STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

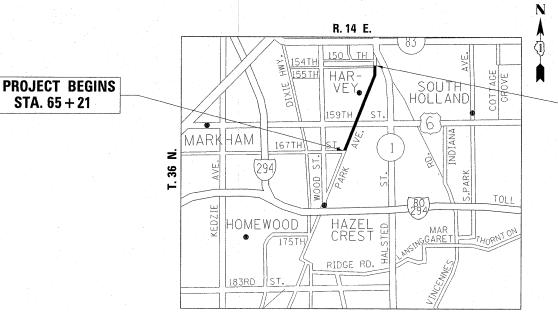
F.A.U. 3597 (PARK AVE.) 167th ST. TO 154th ST. **RESURFACING (3P)** SECTION: (B, R, & S) RS-5

PROJECT: M-3597(003)
COOK COUNTY

C-91-281-01

PROJECT LOCATED IN THE CITIES OF HARVEY AND MARKHAM

FOR INDEX OF SHEETS, SEE SHEET NO. 2



TRAFFIC DATA:

2006 ADT - 5900 TO 8400 SPEED LIMIT - 30 TO 40 MPH

> PROJECT ENDS STA. 157 + 34

OMISSIONS:

BRIDGE OVER MLK CREEK STA. 106 + 87 TO STA. 108 + 44 US 6 (159TH ST.) STA, 115+55 TO STA, 128+52

PROJECT ENGINEER: JENPAI CHANG (847) 705-4432 PROJECT MANAGER: KEN ENG (847) 705-4247

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS

ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION

GROSS LENGTH OF PROJECT = 9213 LIN FT = 1.74 MILES NET LENGTH OF PROJECT = 7759 LIN FT = 1.47 MILES

THORNTON TOWNSHIP

CONTRACT NO. 62251

1-800-892-0123

OR 811

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(B,R,& S) RS-5 COOK FED, ROAD DIST, NO. 1

D-91-281-01



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

SUBMITTED MARCH 23, 20 11

Diage M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 13 20 11

Scott E. Stitt P.E. 182 acting ENGINEER OF DESIGN AND ENVIRONMENT May 13 20 11

Obvotine M. Road for DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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ONEE ! HO!	
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26	DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING
27	DETECTOR LOOP LOCATION DETAILS
28	ARTERIAL ROAD INFORMATION SIGNING

STATE STANDARDS

000001-06STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

442201-03CLASS C AND D PATCHES

604011-04FRAME AND LIDS, TYPE 1

606001-04CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER

701601-07LANE CLOSURE, MULTILANE, 1-W OR 2-W, WITH NON TRANSVERSABLE MEDIAN

701606-07URBAN LANE CLOSURE, MULTILANE 2-W WITH MOUNTABLE MEDIAN

701701-07LANE CLOSURE, MULTILANE, INTERSECTION, FOR SPEEDS < 45 MPH

701801-04 LANE CLOSURE, MULTILANE, IW OR 2W, CROSSWALK OR SIDEWALK CLOSURE

701901-01 TRAFFIC CONTROL DEVICES

780001-02 TYPICAL PAVEMENT MARKINGS

886001-01 TYPICAL LAYOUT FOR DETECTION LOOPS

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR "CUAN" (CHICAGO UTILITY ALERT NETWORK) AT 312-744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES, (48 HOURS NOTIFICATION IS REQUIRED).

10 FEET (3 METERS) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES AND THE CITIES OF HARVEY AND MARKHAM.

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

THE CONTRACTOR SHALL CONTRACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR CORY JUCIUS AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO START OF WORK.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 11/2 INCHES (40MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H). WITH WRITEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75MM) MAY BE ALLOWED IFTHE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H)

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH THE "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL. (TC-13)

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS" DETAIL.

THE RESIDENT ENGINEER SHOULD CONTACT MS. PATRICE HARRIS, AREA TRAFFIC FIELD ENGINEER, AT (708) 596-9800 AT LEAST 2 WEEKS PRIOR TO PLACING ANY PERMANENT PAVEMENT MARKINGS.

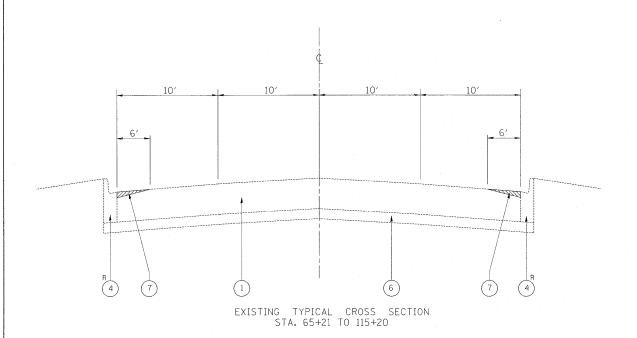
BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE MARKINGS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABILISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE DIRECTED BY THE ENGINEER.

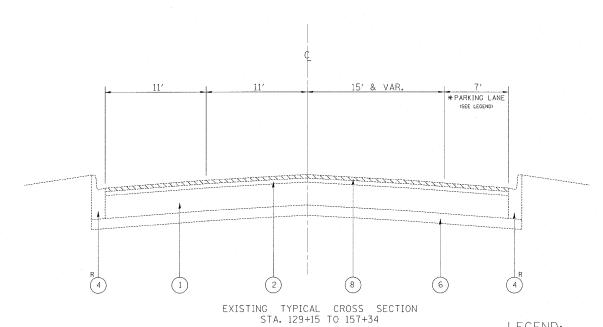
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	PLOT DATE = 3/23/2011	DATE -	REVISED -

SCALE: NONE

DEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES	F.A.U RTE.	SECTION
F.A.U. 3597 (PARK AVE.)167th ST. TO 154th ST.	3597 (B.R.&S) RS-5

	SUMMARY OF QUANTITIES	· .	BOY, FED. 201.STATE		C	CONSTRUCT	ION TYPE	CODE			SUMMARY OF QUANTITIES		80% FED. 20% STATE			CONSTRUCT	ION TYPE	CODE	
CODE NO	ITEM	UNIT	TOTAL QUANTITIES							CODE NO	ITEM	UNIT	TOTAL	1					
		CO VD	100	0005						X4060826	POLYMERIZED LEVELING BINDER (MACHINE	TON	1628	1628					
21101615	TOPSOIL FURNISH AND PLACE, 4" SODDING, SALT TOLERANT	SQ YD	128	128 128						X4060826	METHOD), IL-4.75, N50	TON	1620	1626					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	32	32						X4400100	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	6758	6758					
40600300	AGGREGATE (PRIME COAT)	TON	158	158						□x5539700	STORM SEWERS TO BE CLEANED	FOOT	410	410					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	60	60						X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	37	37					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1						Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	766	766					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	477	477						- 20007420	SIDEWALK REPAIR (SPECIAL)	SO FT	150	150-					
40603340	HOT-MIX ASPHALT SURFACE COURSE,	TON	3314	3314						□Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	67	67					
42001300	MIX "D", NTO PROTECTIVE COAT	SO YD	233	233						Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	51.4	51.4					
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	15160	15160						44201765	CLASS O PATCHES, TYPE II, 10 INCH	SQ YO	378	378					
											CLASS D PATCHES, TYPE III, 10 INCH CLASS D PATCHES, TYPE IV, 10 INCH	50 YD	151	227					
44201815	CLASS D PATCHES, TYPE II, 14 INCH	SQ YD	130	217							PORTLAND CEMENT CONCRETE SIDEWALK, SPECIAL	SQ FT	150	150					
4201819	CLASS D PATCHES, TYPE III, 14 INCH CLASS D PATCHES, TYPE IV, 14 INCH	SQ YD	87	87						X4404700	SIDE WALK REMOVAL (SPECIAL)	SQ FT	150	150					
0300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	23	23															
0300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	7	7															
	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3		***													
7000400	MOBILIZATION	L SUM	1	1															
70102625	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1															
70102630	STANDARD 701606 TRAFFIC CONTROL AND PROTECTION.	L SUM	1	1															
70102635	STANDARD 701601 TRAFFIC CONTROL AND PROTECTION.	L SUM	1	1															
	STANDARD 701701																		
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1				, .											
0300100	SHORT TERM PAVEMENT MARKING	FOOT	6168	6168															
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	16300	16300															
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	139	139															
0301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	6398	6398															
8000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	16300	16300															
8000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	139	139															
3100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	546	546															
8300200	RAISED REFLECTIVE PAVEMENT MARKER	EACH	492	492															
8600600	REMOVAL DETECTOR LOOP REPLACEMENT	FOOT	66	66							★ SPECIALTY ITEMS □ NON-PARTICIPATING ITEMS →	100%.57	ATE						
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NAME = _work\pwldof\steed;	pa\d0/77786\D/28/0/-sht-plandgr DRA	AWN -		REVISED						ILLINOIS	SUMMARY OF F.A.U. 3597 (PARK AVE.)				F.A.I RTE 359		CTION kS) RS-5	COUNTY	SHEE 28
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LEGEND: *RESIDENTIAL PARKING STA. 129+15 TO 135+69 STA. 144+33 TO 147+51 PUBLIC PARKING STA. 152+73 TO 157+01

LEGEND:

- (1) EXIST. P.C.C. PAVEMENT, ±10"
- (2) EXIST. HOT-MIX ASPHALT SURFACE, ±3"
- (3) EXIST. CORRUGATED MEDIAN
- (4) EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.12
- (5) EXIST. P.C.C. SIDEWALK
- 6 EXIST. STABILIZED SUB-BASE
- (7) PROP. P.C.C. SURFACE REMOVAL, VARIABLE DEPTH
- (8) PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 21/4"
- 9) PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- (10) PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 11/2"

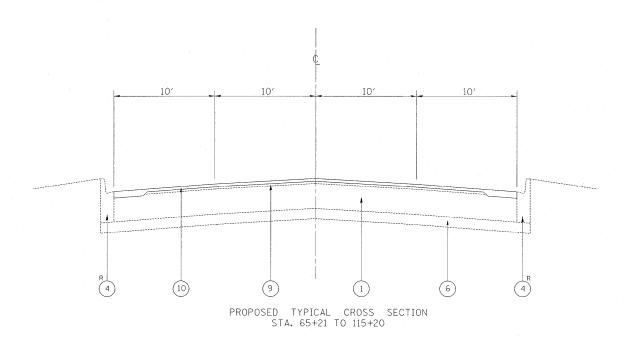
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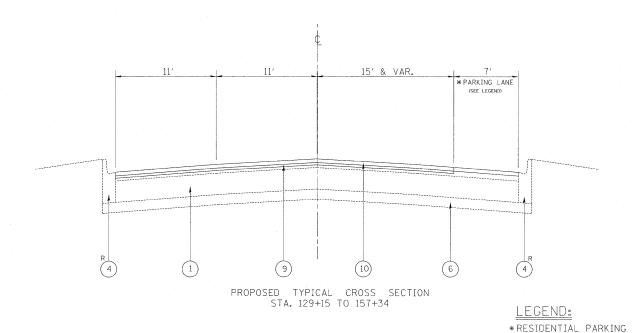
CONTRACT NO. 62251

SECTION
(B,R,&S) RS-5

R SIDEWALK, CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATION AS DIRECTED BY THE ENGINEER)

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D128101-sht-plan.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS	EXISTING AND PROPOSED TYPICAL SECTIONS F.A.U. 3597 (PARK AVE.)167th ST. TO 154th ST.	3597
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LEGEND:

- (1) EXIST. P.C.C. PAVEMENT, ±10"
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- R SIDEWALK, CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATION AS DIRECTED BY THE ENGINEER)

MIXTURE REQUIREMENTS

MIXTURE USE	DESIG	N	AIR	VOIDS
CLASS "D" PATCHES, 10" HMA BINDER COURSE, IL-19MM	4%	@	70	GYR
CLASS "D" PATCHES, 14" HMA BINDER COURSE, IL-19MM	4%	Q	70	GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	4%	Q	50	GYR
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", NTO, IL-9.5MM	4%	0	70	GYR

NOTE:

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT QUANTITIES IS 112 LBS./SQ. YD./ 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.

FROM STA. 65+21 TO STA. 115+55 THE PATCHING SHALL BE DONE PRIOR TO THE HMA OVERLAY.

FROM STA. 128+52 TO STA. 157+34 THE MILLING SHALL BE DONE PRIOR TO PATCHING.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

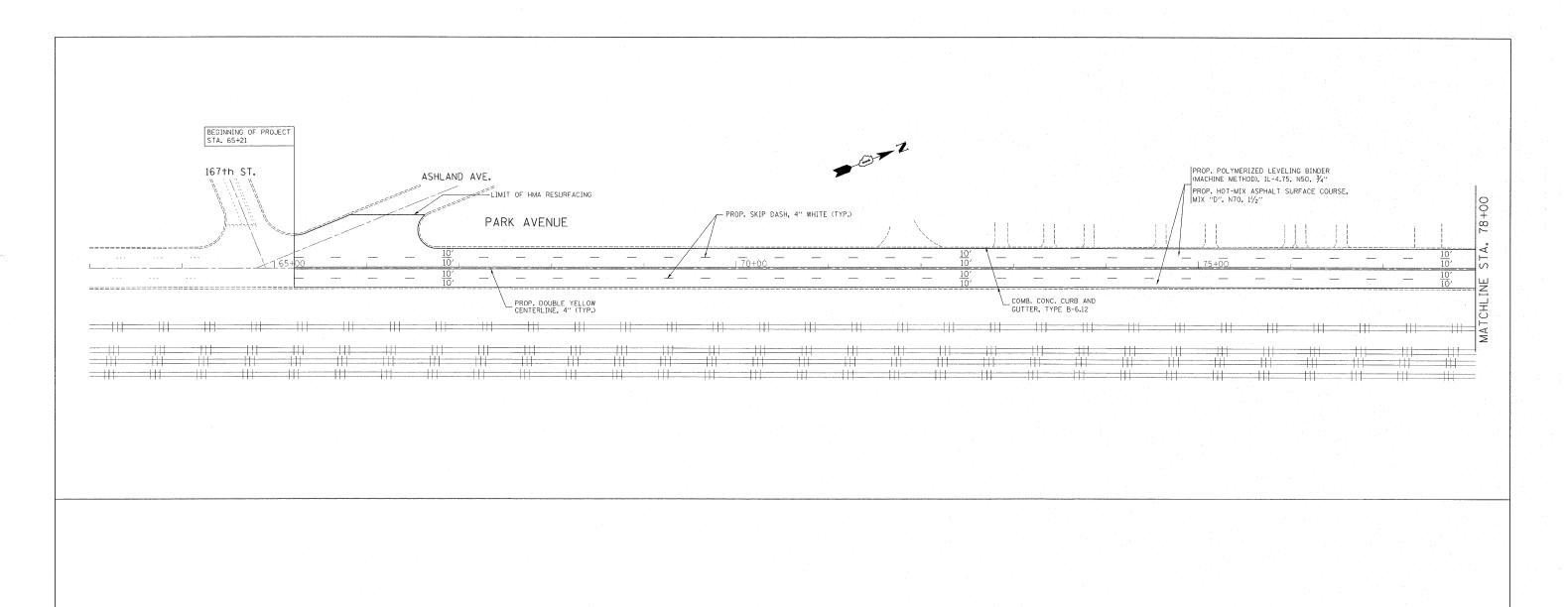
STA. 129+15 TO 135+69 STA. 144+33 TO 147+51

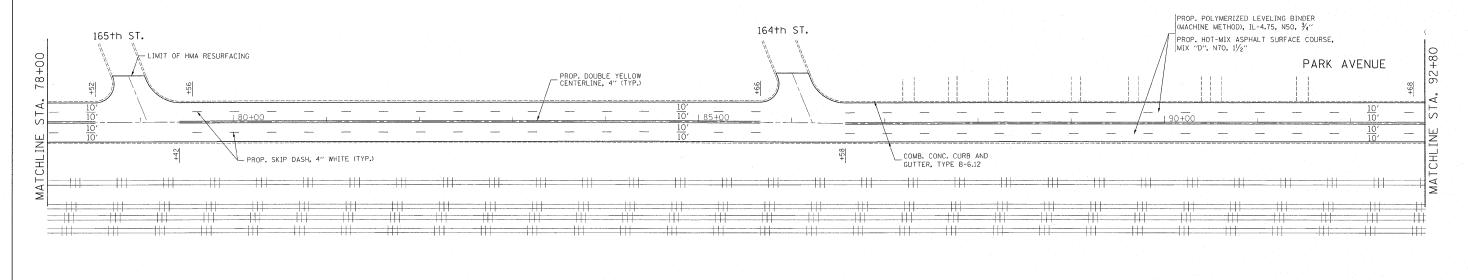
STA. 152+73 TO 157+01

PUBLIC PARKING

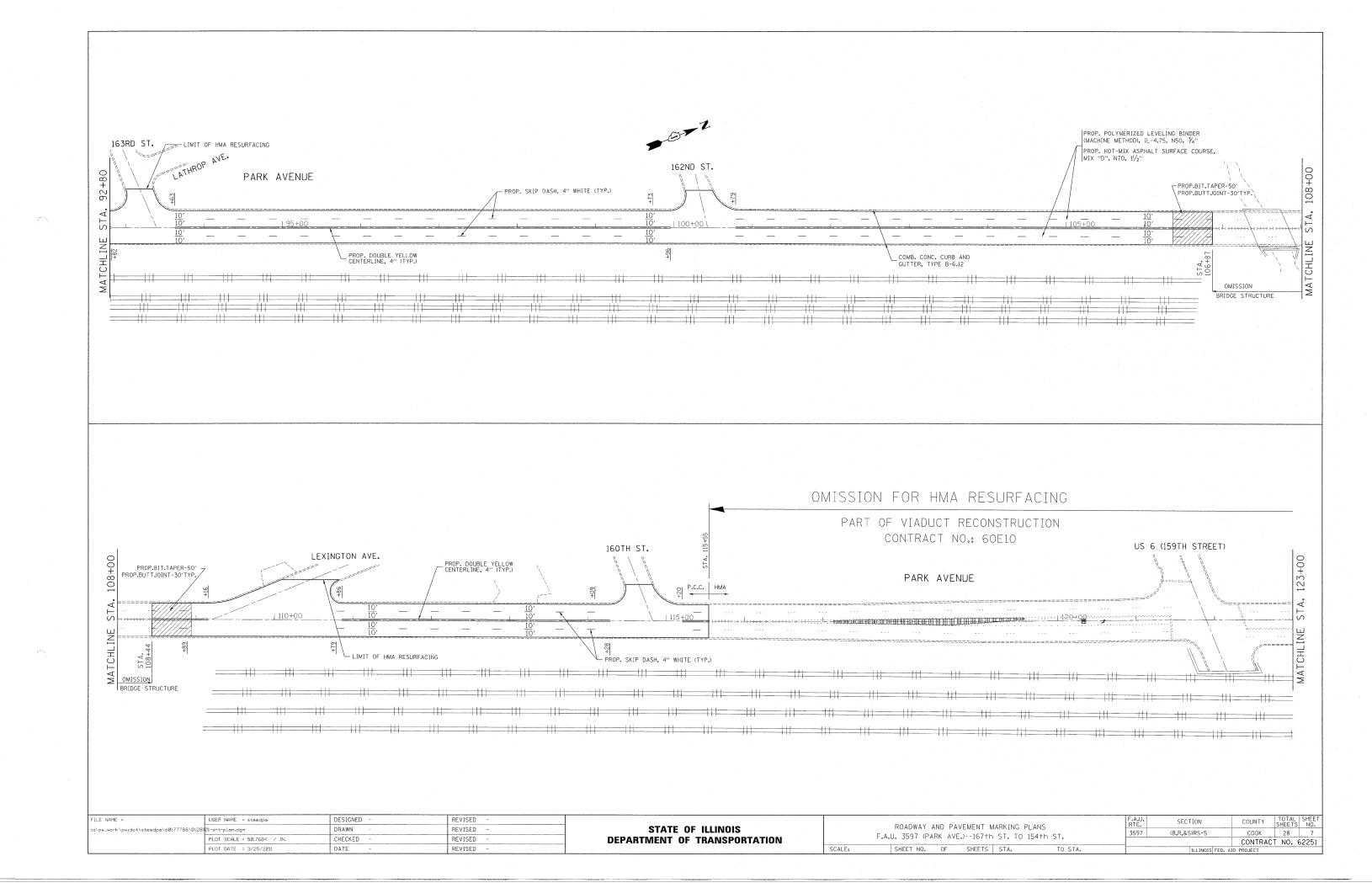
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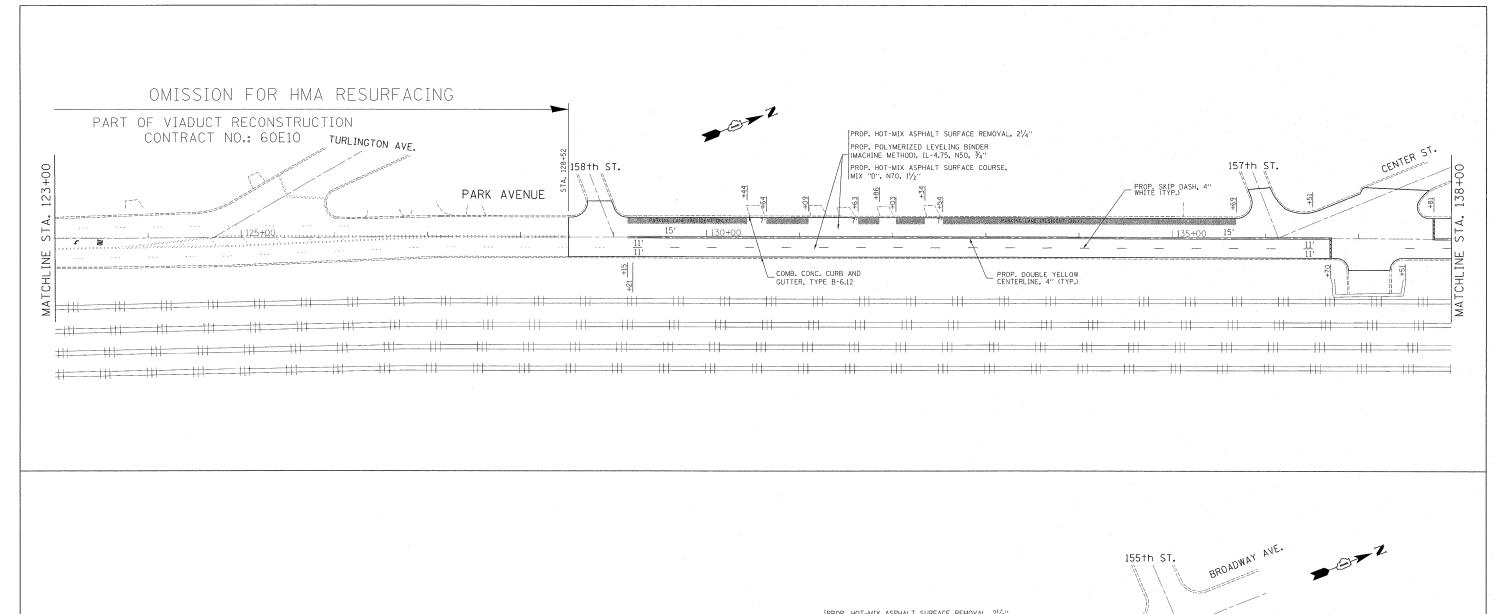
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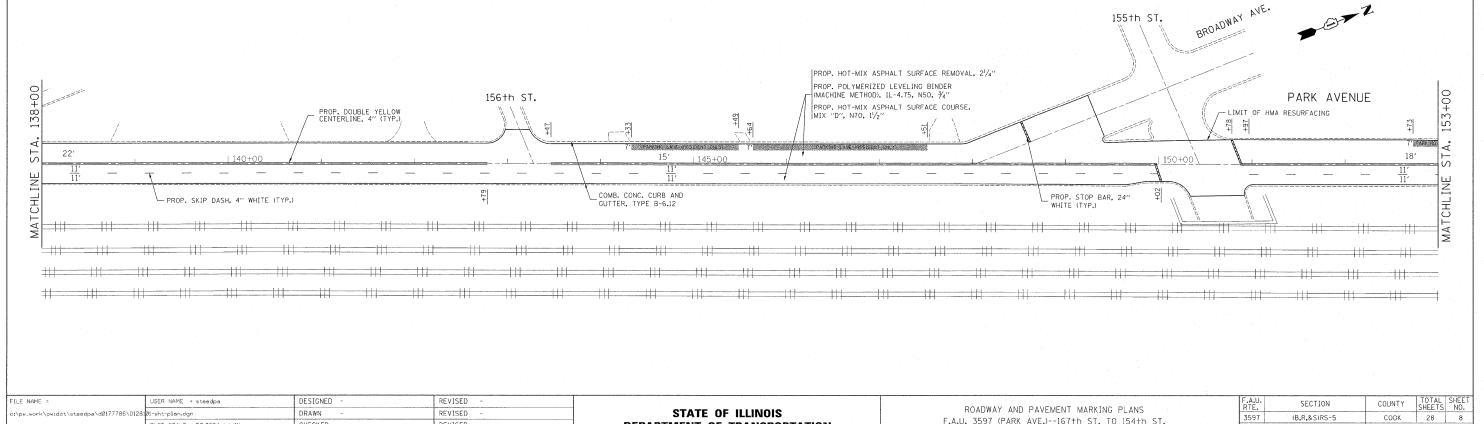




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	PLOT SCALE = 50.7684 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		F.A.U. 3597 (PARK AVE.)167th ST. TO 154th ST.	CONTRACT NO. 62251
	PLOT DATE = 3/25/2011	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT







STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

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PLOT SCALE = 50.7684 1/ IN.

LOT DATE = 3/25/2011

ROADWAY AND PAVEMENT MARKING PLANS

F.A.U. 3597 (PARK AVE.)--167th ST. TO 154th ST.

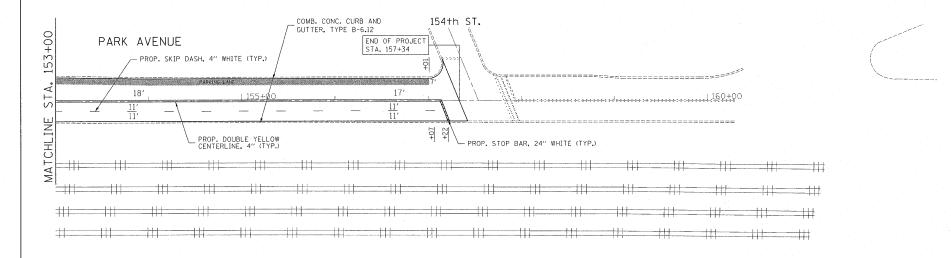
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(B,R,&S)RS-5

CONTRACT NO. 62251

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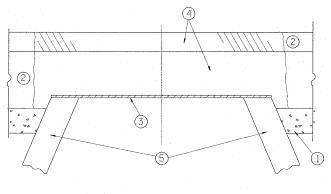
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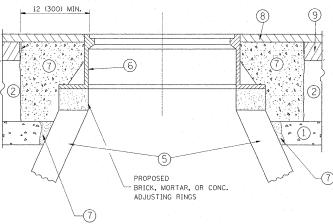
	ROADW	AY AND	PAVE	MENT MA	RKING	PLANS		F.A.U. RTE.	SE	CTION
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COOK 28 9

CONTRACT NO. 62251





NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL

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

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM
- AROUND THE STRUCTURE.

 B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1*
 CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- * UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- (6) FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- 7 CLASS PP-1* CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 8) PROPOSED HMA SURFACE COURSE
- (5) EXISTING STRUCTURE
- (9) PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

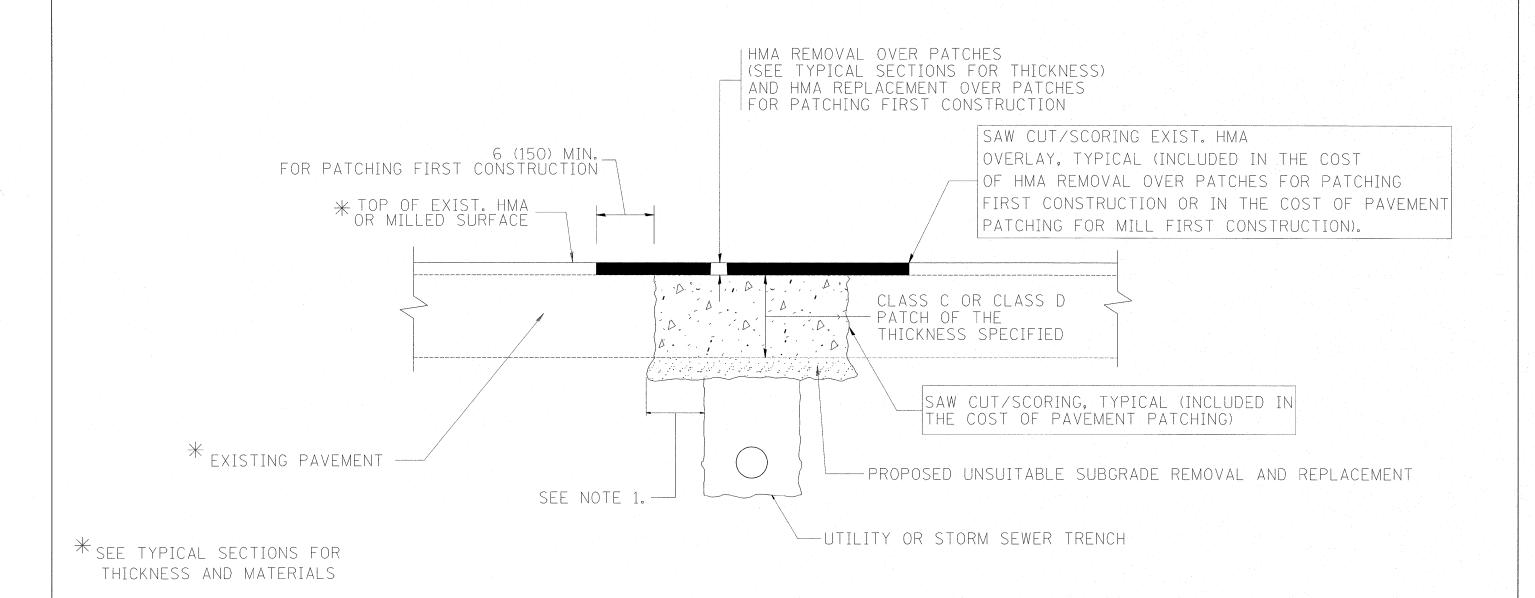
DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

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	PLOT SCALE = 50.7684 '/ IN.	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 3/25/2011	DATE - 10-25-94	REVISED - R. BORO 03-09-11

STATE	0F	ILLINOIS
DEPARTMENT (OF 7	TRANSPORTATION

	DETAILS FOR									
	FRAMES AND	LIDS	ADJUSTM	IENT WITH	MILLING					
SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.					

F.A.U. RTE.	RTE. SECTION				COUNTY	TOTAL	SHEET NO.
3597	3597 (B,R,&S)RS-5				соок	28	10
	BD600	0-03 (BD-8)	-	CONTRACT	NO.	62251
FED. R	OAD DIST	. NO. 1	ILL INOIS	FED. A	ID PROJECT		



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".

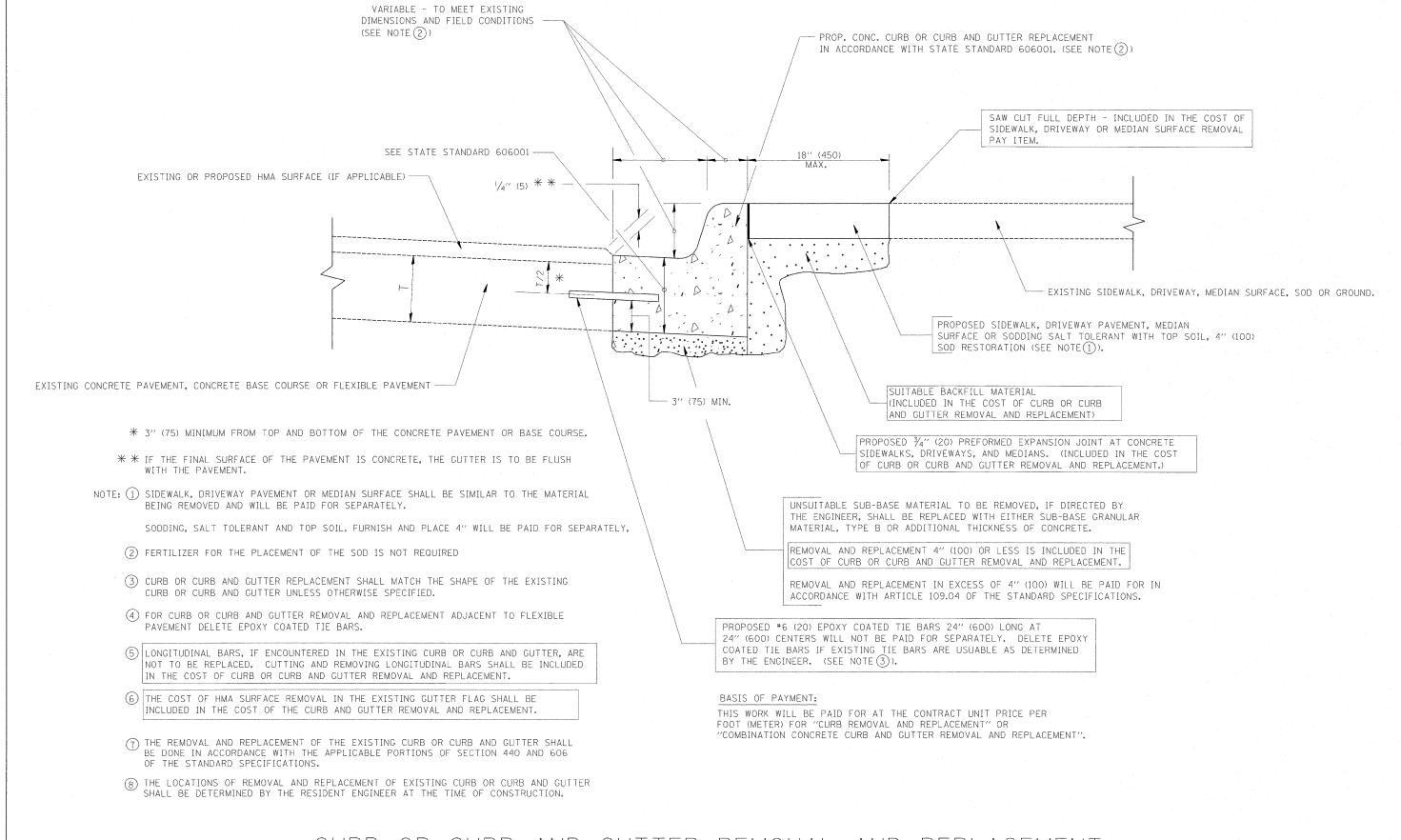
SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 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)

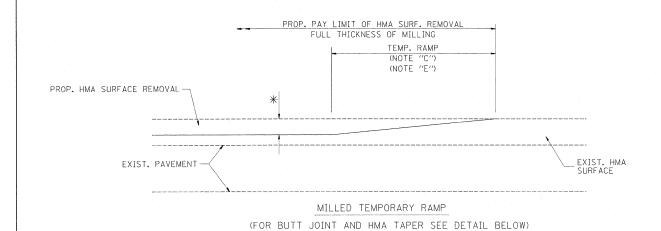
- 1. MILL HMA FIRST IF THERE IS AT LEAST $4\frac{1}{2}$ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

FILE NAME =	USER NAME = steedpa	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98		DAVIDATINE DATOURNO FOR	F.A.U. SECTION	COUNTY TOTAL SHEET
ct\nw work\nwidot\steedna\d9177786\Dist	19td.dan	DRAWN -	REVISED - R RORO 01-01-07	STATE OF ILLINOIS	PAVEMENT PATCHING FOR	KIE.	SHEETS NO.
		AUE OUE	OF WOOD		HMA SURFACED PAVEMENT	3597 (B,R,&S)RS-5	COOK 28 11
	PLOT SCALE = 50.7684 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	IIIIA OOIII AOLD TAVLIILEI	BD400-04 (BD-22)	CONTRACT NO. 62251
	PLOT DATE = 3/25/2011	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST, NO. 1 ILLINOIS FED.	AID PROJECT

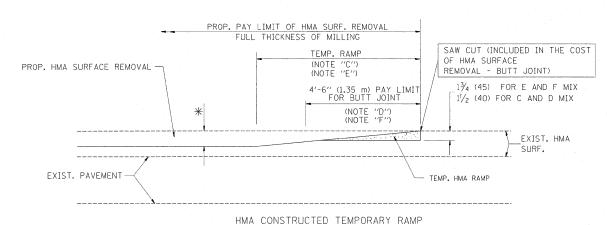


CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

FILE NAME =	USER NAME = steedpa	DESIGNED - A, HOUSEH	REVISED -	R. SHAH 10-03-96			CURB OR CURB AND GUTTER		F.A.U.	SECTION	COUNTY	TOTAL SHEET
c:\pw_work\pwidot\steedpa\d0177786\DistS	tdidgn	DRAWN -	REVISED -	A. ABBAS 03-21-97	STATE OF ILLINOIS				3597	(B,R,&S)RS-5	COOK	28 12
	PLOT SCALE = 50.7684 ' / IN.	CHECKED -	REVISED -	M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		REMOVAL AND REPLACEMENT		BD	600-06 (BD-24)	CONTRACT N	NO. 62251
	PLOT DATE = 3/25/2011	DATE - 03-11-94	REVISED -	R. BORO 12-15-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. A	ID PROJECT	



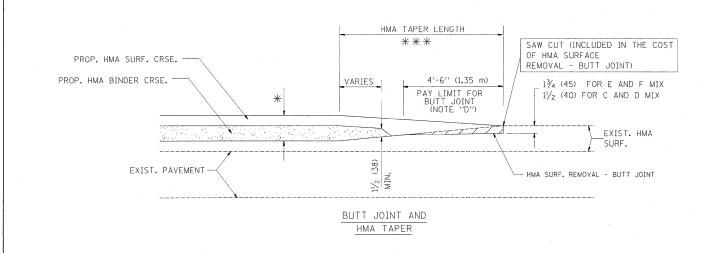
OPTION 1



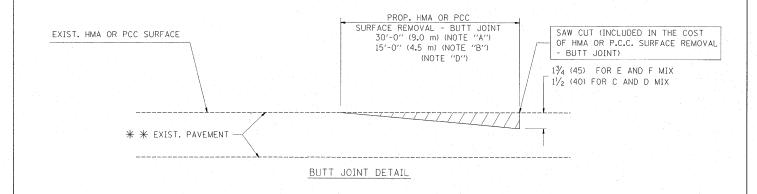
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

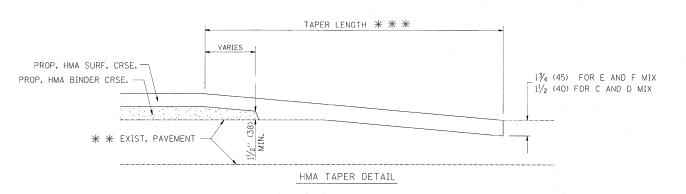
OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

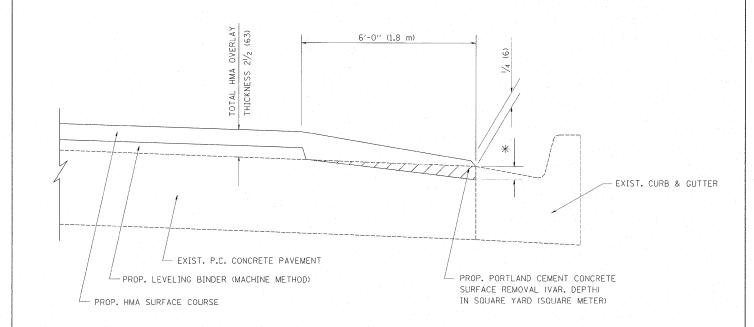
B: MINOR SIDE ROADS.

- 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 SOUARE YARD (SOUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

FILE NAME =	USER NAME = steedpa	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94			BUTT JOINT AND		F.A.U. SECTION	COUNTY TOTAL SHEET
c:\pw_work\pwidot\steedpa\d0177786\Dist	td.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS				3597 (B,R,&S)RS-5	COOK 28 13
	PLOT SCALE = 50.7684 '/ IN,	CHECKED -	REVISED - M. GOMEZ 04-06-01	DEPARTMENT OF TRANSPORTATION		HMA TAPER DETAILS		BD400-05 BD32	CONTRACT NO. 62251
	PLOT DATE = 3/25/2011	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE S	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.		AID PROJECT



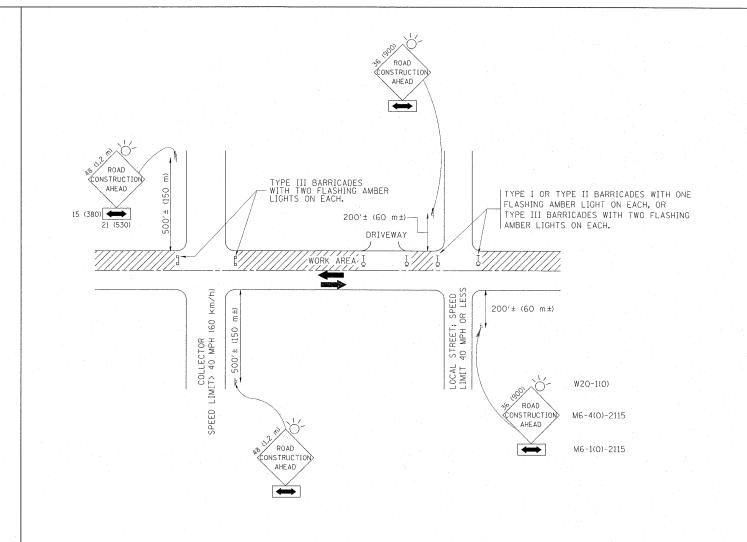
HMA TAPER AT EDGE OF P.C.C PAVEMENT

HMA SURFACE		LEVELING BINDER		
MIX	THICKNESS	THICKNESS	★ MILLING AT GUTTER FLAG	
C OR D	1/2 (38)	1 (25)	11/4 (33)	
F	13/4 (44)	³ / ₄ (19)	11/2 (38)	

FILE NAME =	USER NAME = steedpa	DESIGNED -	R. SHAH	REVISED -	R. SHAH 10-25-94
c:\pw_work\pwidot\steedpa\d0177786\DistS	td.dgn	DRAWN -	JIS	REVISED -	A. ABBAS 05-05-99
	PLOT SCALE = 50.7684 '/ IN.	CHECKED -	A. ABBAS	REVISED -	E. GOMEZ 12-21-00
	PLOT DATE = 3/25/2011	DATE -	09-10-94	REVISED -	R. BORO 01-01-07

STATE	OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

HMA TAPER AT	F.A.U. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
EDGE OF P.C.C. PAVEMENT	3597	(B,R,&S)RS-5		COOK	28	14
LUGL OF F.C.C. FAVENCINE	В	D400-06 (BD33)		CONTRACT	NO.	62251
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS F	ED. AI	D PROJECT		



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:
- O) 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:
- o) ONE ROAD CONSTRUCTION AHEAD SIGN 48 \times 48 (1.2 m \times 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 (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-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.

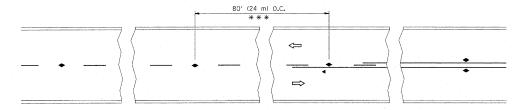
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = steedpa	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
c:\pw_work\pwidot\steedpa\d0177786\DistS	td.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.7684 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 3/25/2011	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE	: OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

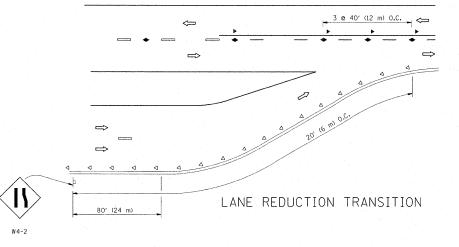
				OL AND RSECTION		 		
SHEET	NO. 1	OF	1	SHEETS	STA.		TO	STA.

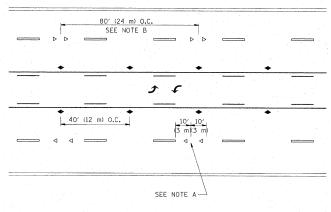
F.A.U. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
3597	(B,R,&S)RS-5		COOK	28	15	
	TC-10		Τ	CONTRACT	NO.	52251
FED. R	OAD DIST, NO. 1 ILLINOIS FE	D. /	AID	PROJECT		



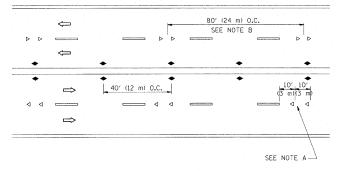
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

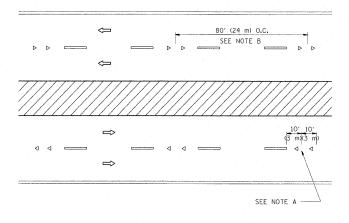




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

- 1. MARKERS USED WITH DASHED LINES SHALL BE
- 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.

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.

SYMBOLS

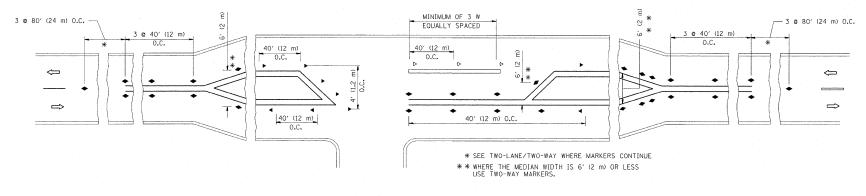
---- YELLOW STRIPE

---- WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

DESIGN NOTES

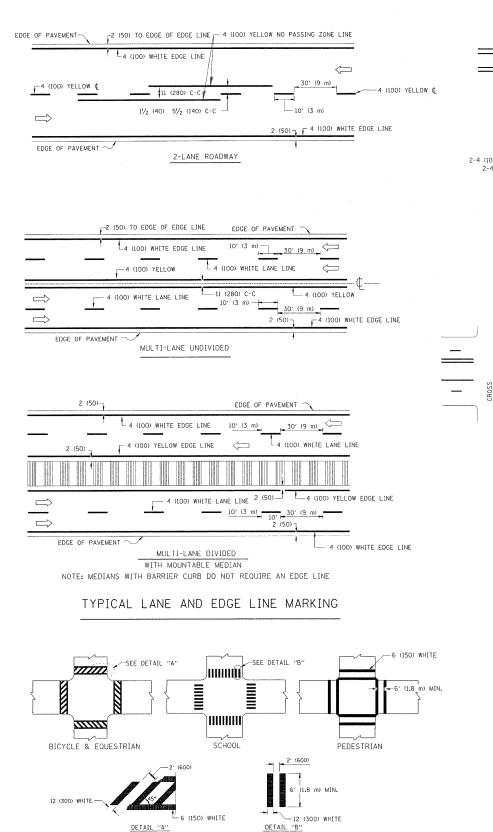
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



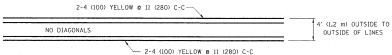
LEFT TURN

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

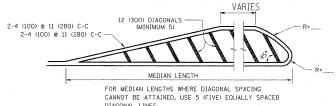
	FILE NAME =	USER NAME = steedpa	DESIGNED -	REVISED -T. RAMMACHER 09-19-94		TYPICAL APPLICATIONS	F.A.U.	SECTION	COUNTY	TOTAL S	HEET
	c:\pw_work\pwidct\steedpa\d0177786\DistS	didgn	DRAWN ~	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS		3597	(B,R,&S)RS-5	COOK	28	16.
-		PLOT SCALE = 50.7684 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		TC-11	CONTRACT	I NO 61	2251
Į		PLOT DATE = 3/25/2011	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD	D DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		



DETAIL "A" TYPICAL CROSSWALK MARKING

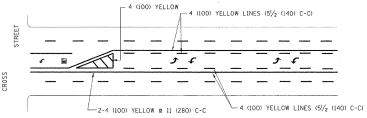


4' (1.2 m) WIDE MEDIANS ONLY

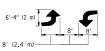


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

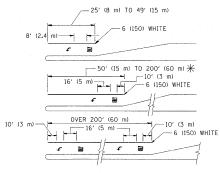


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS,



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

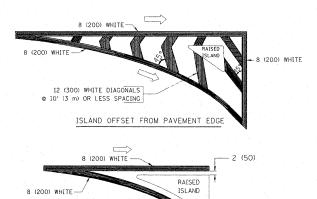


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P AREA = 15.6 SO. FT. (1.5 m²) ONLY AREA = 20.8 SO. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

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	5½ (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	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH, 5½ (40) 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' (I.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 CROSSMALK, 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: "M"=3.6 SO. FT. (0.33 m²) EACH "X"=54.0 SO. FT. (5.0 m²)
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 (0VFR 45MPH (70 km/h))

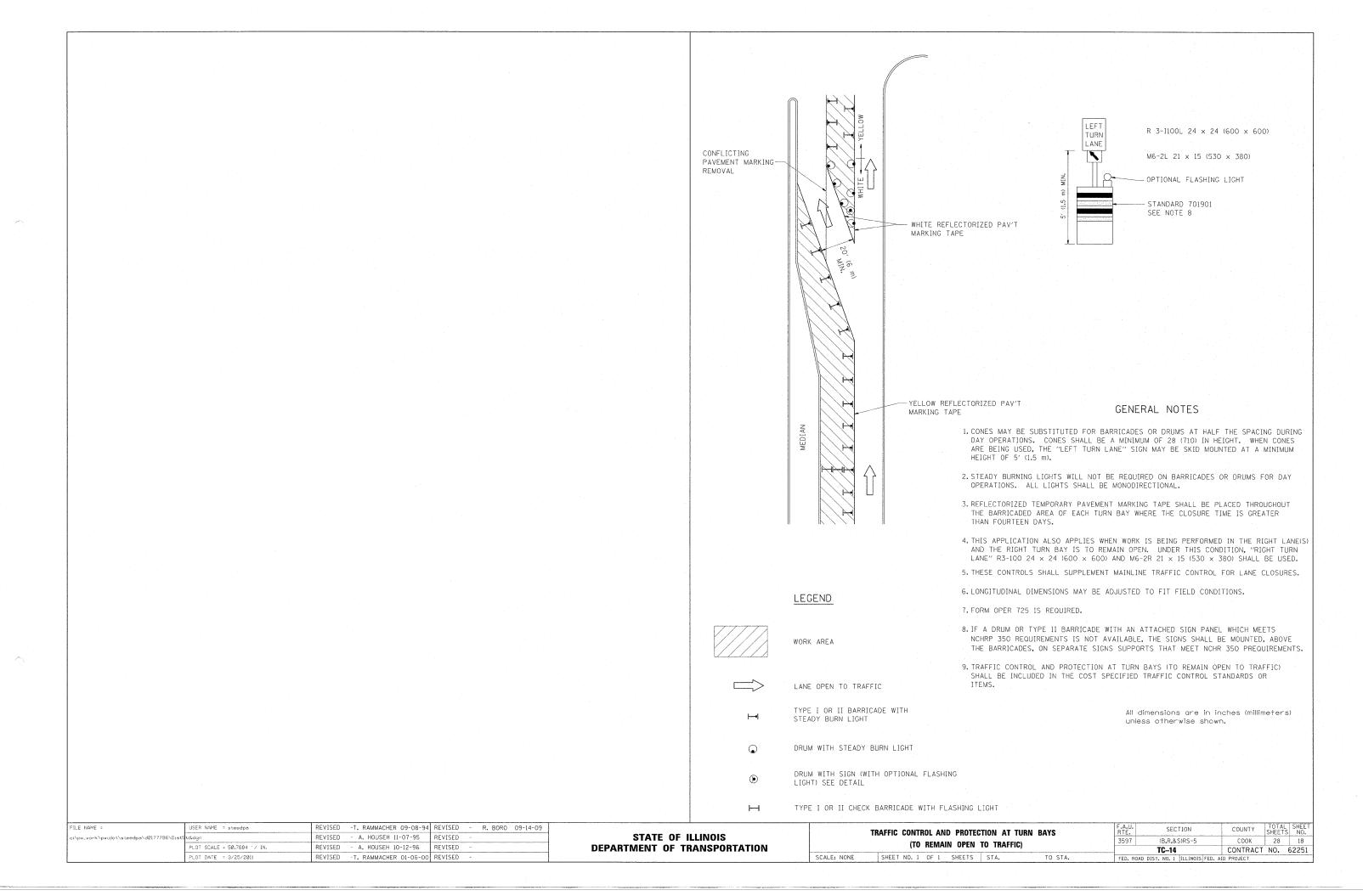
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

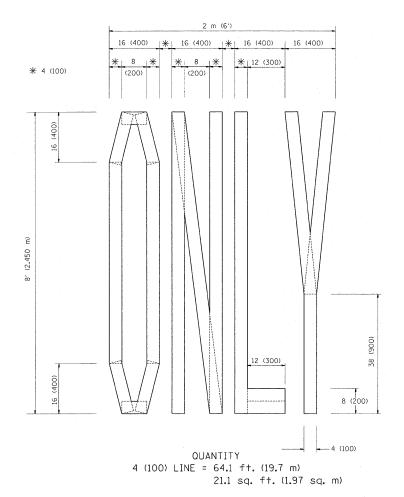
All dimensions are in inches (millimeters) unless otherwise shown.

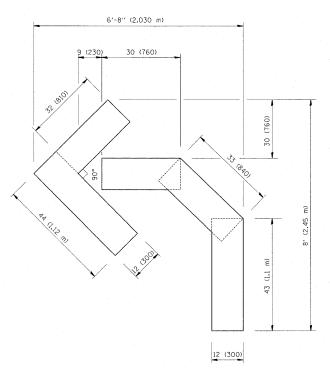
FILE NAME = USER NAME = steedpa	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
c:\pw_work\pwidot\steedpa\d0177786\DistStd.dgn	DRAWN -	REVISED -C. JUCIUS 09-09-09
PLOT SCALE = 50.7684 '/ IN.	CHECKED -	REVISED -
PLOT DATE = 3/25/2011	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

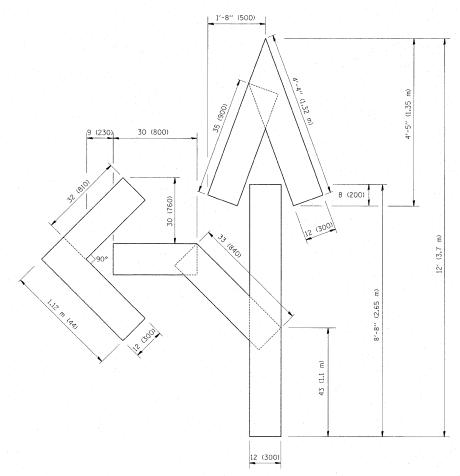
				4					
		DISTRICT ON	IE		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TVDICAL	PAVEMENT	MADVINGO		3597	(B,R,&S)RS-5	COOK	28	17
	ITTIVAL	FAVEIVICIVI	MIMININGS			TC-13	CONTRACT	NO.	52251
CALE: NONE	SHEET NO. 1 OF	1 SHEETS	STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		







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



QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

SECTION (B,R,&S)RS-5 TC-16 CONTRA
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

F.A.U. RTE. 3597

COUNTY TOTAL SHEETS NO.

COOK 28 19

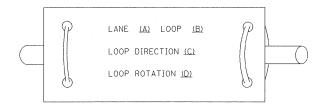
CONTRACT NO. 62251

FILE NAME =	USER. NAME = steedpa	DESIGNED -	REVISED -T. RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS
c:\pw_work\pwidot\steedpa\d0177786\DistS	tdidgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS	
	PLOT SCALE = 50.7684 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FOR TRAFFIC STAGING
	PLOT DATE = 3/25/2011	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA,

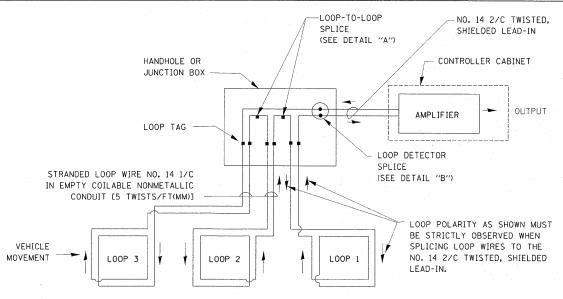
LOOP DETECTOR NOTES

- 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

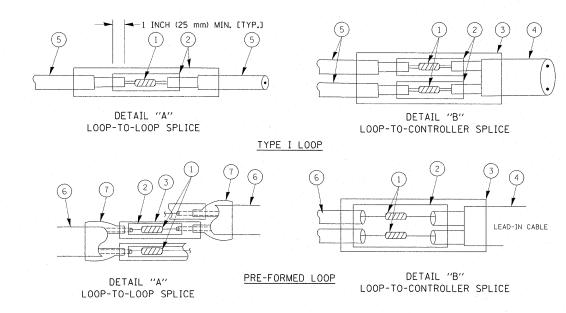


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



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.



LOOP DETECTOR SPLICE

- $\ensuremath{\,^{\frown}}$ Western union splice soldered with rosin core flux. All exposed surfaces of the solder shall be smooth.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.
- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

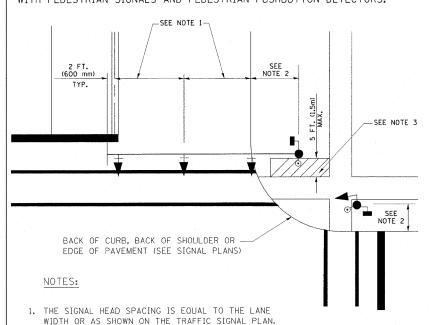
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STATE	OF.	ILLINOIS
DEPARTMENT	OF 1	TRANSPORTATION

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L	SCALE: NONE	SHEET NO. 1	OF 6	SHEETS	STA.		TO STA.	FED. RO	AD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

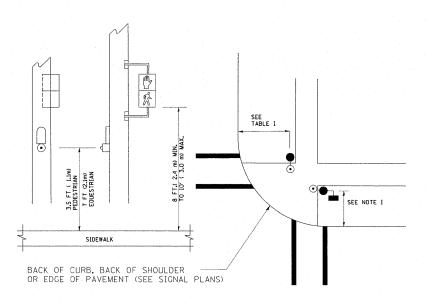
TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



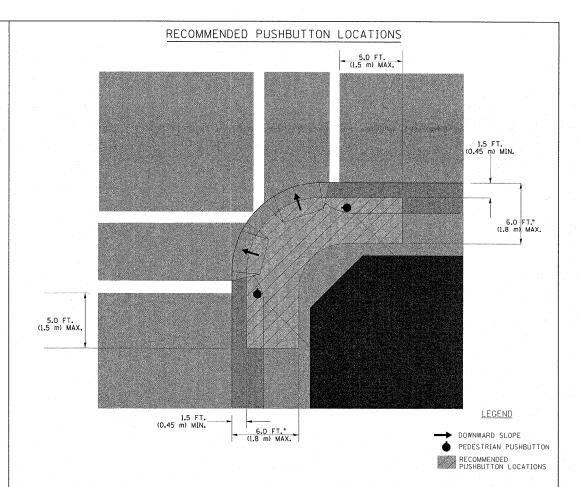
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

- 1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
- 3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- 4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- ** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

- 1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
- 2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
- 3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
- 4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
- 5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

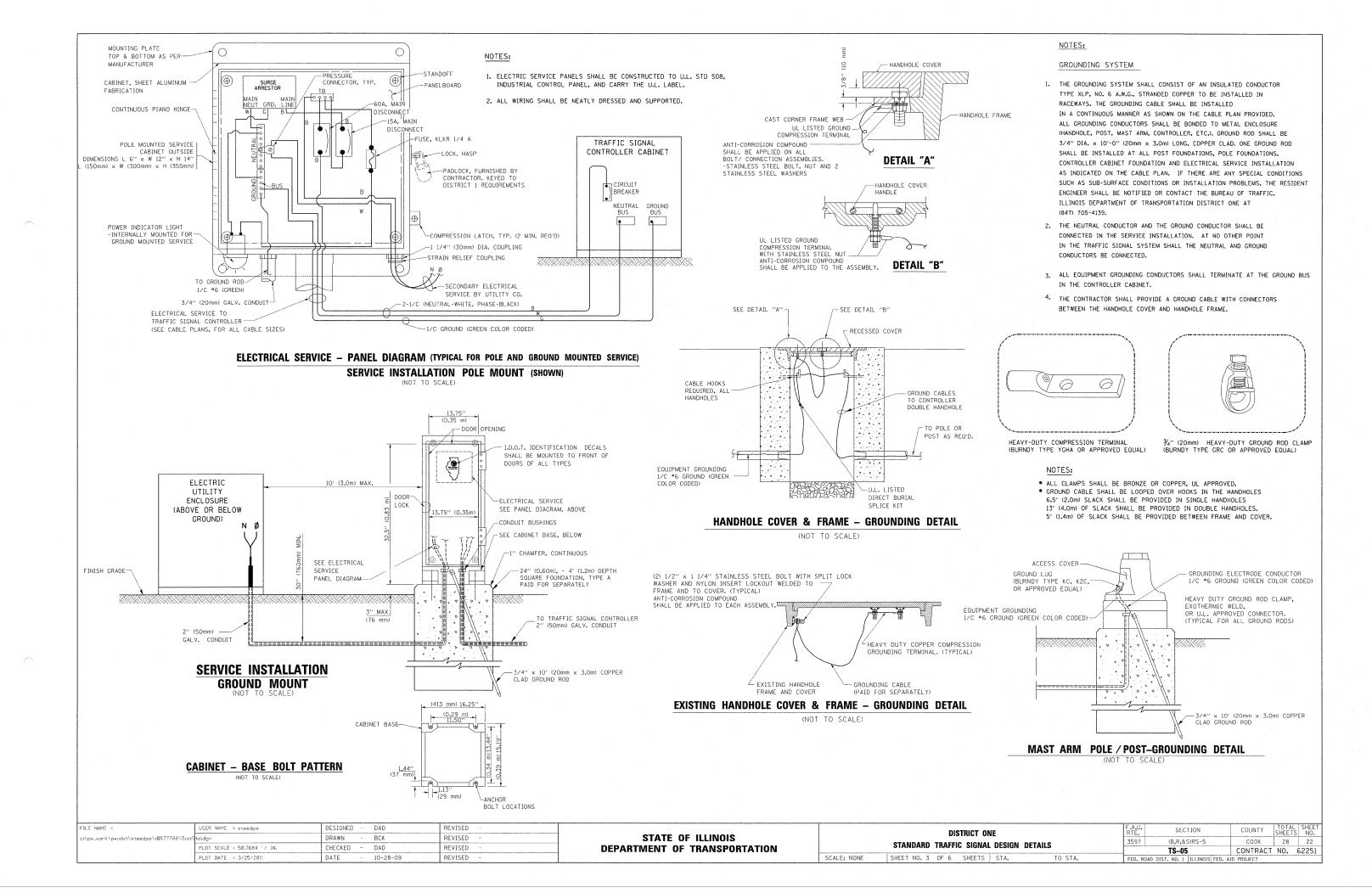
TRAFFIC SIGNAL EQUIPMENT OFFSET

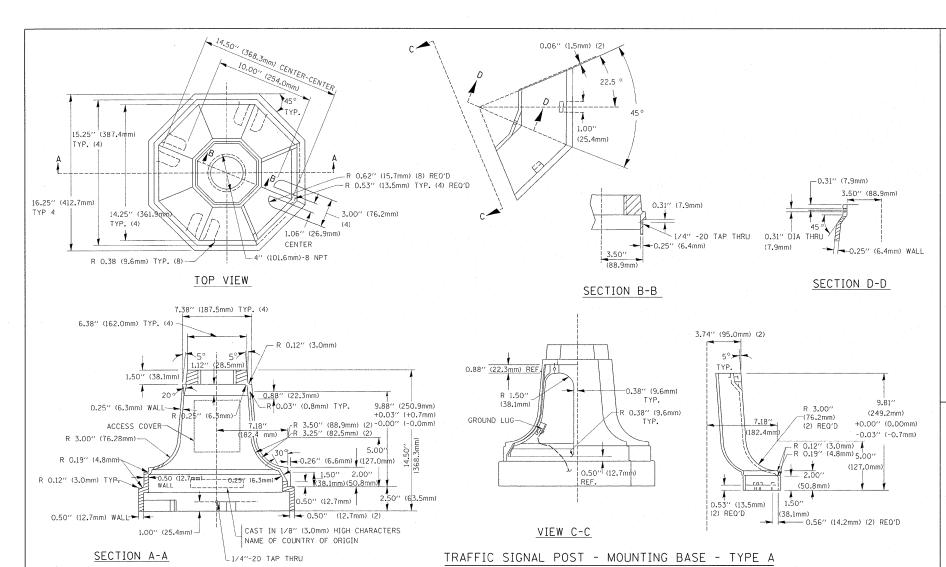
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

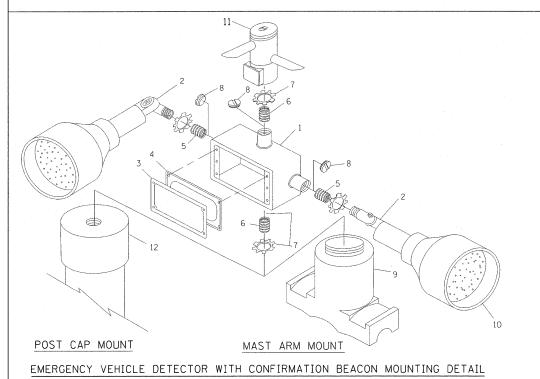
NOTES:

- 1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
- 2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
- 3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
- 4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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L		PLOT DATE = 3/25/2011	DATE - 10-28-09	REVISED -		SCALE: NONE SHEET NO. 2 OF 6 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	1 ILLINOIS FED. AID PROJECT	ACT NO. 62231







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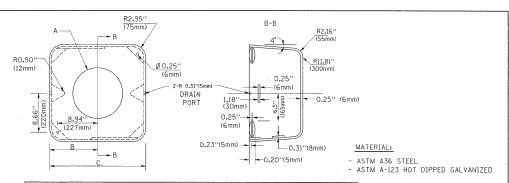
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ITEM	NO. IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING .
6	3/4"(19 mm) CLOSE NIPPLE
7	¾4"(19 mm) LOCKNUT
8	¾′′(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP .
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

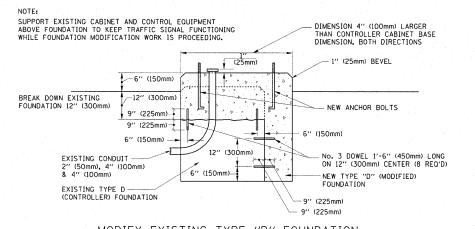
- 1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR
- 2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT ITEM #2- MULBERRY CON-0-SHADE LAMP SHIELD OR EQUIVALENT ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- 3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A $\frac{3}{4}$ "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



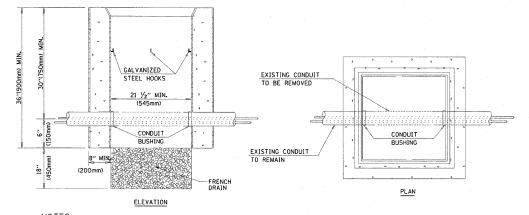
А	В	С	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37''(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

SHROUD

- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD.
 THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- 2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- 3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



MODIFY EXISTING TYPE "D" FOUNDATION



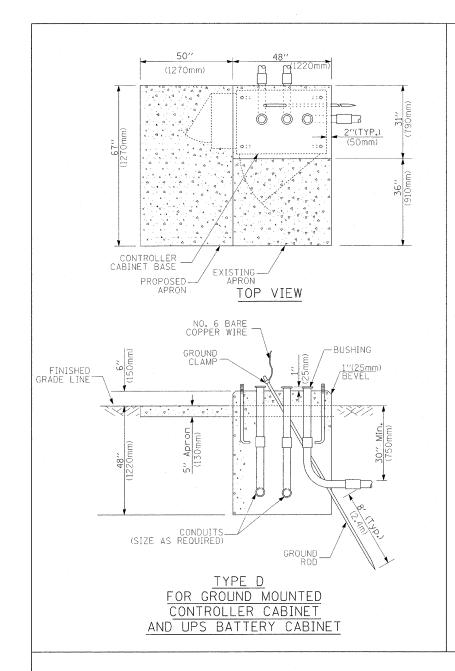
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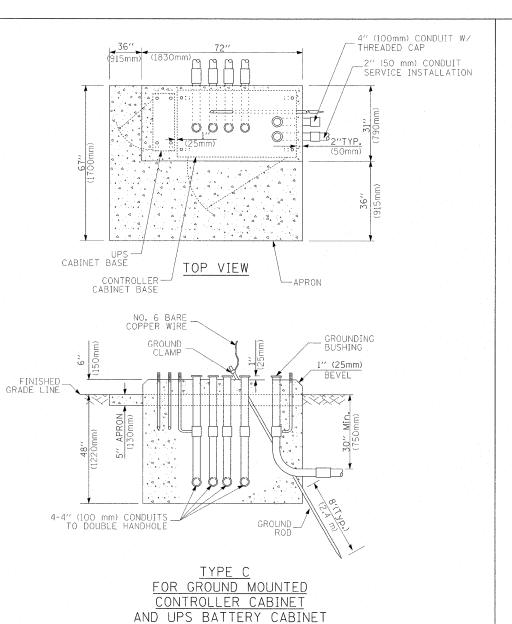
- 1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**





	(1651mm)	
	49" (SEE NOTE 3) 1245mm)	-SEE NOTE 5
	(406mm) (1118mm)	2/ (5]mm)
r ^o	(-100mm)	<u></u>
i i i i i i i i i i i i i i i i i i i	21/2/9	1
	2//2" (64mm) 1"	
/ <i>_/</i>	1" 1" (25mm)	26." 26.00
9		
2" × 6" (51mm × 152mm)		2''' (51mm)
WOOD FRAMING (TYP.)		<u> </u>
F 1		-TRAFFIC SIGNAL
		CONTROLLER CABINET
UPS — > CABINET		
		7/2/2011/7051750
		3/4" (19mm) TREATED PHYWOOD DECK
		1 T
		2" × 6" (51mm × 152mm) TREATED WOOD
الله الله الله الله الله الله الله الله		
		12" MIN. (305mm)
		305
` `		
		48" MINK
		√
		121
NOTES:		6" x 6" (152mm x 152mm)
		TREATED WOOD POSTS
 BASED ON CONTROLLER CABINET TYPE ADJUST PLATFORM SIZE TO FIT CAB 	PE IV WITH BASE DIMENSIONS OF 2 BINET BASE DIMENSIONS BEING SUP	26" × 44" (660mm × 1118mm). PLIED.
		VICTORIS OF ASIA OF !! /405 675

65" (SEE NOTE 4)

- 2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" \times 25" (406mm \times 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
- 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
- 5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
- 6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	per per per aps .	LIETES
VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD)		
(L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30′ (9.1 m)	10'-0'' (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0'' (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4 ₄ 0 m)	36". (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0'' (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along
 the length of the shaft, with an average Unconfined Compressive Strength (0u) > 1.0 tsf (100 kpa).
 This strength shall be verified by boring data prior to construction or with testing by the Engineer
 during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised
 design if other conditions are encountered.
- 2. Combination most arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
- 3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
- 4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

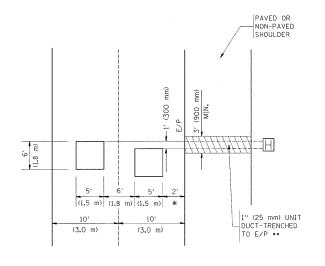
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c:\pw_work\pwidot\steedpa\dØ177786\DistStd.dgn	DRAWN - BCK	REVISED -	STATE OF ILLINOIS		STANDARD TRAFFIC SIGNAL DESIGN DETAILS		3597 (B,R,&S)RS-5	COOK 28 24
PLOT SCALE = 50.7684 '/ IN.	CHECKED - DAD	REVISED -	DEPARTMENT OF TRANSPORTATION				TS-05	CONTRACT NO. 62251
PLOT DATE = 3/25/2011	DATE - 10-28-09	REVISED -		SCALE: NONE	SHEET NO. 5 OF 6 SHEETS STA. TO	O STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED	AID PROJECT

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R			EMERGENCY VEHICLE LIGHT DETECTOR	R ≪	«<	₩	ELECTRIC CABLE IN CONDUIT, TRACER,			1)—
RAILROAD CONTROL CABINET	**************************************		B►€R	CONFIRMATION BEACON	R _{o-0}	o—() °	•-	NO. 14 1/C, UNLESS NOTED OTHERWISE			
COMMUNICATIONS CABINET	C C	E C C	CC	HANDHOLE	R			COAXIAL CABLE		C	
MASTER CONTROLLER		EMC	MC	HANDHOLL				VENDOR CARLE FOR CAMERA			
MASTER MASTER CONTROLLER	R	EMMC	MMC	HEAVY DUTY HANDHOLE	R	H	Н	VENDOR CABLE FOR CAMERA		——————————————————————————————————————	
UNINTERRUPTIBLE POWER SUPPLY	UPS	EUPS	UPS	DOUBLE HANDHOLE	RO			COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			-6-
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	- <u>R</u>		- 	JUNCTION BOX GALVANIZED STEEL CONDUIT	<u>(u)</u>		•	FIBER OPTIC CABLE NO. 62.5/125, MM12F		—(12F)—	
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R	P	P	IN TRENCH (T) OR PUSHED (P) TEMPORARY SPAN WIRE, TETHER WIRE,	R			FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		——————————————————————————————————————	<u> </u>
STEEL MAST ARM ASSEMBLY AND POLE	R		•	AND CABLE	13			FIBER OPTIC CABLE NO. 62.5/125,			
ALUMINUM MAST ARM ASSEMBLY AND POLE	R			COMMON TRENCH			СТ	(NUMBER OF FIBERS & TYPE TO BE			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R _{O-\(\alpha\)}	0	• ×	COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC	NOTED ON PLANS) GROUND ROD AT (C) CONTROLLER,			
STEEL COMBINATION MAST ARM	R	0		SYSTEM ITEM		S	S	(H) HANDHOLE, (P) POST, (M) MAST ARM,		C	C C
ASSEMBLY AND POLE WITH PTZ CAMERA	PTZ	PTZII	PTZ	INTERSECTION ITEM		Ι.	IP	OR (S) SERVICE CONTROLLER CABINET AND	RCF		
SIGNAL POST	R _O	0	•	REMOVE ITEM	R RL			FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	^R ⊗	\otimes	•	ABANDON ITEM	A			STEEL MAST ARM POLE AND	RMF		
GUY WIRE	>R		>-	12" (300mm) TRAFFIC SIGNAL SECTION		R	R	FOUNDATION TO BE REMOVED ALUMINUM MAST ARM POLE AND	RMF		
SIGNAL HEAD	-R		-	12" (300mm) RED WITH 8" (200mm)				FOUNDATION TO BE REMOVED	0		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			-	YELLOW AND GREEN TRAFFIC SIGNAL FACE				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND	RMF		
SIGNAL HEAD WITH BACKPLATE	+E>R	+	+-			R	R	FOUNDATION TO BE REMOVED			
SIGNAL HEAD OPTICALLY PROGRAMMED	R -□ "P"		→ "P"	SIGNAL FACE			G ∢ Y	SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF		
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	O-E>"F"	O-t>''F''	● ▶ "F"			46	◆ G	INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
PEDESTRIAN SIGNAL HEAD	R	-0	-1			R	R	SAMPLING (SYSTEM) DETECTOR		S	S
PEDESTRIAN PUSHBUTTON DETECTOR	R (1)	©	•	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD			Y G	EXISTING INTERSECTION LOOP DETECTOR	550700		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	⊚APS	APS O O O O O O O O O O O O O			(♦ Y)	4 Y 4 G	PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DET EXISTING PREFORMED INTERSECTION LOOP DETECTOR	IECTUR		
ILLUMINATED SIGN "NO LEFT TURN"	R						"P"	PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DET	TECTOR	ĮPPĮ	
ILLUMINATED SIGN				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		(W) W)		PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
"NO RIGHT TURN"	R		®	12" (300mm) PEDESTRIAN SIGNAL HEAD				PREFORMED SAMPLING (SYSTEM) DETECTOR		[PS]	PS
DETECTOR LOOP, TYPE I				INTERNATIONAL SYMBOL, OUTLINED			-			←♦	•
PREFORMED DETECTOR LOOP		P	Р	12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID		*	*	RAILROAI	D SYMBO	OLS	
MICROWAVE VEHICLE SENSOR	R (M)	(M)	• • • • • • • • • • • • • • • • • • •	PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		(P) C	₽ C ★ D			<u>EXISTING</u>	<u>PROPOSED</u>
VIDEO DETECTION CAMERA	R V)	<u>(V1</u>	∇	RADIO INTERCONNECT	 R	##	 	RAILROAD CONTROL CABINET		R R	P-R
VIDEO DETECTION ZONE					-		÷	RAILROAD CANTILEVER MAST ARM		XOX X	X OX X
	R			RADIO REPEATER	RERR	ERR	RR	FLASHING SIGNAL		XOX	X ⊖ X
PAN, TILT, ZOOM CAMERA			PIZM	DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE,				CROSSING GATE		X 0 X>	XOX-
WIRELESS DETECTOR SENSOR	RW	(W)	W	ALL DETECTOR LOOP CABLE TO BE SHIELDED							
WIRELESS ACCESS POINT	R ·			GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		(1)	(1)	CROSSBUCK		<u>}</u>	*
FILE NAME = USER NAME = steedpo ci\pw.work\pwidot\steedpo\d@177786\DistStd.dgn		DESIGNED - DAG/BCK DRAWN - BCK	REVISED -	СТАТЕ	OF ILLINOIS			DISTRICT ONE	F.A.U. RTE.	SECTION	COUNTY TOTAL SHEETS NO
PLOT SCALE = 50.7684 ' / I PLOT DATE = 3/25/2011	N.	CHECKED - DAD DATE - 10-28-09	REVISED -	DEPARTMENT			SCALE: NO	STANDARD TRAFFIC SIGNAL DESIGN DETAILS NE SHEET NO. 6 OF 6 SHEETS STA. TO ST	3597	(B,R,&S)RS-5 TS-05	COOK 28 25 CONTRACT NO. 6225

LOOPS NEXT TO SHOULDERS

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



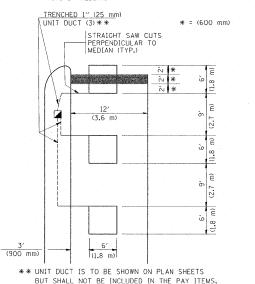
* = (600 mm)

* * 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.

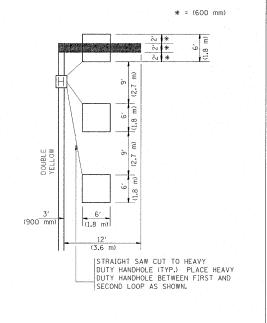


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

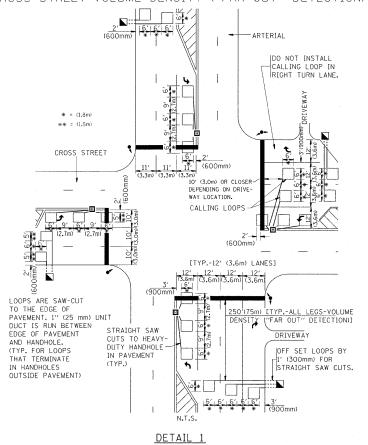


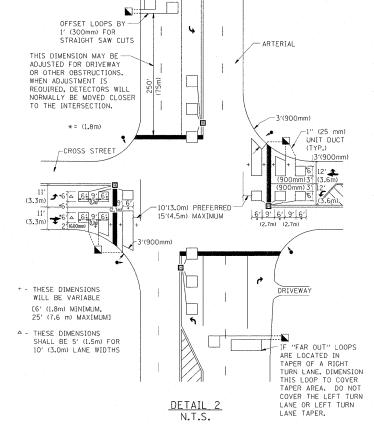
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

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

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





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 SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF <u>ALL</u> 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, <u>MORE</u>
 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 <u>ALL</u> 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.

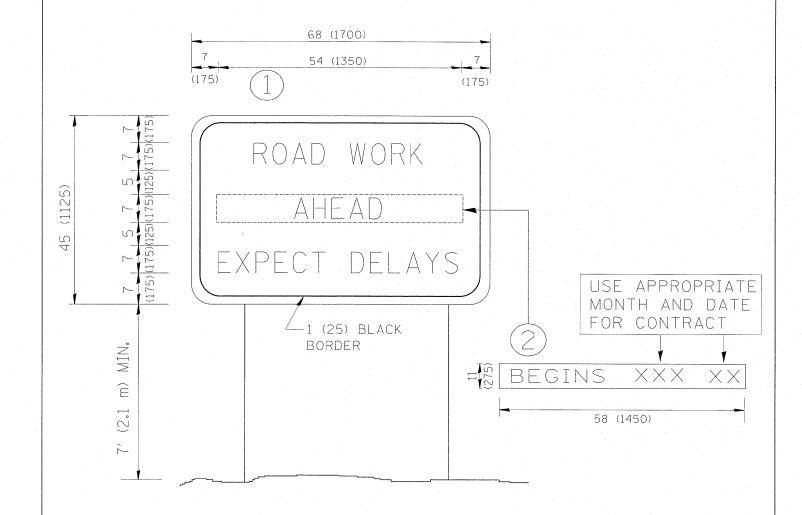
NOTE:

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.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DETAILS FOR ROADWAY RESURFACING	3597	(B,R,&S)RS-5	соок	28	26
DETAILS TON HOADWAT RESONTACING		TS-07	CONTRACT	NO.	52251
SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. RO	DAD DIST, NO. 1 ILLINOIS FED. AT	D. 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.

FILE NAME =	USER NAME = steedpa	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD		F.A.U. SECTION	ON	COUNTY S	TOTAL	SHEET NO.
c:\pw_work\pwidct\steedpa\d0177786\Dist	Std.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS	INFORMATION SIGN		3597 (B,R,&S)F	RS-5	COOK	28	28
	PLOT SCALE = 50.7684 '/ IN. PLOT DATE = 3/25/2011	DATE -	REVISED - T. RAMMACHER 02-02-99 REVISED - C. JUCIUS 01-31-07	DEPARTMENT OF TRANSPORTATION	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		TC-22	LINOIS FED. AID I	CONTRACT N	NO.	52251