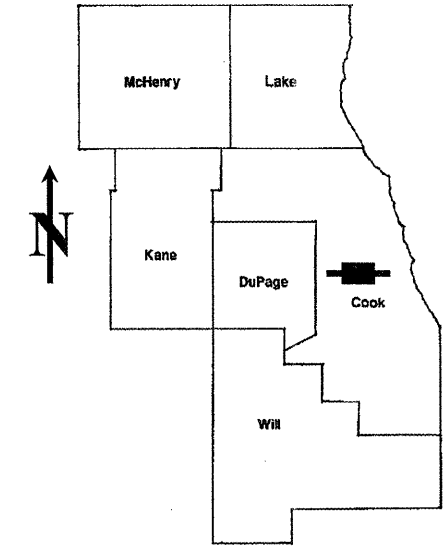


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
VARIOUS	2011-014-RS	COOK	23	1

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

**CONTRACT NO. 60P03**

D-91-445-11



LOCATION OF IMPROVEMENT INDICATED THUS:

FOR INDEX OF SHEETS SEE SHEET 2

VARIOUS ROUTES  
 SECTION: 2011-014-RS  
 VARIOUS LOCATIONS IN CENTRAL COOK COUNTY  
 INTERMITTENT PAVEMENT RESURFACING  
 COOK COUNTY  
 C-91-445-11

DISTRICT ONE - DESIGN - PLAN PREPARATION ENGINEER:  
 KEN ENG / (847) 705-4247

**CONTRACT NO. 60P03**

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

SUBMITTED: APRIL 6, 2011  
*Diane M. O'Keefe*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 13 2011  
*Scott E. Stitt P.E.*  
 acting ENGINEER OF DESIGN AND ENVIRONMENT

May 13 2011  
*Christine M. Reed*  
 DIRECTOR, DIVISION OF HIGHWAYS

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

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

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

SHEET NO.	DESCRIPTION	STANDARD NO.	DESCRIPTION
1	TITLE SHEET	000001-06	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES	701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
3	SUMMARY OF QUANTITIES	701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
4	GENERAL LOCATION MAP	701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS - DAY ONLY
5	SUMMARY OF PATCHING SCHEDULE	701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
6-10	PATCHING SCHEDULE	701336-06	LANE CLOSURE, 2L, 2W, WORK AREAS IN SERIES
11	BUTT JOINT AND HMA TAPER DETAILS (BD-32)	701400-05	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
12	FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS (TC-08)	701401-06	LANE CLOSURE, FREEWAY/EXPRESSWAY
13	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS (TC-10)	701411-07	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP
14	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)	701421-03	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
15-16	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS (TC-12)	701426-04	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS
17	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)	701427	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
18	TRAFFIC CONTROL AND PROTECTION OF TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)	701446-02	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
19	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)	701502-04	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
20	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)	701601-07	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
21	ARTERIAL ROAD INFORMATION SIGN (TC-22)	701602-05	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
22	STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05, SHEET 1 OF 6)	701606-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
23	DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING (TS-07)	701701-07	URBAN LANE CLOSURE, MULTILANE INTERSECTION
		701901-01	TRAFFIC CONTROL DEVICES

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 NOTIFICATION REQUIRED)

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

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.

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.

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

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

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

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

THE EXISTING ROADWAY TYPICAL SECTION IS ASSUMED TO HAVE A 3 INCH HOT-MIX ASPHALT OVERLAY ON TOP OF A TEN INCH CONCRETE BASE.

ALL PAVEMENT PATCHES SHOWN IN THE PLANS ARE TWO (2) INCH MILL AND RESURFACE ONLY. THE MINIMUM WIDTH FOR MILLING AND PATCHING SHALL BE TWO (2) FEET.

NO PATCHING OR RESURFACING IS TO BE DONE WITHIN FIFTY (50) FEET OF ANY RAILROAD CROSSING WITHOUT OBTAINING THE PROPER RAILROAD PROTECTIVE LIABILITY INSURANCE.

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

THE COST OF TRAFFIC CONTROL AND PROTECTION FOR THE PROJECT (EXCLUDING ALL EXPRESSWAY LOCATIONS) SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED ROAD WORK. TRAFFIC CONTROL AND PROTECTION FOR ALL EXPRESSWAY LOCATIONS SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).

THE COST OF ANY PARTIAL OR FULL DEPTH PATCHING REQUIRED AFTER THE REMOVAL OF THE EXISTING 2 INCH HOT-MIX ASPHALT SURFACE SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

ANY DETECTOR LOOPS DAMAGED BY MILLING SHALL BE REPLACED IN KIND. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO QUANTIFY LOOP REPLACEMENTS NEEDED AND PROVIDE THE RESIDENT ENGINEER THIS INFORMATION PRIOR TO GRINDING OR REMOVAL.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).

OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS. ANY MILLED PAVEMENT IS TO BE RESURFACED BY THE END OF EACH DAY AND OPEN TO TRAFFIC.

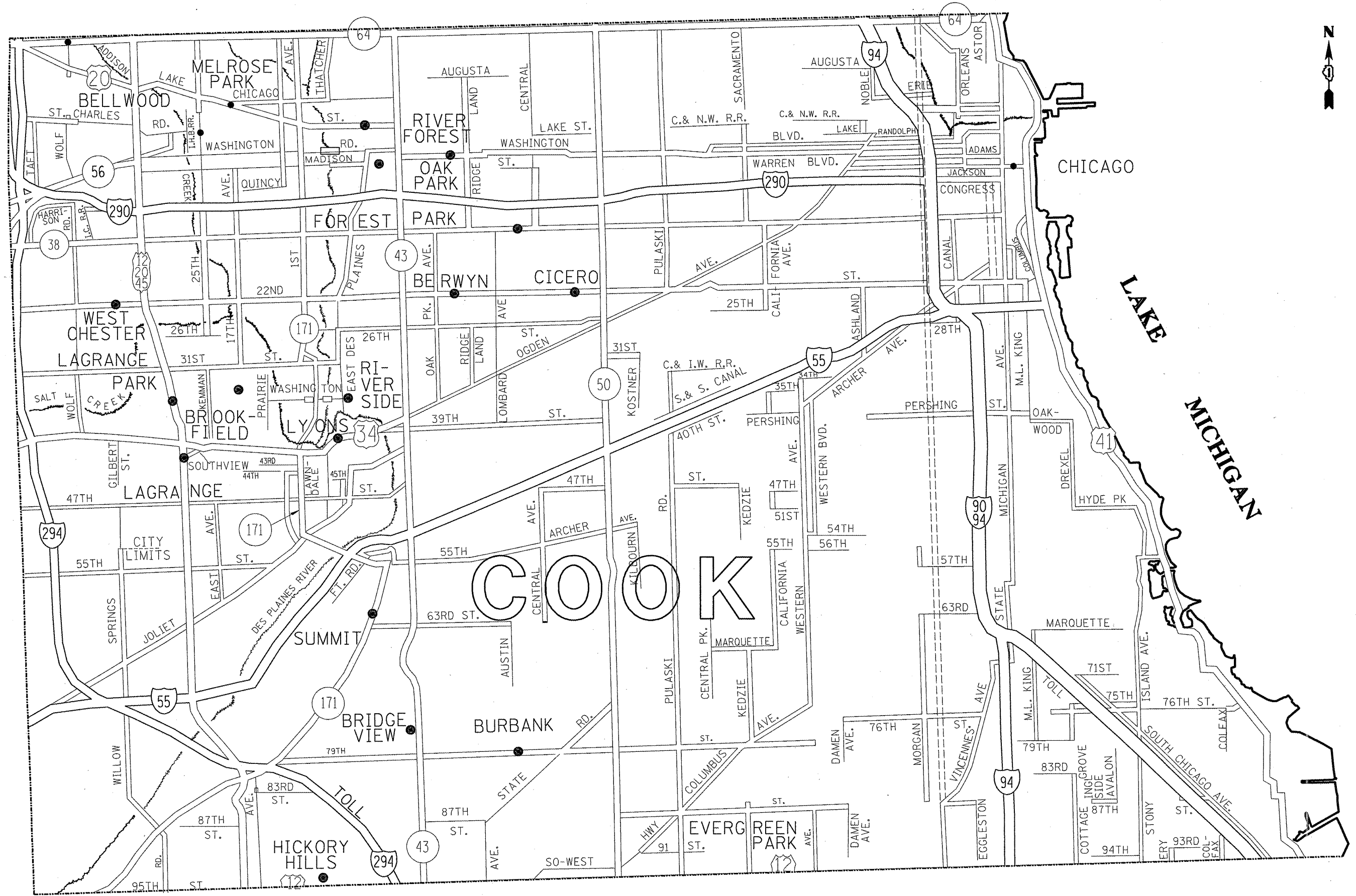
HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
	MIXTURE TYPE	AIR VOIDS (%)
ARTERIAL ROUTES	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5MM), 2"	4% @ 70 GYR
EXPY. ROUTES	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5MM), 2"	4% @ 90 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

SUMMARY OF QUANTITIES			URBAN 100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		0005					CODE NO	ITEM	UNIT						
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	6	6													
40600300	AGGREGATE (PRIME COAT)	TON	28	28													
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	43	43													
40600895	CONSTRUCTING TEST STRIP	EACH	1	1													
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	426	426													
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1235	1235													
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	269	269													
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SO YD	13435	13435													
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6													
67100100	MOBILIZATION	L SUM	1	1													
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1	1													
70300100	SHORT TERM PAVEMENT MARKING	FOOT	789	789													
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	263	263													
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	166	166													
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	8678	8678													
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	600	600													
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	20	20													
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	48	48													
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	75	75													
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	318	318													
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	318	318													
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	248	248													
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1													
Z0026346	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1													
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	720	720													
* X8050102	INDUCTION LOOP	FOOT	100	100													
* X8730312	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.184/C TWISTED, SHIELDED	FOOT	300	300													
* SPECIALTY ITEM																	

Rev.



FILE NAME =  
 c:\p\work\p\dot\valchkovv\d0260195\d0260195.dgn  
 PLOT SCALE = 100.0000" / IN.  
 PLOT DATE = 4/13/2011

USER NAME = Valchkovv	DESIGNED -	REVISED -
DRAWN -	REVISED -	REVISED -
CHECKED -	REVISED -	REVISED -
DATE -	REVISED -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**GENERAL LOCATION MAP - CENTRAL COOK COUNTY**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2011-014-RS	COOK	23	4
CONTRACT NO. 60P03				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

SUMMARY - CENTRAL COOK COUNTY ROUTES	HMA 2" MILL & RESURFACE (SY)
25TH AVENUE (GRAND AVE TO NORTH AVE)	849
79TH STREET (CICERO AVE TO I-294)	800
ARCHER AVENUE (WILLOW SPRINGS RD TO VANNA)	102
CICERO AVENUE (71ST TO 87TH)	1220
FIRST AVENUE (OGDEN TO 47TH ST)	254
FIRST AVENUE CUT-OFF (22ND ST TO FIRST AVE)	397
IL 38 (ROOSEVELT RD) (AUSTIN BLVD TO CICERO AVE)	1314
IL 56 (CALVIN TO MANNHEIM RD)	340
LONG ARM RAMP (SB LAGRANGE RD TO EB 79TH ST TO 88TH AVE)	100
LONG ARM RAMP (SB LAGRANGE RD TO EB ARCHER AVE TO 88TH AVE/CORK)	54
NB LAGRANGE ROAD (ON RAMP TO ARCHER/79TH/I-294 TO I & M CANAL)	338
* RAMP (EB EISENHOWER TO NB KENNEDY)	2312
ENTRANCE RAMP (NB LAGRANGE ENTRANCE RAMP TO ARCHER/79TH/I-294 TO 79TH ST)	240
* LAGRANGE ROAD (@ SB I-55 ENTRANCE RAMP)	93
IL 171/ARCHER AVE (55TH ST TO 65TH ST)	220
LAGRANGE ROAD (I-55 TO I-294 OVERPASS)	304
STATE ROAD (79TH ST TO CICERO)	220
31ST ST (FRONTAGE ROADS KOSTNER TO RAILROAD)	4278
<b>CENTRAL COOK COUNTY TOTAL =</b>	<b>13435 SY</b>

\* EXPRESSWAY LOCATION: USE POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5MM)

FILE NAME =	USER NAME = VelichkovVV	DESIGNED -	REVISED - 4/19/2011 VV	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF PATCHING SCHEDULE CENTRAL COOK COUNTY</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
at\pw\work\pwi\dot\velichkovvv\d0260195\design.dgn		DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	VAR.	2011-014-RS	COOK	23	5
		CHECKED -	REVISED -						<b>CONTRACT NO. 60P03</b>						
		DATE -	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

ROUTE: 25th Ave (Grand Ave to North Ave)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
Grand Ave	North Ave	NB	1	12	10	120	13
		NB	1	12	10	120	13
		NB	1	12	10	120	13
		NB	1	12	20	240	27
		NB	1	2	500	1000	111
		NB	2	12	15	180	20
		NB	2	12	10	120	13
		NB	2	12	10	120	13
		NB	2	12	10	120	13
		NB	1	12	10	120	13
		NB	2	6	50	300	33
		NB	2	4	50	200	22
		NB	2	12	50	600	67
		NB	1	12	10	120	13
		NB	1	12	10	120	13
		NB	2	12	10	120	13
		NB	2	12	10	120	13
		NB	2	12	15	180	20
		NB	1	12	20	240	27
		NB	2	4	200	800	89
		NB	2	12	50	600	67
		SB	1	12	10	120	13
		SB	1	12	10	120	13
		SB	2	12	15	180	20
		SB	2	12	30	360	40
		SB	1	12	10	120	13
		SB	2	2	300	600	67
		SB	2	12	10	120	13
		SB	1	12	20	240	27
		SB	2	12	10	120	13

TOTALS: 1495 FT 849 SY

ROUTE: 79th (Cicero Ave to I-294)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
Laramie	Latrobe	WB	2	6	200	1200	133
Major	Menard	WB	2	12	10	120	13
		WB	1	12	5	60	7
		WB	1	12	10	120	13
Austin	Narragansett	WB	2	6	100	600	67
Narragansett	Neenah	WB	1	12	5	60	7
78th Ave	Roberts	WB	1	12	5	60	7
		WB	2	12	15	180	20
Roberts	88th Ave	WB	2	12	20	240	27
		WB	1	12	5	60	7
		WB	2	12	5	60	7
		WB	2	12	10	120	13
		WB	1	12	10	120	13
		WB	2	12	10	120	13
		WB	2	12	25	300	33
		WB	2	12	10	120	13
		WB	2	12	15	180	20
88th Ave	I294	WB	2	12	10	120	13
		WB	1	12	25	300	33
		WB	2	12	15	180	20
		WB	2	12	5	60	7
		WB	2	12	10	120	13
I294	88th Ave	EB	2	12	10	120	13
		EB	1	12	10	120	13
		EB	2	12	5	60	7
		EB	2	12	10	120	13
		EB	2	12	10	120	13
		EB	1	12	5	60	7
		EB	2	12	5	60	7
88th Ave	Roberts	EB	2	12	10	120	13
Oketo	Harlem	EB	1	12	10	120	13
		EB	2	12	10	120	13
Harlem	Sayre	EB	1	12	15	180	20
		EB	2	12	10	120	13
Sayre	Oak Park	EB	1	12	15	180	20
		EB	2	12	5	60	7
		EB	2	12	20	240	27
		EB	2	12	10	120	13
Austin	Central	EB	2	6	100	600	67
		EB	2	6	50	300	33

TOTALS: 825 FT 800 SY

ROUTE: Archer Ave (Willow Springs Rd to Vanna)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
Willow Springs	Vanna	WB	1	14	10	140	16
		WB	1	14	5	70	8
		WB	1	14	10	140	16
		WB	1	14	10	140	16
		EB	1	14	5	70	8
		EB	1	14	5	70	8
		EB	1	14	10	140	16
		EB	1	14	10	140	16

TOTALS: 65 FT 102 SY

ROUTE: Cicero Ave (71st to 87th)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		NB	1	12	15	180	20
		NB	1	12	15	180	20
		NB	1	12	5	60	7
		NB	1	12	10	120	13
		NB	3	12	10	120	13
		NB	1	12	10	120	13
		NB	3	12	20	240	27
		NB	1	12	10	120	13
		NB	2	12	20	240	27
		NB	1	12	5	60	7
		NB	1	12	15	180	20
		NB	1	12	20	240	27
		NB	1	12	40	480	53
		NB	1	12	10	120	13

TOTALS: 915 FT 1220 SY

ROUTE: Cicero Ave (71st to 87th)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		SB	1	12	10	120	13
		SB	2	12	10	120	13
		SB	3	12	10	120	13
		SB	1	12	10	120	13
		SB	3	12	20	240	27
		SB	2	12	50	600	67
		SB	1	12	10	120	13
		SB	2	12	20	240	27
		SB	1	12	15	180	20
		SB	1	12	5	60	7
		SB	2	12	15	180	20
		SB	2	12	100	1200	133
		SB	2	12	25	300	33
		SB	1	12	10	120	13
		SB	3	12	10	120	13
		SB	1	12	5	60	7
		SB	1	12	10	120	13
		SB	2	12	30	360	40
		SB	1	12	10	120	13
		SB	1	12	15	180	20
		SB	1	12	15	180	20
		SB	1	12	15	180	20
		SB	2	12	40	480	53
		SB	2	12	50	600	67
		SB	1	12	5	60	7
		SB	1	12	5	60	7
		SB	2	12	10	120	13
		SB	2	12	100	1200	133
		NB	2	12	10	120	13
		NB	1	12	5	60	7
		NB	2	12	20	240	27
		NB	2	12	5	60	7
		NB	1	12	5	60	7
		NB	2	12	10	120	13
		NB	2	12	25	300	33

ROUTE: First Ave (Ogden to 47th St)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		SB	1	12	10	120	13
		SB	2	12	10	120	13
		SB	1	12	10	120	13
		SB	2	12	10	120	13
		SB	1	12	20	240	27
		SB	2	12	10	120	13
		NB	2	12	10	120	13
		NB	1	12	10	120	13
		NB	1	12	10	120	13
		NB	2	12	10	120	13
		NB	1	12	10	120	13
		NB	2	12	10	120	13
		NB	1	12	10	120	13
		NB	2	12	10	120	13
		NB	2	12	10	120	13
		NB	2	12	10	120	13
		NB	1	12	10	120	13
		NB	2	12	10	120	13

TOTALS: 190 FT 254 SY

ROUTE: First Ave Cut-Off (22nd St to First Ave)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		EB		14	10	140	16
		EB		14	10	140	16
		EB		14	20	280	31
		EB		14	15	210	23
		EB		14	10	140	16
		EB		14	15	210	23
		EB		14	20	280	31
		EB		14	20	280	31
		EB		14	10	140	16
		WB		14	20	280	31
		WB		14	10	140	16
		WB		14	10	140	16
		WB		14	15	210	23
		WB		14	15	210	23
		WB		14	10	140	16
		WB		14	10	140	16

TOTALS: 255 FT 397 SY

ROUTE: IL 38: Roosevelt Rd (Austin Blvd to Cicero Ave)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		WB	1	12	100	1200	133
		WB	1	12	75	900	100

TOTALS: 985 FT 1314 SY

ROUTE: IL 56 (Calvin to Mannheim Rd)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
Calvin	Howard	EB	2	12	15	180	20
		EB	2	12	10	120	13
		EB	1	12	10	120	13
		EB	2	12	15	180	20
		EB	2	12	15	180	20
Howard	Wolf	EB	1	12	5	60	7
		EB	1	12	5	60	7
		EB	1	12	5	60	7
Wolf	Mannheim	EB	1	12	5	60	7
		EB	1	12	5	60	7
		EB	1	6	20	120	13
		EB	1	6	20	120	13
Mannheim	Wolf	WB	1	12	15	180	20
Wolf	Howard	WB	1	12	10	120	13
		WB	1	12	10	120	13
		WB	1	12	10	120	13
		WB	1	12	15	180	20
Howard	Calvin	WB	1	12	10	120	13
			1	12	10	120	13
			2	12	20	240	27
			2	12	15	180	20
			2	12	20	240	27
			1	12	10	120	13

TOTALS: 275 FT 340 SY

ROUTE: IL 38: Roosevelt Rd (Austin Blvd to Cicero Ave)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		EB	1	12	100	1200	133
		EB	1	12	15	180	20
		EB	1	12	20	240	27
		EB	1	12	10	120	13
		EB	1	12	15	180	20
		EB	1	12	25	300	33
		EB	1	12	10	120	13
		EB	1	12	75	900	100
		EB	1	12	45	540	60
		EB	1	12	75	900	100
		EB	1	12	10	120	13
		EB	1	12	10	120	13
		EB	1	12	10	120	13
		EB	1	12	10	120	13
		EB	1	12	20	240	27
		WB	1	12	20	240	27
		WB	1	12	10	120	13
		WB	1	12	5	60	7
		WB	1	12	40	480	53
		WB	1	12	10	120	13
		WB	1	12	35	420	47
		WB	1	12	50	600	67
		WB	1	12	50	600	67
		WB	1	12	50	600	67
		WB	1	12	25	300	33
		WB	1	12	75	900	100



ROUTE: Long Arm Ramp (SB LaGrange Rd to EB 79th St to 88th Ave)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		EB	1	12	6	72	8
		EB	2	12	6	72	8
		EB	1	12	6	72	8
		EB	1	12	6	72	8
		EB	2	12	6	72	8
		EB	2	12	15	180	20
		EB	2	12	20	240	27
		EB	1	12	10	120	13

TOTALS: 75 FT 100 SY

ROUTE: Long Arm Ramp (SB LaGrange Rd to EB Archer Ave to 88th Ave/Cork)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		EB	2	12	5	60	7
		EB	2	12	10	120	13
		EB	2	12	5	60	7
		EB	1	12	10	120	13
		EB	1	12	5	60	7
		EB	2	12	5	60	7

TOTALS: 40 FT 54 SY

ROUTE: NB LaGrange Rd (On Ramp to Archer/79th/I-294 to I&M Canal)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		NB	1	12	10	120	13
		NB	1	12	10	120	13
		NB	1	12	10	120	13
		NB	1	12	20	240	27
		NB	2	2	500	1000	111
		NB	2	12	15	180	20
		NB	3	12	10	120	13
		NB	3	12	10	120	13
		NB	3	12	10	120	13
		NB	1	12	25	300	33
		NB	2	12	25	300	33
		NB	3	12	25	300	33

TOTALS: 670 FT 338 SY

ROUTE: Ramp (EB Eisenhower to NB Kennedy)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		NB	1	24	341	8184	909
		NB	1	24	526	12624	1403

TOTALS: 867 FT 2312 SY

ROUTE: Entrance Ramp (NB LaGrange Entrance Ramp to Archer/79th/I-294 to 79th St)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		NB		12	10	120	13
		NB		12	20	240	27
		NB		12	20	240	27
		NB		12	5	60	7
		NB		12	5	60	7
		NB		12	10	120	13
		NB		12	50	600	67
		NB		12	30	360	40
		NB		12	30	360	40

TOTALS: 180 FT 240 SY

ROUTE: LaGrange Rd (at SB I-55 Entrance Ramp)

CROSS STREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		SB		14	10	140	16
		SB		14	25	350	39
		SB		14	5	70	8
		SB		14	10	140	16
		SB		14	10	140	16

TOTALS: 60 FT 93 SY

ROUTE: IL 171: Archer Ave (55th St to 65th St)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
55th		EB	L1 L2	6	12	72	8
		EB	L1	6	12	72	8
		EB	L1	6	12	72	8
		EB	L2	10	12	120	13
		EB	L2	6	12	72	8
		EB	L1	10	12	120	13
		EB	L2	6	12	72	8
		EB	L2	10	12	120	13
		WB	L1	6	12	72	8
		WB	L1	6	12	72	8
		WB	L2	6	12	72	8
		WB	L2	6	12	72	8
		WB	L2	15	12	180	20
		WB	L2	6	12	72	8
		WB	L2	6	12	72	8
		WB	L2	15	12	180	20
		WB	L1	6	12	72	8
		WB	L1	6	12	72	8
		WB	L1	15	12	180	20
		WB	L1	6	12	72	8
	57th	WB	L1	6	12	72	8

TOTALS: 252 FT 220 SY

ROUTE: LaGrange Rd (I-55 to I-294 Overpass)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		NB	L2	8	12	96	11
		NB	L3	6	12	72	8
		NB	L3	8	12	96	11
		NB	L3	6	12	72	8
		NB	L3	8	12	96	11
		NB	L3	8	12	96	11
		NB	L3	6	12	72	8
		NB	L3	8	12	96	11
		NB	L3	8	12	96	11

TOTALS: 388 FT 304 SY

ROUTE: State Rd (79th St to Cicero)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		EB	L1 L2	6	12	72	8
		EB	L1	6	12	72	8
		EB	L1	6	12	72	8
		EB	L2	10	12	120	13
		EB	L2	6	12	72	8
		EB	L1	10	12	120	13
		EB	L2	6	12	72	8
		EB	L2	10	12	120	13
		WB	L1	6	12	72	8
		WB	L1	6	12	72	8
		WB	L2	6	12	72	8
		WB	L2	15	12	180	20
		WB	L2	6	12	72	8
		WB	L2	6	12	72	8
		WB	L2	15	12	180	20
		WB	L1	6	12	72	8
		WB	L1	6	12	72	8
		WB	L1	15	12	180	20
		WB	L1	6	12	72	8
		WB	L1	6	12	72	8

TOTALS: 252 FT 220 SY

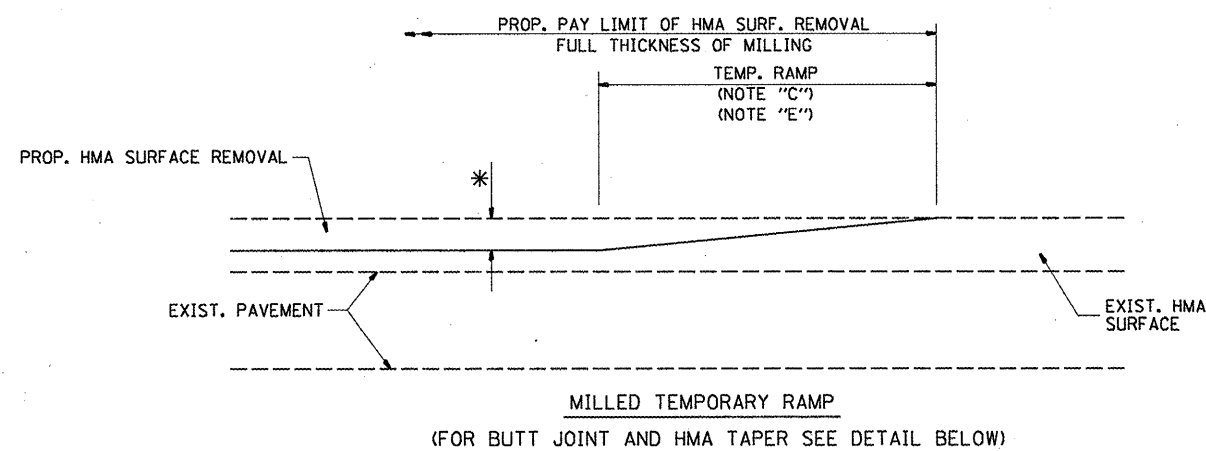
ROUTE: 31st St (Frontage Roads Kostner to Railroad)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
Turnaround		WB	L1 L2	1750	22	38500	4278

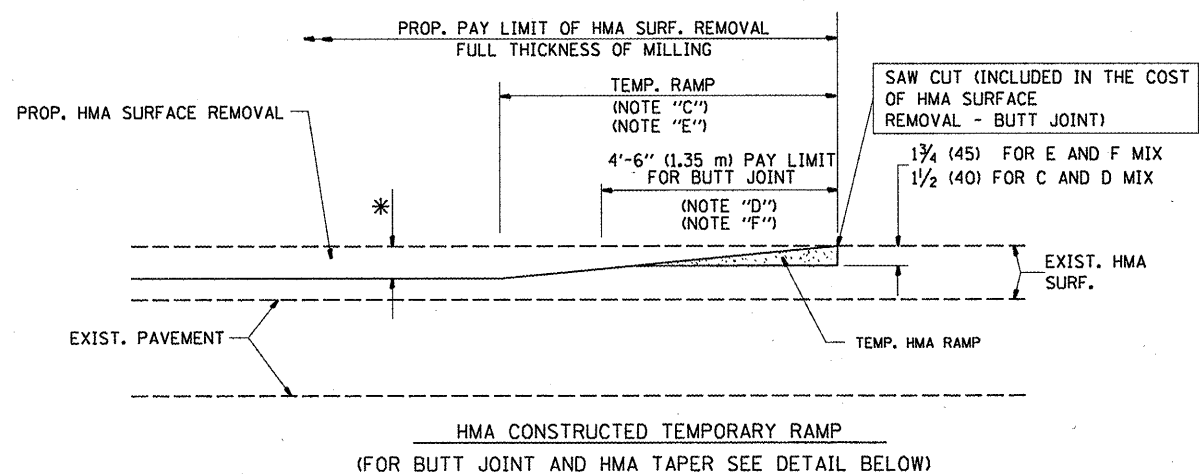
TOTALS: 22 FT 4278 SY

ROUTE: LaGrange Rd (I-55 to I-294 Overpass)

CROSSSTREETS		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT PATCH WIDTH	PAVEMENT PATCH LENGTH	REPAIR AREA (SQ FT)	REPAIR AREA (SQ YD)
FROM	TO						
		SB	L1 L2 L3	6	12	72	8
		SB	L2	8	16	128	14
		SB	L1	6	12	72	8
		SB	L2	8	20	160	18
		SB	L3	6	8	48	5
		SB	L3	6	12	72	8
		SB	L3	6	12	72	8
		SB	L1 L2 L3	6	12	72	8
		SB	L2	8	16	128	14
		SB	L1	6	12	72	8
		SB	L2	8	20	160	18
		SB	L3	6	8	48	5
		SB	L3	6	12	72	8
		SB	L3	6	12	72	8
		NB	L1	8	12	96	11
		NB	L1	8	12	96	11
		NB	L2	6	12	72	8
		NB	L2	6	12	72	8
		NB	L2	8	12	96	11
		NB	L2	8	12	96	11
		NB	L2	8	12	96	11

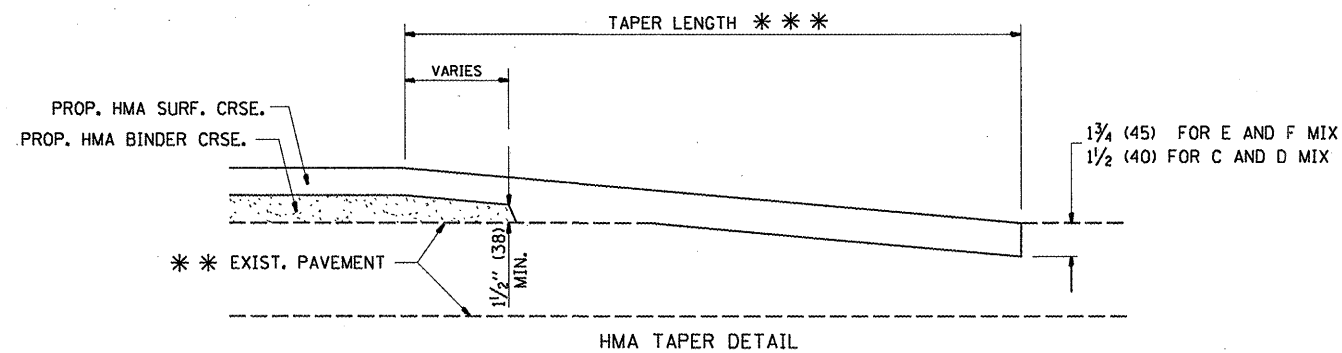
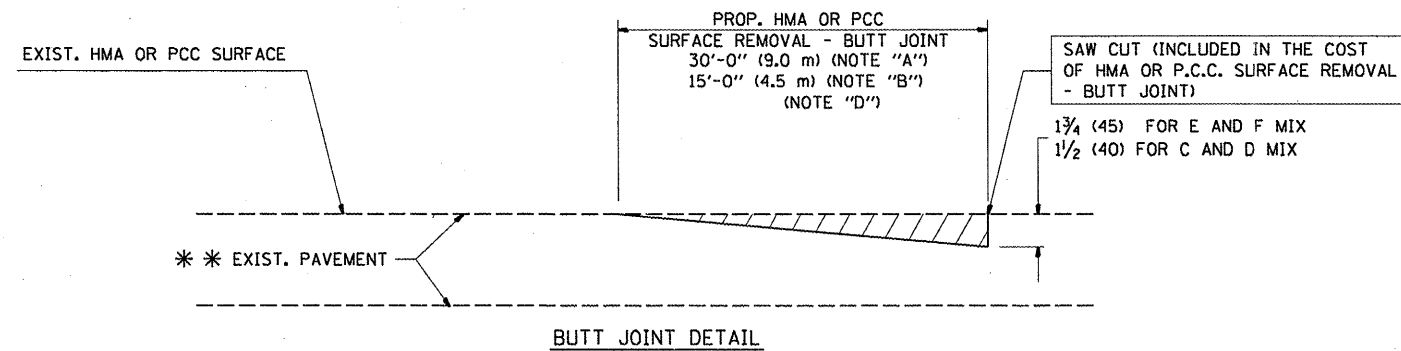


**OPTION 1**



**OPTION 2**

**TYPICAL TEMPORARY RAMP**



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

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

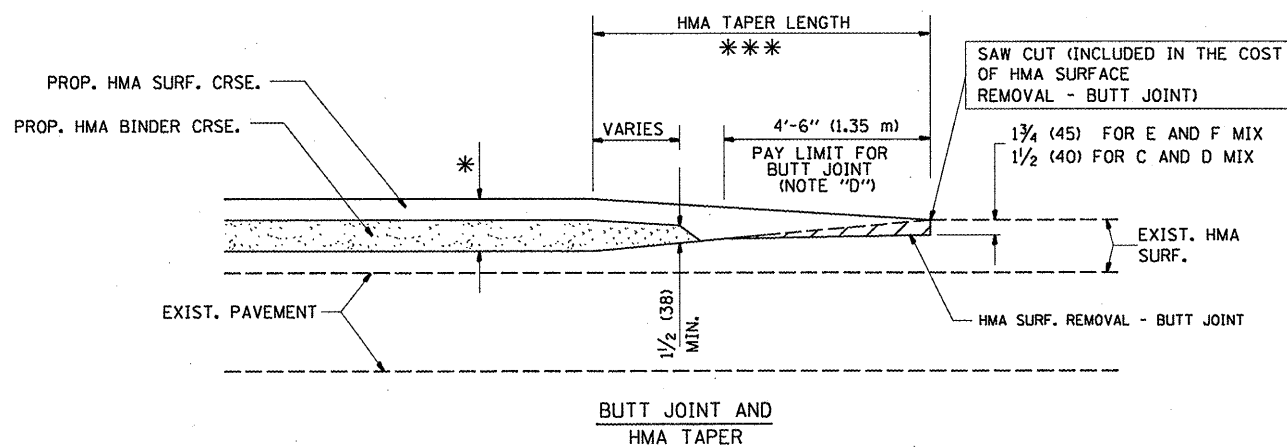
**NOTES**

- 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:**

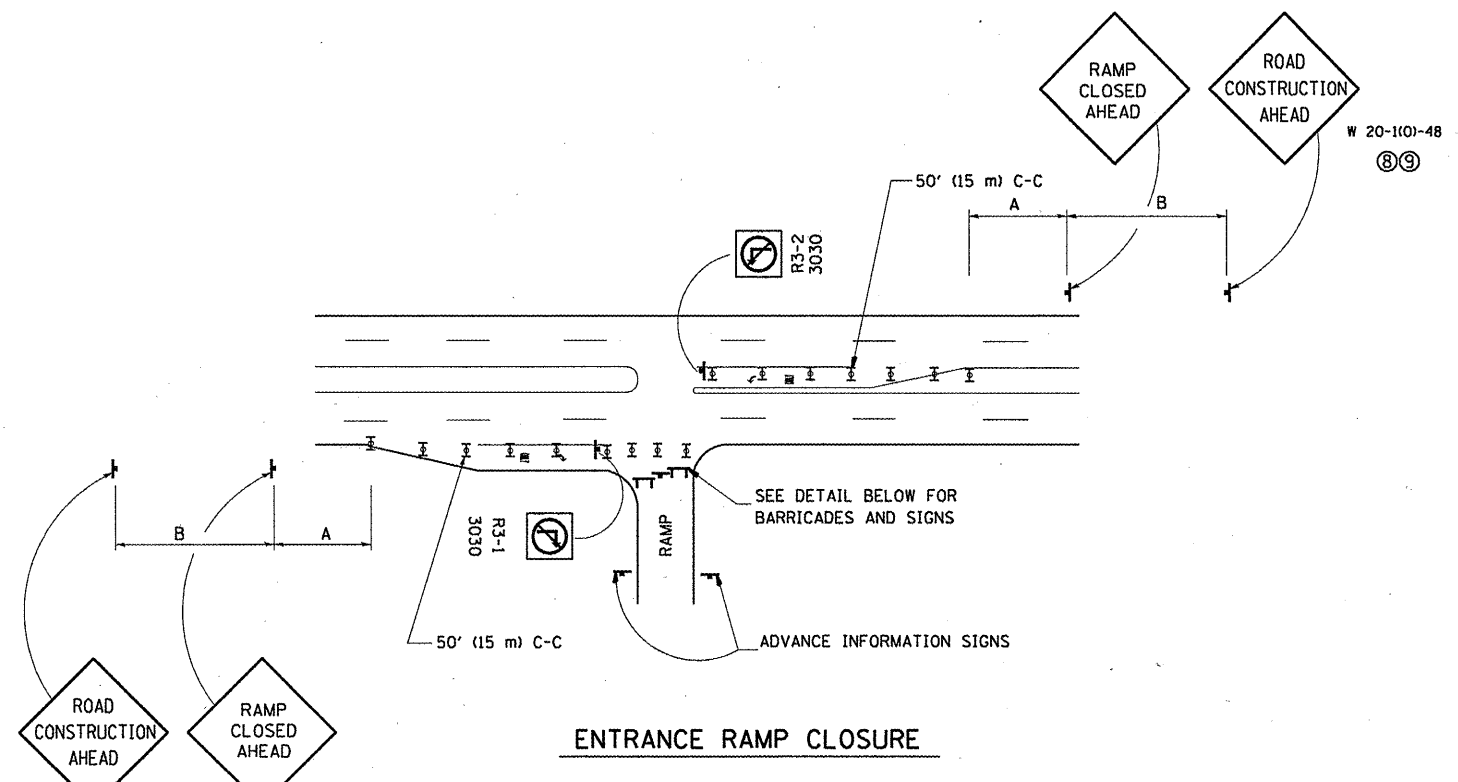
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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



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

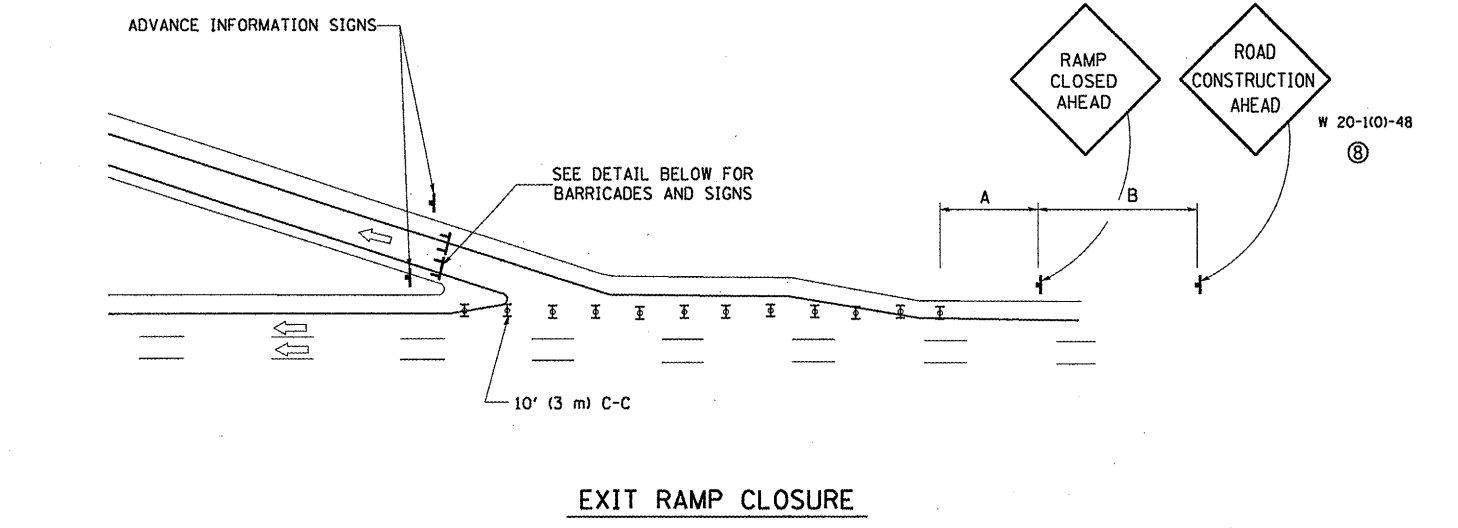
FILE NAME =	USER NAME = VelichkovVV	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BUTT JOINT AND HMA TAPER DETAILS</b>			F.A. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\velichkovvv\d0260195\d0260195.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	VAR.		2011-014-RS	COOK	23	11				
PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01	<b>BD400-05 BD32</b>				<b>CONTRACT NO. 60P03</b>					
PLOT DATE = 4/13/2011	DATE - 06-13-90	REVISED - R. BORO 01-01-07	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT									
				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.					



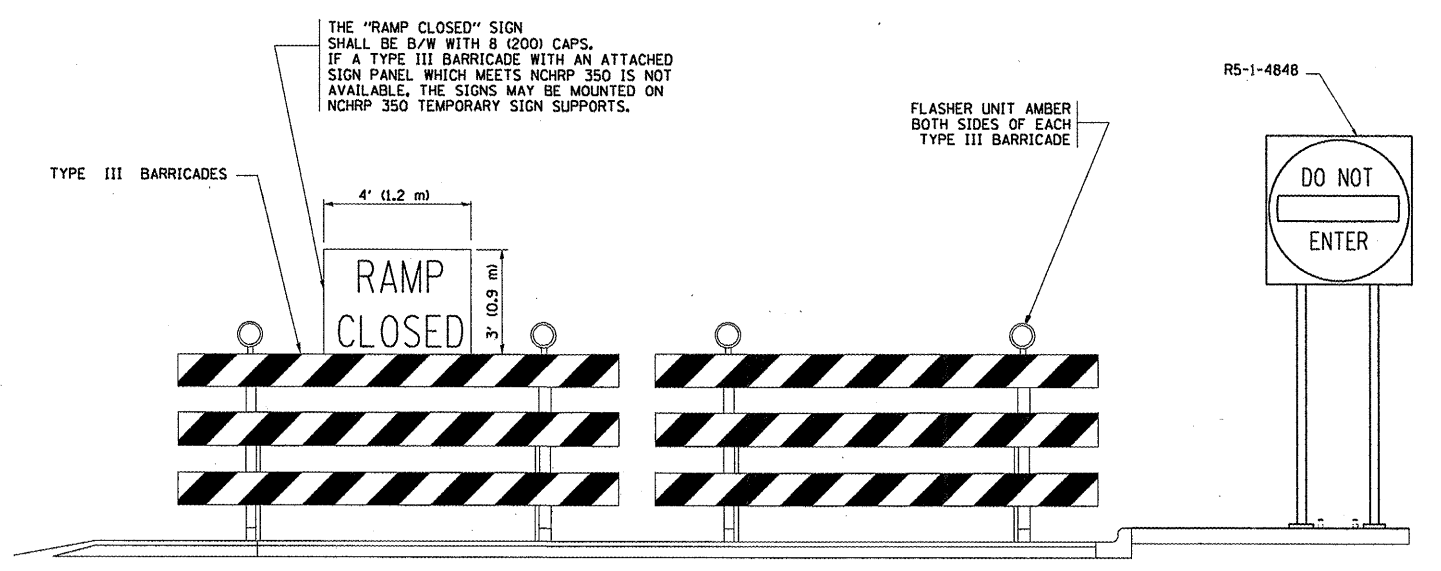
**SIGN SPACING TABLE**

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL ≥45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	150' (45 m)	150' (45 m)

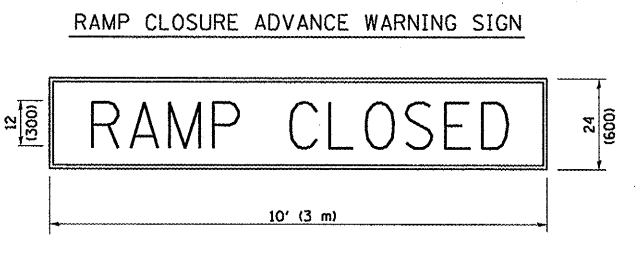
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



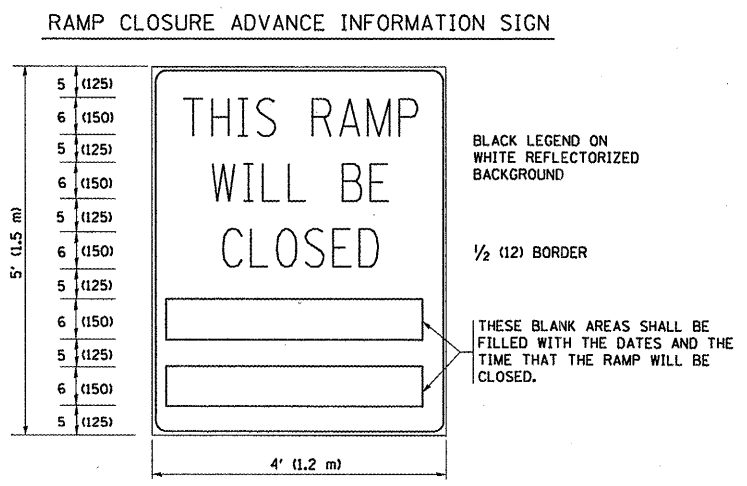
- SYMBOLS**
- ▬ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
  - ▬ TYPE III BARRICADE WITH FLASHING LIGHT



DETAIL FOR REQUIRED BARRICADES & SIGNS



BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND  
1 (25) BORDER  
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

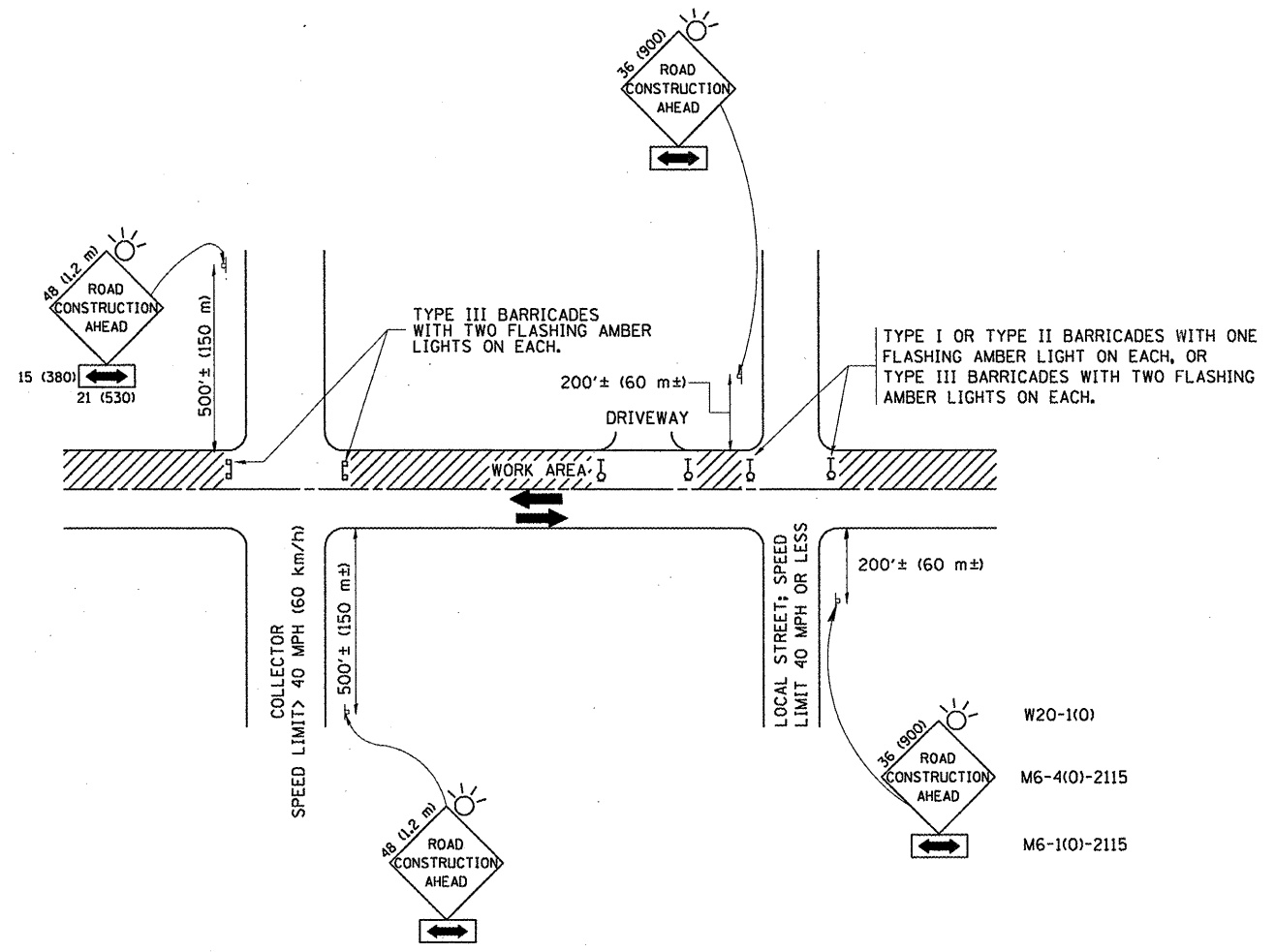


THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

**GENERAL NOTES:**

- 1 CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- 2 STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- 3 A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- 4 ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- 5 THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- 6 AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- 7 THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY-FOUR (24) HOURS IN LENGTH.
- 8 ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- 9 ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED ON CLOSURES LESS THAN 24 HOURS IN DURATION.

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



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

**NOTES:**

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

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

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

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

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

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

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

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

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

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

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

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

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

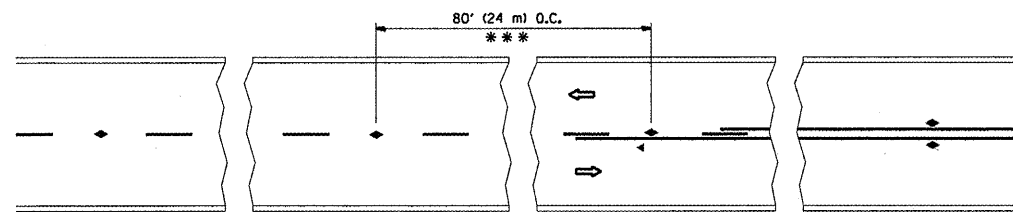
FILE NAME =	USER NAME = VelichkovVV	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
ct:\pw_vork\pmsdot\velichkovvv\d0260195\DatStd.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 4/13/2011	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

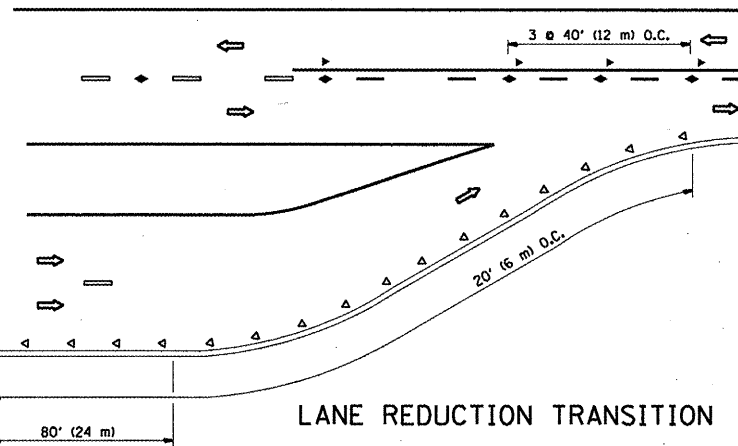
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2011-014-RS	COOK	23	13
TC-10		CONTRACT NO. 60P03		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

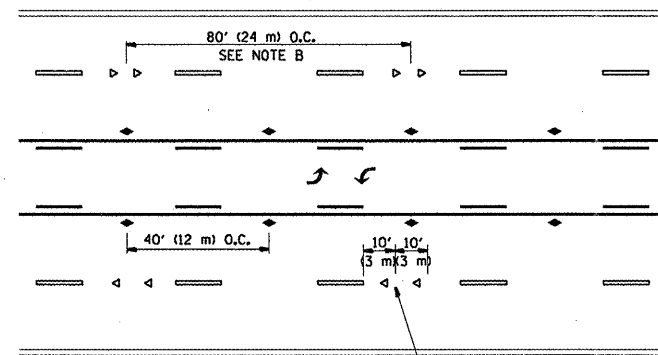


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

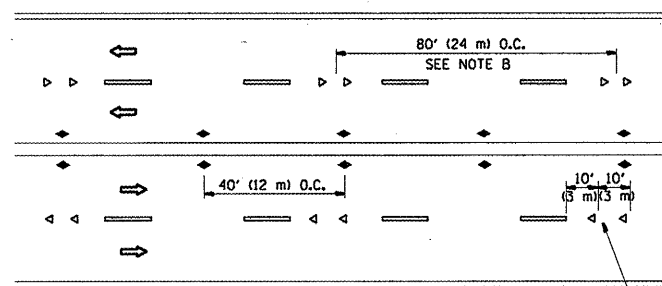


LANE REDUCTION TRANSITION



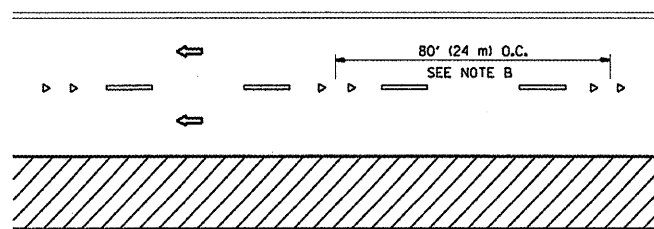
SEE NOTE A

TWO-WAY LEFT TURN



SEE NOTE A

MULTI-LANE/UNDIVIDED



SEE NOTE A

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

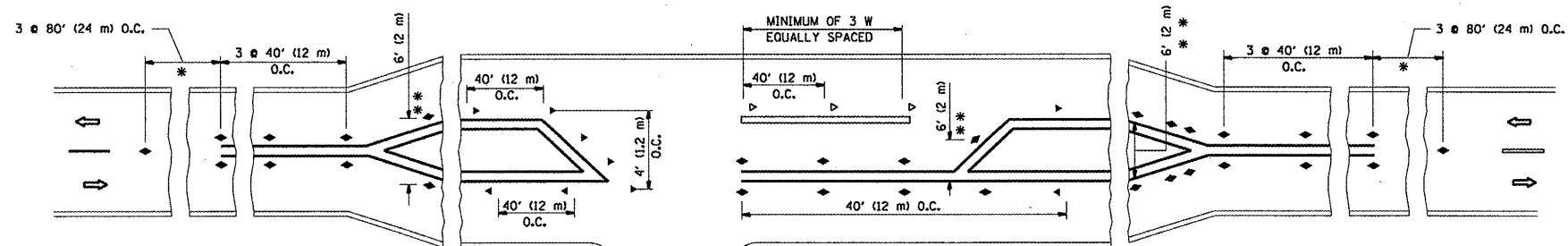
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

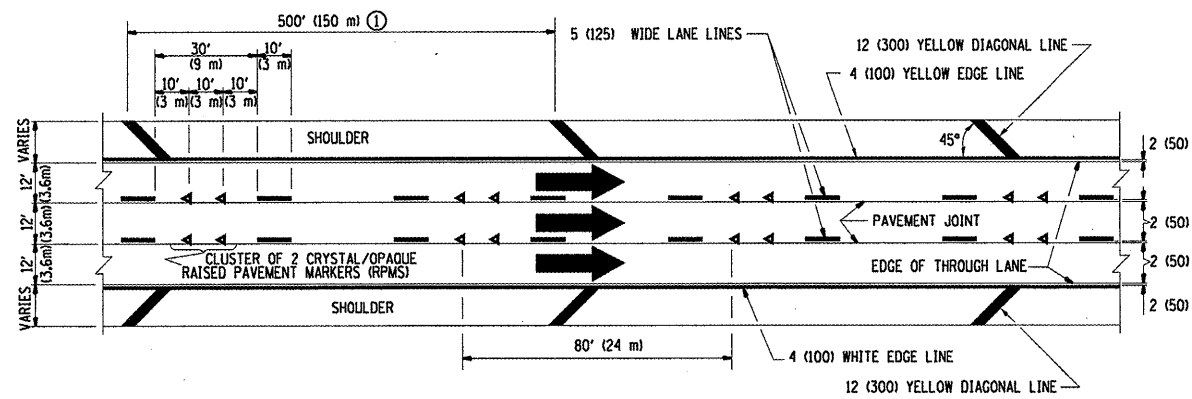
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PLOT DATE = 4/13/2011		DATE -	REVISED - C. JUCLIS 09-09-09

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.

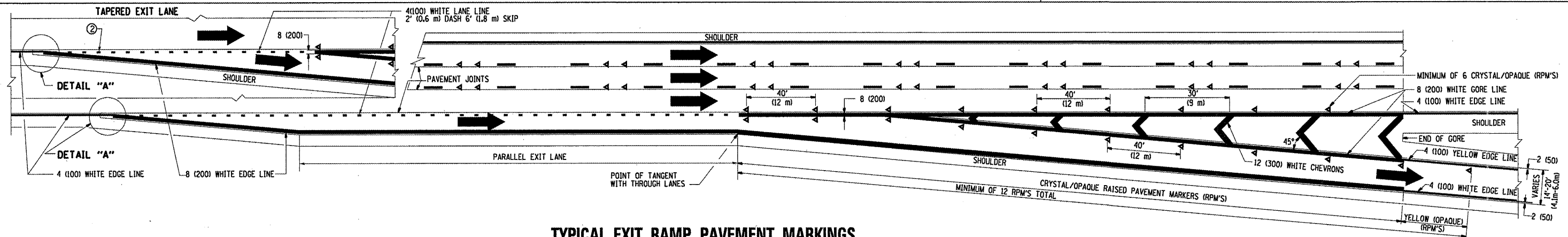
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VAR.	2011-014-RS	COOK	23	14
TC-11		CONTRACT NO. 60P03		
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				



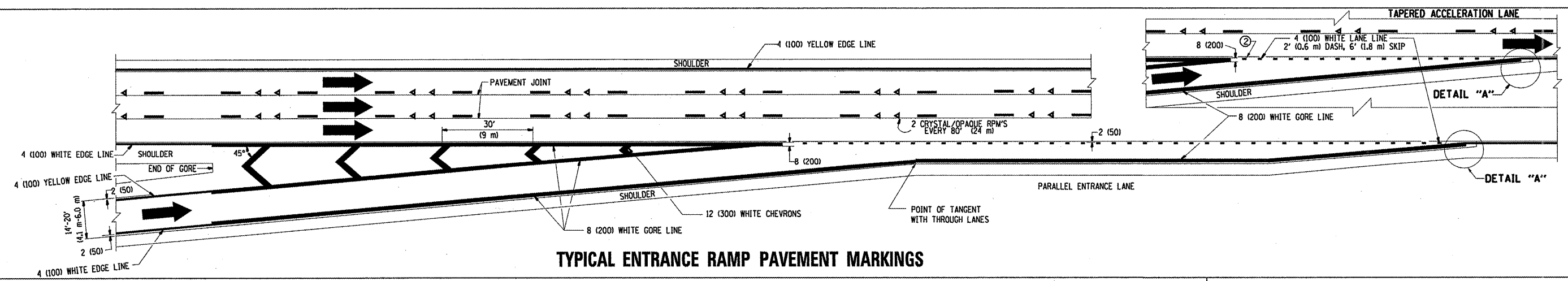
TYPICAL EDGE LINES & LANE LINES

**PAVEMENT MARKING MATERIALS**

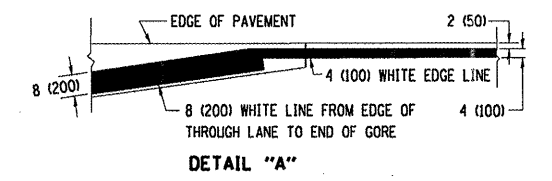
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT.
3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON P.C.C.



TYPICAL EXIT RAMP PAVEMENT MARKINGS

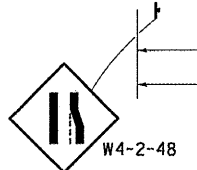
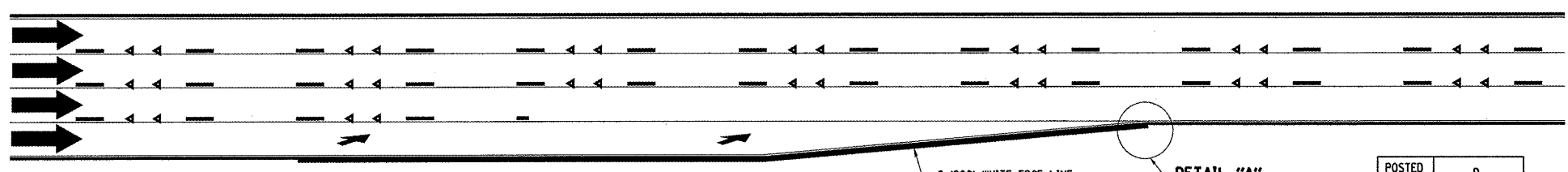


TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



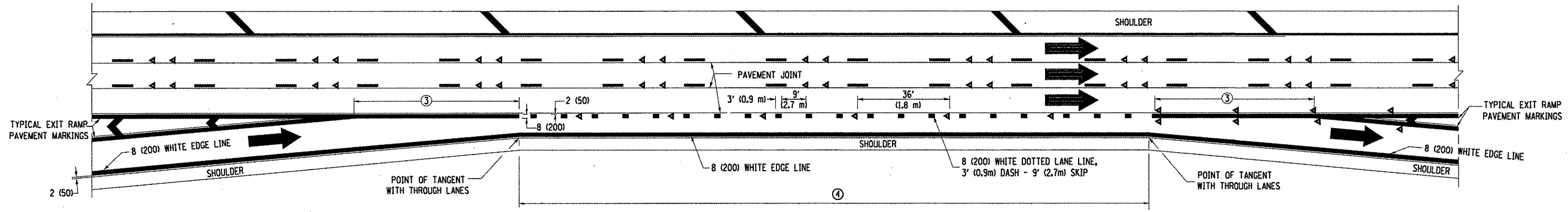
**NOTES:**

- ① THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.
- ② 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.

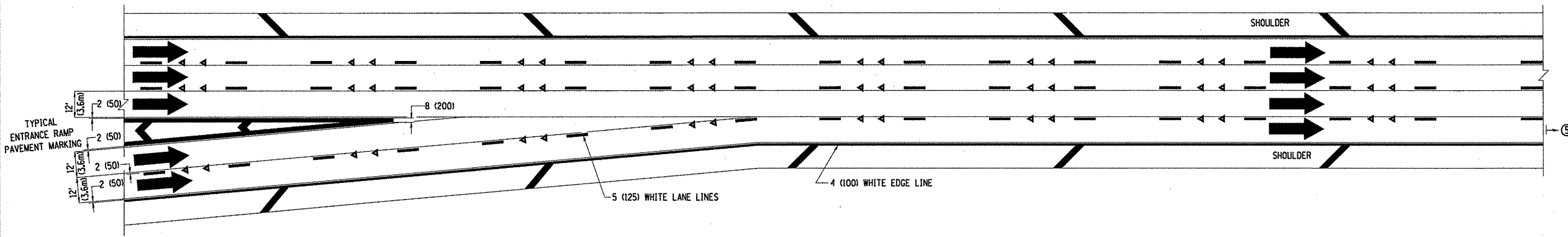


POSTED SPEED LIMIT	D DISTANCE
45 MPH	750' (230 m)
55 MPH	950' (290 m)
65 MPH	1200' (365 m)

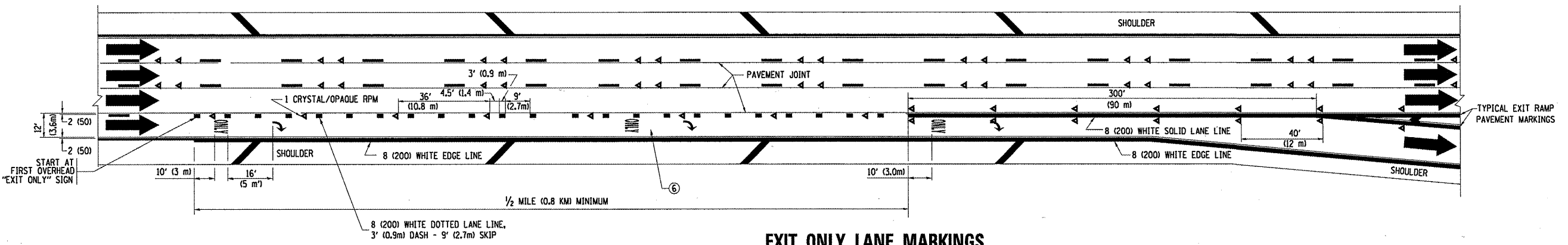
LANE REDUCTION PAVEMENT MARKINGS



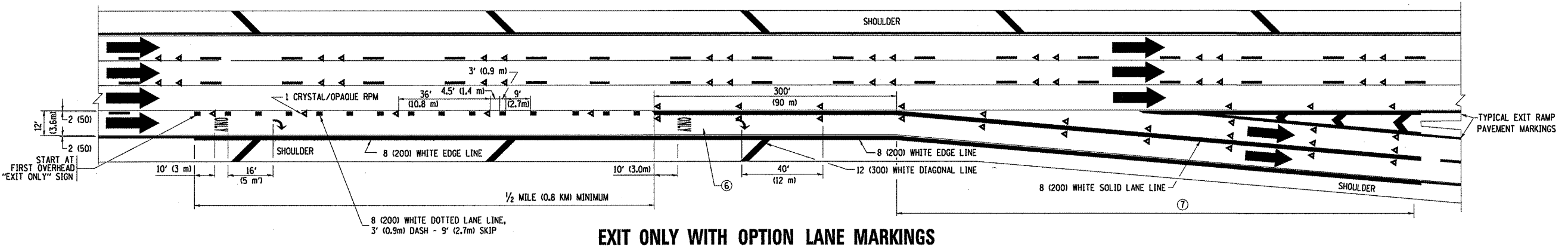
**AUXILIARY LANE MARKINGS**



**TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS**



**EXIT ONLY LANE MARKINGS**



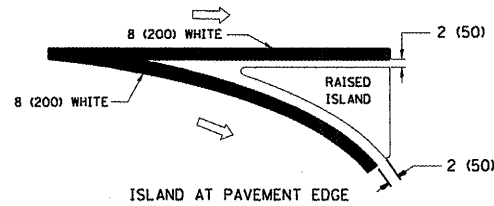
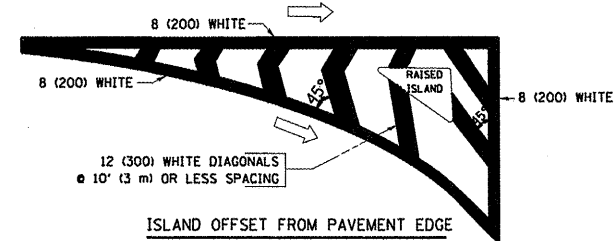
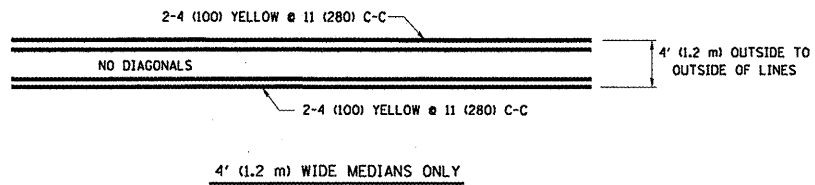
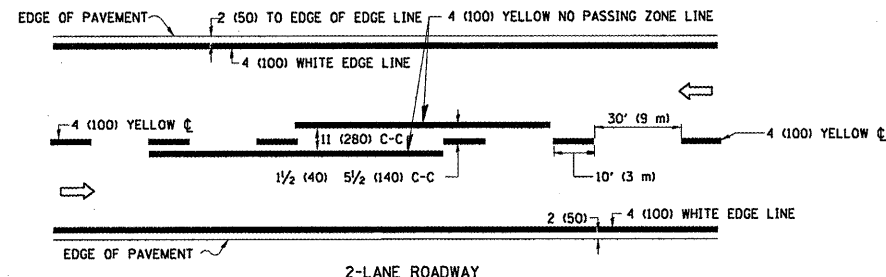
**EXIT ONLY WITH OPTION LANE MARKINGS**

- NOTES**
- ③ OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
  - ④ 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
  - ⑤ FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
  - ⑥ ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
  - ⑦ CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

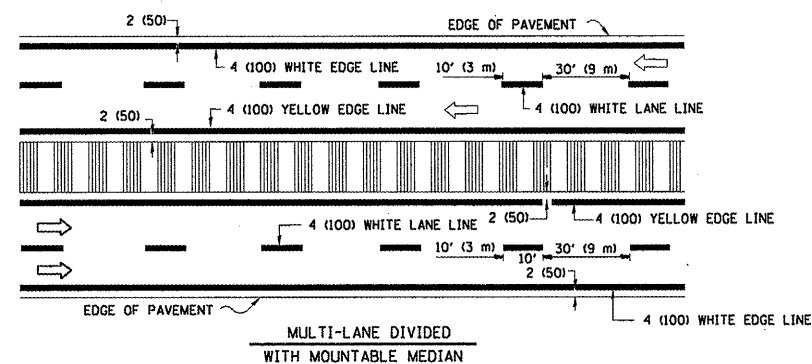
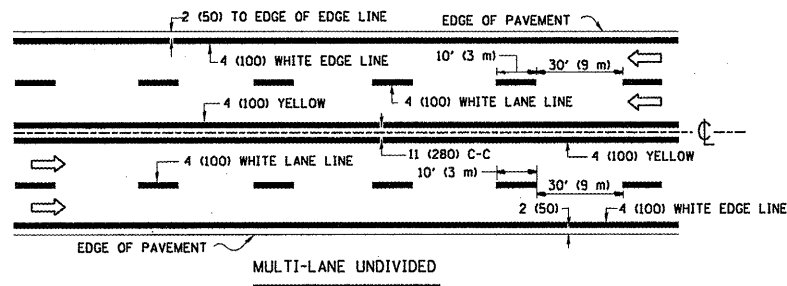
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	PLOT DATE = 4/13/2011	DATE - 01-90	REVISED - S.P.B. 01-10										CONTRACT NO. 60P03

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT



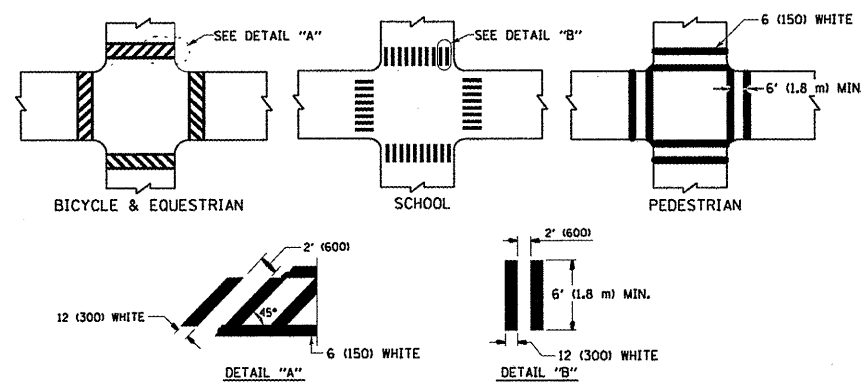


TYPICAL ISLAND MARKING

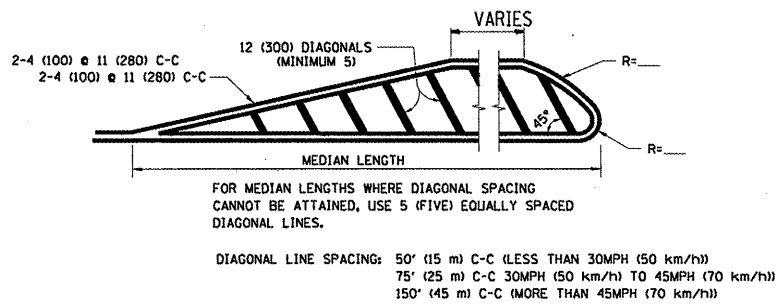


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

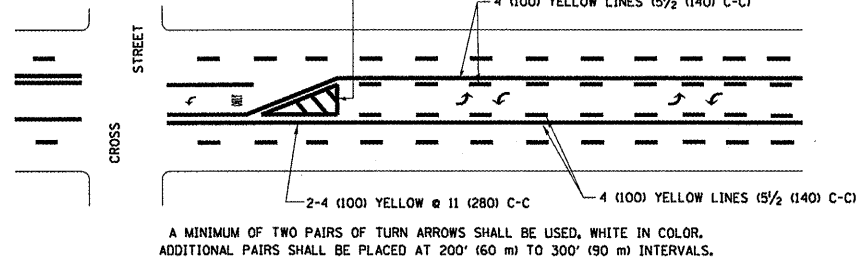
TYPICAL LANE AND EDGE LINE MARKING



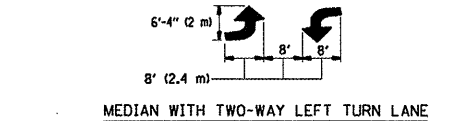
TYPICAL CROSSWALK MARKING



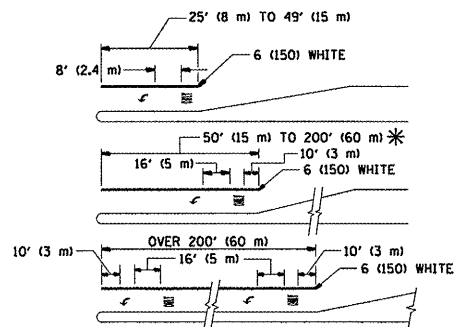
MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING



TYPICAL PAINTED MEDIAN 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".

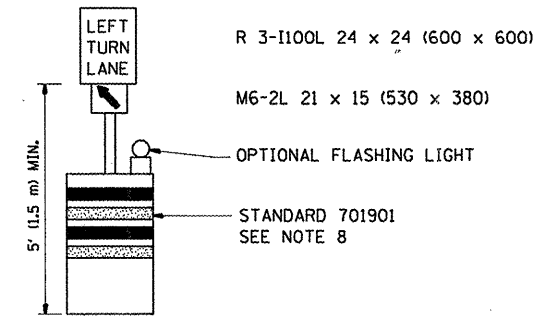
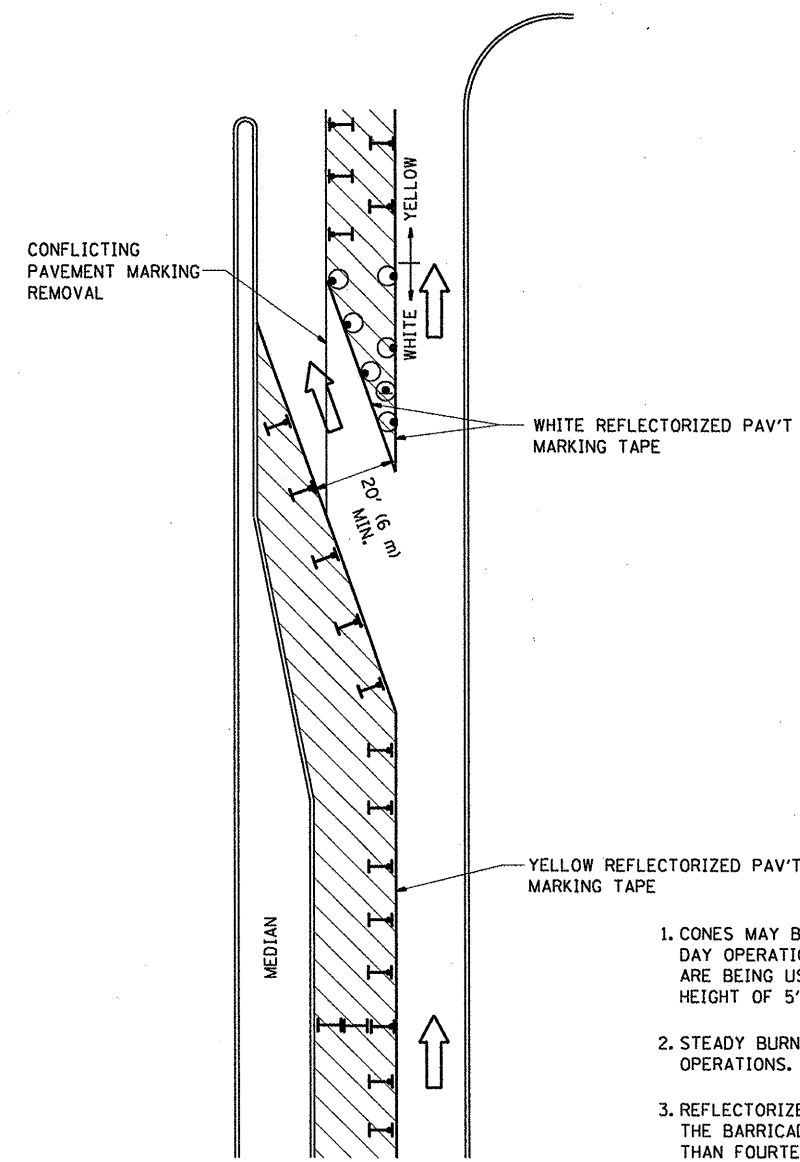
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE 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 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' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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


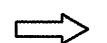






**GENERAL NOTES**

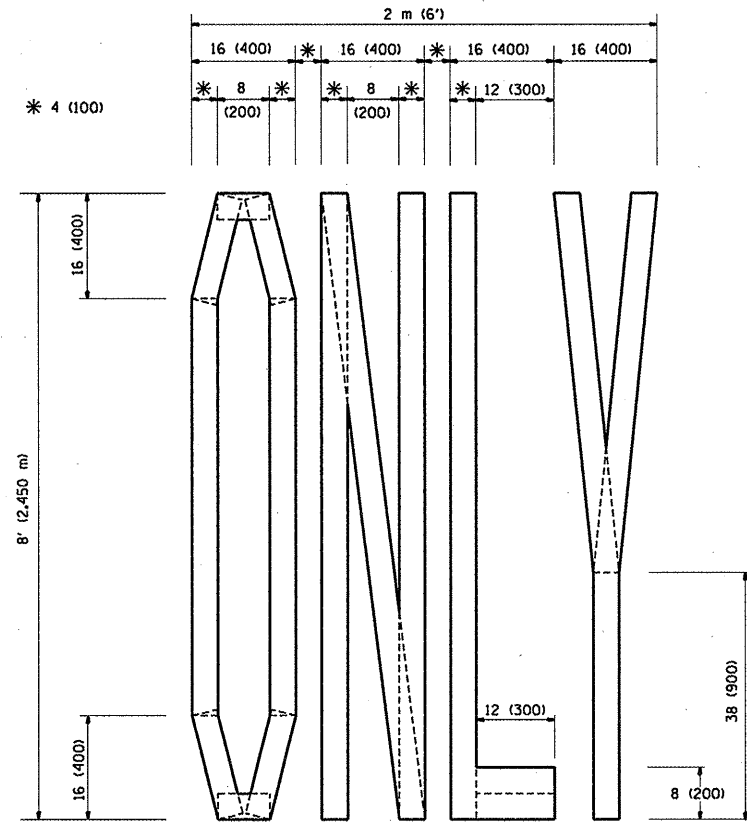
1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES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

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

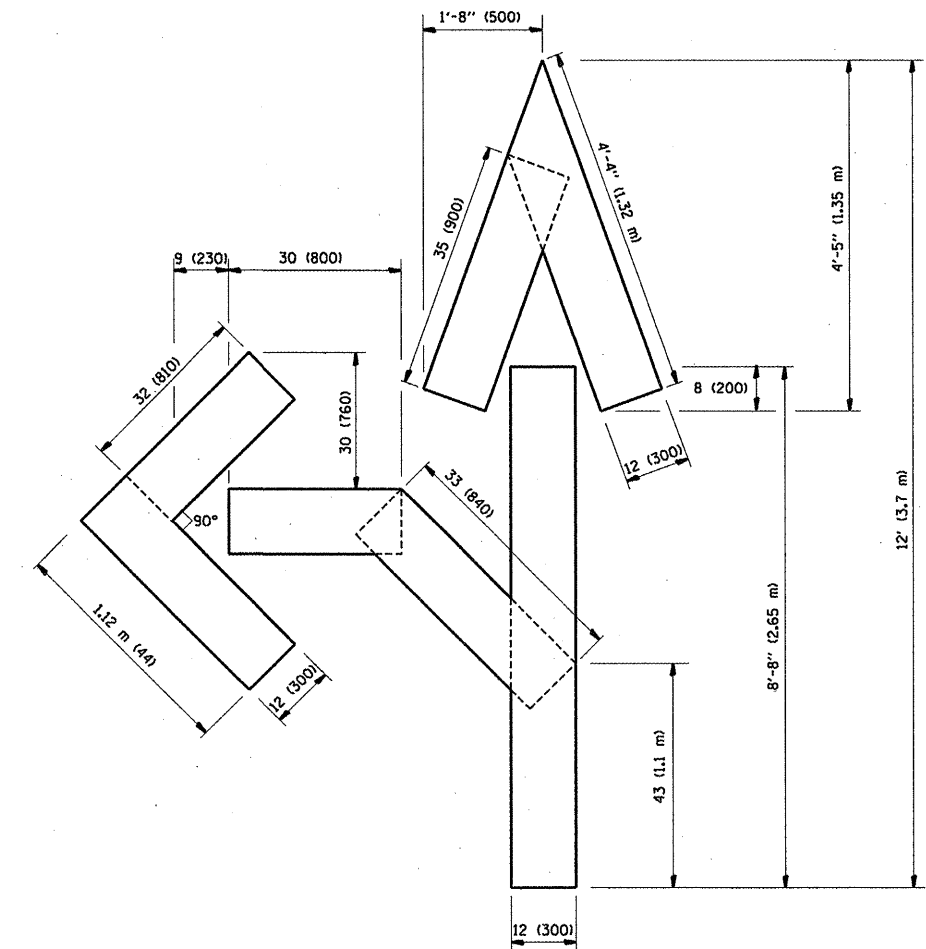
**LEGEND**

-  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

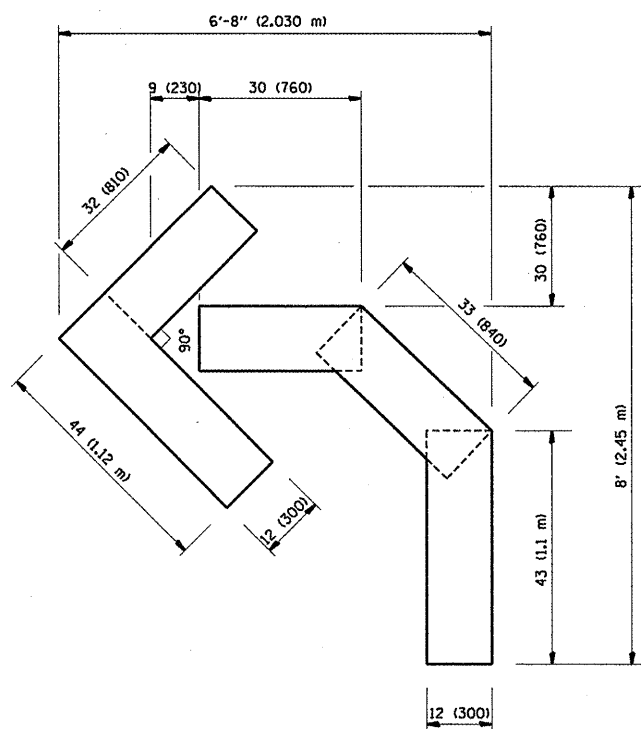
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PLOT DATE = 4/13/2011	REVISED - T. RAMMACHER 01-06-00	REVISED -				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



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.

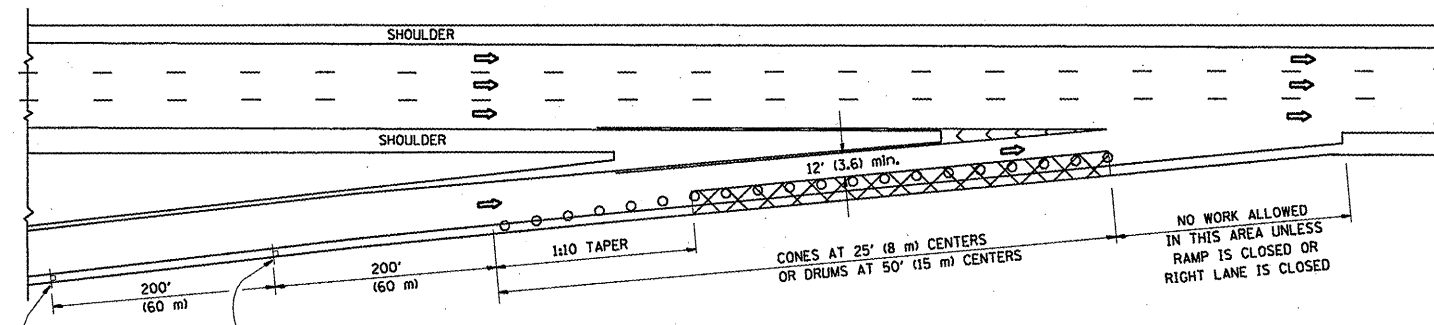
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

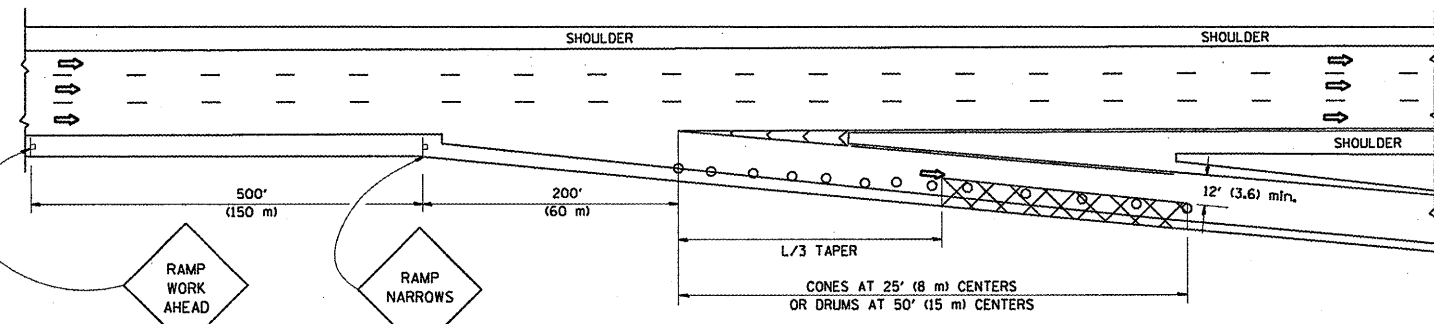
PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

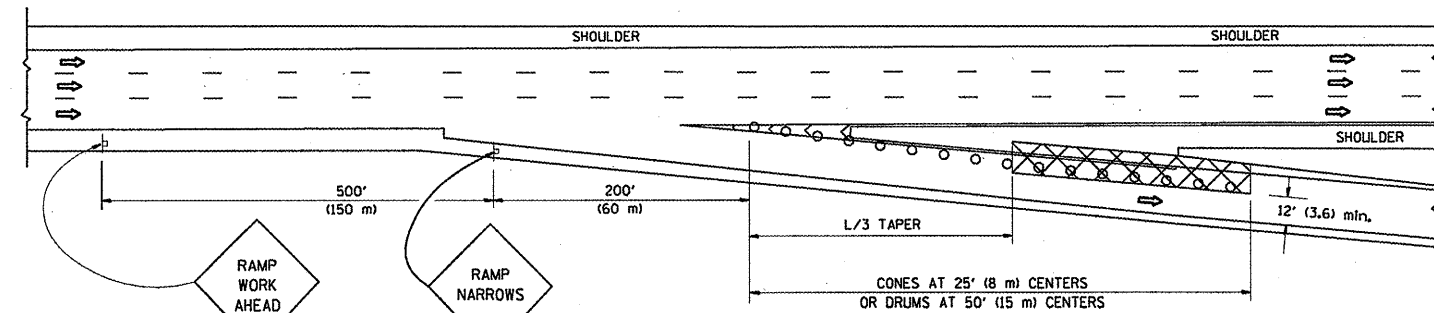
**PARTIAL RAMP CLOSURE DETAILS**



**TYPICAL ENTRANCE RAMP**



**TYPICAL EXIT RAMP**



**TYPICAL EXIT RAMP**

**SYMBOLS**

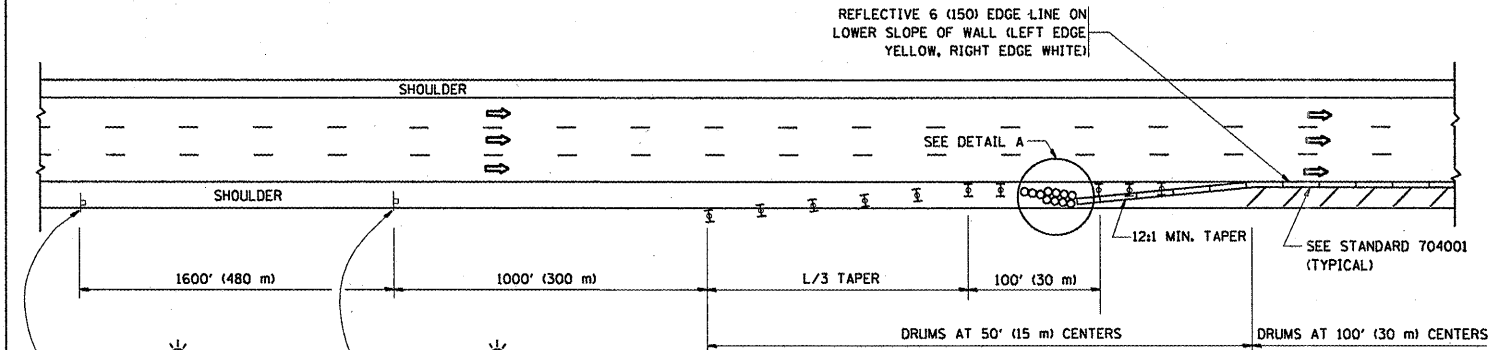
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

**GENERAL NOTES**

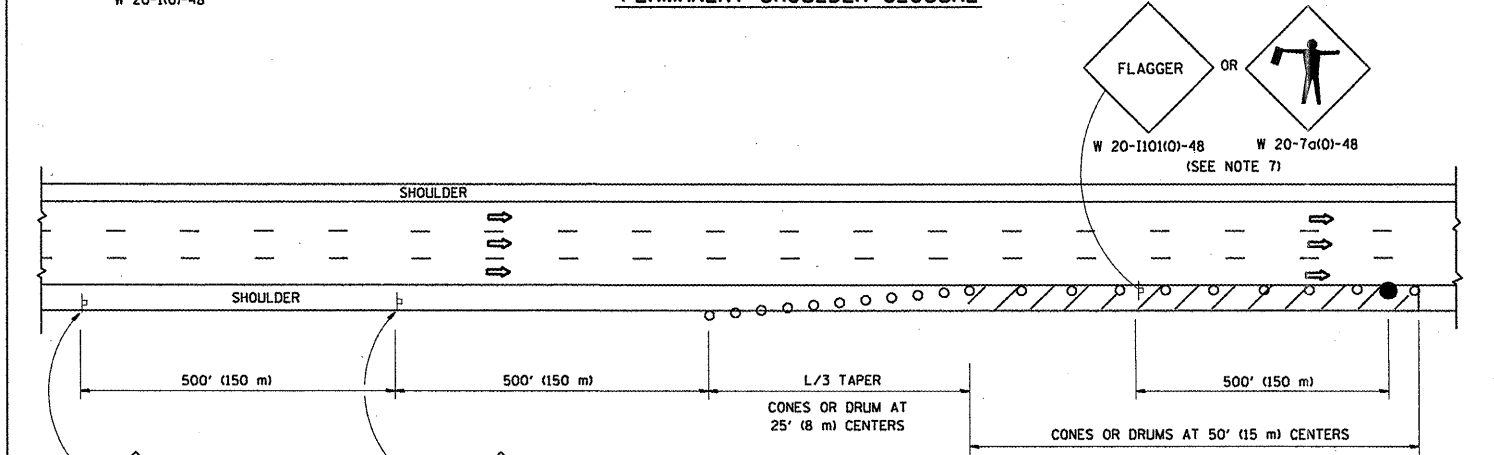
1. THE "L" DISTANCE EQUALS:  

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC: $L=0.65(W)(S)$ ENGLISH: $L=(W)(S)$
	W = WIDTH OF OFFSET IN FEET (METERS)
	S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

**SHOULDER CLOSURE DETAILS**

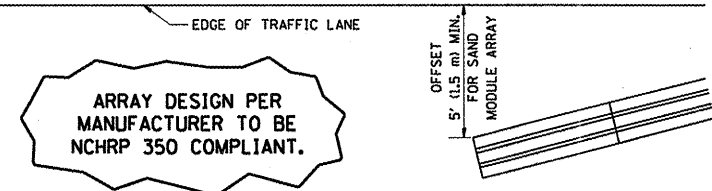


**PERMANENT SHOULDER CLOSURE**



**DAYTIME SHOULDER CLOSURE**

THIS DETAIL IS USED WHERE:  
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



**DETAIL "A"  
IMPACT ATTENUATOR, TEMPORARY  
(SEE NOTE 5)**

5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
  - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
  - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

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

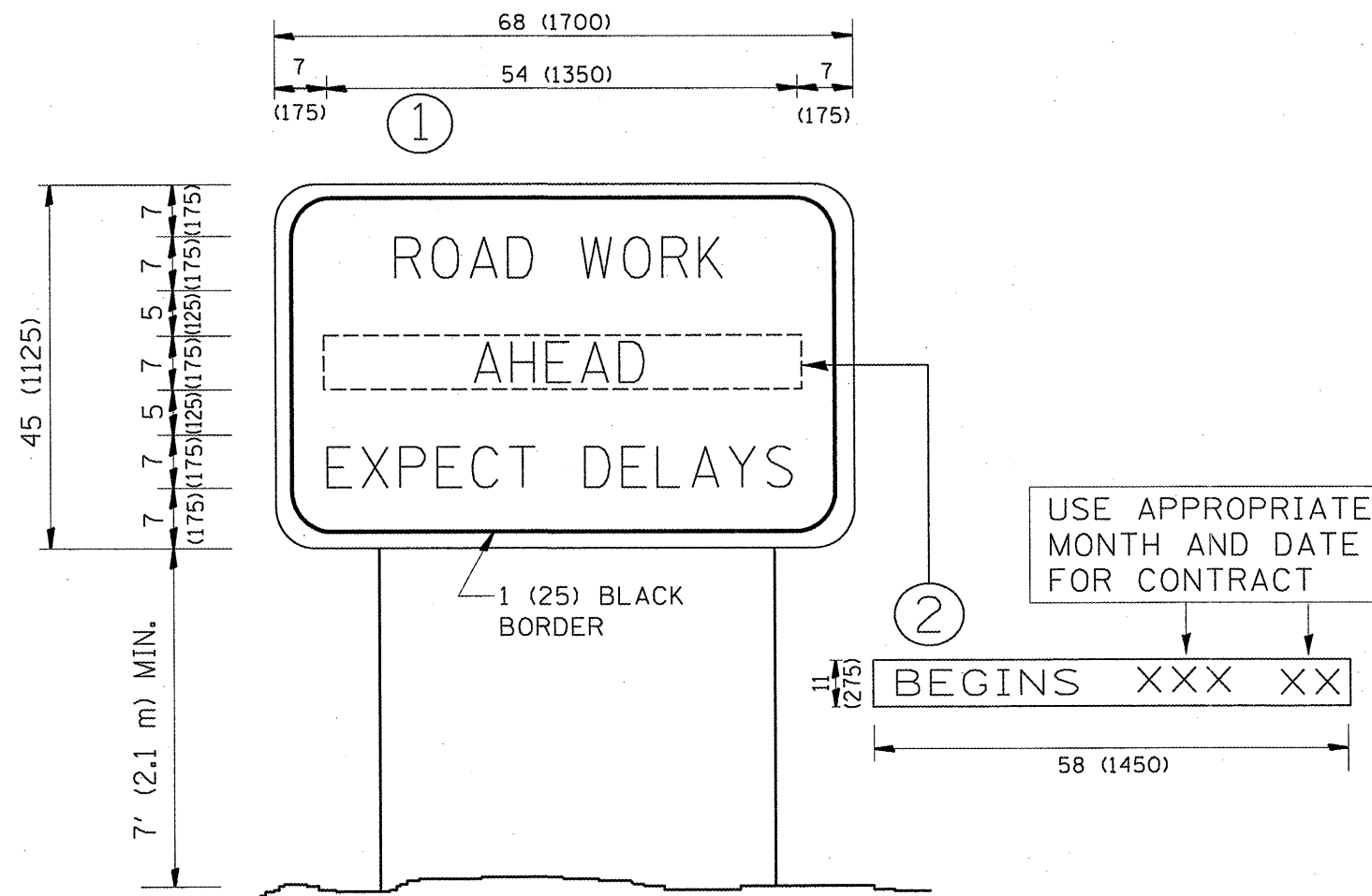
FILE NAME =	USER NAME = VslchkovVV	DESIGNED -	REVISED - 04-03
stStd.dgn	D.W.S.	DRAWN -	REVISED - J.A.F. 12-06
PLOT SCALE = 100.0000' / IN	CHECKED -	CHECKED -	REVISED - S.P.B. 01-07
PLOT DATE = 4/13/2011	DATE - 11-96	DATE -	REVISED - S.P.B. 12-09

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL DETAILS FOR FREEWAY  
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2011-014-RS	COOK	23	20
TC-17		CONTRACT NO. 60P03		
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 = VelichkovVV	DESIGNED -	REVISED - R. MIRS 09-15-97
ar\pwork\pwork\velichkovvv\d0260195\d	stStd.dgn	DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 100.0000" / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 4/13/2011	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

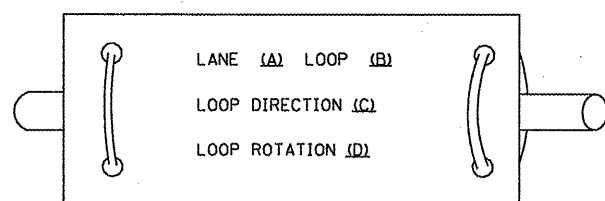
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2011-014-RS	COOK	23	21
TC-22		CONTRACT NO. 60P03		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

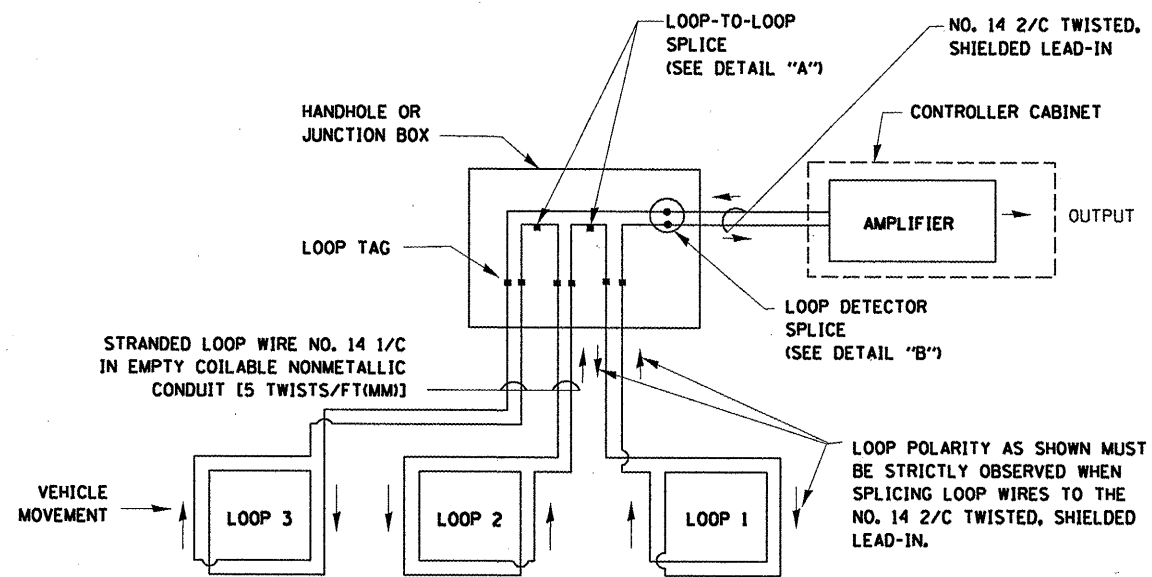
## LOOP DETECTOR NOTES

- 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.
- 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES 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.
- 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.
- PERFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PERFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

### LOOP LEAD-IN CABLE TAG

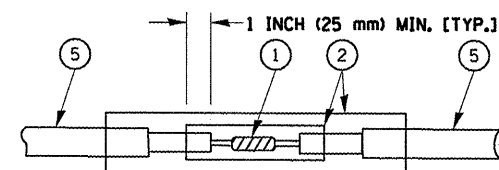


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

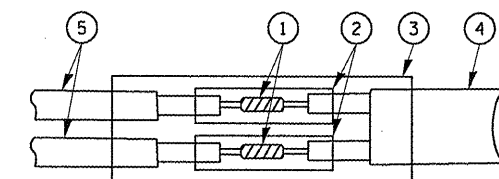


### DETECTOR LOOP WIRING SCHEMATIC

- 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.

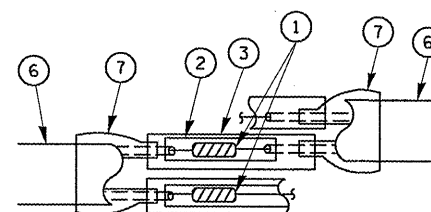


DETAIL "A"  
LOOP-TO-LOOP SPLICE

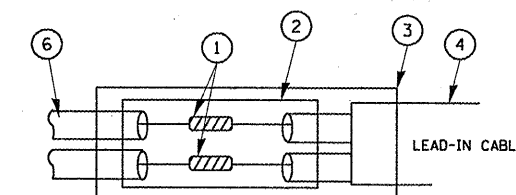


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

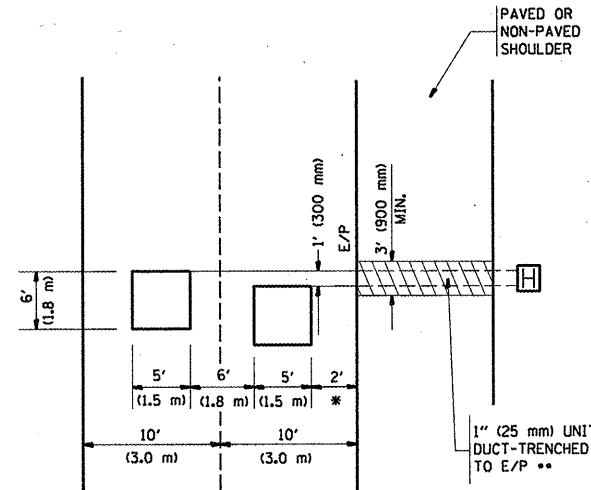
### LOOP DETECTOR SPLICE

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

FILE NAME =	USER NAME = VelichkovV	DESIGNED - DAD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et\pv\work\p\dot\velichkovv\d0260195\01st5td.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.	VAR.	2011-014-RS	COOK	23	22
		CHECKED - DAD	REVISED -		<b>TS-05</b>								
		DATE - 10-28-09	REVISED -		<b>CONTRACT NO. 60P03</b>								
				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.

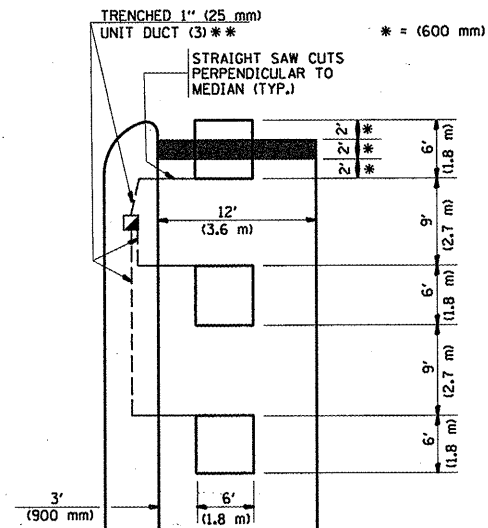


\* = (600 mm)

\*\* 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.



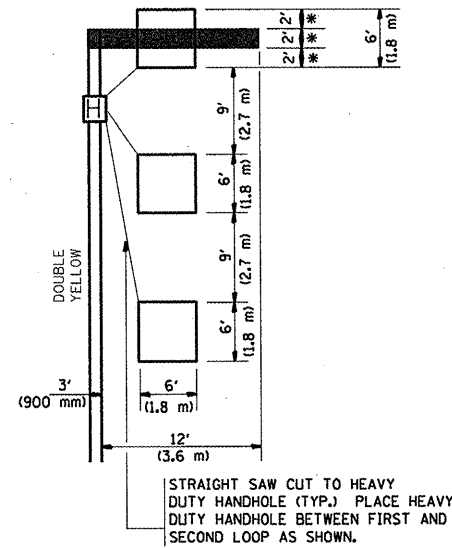
\* = (600 mm)

\*\* 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

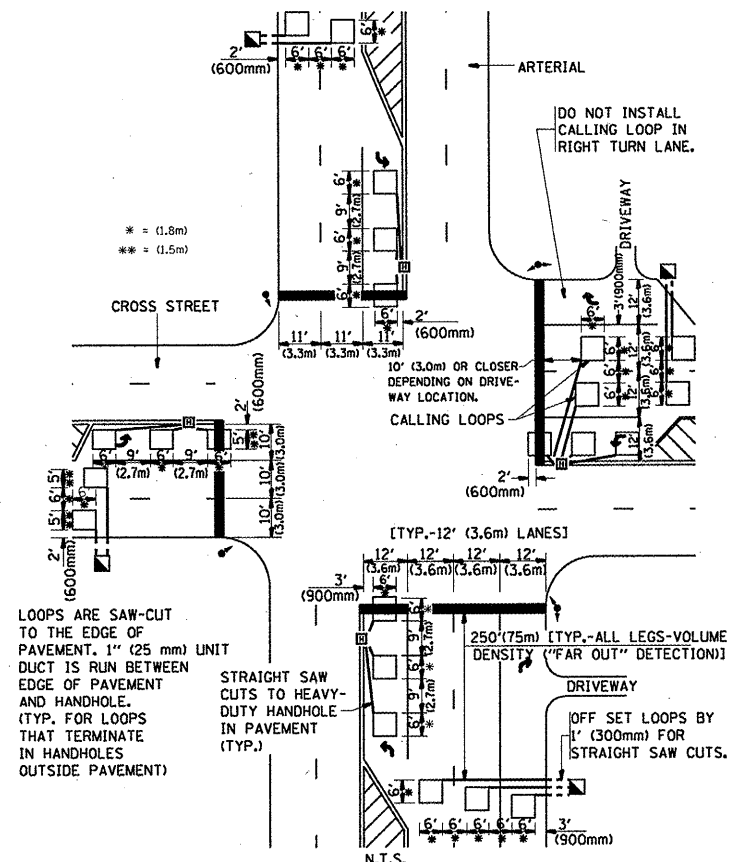
**LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)**

\* = (600 mm)



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

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

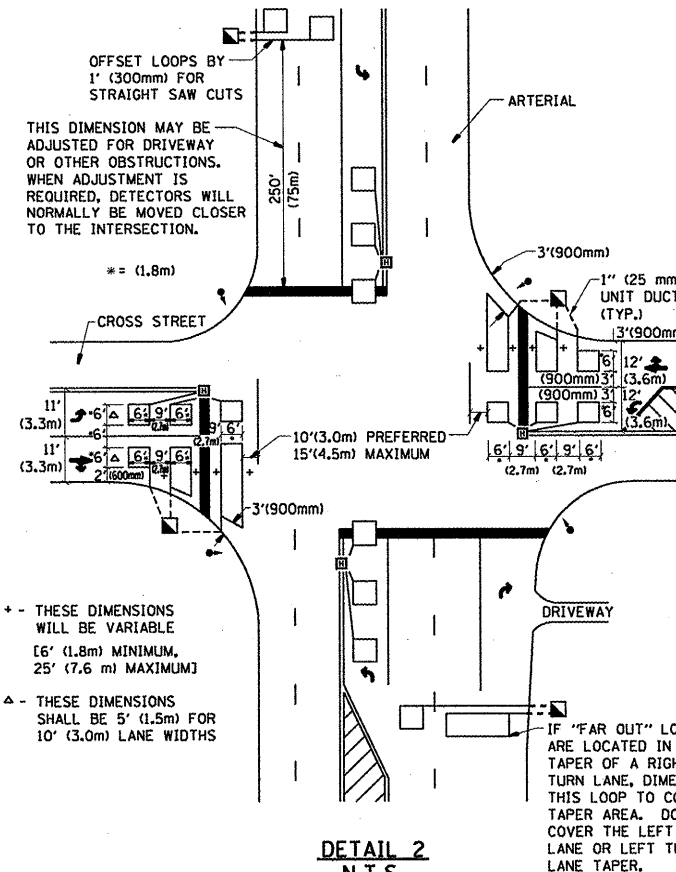


LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE. (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT)

STRAIGHT SAW CUTS TO HEAVY-DUTY HANDHOLE IN PAVEMENT (TYP.)

**DETAIL 1  
N.T.S.**

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



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

IF "FAR OUT" LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN LANE OR LEFT TURN LANE TAPER.

**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 DIMENSIONS 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 = Velichkovv	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING</b>	F.A. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
at\pwwork\pwwadot\velichkovv\80260195\10	at5std.dgn	DRAWN -	REVISED -			VAR.	2011-014-RS	COOK	23	23	
PLOT SCALE = 100.0000' / IN.		CHECKED - R.K.F.	REVISED -			<b>TS-07 CONTRACT NO. 60P03</b>					
PLOT DATE = 4/13/2011		DATE -	REVISED -			FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					
					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.			