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# STATE OF ILLINOIS

# **DEPARTMENT OF TRANSPORTATION**

FOR INDEX OF SHEETS AND HIGHWAY STANDARDS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED IN THE CITY OF WOODSTOCK

# TRAFFIC DATA

2019 ADT = 14,500 VPDPOSTED SPEED LIMIT = 55 MPH

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

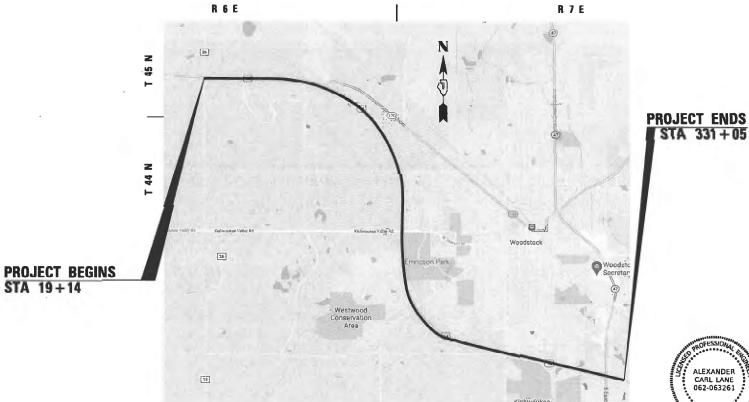
PROJECT ENGINEER: LUKASZ POCIECHA (847) 705-4255 PROJECT MANAGER: FAWAD AQUEEL (847) 705-4211

CONTRACT NO. 62N45

# **PROPOSED** HIGHWAY PLANS

**FAP ROUTE 305: US 14 HARTLAND ROAD TO IL ROUTE 47 SECTION: 2021–022–RS** PROJECT: NHPP-N8JF(892) **SMART OVERLAY MCHENRY COUNTY** 

C-91-118-21



#### HARTLAND TOWNSHIP

GROSS LENGTH = 31,191 FT. = 5.91 MILE NET LENGTH = 31,191 FT. = 5.91 MILE



STA 331+05

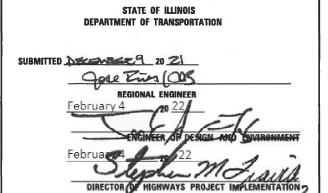
#### INFRASTRUCTURE ENGINEERING | INCORPORATED 1 South Wacker | Suite 2650 | Chicago, IL 60606

CONTACT: ALEXANDER LANE (312) 477-0620

2021-022-R5 MCHENRY 35 ILLINDIS CONTRACT NO. 62N45

#### D-91-095-21





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18-19	DRYWELL
20-22	DETECTOR LOOP REPLACEMENT PLAN
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24	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
25	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
26	BUTT JOINT AND HMA TAPER DETAILS (BD-32)
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30	TYPICAL PAVEMENT MARKINGS (TC-13)
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33	ARTERIAL ROAD INFORMATION SIGN (TC-22)
34	DRIVEWAY ENTRACE SIGNING (TC-26)
35	DETECTOR LOOP SHOULDER DETAILS (TS-07)

# STATE STANDARDS

STANDARD NO.	DRAWING NAME
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C AND D PATCHES
642001-03	SHOULDER RUMBLE STRIPS, 16 IN.
642006-01	SHOULDER RUMBLE STRIPS, 8 IN.
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L. 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L. 2W, MOVING OPERATIONS ONLY, FOR SPEED ≥ 45 MPH
701311-03	LANE CLOSURE, 2L. 2W, MOVING OPERATIONS DAY ONLY
701336-07	LANE CLOSURE, 2L. 2W, WORK AREA IN SERIES, FOR SPEEC ≥ 45MPH
701421-08	LANE CLOSURE, 2L. 2W, MULTILANE, DAY OPERATIONS ONLY, FOR SPEED ≥ 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, 2L. 2W, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEED ≥ 45 MPH TO 55 MPH
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-08	TRAFFIC CONTROL DEVICES
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

## **GENERAL NOTES**

- 1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION REQUIRED)
- 2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF WOODSTOCK AND MCHENRY COUNTY DIVISION OF TRANSPORTATION
- 3. FRAME AND GRATE ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
- 4. THE CONTRACTOR SHALL CONTACT DISTRICT ONE ARTERIAL TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV, GOV, A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT THE WRITTEN PERMISSION OF THE DEPARTMENT.
- 6. UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURE AS DETERMINED AND APPROVED IN WRITING BY THE RESIDENT ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURE SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D AND CLASS B PATCHING.
- 7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 8. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

SCALE: 1"=50"

- 9. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- 10. PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER / TECHNICIANS.
- 11. CATCH BASINS, MANHOLES, INLETS, DRAINAGE STRUCTURES AND VALVE VAULTS ADJUSTMENT AND/OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER / TECHNICIAN.
- 12. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS, UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
- 13. FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING, IN STAGE 2, AFTER PAVEMENT MILLING, THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-2 CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE. THE LANE SHALL BE FULLY OPEN TO TRAFFIC AT THE END OF EACH WORK SHIFT.
- 14. WHEN MILLED PAVEMENT OPENS TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1½ INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED LIMIT IS OVER 45 MPH. WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1V:3H.
- 15. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 16. THE RESIDENT ENGINEER SHALL CONTACT WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER, AT WALTER.CZARNY@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 17. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 18. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.
- 19. ANY PAVEMENT MARKINGS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STRESS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.
- 20. TEMPORARY PAVEMENT MARKING LINE 4" TYPE III TAPE SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY DETECTOR LOOPS DAMAGED DURING CONSTRUCTION.
- 22. ALL EXISTING R.O.W SHOWN IS APPROXIMATE AND MAY NEED TO BE VERIFIED IN THE FIELD, ANY R.O.W. CONFLICTS SHALL BE COORDINATED WITH THE RESIDENT ENGINEER.
- WHEN CONSTRUCTION OPERATIONS ON TWO-LANE ROADS OPEN TO TRAFFIC RESULT IN THE REMOVAL OR COVERING OF ANY PAVEMENT STRIPING INDICATING PASSING RESTRICTIONS, "NO PASSING ZONES NOT STRIPED NEXT \_\_\_\_\_\_ MILES." SIGNS SHALL BE USED. THE CONTRACTOR SHALL PLACE THE SIGNS AT THE BEGINNING OF THE UNSTRIPED AREA, JUST BEYOND EACH MAJOR INTERSECTION WITHIN THE UNSTRIPED AREA, AND AT SUCH OTHER LOCATIONS AS THE ENGINEER MAY DIRECT TO ENSURE A MINIMUM SPACING OF FIVE MILES. THE SIGNS SHALL BE PLACED JUST PRIOR TO REMOVAL OR COVERING OF THE STRIPE AND SHALL REMAIN IN PLACE UNTIL FULL NO PASSING ZONE STRIPING HAS BEEN RESTORED. THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
- 24. ALL MILLED SURFACES SHALL BE AT A UNIFORM CROSS SLOPE PER LANE AND FREE OF RIDGES BETWEEN PASSES, ANY DEVIATIONS SHALL BE CORRECTED AT NO COST TO THE DEPARTMENT.

INFRASTRUCTURE
ENGINEERING | INCORPORATED
1 SOUTH Wacker | Suthe 2650 | Chicago, IL 60606

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES

US-14 (HARTLAND RD TO IL-47)

STA TO STA

US-15 (HARTLAND RD TO IL-47)

F.A.P. RTE. SECTION COUNTY SHEETS NO. 305 2021-022-RS MCHERRY 35 2

CONTRACT NO. 62N45

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			2	CONSTRUCTION CODE			
- 2		<b>I</b>	URBAN	0005			
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	80% FEDERAL 20% STATE	100% STATE		
20200100	EARTH EXCAVATION	CU YD	102	103			
20200100	EARTH EXCAVATION	CO YD	103	103			
21101630	TOPSOIL FURNISH AND PLACE, 8"	SQ YD	17	17			
25000210	SEEDING, CLASS 2A	ACRE	0.1	0.1			
25000312	SEEDING, CLASS 4A	ACRE	0.1	0.1			
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	73,179	73,179			
40600370	LONGITUDINAL JOINT SEALANT	FOOT	48,362	48,362			
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	244	244			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	896	896			
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	1,764	1,764			
40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	13,661	13,661			
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	162,620	162,620			
44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	10,500	10,500			
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	500	500			
			1				
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	5,500	5,500			
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	3,000	3,000			
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	1,500	1,500			
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	962		962		
60100080	FRENCH DRAINS	CU YD	18		18		
60100085	GEOTECHNICAL FABRIC FOR FRENCH DRAINS	SQ YD	82		82		
60108208	PIPE UNDERDRAINS, TYPE 2, 8"	FOOT	67	67			
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	2	2			
64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	62,864	62,864			
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	103	103			

*	=	SPECIALTY ITEM	

					CONSTRUC	TION CODE	
			URBAN	0005			
	PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	
	66900530	SOIL DISPOSAL ANALYSIS	EACH	2	2	2	
	66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1		
ĺ	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1		
İ	66901006	REGULATED SUBSTANCES MONITORING	CAL DA	2	2		
i			4		7	-	
İ	67100100	MOBILIZATION	L SUM	1	1		
	70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1		
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
	70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1	1		
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
İ	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	56	56	-	
ľ	70300100	SHORT TERM PAVEMENT MARKING	FOOT	27,024	27,024	-	
ľ	70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SQ FT	1,417	1,417		
	70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	124,084	124,084		
	70300241	TEMPORARY PAVEMENT MARKING - LINE 6"- PAINT	FOOT	3,335	3,335		
	70300251	TEMPORARY PAVEMENT MARKING - LINE 8"- PAINT	FOOT	3,867	3,867		
	70300261	TEMPORARY PAVEMENT MARKING - LINE 12"- PAINT	FOOT	3,199	3,199		
	70300281	TEMPORARY PAVEMENT MARKING - LINE 24"- PAINT	FOOT	633	633		
ļ	70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	13,512	13,512		
ļ	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1,417	1,417	-	
	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	124,084	124,084	_	
	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	3,335	3,335		
	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	3,867	3,867		
	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	3,199	3,199		
	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	633	633		
İ				(4)		1	

_		USER NAME = ALane	DESIGNED MLD	REVISED _
	INFRASTRUCTURE		DRAWN MLD	REVISED
-	1 South Wacker   Suite 2650   Chicago, IL 60606	PLOT SCALE = 1200 0000 ' / ft	CHECKED ACL	REVISED _
			DATE 10/15/2021	REVISED +

SCALE: 1"=50'

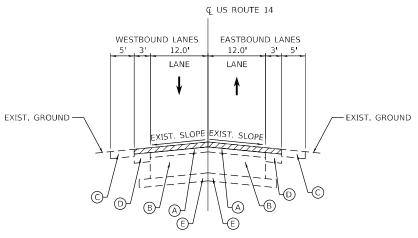
				CONSTRUC	TION CODE
		URBAN	0005		
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	80% FEDERAL 20% STATE	100% STATE
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1,404	1,404	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1,404	1,404	
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	6,158	6,158	
88600600	DETECTOR LOOP REPLACEMENT	FOOT	2,913	2,913	
X0326898	CENTER LINE - RUMBLE STRIP - 16"	FOOT	20,868	20,868	
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	1,038		1,038
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	2	2	
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12	
X7800815	HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINE - 4 INCH	FOOT	25,990	25,990	
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	6		6
Z0019500	DRYWELL	EACH	2		2
					2
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	312	312	
Z0076600	TRAINEES	HOURS	500	500	
Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOURS	500	500	
				1	
		+			
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<sup>\* =</sup> SPECIALTY ITEM

SECTION COUNTY SHEETS NO.

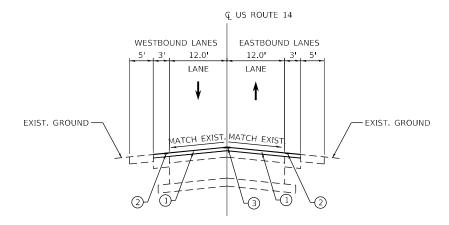
1021-022-RS MCHENRY 35 4

CONTRACT NO. 62N45 USER NAME = ALane DESIGNED MLD REVISED SUMMARY OF QUANTITIES STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DRAWN MLD REVISED 2021-022-RS US-14 (HARTLAND RD TO IL-47) CHECKED -ACL REVISED SCALE: 1"=50' STA. TO STA. 10/16/2021 DATE REVISED



#### EXISTING TYPICAL CROSS SECTION

STA. 19+14 TO STA. 58+00 STA. 100+68 TO STA. 166+67 STA. 188+87 TO STA. 264+11 STA. 285+95 TO STA. 315+79



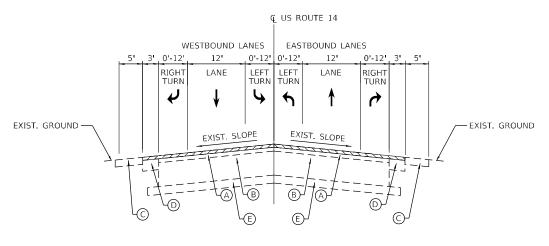
#### PROPOSED TYPICAL CROSS SECTION

STA. 19+14 TO STA. 58+00 STA. 100+68 TO STA. 166+67 STA. 188+87 TO STA. 264+11 STA. 285+95 TO STA. 315+79

	MIXTURE TYPE	AIR VOIDS @ Ndes	QUALITY MANAGEMENT PROGRAM (QMP)					
PAVEMENT RESURFACING								
	HOT-MIX ASPHALT SURFACE COURSE MIX "D", IL-9.5, N70, 1-1/2"	4% @ 70 GYR	PFP					
PATCHING		•						
	CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR	QC/QA					
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR	QC/QA					
QMP DE	SIGNATION: QUALITY CONTROL / QUALITY ASSURANCE (QC/QA): QUALITY CONTROL FOR PERI	FORMANCE (QCP): P	AY FOR PERFORMANCE (PFP)					

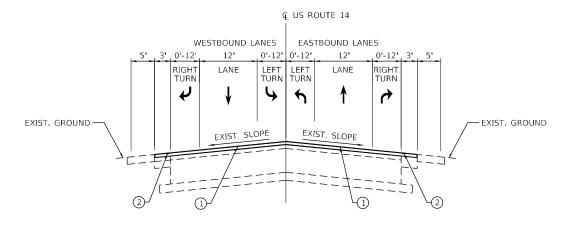
#### MIXTURE REQUIREMENT NOTES:

- 1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
- 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.



#### EXISTING TYPICAL CROSS SECTION

STA. 166+67 TO STA. 188+87 STA. 264+11 TO STA. 285+95



#### PROPOSED TYPICAL CROSS SECTION

STA. 166+67 TO STA. 188+87 STA. 264+11 TO STA. 285+95

#### <u>LEGEND</u>

- (A) EXISTING HOT-MIX ASPHALT PAVEMENT, 3"±
- B EXISTING P.C.C. BASE COURSE, 10"±
- © EXISTING AGGREGATE SHOULDER, 6"±
- D EXISTING PAVED SHOULDER, 8"±
- E EXISTING SUB-BASE GRANULAR MATERIAL, TYP B, 4"±
- F EXISTING CONCRETE PAVEMENT, 9-3/4"±
- G EXISTING MEDIAN
- (1) HOT-MIX ASPHALT SURFACE COURSE MIX "D", IL-9.5, N70, 1-1/2"
- 2 SHOULDER RUMBLE STRIPS, 8"
- 3 CENTERLINE RUMBLE STRIPS, 16"



1-1/2" HMA SURFACE REMOVAL

#### NOTES:

- 1. THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER THE MILLED SURFACE.
- 2. THE CONTRACTOR SHALL PATCH BEFORE MILLING.

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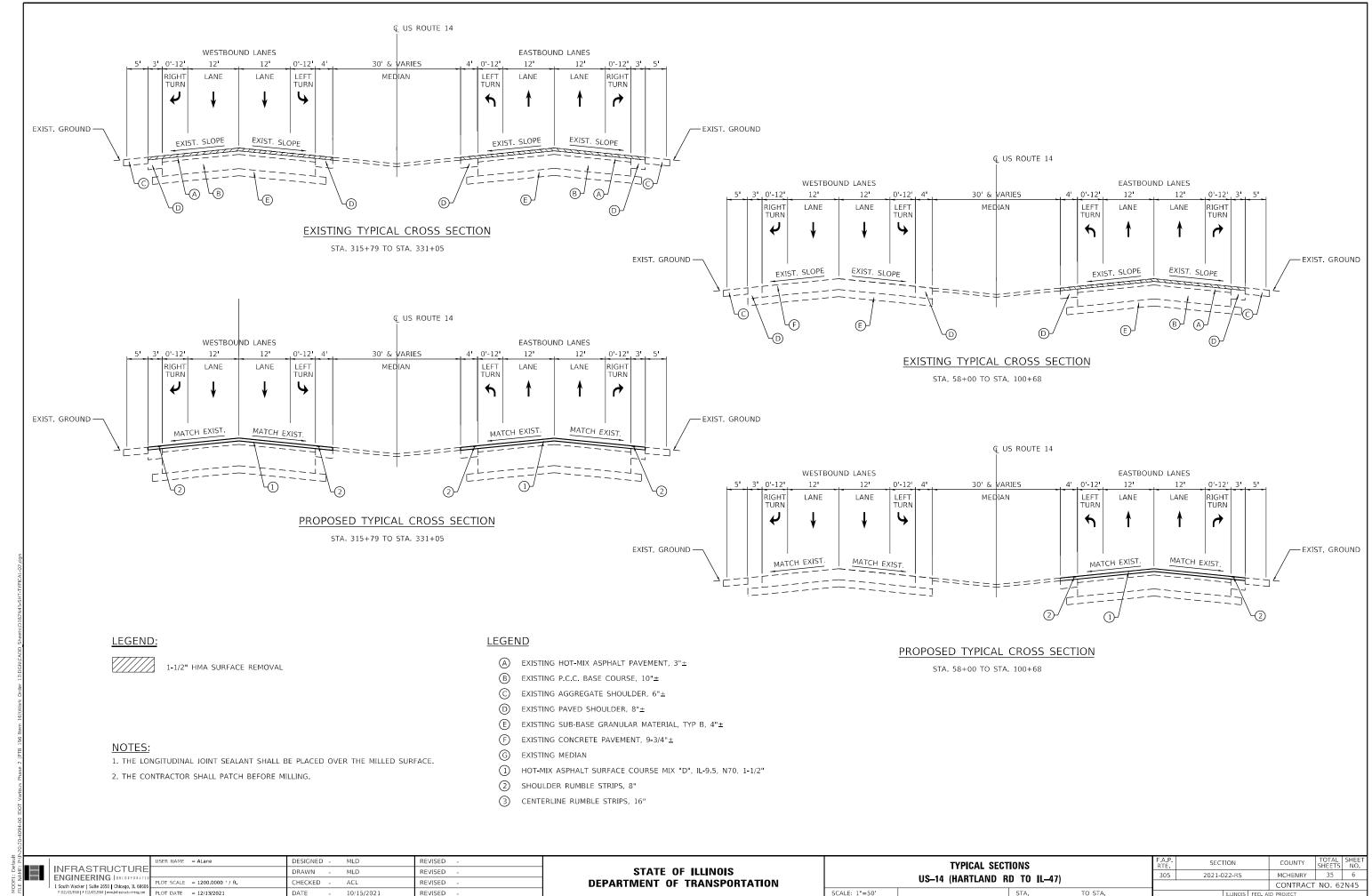
SER NAME = ALane DESIGNED -MLD REVISED INFRASTRUCTURE DRAWN MLD REVISED ENGINEERING INCORPO LOT SCALE = 1200.0000 / ft. HECKED ACL REVISED 1 South Wacker | Suite 2650 | Chicago, IL 60606 PLOT DATE = 12/13/2021 REVISED DATE 10/15/2021

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

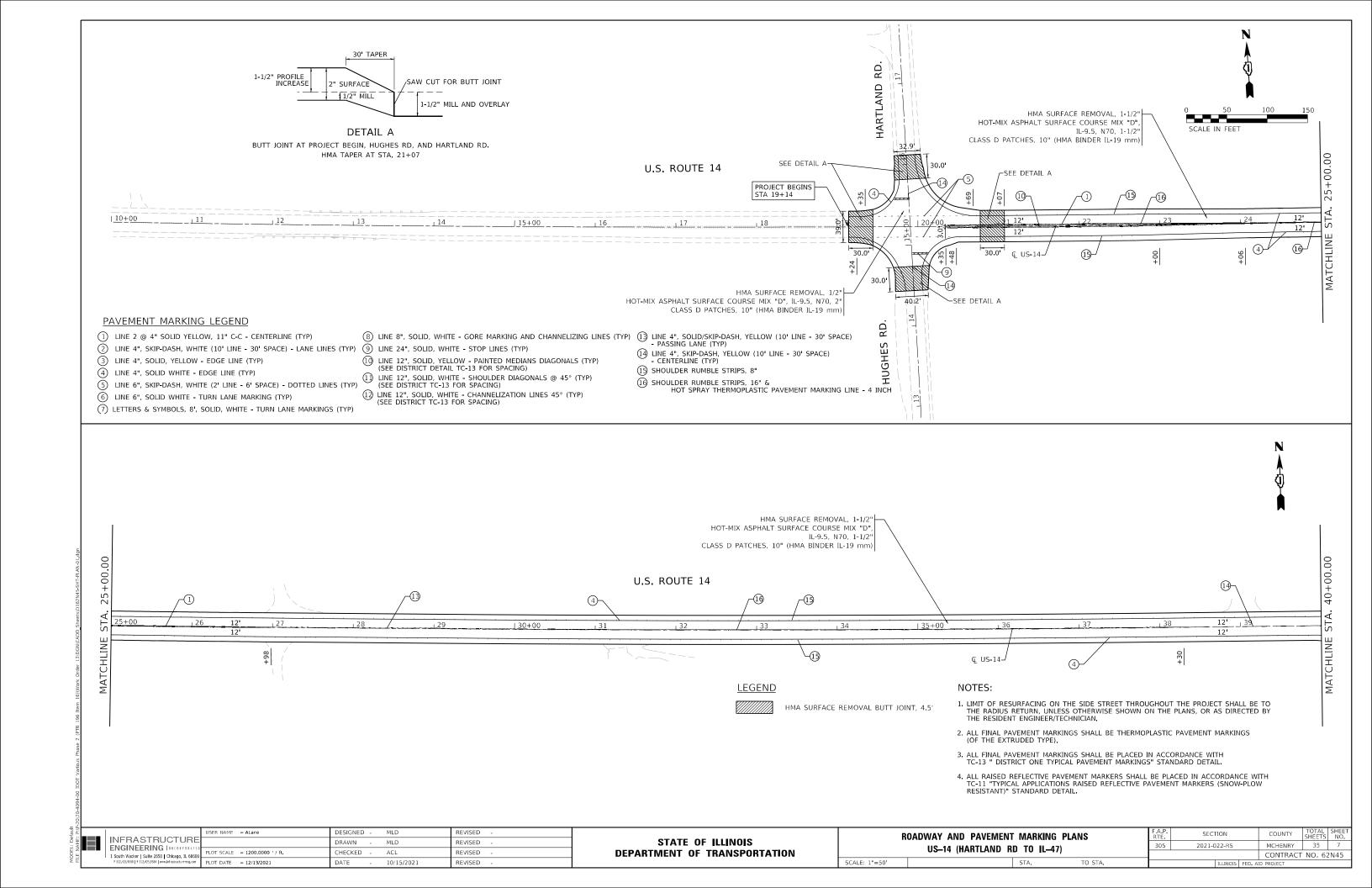
TYPICAL SECTIONS
US-14 (HARTLAND RD TO IL-47)

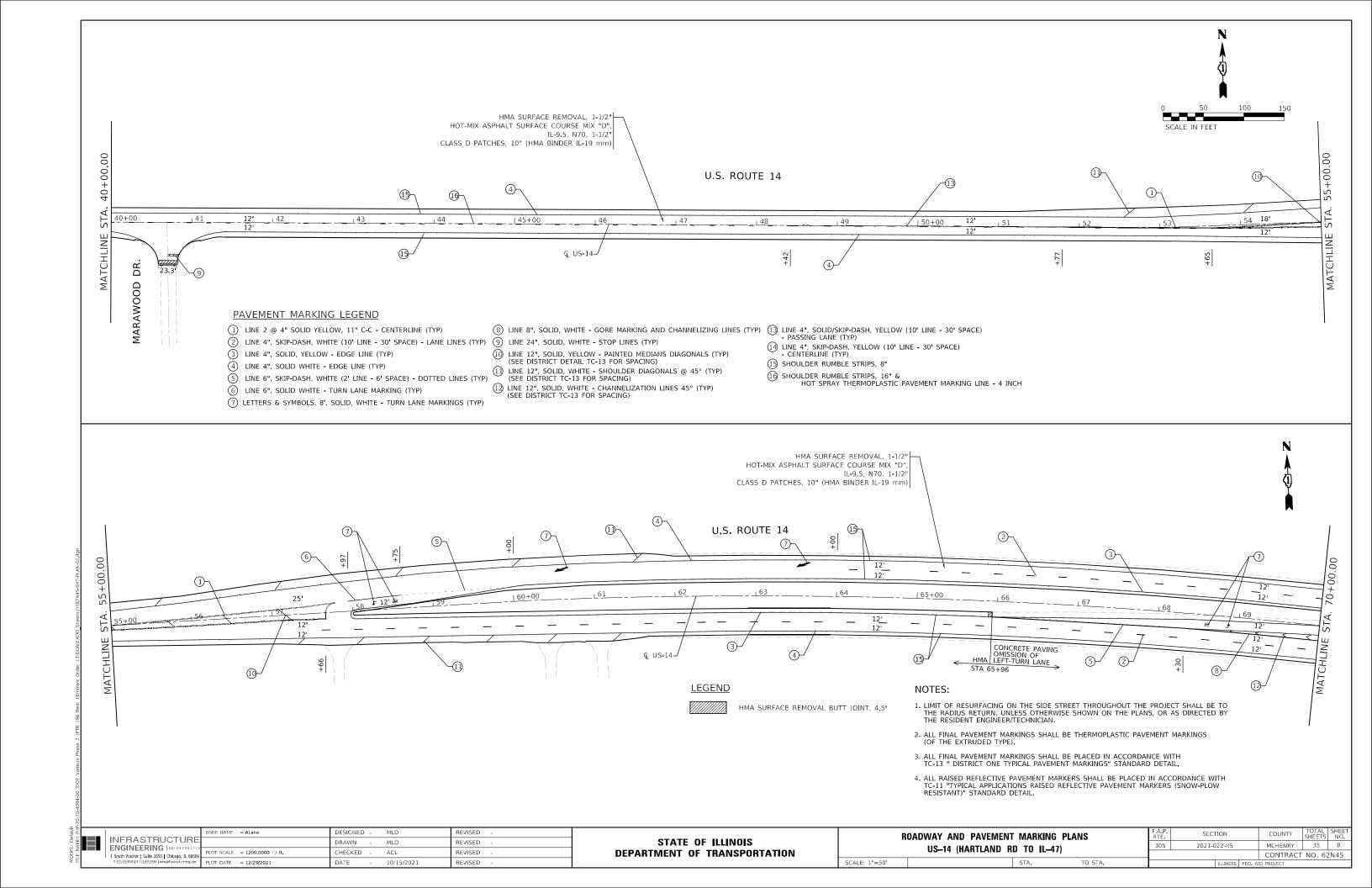
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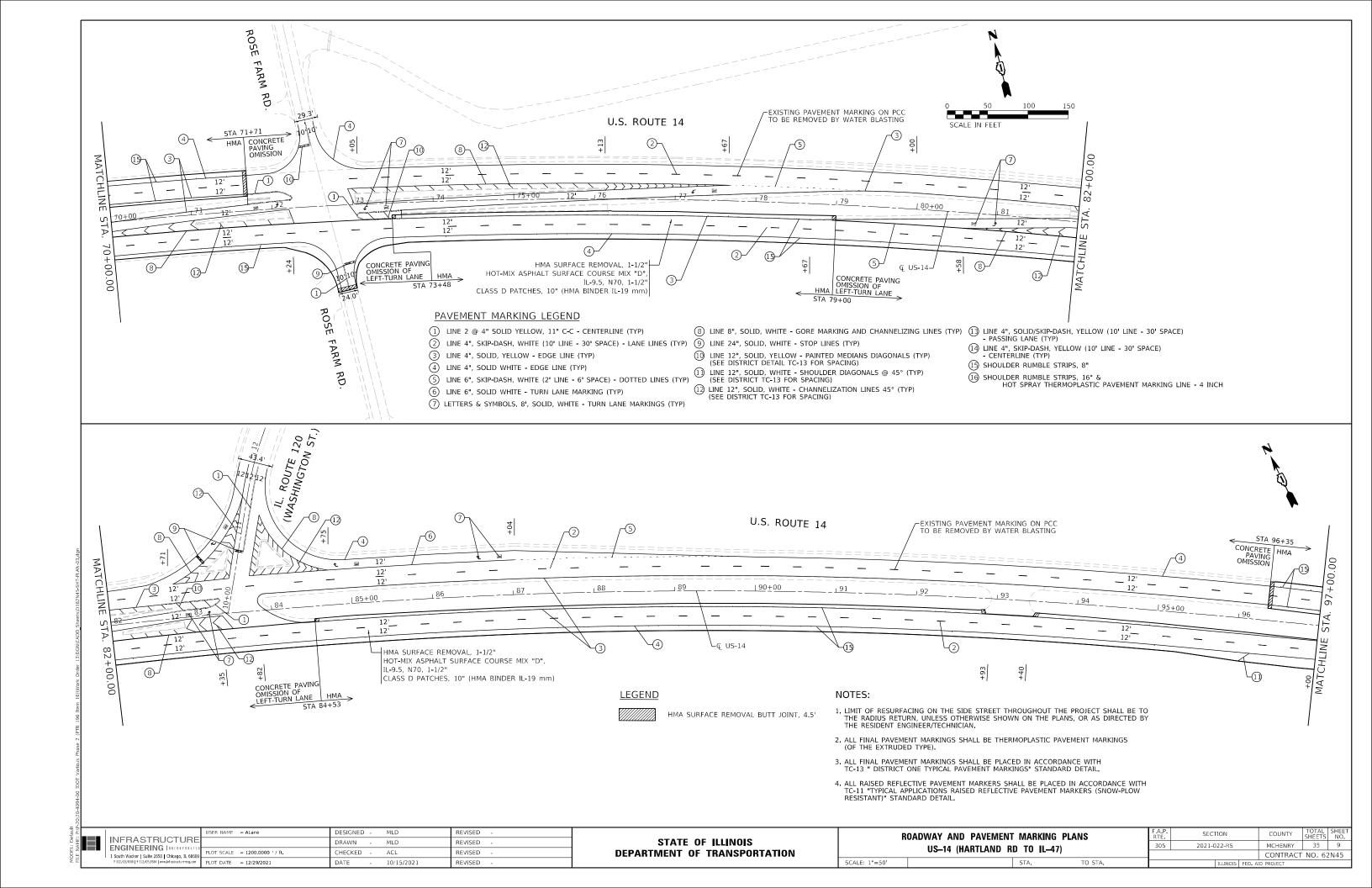
A.P. SECTION COUNTY TOTAL SHEET NO. 305 2021-022-RS MCHENRY 35 5
CONTRACT NO. 62N45

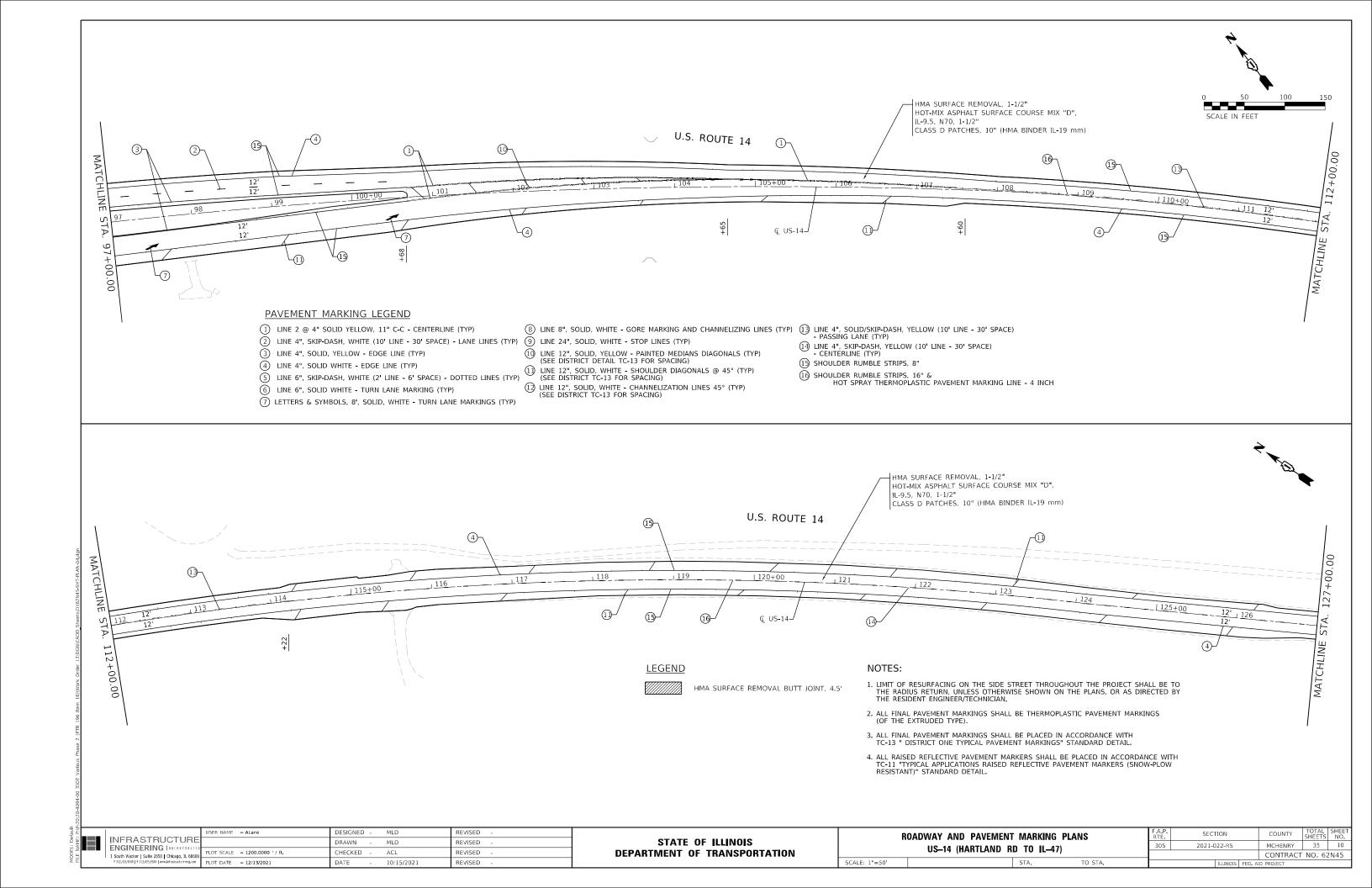


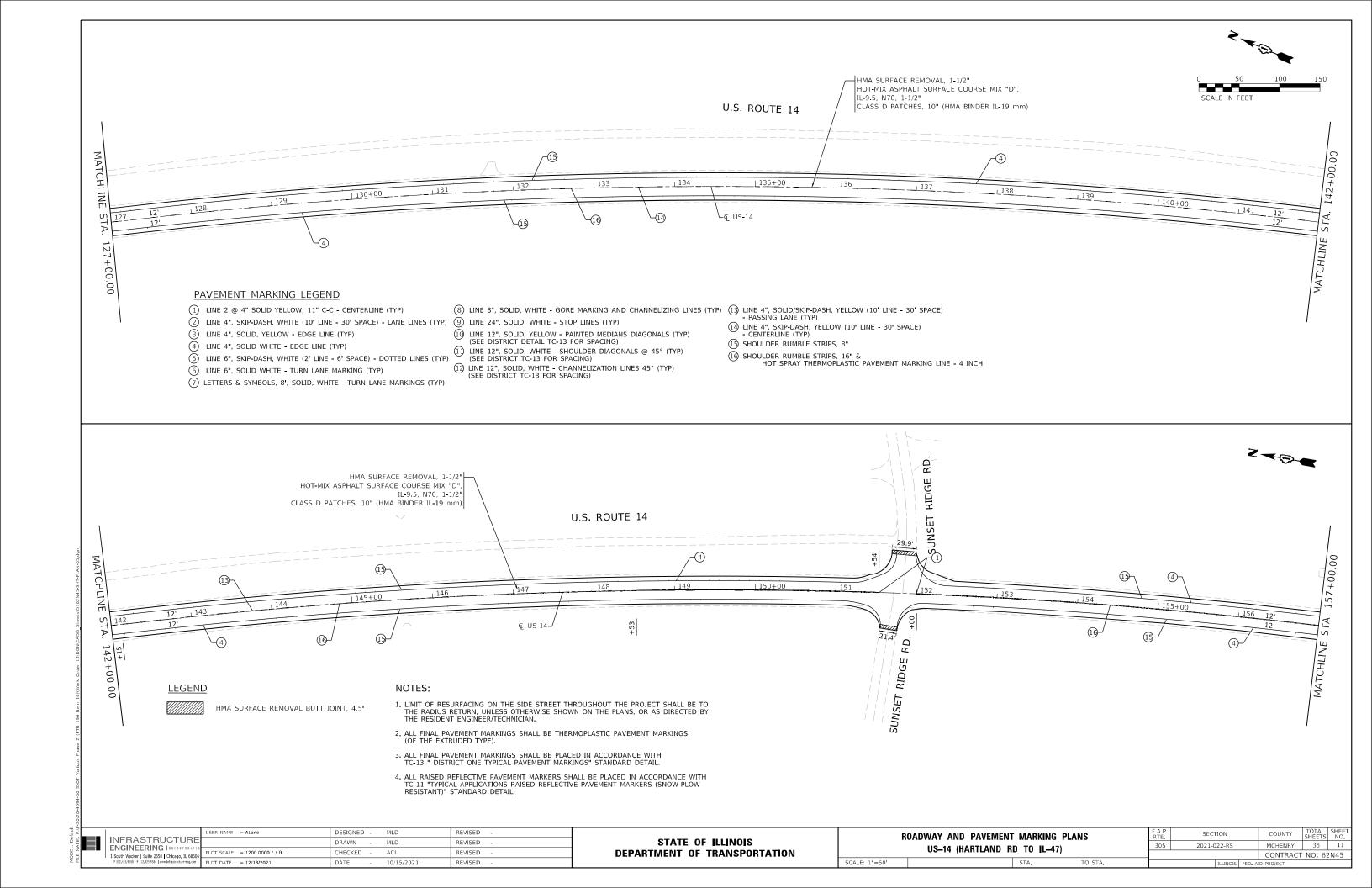
PLOT DATE = 12/13/2021 10/15/2021

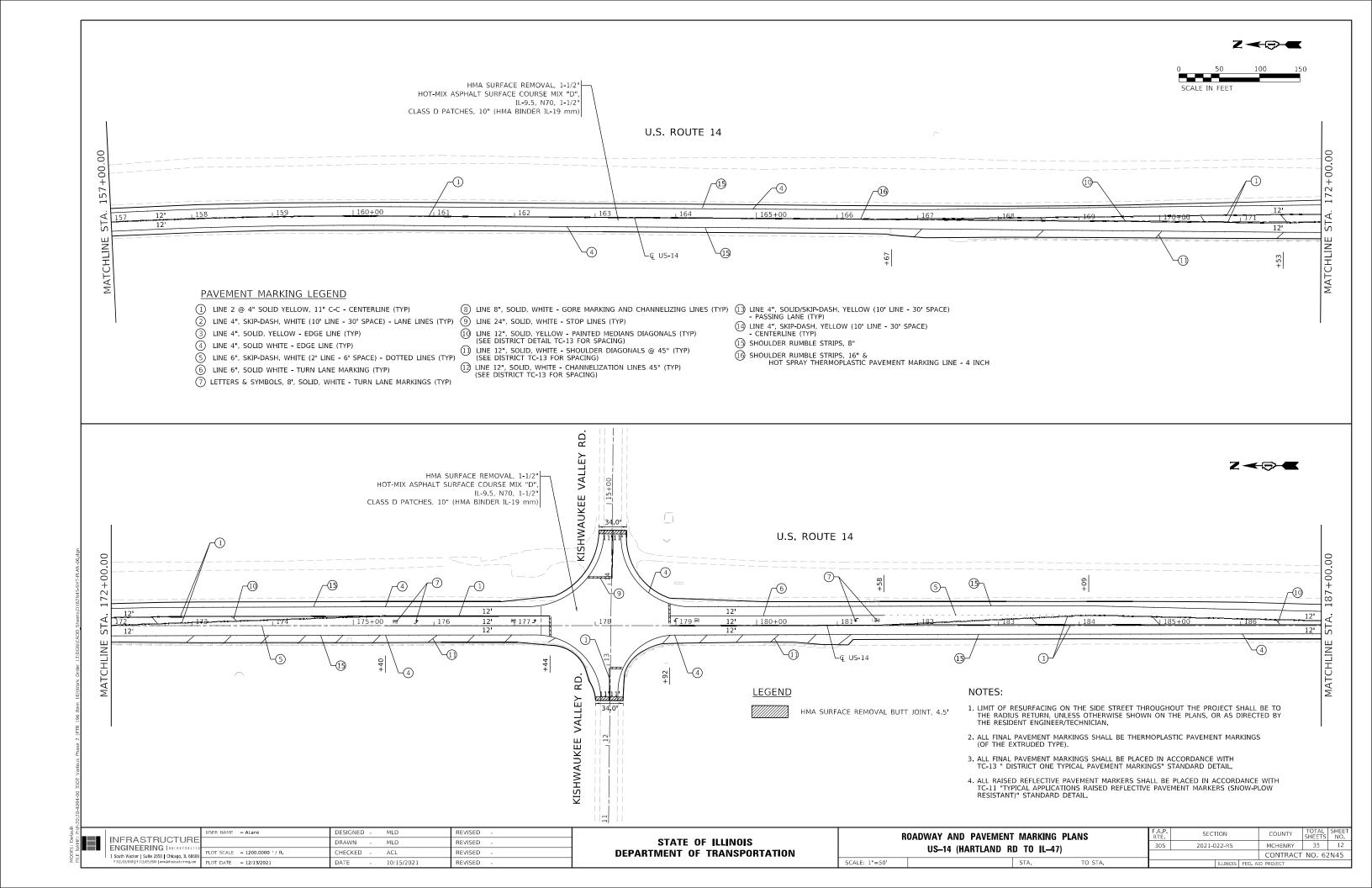


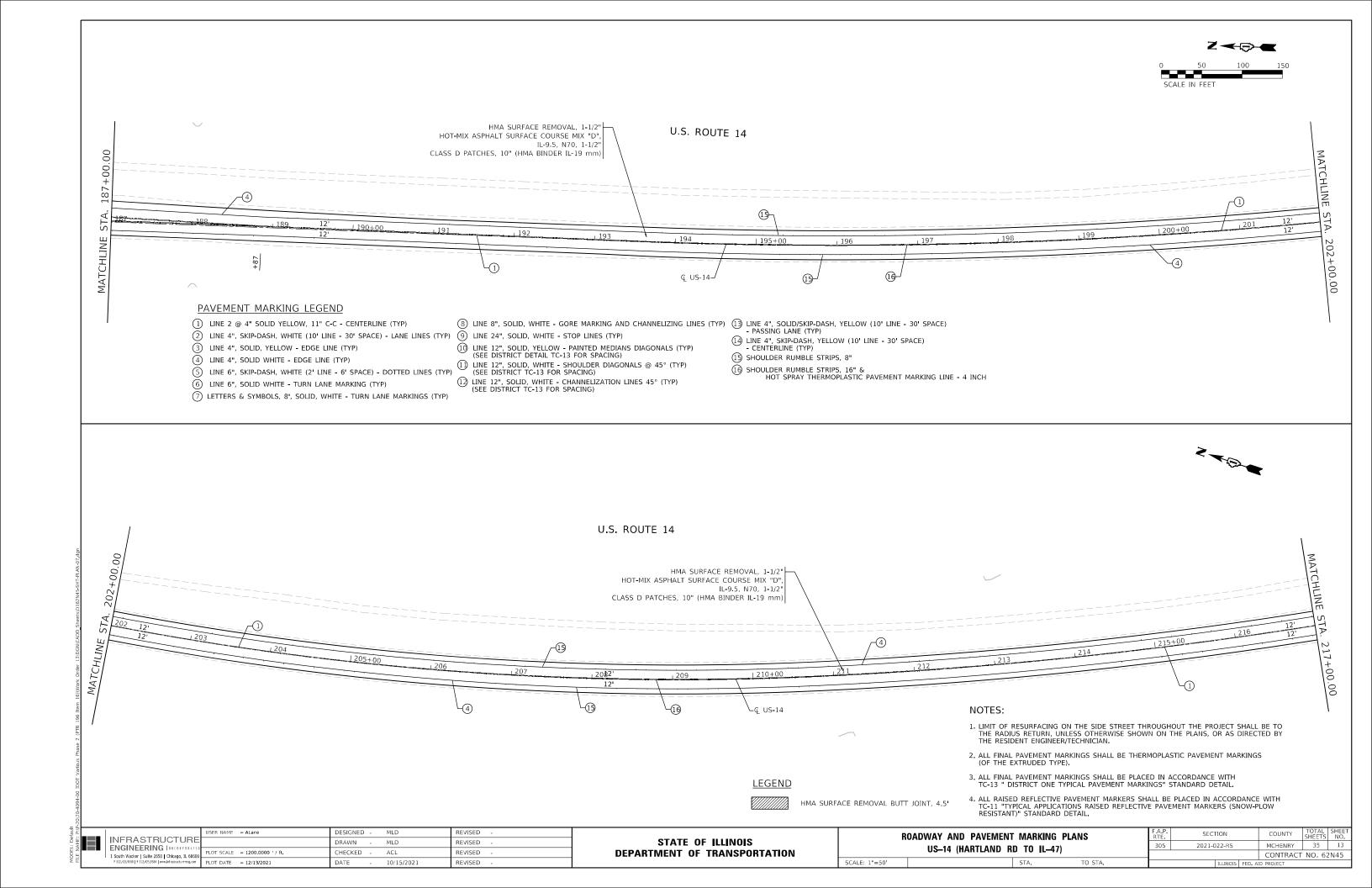


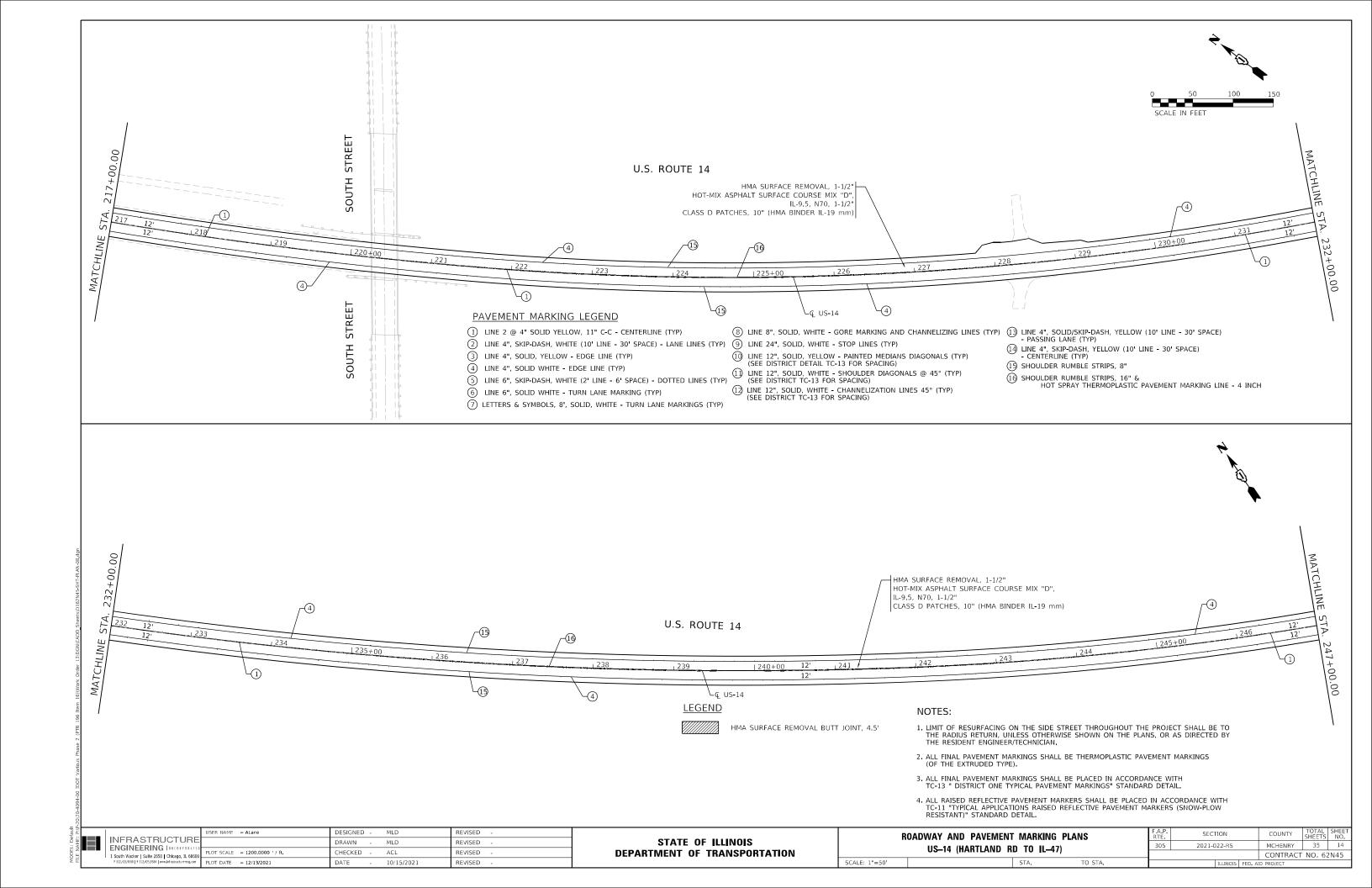


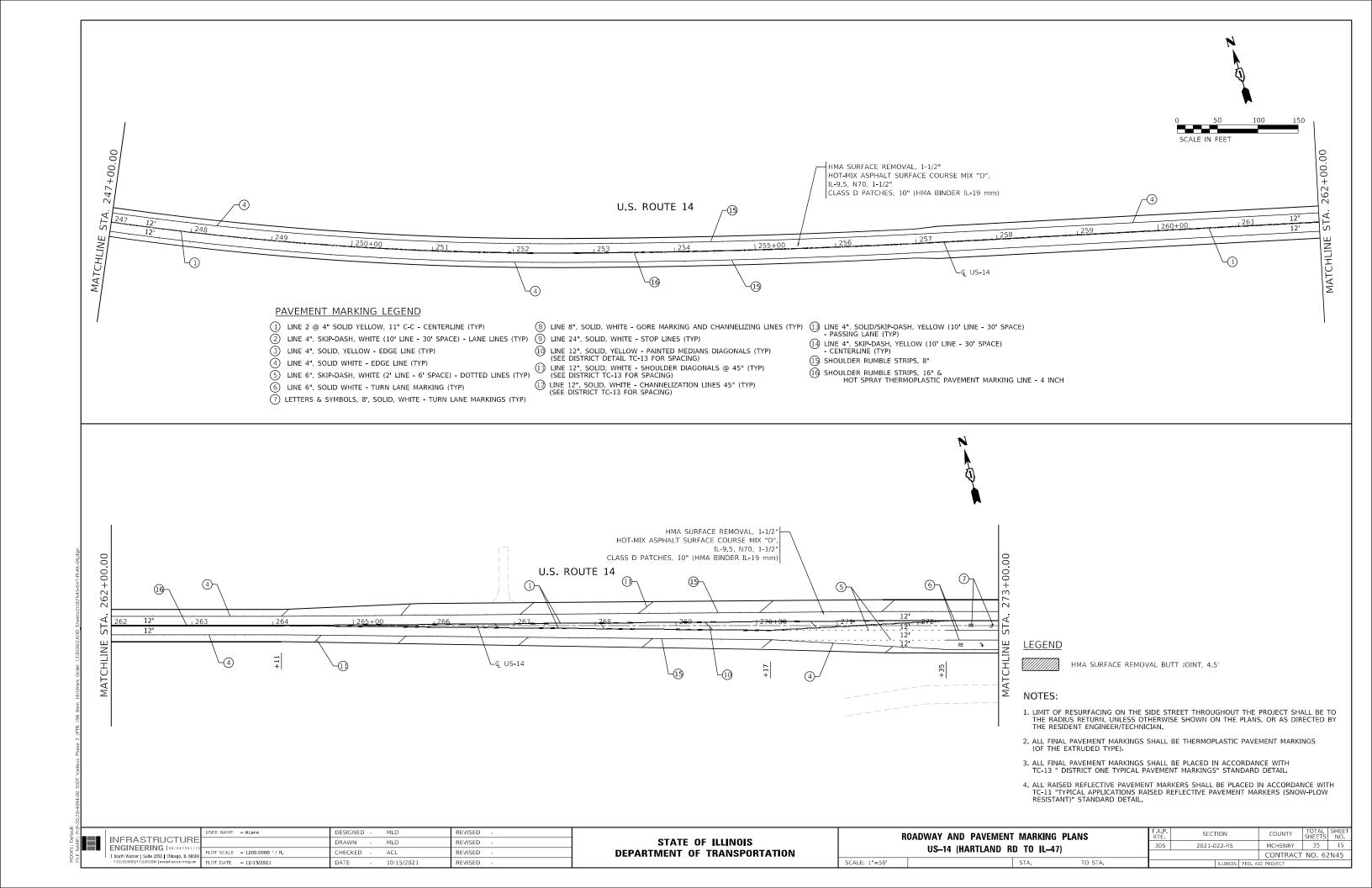


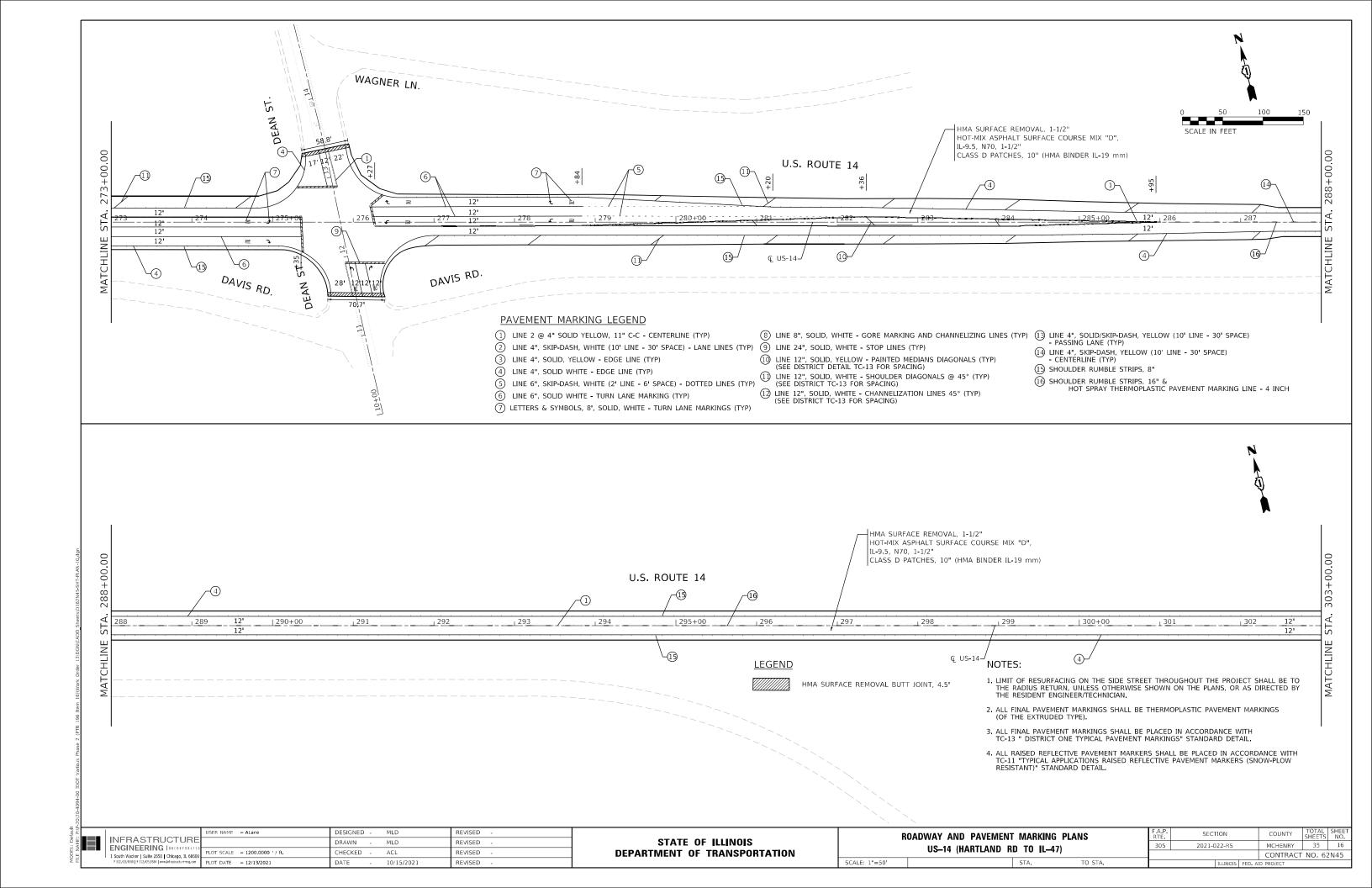


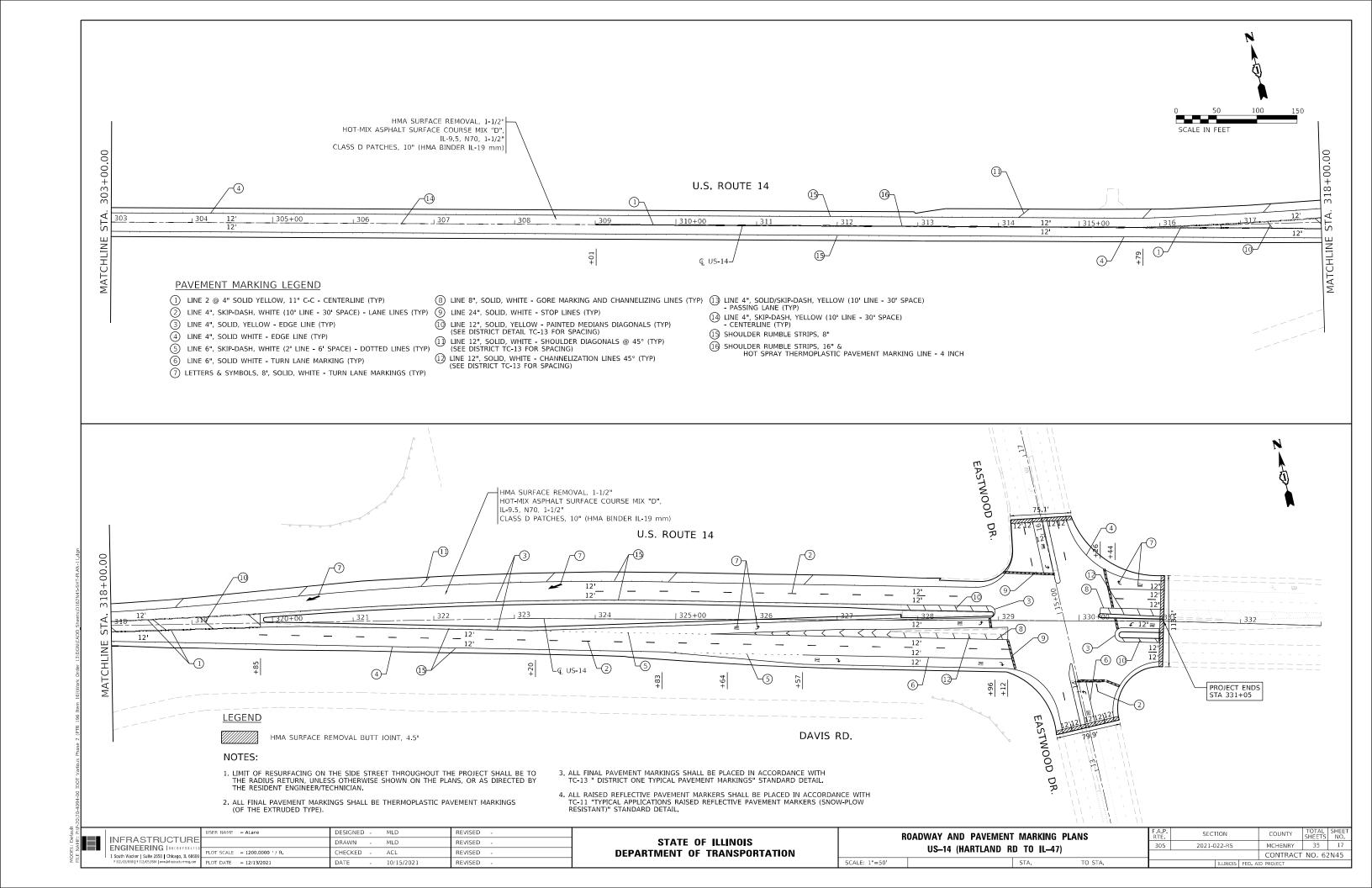


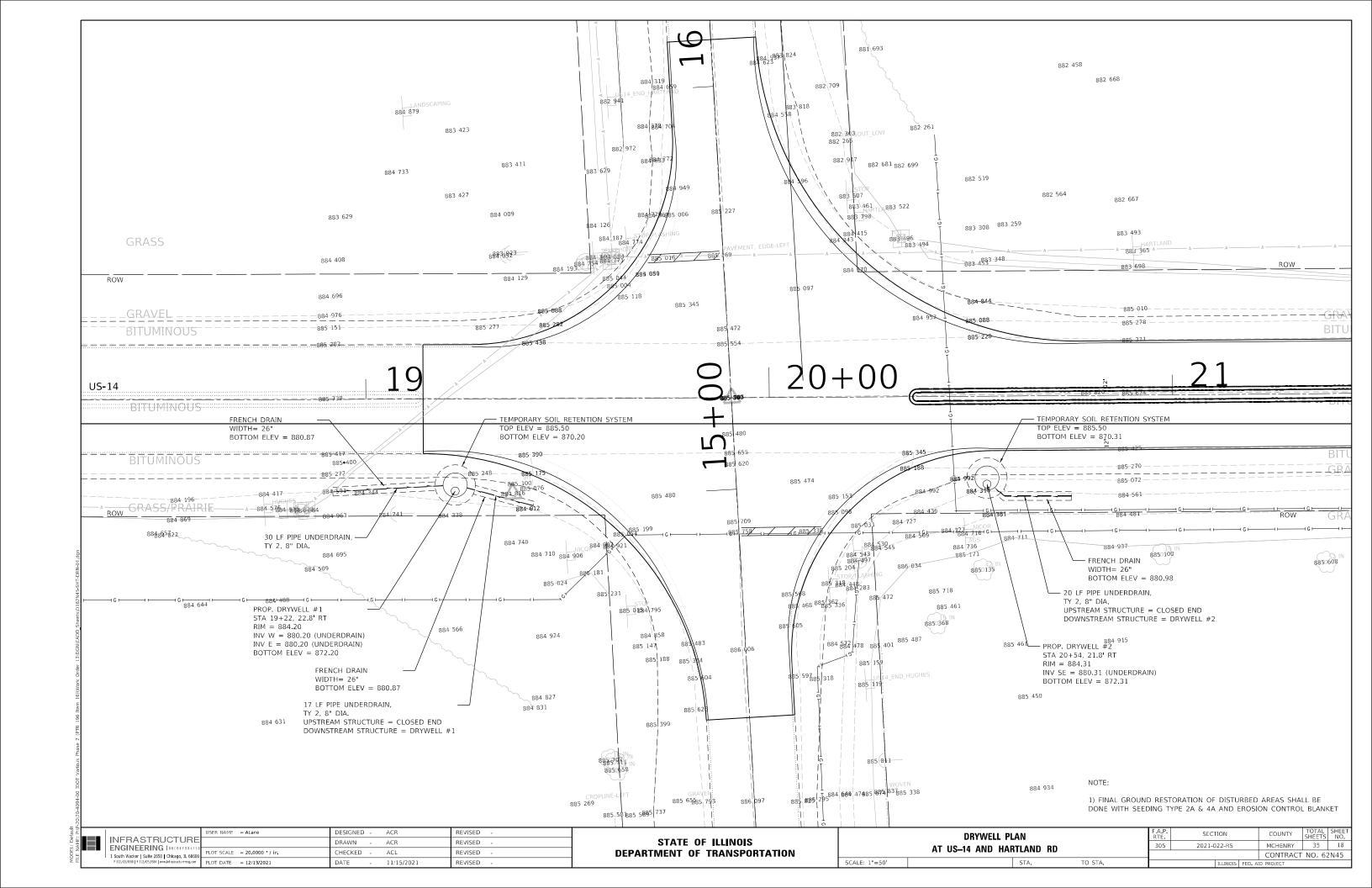


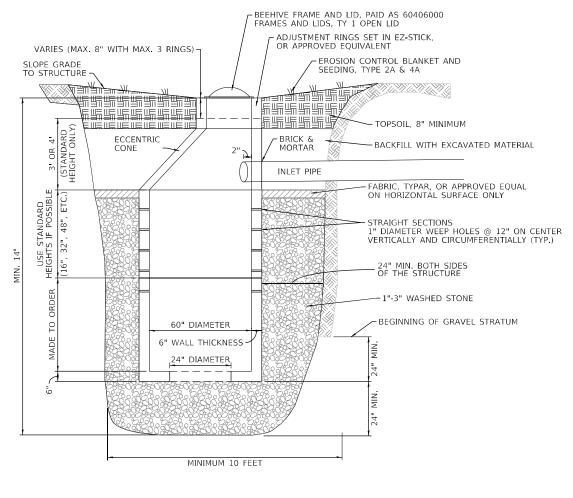










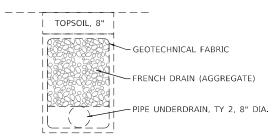


REVISED

REVISED REVISED

REVISED

DRYWELL DETAIL



SCALE: 1"=50'

FRENCH DRAIN DETAIL

#### DRYWELLS

DESCRIPTION. THIS WORK SHALL CONSIST OF CONSTRUCTING DRYWELLS.

GENERAL. DRYWELLS SHALL BE CONSTRUCTED ACCORDING TO APPLICABLE PORTIONS OF SECTION 602 OF THE STANDARD SPECIFICATIONS, THIS DETAIL, TO THE LINES AND GRADES SHOWN ON THE PLANS AND AS DIRECTED BY THE RESIDENT ENGINEER / TECHNICIAN.

ALL EXCAVATED MATERIAL NOT NEEDED ON THE WORK SHALL BE DISPOSED OF ACCORDING TO ARTICLE 202.03.

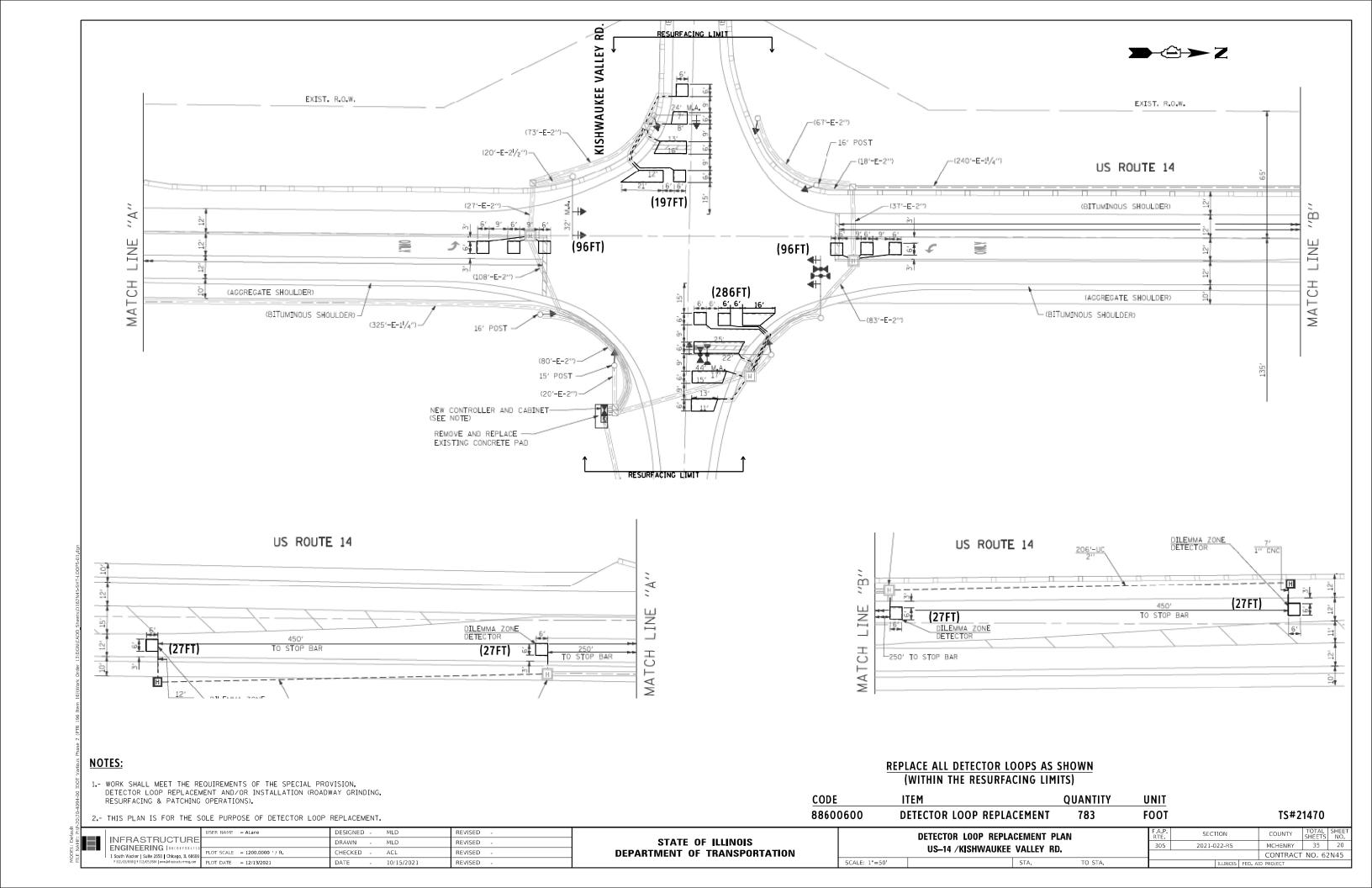
BASIS OF PAYMENT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR DRYWELL.

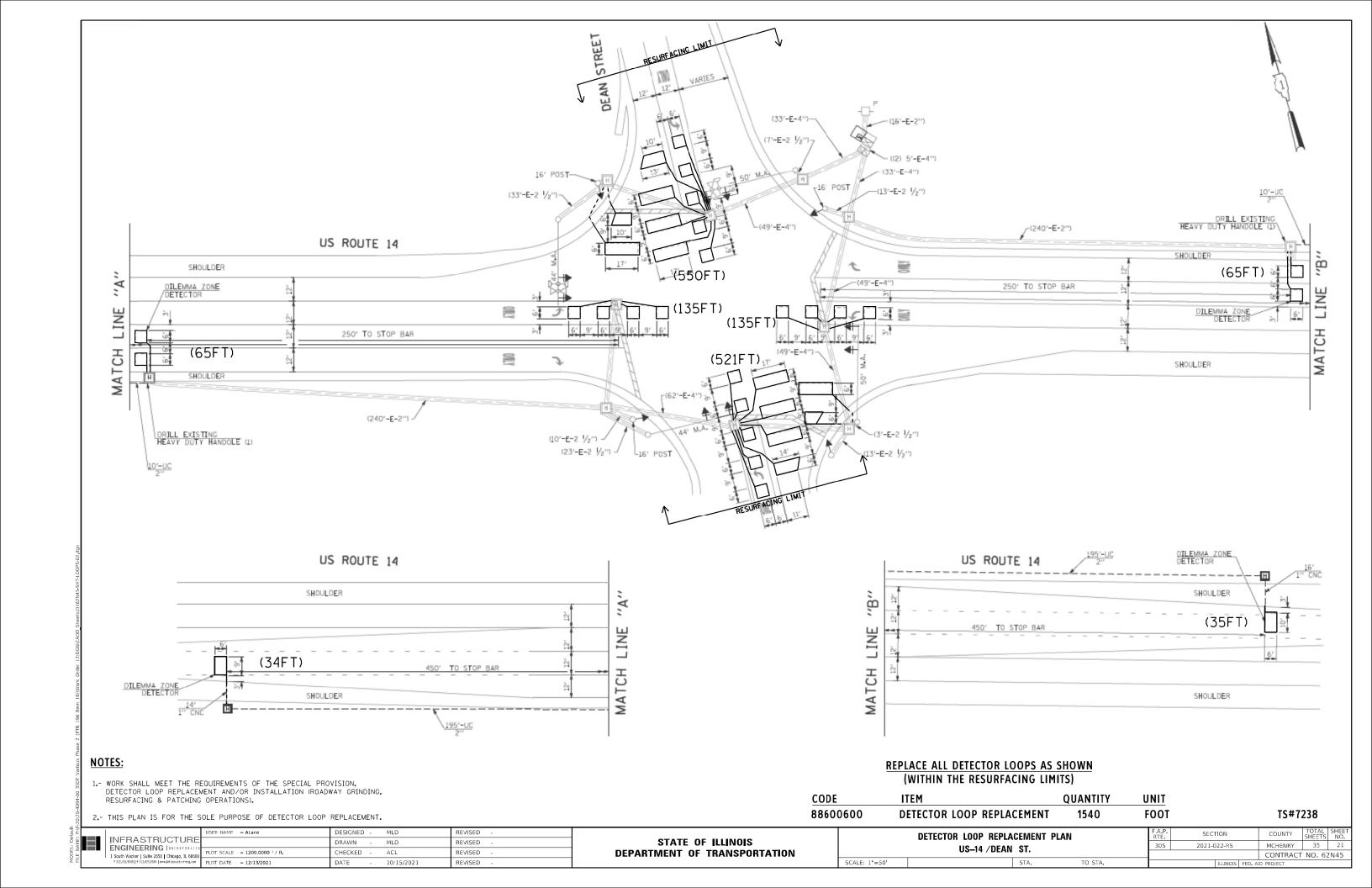
ALL EXCAVATION REQUIRED IN THE PERFORMANCE OF THE WORK, DISPOSAL OF EXCAVATION, BACKFILL, AND MATERIALS CALLED OUT IN THIS DETAIL (UNLESS OTHERWISE NOTED) SHALL BE INCLUDED IN THE UNIT BID PRICE PER EACH FOR DRYWELL.

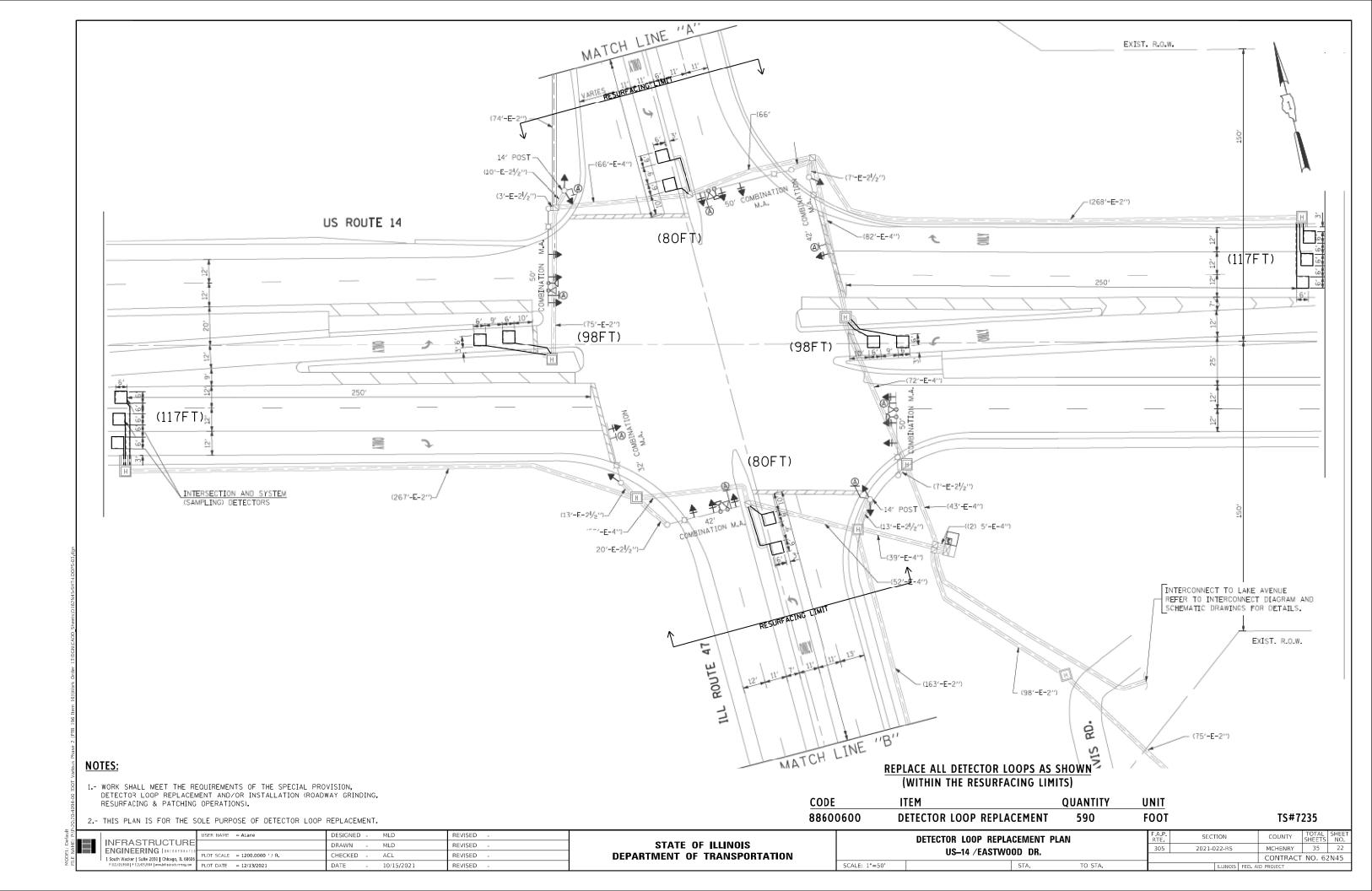
		ARalph	DESIGNED	-	ACR
INFRASTRUCTURE			DRAWN	-	ACR
ENGINEERING   INCORPORATED  1 South Wacker   Suite 2650   Chicago, IL 60606	PLOT SCALE =	100.0000 ' / in.	CHECKED	-	ACL
P 312 425 9560   F 312 425 9564   www.infrastructure-eng.com		12/28/2021	DATE	-	11/15

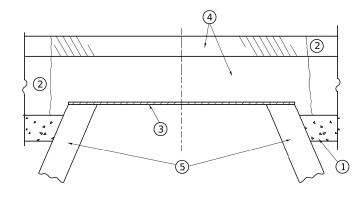
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

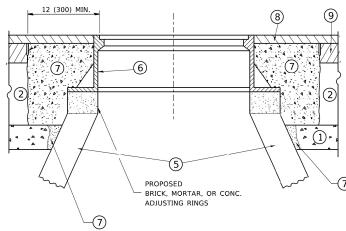
			F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.	
				305	2021-022-RS	MCHENRY	35	19
						CONTRACT	F NO. 67	2N45
		STA	TO STA		TILLIMOIS FED	AID PROJECT		











EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

#### **CONSTRUCTION PROCEDURES**

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1½ (40)
  THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1 \*
  CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING
  BASE COURSE OR THE BINDER COURSE.
- $oldsymbol{*}$  UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602. AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER "

#### LEGEND

- 3 SUB-BASE GRANULAR MATERIAL
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- 7 CLASS PP-1 \*CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- 8 PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX

  (5) EXISTING STRUCTURE
- 9 PROPOSED HMA BINDER COURSE

#### **LOCATION OF STRUCTURES**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

#### **BASIS OF PAYMENT**

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

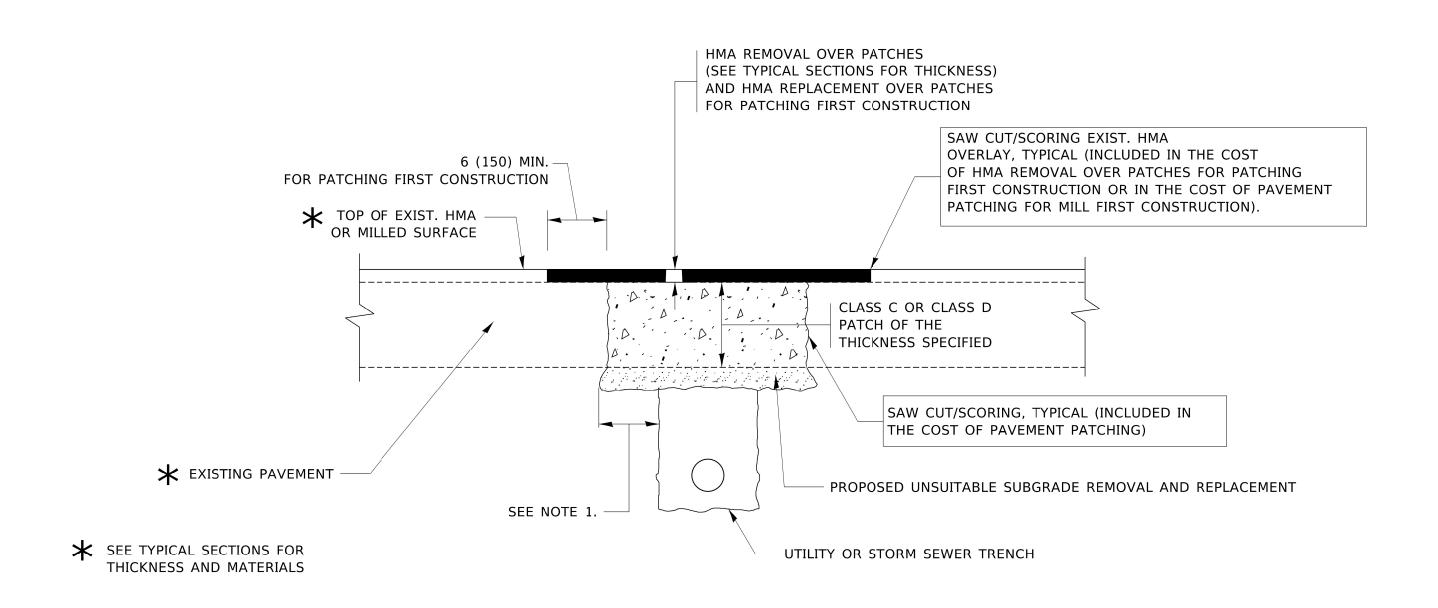
NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE - DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-08)



- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

## **SEQUENCE OF CONSTRUCTION (PATCHING FIRST)**

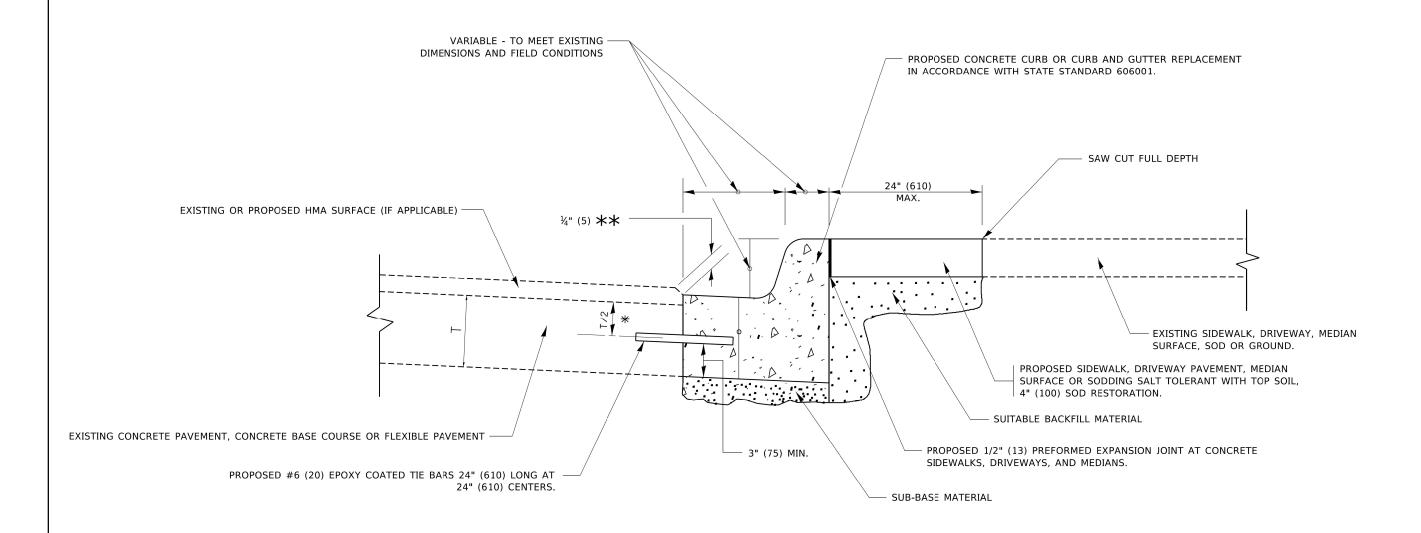
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# **SEQUENCE OF CONSTRUCTION (MILLING FIRST)**

- 1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

INIEDA CEDUCTURE	USER NAME = ALane	DESIGNED -	MLD	REVISED -			DISTRICT ONE – PAVEMEI	IT PATCHING	FOR	F.A.P. RTE	SECTION	COUNTY	TOTAL	SHEET NO.	
AM	FNGINFFRING LINCORPORATED		DRAWN -	MLD	REVISED -	STATE OF ILLINOIS		HMA SURFACED PAVE			305	2021-022-RS	MCHENRY	35	24
1 South Wacker   Suite 2650   Chicago, IL 60606	PLOT SCALE = 1200.0000 ' / ft.	CHECKED -	ACL	REVISED -	DEPARTMENT OF TRANSPORTATION				.,	CON			NO. 67	2N45	
I	P 312 425 9560   F 312 425 9564   www.infrastructure.eng.com	PLOT DATE = 12/13/2021	DATE -	10/15/2021	REVISED -		SCALE: 1"=50'		STA.	TO STA.		ILLINOIS FED.	AID PROJECT		



- $\divideontimes$  3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- $\star\star$  IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

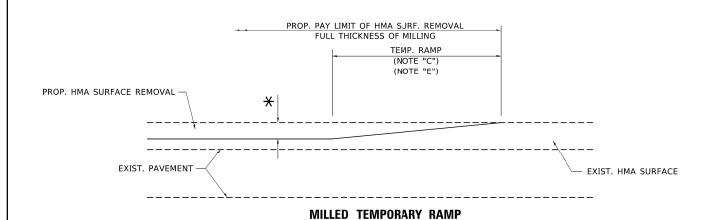
# **CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

IN EN

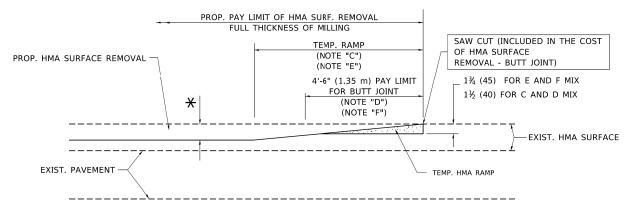
	USER NAME = ALane	DESIGNED -	MLD	REVISED -
INFRASTRUCTURE		DRAWN -	MLD	REVISED -
ENGINEERING   INCORPORATED  1 South Wacker   Suite 2650   Chicago, IL 60606		CHECKED -	ACL	REVISED -
P 312-425.9560   F 312-425.9564   www.infrastructure.eng.com		DATE -	10/15/2021	REVISED -

DIS	STRICT	ONE	- (	URB	OR	CURB	AND	<b>GUTTER</b>	1	
	REMO	VAL	AND	REP	LACI	EMENT	(BD	<b>–24</b> )		
						CTA		TO	CTA	



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

#### OPTION 1

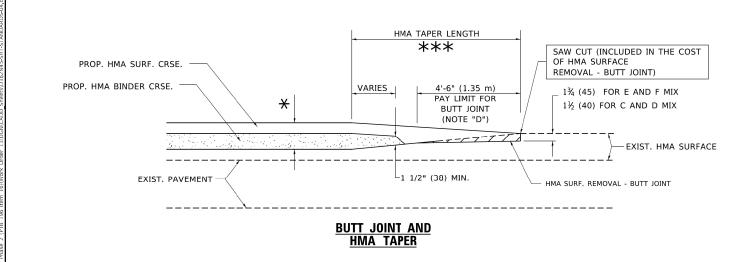


#### HMA CONSTRUCTED TEMPORARY RAMP

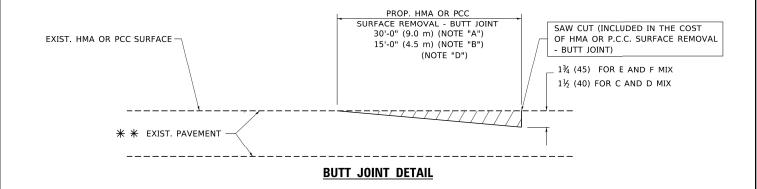
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

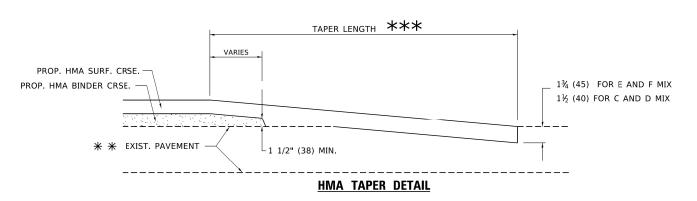
#### OPTION 2

## TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

#### NOTES

- A. MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B. MINOR SIDE ROADS.
- C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E. TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F. INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL BUTT JOINT.

  \*\* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- G. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

#### **BASIS OF PAYMENT**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER)
FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR
FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

SCALE: 1"=50"

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MCHENRY

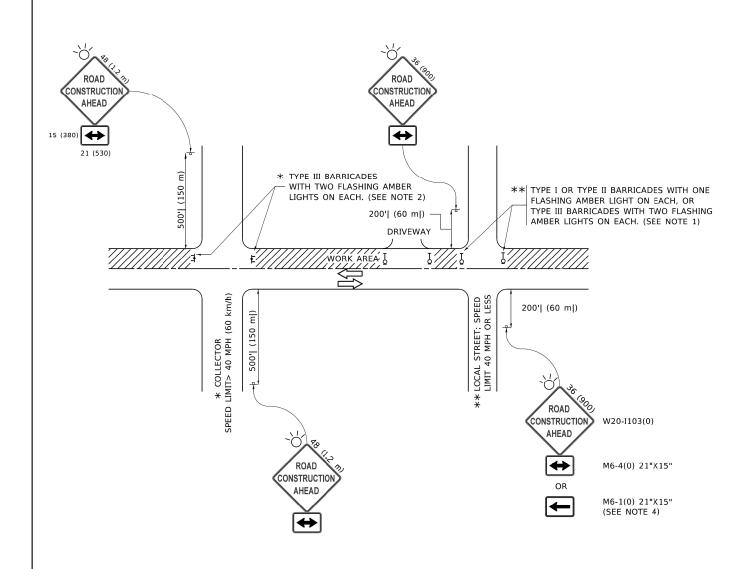
CONTRACT NO. 62N45

35 26

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE - BUTT JOINT AND
HMA TAPER DETAILS (BD-32)

F.A.P. RTE. SECTION
305 2021-022-RS



- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY
  b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION
  OF THE CLOSED PORTION.
- 3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE
  4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL
  BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

- WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER
- 7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

JSER NAME = ALane DESIGNED -MLD REVISED **INFRASTRUCTURE** DRAWN MLD REVISED ENGINEERING LINCORPOR LOT SCALE = 1200.0000 / ft. ACL REVISED 1 South Wacker | Suite 2650 | Chicago, IL 60606 PLOT DATE = 12/13/2021 REVISED 10/15/2021

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

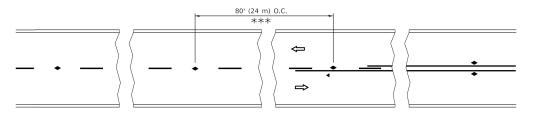
DISTRICT ONE – RUMBLE STRIPS FOR CENTERLINE,
NON–FREEWAY (BD–55)

SCALE: 1"=50' STA. TO STA.

F.A.P. SECTION COUNTY TOTAL SHEETS NO.

305 2021-022-RS MCHENRY 35 27

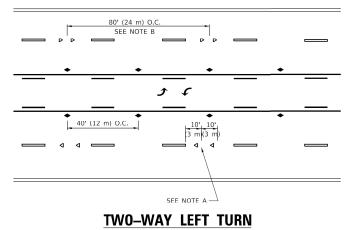
CONTRACT NO. 62N45



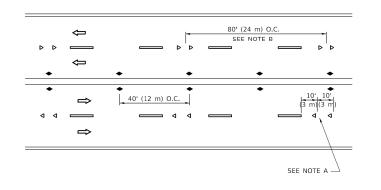
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

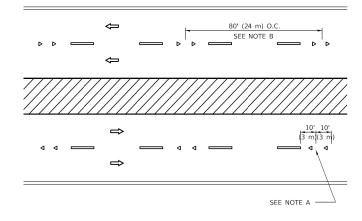
# 3 @ 40' (12 m) O.C. $\Rightarrow$ LANE REDUCTION TRANSITION

SEE FIGURE 3B-14 MUTCD



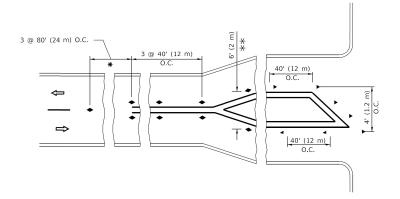
#### TW0-LANE/TW0-WAY

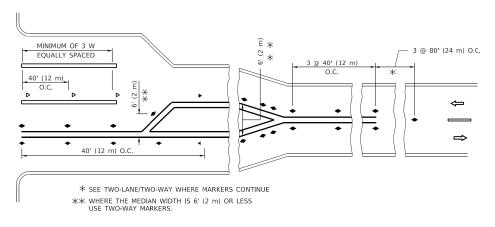




#### MULTI-LANE/UNDIVIDED







#### **TURN LANES**

### **GENERAL NOTES**

- 1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
- 4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

#### LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

#### **DESIGN NOTES**

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

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

MLD SER NAME = ALane DESIGNED -REVISED INFRASTRUCTURE DRAWN MLD REVISED ENGINEERING LINCORPO PLOT SCALE = 1200.0000 ' / ft. HECKED ACL REVISED 1 South Wacker | Suite 2650 | Chicago, IL 60606 PLOT DATE = 12/13/2021 DATE 10/15/2021 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  DISTRICT ONE - TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)

SECTION 35 28 305 2021-022-RS MCHENRY CONTRACT NO. 62N45

**SYMBOLS** 

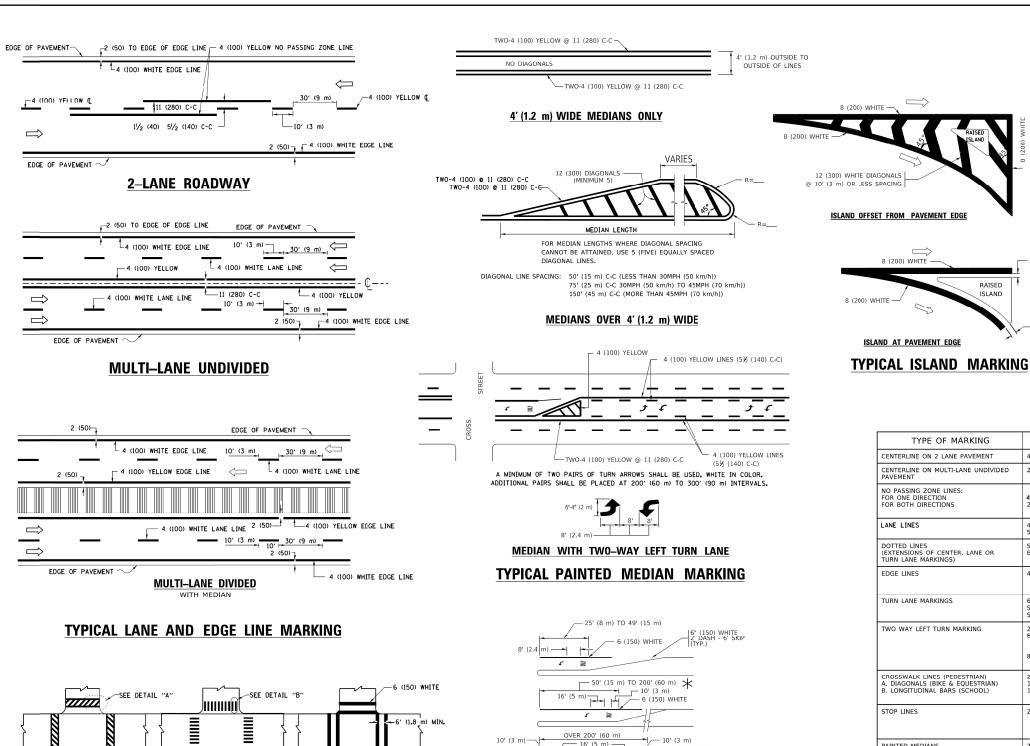
ONE-WAY AMBER MARKER

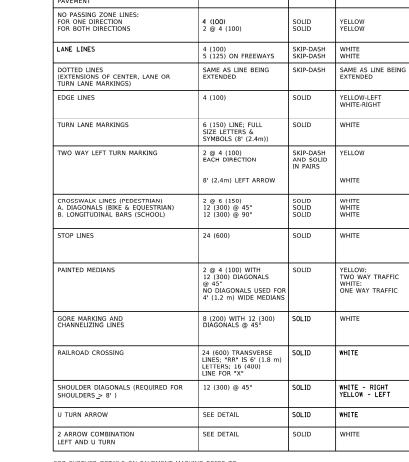
TWO-WAY AMBER MARKER

ONE-WAY CRYSTAL MARKER (W/O)

YELLOW STRIPE

WHITE STRIPE





FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

REFLECTI

All dimensions	are	in	inches	(millimeters)
unless otherwi	se sl	hον	vn.	

DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))

50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

D(FT)

425

580

665

LANE REDUCTION TRANSITION \* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

SPACING / REMARKS

5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN

10' (3 m) LINE WITH 30' (9 m) SPACE

2' (600) LINE WITH 6' (1.8 m) SPACE

SEE TYPICAL TURN LANE MARKING DETAIL

10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL

SEE TYPICAL CROSSWALK MARKING DETAILS

PLACE 4' (1.2 m) IN ADVANCE OF AND
PARALIEL TO CROSSWALK. IF PRESENT.
OTHERWISE, PLACE AT DESIRED STOPPING
POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE
POSSIBLE

11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.

SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m 2EACH "X"=54.0 SQ. FT. (5.0 m 2

30.4 SF

NOT LESS THAN 6' (1.8 m) APART 2' (600) APART

' (600) APART

OUTLINE MEDIANS IN YELLOW

SPEED LIMIT

45

USER NAME = ALane	DESIGNED - MLD	REVISED -
NFRASTRUCTURE	DRAWN - MLD	REVISED -
VGINEERING   INCORPORATED OUT WASHINGTON OUT OF THE PLOT SCALE = 1200,0000 ' / ft.	CHECKED - ACL	REVISED -
312.425.9550   F312.425.9554   www.linfrastructure.eng.com   PLOT DATE   = 12/13/2021	DATE - 10/15/2021	REVISED -

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

DIS	TRICT ONE – TYPICAL AP	PLICATION	S RAISED	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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1		STA	TO STA		TILINOIS EED A	D DROIECT		

COMBINATION

LEFT AND U-TURN

5'-4" (1620)

**U-TURN** 

COLOR

PATTERN

SKIP-DASH

— 2 (50)

2 (50)

WIDTH OF LINE

RAISED

TYPE OF MARKING

CENTERLINE ON 2 LANE PAVEMENT

8 (200) WHITE -

/////// BICYCLE & EOUESTRIAN **PEDESTRIAN** 2' (600) -6 (150) WHITE -12 (300) WHITE DETAIL "A" DETAIL "B" TYPICAL CROSSWALK MARKING

\_\_\_ 6 (150) WHITE

 $\star$  TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

#### TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

# **LEGEND** KEEP RIGHT R4-7a 24"X30" WORK AREA LANE OPEN TO TRAFFIC ARROW BOARD TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT DRUM WITH STEADY BURN LIGHT SIGN ASSEMBLY TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

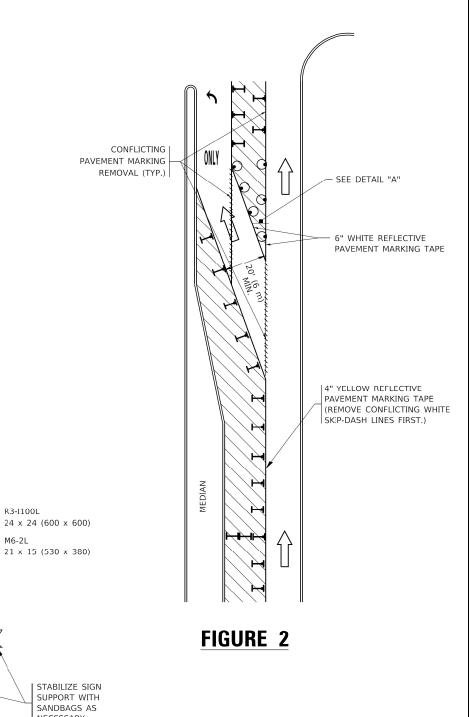
# NOTES:

4" YELLOW REFLECTIVE PAVEMENT MARKING TAPE (REMOVE CONFLICTING WHITE SKIP-DASH LINES FIRST.)

- ARROW BOARD

- 1. A) WHEN "L" IS ≤ THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
  - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- 2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- 3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- 5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
- 6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREOUIREMENTS.
- 8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

# **TURN BAY ENTRANCE** WITHIN A LANE CLOSURE



**DETAIL A** 

M6-2L

TURN

LANE

All dimensions are in inches (millimeters) unless otherwise shown

SEE DETAIL "A" -

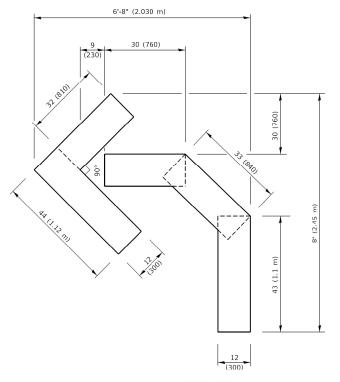
MLD DESIGNED -REVISED INFRASTRUCTURE DRAWN MLD REVISED ENGINEERING LINCO HECKED ACL REVISED 1 South Wacker | Suite 2650 | Chicago, IL 60606 PLOT DATE = 12/13/2021 REVISED DATE 10/15/2021

FIGURE 1

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

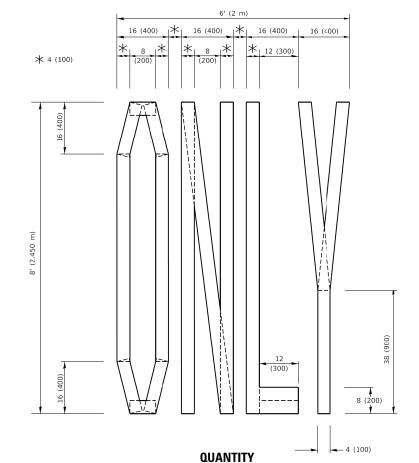
DISTRICT ONE - TYPICAL PAVEMENT MARKINGS	F.A.P. RTE	SECTION
(TC-13)	305	2021-022-RS
(10-10)		

MCHENRY 35 CONTRACT NO. 62N45 SCALE: 1"=50"

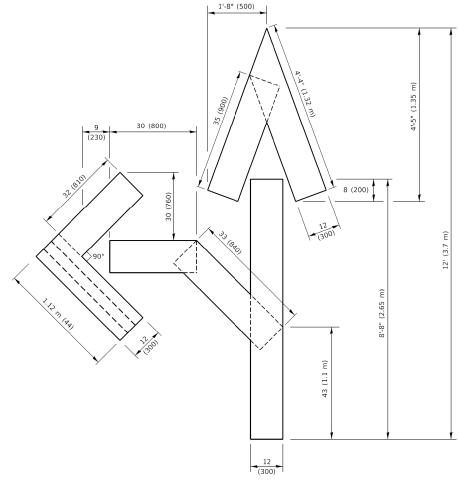


#### **QUANTITY**

4 (100) LINE = 45.5 ft. (13.9 m)15.2 sq. ft. (1.41 sq. m)



4 (100) LINE = 64.1 ft. (19.5 m)21.4 sq. ft. (1.99 sq. m)

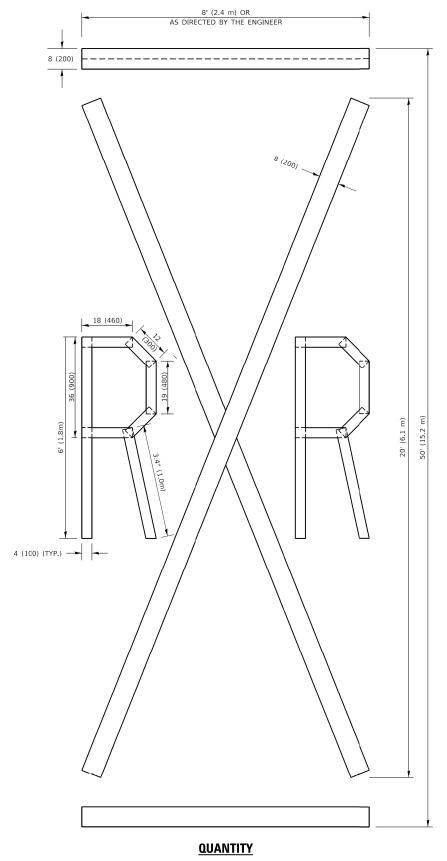


#### QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m) 27.5 sq. ft. (2.53 sq. m)

#### NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



4 (100) LINE = 225.9 ft. (68.9 m) 75.3 sq. ft. (6.99 sq. m)

All dimensions are in inches (millimeters)

unless otherwise shown.

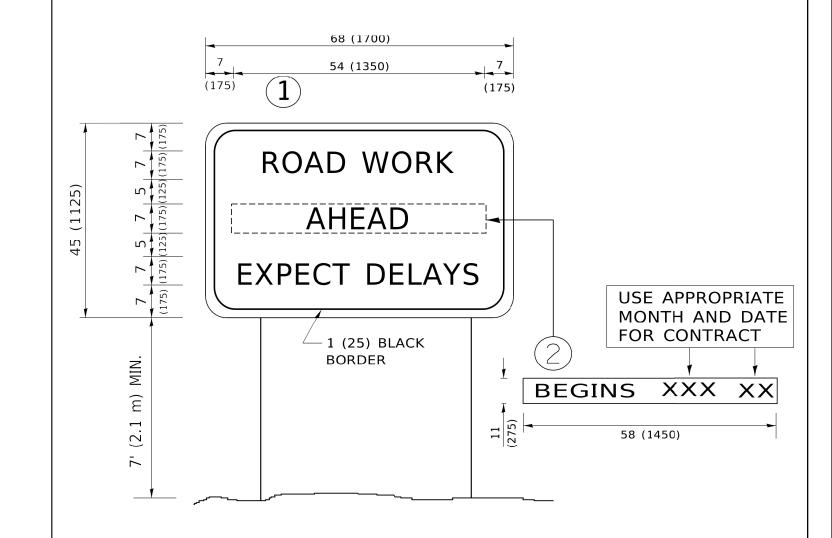
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	USER NAME = ALane	DESIGNED - MLD	REVISED -
INFRASTRUCTURE ENGINEERING INCORPORATED		DRAWN - MLD	REVISED -
1 South Wacker   Suite 2650   Chicago, IL 60606	DIOT CCALE = 1200 0000 1 / ft	CHECKED - ACL	REVISED -
	PLOT DATE = 12/13/2021	DATE - 10/15/2021	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

DISTRICT ONE	 	AND PROTEC (O TRAFFIC) (	TION AT TURN BAYS TC—14)
SCALE: 1"=50'		STA.	TO STA.

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHE
305	2021-022-RS	MCHENRY	35	31
		CONTRACT	NO. 62	2N45



- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN(1)WITH INSTALLED PANEL(2)ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL(2)SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
- 7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

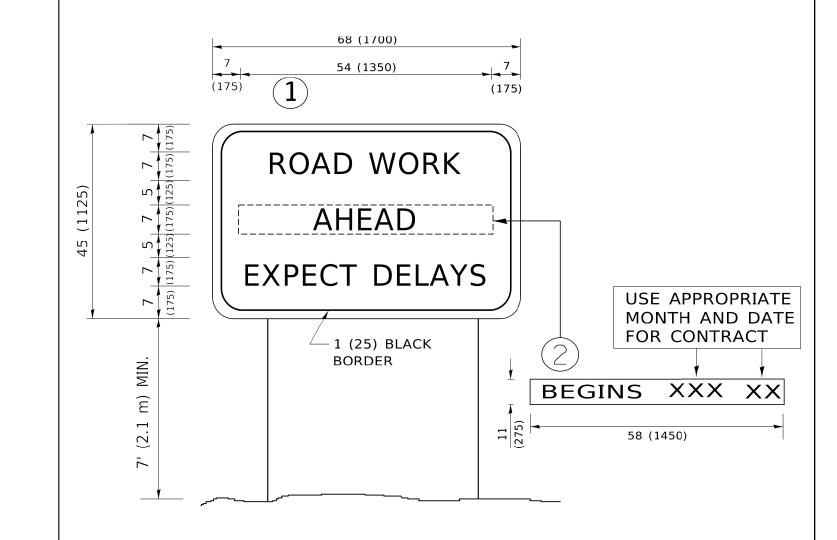
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

|--|--|

	USER NAME = ALane	DESIGNED - MLD	REVISED -
INFRASTRUCTURE ENGINEERING   INCORPORATED 1 South Wacker   Suite 2650   Chicago, IL 60606   2312-255559   F312-255559   www.infrastructure-tog.com		DRAWN - MLD	REVISED -
	PLOT SCALE = 1200 0000 1 / ft	CHECKED - ACL	REVISED -
		DATE - 10/15/2021	REVISED -

DISTF	RICT ONE – SHORT LETTERS AND	TERM PAVEMEN SYMBOLS (TC-10		
SCALE: 1"=50'		STA.	TO STA.	

F.A.P. RTE	SECTION		COUNTY	TOTAL SHEETS	SHE
305	2021-022-RS		MCHENRY	35	32
			CONTRACT	NO. 62	2N45
	TILIMOIS	EED A	ID PROJECT		



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SCALE: 1"=50'

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

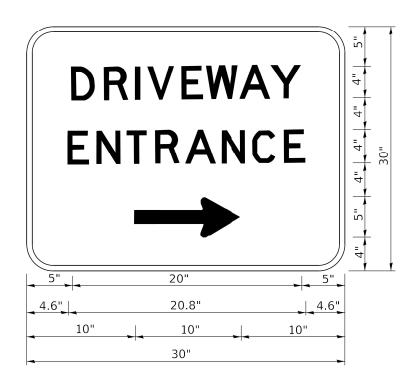
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	USER NAME = ALane	DESIGNED - MLD	REVISED -
INFRASTRUCTURE ENGINEERING   INCORPORATED 1 South Wacker   Suite 2650   Chicago, IL 60606		DRAWN - MLD	REVISED -
		CHECKED - ACL	REVISED -
P 312 425 9560   F 312 425 9564   www.infrastructure.eng.com		DATE - 10/15/2021	REVISED -

DISTRICT ONE -	ARTERIAL ROAD
INFORMATION	SIGN (TC-22)
	CT.

TO STA.

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
305	2021-022-RS	MCHENRY	35	33
		CONTRACT	NO. 62	2N45
	TILLINOIS FED A	ID PROJECT		



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

#### NOTES:

- 1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
- 2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
- 3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

DESIGNED -REVISED SECTION INFRASTRUCTURE DISTRICT ONE - DRIVEWAY ENTRANCE SIGNING STATE OF ILLINOIS DRAWN MLD REVISED 2021-022-RS MCHENRY CHECKED ACL REVISED **DEPARTMENT OF TRANSPORTATION** 1 South Wacker | Suite 2650 | Chicago, IL 60606 CONTRACT NO. 62N45 PLOT DATE = 12/13/2021 SCALE: 1"=50"

# LOOPS NEXT TO SHOULDERS PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. I PAVED OR NON-PAVED SHOULDER (1.5 m) (1.8 m) (1.5 m) 1" (25 mm) UNIT DUCT-TRENCHED (3.0 m) (3.0 m)TO E/P \*\*

\* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

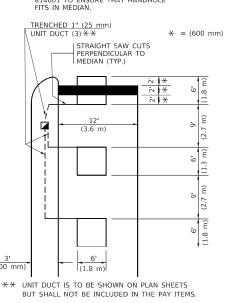
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

 $\times$  = (600 mm)

## LEFT TURN LANES WITH MEDIANS **VOLUME DENSITY ("FAR OUT" DETECTION)**

#### ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

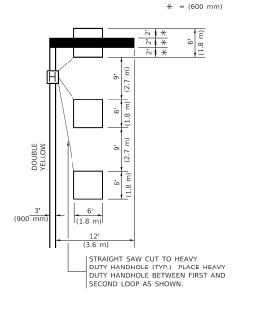


PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

#### LEFT TURN LANES WITHOUT MEDIANS

VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

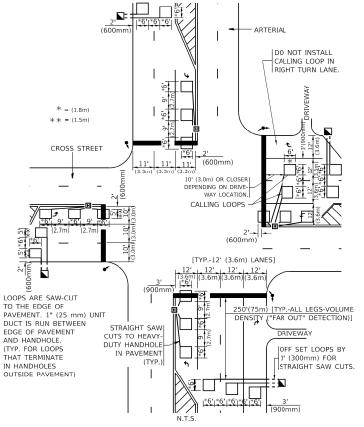


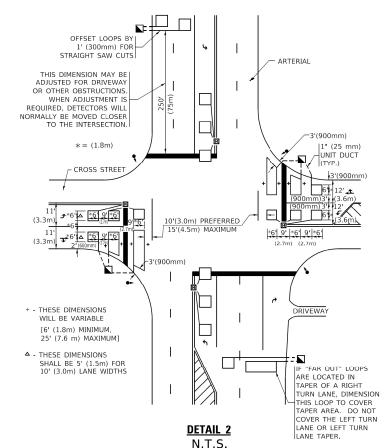
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

SCALE: 1"=50"

#### ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-NON VOLUME DENSITY ("FAR OUT" DETECTION)

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)





#### NOTES:

#### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED. SHIFL DED
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

#### PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS, "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

#### NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

DETAIL 1	
N.T.S.	

INFRASTRUCTURE ENGINEERING   INCOPPORTED 1 South Wacker   Suite 2650   Chicago, IL 60606	USER NAME	= ALane	DESIGNED -	MLD	REVISED -	
			DRAWN -	MLD	REVISED -	
		= 100.0000 ' / in.	CHECKED -	ACL	REVISED -	
	P 312 425 9568 LF 312 425 9564 Lwarm infrastructure enn com		- 12/12/2021	DATE	10/15/2021	DEVICED

STATE OF ILLINOIS

DISTRICT ONE - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

SECTION COUNTY 305 2021-022-RS MCHENRY 35 CONTRACT NO. 62N45

**DEPARTMENT OF TRANSPORTATION**