## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT LOCATED IN THE VILLAGES

OF WESTERN SPRINGS, LA GRANGE AND LA GRANGE PARK

## PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 311: US 34 (OGDEN AVE.)

EAST OF 1-294 TO BASSFORD AVE.

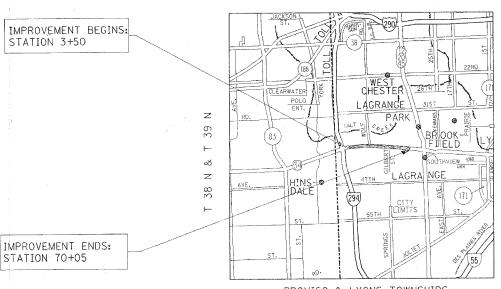
SECTION: 8 Y-RS-3

RESURFACING (MAINTENANCE)

**COOK COUNTY** 

C-91-242-07

R 12 E



TRAFFIC DATA

2005 ADT = 32,700

SPEED LIMIT = 30-35 MPH

PROVISO & LYONS TOWNSHIPS

GROSS LENGTH OF IMPROVEMENT = 6,655 FT. (1.26 MI.) NET LENGTH OF IMPROVEMENT = 6,655 FT. (1.26 MI.)

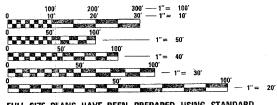
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8 Y-RS-3



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS APRIL 12 2007 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CONTRACT NO. 60C56

705-4432 (847) CHANG ENG/JENPAI

ENGINEER:

F.A.P. RTE.	SE	CTION		COUNT	ГҮ	TOTAL	SHEET NO.
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FED. ROA	ND DIS	T. NO. 1	ILLINOIS	FED.	AID	PROJEC1	

CONTRACT NO. 60C56

### INDEX OF SHEETS

DATE = SCALE = NAME = N PLOT FILE USER

SHE	ET NO.	<u>DESCRIPTIO</u> N	<u>Standard n</u> o.	
	1	TITLE SHEET	000001~ <b>04</b>	-
	2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES.	442201~ <b>02</b>	(
	3	SUMMARY OF QUANTITIES	606001 <b>-03</b>	(
	4-10	EXISTING AND PROPOSED TYPICAL SECTIONS	701601 <b>-04</b>	Į
	11-14	ROADWAY AND PAVEMENT MARKING PLANS	701701 <b>-04</b>	į
	15-16	DETECTOR LOOP REPLACEMENT PLANS	701801 <b>- 03</b>	1
	17	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING	702001 <b>-<i>0</i>6</b>	-
	18	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	886001	[
	19	CURB OR CURB AND SUTTER REMOVAL AND REPLACEMENT	886006	
	20	BUTT JOINT AND HMA TAPER DETAILS		
	21	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS		
	22	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		
	23	DISTRICT ONE TYPICAL PAVEMENT MARKINGS		
	24	TRAFFIC CONTROL AND PROTECTION OF TURN BAYS (TO REMAIN OPEN TO TRAFFIC)		
	25	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING		
	26	ARTERIAL ROAD INFORMATION SIGN		
	27	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN		
	28	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING		

### STATE STANDARDS

DETECTOR LOOP INSTALLATION

TYPICAL LAYOUT FOR DETECTION LOOPS

<u>DESCRIPTIO</u>N

		- 1
000001- <b>04</b>	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS	_
442201- <b>02</b>	CLASS C AND D PATCHES	Į
606001 <b>-03</b>	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER	,
701601 <b>-04</b>	URBAN LANE CLOSURE, MULTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN	(
701701 <b>-04</b>	URBAN LANE CLOSURE, MULTILANE INTERSECTION	E
701801 <b>- 03</b>	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE	<i>'</i>
702001 <b>-<i>0</i>6</b>	TRAFFIC CONTROL DEVICES	-

### GENERAL NOTES

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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGES OF WESTERN SPRINGS, LA GRANGE, AND LA GRANGE PARK.

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

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.

THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS, AREA TRAFFIC FIELD ENGINEER, AT (708) 597-9800 A MINIMUM OF 72 HOURS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED LIMIT IS 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)

REVISION		TILINOIS DEPARTMEN	IT OF TRANSPORTATION
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		STATE ST	SHEETS, TANDARDS
		AND GENE	RAL NOTES
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F.A.P. RTE.	SECTION	COUNT	COUNTY TOTAL SHEET		SHEET NO.	
311	8 Y-RS-3	COOK	соок		3	
FED.	ROAD DIST. NO. 1	ILL	INOIS	HIG	HWAY PR	DJECT
			CO	NTD/	OT NO	60056

	CHAMARY OF CHANTITIES				CONS	TRUCTION TY	PE CODE			SUMMARY OF QUANTITIES				CONSTRUC	TION TYPE COL	DE I
	SUMMARY OF QUANTITIES	UNIT	100% STATE TOTAL QUANTITIES		:				CODE NO	ITEM	UNIT	1001. STATE TOTAL QUANTITIES				
CODE NO	ITEM	UNIT	URBAN	I000-2A	-							URBAN	I000-2A			
20201006	GRADING AND SHAPING SHOULDERS	UNIT	18	18					70300100	SHORT-TERM PAVEMENT MARKING	FOOT	16389	16389			
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	19	19					70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	437	437			
40600300	AGGREGATE (PRIME COAT)	TON	84	84			-	;	70300220	TEMPORARY PAVEMENT MARKING	FOOT	22577	22577			
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	23	23					70300240	- LINE 4" TEMPORARY PAVEMENT MARKING	FOOT	1458	1458			
40600895	CONSTRUCTING TEST STRIP	EACH	2	2	- }				10300240	- LINE 6"						
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	470	470					70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	533	533			
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	450	450					70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	F00T	461	461			
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE	TON	3605	3605	:				70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	5463	5463			
	COURSE, MIX "F", N90	SQ YD	117	117	-				78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	437	437	. : /		
42001300 44000159	PROTECTIVE COAT HOT-MIX ASPHALT SURFACE REMOVAL, 2	SQ YD	41667	41667					<b>*</b> 78000200	THERMOPLASTIC PAVEMENT MARKING	FOOT	22577	22577			
44001700	1/2"  COMBINATION CONCRETE CURB AND GUTTER	FOOT	350	350	. :				<del>X</del> 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1458	1458			
44002216	REMOVAL AND REPLACEMENT  HOT-MIX ASPHALT REMOVAL OVER PATCHES,	SQ YD	587	587					× 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	533	533			
44201749	CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	10	10					<del>*</del> 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	461	461			
44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	185	185					¥-78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	482	482			
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	138	138			2		78300200	RAISED REFLECTIVE PAVEMENT MARKER	EACH	400	400			
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	254	254				1		REMOVAL						
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	69	69					<b>*</b> 88600600	DETECTOR LOOP REPLACEMENT	FOOT	818	818			
55039700	STORM SEWERS TO BE CLEANED	FOOT	1000	1000					X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4			
60265700	VALVE VAULTS TO BE ADJUSTED	EACH	3	3					X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1803	1803			
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	50	50					XX002258	STRUCTURES TO BE ADJUSTED	EACH	5	5			
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	2	2	-				Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	94	94			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6			,		Z0018600	DRAINAGE STRUCTURES TO BE RECONSTRUCTED	EACH	3	3			
67100100	MOBILIZATION	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												
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1												

X SPECIALTY ITEMS

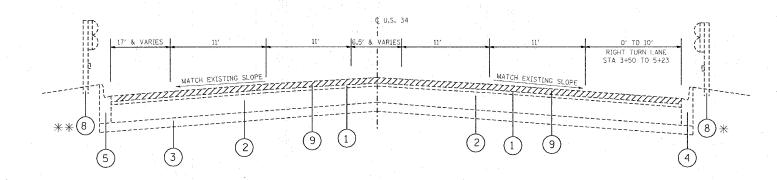
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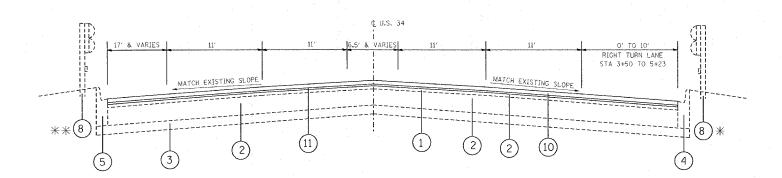
SUMMARY OF QUANTITIES

F.A.P. SECTION
311 8 Y-RS-3 COUNTY COOK STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 60C56



EXISTING TYPICAL SECTION U.S. 34 (OGDEN AVE.).

STATION 3+50 TO 9+13



PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE.),

STATION 3+50 TO 9+13

\* STA 3+50 TO 5+23 \* \* STA 3+50 TO 5+94

### LEGEND

- (1) EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"(±)
- (2) EXISTING PCC BASE COURSE, 9"(±)
- (3) EXISTING SUB-BASE GRANULAR MATERIAL
- (4) EXISTING COMBINATION CONC. CURB & GUTTER TYPE B6.12
- EXISTING COMBINATION CONC. CURB & GUTTER TYPE B6.24
- 6 EXISTING HMA SHOULDER
- EXISTING AGGREGATE SHOULDER
- EXISTING STEEL GUARDRAIL
- HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2 "
- PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4 "
- (11) PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4 "

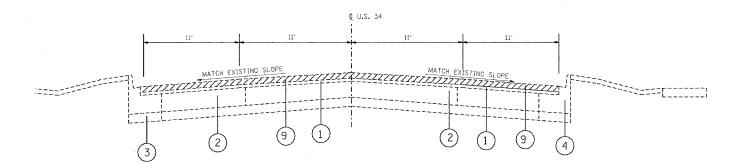
### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

		1
MIXTURE TYPE	AC TYPE	AIR VOIDS (%)
POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50	SBS/SBR 76-28/-22	4% @ 50 GYR
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F" N90	SBS/SBR PG70 -22	4% @ 90 GYR
HMA REPLACEMENT OVER PATCHES, BINDER IL-19.0 MM	PG 64-22*	4% @ 70 GYR
CLASS D PATCHES (HMA BINDER IL-19.0, N70), 10"	PG 64-22*	4% @ 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.

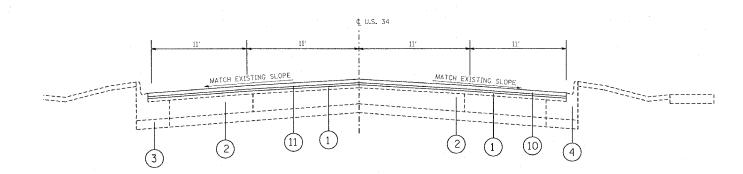
\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

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PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE).

STATION 9+13 TO 22+93 44+45 TO 56+76



PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE).

STATION 9+13 TO 22+93 44+45 TO 56+76

### LEGEND

- 1 EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"(±)
- 2 EXISTING PCC BASE COURSE, 9"(±)
- (3) EXISTING SUB-BASE GRANULAR MATERIAL
- 4 EXISTING COMBINATION CONC. CURB & GUTTER TYPE B6.12
- (5) EXISTING HMA SHOULDER
- 6 EXISTING AGGREGATE SHOULDER
- 7 EXISTING STEEL GUARDRAIL
- (8) EXISTING P.C. CONC BASE COURSE 12"
- 9 HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2 "
- 10 PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4 "
- (11) PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4 "

REVISIONS
NAME
DATE

U.S. 34

EXISTING AND PROPOSED

TYPICAL SECTIONS

SCALE: VERT.
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ILLINOIS DEPARTMENT OF TRANSPORTATION

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EXISTING AND PROPOSED

TYPICAL SECTIONS

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311 8 Y-RS-3 COUNTY COOK STA. TO STA. FED. ROAD DIST. NO. 1 ILLLINOIS FED. AID PROJECT CONTRACT NO. 60C56

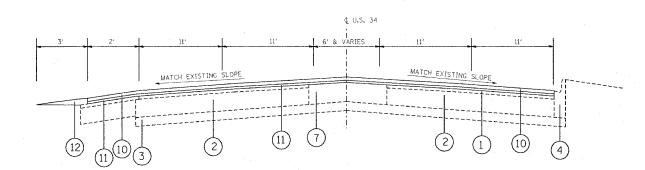
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EXISTING TYPICAL SECTION U.S. 34 (OGDEN AVE.).

STATION 22+93 TO 25+59 30+90 TO 44+45



PROPOSED TYPICAL SECTION
U.S. 34 (OGDEN AVE.).

STATION 22+93 TO 25+59 30+90 TO 44+45

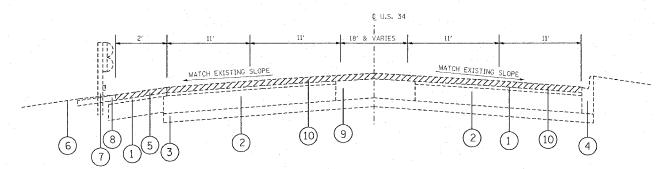
### LEGEND

- 1 EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"(±)
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- (4) EXISTING COMBINATION CONC. CURB & GUITTER TYPE B6.12
- 5 EXISTING HMA SHOULDER
- 6 EXISTING WEDGE AGGREGATE SHOULDER
- 7 EXISTING CONCRETE BARRIER MEDIAN
- 8 EXISTING STEEL GUARDRAIL
- 9 HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2 "
- (10) PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4 "
- 11) PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4 "
- (12) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

ILLINOIS DEPARTMENT OF TRANSPORTATION U.S. 34 EXISTING AND PROPOSED TYPICAL SECTIONS SCALE: VERT. DRAWN BY CHECKED BY

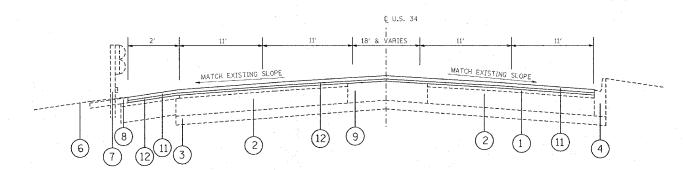
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311 8 Y-RS-3 COOK COUNTY STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 60C56



EXISTING TYPICAL SECTION U.S. 34 (OGDEN AVE.).

STATION 25+59 TO 30+90



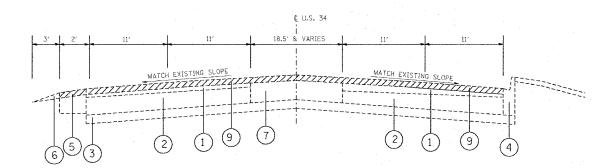
PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE.).

STATION 25+59 TO 30+90

### LEGEND

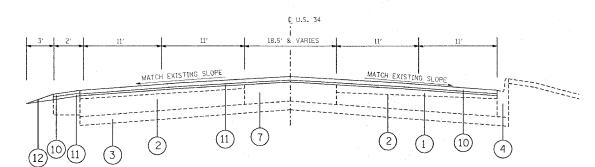
- 1 EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"(±)
- 2 EXISTING PCC BASE COURSE, 9"(±)
- 3 EXISTING SUB-BASE GRANULAR MATERIAL
- 4 EXISTING COMBINATION CONC. CURB & GUTTER TYPE B6.12
- 5 EXISTING HMA SHOULDER
- 6 EXISTING AGGREGATE SHOULDER
- 7 EXISTING STEEL GUARDRAIL
- (8) EXISTING HMA STABILIZATION 6" BENEATH STEEL PLATE BEAMS GUARDRAIL
- 9 EXISTING CORRUGATED MEDIAN
- 10 HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2 "
- 11) PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4 "
- 12) PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4 "

ILLINOIS DEPARTMENT OF TRANSPORTATION U.S. 34 EXISTING AND PROPOSED TYPICAL SECTIONS SCALE: VERT. HORIZ. DRAWN BY CHECKED BY



PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE).

STATION 30+90 TO 44+45



PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE).

STATION 30+90 TO 44+45

### LEGEND

- (1) EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"(±)
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- (4) EXISTING COMBINATION CONC. CURB & GUTTER TYPE B6.12
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- 12) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

REVISIONS
NAME DATE
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EXISTING AND PROPOSED
TYPICAL SECTIONS

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REVISIONS

ILLINOIS DEPARTMENT OF TRANSPORTATION

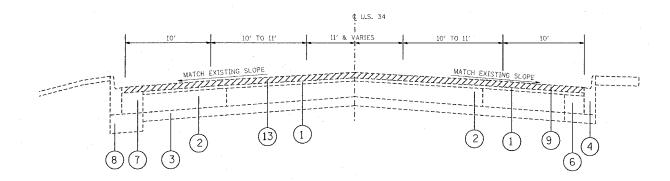
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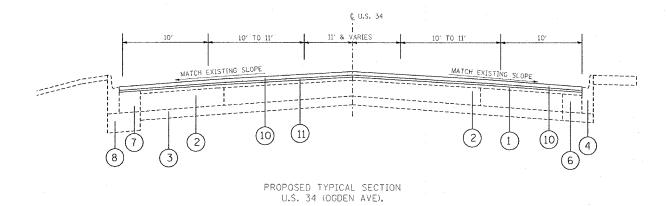
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CONTRACT NO. 60C56



PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE).

STATION 56+76 TO 61+83



STATION 56+76 TO 61+83

### LEGEND

- 1) EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"(±)
- (2) EXISTING PCC BASE COURSE, 9"(±)
- (3) EXISTING SUB-BASE GRANULAR MATERIAL
- 4) EXISTING COMBINATION CONC. CURB & GUTTER TYPE B6.12
- 5 EXISTING HMA SHOULDER
- 6 EXISTING P.C. CONC BASE COURSE
- 7 EXISTING HMA BINDER COURSE
- (8) EXISTING AGGREGATE SUGBRAGE
- 9 HOT-MIX ASPHALT SURFACE REMOVAL 2 1/2 "
- (10) PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4 "
- 11) PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4 "

REVISIONS
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U.S. 34

EXISTING AND PROPOSED

TYPICAL SECTIONS

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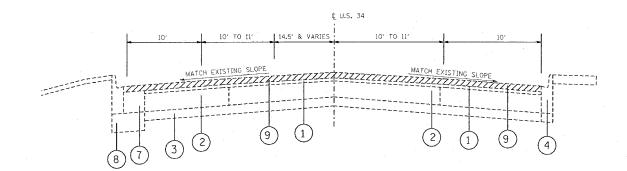
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EXISTING AND PROPOSED

TYPICAL SECTIONS

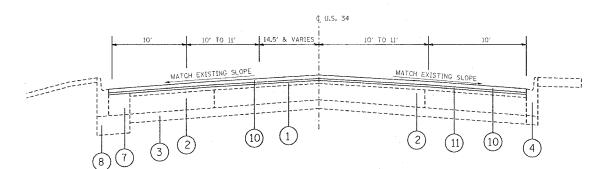
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CONTRACT NO. 60C56



PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE).

STATION 61+83 TO 70+05



PROPOSED TYPICAL SECTION U.S. 34 (OGDEN AVE).

STATION 61+83 TO 70+05

### LÉGEND

- (1) EXISTING HOT-MIX ASPHALT SURFACE COURSE, 4"(±)
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- 4) EXISTING COMBINATION CONC. CURB & GUTTER TYPE B6.12
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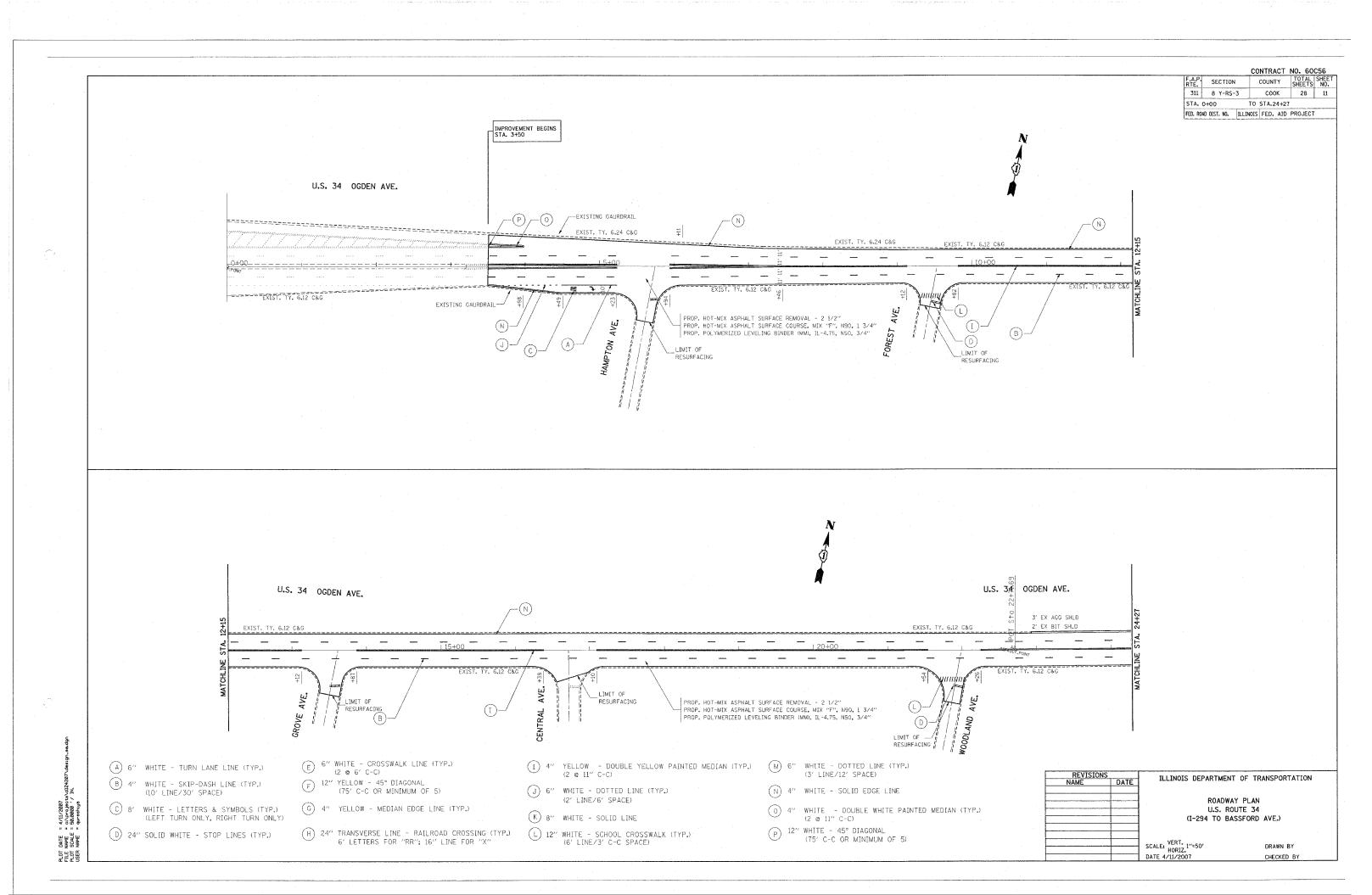
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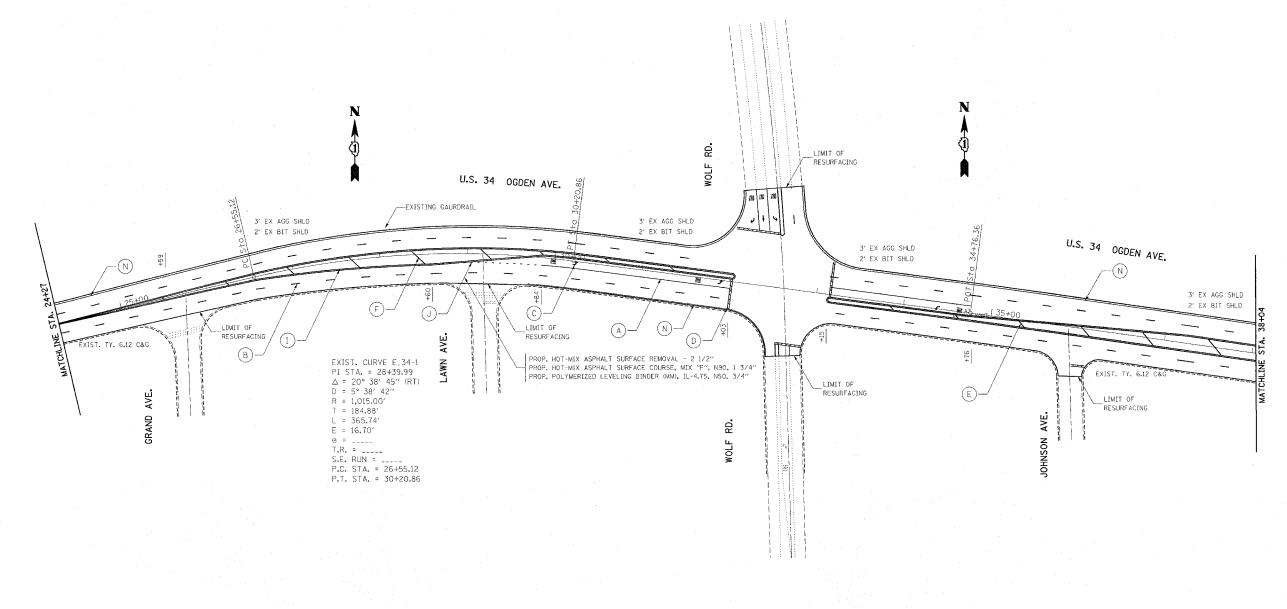
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CONTRACT NO. 60C56 SECTION . COUNTY 311 8 Y-RS-3 COOK 28 12 STA. 24+27 TO STA.38+04 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



(A) 6" WHITE - TURN LANE LINE (TYP.)

(B) 4" WHITE - SKIP-DASH LINE (TYP.) (10' LINE/30' SPACE)

© 8' WHITE - LETTERS & SYMBOLS (TYP.) - (LEFT TURN ONLY)

D 24" SOLID WHITE - STOP LINES (TYP.)

E 6" WHITE - CROSSWALK LINE (TYP.) (2 @ 6' C-C)

F 12" YELLOW ~ 45° DIAGONAL (75' C-C OR MINIMUM OF 5)

G 4" YELLOW - MEDIAN EDGE LINE (TYP.)

H 24" TRANSVERSE LINE - RAILROAD CROSSING (TYP.) (K) 8" WHITE - SOLID LINE 6' LETTERS FOR "RR": 16" LINE FOR "X"

I 4" YELLOW - DOUBLE YELLOW PAINTED MEDIAN (TYP.) (2 @ 11" C-C)

J 6" WHITE - DOTTED LINE (TYP.) (2' LINE/6' SPACE)

L) 12" WHITE - SCHOOL CROSSWALK (TYP.)
(6' LINE/3' C-C SPACE)

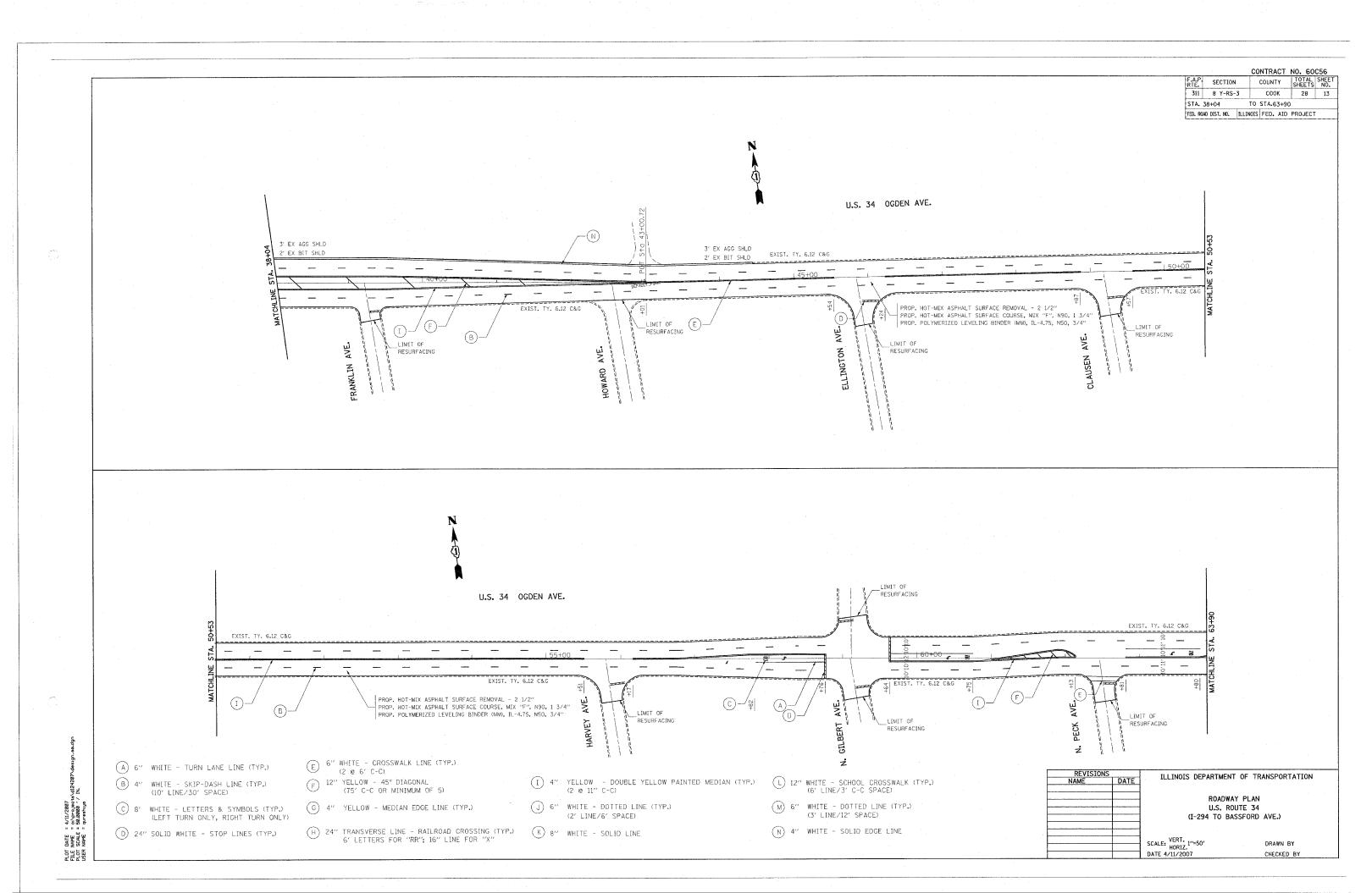
M) 6" WHITE - DOTTED LINE (TYP.)
(3' LINE/12' SPACE)

(N) 4" WHITE - SOLID EDGE LINE

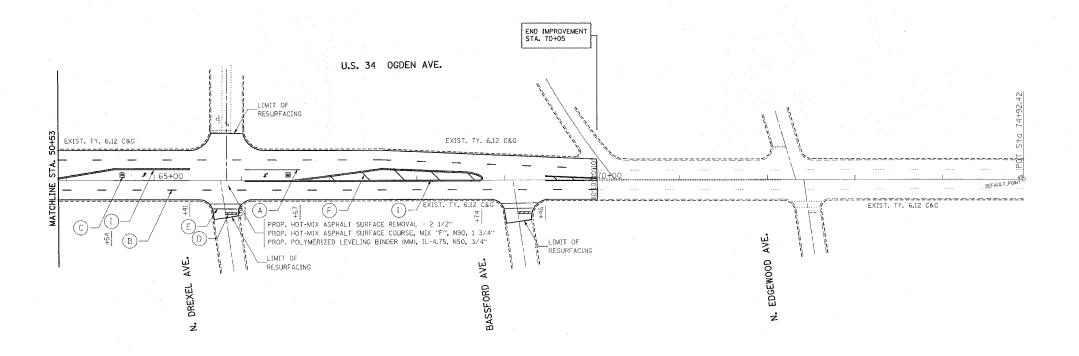
REVISIONS ILLINOIS DEPARTMENT OF TRANSPORTATION ROADWAY PLAN U.S. ROUTE 34 (I-294 TO BASSFORD AVE.)

SCALE: VERT. 1"=50" HORIZ. DATE 4/11/2007

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CONTRACT NO. 60C56 COUNTY TOTAL SHEET NO. SECTION 311 8 Y-RS-3 COOK 28 14 TO STA.74+92 STA. 63+90 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



- (A) 6" WHITE TURN LANE LINE (TYP.)
- B) 4" WHITE SKIP-DASH LINE (TYP.) (10' LINE/30' SPACE)
- C 8' WHITE LETTERS & SYMBOLS (TYP.) (LEFT TURN ONLY, RIGHT TURN ONLY)
- D 24" SOLID WHITE STOP LINES (TYP.)
- E 6" WHITE CROSSWALK LINE (TYP.)
- F 12" YELLOW 45° DIAGONAL (75' C-C OR MINIMUM OF 5)
- G 4" YELLOW MEDIAN EDGE LINE (TYP.)
- (TYP.)

  24" TRANSVERSE LINE RAILROAD CROSSING (TYP.)
  6' LETTERS FOR "RR"; 16" LINE FOR "X"
- 1 4" YELLOW DOUBLE YELLOW PAINTED MEDIAN (TYP.) (2 @ 11" C-C)
- J 6" WHITE DOTTED LINE (TYP.) (2' LINE/6' SPACE)
- (K) 8" WHITE SOLID LINE

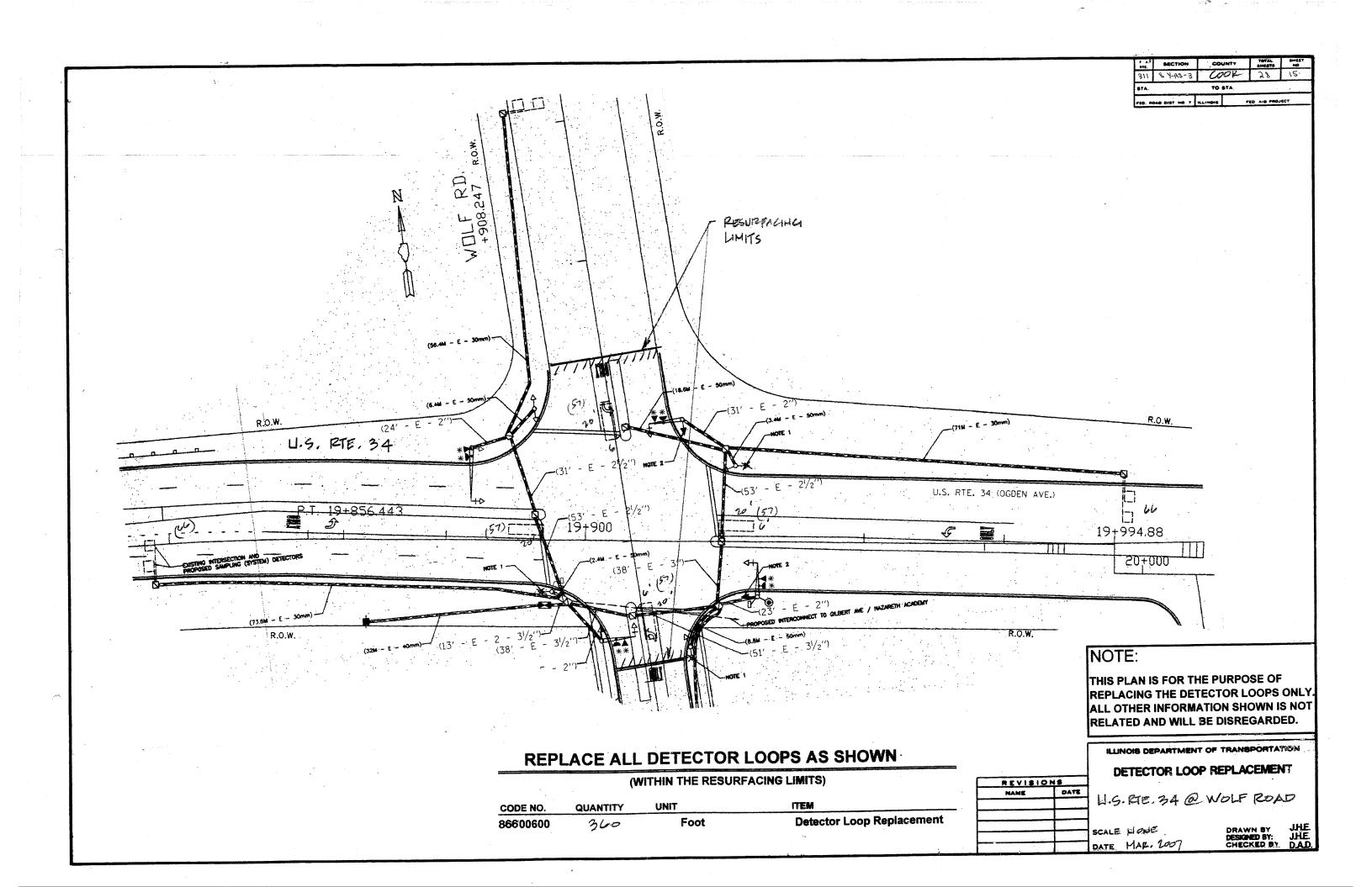
- L) 12" WHITE SCHOOL CROSSWALK (TYP.)
  (6' LINE/3' C-C SPACE)
- M) 6" WHITE DOTTED LINE (TYP.) (3' LINE/12' SPACE)
- (N) 4". WHITE SOLID EDGE LINE

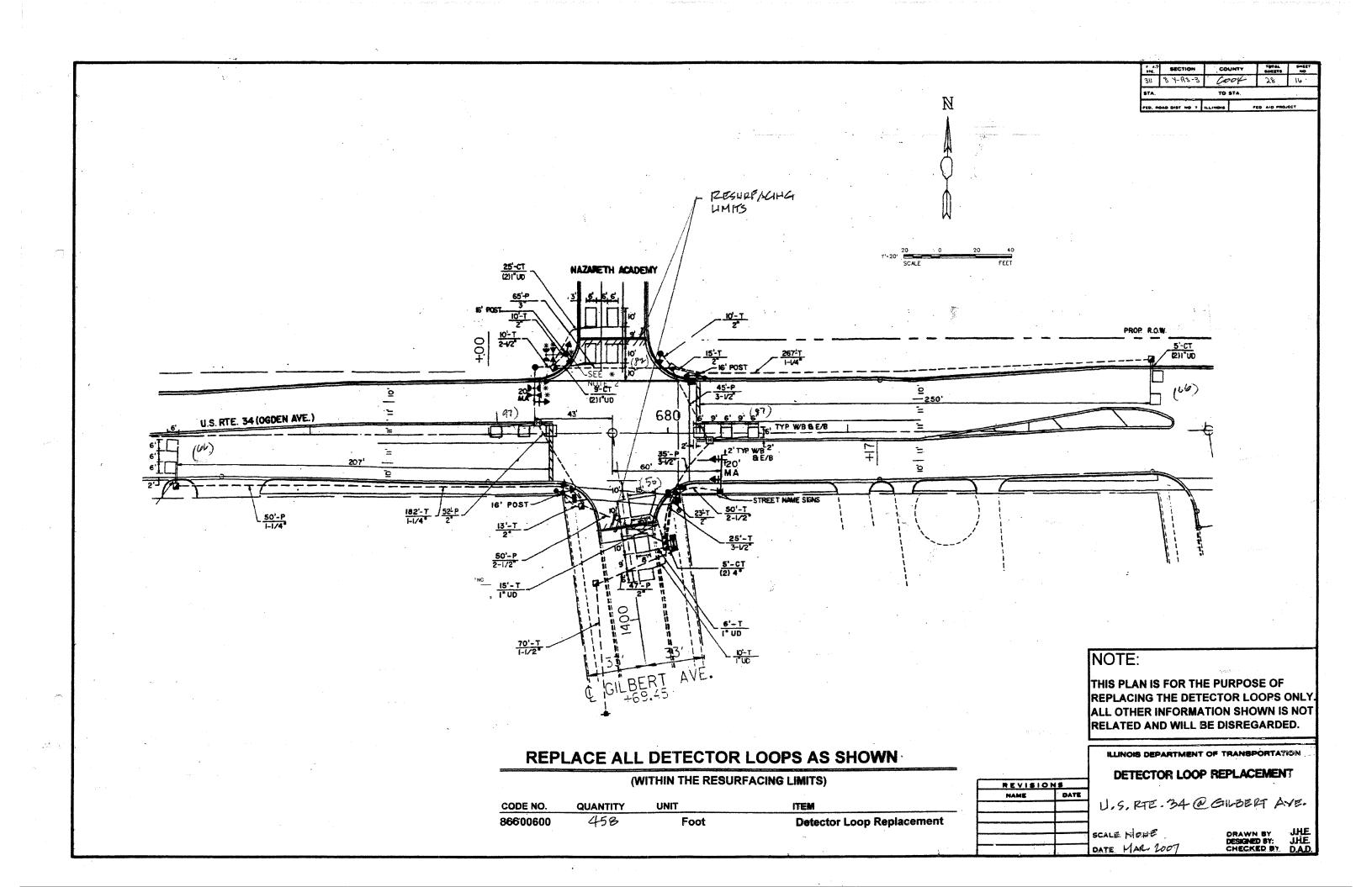
ILLINOIS DEPARTMENT OF TRANSPORTATION ROADWAY PLAN U.S. ROUTE 34 (I-294 TO BASSFORD AVE.)

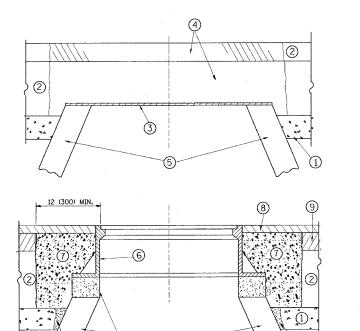
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PROPOSED

PROPOSED SAND FILL

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE REGINEER. 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.

BRICK, MORTAR, OR CONC. ADJUSTING RINGS

• • •

NOTES:

### CONSTRUCTION PROCEDURES

### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM  $1\frac{1}{2}$  (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

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

### LEGEND

1 SUB-BASE GRANULAR MATERIAL

PROPOSED SAND FILL

- (2) EXISTING PAVEMENT
- 3 36 (900) DIAMETER METAL PLATE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- (5) EXISTING STRUCTURE

- 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

REVISIO	NS	ILLINOIS DEPARTMEN				
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R. SHAH	10/25/94					
R. SHAH	01/30/95		DETA			
R. SHAH	03/10/95	FRAMES	AND I			
A. ABBAS	03/21/97	LUVAMES				
R. WIEDEMAN	05/14/04		WITH			
R. BORO	01/01/07					

NT OF TRANSPORTATION

AILS FOR LIDS ADJUSTMENT MILLING

SCALE: VERT. NONE PLOT DATE: 4/11/2007

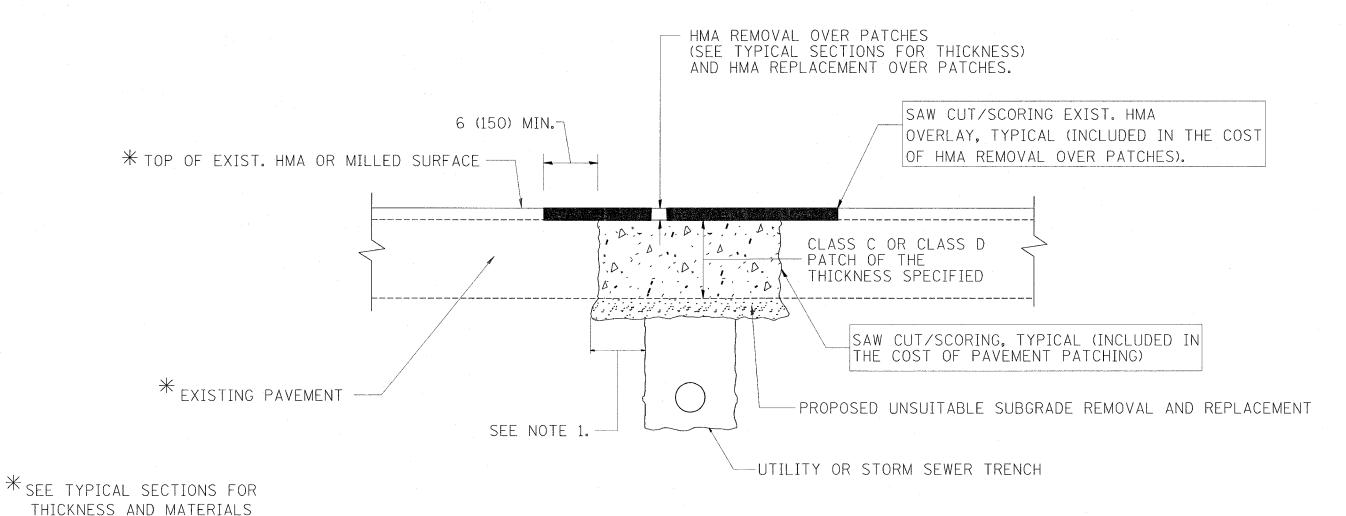
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REVISION DATE: 01/01/07

DATE = 4/11/2007

NAME = CNDocuments and SCALE = 49,9999 '/ IN. PLOT FILE PLOT USER 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 SEPARTELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

TO STA FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



### 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

- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE FULL DEPTH PATCHES
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS

ILLINOIS DEPARTMENT OF TRANSPORTATION PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

SCALE: VERT. NONE HORIZ. NONE PLOT DATE: 4/11/2007

CHECKED BY BD400-04 (BD-22)

	REVISIONS	
	NAME	DATE
	A. HOUSEH	03/11/94
	R. SHAH	02/24/95
	R. SHAH	03/02/95
	R. SHAH	08/19/96
	R. SHAH	09/12/96
	R. SHAH	09/19/96
	R. SHAH	10/03/96
-	A. ABBAS	03/21/97
	M. GOMEZ	01/22/01
	R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

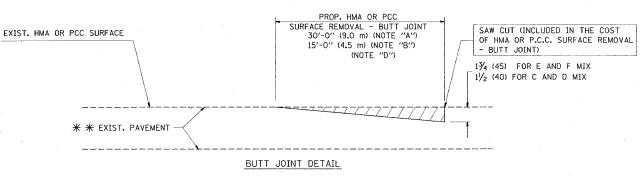
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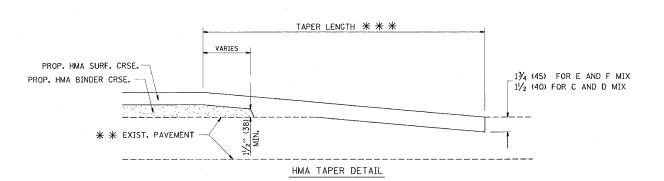
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CONTRACT NO. 60C5

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

REVISION DATE: 01/01/07





## TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

 $\ensuremath{\mathtt{\#}}$  PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

### NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.

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".

BASIS OF PAYMENT:

- 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.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

M. DE YONG 6-13-90 M. DE YONG 7-3-90 M. DE YONG 7-3-90 M. DE YONG 3-27-92 R. SHAH 09/09/94 R. SHAH 10/25/94 A. ABBAS 03/21/97 A. ABBAS 03/21/97 M. GOMEZ 04/06/01 R. BORO 01/01/07 SCALE; VERT, NONE DRAW!

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TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING

BUTT JOINT AND

HMA TAPER

MA SURF. REMOVAL - BUTT JOINT

EXIST. PAVEMENT

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COUNTY TOTAL SHEET NO. SECTION 311 8 Y-RS-3 COOK 28 21 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONSTRUCTION TYPE III BARRICADES WITH TWO FLASHING AMBER LIGHTS ON EACH. AHEAD TYPE I OR TYPE II BARRICADES WITH ONE FLASHING AMBER LIGHT ON EACH, OR TYPE III BARRICADES WITH TWO FLASHING 200'± (60 m±)-AMBER LIGHTS ON EACH. DRIVEWAY WORK AREA J 200'± (60 m±) (60 500'± (150 COLLECTOR LIMIT> 40 MPH ( ST 40 LOCAL ASO ROAD ROAD W20-1(0) SPEED CONSTRUCTION M6-4(0)-2115 AHEAD ROAD M6-1(0)-2115 CONSTRUCTIO

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

### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN 36  $\times$  36 (900 $\times$ 900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h)
  AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- 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 CLOSUME.
- 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.

REVISIO	NS	
NAME	DATE	
LHA	6/89	TC
T. RAMMACHER	09/08/94	11
J. OBERLE	10/18/95	
A. HOUSEH	03/06/96	c
A. HOUSEH	10/15/96	3
T. RAMMACHER	01/06/00	
		SCA

ILLINOIS DEPARTMENT OF TRANSPORTATION
RAFFIC CONTROL AND PROTECTION
FOR

SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: DATE: 4/11/2007

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CONTRACT NO. 60C56

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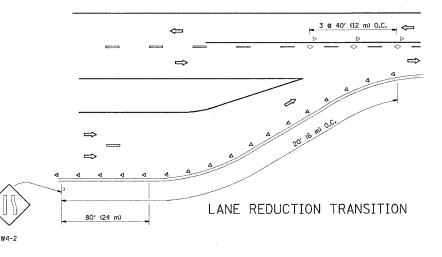
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CONTRACT NO. 60C56 COUNTY TOTAL SHEET NO. SECTION 311 8 Y-RS-3 COOK 28 22 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

80' (24 m) 0.C. \*\*\*  $\Leftrightarrow$  $\Rightarrow$ 

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

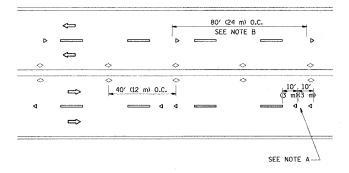
TWO-LANE/TWO-WAY



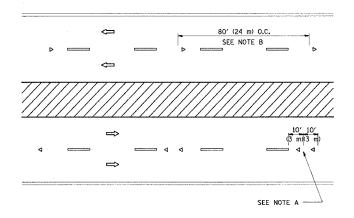
— 3 @ 80' (24 m) O.C.

D & \_ 40' (12 m) O.C. \_ SEE NOTE A-

TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

### GENERAL NOTES

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

### 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

### DESIGN NOTES

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

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

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T. RAMMACHER	09-19-94	TVDION ADDITOATIONS				
T. RAMMACHER	03-12-99	TYPICAL APPLICATIONS				
T. RAMMACHER	01-06-00	RAISED REFLECTIVE PAVEMENT				
		MARKERS (SNOW-PLOW RESISTANT)				
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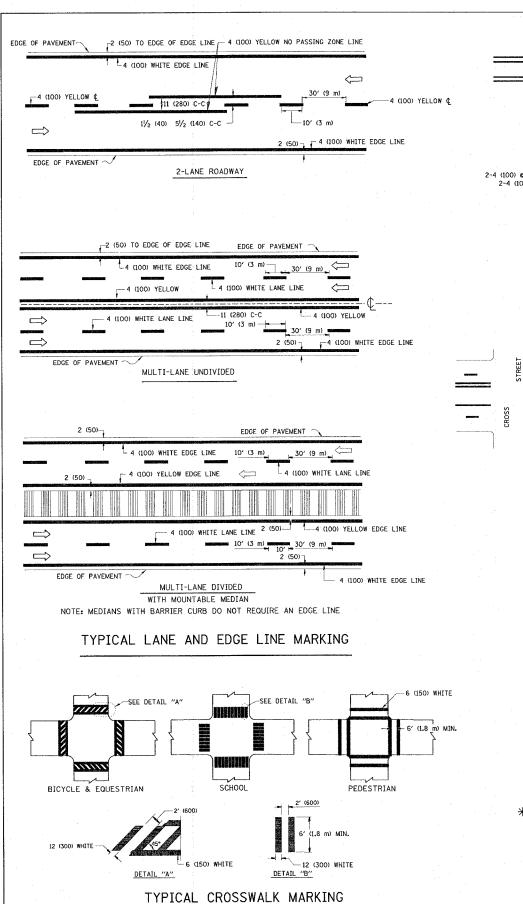
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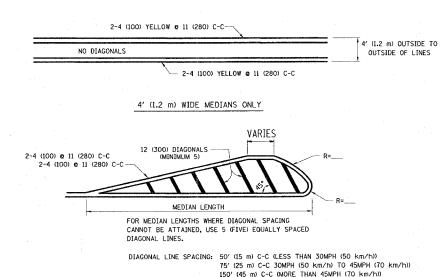
EQUALLY SPACED 3 @ 40' (12 m) O.C. 40' (12 m) 0.C.  $\Rightarrow$ 40' (12 m) O.C. \* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS. LEFT TURN

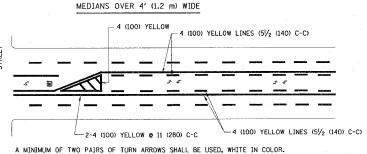
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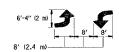
3 @ 80' (24 m) O.C.

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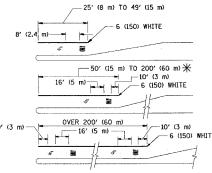






MEDIAN WITH TWO-WAY LEFT TURN LANE

### TYPICAL PAINTED MEDIAN MARKING

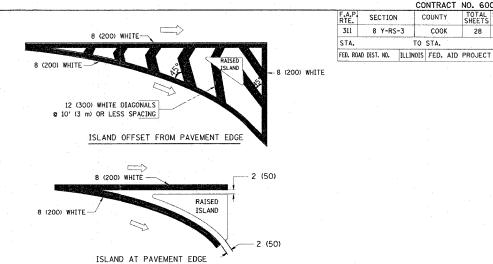


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m² ) ( ) AREA = 20.8 SQ. FT. (1.9 m²)

# Turn lanes in excess of 400' (120 m) in length may have an additional set of arrow - "only" installed midway between the other two sets of

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 UNDIVEDED PAVEMENT	2 2 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>c</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	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 5EE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH- 12 (300) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
	NO DIAGONALS USED FOR 4' (1,2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	See Theorem Parties income manufacture
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 (0VER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"-3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"-54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) & 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (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 millimeters (inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION 10-27-94 ALEX HOUSEH SCALE: NONE

DISTRICT ONE TYPICAL PAVEMENT

MARKINGS DRAWN BY CADD

TC-13

CHECKED BY

CONTRACT NO. 60C56

COUNTY

COOK

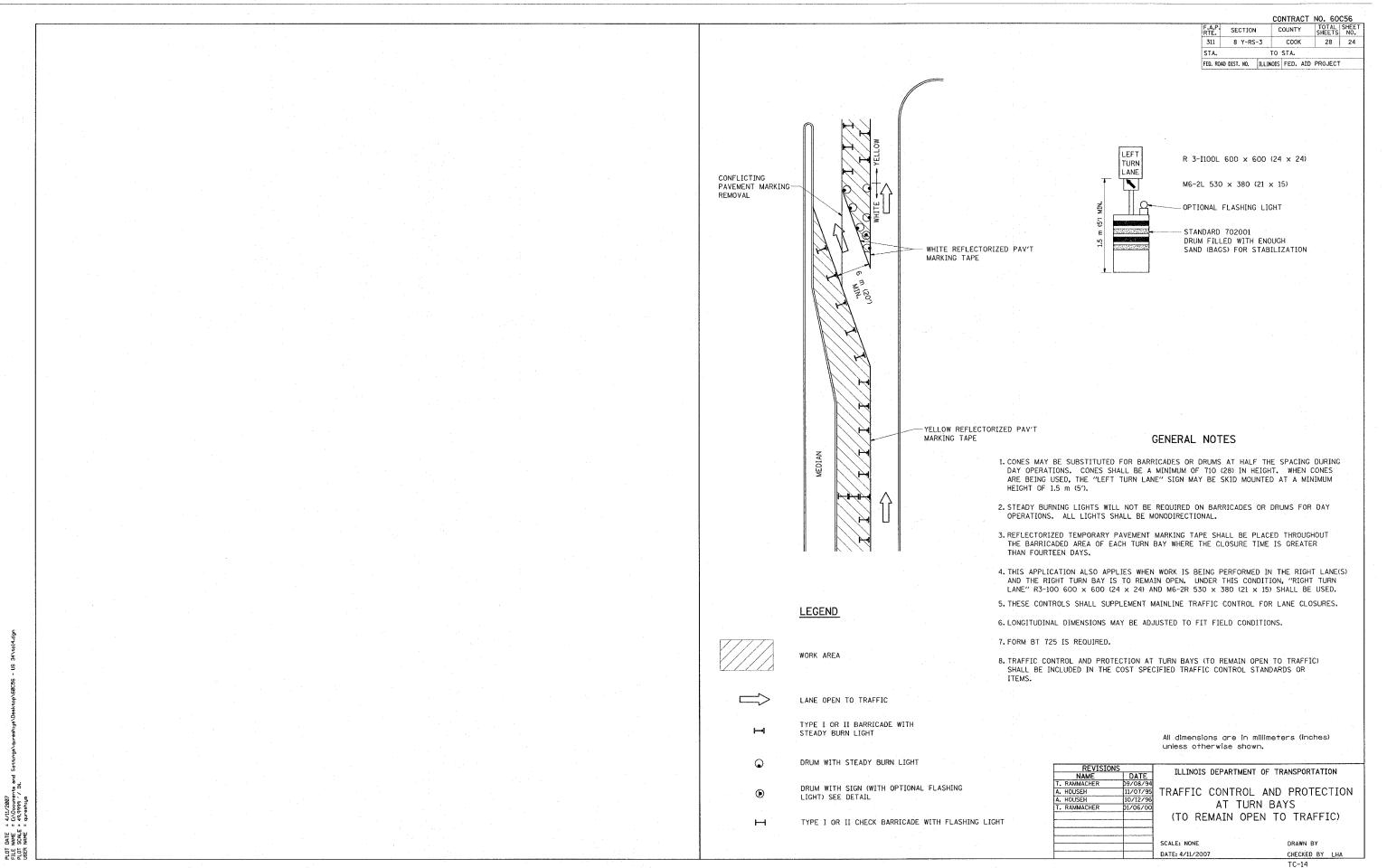
TO STA.

SECTION 311 8 Y-RS-3 TOTAL SHEET SHEETS NO.

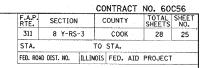
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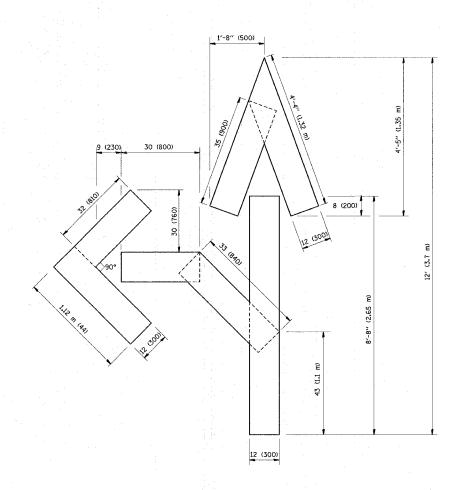
REVISION DATE: 01/06/00

DATE: 4/11/2007



REVISION DATE: 01/06/00





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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

REVISIO NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00
	.

ILLINOIS DEPARTMENT OF TRANSPORTAT

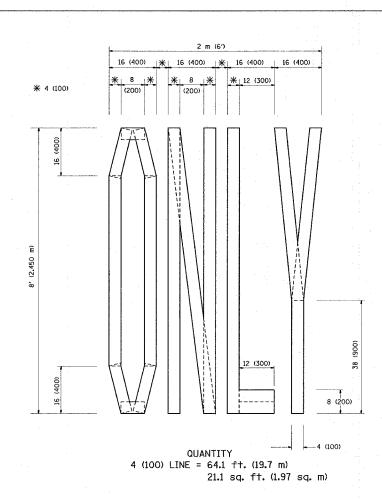
PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

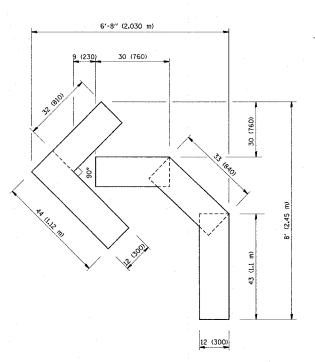
SCALE: NONE
DATE: 4/11/2007

DRAWN BY CADD CHECKED BY

TC-16

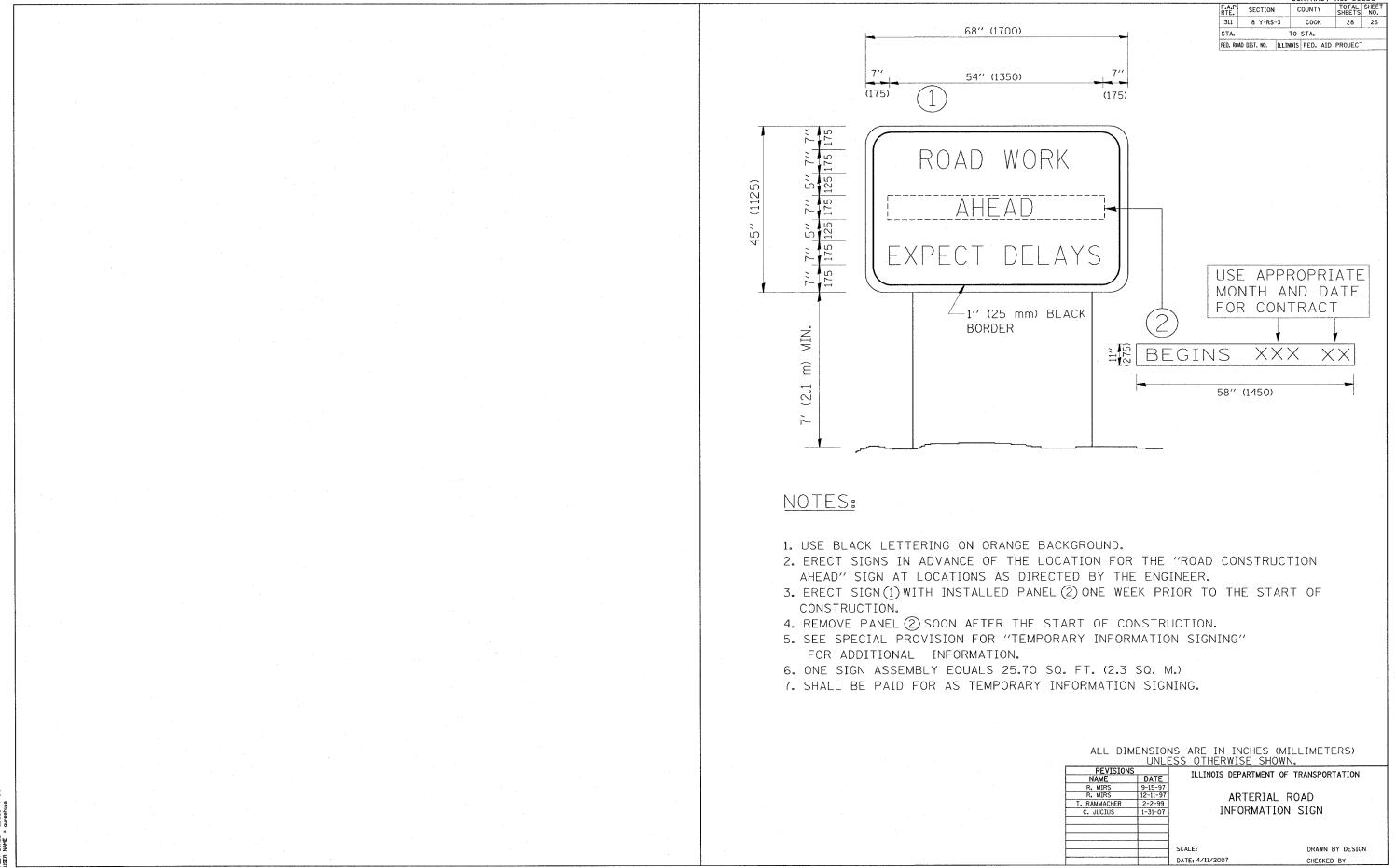
REVISION DATE: 08/28/00





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

PLOT DATE: = 4/11/2807 FILE WHOEF = CLOCOMMENTS and Settings\quesshyp\Desktop\88056 - i LOT SAME = 49,9999 \ M. USEN NOME = quesshyp

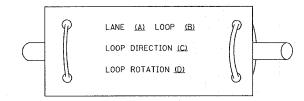


TC22 REVISION DATE: 01/31/07

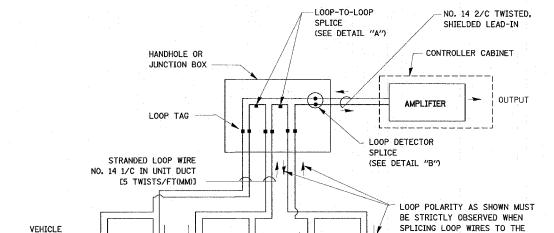
SECTION

- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT 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.

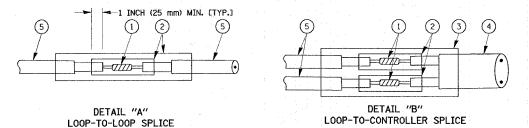
LOOP 2

MOVEMENT

LOOP 3

- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm), IE 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 1



### LOOP DETECTOR SPLICE

- (1) 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.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION			
NAME	DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION			
CADD	5/30/00				
ADD NOTE NO. 8	11/12/01	DISTRICT ONE			
BUREAU OF TRAFFIC	1-01-02	STANDARD TR	AFETO STONAL		
		STANDARD IN	AFFIC SIGNAL		
		DESIGN DETAILS			
	-		771177		
		SCALE: NONE	DRAWN BY: RWP DESIGNED BY: DAD		
		SCALE: NUNE	CHECKED BY: DAZ		
			SHEET 1 OF 4		

TOTAL SHEET SHEETS NO.

28 27

COUNTY

TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

COOK

SECTION 311 8 Y-RS-3

STA.

NO. 14 2/C TWISTED, SHIELDED

# PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' 1900 mm's X width of PAYED SHOULDER. PAYED SHOULDER. PAYED OR NON-PAYED SHOULDER \*\* = (600 mm) \*\* \*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

## LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING) HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS, HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE, REFER TO STANDARD BI4001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN. TRENCHED 1" (25 mm) AN \* 10 PERPENDICULAR TO MEDIAN (TYP.) AN \* 10 PERPENDICULAR TO MEDIAN (TYP.)

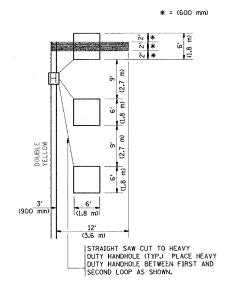
\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

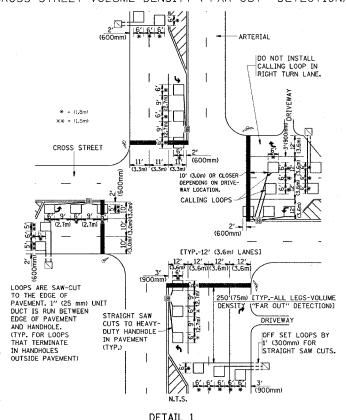
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

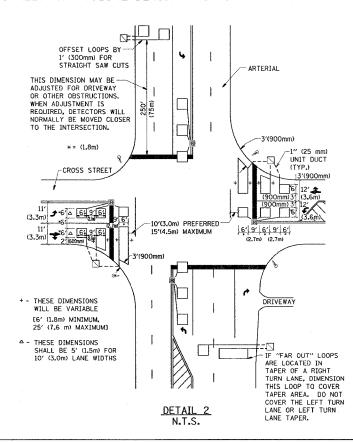


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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)



| CONTRACT NO. 60C56 | F.A.P. | SECTION | COUNTY | TOTAL | SHEET NO. 311 | 8 Y-RS-3 | COOK | 28 | 28 | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID | PROJECT |

### NOTES:

### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF <u>ALL</u> DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (I.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

### PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON  $\underline{\mathsf{ALL}}$  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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REVISION DATE: