SECTION 14, TOWNSHIP 36, RANGE 14
SECTION 15, TOWNSHIP 36, RANGE 14
SECTION 22, TOWNSHIP 36, RANGE 14
SECTION 23, TOWNSHIP 36, RANGE 14

11-06-2015 LETTING ITEM 100

F. A. U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2923	14-00104-00-CH	COOK	25	1
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	M-4003(459)	

CONTRACT #61B96

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU ROUTE 2923
INTERSECTION IMPROVEMENTS
COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
PROJECT NO.: M-4003(459)
SECTION NO.: 14-00104-00-CH
VILLAGE *of* SOUTH HOLLAND
COOK COUNTY
JOB NO.: C-91-182-15

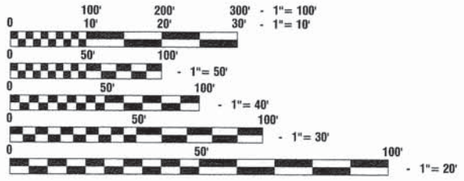
INDEX OF SHEETS
SEE SHEET NO. 2

HIGHWAY STANDARDS
SEE SHEET NO. 2

DESIGN DESIGNATION -COTTAGE GROVE AVENUE
ADT = 8,600 (2014) - MAJOR COLLECTOR
PV = 8325 SU = 258 MU = 17
% TRAFFIC IN DESIGN LANE
P = 96.8% S = 3.0% M = 0.2% SSA = N/A
SSS = FAIR

	COTTAGE GROVE AVE.	US ROUTE 6 (162ND ST.)
2014 ADT -	8,600	34,600
2040 ADT -	11,000	40,000
POSTED SPEED LIMIT -	35 MPH	35 MPH
DESIGN PERIOD -	20 YEARS	20 YEARS
DESIGN SPEED LIMIT -	40 MPH	40 MPH
STREET CLASSIFICATION	CLASS II	CLASS I

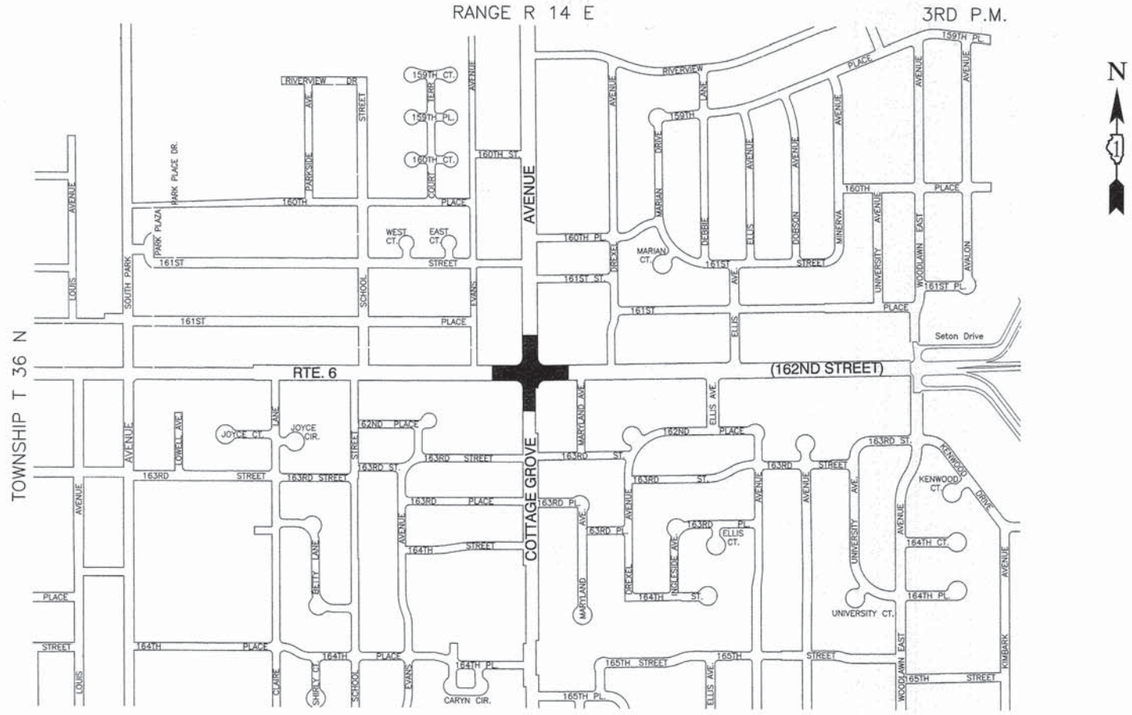
SCALES
PLAN - 1"=50'
PROFILE HORIZ. - 1"=50'
PROFILE VERT. - 1"=5'
CROSS SECTIONS - 1"=10'



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

CONTRACT NO. 61B96



LOCATION MAP
GROSS LENGTH=840 FEET=0.160 MILES
NET LENGTH=840 FEET=0.160 MILES

LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved 7-30-15
Village President, Village of South Holland

Passed 8-31-2015
District 1 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review September 2 2015
Deputy Director of Highways, Region 1 Engineer

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

7-30-15

PATRICIA K. BARKER
62-51255
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

LICENSE EXPIRES: 11/30/15

FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, PE, PTOE, 847-705-4021, SCHAUMBURG, IL
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700
CONTACT ENGINEER: PATRICIA BARKER

INDEX OF SHEETS

IDOT STANDARD DRAWINGS

STANDARD NO.	DRAWING NAME
000001–06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001–08	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
701101–04	OFF–RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701427–03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS ≤ 40 MPH
701701–09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801–05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901–04	TRAFFIC CONTROL DEVICES
720001–01	SIGN PANEL MOUNTING DETAILS
780001–05	TYPICAL PAVEMENT MARKINGS
805001–01	ELECTRICAL SERVICE INSTALLATION DETAILS
814001–03	HANDHOLES
814006–02	DOUBLE HANDHOLES
857001–01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
873001–02	TRAFFIC SIGNAL GROUNDING & BONDING
876001–03	PEDESTRIAN PUSH BUTTON POST
877001–05	STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001–10	CONCRETE FOUNDATION DETAILS
880006–01	TRAFFIC SIGNAL MOUNTING DETAILS
886001–01	DETECTOR LOOP INSTALLATIONS
886006–01	TYPICAL LAYOUT FOR DETECTION LOOPS

IDOT DISTRICT 1 STANDARD DETAILS

STANDARD NO.	DRAWING NAME
TC–13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TS–02	MAST ARM MOUNTED STREET NAME SIGNS
TS–05	STANDARD TRAFFIC SIGNAL DESIGN DETAILS

FILE NAME = 13649-INDX-01 - IDOT P01	USER NAME =	DESIGNED — EMA	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — KWM	REVISED —
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
INDEX OF SHEETS & STATE STANDARDS

SCALE: | SHEET NO. 2 OF 25 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	2
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		

1 ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

2 WHEN, IN THE CONSTRUCTION OPERATION, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR OTHER DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH DAY BY THE CONTRACTOR AT HIS EXPENSE. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE DRAINAGE ITEMS.

3 WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS OR CATCH BASINS. HE SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS & SEWERS AND DISCHARGE SAME. HE SHALL PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT, IF NECESSARY, AND A TEMPORARY OUTLET, AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY SEWER CONNECTIONS UNTIL SUCH TIME AS THE PERMANENT CONNECTIONS WITH SEWERS ARE BUILT AND IN SERVICE. THIS WORK SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCLUDED IN THE COST OF THE DRAINAGE ITEMS.

4 THE APPROXIMATE LOCATION OF KNOWN PUBLIC UTILITIES ARE SHOWN ON THE PLANS. HOWEVER, THE DEPARTMENT DOES NOT GUARANTEE ITS ACCURACY. PRIOR TO COMMENCING OPERATIONS ON THE PROJECT WHICH MAY IN ANY WAY CREATE THE POSSIBILITY OF INVOLVEMENT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL CONTACT THE FIRM (OR COMMUNITY) INVOLVED. ADJUSTMENT OF ALL PUBLIC UTILITIES WITHIN THE LIMITS OF THIS IMPROVEMENT WILL BE DONE BY THE RESPECTIVE OWNERS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCE CAUSED BY THESE ADJUSTMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATION BEFORE STARTING CONSTRUCTION OPERATIONS.

5 ALL TRENCHES WITHIN 2 FEET OF PROPOSED PAVEMENT, DRIVEWAYS, AND SIDEWALKS SHALL BE BACKFILLED WITH TRENCH BACKFILL ONLY.

6 BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).

7 THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

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

9 THE CONTRACTOR SHALL CONTACT THE IDOT DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK. THE CONTRACTOR SHALL ALSO CONTACT ROBINSON ENGINEERING (708) 331-6700 AND THE VILLAGE OF SOUTH HOLLAND PUBLIC WORKS (708) 339-2323, A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

10 ALL PAVEMENT, CURB AND SIDEWALK REMOVALS SHALL BE MADE BY MEANS OF STRAIGHT SAW CUT JOINT. THE COST FOR SAW CUTTING SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.

11 CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS ADOPTED JANUARY 1, 2012, THE LATEST EDITION OF THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.

12 THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD TECHNICIAN, PATRICE HARRIS, AT PATRICE.HARRIS@ILLINOIS.GOV, A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS.

FILE NAME = 13649-NOTE-01 - IDOT P01	USER NAME =	DESIGNED — EMA	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET) GENERAL NOTES
		CHECKED — PKB	REVISED —		
	PLOT SCALE =	DRAWN — KWM	REVISED —		
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —		SCALE: SHEET NO. 3 OF 25 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	3
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		

SUMMARY OF QUANTITIES					ROAD	SAFETY	LNSC						
S.I.	CODE NO.	PAY ITEM	UNIT	TOTAL QUANITY	CONSTRUCTION TYPE CODE								
					004	0021	0031						
	20101700	SUPPLEMENTAL WATERING	UNIT	2			2						
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	10			10						
	25200110	SODDING, SALT TOLERANT	SQ YD	10			10						
	28000510	INLET FILTERS	EACH	4			4						
	31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	12	12								
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	494	494								
	42400800	DETECTABLE WARNINGS	SQ FT	90		90							
	44000600	SIDEWALK REMOVAL	SQ FT	585	585								
	67100100	MOBILIZATION	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							
	72000100	SIGN PANEL - TYPE 1	SQ FT	14		14							
	72000200	SIGN PANEL - TYPE 2	SQ FT	24		24							
	72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	15		15							
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	146		146							
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1430		1430							
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1080		1080							
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	68		68							
*	78300100	PAVEMENT MARKING REMOVAL	SQ FT	1200		1200							
	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	60		60							
	81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	87		87							
	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	62		62							
	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	202		202							
	81400200	HEAVY-DUTY HANDHOLE	EACH	2		2							
	81400300	DOUBLE HANDHOLE	EACH	2		2							
	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1377		1377							
	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1733		1733							
	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1514		1514							
	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1531		1531							
	87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	519		519							

* SPECIALTY ITEMS

FILE NAME = 13649-QUAN-01 - IDOT P01	USER NAME =	DESIGNED — EMA	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — KWM	REVISED —
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
SUMMARY OF QUANTITIES

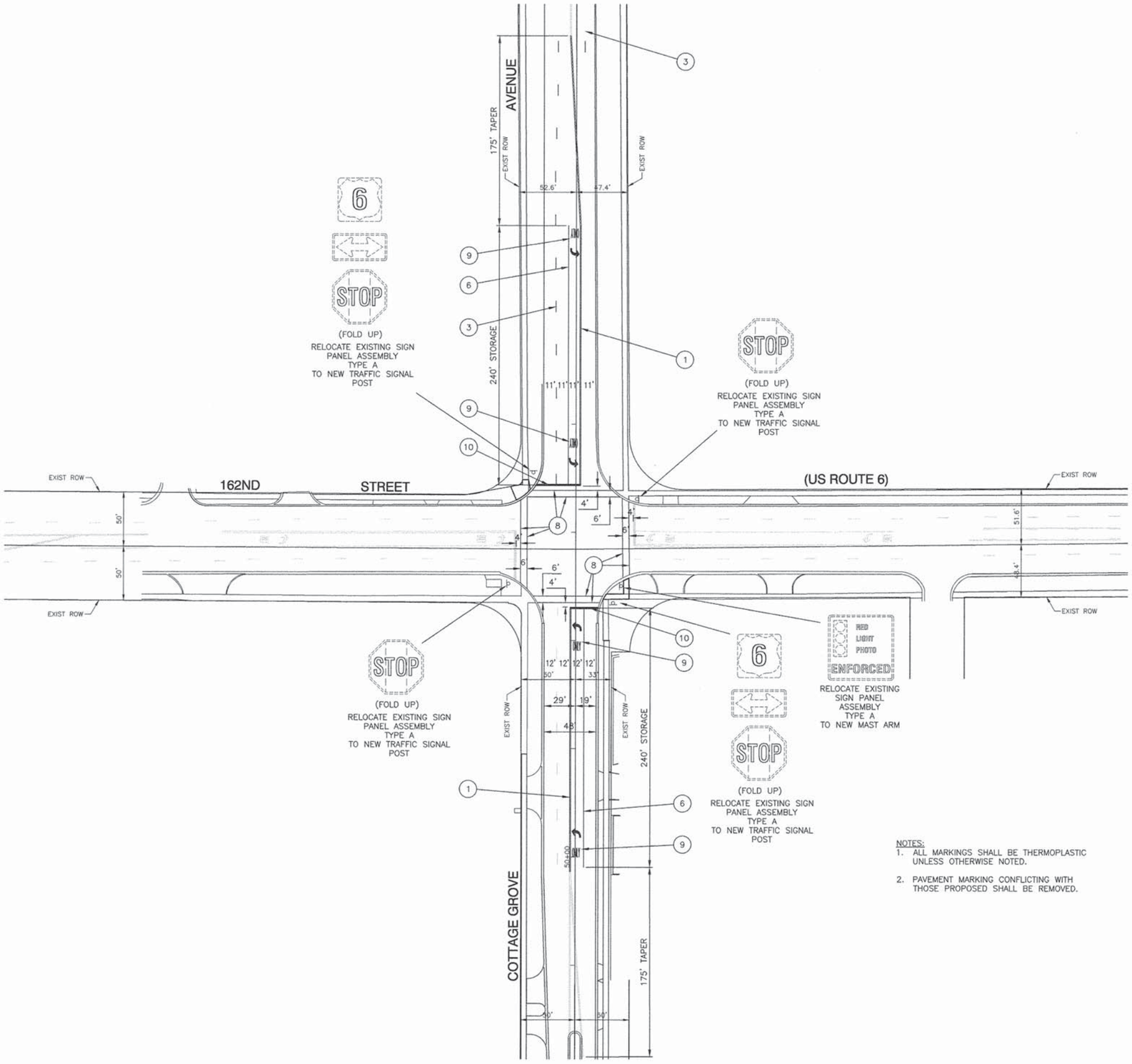
SCALE: | SHEET NO. 4 OF 25 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	4
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		

SUMMARY OF QUANTITIES					ROAD	SAFETY	LNSC							
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN	CONSTRUCTION TYPE CODE									
					004	0021	0031							
	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	553		553								
	87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1		1								
	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4		4								
	87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1		1								
	87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1		1								
	87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1		1								
	87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1		1								
	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	20		20								
	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48		48								
	87900200	DRILL EXISTING HANDHOLE	EACH	12		12								
	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION,BRACKET MOUNTED	EACH	1		1								
	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4		4								
	88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	11		11								
	88500100	INDUCTIVE LOOP DETECTOR	EACH	1		1								
	88600100	DETECTOR LOOP, TYPE I	FOOT	290		290								
	88800100	PEDESTRIAN PUSH-BUTTON	EACH	4		4								
	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1								
	89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	14		14								
	89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4		4								
	89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	4		4								
	89501400	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2		2								
	89502200	MODIFY EXISTING CONTROLLER	EACH	1		1								
	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500		500								
	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1								
	89502380	REMOVE EXISTING HANDHOLE	EACH	2		2								
	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9		9								
	Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1		1								
	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1		1								
	X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	304		304								

* SPECIALTY ITEMS

FILE NAME = 13649-QUAN-01 - IDOT P02	USER NAME =	DESIGNED — EMA	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET) SUMMARY OF QUANTITIES			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — PKB	REVISED —					2923	14-00104-00-CH	COOK	25	5
	PLOT SCALE =	DRAWN — KWM	REVISED —								CONTRACT NO. 61B96	
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —		SCALE:	SHEET NO. 5 OF 25 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		



NOTES:
1. ALL MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. PAVEMENT MARKING CONFLICTING WITH THOSE PROPOSED SHALL BE REMOVED.

PAVEMENT MARKING LEGEND

1. 4" DOUBLE YELLOW CENTERLINE (11" C/C)
2. 4" DOUBLE YELLOW MEDIAN OUTLINE (11" C/C)
3. 4" WHITE SKIP DASH (10' LINE, 30' SPACE)
4. 4" YELLOW LINES 5-1/2" C-C WITH SKIP DASH LINE(10' LINE, 30' SPACING)
5. 12" YELLOW DIAGONAL (20' C/C)
6. 6" WHITE LANE LINE
7. 6" WHITE SKIP DASH (2' LINE, 6' SPACE)
8. 6" WHITE LINES (6' C/C)
9. WHITE LETTERS & SYMBOLS
10. 24" WHITE STOP BAR
11. 4" YELLOW MEDIAN OUTLINE
12. 12" YELLOW MEDIAN NOSE LINE (*SEE CCHD PAVEMENT MARKING STANDARDS)
13. 12" WHITE LINE (3' C/C)
14. 4" WHITE EDGE LINE
15. 8" WHITE LINE
16. 12" WHITE SKIP DASH (3' LINE, 3' SPACE)

FILE NAME = 13649-PMKG-01 - PMKG01	USER NAME =	DESIGNED — EMA	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE = 1" = 50'	DRAWN — KWM	REVISED —
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
PAVEMENT MARKING & SIGNING

SCALE: 1"=50' | SHEET NO. 6 OF 25 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	6
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		R	
COMMUNICATIONS CABINET	R	CC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTABLE POWER SUPPLY	R	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G ◄Y ◄G	R Y G ◄Y ◄G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD "RB" INDICATES REFLECTIVE BACKPLATE		R Y G ◄Y ◄G "P"	R Y G ◄Y ◄G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		1	1
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F		36F	36F
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RPF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
QUEUE DETECTOR		Q	Q
PREFORMED QUEUE DETECTOR		PQ	PQ
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET	R	R
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

FILE NAME = 13849-SGNL-DTLS-02 - P01	USER NAME = footemj	DESIGNED — DAG/BCK	REVISED — DAG 1-1-14
		CHECKED — BCK	REVISED —
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	7
	TS-05	CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

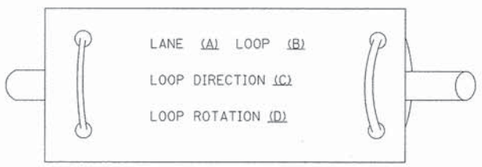
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

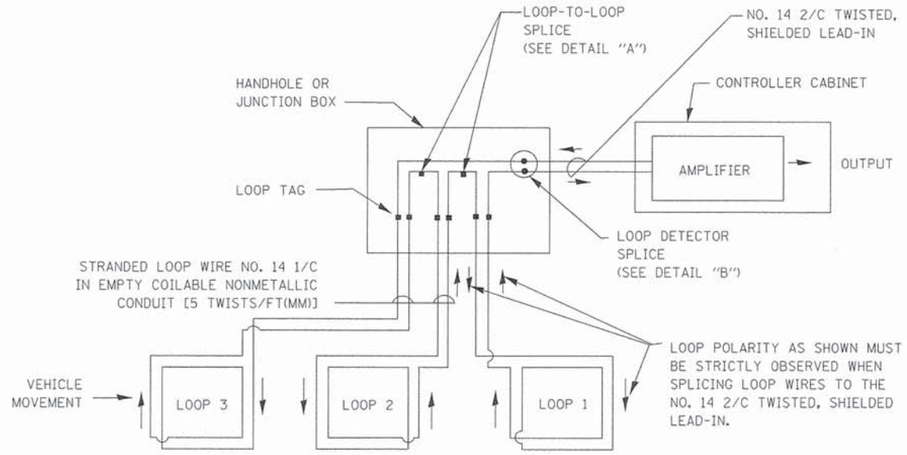


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

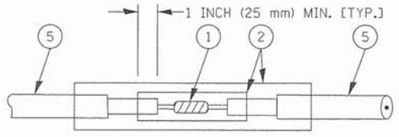
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

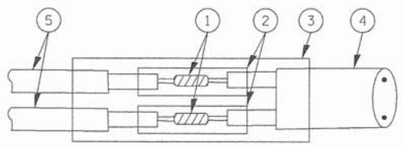


DETECTOR LOOP WIRING SCHEMATIC

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

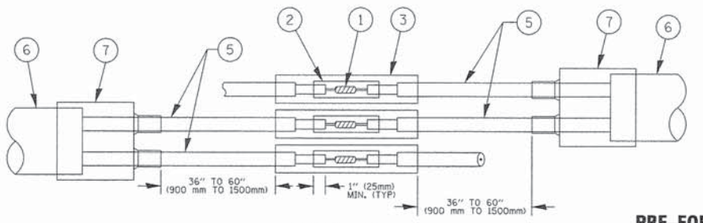


DETAIL "A"
LOOP-TO-LOOP SPLICE



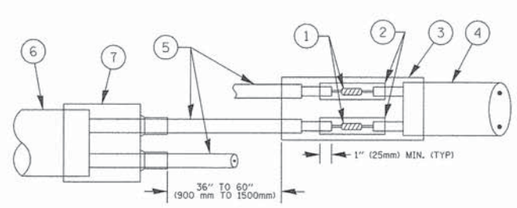
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

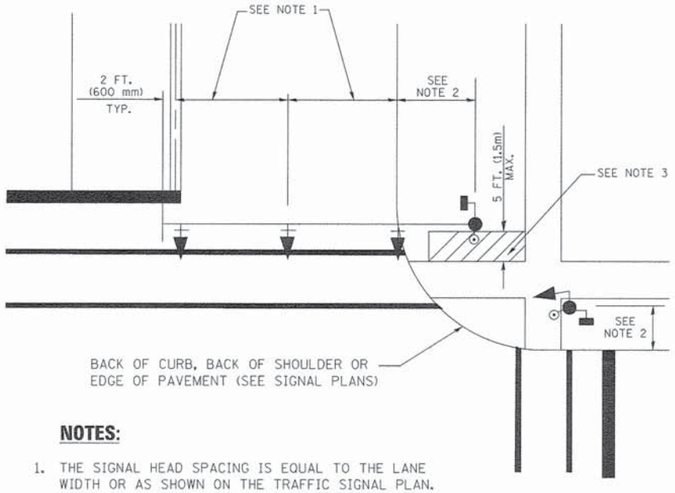
(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME = 13649-SGNL-DTLS-02 - P02	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — BCK	REVISED —					2923	14-00104-00-CH	COOK	25	8
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —						TS-05	CONTRACT NO. 61B96		
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —		SCALE:	SHEET NO. 2 OF 7 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

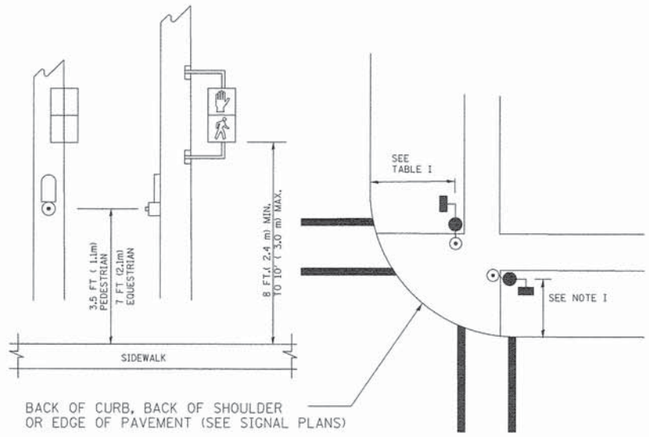
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
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.
5. 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."

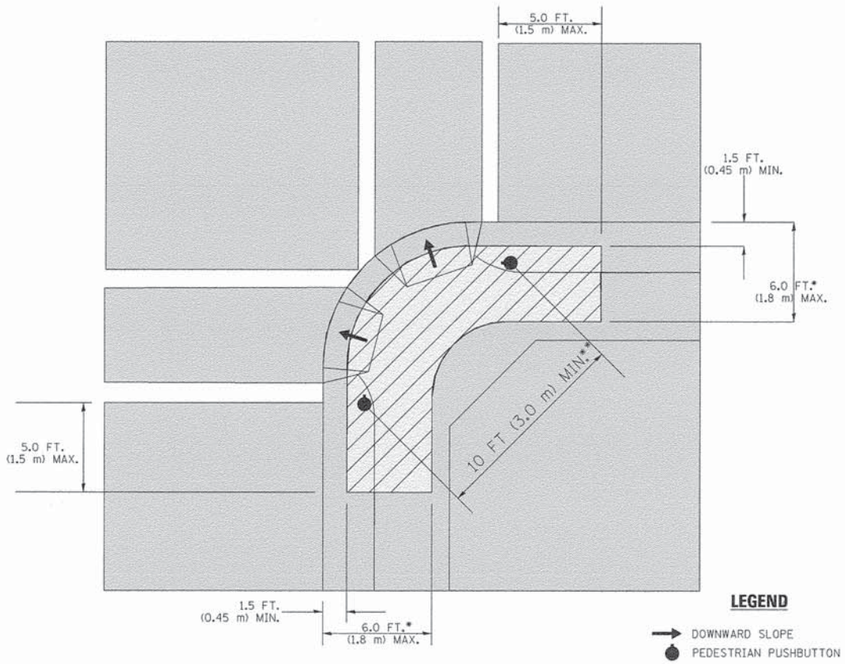
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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."

RECOMMENDED PUSHBUTTON LOCATIONS



* 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 TOTHE 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 MAST 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.

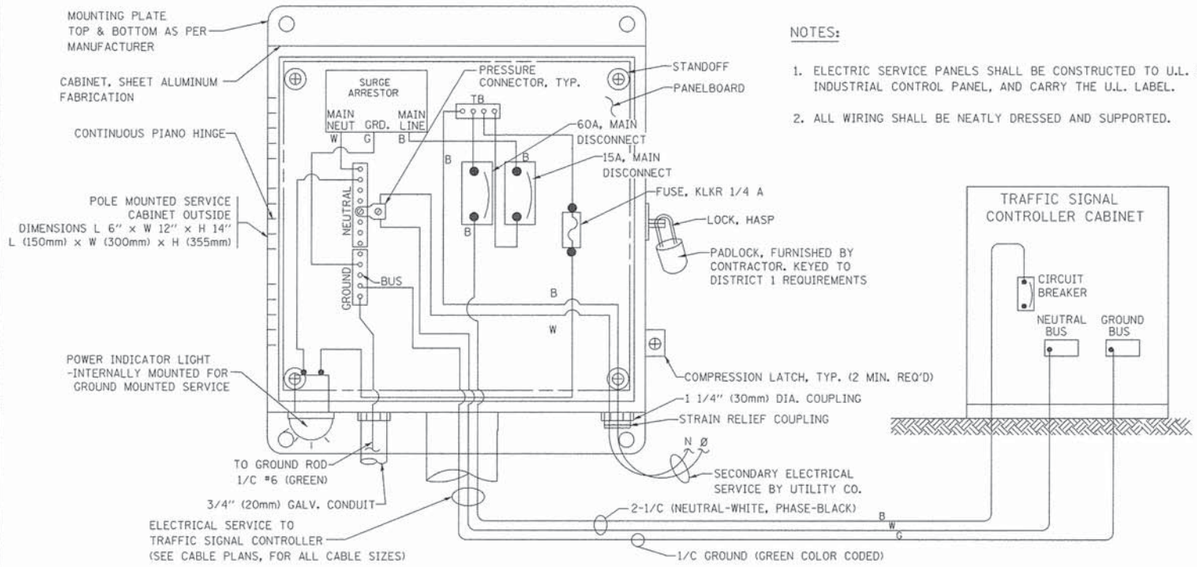
FILE NAME = 13649-SGNL-DTLS-02 - P03	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14
		CHECKED — BCK	REVISED —
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	9
	TS-05	CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

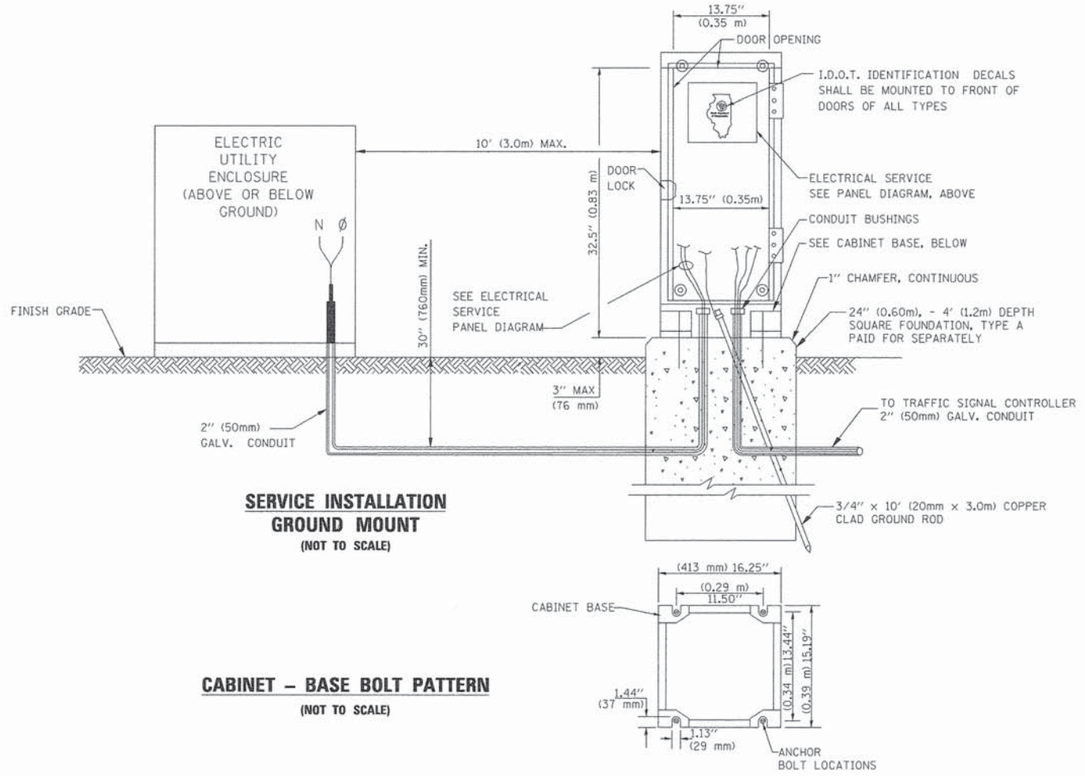


NOTES:

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.

ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

(NOT TO SCALE)

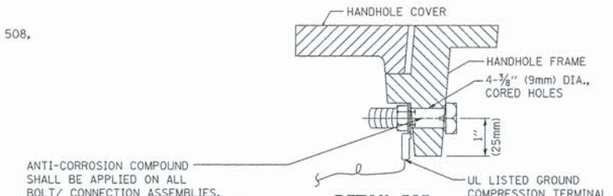


SERVICE INSTALLATION GROUND MOUNT

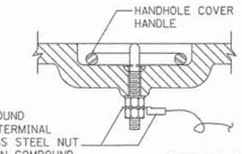
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

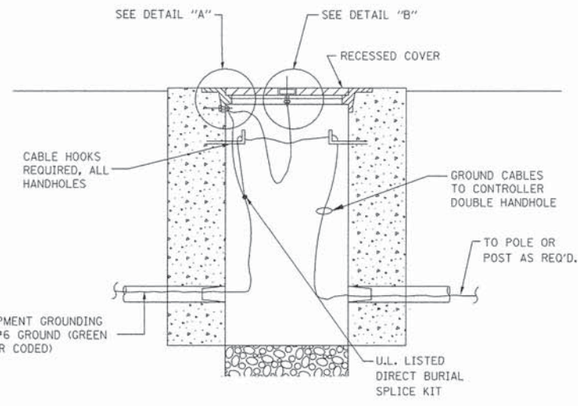
(NOT TO SCALE)



DETAIL "A"

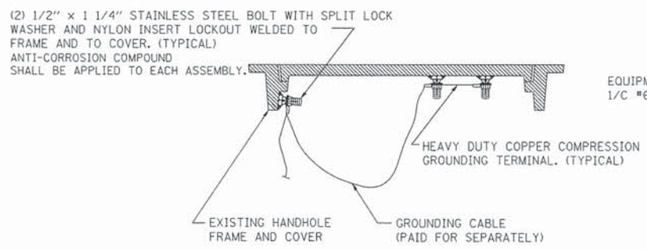


DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

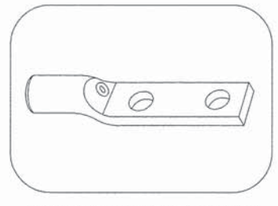


EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

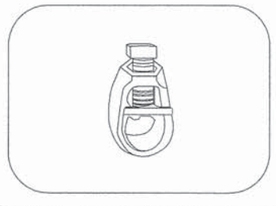
(NOT TO SCALE)

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.



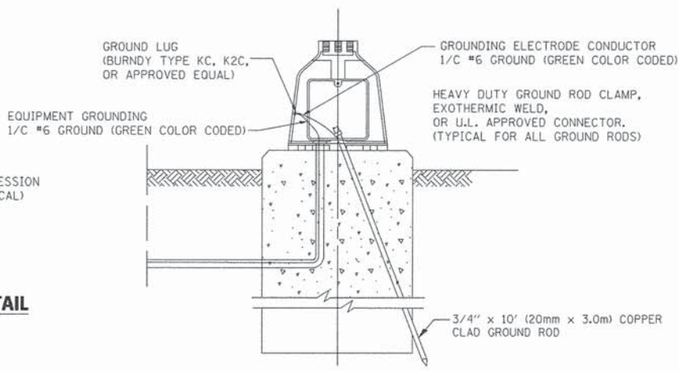
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



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

NOTES:

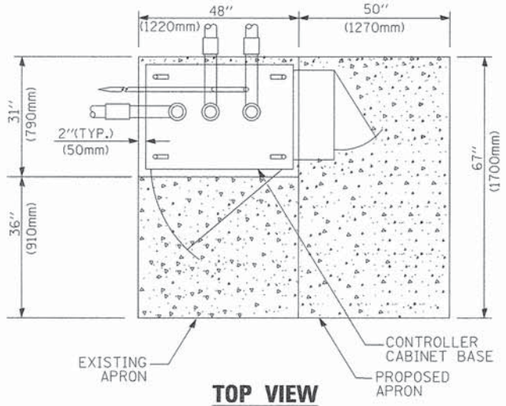
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



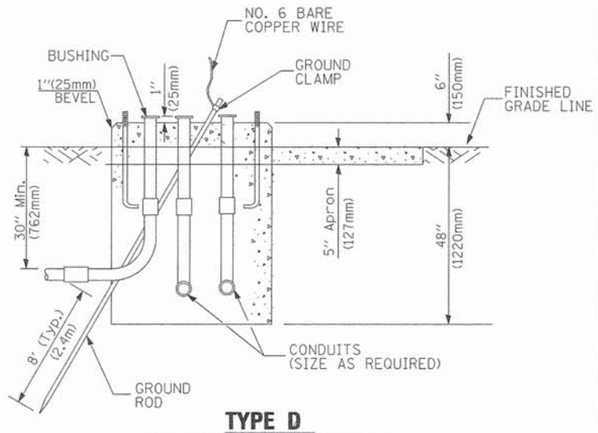
MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

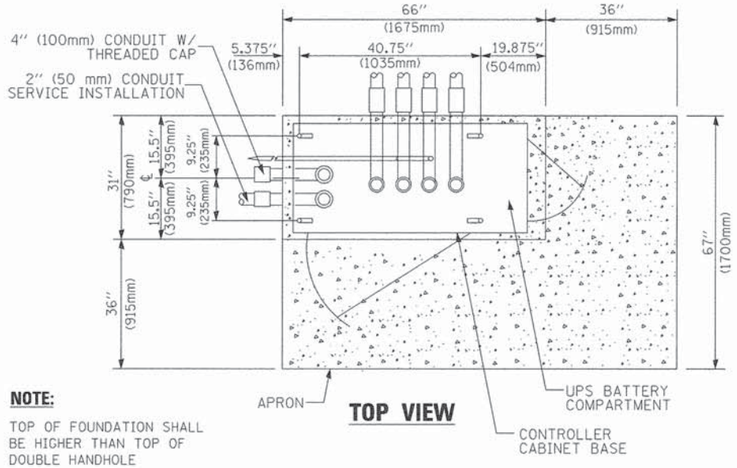
FILE NAME = 13649-SGNL-DTLS-02 - P04	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — BCK	REVISED —		STANDARD TRAFFIC SIGNAL DESIGN DETAILS	2923	14-00104-00-GM	COOK	25	10
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —				TS-05	CONTRACT NO. 61B96		
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —		SCALE: SHEET NO. 4 OF 7 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TOP VIEW



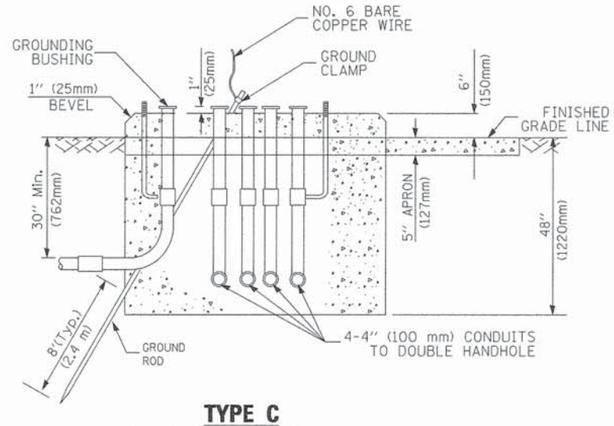
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



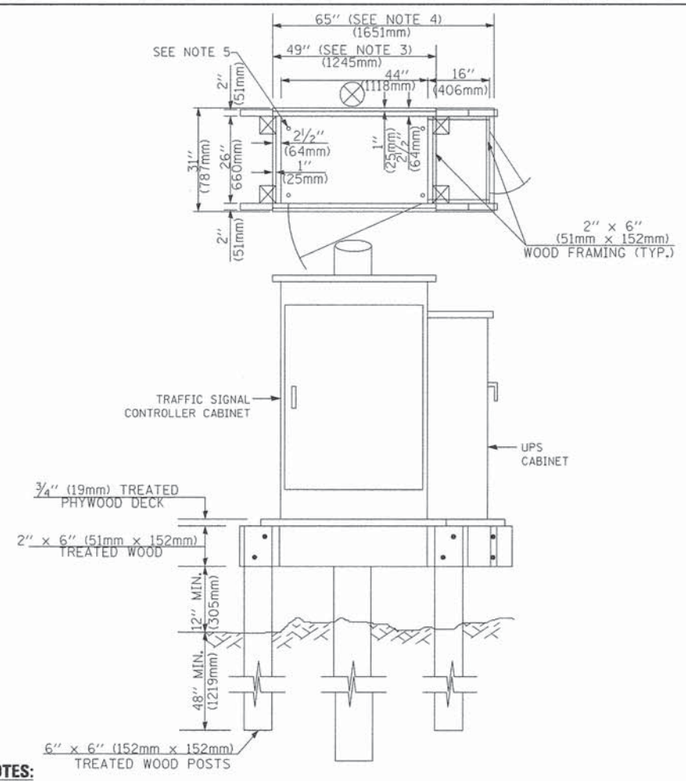
TOP VIEW

NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



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)
	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" (4.0 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)

NOTES:

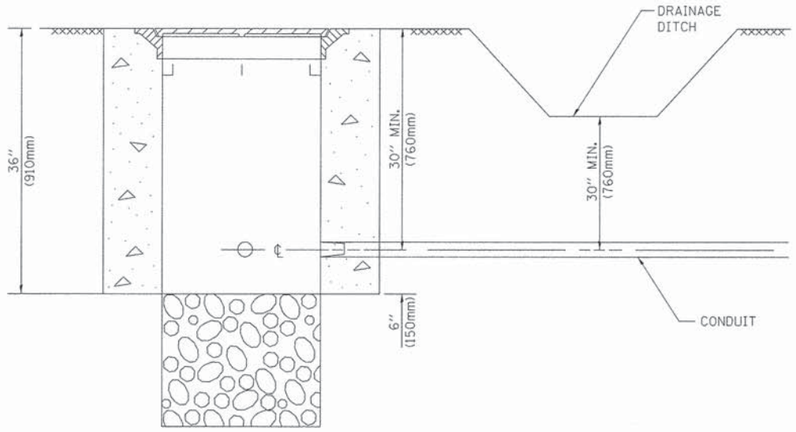
1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer 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 = 13649-SGNL-DTLS-02 - P05	USER NAME = footemj	DESIGNED — DAG	REVISED — DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
		CHECKED — BCK	REVISED —		
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —		
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —		SCALE:

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	11
	TS-05	CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SHEET NO. 5 OF 7 SHEETS STA. TO STA.

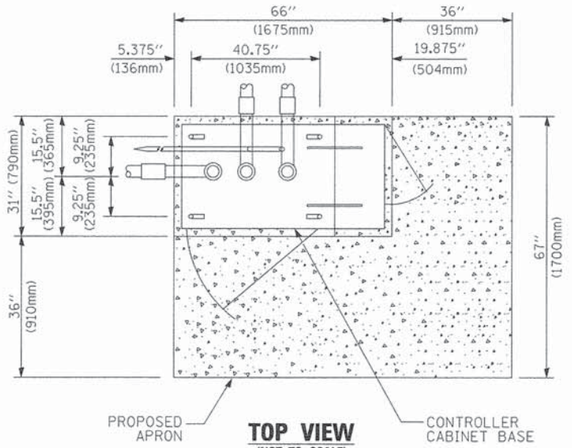


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

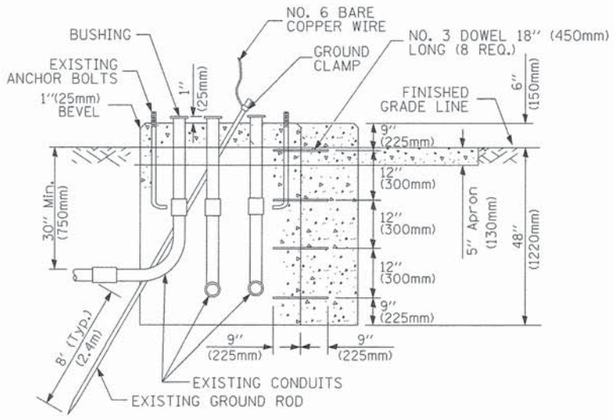
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



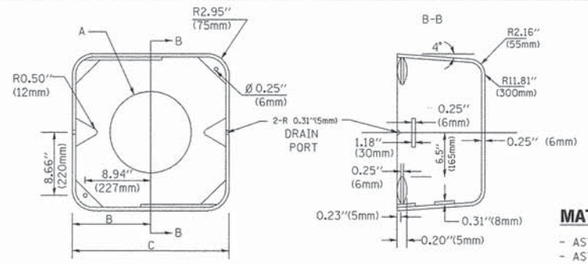
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL:

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	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)

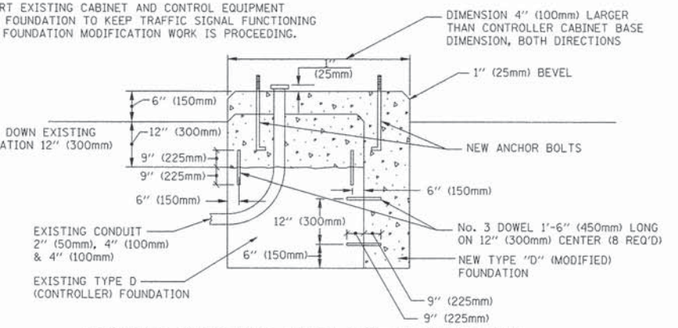
SHROUD

NOTES:

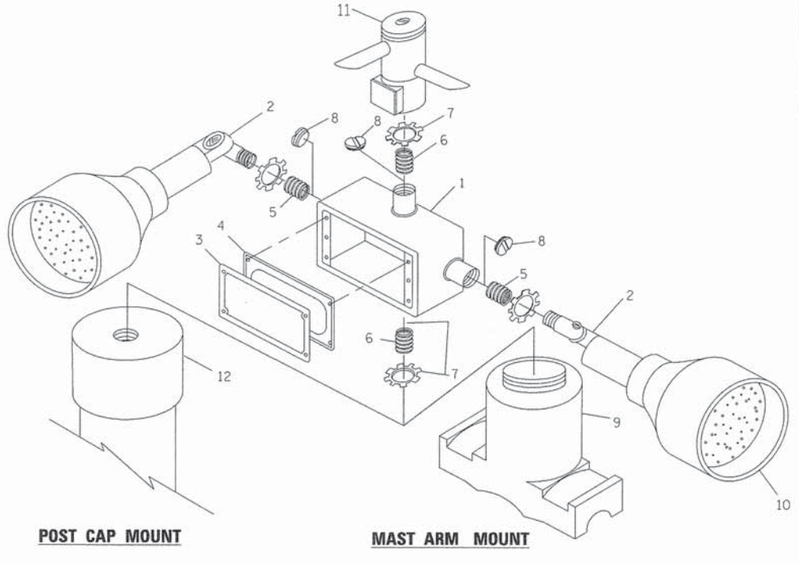
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



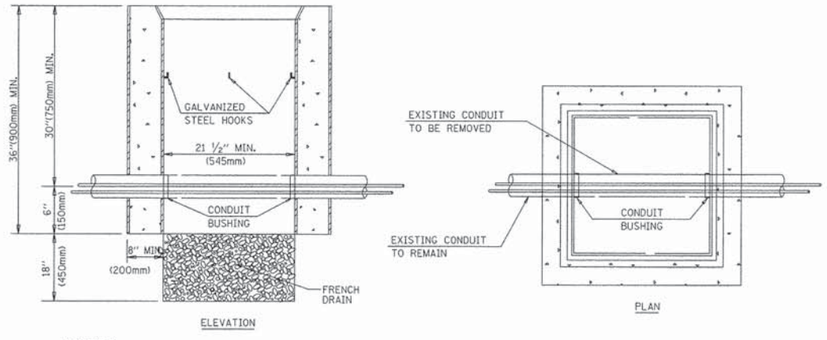
POST CAP MOUNT **MAST ARM MOUNT**

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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	3/4"(19 mm) LOCKNUT
8	3/4"(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 GALVANIZED
2. 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
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 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.



NOTES:

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 INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

FILE NAME = 13649-SGNL-DTLS-02 - P06	USER NAME = footemj	DESIGNED — DAD	REVISED — DAG 1-1-14
		CHECKED — BCK	REVISED —
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —
	PLOT DATE = 1/13/2014	CHECKED — 10-28-09	REVISED —

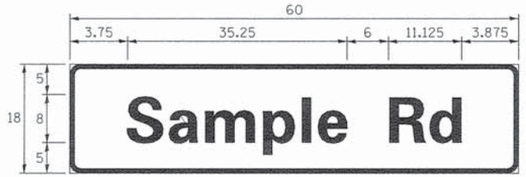
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

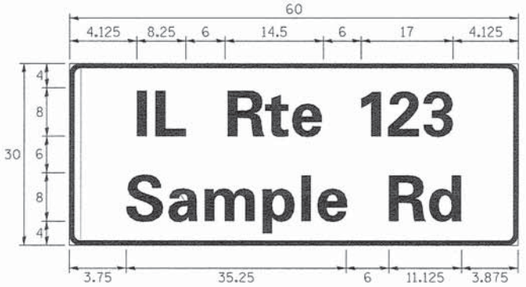
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

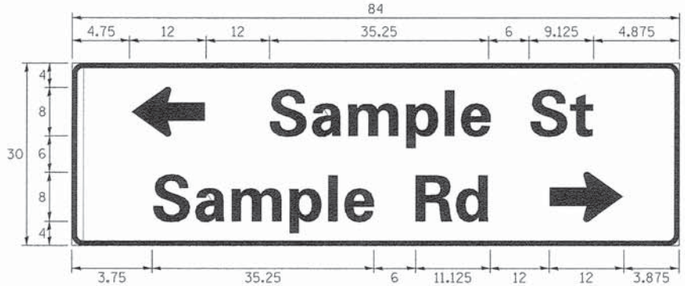
SCALE: | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2823	14-00104-00-CH	COOK	25	12
	TS-05	CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SIGN PANEL – TYPE 1 OR TYPE 2







DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

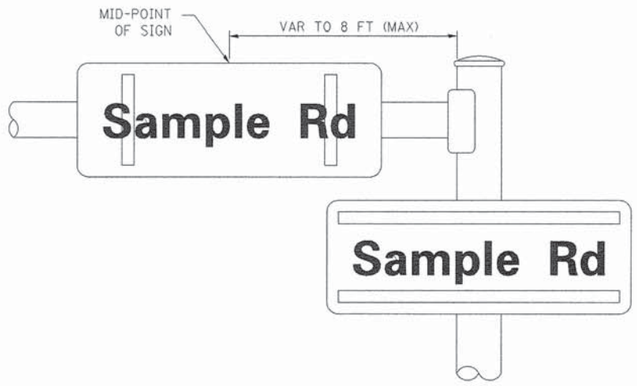
1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUX OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THERE IS SPACE AVAILABLE.
5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS:	PARTS LISTING:	
- J.O. HERBERT COMPANY, INC MIDLOTHIAN, VA	SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
	SIGN SCREWS	1/4" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
- WESTERN REMAC, INC. WOODRIDGE, IL	BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

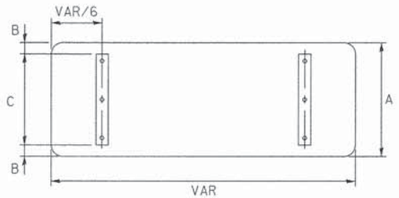
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION

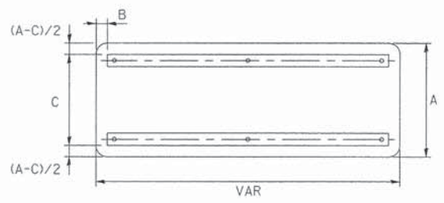
ARM OR POLE MOUNTED



SUPPORTING CHANNELS



A	B	C
18"	2"	14"
30"	2"	24"



A	B	C
18"	2"	12"
30"	2"	22"

STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

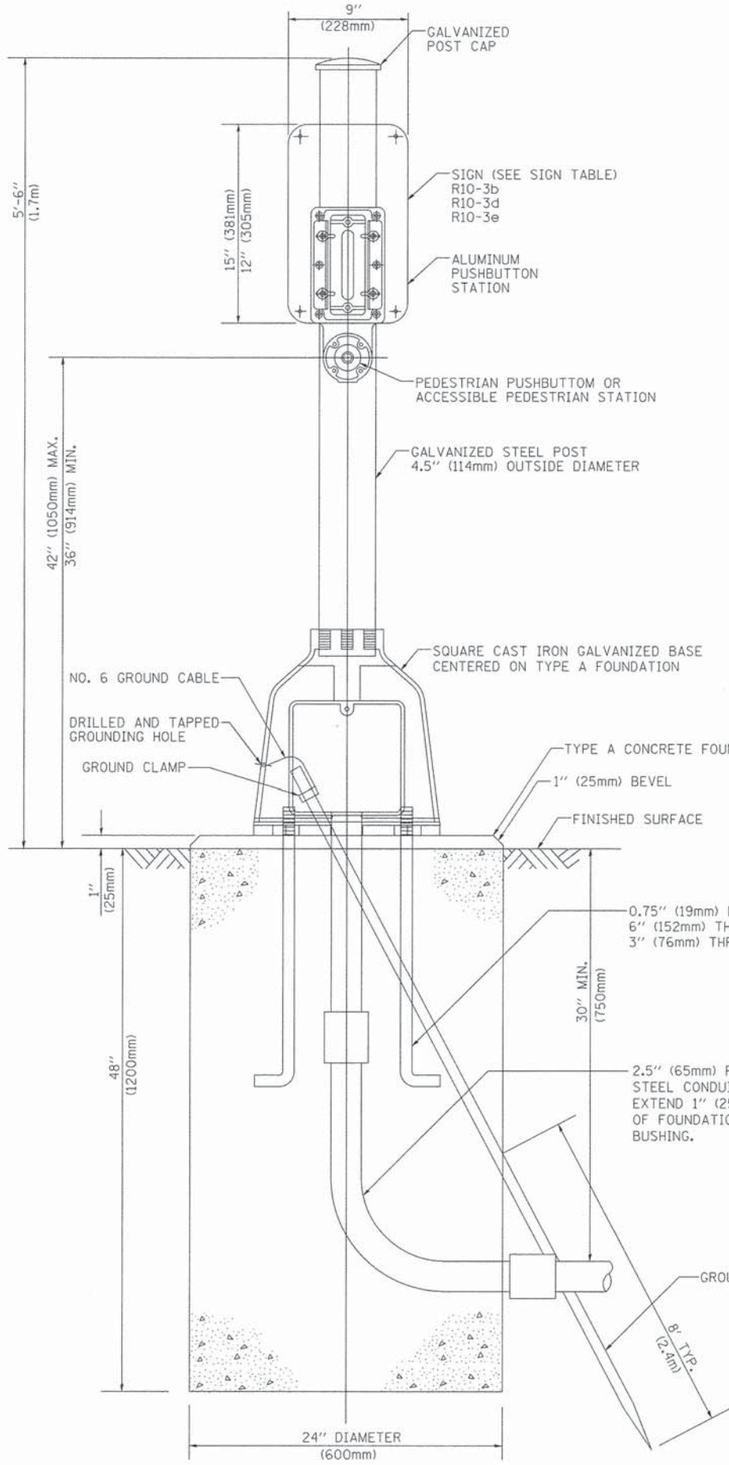
FILE NAME = 13649-SGNL-DTLS-03 - IDOT MA-SGN	USER NAME = pociechal	DESIGNED — LP/IP	REVISED —
S:\WP\Design\Manuals and Reference Materials\CADD\Details\ts02.dgn		CHECKED — LP	REVISED —
	PLOT SCALE = 50.0000 '/ in.	DRAWN — IP	REVISED —
	PLOT DATE = 9/22/2014	CHECKED — 10/01/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
MAST ARM MOUNTED STREET NAME SIGNS

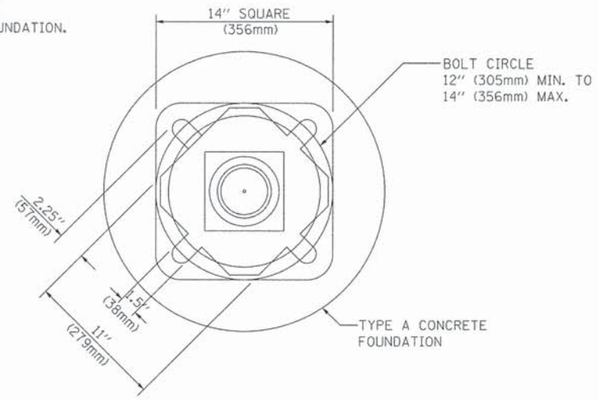
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	13
	TS-02	CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)

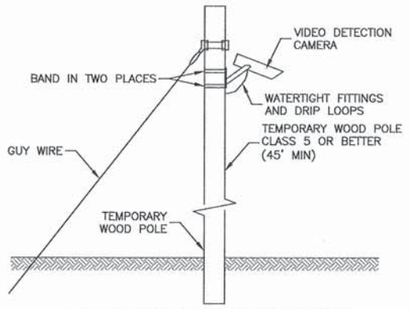


BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

FILE NAME = 13649-SGNL-DTLS-02 - P07	USER NAME = footemj	DESIGNED — DAG	REVISED — DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
		CHECKED — GND	REVISED —		
	PLOT SCALE = 50.0000 ' / in.	DRAWN — DAD	REVISED —		SCALE: SHEET NO. 7 OF 7 SHEETS STA. TO STA.
	PLOT DATE = 1/13/2014	CHECKED — 10/1/2012	REVISED —		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	14
	TS-05	CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TEMPORARY VIDEO DETECTION MOUNTING DETAIL

CONSTRUCTION NOTES

1. ALL PAVEMENT MARKINGS SHOWN ARE EXISTING.
2. RELOCATE EXISTING BUS PREEMPTION TO TEMPORARY SIGNAL.
3. RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON TO NEW MAST ARMS.
4. RELOCATE EXISTING PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSH BUTTONS TO NEW TRAFFIC SIGNAL POSTS AND MAST ARMS.
5. RELOCATE EXISTING SIGNAL HEADS TO NEW TRAFFIC SIGNAL MAST ARMS AND POSTS.
6. RED LIGHT RUNNING CAMERA SHALL BE DEACTIVATED DURING CONSTRUCTION.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR OUTSIDE THE RIGHT OF WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE:

4	EACH	MAST ARMS
7	EACH	SIGNAL POSTS

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS #210

FILE NAME = 13649-SGNL-01 - P01	USER NAME =	DESIGNED — EMA	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — KWM	REVISED —
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —

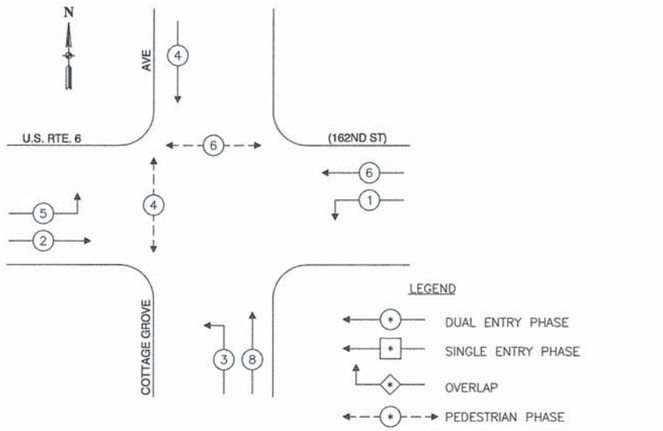
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
TEMPORARY TRAFFIC SIGNAL INSTALLATION
AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN

SCALE: 1"=20' | SHEET NO. 15 OF 25 SHEETS | STA. | TO STA.

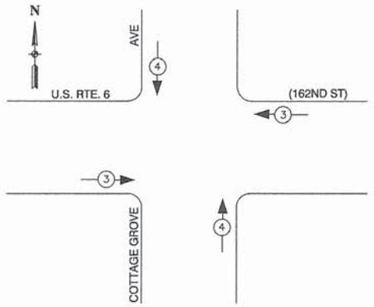
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	15
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		

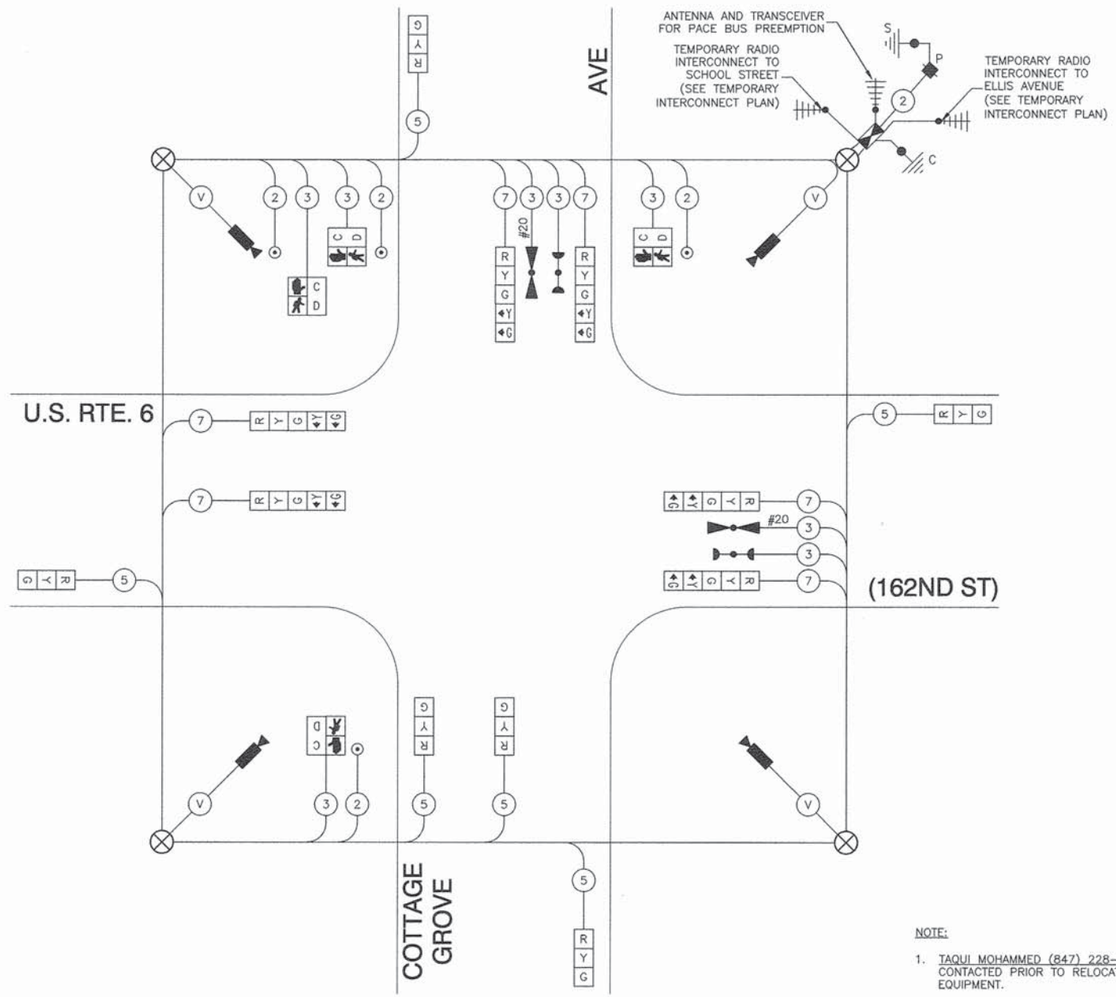
TEMPORARY CONTROLLER SEQUENCE



* NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE





NOTE:

1. TAQUI MOHAMMED (847) 228-4287 OF PACE, SHALL BE CONTACTED PRIOR TO RELOCATION OF THE BUS PREEMPTION EQUIPMENT.
2. RED LIGHT RUNNING CAMERA SHALL BE DEACTIVATED DURING CONSTRUCTION.

TEMPORARY CABLE PLAN

(NOT TO SCALE)

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE LED	%OPERATION	
SIGNAL (RED)	12	17	0.50	102
(YELLOW)	12	25	0.25	75
(GREEN)	12	15	0.25	45
PERMISSIVE ARROW	12	12	0.10	14.4
PED. SIGNAL	4	25	1.00	100
CONTROLLER	1	100	1.00	100
VIDEO SYSTEM	1	150	1.00	25
ILLUM. SIGN	0	25	0.05	0
FLASHER	–	–	0.50	–

ENERGY COSTS TO: TOTAL = 461.4
IDOT DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, IL 60196-1096
ENERGY SUPPLY CONTACT: BRAD SHINABARGAR
PHONE: (708)325-2692
COMPANY: COMMONWEALTH EDISON

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS #210

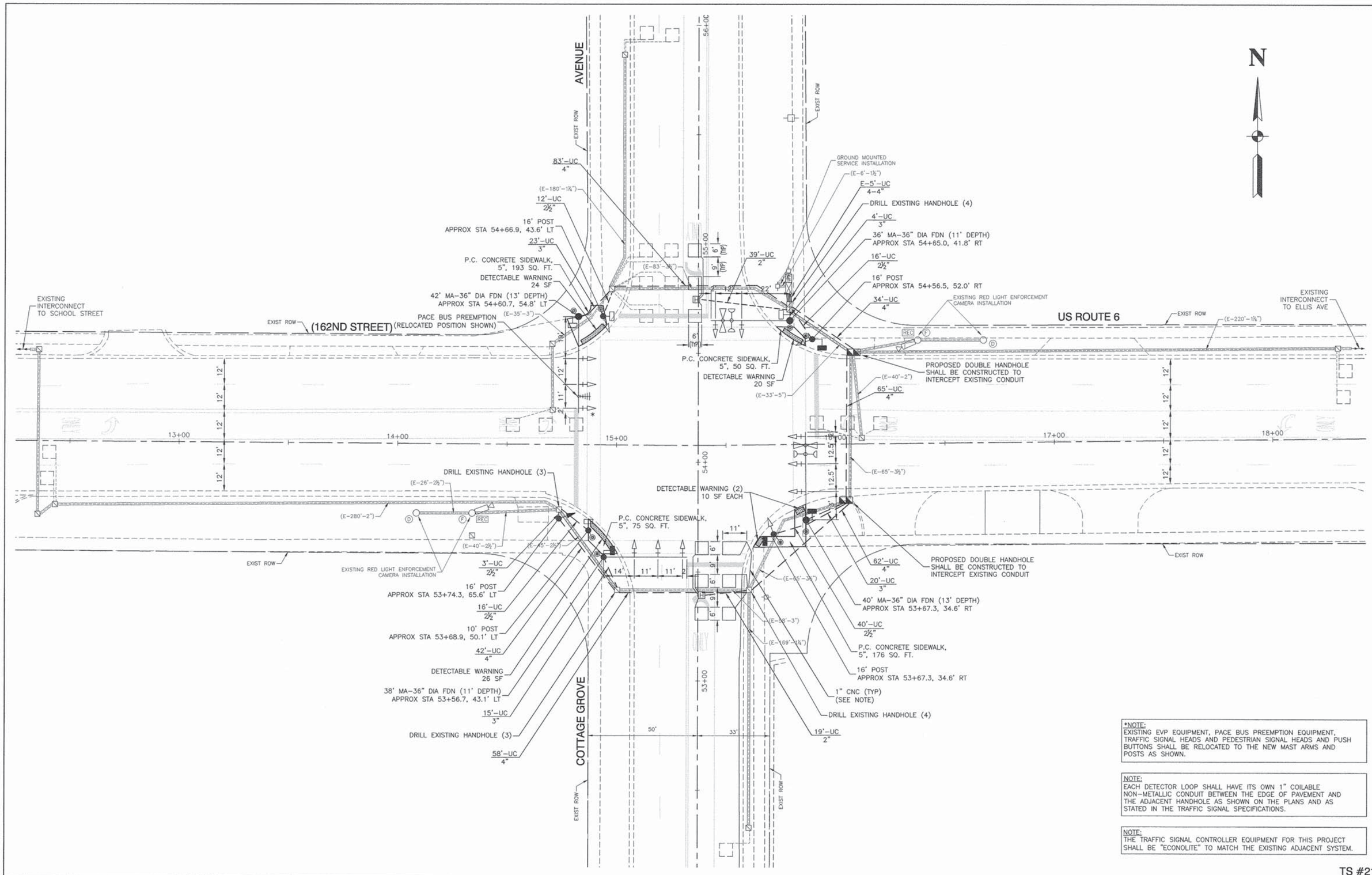
FILE NAME = 13649-CBLE-PLAN-01 - P01	USER NAME =	DESIGNED – EMA	REVISED –
		CHECKED – PKB	REVISED –
	PLOT SCALE =	DRAWN – KWM	REVISED –
	PLOT DATE = 08-31-15	CHECKED – APG	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCALE: | SHEET NO. 16 OF 25 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	16
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		



*NOTE:
EXISTING EVP EQUIPMENT, PACE BUS PREEMPTION EQUIPMENT, TRAFFIC SIGNAL HEADS AND PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS SHALL BE RELOCATED TO THE NEW MAST ARMS AND POSTS AS SHOWN.

NOTE:
EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS #210

FILE NAME = 13649-SGNL-01 - P02	USER NAME =	DESIGNED — EMA	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — KWM	REVISED —
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —

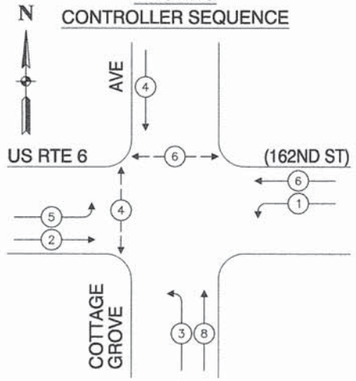
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
TRAFFIC SIGNAL MODIFICATION PLAN

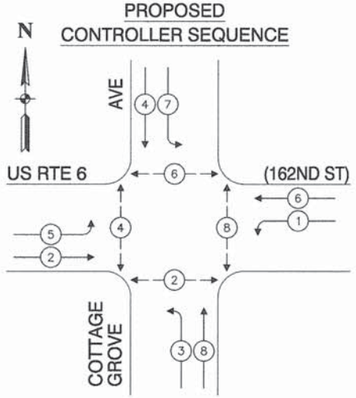
SCALE: 1"=20' | SHEET NO. 17 OF 25 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	17
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		

EXISTING CONTROLLER SEQUENCE



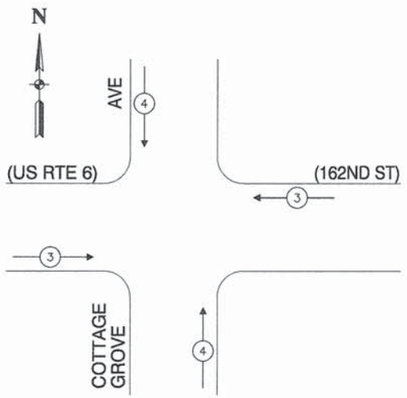
PROPOSED CONTROLLER SEQUENCE



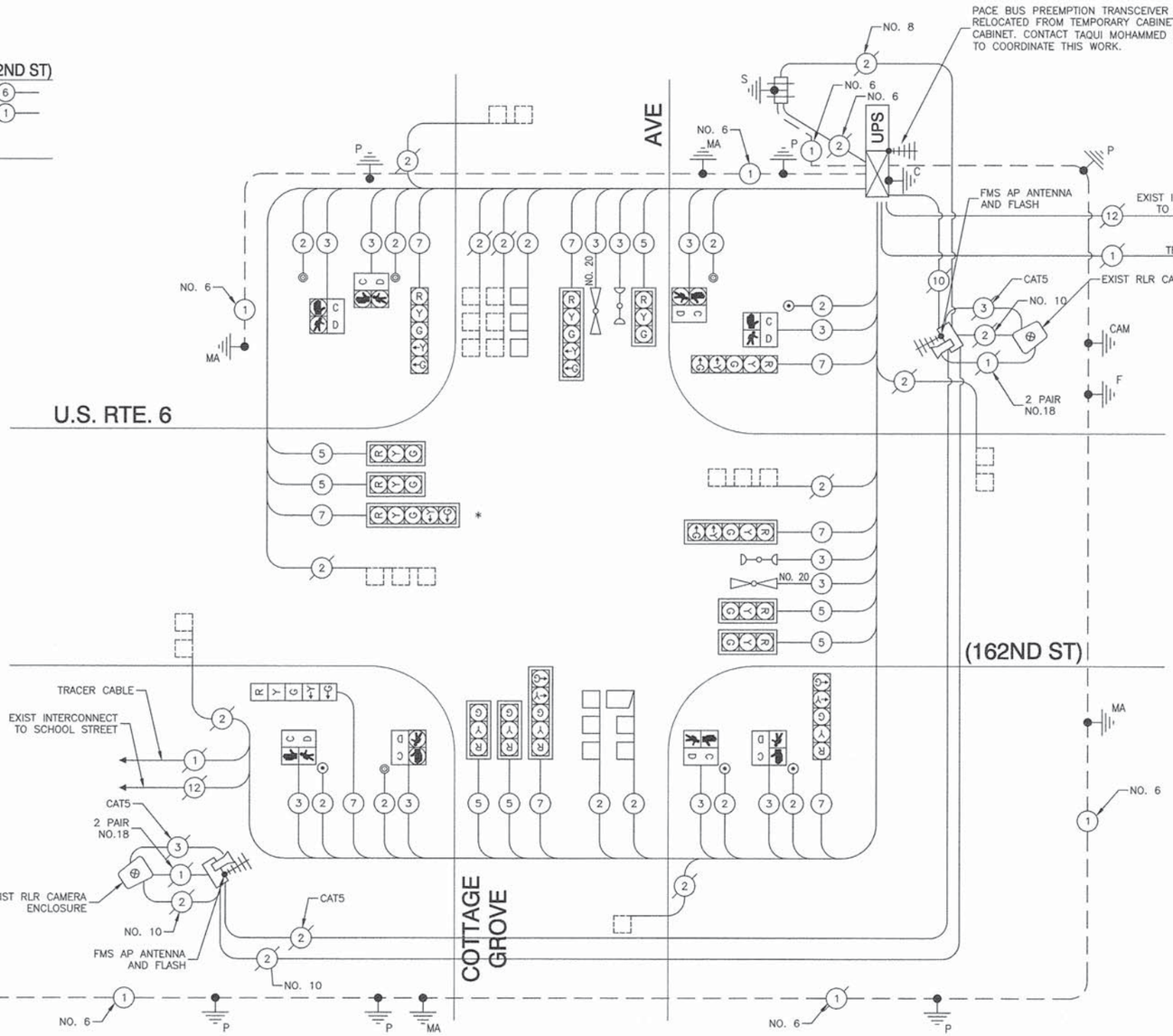
LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN
(NOT TO SCALE)

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE LED	%OPERATION	
SIGNAL (RED)	15	17	0.50	128
(YELLOW)	15	25	0.25	94
(GREEN)	15	15	0.25	56.25
PERMISSIVE ARROW	16	12	0.10	19.2
PED. SIGNAL	8	25	1.00	200
CONTROLLER	1	100	1.00	100
UPS	1	25	1.00	25
VIDEO SYSTEM	0	150	1.00	0
ILLUM. SIGN	0	25	0.05	0
FLASHER	–	–	0.50	–
			TOTAL =	621.7

ENERGY COSTS TO:
IDOT DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY CONTACT: BRAD SHINABARGAR
PHONE: (708)325-2692
COMPANY: COMMONWEALTH EDISON

*NOTE:
EXISTING EVP EQUIPMENT, PACE BUS PREEMPTION EQUIPMENT, TRAFFIC SIGNAL HEADS AND PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS SHALL BE RELOCATED TO THE NEW MAST ARMS AND POSTS AS SHOWN.

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS #210

FILE NAME = 13649-CBLE-PLAN-02 - IDOT P01

USER NAME =	DESIGNED — EMA	REVISED —	
	CHECKED — PKB	REVISED —	
PLOT SCALE =	DRAWN — KWM	REVISED —	
PLOT DATE = 08-31-15	CHECKED — APG	REVISED —	

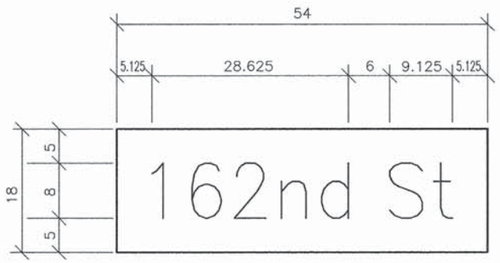
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
TRAFFIC SIGNAL CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

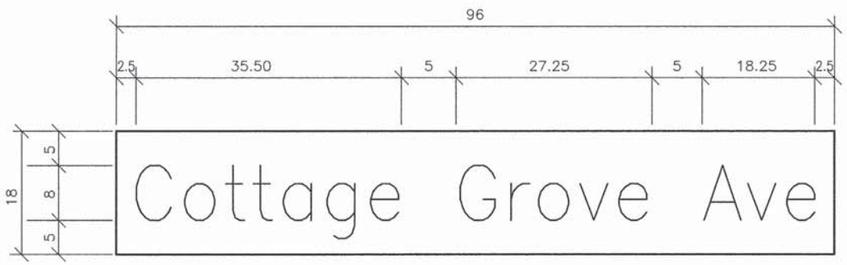
SCALE: | SHEET NO. 18 OF 25 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	18
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	TYPE I	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	12	TYPE 2	ZZ	2

NOTE:
FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	14
SIGN PANEL - TYPE 2	SQ FT	24
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	60
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	87
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	62
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	202
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1377
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1733
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1514
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1531
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	519
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	553
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48
DRILL EXISTING HANDHOLE	EACH	12
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	11
INDUCTIVE LOOP DETECTOR	EACH	1
DETECTOR LOOP, TYPE 1	FOOT	290
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	14
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	4
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	2
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	304

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS #210

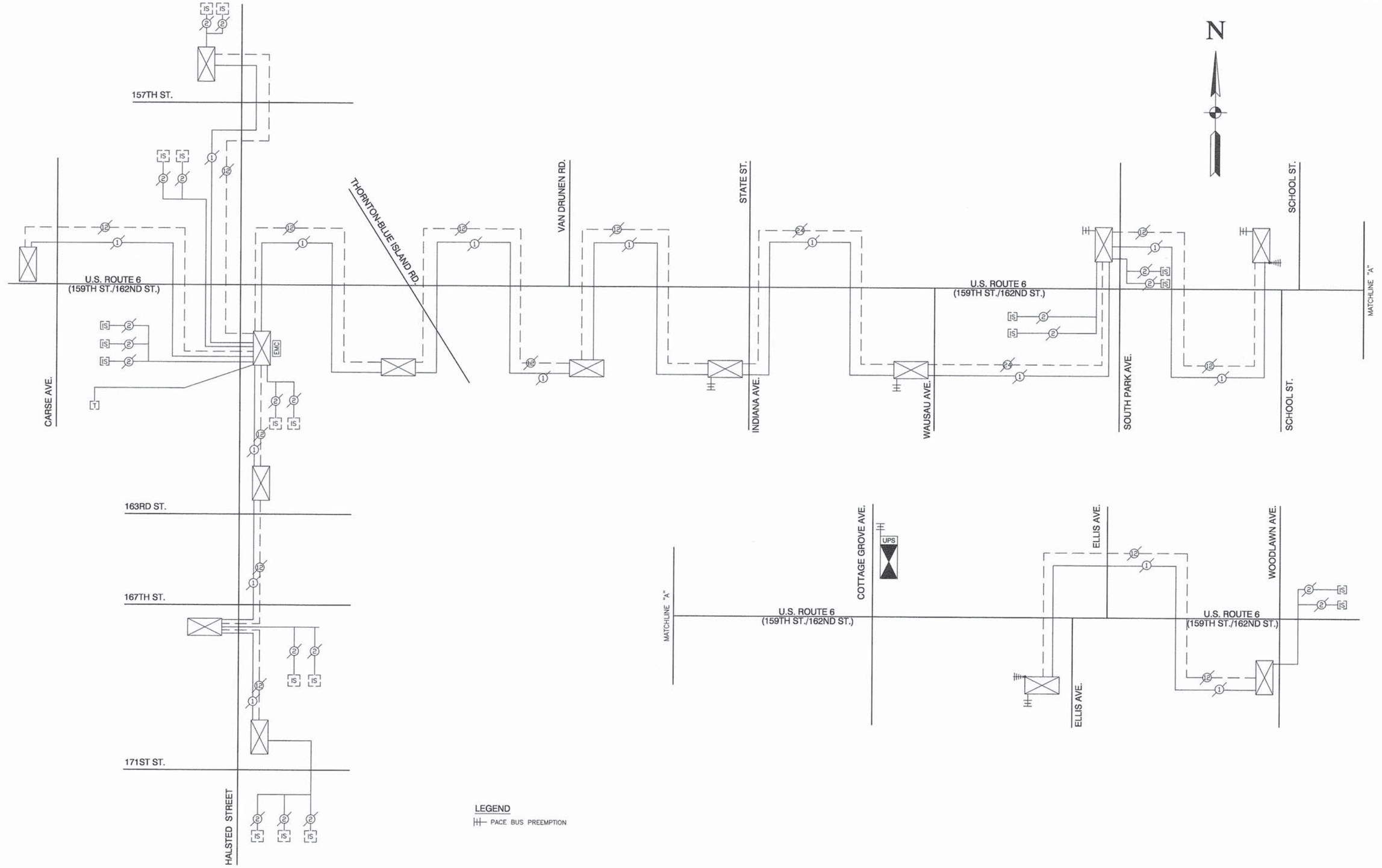
FILE NAME = 13649-DTLS-TS01 - P01	USER NAME =	DESIGNED — EMA	REVISED —
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — KWM	REVISED —
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET)
MAST ARM MOUNTED STREET SIGNS
AND SCHEDULE OF QUANTITIES

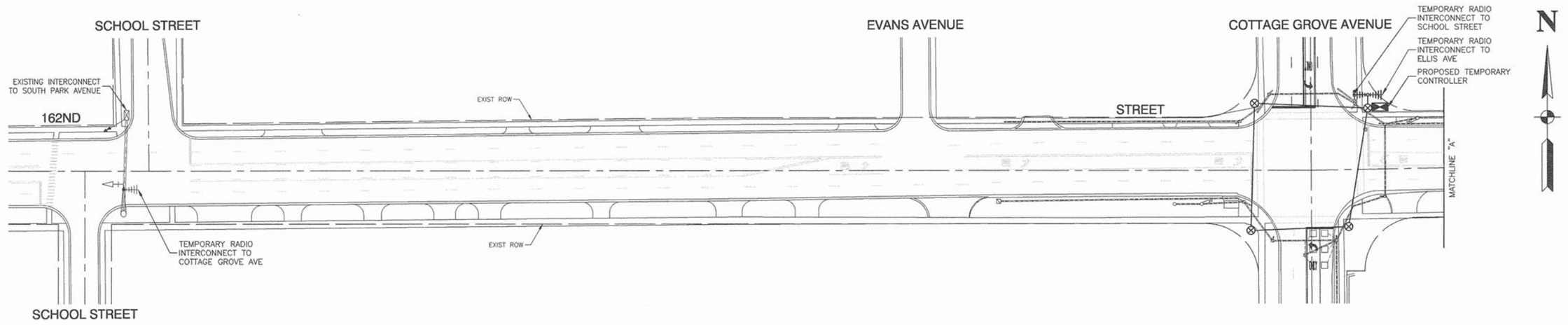
SCALE: | SHEET NO. 19 OF 25 SHEETS | STA. | TO STA.

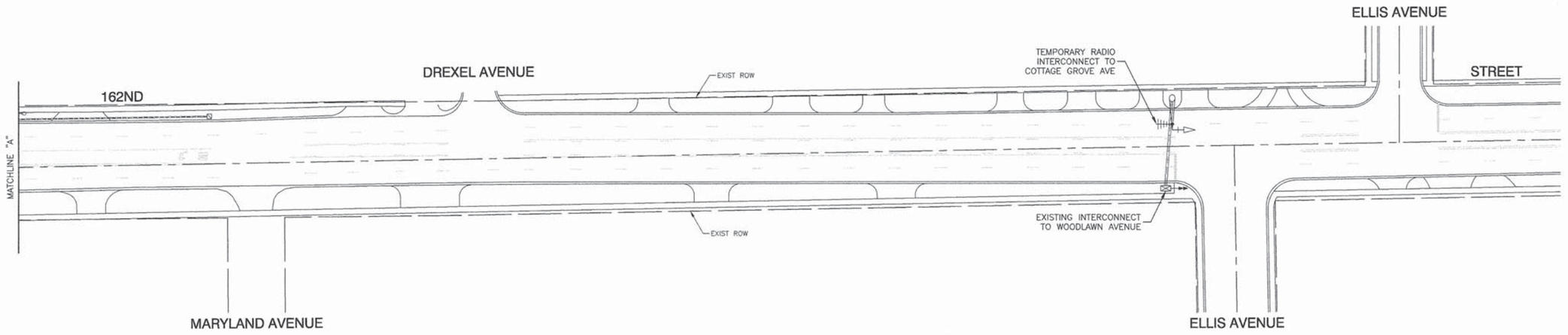
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	19
		CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		



ECON 56

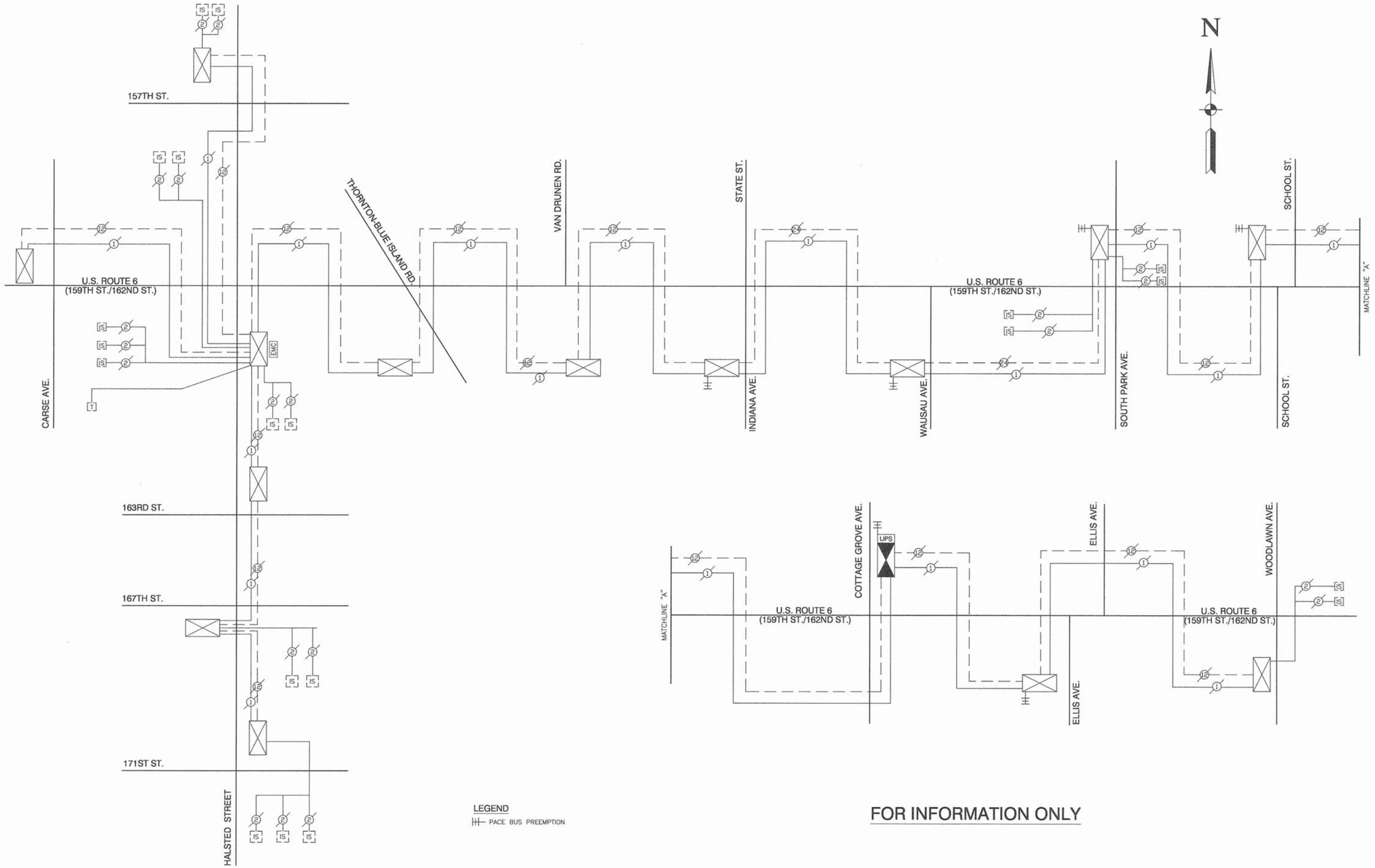
FILE NAME = 13649-INTR-TEMP-01 - P01	USER NAME =	DESIGNED — EMA	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET) TEMPORARY RADIO INTERCONNECT SCHEMATIC	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — EMA	REVISED —			2923	14-00104-00-CH	COOK	25	20
	PLOT SCALE =	DRAWN — JR	REVISED —					CONTRACT NO. 61B96		
	PLOT DATE = 08-31-15	CHECKED — PS	REVISED —		SCALE: NONE SHEET NO. 20 OF 25 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		





ECON 56

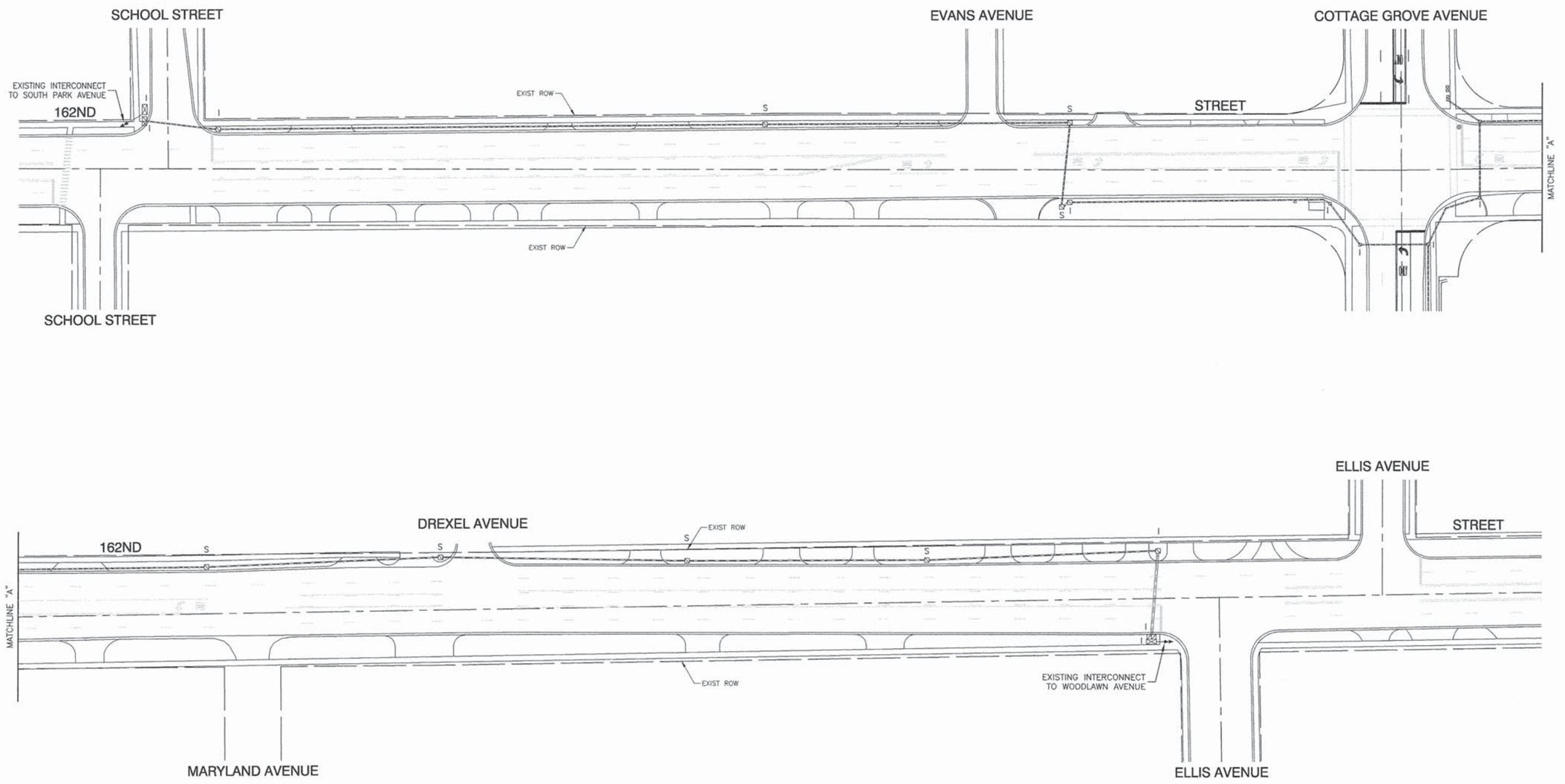
FILE NAME = 13649-INTR-02 - P01	USER NAME =	DESIGNED — EMA	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET) TEMPORARY RADIO INTERCONNECT PLAN	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — PKB	REVISED —			2923	14-00104-00-CH	COOK	25	21
	PLOT SCALE =	DRAWN — RG	REVISED —						CONTRACT NO. 61B96	
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —		SCALE: 1"=50' SHEET NO. 21 OF 25 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	M-4003(459)	



FOR INFORMATION ONLY

ECON 56

FILE NAME = 13649-INTR-TEMP-01 - P02	USER NAME =	DESIGNED — EMA	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET) EXISTING INTERCONNECT SCHEMATIC	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — EMA	REVISED —			2923	14-00104-00-CH	COOK	25	22
	PLOT SCALE =	DRAWN — JR	REVISED —					CONTRACT NO. 61B96		
	PLOT DATE = 08-31-15	CHECKED — PS	REVISED —		SCALE: NONE SHEET NO. 22 OF 25 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		

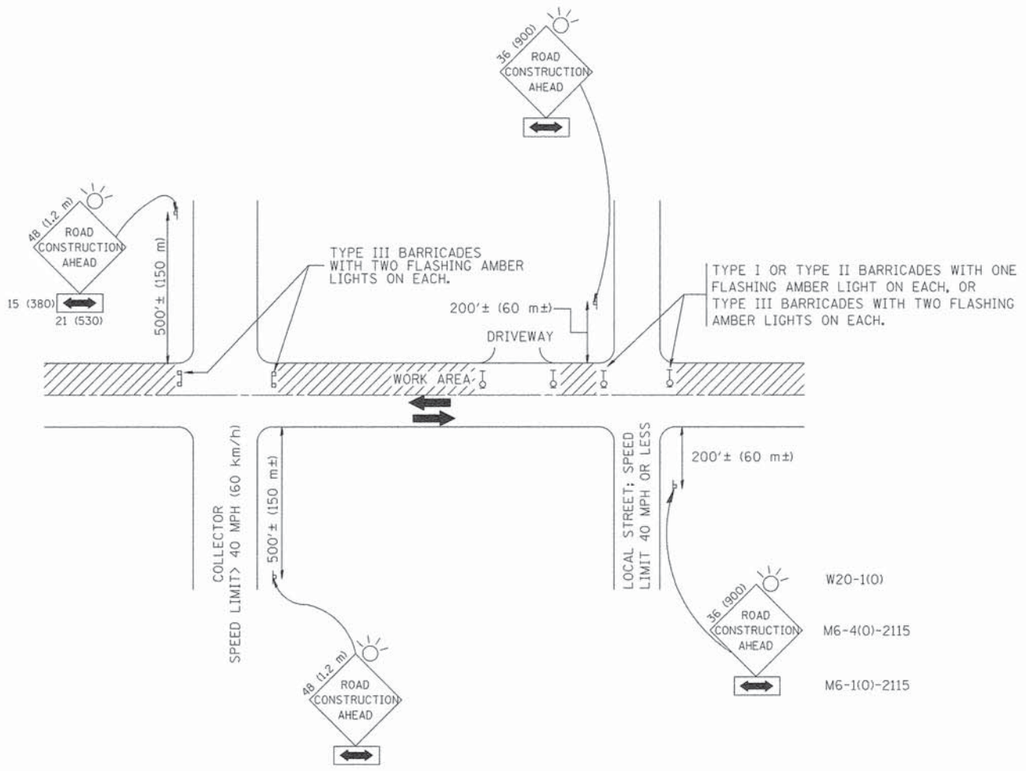


N

FOR INFORMATION ONLY

ECON 56

FILE NAME = 13649-INTR-01 - P01	USER NAME =	DESIGNED — EMA	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COTTAGE GROVE AVENUE AND US ROUTE 6 (162ND STREET) EXISTING INTERCONNECT PLAN	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED — PKB	REVISED —			2923	14-00104-00-CH	COOK	25	23
	PLOT SCALE =	DRAWN — RG	REVISED —						CONTRACT NO. 61B96	
	PLOT DATE = 08-31-15	CHECKED — APG	REVISED —		SCALE: 1"=50' SHEET NO. 23 OF 25 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	M-4003(459)	



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

NOTES:

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

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

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

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

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

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

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

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

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

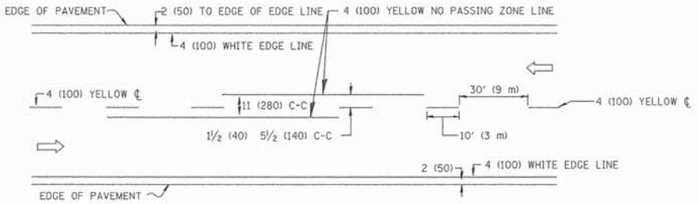
USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER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

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

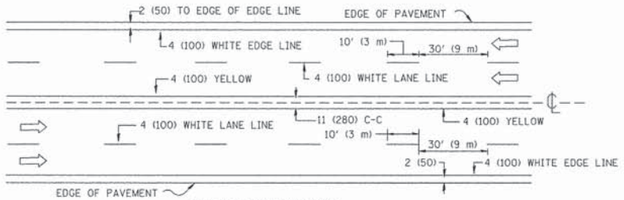
D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

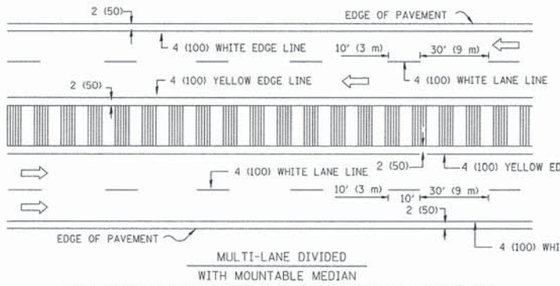
FILE NAME = 13649-DTLS-01 - TC10	USER NAME = gaglianobt	DESIGNED — LHA	REVISED — J. OBERLE 10-18-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED —	REVISED — A. HOUSEH 03-06-96					2923	14-00104-00-CH	COOK	25	24
	PLOT SCALE = 50.000 '/ IN.	DRAWN —	REVISED — A. HOUSEH 10-15-96						TC-10		CONTRACT NO. 61B96	
	PLOT DATE = 1/4/2008	CHECKED — 06-89	REVISED — . RAMMACHER 01-06-00		SCALE: NONE	SHEET NO. 24 OF 25 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		



2-LANE ROADWAY



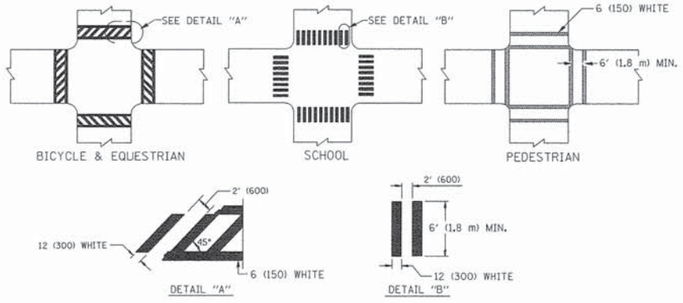
MULTI-LANE UNDIVIDED



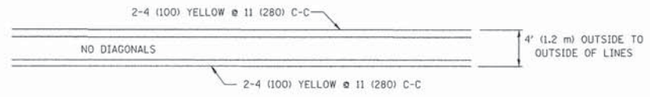
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

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

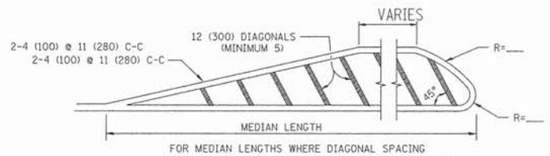
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



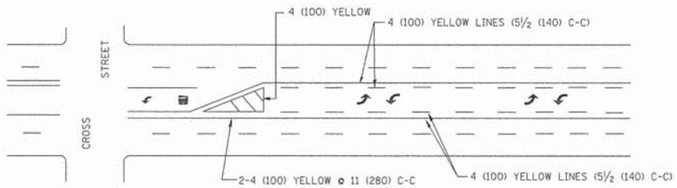
4' (1.2 m) WIDE MEDIANS ONLY



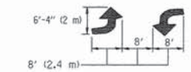
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

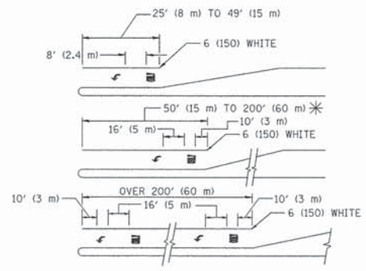


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

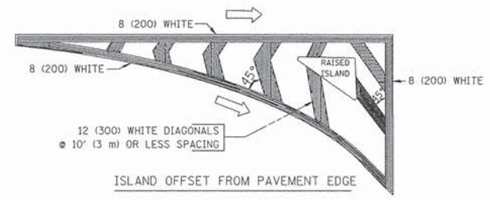


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²) **ONLY** AREA = 20.8 SQ. FT. (1.9 m²)

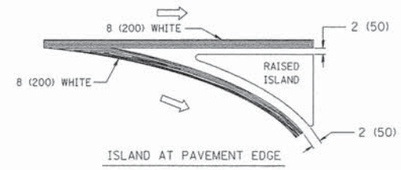
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ⌀ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	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 WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⌀ 6 (150) 12 (300) ⌀ 45° 12 (300) ⌀ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⌀ 4 (100) WITH 12 (300) DIAGONALS ⌀ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⌀ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 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.

FILE NAME = 13649-DTLS-01 - TC13	USER NAME = drivakosgn	DESIGNED — EVERS	REVISED —T. RAMMACHER 10-27-94
		CHECKED —	REVISED —C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / IN.	DRAWN —	REVISED —
	PLOT DATE = 9/9/2009	CHECKED — 03-19-90	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET NO. 25 OF 25 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2923	14-00104-00-CH	COOK	25	25
	TC-13	CONTRACT NO. 61B96		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-4003(459)		