04-26-13 LETTING ITEM 025

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60N57		

D-91-327-11 *21-1=20

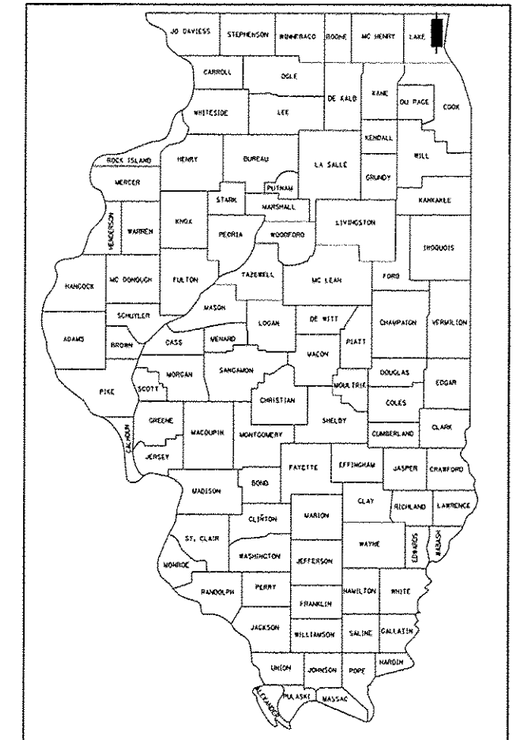
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATIONS
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

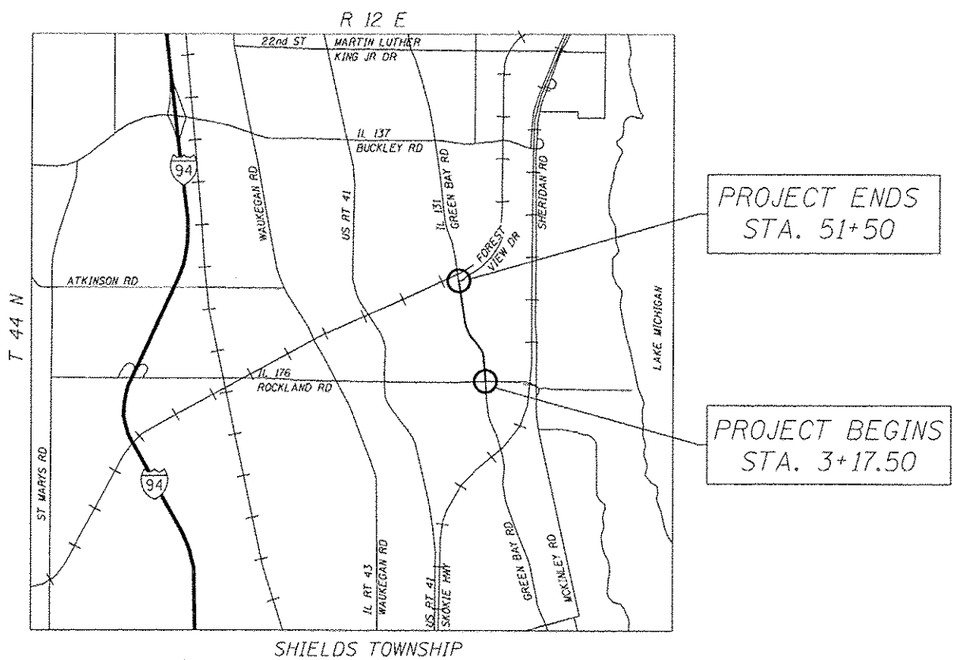
F.A.U. ROUTE 2711 /IL ROUTE 131 (GREEN BAY ROAD)
FOREST VIEW DRIVE TO ROCKLAND ROAD
SECTION: K–1–R–RS
RESURFACING
LAKE COUNTY
C–91–327–11

PROJECT LOCATED IN THE VILLAGE OF LAKE BLUFF

FOR INDEX OF SHEETS, SEE SHEET NO. 2



LOCATION OF SECTION INDICATED THUS:- ▬



SHIELDS TOWNSHIP

LOCATION MAP

3000' 6000'
1" = 3000'

GROSS AND NET LENGTH OF PROJECT = 4832.5' = 0.915 MI

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED DECEMBER 12, 20 12

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 22 20 13

John D. Baranzelli, P.E. /BL
acting ENGINEER OF DESIGN AND ENVIRONMENT

March 22 20 13

Omer Osman, P.E. /BL
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

DESIGN DESIGNATION
MINOR ARTERIAL URBAN

ADT 12400 (2010)
POSTED SPEED LIMIT 40 MPH

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT MANAGER: ISSAM RAYYAN (847) 705–4178
PROJECT ENGINEER: ROBERT BORO (847) 705–4237

CONTRACT NO. 60N57

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Alfred Benesch & Company
1500 Wall St, Suite 222
Naperville, Illinois 60563
630-577-9100 Job No. 10250.00

WILLIAM H. BORO 062-047857 REGISTERED PROFESSIONAL ENGINEER ILLINOIS

Exp 11.30.13

SHEET NO.	TITLE
1	TITLE SHEET
2	GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS
3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
5-6	ROAWAY AND PAVEMENT MARKING PLAN
7	DETECTOR LOOP PLAN
8	DETECTOR LOOP DETAILS
9	OUTLET FOR CONCRETE CURB & GUTTER
10	FRAMES AND LIDS ADJUSTMENT WITH MILLING
11	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
12	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
13	BUTT JOINTS AND HMA TAPER
14	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
15	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)
16	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
17	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
18	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)
19	ARTERIAL ROAD INFORMATION SIGN (TC-22)
~~20~~	~~DRIVEWAY ENTRANCE SIGNING (TC-26)~~ DELETED
21	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING (TS-07)

STATE STANDARDS

SHEET NO.	TITLE
442201-03	CLASS C AND CLASS D PATCHES
604001-03	FRAME AND LIDS, TYPE 1
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701006-04	OFF-ROAD, OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701011-03	OFF-ROAD MOVING OPERATION, 2L, 2W, DAY ONLY
701301-04	URBAN LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-05	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-02	TRAFFIC CONTROL DEVICES
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

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 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF LAKE BLUFF IN LAKE COUNTY, ILLINOIS.

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

WHEN THE MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALLNOT EXCEED 1 ½ INCHES (40 mm) WHERE THE SPEED LIMIT IS 40 MPH (64 KM/H), OR LESS AND 1 INCH (25 mm) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (72 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 mm) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

GENERAL NOTES (CONTINUATION)

UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURE AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING.

ALL PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREET AND ENTRANCE SHALL BE REPLACED AND PAID FOR IN KIND.

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

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

DRAINAGE ADJUSTMENTS OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

LOCATION OF COMBINATION CONCRETE CURB AND GUTTER OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, AND COMBINATION CURB AND GUTTER REMOVAL WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

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

THE ENGINEER SHALL CONTACT DEBBIE HANLON, THE AREA TRAFFIC FIELD TECHNICIAN, AT (847) 438-2300 A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

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

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

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

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

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CHECKED - MJY, SLV	REVISED -	
DATE - 12/11/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: NONE | SHEET NO. 1 OF 1 SHEET | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	20	2
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

URBAN

SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE	
CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0005	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	16	16	
40600300	AGGREGATE (PRIME COAT)	TON	77	77	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	29	29	
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	807	807	
40600895	CONSTRUCTING TEST STRIP	EACH	2	2	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	214	214	
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	93	93	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1614	1614	
42001300	PROTECTIVE COAT	SQ YD	267	267	
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	19209	19209	
44002208	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 2"	SQ YD	825	825	
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	20	20	
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	360	360	
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	200	200	
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	245	245	
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	1	1	
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	28	28	
60404950	FRAMES AND GRATES, TYPE 24	EACH	10	10	
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	4	4	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5	
67100100	MOBILIZATION	L SUM	1	1	
~~70100460~~	~~TRAFFIC CONTROL AND PROTECTION, STANDARD 701306~~	~~L SUM~~	~~1~~	~~1~~	
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1	
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1	1	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	4024	4024	

URBAN

SUMMARY OF QUANTITIES				100% STATE	CONSTRUCTION TYPE CODE	
	CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0005	
	70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	472	472	
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	11336	11336	
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1773	1773	
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	617	617	
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	149	149	
	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	472	472	
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	11336	11336	
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1773	1773	
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	617	617	
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	149	149	
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	264	264	
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	1618	1618	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	264	264	
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	256	256	
	X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	150	150	
	X5537900	STORM SEWERS TO BE CLEANED 15"	FOOT	150	150	
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	4	4	
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	28	28	
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	318	318	
	Z0604562	COMBINATION CURB AND GUTTER REMOVE AND REPLACEMENT ↑ CONCRETE	FOOT	800	800	
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1342	1342	

* SPECIALTY ITEMS

Rev.

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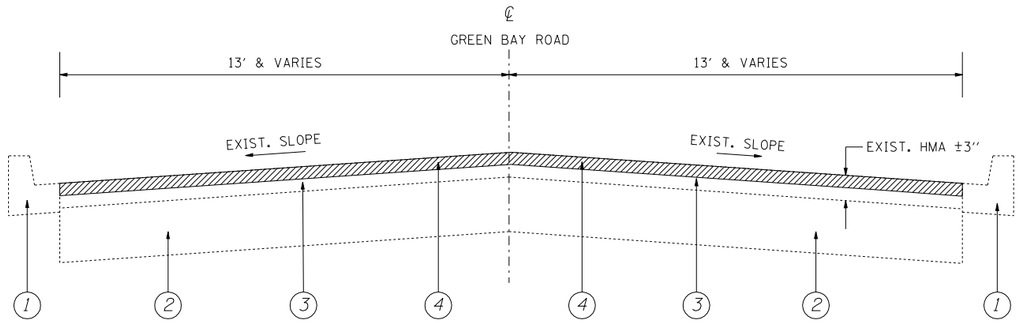
	CHECKED - MJY, SLV	REVISED -
	DATE - 12/11/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

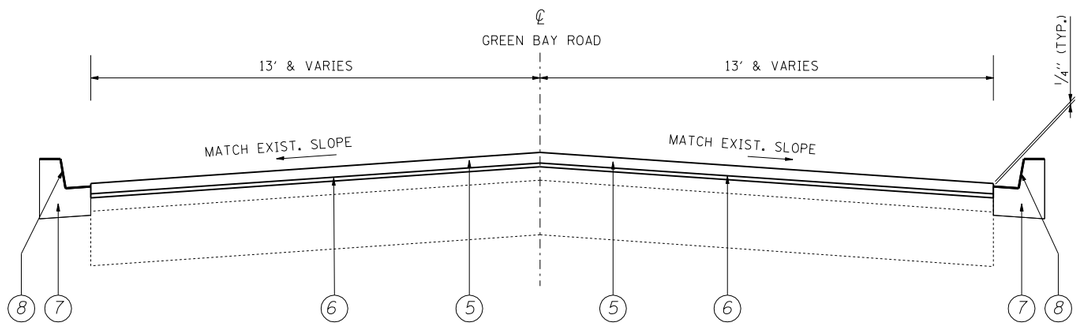
SUMMARY OF QUANTITIES
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: NONE | SHEET NO. 1 OF 1 SHEET | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	3
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



GREEN BAY ROAD
EXISTING TYPICAL SECTION
STA. 3+17.50 TO STA. 51+50



GREEN BAY ROAD
PROPOSED TYPICAL SECTION
STA. 3+17.50 TO STA. 51+50

LEGEND

1. EXISTING COMBINATION CONCRETE CURB AND GUTTER
2. EXISTING PCC BASE COURSE, ±10"
3. EXISTING REMAINING HMA AFTER MILLING, ¾"
4. PROPOSED HMA SURFACE REMOVAL, 2"
5. PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 ½"
6. PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, ¾"
7. PROPOSED COMBINATION CONCRETE CURB AND GUTTER REMOVE AND REPLACE, OF THE TYPE & SIZE AS DIRECTED BY THE ENGINEER, AT THE LOCATIONS DETERMINED BY THE ENGINEER.
8. PROTECTIVE COAT TO BE APPLIED ON ANY NEW COMBINATION CONCRETE CURB & GUTTER OF THE TYPE AND SIZE INSTALLED.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	DESIGN AIR VOIDS	THICKNESS
ROADWAY RESURFACING		
HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR	1 ½"
POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50	4% @ 50 GYR	¾"
PAVEMENT PATCHING		
CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 GYR	10"
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR	2"

NOTES:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQ-YD/IN.

THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING.

FOR "AC TYPE" FOR 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 USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

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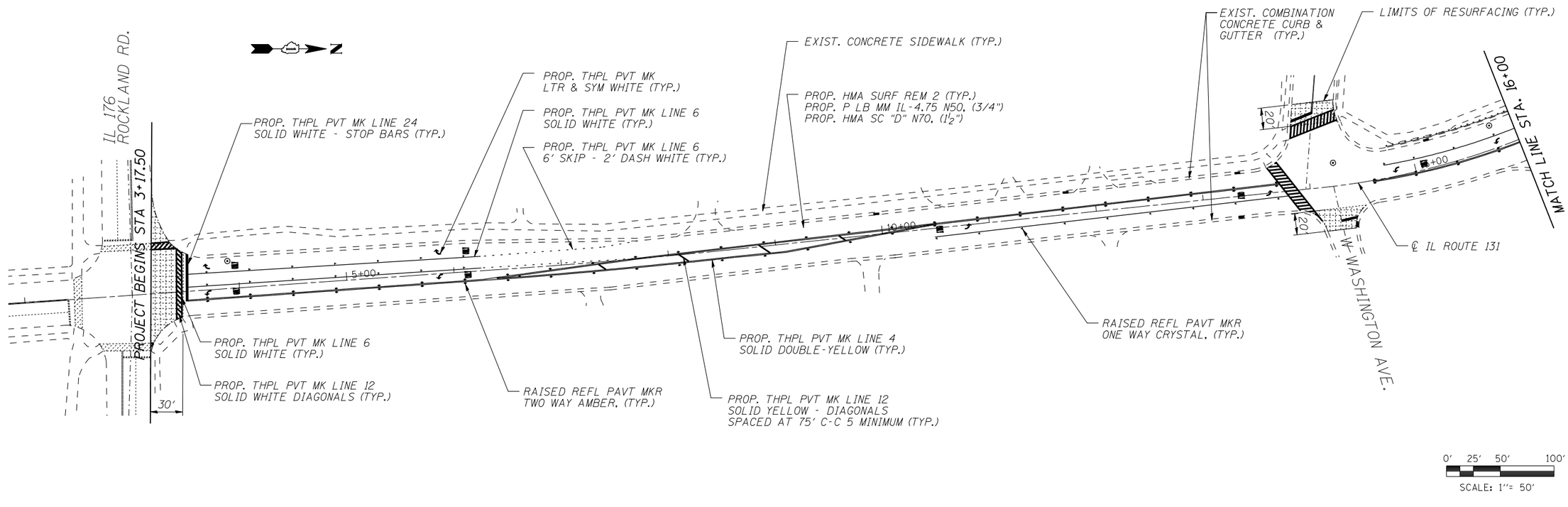
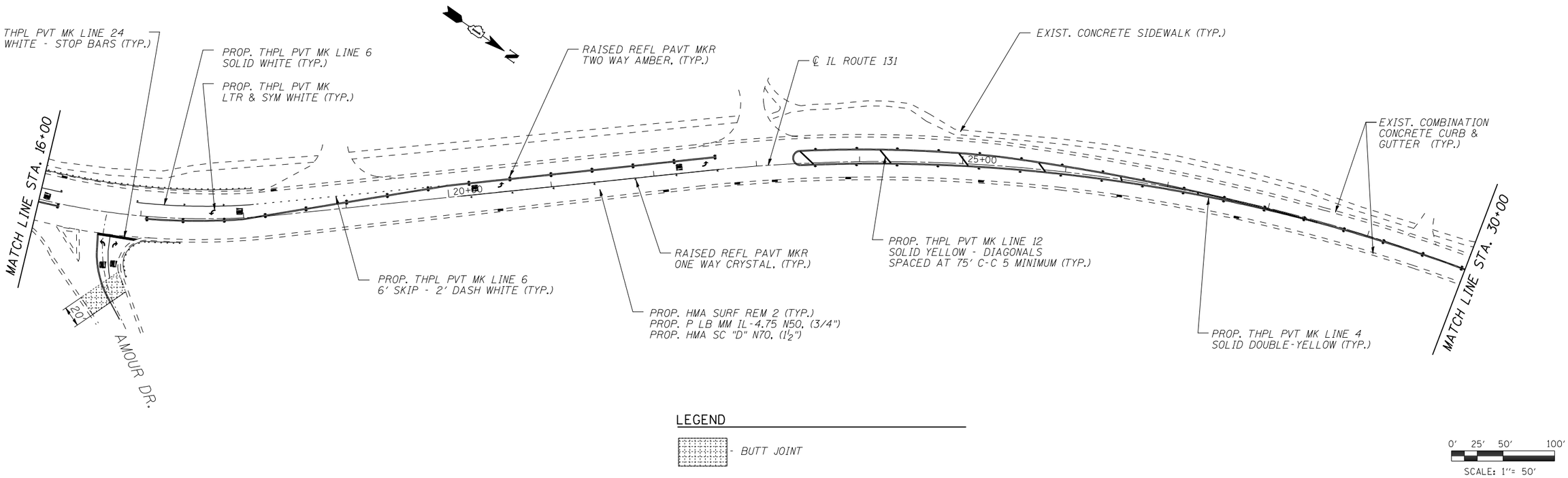
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: NONE | SHEET NO. 1 OF 1 SHEET | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	4
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





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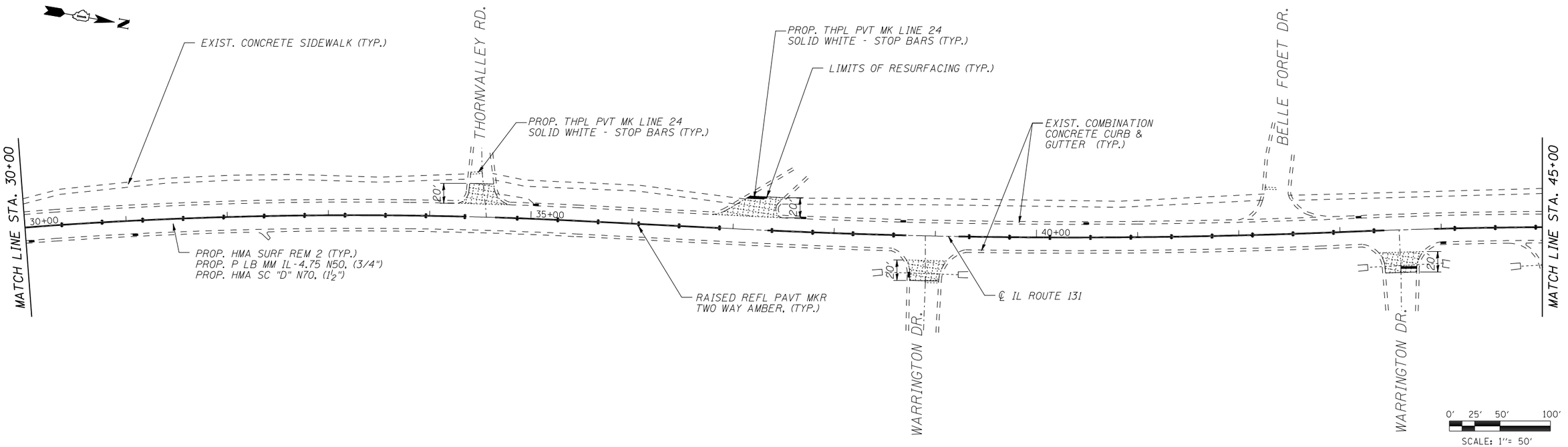
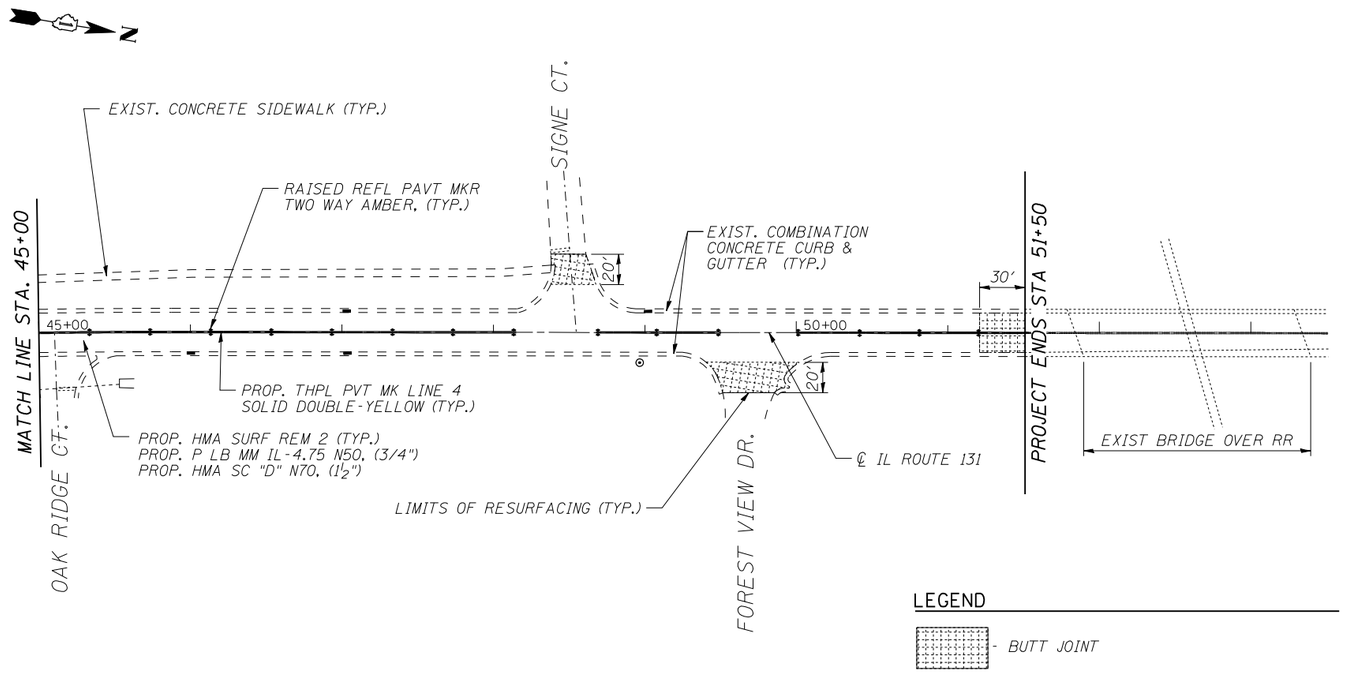
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVING AND PAVEMENT MARKING PLAN
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: 1"=50' | SHEET NO. 1 OF 2 SHEETS | STA. 3+17.50 TO STA. 30+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	5
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





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DATE - 12/11/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVING AND PAVEMENT MARKING PLAN
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: 1"=50' | SHEET NO. 2 OF 2 SHEETS | STA. 30+00 TO STA. 51+50

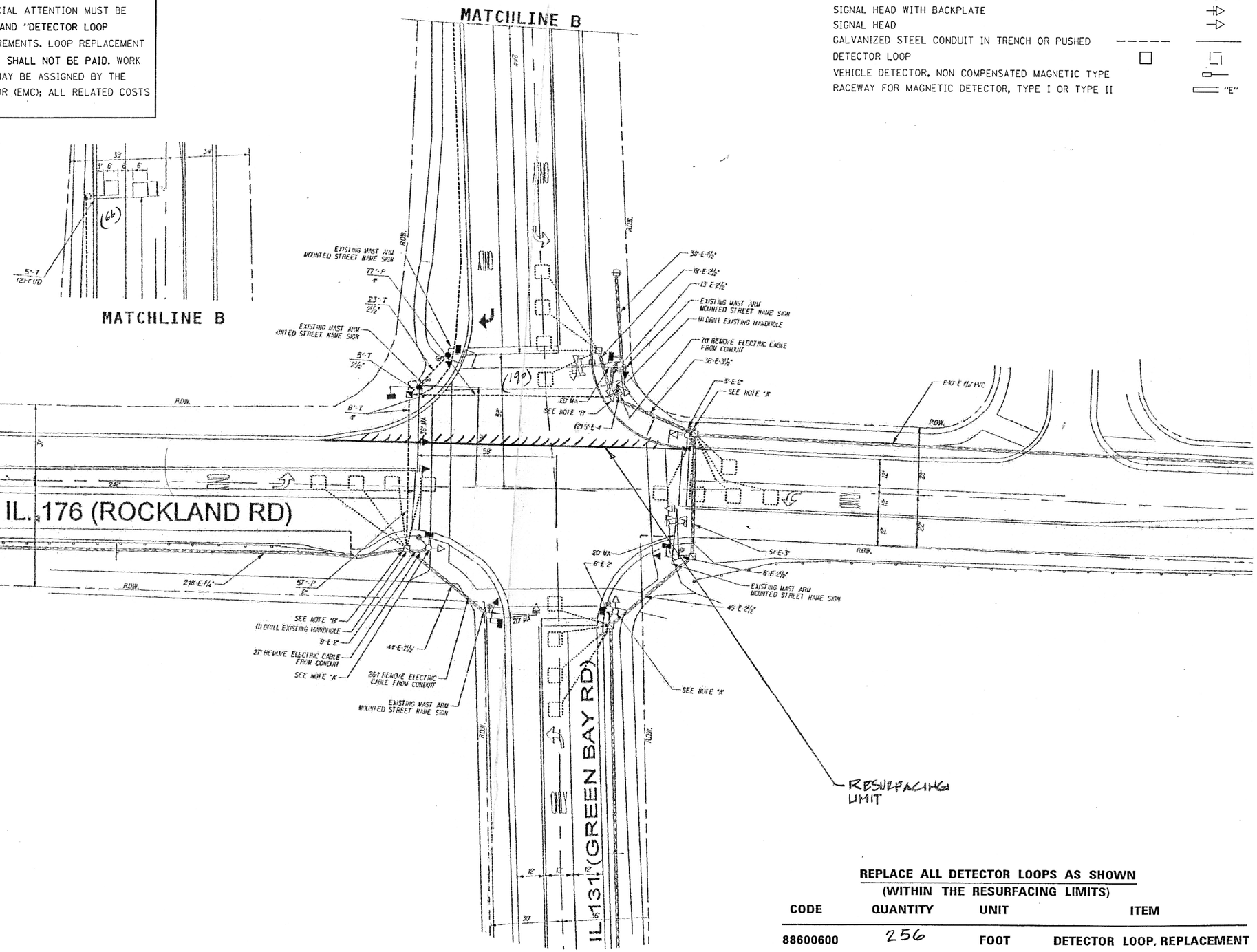
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	6
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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"

SCALE: 1"=20'



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

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

CODE	QUANTITY	UNIT	ITEM
88600600	256	FOOT	DETECTOR LOOP, REPLACEMENT

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DATE - 12/11/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP PLAN
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	7
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	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 LASS THAN 6" (150mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE BOST 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 SUCK A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE IT'S 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 LEADOIN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINER, 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 THE RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

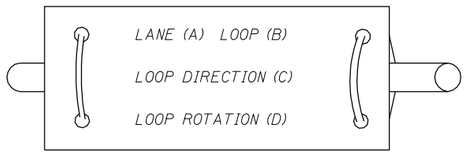
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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 ACHIVED BY THE USE OF COMPRESSED AIR. WIRE BRUSHING AND HEAD 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" (450mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES AND 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 ASPHALT 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

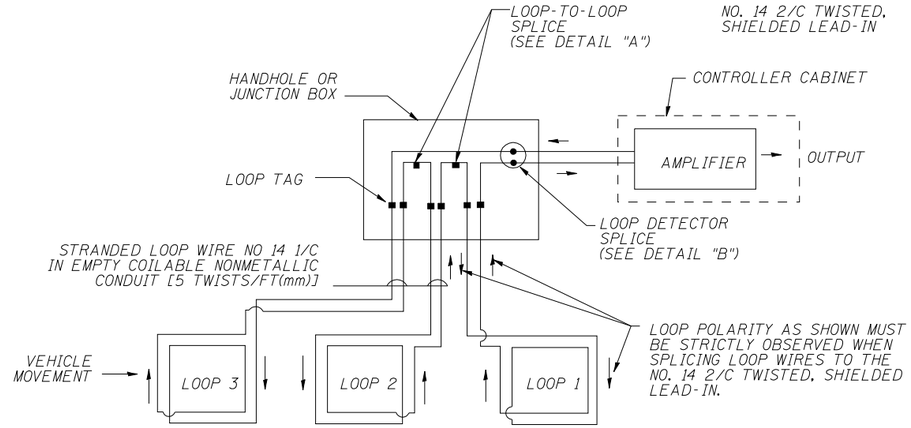


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY.

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

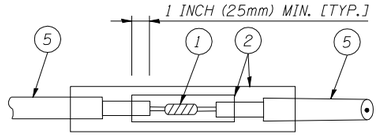
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

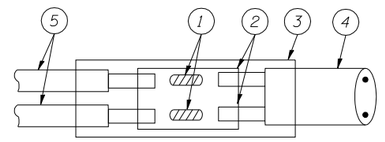


DETECTOR LOOP WIRING SCHEMATIC

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

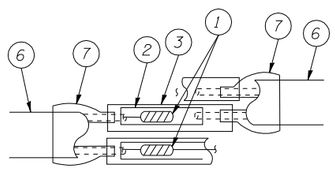


DETAIL "A"
LOOP-TO-LOOP SPLICE



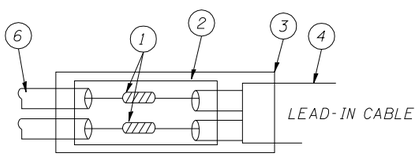
DETAIL "B"
LOOP-TO-CONTROLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PREFORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLER 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" (75mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP.

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

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630-577-9100 Job No. 10258.00

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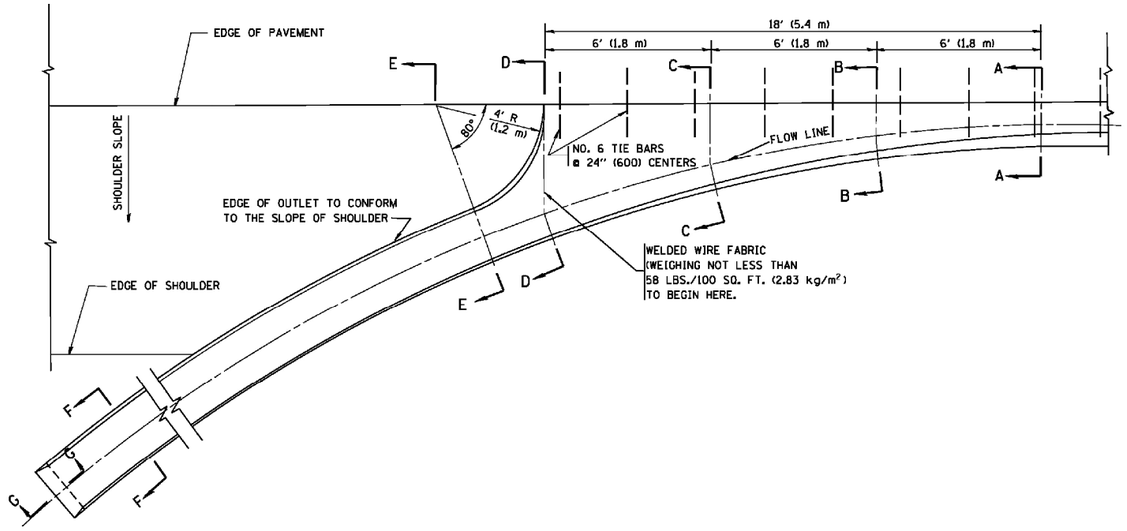
CHECKED - MJY, SLV	REVISED -	
DATE - 12/11/2012	REVISED -	

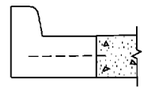
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP DETAIL
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. | STA. 3+17.50 TO STA. 51+50

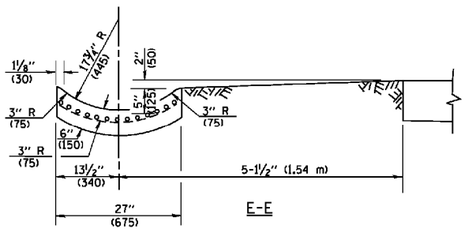
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	8
	D-91-327-11		CONTRACT NO. 60N57	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



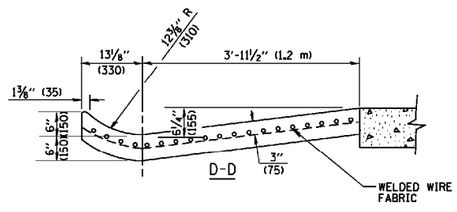


A-A *

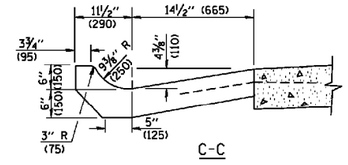
* DIMENSIONS OF THE CURB & GUTTER AT SECTION A-A ARE SHOWN ON STATE STANDARD 606001. FOR DETAILS OF OUTLET FOR CONCRETE CURB & GUTTER, TYPE B-6.24 (B-15.60) SEE STATE STANDARD 606006.



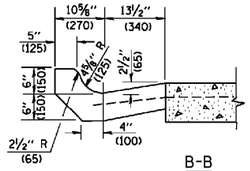
E-E



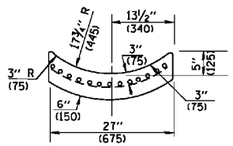
D-D



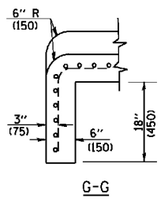
C-C



B-B



F-F



G-G

REVISED	-	R. SHAH 09-09-94
REVISED	-	R. SHAH 10-25-94
REVISED	-	E. GOMEZ 12-21-00
REVISED	-	

GENERAL NOTES

GUTTER OUTLET SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.

TIE BARS SHALL BE NO. 20 (NO.6) AT 24" (600) CENTERS UNLESS OTHERWISE SHOWN.

IF THE AVERAGE GRADE OF PAVEMENT FOR THE DISTANCE FROM SECTION A-A TO D-D EXCEEDS 2%, THIS DISTANCE SHALL BE INCREASED 6' (1.8 m) FOR EACH 1% INCREASE IN GRADE.

QUANTITIES

FOR SECTION A-A TO E-E AND CURTAIN WALL=
1.25 CU. YDS. (0.96 m^3) CLASS SI CONCRETE (OUTLET) FOR 9" (225) PAV'T.
1.27 CU. YDS. (0.96 m^3) CLASS SI CONCRETE (OUTLET) FOR 10" (250) PAV'T.
FOR SECTION F-F=
0.045 CU. YDS. (0.03 m^3) CLASS SI CONCRETE PER ft. (m).

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

OUTLET FOR CONCRETE CURB AND GUTTER

benesch engineers - scientists - planners
Alfred Benesch & Company
1520 Wall St. Suite 222
Naperville, Illinois 60563
630-577-9100 Job No. 10258.00

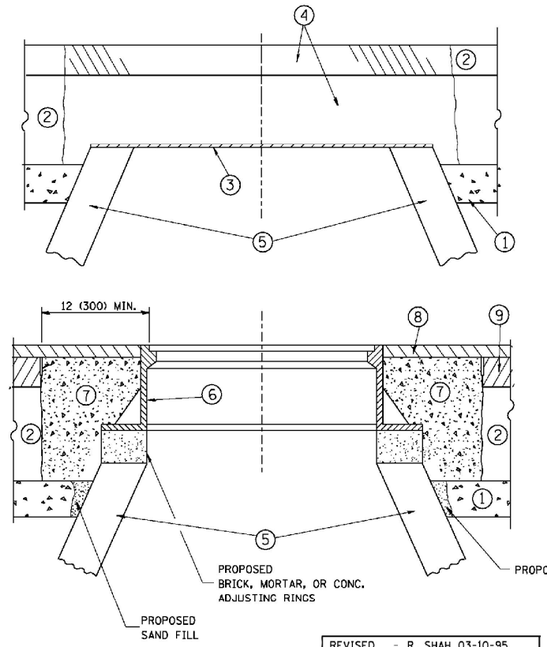
DESIGNED	- ST	REVISED -
DRAWN	- ST	REVISED -
CHECKED	- MJY, SLV	REVISED -
DATE	- 12/11/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 1 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	9
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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 1½ (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.

REVISED	- R. SHAH 03-10-95
REVISED	- A. ABBAS 03-21-97
REVISED	- R. WIEDEMAN 05-14-04
REVISED	- R. BORO 01-01-07

LEGEND

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

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

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

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

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

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1690 Well St. Suite 222
Naperville, Illinois 60563
630-577-9100 Job No. 10258.00

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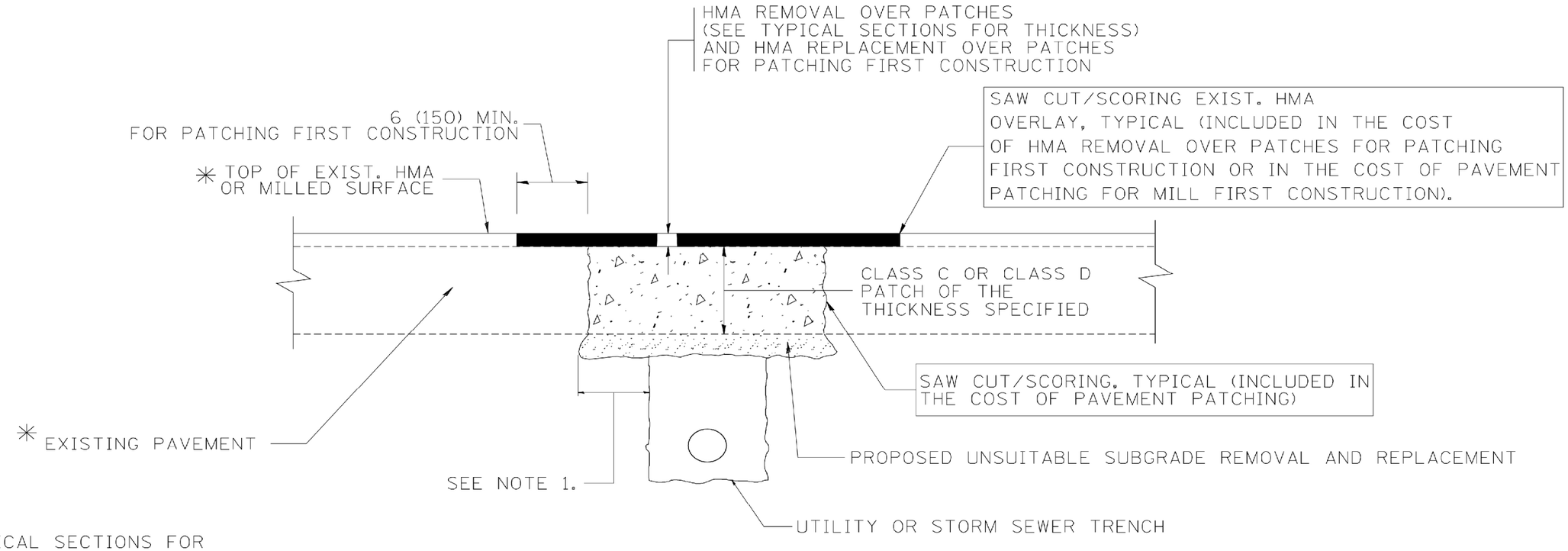
DRAWN	- ST	REVISED -
CHECKED	- MJY, SLV	REVISED -
DATE	- 12/11/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 2 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	10
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

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

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST $4\frac{1}{2}$ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

REVISED	-	A. ABBAS 04-27-98
REVISED	-	R. BORO 01-01-07
REVISED	-	R. BORO 09-04-07
REVISED	-	K. ENG 10-27-08

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

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

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1520 West St. Suite 222
Naperville, Illinois 60563
630-577-9100 Job No. 10259.00

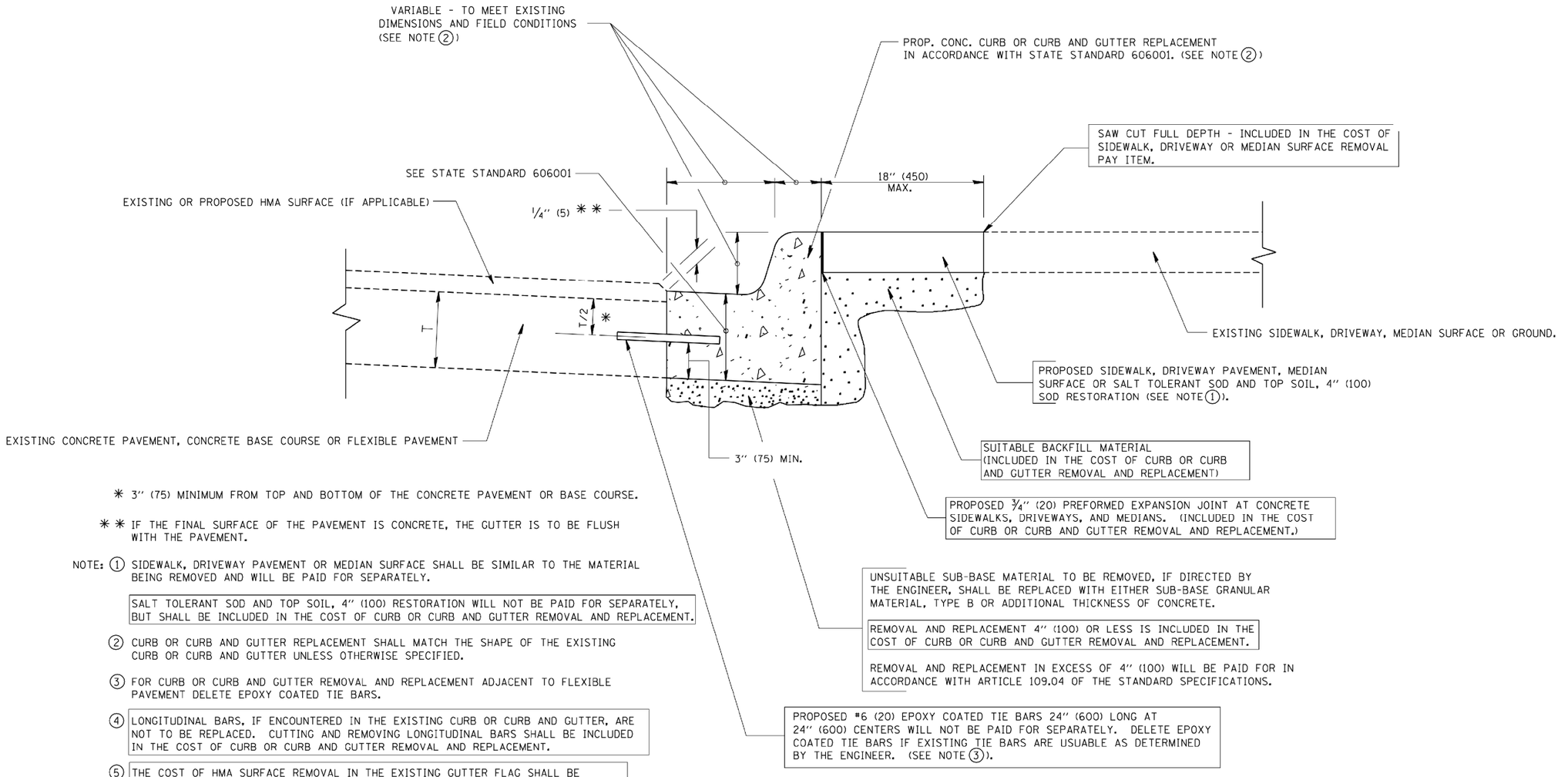
DESIGNED	- ST	REVISED -
DRAWN	- ST	REVISED -
CHECKED	- MJY, SLV	REVISED -
DATE	- 12/11/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 3 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	11
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

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

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

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

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

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

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

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

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

BASIS OF PAYMENT:

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

REVISED	-	R. SHAH 10-03-96
REVISED	-	A. ABBAS 03-21-97
REVISED	-	M. GOMEZ 01-22-01
REVISED	-	R. BORO 01-01-07

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

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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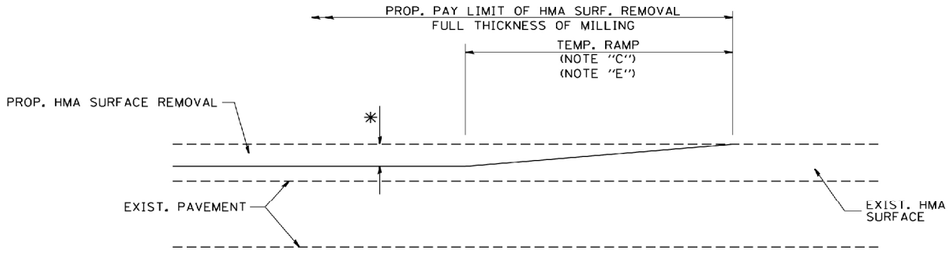
DATE	- 12/11/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 4 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

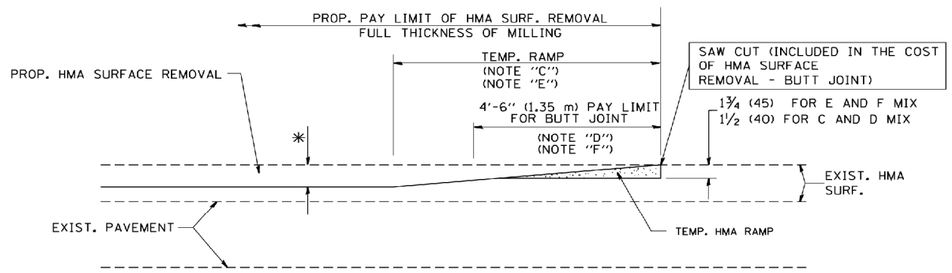
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	12
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

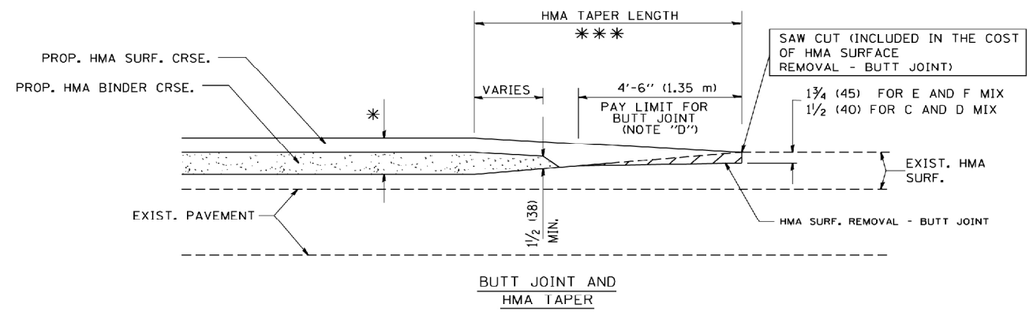


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

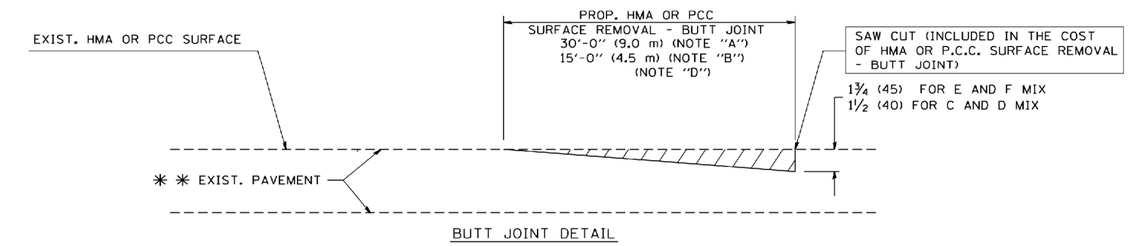
TYPICAL TEMPORARY RAMP



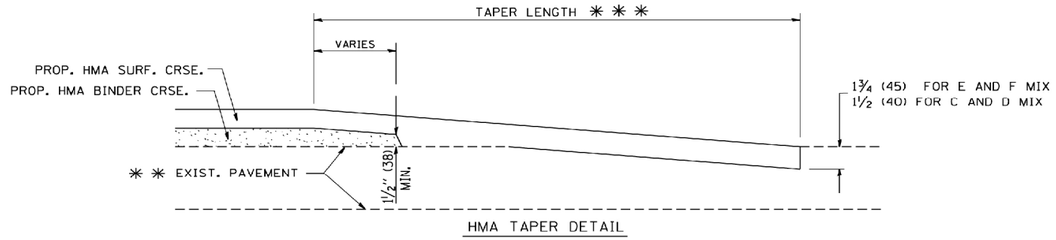
BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

REVISED	-	R. SHAH 10-25-94
REVISED	-	A. ABBAS 03-21-97
REVISED	-	M. GOMEZ 04-06-01
REVISED	-	R. BORO 01-01-07



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

* * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

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

BUTT JOINT AND HMA TAPER DETAILS

benesch engineers · scientists · planners
Alfred Benesch & Company
1500 West St. Suite 222
Naperville, Illinois 60563
630-577-9100 Job No. 10259.00

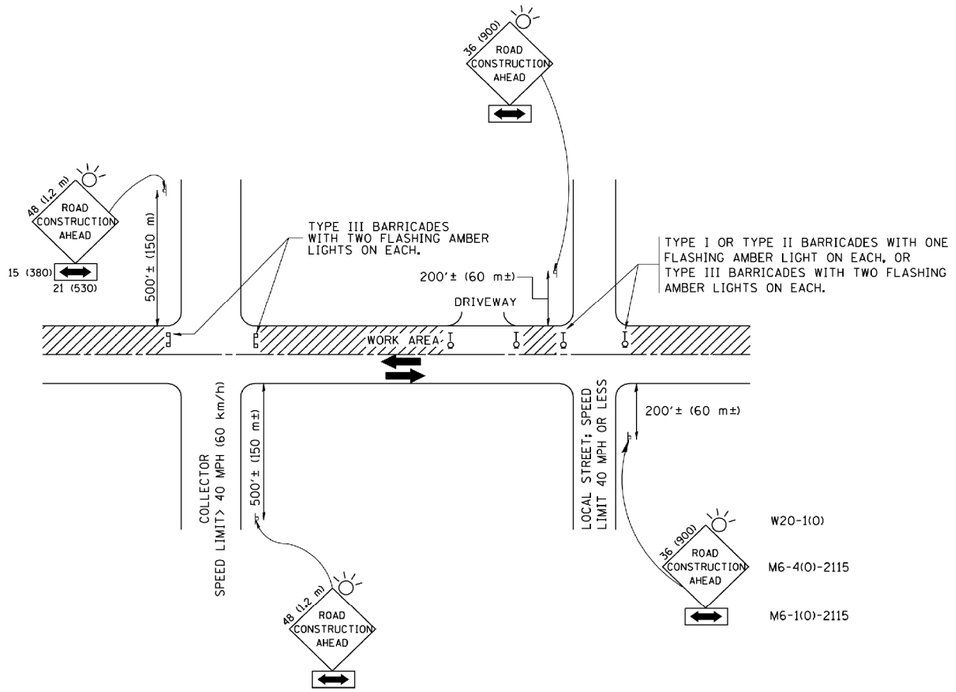
	DESIGNED - ST	REVISED -	
	DRAWN - ST	REVISED -	
	CHECKED - MJY, SLV	REVISED -	
	DATE - 12/11/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 5 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	13
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

REVISED	- J. OBERLE 10-18-95
REVISED	- A. HOUSEH 03-06-96
REVISED	- A. HOUSEH 10-15-96
REVISED	-T. RAMMACHER 01-06-00

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

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

benesch engineers · scientists · planners
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Naperville, Illinois 60563
630-577-9100 Job No. 10259.00

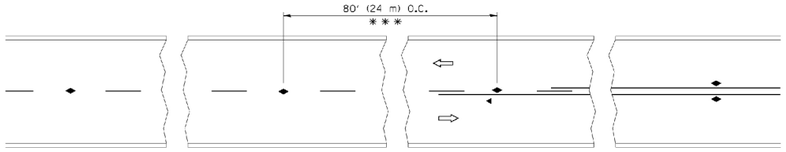
DESIGNED	- ST	REVISED -
DRAWN	- ST	REVISED -
CHECKED	- MJY, SLV	REVISED -
DATE	- 12/11/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

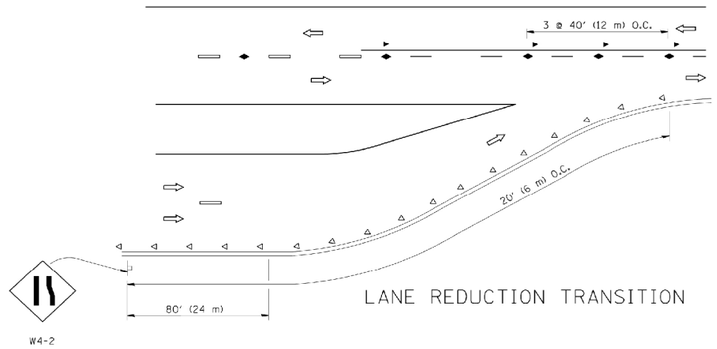
SCALE: | SHEET NO. 6 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	14
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

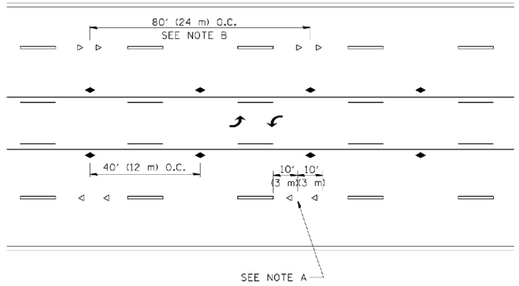


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

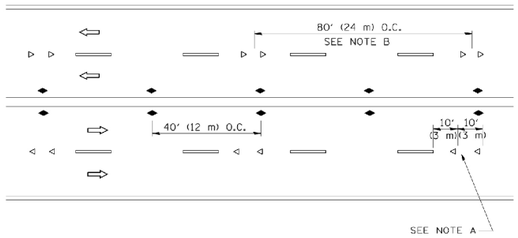
TWO-LANE/TWO-WAY



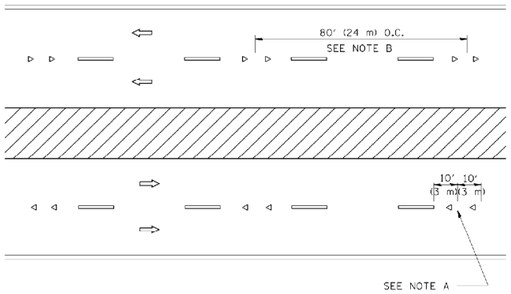
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

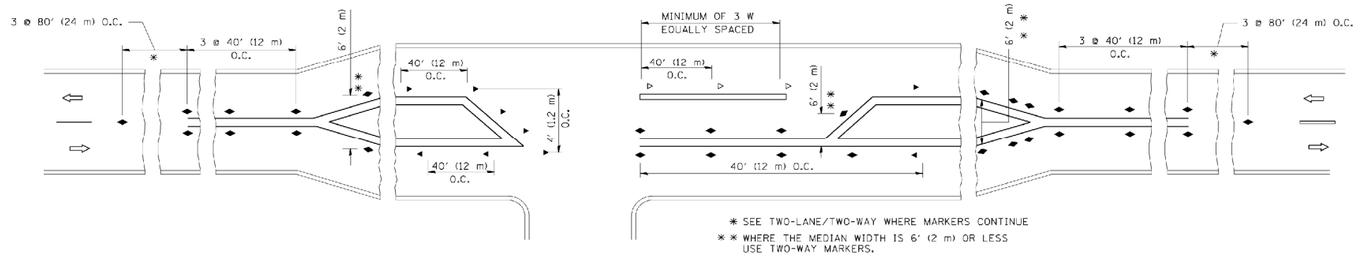
SYMBOLS

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

LANE MARKER NOTES

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.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

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

LEFT TURN

REVISED	- T. RAMMACHER 09-19-94
REVISED	- T. RAMMACHER 03-12-99
REVISED	- T. RAMMACHER 01-06-00
REVISED	- C. JUCIUS 09-09-09

DESIGN NOTES

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

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

RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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1520 Well St. Suite 222
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630-577-9100 Job No. 10259.00

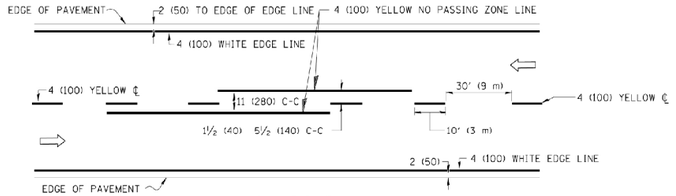
DESIGNED - ST	REVISED -	
DRAWN - ST	REVISED -	
CHECKED - MJY, SLV	REVISED -	
DATE - 12/11/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

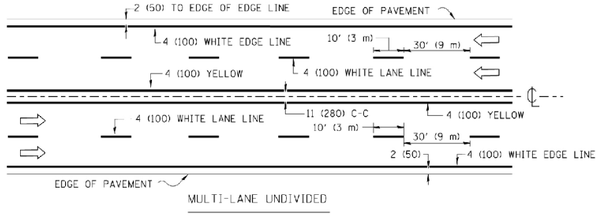
DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 7 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

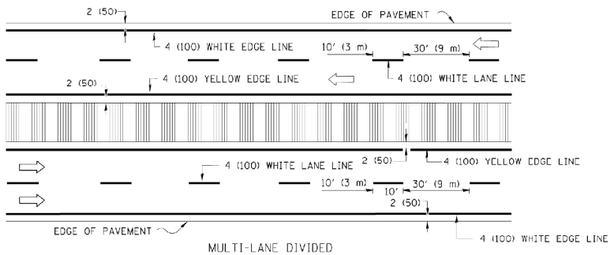
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	15
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



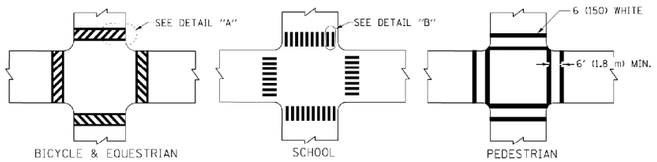
MULTI-LANE UNDIVIDED

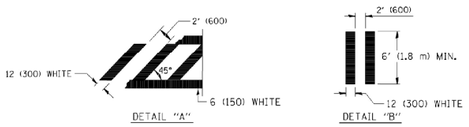


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

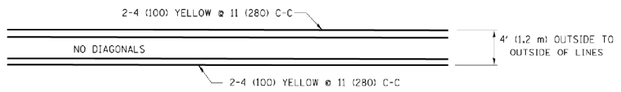
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

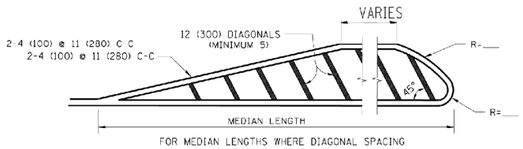




TYPICAL CROSSWALK MARKING



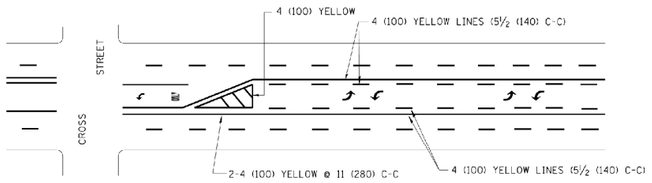
4' (1.2 m) WIDE MEDIANS ONLY



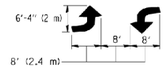
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

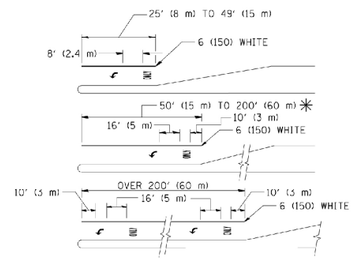


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

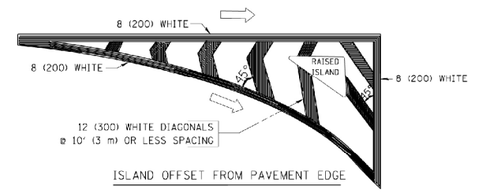


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

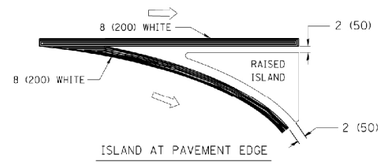
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

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 WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

REVISED	-T. RAMMACHER	10-27-94
REVISED	-C. JUCIUS	09-09-09
REVISED	-	
REVISED	-	

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

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630-577-9100 Job No. 10258.00

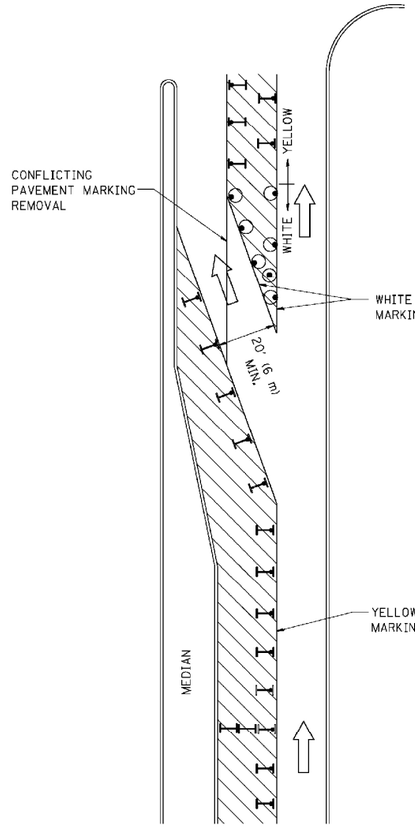
DESIGNED	- ST	REVISED -
DRAWN	- ST	REVISED -
CHECKED	- MJY, SLV	REVISED -
DATE	- 12/11/2012	REVISED -

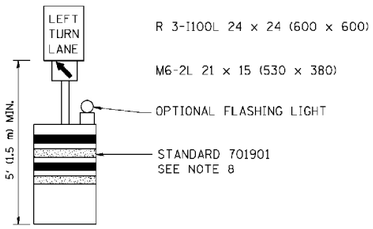
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 8 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	16
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHR 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
REVISED - A. HOUSEH 11-07-95	REVISED -
REVISED - A. HOUSEH 10-12-96	REVISED -
REVISED -T. RAMMACHER 01-06-00	REVISED -

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)

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1500 Wall St. Suite 222
Naperville, Illinois 60563
630-577-9100 Job No. 10259.00

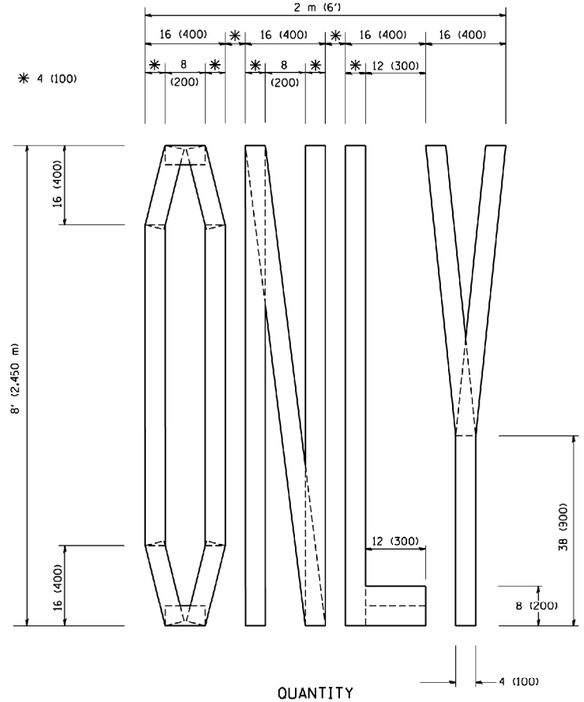
DESIGNED - ST	REVISED -	
DRAWN - ST	REVISED -	
CHECKED - MJY, SLV	REVISED -	
DATE - 12/11/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

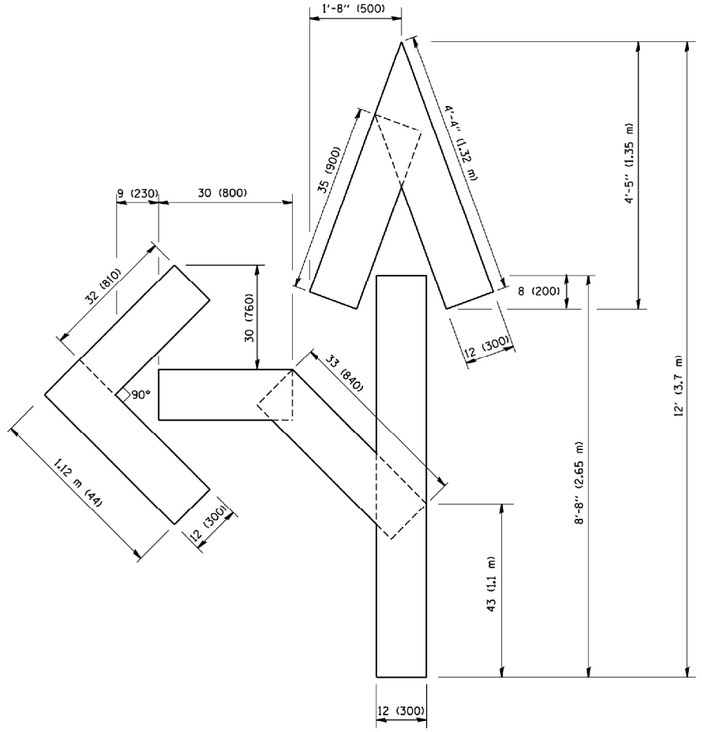
DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 9 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

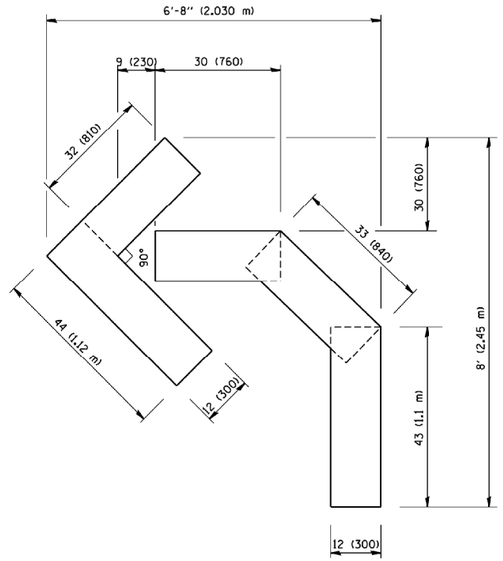
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	17
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



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



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

REVISED	-T. RAMMACHER 06-05-96
REVISED	-T. RAMMACHER 11-04-97
REVISED	-T. RAMMACHER 03-02-98
REVISED	-E. GOMEZ 08-28-00

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

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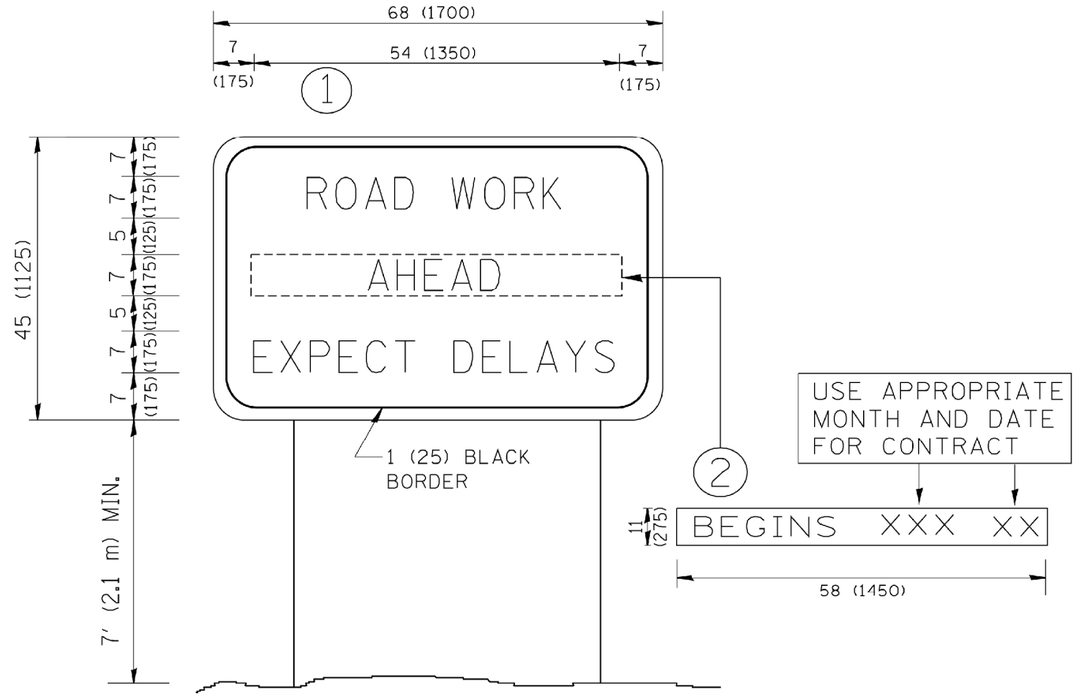
DATE	- 12/11/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 10 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	18
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE ''ROAD CONSTRUCTION AHEAD'' SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR ''TEMPORARY INFORMATION SIGNING'' FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

REVISED - R. MIRS 09-15-97
REVISED - R. MIRS 12-11-97
REVISED -T. RAMMACHER 02-02-99
REVISED - C. JUCIUS 01-31-07

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

ARTERIAL ROAD INFORMATION SIGN

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DATE - 12/11/2012	REVISED -	

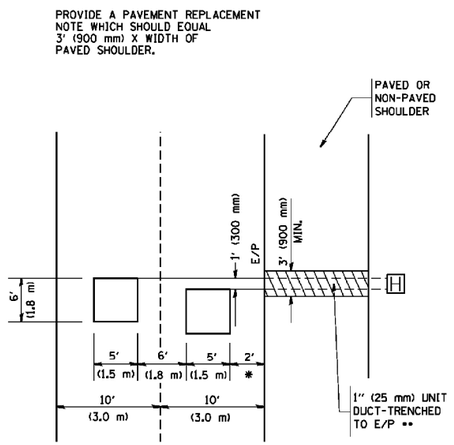
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
IL 131 (GREEN BAY ROAD) FOREST VIEW DR TO ROCKLAND RD

SCALE: | SHEET NO. 11 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	19
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

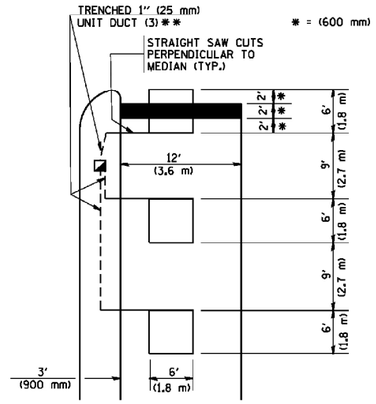


* = (600 mm)

** 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)

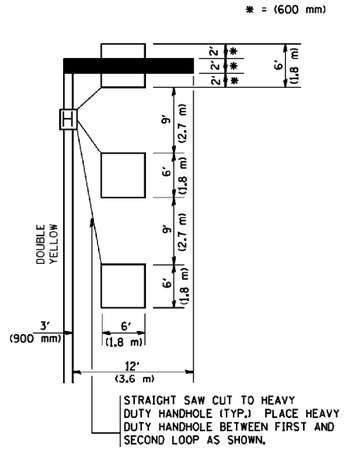


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

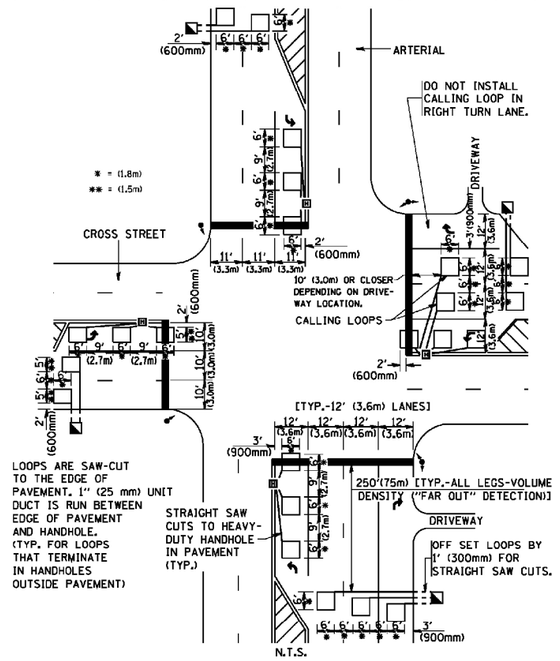
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)



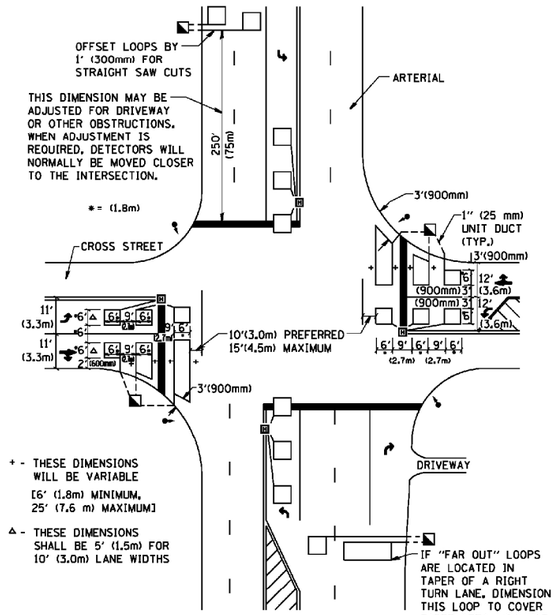
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

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

PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

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

NOTE:

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

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

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SCALE: | SHEET NO. 13 OF 13 SHEETS | STA. 3+17.50 TO STA. 51+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	K-1-R-RS	LAKE	21	21
	D-91-327-11	CONTRACT NO. 60N57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		