

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

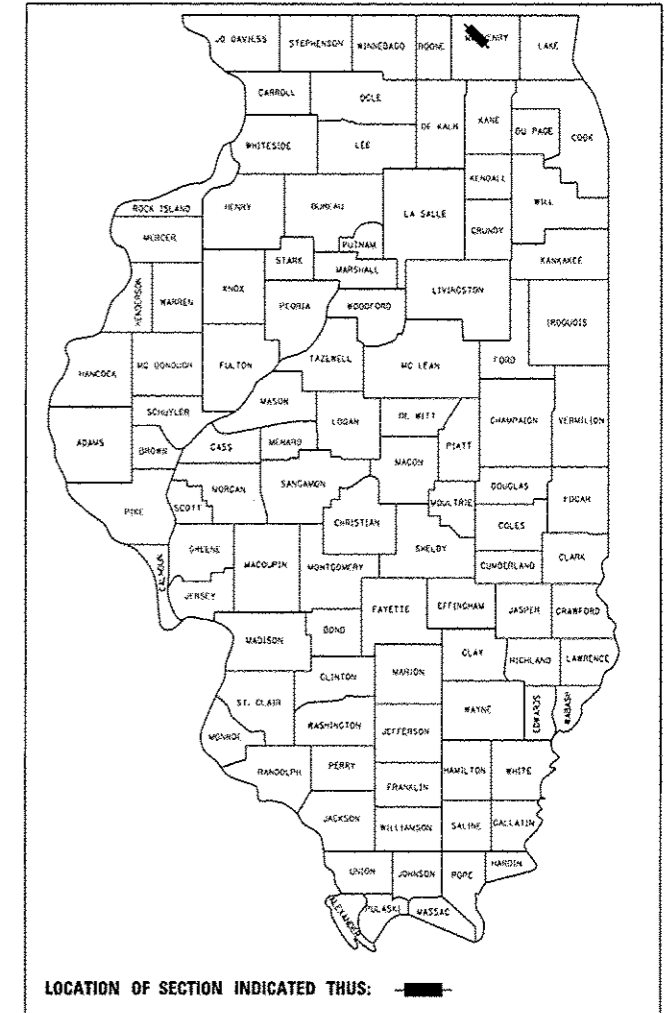
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29R-RS-4	McHENRY	25	1
FED. ROAD DIST. NO. 1	ILLINOIS		FED AID PROJECT	
D-91-298-11			*25+1=26	
CONTRACT NO. 60N28				

PROPOSED HIGHWAY PLANS

F.A.P 305 (US ROUTE 14)
SECTION 29R-RS-4
IL ROUTE 23 TO BUNKER HILL ROAD
RESURFACING (3P)
PROJECT: HD-0305(050)
MCHENRY COUNTY
C-91-298-11

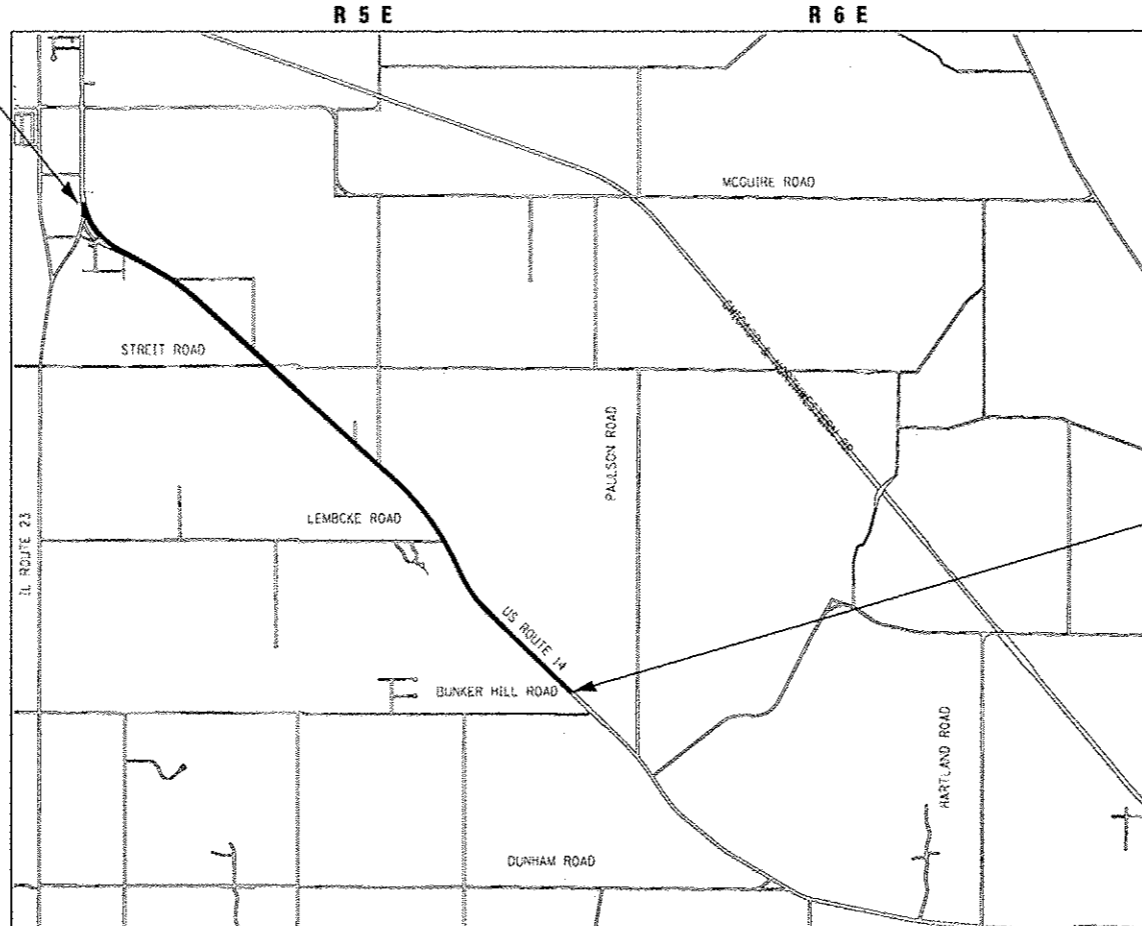
FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT LOCATED WITHIN
THE CITY OF HARVARD AND
UNINCORPORATED McHENRY COUNTY

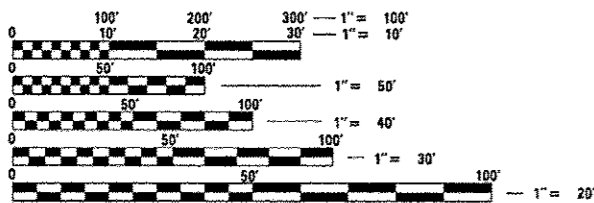


PROJECT BEGINS
STA 5+76

PROJECT ENDS
STA 227+69



TRAFFIC DATA
US ROUTE 14
2009 ADT = 7,400
SPEED LIMIT = 55 MPH



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.

Call Before You Dig

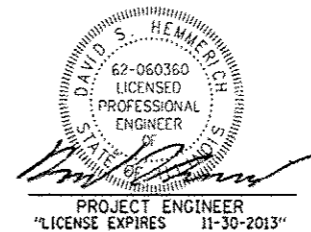
JULIE
ILLINOIS
ONE-CALL SYSTEM

CONTACT JULIE AT 811 OR 800-892-0123 WITH THE FOLLOWING:
COUNTY = McHENRY
CITY-TWNSHP. = DUNHAM & HARTLAND
SEC. & 1/4 SEC. NO. = 11, 12, 13, 18, 19, 20
48 HOURS (2 working days) BEFORE YOU DIG

DISTRICT ONE -
PROJECT MANAGER: KEN ENG (847) 705-4247 (IDOT)
PROJECT ENGINEER: ROBERT LENZINI (815) 459-1260 (BAXTER & WOODMAN)
CONTRACT NO. 60N28



SCALE: NTS
DUNHAM & HARTLAND TOWNSHIPS
GROSS LENGTH OF IMPROVEMENT = 22,193 LF OR 4.203 MILES
NET LENGTH OF IMPROVEMENT = 22,193 LF OR 4.203 MILES



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED October 15 2012
John Furtmann
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 7 2012
John D. Baranzelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Dec 7 2012
William R. Frey, Jr.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

85% FED.
15% STATE

SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE	
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	0005 QUANTITY	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	62	62	
40600300	AGGREGATE (PRIME COAT)	TON	487	487	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS	TON	18	18	
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	TON	4,147	4,147	
40600895	CONSTRUCTING TEST STRIP	EACH	2	2	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	300	300	
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	141	141	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	9,093	9,093	
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	8,913	8,913	
44000161	HOT-MIX ASPHALT SURFACE REMOVAL, 3"	SQ YD	72,112	72,112	
44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	720	720	
44002224	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 6"	SQ YD	48	46	
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	536	536	
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	48	48	
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	54	54	

* INDICATES SPECIALTY ITEM

85% FED.
15% STATE

SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE	
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	0005 QUANTITY	
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	2,507	2,507	
64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	34,199	34,199	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5	
67100100	MOBILIZATION	LSUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION STANDARD 701306	LSUM	1	1	
70100600	TRAFFIC CONTROL AND PROTECTION STANDARD 701336	LSUM	1	1	
70102635	TRAFFIC CONTROL AND PROTECTION STANDARD 701701	LSUM	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	16,645	16,645	
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	364	364	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	17,860	17,860	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1,896	1,896	
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	1,010	1,010	
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	644	644	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	296	296	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,850	1,850	

* INDICATES SPECIALTY ITEM

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
 LICENSE NO. 08-000271 - EXPIRES 12/31/2011
 PROJECT NO. 100153-W018-S00-SHT
 DATE 12-13-10



DESIGNED - DSH	REVISED - 7-20-11 IDOT REVIEW
DRAWN - KAR	REVISED - 8-17-12 IDOT REVIEW
CHECKED - LDH	REVISED -
DATE - 12-13-10	FILE - 100153-W018-S00.sht

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US ROUTE 14
IL ROUTE 23 TO BUNKER HILL ROAD
SUMMARY OF QUANTITIES

SCALE: NONE

STA. TO STA.

F.A.P. RTE. 305	SECTION 29R-RS-4	COUNTY McHENRY	TOTAL SHEETS 25	SHEET NO. 3
C-91-298-11			CONTRACT NO. 60N28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

85% FED.
15% STATE

SUMMARY OF QUANTITIES			URBAN		CONSTRUCTION TYPE CODE
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	0005 QUANTITY	
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	182	182	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	8,930	8,930	
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	948	948	
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	505	505	
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	322	322	
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	148	148	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	631	631	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	631	631	
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	568	568	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52	
X0326898	CENTER LINE - RUMBLE STRIP - 16"	FOOT	20,854	20,854	
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	410	410	
X7800815	HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINE - 4 INCH	FOOT	66,014	66,014	

* INDICATES SPECIALTY ITEM

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 STATE OF ILLINOIS PROFESSIONAL ENGINEER
 LICENSE NO. 125-000007-0000-0000
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DESIGNED - DSH	REVISED -
DRAWN - KAR	REVISED -
CHECKED - LDH	REVISED -
DATE - 12-13-10	FILE - 100153-0018-S00.dwg

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

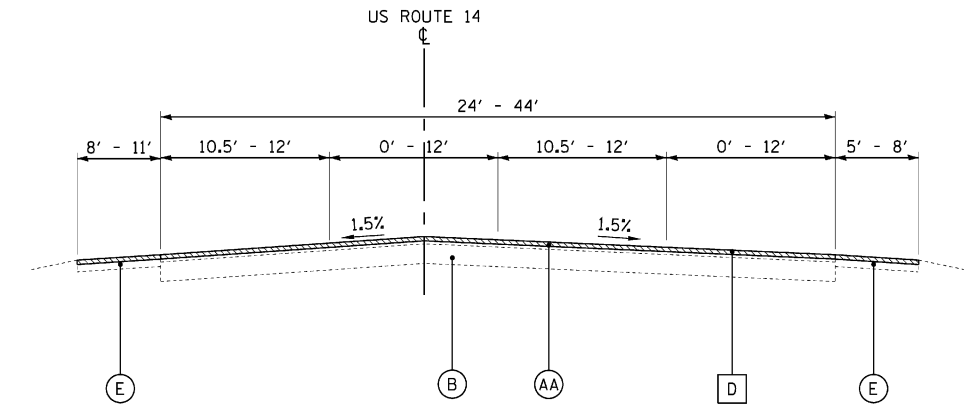
US ROUTE 14
IL ROUTE 23 TO BUNKER HILL ROAD
SUMMARY OF QUANTITIES

SCALE: NONE

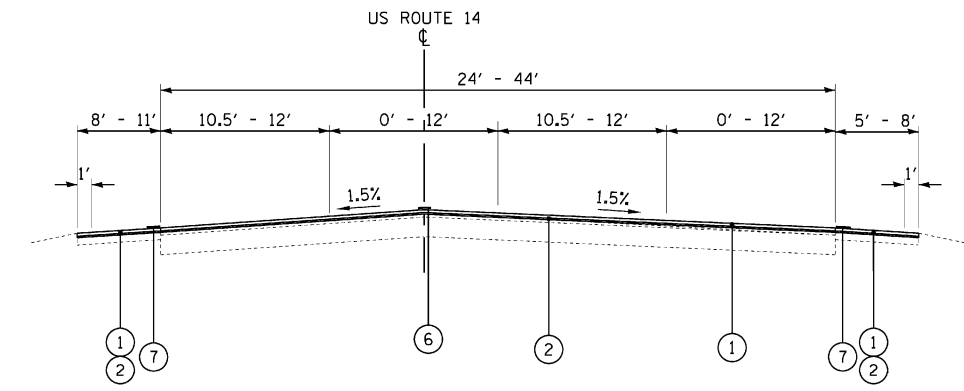
STA. TO STA.

F.A.P. RTE. 305	SECTION 29R-RS-4	COUNTY McHENRY	TOTAL SHEETS 25	SHEET NO. 3A
C-91-298-11		CONTRACT NO. 60N28		
FED. ROAD DIST. NO. 1 ILLINOIS FED AID PROJECT				

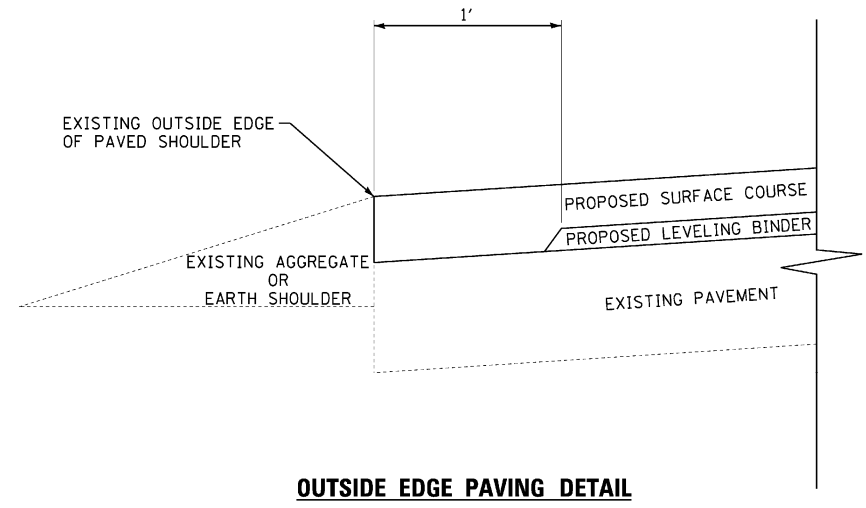
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 2635mac 10/12/2012



**EXISTING TYPICAL SECTION
US ROUTE 14
STA 5+76 TO STA 19+16**



**PROPOSED TYPICAL SECTION
US ROUTE 14
STA 5+76 TO STA 19+16**



OUTSIDE EDGE PAVING DETAIL

NOTES:

1. THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING.
- ** 2. POLYMERIZED LEVELING BINDER WILL BE STOPPED 1 FOOT SHORT OF THE OUTSIDE EDGE OF SHOULDER (SEE DETAIL).

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS Ndes
RESURFACING	
* HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	4% @ 70 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	3.5% @ 50 GYR.
PATCHING	
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR.
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (HMA BINDER IL-19mm)	4% @ 70 GYR.

MIXTURE NOTES:

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ. YD./IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

* PAY FOR PERFORMANCE APPLIES TO THIS SURFACE MIX ONLY (HMA SURFACE COURSE, MIX D, N70)

LEGEND

(A)	EXISTING HMA SURFACE, 3"±
(AA)	EXISTING HMA SURFACE, 6"±
(B)	EXISTING PCC BASE, 10"±
(C)	EXISTING AGGREGATE SHOULDER, 6"±
(D)	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"
(E)	EXISTING PAVED SHOULDERS
(F)	HOT-MIX ASPHALT SURFACE REMOVAL, 3"
[Hatched]	ITEM TO BE REMOVED
(1)	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5mm) - 1 1/2"
** (2)	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 - 3/4"
(3)	GRADING AND SHAPING SHOULDERS AND AGGREGATE WEDGE SHOULDER, TYPE B
(4)	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5mm) - 2"
** (5)	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 - 1"
(6)	CENTER LINE - RUMBLE STRIP - 16"
(7)	SHOULDER RUMBLE STRIPS, 8 INCH



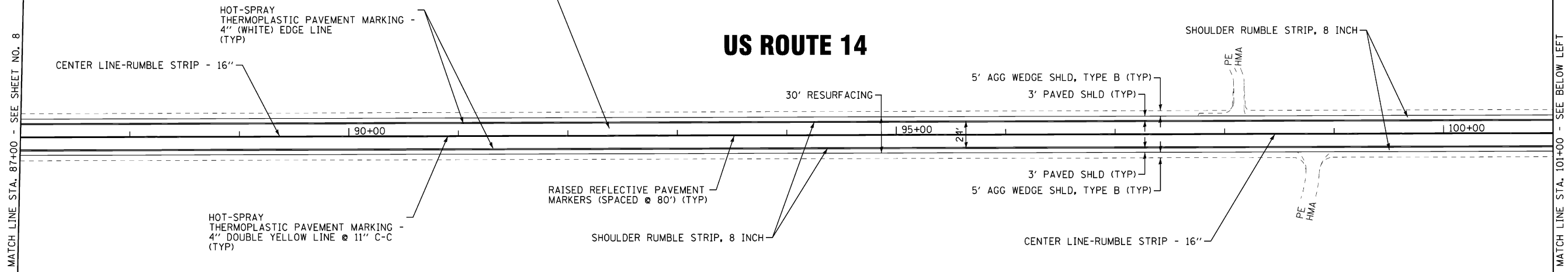
DESIGNED - DSH	REVISED - 8-17-12 IDOT REVIEW
DRAWN - KAR	REVISED -
CHECKED - LDH	REVISED -
DATE - 12-13-10	FILE - 100153-W018-TYPSEC-1.shd

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

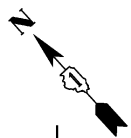
**US ROUTE 14
IL ROUTE 23 TO BUNKER HILL ROAD
TYPICAL SECTIONS**

SCALE: NONE	STA. TO STA.	F.A.P. RTE. 305	SECTION 29R-RS-4	COUNTY McHENRY	TOTAL SHEETS 25	SHEET NO. 4
		C-91-298-11		CONTRACT NO. 60N28		
FED. ROAD DIST. NO. 1 ILLINOIS FED AID PROJECT						

HMA SURFACE REMOVAL, 3"
 REPLACE WITH: POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 - 1"
 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 - 2"

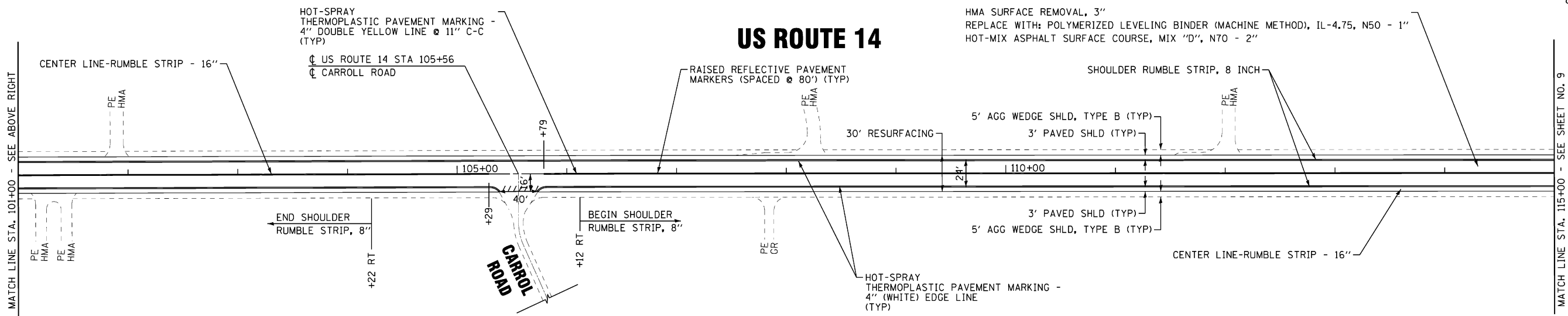


US ROUTE 14

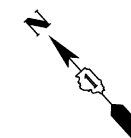


MATCH LINE STA. 87+00 - SEE SHEET NO. 8

MATCH LINE STA. 101+00 - SEE BELOW LEFT



US ROUTE 14



MATCH LINE STA. 101+00 - SEE ABOVE RIGHT

MATCH LINE STA. 115+00 - SEE SHEET NO. 9

- NOTE:
1. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED BY THE RESIDENT ENGINEER.
 2. REFER TO DISTRICT 1 TYPICAL PAVEMENT MARKINGS (TC-13) FOR ADDITIONAL INFORMATION.
 3. REFER TO DISTRICT 1 RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) FOR ADDITIONAL INFORMATION.
 4. HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING SHALL BE USED WHERE RUMBLE STRIP IS PLACED.

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 LICENSE NO. 185-0021 EXPIRES 12/31/2013
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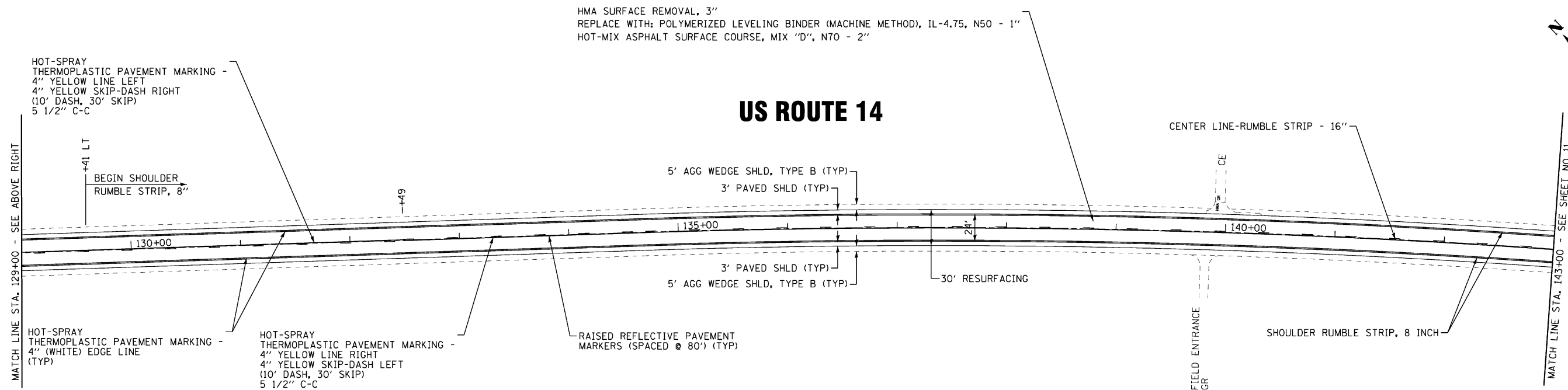
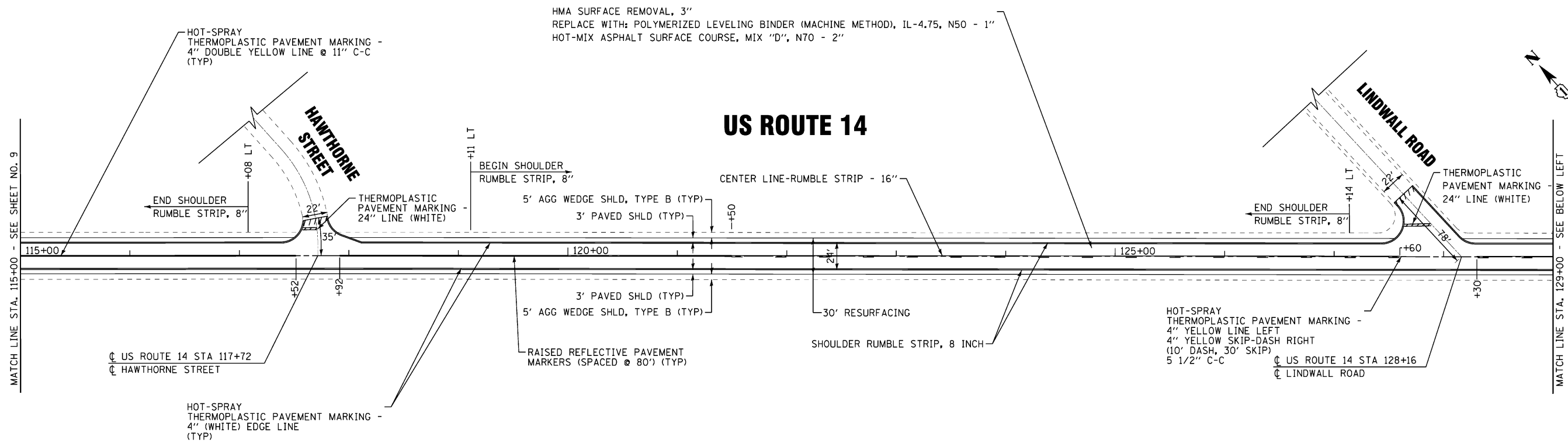
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DRAWN - KAR	REVISED - 8-17-12 IDOT REVIEW
CHECKED - LDH	REVISED -
DATE - 12-13-10	FILE - 100153-W018-Plan4.sht

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**US ROUTE 14
 IL ROUTE 23 TO BUNKER HILL ROAD
 ROADWAY & PAVEMENT MARKING PLAN**

SCALE: 1" = 50' STA. 87+00 TO STA. 115+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29R-RS-4	McHENRY	25	9
C-91-298-11			CONTRACT NO. 60N28	
FED. ROAD DIST. NO. 1 ILLINOIS FED AID PROJECT				



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 PROJECT NO. 100153-W018-Plan5.sht
 DATE: 12/13/10
 FILE: 100153-W018-Plan5.sht



DESIGNED - DSH	REVISED - 6-6-11 IDOT REVIEW
DRAWN - KAR	REVISED - 8-17-12 IDOT REVIEW
CHECKED - LDH	REVISED -
DATE - 12-13-10	FILE - 100153-W018-Plan5.sht

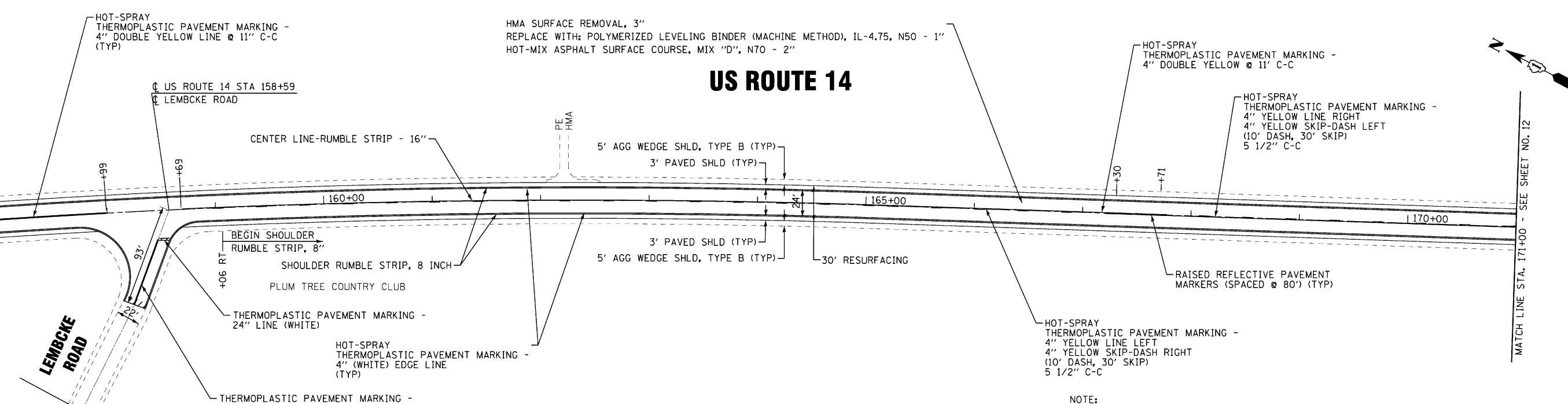
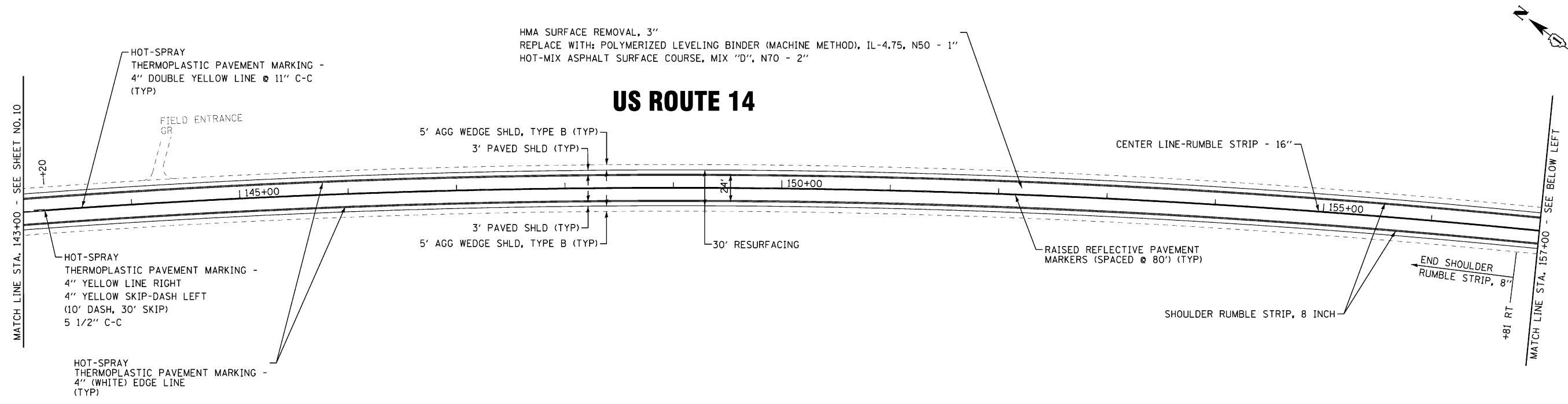
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US ROUTE 14
IL ROUTE 23 TO BUNKER HILL ROAD
ROADWAY & PAVEMENT MARKING PLAN

SCALE: 1" = 50'

STA. 115+00 TO STA. 143+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29R-RS-4	MCHEMRY	25	10
C-91-298-11		CONTRACT NO. 60N28		
FED. ROAD DIST. NO. 1 (ILLINOIS) FED AID PROJECT				



HMA SURFACE REMOVAL, 3"
 REPLACE WITH: POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 - 1"
 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 - 2"

US ROUTE 14

HMA SURFACE REMOVAL, 3"
 REPLACE WITH: POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 - 1"
 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 - 2"

US ROUTE 14

- NOTE:
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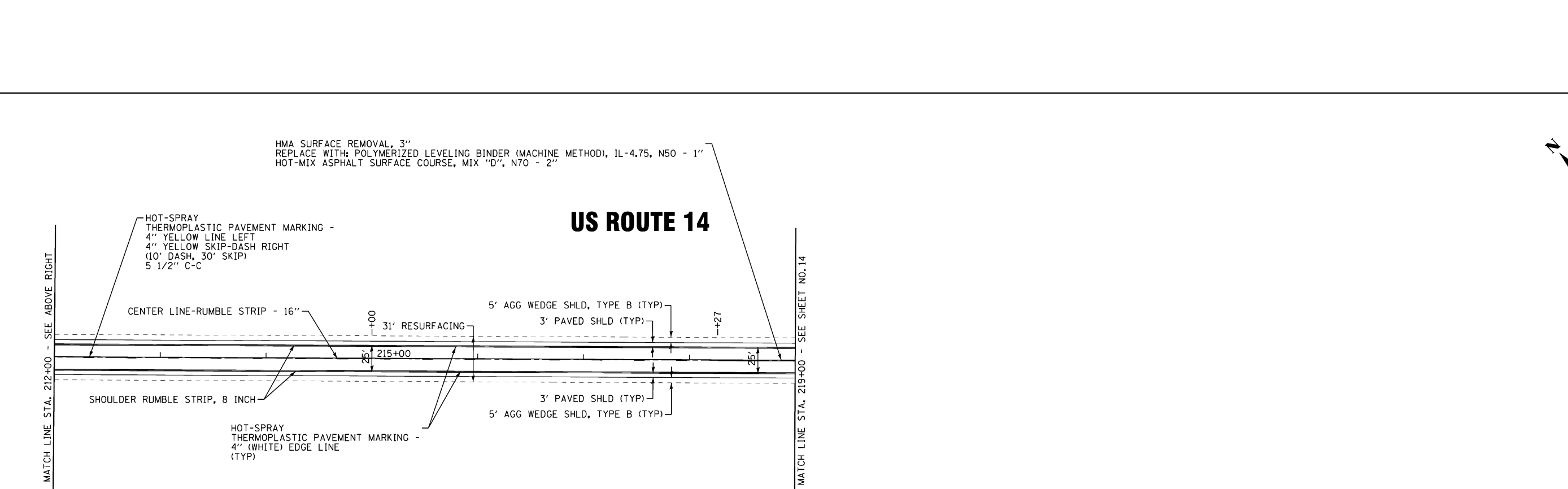
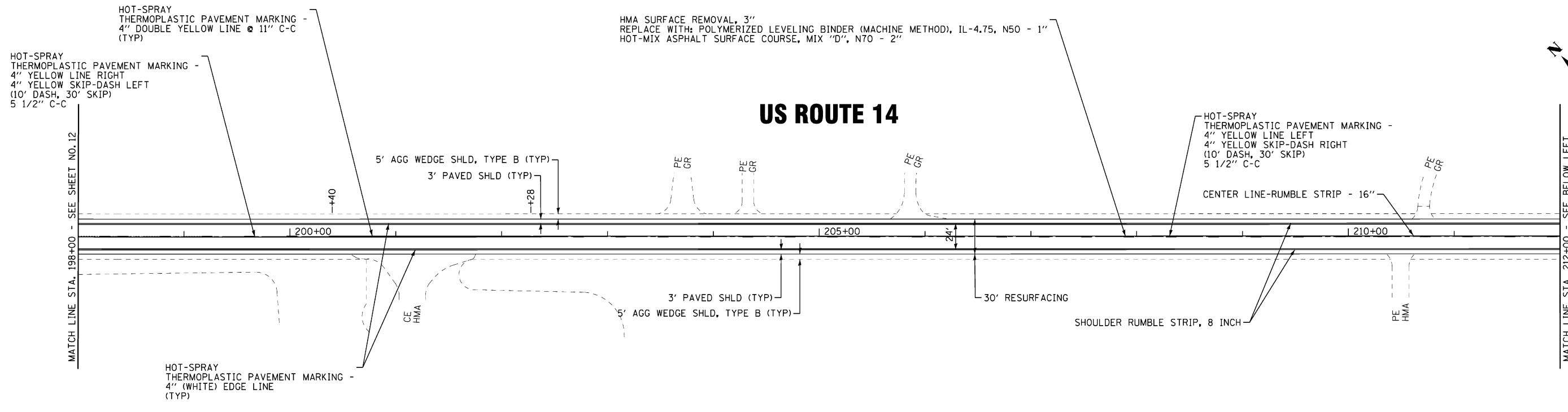


DESIGNED	- DSH	REVISED	- 6-6-11 IDOT REVIEW
DRAWN	- KAR	REVISED	- 8-17-12 IDOT REVIEW
CHECKED	- LDH	REVISED	-
DATE	- 12-13-10	FILE	- 100153-W018-Plan6.shd

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**US ROUTE 14
 IL ROUTE 23 TO BUNKER HILL ROAD
 ROADWAY & PAVEMENT MARKING PLAN**

SCALE: 1" = 50'	STA. 143+00 TO STA. 171+00	F.A.P. RTE. 305	SECTION 29R-RS-4	COUNTY McHENRY	TOTAL SHEETS 25	SHEET NO. 11
		C-91-298-11		CONTRACT NO. 60N28		
FED. ROAD DIST. NO. 1 (ILLINOIS) FED AID PROJECT						



- NOTE:
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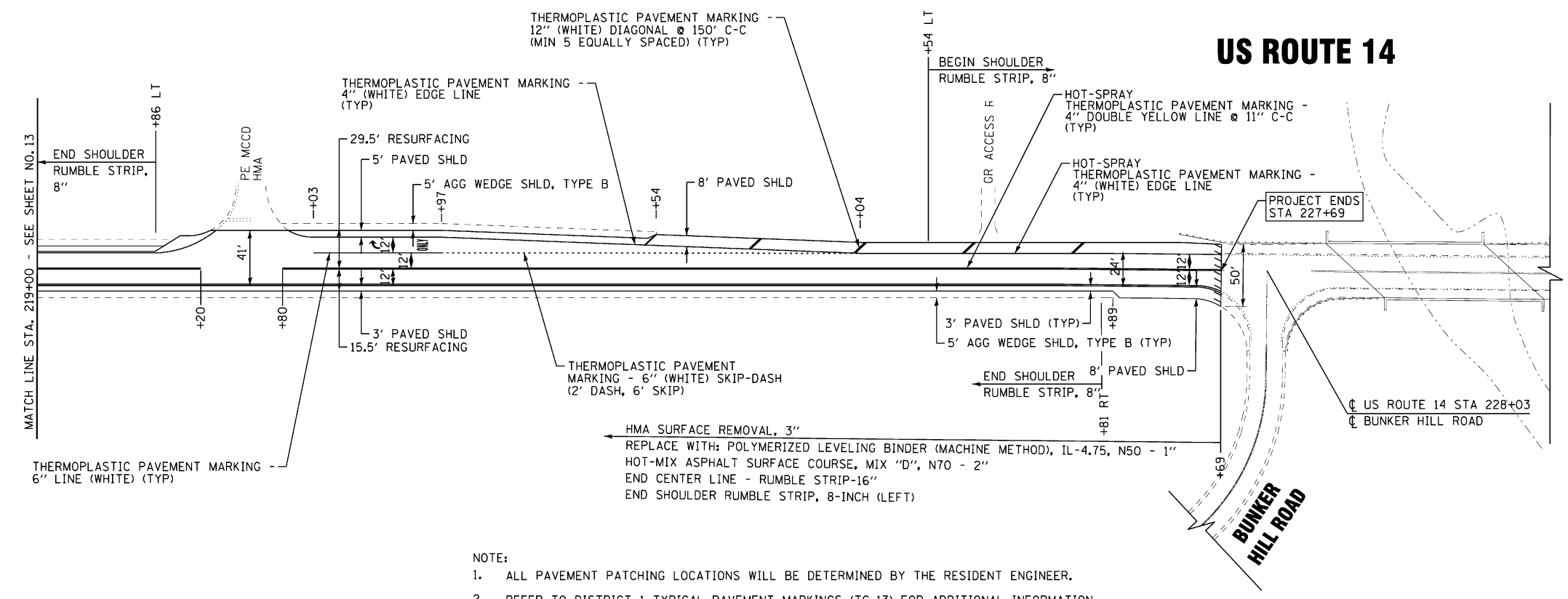
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DRAWN - KAR	REVISED -
CHECKED - LDH	REVISED -
DATE - 12-13-10	FILE - 100153-W018-Plan8.sht

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US ROUTE 14
IL ROUTE 23 TO BUNKER HILL ROAD
ROADWAY & PAVEMENT MARKING PLAN**

SCALE: 1" = 50'	STA. 198+00 TO STA. 219+00	F.A.P. RTE. 305	SECTION 29R-RS-4	COUNTY McHENRY	TOTAL SHEETS 25	SHEET NO. 13
		FED. ROAD DIST. NO. 1 (ILLINOIS)		CONTRACT NO. 60N28		

US ROUTE 14



- NOTE:
1. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED BY THE RESIDENT ENGINEER.
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 3. REFER TO DISTRICT 1 RAISED REFLECTIVE PAVEMENT MARKERS (TC-11) FOR ADDITIONAL INFORMATION.
 4. HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING SHALL BE USED WHERE RUMBLE STRIP IS PLACED.

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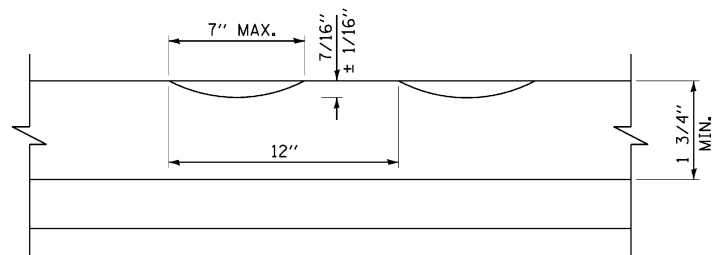
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CHECKED	- LDH	REVISED	-
DATE	- 12-13-10	FILE	- 100153-W018-Plan9.sht

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

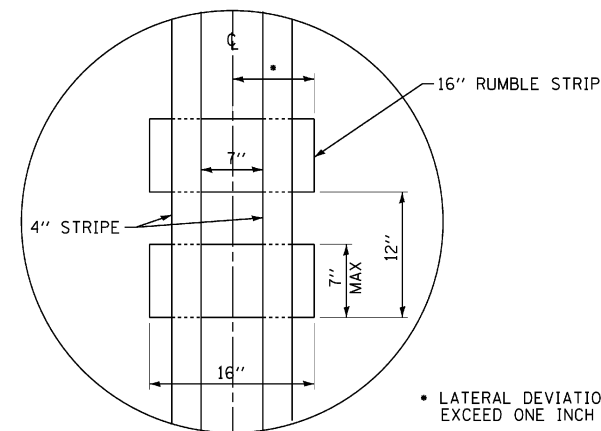
**US ROUTE 14
IL ROUTE 23 TO BUNKER HILL ROAD
ROADWAY & PAVEMENT MARKING PLAN**

SCALE: 1" = 50' STA. 219+00 TO STA. 230+10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29R-RS-4	McHENRY	25	14
C-91-298-11			CONTRACT NO. 60N28	
FED. ROAD DIST. NO. 1 ILLINOIS FED AID PROJECT				

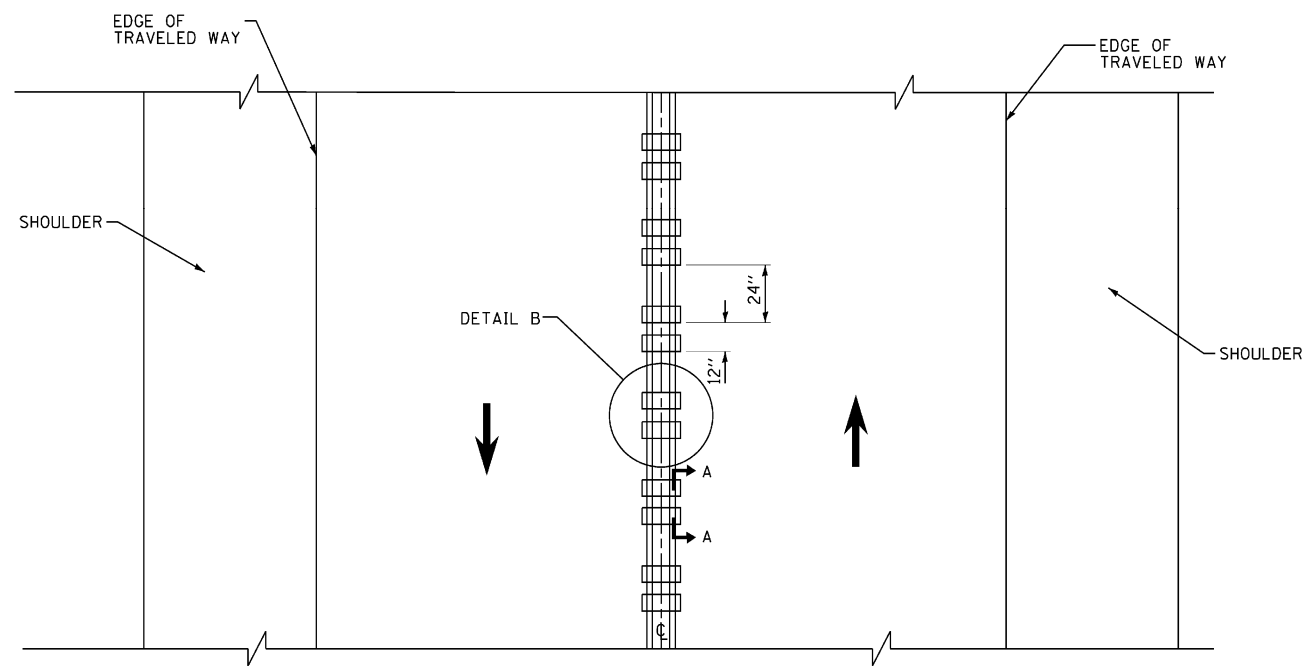


SECTION A-A



DETAIL B

• LATERAL DEVIATION SHALL NOT EXCEED ONE INCH IN 100 FEET.



TWO-WAY ROAD

GENERAL NOTES

SEE STANDARD 780001 FOR OTHER STRIPING LAYOUTS.

RUMBLE STRIPS SHALL NOT BE PLACED ON BRIDGES.

ALL RUMBLE STRIPS SHALL BE MILLED.

CENTERLINE RUMBLE STRIPS SHALL BE CONTINUOUS THROUGH CONNECTIONS OF SIDEROADS WITH NO LEFT TURN LANES.

DISCONTINUE CENTERLINE RUMBLE STRIPS THROUGH THE LIMITS OF ALL LEFT TURN LANES, INCLUDING ANY LANE TAPER SECTIONS.

WHERE USED, ADJUST SPACING OF RAISED REFLECTIVE PAVEMENT MARKERS TO FALL IN WIDER GAP BETWEEN RUMBLE STRIPS.

HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING WILL BE USED OVER THE RUMBLE STRIPES.

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DESIGNED - DSH	REVISED -
DRAWN - KAR	REVISED -
CHECKED - LDH	REVISED -
DATE - 12-13-10	FILE - 100153-W018-MISC-DETS.dgn

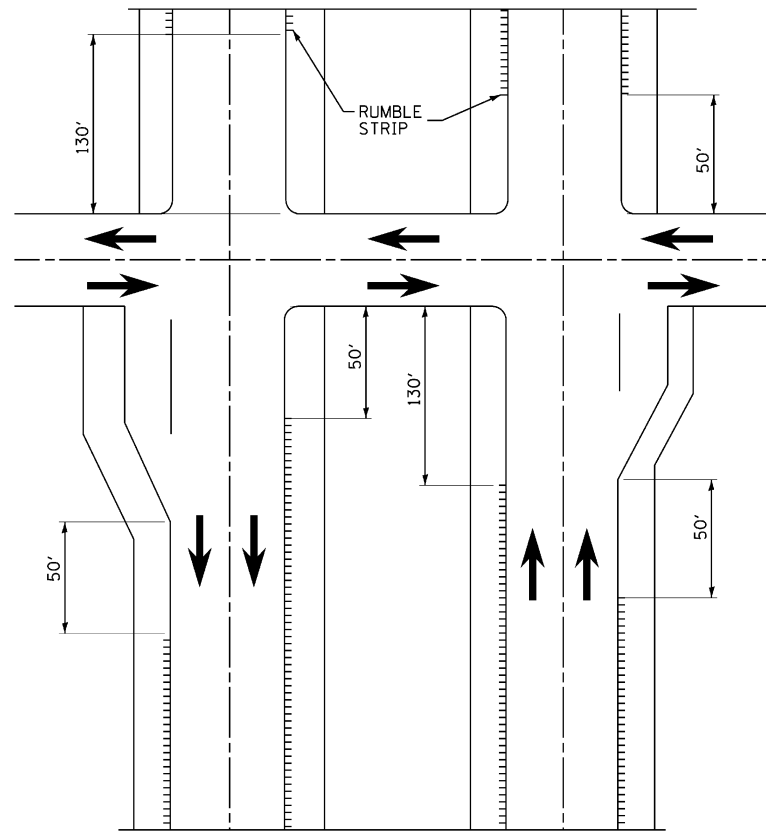
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US ROUTE 14
IL ROUTE 23 TO BUNKER HILL ROAD
RUMBLE STRIPES FOR CENTERLINE, NON-FREWAY**

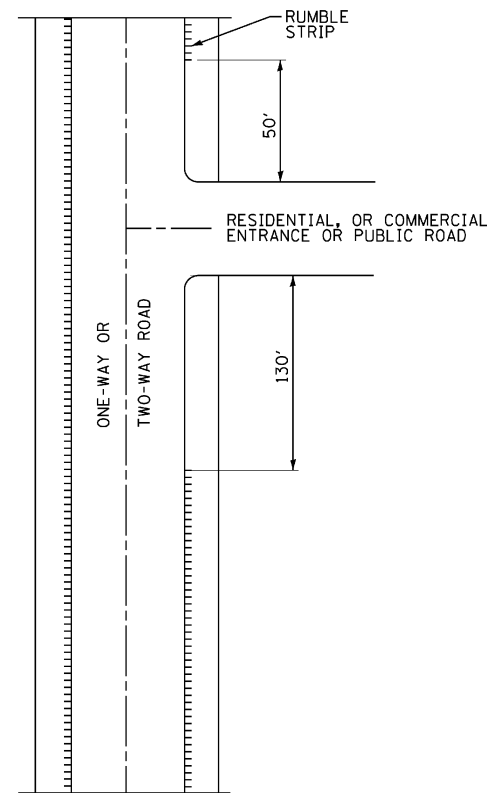
SCALE: NONE

STA. TO STA.

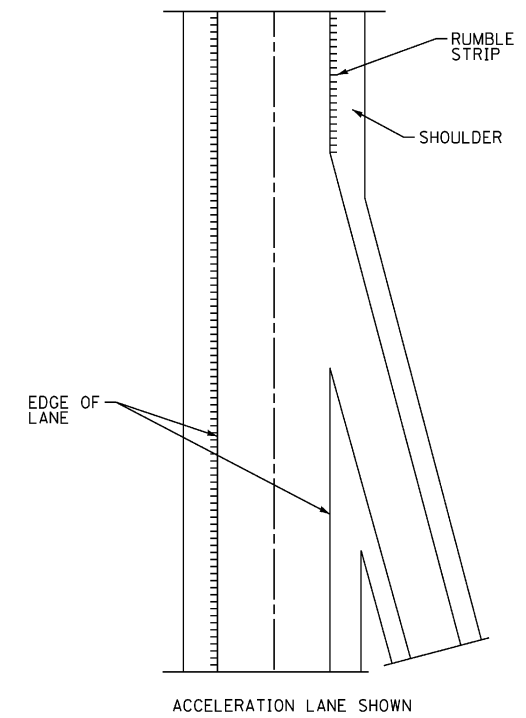
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29R-RS-4	McHENRY	25	16
C-91-298-11			CONTRACT NO. 60N28	
FED. ROAD DIST. NO. 1 ILLINOIS FED AID PROJECT				



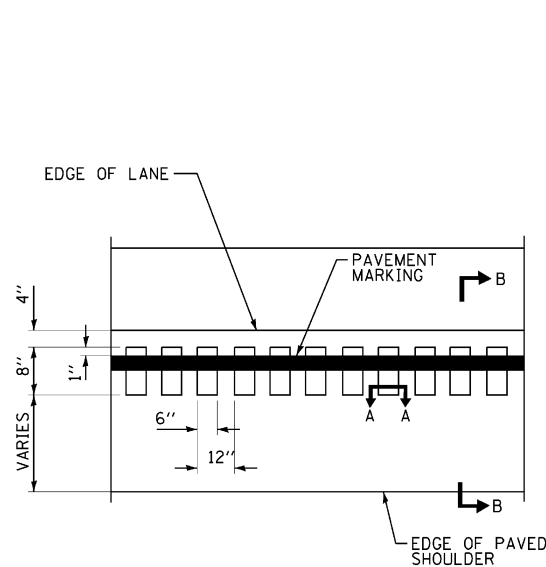
RUMBLE STRIPE EXPRESSWAY DIVIDED



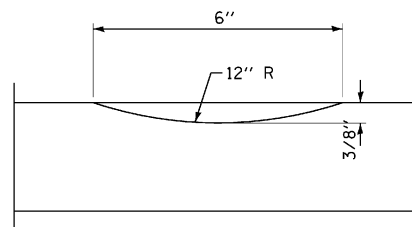
RUMBLE STRIPE INTERSECTIONS



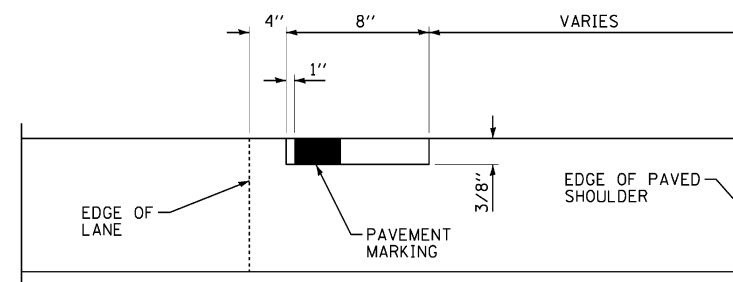
RUMBLE STRIPE ACCELERATION OR DECELERATION LANE



PLAN FOR RUMBLE STRIPE



SECTION A-A



SECTION B-B

GENERAL NOTES

ON PORTLAND CEMENT CONCRETE SHOULDERS, NO SHOULDER RUMBLE STRIPE SHALL BE LOCATED CLOSER THAN 150mm (6") TO A TRANSVERSE JOINT.

OMIT SHOULDER RUMBLE STRIP ACROSS STRUCTURES.

SHOULDER RUMBLE STRIPES TO BE PAID FOR AS SHOULDER RUMBLE STRIP AND HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING - LINE 4"

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DESIGNED - DSH	REVISED -
DRAWN - KAR	REVISED -
CHECKED - LDH	REVISED -
DATE - 12-13-10	FILE - 100153-W018-MISC-DETS.dgn

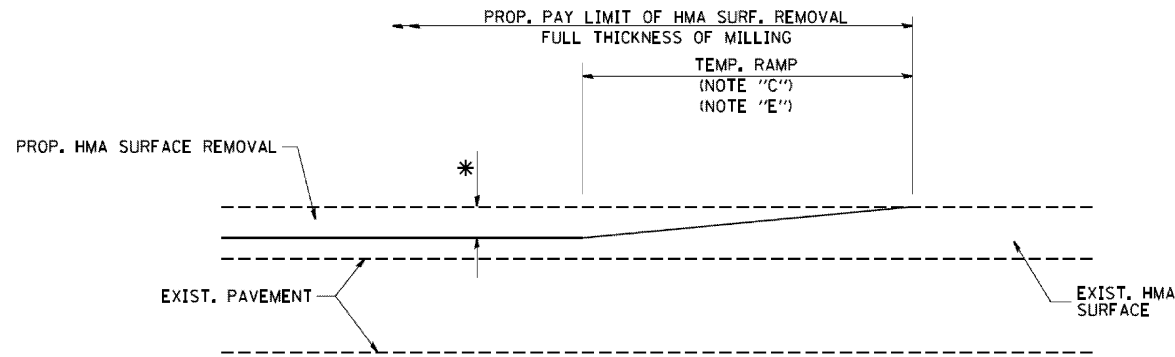
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US ROUTE 14
IL ROUTE 23 TO BUNKER HILL ROAD
SHOULDER RUMBLE STRIPE FOR NON-FREEWAY**

SCALE: NONE

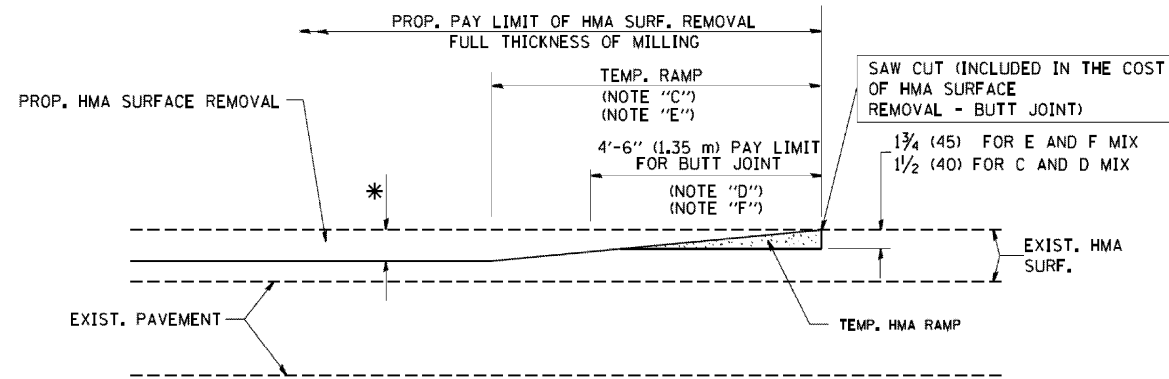
STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29R-RS-4	McHENRY	25	17
C-91-298-11		CONTRACT NO. 60N28		
FED. ROAD DIST. NO. 1 ILLINOIS FED AID PROJECT				



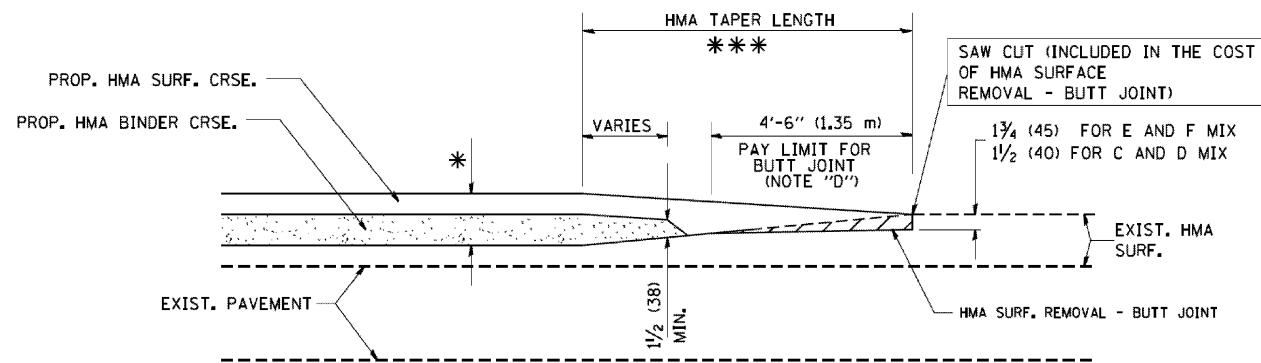
MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

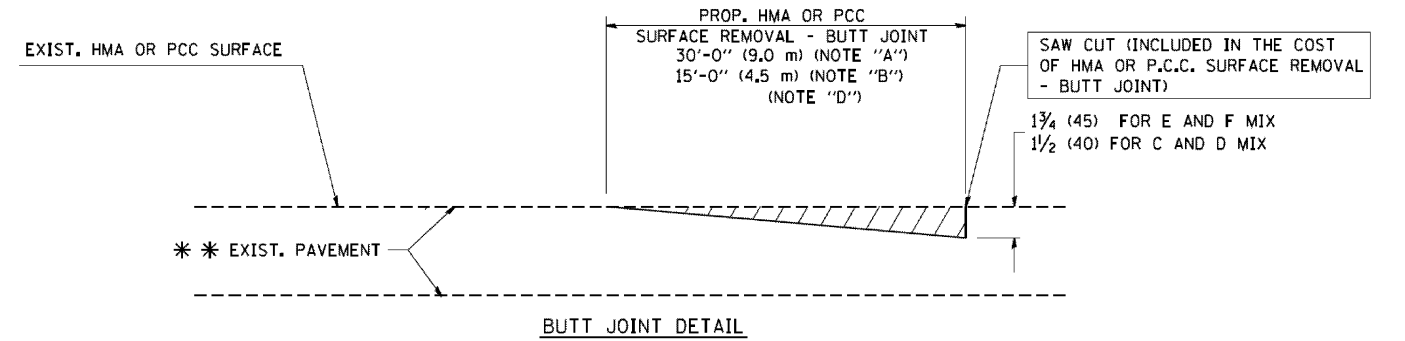


HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

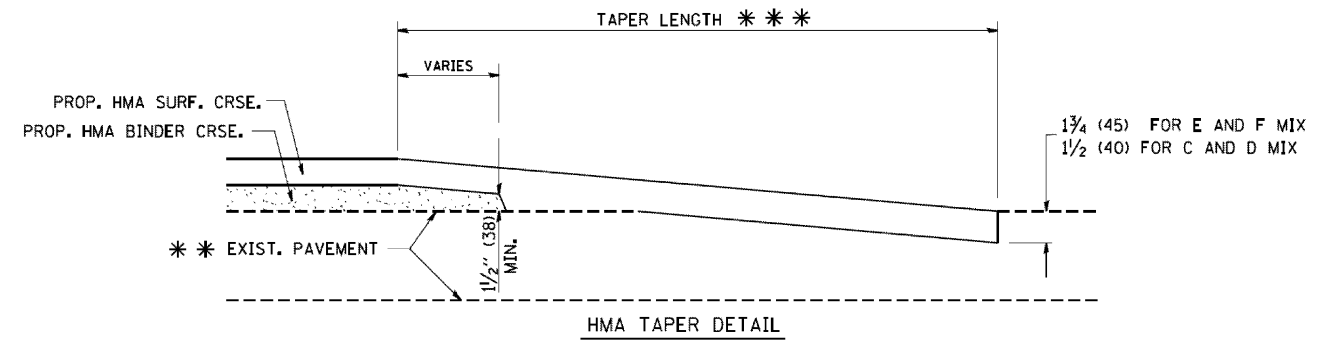
OPTION 2
TYPICAL TEMPORARY RAMP



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



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

NOTES

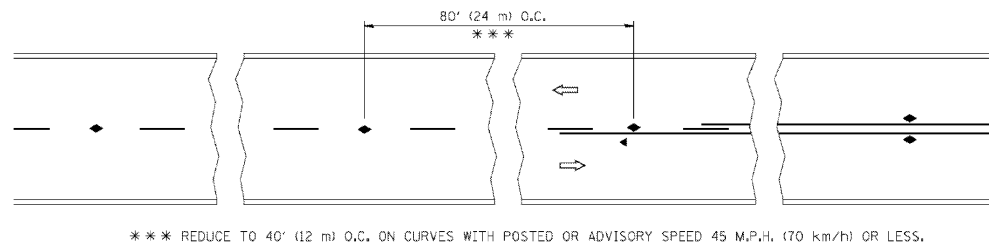
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (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:

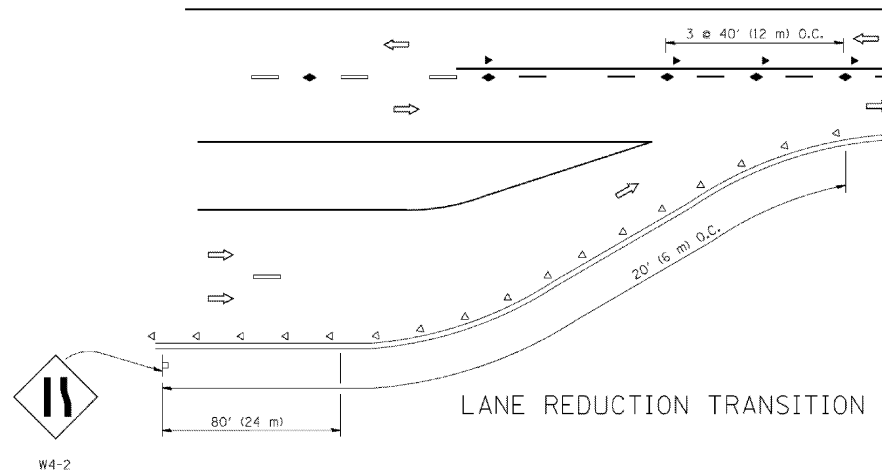
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

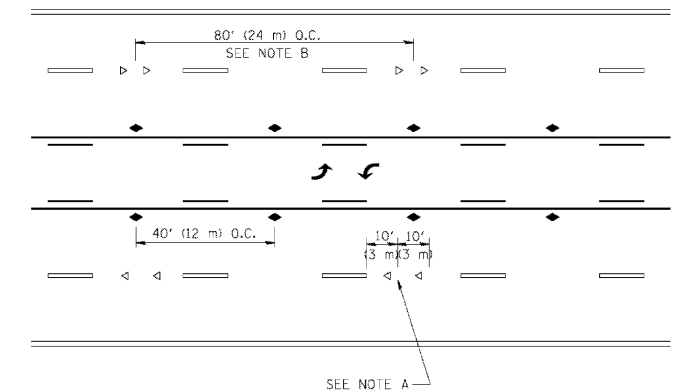
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 DESIGNED - M. DE YONG
 DRAWN -
 CHECKED -
 DATE - 06-13-90
 REVISIONS:
 REVISION NO. 1 BY R. SHAH 10-25-94
 REVISION NO. 2 BY A. ABBAS 03-21-97
 REVISION NO. 3 BY M. GOMEZ 04-06-01
 REVISION NO. 4 BY R. BORO 01-01-07
 PLOT SCALE = 50.0000' / IN.
 PLOT DATE = 1/4/2008
 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
 BUTT JOINT AND HMA TAPER DETAILS
 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.
 F.A. RTE. 305 SECTION 29R-RS-4 COUNTY MCHENRY TOTAL SHEETS 25 SHEET NO. 19
 BD400-05 BD32 CONTRACT NO. 60N28
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT
 C-91-298-11



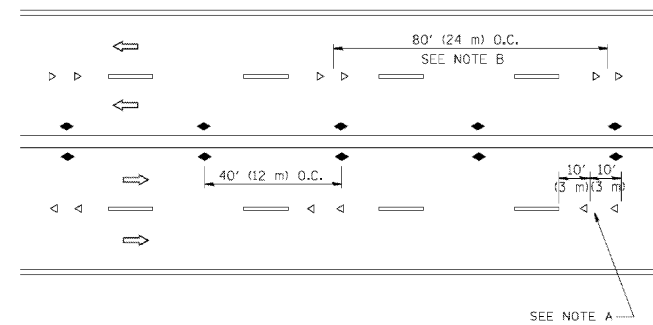
TWO-LANE/TWO-WAY



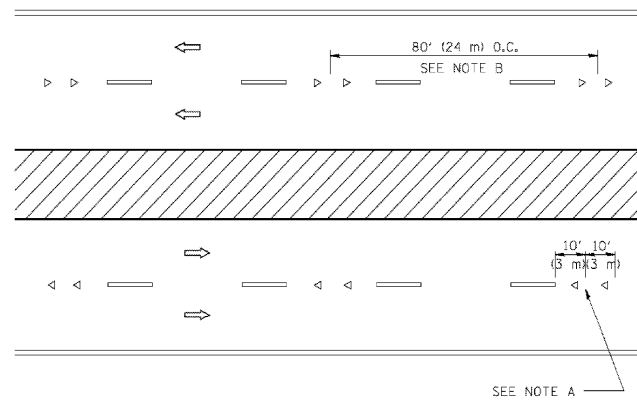
LANE REDUCTION TRANSITION



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

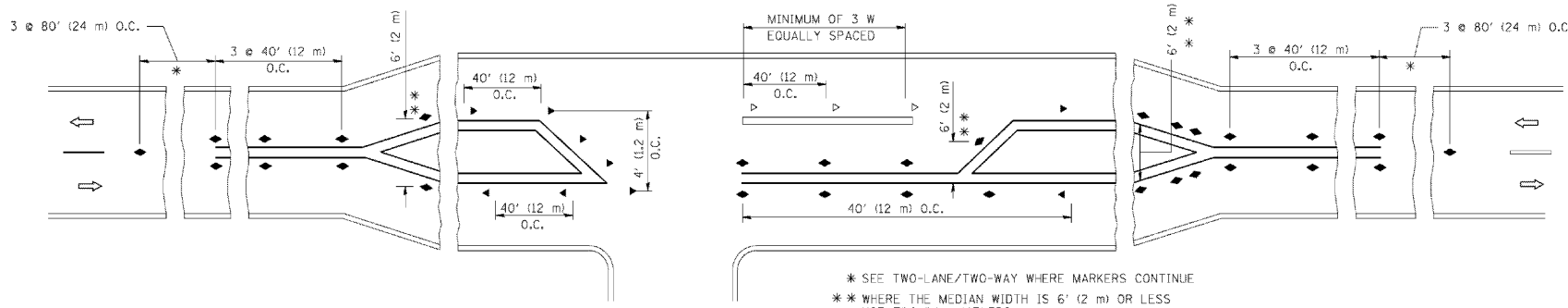
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

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.



LEFT TURN

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

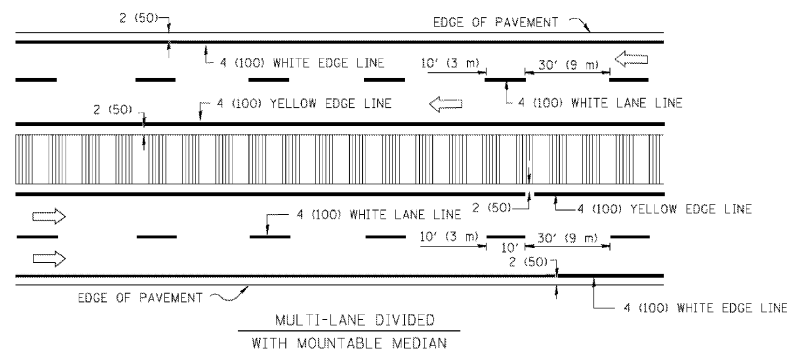
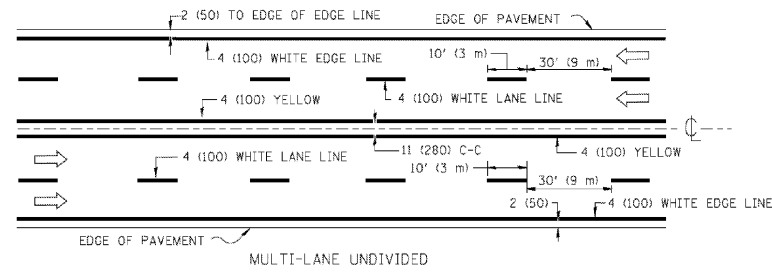
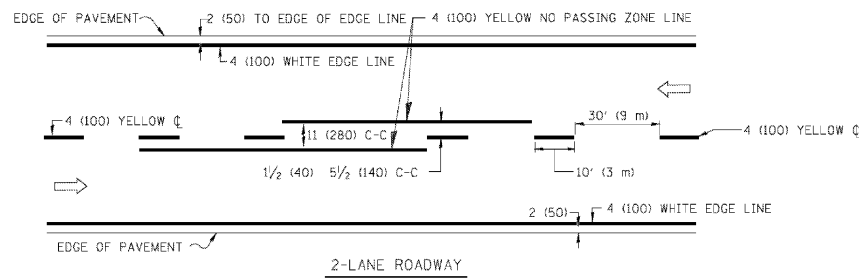
All dimensions are in inches (millimeters) unless otherwise shown.

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FILE NAME =	USER NAME = drvakosgn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
...	...	DRAWN -	REVISED - T. RAMMACHER 03-12-99
...	...	CHECKED -	REVISED - T. RAMMACHER 01-06-00
...	...	DATE -	REVISED - C. JUCIUS 09-09-09

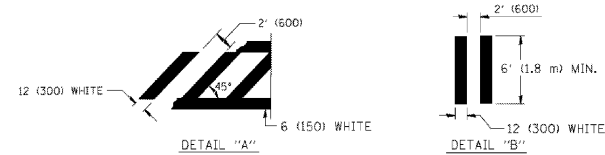
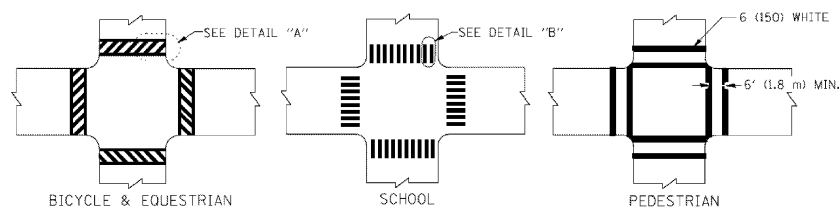
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS				
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29R-RS-4	MCHENRY	25	21
TC-11			CONTRACT NO. 60N28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
C-91-298-11				

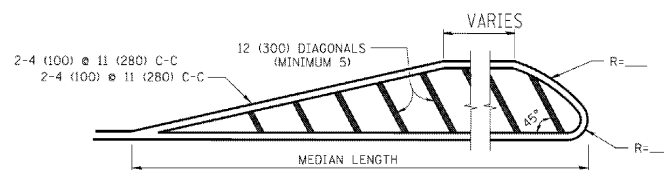
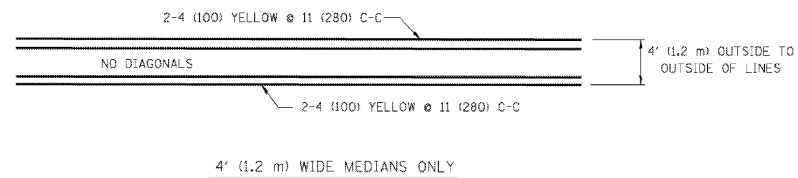


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

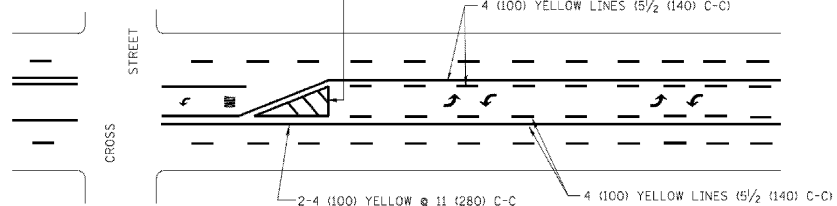


TYPICAL CROSSWALK MARKING

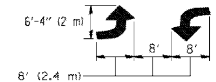


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

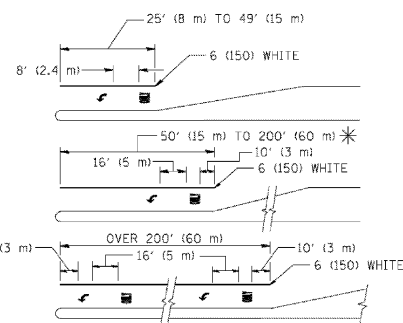


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

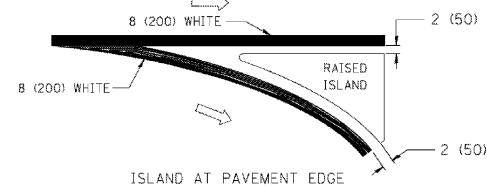
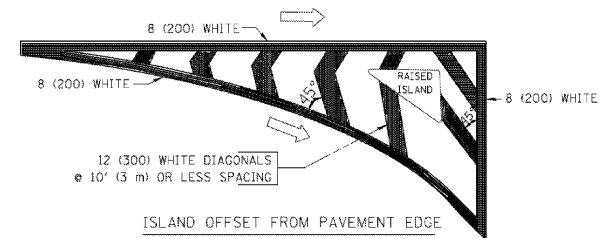


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	5 (125)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	2' (600) LINE WITH 6' (1.8 m) SPACE
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN)	2 @ 6 (150)	SOLID	WHITE	NOT LESS THAN 6' (1.8 m) APART
A. DIAGONALS (BIKE & EQUESTRIAN)	12 (300) @ 45°	SOLID	WHITE	2' (600) APART
B. LONGITUDINAL BARS (SCHOOL)	12 (300) @ 90°	SOLID	WHITE	2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW; TWO WAY TRAFFIC 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.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

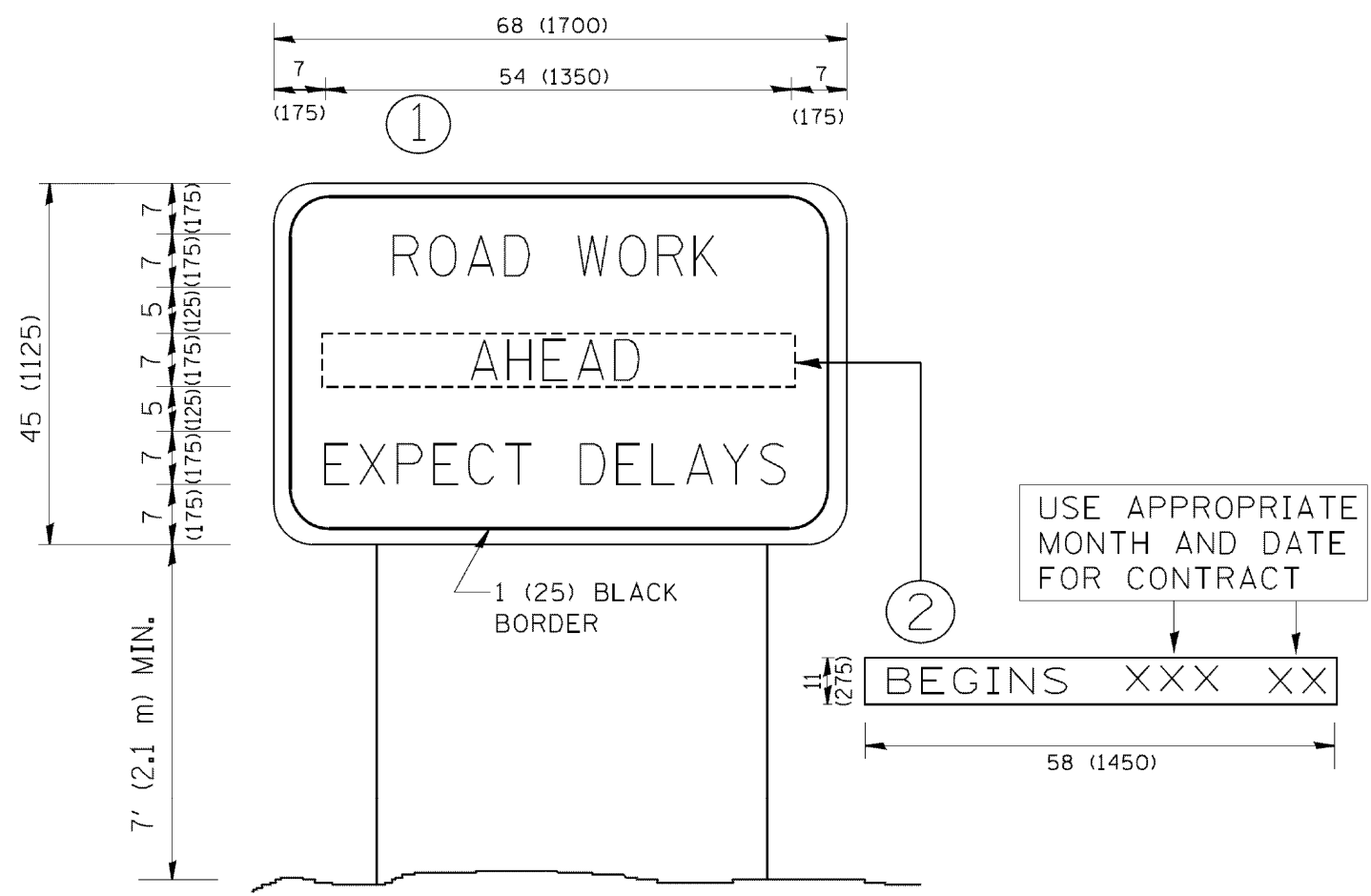
DISTRICT ONE TYPICAL PAVEMENT MARKINGS

SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	F.A. RTE. 305	SECTION 29R-RS-4	COUNTY MCHENRY	TOTAL SHEETS 25	SHEET NO. 22
			CONTRACT NO. 60N28				

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT C-91-298-11

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NOTES:

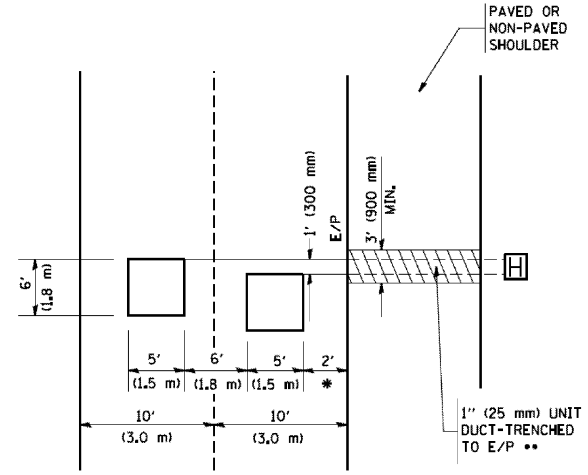
1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
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.

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

FILE NAME = W:\diststa\22x34\to22.dgn	USER NAME = geglennobt	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - R. MIRS 12-11-97		305	29R-RS-4	MCHENRY	25	24			
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99		TC-22			CONTRACT NO. 60N28				
		DATE -	REVISED - C. JUCLUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT
NOTE WHICH SHOULD EQUAL
3' (900 mm) X WIDTH OF
PAVED SHOULDER.

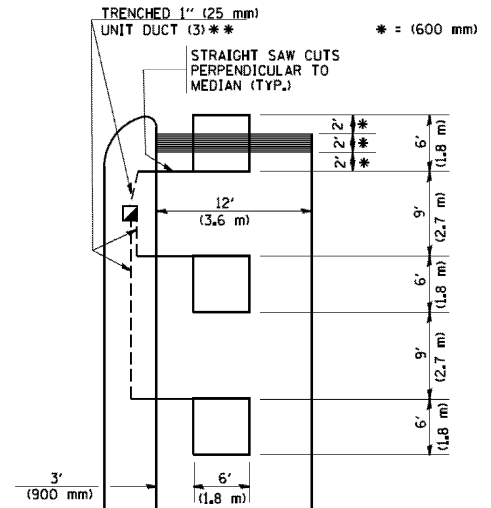


* = (600 mm)
** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

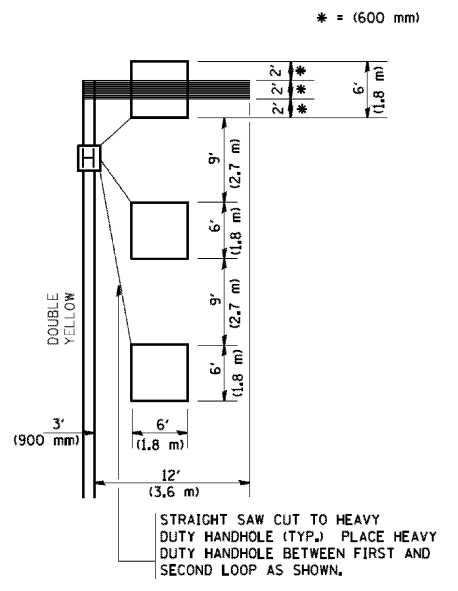
HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



** 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

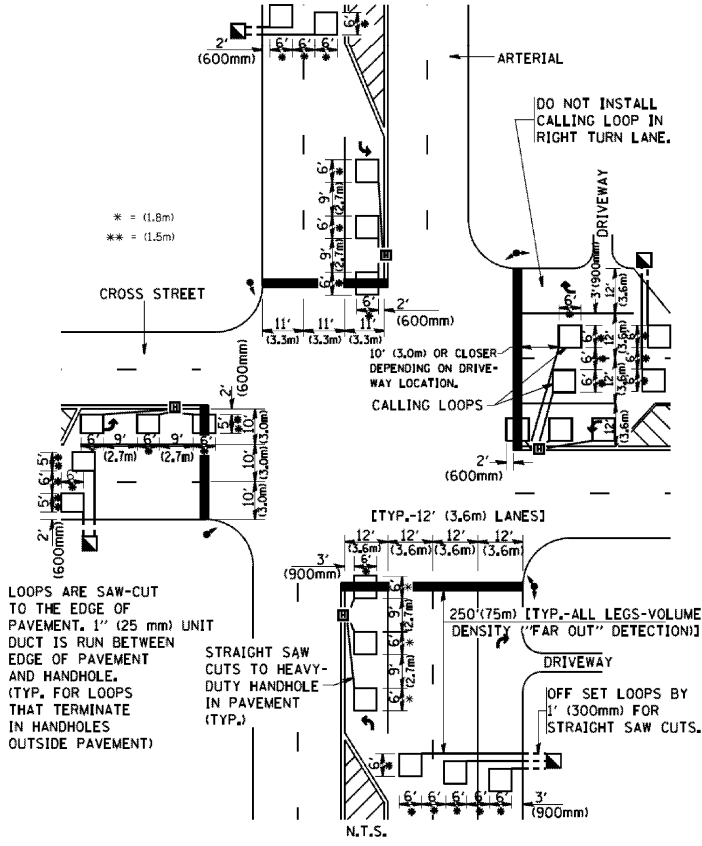
**LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH**

(PROTECTED / PERMITTED LEFT TURN PHASING)



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

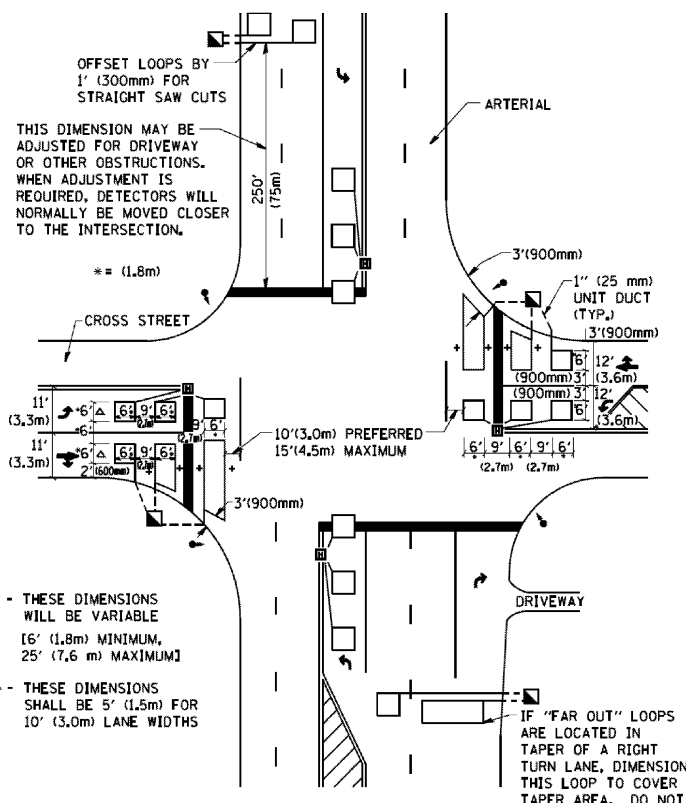
**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)**



LOOPS ARE SAW-CUT
TO THE EDGE OF
PAVEMENT. 1" (25 mm) UNIT
DUCT IS RUN BETWEEN
EDGE OF PAVEMENT
AND HANDHOLE.
(TYP. FOR LOOPS
THAT TERMINATE
IN HANDHOLES
OUTSIDE PAVEMENT)

DETAIL 1
N.T.S.

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



--- THESE DIMENSIONS
WILL BE VARIABLE
[6' (1.8m) MINIMUM,
25' (7.6 m) MAXIMUM]
△ THESE DIMENSIONS
SHALL BE 5' (1.5m) FOR
10' (3.0m) LANE WIDTHS

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 SEPARATELY. 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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 \\cpr-baxwood.com\proj\to\beta\tra\CR-syst\1.ckv\11001\DD053-140-3068.dwg\18 US 14 11 23 To Bunker-HIN\CADD-SURVEY\DRAWINGS\DDNS\DISTRICT ONE DETAILS - TS.dgn
 10/12/2002

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PLOT SCALE = 50.0000' / IN.	DESIGNED -	REVISD -
PLOT DATE = 1/4/2008	DRAWN -	REVISD -
	CHECKED - R.K.F.	REVISD -
	DATE -	REVISD -

STATE OF ILLINOIS	DISTRICT 1 - DETECTOR LOOP INSTALLATION
DEPARTMENT OF TRANSPORTATION	DETAILS FOR ROADWAY RESURFACING
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29R-RS-4	MCHENRY	25	25
TS-07			CONTRACT NO. 60N28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

C-91-298-11				
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