

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

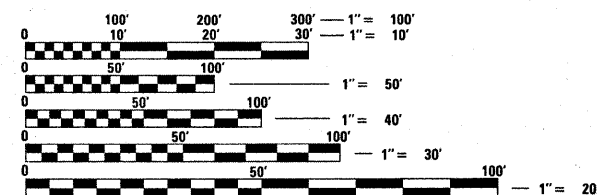
# PROPOSED HIGHWAY PLANS

F.A.U. 1362 (LAWRENCE AVE.)  
FORSTER AVE. TO DES PLAINES RIVER RD.  
RESURFACING (3P)  
SECTION: 3200RS-3

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN THE  
VILLAGE OF SCHILLER PARK

COOK COUNTY  
C-91-177-10



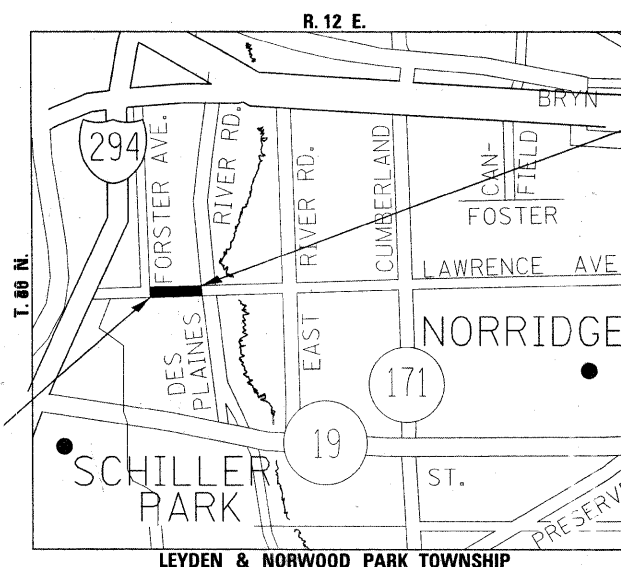
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

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

CONTRACT NO. 60J07

PROJECT BEGINS  
STA. 10 + 69



PROJECT ENDS  
STA. 24 + 94

TRAFFIC DATA:  
2006 ADT - 18800 TO 19800  
SPEED LIMIT - 35 TO 45 MPH

GROSS AND NET LENGTH OF PROJECT = 1425 LIN FT = .27 MILES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1362	3200 RS-3	COOK	25	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60J07		

D-91-177-10



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED FEBRUARY 1, 2010

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

*Scott E. Stett, P.E.*  
ENGINEER OF DESIGN AND ENVIRONMENT

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

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OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-5	EXISTING AND PROPOSED TYPICAL SECTIONS
6	ROADWAY AND PAVEMENT MARKING PLANS
7	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
8	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
9	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
10	BUTT JOINT AND HMA TAPER DETAILS
11	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
12	TYPICAL APPLICATIONS FOR RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
13	DISTRICT ONE TYPICAL PAVEMENT MARKING
14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
15	TEMPORARY PAVEMENT MARKING--LETTERS AND SYMBOLS FOR TRAFFIC STAGING
16-21	STANDARD TRAFFIC SIGNAL DESIGN DETAILS
22	DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING
23-24	DETECTOR LOOP LOCATION DETAILS
25	ARTERIAL ROAD INFORMATION SIGNING

## STATE STANDARDS

000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS  
442201-03 CLASS C AND D PATCHES  
604011-04 FRAME AND LIDS, TYPE 1  
606001-04 CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER  
701601-06 URBAN LANE CLOSURE, MULTILANE 1W OR 2W WITH NON-TRANSVERSABLE MEDIAN  
701606-06 URBAN LANE CLOSURE, MULTILANE 2-W WITH MOUNTABLE MEDIAN  
701701-06 URBAN LANE CLOSURE, MULTILANE INTERSECTION  
701801-04 LANE CLOSURE, MULTILANE, 1W OR 2W, CROSSWALK OR SIDEWALK CLOSURE  
701901-01 TRAFFIC CONTROL DEVICES  
780001-02 TYPICAL PAVEMENT MARKINGS  
781001-03 TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS  
886001-01 DETECTOR LOOP INSTALLATIONS  
886006-01 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 VILLAGE OF SCHILLER PARK.

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 1½ INCHES (40MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75MM) MAY BE ALLOWED IF THE 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.

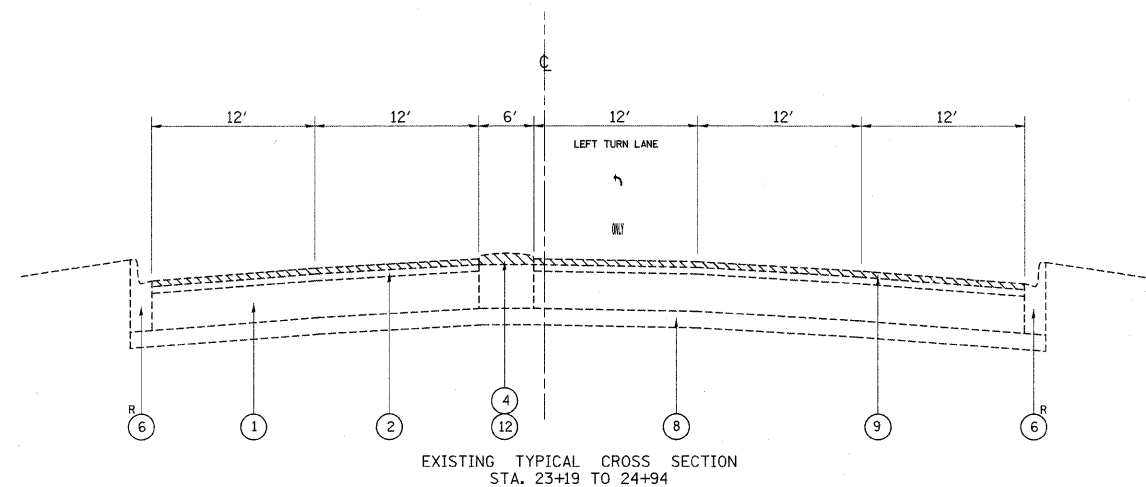
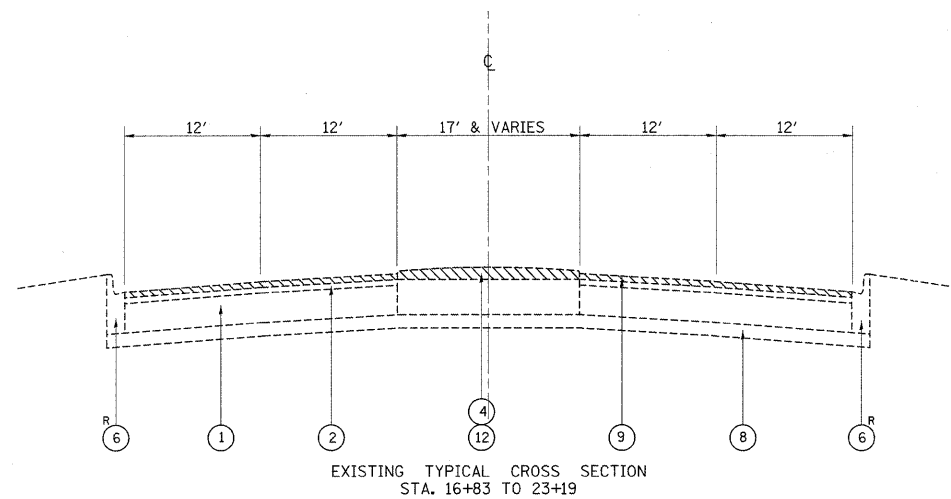
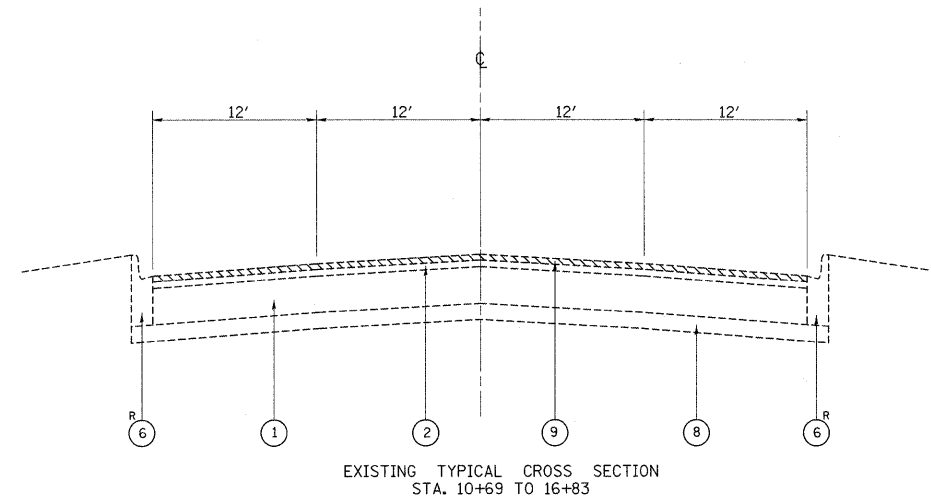
PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE "DISTRICT ONE TYPICAL PAVEMENT MARKINGS".

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

THE RESIDENT ENGINEER SHOULD CONTACT MR. WALLY CZARNY, AREA TRAFFIC ENGINEER, AT (773) 685-4342 PRIOR TO PLACING ANY PAVEMENT MARKINGS.

FILE NAME =	USER NAME = steedpa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES FAU 1362 (LAWRENCE AVE.)--FORSTER AVE. TO EAST RIVER RD.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pw_work\pwido\steedpa\d0169821\011770-sht.plandgn	DRAWN -	REVISED -	1362			3200 RS-3	COOK	25	2	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 60J07							
PLOT DATE = 1/22/2010	DATE -	REVISED -	SCALE:			SHEET NO.	OF	SHEETS	STA.	TO STA.

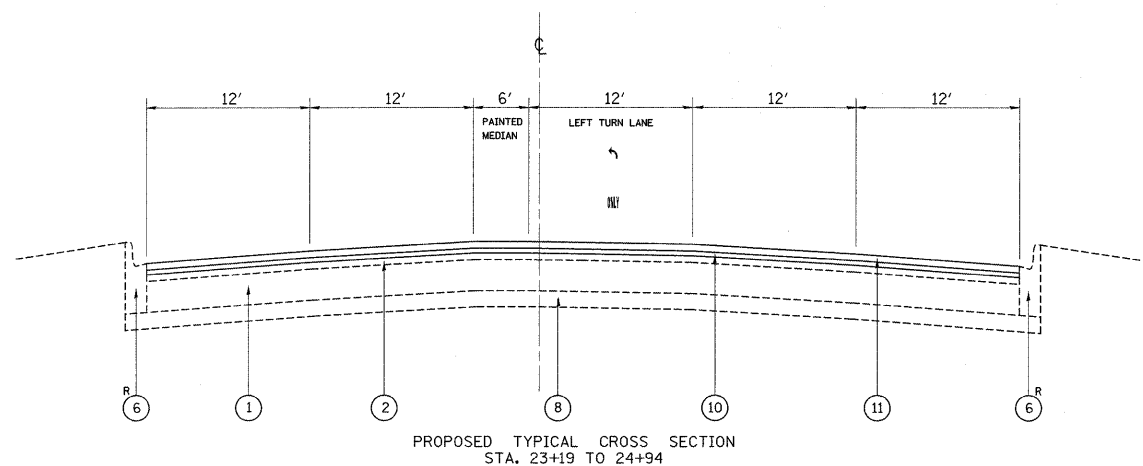
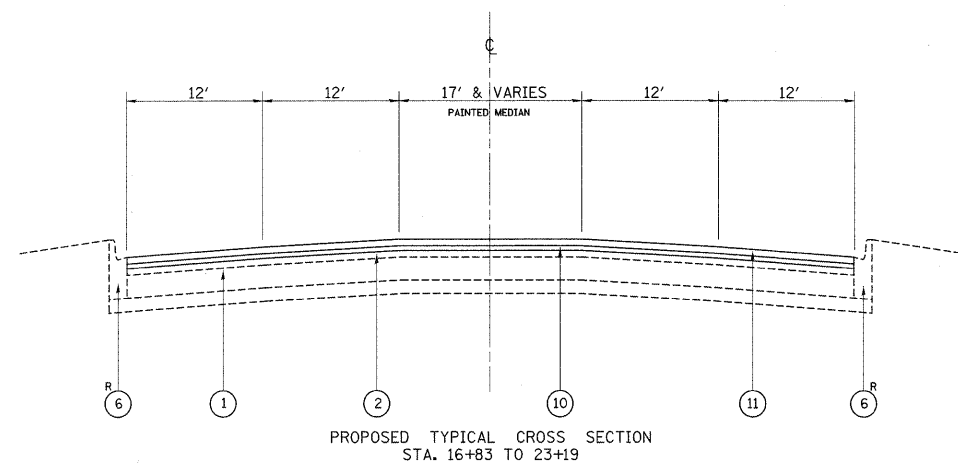
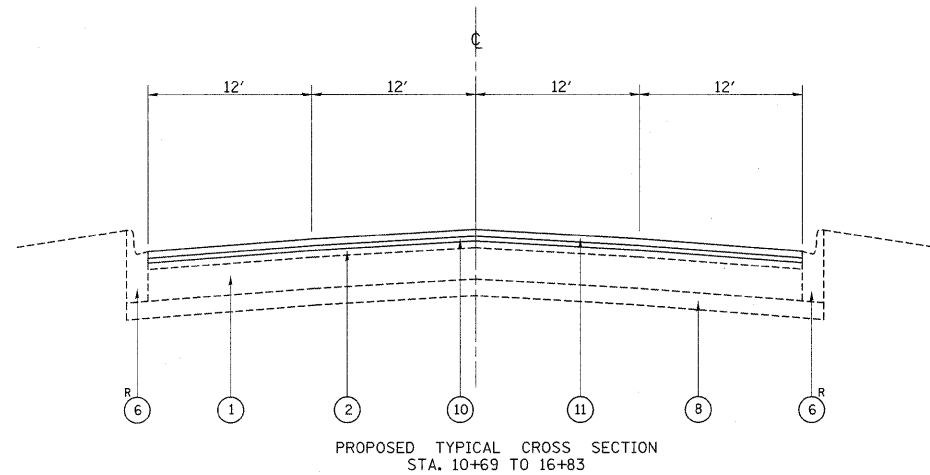
SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE																
CODE NO	ITEM	UNIT	TOTAL QUANTITIES							SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE						
				1000-2A						CODE NO	ITEM	UNIT	TOTAL QUANTITIES	1000-2A						
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	184	184						70300100	SHORT-TERM PAVEMENT MARKING	FOOT	1521	1521						
25200110	SODDING, SALT TOLERANT	SQ YD	184	184						70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	73	73						
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	7	7						70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3485	3485						
40600300	AGGREGATE (PRIME COAT)	TON	34	34						70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	175	175						
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	13	13						70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	132	132						
40600826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	344	344						70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1656	1656						
40600895	CONSTRUCTING TEST STRIP	EACH	1	1						*78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	73	73						
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	98	98						*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3485	3485						
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	700	700						*78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	175	175						
42001300	PROTECTIVE COAT	SQ YD	226	226						*78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	132	132						
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	8333	8333						*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	147	147						
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	1100	1100						78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	133	133						
44003510	MEDIAN REMOVAL PARTIAL DEPTH	SQ FT	5542	5542						*88600600	DETECTOR LOOP REPLACEMENT	FOOT	168	168						
44004610	SIDEWALK REMOVAL AND REPLACEMENT (SPECIAL)	SQ FT	108	108						X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4						
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	72	72						44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	20	20						
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SQ YD	43	43						Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	20	20						
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	29	29						35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	20	20						
55039700	STORM SEWERS TO BE CLEANED	FOOT	214	214						40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	3	3						
60250200	CATCH BASINS TO BE ADJUSTED	EACH	2	2						42300400	PORTLAND CEMENT CONCRETE PAVEMENT, 8"	SQ YD	20	20						
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	1	1																
60255500	MANHOLES TO BE ADJUSTED	EACH	2	2																
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	1	1																
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	12	12																
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	6	6																
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3																
67100100	MOBILIZATION	L SUM	1	1																
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1																
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1																
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1																
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1																



# **LEGEND:**

- ① EXIST. P.C.C. PAVEMENT,  $\pm 9''$
- ② EXIST. HOT-MIX ASPHALT SURFACE,  $\pm 3''$  (AFTER MILLING)
- ③ EXIST. CONCRETE BARRIER MEDIAN
- ④ EXIST. CORRUGATED MEDIAN
- ⑤ EXIST. HOT-MIX ASPHALT MEDIAN
- ⑥ EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.12
- ⑦ EXIST. P.C.C. SIDEWALK
- ⑧ EXIST. STABILIZED SUB-BASE
- ⑨ PROP. HOT-MIX ASPHALT SURFACE REMOVAL,  $2\frac{1}{4}''$
- ⑩ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50,  $\frac{3}{4}''$
- ⑪ PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70,  $1\frac{1}{2}''$
- ⑫ PROP. MEDIAN REMOVAL PARTIAL DEPTH
- R SIDEWALK, CURB AND GUTTER REMOVAL AND REPLACEMENT  
(LOCATION AS DIRECTED BY THE ENGINEER)

FILE NAME = c:\pwork\pwork\stedpa\d0169821\01177	USER NAME = stedpa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND PROPOSED TYPICAL SECTIONS FAU 1362 (LAWRENCE AVE.)--FORSTER AVE. TO EAST RIVER RD.	F.A.U. RTE. 1362	SECTION 3200 RS-3	COUNTY COOK	TOTAL SHEETS 25	SHEET NO. 4	CONTRACT NO. 60J07
	0-sh-tp\landgn	DRAWN -	REVISED -								
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -								
	PLOT DATE = 1/22/2010	DATE -	REVISED -								
SCALE:					SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



#### LEGEND:

- 1 EXIST. P.C.C. PAVEMENT,  $\pm 9''$
  - 2 EXIST. HOT-MIX ASPHALT SURFACE,  $\pm 3''$  (AFTER MILLING)
  - 3 EXIST. CONCRETE BARRIER MEDIAN
  - 4 EXIST. CORRUGATED MEDIAN
  - 5 EXIST. HOT-MIX ASPHALT MEDIAN
  - 6 EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.12
  - 7 EXIST. P.C.C. SIDEWALK
  - 8 EXIST. STABILIZED SUB-BASE
  - 9 PROP. HOT-MIX ASPHALT SURFACE REMOVAL,  $2\frac{1}{4}''$
  - 10 PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50,  $\frac{3}{4}''$
  - 11 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70,  $1\frac{1}{2}''$
  - 12 PROP. MEDIAN REMOVAL PARTIAL DEPTH
- R SIDEWALK, CURB AND GUTTER REMOVAL AND REPLACEMENT  
(LOCATION AS DIRECTED BY THE ENGINEER)

#### MIXTURE REQUIREMENTS

MIXTURE USE	DESIGN AIR VOIDS
CLASS "D" PATCHES, 13" HMA BINDER COURSE, IL-19MM	4% @ 70 GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	4% @ 50 GYR
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, IL-9.5MM	4% @ 70 GYR

#### NOTE:

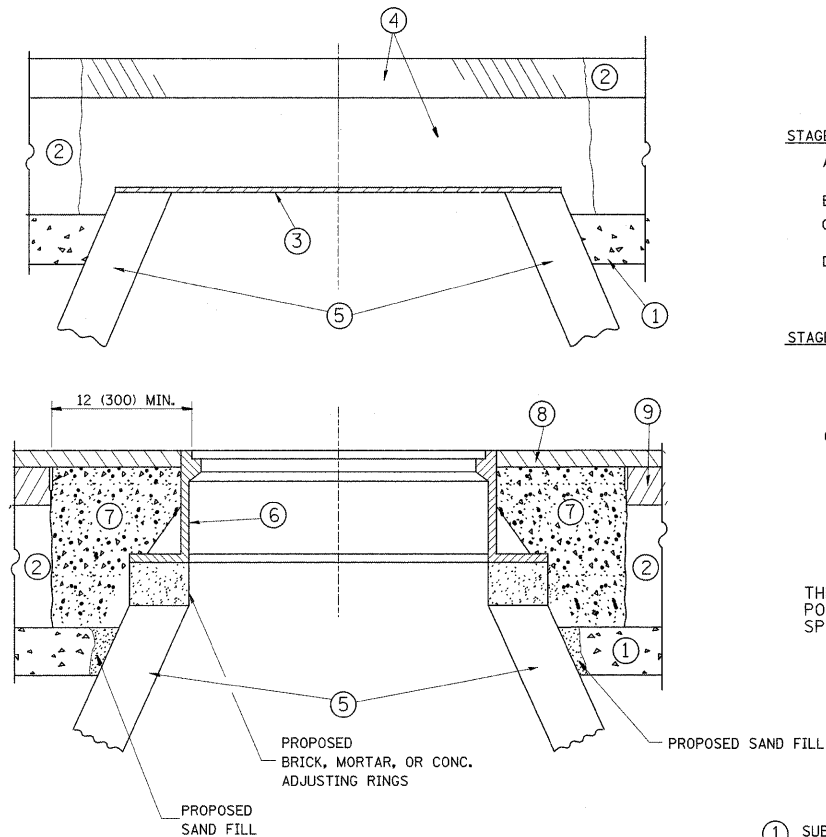
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT QUANTITIES IS 112 LBS./SQ. YD./ IN.

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.

THE MILLING SHALL BE DONE PRIOR TO PATCHING

FILE NAME =	USER NAME = steedpa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				EXISTING AND PROPOSED TYPICAL SECTIONS FAU 1362 (LAWRENCE AVE.)--FORSTER AVE. TO EAST RIVER RD.				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr\pw\work\p\dot\stedpa\d0169821\DI177	0-shit-plen.dgn	DRAWN -	REVISED -									1362	3200 RS-3	COOK	25	5
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -									CONTRACT NO. 60J07				
PLOT DATE = 1/22/2010		DATE -	REVISED -									FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
								SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			





#### CONSTRUCTION PROCEDURES

##### STAGE 1 (BEFORE PAVEMENT MILLING)

- REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

##### STAGE 2 (AFTER PAVEMENT MILLING)

- REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

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

#### LEGEND

- |  |  |
|--|--|
| ① SUB-BASE GRANULAR MATERIAL                 | ⑥ FRAME AND LID (SEE NOTES)                                  |
| ② EXISTING PAVEMENT                          | ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE |
| ③ 36 (900) DIAMETER METAL PLATE              | ⑧ PROPOSED HMA SURFACE COURSE                                |
| ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX | ⑨ PROPOSED HMA BINDER COURSE                                 |
| ⑤ EXISTING STRUCTURE                         |  |

#### LOCATION OF STRUCTURES:

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

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

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

#### NOTES:

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

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

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

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

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

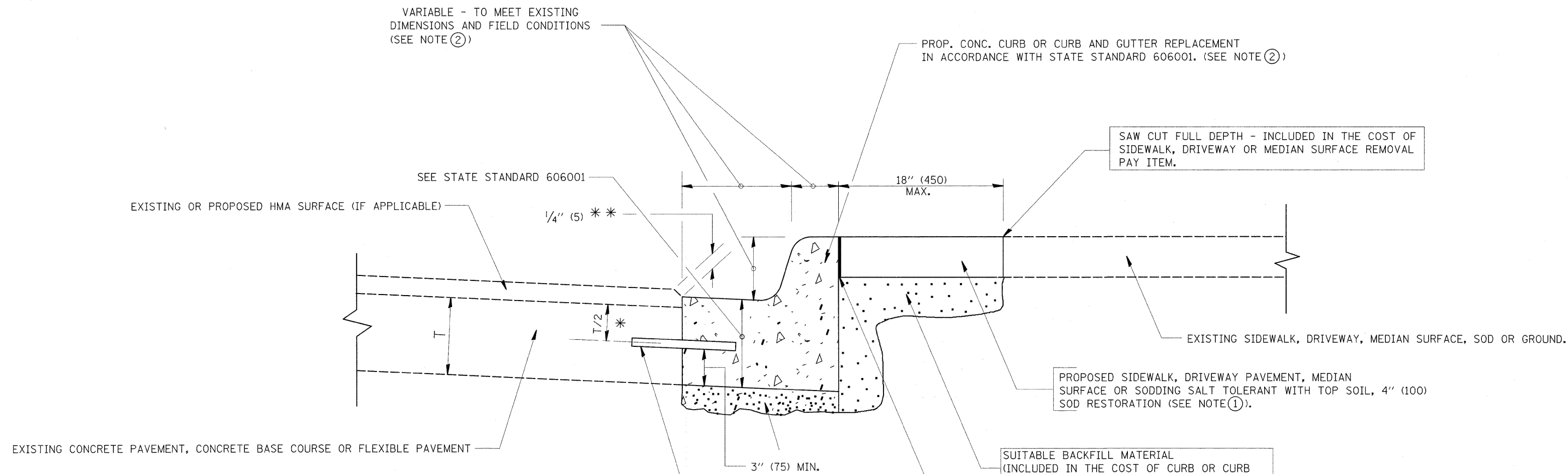
#### DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = steedpa	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pw\work\p\dot\steedpa\d0169821\DistSed.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	1362	3200 RS-3	COOK	25	7
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04						BD600-03 (BD-8)		CONTRACT NO. 60J07			
	PLOT DATE = 1/22/2010	DATE - 10-25-94	REVISED - R. BORO 01-01-07						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					







- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \* \* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.
- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
- SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
- ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

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

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

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

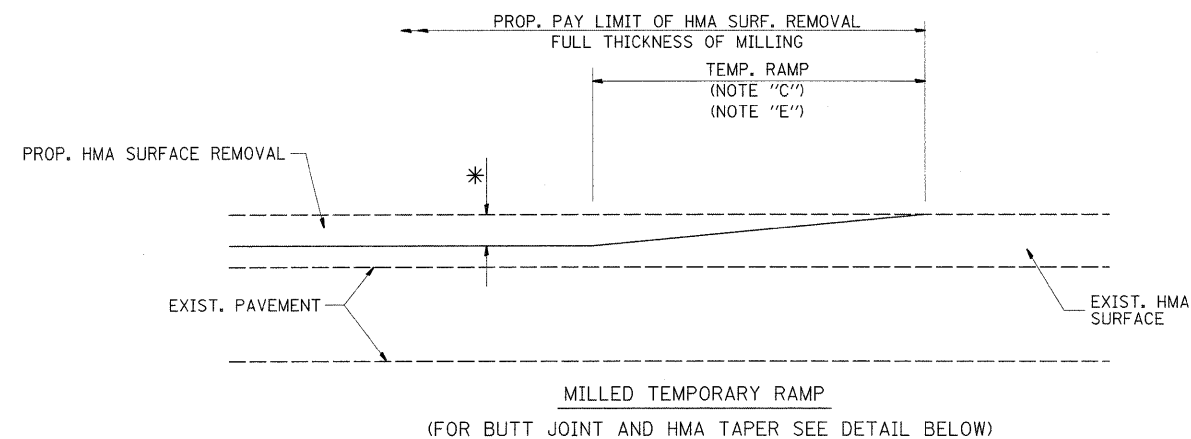
PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

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

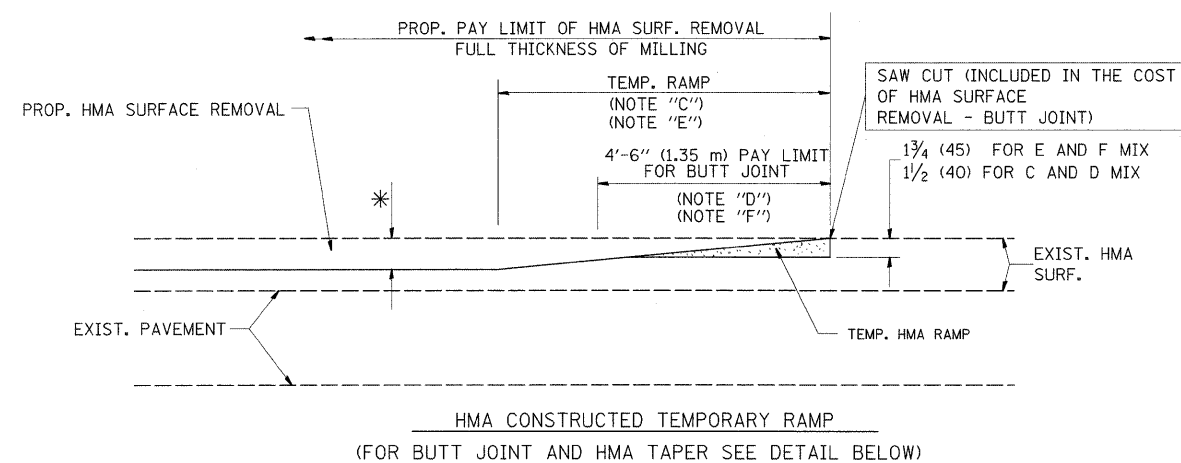
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = steedpa	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	F.A.U. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\pwidot\steedpa\d0169821\01stSed.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97			1362	3200 RS-3	COOK	25	9	
		CHECKED -	REVISED - M. GOMEZ 01-22-01			BD600-06 (BD-24)		CONTRACT NO. 60J07			
		DATE - 03-11-94	REVISED - R. BORO 12-15-09			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.				

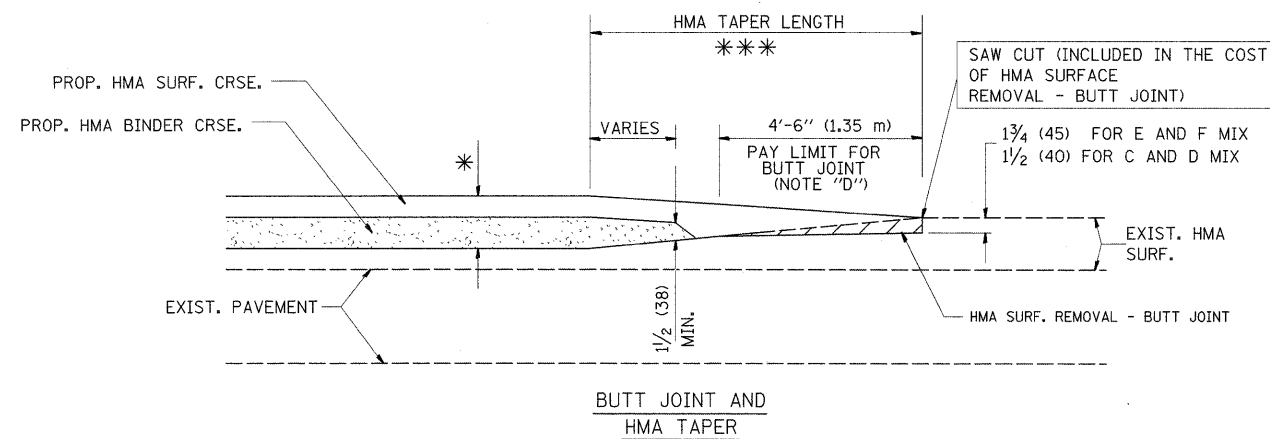


OPTION 1

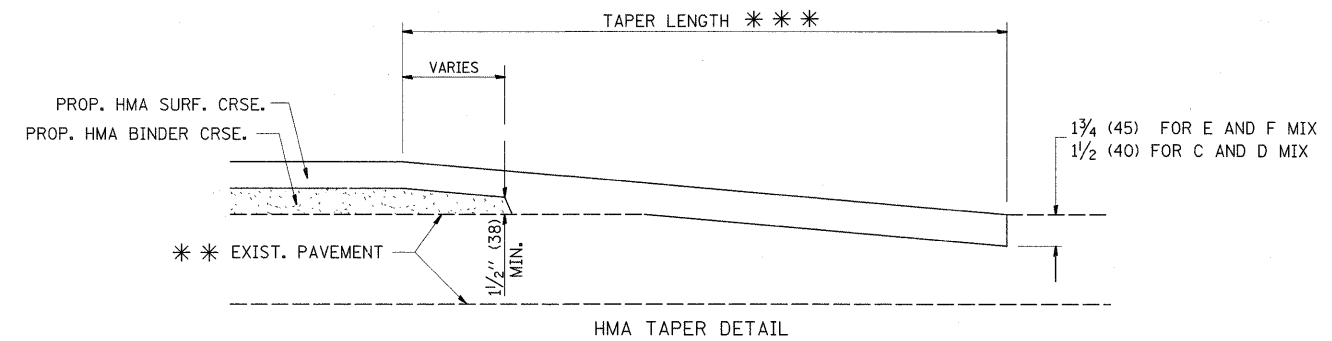
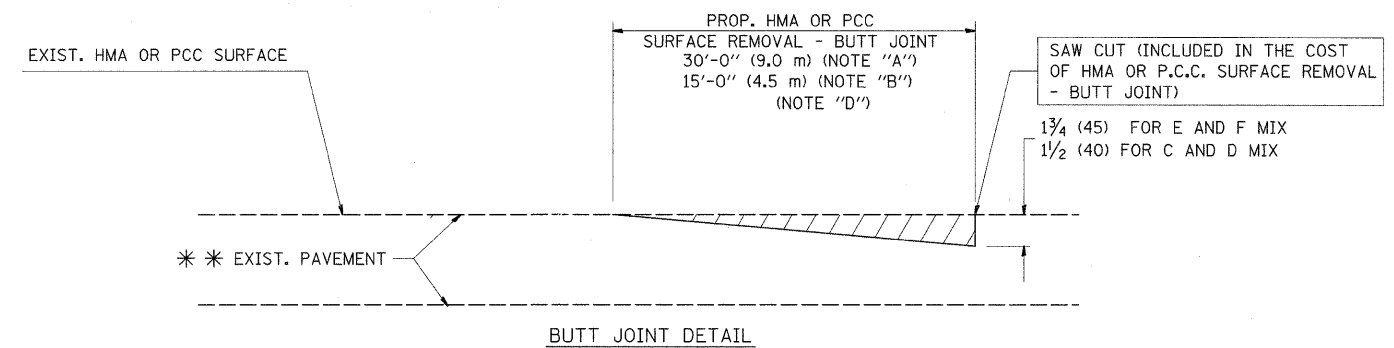


OPTION 2

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

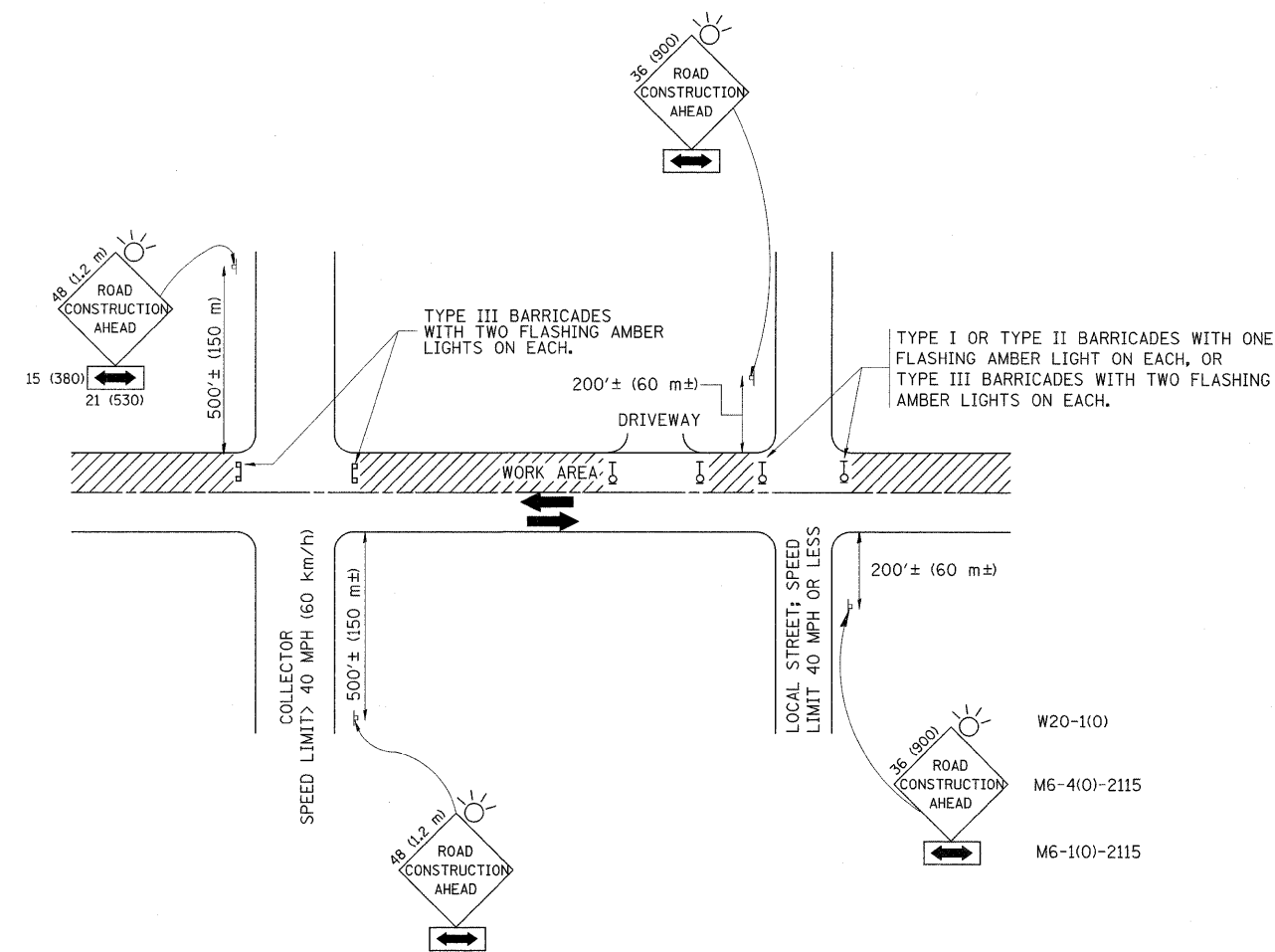
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0"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

FILE NAME =	USER NAME = steedpa	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
ct:\pw\work\p\wdot\steedpa\0169821\01stS	dgn	DRAWN -	REVISED - A. ABBAS 03-21-97			1362	3200 RS-3	COOK	25	10			
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED - M. GOMEZ 04-06-01			BD400-05 BD32		CONTRACT NO. 60J07					
PLOT DATE = 1/22/2010		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.													



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

### NOTES:

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

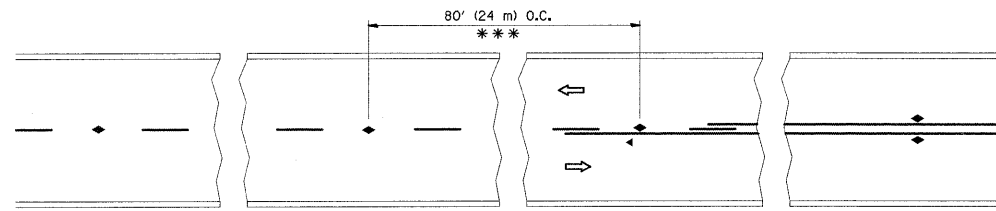
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 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:

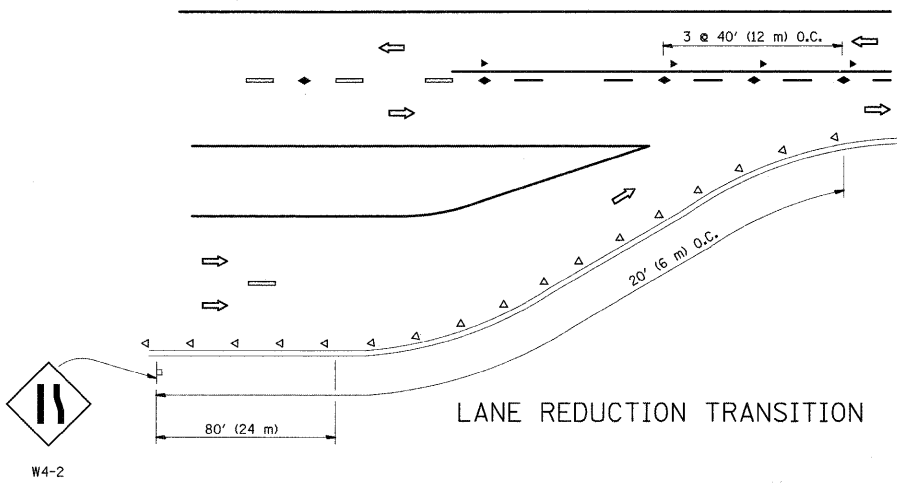
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER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

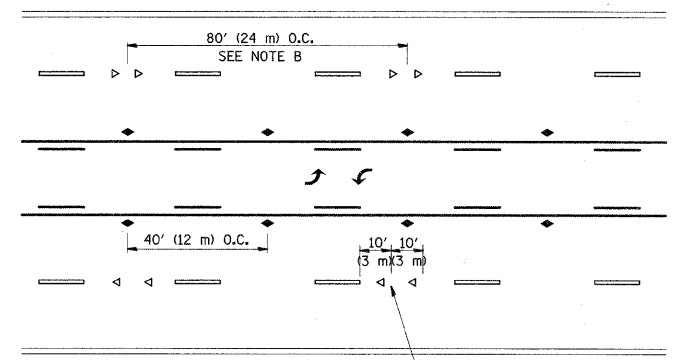
FILE NAME =	USER NAME = steedpa	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw_work\pwidot\steedpa\d0163821\Dist5.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96					1362	3200 RS-3	COOK	25	11
		CHECKED -	REVISED - A. HOUSEH 10-15-96		SCALE: NONE			TC-10				
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00		SHEET NO. 1 OF 1 SHEETS			CONTRACT NO. 60J07				



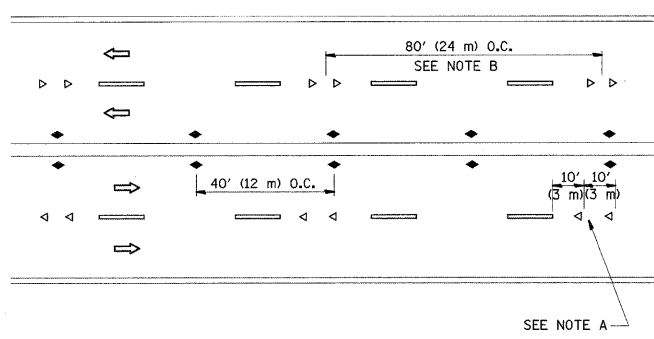
TWO-LANE/TWO-WAY



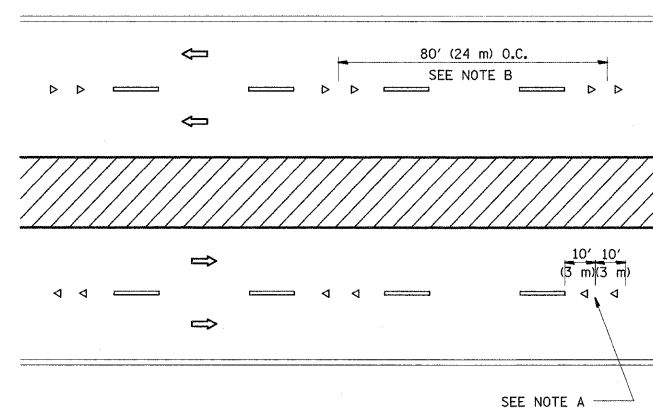
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

### GENERAL NOTES

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

### LANE MARKER NOTES

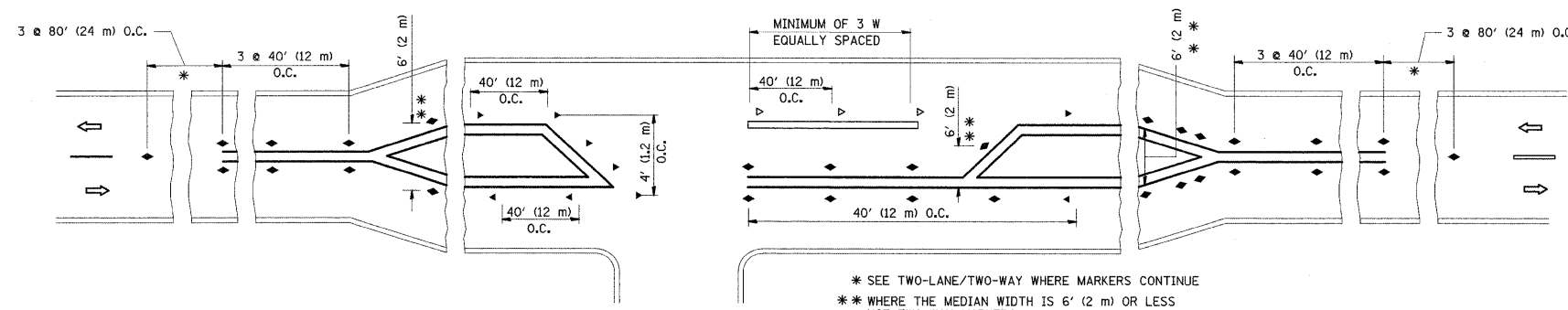
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

### SYMBOLS

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

### DESIGN NOTES

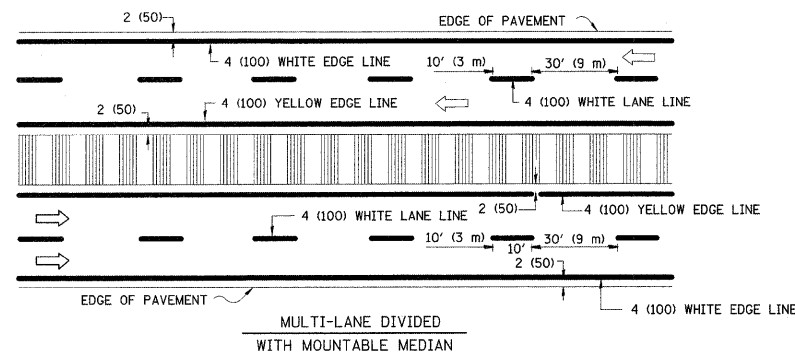
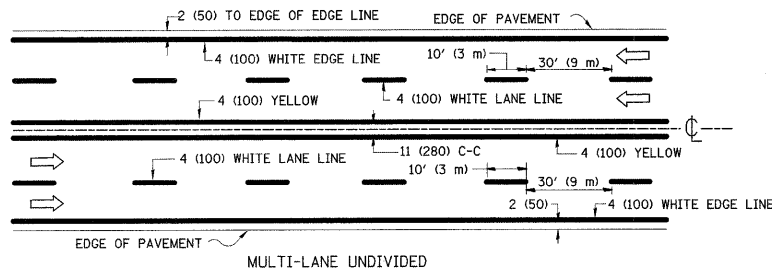
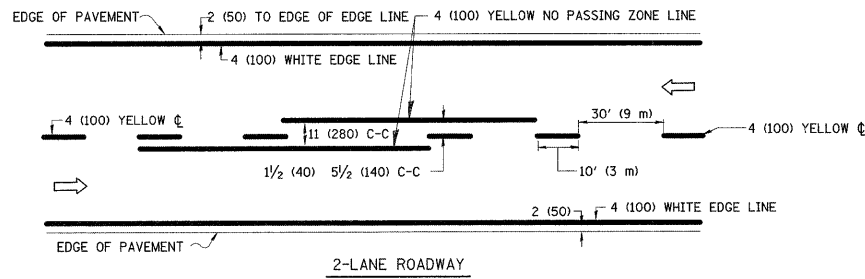
1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD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



LEFT TURN

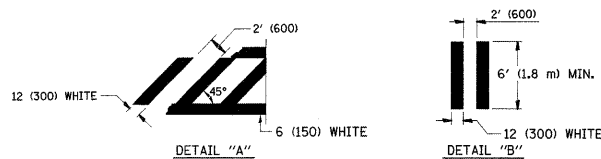
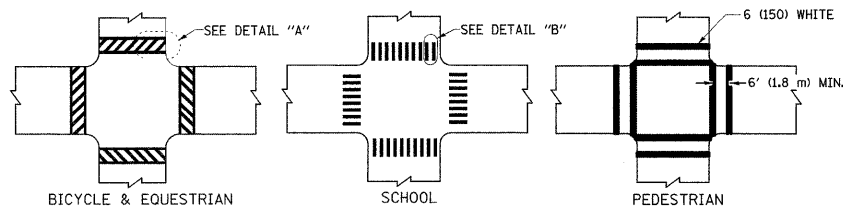
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = steedpa	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pw\work\p\dot\stedpa\d0169821\DistS		DRAWN -	REVISED - T. RAMMACHER 03-12-99			1362	3200 RS-3	COOK	25	12	
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00			TC-11					
	PLOT DATE = 1/22/2010	DATE -	REVISED - C. JUCIUS 09-09-09			CONTRACT NO. 60J07					
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

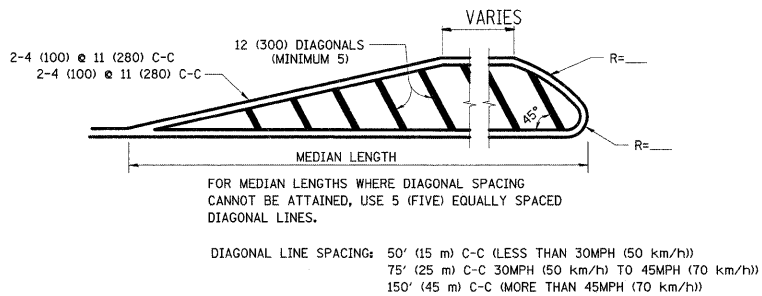
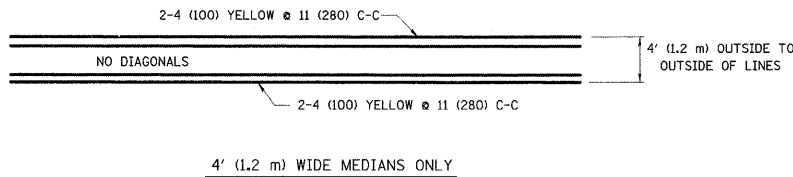


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

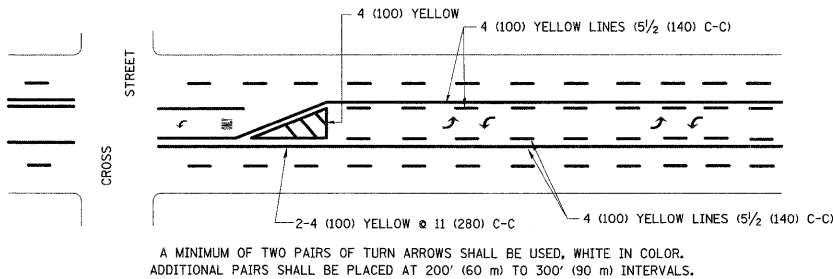
### TYPICAL LANE AND EDGE LINE MARKING



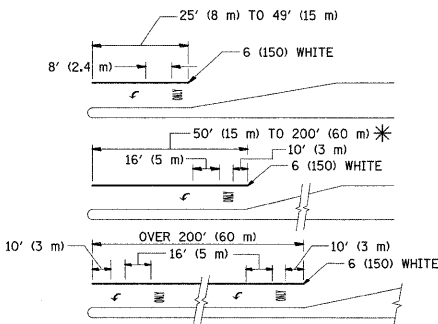
### TYPICAL CROSSWALK MARKING



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



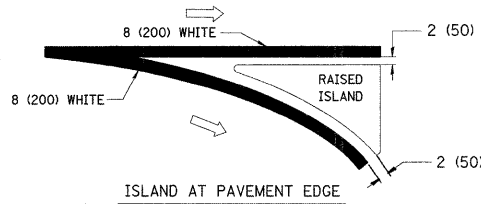
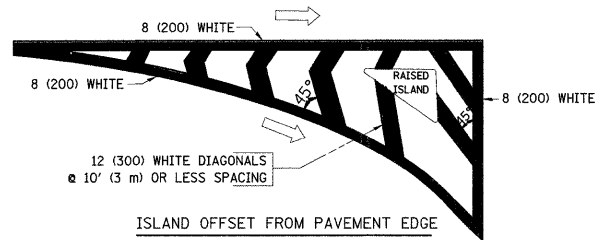
### TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

### TYPICAL LEFT (OR RIGHT) TURN LANE

### TYPICAL TURN LANE MARKING

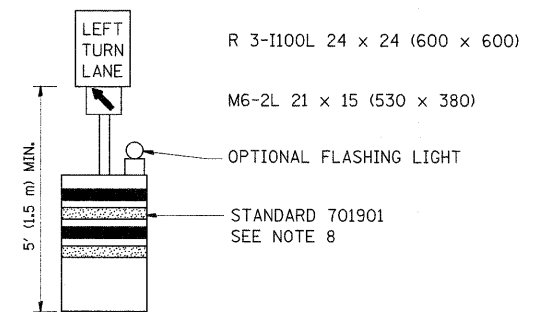
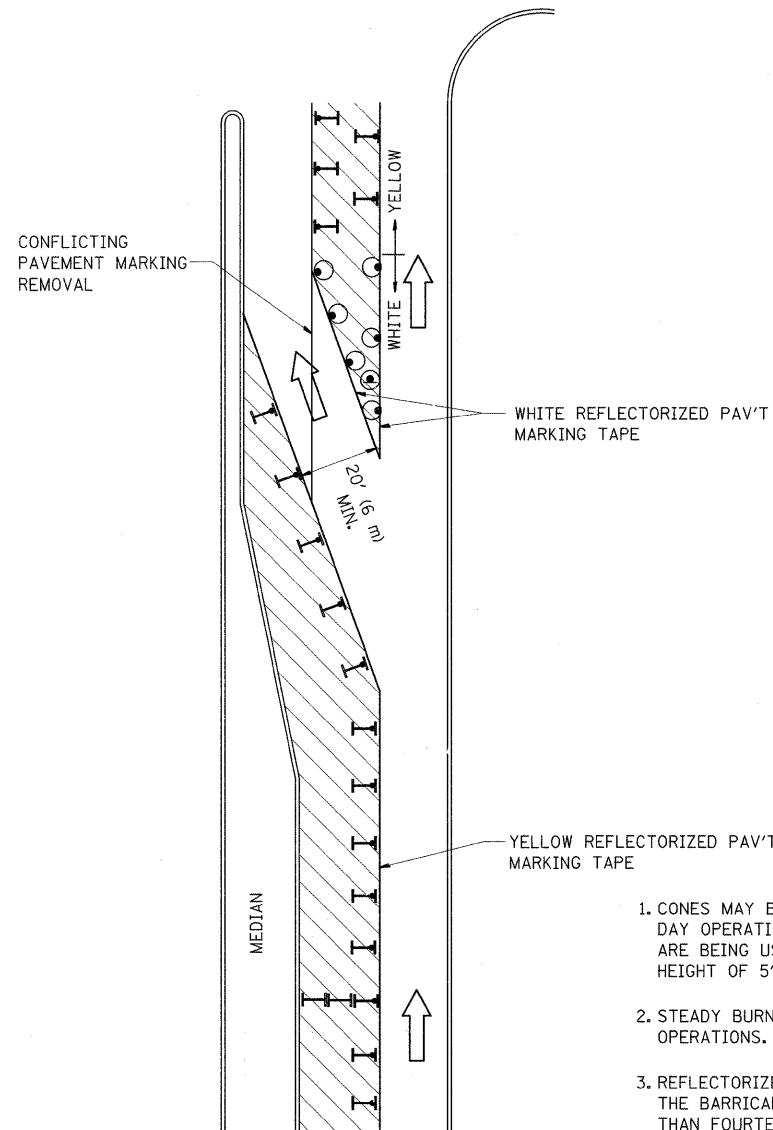


### TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	5 (125) ON FREEWAYS	SKIP-DASH	WHITE	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	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN)	2 @ 6 (150)	SOLID	WHITE	NOT LESS THAN 6' (1.8 m) APART
A. DIAGONALS (BIKE & EQUESTRIAN)	12 (300) @ 45°	SOLID	WHITE	2' (600) APART
B. LONGITUDINAL BARS (SCHOOL)	12 (300) @ 90°	SOLID	WHITE	SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS			SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. 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 (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 NCHRP 350 REQUIREMENTS.
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

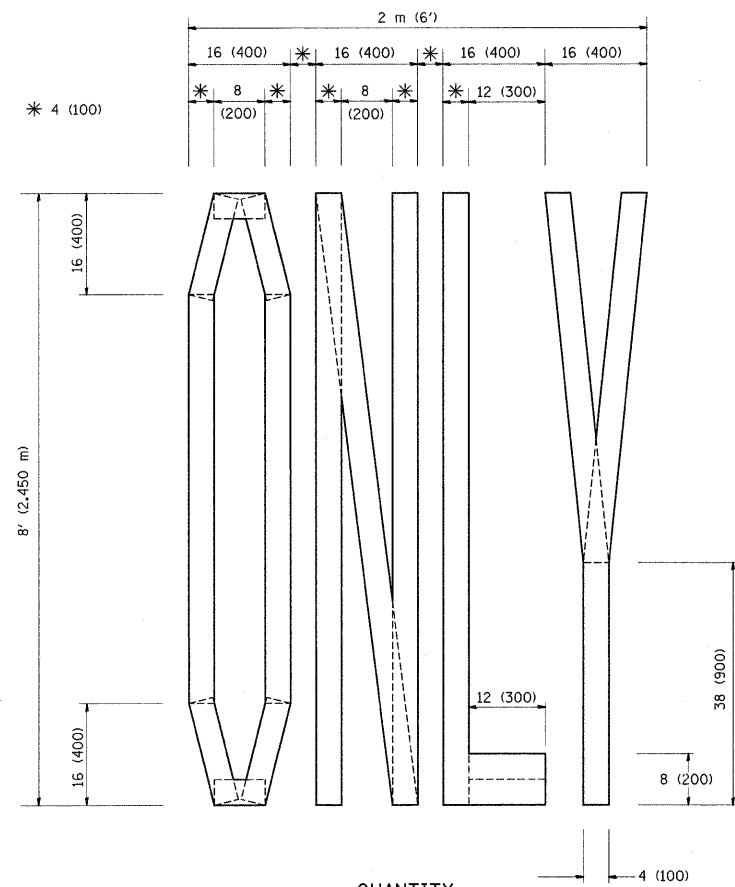
FILE NAME =	USER NAME = steedpa	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
c:\pw\work\pwidot\stedpa\d0164821\01stS.dgn		REVISED - A. HOUSEH 11-07-95	REVISED -
PLOT SCALE = 50.0000' / IN.		REVISED - A. HOUSEH 10-12-96	REVISED -
PLOT DATE = 1/22/2010		REVISED - T. RAMMACHER 01-06-00	REVISED -

#### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

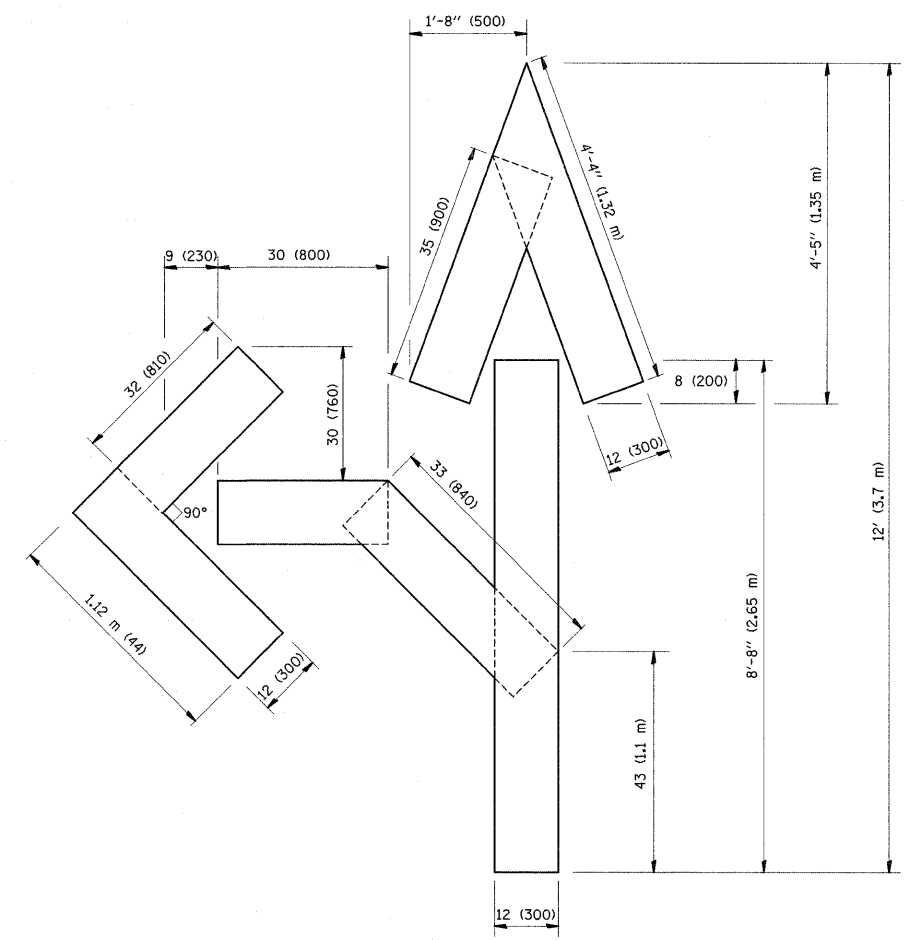
#### TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)

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

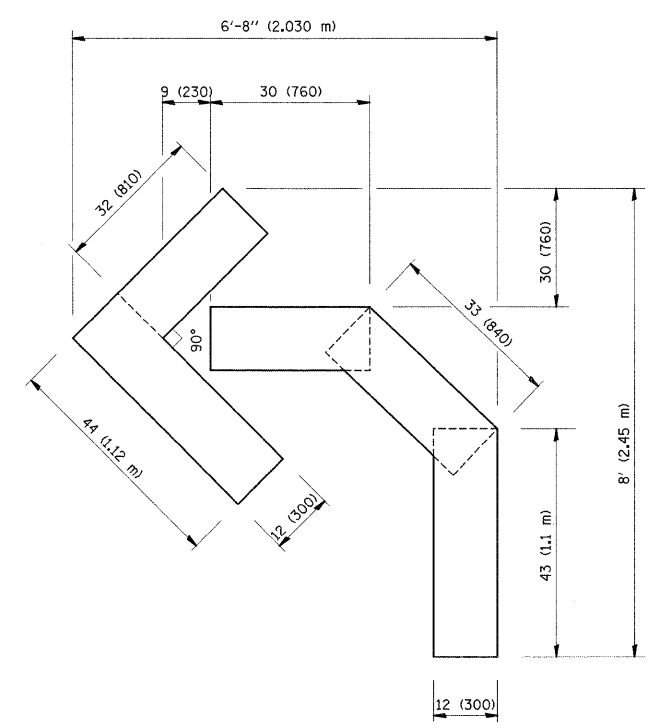
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1362	3200 RS-3	COOK	25	14
TC-14		CONTRACT NO. 60J07		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY  
4 (100) LINE = 64.1 ft. (19.7 m)  
21.1 sq. ft. (1.97 sq. m)



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



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

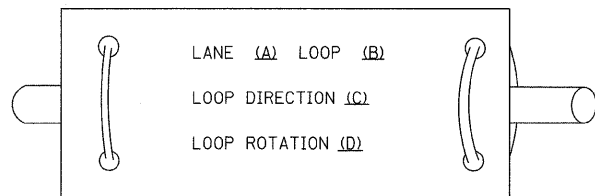
All dimensions are in inches (millimeters)  
unless otherwise shown.

FILE NAME =	USER NAME = steedpa	DESIGNED -	REVISED - T. RAMMACHER 06-05-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci\pw_work\pwidot\steedpa\d0169821\01stSddgn		DRAWN -	REVISED - T. RAMMACHER 11-04-97					1362	3200 RS-3	COOK	25	15
PLOT SCALE = 50.0000" / IN.		CHECKED -	REVISED - T. RAMMACHER 03-02-98		TC-16			CONTRACT NO. 60J07				
PLOT DATE = 1/22/2010		DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

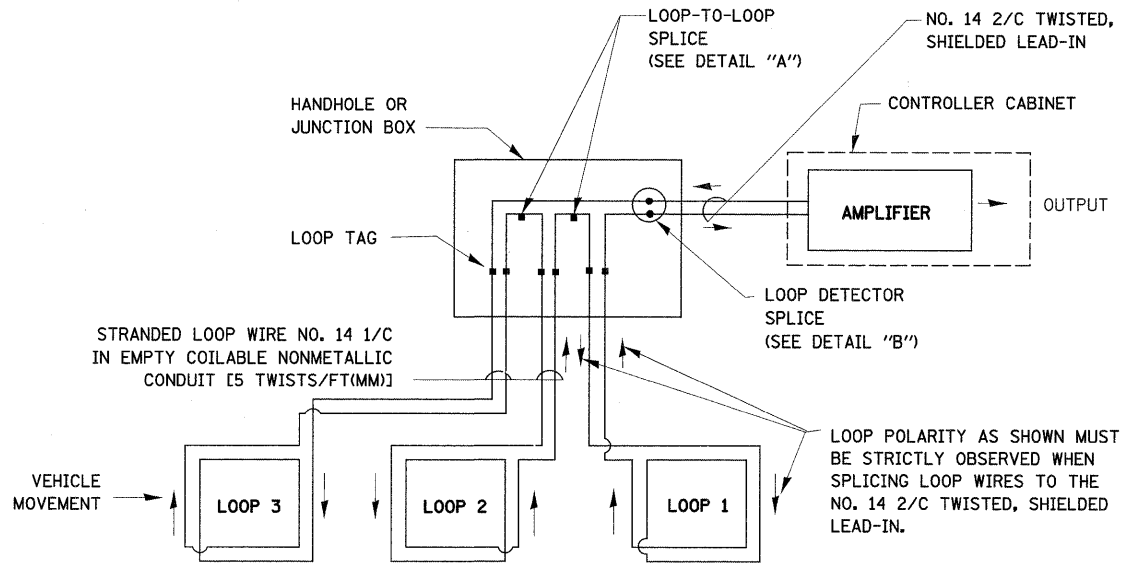
LOOP DETECTOR NOTES

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

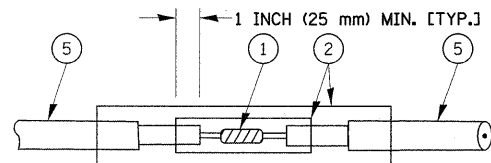


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

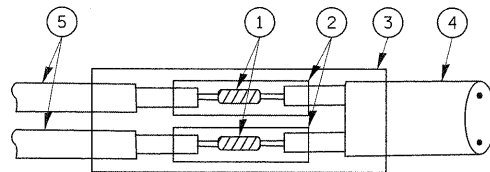


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPICED 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.

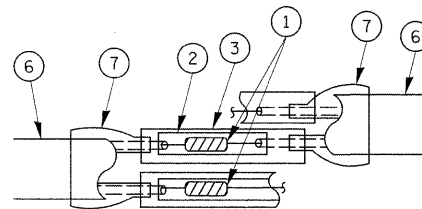


DETAIL "A"  
LOOP-TO-LOOP SPLICE

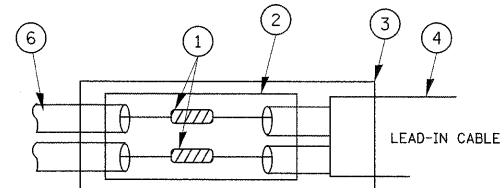


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

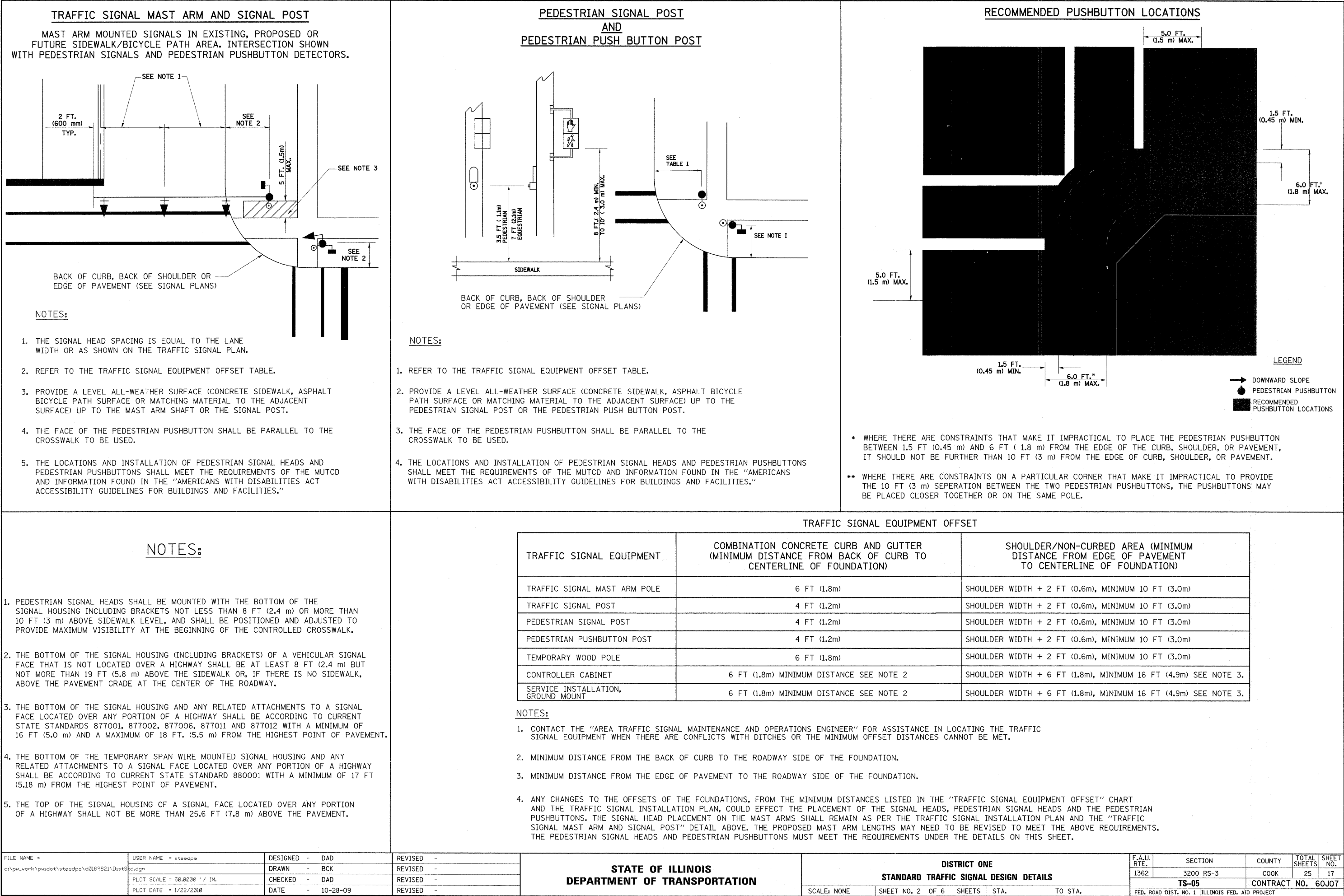
PREFORMED LOOP

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 LENGHT 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PREFORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = steeppa	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\steeppa\0169821\01steeppa.dgn		DRAWN - BCK	REVISED -									1362	3200 RS-3	COOK	25	16
PLOT SCALE = 5/8" = 1" / IN.		CHECKED - DAD	REVISED -									TS-05				CONTRACT NO. 60J07
PLOT DATE = 1/22/2018		DATE - 10-28-09	REVISED -									FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
								SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.					



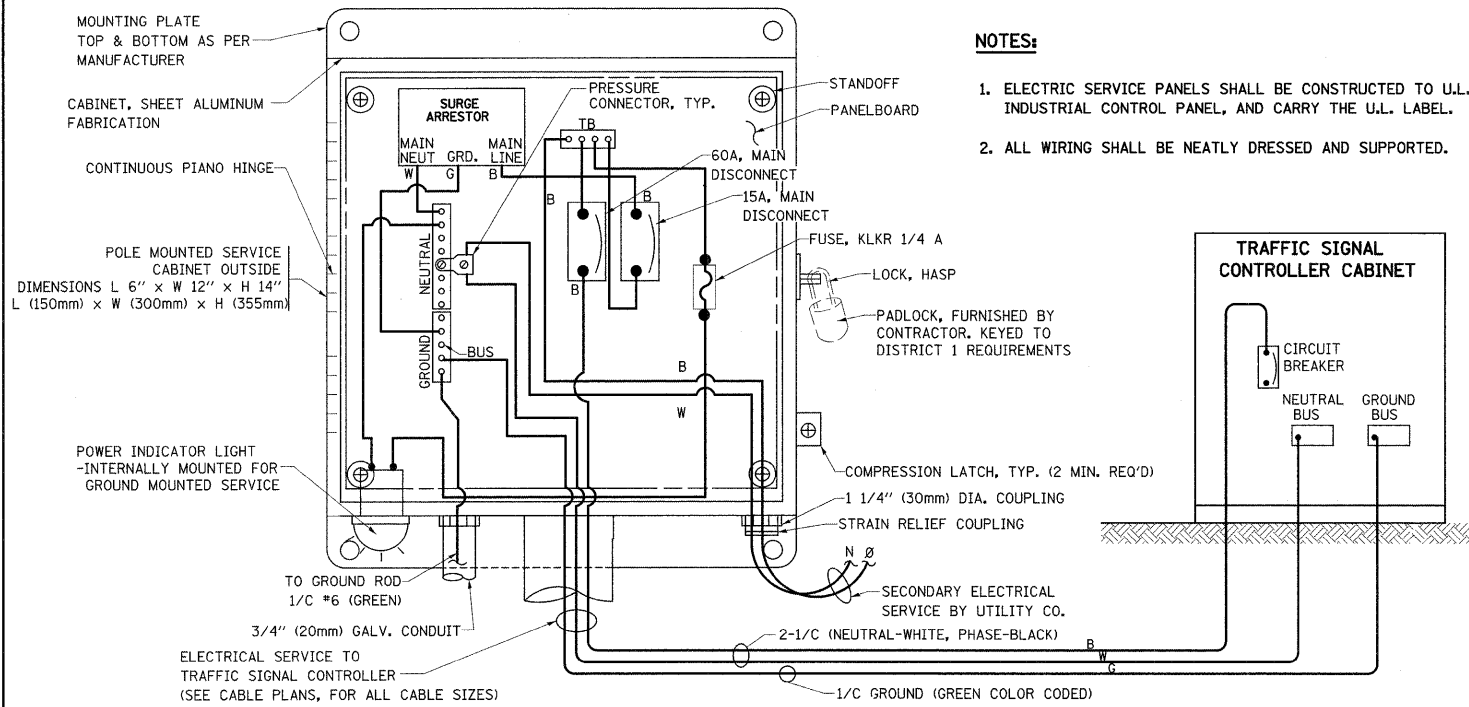


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

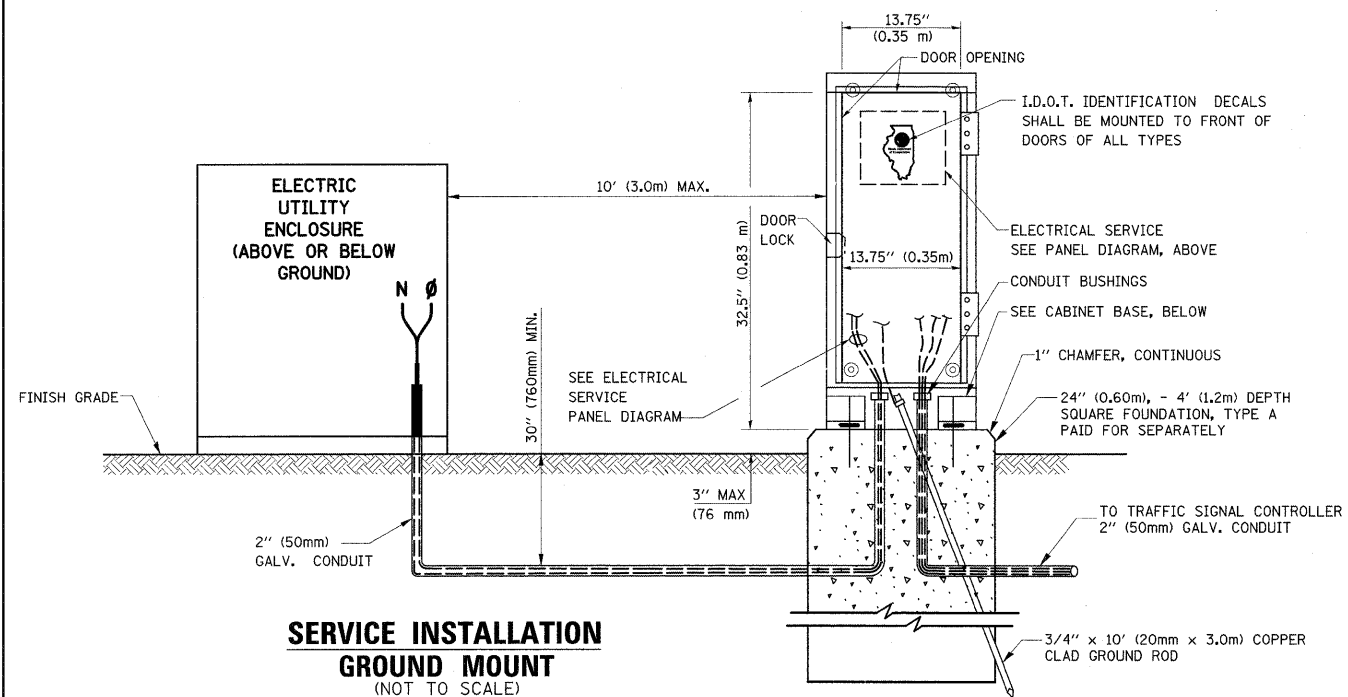
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 2 OF 6 SHEETS STA. TO STA.

F.A.U. RTE. 1362 SECTION 3200 RS-3 COUNTY COOK TOTAL SHEETS 25 SHEET NO. 17  
TS-05 CONTRACT NO. 60J07  
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

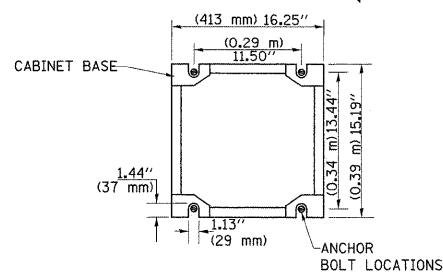


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



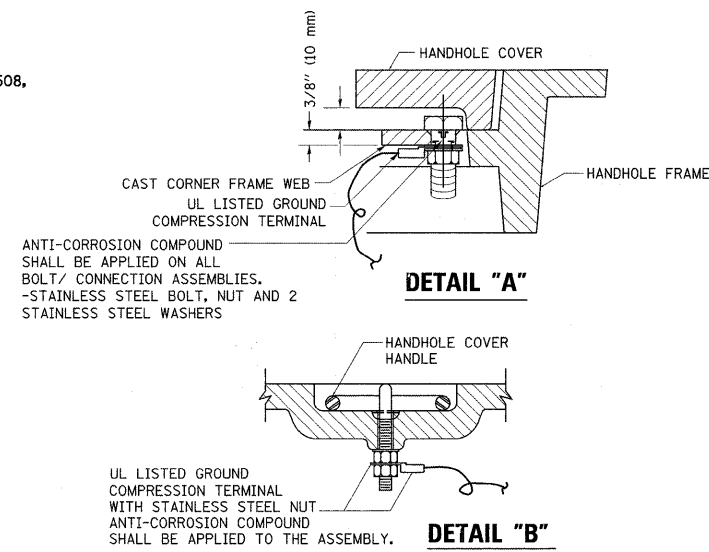
**SERVICE INSTALLATION GROUND MOUNT**  
 (NOT TO SCALE)

**CABINET - BASE BOLT PATTERN**  
 (NOT TO SCALE)

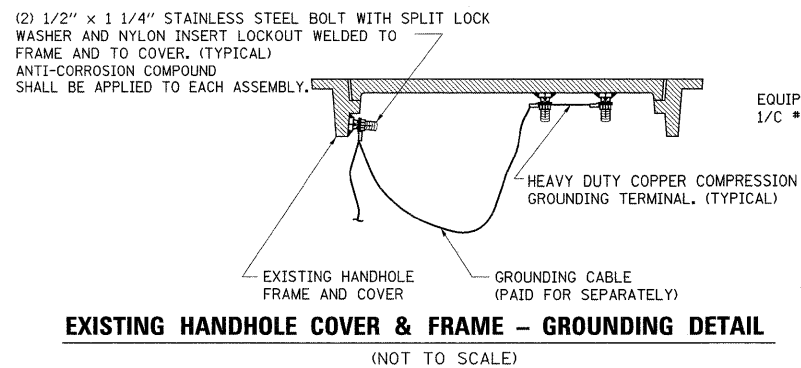


**NOTES:**

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)

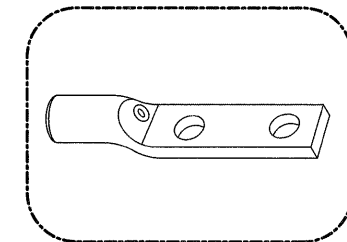


**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)

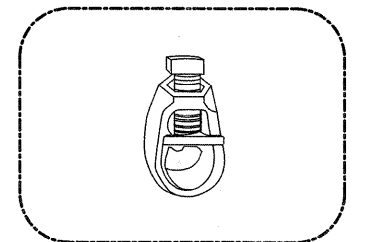
**NOTES:**

**GROUNDING SYSTEM**

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



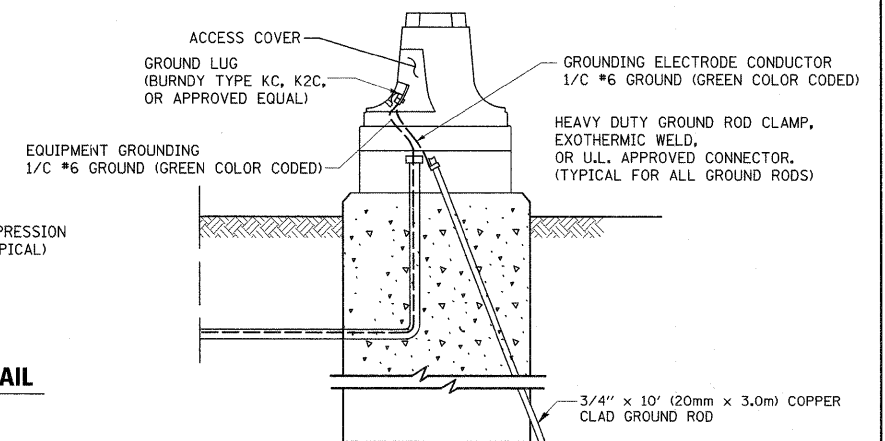
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

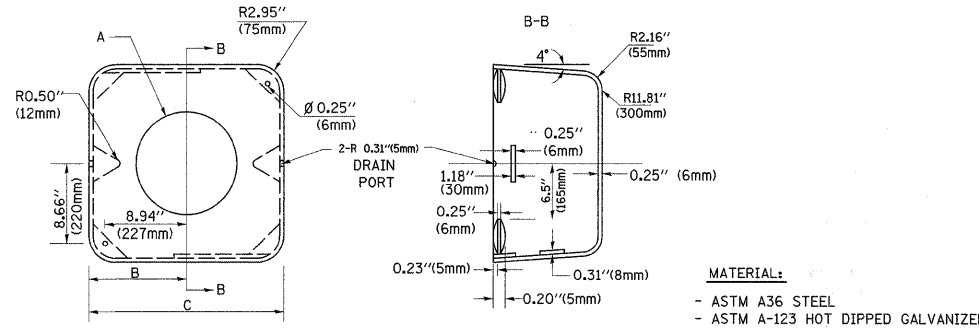
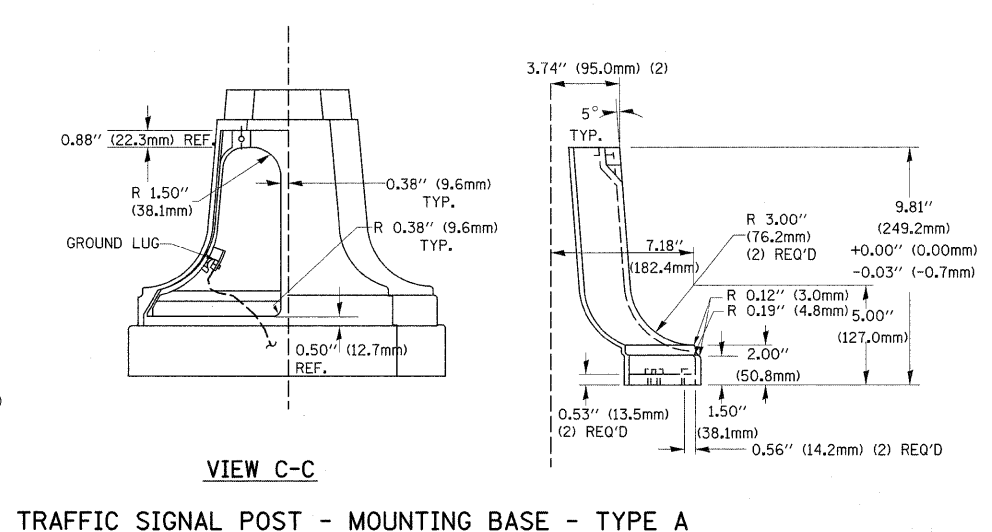
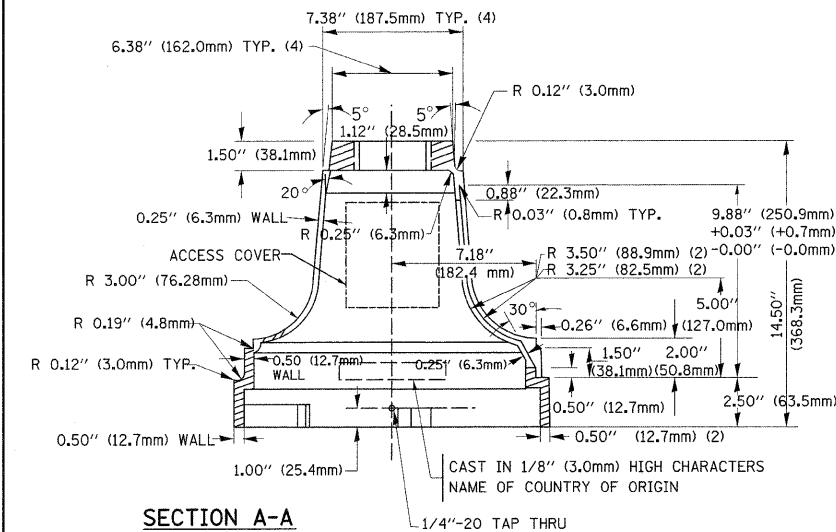
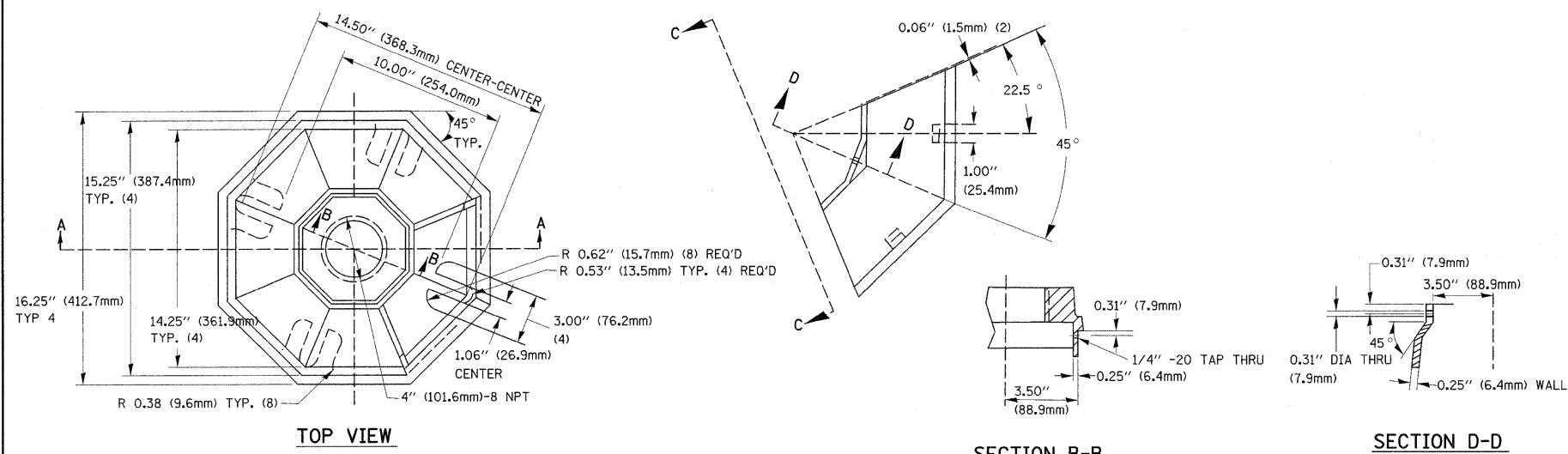
**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



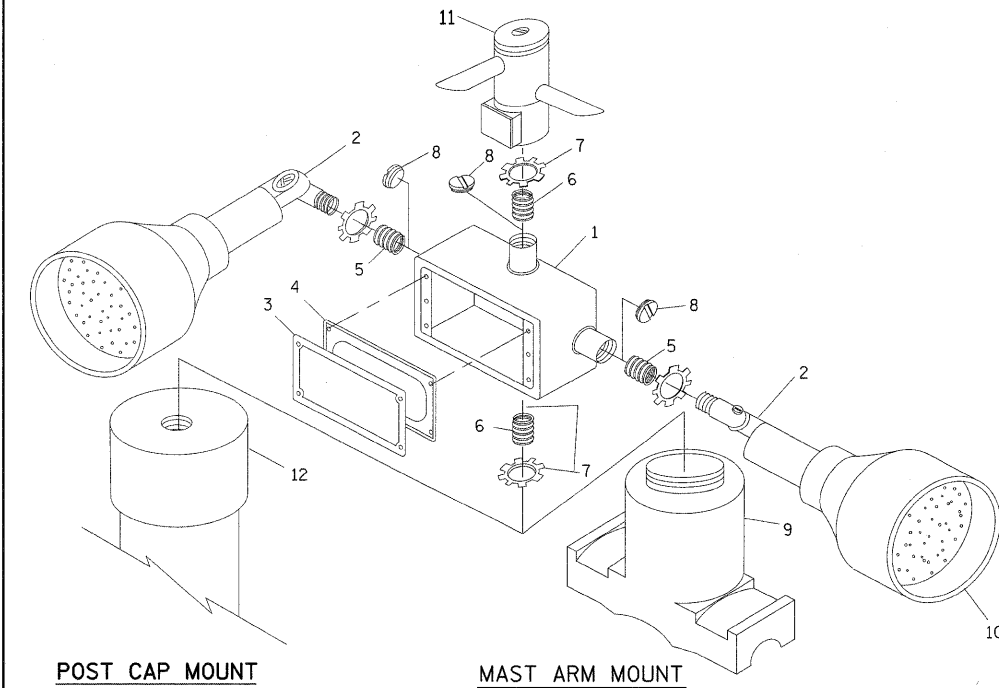
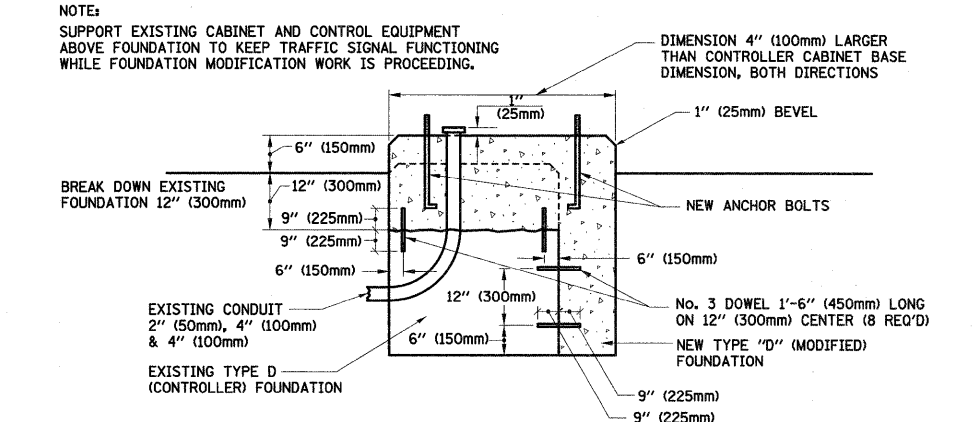
**MAST ARM POLE / POST-GROUNDING DETAIL**  
 (NOT TO SCALE)

FILE NAME =	USER NAME = steedpa	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\pwidot\stedpa\0169821\01stSed.dgn		DRAWN - BCK	REVISED -									1362	3200 RS-3	COOK	25	18
PLOT SCALE = 50.0000' / IN.		CHECKED - DAD	REVISED -									TS-05				CONTRACT NO. 60J07
PLOT DATE = 1/22/2010		DATE - 10-28-09	REVISED -									FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
				SCALE: NONE				SHEET NO. 3 OF 6 SHEETS				STA. TO STA.				



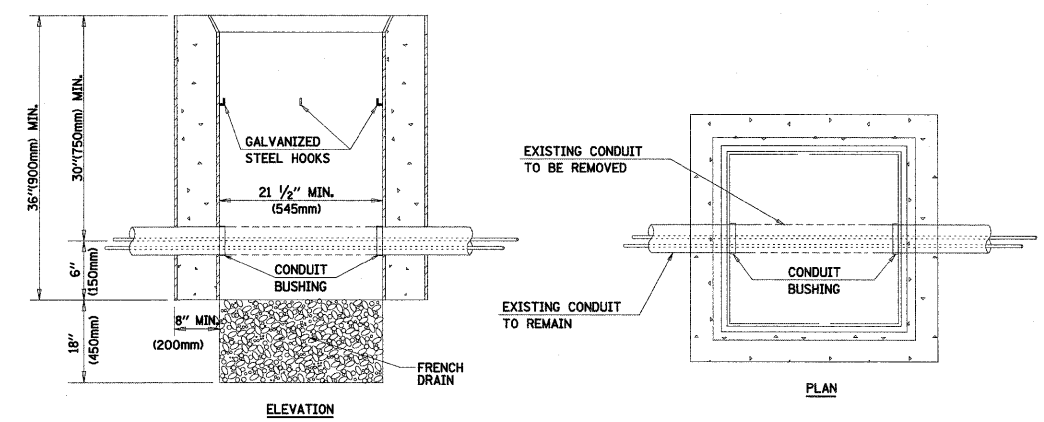
A	B	C	HEIGHT	WEIGHT
VARIES	9.5\"	19\"	7\" - 12\"	53 lbs (24 kg)
VARIES	10.75\"	21.5\"	7\" - 12\"	68 lbs (31 kg)
VARIES	13.0\"	26\"	7\" - 12\"	81 lbs (37 kg)
VARIES	18.5\"	37\"	7\" - 12\"	126 lbs (57 kg)

- NOTES:**
- 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.
  - THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
  - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

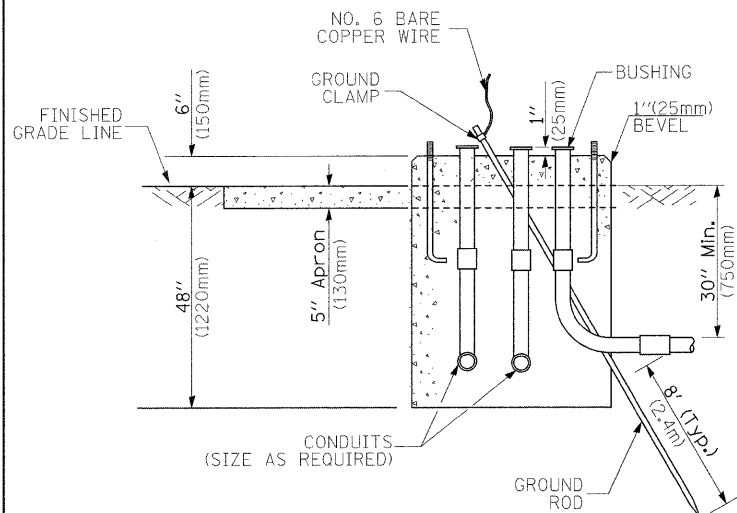
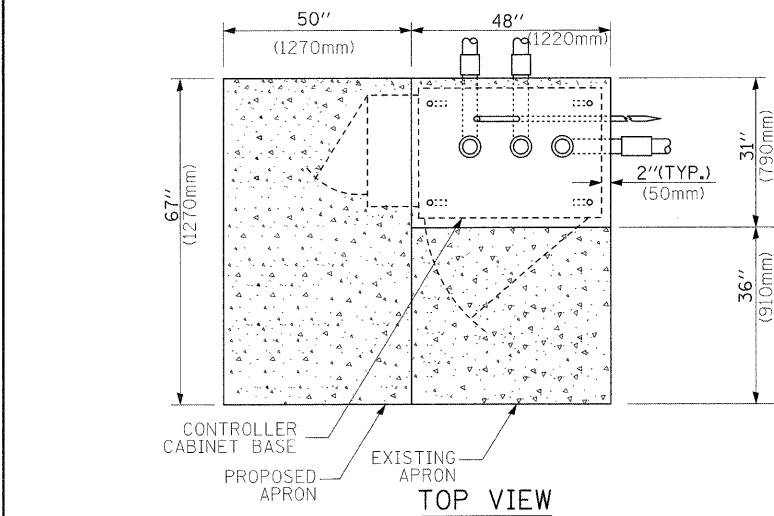


ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"
7	3/4\"
8	3/4\"
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP 18 FT. (5.4 m) POST MIN.]

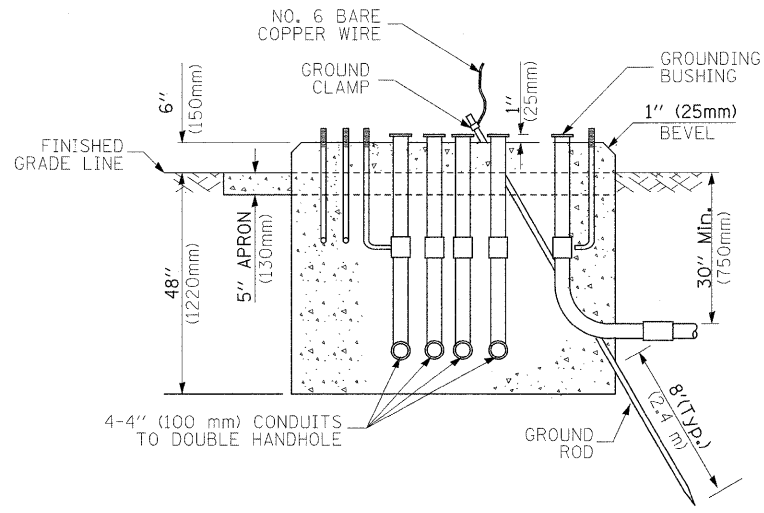
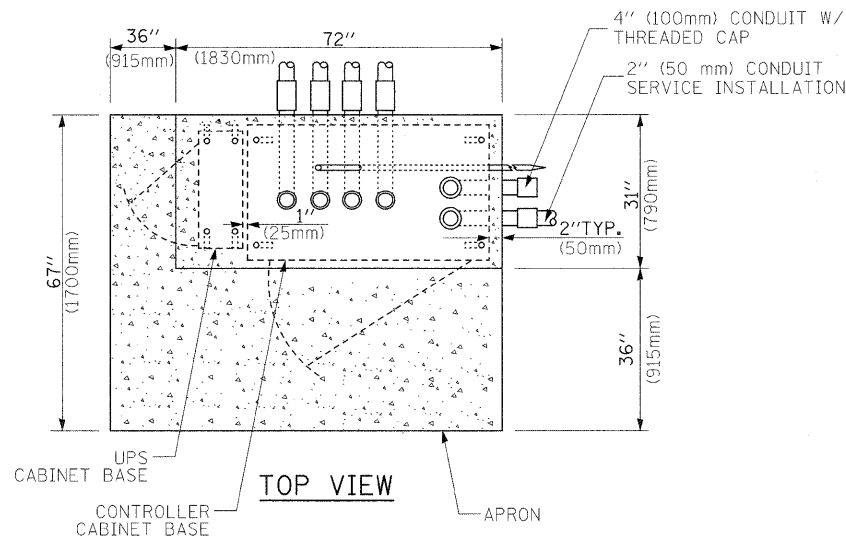
- NOTES:**
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
  - ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
  - WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\"



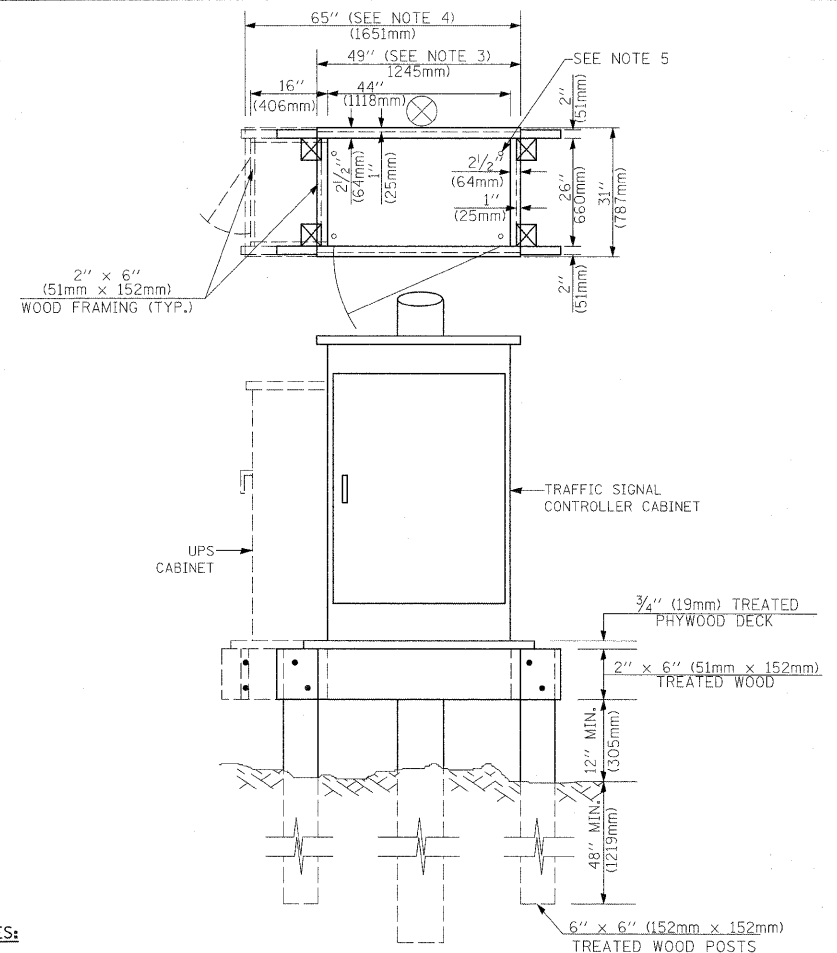
- NOTES:**
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
  - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.



**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



**TYPE C  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



**NOTES:**

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 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	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 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

1. 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 (Qu) > 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 mast 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**

FILE NAME =	USER NAME = steedpa	DESIGNED - DAG	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>				<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\p\std\stedpa\d0169821\DistStd.dgn		DRAWN - BCK	REVISED -									1362	3200 RS-3	COOK	25	20
PLOT SCALE = 50.0000 ' / IN.		CHECKED - DAD	REVISED -									<b>TS-05</b>				CONTRACT NO. 60J07
PLOT DATE = 1/22/2010		DATE - 10-28-09	REVISED -									FED. ROAD DIST. NO. 1 ILLINOIS/FED. AID PROJECT				
								SCALE: NONE	SHEET NO. 5 OF 6 SHEETS	STA.	TO STA.					

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																		
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																					
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																					
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																					
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																					
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																					
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)																					
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																					
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH			CT	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																					
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																					
SIGNAL POST				REMOVE ITEM	R			SIGNAL POST AND FOUNDATION TO BE REMOVED																					
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			INTERSECTION & SAMPLING (SYSTEM) DETECTOR																					
GUY WIRE				ABANDON ITEM	A			SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PREFORMED SAMPLING (SYSTEM) DETECTOR																					
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				<div>RAILROAD SYMBOLS</div> <table><tr><th></th><th>EXISTING</th><th>PROPOSED</th></tr><tr><td>RAILROAD CONTROL CABINET</td><td></td><td></td></tr><tr><td>RAILROAD CANTILEVER MAST ARM</td><td></td><td></td></tr><tr><td>FLASHING SIGNAL</td><td></td><td></td></tr><tr><td>CROSSING GATE</td><td></td><td></td></tr><tr><td>CROSSBUCK</td><td></td><td></td></tr></table>					EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK		
	EXISTING	PROPOSED																											
RAILROAD CONTROL CABINET																													
RAILROAD CANTILEVER MAST ARM																													
FLASHING SIGNAL																													
CROSSING GATE																													
CROSSBUCK																													
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED																									
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																									
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																									
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT																									
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER																									
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																									
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																									
MICROWAVE VEHICLE SENSOR																													
VIDEO DETECTION CAMERA																													
VIDEO DETECTION ZONE																													
PAN, TILT, ZOOM CAMERA																													
WIRELESS DETECTOR SENSOR																													
WIRELESS ACCESS POINT																													

FILE NAME = c:\pwwork\pwwork\stedpa\d0169821\01ststd.dgn

USER NAME = stedpa

DESIGNED - DAG/BCK

DRAWN - BCK

CHECKED - DAD

DATE - 10-28-09

REVISD -

REVISD -

REVISD -

REVISD -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 6 OF 6 SHEETS STA. TO STA.

F.A.U. RTE. 1362

SECTION 3200 RS-3

COUNTY COOK

TOTAL SHEETS 25

SHEET NO. 21

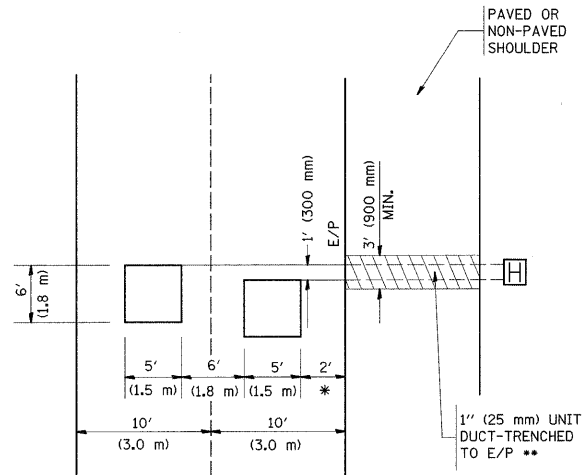
TS-05

CONTRACT NO. 60J07

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

# LOOPS NEXT TO SHOULDERS

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

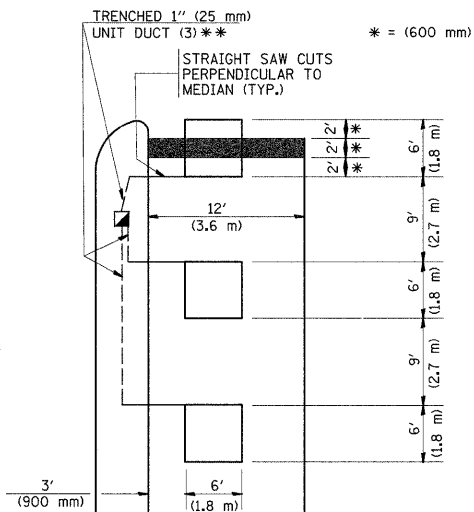


\* = (600 mm)

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

# LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING)

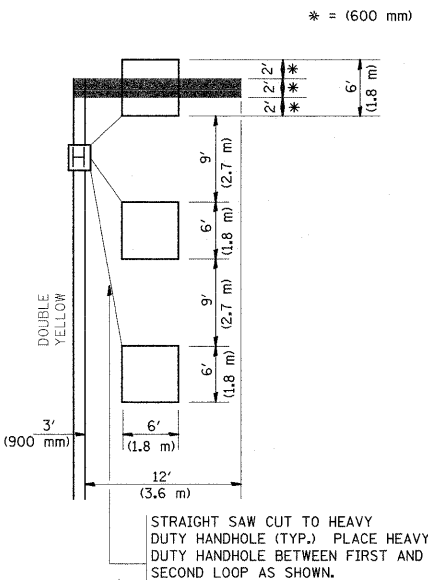
HANDHOLE LOCATION MAY  
VARY DEPENDING ON GEOMETRICS  
AND DESIGN OF TRAFFIC SIGNALS.  
HEAVY-DUTY HANDHOLES TO BE  
USED WHEN THE MEDIAN IS  
MOUNTABLE. REFER TO STANDARD  
814001 TO ENSURE THAT HANDHOLE  
FITS IN MEDIAN.



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

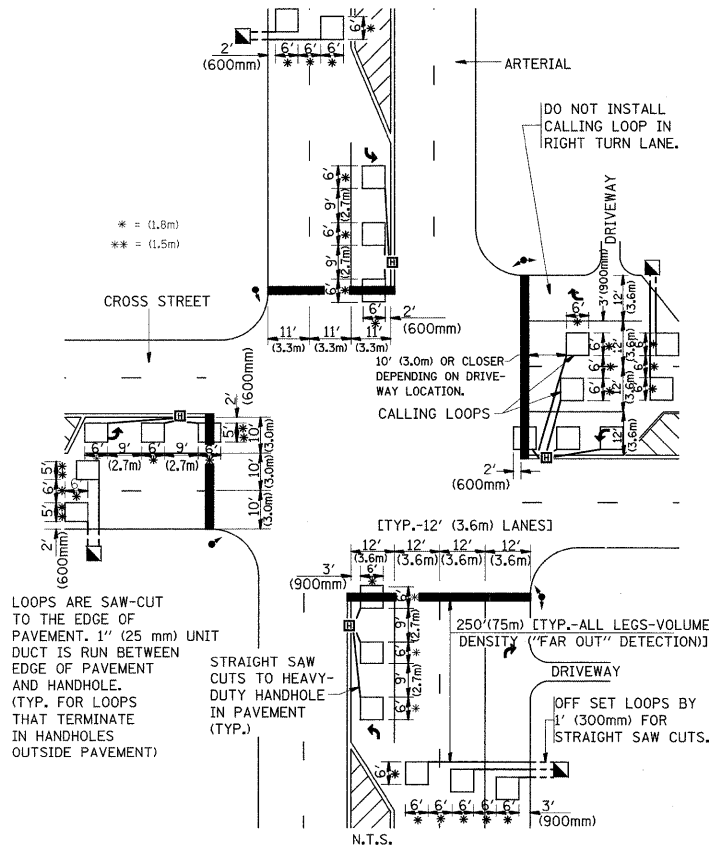
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



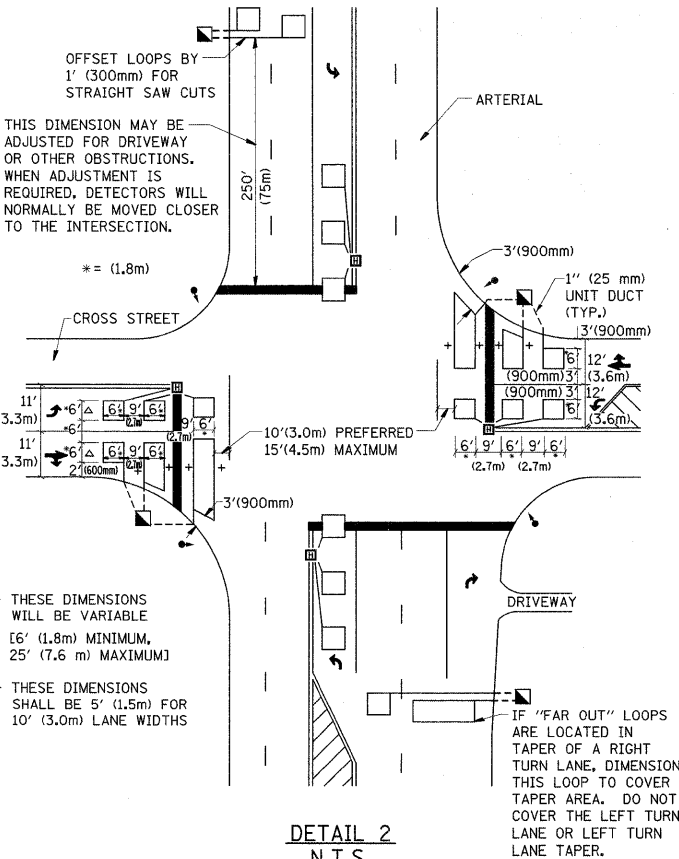
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1  
N.T.S.

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



DETAIL 2  
N.T.S.

## NOTES:

## VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

## PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

## NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

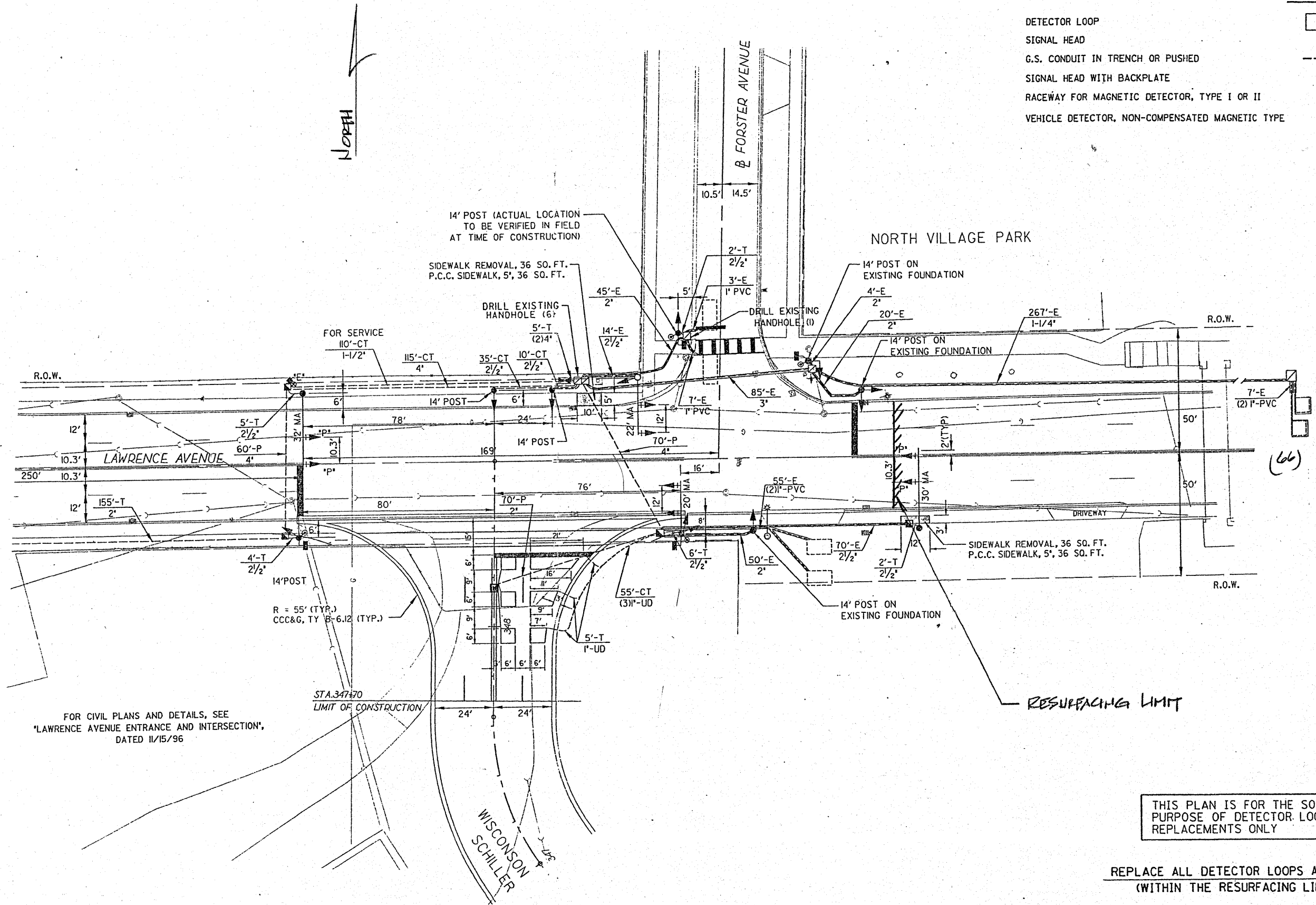
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME =	USER NAME = steedpa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\stedpa\d0169821\DistSed.dgn		DRAWN -	REVISED -									1362	3200 RS-3	COOK	25	22
		CHECKED - R.K.F.	REVISED -									TS-07				CONTRACT NO. 60J07
		DATE	REVISED -									FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
PLOT SCALE = 50.0000' / IN.		PLOT DATE = 1/22/2010		SCALE: NONE				SHEET NO. 1 OF 1 SHEETS				STA. TO STA.				



TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING



FOR CIVIL PLANS AND DETAILS, SEE  
'LAWRENCE AVENUE ENTRANCE AND INTERSECTION',  
DATED 11/15/96

THIS PLAN IS FOR THE SOLE  
PURPOSE OF DETECTOR LOOP  
REPLACEMENTS ONLY

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

CODE	QUANTITY	UNIT	ITEM
86600600	66	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = kentaphixaybc	DESIGNED - BCK	REVISED -
ca:\pwwork\pwwid\KANTAPHIXAYBC\d01126	traffic.legend.v7.dgn	DRAWN - BCK	REVISED -
	PLOT SCALE = 3/4" = 1' IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 4/3/2009	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE - DETECTOR LOOP REPLACEMENT  
LAWRENCE AV. @ FORSTER AV.

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1362	3200RS-3	COOK	25	23
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

### TRAFFIC SIGNAL LEGEND

<u>PROPOSED</u>	<u>EXISTING</u>
1.00	1.00
2.00	2.00
3.00	3.00
4.00	4.00
5.00	5.00
6.00	6.00
7.00	7.00
8.00	8.00
9.00	9.00
10.00	10.00
11.00	11.00
12.00	12.00
13.00	13.00
14.00	14.00
15.00	15.00
16.00	16.00
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97.00	97.00
98.00	98.00
99.00	99.00
100.00	100.00

DETECTOR LOOP

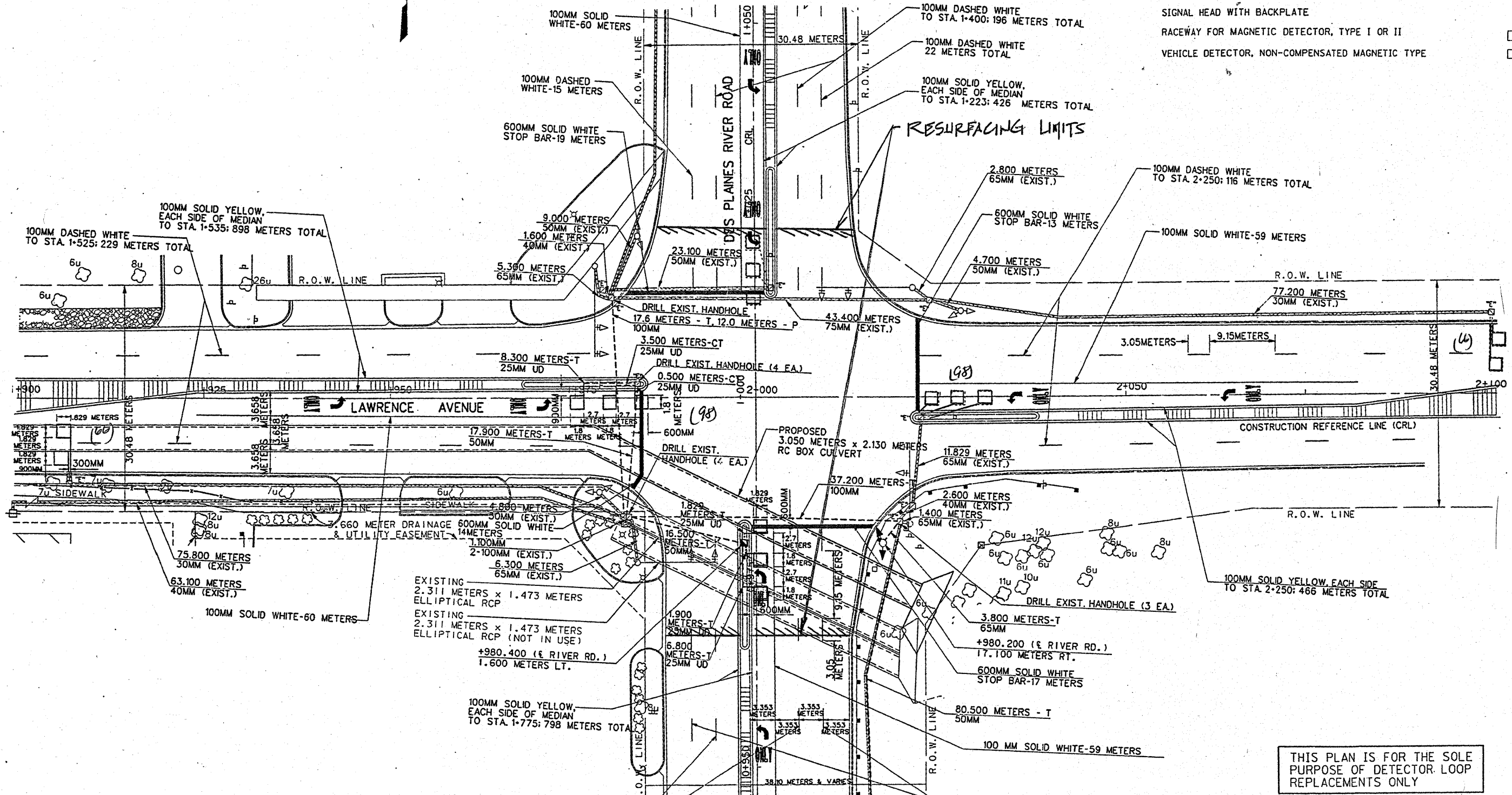
SIGNAL HEAD

G.S. CONDUIT IN TRENCH OR PUSHED

SIGNAL HEAD WITH BACKPLATE

RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II

VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE

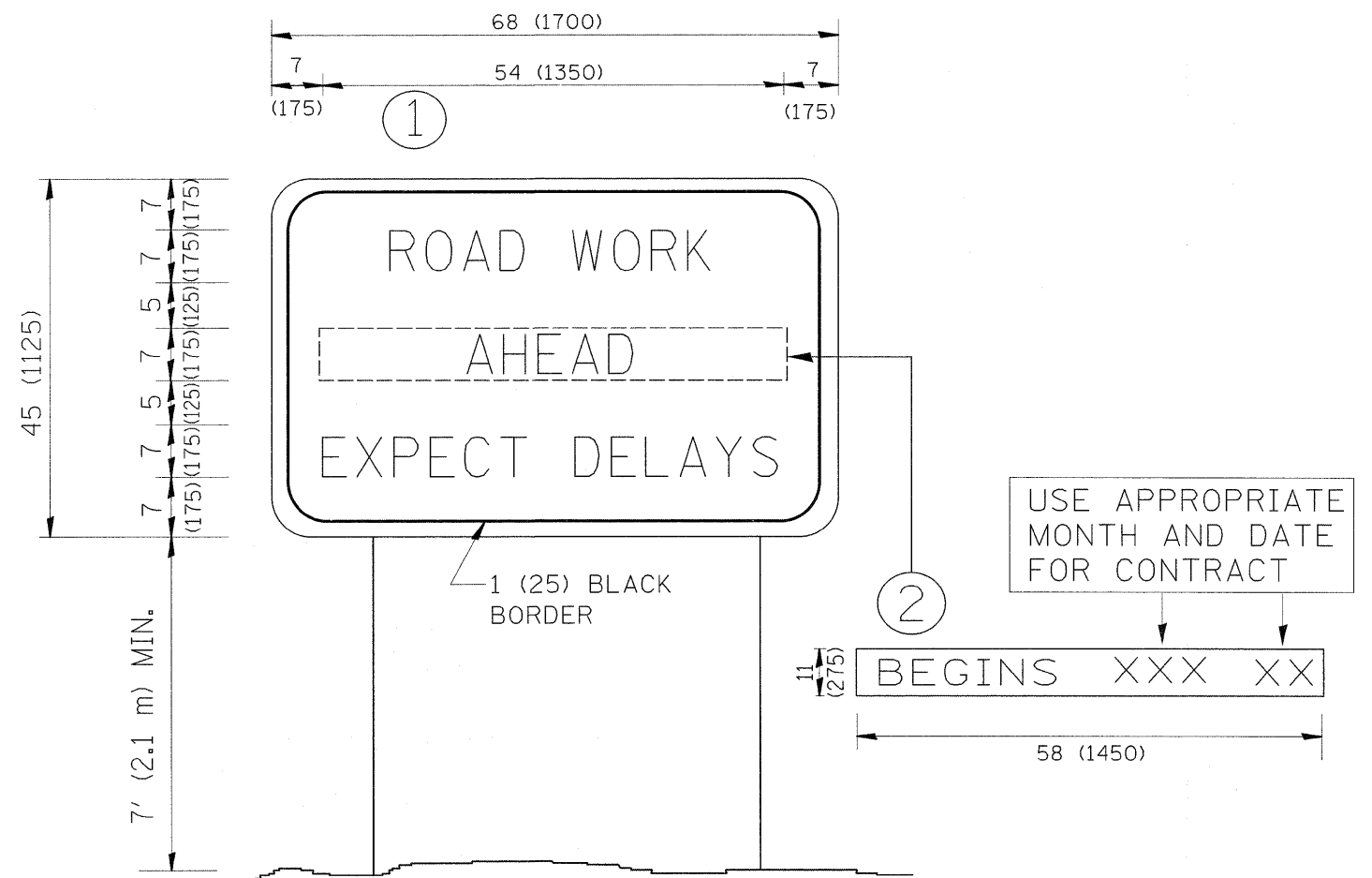


REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
86600600	524	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = kenthaphixaybc	DESIGNED - BCK	REVISED -	<p align="center"><b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b></p>	DISTRICT ONE - DETECTOR LOOP REPLACEMENT				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\VP\DOT\KANTHAPHIXAYBC.d01126	t\traffic_legend.v7.dgn	DRAWN - BCK	REVISED -		LAWRENCE AVE. @ DES PLAINES RIVER RD.				1362	3200RS-3	COOK	25	24
	PLOT SCALE = 3/4" = 39.360' / IN.	CHECKED - DAD	REVISED -						CONTRACT NO.				
	PLOT DATE = 4/3/2009	DATE -	REVISED -		SCALE: NONE    SHEET NO.    OF    SHEETS    STA.    TO STA.				FED. ROAD DIST. NO.    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 = steedpa	DESIGNED -	REVISED - R. MIRS 09-15-97	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD</b> <b>INFORMATION SIGN</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\pwidot\steedpa\d0169821\DistS	d.dgn	DRAWN -	REVISED - R. MIRS 12-11-97					1362	3200 RS-3	COOK	25	25
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99	REVISED - C. JUCIUS 01-31-07		TC-22			CONTRACT NO. 60J07				
PLOT DATE = 1/22/2010	DATE -				SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		