# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

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# PROPOSED HIGHWAY PLANS

THE IMPROVEMENT IS LOCATED IN VILLAGE OF DEERFIELD

F.A.P. ROUTE 348: IL 43 (WAUKEGAN RD.)

LAKE-COOK RD. TO CHESTNUT RD.

SECTION 3271 B-RS-3

RESURFACING (3P)

COOK COUNTY

C-91-563-10

R 12 E

IMPROVEMENT BEGINS
STA. 12+78

IMPROVEMENT ENDS
STA. 26+59

TRAFFIC DATA:
2009 ADT = 24,440
POSTED SPEED LIMIT = 40 MPH

WEST DEERFIELD TOWNSHIP

GROSS & NET LENGTH OF IMPROVEMENT = 1381 LINEAL FEET = .26 MILES

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

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD

ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT

"C.U.A.N"

CHICAGO UTILITY ALERT NETWORK

PROJECT ENGINEER KARI SMITH (847) 705–4437 PROJECT MANAGER KEN ENG

CONTRACT NO. 60K71

D-91-563-10



STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED APRIL 6, 20 10

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

M. O' Marine M

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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- 19 DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

#### STATE STANDARDS

442201-03 CLASS C AND D PATCHES

701301-03 LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS

701606-06 URBAN LANE CLOSURE MULTILANE, 2W WITH MOUNTABLE MEDIAN

701701-06 URBAN LANE CLOSURE, MULTILANE INTERSECTION

701901-01 TRAFFIC CONTROL DEVICES

#### GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 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 DEERFIELD.

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 MR. WALTER CZARNY AREA TRAFFIC FIELD ENGINEER AT (847) 715-8419. A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

BEFORE BEGINING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERANCE, 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 AND CURB & GUTTER R&R LOCATIONS WILL BE DETERMINED 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.

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.

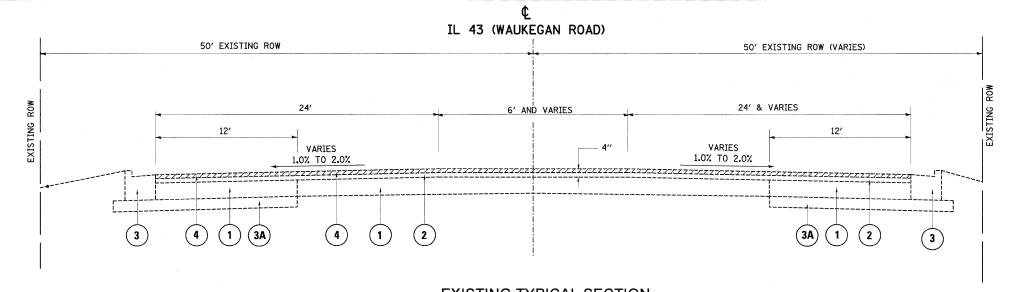
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STATE	OF	ILLINOIS	
DEPARTMENT	0F	TRANSPORTATION	

IL 43 (WAU	KEGAN RE	).) FRO	M LAKE-	COOK R	D. TO CHE	STNUT	RD.
INDEX OF	SHEETS, S	STATE	STANDARI	DS AND	GENERAL	NOTES	
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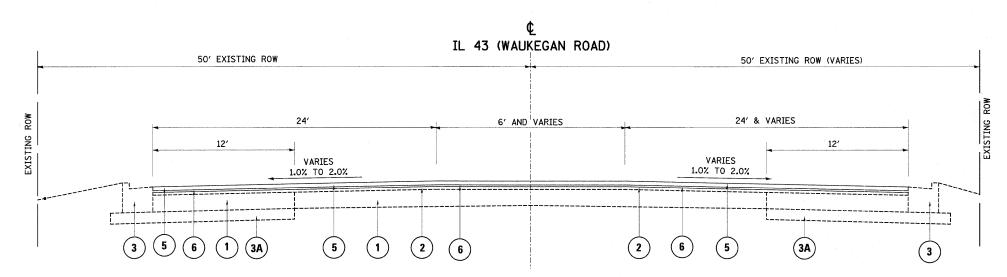
FED. RO	AD DIST. NO.	ILLINOIS FED	. AID	PROJECT		
 		•		CONTRACT	NO. 6	OK
348	3271	B-RS-3		COOK	19	
F.A.P RTE.	SE	CTION		COUNTY	TOTAL SHEETS	SH

	SUMMARY OF QUANTITIES		URBAN 1001.STATE		CON	NSTRUCTIO	ON TYPE	CODE	<b>—</b>		SUMMARY OF QUANTITIES		IRBAN 1001 STATE			ONSTRUCT:	ION TYPE	CODE	T
CODE NO	ITEM		TOTAL	ROADWAY						CODE NO	TEM	UNIT	TOTAL	ROADWAY					
														1000					
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	25	25						70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	120	120					
25200110	SODDING, SALT TOLERANT	SQ YD	25	25						70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1808	1808					
40600200	BITUMINOUS MATERIALS (PRIME COAT)  AGGREGATE (PRIME COAT)	TON	8 42	42						<del>*</del> 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	145. 2	145. 2				14.	
40600300	MIXTURE FOR CRACKS, JOINTS,	TON	16	16						¥ 78000200	THERMOPLASTIC PAVEMENT MARKING	FOOT	5427	5427					
40600400	AND FLANGEWAYS	I	10	10					-	7 10000200	- LINE 4"							44	
40600826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	430	430				-		X 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	625	625					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1						<del>3</del> 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	190	190					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	132	132						¥ 78000650	THERMOPLASTIC PAVEMENT MARKING	FOOT	120	120					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	126	126						¥ 78100100	- LINE 24"  RAISED REFLECTIVE PAVEMENT MARKER	EACH	150	150					
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	1020	1020						78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	120	120					
42001300	PROTECTIVE COAT	SQ YD	50	50						¥ 88600600	DETECTOR LOOP REPLACEMENT	FOOT	1029	1029					
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2	SQ YD	10401	10401	-					X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51. 4	51.4					
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	150	150									*						
44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES,	SQ YD	561	561							* Specially Hems								
44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	189	189															
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	142	142															
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	142	142	-			•											
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	2	2		.	•												
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	12	12					-										
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3															
67100100	MOBILIZATION	L SUM	1	1							and the second of the second of the second								
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1						2000									
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	<b>1</b>	1						18,7178.	Control of the American Service of the Control of t								
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	18516	18516															
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	145.2	145.2	÷	,				1.7 419(1)	The second of th								
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	5427	5427		-							*						
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	625	625															
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	190	190															
	LINE 12					-													
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#### **EXISTING TYPICAL SECTION**

STA. 12+78 TO STA. 26+59



#### PROPOSED TYPICAL SECTION

STA. 12+78 TO STA. 26+59

MIXTURE REQUIREMENTS	
MIXTURE USES	VOIDS
POLY. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	4% AT 90 GYR.
POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	4% AT 50 GYR.
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% AT 70 GYR.
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	4% AT 70 GYR.

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE IS 112 LBS/SQYD/IN

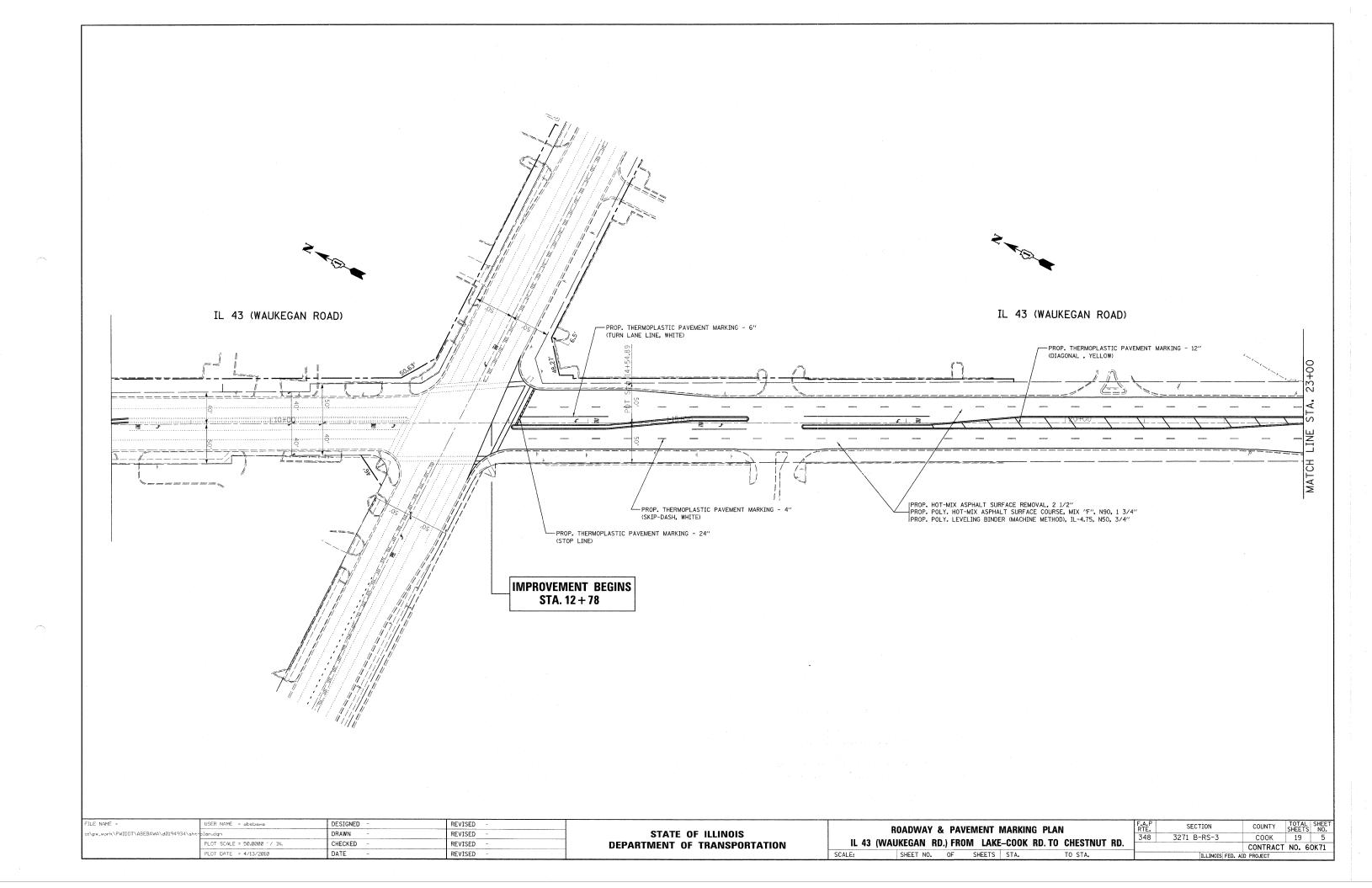
NOTE 2: THE "AC TYPE" FOR POLYMERIZED HMA SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

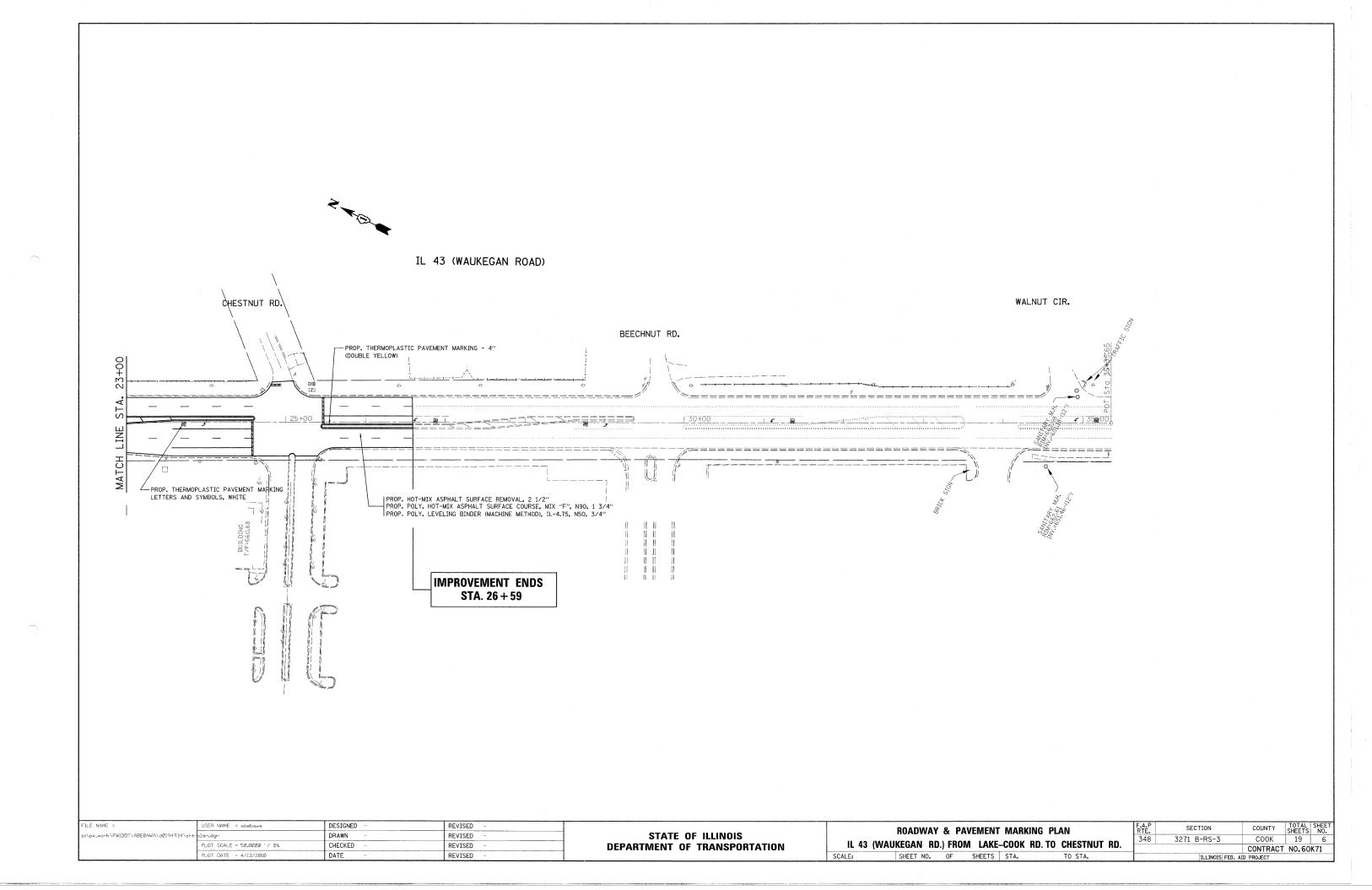
### THE CONTRACTOR SHALL PATCH FIRST THEN MILL

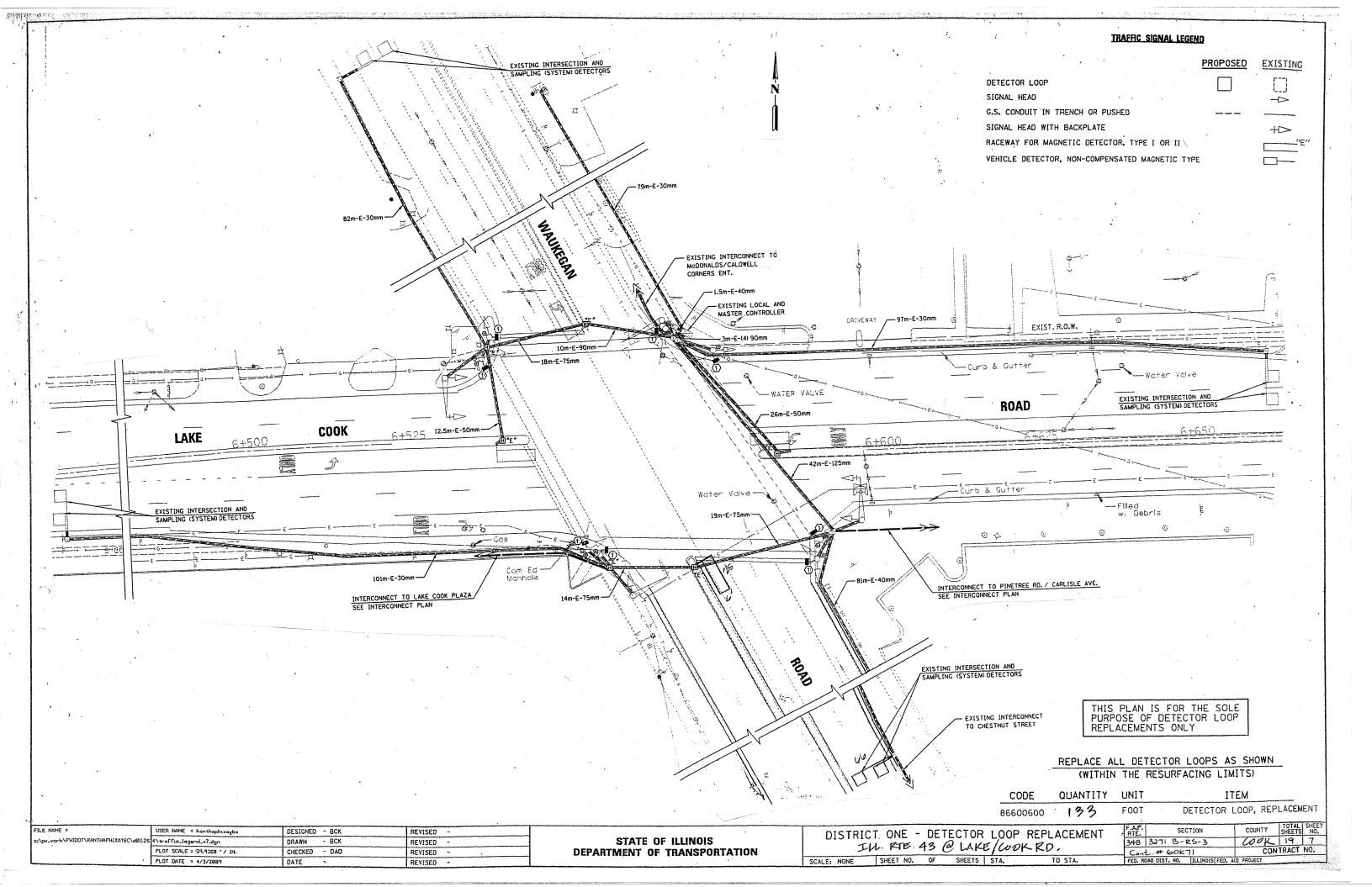
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED - Checked By	REVISED ~ Revised By3	DEPARTMENT OF TRANSPORTATION	EXISTING AND PROPOSED TYPICAL SECTIONS		CONTRACT NO. 60K71
	PLOT DATE = 4/13/2010	DATE - Checked Date	REVISED - Revised By4		SCALE: Scale SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. A	

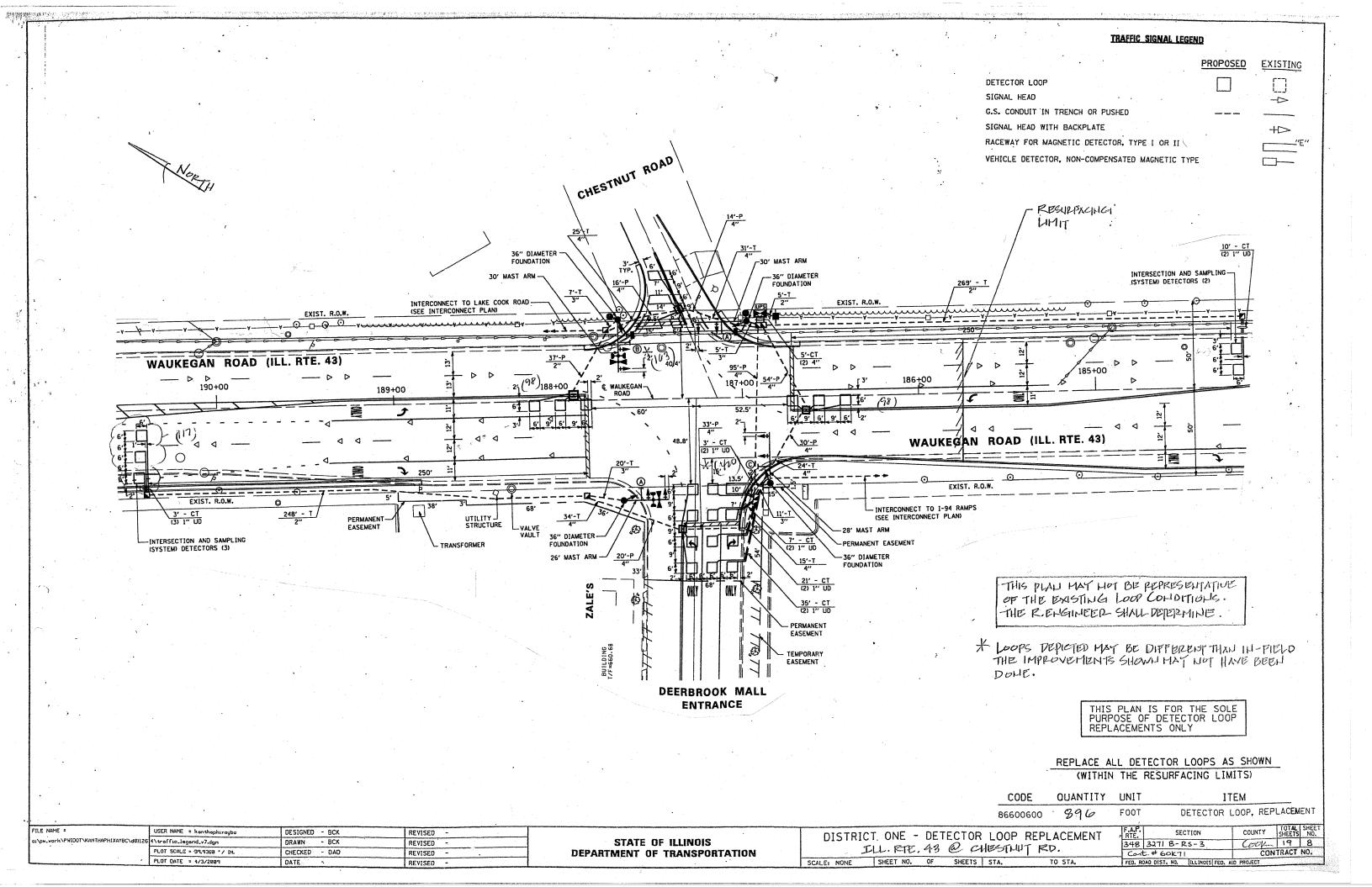
#### **LEGEND**

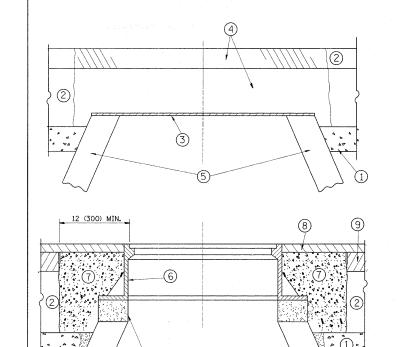
- 1) EXISTING P.C.C PAVEMENT, 9"
- EXISTING HOT-MIX ASPHALT AFTER MILLING,  $\pm 1.5^{\circ}$
- EXISTING COMB. CONC. CURB AND GUTTER, TYPE B-6.12 & TYPE B-6.24
- (3A) EXISTING SUB-BASE GRANULAR MATERIAL TYPE B
- (4) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- PROP. POLY. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- PROP. POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"











BRICK, MORTAR, OR CONC. ADJUSTING RINGS

\_PROPOSED SAND FILL

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.

NOTES:

#### CONSTRUCTION PROCEDURES

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS 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.

#### LEGE

1 SUB-BASE GRANULAR MATERIAL

PROPOSED SAND FILL

- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE
- 8 PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX

  (5) EXISTING STRUCTURE
- 0001102
- \_ .
- 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.

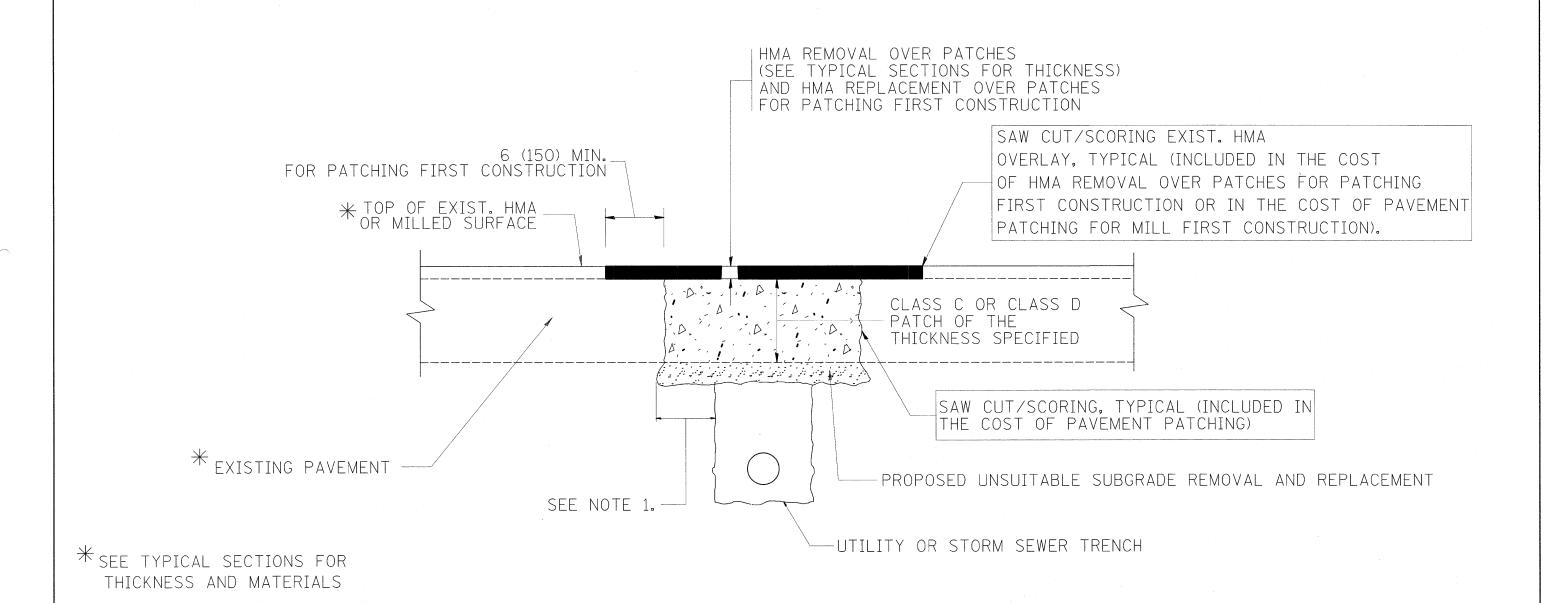
# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = abebawa	DESIGNED -	R. SHAH	REVISED -	R. SHAH 03-10-95
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	PLOT SCALE = 50.00000 '/ IN.	CHECKED -		REVISED -	R. WIEDEMAN 05-14-04
	PLOT DATE = 4/6/2010	DATE -	10-25-94	REVISED -	R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

			DETAILS FO	R		
	FRAMES A	ND LID	S ADJUSTN	IENT WITH	MILLING	
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#### NOTES:

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

#### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

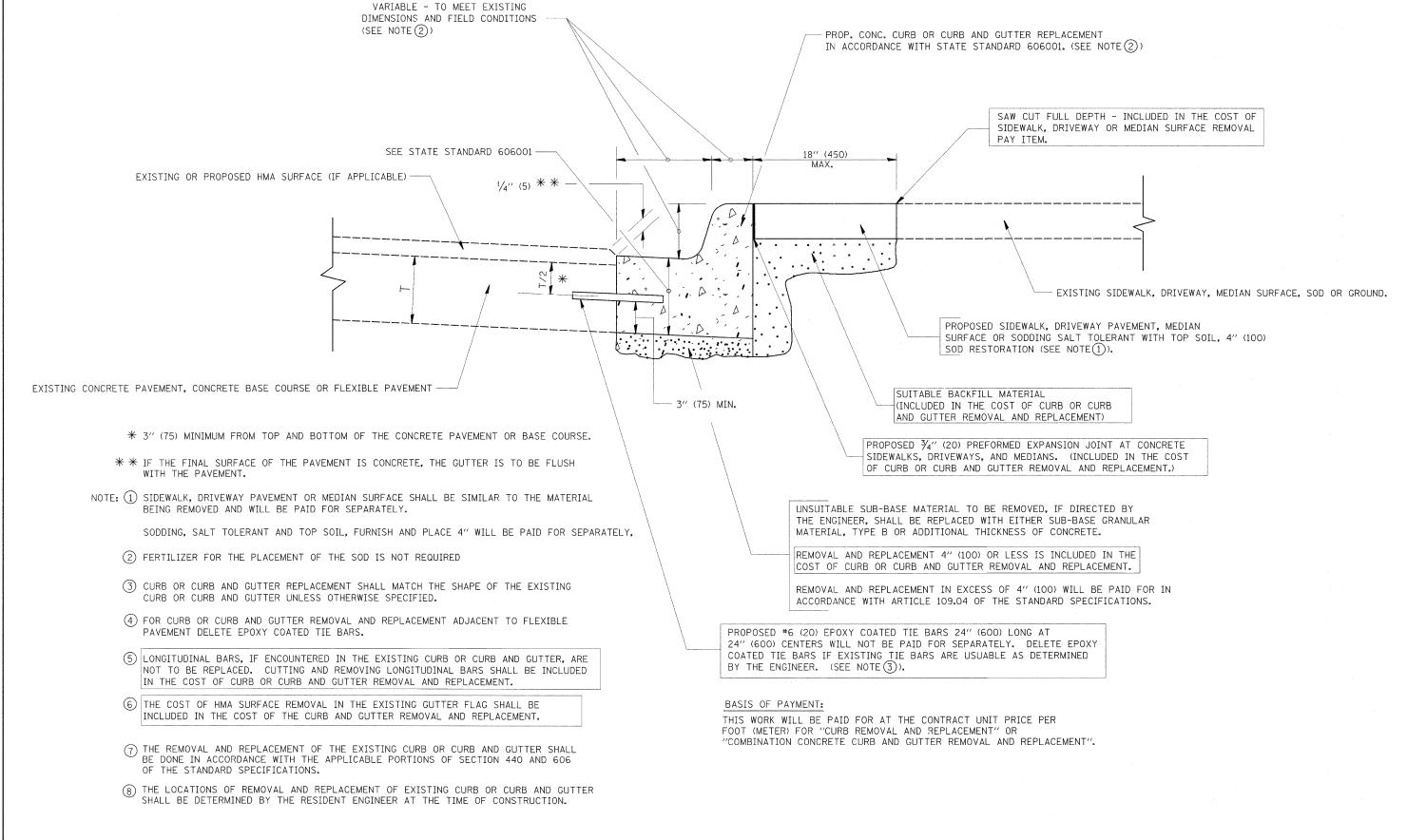
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

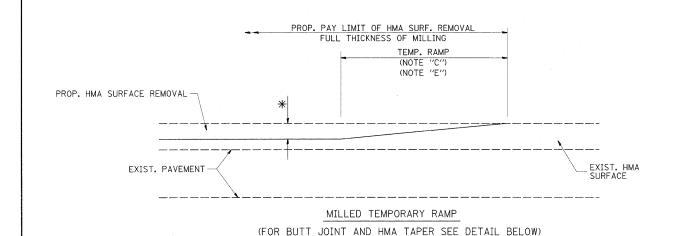
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c:/;	pw_work\pwidot\abebawa\dØ194934\Dist\$	td.dgn	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		HMA SURFACED PAVEMENT		348	3271 B-RS-3	COOK	19	10
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		TIMA SURFACED PAVEINEINI		BD	0400-04 (BD-22)	CONTRAC	T NO. 60	(71
L		PLOT DATE = 4/6/2010	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		



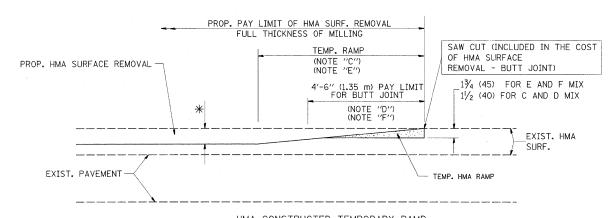
## CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION	REMOVAL AND REPLACEMENT		BD600-06 (BD-24)	CONTRACT NO. 60K71
	PLOT DATE = 4/6/2010	DATE - 03-11-94	REVISED - R. BORO 12-15-09		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.	TO STA.		AID PROJECT



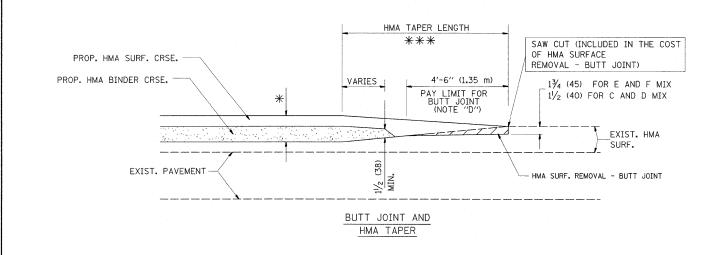
#### OPTION 1



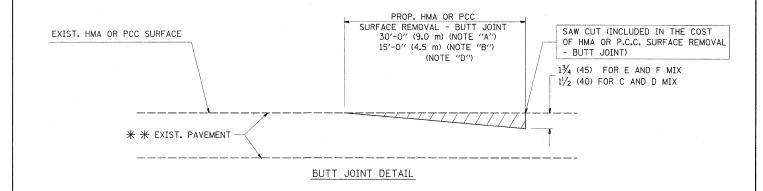
\_\_\_\_\_HMA\_CONSTRUCTED\_TEMPORARY\_RAMP\_\_\_\_\_(FOR\_BUTT\_JOINT\_AND\_HMA\_TAPER\_SEE\_DETAIL\_BELOW)

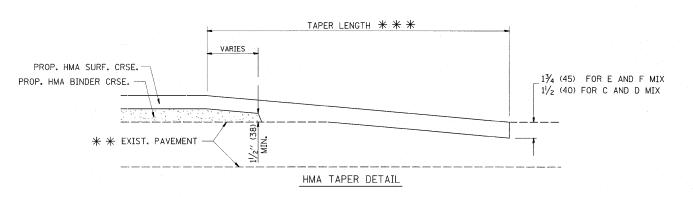
### OPTION 2

#### TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

#### NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-O" (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")

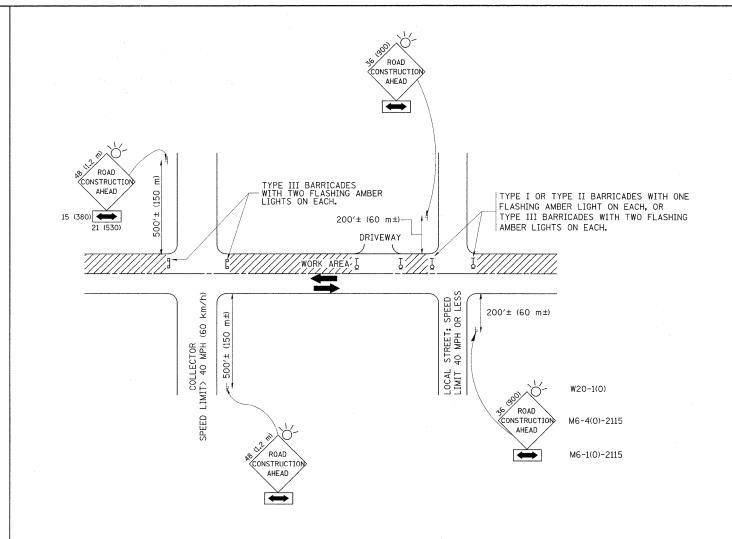
#### BASIS OF PAYMENT:

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
c:\pw_work\pwidot\abebawa\dØ194934\DistS	td.dgn	DRAWN	-		REVISED		A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED	-		REVISED	-	M. GOMEZ 04-06-01
	PLOT DATE = 4/6/2010	DATE	-	06-13-90	REVISED	-	R. BORO 01-01-07

	BUTT JOINT AND HMA TAPER DETAILS						F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
							348	3271 B-RS-3	COOK	19	12
1	NIVIA IAFEN DEIAILO					BD400-05 BD32 CONTRACT NO. 60K71					
	SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	ID 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:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN  $36 \times 36 \ (900 \times 900)$  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  $\times$  48 (1.2 m  $\times$  1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

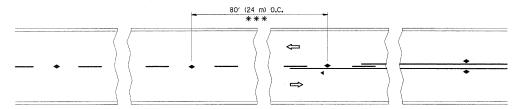
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = abebawa	DESIGNED -	LHA	REVISED	- ,	J. OBERLE 10-18-95
c:\pw_work\pwidot\abebawa\dØ194934\DistS	td.dgn	DRAWN -		REVISED	-	A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -		REVISED	-	A. HOUSEH 10-15-96
	PLDT DATE = 4/6/2010	DATE -	06-89	REVISED	-T.	RAMMACHER 01-06-00

STATE	OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

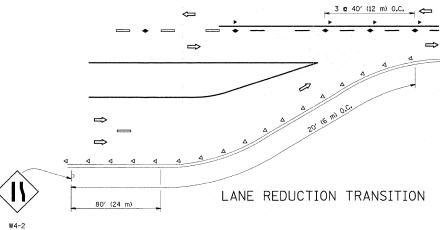
	TRAFFIC C	ONTRO	L AND F	ROTECTIO	N FOR
	SIDE ROADS,	INTER	SECTIONS	AND PROTECTION FOR ECTIONS, AND DRIVEWAYS	
CALE: NONE	SHEET NO. 1 (	OF 1	SHEETS	STA.	TO STA.

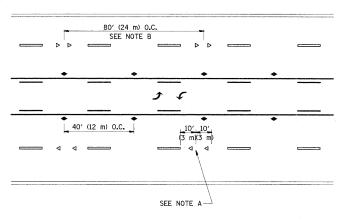
F.A.F RTE.	2	SECTION						COUNTY	TOTAL SHEETS	SHE	
348		3	271	В	-RS-3		T	COOK	19	13	
			TC-	-10	)		T	CONTRACT	NO. 60	K71	
FED.	ROAD	DIST.	NO.	1	ILLINOIS	FED.	AID	PROJECT			



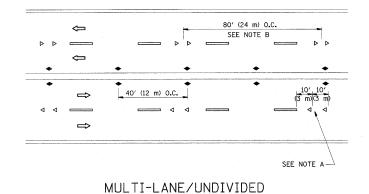
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

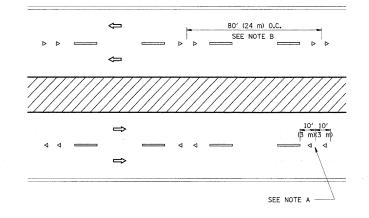
TWO-LANE/TWO-WAY





TWO-WAY LEFT TURN





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.
- MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

#### LANE MARKER NOTES

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

#### SYMBOLS

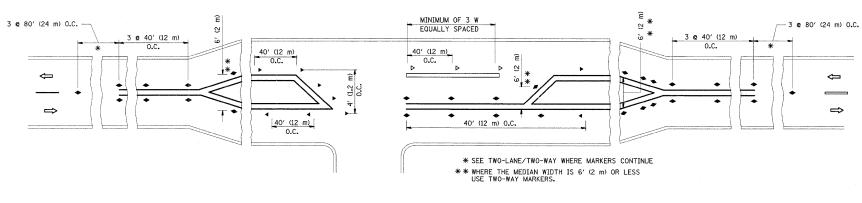
YELLOW STRIPE

---- WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (₩/0)
- ◆ TWO-WAY AMBER MARKER

#### DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 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.
- MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

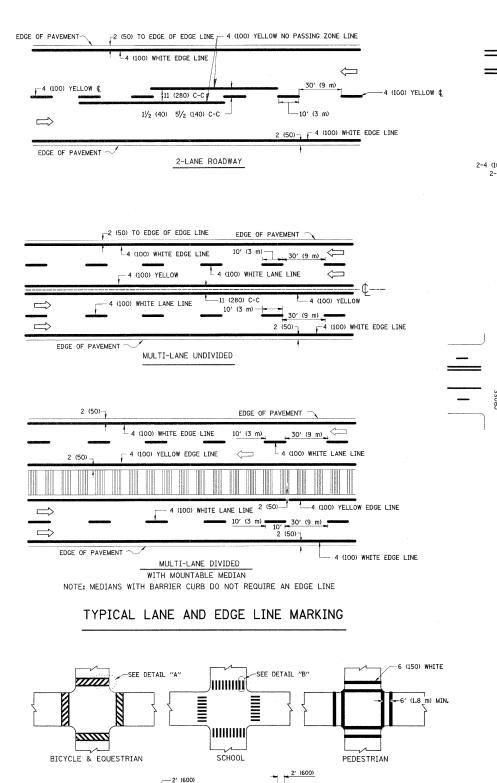


LEFT TURN

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

FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED	T. RAMMACHER	09-19-94
c:\pw_work\pwidot\abebawa\dØ194934\DistS	td.dgn	DRAWN -	REVISED	T. RAMMACHER	03-12-99
	PLOT SCALE = 50,0000 '/ IN.	CHECKED -	REVISED	T. RAMMACHER	01-06-00
	PLOT DATE = 4/6/2010	DATE -	REVISED	- C. JUCIUS	09-09-09

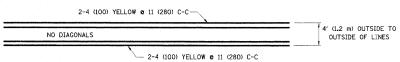
TYPICAL APPLICATIONS	F.A.P. RTE.	SECTION			SHEET NO.
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	348	3271 B-RS-3	COOK	19	14
		TC-11	CONTRACT	NO. 60	K71
SCALE: NONE   SHEET NO. 1 OF 1 SHEETS   STA. TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		



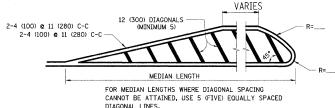
### TYPICAL CROSSWALK MARKING

6 (150) WHITE

DETAIL "A"

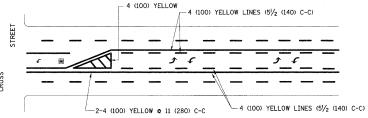


#### 4' (1.2 m) WIDE MEDIANS ONLY

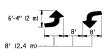


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

#### MEDIANS OVER 4' (1.2 m) WIDE

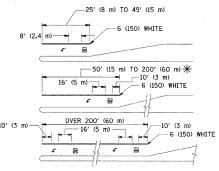


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

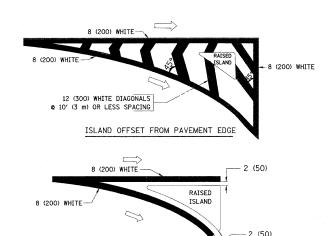


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO, FT. (1.5 m² ) )

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

TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TURN LANE MARKING



#### TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

TYPE OF MARKING  CENTERLINE ON 2 LANE PAVEMENT	WIDTH OF LINE	PATTERN SKIP-DASH	COLOR	SPACING / REMARKS  10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 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	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	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 5EE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 & 4 (100) WITH 12 (300) DIAGONALS & 45°	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	SEE THEORE FAITED MEDIAN MAINLAND
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) <b>@</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 1150' (45 m) C-C (0VER 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.

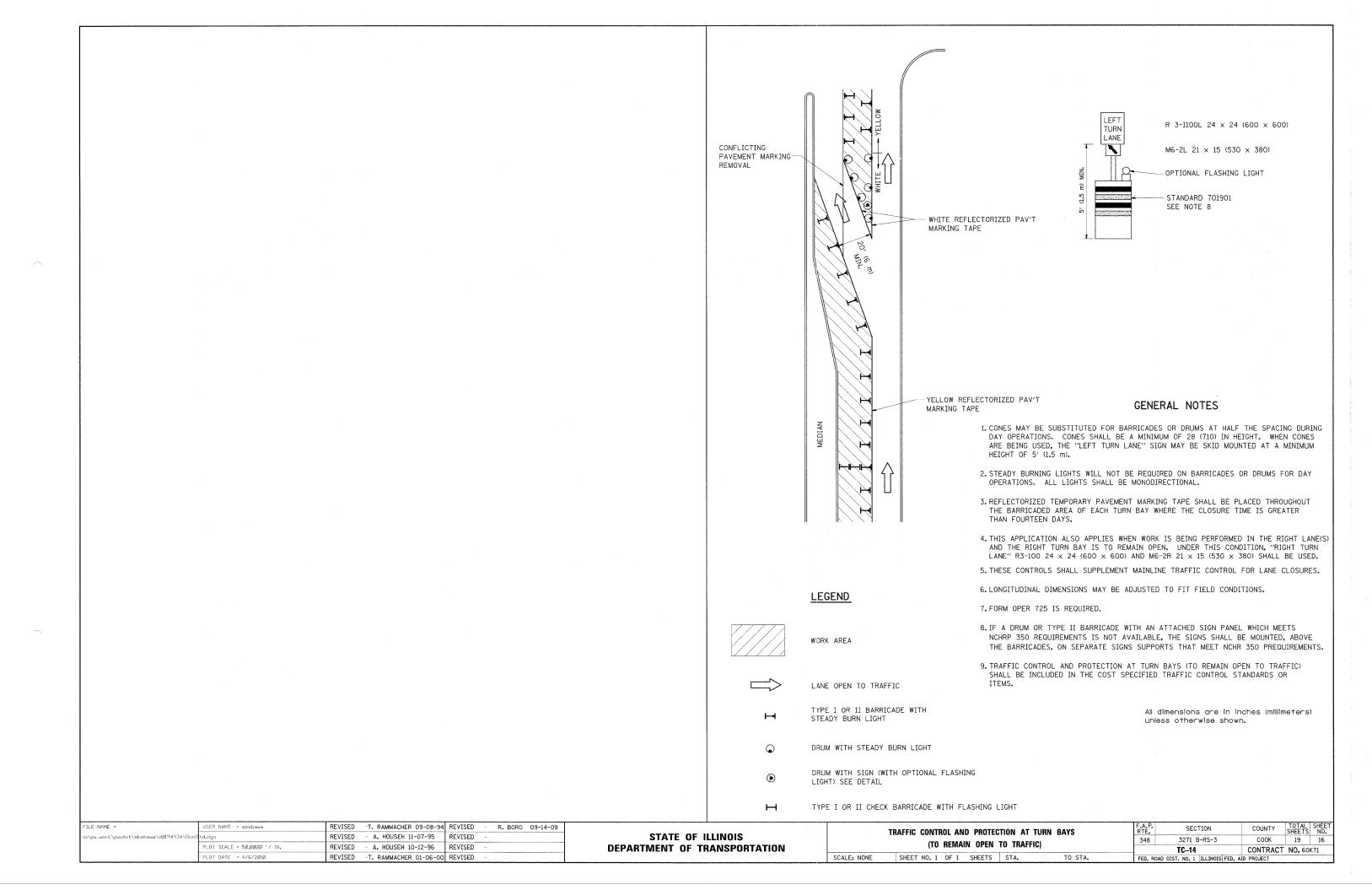
FILE NAME =	USER NAME = abebawa	DESIGNED - EVERS	REVISED	-T. RAMMACHER 10-27-9
c:\pw_work\pwidot\abebawe\dØ194934\DistS	td.dgn	DRAWN -	REVISED	-C. JUCIUS 09-09-0
	PLOT SCALE = 50.0000 '/ IN.	CHECKED ~	REVISED	-
	PLOT DATE = 4/6/2010	DATE - 03-19-90	REVISED	_

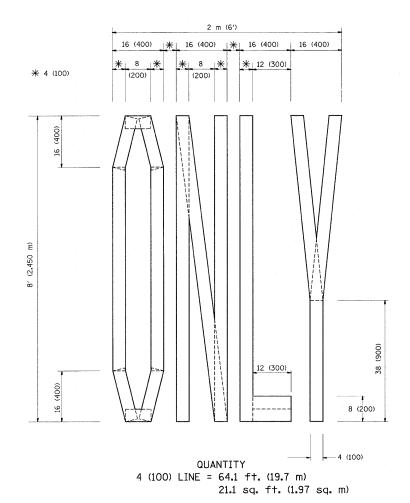
-12 (300) WHITE

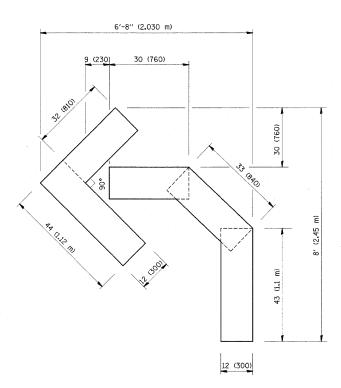
DETAIL "B"

STATE	OF	ILLINOIS
DEPARTMENT	<b>OF</b> 1	<b>TRANSPORTATION</b>

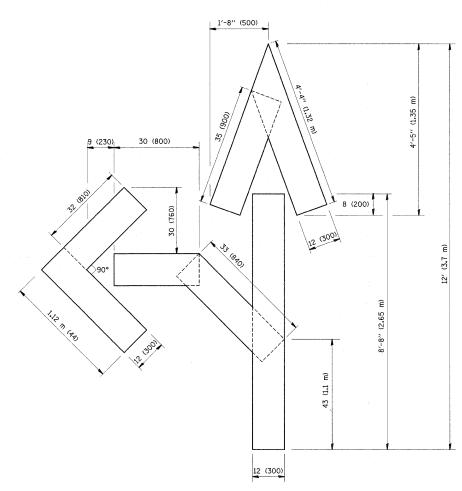
		DI	STRICT OF	IE .		RTE.	SECTION	COUNTY	SHEETS	NO.
.		TYPICAL PA	VEMENT	MARKINGS		348	3271 B-RS-3	COOK	19	15
l į		ITTIOAL FA	A CIAICIA I	INAUKINGS			TC-13	CONTRACT	NO. 60	(71
	SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. ROA	AD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		







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

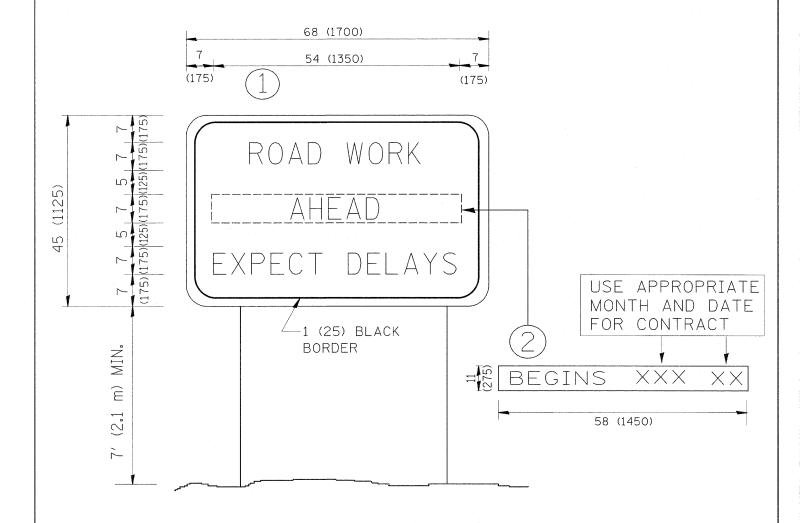


QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

FILE NAME =	USER NAME = abebawa	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
cs\pw_work\pwidot\abebawa\d0194934\DistS	tc.dgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.00000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 4/6/2010	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00

PAVEMENT MARKING LETTERS AND			SYMBOLS	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.			
FOR TRAFFIC STAGING					348	3271 B-RS-3	COOK	19	17		
FUN TRAFFIC STABING						TC-16 CONTRACT NO.60K71					
SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT					



### NOTES:

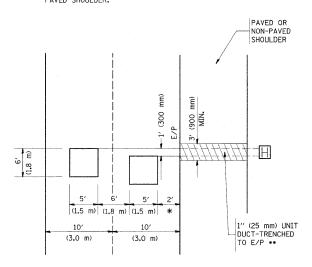
- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN () WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL (2) SOON AFTER THE START 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 = ababawa	DESIGNED -	REVISED - R. MIRS	09-15-97			ARTERIAL ROAD		F.A.P.	SECTION	COUNTY	TOTAL SHEET
c:\pw_work\pwidot\abebawa\dØl94934\Dist9	td.dgn	DRAWN -	REVISED - R. MIRS	2-11-97	STATE OF ILLINOIS				348	3271 B-RS-3	COOK	19 18
	PLOT SCALE = 50.0000 '/ IN.	CHECKED ~	REVISED -T. RAMMACH	R 02-02-99	DEPARTMENT OF TRANSPORTATION	INFORMATION SIGN				TC-22	CONTRACT	T NO-60K71
	PLOT DATE = 4/6/2010	DATE -	REVISED - C. JUCIU	01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD	ED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT		, 110000112

#### LOOPS NEXT TO SHOULDERS

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



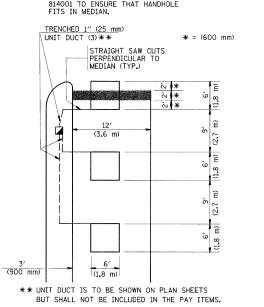
\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

\* = (600 mm)

# LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
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.

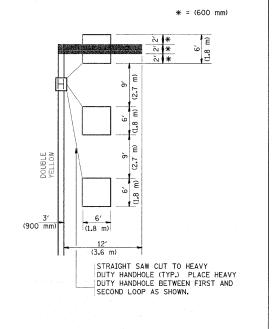


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

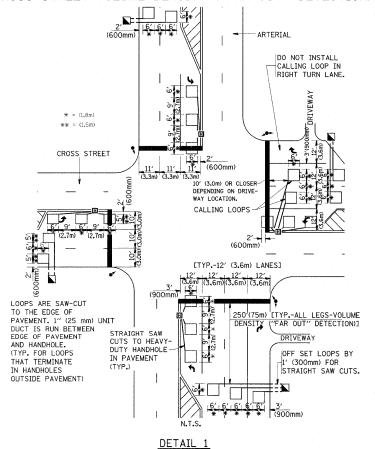
(PROTECTED / PERMITTED LEFT TURN PHASING)

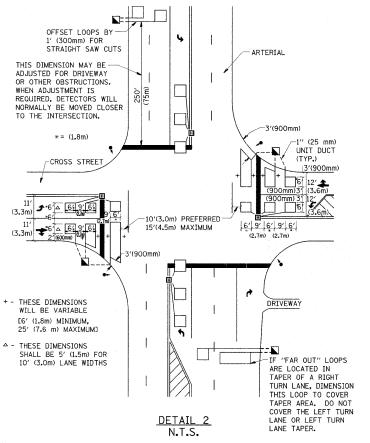


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

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





#### NOTES:

#### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, 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 SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF <u>ALL</u> DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE\_ THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (I.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

#### PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON 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 = abebava	DESIGNED -	REVISED
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	PLGT SCALE = 50.0000 '/ IN.	CHECKED - R.K.F.	REVISED -
	PLCT DATE = 4/6/2010	DATE -	REVISED -

DISTRICT 1 – DETECTOR LOOP INSTALLATION	F.A.P. RTE.	SECTION	COUNTY TOTAL SHEETS			
DETAILS FOR ROADWAY RESURFACING	348	3271 B-RS-3	COOK	19	19	
DETAILS FOR NUMBERS RESURFACING	TS-07 CONTRACT NO.			NO. 60	(71	
SCALE: NONE   SHEET NO. 1 OF 1 SHEETS   STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					