

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAP 870 (IL 53)  
SECTION: 533 X-RS-4  
ST. CHARLES ROAD TO MADISON STREET  
RESURFACING (3P)  
PROJECT: *ESP-0870(011)*  
DUPAGE COUNTY  
C-91-341-08

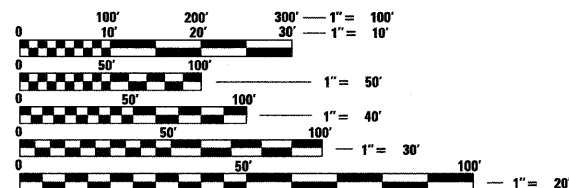
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	533 X-RS-4	DUPAGE	18	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60E20		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS IMPROVEMENT IS LOCATED  
WITHIN THE VILLAGE OF LOMBARD

**TRAFFIC DATA**

2005 ADT - 16,850  
POSTED SPEED LIMIT - 45 MPH

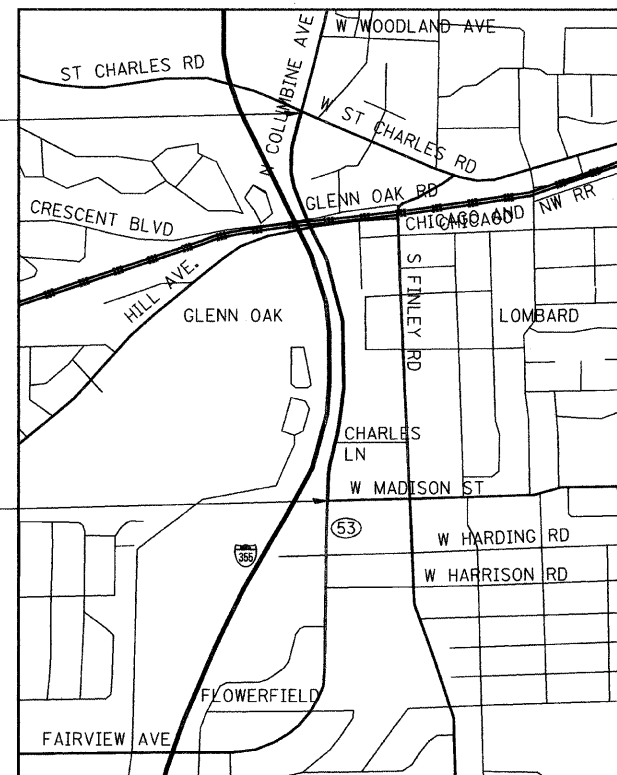


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

END IMPROVEMENT  
STA. 153 + 68.00

BEGIN IMPROVEMENT  
STA. 98 + 70.00



YORK TOWNSHIP  
LOCATION MAP  
1" = 1000'

GROSS AND NET LENGTH OF PROJECT = 5498 FT = 1.041 MI.

**Ciorba Group, Inc.**

DESIGN FIRM  
REGISTRATION NUMBER

184-001016

CONSULTING ENGINEERS  
SUITE 402, 5507 NORTH CUMBERLAND AVE  
CHICAGO, ILLINOIS 60656 ☎ (773) 775-4009



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 8, 20 09

*Diana M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
March 13, 20 09

*Charles J. Ingrasola*  
ENGINEER OF DESIGN AND ENVIRONMENT  
March 13, 20 09

*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

CONTRACT NO. 60E20

DISTRICT 1 DESIGN PLAN PREPARATION ENGINEER: K. ENG (847)705-4247

INDEX OF SHEETS

SHEET NO DESCRIPTION

- 1 COVER SHEET
- 2 INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 TYPICAL SECTIONS
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- 7 DETECTOR LOOP REPLACEMENT PLANS
- 8 DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-8)
- 9 PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
- 10 CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
- 11 BUTT JOINT AND HMA TAPER DETAILS (BD-32)
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- 14 DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
- 15 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
- 16 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)
- 17 ARTERIAL ROAD INFORMATION SIGN (TC-22)
- 18 DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

STATE STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 442201-03 CLASS C AND D PATCHES
- 542301-02 PRECAST REINFORCED CONCRETE FLARED END SECTION
- 604001-03 FRAME AND LIDS, TYPE 1
- 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 701301-03 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
- 701501-05 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701606-04 URBAN LANE CLOSURE, MULTI LANE, 2W WITH MOUNTABLE MEDIAN
- 701701-06 URBAN LANE CLOSURE, MULTI LANE INTERSECTION
- 701901-01 TRAFFIC CONTROL DEVICES

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATIONS IS REQUIRED)
2. 10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB AND GUTTER AND MEDIANS IN THE FIELD UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
5. BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED - ONE (1) WEIGHTED SANDBAG ACROSS EACH BOTTOM RAIL.
6. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
7. THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES:
 

BITUMINOUS MATERIALS (PRIME COAT)	0.004 TONS/SQ YD
HOT-MIX ASPHALT SURFACE COURSE	112 LBS/SQ YD/INCH
POLYMERIZED LEVELING BINDER (MACHINE METHOD)	105 LBS/SQ YD/INCH
8. THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISORS AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE START OF WORK.
9. TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS THE ENGINEER SHALL CONTACT DON CHIARUGI, AREA TRAFFIC FIELD TECHNICIAN, AT (847) 741-9857.
10. WHEN MILLED PAVEMENT IS OPEN IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2" (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1" (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3" (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 3:1 (H:V).
11. BUTT JOINTS WILL BE INSTALLED AT THE END OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT). IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
12. FOR PAVEMENT MARKING, REFER TO DISTRICT ONE TYPICAL MARKINGS FOR DETAILS SHOWN.
13. MATCH EXISTING PAVEMENT MARKINGS AT PROJECT AND OMISSION LIMITS.
14. A QUANTITY FOR LEVELING BINDER (HAND METHOD) HAS BEEN PROVIDED FOR USE AROUND HAND HOLES, PRIVATE UTILITY STRUCTURE FRAMES AND ANY OTHER STRUCTURE FRAMES THAT ARE NOT ABLE TO BE LOWERED UNDER THE ITEM "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)" AFTER GRINDING OF THE EXISITING PAVEMENT.

FILE NAME = N:\PROJ\3329\3329\_137\Design\Proposed\Plan\3329\_37-02-General\_Notes.dgn



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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53 RESURFACING PLANS  
 ST. CHARLES ROAD TO MADISON STREET  
 INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	533 X-RS-4	DUPAGE	18	2
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E20	

SUMMARY OF QUANTITIES				URBAN 100% FED.	CONSTRUCTION TYPE CODE
CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY		ROADWAY 1000-2A
20201006	GRADING AND SHAPING SHOULDERS	UNIT	40		40
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	25		25
40600300	AGGREGATE (PRIME COAT)	TON	125		125
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	35		35
40600535	LEVELING BINDER (HAND METHOD), N70	TON	10		10
40600895	CONSTRUCTING TEST STRIP	EACH	2		2
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	140		140
40600990	TEMPORARY RAMP	SQ YD	230		230
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	3,090		3,090
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	30,580		30,580
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	50		50
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	200		200
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SQ YD	250		250
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	620		620
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	170		170
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, 24"	EACH	1		1
NP 55039700	STORM SEWERS TO BE CLEANED	FOOT	750		750
60262700	INLETS TO BE RECONSTRUCTED	EACH	2		2
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	24		24
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6		6
67100100	MOBILIZATION	L SUM	1		1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1		1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1		1

\* DENOTES SPECIALTY ITEM  
NP = Non-participating

SUMMARY OF QUANTITIES				URBAN 100% FED.	CONSTRUCTION TYPE CODE
CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY		ROADWAY 1000-2A
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1		1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	550		550
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	225		225
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	53,100		53,100
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1,050		1,050
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	150		150
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	600		600
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	6,600		6,600
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	75		75
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	17,700		17,700
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	350		350
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	50		50
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	200		200
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	420		420
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	179		179
* 81400200	HEAVY-DUTY HANDHOLE	EACH	1		1
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	1,000		1,000
* 89502380	REMOVE EXISTING HANDHOLE	EACH	1		1
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52		52
X0322936	REMOVE EXISTING FLARED END SECTION	EACH	1		1
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1,330		1,330
NP Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	61		61

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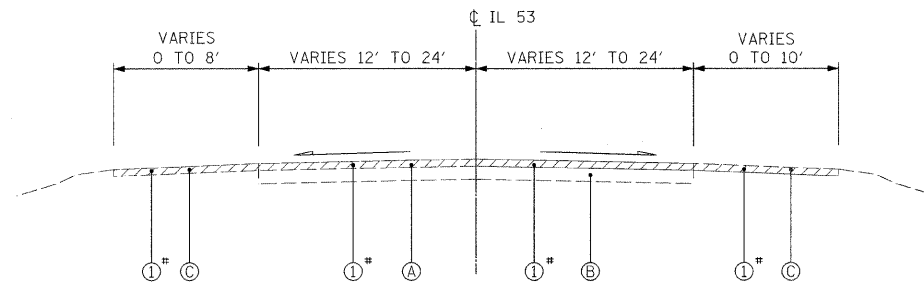
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

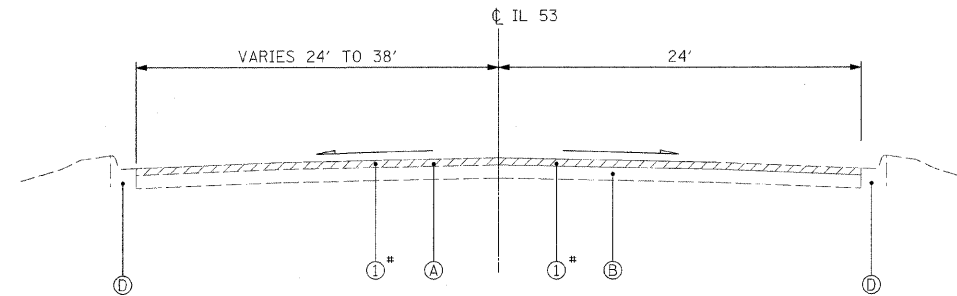
ILLINOIS ROUTE 53  
ST. CHARLES ROAD TO MADISON STREET  
SUMMARY OF QUANTITIES

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

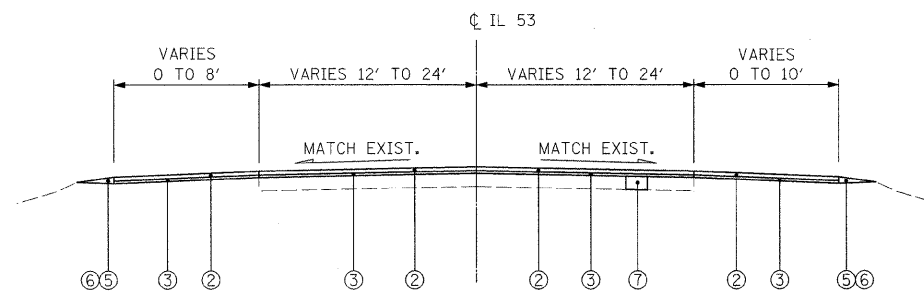
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	533 X-RS-4		18	3
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E20	



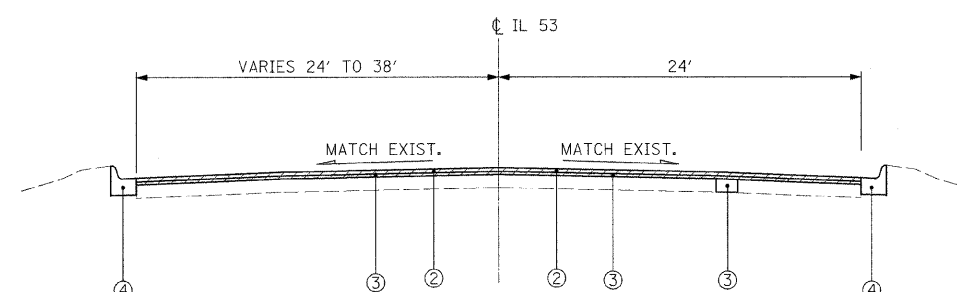
EXISTING TYPICAL SECTION  
STA. 98+70.00 TO STA. 123+00.00



EXISTING TYPICAL SECTION  
STA. 123+00.00 TO STA. 153+68.00



PROPOSED TYPICAL SECTION  
STA. 98+70.00 TO STA. 123+00.00



PROPOSED TYPICAL SECTION  
STA. 123+00.00 TO STA. 153+68.00

HOT-MIX ASPHALT MIXTURE REQUIREMENTS CHART

OPERATIONS	MIXTURE TYPE	AC TYPE	PERCENT AIR VOIDS
ROADWAY AND BRIDGE APPROACH RESURFACING	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5MM)	PG 64-22	4% @ 70 GYR
	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR
	LEVELING BINDER (HAND METHOD), N70 (IL-9.5MM)	PG 64-22 *	4% @ 70 GYR
PAVEMENT PATCHING	CLASS D PATCHES, 13" (HMA BINDER IL-19 MM)	PG 64-22 *	4% @ 70 GYR

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

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

EXISTING CONDITIONS:

- Ⓐ HOT-MIX ASPHALT SURFACE AND BINDER COURSE, 5" AND VARIES
- Ⓑ PORTLAND CEMENT CONCRETE BASE COURSE, 10"
- Ⓒ HOT MIX ASPHALT SHOULDER
- Ⓓ COMBINATION CONCRETE CURB AND GUTTER

PROPOSED IMPROVEMENTS:

- ① HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"
- ② HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- ③ POLYMERIZED LEVELING BINDER MACHINE METHOD, IL-4.75, N50, 3/4"
- ④ COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AS DIRECTED BY ENGINEER)
- ⑤ AGGREGATE WEDGE SHOULDER
- ⑥ GRADING AND SHAPING SHOULDERS
- ⑦ CLASS D PATCHES, 13" (DETERMINED BY ENGINEER IN FIELD)

\* THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53  
ST. CHARLES ROAD TO MADISON STREET  
TYPICAL SECTIONS

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E20	

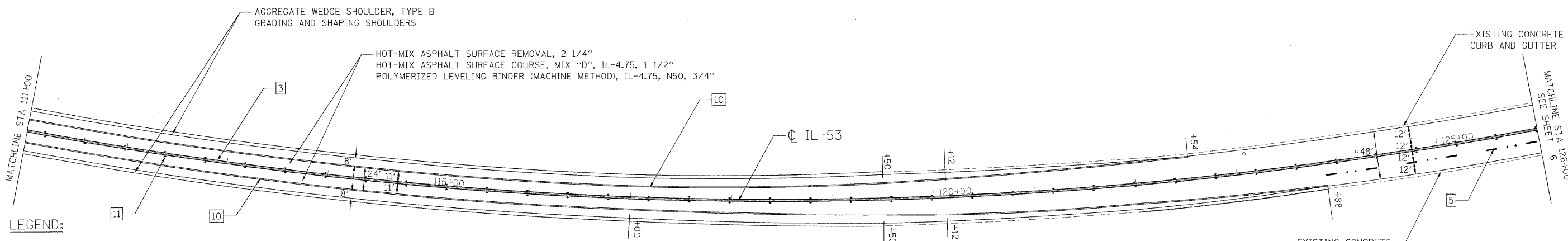
BEGIN IMPROVEMENT  
STA. 98+70.00

MATCH EXISTING  
PAVEMENT MARKINGS

**LEGEND:**

- |  |   |
|--|---|
| <p>1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SOLID LINE)</p> <p>2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SKIP DASH - 10' DASH, 30' SKIP)</p> <p>3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)</p> <p>4 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE LANE LINE - 2' DASH, 6' SKIP)</p> <p>5 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (2 ONE-WAY CRYSTAL MARKER)</p> <p>6 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE SOLID LINE)</p> | <p>7 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL LINE) (75' SPACING OR 5' MINIMUM)</p> <p>8 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINE)</p> <p>9 THERMOPLASTIC PAVEMENT MARKING - LETTERS &amp; SYMBOLS (TYP.)</p> <p>10 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SOLID LINE)</p> <p>11 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)</p> <p>12 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE DIAGONAL LINE)</p> |
|--|---|

 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT  
TEMPORARY RAMPS



**LEGEND:**

- |  |   |
|--|---|
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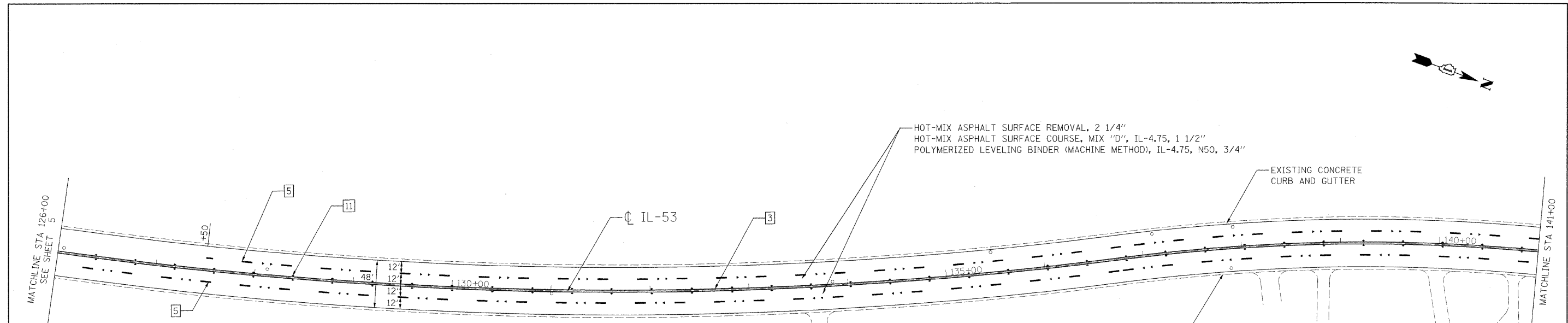
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 53  
ST. CHARLES ROAD TO MADISON STREET  
PROPOSED ROADWAY AND PAVEMENT MARKING PLAN**

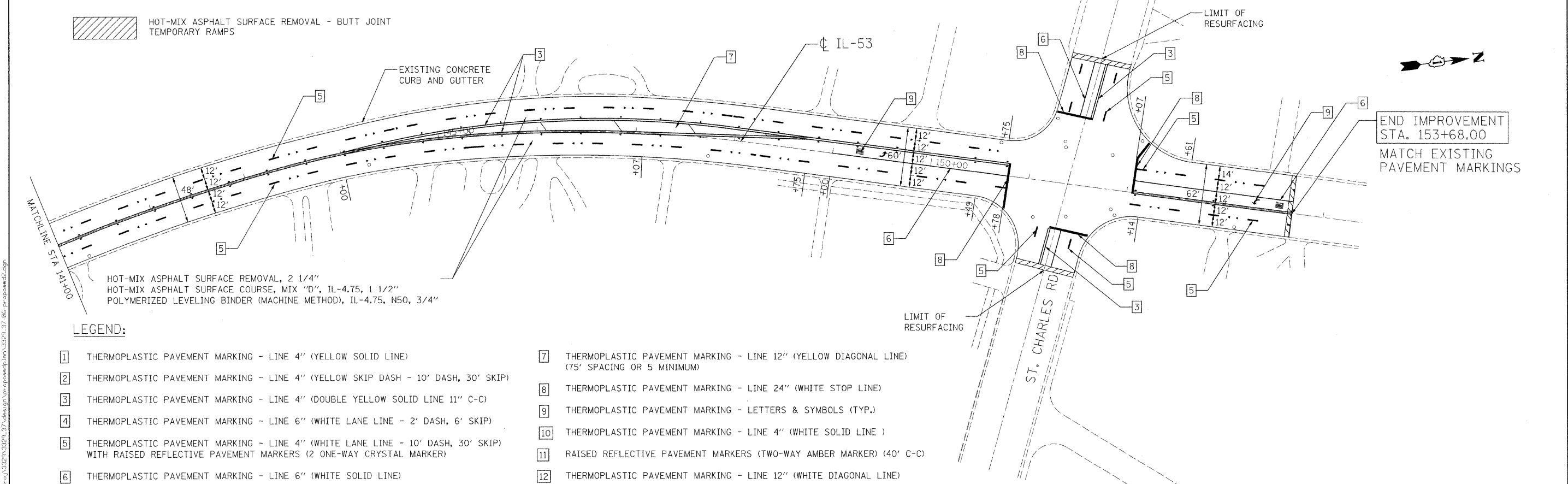
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F.A.P. RTE. 870	SECTION 533 X-RS-4	COUNTY DUPAGE	TOTAL SHEETS 18	SHEET NO. 5
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E20	



**LEGEND:**

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| <ul style="list-style-type: none"> <li>1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SOLID LINE)</li> <li>2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SKIP DASH - 10' DASH, 30' SKIP)</li> <li>3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)</li> <li>4 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE LANE LINE - 2' DASH, 6' SKIP)</li> <li>5 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (2 ONE-WAY CRYSTAL MARKER)</li> <li>6 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE SOLID LINE)</li> </ul> | <ul style="list-style-type: none"> <li>7 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL LINE) (75' SPACING OR 5' MINIMUM)</li> <li>8 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINE)</li> <li>9 THERMOPLASTIC PAVEMENT MARKING - LETTERS &amp; SYMBOLS (TYP.)</li> <li>10 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SOLID LINE)</li> <li>11 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)</li> <li>12 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE DIAGONAL LINE)</li> </ul> |
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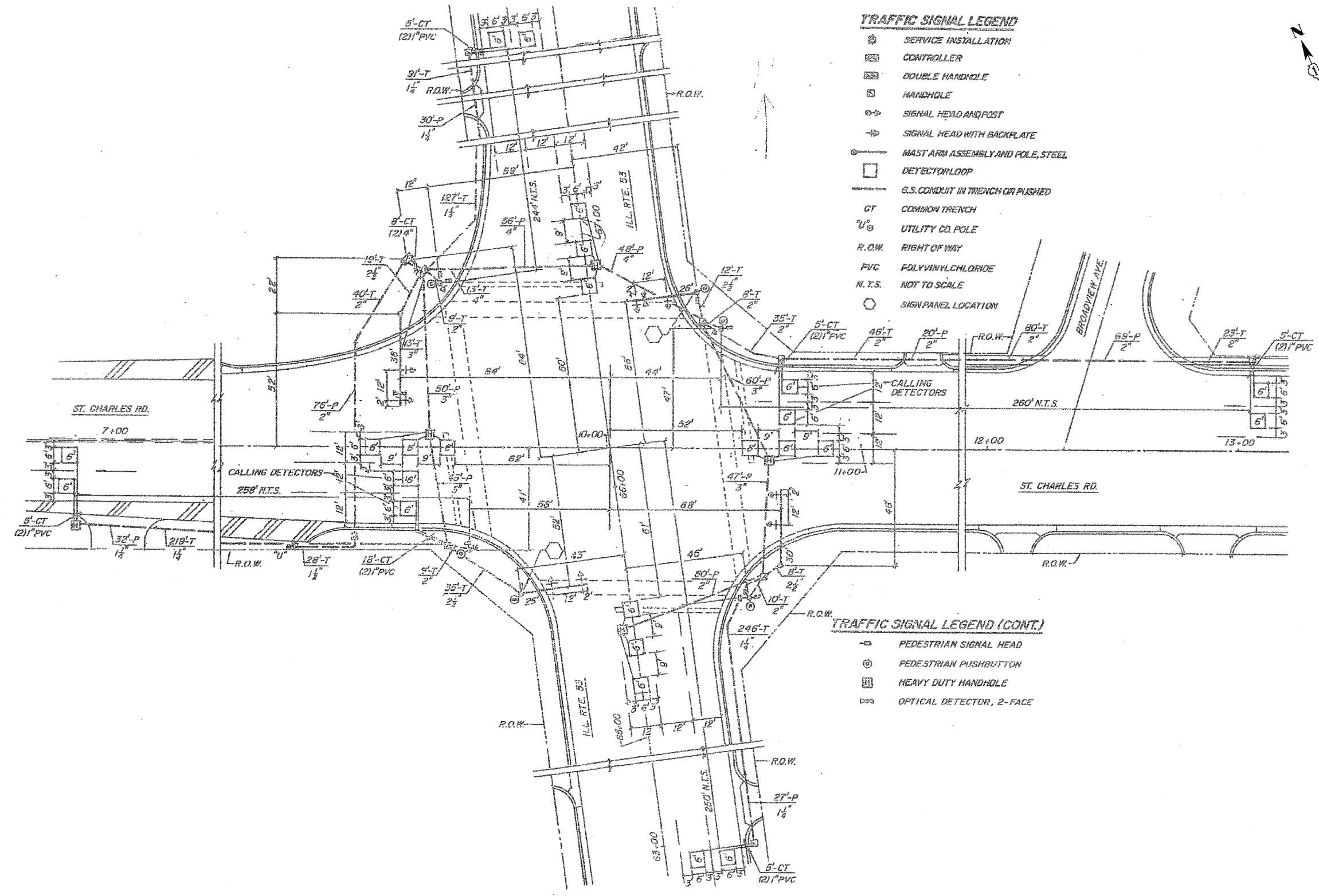


**LEGEND:**

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SOLID LINE)</li> <li>2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SKIP DASH - 10' DASH, 30' SKIP)</li> <li>3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)</li> <li>4 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE LANE LINE - 2' DASH, 6' SKIP)</li> <li>5 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (2 ONE-WAY CRYSTAL MARKER)</li> <li>6 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE SOLID LINE)</li> </ul> | <ul style="list-style-type: none"> <li>7 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL LINE) (75' SPACING OR 5' MINIMUM)</li> <li>8 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINE)</li> <li>9 THERMOPLASTIC PAVEMENT MARKING - LETTERS &amp; SYMBOLS (TYP.)</li> <li>10 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SOLID LINE)</li> <li>11 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)</li> <li>12 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE DIAGONAL LINE)</li> </ul> |
|---|--|

	<b>Ciorba Group, Inc.</b> CONSULTING ENGINEERS 5607 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014	USER NAME = a1eu DESIGNED - EPS DRAWN - MLB CHECKED - WBL DATE - 1/13/2009	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 53</b> <b>ST. CHARLES ROAD TO MADISON STREET</b> <b>PROPOSED ROADWAY AND PAVEMENT MARKING PLAN</b>	F.A.P. RTE. 870 SECTION 533 X-RS-4 COUNTY DUPAGE TOTAL SHEETS 18 SHEET NO. 6 CONTRACT NO. 60E20
	SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
	MATCH EXISTING PAVEMENT MARKINGS					

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**TRAFFIC SIGNAL LEGEND**

- ⊗ SERVICE INSTALLATION
- ⊠ CONTROLLER
- ⊞ DOUBLE HANDHOLE
- ⊞ HANDHOLE
- ⊞ SIGNAL HEAD AND POST
- ⊞ SIGNAL HEAD WITH BACKPLATE
- ⊞ MAST ARM ASSEMBLY AND POLE, STEEL
- ⊞ DETECTOR LOOP
- G.S. CONDUIT IN TRENCH OR PUSHED
- CT COMMON TRENCH
- U<sub>6</sub> UTILITY CO. POLE
- R.O.W. RIGHT OF WAY
- PVC POLYVINYLCHLORIDE
- N.T.S. NOT TO SCALE
- ⊞ SIGN PANEL LOCATION

**TRAFFIC SIGNAL LEGEND (CONT.)**

- ⊞ PEDESTRIAN SIGNAL HEAD
- ⊞ PEDESTRIAN PUSHBUTTON
- ⊞ HEAVY DUTY HANDHOLE
- ⊞ OPTICAL DETECTOR, 2-FACE

REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	1000	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME: c:\pers\j3329\3329\_37\design\pers\eps\epi\3329\_37\loopa01.dgn

**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
6507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014

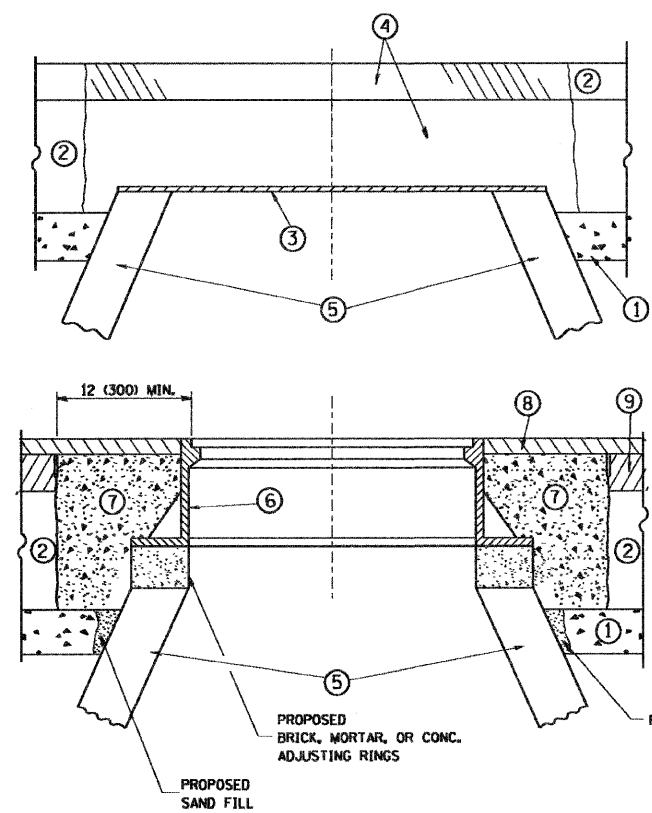
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PLOT SCALE = 1/8" = 1'-0"	DRAWN - MLB	REVISED -
PLOT DATE = 1/13/2009	CHECKED - WBL	REVISED -
	DATE - 1/13/2009	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 53  
ST. CHARLES ROAD TO MADISON STREET  
DETECTOR LOOP REPLACEMENT**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 870	SECTION 533 X-RS-4	COUNTY DUPAGE	TOTAL SHEETS 18	SHEET NO. 7
CONTRACT NO. 60E20			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 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.
- STAGE 2 (AFTER PAVEMENT MILLING)**
- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
  - B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
  - C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

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

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- 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

**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.

**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.

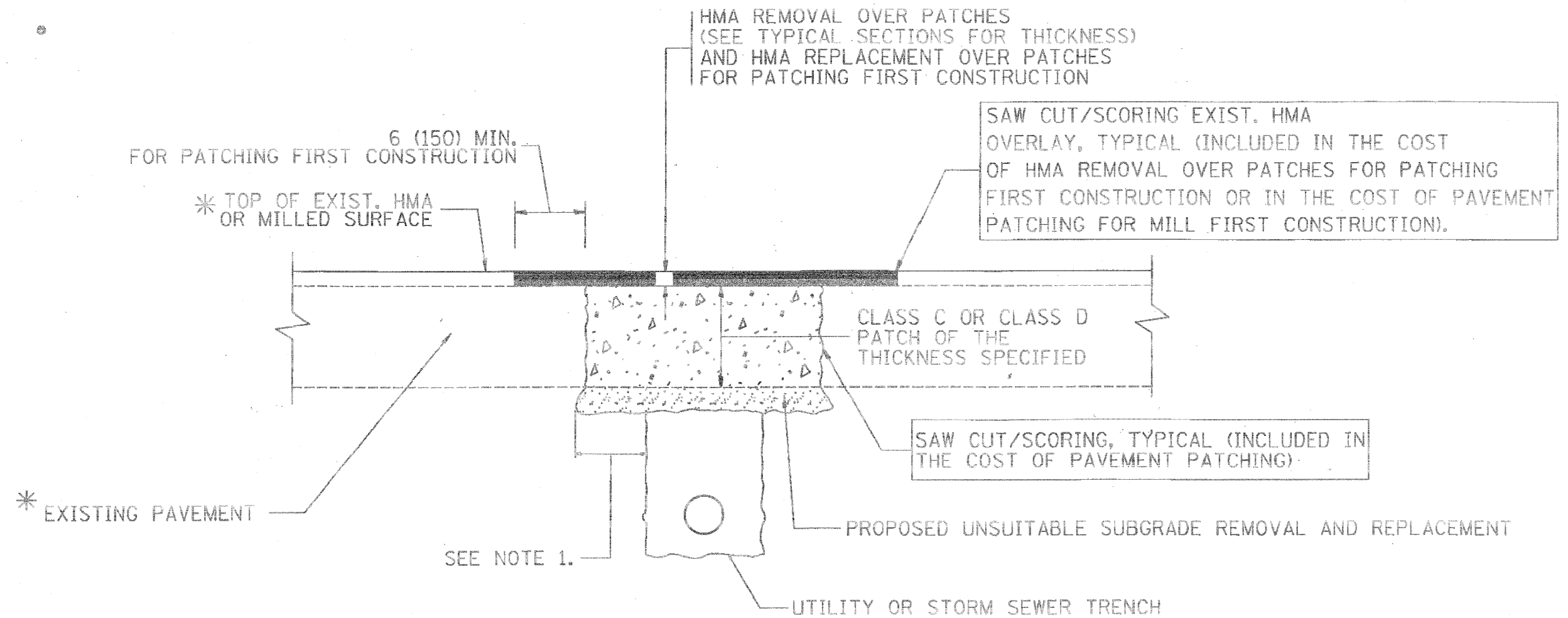
WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\drtstst\22x34\bd88.dgn	USER NAME = goglionobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>			F.A.P. RTE. 870	SECTION 533 X-RS-4	COUNTY DUPAGE	TOTAL SHEETS 18	SHEET NO. 8
		DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>BD600-03 (BD-8)</b>		<b>CONTRACT NO. 60E20</b>		
		CHECKED -	REVISED - R. WIEDEMAN 05-14-04		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE - 10-25-94	REVISED - R. BORO 01-01-07									





\* 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)**

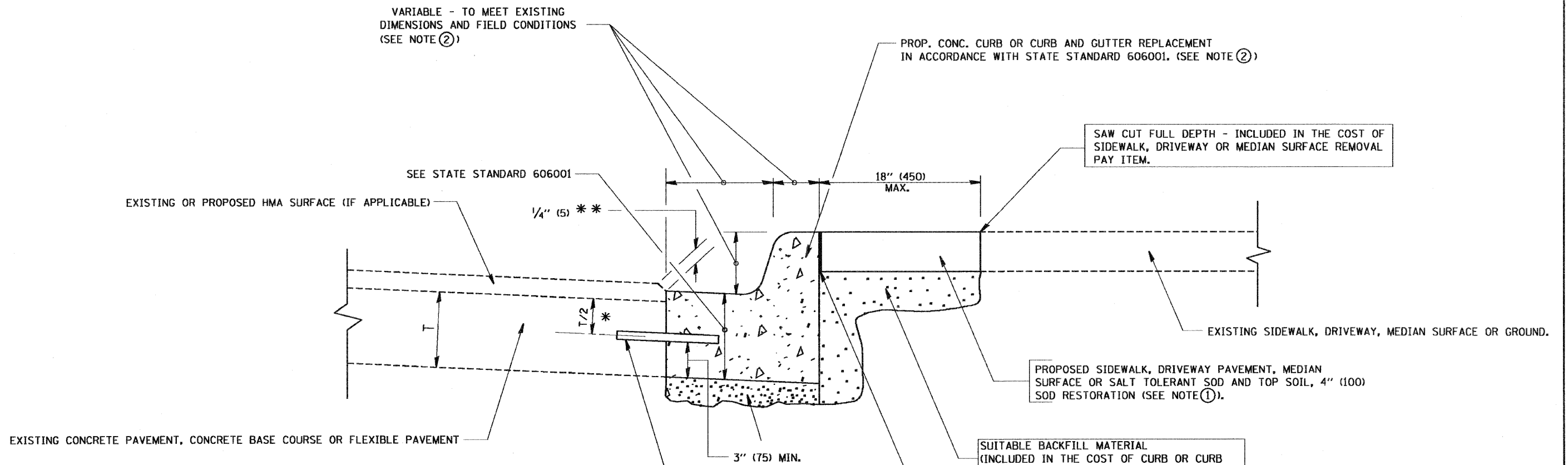
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

**SEQUENCE OF CONSTRUCTION (MILLING FIRST)**

1. MILL HMA FIRST IF THERE IS AT LEAST 4 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.

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

FILE NAME * c:\projects\1\state\022x04\1\bd22.dgn	USER NAME * baurdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT</b>		F.A.P. RTE. 870	SECTION 533 X-RS-4	COUNTY DUPAGE	TOTAL SHEETS 18	SHEET NO. 9
PLOT SCALE = 1/8" = 1' IN.	CHECKED -	REVISED - R. BORO 03-01-07	REVISED - R. BORO 03-04-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60E20		
PLOT DATE = 10/27/2000	DATE = 10-28-94	REVISED - K. ENG 10-27-08					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.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

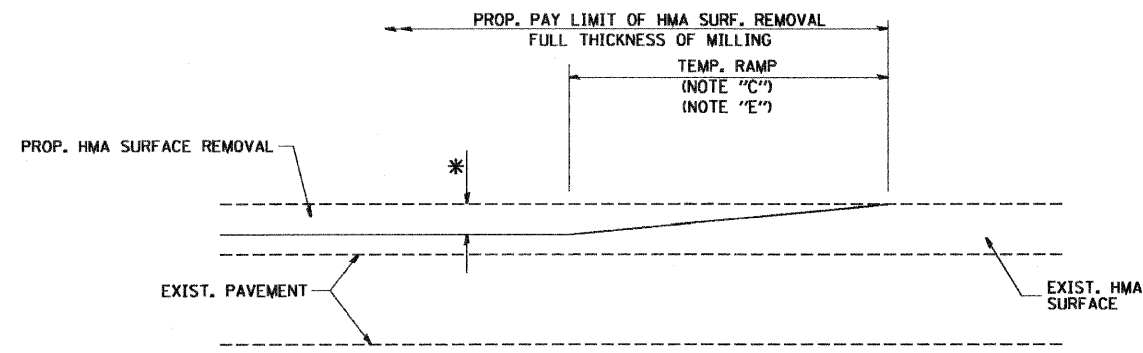
**BASIS OF PAYMENT:**

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".

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

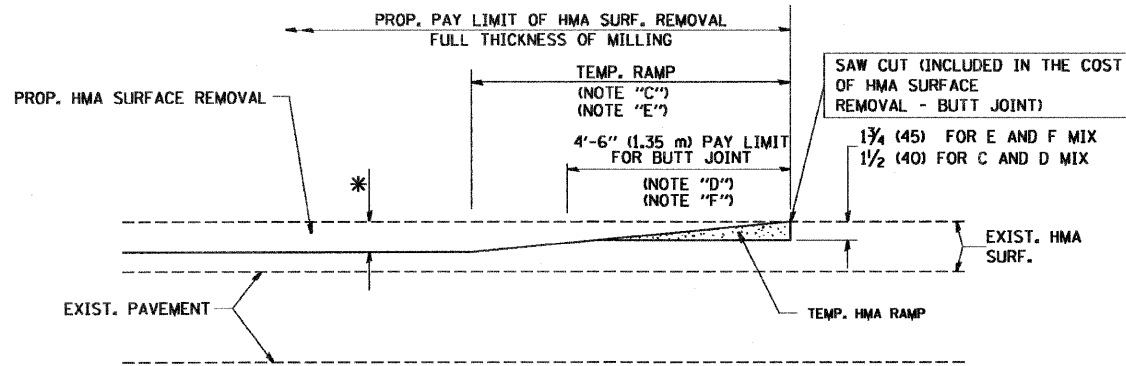
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		DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	870	533 X-RS-4	DUPAGE	18	10
		CHECKED -	REVISED - M. GOMEZ 01-22-01					<b>BD600-06 (BD-24)</b>			<b>CONTRACT NO. 60E20</b>		
		DATE - 03-11-94	REVISED - R. BORO 01-01-07		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								



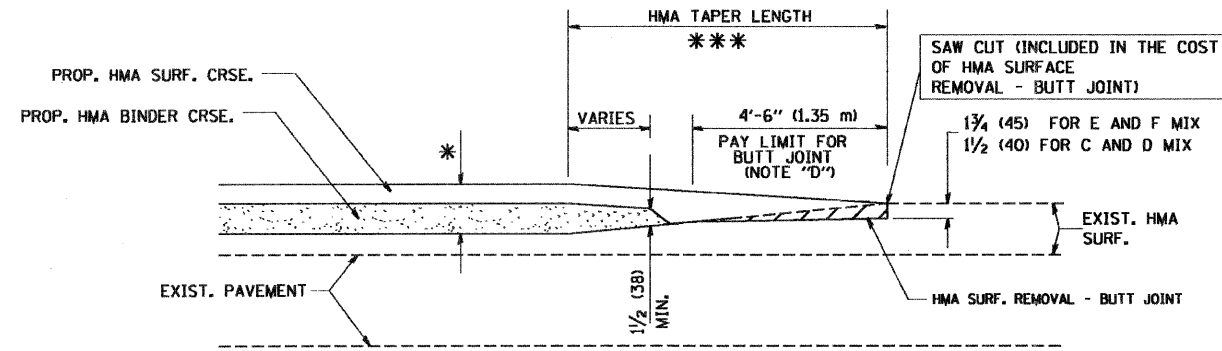
MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

**OPTION 1**

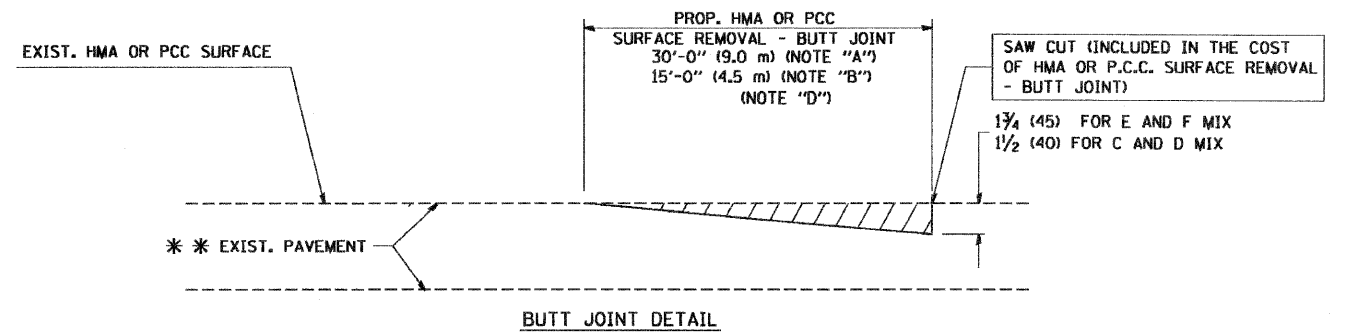


HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

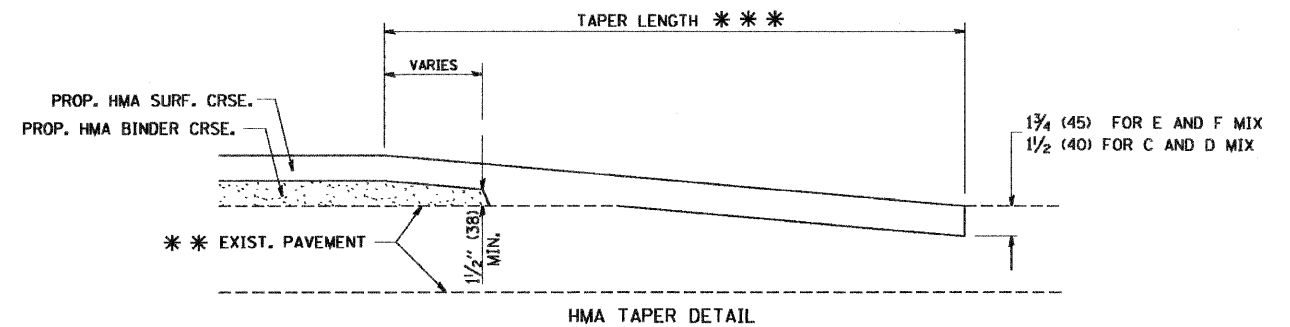
**OPTION 2**  
**TYPICAL TEMPORARY RAMP**



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".

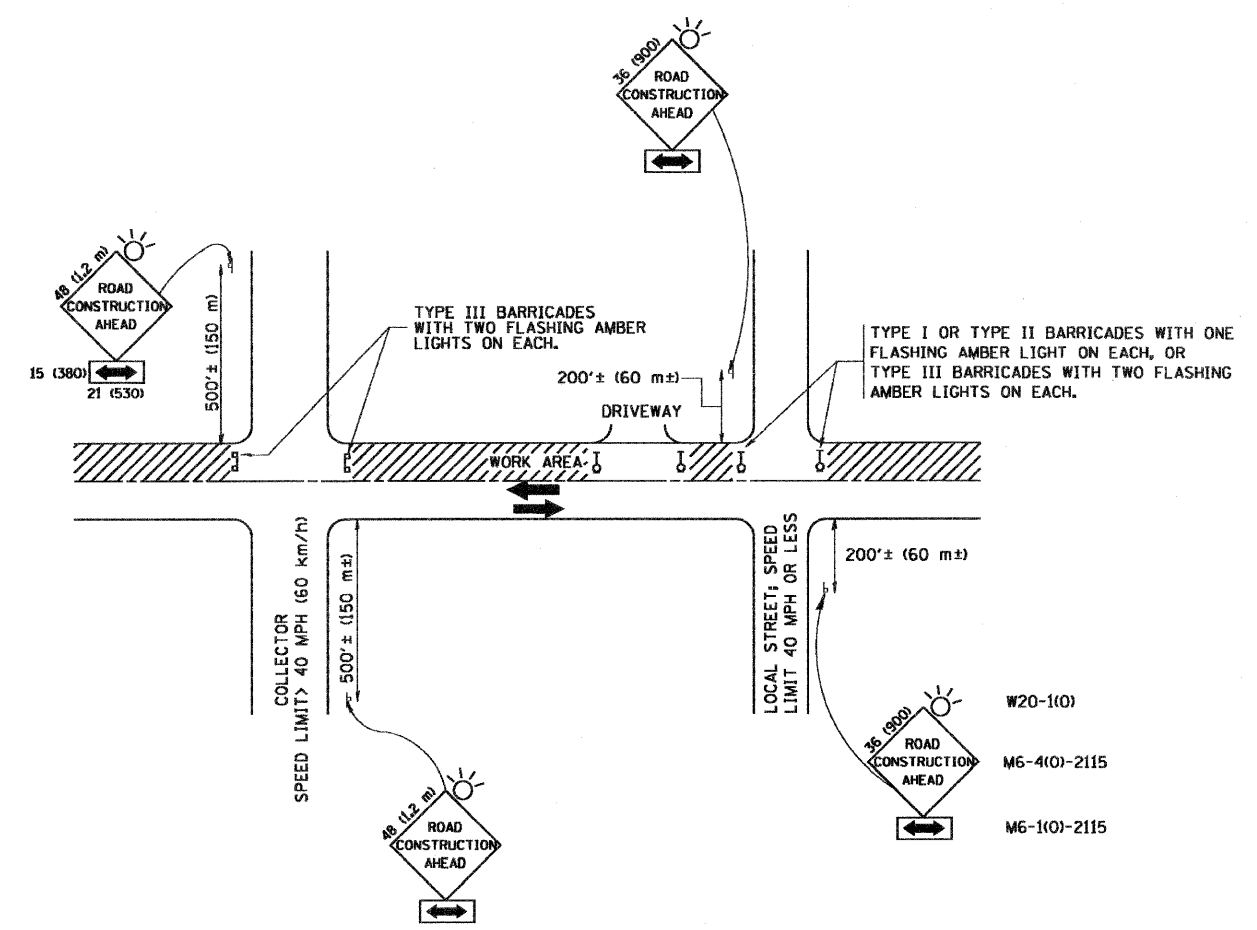
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>BUTT JOINT AND HMA TAPER DETAILS</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	533 X-RS-4	DUPAGE	18	11
BD400-05 BD32			CONTRACT NO. 60E20	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - 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.
    - 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.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - 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.
    - 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.
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

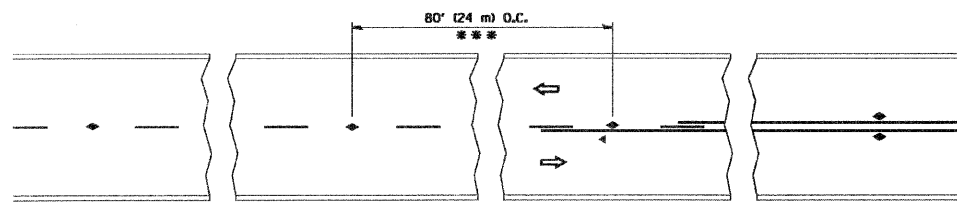
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = goglianob	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
W:\dts\std\22x34\to18.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

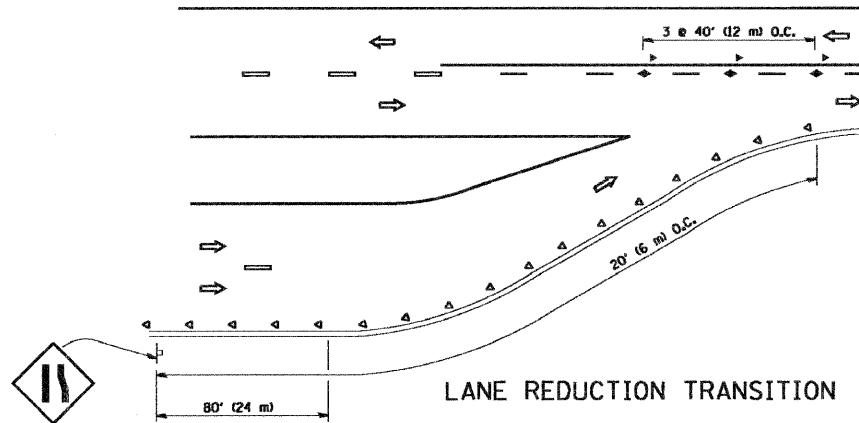
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	533 X-RS-4	DUPAGE	18	12
TC-10		CONTRACT NO. 60E20		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

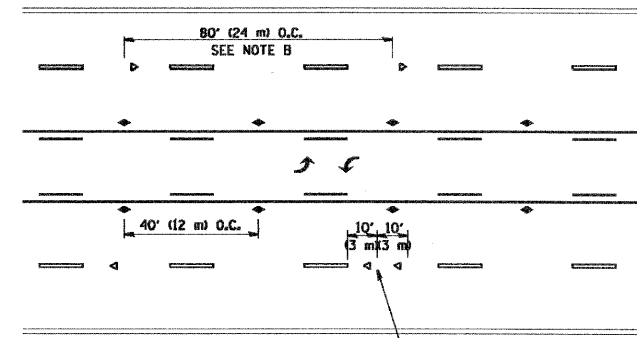


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 MPH (70 km/h) OR LESS.

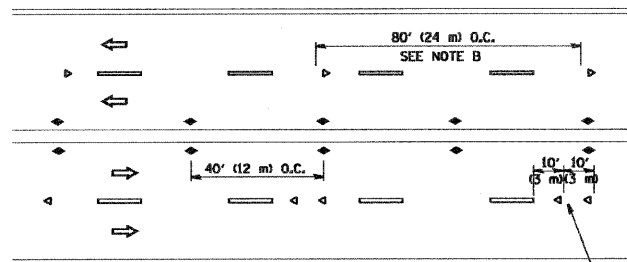
TWO-LANE/TWO-WAY



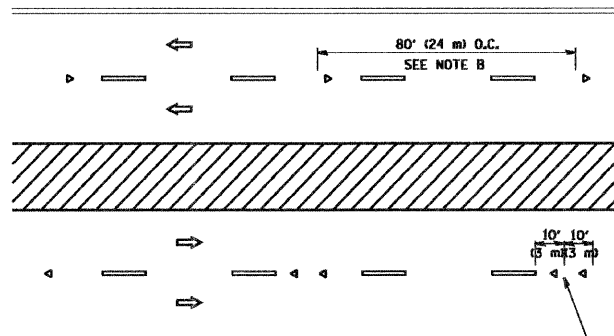
LANE REDUCTION TRANSITION



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

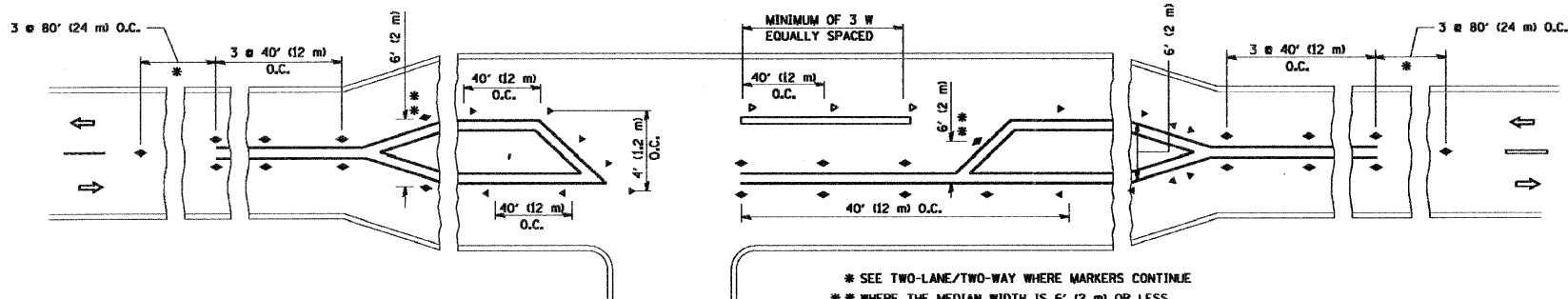
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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 MPH (16 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.

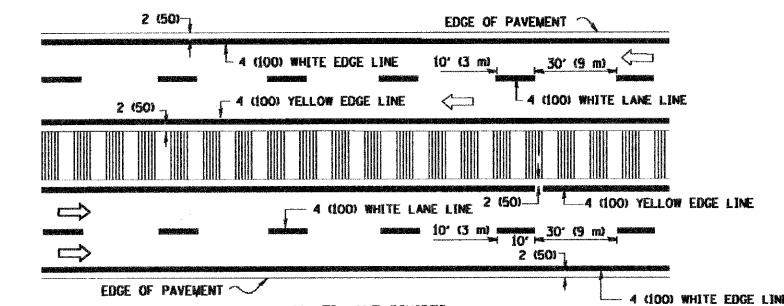
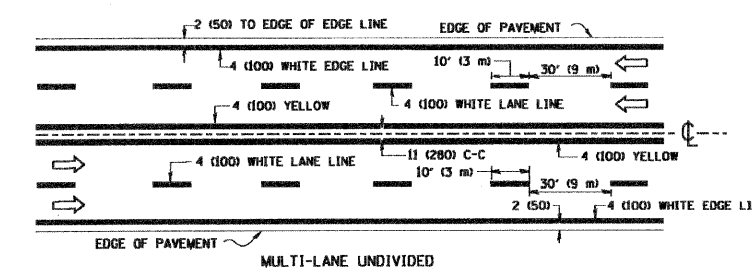
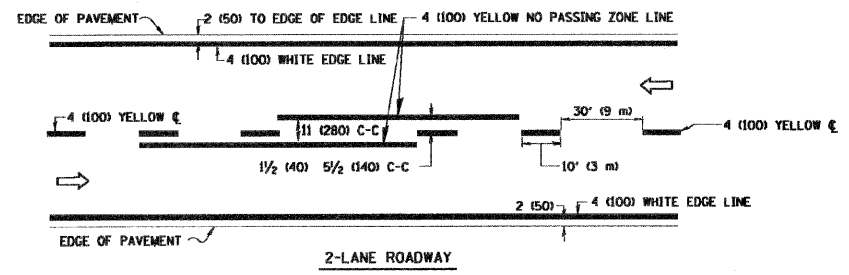


LEFT TURN

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

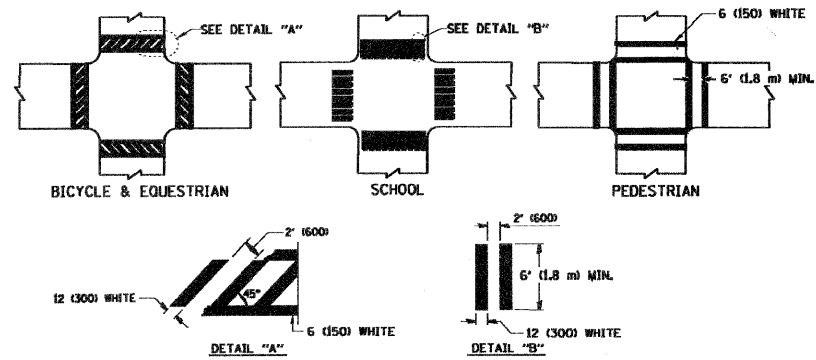
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT SCALE = 60,000' / IN.	DRAWN -	REVISED - T. RAMMACHER 03-12-99		<b>RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)</b>			870	533 X-RS-4	DUPAGE	18	13
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 01-06-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>TC-11</b>		<b>CONTRACT NO. 60E20</b>	
		DATE -	REVISED -		FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT							

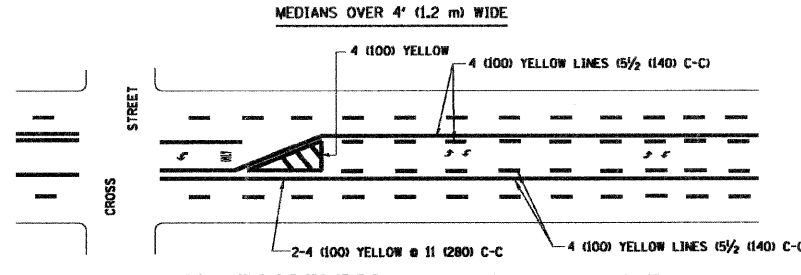
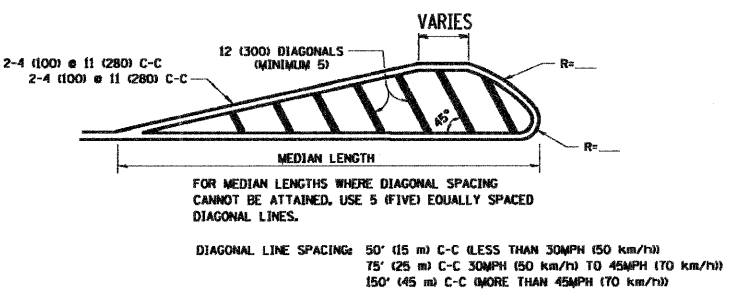
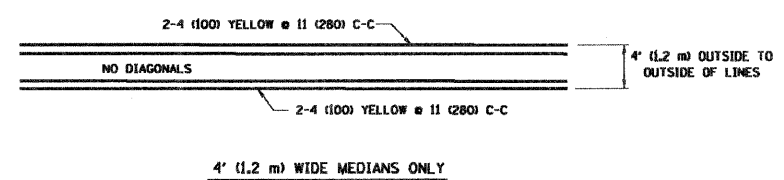


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

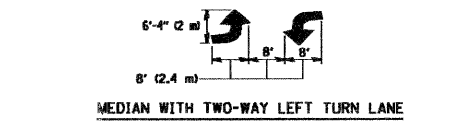
TYPICAL LANE AND EDGE LINE MARKING



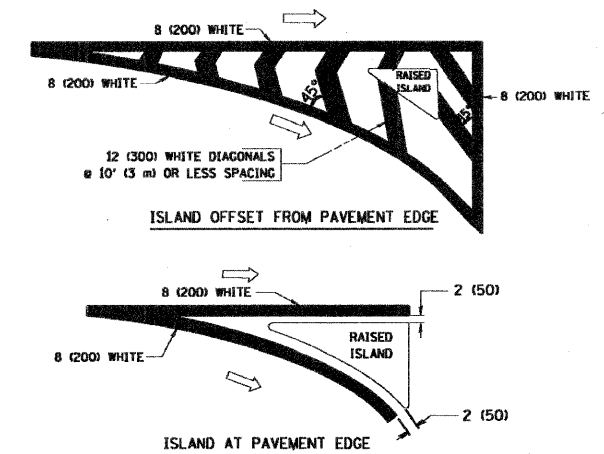
TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



TYPICAL TURN LANE MARKING

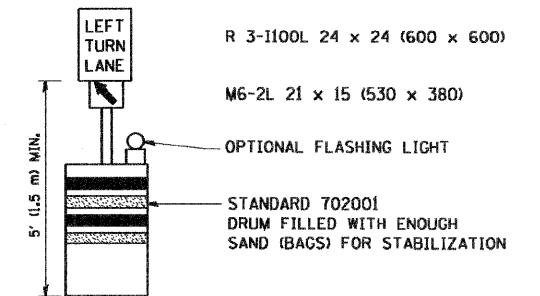
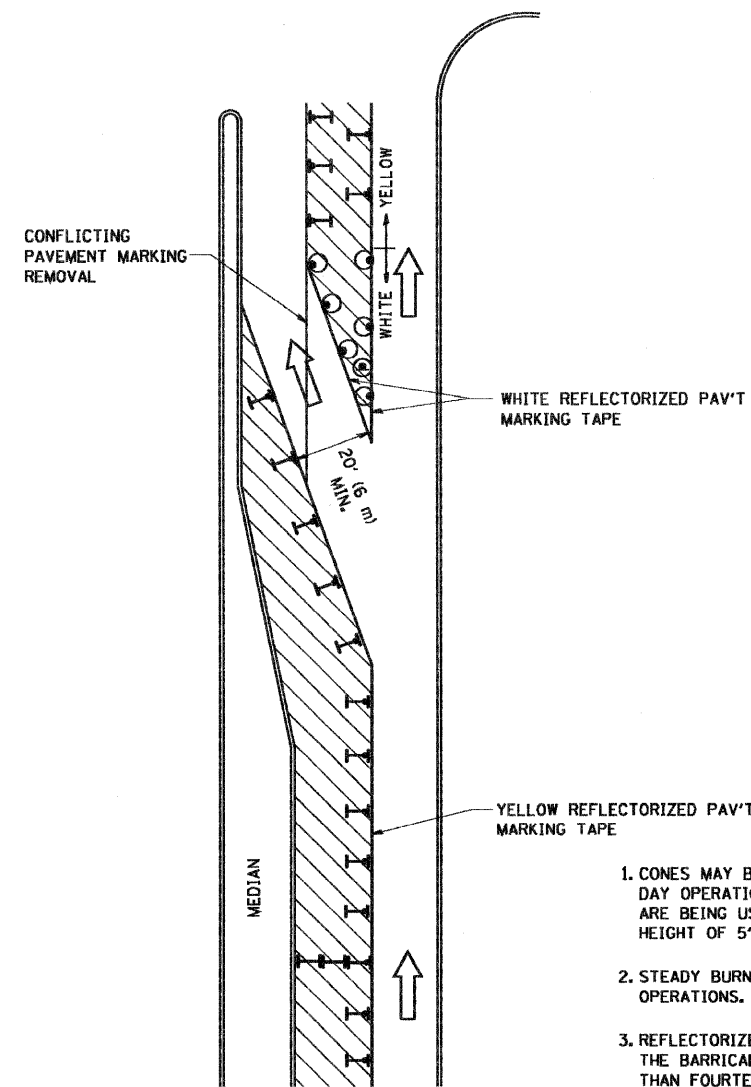


TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 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; 5/2 (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 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" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (22.5 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.

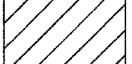







**GENERAL NOTES**

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 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.

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

**LEGEND**

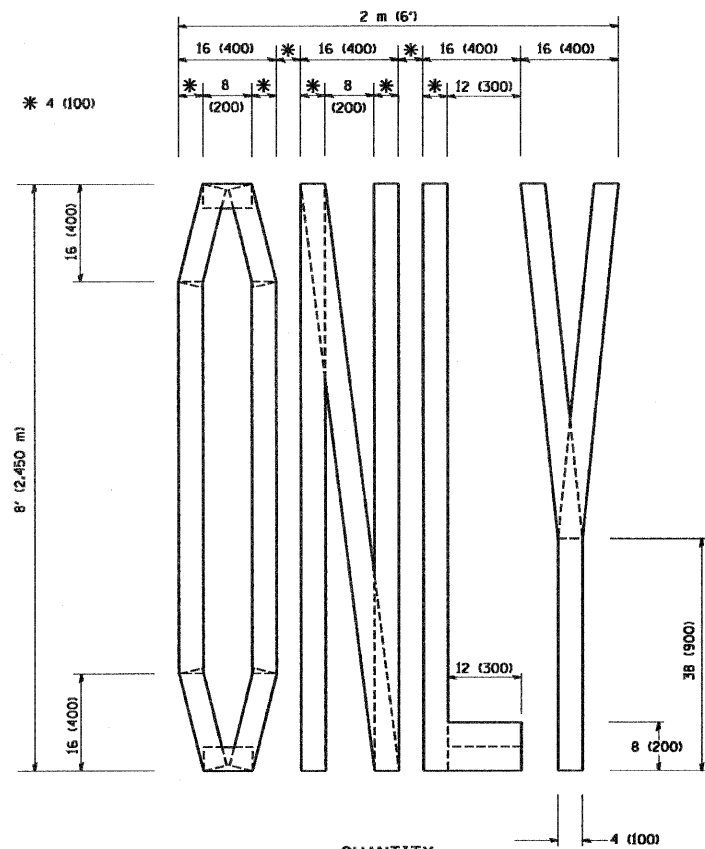
-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

FILE NAME =	USER NAME = gaglionobt	DESIGNED -	REVISED - T. RAMMACHER 09-08-94
W:\diststd\22x34\to14.dgn		DRAWN -	REVISED - A. HOUSEH 11-07-95
	PLOT SCALE = 500.0000 "/ IN.	CHECKED -	REVISED - A. HOUSEH 10-12-96
	PLOT DATE = 1/4/2000	DATE -	REVISED - T. RAMMACHER 01-06-00

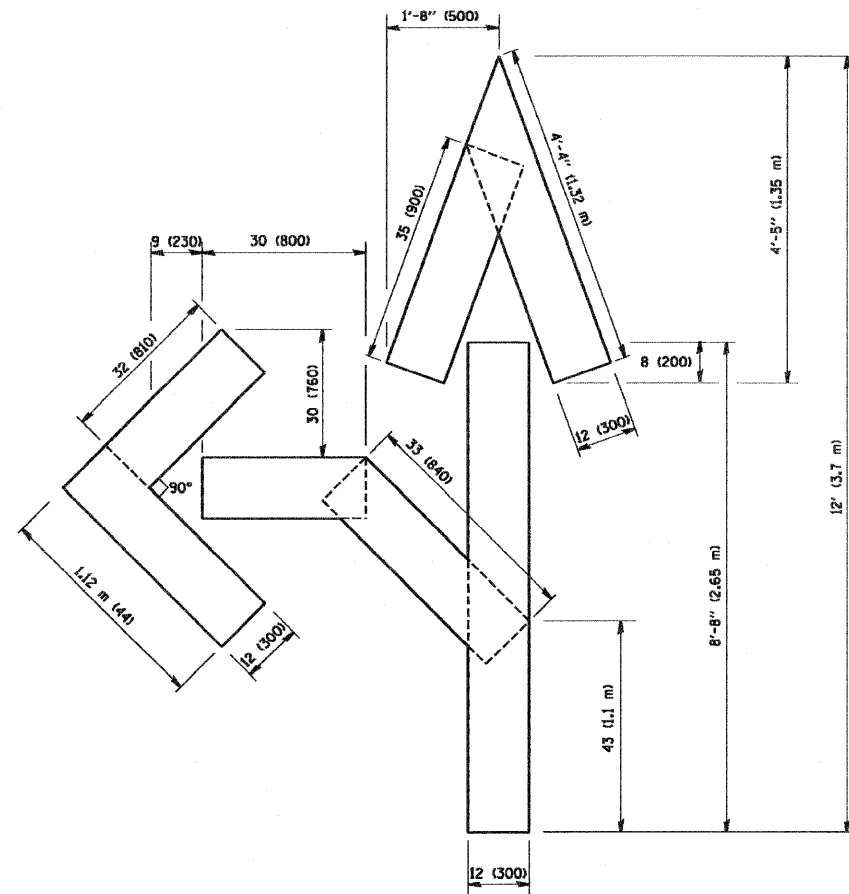
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

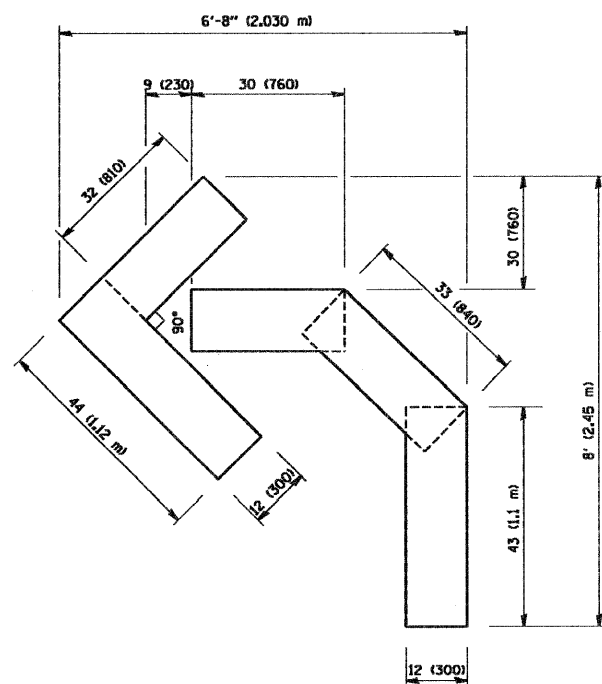
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	533 X-RS-4	DUPAGE	18	15
TC-14			CONTRACT NO. 60E20	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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)

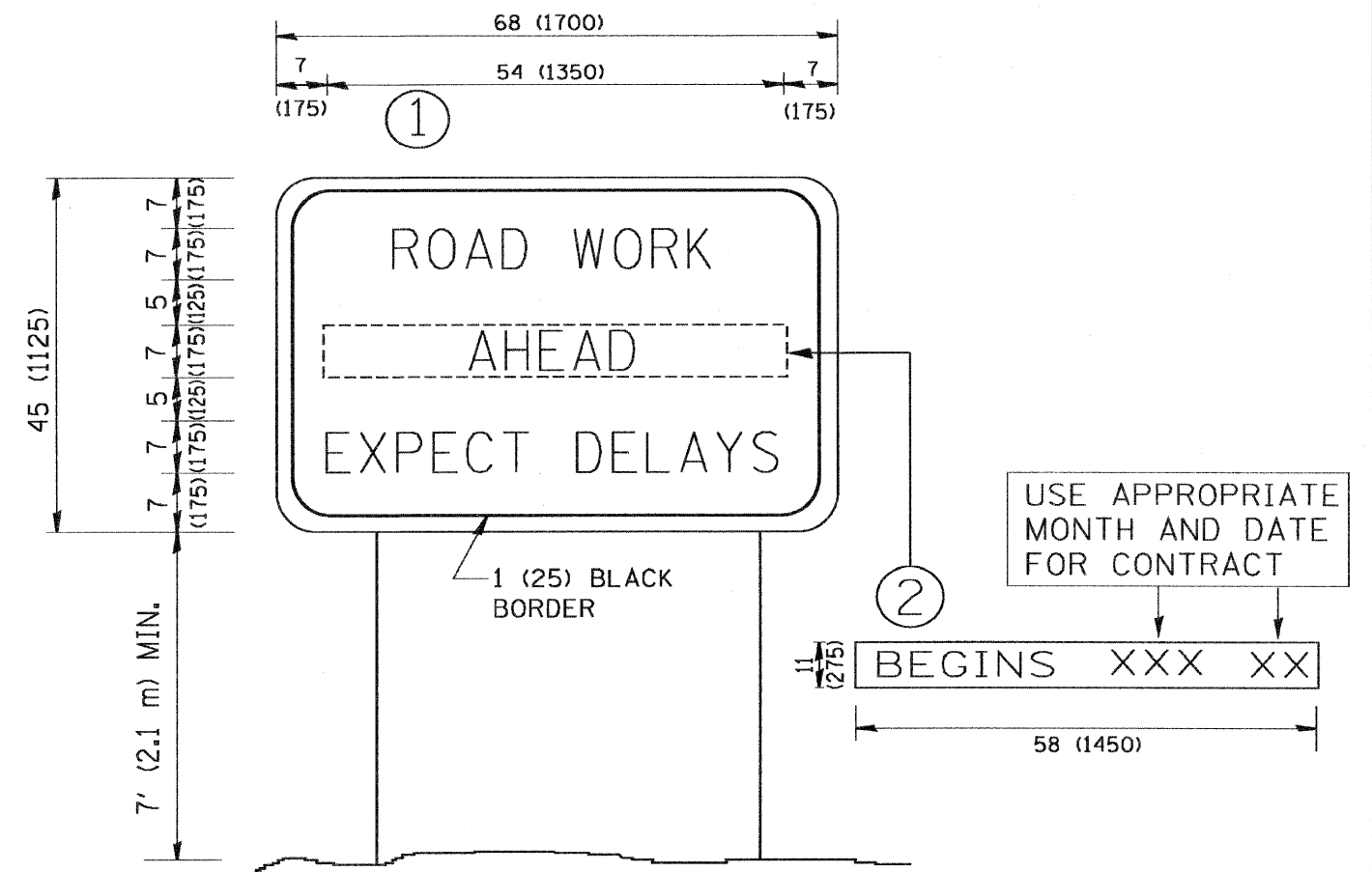


QUANTITY  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.39 sq. m)

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

FILE NAME = W:\distsd\22x34\to16.dgn	USER NAME = goglionob	DESIGNED -	REVISED - T. RAMMACHER 06-05-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - T. RAMMACHER 11-04-97		870	533 X-RS-4	DUPAGE	18	16			
		PLOT SCALE = 50.0000 "/ IN.	REVISED - T. RAMMACHER 03-02-98		TC-16			CONTRACT NO. 60E20				
		CHECKED -	REVISED - E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		DATE - 09-18-94										





**NOTES:**

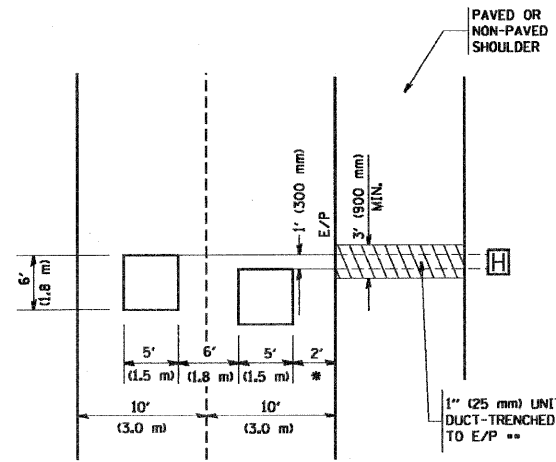
1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
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:\drststd\22x34\to22.dgn	USER NAME = gogliemobt	DESIGNED -	REVISED - R. MIRS 09-15-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>			F.A.P. RTE. 870	SECTION 533 X-RS-4	COUNTY DUPAGE	TOTAL SHEETS 18	SHEET NO. 17
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE    SHEET NO. 1 OF 1 SHEETS    STA.    TO STA.			<b>TC-22</b>				
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99		FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT							
		DATE -	REVISED - C. JUCIUS 01-31-07		CONTRACT NO. 60E20							

**LOOPS NEXT TO SHOULDERS**

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

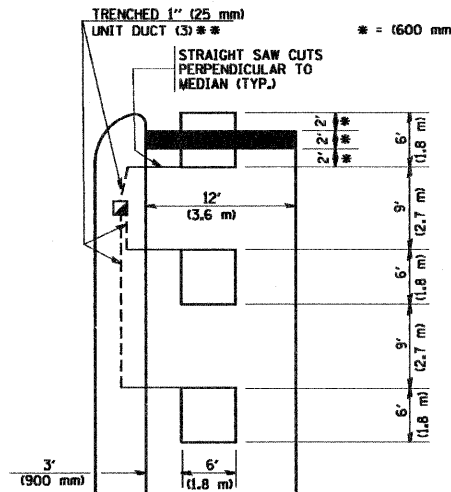


\* = (600 mm)

\*\* 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)**

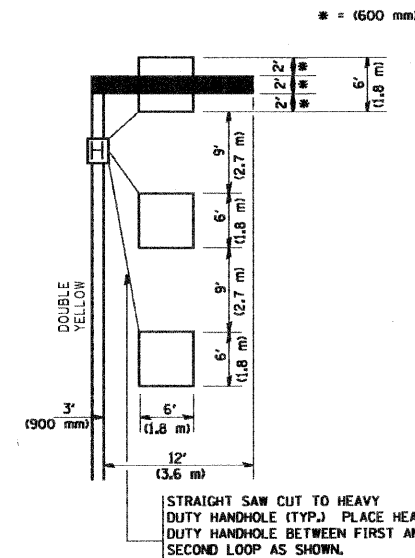
HANDHOLE LOCATION MAY  
VARY DEPENDING ON GEOMETRICS  
AND DESIGN OF TRAFFIC SIGNALS.  
HEAVY-DUTY HANDHOLES TO BE  
USED WHEN THE MEDIAN IS  
MOUNTABLE. REFER TO STANDARD  
814001 TO ENSURE THAT HANDHOLE  
FITS IN MEDIAN.



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

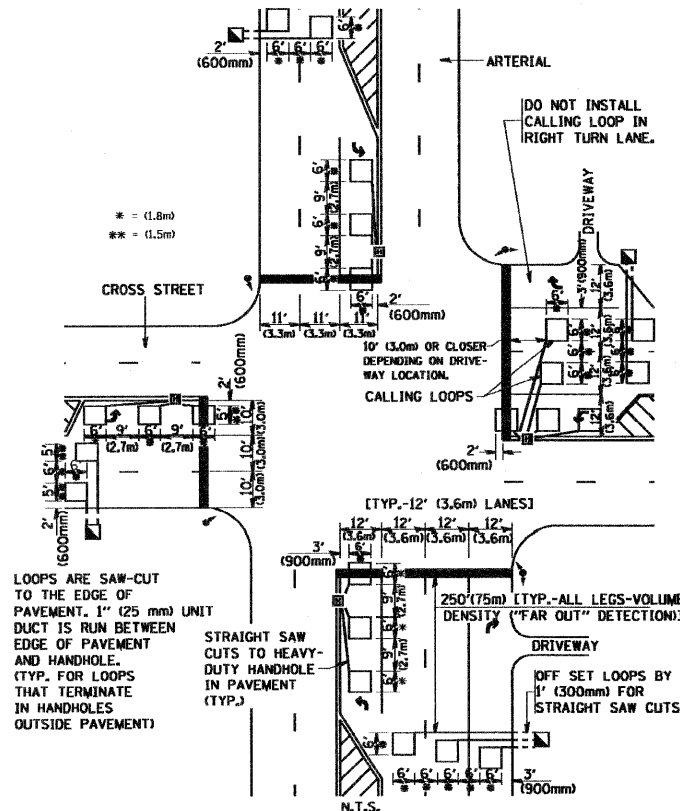
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



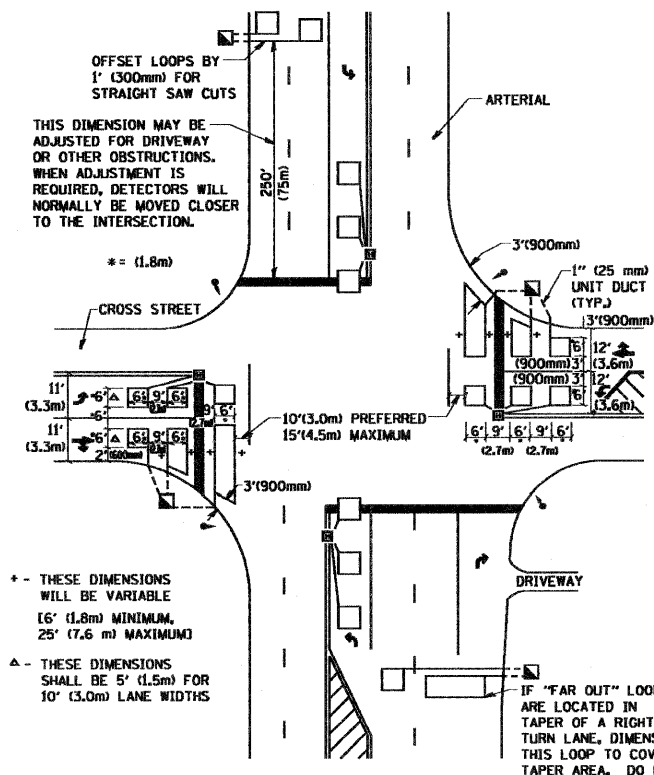
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



**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 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.

FILE NAME = W:\dststd\22x34\ts87.dgn

USER NAME = goglionob  
PLOT SCALE = 50.0000' / IN.  
PLOT DATE = 1/4/2006

DESIGNED -  
DRAWN -  
CHECKED - R.K.F.  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION  
DETAILS FOR ROADWAY RESURFACING**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	533 X-RS-4	DUPAGE	18	18
TS-07			CONTRACT NO. 60E20	
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				