

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2016-020RS	WILL	20	1
ILLINOIS		CONTRACT NO. 62C48		

D-91-355-16

FOR INDEX OF SHEETS, SEE SHEET NO. 2

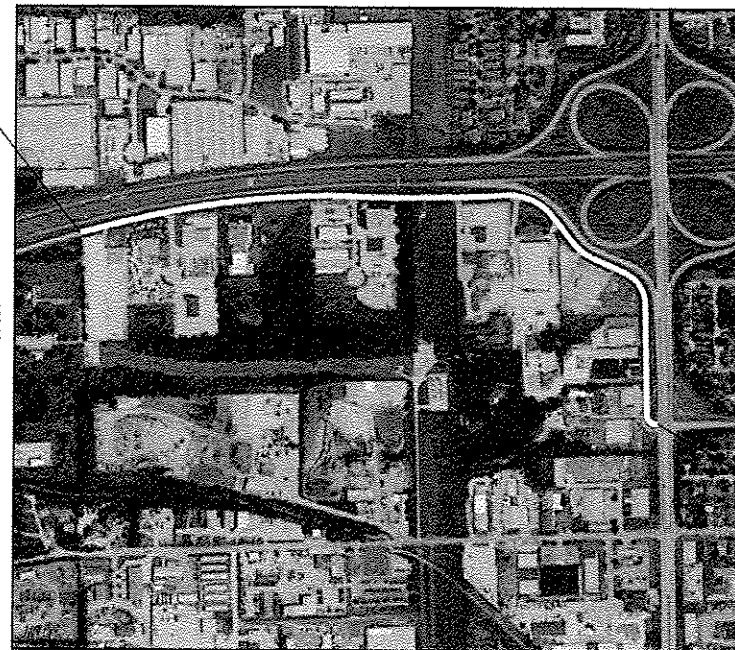
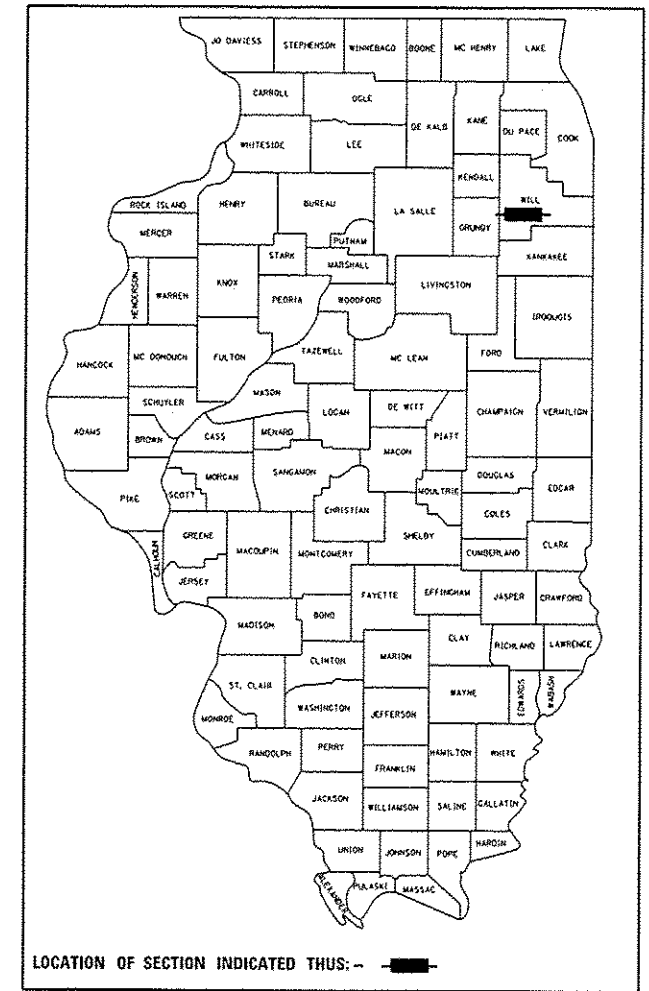
PROJECT IS LOCATED IN THE VILLAGE OF ROCKDALE

**PROPOSED  
HIGHWAY PLANS**

F.A.I. ROUTE 80: I-80 FRONTAGE ROAD  
0.2 MILES WEST OF WALNUT CT. TO IL. RTE. 7 (LARKIN AVE.)

SECTION 2016-020RS  
PROJECT: STP-0080(412)  
RESURFACING (3P)  
WILL COUNTY

C-91-355-16



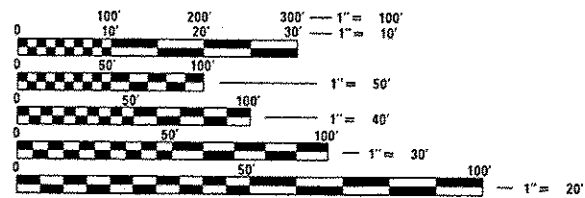
PROJECT BEGINS  
STA. 10+00

POSTED SPEED LIMIT  
30 MPH

PROJECT ENDS  
STA. 57+65.9

JOLIET TOWNSHIP

GROSS & NET LENGTH = 4,766 FT. = 0.903 MILES



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

PROJECT ENGINEER JENPAI CHANG (847) 705-4432  
PROJECT MANAGER FAWAD AQUEEL (847) 705-4247

CONTRACT NO. 62C48

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED *April 3 20 17*  
*Anthony J. [Signature]*  
REGIONAL ENGINEER

*May 12 20 17*  
*Madison M. Addis [Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

*May 12 20 17*  
*[Signature]*  
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

**INDEX OF SHEETS**

**STANDARDS**

**PLAN NOTES**

SHEET NO.	DESCRIPTION	STANDARD NO.	DESCRIPTION
1	TITLE SHEET	000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	420001-08	PAVEMENT JOINTS
3	SUMMARY OF QUANTITIES	442201-03	CLASS C AND D PATCHES
4-6	EXISTING AND PROPOSED TYPICAL SECTIONS	701011-04	OFF ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
7-8	EXISTING AND PROPOSED ROADWAY AND PAVEMENT MARKING PLAN	701301-04	LANE CLOSURE, 2L, 2W, SHORT TERM OPERATIONS
9	DETECTOR LOOPS REPLACEMENT PLANS	701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
10	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT, BD 400-04 (BD-22)	701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
11	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT, BD600-06 (BD-24)	701901-06	TRAFFIC CONTROL DEVICES
12	BUTT JOINT AND HMA TAPER, BD 400-05 (BD-32)	780001-05	TYPICAL PAVEMENT MARKINGS
13	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS, TC-10	781001-04	TYPICAL RAISED REFLECTIVE PAVEMENT MARKERS
14	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT), TC-11	886001-01	DETECTOR LOOP INSTALLATION
15	DISTRICT ONE TYPICAL PAVEMENT MARKINGS, TC-13	886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS
16	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC), TC-14		
17	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING, TC-16		
18	ARTERIAL ROAD INFORMATION SIGNING, TC-22		
19	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING, TS-07		
20	DISTRICT ONE TRAFFIC SIGNAL DESIGN DETAILS, TS-05 (SHT 2)		

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 UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
2	THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE VILLAGES.
3	THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
4	ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING SHALL BE REPLACED AND PAID FOR IN KIND.
5	BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
6	ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
7	IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
8	THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
9	THE ENGINEER SHALL CONTACT MR. ERIC CAMPOS, AREA TRAFFIC FIELD ENGINEER AT (815)-485-6475 OR AT ERIC.CAMPOS@ILLINOIS.GOV A MINIMUM OF TWO WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
10	THE THICKNESS OF THE HMA MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
11	DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
12	PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.
13	WHEN THE MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1/2 INCHES (40 mm) WHERE THE SPEED LIMIT IS 40 MPH (80 Km/h) OR LESS AND 1 INCH (25 mm) WHERE THE SPEED LIMIT IS GREATER THAN 40 MPH (80 Km/h). WITH WRITTEN APPROVAL OF THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 mm) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
14	BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) ACCORDING TO THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

URBAN

URBAN

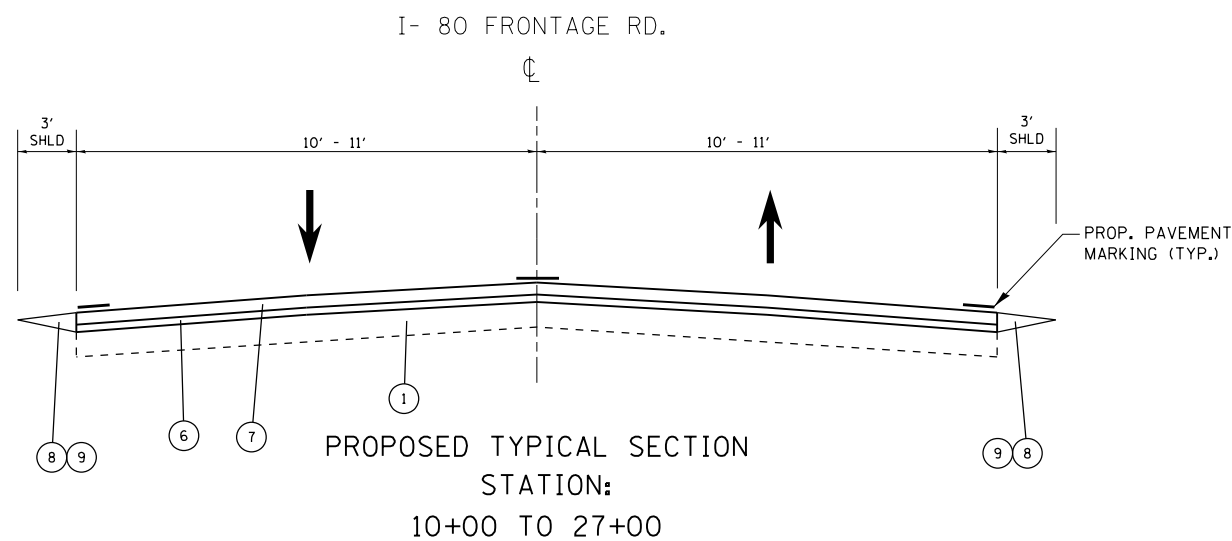
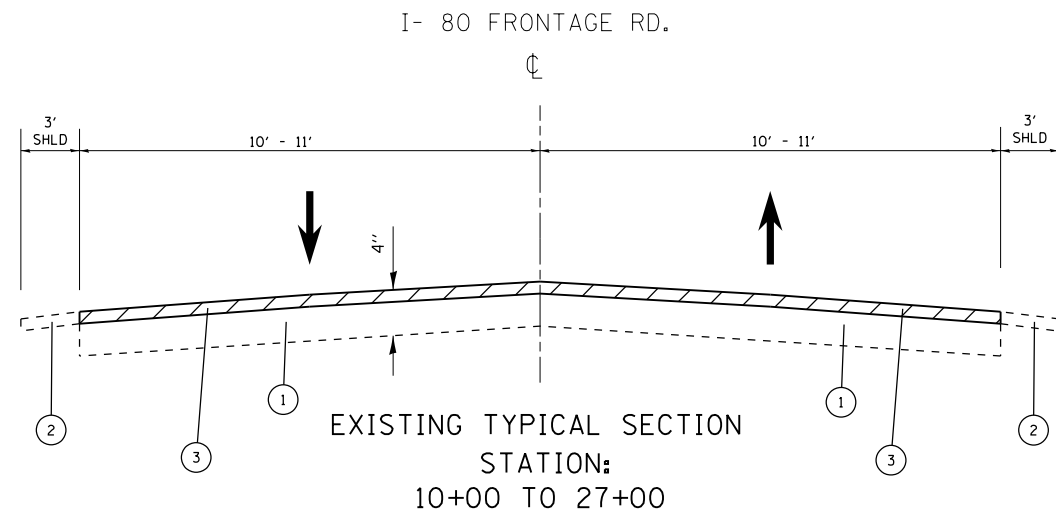
SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0005 80% FED. 20% STATE			
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	8170	8170			
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS	TON	18	18			
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	500	500			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	251	251			
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1017	1017			
44000151	HOT MIX ASPHALT SURFACE REMOVAL, 1/2 "	SO YD	3756	3756			
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SO YD	8103	8103			
44201696	CLASS D PATCHES, TYPE IV, 4 INCH	SO YD	100	100			
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SO YD	100	100			
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SO YD	143	143			
44201831	CLASS D PATCHES, TYPE III, 15 INCH	SO YD	40	40			
44201833	CLASS D PATCHES, TYPE IV, 15 INCH	SO YD	50	50			
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	356	356			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6			
67100100	MOBILIZATION	LSUM	1	1			

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0005 80% FED. 20% STATE			
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1	1			
70300100	SHORT TERM PAVEMENT MARKING	FOOT	862	862			
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	287	287			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	11373	11373			
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	22	22			
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	431	431			
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	11373	11373			
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	22	22			
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	25	25			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	25	25			
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	181	181			
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	89	89			
X4401198	HOT MIX ASPHALT SURFACE REMOVAL VARIABLE DEPTH	SO YD	468	468			
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SO FT	144	144			
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	360	360			
* SPECIALTY ITEMS							

REV

**LEGEND**

- ① EXISTING HOT-MIX ASPHALT, PAVEMENT
- ② EXISTING AGGREGATE SHOULDER, TYPE B
- ③ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"
- ④ EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- ⑤ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"
- ⑥ PROPOSED POLYMERIZED LEVELING BINDER (MM) IL-4.75, N50, 3/4"
- ⑦ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N70, (IL-9.5 mm), 1 1/2"
- ⑧ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑨ PROPOSED GRADING AND SHAPING SHOULDERS



NOTE: THE CONTRACTOR SHALL MILL FIRST, BEFORE PATCH.

HOT MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE USES	DESIGN AIR VOIDS	OMP
HMA SURFACE COURSE, MIX "D", N 70, (IL-9.5mm), 1 1/2"	4% @ 70 GYR	QC/QA
POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"	3.5% @ 50 GYR	QC/QA
CLASS "D" PATCHES (HMA BINDER IL-19mm)	4% @ 70 GYR	QC/QA

OMP DESIGNATION: QUALITY CONTROL / QUALITY ASSURANCE (QC/QA)
QUALITY CONTROL FOR PERFORMANCE (QCP); PAY FOR PERFORMANCE (PFP)

**NOTES:**

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

**AC TYPE NOTE**

THE AC TYPE FOR POLYMERIZED HMA MIX 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 USE OF RECYCLED MATERIALS, SEE SPECIAL PROVISIONS.

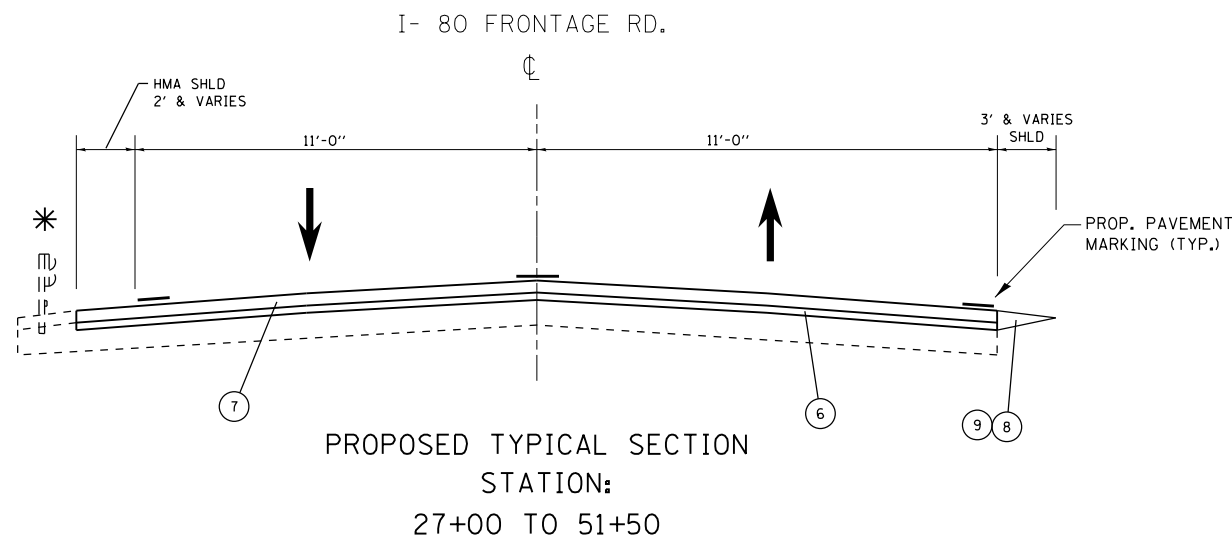
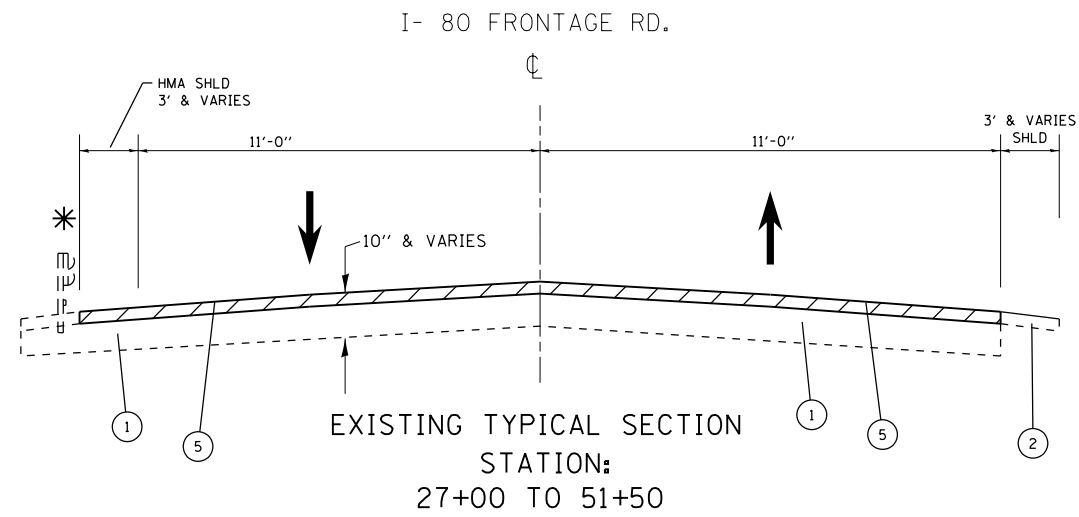
**OMP NOTE**

"QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE"

FILE NAME =	USER NAME = l1szekrf	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS I-80 FRONTAGE RD. (.2 MI. W/O WALNUT CT. TO IL. RTE. 7)</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\DI3556\Design\DI35516-sh-typical.dgn	DRWN	REVISED -	REVISED -			I-80	2016-020R5	WILL	20	4	
Default	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -			CONTRACT NO. 62C48					
	PLOT DATE = 3/27/2017	DATE -	REVISED -			SCALE: NONE	SHEET	OF	SHEETS	STA.	TO

**LEGEND**

- ① EXISTING HOT-MIX ASPHALT, PAVEMENT
- ② EXISTING AGGREGATE SHOULDER, TYPE B
- ③ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"
- ④ EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- ⑤ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"
- ⑥ PROPOSED POLYMERIZED LEVELING BINDER (MM) IL-4.75, N50, 3/4"
- ⑦ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N70, (IL-9.5 mm), 1 1/2"
- ⑧ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑨ PROPOSED GRADING AND SHAPING SHOULDERS

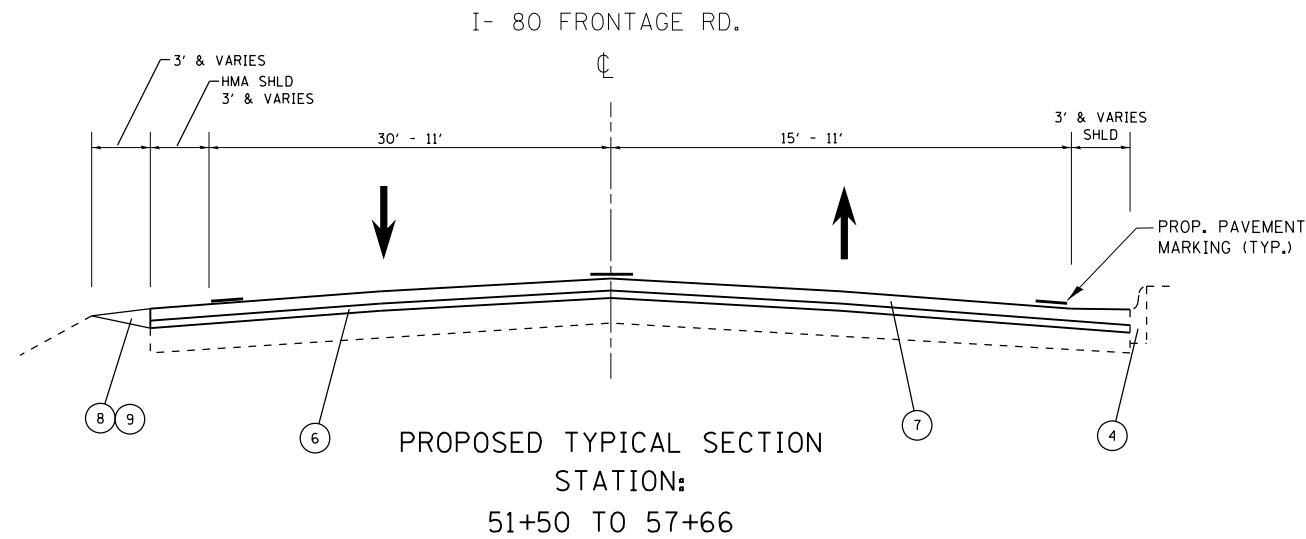
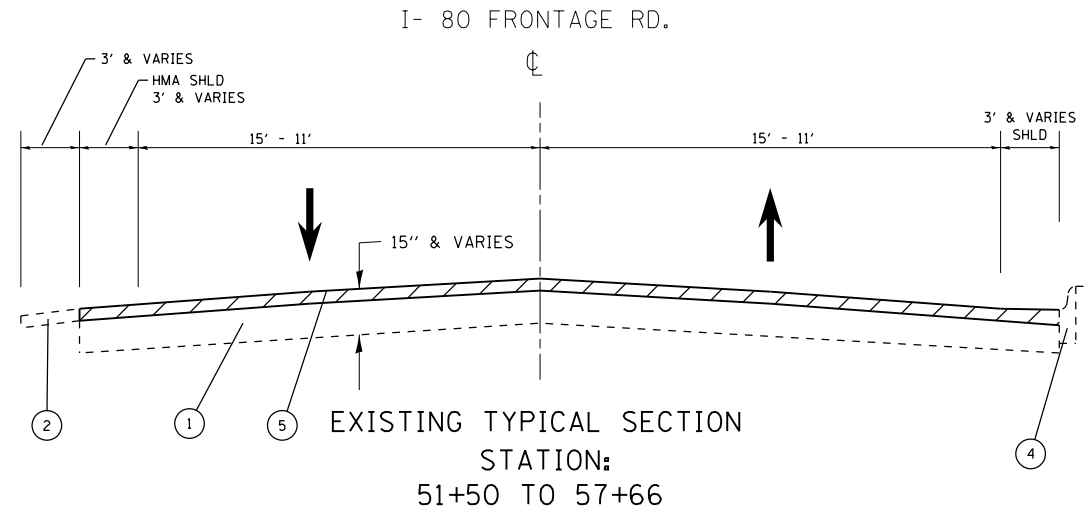


\* EXISTING GUARDRAIL FROM STA. 69+50 TO 28+50

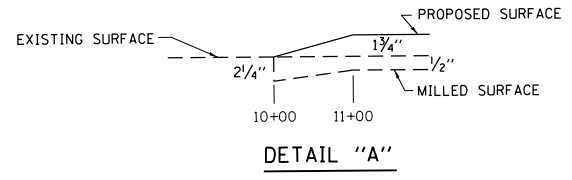
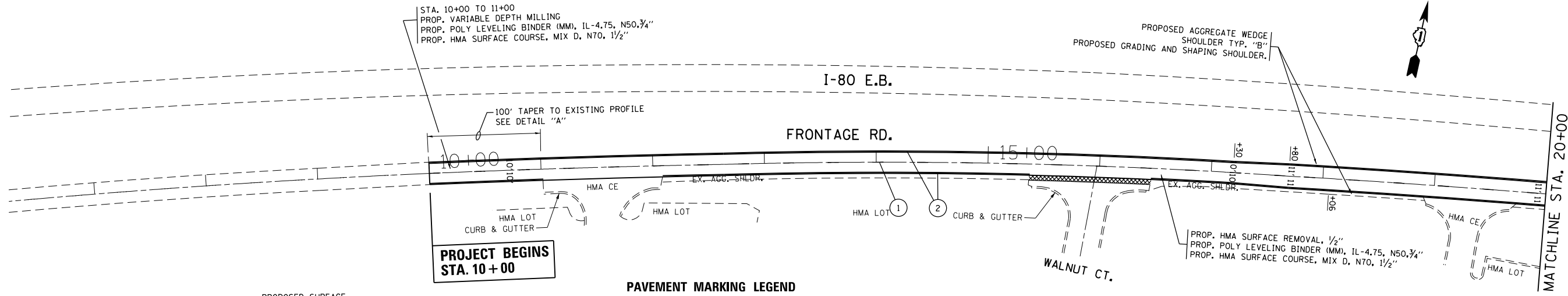
FILE NAME =	USER NAME = l1szkrf	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI3556\Drawings\Design\DI35516-sh1-typical.dgn		CHECKED -	REVISED -		<b>I-80 FRONTAGE RD. (.2 MI. W/O WALNUT CT. TO IL. RTE. 7)</b>			I-80	2016-020R5	WILL	20	5	
Default	PLOT SCALE = 100.0000' / 1in.	DATE -	REVISED -		SCALE: NONE	SHEET	OF	SHEETS	STA.	TO	STA.	<b>CONTRACT NO. 62C48</b>	
	PLOT DATE = 3/27/2017											ILLINOIS FED. AID PROJECT	

**LEGEND**

- ① EXISTING HOT-MIX ASPHALT, PAVEMENT
- ② EXISTING AGGREGATE SHOULDER, TYPE B
- ③ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"
- ④ EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- ⑤ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"
- ⑥ PROPOSED POLYMERIZED LEVELING BINDER (MM) IL-4.75, N50, 3/4"
- ⑦ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N70, (IL-9.5 mm), 1 1/2"
- ⑧ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑨ PROPOSED GRADING AND SHAPING SHOULDERS

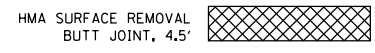
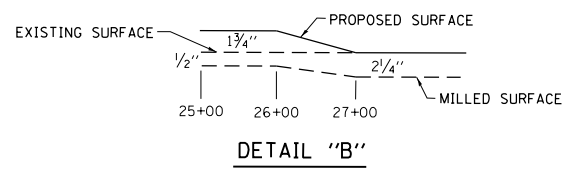
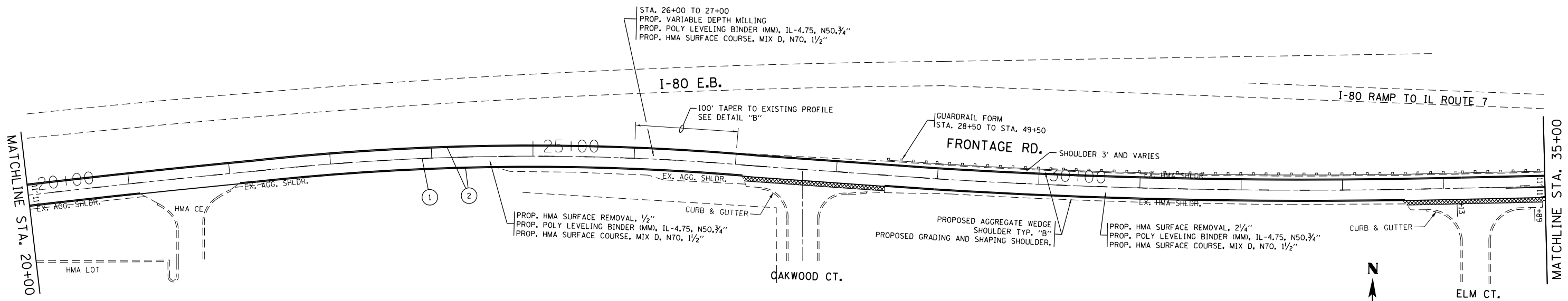


FILE NAME =	USER NAME = l1szekrf	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default					<b>I-80 FRONTAGE RD. (.2 MI. W/O WALNUT CT. TO IL. RTE. 7)</b>				I-80	2016-020RS	WILL	20	6
					SCALE: NONE SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 62C48				
					ILLINOIS FED. AID PROJECT								

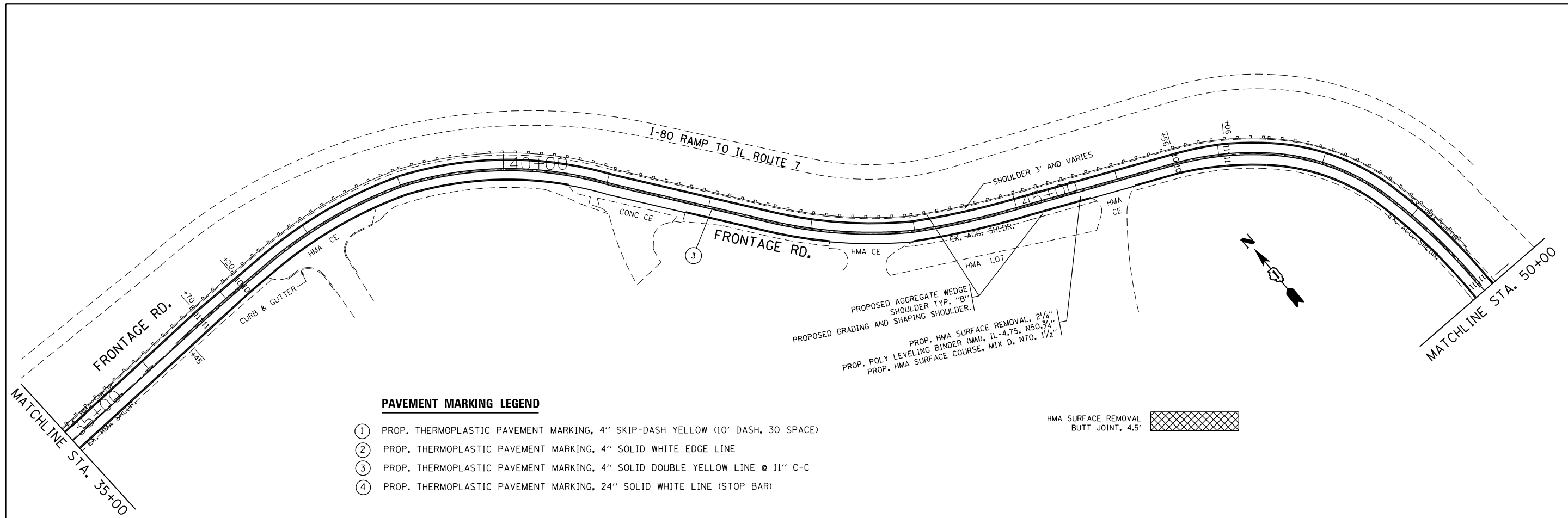


**PAVEMENT MARKING LEGEND**

- ① PROP. THERMOPLASTIC PAVEMENT MARKING, 4" SKIP-DASH YELLOW (10' DASH, 30 SPACE)
- ② PROP. THERMOPLASTIC PAVEMENT MARKING, 4" SOLID WHITE EDGE LINE
- ③ PROP. THERMOPLASTIC PAVEMENT MARKING, 4" SOLID DOUBLE YELLOW LINE @ 11" C-C
- ④ PROP. THERMOPLASTIC PAVEMENT MARKING, 24" SOLID WHITE LINE (STOP BAR)



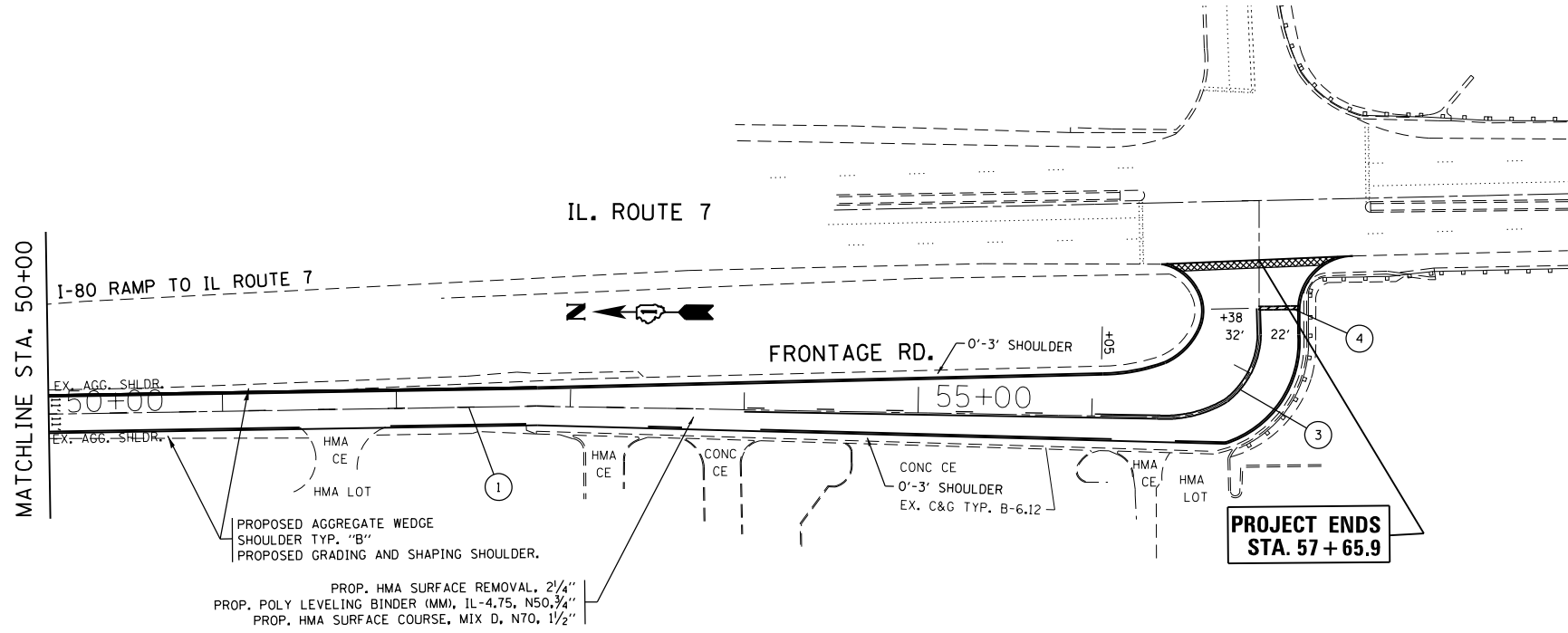
FILE NAME =	USER NAME = aqeelff	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING AND PROPOSED ROADWAY PLAN I-80 FRONTAGE RD (W. OF WALNUT CT. TO IL ROUTE 7)</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\IL\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI3556\Meta\Design\DI35516-shr-plan.dgn		CHECKED -	REVISED -			80	2016-020R5	WILL	20	7	
Default	PLOT SCALE = 100.0000' / in.	DATE -	REVISED -			CONTRACT NO. 62C48					
	PLOT DATE = 4/24/2017					ILLINOIS FED. AID PROJECT					



**PAVEMENT MARKING LEGEND**

- ① PROP. THERMOPLASTIC PAVEMENT MARKING, 4" SKIP-DASH YELLOW (10' DASH, 30 SPACE)
- ② PROP. THERMOPLASTIC PAVEMENT MARKING, 4" SOLID WHITE EDGE LINE
- ③ PROP. THERMOPLASTIC PAVEMENT MARKING, 4" SOLID DOUBLE YELLOW LINE @ 11" C-C
- ④ PROP. THERMOPLASTIC PAVEMENT MARKING, 24" SOLID WHITE LINE (STOP BAR)

HMA SURFACE REMOVAL BUTT JOINT, 4.5'



HMA SURFACE REMOVAL BUTT JOINT, 4.5'

FILE NAME =	USER NAME = aqeelff	DESIGNED -	REVISED -
pw\IL084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\DI35516\Design\DI35516-sh-t-plan.dgn		REVISED -	REVISED -
Default	PLOT DATE = 4/24/2017	CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

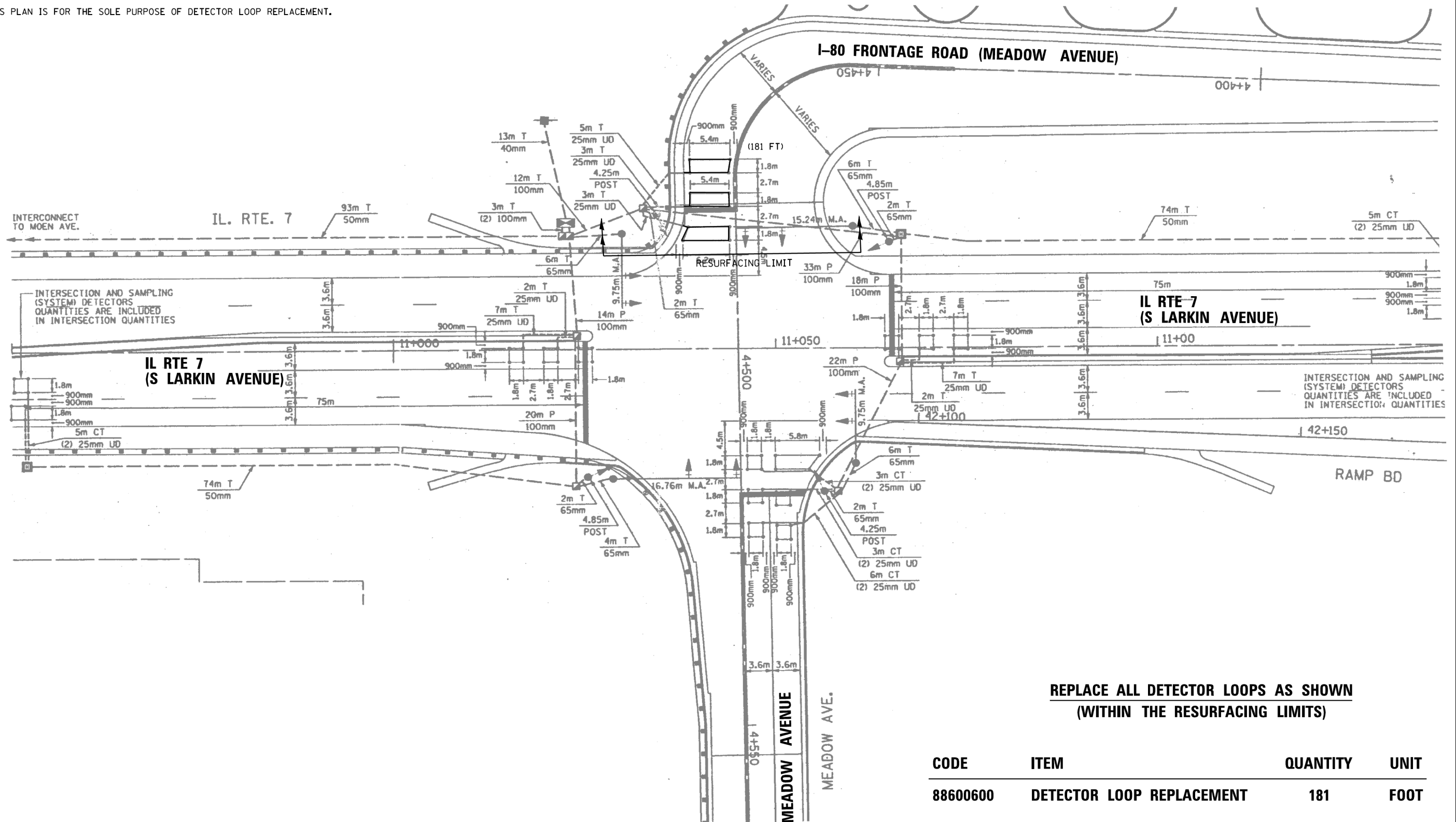
<b>EXISTING AND PROPOSED ROADWAY PLAN</b>			
<b>I-80 FRONTAGE RD (W. OF WALNUT CT. TO IL ROUTE 7)</b>			
SCALE: 1" = 50'	SHEET	OF SHEETS	STA. 35+00 TO STA. 57+65.9

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2016-020R5	WILL	20	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62C48	



**NOTES:**

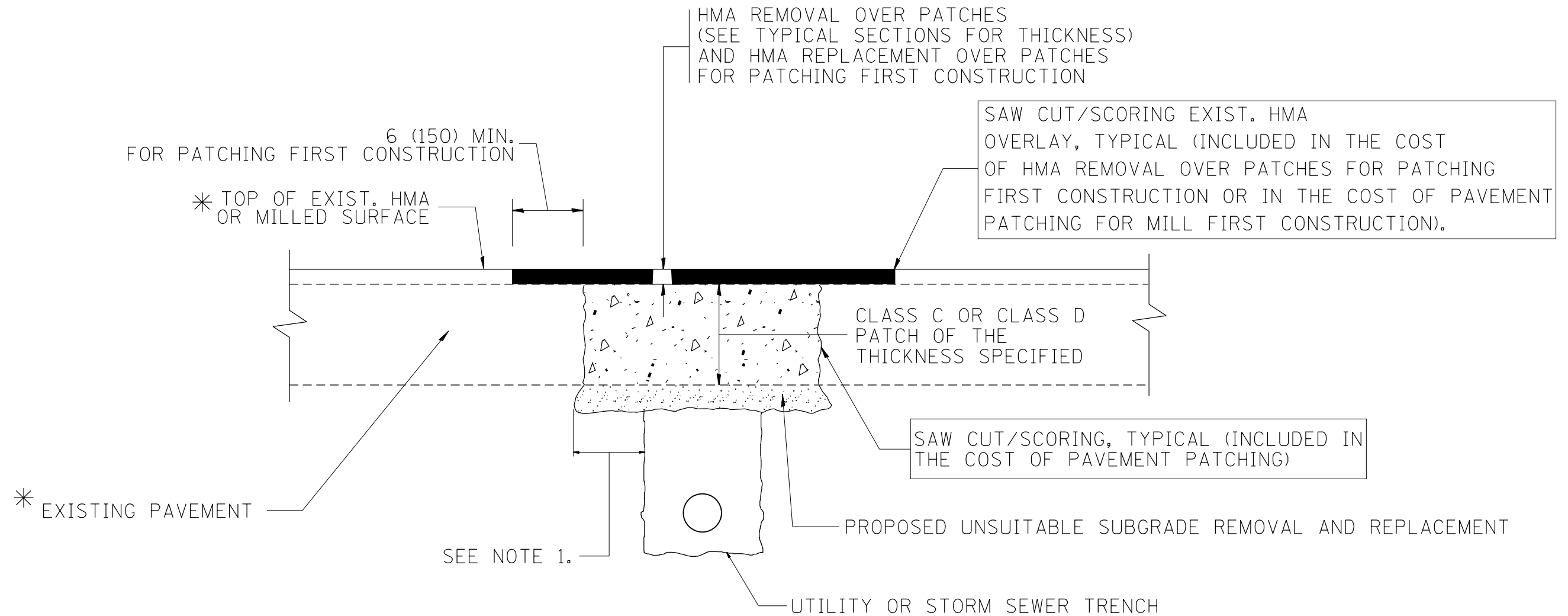
1. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION (ROADWAY GRINDING, RESURFACING & PATCHING OPERATIONS).
2. THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENT.



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

CODE	ITEM	QUANTITY	UNIT
88600600	DETECTOR LOOP REPLACEMENT	181	FOOT

FILE NAME = TS 57532 1-80 Frontage Road & IL RTE	USER NAME = jovanmerdztg	DESIGNED - ZGJ	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETECTOR LOOP REPLACEMENT PLAN I-80 FRONTAGE ROAD AT IL RTE 7 (LARKIN AVENUE)</b>	F.A.P. RTE. 80	SECTION 2016-02ORS	COUNTY WILL	TOTAL SHEETS 20	SHEET NO. 9		
Default	PLOT SCALE = 48.0000' / in.	CHECKED - LP	REVISED -			CONTRACT NO. 62C48		ILLINOIS FED. AID PROJECT				
	PLOT DATE = 2/23/2017	DATE - 02/23/2017	REVISED -			SCALE:	SHEET OF SHEETS	STA. TO STA.				



\* 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 =	USER NAME = footemj	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. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI355\Drawings\Design\Diststd.dgn	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED - R. BORO 01-01-07								20	10
	PLOT DATE = 3/6/2017	DATE - 10-25-94	REVISED - R. BORO 09-04-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>BD400-04 (BD-22)</b>		CONTRACT NO.	
			REVISED - K. ENG 10-27-08		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001  
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) \*\*

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

- \* 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.

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 USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

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

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.

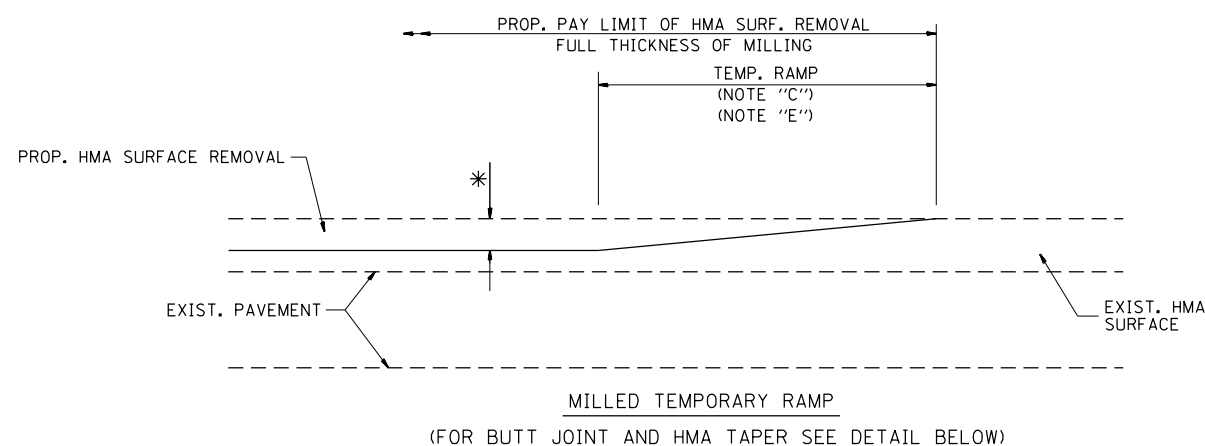
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
- ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ⑤ 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.
- ⑥ 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.
- ⑦ 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.
- ⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

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

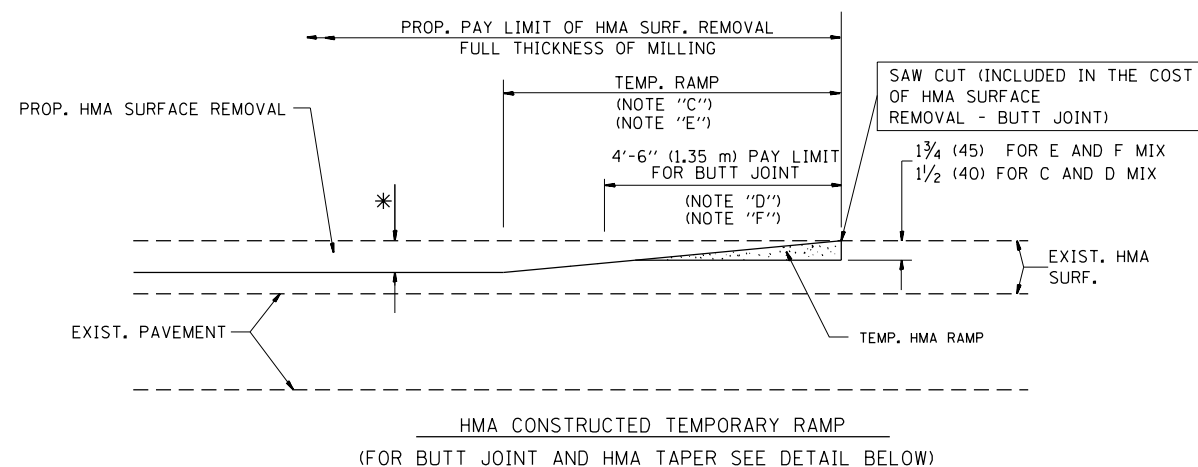
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = footemj	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\DOT Offices\District 1\Projects\DI355\Drawings\Design\Diststd.dgn		REVISED - A. ABBAS 03-21-97	REVISED - M. GOMEZ 01-22-01								20	11
PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED - R. BORO 12-15-09			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO.			
PLOT DATE = 3/6/2017	DATE - 03-11-94				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

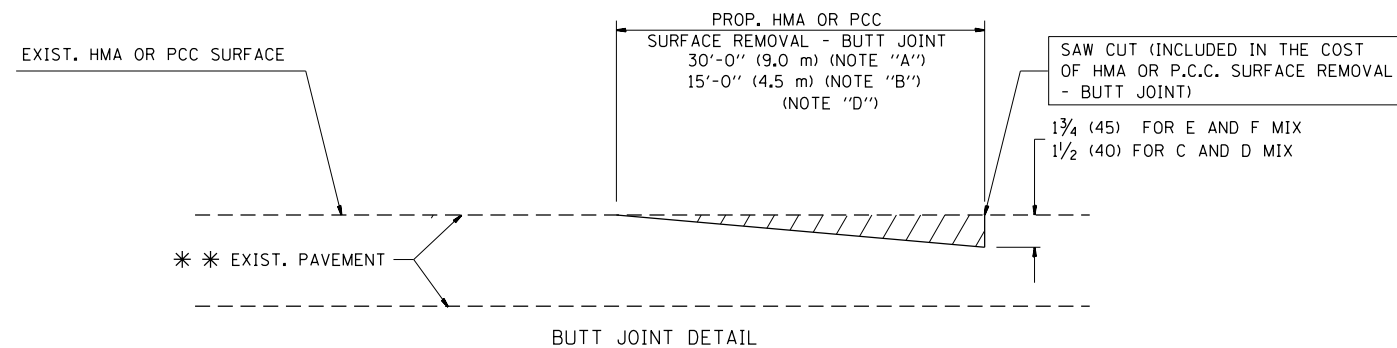


**OPTION 1**

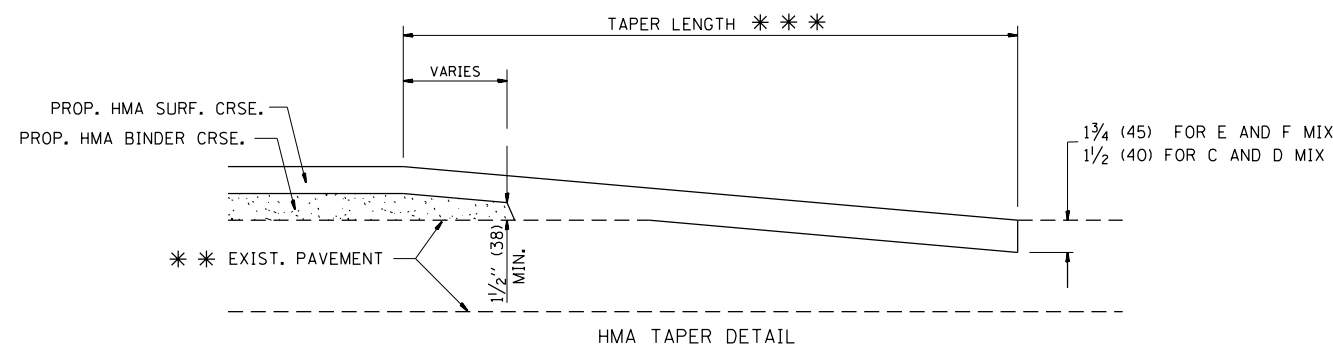


**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

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

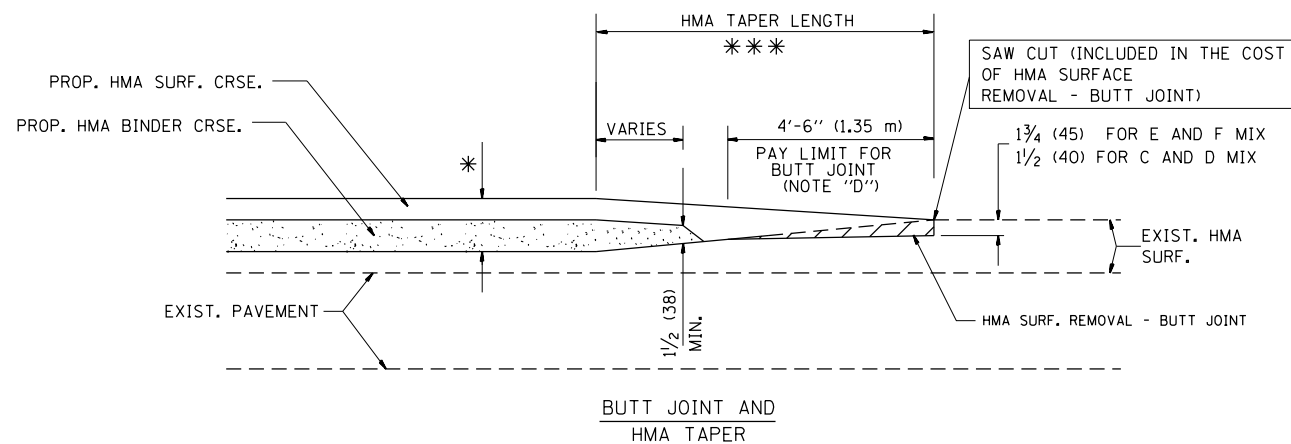
**NOTES**

- 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.



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

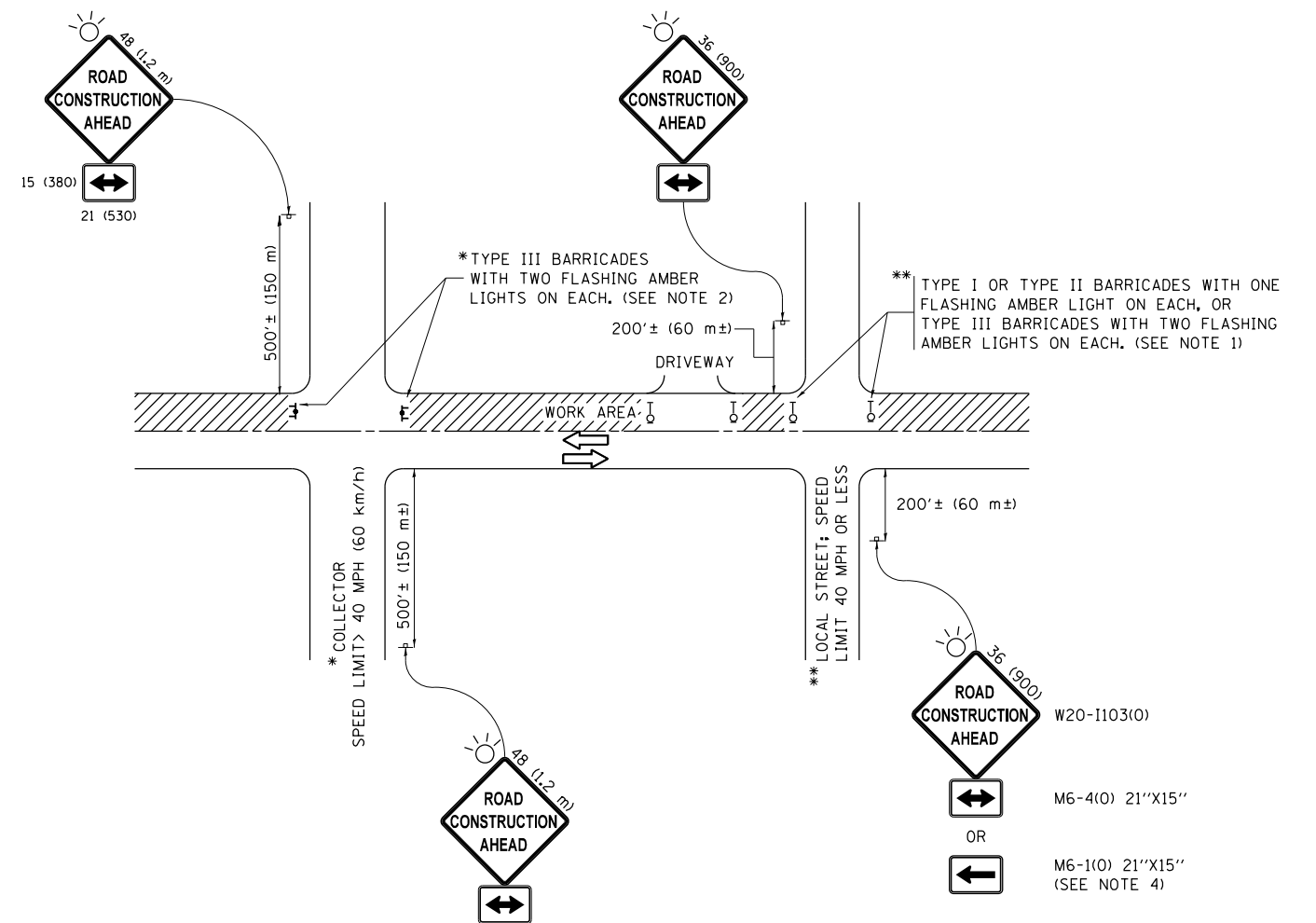
FILE NAME =	USER NAME = footemj	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
p:\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI35\BROWNS\Meta\Design\Diststd.dgn		CHECKED -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 100.0000' / 1in.	DATE - 06-13-90	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 3/6/2017		REVISED - R. BORO 01-01-07

**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.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	12
BD400-05 BD32		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**NOTES:**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. 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.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

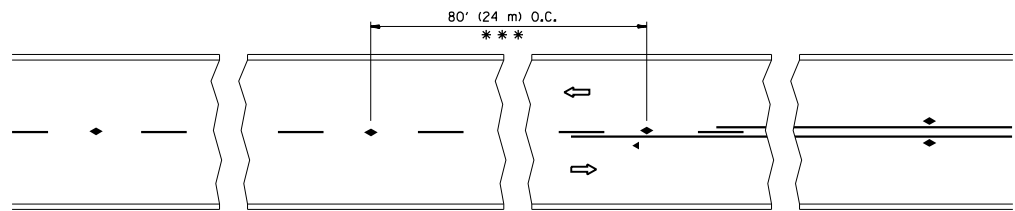
FILE NAME =	USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
pw:\11084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI355\Drawings\Design\Diststd.dgn			REVISED - T. RAMMACHER 01-06-00
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 3/6/2017	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

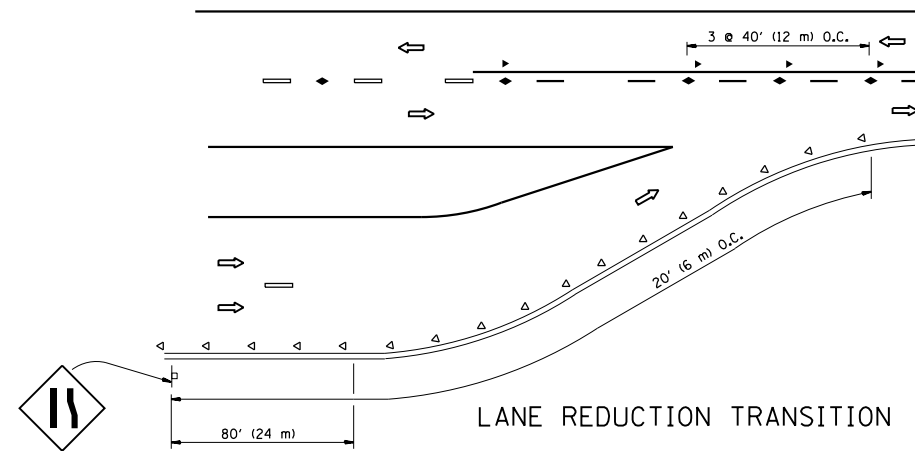
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	13
<b>TC-10</b>			<b>CONTRACT NO.</b>	
ILLINOIS FED. AID PROJECT				

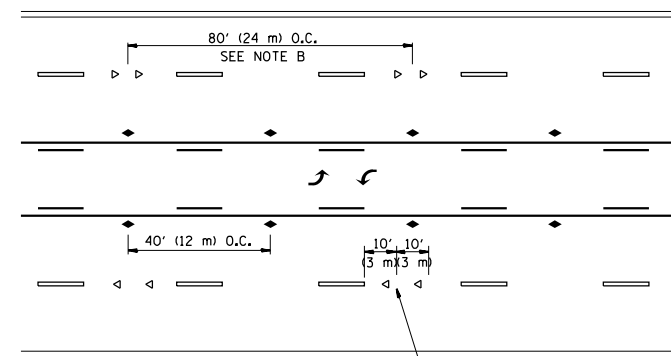


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

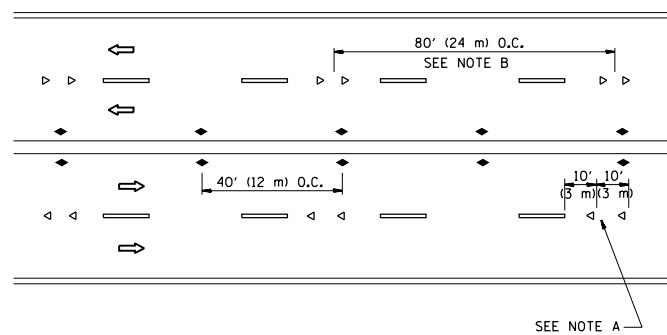
TWO-LANE/TWO-WAY



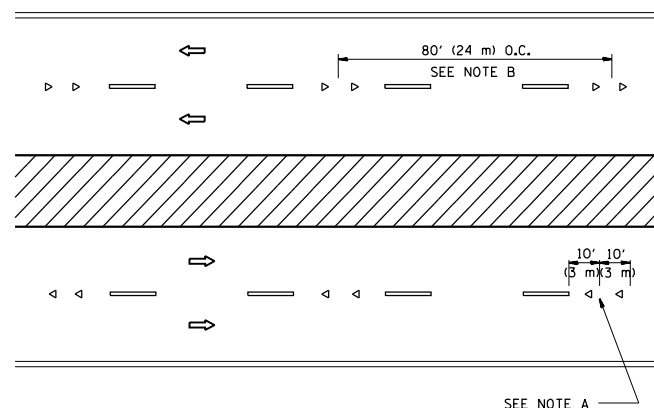
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

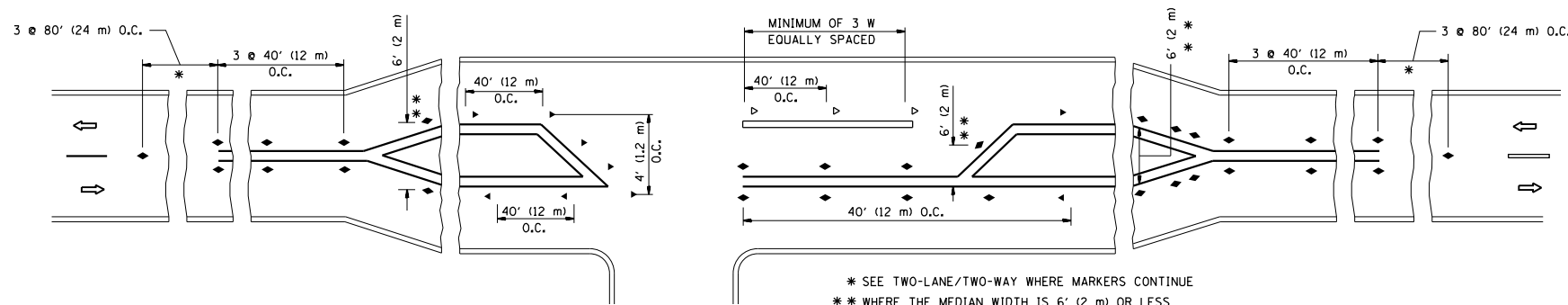
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

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 SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



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

LEFT TURN

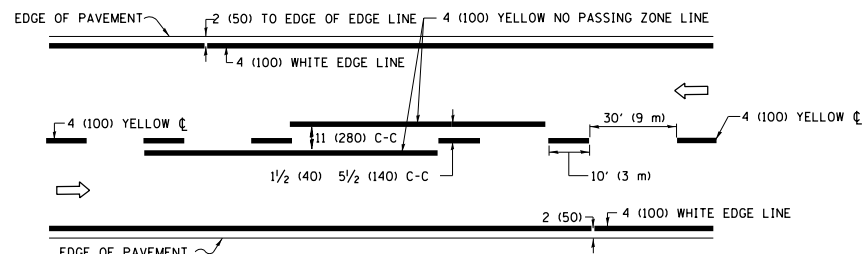
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
pw:\11\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI355\BROWN\Meta\Design\Diststd.dgn		CHECKED -	REVISED - T. RAMMACHER 03-12-99
		DATE -	REVISED - T. RAMMACHER 01-06-00
			REVISED - C. JUCIUS 09-09-09

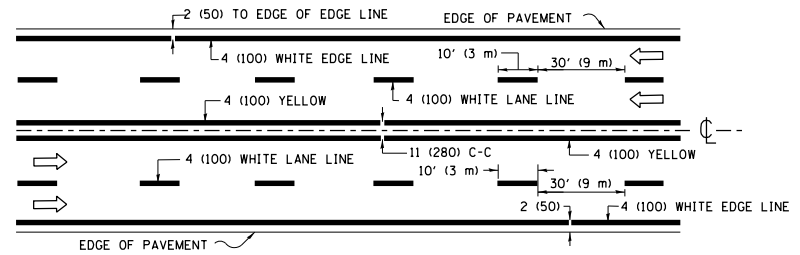
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

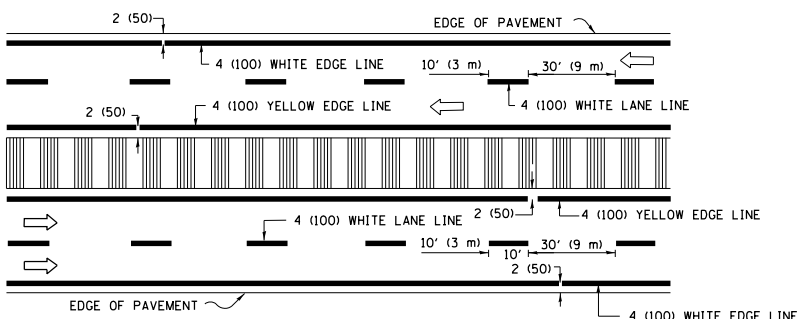
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-11		20	14
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



**2-LANE ROADWAY**

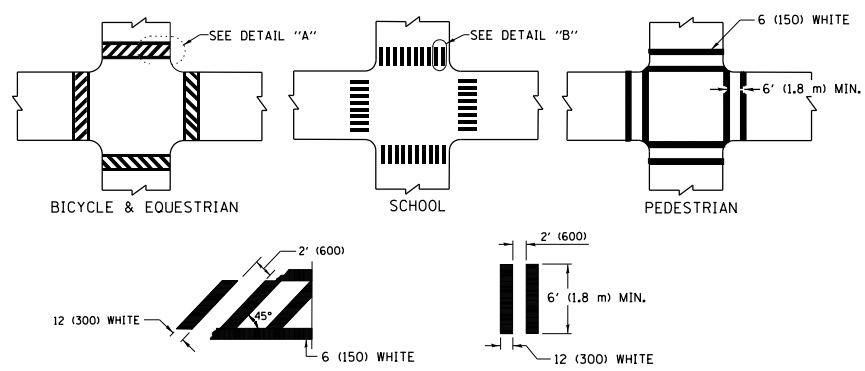


**MULTI-LANE UNDIVIDED**



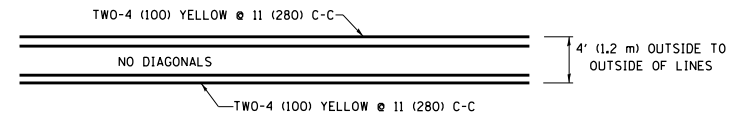
**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

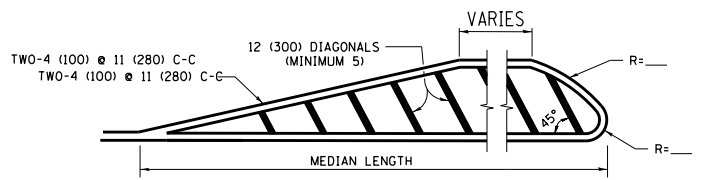


**TYPICAL CROSSWALK MARKING**

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

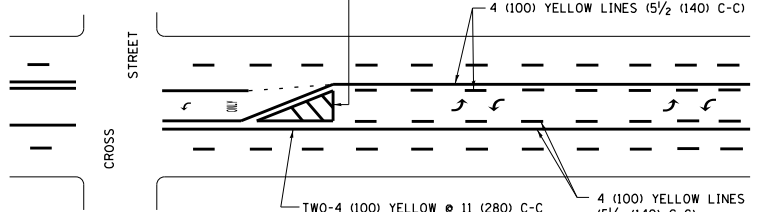


**4' (1.2 m) WIDE MEDIANS ONLY**



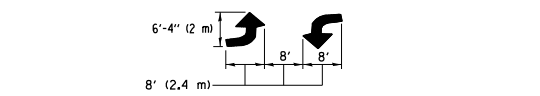
**MEDIANS OVER 4' (1.2 m) WIDE**

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))



**MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING**

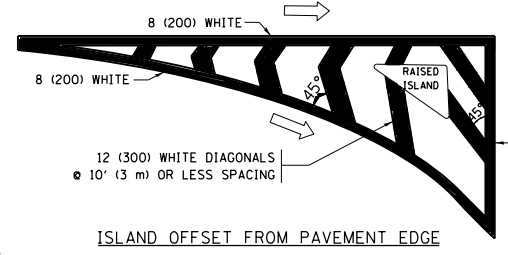
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



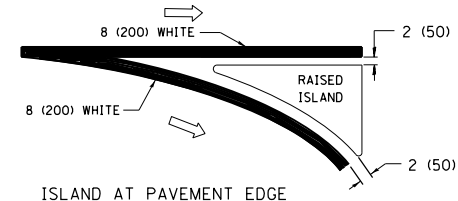
**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
\* 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".

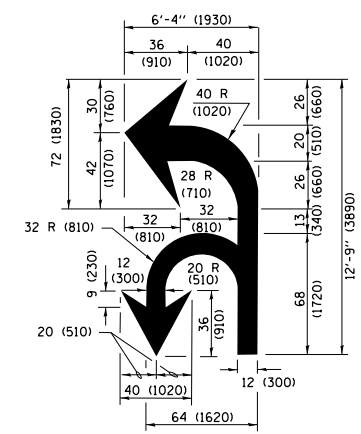


**ISLAND OFFSET FROM PAVEMENT EDGE**

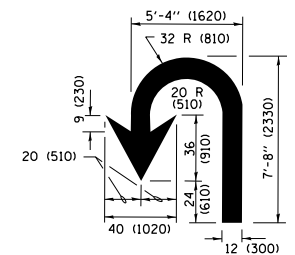


**ISLAND AT PAVEMENT EDGE**

**TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

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 1/2 (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 MEDIANS IN YELLOW
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 1/2 (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 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	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))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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.

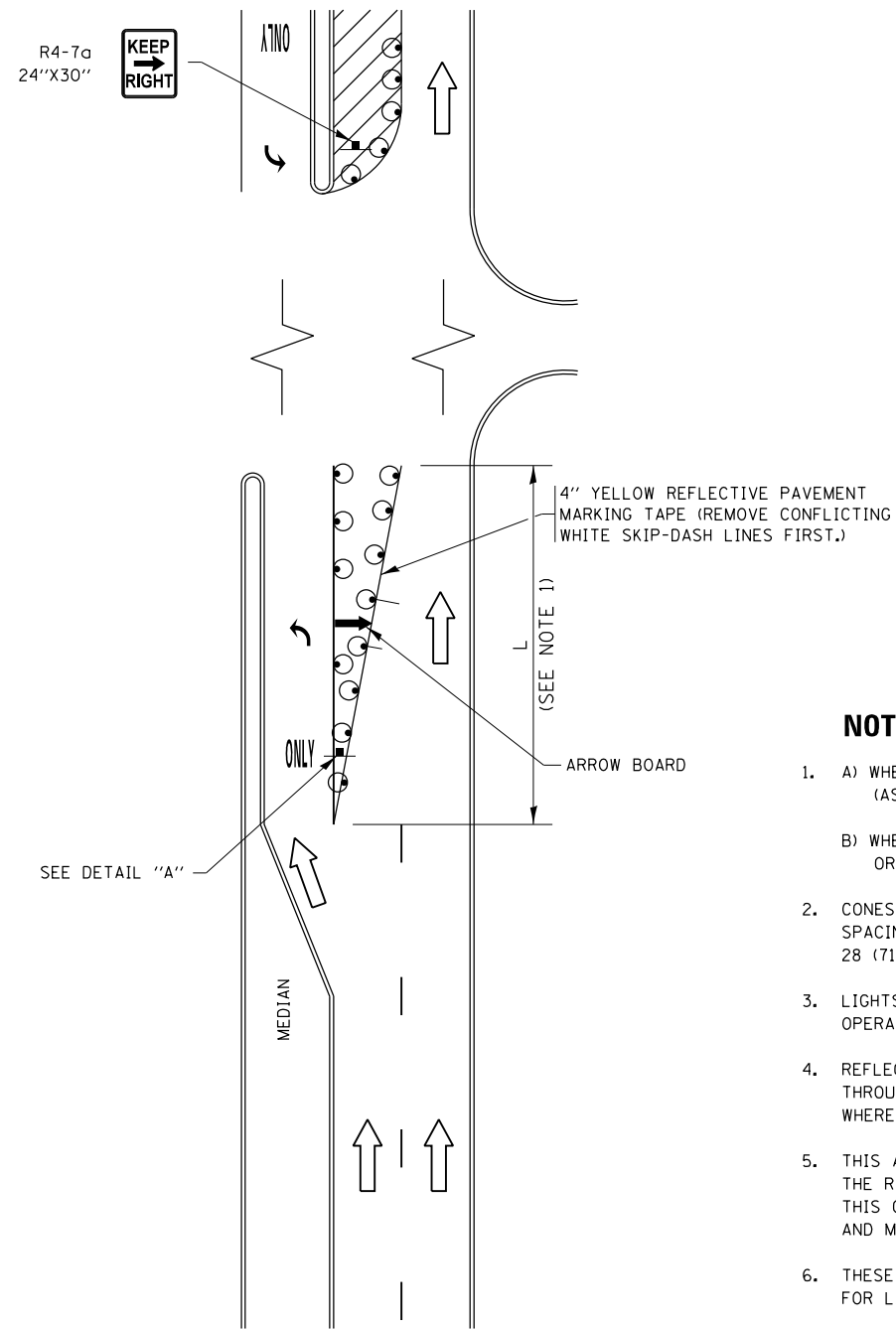
FILE NAME =	USER NAME = footemj	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
pw\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\0135\BROWN\Meta\Design\Diststd.dgn		CHECKED -	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 100.0000' / in.	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 3/6/2017		REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE TYPICAL PAVEMENT MARKINGS</b>			
SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	

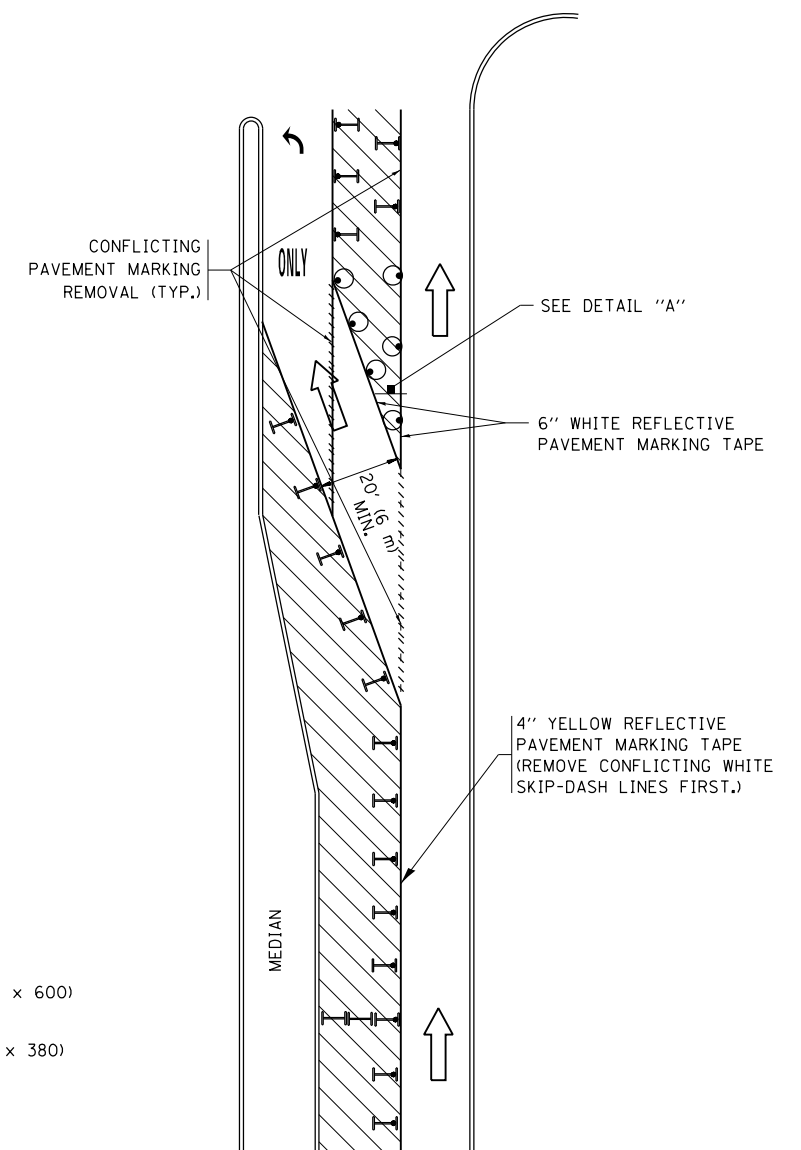
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	<b>TC-13</b>		20	15
ILLINOIS FED. AID PROJECT		CONTRACT NO.		

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

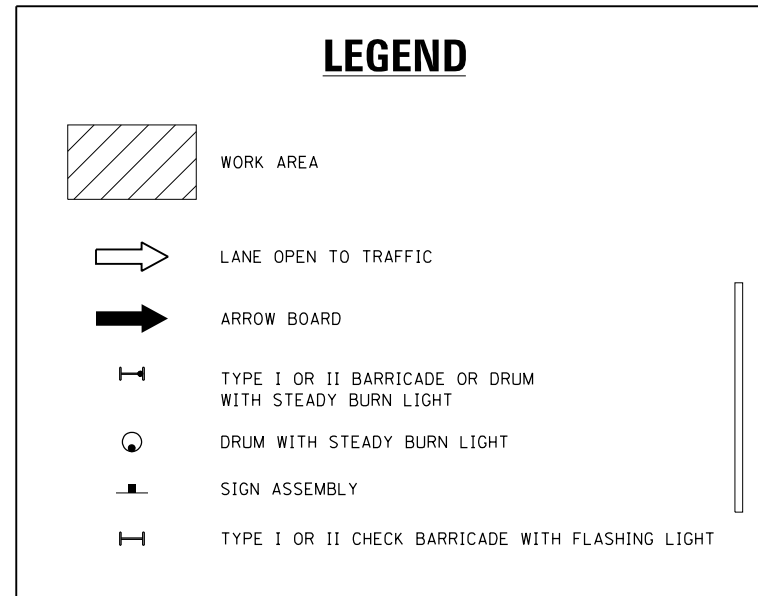


**FIGURE 1**

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE

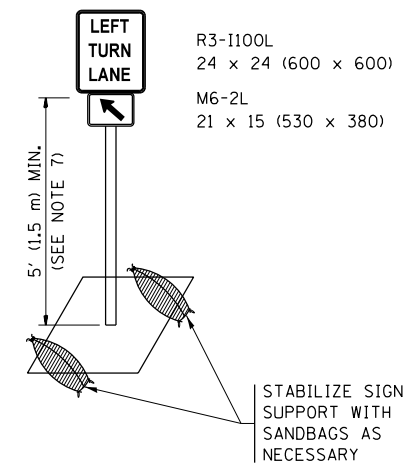


**FIGURE 2**



### NOTES:

1. A) WHEN "L" IS  $\leq$  THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.  
B) WHEN "L" IS  $>$  THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
2. 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.
3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
5. 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" R3-1100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

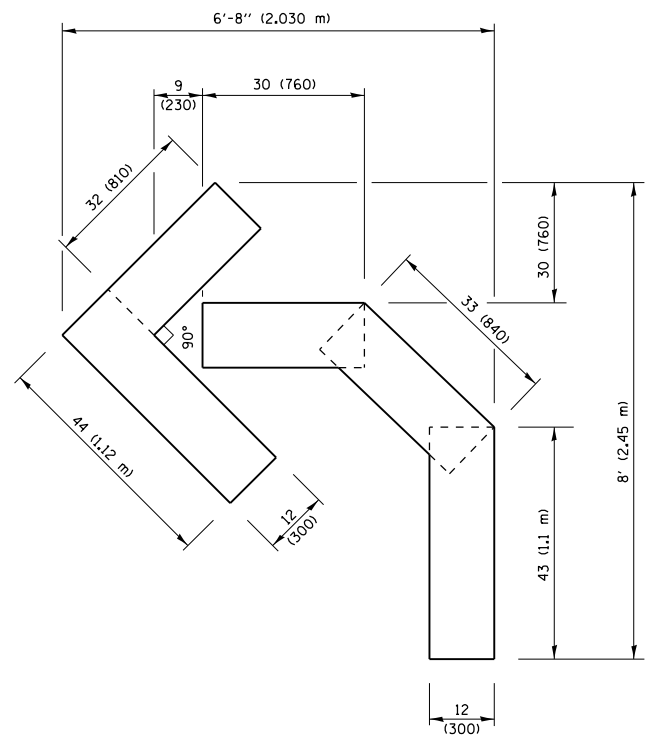


**DETAIL A**

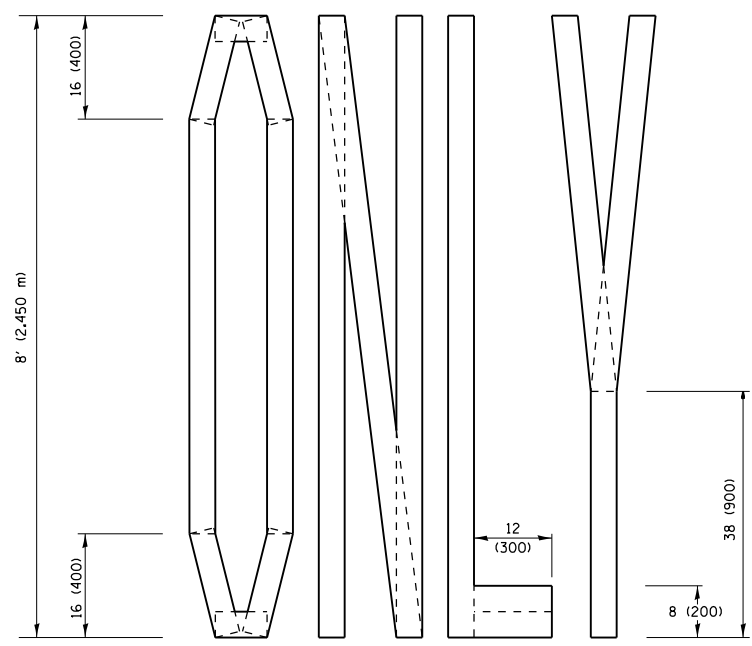
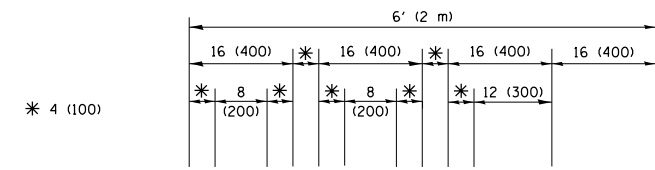
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	PLOT DATE = 3/6/2017	REVISED - A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13					<b>TC-14</b>			<b>CONTRACT NO.</b>	
		REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16		ILLINOIS FED. AID PROJECT							
		REVISED - T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.		

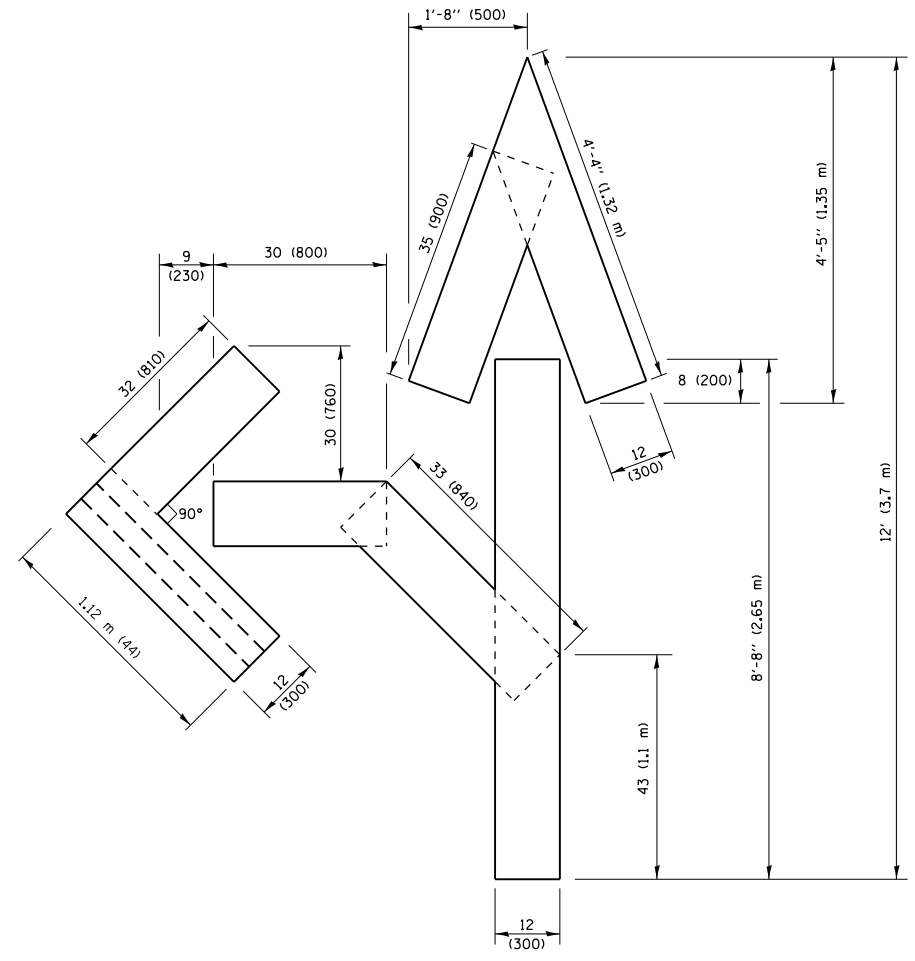




**QUANTITY**  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.41 sq. m)

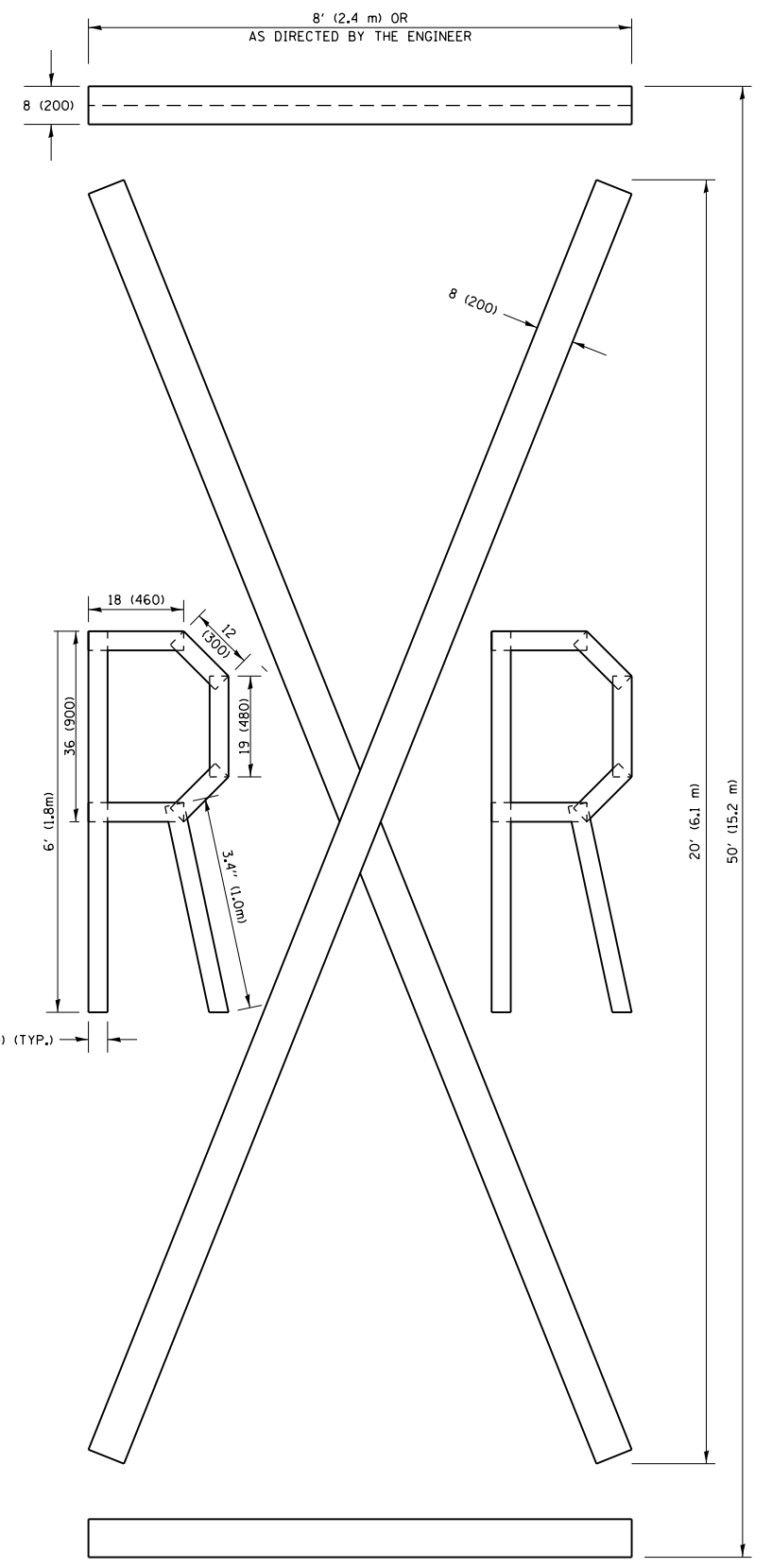


**QUANTITY**  
 4 (100) LINE = 64.1 ft. (19.5 m)  
 21.4 sq. ft. (1.99 sq. m)



**QUANTITY**  
 4 (100) LINE = 82.5 ft. (25.1 m)  
 27.5 sq. ft. (2.53 sq. m)

**NOTE:**  
 ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



**QUANTITY**  
 4 (100) LINE = 225.9 ft. (68.9 m)  
 75.3 sq. ft. (6.99 sq. m)

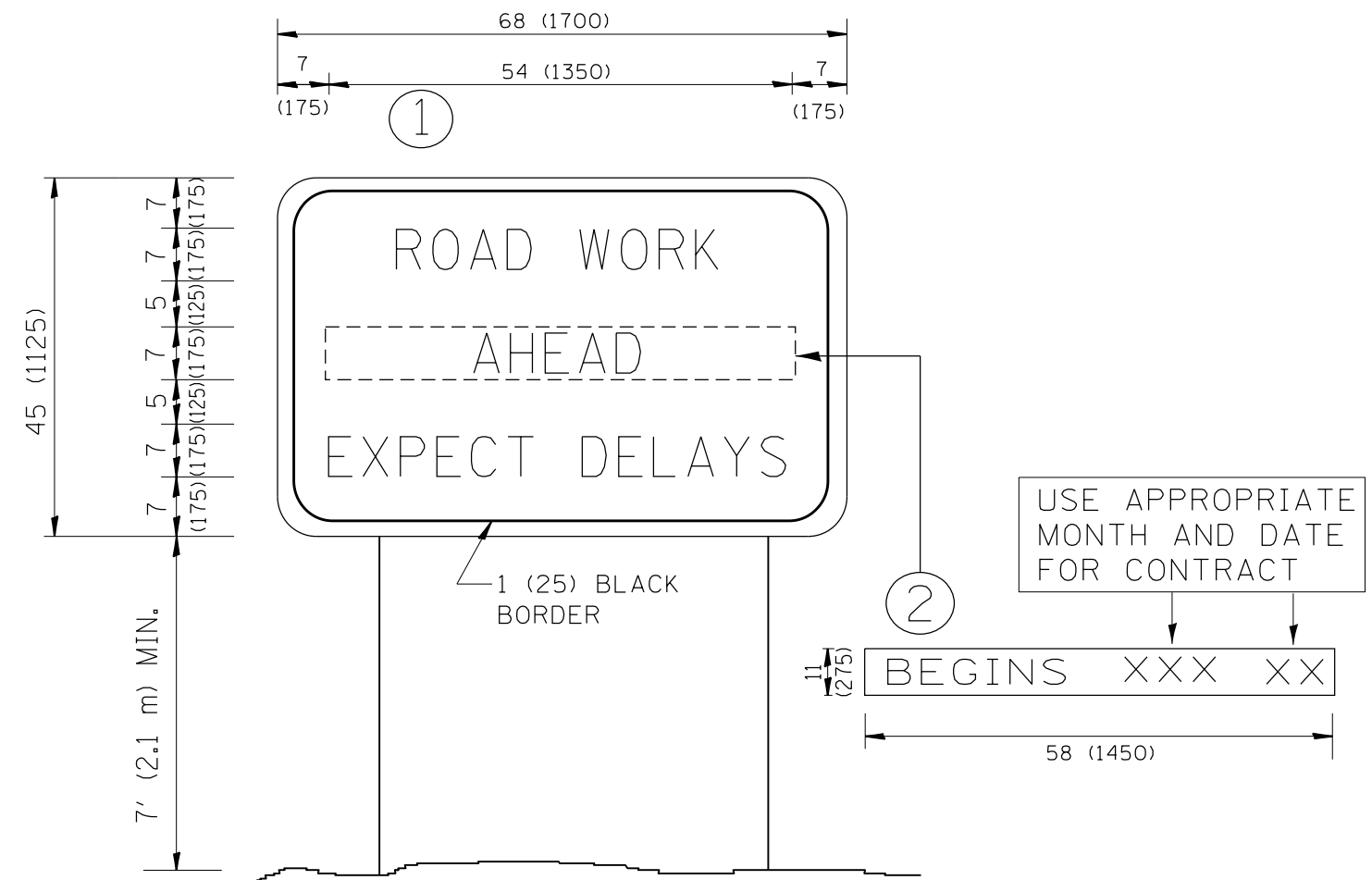
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED -T. RAMMACHER 03-02-98
pw:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\01355\Drawings\Design\Diststd.dgn		CHECKED -	REVISED -E. GOMEZ 08-28-00
		DATE -	REVISED -E. GOMEZ 08-28-00
			REVISED -A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-16		20	17
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



**NOTES:**

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

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

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - R. MIRS 09-15-97
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI355\Drawings\Design\Diststd.dgn		CHECKED -	REVISED - R. MIRS 12-11-97
		PLOT SCALE = 100.0000' / 1in.	REVISED - T. RAMMACHER 02-02-99
		DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

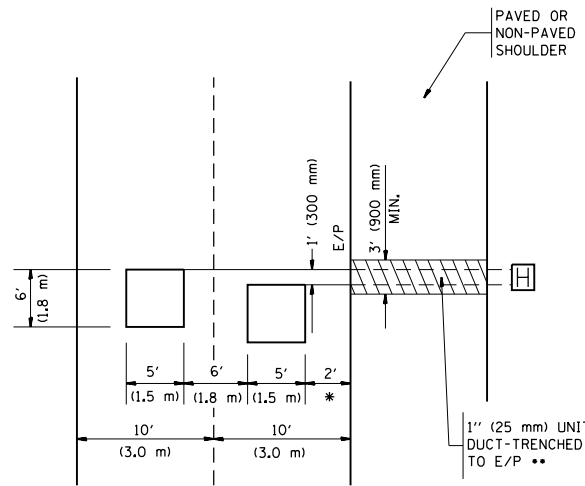
**ARTERIAL ROAD  
INFORMATION SIGN**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	18
TC-22		CONTRACT NO.		
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.

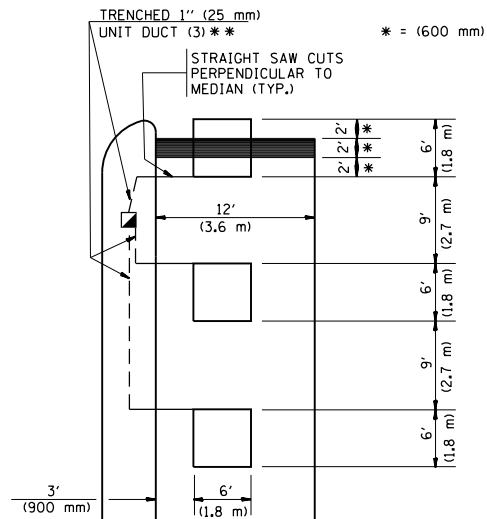


\* = (600 mm)

\*\* 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)

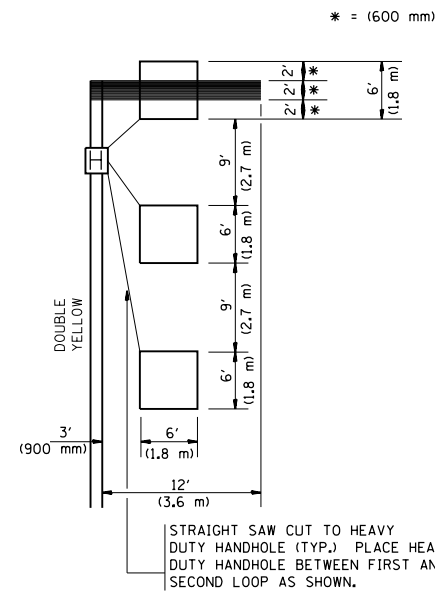
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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

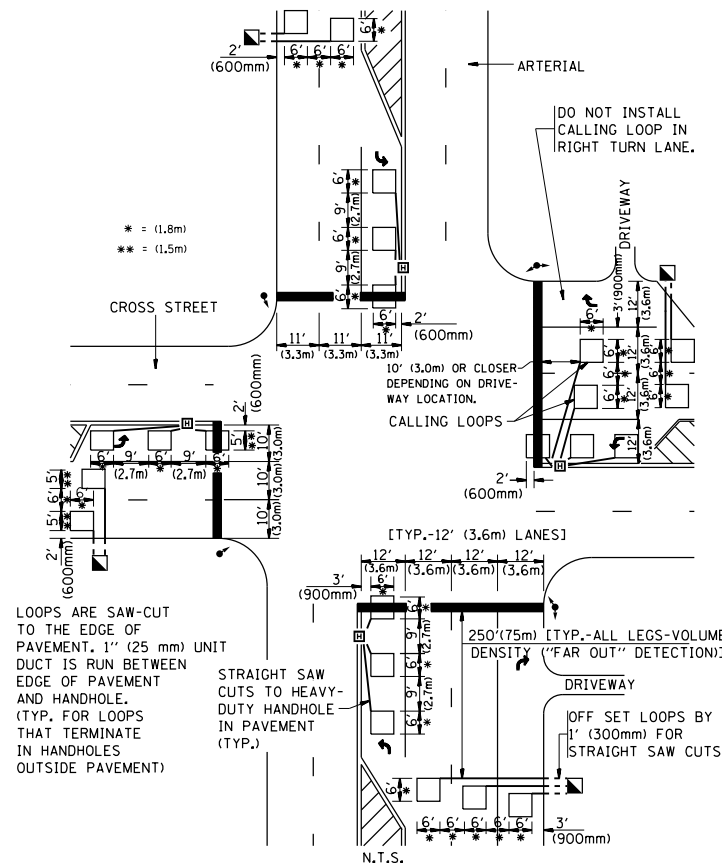
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



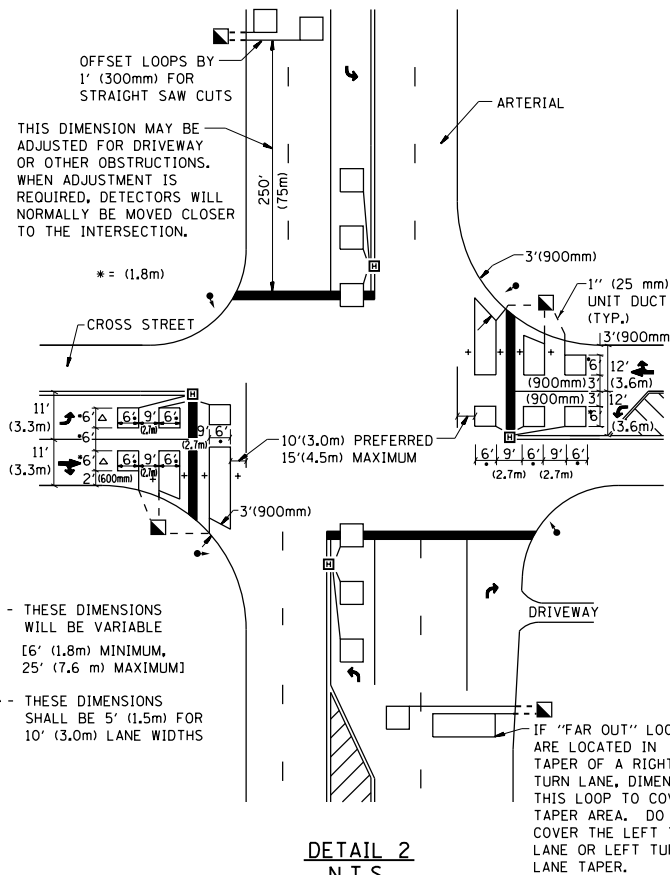
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



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

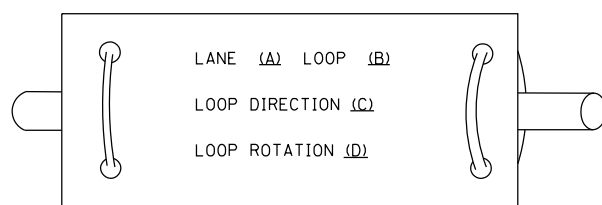
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI35\Design\Diststd.dgn		CHECKED - R.K.F.	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TS-07	CONTRACT NO.	20	19
PLOT SCALE = 100.0000' / 1in.		DATE -	REVISED -									
PLOT DATE = 3/6/2017									FED. ROAD DIST. NO. 1 ILLINOIS	FED. AID PROJECT		

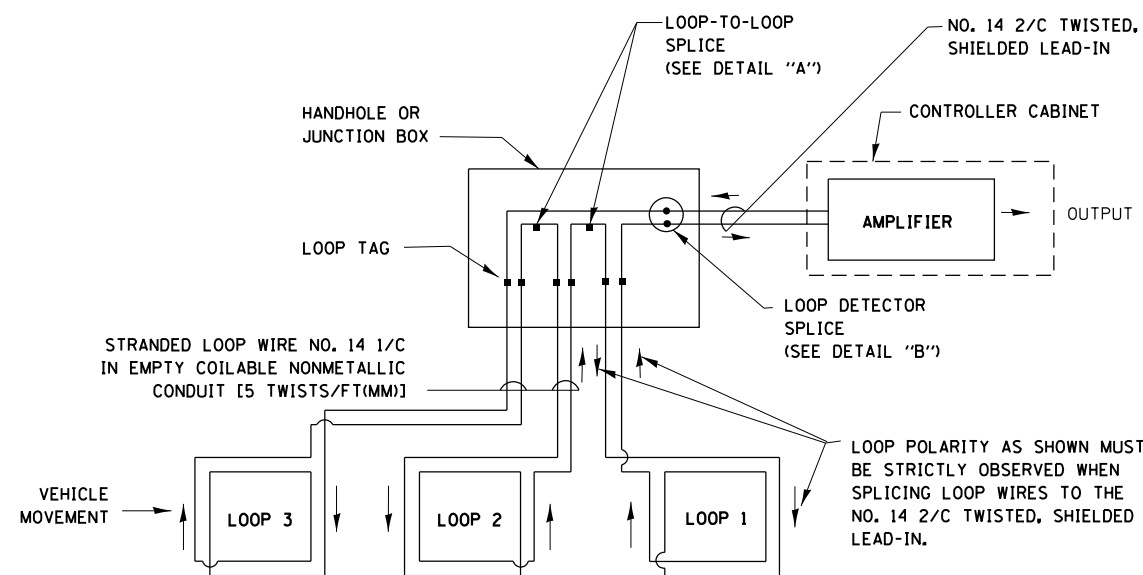
**LOOP DETECTOR NOTES**

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

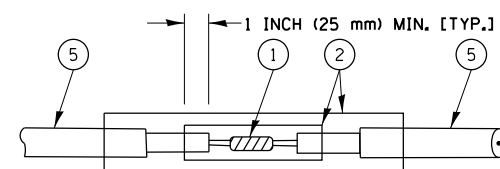


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

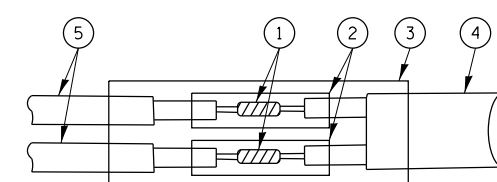


**DETECTOR LOOP WIRING SCHEMATIC**

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

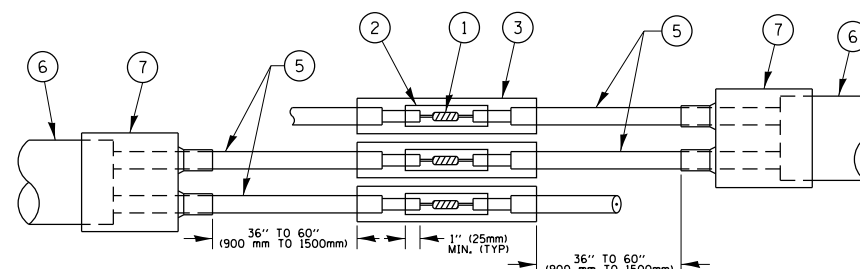


DETAIL "A"  
LOOP-TO-LOOP SPLICE

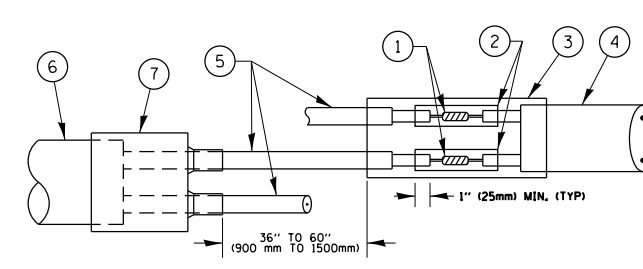


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PRE-FORMED LOOP**

**LOOP DETECTOR SPLICE**

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH, THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL