

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 337: IL 22
SOUTH KRUEGER RD. TO OLD MCHENRY RD.
SECTION: 20 RS-2
RESURFACING (3P)

LAKE COUNTY
C-91-062-09

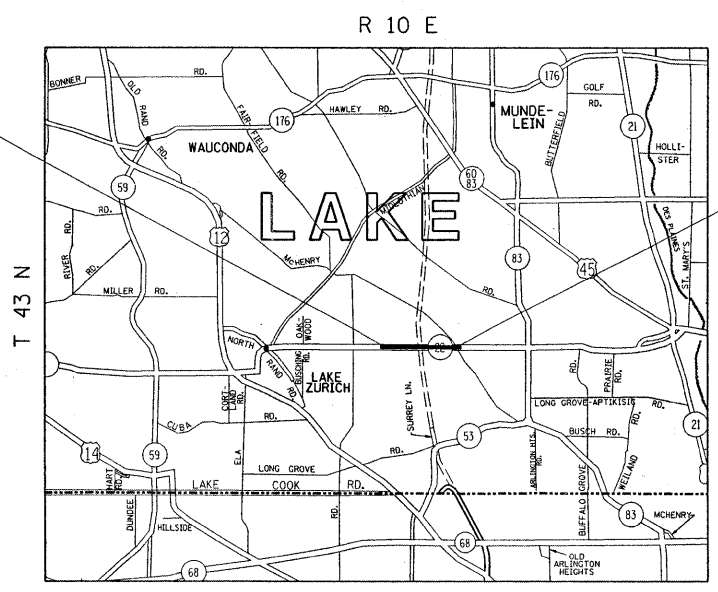
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337	20 RS-2	LAKE	20	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 60F31	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE PROJECT IS LOCATED IN
THE VILLAGES OF KILDEER
AND LONG GROVE



PROJECT BEGINS
STA. 33+09



PROJECT ENDS
STA. 111+29.7

TRAFFIC DATA :
2006 ADT = 14,700
POSTED SPEED LIMIT = 50 MPH

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. P. CHANG (847) 705-4432
PROJECT MANAGER KEN ENG

GROSS & NET LENGTH OF PROJECT = 7820.7 LINEAL FEET = 1.48 MILES

CONTRACT NO. 60F31

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MARCH 13, 20 09

Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 1, 20 09
Charles J. Ingersoll
ENGINEER OF DESIGN / AND ENVIRONMENT

May 1, 20 09
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

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- 701201-03 LANE CLOSURE, 2L, 2W, DAY ONLY FOR SPEED > 45MPH
- 701301-03 LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS
- 701306-02 LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
- 701336-05 LANE CLOSURE, 2L, 2W SLOW MOVING OPERATIONS - DAY ONLY FOR SPEED > 45 MPH
- ~~701501-05 URBAN LANE CLOSURE, 2L, 2W UNDIVIDED~~
- ~~701606-06 URBAN LANE CLOSURE MULTILANE, 2W WITH MOUNTABLE MEDIUM~~
- 701701-06 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701901-01 TRAFFIC CONTROL DEVICES
- 701502-03
- 635011-02

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 IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, VILLAGES OF KILDEER AND LONG GROVE

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS 40 MPH (80 KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

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

UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURE AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING.

THE RESIDENT ENGINEER SHALL CONTACT MS. DEBBIE HANLON AREA TRAFFIC FIELD ENGINEER AT (847) 438-2300 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

BEFORE BEGINING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKINGS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470. A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINING OF WORK.

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD 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 BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

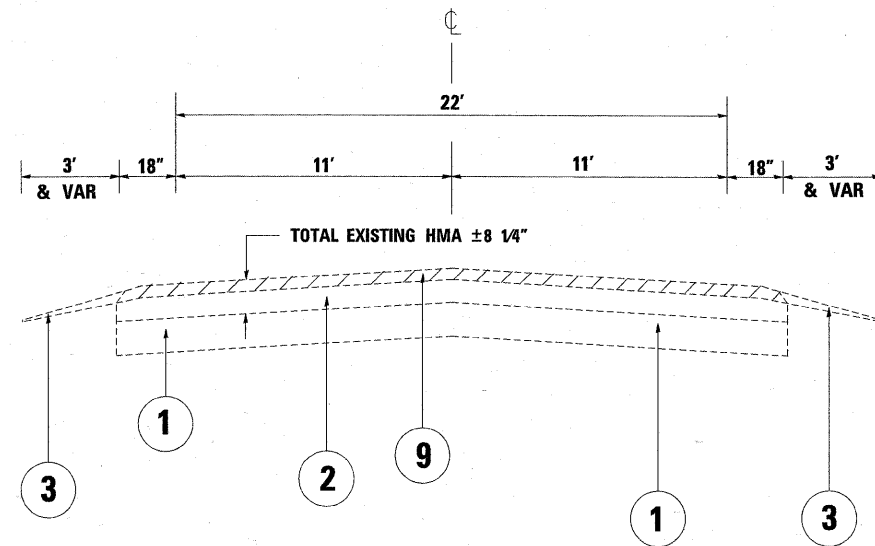
DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS- RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.

FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 22 (S. KRUEGER RD. - OLD MCHENRY RD.) INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cd:\pwwork\pww\dot\abebawa\dms09013\sh...	my.dgn	DRAWN -	REVISED -			337	20 RS-2	LAKE	20	2	
	PLOT SCALE = 49.9999' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60F31					
	PLOT DATE = 3/19/2009	DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO

URBAN					URBAN														
SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE								
CODE NO	ITEM	UNIT	100% STATE TOTAL QUANTITIES	URBAN 1000						CODE NO	ITEM	UNIT	100% STATE TOTAL QUANTITIES	URBAN 1000					
20201006	GRADING AND SHAPING SHOULDERS	UNIT	366	366						70300100	SHORT-TERM PAVEMENT MARKING	FOOT	6570	6570					
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	15	15						70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	363	363					
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	89	89						70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	35593	35593					
25000210	SEEDING, CLASS 2A	ACRE	0.02	0.02						70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	713	713					
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	1.2	1.2						70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	464	464					
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	1.2	1.2						70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	204	204					
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	1.2	1.2						70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	727	727					
25100630	EROSION CONTROL BLANKET	SQ YD	89	89						* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	363	363					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	28	28						* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	35593	35593					
40600300	AGGREGATE (PRIME COAT)	TON	140	140						* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	713	713					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	10.5	10.5						* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	464	464					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1						* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	204	204					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	125	125						* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	330	330					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	2942	2942						78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	198	198					
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	35028	35028						* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	1070	1070					
44201811	CLASS D PATCHES, TYPE I, 14 INCH	SQ YD	100	100						X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	102.8	102.8					
44201815	CLASS D PATCHES, TYPE II, 14 INCH	SQ YD	1337	1337						X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1380	1380					
44201819	CLASS D PATCHES, TYPE III, 14 INCH	SQ YD	1200	1200															
44201821	CLASS D PATCHES, TYPE IV, 14 INCH	SQ YD	1578	1578															
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	88	88															
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	506	506															
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4															
63200310	GUARDRAIL REMOVAL	FOOT	200	200															
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6															
67100100	MOBILIZATION	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															
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1	1															
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1															

* Specialty Items

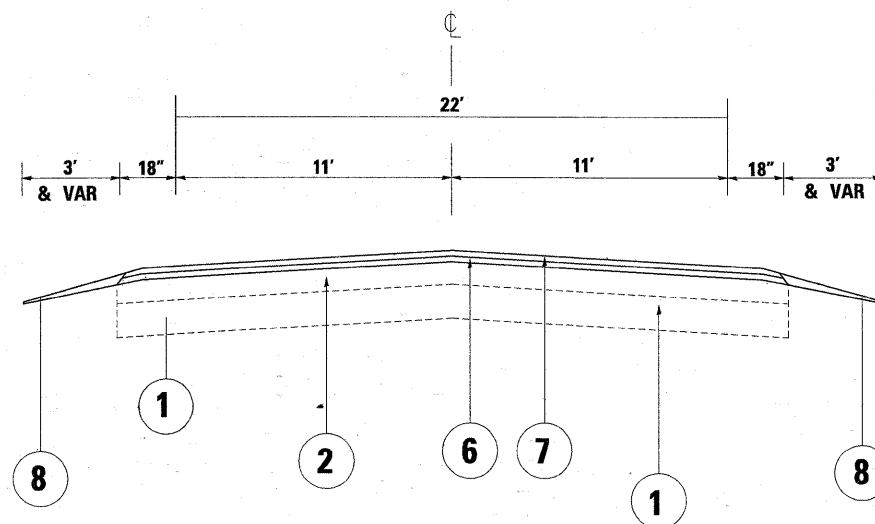
ILL. RTE 22



EXIST. TYPICAL SECTION
STA. 33+09 TO STA. 102+00

- LEGEND**
- ① EXISTING P.C.C PAVEMENT, ±8"
 - ② EXISTING HOT-MIX ASPHALT AFTER MILLING, ± 6"
 - ③ EXISTING AGGREGATE SHOULDER
 - ④ EXISTING BITUMINOUS SHOULDER
 - ⑤ EXISTING BITUMINOUS BASE COURSE, 10 1/2"
 - ⑥ PROP. POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
 - ⑦ PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
 - ⑧ PROP. AGGREGATE WEDGE SHOULDERS, TYPE B
 - ⑨ PROP. HMA SURFACE REMOVAL, 2 1/4"

ILL. RTE 22



PROP. TYPICAL SECTION
STA. 33+09 TO STA. 102+00

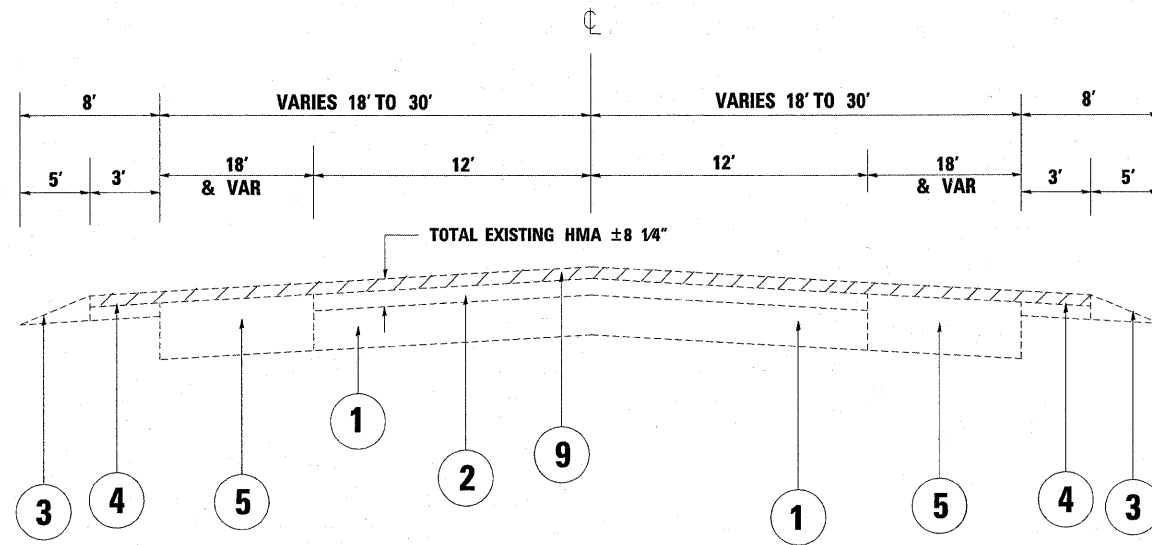
HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE USES	AC TYPE	VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	PG 64-22	4% AT 70 GYR.
POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% AT 50 GYR.
CLASS D PATCHES (HMA BINDER IL-19 mm)	PG 64-22 *	4% AT 70 GYR.

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE IS 112 LBS/SQYD/IN
 * NOTE 2: WHEN RAP EXCEEDS 20% THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

NOTE:
THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS IL. ROUTE 22 (S. KRUEGER RD. - OLD MCHENRY RD.)			F.A.P. RTE. 337	SECTION 20 RS-2	COUNTY LAKE	TOTAL SHEETS 20	SHEET NO. 4
c:\pw_work\pwwork\abebawa\dms89013\sh...					DRAWN -	REVISED -	SCALE: 1"=50'	SHEET NO. OF	SHEETS	STA. TO STA.	CONTRACT NO. 60F31	
PLOT SCALE = 49.9999 / IN.					CHECKED -	REVISED -					ILLINOIS FED. AID PROJECT	
PLOT DATE = 3/19/2009					DATE -	REVISED -						

ILL. RTE 22



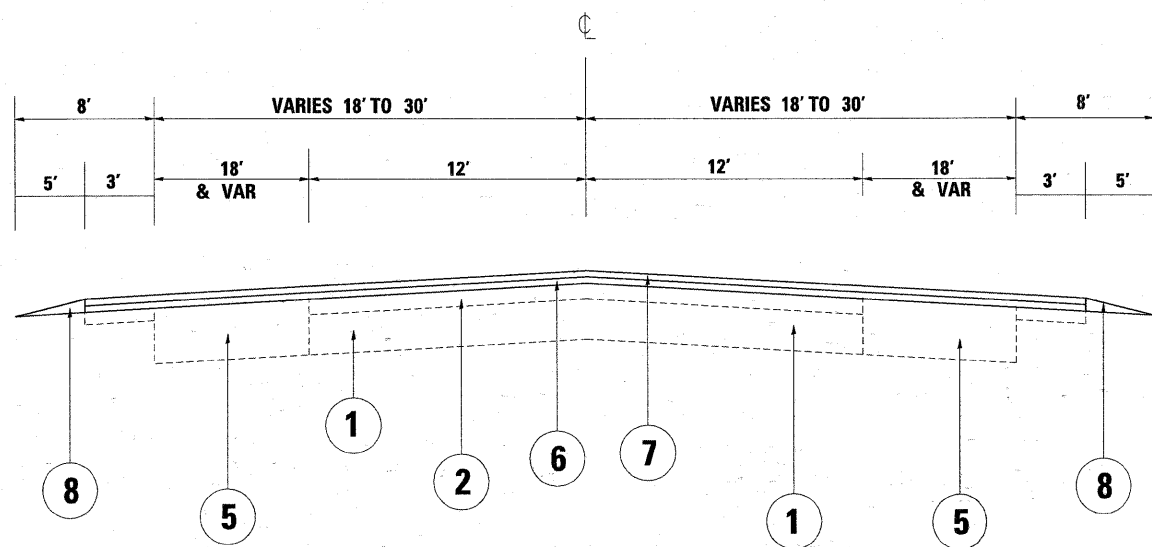
EXIST. TYPICAL SECTION

STA. 102+00 TO STA. 111+29.7

LEGEND

- ① EXISTING P.C.C PAVEMENT, ± 8"
- ② EXISTING HOT-MIX ASPHALT AFTER MILLING, ± 6"
- ③ EXISTING AGGREGATE SHOULDER
- ④ EXISTING BITUMINOUS SHOULDER
- ⑤ EXISTING BITUMINOUS BASE COURSE, 10 1/2"
- ⑥ PROP. POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
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ILL. RTE 22



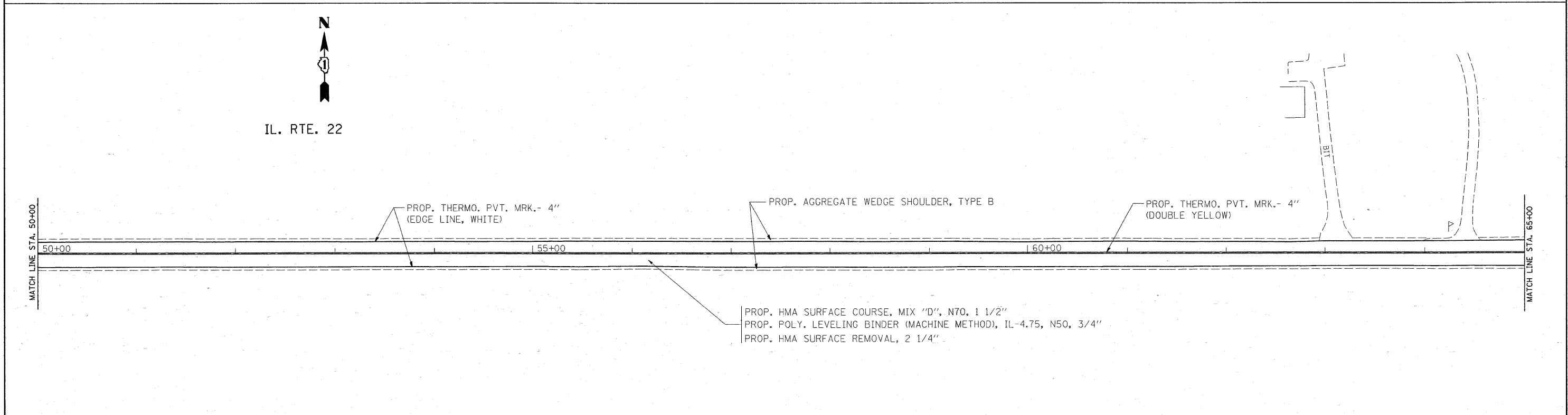
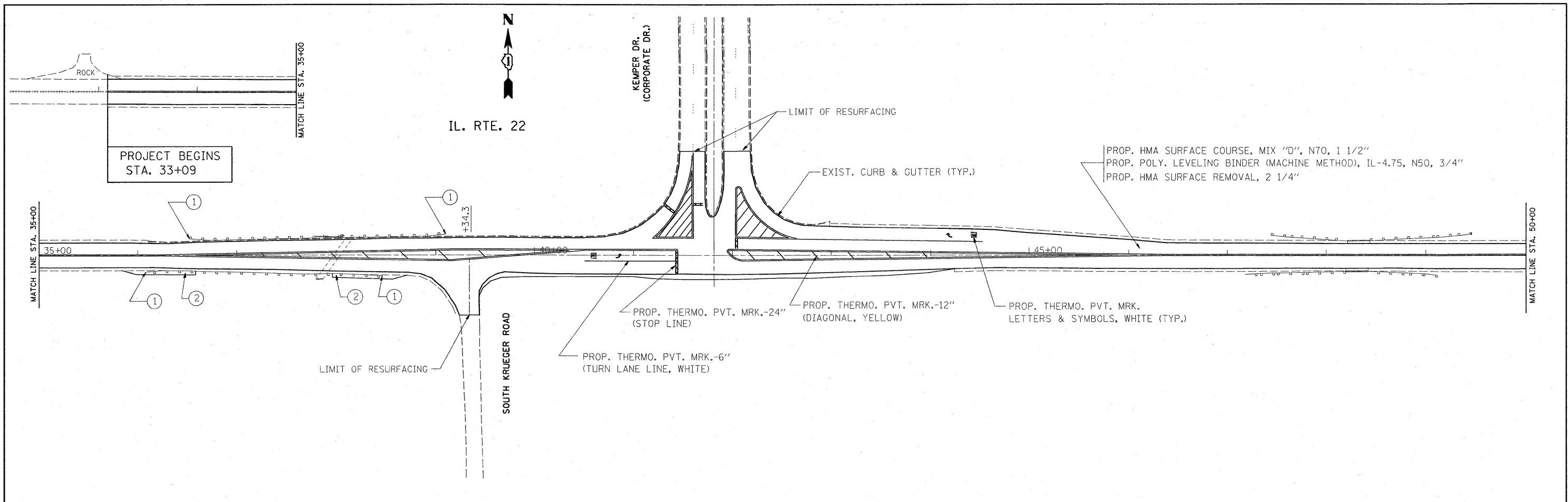
PROP. TYPICAL SECTION

STA. 102+00 TO STA. 111+29.7

NOTE:

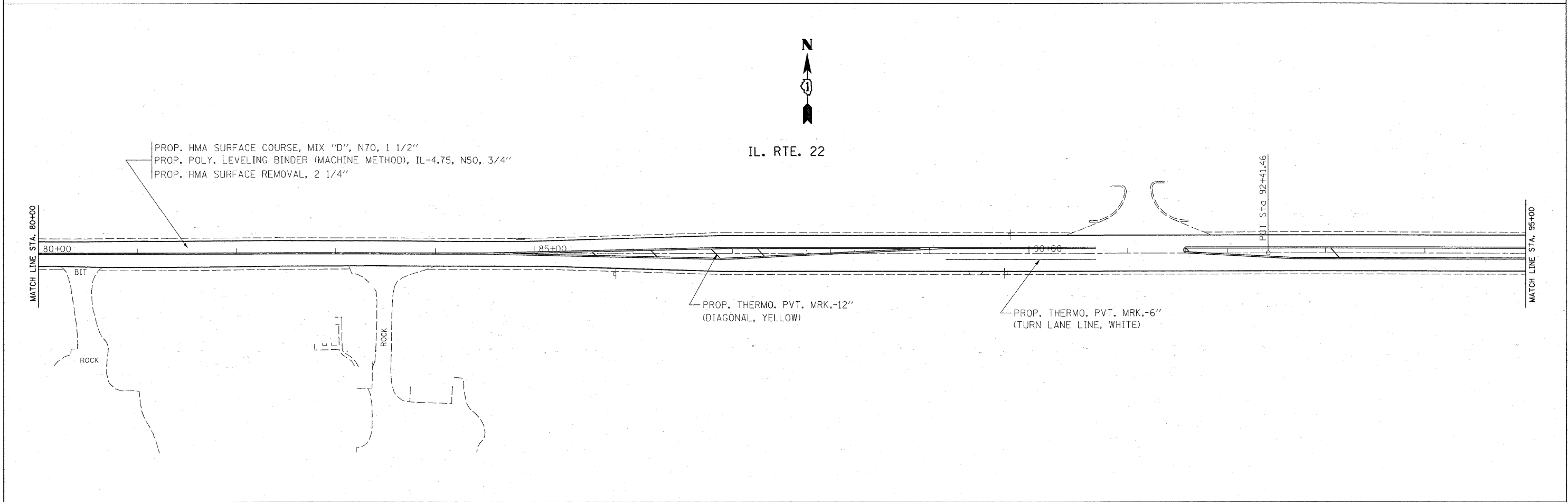
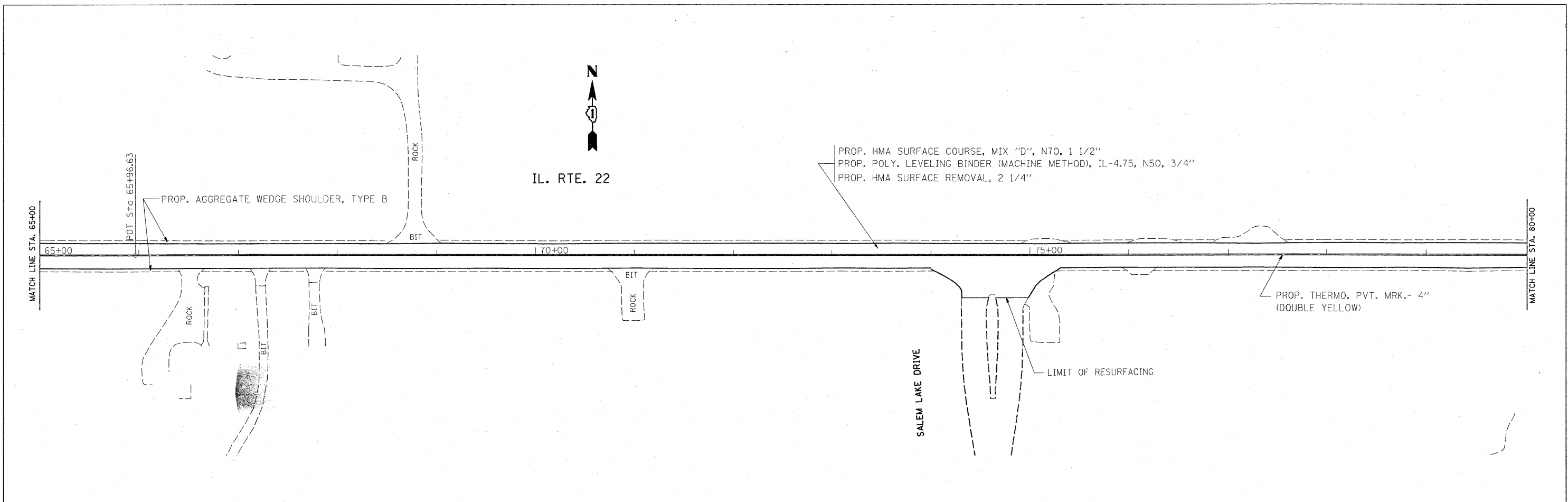
THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw\work\p\dot\abebawa\dms89813\sh...	ky.dgn	DRAWN -	REVISED -		IL. ROUTE 22 (S. KRUEGER RD. - OLD MCHENRY RD.)			337	20 RS-2	LAKE	20	5
		CHECKED -	REVISED -		SCALE: 1"=50'			SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 60F31	
		DATE -	REVISED -		FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT				

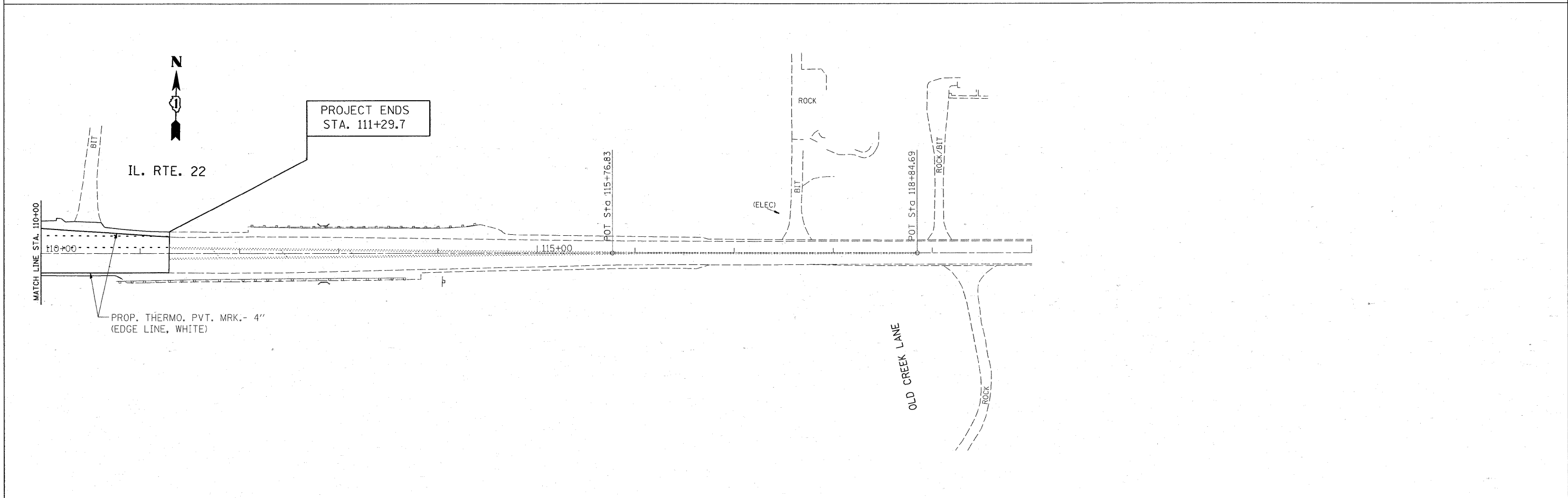
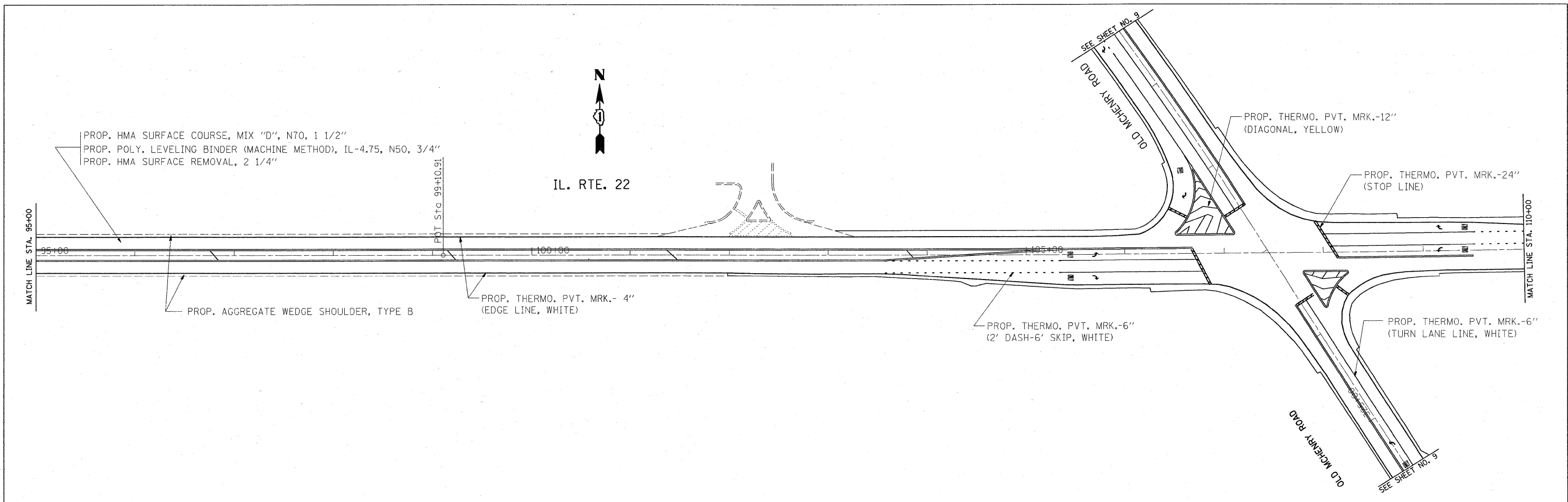


- 1 EXISTING TERMINAL TO BE REPLACED W/NEW TYPE 1 (SPECIAL)
- 2 REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS
FURNISHED EXCAVATION
TOPSOIL FURNISH AND PLACE, 4"
SEEDING, CLASS 2A
AGGREGATE SHOULDER, TYPE B

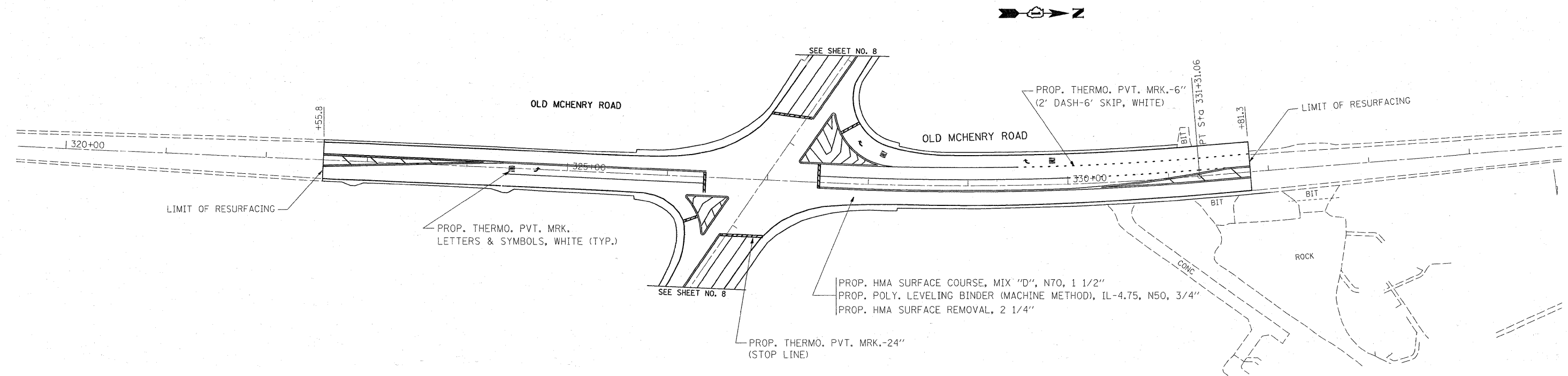
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CONTRACT NO.	SCALE: 1"=50'	SHEET NO. OF SHEETS	STA. TO STA.			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
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PLLOT DATE = 3/19/2009	DATE -	REVISED -								



FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY AND PAVEMENT MARKING PLAN IL. ROUTE 22 (S. KRUEGER RD. - OLD MCHENRY RD.)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
ca\pw_work\pwsdot\abebawa\dms89013\sh_rdw.dgn		DRAWN -	REVISED -		SCALE: 1"=50'	SHEET NO.	OF	SHEETS	STA.	TO STA.	337	20 RS-2	LAKE	20	7
		PLOT SCALE = 50.0000' / IN.	CHECKED -		REVISED -										
		PLOT DATE = 3/19/2009	DATE -		REVISED -										
											CONTRACT NO.		ILLINOIS FED. AID PROJECT		



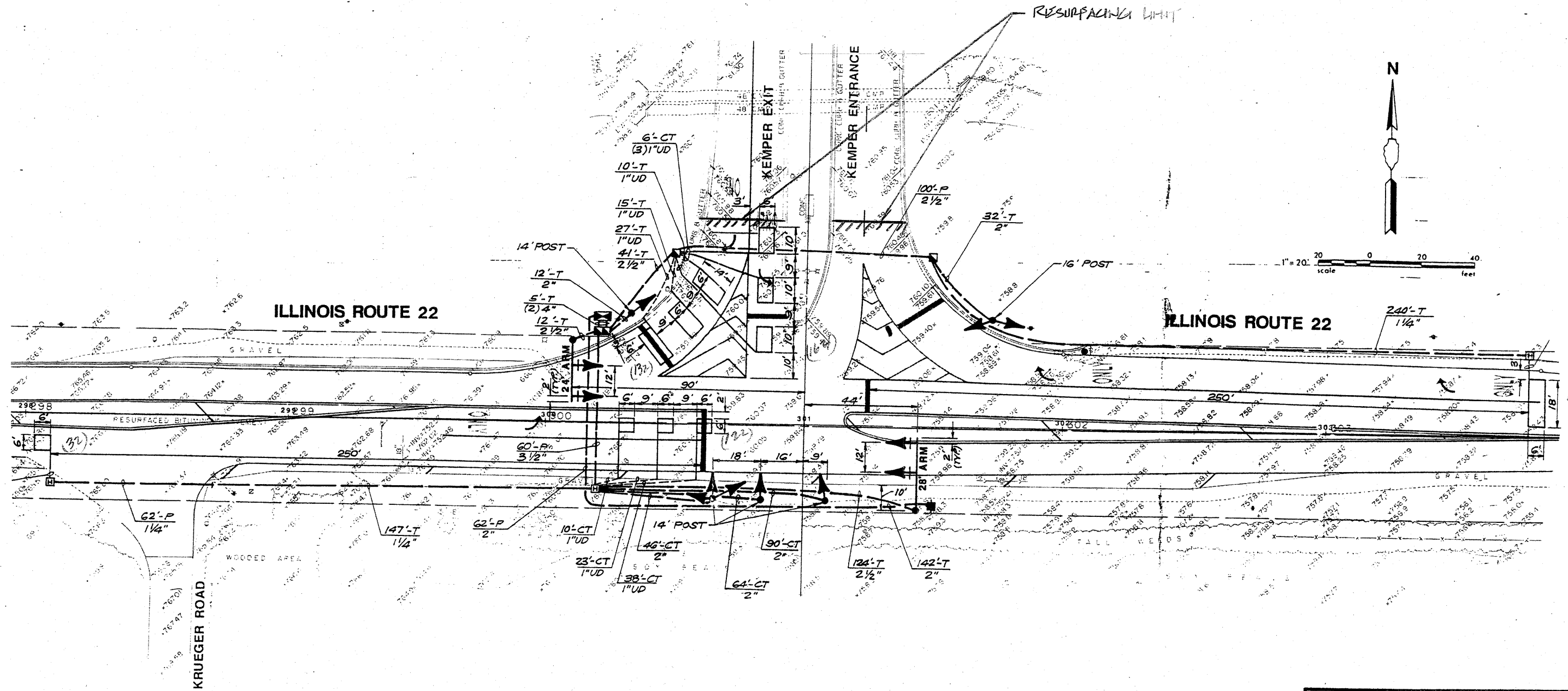
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c:\pwork\pwork\abebawa\dms89013\sh...dgn		DRAWN -	REVISED -			337	20 RS-2	LAKE	20	8	
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60F31					
	PLOT DATE = 3/19/2009	DATE -	REVISED -			SCALE: 1"=50'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



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ct:\pw_work\pwsdot\abebawa\dms89013\sh...dgn		DRAWN -	REVISED -		SCALE: 1"=50'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
		CHECKED -	REVISED -					CONTRACT NO. 60F31				
		DATE -	REVISED -									

T. & E. SEC.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337	20RS-2	LAKE	20	10
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Cont. # 60F31



NOTE:
 THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

REPLACE ALL DETECTOR LOOPS AS SHOWN
 (WITHIN THE RESURFACING LIMITS)

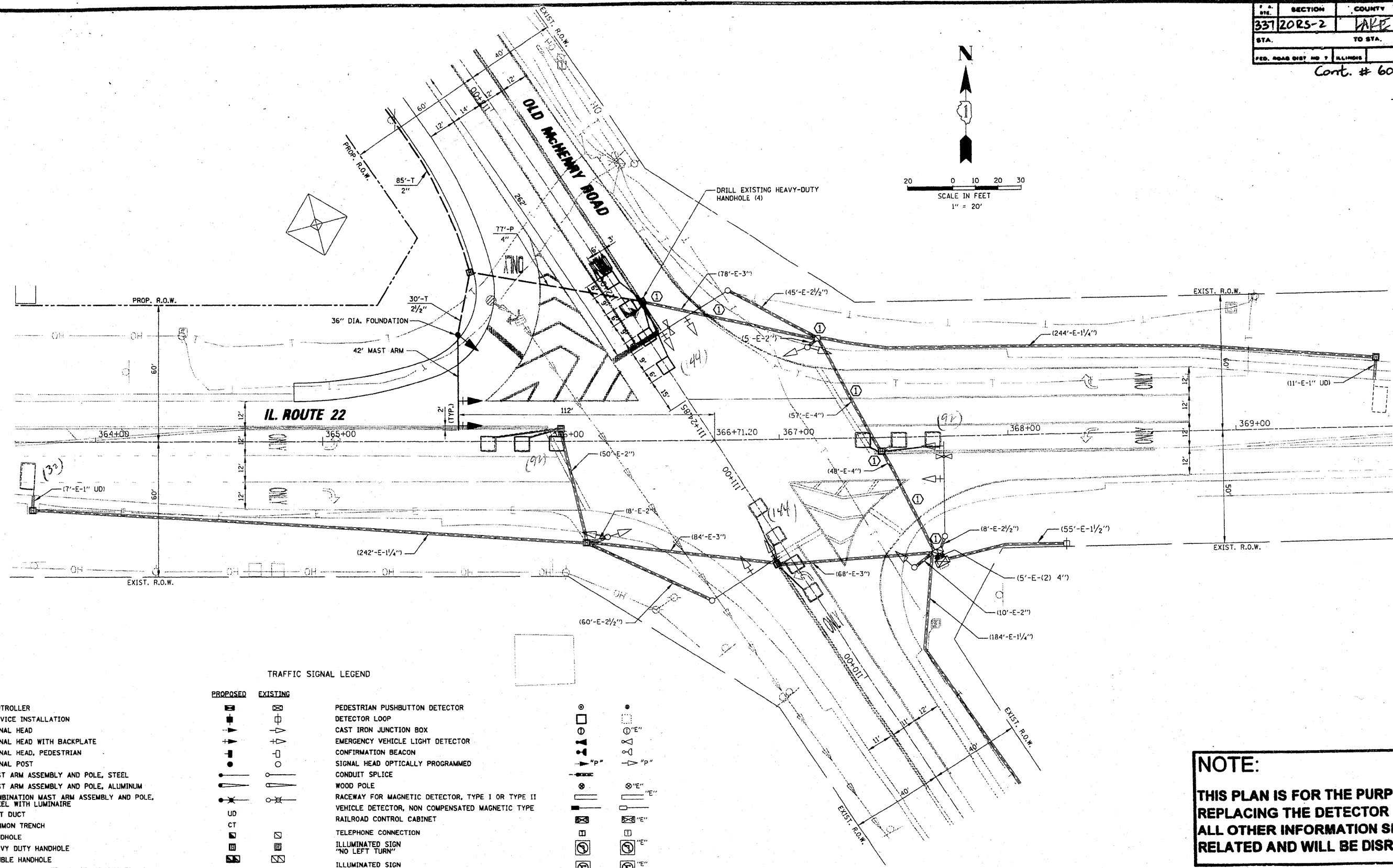
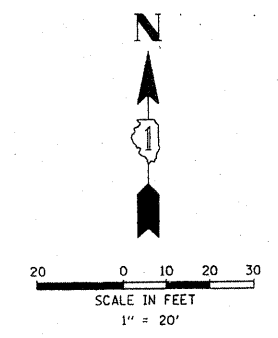
CODE NO.	QUANTITY	UNIT	ITEM
80600600	500	Foot	Detector Loop Replacement

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETECTOR LOOP REPLACEMENT
 ILL. ROUTE 22 @ KEMPER DRIVE
 SCALE: NONE
 DATE: FEB. 2009
 DRAWN BY: JHE
 DESIGNED BY: JHE
 CHECKED BY: DAD

STATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	20RS-2	LAKE	20	11
STA.		TO STA.		
FED. ROAD DIST NO 1		ILLINOIS	FED AID PROJECT	

Cont. # 60F31



TRAFFIC SIGNAL LEGEND

<p>PROPOSED</p> <p>CONTROLLER</p> <p>SERVICE INSTALLATION</p> <p>SIGNAL HEAD</p> <p>SIGNAL HEAD WITH BACKPLATE</p> <p>SIGNAL HEAD, PEDESTRIAN</p> <p>SIGNAL POST</p> <p>MAST ARM ASSEMBLY AND POLE, STEEL</p> <p>MAST ARM ASSEMBLY AND POLE, ALUMINUM</p> <p>COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE</p> <p>UNIT DUCT</p> <p>COMMON TRENCH</p> <p>HANDHOLE</p> <p>HEAVY DUTY HANDHOLE</p> <p>DOUBLE HANDHOLE</p> <p>G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)</p>	<p>EXISTING</p> <p>PEDESTRIAN PUSHBUTTON DETECTOR</p> <p>DETECTOR LOOP</p> <p>CAST IRON JUNCTION BOX</p> <p>EMERGENCY VEHICLE LIGHT DETECTOR</p> <p>CONFIRMATION BEACON</p> <p>SIGNAL HEAD OPTICALLY PROGRAMMED</p> <p>CONDUIT SPLICE</p> <p>WOOD POLE</p> <p>RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II</p> <p>VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE</p> <p>RAILROAD CONTROL CABINET</p> <p>TELEPHONE CONNECTION</p> <p>ILLUMINATED SIGN "NO LEFT TURN"</p> <p>ILLUMINATED SIGN "NO RIGHT TURN"</p>
--	---

REPLACE ALL DETECTOR LOOPS AS SHOWN

(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
80600600	570	Foot	Detector Loop Replacement

REVISIONS	
NAME	DATE

NOTE:

THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

ILLINOIS DEPARTMENT OF TRANSPORTATION

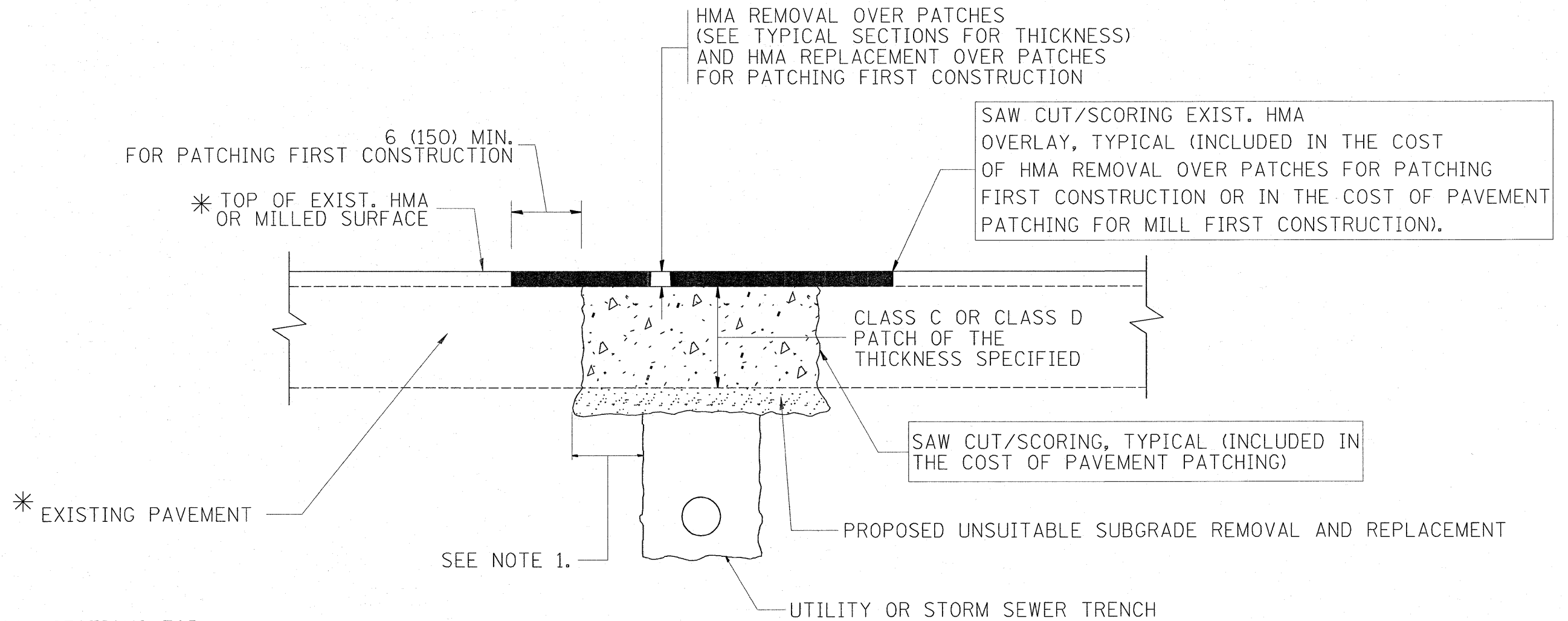
DETECTOR LOOP REPLACEMENT

ILL. ROUTE 22 @ OLD McHENRY RD.

SCALE: NONE

DATE: FEB. 2009

DRAWN BY: JHE
DESIGNED BY: JHE
CHECKED BY: DAD



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

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)

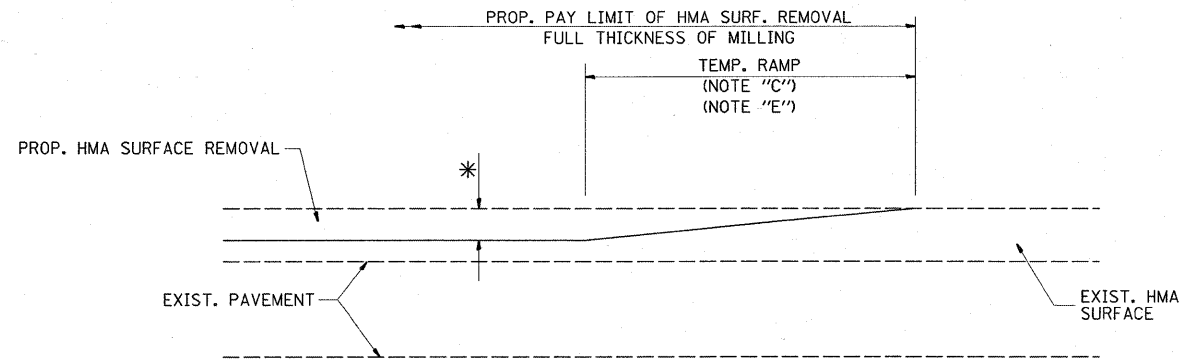
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 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.

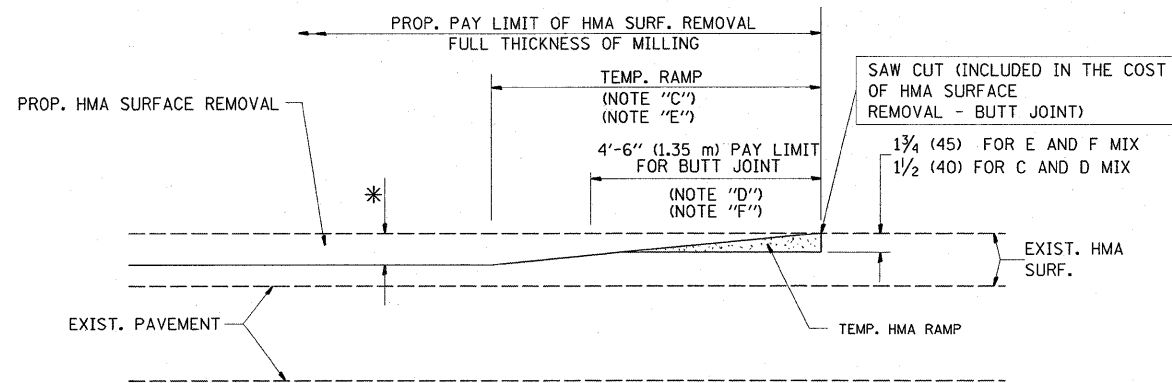
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = abebawa	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cd:\pw_work\PIWIDOT\ABEBAWA\dms89013\01st	std.dgn	DRAWN -	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	337	20 RS-2	LAKE	20	12
		PLLOT SCALE = 50.0000' / IN.	REVISED - R. BORO 09-04-07					BD400-04 (BD-22)		CONTRACT NO. 60F31			
		PLLOT DATE = 3/19/2009	REVISED - K. ENG 10-27-08		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								



MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

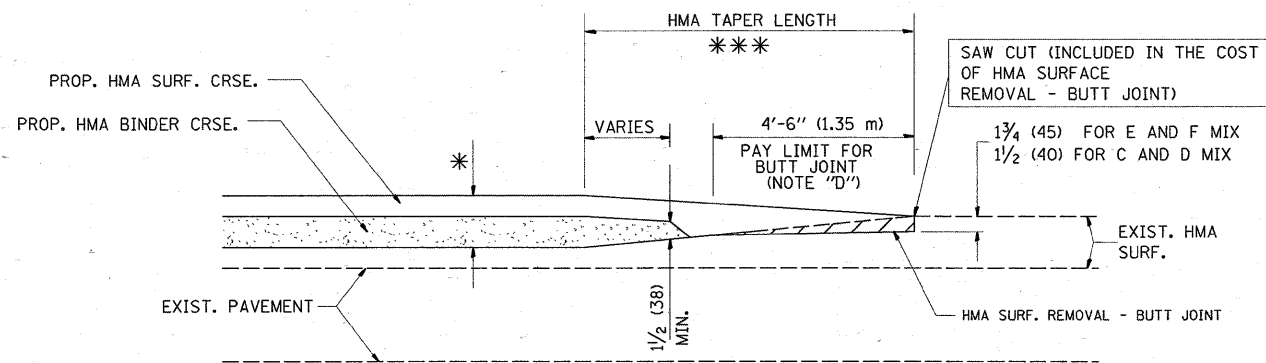
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

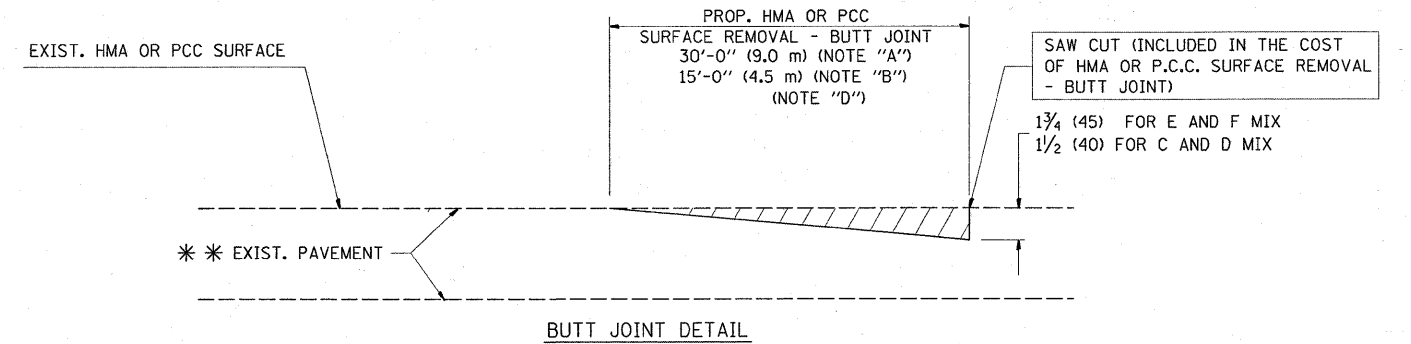
OPTION 2

TYPICAL TEMPORARY RAMP

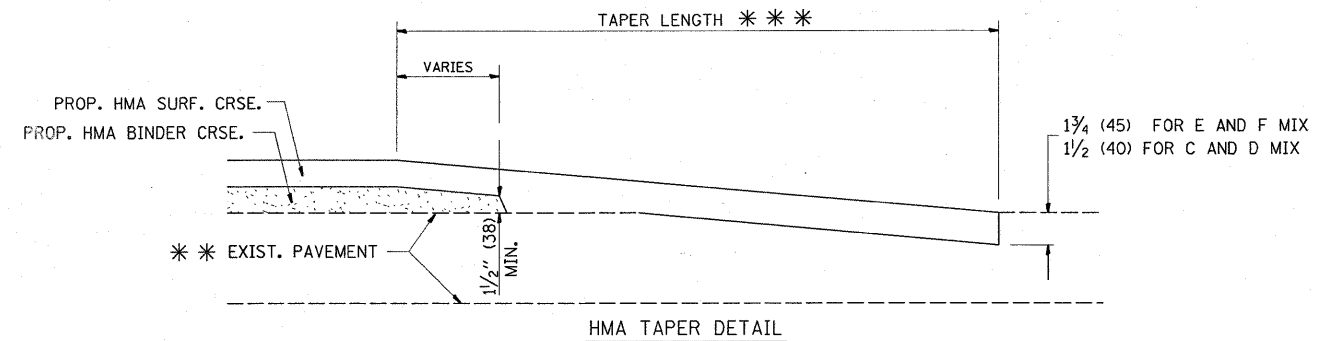


BUTT JOINT AND
HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

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.
- * * * 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:

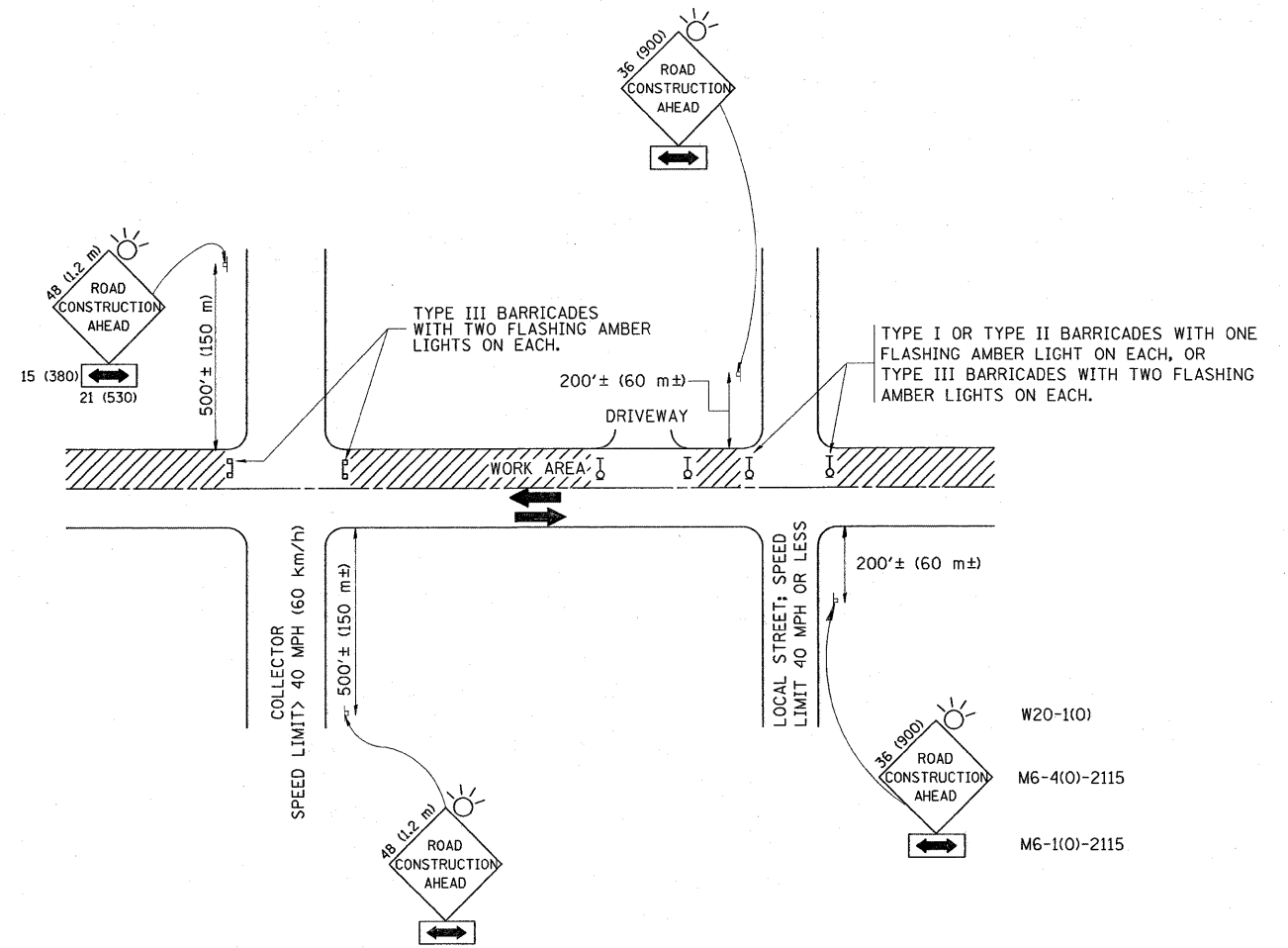
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

FILE NAME =	USER NAME = abebawa	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
ct\pw_work\FWIDOT\ABEBAWA\dms89013\01.stb		DRAWN -	REVISED - A. ABBAS 03-21-97
		CHECKED -	REVISED - M. GOMEZ 04-06-01
		DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		F.A.P. RTE. 337		SECTION 20 RS-2		COUNTY LAKE		TOTAL SHEETS 20		SHEET NO. 13	
BUTT JOINT AND HMA TAPER DETAILS												BD400-05 BD32		CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT															



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:
 - a) 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:
 - 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.
 - 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.
- 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.

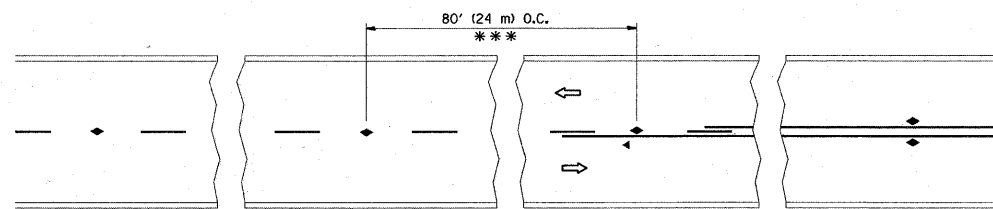
FILE NAME =	USER NAME = abebawa	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
ca\pw_work\VPWIDOT\ABEBAWA\dms89813\Dist	std.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000" / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 3/19/2009	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

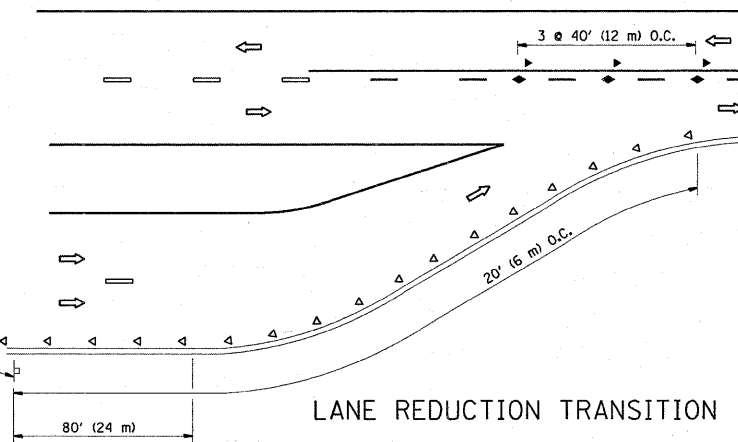
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 337	SECTION 20 RS-2	COUNTY LAKE	TOTAL SHEETS 20	SHEET NO. 14
TC-10		CONTRACT NO. 60F31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

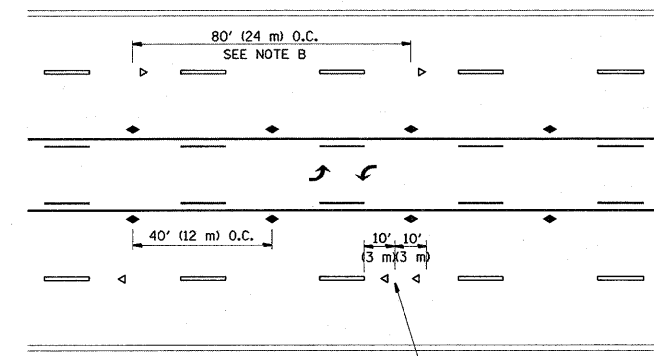


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

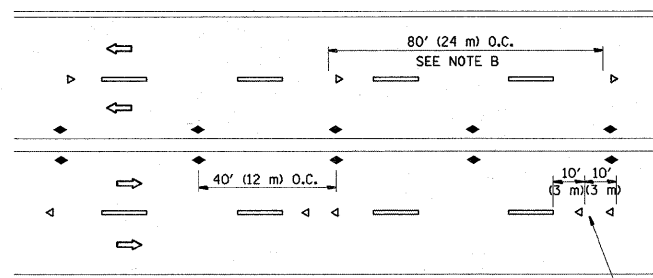


LANE REDUCTION TRANSITION



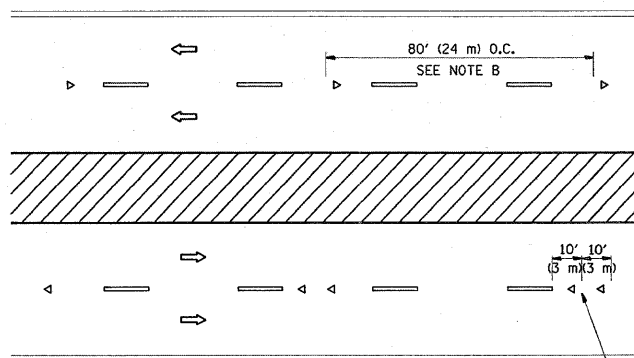
SEE NOTE A

TWO-WAY LEFT TURN



SEE NOTE A

MULTI-LANE/UNDIVIDED



SEE NOTE A

MULTI-LANE/DIVIDED

GENERAL NOTES

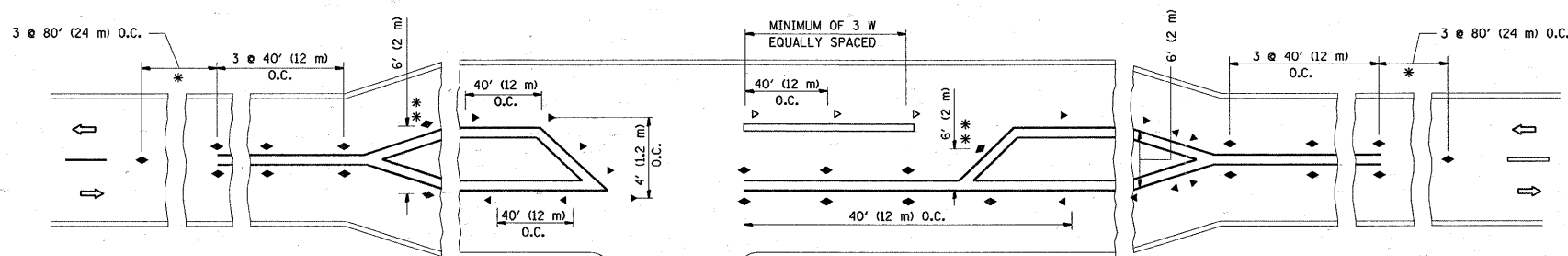
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE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

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◄ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

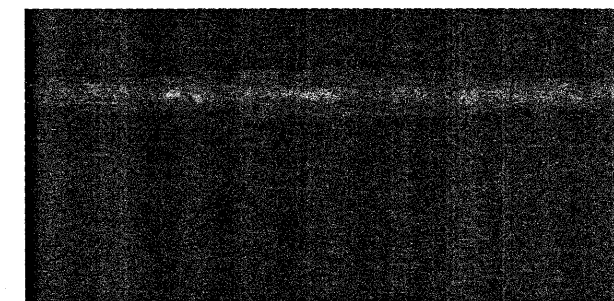
LANE MARKER NOTES

- 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.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

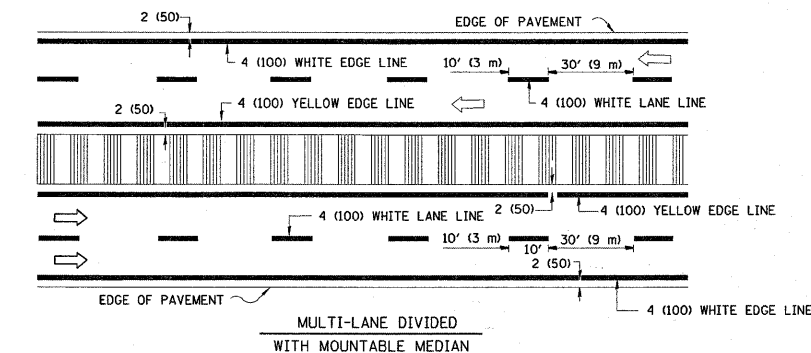
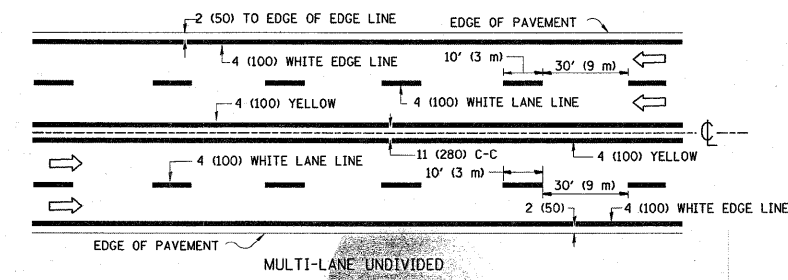
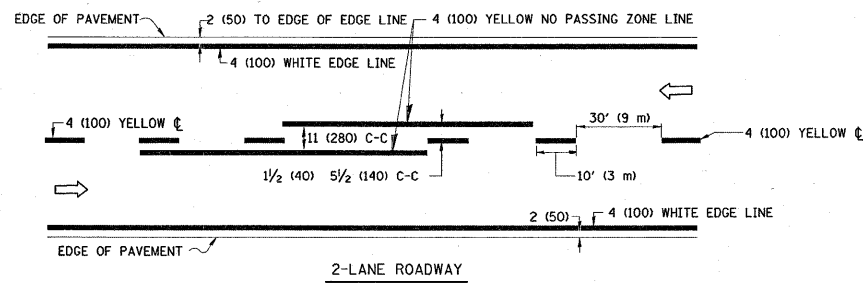


All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
ct:\pw_work\PWIDOT\ABEBAWA\dms9813\Drawings\td.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 3/19/2009	DATE -	REVISED -

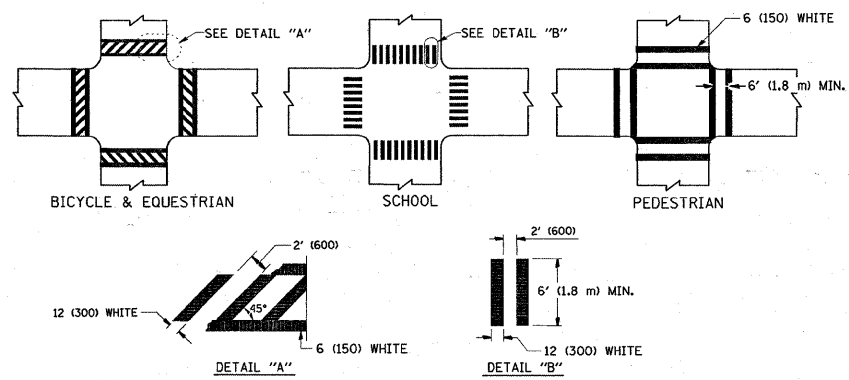
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		337	20 RS-2	LAKE	20	15
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT
		TC-11		CONTRACT NO. 60F31		

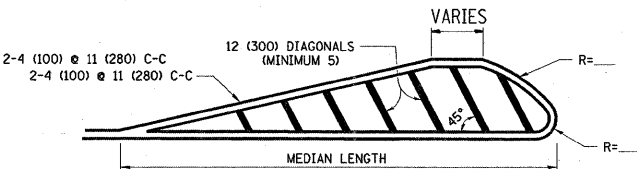
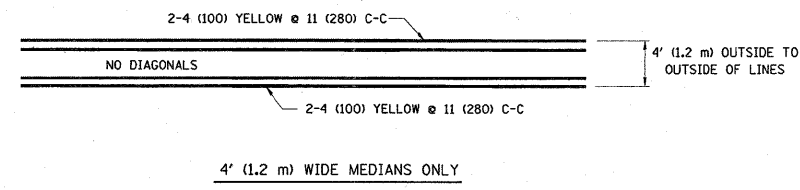


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

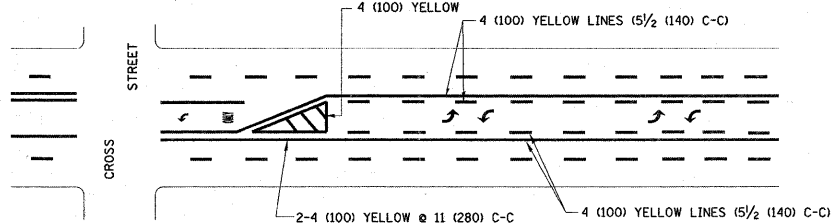


TYPICAL CROSSWALK MARKING

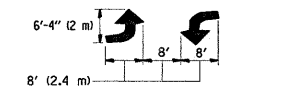


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

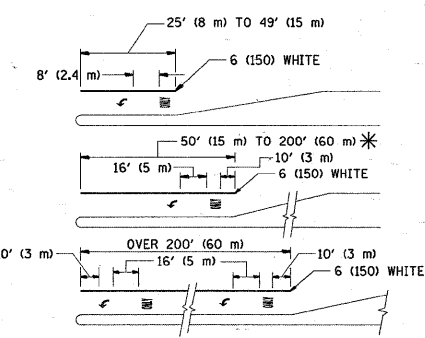


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

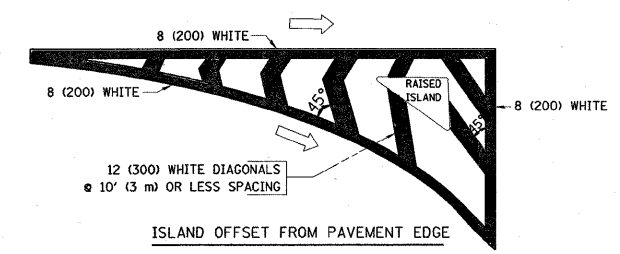


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

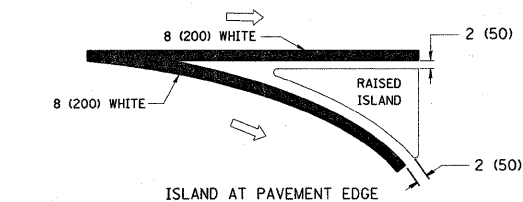
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

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 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (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 WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (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 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE 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.
CORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	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))
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 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 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))

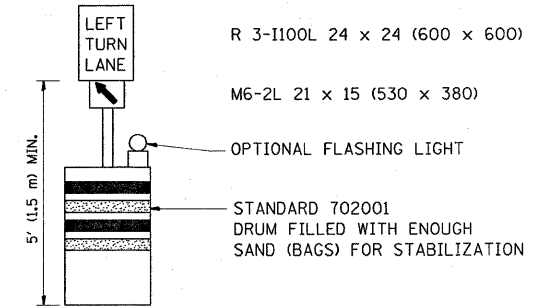
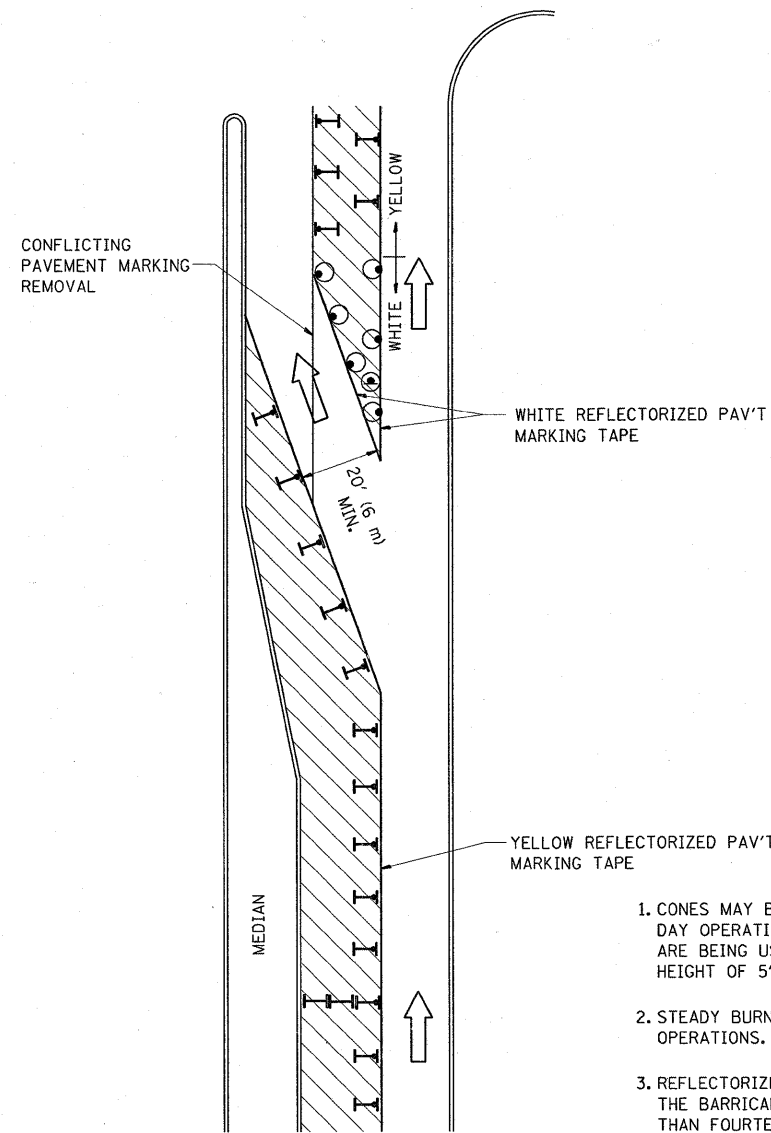
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME =	USER NAME = abebawa	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
ca:\p_wor\k\p\WIDOT\ABEBAWA\dms89013\01st	td.dgn	DRAWN -	REVISED - A. HOUSEH 10-09-96
	PLOT SCALE = 58.0000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-17-96
	PLOT DATE = 3/19/2009	DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

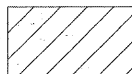





DISTRICT ONE		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		337	20 RS-2	LAKE	20	16
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.	TC-13	
				CONTRACT NO. 60F31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						



GENERAL NOTES

1. 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 CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. 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" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

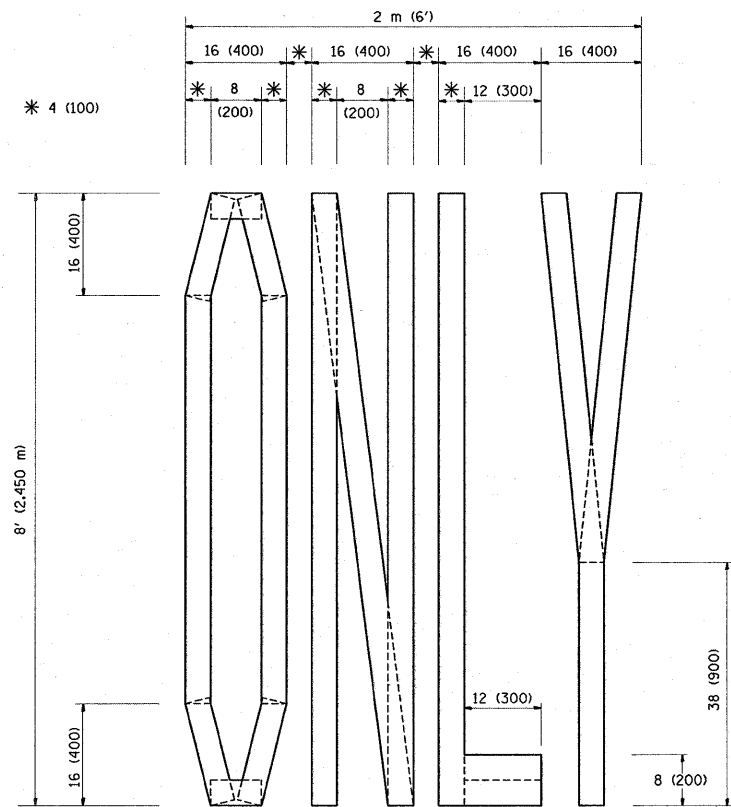
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ca\pw_work\PWIDOT\AREBAMA\dms89013\01.st	dgn	DRAWN -	REVISED - A. HOUSEH 11-07-95
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED - A. HOUSEH 10-12-96
PLOT DATE = 3/19/2009		DATE -	REVISED -T. RAMMACHER 01-06-00

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

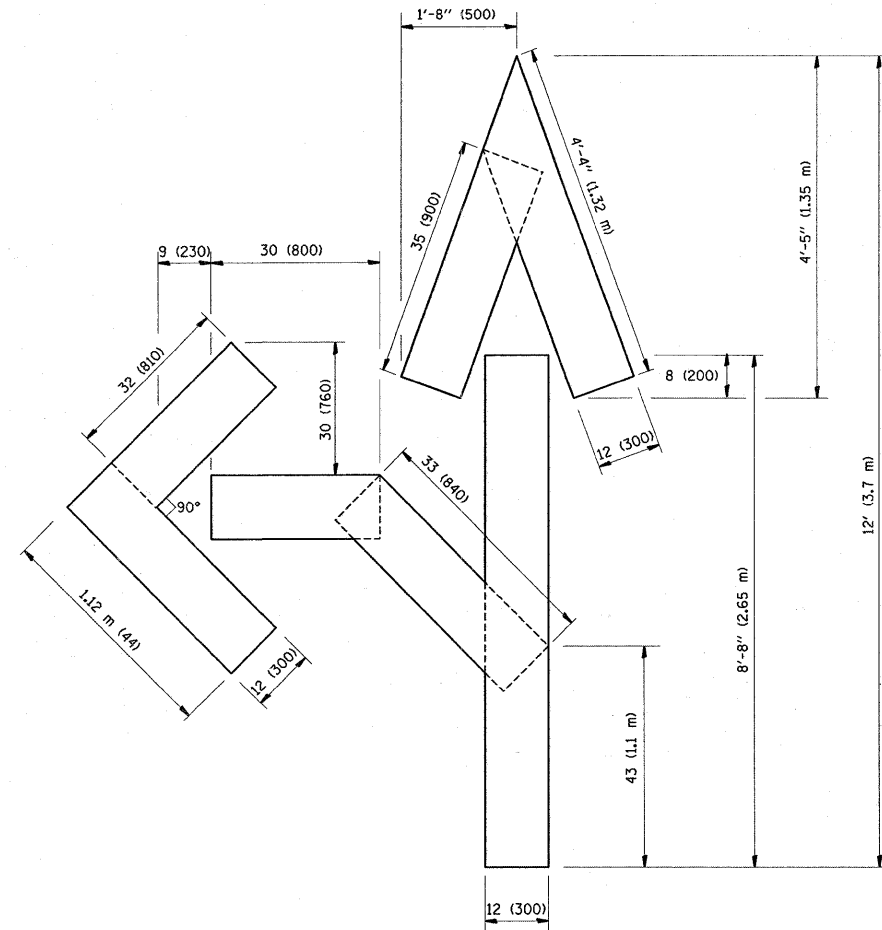
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

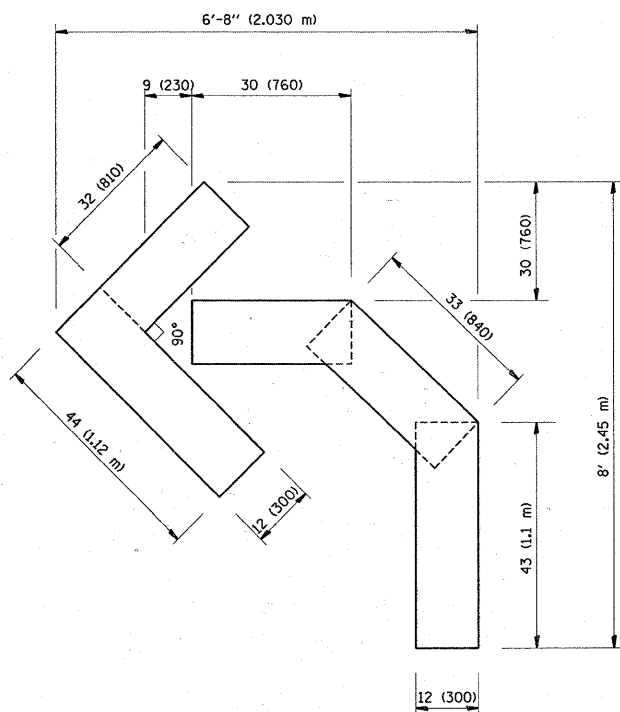
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337	20 RS-2	LAKE	20	17
TC-14			CONTRACT NO. 60F31	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



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



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

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

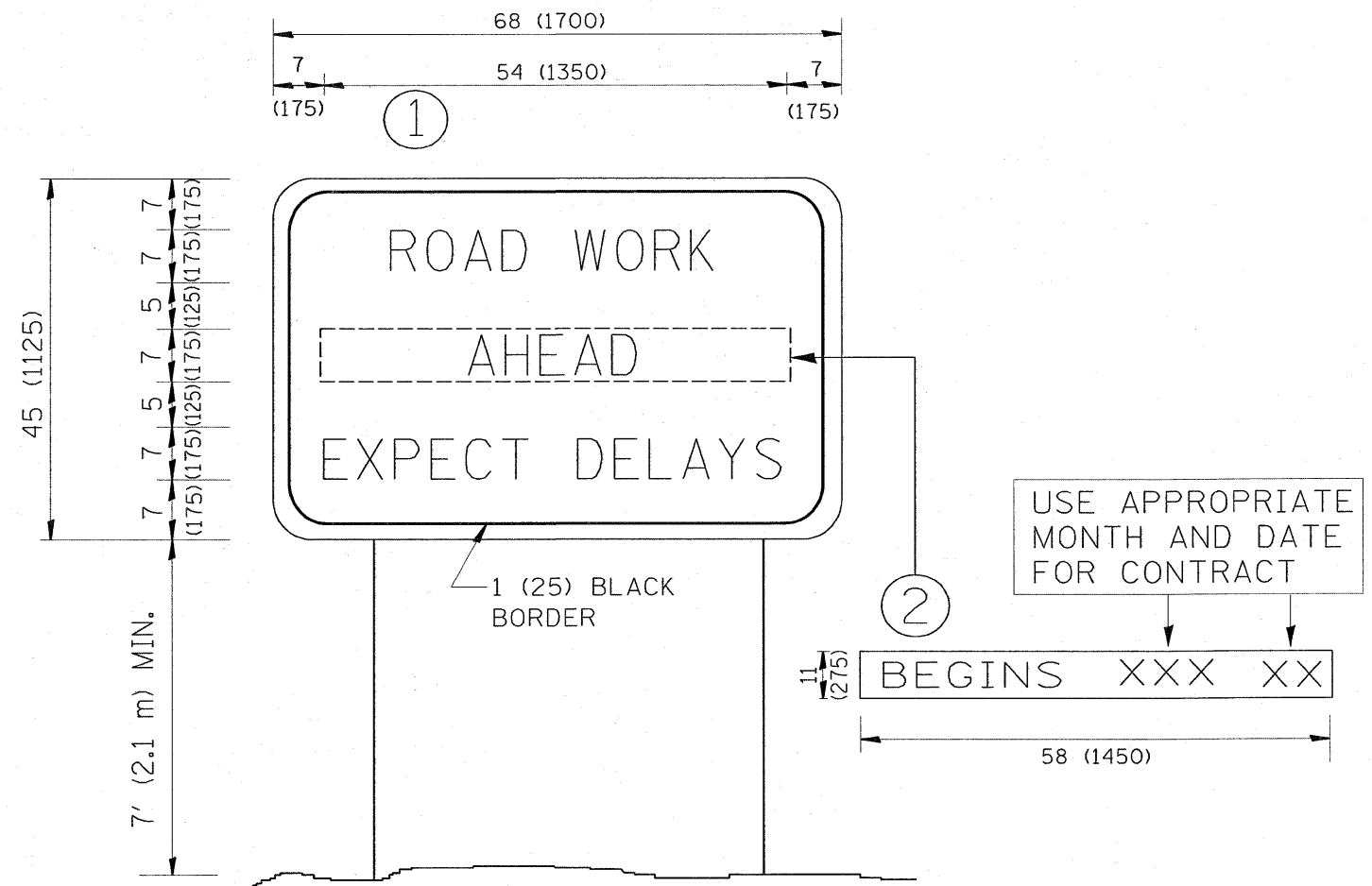
FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED - T. RAMMACHER 06-05-96
c:\pwork\p\WIDOT\ABEBAWA\dms89813\lts	td.dgn	DRAWN -	REVISED - T. RAMMACHER 11-04-97
PLOT SCALE = 50.0000" / IN.	CHECKED -	REVISED - T. RAMMACHER 03-02-98	
PLOT DATE = 3/19/2009	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337	20 RS-2	LAKE	20	18
TC-16		CONTRACT NO. 60F31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

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.

FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED - R. MIRS 09-15-97
ct:\pw_work\PMIDOT\ABEBAWA\dms89813\01ststd.dgn		DRAWN -	REVISED - R. MIRS 12-11-97
		CHECKED -	REVISED - T. RAMMACHER 02-02-99
		DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

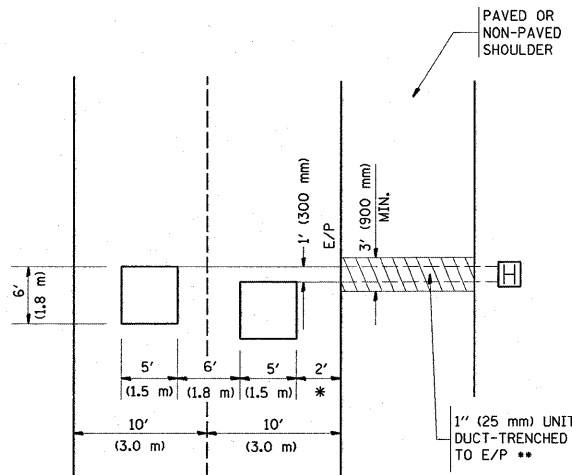
**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.R. RTE. 337	SECTION 20 RS-2	COUNTY LAKE	TOTAL SHEETS 20	SHEET NO. 19
TC-22			CONTRACT NO. 60F31	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.



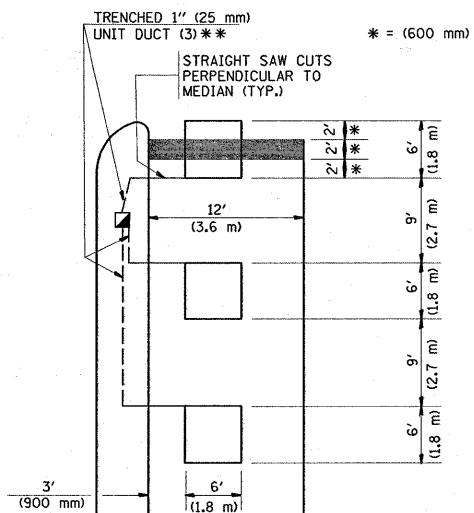
* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

**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 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.



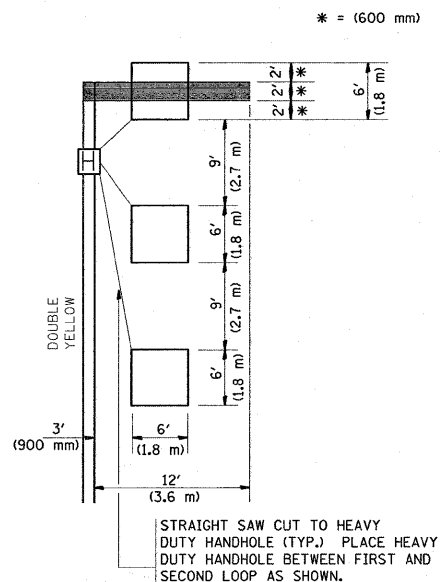
* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH**

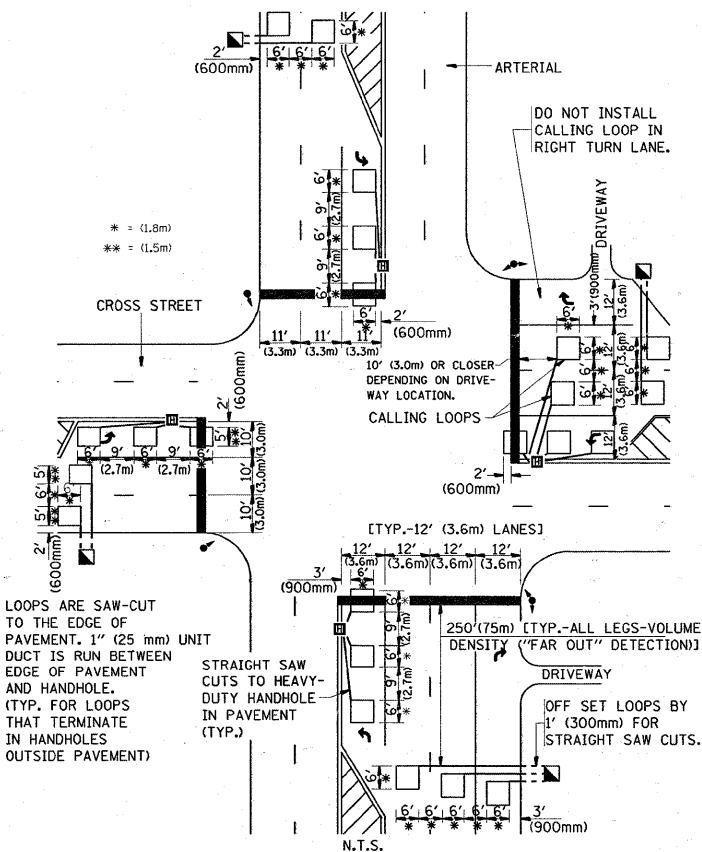
(PROTECTED / PERMITTED LEFT TURN PHASING)



* = (600 mm)

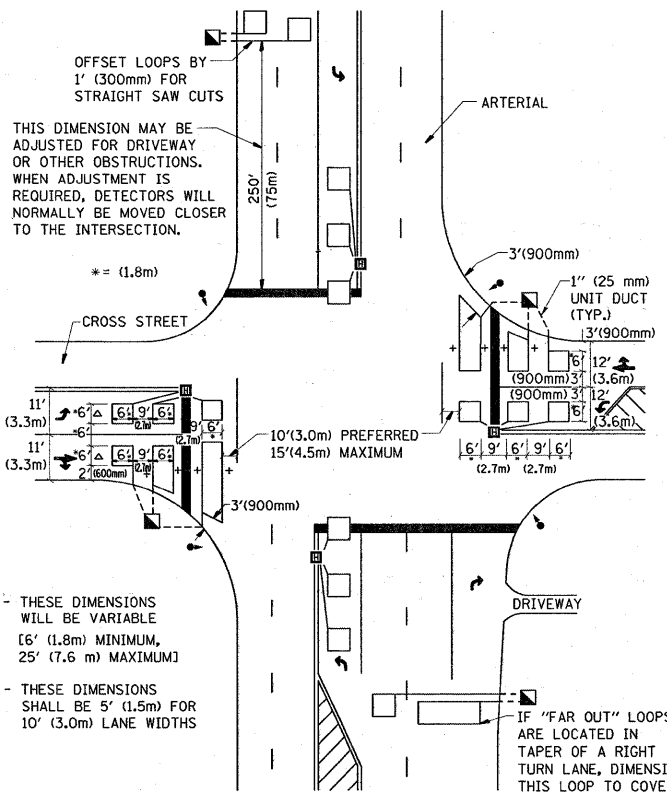
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * 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 SEPARATELY. 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 DIMENSIONS 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.

FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING	F.A.P. R.T.E. 337	SECTION 20 RS-2	COUNTY LAKE	TOTAL SHEETS 20	SHEET NO. 20	
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	PLOT DATE = 3/19/2009	CHECKED - R.K.F.	REVISED -								
		DATE	REVISED -								