9-23-05 Letting, Item 043

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 344	2005-016PCC-PP	LAKE	14	1

CONTRACT NO. 62939

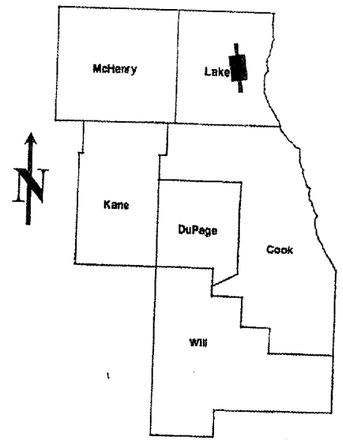
D-91-178-05

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT ONE
PROPOSED HIGHWAY PLANS

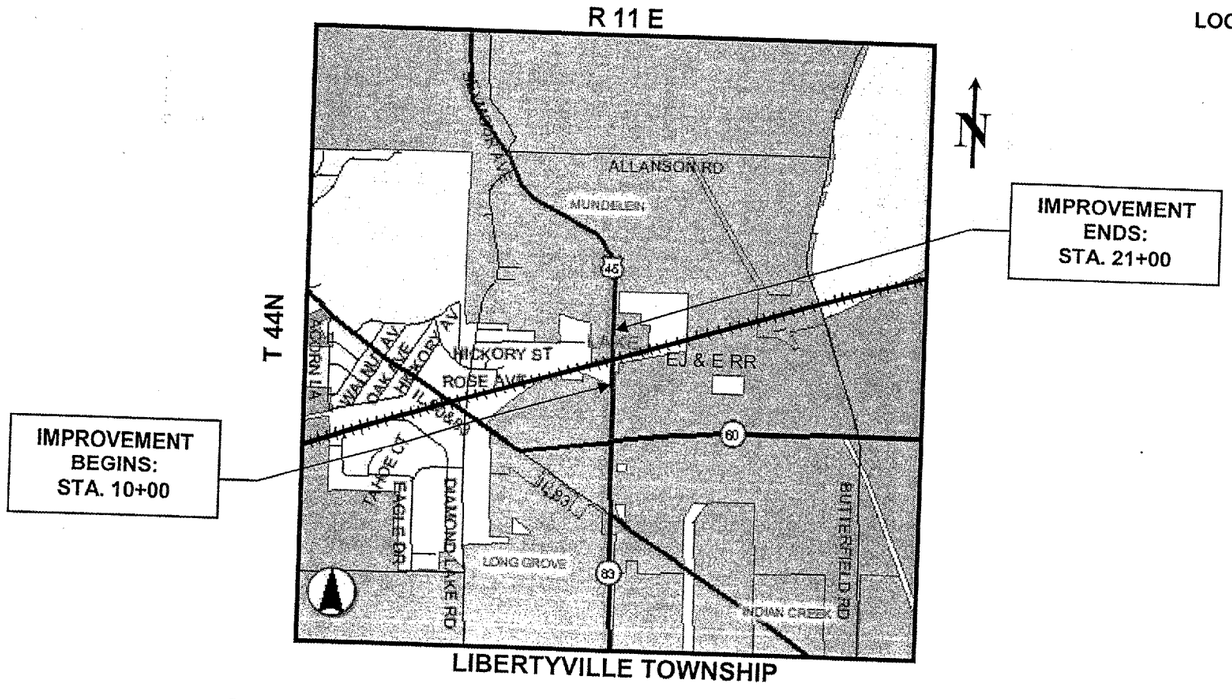
FAP 344: US RTE 45 (S. LAKE ST.)
N. OF IL RTE. 60 (TOWNLINE RD.)
SECTION: 2005-016PCC-PP
PCC PATCHING
LAKE COUNTY
C-91-178-05

FOR INDEX OF SHEETS SEE SHEET 2

IMPROVEMENT LOCATED IN THE CITY OF MUNDELEIN



LOCATION OF IMPROVEMENT INDICATED THUS:



TRAFFIC DATA

SPEED LIMIT = 40 MPH
2003 ADT = 30,500

GROSS LENGTH OF IMPROVEMENT = 1100 FT = 0.21 MILES
NET LENGTH OF IMPROVEMENT = 1100 FT = 0.21 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: July 7, 20 05
Dave O'Keefe /MP
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 19, 20 05
Mike Hine /MP
ENGINEER OF DESIGN AND ENVIRONMENT

August 19, 20 05
Victor Modeer /MP
DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

J.U.L.I.E.: JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION (312) 744-7000

DISTRICT ONE – DESIGN – PLAN PREPARATION ENGINEER:
KEN ENG / ROBERT BORO (847) 705-4178

CONTRACT NO. 62939

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 344	2005-016PCC-PP	LAKE	14	2

CONTRACT 62939

INDEX OF SHEETS

STATE STANDARDS

420001-06	PAVEMENT JOINTS
420101-03	7.2 M (24') JOINTED PCC PAVEMENT
420111-01	PCC PAVEMENT ROUNDOUTS
420701-01	PAVEMENT FABRIC
442101-05	CLASS B PATCHES
701101-01	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701606-04	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
702001-05	TRAFFIC CONTROL DEVICES

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS
STATE STANDARDS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 344	2005-016PCC-PP	LAKE	14	3

CONTRACT 62939

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

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

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

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

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

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

8. FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.

9. THE ENGINEER SHALL CONTACT DEBBIE HANLON, TRAFFIC FIELD TECHNICIAN AT (847)438-2300 TWO (2) WEEKS PRIOR TO THE START OF THIS PROJECT SO THAT EXACT STATIONING OF NO PASSING ZONES AND OTHER PERMANENT PAVEMENT MARKINGS MAY BE ESTABLISHED.

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

11. 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.

12. THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE.

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

14. THE ENGINEER SHALL OBTAIN APPROVAL FROM THE DISTRICT ONE BUREAU CHIEF OF MAINTENANCE FOR ANY PROPOSED REVISIONS IN THE SCHEDULED PAVEMENT PATCHING LOCATIONS.

15. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

16. ALL CLASS B PAVEMENT PATCHING WHICH REQUIRES FRAMES AND GRATES TO BE ADJUSTED SHALL BE CONSTRUCTED UTILIZING "CAST IN PLACE" PCC PAVEMENT ROUNDOUTS ACCORDING TO STATE HIGHWAY STANDARD 420111.

17. LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND COMBINATION CURB AND GUTTER, WILL BE DETERMINED BY THE ENGINEER.

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 344	2005-016PCC-PP	LAKE	14	4

CONTRACT 62939

SUMMARY OF QUANTITIES

			CONSTRUCTION TYPE CODE URBAN - 3000
CODE NUMBER	DESCRIPTION	UNIT	TOTAL
42001200	PAVEMENT FABRIC	SQ YD	485.3
42001300	PROTECTIVE COAT	SQ YD	1105.3
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	100
44200970	CLASS B PATCHES, TYPE II, 10 INCH	SQ YD	600.0
44200974	CLASS B PATCHES, TYPE III, 10 INCH	SQ YD	272.0
44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SQ YD	213.3
44213200	SAW CUTS	FOOT	5174
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	2
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	1
67100100	MOBILIZATION	L SUM	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	465
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	50
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	66
X0322467	TEMPORARY INFORMATION SIGNING FOR LANE CLOSURE	SQ FT	48
Z0017202	DOWEL BARS, 1 ½"	EACH	1760
Z0075300	TIE BARS	EACH	208

* SPECIALITY ITEM

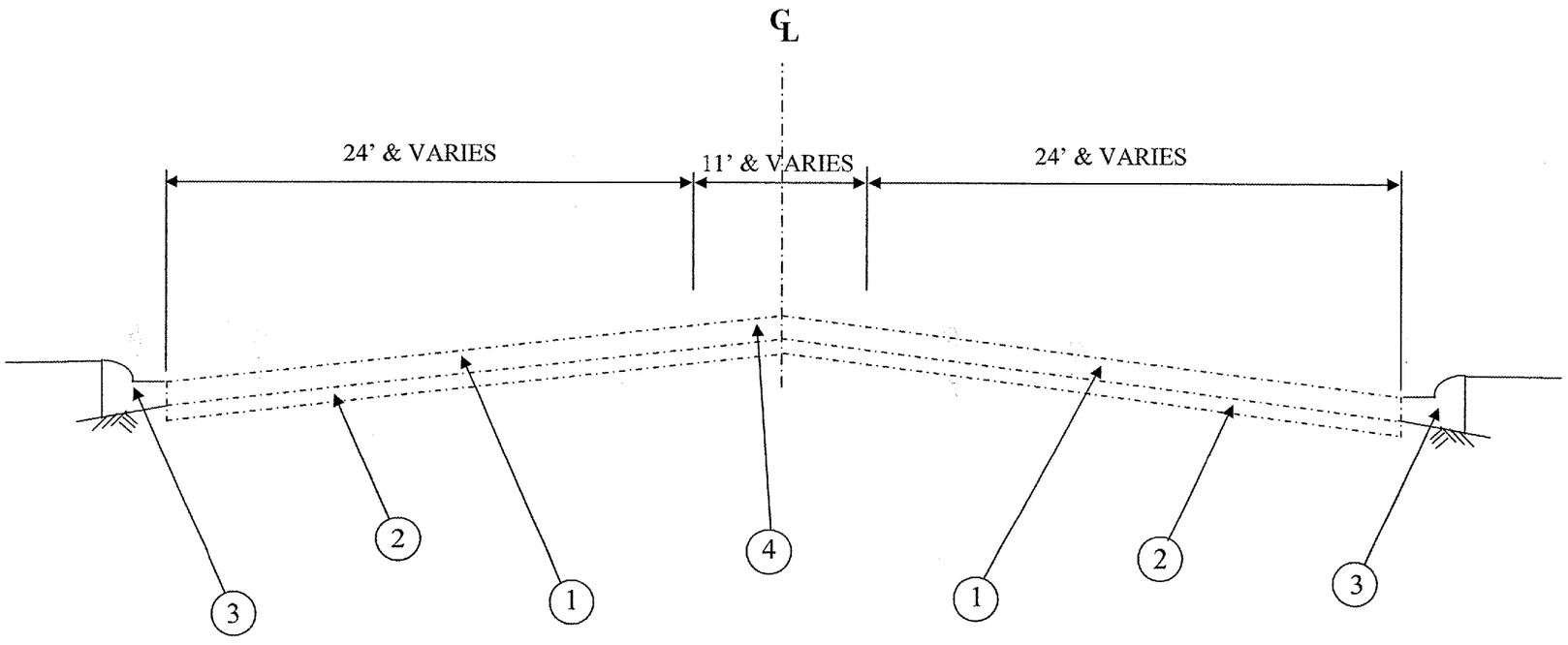
ILLINOIS DEPARTMENT OF TRANSPORTATION

US RTE. 45
SUMMARY OF QUANTITIES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 344	2005-016PCC-PP	LAKE	14	5

CONTRACT 62939

US RTE. 45
EXISTING AND PROPOSED
TYPICAL SECTION



1. P.C.C. PAVEMENT, 10"
2. STABILIZED SUB-BASE, 4"
3. CONCRETE COMBINATION CURB AND GUTTER, TYPE B-6.24 OR B-9.24
4. PAINTED MEDIAN

ILLINOIS DEPARTMENT OF TRANSPORTATION

US RTE. 45
TYPICAL SECTION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 344	2005-016PCC-PP	LAKE	14	6

CONTRACT 62939

SOUTHBOUND US RTE. 45

PATCH LOCATION NUMBER	STATION	LANE 1 SIZE (L X W)	LANE 1 AREA (SQ. YD.)	LANE 1 TYPE	LANE 2 SIZE (L X W)	LANE 2 AREA (SQ. YD.)	LANE 2 TYPE
1	10+14	6 x 12	8.0	II	6 x 12	8.0	II
2	10+45	16 x 12	21.3	III	16 x 12	21.3	III
*3	10+96	6 x 12	8.0	II	6 x 12	8.0	II
4	11+51	6 x 12	8.0	II	6 x 12	8.0	II
5	11+96	19 x 12	25.3	IV	19 x 12	25.3	IV
6	12+42	6 x 12	8.0	II	6 x 12	8.0	II
7	12+60	6 x 12	8.0	II	6 x 12	8.0	II
8	13+07	6 x 12	8.0	II	6 x 12	8.0	II
9	13+50	6 x 12	8.0	II	13 x 12	17.3	III
10	13+90	6 x 12	8.0	II	6 x 12	8.0	II
11	14+45	17 x 12	22.7	III	17 x 12	22.7	III
12	15+12	6 x 12	8.0	II	6 x 12	8.0	II
13	15+79	13 x 12	17.3	III	6 x 12	8.0	II
14	16+04	13 x 12	17.3	III	13 x 12	17.3	III
15	16+50	6 x 12	8.0	II	6 x 12	8.0	II
16	17+00	39 x 12	52.0	IV	9 x 12	12.0	II
17	17+57	6 x 12	8.0	II	6 x 12	8.0	II
18	18+04	6 x 12	8.0	II			
19	18+59	6 x 12	8.0	II	6 x 12	8.0	II
20	18+82	23 x 12	30.7	IV	6 x 12	8.0	II
21	19+15	6 x 12	8.0	II			
22	19+50	10 x 12	13.3	II	6 x 12	8.0	II
23	19+95	13 x 12	17.3	III	13 x 12	17.3	III
24	20+50	11 x 12	14.7	II	11 x 12	14.7	II
25	21+00	10 x 12	13.3	II	10 x 12	13.3	II

***NOTE: DETECTOR LOOPS LOCATED AT STA. 11+00 SB WILL BE REPLACED DURING PATCHING LOCATION #3**

NORTHBOUND US RTE 45

PATCH LOCATION NUMBER	STATION	LANE 1 SIZE (L X W)	LANE 1 AREA (SQ. YD.)	LANE 1 TYPE	LANE 2 SIZE (L X W)	LANE 2 AREA (SQ. YD.)	LANE 2 TYPE
**26	21+00				60 x 12	80.0	IV
27	19+53	6 x 12	8.0	II	6 x 12	8.0	II
28	19+49	6 x 12	8.0	II	6 x 12	8.0	II
29	19+39				6 x 12	8.0	II
30	18+60	17 x 12	22.7	III	17 x 12	22.7	III
31	17+55	6 x 12	8.0	II	6 x 12	8.0	II
32	17+00	6 x 12	8.0	II	6 x 12	8.0	II
33	16+45	6 x 12	8.0	II	6 x 12	8.0	II
34	16+00	6 x 12	8.0	II	6 x 12	8.0	II
35	15+16	6 x 12	8.0	II	6 x 12	8.0	II
36	14+63	6 x 12	8.0	II	6 x 12	8.0	II
37	14+48	6 x 12	8.0	II	6 x 12	8.0	II
38	13+89	6 x 12	8.0	II	6 x 12	8.0	II
39	13+65	6 x 12	8.0	II	6 x 12	8.0	II
40	13+47	10 x 12	13.3	II	10 x 12	13.3	II
41	13+03	9 x 12	12.0	II	6 x 12	8.0	II
42	12+60	6 x 12	8.0	II	6 x 12	8.0	II
43	11+96	6 x 12	8.0	II	6 x 12	8.0	II
44	11+50	6 x 12	8.0	II	6 x 12	8.0	II
45	11+00	13 x 12	17.3	III	13 x 12	17.3	III
46	10+57	6 x 12	8.0	II	6 x 12	8.0	II

****NOTE: C&G WILL BE REPLACED NEXT TO PATCHING LOCATION #26 AND ALSO 40 FT FROM STA. 10+00 TO 10+40 ON NB.**

1. Centerline of Hickory St. : Sta. 19+09
2. Centerline of EJ&E bridge : Sta. 15+68
3. Mundelein Firestation Access begins at Sta. 20+95 and ends at Sta. 21+90

ILLINOIS DEPARTMENT OF TRANSPORTATION

US ROUTE 45
PAVEMENT PATCHING SCHEDULE

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 344	2005-016PCC-PP	LAKE	14	7

CONTRACT 62939

PATCHING SCHEDULE NOTES AND INFORMATION

US ROUTE 45

NOTES

1. The Engineer shall contract RICH ABREWY, Technician, at the Grayslake Maintenance Yard, (847)223-4004, regarding patching location.

2. The Engineer shall obtain approval from the District One Bureau of Maintenance for any proposed revision in the scheduled pavement patching locations.

PAVEMENT PATCHING SUMMARY

Pavement Patching (sq. yd.): US 45 Southbound

	LANE 1	LANE 2	Subtotal
Class B Patches, Type I 10"	0.0	0.0	**0.0**
Class B Patches, Type II 10"	153.3	152.0	**305.3**
Class B Patches, Type III 10"	96.0	96.0	**192.0**
Class B Patches, Type IV 10"	108.0	25.3	**133.3**

Pavement Patching (sq. yd.): US 45 Northbound

	LANE 1	LANE 2	Subtotal
Class B Patches, Type I 10"	0.0	0.0	**0.0**
Class B Patches, Type II 10"	145.3	149.3	**294.7**
Class B Patches, Type III 10"	40.0	40.0	**80.0**
Class B Patches, Type IV 10"	0.0	80.0	**80.0**

Total Pavement Patching (sq. yd.): US 45

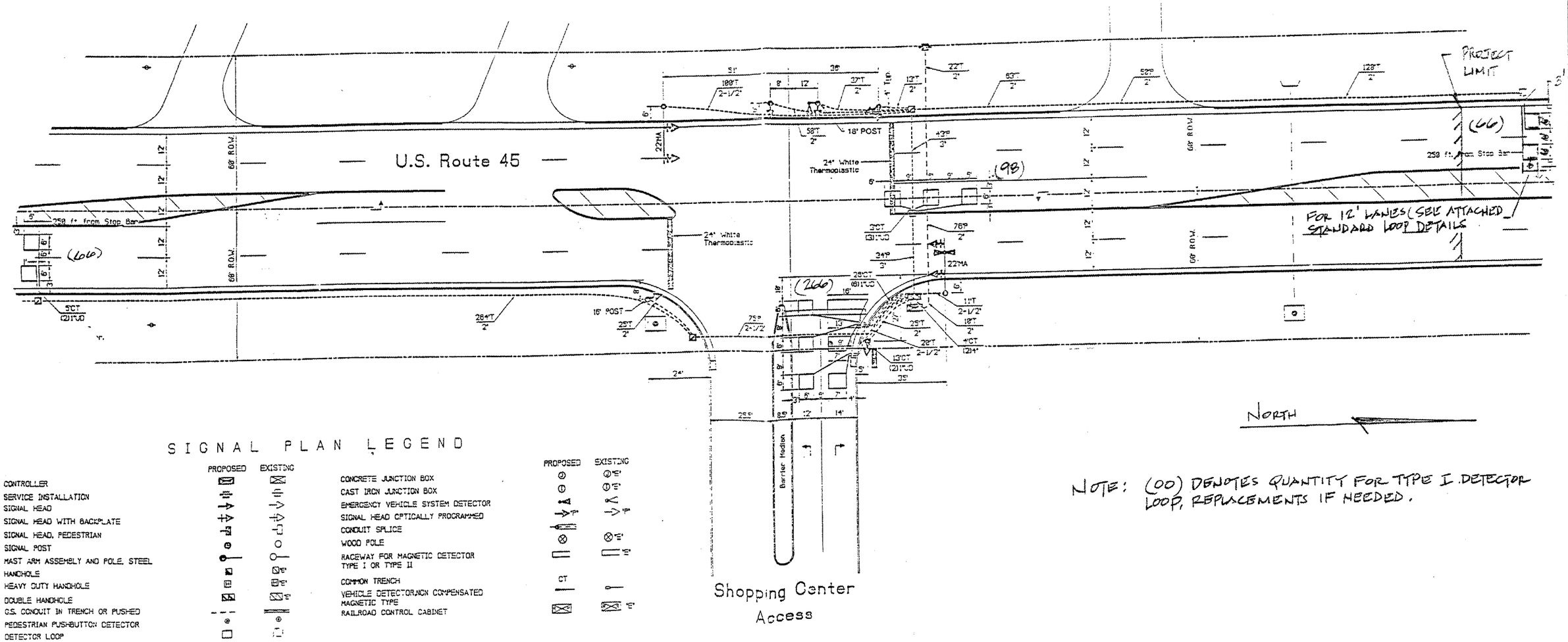
	Southbound	Northbound	TOTAL
Class B Patches, Type I 10"	0.0	0.0	**0.0**
Class B Patches, Type II 10"	305.3	294.7	**600.0**
Class B Patches, Type III 10"	192.0	80.0	**272.0**
Class B Patches, Type IV 10"	133.3	80.0	**213.3**
			1085.3

ILLINOIS DEPARTMENT OF TRANSPORTATION

US ROUTE 45.
PAVEMENT PATCHING SCHEDULE

62939

FAP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
3144	2005-016RCC-PP	LAKE	14	8
STA.	TO STA.			
FED. ROAD DIST NO. 7	ILLINOIS	FED. AID PROJECT		



SIGNAL PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
O.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		

	PROPOSED	EXISTING
CONCRETE JUNCTION BOX		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR TYPE I OR TYPE II		
COMMON TRENCH	CT	
VEHICLE DETECTOR,NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		

NOTE: (00) DENOTES QUANTITY FOR TYPE I DETECTOR LOOP, REPLACEMENTS IF NEEDED.

REPLACE ALL DETECTOR LOOPS AS SHOWN

(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	66	Foot	Detector Loop Replacement

NOTE:

THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT

U.S. ROUTE 45 @ S.C. ACCESS

SCALE: 1" = 20'

DATE JUNE 05

DRAWN BY J.G.
DESIGNED BY:
CHECKED BY J.E.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2005-016PCC -PP	LAKE	14	9
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

602939

LOOP DETECTOR NOTES

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.

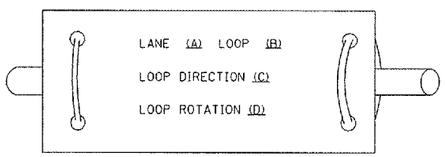
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

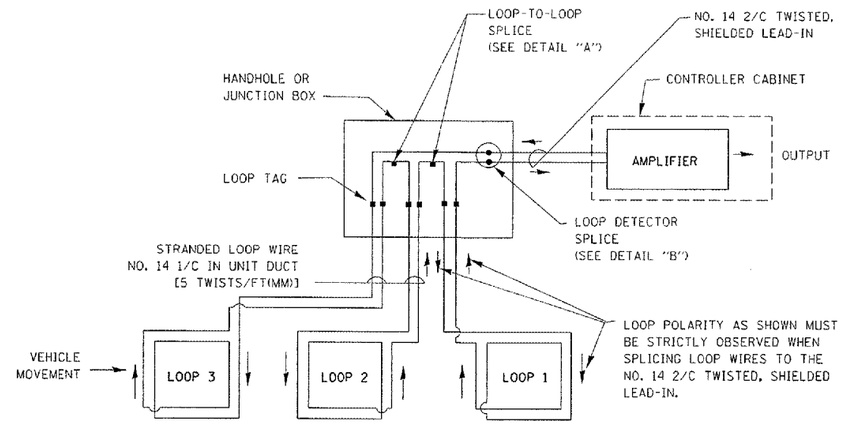


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

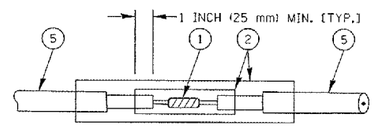
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

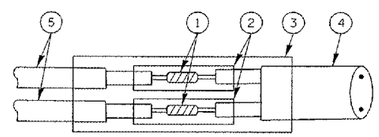


DETECTOR LOOP WIRING SCHEMATIC

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



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

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	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
HORIZ.
DATE 10/18/2002

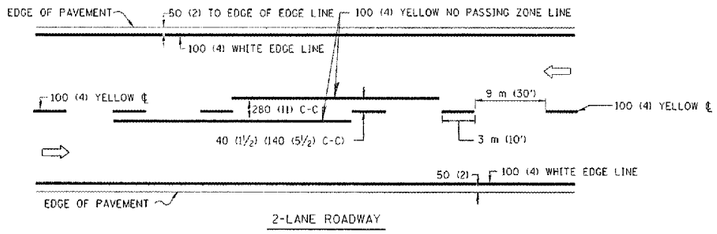
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

10/18/2002
c:\projects\district1\ts05.dgn
V:\TS05

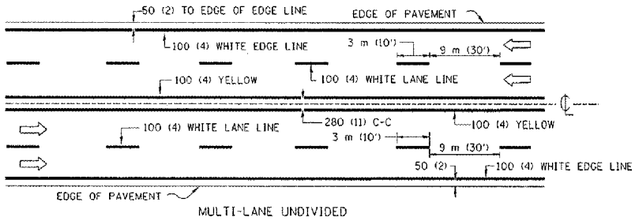
REVISION DATE: 01/01/02

P&P NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3144	2005-016PCP	LAKE	14	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

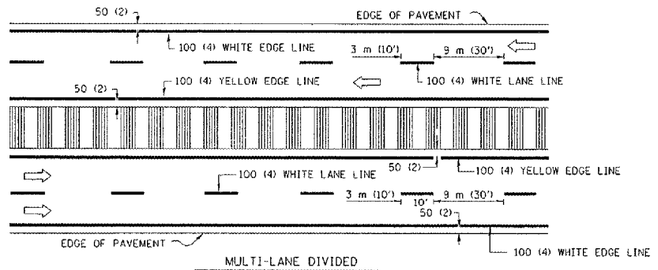
62939



2-LANE ROADWAY



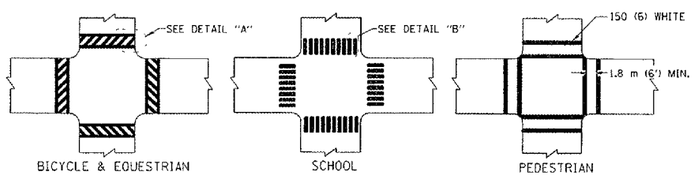
MULTI-LANE UNDIVIDED

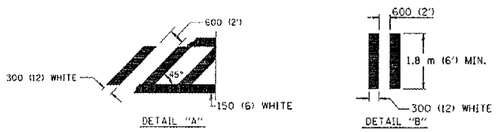


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

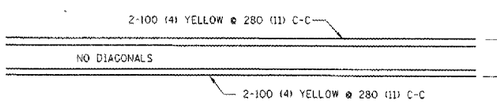
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

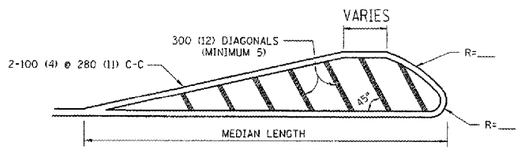




TYPICAL CROSSWALK MARKING



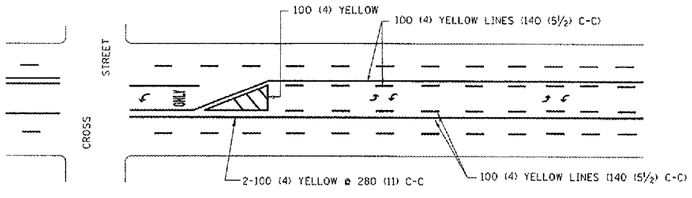
1.2 m (4') WIDE MEDIANS ONLY



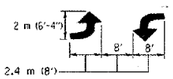
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 1.2 m (4') WIDE

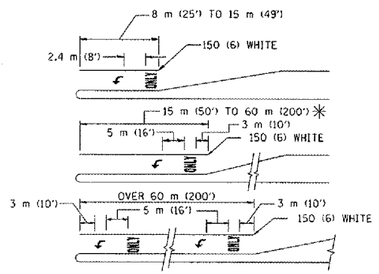


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 60 m (200') TO 90 m (300') INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

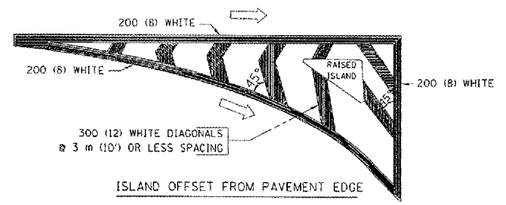


FULL SIZE LETTERS 2.4 m (8') AND ARROWS SHALL BE USED.
↰ AREA = 1.5 m² (15.6 SQ. FT.) ONLY AREA = 1.9 m² (20.8 SQ. FT.)

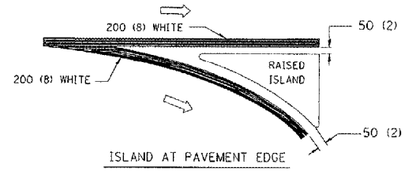
✳ TURN LANES IN EXCESS OF 120 m (400') IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

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	100 (4)	SKIP-DASH	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	100 (4) 2 @ 100 (4)	SOLID SOLID	YELLOW YELLOW	140 (5½) C-C FROM SKIP-DASH CENTERLINE 280 (11) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	100 (4) 125 (5) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	3 m (10') LINE WITH 9 m (30') SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	600 (2') LINE WITH 1.8 m (6') SPACE
EDGE LINES	100 (4)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	150 (6) LINE; FULL SIZE LETTERS & SYMBOLS (2.4 m (8'))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 100 (4) EACH DIRECTION 2.4 m (8') LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	3 m (10') LINE WITH 9 m (30') SPACE FOR SKIP-DASH; 140 (5½) 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 @ 150 (6) 300 (12) @ 45° 300 (12) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 1.8 m (6') APART 600 (2') APART 600 (2') APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	600 (24)	SOLID	WHITE	PLACE 1.2 m (4') IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 100 (4) WITH 300 (12) DIAGONALS @ 45° NO DIAGONALS USED FOR 1.2 m (4') WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	280 (11) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	200 (8) WITH 300 (12) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 4.5 m (15') C-C (LESS THAN 50 km/h (30 MPH)) 6 m (20') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 9 m (30') C-C (OVER 70 km/h (45 MPH))
RAILROAD CROSSING	600 (24) TRANSVERSE LINES; "RR" IS 1.8 m (6') LETTERS; 400 (16) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=0.33m² (3.6 SQ. FT.) EACH "X"=5.0 m² (54.0 SQ. FT.)
SHOULDER DIAGONALS	300 (12) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	15 m (50') C-C (LESS THAN 50 km/h (30 MPH)) 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 45 m (150') C-C (OVER 70 km/h (45 MPH))

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.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

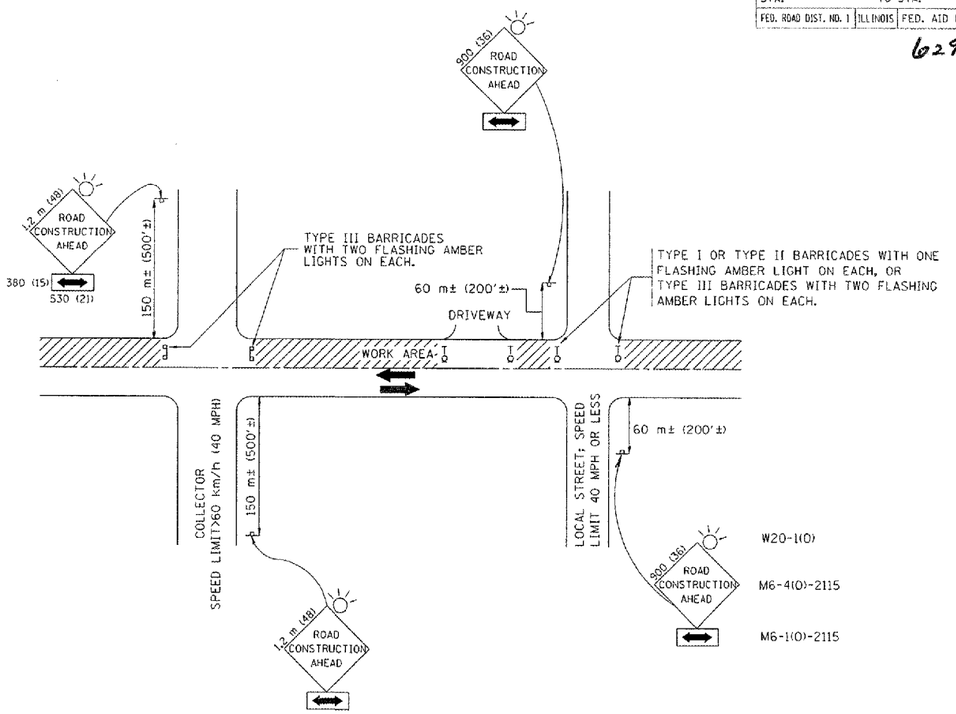
SCALE: NONE
DRAWN BY CADD
DATE 10/18/2002
CHECKED BY TC-13

REVISION DATE: 01/06/00

DATE-TIME
DGN-SPEC
V=7.0.3

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2005-016PCC -pp	LAKE	14	11
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

62939



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 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') 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 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 1.2 m x 1.2 m (48x48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') 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.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

SCALE: VERT. HORIZ.

DRAWN BY

DATE 10/18/2002

CHECKED BY

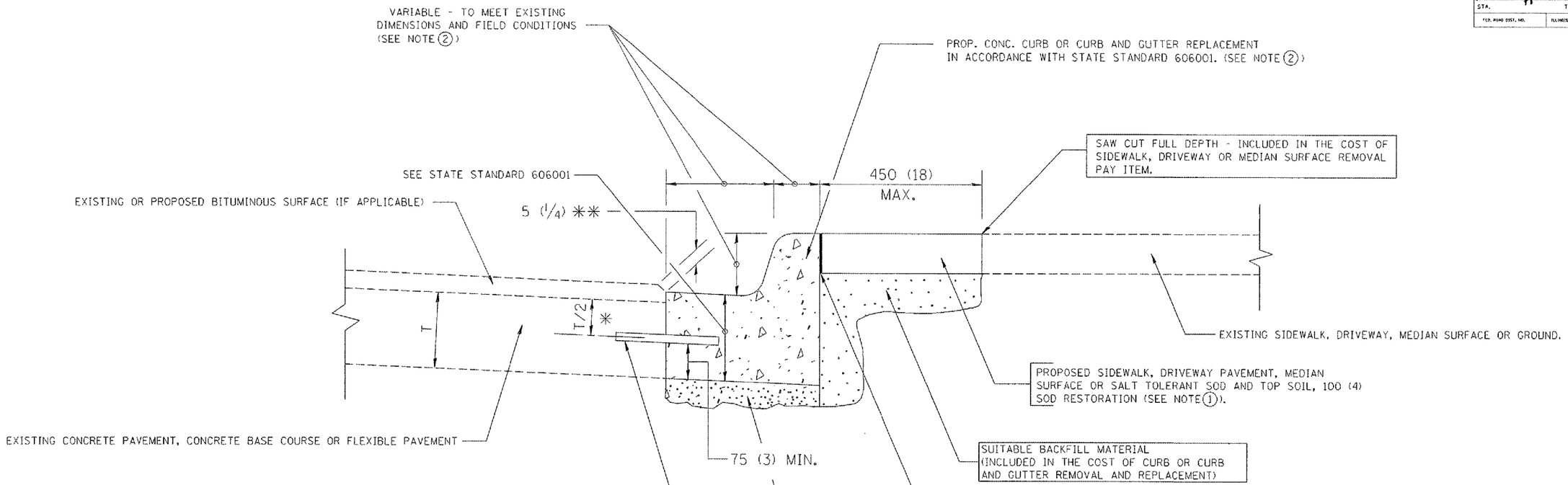
TC-10

REVISION DATE: 01/06/00

Friday October 18, 2002 @ 10:20:23 AM
c:\projects\diststd\tc10.dgn LV=35,63
USER:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9	3447-2005-01P PCC -PP	LAKE	14	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62939



* 75 (3) 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, 100 (4) 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 BITUMINOUS 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 METER (FOOT) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

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

REVISIONS	
NAME	DATE
M. DE YONG	05/28/91
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

ILLINOIS DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: NONE

DATE 10/18/2002

DRAWN BY

CHECKED BY

BD600-06 (BD-24)

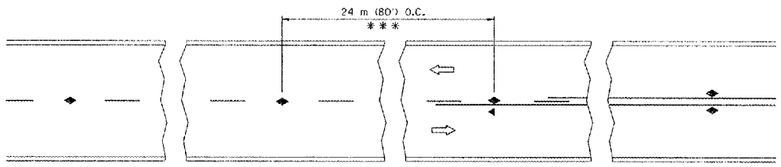
REVISION DATE: 12/06/88

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

10/18/2002
c:\projects\elistd\bd24.dgn
VI-BD24

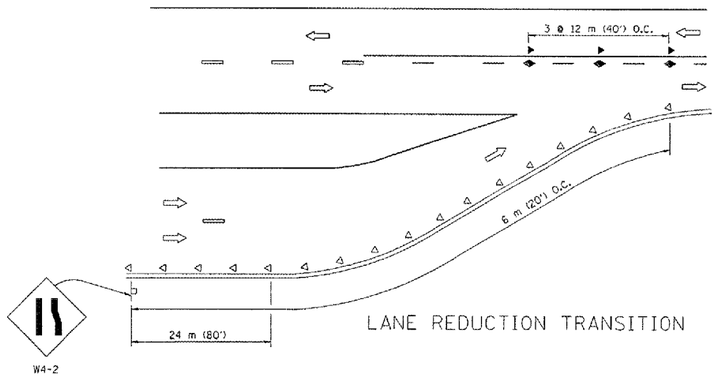
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
314	2005-016PCC -PP	LAKE	14	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62939

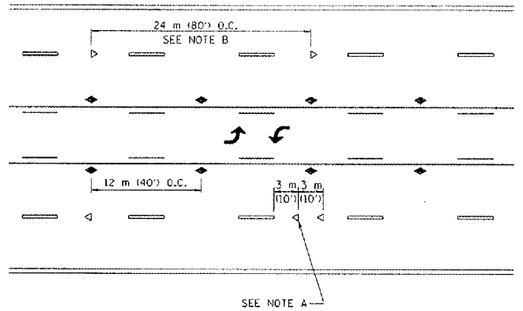


*** REDUCE TO 12 m (40') O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 70 km/h (45 M.P.H.) OR LESS.

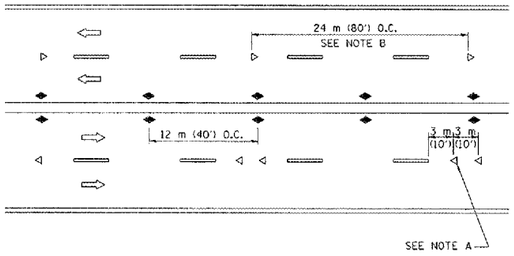
TWO-LANE/TWO-WAY



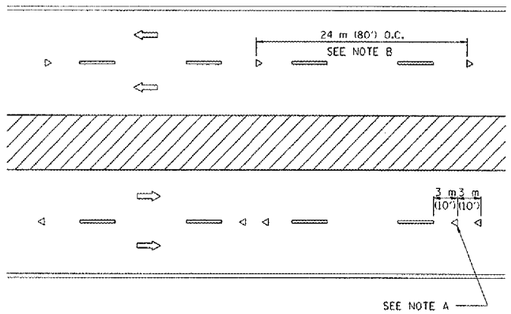
LANE REDUCTION TRANSITION



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 50 TO 75 (2 TO 3) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 150 m (500') IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

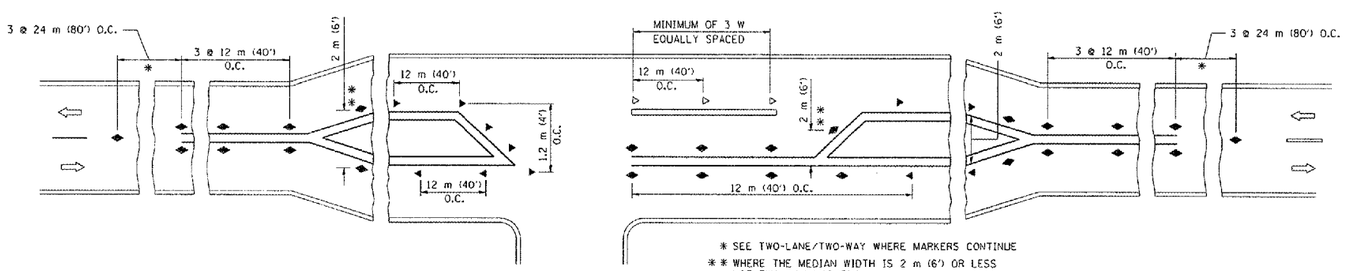
SYMBOLS

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

LANE MARKER NOTES

B. REDUCE TO 12 m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 20 km/h (10 M.P.H.) LOWER THAN POSTED SPEEDS.

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.



LEFT TURN

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS
(SNOW-PLOW RESISTANT)

SCALE: NONE
DATE: 10/18/2002

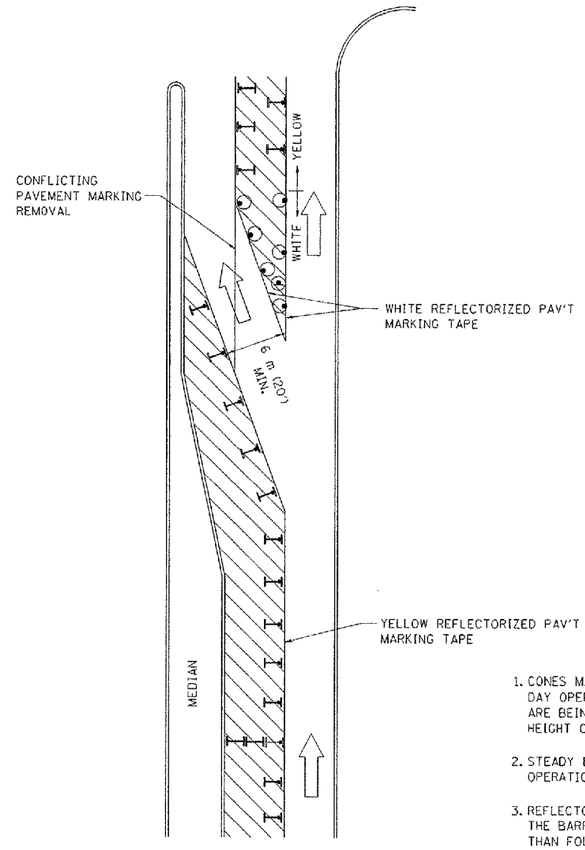
DRAWN BY CADD
CHECKED BY
TC-11

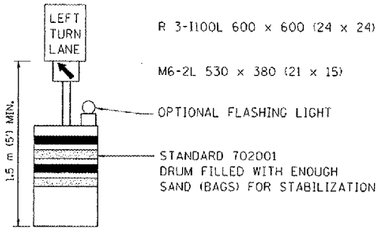
REVISION DATE: 01/06/00

•DATE:TIME•
•DGN-SPEC•
VI-TC11

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2005-016PCC -PP	LAKE	14	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62939





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 710 (28) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 1.5 m (5').
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" R3-100 600 x 600 (24 x 24) AND M6-2R 530 x 380 (21 x 15) 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 BT 725 IS REQUIRED.
8. 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 millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

SCALE: NONE — DRAWN BY

DATE: 10/18/2002 — CHECKED BY LHA

TC-14

REVISION DATE: 01/06/00

•DATE-TIME•
•DGN-SPEC•
Vi•TC14