02-28-14 LETTING ITEM 052

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

**DIVISION OF HIGHWAYS** 

PROPOSED

HIGHWAY PLANS

F.A.P. ROUTE 880: IL 131 (GREENBAY RD.)

WISCONSIN STATE LINE (RUSSELL RD.) TO IL 173 (ROSECRANS RD.)

SECTION: 32RS-6

RESURFACING LAKE COUNTY

C-91-047-14

THIS IMPROVEMENT IS LOCATED IN THE CITY OF ZION

TRAFFIC DATA

0

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0

ADT (2011) = 13800 POSTED SPEED LIMIT = 45 MPH - 55 MPH

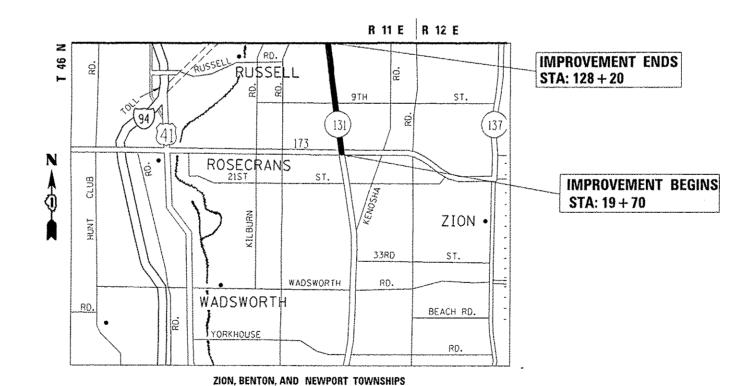
FOR INDEX OF SHEETS, SEE SHEET NO. 2

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

PROJECT ENGINEER: J. ALAIN MIDY (847) 221–3056
PROJECT MANAGER: ISSAM RAYYAN (847) 705–4178

CONTRACT NO. 60X26



GROSS & NET LENGTH = 10850 FT. = 2.06 MILES

D-91-047-14



DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

DIVIDENCE OF DESIGN AND ENVIRONMENT

ON 24 20 14

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

# INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES.
3-4	SUMMARY OF QUANTITIES
5-6	EXISTING AND PROPOSED TYPICAL SECTIONS
7-11	ROADWAY AND PAVEMENT MARKING PLAN
12-15	DETECTOR LOOP REPLACEMENT DETAILS
16	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-8)
17	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
18	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
19	BUTT JOINT AND HMA TAPER DETAILS (BD-32)
20	TRAFFIC CONTROL AND PROTECTION FOR SIDES ROADS, INTERSECTIONS AND DRIVEWAYS (TC-10)
21	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (TC-11)
22	DISTRICT 1 TYPICAL PAVEMENT MARKING (TC-13)
23	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
24	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFIC STAGING (TC-16)
25	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)
26	ARTERIAL ROAD INFORMATION SIGN (TC-22)

# STATE STANDARDS

STANDARD NO.	DESCRIPTION
701006-05	OFF-RD OPERATIONS, 2L. 2W. 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS, DAY ONLY
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
701421-06	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701602-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-03	TRAFFIC CONTROL DEVICES

# **GENERAL NOTES**

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).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF ZION.

THE CONTRACTOR WILL NOT BE ABLE TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT THE WRITTEN PERMISSION OF THE DEPARTMENT.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE INSTALLATION OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

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 DIRECTED BY THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4151. A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE ENGINEER SHALL CONTACT WALLY CZARNY, TRAFFIC FIELD ENGINEER, AT (847) 438-2300 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

WHEN MILLED PAVEMENT IS OPEN 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 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 1:3 (V:H)

TO STA.

ALL PAVEMENT PATCHING LOCATIONS WILL DETERMINED IN THE FIELD BY THE ENGINEER.

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) ACCORDING TO THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

ALL PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE IMPROVEMENT ACCORDING TO DISTRICT 1 TYPICAL PAVEMENT MARKING.

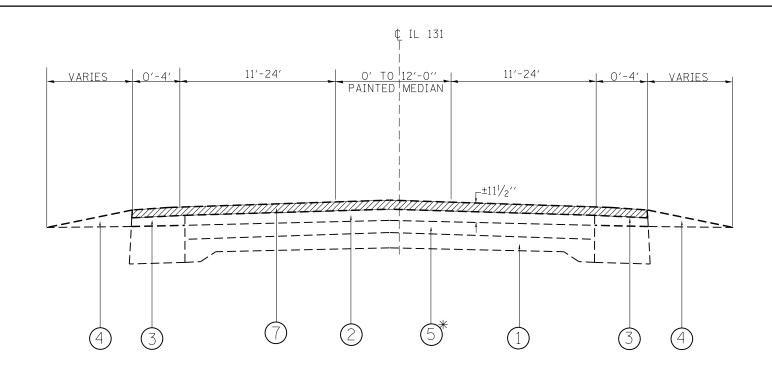
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	ILLINOIS FED. A	ID PROJECT			ı
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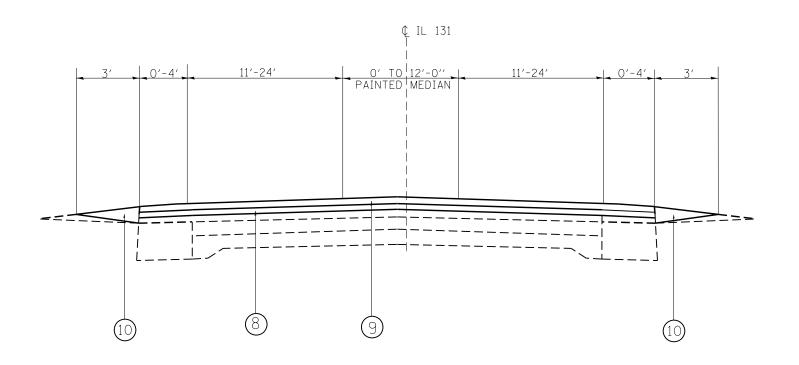
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40600300	AGGREGATE (PRIME COAT)	TON	208	208					70100460	TRAFFIC CONT	ROL AND PROTECTION, 306	L SUM	1	1	W_{\sqrt{\sq}}}}}}}}}}}}}} \sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}}}}}}} \signignightimed{\sqrt{\sq}}}}}}}}} \end{\sqrt{\sqnt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}}}} \end{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}		Vanishing (1997)		
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40600827	POLYMERIZED LEVEL(NG BINDER (MACH(NE METHOD), [L-4.75, N50	TON	2040	2040					70102632	TRAFFIC CONTR	OL AND PROTECTION,	L SUM			gg/seemmaga angamadha ayayyangga aman,				
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40600895	CONSTRUCTING TEST STRIP	EACH	3	3 -					70102635	TRAFFIC CONT STANDARD 70	IROL AND PROTECTION, 1701	L SUM	1						
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YO	454	454					70300100	SHORT TERM P	AVEMENT MARKING	FOOT	17884	17884					
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42001300	PROTECTIVE COAT	SQ YD	34	34					70300220	TEMPORARY PAY	VEWENT WARKING - LINE 4"	FOOT	50090	50090					
14000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YO	51847	51847			***************************************		70300240	TEMPORARY PA	VEWENT MARKING - LINE 6"	FOOT	1823	1823					
				4.50	40-110-110-110-110-110-110-110-110-110-1				70300250	TEMPORARY PA	IVEMENT MARKING - LINE 8"	FOOT	263	263		Andrew (A)			
14201753	CLASS D PATCHES, TYPE II. 9 INCH	SQ YO	440	440						3 m V 17/31				****				As well as a second as a secon	
4201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	230	230				***************************************	70300260	TEMPORARY PA	VEMENT MARKING - LINE 12"	FOOT	866	866	rachau ju eta jarten europa eta az jetu eta kuntu. Irakan europa eta eta eta eta eta eta eta eta eta et	daminada asasyaniyin hayanga saqinadda a Tarihin da asasyaniya tarihin da asasyaniya tarihin da asasyaniya tarihin da asasyaniya tarihin da asasyaniya	a contract consistent of the programme of the consistent of the consistence o		
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YO	1154	1154					70300280	TEMPORARY PA	VEWENT MARKING - LINE 24"	FOOT	170	170					
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72900100	METAL POST - TYPE A	FOOT	10.5	10.5						20030850	TEMPORARY INFORMATION SIGNING	SQ FT	154. 2	154.2				
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	510	510		anga ngunaning ana ana ani gita ani									energy of a bolomate a state of a factor of a		And the state of t	
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78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	50090	50090		angan ar												
78000400	THERMOPLASTIC PAVEWENT MARKING - LINE 6"	FOOT	1823	1823									ya garanaganagan manan naggar na yayan iya basa.	an Taga <sup>t</sup> ana a sa sa manga ng as <sub>a</sub> n a sa sa man ang as jua	gar man nganggan agam managagan mangan	e entende e significações que esta entende entende entende entende entende entende entende entende entende ent		ggeren bereit en de service de la company en en
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78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	866	866					**************************************					O The second of	ALFAROVETTETENSTERANTINASTINTSKI L	naturalga é na mitan de Ma matan e e e d'ével e mêtan d'été panés d'été		
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78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	700	700														
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	555	555														
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×2020110	GRADING AND SHAPING SHOULDERS	UNIT	187	187														
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x5537900	STORM SEWERS TO BE CLEANED 15"	FOOT	75	75		e Passar Pass e Passe Pass Passe Pass Pap (Pap Passar Passe Pass Passar Passar												
×6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	3	3						Martin Company								
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Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	150	150	novodebe pådasone 1					C. N.	* Specialty Items	1			FAR			IATOTAL
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# **EXISTING TYPICAL SECTION**

STA. 19+70 TO STA. 123+60



# PROPOSED TYPICAL SECTION

STA. 19+70 TO STA. 123+60

# **LEGEND**

- (1) EXIST. P.C.C. PAVEMENT (9-7-9)
- (2) EXIST. HOT-MIX ASPHALT COURSE AFTER MILLING ± 9"
- (3) EXIST. HMA SHOULDER
- (4) EXIST. AGGREGATE SHOULDER
- (5) EXIST. GRAVEL BASE, ± 5"
- (6) EXIST. AGGREGATE SUBGRADE
- (7) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 21/2"
- (8) PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- (9) PROPOSES POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 13/4"
- (10) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

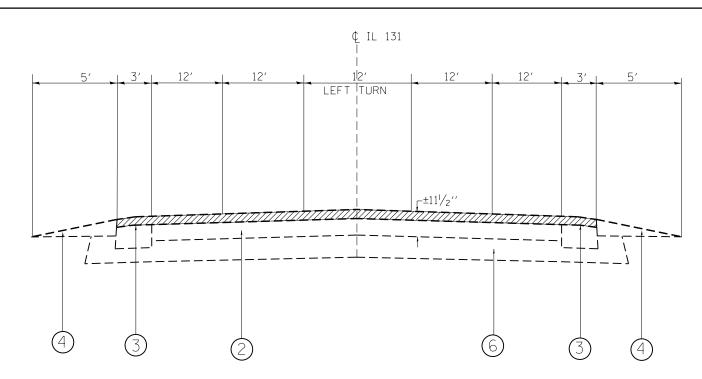
\*STA. 25+00 TO STA. 123+60

# CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ N <sub>DES</sub>
RESURFACING	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	4% @ 90 GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	3.5% @ 50 GYR
PATCHING	
CLASS D PATCH, (HMA BINDER IL-19 mm)	4% @ 70 GYR

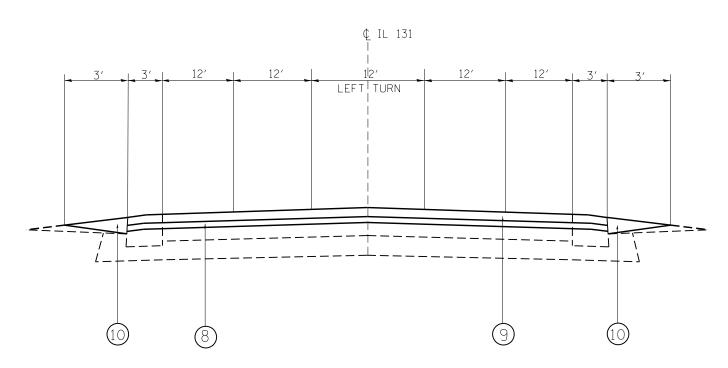
- -THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.
- -THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

FILE NAME =	USER NAME = Josephm	DESIGNED -	REVISED -							F.A.P.	SECTION	COUNTY	TOTAL S SHEETS	HEET
c:\pw_work\pwidot\josephm\d0358445\D104	714-sht-plan.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS						880	32RS-6	LAKE	26	5
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION						<u> </u>		CONTRAC	T NO. 60X	26
Default	PLOT DATE = 12/6/2013	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



# **EXISTING TYPICAL SECTION**

STA. 123+60 TO STA. 128+20



# PROPOSED TYPICAL SECTION

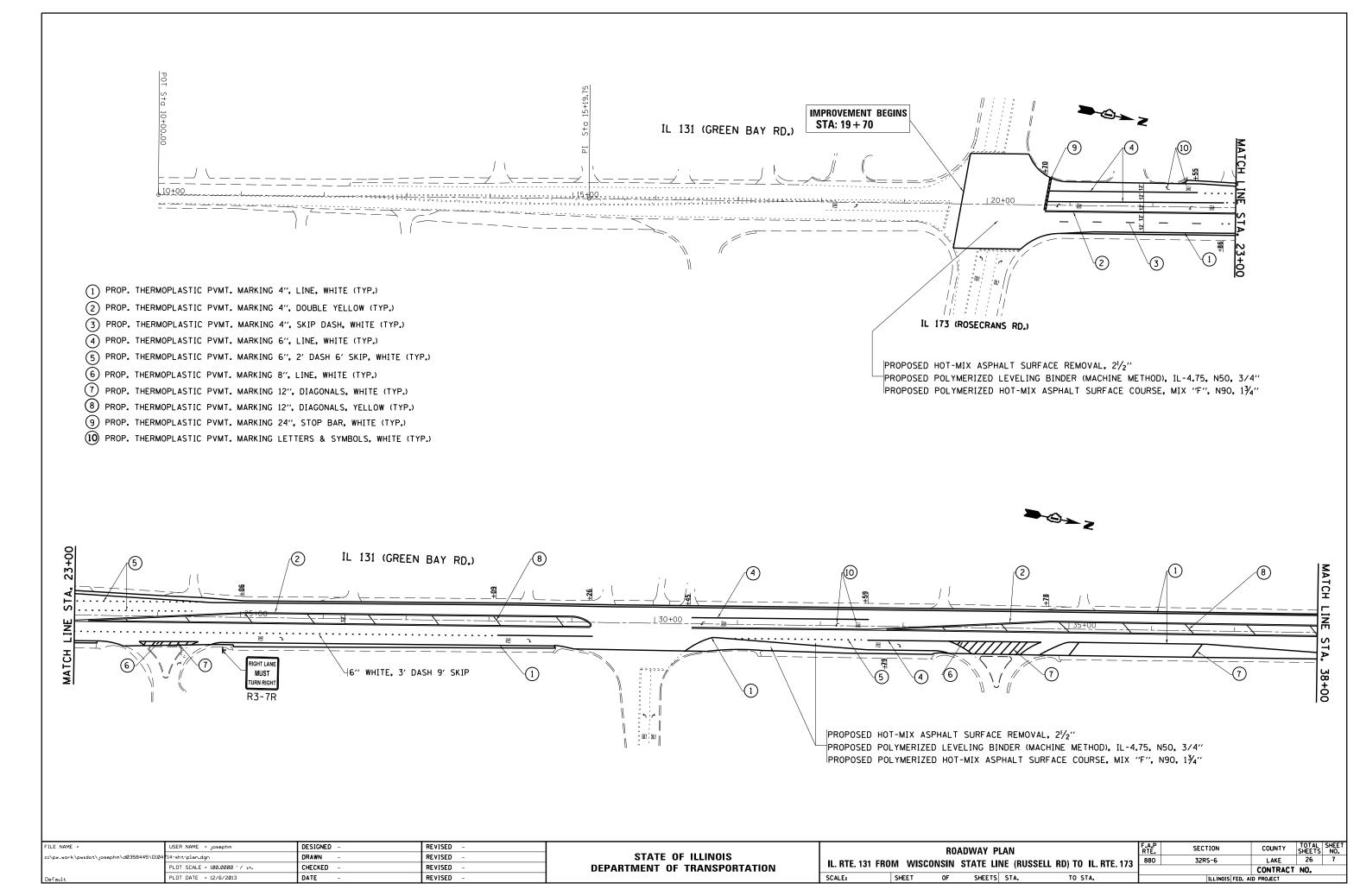
STA. 123+60 TO STA. 128+20

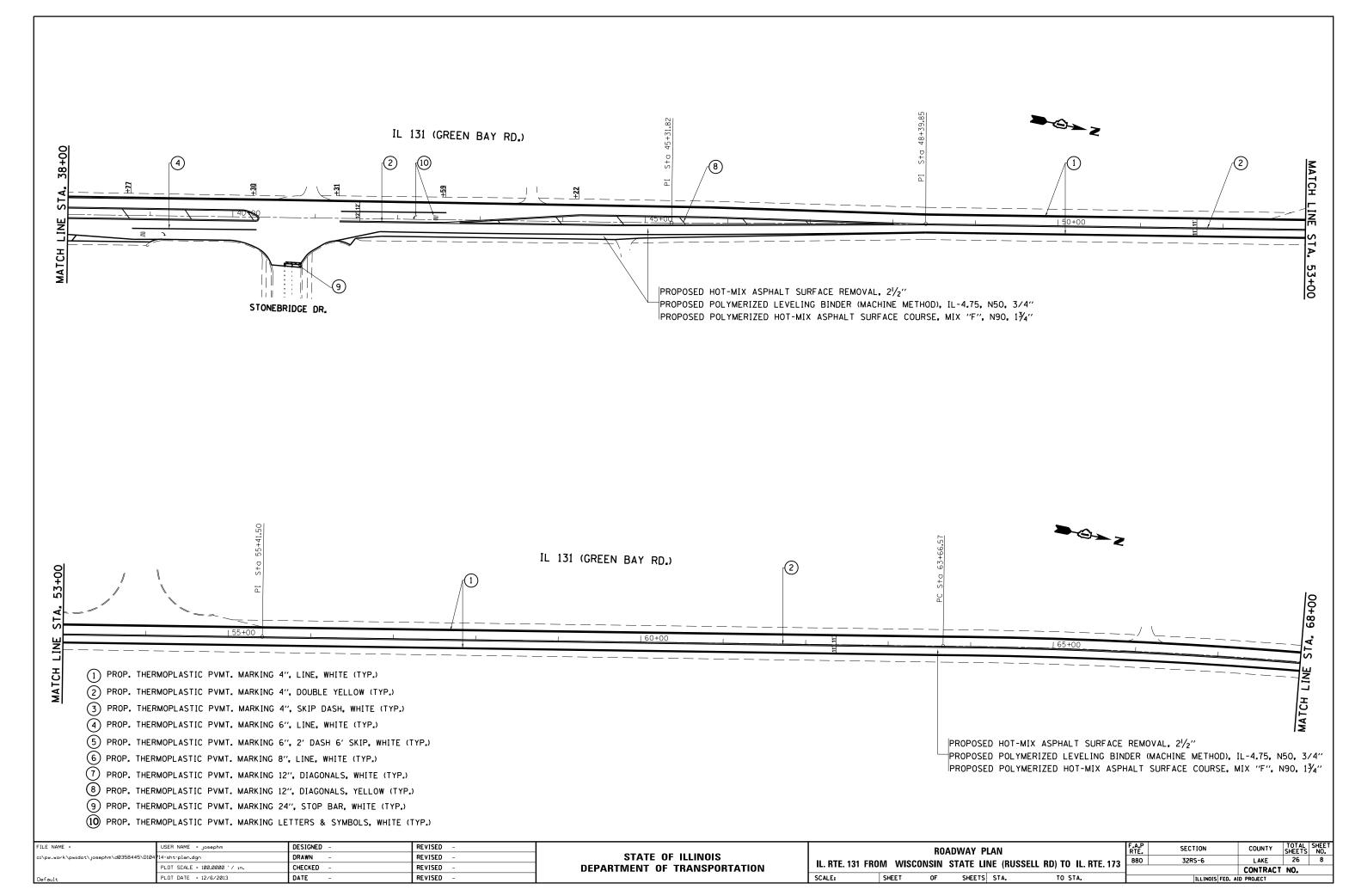
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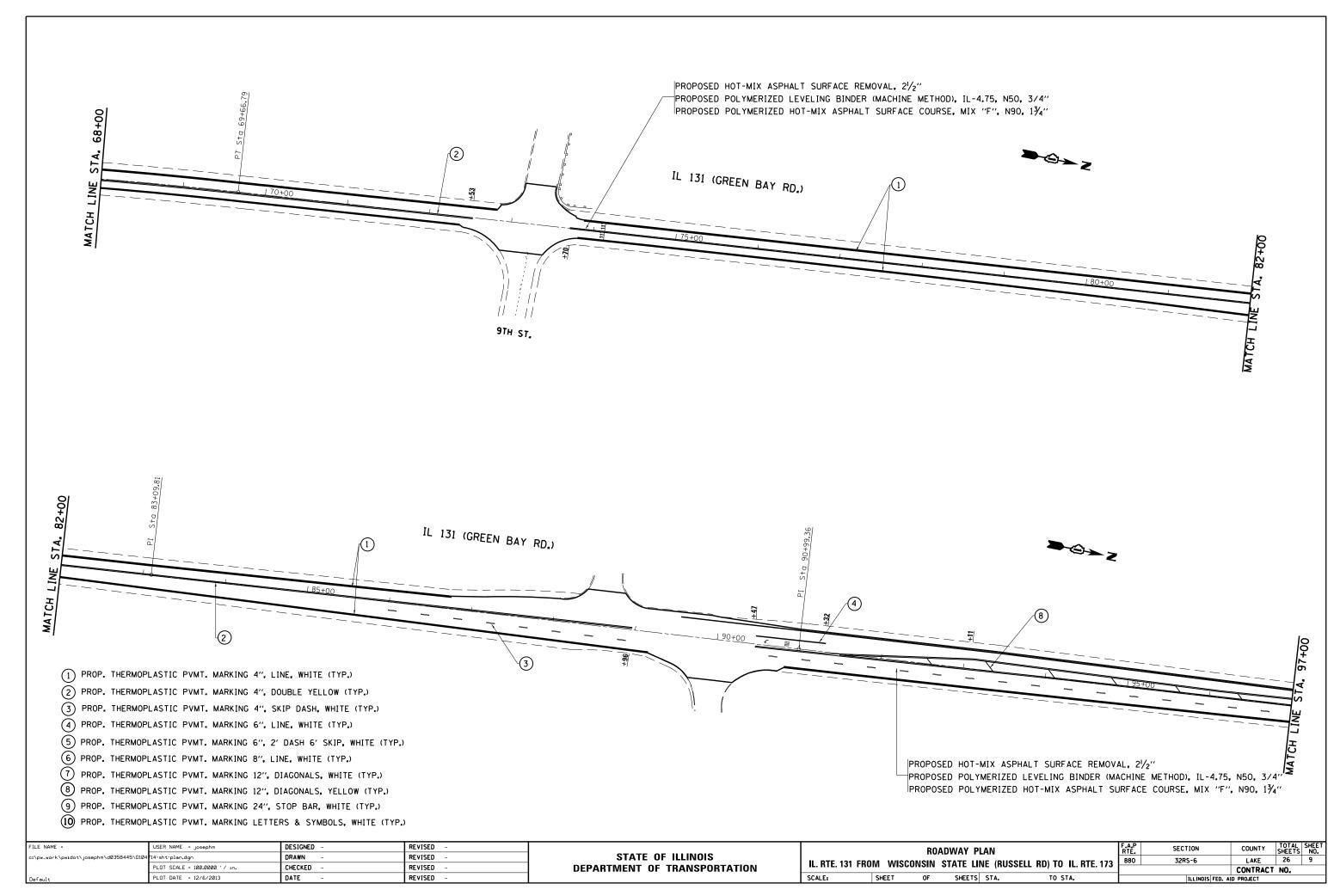
# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

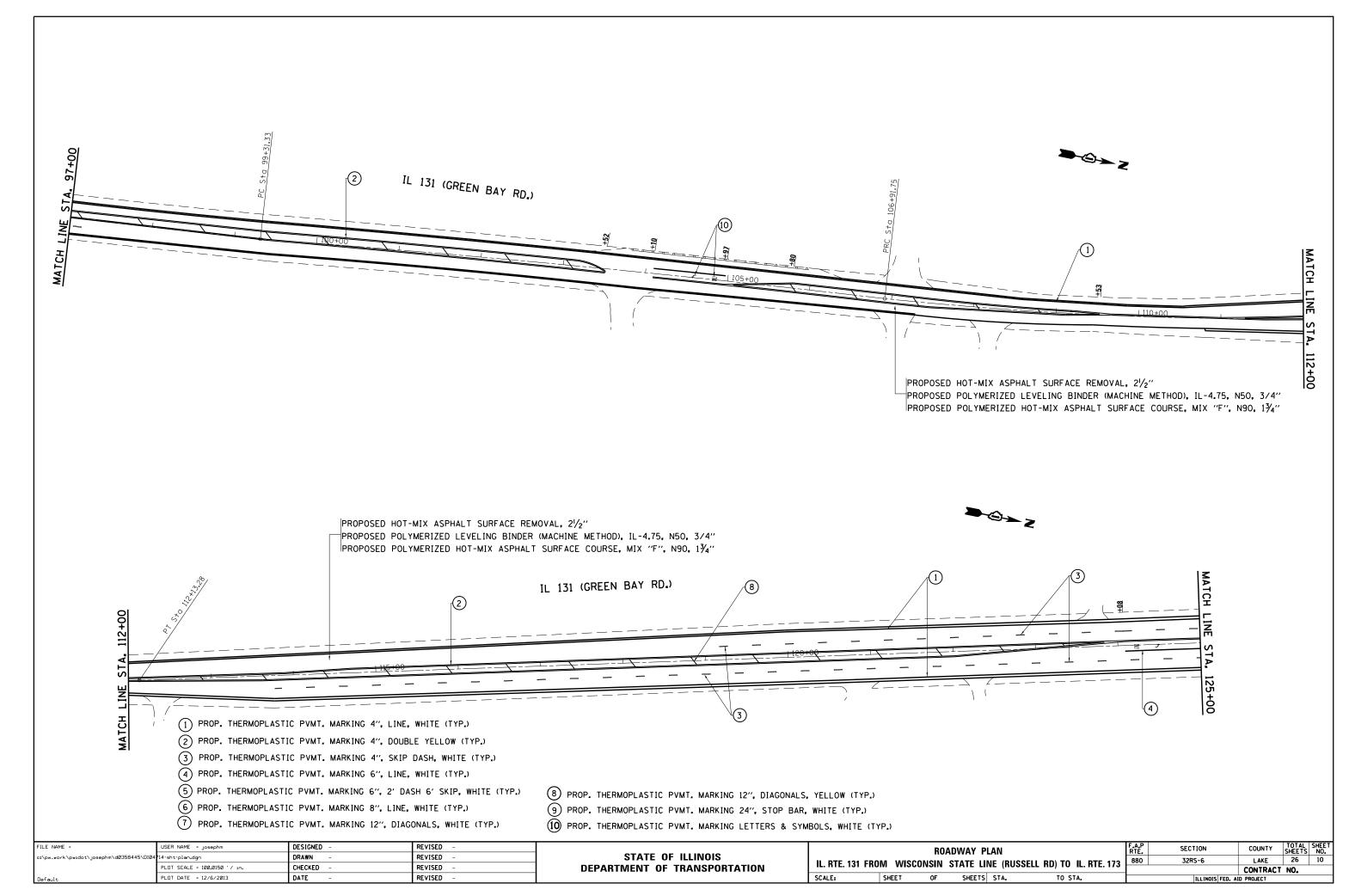
# LEGEND

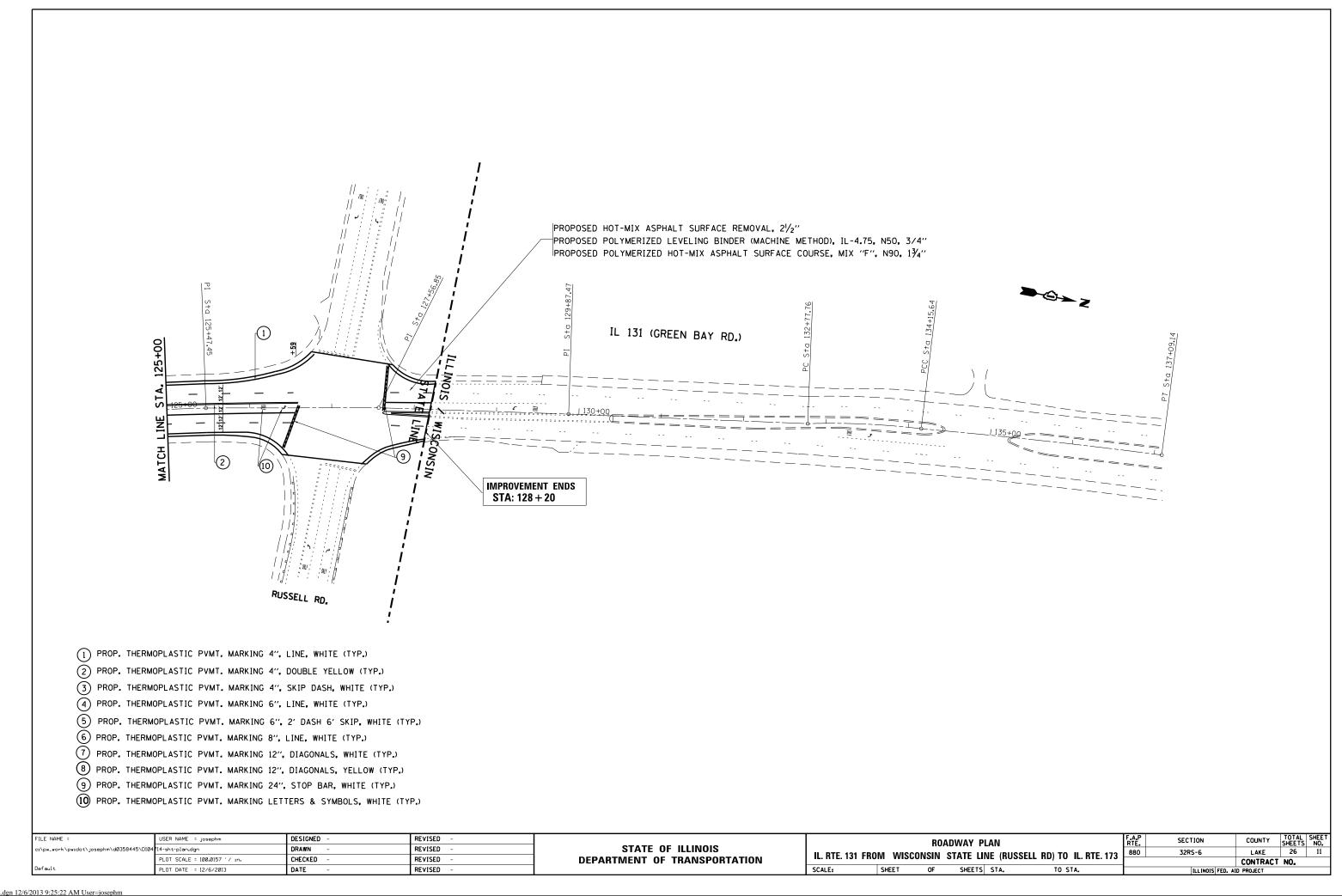
- 1) EXIST. P.C.C. PAVEMENT (9-7-9)
- (2) EXIST. HOT-MIX ASPHALT COURSE AFTER MILLING ± 9"
- (3) EXIST. HMA SHOULDER
- (4) EXIST. AGGREGATE SHOULDER
- (5) EXIST. GRAVEL BASE, ± 5"
- (6) EXIST. AGGREGATE SUBGRADE
- (7) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL,  $2\frac{1}{2}$ "
- 8 PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- 9 PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 13/4"
- 10 PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

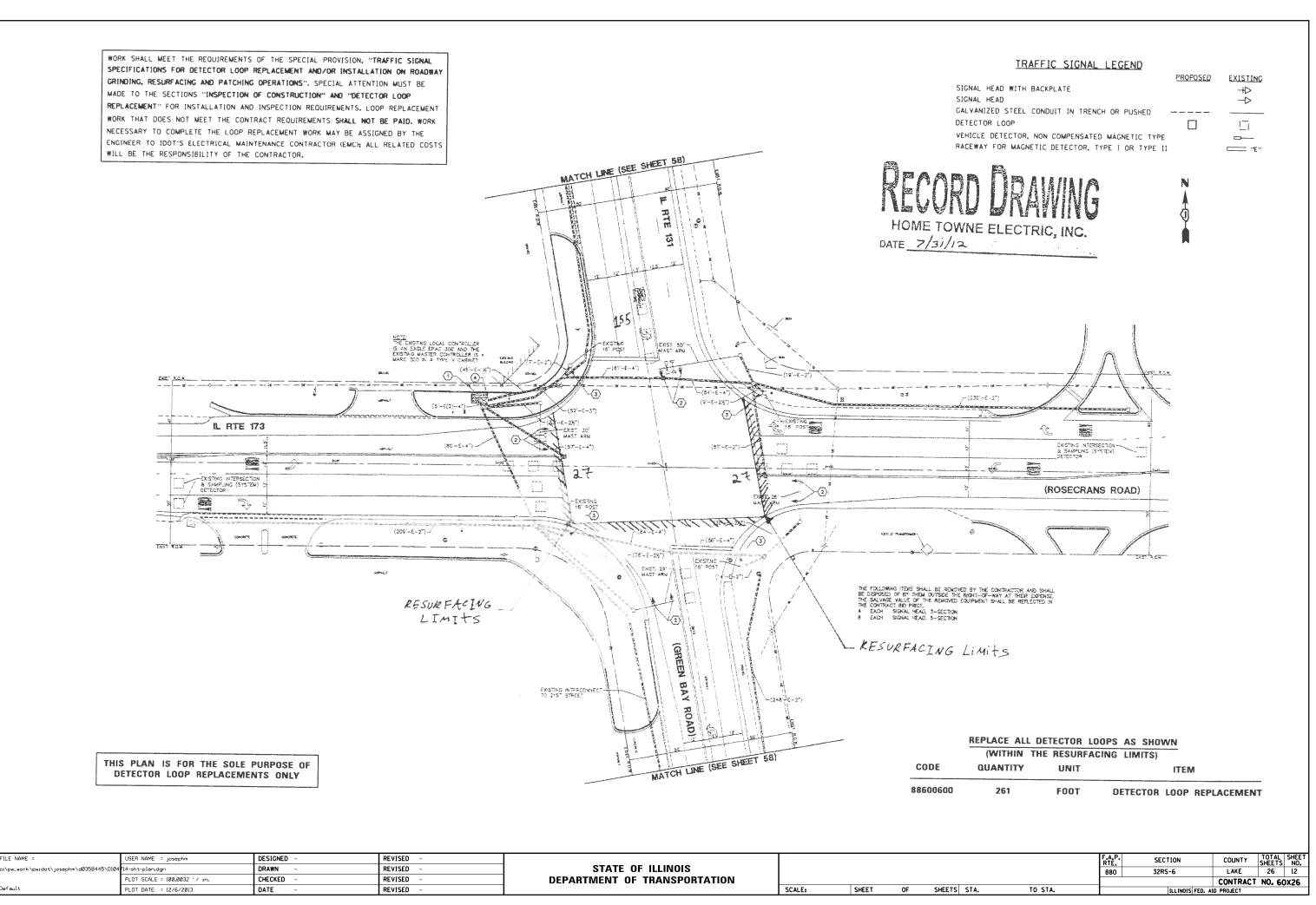






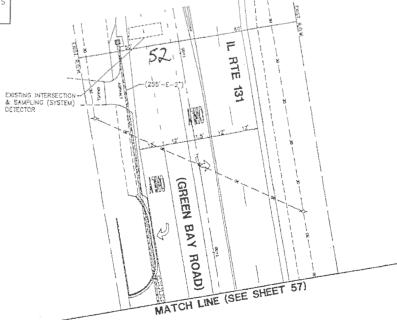


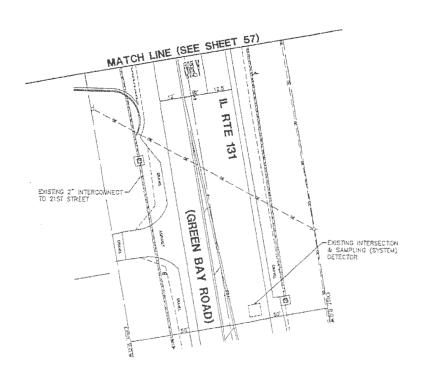




FILE NAME

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS, LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.





THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

FILE NAME = DESIGNED -REVISED USER NAME = josephm c:\pw\_work\pwidot\josephm\d0358445\D104714-sht-plan.dgn DRAWN REVISED CHECKED REVISED REVISED PLOT DATE = 12/6/2013 DATE

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

### COUNTY TOTAL SHEET NO. SECTION 32RS-6 880 CONTRACT NO. 60x26 SCALE: SHEET SHEETS STA. TO STA.

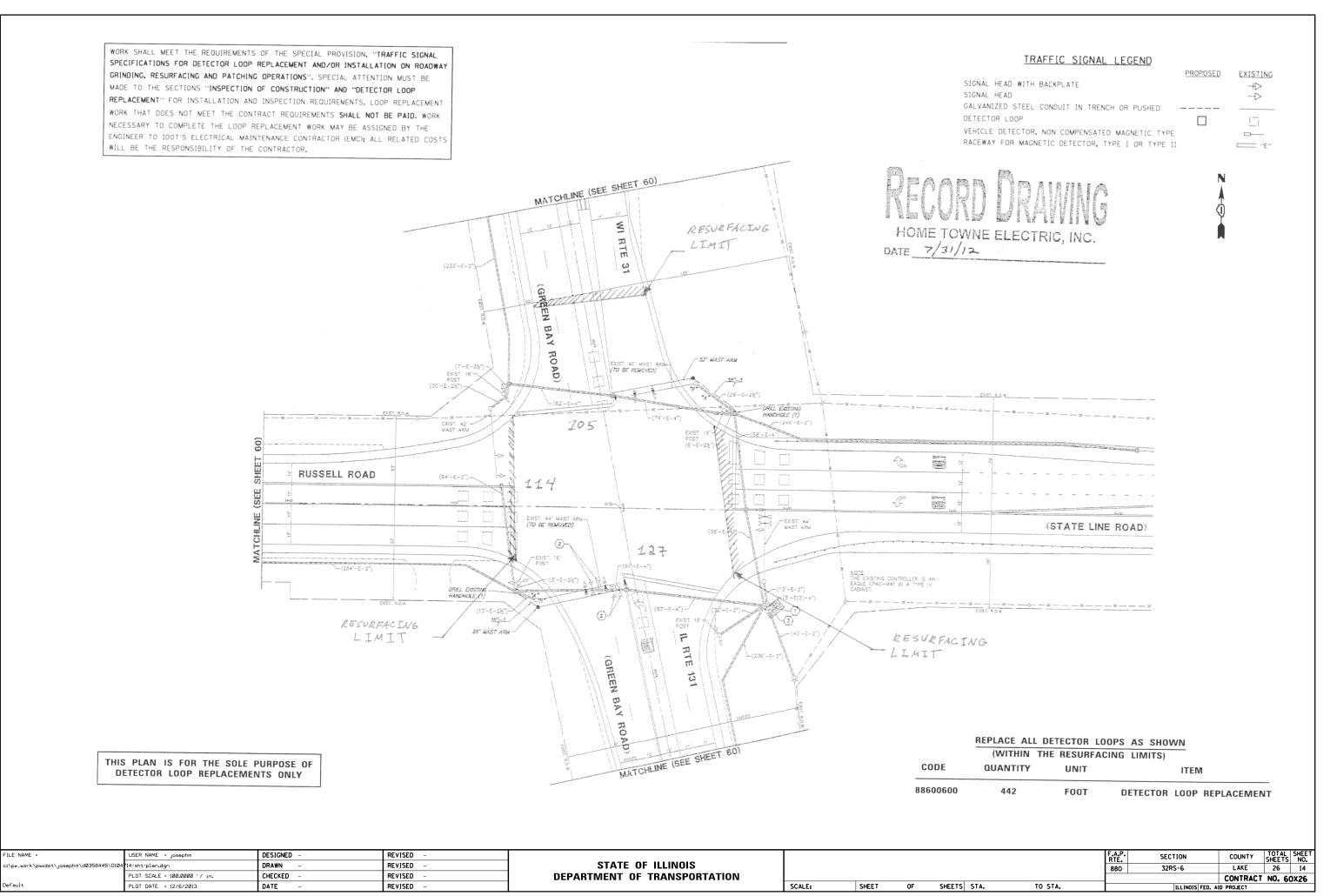
# TRAFFIC SIGNAL LEGEND

PROPOSED EXISTING SIGNAL HEAD WITH BACKPLATE  $\dashv \triangleright$ SIGNAL HEAD  $\neg \triangleright$ GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED DETECTOR LOOP VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE CD----RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II Commercial 15E 11

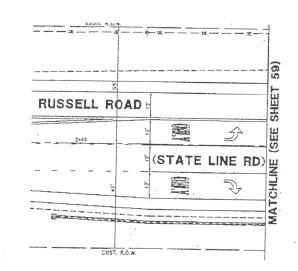
HOME TOWNE ELECTRIC, INC.
DATE 7/31/12



D104714-sht-plan.dgn 12/6/2013 10:13:50 AM User=josephm



WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS, LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC): ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

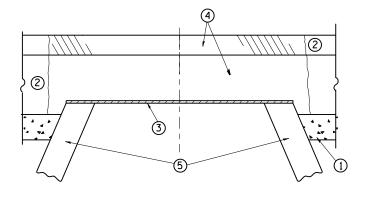
# WI RTE BAY ROAD) MATCHLINE (SEE SHEET 59) MATCHLINE (SEE SHEET 59) GREEN BAY HOAD)

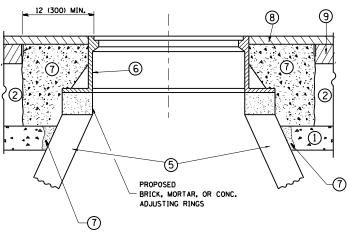
# TRAFFIC SIGNAL LEGEND

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HOME TOWNE ELECTRIC, INC.

FILE NAME =	USER NAME = josephm	DESIGNED -	REVISED -								F.A.P.	SECTION	COUNTY	TOTAL	HEET
c:\pw_work\pwidot\josephm\d0358445\D104	714-sht-plan.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS							880	32RS-6	LAKE	26	15
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION								525	CONTRACT	NO. 60	(26
Default	PLOT DATE = 12/6/2013	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A			





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.

SCALE: NONE

## 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 11/2 (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.
- \* 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

# LEGEND

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

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

COUNTY

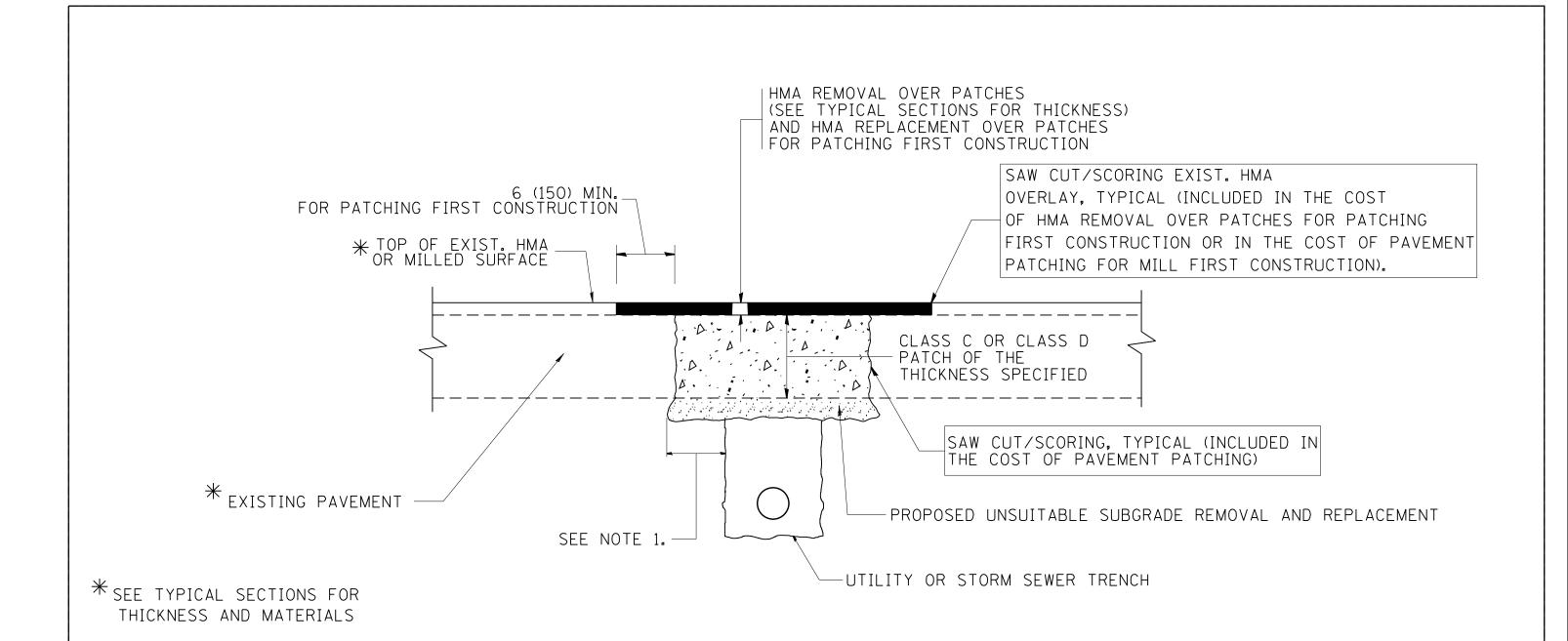
LAKE 26 16

CONTRACT NO. 60X26

FILE NAME =	USER NAME = Josephm	DESIGNED -	R. SHAH	REVISED	- R. WIEDEMAN 05-14-04	
c:\pw_work\pwidot\josephm\d0358445\Dist	td.dgn	DRAWN -		REVISED	- R. BORO 01-01-07	
	PLOT SCALE = 100.0000 '/ in.	CHECKED -		REVISED	- R. BORO 03-09-11	
	PLOT DATE = 12/6/2013	DATE -	10-25-94	REVISED	- R. BORO 12-06-11	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SECTION **DETAILS FOR** 32RS-6 FRAMES AND LIDS ADJUSTMENT WITH MILLING BD600-03 (BD-8) SHEET NO. 1 OF 1 SHEETS STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



# NOTES:

- 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.

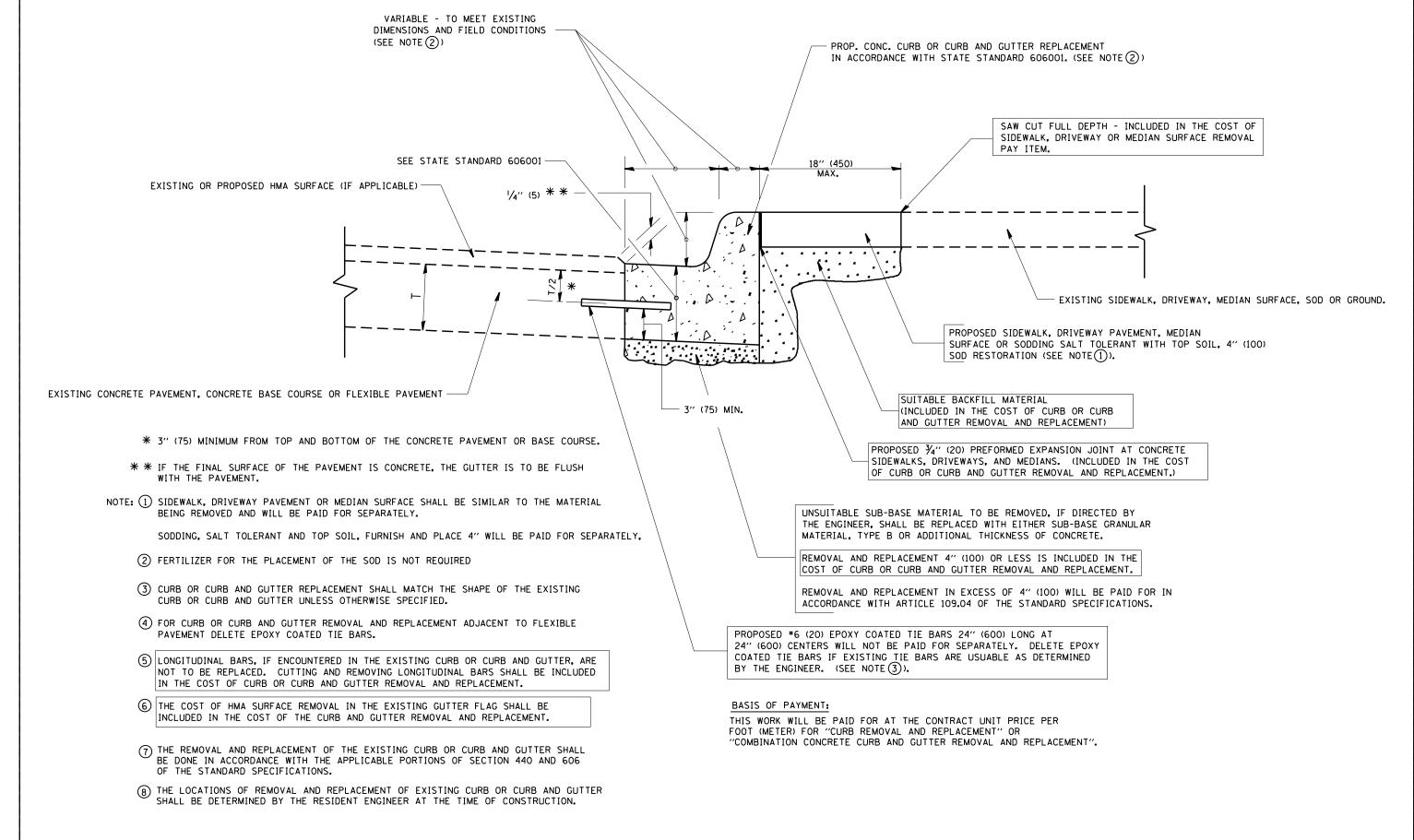
# SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 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.

FILE NAME =	USER NAME = josephm	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98		PAVEMENT PATCHING FOR	F.A.P.	SECTION	COUNTY	TOTAL S	HEET
c:\pw_work\pwidot\josephm\d0358445\Dist	Std.dgn	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		880	32RS-6	LAKE	26	17
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT	B'	D400-04 (BD-22)	CONTRACT	NO. 60	(26
	PLOT DATE = 12/6/2013	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	EED BOAT	D DIST NO 1 THE INDIS FED A			

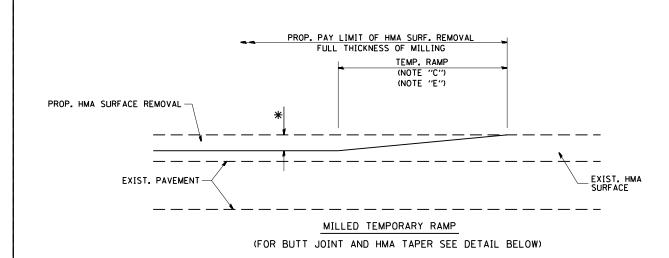
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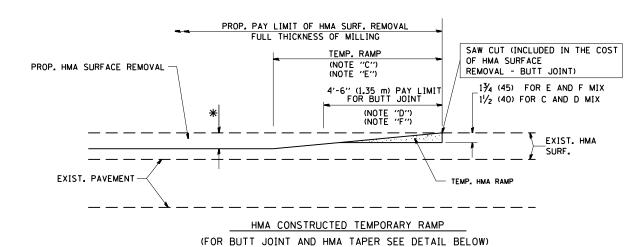
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

L		PLOT DATE = 12/6/2013	DATE - 03-11-94	REVISED - R. BORO 12-15-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS	FED. AID PROJECT
		PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		REMOVAL AND REPLACEMENT	BD600-06 (BD-24)	CONTRACT NO. 60X26
	c:\pw_work\pwidot\josephm\d0358445\Dist\$	td.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS			880 32RS-6	LAKE 26 18
	FILE NAME =	USER NAME = Josephm	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96			CURB OR CURB AND GUTTER	F.A.P. SECTION	COUNTY SHEET NO

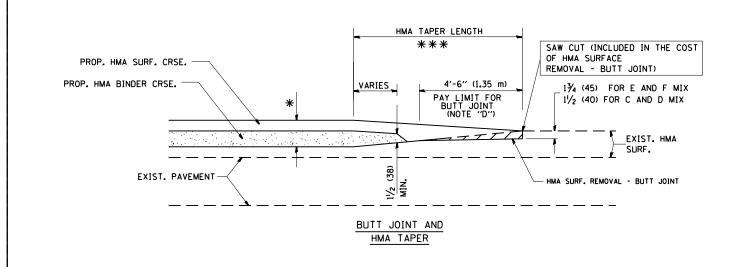


# OPTION 1



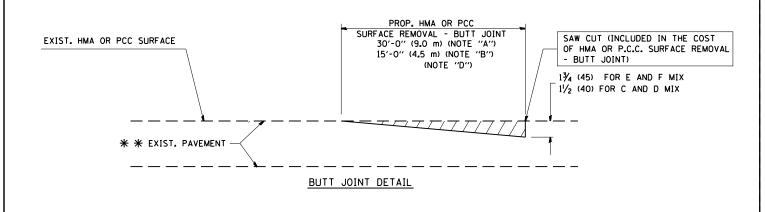
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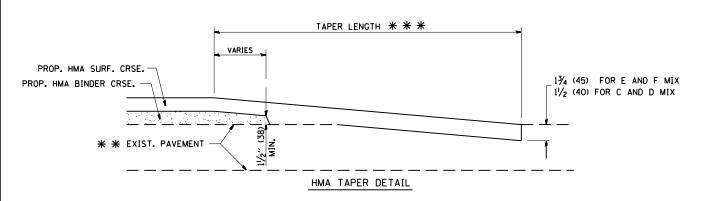
# TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

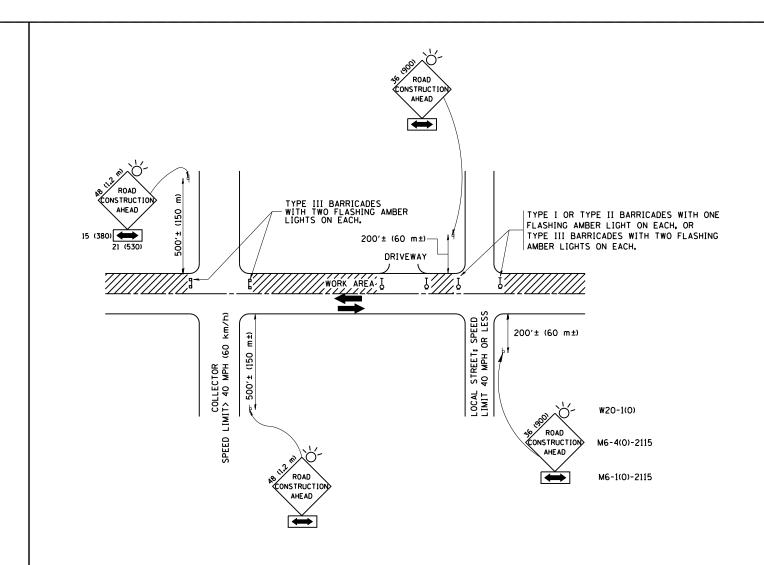
# NOTES

- 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
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

# 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".

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



# TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

# NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 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:
- Q) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG 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.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h)
  AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- d) 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.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

# B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME -	USER NHME - Josephin	DESIGNED - LHA	MEAIDED	- J. OBEKLE 10-18-95
c:\pw_work\pwidot\josephm\d0358445\Dist	td.dgn	DRAWN -	REVISED	- A. HOUSEH 03-06-96
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED	- A. HOUSEH 10-15-96
	PLOT DATE = 12/6/2013	DATE - 06-89	REVISED	-T. RAMMACHER 01-06-00

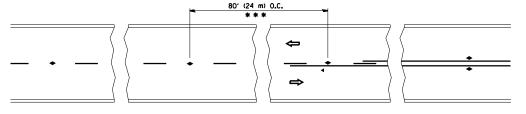
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

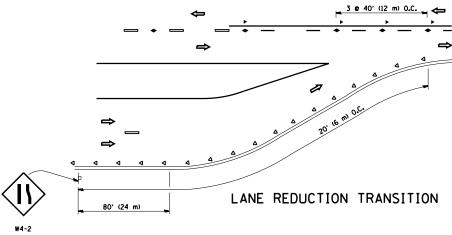
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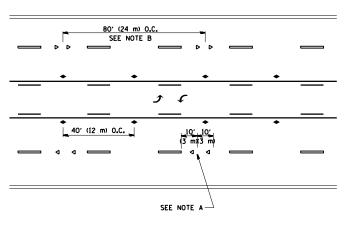
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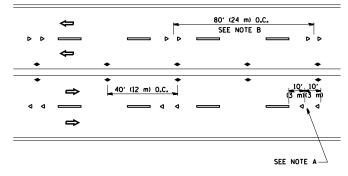
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

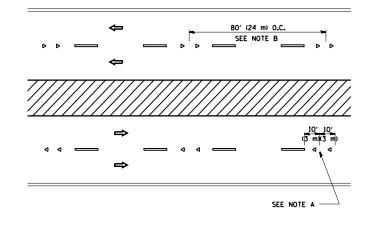




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

# GENERAL NOTES

- 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.

# 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.

# SYMBOLS

- YELLOW STRIPE

WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

# 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 THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

MINIMUM OF 3 W
EQUALLY SPACED 3 e 80' (24 m) O.C. -\_\_ 3 @ 80' (24 m) O.C. 3 **e** 40' (12 m) 3 e 40' (12 m) 40' (12 m) 40' (12 m) 0.C.  $\Rightarrow$ 40' (12 m) 0.C. 40' (12 m) O.C. \* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

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

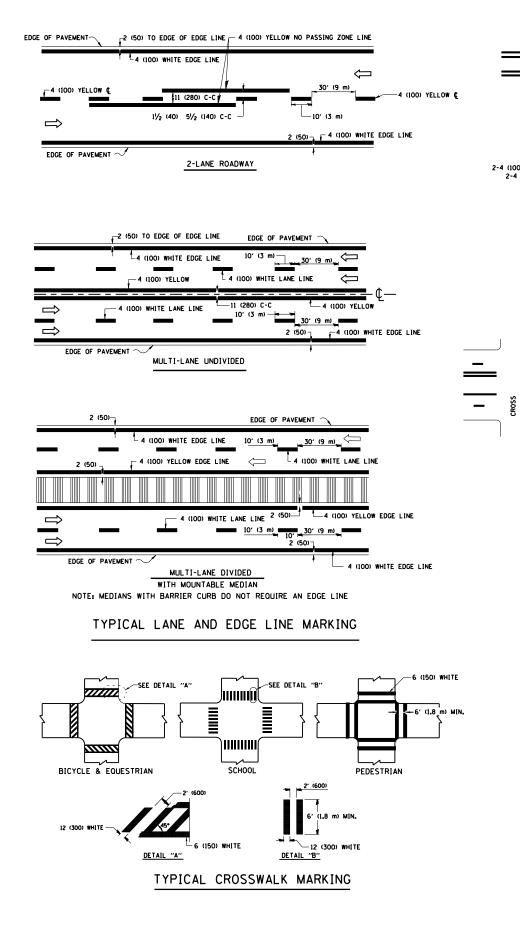
COUNTY

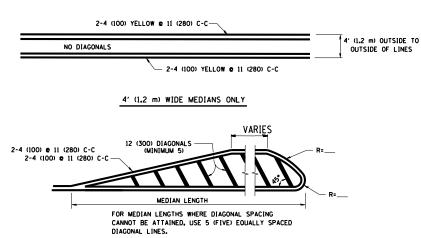
LAKE 26 21 CONTRACT NO. 60X26

SECTION

FILE NAME =	USER NAME = Josephm	DESIGNED -	REVISED - T. RAMMACHER 09-19-94		TYPICAL APPLICATIONS	RTE.	SECTION	COUNTY
c:\pw_work\pwidot\josephm\d0358445\DistS	td.dgn	DRAWN -	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS			32RS-6	LAKE
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		C-11	CONTRACT
	PLOT DATE = 12/6/2013	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		NO. 1 ILLINOIS FED. A	

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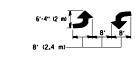




DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

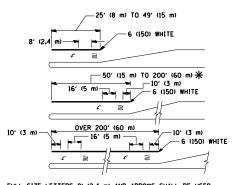
# MEDIANS OVER 4' (1.2 m) WIDE 4 (100) YELLOW 4 (100) YELLOW LINES (5½ (140) C-C) 2-4 (100) YELLOW 0 11 (280) C-C 4 (100) YELLOW LINES (5½ (140) C-C)

A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

# TYPICAL PAINTED MEDIAN MARKING

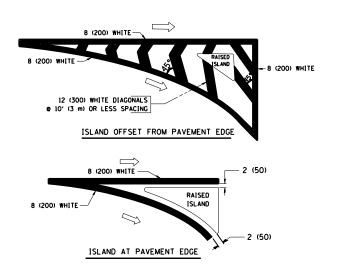


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m² )  $\P$  AREA = 20.8 SO. FT. (1.9 m²)

\* 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



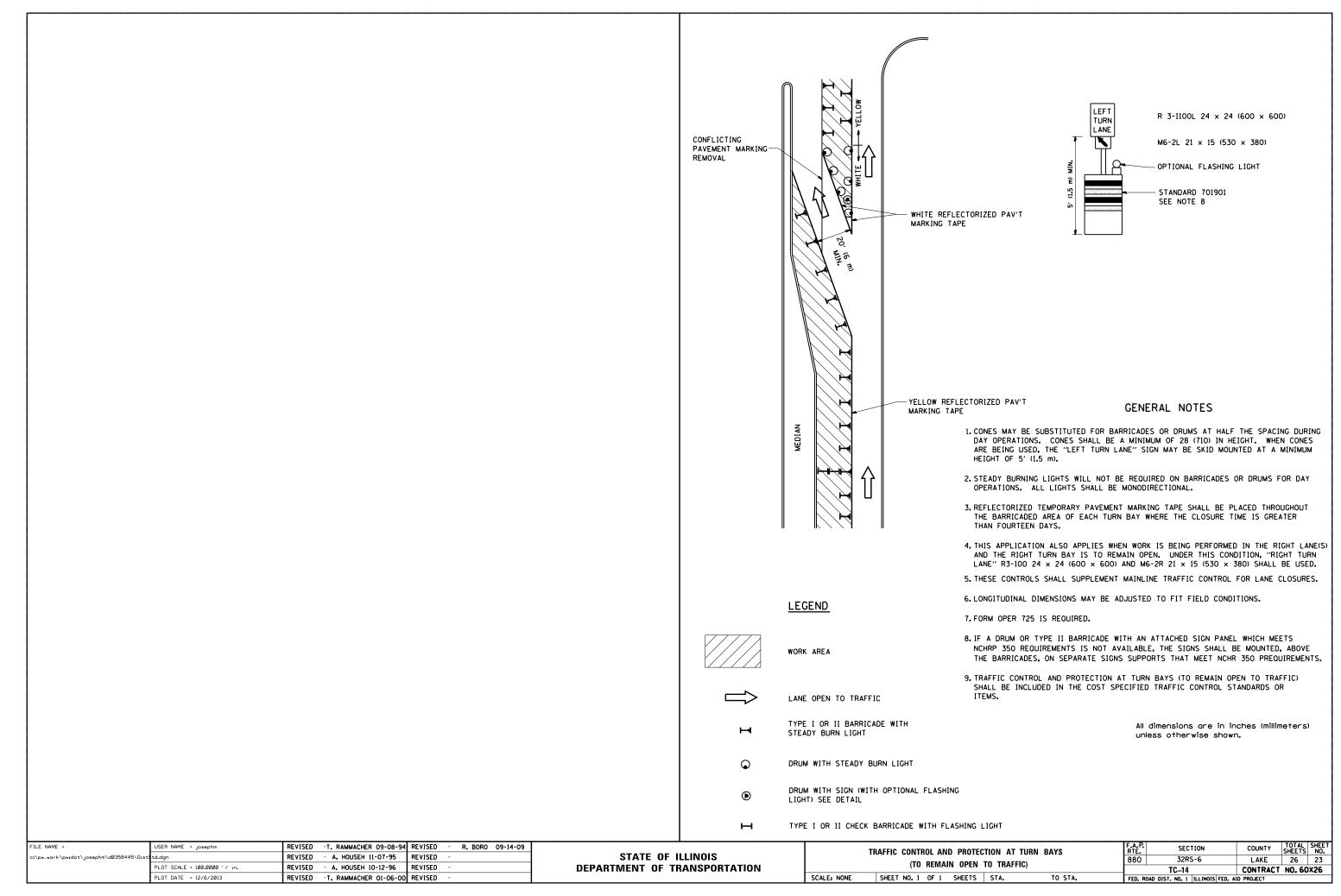
# TYPICAL ISLAND MARKING

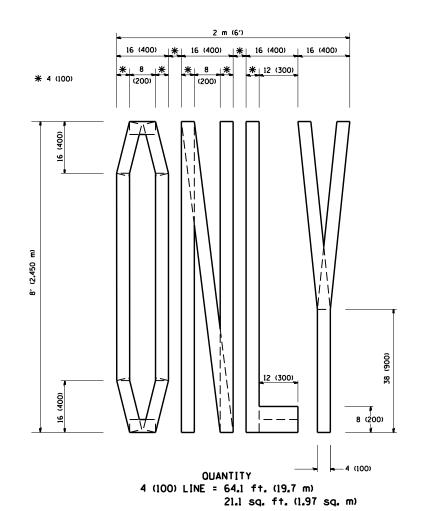
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>e</b> 4 (100)	SOL ID SOL ID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2,4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	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
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 <b>e</b> 6 (150) 12 (300) <b>e</b> 45° 12 (300) <b>e</b> 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (I.8 m) APART 2' (GOD) APART 2' (GOD) APART 5EE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIACONALS: 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 (0VER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES: "RR" IS 6' (1.8 m) LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R":3.6 SQ. FT. (0.33 m²) EACH "X":54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) <b>e</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	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))

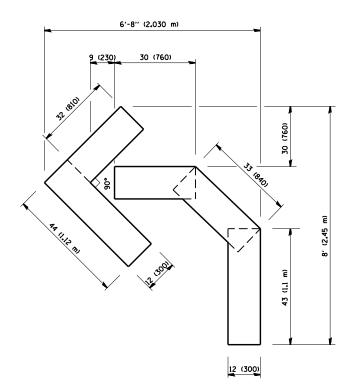
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

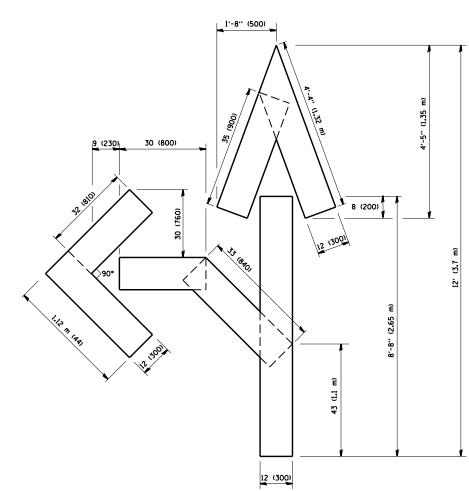
İ	FILE NAME =	USER NAME = josephm	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94		DISTRICT ONE		F.A.P.	SECTION	COUNTY	TOTAL SHEETS	
	c:\pw_work\pwidot\josephm\d0358445\Dist	td.dgn	DRAWN -	REVISED -C. JUCIUS 09-09-09	STATE OF ILLINOIS			880	32RS-6	LAKE	26	22
		PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	TYPICAL PAVEMENT MARKINGS			TC-13	CONTRAC	T NO. F	60X26
		PLOT DATE = 12/6/2013	DATE - 03-19-90	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. RO	OAD DIST. NO. 1 ILLIN	NOIS FED. AID PROJECT		







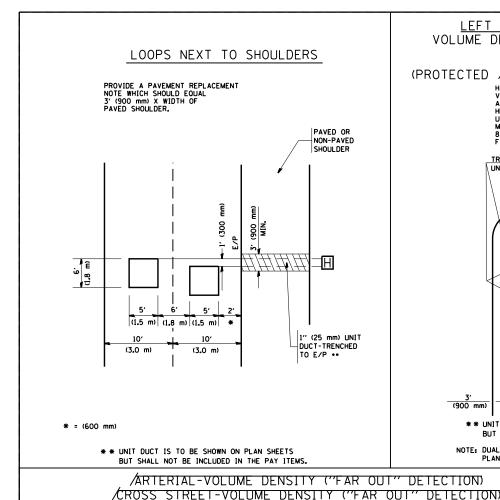
OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)

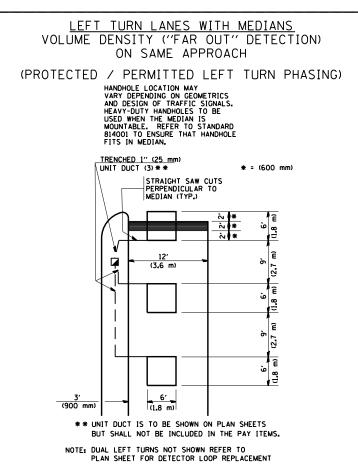


OUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

FILE NAME =	USER NAME = Josephm	DESIGNED -	REVISED -T. RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS	F.A. P. SECTION	COUNTY TOTAL SHEET
c:\pw_work\pwidot\josephm\d0358445\Dis	st\$td.dgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS		880 32RS-6	LAKE 26 24
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FOR TRAFFIC STAGING	TC-16	CONTRACT NO. 60X26
	PLOT DATE = 12/6/2013	DATE - 09-18-94	REVISED - F. GOMEZ 08-28-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED BOAD DIST NO 1 THE INDIS FED. A	





VOLUME DENSITY ("FAR OUT" DETECTION)

ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

\* = (600 mm)

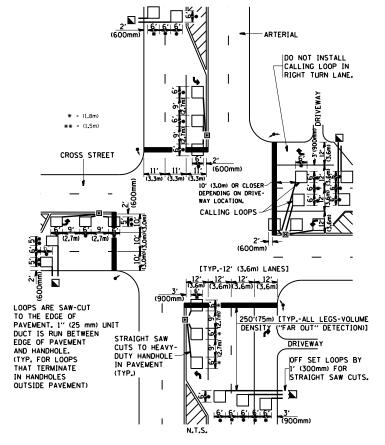
\* = (600 mm)

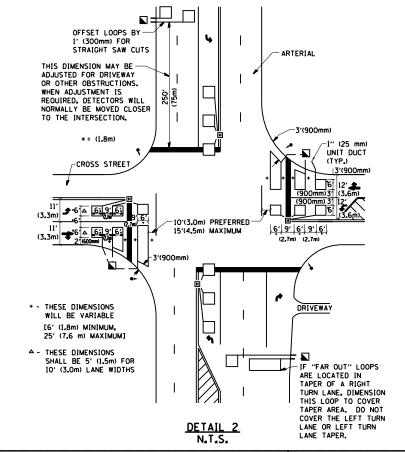
\* = (600 mm)

\* = (600 mm)

STRAIGHT SAW CUT TO HEAVY DUTY HANDHOLE BETWEEN FIRST AND SECOND LOOP AS SHOWN.

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





SCALE: NONE

## NOTES

# **VEHICLES LOOP DETECTORS**

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* 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 <u>ALL</u> 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  $\underline{\text{ALL}}$  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.

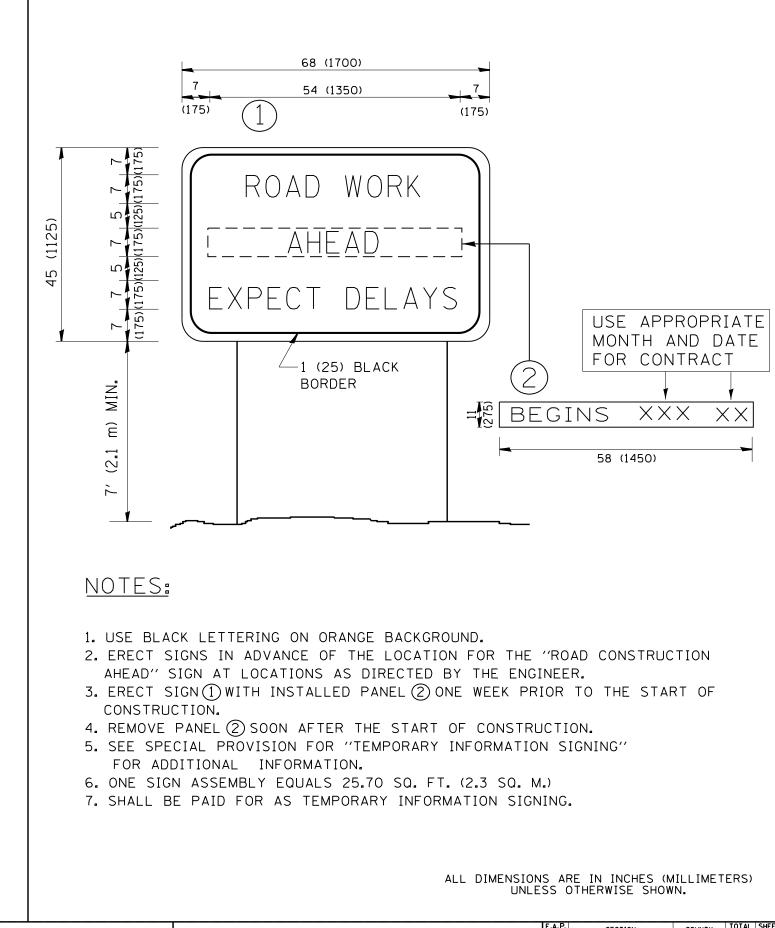
# JOTE-

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.

FILE NAME =	USER NAME = josephm	DESIGNED -	REVISED -
c:\pw_work\pwidot\josephm\d0358445\Dist	td.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 12/6/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE

ARTERIAL ROAD

INFORMATION SIGN

| SHEET NO. 1 OF 1 SHEETS | STA. TO STA. | FED.