

06-14-2019 LETTING ITEM 248

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 826	08-00200-00-BR	JEFFERSON	32	1
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 99626		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM
ON SYSTEM BRIDGE**

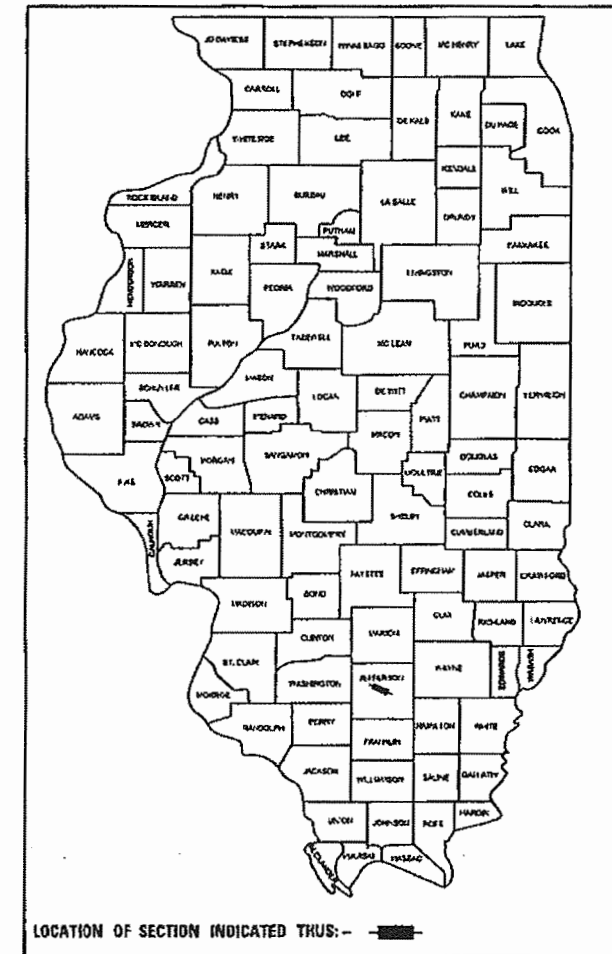
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3.	SCHEDULE OF QUANTITIES
4-5.	TYPICAL CROSS SECTIONS
6-8.	PLAN AND PROFILE
9.	CENTERLINE, GUARDRAIL & SHOULDER LAYOUT
10-11.	CULVERT DETAILS
12-13.	BORINGS
14-32.	STATION CROSS SECTIONS

HIGHWAY STANDARDS:

515001-03	NAME PLATE FOR BRIDGES
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
701901-08	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

**PROJECT JBSF(319)
SECTION 08-00200-00-BR
JEFFERSON COUNTY
F.A.S. 826 / C.H. 10 / RICHVIEW ROAD
PROPOSED STRUCTURE NO. 041-3746
C-99-524-09**

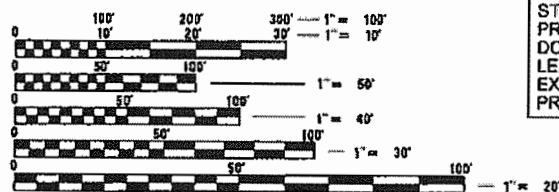


UTILITIES

FRONTIER COMMUNICATIONS
111 EAST STATE STREET
MASCOUTAH, IL 62258

TRI COUNTY ELECTRIC COOP
3907 BROADWAY STREET
MT. VERNON, IL 62864

VILLAGE OF WOODLAWN
c/o ROUND TABLE DESIGN
1020 MAIN STREET
MT. VERNON, ILLINOIS 62864

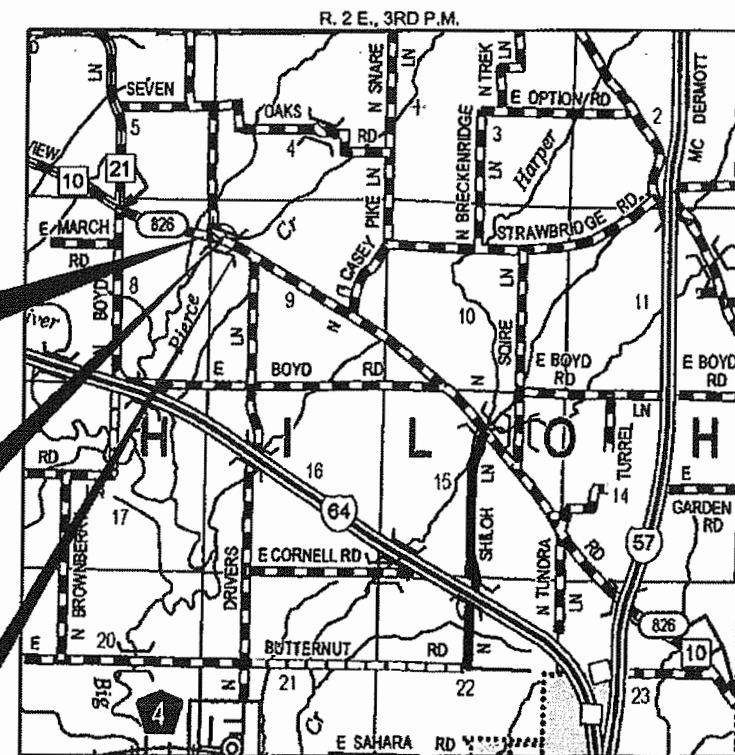


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

STATION 281+18
PRECAST CONCRETE BOX CULVERT
DOUBLE 13'-0" SPAN X 10'-0" RISE
LENGTH = 66'-0"; SKEW = 30°
EXISTING STRUCTURE NO. 041-3016
PROPOSED STRUCTURE NO. 041-3746

IMPROVEMENT BEGINS
STATION 279+30

IMPROVEMENT ENDS
STATION 283+10



LOCATION MAP

APPROXIMATE SCALE: MILE
NET LENGTH OF SECTION = 380 FEET = 0.072 MILES



ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	4-9 2019
<i>[Signature]</i> JEFFERSON COUNTY ENGINEER	
PASSED	April 13 2019
<i>[Signature]</i> DISTRICT NINE ENGINEER OF LOCAL ROADS & STREETS	
Releasing For Bid Based on Limited Review April 12 2019 <i>[Signature]</i> REGION FIVE ENGINEER	
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR (RURAL)
DESIGN SPEED: 50 MPH
DESIGN TRAFFIC: 2650 ADT (2016)



HAMPTON, LENZINI AND RENWICK, INC.
Civil Engineers - Structural Engineers - Land Surveyors
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
217.546.3400 www.hlrengineering.com
184.000990
ILLINOIS PROFESSIONAL DESIGN FIRM L & I P E & S CORPORATION

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	CONSTRUCTION TYPE CODE 0010
			TOTAL
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	100
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	100
20200100	EARTH EXCAVATION	CU YD	90
20400800	FURNISHED EXCAVATION	CU YD	515
20700110	POROUS GRANULAR EMBANKMENT	TON	220
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	250
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	30
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	250
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	11
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	146
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	62
40603310	HOT MIX ASPHALT SURFACE COURSE, MIX"C", N50	TON	37
40800050	INCIDENTAL HOT MIX ASPHALT SURFACING	TON	10
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	480
48101200	AGGREGATE SHOULDERS, TYPE B	TON	200
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1
50300265	SEAL COAT CONCRETE	CU YD	345
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2
51500100	NAME PLATES	EACH	1
542A0235	PIPE CULVERTS, CLASS A, TYPE 1 30"	FOOT	20
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
63200310	GUARDRAIL REMOVAL	FOOT	210
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	362.5
67100100	MOBILIZATION	L SUM	1
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78001110	PAINT PAVEMENT MARKING LINE - LINE 4"	FOOT	1,400
78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	8

SEE SPECIAL PROVISIONS

*SPECIALTY ITEMS

SUMMARY OF QUANTITIES (CONTINUED)

CODE NO.	ITEM	UNIT	CONSTRUCTION TYPE CODE 0010
			TOTAL
XX009289	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
X2200020	FENCE REMOVAL AND REINSTALLATION	FOOT	275
X0900064	MEMBRANE WATERPROOFING FOR BURIED STRUCTURES	SQ YD	229
X1200140	PRECAST CONCRETE BOX CULVERT (SPECIAL)	FOOT	132
X2090210	POROUS GRANULAR BACKFILL, SPECIAL	CU YD	94
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.3
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT	203

SEE SPECIAL PROVISIONS

*SPECIALTY ITEMS

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2016," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- THE REVISION NUMBERS OF THE STANDARDS LISTED IN THE PLANS ARE TO BE USED FOR CONSTRUCTING OF THIS SECTION.
- ALL PAVEMENT REMOVAL, SAWCUTS, FENCE REMOVAL AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. THE REMOVAL OF THE EXISTING PAVEMENT WILL BE PAID FOR AS EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE LOCATION OF EXISTING GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATIONS AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE CONTRACTOR SHALL CONSULT THE ENGINEER IN REGARD TO THE EXACT LENGTH OF PIPE CULVERTS AND PIPE DRAINS BEFORE ORDERING THESE ITEMS.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

AGGREGATE SHOULDERS	2.05 TON/CU YD
HOT-MIX ASPHALT	112 LBS/SQ YD/INCH THICKNESS
BITUMINOUS MATERIALS (PRIME COAT)	0.25 POUNDS/SQ YD
BITUMINOUS MATERIALS (TACK COAT)	0.025 POUNDS/SQ YD
STONE DUMPED RIPRAP, CLASS A4	1.75 TON/CU YD
TEMPORARY EROSION CONTROL SEEDING	100 LBS / ACRE / APPLICATION
POROUS GRANULAR EMBANKMENT/BACKFILL	1.5 TON/CU YD
- THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER.
- TREES WITHIN THE RIGHT-OF-WAY WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER. THE TREES DESIGNATED FOR REMOVAL WILL BE FELLED BY THE COUNTY AND REMOVED BY THE CONTRACTOR. TREES GREATER THAN 3" DIA. SHALL NOT BE CLEARED FROM APRIL 1 TO SEPTEMBER 30.
- ALL WASTE MATERIAL FROM EXCAVATIONS SHALL BE DISPOSED OF BY THE CONTRACTOR.
- REMOVAL AND REPLACEMENT OF THE FENCING SHALL BE COMPLETED BEFORE ANY CONSTRUCTION OPERATIONS.

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	INCIDENTAL EXCAVATION	SHRINKAGE FACTOR	PERCENT USED	EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT REQUIRED	EARTHWORK BALANCE
	CU.YD.	CU.YD.			CU.YD.	CU.YD.	CU.YD.
RICHVIEW ROAD / FAS 826 / CH 10							
STA. 216+75 TO STA. 218+11.58	34		25.00%	100.00%	25	200	-175
STA. 218+38.42 TO STA. 219+75	54		25.00%	100.00%	41	383	-342
CULVERT EXCAVATION		1100					
TOTAL	88	1100 *			66	583	-517
USE	90	1100 *					515

* SEE GENERAL NOTE #10

FURNISHED EXCAVATION 515 CU YDS

ROADWAY SCHEDULE

LOCATION	GEOTECH FABRIC FOR GROUND STABILIZATION	BITUMINOUS MATERIALS (TACK COAT)	HOT MIX ASPHALT SURF. REMOVAL BUTT-JOINT	HOT MIX ASPHALT BINDER COURSE, 19.0 N50	HOT MIX ASPHALT SURF. COURSE, MIX"C", N50	INCIDENTAL HOT-MIX ASPHALT SURFACING	CLASS D PATCHES, TYPE II, 12 INCH	AGGREGATE SHOULDERS, TYPE B
	21001000	40600290	40600982	40603080	40603310	40800050	44201789	48101200
F.A.S.826	SQ. YD.	POUNDS	SQ. YD.	TON	TON	TON	SQ YD	TON
STA. 279+30 TO STA. 280+30			73					49.4
STA. 280+30 TO STA. 282+10	250	11		62	37		480	118.6
STA. 282+10 TO STA. 283+10			73					31.1
P.E. AT STA. 280+67						10		
TOTAL	250	11	146	62	37	10	480	200

WOVEN WIRE FENCE, 4'

LOCATION	FOOT
LT. STA 280+80.00 TO LT. STA 283+00.00	275

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

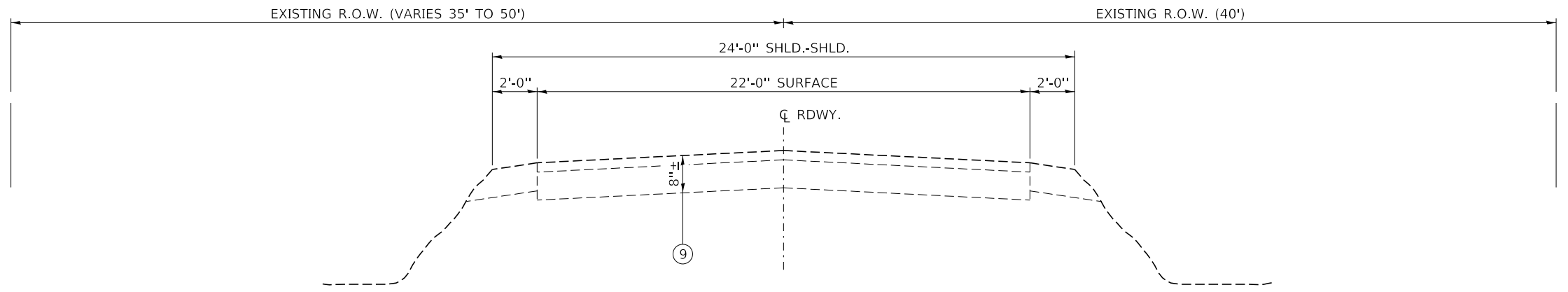
LOCATIONS(S)	RICHVIEW ROAD / FAS 826 / CH 10	RICHVIEW ROAD / FAS 826 / CH 10
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE	HOT-MIX ASPHALTBINDER CSE
PG:	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4% @ 50 Gyr.	4% @ 50 Gyr.
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 9.5	IL 19.0
FRICTION AGGREGATE:	MIXTURE C	NONE
DENSITY TEST METHOD	CORES	CORES
MIXTURE WEIGHT:	112 LBS \ SY \ INCH THICKNESS	112 LBS \ SY \ INCH THICKNESS
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA

PAVEMENT MARKING SCHEDULE

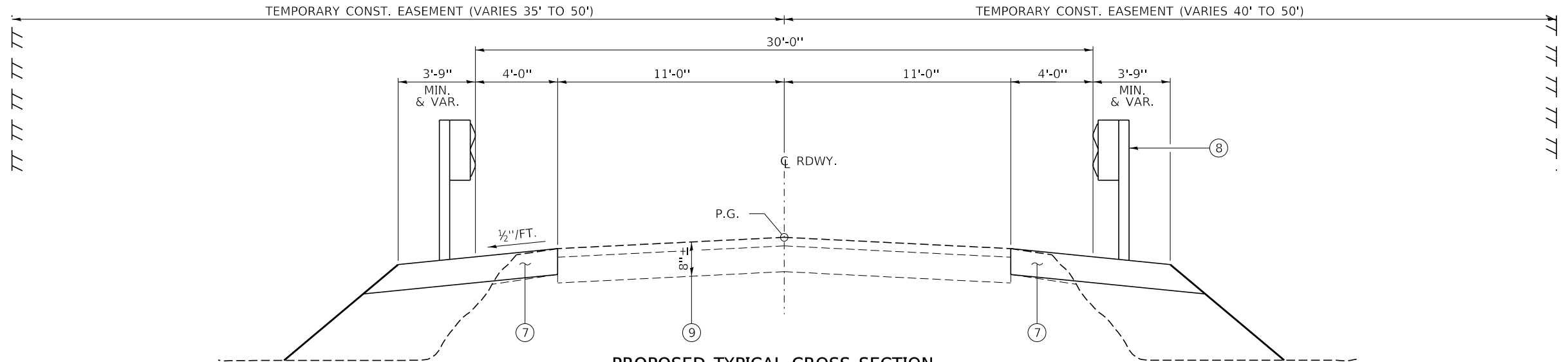
LOCATION	PAINT PAVEMENT MARKING - LINE 4"		
	EDGE LINE WHITE	NO PASSING YELLOW	SKIP DASH CENTERLINE YELLOW
	78001110		
	FOOT	FOOT	FOOT
LT. STA. 279+30 TO LT. STA. 283+10	380		
LT. CL. STA. 279+30 TO LT. CL. STA. 281+00		210	
LT. CL. STA. 281+00 TO LT. CL. STA. 283+10			50
RCL. STA. 216+75 TO LCL. STA. 218+45		380	
RT. STA. 216+75 TO LT. STA. 219+75	380		
SUBTOTAL	760	590	50
TOTAL		1400	

GUARDRAIL SCHEDULE

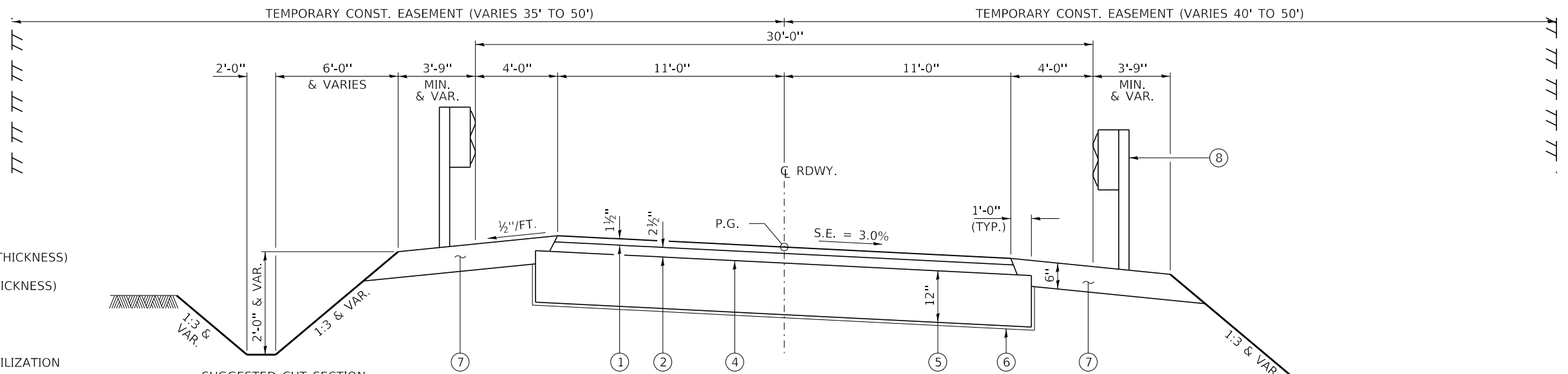
LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 2	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	STEEL PLATE BEAM GUARDRAIL TYPE A 6'	GUARDRAIL REMOVAL	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL REFLECTORS TYPE B
F.A.S.826	63100045	63100167	6300001	63200310	72501000	78200006
SEE SHEET 8 FOR LAYOUT	EACH	EACH	EACH	FOOT	EACH	EACH
LT. STA. 280+83.35 TO LT. STA. 282+72.00	1	1	125	106	2	4
RT. STA. 279+64.00 TO LT. STA. 281+76.50		2	237.5	104	2	4
TOTAL	1	3	362.5	210	4	8



EXISTING TYPICAL CROSS SECTION
STA. 279+30 TO 283+10



PROPOSED TYPICAL CROSS SECTION
STA. 279+30 TO 280+60 AND 281+80 TO 283+10



PROPOSED TYPICAL CROSS SECTION
STA. 280+60 TO 281+80

LEGEND

- ① HMA SURFACE COURSE, MIX C, N50 (1½" THICKNESS)
- ② HMA BINDER COURSE, IL 9.5, N50 (2½" THICKNESS)
- ③ BITUMINOUS MATERIALS (TACK COAT)
- ④ CLASS D PATCHES, TYPE II (12")
- ⑤ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- ⑥ AGGREGATE SHOULDERS, TYPE B (6")
- ⑦ SPBGR OR TRAFFIC BARRIER TERMINAL TY. 1 SPL TANGENT
- ⑧ EXISTING HMA SURFACE ON AGGREGATE BASE WITH AGGREGATE SHOULDERS

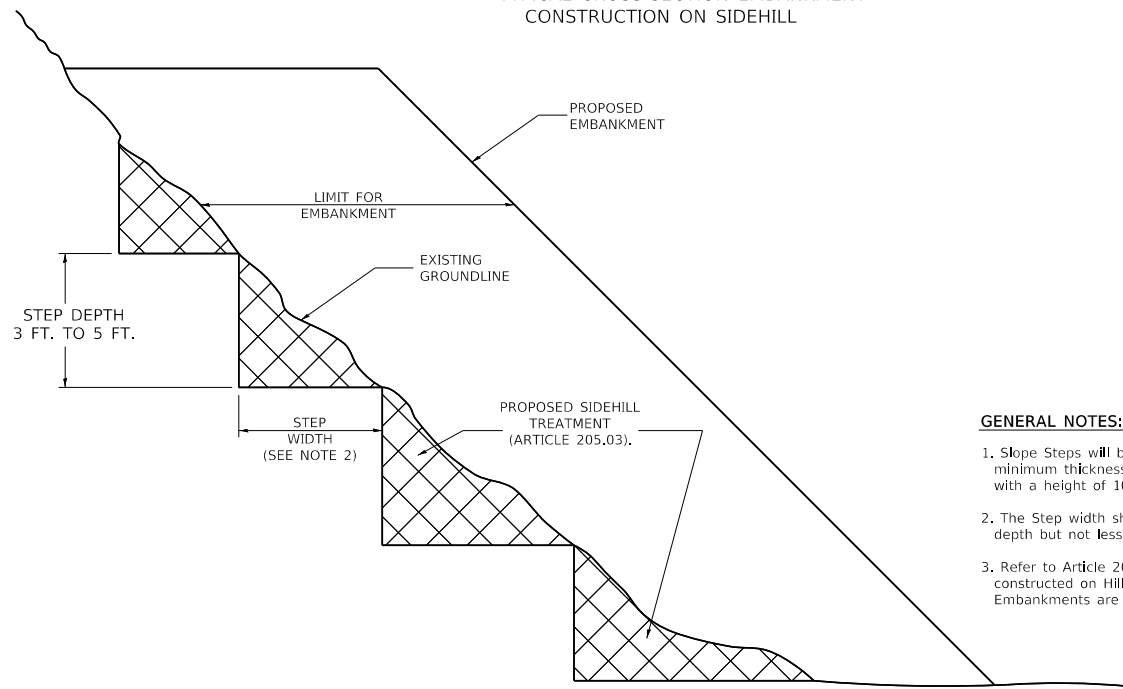
SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

FILE NAME = 160283-shi-typsections.dgn	USER NAME = rmosick	DESIGNED - S.W.M.	REVISED -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	TYPICAL CROSS SECTIONS		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L.S./P.E./S.E. CORP. 184.000959	PLOT SCALE = \$SCALE\$	DRAWN - M.M.P.	REVISED -		826	08-00200-00-BR	JEFFERSON	32	4		
PLOT DATE = 4/12/2019	DATE - 04/12/19	CHECKED - S.W.M.	REVISED -		SCALE:	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	RICHVIEW ROAD / C.H. 10			
		DATE - 04/12/19	REVISED -					CONTRACT NO. 99626			

ILLINOIS FED. AID PROJECT JBSF(319)

SLOPE STEPS DETAIL

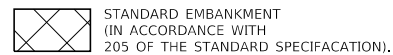
TYPICAL CROSS-SECTION EMBANKMENT
CONSTRUCTION ON SIDEHILL



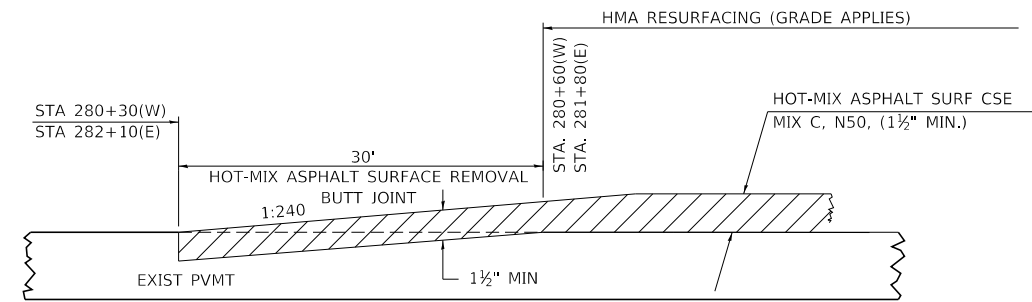
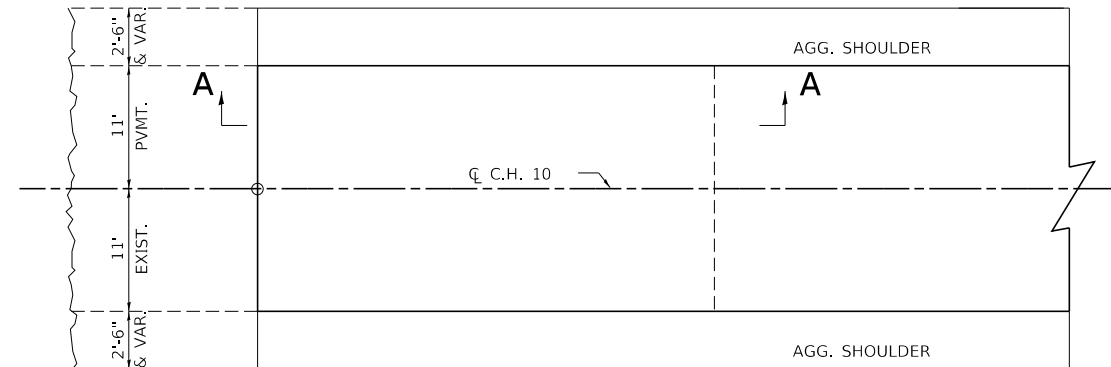
GENERAL NOTES:

1. Slope Steps will be required for all 12(300) minimum thickness "silver fills" and on all fills with a height of 10 feet or greater.
2. The Step width shall be twice the Step depth but not less than 6 feet.
3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

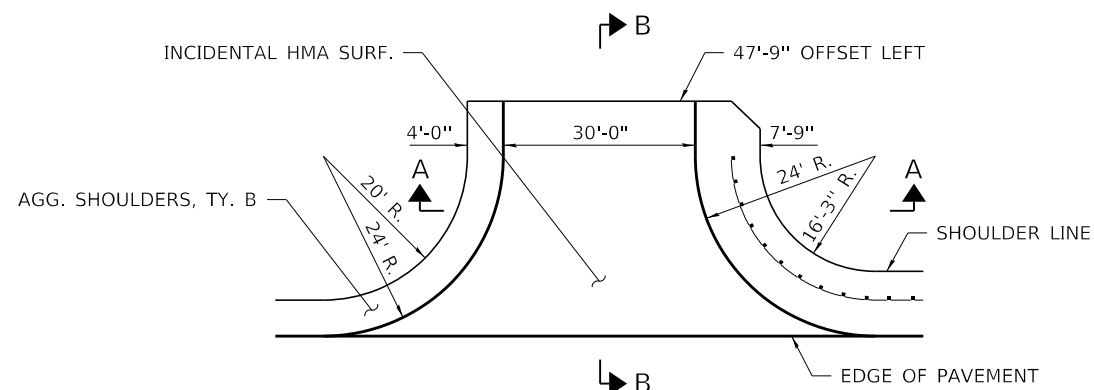
REPLACEMENT MATERIAL:



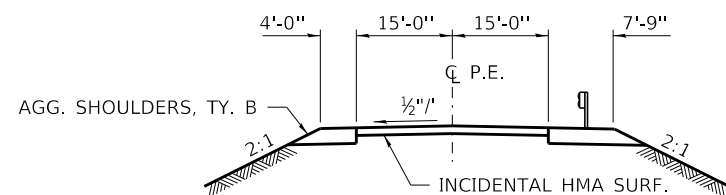
All dimensions are in Inches (millimeters) unless otherwise noted.



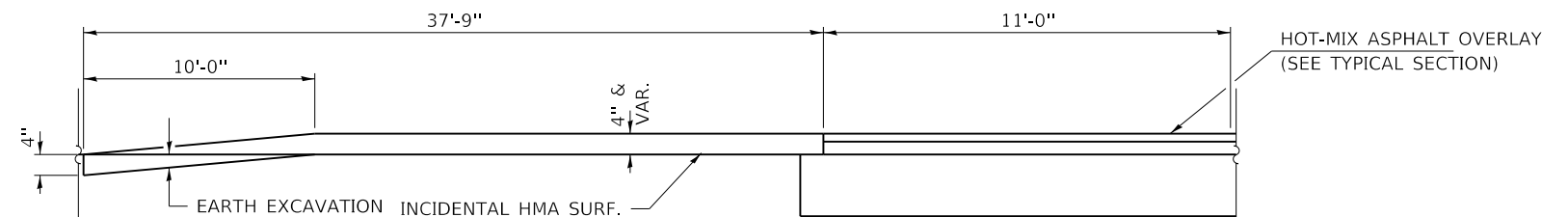
SECTION A-A



PRIVATE ENTRANCE DETAIL



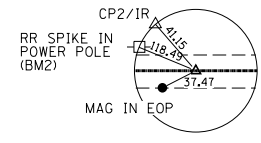
SECTION A-A



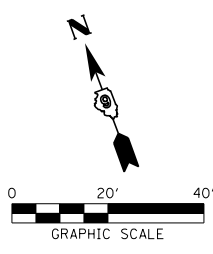
**SECTION B-B
TYPICAL PRIVATE ENTRANCE**

FILE NAME = 160283-shi-typsections.dgn	USER NAME = rmosick	DESIGNED - S.W.M.	REVISED -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	TYPICAL CROSS SECTIONS		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = \$SCALE\$	DRAWN - M.M.P.	REVISED -		826	08-00200-00-BR	JEFFERSON	32	5		
PLOT DATE = 4/12/2019	DATE = 04/12/19	CHECKED - S.W.M.	REVISED -		RICHVIEW ROAD / C.H. 10		CONTRACT NO. 99626		ILLINOIS	FED. AID PROJECT JBSF(319)	
		DATE = 04/12/19	REVISED -		SCALE:	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.			

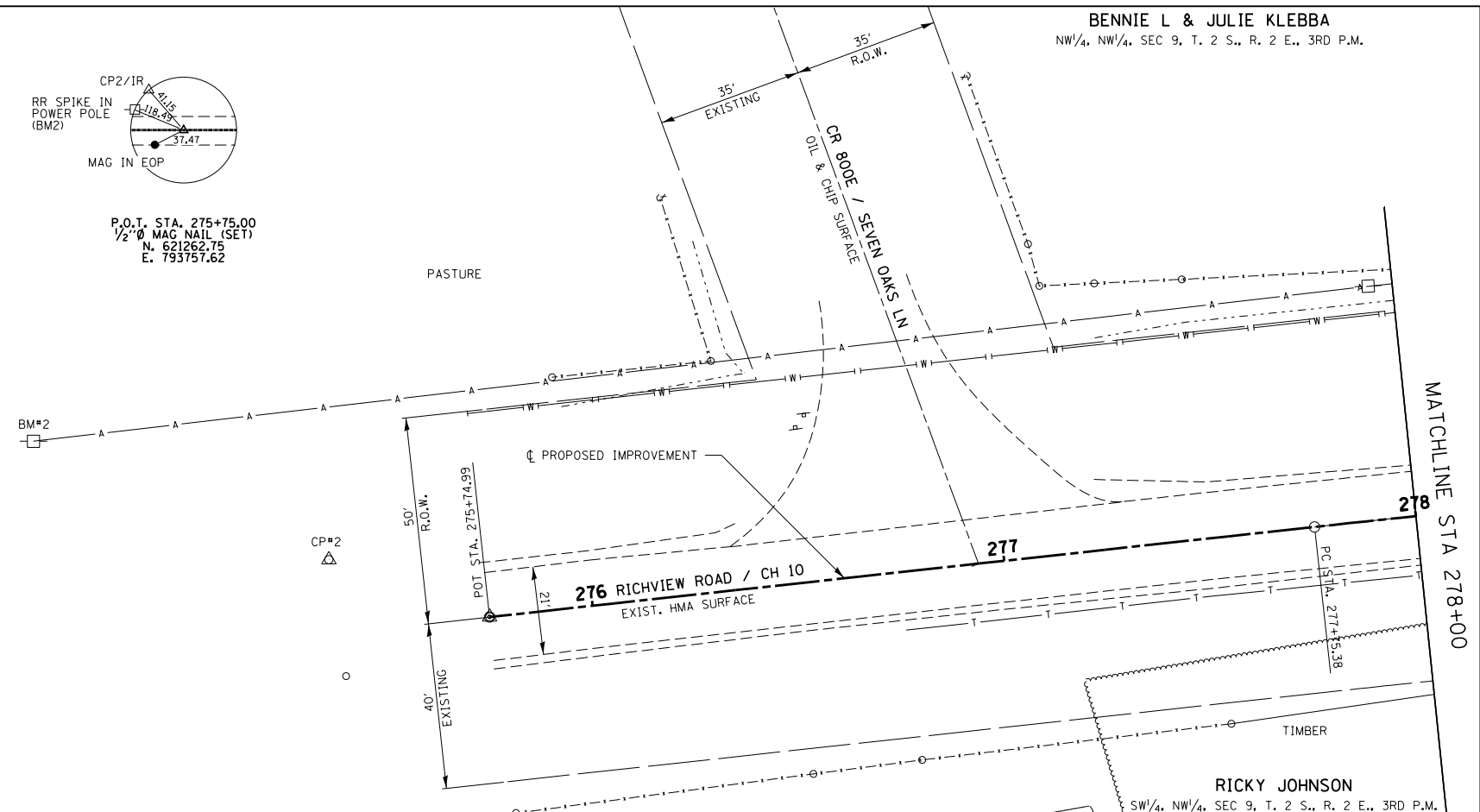
BENNIE L & JULIE KLEBBA
NW/4, NW/4, SEC 9, T. 2 S., R. 2 E., 3RD P.M.



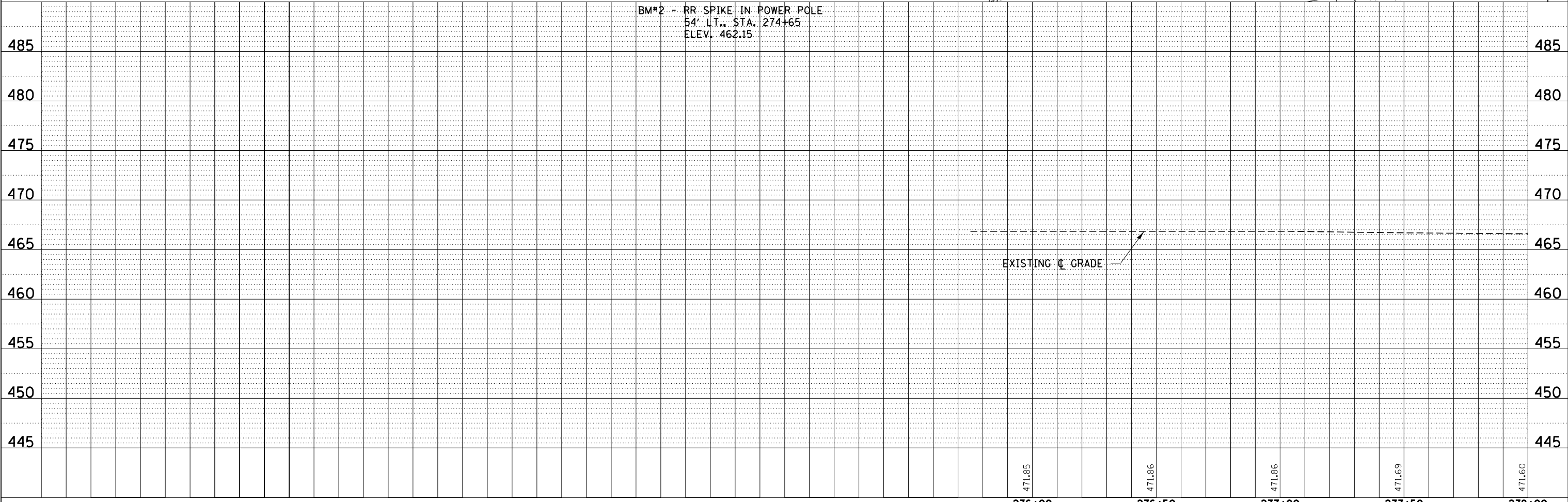
P.O.T. STA. 275+75.00
1/2" Ø MAG NAIL (SET)
N. 621262.75
E. 793757.62



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	BY	
	NO.	



PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	BY	
	NO.	

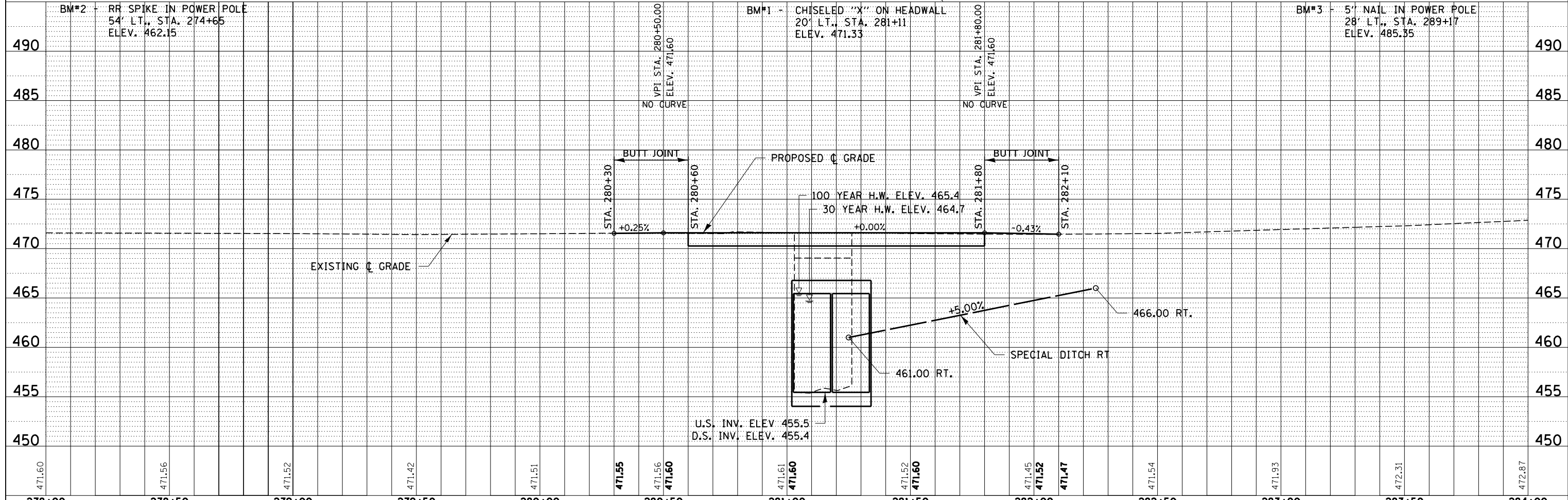
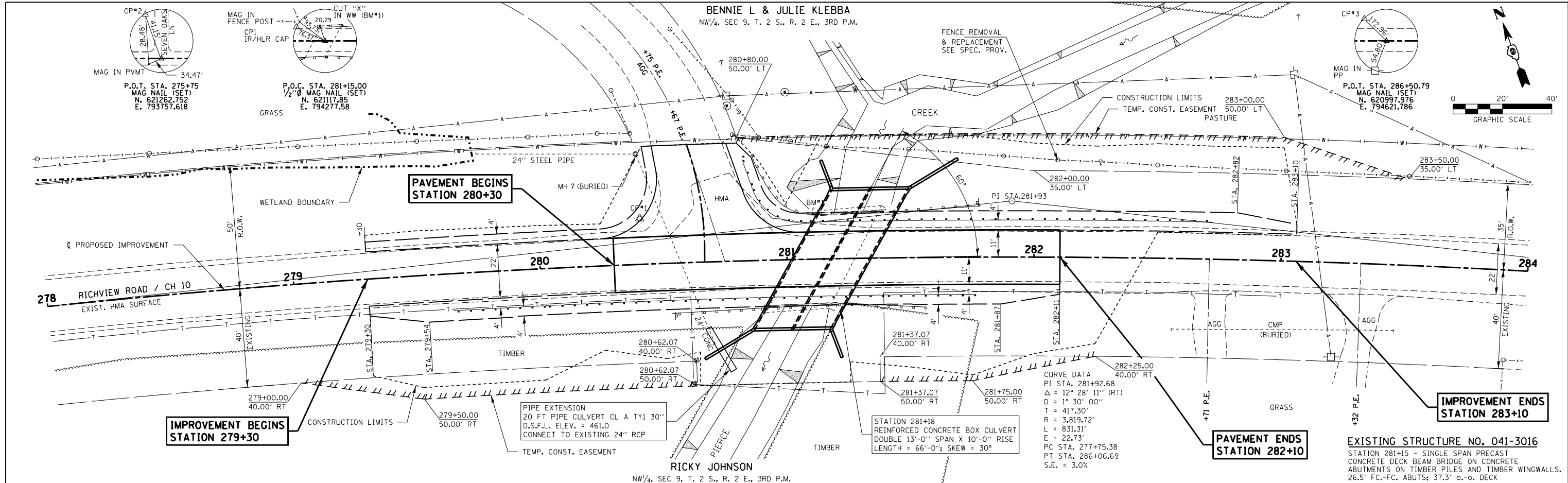


BM*2 - RR SPIKE IN POWER POLE
54' LT., STA. 274+65
ELEV. 462.15

FILE NAME = 160283-ehp-plnprf.dgn	USER NAME = rmosick	DESIGNED - J.W.F.	REVISED -	<p align="center">STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT</p>	<p align="center">PLAN & PROFILE</p>		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62710 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = \$SCALE\$	DRAWN - T.W.K.	REVISED -		826	08-00200-00-BR	JEFFERSON	32	6		
PLOT DATE = 4/12/2019	CHECKED - S.W.M.	REVISIED -	REVISED -		RICHVIEW ROAD / C.H. 10		CONTRACT NO. 99626		ILLINOIS FED. AID PROJECT JBSF(319)		
DATE = 04/12/19	REVISIED -	REVISED -	REVISED -		SCALE: 20H:5V	SHEET NO. 1 OF 3 SHEETS	STA. 275+75.00 TO STA. 278+00.00				

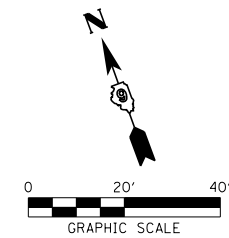
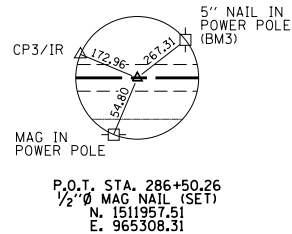
DATE	
BY	
PLAN	REVIEWED
	PLOTTED
	ALIGNMENT CHECKED
	GRADES CHECKED
	STRUCTURE NOTATING CHECKED
	NOTE BOOK NO.
	FILE NAME

DATE	
BY	
PROFILE	REVIEWED
	PLOTTED
	GRADES CHECKED
	STRUCTURE NOTATING CHECKED
	NOTE BOOK NO.
	FILE NAME



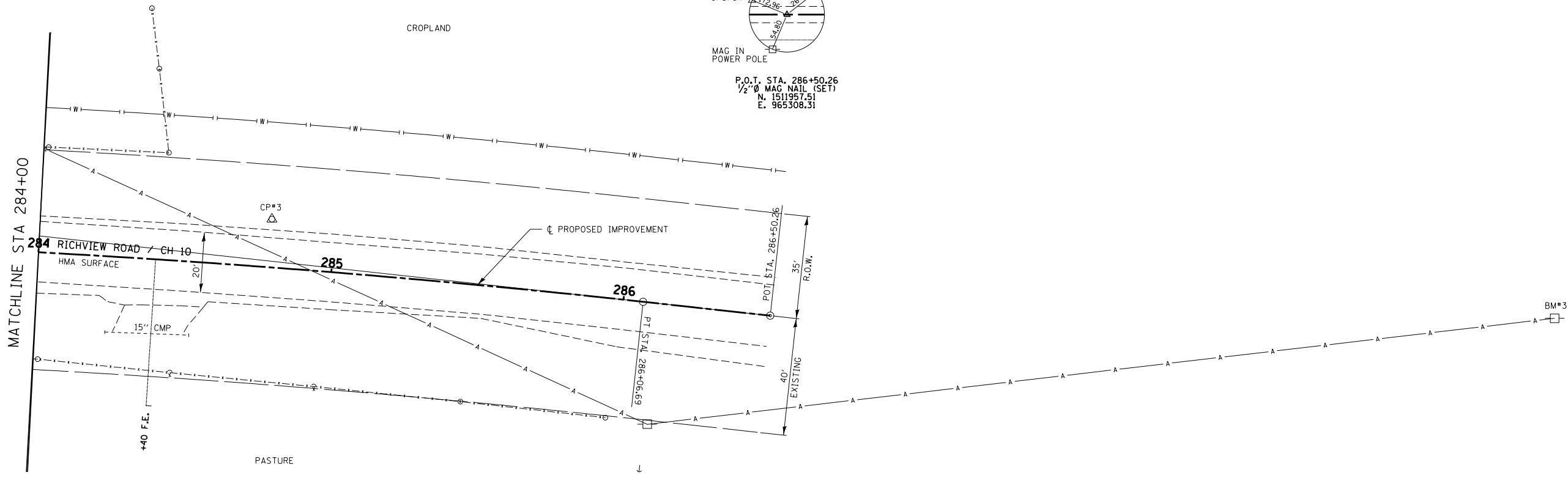
FILE NAME = 160283-eh-pnprfd.dgn	USER NAME = rmosick	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	PLAN & PROFILE SCALE: 20H:5V SHEET NO. 2 OF 3 SHEETS STA. 278+00.00 TO STA. 284+00.00	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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184.009959	SPRINGFIELD, ILLINOIS 62703	CHECKED - S.W.M.	REVISED -			RICHVIEW ROAD / C.H. 10		CONTRACT NO. 99626		
ILLINOIS PROFESSIONAL DESIGN FIRM	LS / PE / SE CORP.	DATE - 04/12/19	REVISED -			ILLINOIS		FED. AID PROJECT JBSF(319)		

BENNIE L & JULIE KLEBBA
 NW/4, NW/4, SEC 9, T. 2 S., R. 2 E., 3RD P.M.

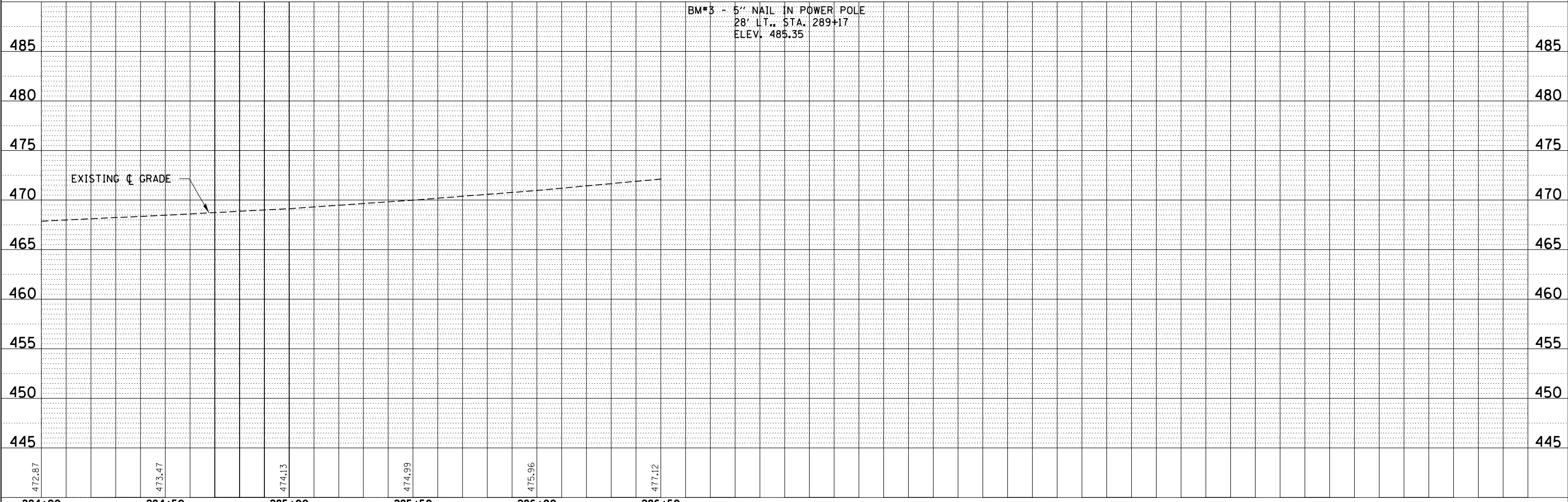


PLAN	REVIEWED	DATE
	BY	
	DATE	
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	DATE	
	BY	
	DATE	

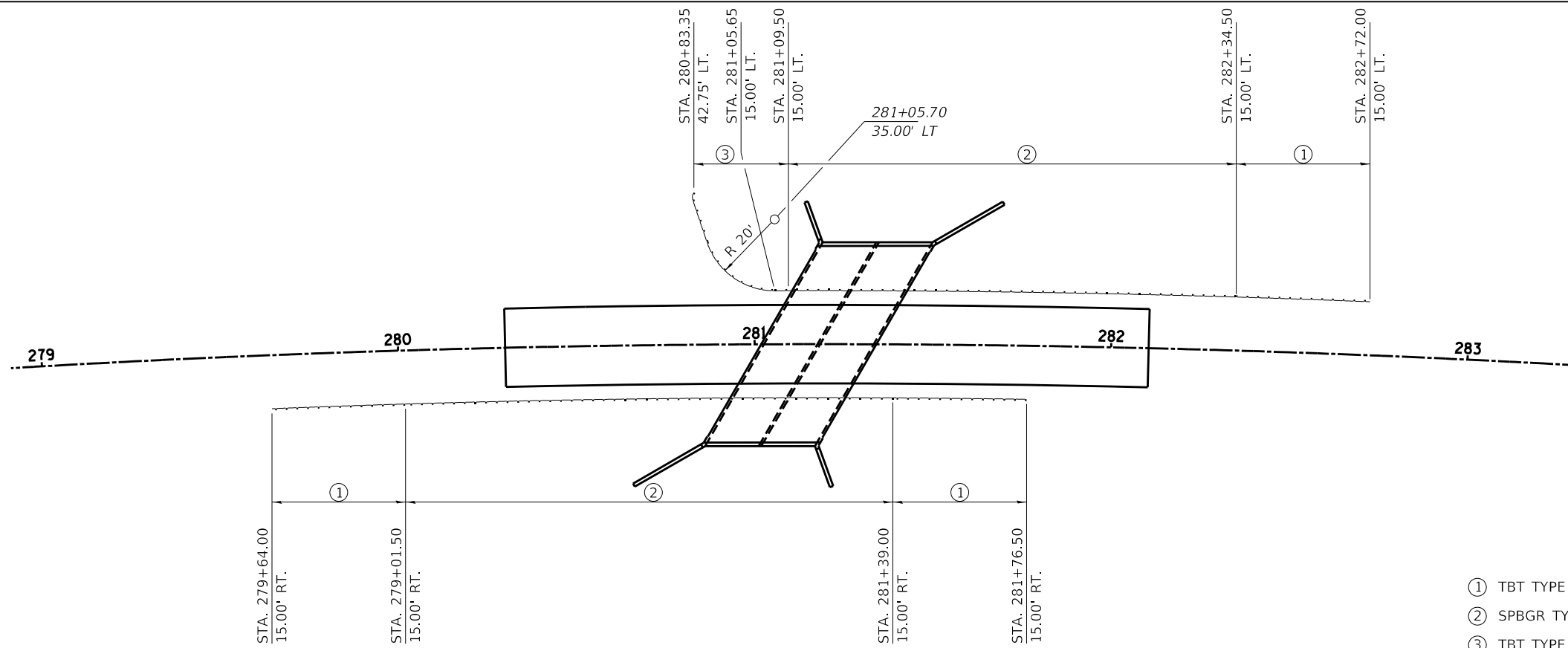
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	BY	
	DATE	



RICKY JOHNSON
 SW/4, NW/4, SEC 9, T. 2 S., R. 2 E., 3RD P.M.

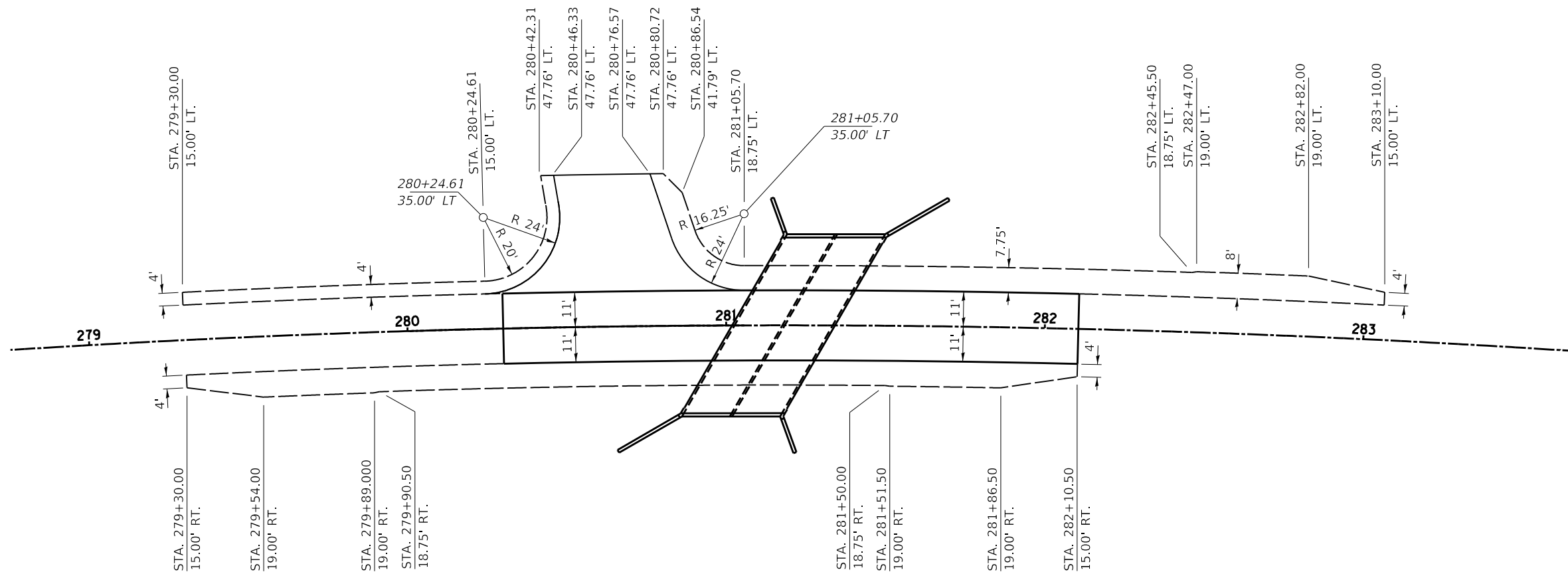
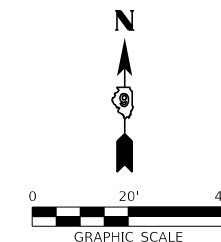


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3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62765		CHECKED - S.W.M.	REVISED -			RICHVIEW ROAD / C.H. 10		CONTRACT NO. 99626		
ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. CORP. 184.000959		DATE - 04/12/19	REVISED -					ILLINOIS FED. AID PROJECT JBSF(319)		



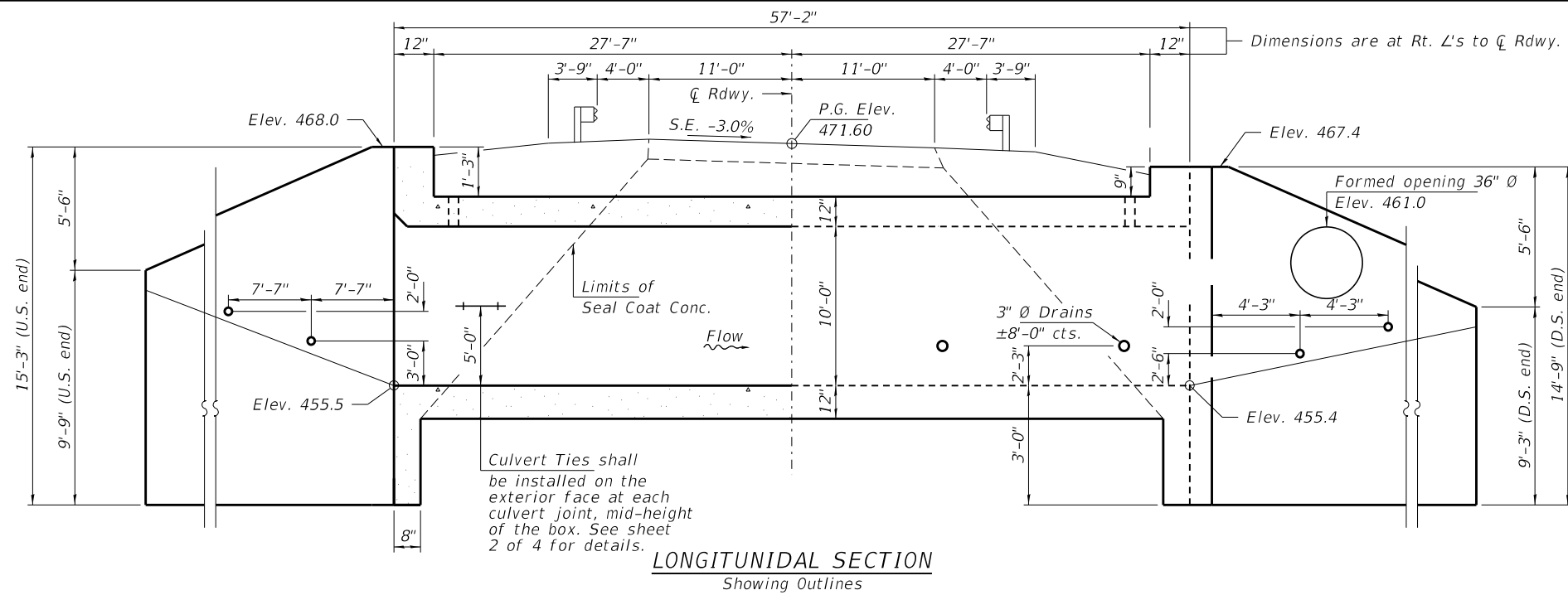
GUARDRAIL LAYOUT

- ① TBT TYPE 1 SPECIAL TANGENT
- ② SPBGR TYPE A, 6 FT POSTS
- ③ TBT TYPE 2, SPECIAL

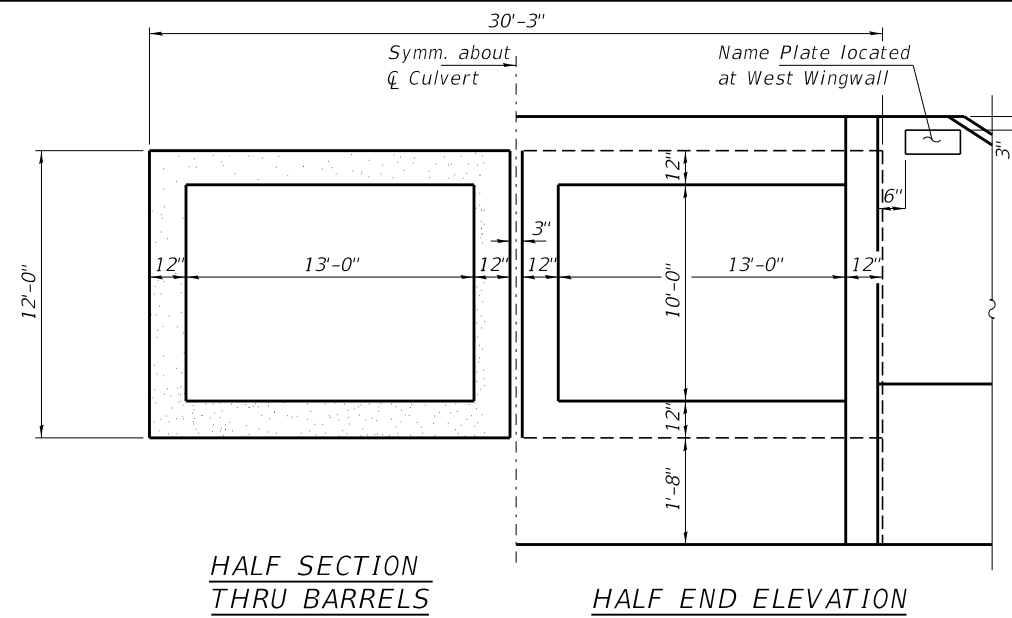


SHOULDER LAYOUT

FILE NAME = 160283-shi-shldr-grd.dgn	USER NAME = rmosick	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	CENTERLINE, GUARDRAIL, & SHOULDER LAYOUT	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. <small>3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L5 / PE / SE CORP. 184.000959</small>		DRAWN - M.M.P.	REVISED -			826	08-00200-00-BR	JEFFERSON	32	9	
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PLOT DATE = 4/12/2019	DATE - 04/12/19	REVISED -	ILLINOIS FED. AID PROJECT JBSF(319)								



LONGITUNIDAL SECTION
Showing Outlines

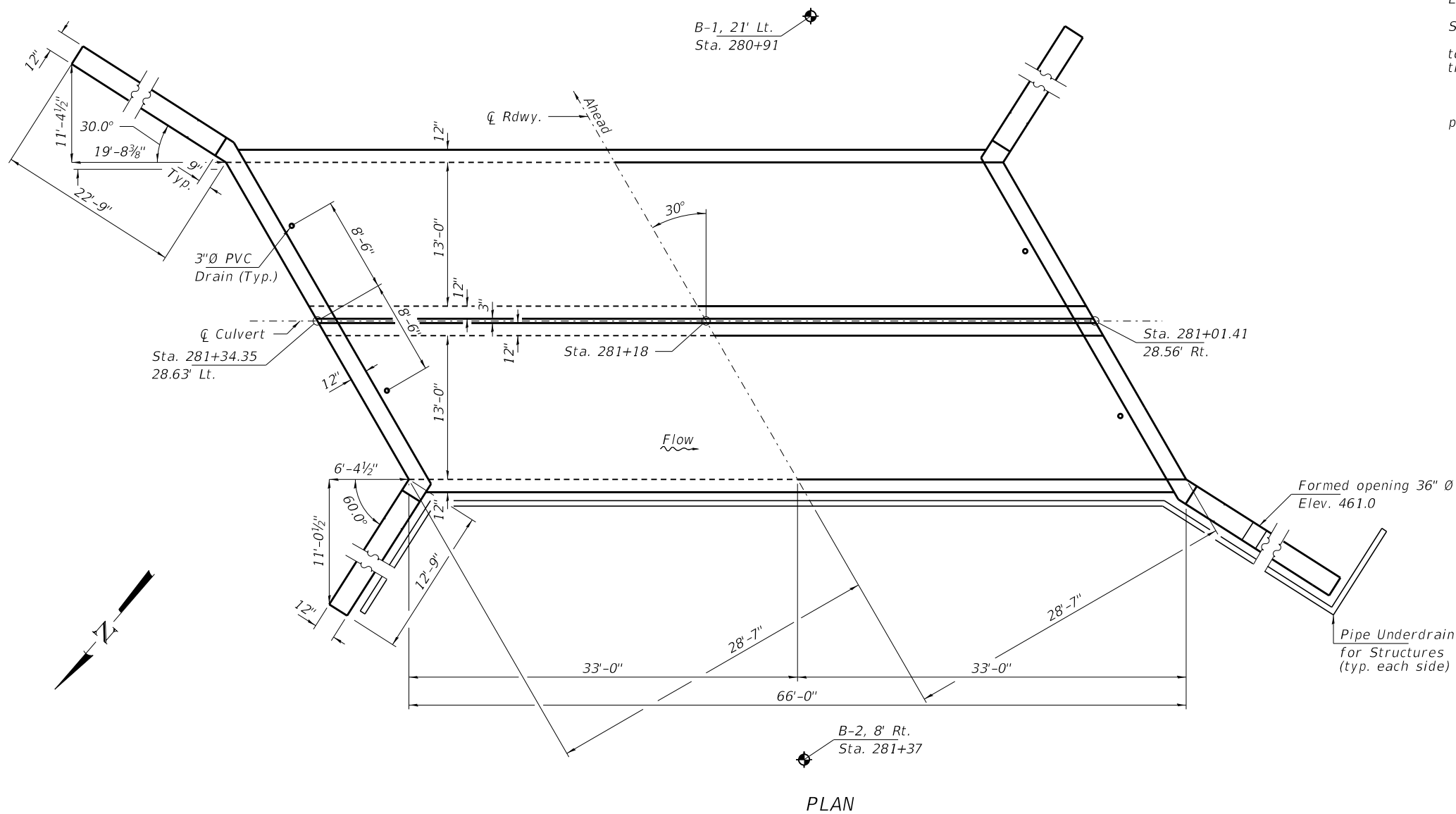


HALF SECTION THRU BARRELS

HALF END ELEVATION

NOTES

Exposed edges shall be beveled $\frac{3}{4}$ ".
 For backfilling and embankment, see Standard Specifications, except that Porous Granular Embankment shall be placed as shown in backfill detail for the full length of the culvert.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
 It shall be the responsibility of the Contractor to divert flow during construction in order to keep construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and shall be included in the cost of Concrete Box Culverts.
 All construction joints shall be bonded.
 All bars shall be epoxy coated.
 The Contractor shall install cofferdams and remove backfill behind existing abutments or provide bracing plan for removal of the existing superstructure beams.



PLAN

INDEX OF STRUCTURE SHEETS

- 1-2. Culvert Details
- 3-4. Borings

DESIGN STRESSES

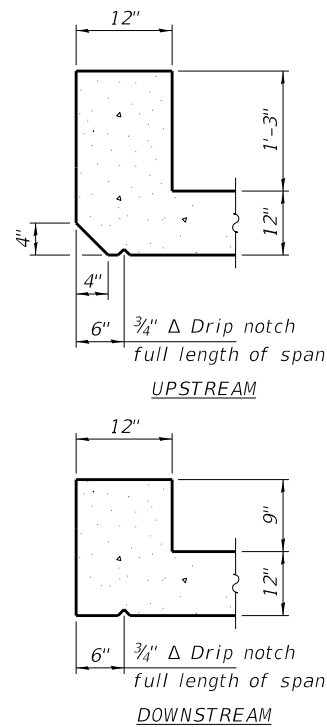
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)

LOADING HL-93

Design Specifications:
 2018 AASHTO LRFD
 with all interims.
 50#/Sq. Ft. included
 in dead load for
 future wearing surface.

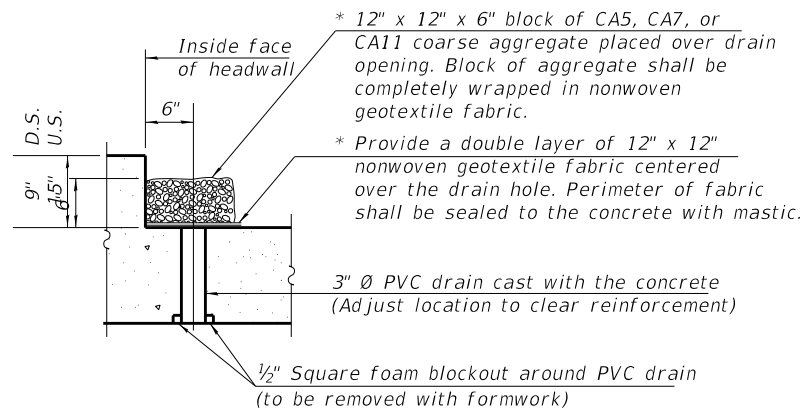
BILL OF MATERIAL

Material	Unit	Quantity
Geotechnical Fabric for Ground Stabilization	Sq. Yd.	250
Stone Dumped Riprap, Class A4	Ton	250
Name Plates	Each	1
Precast Concrete Box Culverts, 13'x10'	Foot	132
Box Culvert End Sections, Culvert No. 1	Each	2
Membrane Waterproofing for Buried Structures	Sq. Yd.	229
Porous Granular Backfill, Special	Ton	94
Porous Granular Embankment	Ton	220
Seal Coat Concrete	Cu. Yd.	345



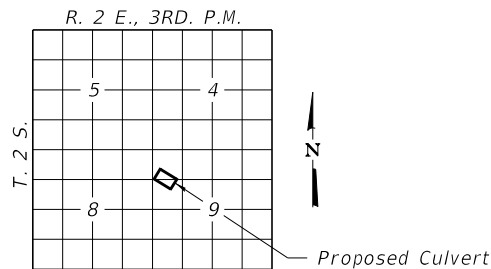
SECTION THRU HEADWALL

* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.



DRAIN DETAIL

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



LOCATION SKETCH

PIERCE CREEK
BUILT 201 BY
JEFFERSON COUNTY
SEC. 18-00200-00-BR
C.H. 10 / RICHVIEW ROAD
STR. NO. 041-3746
LOADING HL-93

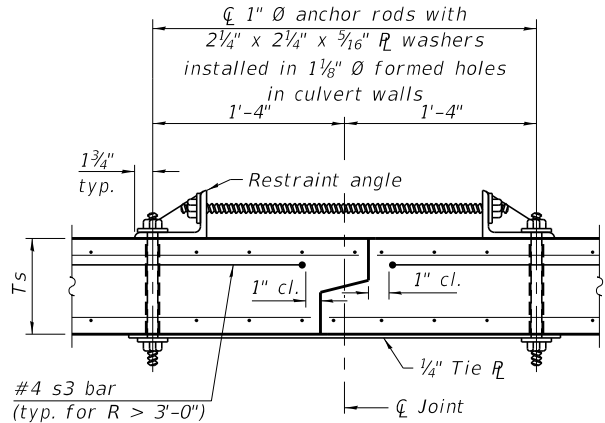
NAME PLATE
See Std. 515001

WATERWAY INFORMATION

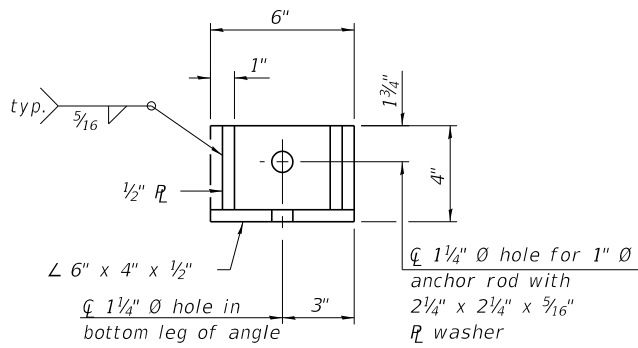
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	1180	220	220	463.89	1.39	1.03	465.28	464.92
Design	30	1680	240	240	464.68	2.00	1.42	466.68	466.10
Base	100	2280	260	260	465.49	2.74	1.92	468.23	467.41
Scour Check / Max. Calc.	200	2640	280	260	465.97	3.22	2.26	469.19	468.23

Existing Low Grade Elev. 471.4 @ Sta. 279+50
Proposed Low Grade Elev. 471.4 @ Sta. 279+50
10 Year Velocity through Existing Bridge = 5.4 fps 10 Year Velocity through Proposed Bridge = 5.4 fps

CULVERT TIES

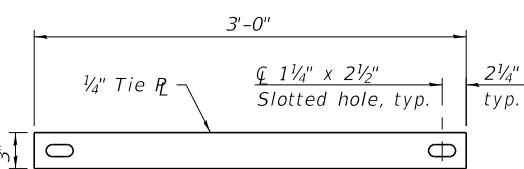


SECTION F-F
(Showing culvert tie details)

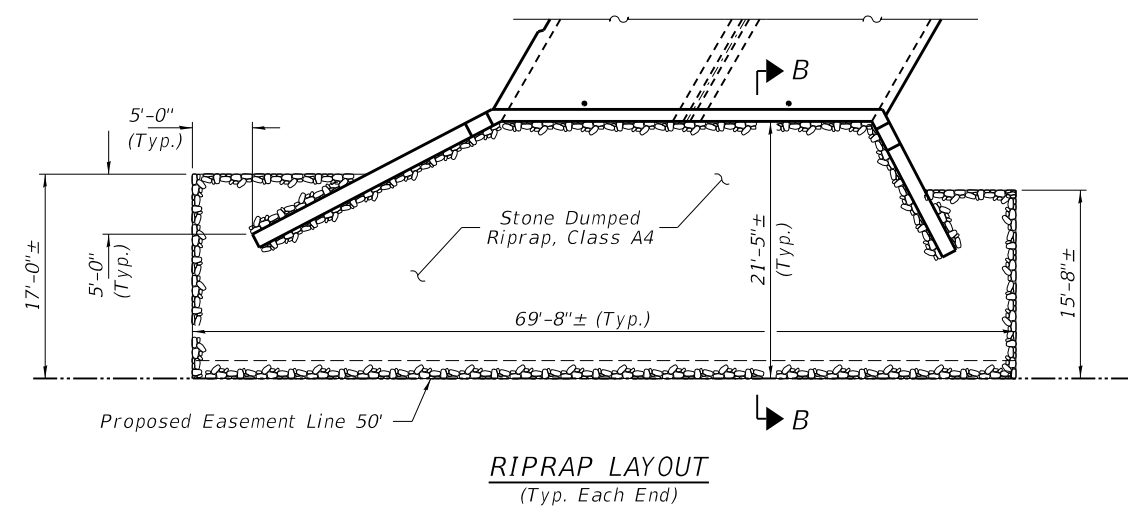


RESTRAINT ANGLE DETAIL

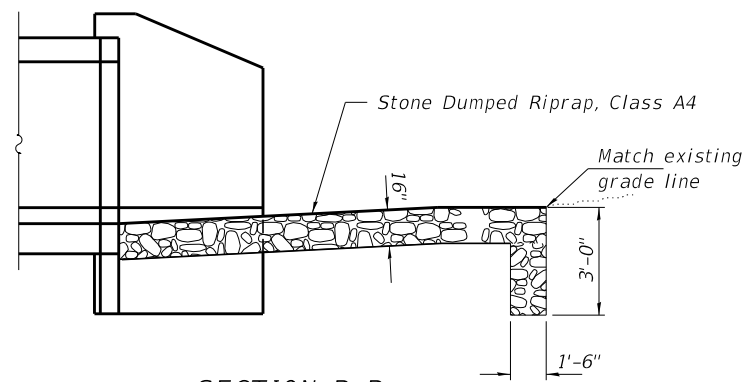
Notes:
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 3/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.
Cost included with Precast Concrete Box Culverts.



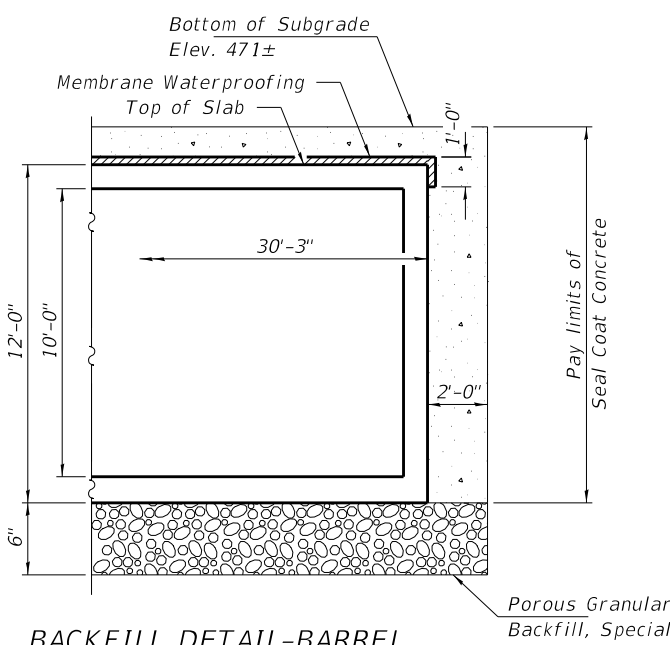
TIE PLATE DETAIL



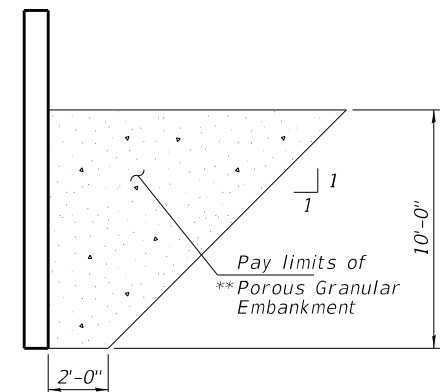
RIPRAP LAYOUT
(Typ. Each End)



SECTION B-B



BACKFILL DETAIL-BARREL



BACKFILL DETAIL - WING

** P.G.E. to extend the full length of wings. 18" earth cap to be placed at end of wings to cover the P.G.E.

HOLCOMB FOUNDATION ENGINEERING INC.
 393 Wood Road 618-529-5262
 Carbondale, IL 62901 618-457-8991 fax Page 1 of 2

Bridge Foundation Boring Log

Project: H-16254 Bridge FAS-826 (CH-10) over Pierce Creek Date: 12/2/2016
 Section: 08-0200-00-BR Station 281+15
 Structure: 041-3016 Bored by: B. Schwartz
 County: Jefferson Checked By: T. Holcomb

Boring No.	Station	Offset	Elevation			Surface Water Elev.			Ground Water Elev.							
			N	Qu	w											
			471.3	0				450.3								
			466.8	3	24			445.3								
			460.3	4	23			445.3								
			455.3	4	21			445.3								
				4	20			445.3								
				0	26			445.3								

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
 Qu - Unconfined Compressive Strength in tons/sq.ft.
 w - Water Content - percentage of oven dry weight-%
 B = Bulge Failure
 S = Shear Failure
 E = Estimated Value
 P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.
 393 Wood Road 618-529-5262
 Carbondale, IL 62901 618-457-8991 fax Page 2 of 2

Bridge Foundation Boring Log

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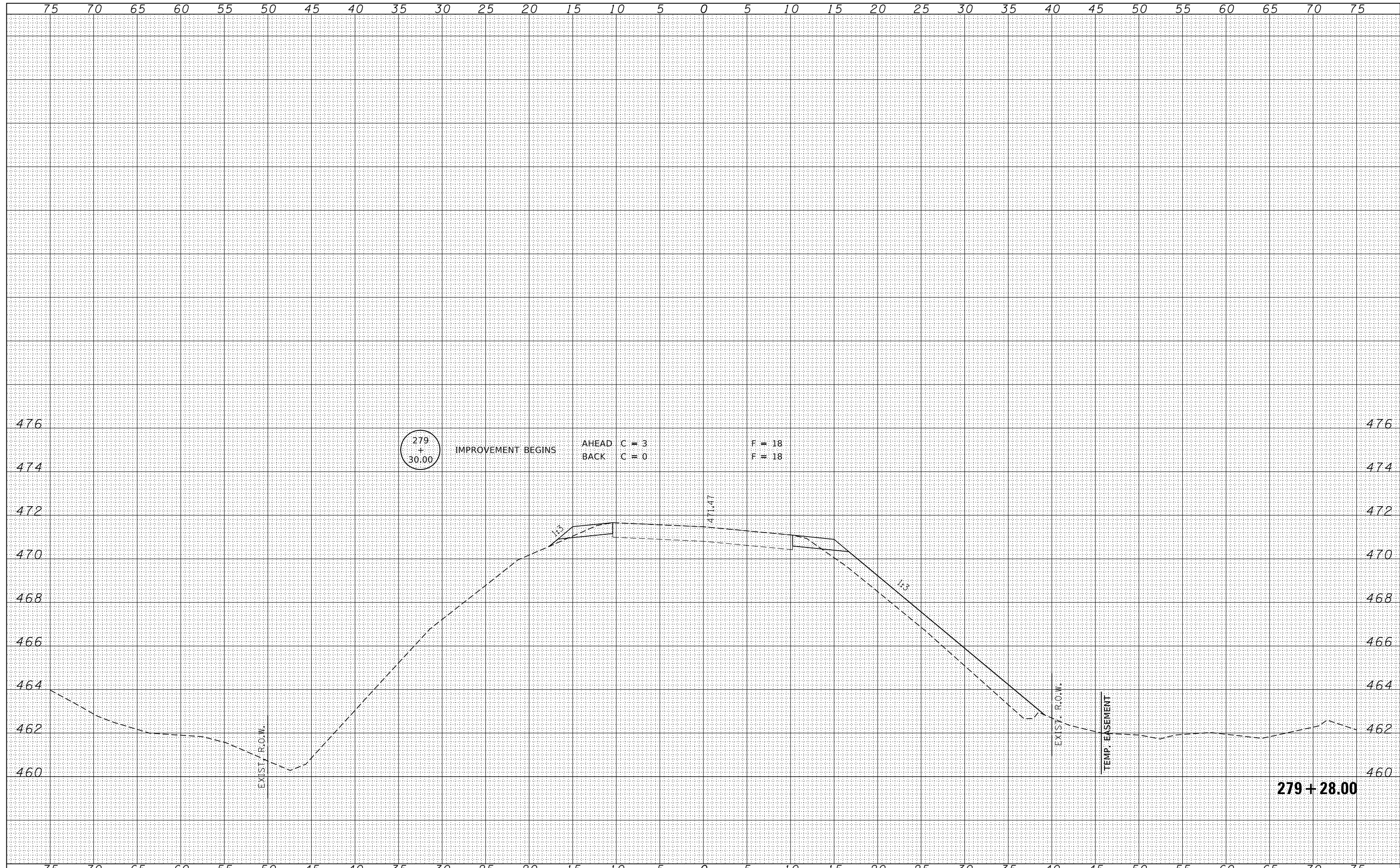
Boring No.	Station	Offset	Elevation			Surface Water Elev.			Ground Water Elev.							
			N	Qu	w											
			417.9	12	18			450.3								
			417.9	11	29			450.3								
			412.3	100/2"	4			450.3								
			407.3	100/3"	14			450.3								
			407.3	100/2"	17			450.3								

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
 Qu - Unconfined Compressive Strength in tons/sq.ft.
 w - Water Content - percentage of oven dry weight-%
 B = Bulge Failure
 S = Shear Failure
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 P = Penetrometer

BORING 1

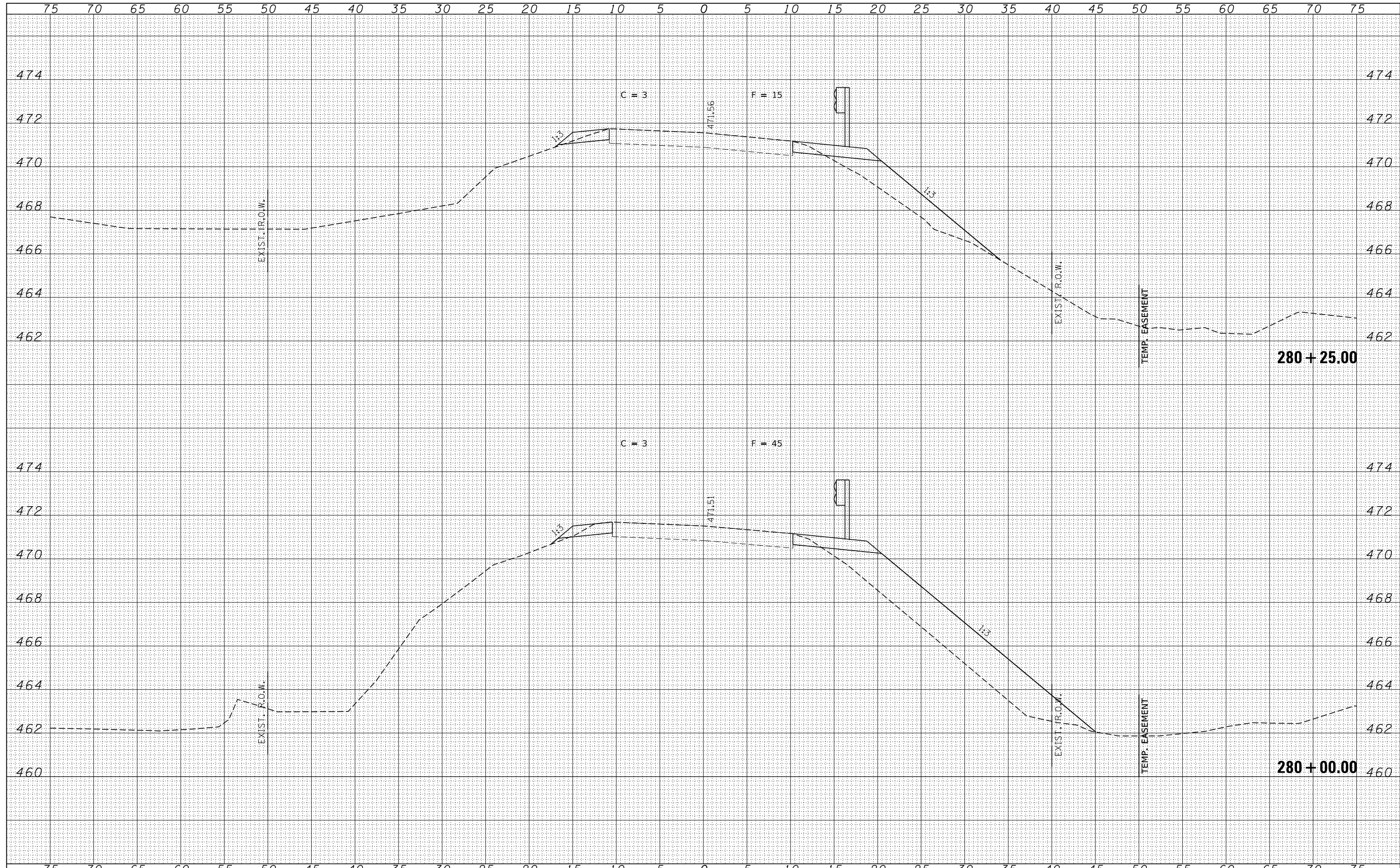
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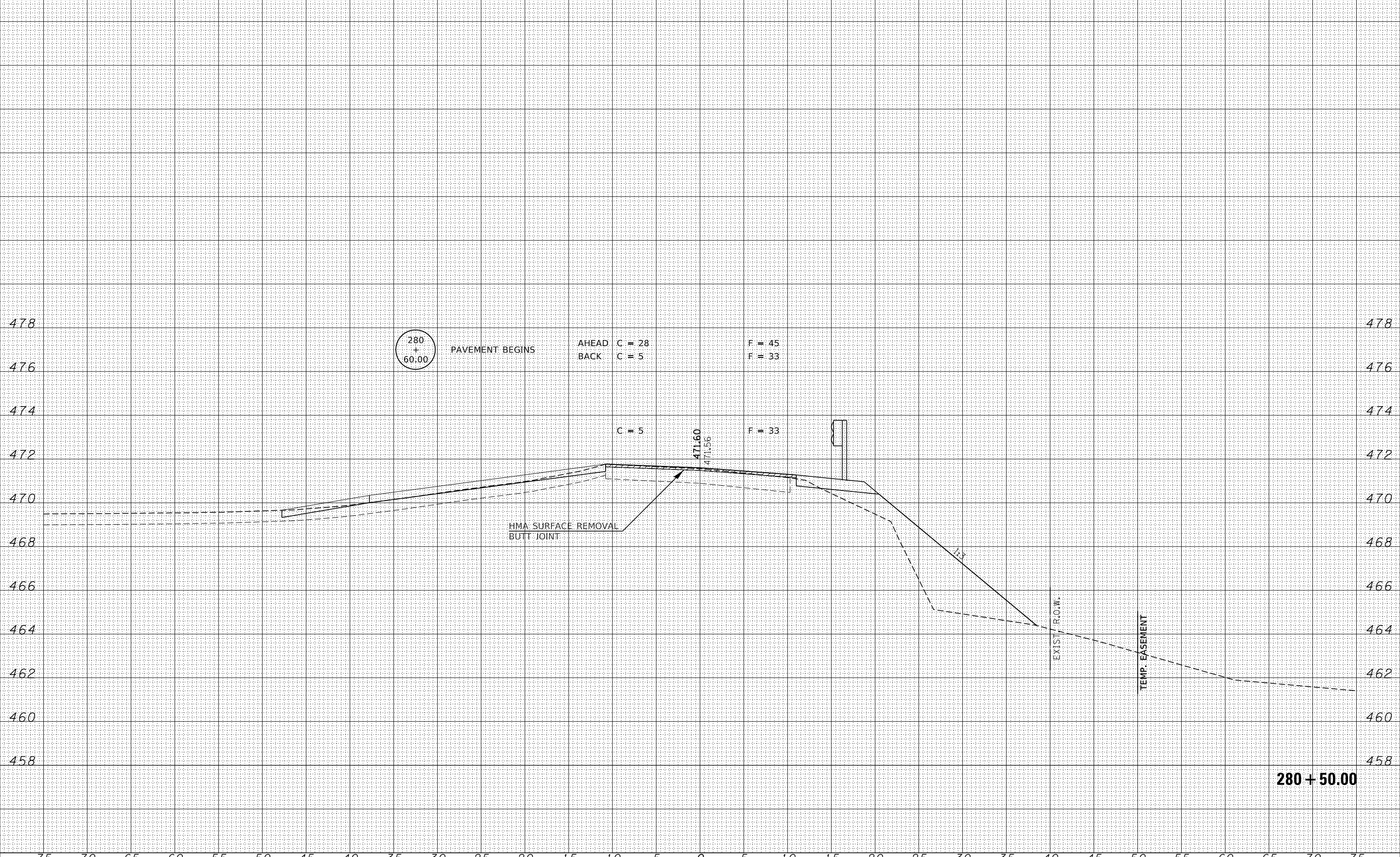
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BY	DATE

BY	DATE



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 DESIGNED - J.W.F.
 DRAWN - T.W.K.
 CHECKED - S.W.M.
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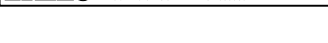
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DATE - 04/12/19	REVISED -

STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

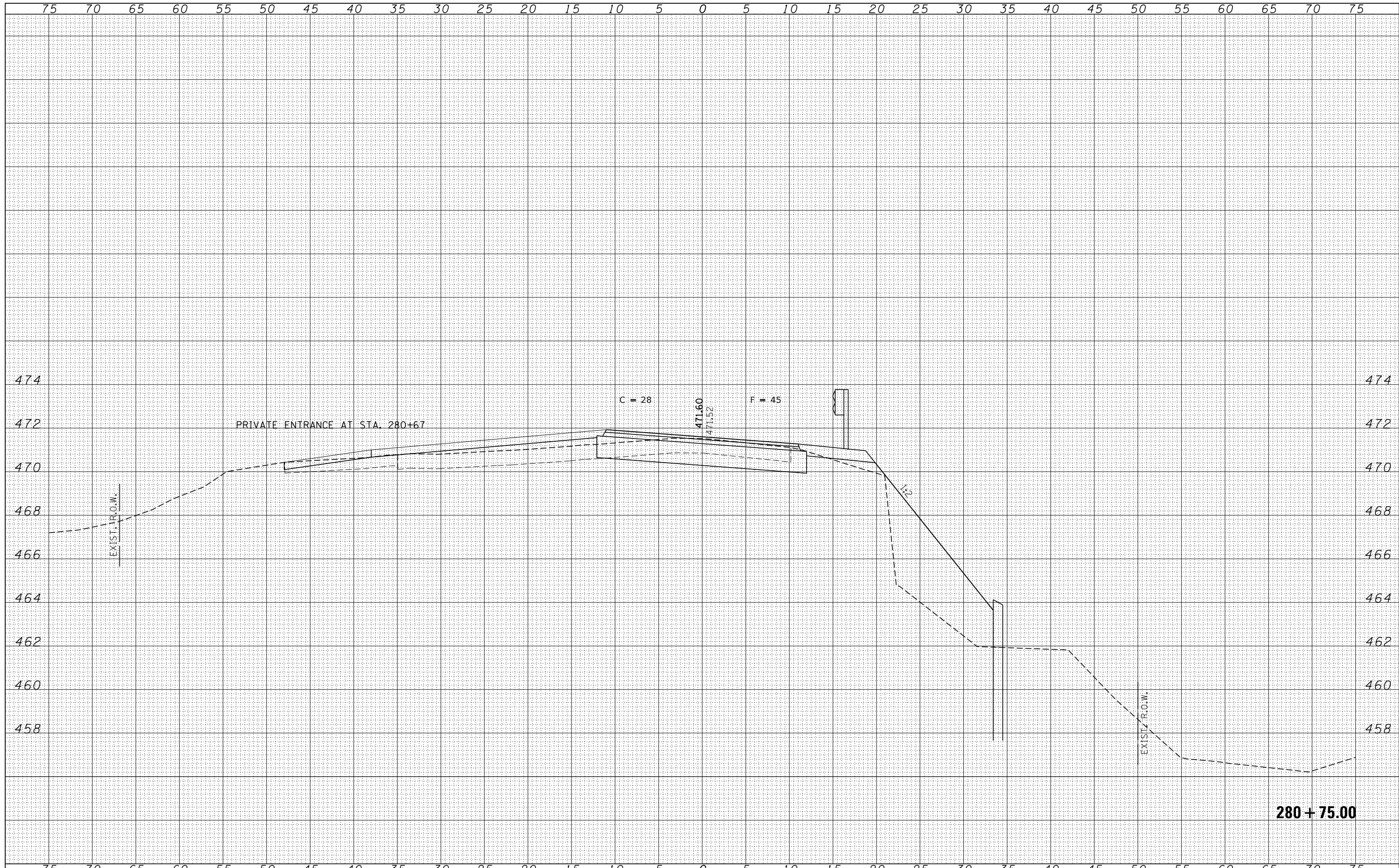
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ILLINOIS FED. AID PROJECT JBSF(319)				



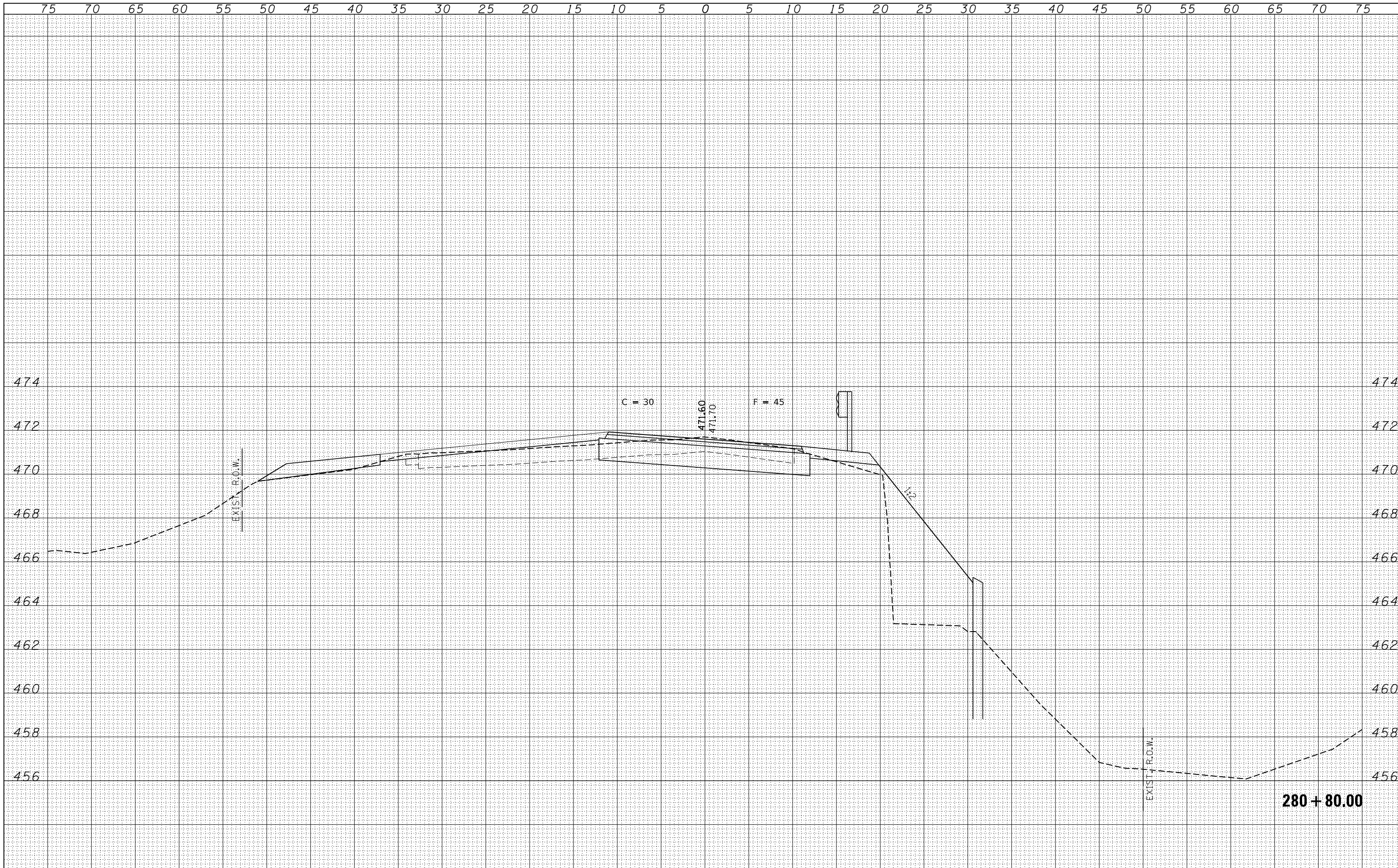
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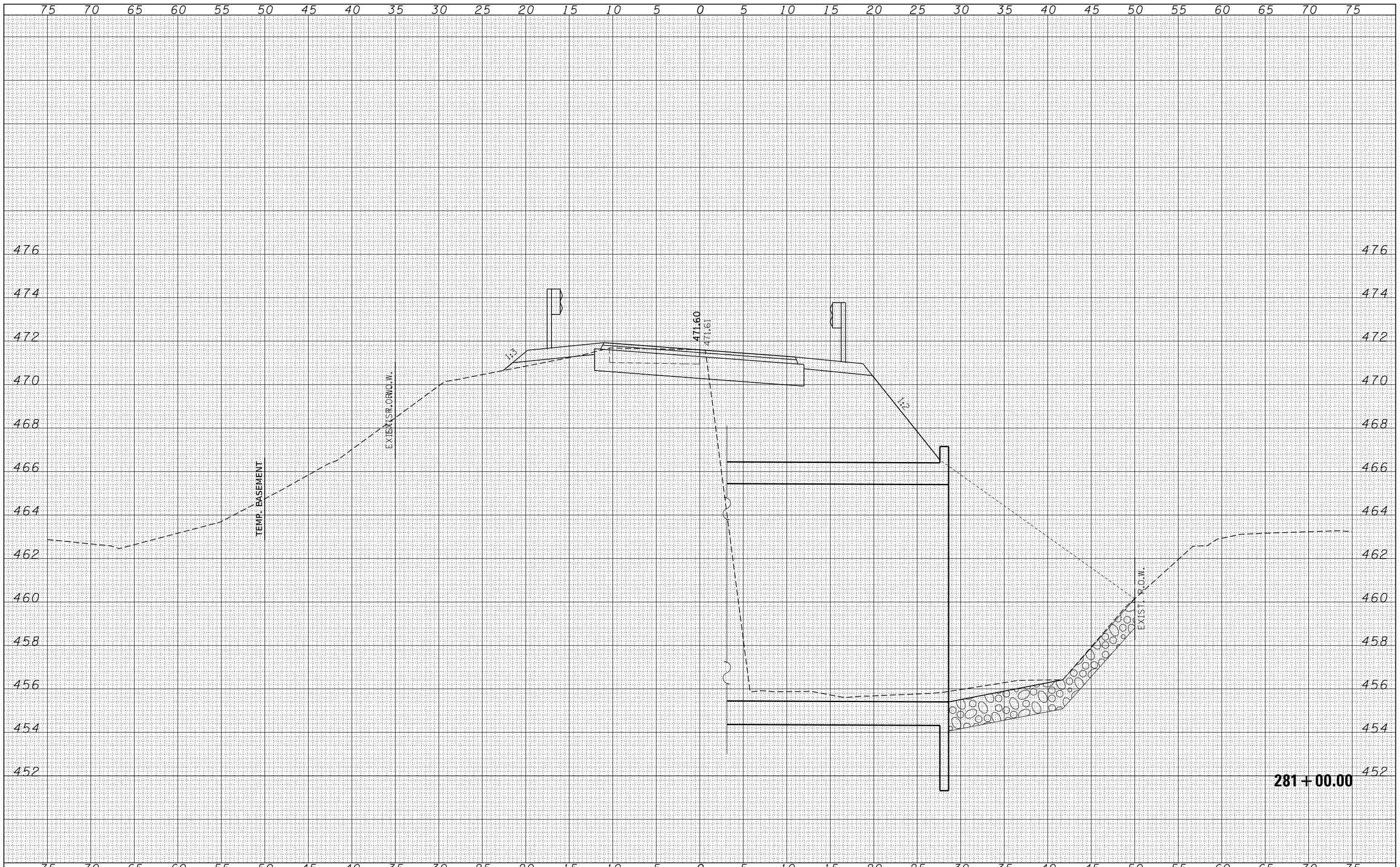
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HAMPTON, LENZINI AND RENWICK, INC. <small>3885 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000958</small>		DRAWN - T.W.K.	REVISED -		826	08-00200-00-BR	JEFFERSON	32	20		
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 USER NAME = mosck
HAMPTON, LENZINI AND RENWICK, INC.
 3885 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LS / PE / SE CORP. 184.009958

DESIGNED - J.W.F.
 DRAWN - T.W.K.
 CHECKED - S.W.M.
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**STATE OF ILLINOIS
 JEFFERSON COUNTY HIGHWAY DEPARTMENT**

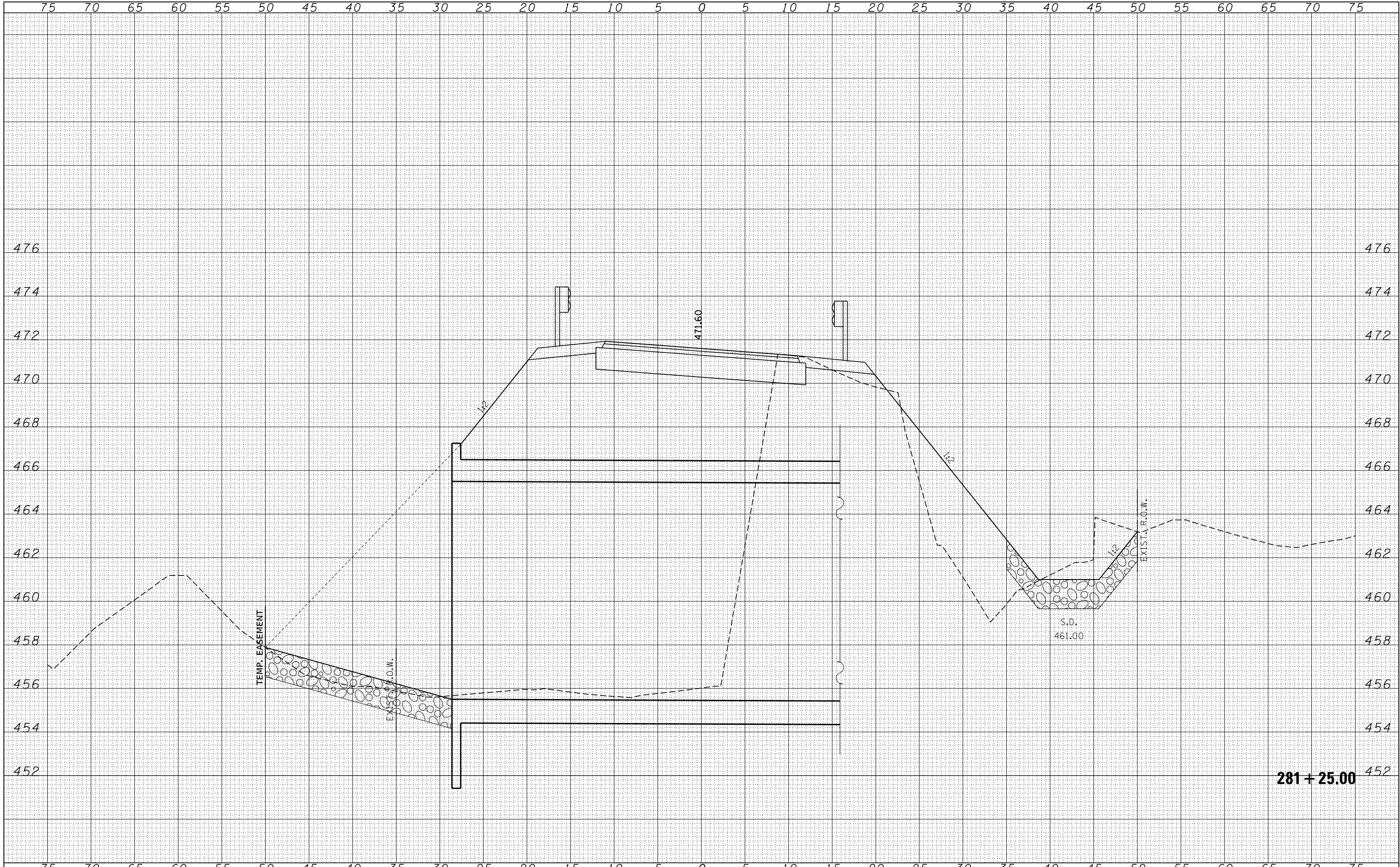
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F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT JBSF(319)				

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 3885 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
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 LS / PE / SE CORP. 184-000958

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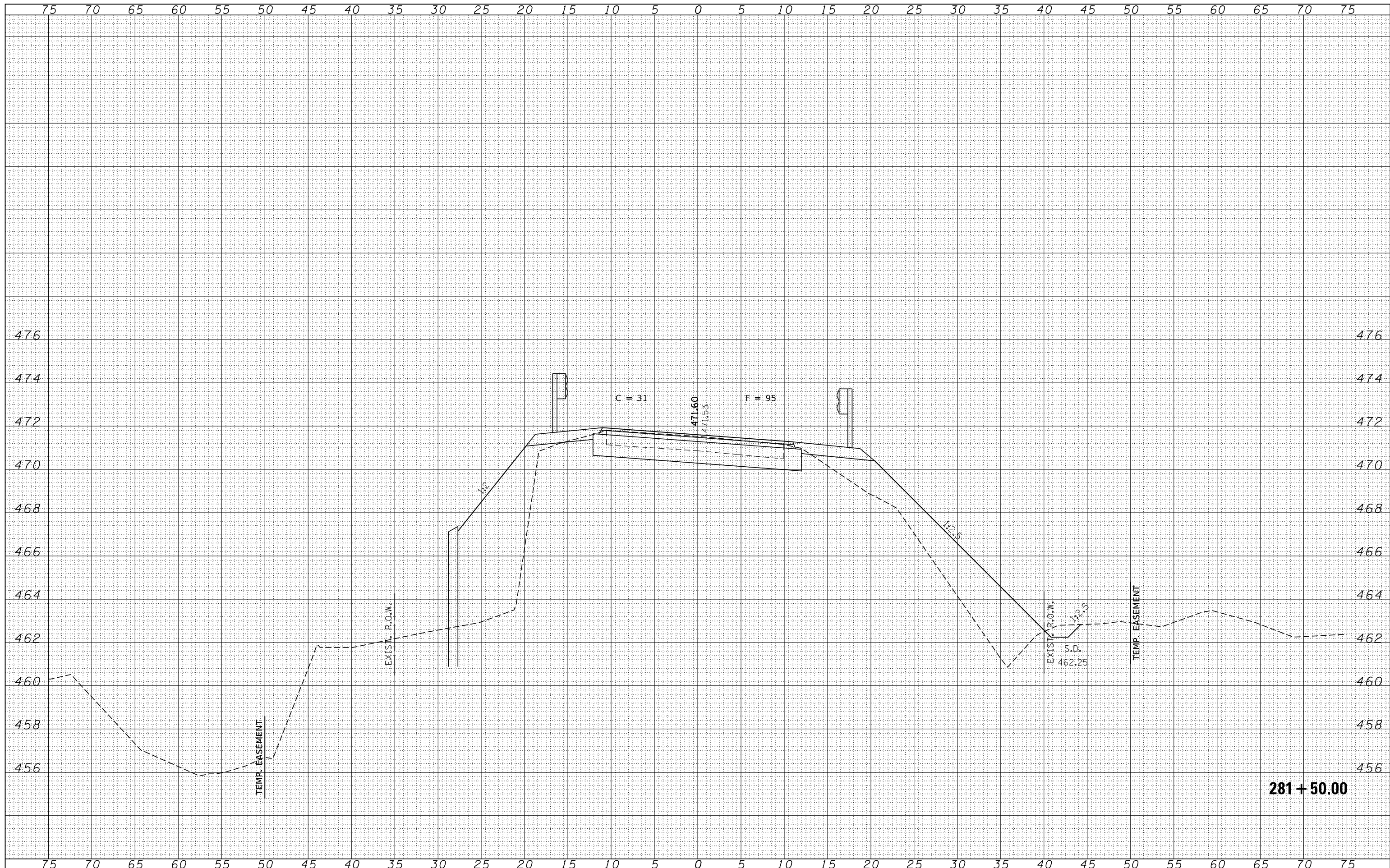
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 REVISED -

STATE OF ILLINOIS
 JEFFERSON COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS
 SCALE: 5H:2V
 SHEET NO. 10 OF 19 SHEETS
 STA. 281+25.00 TO STA. 281+25.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
826	08-00200-00-BR	JEFFERSON	32	23
RICHVIEW ROAD / C.H. 10		CONTRACT NO. 99626		
ILLINOIS FED. AID PROJECT JBSF(319)				

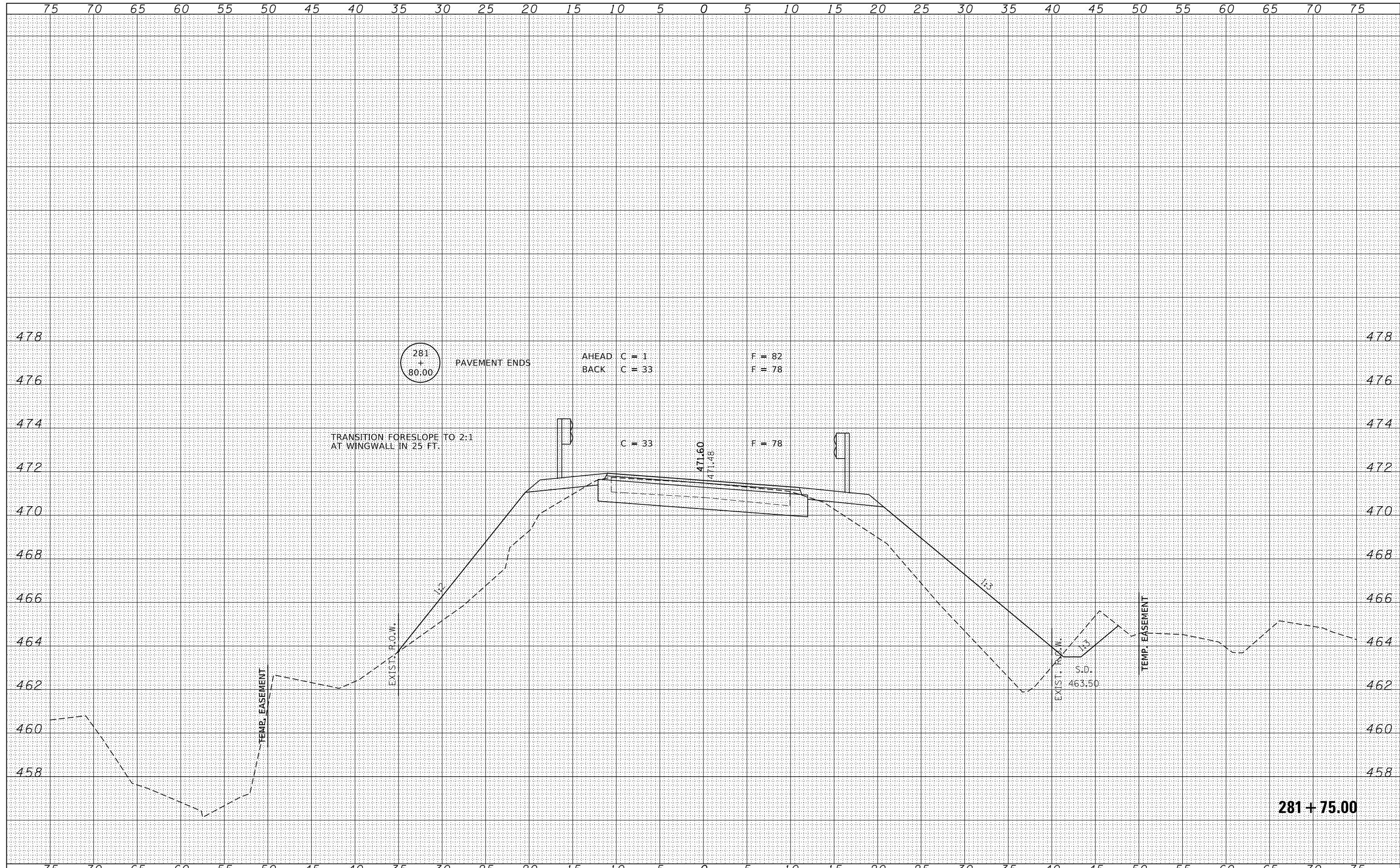


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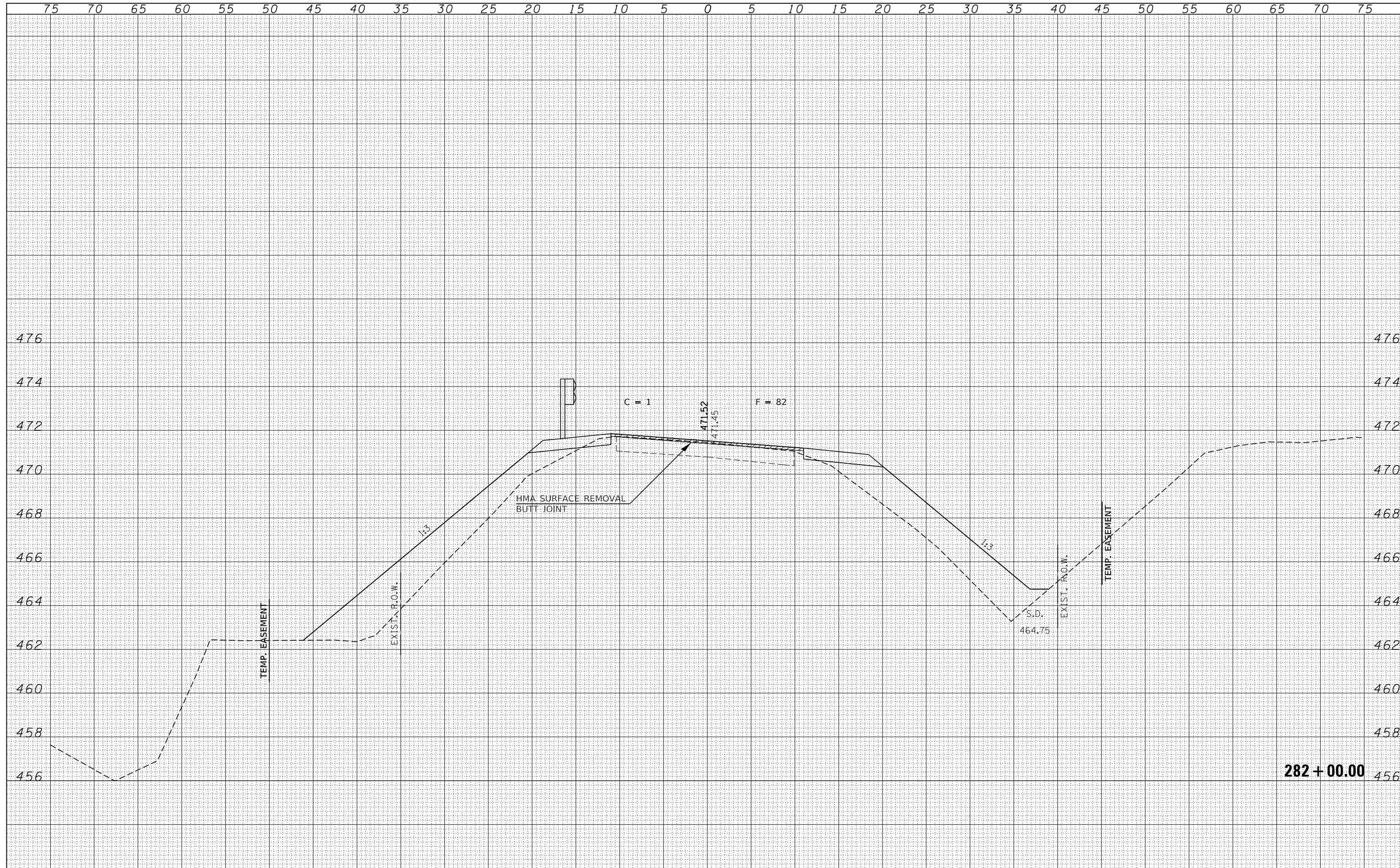
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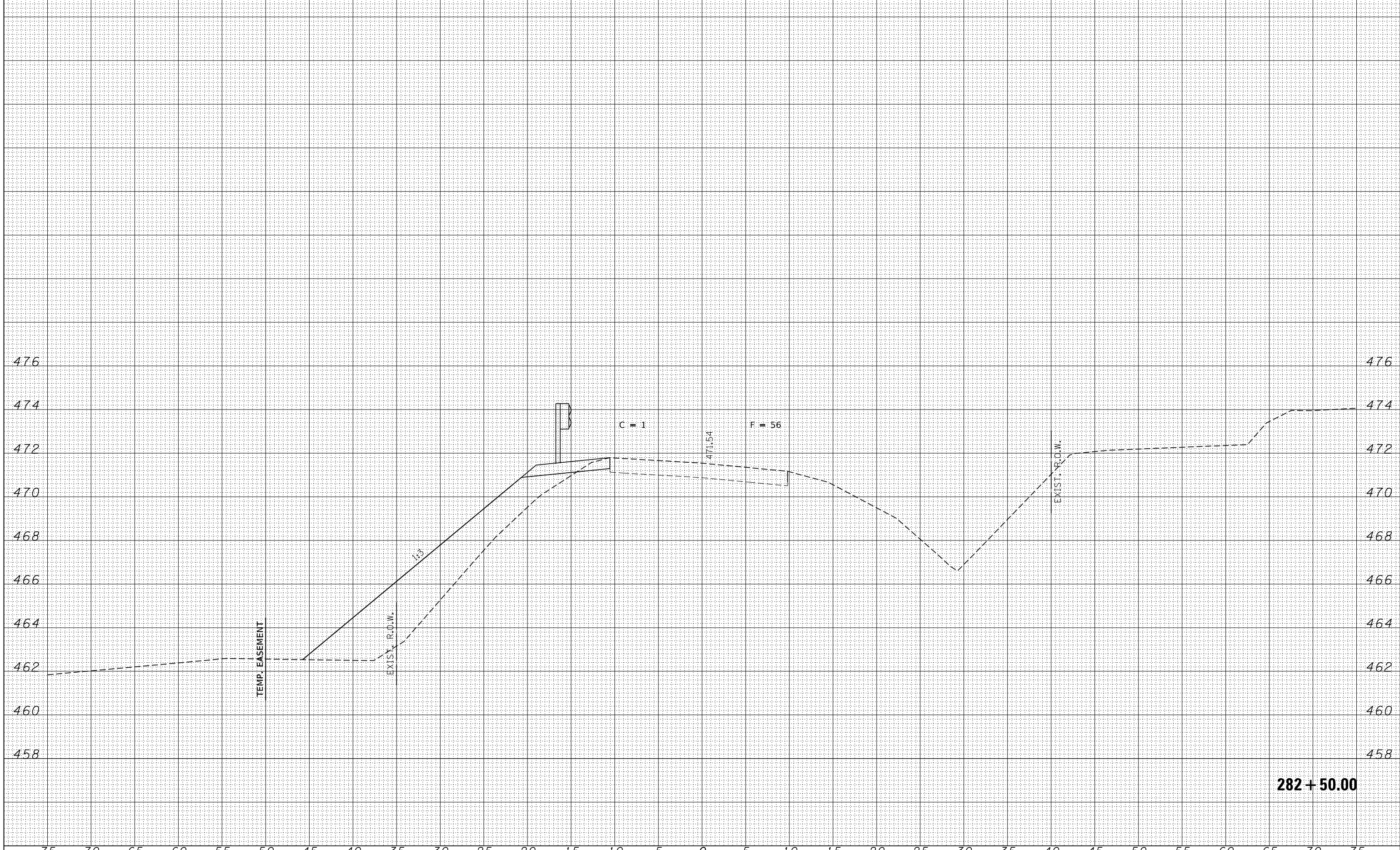


FILE NAME = 160283-sh1-xssh.dgn	USER NAME = mosck	DESIGNED - J.W.F.	REvised -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	STATION CROSS SECTIONS		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPSON, LENZINI AND RENWICK, INC. 3885 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.000958		DRAWN - T.W.K.	REvised -		826	08-00200-00-BR	JEFFERSON	32	26		
PLOT SCALE = \$SCALES	CHECKED - S.W.M.	REvised -	SCALE: 5H:2V		SHEET NO. 13	OF 19 SHEETS	STA. 282+00.00	TO STA. 282+00.00	ILLINOIS FED. AID PROJECT JBSF(319)		
PLOT DATE = 4/12/2019	DATE - 04/12/19	REvised -									

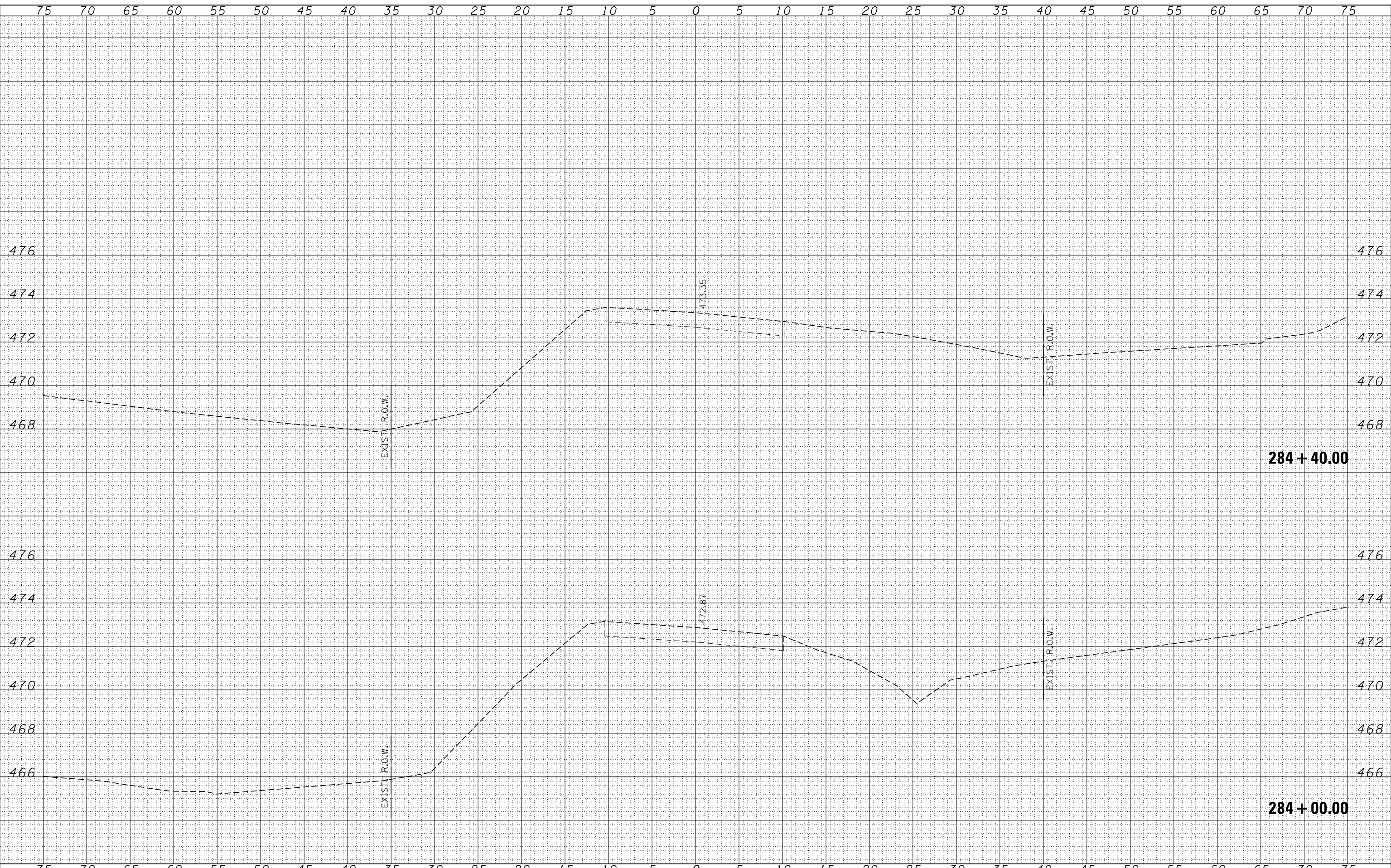
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

DATE
BY
SURVEYED
PLOTTED
TEMPLATE
AREAS CHECKED
FINAL SURVEY NO.

DATE
BY
ORIGINAL SURVEY NO.
PLOTTED
TEMPLATE
AREAS CHECKED



282 + 50.00



DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

FILE NAME = 160283-shl-xssht.dgn
 HAMPSON, LENZINI AND RENWICK, INC.
 3885 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 ILLINOIS PROFESSIONAL DESIGN FIRM
 L.S./P.E. CORP. 184.000958

USER NAME = rmosck
 PLOT SCALE = \$\$CALES
 PLOT DATE = 4/12/2019

DESIGNED - J.W.F.
 DRAWN - T.W.K.
 CHECKED - S.W.M.
 DATE - 04/12/19

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 JEFFERSON COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V SHEET NO. 19 OF 19 SHEETS STA. 284+00.00 TO STA. 284+40.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
826	08-00200-00-BR	JEFFERSON	32	32
RICHVIEW ROAD / C.H. 10		CONTRACT NO. 99626		
ILLINOIS FED. AID PROJECT JBSF(319)				