## STATE OF ILLINOIS

# **DEPARTMENT OF TRANSPORTATION**

**DIVISION OF HIGHWAYS** 

#### FOR INDEX OF SHEETS, SEE SHEET NO. 2

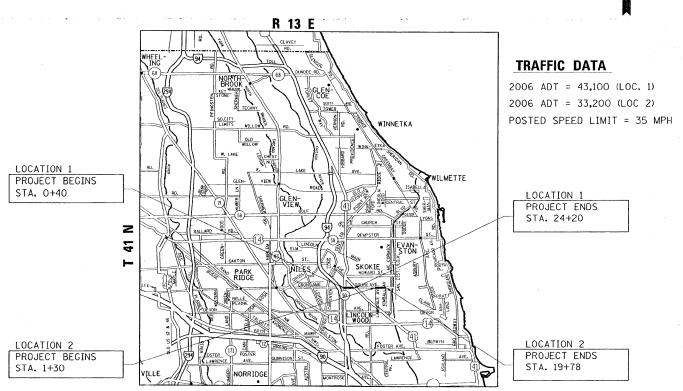
THE PROJECT IS LOCATED IN THE VILLAGES OF LINCOLNWOOD & SKOKIE

# PROPOSED HIGHWAY PLANS

FAU 1340 (TOUHY AVE.)
LOC 1: ILL 50 (CICERO AVE.) TO US 41 (LINCOLN AVE.)
LOC 2: LAWNDALE AVE. TO KIMBALL AVE.
SECTION: 2009–063 RS

RESURFACING
PROJECT: ESP-1340(009)
COOK COUNTY

C-91-764-09



**NILES TOWNSHIP** 

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS

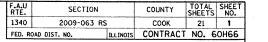
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT

ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

PROJECT ENGINEER DAN WILGREEN (847) 705–4240 PROJECT MANAGER KEN ENG (847) 705–4247

GROSS & NET LENGTH OF PROJECT = 2,380 LINEAL FEET = 0.45 MILE (LOCATION 1) GROSS & NET LENGTH OF PROJECT = 1,848 LINEAL FEET = 0.35 MILE (LOCATION 2)

CONTRACT NO. 60H66



D -91-764-09



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JUNE 30, 20 09

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

august 14, 2009

Charles J. Ingersol/ DO ENGINEER OF DESIGN AND ENVIRONMENT

August 14, 20 09 Christine M. Reed/D

DIRECTOR OF HIGHWAYS CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

#### INDEX OF SHEETS

ARTERIAL ROAD INFORMATION SIGN

#### LIST OF STATE STANDARDS

SHEE	T NO.	<u>DESCRIPTION</u> <u>S</u>	TANDARD NO.	DESCRIPTION
	1	COVER SHEET	000001-2-	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
	2	INDEX OF SHEETS, STANDARDS, AND GENERAL NOTES	000001 <b>-05</b>	CLASS C AND D PATCHES
	3	SUMMARY OF QUANTITIES	442201 <b>-03</b>	FRAME AND LIDS, TYPE 1
	4	TYPICAL SECTIONS PLAN	604001 <b>-03</b>	
	5-6	ROADWAY & PAVEMENT MARKINGS PLANS	604016-02	FRAME AND GRATES, TYPE 4
	7-10	DETECTOR LOOP REPLACEMENT PLANS	606001 <i>-04</i> 701301- <i>03</i>	COMBINATION CONCRETE CURB AND GUTTER  LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
	.11	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING	701501- <i>06</i>	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
	12	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	701606- <i>06</i>	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
	13	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	701701-00	URBAN LANE CLOSURE, MULTILANE INTERSECTION
	14	BUTT JOINT AND HMA TAPER DETAILS	701901- <i>01</i>	TRAFFIC CONTROL DEVICES
	15	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS	886001- <i>01</i>	DETECTOR LOOP INSTALLATION
	16	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTAN		TYPICAL LAYOUT FOR DETECTOR LOOPS
	17	DISTRICT ONE TYPICAL PAVEMENT MARKINGS	000000 27	THISKE ENTOST FOR BETEGFOR EGGS
	18	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)		
	19	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING		

#### GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES.

(48 HOUR NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGES OF LINCOLNWOOD & SKOKIE

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 45 MPH (45 KM/H) OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (45 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER. A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES 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.

THE RESIDENT ENGINEER SHALL CONTACT MR. WALTER CZARNY AREA TRAFFIC FIELD ENGINEER AT (773) 685-8386 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

THE RESIDENT ENGINEER SHALL VERIFY ALL EXISTING PAVEMENT MARKINGS BEFORE MILLING

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS

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

PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKING ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.

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

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

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

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

RAILROAD CROSSING ON TOUHY AVENUE BETWEEN ST. LOUIS AVE. AND KIMBALL AVE. IS ABANDONED AND ROADWAY WORK IS TO BE DONE UP TO BOTH SIDES OF THE TRACK

FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED -
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•	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 6/27/2009	DATE -	REVISED -

DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

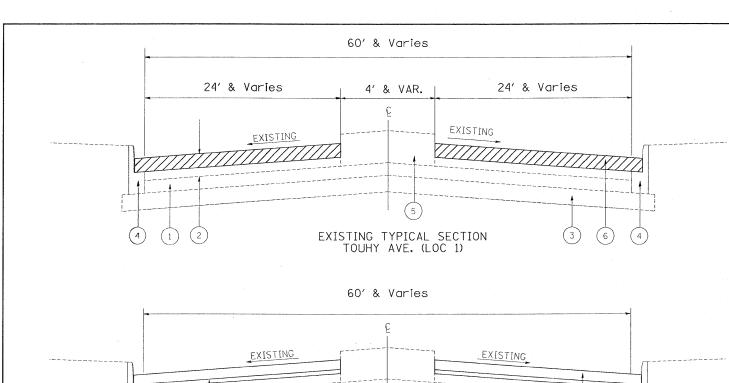
STATE	OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

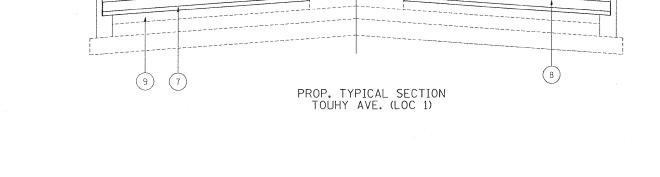
INDEX OF	SHEETS, LIST OF STA	ATE STANDARDS 8	GENERAL NOTES
	TOUHY AVE.	(LOCATION 1 & 2)	1
ALE: 1"=50'	SHEET NO. 1 OF 1	SHEETS STA.	TO STA.

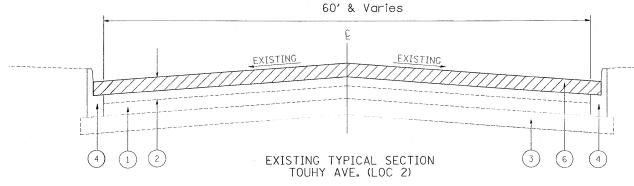
F.A.U RTE.	S	ECTION		COUNTY	TOTAL SHEETS	SHEET NO.
1340	200	9-063 RS		соок	21	2
				CONTRACT	NO. 6	он66
FED. RO	AD DIST. NO.	ILLINOIS	FED. AID	PROJECT		

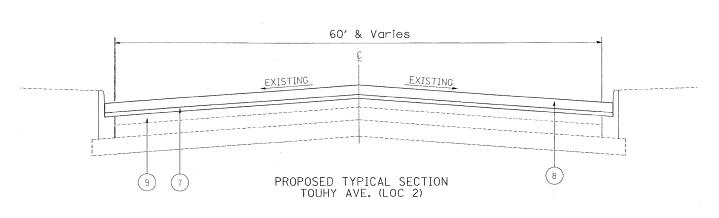
<del></del>	SUMMARY OF QUANTITIES		URBAN 100% FEO.		C	ONSTRUCT	ION TYPE	CODE			SUMMAR	Y OF QUANTITIES	· r	URBAN 100% FEO .			CONSTRUCT	ION TYPE	CODE	
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	URBAN IOOO						CODE NO		ITEM	UNIT	TOTAL QUANTITIES	URBAN 1000					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	25	25						70300100	SHORT-TERM PA	VEMENT MARKING	FOOT	4650	4650					
40600300	AGGREGATE (PRIME COAT)	TON	115	115						70300210		EMENT MARKING	SQ FT	634	634					
40600400	MIXTURE FOR CRACKS, JOINTS,	TON	10	10						10300210	- LETTERS AND		Juli	054	034					
40000400	AND FLANGEWAYS	101								70300220	TEMPORARY PAY	EMENT MARKING	FOOT	12400	12400					
40600895	CONSTRUCTING TEST STRIP	EACH	2	2						70300240		EMENT MARKING	FOOT	3600	3600					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	270	270							- LINE 6"		2 mp			·				
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	178.5	178.5		·				70300250	- LINE 8"	EMENT MARKING	FOOT	260	260					
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	2780	2780						70300260	- LINE 12"	EMENT MARKING	FOOT	410	410					
42001300	PROTECTIVE COAT	SQ YD	20	20		-				70300280	TEMPORARY PAY - LINE 24"	'EMENT MARKING	FOOT	540	540					
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2	SO YD	28305	28305		-				70301000	WORK ZONE PAY	EMENT MARKING REMOVAL	SQ FT	520	520			•		
44001700	1/2"  COMBINATION CONCRETE CURB AND GUTTER  BEHOVAL AND BERLACEMENT	FOOT	100	100			1, 1			X 78000100	THERMOPLASTIC	PAVEMENT MARKING SYMBOLS	SO FT	634	634	·				
44002215	REMOVAL AND REPLACEMENT  HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3 3/4"	SO YD	850	850					·	<del>X</del> 78000200	THERMOPLASTIC	PAVEMENT MARKING	FOOT	12400	12400					
44201729	CLASS D PATCHES, TYPE II. 7 INCH	SO YD	425	425						<del>X</del> 78000400	THERMOPLASTIC	PAVEMENT MARKING	FOOT	3600	3600					
44201733	CLASS D PATCHES, TYPE III, 7 INCH	SO YD	170	170						¥ 78000500		PAVEMENT MARKING	FOOT	260	260		-			
44201735	CLASS D PATCHES, TYPE IV. 7 INCH	SO YD	255	255			·				- LINE 8"	•								
55039700	STORM SEWERS TO BE CLEANED	FOOT	200	200						X 78000600	THERMOPLASTIC	PAVEMENT MARKING	FOOT	410	410					-
60235800	INLETS, TYPE A, TYPE 4 FRAME AND GRATE	EACH	1	1		•			·	<del>X</del> 78000650		PAVEMENT MARKING	FOOT	540	540					
60250200	CATCH BASINS TO BE ADJUSTED	EACH	3	3							- LINE 24"	·								
60250400	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1	1						78100100 78300200	RAISED REFLEC	TIVE PAVEMENT MARKER	EACH	160	160				-	
60260100	INLETS TO BE ADJUSTED	EACH	5	5					٠.	¥ 88600600	REMOVAL DETECTOR LOOF	DEDI ACEMENT	FOOT	1597	1597					
60261530	INLETS TO BE ADJUSTED WITH NEW TYPE 23 FRAME AND GRATE	EACH	3	3						X0322256		ORMATION SIGNING	SO FT	102.8	102.8	i i	* . F			. 1
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	15	15					-	X4067107		EVELING BINDER (MACHINE	TON	1120	1120					
60404400	FRAMES AND GRATES. TYPE 4	EACH	2	2						VP Z0018500		ICTURES TO BE CLEANED	EACH	15	15					
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	6	6		-					·						,			
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	3	3							. *		,							
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6							NP=Non-p	articipating alty Items								
67100100	MOBILIZATION	L SUM	1	1							00	· · · / · · · · · · · ·								
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1																
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1																
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1									•							
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1 1









#### LEGEND

- 1 EXISTING P.C.C BASE COURSE, 7"(±)
- 2) EXISTING HMA SURFACE, ± 3 3/4"
- (3) EXISTING STABILIZED SUBBASE, 4"
- (4) EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B.12
- 5 EXISTING P.C. CONCRETE BARRIER MEDIAN
- 6 PROPOSED HMA SURFACE REMOVAL, 2 1/2"
- (7) PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- 8 PROPOSED POLYMERIZED HMA SURFACE COURSE, MIX "F", N90, 1 3/4"
- 9 EXISTING HMA SURFACE AFTER MILLING, ±1 1/4"

HOT-MIX ASPHALT MIXTU	JRE REQUIREMEN	NTS
MIXTURE TYPE	AC TYPE	AIR VOIDS (%)
POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	SBS/SBR PG 70-22	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 mm)	PG 64-22*	4% AT 70 GYR.
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (IL 9.5 mm)	PG 64-22*	4% AT 70 GYR.

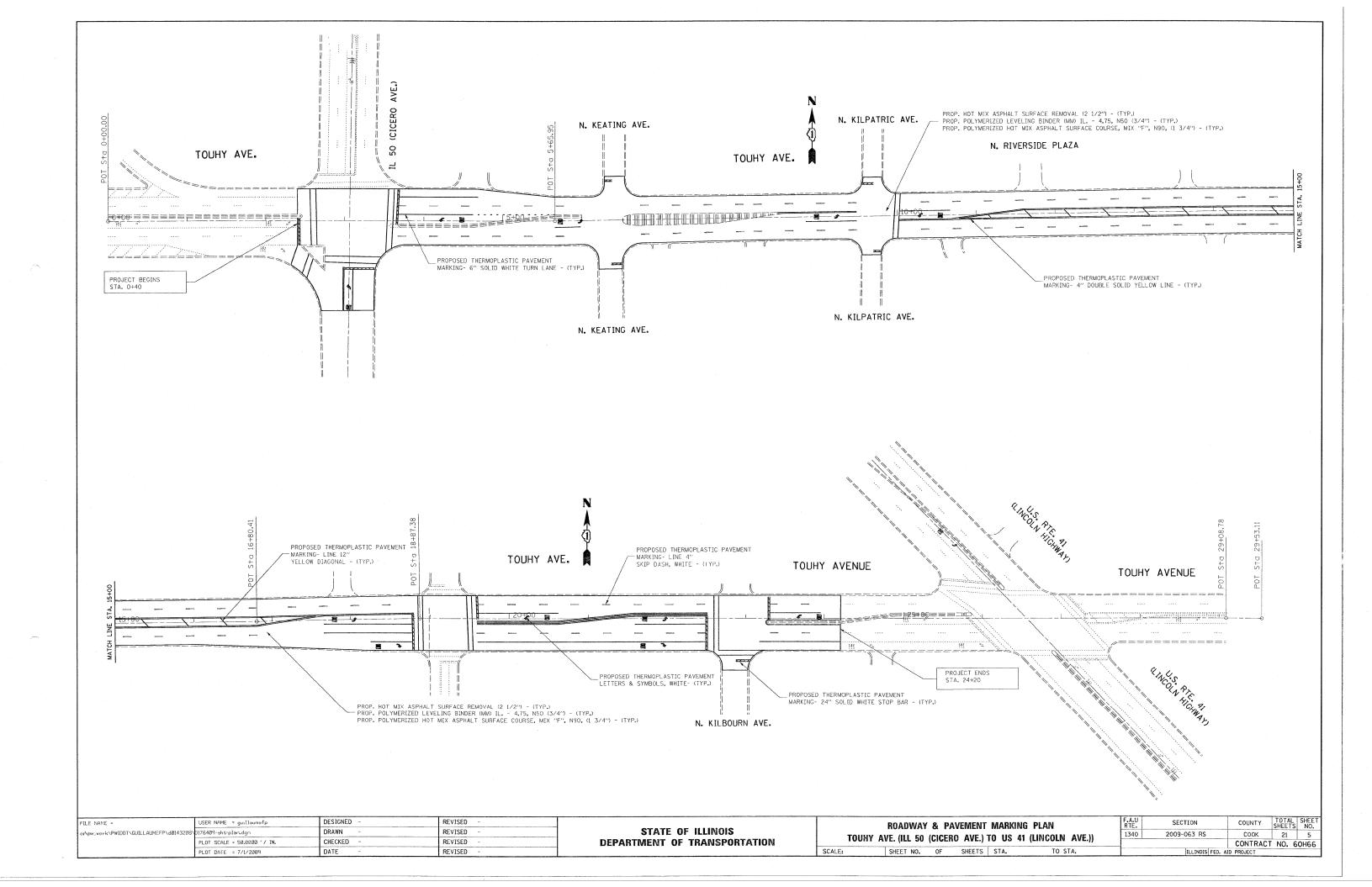
#### NOTES:

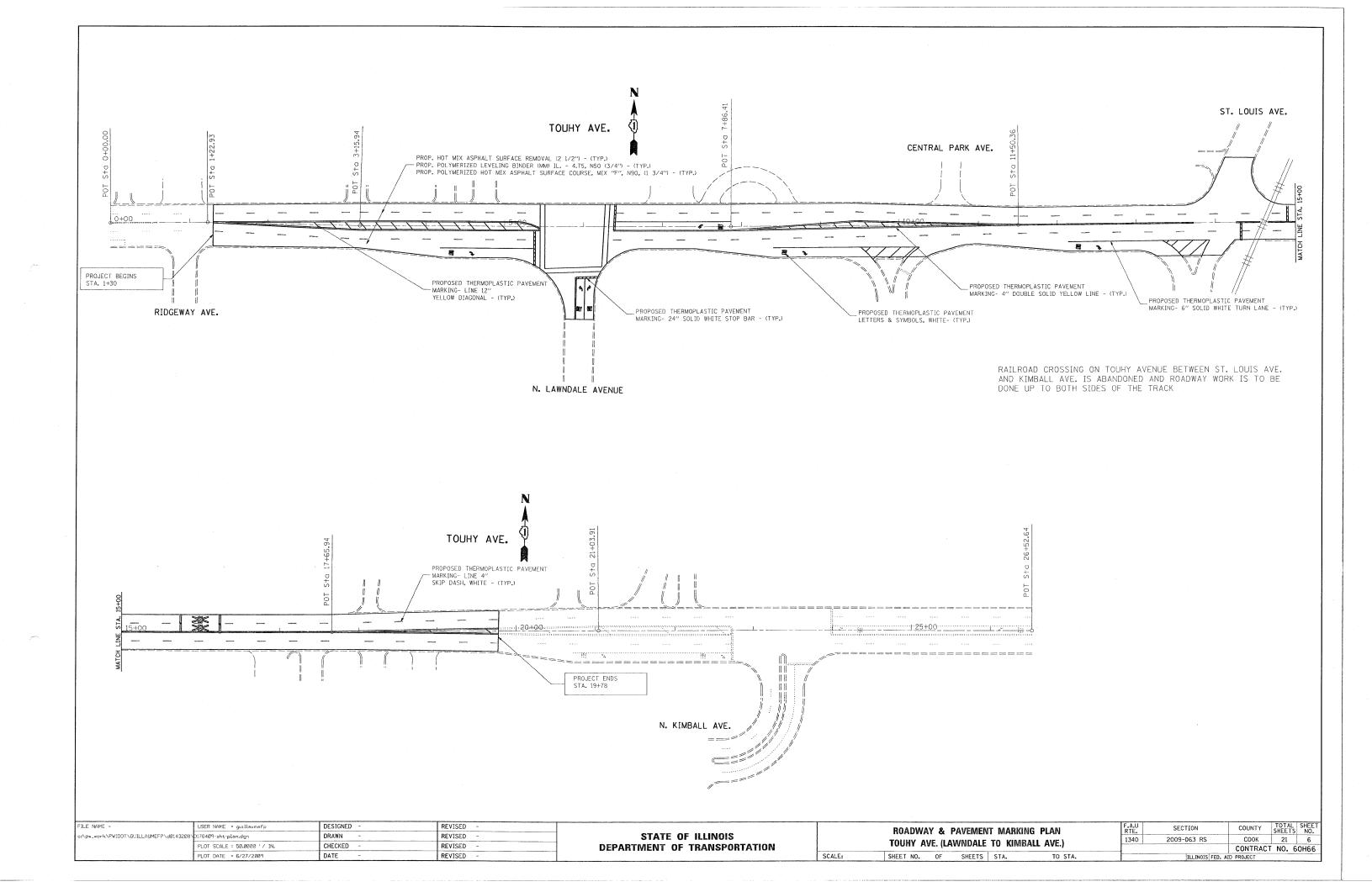
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQ YD/IN \*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

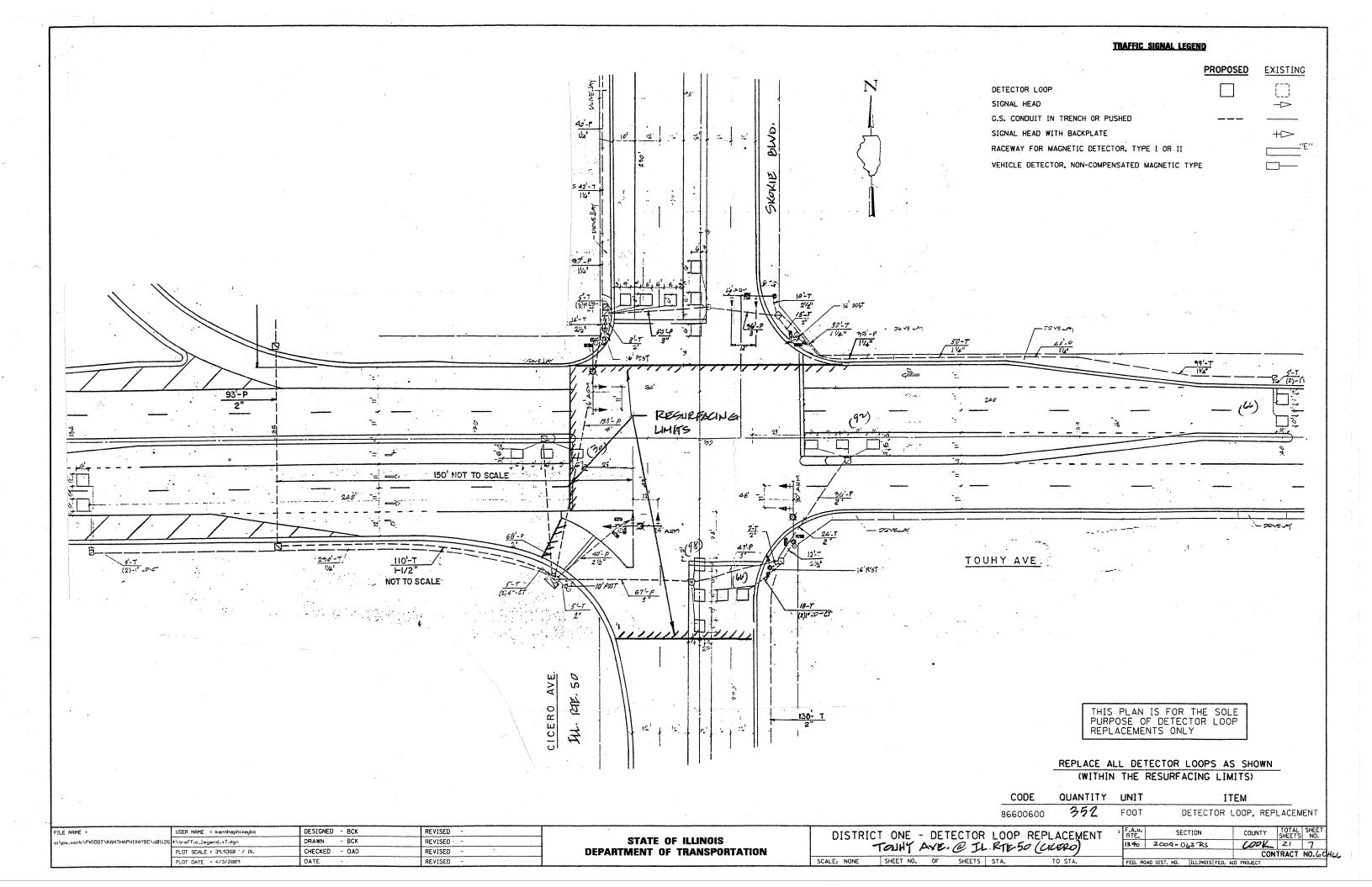
REMOVAL OF HMA OVERLAY ON GUTTER TO BE INCLUDED IN HMA SURFACE REMOVAL, 2 1/2" IF ANY

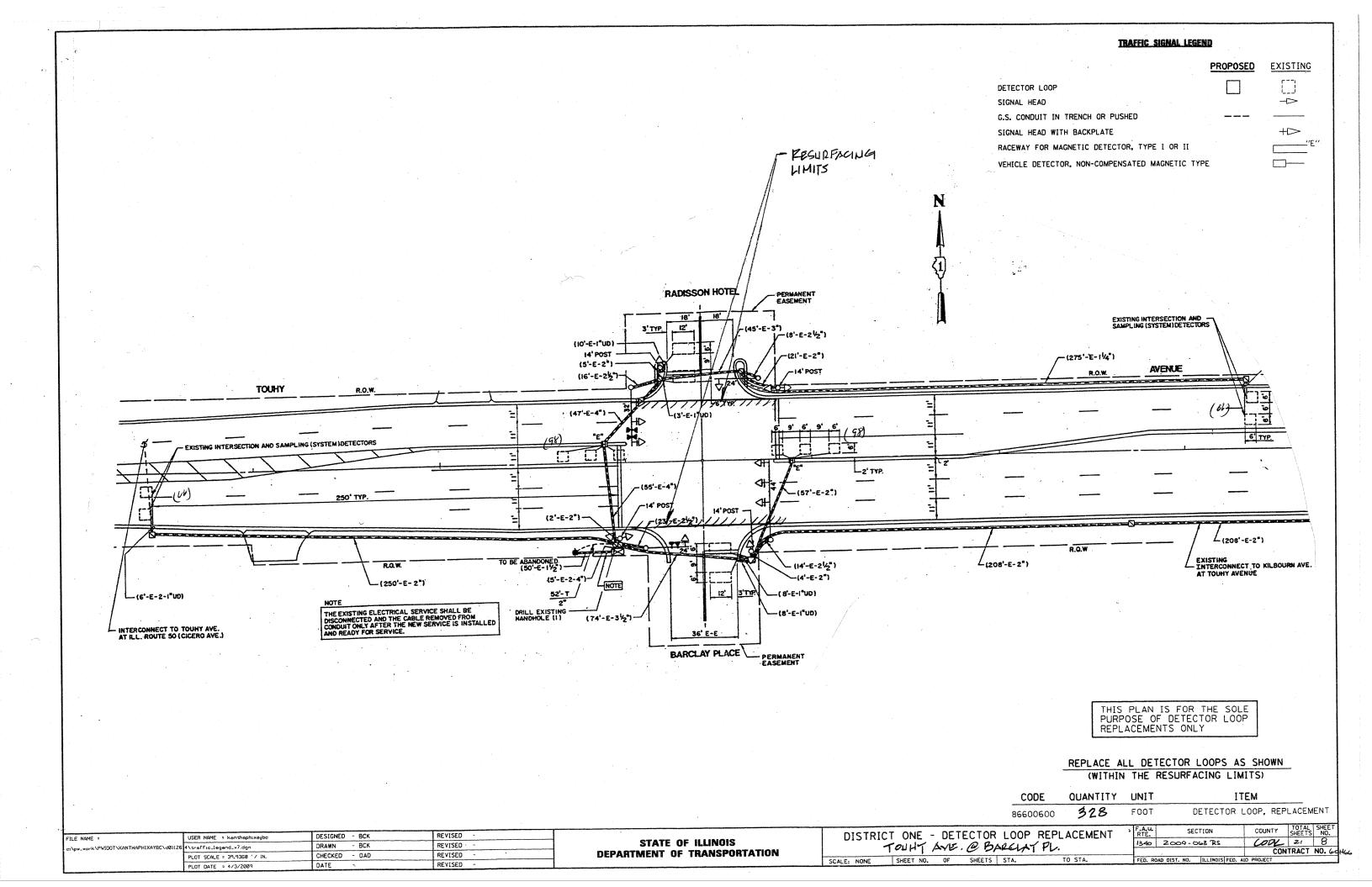
## NOTE: THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING

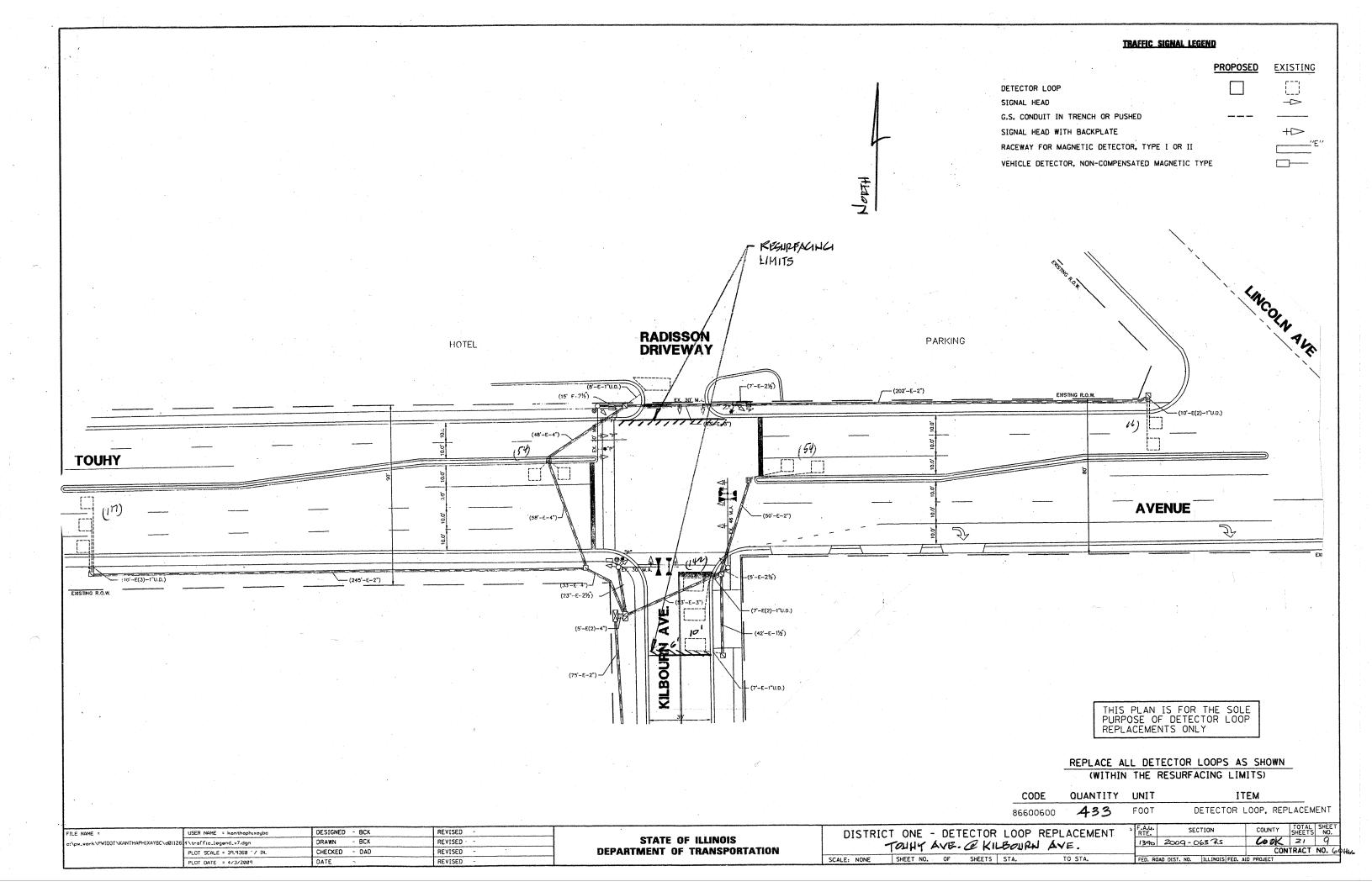
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-or/pwiwork/PWHDOT/GUILLAUMEFP/d0143288/D	9176409-sht-plan.dgn	DRAWN - REVISED -	REVISED -	STATE OF ILLINOIS		1340 2009-063 RS	COOK 21 4
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	TOUHY AVE. (LOCATION 1 & 2)		CONTRACT NO. 60H66
	PLOT DATE = 7/1/2009	DATE -	REVISED -		SCALE: 1"=50" SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED.	AID PROJECT

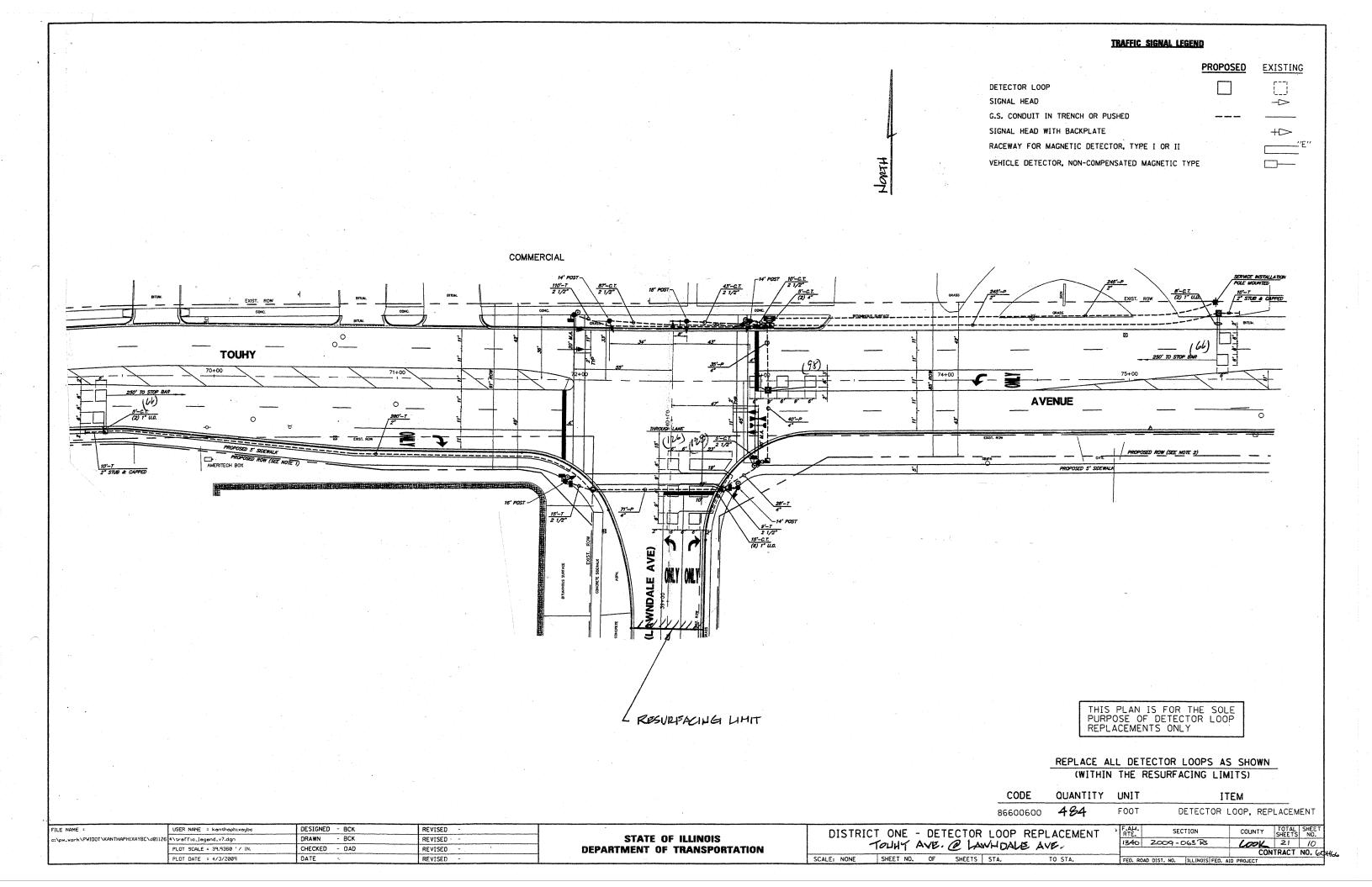


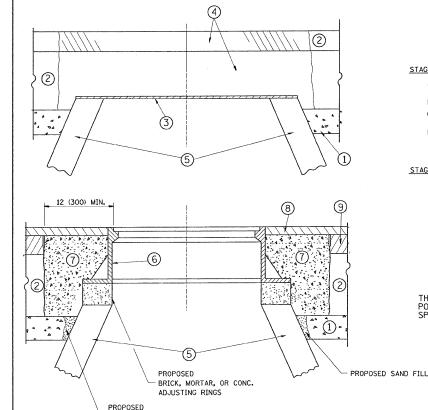












2 EXISTING PAVEMENT 3 36 (900) DIAMETER METAL PLATE

PROPOSED CRUSHED STONE AND HMA SURFACE MIX 5 EXISTING STRUCTURE

1 SUB-BASE GRANULAR MATERIAL

#### LEGEND

CONSTRUCTION PROCEDURES

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.

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 SURPACE 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.

STAGE 1 (BEFORE PAVEMENT MILLING)

STAGE 2 (AFTER PAVEMENT MILLING)

6 FRAME AND LID (SEE NOTES)

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.

### DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISED - R. SHAH 03-10-95 FILE NAME : JSER NAME = guillaumefp \pw\_work\PWIDOT\GUILLAUMEFP\dØI4320 76409-sht-plan.dqn DRAWN REVISED - A. ABBAS 03-21-97 PLOT SCALE = 50.0000 '/ IN. CHECKED REVISED - R. WIEDEMAN 05-14-04 10-25-94 REVISED - R. BORO 01-01-07

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

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

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

TOTAL SHEE SHEETS NO. COOK 21 BD600-03 (BD-8) CONTRACT NO. 60H66

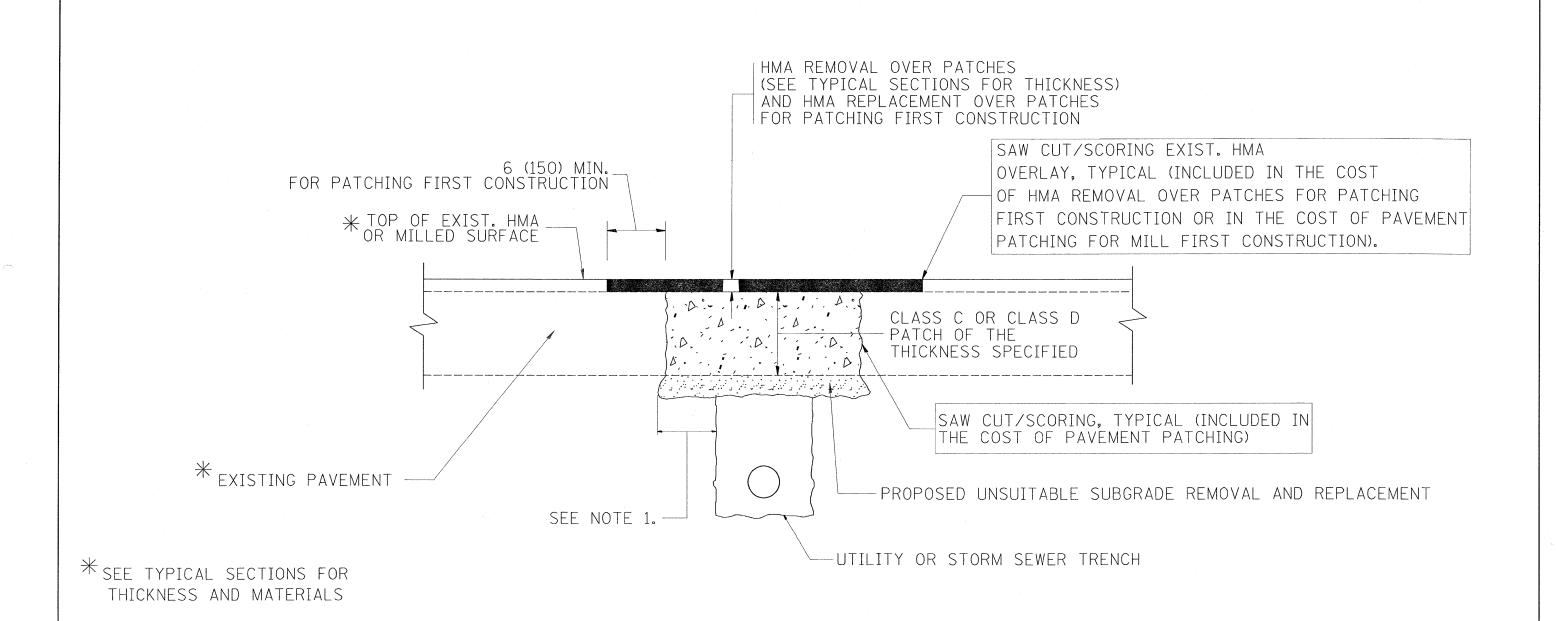
PROPOSED SAND FILL NOTES: EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENCINEER, REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS 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:

- 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".

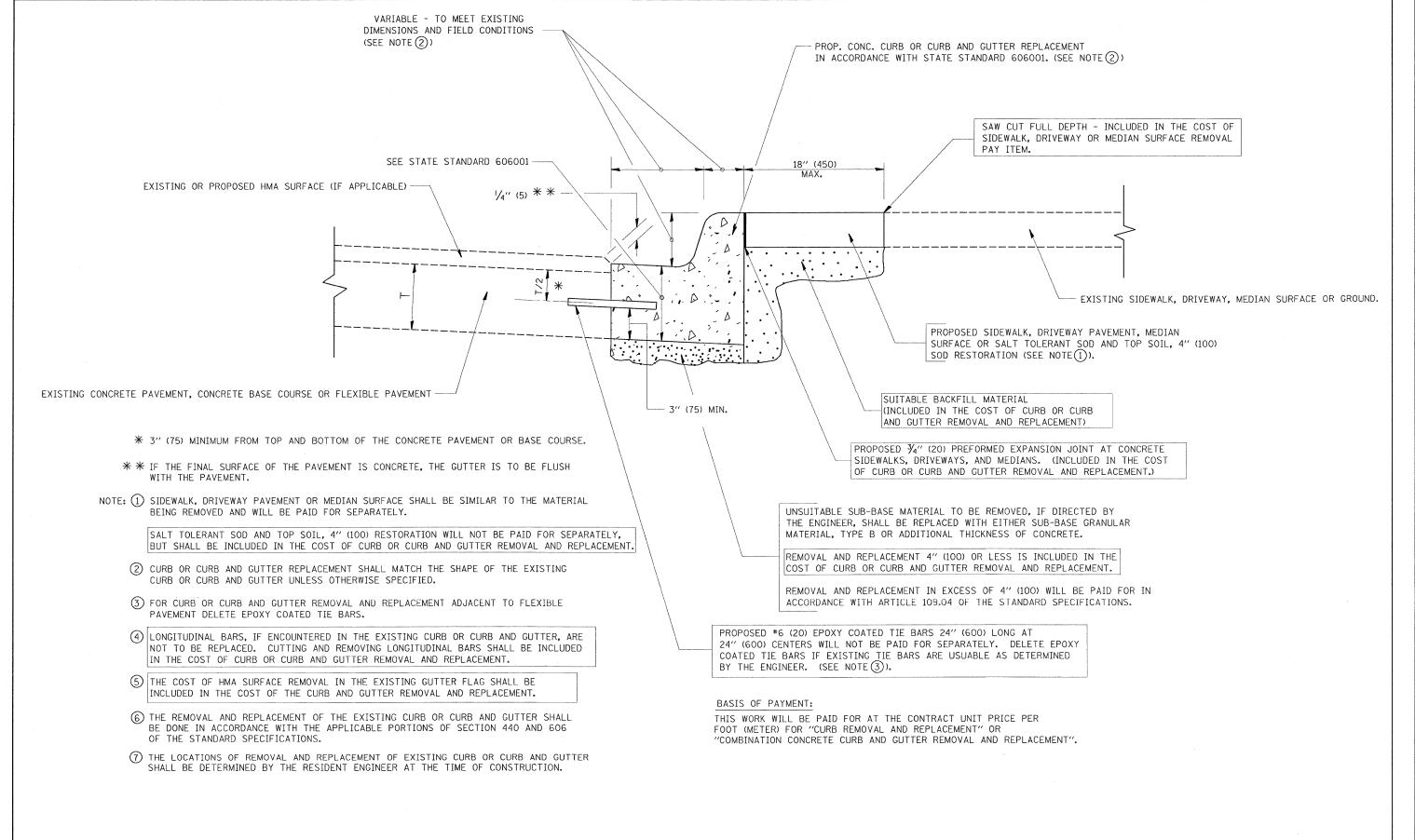
#### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 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)

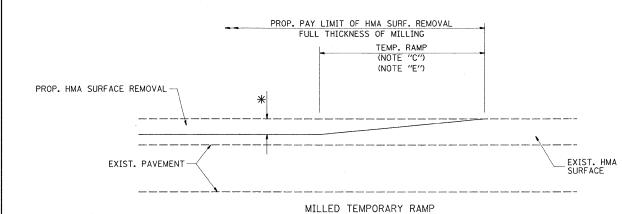
- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

	FILE NAME =	USER NAME = guillaumefp	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98		PAVEMENT PATCHING FOR	F.A.U SECTION	COUNTY TOTAL SHEET
	c:\pw_work\PWIDOT\GUILLAUMEFP\d0143208\	01764Ø9-sht-plan.dgn	DRAWN	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		1340 2009-063 RS	COOK 21 12
1		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT		CONTRACT NO. 60H66
		PLOT DATE = 6/23/2009	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. AID	



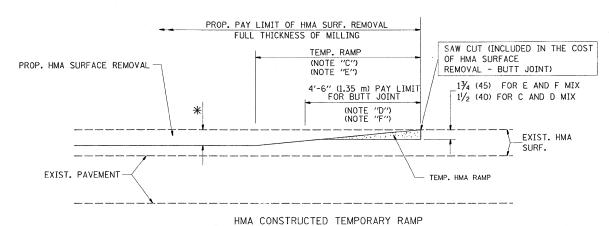
## CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

FILE NAME = USER NAME = gu:lloumefp DESIGNED - A. HOUSEH REVISED - R. SHAH 10-03-96	CURB OR CURB AND GUTTER	F.A.U SECTION COUNTY TOTAL SHEET NO.
al/pm_work/PWIDOT\GUILLAUMEFP\d0143288\D176489-sht-plan.dgn DRAWN - REVISED - A. ABBAS 03-21-97 STATE OF ILLINOIS		1340 2009-063 RS COOK 21 13
PLOT SCALE = 50.0000 1/ IN. CHECKED - REVISED - M. GOMEZ 01-22-01 DEPARTMENT OF TRANSPORTATION	REMOVAL AND REPLACEMENT	BD600-06 (BD-24) CONTRACT NO. 60H66
PLOT DATE = 6/23/2809 DATE - 03-11-94 REVISED - R. BORO 01-01-07	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

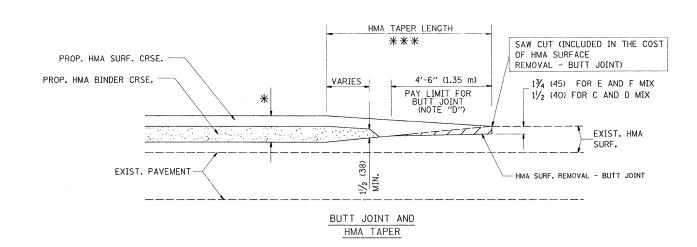
#### OPTION 1



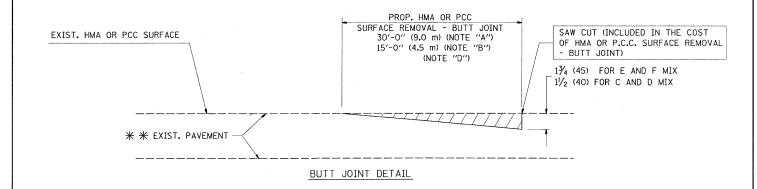
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

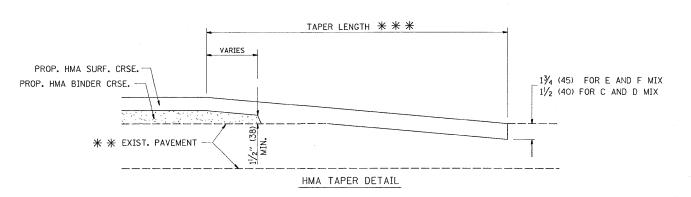
#### OPTION 2

#### TYPICAL TEMPORARY RAMP



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





## TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

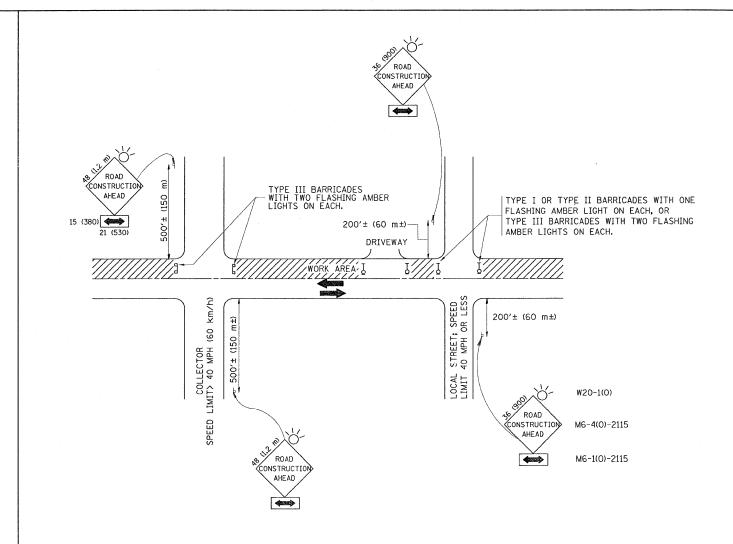
#### NOTES

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

FILE NAME =	USER NAME = guillaumefp	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94			BUTT JOINT AND	F	F.A.U SECTION	COUNTY TOTAL SHEET
c:\pwwork\PWIDOT\GUILLAUMEFF\d0143208\	D1764Ø9-sht-plan.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS	HMA TAPER DETAILS		1	340 2009-063 RS	COOK 21 14
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01	DEPARTMENT OF TRANSPORTATION				BD400-05 BD32	CONTRACT NO. 60H66
	PLOT DATE = 6/23/2009	DATE - 06-13-90	REVISED - R. BORO 01-01-07	·	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD 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
- 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:
- O) 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  $\times$  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 (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.

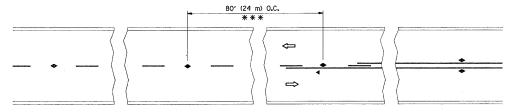
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = guillaumefp	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
c:\pw_work\PWIDOT\GUILLAUMEFP\dØ143208\	0176409-sht-plan.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 6/23/2009	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

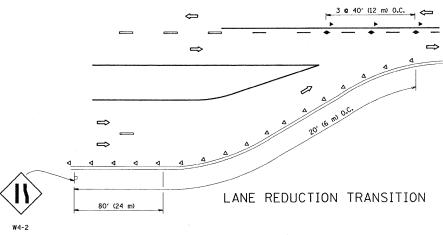
	TRAFFIC	CONTR	OL AND P	ROTECTIO	N FOR
	SIDE ROAD	S, INTER	SECTIONS	, AND DR	IVEWAYS
SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.

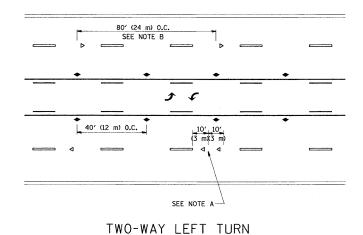
F.A.L RTE	,		SE	EC.	TION		COUNTY	TOTAL	S SI	IEE	
1340		20	009	-0	63 RS		COOK	21		15	
			TC-	-10	)		CONTRACT	NO.	60H66		
FED.	ROAD	DIST.	NO.	1	ILLINOIS	FED.	AID	PROJECT			



\*\*\* 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





80' (24 m) 0.C.

SEE NOTE B

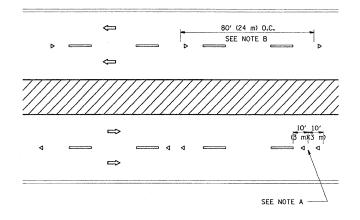
40' (12 m) 0.C.

35E NOTE B

40' (12 m) 0.C.

35E NOTE A

MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

#### GENERAL NOTES

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

#### LANE MARKER NOTES

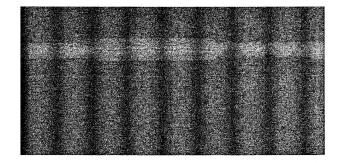
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

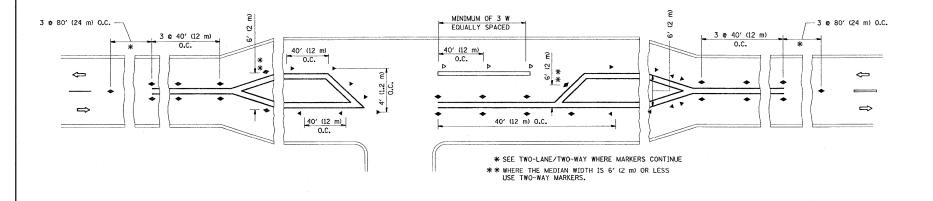
#### SYMBOLS

---- YELLOW STRIPE

WHITE STRIPE

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

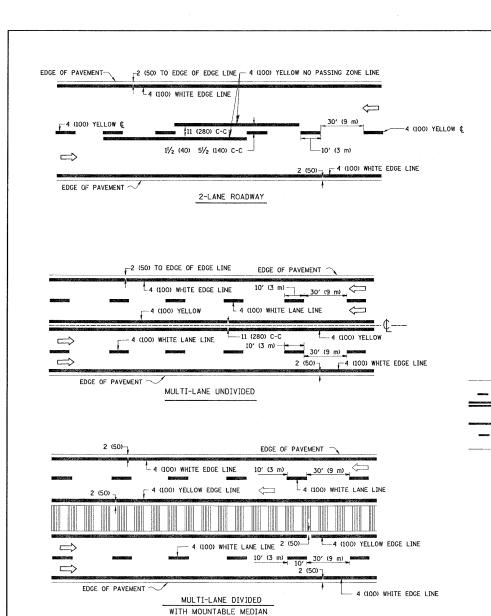




LEFT TURN

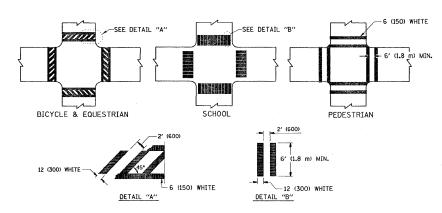
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED - T. RAMMACHER 09-19-94		TYPICAL APPLICATIONS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
c:\pw_work\PWIDOT\GUILLAUMEFP\d0143208\	0176409-sht-plan.dgn	DRAWN -	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS		1340	2009-063 RS	СООК	21 16
	PLOT SCALE = 50.0000 '/ IN.	CHECKED ~	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		TC-11	CONTRACT	T NO. 60H66
	PLOT DATE = 6/23/2009	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD	DIST. NO. 1   ILLINOIS   FED.	AID PROJECT	

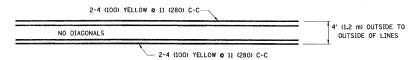


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

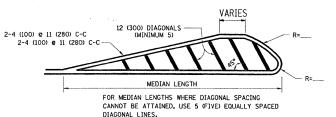
#### TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

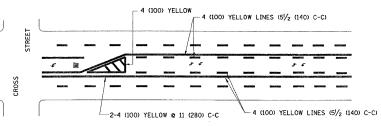


#### 4' (1.2 m) WIDE MEDIANS ONLY

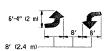


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

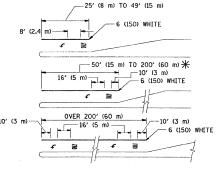


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS



MEDIAN WITH TWO-WAY LEFT TURN LANE

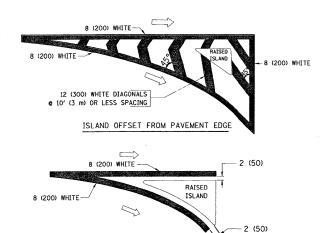
#### TYPICAL PAINTED MEDIAN MARKING



\* 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

	·			<b>F</b>
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 UNDIVEDED PAVEMENT	2 & 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>e</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	5/ <sub>2</sub> (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C ONIT 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; 51/2 (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 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°	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 TIFICAL FAINTED 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) <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)) 150' (45 m) C-C (0VER 45MPH (70 km/h))

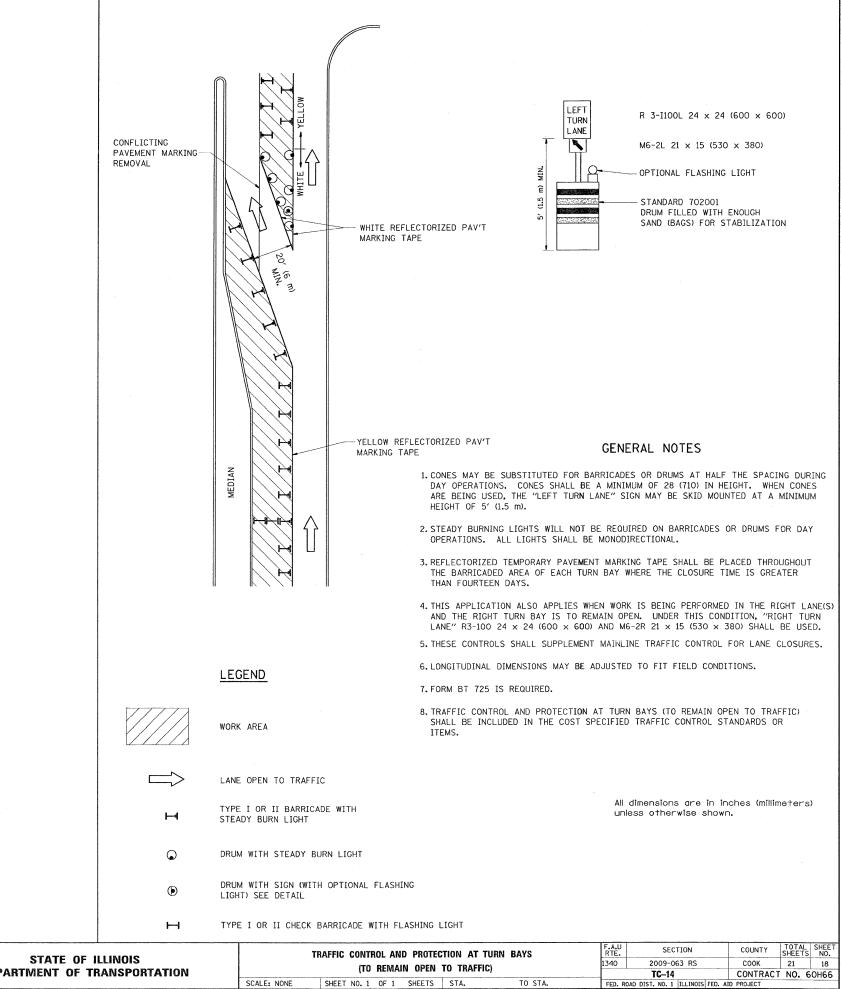
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME =	USER NAME = guilloumefp	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
c:\pw_work\PWIDOT\GUILLAUMEFP\dØ143208\	D176409-sht-plan.dgn	DRAWN -	REVISED -A. HOUSEH 10-09-96
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -A. HOUSEH 10-17-96
	PLOT DATE = 6/23/2009	DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

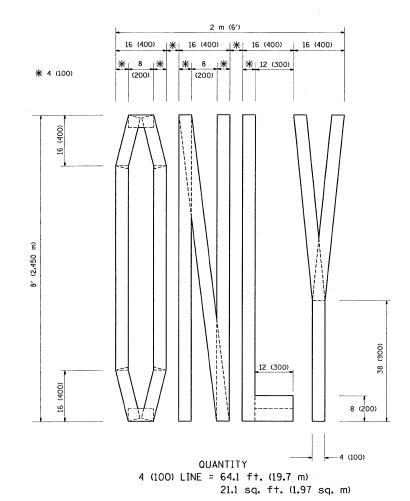
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

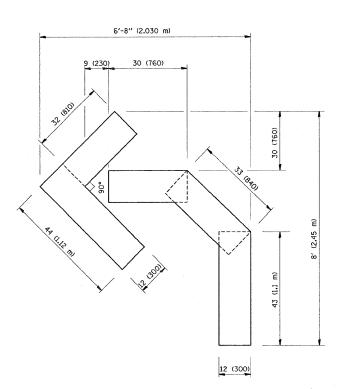
	DISTRICT ONE							F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
								1340	2009-063 RS	2009-063 RS COOK		17		
			11171	UML FA	A TIMTIA I	MANMINUS		TC-13		CONTRACT	NO. 6	60H66		
	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



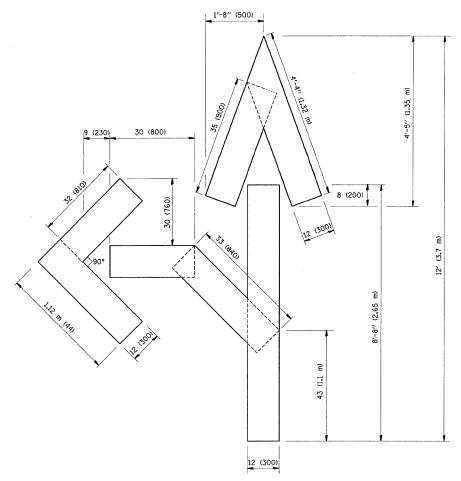
FILE NAME = DESIGNED REVISED -T. RAMMACHER 09-08-94 USER NAME = guillaumefp ::\pw\_work\PWIDOT\GUILLAUMEFP\d0143208\D1 DRAWN REVISED - A. HOUSEH 11-07-95 PLOT SCALE = 50.0000 '/ IN. CHECKED REVISED - A. HOUSEH 10-12-96 PLOT DATE = 6/23/2009 DATE REVISED -T. RAMMACHER 01-06-00

**DEPARTMENT OF TRANSPORTATION** 





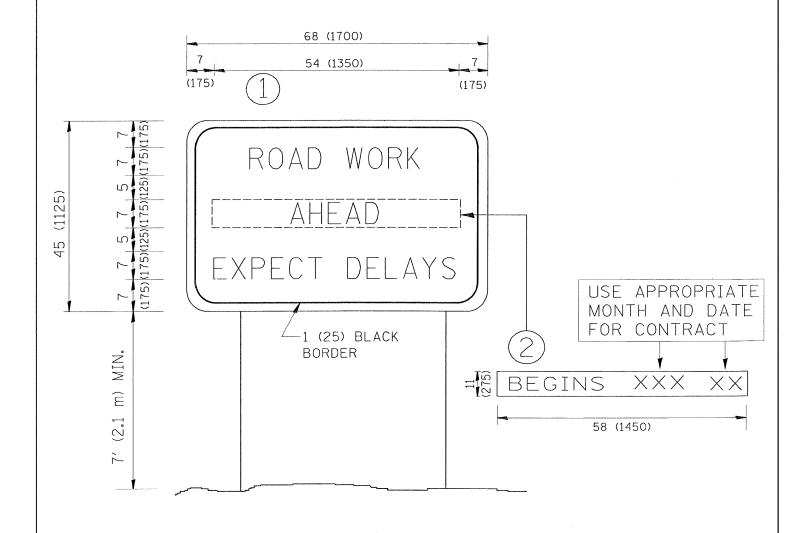
OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



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

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

FILE NAME =	USER NAME = guilloumefp	DESIGNED -	REVISED -T. RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.U SECTION	COUNTY TOTAL SHEET
o:\pw_work\PWIDOT\GUILLAUMEFP\d0143208\	0176409~sht-plan.dgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS	FOR TRAFFIC STAGING	1340 2009-063 RS	COOK 21 19
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION		TC-16	CONTRACT NO. 60H66
	PLOT DATE = 6/23/2009	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AT	D 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.

FI	ILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD		ΔD	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
c:	\pw_work\PWIDOT\GUILLAUMEFP\dØ1432Ø8\D	i76409-sht-plan.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		INFORMATION		1340	2009-063 RS	соок	21 20
1	PLOT SCALE = 50.0000 '/ IN.		CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION			TC-22 CON		CONTRACT	T NO. 60H66	
		PLOT DATE = 6/23/2009	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD	DIST. NO. 1   ILLINOIS FED. A	D PROJECT	

#### LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT
NOTE WHICH SHOULD EQUAL
37 (900 mm). X WIDTH OF
PAVED SHOULDER.

PAVED OR
NON-PAVED
SHOULDER

PAVED OR
NON-PAVED
SHOULDER

\* = (600 mm)

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

5′

(3.0 m)

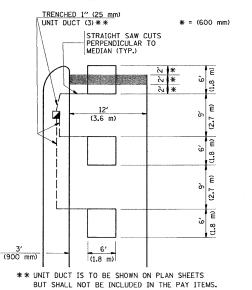
(1.5 m) (1.8 m) (1.5 m) \*

(3.0 m)

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

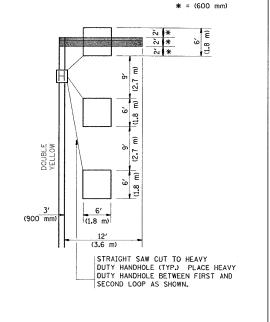
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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 REPLACEMEN

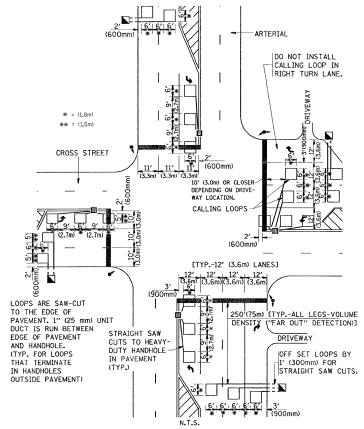
SCALE: NONE

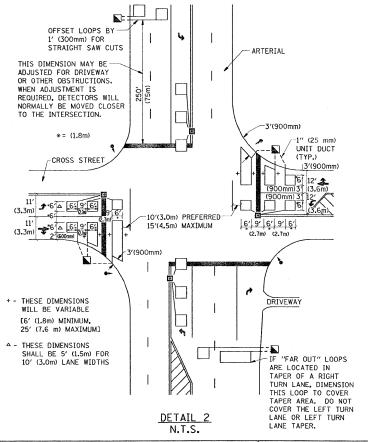
ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)

1" (25 mm) UNIT DUCT-TRENCHED

TO E/P \*\*

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
  (1.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

#### PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON  $\underline{\text{ALL}}$  SIGNAL LAYOUT PLAN SHEETS.

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

#### 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.

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DETAIL 1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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