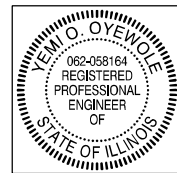
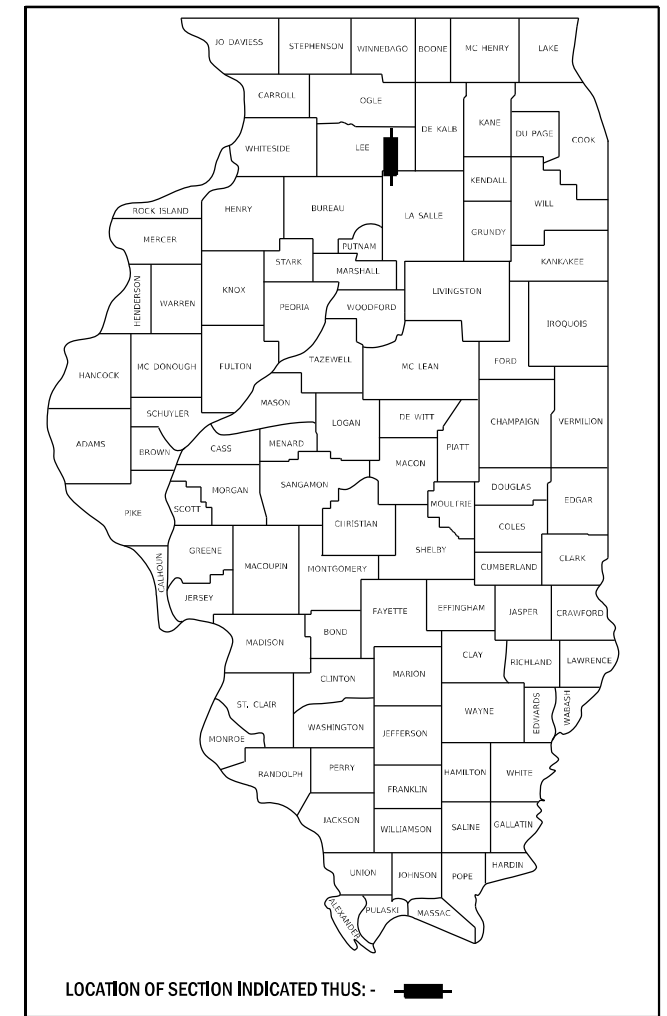


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**PROPOSED  
HIGHWAY PLANS**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	1
		ILLINOIS	CONTRACT NO. 64M41	

D-92-052-17



AUGUST 16, 2021

*Yemi O. Oyewole*

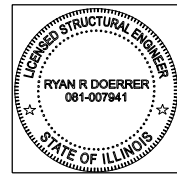
**YEMI O. OYEWOLE: WBK ENGINEERING LLC.**  
ILLINOIS REG. PROFESSIONAL ENGINEER NO. 062-058164  
EXPIRATION DATE 11-30-2021  
SHEETS 1-40, 54-122



AUGUST 16, 2021

*Jiahong Zuo*

**JIAHONG ZUO: WBK ENGINEERING, LLC.**  
ILLINOIS REG. STRUCTURAL ENGINEER NO. 081-006794  
EXPIRATION DATE 11-30-2024  
SHEETS 41-45, 48-53



AUGUST 16, 2021

*Ryan R. Doerrler*

**RYAN DOERRER: SE3, LLC.**  
ILLINOIS REG. STRUCTURAL ENGINEER NO. 081-007941  
EXPIRATION DATE 11-30-2022  
SHEETS 46-47

**FAS ROUTE 1177 (IL 251)  
SECTION (110, 111)CR  
PROJECT STP-49RF(589)  
VARIOUS CULVERT AND DROP BOX STRUCTURES  
FOR CULVERT REPLACEMENTS  
LEE COUNTY**

C-92-069-17

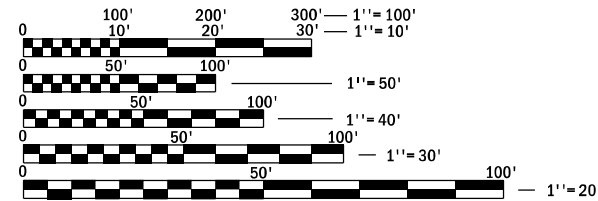
**INDEX OF SHEETS**

FOR INDEX OF SHEETS & HIGHWAY STANDARDS SEE SHEET 2

**HIGHWAY CLASSIFICATION**

F.A.S. ROUTE 1177 (IL ROUTE 251)  
ADT: 900 VPD (2019)  
CLASSIFICATION: MAJOR COLLECTOR (RURAL)  
DESIGN SPEED: 55 MPH  
POSTED SPEED: 55 MPH

**TOWNSHIP : VIOLA (SECTIONS 23 & 26)  
BROOKLYN (SECTIONS 16, 17, 20 & 21)**



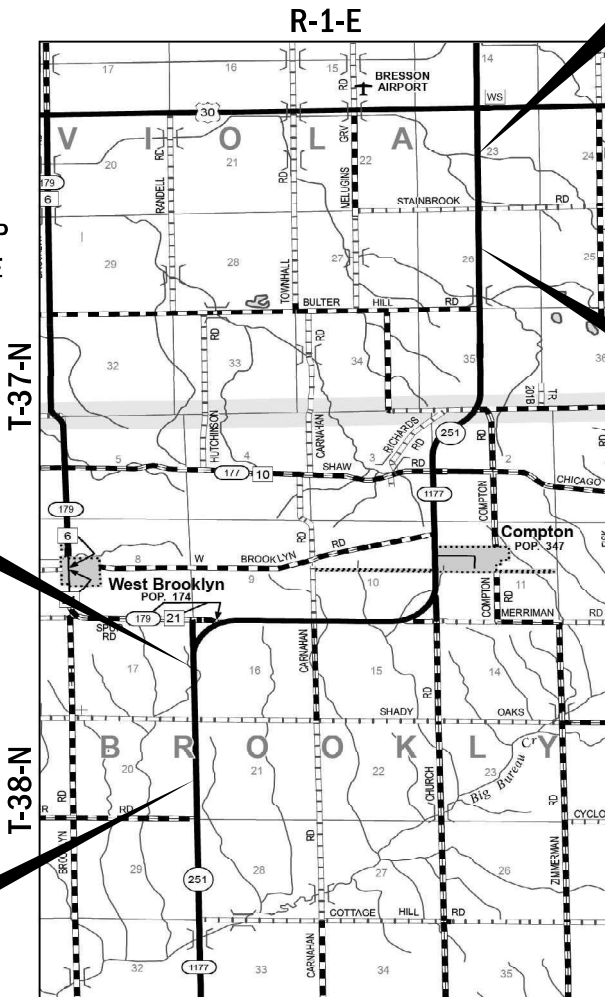
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

**DISTRICT 2**  
**PROJECT ENGINEER: FAITH DUNCAN, P.E.**  
**PROJECT MANAGER: CHRIS CONDERMAN**  
**PHONE (815)-284-5955**  
**EMAIL: CHRISTOPHERCONDERMAN@ILLINOIS.GOV**  
**CONTRACT NO. 64M41**



LOCATION MAP  
NOT TO SCALE



**SECTION/PROJECT BEGINS  
STA 170+00**

**SECTION/PROJECT ENDS  
STA 178+25**

INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING CULVERT AND THE REMOVAL OF SECOND EXISTING CULVERT & REGRADE DITCHES  
EXIST SN 052-C003 (REMOVAL)  
EXIST SN 052-1076 (REMOVAL)  
PROP SN 052-1149

**SECTION/PROJECT BEGINS  
STA 118+50**

**SECTION/PROJECT ENDS  
STA 120+50**

INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING BOX CULVERT & REGRADE DITCHES  
EXIST SN 052-1077  
PROP TN H052-C311-044-028-001A

**SECTION/PROJECT BEGINS  
STA 549+00**

**SECTION/PROJECT ENDS  
STA 556+00**

INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING BOX CULVERT & ROADWAY RESURFACING  
EXIST SN 052-1064  
PROP SN 052-2032

**SECTION/PROJECT BEGINS  
STA 500+00**

**SECTION/PROJECT ENDS  
STA 503+00**

INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING BOX CULVERT & REGRADE DITCHES  
EXIST SN 052-1066  
PROP SN 052-1146

GROSS LENGTH = 43,750 LIN. FT. = 8.286 MILES  
NET LENGTH = 2,025 LIN. FT. = 0.384 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED 08-17 2021

*M. Howard*  
REGIONAL ENGINEER

October 1 2021  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

October 21 2021  
*[Signature]*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

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## LIST OF HIGHWAY STANDARDS

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000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-09	PAVEMENT JOINTS
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
442101-09	CLASS B PATCHES
515001-04	NAME PLATE FOR BRIDGES
542011-02	CONCRETE END SECTION FOR ELLIPTICAL PIPE CULVERTS 15" THRU 72" EQUIVALENT DIAMETER
542311-07	TRANSVERSABLE PIPE GRATE FOR CONCRETE END SECTIONS
542411-00	SLOPED METAL END SECTIONS FOR PIPE CULVERTS 15" (375 mm) THRU 60" (1500 mm) EQUIVALENT
542416-00	SLOPED METAL END SECTIONS FOR PIPE ARCHED CULVERTS 15" (375 mm) THRU 72" (1800 mm) EQUIVALENT
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
635001-02	DELINEATORS
666001-01	RIGHT OF WAY MARKERS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45MPH
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45MPH
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720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
725001-01	OBJECT AND TERMINAL MARKERS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

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 <b>WBK ENGINEERING, LLC</b> <small>116 WEST MAIN STREET, SUITE 201 ST. CHARLES, ILLINOIS 60174 (630) 443-7755</small>	USER NAME = jmueller	DESIGNED - KAC	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>IL RTE 251 CULVERT IMPROVEMENTS</b> <b>INDEX OF SHEETS &amp; HIGHWAY STANDARDS</b>	F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 2
	PLOT SCALE = ---	CHECKED - YOO	REVISED -			SCALE: N/A	SHEET 1 OF 1 SHEETS	STA. TO STA.	CONTRACT NO. 64M41	
	PLOT DATE = 8/19/2021	DATE - 08/19/21	REVISED -			ILLINOIS FED. AID PROJECT				

## GENERAL NOTES

1. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 4 OR 2A SHALL BE USED, EXCEPT IN FRONT OF PROPERTIES WHERE THE GRASS WILL BE MOWED, THEN USE SEEDING, CLASS 1A. CLASS 2A SHALL BE USED ON FRONT SLOPES AND DITCH BOTTOMS. CLASS 4 SHALL BE USED BEHIND TYPE A GUTTER, ON ALL BACKSLOPES AND AREAS BEHIND THE BACKSLOPE, AND BEYOND THE TOE OF FRONT SLOPE ON FILL SECTIONS WITHOUT DITCHES.

2. PLACEMENT AND COMPACTION OF THE BACKFILL FOR PROPOSED ACROSS ROAD CULVERTS AND EXISTING ACROSS ROAD CULVERTS THAT ARE REMOVED SHALL CONFORM TO ARTICLE 502.10 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT THE MATERIAL SHALL CONFORM TO ARTICLE 208.02 OF THE STANDARD SPECIFICATIONS, AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD LABORATORY DENSITY. THE TOP ONE FOOT OF TRENCH BACKFILL SHALL BE GRADATION CA06 OR CA10, BENEATH THE PROPOSED PAVEMENT/PATCH.

THE ENTIRE EXCAVATION, WITHIN 2 FEET OUTSIDE OF EACH SHOULDER, SHALL BE BACKFILLED WITH TRENCH BACKFILL MATERIAL TO THE BOTTOM OF THE PROPOSED PAVEMENT/PATCH. IMPERVIOUS MATERIAL SHALL BE USED ON THE OUTER 3 FEET AT EACH END OF THE CULVERT.

THE TRENCH BACKFILL MATERIAL WILL BE MEASURED FOR PAYMENT IN ACCORDANCE WITH ARTICLE 502.12, NOT TO EXCEED 2 FEET OUTSIDE THE STRUCTURE.

3. COST OF REMOVAL AND DISPOSAL OF MATERIAL FROM THE TEMPORARY PATCH SHALL BE INCLUDED IN AGGREGATE BASE COURSE, TYPE B.

4. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

LOCATION(S):	IL 251		
MIXTURE USE(S):	SURFACE	MAINLINE BINDER	TEMPORARY PATCHES
PG:	PG 58-28	PG 58-28	PG 58-28
DESIGN AIR VOIDS:	4.0 @ N50	4.0 @ N50	4.0 @ N50
MIXTURE COMPOSITION	IL 9.5	IL 19.0	IL 9.5
(MIXTURE GRADATION):	C	C	C
MIXTURE WEIGHT:	112 LB/SY/IN	N/A	112 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA	QC/QA	QC/QA
SUBLOT SIZE:	N/A	N/A	N/A
NUMBER OF ROLLER PASSES1):	N/A	N/A	N/A

1) WHEN A NUMBER OF ROLLER PASSES IS SPECIFIED, THE CONTRACTOR MAY OPT TO USE INTELLIGENT COMPACTION IN LIEU OF DENSITY TESTING UNDER THE QUALITY CONTROL FOR PERFORMANCE (QCP) PROGRAM.

5. THE CONTRACTOR WILL BE REQUIRED TO FURNISH 5 1/2" HIGH BRASS STENCILS AS APPROVED BY THE ENGINEER AND INSTALL STATIONING AT 250' INTERVALS. STATIONING SHALL BE PLACED ON BOTH LANES OF 2LANE HIGHWAYS AND ON THE OUTSIDE LANES IN BOTH DIRECTIONS ON 4-LANE HIGHWAYS. THE STATIONS SHALL BE PLACED 6" INSIDE THE PAVEMENT MARKING EDGE SO THEY CAN BE READ FROM THE SHOULDER. THIS WORK WILL BE INCLUDED IN THE COST OF THE FINAL PAVEMENT SURFACE.

6. THE AREA TO BE TACKED OR PRIMED SHALL BE LIMITED TO THAT WHICH CAN BE COVERED WITH HMA ON THE NEXT DAY'S PRODUCTION, BUT NO MORE THAN FIVE DAYS IN ADVANCE OF THE PLACEMENT OF THE HMA, UNLESS APPROVED BY THE ENGINEER.

7. THE NEW STRUCTURE NUMBER AT STA. 171+57.00 IS SN 052-1149

THE NEW STRUCTURE NUMBER AT STA. 501+67.85 IS SN 052-1146

THE NEW STRUCTURE NUMBER AT STA. 552+55.00 IS SN 052-2032

8. THE BORING LOGS INDICATE THAT GROUNDWATER LEVELS MAY ENCRONCH ON THE CONSTRUCTION LIMITS OF THE CULVERTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL THE GROUND WATER AND DIVERT THE STREAM FLOW DURING CONSTRUCTION IN ORDER TO KEEP THE CONSTRUCTION AREA FREE OF WATER. THE METHOD OF CONTROLLING THE WATER SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER AND THE COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRECAST CONCRETE BOX CULVERTS.

9. CULVERT & BRIDGE FLOWS MUST BE MAINTAINED THROUGHOUT THE PROJECT. NORMAL FLOW SHALL BE ALLOWED TO PASS AT THE RATE IT ENTERS THE JOBSITE. HIGH FLOWS SHALL BE ALLOWED TO PASS WITHOUT CAUSING DAMAGE TO UPSTREAM PROPERTIES.

10. CONNECTING BANDS FOR CORRUGATED METAL PIPES SHALL BE METAL AND SHALL BE COATED WITH THE SAME MATERIAL AS THE PIPE SECTIONS. THE CONNECTING BANDS SHALL BE A MINIMUM OF 18"WIDE.

11. THE EXCAVATED MATERIALS FROM EARTH EXCAVATION WIDENING, GRADING AND SHAPING DITCHES, AND EXCAVATING AND GRADING SHOULDERS SHALL BE USED TO BUILD UP THE SHOULDER THROUGHOUT THE JOB TO CONFORM WITH THE TYPICAL SECTIONS AND SHOULDER WIDENING FOR TERMINALS AS SHOWN ON THE PLANS.

12. DELINEATORS SHALL BE INSTALLED AS SHOWN IN STANDARD 635001, EXCEPT THAT THE POST SHALL BE ROTATED 180 AND ONLY METAL-BACKED DELINEATORS SHALL BE PERMITTED. DELINEATORS SHALL BE PLACED AT THE ENDS OF APPROACH GUARDRAIL TERMINAL SECTIONS, AND AT EACH HEADWALL OR END SECTION OF AR CULVERTS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR DELINEATORS.

13. A PRECAST BOX CULVERT IS NOT AN OPTION AT SN 052-2032 DUE TO SOIL CONDITIONS. SEE STRUCTURAL PLANS.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTING AND MAINTAINING AN ELECTRONIC LOG OF ALL STAKEOUT SURVEY THAT IS PERFORMED ON THE JOB, EITHER BY HIM/HER OR ANY SUB-CONTRACTOR PERFORMING THE STAKEOUT. UPON REQUEST, ALL LOGS SHALL BE SUBMITTED TO THE DEPARTMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK, BUT SHALL BE CONSIDERED INCLUDED IN THE COST FOR CONSTRUCTION LAYOUT.

15. PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:  
 - ALL WORDS, SUCH AS ONLY, SHALL BE 8 FEET HIGH.  
 - ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.  
 - THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE 8 INCHES, NOT 7 INCHES, AS SHOWN IN THE DETAIL OF TYPICAL LANE AND EDGE LINES.  
 - CENTERLINE SKIP DASH PAVEMENT MARKING ON MULTI-LANE DIVIDED, MULTI-LANE UNDIVIDED, AND ONE-WAY ROADWAY SHALL BE ACCORDING TO DISTRICT STANDARD 41.1.

16. PERMANENT SURVEY MARKERS, TYPE II, SHALL BE SET AT INTERVALS OF 1 MILE OR AS DIRECTED BY THE ENGINEER. BRIDGE OR CULVERT PROJECTS SHALL HAVE ONE SURVEY MARKER PLACED NEAR THE STRUCTURE. ESTIMATED: 3 EACH.

17. PERMANENT SURVEY MARKERS, TYPE II SHALL BE CAST-IN-PLACE AS SHOWN ON DISTRICT STANDARD 66.2, OR ANOTHER OPTION WOULD BE TO INSTALL A VAULTED STYLE MONUMENT AS DESCRIBED BY NGS AS A 3D MONUMENT (TOP SECURITY SLEEVE ROD MONUMENT), WITH INSTALLATION INSTRUCTIONS PROVIDED BY THE DISTRICT CHIEF OF SURVEYS. IF POURED IN PLACE, THE BOTTOM OF THE MARKER SHALL BE 5'-0"BELOW THE GROUND SURFACE.

18. THE PERMANENT SURVEY MARKERS, IF POSSIBLE, SHALL BE INSTALLED AT THE BEGINNING OF THE JOB AND PROTECTED THROUGHOUT.

19. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A DESCRIPTION OF LOCATION, ELEVATION, AND COORDINATES FOR EACH PERMANENT SURVEY MARKER. THE HORIZONTAL COORDINATES MUST BE DERIVED BY GPS AND THE ELEVATION DERIVED USING AN ELECTRONIC LEVEL. THE META DATA, SUCH AS THE GEOID USED, (NGS ADJUSTMENT IE: 97 HARN, 03, 07), AND THE BASE POINT(S) NAME OR NUMBER SHALL BE SUBMITTED ALONG WITH A COMPLETE COLLECTION LOG. IF COLLECTED USING RTK METHOD, IT WILL REQUIRE EITHER 3 COLLECTIONS (AVERAGED) FROM 2 DIFFERENT BASES, OR A MINIMUM OF 3 COLLECTIONS (AVERAGED), AT LEAST 2 HOURS APART, FROM THE SAME BASE. IF USING A CORS TYPE NETWORK, THE COLLECTION PROCEDURE SHALL INCLUDE LOCALIZING WITH CHECK SHOTS ON AT LEAST 2 DIFFERENT HARN MONUMENTS BOTH BEFORE AND AFTER COLLECTION. THE LEVEL CIRCUIT SHALL BE RUN FROM FURNISHED MARK TO FURNISHED MARK AND THEN ADJUSTED. THE ERROR OF CLOSURE SHALL BE SUBMITTED WITH THE ELECTRONIC LEVEL NOTES IN A RECOGNIZED FORMAT APPROVED BY THE ENGINEER AND/OR THE CHIEF OF SURVEYS. THE ENGINEER SHALL SUBMIT THIS INFORMATION TO THE DISTRICT CHIEF OF SURVEYS.

20. RIGHT-OF-WAY MARKERS WILL BE ERECTED PER HIGHWAY STANDARD 666001 WITH THE BACK FACE OF THE MARKER ON THE RIGHT-OF-WAY LINE, UNLESS THE NEW RIGHT-OF-WAY LINE HAS BEEN SURVEYED AND PINNED, IN WHICH INSTANCE THE RIGHTOFWAY MARKERS WILL BE ERECTED 12 INCHES INSIDE THE NEW RIGHT-OF-WAY LINE. THE METHOD OF INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

21. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBERS OF JULIE:

COMMONWEALTH EDISON	630-437-2212
FRONTIER (NORTH)	815-544-6171
GSG 6, LLC	815-566-9699

22. CHICAGO ROAD, LEE COUNTY HIGHWAY 10, FROM IL ROUTE 251 TO I-39 IS CONSIDERED A GOOD NEIGHBOR ROUTE. THE FOLLWOING PAY ITEMS AND QUANTITIES ARE ESTIMATED FOR THIS ROUTE. TO BE USED AS DIRECTED BY THE ENGINEER:  
 INCIDENTAL HOT-MIX ASPHALT RESURFACING - 214 TONS  
 BITUMINOUS MATERIALS (TACK COAT) - 1,100 POUND  
 PAINT PAVEMENT MARKINGS - LINE 4" - 8,000 FOOT

23. THE ENGINEER SHALL CONTACT LEE COUNTY FOR THE RECORDING OF THE ROADWAY CONDITIONS PRIOR TO THE IMPLEMENTATION OF THE DETOUR ROUTE.

24. THE EXISTING HOT-MIX ASPHALT ON PRIVATE AND COMMERICAL ENTRANCES SHALL BE BLADED OFF OR MILLED AND DISPOSED OF OUTSIDE THE PROJECT LIMITS. THIS COULD BE THE ENTIRE ENTRANCE OR TAPERED AT THE END DEPENDING ON IF THE MAINLINE IS RESURFACED OR MILLED AND RESURFACED.

25. THE DROP OFF THAT OCCURS AT ENTRANCE EDGES AS RESULT OF RESURFACING OF THE ENTRANCE SHALL BE CORRECTED USING AGGREGATE SHOULDER MATERIAL. THIS WORK SHALL BE PAID FOR BY THE SQUARE YARD FOR AGGREATE SHOULDERS OF THE TYPE SPECIFIED IN THE PLANS.

## COMMITMENTS

1. DAMAGE TO ANY DRAIN TILES DURING CONSTRUCTION WILL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR. OLD CONCRETE BOX CULVERT THAT WAS LEFT AT CULVERT SITE WILL BE REMOVED AND DISPOSED OF BY CONTRACTOR. PROPERTY OWNER REPLACED THE ORIGINAL CULVERT WITH THE ONE CURRENTLY IN USE AT THEIR OWN EXPENSE IN 2008. EVERY EFFORT WILL BE MADE TO PRESERVE THIS CULVERT DURING REMOVAL FOR PROPERTY OWNER RETENTION. IT WILL BE SET ALONG THE ROW LINE FOR THE OWNER TO PICK UP. PROPERTY OWNER UNDERSTANDS THAT THE CULVERT MAY BE DAMAGED DURING REMOVAL AND HOLDS IDOT AND CONTRACTOR HARMLESS FOR ANY DAMAGE THAT MAY OCCUR. SHARON YOCUM AT CULVERT 052-1064 ON THE SE CORNER HAS ASKED FOR THESE COMMITMENTS.

2. TREES THREE (3) INCHES OR GREATER IN DIAMETER AT BREST HEIGHT WILL NOT BE CLEARED FROM APRIL 1 THROUGH SEPTEMBER 30. THE US FISH AND WILDLIFE SERVICE CONCURRED WITH OUR DETERMINATION AND DATE RESTRICTION ON TREE CLEARING ON 7/8/2017.

FILE NAME = Z:\2016\160240\_FT\B181\cadd\Civil\p\m\W02\5\m\0264M4-1-2016-gemote\_01.dgn



USER NAME = ssunaresan	DESIGNED - KAC	REVISED -
PLOT SCALE = 1:2	DRAWN - VLM	REVISED -
PLOT DATE = 8/16/2021	CHECKED - YOO	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL RTE 251 CULVERT IMPROVEMENTS  
GENERAL NOTES**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	3
CONTRACT NO. 64M41				
ILLINOIS   FED. AID PROJECT				

# SUMMARY OF QUANTITIES

SPECIALTY ITEM	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	CONSTRUCTION CODE
					80% FED	80% FED
					20% STATE	20% STATE
					CULVERT	CULVERT
0004	0031					
RURAL	RURAL					
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	62	62	
	20200100	EARTH EXCAVATION	CU YD	1,170	1,170	
*	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	4,370	4,370	
	20400800	FURNISHED EXCAVATION	CU YD	3,510	3,510	
	20700220	POROUS GRANULAR EMBANKMENT	CU YD	174	174	
	20800150	TRENCH BACKFILL	CU YD	141	141	
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	5,271	5,271	
	21301052	EXPLORATION TRENCH 52" DEPTH	FOOT	100	100	
	25000210	SEEDING, CLASS 2A	ACRE	2.25	2.25	
	25000310	SEEDING, CLASS 4	ACRE	1.75	1.75	
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	327	327	
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	327	327	
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	327	327	
	25000750	MOWING	ACRE	2.25		2.25

\* SPECIALTY ITEMS

FILE NAME = Z:\2016\160240\_PTB1811\cadd\Civil\Drawings\264M41-GEN-SQ\_01.dgn

<b>WBK ENGINEERING, LLC</b> <small>116 WEST MAIN STREET, SUITE 201 ST. CHARLES, ILLINOIS 60174 (630) 443-7755</small>	USER NAME = jmueller	DESIGNED - JMM	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b> <b>IL RTE 251 CULVERT IMPROVEMENTS</b>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1:2	CHECKED - KAC	REVISED -			1177	(110, 111)CR	LEE	122	4
PLOT DATE = 8/20/2021	DATE - 08/19/21	REVISED -		SCALE:	SHEET 1 OF 7 SHEETS	STA.	TO STA.	CONTRACT NO. 64M41		
								ILLINOIS FED. AID PROJECT		

# SUMMARY OF QUANTITIES

SPECIALTY ITEM	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	CONSTRUCTION CODE
					80% FED 20% STATE CULVERT	80% FED 20% STATE CULVERT
					0004	0031
					RURAL	RURAL
	25100125	MULCH, METHOD 3	ACRE	3.5	3.5	
	25100630	EROSION CONTROL BLANKET	SQ YD	778	778	
	25100900	TURF REINFORCEMENT MAT	SQ YD	258	258	
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	728	728	
	28000305	TEMPORARY DITCH CHECKS	FOOT	792	792	
	28000400	PERIMETER EROSION BARRIER	FOOT	592	592	
	28000500	INLET AND PIPE PROTECTION	EACH	7	7	
	28100109	STONE RIPRAP, CLASS A5	SQ YD	396	396	
	28200200	FILTER FABRIC	SQ YD	396	396	
	35101400	AGGREGATE BASE COURSE, TYPE B	TON	77	77	
	35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	537	537	
	35102400	AGGREGATE BASE COURSE, TYPE B 12"	SQ YD	432	432	
	40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	149	149	
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	3,275	3,275	

\* SPECIALTY ITEMS

FILE NAME = Z:\2016\160240\_PTB1811\cadd\Civil\Drawings\W02\SH1\264M41-GEN-SQ\_02.dgn



USER NAME = jmueller	DESIGNED - JMM	REVISED -
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PLOT DATE = 8/20/2021	CHECKED - KAC	REVISED -
	DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
IL RTE 251 CULVERT IMPROVEMENTS**

SCALE: SHEET 2 OF 7 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	5
CONTRACT NO.64M41				
ILLINOIS FED. AID PROJECT				

# SUMMARY OF QUANTITIES

SPECIALTY ITEM	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	CONSTRUCTION CODE
					80% FED	80% FED
					20% STATE	20% STATE
					CULVERT	CULVERT
					0004	0031
					RURAL	RURAL
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	364	364	
	40603080	HOT-MIX ASPHALT BINDER COURSE, 1L-19.0, N50	TON	768	768	
	40604050	HOT-MIX ASPHALT SURFACE COURSE, 1L-9.5, MIX "C", N50	TON	364	364	
	40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	214	214	
	42000060	WELDED WIRE REINFORCEMENT	SQ YD	827	827	
	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	1,676	1,676	
	44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SQ YD	611	611	
	44201000	CLASS B PATCHES, TYPE IV, 12 INCH	SQ YD	217	217	
	44201299	DOWEL BARS 1 1/2"	EACH	220	220	
	44213204	TIE BARS 3/4"	EACH	89	89	
	44213208	TIE BARS 1 1/4"	EACH	55	55	
	48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	1,290	1,290	
	50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1	1	
	50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1	1	

\* SPECIALTY ITEMS

FILE NAME = Z:\2016\160240\_PTB1811\cadd\Civil\Drawings\W021511\264M41-265-SQ\_03.dgn



USER NAME = jmueller
PLOT SCALE = 1:2
PLOT DATE = 8/20/2021

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DRAWN - JMM	REVISED -
CHECKED - KAC	REVISED -
DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SUMMARY OF QUANTITIES</b>			
<b>IL RTE 251 CULVERT IMPROVEMENTS</b>			
SCALE:	SHEET 3	OF 7 SHEETS	STA. TO STA.

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 6
CONTRACT NO.64M41				
ILLINOIS FED. AID PROJECT				

# SUMMARY OF QUANTITIES

SPECIALTY ITEM	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	CONSTRUCTION CODE
					80% FED	80% FED
					20% STATE	20% STATE
					CULVERT	CULVERT
0004	0031					
RURAL	RURAL					
	50100500	REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1	1	
	50100600	REMOVAL OF EXISTING STRUCTURES NO. 4	EACH	1	1	
	50100700	REMOVAL OF EXISTING STRUCTURES NO. 5	EACH	1	1	
	50200100	STRUCTURE EXCAVATION	CU YD	349	349	
*	50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	507	507	
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	45,750	45,750	
	51500100	NAME PLATES	EACH	3	3	
	54001003	BOX CULVERT END SECTIONS, CULVERT NO. 3	EACH	2	2	
	54003000	CONCRETE BOX CULVERTS	CU YD	219.6	219.6	
	54011203	PRECAST CONCRETE BOX CULVERTS 12' X 3'	FOOT	40	40	
	54260315	TRAVERSABLE PIPE GRATE FOR CONCRETE END SECTION	FOOT	735	735	
	54260518	SLOPED METAL END SECTION, STANDARD 542411, 18", 1:6	EACH	2	2	
	54260918	SLOPED METAL END SECTION, STANDARD 542416, 18", 1:6	EACH	2	2	
	54260948	SLOPED METAL END SECTION, STANDARD 542416, 48", 1:6	EACH	2	2	

\* SPECIALTY ITEMS

FILE NAME = Z:\2016\160240\_PTB1811\cadd\Civil\Drawings\W021511\264M41-GEN-SQ\_04.dgn

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

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PLOT DATE = 8/20/2021	CHECKED - KAC	REVISED -
	DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SUMMARY OF QUANTITIES IL RTE 251 CULVERT IMPROVEMENTS</b>			
SCALE:	SHEET 4	OF 7 SHEETS	STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	7
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				





# SUMMARY OF QUANTITIES

SPECIALTY ITEM	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	CONSTRUCTION CODE
					80% FED	80% FED
					20% STATE	20% STATE
					CULVERT	CULVERT
					0004	0031
					RURAL	RURAL
	63500105	DELINEATORS	EACH	12	12	
*	66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	43	43	
*	66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	3	3	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5	
	67100100	MOBILIZATION	LSUM	1	1	
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
*	72000200	SIGN PANEL - TYPE 2	SQ FT	21.4	21.4	
*	72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	3	3	
*	72400200	REMOVE SIGN PANEL ASSEMBLY - TYPE B	EACH	2	2	
	72900200	METAL POST - TYPE B	FOOT	70	70	
*	73000100	WOOD SIGN SUPPORT	FOOT	32	32	

\* SPECIALTY ITEMS

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	DRAWN - JMM	REVISED -
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PLOT DATE = 8/20/2021	DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES IL RTE 251 CULVERT IMPROVEMENTS			
SCALE:	SHEET 6	OF 7 SHEETS	STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	9
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

# SUMMARY OF QUANTITIES

SPECIALTY ITEM	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	CONSTRUCTION CODE
					80% FED	80% FED
					20% STATE	20% STATE
					CULVERT	CULVERT
					0004	0031
					RURAL	RURAL
*	78001110	PAINT PAVEMENT MARKING -- LINE 4"	FOOT	18,473	18,473	
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	28	28	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	28	28	
	X0323660	DROP BOX NO.1	EACH	1	1	
	X0323661	DROP BOX NO.2	EACH	1	1	
	X0327576	TEMPORARY PATCHING	SQ YD	432	432	
	X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	254	254	
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
*	Z0054500	ROCK FILL	TON	805	805	

\* SPECIALTY ITEMS

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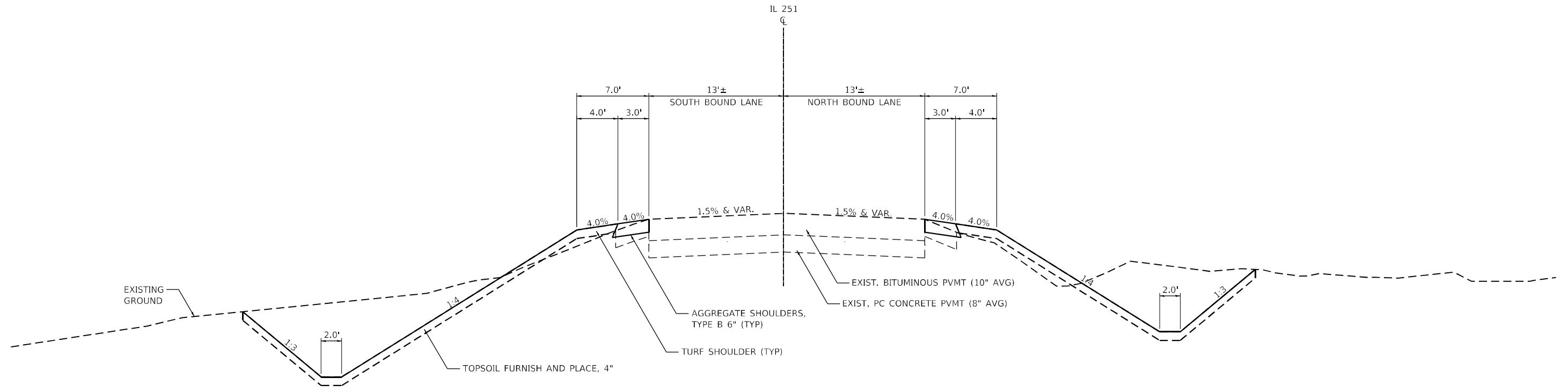
**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = jmueller	DESIGNED - JMM	REVISED -
DRAWN - JMM	REVISIONS -	
PLOT SCALE = 1:2	CHECKED - KAC	REVISED -
PLOT DATE = 8/20/2021	DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

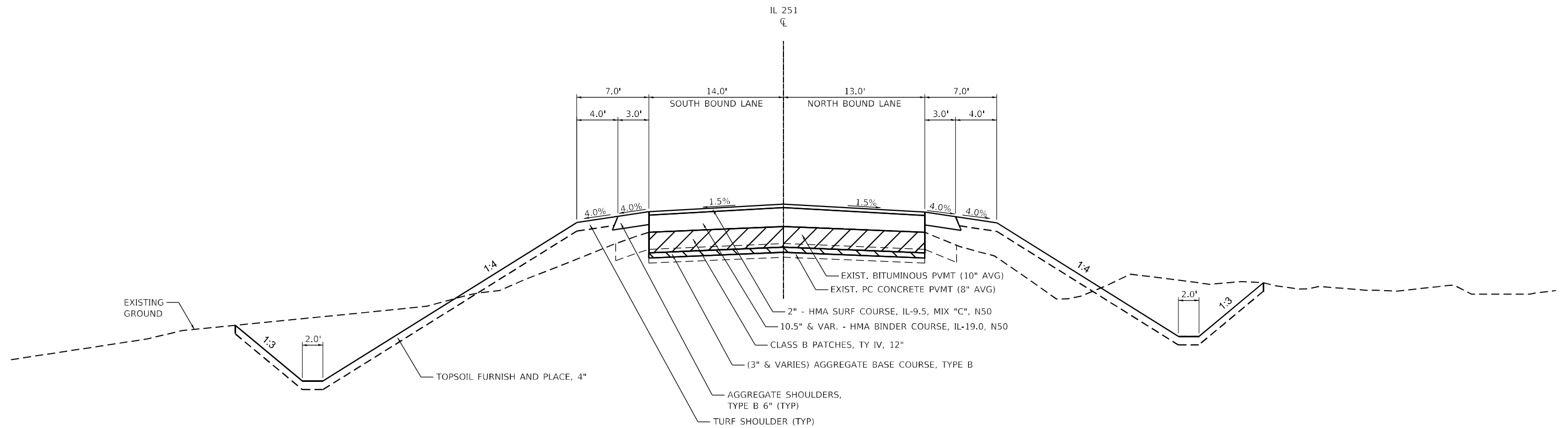
SUMMARY OF QUANTITIES IL RTE 251 CULVERT IMPROVEMENTS			
SCALE:	SHEET 7 OF 7 SHEETS	STA.	TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	10
CONTRACT NO.64M41				
ILLINOIS FED. AID PROJECT				



**TYPICAL SECTION**

STA 118+50 TO 120+50 (T.N. H052-C311-044-028-001A)  
 STA 170+00 TO 178+25 (S.N. 052-1149)  
 STA 500+00 TO 503+00 (S.N. 052-1146)



**TYPICAL SECTION**

STA 552+19 TO 552+91 (SN 052-2032)

FILE NAME = Z:\2016\160240\_P1B1B1\cadd\Civil\p1b1b1\160240-160240-typical\_01.dgn

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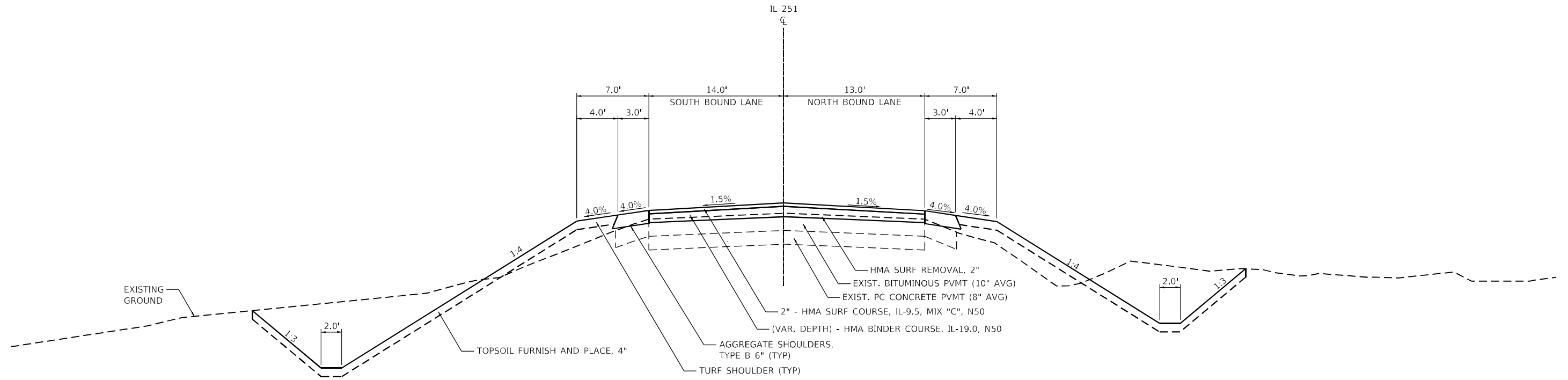
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PLOT DATE = 8/19/2021	CHECKED - JMM	REVISED -
	DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**IL RTE 251 CULVERT IMPROVEMENTS  
 TYPICAL SECTIONS**

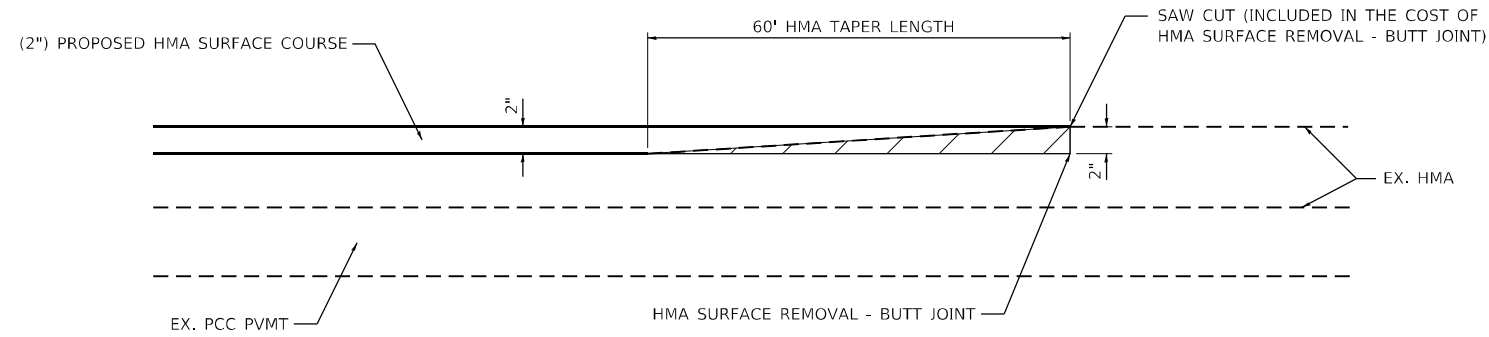
SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	11
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				



**TYPICAL SECTION**

STA 549+00 TO 552+19  
 STA 552+91 TO 556+00  
 (SN 052-2032)



**TYPICAL BUTT JOINT AND HMA TAPER**

(SN 052-2032)

FILE NAME = Z:\2016\160240\_PTB1811\cadd\Civil\Drawings\02\1811\1811-1811-typical\_02.dgn



USER NAME = ssundaresan	DESIGNED - SBP	REVISED -
PLOT SCALE = 1:10	DRAWN - NDP	REVISED -
PLOT DATE = 8/16/2021	CHECKED - JMM	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**IL RTE 251 CULVERT IMPROVEMENTS  
 TYPICAL SECTIONS**

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	12
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

# HORIZONTAL & VERTICAL CONTROL

## HORIZONTAL CONTROL POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
4	1820199.8991	2579989.6235	903.4945	IL251_LEE	115+38.97	34.1189' RT	GPS CONTROL POINT, SET P & C
5	1820759.5004	2579909.7195	904.2956	IL251_LEE	120+99.86	36.1278' LT	GPS CONTROL POINT, SET P & C
6	1825799.6990	2579873.3210	938.0063	IL251_LEE	171+39.89	18.7504' RT	GPS CONTROL POINT, SET P & C
7	1826453.1819	2579822.7561	943.2314	IL251_LEE	177+94.25	18.7752' LT	GPS CONTROL POINT, SET P & C
16	1847968.7560	2592170.6555	830.6793	IL251_LEE	489+60.70	20.105' RT	GPS CONTROL POINT, SET P & C
17	1849127.7850	2592156.1096	816.4305	IL251_LEE	501+19.82	17.2962' RT	GPS CONTROL POINT, SET P & C
18	1850075.9692	2592110.3127	827.9486	IL251_LEE	510+68.42	18.8969' LT	GPS CONTROL POINT, SET P & C
20	1854286.2241	2592105.0500	790.8920	IL251_LEE	552+78.51	18.474' RT	GPS CONTROL POINT, SET P & C

## BENCH MARKS

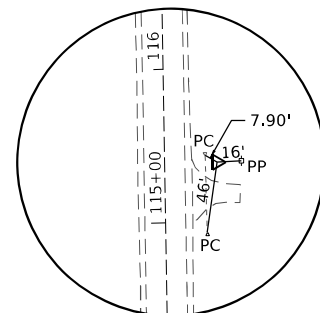
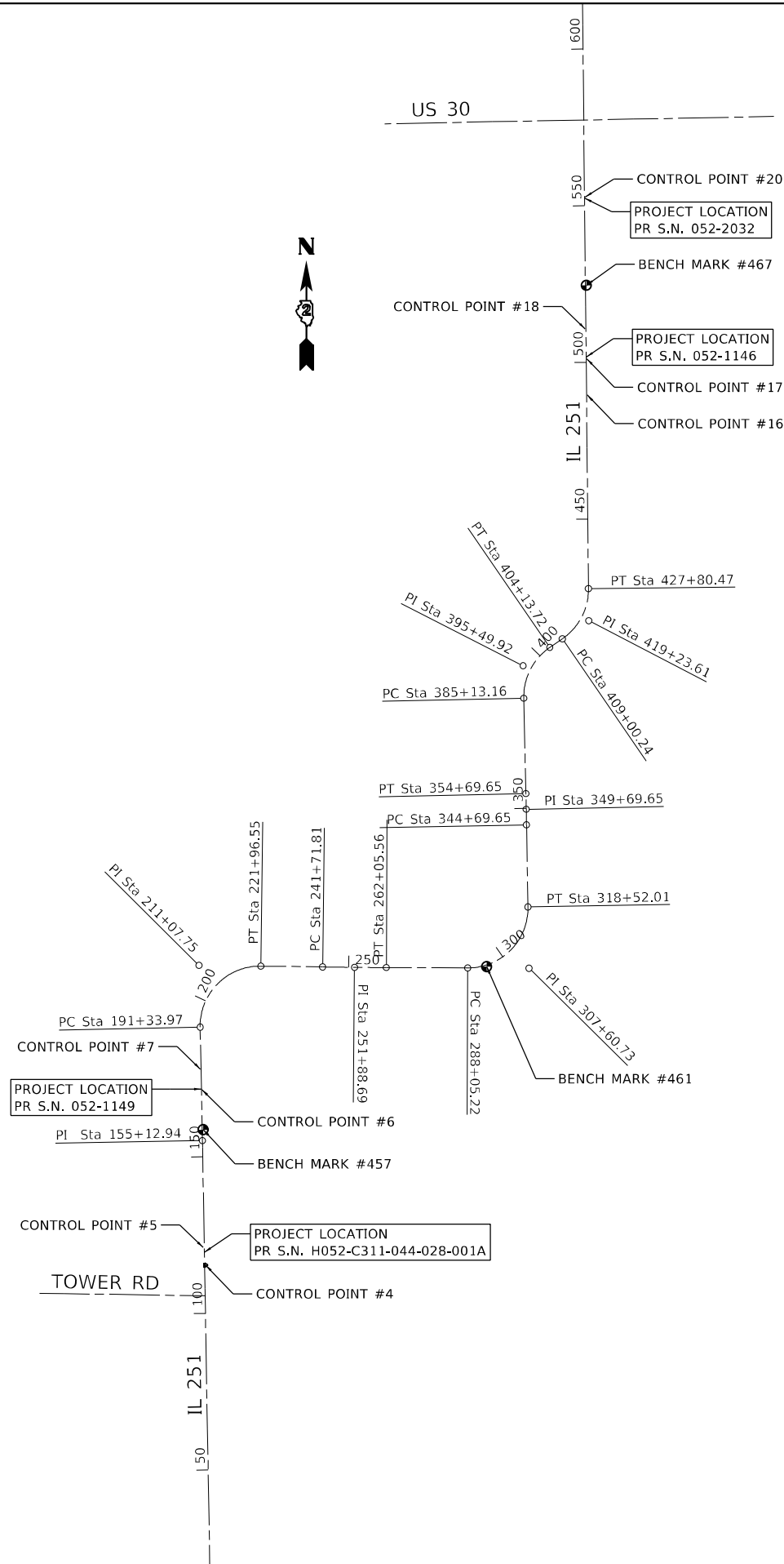
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
457	1824522.4778	2579910.8068	933.3542	IL251_LEE	158+62.18	30.7632' RT	CUT "□" NORTH HEADWALL
461	1829724.8795	2588961.1302	945.5312	IL251_LEE	294+02.81	50.6669' RT	CUT "□" NORTH HEADWALL
467	1851466.6442	2592142.0749	803.4729	IL251_LEE	524+58.70	26.9457' RT	CUT "□" HEADWALL

## CURVE POINT NUMBERS

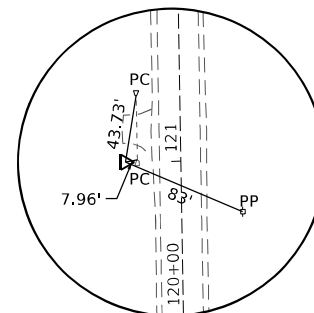
CHAIN	CURVE	PI	CC	PC	PT
IL251_LEE	IL251_LEE_3	001240	1241	1242	1243
IL251_LEE	IL251_LEE_8	001260	1261	1262	1263
IL251_LEE	IL251_LEE_11	001270	1271	1272	1273
IL251_LEE	IL251_LEE_14	001280	1281	1282	1283
IL251_LEE	IL251_LEE_17	001290	1291	1292	1293
IL251_LEE	IL251_LEE_20	001300	1301	1302	1303
IL251_LEE	IL251_LEE_23	001310	1311	1312	1313

## LEGEND

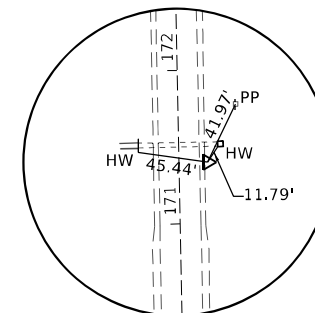
- ⊙ = BENCH MARK (BM) LOCATION
- △ = HORIZONTAL CONTROL POINT (HCP) LOCATION



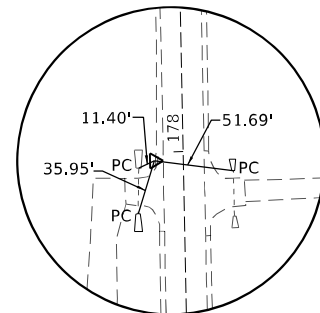
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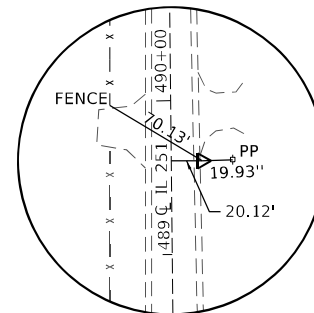
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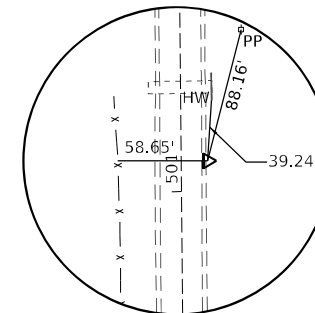
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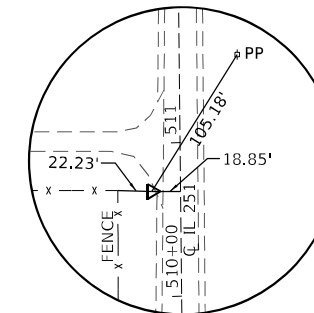
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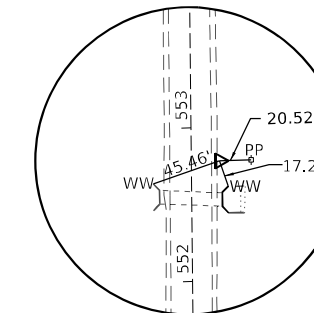
HORIZONTAL CONTROL POINT NO. 16



HORIZONTAL CONTROL POINT NO. 17



HORIZONTAL CONTROL POINT NO. 18



HORIZONTAL CONTROL POINT NO. 20

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL RTE 251 CULVERT IMPROVEMENTS  
ALIGNMENT, TIES & BENCHMARKS

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	13
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

# HORIZONTAL & VERTICAL CONTROL

Chain IL251\_LEE contains:  
 102 CUR IL251\_LEE\_3 103 CUR IL251\_LEE\_8 CUR IL251\_LEE\_11 CUR IL251\_LEE\_14 CUR -  
 IL251\_LEE\_17 CUR IL251\_LEE\_20 CUR IL251\_LEE\_23 CUR IL251\_LEE\_26 CUR IL251\_LEE\_2-  
 9 CUR IL251\_LEE\_32 CUR IL251\_LEE\_35 CUR IL251\_LEE\_38 CUR IL251\_LEE\_41

Beginning chain IL251\_LEE description  
 Feature: Geom\_Ex\_Centerline  
 =====

Point 102 N 1,808,664.5967 E 2,580,194.6445 Sta 0+00.00

Course from 102 to PC IL251\_LEE\_3 N 7° 54' 35.11" W Dist 90.3137'

Curve Data  
\*-----\*

Curve IL251\_LEE\_3  
 P.I. Station 3+34.24 N 1,808,995.6571 E 2,580,148.6486  
 Delta = 6° 55' 19.69" (RT)  
 Degree = 1° 25' 14.25"  
 Tangent = 243.9267'  
 Length = 487.2598'  
 Radius = 4,033.1388'  
 External = 7.3697'  
 Long Chord = 486.9635'  
 Mid. Ord. = 7.3562'  
 P.C. Station 0+90.31 N 1,808,754.0512 E 2,580,182.2161  
 P.T. Station 5+77.57 N 1,809,239.5476 E 2,580,144.4442  
 C.C. N 1,809,309.0642 E 2,584,176.9838

Course from PT IL251\_LEE\_3 to 103 N 0° 59' 15.43" W Dist 14,935.3643'

Point 103 N 1,824,172.6931 E 2,579,887.0129 Sta 155+12.94

Course from 103 to PC IL251\_LEE\_8 N 1° 08' 32.82" W Dist 3,621.0369'

Curve Data  
\*-----\*

Curve IL251\_LEE\_8  
 P.I. Station 211+07.75 N 1,829,766.3886 E 2,579,775.4626  
 Delta = 91° 53' 57.37" (RT)  
 Degree = 3° 00' 02.57"  
 Tangent = 1,973.7709'  
 Length = 3,062.5791'  
 Radius = 1,909.4042'  
 External = 836.7924'  
 Long Chord = 2,744.6880'  
 Mid. Ord. = 581.8137'  
 P.C. Station 191+33.97 N 1,827,793.0101 E 2,579,814.8160  
 P.T. Station 221+96.55 N 1,829,740.3178 E 2,581,749.0613  
 C.C. N 1,827,831.0802 E 2,581,723.8407

Course from PT IL251\_LEE\_8 to PC IL251\_LEE\_11 S 89° 14' 35.45" E Dist 1,975.2561'

Curve Data  
\*-----\*

Curve IL251\_LEE\_11  
 P.I. Station 251+88.69 N 1,829,700.7958 E 2,584,740.9385  
 Delta = 0° 28' 52.40" (LT)  
 Degree = 0° 01' 25.18"  
 Tangent = 1,016.8821'  
 Length = 2,033.7522'  
 Radius = 242,145.0905'  
 External = 2.1352'  
 Long Chord = 2,033.7462'  
 Mid. Ord. = 2.1352'  
 P.C. Station 241+71.81 N 1,829,714.2274 E 2,583,724.1451  
 P.T. Station 262+05.56 N 1,829,695.9045 E 2,585,757.8088  
 C.C. N 2,071,838.1938 E 2,586,922.5474

Course from PT IL251\_LEE\_11 to PC IL251\_LEE\_14 S 89° 43' 27.84" E Dist 2,599.6564'

Curve Data  
\*-----\*

Curve IL251\_LEE\_14  
 P.I. Station 307+60.73 N 1,829,673.9938 E 2,590,312.9276  
 Delta = 91° 16' 07.08" (LT)  
 Degree = 2° 59' 44.02"  
 Tangent = 1,955.5152'  
 Length = 3,046.7951'  
 Radius = 1,912.6889'  
 External = 822.7121'  
 Long Chord = 2,734.7304'  
 Mid. Ord. = 575.2693'  
 P.C. Station 288+05.22 N 1,829,683.4000 E 2,588,357.4351  
 P.T. Station 318+52.01 N 1,831,629.2152 E 2,590,279.0368  
 C.C. N 1,831,596.0667 E 2,588,366.6352

Course from PT IL251\_LEE\_14 to PC IL251\_LEE\_17 N 0° 59' 34.93" W Dist 2,617.6359'

Curve Data  
\*-----\*

Curve IL251\_LEE\_17  
 P.I. Station 349+69.65 N 1,834,746.3829 E 2,590,225.0055  
 Delta = 0° 17' 02.56" (LT)  
 Degree = 0° 01' 42.26"  
 Tangent = 500.0000'  
 Length = 999.9980'  
 Radius = 201,714.6058'  
 External = 0.6197'  
 Long Chord = 999.9969'  
 Mid. Ord. = 0.6197'  
 P.C. Station 344+69.65 N 1,834,246.4580 E 2,590,233.6710  
 P.T. Station 354+69.65 N 1,835,246.2587 E 2,590,213.8618  
 C.C. N 1,830,750.5706 E 2,388,549.3608

Course from PT IL251\_LEE\_17 to PC IL251\_LEE\_20 N 1° 16' 37.48" W Dist 3,043.5156'

Curve Data  
\*-----\*

Curve IL251\_LEE\_20  
 P.I. Station 395+49.92 N 1,839,325.5218 E 2,590,122.9232  
 Delta = 56° 50' 56.24" (RT)  
 Degree = 2° 59' 28.24"  
 Tangent = 1,036.7610'  
 Length = 1,900.5549'  
 Radius = 1,915.4930'  
 External = 262.5765'  
 Long Chord = 1,823.5491'  
 Mid. Ord. = 230.9217'  
 P.C. Station 385+13.16 N 1,838,289.0184 E 2,590,146.0299  
 P.T. Station 404+13.72 N 1,839,911.6774 E 2,590,978.0811  
 C.C. N 1,838,331.7097 E 2,592,061.0470

Course from PT IL251\_LEE\_20 to PC IL251\_LEE\_23 N 55° 34' 18.76" E Dist 486.5268'

FILE NAME = Z:\2016\160240\_PTB181\cadd\Civil\p\W0251\11\0264M4-2016-ATB\_02.dgn

	USER NAME = ssuncoaresan PLOT SCALE = 1:5000 PLOT DATE = 8/16/2021	DESIGNED - VLM DRAWN - VLM CHECKED - YOO DATE - 08/16/21	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>IL RTE 251 CULVERT IMPROVEMENTS</b> <b>ALIGNMENT, TIES &amp; BENCHMARKS</b>	F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 14
	SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.						CONTRACT NO. 64M41			
							ILLINOIS FED. AID PROJECT			

# SCHEDULE OF QUANTITIES

**20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)**

STA.	OFFSET	UNIT
170+40	RT	36
174+40	LT	26

TOTAL UNITS 62

**20800150 TRENCH BACKFILL**

STA.	CU YD	REMARKS
118+90.5	3.248	AT CULVERT REMOVAL
550+19.00	14.678	AT CULVERT REMOVAL
119+52.00	10.323	
118+66.00	3.06	
171+57.00	21.698	
176+71.30	63.5	
177+13.60	11.543	AT CULVERT REMOVAL
550+18.7	12.172	

TOTAL CU YD 141

**21301052 EXPLORATION TRENCH 52" DEPTH**

LOCATION	FEET
CONTINGENCY	100

TOTAL FT 100.0

**25000210 SEEDING, CLASS 2A**

STA.	STA	ACRE
118+50.00	120+50.00	0.185
170+00.00	174+00.00	0.442
174+00.00	178+25.00	0.424
500+00.00	503+00.00	0.262
549+00.00	554+00.00	0.569
554+00.00	556+00.00	0.213

TOTAL ACRE 2.25

**25000310 SEEDING, CLASS 4**

STA.	STA	ACRE
118+50.00	120+50.00	0.091
170+00.00	174+00.00	0.316
174+00.00	178+25.00	0.224
500+00.00	503+00.00	0.245
549+00.00	554+00.00	0.437
554+00.00	556+00.00	0.195

TOTAL ACRE 1.75

**25000400 NITROGEN FERTILIZER NUTRIENT**

STA.	STA	ACRE	AT RATE 90 LBS/ACRE
118+50.00	120+50.00	0.276	25
170+00.00	174+00.00	0.757	68
174+00.00	178+25.00	0.667	60
500+00.00	503+00.00	0.507	46
549+00.00	554+00.00	1.007	91
554+00.00	556+00.00	0.408	37

TOTAL POUND 327

**25000500 PHOSPHORUS FERTILIZER NUTRIENT**

STA.	STA	ACRE	AT RATE 90 LBS/ACRE
118+50.00	120+50.00	0.276	25
170+00.00	174+00.00	0.757	68
174+00.00	178+25.00	0.667	60
500+00.00	503+00.00	0.507	46
549+00.00	554+00.00	1.007	91
554+00.00	556+00.00	0.408	37

TOTAL POUND 327

**25000600 POTASSIUM FERTILIZER NUTRIENT**

STA.	STA	ACRE	AT RATE 90 LBS/ACRE
118+50.00	120+50.00	0.276	25
170+00.00	174+00.00	0.757	68
174+00.00	178+25.00	0.667	60
500+00.00	503+00.00	0.507	46
549+00.00	554+00.00	1.007	91
554+00.00	556+00.00	0.408	37

TOTAL POUND 327

**25000750 MOWING**

STA.	STA	ACRE
118+50.00	120+50.00	0.185
170+00.00	174+00.00	0.442
174+00.00	178+25.00	0.424
500+00.00	503+00.00	0.262
549+00.00	554+00.00	0.569
554+00.00	556+00.00	0.213

TOTAL ACRE 2.25

**25100125 MULCH, METHOD 3**

STA.	STA	ACRE
118+50.00	120+50.00	0.263
170+00.00	174+00.00	0.722
174+00.00	178+25.00	0.639
500+00.00	503+00.00	0.482
549+00.00	554+00.00	0.967
554+00.00	556+00.00	0.39

TOTAL ACRE 3.50

**25100630 EROSION CONTROL BLANKET**

STA.	STA	SQ YD
118+50.00	120+50.00	63.25
170+00.00	174+00.00	169.35
174+00.00	178+25.00	135.74
500+00.00	503+00.00	130.05
549+00.00	554+00.00	189.53
554+00.00	556+00.00	89.22

TOTAL SQ YD 778

**25100900 TURF REINFORCEMENT MAT**

STA.	STA	SQ YD
118+50.00	120+50.00	52.2
170+00.00	174+00.00	62.7
500+00.00	503+00.00	62.2
549+00.00	554+00.00	80.7

TOTAL SQ YD 258

**28000250 TEMPORARY EROSION CONTROL SEEDING**

STA.	STA	ACRE	AT RATE 100 LBS/ACRE
118+50.00	120+50.00	0.276	28
170+00.00	174+00.00	0.758	76
174+00.00	178+25.00	0.668	67
500+00.00	503+00.00	0.507	51
549+00.00	554+00.00	1.006	101
554+00.00	556+00.00	0.408	41

SUBTOTAL 364  
TOTAL POUND (2 APPLICATIONS) 728

**28000305 TEMPORARY DITCH CHECKS**

STA.	STA	LENGTH PER CHECK	REMARKS
118+50.00	120+50.00	72	6 @ 12' Length
170+00.00	174+00.00	192	16 @ 12' Length
174+00.00	178+25.00	132	11 @ 12' Length
500+00.00	503+00.00	120	10 @ 12' Length
549+00.00	554+00.00	180	15 @ 12' Length
554+00.00	556+00.00	96	8 @ 12' Length

TOTAL LENGTH 792

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**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = ssuncioresan	DESIGNED - SS	REVISED -
PLOT SCALE = 1:100	DRAWN - SS	REVISED -
PLOT DATE = 8/16/2021	CHECKED - YOO	REVISED -
	DATE - \$PDATE	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES  
IL 251 CULVERT IMPROVEMENTS**

SCALE: N/A SHEET 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	15
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT X	

# SCHEDULE OF QUANTITIES

**28000400 PERIMETER EROSION BARRIER**

STA.	STA.	LENGTH
118+50.00	120+50.00	218
500+00.00	503+00.00	374
<b>TOTAL LENGTH</b>		<b>592</b>

**28000500 INLET AND PIPE PROTECTION**

STA.	STA.	EACH
118+50.00	120+50.00	2
170+00.00	174+00.00	1
174+00.00	178+25.00	1
500+00.00	503+00.00	1
549+00.00	554+00.00	2
<b>TOTAL</b>		<b>7</b>

**28100109 RIPRAP, CLASS A5**

STA.	SQ YD
119+52.00	62
171+57.00	82
177+00.00	57
501+67.85	80
552+55.00	90
554+94.90	25

**TOTAL AREA 396**

**28200200 FILTER FABRIC**

STA.	SQ YD
119+52.00	62
171+57.00	82
177+00.00	57
501+67.85	80
552+55.00	90
554+94.90	25

**TOTAL AREA 396**

**35101400 AGGREGATE BASE COURSE, TYPE B**

STA.	STA.	SQ FT	AVE. DEPTH (FT)	CU YDS	TONS/CU YD	TONS
549+00.0	554+00.0	1951.6	0.25	18.1	1.8	32.2
500+00.0	503+00.00	1611.00	24.90	18.1	1.8	44.3

**TOTAL TONS 77**

**35102000 AGGREGATE BASE COURSE, TYPE B 8"**

STA.	STA.	SQ FT	SQ YD
118+50.0	120+50.0	1744	193.8
174+00.0	179+00.0	1133.39	125.9
549+00.0	554+00.0	1955	217.2

**TOTAL SQ YD 537**

**35102400 AGGREGATE BASE COURSE, TYPE B 12"**

STA.	STA.	SQ FT	SQ YD
118+50.0	120+50.0	966	107.3
170+00.0	174+00.0	1451.36	161.3
174+00.0	179+00.0	1463	162.6

**TOTAL SQ YD 432**

**40201000 AGGREGATE FOR TEMPORARY ACCESS**

STA.	STA.	SQ FT	SQ YD	IDOT MISTIC FACTOR	TONS
118+50.0	120+50.0	1744.37	193.8	0.3	58.15
174+00.0	178+25.0	983.54	109.3	0.3	32.78
549+00.0	554+00.0	1745.64	194.0	0.3	58.19

**TOTAL TONS 149**

**40600290 BITUMINOUS MATERIALS (TACK COAT)**

STA.	STA.	SQ FT	LBS/SQ FT	EACH	LBS
118+50.0	120+50.0	966	0.05	1	48.30
170+00.0	174+00.0	1451	0.05	1	72.57
174+00.0	178+25.0	1463	0.05	1	73.15
500+00.0	503+00.0	1611	0.05	1	80.55
549+00.0	554+00.0	13580	0.05	2	1358.00
554+00.0	556+00.0	5416	0.05	2	541.60
GOOD NEIGHBOR (CH10)		22000	0.05	1	1100.00

**TOTAL LBS 3275**

**40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT**

STA.	STA.	SQ FT	SQ YD
549+00.0	554+00.0	1633.51	181.5
554+00.0	556+00.0	1635.78	181.8

**TOTAL SQ YD 364**

**40603080 HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50**

STA.	STA.	SQ FT	SQ YD	TONS
549+00.0	554+00.0	13558.15	1506.5	548.35
554+00.0	556+00.0	5416	601.8	219.05

**TOTAL TONS 768**

**40604050 HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50**

STA.	STA.	SQ FT	SQ YD	TONS
118+50.0	120+50.0	965.98	107.3	12.02
170+00.0	174+00.0	1451.36	161.3	18.06
174+00.0	178+25.0	1463	162.6	18.21
500+00.0	503+00.0	1611	179.0	20.05
549+00.0	554+00.0	13558.15	1506.5	210.90
554+00.0	556+00.0	5416	601.8	84.25

**TOTAL TONS 364**

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**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = jmueller	DESIGNED - SS	REVISED -
PLOT SCALE = 1:100	DRAWN - SS	REVISED -
PLOT DATE = 8/19/2021	CHECKED - YOO	REVISED -
	DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES			
IL 251 CULVERT IMPROVEMENTS			
SCALE: N/A	SHEET 2	OF 6 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	16
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT X				



# SCHEDULE OF QUANTITIES

**40800050**      INCIDENTAL HOT-MIX ASPHALT SURFACING

LOCATION	SQ FT	SQ YD	LBS/IN/SQ YD	TONS
GOOD NEIGHBOR POLICY	22000	2444	112	206
DRMEWAYS	855	95	112	8
<b>TOTAL TONS</b>				<b>214</b>

**42000060**      WELDED WIRE REINFORCEMENT

STA.	STA	SQ FT	SQ YD
118+50.00	120+50.00	965.98	107.3
170+00.00	174+00.00	1451.36	161.3
174+00.00	178+25.00	1463	162.6
500+00.00	503+00.00	1611	179.0
549+00.00	554+00.00	1951.61	216.8
	<b>TOTAL SQYD</b>		<b>827</b>

**44000157**      HOT-MIX ASPHALT SURFACE REMOVAL, 2"

STA.	STA.	SQ FT	SQ YD
549+00.0	554+00.0	11619	1291.0
554+00.0	556+00.0	3464	384.9
	<b>TOTAL SQYD</b>		<b>1676.0</b>

**442000976**      CLASS B PATCHES, TYPE IV, 10 INCH

STA.	STA	SQ FT	SQ YD
118+50.00	120+50.00	965.98	107.3
170+00.00	174+00.00	1451.36	161.3
174+00.00	178+25.00	1463	162.6
500+00.00	503+00.00	1611	179.0
	<b>TOTAL SQYD</b>		<b>611</b>

**442000976**      CLASS B PATCHES, TYPE IV, 12 INCH

STA.	STA	SQ FT	SQ YD
549+00.00	554+00.00	1951.61	216.8
	<b>TOTAL SQYD</b>		<b>217</b>

**44201299**      DOWEL BARS 1 1/2"      AT EXIST. PAVEMENT      AT CONTRACTION JT.      TOTAL

STA.	STA	(EACH)		(EACH)		(EACH)
		O/S LT	O/S RT	O/S LT	O/S RT	
118+50.00	120+50.00	6	5	12	10	33
170+00.00	174+00.00	5	6	15	18	44
174+00.00	178+25.00	5	6	15	18	44
500+00.00	503+00.00	6	5	18	15	44
549+00.00	554+00.00	6	5	24	20	55
	<b>TOTAL EACH</b>					<b>220</b>

**44213204**      TIE BARS 3/4"      AT CENTERLINE

STA.	STA	(EACH)
118+50.00	120+50.00	11
170+00.00	174+00.00	18
174+00.00	178+25.00	18
500+00.00	503+00.00	19
549+00.00	554+00.00	23
	<b>TOTAL EACH</b>	<b>89</b>

**44213208**      TIE BARS 1 1/4"

STA.	STA	AT EXIST. PAVEMENT (EACH)
118+50.00	120+50.00	11
170+00.00	174+00.00	11
174+00.00	178+25.00	11
500+00.00	503+00.00	11
549+00.00	554+00.00	11
	<b>TOTAL EACH</b>	<b>55</b>

**48101500**      AGGREGATE SHOULDERS, TYPE B 6"

STA.	STA	SQ YD
118+50.00	120+50.00	111.2
170+00.00	174+00.00	266.7
174+00.00	178+25.00	231.0
500+00.00	503+00.00	200.0
549+00.00	554+00.00	346.9
554+00.00	556+00.00	133.3
	<b>TOTAL SQYD</b>	<b>1290</b>

**50100300**      REMOVAL OF EXISTING STRUCTURES NO. 1

STRUCTURE NO.	EACH
Drop Box #1 - H052	1.0
<b>TOTAL</b>	<b>1.0</b>

**50100400**      REMOVAL OF EXISTING STRUCTURES NO. 2

STRUCTURE NO.	EACH
Drop Box #1 - H052	1.0
<b>TOTAL</b>	<b>1.0</b>

**50100500**      REMOVAL OF EXISTING STRUCTURES NO. 3

STRUCTURE NO.	EACH
Drop Box #1 - H052	1.0
<b>TOTAL EACH</b>	<b>1.0</b>

**54260518**      SLOPED METAL END SECTION, STANDARD 542411, 18", 1:6

STA.	EACH
550+14.7	1.0
550+94.9	1.0
<b>TOTAL EACH</b>	<b>2.0</b>

**54260918**      SLOPED METAL END SECTION, STANDARD 542416, 18", 1:6

STA.	EACH
118+63.73	1.0
119+43.44	1.0
<b>TOTAL EACH</b>	<b>2.0</b>

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**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = jmueller	DESIGNED - SS	REVISED -
PLOT SCALE = 1:100	DRAWN - SS	REVISED -
PLOT DATE = 8/20/2021	CHECKED - YOO	REVISED -
	DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES			
IL 251 CULVERT IMPROVEMENTS			
SCALE: N/A	SHEET 3	OF 6 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	17
			CONTRACT NO. 64M41	
ILLINOIS FED. AID PROJECT X				

# SCHEDULE OF QUANTITIES

<u>54260948</u>	<u>SLOPED METAL END SECTION, STANDARD 542416, 48", 1:6</u>	
STA.	EACH	
176+99.7	1.0	
178+11.3	1.0	
	TOTAL EACH	2.0

<u>54263442</u>	<u>CONCRETE END SECTION, STANDARD 542011, 42", 1:4</u>	
STA.	EACH	
119+52.00	1.0	
	TOTAL EACH	1.0

<u>54263460</u>	<u>CONCRETE END SECTION, STANDARD 542011, 60", 1:4</u>	
STA.	EACH	
171+57.00	1.0	
	TOTAL EACH	1.0

<u>542A5497</u>	<u>PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 42"</u>	
STA.	FOOT	
119+52.00	47.0	
	TOTAL FT	47.0

<u>542A5515</u>	<u>PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 60"</u>	
STA.	FOOT	
171+57.00	51.0	
	TOTAL FT	51.0

<u>542D0223</u>	<u>PIPE CULVERTS, CLASS D, TYPE 1 18"</u>	
STA.	STA.	FOOT
550+18.7	550+90.9	72.0
	TOTAL FT	72.0

<u>542D5473</u>	<u>PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 18"</u>	
STA.	STA.	FOOT
118+38.4	119+29.0	75.0
	TOTAL FT	75.0

<u>542D5503</u>	<u>PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 48"</u>	
STA.	STA.	FOOT
177+13.6	177+97.4	84.0
	TOTAL FT	84.0

<u>60100060</u>	<u>CONCRETE HEADWALLS FOR PIPE DRAINS</u>	
STA.	EACH	
501+38.35	2	
501+97.40	2	
	TOTAL EACH	4

<u>60108204</u>	<u>PIPE UNDERDRAINS, TYPE 2, 4"</u>		
STA.	LT	RT	
	FOOT	FOOT	
501+38.35	36	36	
501+97.40	36	36	
	TOTAL FT	144	

<u>61133100</u>	<u>FIELD TILE JUNCTION VAULTS, 2' DIA.</u>		
STA.	STA.	EACH	
118+50.00	120+50.00	1	
549+00.00	554+00.00	1	
	TOTAL EACH	2	

<u>61133200</u>	<u>FIELD TILE JUNCTION VAULTS, 3' DIA.</u>		
STA.	STA.	EACH	
118+50.00	120+50.00	1	
549+00.00	554+00.00	1	
	TOTAL EACH	2	

<u>61139900</u>	<u>STORM SEWERS (SPECIAL), 6"</u>		
STA.	STA.	FOOT	
118+50.00	120+50.00	25	
549+00.00	554+00.00	25	
	TOTAL FT	50	
118+50.00	120+50.00	25	
549+00.00	554+00.00	25	
	TOTAL FT	50	

<u>63500105</u>	<u>DELINEATORS</u>	
STA.	EACH	
118+75.00	1	
119+52.00	2	
171+57.00	2	
501+67.85	2	
550+10.00	1	
552+55.00	2	
	TOTAL EACH	10

<u>66600105</u>	<u>FURNISHING AND ERECTING RIGHT OF WAY MARKERS</u>	
STATION	OFFSET	EACH
118+50.00	40' LT	1
119+40.00	50' LT	1
119+65.00	50' LT	1
120+50.00	40' LT	1
118+50.00	40' RT	1
119+25.00	75' RT	1
119+75.00	75' RT	1
120+50.00	40' RT	1
170+00.00	40' LT	1
171+00.00	75' LT	1
171+60.00	90' LT	1
172+00.00	65' LT	1
175+00.00	65' LT	1
177+00.00	60' LT	1
178+00.00	45' LT	1
170+00.00	40' RT	1
171+00.00	50' RT	1
171+60.00	60' RT	1
172+00.00	55' RT	1
176+00.00	55' RT	1
178+00.00	40' RT	1
499+00.00	40' LT	1
500+00.00	50' LT	1
501+35.00	75' LT	1
502+00.00	75' LT	1
503+00.00	40' LT	1
500+00.00	40' RT	1
501+50.00	55' RT	1
501+85.00	55' RT	1
502+00.00	40' RT	1
549+00.00	45' LT	1
551+00.00	60' LT	1
552+00.00	60' LT	1
552+25.00	80' LT	1
552+90.00	80' LT	1
553+25.00	60' LT	1
555+00.00	55' LT	1
557+00.00	40' LT	1
548+00.00	45' RT	1
549+00.00	65' RT	1
553+00.00	65' RT	1
556+00.00	50' RT	1
556+40.00	40' RT	1
	TOTAL EACH	43

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PLOT SCALE = 1:100	DRAWN - SS	REVISED -
PLOT DATE = 8/20/2021	CHECKED - YOO	REVISED -
	DATE - 08/19/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SCHEDULE OF QUANTITIES IL 251 CULVERT IMPROVEMENTS</b>			
SCALE: N/A	SHEET 4	OF 6 SHEETS	STA. TO STA.

F.A.P. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 18
			CONTRACT NO. 64M41	
ILLINOIS FED. AID PROJECT X				

# SCHEDULE OF QUANTITIES

**66700305 PERMANENT SURVEY MARKERS, TYPE II**

3 EACH

**67000400 ENGINEER'S FIELD OFFICE, TYPE A**

5 CAL MO

**67100100 MOBILIZATION**

1 LUMP SUM

**70100450 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201**

1 LUMP SUM

**70100460 TRAFFIC CONTROL AND PROTECTION, STANDARD 701306**

1 LUMP SUM

**70100500 TRAFFIC CONTROL AND PROTECTION, STANDARD 701326**

1 LUMP SUM

**70107025 CHANGEABLE MESSAGE SIGN**

LOCATION	TOTAL CAL DA
IL 251 N. OF US RTE 30	14
IL 251 N. OF CH 10	14

TOTAL CAL DA 28

**72000200 SIGN PANEL - TYPE 2**

STA.	OFFSET	SQ FT	REMARKS
502+00	20' LT	10.7	SIGN W14-3
550+20.50	22' LT	10.7	SIGN W14-3

TOTAL SQ FT 21.4

**72400100 REMOVE SIGN PANEL ASSEMBLY - TYPE A**

STA.	OFFSET	EACH
171+40.00	22' RT	1
171+70.00	22' LT	1
501+50.00	22' RT	1

TOTAL EACH 3

**72400200 REMOVE SIGN PANEL ASSEMBLY - TYPE B**

STA.	OFFSET	EACH
502+00.00	20' LT	1
550+00.00	29' LT	1

TOTAL EACH 2

**72900200 METAL POST - TYPE B**

STA.	EACH	FOOT
118+75.00	1.0	7
119+52.00	2.0	14
171+57.00	2	14
501+67.85	2	14
550+10.00	1	7
552+55.00	2	14
	TOTAL FT	70

**73000100 WOOD SIGN SUPPORT**

STA.	OFFSET	LENGTH	REMARKS
502+00.00	20' LT	16	1 POST PER SIGN
550+00.00	23.0' LT	16	2 POST PER SIGN
	TOTAL EACH	32	

**78001110 PAINT PAVEMENT MARKING - LINE 4"**

STA.	STA.	WHITE	YELLOW 10'SKIP, 30'DASH	YELLOW SOLID	APPLICATION	FEET
118+50.00	120+50.00	400	50	0	2	900
170+00.00	174+00.00	800	100	0	2	1800
174+00.00	178+25.00	850	106.25	0	2	1913
500+00.00	503+00.00	600	75	100	2	1550
549+00.00	554+00.00	1000	125	380	2	3010
554+00.00	556+00.00	400	50	200	2	1300
	GOOD NEIGHBOR POLICY	2000	0	2000	2	8000
					TOTAL FT	18473

**78100100 RAISED REFLECTIVE PAVEMENT MARKER**

STA.	STA.	FOOT	EACH
118+50.00	120+50.00	200	3.0
170+00.00	174+00.00	400	5.0
174+00.00	178+25.00	425	6.0
500+00.00	503+00.00	300	4.0
549+00.00	554+00.00	499.84	7.0
554+00.00	556+00.00	200	3.0
	TOTAL EACH		28

**78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL**

STA.	STA.	FOOT	EACH
118+50.00	120+50.00	200	3.0
170+00.00	174+00.00	400	5.0
174+00.00	178+25.00	425	6.0
500+00.00	503+00.00	300	4.0
549+00.00	554+00.00	499.84	7.0
554+00.00	556+00.00	200	3.0
	TOTAL EACH		28

**X0327576 TEMPORARY PATCHING**

STA.	STA.	SQ FT	SQ YD
118+50.00	120+50.00	965.98	107.3
170+00.00	174+00.00	1451.36	161.3
174+00.00	178+25.00	1463	162.6
	TOTAL SQYD		432

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USER NAME = ssundaresan	DESIGNED - SS	REVISED -
PLOT SCALE = 1:100	DRAWN - SS	REVISED -
PLOT DATE = 8/16/2021	CHECKED - YOO	REVISED -
	DATE - \$PDATE	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SCHEDULE OF QUANTITIES IL 251 CULVERT IMPROVEMENTS</b>			
SCALE: N/A	SHEET 5	OF 6 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	19
				CONTRACT NO. 64M41
				ILLINOIS FED. AID PROJECT X



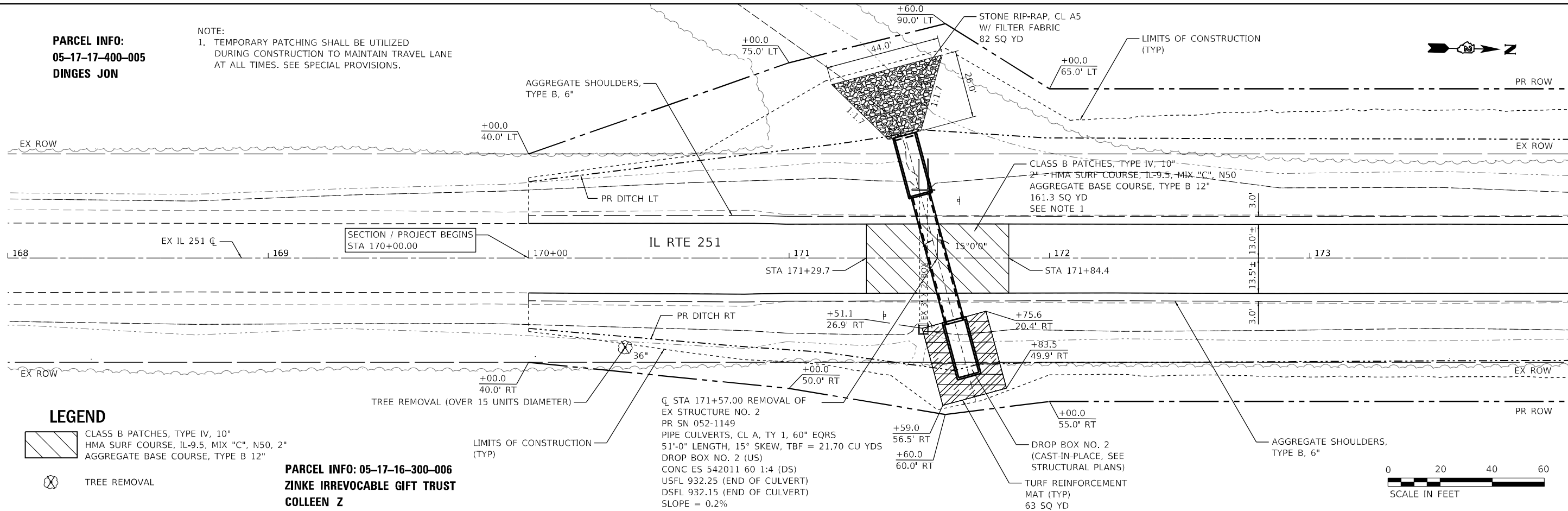


**PARCEL INFO:**  
05-17-17-400-005  
DINGES JON

NOTE:  
1. TEMPORARY PATCHING SHALL BE UTILIZED DURING CONSTRUCTION TO MAINTAIN TRAVEL LANE AT ALL TIMES. SEE SPECIAL PROVISIONS.

DATE	
BY	
PLAN	
NO.	
DATE	
BY	
PROFILE	
NO.	

DATE	
BY	
PROFILE	
NO.	
DATE	
BY	
PLAN	
NO.	

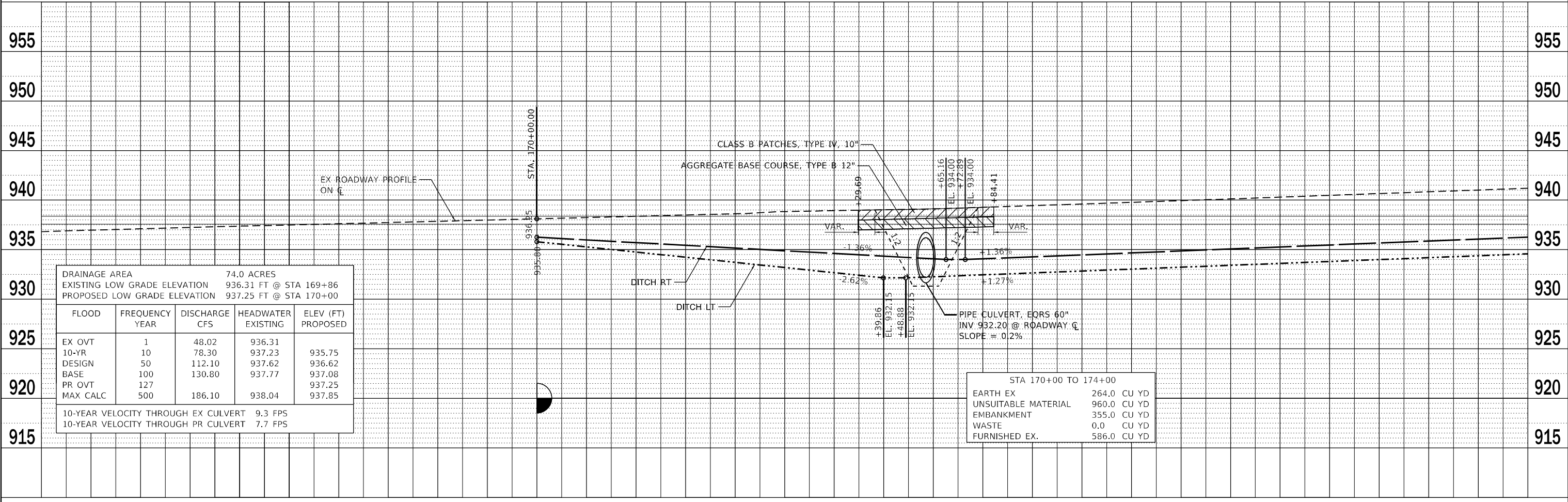


**LEGEND**

- CLASS B PATCHES, TYPE IV, 10" HMA SURF COURSE, IL-9.5, MIX "C", N50, 2" AGGREGATE BASE COURSE, TYPE B 12"
- TREE REMOVAL

**PARCEL INFO: 05-17-16-300-006**  
**ZINKE IRREVOCABLE GIFT TRUST**  
**COLLEEN Z**

CL STA 171+57.00 REMOVAL OF EX STRUCTURE NO. 2  
PR SN 052-1149  
PIPE CULVERTS, CL A, TY 1, 60" EQRS  
51'-0" LENGTH, 15° SKEW, TBF = 21.70 CU YDS  
DROP BOX NO. 2 (US)  
CONC ES 542011 60 1:4 (DS)  
USFL 932.25 (END OF CULVERT)  
DSFL 932.15 (END OF CULVERT)  
SLOPE = 0.2%



DRAINAGE AREA					74.0 ACRES
EXISTING LOW GRADE ELEVATION					936.31 FT @ STA 169+86
PROPOSED LOW GRADE ELEVATION					937.25 FT @ STA 170+00
FLOOD	FREQUENCY	DISCHARGE	HEADWATER	ELEV (FT)	
	YEAR	CFS	EXISTING	PROPOSED	
EX OVT	1	48.02	936.31		
10-YR	10	78.30	937.23		935.75
DESIGN	50	112.10	937.62		936.62
BASE	100	130.80	937.77		937.08
PR OVT	127				937.25
MAX CALC	500	186.10	938.04		937.85
10-YEAR VELOCITY THROUGH EX CULVERT					9.3 FPS
10-YEAR VELOCITY THROUGH PR CULVERT					7.7 FPS

**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME	= jmueller	DESIGNED	- MCC	REVISED	-
DRAWN	- NDP	CHECKED	- YOO	REVISED	-
PLOT SCALE	= 1:40	DATE	- 08/19/21	REVISED	-
PLOT DATE	= 8/19/2021				

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

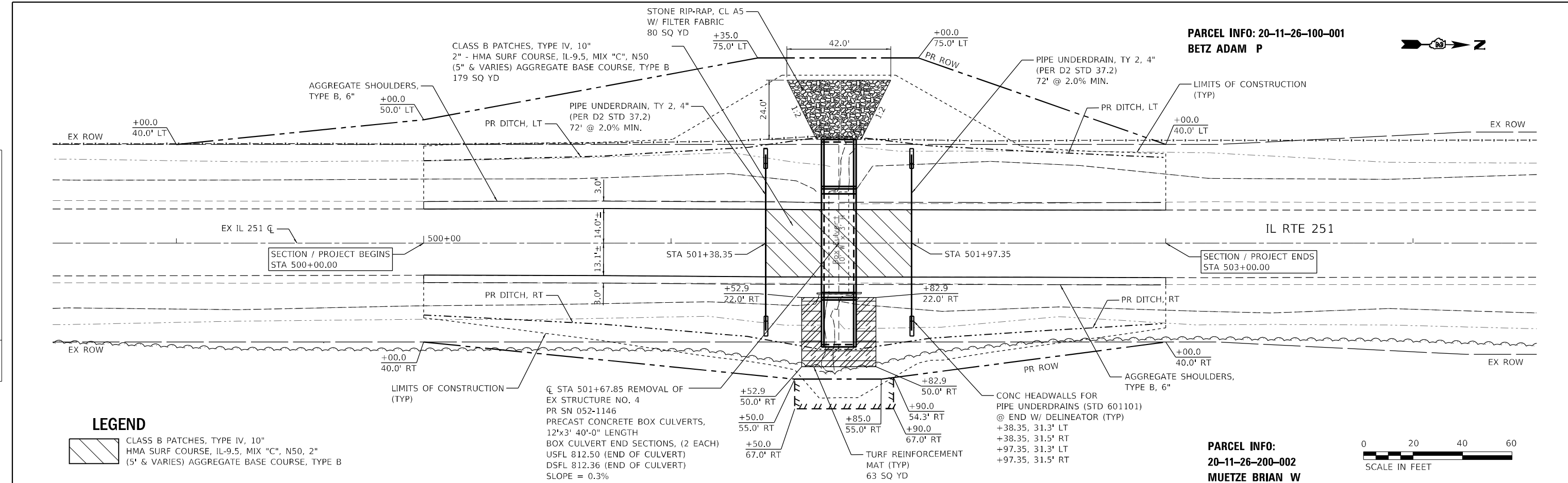
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**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
SCALE: 1"=20' SHEET 2 OF 6 SHEETS STA. 170+00.00 TO STA. 174+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	22
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

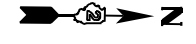


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	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	FILE NAME	



PARCEL INFO: 20-11-26-100-001  
BETZ ADAM P



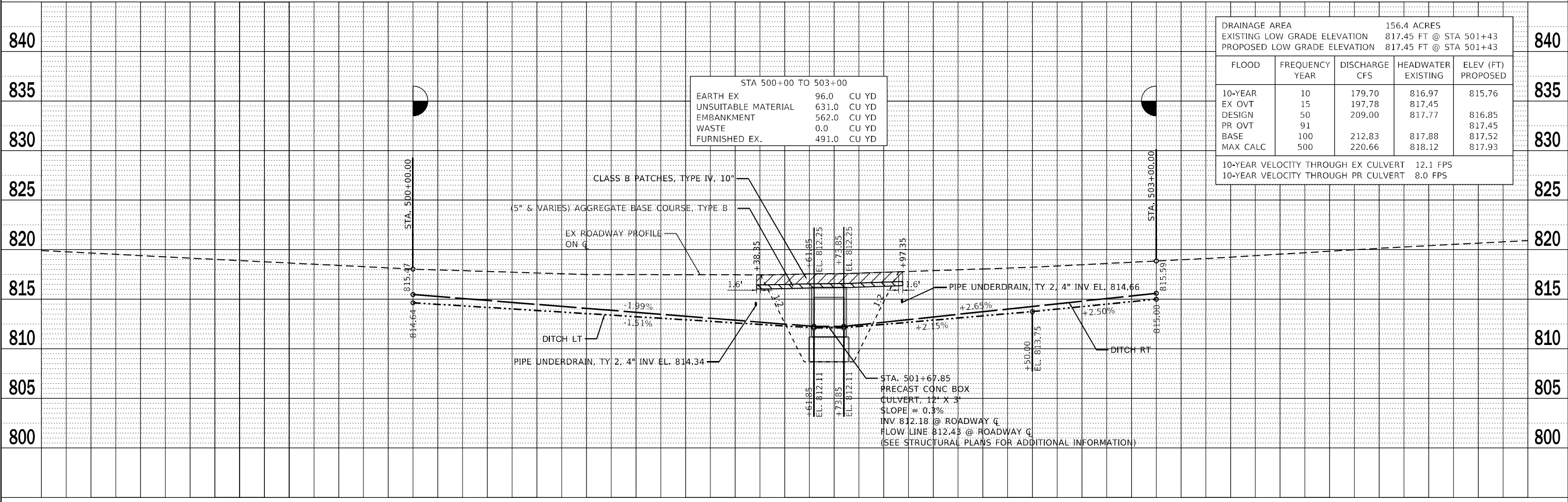
**LEGEND**  
 CLASS B PATCHES, TYPE IV, 10\"/>

PARCEL INFO: 20-11-26-200-002  
MUETZE BRIAN W



STA 500+00 TO 503+00	
EARTH EX	96.0 CU YD
UNSUITABLE MATERIAL	631.0 CU YD
EMBANKMENT	562.0 CU YD
WASTE	0.0 CU YD
FURNISHED EX.	491.0 CU YD

DRAINAGE AREA		156.4 ACRES		
EXISTING LOW GRADE ELEVATION		817.45 FT @ STA 501+43		
PROPOSED LOW GRADE ELEVATION		817.45 FT @ STA 501+43		
FLOOD	FREQUENCY YEAR	DISCHARGE CFS	HEADWATER EXISTING	ELEV (FT) PROPOSED
10-YEAR EX OVT	10	179.70	816.97	815.76
DESIGN	15	197.78	817.45	
PR OVT	50	209.00	817.77	816.85
BASE	91			817.45
MAX CALC	100	212.83	817.88	817.52
	500	220.66	818.12	817.93
10-YEAR VELOCITY THROUGH EX CULVERT		12.1 FPS		
10-YEAR VELOCITY THROUGH PR CULVERT		8.0 FPS		



**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = jmueller	DESIGNED - MCC	REVISED -
PLOT SCALE = 1:40	DRAWN - NDP	REVISED -
PLOT DATE = 8/19/2021	CHECKED - YOO	REVISED -
	DATE - 08/19/21	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)

SCALE: 1"=20' SHEET 4 OF 6 SHEETS STA. 500+00.00 TO STA. 503+00.00

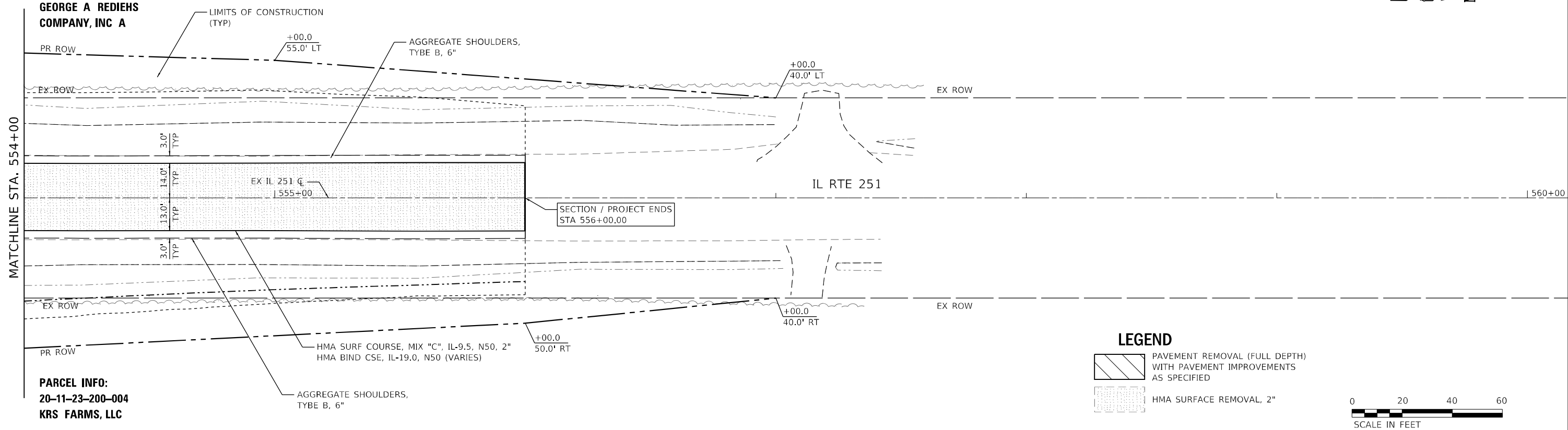
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	24
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				





**PARCEL INFO:**  
 20-11-23-100-001  
 GEORGE A REDIEHS  
 COMPANY, INC A

**PARCEL INFO:**  
 20-11-23-200-004  
 KRS FARMS, LLC



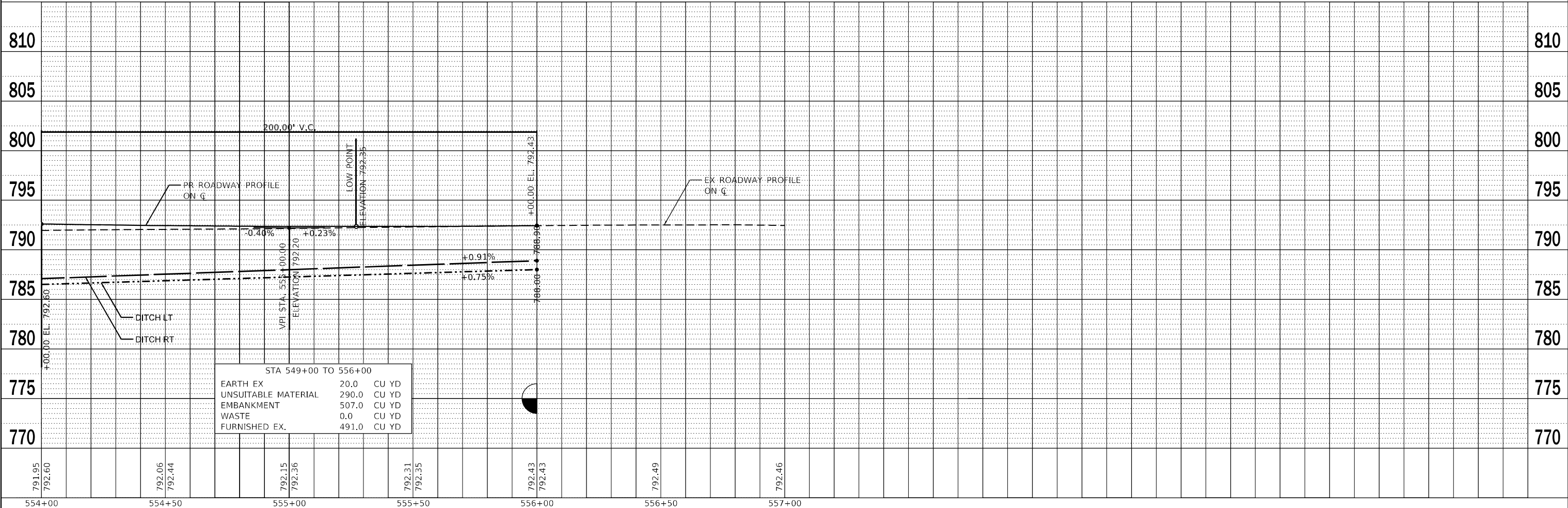
**LEGEND**

- PAVEMENT REMOVAL (FULL DEPTH) WITH PAVEMENT IMPROVEMENTS AS SPECIFIED
- HMA SURFACE REMOVAL, 2"



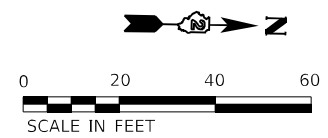
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NOTE BOOK NO.	ALIGNED	
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	FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK NO.	GRADES	
	CHECKED	
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	NOTATIONS	



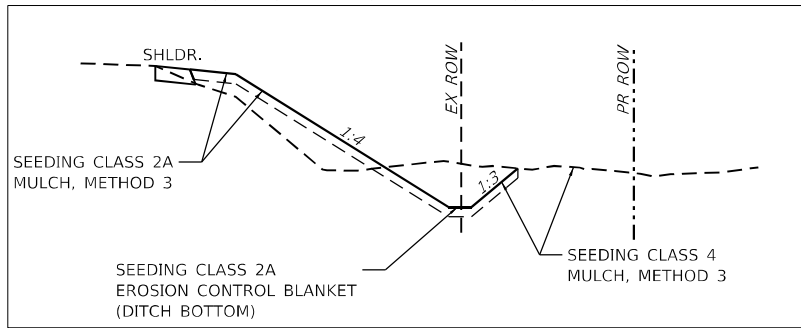
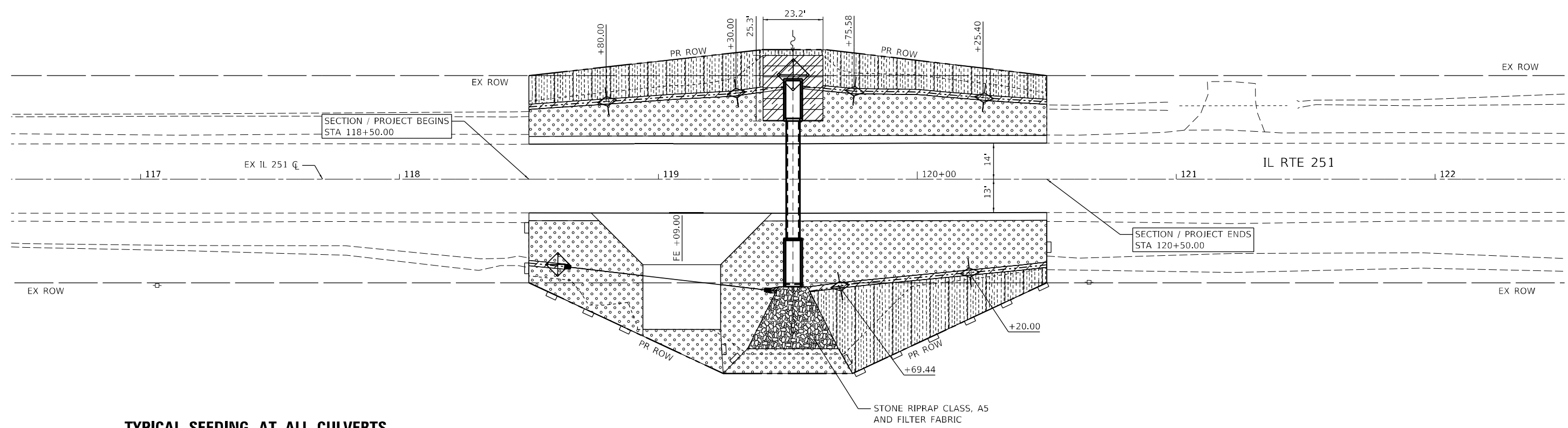
STA 549+00 TO 556+00		
EARTH EX	20.0	CU YD
UNSUITABLE MATERIAL	290.0	CU YD
EMBANKMENT	507.0	CU YD
WASTE	0.0	CU YD
FURNISHED EX.	491.0	CU YD

<b>WBK ENGINEERING, LLC</b> 115 WEST MAIN STREET, SUITE 201 ST. CHARLES, ILLINOIS 60174 (630) 443-7755	USER NAME = ssundaresan DESIGNED - MCC DRAWN - NDP CHECKED - YOO DATE - 08/16/21	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN &amp; PROFILE</b> <b>IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)</b>	F.A.S. RTE. = 1177 SECTION = (110, 111)CR COUNTY = LEE TOTAL SHEETS = 122 SHEET NO. = 26	CONTRACT NO. 64M41 ILLINOIS FED. AID PROJECT
	PLOT SCALE = 1:40 PLOT DATE = 8/16/2021	SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. 554+00.00 TO STA. 556+00.00				



**LEGEND**

- SEEDING CLASS 2A MULCH, METHOD 3
- SEEDING CLASS 4 MULCH, METHOD 3
- SEEDING CLASS 2A EROSION CONTROL BLANKET
- TURF REINFORCEMENT MAT
- PERIMETER EROSION CONTROL BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECKS



**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = ssundaresan	DESIGNED - SS	REVISED -
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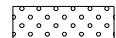


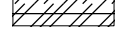
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

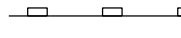


**EROSION CONTROL & SEEDING PLAN**  
**IL RTE 251 CULVERT IMPROVEMENTS (T.N. H052-C311-044-028-001A)**

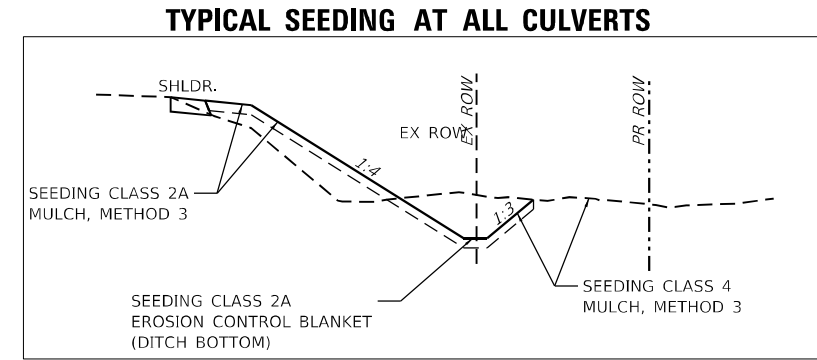
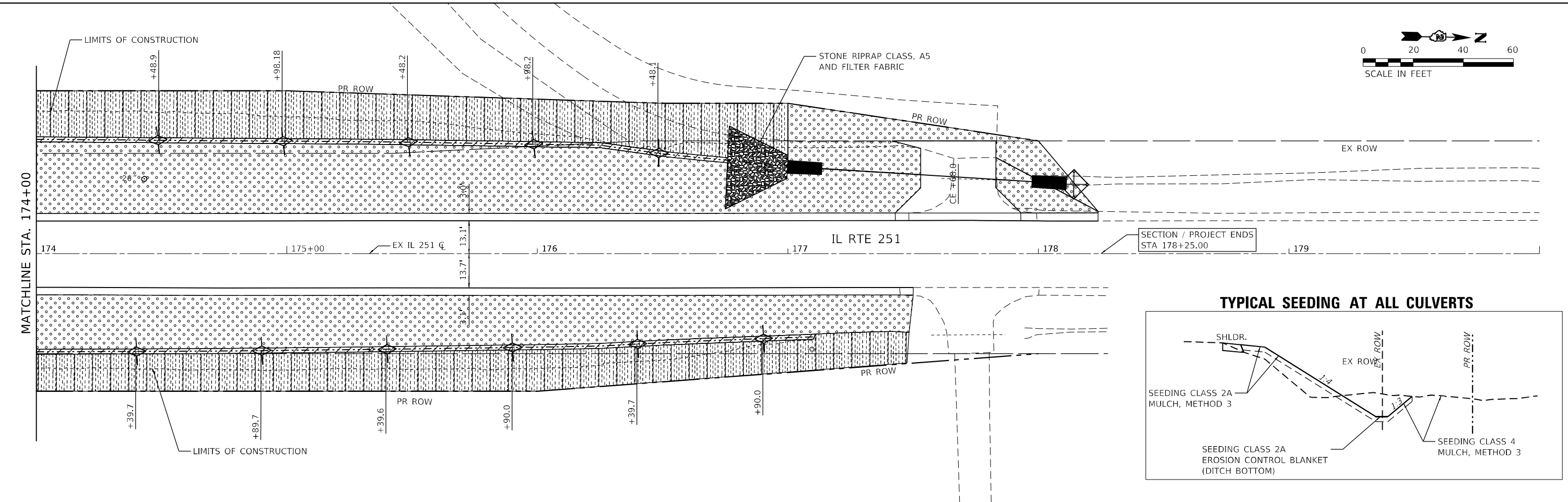
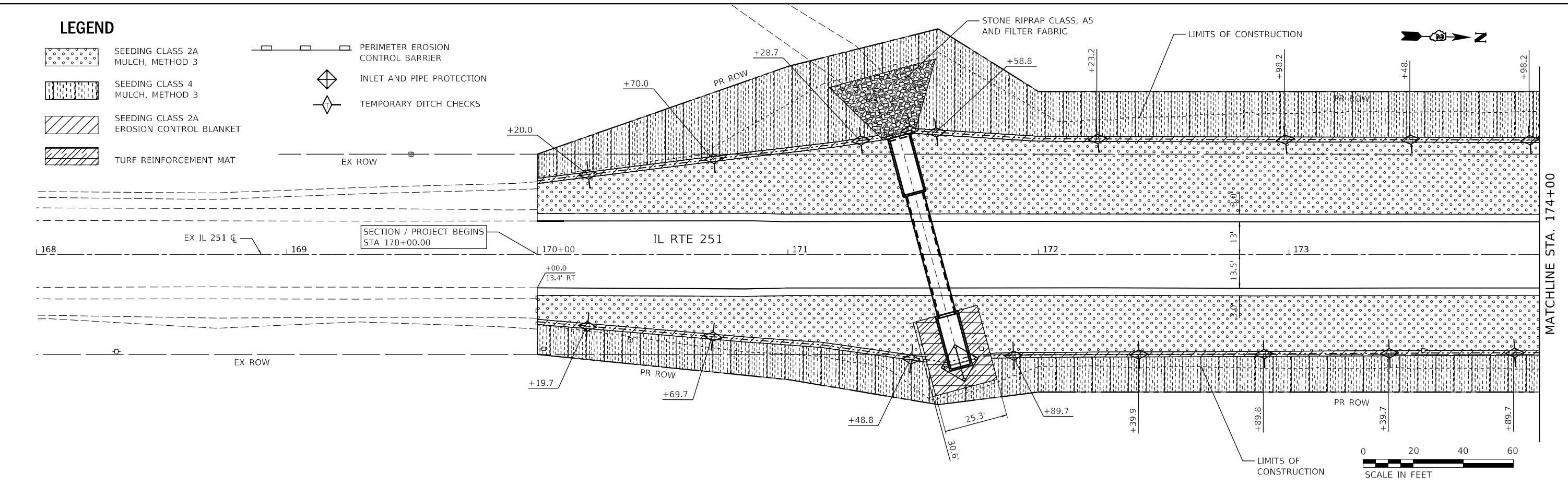
SCALE: 1"=20'    SHEET 1 OF 4 SHEETS    STA. 118+50 TO STA. 120+50

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	27
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT X				

**LEGEND**

-  SEEDING CLASS 2A MULCH, METHOD 3
-  SEEDING CLASS 4 MULCH, METHOD 3
-  SEEDING CLASS 2A EROSION CONTROL BLANKET
-  TURF REINFORCEMENT MAT

-  PERIMETER EROSION CONTROL BARRIER
-  INLET AND PIPE PROTECTION
-  TEMPORARY DITCH CHECKS



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**WBK ENGINEERING**  
 WBK ENGINEERING, LLC  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

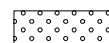

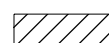

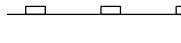


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	DATE - 08/16/21	REVISED -

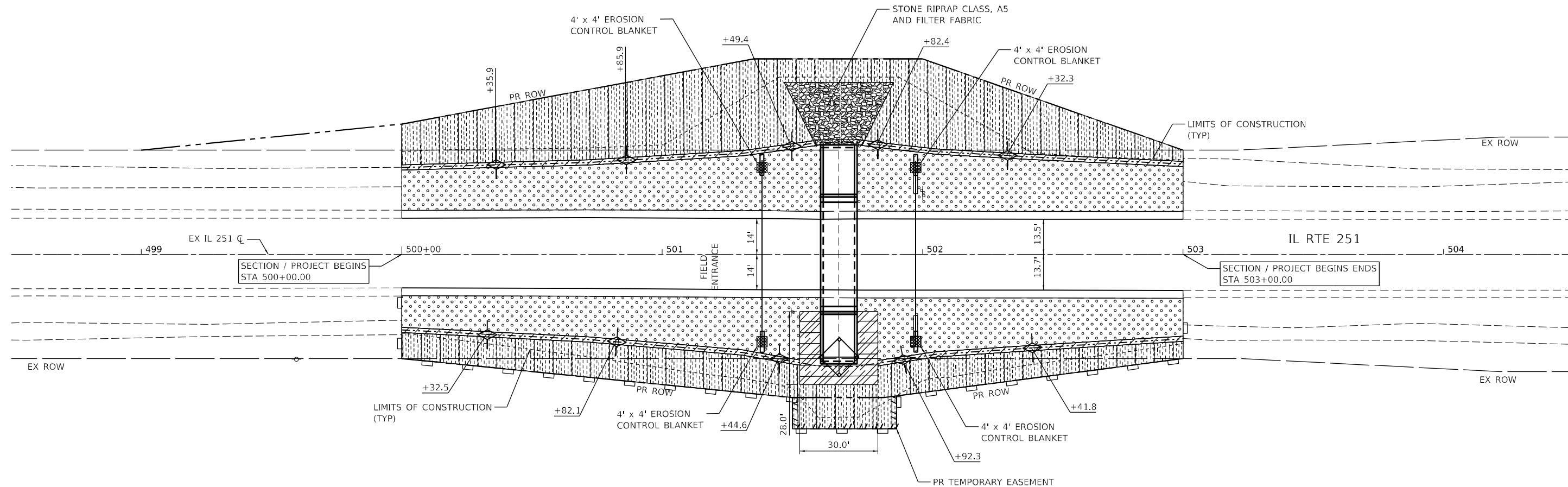
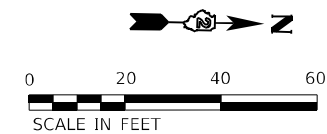
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL & SEEDING PLAN**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
 SCALE: 1"=20'    SHEET 2 OF 4 SHEETS    STA. 170+00.00 TO STA. 178+25.00

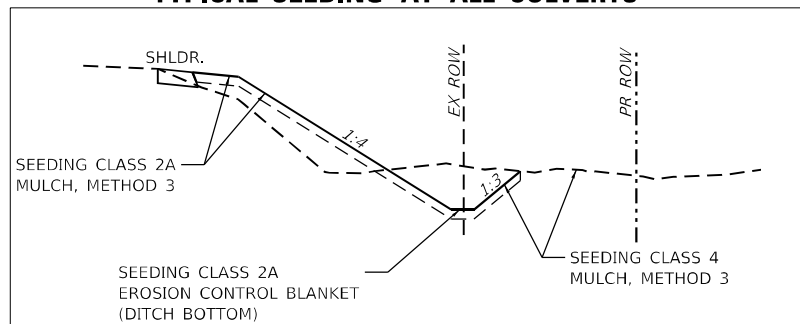
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	28
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

**LEGEND**

-  SEEDING CLASS 2A MULCH, METHOD 3
-  SEEDING CLASS 4 MULCH, METHOD 3
-  SEEDING CLASS 2A EROSION CONTROL BLANKET
-  TURF REINFORCEMENT MAT
-  PERIMETER EROSION CONTROL BARRIER
-  INLET AND PIPE PROTECTION
-  TEMPORARY DITCH CHECKS



**TYPICAL SEEDING AT ALL CULVERTS**



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	DATE - 08/16/21	REVISED -

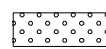

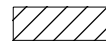
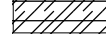
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

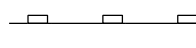


**EROSION CONTROL & SEEDING PLAN  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**

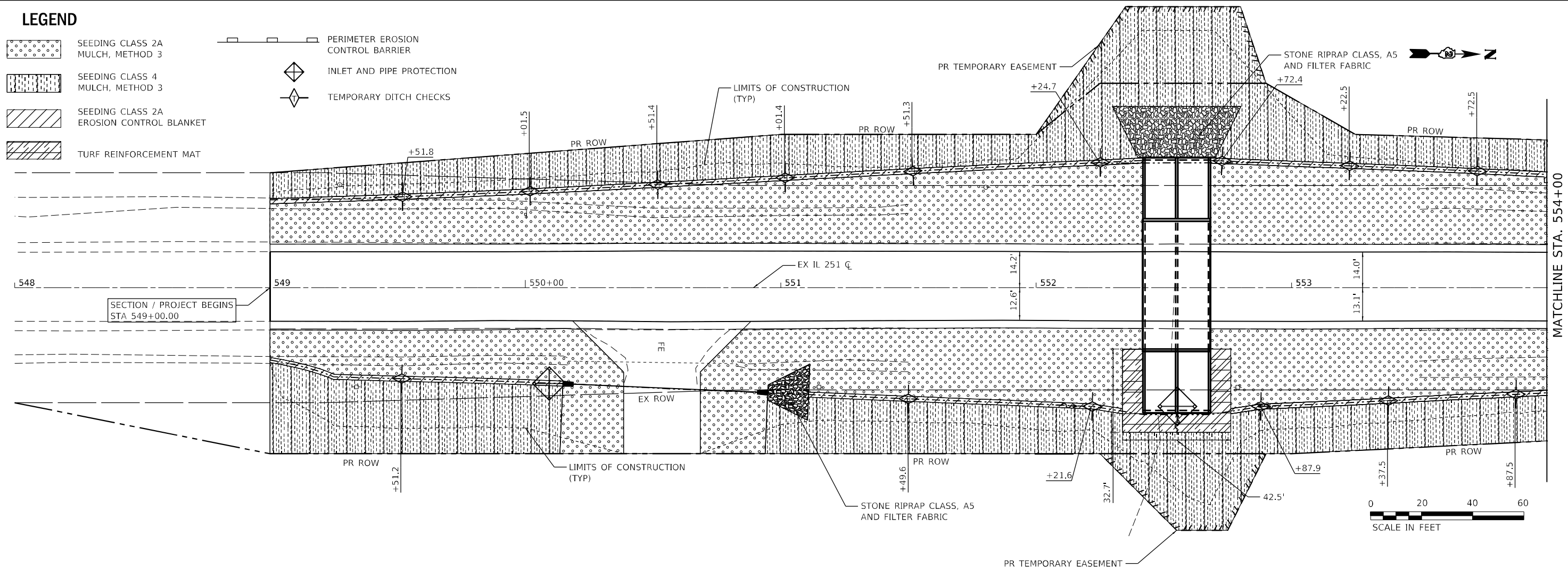
SCALE: 1"=20' SHEET 3 OF 4 SHEETS STA. 500+00.00 TO STA. 503+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	29
CONTRACT NO. 64M41				
		ILLINOIS	FED. AID PROJECT	

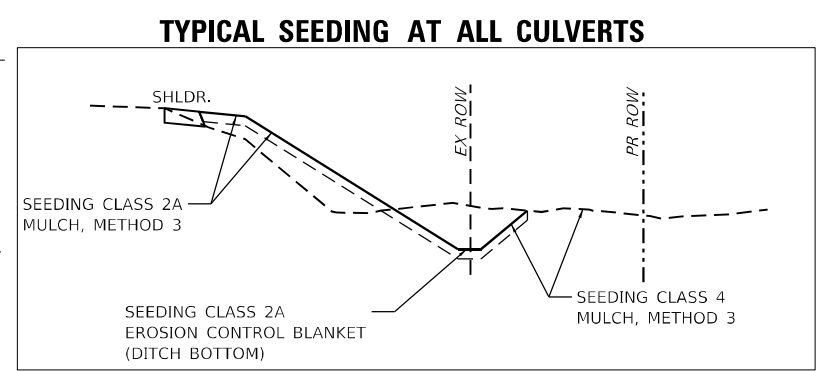
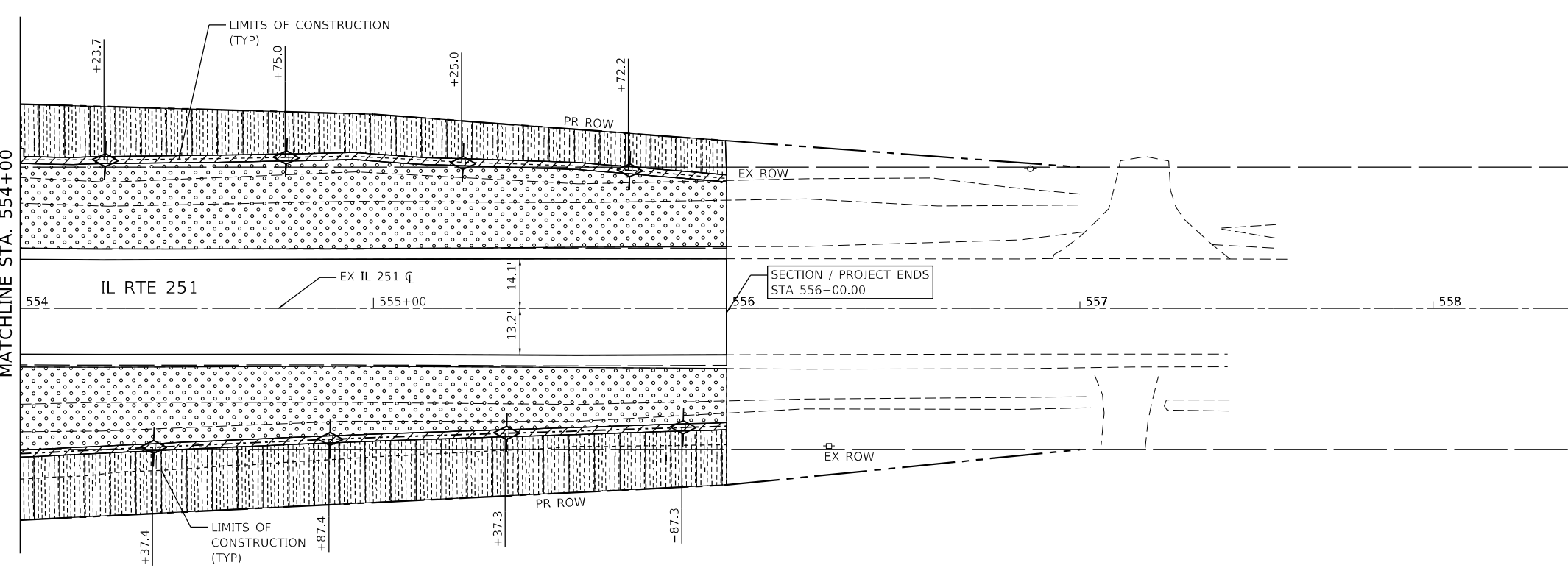
**LEGEND**

-  SEEDING CLASS 2A MULCH, METHOD 3
-  SEEDING CLASS 4 MULCH, METHOD 3
-  SEEDING CLASS 2A EROSION CONTROL BLANKET
-  TURF REINFORCEMENT MAT

-  PERIMETER EROSION CONTROL BARRIER
-  INLET AND PIPE PROTECTION
-  TEMPORARY DITCH CHECKS



MATCHLINE STA. 554+00



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**WBK ENGINEERING**  
 WBK ENGINEERING, LLC  
 116 WEST MAIN STREET, SUITE 201  
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USER NAME = ssundaresan	DESIGNED - SS	REVISED -
PLOT SCALE = 1:40	DRAWN - SS	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL & SEEDING PLAN**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=20' SHEET 4 OF 4 SHEETS STA. 549+00.00 TO STA. 556+00.00

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 30
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

# MAINTENANCE OF TRAFFIC NOTES

## TRAFFIC CONTROL PLAN NARRATIVE (STRUCTURES #052-2032 & #052-1146)

THE FOLLOWING SUMMARIZES A SUGGESTED STAGING PLAN FOR THE REMOVAL AND REPLACEMENT OF STRUCTURE NUMBER 052-2032 & STRUCTURE # 052-1146 AND ALL WORK AT THIS LOCATION. THIS PORTION OF THE CULVERT REMOVAL AND REPLACEMENT PROJECT WILL REQUIRE A FULL CLOSURE OF IL ROUTE 251 WITH A MARKED DETOUR ROUTE FOR THE DURATION OF THE CLOSURE. IT IS VERY IMPORTANT TO ESTABLISH AND MAINTAIN A HEIGHTENED LEVEL OF PUBLIC OUTREACH AND AWARENESS LEADING UP TO AND DURING CONSTRUCTION OPERATIONS. THIS INCLUDES CLOSE COORDINATION WITH THE LOCAL BUSINESSES, RESIDENTS AND EMERGENCY SERVICES.

TRAFFIC CONTROL SHALL BE ACCORDING TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS, THE SUPPLEMENTAL SPECIFICATIONS, THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", ANY SPECIAL DETAILS AND HIGHWAY STANDARDS CONTAINED IN THE PLANS AND THE SPECIAL PROVISIONS.

### PRE-CLOSURE

THE CLOSING OF IL 251 FOR THE TWO CULVERTS SHALL BE COMPLETED AS SHOWN IN THE CONTRACT PLANS, IDOT HIGHWAY STANDARD 701901, AND DISTRICT 2 STANDARD 40.1 TRAFFIC CONTROL FOR ROAD CLOSURE. DETOUR ROUTE SIGNING SHALL BE IN PLACE PRIOR TO CLOSING OF IL ROUTE 251.

ANY ADVANCE WORK TO BE PERFORMED ON IL ROUTE 251 PRIOR TO THE ROAD CLOSURE SHALL UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARDS 701001, 701006, 701011, 701201, 701301, AND 701311 AS NEEDED.

### IL ROUTE 251 CLOSURE

THE CONSTRUCTION WORK AT THE TWO CULVERTS SHALL BE PERFORMED AS SHOWN IN THE CONTRACT PLANS AND SHALL UTILIZE THE DETOUR ROUTE SHOWN IN THE PLANS.

### POST-CLOSURE

ALL REMAINING WORK TO BE PERFORMED ON IL ROUTE 251 SHALL UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARDS 701001, 701006, 701011, 701201, 701301, AND 701311 AS NEEDED.

## TRAFFIC CONTROL PLAN NARRATIVE (PIPE CULVERTS AT STATIONS 119+52 & 171+57)

THE FOLLOWING SUMMARIZES A SUGGESTED STAGING PLAN FOR THE REMOVAL AND REPLACEMENT OF CULVERTS AT STATION 119+52 AND STATION 171+57. THIS PORTION OF THE CULVERT REMOVAL AND REPLACEMENT PROJECT WILL REQUIRE STAGING OF IL ROUTE 251.

TRAFFIC CONTROL SHALL BE ACCORDING TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS, THE SUPPLEMENTAL SPECIFICATIONS, THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", ANY SPECIAL DETAILS AND HIGHWAY STANDARDS CONTAINED IN THE PLANS AND THE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OPENING UP IL 251 TO TWO-WAY TRAFFIC AT THE END OF THE WORK DAY AND OVER WEEKENDS. TRENCHES SHALL BE BACKFILL WITH AGGREGATE IF THE FINAL PATCH CANNOT BE PLACED BEFORE IL 252 IS OPEN TO TWO WAY TRAFFIC. NO OPEN TRENCHES WILL BE ALLOWED OUTSIDE THE PAVEMENT DURING NON-WORKING HOURS.

### STAGE 1

#### SUMMARY OF WORK

- REMOVE EAST PORTION OF EX. 6' X 2.5' BOX CULVERT NO. 1
- CONSTRUCT PROPOSED CONCRETE END SECTION AND EAST PORTION OF PROPOSED 42"EQRS PIPE CULVERT AT STATION 119+52
- CONSTRUCT PAVEMENT PATCH ON EAST SIDE ROADWAY AT STATION 119+52
- CONSTRUCT PR. AGGREGATE SHOULDER, DITCH GRADING AND RIPRAP ON EAST SIDE OF ROADWAY AT STATION 119+52

#### TRAFFIC

- DAILY NORTHBOUND LANE CLOSURE WILL BE REQUIRED FOR THE REMOVAL AND INSTALLATION OF THE CULVERTS. MAINTAIN TWO-WAY TRAFFIC IN THE SOUTHBOUND (11-FOOT MINIMUM LANE) CONTROLLED BY FLAGGERS UTILIZING IDOT STANDARDS 701306.
- WORK AT THE SHOULDER AND OFF THE SHOULDER SHALL UTILIZE IDOT STANDARDS 701001, 701006, 701011, 701106, 701201, 701306, & 701326.

### STAGE 2

#### SUMMARY OF WORK

- REMOVE WEST PORTION OF EX. 6' X 2.5' BOX CULVERT NO. 1
- CONSTRUCT PROPOSED WEST PORTION OF PROPOSED 42"EQRS PIPE CULVERT AND PR. DROP BOX NO. 1 AT STATION 119+52
- CONSTRUCT PAVEMENT PATCH ON WEST SIDE ROADWAY AT STATION 119+52
- CONSTRUCT PR. AGGREGATE SHOULDER, DITCH GRADING AND RIPRAP ON WEST SIDE OF ROADWAY AT STATION 119+52

#### TRAFFIC

- DAILY SOUTHBOUND LANE CLOSURE WILL BE REQUIRED FOR THE REMOVAL AND INSTALLATION OF THE CULVERTS. MAINTAIN TWO-WAY TRAFFIC IN THE NORTHBOUND (11-FOOT MINIMUM LANE) CONTROLLED BY FLAGGERS UTILIZING IDOT STANDARDS 701306.
- WORK AT THE SHOULDER AND OFF THE SHOULDER SHALL UTILIZE IDOT STANDARDS 701001, 701006, 701011, 701106, 701201, 701306, & 701326.

### STAGE 3

#### SUMMARY OF WORK

- REMOVE WEST PORTION OF EX. 3' X 2' BOX CULVERT NO. 2
- CONSTRUCT PROPOSED CONCRETE END SECTION AND WEST PORTION OF PROPOSED 60"EQRS PIPE CULVERT AT STATION 171+57
- CONSTRUCT PAVEMENT PATCH ON WEST SIDE ROADWAY AT STATION 171+57
- CONSTRUCT PR. AGGREGATE SHOULDER, DITCH GRADING AND RIPRAP ON WEST SIDE OF ROADWAY AT STATION 171+57

#### TRAFFIC

- DAILY SOUTHBOUND LANE CLOSURE WILL BE REQUIRED FOR THE REMOVAL AND INSTALLATION OF THE CULVERTS. MAINTAIN TWO-WAY TRAFFIC IN THE NORTHBOUND (11-FOOT MINIMUM LANE) CONTROLLED BY FLAGGERS UTILIZING IDOT STANDARDS 701306.
- WORK AT THE SHOULDER AND OFF THE SHOULDER SHALL UTILIZE IDOT STANDARDS 701001, 701006, 701011, 701106, 701201, 701306, & 701326.

### STAGE 4

#### SUMMARY OF WORK

- REMOVE EAST PORTION OF EX. 3' X 2' BOX CULVERT NO. 2
- CONSTRUCT PROPOSED EAST PORTION OF PROPOSED 60"EQRS PIPE CULVERT AND PR. DROP BOX NO. 2 AT STATION 171+57
- CONSTRUCT PAVEMENT PATCH ON EAST SIDE ROADWAY AT STATION 171+57
- CONSTRUCT PR. AGGREGATE SHOULDER, DITCH GRADING AND RIPRAP ON EAST SIDE OF ROADWAY AT STATION 171+57

#### TRAFFIC

- DAILY NORTHBOUND LANE CLOSURE WILL BE REQUIRED FOR THE REMOVAL AND INSTALLATION OF THE CULVERTS. MAINTAIN TWO-WAY TRAFFIC IN THE SOUTHBOUND (11-FOOT MINIMUM LANE) CONTROLLED BY FLAGGERS UTILIZING IDOT STANDARDS 701306.
- WORK AT THE SHOULDER AND OFF THE SHOULDER SHALL UTILIZE IDOT STANDARDS 701001, 701006, 701011, 701106, 701201, 701306, & 701326.

### STAGE 5

#### SUMMARY OF WORK

- REMOVE EAST PORTION OF EX. 5' X 3' BOX CULVERT NO. 3
- CONSTRUCT PAVEMENT PATCH ON EAST SIDE ROADWAY AT EX. BOX CULVERT NO. 3
- CONSTRUCT PR. AGGREGATE SHOULDER, DITCH GRADING AND RIPRAP ON EAST SIDE OF ROADWAY AT EX. BOX CULVERT NO. 3

#### TRAFFIC

- DAILY NORTHBOUND LANE CLOSURE WILL BE REQUIRED FOR THE REMOVAL AND INSTALLATION OF THE CULVERTS. MAINTAIN TWO-WAY TRAFFIC IN THE SOUTHBOUND (11-FOOT MINIMUM LANE) CONTROLLED BY FLAGGERS UTILIZING IDOT STANDARDS 701306.
- WORK AT THE SHOULDER AND OFF THE SHOULDER SHALL UTILIZE IDOT STANDARDS 701001, 701006, 701011, 701106, 701201, 701306, & 701326.

### STAGE 6

#### SUMMARY OF WORK

- REMOVE EAST PORTION OF EX. 5' X 3' BOX CULVERT NO. 3
- CONSTRUCT PAVEMENT PATCH ON EAST SIDE ROADWAY AT EX. BOX CULVERT NO. 3
- CONSTRUCT PR. AGGREGATE SHOULDER, DITCH GRADING AND RIPRAP ON EAST SIDE OF ROADWAY AT EX. BOX CULVERT NO. 3

#### TRAFFIC

- DAILY SOUTHBOUND LANE CLOSURE WILL BE REQUIRED FOR THE REMOVAL AND INSTALLATION OF THE CULVERTS. MAINTAIN TWO-WAY TRAFFIC IN THE NORTHBOUND (11-FOOT MINIMUM LANE) CONTROLLED BY FLAGGERS UTILIZING IDOT STANDARDS 701306.
- WORK AT THE SHOULDER AND OFF THE SHOULDER SHALL UTILIZE IDOT STANDARDS 701001, 701006, 701011, 701106, 701201, 701306, & 701326.

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL RTE 251 CULVERT IMPROVEMENTS  
MAINTENANCE OF TRAFFIC PLAN NOTES**

SCALE: NTS      SHEET 1 OF 5 SHEETS      STA.      TO STA.

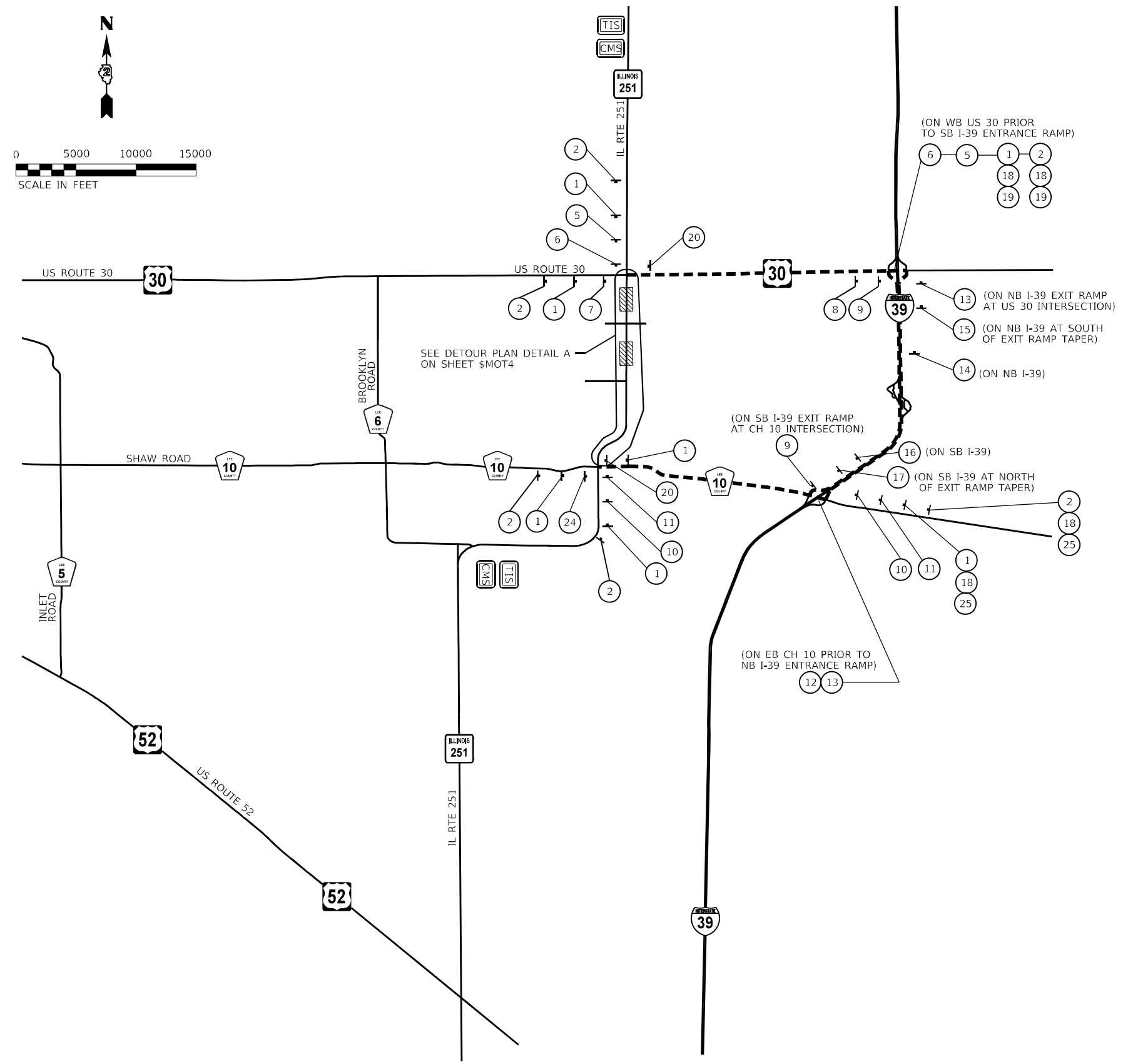
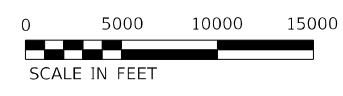
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111) CR	LEE	122	31
CONTRACT NO.64M41				
ILLINOIS		FED. AID PROJECT		

**SCHEDULE OF DETOUR SIGNS**







1		W20-2-4848	10		M4-8(O)-2412 M3-1-2412 M1-1100-3024 M5-1R-2115	16		M4-8(O)-3015 M3-1-3015 M1-1100-4536 M5-1R-3018		DRUM W/ STEADY BURN MONO-DIRECTIONAL LIGHT
2		W20-3-4848	11		M4-8(O)-2412 M3-1-2412 M1-1100-3024 M6-1-2115	17		M4-8(O)-3015 M3-1-3015 M1-1100-4536 M6-1-3018		TYPE III BARRICADE
3		W20-3-4848 (* UNLESS OTHERWISE SPECIFIED)	12		M4-8(O)-2412 M3-1-2412 M1-1100-3024 M5-1L-2115	18		M1-1100-4536		
4		W21-1100-4848	13		M4-8(O)-2412 M3-1-2412 M1-1100-3024 M5L-1-2115	19		M3-1-3015		
5		M4-8(O)-2412 M3-3-2412 M1-1100-3024 M5-1L-2115	14		M4-8(O)-3015 M3-1-3015 M1-1100-4536 M5-1R-3018	20		M4-8A-2418		
6		M4-8(O)-2412 M3-3-2412 M1-1100-3024 M6-1-2115	15		M4-8(O)-2412 M3-3-2412 M1-1100-3024 M6-3-2115	21		R11-2-4830		
7		M4-8(O)-2412 M3-3-2412 M1-1100-3024 M6-3-2115	16		M4-8(O)-3015 M3-1-3015 M1-1100-4536 M6-3-2115	22		R11-4-6030		
8		M4-8(O)-2412 M3-3-2412 M1-1100-3024 M5-1R-2115	17		M4-8(O)-2412 M3-3-2412 M1-1100-3024 M6-4(O)-2115	23		M6-4(O)-2115		
9		M4-8(O)-2412 M3-3-2412 M1-1100-3024 M6-1-2115	18		M4-8(O)-2412 M3-1-2412 M1-1100-3024 M6-3-2115	24		M4-8(O)-2412 M3-1-2412 M1-1100-3024 M6-3-2115		
			19		M4-8(O)-2412 M3-1-3015 M1-1100-4536 M6-1-3018	25		M3-1-3015		

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**LEGEND**

-  TEMPORARY INFORMATION SIGNING
-  CHANGEABLE MESSAGE SIGN
-  TRAFFIC FLOW
-  TYPE III BARRICADE WITH 2 - TYPE A FLASHERS
-  WORK ZONE
-  DETOUR ROUTE
- TIS #1 TEMPORARY INFORMATION SIGN (SIGN NUMBER AS INDICATED)

**NOTES**

1. CONTRACTOR SHALL INSTALL TWO (2) SIGN AT LOCATION WHERE SIGNS ARE REQUIRED ALONG NB & SB I-39, ONE (1) SIGN TO BE PLACED ON INSIDE SHOULDER & ONE (1) SIGN TO BE PLACED ON OUTSIDE SHOULDER.
2. ENGINEER SHALL APPROVE THE LOCATION OF ALL SIGNS AND BARRICADES. SEE D2 STANDARD 40.1 FOR ADDITIONAL SIGN PLACEMENT GUIDANCE.

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 116 WEST MAIN STREET, SUITE 201  
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PLOT DATE =	8/16/2021

DESIGNED -	RMS	REVISED -	
DRAWN -	RMS	REVISED -	
CHECKED -	SBP	REVISED -	
DATE -	08/16/21	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETOUR PLAN</b>			
<b>IL RTE 251 CULVERT IMPROVEMENTS</b>			
SCALE:	SHEET 3	OF 5 SHEETS	STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111) CR	LEE	122	33
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	



NOTE:

- SEE DETOUR PLAN ADDITIONAL SIGNING AND BARRICADE REQUIREMENTS.

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DRAWN - RMS	REVISED -
CHECKED - SBP	REVISED -
DATE - 08/16/21	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DETOUR PLAN DETAIL A  
 IL RTE 251 CULVERT IMPROVEMENTS

SCALE: NTS SHEET 4 OF 5 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111) CR	LEE	122	34
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				



**LEGEND**

⊙ DRUM W/ STEADY BURN  
MONO-DIRECTIONAL LIGHT

⊥ TYPE III BARRICADE

**NOTE:**

1. SEE DETOUR PLAN FOR ADDITIONAL SIGNING AND BARRICADE REQUIREMENTS.

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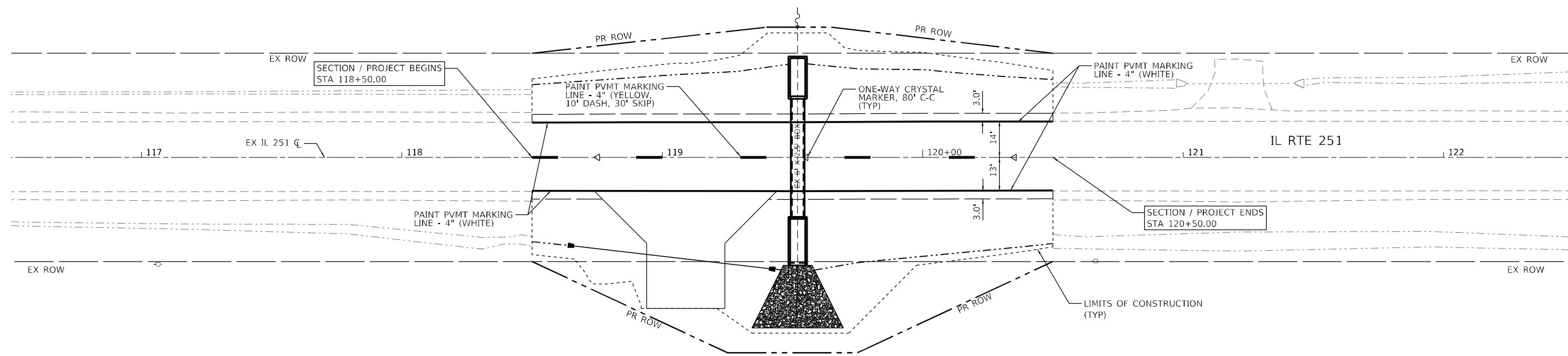
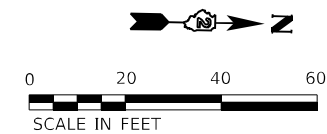
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	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETOUR PLAN DETAIL B  
IL RTE 251 CULVERT IMPROVEMENTS**

SCALE: NTS SHEET 5 OF 5 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111) CR	LEE	122	35
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64M41	



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**WBK ENGINEERING**  
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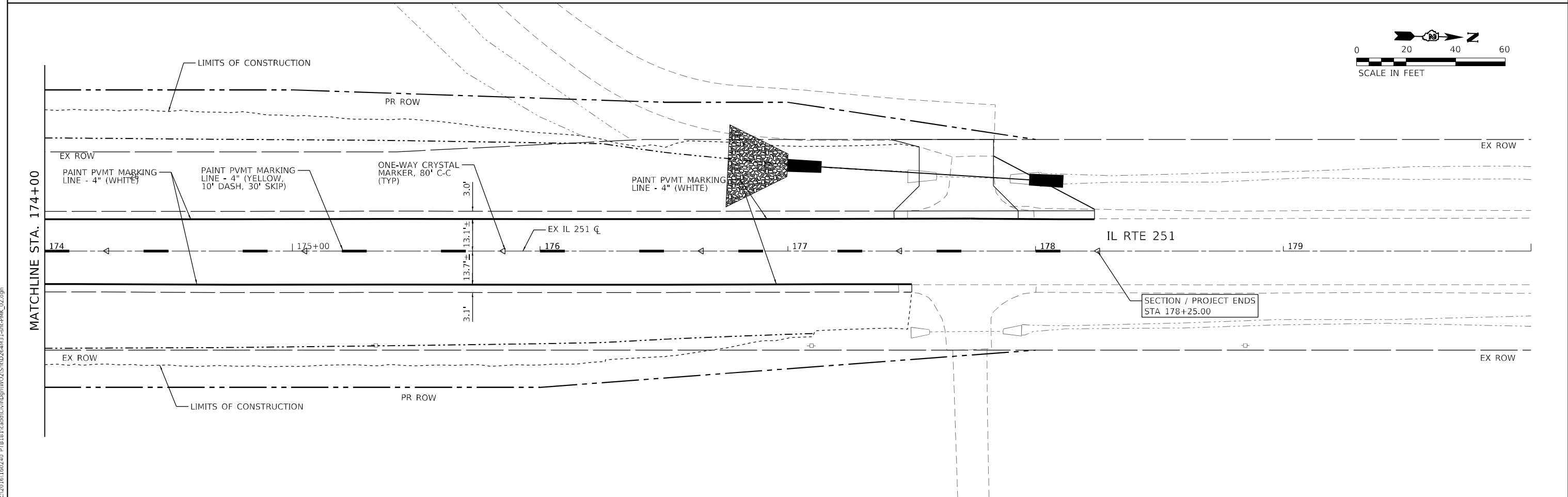
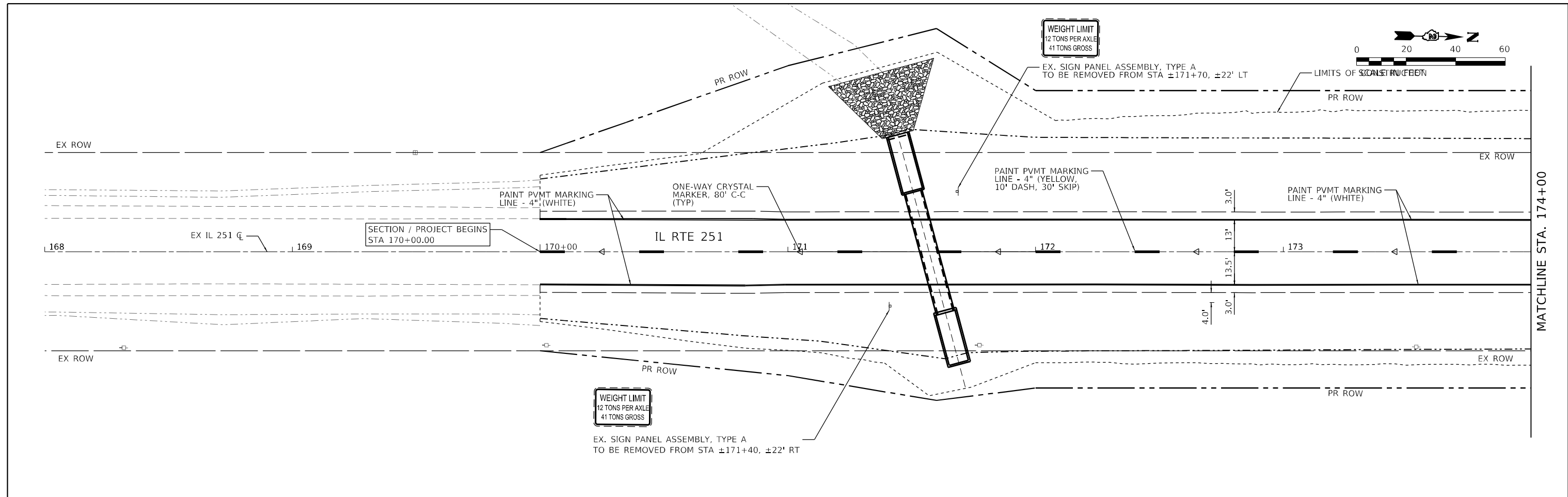
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	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN**  
**IL RTE 251 CULVERT IMPROVEMENTS (T.N. H052-C311-044-028-001A)**

SCALE: 1"=20'      SHEET 1 OF 4 SHEETS      STA. 118+50 TO STA. 120+50

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	36
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT X				



**WBK ENGINEERING**  
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USER NAME = ssundaresan	DESIGNED - SS	REVISED -
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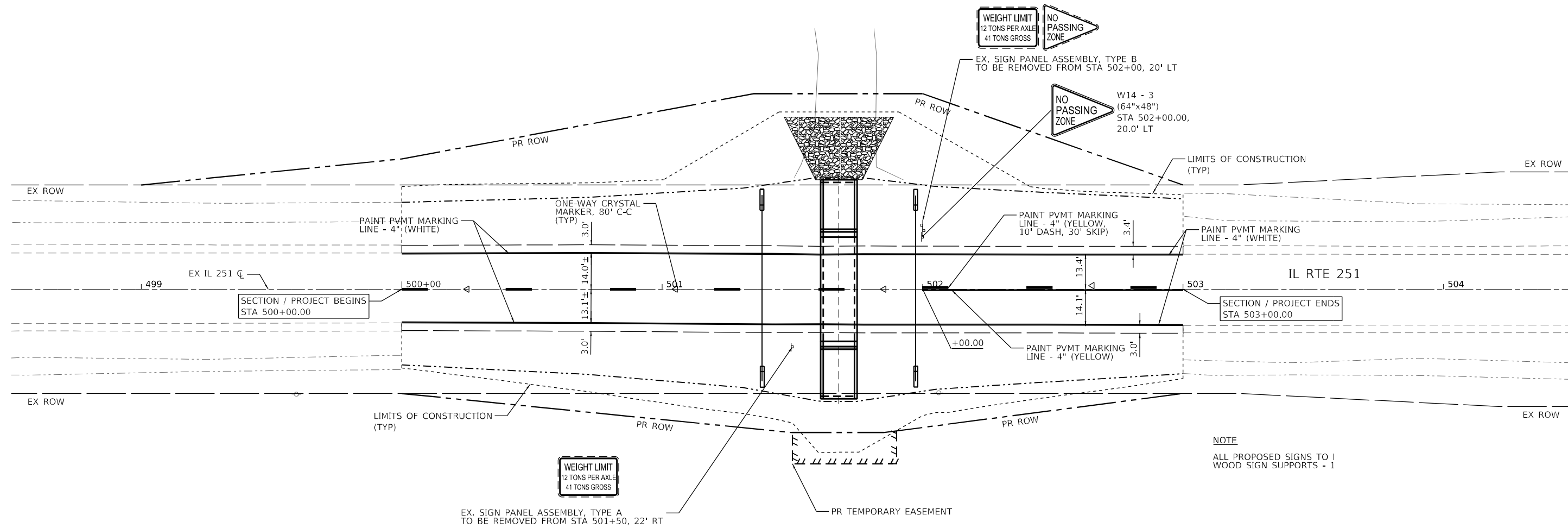
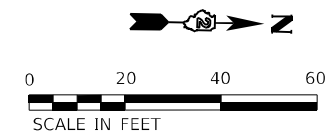
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**

SCALE: 1"=20'    SHEET 2 OF 4 SHEETS    STA. 170+00.00 TO STA. 178+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	37
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

FILE NAME = Z:\2016\160240\_PTB181\cadd\Civil\pdm\W02\5\11\1D264M3-1-sin-pmk\_02.dgn



**NOTE**  
ALL PROPOSED SIGNS TO 1 WOOD SIGN SUPPORTS - 1

FILE NAME = Z:\2016\160240\_PTB181\cadd\Civil\pdm\W02\511\ID264M31-sin-pmk\_03.dgn

**WBK ENGINEERING**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = ssundaresan	DESIGNED - SS	REVISED -
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PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
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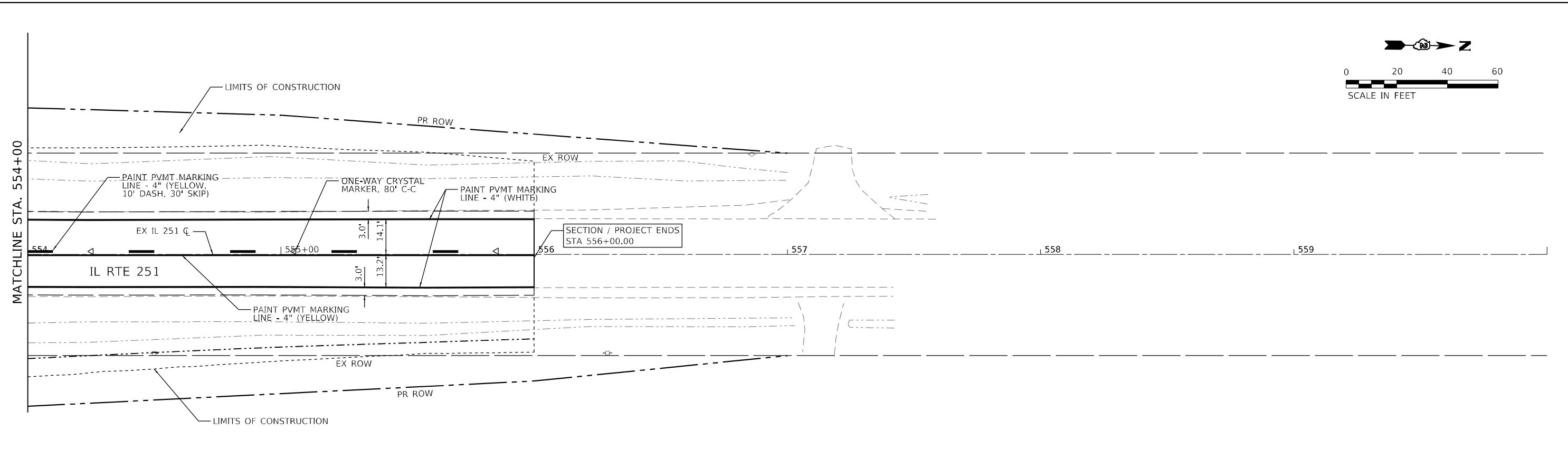
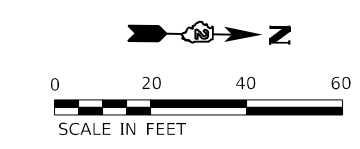
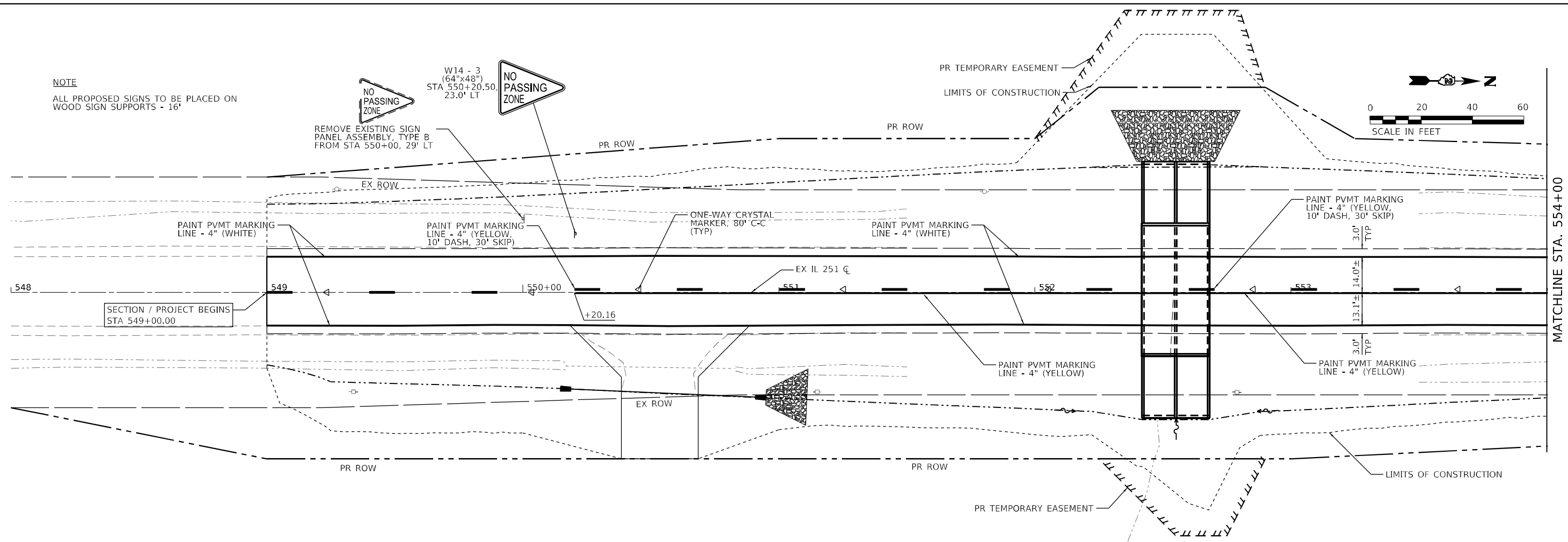
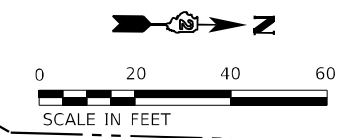
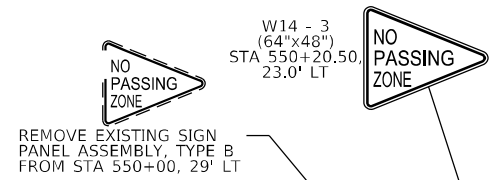
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**

SCALE: 1"=20'      SHEET 3 OF 4 SHEETS      STA. 500+00.00 TO STA. 503+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	38
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

NOTE  
ALL PROPOSED SIGNS TO BE PLACED ON  
WOOD SIGN SUPPORTS - 16"



FILE NAME = Z:\2016\160240\_PTB181\cadd\Civil\pdm\W02\5\11\26\4M31-501-PMK\_04.dgn

**WBK ENGINEERING**  
WBK ENGINEERING, LLC  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = ssundaresan	DESIGNED - SS	REVISED -
PLOT SCALE = 1:40	DRAWN - SS	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**

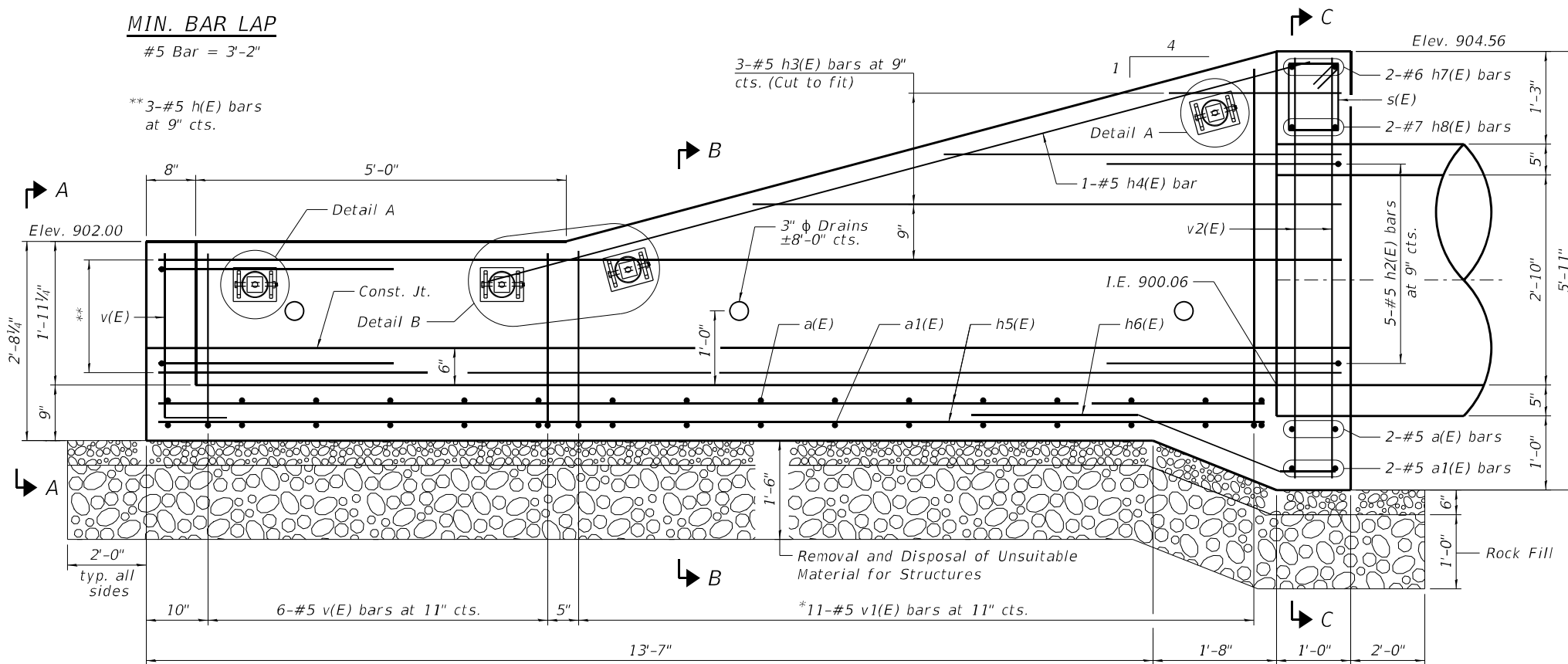
SCALE: 1"=20'    SHEET 4 OF 4 SHEETS    STA. 549+00.00 TO STA. 556+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	39
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

**MIN. BAR LAP**

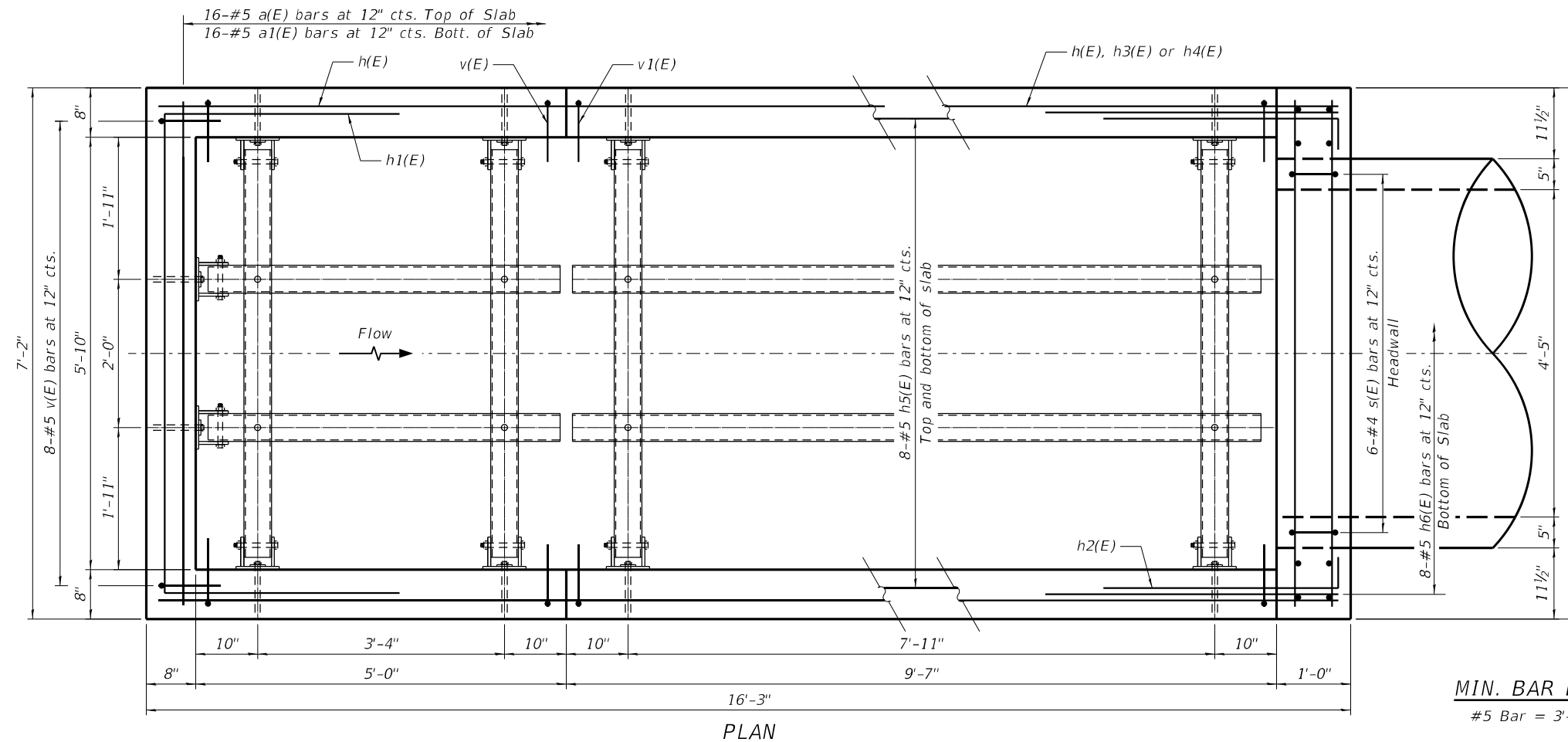
#5 Bar = 3'-2"

\*\*3-#5 h(E) bars at 9" cts.



**LONGITUDINAL SECTION**

\*Denotes Field Cutting Diagram See Sheet 2 of 3.



**PLAN**

**MIN. BAR LAP**  
#5 Bar = 3'-2"

**DESIGN SPECIFICATIONS**

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

**DESIGN STRESSES**

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

**STRUCTURE INFORMATION**

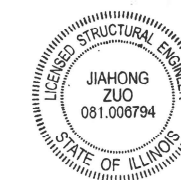
Existing 6'x2.5' cast-in-place box culvert (SN 052-1077) is to be replaced by structure TN H052-C311-044-028-001A. The proposed structure at Sta. 119+52.00 will be a 42" φ RCP culvert with a precast sloped end section at the downstream end and a cast-in-place concrete drop box structure at the upstream end.

**GENERAL NOTES**

1. A precast option is not allowed at this location.
2. All exposed concrete edges shall be chamfered 3/4" unless noted otherwise.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. All construction joints shall be bonded.
5. The contract unit price "Each" for Drop Box shall include the Concrete Structures, Reinforcement Bars, Epoxy Coated, Structure or Earth Excavation, where required, backfilling and the necessary grading to fit the structure to the lines and grades as shown on the plans.
6. The contract unit price "Foot" for Traversable Pipe Grates shall include the steel pipe grate system, steel plates, bolts, nuts and washers.
7. Contractor shall field verify galvanized pipe length.
8. Steel plates shall conform to AASHTO M-183 and shall be galvanized conforming to AASHTO M-111.
9. Bolts, nuts, and washers shall be in accordance with article 1006.08 of the Standard Specifications and shall be galvanized.
10. The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.
11. See Civil Plans for culvert location and information.
12. See Sheet 2 of 3 for Section A-A, B-B, C-C and Waterway Information Table.
13. The limit and quantity of removal and replacement of unsuitable material for structures shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface condition encountered in the field.
14. Rockfill shall be capped with 6 in. of CA7. Cost of capping material included in the pay item for Rockfill.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Drop Box No. 1	Each	1
Traversable Pipe Grate for Concrete End Sections	Foot	51
Rock Fill	Ton	16
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	11



*Jiahong Zuo*

**GENERAL PLAN AND ELEVATION**

**DROP BOX NO. 1**

F.A.S. 1177 (IL 251) SEC. (110, 111)CR

LEE COUNTY

STA. 119+52.00 (LT)

T.N. H052-C311-044-028-001A

**WBK ENGINEERING**  
WBK ENGINEERING, LLC  
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USER NAME = jmuelter  
DESIGNED - JMM  
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PLOT SCALE = 1:2  
PLOT DATE = 8/16/2021

DESIGNED - JMM  
CHECKED - JZ  
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REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

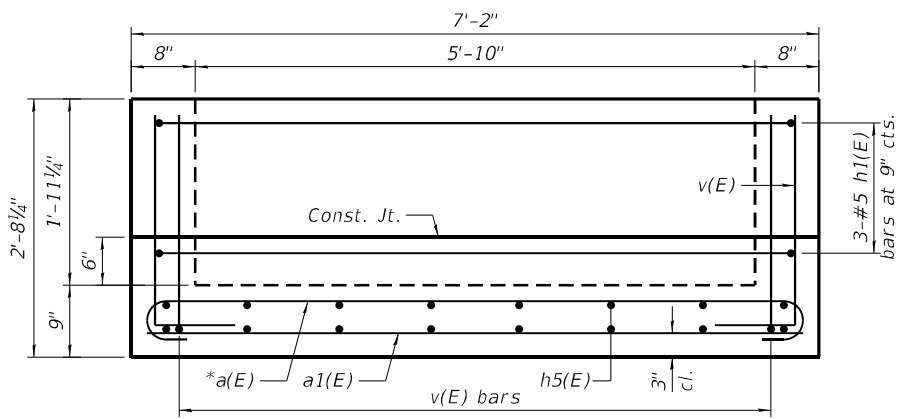
GENERAL PLAN AND ELEVATION  
DROP BOX NO. 1 - T.N. H052-C311-044-028-001A

SHEET NO. 1 OF 3 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64M41				

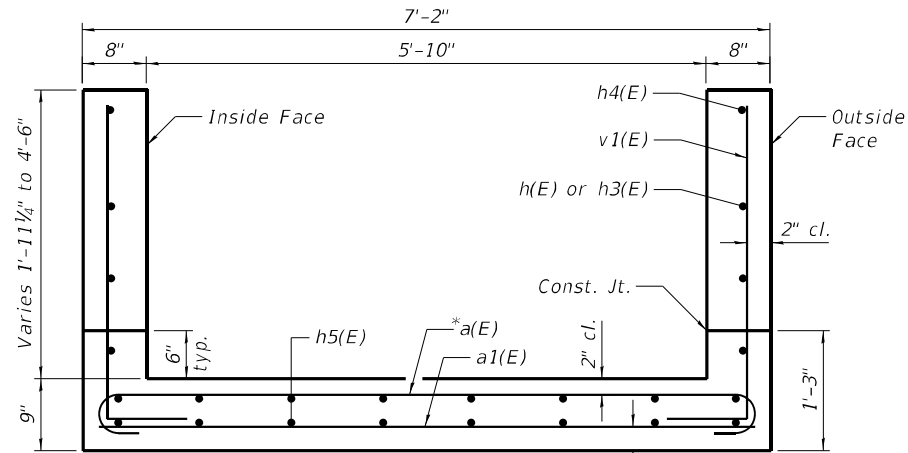
ILLINOIS FED. AID PROJECT



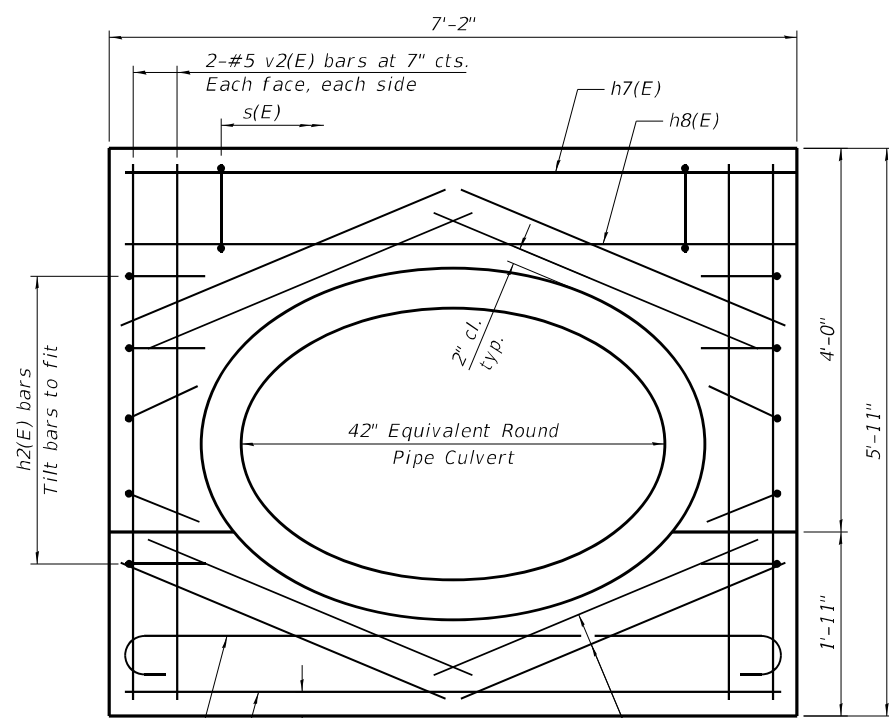


\*Tilt hook of a(E) bars as necessary to maintain 2" minimum clearance

VIEW A-A

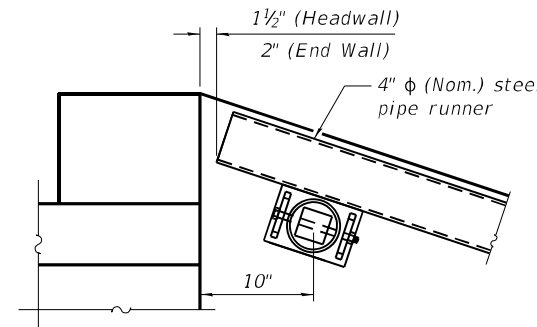


SECTION B-B

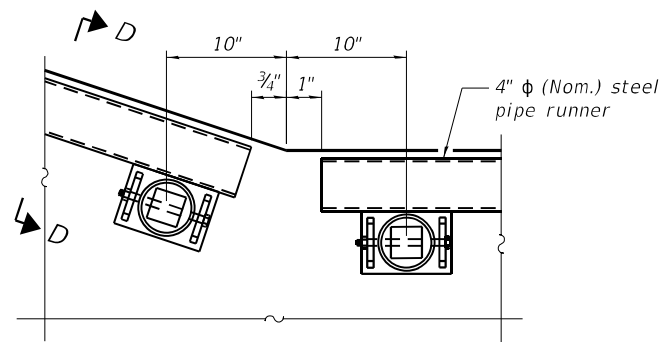


SECTION C-C

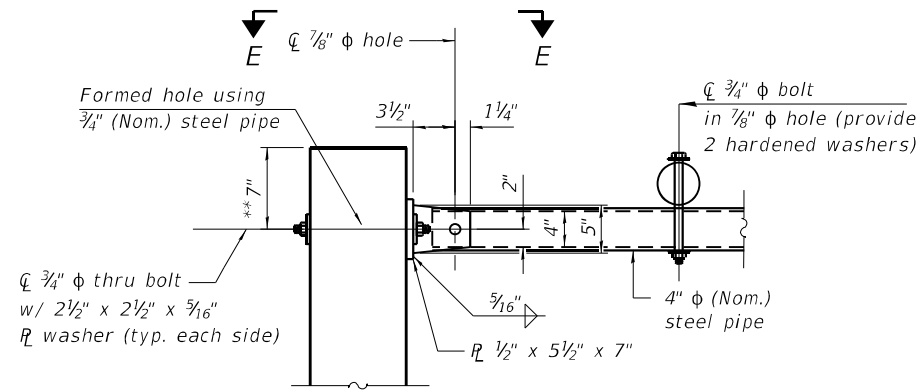
MIN. BAR LAP  
#5 Bar = 3'-2"



DETAIL A

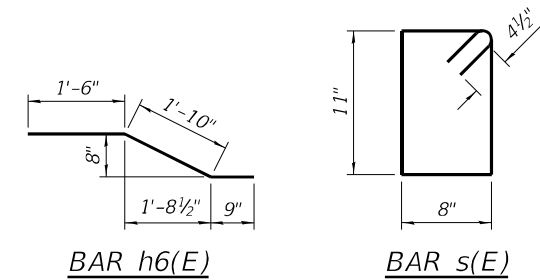


DETAIL B



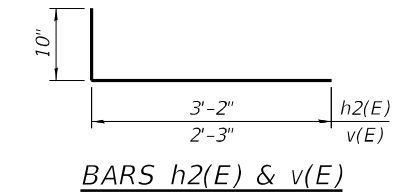
SECTION D-D

\*\*Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.

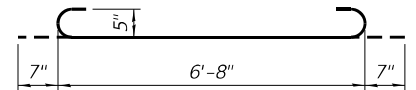


BAR h6(E)

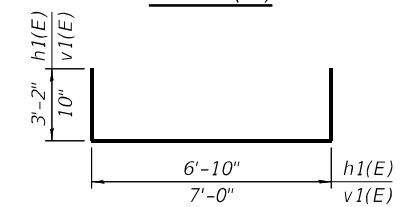
BAR s(E)



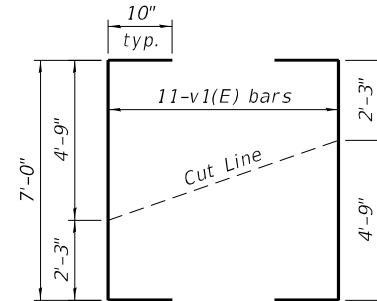
BARS h2(E) & v(E)



BAR a(E)



BARS h1(E) & v1(E)



FIELD CUTTING DIAGRAM

Order v1(E) bars full length. Cut to fit and use remainder of bars in opposite wall of drop box.

BILL OF MATERIAL  
(For Information Only)

Bar	No.	Size	Length	Shape
a(E)	18	#5	7'-10"	U
a1(E)	18	#5	6'-8"	U
h(E)	6	#5	14'-11"	—
h1(E)	6	#5	13'-2"	—
h2(E)	10	#5	4'-0"	—
h3(E)	6	#5	7'-11"	—
h4(E)	2	#5	11'-6"	—
h5(E)	16	#5	15'-3"	—
h6(E)	8	#5	4'-1"	—
h7(E)	2	#6	6'-10"	—
h8(E)	2	#7	6'-10"	—
h9(E)	16	#5	3'-8"	—
s(E)	6	#4	3'-11"	U
v(E)	20	#5	3'-1"	—
v1(E)	11	#5	8'-8"	—
v2(E)	8	#5	5'-6"	—
Structure Excavation			Cu. Yd.	26
Concrete Structures			Cu. Yd.	6.5
Reinforcement Bars, Epoxy Coated			Pound	1,170

WATERWAY INFORMATION

Drainage Area = 56.5 acres  
Existing Low Grade Elevation: 903.65 @ Sta. 117+80  
Proposed Low Grade Elevation: 903.65 @ Sta. 117+80

Flood	Frequency Year	Discharge cfs	Headwater Existing	Elevation Proposed
Ten-Year	10	48.6	903.67	902.81
OVT (Proposed)	20	72.76	-	903.65
Design	50	89.7	904.30	904.14
Base	100	114.1	904.40	904.32
Max Calc	500	200.5	904.64	904.60

10-Year Velocity through Existing Culvert = 9.6 fps  
10-Year Velocity through Proposed Culvert = 7.2 fps

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PLOT SCALE = 1:2	CHECKED - JZ	REVISED -
PLOT DATE = 08/19/21	DRAWN - JMM	REVISED -
	CHECKED - JZ	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS  
DROP BOX NO. 1 - T.N. H052-C311-044-028-001A

SHEET NO. 2 OF 3 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	41
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				



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

# SOIL BORING LOG

Page 1 of 1

Date 12/20/11

ROUTE IL 251 DESCRIPTION P92-028-12 Box Culvert .3 m. N. of Tower Road LOGGED BY W. Garza

SECTION \_\_\_\_\_ LOCATION Brooklyn Twp. - 20 SE, SEC., TWP. 37N, RNG. 1E

COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 052-1077 DEPTH (ft) BLOW (6") UCS (tsf) MOIST (%)  
Station 120+50.5  
BORING NO. B-1 SURFACE WATER Elev. \_\_\_\_\_ ft  
Station 120+70 Stream Bed Elev. 95.70 ft  
Offset 31.00ft Lt CL Groundwater Elev.: \_\_\_\_\_ ft  
Ground Surface Elev. 96.70 ft First Encounter None ft  
Upon Completion Dry ft  
After Hrs. ft

DEPTH (ft)	BLOW (6")	UCS (tsf)	MOIST (%)	SOIL DESCRIPTION	DEPTH (ft)	BLOW (6")	UCS (tsf)	MOIST (%)
94.70		0.8 P	44.0	MEDIUM dark brown SILTY CLAY LOAM with 11% ORGANICS	75.70	6	2.3 B	12.0
93.20	2	0.4 P	28.0	SOFT tan SILTY LOAM	73.20	5		
90.20	3			SOFT tan SILTY LOAM	70.70	10	1.7 B	8.0
88.20	2	0.3 B	28.0	SOFT tan SILTY LOAM	68.20	3		
85.70	3			SOFT tan SILTY LOAM	65.70	7	2.3 B	12.0
83.20	4			STIFF tan CLAY LOAM TILL	63.20	9		
80.70	5	2.1 B	12.0	STIFF tan CLAY LOAM TILL	60.70	10	1.1 P	10.0
78.20	10			STIFF tan CLAY LOAM TILL		14		
	4			STIFF tan CLAY LOAM TILL		6		
	5	2.3 B	12.0	VERY STIFF gray CLAY LOAM TILL		10	1.1 P	10.0
	8			VERY STIFF gray CLAY LOAM TILL		14		
	4			VERY STIFF gray CLAY LOAM TILL		3		
	5	2.1 B	12.0	VERY STIFF gray CLAY LOAM TILL		6	1.7 B	13.0
	9			VERY STIFF gray CLAY LOAM TILL		9		
	4			VERY STIFF gray CLAY LOAM TILL		4		
	5	2.1 B	12.0	VERY STIFF gray CLAY LOAM TILL		7	1.9 B	13.0
	9			VERY STIFF gray CLAY LOAM TILL		9		
	4			VERY STIFF gray CLAY LOAM TILL		4		
	7	3.3 B	12.0	VERY STIFF gray CLAY LOAM TILL		7	1.8 B	13.0
	11			VERY STIFF gray CLAY LOAM TILL		9		
	4			VERY STIFF gray CLAY LOAM TILL		9		
				End of Boring				

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

BBS, from 137 (Rev. 8-99)



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

# SOIL BORING LOG

Page 1 of 1

Date 12/20/11

ROUTE IL 251 DESCRIPTION P92-028-12 Box Culvert .3 m. N. of Tower Road LOGGED BY W. Garza

SECTION \_\_\_\_\_ LOCATION Brooklyn Twp. - 20 SE, SEC., TWP. 37N, RNG. 1E

COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 052-1077 DEPTH (ft) BLOW (6") UCS (tsf) MOIST (%)  
Station 120+50.5  
BORING NO. B-2 SURFACE WATER Elev. \_\_\_\_\_ ft  
Station 120+33 Stream Bed Elev. 95.70 ft  
Offset 21.50ft Rt CL Groundwater Elev.: \_\_\_\_\_ ft  
Ground Surface Elev. 98.80 ft First Encounter None ft  
Upon Completion Dry ft  
After Hrs. ft

DEPTH (ft)	BLOW (6")	UCS (tsf)	MOIST (%)	SOIL DESCRIPTION	DEPTH (ft)	BLOW (6")	UCS (tsf)	MOIST (%)
96.80		0.8 P	32.0	MEDIUM dark brown SILTY CLAY LOAM	77.80	5	2.1 B	13.0
95.30	2			STIFF dark brown/tan SILTY CLAY LOAM	75.30	5		
92.80	3	1.2 B	34.0	STIFF dark brown/tan SILTY CLAY LOAM	73.30	7	2.5 B	12.0
90.20	4			STIFF dark brown/tan SILTY CLAY LOAM	71.30	11		
89.80	2			STIFF brown/tan SILTY CLAY LOAM	70.30	3		
88.20	3	1.2 B	29.0	STIFF brown/tan SILTY CLAY LOAM	68.30	6	1.6 B	12.0
85.70	5			STIFF brown/tan SILTY CLAY LOAM	67.30	8		
83.20	4			MEDIUM tan SILTY LOAM	65.30	3		
80.70	2	0.5 P	25.0	MEDIUM tan SILTY LOAM	63.30	7	2.1 B	12.0
78.20	4			STIFF tan CLAY LOAM TILL with dirty moist SAND lens	62.30	10		
	1			STIFF tan CLAY LOAM TILL with dirty moist SAND lens	60.30	3		
	1	1.2 B	14.0	STIFF tan CLAY LOAM TILL with dirty moist SAND lens		7	2.1 B	12.0
	5			STIFF tan CLAY LOAM TILL		9		
	4			STIFF tan CLAY LOAM TILL		3		
	7	2.1 B	11.0	STIFF tan CLAY LOAM TILL		6	2.1 B	12.0
	9			STIFF tan CLAY LOAM TILL		11		
	6			No Recovery		2		
	8			No Recovery		6		
	11			No Recovery		9		
	4			MEDIUM gray very moist dirty SANDY GRAVEL		2		
	5	1.8 B	12.0	MEDIUM gray very moist dirty SANDY GRAVEL		6		
	9			MEDIUM gray very moist dirty SANDY GRAVEL		9		
	4			VERY STIFF gray CLAY LOAM TILL		1		
	5	1.8 B	12.0	VERY STIFF gray CLAY LOAM TILL		6	2.1 B	12.0
	9			VERY STIFF gray CLAY LOAM TILL		8		
	4			VERY STIFF gray CLAY LOAM TILL		1		
				End of Boring				

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

BBS, from 137 (Rev. 8-99)

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USER NAME = jmueller	DESIGNED - JMM	REVISED -
PLOT SCALE = 1:0.166667	CHECKED - JZ	REVISED -
PLOT DATE = 8/16/2021	DRAWN - JMM	REVISED -
	CHECKED - JZ	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS  
DROP BOX NO. 1 - T.N. H052-C311-044-028-001A

SHEET NO. 3 OF 3 SHEETS

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 42
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

**DESIGN SPECIFICATIONS**  
 2020 AASHTO LRFD Bridge  
 Design Specifications, 9th Edition

**DESIGN STRESSES**  
**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**STRUCTURE INFORMATION**

Existing structure SN 052-C003 is to be replaced by structure SN 052-1149. The proposed structure at Station 171+57.01 will be a 60"  $\phi$  RCP culvert with a precast sloped end section at the downstream end and a cast-in-place concrete drop box structure at the upstream end.

**GENERAL NOTES**

1. A precast option is not allowed at this location.
2. All exposed concrete edges shall be chamfered 3/4" unless noted otherwise.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. All construction joints shall be bonded.
5. The contract unit price "Each" for Drop Box shall include the Concrete Structures, Reinforcement Bars, Epoxy Coated, Structure or Earth Excavation, where required, backfilling and the necessary grading to fit the structure to the lines and grades as shown on the plans.
6. The contract unit price "Foot" for Traversable Pipe Grates shall include the steel pipe grate system, steel plates, bolts, nuts and washers.
7. Contractor shall field verify galvanized pipe length.
8. Steel plates shall conform to AASHTO M-183 and shall be galvanized conforming to AASHTO M-111.
9. Bolts, nuts, and washers shall be in accordance with article 1006.08 of the Standard Specifications and shall be galvanized.
10. The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.
11. See Civil Plans for culvert location and information.
12. See Sheet 2 of 3 for Section A-A, B-B, C-C and Waterway Information Table.
13. The limit and quantity of removal and replacement of unsuitable material for structures shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface condition encountered in the field.
14. Rockfill shall be capped with 6 in. of CA7. Cost of capping material included in the pay item for Rockfill.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Drop Box No. 2	Each	1
Traversable Pipe Grate for Concrete End Sections	Foot	101
Rock Fill	Ton	35
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	23
Name Plates	Each	1

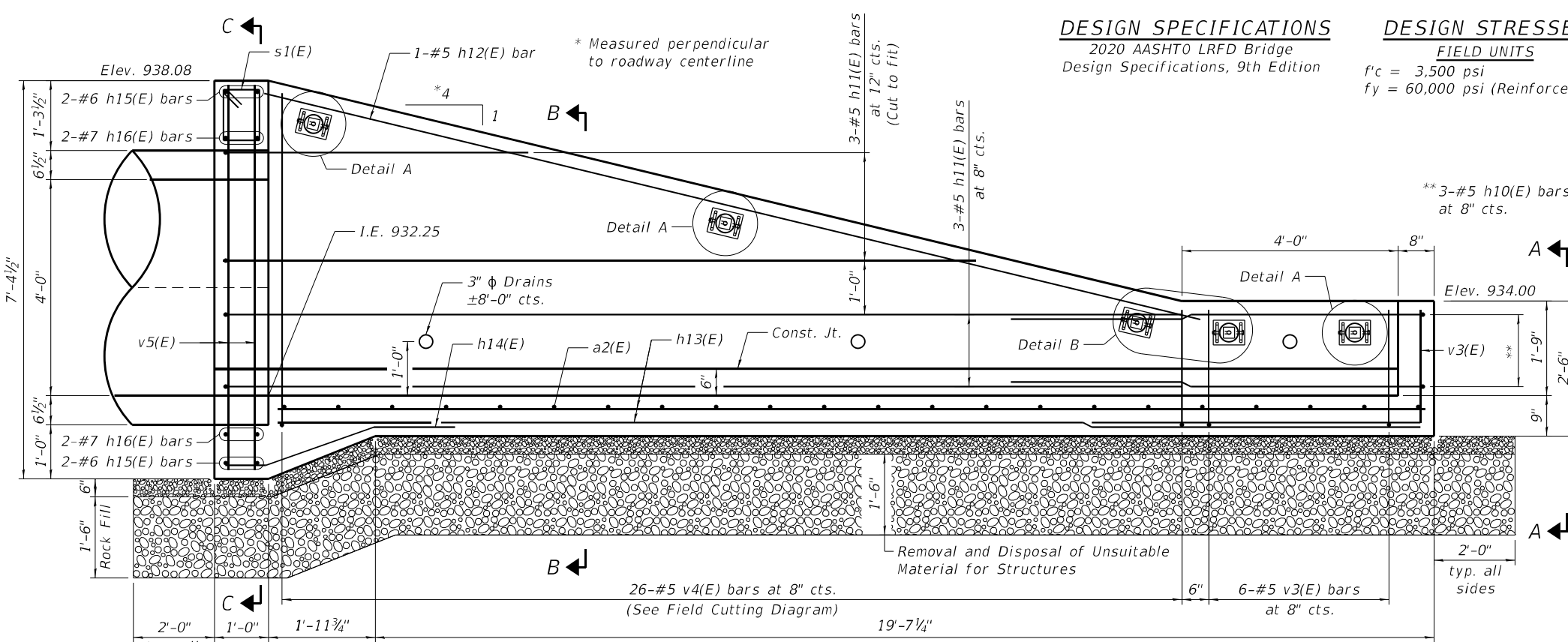
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 BUILT 202X BY  
 STATE OF ILLINOIS  
 F.A.S. RT. 1177 SEC. (110,111)CR  
 LOADING HL-93  
 STRUCTURE NO. 052-1149



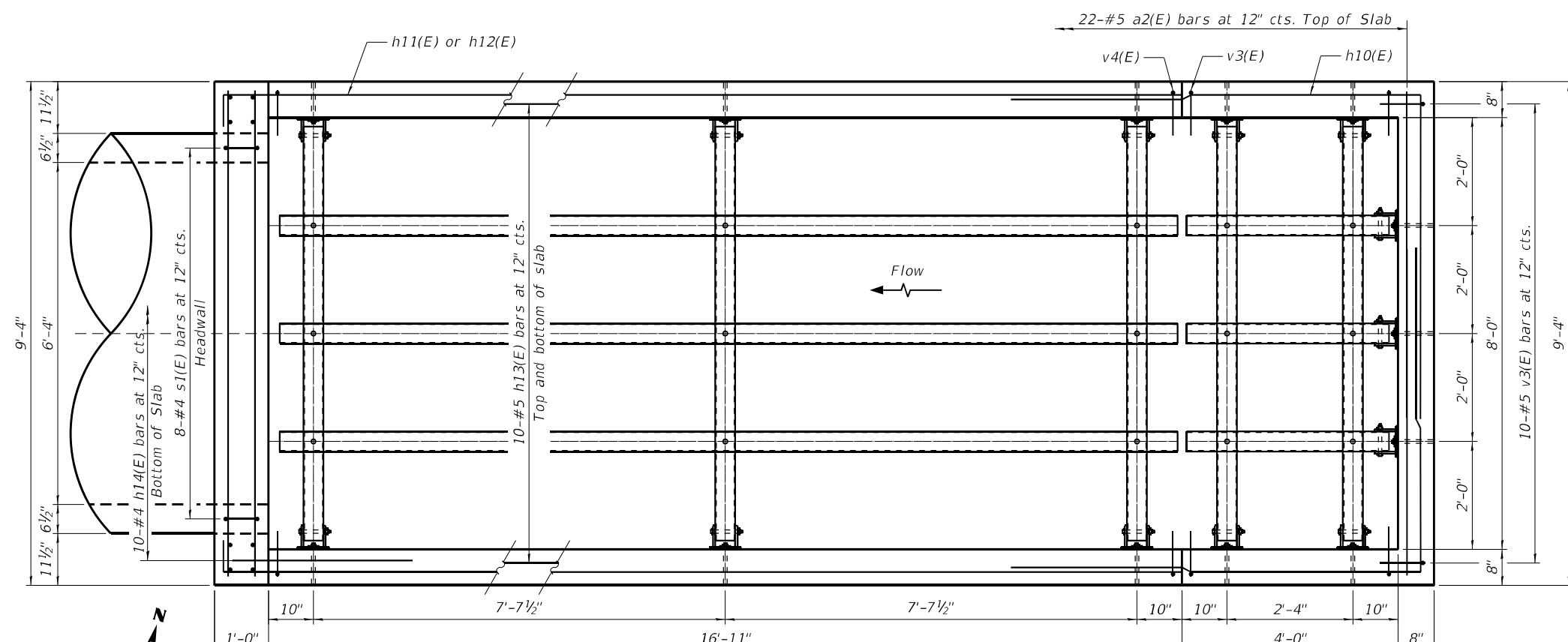
**NAME PLATE**  
 See Std. 515001

**PLAN AND ELEVATION**  
**DROP BOX NO. 2**

F.A.S. 1177 (IL 251) SEC. (110, 111)CR  
 LEE COUNTY  
 STA. 171+57.01 (RT)  
 S.N. 052-1149



**LONGITUDINAL SECTION**



**PLAN**

**MIN. BAR LAP**  
 #5 Bar = 3'-2"

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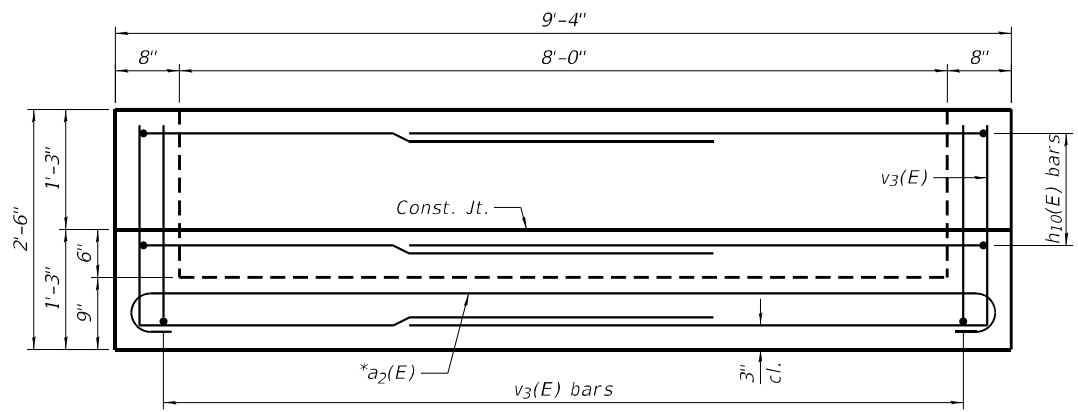
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	CHECKED - JZ	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION**  
**DROP BOX NO. 2 - S.N. 052-1149**

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 43
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

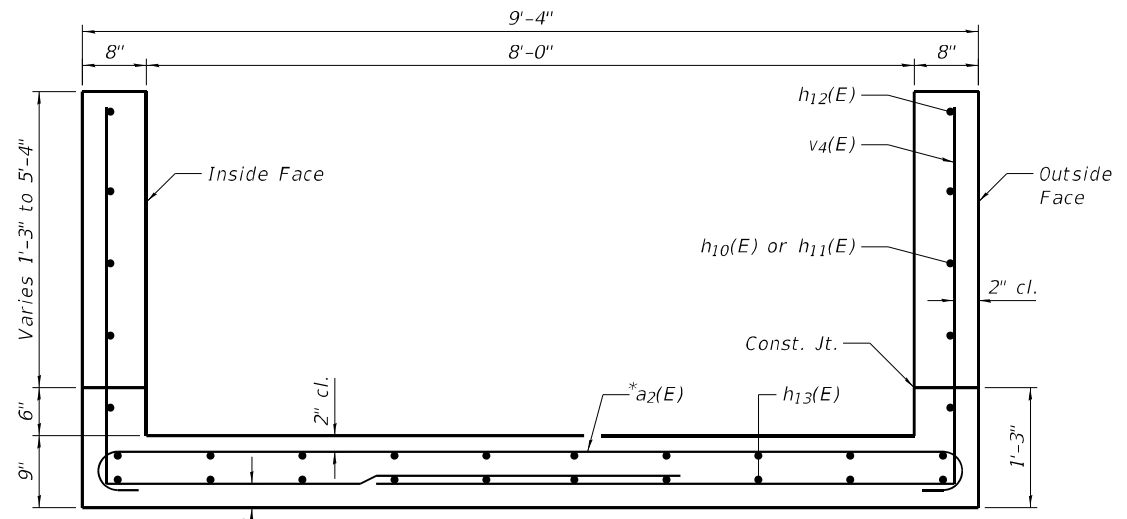
SHEET NO. 1 OF 3 SHEETS



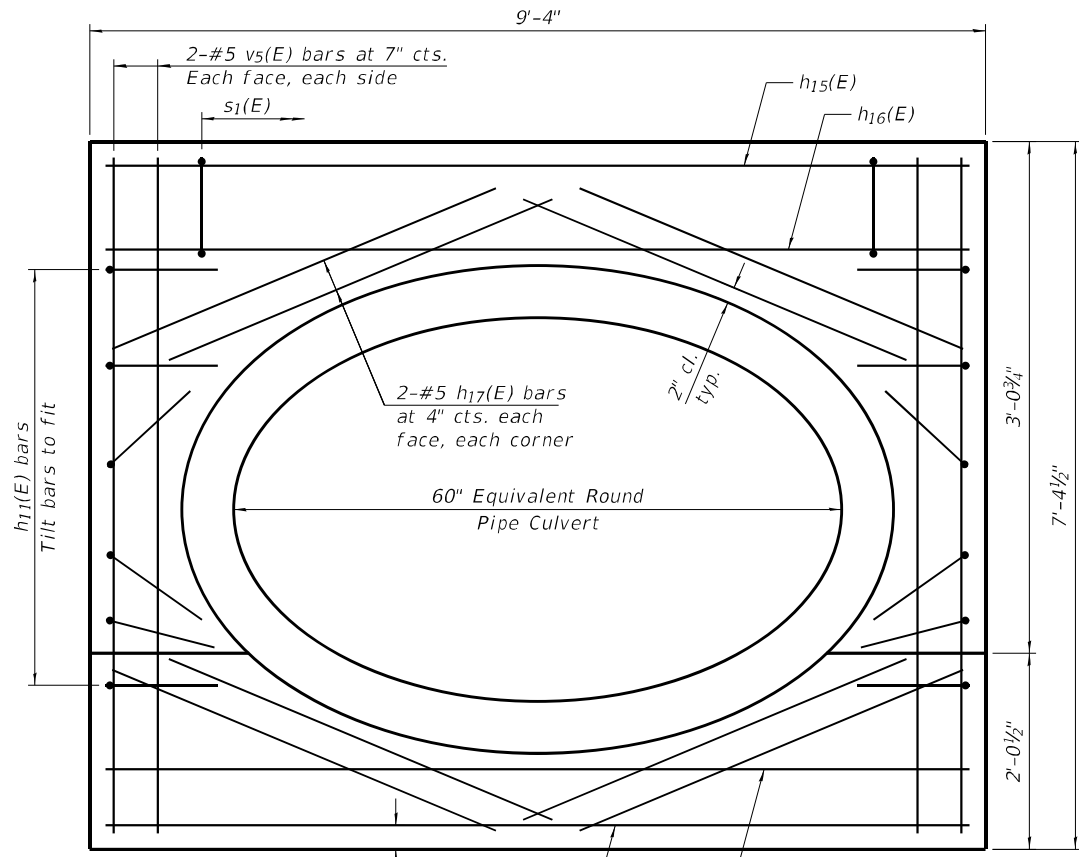
**VIEW A-A**

\*Tilt hook of a<sub>2</sub>(E) bars if necessary for 2" min. cl.

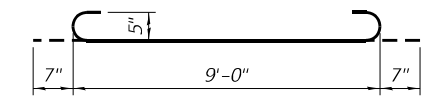
**MIN. BAR LAP**  
#5 Bar = 3'-2"



**SECTION B-B**

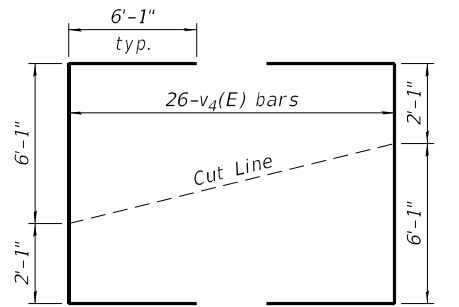


**SECTION C-C**



**BAR a<sub>2</sub>(E)**

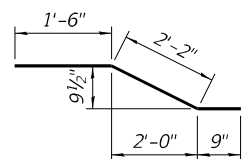
\*Tilt hook of a<sub>2</sub>(E) bars as necessary to maintain 2" minimum clearance



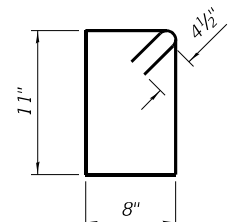
**BAR v<sub>4</sub>(E)**

**FIELD CUTTING DIAGRAM**

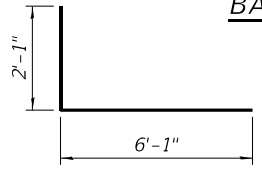
Order v<sub>4</sub>(E) bars full length. Cut to fit and use remainder of bars in opposite wall of drop box.



**BAR h<sub>14</sub>(E)**



**BAR s<sub>1</sub>(E)**



**BAR v<sub>3</sub>(E)**

**WATERWAY INFORMATION**

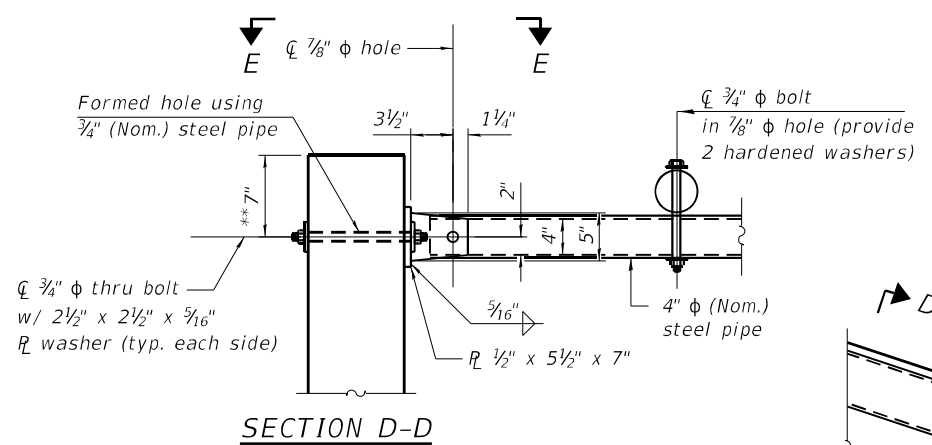
Drainage Area = 74.0 acres				
Existing Low Grade Elevation: 936.31 @ Sta. 169+86				
Proposed Low Grade Elevation: 937.25 @ Sta. 170+00				
Flood Year	Frequency	Discharge cfs	Headwater Existing	Elevation Proposed
Ten-Year	10	87.1	937.23	935.75
Design	50	124.7	937.62	936.62
Base	100	145.5	937.77	937.08
OVT (Proposed)	127	153.0	-	937.25
Max Calc	500	207.1	938.04	937.85

10-Year Velocity through Existing Culvert = 9.3 fps  
10-Year Velocity through Proposed Culvert = 7.7 fps

**BILL OF MATERIAL**

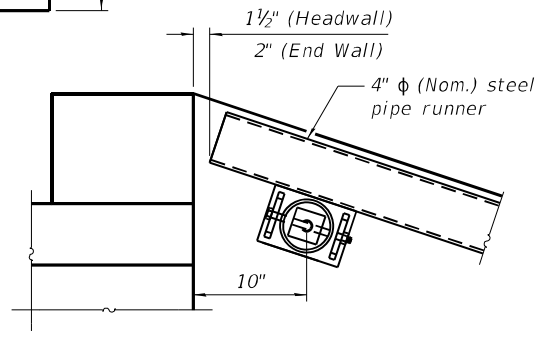
(For Information Only)

Bar	No.	Size	Length	Shape
a <sub>2</sub> (E)	22	#5	10'-4"	U
h <sub>10</sub> (E)	6	#5	13'-8"	U
h <sub>11</sub> (E)	12	#5	18'-10"	U
h <sub>12</sub> (E)	2	#5	17'-10"	U
h <sub>13</sub> (E)	20	#5	21'-2"	U
h <sub>14</sub> (E)	10	#5	4'-5"	S
h <sub>15</sub> (E)	4	#6	8'-11"	U
h <sub>16</sub> (E)	4	#7	8'-11"	U
h <sub>17</sub> (E)	16	#5	4'-4"	U
s <sub>1</sub> (E)	8	#4	3'-11"	U
v <sub>3</sub> (E)	22	#5	8'-2"	U
v <sub>4</sub> (E)	26	#5	20'-4"	U
v <sub>5</sub> (E)	8	#5	6'-11"	U
Structure Excavation			Cu. Yd.	57
Concrete Structures			Cu. Yd.	11.1
Reinforcement Bars, Epoxy Coated			Pound	2,100

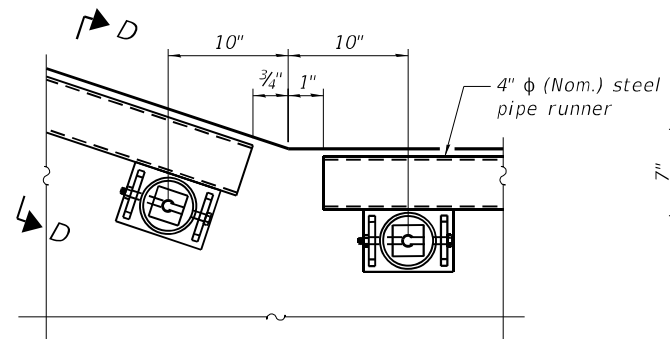


**SECTION D-D**

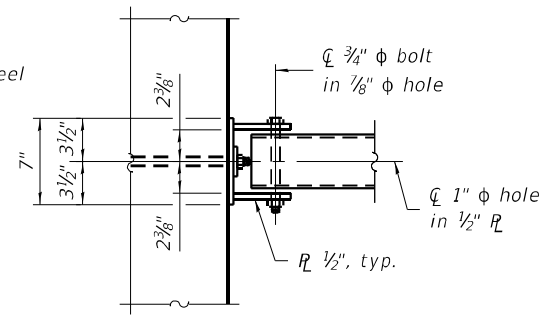
\*\* Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.



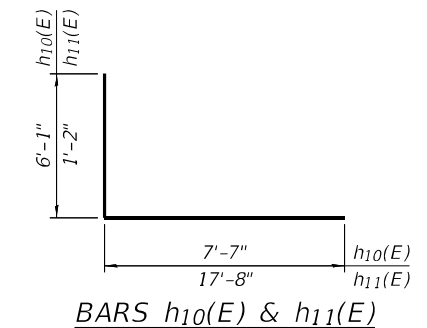
**DETAIL A**



**DETAIL B**



**VIEW E-E**



**BARS h<sub>10</sub>(E) & h<sub>11</sub>(E)**

FILE NAME = Z:\2016\160240 FT1818\cadd\Structural\02\02\_64M41\_1149-005-Details.dgn



Illinois Department of Transportation  
Division of Highways  
IDOT

# SOIL BORING LOG

Page 1 of 1

Date 7/6/17

ROUTE FAS 1177 (IL 251) DESCRIPTION P92-028-12 Culvert 0.25 m. N. of Shady Oak Road LOGGED BY N. White

SECTION (109,110,111,112)RS-2 LOCATION SEC. TWP. RNG.

COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45

STRUCT. NO. Station 171+50  
Latitude 41° 40' 29.48" Longitude -89° 07' 48.54" Northing 1,825,750.2218 Easting 2,579,744.0325

BORING NO. Station Offset Ground Surface Elev.	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T U R E (%)	Surface Water Elev.		D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T U R E (%)
					ft	ft				
B-1 171+26 24.00ft Rt CL 98.60										

Soil Description	Depth (ft)	Blows (/6")	UCS (tsf)	Moisture (%)	Soil Description	Depth (ft)	Blows (/6")	UCS (tsf)	Moisture (%)
MEDIUM black SILTY LOAM	96.60		1.0 P	23.0	STIFF gray CLAY LOAM TILL (continued)	77.60	7	1.6 B	13.0
MEDIUM black SILTY LOAM	95.10	1 1 3	0.7 P	14.0	End of Boring				
MEDIUM gray CLAY LOAM with 2.8% ORGANICS	92.10	1 1 4	0.6 B	34.0					
VERY STIFF brown CLAY LOAM	90.10	1 6 7	2.2 B	12.0					
STIFF gray CLAY LOAM	87.60	2 5 6	1.9 B	13.0					
STIFF gray CLAY LOAM TILL	85.10	3 5 6	1.0 B	14.0					
STIFF gray CLAY LOAM TILL	82.60	2 5 8	1.5 B	12.0					
STIFF gray CLAY LOAM TILL	80.10	2 4 7	1.5 B	12.0					
STIFF gray CLAY LOAM TILL	80.10	2							

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

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation  
Division of Highways  
IDOT

# SOIL BORING LOG

Page 1 of 1

Date 7/6/17

ROUTE FAS 1177 (IL 251) DESCRIPTION P92-028-12 Culvert 0.25 m. N. of Shady Oak Road LOGGED BY N. White

SECTION (109,110,111,112)RS-2 LOCATION SEC. TWP. RNG.

COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45

STRUCT. NO. Station 171+50  
Latitude 41° 40' 30.37" Longitude -89° 07' 51.07" Northing 1,825,837.9136 Easting 2,579,550.8989

BORING NO. Station Offset Ground Surface Elev.	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T U R E (%)	Surface Water Elev.		D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T U R E (%)
					ft	ft				
B-2 171+54 46.00ft Lt CL 92.90										

Soil Description	Depth (ft)	Blows (/6")	UCS (tsf)	Moisture (%)	Soil Description	Depth (ft)	Blows (/6")	UCS (tsf)	Moisture (%)
MEDIUM black SILTY CLAY LOAM with 10% ORGANICS	90.90		1.0 P	36.0					
MEDIUM black and gray CLAY LOAM with 3.5% ORGANICS	88.90	1 2 4	0.7 B	31.0					
STIFF brown CLAY LOAM TILL	86.90	3 4 5	1.5 B	14.0					
STIFF brown CLAY LOAM TILL	84.40	2 4 7	1.3 B	12.0					
STIFF gray CLAY LOAM TILL	81.90	3 3 5	1.1 B	14.0					
STIFF gray CLAY LOAM TILL	79.40	2 4 7	1.6 B	13.0					
STIFF gray CLAY LOAM TILL	76.90	4 5 6	1.9 B	13.0					
End of Boring									

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

BBS, from 137 (Rev. 8-99)

FILE NAME = Z:\2016\160248\_FT\B181\Cadd\Structural\Drawn\02\02\_64M41\_1145-006-Borring.dgn

**WBK ENGINEERING**  
WBK ENGINEERING, LLC  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = jmueller	DESIGNED - JMM	REVISED -
PLOT SCALE = 1:0.16667	CHECKED - JZ	REVISED -
PLOT DATE = 8/16/2021	DRAWN - JMM	REVISED -
	CHECKED - JZ	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

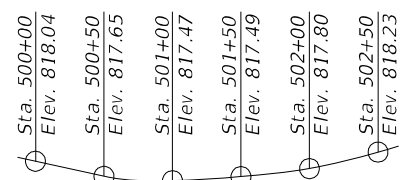
BORING LOGS  
DROP BOX NO. 2 - S.N. 052-1149  
SHEET NO. 3 OF 3 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	45
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

Benchmark: Chiseled Square on headwall northeast of the IL 251 and Stainbrook Road intersection. Station 524+58.70, 26.95 Rt. Elev. 803.47

Existing Structure: S.N. 052-1066 was built at an unknown time as a cast-in-place 8'-0" wide x 3'-0" high x ±41'-6" long culvert with 0° skew. The upstream and downstream headwalls and wingwalls are at 90° to the culvert. Existing structure is to be removed and replaced with traffic maintained utilizing a marked detour route.

No Salvage



**PROFILE GRADE**  
Along CL of IL Route 251

**DESIGN SPECIFICATIONS**

2020 AASHTO LRFD Bridge Design Specifications  
9th Edition

**LOADING HL-93**

Allow 50#/sq. ft. for future wearing surface.

**INDEX OF SHEETS**

- General Plan and Elevation
- Soil Boring Log

**DESIGN STRESSES**

**PRECAST UNITS**

$f'_c = 5,000$  psi  
 $f_y = 65,000$  psi (Welded Wire Reinforcement)

**GENERAL NOTES**

The design fill height for this box is 9" minimum and 1'-6" maximum. The precast box culvert sections shall conform to the requirements of ASTM C 1577. Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification. Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

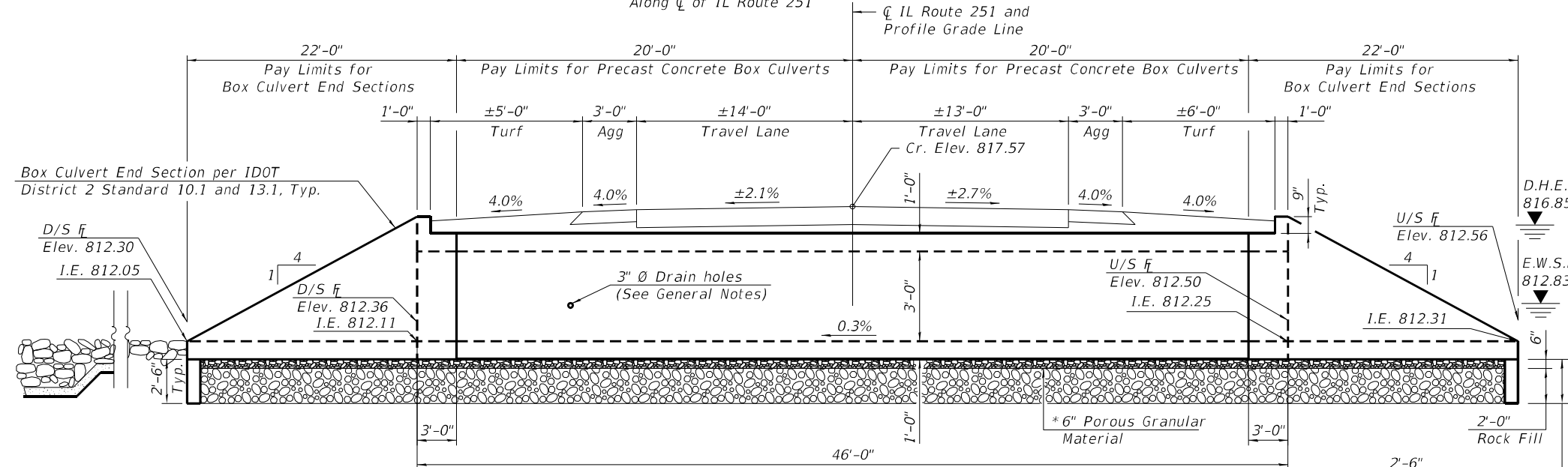
Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.

The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

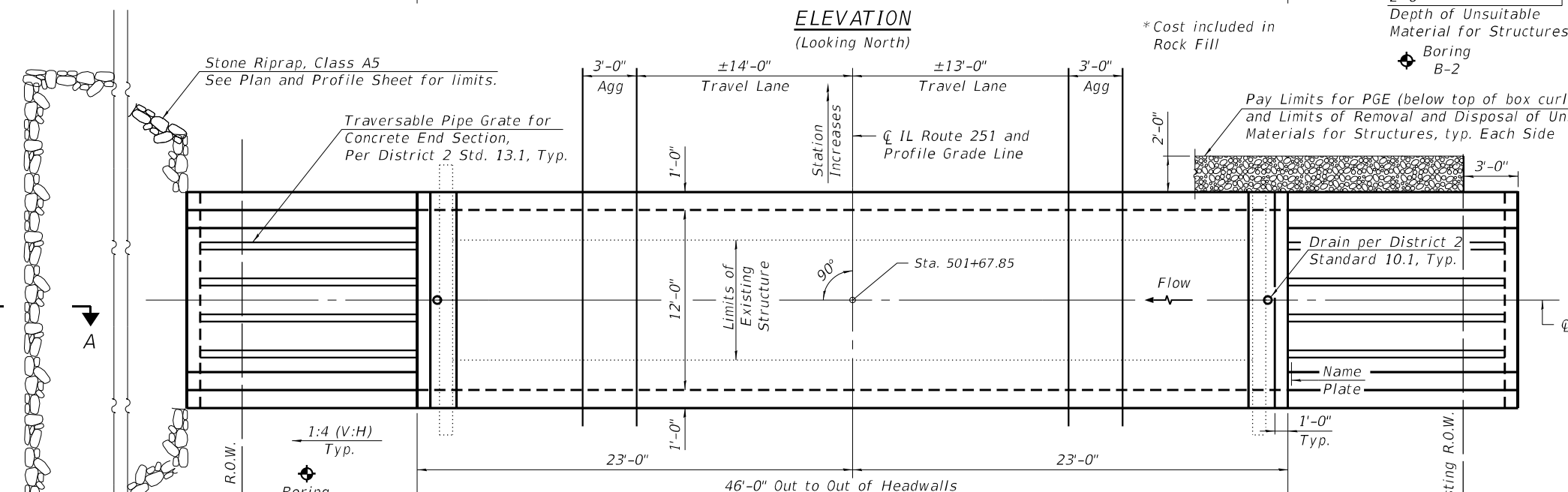
The Rock Fill shall be capped with 6 in. of CA07 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the pay item for Rock Fill.

Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing Systems for Buried Structures.

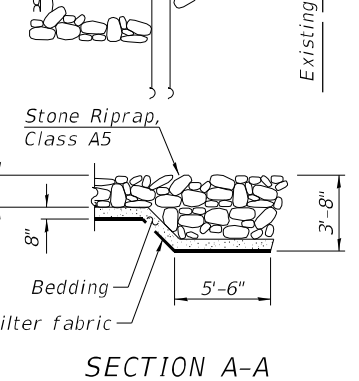
See Roadway Drawings for Riprap limits and quantities, R.O.W. information, and adjacent underdrain types and locations.



**ELEVATION**  
(Looking North)



**PLAN**



**SECTION A-A**

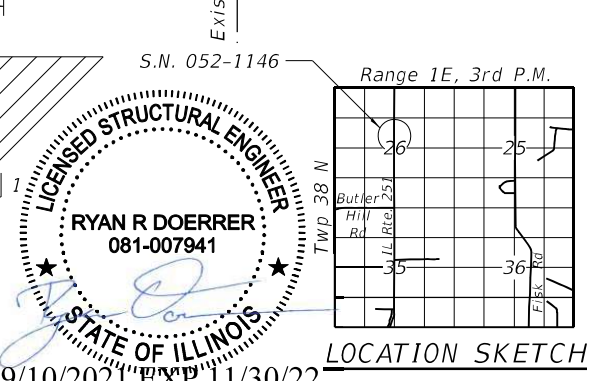
**WATERWAY INFORMATION**

Drainage Area	156.4 Acres				
Existing Low Grade Elevation	817.45 Ft @ Sta 501+43				
Proposed Low Grade Elevation	817.45 Ft @ Sta 501+43				
Flood Year	Frequency	Discharge cfs	Headwater Existing	Elev (Ft) Proposed	
10-Year	10	179.70	816.97	815.76	
Ex Ovt	15	197.78	817.45		
Design	50	209.00	817.77	816.85	
Pr Ovt	91		817.45	817.45	
Base	100	212.83	817.88	817.52	
Max Calc	500	220.66	818.12	817.93	
10-Year Velocity Through Ex Culvert 12.1 fps					
10-Year Velocity Through Pr Culvert 8.0 fps					

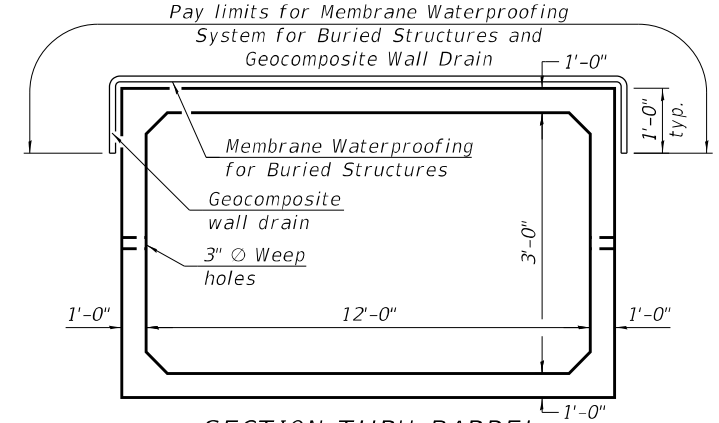
**NAME PLATE**  
See Std. 515001

STATION 501+68  
BUILT 20XX BY  
STATE OF ILLINOIS  
F.A.S. RT. 1177  
SEC. (110, 111)CR  
LOADING HL-93  
STR. NO. 052-1146

**PAY LIMITS FOR POROUS GRANULAR EMBANKMENT**  
(Hatched area)



**LOCATION SKETCH**



**SECTION THRU BARREL**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	101
Removal of Existing Structures No. 4	Each	1
Name Plates	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	140
Box Culvert End Sections, Culvert No. 3	Each	2
Precast Concrete Box Culverts, 12' x 3'	Foot	40
Traversable Pipe Gate for Concrete End Section	Foot	138
Geocomposite Wall Drain	Sq. Yd.	82
Membrane Waterproofing System for Buried Structures	Sq. Yd.	82
Rock Fill	Ton	255

**GENERAL PLAN AND ELEVATION**  
**IL RTE. 251 OVER UNNAMED TRIBUTARY**  
**TO THE GREEN RIVER**  
**F.A.S. RTE. 1177 SEC. (110, 111)CR**  
**LEE COUNTY**  
**STATION 501+67.85**  
**S.N. 052-1146**

MODEL: Default  
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9/10/2021 9:17:15 AM



USER NAME =	sjohnson	DESIGNED -	RRD	REVISED -	
PLOT SCALE =	0:2,0000 "/>				

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION**  
**STRUCTURE NO. 052-1146**  
SHEET 1 OF 2 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111) CR	LEE	122	46
CONTRACT NO. 64M41				
ILLINOIS		FED. AID PROJECT		



Illinois Department of Transportation

Division of Highways  
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 11/30/11

ROUTE IL 251 DESCRIPTION 052-1066 P92-028-12 Box Culvert on IL 251, .4 m. S. of Stainbrook Road, 3 m. N. of Compton LOGGED BY J. Strating

SECTION LOCATION Viola Twp. - 26NW, SEC. , TWP. 38N, RNG. 1E

COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 052-1066 Station  
BORING NO. B-1 Station 8' S Offset 31.00ft W CL Ground Surface Elev. 96.60 ft  
Surface Water Elev. ft Stream Bed Elev. 94.60 ft  
Groundwater Elev.: First Encounter 77.1 ft Upon Completion 76.6 ft After Hrs. ft

Table with columns for Depth (ft), Blows (blows/6"), UCS (tsf), Moisture (%), and Soil Description. Includes soil types like MEDIUM brown SILTY CLAY LOAM, STIFF brown SILTY CLAY LOAM, etc.

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

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation

Division of Highways  
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 11/30/11

ROUTE IL 251 DESCRIPTION 052-1066 P92-028-12 Box Culvert on IL 251, .4 m. S. of Stainbrook Road, 3 m. N. of Compton LOGGED BY J. Strating

SECTION LOCATION Viola Twp. - 26NW, SEC. , TWP. 38N, RNG. 1E

COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 052-1066 Station  
BORING NO. B-2 Station 15' North Offset 32.00ft E CL Ground Surface Elev. 97.10 ft  
Surface Water Elev. ft Stream Bed Elev. 94.60 ft  
Groundwater Elev.: First Encounter 77.6 ft Upon Completion 75.1 ft After Hrs. ft

Table with columns for Depth (ft), Blows (blows/6"), UCS (tsf), Moisture (%), and Soil Description. Includes soil types like MEDIUM brown SILTY CLAY LOAM, STIFF tan/gray CLAY LOAM TILL, etc.

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

BBS, from 137 (Rev. 8-99)

MODEL: Default  
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1111 Burlington Avenue, Suite 111 - Lake, IL 60532  
(630) 641-9900  
IDFPR NO. 184,005040-006



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS STRUCTURE NO. 052-1146

SHEET 2 OF 2 SHEETS

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

Benchmark: Chiseled square on headwall northeast of the IL 251 and Stainbrook Rd intersection.  
Sta. 524+58.70, 26.95' Rt., Elev. 803.47

Existing Structure: S.N. 052-1064 was built in 1928 as a single cell 9'x5' cast-in-place box culvert, 41.4 ft in length on a 0° skew. The upstream end has 45° wingwalls and a drop box and the downstream end has 45° wingwalls.

The existing roadway to be closed during construction and traffic detoured.

Precast alternate is not allowed.

No Salvage.

### WATERWAY INFORMATION

Flood	Freq. Yr.	Existing				Proposed			
		Total Discharge	Discharge Thru Culvert	Discharge Over Road	Headwater Elev.	Total Discharge	Discharge Thru Culvert	Discharge Over Road	Headwater Elev.
		cfs	cfs	cfs	Elev.	cfs	cfs	cfs	Elev.
Ten-Year	10	368.70	368.70	0	790.69	368.70	368.70	0	789.33
Exist. OVT	15	438.26	438.26	0	791.79				
Design	50	662.40	467.56	193.12	792.21	662.40	662.40	0	790.93
Base	100	834.80	475.79	357.91	792.36	834.80	834.80	0	792.27
Prop. OVT	107	843.77				893.42	893.42	0	792.35
Max. Calc.	500	1386.60							

10-Year Velocity Through Existing Culvert= 11.1 fps  
10-Year Velocity Through Proposed Culvert= 5.3 fps

### DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition with 2018 and 2019 Interims

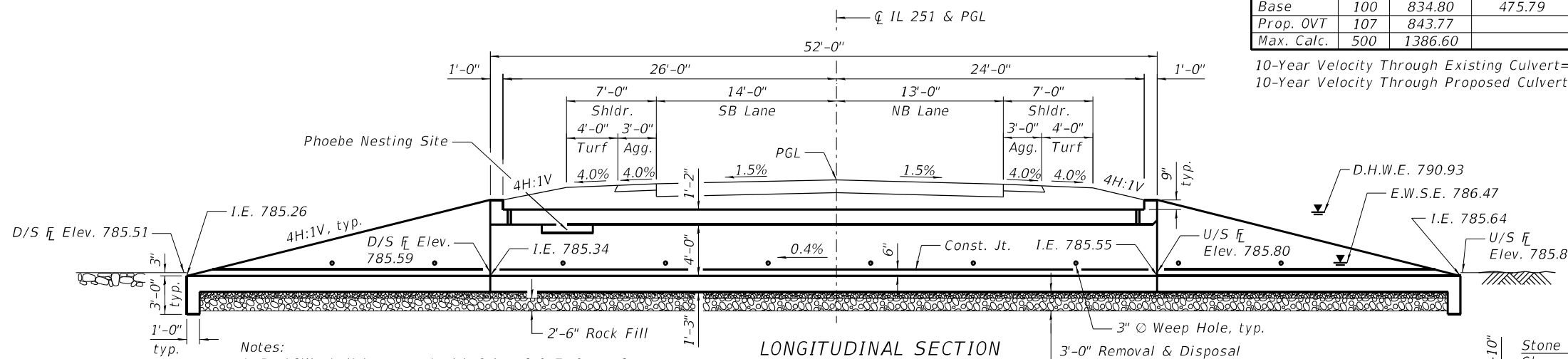
### DESIGN STRESSES

#### FIELD UNITS

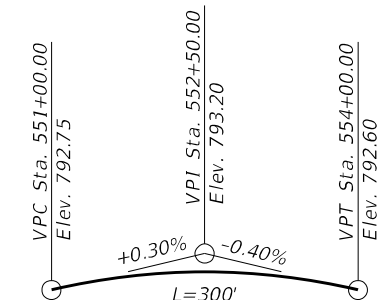
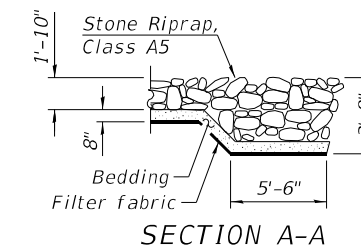
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

### LOADING HL-93

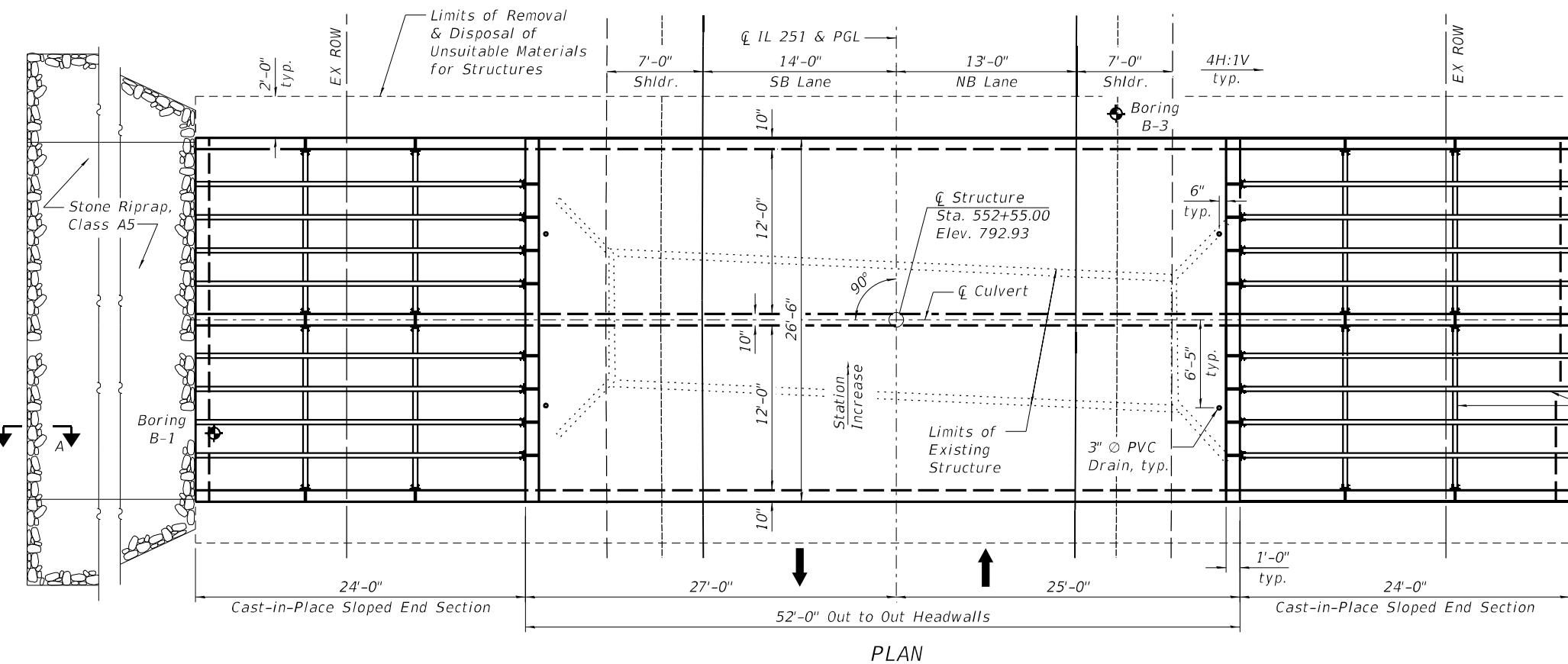
Allow 50#/sq. ft. for future wearing surface.



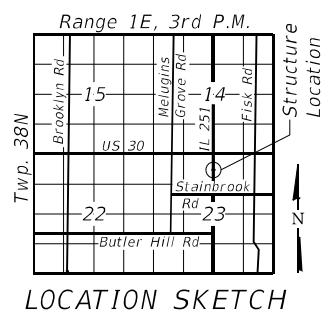
- Notes:
1. Rockfill shall be capped with 6 in. of CA7. Cost of capping material included in the pay item for Rockfill.
  2. The limit and quantities of removal and replacement of unsuitable material for structures shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface condition encountered in the field.



### PROFILE GRADE (Along CL IL 251)



### PLAN



### LOCATION SKETCH

GENERAL PLAN & ELEVATION  
IL 251 OVER UNNAMED TRIBUTARY  
TO GREEN RIVER  
F.A.S. RTE. 1177 SEC. (110,111)CR  
LEE COUNTY  
STATION 552+55.00  
S.N. 052-2032

FILE NAME = Z:\2016\160248\_FT1B181\Cadd\Structural\Drawn\02\02.64M41.2032.001-General Plan and Elevation.dgn



USER NAME = jmuelter	DESIGNED - JMM	REVISIONS -
PLOT SCALE = 1:10,6667	CHECKED - JZ	REVISIONS -
PLOT DATE = 8/16/2021	DRAWN - JMM	REVISIONS -
	CHECKED - JZ	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION  
STRUCTURE NO. 052-2032

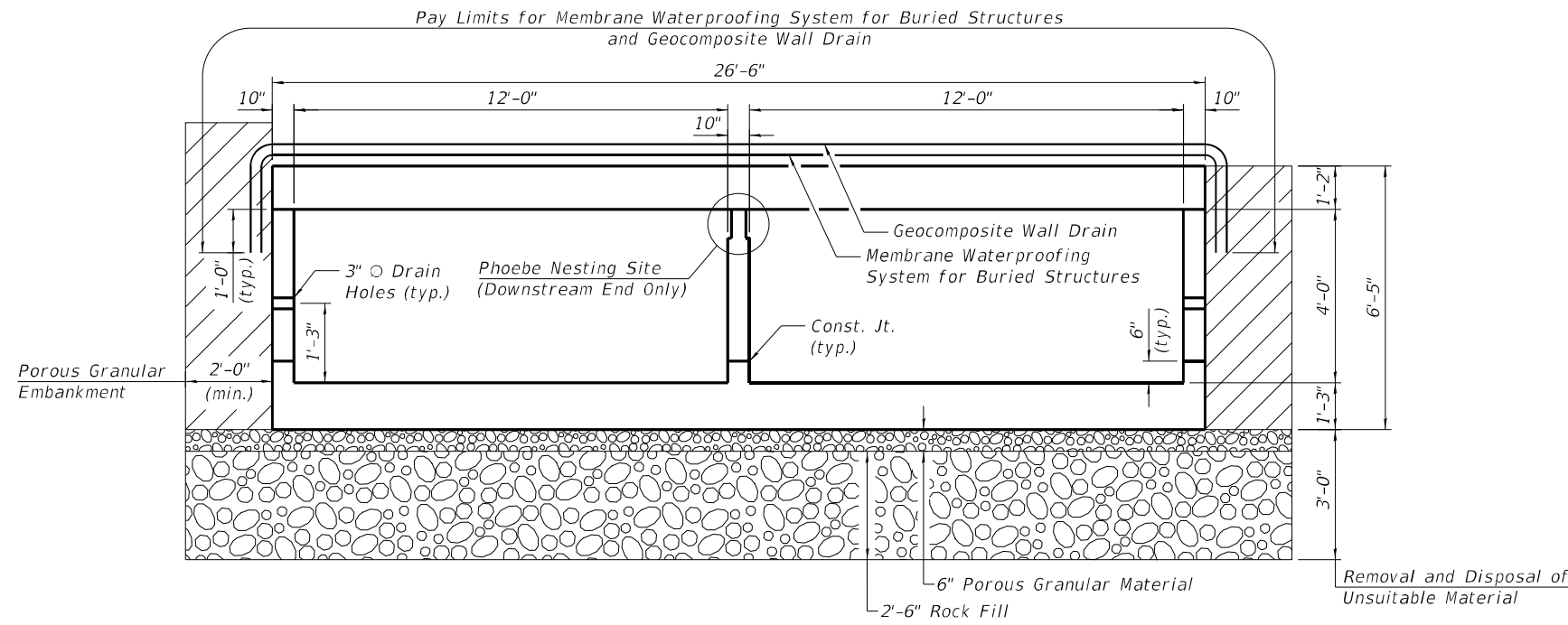
SHEET NO. 1 OF 6 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	48
CONTRACT NO. 64M41				
ILLINOIS   FED. AID PROJECT				



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	73
Stone Riprap, Class A5	Sq. Yd.	90
Filter Fabric	Sq. Yd.	90
Removal of Existing Structures No. 5	Each	1
Structure Excavation	Cu. Yd.	349
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	333
Reinforcement Bars, Epoxy Coated	Pound	45,750
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	219.6
Traversable Pipe Grate for Concrete End Section	Foot	445
Geocomposite Wall Drain	Sq. Yd.	172
Membrane Waterproofing System for Buried Structures	Sq. Yd.	172
Rock Fill	Ton	499

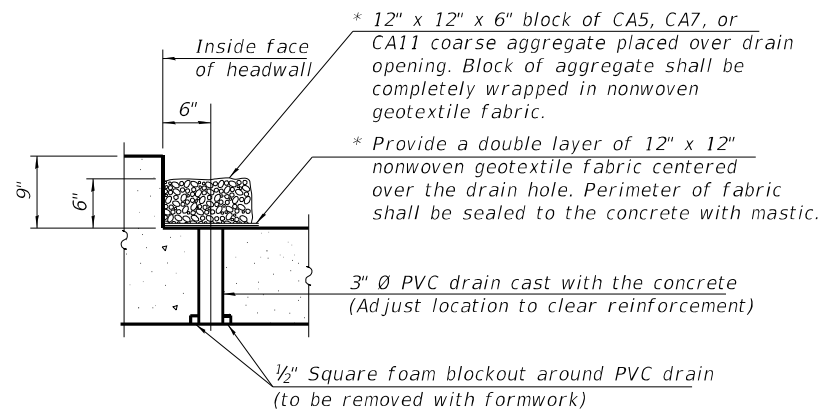


**SECTION THRU BARREL**

**GENERAL NOTES**

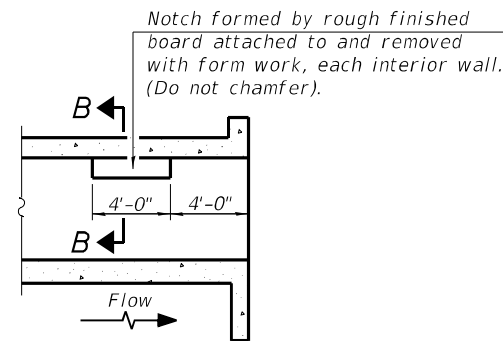
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Layout of the slope protection system may be varied to suit ground conditions as directed by the Engineer.
3. Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications. Cost shall be included in Concrete Box Culverts.
4. See Civil Plans for limits of channel regrading and riprap.

\* 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.

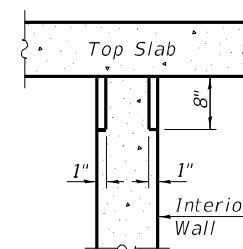


**DRAIN DETAIL**

(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.)



**LONGITUDINAL SECTION**



**SECTION B-B**

**PHOEBE NESTING SITE DETAILS (Downstream End Only)**

STATION 552+55  
BUILT 202X BY  
STATE OF ILLINOIS  
F.A.S. RT. 1177 SEC. (110,111)CR  
LOADING HL-93  
STRUCTURE NO. 052-2032

**NAME PLATE**  
See Std. 515001

FILE NAME = Z:\2016\160248\_FT\B181\Cadd\Structural\Drawn\02-64M41\_2032-002\_General\_Detail.dgn



**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

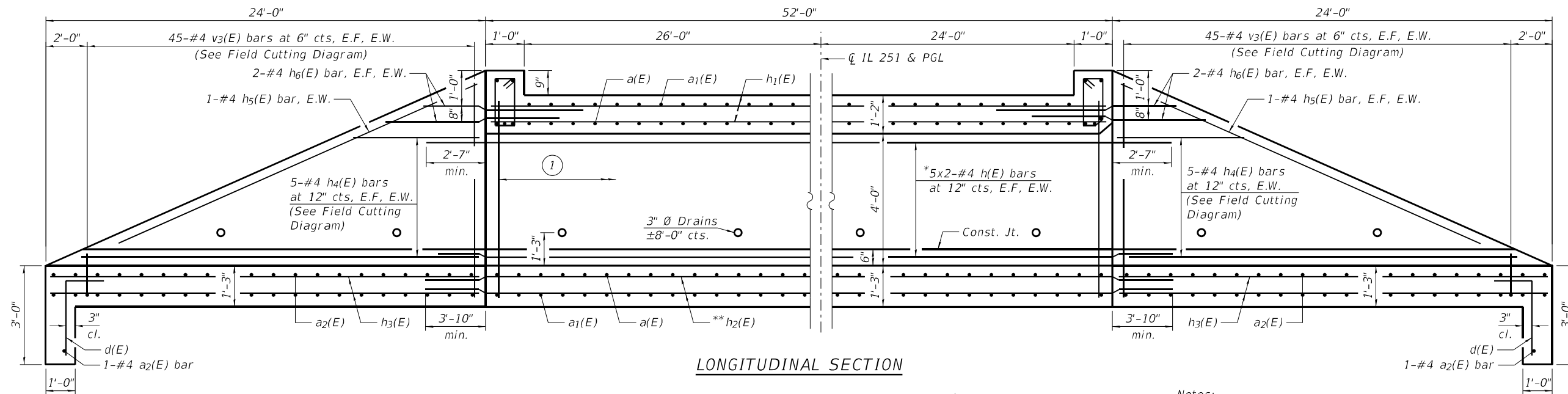
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PLOT DATE = 8/16/2021	DRAWN - JMM	REVISED -
	CHECKED - JZ	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA  
STRUCTURE NO. 052-2032**

SHEET NO. 2 OF 6 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	49
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				



**LONGITUDINAL SECTION**

**MIN. BAR LAP**

#4 bar = 2'-7"  
#6 Bar = 3'-10"

**LEGEND**

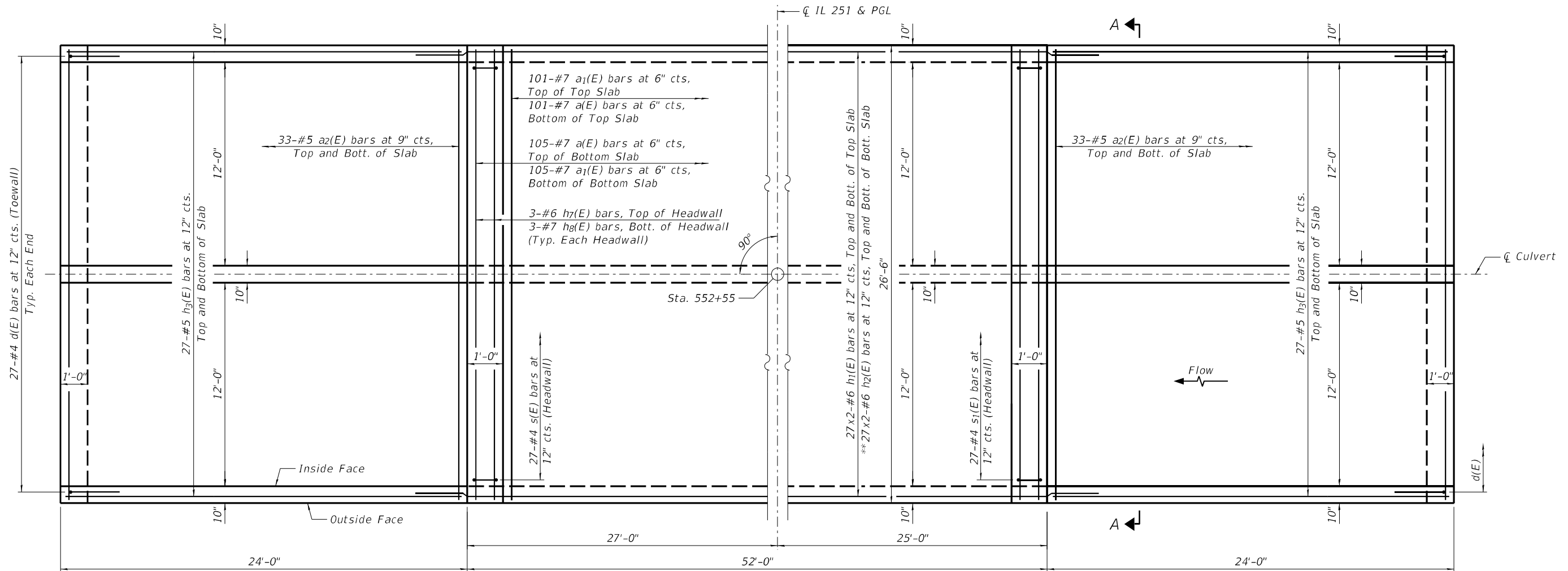
E.W. = Each Wall  
E.F. = Each Face  
I.F. = Inside Face  
O.F. = Outside Face

- ① 114-#4 v(E) bars at 5½" cts, E.F. (Center Wall)
- 114-#4 v2(E) & v4(E) bars at 5½" cts. (Center Wall)
- 114-#4 v1(E) bars at 5½" cts, I.F. (Side Walls)
- 53-#4 v(E) bars at 12" cts, O.F. (Side Walls)

\*h(E) bars shall extend a min. of 2'-7" into end sections  
\*\*h2(E) bars shall extend a min. of 3'-10" into end sections

**Notes:**

1. Bars designated thus 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.
2. See Sheet 4 of 6 for culvert details, section A-A, bar bending and cutting diagrams and Bill of Material.
3. Traversable Pipe Grates not shown for clarity. See Sheet 5 of 6 for details and Bill of Material.



**PLAN**

FILE NAME = Z:\2016\160240 PTB181\Cadd\Structural\02\02.64M41.2032-003\Culvert\_Details.rvt



WBK ENGINEERING, LLC  
116 WEST MAIN STREET, SUITE 201  
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USER NAME = jmueller	DESIGNED - JMM	REVISED -
PLOT SCALE = 1:5.33333	CHECKED - JZ	REVISED -
PLOT DATE = 8/16/2021	DRAWN - JMM	REVISED -
	CHECKED - JZ	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

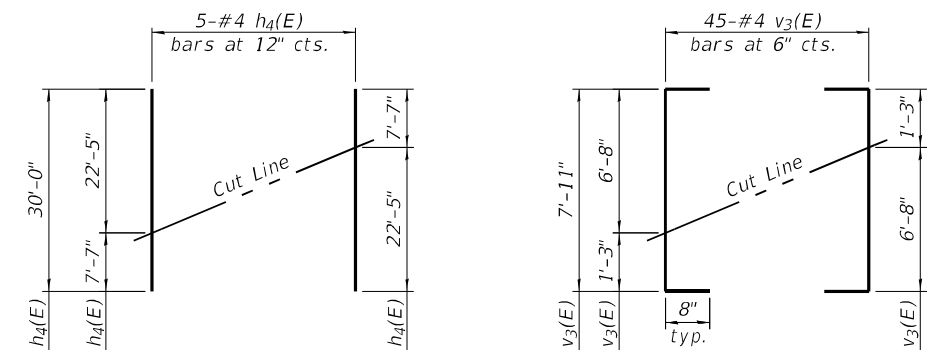
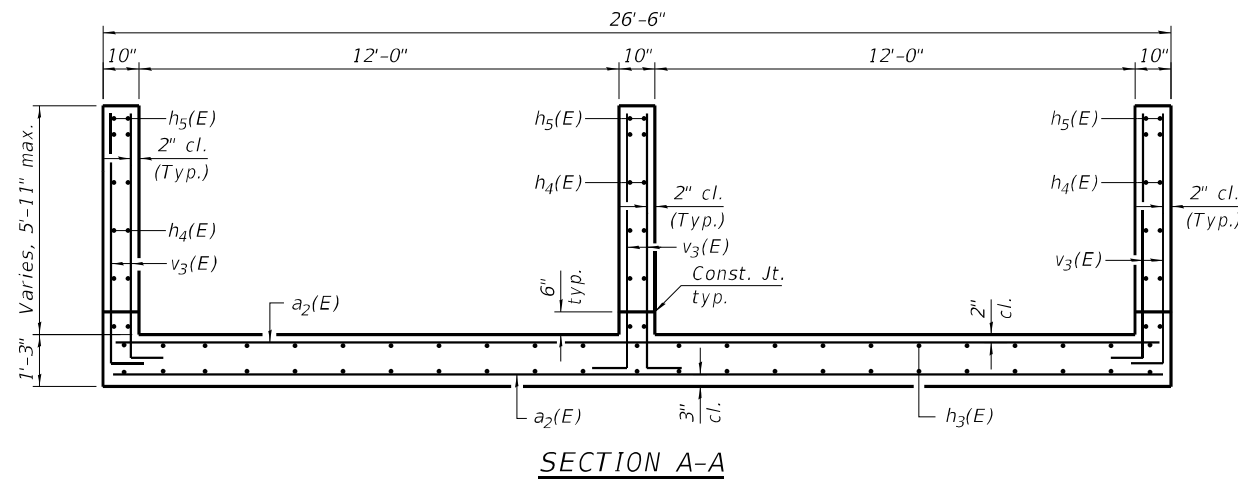
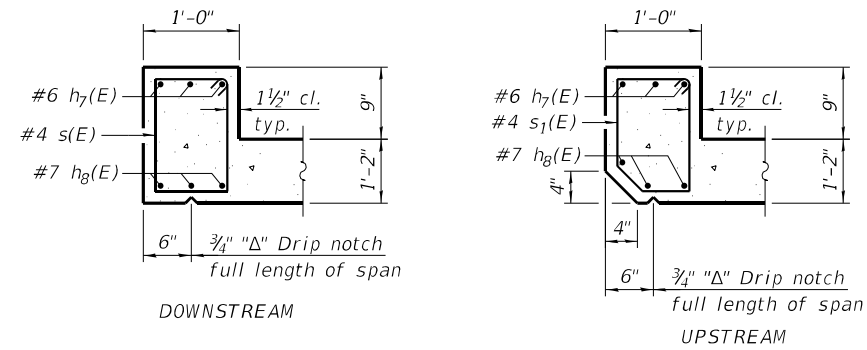
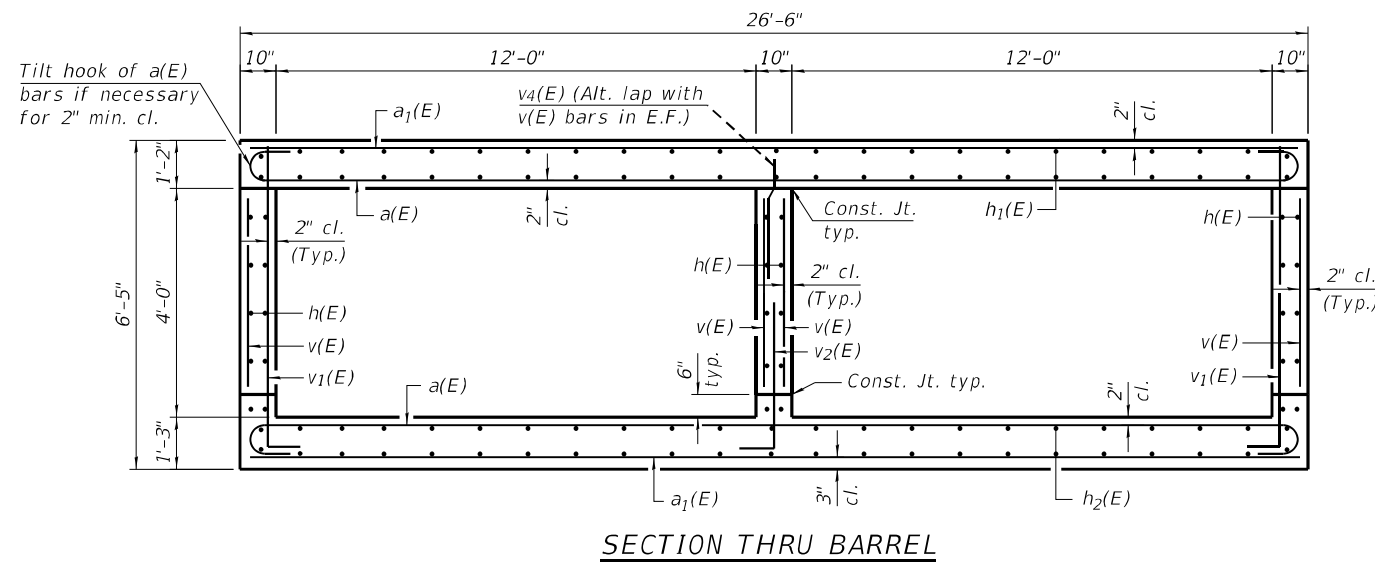
CULVERT DETAILS I  
STRUCTURE NO. 052-2032

SHEET NO. 3 OF 6 SHEETS

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 50
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

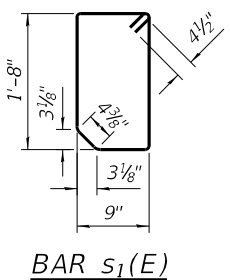
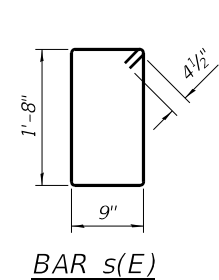
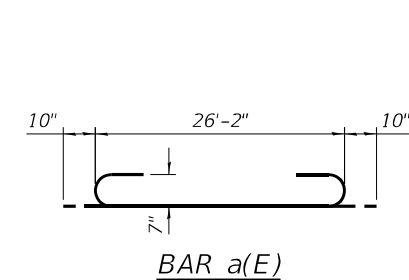
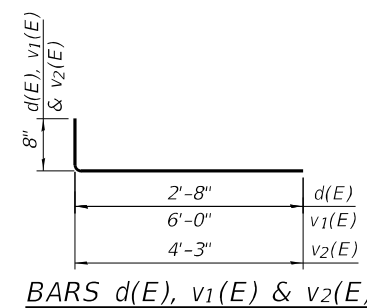
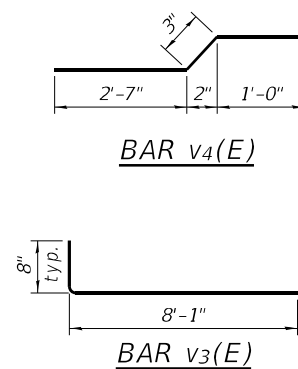
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	206	#7	27'-10"	
a <sub>1</sub> (E)	206	#7	26'-2"	
a <sub>2</sub> (E)	134	#5	26'-2"	
d(E)	54	#4	3'-4"	
h(E)	60	#4	30'-0"	
h <sub>1</sub> (E)	108	#6	27'-9"	
h <sub>2</sub> (E)	108	#6	31'-9"	
h <sub>3</sub> (E)	108	#5	23'-8"	
h <sub>4</sub> (E)	30	#4	30'-0"	
h <sub>5</sub> (E)	12	#4	21'-0"	
h <sub>6</sub> (E)	24	#4	8'-3"	
h <sub>7</sub> (E)	6	#6	26'-2"	
h <sub>8</sub> (E)	6	#7	26'-2"	
s(E)	27	#4	5'-7"	
s <sub>1</sub> (E)	27	#4	5'-6"	
v(E)	334	#4	3'-2"	
v <sub>1</sub> (E)	228	#4	6'-8"	
v <sub>2</sub> (E)	114	#4	4'-11"	
v <sub>3</sub> (E)	270	#4	9'-3"	
v <sub>4</sub> (E)	144	#4	3'-10"	
Concrete Box Culverts			Cu. Yd.	219.6
Reinforcement Bars, Epoxy Coated			Pound	45,750



**FIELD CUTTING DIAGRAMS**

Order bars shown full length. Cut as shown and use remainder of bars in opposite face.



FILE NAME = Z:\2016\160240 FTB181\Cadd\Structural\02\02.64M41.2032-004.Culvert Details II.dgn

**WBK ENGINEERING**  
**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
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 (630) 443-7755

USER NAME = jmueller	DESIGNED - JMM	REVISED -
PLOT SCALE = 1:5.33333	CHECKED - JZ	REVISED -
PLOT DATE = 8/16/2021	DRAWN - JMM	REVISED -
	CHECKED - JZ	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CULVERT DETAILS II  
 STRUCTURE NO. 052-2032**

SHEET NO. 4 OF 6 SHEETS

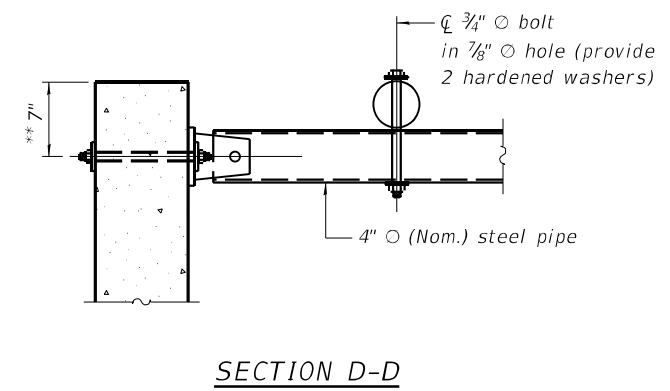
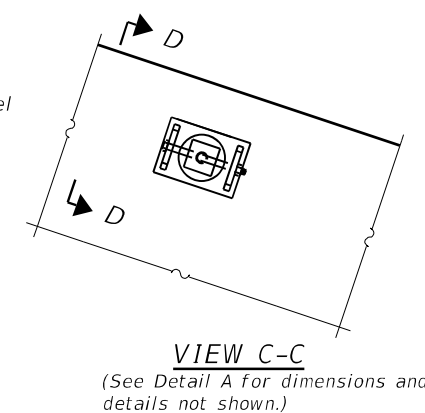
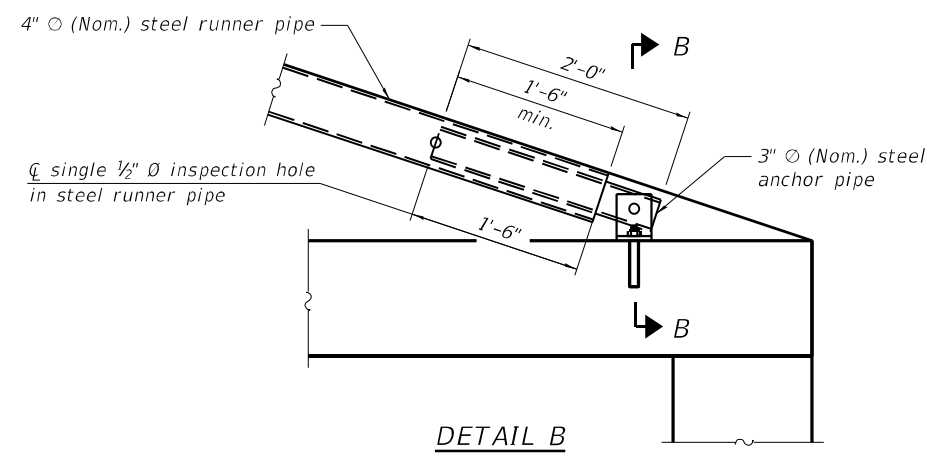
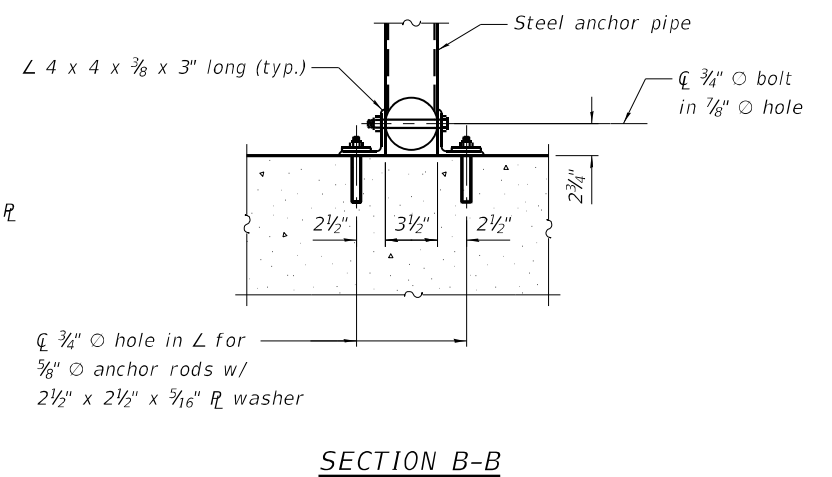
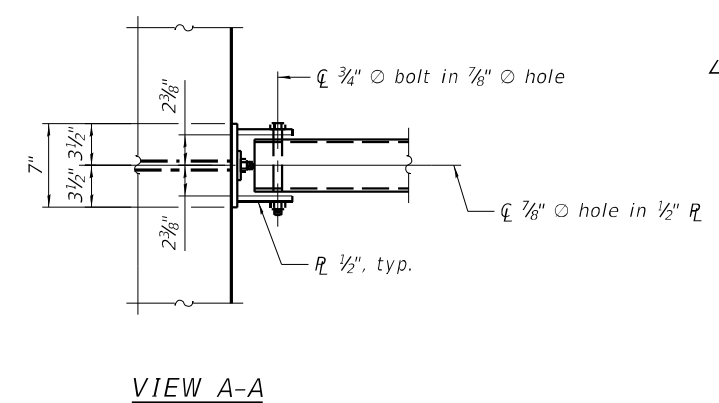
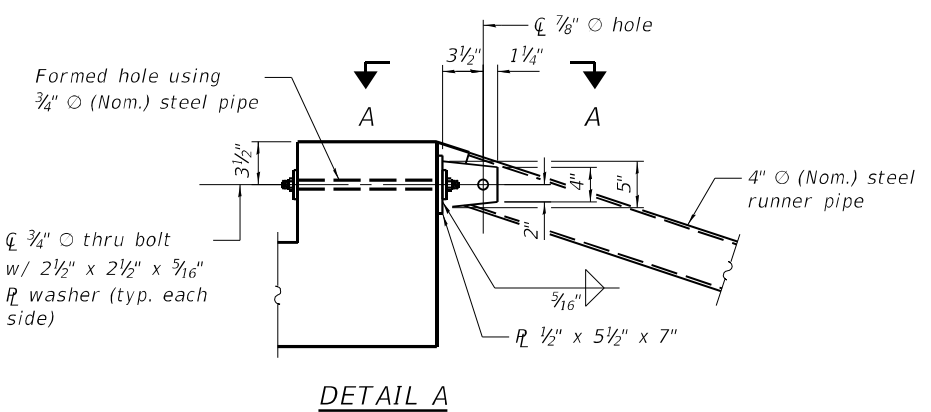
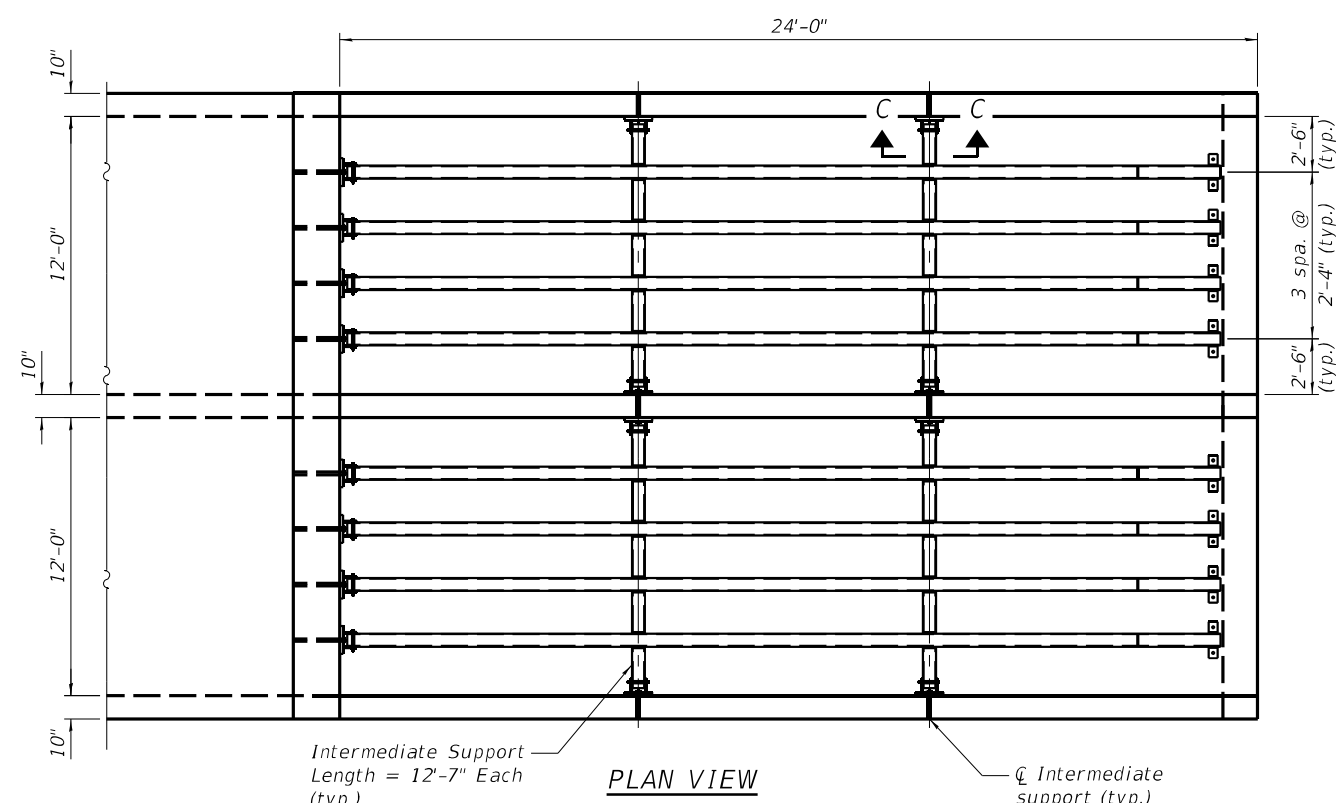
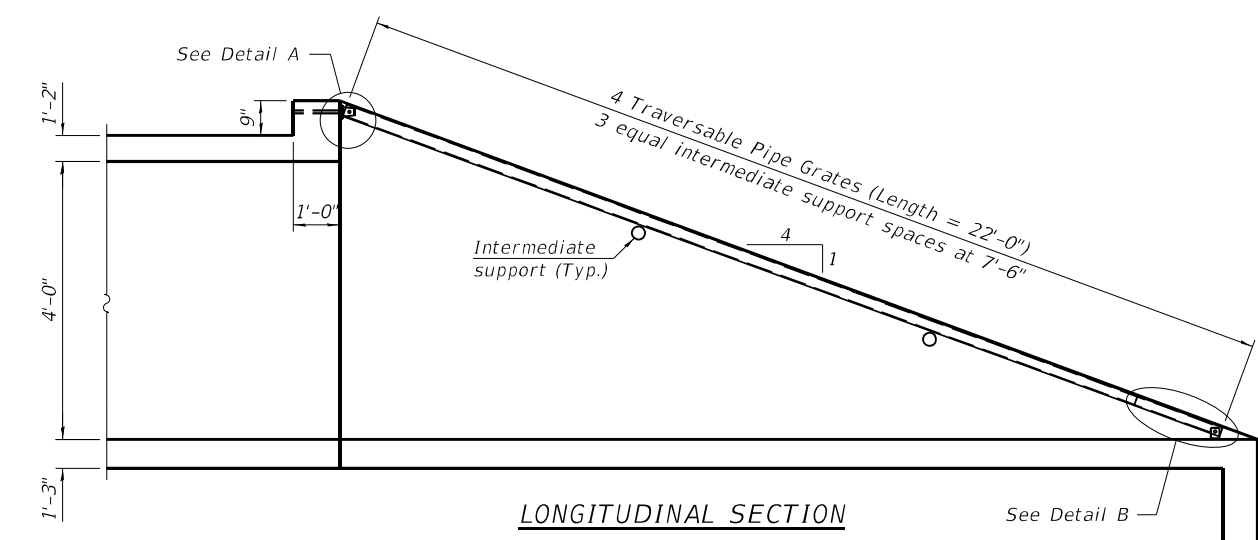
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	51
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

1. The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be  $1\frac{1}{2}$ " unless noted otherwise.
2. The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completely filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be snug tightened followed by an additional  $\frac{1}{2}$  turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Traversable Pipe Grate for Concrete End Section	Foot	445



\*\* Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.

FILE NAME = Z:\2016\160248\_FT1B181\Cadd\Structural\02\02.64M41.2032-005.Traversable Pipe Grate Details for End Section.dgn

TPGBC-ZS 2-17-2017 (MODIFIED)

**WBK ENGINEERING, LLC**  
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PLOT SCALE = 1:2,66667	CHECKED - JZ	REVISED -
PLOT DATE = 8/16/2021	DRAWN - JMM	REVISED -
	CHECKED - JZ	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAVERSABLE PIPE GRATE DETAILS FOR END SECTION  
STRUCTURE NO. 052-2032**

SHEET NO. 5 OF 6 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	52
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				



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

# SOIL BORING LOG

Page 1 of 1

Date 11/29/11

ROUTE IL 251 DESCRIPTION 052-1064 P92-028-12 Box Culvert on IL 251, .6 m. S. of US 30, 4 m. N. of Compton LOGGED BY J. Strating  
SECTION \_\_\_\_\_ LOCATION Viola Twp. - 23SE, SEC., TWP. 38N, RNG. 1E  
COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	Station	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	DEPTH	BLOW	UCS	MOIST
052-1064		(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	ft		(ft)	(/6")	(tsf)	(%)
MEDIUM brown SILTY CLAY LOAM				0.5 P	33.0		93.00	STIFF gray SILTY LOAM TILL (continued)		74.00			2	5	1.3 B	14.0
MEDIUM light gray SILTY LOAM	93.00		1					VERY STIFF gray TILL with SAND lens		71.50			2	4	2.1 B	11.0
			3	0.5 B	17.0								6			
MEDIUM gray SANDY GRAVEL	91.00		4					VERY STIFF gray TILL with SAND lens		69.00			3	6	2.3 P	10.0
			7										7			
	88.50		7					VERY STIFF gray TILL		66.00			5	8	3.1 P	10.0
STIFF gray TILL with SAND lens			7										10			
			5	1.3 P	14.0								8			
	86.50		4					MEDIUM gray dirty SAND		63.50			2	4		
			3										7			
STIFF gray LOAM TILL	84.00		4	1.2 B	13.0			VERY STIFF gray SANDY LOAM TILL		61.50			3	5	2.9 B	11.0
			5										10			
STIFF gray LOAM TILL with fine SAND lens	81.50		4										11			
			6	1.1 P	13.0			No Recovery					14			
			6										16			
MEDIUM gray LOAM TILL	79.00		6	0.8 B	12.0			End of Boring		59.00						
			5													
STIFF gray SILTY LOAM TILL	76.50		1													
			4	1.2 B	11.0											
			5													
STIFF gray SILTY LOAM TILL			1													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



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

# SOIL BORING LOG

Page 1 of 1

Date 11/29/11

ROUTE IL 251 DESCRIPTION 052-1064 P92-028-12 Box Culvert on IL 251, .6 m. S. of US 30, 4 m. N. of Compton LOGGED BY J. Strating  
SECTION \_\_\_\_\_ LOCATION Viola Twp. - 23SE, SEC., TWP. 38N, RNG. 1E  
COUNTY Lee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	Station	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	DEPTH	BLOW	UCS	MOIST
052-1064		(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	ft		(ft)	(/6")	(tsf)	(%)
STIFF brown SILTY CLAY LOAM				1.1 P	32.0		7.00	STIFF tan TILL with SAND lens (continued)		75.40			3	4	2.0 P	12.0
								No Recovery					5			
STIFF brown SILTY CLAY LOAM	94.40		1										7			
			2	1.0 B	34.0								7			
	92.90		4					STIFF gray TILL		72.90			3			
			5										4	1.1 B	13.0	
SOFT gray SILTY CLAY LOAM			1					VERY STIFF gray TILL		70.40			3			
			2	0.3 B	37.0								4	2.3 B	12.0	
	90.40		2										7			
VERY SOFT gray SILTY LOAM			0					VERY STIFF gray TILL with SAND lens		67.90			3			
			1	0.2 P	45.0								4	2.3 B	12.0	
	87.90		1										6	2.5 B	12.0	
VERY SOFT gray SILTY LOAM with 11% ORGANICS			0					VERY STIFF gray TILL with SAND lens		65.40			3			
			1	0.2 B	37.0								5	3.5 P	10.0	
	85.40		1										8			
MEDIUM gray SILTY LOAM			1					VERY STIFF gray TILL with SAND lens		62.90			3			
			2	0.5 B	27.0								5			
	82.90		3										8			
MEDIUM gray SILTY LOAM			1					VERY STIFF gray TILL		60.40			4			
			4	0.6 B	23.0								7	2.1 B	11.0	
	80.40		9					End of Boring					10			
No Recovery																
			11													
			9													
			7													
STIFF tan TILL with SAND lens	77.40															
			2													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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USER NAME = jmuelter  
PLOT SCALE = 1:0.166667  
PLOT DATE = 8/16/2021

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REVISED -  
REVISED -  
REVISED -

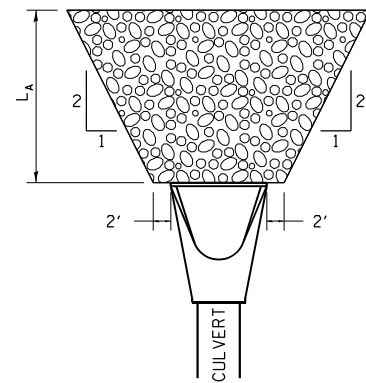
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS  
STRUCTURE NO. 052-2032

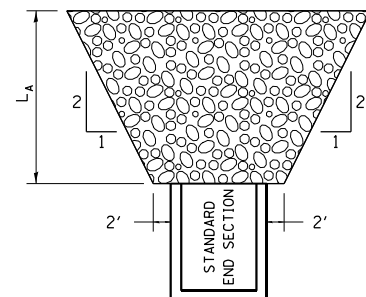
SHEET NO. 6 OF 6 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	53
CONTRACT NO. 64M41				
ILLINOIS / FED. AID PROJECT				

# RIPRAP AT END SECTIONS

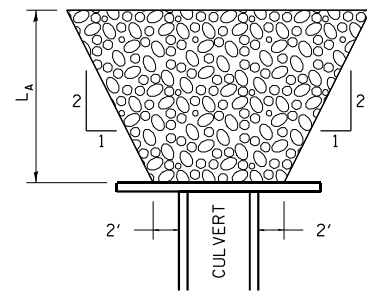


FLARED END SECTION

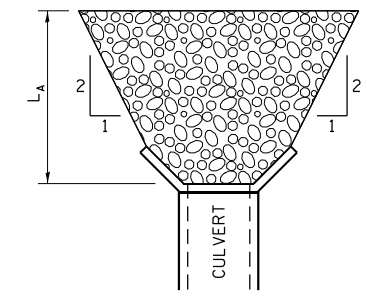


STANDARD END SECTION

$L_A$  = APRON LENGTH (ft)  
 IF THE CULVERT OUTLETS INTO A DEFINED CHANNEL, RIPRAP BANK TO BANK FOR LENGTH ( $L_A$ ).  
 STANDARD END SECTION:  
 542001 (PIPE), 542011 (ELLIPTICAL)  
 DISTRICT STANDARD 10.1 (BOX).



CULVERT WITH HEADWALL

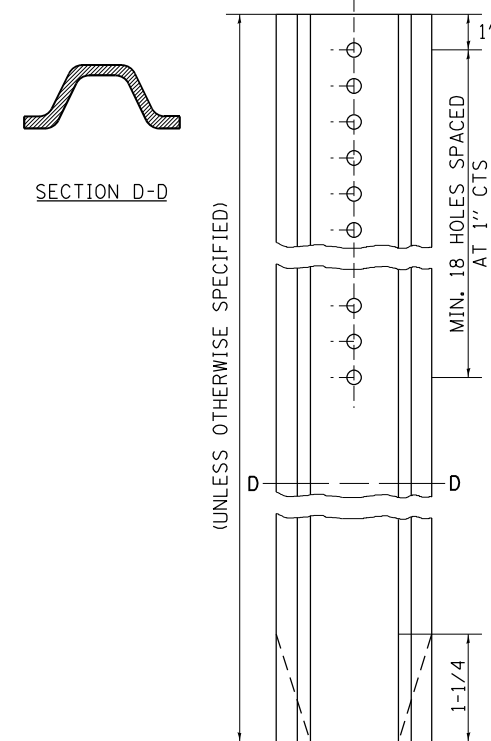
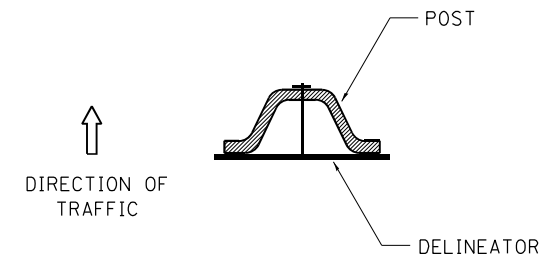


CULVERT WITH WING WALLS

## RIPRAP AT END SECTIONS 19.4

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

# DELINEATOR AND POST ORIENTATION



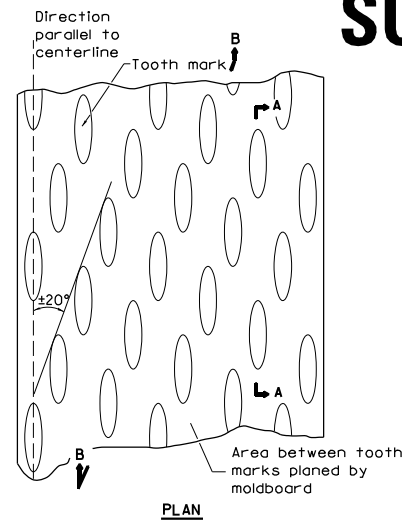
DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHED AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

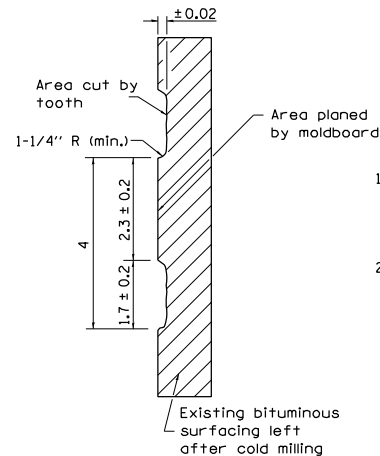
REVISED - 10-03-11

## DELINEATOR AND POST ORIENTATION 37.4

# REQUIRED COLD MILLED SURFACE TEXTURE



PLAN

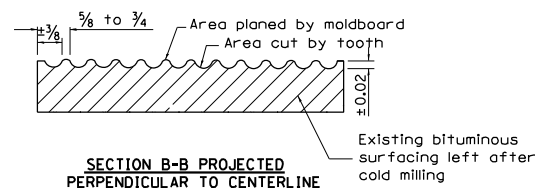


SECTION A-A

### NOTES

- Cold Milling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
- Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

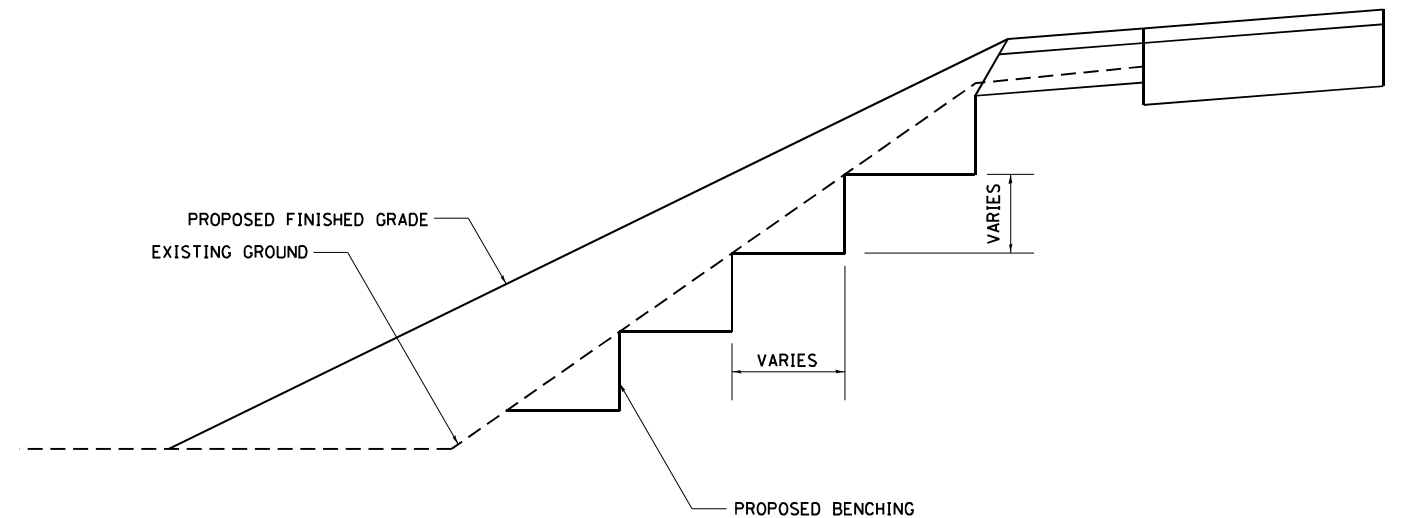


SECTION B-B PROJECTED PERPENDICULAR TO CENTERLINE

REVISED - 10-03-11

## REQUIRED COLD MILLED SURFACE TEXTURE 43.4

# TYPICAL BENCHING ON EXISTING EMBANKMENT

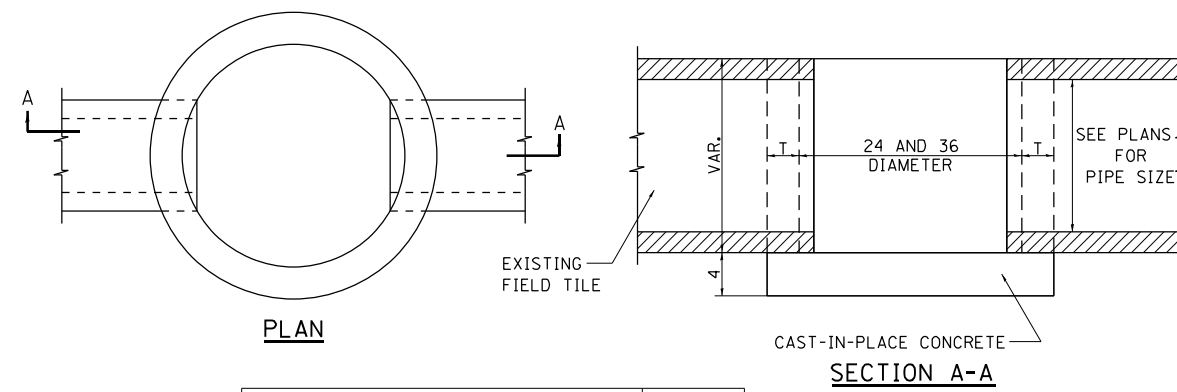
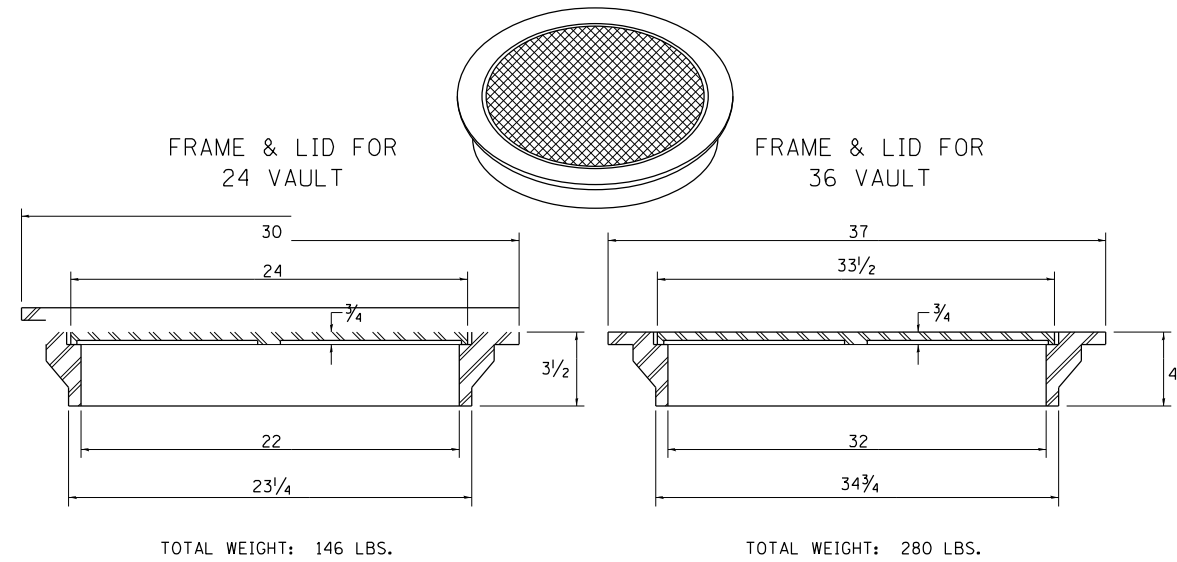


REVISED - 2-22-06

## TYPICAL BENCHING ON EXISTING EMBANKMENT 50.4

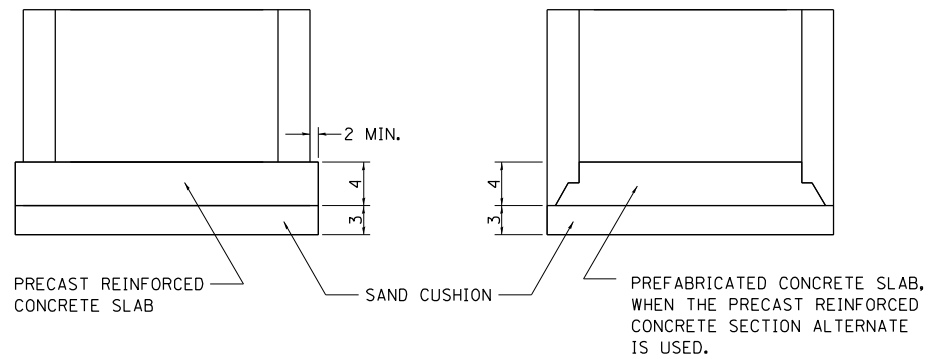
Z:\2016\160240\FB181\CADD\Civil\gmm\W02\SH\10\264M41-SH-D264CALB\_01.dgn

# FIELD TILE JUNCTION VAULTS 24 AND 36 DIA.



ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	8
CAST-IN-PLACE CONCRETE	6
CONCRETE MASONRY UNIT	5
PRECAST REINFORCED CONCRETE SECTION	3

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



REVISED - 10-14-11

## FIELD TILE JUNCTION VAULTS 24 AND 36 DIA. 30.2

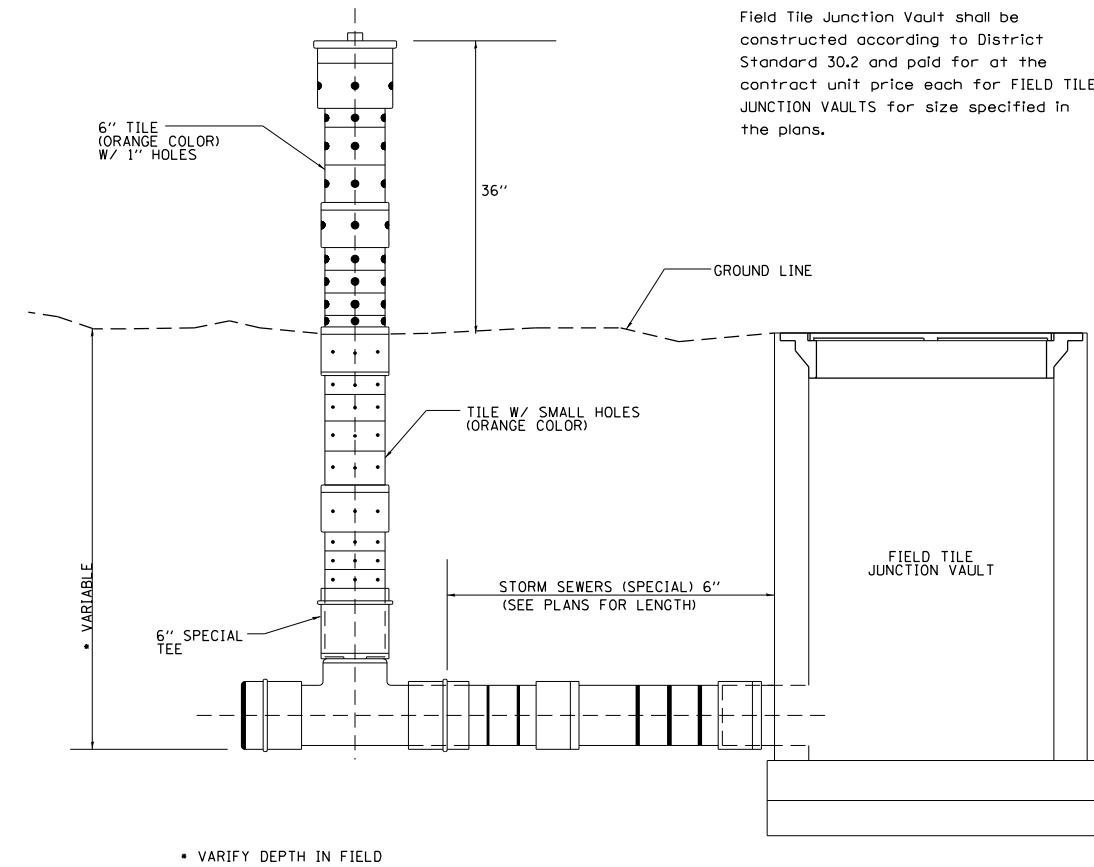
# INLET STAND PIPE

### Inlet Stand Pipe

Inlet Stand Pipe shall be included in the contract unit price per FOOT for STORM SEWERS (SPECIAL) 6". Which shall include the following items--one 36" above ground section with 1" holes, one variable depth below ground section with small holes, one 6" tee section, collars (if needed) and end caps (if needed) as directed by the engineer.

Storm Sewer shall be paid for at the contract unit price per foot for STORM SEWERS (SPECIAL) 6". According to Article 611.04.

Field Tile Junction Vault shall be constructed according to District Standard 30.2 and paid for at the contract unit price each for FIELD TILE JUNCTION VAULTS for size specified in the plans.



• VERIFY DEPTH IN FIELD

REVISED - 10-14-11

## INLET STAND PIPE 34.2

FILE NAME = Z:\2010\160240\_P1B1B1\cadd\Civil\p1b1b1\DWG\W02\SH1\DWG\4M4-1-16-10-24\stdr\_02.dwg



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USER NAME = ssuniarasan	DESIGNED -	REVISED -
PLOT SCALE = 1:2,33372	DRAWN -	REVISED -
PLOT DATE = 8/16/2021	CHECKED -	REVISED -
	DATE - 08/16/21	REVISED -

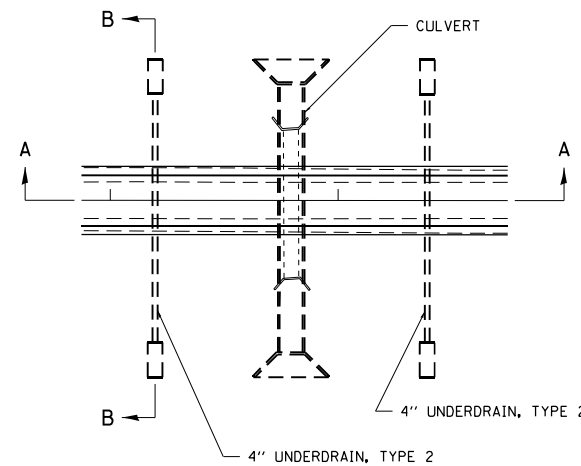
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: SHEET 2 OF 21 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	55
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT X				

# UNDERDRAIN FOR ACROSS ROAD (AR) CULVERTS



**NOTES:**

IN SAG CONDITIONS INSTALL PIPE UNDERDRAINS, TYPE 2, 4" ON BOTH SIDES OF CULVERT.

ON HIGHWAY GRADES GREATER THAN 2% INSTALL PIPE UNDERDRAINS, TYPE 2, 4" ON THE HIGH SIDE OF THE CULVERT.

THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601.05 OF THE STANDARD SPECIFICATIONS.

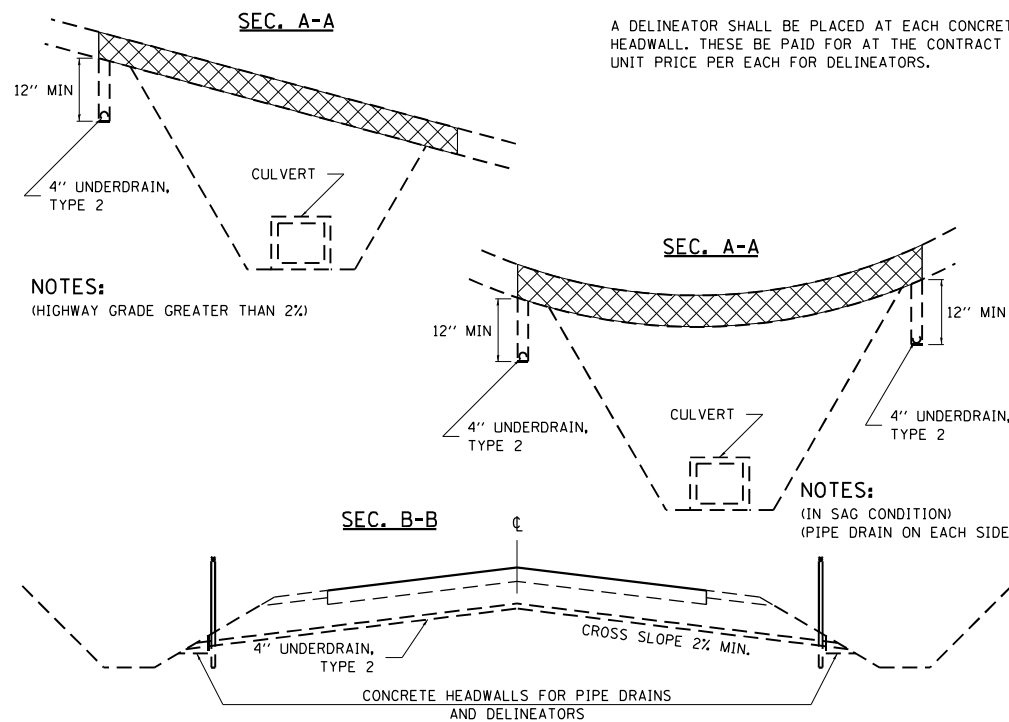
THE UNDERDRAIN SHALL EXTEND UNTIL INTERSECTING WITH THE SIDE SLOPES. THE PIPES SHALL DRAIN INTO CONCRETE HEADWALLS. (SEE ARTICLE 601.05 OF THE STANDARD SPECIFICATIONS AND HIGHWAY STANDARD 601101).

THE UNDERDRAIN SHALL BE A MINIMUM OF 12" BELOW THE EXISTING PAVEMENT.

PIPE UNDERDRAINS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS, TYPE 2, 4".

CONCRETE HEADWALLS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR CONCRETE HEADWALLS FOR PIPE DRAINS.

A DELINEATOR SHALL BE PLACED AT EACH CONCRETE HEADWALL. THESE BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR DELINEATORS.



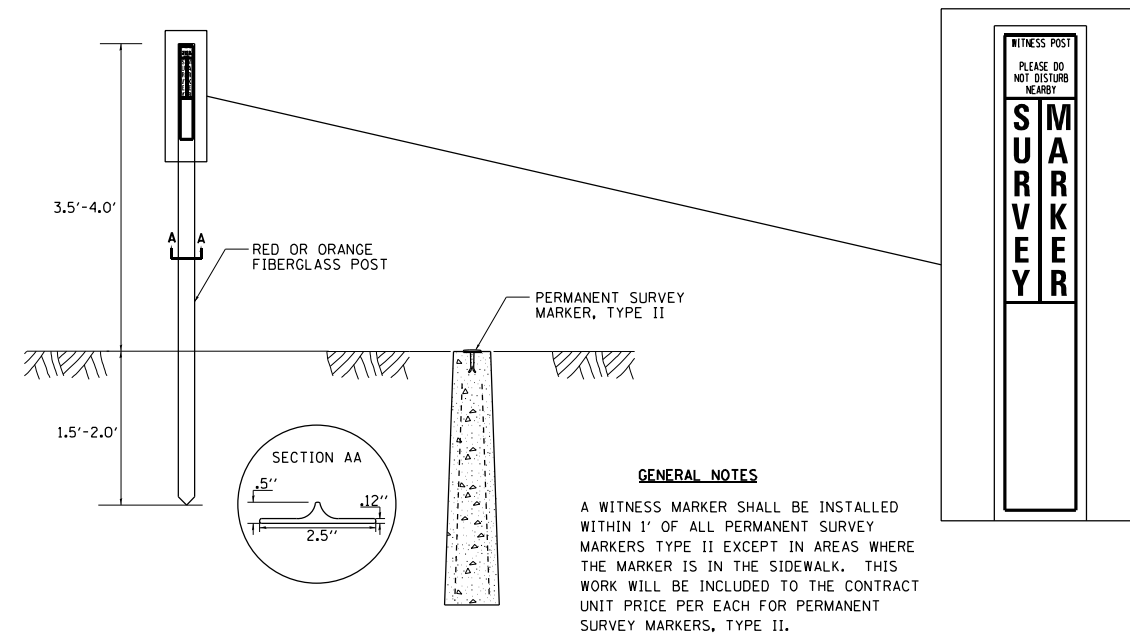
**NOTES:**  
(HIGHWAY GRADE GREATER THAN 2%)

**NOTES:**  
(IN SAG CONDITION)  
(PIPE DRAIN ON EACH SIDE)

REVISED - 8-03-17  
REVISED - 7-13-16  
REVISED - 1-05-16  
REVISED - 6-27-14

**UNDERDRAIN FOR ACROSS ROAD (AR) CULVERTS 37.2**

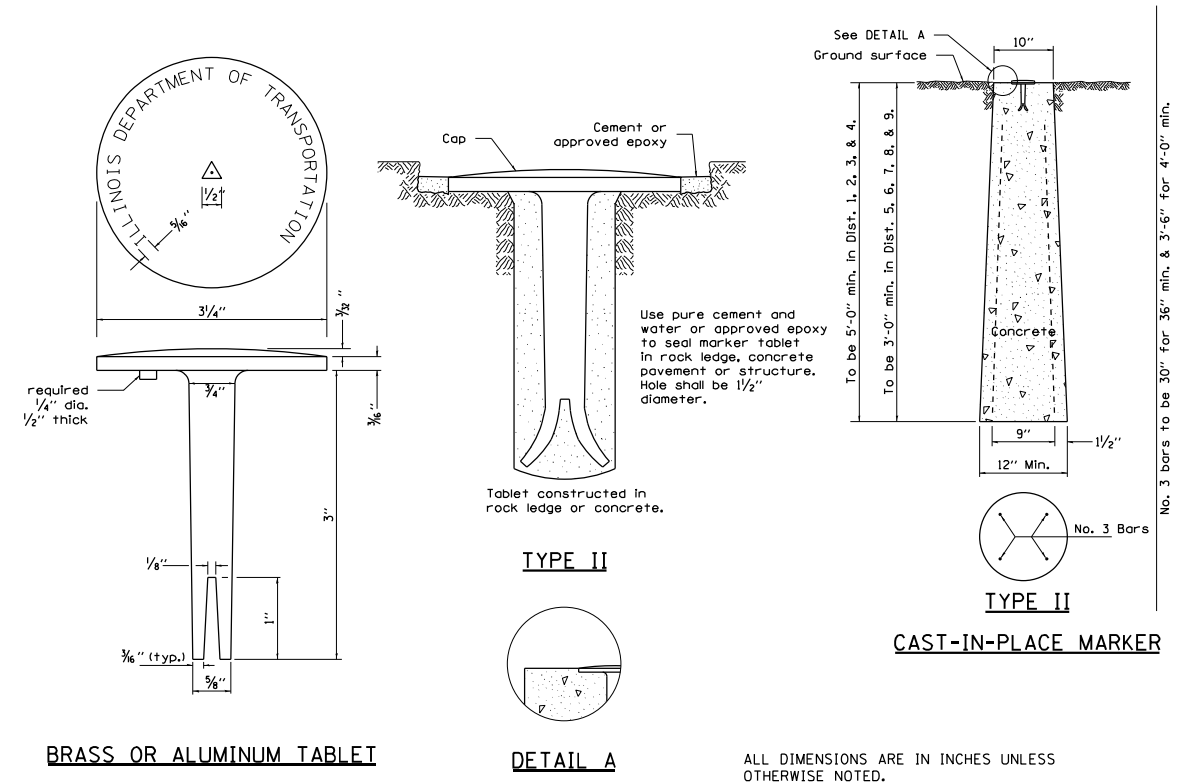
# WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II



**GENERAL NOTES**

A WITNESS MARKER SHALL BE INSTALLED WITHIN 1' OF ALL PERMANENT SURVEY MARKERS TYPE II EXCEPT IN AREAS WHERE THE MARKER IS IN THE SIDEWALK. THIS WORK WILL BE INCLUDED TO THE CONTRACT UNIT PRICE PER EACH FOR PERMANENT SURVEY MARKERS, TYPE II.

# PERMANENT SURVEY MARKERS, TYPE II



REVISED - 10-14-11

**WITNESS MARKER & PERMANENT SURVEY MARKERS, TYPE II 66.2**

FILE NAME = Z:\2016\160240\_PTB\B131\cadd\Civil\p\W02\511\264M4-1-enr-d26enr\_03.dgn

USER NAME = ssuncoresan	DESIGNED -	REVISED -
PLOT SCALE = 1:2,33372	DRAWN -	REVISED -
PLOT DATE = 8/16/2021	CHECKED -	REVISED -
	DATE = 08/16/21	REVISED -

F.A.P. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 56
ILLINOIS FED. AID PROJECT X			CONTRACT NO. 64M41	



# BOX CULVERT END SECTIONS

## GENERAL NOTES

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

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

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

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

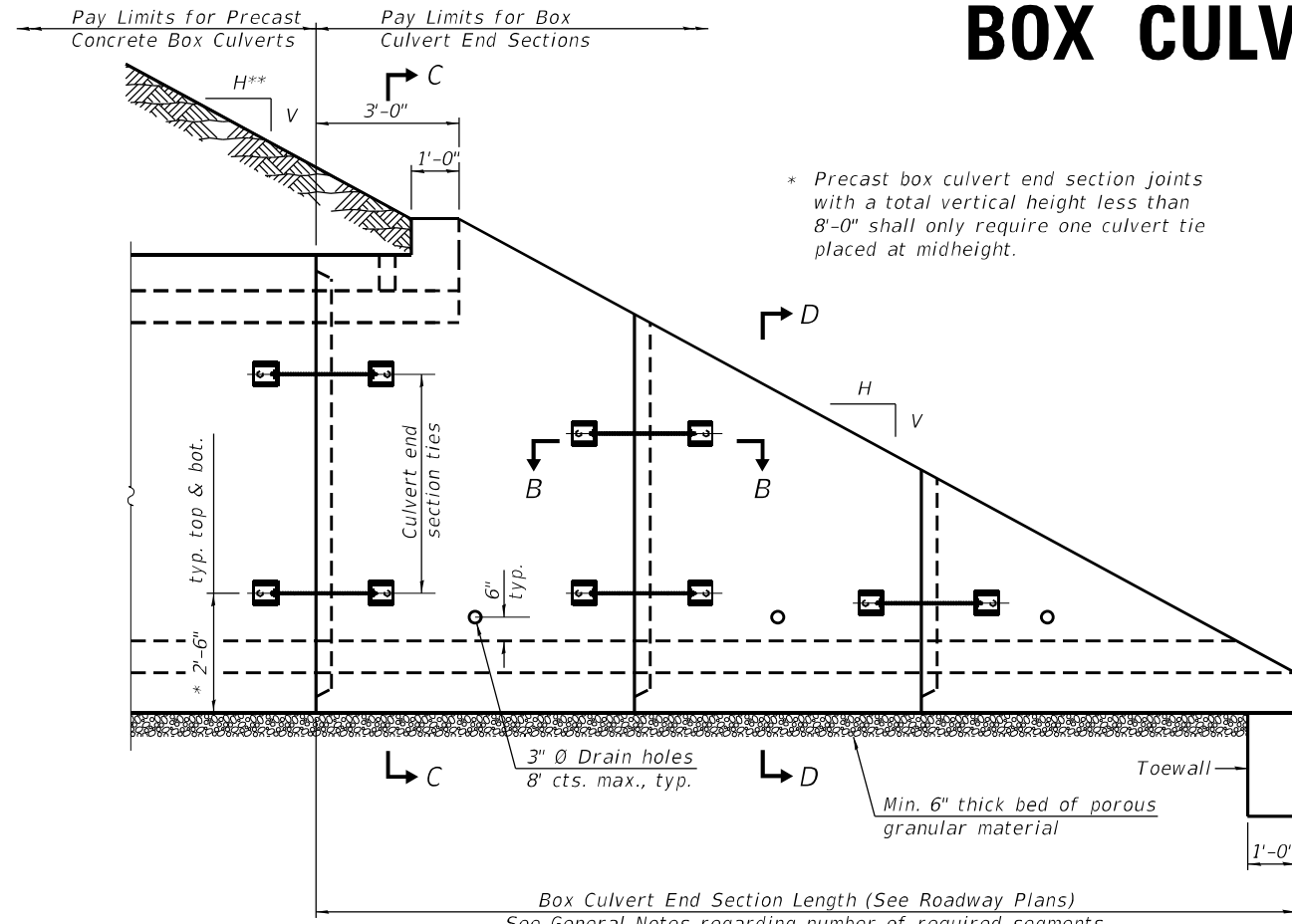
1"  $\varnothing$  anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 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.

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

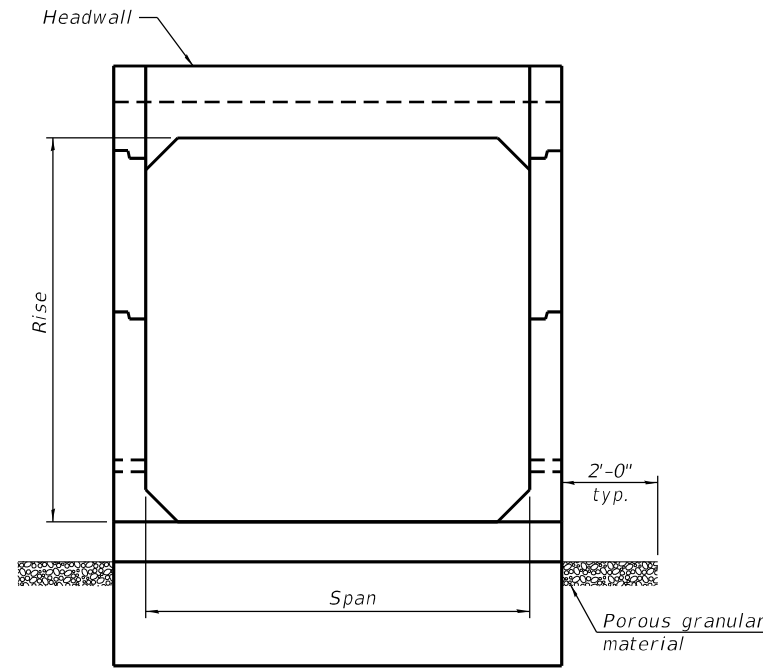
Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

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

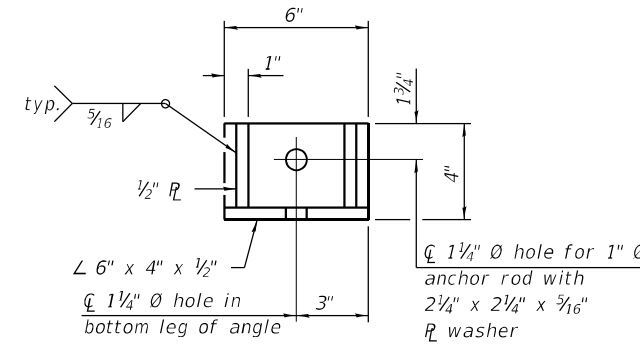
For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



ELEVATION



END VIEW



RESTRAINT ANGLE DETAIL

12" x 12" x 6" block of CA5, CA7, or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

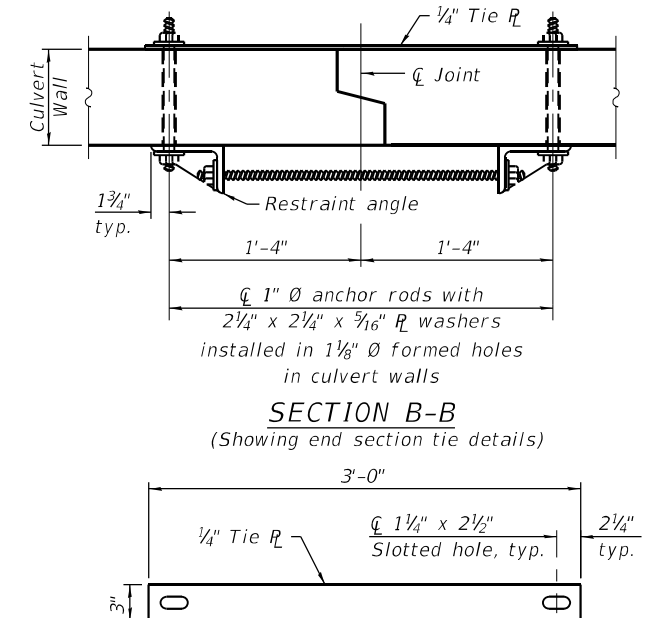
Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Fabric shall be sealed to the concrete with mastic.

3"  $\varnothing$  PVC drain cast with the concrete (Adjust location to clear reinforcement).

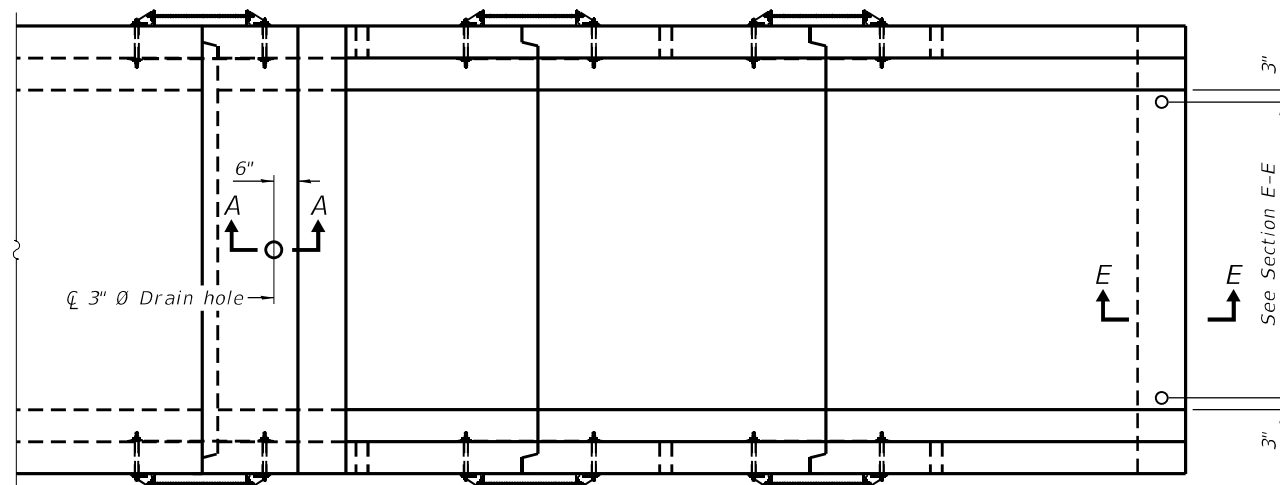
1/2" Square foam blockout around PVC drain (to be removed with formwork)

SECTION A-A

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.) (Sheet 1 of 2)



TIE PLATE DETAIL



PLAN

## BOX CULVERT END SECTIONS SHEET 1 OF 2 10.1

SCB-TES

2-17-2017

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PLOT SCALE = 1:2  
PLOT DATE = 8/16/2021

DESIGNED -  
DRAWN -  
CHECKED -  
DATE - 08/16/21  
REVISED - 1-10-18  
REVISED - 1-05-16  
REVISED - 5-09-14  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

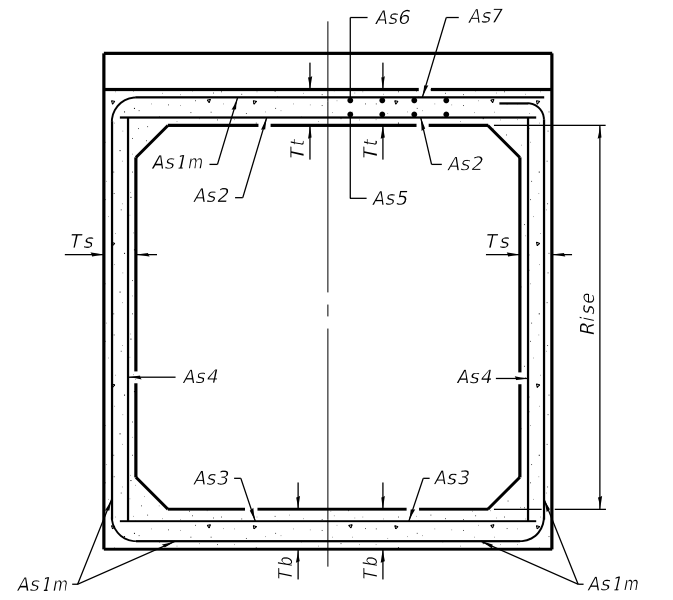
SCALE: SHEET 4 OF 21 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	57
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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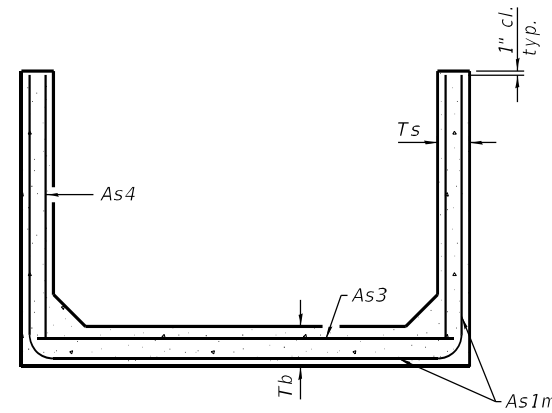
# BOX CULVERT END SECTIONS

		As1m REINFORCEMENT (in. <sup>2</sup> /ft)										
Ts (in.)	Rise (ft)	2	3	4	5	6	7	8	9	10	11	12
	4		0.19	0.17								
5		0.26	0.21	0.18								
6		0.22	0.26	0.23	0.22							
7		0.25	0.33	0.59	0.27	0.28						
8		0.40	0.35	0.43	0.39	0.36	0.34	0.40				
9		0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48			
10		0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56		
11		0.52	0.45	0.54	0.50	0.46	0.44	0.41	0.46	0.50	0.65	
12		0.55	0.49	0.58	0.54	0.50	0.48	0.45	0.46	0.46	0.61	0.75

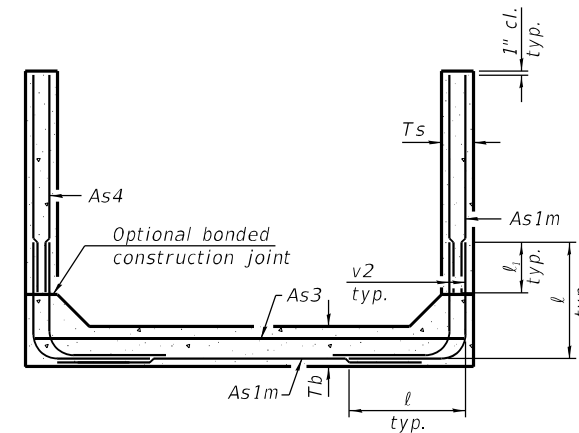


(Design Earth Cover ≥ 2 ft) (Design Earth Cover < 2 ft)

SECTION C-C



SECTION D-D



ALTERNATE SECTION D-D

**ℓ<sub>1</sub> DIMENSION**

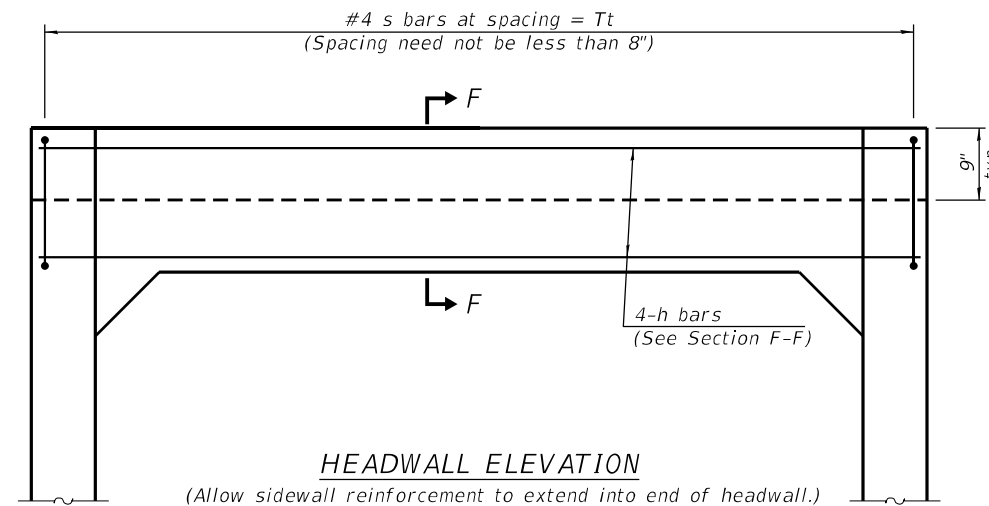
- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"

**Notes:**

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

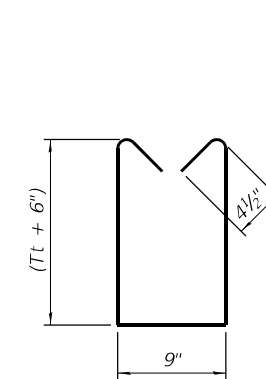
The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.<sup>2</sup>/ft.) equal to 1.10\*(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

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

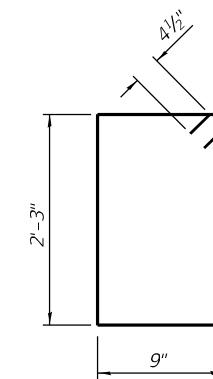


HEADWALL ELEVATION

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



BAR s



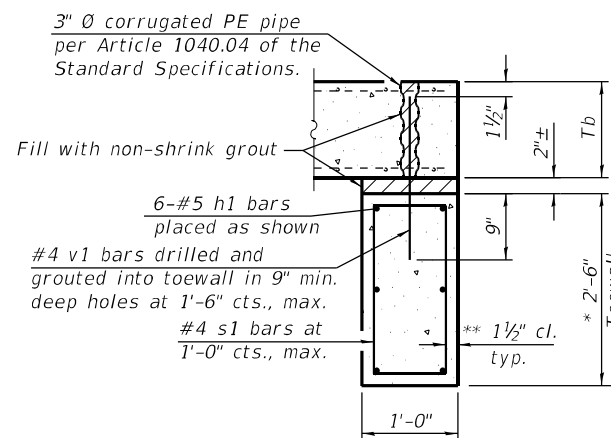
BAR s1

**TOEWALL CONSTRUCTION SEQUENCE**

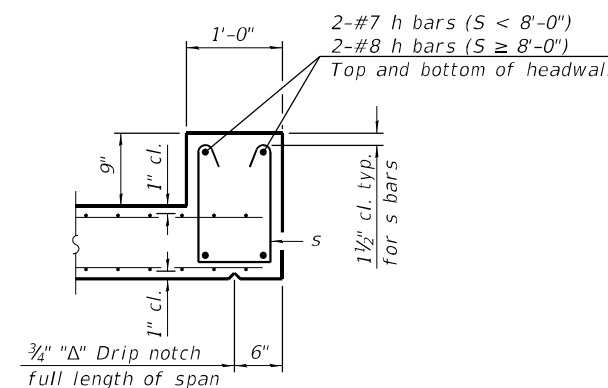
1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance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

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

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



SECTION E-E



SECTION F-F

SCB-TES

2-17-2017



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USER NAME = ssuncoaresan	DESIGNED -	REVISED - 1-10-18
	DRAWN -	REVISED - 1-05-16
PLOT SCALE = 1:2	CHECKED -	REVISED - 5-09-14
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

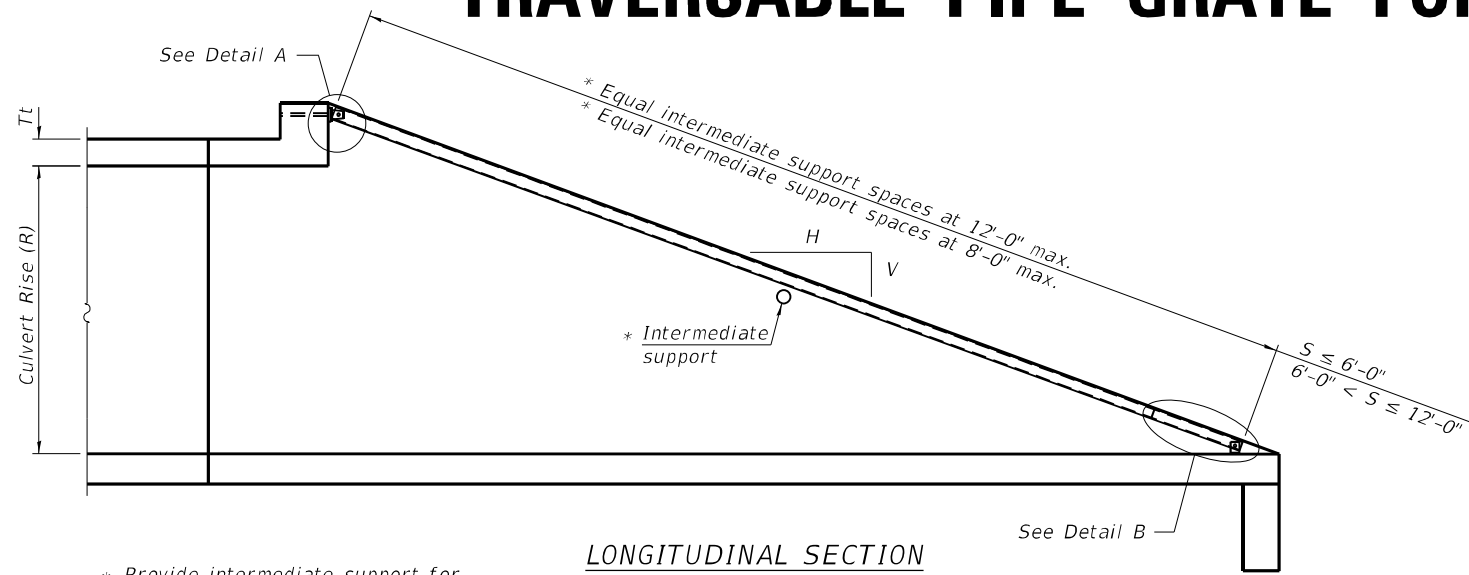
SCALE: SHEET 5 OF 21 SHEETS STA. TO STA.

BOX CULVERT END SECTIONS 2 OF 2 10.1

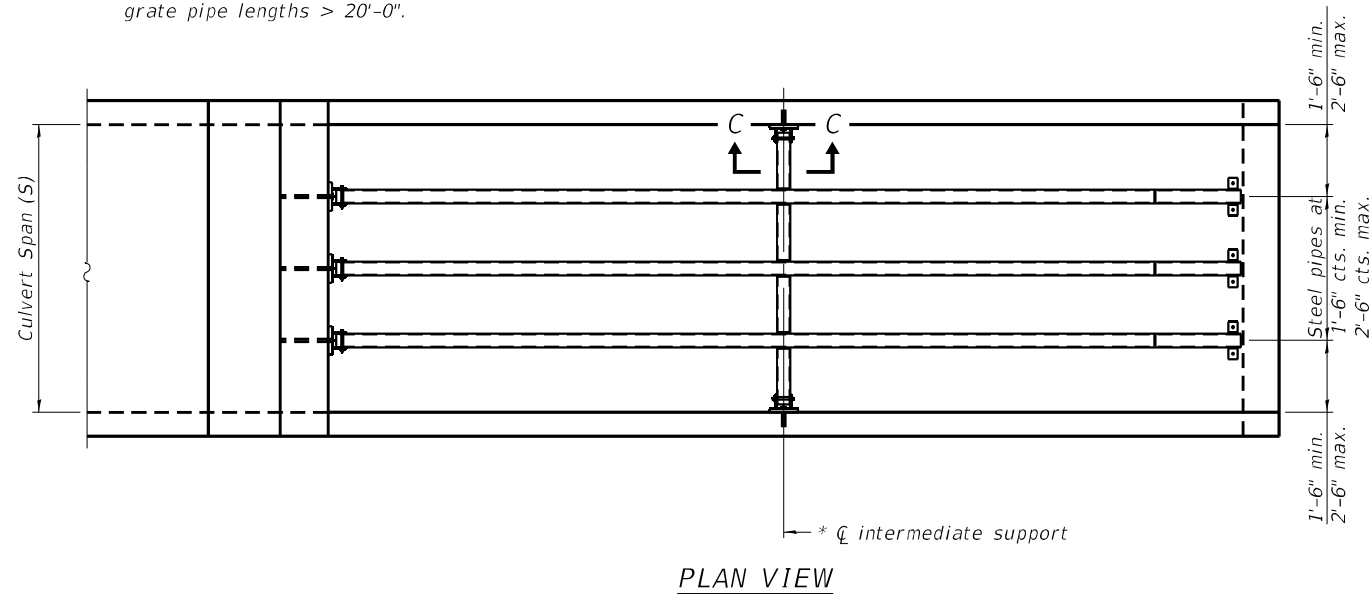
(Sheet 2 of 2)

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 58
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

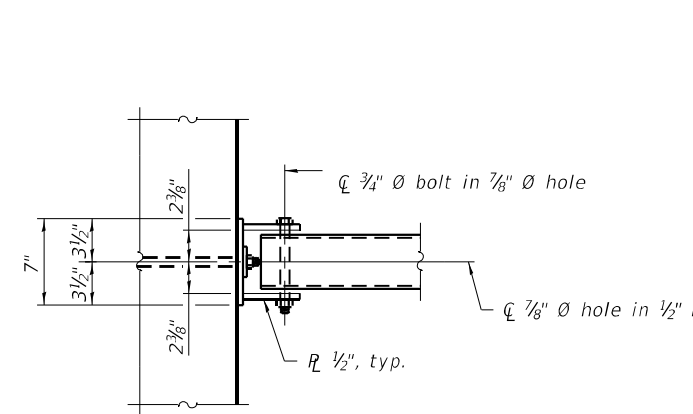
# TRAVERSABLE PIPE GRATE FOR BOX CULVERT END SECTIONS



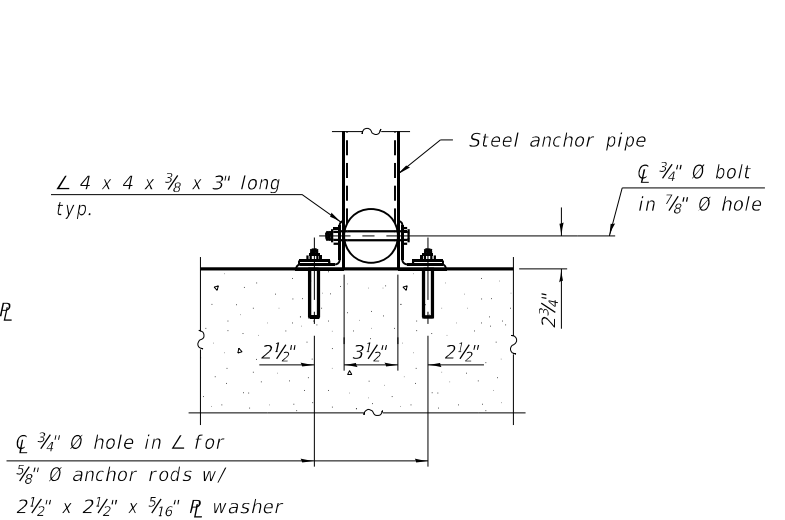
LONGITUDINAL SECTION



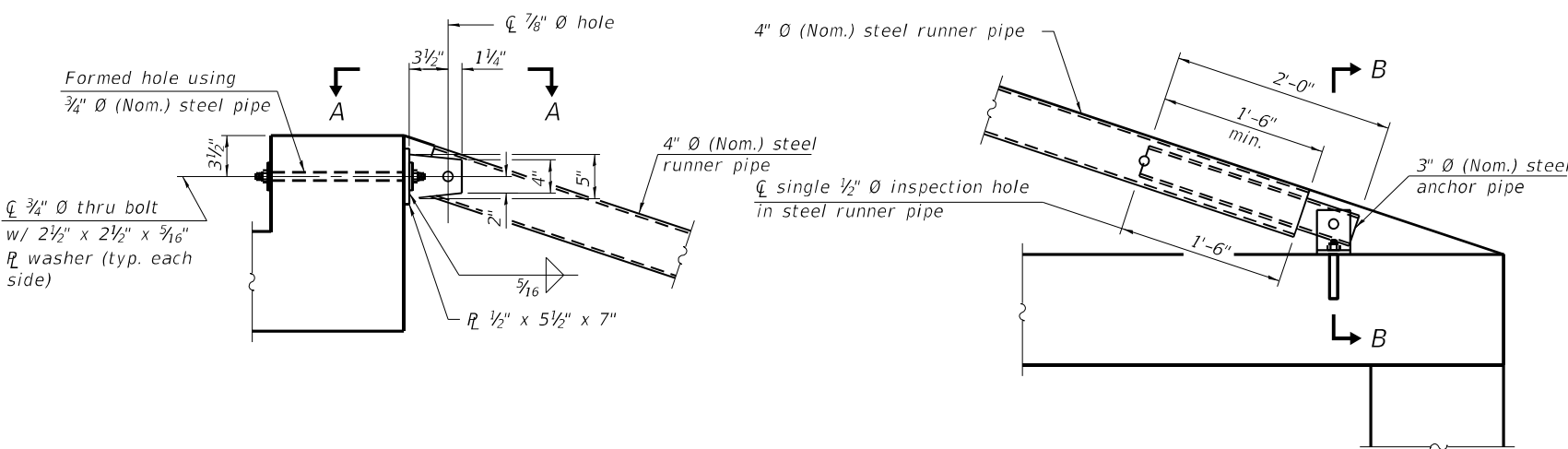
PLAN VIEW



VIEW A-A

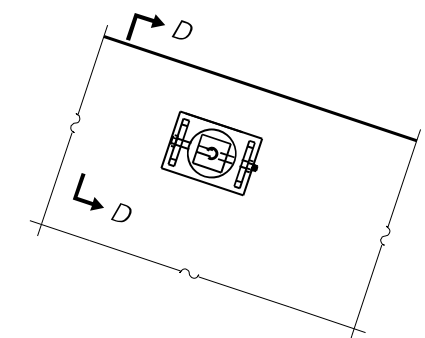


SECTION B-B

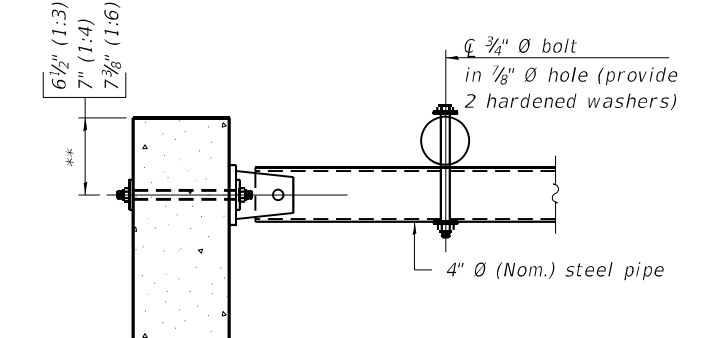


DETAIL A

DETAIL B



VIEW C-C



SECTION D-D

\*\* Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.

## GENERAL NOTES

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.

This standard shall only be used on concrete end sections not skewed more than ±15 degrees with roadway.

The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completely filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be snug tightened followed by an additional 1/2 turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.

USER NAME = ssuncoaresan	DESIGNED -	REVISED - 1-10-18
PLOT SCALE = 1:2	DRAWN -	REVISED - 5-09-14
PLOT DATE = 8/16/2021	CHECKED -	REVISED -
	DATE - 08/16/21	REVISED -

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 59
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

# TRAVERSABLE PIPE GRATE FOR BOX CULVERT END SECTIONS

PIPE-GRATE SCHEDULE FOR BOX CULVERT END SECTIONS

GENERAL NOTES

This table is only to be used for cross drainage structures.

Precast Box Culvert Dimensions			Slope of End Section								
			1:3			1:4			1:6		
			Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe	Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe	Main Pipe No. / Length	Int. Support No. / Length	Total Length of Pipe
4	2	7.5	1 @ 8'-10"	N/A	8'-10"	1 @ 11'-7"	N/A	11'-7"	1 @ 17'-2"	N/A	17'-2"
4	2	5	1 @ 8'-2"	N/A	8'-2"	1 @ 10'-8"	N/A	10'-8"	1 @ 15'-11"	N/A	15'-11"
4	3	7.5	1 @ 12'-0"	N/A	12'-0"	1 @ 15'-8"	N/A	15'-8"	1 @ 23'-3"	1 @ 3'-7"	26'-10"
4	3	5	1 @ 11'-4"	N/A	11'-4"	1 @ 14'-10"	N/A	14'-10"	1 @ 22'-0"	1 @ 3'-7"	25'-7"
4	4	7.5	1 @ 15'-2"	N/A	15'-2"	1 @ 19'-10"	1 @ 3'-7"	23'-5"	1 @ 29'-4"	2 @ 3'-7"	36'-6"
4	4	5	1 @ 14'-6"	N/A	14'-6"	1 @ 18'-11"	N/A	18'-11"	1 @ 28'-1"	2 @ 3'-7"	35'-3"
5	2	8	1 @ 8'-11"	N/A	8'-11"	1 @ 11'-9"	N/A	11'-9"	1 @ 17'-5"	N/A	17'-5"
5	2	6	1 @ 8'-5"	N/A	8'-5"	1 @ 11'-1"	N/A	11'-1"	1 @ 16'-5"	N/A	16'-5"
5	3	8	1 @ 12'-1"	N/A	12'-1"	1 @ 15'-10"	N/A	15'-10"	1 @ 23'-6"	1 @ 4'-7"	28'-1"
5	3	6	1 @ 11'-7"	N/A	11'-7"	1 @ 15'-2"	N/A	15'-2"	1 @ 22'-6"	1 @ 4'-7"	27'-1"
5	4	8	1 @ 15'-3"	N/A	15'-3"	1 @ 20'-0"	1 @ 4'-7"	24'-7"	1 @ 29'-7"	2 @ 4'-7"	38'-9"
5	4	6	1 @ 14'-9"	N/A	14'-9"	1 @ 19'-3"	N/A	19'-3"	1 @ 28'-7"	2 @ 4'-7"	37'-9"
5	5	8	1 @ 18'-5"	N/A	18'-5"	1 @ 24'-1"	2 @ 4'-7"	33'-3"	1 @ 35'-8"	3 @ 4'-7"	49'-5"
5	5	6	1 @ 17'-11"	N/A	17'-11"	1 @ 23'-5"	1 @ 4'-7"	28'-0"	1 @ 34'-8"	2 @ 4'-7"	43'-10"
6	2	8	2 @ 8'-11"	N/A	17'-10"	2 @ 11'-9"	N/A	23'-6"	2 @ 17'-5"	N/A	34'-10"
6	2	7	2 @ 8'-8"	N/A	17'-4"	2 @ 11'-5"	N/A	22'-10"	2 @ 16'-11"	N/A	33'-10"
6	3	8	2 @ 12'-1"	N/A	24'-2"	2 @ 15'-10"	N/A	31'-8"	2 @ 23'-6"	1 @ 5'-7"	52'-7"
6	3	7	2 @ 11'-10"	N/A	23'-8"	2 @ 15'-6"	N/A	31'-0"	2 @ 23'-0"	1 @ 5'-7"	51'-7"
6	4	8	2 @ 15'-3"	N/A	30'-6"	2 @ 20'-0"	1 @ 5'-7"	45'-7"	2 @ 29'-7"	2 @ 5'-7"	70'-4"
6	4	7	2 @ 15'-0"	N/A	30'-0"	2 @ 19'-8"	1 @ 5'-7"	44'-11"	2 @ 29'-1"	2 @ 5'-7"	69'-4"
6	5	8	2 @ 18'-5"	N/A	36'-10"	2 @ 24'-1"	2 @ 5'-7"	59'-4"	2 @ 35'-8"	3 @ 5'-7"	88'-1"
6	5	7	2 @ 18'-2"	N/A	36'-4"	2 @ 23'-9"	2 @ 5'-7"	58'-8"	2 @ 35'-2"	2 @ 5'-7"	81'-6"
6	6	8	2 @ 21'-7"	1 @ 5'-7"	48'-9"	2 @ 28'-3"	2 @ 5'-7"	67'-8"	2 @ 41'-9"	3 @ 5'-7"	100'-3"
6	6	7	2 @ 21'-4"	1 @ 5'-7"	48'-3"	2 @ 27'-11"	2 @ 5'-7"	67'-0"	2 @ 41'-3"	3 @ 5'-7"	99'-3"
7	2	8	2 @ 8'-11"	N/A	17'-10"	2 @ 11'-9"	N/A	23'-6"	2 @ 17'-5"	N/A	34'-10"
7	3	8	2 @ 12'-1"	N/A	24'-2"	2 @ 15'-10"	N/A	31'-8"	2 @ 23'-6"	2 @ 6'-7"	60'-2"
7	4	8	2 @ 15'-3"	N/A	30'-6"	2 @ 20'-0"	2 @ 6'-7"	53'-2"	2 @ 29'-7"	3 @ 6'-7"	78'-11"
7	5	8	2 @ 18'-5"	N/A	36'-10"	2 @ 24'-1"	3 @ 6'-7"	67'-11"	2 @ 35'-8"	4 @ 6'-7"	97'-8"
7	6	8	2 @ 21'-7"	2 @ 6'-7"	56'-4"	2 @ 28'-3"	3 @ 6'-7"	76'-3"	2 @ 41'-9"	5 @ 6'-7"	116'-5"
7	7	8	2 @ 24'-9"	3 @ 6'-7"	69'-3"	2 @ 32'-4"	4 @ 6'-7"	91'-0"	2 @ 47'-10"	6 @ 6'-7"	135'-2"
8	2	8	3 @ 8'-11"	N/A	26'-9"	3 @ 11'-9"	N/A	35'-3"	3 @ 17'-5"	N/A	52'-3"
8	3	8	3 @ 12'-1"	N/A	36'-3"	3 @ 15'-10"	N/A	47'-6"	3 @ 23'-6"	2 @ 7'-7"	85'-8"
8	4	8	3 @ 15'-3"	N/A	45'-9"	3 @ 20'-0"	2 @ 7'-7"	75'-2"	3 @ 29'-7"	3 @ 7'-7"	111'-6"
8	5	8	3 @ 18'-5"	N/A	55'-3"	3 @ 24'-1"	3 @ 7'-7"	95'-0"	3 @ 35'-8"	4 @ 7'-7"	137'-4"
8	6	8	3 @ 21'-7"	2 @ 7'-7"	79'-11"	3 @ 28'-3"	3 @ 7'-7"	107'-6"	3 @ 41'-9"	5 @ 7'-7"	163'-2"
8	7	8	3 @ 24'-9"	3 @ 7'-7"	97'-0"	3 @ 32'-4"	4 @ 7'-7"	127'-4"	3 @ 47'-10"	6 @ 7'-7"	189'-0"
8	8	8	3 @ 27'-11"	3 @ 7'-7"	106'-6"	3 @ 36'-6"	4 @ 7'-7"	139'-10"	3 @ 53'-11"	6 @ 7'-7"	207'-3"
9	2	9	3 @ 9'-3"	N/A	27'-9"	3 @ 12'-1"	N/A	36'-3"	3 @ 17'-11"	N/A	53'-9"
9	3	9	3 @ 12'-4"	N/A	37'-0"	3 @ 16'-2"	N/A	48'-6"	3 @ 24'-0"	3 @ 8'-7"	97'-9"
9	4	9	3 @ 15'-6"	N/A	46'-6"	3 @ 20'-4"	2 @ 8'-7"	78'-2"	3 @ 30'-1"	3 @ 8'-7"	116'-0"
9	5	9	3 @ 18'-8"	N/A	56'-0"	3 @ 24'-5"	3 @ 8'-7"	99'-0"	3 @ 36'-2"	4 @ 8'-7"	142'-10"
9	6	9	3 @ 21'-10"	2 @ 8'-7"	82'-8"	3 @ 28'-7"	3 @ 8'-7"	111'-6"	3 @ 42'-3"	5 @ 8'-7"	169'-8"
9	7	9	3 @ 25'-0"	3 @ 8'-7"	100'-9"	3 @ 32'-8"	4 @ 8'-7"	132'-4"	3 @ 48'-4"	6 @ 8'-7"	196'-6"
9	8	9	3 @ 28'-2"	3 @ 8'-7"	110'-3"	3 @ 36'-10"	4 @ 8'-7"	144'-10"	3 @ 54'-5"	6 @ 8'-7"	214'-9"
9	9	9	3 @ 31'-4"	3 @ 8'-7"	119'-9"	3 @ 40'-11"	5 @ 8'-7"	165'-8"	3 @ 60'-6"	7 @ 8'-7"	241'-7"
10	2	10	3 @ 9'-6"	N/A	28'-6"	3 @ 12'-5"	N/A	37'-3"	3 @ 18'-5"	N/A	55'-3"
10	3	10	3 @ 12'-8"	N/A	38'-0"	3 @ 16'-6"	N/A	49'-6"	3 @ 24'-6"	3 @ 9'-7"	102'-3"
10	4	10	3 @ 15'-10"	N/A	47'-6"	3 @ 20'-8"	2 @ 9'-7"	81'-2"	3 @ 30'-7"	3 @ 9'-7"	120'-6"
10	5	10	3 @ 19'-0"	N/A	57'-0"	3 @ 24'-9"	3 @ 9'-7"	103'-0"	3 @ 36'-8"	4 @ 9'-7"	148'-4"
10	6	10	3 @ 22'-1"	2 @ 9'-7"	85'-5"	3 @ 28'-11"	3 @ 9'-7"	115'-6"	3 @ 42'-9"	5 @ 9'-7"	176'-2"
10	7	10	3 @ 25'-3"	3 @ 9'-7"	104'-6"	3 @ 33'-0"	4 @ 9'-7"	137'-4"	3 @ 48'-10"	6 @ 9'-7"	204'-0"
10	8	10	3 @ 28'-5"	3 @ 9'-7"	114'-0"	3 @ 37'-2"	4 @ 9'-7"	149'-10"	3 @ 54'-11"	6 @ 9'-7"	222'-3"
10	9	10	3 @ 31'-7"	4 @ 9'-7"	133'-1"	3 @ 41'-3"	5 @ 9'-7"	171'-8"	3 @ 61'-0"	7 @ 9'-7"	250'-1"
10	10	10	3 @ 34'-9"	4 @ 9'-7"	142'-7"	3 @ 45'-5"	5 @ 9'-7"	184'-2"	3 @ 67'-1"	8 @ 9'-7"	277'-11"
11	2	11	4 @ 9'-9"	N/A	39'-0"	4 @ 12'-9"	N/A	51'-0"	4 @ 18'-11"	N/A	75'-8"
11	3	11	4 @ 12'-11"	N/A	51'-8"	4 @ 16'-11"	N/A	67'-8"	4 @ 25'-0"	3 @ 10'-7"	131'-9"
11	4	11	4 @ 16'-1"	N/A	64'-4"	4 @ 21'-0"	2 @ 10'-7"	105'-2"	4 @ 31'-1"	3 @ 10'-7"	156'-1"
11	6	11	4 @ 22'-5"	2 @ 10'-7"	110'-10"	4 @ 29'-3"	3 @ 10'-7"	148'-9"	4 @ 43'-3"	5 @ 10'-7"	225'-11"
11	8	11	4 @ 28'-9"	3 @ 10'-7"	146'-9"	4 @ 37'-6"	4 @ 10'-7"	192'-4"	4 @ 55'-5"	6 @ 10'-7"	285'-2"
11	10	11	4 @ 35'-0"	4 @ 10'-7"	182'-4"	4 @ 45'-9"	5 @ 10'-7"	235'-11"	4 @ 67'-7"	8 @ 10'-7"	355'-0"
11	11	11	4 @ 38'-2"	4 @ 10'-7"	195'-0"	4 @ 49'-10"	6 @ 10'-7"	262'-10"	4 @ 73'-8"	9 @ 10'-7"	389'-11"
12	2	12	4 @ 10'-0"	N/A	40'-0"	4 @ 13'-1"	N/A	52'-4"	4 @ 19'-5"	N/A	77'-8"
12	3	12	4 @ 13'-2"	N/A	52'-8"	4 @ 17'-3"	N/A	69'-0"	4 @ 25'-6"	3 @ 11'-7"	136'-9"
12	4	12	4 @ 16'-4"	N/A	65'-4"	4 @ 21'-4"	2 @ 11'-7"	108'-6"	4 @ 31'-7"	4 @ 11'-7"	172'-8"
12	6	12	4 @ 22'-8"	2 @ 11'-7"	113'-10"	4 @ 29'-7"	3 @ 11'-7"	153'-1"	4 @ 43'-9"	5 @ 11'-7"	232'-11"
12	8	12	4 @ 29'-0"	3 @ 11'-7"	150'-9"	4 @ 37'-10"	4 @ 11'-7"	197'-8"	4 @ 55'-11"	7 @ 11'-7"	304'-9"
12	10	12	4 @ 35'-4"	4 @ 11'-7"	187'-8"	4 @ 46'-1"	5 @ 11'-7"	242'-3"	4 @ 68'-1"	8 @ 11'-7"	365'-0"
12	12	12	4 @ 41'-8"	5 @ 11'-7"	224'-7"	4 @ 54'-4"	6 @ 11'-7"	286'-10"	4 @ 80'-3"	10 @ 11'-7"	436'-10"

TRAVERSABLE PIPE GRATE FOR BOX CULVERT END SECTIONS SHEET 2 OF 2 13.1

(Sheet 2 of 2)

Z:\2016\160240\_PTB18131\cadd\Civil\Drawings\W02\Sheet\264M4-2-16-2016.dwg

TPGBC-ZS

2-17-2017



USER NAME = ssunaresan	DESIGNED -	REVISED - 1-10-18
PLOT SCALE = 1:2	DRAWN -	REVISED - 5-09-14
PLOT DATE = 8/16/2021	CHECKED -	REVISED -
	DATE - 08/16/21	REVISED -

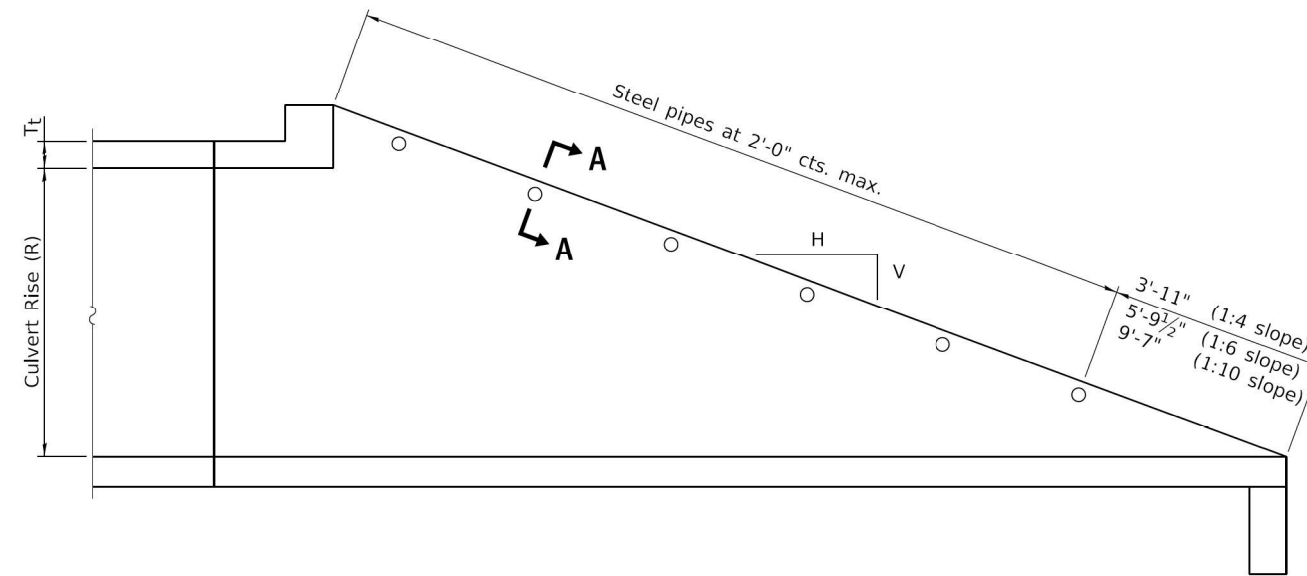
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

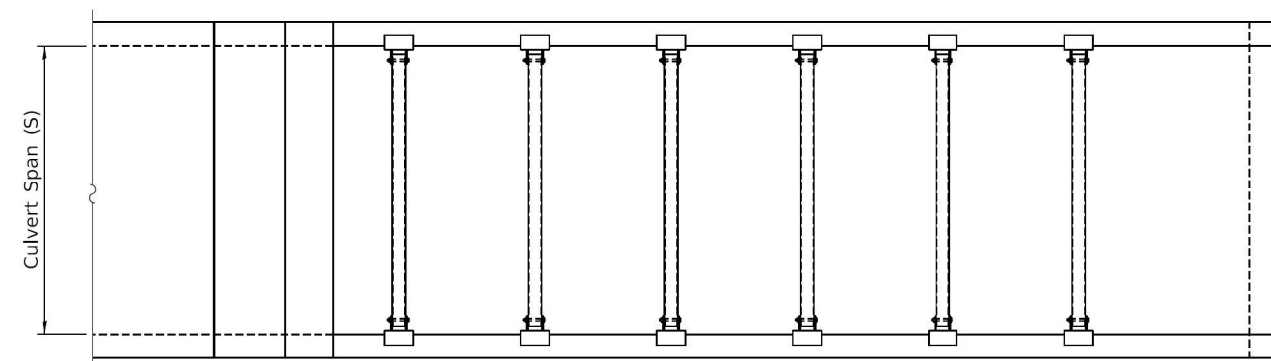
SCALE: SHEET 7 OF 21 SHEETS STA. TO STA.

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 60
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

# TRAVERSABLE PIPE GRATE FOR PARALLEL DRAINAGE STRUCTURE



**LONGITUDINAL SECTION**



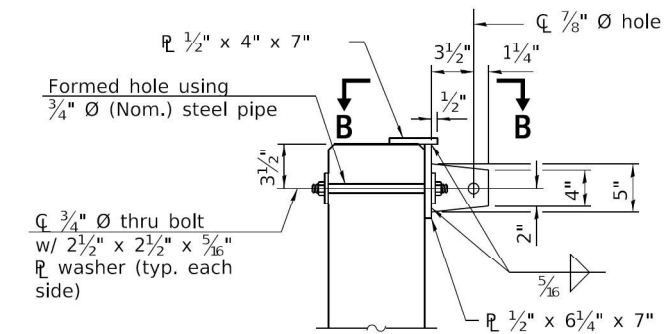
**PLAN VIEW**

## GENERAL NOTES

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be  $1\frac{1}{2}$ " unless noted otherwise.

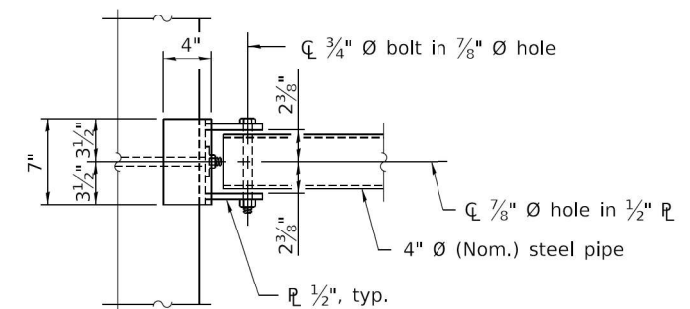
This standard shall only be used on concrete end sections for parallel drainage structures.

The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completely filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be snug tightened followed by an additional  $1/3$  turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.



**SECTION A-A**

(4"  $\emptyset$  pipe not shown for clarity.)



**VIEW B-B**

# TRAVERSABLE PIPE GRATE FOR PARALLEL DRAINAGE STRUCTURE

**PIPE GRATE SCHEDULE FOR PARALLEL BOX CULVERTS**

(<2 FT COVER)							
BOX SIZE		SLOPE OF END SECTION					
		1:4		1:6		1:10	
SPAN (FT.)	RISE (FT.)	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe
3	2	5 @ 2'-7"	12'-11"	8 @ 2'-7"	20'-8"	12 @ 2'-7"	31'-0"
3	3	7 @ 2'-7"	18'-1"	11 @ 2'-7"	28'-5"	17 @ 2'-7"	43'-11"
4	2	5 @ 3'-7"	17'-11"	8 @ 3'-7"	28'-8"	13 @ 3'-7"	46'-7"
4	3	8 @ 3'-7"	28'-8"	11 @ 3'-7"	39'-5"	18 @ 3'-7"	64'-6"
4	4	10 @ 3'-7"	35'-10"	14 @ 3'-7"	50'-2"	23 @ 3'-7"	82'-5"
5	2	6 @ 4'-7"	27'-6"	8 @ 4'-7"	36'-8"	13 @ 4'-7"	59'-7"
5	3	8 @ 4'-7"	36'-8"	11 @ 4'-7"	50'-5"	18 @ 4'-7"	82'-6"
5	4	10 @ 4'-7"	45'-10"	14 @ 4'-7"	64'-2"	23 @ 4'-7"	105'-5"
5	5	12 @ 4'-7"	55'-0"	17 @ 4'-7"	77'-11"	28 @ 4'-7"	128'-4"
6	2	6 @ 5'-7"	33'-6"	8 @ 5'-7"	44'-8"	13 @ 5'-7"	72'-7"
6	3	8 @ 5'-7"	44'-8"	11 @ 5'-7"	61'-5"	18 @ 5'-7"	100'-6"
6	4	10 @ 5'-7"	55'-10"	14 @ 5'-7"	78'-2"	23 @ 5'-7"	128'-5"
6	5	12 @ 5'-7"	67'-0"	17 @ 5'-7"	94'-11"	28 @ 5'-7"	156'-4"
6	6	14 @ 5'-7"	78'-2"	20 @ 5'-7"	111'-8"	33 @ 5'-7"	184'-3"
7	2	6 @ 6'-7"	39'-6"	8 @ 6'-7"	52'-8"	13 @ 6'-7"	85'-7"
7	3	8 @ 6'-7"	52'-8"	11 @ 6'-7"	72'-5"	18 @ 6'-7"	118'-6"
7	4	10 @ 6'-7"	65'-10"	14 @ 6'-7"	92'-2"	23 @ 6'-7"	151'-5"
7	5	12 @ 6'-7"	79'-0"	17 @ 6'-7"	111'-11"	28 @ 6'-7"	184'-4"
7	6	14 @ 6'-7"	92'-2"	20 @ 6'-7"	131'-8"	33 @ 6'-7"	217'-3"
7	7	16 @ 6'-7"	105'-4"	23 @ 6'-7"	151'-5"	38 @ 6'-7"	250'-2"
8	2	6 @ 7'-7"	45'-6"	8 @ 7'-7"	60'-8"	13 @ 7'-7"	98'-7"
8	3	8 @ 7'-7"	60'-8"	11 @ 7'-7"	83'-5"	18 @ 7'-7"	136'-6"
8	4	10 @ 7'-7"	75'-10"	14 @ 7'-7"	106'-2"	23 @ 7'-7"	174'-5"
8	5	12 @ 7'-7"	91'-0"	17 @ 7'-7"	128'-11"	28 @ 7'-7"	212'-4"
8	6	14 @ 7'-7"	106'-2"	20 @ 7'-7"	151'-8"	33 @ 7'-7"	250'-3"
8	7	16 @ 7'-7"	121'-4"	23 @ 7'-7"	174'-5"	38 @ 7'-7"	288'-2"
8	8	18 @ 7'-7"	136'-6"	26 @ 7'-7"	197'-2"	43 @ 7'-7"	326'-1"
9	2	6 @ 8'-7"	51'-6"	8 @ 8'-7"	68'-8"	13 @ 8'-7"	111'-7"
9	3	8 @ 8'-7"	68'-8"	11 @ 8'-7"	94'-5"	18 @ 8'-7"	154'-6"
9	4	10 @ 8'-7"	85'-10"	14 @ 8'-7"	120'-2"	23 @ 8'-7"	197'-5"
9	5	12 @ 8'-7"	103'-0"	17 @ 8'-7"	145'-11"	28 @ 8'-7"	240'-4"
9	6	14 @ 8'-7"	120'-2"	20 @ 8'-7"	171'-8"	33 @ 8'-7"	283'-3"
9	7	16 @ 8'-7"	137'-4"	23 @ 8'-7"	197'-5"	38 @ 8'-7"	326'-2"
9	8	18 @ 8'-7"	154'-6"	26 @ 8'-7"	223'-2"	43 @ 8'-7"	369'-1"
9	9	20 @ 8'-7"	171'-8"	30 @ 8'-7"	257'-6"	48 @ 8'-7"	412'-0"
10	2	6 @ 9'-7"	57'-6"	9 @ 9'-7"	86'-3"	14 @ 9'-7"	134'-2"
10	3	8 @ 9'-7"	76'-8"	12 @ 9'-7"	115'-0"	19 @ 9'-7"	182'-1"
10	4	10 @ 9'-7"	95'-10"	15 @ 9'-7"	143'-9"	24 @ 9'-7"	230'-0"
10	5	12 @ 9'-7"	115'-0"	18 @ 9'-7"	172'-6"	29 @ 9'-7"	277'-11"
10	6	14 @ 9'-7"	134'-2"	21 @ 9'-7"	201'-3"	34 @ 9'-7"	325'-10"
10	7	16 @ 9'-7"	153'-4"	24 @ 9'-7"	230'-0"	39 @ 9'-7"	373'-9"
10	8	18 @ 9'-7"	172'-6"	27 @ 9'-7"	258'-9"	44 @ 9'-7"	421'-8"
10	9	20 @ 9'-7"	191'-8"	30 @ 9'-7"	287'-5"	49 @ 9'-7"	469'-7"
10	10	22 @ 9'-7"	210'-10"	33 @ 9'-7"	316'-3"	54 @ 9'-7"	517'-6"

**PIPE GRATE SCHEDULE FOR PARALLEL BOX CULVERTS**

(<2 FT COVER)							
BOX SIZE		SLOPE OF END SECTION					
		1:4		1:6		1:10	
SPAN (FT.)	RISE (FT.)	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe
11	2	6 @ 10'-7"	63'-6"	9 @ 10'-7"	95'-3"	14 @ 10'-7"	148'-2"
11	3	8 @ 10'-7"	84'-8"	12 @ 10'-7"	127'-0"	19 @ 10'-7"	201'-1"
11	4	10 @ 10'-7"	105'-10"	15 @ 10'-7"	158'-9"	24 @ 10'-7"	254'-0"
11	6	14 @ 10'-7"	148'-2"	21 @ 10'-7"	222'-3"	34 @ 10'-7"	359'-10"
11	8	18 @ 10'-7"	190'-6"	27 @ 10'-7"	285'-9"	44 @ 10'-7"	465'-8"
11	10	23 @ 10'-7"	243'-5"	33 @ 10'-7"	349'-3"	54 @ 10'-7"	571'-6"
11	11	25 @ 10'-7"	264'-7"	36 @ 10'-7"	381'-0"	59 @ 10'-7"	624'-5"
12	2	6 @ 11'-7"	69'-6"	9 @ 11'-7"	104'-3"	15 @ 11'-7"	173'-9"
12	3	8 @ 11'-7"	92'-8"	12 @ 11'-7"	139'-0"	20 @ 11'-7"	231'-8"
12	4	10 @ 11'-7"	115'-10"	15 @ 11'-7"	173'-9"	25 @ 11'-7"	289'-7"
12	6	15 @ 11'-7"	173'-9"	21 @ 11'-7"	243'-3"	35 @ 11'-7"	405'-5"
12	8	19 @ 11'-7"	220'-1"	27 @ 11'-7"	312'-9"	45 @ 11'-7"	521'-3"
12	10	23 @ 11'-7"	266'-5"	33 @ 11'-7"	382'-3"	55 @ 11'-7"	637'-1"
12	12	27 @ 11'-7"	312'-9"	39 @ 11'-7"	451'-9"	65 @ 11'-7"	752'-11"

**PIPE GRATE SCHEDULE FOR PARALLEL BOX CULVERTS**

(>2 FT COVER)							
BOX SIZE		SLOPE OF END SECTION					
		1:4		1:6		1:10	
SPAN (FT.)	RISE (FT.)	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe
3	2	5 @ 2'-7"	12'-11"	7 @ 2'-7"	18'-1"	11 @ 2'-7"	28'-5"
3	3	7 @ 2'-7"	18'-1"	10 @ 2'-7"	25'-10"	16 @ 2'-7"	41'-4"
4	2	5 @ 3'-7"	17'-11"	7 @ 3'-7"	25'-1"	12 @ 3'-7"	43'-0"
4	3	7 @ 3'-7"	25'-1"	10 @ 3'-7"	35'-10"	17 @ 3'-7"	60'-11"
4	4	9 @ 3'-7"	32'-3"	13 @ 3'-7"	46'-7"	22 @ 3'-7"	78'-10"
5	2	5 @ 4'-7"	22'-11"	7 @ 4'-7"	32'-1"	12 @ 4'-7"	55'-0"
5	3	7 @ 4'-7"	32'-1"	11 @ 4'-7"	50'-5"	17 @ 4'-7"	77'-11"
5	4	9 @ 4'-7"	41'-3"	14 @ 4'-7"	64'-2"	22 @ 4'-7"	100'-10"
5	5	11 @ 4'-7"	50'-5"	17 @ 4'-7"	77'-11"	27 @ 4'-7"	123'-9"
6	2	5 @ 5'-7"	27'-11"	8 @ 5'-7"	44'-8"	12 @ 5'-7"	67'-0"
6	3	7 @ 5'-7"	39'-1"	11 @ 5'-7"	61'-5"	17 @ 5'-7"	94'-11"
6	4	10 @ 5'-7"	55'-10"	14 @ 5'-7"	78'-2"	23 @ 5'-7"	128'-5"
6	5	12 @ 5'-7"	67'-0"	17 @ 5'-7"	94'-11"	28 @ 5'-7"	156'-4"
6	6	14 @ 5'-7"	78'-2"	20 @ 5'-7"	111'-8"	33 @ 5'-7"	184'-3"

Follow (<2 FT Cover) table for all other sizes



WBK ENGINEERING, LLC  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = ssundaresan  
DESIGNED - KAC  
DRAWN - VLM  
CHECKED - YOO  
DATE - 08/16/21  
PLOT SCALE = 1:2  
PLOT DATE = 8/16/2021

REVISER -  
REVISED -  
REVISER -  
REVISED -  
REVISER -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT 2 STANDARDS

SCALE: SHEET 9 OF 21 SHEETS STA. TO STA.

FAS RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
1177 (110, 111)CR LEE 122 62  
CONTRACT NO. 64M41  
ILLINOIS FED. AID PROJECT

# TRAVERSABLE PIPE GRATE FOR PARALLEL DRAINAGE STRUCTURE

**PIPE GRATE SCHEDULE FOR PARALLEL PIPE CULVERTS 15" THRU 84" DIA.**

Pipe I.D.	SLOPE OF END SECTION					
	1:4		1:6		1:10	
	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe
15"	3 @ 0'-11"	2'-9"	4 @ 0'-11"	3'-8"	6 @ 0'-11"	5'-6"
18"	3 @ 1'-1"	3'-3"	5 @ 1'-1"	5'-5"	7 @ 1'-1"	7'-7"
21"	4 @ 1'-5"	5'-8"	5 @ 1'-5"	7'-1"	9 @ 1'-5"	12'-9"
24"	5 @ 1'-7"	7'-11"	6 @ 1'-7"	9'-6"	10 @ 1'-7"	15'-10"
30"	6 @ 2'-1"	12'-6"	8 @ 2'-1"	16'-8"	13 @ 2'-1"	27'-1"
36"	7 @ 2'-7"	18'-1"	10 @ 2'-7"	25'-10"	15 @ 2'-7"	38'-9"
42"	8 @ 3'-1"	24'-8"	11 @ 3'-1"	33'-11"	18 @ 3'-1"	55'-6"
48"	9 @ 3'-7"	32'-3"	13 @ 3'-7"	46'-7"	21 @ 3'-7"	75'-3"
54"	10 @ 4'-1"	40'-10"	14 @ 4'-1"	57'-2"	23 @ 4'-1"	93'-11"
60"	11 @ 4'-7"	50'-5"	15 @ 4'-7"	68'-9"	25 @ 4'-7"	114'-7"
66"	12 @ 5'-1"	61'-0"	17 @ 5'-1"	86'-5"	28 @ 5'-1"	142'-4"
72"	13 @ 5'-7"	72'-7"	18 @ 5'-7"	100'-6"	30 @ 5'-7"	167'-6"
78"	14 @ 6'-1"	85'-2"	20 @ 6'-1"	121'-8"	33 @ 6'-1"	200'-9"
84"	15 @ 6'-7"	98'-9"	21 @ 6'-7"	138'-3"	35 @ 6'-7"	230'-5"

# TRAVERSABLE PIPE GRATE FOR PARALLEL DRAINAGE STRUCTURE

**PIPE GRATE SCHEDULE FOR PARALLEL PIPE ARCH CULVERTS 15" THRU 84" DIA.**

SLOPE OF END SECTION						
Pipe I.D.	Table IIA, Corrugation : $2\frac{2}{3}" \times \frac{1}{2}"$					
	1:4		1:6		1:10	
	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe
15"	2 @ 1'-1"	2'-2"	3 @ 1'-1"	3'-3"	5 @ 1'-1"	5'-5"
18"	3 @ 1'-5"	4'-3"	4 @ 1'-5"	5'-8"	6 @ 1'-5"	8'-6"
21"	3 @ 1'-7"	4'-9"	5 @ 1'-7"	7'-11"	7 @ 1'-7"	11'-1"
24"	4 @ 1'-11"	7'-8"	5 @ 1'-11"	9'-7"	8 @ 1'-11"	15'-4"
30"	4 @ 2'-7"	10'-4"	6 @ 2'-7"	15'-6"	10 @ 2'-7"	25'-10"
36"	5 @ 3'-1"	15'-5"	7 @ 3'-1"	21'-7"	12 @ 3'-1"	37'-0"
42"	6 @ 3'-9"	22'-6"	9 @ 3'-9"	33'-9"	14 @ 3'-9"	52'-6"
48"	7 @ 4'-5"	30'-11"	10 @ 4'-5"	44'-2"	16 @ 4'-5"	70'-8"
54"	8 @ 4'-11"	39'-4"	11 @ 4'-11"	54'-1"	18 @ 4'-11"	88'-6"
60"	8 @ 5'-7"	44'-8"	12 @ 5'-7"	67'-0"	20 @ 5'-7"	111'-8"
66"	9 @ 6'-1"	54'-9"	13 @ 6'-1"	79'-1"	22 @ 6'-1"	133'-10"
72"	10 @ 6'-7"	65'-10"	15 @ 6'-7"	98'-9"	24 @ 6'-7"	158'-0"
78"	-	-	-	-	-	-
84"	-	-	-	-	-	-

**PIPE GRATE SCHEDULE FOR PARALLEL PIPE ARCH CULVERTS 15" THRU 84" DIA.**

SLOPE OF END SECTION						
Pipe I.D.	Table IIA, Corrugation : $3" \times 1"$					
	1:4		1:6		1:10	
	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe
15"	-	-	-	-	-	-
18"	-	-	-	-	-	-
21"	-	-	-	-	-	-
24"	-	-	-	-	-	-
30"	-	-	-	-	-	-
36"	6 @ 2'-11"	17'-6"	8 @ 2'-11"	23'-4"	13 @ 2'-11"	37'-11"
42"	7 @ 3'-5"	23'-11"	10 @ 3'-5"	34'-2"	15 @ 3'-5"	51'-3"
48"	8 @ 4'-1"	32'-8"	11 @ 4'-1"	44'-11"	18 @ 4'-1"	73'-6"
54"	9 @ 4'-7"	41'-3"	12 @ 4'-7"	55'-0"	20 @ 4'-7"	91'-10"
60"	9 @ 5'-1"	45'-9"	14 @ 5'-1"	71'-2"	22 @ 5'-1"	111'-10"
66"	10 @ 5'-9"	57'-6"	15 @ 5'-9"	86'-3"	24 @ 5'-9"	138'-0"
72"	11 @ 6'-5"	70'-7"	16 @ 6'-5"	102'-8"	26 @ 6'-5"	166'-10"
78"	12 @ 6'-11"	83'-0"	17 @ 6'-11"	117'-7"	28 @ 6'-11"	193'-8"
84"	12 @ 7'-7"	91'-0"	18 @ 7'-7"	136'-6"	30 @ 7'-7"	227'-6"

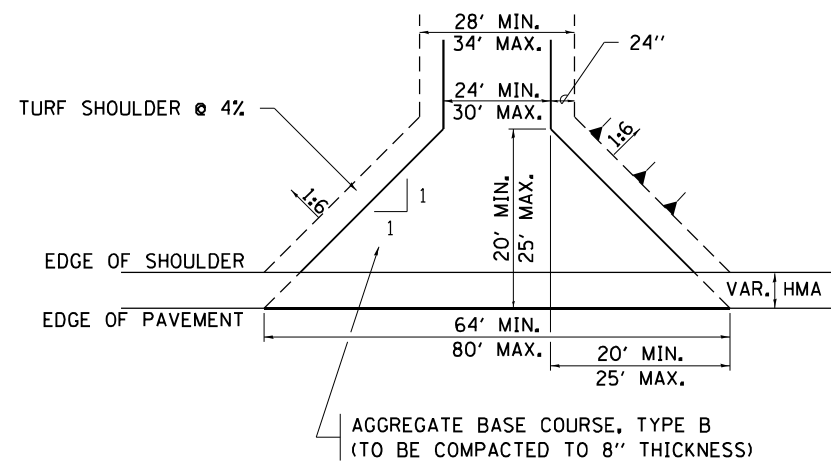


# TRAVERSABLE PIPE GRATE FOR PARALLEL DRAINAGE STRUCTURE

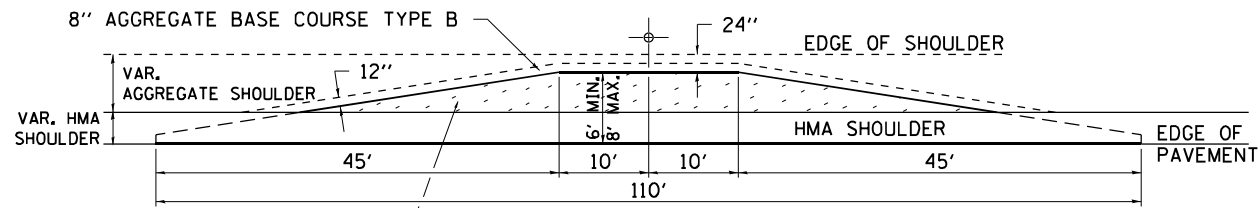
**PIPE GRATE SCHEDULE FOR PARALLEL ELLIPTICAL PIPE CULVERTS 15" THRU 72" DIA.**

Pipe I.D.	SLOPE OF END SECTION					
	1:4		1:6		1:10	
	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe
15"	3 @ 2'-7"	7'-9"	5 @ 2'-7"	12'-11"	7 @ 2'-7"	18'-1"
18"	3 @ 2'-7"	7'-9"	5 @ 2'-7"	12'-11"	7 @ 2'-7"	18'-1"
21"	5 @ 3'-3"	16'-3"	7 @ 3'-3"	22'-9"	12 @ 3'-3"	39'-0"
24"	5 @ 3'-3"	16'-3"	7 @ 3'-3"	22'-9"	12 @ 3'-3"	39'-0"
27"	6 @ 3'-7"	21'-6"	8 @ 3'-7"	28'-8"	13 @ 3'-7"	46'-7"
30"	6 @ 3'-11"	23'-6"	9 @ 3'-11"	35'-3"	14 @ 3'-11"	54'-10"
36"	7 @ 4'-7"	32'-1"	10 @ 4'-7"	45'-10"	16 @ 4'-7"	73'-4"
42"	8 @ 5'-5"	43'-4"	11 @ 5'-5"	59'-7"	18 @ 5'-5"	97'-6"
48"	9 @ 6'-1"	54'-9"	13 @ 6'-1"	79'-1"	20 @ 6'-1"	121'-8"
54"	10 @ 6'-9"	67'-6"	14 @ 6'-9"	94'-6"	23 @ 6'-9"	155'-3"
60"	11 @ 7'-7"	83'-5"	15 @ 7'-7"	113'-9"	25 @ 7'-7"	189'-7"
66"	11 @ 8'-3"	90'-9"	17 @ 8'-3"	140'-3"	27 @ 8'-3"	222'-9"
72"	12 @ 8'-11"	107'-0"	18 @ 8'-11"	160'-6"	30 @ 8'-11"	267'-6"

# HOT-MIX ASPHALT APPROACHES AND MAILBOX RETURNS



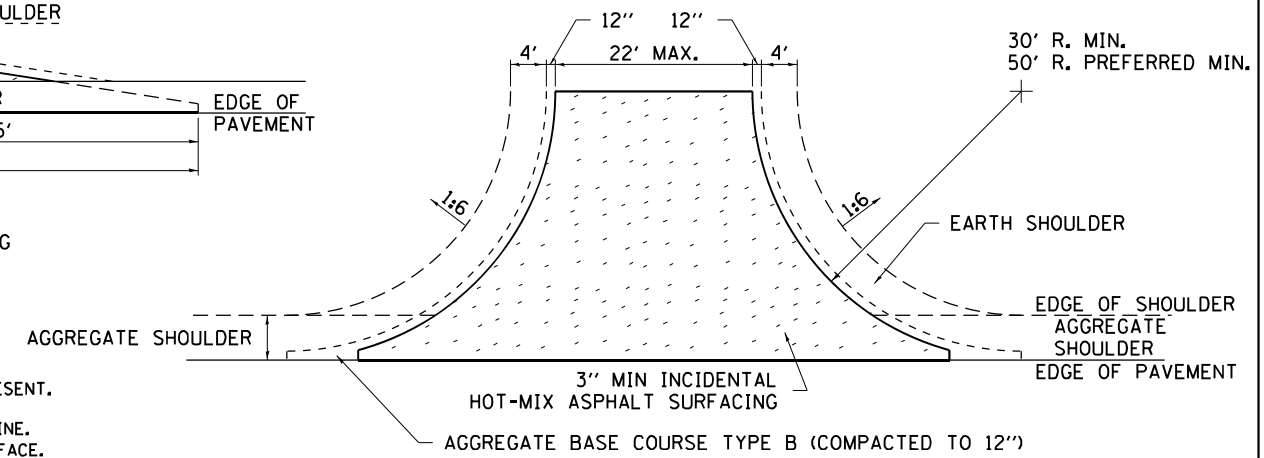
**FIELD ENTRANCE**



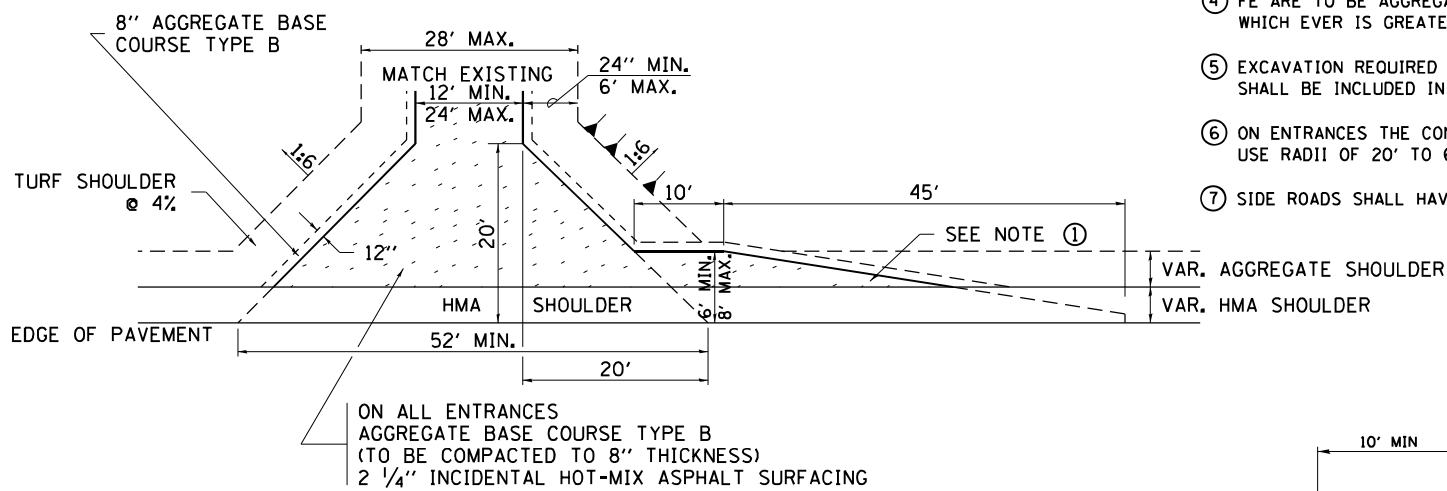
**MAILBOX TURNOUT**

**NOTE**

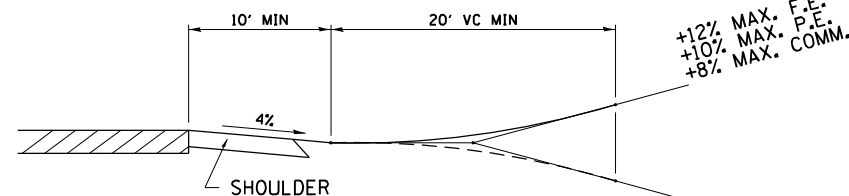
- ① TURNOUTS ARE TO BE CONSTRUCTED ON THE APPROACH SIDE OF ALL PE & CE REGARDLESS IF A MAILBOX IS PRESENT.
- ② ALL PE & CE ARE TO BE SURFACED TO RIGHT OF WAY LINE. AREA BEHIND RIGHT OF WAY SHALL MATCH EXISTING SURFACE.
- ③ ALL PE & CE TO BE CONSTRUCTED WITH AN 8" AGGREGATE BASE COURSE, TYPE B AND WITH A 2 1/4" INCIDENTAL HOT-MIX ASPHALT SURFACING, UNLESS OTHERWISE NOTED.
- ④ FE ARE TO BE AGGREGATE TO RIGHT OF WAY OR TOUCH DOWN, WHICH EVER IS GREATEST.
- ⑤ EXCAVATION REQUIRED FOR PLACEMENT OF AGGREGATE BASE COURSE SHALL BE INCLUDED IN THE COST OF THE AGGREGATE BASE COURSE.
- ⑥ ON ENTRANCES THE CONTRACTOR HAS THE OPTION OF USING RADIUS RETURNS. USE RADII OF 20' TO 60'.
- ⑦ SIDE ROADS SHALL HAVE 3" INCIDENTAL PLACED IN TWO 1 1/2" LIFTS.



**SIDE ROAD RETURN/EARTH SHOULDER**

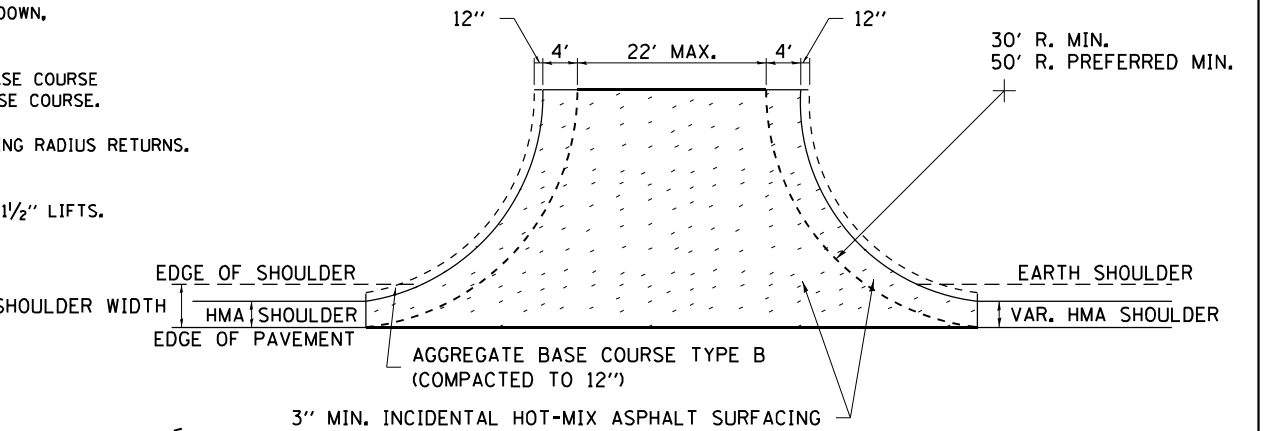


**PRIVATE ENTRANCE**

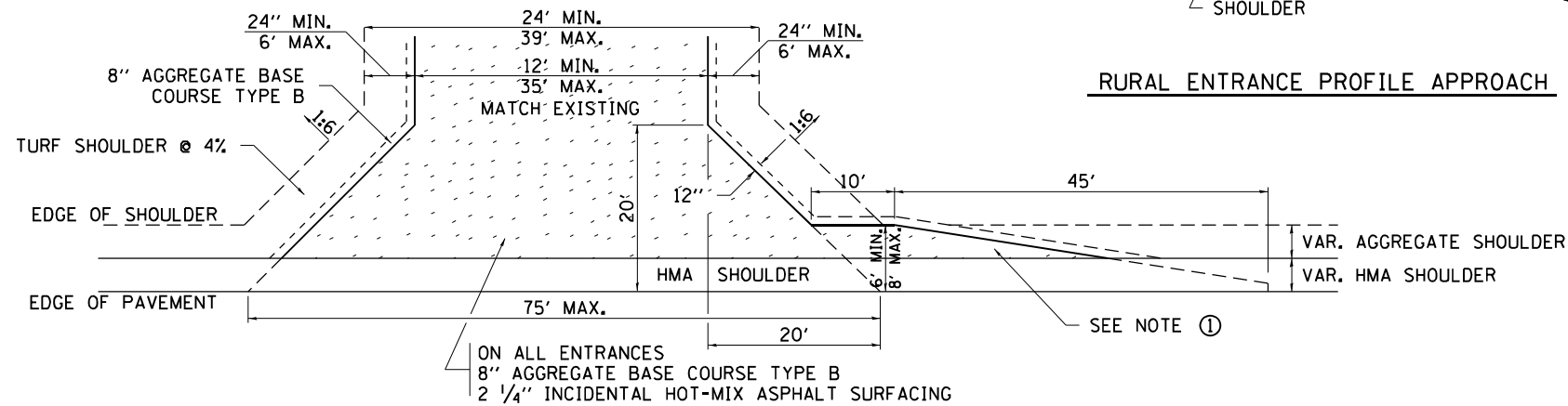


**RURAL ENTRANCE PROFILE APPROACH**

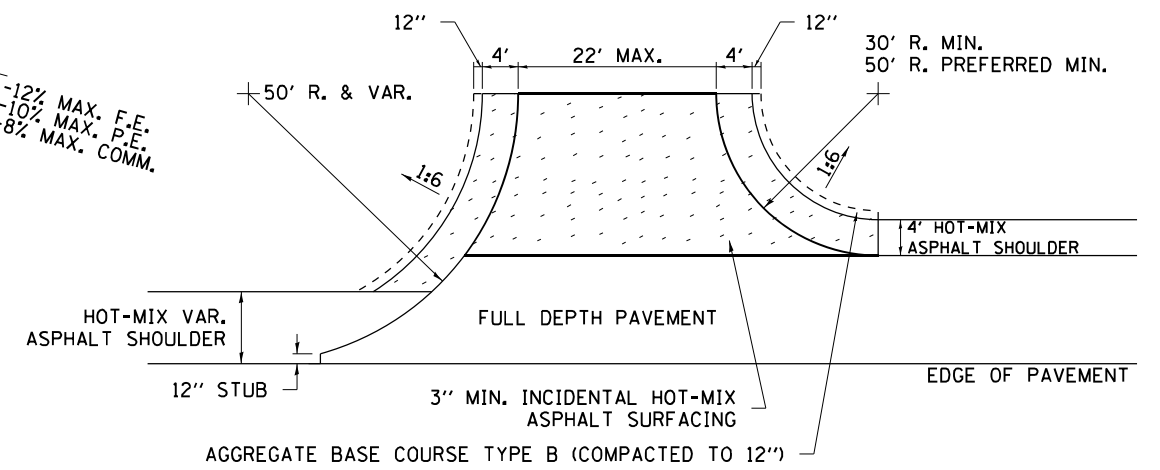
+12% MAX. F.E.  
+10% MAX. P.E.  
+8% MAX. COMM.  
  
-12% MAX. F.E.  
-10% MAX. P.E.  
-8% MAX. COMM.



**SIDE ROAD RETURN/HMA SHOULDER**



**COMMERCIAL ENTRANCE**



**SIDE ROAD RETURN WITH RIGHT TURN LANE**

## HOT-MIX ASPHALT APPROACHES AND MAILBOX RETURNS

20.1

FILE NAME = Z:\2016\160240\_P1B131\cadd\Civil\Drawings\20.1-160240\20.1.dgn



**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = ssuncoresan	DESIGNED -	REVISED - 8-03-17
PLOT SCALE = 1:2	DRAWN -	REVISED - 1-13-17
PLOT DATE = 8/16/2021	CHECKED -	REVISED - 6-27-14
	DATE - 08/16/21	REVISED - 8-27-13

DESIGNED -	REVISED - 8-03-17
DRAWN -	REVISED - 1-13-17
CHECKED -	REVISED - 6-27-14
DATE - 08/16/21	REVISED - 8-27-13

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

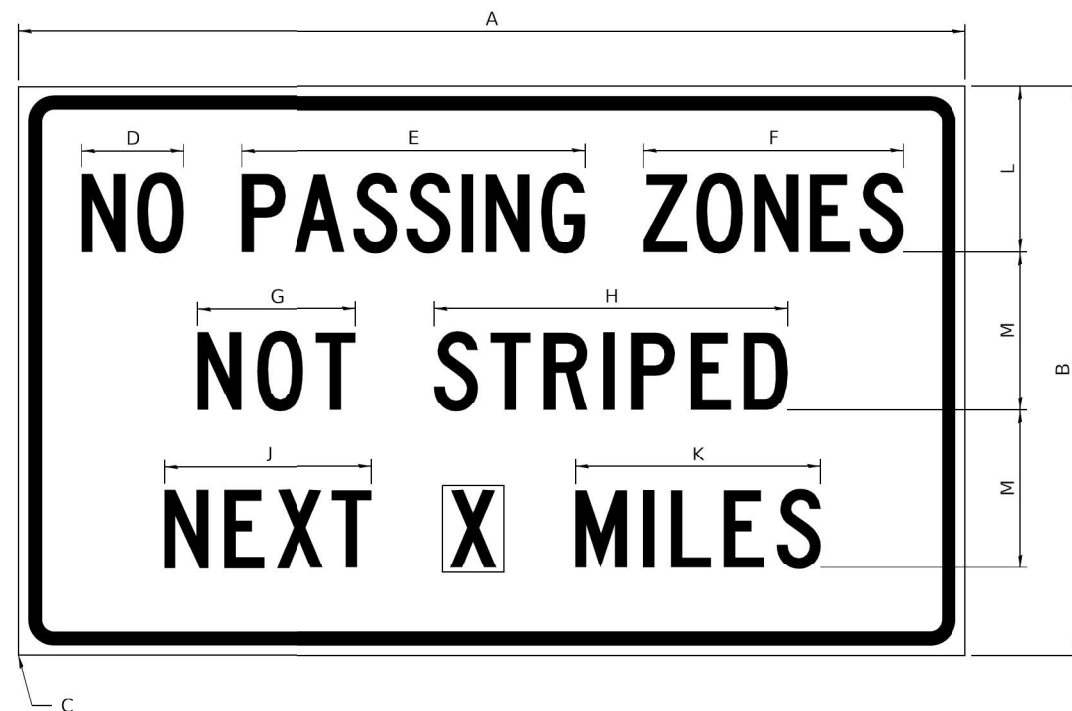
REGION 2 / DISTRICT 2 STANDARD

SCALE: SHEET 13 OF 21 SHEETS STA. TO STA.

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 66
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

# WORK ZONE SIGN DETAILS

**ILLINOIS STANDARD G20-I100**



COLOR      LEGEND AND BORDER      BLACK      NON-REFLECTORIZED  
 BACKGROUND      ORANGE      REFLECTORIZED

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

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

Sign not to scale

**ILLINOIS STANDARD W8-I107**



COLOR      LEGEND AND BORDER      BLACK      NON-REFLECTORIZED  
 BACKGROUND      ORANGE      REFLECTORIZED

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

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

Sign not to scale

**GENERAL NOTES**

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

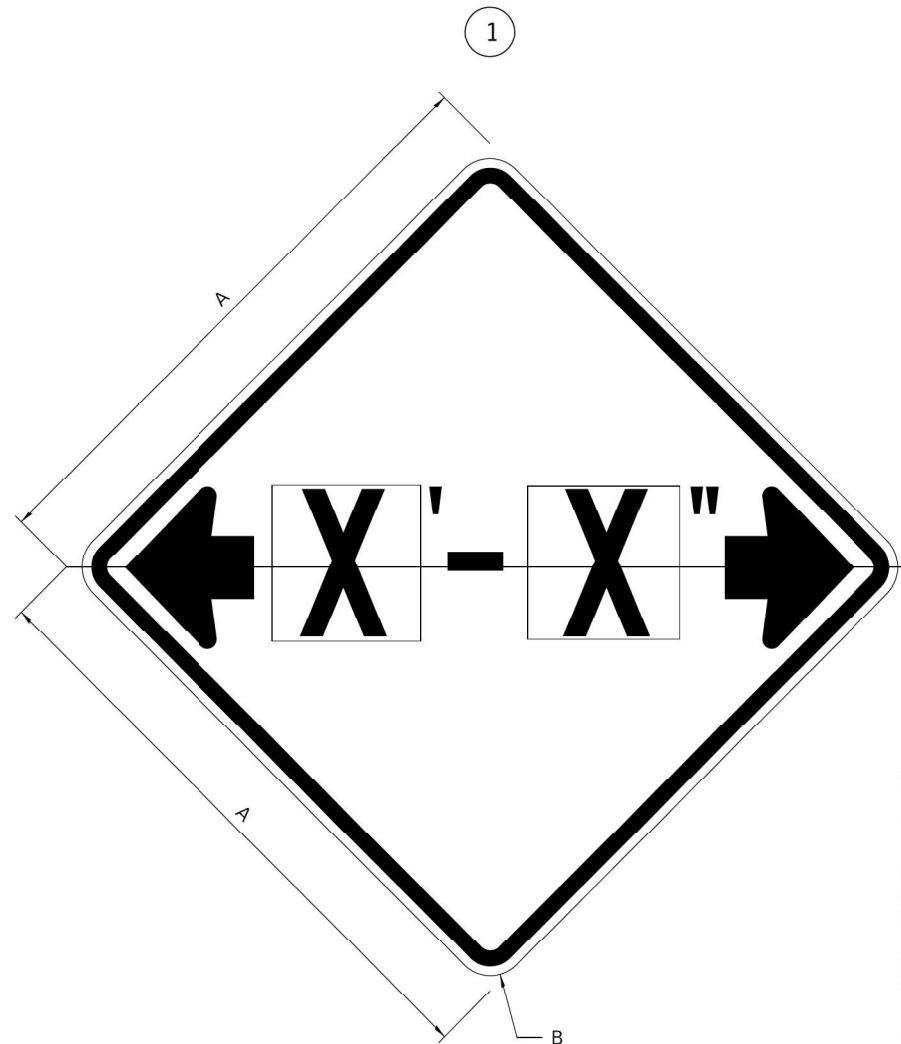
All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

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

All dimensions are in inches unless otherwise noted.

# WORK ZONE SIGN DETAILS

## ILLINOIS STANDARD W12-I102



### GENERAL NOTES

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

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

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

All dimensions are in inches unless otherwise noted.

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

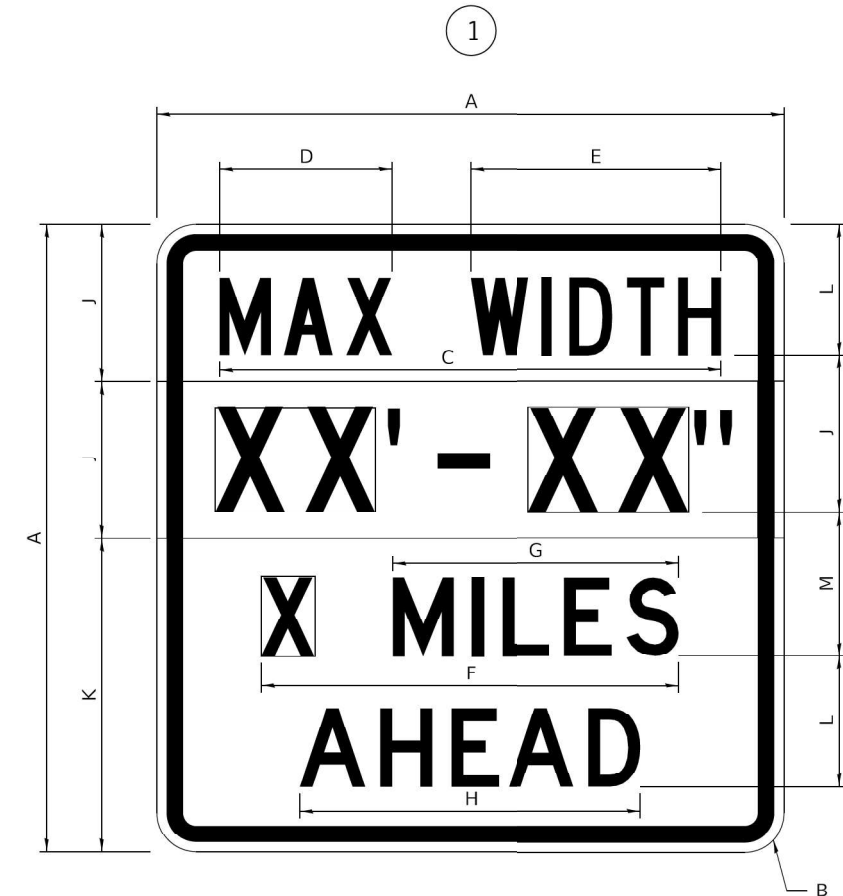
SIGN SIZE	DIMENSIONS	
	A	B
48 x 48	48.00	3.00

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

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

Sign not to scale

## ILLINOIS STANDARD W12-I103



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

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

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

Sign not to scale

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

**WORK ZONE SIGN DETAILS SHEET 2 OF 4 34.1**

# WORK ZONE SIGN DETAILS

## ROAD CLOSED TO OVERSIZED LOADS



## STOP LINE SIGN FOR TEMPORARY SIGNALS



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

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

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

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

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

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

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

Sign not to scale

Sign not to scale

### GENERAL NOTES

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

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

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

All dimensions are in inches unless otherwise noted.

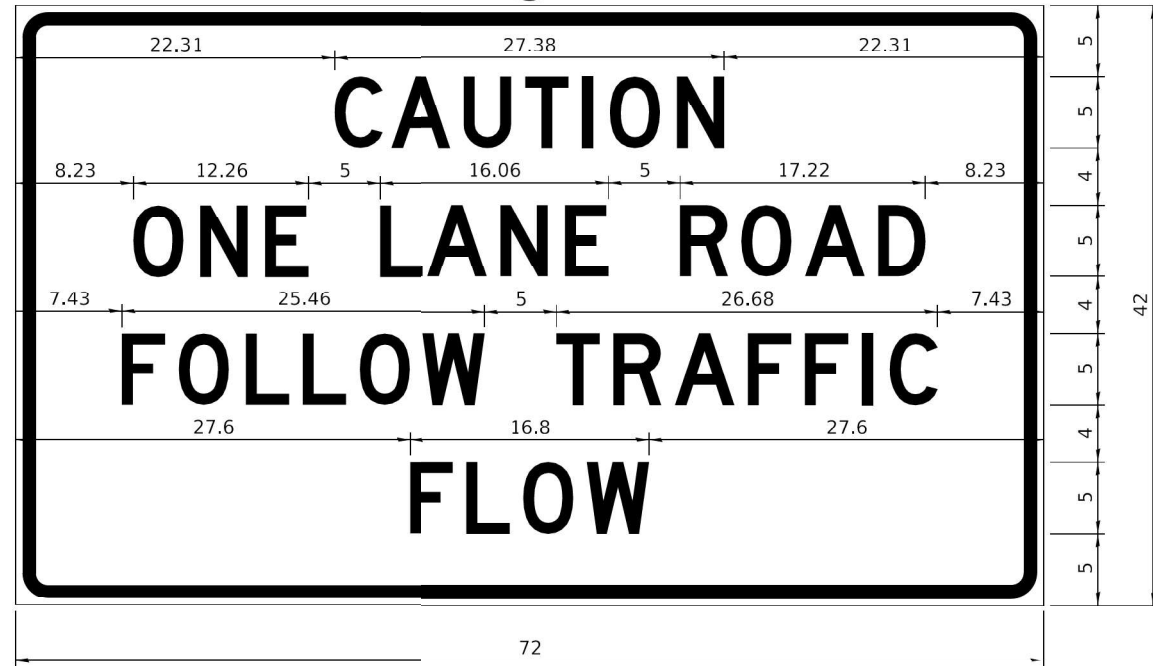
### WORK ZONE SIGN DETAILS SHEET 3 OF 4 34.1

USER NAME = ssundaresan	DESIGNED - KAC	REVISED -
PLOT SCALE = 1:2	DRAWN - VLM	REVISED -
PLOT DATE = 8/16/2021	CHECKED - YOO	REVISED -
	DATE - 08/16/21	REVISED -

FAS RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	69
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

**ENTRANCE SIGN FOR USE  
WITH TEMPORARY SIGNALS**

2



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

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

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

**Table Of Widths And Spaces**

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

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

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

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

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

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

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

Sign not to scale

**WORK ZONE SIGN DETAILS**

**STAY IN YOUR LANE**



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

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

**Table of Letter and Object Lefts**

S	T	A	Y
20.7	26.8	31.6	38.0

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

L	A	N	E
20.9	25.8	33.1	39.4

Sign not to scale

**GENERAL NOTES**

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

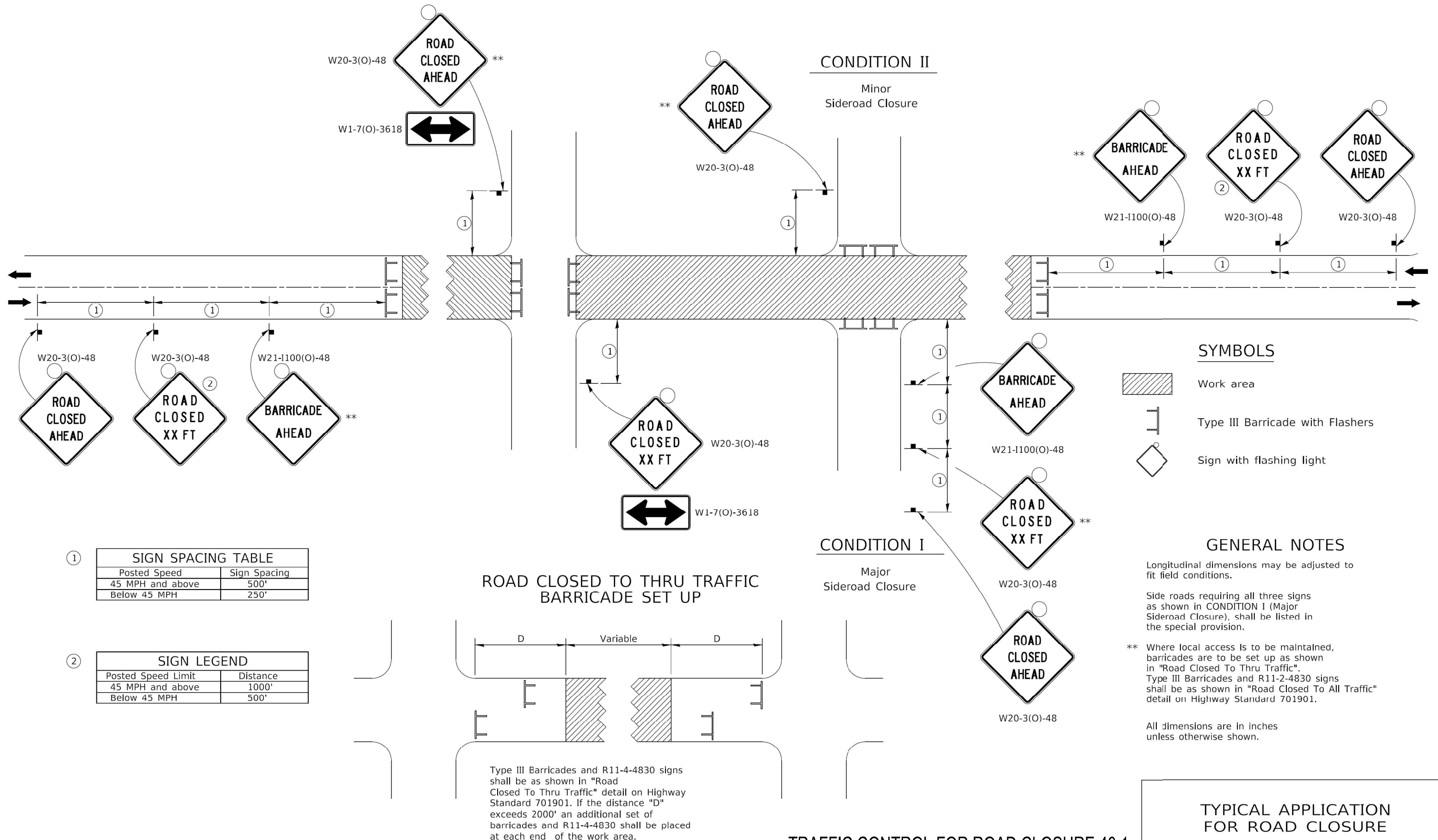
All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

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

All dimensions are in inches unless otherwise noted.

**WORK ZONE SIGN DETAILS SHEET 4 OF 4 34.1**

# TRAFFIC CONTROL FOR ROAD CLOSURE



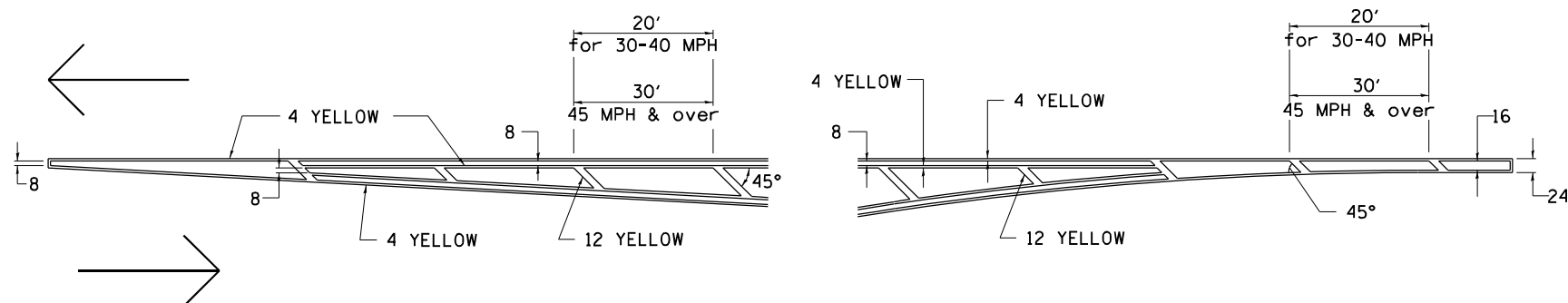
## TRAFFIC CONTROL FOR ROAD CLOSURE 40.1

## TYPICAL APPLICATION FOR ROAD CLOSURE

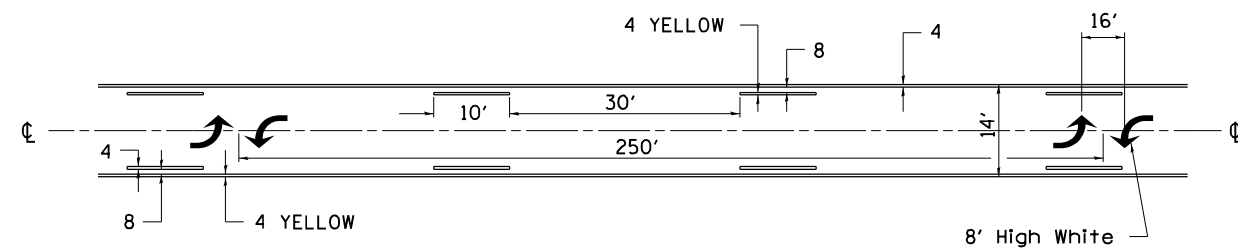
FILE NAME = Z:\2016\160240\_PTB1811\cadd\Civil\Drawings\W02\SH11\264M4-1-16-22\table\_14.dgn

# TYPICAL PAVEMENT MARKINGS

## TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

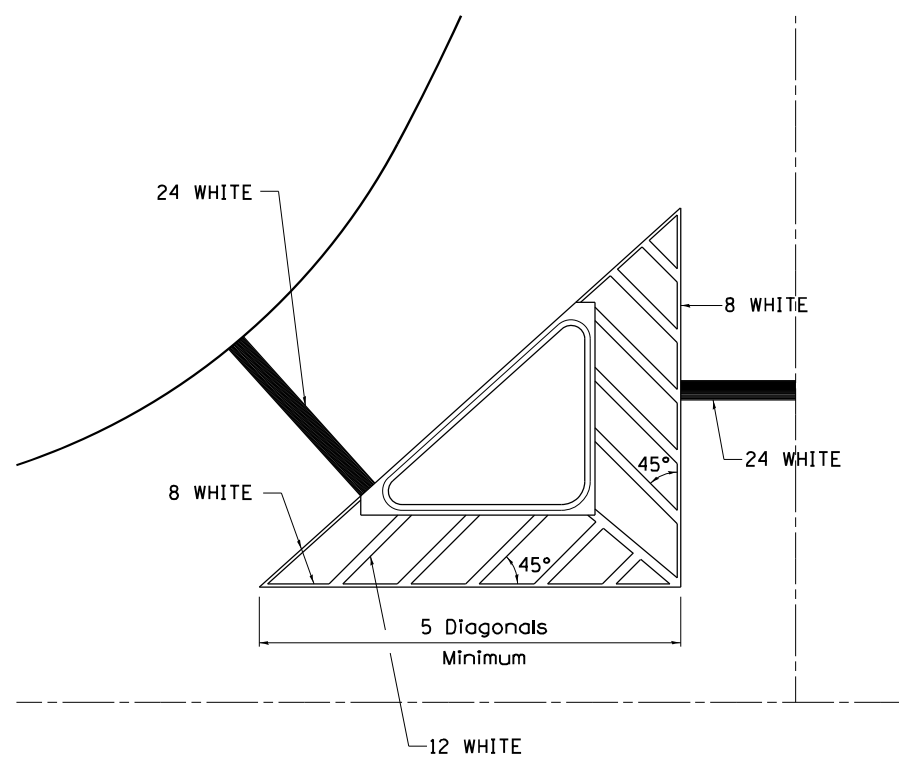


## MEDIAN PAVEMENT MARKING



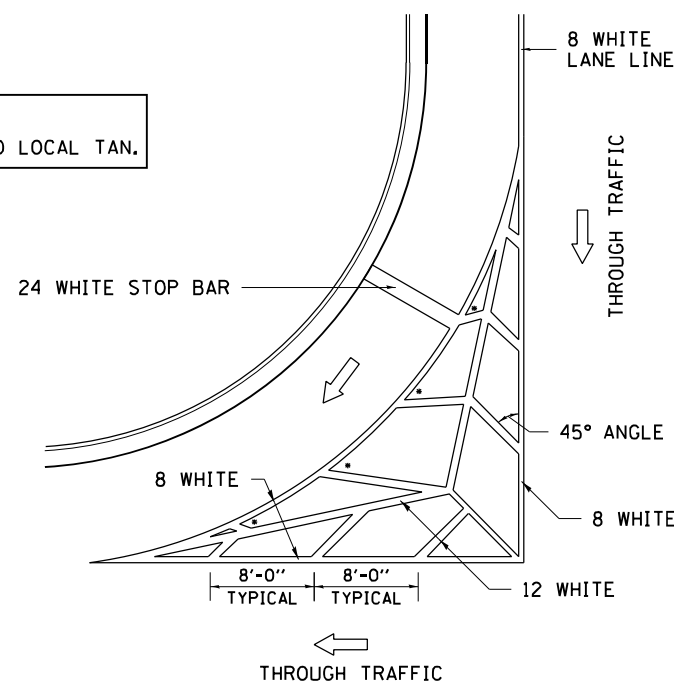
•• ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

## TYPICAL ISLAND OFFSET SHOULDER WIDTH



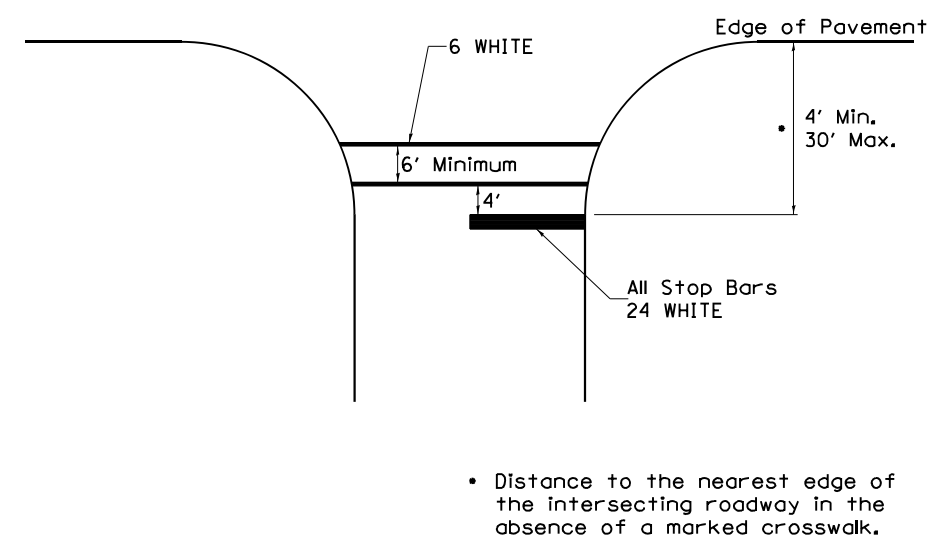
## TYPICAL MARKING FOR PAINTED ISLANDS

NOTE:  
\* 45° TO LOCAL TAN.



## STANDARD CROSSWALK MARKING

See Schedules for Locations



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

FILE NAME = Z:\2016\160240\_PTB1811\cadd\Civil\pav\W02\SH1\D264M4-1-16-15.dgn

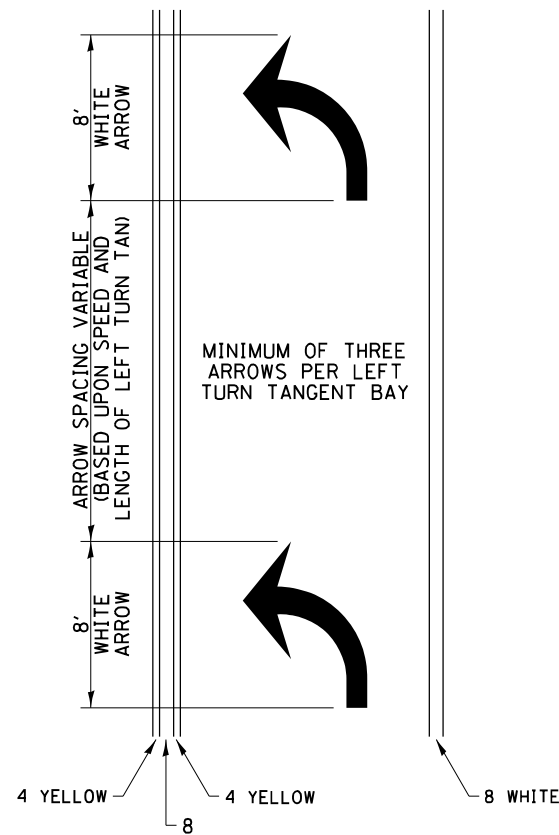
USER NAME = ssuncoaresan	DESIGNED -	REVISED 6-27-14
PLOT SCALE = 1:2	DRAWN -	REVISED 3-05-12
PLOT DATE = 8/16/2021	CHECKED -	REVISED -
	DATE = 08/16/21	REVISED -

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	72
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				



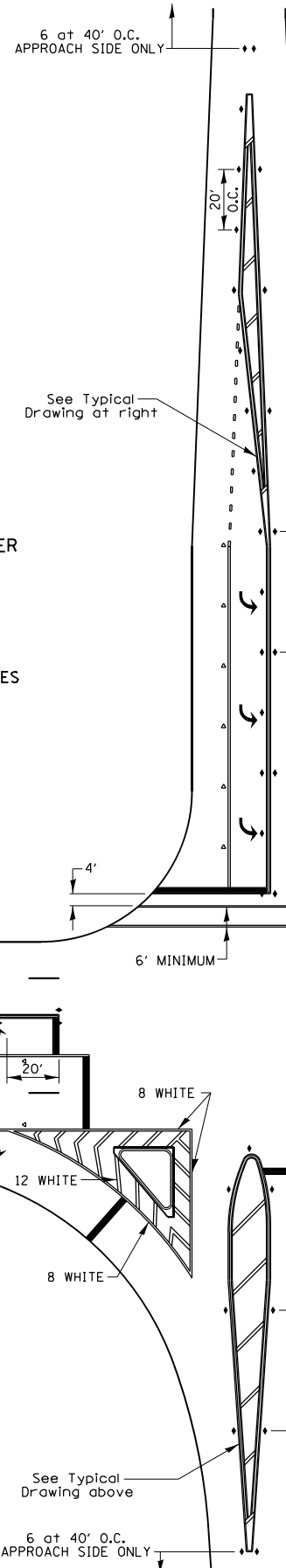
# TYPICAL PAVEMENT MARKINGS

## ARROW LAYOUT

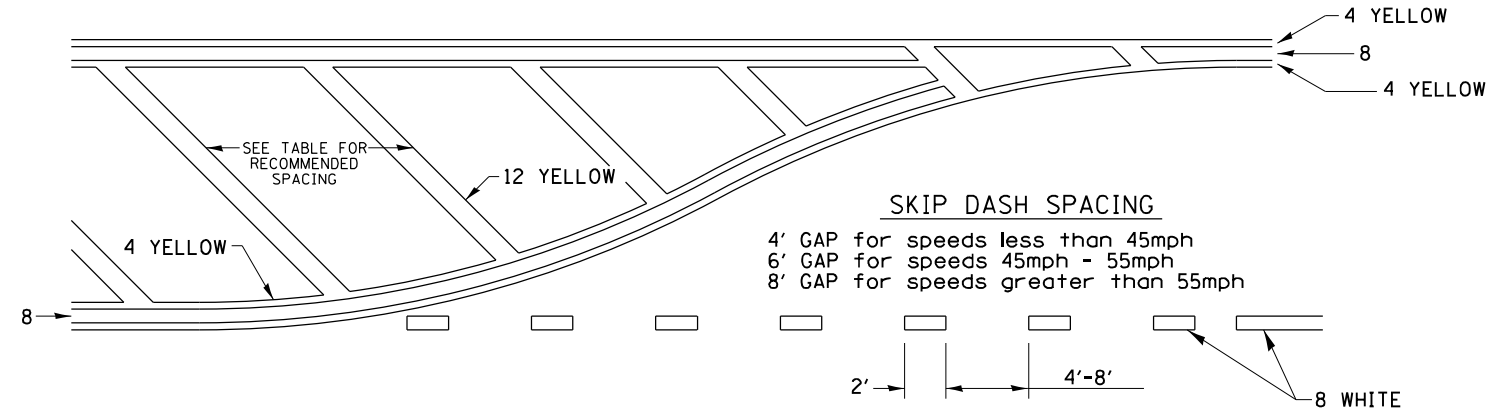


- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



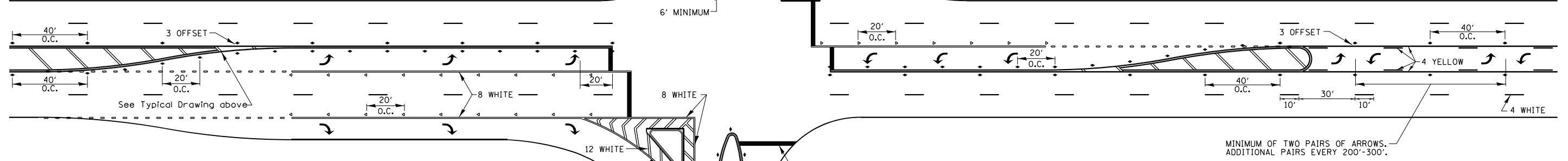
## TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



## RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

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

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

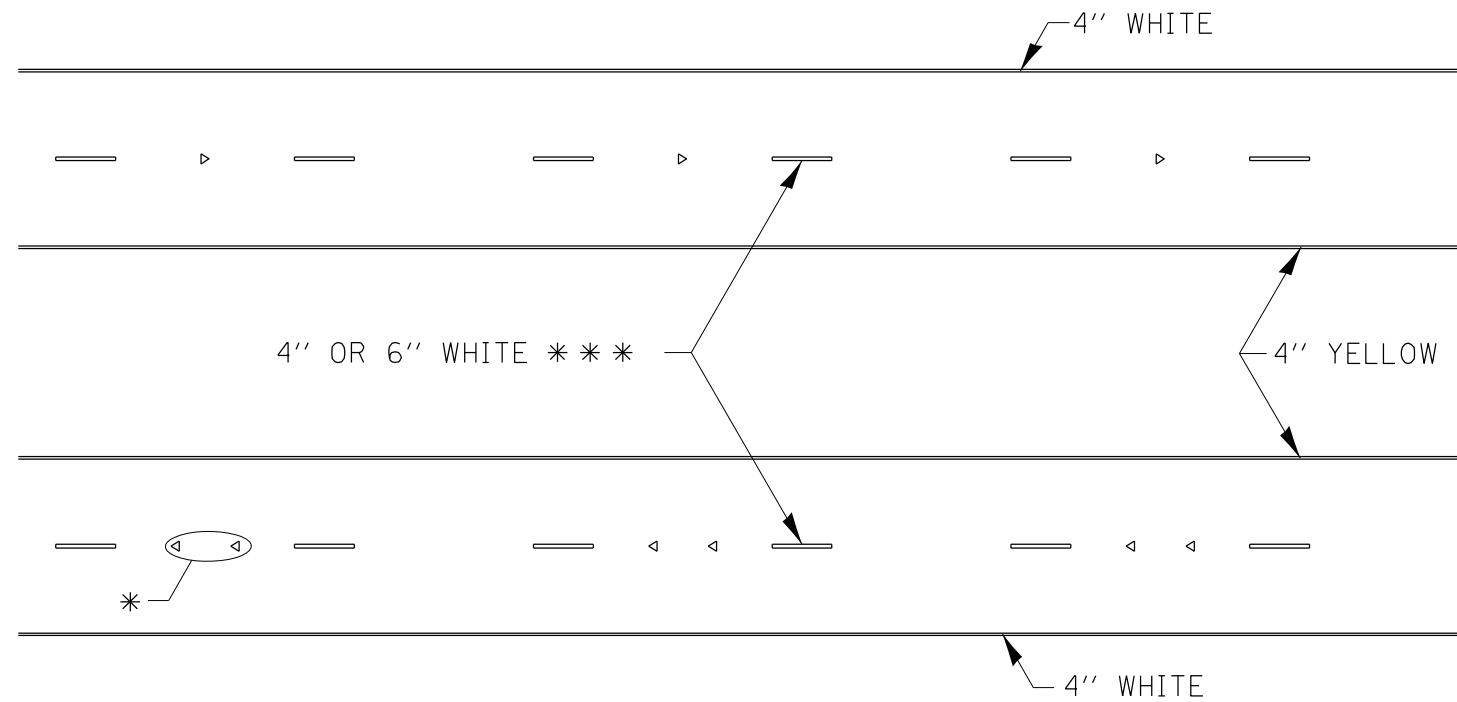


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USER NAME = ssunaresan	DESIGNED -	REVISED 6-27-14
	DRAWN -	REVISED 3-05-12
PLOT SCALE = 1:2	CHECKED -	REVISED
PLOT DATE = 8/16/2021	DATE = 08/16/21	REVISED

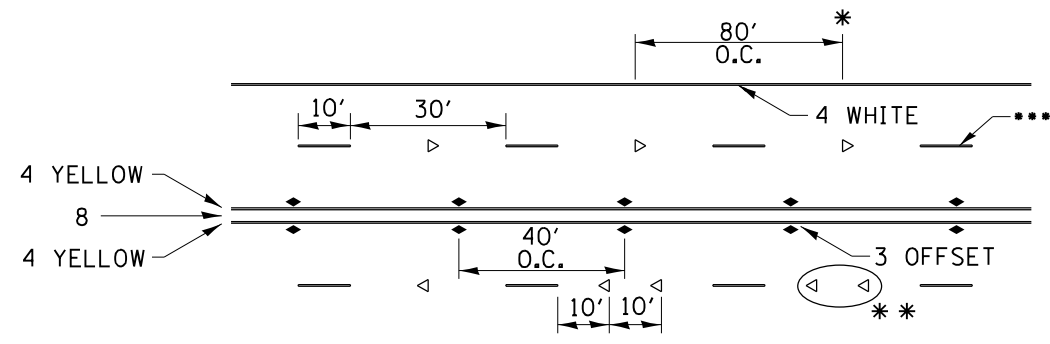
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110, 111)CR	LEE	122	73
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

# TYPICAL PAVEMENT MARKINGS



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

## MULTI-LANE / DIVIDED



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

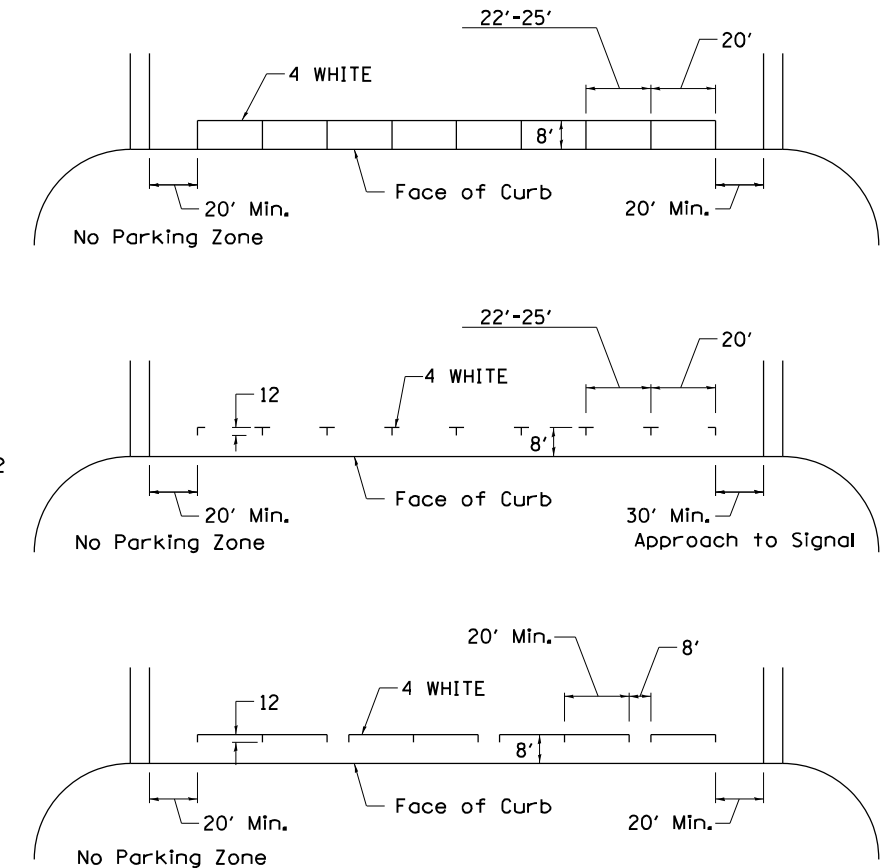
\*\* USE DOUBLE MARKERS WHEN ADT ≥ 20,000

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

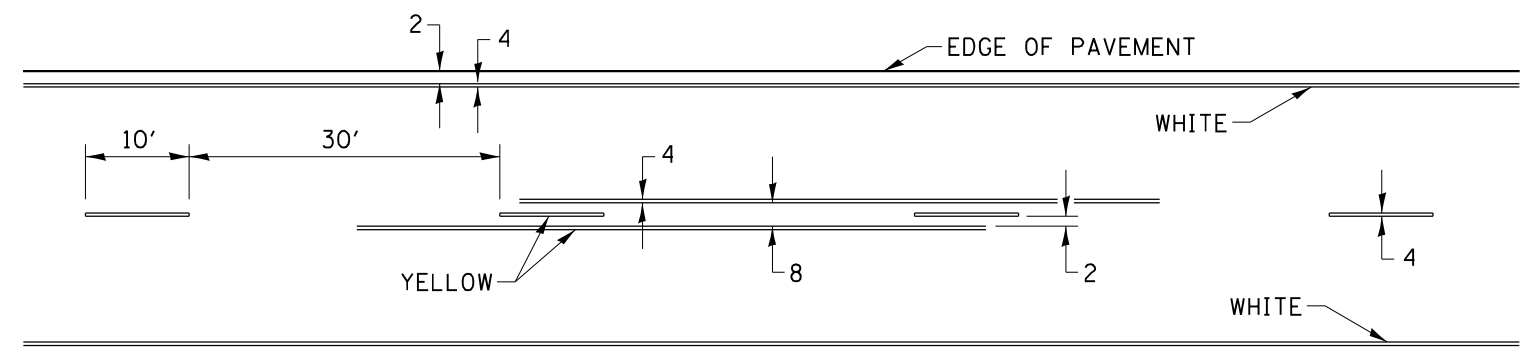
## MULTI-LANE / UNDIVIDED & ONE WAY

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

## TYPICAL PARKING SPACING



## TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES



## SYMBOLS

FILE NAME = Z:\2010\1610240\_P1B1B11\cadd\Civil\p1b1b11\DWG\W02\SH1\DWG\4M4-1-2010\240easr\_17.dgn

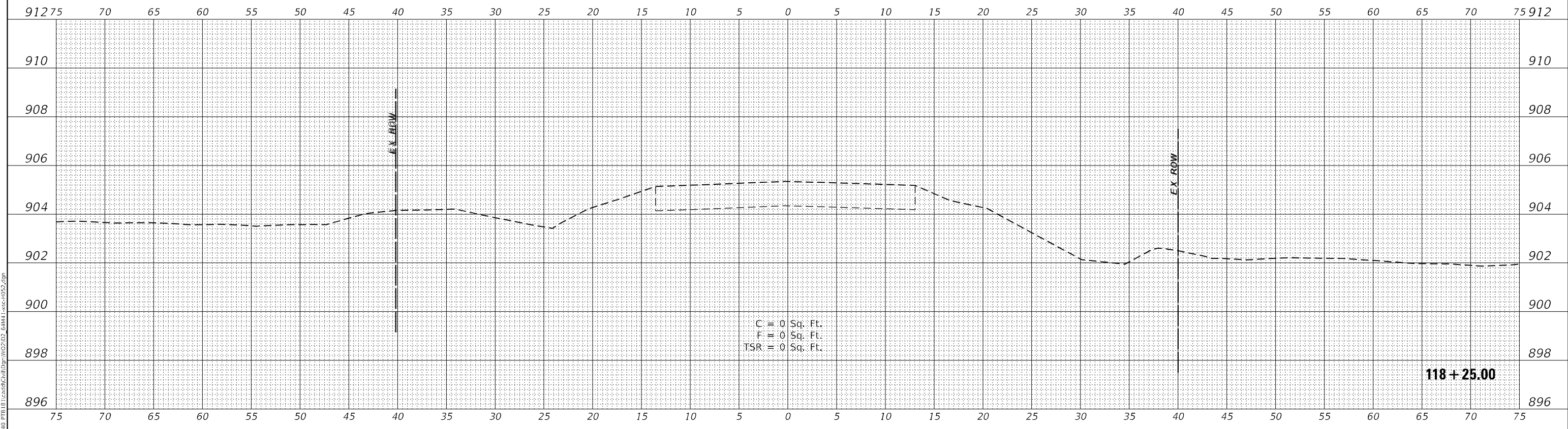
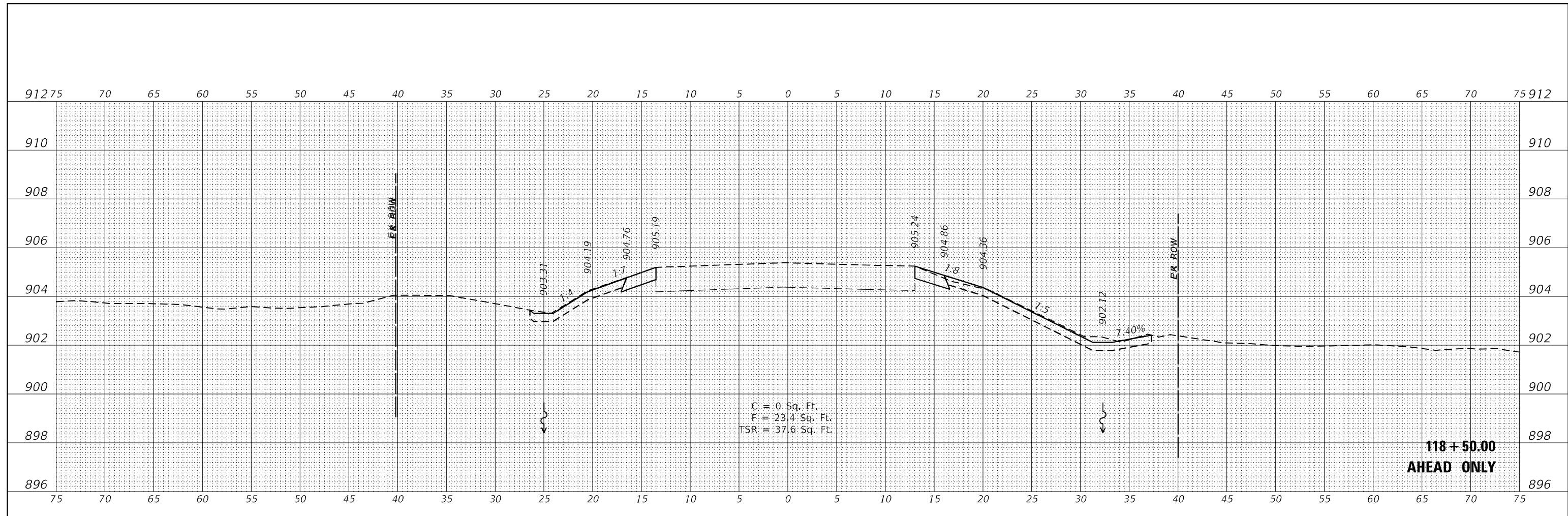
USER NAME = ssundaresan	DESIGNED -	REVISED 6-27-14
	DRAWN -	REVISED 8-27-13
PLOT SCALE = 1:2	CHECKED -	REVISED 11-28-12
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED

F.A.S. RTE. 1177	SECTION (110, 111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 74
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USER\$
DESIGNED - MCC
DRAWN - AKW
PLLOT SCALE = \$SCALE\$
PLLOT DATE = 8/16/2021

DESIGNED - MCC
DRAWN - AKW
CHECKED - KAC
DATE - 08/16/21

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

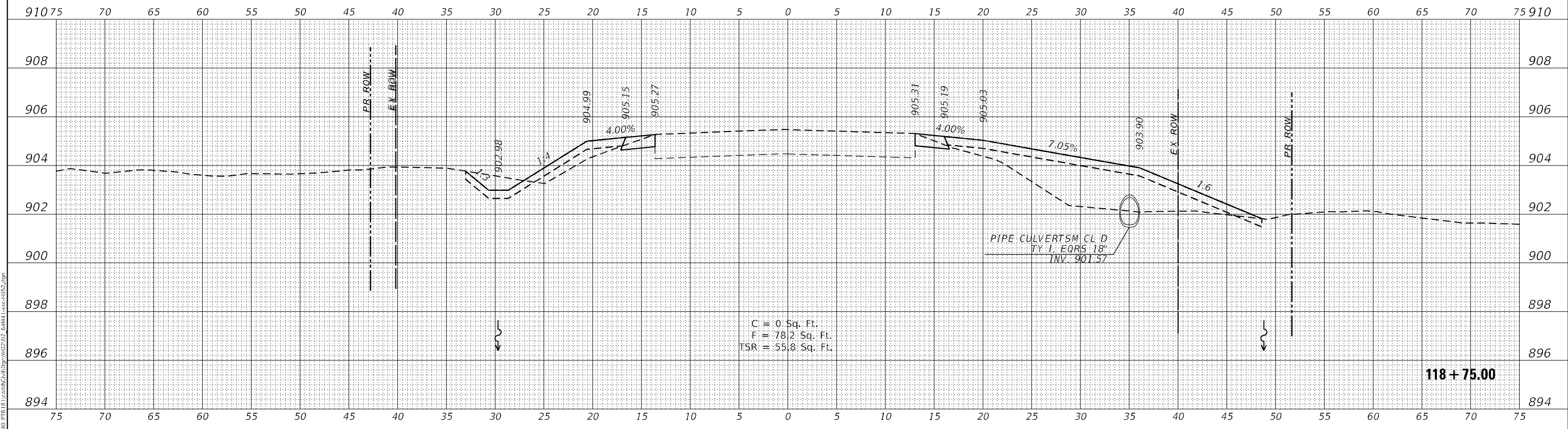
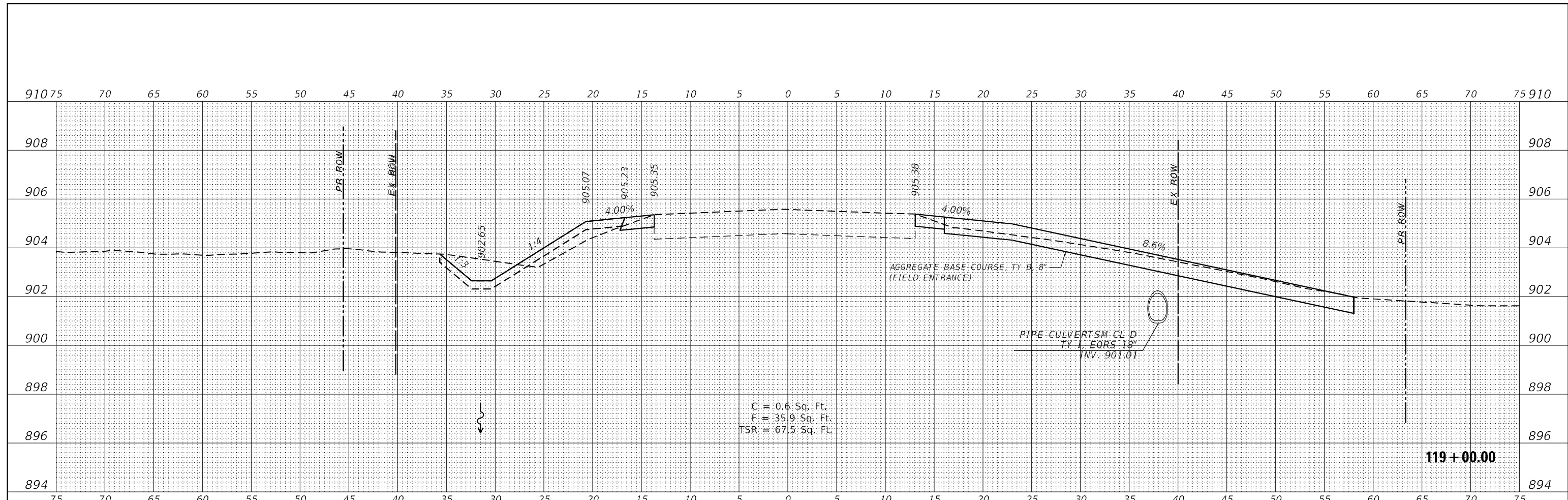
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (T.N. H052-C311-044-028-001A)**  
 SCALE: 1"=5'H/2'V SHEET 1 OF 6 SHEETS STA. 118+25.00 TO STA. 118+50.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 75
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USER\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

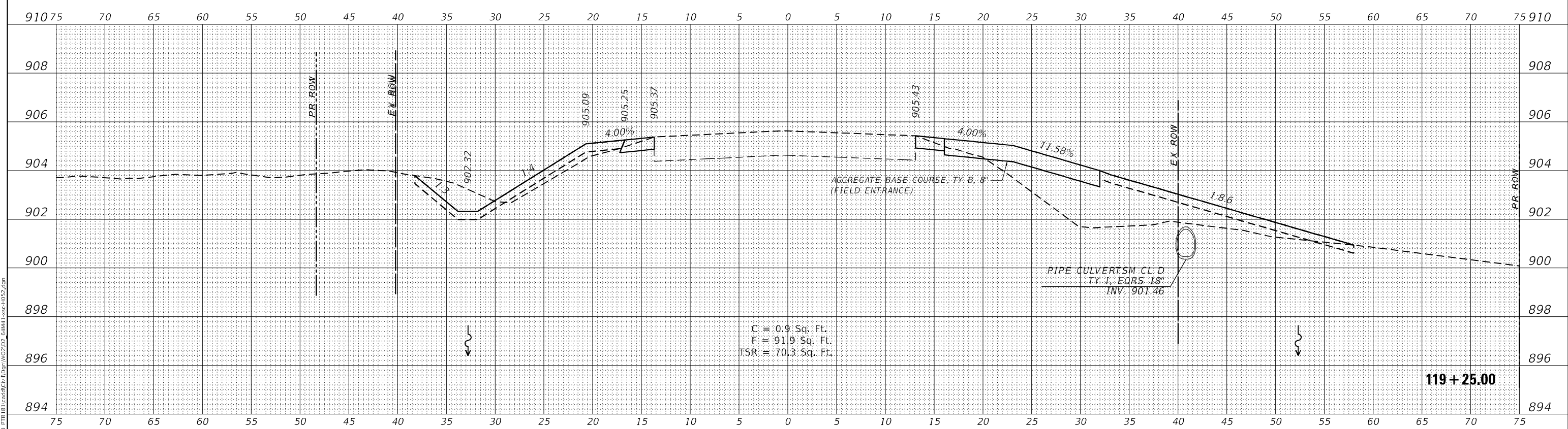
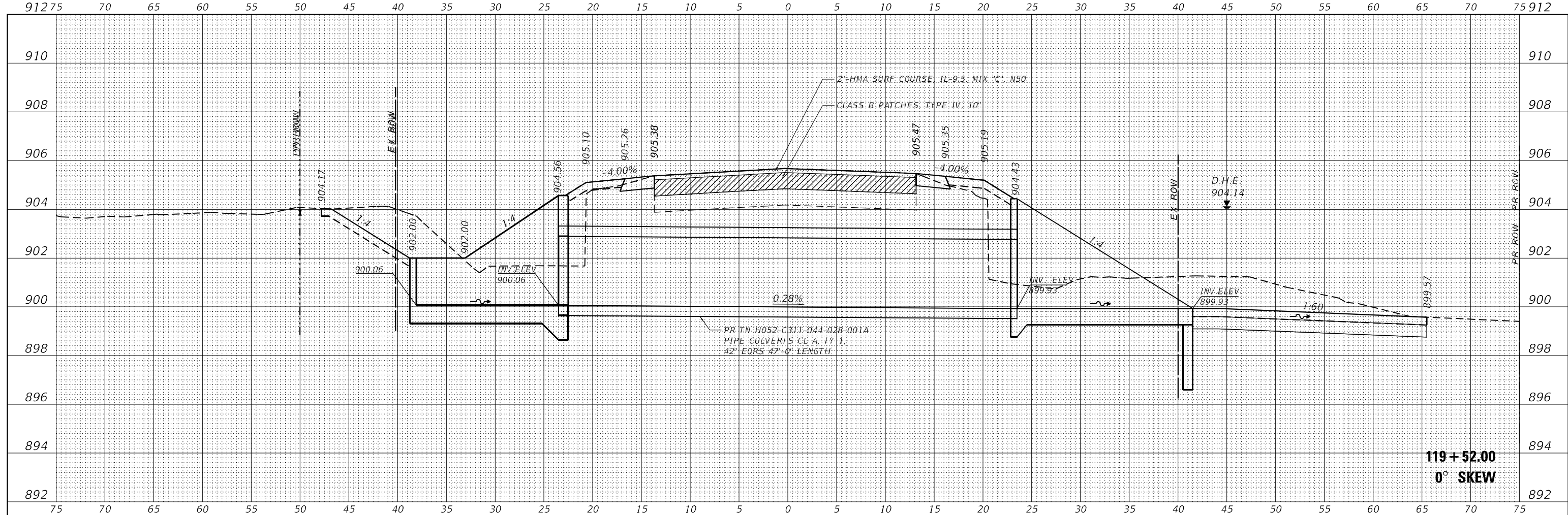
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (T.N. H052-C311-044-028-001A)**  
 SCALE: 1"=5'H/2'V SHEET 2 OF 6 SHEETS STA. 118+75.00 TO STA. 119+00.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 76
			CONTRACT NO. 64M41	
ILLINOIS FED. AID PROJECT				

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME	= \$USERS
DESIGNED	- MCC
DRAWN	- AKW
CHECKED	- KAC
DATE	- 08/16/21
REVISIONS	
REVISED	-
REVISED	-
REVISED	-
REVISED	-

DESIGNED	- MCC
DRAWN	- AKW
CHECKED	- KAC
DATE	- 08/16/21
REVISIONS	
REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (T.N. H052-C311-044-028-001A)**

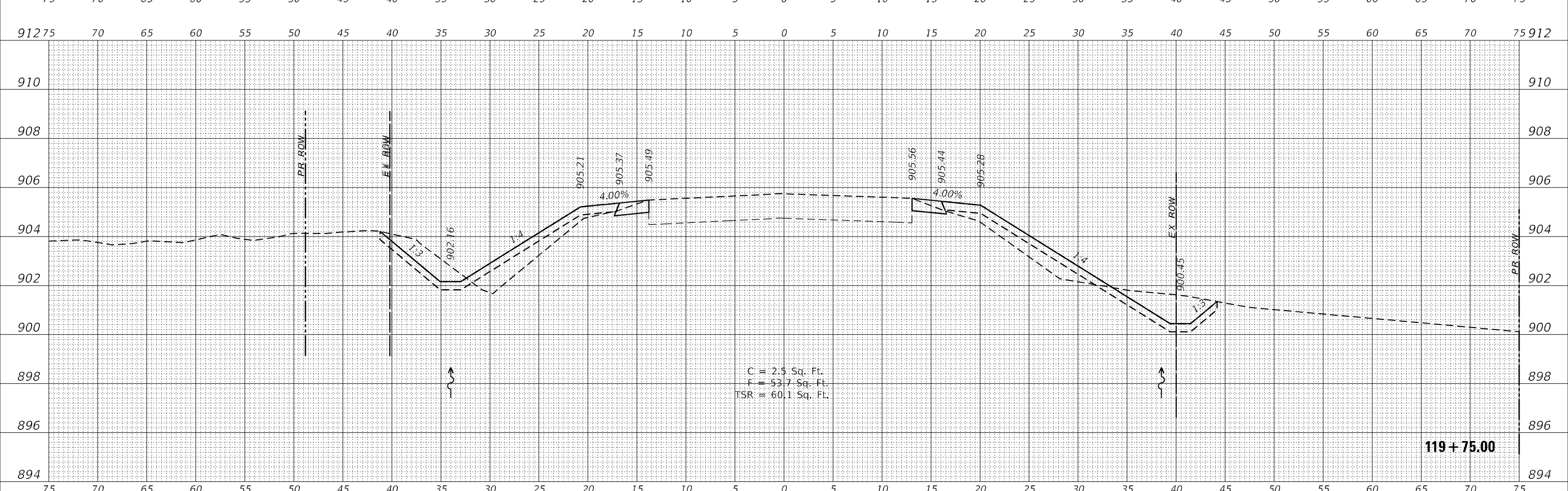
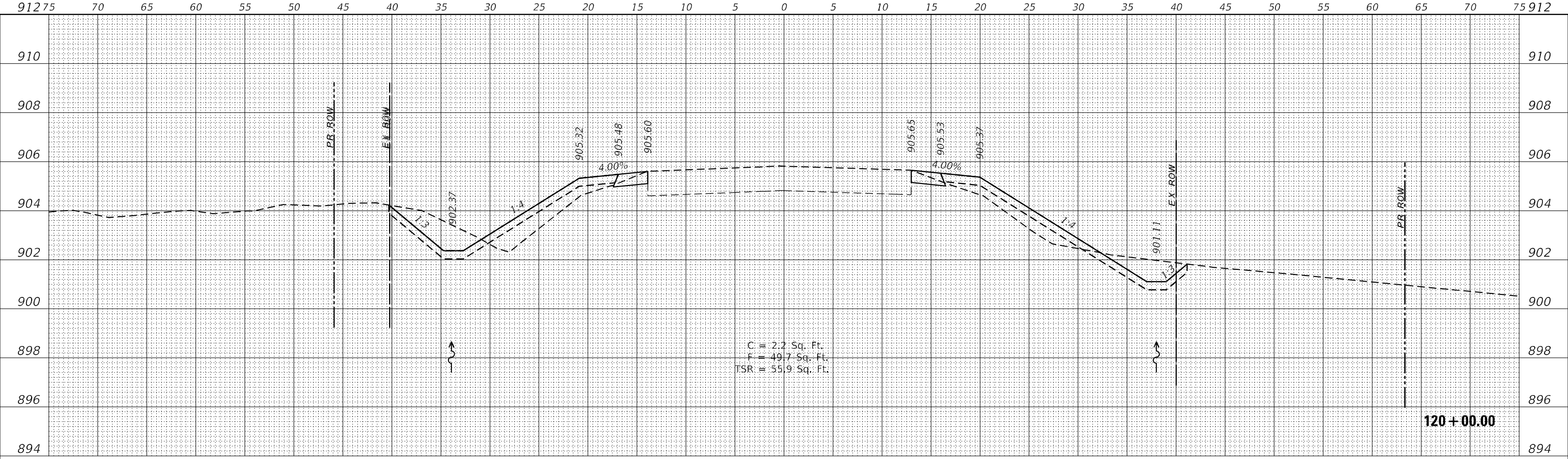
SCALE: 1"=5'H/2'V SHEET 3 OF 6 SHEETS STA. 119+25.00 TO STA. 119+52.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	77
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

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116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

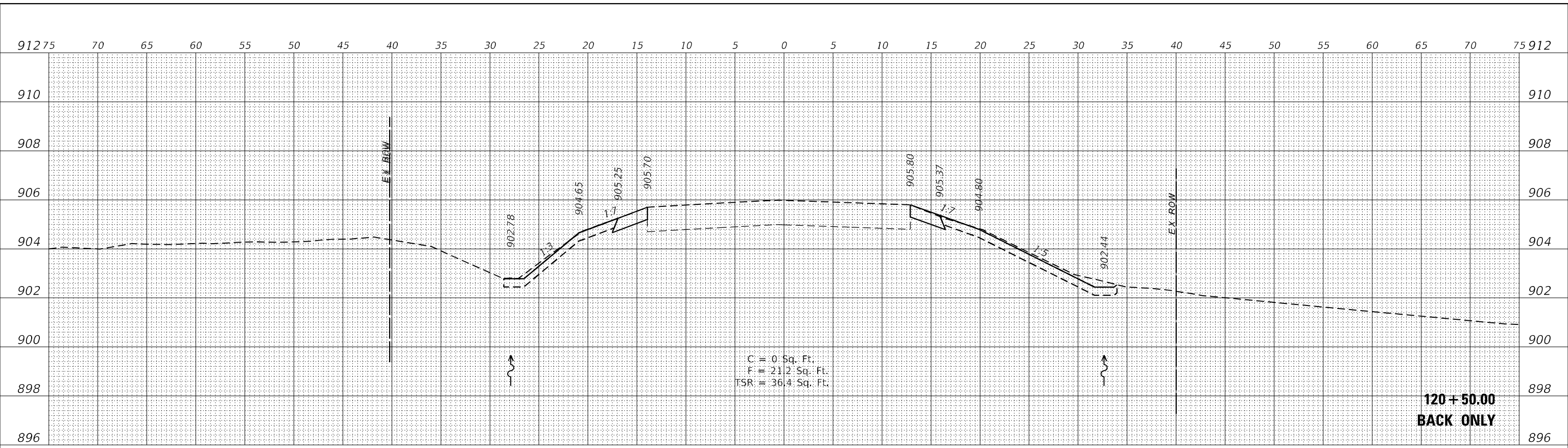
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (T.N. H052-C311-044-028-001A)**  
SCALE: 1"=5'H/2'V SHEET 4 OF 6 SHEETS STA. 119+75.00 TO STA. 120+00.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 78
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

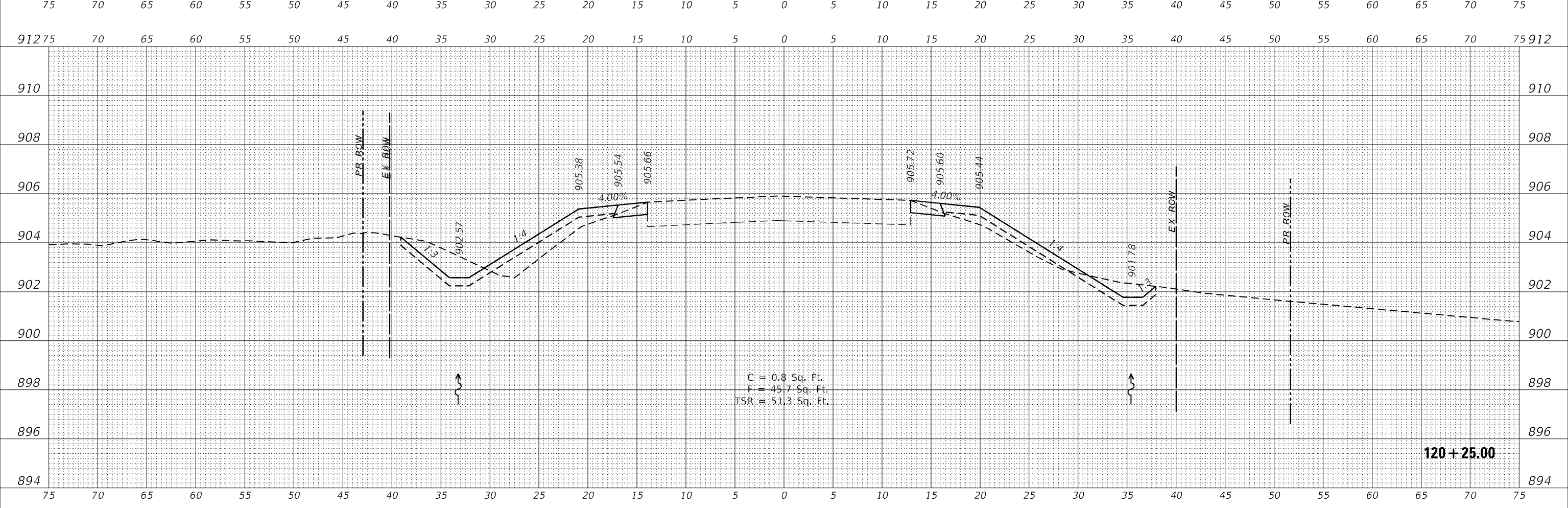
FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	

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

MODEL: \$MODELNAME\$  
FILE NAME: Z:\2016\160240\_P1618\160240\_P1618.dwg



**120 + 50.00  
BACK ONLY**



**120 + 25.00**

NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

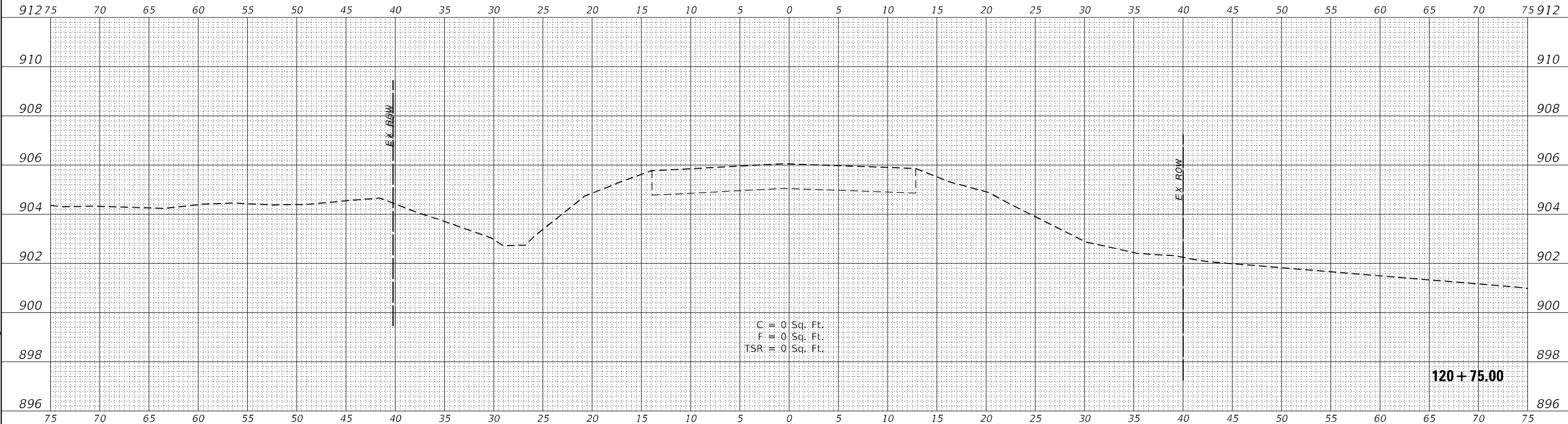
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (T.N. H052-C311-044-028-001A)**  
SCALE: 1"=5'H/2'V SHEET 5 OF 6 SHEETS STA. 120+25.00 TO STA. 120+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	79
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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C = 0 Sq. Ft.  
 F = 0 Sq. Ft.  
 TSR = 0 Sq. Ft.

NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (T.N. H052-C311-044-028-001A)**  
 SCALE: 1"=5'H/2'V SHEET 6 OF 6 SHEETS STA. 120+75.00 TO STA. 120+75.00

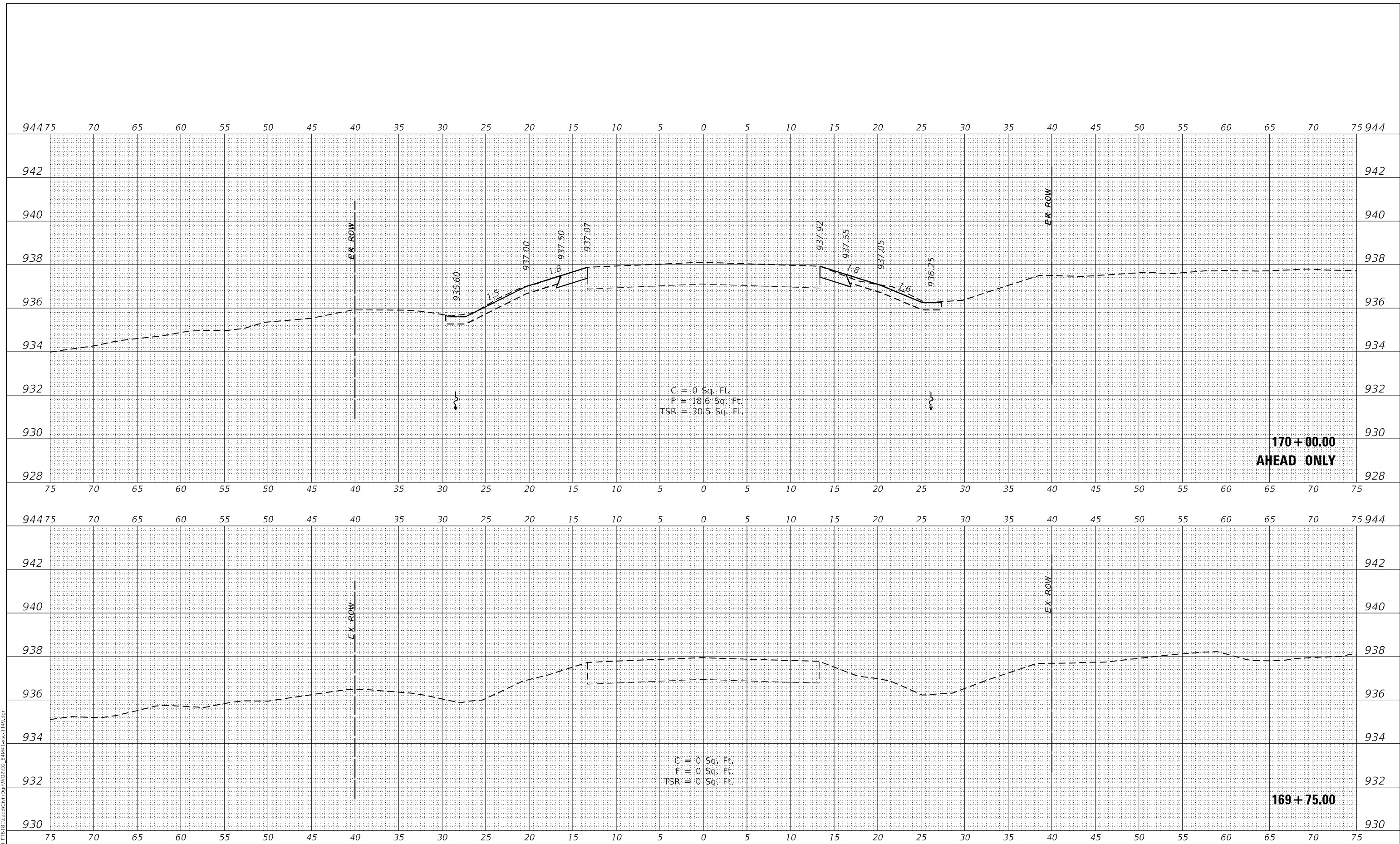
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	80
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	



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

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
AREAS CHECKED	TEMPLATE	
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 PLOT DATE: 8/16/2021



**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

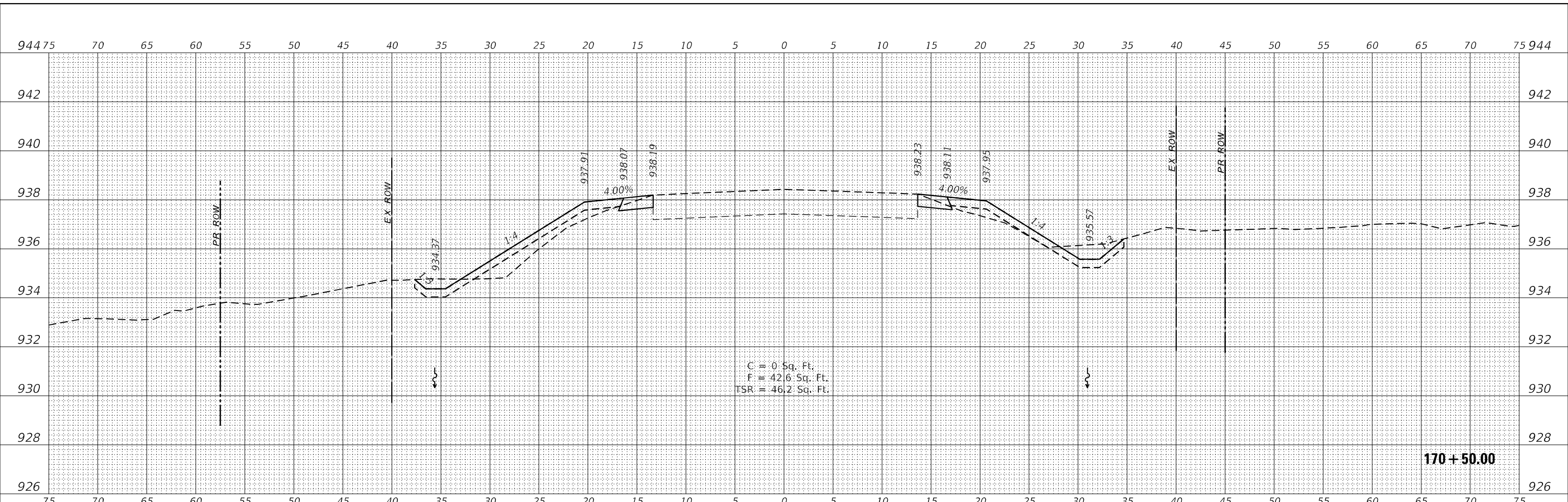
**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
 SCALE: 1"=5'H/2'V SHEET 1 OF 18 SHEETS STA. 169+75.00 TO STA. 170+00.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 81
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

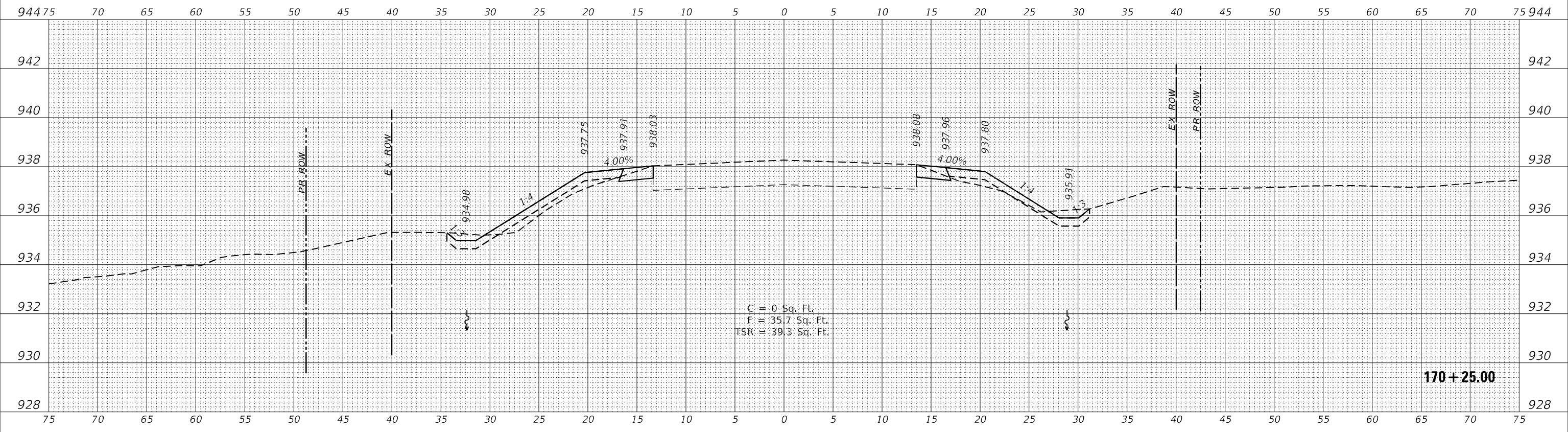
FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	

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

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C = 0 Sq. Ft.  
 F = 42.6 Sq. Ft.  
 TSR = 46.2 Sq. Ft.



C = 0 Sq. Ft.  
 F = 35.7 Sq. Ft.  
 TSR = 39.3 Sq. Ft.

NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 448-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

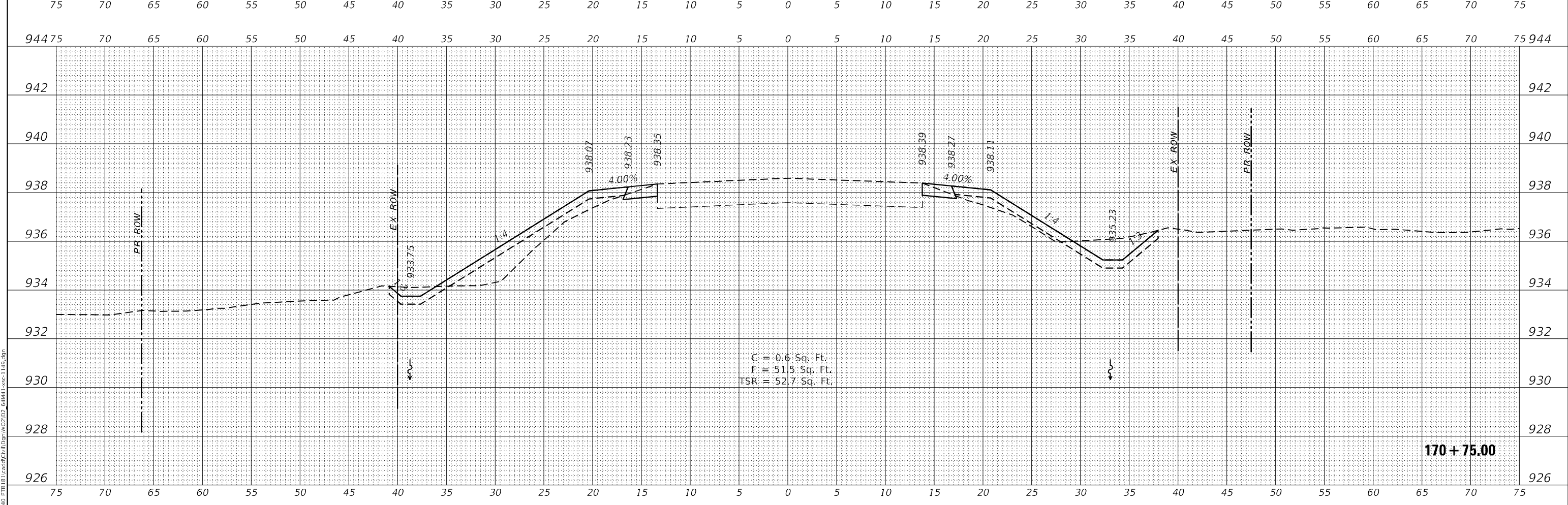
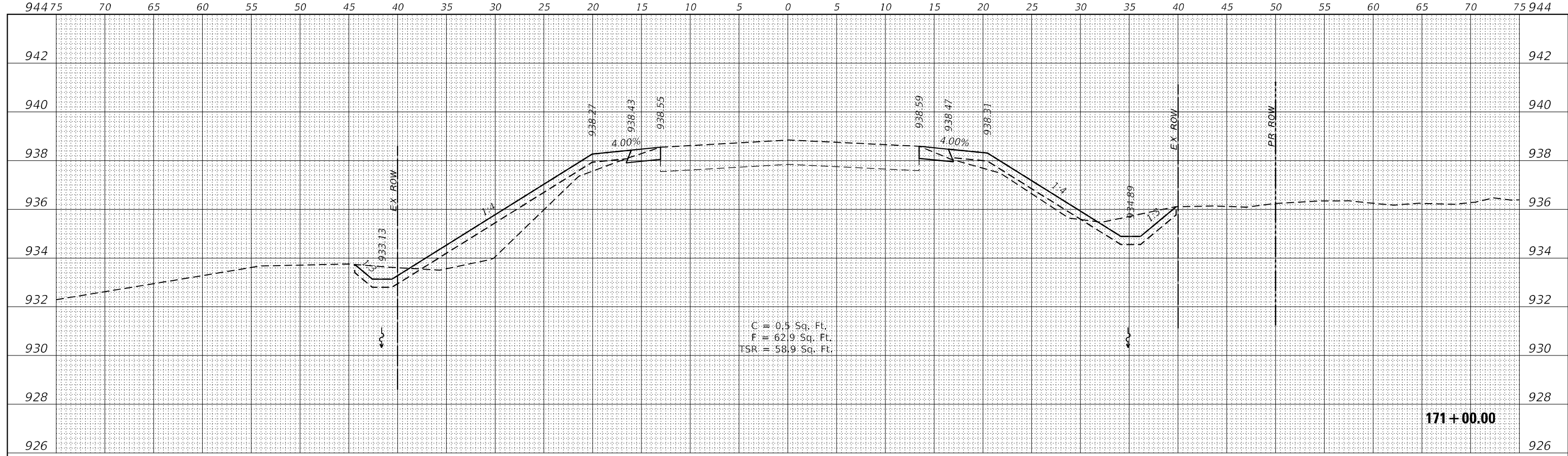
<b>CROSS SECTIONS</b>		
<b>IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)</b>		
SCALE: 1"=5'H/2'V	SHEET 2 OF 18 SHEETS	STA. 170+25.00 TO STA. 170+50.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 82
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

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 136 WEST MAIN STREET, SUITE 203  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

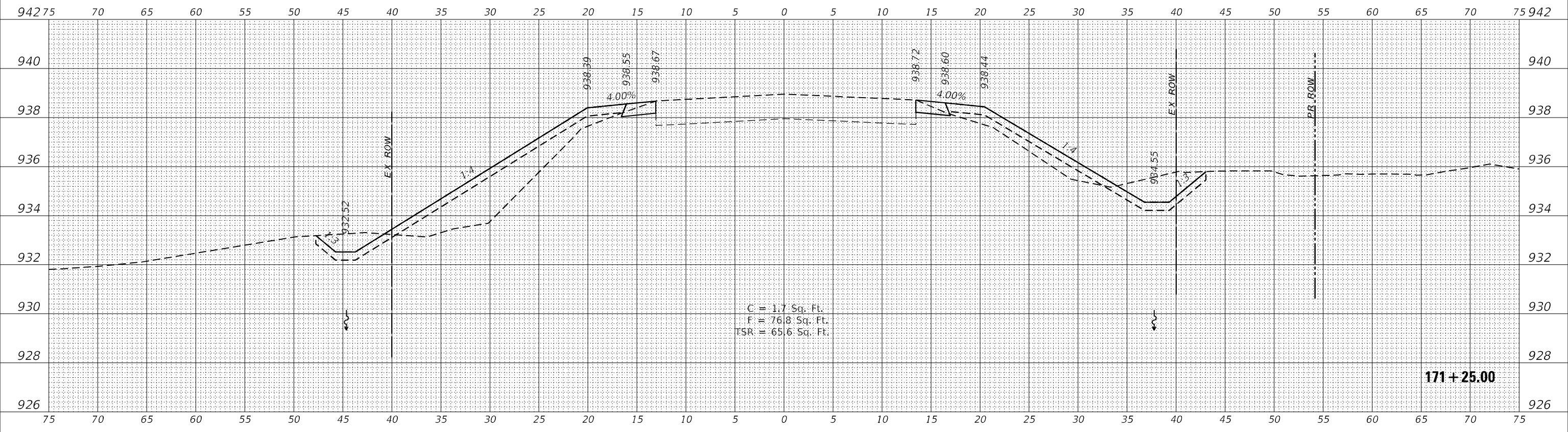
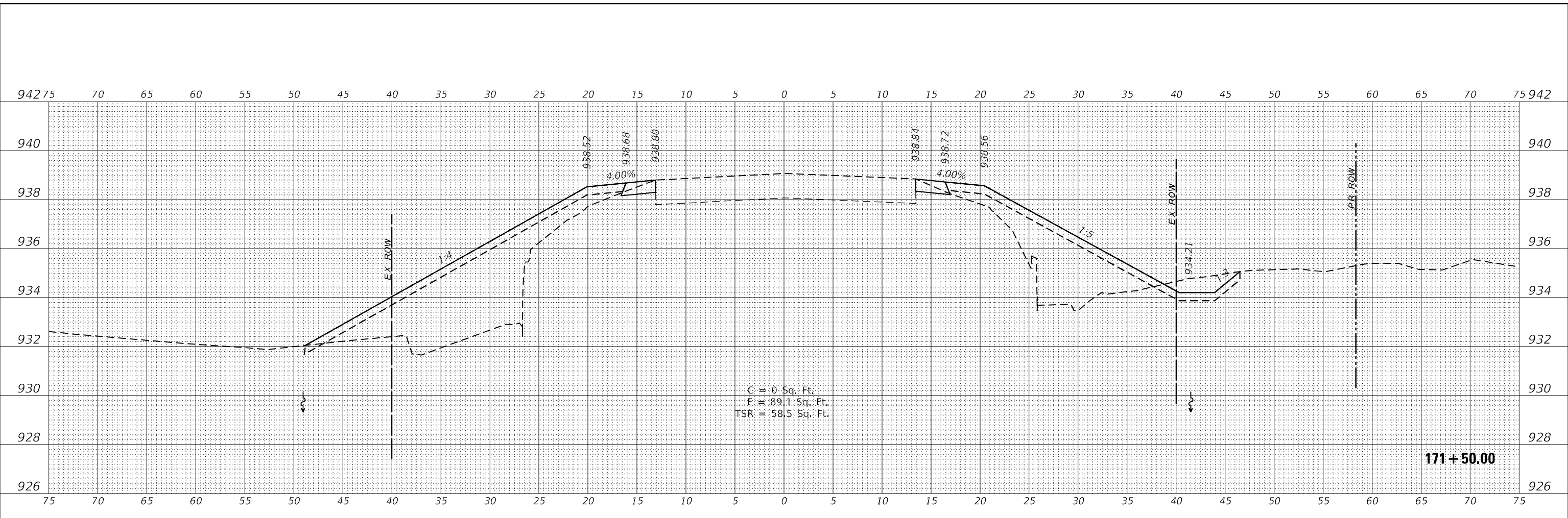
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
 SCALE: 1"=5'H/2'V SHEET 3 OF 18 SHEETS STA. 170+75.00 TO STA. 171+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	83
				CONTRACT NO. 64M41
ILLINOIS FED. AID PROJECT				

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

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

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 PLOT DATE: 8/16/2021



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**

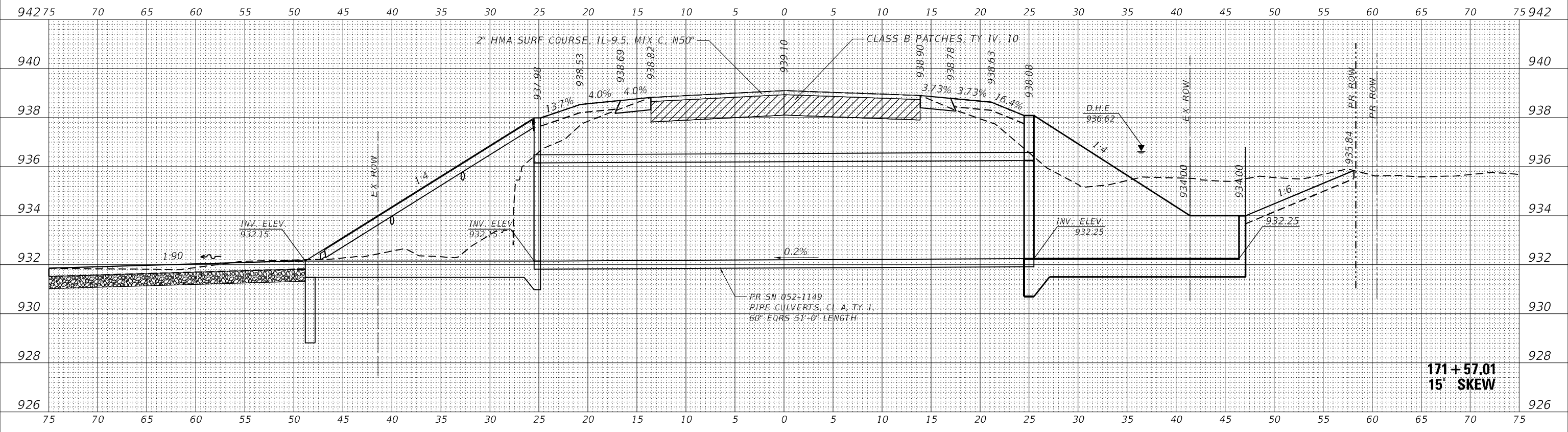
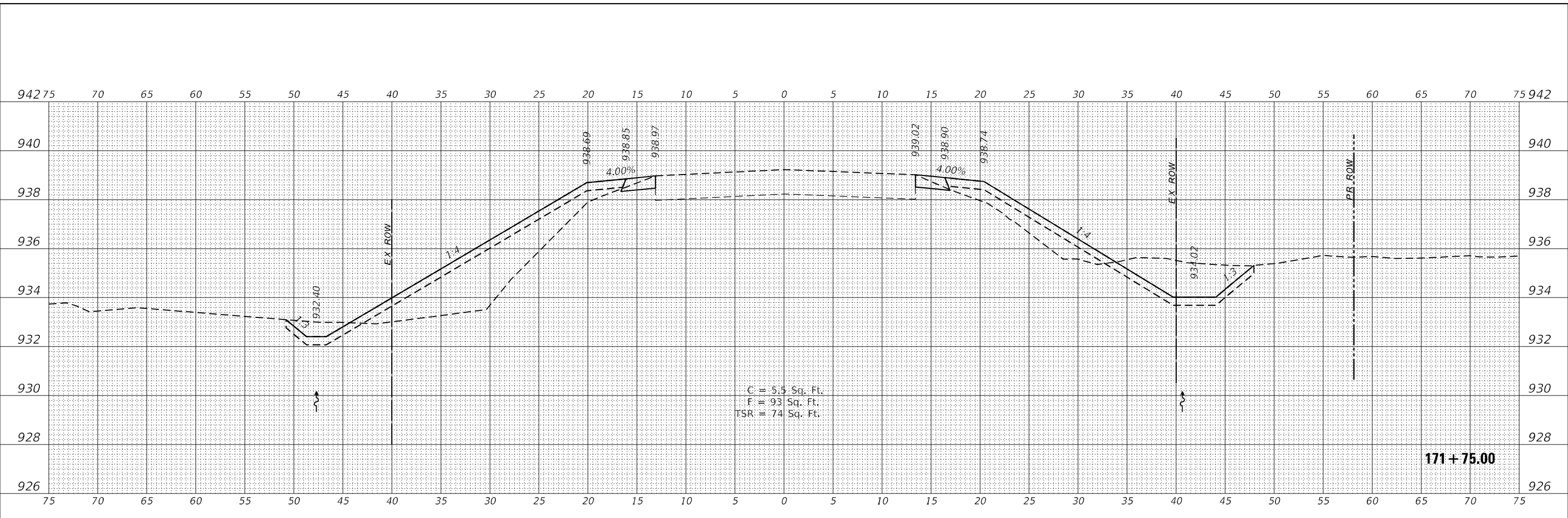
SCALE: 1"=5'H/2'V SHEET 4 OF 18 SHEETS STA. 171+25.00 TO STA. 171+50.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 84
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = \$USER\$	DESIGNED - MCC	REVISED -
DESIGNED - MCC	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

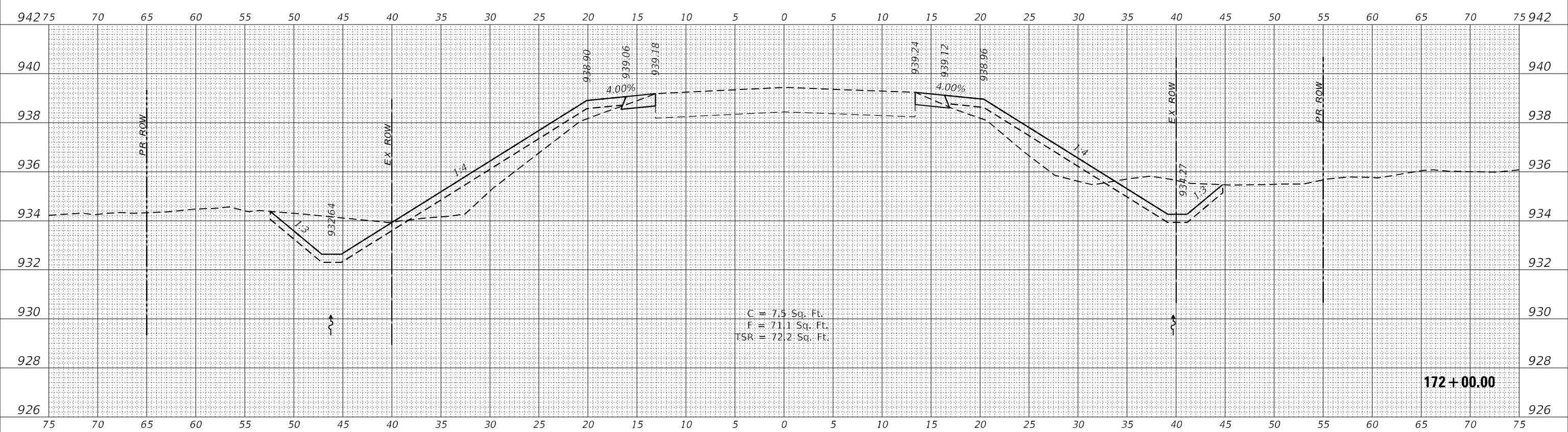
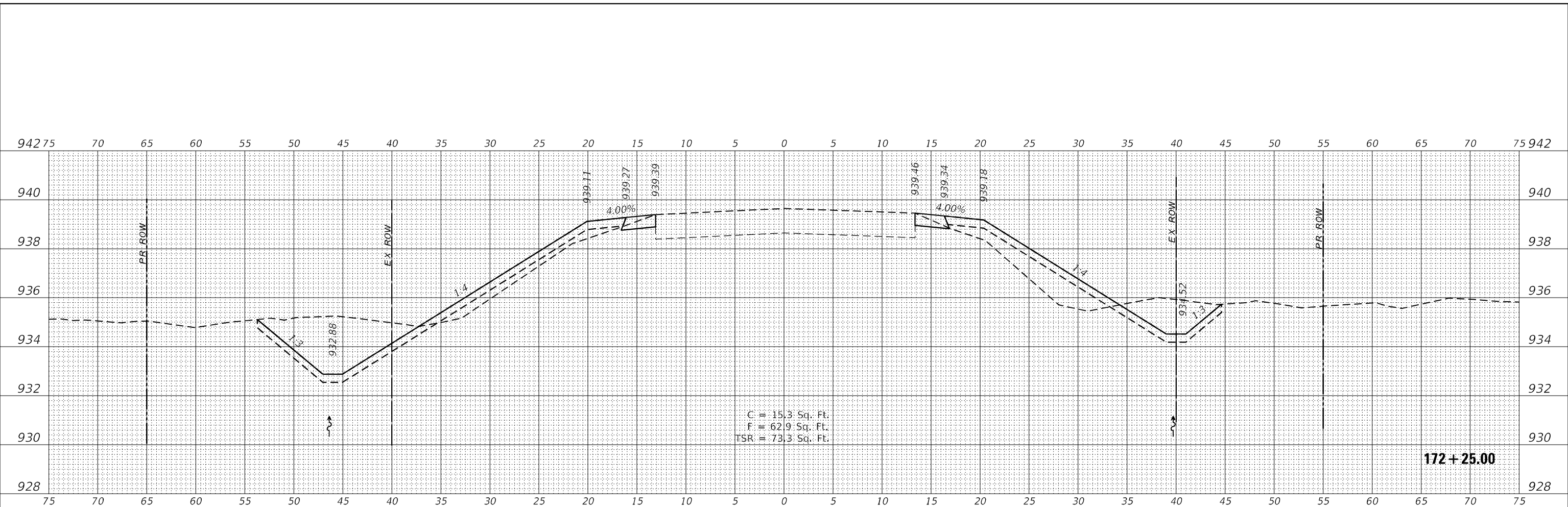
**CROSS SECTIONS  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
SCALE: 1"=5'H/2'V SHEET 5 OF 18 SHEETS STA. 171+57.01 TO STA. 171+75.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 85
CONTRACT NO. 64M41				ILLINOIS FED. AID PROJECT

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = susers	DESIGNED - MCC	REVISED -
PLOT SCALE = 5/SCALE5	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

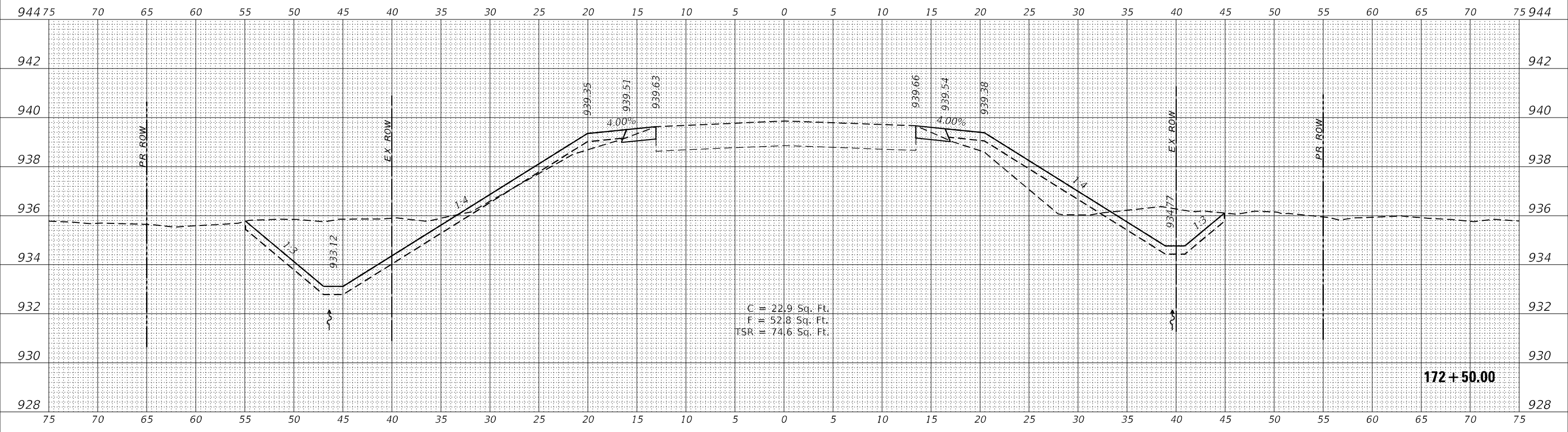
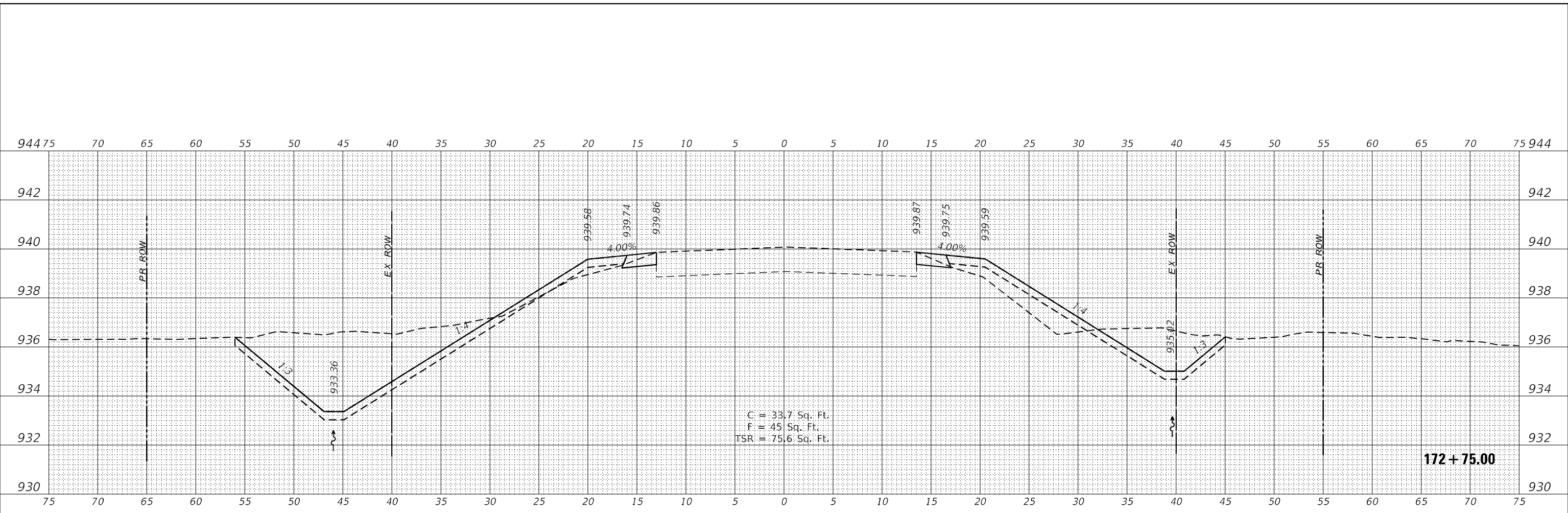
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IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
SCALE: 1"=5'H/2'V SHEET 6 OF 18 SHEETS STA. 172+00.00 TO STA. 172+25.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 86
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

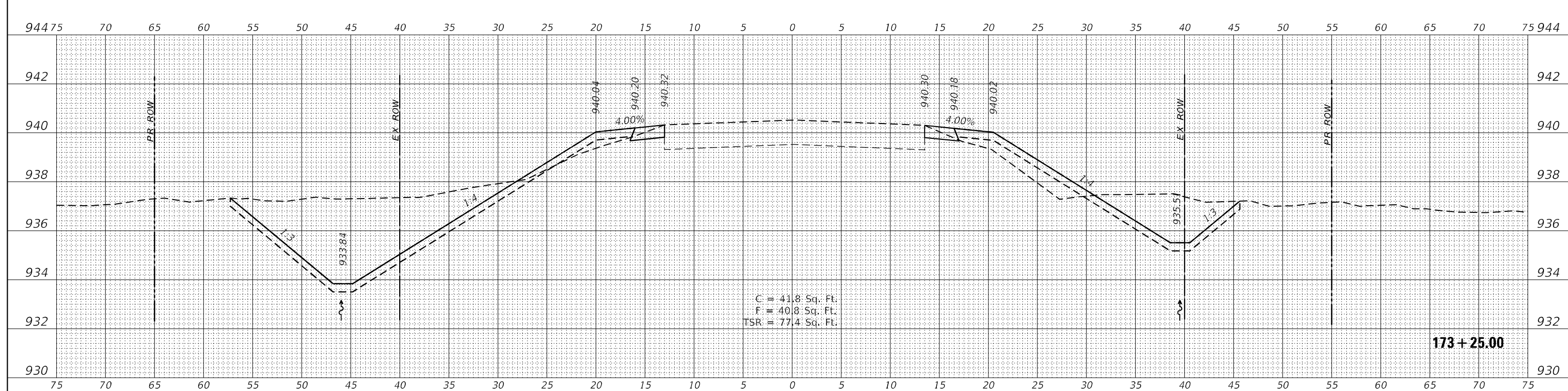
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	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

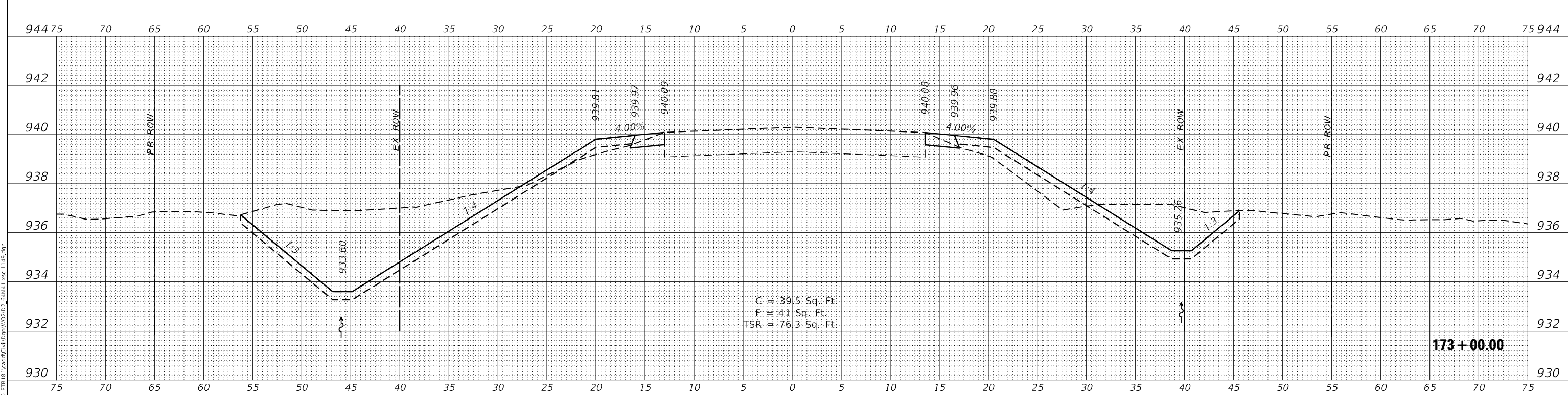
CROSS SECTIONS		
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)		
SCALE: 1"=5'H/2'V	SHEET 7 OF 18 SHEETS	STA. 172+50.00 TO STA. 172+75.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 87
			CONTRACT NO. 64M41	
ILLINOIS FED. AID PROJECT				

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



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



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME =	susers	DESIGNED -	MCC	REVISED -	
		DRAWN -	AKW	REVISED -	
PLOT SCALE =	5/SCALE5	CHECKED -	KAC	REVISED -	
PLOT DATE =	8/16/2021	DATE -	08/16/21	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**

SCALE: 1"=5'H/2'V SHEET 8 OF 18 SHEETS STA. 173+00.00 TO STA. 173+25.00

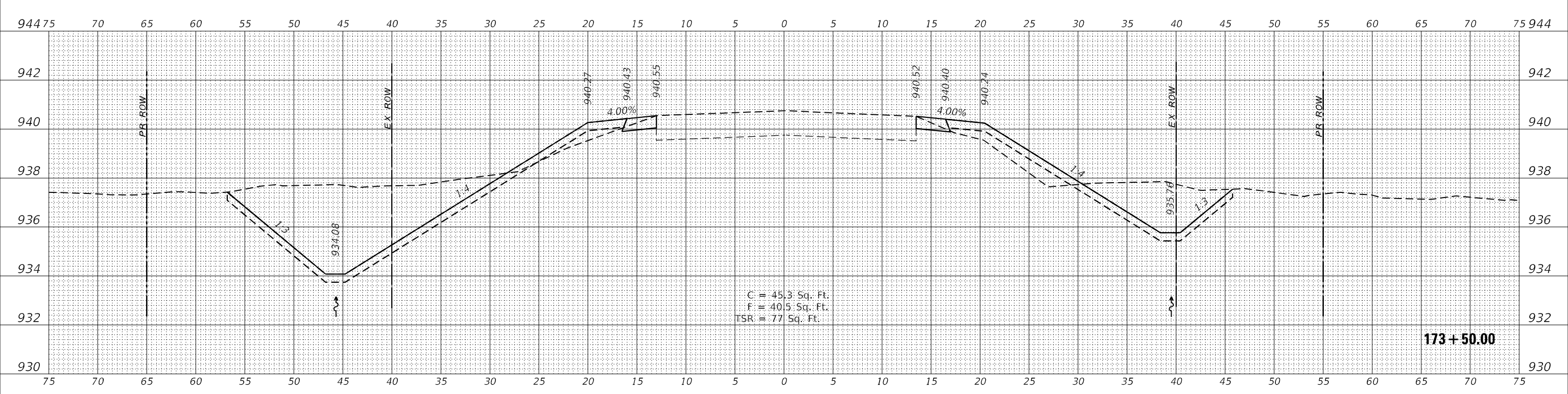
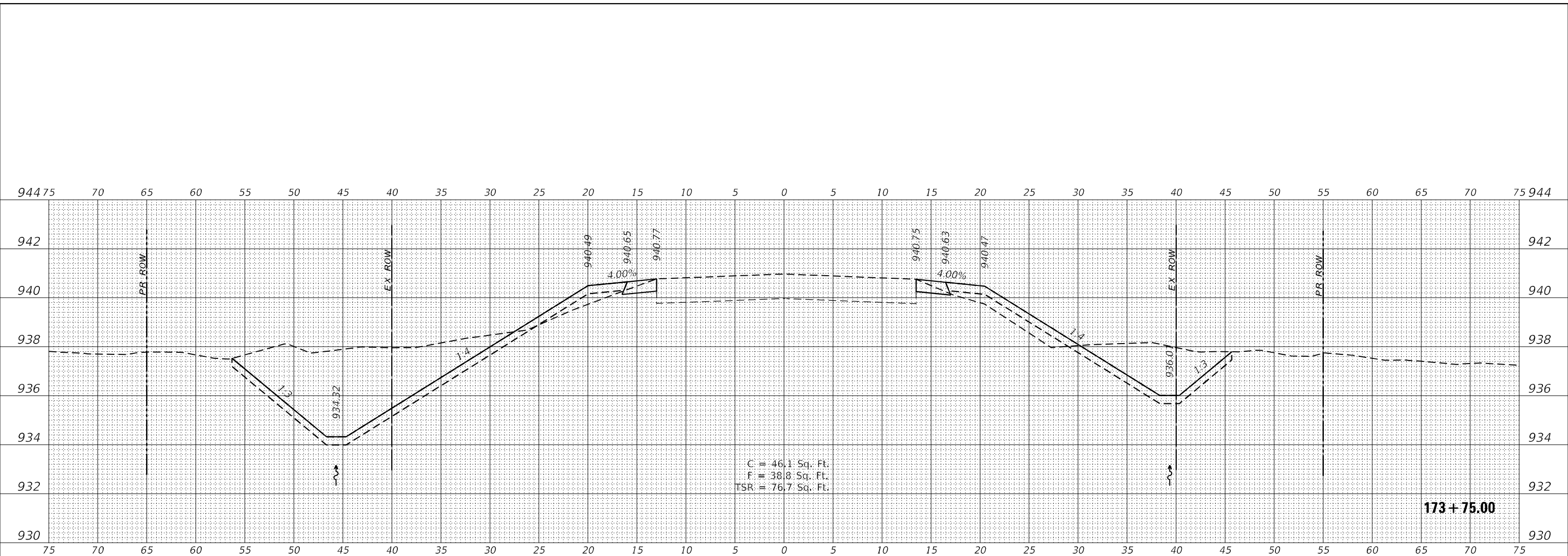
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	88
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				



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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME	= \$USERS
DESIGNED	- MCC
DRAWN	- AKW
CHECKED	- KAC
DATE	- 08/16/21

REVISIONS	-
REVISIONS	-
REVISIONS	-
REVISIONS	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

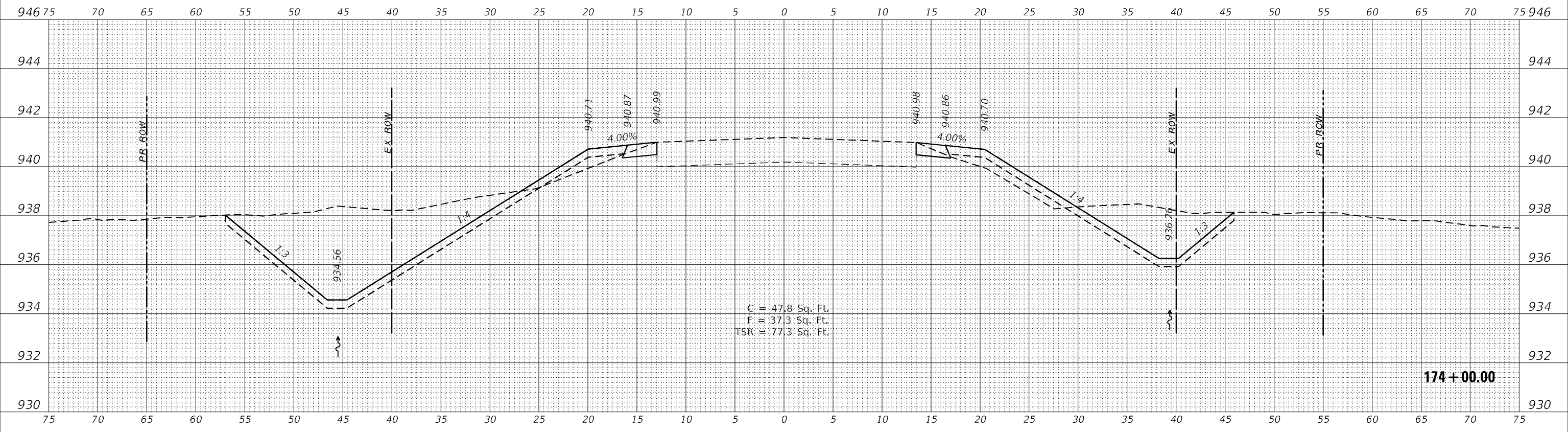
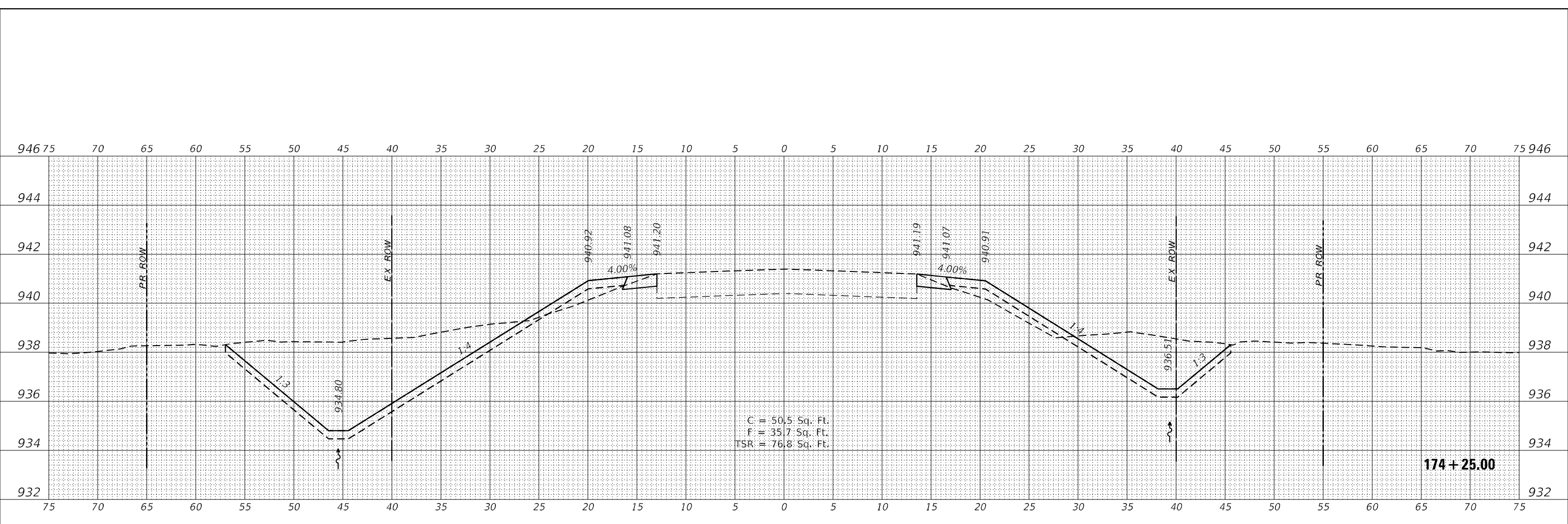
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
 SCALE: 1"=5'H/2'V SHEET 9 OF 18 SHEETS STA. 173+50.00 TO STA. 173+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	89
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

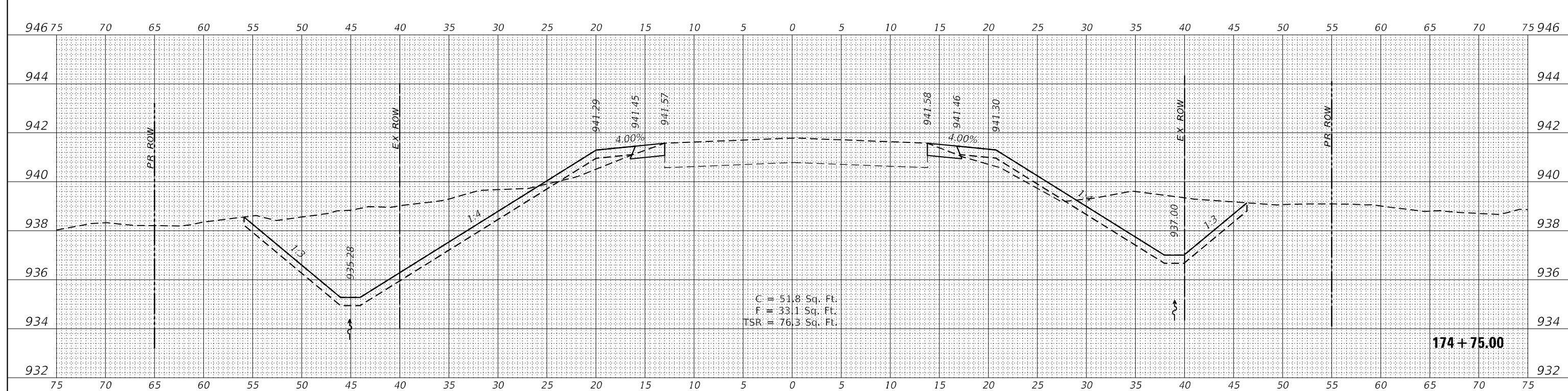
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PLOT SCALE = 5/32 SCALES	DRAWN - AKW	REVISED -
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	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

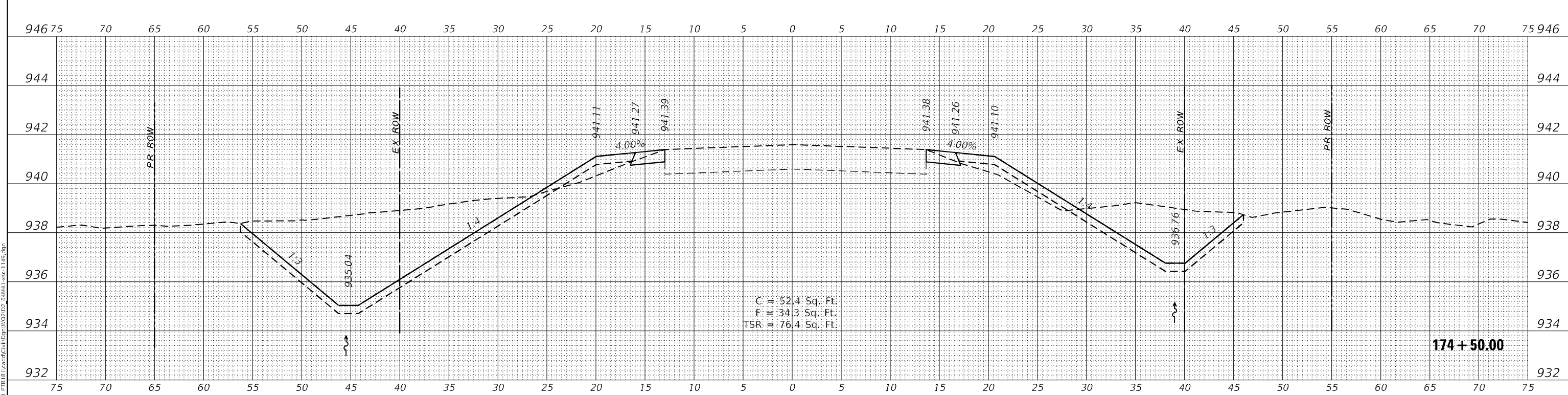
CROSS SECTIONS	
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)	
SCALE: 1"=5'H/2'V	SHEET 10 OF 18 SHEETS
STA. 174+00.00 TO STA. 174+25.00	

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 90
			CONTRACT NO. 64M41	
ILLINOIS FED. AID PROJECT				

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



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



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

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**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME =	\$USER\$
DESIGNED -	MCC
DRAWN -	AKW
PLLOT SCALE =	\$SCALE\$
PLLOT DATE =	8/16/2021
CHECKED -	KAC
DATE -	08/16/21

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**

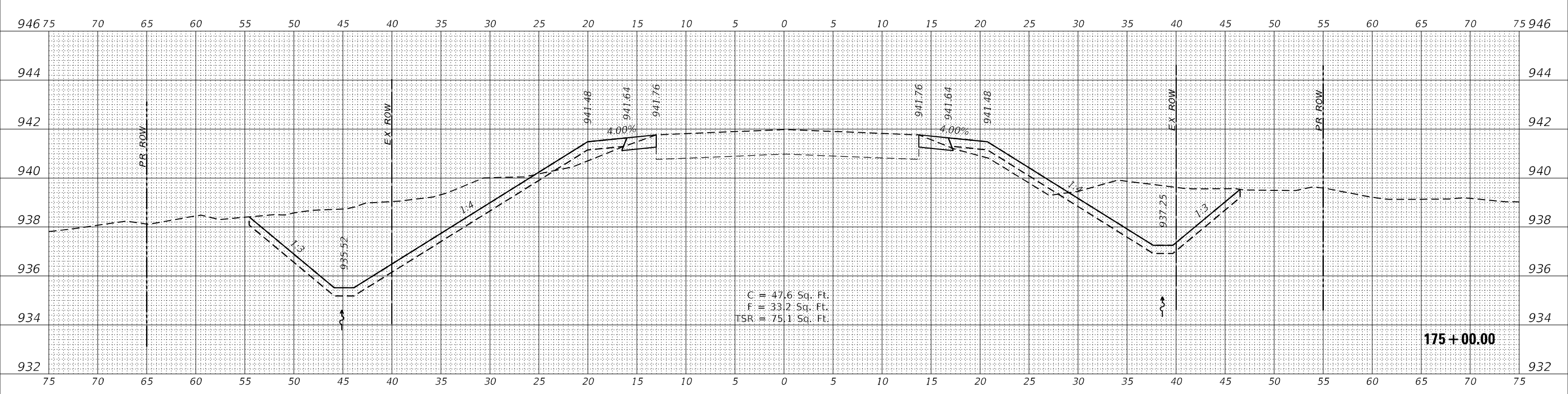
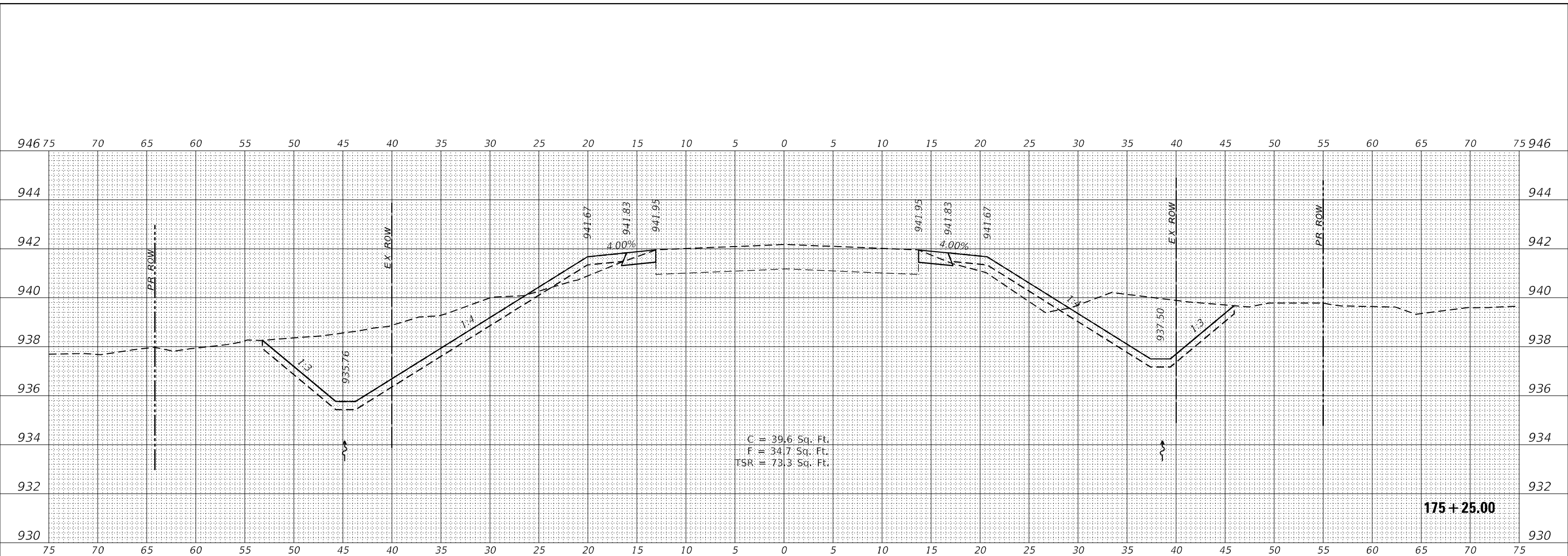
SCALE: 1"=5'H/2'V    SHEET 11 OF 18 SHEETS    STA. 174+50.00 TO STA. 174+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	91
			CONTRACT NO. 64M41	
		ILLINOIS	FED. AID PROJECT	

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USER\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

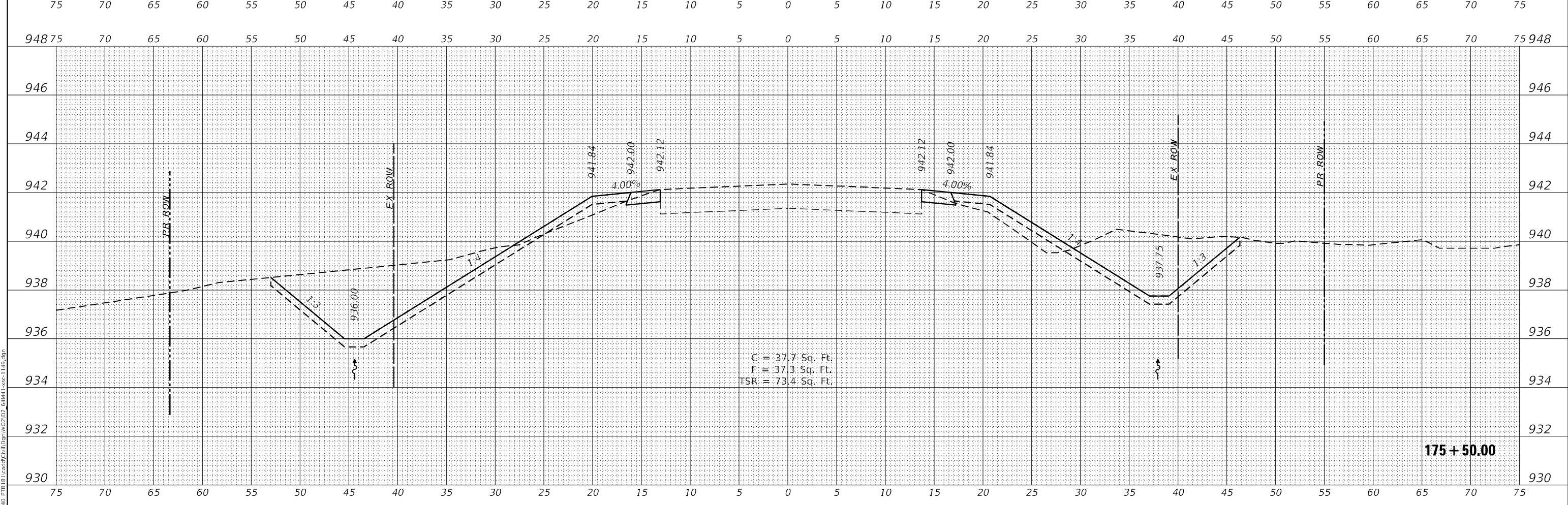
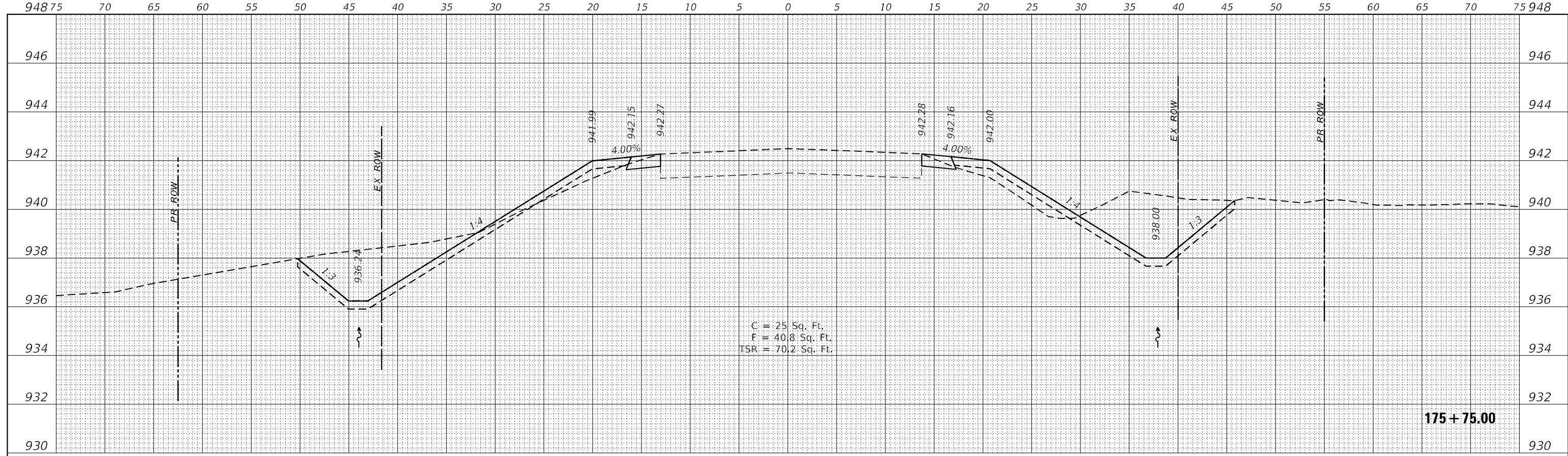
CROSS SECTIONS			
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)			
SCALE: 1"=5'H/2'V	SHEET 12	OF 18 SHEETS	STA. 175+00.00 TO STA. 175+25.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 92
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

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

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

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 PLOT DATE: 8/16/2021



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 136 WEST MAIN STREET, SUITE 203  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**

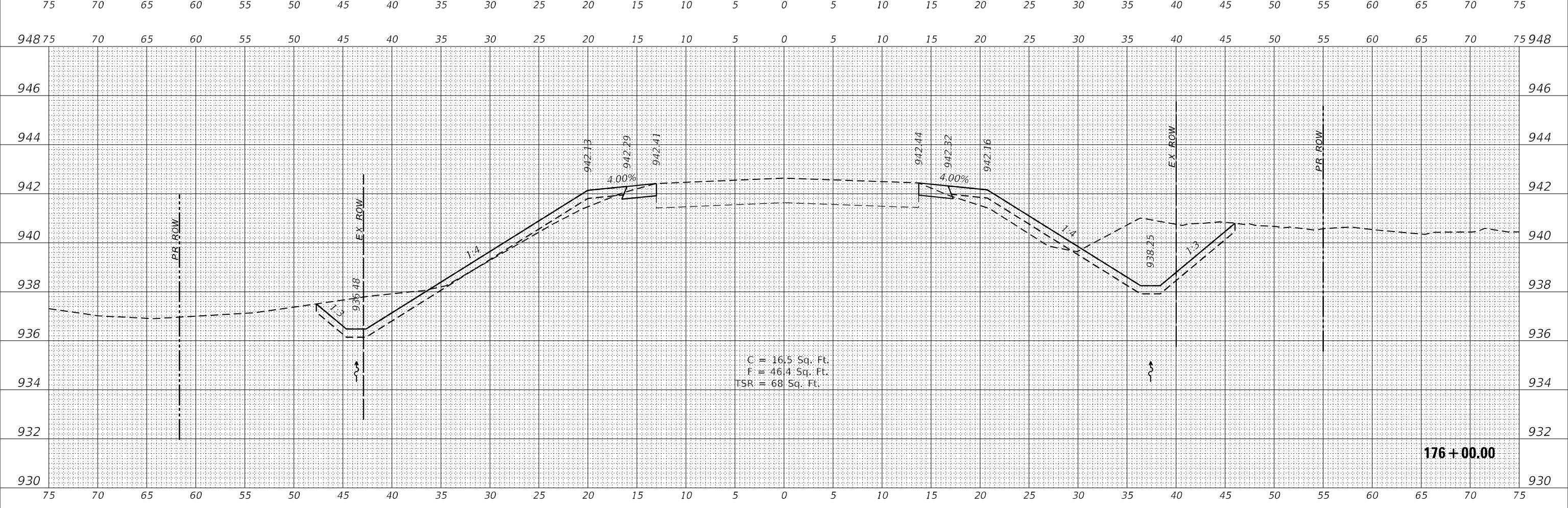
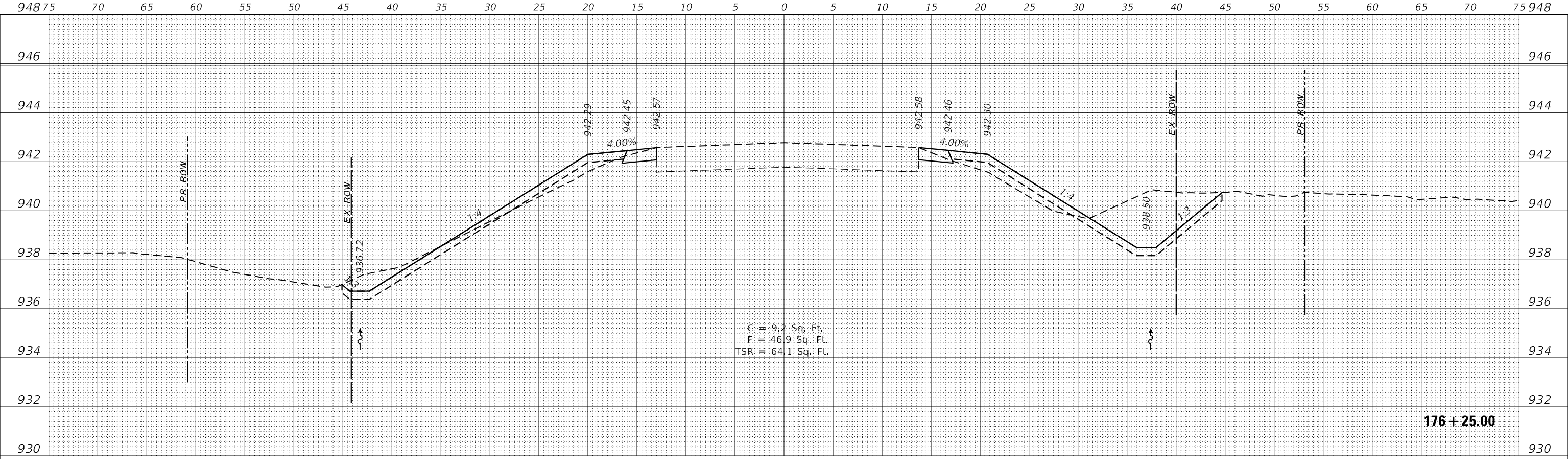
SCALE: 1"=5'H/2'V SHEET 13 OF 18 SHEETS STA. 175+50.00 TO STA. 175+75.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 93
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 448-7755

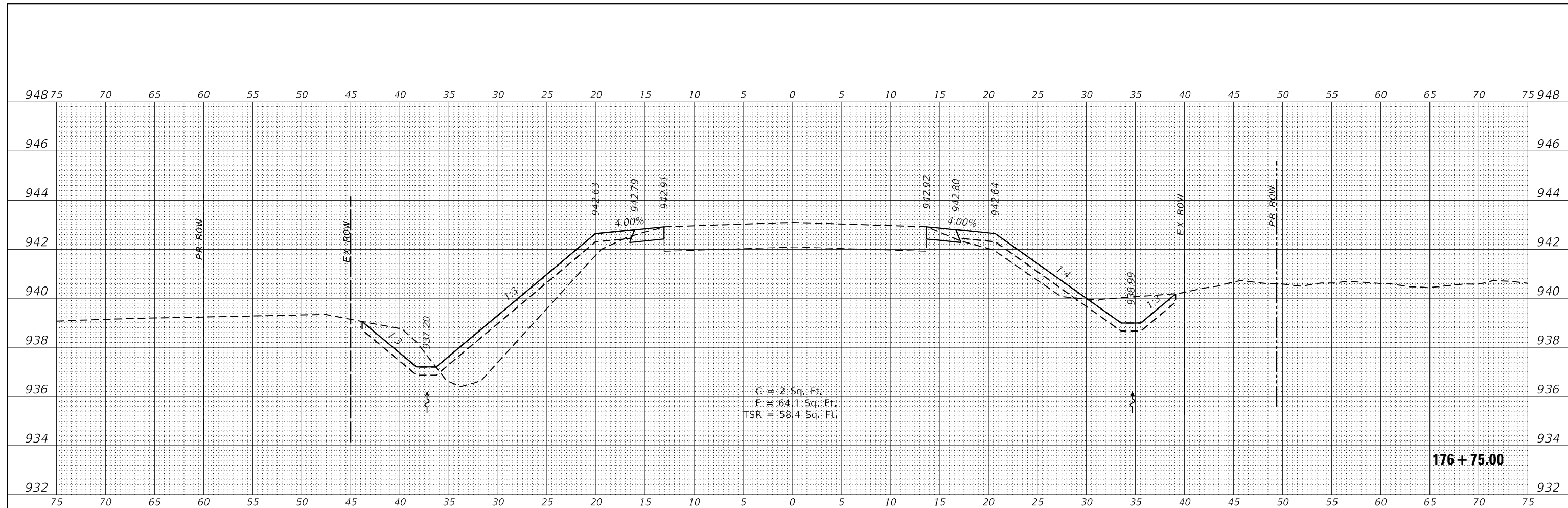
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

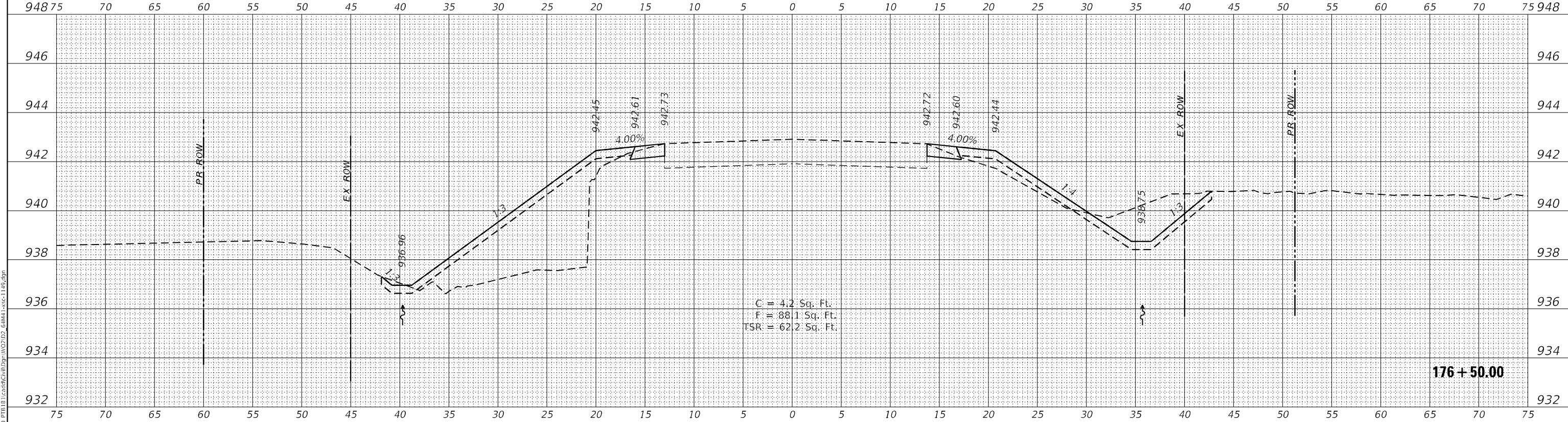
**CROSS SECTIONS  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
SCALE: 1"=5'H/2'V SHEET 14 OF 18 SHEETS STA. 176+00.00 TO STA. 176+25.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 94
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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



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**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALES	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**

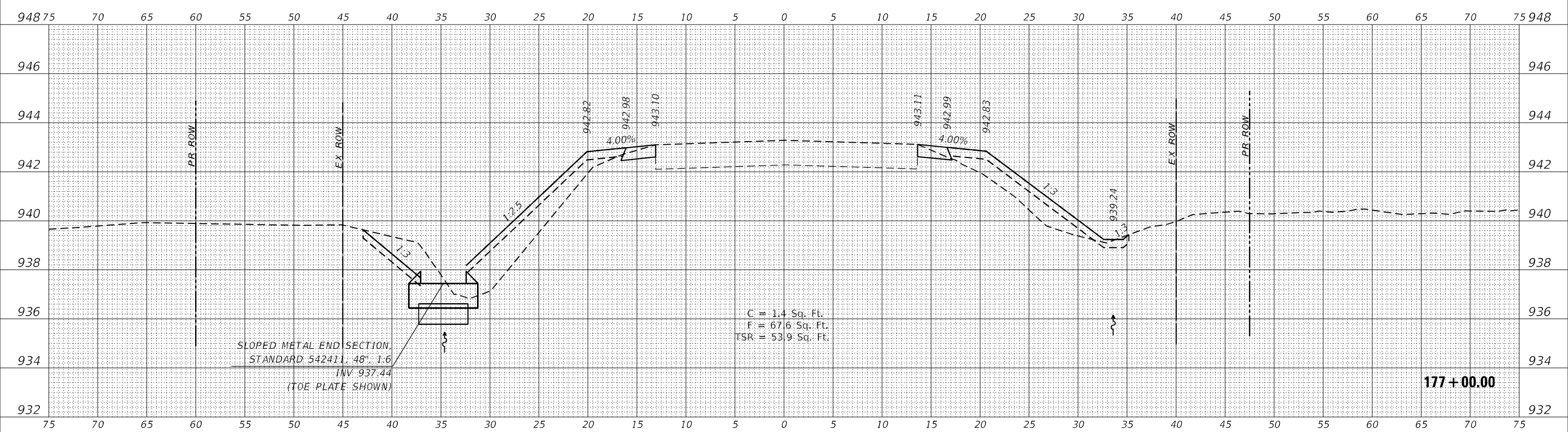
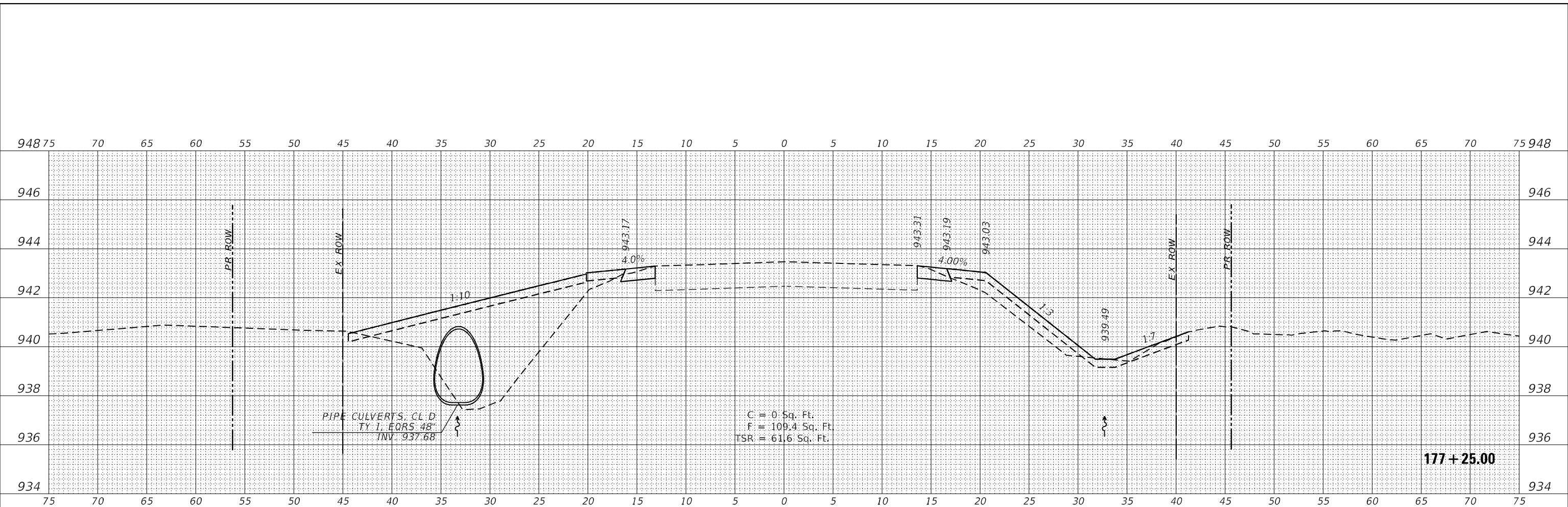
SCALE: 1"=5'H/2'V SHEET 15 OF 18 SHEETS STA. 176+50.00 TO STA. 176+75.00

F.A.S. RTE. 1177	SECTION (110,11)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 95
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

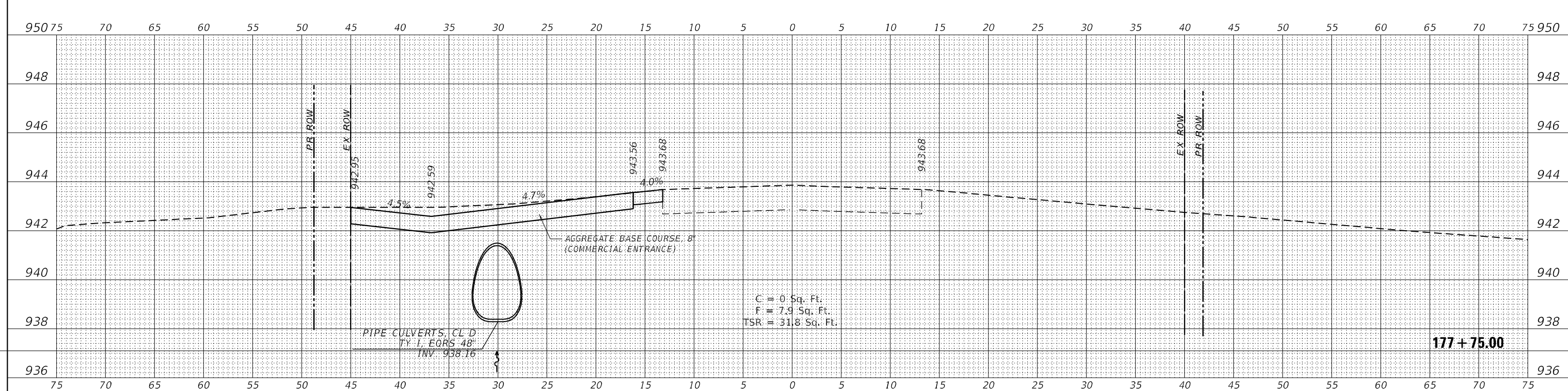
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
 SCALE: 1"=5'H/2'V SHEET 16 OF 18 SHEETS STA. 177+00.00 TO STA. 177+25.00

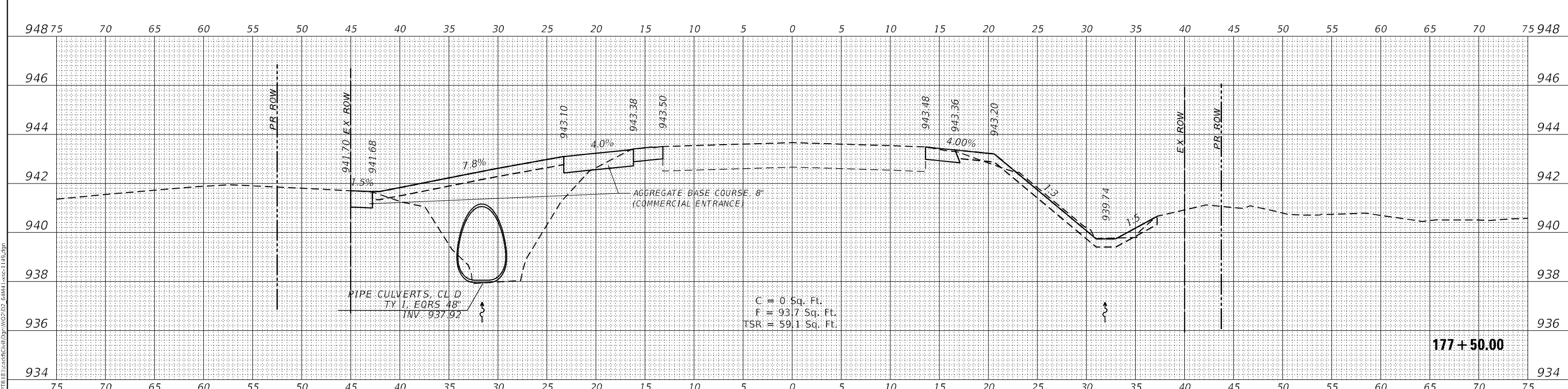
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	96
				CONTRACT NO. 64M41
ILLINOIS FED. AID PROJECT				



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



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



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**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALES	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
 SCALE: 1"=5'H/2'V SHEET 17 OF 18 SHEETS STA. 177+50.00 TO STA. 177+75.00

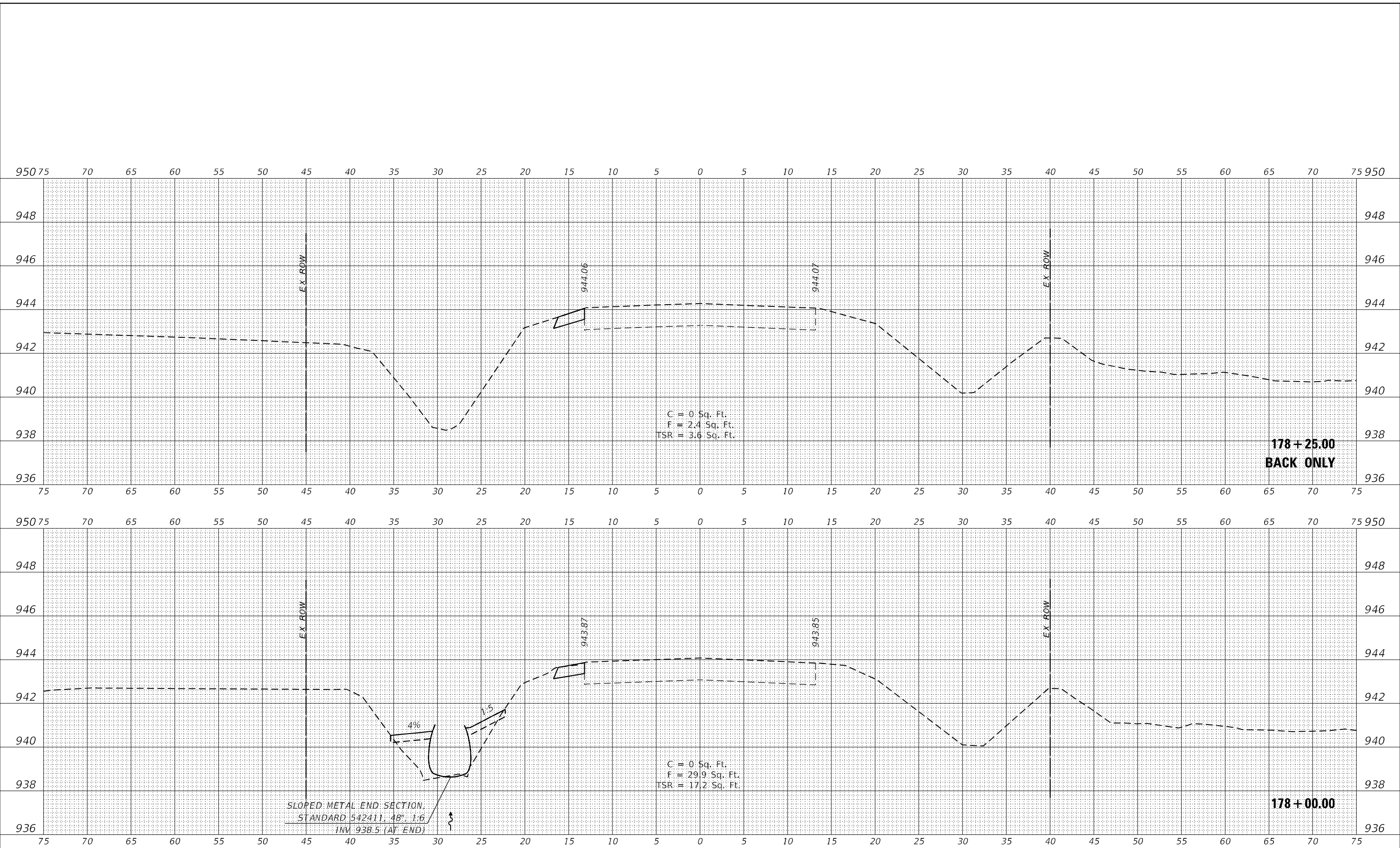
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	97
				CONTRACT NO. 64M41
ILLINOIS FED. AID PROJECT				

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

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

MODEL: \$MODELNAME\$  
 FILE NAME: Z:\2021\160240\_P18\160240\_Culvert\18.dwg; 6/16/21 11:45:20am



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

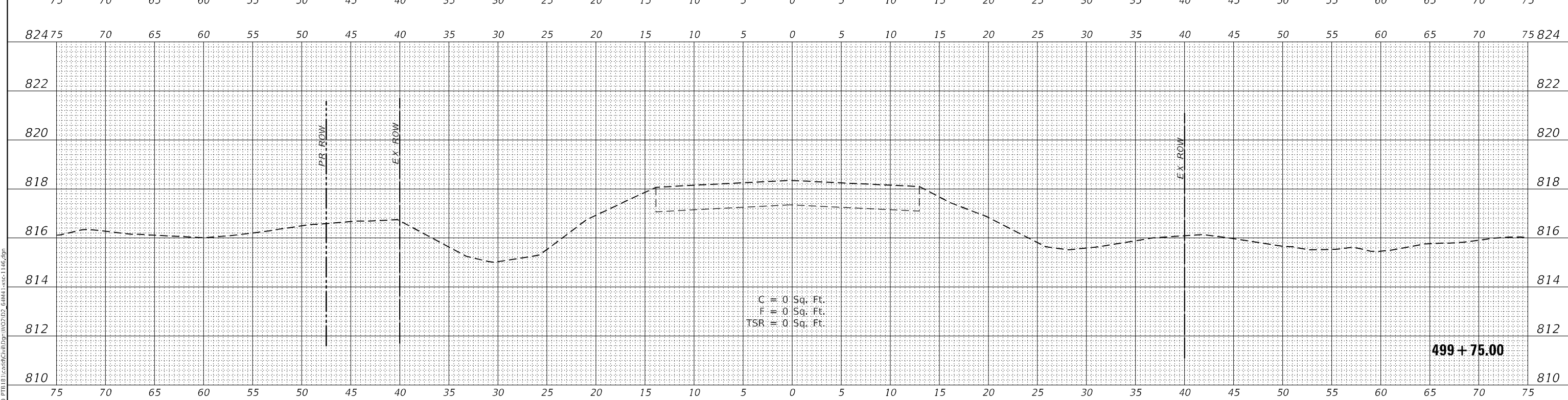
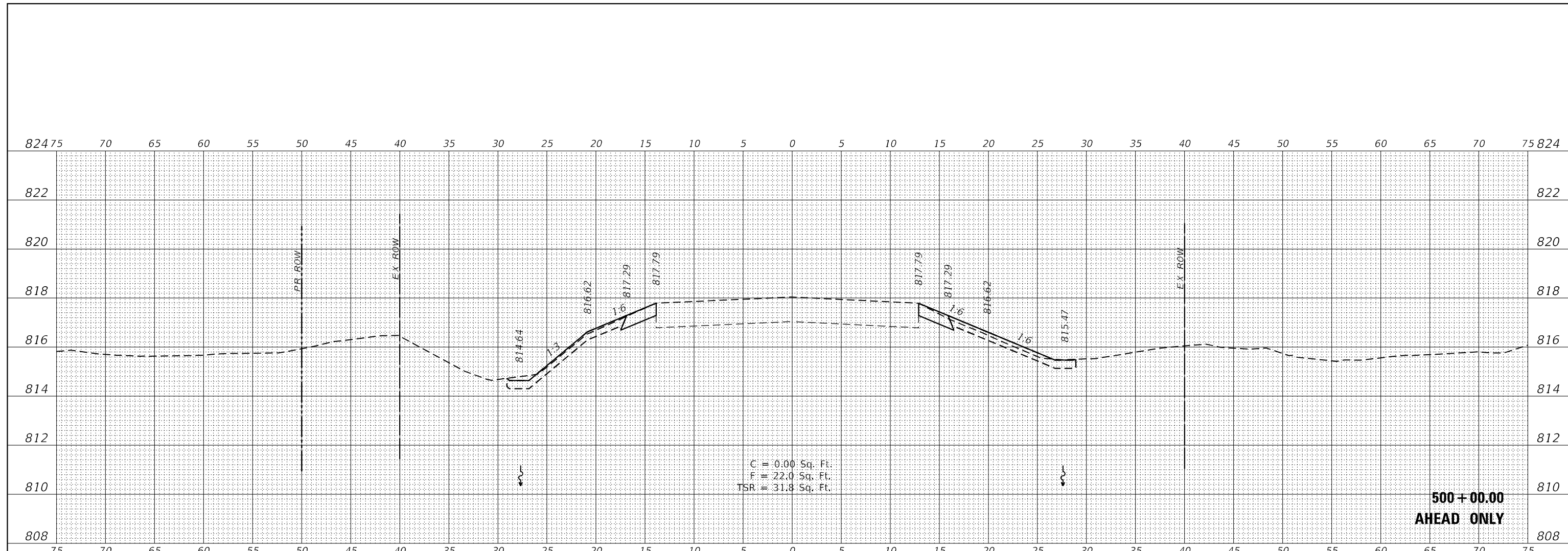
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1149)**  
 SCALE: 1"=5'H/2'V SHEET 18 OF 18 SHEETS STA. 178+00.00 TO STA. 178+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	98
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

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

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

MODEL: \$MODELNAME\$  
 FILE NAME: Z:\2021\160240\_P1018\160240\_P1018.dwg  
 USER: MCC  
 DATE: 8/16/2021



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 483-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

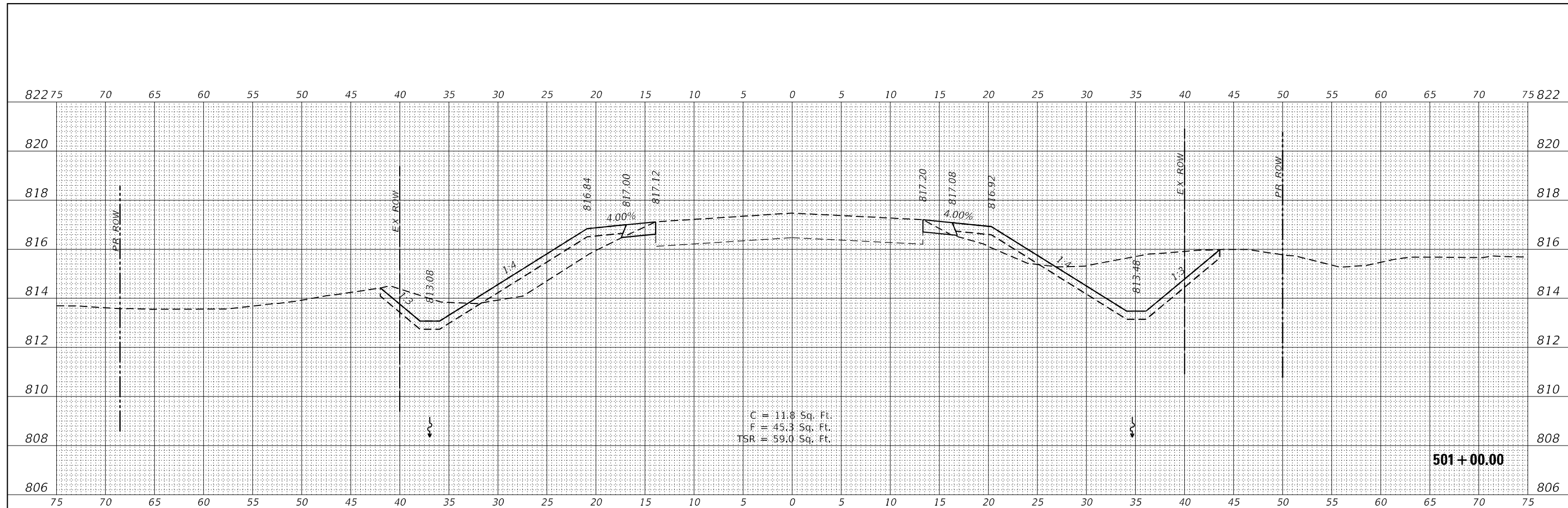
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**  
 SCALE: 1"=5'H/2'V SHEET 1 OF 8 SHEETS STA. 499+75.00 TO STA. 500+00.00

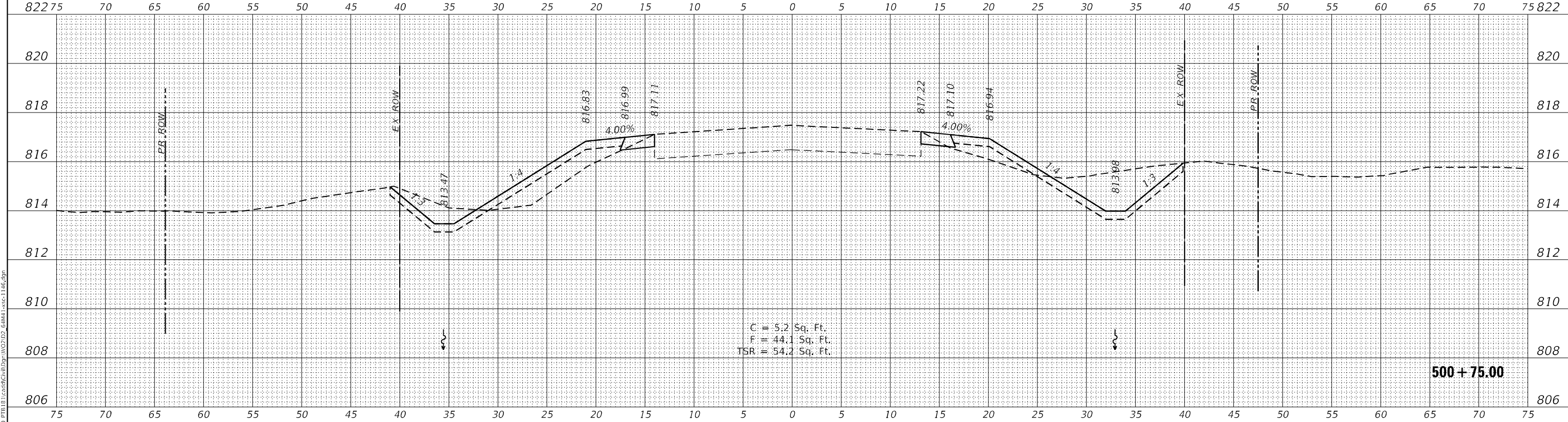
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	99
			CONTRACT NO. 64M41	
		ILLINOIS	FED. AID PROJECT	



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



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



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALES	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

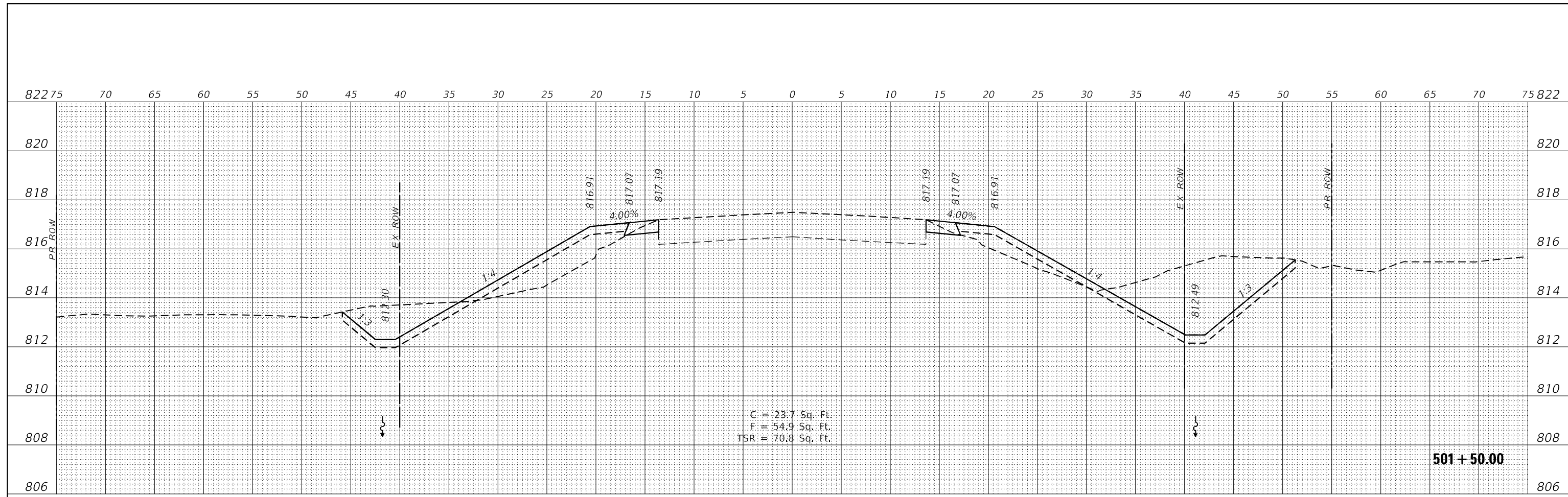
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**

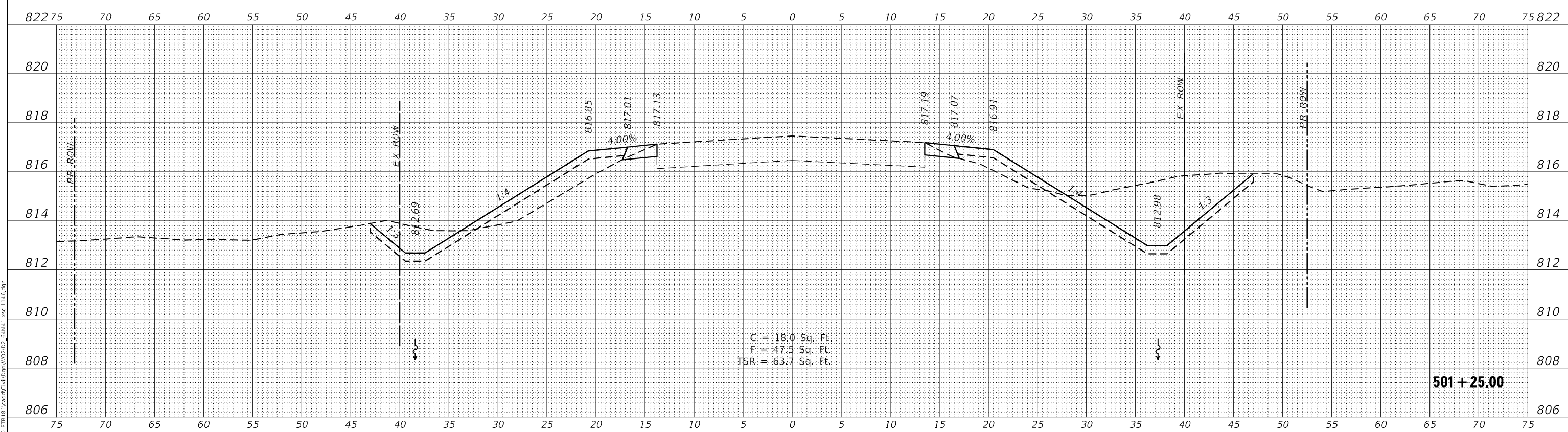
SCALE: 1"=5'H/2'V SHEET 3 OF 8 SHEETS STA. 500+75.00 TO STA. 501+00.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 101
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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



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



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 483-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE5	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**

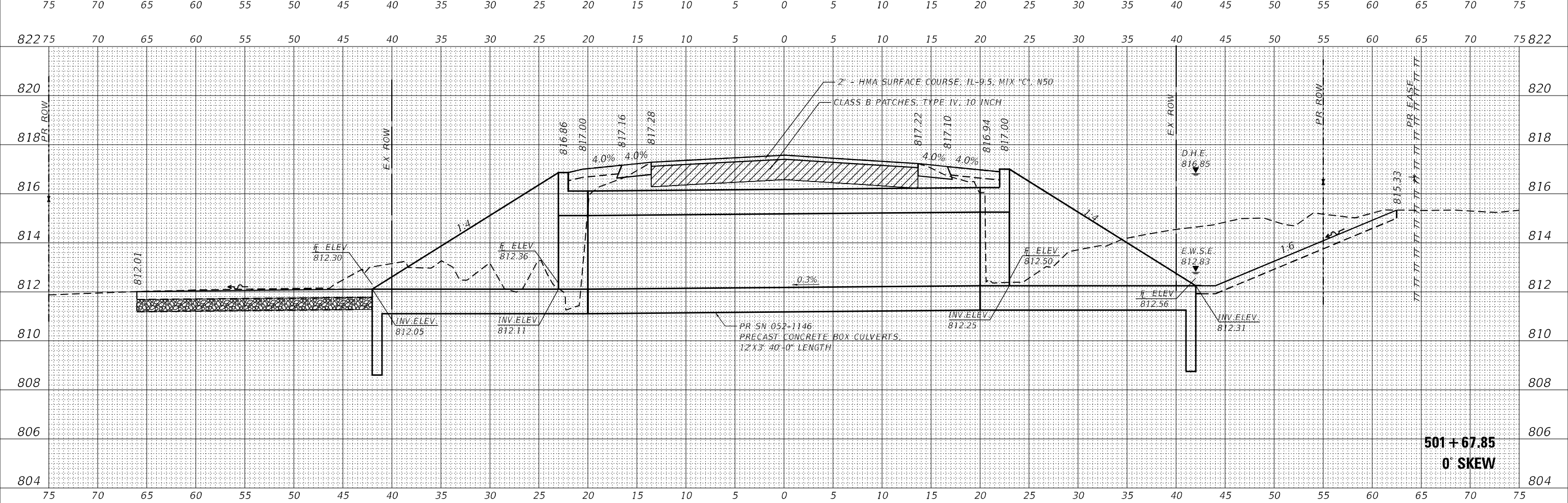
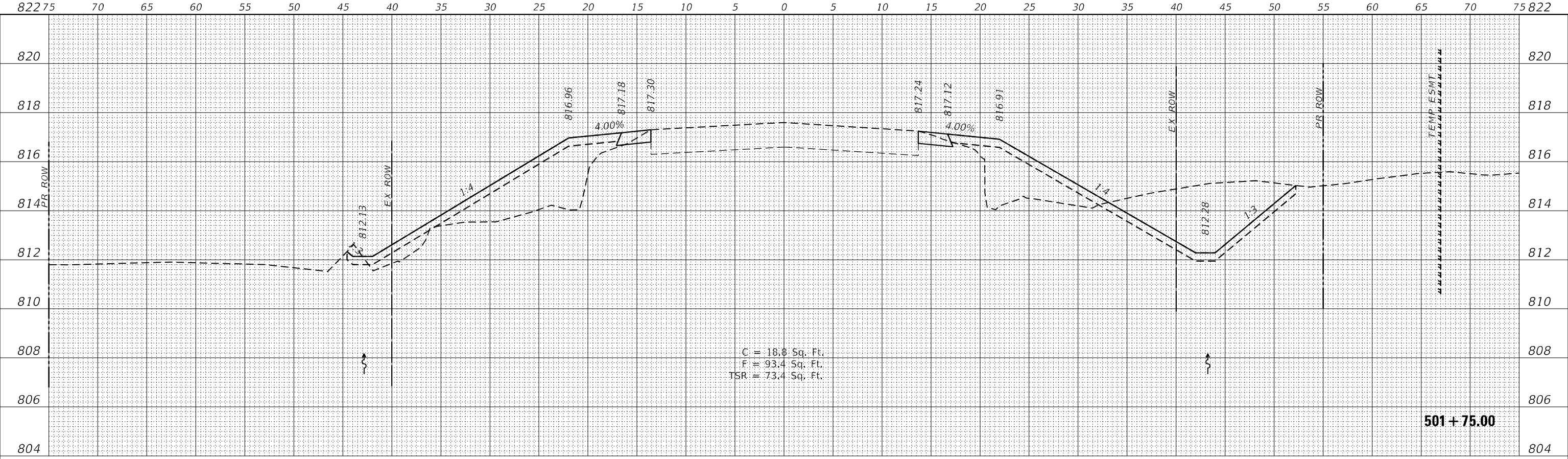
SCALE: 1"=5'H/2'V SHEET 4 OF 8 SHEETS STA. 501+25.00 TO STA. 501+50.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 102
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

FINAL SURVEY NO.	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY NO.	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

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 USER: \$USER\$



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

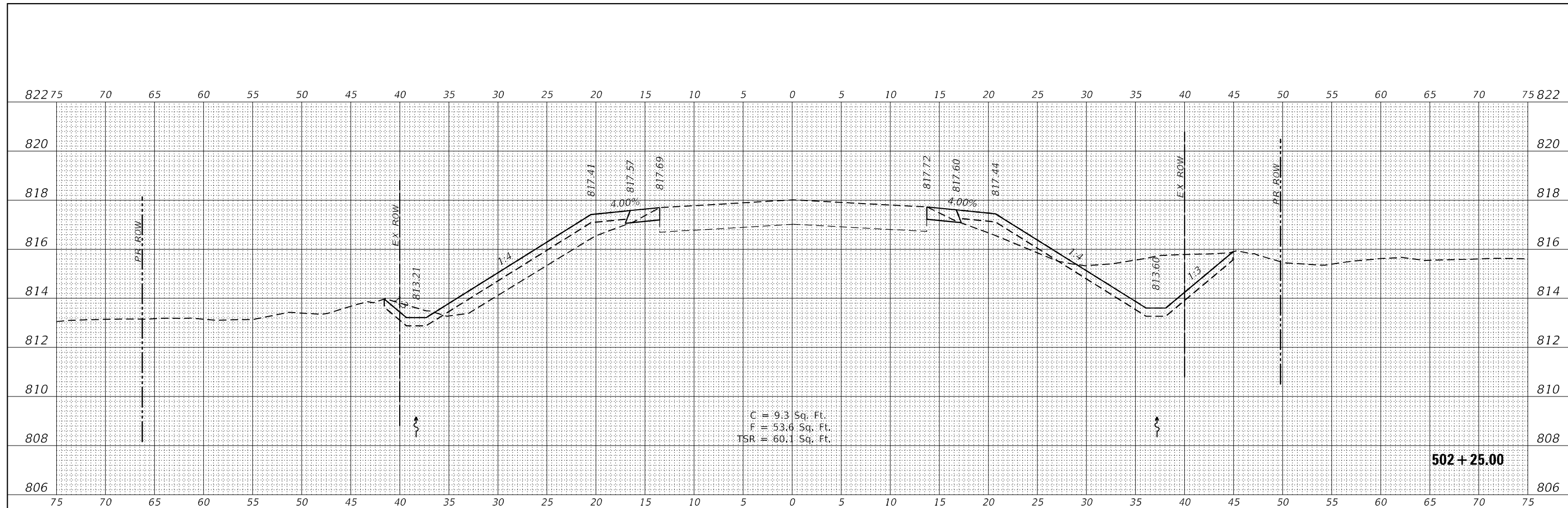
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	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

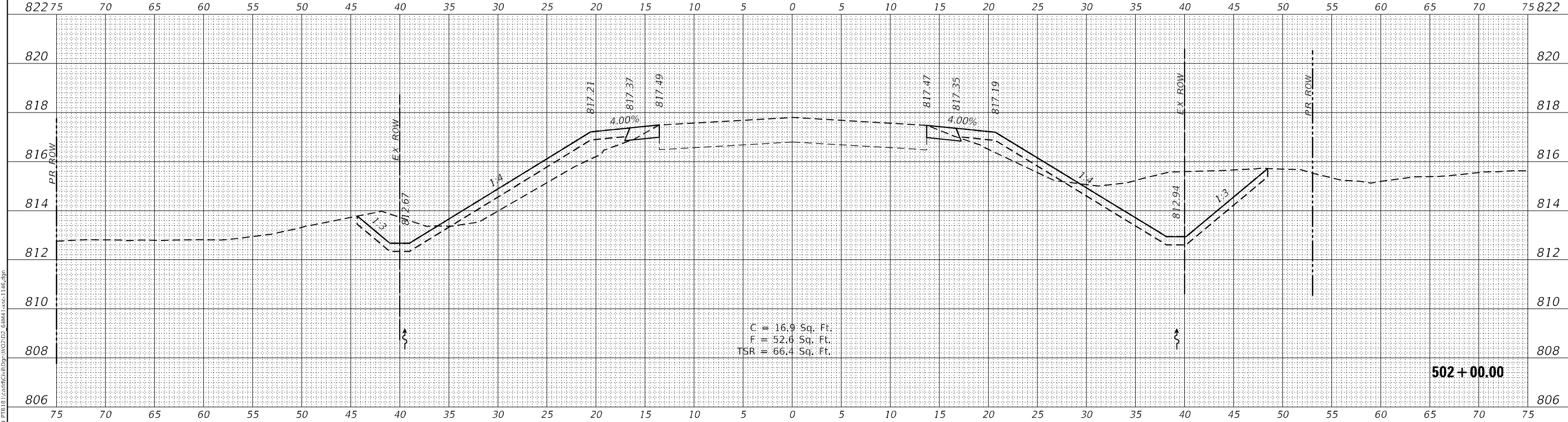
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**  
 SCALE: 1"=5'H/2'V SHEET 5 OF 8 SHEETS STA. 501+67.85 TO STA. 501+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	103
			CONTRACT NO. 64M41	
ILLINOIS FED. AID PROJECT				

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



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



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 483-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE5	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**

SCALE: 1"=5'H/2'V SHEET 6 OF 8 SHEETS STA. 502+00.00 TO STA. 502+25.00

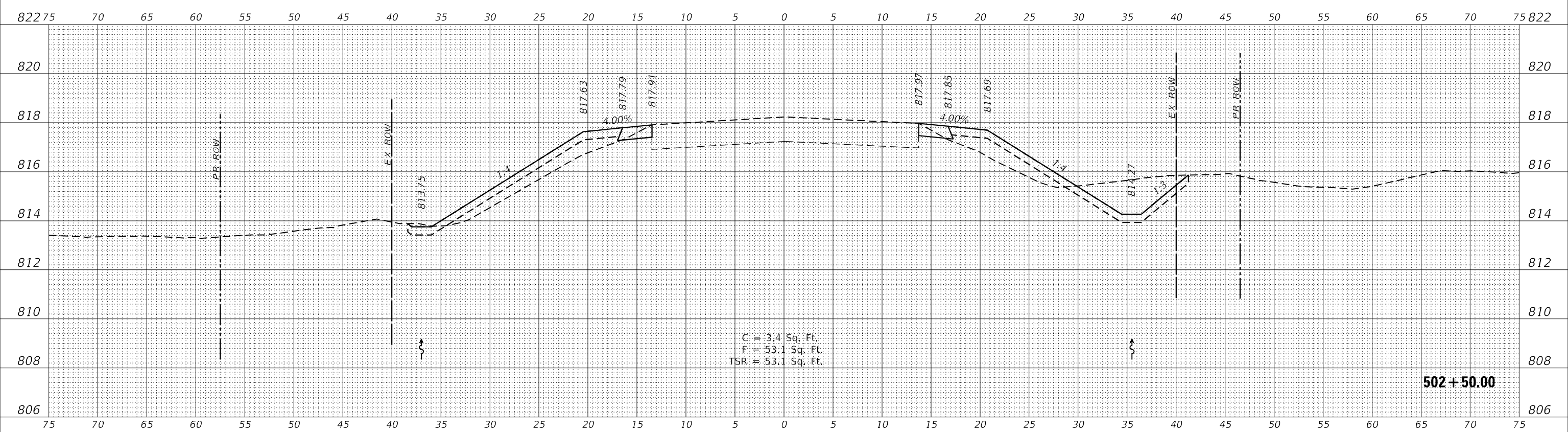
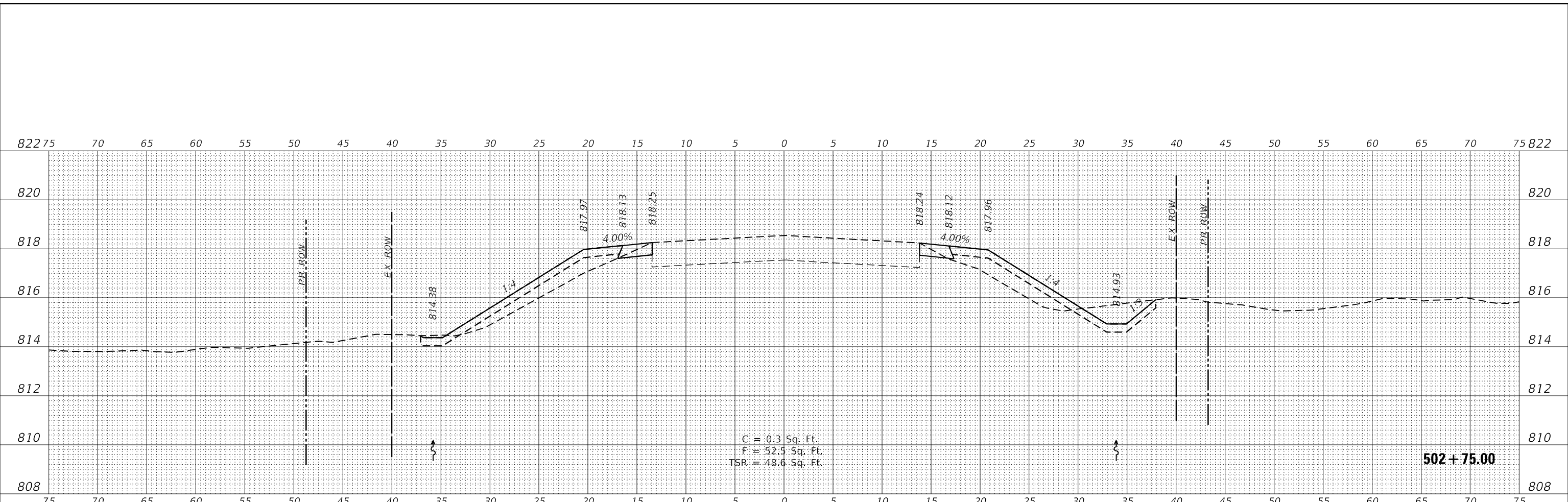
F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 104
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	



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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 483-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

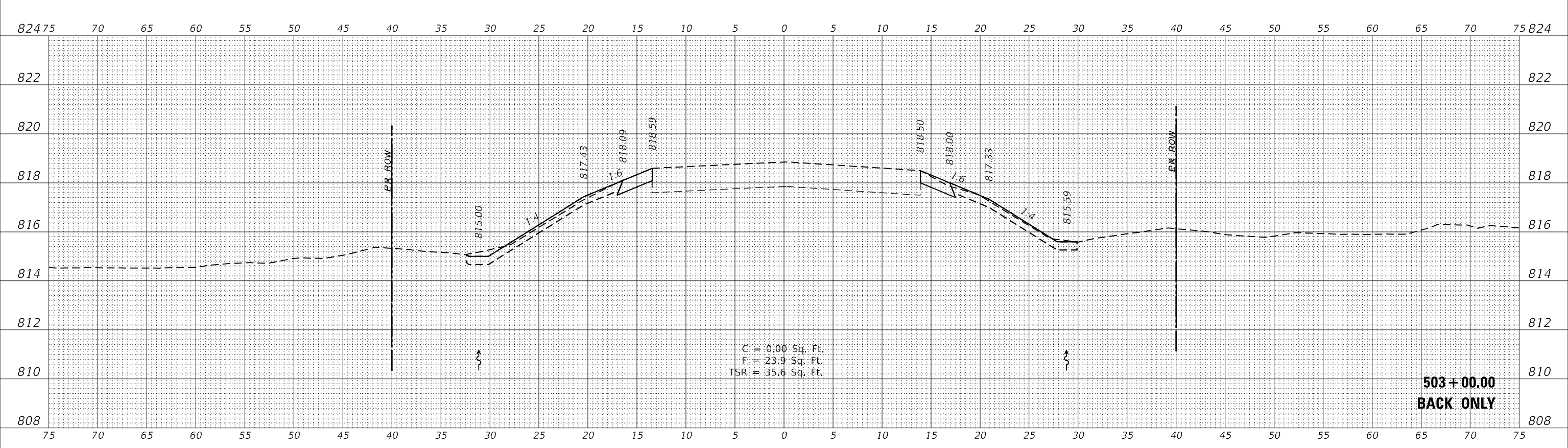
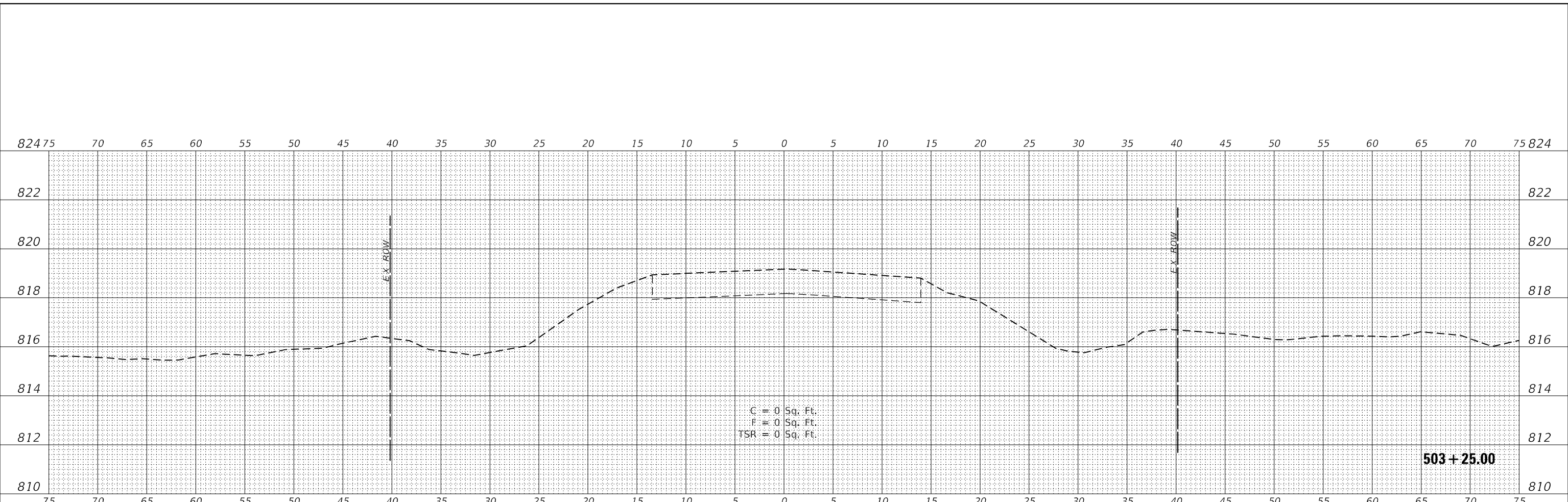
**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**  
 SCALE: 1"=5'H/2'V SHEET 7 OF 8 SHEETS STA. 502+50.00 TO STA. 502+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	105
			CONTRACT NO. 64M41	
			ILLINOIS FED. AID PROJECT	

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

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

MODEL: \$MODELNAME\$  
 FILE NAME: Z:\2021\160240\_P1018\160240\_P1018.dwg  
 USER: MCC  
 DATE: 8/16/2021



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 483-7755

USER NAME = \$USER\$	DESIGNED - MCC	REVISED -
	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

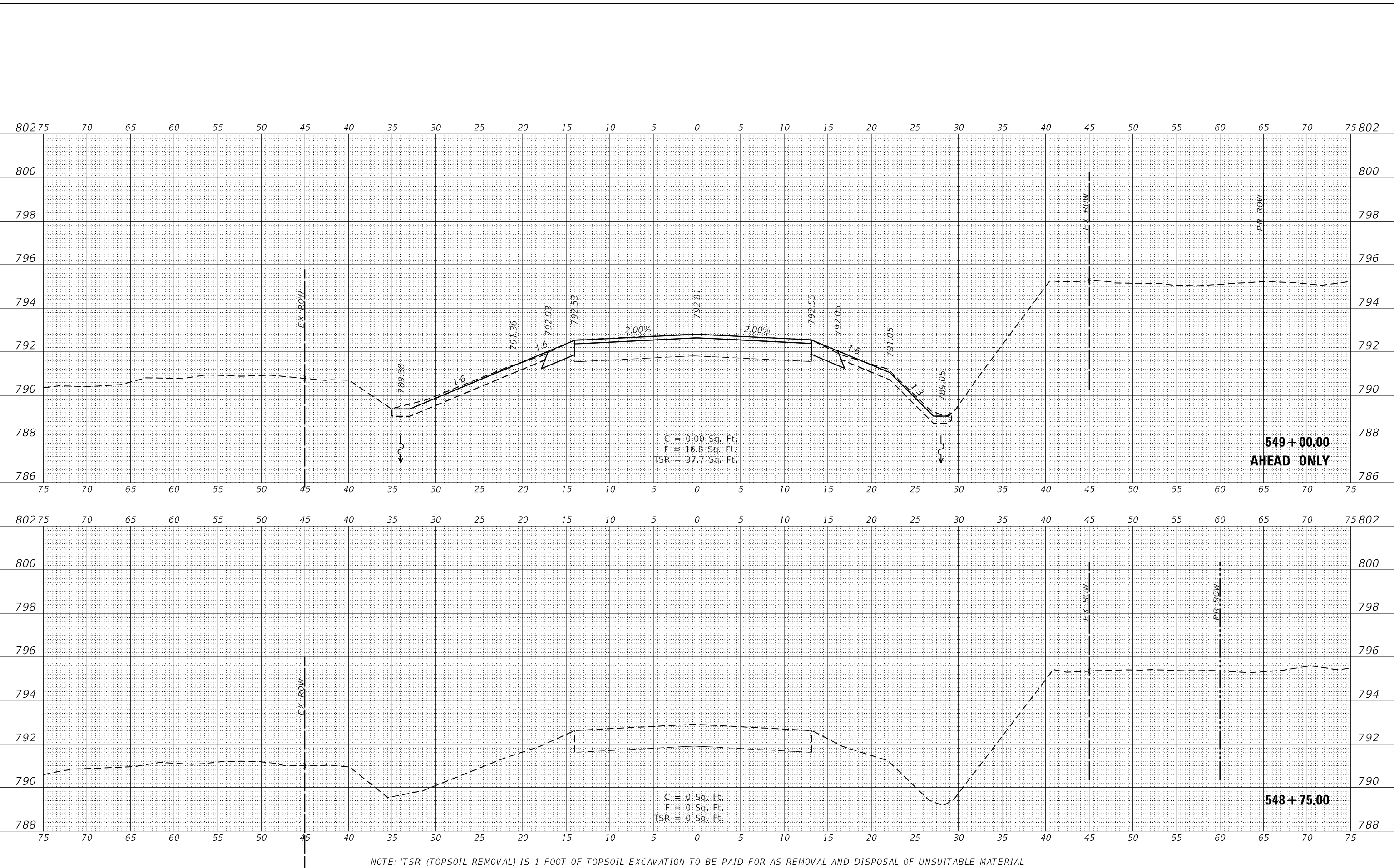
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-1146)**  
 SCALE: 1"=5'H/2'V SHEET 8 OF 8 SHEETS STA. 503+00.00 TO STA. 503+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	106
			CONTRACT NO. 64M41	
ILLINOIS FED. AID PROJECT				

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

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

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**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

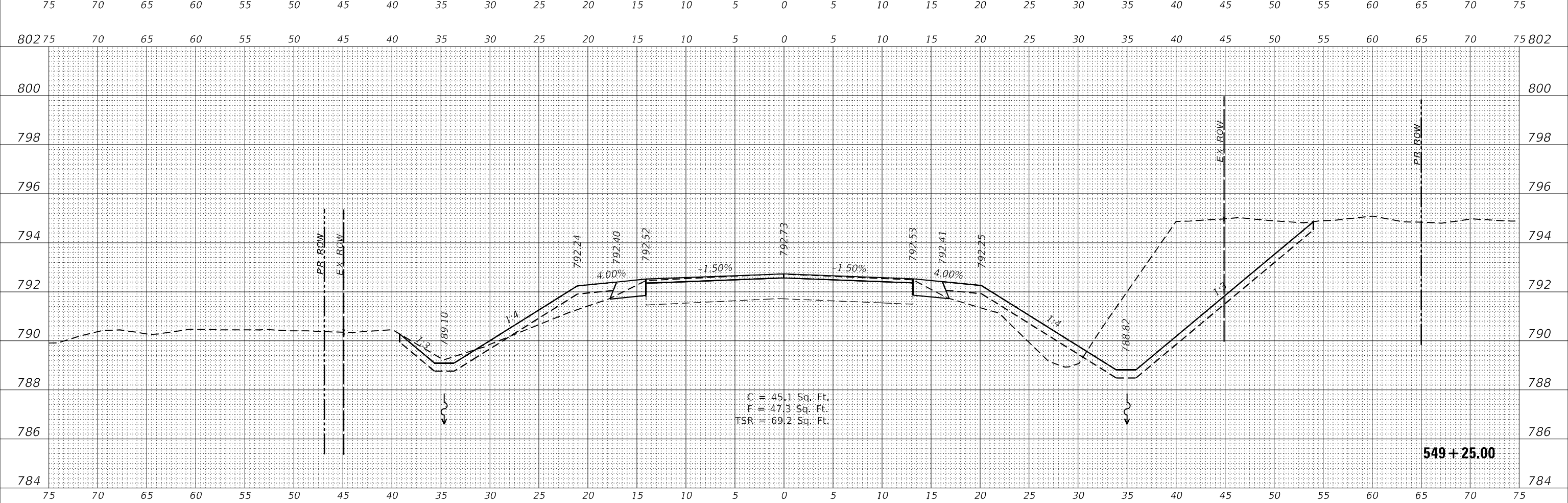
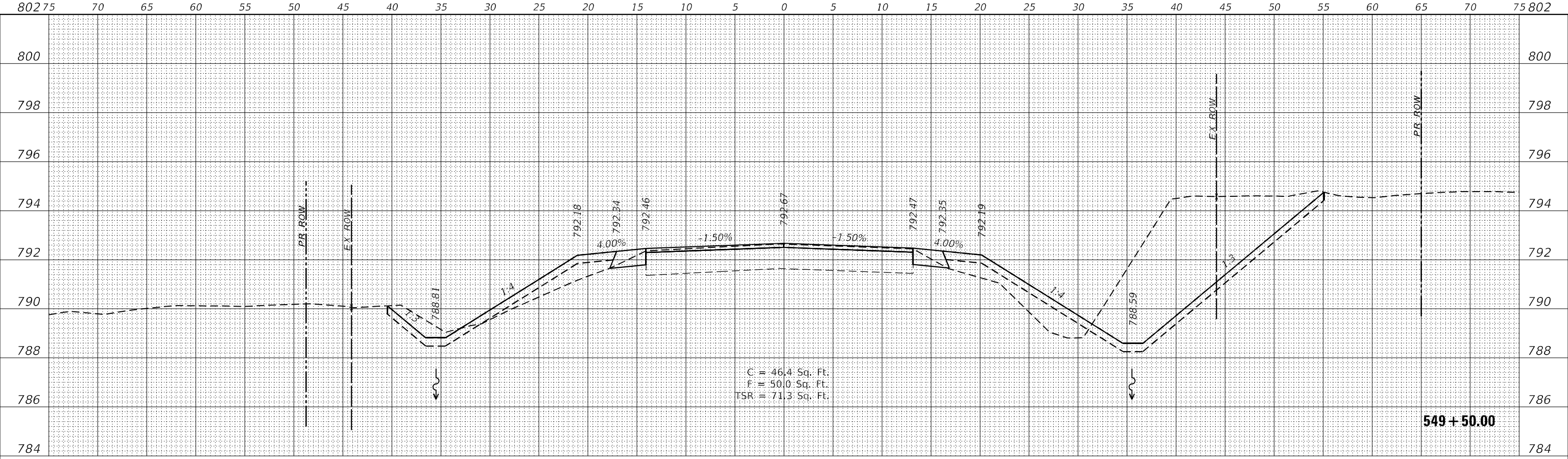
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=5'H/2'V SHEET 1 OF 16 SHEETS STA. 548+75.00 TO STA. 549+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	107
				CONTRACT NO. 64M41
		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	FLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	FLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

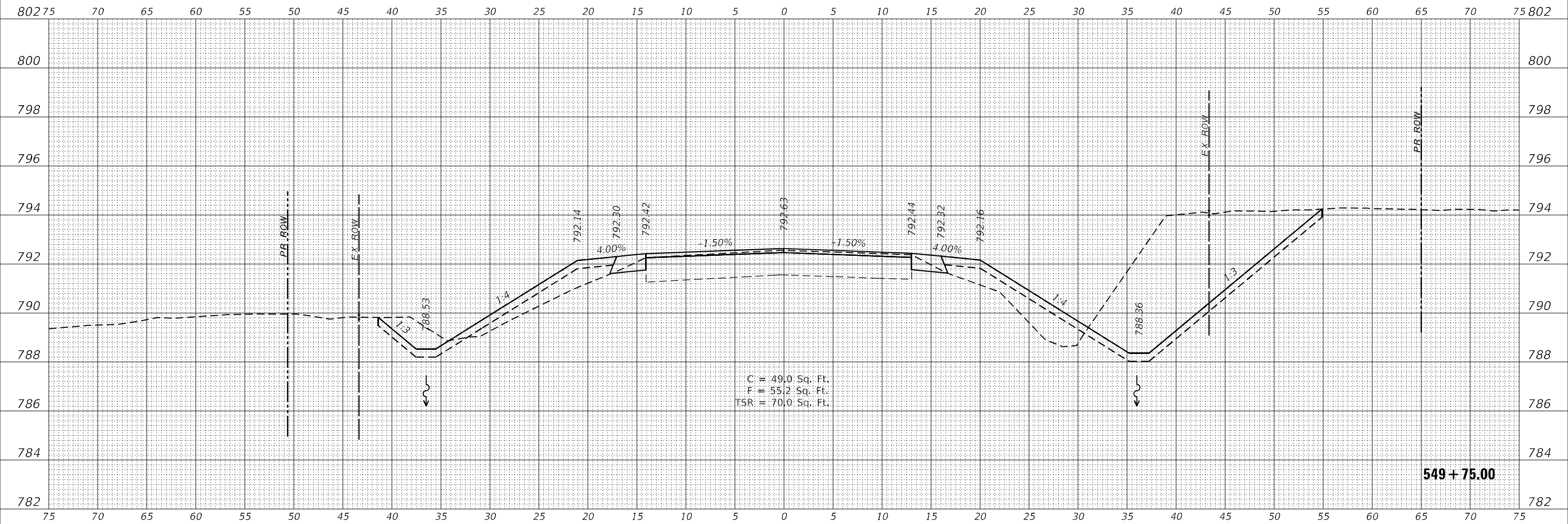
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
SCALE: 1"=5'H/2'V SHEET 2 OF 16 SHEETS STA. 549+25.00 TO STA. 549+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	108
				CONTRACT NO. 64M41
ILLINOIS		FED. AID PROJECT		

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

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

### CROSS SECTIONS CONTINUE ON NEXT SHEET



C = 49.0 Sq. Ft.  
 F = 55.2 Sq. Ft.  
 TSR = 70.0 Sq. Ft.

NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = SUSER\$	DESIGNED - MCC	REVISED -
PLOT SCALE = 5/SCALE5	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

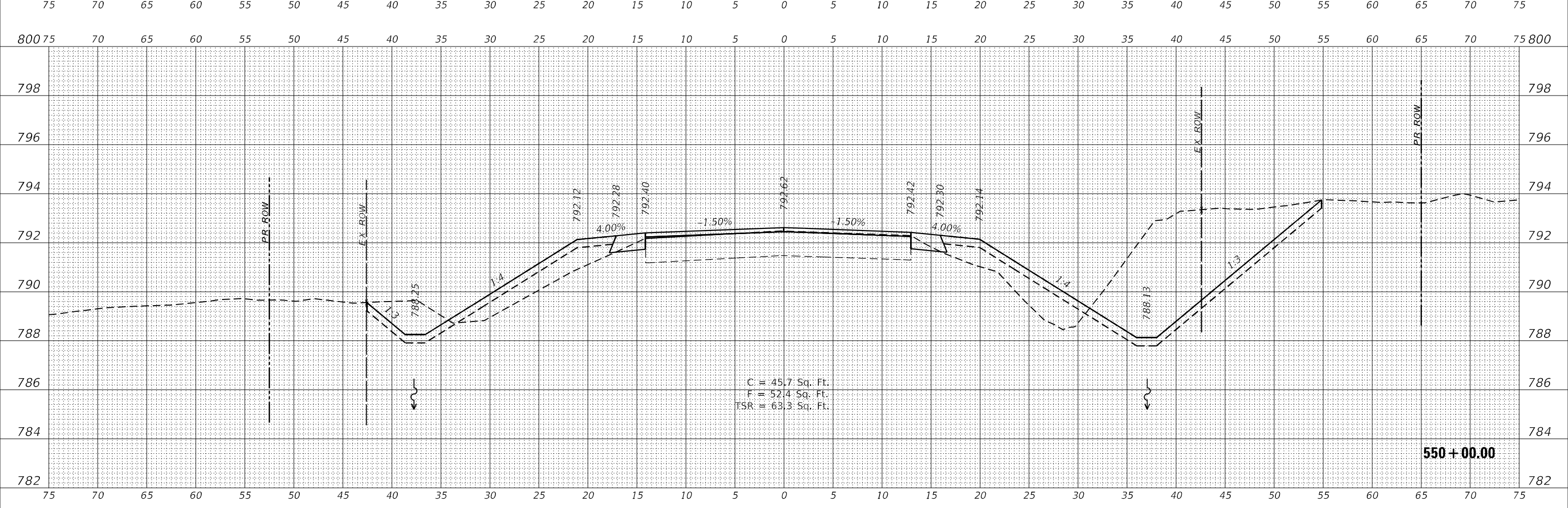
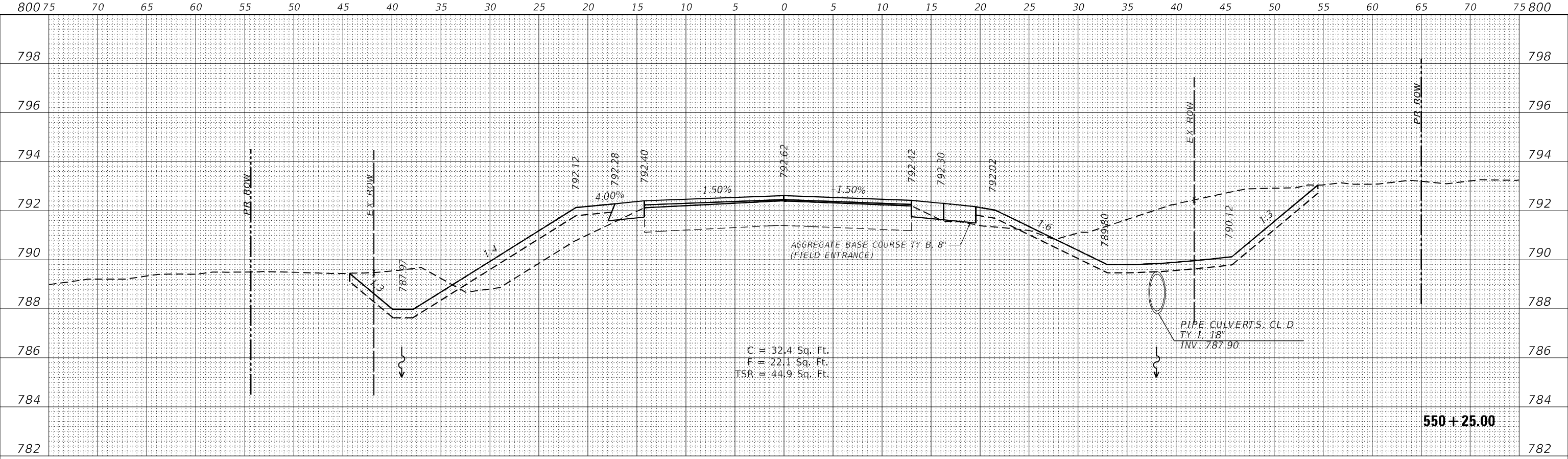
<b>CROSS SECTIONS</b>			
<b>IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)</b>			
SCALE: 1"=5'H/2'V	SHEET 3	OF 16 SHEETS	STA. 549+75.00 TO STA. 549+75.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 109
			CONTRACT NO. 64M41	
		ILLINOIS FED. AID PROJECT		

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = susers	DESIGNED - MCC	REVISED -
PLOT SCALE = 5/SCALE5	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**

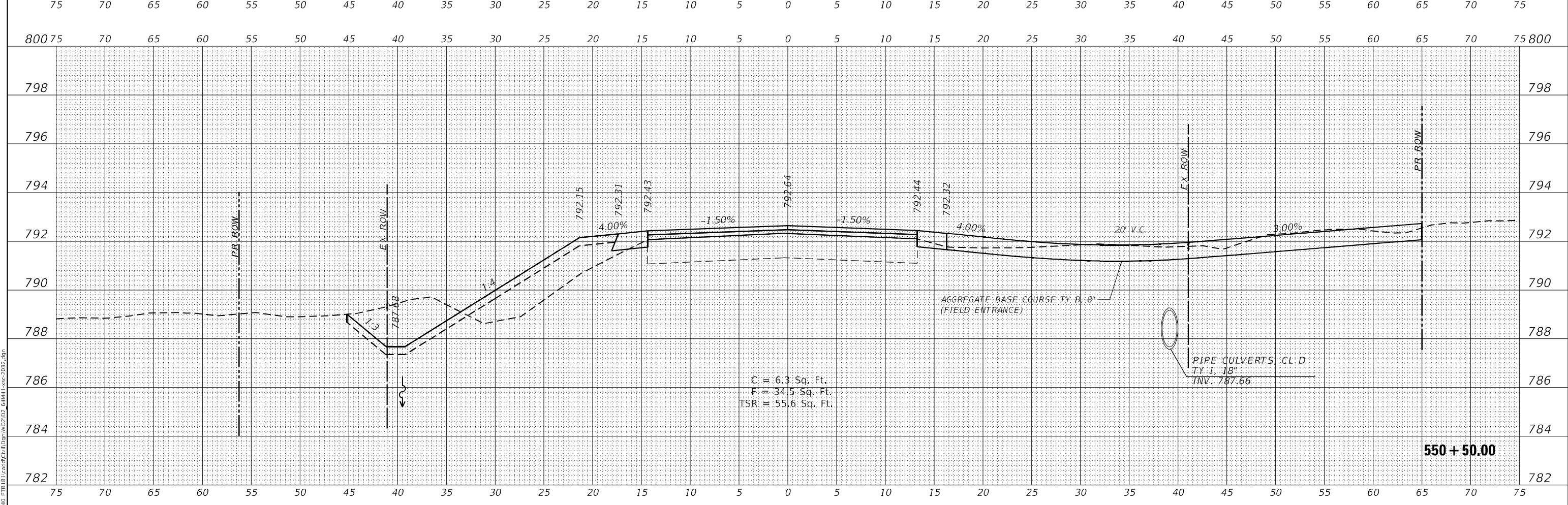
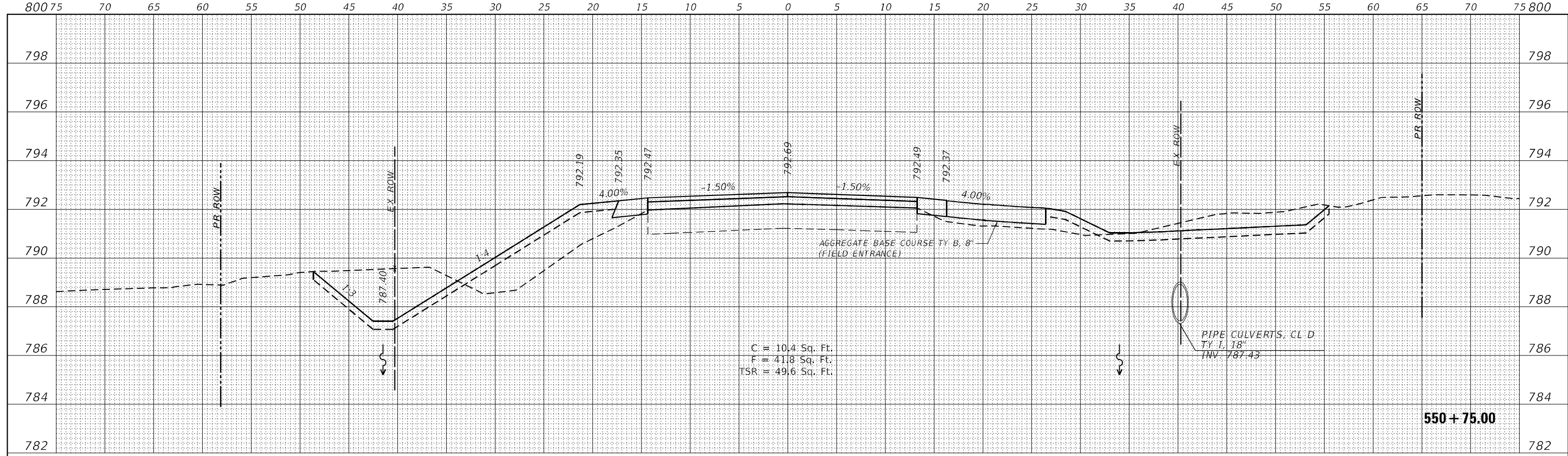
SCALE: 1"=5'H/2'V SHEET 4 OF 16 SHEETS STA. 550+00.00 TO STA. 550+25.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 110
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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 PLOT DATE: 8/16/2021



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL



USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

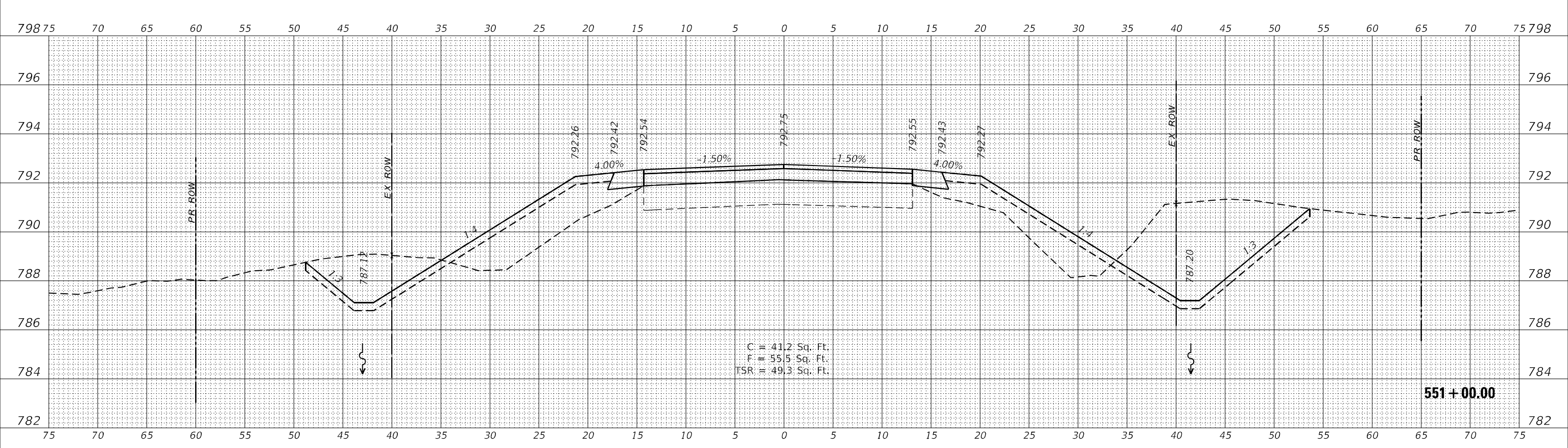
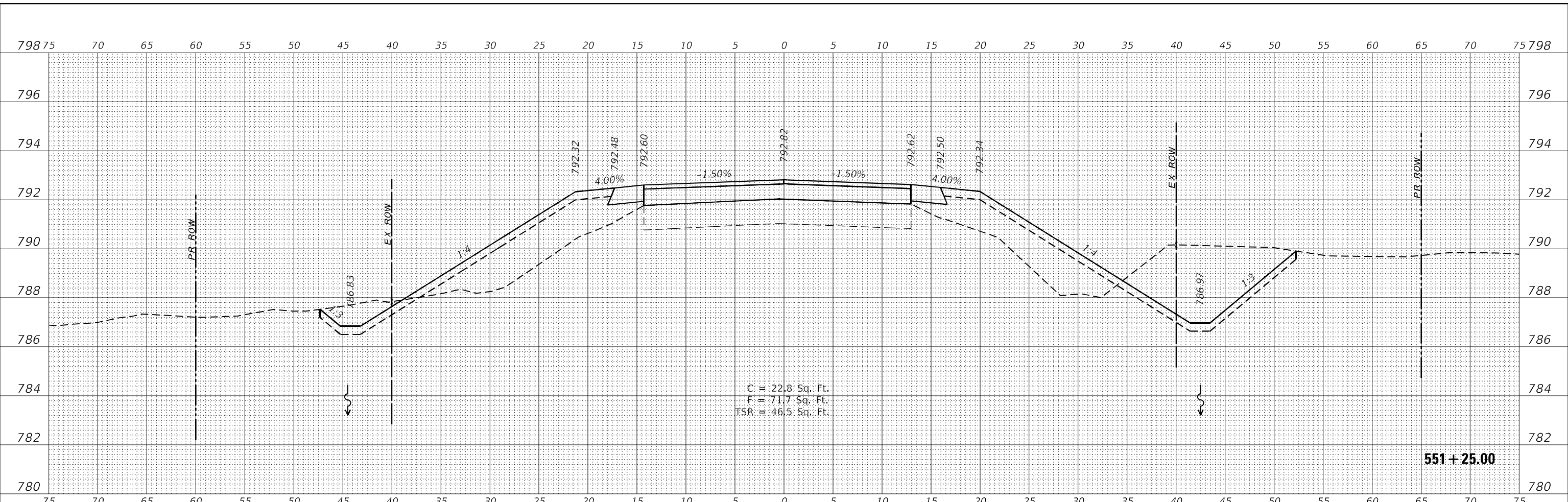
CROSS SECTIONS		
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)		
SCALE: 1"=5'H/2'V	SHEET 5	OF 16 SHEETS
STA. 550+50.00 TO STA. 550+75.00		

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 111
CONTRACT NO. 64M41				
ILLINOIS		FED. AID PROJECT		

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
	DRAWN - AKW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - KAC	REVISED -
PLOT DATE = 8/16/2021	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
SCALE: 1"=5'H/2'V SHEET 6 OF 16 SHEETS STA. 551+00.00 TO STA. 551+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	112
			CONTRACT NO. 64M41	
			ILLINOIS FED. AID PROJECT	



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

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

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

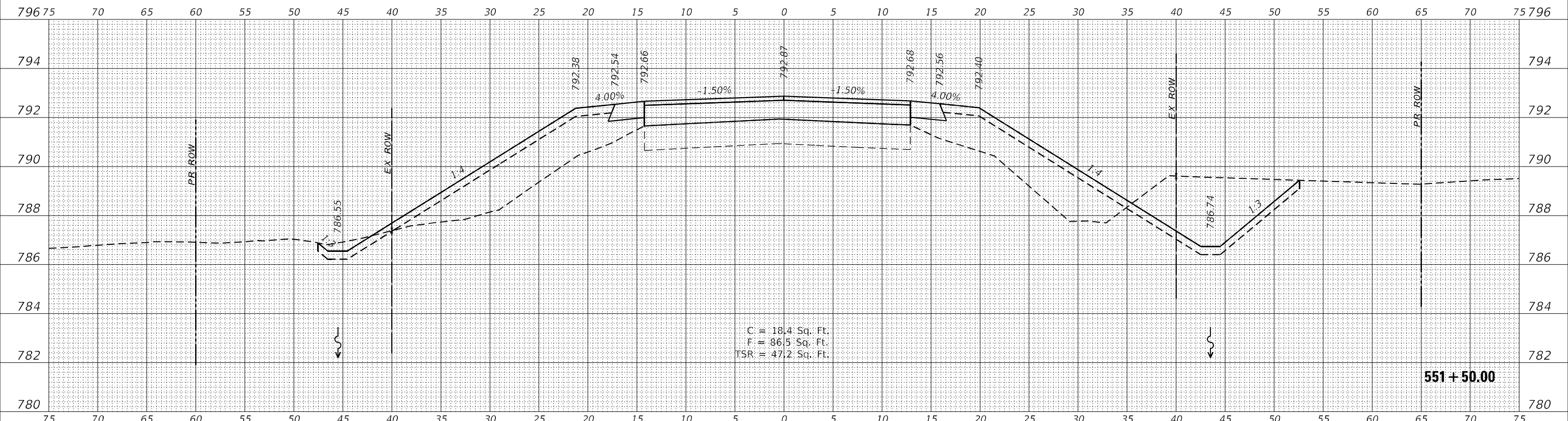
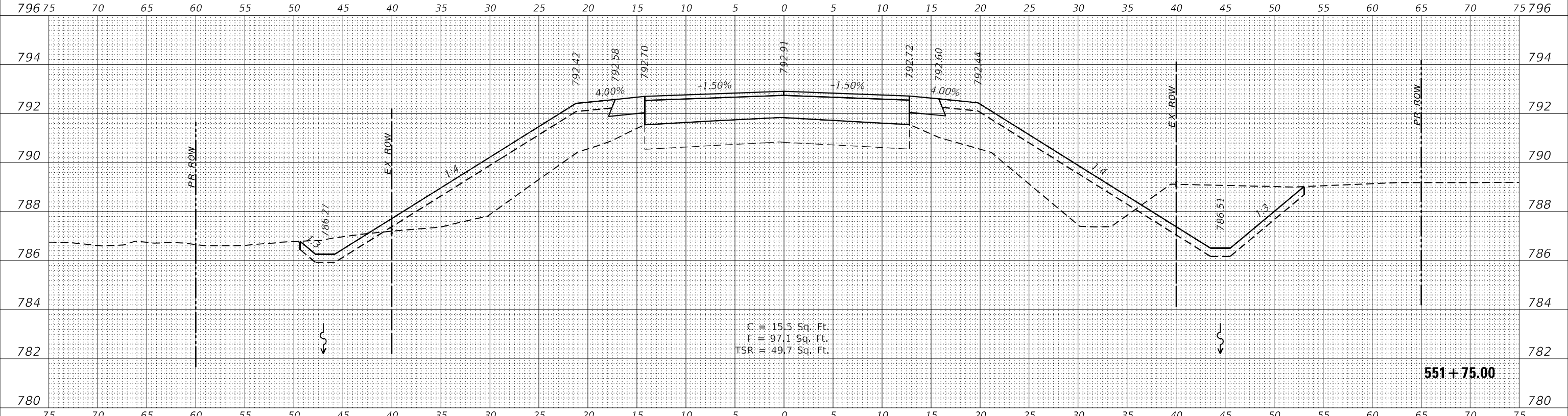
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CHECKED -	KAC
DATE -	08/16/21
PLOT SCALE =	5SCALE5
PLOT DATE =	8/16/2021

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=5'H/2'V SHEET 7 OF 16 SHEETS STA. 551+50.00 TO STA. 551+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	113
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

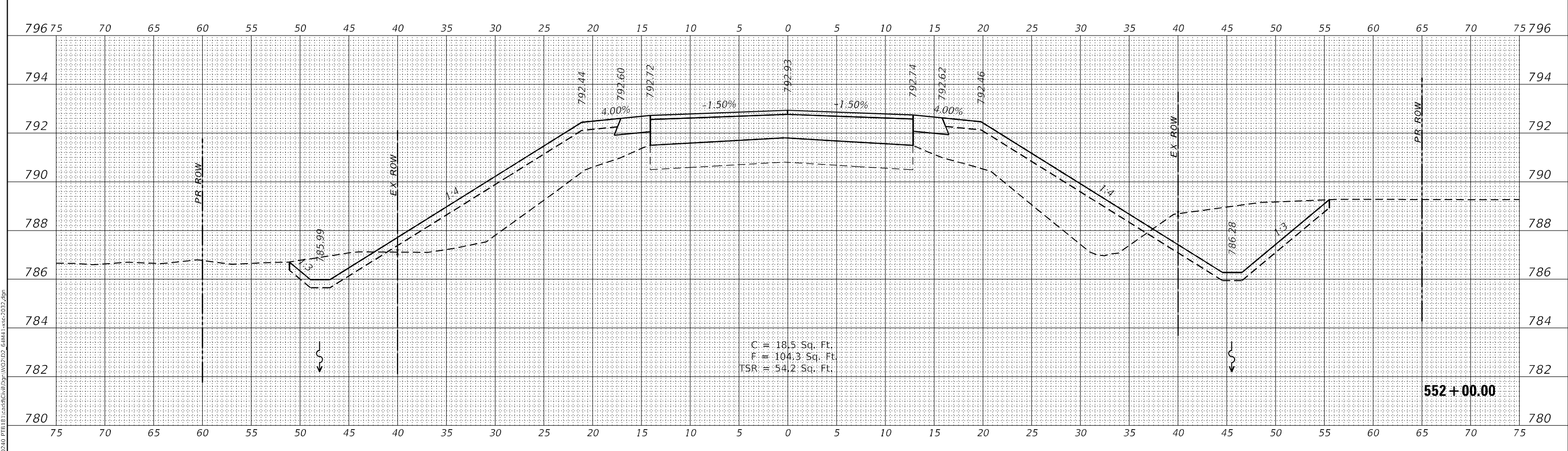
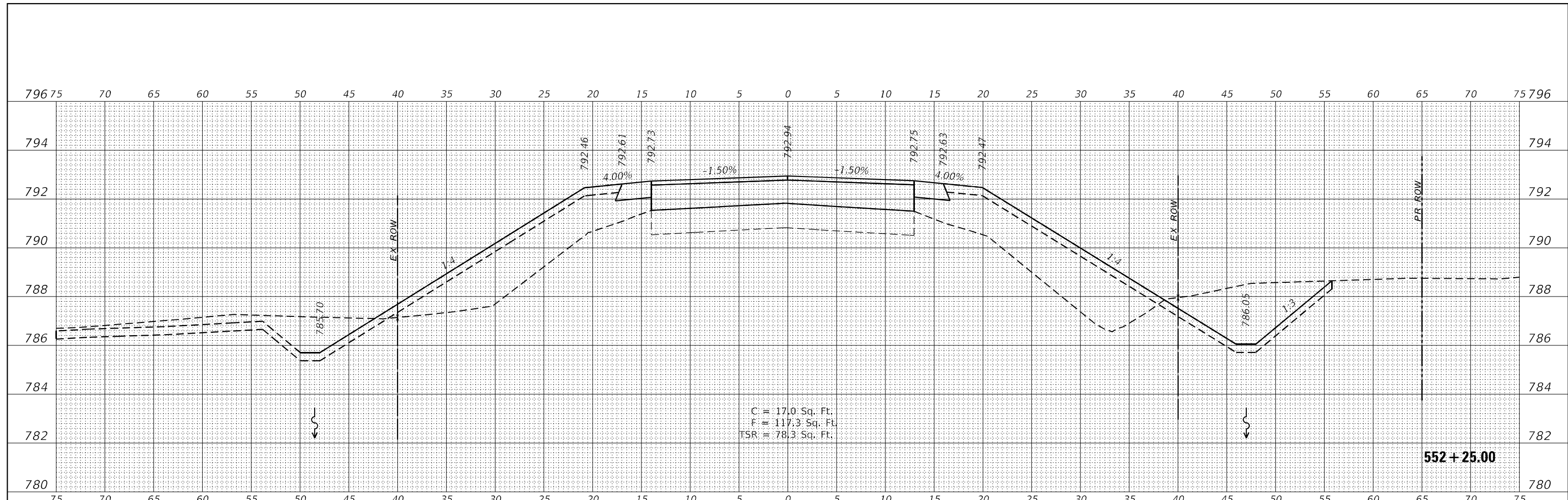


NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

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

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

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 PLOT DATE: 8/16/2021



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS\$
PLOT SCALE = \$SCALE\$
PLOT DATE = 8/16/2021

DESIGNED - MCC
DRAWN - AKW
CHECKED - KAC
DATE - 08/16/21

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REVISED -
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REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

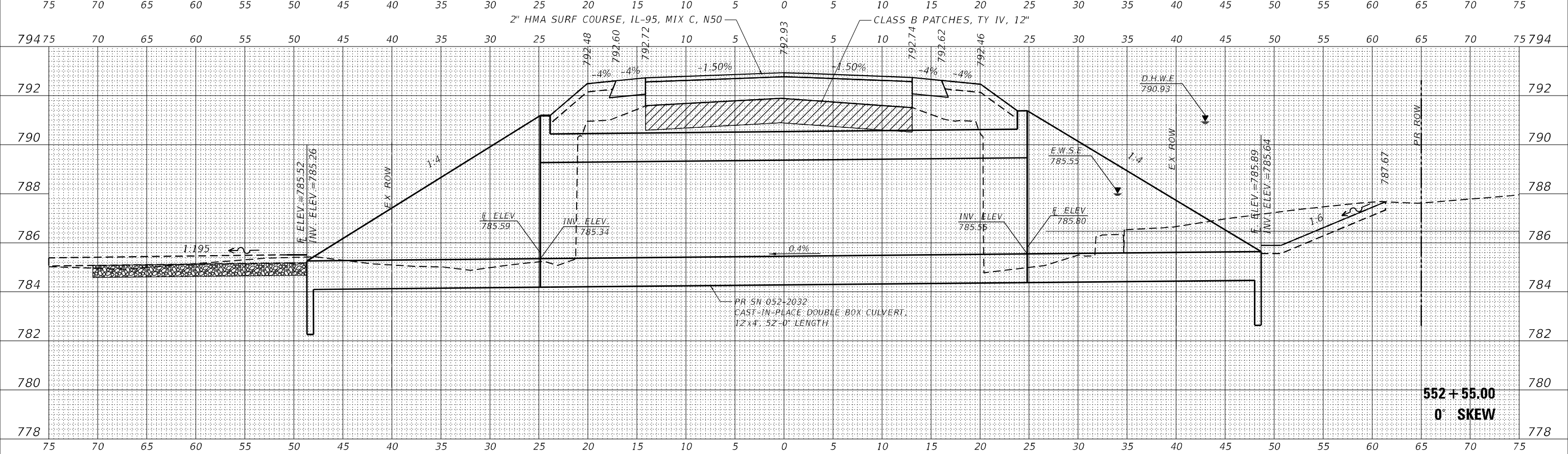
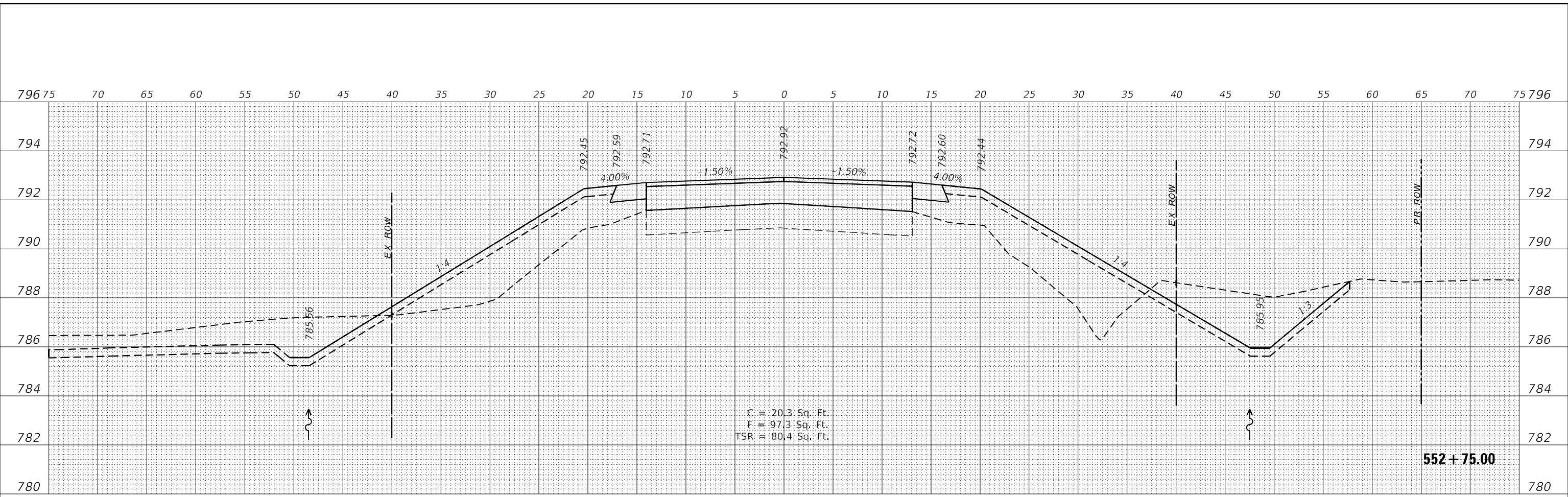
**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=5'H/2'V SHEET 8 OF 16 SHEETS STA. 552+00.00 TO STA. 552+25.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 114
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING, LLC**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME	= \$USERS
DESIGNED	- MCC
DRAWN	- AKW
CHECKED	- KAC
DATE	- 08/16/21

REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

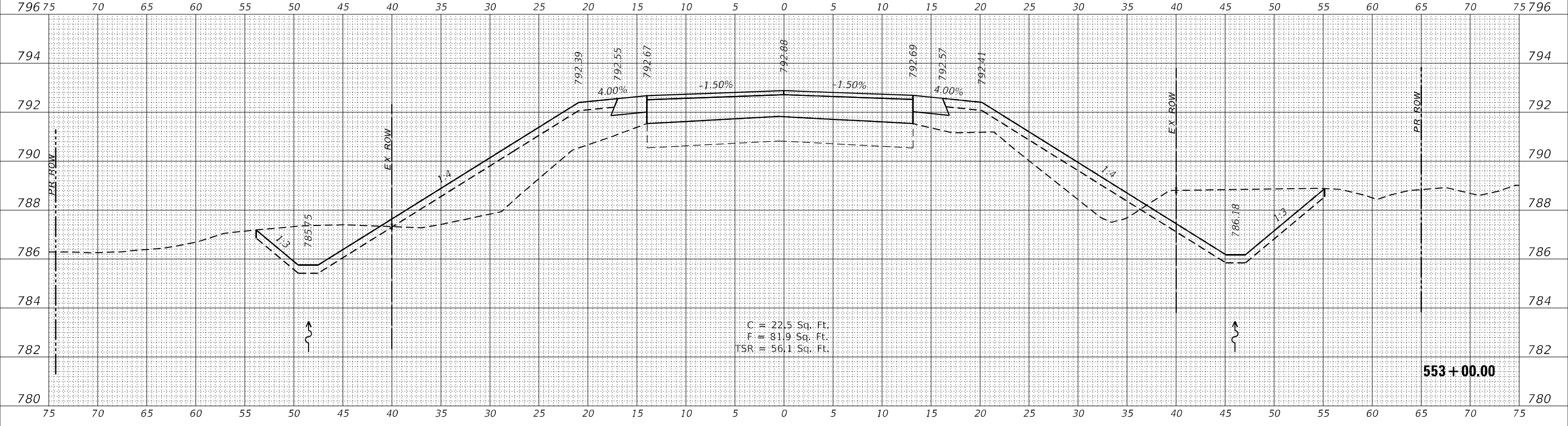
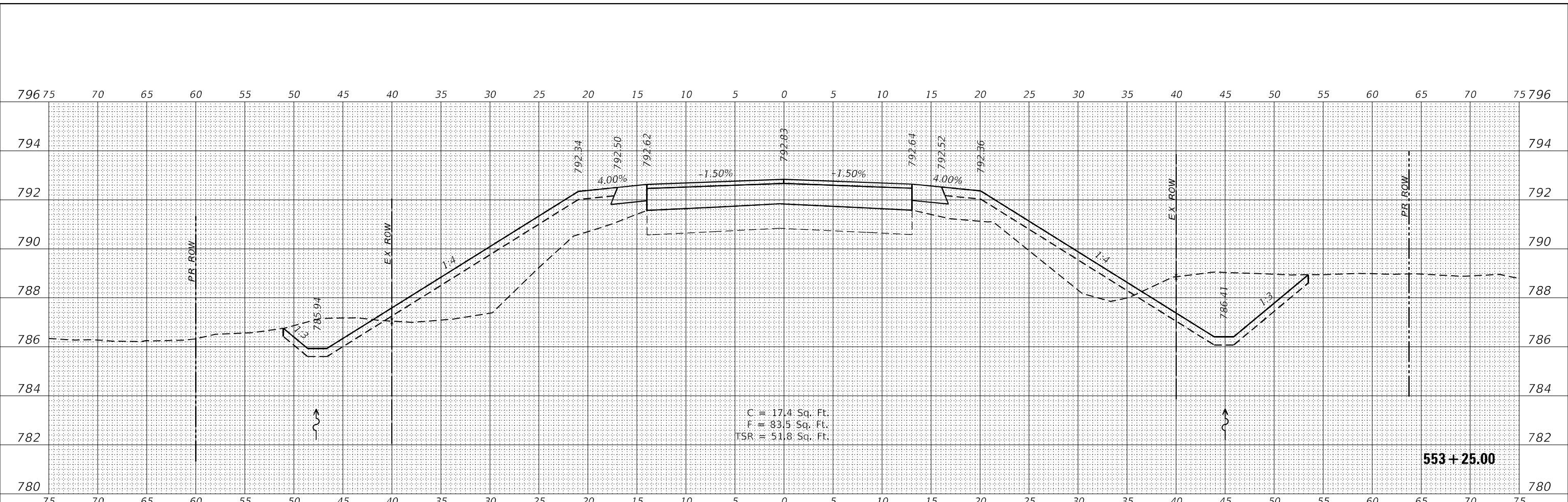
**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=5'H/2'V SHEET 9 OF 16 SHEETS STA. 552+55.00 TO STA. 552+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	115
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME	= \$USERS
DESIGNED	- MCC
DRAWN	- AKW
CHECKED	- KAC
DATE	- 08/16/21

REVISIONS	
REVISED	-
REVISED	-
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REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

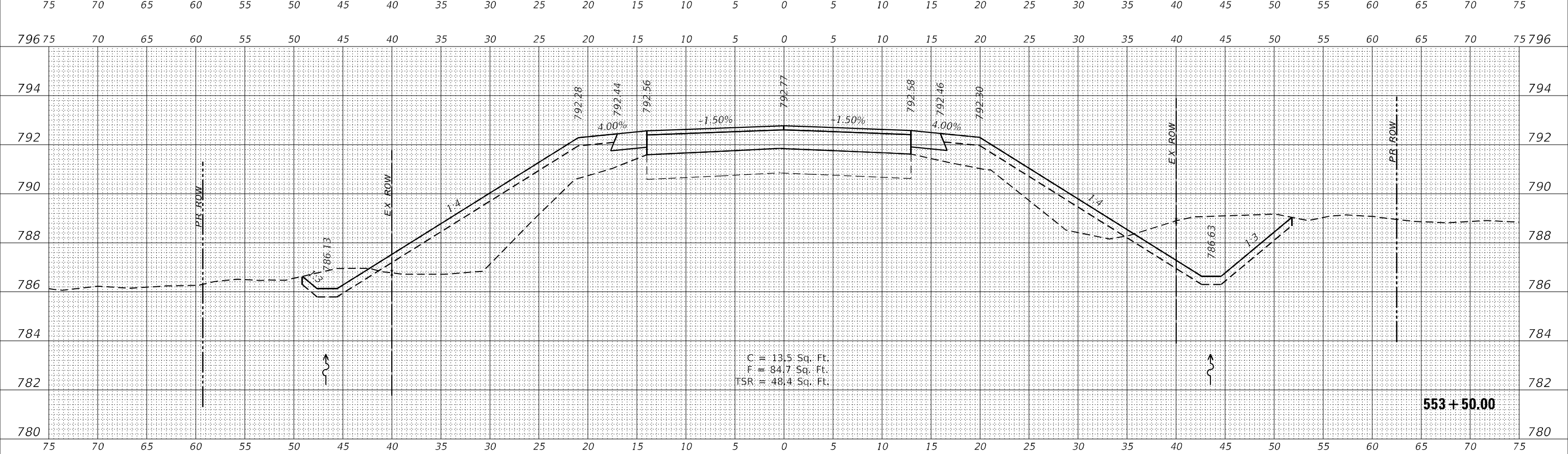
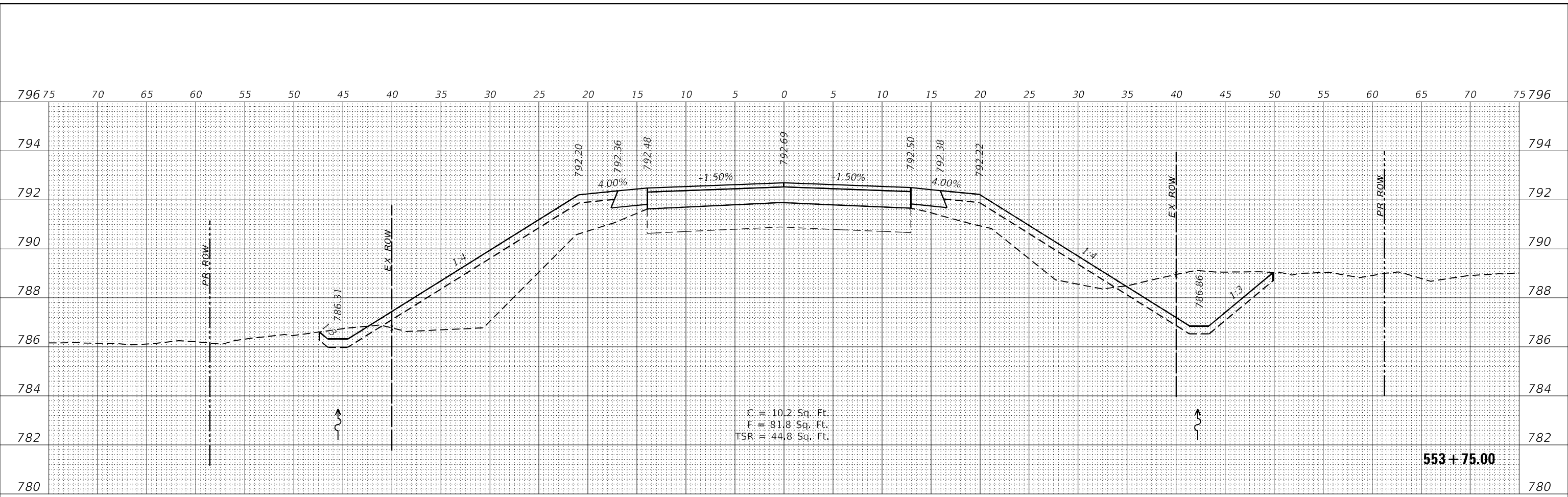
<b>CROSS SECTIONS</b>			
<b>IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)</b>			
SCALE:	1"=5'H/2'V	SHEET 10	OF 16 SHEETS
STA. 553+00.00 TO STA. 553+25.00			

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	116
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

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

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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

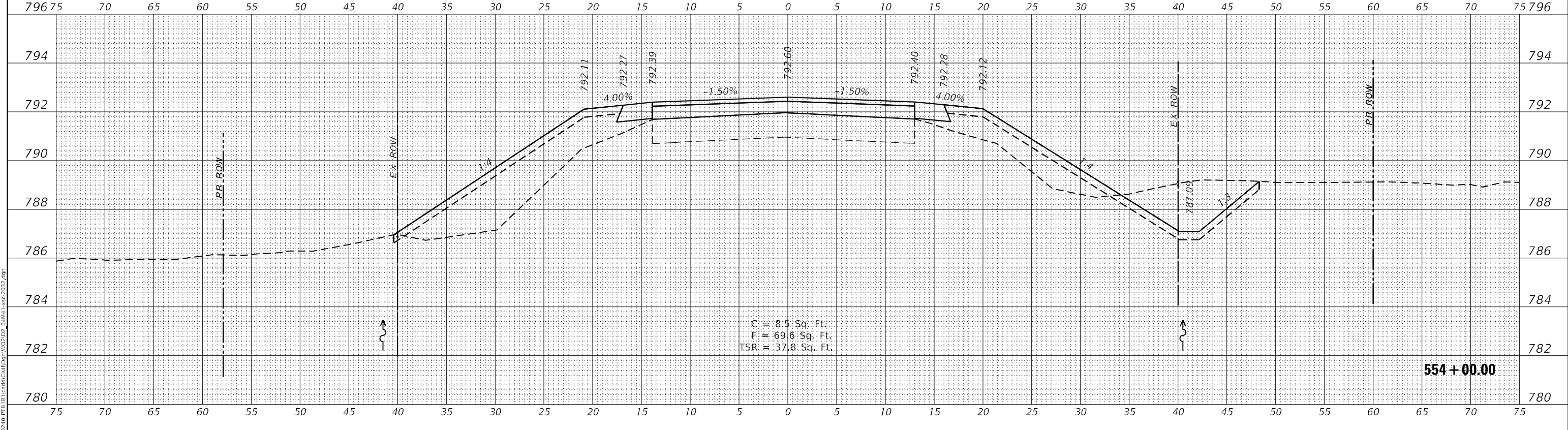
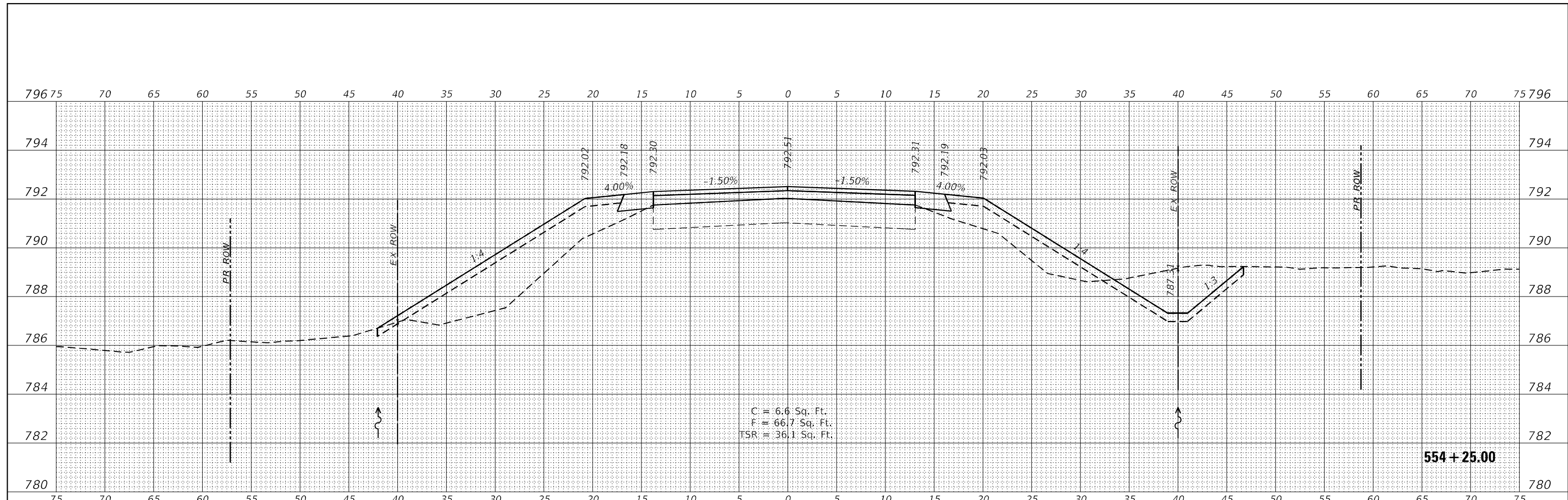
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=5'H/2'V SHEET 11 OF 16 SHEETS STA. 553+50.00 TO STA. 553+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	117
			CONTRACT NO. 64M41	
			ILLINOIS FED. AID PROJECT	

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

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
AREAS CHECKED	TEMPLATE	
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 PLOT DATE: 8/16/2021



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USERS\$	DESIGNED - MCC	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

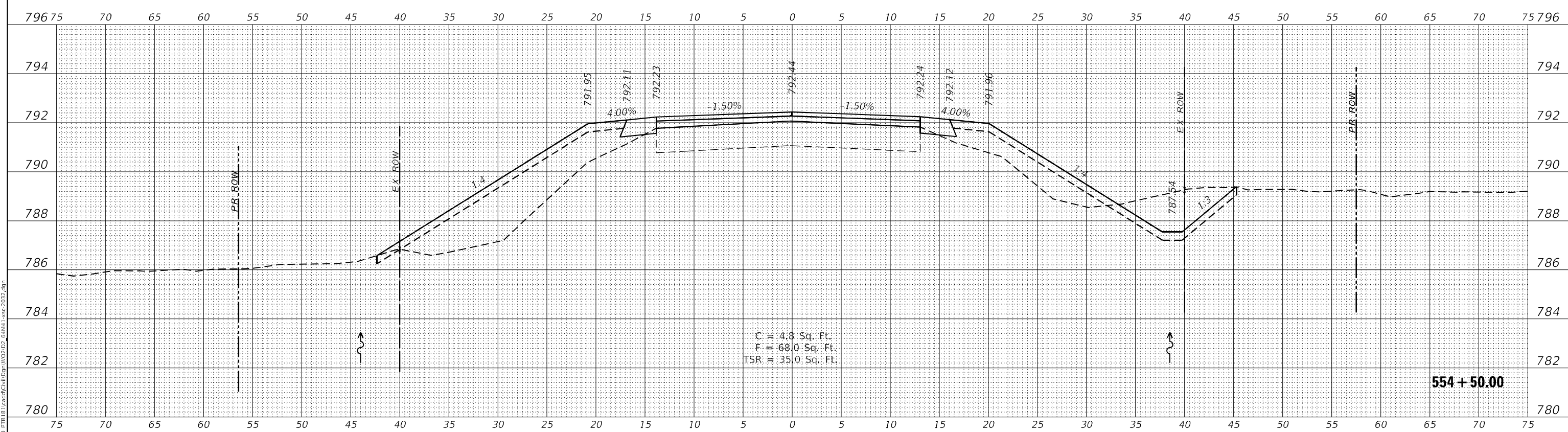
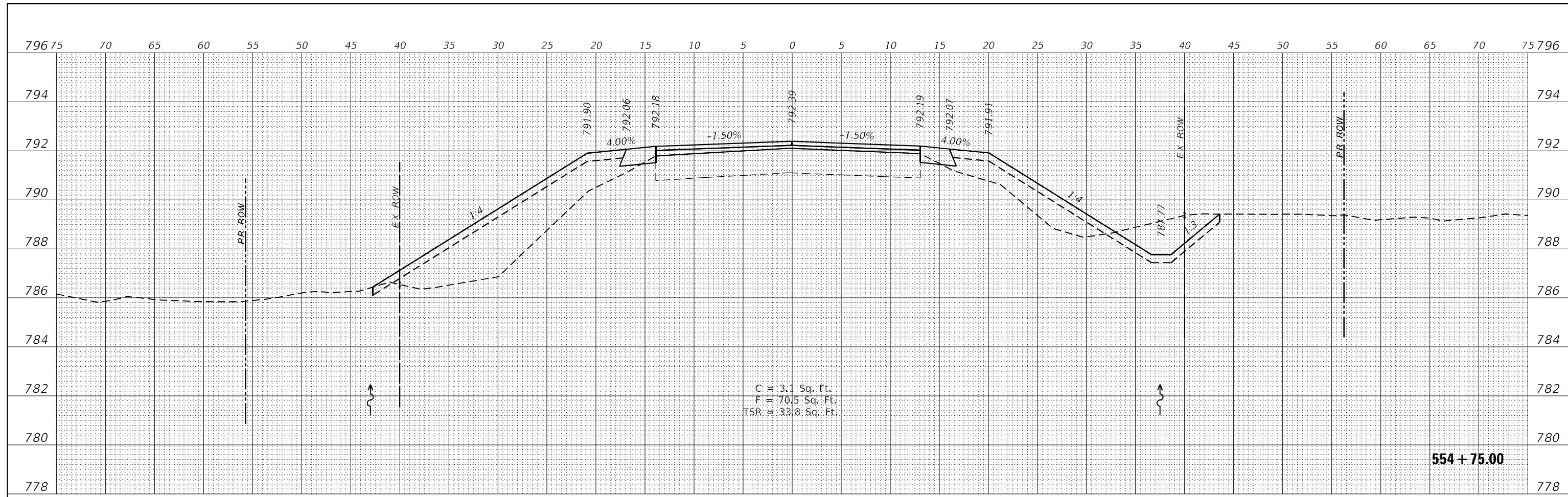
**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=5'H/2'V SHEET 12 OF 16 SHEETS STA. 554+00.00 TO STA. 554+25.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 118
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
AREAS CHECKED	TEMPLATE	
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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = susers	DESIGNED - MCC	REVISED -
PLOT SCALE = 5/32	DRAWN - AKW	REVISED -
PLOT DATE = 8/16/2021	CHECKED - KAC	REVISED -
	DATE - 08/16/21	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**

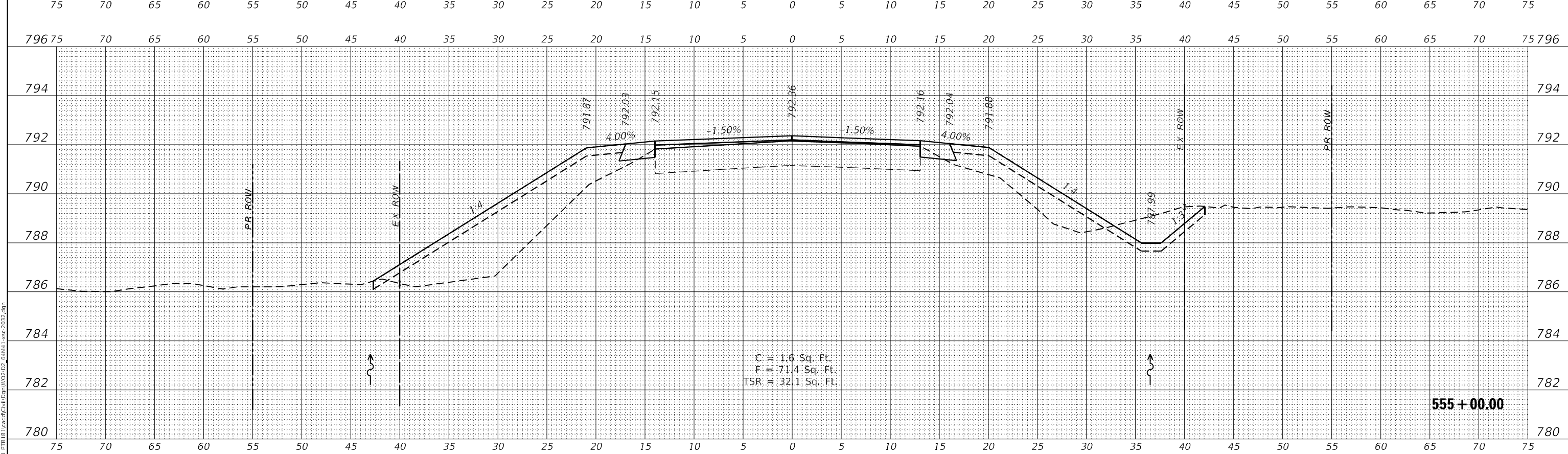
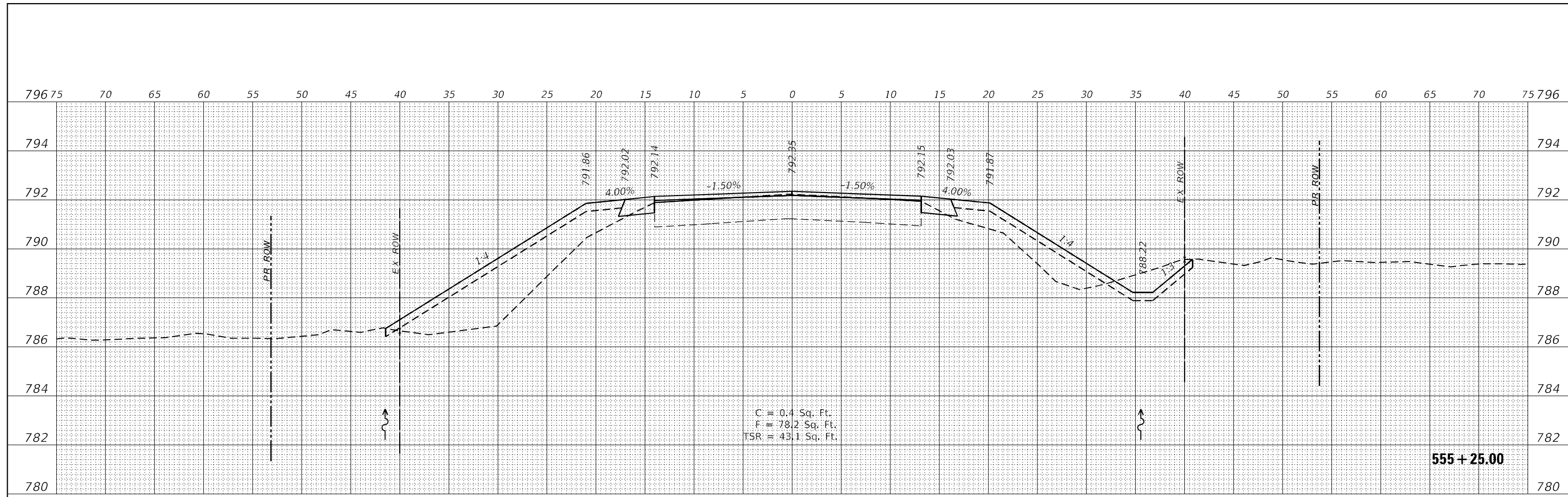
SCALE: 1"=5'H/2'V SHEET 13 OF 16 SHEETS STA. 554+50.00 TO STA. 554+75.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 119
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	

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

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

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 PLOT DATE: 8/16/2021



NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME	= \$USER\$
DESIGNED	- MCC
DRAWN	- AKW
CHECKED	- KAC
DATE	- 08/16/21

REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=5'H/2'V SHEET 14 OF 16 SHEETS STA. 555+00.00 TO STA. 555+25.00

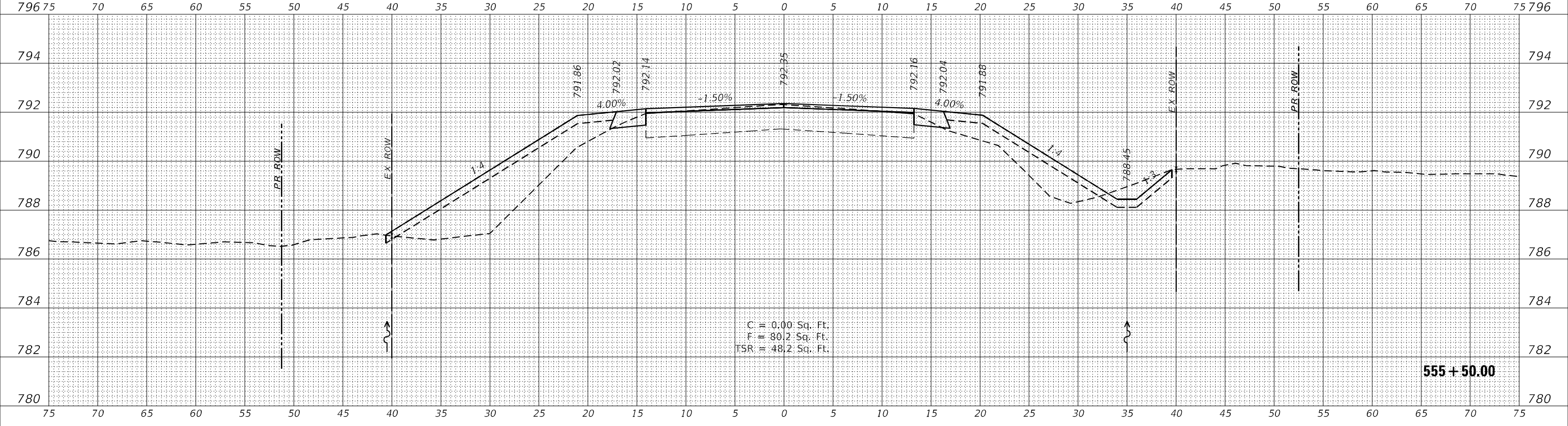
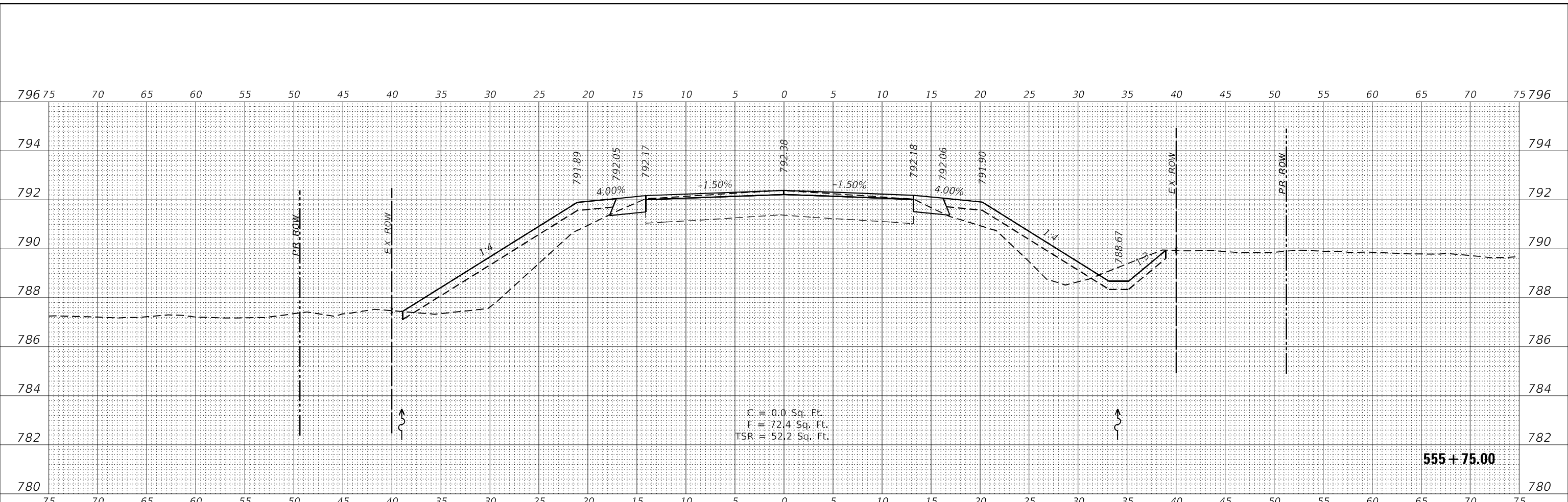
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	120
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				



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

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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

**WBK ENGINEERING**  
116 WEST MAIN STREET, SUITE 201  
ST. CHARLES, ILLINOIS 60174  
(630) 443-7755

USER NAME	= \$USERS
DESIGNED	- MCC
DRAWN	- AKW
CHECKED	- KAC
DATE	- 08/16/21
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

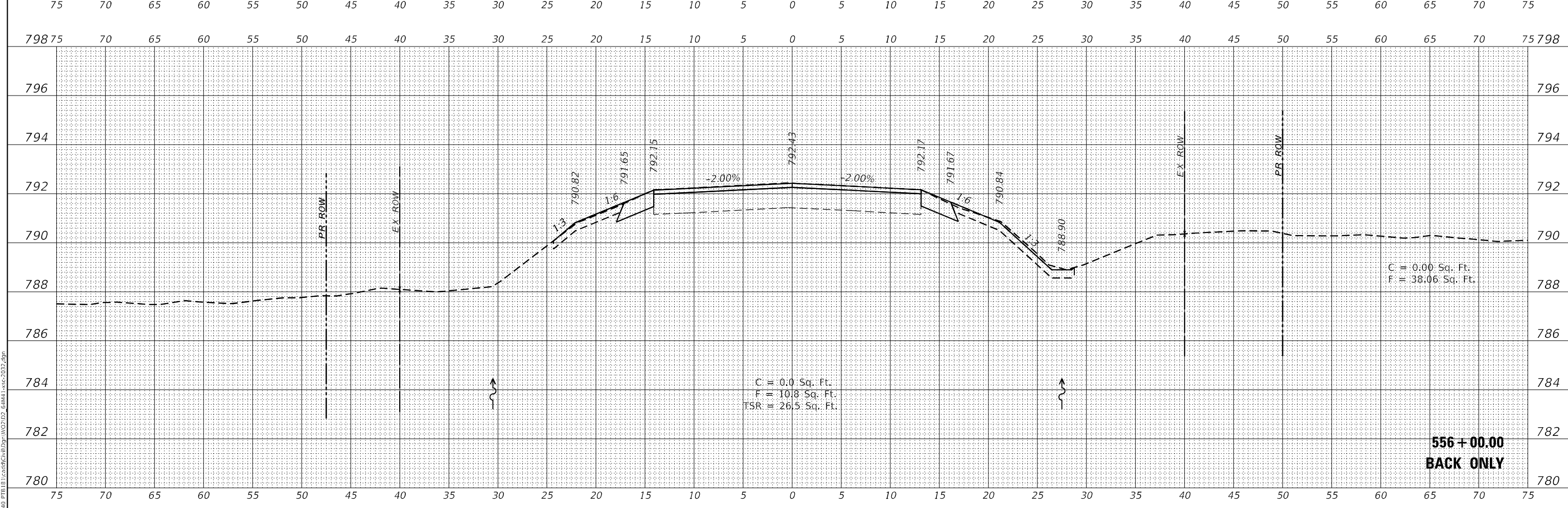
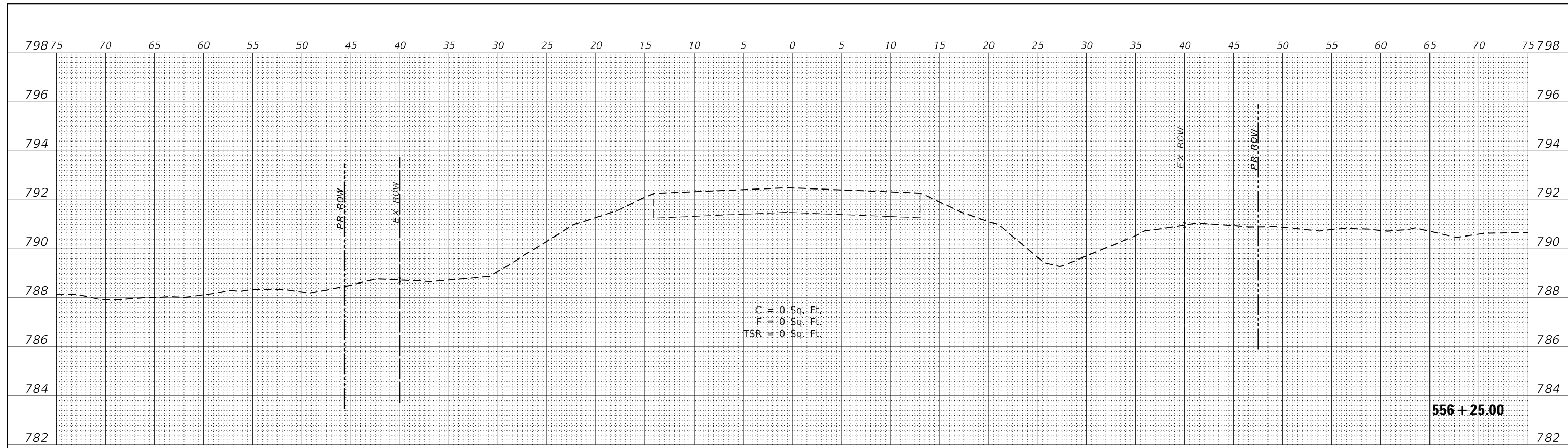
**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
SCALE: 1"=5'H/2'V SHEET 15 OF 16 SHEETS STA. 555+50.00 TO STA. 555+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1177	(110,111)CR	LEE	122	121
CONTRACT NO. 64M41				
ILLINOIS FED. AID PROJECT				

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

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
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NOTE: 'TSR' (TOPSOIL REMOVAL) IS 1 FOOT OF TOPSOIL EXCAVATION TO BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

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 116 WEST MAIN STREET, SUITE 201  
 ST. CHARLES, ILLINOIS 60174  
 (630) 443-7755

USER NAME = \$USER\$
PLOT SCALE = \$SCALE\$
PLOT DATE = 8/16/2021

DESIGNED - MCC
DRAWN - AKW
CHECKED - KAC
DATE - 08/16/21

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
**IL RTE 251 CULVERT IMPROVEMENTS (S.N. 052-2032)**  
 SCALE: 1"=5'H/2'V SHEET 16 OF 16 SHEETS STA. 556+00.00 TO STA. 556+25.00

F.A.S. RTE. 1177	SECTION (110,111)CR	COUNTY LEE	TOTAL SHEETS 122	SHEET NO. 122
CONTRACT NO. 64M41			ILLINOIS FED. AID PROJECT	