

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3592	(44 & 45) X-RS	LAKE	23	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60E69		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

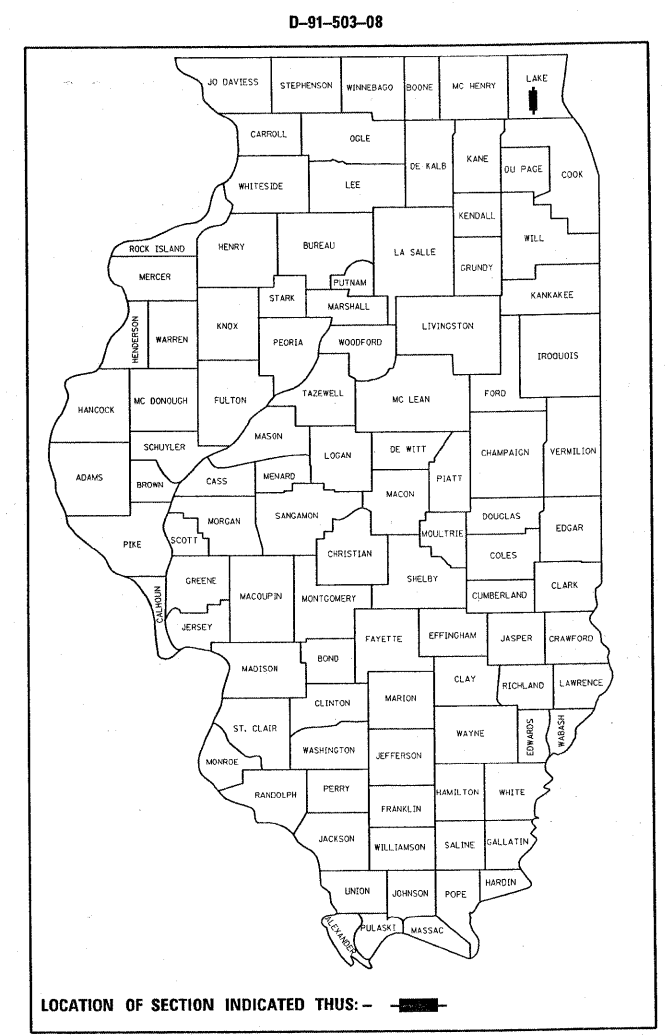
**PROPOSED  
HIGHWAY PLANS**

FAP ROUTE 344 (US 45)  
SECTION: (44 & 45) X-RS  
ALLANSON ROAD TO US 45/IL 83  
RESURFACING (3P)

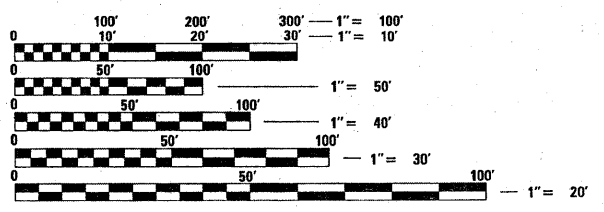
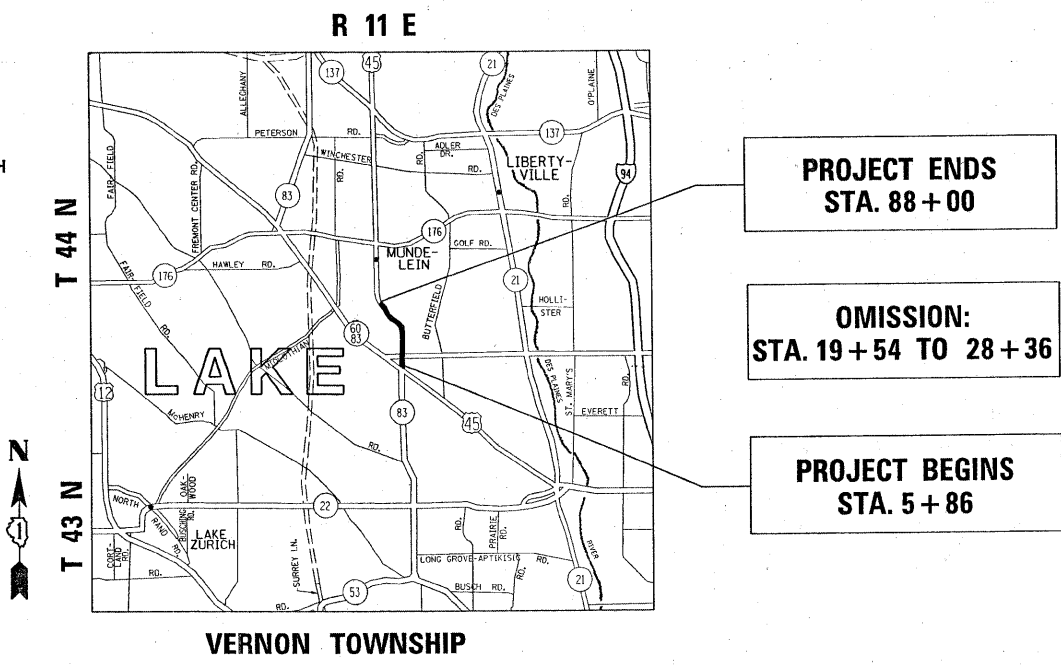
LAKE COUNTY  
C-91-503-08

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN THE  
VILLAGE OF MUNDELEIN



**TRAFFIC DATA**  
2006 ADT = 31,100  
POSTED SPEED LIMIT = 35 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

GROSS LENGTH OF PROJECT = 8,214 LIN FT = 1.6 MILES  
NET LENGTH OF PROJECT = 7,332 LIN. FT. = 1.4 MILES

PROJECT ENGINEER: DANIEL WILGREEN /(847) 705-4240  
PROJECT MANAGER: KEN ENG /(847) 705-4247

CONTRACT NO. 60E69

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED MARCH 24, 2009  
Diana M. O'Keefe  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 1, 2009  
Charles J. Ingersoll  
ENGINEER OF DESIGN AND ENVIRONMENT

May 1, 2009  
Christine M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-5	TYPICAL SECTIONS
6-8	ROADWAY AND PAVEMENT MARKING PLANS
9-11	DETECTOR LOOP REPLACEMENT PLANS
12	DETAILS FOR FRAMES AND LIDS ADJUSTMENTS WITH MILLING
13	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
14	CURB AND CURB AND GUTTER REMOVAL AND REPLACEMENT
15	BUTT JOINT AND HMA TAPER DETAILS
16	HMA TAPER AT EDGE OF P.C.C. PAVEMENT
17	TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS, AND DRIVEWAYS
18	TYPICAL APPLICATION FOR RAISED REFLECTIVE PAVEMENT MARKERS
19	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
20	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
21	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
22	ARTERIAL ROAD INFORMATION SIGN
23	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C AND D PATCHES
604091-02	FRAME AND GRATES, TYPE 24
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701602-04	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-00	URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN
701701-00	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION REQUIRED).

10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB AND GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF MUNDELEIN.

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 1/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS 45 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 HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

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.

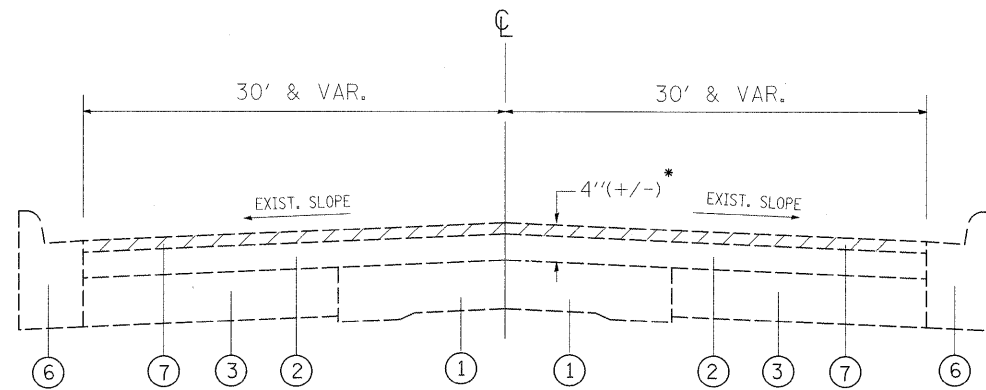
THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES.

THE RESIDENT ENGINEER SHALL DETERMINE THE LOCATIONS OF CLASS "D" PATCHES.

FILE NAME =	USER NAME = shramsb	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES US 45 /ALLANSON ROAD TO US 451L 83</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pw_work\FWIDOT\SHRAMISB\dms98405\sh	rdwg.dgn	DRAWN -	REVISED -			344	(44 & 45) X-RS	LAKE	23	2	
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60E69					
	PLOT DATE = 3/30/2009	DATE -	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
					SCALE: 1"=50'	SHEET NO. OF SHEETS		STA.	TO STA.		

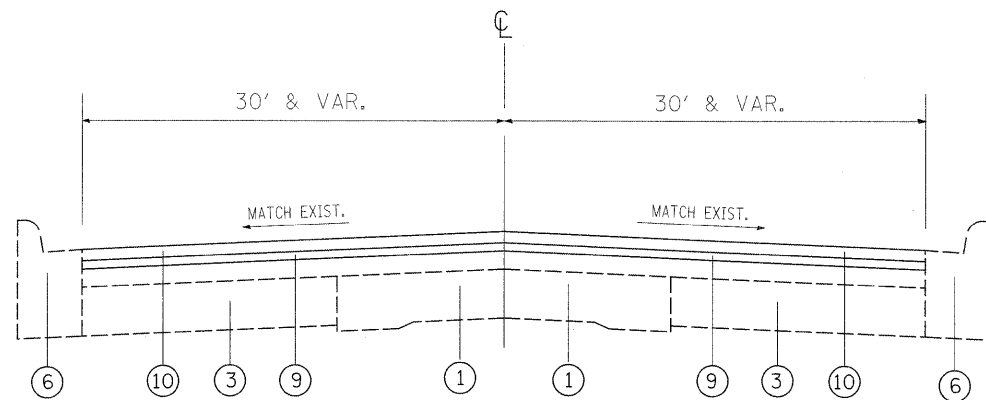
SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE							
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	URBAN 1000 100%STATE						CODE NO	ITEM	UNIT	TOTAL QUANTITIES	URBAN 1000 100%STATE					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	18	18						70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	1340	1340					
40600300	AGGREGATE (PRIME COAT)	TON	88	88						70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	600	600					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	13	13						70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1100	1100					
40600895	CONSTRUCTING TEST STRIP	EACH	2	2						* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1150	1150					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	410	410						* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	24000	24000					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	606	606						* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	3400	3400					
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	5200	5200						* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	350	350					
42001300	PROTECTIVE COAT	SQ YD	333	333						* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1340	1340					
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	43819	43819						* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	600	600					
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	1000	1000						* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	840	840					
44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SQ YD	2627	2627						78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	791	791					
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	20	20						* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	1880	1880					
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	2140	2140						X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4					
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	230	230						X0656100	DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT	SQ YD	20	20					
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	210	210						X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), 1L-4.75, N50	TON	2200	2200					
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	1	1						X4400100	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	1464	1464					
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	20	20						Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	113	113					
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	50	50						Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6															
67100100	MOBILIZATION	L SUM	1	1															
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1															
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1															
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1															
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	10000	10000															
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1150	1150															
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	24000	24000															
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	3400	3400															
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	350	350															

\* Specialty Items



EXISTING TYPICAL SECTION

US 45  
STA. 5+86 TO STA. 19+54



PROPOSED TYPICAL SECTION

US 45  
STA. 5+86 TO STA. 19+54

LEGEND

- ① EXISTING P.C.C. BASE COURSE
- ② EXISTING HMA SURFACE COURSE, 4'' (+/-)
- ③ EXISTING HMA BASE COURSE WIDENING
- ④ EXISTING SUB-BASE GRANULAR MATERIAL, TYPE A, 4''
- ⑤ EXISTING P.C.C. PAVEMENT, 10'' (+/-)
- ⑥ EXISTING COMBINATION CONCRETE CURB & GUTTER
- ⑦ PROPOSED HMA SURFACE REMOVAL, 2 1/2 ''
- \*\* ⑧ PROPOSED PCC SURFACE REMOVAL (VARIABLE DEPTH), 6' WIDE
- ⑨ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4 ''
- ⑩ PROPOSED HMA SURFACE COURSE, MIX "F", N90, RUBBER MODIFIED, 1 3/4 ''

\* NOTE: CONTRACTOR SHALL PATCH FIRST BEFORE MILLING.

\*\* NOTE: SEE HMA TAPER AT EDGE OF PCC PAVEMENT DETAIL BD-33

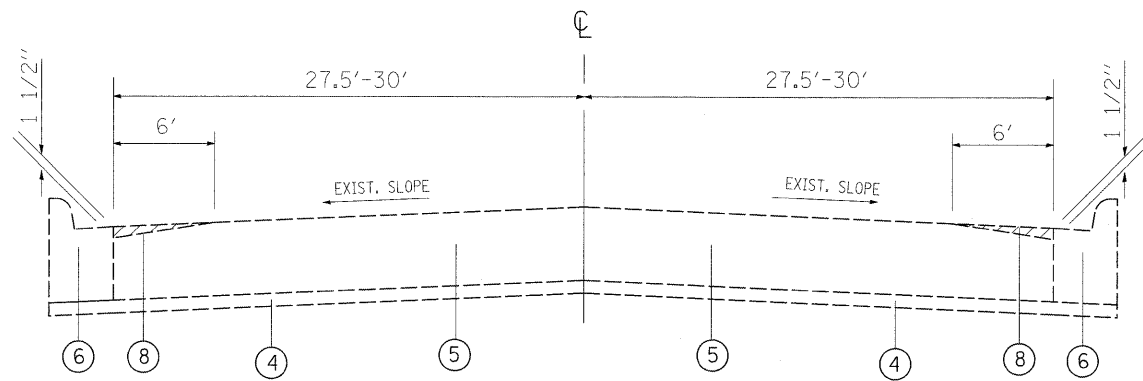
HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USES	AC TYPE	DESIGN AIR VOIDS
HMA SURFACE COURSE, MIX "F", N90, RUBBER MODIFIED	64-22 GTR 10	4% AT 90 GYR.
POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% AT 50 GYR.
CLASS D PATCHES, (HMA BINDER IL-19.0 mm)	* PG 64-22	4% AT 70 GYR.
HMA REPLACEMENT OVER PATCHES (HMA BINDER, IL-19.0 mm)	* PG 64-22	4% AT 70 GYR.

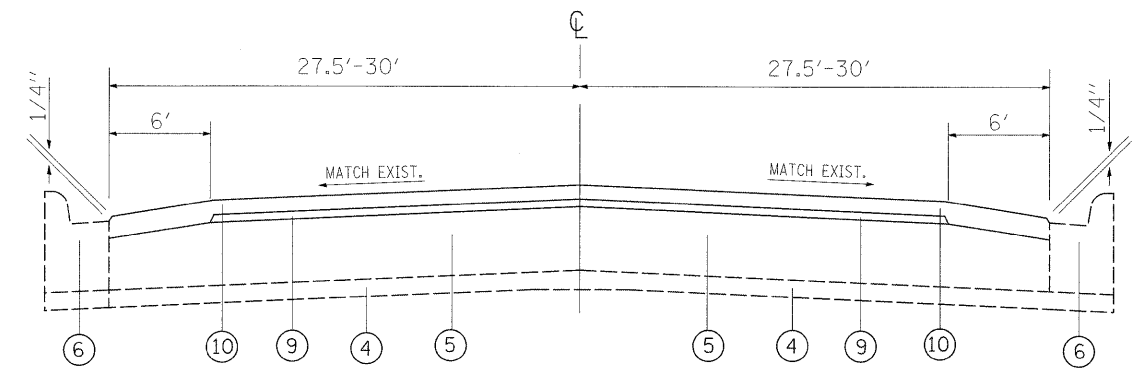
NOTES:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SY/IN

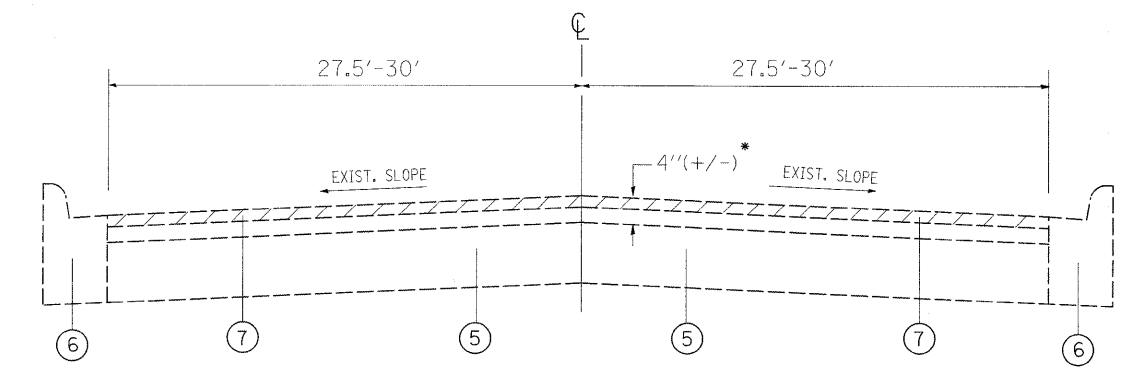
\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22



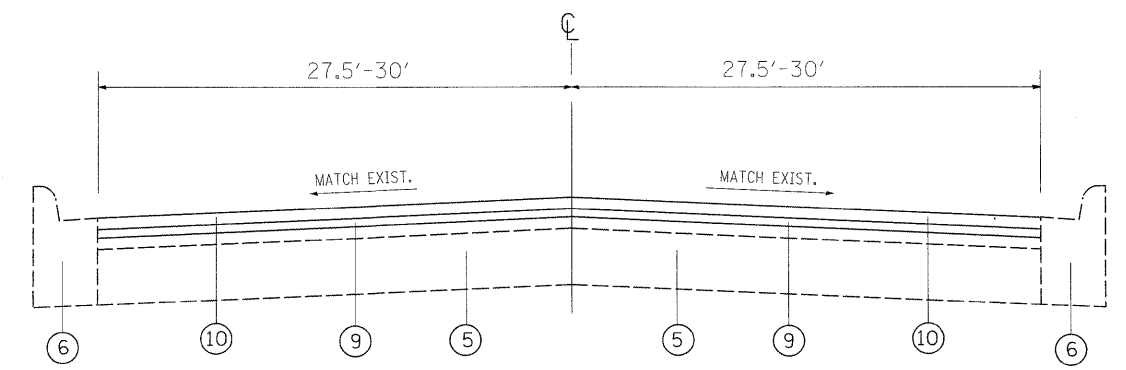
EXISTING TYPICAL SECTION  
US 45  
STA. 33+33 TO STA. 44+31



PROPOSED TYPICAL SECTION  
US 45  
STA. 33+33 TO STA. 44+31



EXISTING TYPICAL SECTION  
US 45  
STA. 28+36 TO STA. 33+33  
STA. 44+31 TO STA. 88+00



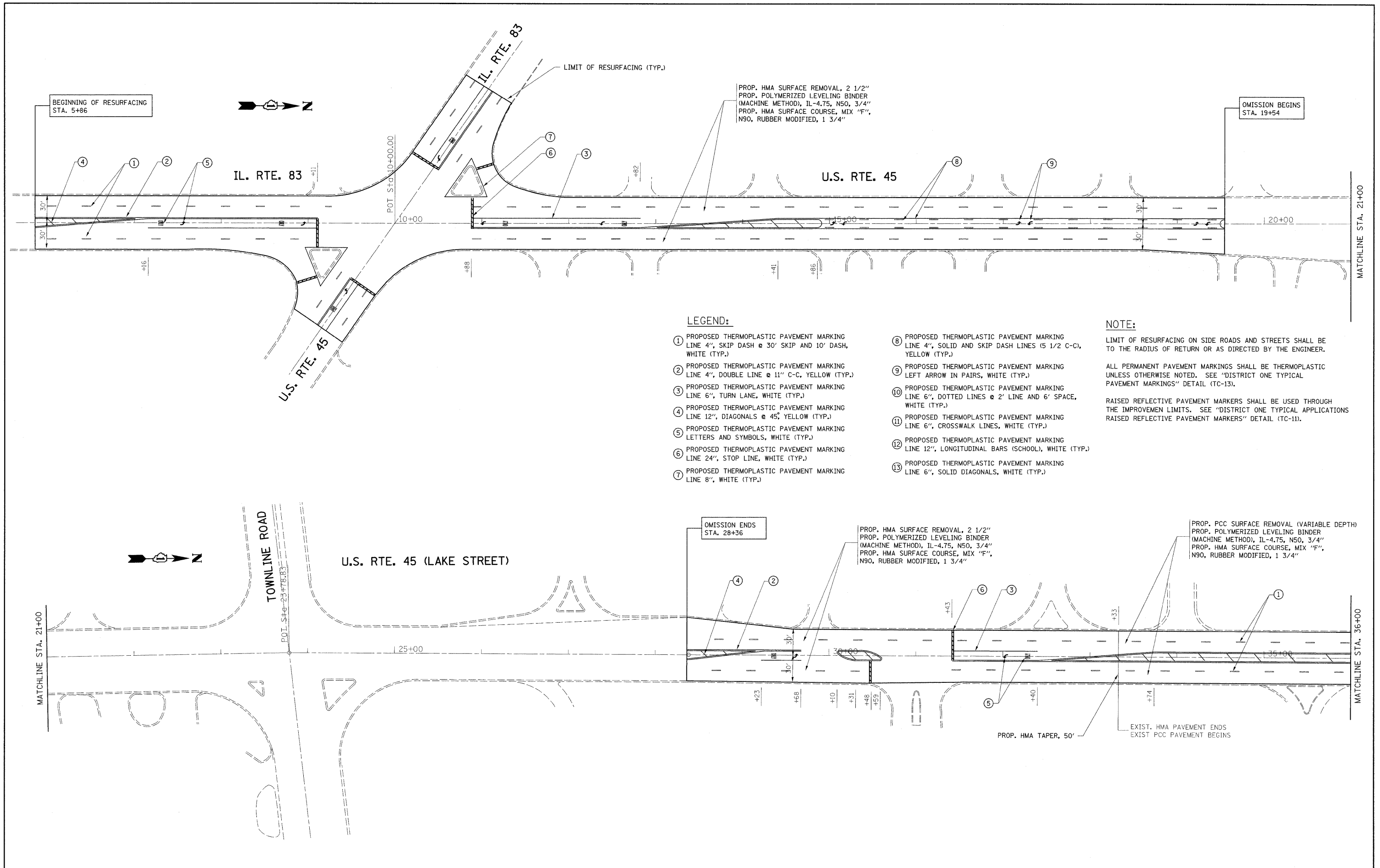
PROPOSED TYPICAL SECTION  
US 45  
STA. 28+36 TO STA. 33+33  
STA. 44+31 TO STA. 88+00

**LEGEND**

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- ③ EXISTING HMA BASE COURSE WIDENING
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- ⑤ EXISTING P.C.C. PAVEMENT, 10" (+/-)
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- ⑦ PROPOSED HMA SURFACE REMOVAL, 2 1/2 "
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- ⑩ PROPOSED HMA SURFACE COURSE, MIX "F", N90, RUBBER MODIFIED, 1 3/4 "

\* NOTE: CONTRACTOR SHALL PATCH FIRST BEFORE MILLING.  
\*\* NOTE: SEE HMA TAPER AT EDGE OF PCC PAVEMENT DETAIL BD-33

FILE NAME =	USER NAME = shiransb	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING AND PROPOSED TYPICAL SECTIONS US 45 /ALLANSON ROAD TO US 451L 83</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwidot\SHIRANSB\dms98405\sh	rdwg.dgn	DRAWN -	REVISED -			344	(44 & 45) X-RS	LAKE	23	5	
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60E69					
	PLOT DATE = 4/1/2009	DATE -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



**LEGEND:**

- ① PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 4", SKIP DASH @ 30' SKIP AND 10' DASH, WHITE (TYP.)
- ② PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 4", DOUBLE LINE @ 11" C-C, YELLOW (TYP.)
- ③ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 6", TURN LANE, WHITE (TYP.)
- ④ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 12", DIAGONALS @ 45°, YELLOW (TYP.)
- ⑤ PROPOSED THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE (TYP.)
- ⑥ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 24", STOP LINE, WHITE (TYP.)
- ⑦ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 8", WHITE (TYP.)
- ⑧ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 4", SOLID AND SKIP DASH LINES (5 1/2" C-C), YELLOW (TYP.)
- ⑨ PROPOSED THERMOPLASTIC PAVEMENT MARKING LEFT ARROW IN PAIRS, WHITE (TYP.)
- ⑩ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 6", DOTTED LINES @ 2' LINE AND 6' SPACE, WHITE (TYP.)
- ⑪ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 6", CROSSWALK LINES, WHITE (TYP.)
- ⑫ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 12", LONGITUDINAL BARS (SCHOOL), WHITE (TYP.)
- ⑬ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 6", SOLID DIAGONALS, WHITE (TYP.)

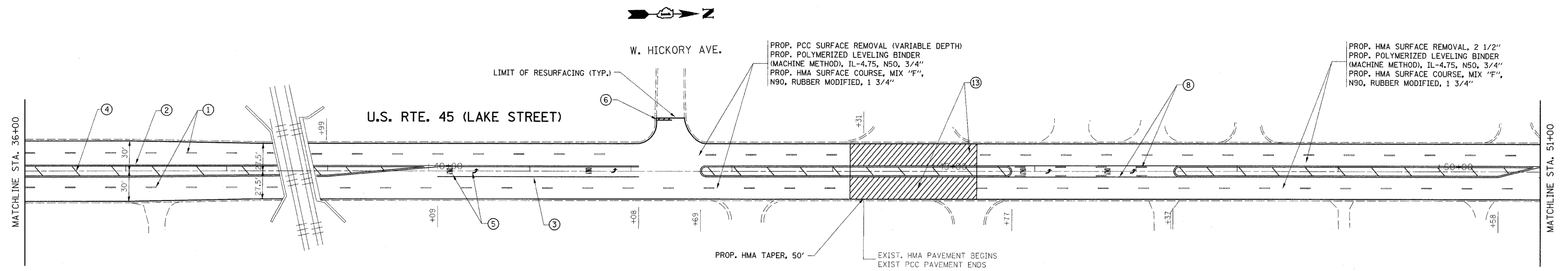
**NOTE:**

LIMIT OF RESURFACING ON SIDE ROADS AND STREETS SHALL BE TO THE RADIUS OF RETURN OR AS DIRECTED BY THE ENGINEER.

ALL PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED. SEE "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL (TC-13).

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE USED THROUGH THE IMPROVEMENT LIMITS. SEE "DISTRICT ONE TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS" DETAIL (TC-11).

FILE NAME = c:\pwwork\p\w\DOT\SHIRANISB\dms98485\sh	USER NAME = shiranisb rdwg.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND PAVEMENT MARKING PLANS US 45 / ALLANSON ROAD TO US 45/L 83</b>	F.A.P. RTE. 344	SECTION (44 & 45) X-RS	COUNTY LAKE	TOTAL SHEETS 23	SHEET NO. 6		
PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -	SCALE: _____			SHEET NO. _____	OF _____	SHEETS _____	STA. _____	TO STA. _____	FED. ROAD DIST. NO. _____	ILLINOIS FED. AID PROJECT _____
PLOT DATE = 4/1/2009	DATE -	REVISED -	CONTRACT NO. 60E69									



**LEGEND:**

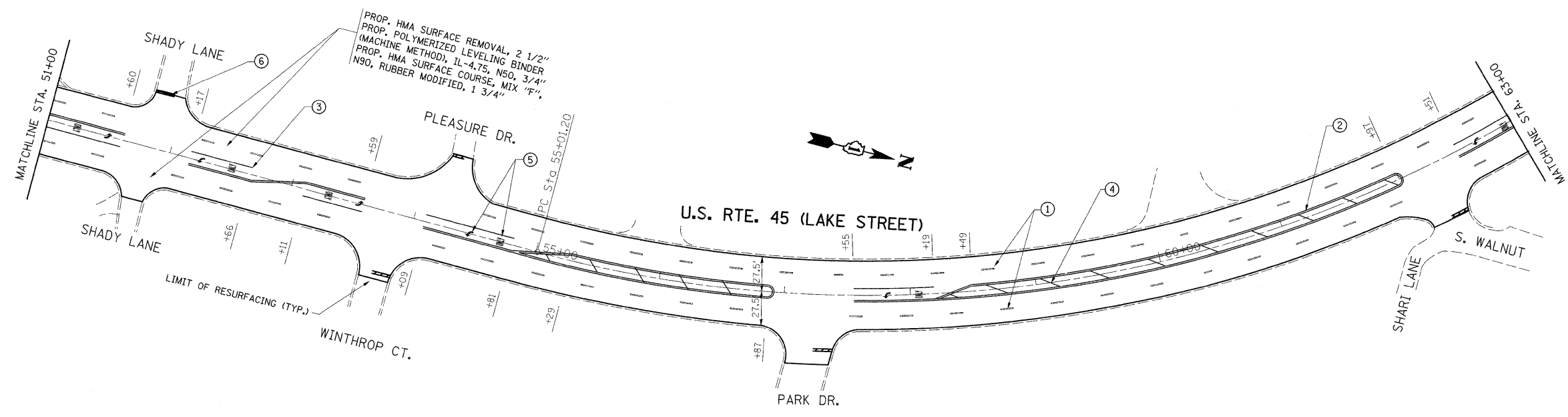
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**NOTE:**

LIMIT OF RESURFACING ON SIDE ROADS AND STREETS SHALL BE TO THE RADIUS OF RETURN OR AS DIRECTED BY THE ENGINEER.

ALL PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED. SEE "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL (TC-13).

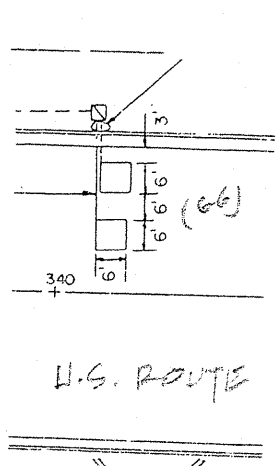
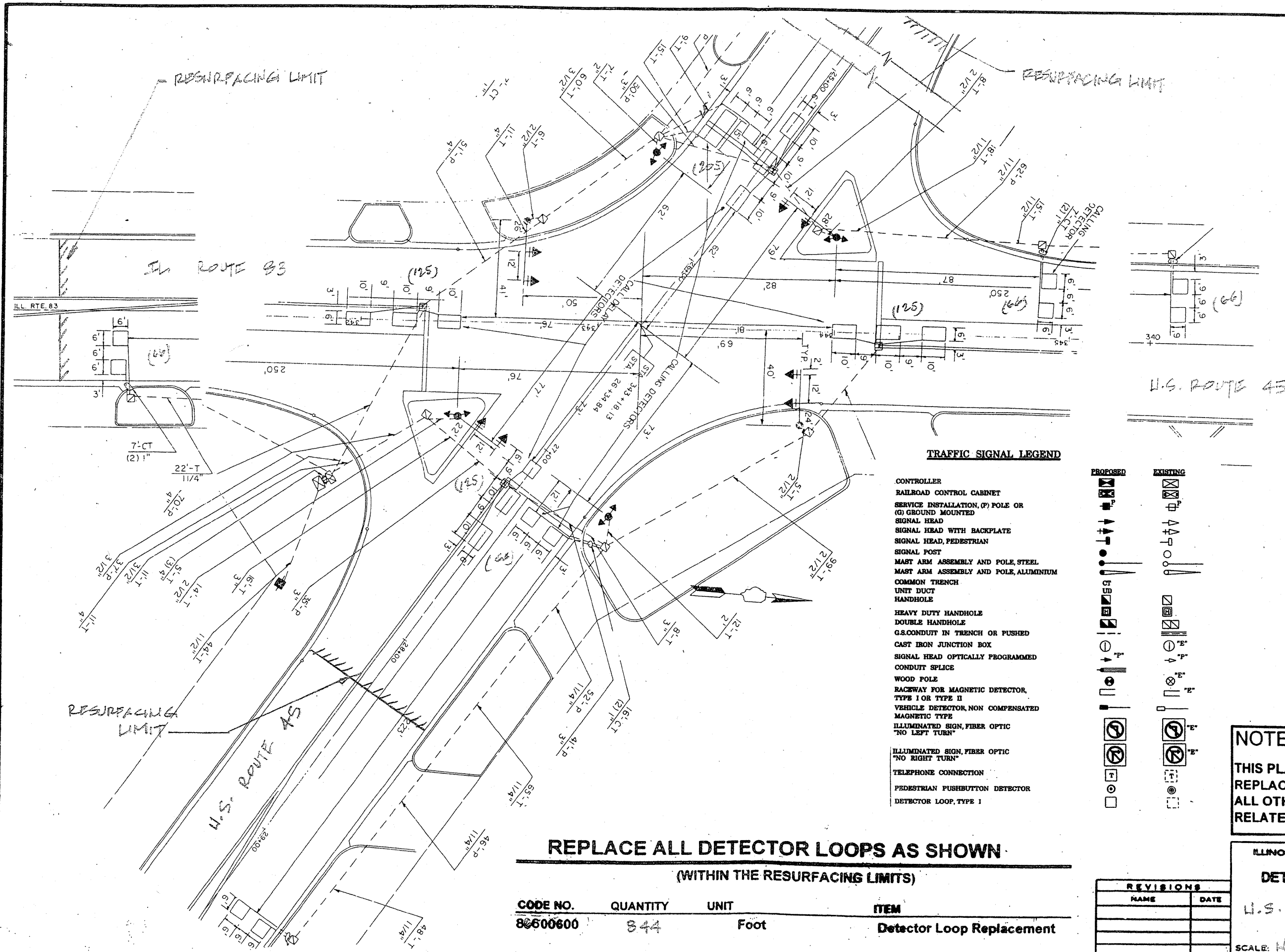
RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE USED THROUGH THE IMPROVEMEN LIMITS. SEE "DISTRICT ONE TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS" DETAIL (TC-11).



FILE NAME =	USER NAME = shiranisb	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND PAVEMENT MARKING PLANS US 45 /ALLANSON ROAD TO US 45L 83</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cd:\pwork\WIDOT\SHIRANISB\dms98495\shiranisb.dgn		DRAWN -	REVISED -			344	(44 & 45) X-RS	LAKE	23	7	
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -			CONTRACT NO. 60E69					
PLOT DATE = 4/1/2009		DATE -	REVISED -			SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.







**TRAFFIC SIGNAL LEGEND**

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**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**

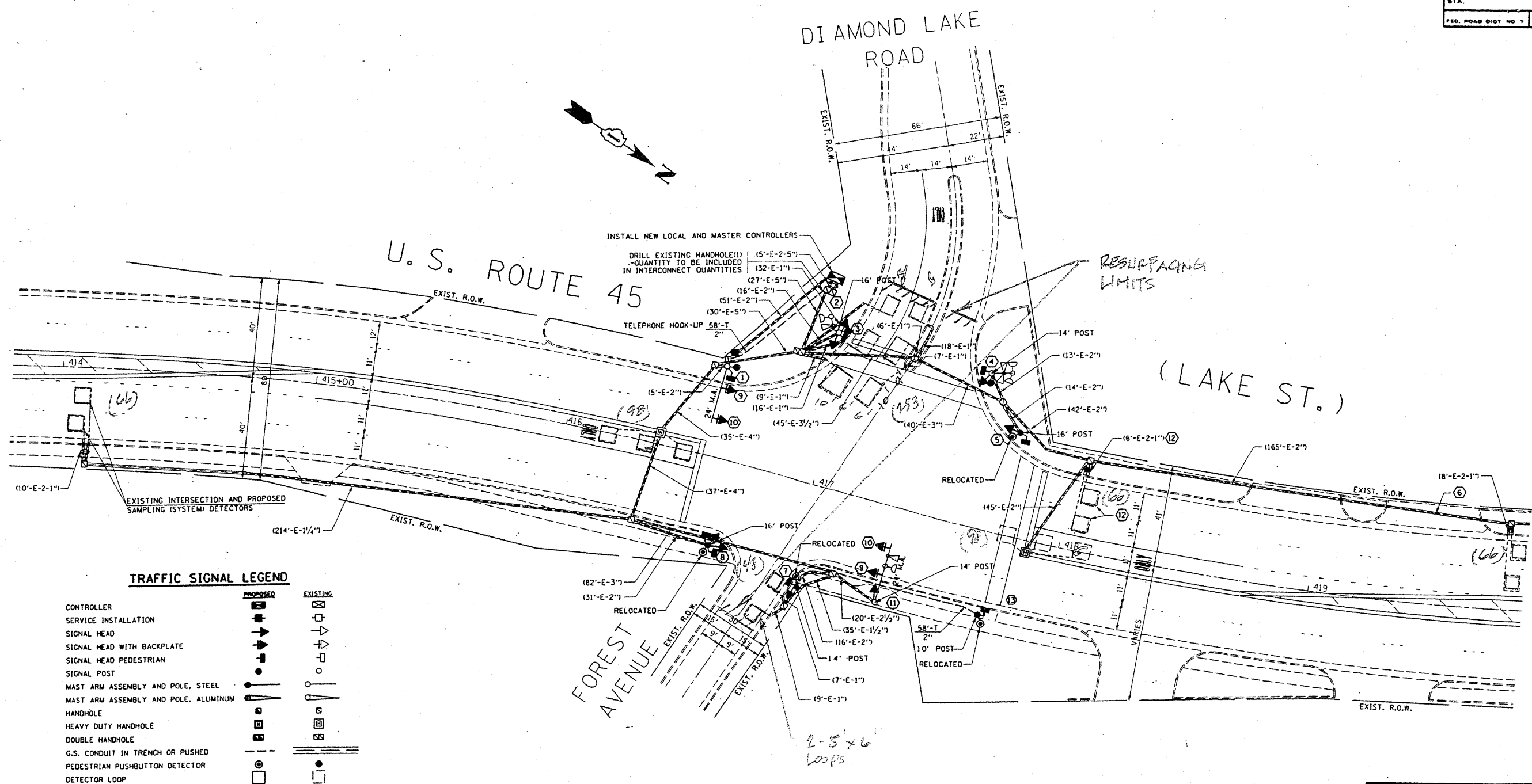
(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
80500600	344	Foot	Detector Loop Replacement

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETECTOR LOOP REPLACEMENT**  
 U.S. ROUTE 45 @ ILL. ROUTE 83  
 SCALE: NONE  
 DATE: Nov. 2008  
 DRAWN BY: JHE  
 DESIGNED BY: JHE  
 CHECKED BY: DAD

PAR SITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344 (44X45)X-RS	LAKE	LAKE	23	10
STA.		TO STA.		
FED. ROAD DIST NO 7		ILLINOIS		FED AID PROJECT



**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]

**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**

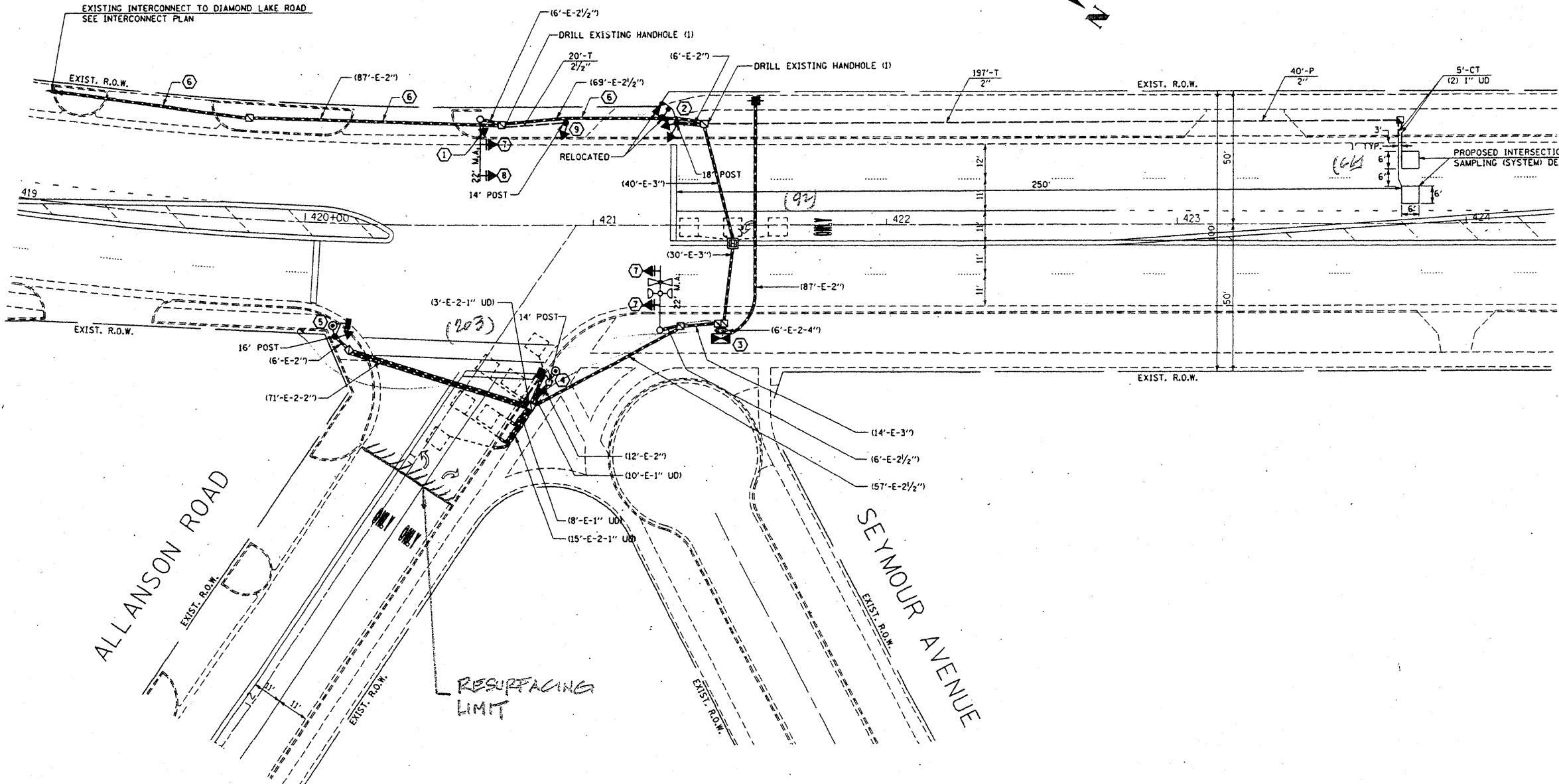
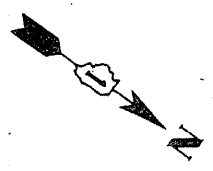
(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
80600600	675	Foot	Detector Loop Replacement

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETECTOR LOOP REPLACEMENT**  
 U.S. ROUTE 45 @ DIAMOND LAKE RD.  
 SCALE: NONE  
 DATE: Nov. 2008  
 DRAWN BY: JHE  
 DESIGNED BY: JHE  
 CHECKED BY: DAD

# U. S. ROUTE 45 (LAKE ST.)



### TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		

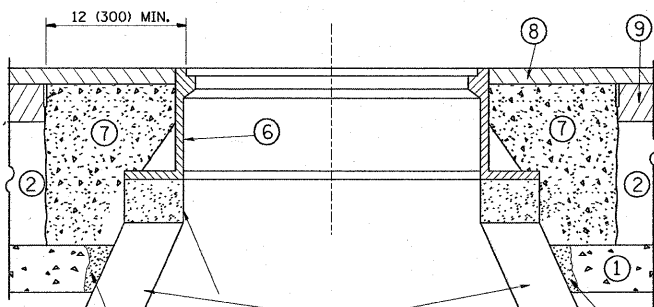
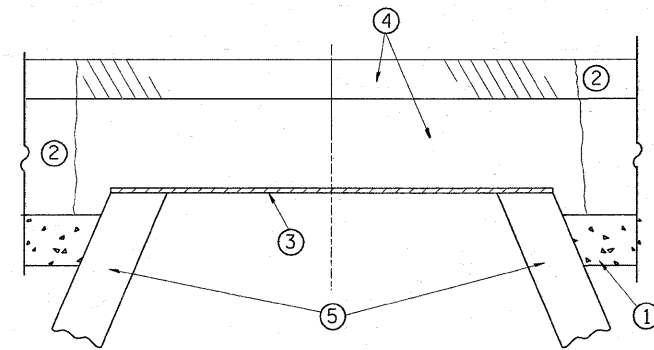
**NOTE:**  
 THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

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

CODE NO.	QUANTITY	UNIT	ITEM
80600600	361	Foot	Detector Loop Replacement

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETECTOR LOOP REPLACEMENT**  
 U.S. RTE. 45 @ ALLANSON ROAD  
 SCALE: NONE  
 DATE: NOV. 2008  
 DRAWN BY: JHE  
 DESIGNED BY: JHE  
 CHECKED BY: DAD



PROPOSED SAND FILL  
 PROPOSED BRICK, MORTAR, OR CONC. ADJUSTING RINGS  
 PROPOSED SAND FILL

**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 1/2 (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 SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- 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:** THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"  
 NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**NOTES:**

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.

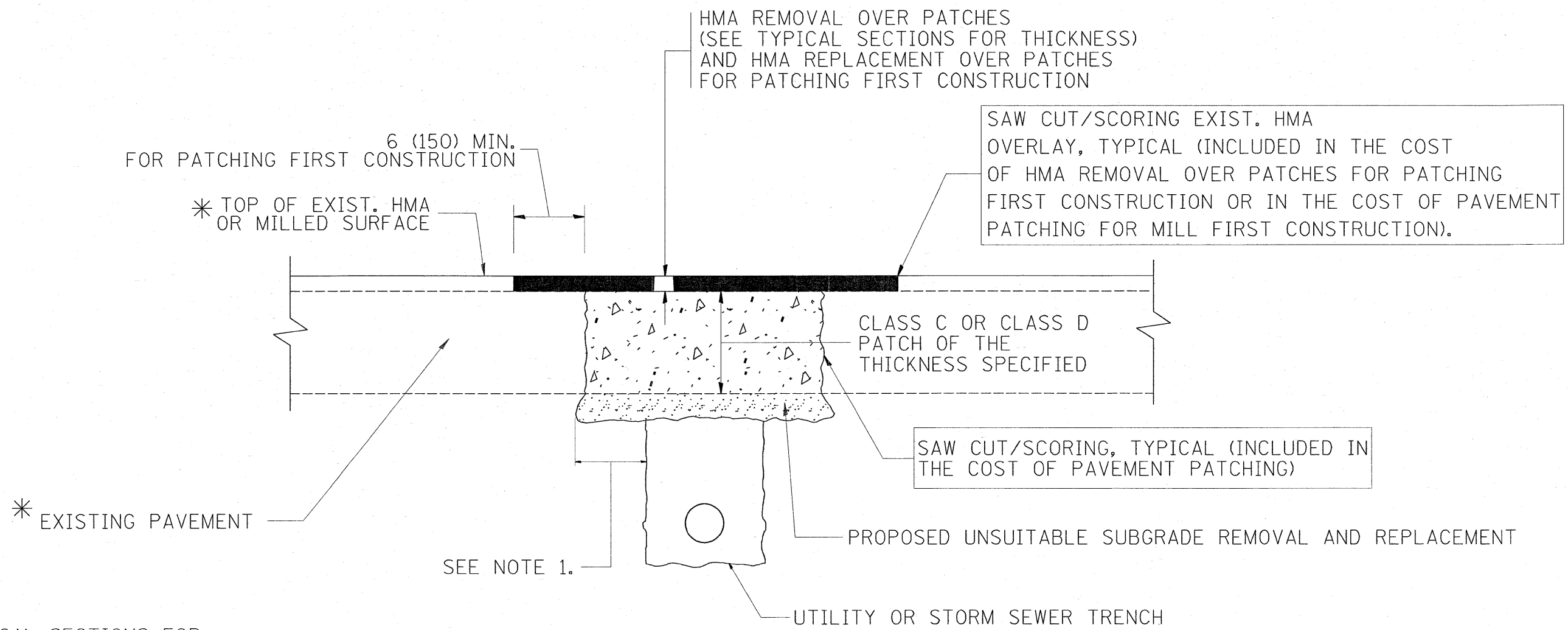
THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

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.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = P:\Detail-1-USA5\bd08.dgn	USER NAME = shiransab	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>			F.A.P. RTE. 344	SECTION (44 & 45) X-RS	COUNTY LAKE	TOTAL SHEETS 23	SHEET NO. 12
		DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>BD600-03 (BD-8)</b>		CONTRACT NO. 60E69		
		PLOT SCALE = 49.9999 1/16 IN.	REVISED - R. WIEDEMAN 05-14-04									
		PLOT DATE = 3/7/2009	DATE - 10-25-94		REVISED - R. BORO 01-01-07							



\* 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 = P:\Detail-US45\bd22.dgn	USER NAME = shiraniab	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT</b>		F.A.P. RTE. 344	SECTION (44 & 45) X-RS	COUNTY LAKE	TOTAL SHEETS 23	SHEET NO. 13
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>BD400-04 (BD-22)</b>		CONTRACT NO. 60E69	
	PLOT DATE = 3/7/2009	DATE - 10-25-94	REVISED - R. BORO 09-04-07					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
			REVISED - K. ENG 10-27-08								

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001

18" (450) MAX.

EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

1/4" (5) \*\*

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SALT TOLERANT SOD AND TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

3" (75) MIN.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

**BASIS OF PAYMENT:**

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

\* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

\*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

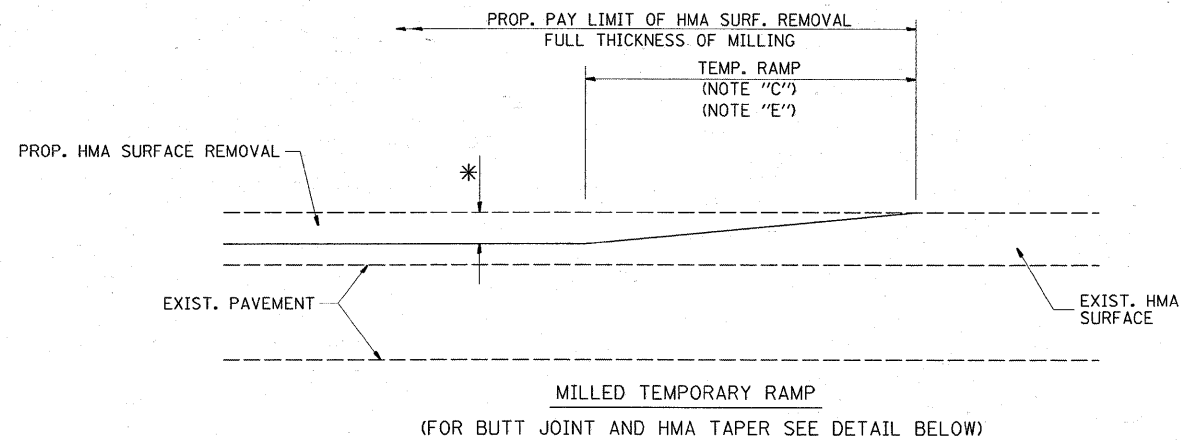
⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

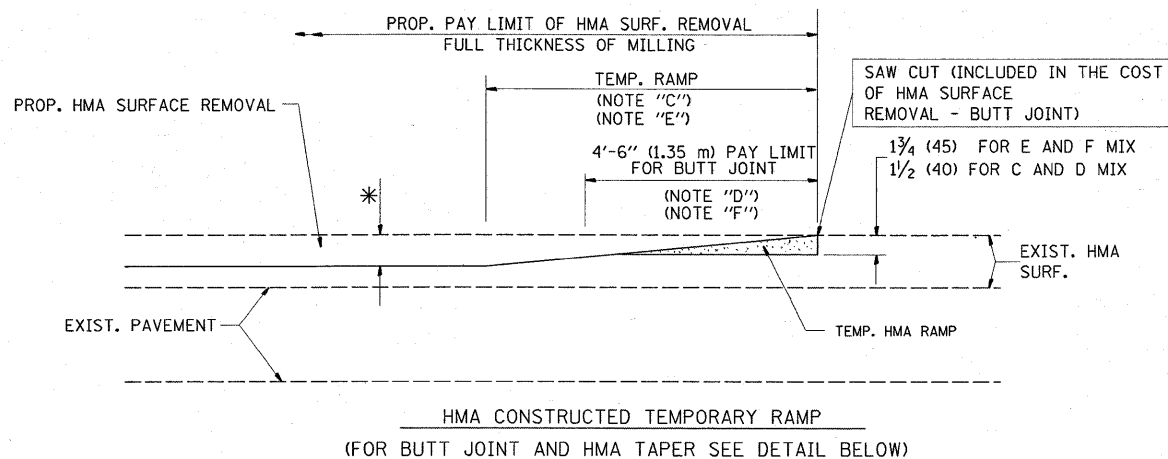
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME = P:\Detail-US45\bd24.dgn	USER NAME = shranisb	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>	F.A.P. R.T.E. 344	SECTION (44 & 45) X-RS	COUNTY LAKE	TOTAL SHEETS 23	SHEET NO. 14		
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BD600-06 (BD-24) CONTRACT NO. 60E69		
	PLOT DATE = 3/7/2009	DATE - 03-11-94	REVISED - R. BORO 01-01-07			FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT						

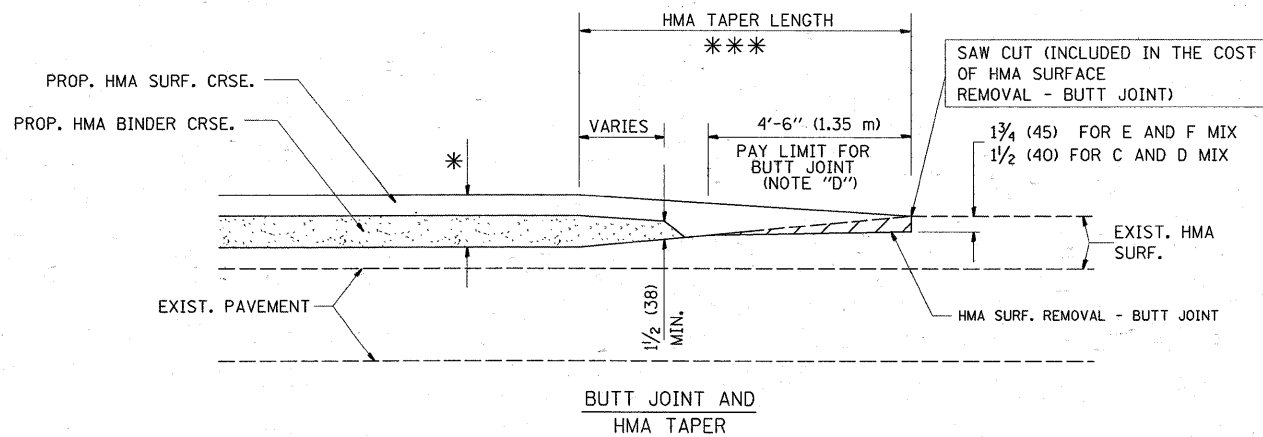


**OPTION 1**

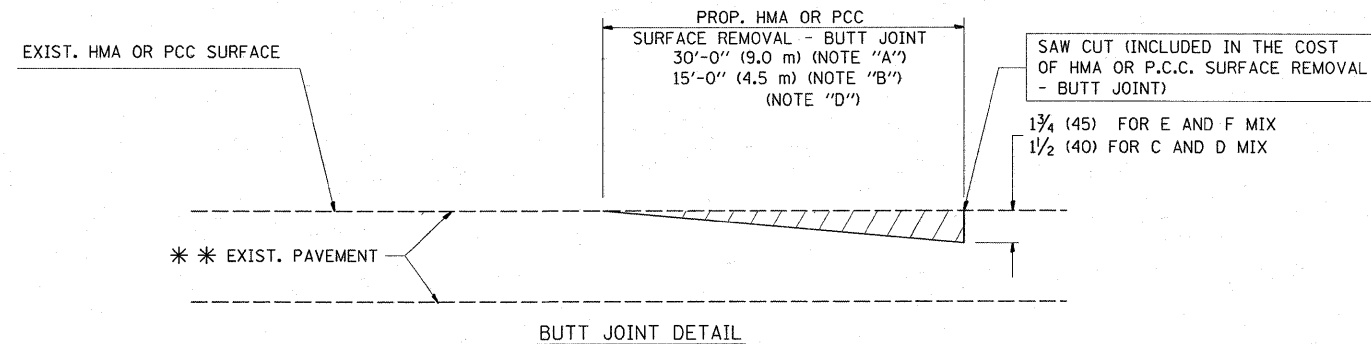


**OPTION 2**

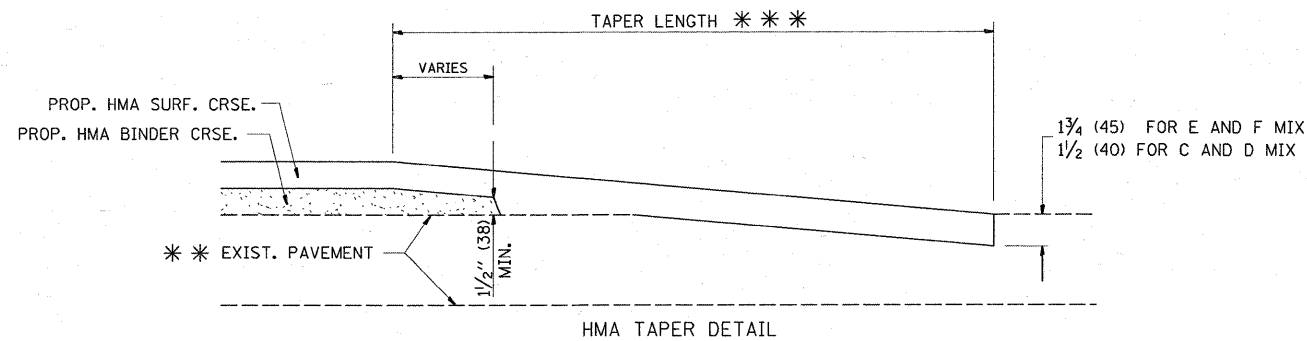
**TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**



**BUTT JOINT 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.

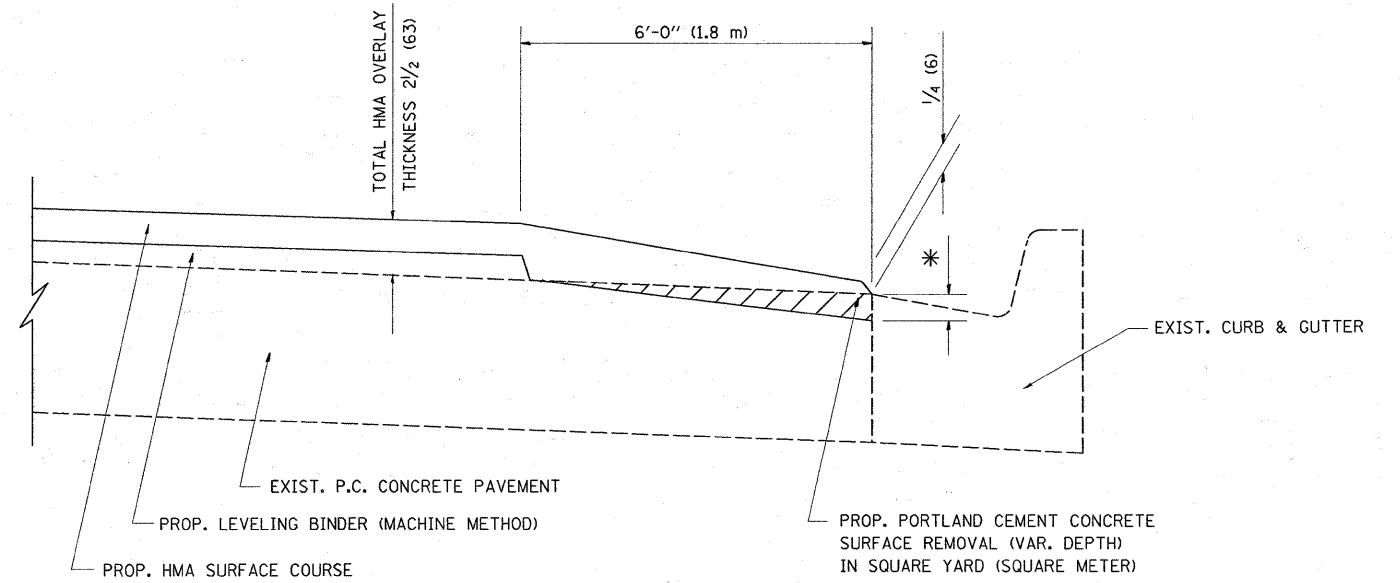
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		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 49.9999 1/16 IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 3/7/2009	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(44 & 45) X-RS	LAKE	23	15
BD400-05 BD32			CONTRACT NO. 60E69	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



HMA TAPER AT  
EDGE OF P.C.C. PAVEMENT

HMA SURFACE	LEVELING BINDER	* MILLING AT GUTTER FLAG	
MIX	THICKNESS	THICKNESS	
C OR D	1 1/2 (38)	1 (25)	1/4 (33)
F	1 3/4 (44)	3/4 (19)	1/2 (38)

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

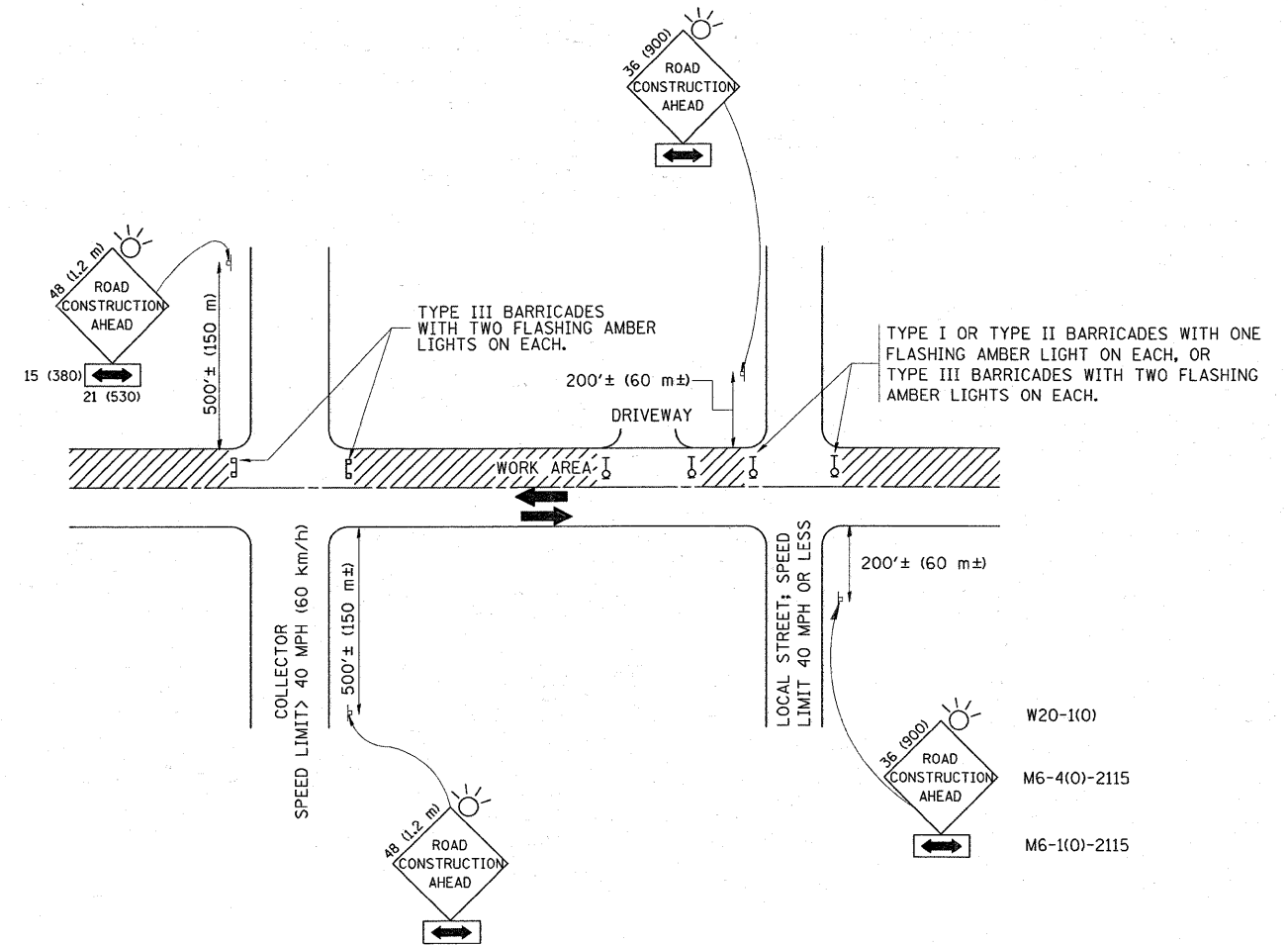
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		DRAWN - JIS	REVISED - A. ABBAS 05-05-99
		CHECKED - A. ABBAS	REVISED - E. GOMEZ 12-21-00
		DATE - 09-10-94	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

HMA TAPER AT EDGE OF P.C.C. PAVEMENT	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(44 & 45) X-RS	LAKE	23	16
BD400-06 (BD33)		CONTRACT NO. 60E69		
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.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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.

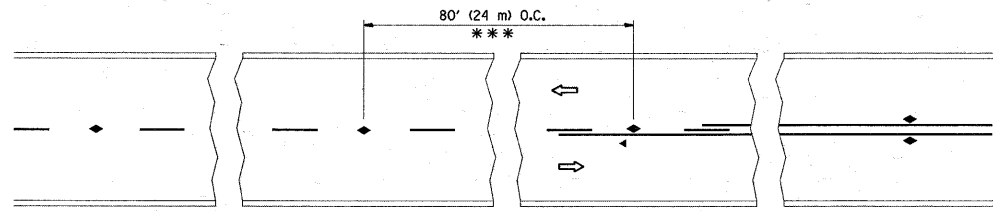
FILE NAME = P:\Detail-US45\td10.dgn	USER NAME = shironsb	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 "/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 3/7/2009	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

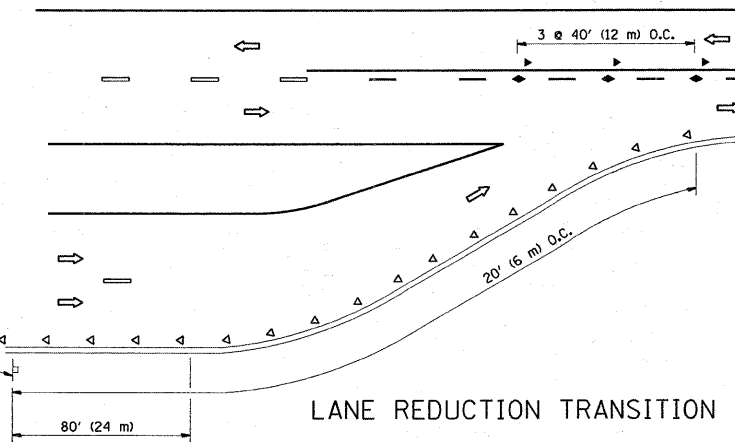
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(44 & 45) X-RS	LAKE	23	17
TC-10			CONTRACT NO. 60E69	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

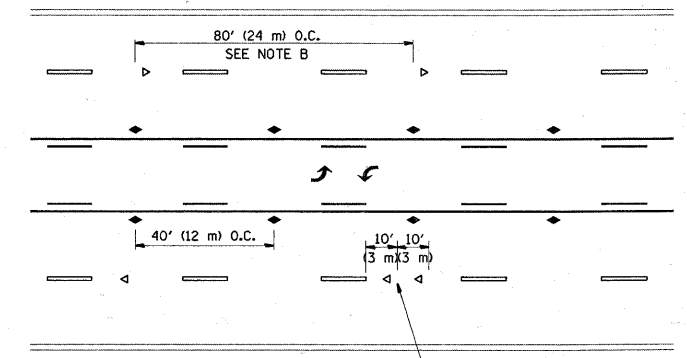


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

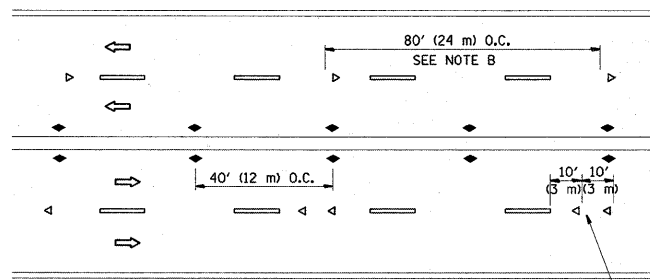
TWO-LANE/TWO-WAY



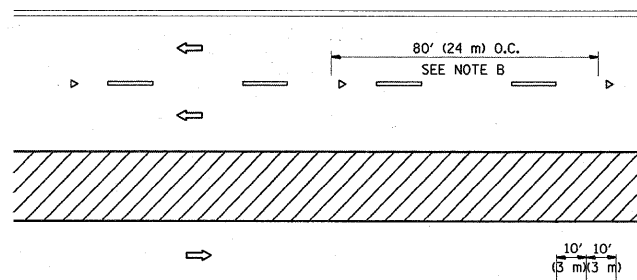
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



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

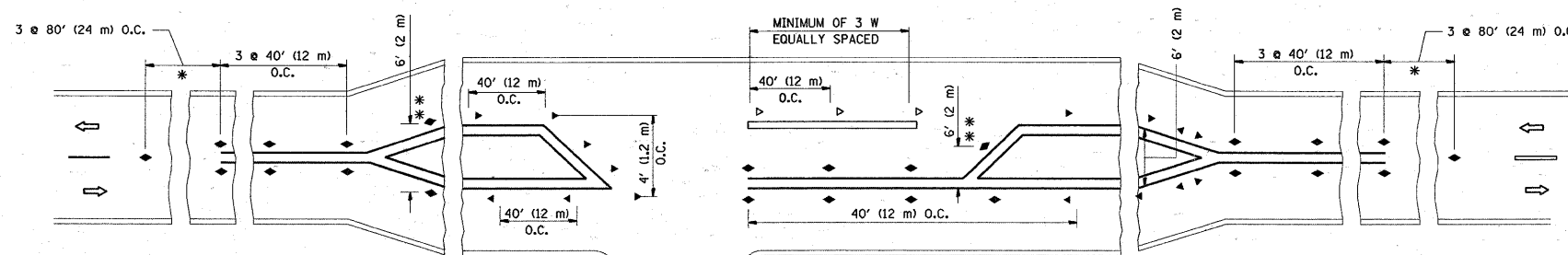
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

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 SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



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

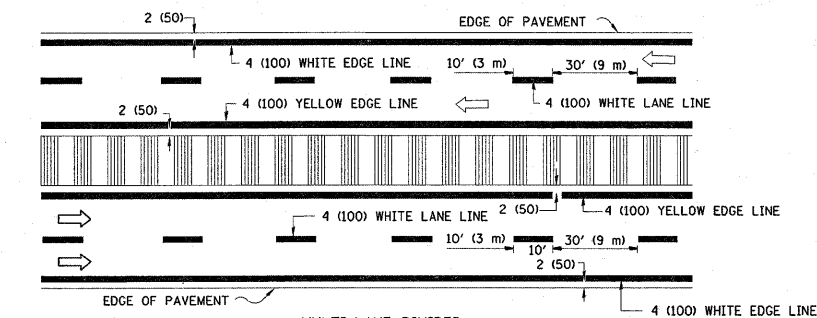
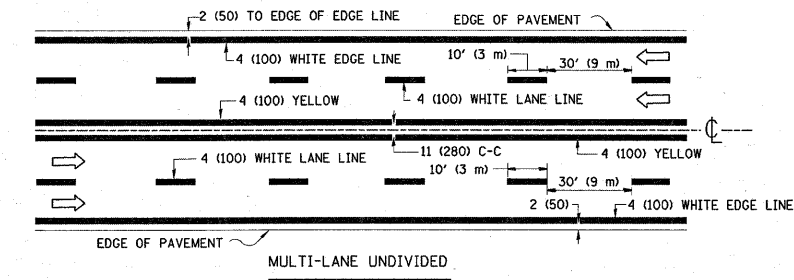
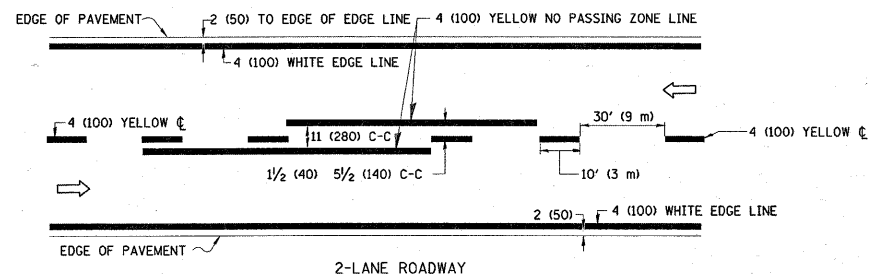
LEFT TURN

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

FILE NAME = P:\Detail-US45\to11.dgn	USER NAME = shironisb	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
		DRAWN -	REVISED - T. RAMMACHER 03-12-99
		CHECKED -	REVISED - T. RAMMACHER 01-06-00
		DATE -	REVISED -

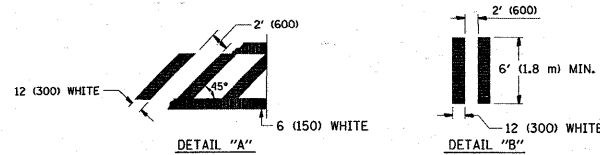
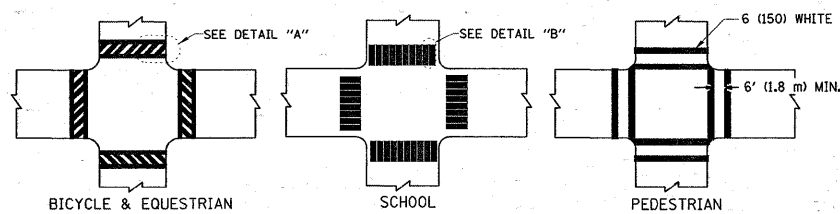
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
344	(44 & 45) X-RS	LAKE	23
TC-11			SHEET NO. 18
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60E69

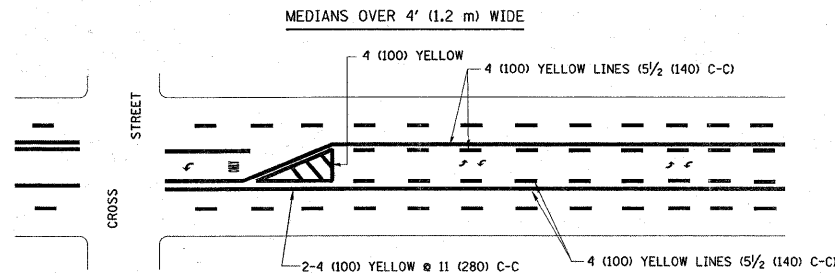
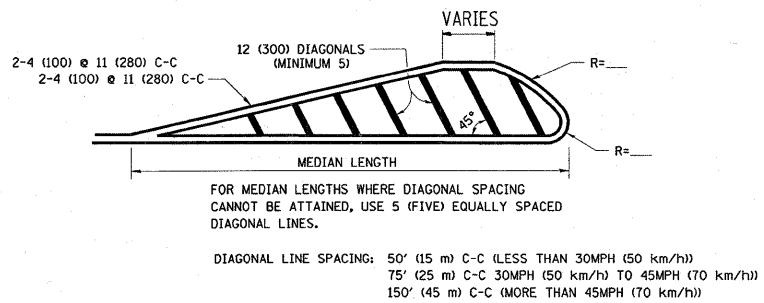
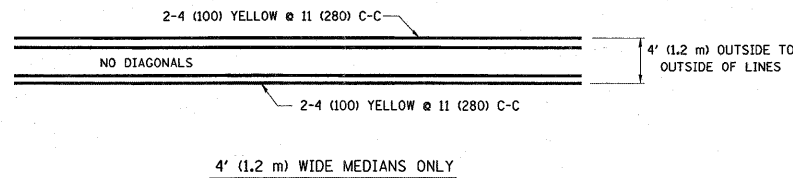


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

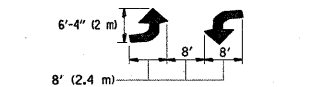
### TYPICAL LANE AND EDGE LINE MARKING



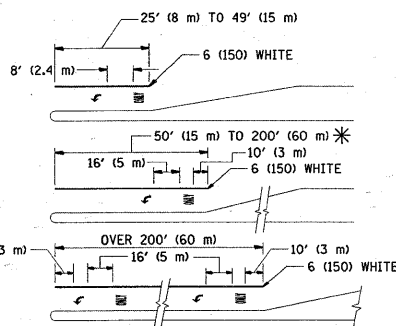
### TYPICAL CROSSWALK MARKING



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.

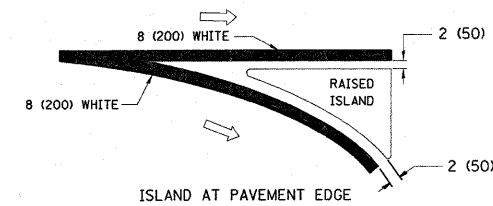
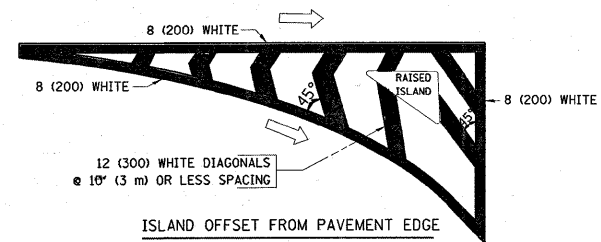


### TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 \* 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

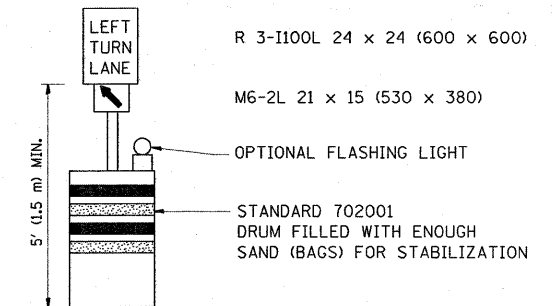
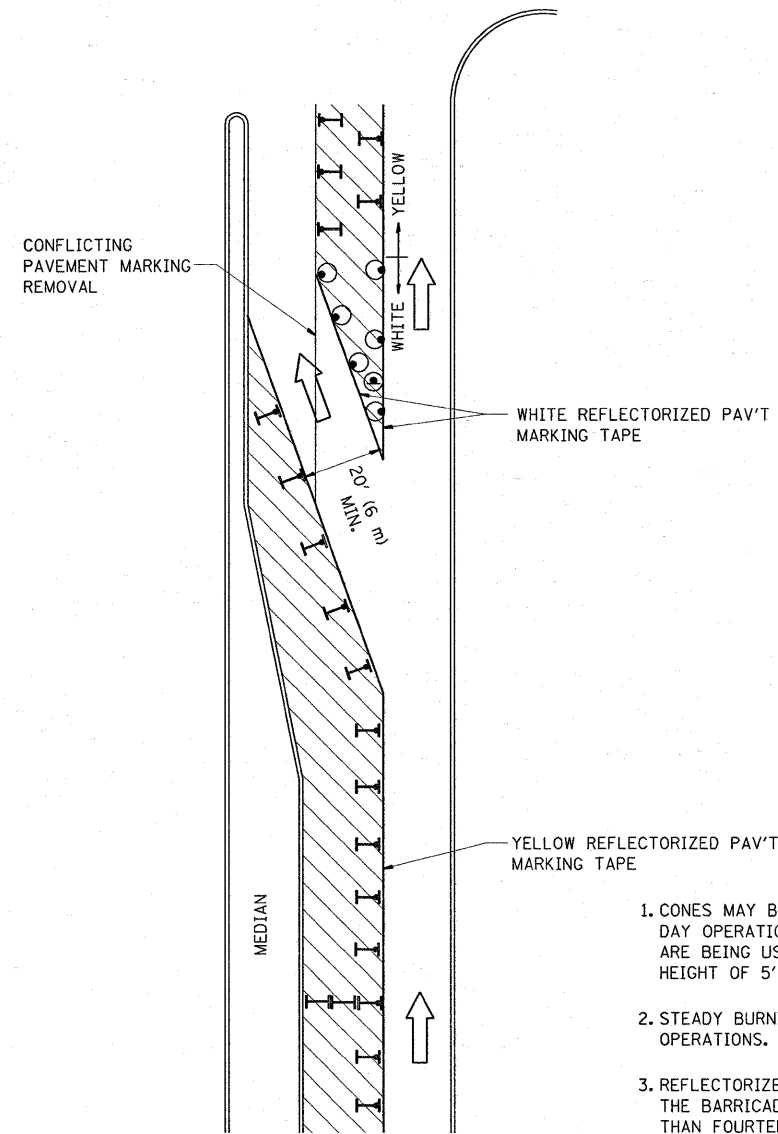


### TYPICAL ISLAND MARKING

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 1/2 (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 1/2 (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.
GORE 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 <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
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.

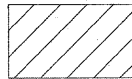





All dimensions are in inches (millimeters) unless otherwise shown.



**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

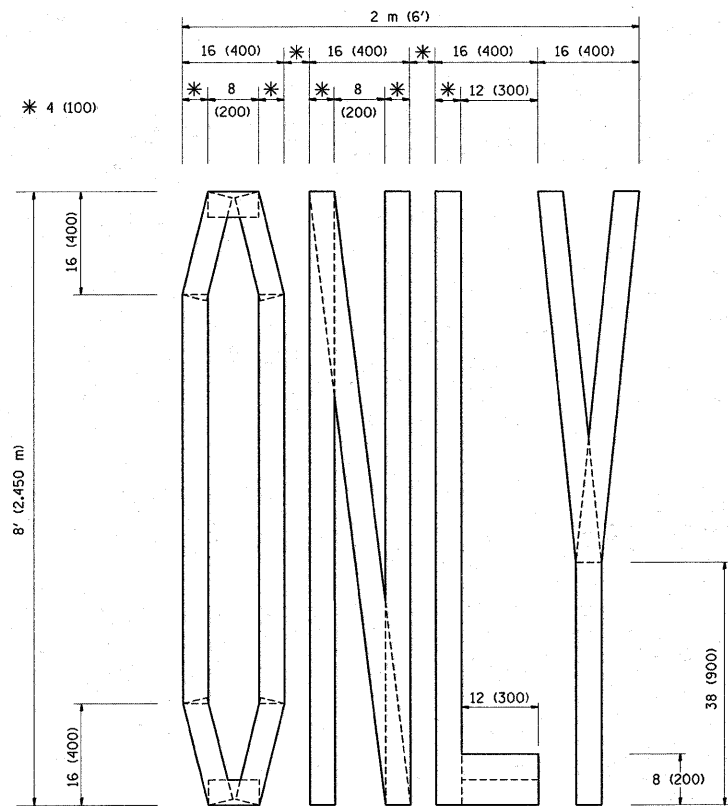
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT SCALE = 49.9999 / IN.	CHECKED -	REVISED - A. HOUSEH 10-12-96
	PLOT DATE = 3/7/2009	DATE -	REVISED -T. RAMMACHER 01-06-00

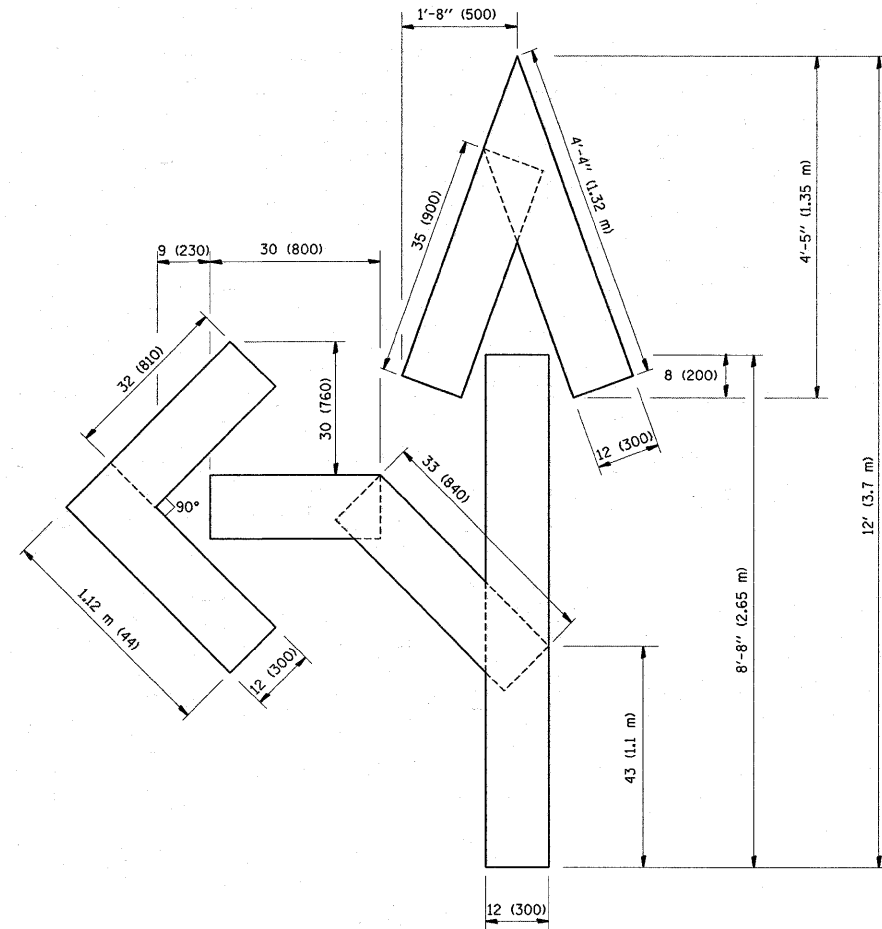
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

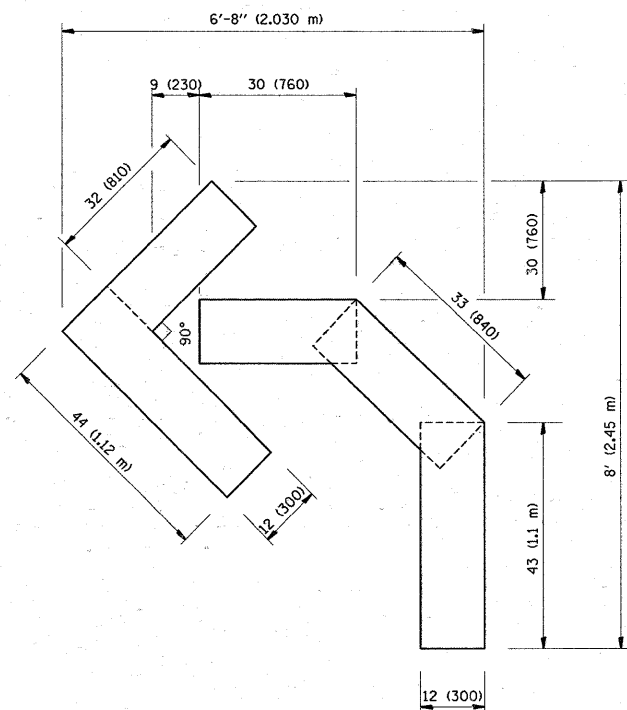
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(44 & 45) X-RS	LAKE	23	20
<b>TC-14</b>			CONTRACT NO. 60E69	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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.

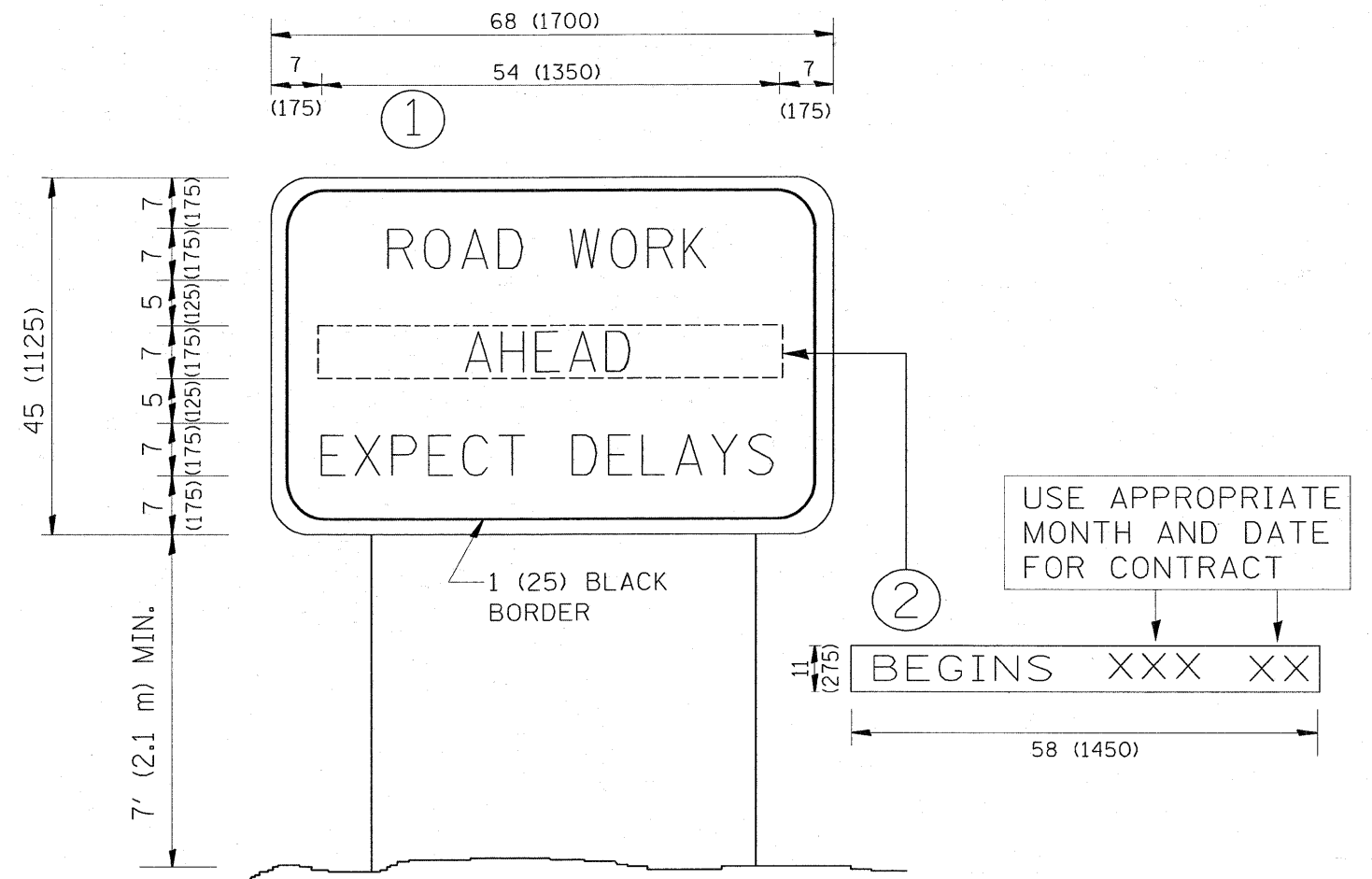
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		DRAWN -	REVISED -T. RAMMACHER 11-04-97
		CHECKED -	REVISED -T. RAMMACHER 03-02-98
		DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

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.
344	(44 & 45) X-RS	LAKE	23	21
TC-16			CONTRACT NO. 60E69	
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 = P:\Detail-US45\to22.dgn	USER NAME = shironisb	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97 REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 3/7/2009	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.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(44 & 45) X-RS	LAKE	23	22
TC-22			CONTRACT NO. 60E69	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

