373+00 TO STA. 1373+50

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1374+00 TO STA. 1375+00

FILE NAME: D:\PW\MORKDIR\0MS64832\BLACKJACK CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397

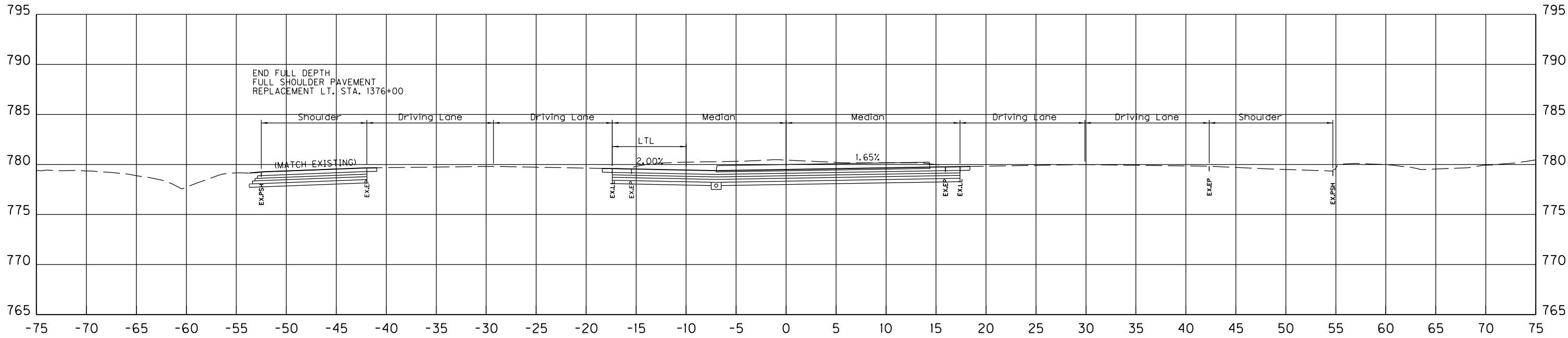
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

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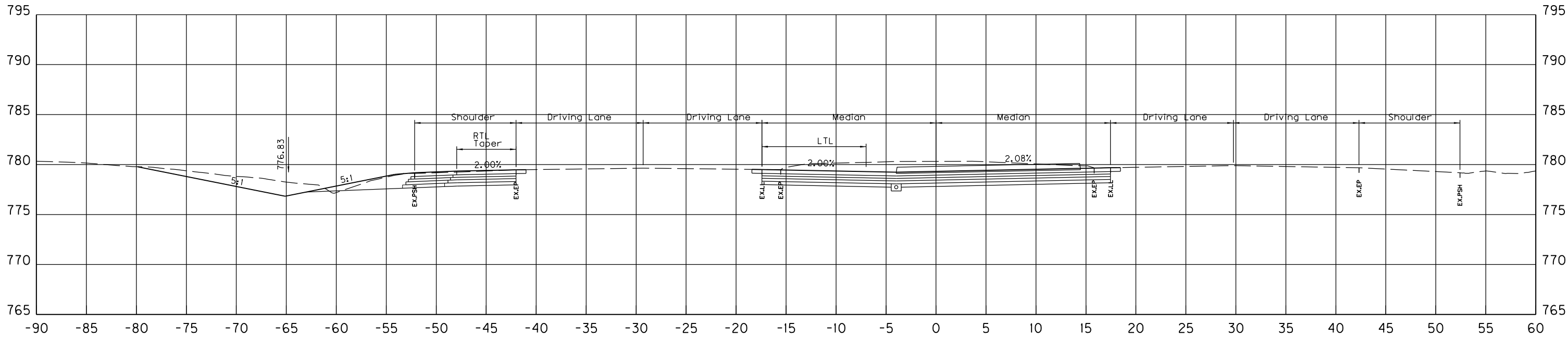
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DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1376+00



1375+50

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1375+50 TO STA. 1376+00

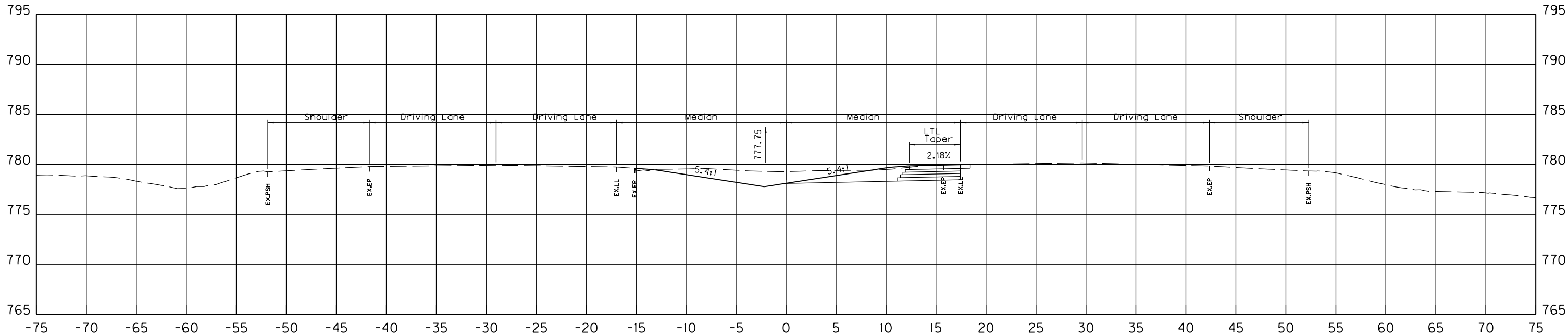
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

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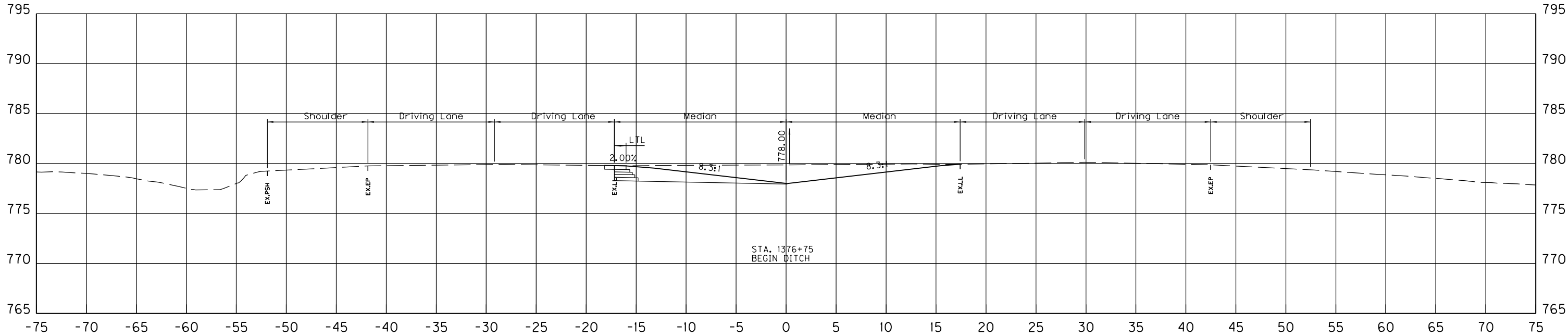
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DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1377+50

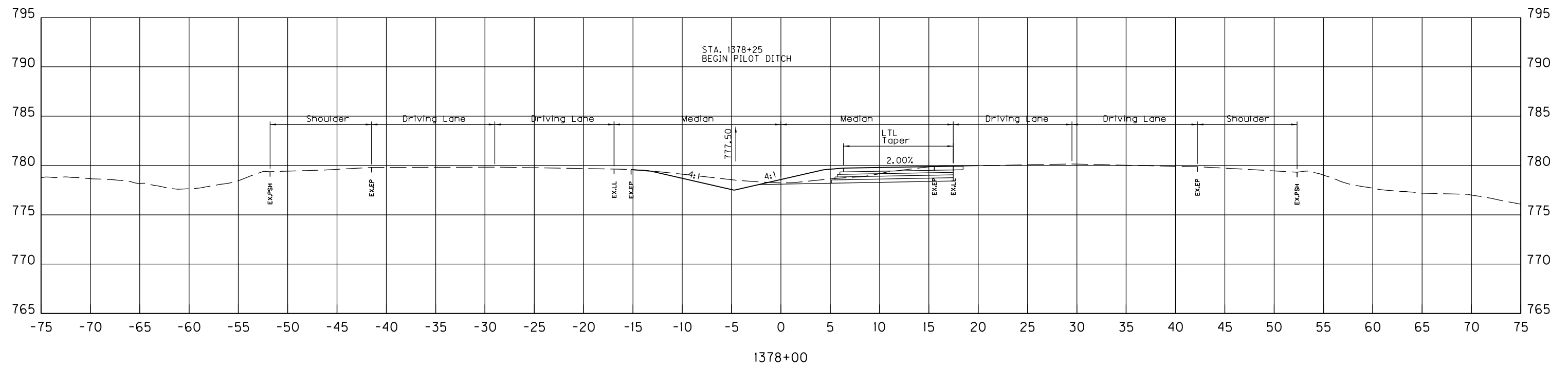
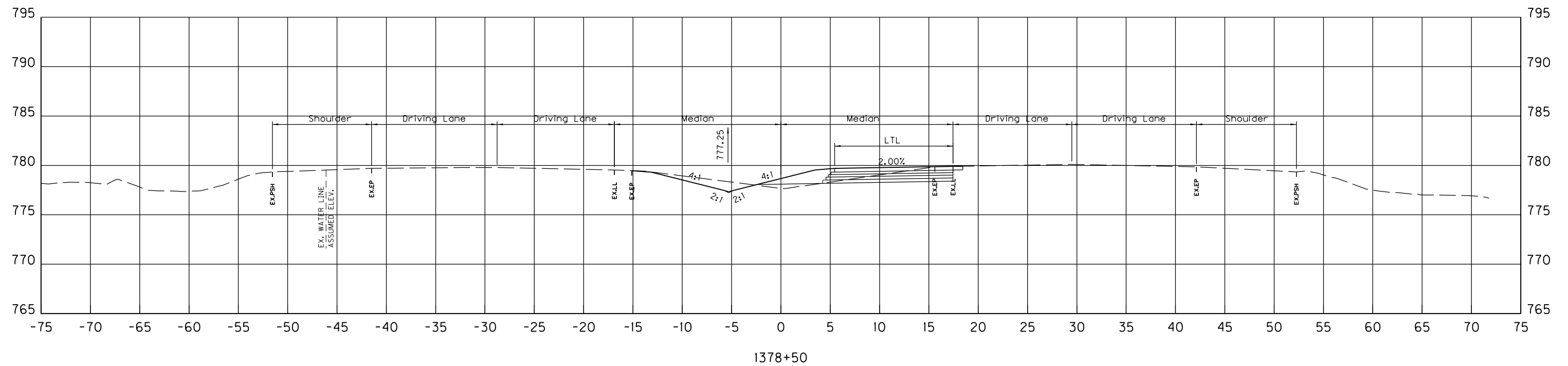


1377+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1377+00 TO STA. 1377+50

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1378+00 TO STA. 1378+50

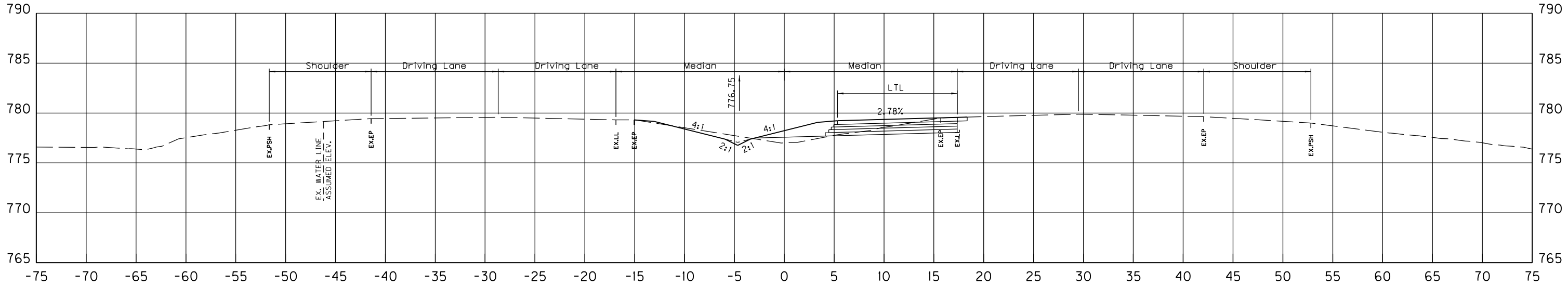
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

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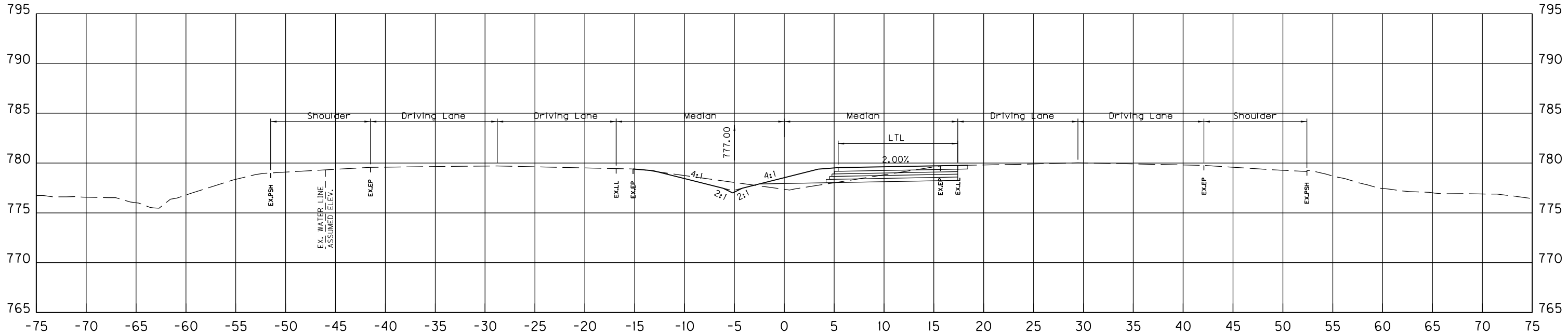
USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1379+50



1379+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1379+00 TO STA. 1379+50

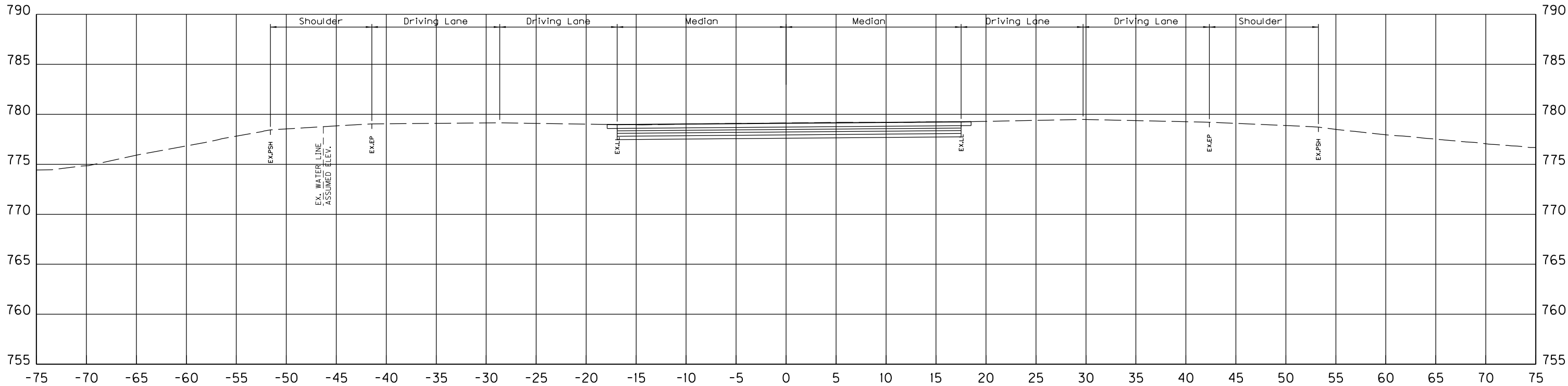
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HARDIN	4-9008.40	

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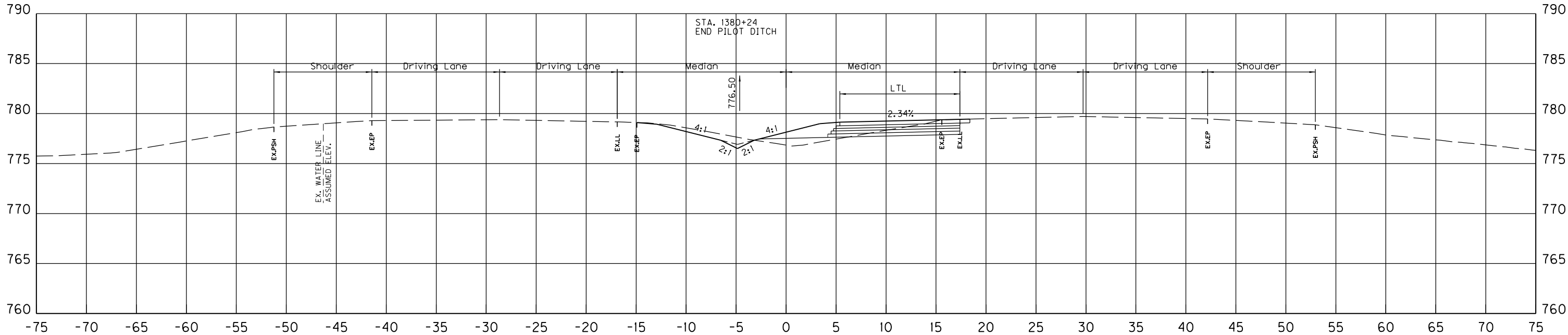
USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



1380+65



1380+00

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1380+00 TO STA. 1380+65

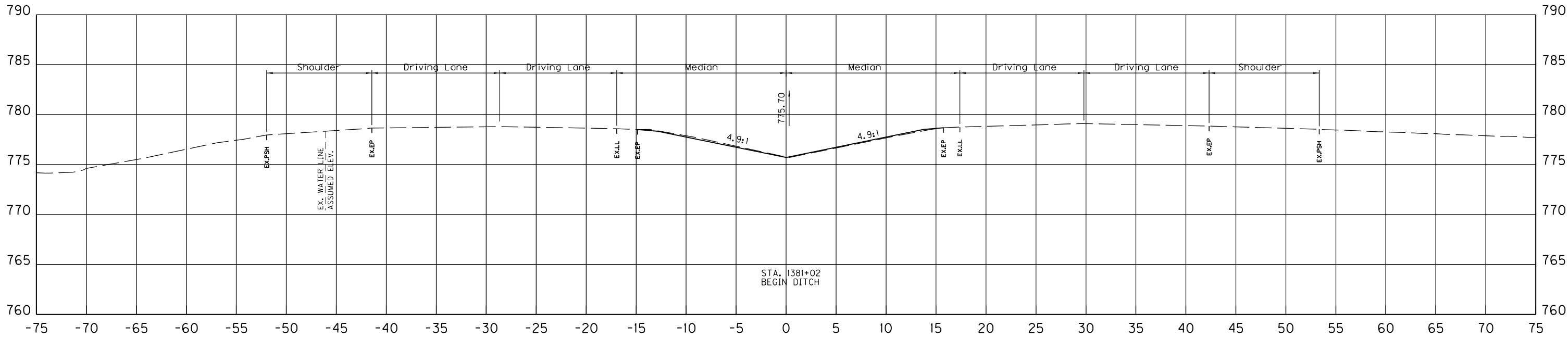
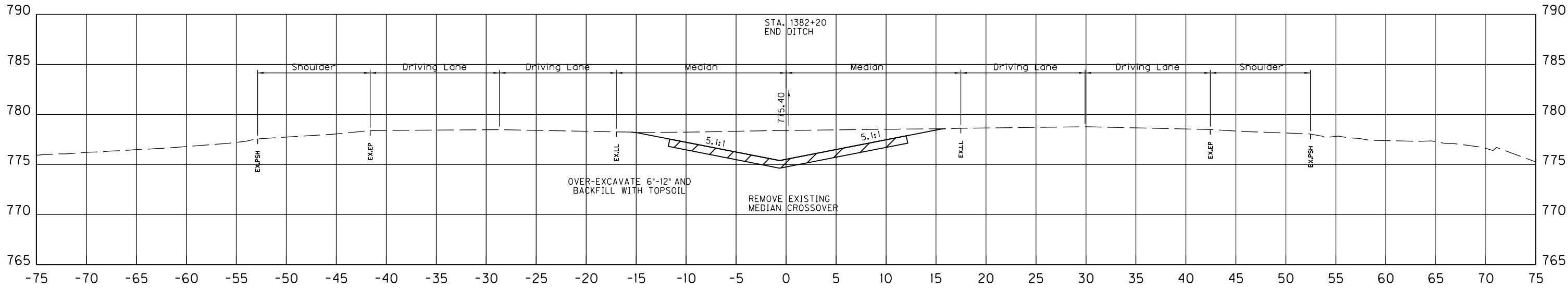
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

FILE NAME: D:\PW\WORKDIR\DM564832\BLACKJACK CROSS SECTIONS.DGN

USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
STA. 1381+50 TO STA. 1382+00

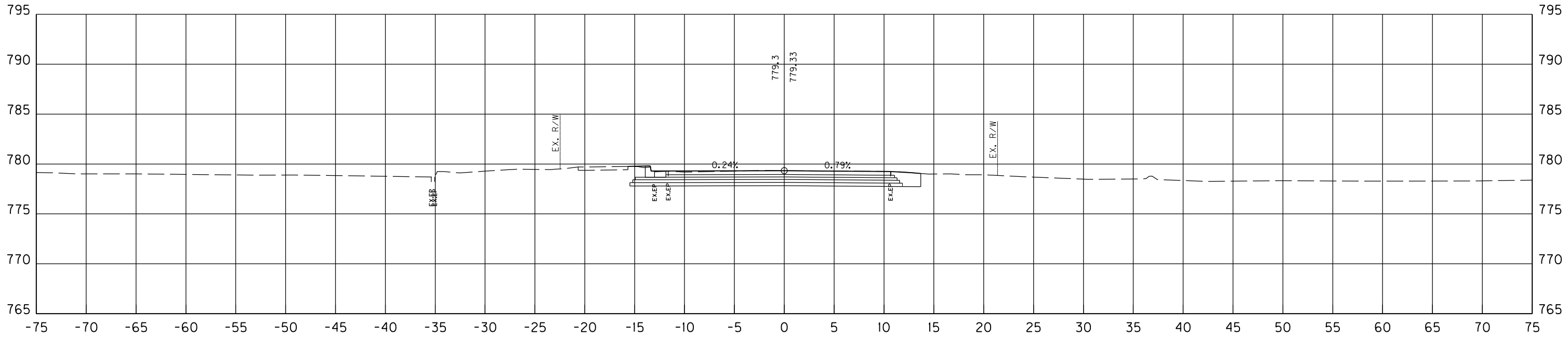
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	

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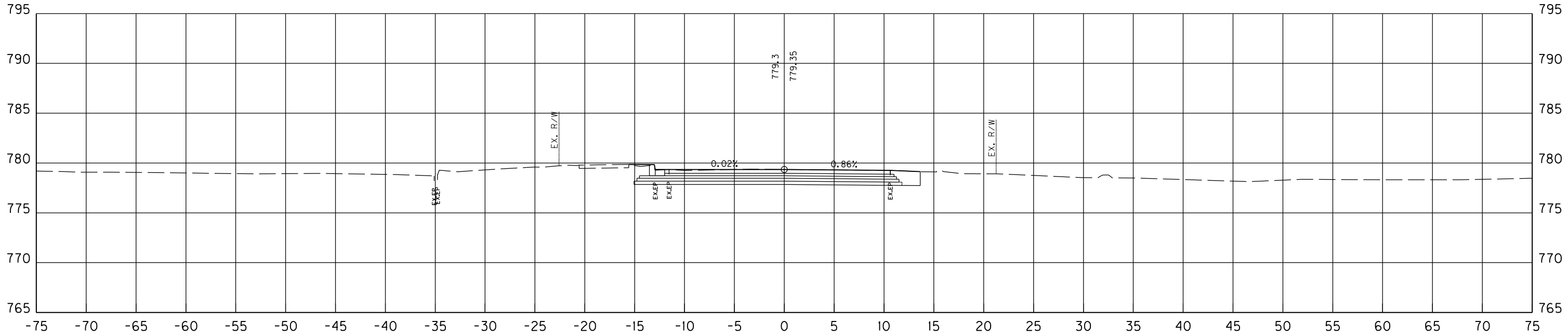
USER: travis-m
DATE PLOTTED: November 6, 2018

E-SHEET NAME:

Power InRoads v8.11.9.397



19+00

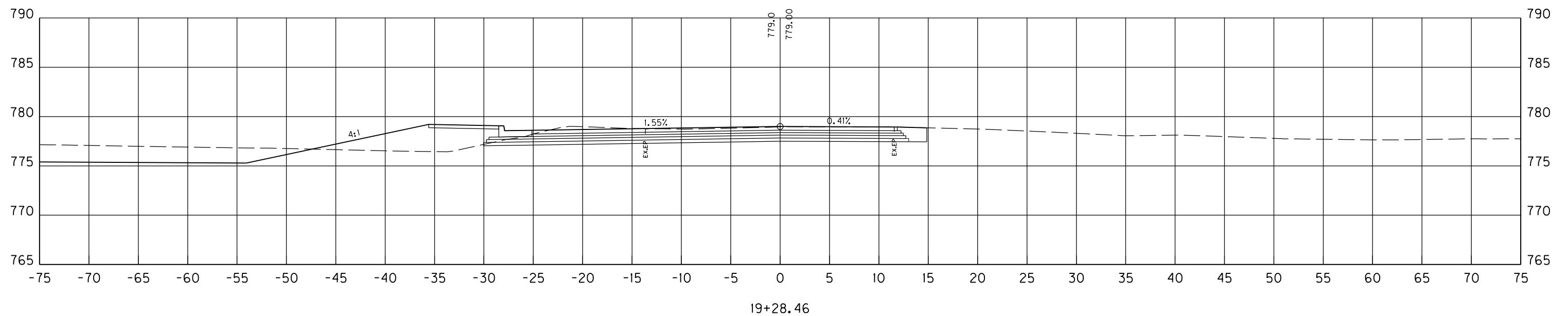
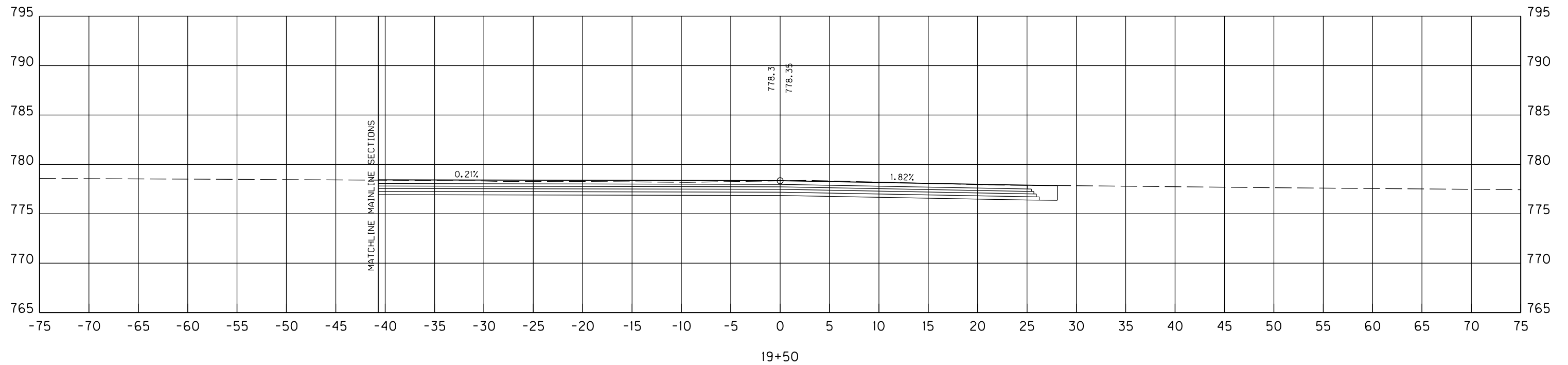


18+95.14

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
BLACKJACK RD. STA. 18+95 TO STA. 19+00

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-9008.40	



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HSIP US 31W AT BLACKJACK ROAD
CROSS SECTIONS
BLACKJACK RD. STA. 19+28 TO STA. 19+50