STATE OF ILLINOIS

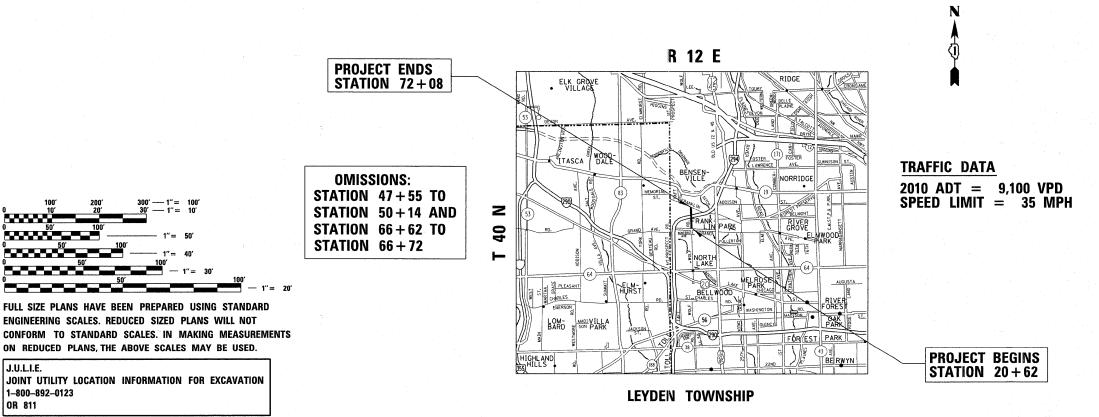
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAU ROUTE 2690: WOLF ROAD FRANKLIN STREET TO GRAND AVENUE SECTION: 2527–RS–2 **COOK COUNTY**

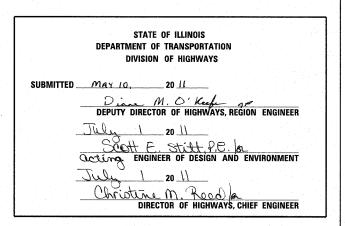
> **RESURFACING (3P)** C-91-096-11



COOK 22 2527-RS-2 ILLINOIS CONTRACT NO. 60M29

D-91-096-11





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER: DAN WILGREEN (847) 705-4240

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT

ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT IS LOCATED IN

THE VILLAGE OF FRANKLIN PARK

PROJECT MANAGER: KEN ENG

GROSS LENGTH OF IMPROVEMENT = 5,146 FEET = 0.97 MILES NET LENGTH OF IMPROVEMENT = 4877 FEET = 0.92 MILES

CONTRACT NO. 60M29

1-800-892-0123

OR 811

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INDEX OF SHEETS

STATE STANDARDS

SHE	ET NO.	DESCRIPTION	
		TITLE CUEET	
	1	TITLE SHEET	
	2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	
	3	SUMMARY OF QUANTITIES	
	4-5	EXISTING AND PROPOSED TYPICAL SECTIONS	
	6-7	ROADWAY AND PAVEMENT MARKING PLANS	
	8-10	DETECTOR LOOP REPLACEMENT PLANS	
	11	DETAILS FOR FRAME AND LIDS ADJUSTMENT WITH MILLING	
	12	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	
	13	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	
	14	BUTT JOINT AND HMA TAPER DETAILS	
	15	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS	
	16	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	
	17	DISTRICT ONE TYPICAL PAVEMENT MARKINGS	
	18	TRAFFIC CONTROL AND PROTECTION OF TURN BAYS (TO REMAIN OPEN TO TRAFFIC)	
	19	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING	
	20	ARTERIAL INFORMATION SIGNING	
	21	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
	22	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING	

STANDARD NO	<u>DESCRIPTION</u>
000001 -06	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
442201 -03	CLASS C AND D PATCHES
606001 -04	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
701011 -02	OFF-ROAD MOVING OPERATIONS 2L, 2W DAY ONLY
701301 -04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701501 <i>-0</i>	URBAN LANE CLOSURE,2L, 2W, UNDIVIDED
701901 -01	TRAFFIC CONTROL DEVICES
886001 -01	DETECTOR LOOP INSTALLATION
886006 -01	TYPICAL LAYOUT FOR DETECTION LOOPS

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION REQUIRED)

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

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

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 11/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED LIMIT IS OVER 45 MPH. WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISABILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

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

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

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.

THE RESIDENT ENGINEER SHALL CONTACT MR. WALLY CZARNY, AREA TRAFFIC FIELD ENGINEER, AT (847) 715-8419 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

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

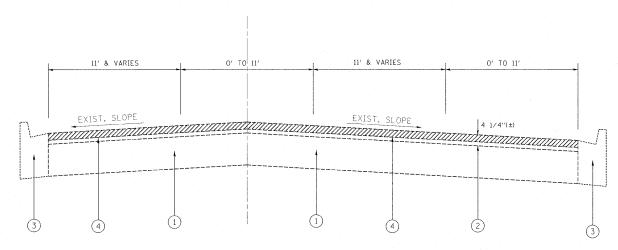
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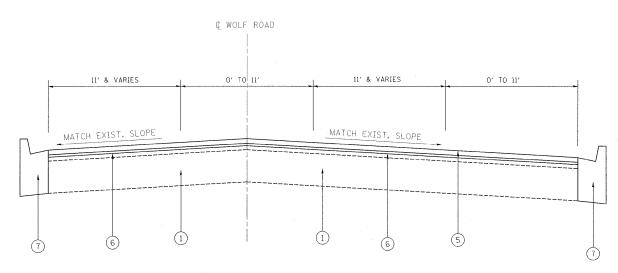
WOLF ROAD (FRANKLIN ST. TO GRAND AVE.)	-	F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
IDEX OF SHEETS, STATE STANDARDS AND GENERAL N	OTES	2690	2527 RS-1	COOK	. 22	2
				CONTRACT	NO. 6	50M29
SHEET NO. OF SHEETS STA. TO STA			ILLINOIS FE	D. AID PROJECT		

	SUMMARY OF QUANTITIES		URBAN 1001.STATE	·	(CONSTRUCT	TION TYPE	CODE	T		SUMMARY OF QUANTITIES		URBAN 100% STATE			CONSTRUCT	ION TYPE	CODE	T
CODE NO	ITEM	UNIT	TOTAL QUANTITIES				-			CODE NO	ITEM	UNIT	TOTAL						
	• • • • • • • • • • • • • • • • • • •			0005					10 to			Sivi i	GOANTITIES	0005					
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	34	34						* 78000600	THERMOPLASTIC PAVEMENT MARKING	FOOT	69	69				1	
25200110	SODDING, SALT TOLERANT	SO YD	34	34					- C		- LINE 12"								
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	14	14						* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	119	119	1				
40600300	AGGREGATE (PRIME COAT)	TON	70	70						* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	164	164					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	27	27						78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	,148	148				200	
40600895	CONSTRUCTING TEST STRIP	EACH	2	2 1				·		*88600600	DETECTOR LOOP REPLACEMENT	FOOT	1518	1518					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	181	181						X2020110	GRADING AND SHAPING SHOULDERS	UNIT	48	48					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1463	1463						X4060826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	719	719					
42001300	PROTECTIVE COAT	SO YD	45	45						X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	22	22					
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 21/4	SQ YD	17410	17410						Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	200	200					
44201777	CLASS D PATCHES, TYPE II, 11 INCH	SQ YD	450	450			-	-		Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	10	10					
44201781	CLASS D PATCHES, TYPE III, 11 INCH	SQ YD	110	110						Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4					
44201783	CLASS D PATCHES, TYPE IV, 11 INCH	SQ YD	540	540						Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1					
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	190	190															
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	6	6															
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6				, .											
67100100	MOBILIZATION	L SUM	. 1	1															
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1															
70300100	SHORT TERM PAVEMENT MARKING	FOOT	2838	2838															
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	218	218															
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	16362	16362															
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	764	764															
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	69	69															
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	119	119															
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	946	946															
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	218	218															
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	16362	16362															
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	764	764															
											* SPECIALTY ITEMS								
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i .	nmi^d0246754\Di096II-sN-planzgn DR.	AWN -		REVISED	_					ILLINOIS	WOLF ROAD (FRAI	NKLIN ST.TO IY OF QUANT		E.)	F.A. RTE. 2690		7 RS-2	COOK	SHEETS NO.
		ECKED TE ~		REVISED REVISED		*		DEPAKIN	CINI UF	TRANSPORTA	SCALE: SHEET NO. OF			O STA.	FED.	ROAD DIST. NO. 1	ILLINOIS FED. A		NO. 60M29



EXISTING TYPICAL SECTION WOLF RD.

STATION: 20+62 TO 26+00 33+50 TO 47+55 50+14 TO 56+00



PROPOSED TYPICAL SECTION WOLF RD.

STATION: 20+62 TO 26+00 33+50 TO 47+55 50+14 TO 56+00

LEGEND

- 1 EXIST. PCC BASE COURSE, 9"(±)
- ② EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING), 4 1/4"(±)
- (3) EXIST. CONCRETE CURB AND GUTTER
- (4) PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4"
- (5) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- (6) PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- 7 PROP. CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)

NOTES:

SCALE: NONE

- 1. SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF LEFT TURN LANES AND PAINTED MEDIANS.
- 2. MILLING OF THE ROADWAY SHALL BE DONE PRIOR TO PAVEMENT PATCHING.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

	MIXTURE TYPE	AIR VOIDS (%)
ROADWAY	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5MM), 1 1/2"	4% @ 70 GYR
TOADWAT	POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"	4% @ 50 GYR
PATCHES	CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

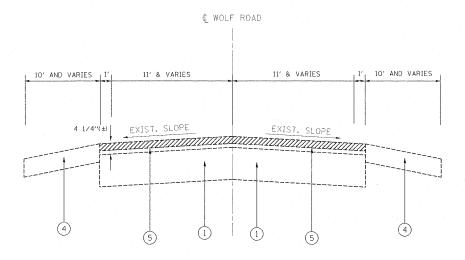
THE "AC TYPE" FOR ALL POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22 AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

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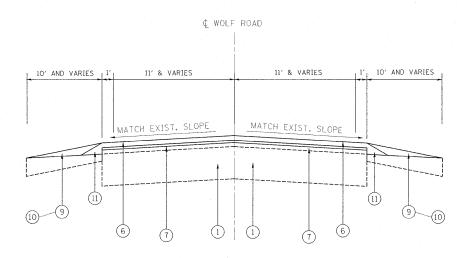
WOLF ROAD EXISTING A	•				
SHEET NO.	OF	SHEETS	STA.	TO STA	

CONTRACT NO. 60M29										
690	2527 RS-2	COOK	22	4						
.A.U. RTE,	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.						



EXISTING TYPICAL SECTION WOLF RD.

STATION: 26+00 TO 33+50 56+00 TO 72+08

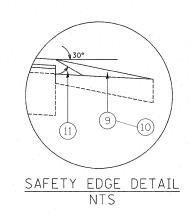


PROPOSED TYPICAL SECTION WOLF RD.

STATION: 26+00 TO 33+50 56+00 TO 72+08

LEGEND

- 1 EXIST. PCC BASE COURSE, 9"(±)
- (2) EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING), 4 1/4"(±)
- (3) EXIST. CONCRETE CURB AND GUTTER
- (4) EXIST. AGGREGATE SHOULDER
- (5) PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4"
- (6) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- (7) PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)
- 9 PROP. GRADING AND SHAPING SHOULDERS
- 10 PROP. AGGREGATE WEDGE SHOULDER, TYPE B
- (11) SAFETY EDGE

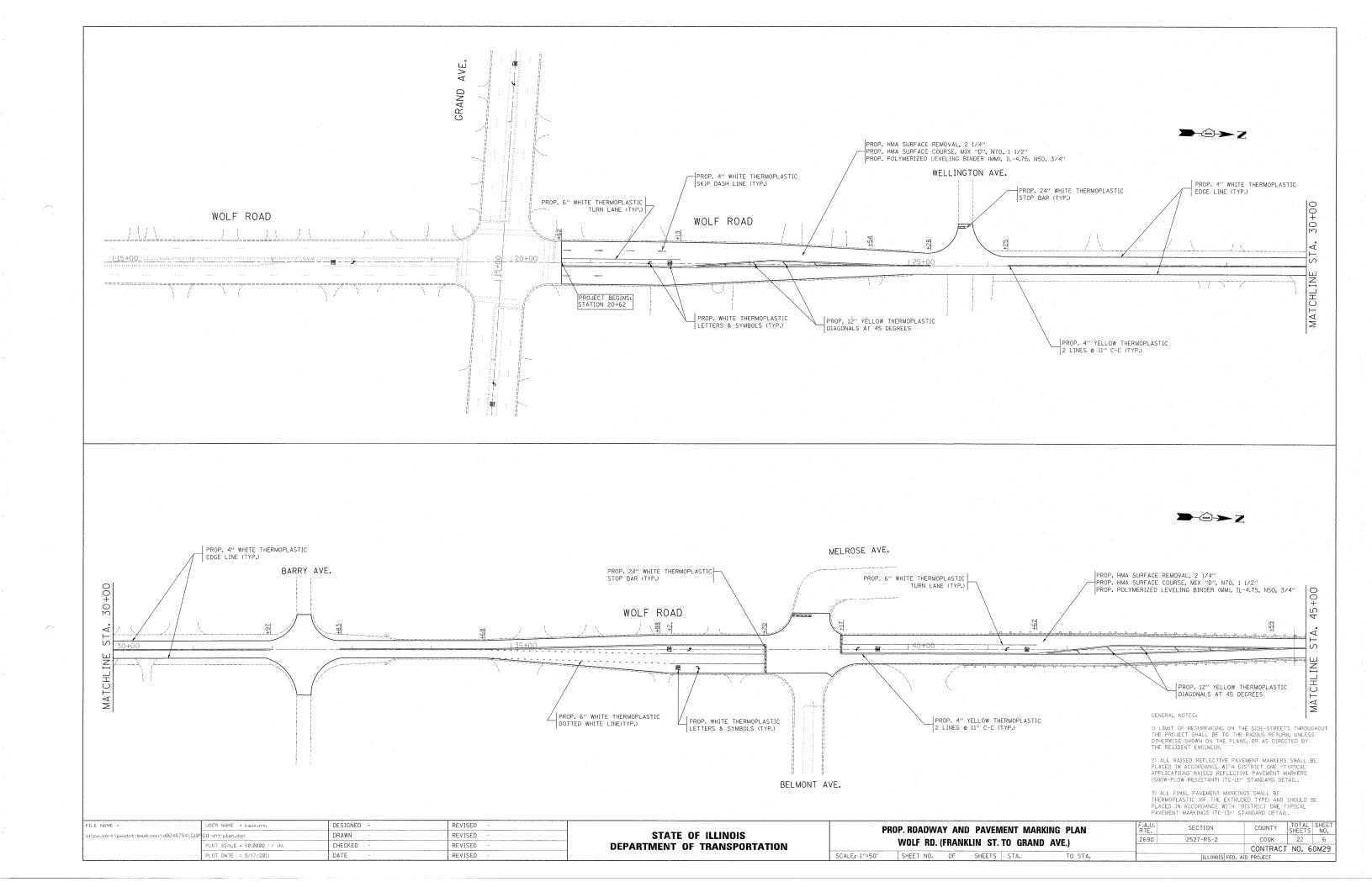


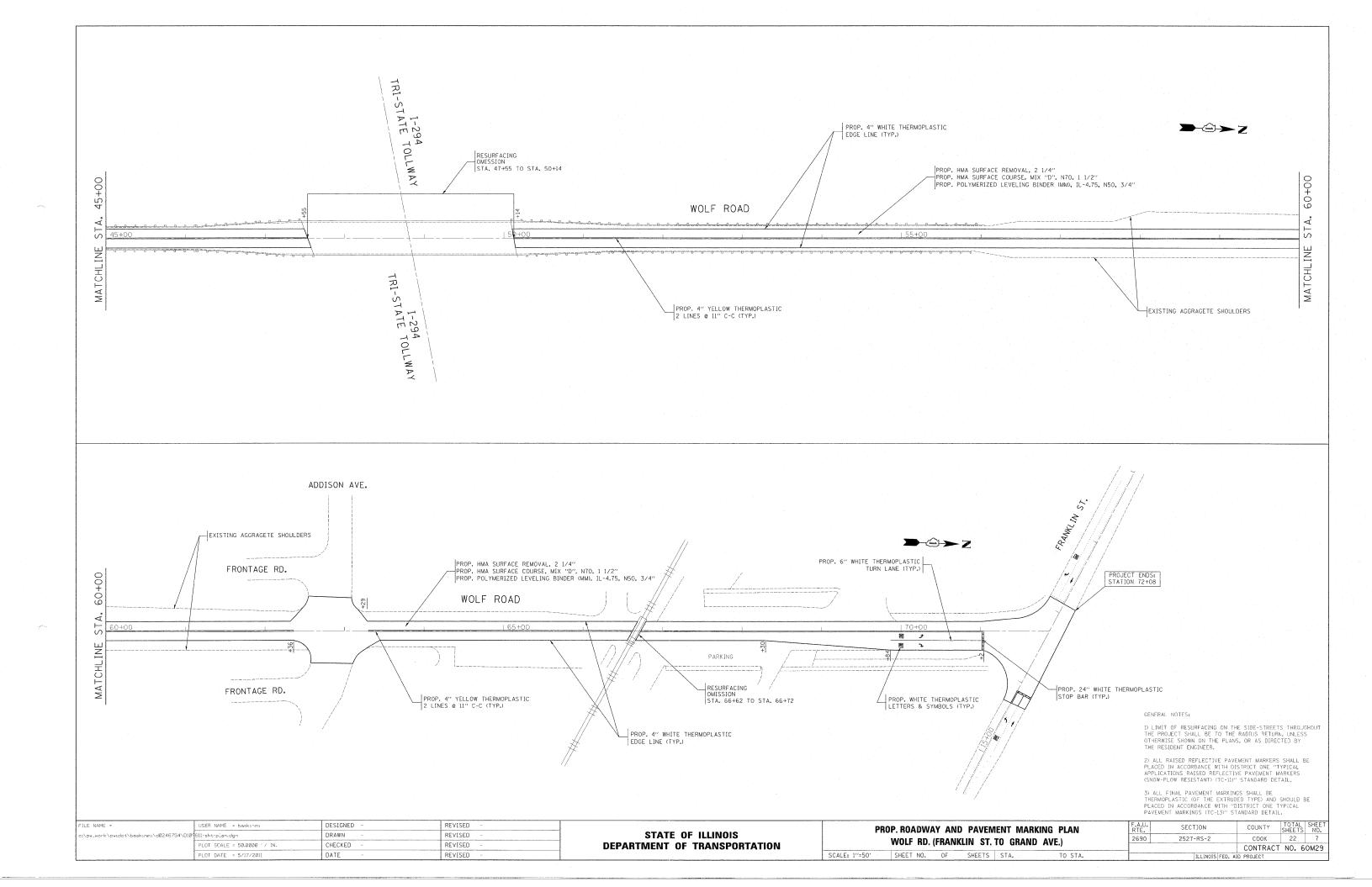
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STATE	: OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

	WOLF ROA	D (FRAN	IKLIN ST	r. TO GR	AND	AVE.)	
	EXISTING	AND PR	OPOSED	TYPICA	L SEC	TIONS	
-	SHEET NO	OF	SHEETS	STA		TO 9	ΔTΛ

.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
690	2527 RS-2	COOK	22	5
		CONTRACT	NO. 6	OM29
	ILLINOIS FED. A	D PROJECT		





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

TRAFFIC SIGNAL LEGEND

PROPOSED EXISTING

SIGNAL HEAD WITH BACKPLATE

SIGNAL HEAD

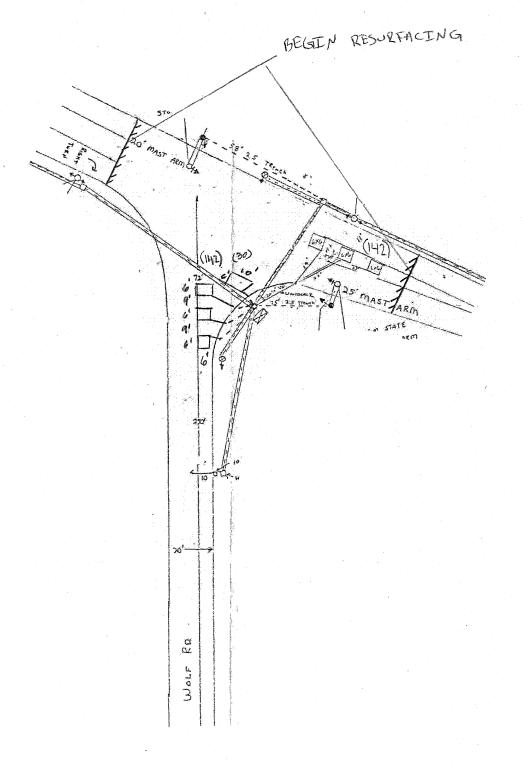
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED

DETECTOR LOOP

VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE

RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II

"E"



REPLACE ALL DETECTOR LOOPS AS SHOWN

(WITHIN THE RESURFACING LIMITS)
CODE QUANTITY UNIT

86600600 314

FOOT

DETECTOR LOOP, REPLACEMENT

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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

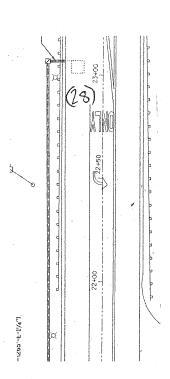
DISTRICT ONE - DETECTOR LOOP REPLACEMENT

WOLFRO FRANKLIN AVE

SCALE: SHEET NO. OF SHEETS STA. TO STA.

ITEM

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



SIGNAL HEAD WITH BACKPLATE SIGNAL HEAD GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED DETECTOR LOOP VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE MENCH LIVE A-A RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II MATCH LINE B-B BELMONT AVE. (20% RESURFACING LIMITS MATCH LINE B-B

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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE - DETECTOR LOOP REPLACEMENT
WOLF RO BELIDAT AVE

SCALE: SHEET NO. OF SHEETS STA. TO STA.

CODE

86600600

SECTION COUNTY TOTAL SHEETS NO.

ITEM

ONE - DETECTOR LOOP REPLACEMENT

QUANTITY

638

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

FOOT

TRAFFIC SIGNAL LEGEND

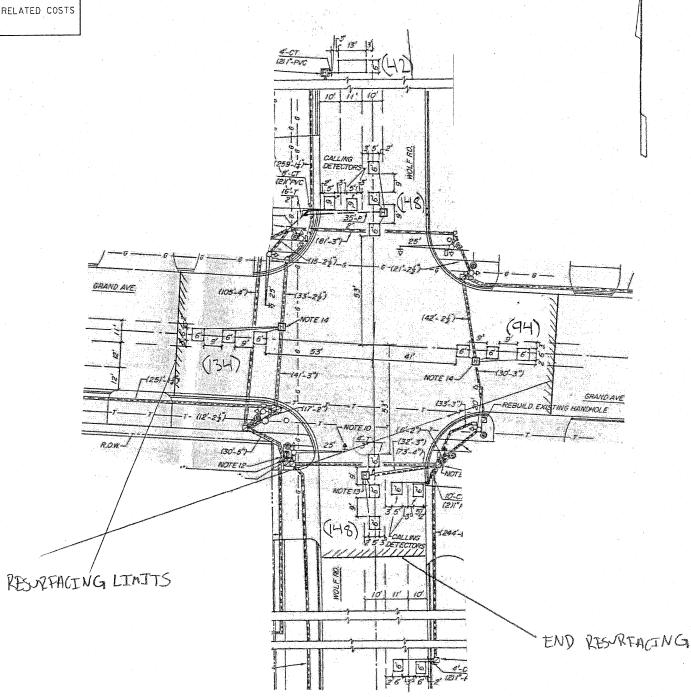
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WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION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



TRAFFIC SIGNAL LEGEND

PROPOSED EXISTING

SIGNAL HEAD WITH BACKPLATE

SIGNAL HEAD

GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED

DETECTOR LOOP

VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE

RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II

"E"

(WITHIN THE RESURFACING LIMITS)

CODE QUANTITY UNIT ITEM

86600600 566 FOOT DETECTOR LOOP, REPLACEMENT

REPLACE ALL DETECTOR LOOPS AS SHOWN

THIS PLAN IS FOR THE SOLE PURPOSE OF

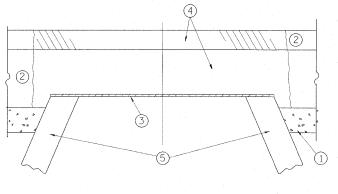
DETECTOR LOOP REPLACEMENTS ONLY

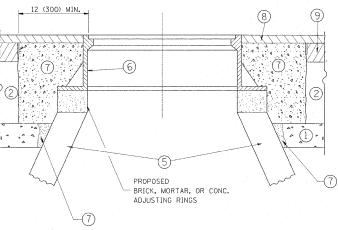
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE - DETECTOR LOOP REPLACEMENT

WOLF LO GRAND AVE

CALE: SHEET NO. OF SHEETS STA. TO STA. F





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.

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM
- AROUND THE STRUCTURE.

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

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1*
 CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- * UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

LEGEND

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

9 PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: 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

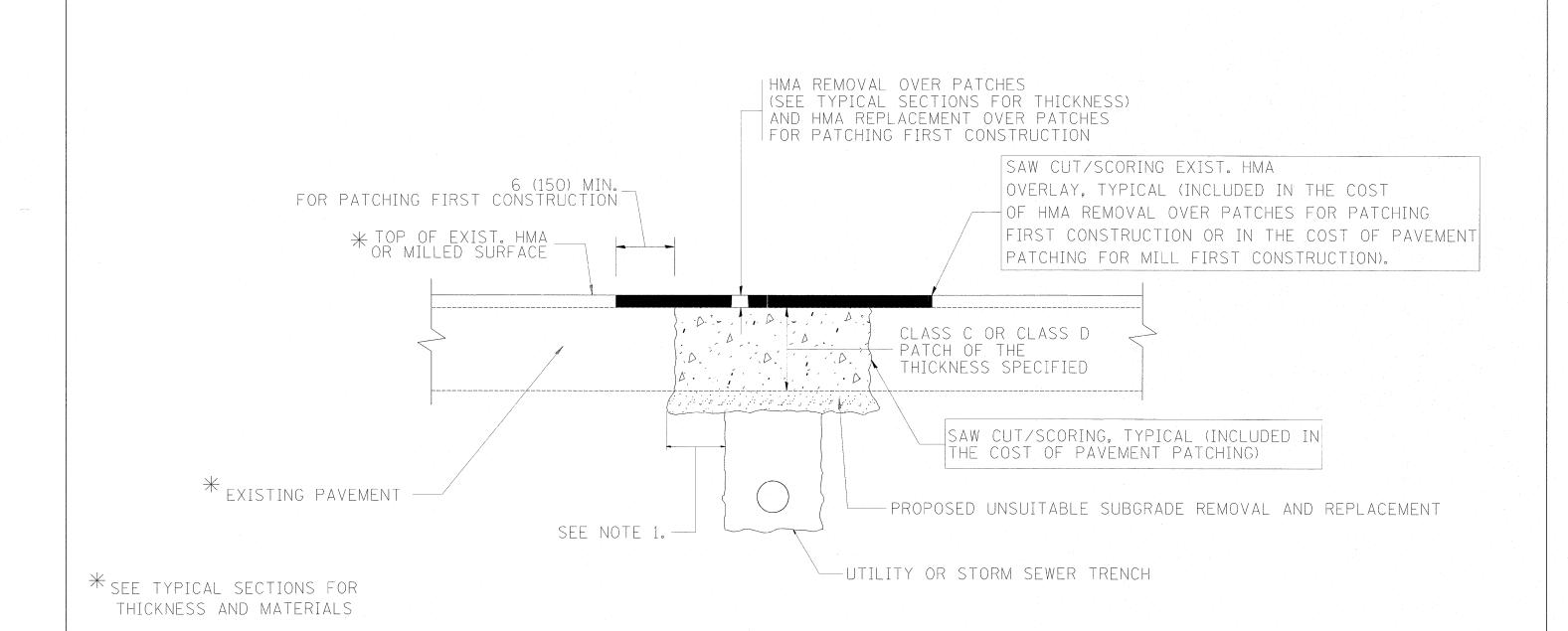
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = baskinmi	DESIGNED - R. SHAH	REVISED - A. ABBAS 03-21-97
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 5/17/2011	DATE - 10-25-94	REVISED - R. BORO 03-09-11

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

	FRAMES AND LI	DS ADJUSTMENT WITH	MILLING
SCALE: NONE	SHEET NO. 1 OF	1 SHEETS STA.	TO STA.

SECTION COUNTY SHEETS NO. COOK BD600-03 (BD-8) CONTRACT NO. 60M29



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)

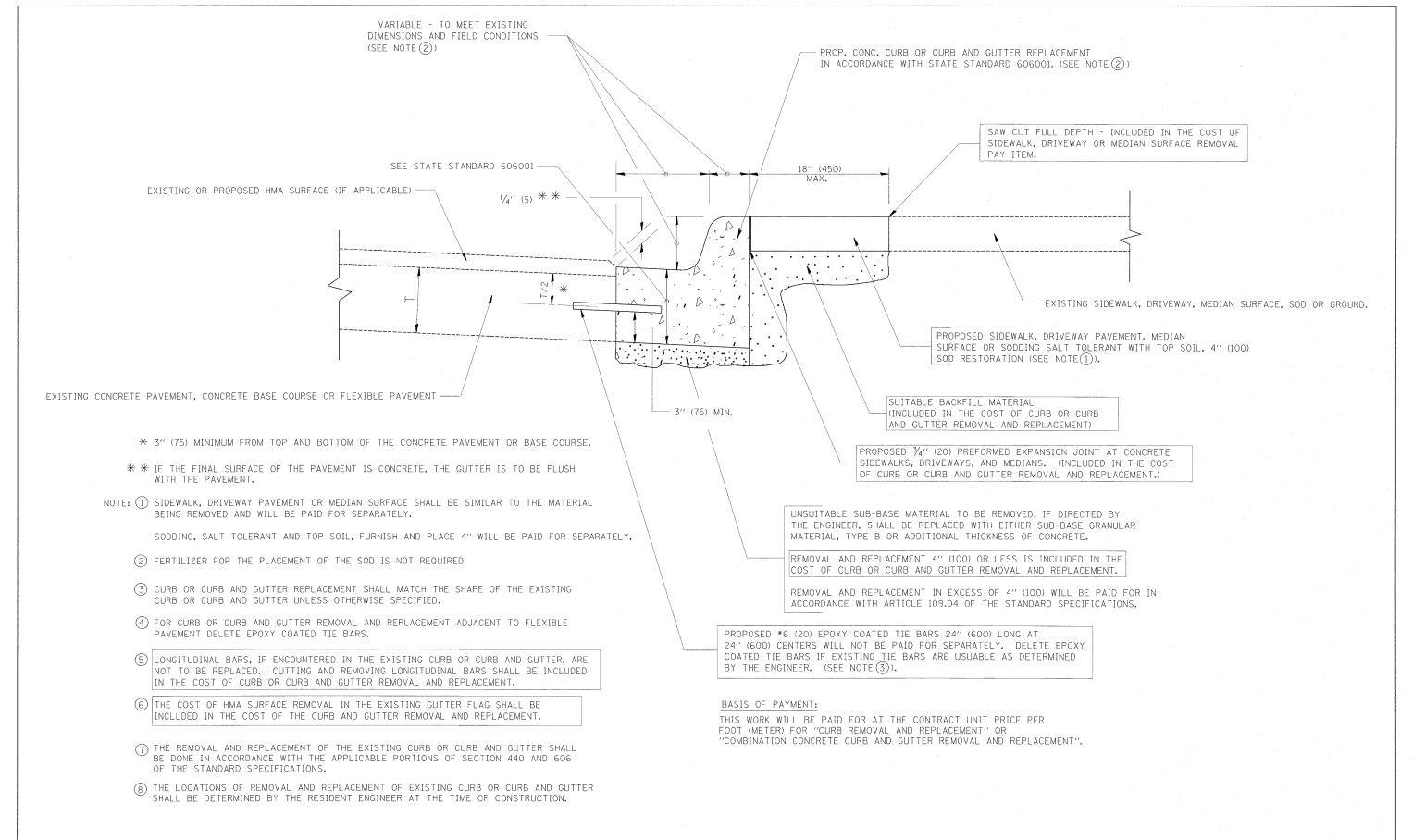
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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.

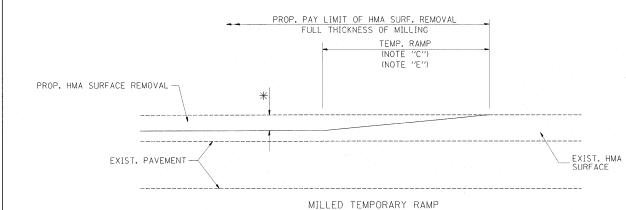
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	PLOT SCALE = 50.2000 '/ IN.	CHECKED -	REVISED -	R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT				BD400-04 (BI	D-22)	CONTRACT	NO. 6)M29		
	PLDT DATE = 5/17/2011	DATE - 10-25-94	REVISED -	K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. RO	AD DIST. NO. 1 I	LLINOIS FED. AI	D PROJECT		



CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

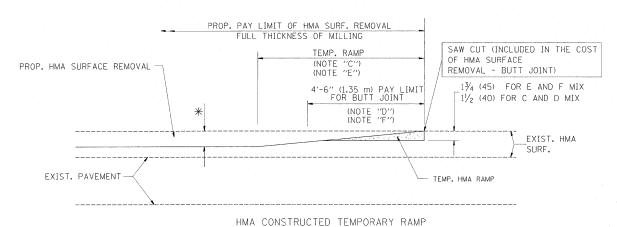
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

	PLOT DATE = 5/17/2011	DATE - 03-11-94	REVISED - R. BORO 12-15-09	DEPARTMENT OF TRANSPORTATION	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	BD600-06 (BD-24)	CONTRACT NO. 60M29
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	4) D 4C+1 d	DRAWNI -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS	CURB OR CURB AND GUTTER	RTE. SECTION	COUNTY SHEETS NO.
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(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

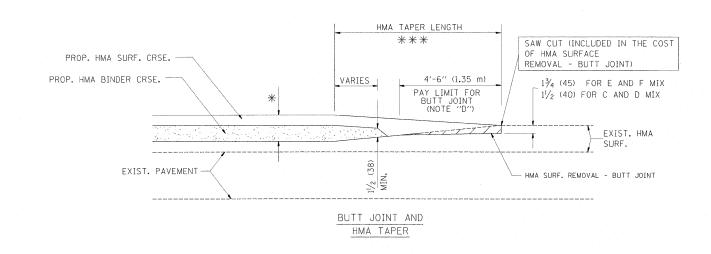
OPTION 1



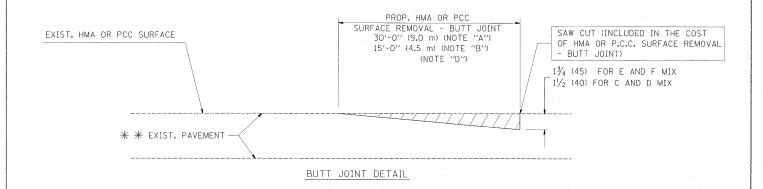
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

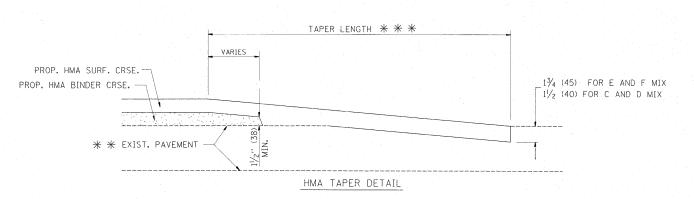
OPTION 2

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")

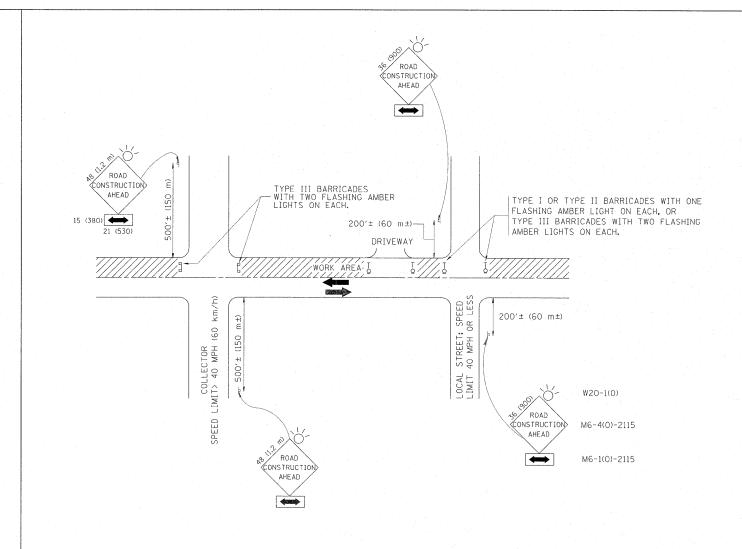
BASIS OF PAYMENT:

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".

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

FILE NAME =	USER NAME = baskinmi	DESIGNED -	M. DE YONG	REVISED	-	R. SHAH 10-25-94
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -		REVISED		M. GOMEZ 04-06-01
	PLOT DATE = 5/17/2011	DATE -	06-13-90	REVISED		R. BORO 01-01-07

	BU	TT JOINT A	AND		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
	НМА	TAPER DE	PHAT		2690	2527 RS-1	COOK	22	14
			IAILO			BD400-05 BD32	CONTRACT	NO.	60M29
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
- 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:
- o) 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).

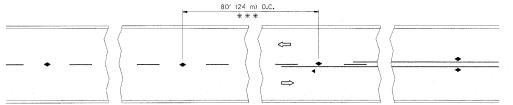
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL 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 = baskinmi	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 5/17/2011	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

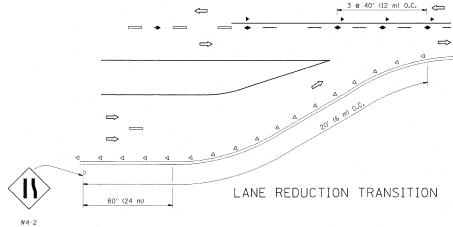
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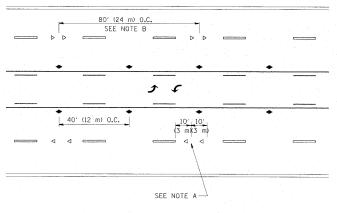
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2690	2527 RS-1	COOK	22	15
.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.



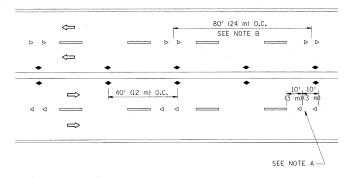
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

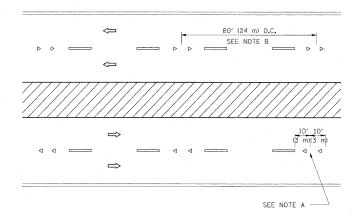




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 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 (₩/O)
- ◆ TWO-WAY AMBER MARKER

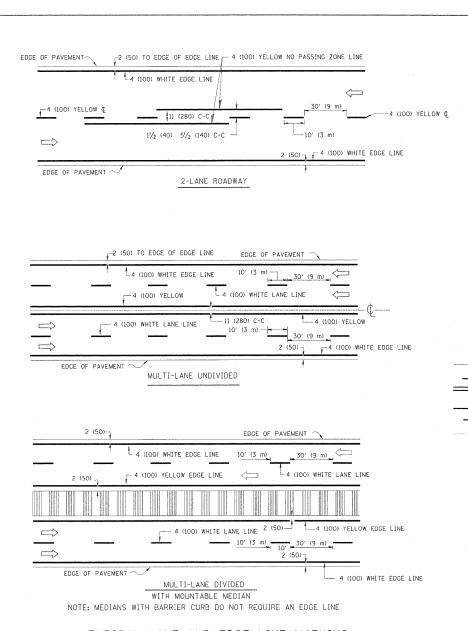
DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

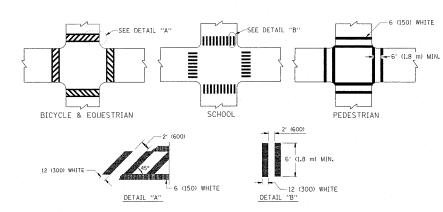
LEFT TURN

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

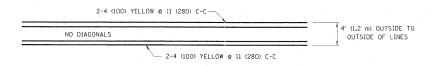
FILE NAME =	USER NAME = baskinmi	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	,	TYPICAL APPLICATIONS	F.A.U. SECTION	COUNTY TOTAL SHEET
c:\pw_work\pwidot\baskinmi\dØ246754\Dis	t\$td.dgn	DRAWN -	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS		2690 2527 RS-1	COOK 22 16
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	NAISED REFLECTIVE PAVEINENT MARKENS (SMUVV-PLUVV RESISTANT)	TC-11	CONTRACT NO. 60M29
	PLOT DATE = 5/17/2011	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FEE	D. AID PROJECT



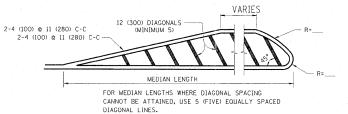
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



4' (1.2 m) WIDE MEDIANS ONLY

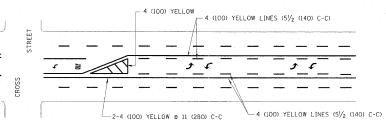


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))

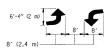
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))

150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

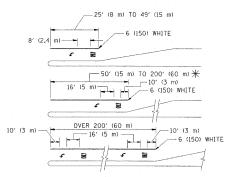


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

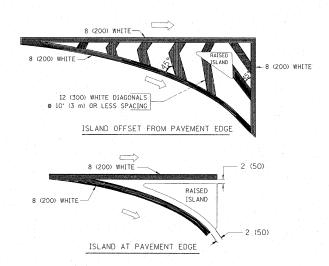


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P_1 AREA = 15.6 SO. FT. (1.5 m²) 0 AREA = 20.8 SO. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

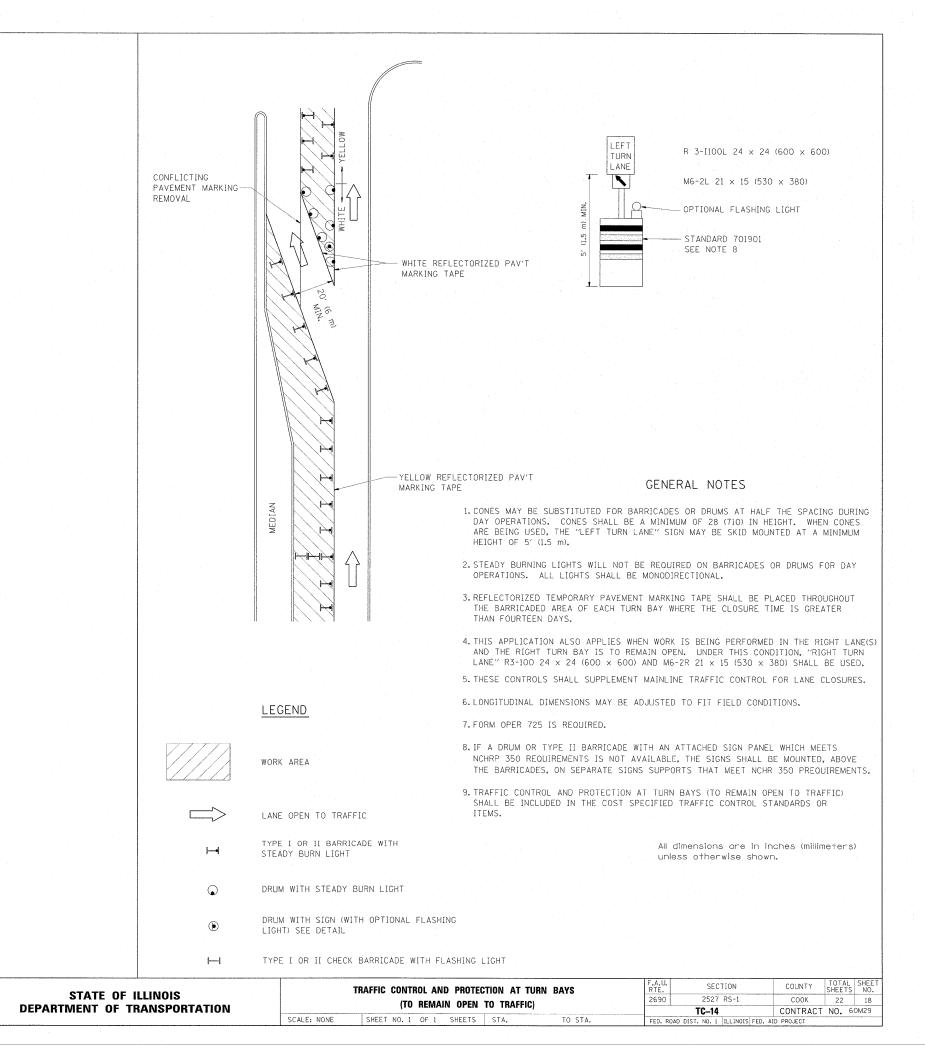
TYPE OF MARKING	WIDTH OF LINE	PATTERN.	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 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 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE EN SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 \(\text{0} \) 6 (150) 12 (300) \(\text{0} \) 45° 12 (300) \(\text{0} \) 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 & 4 (100) WITH 12 (300) DIAGONALS & 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"*3.6 SO, FT. (0.33 m²) EACH "X"=54.0 SO, FT. (5.0 m²)
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 (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 = baskinmi	DESIGNED -	-	EVERS	REVISED	-T.	RAMMACHER	10-27-94
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	-		REVISED	-		
	PLOT DATE = 5/17/2011	DATE -	_	03-19-90	REVISED	-		

DISTRICT ONE				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS					2527 RS-1	COOK	22	17
	TITIOAL TAVENENT NIANA	INGO			TC-13	CONTRACT	NO. 60	DM29
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	-	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A	D PROJECT		



FILE NAME :

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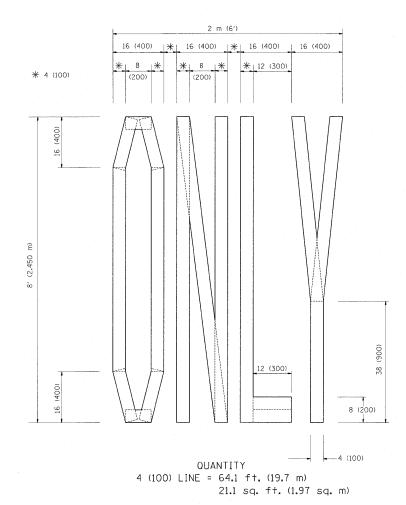
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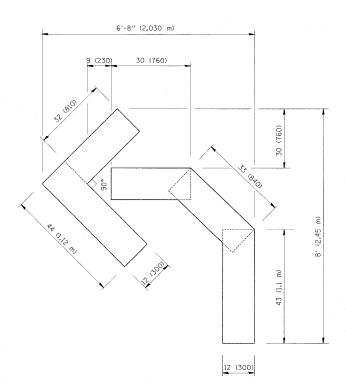
REVISED - A. HOUSEH 11-07-95 REVISED

REVISED - A. HOUSEH 10-12-96 | REVISED

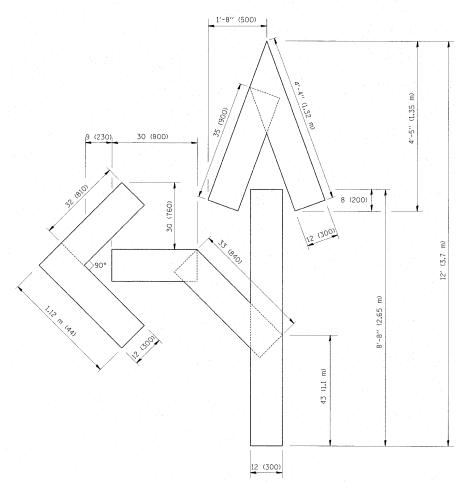
REVISED -T. RAMMACHER 01-06-00 REVISED

R. BORO 09-14-09





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



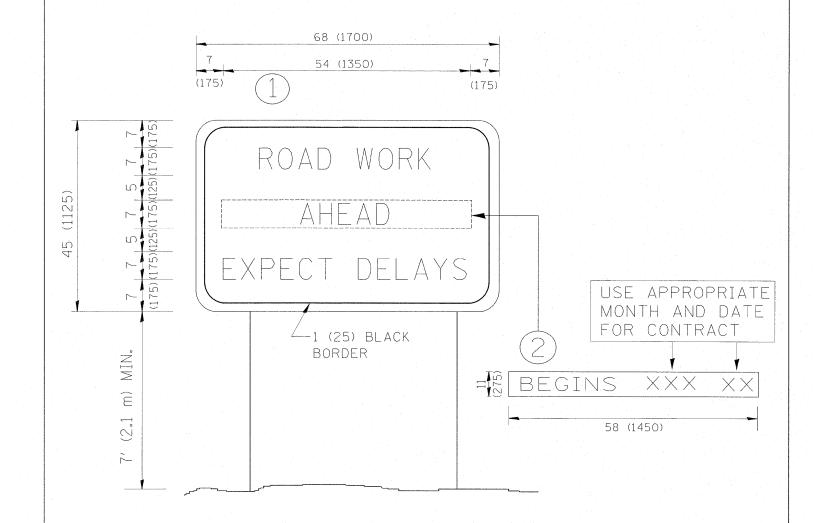
OUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

	FILE NAME =	USER NAME = baskinmi	DESIGNED	-		REVISED	-T.	RAMMACHER	06-05-96
	c:\pw_work\pwidot\baskinmi\d0246754\Dist	Std.dgn	DRAWN	-		REVISED	-T.	RAMMACHER	11-04-97
ı		PLOT SCALE = 50.0000 '/ IN.	CHECKED	-		REVISED	-T.	RAMMACHER	03-02-98
		PLOT DATE = 5/17/2011	DATE	-	09-18-94	REVISED	- E.	GOMEZ 08-	28-00
					***************************************		~		

STATE	: OF	ILLINOIS
DEPARTMENT	OF .	TRANSPORTATION

		PAVEMENT	MARKI	NG LETTEI	RS AND	SYMBOLS	F.A.U. RTE.	SECTION	COUNTY	SHEETS	SHEET NO.
	FOR TRAFFIC STAGING					2690	2527 RS-1	COOK	22	19	
							TC-16	CONTRACT	NO. 6	OM29	
	SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. ROA	AD DIST. NO. 1 ILLINOIS FED. A	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 () 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 = baskinmi	DESIGNED -	REVISED - R. MIRS 09-15-97	
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION
	PLOT DATE = 5/17/2011	DATE -	REVISED - C. JUCIUS 01-31-07	

ON				
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ARTERIAL ROAD										
			li	NF	DRMATION	SIGN				
SHEET	NO.	1	OF	1	SHEETS	STA.				

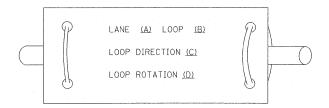
TO STA.

	RTE, SECTION						COUNTY	TOTAL	SHEET NO.		
	2690	590 2527 RS-1							COOK	- 22	20
	TC-22						T	CONTRACT	NO. 6	0M29	
-	FED. R	CAO	DIST.	NO.	1	ILLINOIS	FED.	AID	PROJECT		

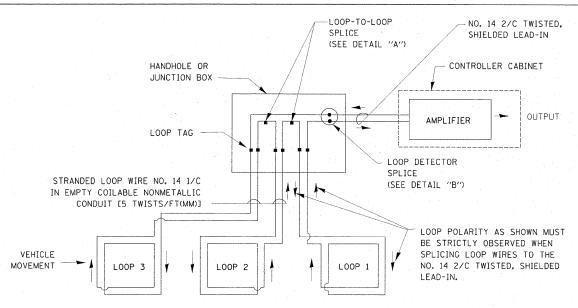
LOOP DETECTOR NOTES

- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- 3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- 4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- 6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- 7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

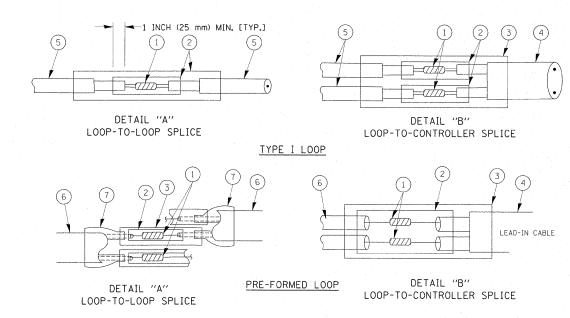


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.
- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

(7) XL POLYOLEFIN 2 CONDUCTOR

(8) APPROVED FOR

(7)	BREAKOUT	SEALS.	TYCO	CBR-2	OR	APPROVED	EQUAL

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		DISTRICT ONE				
	STANDARD	TRAFFIC SIGNAL DESIGN	DETAILS			
SCALE: NONE	SHEET NO 1	OF 6 SHEETS STA				

TO STA.

2690				RS-1		+	COUNTY	22 22	NO. 21	
 TS-05							CONTRACT	NO. 6	OM29	
E = 0	2012	OICT I	10 1	ILLINOIS	EEO	410	DOO IFOT			ı

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER PAVED OR NON-PAVED SHOULDER PAVED OR NON-PAVED SHOULDER 10' 10' 10' (3.0 m) (3.0 m)

* * UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

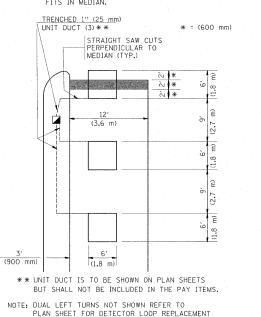
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

* = (600 mm)

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

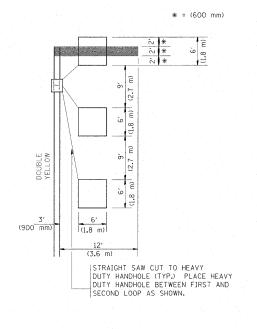
(PROTECTED / PERMITTED LEFT TURN PHASING)

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.



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

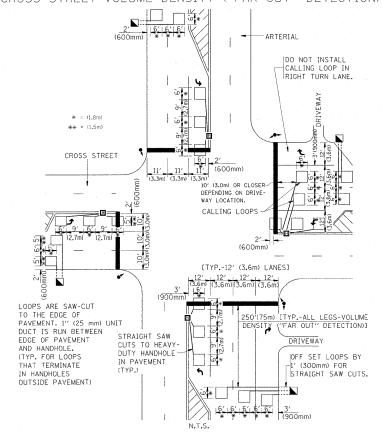
(PROTECTED / PERMITTED LEFT TURN PHASING)

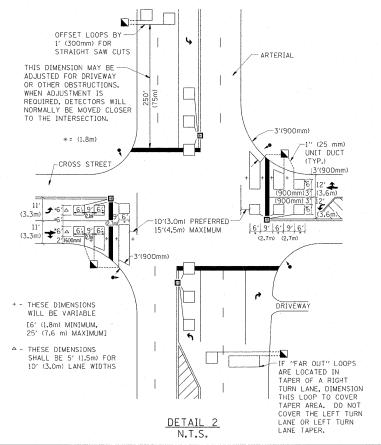


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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, SHIFLDED.
- * 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 <u>ALL</u> SIGNAL LAYOUT PLAN SHEETS.

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

JOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

N.T.S.									
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	PLOT DATE = 5/17/2011	DATE -	REVISED -						

DETAIL

DISTRIC	T 1 -	- DET	ECTOR L	OOP INSTALLATIO	N		
DET	TAILS	FOR	ROADW	AY RESURFACING			
SHEET NO.	1 OF	1	SHEETS	STA.	TO	STA.	

ı	FED. R	OAD DIST. NO. 1	ILLINOIS F	ED. AID	PROJECT			i
		TS-07			CONTRACT	NO. 6	OM29	
	2690	2527	RS-1		COOK	22	22	-
	F.A.U. RTE.	SEC	TION		COUNTY	TOTAL	SHEET NO.	